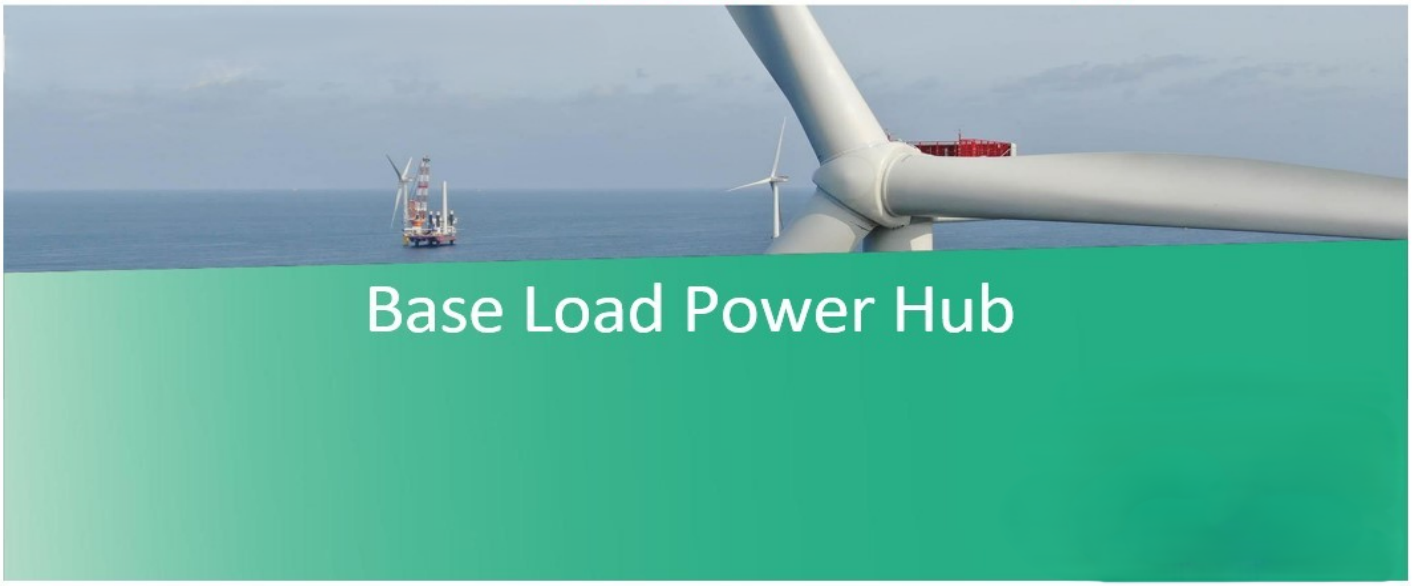
CROSSWIND

ROSETTI MARINO

PROVERLIS

PROJECT **123A90 - HOLLANDSE KUST NOORD WIND PARK**
BLPH Project



MECHANICAL COMPLETION DOSSIER (ONSHORE)

SYSTEM	77 Heating & Ventilation
SUBSYSTEM	77-30 HVAC UPS Equipment Room B-300

CROSSWIND	123A90 - HOLLANDSE KUST NOORD WIND PARK BLPH Project MECHANICAL COMPLETION DOSSIER INDEX	ROSETTI MARINO

Sub System N°:	77-30	Tick as appropriate	ONSHORE	O
Description:	HVAC UPS Equipment Room B-300		OFFSHORE	NA

1.	***READY FOR COMMISSIONING CERTIFICATE*** *Ready For Commissioning Certificate (RFC)*	O
2.	***CONSOLIDATED PUNCH LISTS*** *Cleared and Residual Items*	O
3.	***SYSTEM/SUB-SYSTEM LIMIT DRAWINGS*** *Mark-up drawings showing the limits of the relevant System/Sub-System*	O
4.	***MECHANICAL COMPLETION STATUS INDEX – BUILDING DISCIPLINE*** *Building Sub-System Status Index (Print out) and Check/Test sheets*	NA
5.	***MECHANICAL COMPLETION STATUS INDEX – ELECTRICAL DISCIPLINE*** *Electrical Sub-System Status Index (Print out) and Check/Test Sheets* *Hazardous Area Equipment Detailed Inspection*	O
6.	***MECHANICAL COMPLETION STATUS INDEX - INSTRUMENTAL DISCIPLINE*** *Instrumental Sub-System Status Index (Print out) and Check/Test Sheets*	O
7.	***MECHANICAL COMPLETION STATUS INDEX - MECHANICAL DISCIPLINE*** *Mechanical SubSystem Status Index (Print out) and Check/Test Sheets*	O
8.	***MECHANICAL COMPLETION STATUS INDEX - TELECOMMUNICATION DISCIPLINE*** *Telecommunication Sub-System Status Index (Print out) and Check/Test Sheets*	O
9.	***MECHANICAL COMPLETION STATUS INDEX - HVAC DISCIPLINE*** *HVAC Sub-System Status Index (Print out) and Check/Test Sheets*	NA
10.	***MECHANICAL COMPLETION STATUS INDEX - PIPING DISCIPLINE*** *Piping Sub-System Status Index and Check/Test Sheets*	NA
11.	***MECHANICAL COMPLETION INDEX - SAFETY DISCIPLINE*** *Safety Sub-System Status Index (Print out) and Check/Test Sheets*	NA
12.	***FAT / VENDOR REPORTS*** *Fat reports issued by vendors and/or vendor reports*	OK
13.	***MECHANICAL COMPLETION CHANGES / MARK-UPS*** *A copy of the changes initiated during the Mechanical Completion process pertaining to the relevant Sub-System will be incorporated in this section*	NA

Note: Under the generic terminology “Building” are also covered the following disciplines: **Structural, Painting**

Under the generic terminology “Instrumental” is also covered the following discipline: **Fire & Gas**

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123A90 - HOLLANDSE KUST NOORD WIND PARK
BLPH Project

CROSSWIND

Ready For Commissioning (RFC) Certificate

COMPLETE	●	PARTIAL	

Revision:	2		Issued on:	2024-12-05	
System:	77	/	Heating & Ventilation		
SubSystem:	77-30	/	HVAC UPS Equipment Room B-300		

1	COMPANY has, at its option and if required, reviewed the mechanical completion associated with the above-named system/sub-system of the SCOPE and observed that such functional sub-system has been brought into readiness for commencement of the associated pre-commissioning and commissioning activities, but for the outstanding punch list items, if any, attached and referred in this Certificate.
2	Issuance of this Certificate shall not release CONTRACTOR from any of his obligations, responsibilities or liabilities under the CONTRACT.
3	Mechanical Completion Status Index attached (per Discipline) Punch List report attached (Outstanding and Cleared)

PUNCH LIST	PENDING POINTS	
Note: All Category "A" Items must be cleared prior to issue a Ready For Commissioning (RFC) Certificate	A: 7	B: 45

REMARKS:

	CONTRACTOR Construction Manager	**CONTRACTOR** Commissioning Manager	**COMPANY** Construction Lead (if required)	**COMPANY** Commissioning Lead (if required)
Name	Wolmer Borghi	Anthony Iveson	CPY NOT PRESENT	CPY NOT PRESENT
Date	2024-12-06	2024-12-16	2024-12-16	2024-12-16
Signature	PROVERLIS Digitaly signed by Wolmer Borghi 2024-12-06T11:14:37.773Z	PROVERLIS Digitaly signed by Anthony Iveson 2024-12-16T13:19:28.550Z	PROVERLIS Digitaly signed by CPY NOT PRESEN 2024-12-16T13:35:22.833Z	PROVERLIS Digitaly signed by CPY NOT PRESEN 2024-12-16T13:35:30.972Z

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Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 77-30 & process: MC

Electrical	77-30 HVAC UPS Equipment Room B-300						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
83025-CEL	LV Switchgear / HVAC panels - UPS Room	ONSHORE	C10000550	CPX09	100	2024-10-07	RFC 2
84316-CEL	AC UPS - PAS DB / UCP - HVAC UPS Room	ONSHORE	C10000592	CPX09	100	2024-11-25	RFC 2
B-300	Shelter AC UPS Fitted with UPS System Equipment Room B-300	ONSHORE	C10002302	CZX01E	100	2024-10-08	RFC 2
B300-HSB-001	Distribution & HVAC Panel - Shelter AC UPS Fitted with UPS System Equipment Room	ONSHORE	C10000837	CPX15	100	2024-10-08	RFC 2

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 77-30 & process: MC

Instrumental	77-30 HVAC UPS Equipment Room B-300

ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
77-HS-007A	Hand Switch for Fire&Gas Damper HFD-77007	ONSHORE	C10002089	CJX00	100	2024-11-21	RFC 2
77-HS-007B	Hand Switch for Fire&Gas Damper HFD-77007	ONSHORE	C10002090	CJX00	100	2024-10-15	RFC 2
77-HS-008A	Hand Switch for Fire&Gas Damper HFD-77008	ONSHORE	C10002091	CJX00	100	2024-11-21	RFC 2
77-HS-008B	Hand Switch for Fire&Gas Damper HFD-77008	ONSHORE	C10002092	CJX00	100	2024-10-15	RFC 2
77-HS-009A	Hand Switch for Fire&Gas Damper HFD-77009	ONSHORE	C10002093	CJX00	100	2024-11-21	RFC 2
77-HS-009B	Hand Switch for Fire&Gas Damper HFD-77009	ONSHORE	C10002094	CJX00	100	2024-10-15	RFC 2
77-HS-010A	Hand Switch for Fire&Gas Damper HFD-77010	ONSHORE	C10002095	CJX00	100	2024-11-21	RFC 2
77-HS-010B	Hand Switch for Fire&Gas Damper HFD-77010	ONSHORE	C10002096	CJX00	100	2024-10-15	RFC 2
77-HS-011A	Hand Switch for Fire&Gas Damper HFD-77011	ONSHORE	C10002097	CJX00	100	2024-11-21	RFC 2
77-HS-011B	Hand Switch for Fire&Gas Damper HFD-77011	ONSHORE	C10002098	CJX00	100	2024-10-15	RFC 2
B-300	Shelter AC UPS Fitted with UPS System Equipment Room B-300	ONSHORE	C10002303	CZX01I	100	2024-10-08	RFC 2
B300-HSB-001/B400-FGS-003	B-300 HVAC Control Panel / MARSHALLING PCS	ONSHORE	C10002037	CJX10	100	2024-11-20	RFC 2
C-77-HS-007A/77-HS-007B	PUSH BUTTON / MARSHALLING PCS	ONSHORE	C10000379	CJX10	100	2024-10-14	RFC 2
C-77-HS-007B/950-JE-04207	PUSH BUTTON / MARSHALLING PCS	ONSHORE	C10000378	CJX10	100	2024-10-14	RFC 2
C-77-HS-008A/77-HS-008B	PUSH BUTTON / MARSHALLING PCS	ONSHORE	C10000382	CJX10	100	2024-10-14	RFC 2
C-77-HS-008B/950-JE-04207	PUSH BUTTON / MARSHALLING PCS	ONSHORE	C10000381	CJX10	100	2024-10-14	RFC 2
C-77-HS-009A/77-HS-009B	PUSH BUTTON / MARSHALLING PCS	ONSHORE	C10000385	CJX10	100	2024-10-15	RFC 2
C-77-HS-009B/950-JE-04207	PUSH BUTTON / MARSHALLING PCS	ONSHORE	C10000384	CJX10	100	2024-10-15	RFC 2
C-77-HS-010A/77-HS-010B	PUSH BUTTON / MARSHALLING PCS	ONSHORE	C10000388	CJX10	100	2024-10-15	RFC 2
C-77-HS-010B/950-JE-04207	PUSH BUTTON / MARSHALLING PCS	ONSHORE	C10000387	CJX10	100	2024-10-15	RFC 2
C-77-HS-011A/77-HS-011B	PUSH BUTTON / MARSHALLING PCS	ONSHORE	C10000391	CJX10	100	2024-10-15	RFC 2
C-77-HS-011B/950-JE-04207	PUSH BUTTON / MARSHALLING PCS	ONSHORE	C10000390	CJX10	100	2024-10-15	RFC 2
C-77-HY-007/77-HS-007A	FIRE DAMPER / MARSHALLING PCS	ONSHORE	C10000380	CJX10	100	2024-11-21	RFC 2
C-77-HY-008/77-HS-008A	FIRE DAMPER / MARSHALLING PCS	ONSHORE	C10000383	CJX10	100	2024-11-21	RFC 2
C-77-HY-009/77-HS-009A	FIRE DAMPER / MARSHALLING PCS	ONSHORE	C10000386	CJX10	100	2024-11-21	RFC 2
C-77-HY-010/77-HS-010A	FIRE DAMPER / MARSHALLING PCS	ONSHORE	C10000389	CJX10	100	2024-11-21	RFC 2
C-77-HY-011/77-HS-011A	FIRE DAMPER / MARSHALLING PCS	ONSHORE	C10000392	CJX10	100	2024-11-21	RFC 2
C-77-XA-003/B400-SIS-001	UCP FAULT ALARM / MARSHALLING PCS	ONSHORE	C10000186	CJX10	100	2024-11-25	RFC 2
C-77-XS-003/B400-SIS-001	TRIP SIGNAL TO UCP / MARSHALLING PCS	ONSHORE	C10000182	CJX10	100	2024-11-25	RFC 2

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 77-30 & process: MC

Mechanical	77-30 HVAC UPS Equipment Room B-300						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
B-300	Shelter AC UPS Fitted with UPS System Equipment Room B-300	ONSHORE	C10002304	CZX01M	100	2024-10-08	RFC 2

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 77-30 & process: MC

Telecom	77-30 HVAC UPS Equipment Room B-300						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
B300-HSB-001/B400-NET-001	COMMUNICATION / NETWORK CABINET	ONSHORE	C10004355	CIX09	100	2024-11-22	RFC 2

CROSSWIND

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Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-30 HVAC UPS Equipment Room B-300

Mechanical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000516	A	B-300	Confirm with the compressor manufacturer whether starting the compressor without preheating the oil could cause damage	based on the manufacturer's response, either take no action or ensure the electric heater is powered by a UPS. If electric heaters are		SLinari 2024-10-30			
C30000517	A	B-300	Confirm with the compressor manufacturer whether starting the compressor without preheating the oil could cause damage	based on the manufacturer's response, either take no action or ensure the electric heater is powered by a UPS. If electric heaters are		SLinari 2024-10-30			
C30000550	A	B300-HSB-001	Make temperature and differental pressure trends visible on all HMIs	Update PLC software to apply the request		SLinari 2024-10-30			
C30000558	A	B-300	Since the drainage pipe and heating cable datasheet have not yet been sent to RM, the suitability of the materials used cannot be verified.	Submit both the drainage pipe and heating cable datasheet (by inserting them HVAC COMPONENTS LIST AND DS - E&I		SLinari 2024-10-30			
C30000562	A	B-300	Most of documntation is still in draft form. All documents must be finalized and approved by RM before commissioning activities. During	Review and issue al documentation by 15/11/2024 to allow for finalization by the end of november 2024, accounting fot the time		SLinari 2024-10-30			
C30000016	B	B-300	Handles fixed on external doors are made of plastic material. Temporary key cylinder and handles to be replaced with the ones made of SS			SLinari 2024-08-02			
C30000020	B	B-300	Master key (common for all modules) to be provided		DONE	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000048	B	B-300	Some brass cable glands are overtightened and need to be untightened to avoid cold flow of cables. Will be performed a spot check at RM		CHECKED CEMBRE INSTALLATION MANUAL - ACCEPTED	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000542	B	B-300	During SAT drainage pipes were not completely installed, incluede heat tracing and related connection to JB.	The work described has to be concluded. During commissioning heat tracing will be tested		SLinari 2024-10-30			

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation
SUBSYSTEM 77-30 HVAC UPS Equipment Room B-300

Mechanical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000546	B	B-300	None pressure relief damper HDR-77-301 work properly as per design conditions. They remain closed even thogh inside the shelters more then	Investigate the malfunction with the manufacturer and take corrctive actions to adjust or replace the pressure relief request.		SLinari 2024-10-30			
C30000554	B	B-300	Several doors present a not perfect closure on the three deadbolts, probably due to a misalignment.	Check the doors and fix the closure issue. This activity vould be done during commissioning activities.		SLinari 2024-10-30			

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation
SUBSYSTEM 77-30 HVAC UPS Equipment Room B-300

Electrical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000530	A	B300-HSB-001	Install Ethernet port locks on HVAC panels to prevent access by external devices without an authorized permit, as requested by the	Add ethernet port locks to allHVAC panel boards		SLinari 2024-10-30			
C30000534	A	B300-HSB-001	The modbus I/O list have been updated during SAT, due to changes needed. During SAT activities several signals have not been checked.	Revise and issue on fusion live the HVAC I/O list documents for each HVAC panel. Before commissioning activities, all signals shall be		SLinari 2024-10-30			
C30000024	B	B-300	Roof-top cables to be fixed with cable ties made by AISI 316L		ACTIVITY PERFORMED - SEE PICTURES	SLinari 2024-08-02	SLinari 2024-12-05	SLinari 2024-12-05	
C30000028	B	B-300	Earthing connection to be provided for all space heaters. To be done at RM yard		EARTHING INSTALLED	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000032	B	B-300	Earthing connection to be provided for all HVAC units. To be done at RM yard		EARTHING INSTALLED	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000036	B	B-300	Identification traffolyte tag to be provided for all E&I Items (lights, switches, space heaters,etc.). All traffolyte labels missing will be installed at RM		installed anche checked	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000040	B	B-300	HVAC cable tags to be provided on the panel top. Alex Sistemi will supply all loose cable tags. RM will install it		activity done - see picture	SLinari 2024-08-02	SLinari 2024-12-05	SLinari 2024-12-05	
C30000044	B	B-300	Cable's tag to be provided / fixed at all MCTs (IN/OUT). Alex Sistemi will supply all loose cable tags. RM will instali it		ACTIVITY DONE	SLinari 2024-08-02	SLinari 2024-12-05	SLinari 2024-12-05	
C30000052	B	B-300	HVAC fixed with screws M8. To be replaced with correct ones, as per drawing. Alex Sistemi will supply all final screws. RM will install it during		FIXED	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation
SUBSYSTEM 77-30 HVAC UPS Equipment Room B-300

Electrical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000086	B	B-300	Earthing connection to be provided for all electrical conduits. Alex Sistemi will supply all material, RM will install it		INSTALLED	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000090	B	B-300	Teflon to be provided between different materials for Hvac ducts unistrut and supports		INSTALLED	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000094	B	B-300	External ducts (inside) welding to be cleaned before re-installation		ACTIVITY DONE - ALL DUCTS HAS BEEN INSTALLED	SLinari 2024-08-02	SLinari 2024-12-05	SLinari 2024-12-05	
C30000114	B	A5/+03-QF1 C10002875	New and definitive protection setting to be implemented on SG-200N1 drawer A5/+03	Implement new setting	The definitive setting has been updated.	MGirotti 2024-09-18	MGirotti 2024-11-21	MGirotti 2024-11-21	2024-11-21
C30000148	B	83025-CEL C10000550	Identification numbers on terminal strip are missing (L2/L3/N)	.		Gtangianu 2024-10-07			
C30000149	B	83025-CEL C10000550	Cable to be fixed with proper cable ties, after MCT installation (point valid internal and exsternal cable routing.	.		Gtangianu 2024-10-07			
C30000151	B	B-300 C10002302	Lighting system to be completed	.	COMPLETED	Gtangianu 2024-10-08	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000152	B	B-300 C10002302	Missing copper grease on exsternal earthing connection.	.		Gtangianu 2024-10-08			
C30000155	B	B300-HSB-001 C10000837	Wire tags are hand written . To be replaced.	Inside the panel B300-HSB-001		Gtangianu 2024-10-08			

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation
SUBSYSTEM 77-30 HVAC UPS Equipment Room B-300

Electrical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000522	B	B300-HSB-001	Heat shrinks for grounding inside HVAC panel installed of black color instead of yellow-green color as earthing cable itself	Heat shrink tubing to be replaced of yellow-green color type as earthing cable.		SLinari 2024-10-30			
C30000526	B	B300-HSB-001	Add an auxiliary IP address in addition to those already provided for each CPU, to allow communication and signals exchange between	Update software on all PLCs to enable switching to the standby CPU without losing the necessary communications		SLinari 2024-10-30			
C30000538	B	B300-HSB-001	Verify for each HVAC panel a perfect correspondence between tag reported on P&IDs and HMIs. During SAT some TAGs were bot	Update and issue final P&IDs on fusion live and update PLC software to hace a perfect match between P&IDs and HMIs.		SLinari 2024-10-30			

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-30 HVAC UPS Equipment Room B-300

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000907	A	C-77-XA-003/B400-SIS-001 C10000186	cable is not as specified in project cable schedule. (is a different gray color than what is shown in the project documentation).	.		APolo 2024-11-25	2024-12-05	Gtangianu 2024-12-05	2024-12-05
C30000153	B	B-300 C10002303	77-TP-301 INSTRUMENT IS NOT ACCESIBLE FOR MAINTENANCE.	.	POINT CLOSED - INSTRUMENT IS FREE FOR MAINTENANCE	Gtangianu 2024-10-08	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000154	B	B-300 C10002303	Black Thermoshrink is used on all earthing connection of HVAC System and cable trays. To be replaced with Y/G	Black Thermoshrink is used on all earthing connection of HVAC System and cable trays. To be replaced with Y/G		Gtangianu 2024-10-08			
C30000156	B	B-300 C10002303	Many identification numbers on the terminal strip are missing or hand written .,To be Replaced.	Inside the panel B300-HSB-001	done	Gtangianu 2024-10-08	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000157	B	B-300 C10002303	Many wire grounding are with black heat shrink.	Inside the panel B300-HSB-001	done	Gtangianu 2024-10-08	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000166	B	C-77-HS-008A/77-HS-008B C10000382	Missing cable tag on MCT entry (inside and outside B-300)	-		Gtangianu 2024-10-14			
C30000167	B	C-77-HS-007B/950-JE-04207 C10000378	Missing Plastic cable tag on MCT inside B-300	-		Gtangianu 2024-10-14			
C30000168	B	C-77-HS-008B/950-JE-04207 C10000381	Missing Plastic cable tag on MCT inside B-300	-		Gtangianu 2024-10-14			
C30000169	B	C-77-HS-008B/950-JE-04207 C10000381	Cable is not alligned at HS cable gland entry, to be better dressed to mantain bending radius	-		Gtangianu 2024-10-14			

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation
SUBSYSTEM 77-30 HVAC UPS Equipment Room B-300

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000170	B	77-HS-007B C10002090	Fixing System of instrument on unistrut is not as per typical : 123A90-DDL-IN-DD-40017, sh.047 refer to POS.16. All bolts need to be replaced	-		Gtangianu 2024-10-15		Lmussi	
C30000171	B	77-HS-007B C10002090	EARTHING BAR SHALL BE CONNECTED TO EARTHING POINT IN N.1 POINT WITH 35sqmm Y/G CABLE	-		Gtangianu 2024-10-15			
C30000172	B	77-HS-007B C10002090	Elevation of instrument is not in accordance with Layout. Point valid for 77-HS-008B / 77-HS-009B / 77-HS-010B / 77-HS-011B. See attachment	-		Gtangianu 2024-10-15			
C30000173	B	C-77-HS-011A/77-HS-011B C10000391	Missing plastic cable tag on MCT inside B-300	-		Gtangianu 2024-10-15			
C30000174	B	C-77-HS-009B/950-JE-04207 C10000384	Missing plastic cable tag on MCT inside B-300	-		Gtangianu 2024-10-15			
C30000175	B	C-77-HS-009A/77-HS-009B C10000385	Missing plastic cable tag on MCT inside B-300	-		Gtangianu 2024-10-15			
C30000176	B	C-77-HS-010B/950-JE-04207 C10000387	Missing plastic cable tag on MCT inside B-300	-		Gtangianu 2024-10-15			
C30000177	B	C-77-HS-010A/77-HS-010B C10000388	Missing plastic cable tag on MCT inside B-300	-		Gtangianu 2024-10-15			
C30000178	B	C-77-HS-011B/950-JE-04207 C10000390	Missing plastic cable tag on MCT inside B-300	-		Gtangianu 2024-10-15			

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-30 HVAC UPS Equipment Room B-300

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000620	B	B300-HSB-001/ B400-FGS-003 C10002037	Missing the tag plastic project on the cable , cabinet side B400-FGS-002	.		APolo 2024-11-19			
C30000621	B	B300-HSB-001/ B400-FGS-003 C10002037	the philosophy of cross-ferruling are wrong cabinet side B400-FGS-002 . (see document 123A90-DDL-IN-DG-40016 sh.3)	.		APolo 2024-11-19			
C30000622	B	B300-HSB-001/ B400-FGS-003 C10002037	The final destination of Thermo-shrink on the Shield to be done properly.	.		APolo 2024-11-19			
C30000623	B	B300-HSB-001/ B400-FGS-003 C10002037	The plastic fixing ties , on external routing cable , to be replaced with stainless steel.	.		APolo 2024-11-19			
C30000624	B	B300-HSB-001/ B400-FGS-003 C10002037	Bending radius is not within the specified limits. (stress on the input cable Panel B300-HSB-001)	.		APolo 2024-11-20			
C30000684	B	C-77-HY-007/77 -HS-007A C10000380	Identification tag wire missing inside C-77-HY-007 connection.	.		Gtangianu 2024-11-21			
C30000685	B	C-77-HY-009/77 -HS-009A C10000386	Identification tag wire missing inside C-77-HY-009 connection.	.		Gtangianu 2024-11-21			
C30000691	B	C-77-HY-008/77 -HS-008A C10000383	Vendor HVAC Documentation (1724000049-HV-DA-00066_Rev.1) is not alligned with GA and P&I	.		Gtangianu 2024-11-21			
C30000889	B	C-77-XS-003/B4 00-SIS-001 C10000182	Missing cable tag , cabinet input B400-SIS-001	.		APolo 2024-11-25			

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PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation
SUBSYSTEM 77-30 HVAC UPS Equipment Room B-300

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000890	B	C-77-XS-003/B400-SIS-001 C10000182	the philosophy of cross-ferruling are wrong cabinet side B400-SIS-001 / B-300 HVAC . (see document 123A90-DDL-IN-DG-40016 sh.3)	.		APolo 2024-11-25			
C30000891	B	C-77-XS-003/B400-SIS-001 C10000182	Double shield connected to one terminal on shield bar. this point is valid also for cabinet side B400-SIS-001	.		APolo 2024-11-25			
C30000905	B	C-77-XA-003/B400-SIS-001 C10000186	Missing cable tag , cabinet input B400-SIS-001.	.		APolo 2024-11-25			
C30000906	B	C-77-XA-003/B400-SIS-001 C10000186	the philosophy of cross-ferruling are wrong cabinet side B400-SIS-001 / B-300 HVAC . (see document 123A90-DDL-IN-DG-40016 sh.3)	.		APolo 2024-11-25			
C30000908	B	C-77-XA-003/B400-SIS-001 C10000186	Double shield connected to one terminal on shield bar. this point is valid also for cabinet side B400-SIS-001	.		APolo 2024-11-25			

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PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation
SUBSYSTEM 77-30 HVAC UPS Equipment Room B-300

HVAC

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000056	B	B-300	All documentation listed in the SMIR, shall be re-issued in final revision and approved by RM and CW			SLinari 2024-08-02			
C30000060	B	B-300	The items to be installed at RM site are coalescent filters and fire dampers. To be completed at RM yard		INSTALLED	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000064	B	B-300	HVAC Systems to be completely checked on B-300. Unit hasn't been completed yet. All notes/remarks are indicated in the FAT		TEST COMPLETED . SEE REPORTS	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000066	B	B-300	B-300 HVAC Unit wirings must be completed at RM yard		COMPLETED	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000070	B	B-300	TAG in front panels to be updated following last document revisions. All TAG traffolyte labels to be completely checked; several are missing. They		INSTALLED	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000074	B	B-300	All balancing and setting activities to be done on site. !t was not possible during FAT due to HVAC system installation not completed. Ali		PERFORMED - SEE REPORTS	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000078	B	B-300	Drain pipes and heating cables are missing, since they must be necessary instalied on site to avoid damages. To be completed at RM yard			SLinari 2024-08-02			
C30000082	B	B-300	Duct insulation and cladding to be completed on site; it's needed to cover all duct junctions. Alex Sistemi will supply ali material, RM will install it		INSTALLED	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29

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SYSTEM 77 Heating & Ventilation
SUBSYSTEM 77-30 HVAC UPS Equipment Room B-300

Telecom

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000788	B	B300-HSB-001/ B400-NET-001 C10004355	Identification tag wires missing both side the B100-HSB-001/B400-NET-001 connections.	.		Gtangianu 2024-11-22			

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SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-30 HVAC UPS Equipment Room B-300

Mechanical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000516	A	B-300	Confirm with the compressor manufacturer whether starting the compressor without preheating the oil could cause damage	based on the manufacturer's response, either take no action or ensure the electric heater is powered by a UPS. If electric heaters are	Probe installed. Compressor has been insulated. Temperature setting 20°C as	SLinari 2024-10-30	Vendor 2025-02-22	SLinari 2025-02-22	2025-02-22
C30000517	A	B-300	Confirm with the compressor manufacturer whether starting the compressor without preheating the oil could cause damage	based on the manufacturer's response, either take no action or ensure the electric heater is powered by a UPS. If electric heaters are	Probe installed. Compressor has been insulated. Temperature setting 20°C as	SLinari 2024-10-30	Vendor 2025-02-22	SLinari 2025-02-22	2025-02-22
C30000550	A	B300-HSB-001	Make temperature and differental pressure trends visible on all HMIs	Update PLC software to apply the request	Implemented by Vendor	SLinari 2024-10-30	Vendor 2025-02-20	SLinari 2025-02-20	2025-02-20
C30000558	A	B-300	Since the drainage pipe and heating cable datasheet have not yet been sent to RM, the suitability of the materials used cannot be verified.	Submit both the drainage pipe and heating cable datasheet (by inserting them HVAC COMPONENTS LIST AND DS - E&I		SLinari 2024-10-30			
C30000562	A	B-300	Most of documntation is still in draft form. All documents must be finalized and approved by RM before commissioning activities. During	Review and issue al documentation by 15/11/2024 to allow for finalization by the end of november 2024, accounting fot the time		SLinari 2024-10-30			
C30000016	B	B-300	Handles fixed on external doors are made of plastic material. Temporary key cylinder and handles to be replaced with the ones made of SS		DONE	SLinari 2024-08-02	SLinari 2025-02-06	SLinari 2025-02-06	2025-02-06
C30000020	B	B-300	Master key (common for all modules) to be provided		DONE	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000048	B	B-300	Some brass cable glands are overtightened and need to be untightened to avoid cold flow of cables. Will be performed a spot check at RM		CHECKED CEMBRE INSTALLATION MANUAL - ACCEPTED	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000542	B	B-300	During SAT drainage pipes were not completely installed, incluede heat tracing and related connection to JB.	The work described has to be concluded. During commissioning heat tracing will be tested	Verified	SLinari 2024-10-30	Vendor 2025-02-20	SLinari 2025-02-20	2025-02-20

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SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-30 HVAC UPS Equipment Room B-300

Mechanical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000546	B	B-300	None pressure relief damper HDR-77-301 work properly as per design conditions. They remain closed even thogh inside the shelters more then	Investigate the malfunction with the manufacturer and take corrctive actions to adjust or replace the pressure relief request.	It Work. Has been manually setted.	SLinari 2024-10-30	Vendor 2025-02-22	SLinari 2025-02-22	2025-02-22
C30000554	B	B-300	Several doors present a not perfect closure on the three deadbolts, probably due to a misalignment.	Check the doors and fix the closure issue. This activity vould be done during commissioning activities.		SLinari 2024-10-30			

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SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-30 HVAC UPS Equipment Room B-300

Electrical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000530	A	B300-HSB-001	Install Ethernet port locks on HVAC panels to prevent access by external devices without an authorized permit, as requested by the	Add ethernet port locks to allHVAC panel boards	installed	SLinari 2024-10-30	Vendor 2025-02-22	SLinari 2025-02-22	2025-02-22
C30000534	A	B300-HSB-001	The modbus I/O list have been updated during SAT, due to changes needed. During SAT activities several signals have not been checked.	Revise and issue on fusion live the HVAC I/O list documents for each HVAC panel. Before commissioning activities, all signals shall be	Check 100% of signals with Yokogawa. Communication work	SLinari 2024-10-30	Vendor 2025-02-22	SLinari 2025-02-22	2025-02-22
C30000024	B	B-300	Roof-top cables to be fixed with cable ties made by AISI 316L		ACTIVITY PERFORMED - SEE PICTURES	SLinari 2024-08-02	SLinari 2024-12-05	SLinari 2024-12-05	2024-12-05
C30000028	B	B-300	Earthing connection to be provided for all space heaters. To be done at RM yard		EARTHING INSTALLED	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000032	B	B-300	Earthing connection to be provided for all HVAC units. To be done at RM yard		EARTHING INSTALLED	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000036	B	B-300	Identification traffolyte tag to be provided for all E&I Items (lights, switches, space heaters,etc.). All traffolyte labels missing will be installed at RM		installed anche checked	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000040	B	B-300	HVAC cable tags to be provided on the panel top. Alex Sistemi will supply all loose cable tags. RM will install it		activity done - see picture	SLinari 2024-08-02	SLinari 2024-12-05	SLinari 2024-12-05	2024-12-05
C30000044	B	B-300	Cable's tag to be provided / fixed at all MCTs (IN/OUT). Alex Sistemi will supply all loose cable tags. RM will instali it		ACTIVITY DONE	SLinari 2024-08-02	SLinari 2024-12-05	SLinari 2024-12-05	2024-12-05
C30000052	B	B-300	HVAC fixed with screws M8. To be replaced with correct ones, as per drawing. Alex Sistemi will supply all final screws. RM will install it during		FIXED	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29

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SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-30 HVAC UPS Equipment Room B-300

Electrical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000086	B	B-300	Earthing connection to be provided for all electrical conduits. Alex Sistemi will supply all material, RM will install it		INSTALLED	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000090	B	B-300	Teflon to be provided between different materials for Hvac ducts unistrut and supports		INSTALLED	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000094	B	B-300	External ducts (inside) welding to be cleaned before re-installation		ACTIVITY DONE - ALL DUCTS HAS BEEN INSTALLED	SLinari 2024-08-02	SLinari 2024-12-05	SLinari 2024-12-05	2024-12-05
C30000114	B	A5/+03-QF1 C10002875	New and definitive protection setting to be implemented on SG-200N1 drawer A5/+03	Implement new setting	The definitive setting has been updated.	MGirotti 2024-09-18	MGirotti 2024-11-21	MGirotti 2024-11-21	2024-11-21
C30000148	B	83025-CEL C10000550	Identification numbers on terminal strip are missing (L2/L3/N)	.		Gtangianu 2024-10-07	2025-02-04	APolo 2025-02-04	2025-02-04
C30000149	B	83025-CEL C10000550	Cable to be fixed with proper cable ties, after MCT installation (point valid internal and exsternal cable routing.	.		Gtangianu 2024-10-07	2025-01-30	APolo 2025-01-30	2025-01-30
C30000151	B	B-300 C10002302	Lighting system to be completed	.	COMPLETED	Gtangianu 2024-10-08	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000152	B	B-300 C10002302	Missing copper grease on exsternal earthing connection.	.		Gtangianu 2024-10-08	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000155	B	B300-HSB-001 C10000837	Wire tags are hand written . To be replaced.	Inside the panel B300-HSB-001		Gtangianu 2024-10-08	2025-02-24	JKrizanic 2025-02-24	2025-02-24

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SUBSYSTEM 77-30 HVAC UPS Equipment Room B-300

Electrical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000522	B	B300-HSB-001	Heat shrinks for grounding inside HVAC panel installed of black color instead of yellow-green color as earthing cable itself	Heat shrink tubing to be replaced of yellow-green color type as earthing cable.	accepted	SLinari 2024-10-30	Vendor 2025-02-25	SLinari 2025-02-25	2025-02-25
C30000526	B	B300-HSB-001	Add an auxiliary IP address in addition to those already provided for each CPU, to allow communication and signals exchange between	Update software on all PLCs to enable switching to the standby CPU without losing the necessary communications	Implemented	SLinari 2024-10-30	Vendor 2025-02-20	SLinari 2025-02-20	2025-02-20
C30000538	B	B300-HSB-001	Verify for each HVAC panel a perfect correspondence between tag reported on P&IDs and HMIs. During SAT some TAGs were bot	Update and issue final P&IDs on fusion live and update PLC software to hace a perfect match between P&IDs and HMIs.	Implemented	SLinari 2024-10-30	Vendor 2025-02-25	SLinari 2025-02-25	2025-02-25

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SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-30 HVAC UPS Equipment Room B-300

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000907	A	C-77-XA-003/B400-SIS-001 C10000186	cable is not as specified in project cable schedule. (is a different gray color than what is shown in the project documentation).	.		APolo 2024-11-25	2024-12-05	Gtangianu 2024-12-05	2024-12-05
C30000153	B	B-300 C10002303	77-TP-301 INSTRUMENT IS NOT ACCESIBLE FOR MAINTENANCE.	.	POINT CLOSED - INSTRUMENT IS FREE FOR MAINTENANCE	Gtangianu 2024-10-08	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000154	B	B-300 C10002303	Black Thermoshrink is used on all earthing connection of HVAC System and cable trays. To be replaced with Y/G	Black Thermoshrink is used on all earthing connection of HVAC System and cable trays. To be replaced with Y/G		Gtangianu 2024-10-08	2025-02-12	Pschintu 2025-02-12	2025-02-12
C30000156	B	B-300 C10002303	Many identification numbers on the terminal strip are missing or hand written .,To be Replaced.	Inside the panel B300-HSB-001	done	Gtangianu 2024-10-08	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000157	B	B-300 C10002303	Many wire grounding are with black heat shrink.	Inside the panel B300-HSB-001	done	Gtangianu 2024-10-08	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000166	B	C-77-HS-008A/77-HS-008B C10000382	Missing cable tag on MCT entry (inside and outside B-300)	-		Gtangianu 2024-10-14	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000167	B	C-77-HS-007B/950-JE-04207 C10000378	Missing Plastic cable tag on MCT inside B-300	-		Gtangianu 2024-10-14	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000168	B	C-77-HS-008B/950-JE-04207 C10000381	Missing Plastic cable tag on MCT inside B-300	-		Gtangianu 2024-10-14	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000169	B	C-77-HS-008B/950-JE-04207 C10000381	Cable is not alligned at HS cable gland entry, to be better dressed to mantain bending radius	-		Gtangianu 2024-10-14	2025-01-30	APolo 2025-01-30	2025-01-30

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SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-30 HVAC UPS Equipment Room B-300

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000170	B	77-HS-007B C10002090	Fixing System of instrument on unistrut is not as per typical : 123A90-DDL-IN-DD-40017, sh.047 refer to POS.16. All bolts need to be replaced	-		Gtangianu 2024-10-15	2024-11-23	Lmussi 2024-11-23	2024-11-23
C30000171	B	77-HS-007B C10002090	EARTHING BAR SHALL BE CONNECTED TO EARTHING POINT IN N.1 POINT WITH 35sqmm Y/G CABLE	-		Gtangianu 2024-10-15	2025-01-30	APolo 2025-01-30	2025-01-30
C30000172	B	77-HS-007B C10002090	Elevation of instrument is not in accordance with Layout. Point valid for 77-HS-008B / 77-HS-009B / 77-HS-010B / 77-HS-011B. See attachment	-		Gtangianu 2024-10-15	2025-03-04	Gtangianu 2025-03-04	2025-03-04
C30000173	B	C-77-HS-011A/77-HS-011B C10000391	Missing plastic cable tag on MCT inside B-300	-		Gtangianu 2024-10-15	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000174	B	C-77-HS-009B/950-JE-04207 C10000384	Missing plastic cable tag on MCT inside B-300	-		Gtangianu 2024-10-15	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000175	B	C-77-HS-009A/77-HS-009B C10000385	Missing plastic cable tag on MCT inside B-300	-		Gtangianu 2024-10-15	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000176	B	C-77-HS-010B/950-JE-04207 C10000387	Missing plastic cable tag on MCT inside B-300	-		Gtangianu 2024-10-15	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000177	B	C-77-HS-010A/77-HS-010B C10000388	Missing plastic cable tag on MCT inside B-300	-		Gtangianu 2024-10-15	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000178	B	C-77-HS-011B/950-JE-04207 C10000390	Missing plastic cable tag on MCT inside B-300	-		Gtangianu 2024-10-15	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14

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Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000620	B	B300-HSB-001/ B400-FGS-003 C10002037	Missing the tag plastic project on the cable , cabinet side B400-FGS-002	.		APolo 2024-11-19	2025-01-03	Gtangianu 2025-01-03	2025-01-03
C30000621	B	B300-HSB-001/ B400-FGS-003 C10002037	the philosophy of cross-ferruling are wrong cabinet side B400-FGS-002 . (see document 123A90-DDL-IN-DG-40016 sh.3)	.		APolo 2024-11-19	2025-02-21	JKrizanic 2025-02-21	2025-02-21
C30000622	B	B300-HSB-001/ B400-FGS-003 C10002037	The final destination of Thermo-shrink on the Shield to be done properly.	.		APolo 2024-11-19	2025-01-03	Gtangianu 2025-01-03	2025-01-03
C30000623	B	B300-HSB-001/ B400-FGS-003 C10002037	The plastic fixing ties , on external routing cable , to be replaced with stainless steel.	.		APolo 2024-11-19	2025-02-26	Pschintu 2025-02-26	2025-02-26
C30000624	B	B300-HSB-001/ B400-FGS-003 C10002037	Bending radius is not within the specified limits. (stress on the input cable Panel B300-HSB-001)	.		APolo 2024-11-20	2025-01-03	Gtangianu 2025-01-03	2025-01-03
C30000684	B	C-77-HY-007/77 -HS-007A C10000380	Identification tag wire missing inside C-77-HY-007 connection.	.		Gtangianu 2024-11-21	2024-12-17	Gtangianu 2024-12-17	2024-12-17
C30000685	B	C-77-HY-009/77 -HS-009A C10000386	Identification tag wire missing inside C-77-HY-009 connection.	.		Gtangianu 2024-11-21	2024-12-17	Gtangianu 2024-12-17	2024-12-17
C30000691	B	C-77-HY-008/77 -HS-008A C10000383	Vendor HVAC Documentation (1724000049-HV-DA-00066_Rev.1) is not alligned with GA and P&I	.		Gtangianu 2024-11-21	2025-02-15	Ecarotenuto 2025-02-15	2025-02-15
C30000889	B	C-77-XS-003/B4 00-SIS-001 C10000182	Missing cable tag , cabinet input B400-SIS-001	.		APolo 2024-11-25	2025-01-03	Gtangianu 2025-01-03	2025-01-03

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SUBSYSTEM 77-30 HVAC UPS Equipment Room B-300

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000890	B	C-77-XS-003/B400-SIS-001 C10000182	the philosophy of cross-ferruling are wrong cabinet side B400-SIS-001 / B-300 HVAC . (see document 123A90-DDL-IN-DG-40016 sh.3)	.		APolo 2024-11-25	2025-03-11	JKrizanic 2025-03-11	2025-03-11
C30000891	B	C-77-XS-003/B400-SIS-001 C10000182	Double shield connected to one terminal on shield bar. this point is valid also for cabinet side B400-SIS-001	.		APolo 2024-11-25	2025-02-28	AAndreani 2025-02-28	2025-02-28
C30000905	B	C-77-XA-003/B400-SIS-001 C10000186	Missing cable tag , cabinet input B400-SIS-001.	.		APolo 2024-11-25	2025-01-03	Gtangianu 2025-01-03	2025-01-03
C30000906	B	C-77-XA-003/B400-SIS-001 C10000186	the philosophy of cross-ferruling are wrong cabinet side B400-SIS-001 / B-300 HVAC . (see document 123A90-DDL-IN-DG-40016 sh.3)	.		APolo 2024-11-25			
C30000908	B	C-77-XA-003/B400-SIS-001 C10000186	Double shield connected to one terminal on shield bar. this point is valid also for cabinet side B400-SIS-001	.		APolo 2024-11-25	2025-02-28	AAndreani 2025-02-28	2025-02-28

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-30 HVAC UPS Equipment Room B-300

HVAC

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000056	B	B-300	All documentation listed in the SMIR, shall be re-issued in final revision and approved by RM and CW		can be close - refer to PL n. C30000562	SLinari 2024-08-02	SLinari 2025-02-06	SLinari 2025-02-06	2025-02-06
C30000060	B	B-300	The items to be installed at RM site are coalescent filters and fire dampers. To be completed at RM yard		INSTALLED	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000064	B	B-300	HVAC Systems to be completely checked on B-300. Unit hasn't been completed yet. All notes/remarks are indicated in the FAT		TEST COMPLETED . SEE REPORTS	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000066	B	B-300	B-300 HVAC Unit wirings must be completed at RM yard		COMPLETED	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000070	B	B-300	TAG in front panels to be updated following last document revisions. All TAG traffolyte labels to be completely checked; several are missing. They		INSTALLED	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000074	B	B-300	All balancing and setting activities to be done on site. !t was not possible during FAT due to HVAC system installation not completed. Ali		PERFORMED - SEE REPORTS	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000078	B	B-300	Drain pipes and heating cables are missing, since they must be necessary instalied on site to avoid damages. To be completed at RM yard		installed	SLinari 2024-08-02	SLinari 2025-02-06	SLinari 2025-02-06	2025-02-06
C30000082	B	B-300	Duct insulation and cladding to be completed on site; it's needed to cover all duct junctions. Alex Sistemi will supply ali material, RM will install it		INSTALLED	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-30 HVAC UPS Equipment Room B-300

Telecom									
CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000788	B	B300-HSB-001/ B400-NET-001 C10004355	Identification tag wires missing both side the B100-HSB-001/B400-NET-001 connections.	.		Gtangianu 2024-11-22	2025-03-03	Gtangianu 2025-03-03	2025-03-03

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000554

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	B-300		Shelter AC UPS Fitted with UPS System Equipment Room B-300
1.3 Subsystem	77-30		HVAC UPS Equipment Room B-300

2 - OBSERVATION

Several doors present a not perfect closure on the three deadbolts, probably due to a misalignment.

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal	Check the doors and fix the closure issue. This activity vould be done during commissioning activities.		
3.2 Material required			
3.3 Priority	B PL B	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-10-30
3.5 Action by		Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

Name

Date

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000558

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Mechanical

1.2 Item B-300

Shelter AC UPS Fitted with UPS System Equipment Room B-300

1.3 Subsystem 77-30

HVAC UPS Equipment Room B-300

2 - OBSERVATION

Since the drainage pipe and heating cable datasheet have not yet been sent to RM, the suitability of the materials used cannot be verified. The installed drainage ppe (PVC type and plastic ties) must be able to withstand the maximum temperature reached by heating cable.

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

Submit both the drainage pipe and heating cable datasheet (by inserting them HVAC COMPONENTS LIST AND DS - E&I SHELTERS and ELECTRICAL COMPONENTS LIST AND DS - E&I SHELTERS, for each shelter), clearly indicating the maximum temperature of the heating cable and the maximum temperature tolerance of the plastic drainage pipe, all system is not tested, will be tested during comm phase

3.2 Material required

3.3 Priority A PL A

Name Stefano Linari

3.4 Activity code FAT factory acceptance test

Date 2024-10-30

3.5 Action by

Signature --- Proverlis ---
Duplicata issued from database information
Signature is on original form

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

Name

Date

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000562

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	B-300		Shelter AC UPS Fitted with UPS System Equipment Room B-300
1.3 Subsystem	77-30		HVAC UPS Equipment Room B-300

2 - OBSERVATION

Most of documntation is still in draft form. All documents must be finalized and approved by RM before commissioning activities. During revision, all mark-ups made during SAT must be applied.

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal	Review and issue al documentation by 15/11/2024 to allow for finalization by the end of november 2024, accounting fot the time required by RM to review these documents.		
3.2 Material required			
3.3 Priority	A PL A	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-10-30
3.5 Action by		Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

Name

Date

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000906

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000186	1.4 Discipline	Instrumental
1.2 Item	C-77-XA-003/B400-SIS-001	UCP FAULT ALARM / MARSHALLING PCS	
1.3 Subsystem	77-30	HVAC UPS Equipment Room B-300	

2 - OBSERVATION

the philosophy of cross-ferruling are wrong cabinet side B400-SIS-001 / B-300 HVAC . (see document 123A90-DDL-IN-DG-40016 sh.3)

Name: Alessio Polo

Date: 2024-11-25

Signature: Digitaly signed by Alessio Polo 2024-11-25T17:41:13.172Z

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2024-11-25
3.5 Action by	RM_CONSTR RM	Signature	Digitaly signed by Alessio Polo 2024-11-25T17:41:24.646Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

Name

Date

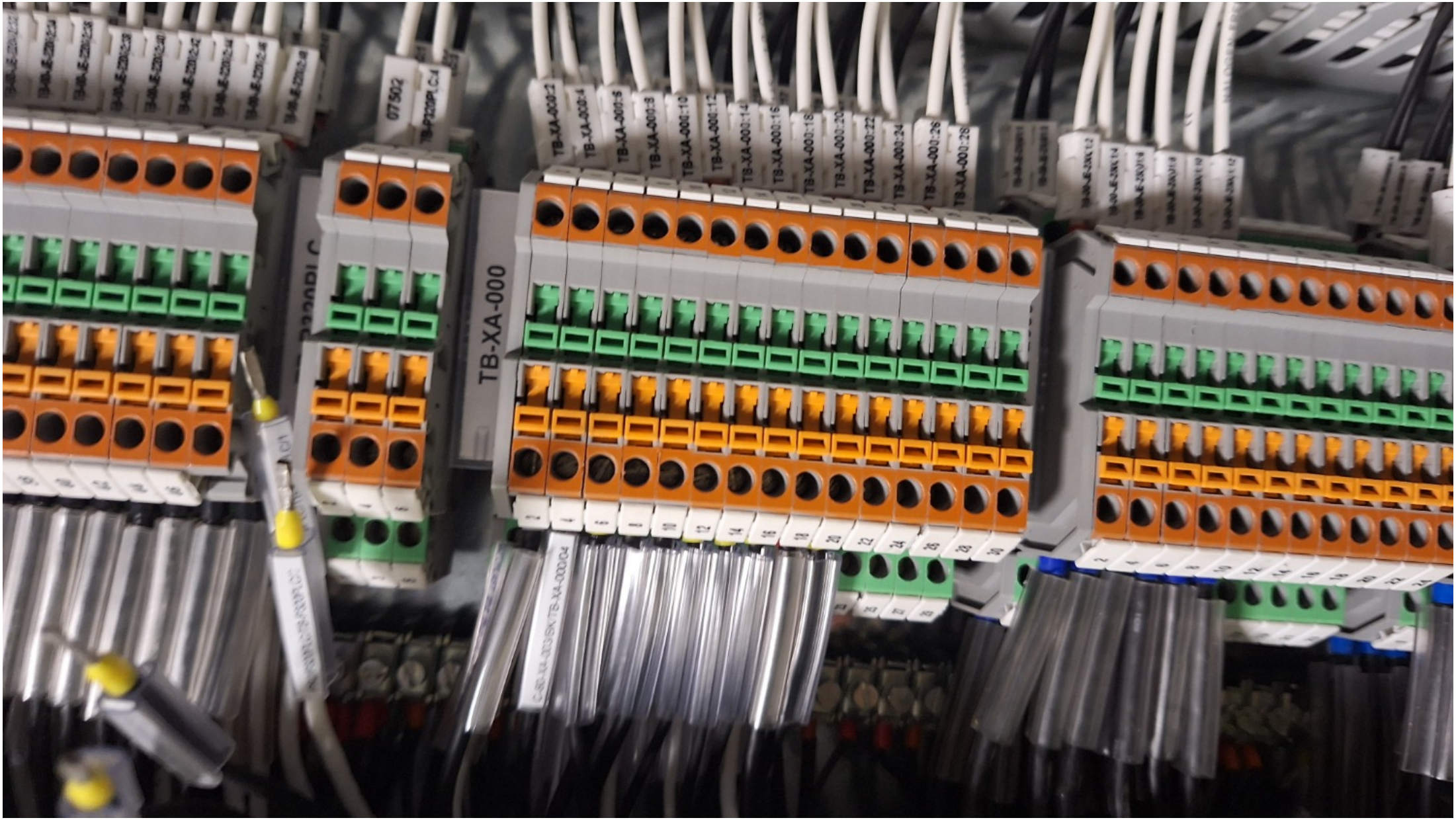
Signature

6- CLEARANCE APPROVAL

Name

Date

Signature


TB-XA-000

607
605
NUPS/XUPS/N/R4316-CEL
LUPS/XUPS/L/R4316-CEL
XUPS
507
506
504
XC
L4
N3.1
N3
8302S-CEL/N/XP1/N

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000016

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Mechanical

1.2 Item B-300

Shelter AC UPS Fitted with UPS System Equipment Room B-300

1.3 Subsystem 90-03

UPS System Equipment Room B-300

2 - OBSERVATION

Handles fixed on external doors are made of plastic material. Temporary key cylinder and handles to be replaced with the ones made of SS material (AISI 316L). To be done at RM yard

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority B PL B

Name Stefano Linari

3.4 Activity code FAT factory acceptance test

Date 2024-08-02

3.5 Action by

Signature --- Proverlis ---
Duplicata issued from database information
Signature is on original form

4 - PERFORMED ACTION

DONE

Name vendor alex sistemi

Date 2025-02-06

Signature Digitaly signed by vendor alex sistemi
2025-02-06T16:04:39.020Z

5 - CLEARANCE CHECK

DONE

Name Stefano Linari

Date 2025-02-06

Signature Digitaly signed by Stefano Linari
2025-02-06T16:04:52.268Z

6- CLEARANCE APPROVAL

Name

Date

Signature


B-300
AC UPS EQUIPMENT ROOM
CROSSWIND
ALEXSISTEMI
B-300
CROSSWIND
LIVE POWER
SOTTO TENSIONE
400 V

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000020

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Mechanical

1.2 Item B-300

Shelter AC UPS Fitted with UPS System Equipment Room B-300

1.3 Subsystem 90-03

UPS System Equipment Room B-300

2 - OBSERVATION

Master key (common for all modules) to be provided

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority B PL B

3.4 Activity code MC Mechanical Completion

3.5 Action by

Name Stefano Linari

Date 2024-08-02

Signature --- Proverlis ---
Duplicata issued from database information
Signature is on original form

4 - PERFORMED ACTION

DONE

Name ALEX SISTEMI

Date 2024-10-29

Signature Digitaly signed by ALEX SISTEMI 2024-10-29T12:02:30.365Z

5 - CLEARANCE CHECK

DONE

Name Stefano Linari

Date 2024-10-29

Signature Digitaly signed by Stefano Linari 2024-10-29T12:02:54.196Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000024

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Electrical

1.2 Item B-300

Shelter AC UPS Fitted with UPS System Equipment Room B-300

1.3 Subsystem 90-03

UPS System Equipment Room B-300

2 - OBSERVATION

Roof-top cables to be fixed with cable ties made by AISI 316L

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority B PL B

3.4 Activity code MC Mechanical Completion

3.5 Action by

Name Stefano Linari

Date 2024-08-02

Signature --- Proverlis ---
Duplicata issued from database information
Signature is on original form

4 - PERFORMED ACTION

ACTIVITY PERFORMED - SEE PICTURES

Name Stefano Linari

Date 2024-12-05

Signature Digitaly signed by Stefano Linari 2024-12-05T12:41:44.968Z

5 - CLEARANCE CHECK

ACTIVITY PERFORMED - SEE PICTURES

Name Stefano Linari

Date 2024-12-05

Signature Digitaly signed by Stefano Linari 2024-12-05T12:41:54.828Z

6- CLEARANCE APPROVAL

Name

Date

Signature





ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000028

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B-300		Shelter AC UPS Fitted with UPS System Equipment Room B-300
1.3 Subsystem	90-03		UPS System Equipment Room B-300

2 - OBSERVATION

Earthing connection to be provided for all space heaters. To be done at RM yard

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-08-02
3.5 Action by		Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

EARTHING INSTALLED

Name ALEX SISTEMI

Date 2024-10-29

Signature Digitaly signed by ALEX SISTEMI 2024-10-29T12:08:57.995Z

5 - CLEARANCE CHECK

EARTHING INSTALLED

Name Stefano Linari

Date 2024-10-29

Signature Digitaly signed by Stefano Linari 2024-10-29T12:09:13.658Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000032

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Electrical

1.2 Item B-300

Shelter AC UPS Fitted with UPS System Equipment Room B-300

1.3 Subsystem 90-03

UPS System Equipment Room B-300

2 - OBSERVATION

Earthing connection to be provided for all HVAC units. To be done at RM yard

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority B PL B

3.4 Activity code FAT factory acceptance test

3.5 Action by

Name Stefano Linari

Date 2024-08-02

Signature --- Proverlis ---
Duplicata issued from database information
Signature is on original form

4 - PERFORMED ACTION

EARTHING INSTALLED

Name ALEX SISTEMI

Date 2024-10-29

Signature Digitaly signed by ALEX SISTEMI 2024-10-29T12:16:15.440Z

5 - CLEARANCE CHECK

EARTHING INSTALLED

Name Stefano Linari

Date 2024-10-29

Signature Digitaly signed by Stefano Linari 2024-10-29T12:16:29.803Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000036

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Electrical

1.2 Item B-300

Shelter AC UPS Fitted with UPS System Equipment Room B-300

1.3 Subsystem 90-03

UPS System Equipment Room B-300

2 - OBSERVATION

Identification traffolyte tag to be provided for all E&I Items (lights, switches, space heaters,etc.). All traffolyte labels missing will be installed at RM yard

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority B PL B

3.4 Activity code FAT factory acceptance test

3.5 Action by

Name Stefano Linari

Date 2024-08-02

Signature --- Proverlis ---
Duplicata issued from database information
Signature is on original form

4 - PERFORMED ACTION

installed anche checked

Name ALEX SISTEMI

Date 2024-10-29

Signature Digitaly signed by ALEX SISTEMI 2024-10-29T14:46:15.057Z

5 - CLEARANCE CHECK

installed anche checked

Name Stefano Linari

Date 2024-10-29

Signature Digitaly signed by Stefano Linari 2024-10-29T14:46:35.592Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000040

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Electrical

1.2 Item B-300

Shelter AC UPS Fitted with UPS System Equipment Room B-300

1.3 Subsystem 90-03

UPS System Equipment Room B-300

2 - OBSERVATION

HVAC cable tags to be provided on the panel top. Alex Sistemi will supply all loose cable tags. RM will install it

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority B PL B

3.4 Activity code FAT factory acceptance test

3.5 Action by

Name Stefano Linari

Date 2024-08-02

Signature --- Proverlis ---
Duplicata issued from database information
Signature is on original form

4 - PERFORMED ACTION

activity done - see picture

Name Stefano Linari

Date 2024-12-05

Signature PROVERLIS Digitaly signed by Stefano Linari 2024-12-05T10:57:07.478Z

5 - CLEARANCE CHECK

activity done - see picture

Name Stefano Linari

Date 2024-12-05

Signature PROVERLIS Digitaly signed by Stefano Linari 2024-12-05T10:57:20.715Z

6- CLEARANCE APPROVAL

Name

Date

Signature


LIVE POWER
SOTTO TENSIONE
400 V

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000044

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Electrical

1.2 Item B-300

Shelter AC UPS Fitted with UPS System Equipment Room B-300

1.3 Subsystem 90-03

UPS System Equipment Room B-300

2 - OBSERVATION

Cable's tag to be provided / fixed at all MCTs (IN/OUT). Alex Sistemi will supply all loose cable tags. RM will instali it

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority B PL B

3.4 Activity code FAT factory acceptance test

3.5 Action by

Name Stefano Linari

Date 2024-08-02

Signature --- Proverlis ---
Duplicata issued from database information
Signature is on original form

4 - PERFORMED ACTION

ACTIVITY DONE

Name Stefano Linari

Date 2024-12-05

Signature Digitaly signed by Stefano Linari 2024-12-05T12:25:26.635Z

5 - CLEARANCE CHECK

ACTIVITY DONE

Name Stefano Linari

Date 2024-12-05

Signature Digitaly signed by Stefano Linari 2024-12-05T12:25:37.370Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000048

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Mechanical

1.2 Item B-300

Shelter AC UPS Fitted with UPS System Equipment Room B-300

1.3 Subsystem 90-03

UPS System Equipment Room B-300

2 - OBSERVATION

Some brass cable glands are overtightened and need to be untightened to avoid cold flow of cables. Will be performed a spot check at RM yard

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority B PL B

3.4 Activity code FAT factory acceptance test

3.5 Action by

Name Stefano Linari

Date 2024-08-02

Signature --- Proverlis ---
Duplicata issued from database information
Signature is on original form

4 - PERFORMED ACTION

CHECKED CEMBRE INSTALLATION MANUAL - ACCEPTED

Name ALEX SISTEMI

Date 2024-10-29

Signature Digitaly signed by ALEX SISTEMI 2024-10-29T12:37:30.747Z

5 - CLEARANCE CHECK

CHECKED CEMBRE INSTALLATION MANUAL - ACCEPTED

Name Stefano Linari

Date 2024-10-29

Signature Digitaly signed by Stefano Linari 2024-10-29T12:37:46.269Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000052

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Electrical

1.2 Item B-300

Shelter AC UPS Fitted with UPS System Equipment Room B-300

1.3 Subsystem 90-03

UPS System Equipment Room B-300

2 - OBSERVATION

HVAC fixed with screws M8. To be replaced with correct ones, as per drawing. Alex Sistemi will supply all final screws. RM will install it during re-installation of HVAC

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority B PL B

Name Stefano Linari

3.4 Activity code FAT factory acceptance test

Date 2024-08-02

3.5 Action by

Signature --- Proverlis ---
Duplicata issued from database information
Signature is on original form

4 - PERFORMED ACTION

FIXED

Name Stefano Linari

Date 2024-10-29

Signature Digitaly signed by Stefano Linari 2024-10-29T12:41:18.117Z

5 - CLEARANCE CHECK

FIXED

Name Stefano Linari

Date 2024-10-29

Signature Digitaly signed by Stefano Linari 2024-10-29T12:41:36.730Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000056

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	HVAC
1.2 Item	B-300		Shelter AC UPS Fitted with UPS System Equipment Room B-300
1.3 Subsystem	90-03		UPS System Equipment Room B-300

2 - OBSERVATION

All documentation listed in the SMIR, shall be re-issued in final revision and approved by RM and CW

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-08-02
3.5 Action by		Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

can be close - refer to PL n. C30000562

Name Stefano Linari

Date 2025-02-06

Signature PROVERLIS Digitaly signed by Stefano Linari 2025-02-06T15:51:57.869Z

5 - CLEARANCE CHECK

can be close - refer to PL n. C30000562

Name Stefano Linari

Date 2025-02-06

Signature PROVERLIS Digitaly signed by Stefano Linari 2025-02-06T15:52:13.717Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000060

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline HVAC

1.2 Item B-300

Shelter AC UPS Fitted with UPS System Equipment Room B-300

1.3 Subsystem 90-03

UPS System Equipment Room B-300

2 - OBSERVATION

The items to be installed at RM site are coalescent filters and fire dampers. To be completed at RM yard

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority B PL B

3.4 Activity code FAT factory acceptance test

3.5 Action by

Name Stefano Linari

Date 2024-08-02

Signature --- Proverlis ---
Duplicata issued from database information
Signature is on original form

4 - PERFORMED ACTION

INSTALLED

Name ALEX SISTEMI

Date 2024-10-29

Signature Digitaly signed by ALEX SISTEMI 2024-10-29T12:44:57.255Z

5 - CLEARANCE CHECK

INSTALLED

Name Stefano Linari

Date 2024-10-29

Signature Digitaly signed by Stefano Linari 2024-10-29T12:45:11.776Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000064

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	HVAC
1.2 Item	B-300		Shelter AC UPS Fitted with UPS System Equipment Room B-300
1.3 Subsystem	90-03		UPS System Equipment Room B-300

2 - OBSERVATION

HVAC Systems to be completely checked on B-300. Unit hasn't been completed yet. All notes/remarks are indicated in the FAT procedures and reports

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-08-02
3.5 Action by		Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

TEST COMPLETED . SEE REPORTS

Name ALEX SISTEMI

Date 2024-10-29

Signature PROVERLIS Digitaly signed by ALEX SISTEMI 2024-10-29T12:47:57.565Z

5 - CLEARANCE CHECK

TEST COMPLETED . SEE REPORTS

Name Stefano Linari

Date 2024-10-29

Signature PROVERLIS Digitaly signed by Stefano Linari 2024-10-29T12:48:12.111Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000066

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	HVAC
1.2 Item	B-300		Shelter AC UPS Fitted with UPS System Equipment Room B-300
1.3 Subsystem	90-03		UPS System Equipment Room B-300

2 - OBSERVATION

B-300 HVAC Unit wirings must be completed at RM yard

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-08-02
3.5 Action by		Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

COMPLETED

Name ALEX SISTEMI

Date 2024-10-29

Signature Digitaly signed by ALEX SISTEMI 2024-10-29T12:49:52.497Z

5 - CLEARANCE CHECK

COMPLETED

Name Stefano Linari

Date 2024-10-29

Signature Digitaly signed by Stefano Linari 2024-10-29T12:50:11.948Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000070

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	HVAC
1.2 Item	B-300		Shelter AC UPS Fitted with UPS System Equipment Room B-300
1.3 Subsystem	90-03		UPS System Equipment Room B-300

2 - OBSERVATION

TAG in front panels to be updated following last document revisions. All TAG traffolyte labels to be completely checked; several are missing. They will be installed at RM Yard

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-08-02
3.5 Action by		Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

INSTALLED

Name ALEX SISTEMI

Date 2024-10-29

Signature PROVERLIS Digitaly signed by ALEX SISTEMI 2024-10-29T13:03:38.320Z

5 - CLEARANCE CHECK

INSTALLED

Name Stefano Linari

Date 2024-10-29

Signature PROVERLIS Digitaly signed by Stefano Linari 2024-10-29T13:03:52.697Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000074

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	HVAC
1.2 Item	B-300		Shelter AC UPS Fitted with UPS System Equipment Room B-300
1.3 Subsystem	90-03		UPS System Equipment Room B-300

2 - OBSERVATION

All balancing and setting activities to be done on site. !t was not possible during FAT due to HVAC system installation not completed. Ali notes/remarks are indicated in the FAT procedures and reports

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-08-02
3.5 Action by		Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

PERFORMED - SEE REPORTS

Name ALEX SISTEMI

Date 2024-10-29

Signature Digitaly signed by ALEX SISTEMI 2024-10-29T13:07:18.568Z

5 - CLEARANCE CHECK

PERFORMED - SEE REPORTS

Name Stefano Linari

Date 2024-10-29

Signature Digitaly signed by Stefano Linari 2024-10-29T13:07:31.360Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000078

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	HVAC
1.2 Item	B-300		Shelter AC UPS Fitted with UPS System Equipment Room B-300
1.3 Subsystem	90-03		UPS System Equipment Room B-300

2 - OBSERVATION

Drain pipes and heating cables are missing, since they must be necessary instalied on site to avoid damages. To be completed at RM yard

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-08-02
3.5 Action by		Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

installed

Name vendor alex sistemi

Date 2025-02-06

Signature Digitaly signed by vendor alex sistemi 2025-02-06T09:36:12.382Z

5 - CLEARANCE CHECK

installed

Name Stefano Linari

Date 2025-02-06

Signature Digitaly signed by Stefano Linari 2025-02-06T09:36:27.238Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000082

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	HVAC
1.2 Item	B-300		Shelter AC UPS Fitted with UPS System Equipment Room B-300
1.3 Subsystem	90-03		UPS System Equipment Room B-300

2 - OBSERVATION

Duct insulation and cladding to be completed on site; it's needed to cover all duct junctions. Alex Sistemi will supply ali material, RM will install it during re-installation of HVAC.

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-08-02
3.5 Action by		Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

INSTALLED

Name Stefano Linari

Date 2024-10-29

Signature Digitaly signed by Stefano Linari 2024-10-29T14:49:18.102Z

5 - CLEARANCE CHECK

INSTALLED

Name Stefano Linari

Date 2024-10-29

Signature Digitaly signed by Stefano Linari 2024-10-29T14:49:47.053Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000086

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B-300		Shelter AC UPS Fitted with UPS System Equipment Room B-300
1.3 Subsystem	90-03		UPS System Equipment Room B-300

2 - OBSERVATION

Earthing connection to be provided for all electrical conduits. Alex Sistemi will supply all material, RM will install it

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-08-02
3.5 Action by		Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

INSTALLED

Name ALEX SISTEMI

Date 2024-10-29

Signature PROVERLIS Digitaly signed by ALEX SISTEMI 2024-10-29T13:37:16.319Z

5 - CLEARANCE CHECK

INSTALLED

Name Stefano Linari

Date 2024-10-29

Signature PROVERLIS Digitaly signed by Stefano Linari 2024-10-29T13:37:34.744Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000090

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Electrical

1.2 Item B-300

Shelter AC UPS Fitted with UPS System Equipment Room B-300

1.3 Subsystem 90-03

UPS System Equipment Room B-300

2 - OBSERVATION

Teflon to be provided between different materials for Hvac ducts unistrut and supports

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority B PL B

3.4 Activity code FAT factory acceptance test

3.5 Action by

Name Stefano Linari

Date 2024-08-02

Signature --- Proverlis ---
Duplicata issued from database information
Signature is on original form

4 - PERFORMED ACTION

INSTALLED

Name Stefano Linari

Date 2024-10-29

Signature Digitaly signed by Stefano Linari 2024-10-29T14:54:53.095Z

5 - CLEARANCE CHECK

INSTALLED

Name Stefano Linari

Date 2024-10-29

Signature Digitaly signed by Stefano Linari 2024-10-29T14:55:10.123Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000094

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B-300		Shelter AC UPS Fitted with UPS System Equipment Room B-300
1.3 Subsystem	90-03		UPS System Equipment Room B-300

2 - OBSERVATION

External ducts (inside) welding to be cleaned before re-installation

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-08-02
3.5 Action by		Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

ACTIVITY DONE - ALL DUCTS HAS BEEN INSTALLED

Name Stefano Linari

Date 2024-12-05

Signature Digitaly signed by Stefano Linari 2024-12-05T10:46:47.538Z

5 - CLEARANCE CHECK

ACTIVITY DONE - ALL DUCTS HAS BEEN INSTALLED

Name Stefano Linari

Date 2024-12-05

Signature Digitaly signed by Stefano Linari 2024-12-05T10:46:59.289Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000114

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002875	1.4 Discipline	Electrical
1.2 Item	A5/+03-QF1	DRAWER HVAC PANELS UPS ROOM - A5/+03-QF1	
1.3 Subsystem	77-30	HVAC UPS Equipment Room B-300	

2 - OBSERVATION

New and definitive protection setting to be implemented on SG-200N1 drawer A5/+03

Name: Mattia Girotti

Date: 2024-09-18

Signature: Digitaly signed by Mattia Girotti 2024-09-18T11:56:43.856Z

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal: Implement new setting

3.2 Material required:

3.3 Priority: B PL B

3.4 Activity code: COMM Commissioning

3.5 Action by: RM Rosetti Marino Quality

Name: Mattia Girotti

Date: 2024-09-18

Signature: Digitaly signed by Mattia Girotti 2024-09-18T11:59:05.257Z

4 - PERFORMED ACTION

The definitive setting has been updated.

Name: Mattia Girotti

Date: 2024-11-21

Signature: Digitaly signed by Mattia Girotti 2024-11-21T08:40:43.160Z

5 - CLEARANCE CHECK

Done

Name: Mattia Girotti

Date: 2024-11-21

Signature: Digitaly signed by Mattia Girotti 2024-11-21T08:46:46.265Z

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

Page Name	Group Name	Variable Name	Variable Value	Variable Unit
Settings A				
	Overload Protection (L - ANSI 49)			
		PU nominal current In	63	
		Status	Enabled	
		Function	t=k/i^2	
		Prealarm I1	90	% I1
		Threshold I1	0.650	In
		Time t1 std	3.00	s
		Thermal memory (TM)	Disabled	
		TM Algorithm	RMS-independent	
		TM Time	Automatic	
		TM custom time	830	s
	Time-delayed overcurrent protection (S - ANSI 50 TD/68/51)			
		Status	Enabled	
		Trip enable	Enabled	
		BlockOnStartUp	--------	
		BlockOnOutOfFrequency	--------	
		BlockOnProgStatusA	--------	
		BlockOnProgStatusB	--------	
		BlockOnProgStatusC	--------	
		BlockOnProgStatusD	--------	
		Function	t=k	
		Threshold I2 (t=k)	3.00	In
		Time t2 (t=k) IEC - UL489	0.10	s
		Startup enable	Disabled	
		Startup time	0.10	s
		Startup threshold	0.60	In
		Set Startup th. on ProgStatusD	--------	
		Thermal memory status	Disabled	
		Zone Selectivity status	Disabled	
		Zone Selectivity time	0.04	s
		Zone Selectivity Type	Logic and Hardware	
	Second time-delayed overcurrent protection (S2 - ANSI 50 TD)			
		Status	Disabled	
		Trip enable	Disabled	
		BlockOnStartUp	--------	
		BlockOnOutOfFrequency	--------	
		BlockOnProgStatusA	--------	
		BlockOnProgStatusB	--------	
		BlockOnProgStatusC	--------	
		BlockOnProgStatusD	--------	
		Threshold I5 (t=k)	2.00	In
		Time t5 (t=k)	0.05	s
		Startup enable	Disabled	
		Startup time	0.10	s
		Startup threshold	2.00	In
		Set Startup th. on ProgStatusD	--------	
		Zone Selectivity status	Disabled	
		Zone Selectivity time	0.04	s
		Zone Selectivity Type	Logic and Hardware	
	Instantaneous overcurrent protection (I - ANSI 50)			
		Status	Enabled	
		Threshold I3	7.00	In
		Startup enable	Disabled	
		Startup time	0.10	s
		Startup threshold	1.50	In
		Set Startup th. on ProgStatusD	--------	
		BlockOnStartUp	--------	
		BlockOnOutOfFrequency	--------	
		BlockOnProgStatusA	--------	
		BlockOnProgStatusB	--------	
		BlockOnProgStatusC	--------	
		BlockOnProgStatusD	--------	
		Zone Selectivity status	Disabled	
		Zone Selectivity Type	Logic and Hardware	
	Second I			
		Prot Second I	---	
		Status	Disabled	
		Threshold I31	1.50	In
		Zone Selectivity status	Disabled	
		Zone Selectivity Type	Logic and Hardware	
		Second I Mode	Function Dependent	
		Function	Disabled	
		Delay On	0.00	s
		Delay Off	15.00	s
	Earth fault protection (G - ANSI 50N TD/68/51N)			
		Status	Enabled	
		Trip enable	Enabled	
		BlockOnStartUp	--------	
		BlockOnOutOfFrequency	--------	
		BlockOnProgStatusA	--------	
		BlockOnProgStatusB	--------	
		BlockOnProgStatusC	--------	
		BlockOnProgStatusD	--------	
		Function	t=k	
		Prealarm I4	90	% I4
		Threshold I4 (t=k)	0.200	In
		Time t4 (t=k) IEC - UL489	0.10	s

		Startup enable	Disabled	
		Startup time	0.10	s
		Startup threshold	0.20	In
		Set Startup th. on ProgStatusD	--------	
		Zone selectivity status	Disabled	
		Zone selectivity time	0.04	s
		Zone Selectivity Type	Logic and Hardware	
	Directional overcurrent protection (D - ANSI 67/68)			
		Status	Disabled	
		Trip enable	Disabled	
		tripOnlyForward	--------	
		tripOnlyBackward	--------	
		BlockOnStartUp	--------	
		BlockOnOutOfFrequency	--------	
		BlockOnProgStatusA	--------	
		BlockOnProgStatusB	--------	
		BlockOnProgStatusC	--------	
		BlockOnProgStatusD	--------	
		Threshold I7 FWD	2.00	In
		Time t7 FWD	0.20	s
		Threshold I7 BWD	2.00	In
		Time t7 BWD	0.20	s
		Startup enable	Disabled	
		Startup time	0.10	s
		Startup threshold FWD	2.00	In
		Startup threshold BWD	2.00	In
		Set Startup th. on ProgStatusD	--------	
		Zone Selectivity status	Disabled	
		Zone Selectivity time FWD	0.13	s
		Zone Selectivity time BWD	0.13	s
		Zone Selectivity Type	Logic and Hardware	
		Direction minimum angle	3.6	°
	Closing on short-circuit protection (MCR)			
		Status	Disabled	
		BlockOnOutOfFrequency	--------	
		BlockOnProgStatusA	--------	
		BlockOnProgStatusB	--------	
		BlockOnProgStatusC	--------	
		BlockOnProgStatusD	--------	
		Threshold I3	6.00	In
		Time t3	0.04	s
		Zone Selectivity status	Disabled	
		Zone Selectivity Type	Logic and Hardware	
	Over Temperature (T)			
		Trip enable	Disabled	

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000148

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000550	1.4 Discipline	Electrical
1.2 Item	83025-CEL	LV Switchgear / HVAC panels - UPS Room	
1.3 Subsystem	77-30	HVAC UPS Equipment Room B-300	

2 - OBSERVATION

Identification numbers on terminal strip are missing (L2/L3/N)

Name: Giovanni Tangianu

Date: 2024-10-07

Signature: Digitaly signed by Giovanni Tangianu 2024-10-07T11:38:42.234Z

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal: .Inside the panel B300-HSB-001 add identification numbers on terminal strip XP1

3.2 Material required:

3.3 Priority: B PL B

3.4 Activity code: MC Mechanical Completion

3.5 Action by: VND Vendor

Name: Giovanni Tangianu

Date: 2024-10-07

Signature: Digitaly signed by Giovanni Tangianu 2024-10-07T11:38:58.806Z

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Alessio Polo

Date: 2025-02-04

Signature: Digitaly signed by Alessio Polo 2025-02-04T13:42:51.792Z

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000149

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000550	1.4 Discipline	Electrical
1.2 Item	83025-CEL	LV Switchgear / HVAC panels - UPS Room	
1.3 Subsystem	77-30	HVAC UPS Equipment Room B-300	

2 - OBSERVATION

Cable to be fixed with proper cable ties, after MCT installation (point valid internal and exsternal cable routing.

Name: Giovanni Tangianu

Date: 2024-10-07

Signature: Digitaly signed by Giovanni Tangianu 2024-10-07T11:39:13.119Z

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-10-07
3.5 Action by	RM_CONSTR RM	Signature	Digitaly signed by Giovanni Tangianu 2024-10-07T11:39:34.766Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

DONE

Name: Alessio Polo

Date: 2025-01-30

Signature: Digitaly signed by Alessio Polo 2025-01-30T16:28:32.695Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000151

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002302	1.4 Discipline	Electrical
1.2 Item	B-300		Shelter AC UPS Fitted with UPS System Equipment Room B-300
1.3 Subsystem	77-30		HVAC UPS Equipment Room B-300

2 - OBSERVATION

Lighting system to be completed

Name: Giovanni Tangianu

Date: 2024-10-08

Signature: Digitaly signed by Giovanni Tangianu 2024-10-08T13:04:53.341Z

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-10-08
3.5 Action by	VND Vendor	Signature	Digitaly signed by Giovanni Tangianu 2024-10-08T13:05:20.088Z

4 - PERFORMED ACTION

COMPLETED

Name: ALEX SISTEMI

Date: 2024-10-29

Signature: Digitaly signed by ALEX SISTEMI 2024-10-29T13:39:56.529Z

5 - CLEARANCE CHECK

COMPLETED

Name: Stefano Linari

Date: 2024-10-29

Signature: Digitaly signed by Stefano Linari 2024-10-29T13:40:13.094Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000152

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002302	1.4 Discipline	Electrical
1.2 Item	B-300		Shelter AC UPS Fitted with UPS System Equipment Room B-300
1.3 Subsystem	77-30		HVAC UPS Equipment Room B-300

2 - OBSERVATION

Missing copper grease on exsternal earthing connection.

Name: Giovanni Tangianu

Date: 2024-10-08

Signature: Digitaly signed by Giovanni Tangianu 2024-10-08T13:06:51.520Z

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-10-08
3.5 Action by	RM_CONSTR RM	Signature	Digitaly signed by Giovanni Tangianu 2024-10-08T13:07:11.524Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

done

Name: Eleonora Carotenuto

Date: 2024-12-14

Signature: Digitaly signed by Eleonora Carotenuto 2024-12-14T09:46:16.380Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000153

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002303	1.4 Discipline	Instrumental
1.2 Item	B-300		Shelter AC UPS Fitted with UPS System Equipment Room B-300
1.3 Subsystem	77-30		HVAC UPS Equipment Room B-300

2 - OBSERVATION

77-TP-301 INSTRUMENT IS NOT ACCESIBLE FOR MAINTENANCE.

Name: Giovanni Tangianu

Date: 2024-10-08

Signature: Digitaly signed by Giovanni Tangianu 2024-10-08T13:13:10.583Z

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-10-08
3.5 Action by	VND Vendor	Signature	Digitaly signed by Giovanni Tangianu 2024-10-08T13:13:53.974Z

4 - PERFORMED ACTION

POINT CLOSED - INSTRUMENT IS FREE FOR MAINTENANCE

Name: ALEX SISTEMI

Date: 2024-10-29

Signature: Digitaly signed by ALEX SISTEMI 2024-10-29T13:41:11.883Z

5 - CLEARANCE CHECK

POINT CLOSED - INSTRUMENT IS FREE FOR MAINTENANCE

Name: Stefano Linari

Date: 2024-10-29

Signature: Digitaly signed by Stefano Linari 2024-10-29T13:41:24.710Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000154

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002303	1.4 Discipline	Instrumental
1.2 Item	B-300	Shelter AC UPS Fitted with UPS System Equipment Room B-300	
1.3 Subsystem	77-30	HVAC UPS Equipment Room B-300	

2 - OBSERVATION

Black Thermoshrink is used on all earthing connection of HVAC System and cable trays. To be replaced with Y/G

Name: Giovanni Tangianu

Date: 2024-10-08

Signature: Digitaly signed by Giovanni Tangianu 2024-10-08T13:15:07.185Z

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal	Black Thermoshrink is used on all earthing connection of HVAC System and cable trays. To be replaced with Y/G		
3.2 Material required			
3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-10-08
3.5 Action by	VND Vendor	Signature	Digitaly signed by Giovanni Tangianu 2024-10-08T13:15:29.570Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

DONE

Name: Paolo Schintu

Date: 2025-02-12

Signature: Digitaly signed by Paolo Schintu 2025-02-12T16:54:46.364Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000155

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000837	1.4 Discipline	Electrical
1.2 Item	B300-HSB-001		Distribution & HVAC Panel - Shelter AC UPS Fitted with UPS System Equipment Room
1.3 Subsystem	77-30		HVAC UPS Equipment Room B-300

2 - OBSERVATION

Wire tags are hand written . To be replaced.

Name: Giovanni Tangianu

Date: 2024-10-08

Signature: Digitaly signed by Giovanni Tangianu 2024-10-08T13:27:30.731Z

3 - DEFECT ASSESSMENT

Inside the panel B300-HSB-001

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-10-08
3.5 Action by	VND Vendor	Signature	Digitaly signed by Giovanni Tangianu 2024-10-08T13:27:46.768Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

DONE

Name: Josip Krizanic

Date: 2025-02-24

Signature: Digitaly signed by Josip Krizanic 2025-02-24T15:49:38.990Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000156

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002303	1.4 Discipline	Instrumental
1.2 Item	B-300		Shelter AC UPS Fitted with UPS System Equipment Room B-300
1.3 Subsystem	77-30		HVAC UPS Equipment Room B-300

2 - OBSERVATION

Many identification numbers on the terminal strip are missing or hand written .,To be Replaced.

Name: Giovanni Tangianu

Date: 2024-10-08

Signature: Digitaly signed by Giovanni Tangianu 2024-10-08T13:29:09.628Z

3 - DEFECT ASSESSMENT

Inside the panel B300-HSB-001

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-10-08
3.5 Action by	VND Vendor	Signature	Digitaly signed by Giovanni Tangianu 2024-10-08T13:29:23.632Z

4 - PERFORMED ACTION

done

Name: ALEX SISTEMI

Date: 2024-10-29

Signature: Digitaly signed by ALEX SISTEMI 2024-10-29T15:19:37.480Z

5 - CLEARANCE CHECK

done

Name: Stefano Linari

Date: 2024-10-29

Signature: Digitaly signed by Stefano Linari 2024-10-29T15:20:46.851Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000157

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002303	1.4 Discipline	Instrumental
1.2 Item	B-300	Shelter AC UPS Fitted with UPS System Equipment Room B-300	
1.3 Subsystem	77-30	HVAC UPS Equipment Room B-300	

2 - OBSERVATION

Many wire grounding are with black heat shrink.

Name: Giovanni Tangianu

Date: 2024-10-08

Signature: Digitaly signed by Giovanni Tangianu 2024-10-08T13:30:33.185Z

3 - DEFECT ASSESSMENT

.Inside the panel B300-HSB-001

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-10-08
3.5 Action by	VND Vendor	Signature	Digitaly signed by Giovanni Tangianu 2024-10-08T13:31:05.741Z

4 - PERFORMED ACTION

done

Name: ALEX SISTEMI

Date: 2024-10-29

Signature: Digitaly signed by ALEX SISTEMI 2024-10-29T15:26:17.537Z

5 - CLEARANCE CHECK

DONE

Name: Stefano Linari

Date: 2024-10-29

Signature: Digitaly signed by Stefano Linari 2024-10-29T15:26:41.569Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000166

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000382	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-008A/77-HS-008B	PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-30	HVAC UPS Equipment Room B-300	

2 - OBSERVATION

Missing cable tag on MCT entry (inside and outside B-300)

Name: Giovanni Tangianu

Date: 2024-10-14

Signature: Digitaly signed by Giovanni Tangianu 2024-10-14T16:25:44.557Z

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-10-14
3.5 Action by	RM_CONSTR RM	Signature	Digitaly signed by Giovanni Tangianu 2024-10-14T16:26:02.076Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

done

Name: Eleonora Carotenuto

Date: 2024-12-14

Signature: Digitaly signed by Eleonora Carotenuto 2024-12-14T09:47:58.610Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000167

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000378	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-007B/950-JE-04207	PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-30	HVAC UPS Equipment Room B-300	

2 - OBSERVATION

Missing plastic cable tag on MCT inside B-300.

Name: Giovanni Tangianu

Date: 2024-10-14

Signature: Digitaly signed by Giovanni Tangianu 2024-10-14T16:27:56.312Z

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-10-14
3.5 Action by	RM_CONSTR RM	Signature	Digitaly signed by Giovanni Tangianu 2024-10-14T16:28:09.562Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

done

Name: Eleonora Carotenuto

Date: 2024-12-14

Signature: Digitaly signed by Eleonora Carotenuto 2024-12-14T09:48:13.378Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000168

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000381	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-008B/950-JE-04207	PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-30	HVAC UPS Equipment Room B-300	

2 - OBSERVATION

Missing plastic cable tag on MCT inside B-300.

Name: Giovanni Tangianu

Date: 2024-10-14

Signature: Digitaly signed by Giovanni Tangianu 2024-10-14T16:29:22.748Z

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-10-14
3.5 Action by	RM_CONSTR RM	Signature	Digitaly signed by Giovanni Tangianu 2024-10-14T16:29:35.890Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

done

Name: Eleonora Carotenuto

Date: 2024-12-14

Signature: Digitaly signed by Eleonora Carotenuto 2024-12-14T09:48:32.133Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000169

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000381	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-008B/950-JE-04207	PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-30	HVAC UPS Equipment Room B-300	

2 - OBSERVATION

Cable is not alligned at HS cable gland entry, to be better dressed to mantain bending radius

Name: Giovanni Tangianu

Date: 2024-10-14

Signature: Digitaly signed by Giovanni Tangianu 2024-10-14T16:31:13.685Z

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-10-14
3.5 Action by	RM_CONSTR RM	Signature	Digitaly signed by Giovanni Tangianu 2024-10-14T16:34:26.858Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

DONE

Name: Alessio Polo

Date: 2025-01-30

Signature: Digitaly signed by Alessio Polo 2025-01-30T16:28:40.022Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000170

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002090	1.4 Discipline	Instrumental
1.2 Item	77-HS-007B	Hand Switch for Fire&Gas Damper HFD-77007	
1.3 Subsystem	77-30	HVAC UPS Equipment Room B-300	

2 - OBSERVATION

Fixing System of instrument on unistrut is not as per typical : 123A90-DDL-IN-DD-40017, sh.047 refer to POS.16. All bolts need to be replaced with the proper ones M5x35. Point valid for 77-HS-008B / 77-HS-009B / 77-HS-010B / 77-HS-011B.

Name: Giovanni Tangianu

Date: 2024-10-15

Signature: Digitaly signed by Giovanni Tangianu 2024-10-15T11:00:16.083Z

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-10-15
3.5 Action by	RM_CONSTR RM	Signature	Digitaly signed by Giovanni Tangianu 2024-10-15T11:00:36.476Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

Done

Name: Luca Mussi

Date: 2024-11-20

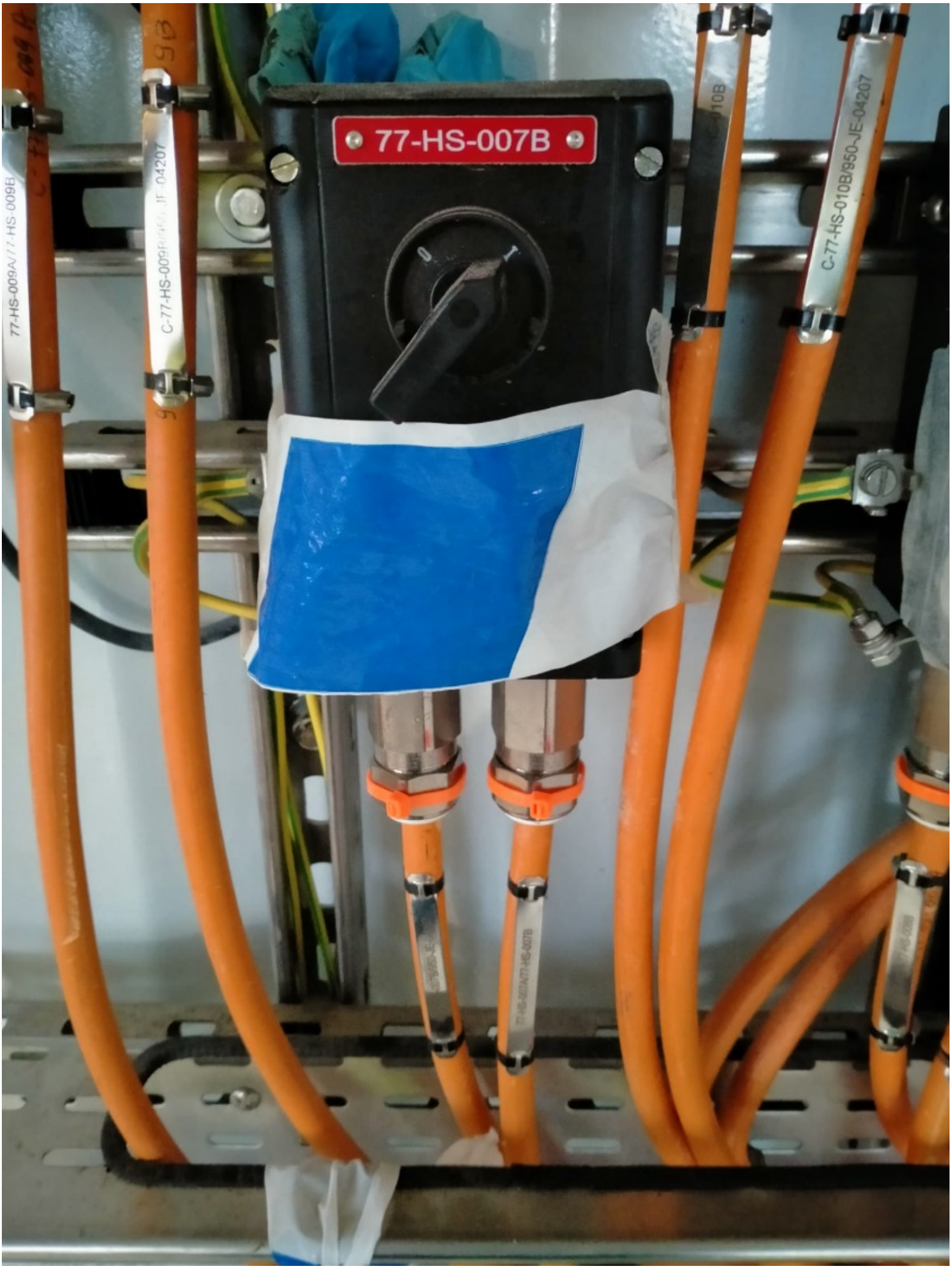
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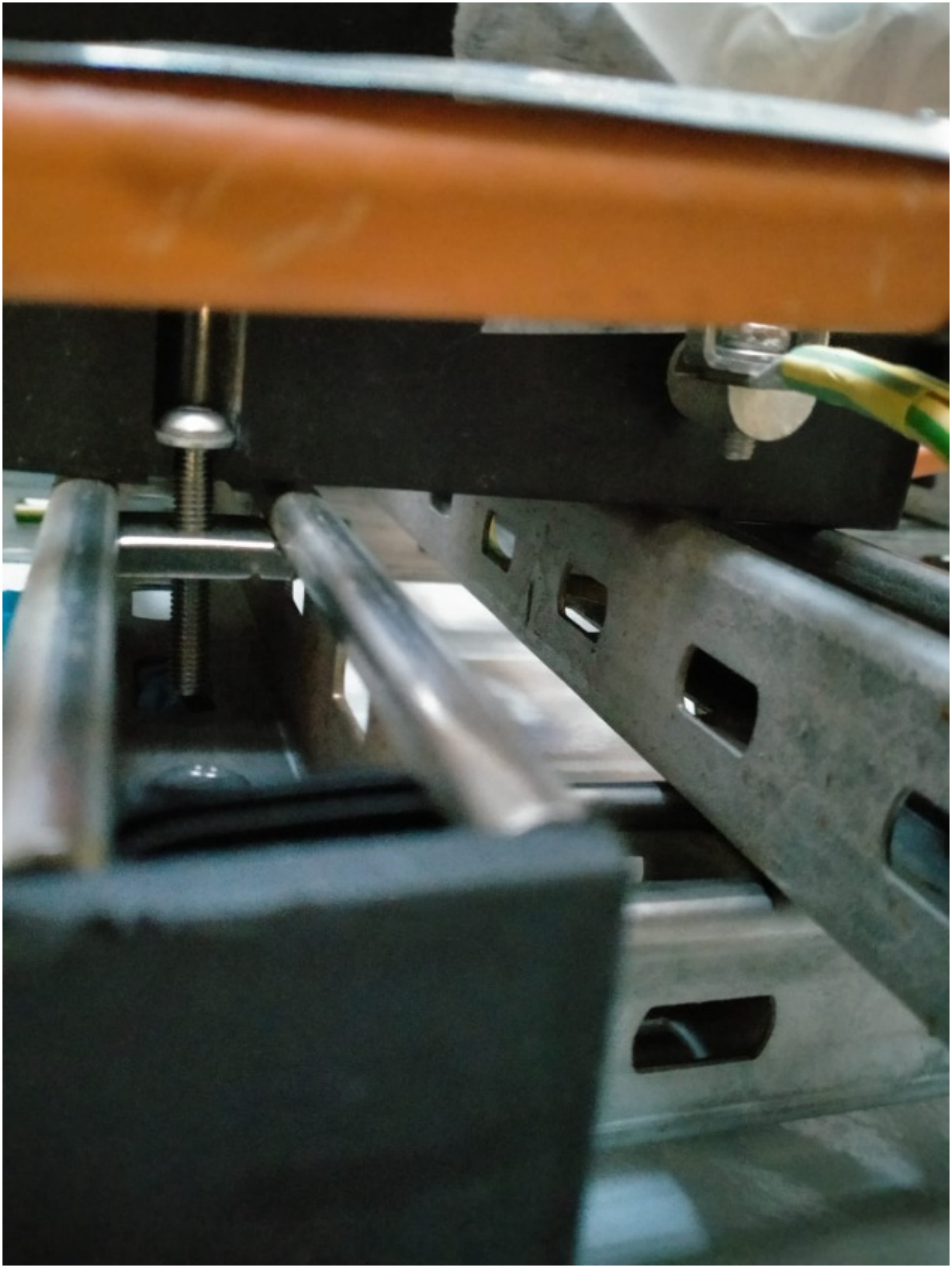
6- CLEARANCE APPROVAL

Name

Date

Signature


77-HS-007B
C-77-HS-010B/950-JE-04207





ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000171

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002090	1.4 Discipline	Instrumental
1.2 Item	77-HS-007B		Hand Switch for Fire&Gas Damper HFD-77007
1.3 Subsystem	77-30		HVAC UPS Equipment Room B-300

2 - OBSERVATION

EARTHING BAR SHALL BE CONNECTED TO EARTHING POINT IN N.1 POINT WITH 35sqmm Y/G CABLE

Name: Giovanni Tangianu

Date: 2024-10-15

Signature: Digitaly signed by Giovanni Tangianu 2024-10-15T11:01:28.211Z

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-10-15
3.5 Action by	RM_CONSTR RM	Signature	Digitaly signed by Giovanni Tangianu 2024-10-15T11:02:00.870Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

DONE

Name: Alessio Polo

Date: 2025-01-30

Signature: Digitaly signed by Alessio Polo 2025-01-30T16:28:46.639Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000172

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002090	1.4 Discipline	Instrumental
1.2 Item	77-HS-007B		Hand Switch for Fire&Gas Damper HFD-77007
1.3 Subsystem	77-30		HVAC UPS Equipment Room B-300

2 - OBSERVATION

Elevation of instrument is not in accordance with Layout. Point valid for 77-HS-008B / 77-HS-009B / 77-HS-010B / 77-HS-011B. See attachment

Name: Giovanni Tangianu

Date: 2024-10-15

Signature: Digitaly signed by Giovanni Tangianu 2024-10-15T11:02:17.118Z

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-10-15
3.5 Action by	RM_CONSTR RM	Signature	Digitaly signed by Giovanni Tangianu 2024-10-15T11:02:36.442Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

Done.

Name: Giovanni Tangianu

Date: 2025-03-04

Signature: Digitaly signed by Giovanni Tangianu 2025-03-04T15:51:34.769Z

6- CLEARANCE APPROVAL

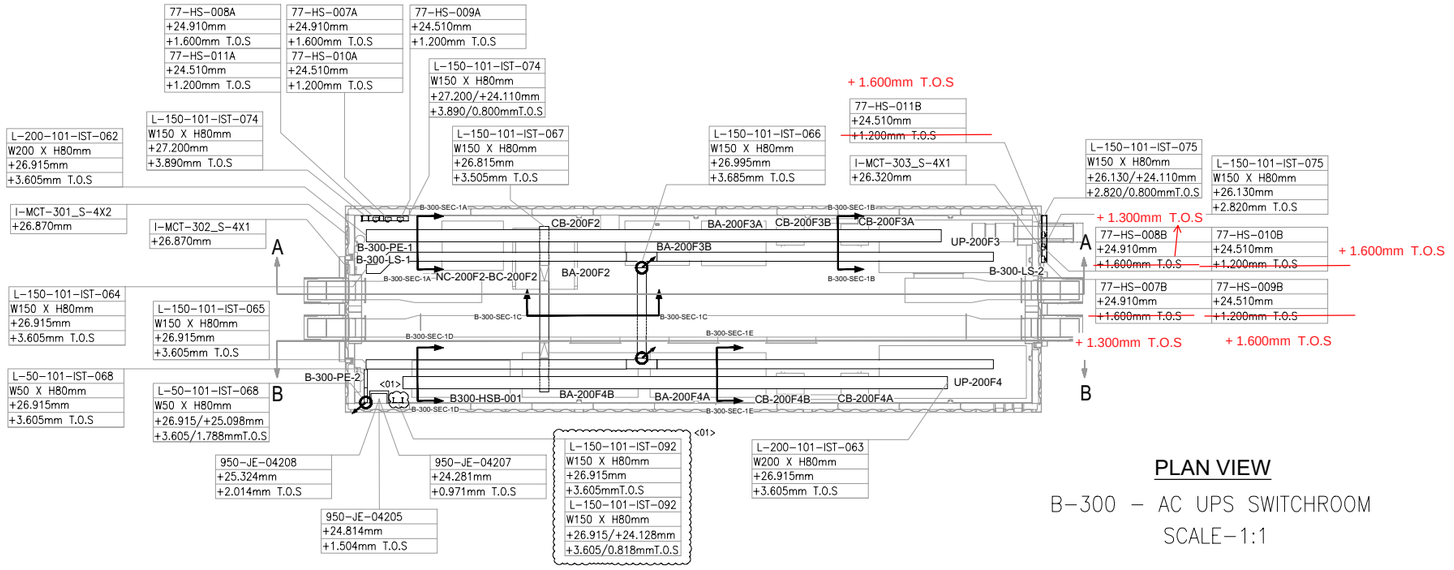
Name

Date

Signature

DRAWING NO. 123A90-DDL-IN-DL-40115

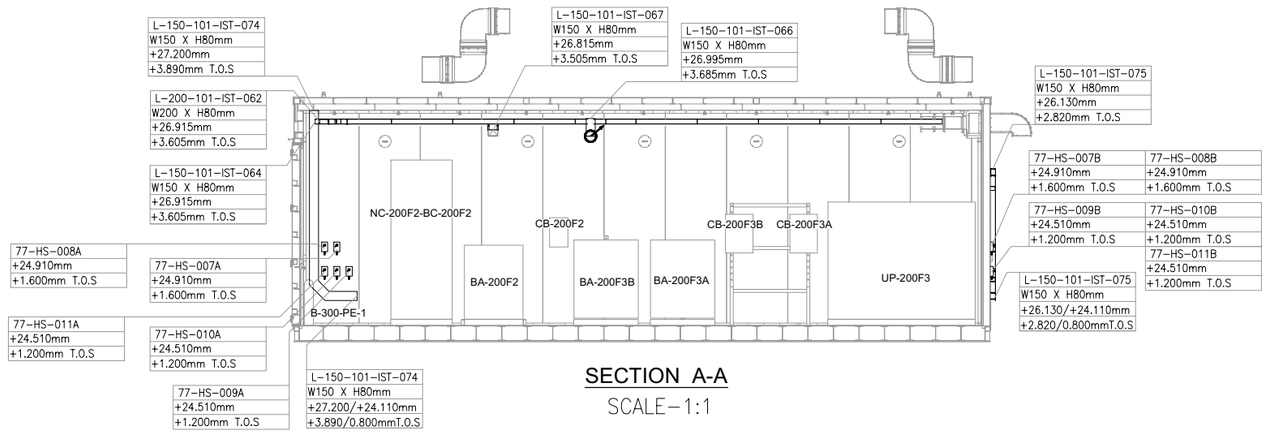
REV. 01



PLAN VIEW

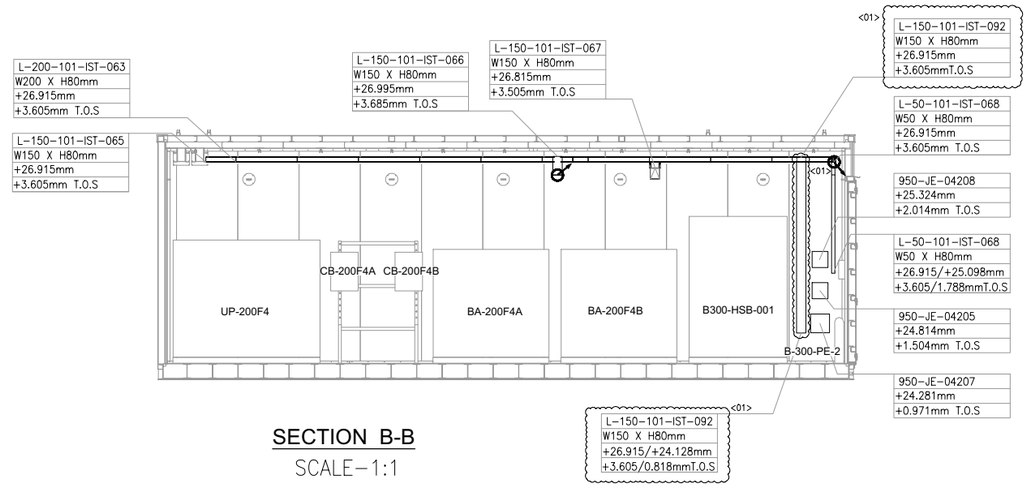
B-300 – AC UPS SWITCHROOM

SCALE-1:1



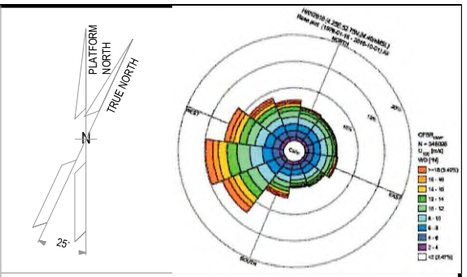
SECTION A-A

SCALE-1:1



SECTION B-B

SCALE-1:1



NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
   S DRAWING IS VALID ONLY FOR CONTAINER CABLE TRAY LAYOUT.

LEGEND

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DL-40115**

REV.:	DATE:	SIGNATURE:
1_A	07/10/24	G.Randi

ROSETTI MARINO SpA

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-IN-DL-40081	INSTRUMENT LAYOUT - UPPER DECK
123A90-DDL-IN-LIS-40091	INSTRUMENT CABLE LIST
123A90-DDL-IN-DG-40015	INSTRUMENT-CCS WIRING DIAGRAMS
123A90-DDL-IN-DG-40016	INSTRUMENT-SAFETY SYSTEM WIRING DIAGRAMS
123A90-DDL-IN-DL-40083	INSTRUMENT MAIN CABLES ROUTING-LOWER DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/08/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)

Base Load Power HUB Cables Tray Layout

B-300 Container Lower Deck – TOS EL. 23.310m

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:50
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 04/10/24
A1	DRAWING NO. 123A90-DDL-IN-DL-40115	SHEET 001	REV. 01

File Name : 123A90-DDL-IN-DL-40115 REV:01.dwg

ROSETTI MARINO CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000173

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000391	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-011A/77-HS-011B	PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-30	HVAC UPS Equipment Room B-300	

2 - OBSERVATION

Missing plastic cable tag on MCT inside B-300

Name: Giovanni Tangianu

Date: 2024-10-15

Signature: Digitaly signed by Giovanni Tangianu 2024-10-15T11:04:29.321Z

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-10-15
3.5 Action by	RM_CONSTR RM	Signature	Digitaly signed by Giovanni Tangianu 2024-10-15T11:04:44.753Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

done

Name: Eleonora Carotenuto

Date: 2024-12-14

Signature: Digitaly signed by Eleonora Carotenuto 2024-12-14T09:48:46.928Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000174

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000384	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-009B/950-JE-04207	PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-30	HVAC UPS Equipment Room B-300	

2 - OBSERVATION

Missing plastic cable tag on MCT inside B-300

Name: Giovanni Tangianu

Date: 2024-10-15

Signature: Digitaly signed by Giovanni Tangianu 2024-10-15T11:06:21.876Z

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-10-15
3.5 Action by	RM_CONSTR RM	Signature	Digitaly signed by Giovanni Tangianu 2024-10-15T11:06:37.153Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

done

Name: Eleonora Carotenuto

Date: 2024-12-14

Signature: Digitaly signed by Eleonora Carotenuto 2024-12-14T09:49:00.411Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000175

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000385	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-009A/77-HS-009B	PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-30	HVAC UPS Equipment Room B-300	

2 - OBSERVATION

Missing plastic cable tag on MCT inside B-300

Name: Giovanni Tangianu

Date: 2024-10-15

Signature: Digitaly signed by Giovanni Tangianu 2024-10-15T11:07:15.179Z

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-10-15
3.5 Action by	RM_CONSTR RM	Signature	Digitaly signed by Giovanni Tangianu 2024-10-15T11:07:27.291Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

done

Name: Eleonora Carotenuto

Date: 2024-12-14

Signature: Digitaly signed by Eleonora Carotenuto 2024-12-14T09:49:13.660Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000176

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000387	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-010B/950-JE-04207	PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-30	HVAC UPS Equipment Room B-300	

2 - OBSERVATION

Missing plastic cable tag on MCT inside B-300

Name: Giovanni Tangianu

Date: 2024-10-15

Signature: Digitaly signed by Giovanni Tangianu 2024-10-15T11:07:59.723Z

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-10-15
3.5 Action by	RM_CONSTR RM	Signature	Digitaly signed by Giovanni Tangianu 2024-10-15T11:08:17.211Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

done

Name: Eleonora Carotenuto

Date: 2024-12-14

Signature: Digitaly signed by Eleonora Carotenuto 2024-12-14T09:49:24.043Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000177

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000388	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-010A/77-HS-010B	PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-30	HVAC UPS Equipment Room B-300	

2 - OBSERVATION

Missing plastic cable tag on MCT inside B-300

Name: Giovanni Tangianu

Date: 2024-10-15

Signature: Digitaly signed by Giovanni Tangianu 2024-10-15T11:08:42.058Z

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-10-15
3.5 Action by	RM_CONSTR RM	Signature	Digitaly signed by Giovanni Tangianu 2024-10-15T11:08:55.971Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

done

Name: Eleonora Carotenuto

Date: 2024-12-14

Signature: Digitaly signed by Eleonora Carotenuto 2024-12-14T09:49:35.564Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000178

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000390	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-011B/950-JE-04207	PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-30	HVAC UPS Equipment Room B-300	

2 - OBSERVATION

Missing plastic cable tag on MCT inside B-300

Name: Giovanni Tangianu

Date: 2024-10-15

Signature: Digitaly signed by Giovanni Tangianu 2024-10-15T11:09:18.272Z

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-10-15
3.5 Action by	RM_CONSTR RM	Signature	Digitaly signed by Giovanni Tangianu 2024-10-15T11:09:34.259Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

done

Name: Eleonora Carotenuto

Date: 2024-12-14

Signature: Digitaly signed by Eleonora Carotenuto 2024-12-14T09:49:46.588Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000516

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	B-300		Shelter AC UPS Fitted with UPS System Equipment Room B-300
1.3 Subsystem	77-30		HVAC UPS Equipment Room B-300

2 - OBSERVATION

Confirm with the compressor manufacturer whether starting the compressor without preheating the oil could cause damage (HHS-77-304)

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal	based on the manufacturer's response, either take no action or ensure the electric heater is powered by a UPS. If electric heaters are needed, check the feasibility of supplying an amperometric transformere to monitor their absorbed currents		
3.2 Material required			
3.3 Priority	A PL A	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-10-30
3.5 Action by	VND Vendor	Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

Probe installed. Compressor has been insulated. Temperature setting 20°C as per Manufacturer instructions.

Name: Vendor Crosswind

Date: 2025-02-22

Signature: Digitaly signed by ALEX SISTEMI 2025-02-22T07:33:33.423Z

5 - CLEARANCE CHECK

Name: Stefano Linari

Date: 2025-02-22

Signature: Digitaly signed by Stefano Linari 2025-02-22T07:33:41.529Z

6- CLEARANCE APPROVAL

Name

Date: 2025-02-22

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000517

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	B-300		Shelter AC UPS Fitted with UPS System Equipment Room B-300
1.3 Subsystem	77-30		HVAC UPS Equipment Room B-300

2 - OBSERVATION

Confirm with the compressor manufacturer whether starting the compressor without preheating the oil could cause damage (HHS-77-308)

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal	based on the manufacturer's response, either take no action or ensure the electric heater is powered by a UPS. If electric heaters are needed, check the feasibility of supplying an amperometric transformere to monitor their absorbed currents		
3.2 Material required			
3.3 Priority	A PL A	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-10-30
3.5 Action by	VND Vendor	Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

Probe installed. Compressor has been insulated. Temperature setting 20°C as per Manufacturer instructions.

Name: Vendor Crosswind

Date: 2025-02-22

Signature: PROVERLIS Digitaly signed by ALEX SISTEMI 2025-02-22T07:34:09.407Z

5 - CLEARANCE CHECK

Name: Stefano Linari

Date: 2025-02-22

Signature: PROVERLIS Digitaly signed by Stefano Linari 2025-02-22T07:34:15.808Z

6- CLEARANCE APPROVAL

Name

Date: 2025-02-22

Signature

ROSETTI MARINO CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000522

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Electrical

1.2 Item B300-HSB-001

Distribution & HVAC Panel - Shelter AC UPS Fitted with UPS System Equipment Room

1.3 Subsystem 77-30

HVAC UPS Equipment Room B-300

2 - OBSERVATION

Heat shrinks for grounding inside HVAC panel installed of black color instead of yellow-green color as earthing cable itself

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal: Heat shrink tubing to be replaced of yellow-green color type as earthing cable.

3.2 Material required

3.3 Priority: B PL B

3.4 Activity code: FAT factory acceptance test

3.5 Action by: VND Vendor

Name: Stefano Linari

Date: 2024-10-30

Signature: --- Proverlis ---
Duplicata issued from database information
Signature is on original form

4 - PERFORMED ACTION

accepted

Name: Vendor Crosswind

Date: 2025-02-25

Signature: Digitaly signed by ALEX SISTEMI 2025-02-25T15:21:10.979Z

5 - CLEARANCE CHECK

Name: Stefano Linari

Date: 2025-02-25

Signature: Digitaly signed by Stefano Linari 2025-02-25T15:21:20.884Z

6- CLEARANCE APPROVAL

Name

Date: 2025-02-25

Signature

ROSETTI MARINO CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000526

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Electrical

1.2 Item B300-HSB-001

Distribution & HVAC Panel - Shelter AC UPS Fitted with UPS System Equipment Room

1.3 Subsystem 77-30

HVAC UPS Equipment Room B-300

2 - OBSERVATION

Add an auxiliary IP address in addition to those already provided for each CPU, to allow communication and signals exchange between HVAC PLCs and PCS system via modbus also in case of shutdown of a single CPU. Currently, if a CPU goes offline, Modbus communication is interrupted as switching to the standby CPU is not possible; the PCS system can communicate with only one IP address per HVAC panel board.

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal: Update software on all PLCs to enable switching to the standby CPU without losing the necessary communications

3.2 Material required

3.3 Priority: B PL B

3.4 Activity code: FAT factory acceptance test

3.5 Action by: VND Vendor

Name: Stefano Linari

Date: 2024-10-30

Signature: --- Proverlis ---
Duplicata issued from database information
Signature is on original form

4 - PERFORMED ACTION

Implemented

Name: Vendor Crosswind

Date: 2025-02-20

Signature: Digitaly signed by ALEX SISTEMI 2025-02-20T15:44:20.385Z

5 - CLEARANCE CHECK

Name: Stefano Linari

Date: 2025-02-20

Signature: Digitaly signed by Stefano Linari 2025-02-20T15:44:30.106Z

6- CLEARANCE APPROVAL

Name

Date: 2025-02-20

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000530

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Electrical

1.2 Item B300-HSB-001

Distribution & HVAC Panel - Shelter AC UPS Fitted with UPS System Equipment Room

1.3 Subsystem 77-30

HVAC UPS Equipment Room B-300

2 - OBSERVATION

Install Ethernet port locks on HVAC panels to prevent access by external devices without an authorized permit, as requested by the cybersecurity team.

Name

Date

Signature

3 - DEFECT ASSESSMENT

Add ethernet port locks to allHVAC panel boards

3.1 Corrective action proposal

3.2 Material required

3.3 Priority A PL A

Name Stefano Linari

3.4 Activity code FAT factory acceptance test

Date 2024-10-30

3.5 Action by VND Vendor

Signature --- Proverlis ---
Duplicata issued from database information
Signature is on original form

4 - PERFORMED ACTION

installed

Name Vendor Crosswind

Date 2025-02-22

Signature Digitaly signed by ALEX SISTEMI 2025-02-22T07:37:06.169Z

5 - CLEARANCE CHECK

Name Stefano Linari

Date 2025-02-22

Signature Digitaly signed by Stefano Linari 2025-02-22T07:37:11.748Z

6- CLEARANCE APPROVAL

Name

Date 2025-02-22

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000534

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Electrical

1.2 Item B300-HSB-001

Distribution & HVAC Panel - Shelter AC UPS Fitted with UPS System Equipment Room

1.3 Subsystem 77-30

HVAC UPS Equipment Room B-300

2 - OBSERVATION

The modbus I/O list have been updated during SAT, due to changes needed. During SAT activities several signals have not been checked.

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal: Revise and issue on fusion live the HVAC I/O list documents for each HVAC panel. Before commissioning activities, all signals shall be tested one by one at Rosetti yard.

3.2 Material required

3.3 Priority: A PL A

3.4 Activity code: FAT factory acceptance test

3.5 Action by: VND Vendor

Name: Stefano Linari

Date: 2024-10-30

Signature: --- Proverlis ---
Duplicata issued from database information
Signature is on original form

4 - PERFORMED ACTION

Check 100% of signals with Yokogawa. Communication work

Name: Vendor Crosswind

Date: 2025-02-22

Signature: Digitaly signed by ALEX SISTEMI 2025-02-22T07:49:33.213Z

5 - CLEARANCE CHECK

Name: Stefano Linari

Date: 2025-02-22

Signature: Digitaly signed by Stefano Linari 2025-02-22T07:49:38.517Z

6- CLEARANCE APPROVAL

Name

Date: 2025-02-22

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000538

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Electrical

1.2 Item B300-HSB-001

Distribution & HVAC Panel - Shelter AC UPS Fitted with UPS System Equipment Room

1.3 Subsystem 77-30

HVAC UPS Equipment Room B-300

2 - OBSERVATION

Verify for each HVAC panel a perfect correspondence between tag reported on P&IDs and HMIs. During SAT some TAGs were bot matching.

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal: Update and issue final P&IDs on fusion live and update PLC software to hace a perfect match between P&IDs and HMIs.

3.2 Material required

3.3 Priority: B PL B

3.4 Activity code: FAT factory acceptance test

3.5 Action by: VND Vendor

Name: Stefano Linari

Date: 2024-10-30

Signature: --- Proverlis ---
Duplicata issued from database information
Signature is on original form

4 - PERFORMED ACTION

Implemented

Name: Vendor Crosswind

Date: 2025-02-25

Signature: PROVERLIS Digitaly signed by ALEX SISTEMI 2025-02-25T10:06:35.917Z

5 - CLEARANCE CHECK

Name: Stefano Linari

Date: 2025-02-25

Signature: PROVERLIS Digitaly signed by Stefano Linari 2025-02-25T10:06:42.478Z

6- CLEARANCE APPROVAL

Name

Date: 2025-02-25

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000542

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	B-300		Shelter AC UPS Fitted with UPS System Equipment Room B-300
1.3 Subsystem	77-30		HVAC UPS Equipment Room B-300

2 - OBSERVATION

During SAT drainage pipes were not completely installed, incluede heat tracing and related connection to JB.

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal	The work described has to be concluded. During commissioning heat tracing will be tested		
3.2 Material required			
3.3 Priority	B PL B	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-10-30
3.5 Action by	VND Vendor	Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

Verified

Name Vendor Crosswind

Date 2025-02-20

Signature Digitaly signed by ALEX SISTEMI 2025-02-20T15:47:12.989Z

5 - CLEARANCE CHECK

Name Stefano Linari

Date 2025-02-20

Signature Digitaly signed by Stefano Linari 2025-02-20T15:47:26.884Z

6- CLEARANCE APPROVAL

Name

Date 2025-02-20

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000546

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	B-300		Shelter AC UPS Fitted with UPS System Equipment Room B-300
1.3 Subsystem	77-30		HVAC UPS Equipment Room B-300

2 - OBSERVATION

None pressure relief damper HDR-77-301 work properly as per design conditions. They remain closed even thogh inside the shelters more then 50 Pa have been measured during SAT through the differential pressure transmitters (with fans running). SAT was conducted by manually positioning the dampers as they dhould appear when operating correctly (slightly open)

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal	Investigate the malfunction with the manufacturer and take corrctive actions to adjust or replace the pressure relief request.		
3.2 Material required			
3.3 Priority	B PL B	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-10-30
3.5 Action by	VND Vendor	Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

It Work. Has been manually setted.

Name Vendor Crosswind

Date 2025-02-22

Signature Digitaly signed by ALEX SISTEMI 2025-02-22T07:50:11.077Z

5 - CLEARANCE CHECK

Name Stefano Linari

Date 2025-02-22

Signature Digitaly signed by Stefano Linari 2025-02-22T07:50:16.269Z

6- CLEARANCE APPROVAL

Name

Date 2025-02-22

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000550

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Mechanical

1.2 Item B300-HSB-001

Distribution & HVAC Panel - Shelter AC UPS Fitted with UPS System Equipment Room

1.3 Subsystem 77-30

HVAC UPS Equipment Room B-300

2 - OBSERVATION

Make temperature and differental pressure trends visible on all HMIs

Name

Date

Signature

3 - DEFECT ASSESSMENT

Update PLC software to apply the request

3.1 Corrective action proposal

3.2 Material required

3.3 Priority A PL A

3.4 Activity code FAT factory acceptance test

3.5 Action by VND Vendor

Name Stefano Linari

Date 2024-10-30

Signature --- Proverlis ---
Duplicata issued from database information
Signature is on original form

4 - PERFORMED ACTION

Implemented by Vendor

Name Vendor Crosswind

Date 2025-02-20

Signature Digitaly signed by ALEX SISTEMI 2025-02-20T15:49:41.684Z

5 - CLEARANCE CHECK

Name Stefano Linari

Date 2025-02-20

Signature Digitaly signed by Stefano Linari 2025-02-20T15:49:49.340Z

6- CLEARANCE APPROVAL

Name

Date 2025-02-20

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000620

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002037	1.4 Discipline	Instrumental
1.2 Item	B300-HSB-001/B400-FGS-003	B-300 HVAC Control Panel / MARSHALLING PCS	
1.3 Subsystem	77-30	HVAC UPS Equipment Room B-300	

2 - OBSERVATION

Missing the tag plastic project on the cable , cabinet side B400-FGS-002

Name: Alessio Polo

Date: 2024-11-19

Signature: Digitaly signed by Alessio Polo 2024-11-19T17:31:43.280Z

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2024-11-19
3.5 Action by	RM_CONSTR RM	Signature	Digitaly signed by Alessio Polo 2024-11-19T17:31:59.610Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

Installed.

Name: Giovanni Tangianu

Date: 2025-01-03

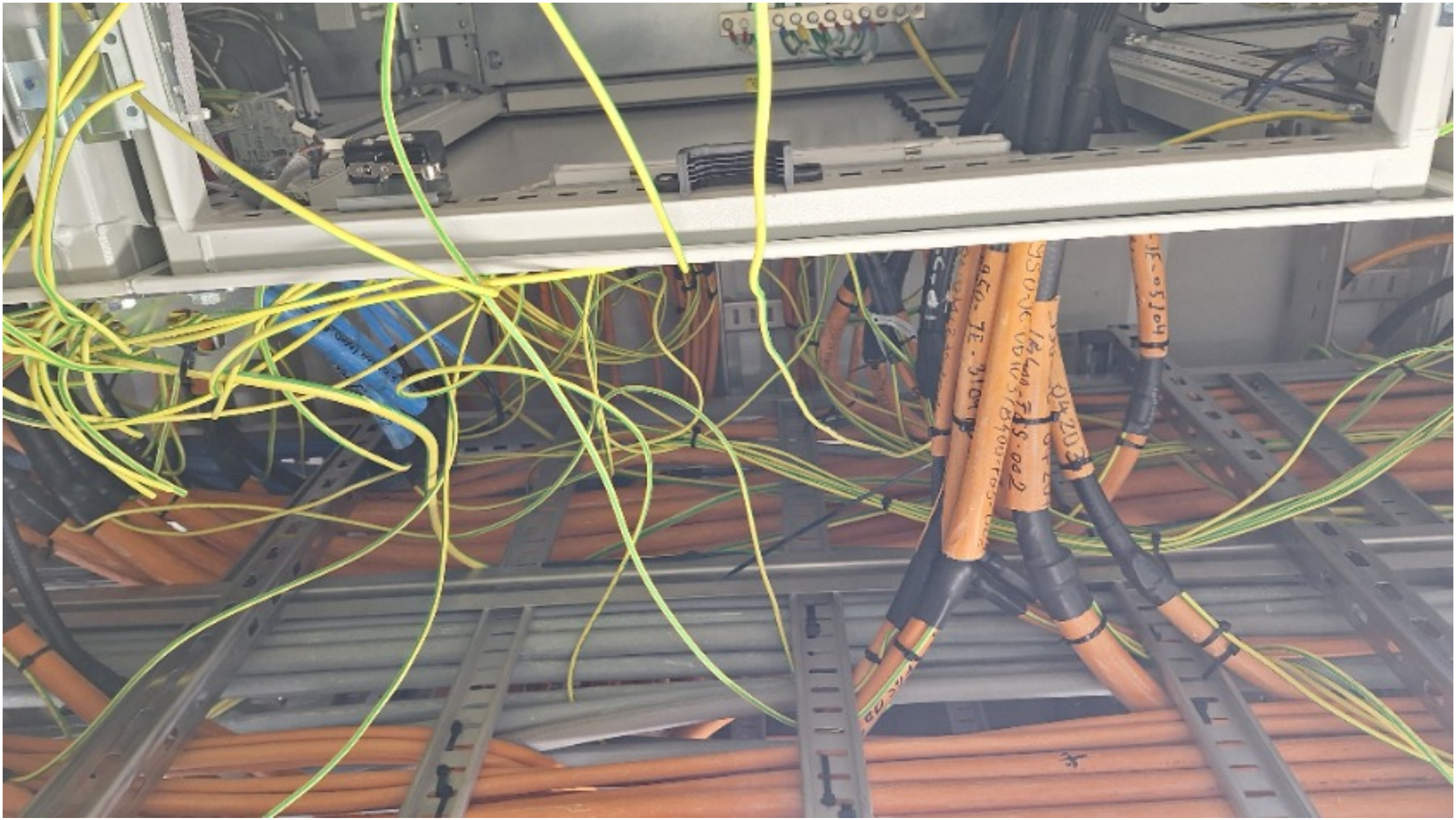
Signature: Digitaly signed by Giovanni Tangianu 2025-01-03T15:06:15.996Z

6- CLEARANCE APPROVAL

Name

Date

Signature



ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000621

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002037	1.4 Discipline	Instrumental
1.2 Item	B300-HSB-001/B400-FGS-003	B-300 HVAC Control Panel / MARSHALLING PCS	
1.3 Subsystem	77-30	HVAC UPS Equipment Room B-300	

2 - OBSERVATION

the philosophy of cross-ferruling are wrong cabinet side B400-FGS-002 . (see document 123A90-DDL-IN-DG-40016 sh.3)

Name: Alessio Polo

Date: 2024-11-19

Signature: Digitaly signed by Alessio Polo 2024-11-19T17:43:11.991Z

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2024-11-19
3.5 Action by	RM_CONSTR RM	Signature	Digitaly signed by Alessio Polo 2024-11-19T17:43:28.861Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

DONE

Name: Josip Krizanic

Date: 2025-02-21

Signature: Digitaly signed by Josip Krizanic 2025-02-21T08:34:51.749Z

6- CLEARANCE APPROVAL

Name

Date

Signature

TB-B300-HSB-001
TB-B400-HSB-001

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000622

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002037	1.4 Discipline	Instrumental
1.2 Item	B300-HSB-001/B400-FGS-003	B-300 HVAC Control Panel / MARSHALLING PCS	
1.3 Subsystem	77-30	HVAC UPS Equipment Room B-300	

2 - OBSERVATION

The final destination of Thermo-shrink on the Shield to be done properly.

Name: Alessio Polo

Date: 2024-11-19

Signature: Digitaly signed by Alessio Polo 2024-11-19T17:48:39.500Z

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2024-11-19
3.5 Action by	RM_CONSTR RM	Signature	Digitaly signed by Alessio Polo 2024-11-19T17:48:51.972Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

Done.

Name: Giovanni Tangianu

Date: 2025-01-03

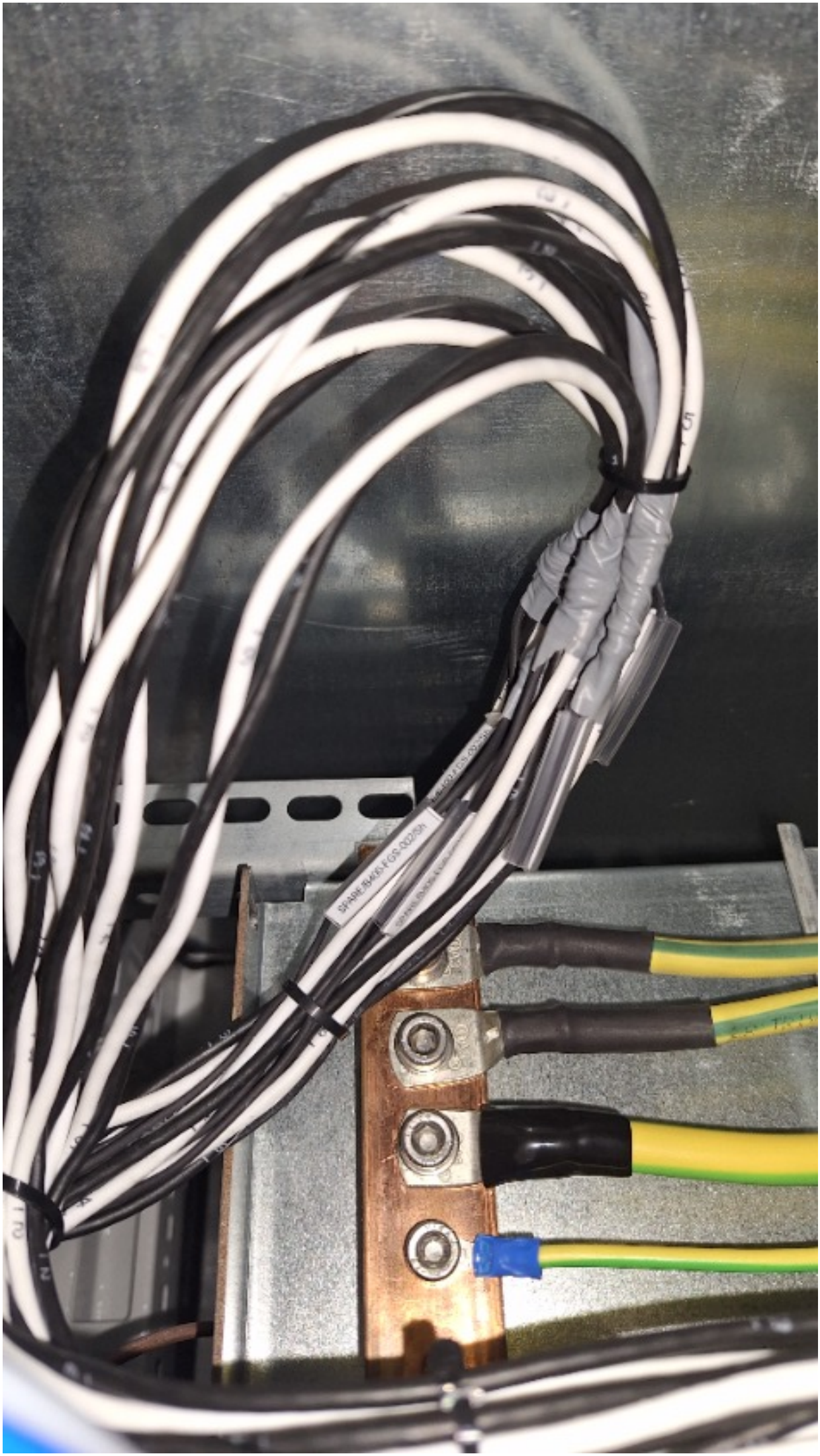
Signature: Digitaly signed by Giovanni Tangianu 2025-01-03T15:07:15.194Z

6- CLEARANCE APPROVAL

Name

Date

Signature



ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000623

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002037	1.4 Discipline	Instrumental
1.2 Item	B300-HSB-001/B400-FGS-003	B-300 HVAC Control Panel / MARSHALLING PCS	
1.3 Subsystem	77-30	HVAC UPS Equipment Room B-300	

2 - OBSERVATION

The plastic fixing ties , on external routing cable , to be replaced with stainless steel.

Name: Alessio Polo

Date: 2024-11-19

Signature: Digitaly signed by Alessio Polo 2024-11-19T17:49:41.456Z

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2024-11-19
3.5 Action by	RM_CONSTR RM	Signature	Digitaly signed by Alessio Polo 2024-11-19T17:49:54.428Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

DONE

Name: Paolo Schintu

Date: 2025-02-26

Signature: Digitaly signed by Paolo Schintu 2025-02-26T12:56:04.513Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000624

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002037	1.4 Discipline	Instrumental
1.2 Item	B300-HSB-001/B400-FGS-003	B-300 HVAC Control Panel / MARSHALLING PCS	
1.3 Subsystem	77-30	HVAC UPS Equipment Room B-300	

2 - OBSERVATION

Bending radius is not within the specified limits. (stress on the input cable Panel B300-HSB-001)

Name: Alessio Polo

Date: 2024-11-20

Signature: Digitaly signed by Alessio Polo 2024-11-20T07:38:44.750Z

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2024-11-20
3.5 Action by	RM_CONSTR RM	Signature	Digitaly signed by Alessio Polo 2024-11-20T07:38:59.702Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

Done.

Name: Giovanni Tangianu

Date: 2025-01-03

Signature: Digitaly signed by Giovanni Tangianu 2025-01-03T15:07:40.814Z

6- CLEARANCE APPROVAL

Name

Date

Signature



ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000684

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000380	1.4 Discipline	Instrumental
1.2 Item	C-77-HY-007/77-HS-007A	FIRE DAMPER / MARSHALLING PCS	
1.3 Subsystem	77-30	HVAC UPS Equipment Room B-300	

2 - OBSERVATION

Identification tag wire missing inside C-77-HY-007 connection.

Name: Giovanni Tangianu

Date: 2024-11-21

Signature: Digitaly signed by Giovanni Tangianu 2024-11-21T08:16:08.437Z

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-11-21
3.5 Action by	RM_CONSTR RM	Signature	Digitaly signed by Giovanni Tangianu 2024-11-21T08:16:24.237Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

Installed.

Name: Giovanni Tangianu

Date: 2024-12-17

Signature: Digitaly signed by Giovanni Tangianu 2024-12-17T14:10:42.660Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000685

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000386	1.4 Discipline	Instrumental
1.2 Item	C-77-HY-009/77-HS-009A	FIRE DAMPER / MARSHALLING PCS	
1.3 Subsystem	77-30	HVAC UPS Equipment Room B-300	

2 - OBSERVATION

Identification tag wire missing inside C-77-HY-009 connection.

Name: Giovanni Tangianu

Date: 2024-11-21

Signature: Digitaly signed by Giovanni Tangianu 2024-11-21T08:36:26.680Z

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-11-21
3.5 Action by	RM_CONSTR RM	Signature	Digitaly signed by Giovanni Tangianu 2024-11-21T08:36:39.907Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

Installed.

Name: Giovanni Tangianu

Date: 2024-12-17

Signature: Digitaly signed by Giovanni Tangianu 2024-12-17T14:10:52.636Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000691

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000383	1.4 Discipline	Instrumental
1.2 Item	C-77-HY-008/77-HS-008A	FIRE DAMPER / MARSHALLING PCS	
1.3 Subsystem	77-30	HVAC UPS Equipment Room B-300	

2 - OBSERVATION

Vendor HVAC Documentation (1724000049-HV-DA-00066_Rev.1) is not alligned with GA and P&I (1724000049-AR-DA-00016_Rev.4 / 123A90-1724000049-HV-PID-00041_Rev.2) used for HS and Damper installation and MC inspection. Vendor to confirm if HVAC Documentation needs to be update in compliance with Items installation.

Name: Giovanni Tangianu

Date: 2024-11-21

Signature: Digitaly signed by Giovanni Tangianu 2024-11-21T09:57:08.652Z

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-11-21
3.5 Action by	VND Vendor	Signature	Digitaly signed by Giovanni Tangianu 2024-11-21T09:57:28.313Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

Documentation re-issued and aligned to installation

Name: Eleonora Carotenuto

Date: 2025-02-15

Signature: Digitaly signed by Eleonora Carotenuto 2025-02-15T08:46:01.497Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000788

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10004355	1.4 Discipline	Telecom
1.2 Item	B300-HSB-001/B400-NET-001	COMMUNICATION / NETWORK CABINET	
1.3 Subsystem	77-30	HVAC UPS Equipment Room B-300	

2 - OBSERVATION

Identification tag wires missing both side the B100-HSB-001/B400-NET-001 connections.

Name: Giovanni Tangianu

Date: 2024-11-22

Signature: Digitaly signed by Giovanni Tangianu 2024-11-22T16:11:03.660Z

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-11-22
3.5 Action by	RM_CONSTR RM	Signature	Digitaly signed by Giovanni Tangianu 2024-11-22T16:11:16.545Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

Installed.

Name: Giovanni Tangianu

Date: 2025-03-03

Signature: Digitaly signed by Giovanni Tangianu 2025-03-03T10:45:31.785Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000889

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000182	1.4 Discipline	Instrumental
1.2 Item	C-77-XS-003/B400-SIS-001	TRIP SIGNAL TO UCP / MARSHALLING PCS	
1.3 Subsystem	77-30	HVAC UPS Equipment Room B-300	

2 - OBSERVATION

Missing cable tag , cabinet input B400-SIS-001

Name: Alessio Polo

Date: 2024-11-25

Signature: Digitaly signed by Alessio Polo 2024-11-25T17:07:36.391Z

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2024-11-25
3.5 Action by	RM_CONSTR RM	Signature	Digitaly signed by Alessio Polo 2024-11-25T17:07:46.366Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

Installed.

Name: Giovanni Tangianu

Date: 2025-01-03

Signature: Digitaly signed by Giovanni Tangianu 2025-01-03T15:12:13.433Z

6- CLEARANCE APPROVAL

Name

Date

Signature



ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000890

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000182	1.4 Discipline	Instrumental
1.2 Item	C-77-XS-003/B400-SIS-001	TRIP SIGNAL TO UCP / MARSHALLING PCS	
1.3 Subsystem	77-30	HVAC UPS Equipment Room B-300	

2 - OBSERVATION

the philosophy of cross-ferruling are wrong cabinet side B400-SIS-001 / B-300 HVAC . (see document 123A90-DDL-IN-DG-40016 sh.3)

Name: Alessio Polo

Date: 2024-11-25

Signature: Digitaly signed by Alessio Polo 2024-11-25T17:09:44.235Z

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2024-11-25
3.5 Action by	RM_CONSTR RM	Signature	Digitaly signed by Alessio Polo 2024-11-25T17:09:54.625Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

DONE

Name: Josip Krizanic

Date: 2025-03-11

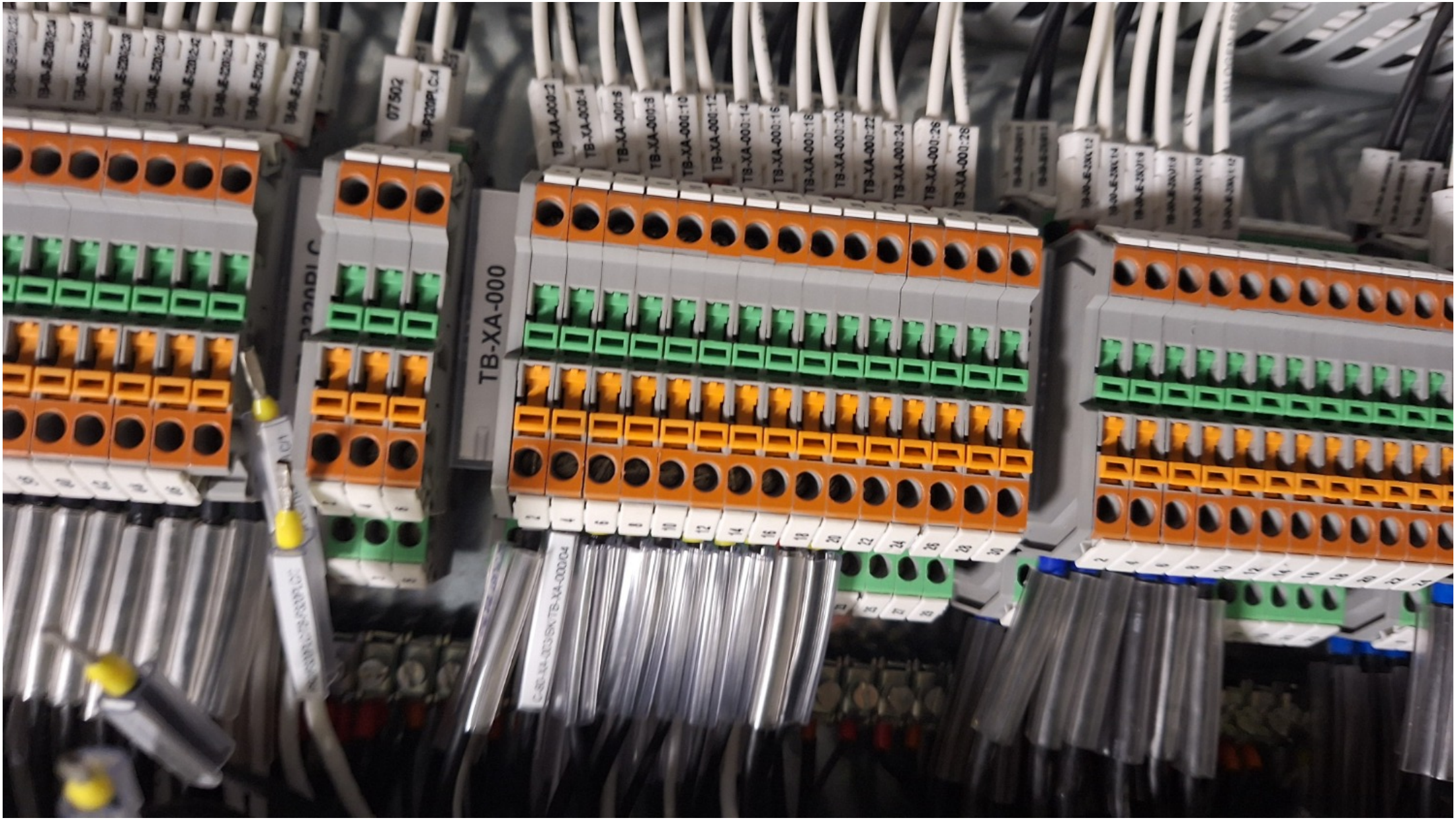
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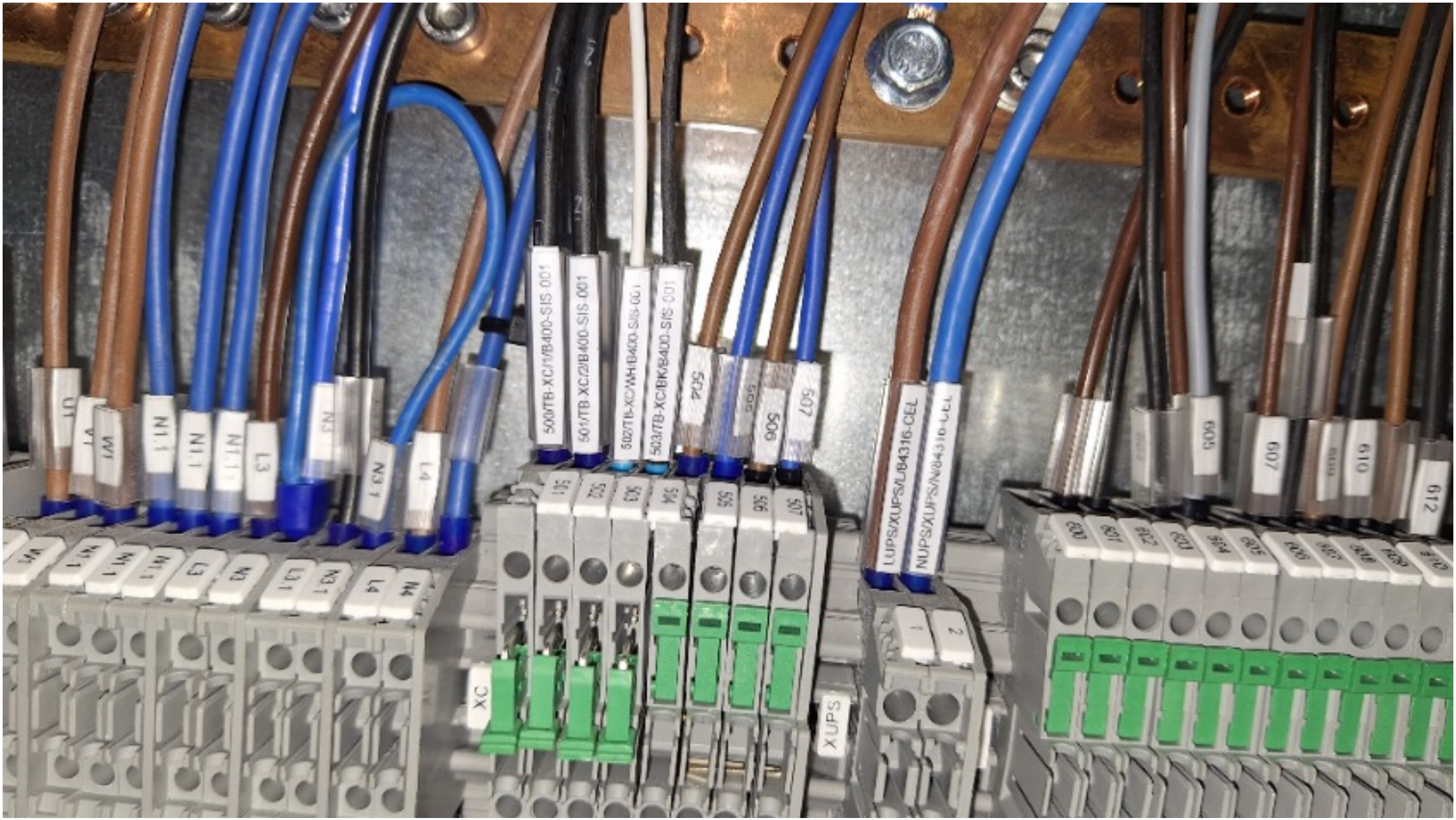
6- CLEARANCE APPROVAL

Name

Date

Signature


TB-XA-000


500/TB-XC/1/B400-SIS-001
501/TB-XC/2/B400-SIS-001
502/TB-XC/WH/B400-SIS-001
503/TB-XC/BK/B400-SIS-001
LUPS/XUPS/UB4316-CEL
NUPS/XUPS/NB4316-CEL
XC
XUPS

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000891

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000182	1.4 Discipline	Instrumental
1.2 Item	C-77-XS-003/B400-SIS-001	TRIP SIGNAL TO UCP / MARSHALLING PCS	
1.3 Subsystem	77-30	HVAC UPS Equipment Room B-300	

2 - OBSERVATION

Double shield connected to one terminal on shield bar. this point is valid also for cabinet side B400-SIS-001

Name: Alessio Polo

Date: 2024-11-25

Signature: Digitaly signed by Alessio Polo 2024-11-25T17:10:36.295Z

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2024-11-25
3.5 Action by	RM_CONSTR RM	Signature	Digitaly signed by Alessio Polo 2024-11-25T17:10:45.423Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

DONE

Name: Andrea Andreani

Date: 2025-02-28

Signature: Digitaly signed by Andrea Andreani 2025-02-28T12:23:08.095Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000905

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000186	1.4 Discipline	Instrumental
1.2 Item	C-77-XA-003/B400-SIS-001	UCP FAULT ALARM / MARSHALLING PCS	
1.3 Subsystem	77-30	HVAC UPS Equipment Room B-300	

2 - OBSERVATION

Missing cable tag , cabinet input B400-SIS-001.

Name: Alessio Polo

Date: 2024-11-25

Signature: Digitaly signed by Alessio Polo 2024-11-25T17:39:39.861Z

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2024-11-25
3.5 Action by	RM_CONSTR RM	Signature	Digitaly signed by Alessio Polo 2024-11-25T17:39:50.300Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

Done.

Name: Giovanni Tangianu

Date: 2025-01-03

Signature: Digitaly signed by Giovanni Tangianu 2025-01-03T15:13:21.394Z

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000907

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000186	1.4 Discipline	Instrumental
1.2 Item	C-77-XA-003/B400-SIS-001	UCP FAULT ALARM / MARSHALLING PCS	
1.3 Subsystem	77-30	HVAC UPS Equipment Room B-300	

2 - OBSERVATION

cable is not as specified in project cable schedule. (is a different gray color than what is shown in the project documentation).

Name: Alessio Polo

Date: 2024-11-25

Signature: Digitaly signed by Alessio Polo 2024-11-25T17:43:45.021Z

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	A PL A	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2024-11-25
3.5 Action by	RM_CONSTR RM	Signature	Digitaly signed by Alessio Polo 2024-11-25T17:43:54.484Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

The cable has been replaced and tested for insulation and continuity check with positive result.

Name: Giovanni Tangianu

Date: 2024-12-05

Signature: Digitaly signed by Giovanni Tangianu 2024-12-05T14:28:51.816Z

6- CLEARANCE APPROVAL

Name

Date

Signature


C-77-XS-003 B400-SIS-001
C-77-XA-003/B400-SIS-001
77304-CEL-L1

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000908

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000186	1.4 Discipline	Instrumental
1.2 Item	C-77-XA-003/B400-SIS-001	UCP FAULT ALARM / MARSHALLING PCS	
1.3 Subsystem	77-30	HVAC UPS Equipment Room B-300	

2 - OBSERVATION

Double shield connected to one terminal on shield bar. this point is valid also for cabinet side B400-SIS-001

Name: Alessio Polo

Date: 2024-11-25

Signature: Digitaly signed by Alessio Polo 2024-11-25T17:44:26.720Z

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2024-11-25
3.5 Action by	RM_CONSTR RM	Signature	Digitaly signed by Alessio Polo 2024-11-25T17:44:38.670Z

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

DONE

Name: Andrea Andreani

Date: 2025-02-28

Signature: Digitaly signed by Andrea Andreani 2025-02-28T12:22:38.178Z

6- CLEARANCE APPROVAL

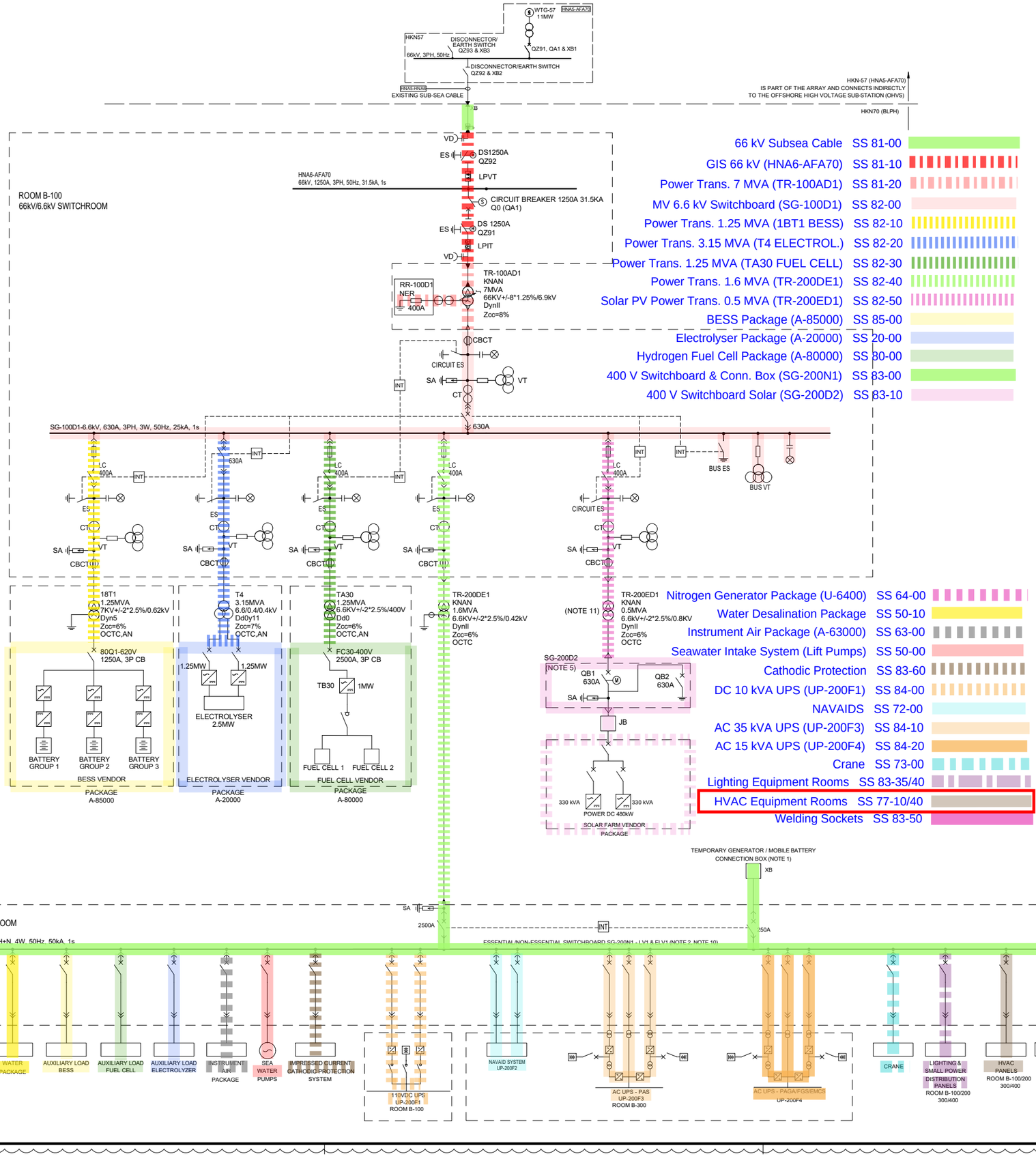
Name

Date

Signature

Section 3 SYSTEM,SUB-SYSTEM LIMIT DRAWINGS

DRAWING NO. 123A90-DDL-EL-DG-20158 REV. 01



SYMBOL LEGEND:

- VOLTAGE DETECTOR
- EARTHING SWITCH DISCONNECTOR
- MOTORIZED EARTHING SWITCH
- CIRCUIT BREAKER
- FUSE
- CONTACTOR
- THREE-PHASE TRANSFORMER WITH TAP CHANGER
- THREE-PHASE TRANSFORMER
- CURRENT TRANSFORMER
- THREE-PHASE TRANSFORMER, WITH THREE WINDINGS
- NEUTRAL EARTHING RESISTOR
- SURGE ARRESTER
- CORE BALANCE CURRENT TRANSFORMER
- SURGE ARRESTOR FOR T-CONNECTOR (N.1 FOR EACH PHASE)
- VOLTAGE & CURRENT TRANSFORMER (3Ø X 2) (LPIT TYPE)
- VOLTAGE TRANSFORMER (3Ø X 2) (LPVT TYPE)
- VOLTAGE TRANSFORMER
- CABLE BOX
- T-CONNECTOR CABLE TERMINATION
- CABLE AIR TERMINATION

OLTC	= ON LOAD TAP CHANGER
OCTC	= OPEN CIRCUIT TAP CHANGER
KNAN	= NON-MINERAL OIL NATURAL AIR COOLED
AN	= AIR NATURAL
XB	= CABLE BOX
QZ	= DISCONNECT SWITCH & EARTH SWITCH
QA	= CIRCUIT BREAKER
LC	= LATCHED FUSED CONTACTOR (400A)
INT	= INTERLOCK SYSTEM
SA	= SURGE ARRESTER
CBCT	= CORE BALANCE CURRENT TRANSFORMER
ES	=EARTHING SWITCH
VD	=VOLTAGE DETECTOR
LCP	=LOCAL CONTROL PANEL
LPVT	=LOW POWER VOLTAGE TRANSFORMER
LPCT	=LOW POWER CURRENT TRANSFORMER
LPIT	=LOW POWER INSTRUMENT TRANSFORMER
JB	=JUNCTION BOX

NOTES:

1. TEMPORARY POWER SUPPLY CONNECTION BOX LOCATED ON OUTSIDE WALL OF LV SWITCHROOM / CONTAINER.
2. LOAD DEFINITION 'ESSENTIAL' / 'NON-ESSENTIAL' IS SHOWN IN THE LOAD LIST. THE CCS, EMCS AND 'SMART' SWITCHGEAR WILL OPEN / CLOSE CIRCUIT BREAKERS AS REQUIRED.
3. A COMBINED CCS/EMCS SYSTEM COMPRISES A MICROPROCESSOR BASED SYSTEM, ASSOCIATED SOFTWARE AND REQUIRED PERIPHERALS FOR MONITORING AND CONTROLLING OF ELECTRICAL POWER NETWORK. ALL ELECTRICAL EQUIPMENT AND PACKAGE UNITS SHALL BE CONNECTED TO THE CENTRAL CONTROL SYSTEM .
4. IMPRESSED CURRENT CATHODIC PROTECTION SYSTEM SUPPLIED BY COMPANY.
5. THE SOLAR FARM IN-FEED POWER CIRCUIT BREAKERS PANEL IS LOCATED INSIDE THE LV SWITCHGEAR ROOM B-200.
6. DELETED.
7. DELETED.
8. DELETED.
9. CROSSWIND SHALL BE ABLE TO CONTROL THE BLPH 66KV MOTORISED CIRCUIT BREAKER Q0 (QA1) & MOTORISED ELECTRICAL DISCONNECTOR / EARTH SWITCH (QZ92, TYPE B) USING THEIR 'HV-SCADA' SYSTEM. THIS BACK-UP / REDUNDANT CONTROL SHALL BE ADDITIONAL TO THAT PROVIDED BY THE CCS AND BE OF HIGHER PRIORITY OVER A SEPARATE FIBRE OPTIC CABLE (FOC). THE CCS OPERATOR AND 'HV-SCADA' SHALL BOTH BE KEPT FULLY AWARE OF EQUIPMENT STATUS AT ALL TIMES. INTERTRIPPING, INHIBITS & INTERLOCKING FOR BLPH 66KV EQUIPMENT SHALL BE AS PER THE WIND FARM.
10. THE LOADS IN THE LOW VOLTAGE SWITCHGEAR AND THE CURRENT VALUES OF THE CIRCUIT BREAKERS ARE ONLY INDICATIVE.
11. NEUTRAL POINT OF TR-200ED1 SHALL NOT BE GROUNDED AS REQUIRED BY SOLAR FARM SUPPLIER IN 123A90-PML-PM-TQ-00040.

REFERENCES:

1. 123A90-DDL-EL-DG-20014 ELECTRICAL CONTROL, PROTECTION AND METERING DIAGRAMS
2. 123A90-DDL-EL-DG-20015 ELECTRICAL SINGLE LINE DIAGRAM 6.6kV SYSTEMS
3. 123A90-DDL-EL-DG-20159 ELECTRICAL SINGLE LINE DIAGRAMS LV SYSTEM
4. 123A90-DDL-EL-DG-20160 ELECTRICAL SINGLE LINE DIAGRAMS AC UPS SYSTEMS
5. 123A90-DDL-EL-DG-20161 ELECTRICAL SINGLE LINE DIAGRAMS DC UPS SYSTEMS
6. 123A90-DDL-EL-DG-20185 ELECTRICAL SINGLE LINE DIAGRAM HV SYSTEMS
7. 123A90-DDL-EL-DL-20104 ELECTRICAL EQUIPMENT LAYOUT - HV SWITCHROOM
8. 123A90-DDL-EL-DL-20105 ELECTRICAL EQUIPMENT LAYOUT - LV SWITCHROOM
9. 123A90-DDL-EL-LIS-20016 ELECTRICAL LOAD LIST and BALANCE -CCS MODE CHARGING-
10. 123A90-DDL-EL-RE-20152 ELECTRICAL EQUIPMENT SIZING CCALCULATION REPORT
11. 123A90-DDL-EL-RE-20170 ELECTRICAL SYSTEM STUDY REPORT - LOAD FLOW
12. 123A90-DDL-EL-RE-20171 ELECTRICAL SYSTEM STUDY REPORT - SHORT CIRCUIT
13. 123A90-DDL-EL-RE-20172 ELECTRICAL SYSTEM STUDY REPORT - ARC FLASH ENERGY CALCULATION
14. 123A90-DDL-EL-RE-20173 ELECTRICAL SYSTEM STUDY REPORT - HARMONICS

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	26/03/2024	GPA	LMA/AMA	LMA/MDO	ISSUE FOR REVIEW (IFR)
00	02/11/2023	DSF	CB/AMA	OYFO/MDO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

OVERALL/KEY SINGLE LINE DIAGRAM

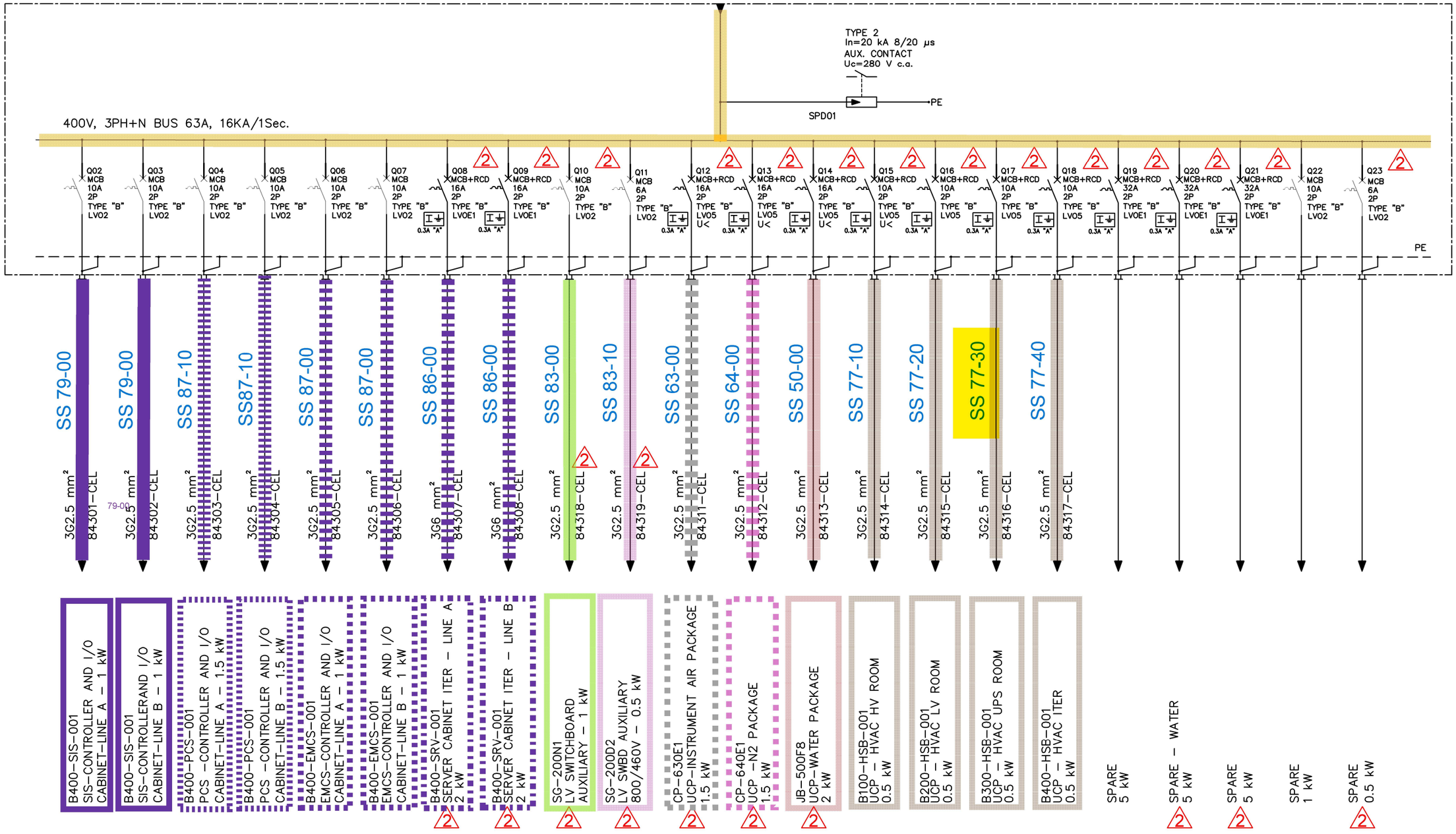
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE N/A
DRAWN GPA	CHECKED LMA/AMA	APPROVED LMA/MDO	DATE 26/03/2023
A1	DRAWING NO. 123A90-DDL-EL-DG-20158	SHEET 001	REV. 01

01

File Name : 123A90-DDL-EL-DG-20158_REV01.dwg

AC UPS – PAS SINGLE LINE DIAGRAM(UP–200F3) DISTRIBUTION BOARD DETAILS

AC UPS DISTRIBUTION BOARD–PAS
DP–200F3



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	27/09/24	SAM	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	12/04/24	SAM	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	14/02/24	SAM	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL SINGLE LINE DIAGRAMS AC UPS SYSTEMS
AC UPS – PAS DISTRIBUTION BOARD SLD (UP–200F3)

CONTRACT NO./TITLE CW–I–WP4–2023–05/HOLLANDSE KUST NOORD WIND PARK

SCALE : 1:X

A3

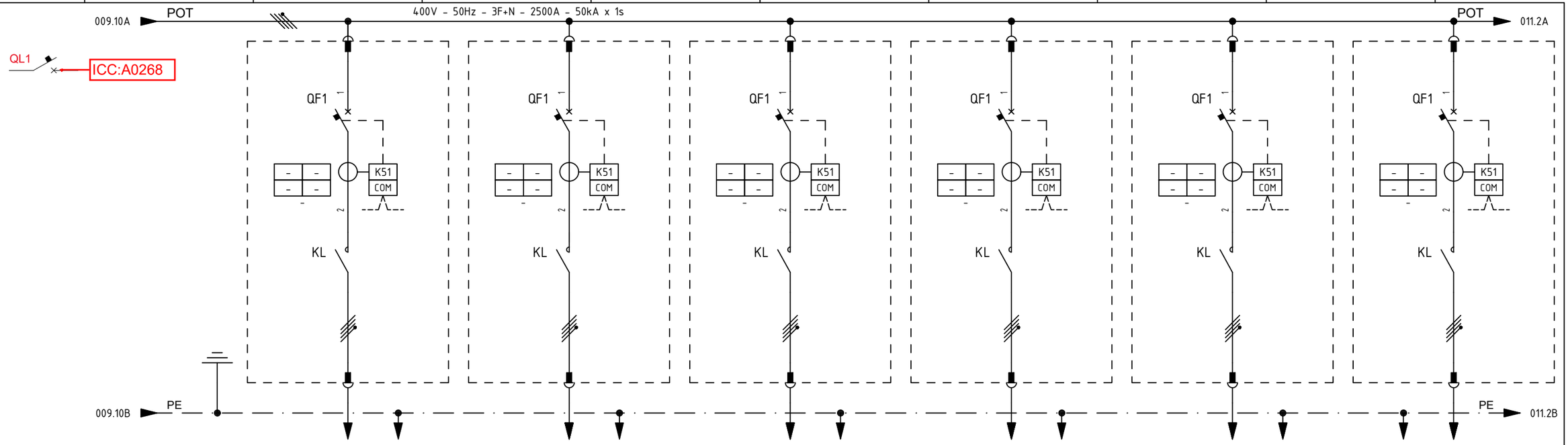
DRAWING NO. 123A90–DDL–EL–DG–20160

SHEET 005

REV. 02

File Name : 123A90–DDL–EL–DG–20160 Rev. 02

F.to UNI A3: 420mmx297mm



ITEM			1	SPARE		B200-HSB-001		B300-HSB-001		B400-HSB-001		CN-200N1		SPARE	
UTILITY			2	SPARE		HVAC PANELS - LV ROOM		HVAC PANELS - UPS ROOM		HVAC PANELS - ITER		IMPRESSED CURR. CATHODIC PROTECTION (ICCP) SYSTEM		SPARE	
COLUMN/CUBICLE			3	A5 / +01		A5 / +02		A5 / +03		A5 / +04		A5 / +05		A5 / +06	
RATED POWER | RATED CURRENT			4/5	15 kW	24.0 A	18 kW	34.1 A	35,75 kW	61 A	35,75 kW	61 A	14 kVA	23.8 A	- kW	- A
TYPICAL FUNCTIONAL			6	LK1-40		LK1-40		LK1-63		LK1-63		LK1-40		LK1-40	
CIRCUIT BREAKER (ABB)	TYPE		7	XT2S - 160		XT2S - 160		XT2S - 160		XT2S - 160		XT2S - 160		XT2S - 160	
	VERSION		8	4P - FIXED		4P - FIXED		4P - FIXED		4P - FIXED		4P - FIXED		4P - FIXED	
	TRIP UNITS		9	EKIP HI TOUCH LSIG (In = 40A)		EKIP HI TOUCH LSIG (In = 40A)		EKIP HI TOUCH LSIG (In = 63A)		EKIP HI TOUCH LSIG (In = 63A)		EKIP HI TOUCH LSIG (In = 40A)		EKIP HI TOUCH LSIG (In = 40A)	
	Icu	KA	10	50 kA		50 kA		50 kA		50 kA		50 kA		50 kA	
OVERLOAD	L	Range A	11	(0.4 - 1) x In		(0.4 - 1) x In		(0.4 - 1) x In		(0.4 - 1) x In		(0.4 - 1) x In		(0.4 - 1) x In	
		Range t	12	k/I^2		k/I^2		k/I^2		k/I^2		k/I^2		k/I^2	
SEL. SHORT-CIRCUIT	S	Range A	13	(0.6 - 10) x In		(0.6 - 10) x In		(0.6 - 10) x In		(0.6 - 10) x In		(0.6 - 10) x In		(0.6 - 10) x In	
		Range t	14	0.05 - 0,4 sec / k/I^2		0.05 - 0,4 sec / k/I^2		0.05 - 0,4 sec / k/I^2		0.05 - 0,4 sec / k/I^2		0.05 - 0,4 sec / k/I^2		0.05 - 0,4 sec / k/I^2	
INST. SHORT-CIRCUIT	I	Range A	15	(1.5 - 15) x In		(1.5 - 15) x In		(1.5 - 15) x In		(1.5 - 15) x In		(1.5 - 15) x In		(1.5 - 15) x In	
		Range t	16	instantaneous		instantaneous		instantaneous		instantaneous		instantaneous		instantaneous	
EARTH FAULT PROTECTION	G	Range A	17	(0.1 - 1) x In		(0.1 - 1) x In		(0.1 - 1) x In		(0.1 - 1) x In		(0.1 - 1) x In		(0.1 - 1) x In	
		Range t	18	t=k / t=k/I^2		t=k / t=k/I^2		t=k / t=k/I^2		t=k / t=k/I^2		t=k / t=k/I^2		t=k / t=k/I^2	
CONTACTOR (ABB)			19	AF40-40-00-13 (70A-AC1); 100-250VAC/DC		AF40-40-00-13 (70A-AC1); 100-250VAC/DC		AF52-40-00-13 (100A-AC1); 100-250VAC/DC		AF52-40-00-13 (100A-AC1); 100-250VAC/DC		AF40-40-00-13 (70A-AC1); 100-250VAC/DC		AF40-40-00-13 (70A-AC1); 100-250VAC/DC	
THERMAL OVERLOAD RELAY (ABB)			20	-		-		-		-		-		-	
SURGE ARRESTER (DEHN)			21	-		-		-		-		-		-	
TOROIDAL CURRENT TRANSFORMER (FRER)			22	-		-		-		-		-		-	
FUSE HOLDER (ITALWEBER)			23	SUBSISTEM 83.00		SUBSISTEM 77.20		SUBSISTEM 77.30		SUBSISTEM 77.40		SUBSISTEM 83.60		SUBSISTEM 83.00	
INDIRECT PROTECTION (ABB)			24												
VOLTMETER			25												
CURRENT TRANSFORMER FOR MEASURE (FRER)	TYPE		26	-		-		-		-		-		-	
	PERFORMANCE/CLASS		27	-		-		-		-		-		-	
VOLTAGE TRANSFORMER FOR MEASURE (FRER)	TYPE		28	-		-		-		-		-		-	
	PERFORMANCE/CLASS		29	-		-		-		-		-		-	
LOCK-OUT RELAY (-)			30	-		-		-		-		-		-	
POWER CONDUCTOR		mmq	31	-		5G16		5G16		5G16		5G16		-	

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
3	08/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
2	03/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
1	28/03/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
0	15/02/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

DWG n° : 231298/SD/11
Item n° : PF1002983/26

TITLE : "SG-200N1"
SINGLE LINE DIAGRAM
Single Line Drawing

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 1723002197-EL-DG-00011 | SHEET 010 | REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00011 Rev. 03

Section 4 MECHANICAL COMPLETION STATUS INDEX - BUILDING DISCIPLINE

NOT APPLICABLE

Section 5 MECHANICAL COMPLETION STATUS INDEX - ELECTRICAL DISCIPLINE

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 77-30 & process: MC & discipline : E

Electrical	77-30 HVAC UPS Equipment Room B-300						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
83025-CEL	LV Switchgear / HVAC panels - UPS Room	ONSHORE	C10000550	CPX09	100	2024-10-07	RFC 2
84316-CEL	AC UPS - PAS DB / UCP - HVAC UPS Room	ONSHORE	C10000592	CPX09	100	2024-11-25	RFC 2
B-300	Shelter AC UPS Fitted with UPS System Equipment Room B-300	ONSHORE	C10002302	CZX01E	100	2024-10-08	RFC 2
B300-HSB-001	Distribution & HVAC Panel - Shelter AC UPS Fitted with UPS System Equipment Room	ONSHORE	C10000837	CPX15	100	2024-10-08	RFC 2

ITEM	Tag	83025-CEL	: LV Switchgear / HVAC panels - UPS Room		Dwg	123A90-DDL-EL-LIS-20148	
	S/Sys	77-30	: HVAC UPS Equipment Room B-300		Module	LD_B-200/LD_B-300	
TASK	code	C10000550	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity CCK	Discipline Electrical	Form	CPX09	LV Power Cable

CABLE DATA

Type: Cu Cl.2/EPR/LSZH | Cores/Size mm²: 5G16 | Color: Grey

From: SG-200N1 | To: B300-HSB-001

1	Confirm cable is as specified in project cable schedule	OK
2	Visual Check cable physical integrity.	OK
3	Check is installed in accordance with layout drawing (segregation, distance…).	OK
4	Check cable is supported and fixed to rack according to project specification.	PL
5	Check bending radius is within the specified limits.	OK
6	Confirm cable glands suit for cable type, correctly mounted and tightened.	OK
7	Check gland plate for single core cables is non ferrous (non -magnetic).	OK
8	Confirm cable labelling is in accordance with specifications.	OK
9	Check cable is correctly loomed and segregated in accordance with specification.	OK
10	Check cable earthing against lastest drawings.	OK
11	Check cores marking are in accordance with termination diagram	PL
12	Check terminations are in accordance with latest termination diagram	OK
13	If required produce Red Line Mark Up for "AS BUILT"	

ROSETTI MARINO | PROVERLIS | CROSSWIND

ITEM	Tag	83025-CEL	: LV Switchgear / HVAC panels - UPS Room		Dwg	123A90-DDL-EL-LIS-20148	
	S/Sys	77-30	: HVAC UPS Equipment Room B-300		Module		
TASK	code	C10000550	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity CCK	Discipline Electrical	Form	CPX09	LV Power Cable

CONTINUITY				
5	CORE CONTINUITY Ω	PH 1	9,3	
6		PH 2	9,9	
7		PH 3	9,2	
8	ARMOUR CONTINUITY Ω		N/A	
9	PROTECTIVE CONDUCTOR CONTINUITY Ω		9,3	
INSULATION				
10	CORES / ARMOUR+EARTH MΩ	PH1 / PH2-PH3-A-E	>1G	
11		PH2 / PH1-PH3-A-E	>1G	
12		PH3 / PH1-PH2-A-E	>1G	
13	CABLE IS CORRECTLY RE-CONNECTED.		Yes	

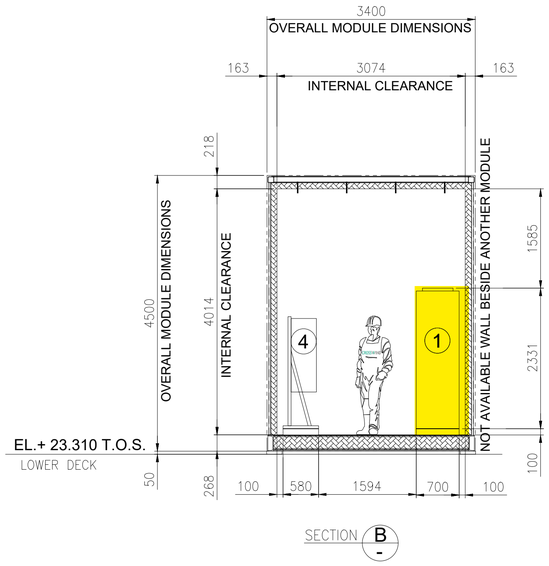
TESTING INSTRUMENTS USED

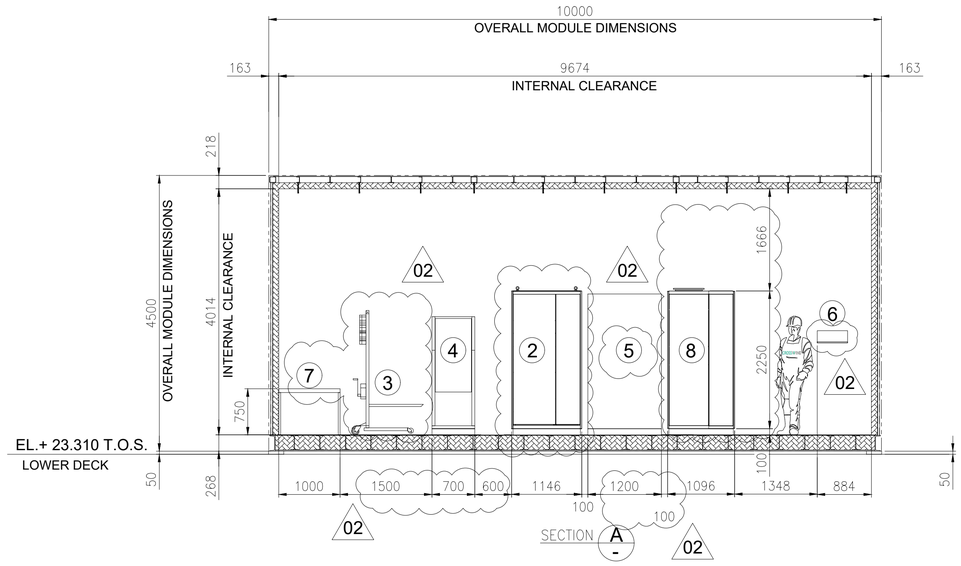
TYPE / SERIAL N° :	MEGGER (KEW3125A) SERIAL: W8330207	TYPE / SERIAL N° :	MULTIMETER: FLUKE 175 SERIAL:(AW1/018-17140769)
Calibration certificate N° and date:	N°7722/24	Calibration certificate N° and date:	N°7715/24

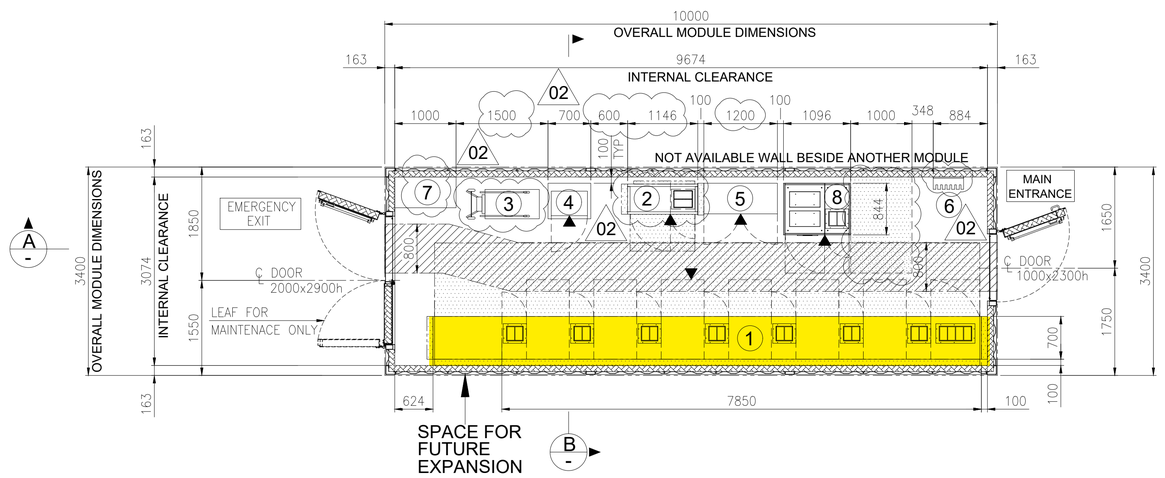
Comments:
CORE CONTINUITY PH 4= 9,2
CORES / ARMOUR+EARTH M PH 4 = >1G

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM (ROSETTI MARINO)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-10-04	2024-10-07	
Signature	PROVERLIS Digitaly signed by Carmelo Bongiovanni 2024-10-04T14:45:15.959Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2024-10-07T11:49:39.467Z	

DRAWING NO. 123A90-DDL-EL-DL-20105 REV. 02





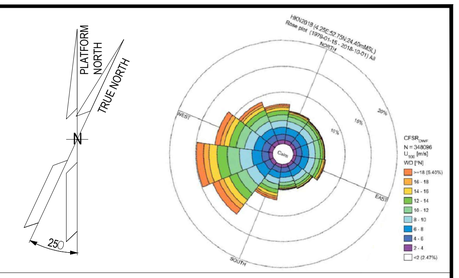


EQUIPMENT LAYOUT
"B-200" LV (400V) SWITCHGEAR ROOM
BOTTOM PLAN

1

EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	NOTE
1	SG-200N1	400V SWITCHGEAR	7850	700	2331	
2	DP-200N1	DISTRIBUTION BOARD FOR LIGHTING AND SMALL POWER B.O.P.	1146	520	2250	
3	-	SERVICE TROLLEY FOR 400V SWITCHGEAR	1034	490	2030	
4	CN-200N1	ICCP PANEL	700	580	1830	
5	B200-HSB-001	DISTRIBUTION & HVAC PANEL - LV ROOM	1200	600	1900	02
6	-	TOOL BOX	495	200	200	
7	-	TABLE	1000	500	750	
8	SG-200D2	ACB PANEL FOR SOLAR PACKAGE	1096	844	2294	



NOTES

1. U.N.O. ALL DIMENSIONS ARE IN MILLIMETERS.
2. DELETED.
3. DOCUMENT VALID ONLY FOR ELECTRICAL COMPONENT, FOR OTHER SCOPE LOCATION AND INFORMATION, PLEASE REFER TO VENDORS AND PROJECT DOCUMENTS.
4. FOR OTHER ITEMS, CORRECT LOCATION AND INFORMATION, PLEASE REFER TO VENDORS AND DEDICATED PROJECT DOCUMENTATION.
5. HEIGHT OF ALL PANELS IN THE EQUIPMENT LIST TABLE IS WITHOUT THE BASE FRAME (100mm)

02

LEGEND

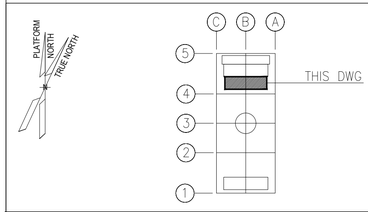
U.N.O. _____ UNLESS NOTED OTHERWISE
T.O.S. _____ TOP OF STEEL
_____ ESCAPE CORRIDOR - WIDTH 800mm.
_____ MAINTENANCE AREA - VENDOR REQUIREMENT
_____ SWITCHGEAR ROOM ENCLOUSURE
_____ FRONT OF EQUIPMENT

REFERENCES

DOCUMENT TITLE	DOCUMENT NUMBER
SG-200N1 GENERAL ARRANGEMENT DRAWING	1723002197-EL-DA-00007
SG-200D2 GENERAL ARRANGEMENT DRAWING	1723002197-EL-DA-00008
DP-200N1 GENERAL ARRANGEMENT DRAWING	1723002197-EL-DA-00009
AC UPS – GENERAL ARRANGEMENT AND DIMENSIONAL DRAWINGS	1724000372-EL-DA-00004
AC UPS – BATTERY LAYOUT INTERCONNECTING DIAGRAM	1724000372-EL-DG-00011
B-200 -GENERAL ARRANGEMENT DRAWINGS - E&I SHELTER	1724000049-AR-DA-00015
ICCC PANEL GENERAL ARRANGEMENT DRAWING	144671-CORR-TF-FAB-DWG-0003

02

KEY PLAN



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	27/05/2024	FMO	LMA/AMA	LMA/MDO	ACCEPTED FOR CONSTRUCTION (AFC)
01	26/03/2024	GPA	LMA/AMA	LMA/MDO	ISSUE FOR REVIEW (IFR)
00	08/11/2023	DSF	CB/AMA	DYFO/MDO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DL-20105**

REV.:	DATE:	SIGNATURE:
2_A	08/08/24	G.Randi

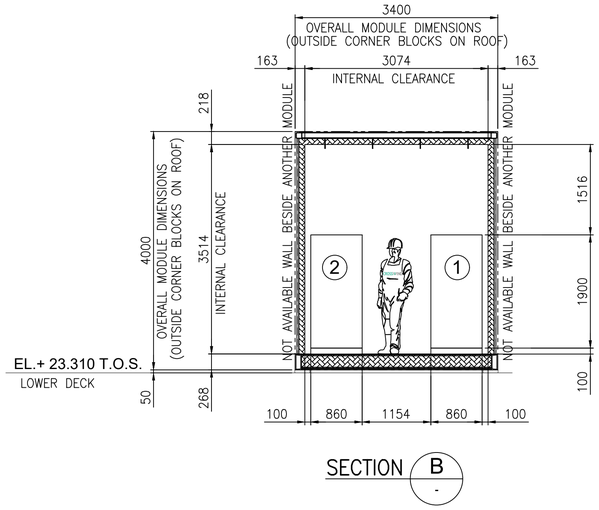
ROSETTI MARINO SpA

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL EQUIPMENT LAYOUT
LV SWITCHROOM

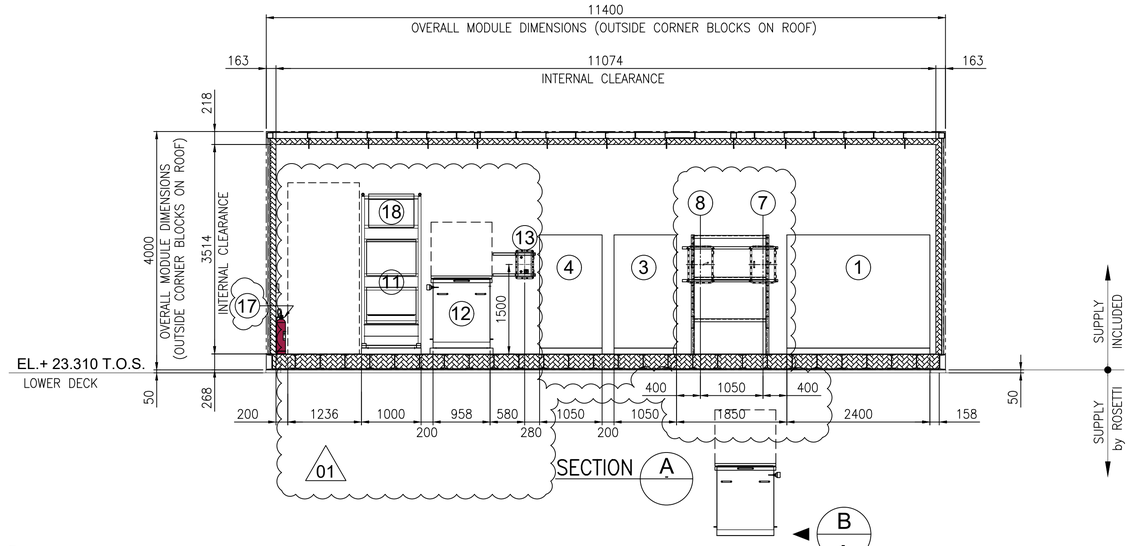
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:50
DRAWN FMO	CHECKED LMA/AMA	APPROVED LMA/MDO	DATE 27/05/2024

A1	DRAWING NO. 123A90-DDL-EL-DL-20105	SHEET 001	REV. 02

File Name : 123A90-DDL-EL-DL-20105_REV02.dwg



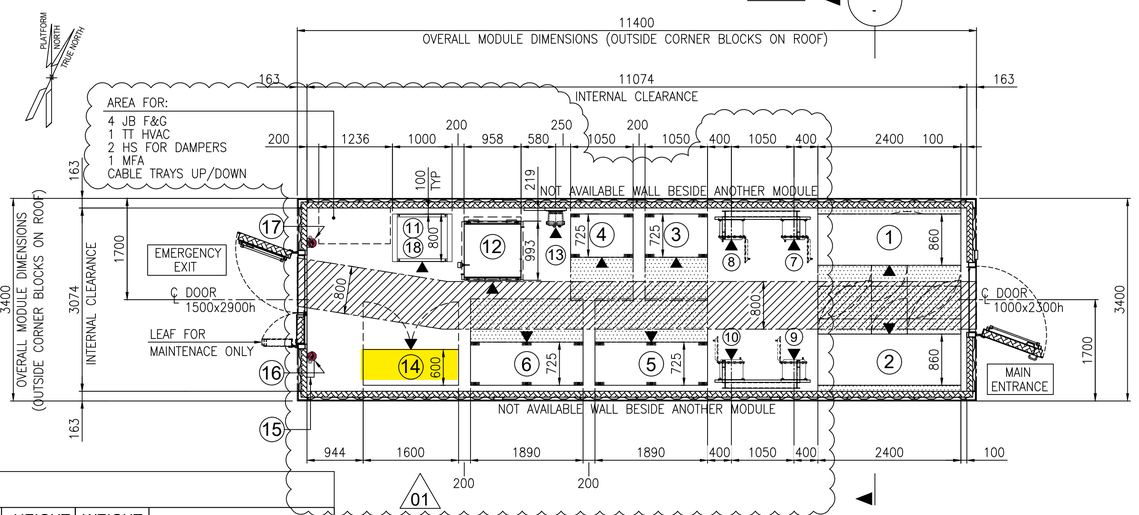
SECTION B -



01

SECTION A -

B -



01

A -

EQUIPMENT LAYOUT
"B-300" UPSs & BATTERIES SWITCHROOM
BOTTOM PLAN

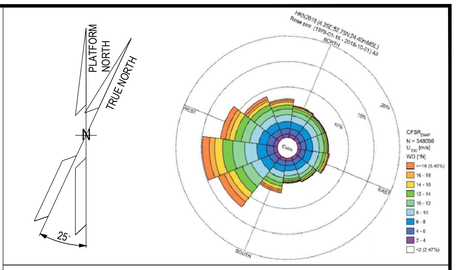
EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)	NOTES
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258	
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258	
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429	
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA 01	1890	725	1761	3429	
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	450	341	632	100	
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	450	341	632	100	
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	450	341	632	100	
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	450	341	632	100	
11	NC-200F2	NAVAID PANEL 01	1000	800	2600	535	
12	BA-200F2	BATTERY BOX NAVAID	958	993	1210	1552	
13	CB-200F2	ISOLATOR BOX NAVAID	500	400	765	70	
14	B3000-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	1150	
15	-	EYE WASH STATION	228	80	290	5	
16	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20	
17	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20	
18	BC-200F2	BATTERY CHARGER NAVAID 01	-	-	-	-	INCLUDED IN THE RACK OF NC-200F2

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-EL-DL-20106

REV.:	DATE:	SIGNATURE:
1_A	08/08/24	G.Randi

ROSETTI MARINO SpA



NOTES

01

1. U.N.O. ALL DIMENSIONS ARE IN MILLIMETERS.
2. EQUIPMENT DIMENSION ARE DEFINED ACCORDING TO THE LATEST DRAWING AND INFORMATION FROM THE VENDOR
3. DOCUMENT VALID ONLY FOR ELECTRICAL COMPONENT, FOR OTHER SCOPE LOCATION AND INFORMATION, PLEASE REFER TO VENDORS AND PROJECT DOCUMENTS.
   - "B-300" – GENERAL ARRANGEMENT DRAWING DOC. N. 1724000049-AR-DA-00016
   - "B-300" – DETAILED DRAWINGS DOC. N. 1724000049-AR-DD-00020

LEGEND

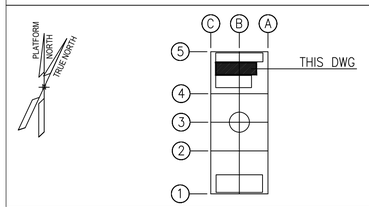
U.N.O. _____ UNLESS NOTED OTHERWISE
T.O.S. _____ TOP OF STEEL
_____ ESCAPE CORRIDOR – WIDTH 800mm.
_____ MAINTENANCE AREA – VENDOR REQUIREMENT
_____ SWITCHGEAR ROOM ENCLOUSURE
_____ FRONT OF EQUIPMENT

HOLDS

REFERENCE

DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DA-00016
"B-300" DETAILED DRAWINGS	1724000049-AR-DD-00020
"B-300" ARCHITECTURAL GENERAL LAYOUT PLAN, WIEW, SECTIONS & TYP. DETAILS	123A90-DDL-AR-DL-10022
PLOT PLAN – LOWER & UPPER DECK	123A90-DDL-PP-DL-70070

KEY PLAN



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	23/07/24	SAM	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	28/03/24	SAM	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND | ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
ELECTRICAL EQUIPMENT LAYOUT
UPSs & BATTERIES SWITCHROOM

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:50
DRAWN SAM	CHECKED FMA/AMA	APPROVED FPA/DLO	DATE 23/07/24
A1	DRAWING NO. 123A90-DDL-EL-DL-20106	SHEET 001	REV. 01

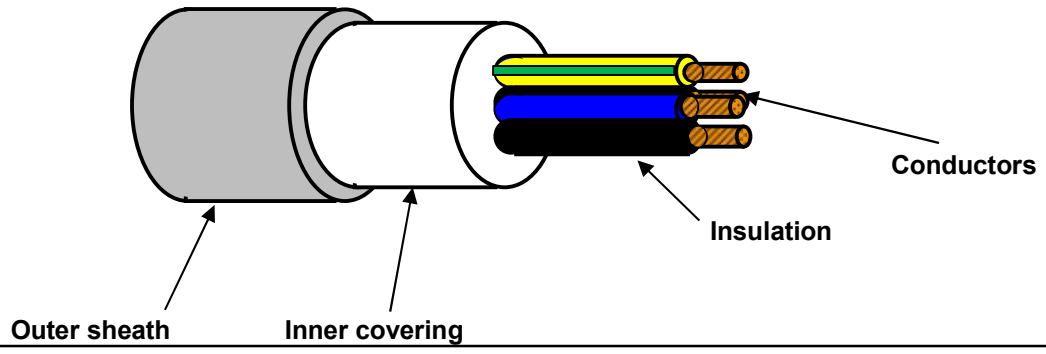
DRAWING NO. 123A90-DDL-EL-DL-20106 REV. 01

File Name : 123A90-DDL-EL-DL-20106 Rev.00.dwg

FLEI s.r.l.

Cu Cl.2/EPR/LSZH 0,6/1 KV

5G16 - L.V. POWER CABLE - Flame Retardant



TECHNICAL FEATURES

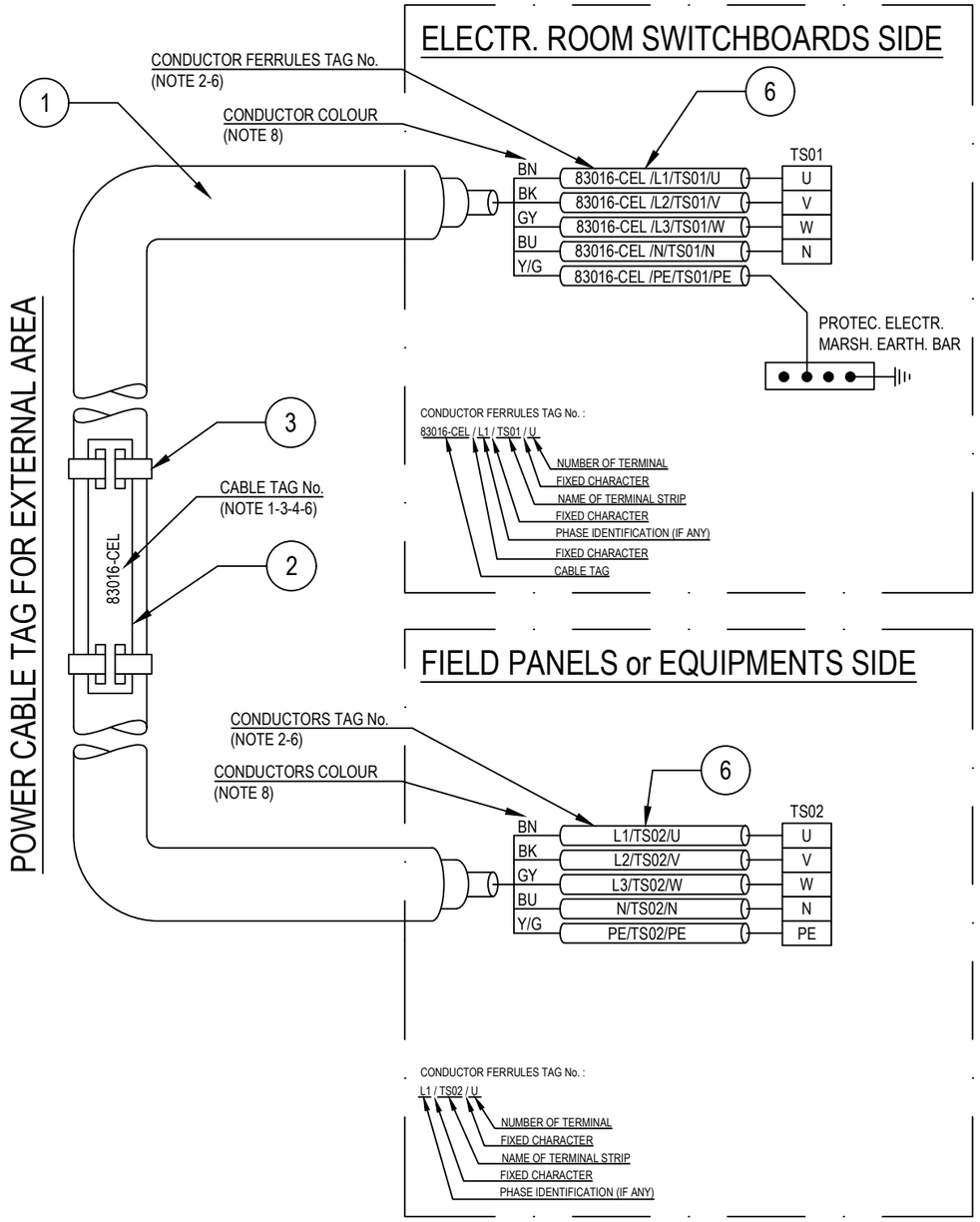
Conductors :	**STRANDED** plain/bare annealed copper wires	IEC 60228 Class 2
Insulation :	EPR compound, quality to IEC 60092.360, Nominal Thickness 1,0 mm	
Cores colour code :	**Black - Brown - Grey - Blue - Yellow/Green**	
Pair Assembling :	Not required	
Pair Wrapping:	Not required	
Drain wire :	Not required	
Pair Shield :	Not required	
Shield Insulation :	Not Required	
Total Assembling :	Cores layed up with optimal lay length	
Overall Wrapping:	Not required	
Drain wire :	Not required	
Overall Shield:	Not required	
Inner covering :	Extruded LSZH compound, Average Thickness 1,0 mm	
Inner covering color code:	**Black or Natural**	
Armour :	Not required	
Outer sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, Average Thickness 1,4 mm	
Outer sheath color code:	**Grey**	
Outer printing (INKJET) :	**FLEI - ELECTRIC CABLE - 1000V - 5G16 SQMM - EPR/LSZH - 0,6/1 KV - IEC 60332.1.2 - IEC 60332.3.22 -**	
	Year of Manufacture - CE + Meter Marking	
Outer diameter :	(24,0 ± 10%) mm	
Bending radius :	cable outer diameter x 10	(in fixed installation)
Voltage test :	3,5 kV a.c. for 5' (Between Cores)	
Conductors DC Resistance :		IEC 60228 Class 2
Insulation Resistance :	≥ 530 MΩ x Km (@ 20°C)	
Applicable Standards		
Design Guidelines :	**IEC 60092.353**	
ON COMPLETE CABLE		
Flame Retardant test :	IEC 60332.1.2 - IEC 60332.3.22	
Acid Gas generation :	IEC 60754.1/2	
Smoke density/Light Transmittance :	IEC 61034.2 (LT ≥ 60%)	
Temperature Range :		
ON INSULATION	(max +90°C)	(max continuous operation temperature of conductors)
	(max +250°C)	(max conductors temperature during short-circuit for 5 seconds)
ON COMPLETE CABLE		
During Operation :	(-20°C up to +90°C)	(in fixed installation)
During installation :	(- 5°C up to +50°C)	
Note :	**To meet the requirements of installation and use in Zone 1 & Zone 2 (IEC 60079-14) and "Gas & Vapour Tight" the cable must be provided with Penetrating Inner covering together with correct ATEX approved equipment or accessories.**	

Office	Date	Sign	Rev.	Date	Sign
Drawn by :	29/03/2024	Messa			
Checked :	29/03/2024	Spaccasassi			
Approved :	29/03/2024	Cucinotta			

The data provided, lending assent for the treatment, will be used to the sense of the article 13 of of the Regulation (UE) 2016/679, also through outsiders, in order to allow the realization of the fulfilments informatives, administrative, commercial and accounting related to the contractual relationship. Integral copy of the informative could be requested at our offices.

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C02



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	UNARMOURED CABLE				
2	CABLE TAG FOR EXTERNAL AREA	HDG/SS			NOTE 1 NOTE 4
3	TIE FOR CABLE TAG IN EXTERNAL AREA	HDG/SS			
4	CABLE TAG FOR INTERNAL AREA	PVC			NOTE 1 NOTE 5
5	TIE FOR CABLE TAG IN INTERNAL AREA	NYLON 6.6			
6	CORE FERRULES	PVC			

NOTES:

1) ALL CABLES SHALL BE IDENTIFIED AT EACH TERMINATION AND EACH SIDE OF ANY OBSTACLE (E.G. CABLE TRANSIT ON WALLS INSIDE SHELTER AND FLOOR DECK CROSSING, BY THEIR RESPECTIVE TAGS/NUMBERS, AS INDICATED ON THE CABLE SCHEDULE.
CABLE IDENTIFICATION SHALL BE ALSO DONE BELOW AND IN THE SWITCHBOARD CABLE COMPARTMENT.

2) CABLE CORE FERRULES SHALL BE FITTED AT EVERY TERMINATION. THESE FERRULES SHALL BE OF ENGRAVED PLASTIC SLIP ON, INTERLOCKED AND SELF GRIP TYPE.

3) ON CABLE TRAYS OR LADDERS, CABLES SHALL BE IDENTIFIED AT EACH END, AND EVERY 25 METERS.

4) THE CABLE TAG FOR EXTERNAL AREA SHALL DONE BY 316L STAINLESS STEEL LABELS, TAG (H=5mm) SHALL BE LASER PRINTED PREFERABLY OR EMBOSSED, LABEL HELD BY TWO 316L STAINLESS STEEL TIES.

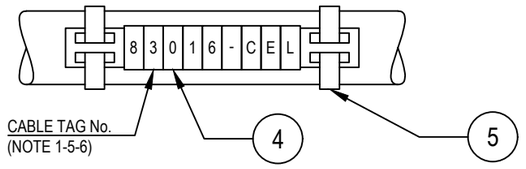
5) THE CABLE TAG FOR INTERNAL AREA SHALL BE DONE BY ENGRAVED PLASTIC SLIP ON CHARACTERS ONTO PLASTIC TIE, BLACK LETTER (H=5mm) ON WHITE.

6) CABLE AND CONDUCTOR TAG ARE INDICATIVE ONLY.

7) WITHIN TECHNICAL BUILDING, PROTECTIVE CONDUCTOR SHALL BE TAGGED BETWEEN FOLLOWING ITEMS:
- PANEL (SWITCHBOARD, SWITCHGEAR, DISTRIBUTION BOARD, ETC) AND EARTH BAR
- EARTH BAR AND EARTH BOSS

8) ONLY IF NECESSARY, SHRINK TUBES OF THE APPROPRIATE COLOR WILL BE INSTALLED TO COVER THE WRONG CONDUCTOR COLOR, THIS WILL BE PERFORMED IN EACH SIDE OF THE CABLES WHERE NECESSARY.

POWER CABLE TAG FOR INTERNAL AREA



VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-EL-DD-20092
REV.: 2_A | DATE: 28/08/24 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	28/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	04/07/24	NLK	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS-POWER SYSTEM & CABLE INSTALLATION
CABLES INSTALLATION SYSTEM IDENTIFICATION FOR POWER CABLES

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 123A90-DDL-EL-DD-20092 | SHEET 007 | REV. 02

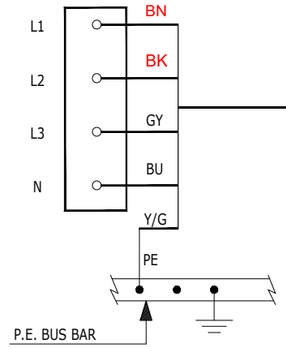
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File Name : 123A90-DDL-EL-DD-20092 REV.02.DWG

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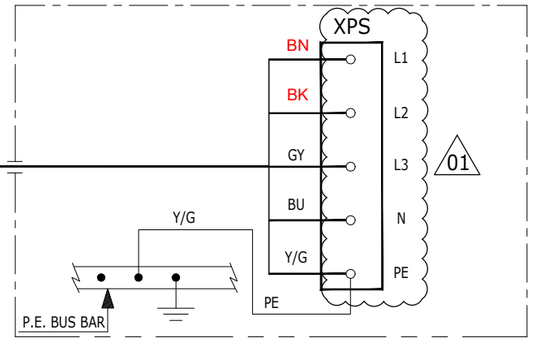
DESCRIPTION: LV SWITCHGEAR
TAG NUMBER: SG-200N1

COLUMN/CUBIC.: A5/+02

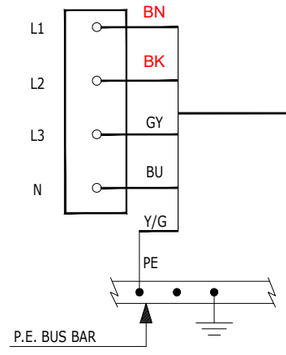


83024-CEL
5G16 mm²

DESCRIPTION: DISTRIBUTION & HVAC PANEL - LV ROOM
TAG NUMBER: B200-HSB-001

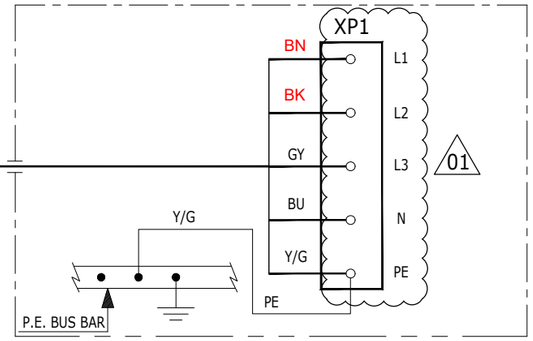


COLUMN/CUBIC.: A5/+03

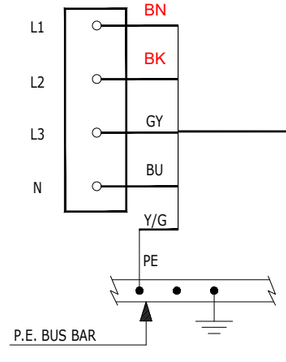


83025-CEL
5G16 mm²

DESCRIPTION: HVAC PANELS - UPS ROOM
TAG NUMBER: B300-HSB-001



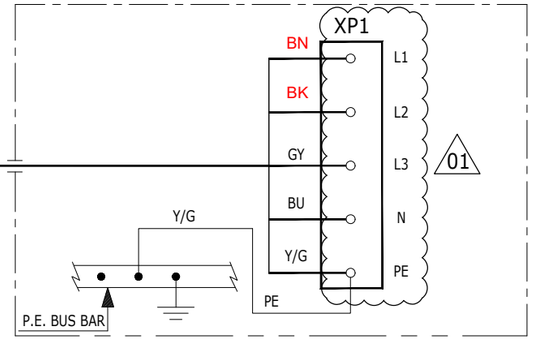
COLUMN/CUBIC.: A5/+04



83026-CEL
5G16 mm²

07/10/2024

DESCRIPTION: HVAC PANELS - ITER
TAG NUMBER: B400-HSB-001



DOCUMENTO IN PROGRESS NON ANCORA UFFICIALMENTE EMESSO
VERIFICATO E APPROVATO PER COSTRUZIONE (SOLO PER I CAVI EVIDENZIATI)

CROSSWIND

ROSETTI MARINO

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	ONGOING	SAI	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	08/07/24	SAI	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL INTERCONNECTING WIRING DIAGRAM
LV SWITCHGEAR SG-200N1

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : 1:X

A3 | DRAWING NO. 123A90-DDL-EL-DG-20149 | SHEET 026 | REV. 01

F.to UNI A3: 420mmx297mm

File Name : 123A90-DDL-EL-DG-20162 Rev. 01

Tag Number	Info	Category	Discipline	Eng Status	NativeDoc	Grouping	Entity Type	Main Function	Secondary Function	Module	Area	From Tag	From Main Function	From Area	From Tag Section	To Tag	To Main Function	To Area	To Tag Section	Material ID	Material Desc.	PO Position	RFID	Eng Gross Qty	Over All Gross Qty	UM	Overall Prj Part Number	Gland Standard	From Gland	From Entry	From Fitting	To Gland	To Entry	To Fitting	Routing	Routing Manual
83021-CEL		Cable	EL	VFC	123A90-000L-EL-LIS-20148	Int-Ext						5G-200N1	LV 0.4 kV MCC Switchgear	Lower Deck (B-200)	A1/03	B300-HSB-001	Distribution & HVAC Panel - Shelter AC U	Lower Deck (B-300)	Local Panel	ELECV15-5G16	Cable Cu CI.2/EPR/LSZH 0,6/1kV 5G16mm² - Grey	160		35	36	m		M32	n.a.			T1_M32_Single				L-450-101-LVT-026 / L-600-101-LVT-017 / L-600-101-LVT-019 / L-600-101-LVT-020 / F-MCT-204 / L-600-101-LVT-010 / L-450-301-LVT-005 / E-MCT-302 / L-600-101-LVT-035 / L-300-101-LVT-054

ITEM	Tag	84316-CEL	: AC UPS - PAS DB / UCP - HVAC UPS Room		Dwg	123A90-DDL-EL-LIS-20148	
	S/Sys	77-30	: HVAC UPS Equipment Room B-300		Module	LD_B-300	
TASK	code	C10000592	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity CCK	Discipline Electrical	Form	CPX09	LV Power Cable

CABLE DATA

Type Cu Cl.2/MGT/EPR/LSZH/GSWB/LSZH Cores/Size mm² 3G2,5 mm2 Color ORANGE

From DP-200F3 To B300-HSB-001

1	Confirm cable is as specified in project cable schedule	OK
2	Visual Check cable physical integrity.	OK
3	Check is installed in accordance with layout drawing (segregation, distance…).	OK
4	Check cable is supported and fixed to rack according to project specification.	Note
5	Check bending radius is within the specified limits.	OK
6	Confirm cable glands suit for cable type, correctly mounted and tightened.	OK
7	Check gland plate for single core cables is non ferrous (non -magnetic).	NA
8	Confirm cable labelling is in accordance with specifications.	OK
9	Check cable is correctly loomed and segregated in accordance with specification.	OK
10	Check cable earthing against lastest drawings.	OK
11	Check cores marking are in accordance with termination diagram	OK
12	Check terminations are in accordance with latest termination diagram	OK
13	If required produce Red Line Mark Up for "AS BUILT"	

ROSETTI MARINO PROVERLIS CROSSWIND

ITEM	Tag	84316-CEL	: AC UPS - PAS DB / UCP - HVAC UPS Room			Dwg	123A90-DDL-EL-LIS-20148
	S/Sys	77-30	: HVAC UPS Equipment Room B-300			Module	LD_B-300
TASK	code	C10000592		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Electrical	Form	CPX09 LV Power Cable

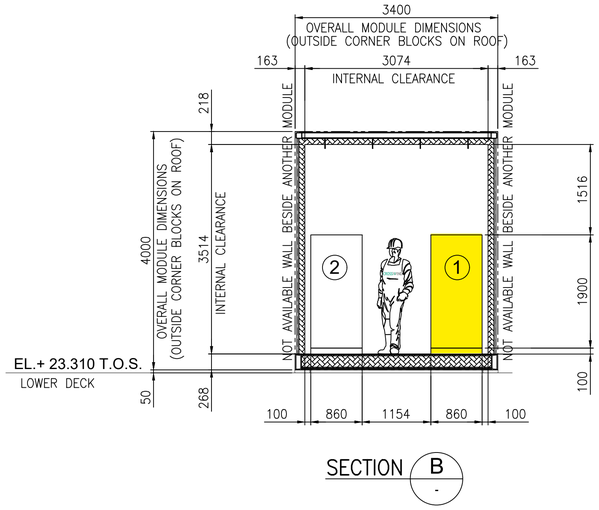
	CONTINUITY			
5	CORE CONTINUITY Ω	PH 1	0,4	
6		PH 2	0,4	
7		PH 3	NA	
8	ARMOUR CONTINUITY Ω		0,4	
9	PROTECTIVE CONDUCTOR CONTINUITY Ω		0,4	
	INSULATION			
10	CORES / ARMOUR+EARTH MΩ	PH1 / PH2-PH3-A-E	>999	
11		PH2 / PH1-PH3-A-E	>999	
12		PH3 / PH1-PH2-A-E	NA	
13	CABLE IS CORRECTLY RE-CONNECTED.		Yes	

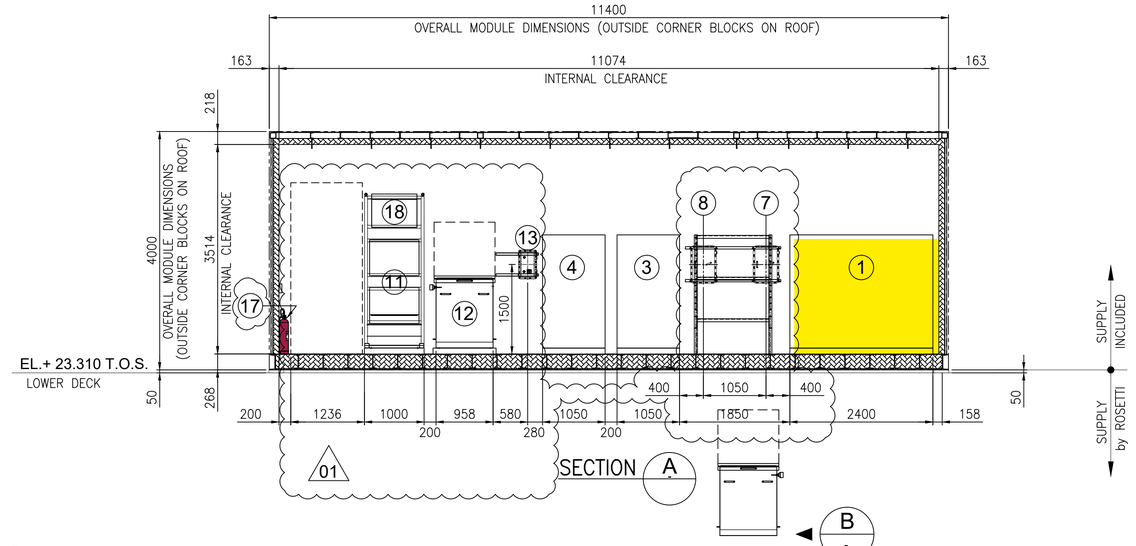
TESTING INSTRUMENTS USED

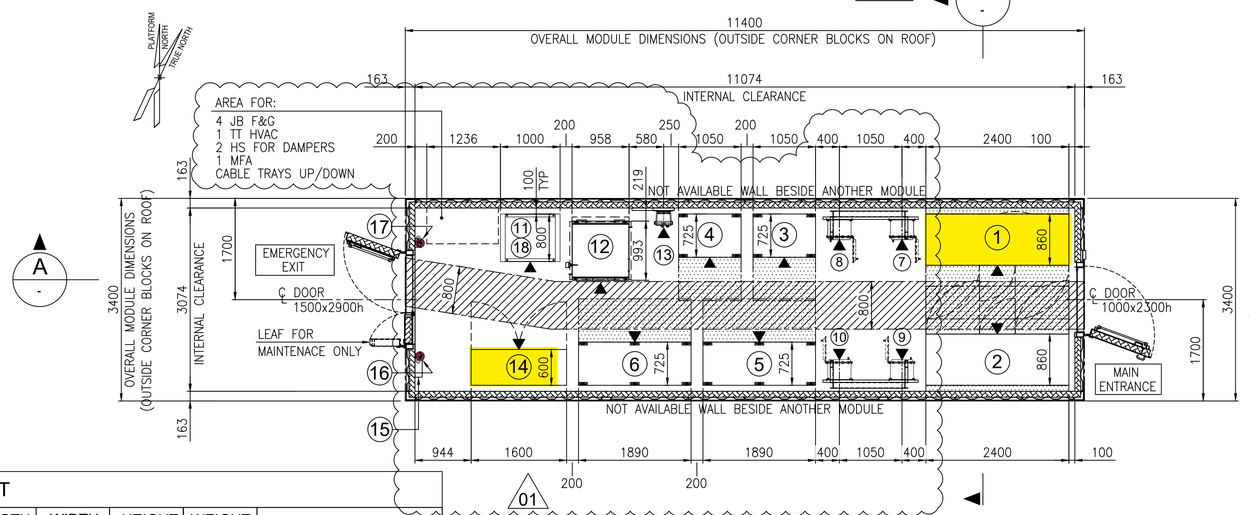
TYPE / SERIAL N° :	MEGGER : KEW3125A SERIAL: W8330207	TYPE / SERIAL N° :	MULTIMETER: FLUKE 175 SERIAL:AW1/018(17140769)
Calibration certificate N° and date:	N°7722/24 _ 10/07/2024	Calibration certificate N° and date:	N°7715/24 _ 10/07/2024

Comments: Nota 4: refer to PL C30000680

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM(ROSETTI MARINO)	
Name	Carmelo Bongiovanni	Paolo Schintu	
Date	2024-11-22	2024-11-25	
Signature	PROVERLIS Digitaly signed by Carmelo Bongiovanni 2024-11-22T17:17:22.914Z	PROVERLIS Digitaly signed by Paolo Schintu 2024-11-25T14:25:53.156Z	

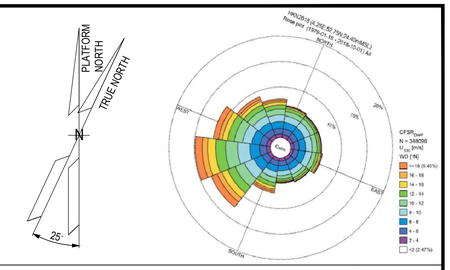






EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)	NOTES
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258	
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258	
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429	
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA 01	1890	725	1761	3429	
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	450	341	632	100	
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	450	341	632	100	
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	450	341	632	100	
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	450	341	632	100	
11	NC-200F2	NAVAID PANEL 01	1000	800	2600	535	
12	BA-200F2	BATTERY BOX NAVAID	958	993	1210	1552	
13	CB-200F2	ISOLATOR BOX NAVAID	500	400	765	70	
14	B3000-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	1150	
15	-	EYE WASH STATION	228	80	290	5	
16	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20	
17	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20	
18	BC-200F2	BATTERY CHARGER NAVAID 01	-	-	-	-	INCLUDED IN THE RACK OF NC-200F2



NOTES

01

1. U.N.O. ALL DIMENSIONS ARE IN MILLIMETERS.
2. EQUIPMENT DIMENSION ARE DEFINED ACCORDING TO THE LATEST DRAWING AND INFORMATION FROM THE VENDOR
3. DOCUMENT VALID ONLY FOR ELECTRICAL COMPONENT, FOR OTHER SCOPE LOCATION AND INFORMATION, PLEASE REFER TO VENDORS AND PROJECT DOCUMENTS.
   - "B-300" – GENERAL ARRANGEMENT DRAWING DOC. N. 1724000049-AR-DA-00016
   - "B-300" – DETAILED DRAWINGS DOC. N. 1724000049-AR-DD-00020

LEGEND

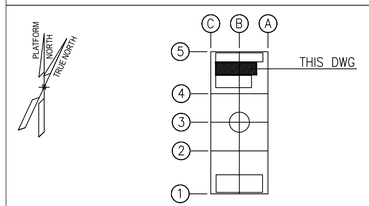
U.N.O. _____ UNLESS NOTED OTHERWISE
T.O.S. _____ TOP OF STEEL
_____ ESCAPE CORRIDOR – WIDTH 800mm.
_____ MAINTENANCE AREA – VENDOR REQUIREMENT
_____ SWITCHGEAR ROOM ENCLOUSURE
_____ FRONT OF EQUIPMENT

HOLDS

REFERENCE

DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DA-00016
"B-300" DETAILED DRAWINGS	1724000049-AR-DD-00020
"B-300" ARCHITECTURAL GENERAL LAYOUT PLAN, WIEW, SECTIONS & TYP. DETAILS	123A90-DDL-AR-DL-10022
PLOT PLAN – LOWER & UPPER DECK	123A90-DDL-PP-DL-70070

KEY PLAN



VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DL-20106**

REV.:	DATE:	SIGNATURE:
1_A	08/08/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	23/07/24	SAM	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	28/03/24	SAM	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND | ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL EQUIPMENT LAYOUT
UPSs & BATTERIES SWITCHROOM

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:50
DRAWN SAM	CHECKED FMA/AMA	APPROVED FPA/DLO	DATE 23/07/24

A1	DRAWING NO. 123A90-DDL-EL-DL-20106	SHEET 001	REV. 01

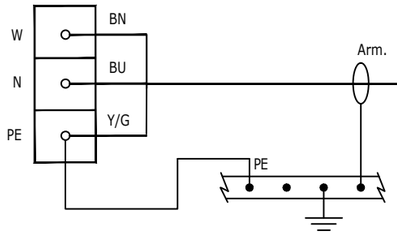
File Name : 123A90-DDL-EL-DL-20106 Rev.00.dwg

DRAWING NO. 123A90-DDL-EL-DL-20106 REV. 01

FROM	TO

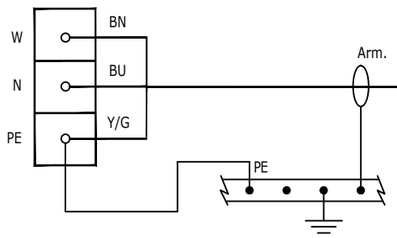
DESCRIPTION: AC UPS - PAS DB
TAG NUMBER: DP-200F3

-X41



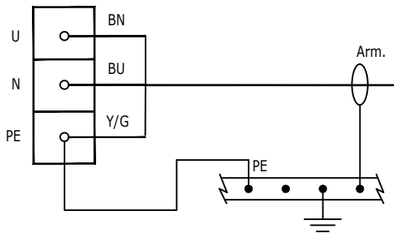
84316-CEL
3G2.5 mm²

-X42



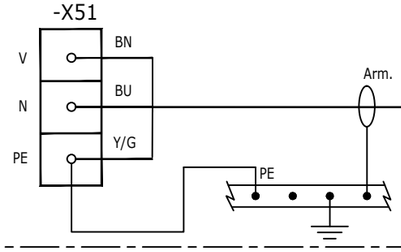
84317-CEL
3G2.5 mm²

-X49



84318-CEL
3G2.5 mm²

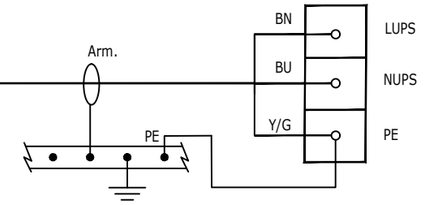
-X51



84319-CEL
3G2.5 mm²

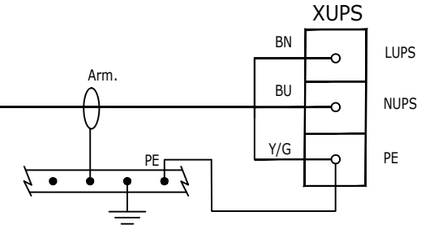
DESCRIPTION: UCP - HVAC UPS ROOM
TAG NUMBER: B300-HSB-001

XUPS



DESCRIPTION: UCP - HVAC ITER
TAG NUMBER: B400-HSB-001

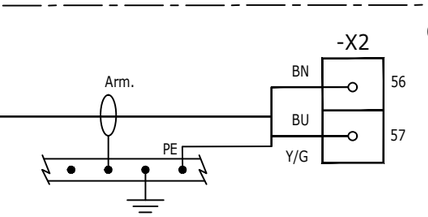
XUPS



DESCRIPTION: LV SWITCHBOARD AUXILIARY
TAG NUMBER: SG-200N1

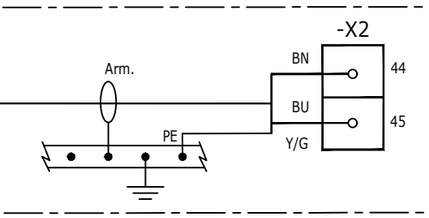
COLUMN: A2/02

-X2



DESCRIPTION: LV SWBD 800/460V AUXILIARY
TAG NUMBER: SG-200D2

-X2



VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-EL-DG-20149

REV.:	DATE:	SIGNATURE:
2_A	21/11/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	19/11/24	SAI	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	16/10/24	SAI	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	08/07/24	SAI	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL INTERCONNECTING WIRING DIAGRAM
AC UPS – PAS DB DP-200F3

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK

SCALE : 1:X

A3

DRAWING NO. 123A90-DDL-EL-DG-20149

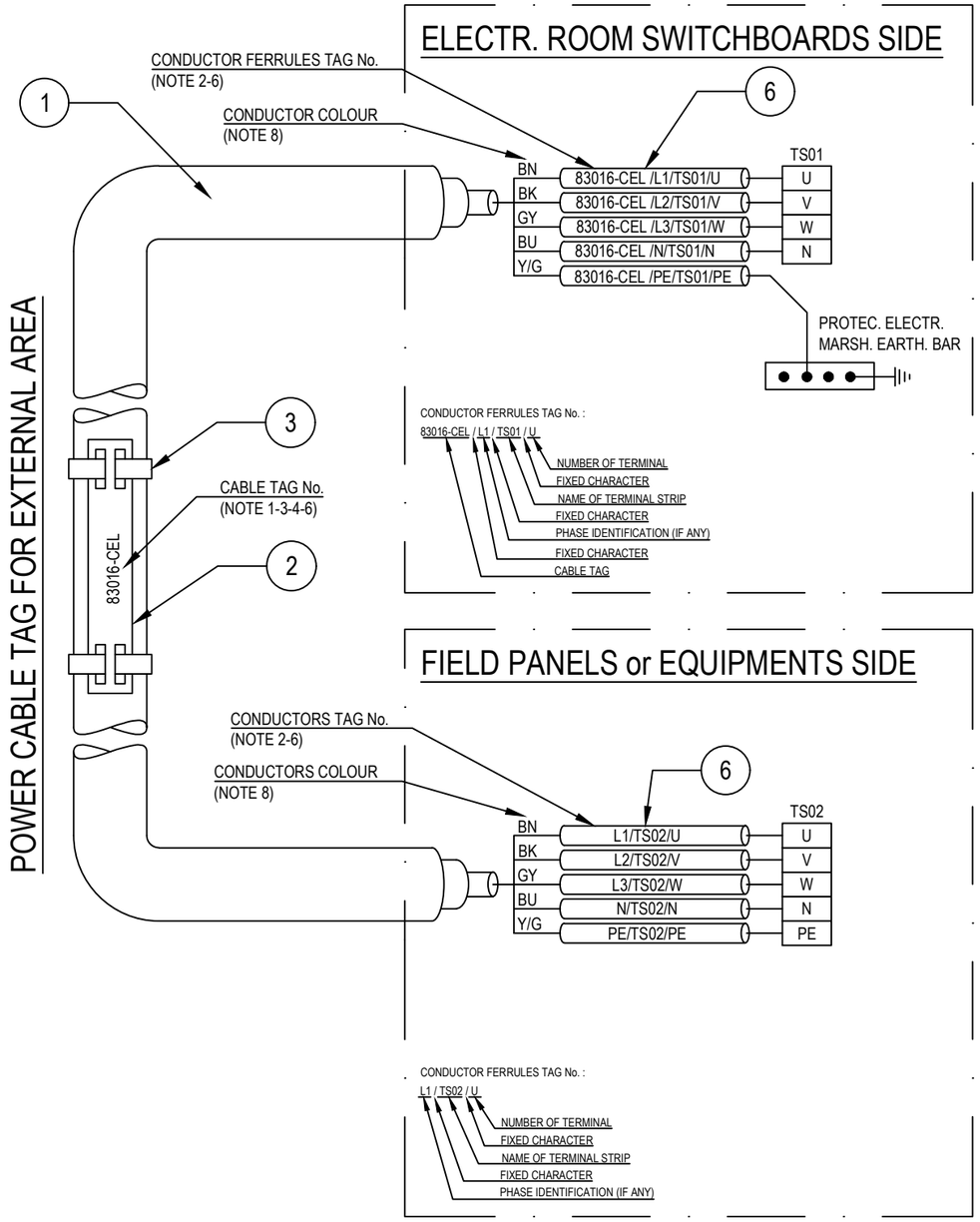
SHEET 042

REV. 02

F.to UNI A3: 420mmx297mm

File Name : 123A90-DDL-EL-DG-20149 Rev. 02

C02



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	UNARMOURED CABLE				
2	CABLE TAG FOR EXTERNAL AREA	HDG/SS			NOTE 1 NOTE 4
3	TIE FOR CABLE TAG IN EXTERNAL AREA	HDG/SS			
4	CABLE TAG FOR INTERNAL AREA	PVC			NOTE 1 NOTE 5
5	TIE FOR CABLE TAG IN INTERNAL AREA	NYLON 6.6			
6	CORE FERRULES	PVC			

NOTES:

1) ALL CABLES SHALL BE IDENTIFIED AT EACH TERMINATION AND EACH SIDE OF ANY OBSTACLE (E.G. CABLE TRANSIT ON WALLS INSIDE SHELTER AND FLOOR DECK CROSSING, BY THEIR RESPECTIVE TAGS/NUMBERS, AS INDICATED ON THE CABLE SCHEDULE.
CABLE IDENTIFICATION SHALL BE ALSO DONE BELOW AND IN THE SWITCHBOARD CABLE COMPARTMENT.

2) CABLE CORE FERRULES SHALL BE FITTED AT EVERY TERMINATION. THESE FERRULES SHALL BE OF ENGRAVED PLASTIC SLIP ON, INTERLOCKED AND SELF GRIP TYPE.

3) ON CABLE TRAYS OR LADDERS, CABLES SHALL BE IDENTIFIED AT EACH END, AND EVERY 25 METERS.

4) THE CABLE TAG FOR EXTERNAL AREA SHALL DONE BY 316L STAINLESS STEEL LABELS, TAG (H=5mm) SHALL BE LASER PRINTED PREFERABLY OR EMBOSSED, LABEL HELD BY TWO 316L STAINLESS STEEL TIES.

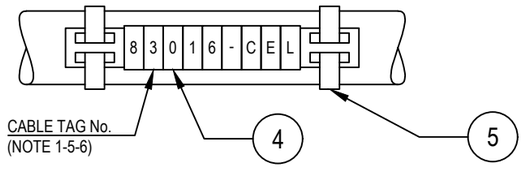
5) THE CABLE TAG FOR INTERNAL AREA SHALL BE DONE BY ENGRAVED PLASTIC SLIP ON CHARACTERS ONTO PLASTIC TIE, BLACK LETTER (H=5mm) ON WHITE.

6) CABLE AND CONDUCTOR TAG ARE INDICATIVE ONLY.

7) WITHIN TECHNICAL BUILDING, PROTECTIVE CONDUCTOR SHALL BE TAGGED BETWEEN FOLLOWING ITEMS:
- PANEL (SWITCHBOARD, SWITCHGEAR, DISTRIBUTION BOARD, ETC) AND EARTH BAR
- EARTH BAR AND EARTH BOSS

8) ONLY IF NECESSARY, SHRINK TUBES OF THE APPROPRIATE COLOR WILL BE INSTALLED TO COVER THE WRONG CONDUCTOR COLOR, THIS WILL BE PERFORMED IN EACH SIDE OF THE CABLES WHERE NECESSARY.

POWER CABLE TAG FOR INTERNAL AREA



VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-EL-DD-20092
REV.: 2_A | DATE: 28/08/24 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	28/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	04/07/24	NLK	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS-POWER SYSTEM & CABLE INSTALLATION
CABLES INSTALLATION SYSTEM IDENTIFICATION FOR POWER CABLES

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 123A90-DDL-EL-DD-20092 | SHEET 007 | REV. 02

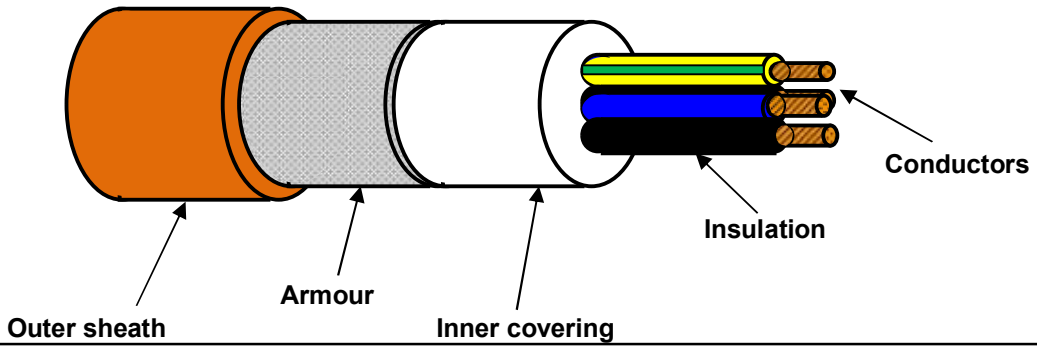
F.to UNI A3: 420mmx297mm

File Name : 123A90-DDL-EL-DD-20092 REV.02.DWG

Tag Number	Category	Discipline	Eng Status	NativeDoc	Parent Tag	Grouping	Main Function	Secondary Function	Area	From Tag	From Main Function	From Area	To Tag	To Main Function	To Area	Material ID	Material Desc.	Gland Standard	From Gland	From Entry	From Fitting	To Gland	To Entry	To Fitting	Routing	Routing Manual
84316-CEL	Cable	EL	VFC	123A90-DDL-EL-LIS-20148		Int-Int				DP-200F3	AC UPS 35 kVA Distribution Board	Lower Deck (B-300)	B300-HSB-001	Distribution & HVAC Panel - Shelter AC UPS Fitted with UPS System Equipment Room	Lower Deck (B-300)	ELECV19-3G2,5	Cable Cu Cl.2/MGT/EPR/LSZH/GSWB/LSZH 0,6/1kV 3G2,5mm² - Orange	M20	T2_M20_Double			T2_M20_Double				L-450-101-LVT-040 / L-600-101-LVT-036 / L-600-101-LVT-038 / L-600-101-LVT-035 / L-300-101-LVT-054

Cu Cl.2/MGT/EPR/LSZH/GSWB/LSZH 0,6/1 KV

3G2,5 - L.V. POWER CABLE - Fire Resistant & Flame Retardant - ARMOURED



TECHNICAL FEATURES

Conductors :	**STRANDED** plain/bare annealed copper wires	IEC 60228 Class 2
Insulation :	Mica/Glass Tape (MGT) plus EPR compound, quality to IEC 60092.360, Nominal Thickness 1,0 mm	
Cores colour code :	**Brown - Blue - Yellow/Green**	
Pair Assembling :	Not required	
Pair Wrapping:	Not required	
Drain wire :	Not required	
Pair Shield :	Not required	
Shield Insulation :	Not Required	
Total Assembling :	Cores layed up with optimal lay length	
Overall Wrapping:	Not required	
Drain wire :	Not required	
Overall Shield:	Not required	
Inner covering :	Extruded LSZH compound, Average Thickness 1,0 mm	
Inner covering color code:	**Black or Natural**	
Armour :	**Galvanized Steel Wire Braid Armour (coverage ≥ 90%)**	
Outer sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, Average Thickness 1,3 mm	
Outer sheath color code:	**Orange**	
Outer printing (INKJET) :	**FLEI - ELECTRIC CABLE - 1000V - 3G2,5 SQMM - MGT/EPR/LSZH/GSWB/LSZH - 0,6/1 KV - IEC 60331.21 - IEC 60332.1.2 - IEC 60332.3.22 - Year of Manufacture - CE + Meter Marking**	
Under Armour diameter :	(11,7 ± 10%) mm	
Over Armour diameter :	(12,9 ± 10%) mm	
Outer diameter :	(15,5 ± 10%) mm	
Bending radius :	cable outer diameter x 10	(in fixed installation)
Voltage test :	3,5 kV a.c. for 5' (Between Cores - Armour)	
Conductors DC Resistance :		IEC 60228 Class 2
Insulation Resistance :	≥ 940 MΩ x Km (@ 20°C)	
Applicable Standards		
Design Guidelines :	**IEC 60092.353**	
ON COMPLETE CABLE		
Fire Resistant test :	**IEC 60331.21**	
Flame Retardant test :	IEC 60332.1.2 - IEC 60332.3.22	
Acid Gas generation :	IEC 60754.1/2	
Smoke density/Light Transmittance :	IEC 61034.2 (LT ≥ 60%)	
Temperature Range :		
ON INSULATION	(max +90°C)	(max continuous operation temperature of conductors)
	(max +250°C)	(max conductors temperature during short-circuit for 5 seconds)
ON COMPLETE CABLE		
During Operation :	(-20°C up to +90°C)	(in fixed installation)
During installation :	(- 5°C up to +50°C)	
Note :	**To meet the requirements of installation and use in Zone 1 & Zone 2 (IEC 60079-14) and "Gas & Vapour Tight" the cable must be provided with Penetrating Inner covering together with correct ATEX approved equipment or accessories.**	

Office	Date	Sign	Rev.	Date	Sign
Drawn by :	29/03/2024	Messa			
Checked :	29/03/2024	Spaccasassi			
Approved :	29/03/2024	Cucinotta			

The data provided, lending assent for the treatment, will be used to the sense of the article 13 of of the Regulation (UE) 2016/679, also through outsiders, in order to allow the realization of the fulfilments informatives, administrative, commercial and accounting related to the contractual relationship. Integral copy of the informative could be requested at our offices.

All proprietary rights reserved according to law. This document shall be not reproduced without written permission. FLEI reserves the right to change characteristics and technical data of product shown at any time.

ITEM	Tag	B300-HSB-001	: Distribution & HVAC Panel - Shelter AC UPS Fitted with UPS System Equipment Room		Dwg	123A90-DDL-EL-DL-20106	
	S/Sys	77-30	: HVAC UPS Equipment Room B-300		Module	LD_B-300	
TASK	code	C10000837	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity CCK	Discipline Electrical	Form	CPX15	Distribution Board

1	Check equipment is de-energized and safe.	OK
2	Check anti-condensation heaters are ready to be energized.	OK
3	Check equipment earthing and bonding against latest drawings.	OK
4	Check equipment is undammaged, correctly mounted, tagged and installed in accordance with latest layout drawings.	PL
5	Check all doors, gland plates are correctly mounted.	OK
6	Check panel-front components, indicators, lamps, meters are securely mounted and undamaged.	OK
7	Check all switching devices rating and tagging against latest drawings.	OK
8	Check all switching devices for proper mechanical operation.	OK
9	Check (visual) of cables connections.	PL
10	If required produce Red Line Mark Up for "AS BUILT"	

NAME PLATE DATA

Manufacturer :	FRIGOTERMICA	Serial N° :	1628	Type:	LK1-40
Voltage :	400 **V**	Frequency :	50 **Hz**	Rating :	15 **kW**
IP Rating	54	N° of outgoers:	89	Specification:	1724000049-HV-DA-00028
SWBD & CUB ref:	1724000049-HV-DA-00028			Data Sheet :	1724000049-HV-DA-00028

TESTING AND MEASUREMENT INSTRUMENT USED

Type	Serial n°	Calibration certificate	Validity

Testing will be done during the

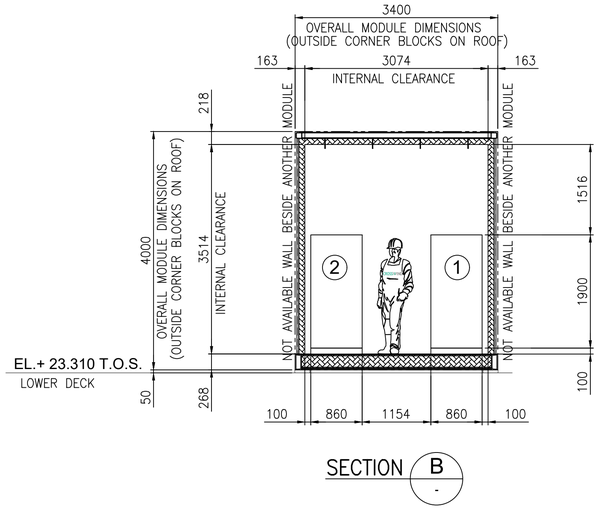
TEST RESULTS

INSULATION RESISTANCE	TEST VOLTAGE	V	R/ S-T-EARTH	Mohm
			S/ R-T-EARTH	Mohm
			T/S-R-EARTH	Mohm

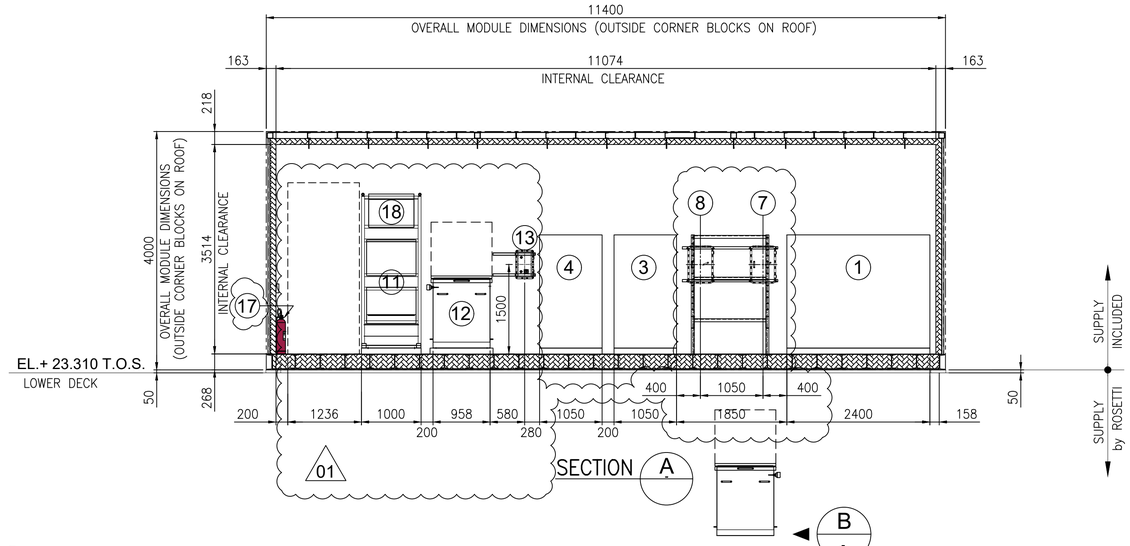
Comments: Note:

FAT will be completed at RM yard after MC phase

	Performed by	☐ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM (Rosetti Marino)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-10-07	2024-10-08	
Signature	PROVERLIS Digitaly signed by Carmelo Bongiovanni 2024-10-07T14:09:39.946Z	Firma Digitale Sicura Giovanni Tangianu 2024-10-08T15:42:40+0200	

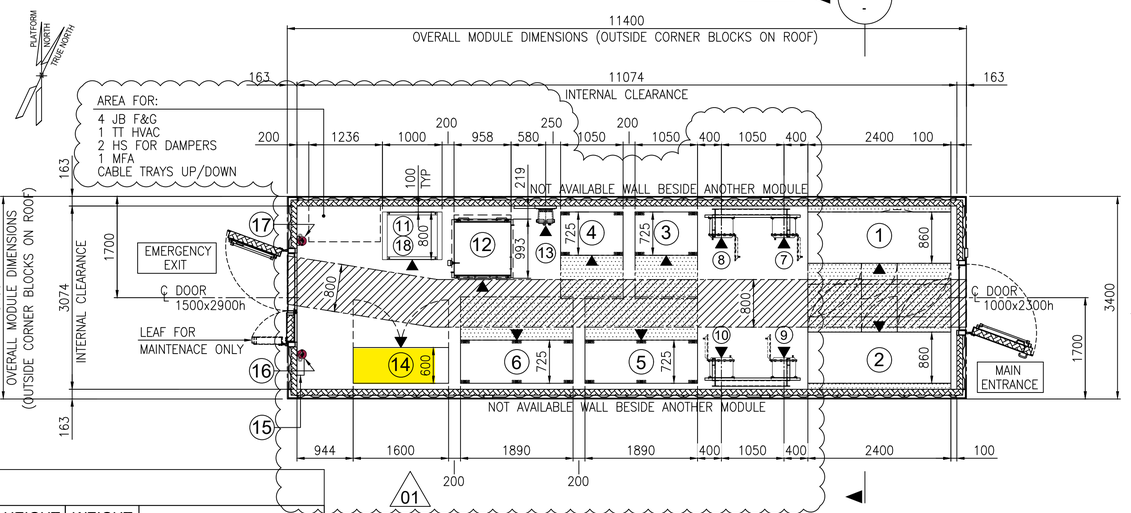


SECTION B



01

SECTION A



01

EQUIPMENT LAYOUT
"B-300" UPSs & BATTERIES SWITCHROOM
BOTTOM PLAN

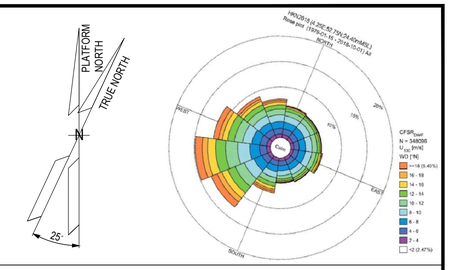
EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)	NOTES
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258	
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258	
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429	
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA 01	1890	725	1761	3429	
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	450	341	632	100	
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	450	341	632	100	
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	450	341	632	100	
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	450	341	632	100	
11	NC-200F2	NAVAID PANEL 01	1000	800	2600	535	
12	BA-200F2	BATTERY BOX NAVAID	958	993	1210	1552	
13	CB-200F2	ISOLATOR BOX NAVAID	500	400	765	70	
14	B3000-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	1150	
15	-	EYE WASH STATION	228	80	290	5	
16	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20	
17	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20	
18	BC-200F2	BATTERY CHARGER NAVAID 01	-	-	-	-	INCLUDED IN THE RACK OF NC-200F2

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-EL-DL-20106

REV.:	DATE:	SIGNATURE:
1_A	08/08/24	G.Randi

ROSETTI MARINO SpA



NOTES

01

1. U.N.O. ALL DIMENSIONS ARE IN MILLIMETERS.
2. EQUIPMENT DIMENSION ARE DEFINED ACCORDING TO THE LATEST DRAWING AND INFORMATION FROM THE VENDOR
3. DOCUMENT VALID ONLY FOR ELECTRICAL COMPONENT, FOR OTHER SCOPE LOCATION AND INFORMATION, PLEASE REFER TO VENDORS AND PROJECT DOCUMENTS.
   - "B-300" – GENERAL ARRANGEMENT DRAWING DOC. N. 1724000049-AR-DA-00016
   - "B-300" – DETAILED DRAWINGS DOC. N. 1724000049-AR-DD-00020

LEGEND

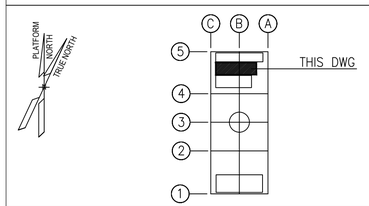
U.N.O. _____ UNLESS NOTED OTHERWISE
T.O.S. _____ TOP OF STEEL
_____ ESCAPE CORRIDOR – WIDTH 800mm.
_____ MAINTENANCE AREA – VENDOR REQUIREMENT
_____ SWITCHGEAR ROOM ENCLOUSURE
_____ FRONT OF EQUIPMENT

HOLDS

REFERENCE

DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DA-00016
"B-300" DETAILED DRAWINGS	1724000049-AR-DD-00020
"B-300" ARCHITECTURAL GENERAL LAYOUT PLAN, WIEW, SECTIONS & TYP. DETAILS	123A90-DDL-AR-DL-10022
PLOT PLAN – LOWER & UPPER DECK	123A90-DDL-PP-DL-70070

KEY PLAN



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	23/07/24	SAM	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	28/03/24	SAM	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND | ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
ELECTRICAL EQUIPMENT LAYOUT
UPSs & BATTERIES SWITCHROOM

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:50
DRAWN SAM	CHECKED FMA/AMA	APPROVED FPA/DLO	DATE 23/07/24
A1	DRAWING NO. 123A90-DDL-EL-DL-20106	SHEET 001	REV. 01

File Name : 123A90-DDL-EL-DL-20106 Rev.00.dwg

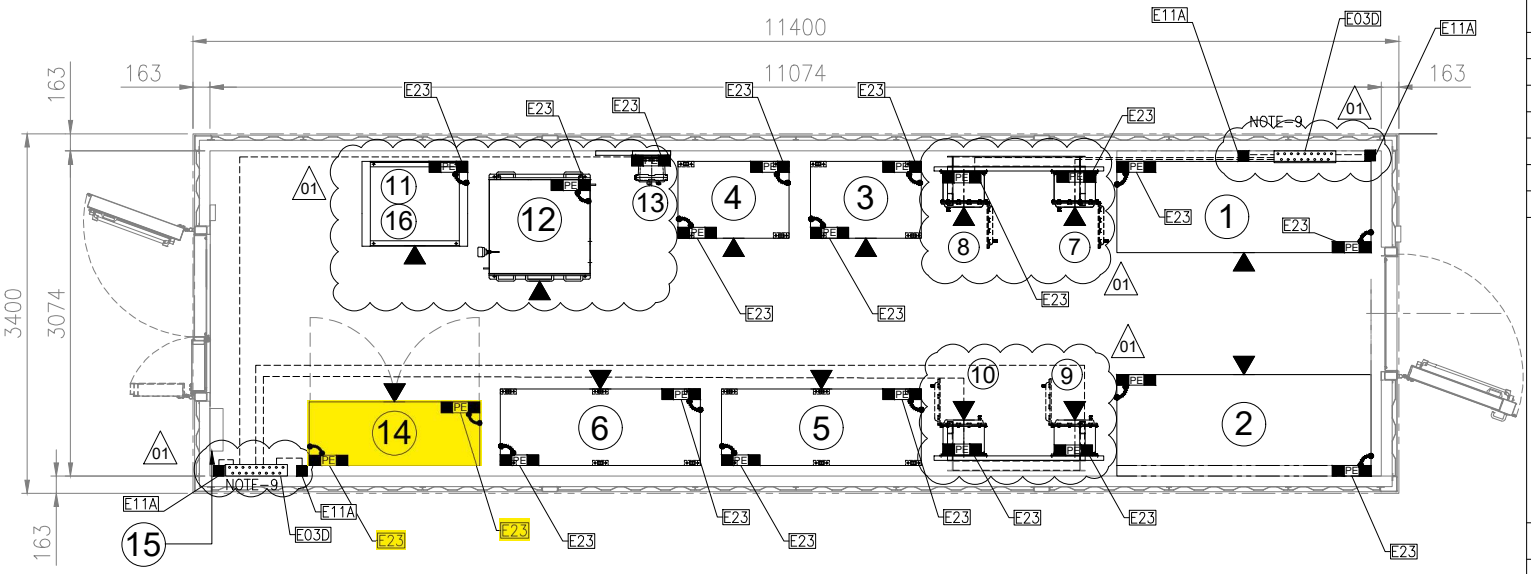
PLATFORM NORTH
TRUE NORTH

EQUIPMENT LIST		
REF.	TAG No.	DESCRIPTION
1	UP-200F3	AC UPS 35kVA
2	UP-200F4	AC UPS 15kVA
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA
11	NC-200F2_BC-200F2A/B	NAVAID PANEL
12	BA-200F2	BATTERY BOX NAVAID
13	CB-200F2	ISOLATOR BOX NAVAID
14	B300-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM
15	-	EYE WASH STATION
16	BC-200F2	BATTERY CHARGER NAVAID

01 (rows 11, 14, 15)

NOTES

1. THIS DOUCMENT IS VALID ONLY FOR EARTHING LAYOUT.
2. THE CABLE SIZE SHALL BE CONFIRMED.
3. THE EXACT POSITION OF EARTHING/MARSHALLING BUS BAR SHALL BE DEFINED BY VENDOR.
4. THE EARTHING BUS BAR INSTALLATION SHALL BE PREFERABLY IN VERTICAL MODE.
5. FOR TYPICAL DETAILS PLEASE REFER DOCUMENT "123A90-DDL-EL-DD-20090-ELECTRICAL TYPICAL INSTALLATION DETAILS-EARTHING SYSTEM".
6. DUE TO THE TOP CABLE ENTRIES THE EARTHING BUS BAR INSIDE THE CABINETS SHALL BE INSTALLED AT THE TOP OF THE CABINETS THEMSELVES.
7. FOR LIGHTNING PROTECTION SYSTEM SURGE PROTECTIVE DEVICES (SPD), REFER DOCUMENT 123A90-DDL-EL-RE-20154.
8. ALL THE NON WELDED OBJECTS SHALL BE EARTHED.
9. CONTAINER WILL HAVE A BTH (EARTHING BAR TINNED COPPER) WITH 2 EARTHING BOSS, INSTALLED IN THE SOUTH-WEST CORNER AT AN ELEVATION OF 2.5M FROM THE CONTAINER FLOOR. EARTHING BOSS SHALL BE INSTALLED AT SAME ELEVATION 2.5M.



EARTHING LAYOUT

"B-300" UPSs & BATTERIES SWITCHROOM

PLAN

EL.+ 23.310 T.O.S.

SYMBOL	DESCRIPTION
PE	EARTHING BUS
	EARTHING BAR TINNED COPPER WITH no.18 HOLES
	35sq.mm Y/G INSULATED COPPER CONDUCTOR FOR PE
PE	PROTECTIVE EARTH
	EARTHING BOSS AISI316L
	JUMPER CONNECTION
	FRONT OF EQUIPMENT 01

REFERENCE

DOCUMENT NUMBER	DOCUMENT TITLE
123A90-DDL-EL-DD-20090	ELECTRICAL TYPICAL INSTALLATION DETAILS -EARTHING SYSTEM
123A90-DDL-EL-DL-20106	ELECTRICAL EQUIPMENT LAYOUT-UPSs & BATTERIES SWITCHROOM
1724000049-AR-DD-00020	B-300 DETAILED DRAWINGS - E&I SHELTERS

01

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-EL-DL-20138

REV.:	DATE:	SIGNATURE:
1_A	08/08/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	25/07/24	ASR	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/05/24	SAM	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
EARTHING & LIGHTNING LAYOUT - UPSs & BATTERIES SWITCHROOM
"B-300" UPSs & BATTERIES SWITCHROOM

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : 1:50

A3 | DRAWING NO. 123A90-DDL-EL-DL-20138 | SHEET 003 | REV. 01

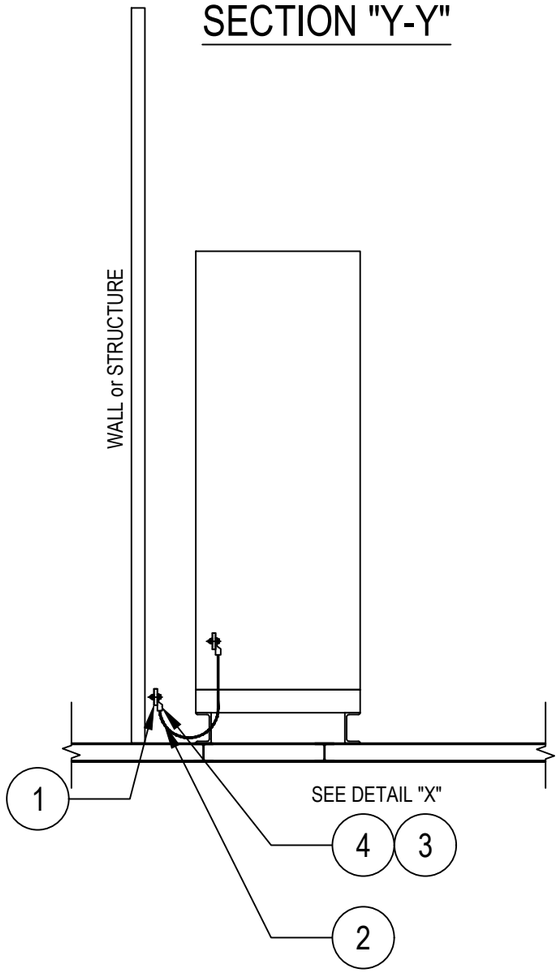
F.to UNI A3: 420mmx297mm

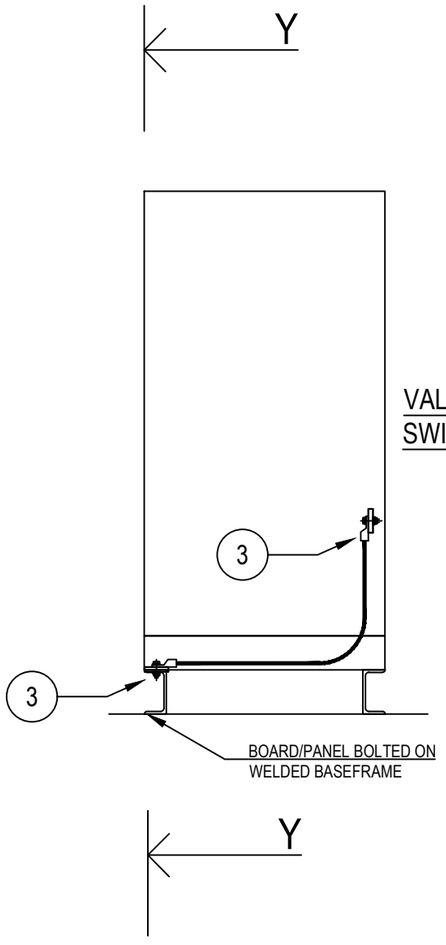
File Name : 123A90-DDL-EL-DL-20138 Rev. 01

E23

POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	MARSHALLING EARTHING BAR	TINNED COPPER	50X5		NOTE 1
2	Y/G INSULATING COPPER CONDUCTOR	COPPER	35mm² SEE NOTE 1		NOTE 1
3	COMPRESSION TYPE LUG FOR INSULATION COPPER CONDUCTOR	TINNED COPPER	35mm² SEE NOTE 1	4	NOTE 1
4	BOLT, PLANE WASHER, GROWER SPRING WASHER AND NUT	AISI 316L	M10X30	4	

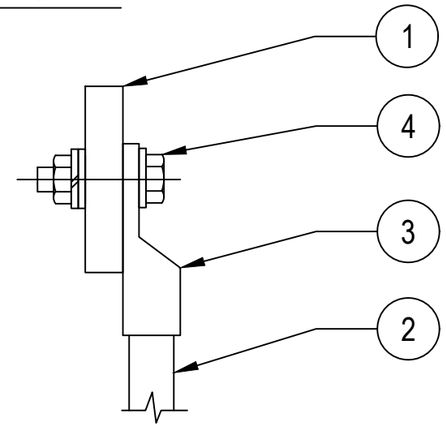
SECTION "Y-Y"





VALID FOR HV/LV SWITCHGEAR

DETAIL "X"



NOTES:

1) FOR SIZE OF THE EARTHING CABLE SEE ALSO EARTHING LAYOUT DRAWINGS OF RESPECTIVE AREAS

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_C	09/09/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS-EARTHING SYSTEM
EARTHING FOR PANELS/BOARDS IN TECHNICAL ROOM

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3	DRAWING NO.	SHEET	REV.
	123A90-DDL-EL-DD-20090	011	02

F.to UNI A3: 420mmx297mm

File Name : 123A90-DDL-EL-DD-20090 REV.02.DWG

BASE LOAD POWER HUB (BLPH)

B-300 HV-MV Switchgear Room

HVAC PANEL WIRING DIAGRAM

B300-HSB-001

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	28/06/24				ISSUE FOR REVIEW (IFR)
00	22/04/24				ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
WIRING DIAGRAM
FRONT PAGE

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK

SCALE : NTS

A3

DRAWING NO. 123A90-1724000049-HV-DA-00028

SHEET 001

REV. 03

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.	DISEGN.	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.	VISTO	S.S.

frigotermica
HVAC SYSTEM and EQUIPMENT
S.p.186-Cornegliano Laud. (Lo) Italy
tel. 0039-0371-69076
frigotermica@frigotermica.com

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
COVER

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 1

F.S. 2

LISTA FOGLI \ INDEX

Foglio Sheet	Descrizione Description	Revisioni Revisions 1	2	3	4	5	6	7	8	9	Foglio Sheet	Descrizione Description	Revisioni Revisions 1	2	3	4	5	6	7	8	9
1	COVER										27	PLC SECTION									
2	INDEX										28	PLC SECTION									
2A	INDEX										29	PLC SECTION									
3	SIMBOL LIST										30	PLC SECTION									
4	EXTERNAL VIEW										31	PLC SECTION									
5	INTERNAL VIEW										32	PLC SECTION									
6	POWER SECTION										33	PLC SECTION									
7	POWER SECTION										34	PLC SECTION									
8	POWER SECTION										35	PLC SECTION									
9	POWER SECTION A										36	PLC SECTION									
10	POWER SECTION A										37	PLC SECTION									
11	POWER SECTION A										38	PLC SECTION									
12	AUX SECTION A										39	PLC SECTION									
13	AUX SECTION A										40	PLC SECTION									
14	AUX SECTION A										41	PLC ARCHITECTURE									
15	AUX SECTION A										42	EH MODULATION A									
16	AUX SECTION A										43	EH MODULATION B									
17	POWER SECTION B										44	AVAILABLE SIGNAL									
18	POWER SECTION B										45	TERMINAL STRIP									
19	POWER SECTION B										46	TERMINAL STRIP									
20	AUX SECTION B										47	TERMINAL STRIP									
21	AUX SECTION B										48	TERMINAL STRIP									
22	AUX SECTION B										49	TERMINAL STRIP									
23	AUX SECTION B										50	MATERIAL LIST									
24	AUX SECTION B										51	MATERIAL LIST									
25	UPS POWER SUPPLY										52	MATERIAL LIST									
26	PLC SECTION										53	MATERIAL LIST									
26A	PLC SECTION										54	MATERIAL LIST									

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.	DISEGN.	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.	VISTO	S.S.

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tel. 0039–0371–69076
frigotermica@frigotermica.com

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
INDEX

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 2
F.S. 2A

LISTA FOGLI \ INDEX

Foglio Sheet	Descrizione Description	Revisioni Revisions 1	2	3	4	5	6	7	8	9
55	MATERIAL LIST									
56	MATERIAL LIST									
57	MATERIAL LIST									
58	MATERIAL LIST									
59	MATERIAL LIST									
60	MATERIAL LIST									
61	MATERIAL LIST									

Foglio Sheet	Descrizione Description	Revisioni Revisions 1	2	3	4	5	6	7	8	9

REV.	MODIFICA	DATA	FIRMA		
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.	DISEGN.	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.	VISTO	S.S.
				APPR.	M.G.

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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
INDEX

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 2A
F.S. 3

Symbol	Description	Symbol	Description	Symbol	Description
TR	VOLTAGE TRANSFORMER		SONIC INDICATOR	F.	FUSE
TA	CURRENT TRANSFORMER	*	INDICATOR INSTRUMENT		CONTACT N.O.
M ~	MOTOR IN C.A.		SELECTOR SWITCH		CONTACT N.C.
	GROUND : GENERAL SYMBOL	52.	SWITCH		COMMUTATION CONTACT
L..	SIGNAL LAMP	52.	AUTOMATIC CIRCUIT BREAKER	P	CONTACT ACTUATED BY A PRESSURE
L..	SIGNAL LAMP + HEATER	52. Id	DIFFERENTIAL AUTOMATIC BREAKER		CONTACT ACTUATED BY A FLOW
L..	SIGNAL LAMP + VOLTAGE TRANSF.	89.	DISCONNECTING SWITCH		CONTACT ACTUATED BY A LEVEL
	SIGNAL LAMP–PUSH BUTTON	89.	LOADED CIRCUIT BREAKER	θ	CONTACT ACTUATED BY A TEMPERATURE
	CLOSING BUTTON	89.	FUSE DISCONNECTING SWITCH	2 3 4	TERMINAL STRIP
	OPENING BUTTON	6.	CONTACTOR		SQUARE POWER TERMINAL CLAMP
	ROTARY SWITCH	6..	CONTACTOR COIL		SQUARE AUX. TERMINAL CLAMP
T..	CONTACT DELAYED TO THE ATTRACTION N.O.		AUXILIARY RELAY COIL		REMOTE TERMINAL CLAMP
T..	CONTACT DELAYED TO THE ATTRACTION N.C.	T..	TIMER WITH DELAY TO THE ATTRACTION		ONE–PHASE SYSTEM + NEUTRAL
T..	CONTACT DELAYED TO THE RE–DROP N.O.	T..	TIMER WITH DELAY TO THE RE–DROP		THREE–PHASE SYSTEM
T..	CONTACT DELAYED TO THE RE–DROP N.C.	49..	THERMAL RELAY		THREE–PHASE SYSTEM + NEUTRAL
79.	LIMIT SWITCH N.O.		HEATING ELEMENT		
79.	LIMIT SWITCH N.C.		ELECTROVALVE		

REV.	MODIFICA	DATA	FIRMA		
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.	DISEGN.	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.	VISTO	S.S.
				APPR.	M.G.

frigotermica
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frigotermica@frigotermica.com

CLIENT: CROSSWIND

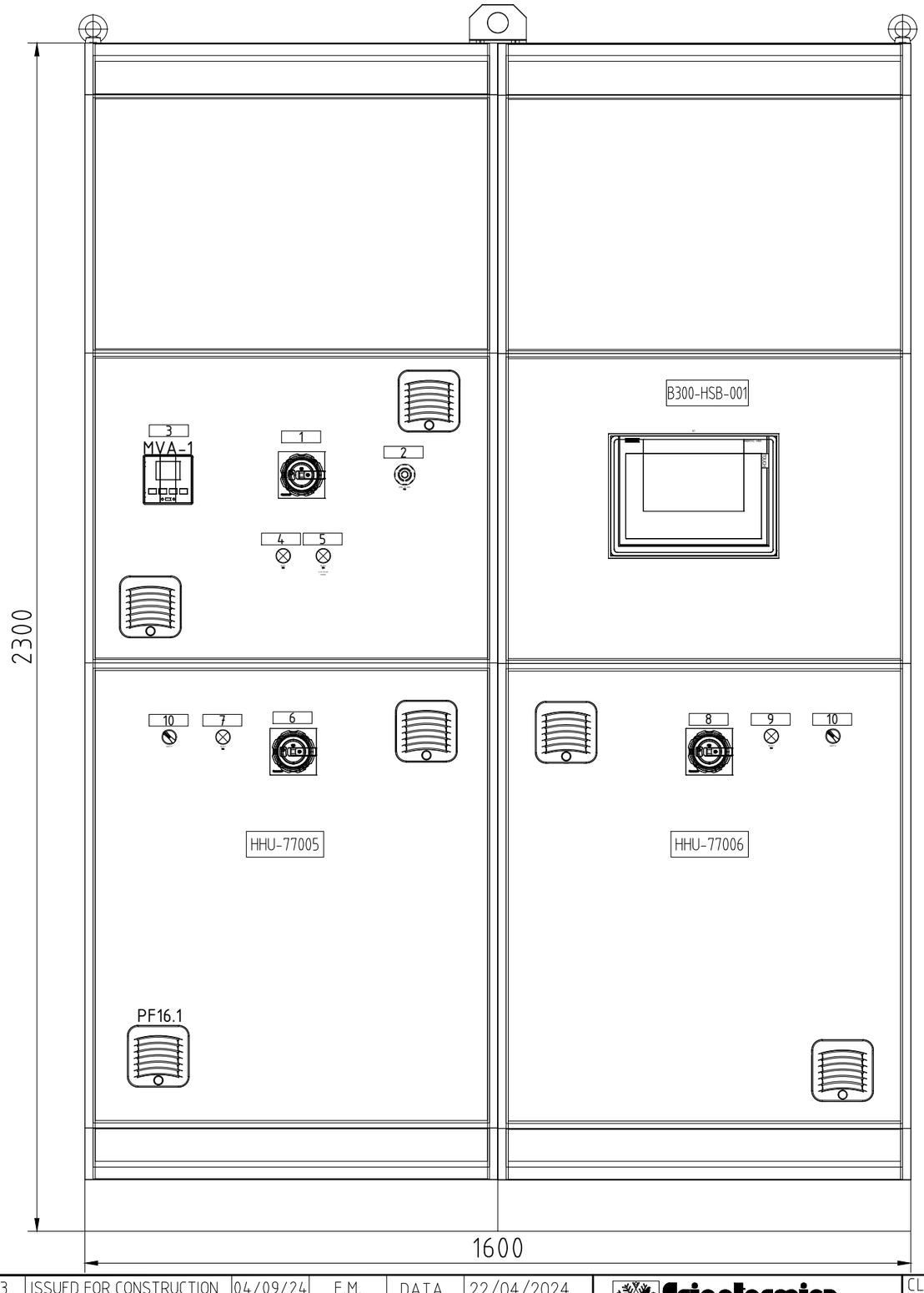
BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
SIMBOL LIST

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 3
F.S. 4

EXTERNAL VIEW



LABEL	
1	MAIN SWITCH
2	ERGENCY POWER BUTTON
3	MULTIMETER
4	230V AC PRESENCE
5	24V DC PRESENCE
6	HHU-77005 MAIN SWITCH
7	HHU-77005 230VAC PRESENCE
8	HHU-77006 MAIN SWITCH
9	HHU-77006 230VAC PRESENCE
10	AUTO-0-MANUAL

CABINET QUOTE:
LENGHT 1600mm
HEIGHT 2300mm
DEPT 600mm

frigotermica
HVAC SYSTEM and EQUIPMENT
S.p.186–Cornegliano Laud. (Lo) Italy
tel. 0039–0371–69076
frigotermica@frigotermica.com

SERIAL n.: *Matricola n.:*	1628
TAG: *Codice identificativo:*	B300-HSB-001
POWER SUPPLY: *Alimenatzione:*	400 Vac 50Hz 3Ph+N
Icc: *Coorente cortocircuito:*	25 kA/1s
AUX. TENSION: *Tensione ausiliaria:*	24 Vdc
INTERNAL PROTECTION: *Protezione interna:*	IP54
MAIN BUS BAR RATING: *Barra principale:*	32 A
YEAR OF MANUFACTURE: *Anno produzione:*	2024
MANUFACTURER: *Costruzione:*	FRIGOTERMICA s.r.l.
CONTRACT n.: *Contratto:*	51/240554
PROJECT: *Progetto:*	BASE LOAD POWER HUB
WEIGHT: *Peso:*	1150 Kg

CE

FRIGOTERMICA JOB NUMBER: 4112

SCALE 1:10

REV.	MODIFICA	DATA	FIRMA		
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.	DISEGN.	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.	VISTO	S.S.
				APPR.	M.G.

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HVAC SYSTEM and EQUIPMENT
S.p.186–Cornegliano Laud. (Lo) Italy
tel. 0039–0371–69076
frigotermica@frigotermica.com

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
EXTERNAL VIEW

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 4
F.S. 5

INTERNAL VIEW

PLATE 700 x 470

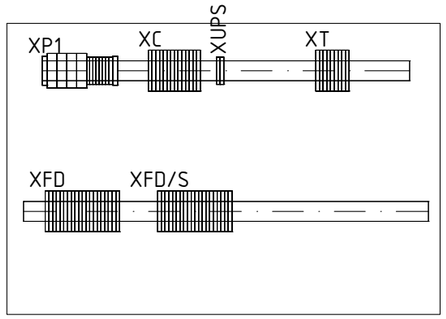


PLATE 700 x 470_2

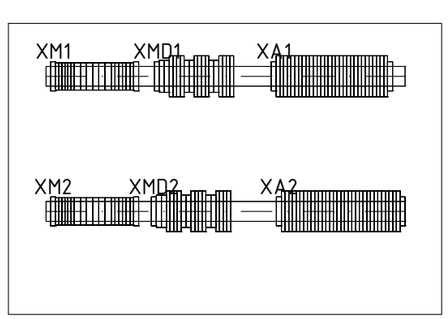


PLATE 700 x 570

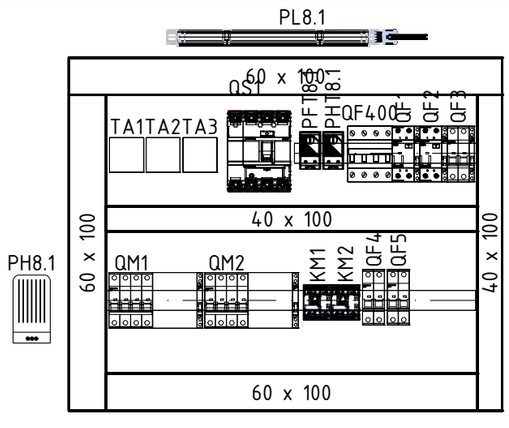


PLATE 700 x 570_2

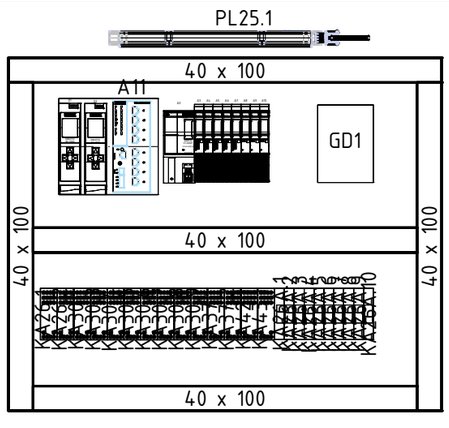


PLATE 700 x 870

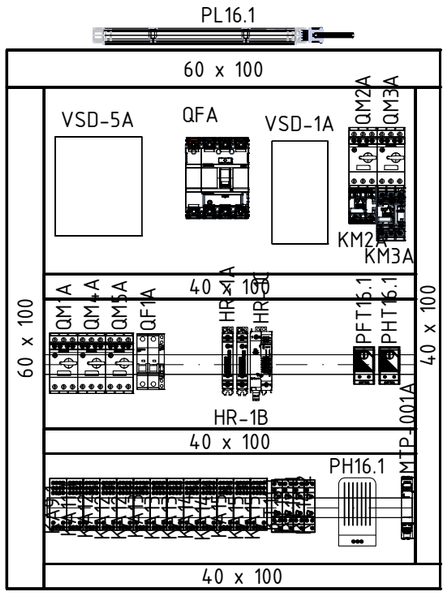
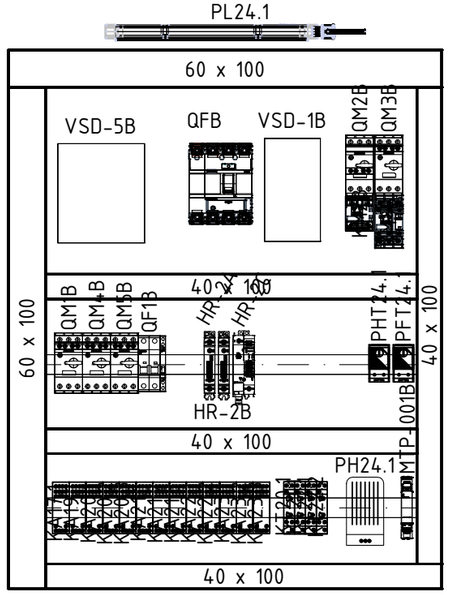


PLATE 700 x 870_2



SCALE 1:10

REV.	MODIFICA	DATA	FIRMA
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.

DATA	22/04/2024
DISEGN.	F.M.
VISTO	S.S.
APPR.	M.G.

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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
INTERNAL VIEW

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 5
F.S. 6

CLIENT POWER SUPPLY
3 PH + N + PE
400V 50Hz

RATED POWER: 15 kW
RATED CURRENT: 25 A

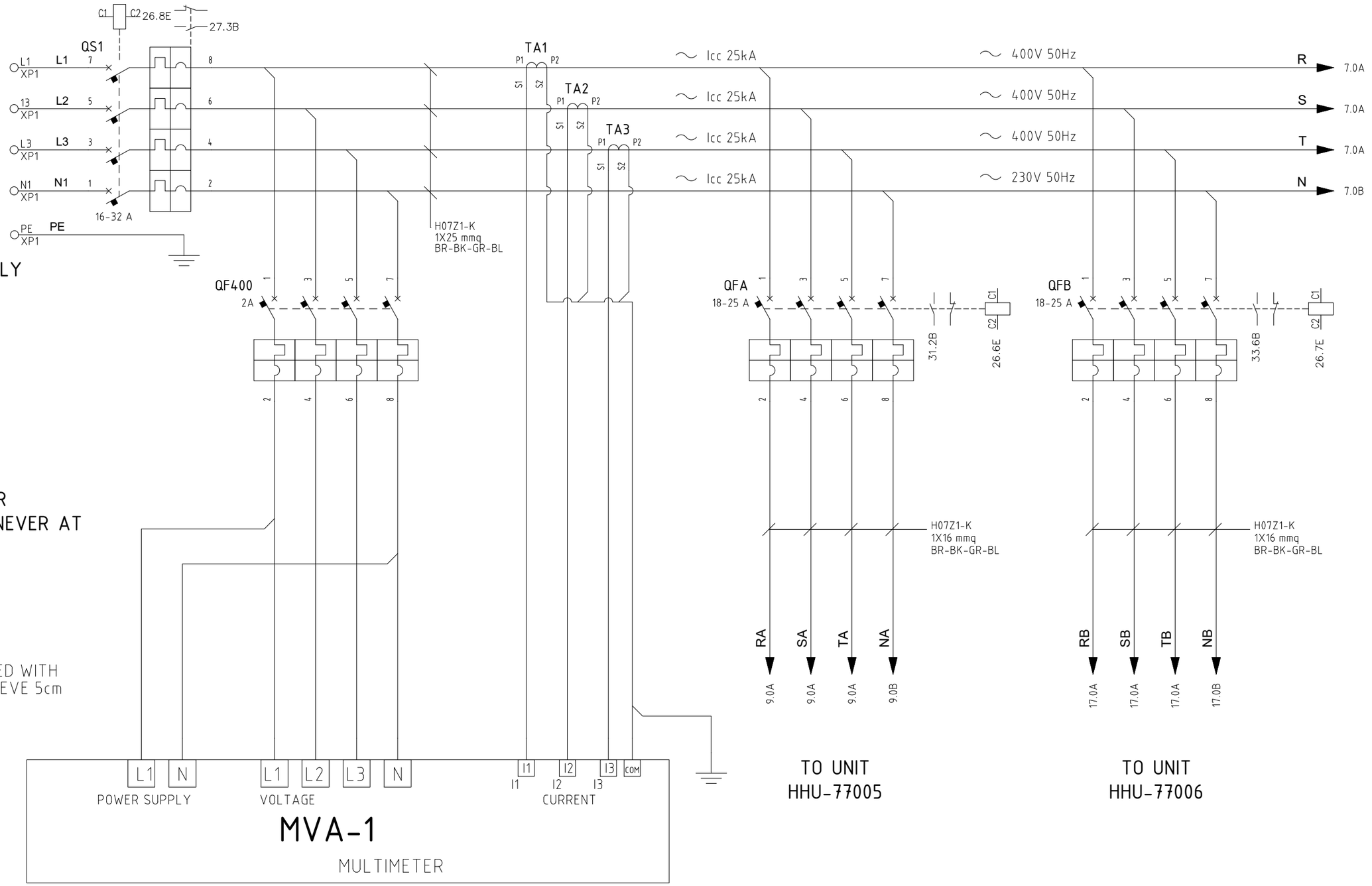
ONLY UNIT HHU-77005 OR
HHU-77006 ACTIVATED, NEVER AT
SAME TIME

COLOR IDENTIFICATION:
COLORED CABLE OR IDENTIFIED WITH
HEAT SHRINK COLOURED SLEEVE 5cm

400V 3P + N
- ⟶ BROWN
- ⟶ BLACK
- ⟶ GRAY
- ⟶ BLU

230V 1P + N
- ⟶ BROWN
- ⟶ BLU

24Vdc
- ⟶ RED
- ⟶ BLACK



PANEL INTERNAL CABLES TYPE: H07Z1-K OR FG17
UNIT INTERNAL CABLES TYPE: FG16OM16 GREEN SHEATH NOT ARMOURED

REV.	MODIFICA	DATA	FIRMA		
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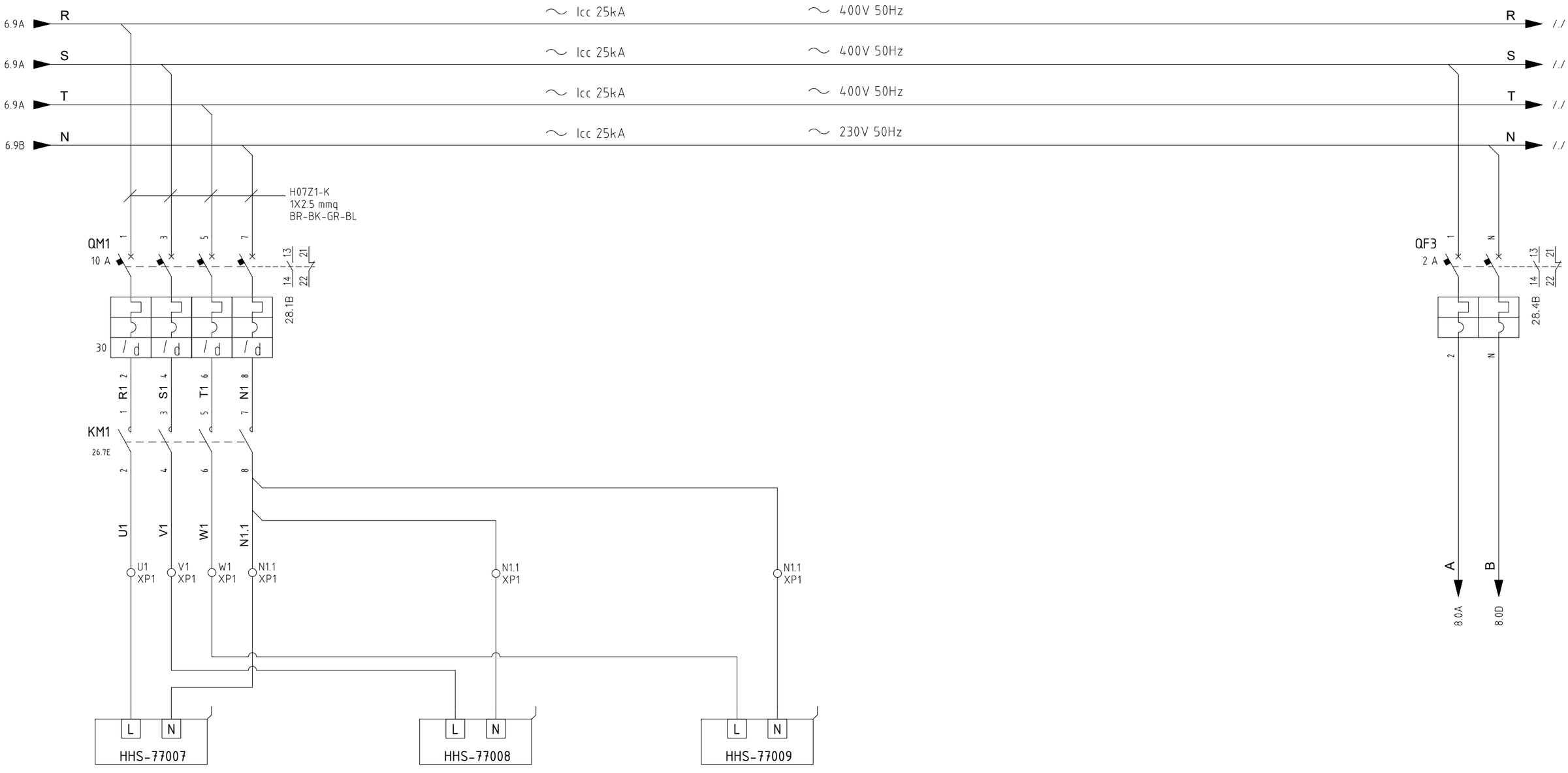
CLIENT:
CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
POWER SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 6
F.S. 7



HHS-77-007	
ELECTRICAL HEATER	
RATED	ABSORBED
2 kW	2 kW
8.7 A	8.7 A

HSS-77-008	
ELECTRICAL HEATER	
RATED	ABSORBED
2 kW	2 kW
8.7 A	8.7 A

HSS-77-009	
ELECTRICAL HEATER	
RATED	ABSORBED
2.7 kW	2 kW
8.7 A	8.7 A

REV.		DATA	FIRMA		
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02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.	DISEGN.	F.M.
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REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.

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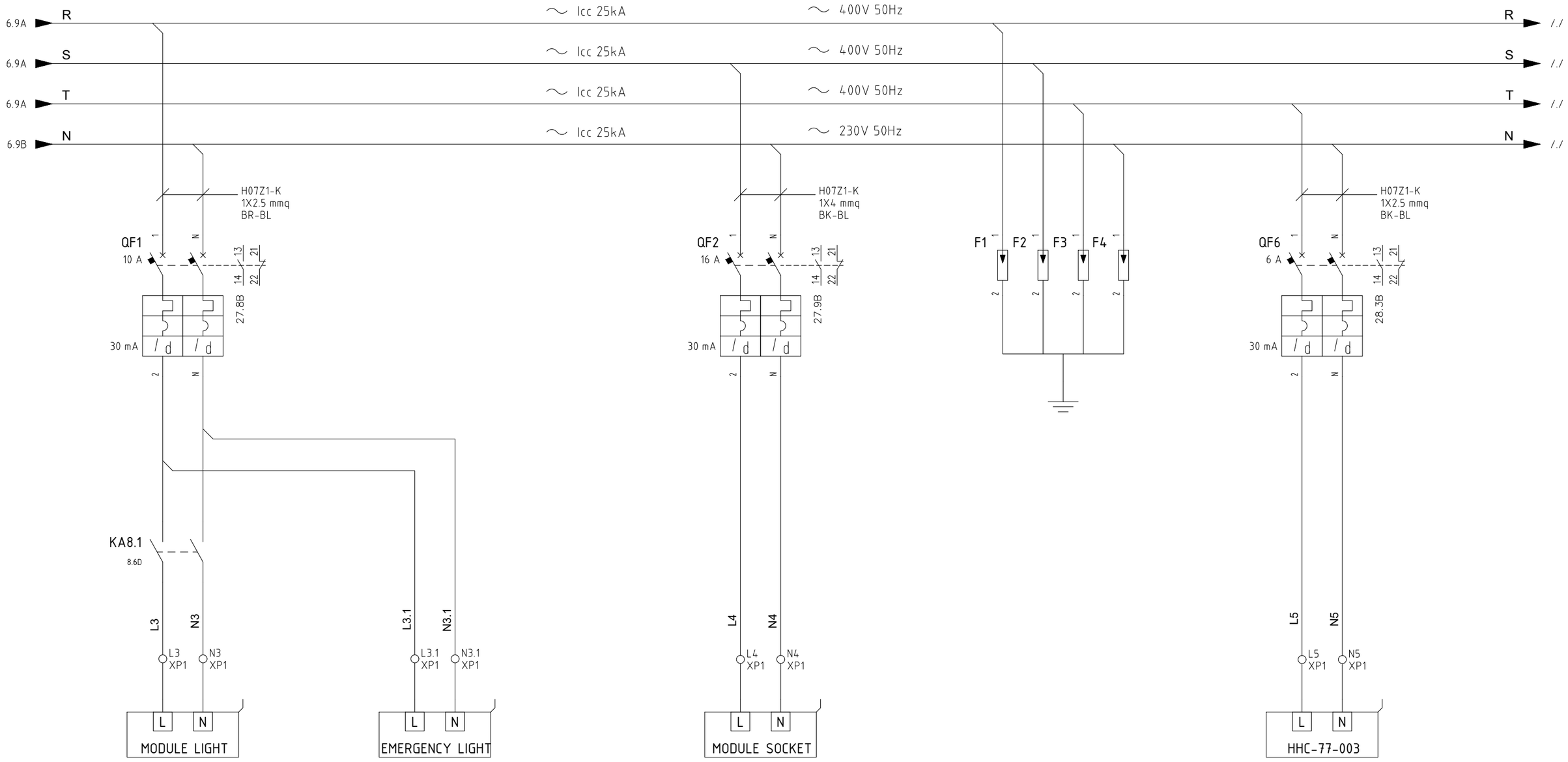
CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
POWER SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 7
F.S. 7A



MODULE INTERNAL LIGHT	
RATED	ABSORBED
1 kW	0.9 kW
4.35 A	3.9 A

MODULE INTERNAL SOCKET	
RATED	ABSORBED
3.5 kW	3.5 kW
16 A	16 A

HHC-77-003	
HEATING CABLE	
RATED	ABSORBED
0.25 kW	0.25 kW
1.2 A	1.2 A

REV.	MODIFICA	DATA	FIRMA
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02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.
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DATA	22/04/2024
DISEGN.	F.M.
VISTO	S.S.
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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM

POWER SECTION
Power section

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 7A
F.S. 8

PANEL INTERNAL LIGHT POWER SECTION

PANEL ANTI CONDENSING HEATER POWER SECTION

PANEL FAN VENTILATION POWER SECTION

230V VOLTAGE PRESENCE LIGHT POWER SECTION

7.7D A

A /.1

PLS8.1 13 14 8.1

PL8.1 X1 X2

PHT8.1 13 t< 14 8.2

PH8.1

PFT8.1 13 t> 14 8.3

PF8.1

M 1~ A1

HL8.1 X1 X2 WH

KA26.2 26.5E 11 14 12 8.4

KA8.1 A1 A2

7.8D B

B /.1

7A.1D
7A.1D

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM

POWER SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 8
F.S. 9

HHU-77005
SECTION

RATED POWER: 11 kW
RATED CURRENT: 18.81 A

ABSORBED POWER: 7.6 kW
ABSORBED CURRENT: 14.4 A

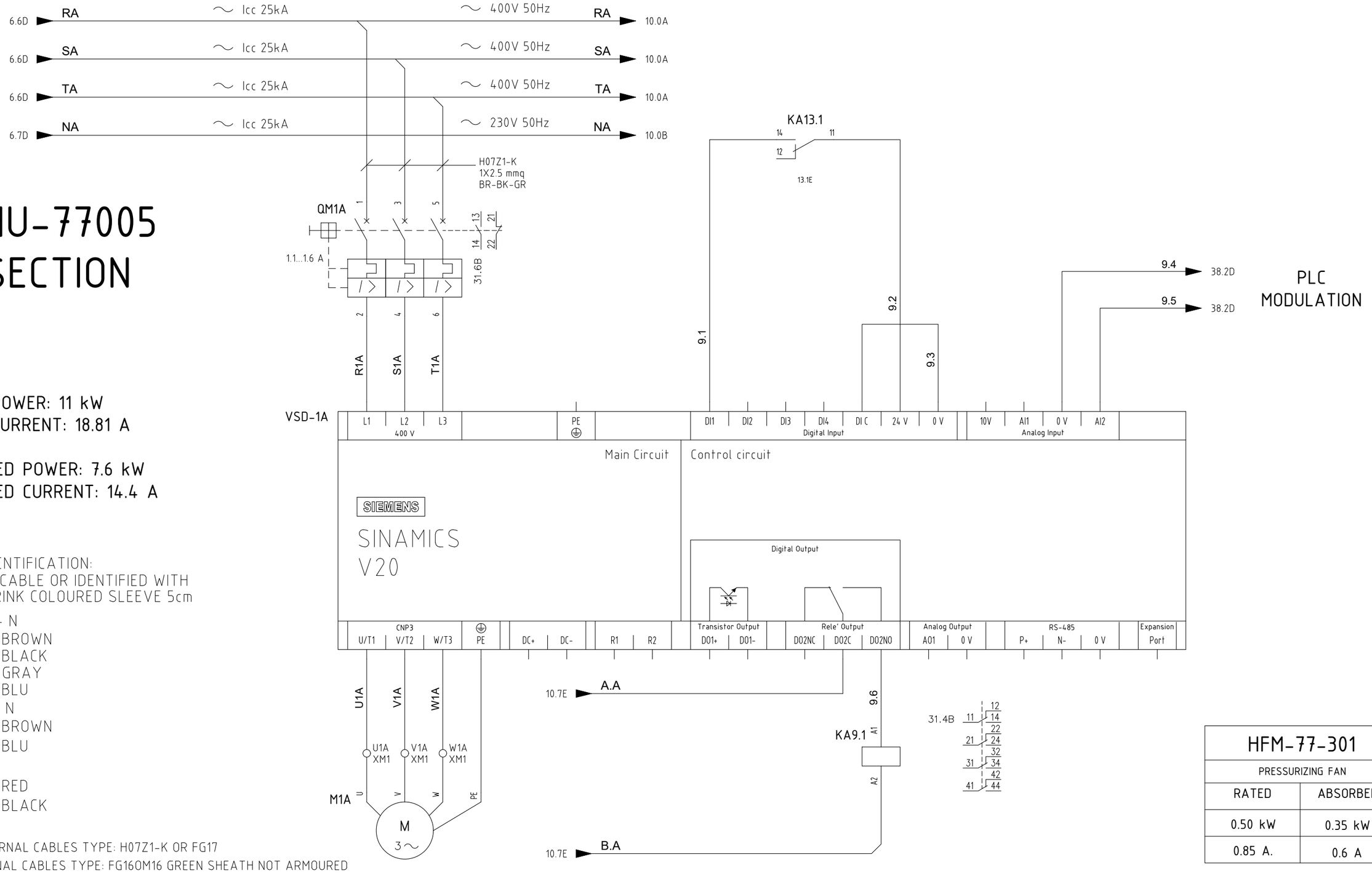
COLOR IDENTIFICATION:
COLORED CABLE OR IDENTIFIED WITH
HEAT SHRINK COLOURED SLEEVE 5cm

400V 3P + N
- ⟶ BROWN
- ⟶ BLACK
- ⟶ GRAY
- ⟶ BLU

230V 1P + N
- ⟶ BROWN
- ⟶ BLU

24Vdc
- ⟶ RED
- ⟶ BLACK

PANEL INTERNAL CABLES TYPE: H07Z1-K OR FG17
UNIT INTERNAL CABLES TYPE: FG160M16 GREEN SHEATH NOT ARMOURED



HFM-77-301	
PRESSURIZING FAN	
RATED	ABSORBED
0.50 kW	0.35 kW
0.85 A.	0.6 A

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
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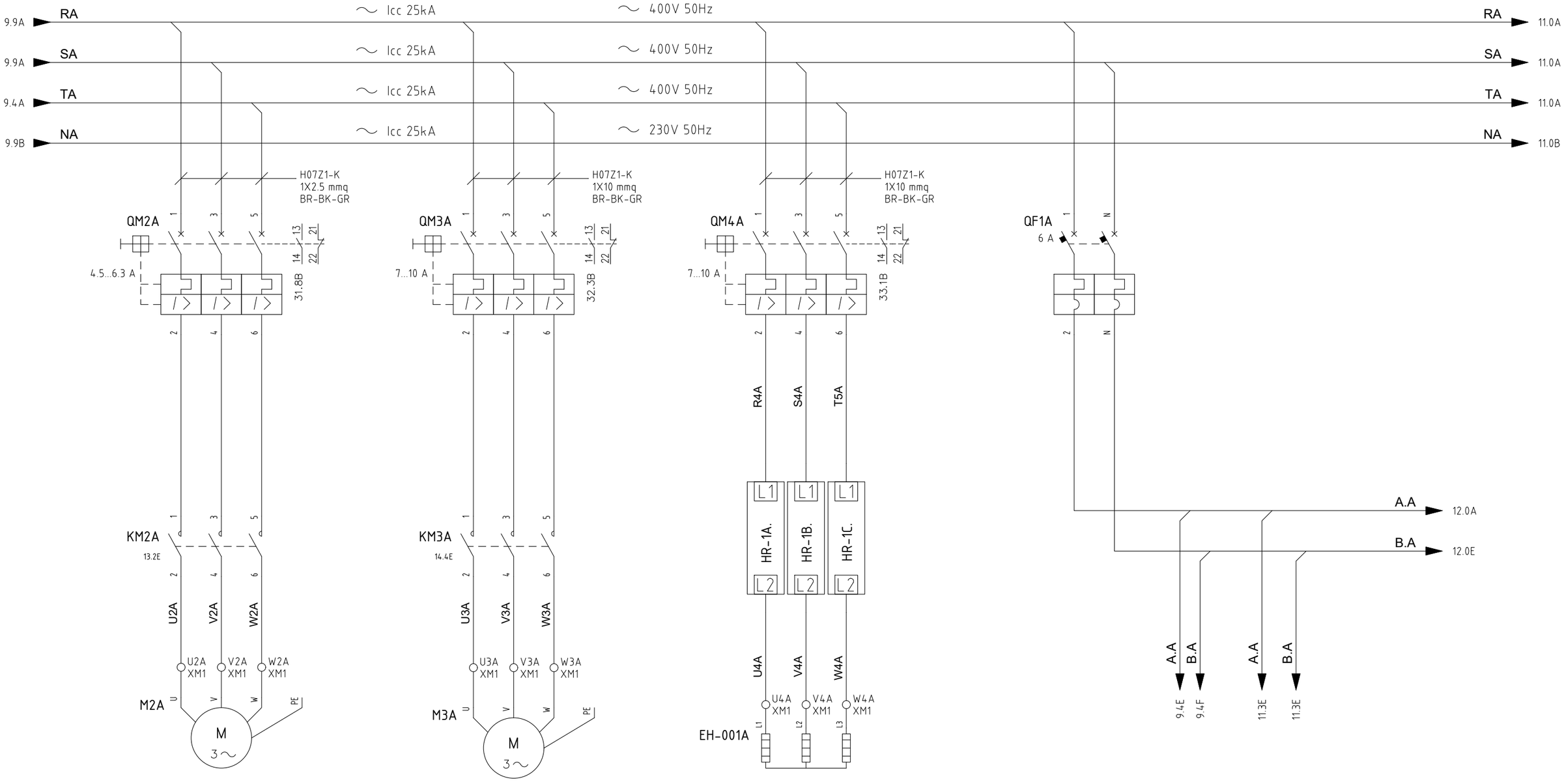
CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
POWER SECTION A

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 9
F.S. 10



HFM-77-302	
SUPPLY FAN	
RATED	ABSORBED
3 kW	2.48 kW
5.10 A	4.21 A

HCO-77-301	
COMPRESSOR 1 A	
RATED	ABSORBED
5.8 kW	3.80 kW
9.86 A	7.3 A

HSS-77-301	
ELECTRICAL HEATER	
RATED	ABSORBED
6.00 kW	6.00 kW
8.67 A	8.67 A

REV.	MODIFICA	DATA	FIRMA	APPR.	
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
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				APPR.	M.G.

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BASE LOAD POWER HUB (BLPH)
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POWER SECTION A

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 10
F.S. 11

10.9A RA ~ Icc 25kA ~ 400V 50Hz → RA /./

10.9A SA ~ Icc 25kA ~ 400V 50Hz → SA /./

10.9A TA ~ Icc 25kA ~ 400V 50Hz → TA 42.4F

10.9B NA ~ Icc 25kA ~ 230V 50Hz → NA /./

H07Z1-K
1X4 mmq
BR-BK-GR

QM5A

2.2...3.2 A

32.6B

R5A S5A T5A

KA15.2

15.4D

11.8 11.9 11.10 11.11

118 XA1

119 XA1

PTH-77-301

VSD-5A

L1 L2 L3 — 400 V | PE | DI1 DI2 DI3 DI4 DI C 24 V 0 V — Digital Input | 10V AI1 0 V AI2 — Analog Input

Main Circuit | Control circuit

SIEMENS
SINAMICS
V20

Digital Output

CNP3: U/T1 V/T2 W/T3 PE | DC+ DC- | R1 R2 | Transistor Output: DO1+ DO1- | Rele' Output: DO2NC DO2C DO2NO | Analog Output: AO1 0 V | RS-485: P+ N- 0 V | Expansion Port

10.7E A.A

KA11.1 A1 A2

10.8E B.A

14.2B 11 12 14

32.7B 21 22 24 31 32 34 41 42 44

U5A.1 V5A.1 W5A.1

U5A.1 XM1 V5A.1 XM1 W5A.1 XM1

M5.1A U V W PE M 3~

M5.2A U V W PE M 3~

HFM-77-305	
CONDENSER FAN 1	
RATED	ABSORBED
0.5 kW	0.35 kW
0.85 A	0.6 A

HFM-77-306	
CONDENSER FAN 2	
RATED	ABSORBED
0.5 kW	0.35 kW
0.85 A	0.6 A

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B-300 HV-MV SWITCHGEAR ROOM
POWER SECTION A

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 11
F.S. 12

START / STOP HHU-77005	MOTORISED DAMPER POWER SUPPLY	MOTORISED DAMPER OPEN SIGNAL HHU-77005	MOTORISED DAMPER CLOSED SIGNA HHU-77005	MOTORISED DAMPER NOT OPEN ALARM SIGNAL HHU-77005

10.8D A.A

KA30.3
30.5D

KA12.3
12.7E

12.2

KA12.1
12.5E

12.3

KT11.1
120"

On–D 12.7B

HDZ-77-301 (XMD1 3, 5)
HDZ-77-302 (XMD1 4, 6)
HDZ-77-303 (XMD1 9, 11)
HDZ-77-301 (XMD1 10, 12)
HDZ-77-302 (XMD1 15, 17)
HDZ-77303 (XMD1 16, 18)

12.4
12.7
12.5
12.8
12.6
12.9

KA12.1
KA12.2

HDZ-77-301 (XMD1 1, 2)
HDZ-77-302 (XMD1 7, 8)
HDZ-77303 (XMD1 13, 14)

M 1~

KA12.3
12.7E

Delay/Ritardo
KT11.1
12.1E

12.10

12.11

KA37.1
37.2D

KA12.3

10.8D B.A

A.A 13.0A

B.A 13.0E

12.1C 11 12 14
13.1B 21 22 24
13.2B 31 32 34
31.2B 41 42 44

31.2B 11 12 14
21 22 24
31 32 34
41 42 44

12.1C 11 12 14
12.8B 21 22 24
28.5B 31 32 34
41 42 44

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
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B-300 HV-MV SWITCHGEAR ROOM
AUX SECTION A

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 12
F.S. 13

0	1	2	3	4	5	6	7	8	9

PRESSURIZING FAN START / STOP
HH-77005

SUPPLY AIR FAN START/STOP
HH-77005

SUPPLY AIR FAN BROKEN BELT ALARM
HHU-77005

SUPPLY AIR FAN MOTOR HEATER
HHU-77005

PRESSURIZIN FAN OVERLOAD PROTECTION
HHU-77005

12.9A A.A

A.A 14.0A

KA12.1 21 24 22 12.5E

13.1

KA13.3 11 14 12 13.8E

13.2

KA13.1 A1 A2

KA12.1 31 34 32 12.5E

13.3

KM2A A1 A2

KA37.1 21 24 22 37.2D

PDSL-77-301 p> 13 14

100 XA1

101 XA1

13.5

KA13.2 11 14 12 13.4E

13.4

KT13.1 A1 A2

Delay/Ritardo

KT13.1 13.3E

KM2A 21 22 13.2E

13.6

106 XA1

HSS-77-302

107 XA1

MTP-001A A1/11

SIEMENS

TRIPPED

NC NO

T1 T2 A2 12 14

13.7 13.8

102 XA1 103 XA1

TE-77-301

13.9

KA13.3 A1 A2

12.9E B.A

B.A 14.0E

9.5B 11 14 12 21 24 22 31 34 32 41 44

10.1D 2 1

10.1D 4 3

10.1D 6 5

14.1B 14 13

31.7B 44 43

13.5B 22 21 32 31

13.4B On-D

13.4C 11 14 12 29.4B 21 24 22 31 34 32 41 44

13.1C 11 14 12 21 24 22 29.1B 31 34 32 41 44

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AUX SECTION A

ROSETTI MARINO

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FG. 13
F.S. 14

PRESSURIZING FAN NìMOTOR HEATER
HHU-77005

COMPRESSOR START/STOP
HHU-77005

LOW PRESSURE ALARM
HHU-77005

HIGH PRESSURE ALARM
HHU-77005

COMPRESSOR OIL HEATER
HHU-77005

13.9A A.A

A.A 15.0A

KA30.4
30.6D

KA30.5
35.6D
PLC START

KM2A
13.2E

KA14.1
14.5E

KA14.2
14.7E

KA11.1
11.4E

KT14.1
14.2E
Delay/Ritardo

PSL-77-301
p<
124 XA1
125 XA1

KA14.1
14.5E

KT14.2
14.4E
Delay/Ritardo

KA37.1
37.2D

PSH-77-301
p>
126 XA1
127 XA1

KA14.2
14.7E

KA37.1
37.2D

KM3A
14.4E

14.1 14.2 14.3 14.4 14.5 14.6 14.7 14.8 14.9 14.10 14.11 14.12 14.13

HSS-77-303
108 XA1
109 XA1

KT14.1 A1 A2 120"

KM3A A1 A2

KT14.2 A1 A2 10"

KA14.1 A1 A2

KA14.2 A1 A2

HSS-77-304
110 XA1
111 XA1

13.9E B.A

B.A 15.0E

On–D 14.4B

On–D 14.5C

10.3D 2 1
10.3D 4 3
10.3D 6 5
15.1B 14 13
32.2B 44 43
14.8B 22 21
32 31

14.2C 11 12 14
14.6B 21 22 24
32.5B 31 32 34
41 42 44

14.2D 11 12 14
14.8B 21 22 24
32.4B 31 32 34
41 42 44

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
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BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
AUX SECTION A

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 14
F.S. 15

1	3	4	6	8
SOLENOID VALVE HHU-77005	FILTER CLOGGED HHU-77005	CONDENSING PRESSURE SWITCH HHU-77005	ELECTRICAL HEATER SECURITY THERMOSTATE HHU-77005	PRESSURIZING FILTER CLOGGED

14.9A A.A

A.A 16.0A

KM3A
14.4E
13
14
15.1

HSV-77-301
A1
A2
112 XA1
113 XA1

PDSH-77-301
p>
13
14
114 XA1
115 XA1
15.2

KA15.1
A1
A2

PC-77-301
p>
13
14
116 XA1
117 XA1
15.3

KA15.2
A1
A2

TSH-77-301
t>
11
12
120 XA1
121 XA1
15.4

TSHH-77-301
t>
11
12
122 XA1
123 XA1
15.5

KA15.3
A1
A2

PDSH-77-302
p>
13
14
128 XA1
129 XA1
15.6

KA15.4
A1
A2

14.9E B.A

B.A 16.0E

32.8B
11 12 14
21 22 24
31 32 34
41 42 44

11.3B
11 12 14
21 22 24
31 32 34
41 42 44

32.8B
11 12 14
21 22 24
31 32 34
41 42 44

27.2B
11 12 14
21 22 24
31 32 34
41 42 44

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.	DISEGN.	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.	VISTO	S.S.

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tel. 0039–0371–69076
frigotermica@frigotermica.com

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
AUX SECTION A

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 15
F.S. 16

PANEL INTERNAL LIGHT	PANEL FAN	PANEL HEATER	230V AUX VOLTAGE PRESENCE
HHU-77005	HHU-77005	HHU-77005	HHU-77005

15.9A A.A

A.A /./

PLS16.1 11 12 16.1

PFT16.1 13 14 16.2 t>

PHT16.1 13 14 16.3 t<

PL16.1 X1 X2

PF16.1 M 1~ A1

PH16.1

HL16.1 X1 X2 WH

15.9E B.A

B.A /./

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
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BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
AUX SECTION A

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 16
F.S. 17

HHU-77006
SECTION

RATED POWER: 11 kW
RATED CURRENT: 18.81 A

ABSORBED POWER: 7.6 kW
ABSORBED CURRENT: 14 A

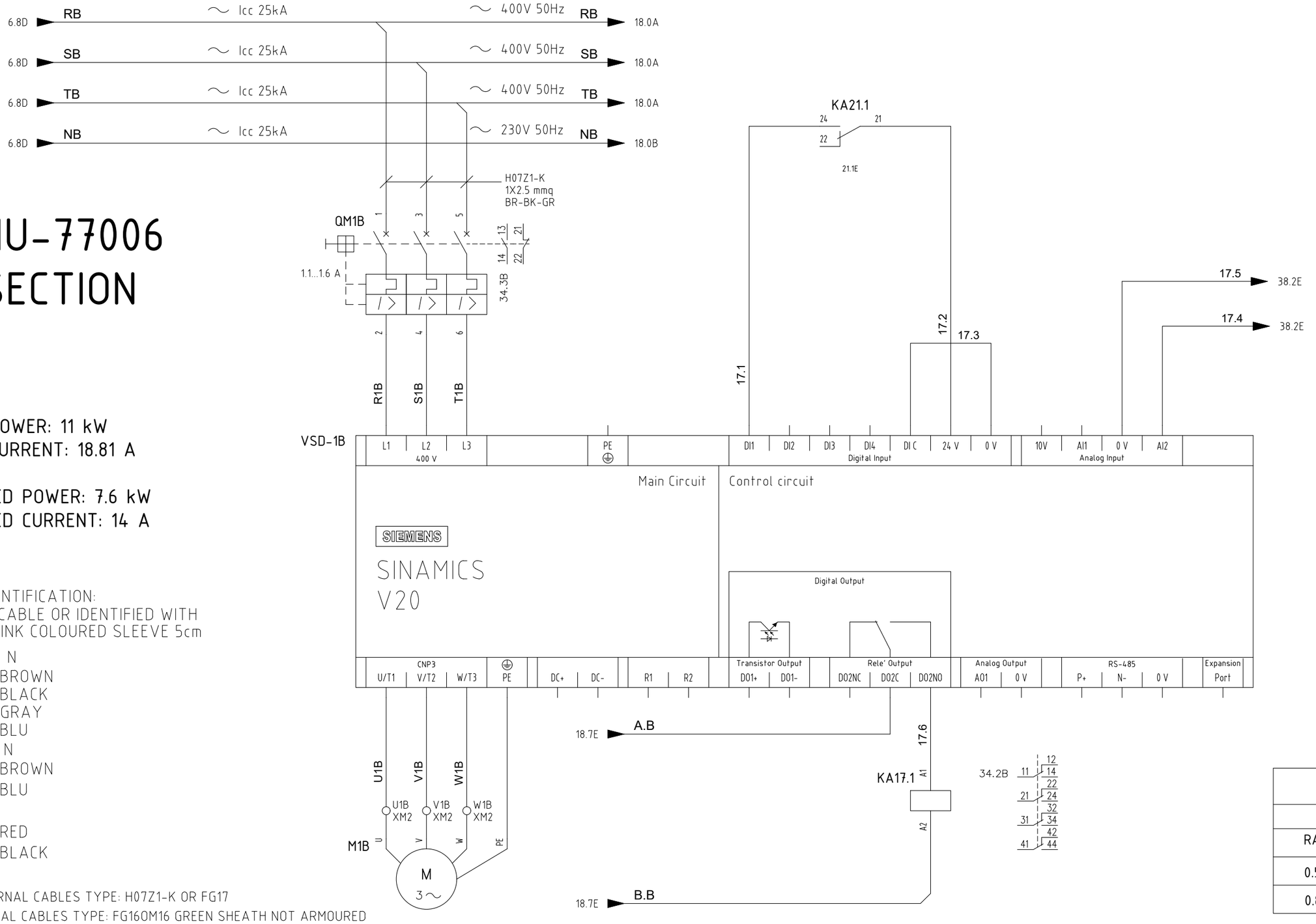
COLOR IDENTIFICATION:
COLORED CABLE OR IDENTIFIED WITH
HEAT SHRINK COLOURED SLEEVE 5cm

400V 3P + N
- ⟶ BROWN
- ⟶ BLACK
- ⟶ GRAY
- ⟶ BLU

230V 1P + N
- ⟶ BROWN
- ⟶ BLU

24Vdc
- ⟶ RED
- ⟶ BLACK

PANEL INTERNAL CABLES TYPE: H07Z1-K OR FG17
UNIT INTERNAL CABLES TYPE: FG160M16 GREEN SHEATH NOT ARMOURED



HFM-77-303	
PRESSURIZING FAN	
RATED	ABSORBED
0.5 kW	0.35 kW
0.85 A	0.6 A

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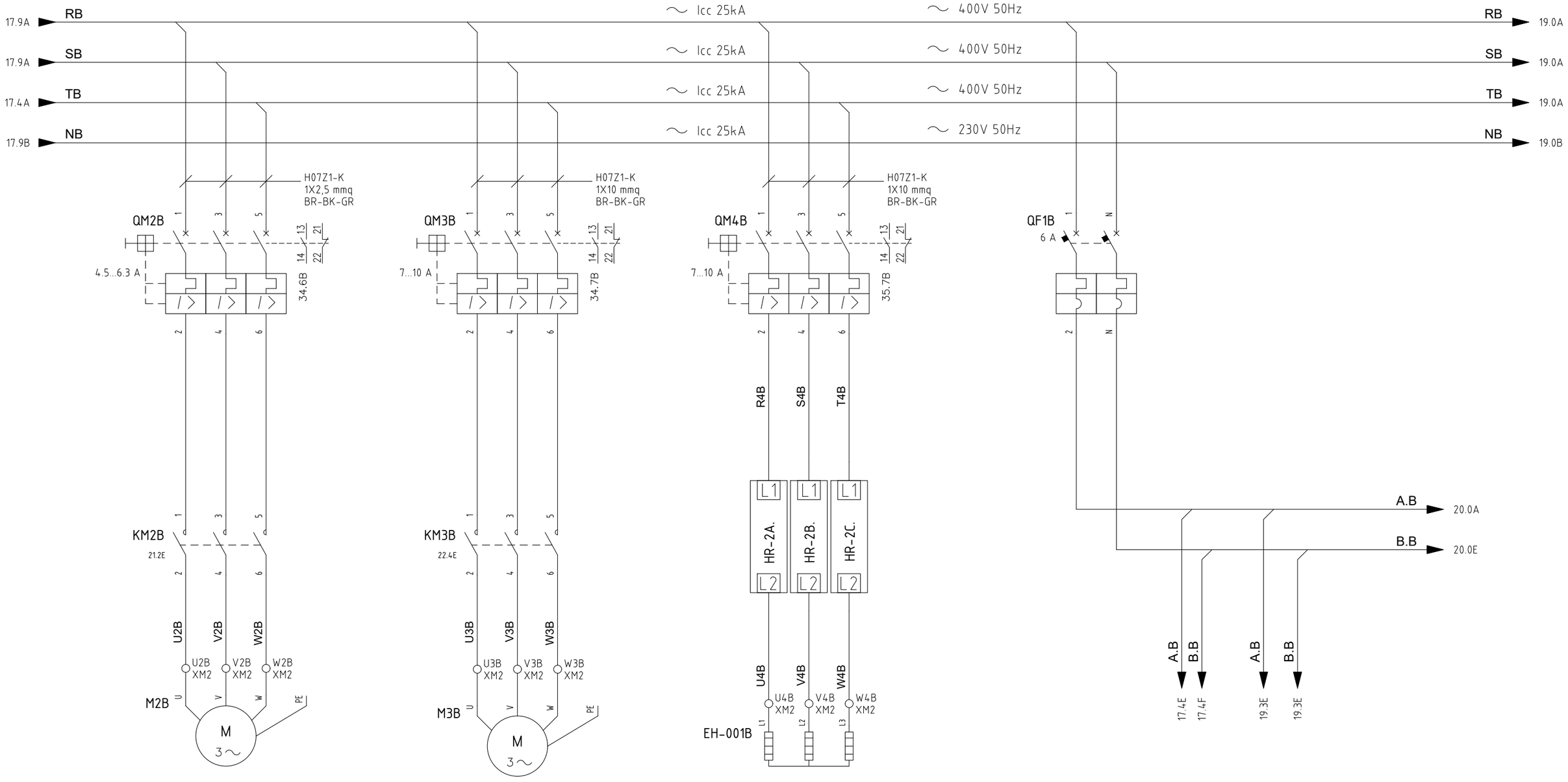
CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
POWER SECTION B

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 17
F.S. 18



HFM-77-304	
SUPPLY FAN	
RATED	ABSORBED
3.00 kW	2.48 kW
5.10 A	4.21 A

HCO-77-302	
COMPRESSOR 1 A	
RATED	ABSORBED
5.8 kW	3.80 kW
9.86 A	7.30 A

HHS-77-305	
ELECTRICAL HEATER	
RATED	ABSORBED
6.00 kW	6.00 kW
8.67 A	8.67 A

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
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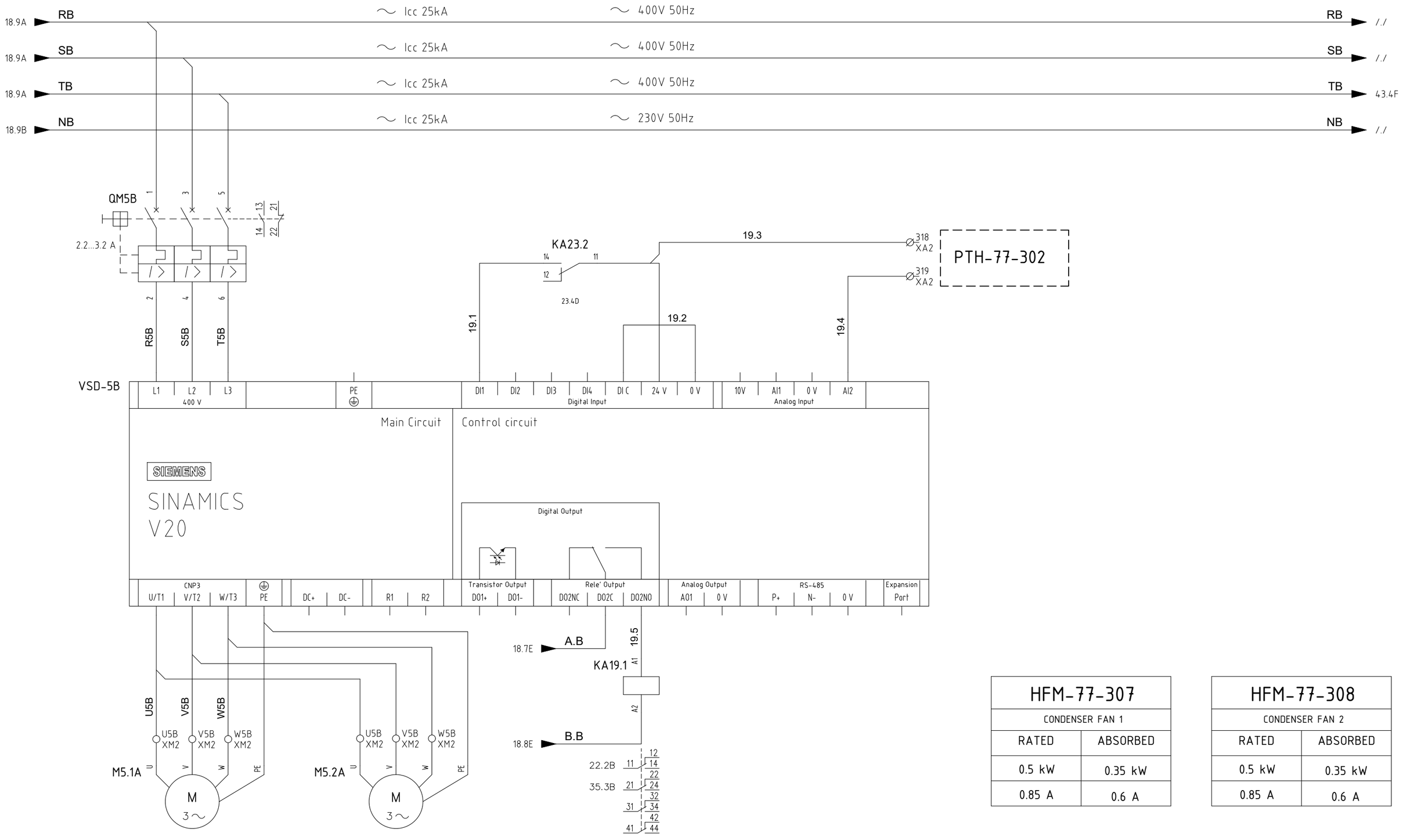
CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
POWER SECTION B

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 18
F.S. 19



HFM-77-307	
CONDENSER FAN 1	
RATED	ABSORBED
0.5 kW	0.35 kW
0.85 A	0.6 A

HFM-77-308	
CONDENSER FAN 2	
RATED	ABSORBED
0.5 kW	0.35 kW
0.85 A	0.6 A

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BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
POWER SECTION B

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 19
F.S. 20

START / STOP HHU-77006	MOTORISED DAMPER POWER SUPPLY	MOTORISED DAMPER OPEN SIGNAL HHU-77006	MOTORISED DAMPER CLOSED SIGNA HHU-77006	MOTORISED DAMPER NOT OPEN ALARM SIGNAL HHU-77006

18.8D A.B

A.B 21.0A

KA30.6
35.7D
UNIT B
START FROM PLC

20.1

KA20.3
20.7E

20.3

KA20.1
20.5E

KT20.1 20.4
120"

On–D 20.7B

200 XMD2
HDZ-77-304
M 1~
201 XMD2

206 XMD2
HDZ-77-305
M 1~
207 XMD2

212 XMD2
HDZ-77-306
M 1~
213 XMD2

202 XMD2
204 XMD2
HDZ-77-304 HDZ-77-304

203 XMD2
205 XMD2
20.5
20.8

208 XMD2
210 XMD2
HDZ-77-305 HDZ-77-305

209 XMD2
211 XMD2
20.6
20.9

214 XMD2
216 XMD2
HDZ-77-305 HDZ-77-305

215 XMD2
217 XMD2
20.7
20.10

KA20.1
KA20.2
KA20.3

KA20.3
20.7E

Delay/Ritardo
KT20.1
20.1E

20.11

KA37.2
37.3D

20.12

18.8D B.B

B.B 21.0E

20.1C 11 12 14
21.1B 21 22 24
33.7B 31 32 34
41 42 44

33.7B 11 12 14
21 22 24
31 32 34
41 42 44

20.1C 11 12 14
20.8B 21 22 24
33.6B 31 32 34
41 42 44

REV.	MODIFICA	DATA	FIRMA
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DISEGN.	F.M.
VISTO	S.S.
APPR.	M.G.

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BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
AUX SECTION B

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 20
F.S. 21

1	2	4	5	6	7
PRESSURIZING FAN START / STOP HH-77006	SUPPLY AIR FAN START/STOP HH-77006	SUPPLY AIR FAN BROKEN BELT ALARM HHU-77006	SUPPLY AIR FAN MOTOR HEATER HHU-77006		PRESSURIZIN FAN OVERLOAD PROTECTION HHU-77006

20.9A A.B

A.B 22.0A

KA20.1 21 24 22 — 20.5E
21.1
KA21.3 11 14 12 — 21.8E
21.2
KA21.1 A1 A2

KA21.1 11 14 12 — 21.1E
21.3
KM2B A1 A2

KA37.2 21 24 22 — 37.3D
21.12
KT21.1 A1 A2

300 XA2
PDSL-77-302 (p>) 13 14
301 XA2
21.4
KA21.2 21 24 22 — 21.4E
KA21.2 A1 A2

Delay/Ritardo
KT21.1 — 21.3E

KM2B 21 22 — 21.2E
21.5

306 XA2
HSS-77-306
307 XA2

MTP-001B A1/11 SIEMENS
(ϑ>) + -
TRIPPED
T1 T2 A2 NC NO 12 14
21.6 21.7
302 XA2 303 XA2
TE-77-302

21.8
KA21.3 A1 A2

20.9E B.B

B.B 22.0E

21.2B 11 12 14
17.5B 21 22 24
31 32 34
41 42 44

18.1D 2 1
18.1D 4 3
18.1D 6 5
22.1B 14 13
34.4B 44 43
21.5B 22 21
32 31

21.4B On–D

34.4B 11 12 14
21.4C 21 22 24
31 32 34
41 42 44

21.1C 11 12 14
33.8B 21 22 24
31 32 34
41 42 44

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
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BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
AUX SECTION B

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 21
F.S. 22

PRESSURIZING FAN NìMOTOR HEATER
HHU-77006

COMPRESSOR START/STOP
HHU-77006

LOW PRESSURE ALARM
HHU-77006

HIGH PRESSURE ALARM
HHU-77006

COMPRESSOR OIL HEATER
HHU-77006

21.9A A.B

A.B 23.0A

KA30.8
30.9D

KA30.7
30.8D

KM2B
21.2E

KA22.1
22.5E

KA22.2
22.7E

KA19.1
19.4E

KT22.1
22.2E
Delay/Ritardo

PSL-77-302

PSH-77-302

KA22.1
22.5E

KT22.2
22.4E
Delay/Ritardo

KA37.2
37.3D

KA22.2
22.7E

KA37.2
37.3D

KM3B
22.4E

HSS-77-307

HSS-77-308

KT22.1
120"

KM3B

KT22.2
10"

KA22.1

KA22.2

On-D 14.4B

On-D 14.5C

21.9E B.B

B.B 23.0E

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REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.

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CLIENT:
CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
AUX SECTION B

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 22
F.S. 23

SOLENOID VALVE
HHU-77006

FILTER CLOGGED
HHU-77006

CONDENSING PRESSURE SWITCH
HHU-77006

ELECTRICAL HEATER SECURITY THERMOSTATE
HHU-77006

PRESSURIZING FILTER CLOGGEDù

22.9A A.B

A.B 24.0A

KM3B
22.4E
13
14

23.1

312
XA2

HSV-77-302
A1
A2

313
XA2

PDSH-77-303
p>
13
14

314
XA2

315
XA2

23.2

KA23.1
A1
A2

PC-77-302
p>
13
14

316
XA2

317
XA2

23.3

KA23.2
A1
A2

TSH-77-302
t>
11
12

320
XA2

321
XA2

23.4

TSHH-77-302
t>
11
12

322
XA2

323
XA2

23.5

KA23.3
A1
A2

PDSH-77-304
p>
13
14

328
XA2

329
XA2

23.6

KA23.4
A1
A2

22.9E B.B

B.B 24.0E

35.4B
11 12 14 21 22 24 31 32 34 41 42 44

19.3B
11 12 14 21 22 24 31 32 34 41 42 44

35.6B
11 12 14 21 22 24 31 32 34 41 42 44

34.7B
11 12 14 21 22 24 31 32 34 41 42 44

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
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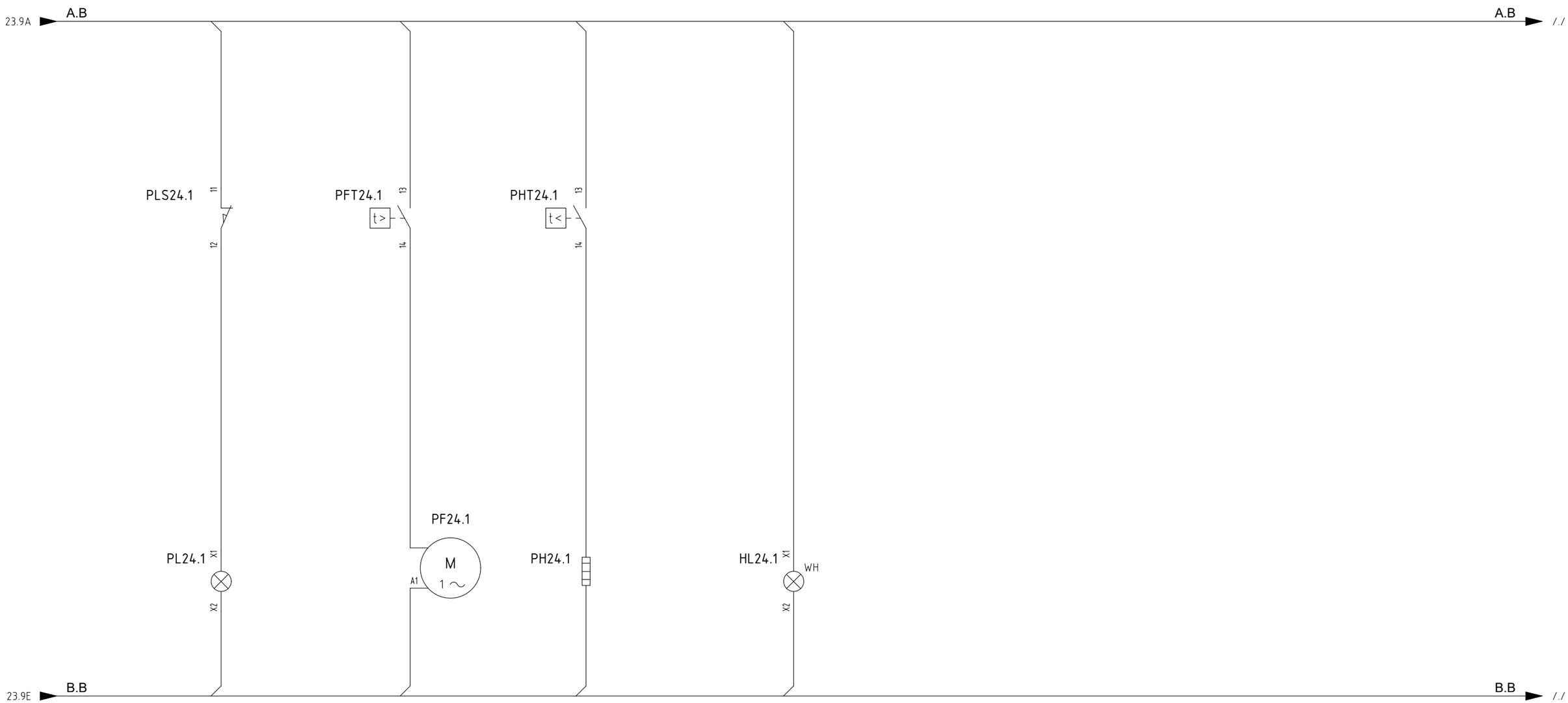
BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
AUX SECTION B

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 23
F.S. 24

PANEL INTERNAL LIGHT	PANEL FAN	PANEL HEATER	230V AUX VOLTAGE PRESENCE
HHU-77006	HHU-77006	HHU-77006	HHU-77006



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DATA	22/04/2024
DISEGN.	F.M.
VISTO	S.S.
APPR.	M.G.

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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
AUX SECTION B

ROSETTI MARINO

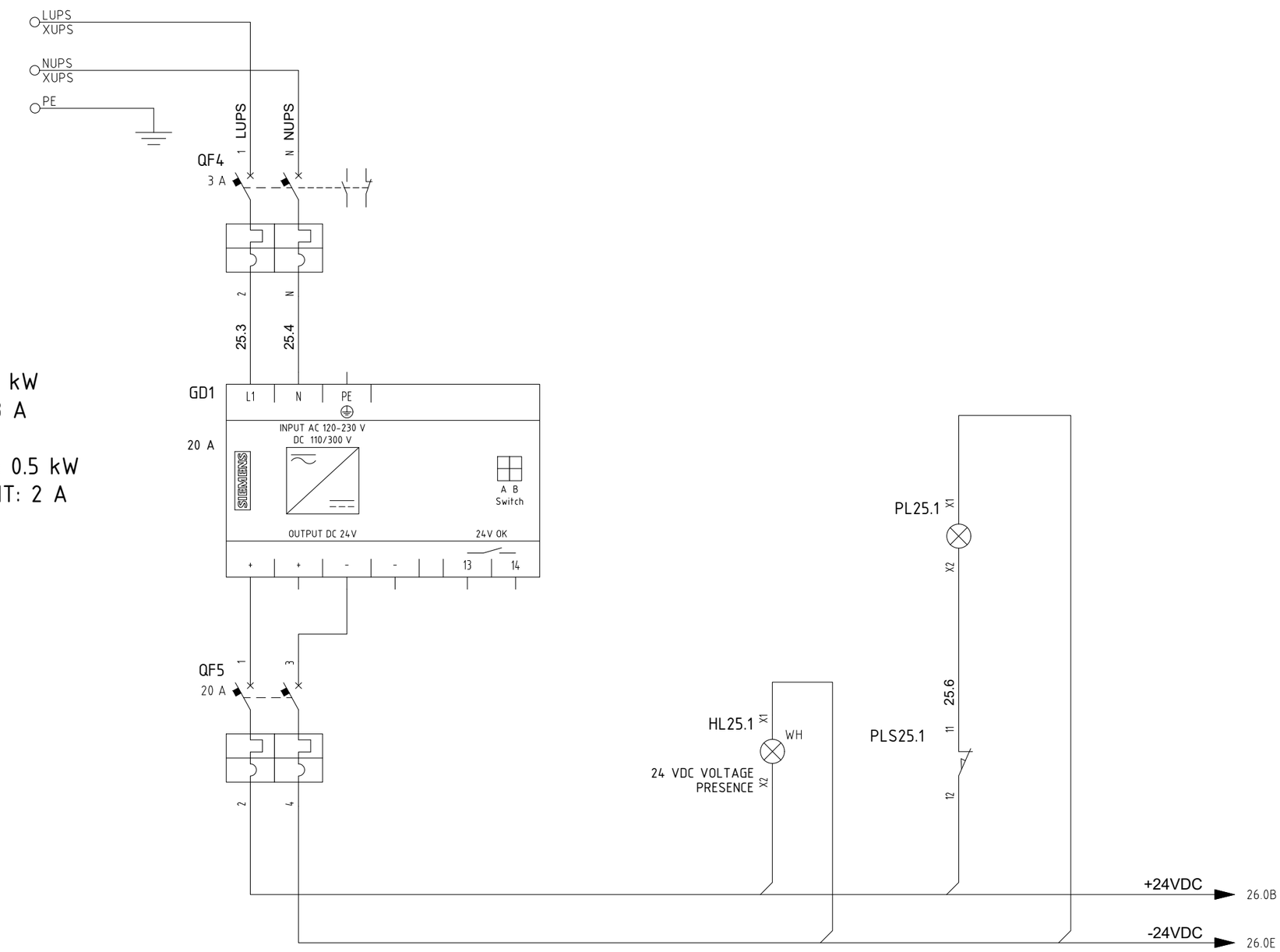
1724000049-HV-DA-00028

FG. 24
F.S. 25

POWER SUPPLY
FROM CLIENT
1PH + N + PE
230V 50Hz

RATED POWER: 0.7 kW
RATED CURRENT: 3 A

ABSORBED POWER: 0.5 kW
ABSORBED CURRENT: 2 A



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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM

UPS POWER SUPPLY

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 25
F.S. 26

SHUT DOWN FROM CUSTOMER SIS	PANEL EMERGENCY BUTTON LIGHT	HHS-77007/8/9 SPACE HEATER START / STOP COMMAND	MODULE LIGHT	HPB-77-301 EMERGENCY POWER BUTTON HHU-77005	HPB-77-302 EMERGENCY POWER BUTTON HHU-77006	HPB-77-303 EMERGENCY POWER BUTTON B300-HSB-001

25.7E +24VDC

+24VDC 26A.0A

24V DC
FROM SIS
1= OK
0= SHUT
DOWN

500 XC

26.1

KA26.1 A1

A2

27.1B 11 12 14 21 22 24 31 32 34 41 42 44

26.2

501 XC

HPB-77-303 33 34

26.8B

26.3

KA30.9 11 12

30.3D

14

26.4

504 XC 506 XC

LIGHT
PUSH BUTTON

505 XC 507 XC

26.5

104 XA1 304 XA2

HPB-77-301 13 14

HPB-77-302 13 14

31.1B

HPB-77-303 13 14

33.5B

105 XA1 305 XA2

26.6

26.7

RD X1 X2

26.8

EPB-002L X1 X2 RD

KM1 A1 A2

KA26.2 A1 A2

QFA C1 C2

6.6B

QFB C1 C2

6.8B

QS1 C1 C2

6.2B

25.7E -24VDC

-24VDC 26A.0E

7.0D 2 1
7.0D 4 3
7.0D 6 5
7.0D 8 7
28.2B 54 53
62 61
72 71
84 83

8.6B 11 12 14 21 22 24 31 32 34 41 42 44

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BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM

PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 26
F.S. 26A

HFD-77007
CLOSED FEEDBACK

HFD-77008
CLOSED FEEDBACK

HFD-77009
CLOSED FEEDBACK

HFD-77010
CLOSED FEEDBACK

HFD-77011
CLOSED FEEDBACK

HFD-77007
OPEN FEEDBACK

HFD-77008
OPEN FEEDBACK

HFD-77009
OPEN FEEDBACK

HFD-77010
OPEN FEEDBACK

HFD-77011
OPEN FEEDBACK

25.7E +24VDC → +24VDC 26A.0A

700 XFD
701 XFD
702 XFD
703 XFD
HFD-77007 11 12 13 14

704 XFD
705 XFD
706 XFD
707 XFD
HFD-77008 11 12 13 14

708 XFD
709 XFD
710 XFD
711 XFD
HFD-77009 11 12 13 14

712 XFD
713 XFD
714 XFD
715 XFD
HFD-77010 11 12 13 14

716 XFD
717 XFD
718 XFD
719 XFD
HFD-77011 11 12 13 14

KA26A.1 A1 A2
KA26A.2 A1 A2
KA26A.3 A1 A2
KA26A.4 A1 A2
KA26A.5 A1 A2
KA26A.6 A1 A2
KA26A.7 A1 A2
KA26A.8 A1 A2
KA26A.9 A1 A2
KA26A.10 A1 A2

25.7E -24VDC → -24VDC 26A.0E

34.2B 11 12 14 22 21 24 44.2B
34.3B 11 12 14 22 21 24 44.3B
34.4B 11 12 14 22 21 24 44.5B
34.4B 11 12 14 22 21 24 44.6B
34.5B 11 12 14 22 21 24 44.8B
34.6B 11 12 14 22 21 24 44.9B
39B.2B 11 12 14 22 21 24 44.2E
39B.3B 11 12 14 22 21 24 44.3E
39B.4B 11 12 14 22 21 24 44.5E
39B.4B 11 12 14 22 21 24 44.6E

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S.p.186–Cornegliano Laud. (Lo) Italy
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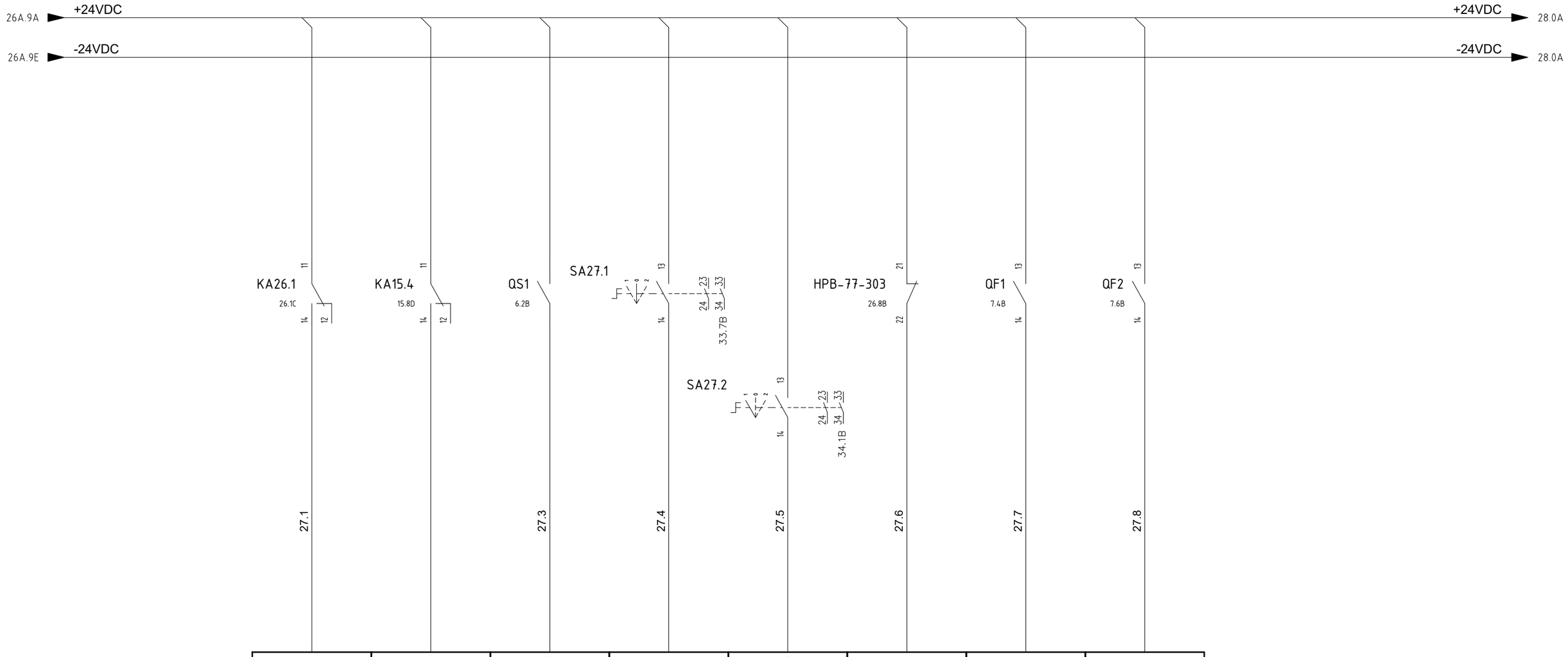
CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 26A
F.S. 27



1	2	3	4	5	6	7	8
I0.0	I0.1	I0.2	I0.3	I0.4	I0.5	I0.6	I0.7
CPU: QUADRO GENERALE MOD. : 4	CPU: QUADRO GENERALE MOD. : 4	CPU: QUADRO GENERALE MOD. : 4	CPU: QUADRO GENERALE MOD. : 4	CPU: QUADRO GENERALE MOD. : 4	CPU: QUADRO GENERALE MOD. : 4	CPU: QUADRO GENERALE MOD. : 4	CPU: QUADRO GENERALE MOD. : 4
Name: Sheet:	Name: Sheet:	Name: Sheet:	Name: Sheet:	Name: Sheet:	Name: Sheet:	Name: Sheet:	Name: Sheet:
SHUT DOWN FROM SIS 0=SHUT DOWN 1= NORMAL	HHU-77005 PRESS FILTER CLOGGED 0=NORMAL 1=CLOGGED	MAIN BRAKER TRIP	HHU-77005 AUTOMATIC MODE 1=AUTOMATIC 0= NOT AUTOMATIC	HHU-77006 AUTOMATIC MODE 1=AUTOMATIC 0=NOT AUTOMATIC	EPB-002 PANEL EMERGENCY POWER BUTTON	MODULE LIGHT TRIP	MODULE SOCKET TRIP

REV.	MODIFICA	DATA	FIRMA
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.

DATA	22/04/2024
DISEGN.	F.M.
VISTO	S.S.
APPR.	M.G.

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CLIENT:
CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 27
F.S. 28

27.9A +24VDC

27.9A -24VDC

+24VDC 29.0A

-24VDC 29.0A

QM1	KM1	QF6	QF3	KA12.3	KA12.2	KA12.1
7.0B	26.7E	7A.8B	7.7B	12.7E	12.6E	12.5E
13	53	13	13	31	11	41
14	54	14	14	34	14	44
				32	12	42
28.1	28.2	28.3	28.5	28.6	28.7	28.8

9	10	11	12	13	14	15	16	L+ M
I1.0	I1.1	I1.2	I1.3	I1.4	I1.5	I1.6	I1.7	
CPU: QUADRO GENERALE MOD. : 4	CPU: QUADRO GENERALE MOD. : 4	CPU: QUADRO GENERALE MOD. : 4	CPU: QUADRO GENERALE MOD. : 4	CPU: QUADRO GENERALE MOD. : 4	CPU: QUADRO GENERALE MOD. : 4	CPU: QUADRO GENERALE MOD. : 4	CPU: QUADRO GENERALE MOD. : 4	CPU: QUADRO GENERALE MOD. : 4
Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:
HSS-77007/8/9 SPACE HEATER TRIP	HSS-77007/8/9 SPACE HEATER RUN SIGNAL	HEATING CABLE TRIP	SPARE	AUX SECTION TRIP	HHU-77005 MOTORISE DAMPER NOT OPEN FAULT	HHU-77005 MOTORISE DAMPER CLOSED	HHU-77005 MOTORISE DAMPER OPEN	

REV.	MODIFICA	DATA	FIRMA
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.

DATA	22/04/2024
DISEGN.	F.M.
VISTO	S.S.
APPR.	M.G.

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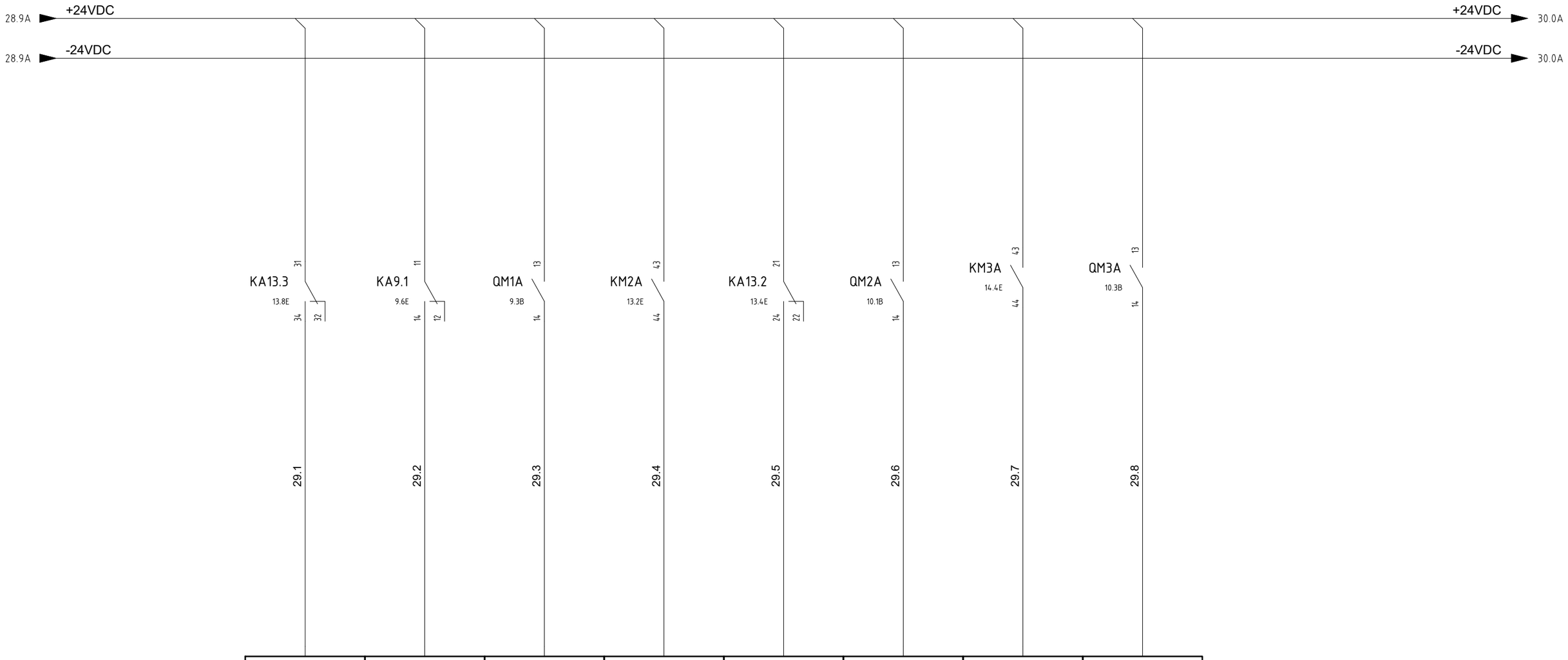
CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 28
F.S. 29



1	2	3	4	5	6	7	8
I2.0	I2.1	I2.2	I2.3	I2.4	I2.5	I2.6	I2.7
CPU: QUADRO GENERALE MOD. : 5	CPU: QUADRO GENERALE MOD. : 5	CPU: QUADRO GENERALE MOD. : 5	CPU: QUADRO GENERALE MOD. : 5	CPU: QUADRO GENERALE MOD. : 5	CPU: QUADRO GENERALE MOD. : 5	CPU: QUADRO GENERALE MOD. : 5	CPU: QUADRO GENERALE MOD. : 5
Name: A4 Sheet:	Name: A4 Sheet:	Name: A4 Sheet:	Name: A4 Sheet:	Name: A4 Sheet:	Name: A4 Sheet:	Name: A4 Sheet:	Name: A4 Sheet:
HHU-77005 TE-77-301 THERMIC PROT. RELAY	HHU-77005 HFM-77-301 VSD-1A MALFUNCTION	HHU-77005 HFM-77-301 TRIP	HHU-77005 HFM-77-302 RUN SIGNAL	HHU-77005 HFM-77-302 BROKEN BELT ALARM	HHU-77005 HFM-77-302 TRIP	HHU-77005 HCO-77-301 RUNNING SIGNAL	HHU-77005 HCO-77-301 TRIP

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.	DISEGN.	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.	VISTO	S.S.

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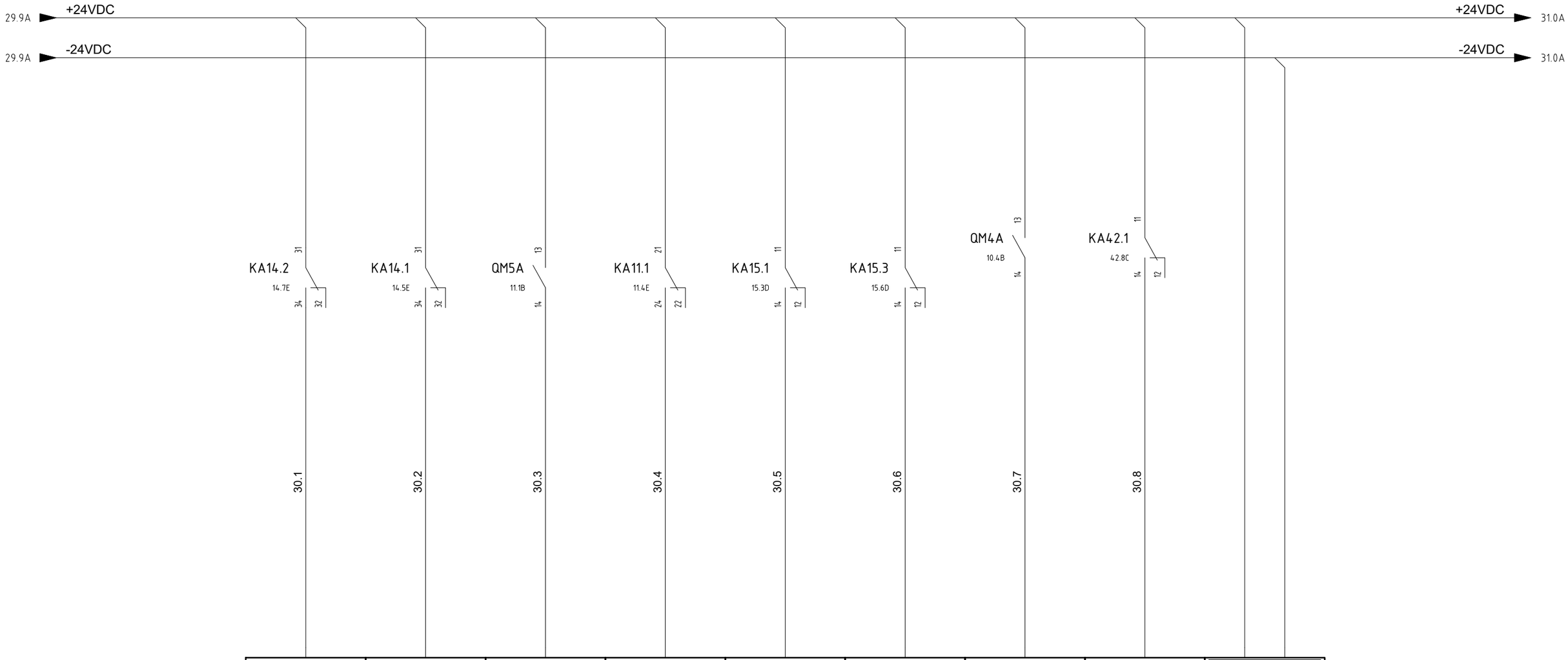
CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 29
F.S. 30



9	10	11	12	13	14	15	16	L+ M
13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	
CPU: QUADRO GENERALE MOD. : 5	CPU: QUADRO GENERALE MOD. : 5	CPU: QUADRO GENERALE MOD. : 5	CPU: QUADRO GENERALE MOD. : 5	CPU: QUADRO GENERALE MOD. : 5	CPU: QUADRO GENERALE MOD. : 5	CPU: QUADRO GENERALE MOD. : 5	CPU: QUADRO GENERALE MOD. : 5	CPU: QUADRO GENERALE MOD. : 5
Name: A4 Sheet:	Name: A4 Sheet:	Name: A4 Sheet:	Name: A4 Sheet:	Name: A4 Sheet:	Name: A4 Sheet:	Name: A4 Sheet:	Name: A4 Sheet:	Name: A4 Sheet:
HHU-77005 HCO-77-301 HIGH PRESSURE ALARM	HHU-77005 HCO-77-301 LOW PRESSURE ALARM	HHU-77005 HFM-77-305/6 TRIP	HHU-77005 HFM-77-305/6 VSD-2A MALFUNCTION	HHU-77005 FILTER CLOGGED	HHU-77005 HSS-77-301 THERMOSTATE TRIP	HHU-77005 HSS-77-301 TRIP	HHU-77005 HSS-77-301 MODULATION FAULT	

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.	DISEGN.	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.	VISTO	S.S.

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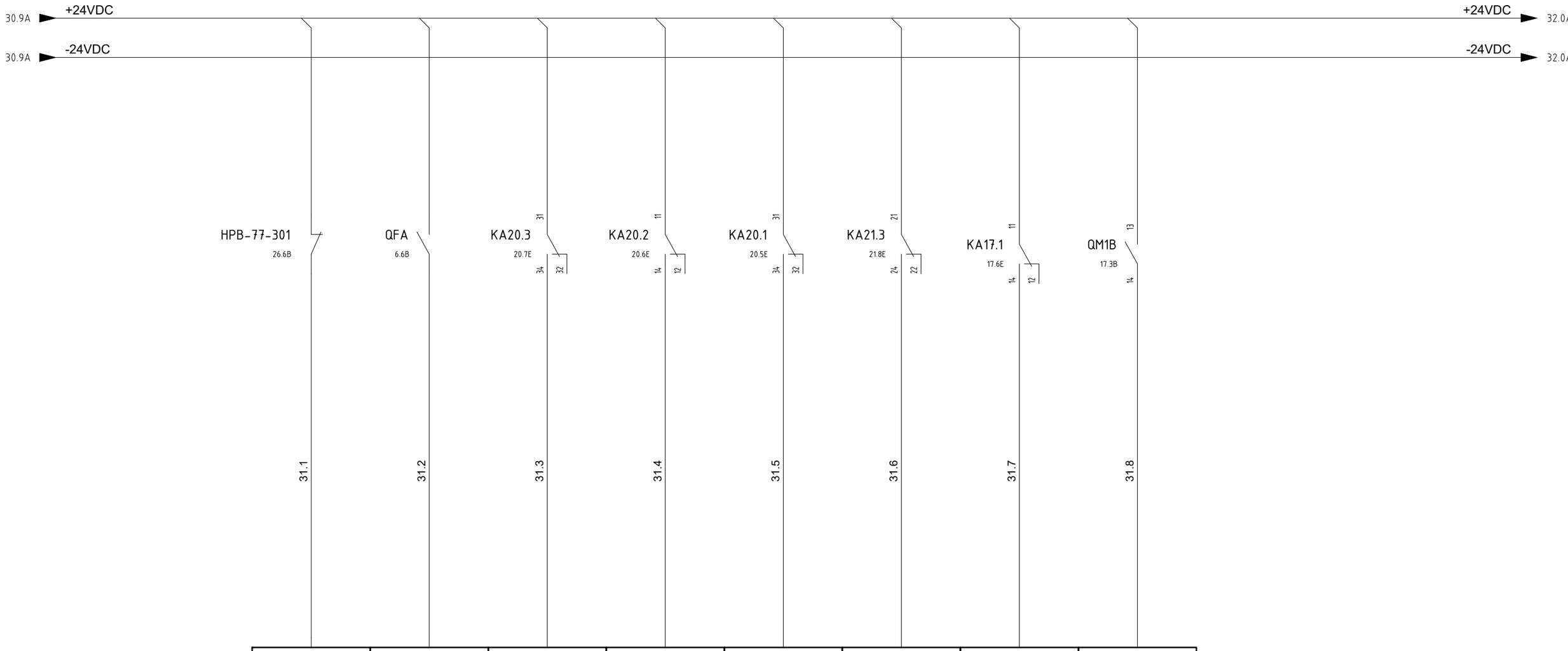
CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 30
F.S. 31



1	2	3	4	5	6	7	8
14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7
CPU: QUADRO GENERALE MOD. : 6	CPU: QUADRO GENERALE MOD. : 6	CPU: QUADRO GENERALE MOD. : 6	CPU: QUADRO GENERALE MOD. : 6	CPU: QUADRO GENERALE MOD. : 6	CPU: QUADRO GENERALE MOD. : 6	CPU: QUADRO GENERALE MOD. : 6	CPU: QUADRO GENERALE MOD. : 6
Name: Sheet:	Name: Sheet:	Name: Sheet:	Name: Sheet:	Name: Sheet:	Name: Sheet:	Name: Sheet:	Name: Sheet:
HHU-77005 HPB-77-301 EMERGENCY STOP BUTTON	HHU-77005 MAIN SWITCH OPEN	HHU-77006 HDZ-77-304/5/6 NOT OPEN FAULT	HHU-77006 HDZ-77-304/5/6 CLOSED	HHU-77006 HDZ-77-304/5/6 OPEN	HHU-77006 PF-001B THERMIC PROT. RELAY	HHU-77006 PF-001B VSD-1B MALFUNCTION	HHU-77006 PF-001B TRIP

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.	DISEGN.	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.	VISTO	S.S.

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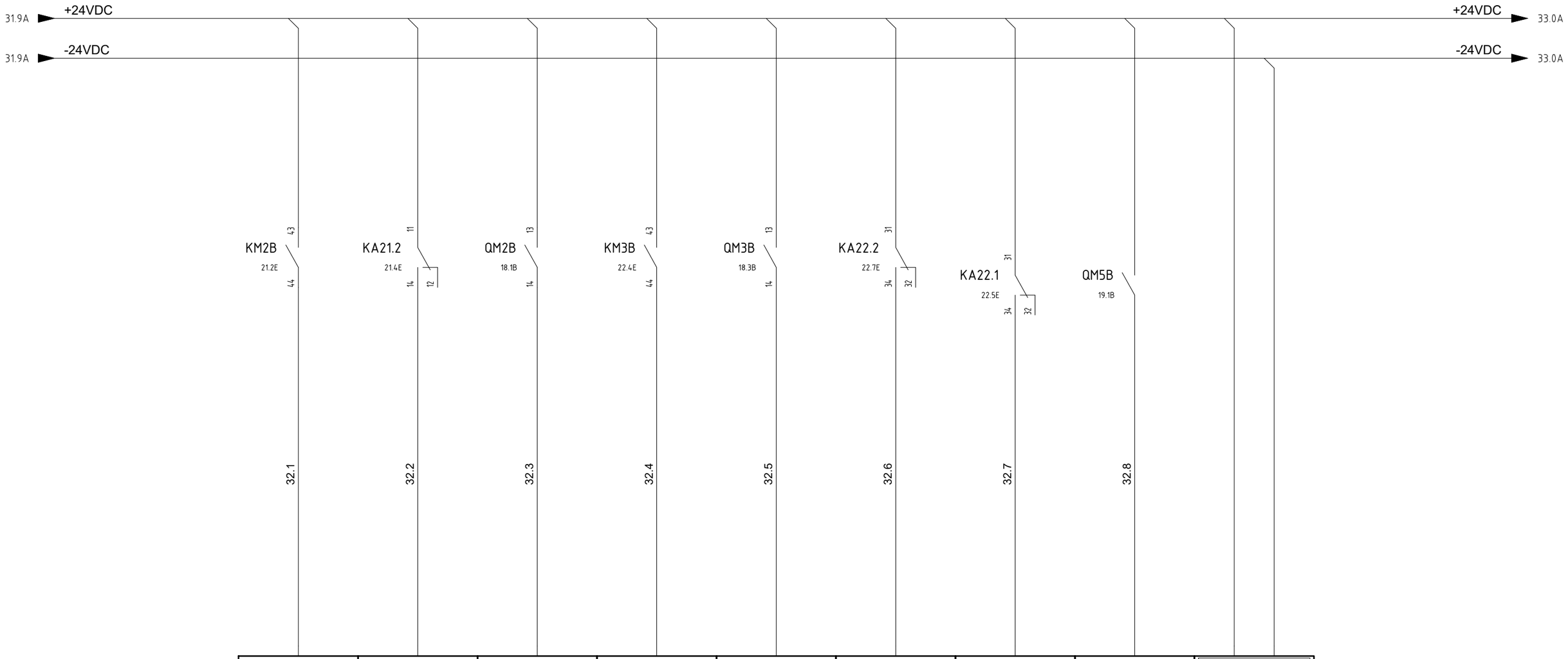
CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 31
F.S. 32



9	10	11	12	13	14	15	16	L+ M
I5.0	I5.1	I5.2	I5.3	I5.4	I5.5	I5.6	I5.7	
CPU: QUADRO GENERALE MOD. : 6	CPU: QUADRO GENERALE MOD. : 6	CPU: QUADRO GENERALE MOD. : 6	CPU: QUADRO GENERALE MOD. : 6	CPU: QUADRO GENERALE MOD. : 6	CPU: QUADRO GENERALE MOD. : 6	CPU: QUADRO GENERALE MOD. : 6	CPU: QUADRO GENERALE MOD. : 6	CPU: QUADRO GENERALE MOD. : 6
Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:
HHU-77006 SUPPLY FAN RUN SIGNAL	HHU-77006 SUPPLY FAN BROKEN BELT ALARM	HHU-77006 SUPPLY FAN TRIP	HHU-77006 COMPRESSOR RUNNING SIGNAL	HHU-77006 COMPRESSOR TRIP	HHU-77006 COMPRESSOR HIGH PRESSURE ALARM	HHU-77006 COMPRESSOR LOW PRESSURE ALARM	HHU-77006 CONDENSER FAN TRIP	

REV.	MODIFICA	DATA	FIRMA		
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.	DISEGN.	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.	VISTO	S.S.
				APPR.	M.G.

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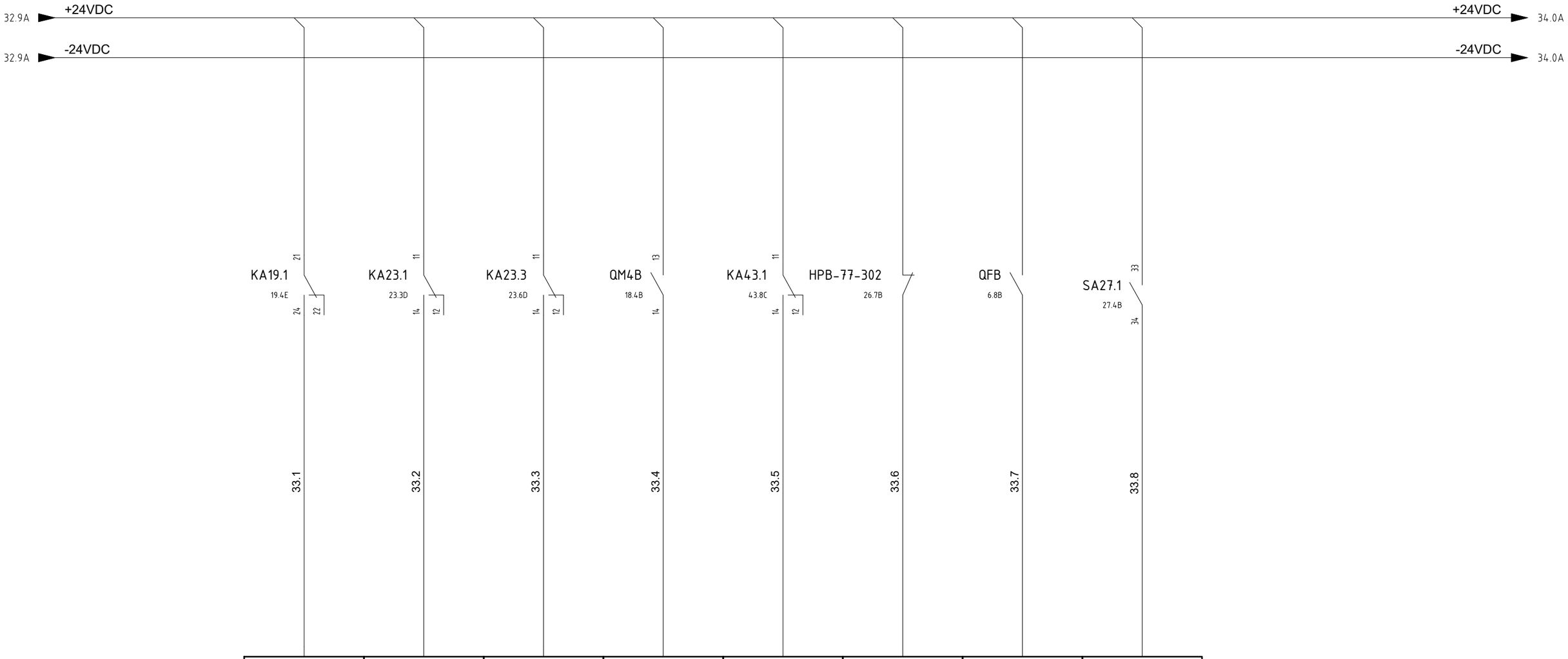
CLIENT:
CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 32
F.S. 33



1	2	3	4	5	6	7	8
I6.0	I6.1	I6.2	I6.3	I6.4	I6.5	I6.6	I6.7
CPU: QUADRO GENERALE MOD. : 7	CPU: QUADRO GENERALE MOD. : 7	CPU: QUADRO GENERALE MOD. : 7	CPU: QUADRO GENERALE MOD. : 7	CPU: QUADRO GENERALE MOD. : 7	CPU: QUADRO GENERALE MOD. : 7	CPU: QUADRO GENERALE MOD. : 7	CPU: QUADRO GENERALE MOD. : 7
Name: A6 Sheet:	Name: A6 Sheet:	Name: A6 Sheet:	Name: A6 Sheet:	Name: A6 Sheet:	Name: A6 Sheet:	Name: A6 Sheet:	Name: A6 Sheet:
HHU-77006 CONDENSER FAN VSD-2A MALFUNCTION	HHU-77006 FILTER CLOGGED	HHU-77006 ELECTRICAL HEATER THERMOSTATE TRIP	HHU-77006 ELECTRICAL HEATER TRIP	HHU-77006 ELECTRICAL HEATER MODULATION FAULT	HHU-77006 EPB-001A EMERGENCY STOP BUTTON	HHU-77006 MAIN SWITCH OPEN	HHU-77005 MANUAL MODE 0=NOT MANUAL 1= MANUAL

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.	DISEGN.	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.	VISTO	S.S.

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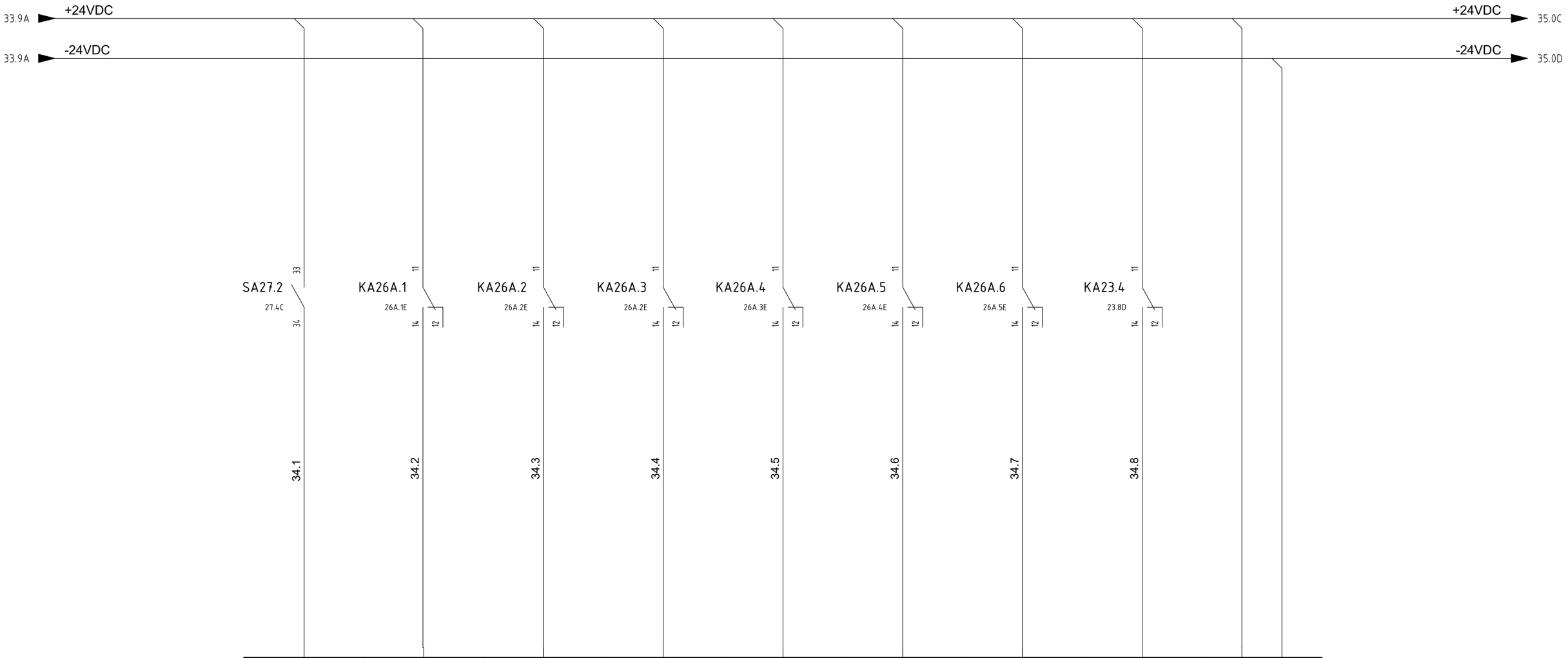
CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 33
F.S. 34



9	10	11	12	13	14	15	16	L+ M
17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	
CPU: QUADRO GENERALE MOD. : 7	CPU: QUADRO GENERALE MOD. : 7	CPU: QUADRO GENERALE MOD. : 7	CPU: QUADRO GENERALE MOD. : 7	CPU: QUADRO GENERALE MOD. : 7	CPU: QUADRO GENERALE MOD. : 7	CPU: QUADRO GENERALE MOD. : 7	CPU: QUADRO GENERALE MOD. : 7	CPU: QUADRO GENERALE MOD. : 7
Name: A6 Sheet:	Name: A6 Sheet:	Name: A6 Sheet:	Name: A6 Sheet:	Name: A6 Sheet:	Name: A6 Sheet:	Name: A6 Sheet:	Name: A6 Sheet:	Name: A6 Sheet:
HHU-77006 MANUAL MODE 0= NOT MANUAL 1= MANUAL	HFD-77007 CLOSE CONTACT 0= NOT CLOSED 1= CLOSED	HFD-77007 OPEN CONTACT 0=NOT OPEN 1= OPEN	HFD-77008 CLOSE CONTACT 0= NOT CLOSE 1= CLOSE	HFD-77008 OPEN CONTACT 0=NOT OPEN 1= OPEN	HFD-77009 CLOSE CONTACT 0= NOT CLOSE 1= CLOSE	HFD-77009 OPEN CONTACT 0=NOT CLOSE 1= CLOSE	HHU-77006 PRESS FILTER CLOGGED 0= NORMAL 1=CLOGGED	

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.	DISEGN.	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.	VISTO	S.S.

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B-300 HV-MV SWITCHGEAR ROOM
PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 34
F.S. 35

HVAC MALFUNCTION		SPARE		HSS-77007/8/9 SPACE HEATER START SIGNAL		SPARE		HHU-77005 HVAC UNIT A START SIGNAL		HHU-77005 PF-001A MOTOR HEATER		HHU-77005 COMPRESSOR START SIGNAL		HHU-77006 HVAC UNIT B START SIGNAL	
Name: A7	Sheet:	Name: A7	Sheet:	Name: A7	Sheet:	Name: A7	Sheet:	Name: A7	Sheet:	Name: A7	Sheet:	Name: A7	Sheet:	Name: A7	Sheet:
CPU: QUADRO GENERALE MOD. : 8		CPU: QUADRO GENERALE MOD. : 8		CPU: QUADRO GENERALE MOD. : 8		CPU: QUADRO GENERALE MOD. : 8		CPU: QUADRO GENERALE MOD. : 8		CPU: QUADRO GENERALE MOD. : 8		CPU: QUADRO GENERALE MOD. : 8		CPU: QUADRO GENERALE MOD. : 8	
Q0.0		Q0.1		Q0.2		Q0.3		Q0.4		Q0.5		Q0.6		Q0.7	
1		2		3		4		5		6		7		8	

35.1 35.3 35.5 35.6 35.7 35.8

34.9A +24VDC → 36.0C +24VDC

34.9A -24VDC → 36.0D -24VDC

KA30.1 A1 A2

KA30.9 A1 A2

KA30.3 A1 A2

KA30.4 A1 A2

KA30.5 A1 A2

KA30.6 A1 A2

44.0B 11 12 14 21 22 24 31 32 34 41 42 44

26.7B 11 12 14 21 22 24 31 32 34 41 42 44

12.1B 11 12 14 21 22 24 31 32 34 41 42 44

14.1B 11 12 14 21 22 24 31 32 34 41 42 44

14.1A 11 12 14 21 22 24 31 32 34 41 42 44

20.1B 11 12 14 21 22 24 31 32 34 41 42 44

REV.	MODIFICA	DATA	FIRMA
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.

DATA	22/04/2024
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B-300 HV-MV SWITCHGEAR ROOM
PLC SECTION

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FG. 35
F.S. 36

HHU-77006 PF-001B MOTOR HEATER		HHU-77006 COMPRESSOR START SIGNAL		HVAC UNIT A / B ALARM RESET		SPARE		SPARE		SPARE		SPARE		SPARE			
Name: A7	Sheet:	Name: A7	Sheet:	Name: A7	Sheet:	Name: A7	Sheet:	Name: A7	Sheet:	Name: A7	Sheet:	Name: A7	Sheet:	Name: A7	Sheet:	Name: A7	Sheet:
CPU: QUADRO GENERALE MOD. : 8		CPU: QUADRO GENERALE MOD. : 8		CPU: QUADRO GENERALE MOD. : 8		CPU: QUADRO GENERALE MOD. : 8		CPU: QUADRO GENERALE MOD. : 8		CPU: QUADRO GENERALE MOD. : 8		CPU: QUADRO GENERALE MOD. : 8		CPU: QUADRO GENERALE MOD. : 8			
Q1.0		Q1.1		Q1.2		Q1.3		Q1.4		Q1.5		Q1.6		Q1.7			
9		10		11		12		13		14		15		16		L+	M

36.1 36.2 36.3

35.9C +24VDC → 37.0A +24VDC

35.9D -24VDC → 37.0A -24VDC

KA30.7 A1 / A2

KA30.8 A1 / A2

KA37.1 A1 / A2 ALARM RESET RELAY

KA37.2 A1 / A2

22.1B 11 12 14 21 22 24 31 32 34 41 42 44

22.1A 11 12 14 21 22 24 31 32 34 41 42 44

12.8C 13.3B 14.6C 14.8C 11 12 14 21 22 24 31 32 34 41 42 44

20.8C 21.3B 22.6C 22.8C 11 12 14 21 22 24 31 32 34 41 42 44

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.	DISEGN.	F.M.
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B-300 HV-MV SWITCHGEAR ROOM
PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 36
F.S. 37

36.9C +24VDC

36.9D -24VDC

+24VDC → 38.0A

-24VDC → 38.0A

ROOM TEMPERATURE TRANSM. 4-20mA
77-TT-301
- + S
606 XT 607 XT 608 XT

ROOM TEMPERATURE TRANSM. 4-20 mA
77-TT-302
- + T
600 XT 601 XT 602 XT

DIFFERENTIAL PRESS. TRANSM. 4-20ma
77-TP-301
- + T
603 XT 604 XT 605 XT

TEMPERATURE TRANSM. 4-20 mA
77-TT-303
- + T
609 XT 610 XT

37.1 37.2 37.3 37.4 37.5

1 5 9 13	2 6 10 14	3 7 11 15	4 8 12 16	L+ M
AI0.0	AI0.1	AI0.2	AI0.3	
CPU: QUADRO GENERALE MOD. : 9	CPU: QUADRO GENERALE MOD. : 9	CPU: QUADRO GENERALE MOD. : 9	CPU: QUADRO GENERALE MOD. : 9	CPU: QUADRO GENERALE MOD. : 9
Name: A8 / Sheet:	Name: A8 / Sheet:	Name: A8 / Sheet:	Name: A8 / Sheet:	Name: A8 / Sheet:
77-TT-301 TEMPERATURE TRANSM 4-20mA	77-TT-302 TEMPERATURE TRANSM 4-20mA	77-PT-301 DIFFERENTIAL PRESS. TRANSMITTER 4-20mA	77-TT-303 TEMPERATURE TRANSM 4-20 mA	

REV.	MODIFICA	DATA	FIRMA
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.

DATA	22/04/2024
DISEGN.	F.M.
VISTO	S.S.
APPR.	M.G.

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HVAC SYSTEM and EQUIPMENT
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tel. 0039–0371–69076
frigotermica@frigotermica.com

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 37
F.S. 38

37.9A +24VDC → +24VDC 39.0A

37.9A -24VDC → -24VDC 39.0A

HHU-77005 PF-001A VSD MODULATION		HHU-77006 PF-001B VSD MODULATION		HHU-77005 ELECTRICAL HEATER MODULATION		HHU-77006 ELECTRICAL HEATER MODULATION			
Name: A9	Sheet:	Name: A9	Sheet:	Name: A9	Sheet:	Name: A9	Sheet:	Name: A9	Sheet:
CPU: QUADRO GENERALE MOD. : 10		CPU: QUADRO GENERALE MOD. : 10		CPU: QUADRO GENERALE MOD. : 10		CPU: QUADRO GENERALE MOD. : 10		CPU: QUADRO GENERALE MOD. : 10	
AQ0.0		AQ0.1		AQ0.2		AQ0.3			
9 1 5 13		10 2 6 14		11 3 7 15		12 4 8 16		L+ M	

9.8B 9.4

9.8C 9.5

17.8B 17.5

17.8C 17.4

42.8D 40.1

42.8D 40.2

43.8D 40.3

43.8D 40.4

REV.	MODIFICA	DATA	FIRMA		
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.	DISEGN.	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.	VISTO	S.S.
				APPR.	M.G.

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B-300 HV-MV SWITCHGEAR ROOM
PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 38
F.S. 39

38.9A +24VDC → +24VDC 40.0E

38.9A -24VDC → -24VDC 40.0F

SPARE	SPARE	SPARE	SPARE	
Name: A10 / Sheet:	Name: A10 / Sheet:	Name: A10 / Sheet:	Name: A10 / Sheet:	Name: A10 / Sheet:
CPU: QUADRO GENERALE MOD. : 11	CPU: QUADRO GENERALE MOD. : 11	CPU: QUADRO GENERALE MOD. : 11	CPU: QUADRO GENERALE MOD. : 11	CPU: QUADRO GENERALE MOD. : 11
AQ1.0	AQ1.1	AQ1.2	AQ1.3	
9 1 5 13	10 2 6 14	11 3 7 15	12 4 8 16	L+ M

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.	DISEGN.	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.	VISTO	S.S.

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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
PLC SECTION

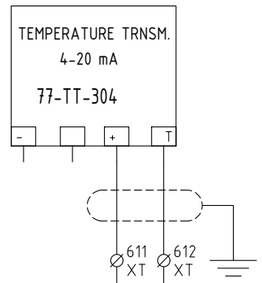
ROSETTI MARINO

1724000049-HV-DA-00028

FG. 39
F.S. 39A

38.9A +24VDC → 40.0E +24VDC

38.9A -24VDC → 40.0F -24VDC



1 5 9 13	2 6 10 14	3 7 11 15	4 8 12 16	L+ M
AI1.0	AI1.1	AI1.2	AI1.3	
CPU: QUADRO GENERALE MOD. : 12	CPU: QUADRO GENERALE MOD. : 12	CPU: QUADRO GENERALE MOD. : 12	CPU: QUADRO GENERALE MOD. : 12	CPU: QUADRO GENERALE MOD. : 12
Name: A11 / Sheet:	Name: A11 / Sheet:	Name: A11 / Sheet:	Name: A11 / Sheet:	Name: A11 / Sheet:
77-TT-304 TEMPERATURE TRANSM 4-20mA	SPARE	SPARE	SPARE	

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.	DISEGN.	F.M.
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BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 39A
F.S. 39B

38.9A +24VDC → +24VDC 40.0E

38.9A -24VDC → -24VDC 40.0F

KA26A.7	KA26A.8	KA26A.9	KA26A.10
11	11	11	11
26A.6E	26A.7E	26A.8E	26A.8E
14 / 12	14 / 12	14 / 12	14 / 12
39B.1	39B.2	39B.3	39B.4

1	2	3	4	5	6	7	8
I8.0	I8.1	I8.2	I8.3	I8.4	I8.5	I8.6	I8.7
CPU: QUADRO GENERALE MOD. : 13	CPU: QUADRO GENERALE MOD. : 13	CPU: QUADRO GENERALE MOD. : 13	CPU: QUADRO GENERALE MOD. : 13	CPU: QUADRO GENERALE MOD. : 13	CPU: QUADRO GENERALE MOD. : 13	CPU: QUADRO GENERALE MOD. : 13	CPU: QUADRO GENERALE MOD. : 13
Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:
HFD-77010 CLOSE CONTACT 0= NOT CLOSED 1= CLOSED	HFD-77010 OPEN CONTACT 0=NOT OPEN 1= OPEN	HFD-77011 CLOSE CONTACT 0= NOT CLOSED 1= CLOSED	HFD-77011 OPEN CONTACT 0=NOT OPEN 1= OPEN	SPARE	SPARE	SPARE	SPARE

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
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B-300 HV-MV SWITCHGEAR ROOM
PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 39B
F.S. 39C

38.9A +24VDC → +24VDC 40.0E

38.9A -24VDC → -24VDC 40.0F

9	10	11	12	13	14	15	16	L+ M
19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	
CPU: QUADRO GENERALE MOD. : 13	CPU: QUADRO GENERALE MOD. : 13	CPU: QUADRO GENERALE MOD. : 13	CPU: QUADRO GENERALE MOD. : 13	CPU: QUADRO GENERALE MOD. : 13	CPU: QUADRO GENERALE MOD. : 13	CPU: QUADRO GENERALE MOD. : 13	CPU: QUADRO GENERALE MOD. : 13	CPU: QUADRO GENERALE MOD. : 13
Name: Sheet:	Name: Sheet:	Name: Sheet:	Name: Sheet:	Name: Sheet:	Name: Sheet:	Name: Sheet:	Name: Sheet:	Name: Sheet:
SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	

REV.	MODIFICA	DATA	FIRMA
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.

DATA	22/04/2024
DISEGN.	F.M.
VISTO	S.S.
APPR.	M.G.

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B-300 HV-MV SWITCHGEAR ROOM
PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 39C
F.S. 40

A1

SIEMENS

SIMATIC HMI

TOUCH

12"

X1 P1 PROFINET

X1 P2 PROFINET

X2 PROFIBUS DP

X60 Mini USB - Type B

X61 USB - Type A

X62 USB - Type A

X90 OUT Line OUT

X90 IN Line IN

DC 24V (X80)

L+	M
1	2

FG

CABLE 1

CABLE 2

CABLE 3

CABLE 4

X1 P1 R PROFINET

X1 P2 R PROFINET

X1 P1 R PROFINET

X1 P2 R PROFINET

TO PAGE 41

D1

D2

SIEMENS

RUN

SIMATIC S7-1500

ESC OK

L+

M

L+

M

DC 24V (X80)

39.9A +24VDC

39.9A -24VDC

+24VDC 41.0E

-24VDC 41.0F

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
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B-300 HV-MV SWITCHGEAR ROOM
PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 40
F.S. 41

FROM PAGE 40

CABLE 4

CABLE 5

CABLE 1

CABLE 2

MODBUS TCP/P TO CLIENT

RJ45 CONNECTION IN TERMINAL STRIP

X1 RJ45 — PROFINET IO - Port 1 RJ45

1	TD
2	TD_N
3	RD
4	GND
5	GND
6	RD_N
7	GND
8	GND

X2 RJ45 — PROFINET IO - Port 2 RJ45

1	TD
2	TD_N
3	RD
4	GND
5	GND
6	RD_N
7	GND
8	GND

DC 24V

1L+	
2L+	
1M	
2M	

A2 SIMATIC ET 200SP IM 155-6 PN/2 HF — BA 2xRJ45 — 6ES7193-6RA00-0AA0 — 6ES7155-6AU01-0CN0

A3	A4	A5	A6	A7	A8	A9	A10	A11	A13
DI 16x24VDC ST	DI 16x24VDC ST	DI 16x24VDC ST	DI 16x24VDC ST	DQ 16x24VDC/0,5A ST	AI 4xU/I 2-wire ST	AQ 4xU/I ST	AQ 4xU/I ST	AI 4xU/I 2-wire ST	DI 16x24VDC ST
6ES7131-6BH01-0BA0	6ES7131-6BH01-0BA0	6ES7131-6BH01-0BA0	6ES7131-6BH01-0BA0	6ES7132-6BH01-0BA0	6ES7134-6HD01-0BA1	6ES7135-6HD00-0BA1	6ES7135-6HD00-0BA1	6ES7134-6HD01-0BA1	6ES7131-6BH01-0BA0

MAC ADDRESS — X80 24VDC

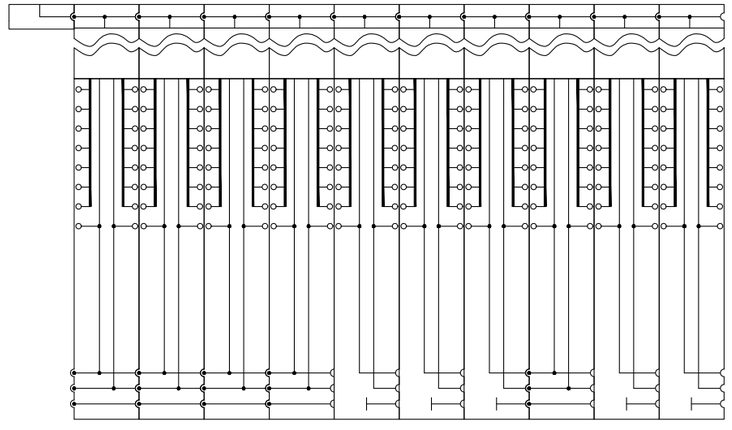
A12 SCALANCE XC208 — SIEMENS — 208-0BA00-2AC2

P1	LAN
P2	LAN
P3	LAN
P4	LAN
P5	LAN
P6	LAN
P7	LAN
P8	LAN

1	F1
2	F2

DC 24V

1	L1+
2	M1
3	M2
4	L2+



40.9E +24VDC → +24VDC 42.0A

40.9F -24VDC → -24VDC 42.0A

REV.	MODIFICA	DATA	FIRMA		
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.	DISEGN.	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.	VISTO	S.S.
				APPR.	M.G.

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BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
PLC ARCHITECTURE

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 41
F.S. 42

41.9E +24VDC → +24VDC 43.0A

41.9F -24VDC → -24VDC 43.0A

42.1

42.2

1/L1

HR-1A

9 AL
8 A2
7 A2
6 A1
5 D1
4 US
3 A2

GRP 3

2/T1

1/L1

HR-1B

9 AL
8 A2
7 A2
6 A1
5 D1
4 US
3 A2

GRP 3

2/T1

1/L1

HR-1C

19 AL
18 AL
17 D17
16 A2
15 A-
14 A+
13 D13
12 US
11 A2

GRM 1

2/T1

3/L2

TA.1

FU42.1 1 2

11.9A RA

KA42.1 A1 A2

33.2B 11 12 14 21 22 24 31 32 34 41 42 44

40.1 38.4D

40.2 38.4D

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.	DISEGN.	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.	VISTO	S.S.

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BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
EH MODULATION A

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 42
F.S. 43

42.9A +24VDC

42.9A -24VDC

+24VDC /./

-24VDC /./

42.1

42.2

1/L1

HR-2A

9 AL
8 A2
7 A2
6 A1
5 D1
4 US
3 A2

GRP 3

2/T1

1/L1

HR-2B

9 AL
8 A2
7 A2
6 A1
5 D1
4 US
3 A2

GRP 3

2/T1

1/L1

HR-2C

19 AL
18 AL
17 D17
16 A2
15 A-
14 A+
13 D13
12 US
11 A2

GRM 1

2/T1

KA43.1 A1 A2

35.8B 11 12 14 21 22 24 31 32 34 41 42 44

40.3

40.4

38.4E

38.4E

3/L2

TB.1

FU43.1 1 2

19.9A RB

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
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01	ISSUED FOR APPROVAL	28/06/24	F.M.	VISTO	S.S.

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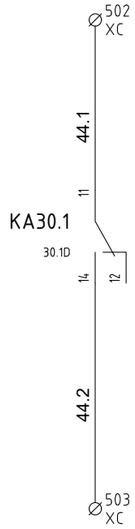
BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
EH MODULATION B

ROSETTI MARINO

1724000049-HV-DA-00028

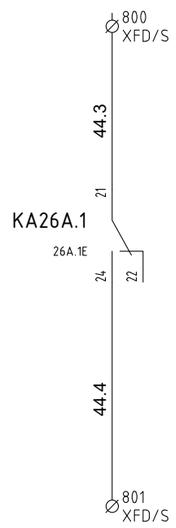
FG. 43
F.S. 44

AVAILABLE SIGNAL
GENERAL FAULT
TO DCS

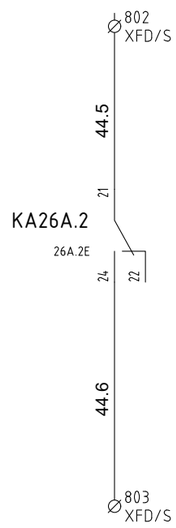


HVAC MALFUNCTION
0=MALF
1=NORMAL

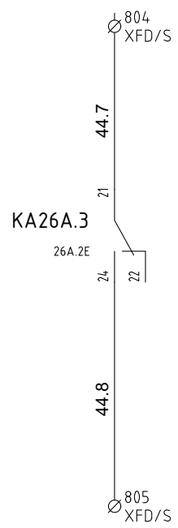
HFD-77007
CLOSED SIGNAL
TO SIS



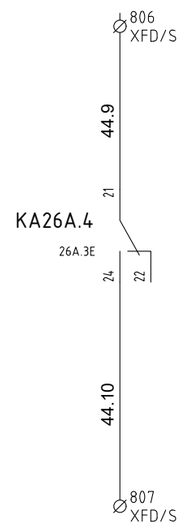
HFD-77007
OPEN SIGNAL
TO SIS



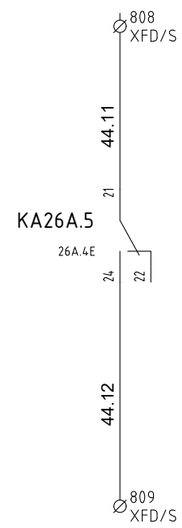
HFD-77008
CLOSED SIGNAL
TO SIS



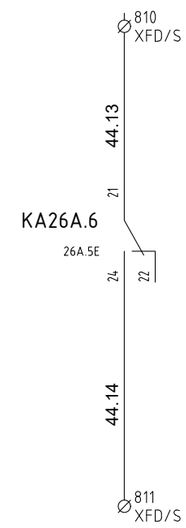
HFD-77008
OPEN SIGNAL
TO SIS



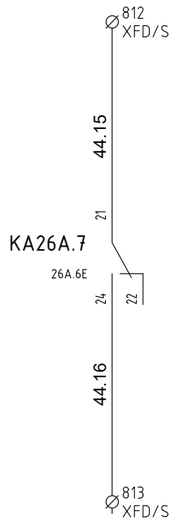
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CLOSED SIGNAL
TO SIS



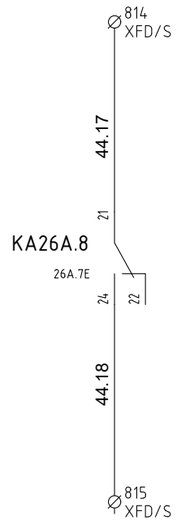
HFD-77009
OPEN SIGNAL
TO SIS



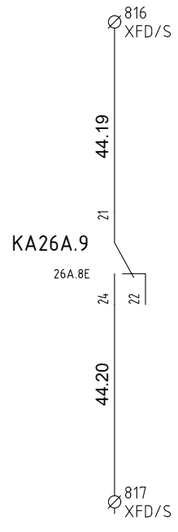
HFD-77010
CLOSED SIGNAL
TO SIS



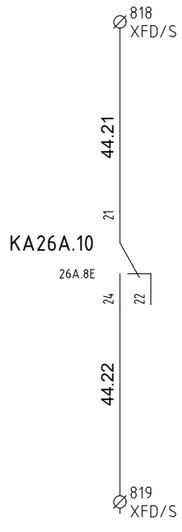
HFD-77010
OPEN SIGNAL
TO SIS



HFD-77011
CLOSED SIGNAL
TO SIS



HFD-77011
OPEN SIGNAL
TO SIS



REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
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CLIENT:
CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM

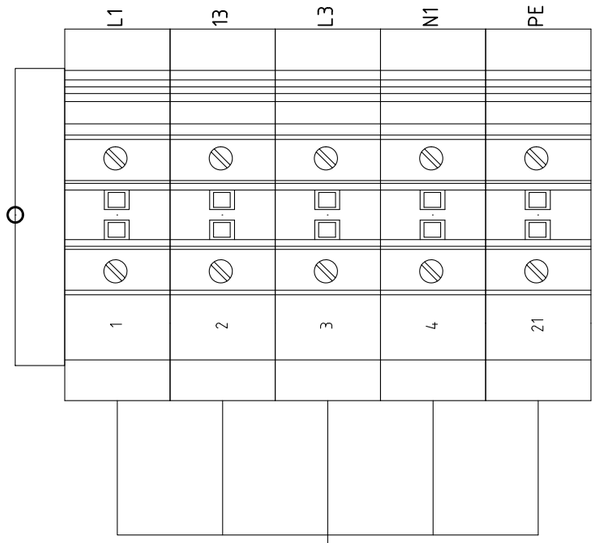
AVAILABLE SIGNAL

ROSETTI MARINO

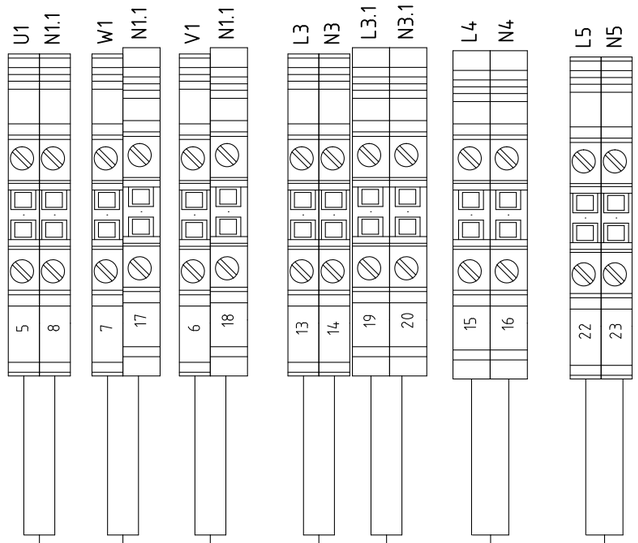
1724000049-HV-DA-00028

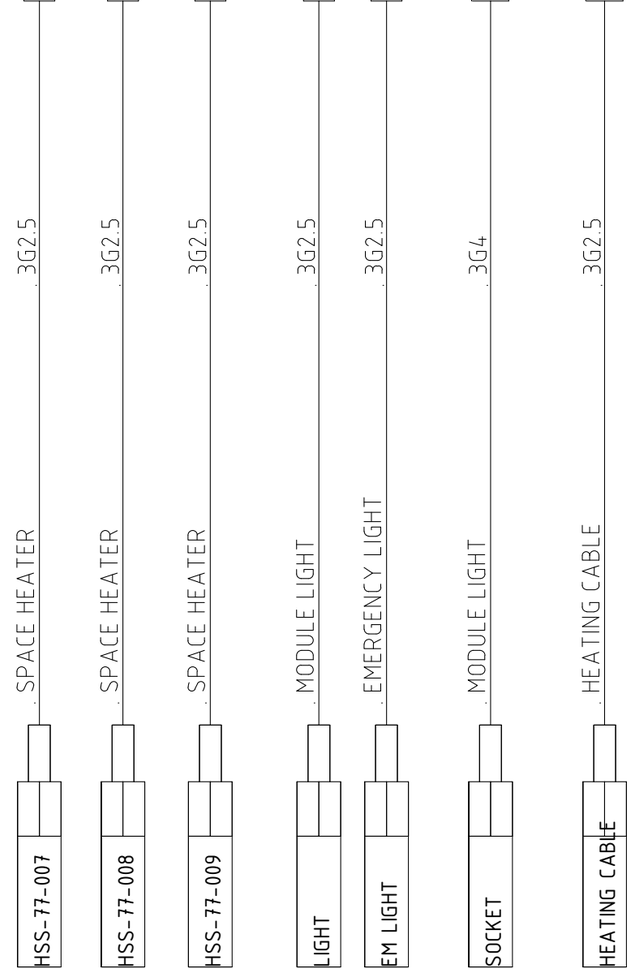
FG. 44
F.S. 45

+QG - XP1
POWER SUPPLY 1

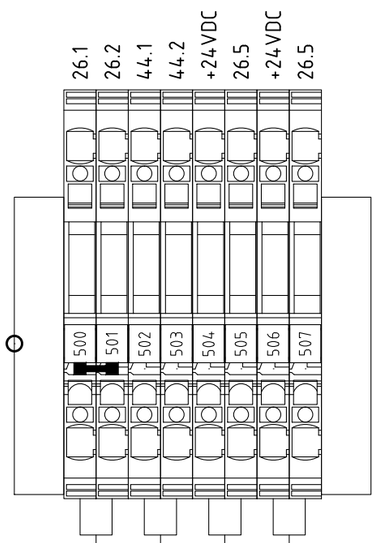


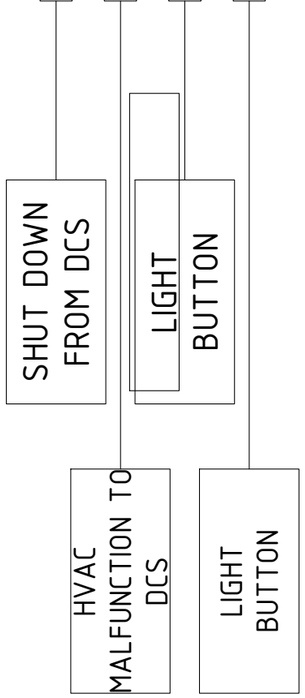
400V 3F + N + PE
50Hz
FROM CLIENT
SECTION TBA



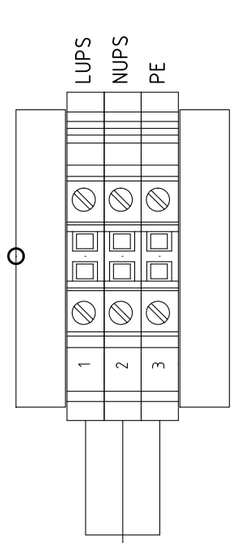


+QG - XC
COMMAND





+QG - XUPS
UPS POWER SUPPLY



230V 1F + N + PE
50Hz
UPS POWER SUPPLY
FROM CLIENT
SECTION TBA

REV.	MODIFICA	DATA	FIRMA	APPR.	
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.	DISEGN.	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.	VISTO	S.S.

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tel. 0039–0371–69076
frigotermica@frigotermica.com

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM

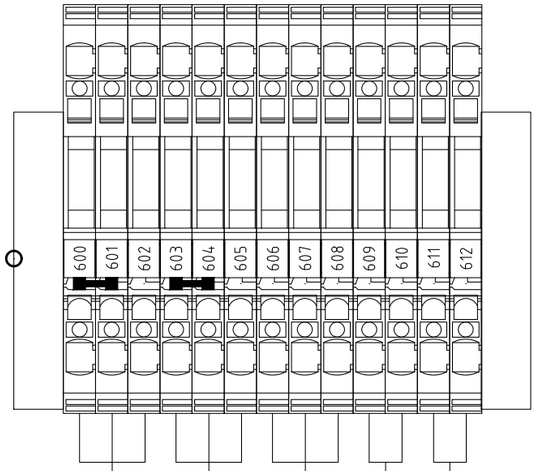
TERMINAL STRIP

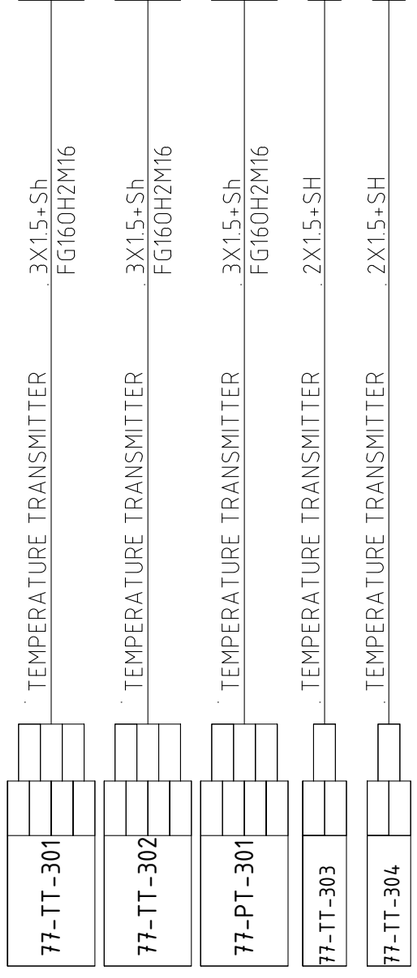
ROSETTI MARINO

1724000049-HV-DA-00028

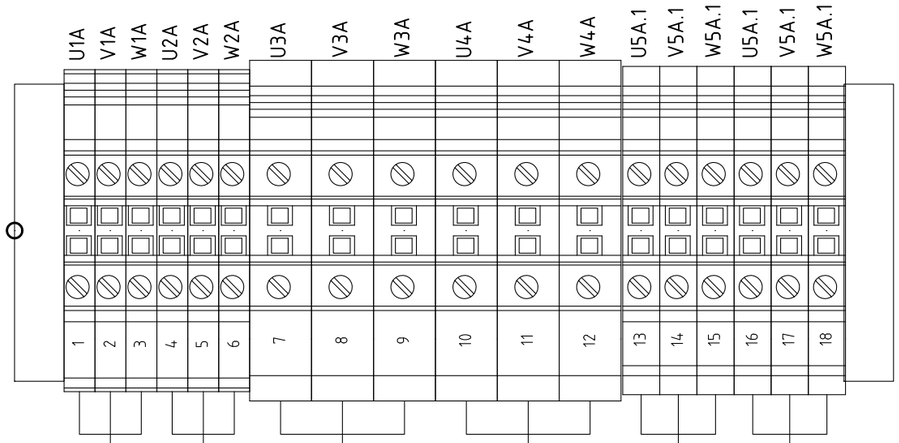
FG. 45
F.S. 46

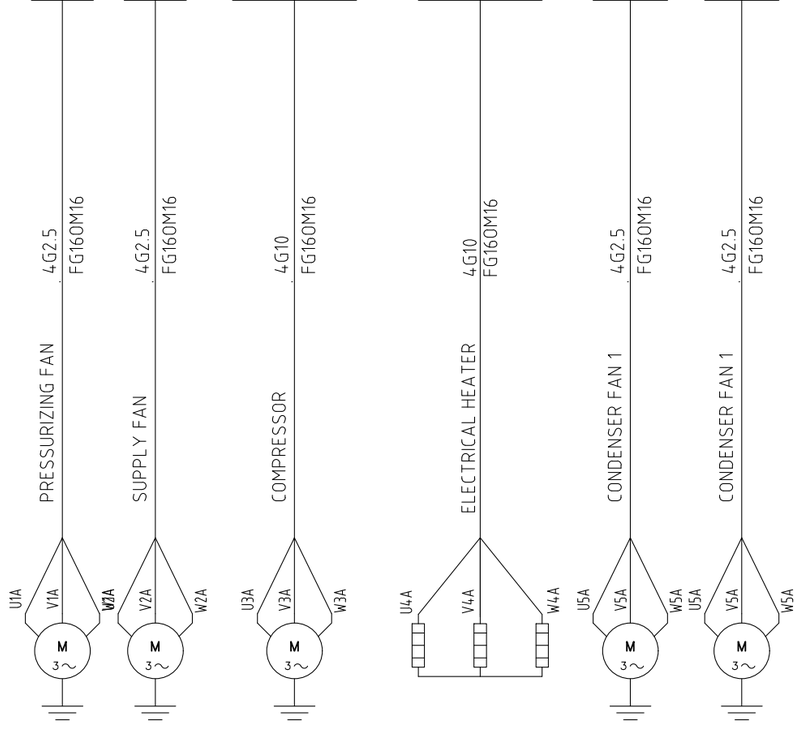
+QG - XT
TRASMITTER





+QG - XM1
MOTOR 1





REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.	DISEGN.	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.	VISTO	S.S.

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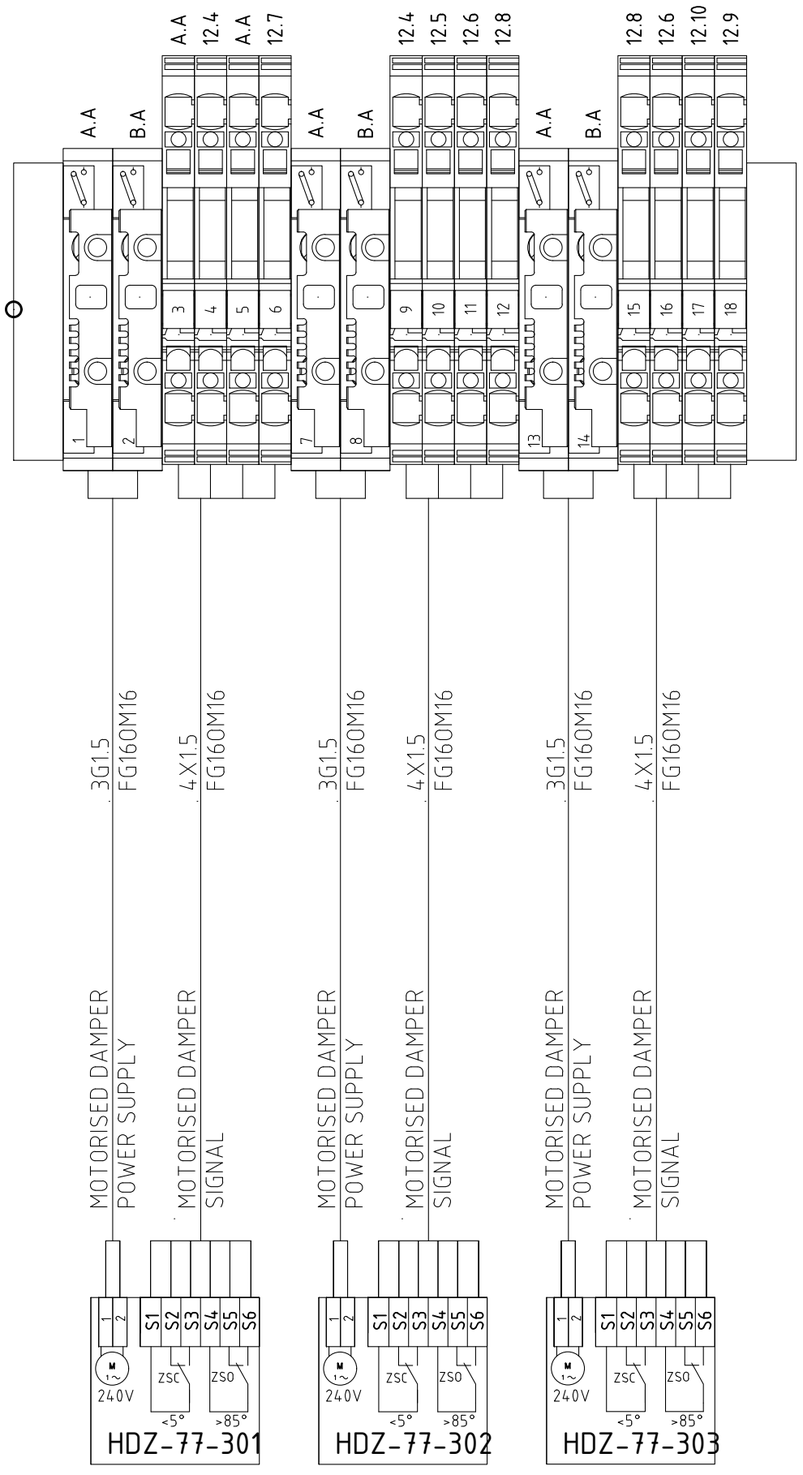
BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
TERMINAL STRIP

ROSETTI MARINO

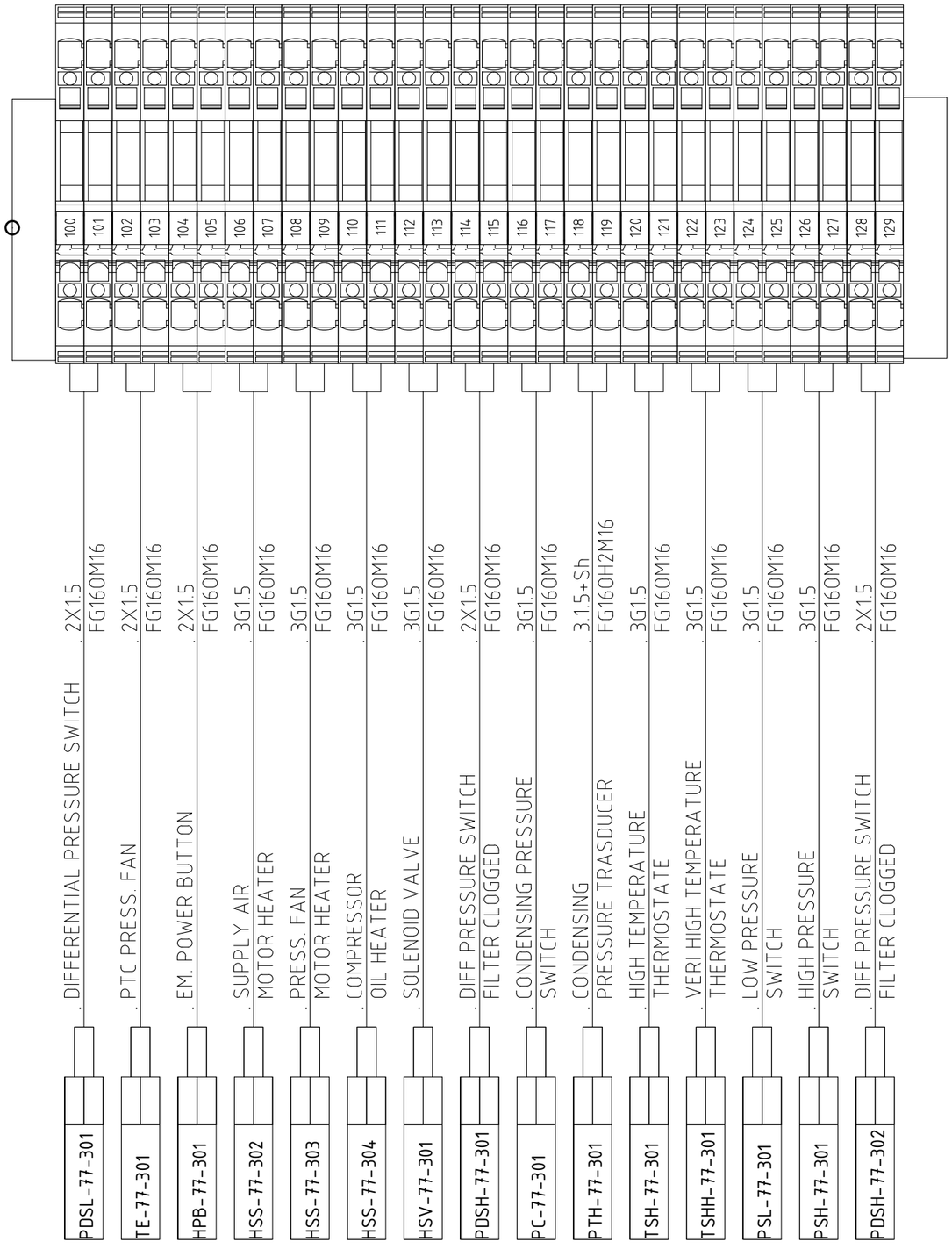
1724000049-HV-DA-00028

FG. 46
F.S. 47

+QG - XMD1
MOTORISED DAMPER 1



+QG - XA1
AUXILIARY 1



REV.	MODIFICA	DATA	FIRMA
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.

DATA	22/04/2024
DISEGN.	F.M.
VISTO	S.S.
APPR.	M.G.

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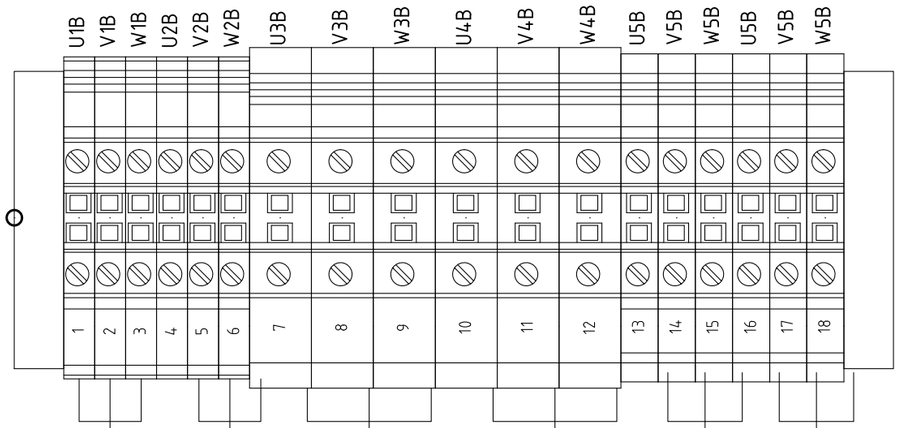
BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
TERMINAL STRIP

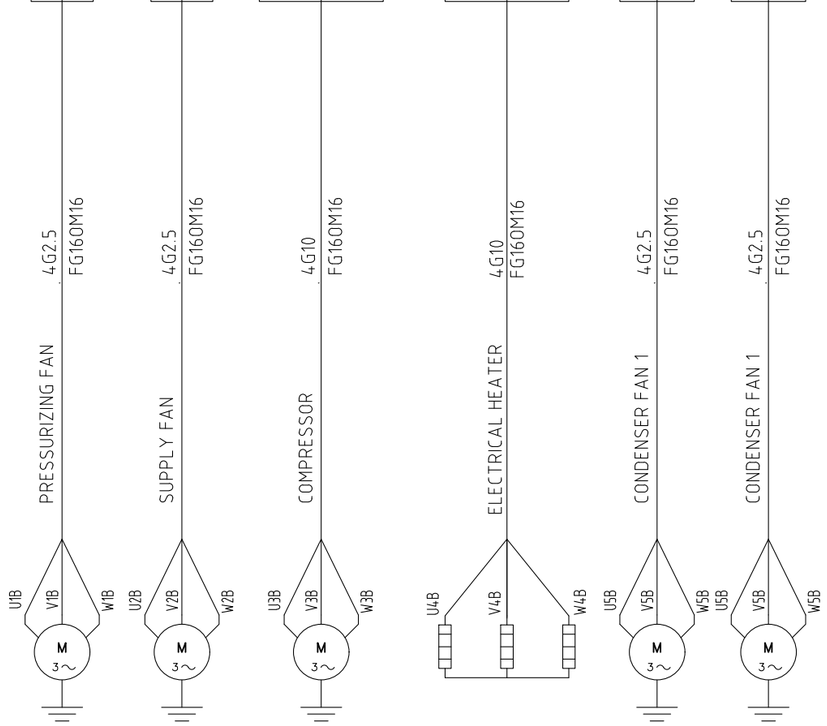
ROSETTI MARINO

1724000049-HV-DA-00028

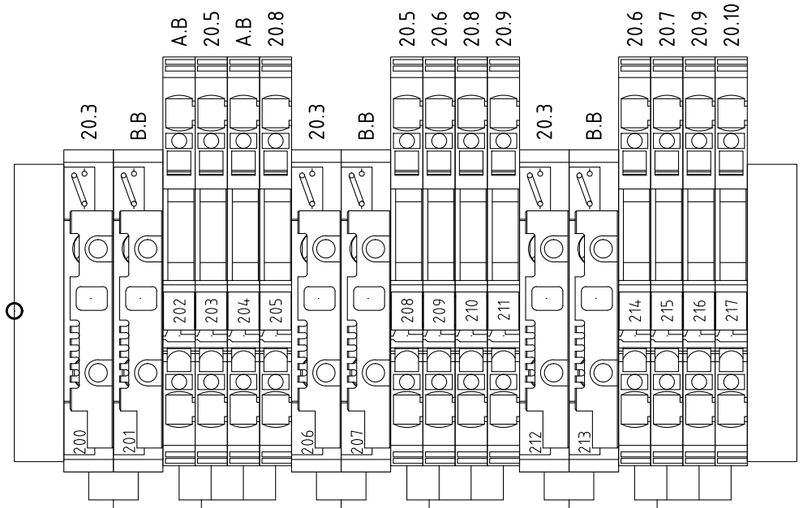
FG. 47
F.S. 48

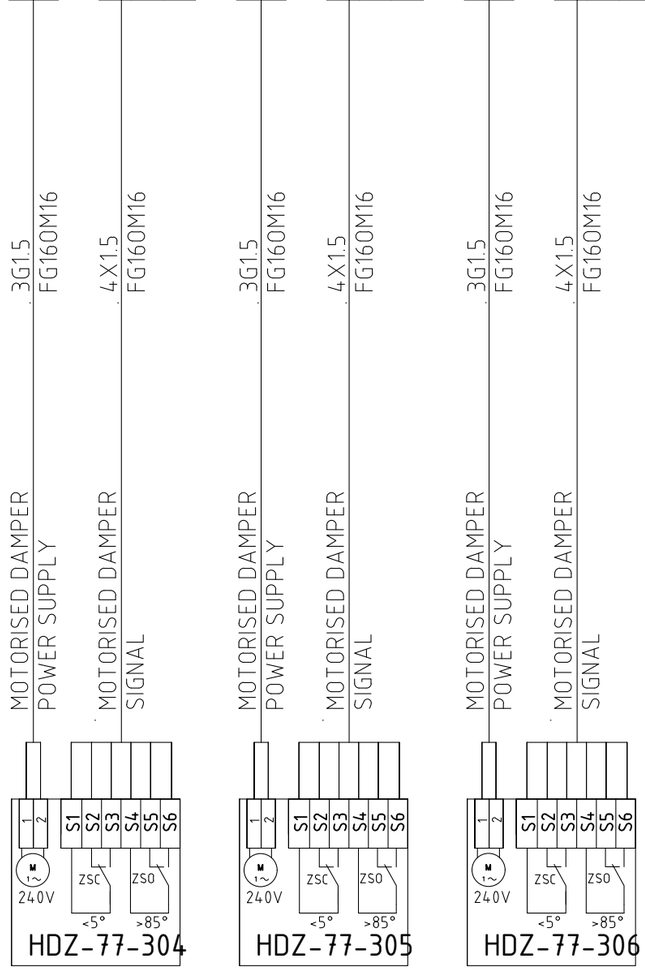
+QG - XM2
MOTOR 2





+QG - XMD2
MOTORISED DAMPER 2





REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
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01	ISSUED FOR APPROVAL	28/06/24	F.M.	VISTO	S.S.

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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM

TERMINAL STRIP

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 48
F.S. 49

+QG - XA2
AUXILIARY 2

A.B	21.4	13.12	13.14	+24VDC	26.7	12.3	B.B	14.1	B.B	5	B.B	15.1	B.B	A.A	23.2	A.A	23.3	11.5	11.6	A.A	23.4	15.9	23.5	A.A	22.8	A.A	22.11	A.B	23.6
300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329

DIFFERENTIAL PRESSURE SWITCH	2X1.5	PDSL-77-302
PTC PRESS. FAN	FG16OM16	TE-77-302
EM. POWER BUTTON	2X1.5	HPB-77-302
SUPPLY AIR MOTOR HEATER	FG16OM16	HSS-77-306
PRESS. FAN MOTOR HEATER	3G1.5	HSS-77-307
COMPRESSOR OIL HEATER	FG16OM16	HSS-77-308
SOLENOID VALVE	3G1.5	HSV-77-302
DIFF PRESSURE SWITCH FILTER CLOGGED	FG16OM16	PDSH-77-303
CONDENSING PRESSURE SWITCH	3G1.5	PC-77-302
CONDENSING PRESSURE TRASDUCER	FG16OM16	PTH-77-302
HIGH TEMPERATURE THERMOSTATE	3G1.5+Sh	TSH-77-302
VERI HIGH TEMPERATURE THERMOSTATE	FG16OH2M16	TSHH-77-302
LOW PRESSURE SWITCH	3G1.5	PSL-77-302
HIGH PRESSURE SWITCH	FG16OM16	PSH-77-302
DIFF PRESSURE SWITCH FILTER CLOGGED	3G1.5	PDSH-77-304
	FG16OM16	

+QG - XFD
FIRE DAMPER

+24VDC	34.2	+24VDC	34.3	+24VDC	34.4	+24VDC	34.5	+24VDC	34.6	+24VDC	34.7	+24VDC	39B.1	+24VDC	39B.2	+24VDC	39B.3	+24VDC	39B.4
700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719

SIGNAL FEEDBACK	4X1.5	HFD-77007
SIGNAL FEEDBACK	4X1.5	HFD-77008
SIGNAL FEEDBACK	4X1.5	HFD-77009
SIGNAL FEEDBACK	4X1.5	HFD-77010
SIGNAL FEEDBACK	4X1.5	HFD-77011

REV.	MODIFICA	DATA	FIRMA		
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				APPR.	M.G.

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CLIENT:
CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM
TERMINAL STRIP

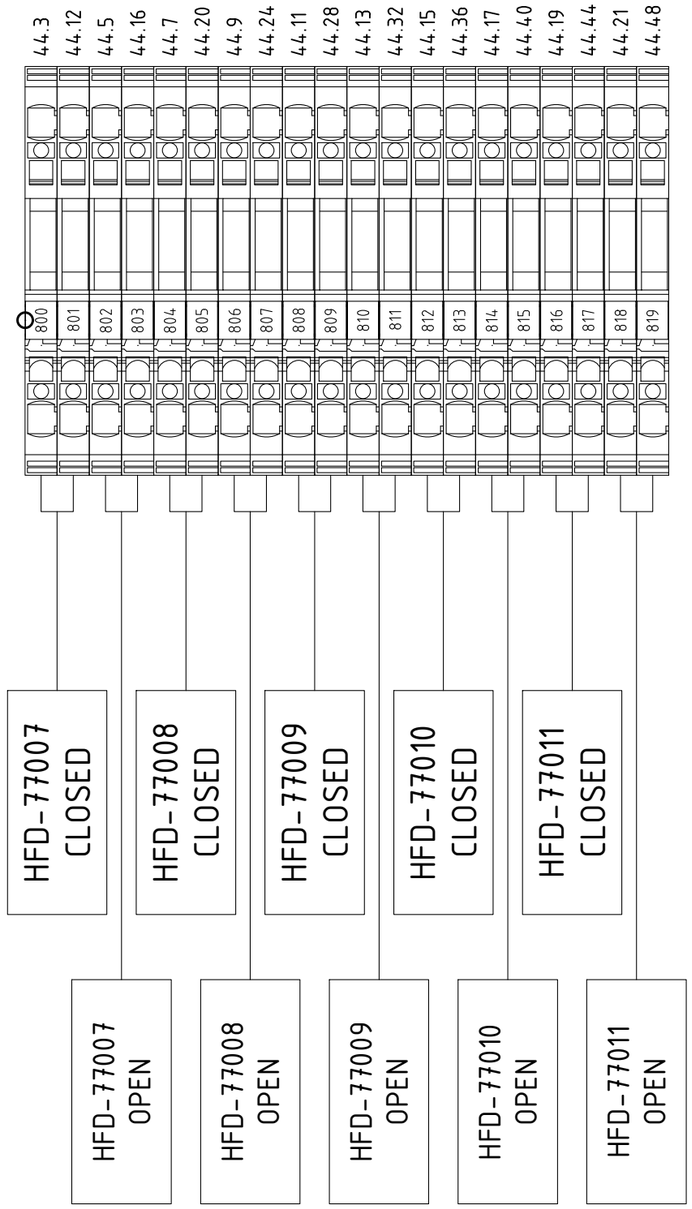
ROSETTI MARINO

1724000049-HV-DA-00028

FG. 49
F.S. 49A

+QG - XFD/S

FIRE DAMPERS SIGNAL TO SIS





REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
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01	ISSUED FOR APPROVAL	28/06/24	F.M.	VISTO	S.S.

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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM

TERMINAL STRIP

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 49A
F.S. 50

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
				Hq	4	9
	R5CQE2286R	cabinet comp. 2200x800x600 back	dkc	Hq	4	2
	R5CPFE8100	Modular cabinet compensation panel height 100 width 800	dkc			2
	R5TOE80	Rebate crossbar for modular doors, width 800	dkc			5
	RZPCE8900	Modular wiring panel L.800 H.900	dkc			2
	RZPCE8600	Modular wiring panel L.800 H.600	dkc			2
	RZPCE8500	Modular wiring panel L.800 H.500	dkc			2
	R5CPME8900	Solid modular cabinet door 800 width, 900 door height	dkc			2
	R5CPME8600	Solid modular cabinet door width 800, door height 600	dkc			2
	R5CPME8500	Solid modular cabinet door 800 width, 500 door height	dkc			2
	RZSOE545	Total horizontal support cabinet width 600	dkc			5
	rzdoe8545	PARTIAL HORIZONTAL PARTITION CABINET WIDTH 800 TOTAL DEPTH 545 MM	dkc			5
	RZA33	Lifting Ring	dkc			1
	R5LE2262	Side for cabinet depth 600mm height 2200mm2pcs	dkc			1
	R1ZPRO801	Flangefrontal/side H100 Length 800 2pcs	dkc			2
	R1ZPRO601	Front/side flange H100 length 600	dkc			2
	R1ZCOR1	Modular plinth corner H100 4pcs	dkc			2
	RZKE65	CQE cabinet union kit	dkc			1
	rzkre65	Flat Cooling Kit for CQE Cabinets	dkc			1
	rzksre65	L-shaped union reinforcement kit for CQE cabinets	dkc			1
	RZDVE2260	Vertical partition for QE 2200x600	dkc	Hq	4	1
	rztse02	Lifting brackets for CQE PZ2	dkc			1
32 x 15	PD32Z	Sendzimir rail 32x15x9 closed	Canloplast	Hq	5	5.69
40 x 100	E354	Can.cabl.40x100 SG S/4	Canloplast	Hq	5	9.33
60 x 100	E184	Can.Cabl.60x100 SG S/4	Canloplast	Hq	5	4.83
77-TT-303				Hq		1
77-TT-304				Hq		1
A1	6AV2124-0MC01-0AX0	SIMATIC HMI TP1200 Comfort. Touch control, 12" widescreen display	siemens	Hq	40	1
A2	6ES7155-6AU01-0CN0	IM 155-6 PN HF/2 V4.2 Interface Module	siemens	Hq	41	1
	6ES7193-6AR00-0AA0	BA 2xRJ45 (PROFINET busadapter with standard Ethernet socket for IM-PN)	siemens			1
A3	6ES7131-6BH01-0BA0	Digital Input Module: 16x24VDC ST	siemens	Hq	41	1
	6ES7193-6BP00-0BA0	Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A)	siemens			1
A4	6ES7131-6BH01-0BA0	Digital Input Module: 16x24VDC ST	siemens	Hq	41	1
	6ES7193-6BP00-0BA0	Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A)	siemens			1
A5	6ES7131-6BH01-0BA0	Digital Input Module: 16x24VDC ST	siemens	Hq	41	1
	6ES7193-6BP00-0BA0	Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A)	siemens			1
A6	6ES7131-6BH01-0BA0	Digital Input Module: 16x24VDC ST	siemens	Hq	41	1
	6ES7193-6BP00-0BA0	Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A)	siemens			1
A7	6ES7132-6BH01-0BA0	Digital Output Module: DQ 16x24VDC/0.5A ST	siemens	Hq	41	1
	6ES7193-6BP00-0DA0	Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A)	siemens			1
A8	6ES7134-6HD01-0BA1	Analog Input Module: AI 4XU/I 2-Wire ST	siemens	Hq	41	1
	6ES7193-6BP00-0DA0	Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A)	siemens			1
A9	6ES7135-6HD00-0BA1	Analog Output Module: AQ 4XU/I ST	siemens	Hq	41	1
	6ES7193-6BP00-0DA0	Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A)	siemens			1
A10	6ES7135-6HD00-0BA1	Analog Output Module: AQ 4XU/I ST	siemens	Hq	41	1

REV.	MODIFICA	DATA	FIRMA
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02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.

DATA	22/04/2024
DISEGN.	F.M.
VISTO	S.S.
APPR.	M.G.

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CLIENT:
CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM

MATERIAL LIST
LISTA METERIALI

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 50
F.S. 51

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
A10	*6ES7193-6BP00-0BA0*	*Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A)*	*siemens*	*Hq*	41	1
A11	*6ES7134-6HD01-0BA1*	*Analog Input Module: AI 4XU/I 2-Wire ST*	*siemens*	*Hq*	41	1
	6ES7193-6BP00-0DA0	*Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A)*	*siemens*			1
A12	*6GK5208-0BA00-2AC2*	*XC208 Managed Switch with 8 RJ45 100Mbit/s Ports*	*siemens*	*Hq*	41	1
A13	*6ES7131-6BH01-0BA0*	*Digital Input Module: 16x24VDC ST*	*siemens*	*Hq*	41	1
	6ES7193-6BP00-0DA0	*Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A)*	*siemens*			1
D1	*6ES7513-1RM03-0AB0*	*CPU 1513R-1PN*	*siemens*	*Hq*	40	1
	6ES7954-8LF02-0AA0	*Memory card, 24 MB*	*siemens*			1
	6ES7590-1AB60-0AA0	*Profile rail S7-1500, 160 mm*	*siemens*			1
D2	*6ES7513-1RM03-0AB0*	*CPU 1513R-1PN*	*siemens*	*Hq*	40	1
	6ES7954-8LF02-0AA0	*Memory card, 24 MB*	*siemens*			1
	6ES7590-1AB60-0AA0	*Profile rail S7-1500, 160 mm*	*siemens*			1
EM LIGHT				*Hq*		1
EPB-002	*3su1900-0dy30-0aa0*	*Protective collar for merge button, plastic, yellow, 22mm hole*	*siemens*	*Hq*	26	1
	3SU1001-1HB20-0AA0	*Emergency stop mushroom pushbutton, illuminatable, twist release, 40 mm diameter, 2 positions*	*siemens*			1
	3su1500-0aa10-0aa0	*Support without module. plastic*	*siemens*			1
	3SU1401-1BH20-1AA0	*Red LED module for mounting on front plate, 24 ... 240 V AC/DC. Screw terminals*	*siemens*			1
EPB-002L	*3SU1401-1BH20-1AA0*	*Red LED module for mounting on front plate, 24 ... 240 V AC/DC. Screw terminals*	*siemens*	*Hq*	26	1
F1		*docker*		*Hq*	*7th*	1
F2		*docker*		*Hq*	*7th*	1
F3		*docker*		*Hq*	*7th*	1
F4		*docker*		*Hq*	*7th*	1
FU42.1	*SF900GR*	*SFR.4/GR Sectionable clamp*	*Cabur*	*Hq*	42	1
FU43.1	*SF900GR*	*SFR.4/GR Sectionable clamp*	*Cabur*	*Hq*	43	1
GD1	*6EP1336-3BA10*	*Sitop PSU8200 Single Phase, DC 24 V/20 A. Stabilized Power Supply Input: AC 120...230 V/DC 110-220 V, Output: DC 24 V/20 A*	*siemens*	*Hq*	25	1
HFD-77007		*NC Limit Switch*		*Hq*	*26th*	1
HFD-77007		*Limit Switch: No*		*Hq*	*26th*	1
HFD-77007				*Hq*	49	1
HFD-77008		*NC Limit Switch*		*Hq*	*26th*	1
HFD-77008		*Limit Switch: No*		*Hq*	*26th*	1
HFD-77008				*Hq*	49	1
HFD-77009		*NC Limit Switch*		*Hq*	*26th*	1
HFD-77009		*Limit Switch: No*		*Hq*	*26th*	1
HFD-77009				*Hq*	49	1
HFD-77010		*NC Limit Switch*		*Hq*	*26th*	1
HFD-77010		*Limit Switch: No*		*Hq*	*26th*	1
HFD-77010				*Hq*	49	1
HFD-77011		*NC Limit Switch*		*Hq*	*26th*	1
HFD-77011		*Limit Switch: No*		*Hq*	*26th*	1
HFD-77011				*Hq*	49	1
HL8.1	*3SU1001-6AA60-0AA0*	*Indicator light with smooth lens, white*	*siemens*	*Hq*	8	1
	3SU1401-1BH60-1AA0	*White LED module for mounting on front plate, 24 ... 240 V AC/DC. Screw terminals*	*siemens*			1
	3su1500-0aa10-0aa0	*Support without module. plastic*	*siemens*			1
HL16.1	*3SU1001-6AA60-0AA0*	*Indicator light with smooth lens, white*	*siemens*	*Hq*	16	1

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.	DISEGN.	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.	VISTO	S.S.

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CLIENT:
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BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM

MATERIAL LIST
LISTA METERIALI

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 51
F.S. 52

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
HL16.1	*3SU1401-1BH60-1AA0*	*White LED module for mounting on front plate, 24 ... 240 V AC/DC. Screw terminals*	*siemens*	*Hq*	16	1
	3su1500-0aa10-0aa0	*Support without module. plastic*	*siemens*			1
HL24.1	*3SU1001-6AA60-0AA0*	*Indicator light with smooth lens, white*	*siemens*	*Hq*	24	1
	3SU1401-1BH60-1AA0	*White LED module for mounting on front plate, 24 ... 240 V AC/DC. Screw terminals*	*siemens*			1
	3su1500-0aa10-0aa0	*Support without module. plastic*	*siemens*			1
HL25.1	*3SU1001-6AA60-0AA0*	*Indicator light with smooth lens, white*	*siemens*	*Hq*	25	1
	3SU1401-1BH60-1AA0	*White LED module for mounting on front plate, 24 ... 240 V AC/DC. Screw terminals*	*siemens*			1
	3su1500-0aa10-0aa0	*Support without module. plastic*	*siemens*			1
HR-1A	*GRP-H-25-48-D-1-0000*	*Static power slave unit for load control, logic/analog control. Maximum current 25A.*	*Gefran*	*Hq*	42	1
HR-1B	*GRP-H-25-48-D-1-0000*	*Static power slave unit for load control, logic/analog control. Maximum current 25A.*	*Gefran*	*Hq*	42	1
HR-1C	*GRM-H-25-48-AN-OL-00000*	*Static power master unit for load control, logic/analog control. Maximum current 25A.*	*Gefran*	*Hq*	42	1
HR-2A	*GRP-H-25-48-D-1-0000*	*Static power slave unit for load control, logic/analog control. Maximum current 25A.*	*Gefran*	*Hq*	43	1
HR-2B	*GRP-H-25-48-D-1-0000*	*Static power slave unit for load control, logic/analog control. Maximum current 25A.*	*Gefran*	*Hq*	43	1
HR-2C	*GRM-H-25-48-AN-OL-00000*	*Static power master unit for load control, logic/analog control. Maximum current 25A.*	*Gefran*	*Hq*	43	1
HSS-77-007				*Hq*		1
HSS-77-008				*Hq*		1
HSS-77-009				*Hq*		1
KA8.1	*EPN520*	*Stepper Relay 16A 230V 2NA 1M*	*Hager*	*Hq*	8	1
KA9.1	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*	*Finder*	*Hq*	9	1
		Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC				
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI*	*Finder*			1
		Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable				
		Protection category: RT I. OPTIO				
KA11.1	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*	*Finder*	*Hq*	11	1
		Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC				
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI*	*Finder*			1
		Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable				
		Protection category: RT I. OPTIO				
KA12.1	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*	*Finder*	*Hq*	12	1
		Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC				
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI*	*Finder*			1
		Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable				
		Protection category: RT I. OPTIO				
KA12.2	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*	*Finder*	*Hq*	12	1
		Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC				
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI*	*Finder*			1
		Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable				
		Protection category: RT I. OPTIO				
KA12.3	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*	*Finder*	*Hq*	12	1
		Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC				
	094913	*Latching and unhooking jumper*	*Finder*			1

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.	DISEGN.	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.	VISTO	S.S.

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CLIENT:
CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM

MATERIAL LIST
LISTA METERIALI

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 52
F.S. 53

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
KA12.3	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable Protection category: RT I. OPTIO*	*Finder*	*Hq*	12	1
KA13.1	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*	*Hq*	13	1
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable Protection category: RT I. OPTIO*	*Finder*			1
KA13.2	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*	*Hq*	13	1
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable Protection category: RT I. OPTIO*	*Finder*			1
KA13.3	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*	*Hq*	13	1
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable Protection category: RT I. OPTIO*	*Finder*			1
KA14.1	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*	*Hq*	14	1
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable Protection category: RT I. OPTIO*	*Finder*			1
KA14.2	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*	*Hq*	14	1
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable Protection category: RT I. OPTIO*	*Finder*			1
KA15.1	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*	*Hq*	15	1
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable Protection category: RT I. OPTIO*	*Finder*			1
KA15.2	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*	*Hq*	15	1
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable Protection category: RT I. OPTIO*	*Finder*			1

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
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01	ISSUED FOR APPROVAL	28/06/24	F.M.	VISTO	S.S.

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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM

MATERIAL LIST
LISTA METERIALI

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 53
F.S. 54

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
KA15.3	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*	*Finder*	*Hq*	15	1
		Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC				
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI*	*Finder*			1
		Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable				
		Protection category: RT I. OPTIO				
KA15.4	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*	*Finder*	*Hq*	15	1
		Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC				
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI*	*Finder*			1
		Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable				
		Protection category: RT I. OPTIO				
KA17.1	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*	*Finder*	*Hq*	17	1
		Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC				
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI*	*Finder*			1
		Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable				
		Protection category: RT I. OPTIO				
KA19.1	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*	*Finder*	*Hq*	19	1
		Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC				
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI*	*Finder*			1
		Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable				
		Protection category: RT I. OPTIO				
KA20.1	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*	*Finder*	*Hq*	20	1
		Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC				
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI*	*Finder*			1
		Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable				
		Protection category: RT I. OPTIO				
KA20.2	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*	*Finder*	*Hq*	20	1
		Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC				
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI*	*Finder*			1
		Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable				
		Protection category: RT I. OPTIO				
KA20.3	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*	*Finder*	*Hq*	20	1
		Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC				
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI*	*Finder*			1
		Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable				
		Protection category: RT I. OPTIO				
KA21.1	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*	*Finder*	*Hq*	21	1
		Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC				
	094913	*Latching and unhooking jumper*	*Finder*			1

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
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01	ISSUED FOR APPROVAL	28/06/24	F.M.	VISTO	S.S.

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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM

MATERIAL LIST
LISTA METERIALI

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 54
F.S. 55

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
KA21.1	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable Protection category: RT I. OPTIO*	*Finder*	*Hq*	21	1
KA21.2	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*	*Hq*	21	1
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable Protection category: RT I. OPTIO*	*Finder*			1
KA21.3	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*	*Hq*	21	1
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable Protection category: RT I. OPTIO*	*Finder*			1
KA22.1	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*	*Hq*	22	1
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable Protection category: RT I. OPTIO*	*Finder*			1
KA22.2	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*	*Hq*	22	1
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable Protection category: RT I. OPTIO*	*Finder*			1
KA23.1	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*	*Hq*	23	1
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable Protection category: RT I. OPTIO*	*Finder*			1
KA23.2	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*	*Hq*	23	1
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable Protection category: RT I. OPTIO*	*Finder*			1
KA23.3	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*	*Hq*	23	1
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable Protection category: RT I. OPTIO*	*Finder*			1

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
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BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM

MATERIAL LIST
LISTA METERIALI

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 55
F.S. 56

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
KA23.4	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*	*Hq*	23	1
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable Protection category: RT I. OPTIO*	*Finder*			1
KA26.1	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*	*Hq*	26	1
	553490240040	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in connection Power supply: DC volts DC: 24 V. Non-polarized monostable Protection category: RT I. Option*	*Finder*			1
	094913	*Latching and unhooking jumper*	*Finder*			1
KA26.2	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*	*Hq*	26	1
	553490240040	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in connection Power supply: DC volts DC: 24 V. Non-polarized monostable Protection category: RT I. Option*	*Finder*			1
	094913	*Latching and unhooking jumper*	*Finder*			1
KA26A.1	465290240040	*mini relay. (A): 8 N° Contacts: 2 Contact configuration: CO Material Contacts: AGNI Electrical connection: plug-in fitting Power supply: DC Volt DC: 24 V. Non-polarized Monostable Protection category: RT II. Optional: PU*	*Finder*	*Hq*	*26th*	1
	9702spa	*Plinth with socket terminals Mounting: 35 mm blind bar (A): 8 Degree of protection: IP 20 Accessories: plastic or metal jumper, 8-pole comb, EMC signalling and protection modules, timer modules*	*Finder*			1
KA26A.2	465290240040	*mini relay. (A): 8 N° Contacts: 2 Contact configuration: CO Material Contacts: AGNI Electrical connection: plug-in fitting Power supply: DC Volt DC: 24 V. Non-polarized Monostable Protection category: RT II. Optional: PU*	*Finder*	*Hq*	*26th*	1
	9702spa	*Plinth with socket terminals Mounting: 35 mm blind bar (A): 8 Degree of protection: IP 20 Accessories: plastic or metal jumper, 8-pole comb, EMC signalling and protection modules, timer modules*	*Finder*			1
KA26A.3	465290240040	*mini relay. (A): 8 N° Contacts: 2 Contact configuration: CO Material Contacts: AGNI Electrical connection: plug-in fitting Power supply: DC Volt DC: 24 V. Non-polarized Monostable Protection category: RT II. Optional: PU*	*Finder*	*Hq*	*26th*	1
	9702spa	*Plinth with socket terminals Mounting: 35 mm blind bar (A): 8 Degree of protection: IP 20 Accessories: plastic or metal jumper, 8-pole comb, EMC signalling and protection modules, timer modules*	*Finder*			1
KA26A.4	465290240040	*mini relay. (A): 8 N° Contacts: 2 Contact configuration: CO Material Contacts: AGNI Electrical connection: plug-in fitting Power supply: DC Volt DC: 24 V. Non-polarized Monostable Protection category: RT II. Optional: PU*	*Finder*	*Hq*	*26th*	1
	9702spa	*Plinth with socket terminals Mounting: 35 mm blind bar (A): 8 Degree of protection: IP 20 Accessories: plastic or metal jumper, 8-pole comb, EMC signalling and protection modules, timer modules*	*Finder*			1
KA26A.5	465290240040	*mini relay. (A): 8 N° Contacts: 2 Contact configuration: CO Material Contacts: AGNI Electrical connection: plug-in fitting Power supply: DC Volt DC: 24 V. Non-polarized Monostable Protection category: RT II. Optional: PU*	*Finder*	*Hq*	*26th*	1
	9702spa	*Plinth with socket terminals Mounting: 35 mm blind bar (A): 8 Degree of protection: IP 20 Accessories: plastic or metal jumper, 8-pole comb, EMC signalling and protection modules, timer modules*	*Finder*			1

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.	DISEGN.	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.	VISTO	S.S.

Frigotermica
HVAC SYSTEM and EQUIPMENT
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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM

MATERIAL LIST
LISTA METERIALI

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 56
F.S. 57

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
KA26A.6	465290240040	*mini relay. (A): 8 N° Contacts: 2 Contact configuration: CO Material Contacts: AGNI Electrical connection: plug-in fitting Power supply: DC Volt DC: 24 V. Non-polarized Monostable Protection category: RT II. Optional: PU*	*Finder*	*Hq*	*26th*	1
	9702spa	*Plinth with socket terminals Mounting: 35 mm blind bar (A): 8 Degree of protection: IP 20 Accessories: plastic or metal jumper, 8-pole comb, EMC signalling and protection modules, timer*	*Finder*			1
KA26A.7	465290240040	*mini relay. (A): 8 N° Contacts: 2 Contact configuration: CO Material Contacts: AGNI Electrical connection: plug-in fitting Power supply: DC Volt DC: 24 V. Non-polarized Monostable Protection category: RT II. Optional: PU*	*Finder*	*Hq*	*26th*	1
	9702spa	*Plinth with socket terminals Mounting: 35 mm blind bar (A): 8 Degree of protection: IP 20 Accessories: plastic or metal jumper, 8-pole comb, EMC signalling and protection modules, timer*	*Finder*			1
KA26A.8	465290240040	*mini relay. (A): 8 N° Contacts: 2 Contact configuration: CO Material Contacts: AGNI Electrical connection: plug-in fitting Power supply: DC Volt DC: 24 V. Non-polarized Monostable Protection category: RT II. Optional: PU*	*Finder*	*Hq*	*26th*	1
	9702spa	*Plinth with socket terminals Mounting: 35 mm blind bar (A): 8 Degree of protection: IP 20 Accessories: plastic or metal jumper, 8-pole comb, EMC signalling and protection modules, timer*	*Finder*			1
KA26A.9	465290240040	*mini relay. (A): 8 N° Contacts: 2 Contact configuration: CO Material Contacts: AGNI Electrical connection: plug-in fitting Power supply: DC Volt DC: 24 V. Non-polarized Monostable Protection category: RT II. Optional: PU*	*Finder*	*Hq*	*26th*	1
	9702spa	*Plinth with socket terminals Mounting: 35 mm blind bar (A): 8 Degree of protection: IP 20 Accessories: plastic or metal jumper, 8-pole comb, EMC signalling and protection modules, timer*	*Finder*			1
KA26A.10	465290240040	*mini relay. (A): 8 N° Contacts: 2 Contact configuration: CO Material Contacts: AGNI Electrical connection: plug-in fitting Power supply: DC Volt DC: 24 V. Non-polarized Monostable Protection category: RT II. Optional: PU*	*Finder*	*Hq*	*26th*	1
	9702spa	*Plinth with socket terminals Mounting: 35 mm blind bar (A): 8 Degree of protection: IP 20 Accessories: plastic or metal jumper, 8-pole comb, EMC signalling and protection modules, timer*	*Finder*			1
KA30.1	553490240040	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in connection Power supply: DC volts DC: 24 V. Non-polarized monostable Protection category: RT I. Option*	*Finder*	*Hq*	35	1
	9404spa	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*			1
	094913	*Latching and unhooking jumper*	*Finder*			1
KA30.3	553490240040	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in connection Power supply: DC volts DC: 24 V. Non-polarized monostable Protection category: RT I. Option*	*Finder*	*Hq*	35	1
	9404spa	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*			1
	094913	*Latching and unhooking jumper*	*Finder*			1
KA30.4	553490240040	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in connection Power supply: DC volts DC: 24 V. Non-polarized monostable Protection category: RT I. Option*	*Finder*	*Hq*	35	1
	9404spa	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*			1
	094913	*Latching and unhooking jumper*	*Finder*			1

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.	DISEGN.	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.	VISTO	S.S.

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BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM

MATERIAL LIST
LISTA METERIALI

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 57
F.S. 58

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
KA30.5	553490240040	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in connection Power supply: DC volts DC: 24 V. Non-polarized monostable Protection category: RT I. Option*	*Finder*	*Hq*	35	1
	9404spa	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*			1
	094913	*Latching and unhooking jumper*	*Finder*			1
KA30.6	553490240040	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in connection Power supply: DC volts DC: 24 V. Non-polarized monostable Protection category: RT I. Option*	*Finder*	*Hq*	35	1
	9404spa	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*			1
	094913	*Latching and unhooking jumper*	*Finder*			1
KA30.7	553490240040	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in connection Power supply: DC volts DC: 24 V. Non-polarized monostable Protection category: RT I. Option*	*Finder*	*Hq*	36	1
	9404spa	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*			1
	094913	*Latching and unhooking jumper*	*Finder*			1
KA30.8	553490240040	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in connection Power supply: DC volts DC: 24 V. Non-polarized monostable Protection category: RT I. Option*	*Finder*	*Hq*	36	1
	9404spa	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*			1
	094913	*Latching and unhooking jumper*	*Finder*			1
KA30.9	553490240040	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in connection Power supply: DC volts DC: 24 V. Non-polarized monostable Protection category: RT I. Option*	*Finder*	*Hq*	35	1
	9404spa	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*			1
	094913	*Latching and unhooking jumper*	*Finder*			1
KA37.1	553490240040	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in connection Power supply: DC volts DC: 24 V. Non-polarized monostable Protection category: RT I. Option*	*Finder*	*Hq*	36	1
	9404spa	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*			1
	094913	*Latching and unhooking jumper*	*Finder*			1
KA37.2	553490240040	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in connection Power supply: DC volts DC: 24 V. Non-polarized monostable Protection category: RT I. Option*	*Finder*	*Hq*	36	1
	9404spa	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*			1
	094913	*Latching and unhooking jumper*	*Finder*			1
KA42.1	553490240040	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in connection Power supply: DC volts DC: 24 V. Non-polarized monostable Protection category: RT I. Option*	*Finder*	*Hq*	42	1

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
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01	ISSUED FOR APPROVAL	28/06/24	F.M.	VISTO	S.S.

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B-300 HV-MV SWITCHGEAR ROOM

MATERIAL LIST
LISTA METERIALI

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 58
F.S. 59

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
KA42.1	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*	*Hq*	42	1
	094913	*Latching and unhooking jumper*	*Finder*			1
KA43.1	553490240040	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in connection Power supply: DC volts DC: 24 V. Non-polarized monostable Protection category: RT I. Option*	*Finder*	*Hq*	43	1
	9404spa	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*			1
	094913	*Latching and unhooking jumper*	*Finder*			1
KM1	*3RT2316-1BB40*	*Contactor, 4 NO, AC-1: 18 to 24 V DC, 4-pole, 4 NO, size S00, screw terminals*	*siemens*	*Hq*	26	1
	3RH29111HA22	*Bloc.Aus.2L 2R 1L,1L,S00/S0,*	*siemens*			1
KM2A	*3RT2015-1AP01*	*Power contactor, AC-3 7 A, 3 kW / 400 V 1 NO, 230 V AC, 50 / 60 Hz 3 poles, size S00 Screw terminals*	*siemens*	*Hq*	13	1
	3RH29111HA22	*Bloc.Aus.2L 2R 1L,1L,S00/S0,*	*siemens*			1
KM2B	*3RT2015-1AP01*	*Power contactor, AC-3 7 A, 3 kW / 400 V 1 NO, 230 V AC, 50 / 60 Hz 3 poles, size S00 Screw terminals*	*siemens*	*Hq*	21	1
	3RH29111HA22	*Bloc.Aus.2L 2R 1L,1L,S00/S0,*	*siemens*			1
KM3A	*3RT20261AN20*	*cont.11kw,1L 1R,AC 220V 50/60Hz,S0 VT*	*siemens*	*Hq*	14	1
	3RH29111HA22	*Bloc.Aus.2L 2R 1L,1L,S00/S0,*	*siemens*			1
KM3B	*3RT20261AN20*	*cont.11kw,1L 1R,AC 220V 50/60Hz,S0 VT*	*siemens*	*Hq*	22	1
	3RH29111HA22	*Bloc.Aus.2L 2R 1L,1L,S00/S0,*	*siemens*			1
KT11.1	*dtmsmm1*	*Temporised Relay 1 C 230V*	*Microidea*	*Hq*	12	1
KT13.1	*dtmsmm1*	*Temporised Relay 1 C 230V*	*Microidea*	*Hq*	13	1
KT14.1	*dtmsmm1*	*Temporised Relay 1 C 230V*	*Microidea*	*Hq*	14	1
KT14.2	*dtmsmm1*	*Temporised Relay 1 C 230V*	*Microidea*	*Hq*	14	1
KT20.1	*dtmsmm1*	*Temporised Relay 1 C 230V*	*Microidea*	*Hq*	20	1
KT21.1	*dtmsmm1*	*Temporised Relay 1 C 230V*	*Microidea*	*Hq*	21	1
KT22.1	*dtmsmm1*	*Temporised Relay 1 C 230V*	*Microidea*	*Hq*	22	1
KT22.2	*dtmsmm1*	*Temporised Relay 1 C 230V*	*Microidea*	*Hq*	22	1
LIGHT				*Hq*		1
MTP-001A	*3RN2000-1AW30*	*Motor protection relay for PTC thermistor supervision 24/240 V AC/DC 1 changeover contact*	*siemens*	*Hq*	13	1
MTP-001B	*3RN2000-1AW30*	*Motor protection relay for PTC thermistor supervision 24/240 V AC/DC 1 changeover contact*	*siemens*	*Hq*	21	1
MVA-1	*DMG600*	*multimeter with icon-based LCD*	*Lovato*	*Hq*	6	1
PDSH-77-302		*Pressure-controlled (pressure switch) No*		*Hq*	15	1
PDSH-77-304		*Pressure-controlled (pressure switch) No*		*Hq*	23	1
PF8.1	*GSV1000220*	*Panel Fan 100x100 230V 24m³/h*	*Cosmotec*	*Hq*	8	1
	GSF10	*air intake filter 100x100*	*Cosmotec*			1
PF16.1	*GSF10*	*air intake filter 100x100*	*Cosmotec*	*Hq*	16	1
	GSV1000220	*Panel Fan 100x100 230V 24m³/h*	*Cosmotec*			1
PF24.1	*GSV1000220*	*Panel Fan 100x100 230V 24m³/h*	*Cosmotec*	*Hq*	24	1
	GSF10	*air intake filter 100x100*	*Cosmotec*			1
PFT8.1	*007026.00001*	*Thermostate Panel Fan*	*Fandis*	*Hq*	8	1
PFT16.1	*007026.00001*	*Thermostate Panel Fan*	*Fandis*	*Hq*	16	1
PFT24.1	*007026.00001*	*Thermostate Panel Fan*	*Fandis*	*Hq*	24	2
PH8.1	*050ra50*	*Anticondensing Heater 230V 50W*	*New Elfin*	*Hq*	8	1
PH16.1	*050ra50*	*Anticondensing Heater 230V 50W*	*New Elfin*	*Hq*	16	1
PH24.1	*050ra50*	*Anticondensing Heater 230V 50W*	*New Elfin*	*Hq*	24	1

REV.	MODIFICA	DATA	FIRMA
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.

DATA	22/04/2024
DISEGN.	F.M.
VISTO	S.S.
APPR.	M.G.

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BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM

MATERIAL LIST
LISTA METERIALI

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 59
F.S. 60

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
PHT8.1	*007038.00001*	*Antcondensing Thermostat 230V*	*Fandis*	*Hq*	8	1
PHT16.1	*007038.00001*	*Antcondensing Thermostat 230V*	*Fandis*	*Hq*	16	1
PHT24.1	*007038.00001*	*Antcondensing Thermostat 230V*	*Fandis*	*Hq*	24	1
PL8.1	*050PEL3C*	*230V lamp*	*New Elfin*	*Hq*	8	1
	050kfm	*Magnet kit*	*New Elfin*			1
PL16.1	*050PEL3C*	*230V lamp*	*New Elfin*	*Hq*	16	1
	050kfm	*Magnet kit*	*New Elfin*			1
PL24.1	*050PEL3C*	*230V lamp*	*New Elfin*	*Hq*	24	1
	050kfm	*Magnet kit*	*New Elfin*			1
PL25.1	*050PEL3C-24V*	*LED Linear Ceiling Light 24V AC/DC, 600LM 368mm*	*New Elfin*	*Hq*	25	1
	050kfm	*Magnet kit*	*New Elfin*			1
PLS8.1	*RAMC05*	*Micro Door Opening Switch 1 No & 1NC*	*dkc*	*Hq*	8	1
PLS16.1	*RAMC05*	*Micro Door Opening Switch 1 No & 1NC*	*dkc*	*Hq*	16	1
PLS24.1	*RAMC05*	*Micro Door Opening Switch 1 No & 1NC*	*dkc*	*Hq*	24	2
PLS25.1	*RAMC05*	*Micro Door Opening Switch 1 No & 1NC*	*dkc*	*Hq*	25	1
QF1	*5SU1354-1KK10*	*Residual current circuit breaker, 10 kA, 1P N, AC type, 30 mA, C, IN: 10 A, UN AC: 230 V*	*siemens*	*Hq*	*7th*	1
	5ST3010	*Auxiliary contact block, 1 NO 1 NC for 5SL, 5SY, 5SP circuit breaker*	*siemens*			1
QF1A	*5SY7506-7*	*Circuit breaker 230 V 15KA, 1P N, C, 6 A, D=70 mm*	*siemens*	*Hq*	10	1
	5ST3010	*Auxiliary contact block, 1 NO 1 NC for 5SL, 5SY, 5SP circuit breaker*	*siemens*			1
QF1B	*5SY7506-7*	*Circuit breaker 230 V 15KA, 1P N, C, 6 A, D=70 mm*	*siemens*	*Hq*	18	1
	5ST3010	*Auxiliary contact block, 1 NO 1 NC for 5SL, 5SY, 5SP circuit breaker*	*siemens*			1
QF2	*5SU1354-1KK16*	*RCD, 10 kA, 1P N, AC type, 30 mA, C, IN: 16 A, UN AC: 230 V*	*siemens*	*Hq*	*7th*	1
	5ST3010	*Auxiliary contact block, 1 NO 1 NC for 5SL, 5SY, 5SP circuit breaker*	*siemens*			1
QF3	*5SY7502-7*	*Circuit breaker 230 V 15KA, 1P N, C, 2 A, D=70 mm*	*siemens*	*Hq*	7	1
	5ST3010	*Auxiliary contact block, 1 NO 1 NC for 5SL, 5SY, 5SP circuit breaker*	*siemens*			1
QF4	*5SY7503-7*	*Circuit breaker 230 V 15Ka, 1P N, C, 3 A, D=70 mm*	*siemens*	*Hq*	25	1
QF5	*5SY5220-7*	*Universal current circuit breaker 440 V DC - 400 V AC 10Ka, 2P, C, 20 A*	*siemens*	*Hq*	25	1
QF6	*5su1354-1kk06*	*RCD, 10 kA, 1P N, AC Type, 30 mA, C, In: 6 A, One AC: 230 V*	*siemens*	*Hq*	*7th*	1
	5ST3010	*Auxiliary contact block, 1 NO 1 NC for 5SL, 5SY, 5SP circuit breaker*	*siemens*			1
QF400	*5SY74027*	*Int. MT 4P C2 ICN 15KA, ICU 50KA*	*siemens*	*Hq*	6	1
QFA	*3VA1125-4GF42-0AA0*	*Switch 3VA1 IEC Chassis 160 Switching Capacity Class S ICU=36 KA 415 V 4-pole, TM240 system protection, ATAM, IN=25 A overload protection IR=18 A... 25 A Short-Circuit Protection II=6.4...12.8 x in N-Conductor Protection 100% LU terminal*	*siemens*	*Hq*	6	1
	3VA9157-0FK21	*com. rinv. Door Lock x 3VA10/1 STD*	*siemens*			1
	3VA9988-0BL30	*bobsleigh. Launch SIN 24VAC 50/60 Hz/12-30 VDC*	*siemens*			1
	3VA9988-0AA11	*Cont. HP-type status*	*siemens*			1
	3VA9111-0WD40	*Cover x 3VA10/1 4P 1pcs.*	*siemens*			2
QFB	*3VA1125-4GF42-0AA0*	*Switch 3VA1 IEC Chassis 160 Switching Capacity Class S ICU=36 KA 415 V 4-pole, TM240 system protection, ATAM, IN=25 A overload protection IR=18 A... 25 A Short-Circuit Protection II=6.4...12.8 x in N-Conductor Protection 100% LU terminal*	*siemens*	*Hq*	6	1
	3VA9157-0FK21	*com. rinv. Door Lock x 3VA10/1 STD*	*siemens*			1
	3VA9988-0BL30	*bobsleigh. Launch SIN 24VAC 50/60 Hz/12-30 VDC*	*siemens*			1
	3VA9988-0AA11	*Cont. HP-type status*	*siemens*			1
	3VA9111-0WD40	*Cover x 3VA10/1 4P 1pcs.*	*siemens*			2
QM1	*5SY7410-7*	*Circuit breaker 400 V 15kA, 4P, C, 10 A, D=70 mm*	*siemens*	*Hq*	7	1

REV.	MODIFICA	DATA	FIRMA		
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01	ISSUED FOR APPROVAL	28/06/24	F.M.	VISTO	S.S.
				APPR.	M.G.

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BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM

MATERIAL LIST
LISTA METERIALI

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 60
F.S. 61

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
QM1	*5SM23420*	*Block diff. 4P 40A 30mA Type AC x 5sy*	*siemens*	*Hq*	7	1
	5ST3010	*Auxiliary contact block, 1 NO 1 NC for 5SL, 5SY, 5SP circuit breaker*	*siemens*			1
QM1A	*3RV2011-1AA10*	*Circuit breaker size S00 for motor protection, class 10, trip A 1.1...1.6 A, trip N 21 A, screw terminal*	*siemens*	*Hq*	9	1
	3RV2901-1E	*Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers*	*siemens*			1
QM1B	*3RV2011-1AA10*	*Circuit breaker size S00 for motor protection, class 10, trip A 1.1...1.6 A, trip N 21 A, screw terminal*	*siemens*	*Hq*	17	1
	3RV2901-1E	*Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers*	*siemens*			1
QM2A	*3RV2011-1GA10*	*Circuit breaker size S00 for motor protection, class 10, trip A 4.5...6.3 A, trip N 82 A, screw terminal*	*siemens*	*Hq*	10	1
	3RV2901-1E	*Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers*	*siemens*			1
	3RA19211DA00	*El.Col. Electr.Mech. (1pack=1pcs)*	*siemens*			1
QM2B	*3RV2011-1GA10*	*Circuit breaker size S00 for motor protection, class 10, trip A 4.5...6.3 A, trip N 82 A, screw terminal*	*siemens*	*Hq*	18	1
	3RV2901-1E	*Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers*	*siemens*			1
	3RA19211DA00	*El.Col. Electr.Mech. (1pack=1pcs)*	*siemens*			1
QM3A	*3RV2011-1JA10*	*Circuit breaker size S00 for motor protection, class 10, trip A 7...10 A, trip N 130 A, screw terminal*	*siemens*	*Hq*	10	1
	3RV2901-1E	*Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers*	*siemens*			1
	3RA29211AA00	*mod.coll.vt x 3rv2-3rt2 ac*	*siemens*			1
QM3B	*3RV2011-1JA10*	*Circuit breaker size S00 for motor protection, class 10, trip A 7...10 A, trip N 130 A, screw terminal*	*siemens*	*Hq*	18	1
	3RV2901-1E	*Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers*	*siemens*			1
	3RA29211AA00	*mod.coll.vt x 3rv2-3rt2 ac*	*siemens*			1
QM4A	*3RV2011-1JA10*	*Circuit breaker size S00 for motor protection, class 10, trip A 7...10 A, trip N 130 A, screw terminal*	*siemens*	*Hq*	10	1
	3RV2901-1E	*Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers*	*siemens*			1
QM4B	*3RV2011-1JA10*	*Circuit breaker size S00 for motor protection, class 10, trip A 7...10 A, trip N 130 A, screw terminal*	*siemens*	*Hq*	18	1
	3RV2901-1E	*Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers*	*siemens*			1
QM5A	*3RV2011-1DA10*	*Circuit breaker size S00 for motor protection, class 10, trip A 2.2...3.2 A, trip N 42 A, screw terminal*	*siemens*	*Hq*	11	1
	3RV2901-1E	*Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers*	*siemens*			1
QM5B	*3RV2011-1DA10*	*Circuit breaker size S00 for motor protection, class 10, trip A 2.2...3.2 A, trip N 42 A, screw terminal*	*siemens*	*Hq*	19	1
	3RV2901-1E	*Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers*	*siemens*			1
QS1	*3VA1132-4GF42-0AA0*	*Switch 3VA1 IEC Chassis 160 Switching Capacity Class S ICU=36 KA 415 V 4-Pole, TM240 System Protection, ATAM, IN=32 A Overload Protection IR=22 A... 32 A Short-Circuit Protection II=5...10 x in N-Conductor Protection 100% terminal LUG*	*siemens*	*Hq*	6	1
	3VA9988-0BL30	*bobsleigh. Launch SIN 24VAC 50/60 Hz/12-30 VDC*	*siemens*			1
	3VA9988-0AA11	*Cont. HP-type status*	*siemens*			1
	3VA9157-0FK21	*com. rinv. Door Lock x 3VA10/1 STD*	*siemens*			1
	3VA9111-0WD40	*Cover x 3VA10/1 4P 1pcs.*	*siemens*			2
SA27.1		*Three-position selector switch No rest 0*		*Hq*	27	1
SA27.2		*Three-position no-sleep selector switch 1*		*Hq*	27	1

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.	DISEGN.	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.	VISTO	S.S.

frigotermica
HVAC SYSTEM and EQUIPMENT
S.p.186-Cornegliano Laud. (Lo) Italy
tel. 0039-0371-69076
frigotermica@frigotermica.com

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 61
F.S. 62

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
TA1	*TAC022150X05*	*Amperometric transformer hole 22, transformation ratio 150/5 A*	*Frer*	*Hq*	6	1
TA2	*TAC022150X05*	*Amperometric transformer hole 22, transformation ratio 150/5 A*	*Frer*	*Hq*	6	1
TA3	*TAC022150X05*	*Amperometric transformer hole 22, transformation ratio 150/5 A*	*Frer*	*Hq*	6	1
VSD-1A	*6SL3210-5BE15-5CV0*	*SinamiCs V20 3AC380-480V 0.55kw with C3 filter*	*siemens*	*Hq*	9	1
VSD-1B	*6SL3210-5BE15-5CV0*	*SinamiCs V20 3AC380-480V 0.55kw with C3 filter*	*siemens*	*Hq*	17	1
VSD-5A	*6SL3210-5BE21-1CV0*	*SinamiCs V20 3AC380-480V 1.1kw with C3 Filter*	*siemens*	*Hq*	11	1
VSD-5B	*6SL3210-5BE21-1CV0*	*SinamiCs V20 3AC380-480V 1.1kw with C3 Filter*	*siemens*	*Hq*	19	1
XA1	*CBS02GR*	*Sectionable clamp 2.5 mm2*	*Cabur*	*Hq*		30
	BT005	*BTU Terminal Block*	*Cabur*			2
XA2	*CBS02GR*	*Sectionable clamp 2.5 mm2*	*Cabur*	*Hq*		30
	BT005	*BTU Terminal Block*	*Cabur*			2
XC	*CBS02GR*	*Sectionable clamp 2.5 mm2*	*Cabur*	*Hq*		8
	BT005	*BTU Terminal Block*	*Cabur*			2
XFD	*CBS02GR*	*Sectionable clamp 2.5 mm2*	*Cabur*	*Hq*		20
XFD/S	*CBS02GR*	*Sectionable clamp 2.5 mm2*	*Cabur*	*Hq*		20
XM1	*CBC02GR*	*CBC.2/GR Thru-Clamp*	*Cabur*	*Hq*		6
	CBC10gr	*CBC.10/gr Thru-Clamp*	*Cabur*			6
	CBC04GR	*CBC.4/GR Feed-through clamp*	*Cabur*			6
	BT005	*BTU Terminal Block*	*Cabur*			2
XM2	*CBC02GR*	*CBC.2/GR Thru-Clamp*	*Cabur*	*Hq*		6
	CBC10gr	*CBC.10/gr Thru-Clamp*	*Cabur*			6
	CBC04GR	*CBC.4/GR Feed-through clamp*	*Cabur*			6
	BT005	*BTU Terminal Block*	*Cabur*			2
XMD1	*SF900GR*	*SFR.4/GR Sectionable clamp*	*Cabur*	*Hq*		6
	CBS02GR	*Sectionable clamp 2.5 mm2*	*Cabur*			12
	BT005	*BTU Terminal Block*	*Cabur*			2
XMD2	*SF900GR*	*SFR.4/GR Sectionable clamp*	*Cabur*	*Hq*		6
	CBS02GR	*Sectionable clamp 2.5 mm2*	*Cabur*			12
	BT005	*BTU Terminal Block*	*Cabur*			2
XP1	*CBC35gr*	*CBC.35/GR Feed-through clamp*	*Cabur*	*Hq*		5
	CBC02GR	*CBC.2/GR Thru-Clamp*	*Cabur*			8
	CBC04GR	*CBC.4/GR Feed-through clamp*	*Cabur*			6
	BT005	*BTU Terminal Block*	*Cabur*			2
XT	*CBS02GR*	*Sectionable clamp 2.5 mm2*	*Cabur*	*Hq*		13
	BT005	*BTU Terminal Block*	*Cabur*			2
XUPS	*CBC04GR*	*CBC.4/GR Feed-through clamp*	*Cabur*	*Hq*		2
	BT005	*BTU Terminal Block*	*Cabur*			2

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	DATA	22/04/2024
02	ISSUED FOR CONSTRUCTION	03/07/24	F.M.	DISEGN.	F.M.
01	ISSUED FOR APPROVAL	28/06/24	F.M.	VISTO	S.S.

frigotermica
HVAC SYSTEM and EQUIPMENT
S.p.186-Cornegliano Laud. (Lo) Italy
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CLIENT:
CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300 HV-MV SWITCHGEAR ROOM

Distinta Materiali
Bill of Materials

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 62
F.S. /

ITEM	Tag	B-300	: Shelter AC UPS Fitted with UPS System Equipment Room B-300			Dwg	123A90-DDL-EL-DL-20138
	S/Sys	77-30	: UPS System Equipment Room B-300			Module	LD_B-300
TASK	code	C10002302		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Electrical	Form	CZX01E Package - E

1	Check that electrical component is not damaged.	PL
2	Check that the cables are adequately supported and protected.	Note
3	Check that the equipment, including cables and glands, have been correctly installed (only visual inspection).	Note
4	Check that all equipment has been earthed and bonded.	Note
5	Check if accessibility and maintenance are possible and safe.	OK
6	Verify that all vendor punch list created during FAT are uploaded in the Database.	OK
7	Check identification tag plate.	Note
8	If required produce Red Line Mark Up for "AS BUILT"	

Comments:

Note : Refer to Punch list raised during first step of FAT:

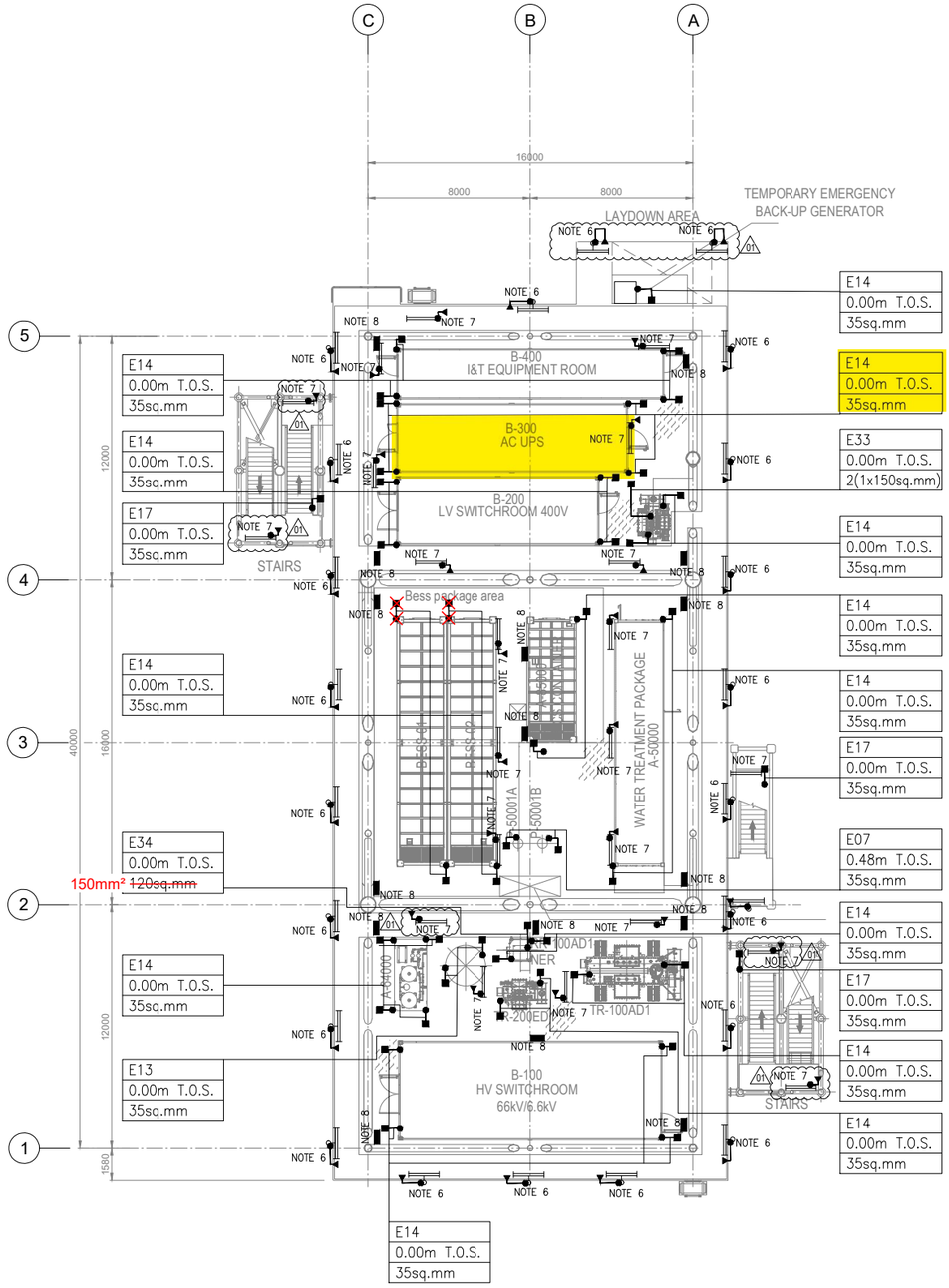
Point 2 PL: C30000024
Point 3 PL: C30000048 / C30000040 / C30000044
Point 4 PL: C30000086
Point 7 PL: C30000036

FAT will be completed at RM yard after MC phase.

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM (ROSETTI MARINO)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-10-07	2024-10-08	
Signature	PROVERLIS Digitaly signed by Carmelo Bongiovanni 2024-10-07T14:10:00.660Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2024-10-08T13:10:19.358Z	

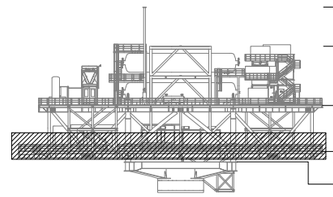
DRAWING NO. 123A90-DDL-EL-DL-20133

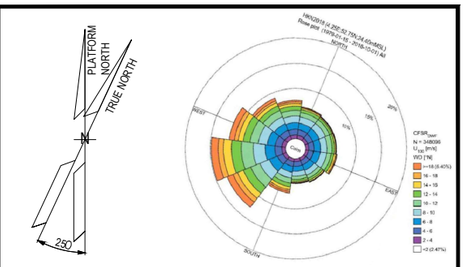
REV. 01



PLAN ON LOWER DECK
EL+23.310 T.O.S.

KEY PLAN





NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DOCUMENT IS ONLY VALID FOR EARTHING LAYOUT.
4. ALL ELECTRICAL EQUIPMENT NOT DIRECTLY WELDED TO SKID FRAME SHALL BE BONDED TO STEEL TO THE STRUCTURE OF SKID BASEFRAME.
5. FOR LIGHTNING PROTECTION SYSTEM SURGE PROTECTIVE DEVICES (SPD), REFER TO THE DOCUMENT 123A90-DDL-EL-RE-20154.
6. ALL NON-WELDED POLES WILL BE EARTHED AS PER TYPICAL E05 AND E24. 01
7. ALL LINEAR LIGHTING FIXTURE WILL BE EARTHED AS PER TYPICAL E32.
8. EARTH BAR WILL BE FIXED TO THE PRIMARY BEAMS OF THE UPPER DECK. COMPLETE EARTHING INCLUDING WITH 2 THREADED STUDS. ALL EARTH BAR WILL BE EARTHED AS PER TYPICAL E03D / 6.00M T.O.S. / 35 SQ MM.
9. EQUIPOTENTIAL BONDING GROUPING FOR BOLTED HANDRAILS ARE PROVIDED EVERY 3M FOR THE ENTIRE PERIMETER AS TYPICAL E16 AND WILL BE DEFINED DURING ASSEMBLY PHASE

LEGEND

- LIGHTING FIXTURE POLE MOUNTED
- LINEAR LIGHTING FIXTURE
- EARTHING BOSS AISI316L
- COMPRESSION TYPE LUG TINNED COPPER
- THREADED STUD FOR EARTHING CONNECTION
- Exx EARTHING TYPICAL CODE
- EARTHING BAR

TYP.	TYPICAL
ELE	ELEVATION
SIZE	

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-EL-DD-20090	ELECTRICAL TYPICAL INSTALLATION DETAILS - EARTHING SYSTEM
123A90-DDL-EL-RE-20154	LIGHTNING PROTECTION SYSTEM CALCULATION REPORT
123A90-DDL-EL-DL-20119	LIGHTING & SOCKET LAYOUT - LOWER DECK
123A90-DDL-EL-DL-20101	ELECTRICAL EQUIPMENT LAYOUT - LOWER DECK

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	25/07/24	SAM	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	29/05/24	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND | ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
EARTHING & LIGHTNING LAYOUT
LOWER DECK

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:150
DRAWN SPS	CHECKED FMA/AMA	APPROVED FPA/DLO	DATE 25/07/24
A1	DRAWING NO. 123A90-DDL-EL-DL-20133	SHEET 001	REV. 01

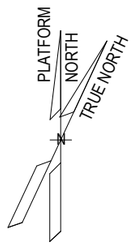
SHEET 001 OF 002

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DL-20133**

REV.:	DATE:	SIGNATURE:
1_B	11/09/24	G.Randi

ROSETTI MARINO SpA

File Name : 123A90-DDL-EL-DL-20133



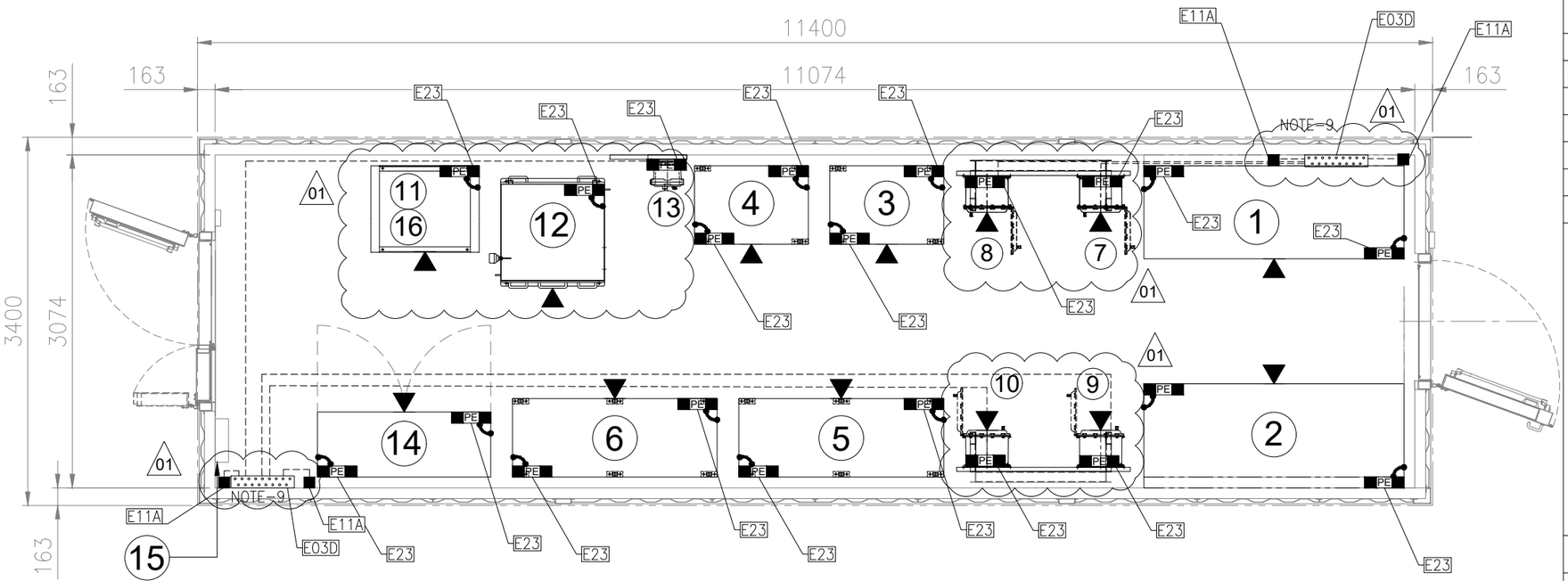
	EQUIPMENT LIST	
REF.	TAG No.	DESCRIPTION
1	UP-200F3	AC UPS 35kVA
2	UP-200F4	AC UPS 15kVA
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA
11	NC-200F2_BC-200F2A/B	NAVAID PANEL
12	BA-200F2	BATTERY BOX NAVAID
13	CB-200F2	ISOLATOR BOX NAVAID
14	B300-HSB-001	DISTRIBUTION & HVAC PANEL – AC/UPS ROOM
15	–	EYE WASH STATION
16	BC-200F2	BATTERY CHARGER NAVAID

01

01

NOTES

1. THIS DOUCMENT IS VALID ONLY FOR EARTHING LAYOUT.
2. THE CABLE SIZE SHALL BE CONFIRMED.
3. THE EXACT POSITION OF EARTHING/MARSHALLING BUS BAR SHALL BE DEFINED BY VENDOR.
4. THE EARTHING BUS BAR INSTALLATION SHALL BE PREFERABLY IN VERTICAL MODE.
5. FOR TYPICAL DETAILS PLEASE REFER DOCUMENT "123A90-DDL-EL-DD-20090-ELECTRICAL TYPICAL INSTALLATION DETAILS-EARTHING SYSTEM".
6. DUE TO THE TOP CABLE ENTRIES THE EARTHING BUS BAR INSIDE THE CABINETS SHALL BE INSTALLED AT THE TOP OF THE CABINETS THEMSELVES.
7. FOR LIGHTNING PROTECTION SYSTEM SURGE PROTECTIVE DEVICES (SPD), REFER DOCUMENT 123A90-DDL-EL-RE-20154.
8. ALL THE NON WELDED OBJECTS SHALL BE EARTHED.
9. CONTAINER WILL HAVE A BTH (EARTHING BAR TINNED COPPER) WITH 2 EARTHING BOSS, INSTALLED IN THE SOUTH-WEST CORNER AT AN ELEVATION OF 2.5M FROM THE CONTAINER FLOOR. EARTHING BOSS SHALL BE INSTALLED AT SAME ELEVATION 2.5M.



EARTHING LAYOUT

"B-300" UPSs & BATTERIES SWITCHROOM

PLAN

EL.+ 23.310 T.O.S.

SYMBOL	DESCRIPTION
PE	EARTHING BUS
	EARTHING BAR TINNED COPPER WITH no.18 HOLES
-------	35sq.mm Y/G INSULATED COPPER CONDUCTOR FOR PE
PE	PROTECTIVE EARTH
■	EARTHING BOSS AISI316L
	JUMPER CONNECTION
▲ 01	FRONT OF EQUIPMENT

REFERENCE

DOCUMENT NUMBER	DOCUMENT TITLE
123A90-DDL-EL-DD-20090	ELECTRICAL TYPICAL INSTALLATION DETAILS -EARTHING SYSTEM
123A90-DDL-EL-DL-20106	ELECTRICAL EQUIPMENT LAYOUT-UPSs & BATTERIES SWITCHROOM
1724000049-AR-DD-00020	B-300 DETAILED DRAWINGS – E&I SHELTERS

01

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DL-20138**

REV.:	DATE:	SIGNATURE:
1_A	08/08/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	25/07/24	ASR	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/05/24	SAM	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
EARTHING & LIGHTNING LAYOUT – UPSs & BATTERIES SWITCHROOM
"B-300" UPSs & BATTERIES SWITCHROOM

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : 1:50

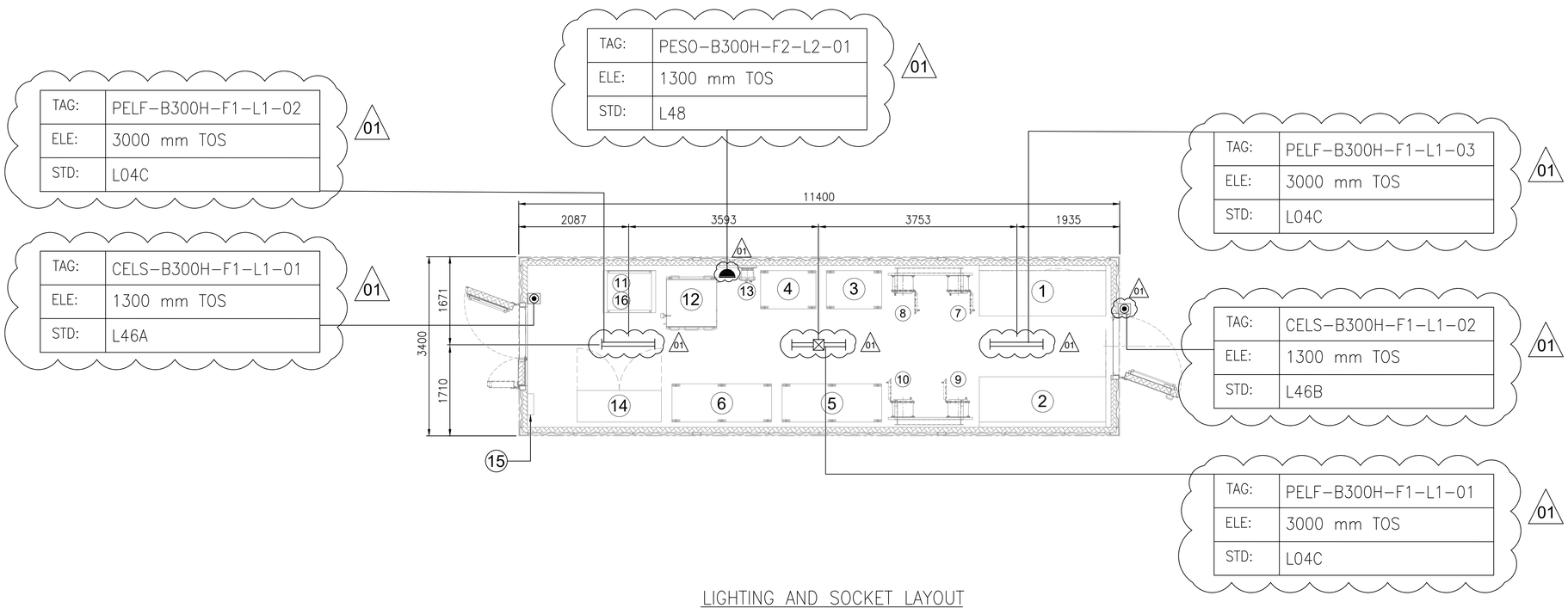
A3 | DRAWING NO. 123A90-DDL-EL-DL-20138 | SHEET 003 | REV. 01

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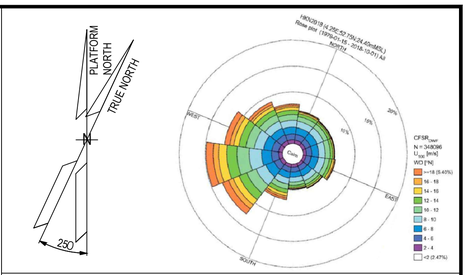
REV. 01



LIGHTING AND SOCKET LAYOUT
"B-300" UPSs & BATTERIES SWITCHROOM
PLAN

EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)	NOTES
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258	
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258	
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429	
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429	
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	600	300	800	100	
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	600	300	800	100	
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	600	300	800	100	
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	600	300	800	100	
11	NC-200F2	NAVAID PANEL	1000	800	2600	535	
12	BA-200F2	BATTERY BOX NAVAID	958	993	1210	1552	
13	CB-200F2	ISOLATOR BOX NAVAID	500	400	765	70	
14	B3000-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	1150	
15	-	EYE WASH STATION	228	80	290	5	
16	BC-200F2	BATTERY CHARGER NAVAID	-	-	-	-	INCLUDED IN THE RACK OF NC-200F2



NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. CABLE FOR LIGHTING PUSHBUTTON LOCATED OUTSIDE THE CONTAINER WILL ENTER THROUGH MCT
4. ELEVATION OF LAMPS ARE REFERRED TO THE BOTTOM OF THE LAMP

LEGEND

LED NORMAL LUMINARIES 01

LED EMERGENCY LUMINARIES 01

LIGHTING PUSHBUTTON

CONVENIENCE POWER SOCKET OUTLET 16A

TAG: — TAG
ELE: — ELEVATION
STD: — STANDARD

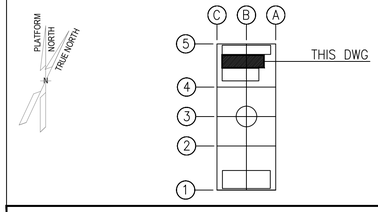
HOLDS

REFERENCE

DOCUMENT NUMBER	DOCUMENT TITLE
123A90-DDL-EL-DL-20106	ELECTRICAL EQUIPMENT LAYOUT UPSs & BATTERIES SWITCHROOM
123A90-DDL-EL-DL-20091	ELECTRICAL TYPICAL INSTALLATION DETAILS – LIGHTING SYSTEM
1724000049-AR-DA-00016	B-300 GENERAL ARRANGEMENT DRAWINGS
1724000049-EL-LIS-00045	B-300 ELECTRICAL COMPONENTS LIST AND DS – E&I SHELTERS

KEY PLAN

01



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	24/07/2024	ASR	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	06/05/2024	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
LIGHTING & SOCKET LAYOUT
UPSs & BATTERIES SWITCHROOM

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:50
DRAWN ASR	CHECKED FMA/AMA	APPROVED FPA/DLO	DATE 24/07/2024

A1	DRAWING NO. 123A90-DDL-EL-DL-20124	SHEET 001	REV. 01

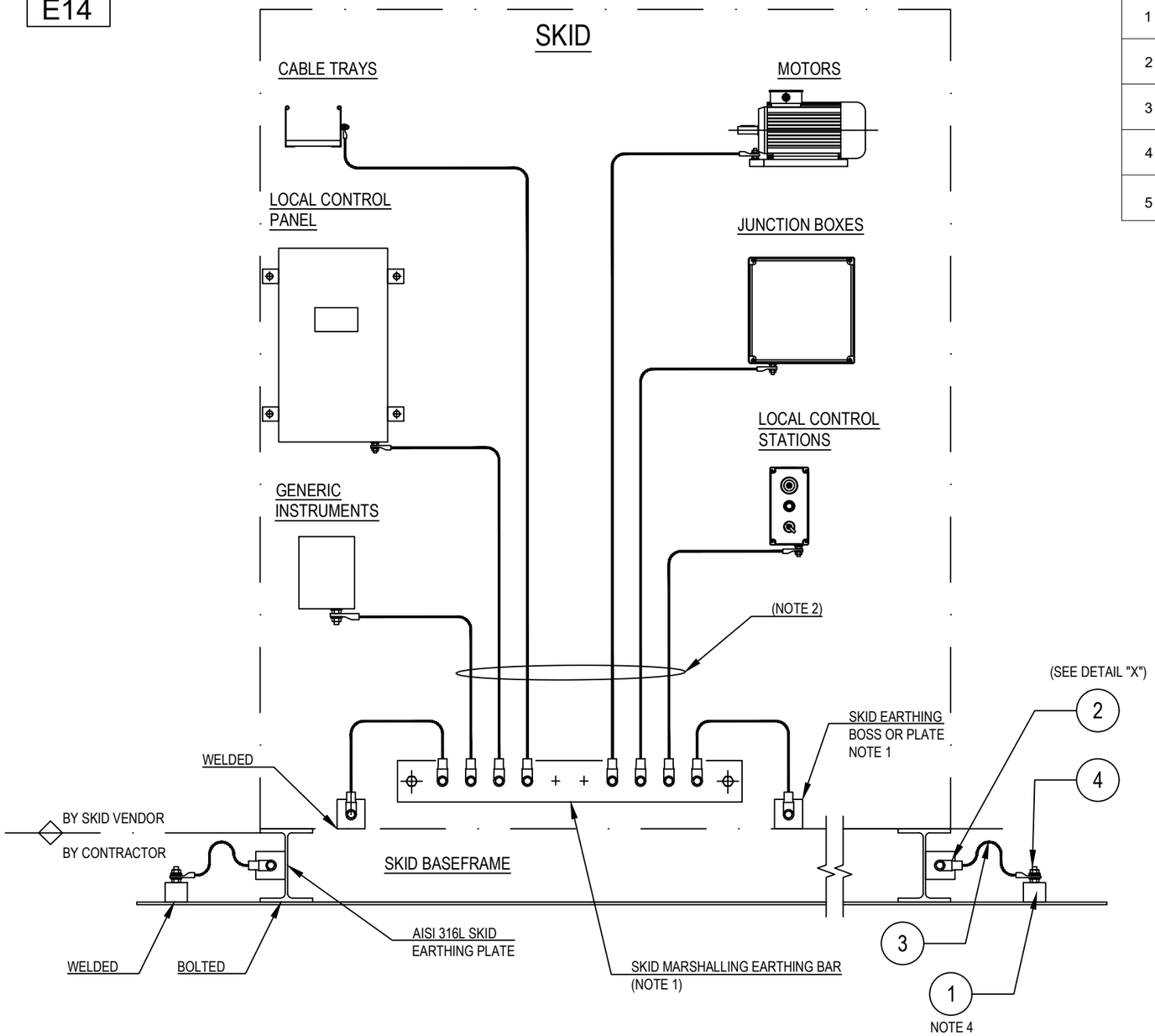
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VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DL-20124**

REV.:	DATE:	SIGNATURE:
1_A	08/08/24	G.Randi

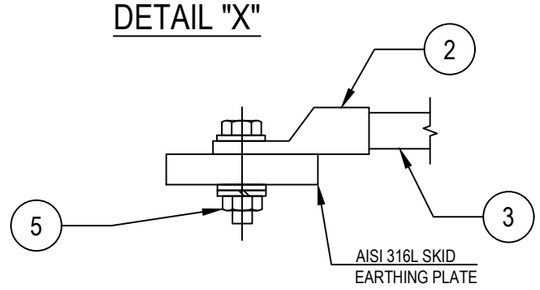
ROSETTI MARINO SpA

E14



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	EARTHING BOSS WITH THREADED HOLE M10	AISI 316L	50X50		NOTE 5
2	COMPRESSION TYPE LUG FOR INSULATION COPPER CONDUCTOR	TINNED COPPER	35mm^2		~~NOTE 3~~
3	Y/G INSULATING COPPER CONDUCTOR	COPPER	35mm^2		~~NOTE 3~~
4	STUD BOLT WITH PLANE WASHER, SPRING WASHER AND NUT	AISI 316L	M10X50		
5	HEXAG. BOLT COMPLETE WITH PLANE WASHERS, SPRING WASHER AND NUT	AISI 316L	M10X30		

DETAIL "X"



NOTES:
1) EARTHING BAR/BOSS/PLATE SUPPLIED BY SKID MANUFACTURER
2) ALL EQUIPMENTS AND CABLE TRAYS WILL BE EARTHING ON SKID EARTHING BAR BY SKID MANUFACTURER
3) ~~CABLE LUG CRIMPING METHOD SHALL BE HEXAGONAL COMPRESSION DIES ONLY~~
4) FOR EARTHING BOSS TYPICAL DETAIL E11A
5) EXTERNAL EARTHING CONNECTION ONLY SHALL BE PROTECTED AGAINST CORROSION USING OXIDE RESISTANT COMPOUND (E.G. COPPER GREASE)

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_D	25/09/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS–EARTHING SYSTEM
EARTHING FOR SKID BASEFRAME

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

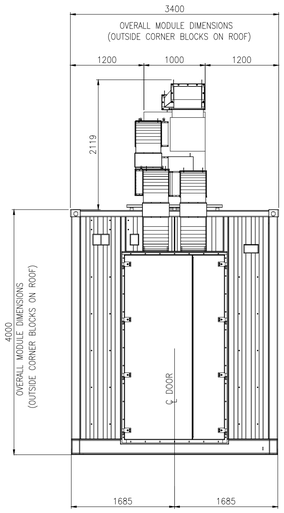
A3 | DRAWING NO. 123A90-DDL-EL-DD-20090 | SHEET 014 | REV. 02

F.to UNI A3: 420mmx297mm

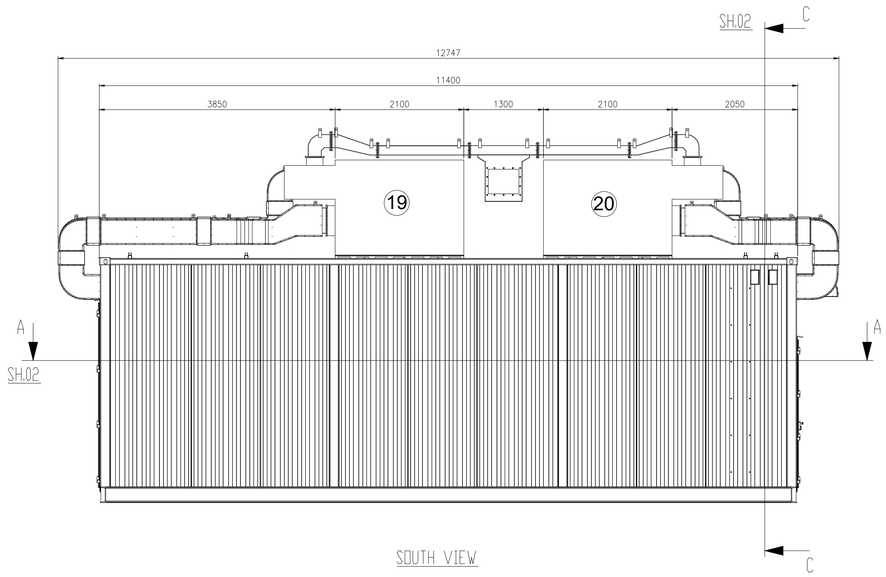
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DRAWING NO. 1724000049-AR-DA-00016

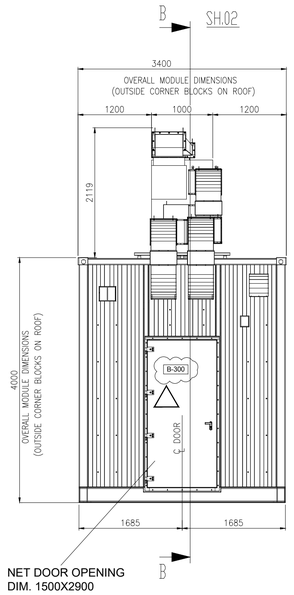
REV. 03



WEST VIEW

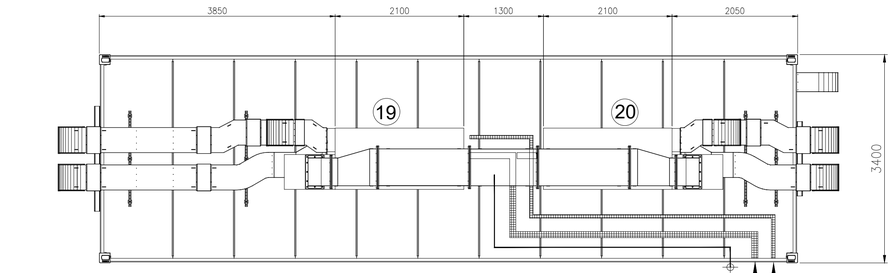


SOUTH VIEW



NET DOOR OPENING
DIM. 1500X2900

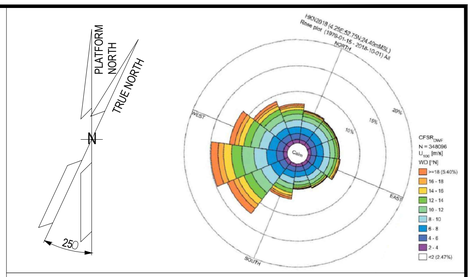
EAST VIEW



TOP VIEW

EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
11	NC-200F2	NAVAID PANEL	1000	800	2600	535
12	BA-200F2	BATTERY BOX NAVAID	958	993	1210	1552
13	CB-200F2	ISOLATOR BOX NAVAID	500	400	765	70
14	B300-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	500
15	-	EYE WASH STATION	228	80	290	5
16	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
17	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
18	BC-200F2	BATTERY CHARGER NAVAID	607	607	2157	500
19	HHU-77005	AIR HANDLING UNIT A	2100	1000	2158	850
20	HHU-77006	AIR HANDLING UNIT B	2100	1000	2158	850
21	HSS-77-007	SPACE HEATER 1	184	145	1100	5
22	HSS-77-008	SPACE HEATER 2	184	145	1100	5
23	HSS-77-009	SPACE HEATER 3	184	145	1100	5



NOTE

1) ALL DIMENSIONS ARE IM MM.
2) THE POSITION OF THE LAMPS INDICATED IS TO BE CONSIDERED THE THEORETICAL ONE, THE FINA ONE WILL BE CONFIRMED IN THE AS-BUILT ISSUE.

REFERENCE

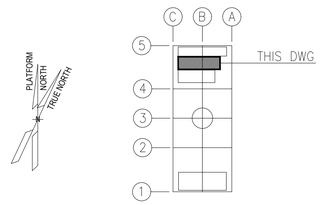
DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00066
"B-300" DETAILED DRAWING	1724000049-AR-DD-00020
PAINTING PROCEDURE	1724000049-MAT-PRO-00006
"B-300" FOUNDATION	1724000049-ST-DD-00012
"B-300" STRUCTURAL CALCULATION	1724000049-ST-CA-00008

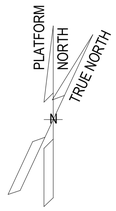
LEGEND

- INTERNAL LIGHT
- E INTERNAL EMERGENCY LIGHT
- SOCKET OUTLET, INDOOR
- LIGHT SWITCH
- ESCAPE CORRIDOR – WIDTH 800mm.
- MAINTENANCE AREA – VENDOR REQUIREMENT
- INSULATION PANEL

HOLDS

KEY PLAN





ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	23/07/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
02	03/07/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
01	16/05/24	M.G.	SKV	C.A.	ISSUE FOR REVIEW (IFR)
00	08/02/24	A.G.	SKV	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

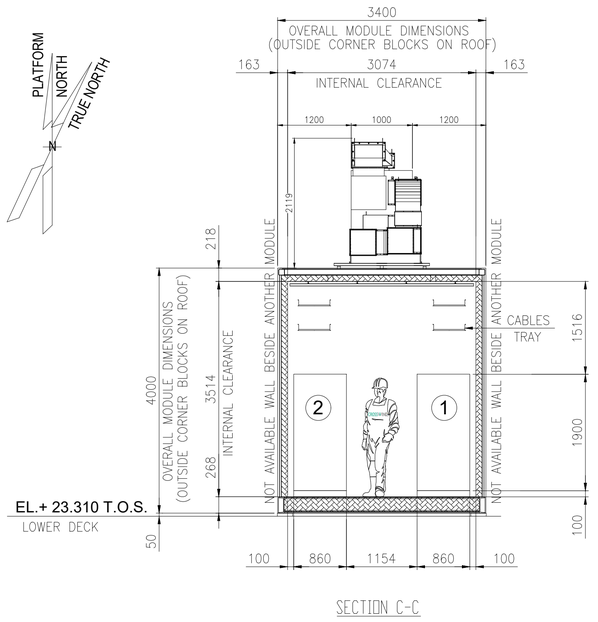
CROSSWIND | ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
B-300 GENERAL ARRANGEMENT DRAWINGS

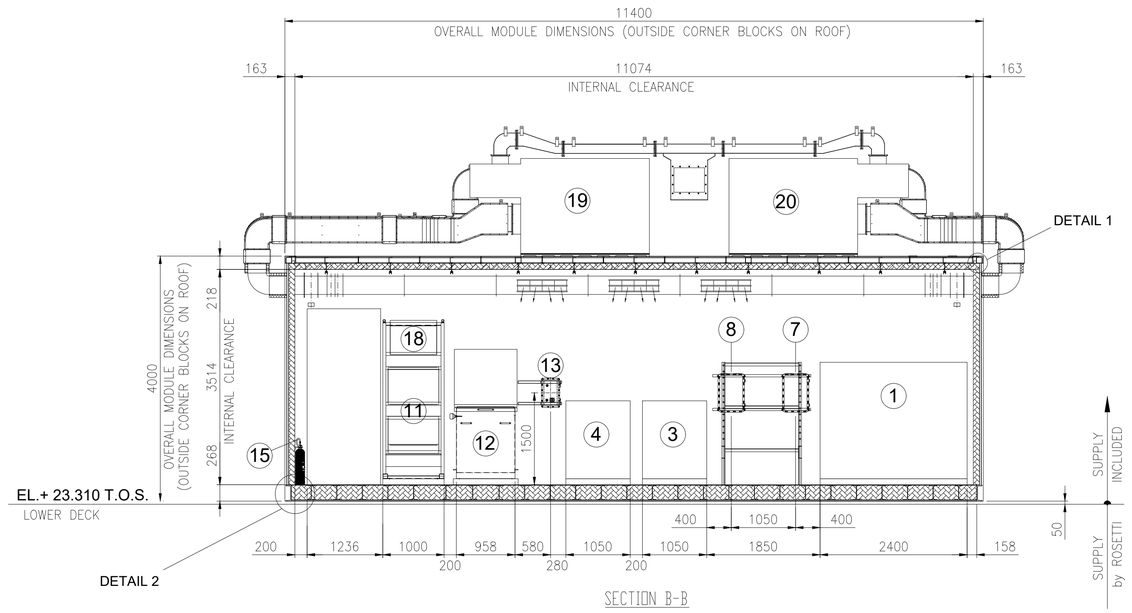
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 23/07/24
A1	DRAWING NO. 1724000049-AR-DA-00016	SHEET 001	REV. 03

File Name : 1724000049-AR-DA-00016-REV.03

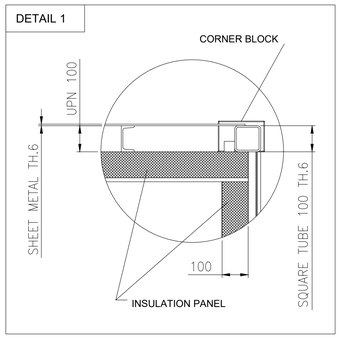
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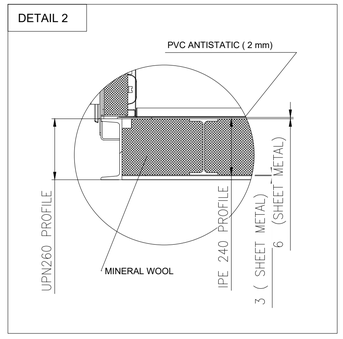


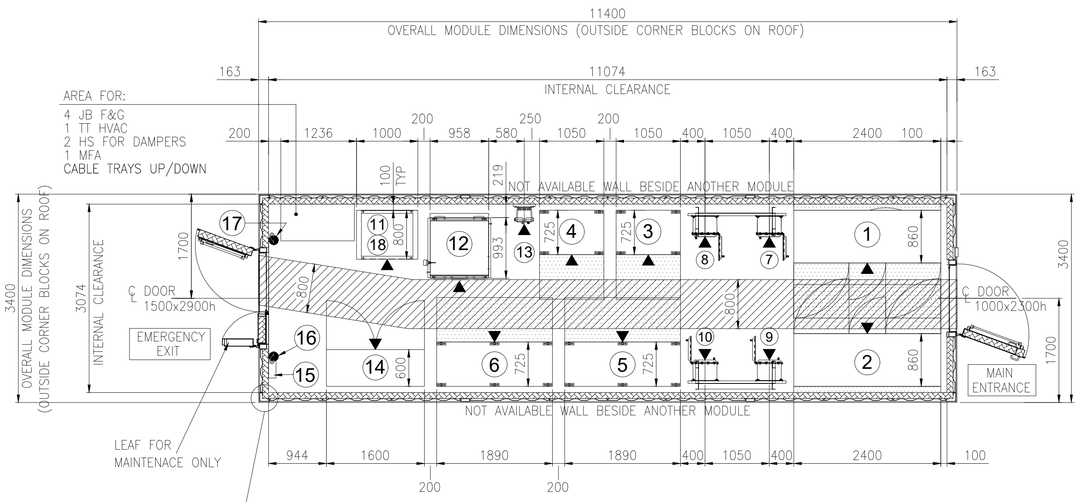
SECTION C-C



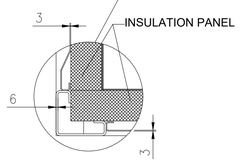
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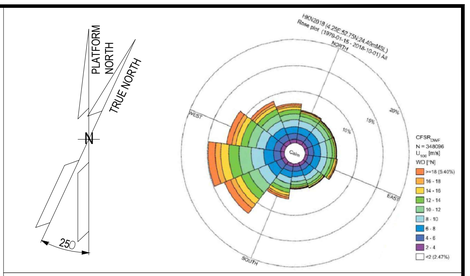
SECTION A-A



EQUIPMENT LAYOUT
"B-300" AC UPS FITTED WITH UPS SYSTEM EQUIPMENT ROOM
BOTTOM PLAN

EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
11	NC-200F2	NAVAID PANEL	1000	800	2600	535
12	BA-200F2	BATTERY BOX NAVAID	958	993	1210	1552
13	CB-200F2	ISOLATOR BOX NAVAID	500	400	765	70
14	B300-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	500
15	-	EYE WASH STATION	228	80	290	5
16	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
17	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
18	BC-200F2	BATTERY CHARGER NAVAID	607	607	2157	500
19	HHU-77005	AIR HANDLING UNIT A	2100	1000	2158	850
20	HHU-77006	AIR HANDLING UNIT B	2100	1000	2158	850
21	HSS-77-007	SPACE HEATER 1	184	145	1100	5
22	HSS-77-008	SPACE HEATER 2	184	145	1100	5
23	HSS-77-009	SPACE HEATER 3	184	145	1100	5



NOTE

1) ALL DIMENSIONS ARE IM MM.
2) THE POSITION OF THE LAMPS INDICATED IS TO BE CONSIDERED THE THEORETICAL ONE, THE FINA ONE WILL BE CONFIRMED IN THE AS-BUILT ISSUE.

REFERENCE

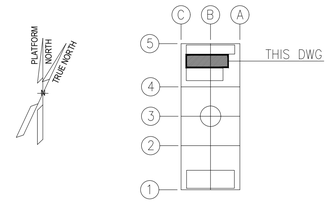
DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00066
"B-300" DETAILED DRAWING	1724000049-AR-DD-00020
PAINTING PROCEDURE	1724000049-MAT-PRO-00006
"B-300" FOUNDATION	1724000049-ST-DD-00012
"B-300" STRUCTURAL CALCULATION	1724000049-ST-CA-00008

LEGEND

- INTERNAL LIGHT
- E INTERNAL EMERGENCY LIGHT
- SOCKET OUTLET, INDOOR
- LIGHT SWITCH
- ESCAPE CORRIDOR – WIDTH 800mm.
- MAINTENANCE AREA – VENDOR REQUIREMENT
- INSULATION PANEL

HOLDS

KEY PLAN



ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	23/07/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
02	03/07/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
01	16/05/24	M.G.	SKV	C.A.	ISSUE FOR REVIEW (IFR)
00	08/02/24	A.G.	SKV	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

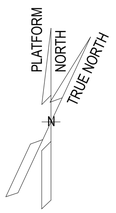
CROSSWIND | ROSETTI MARINO

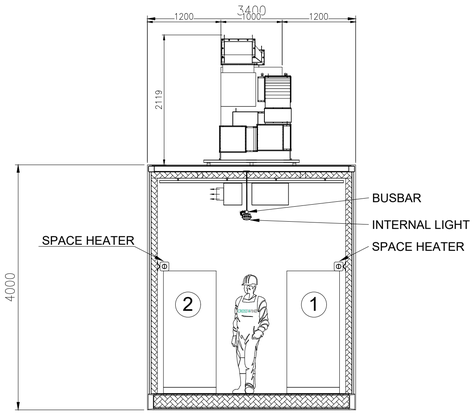
TITLE : BASE LOAD POWER HUB (BLPH)
B-300 GENERAL ARRANGEMENT DRAWINGS

CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 23/07/24
A1	DRAWING NO. 1724000049-AR-DA-00016	SHEET 002	REV. 03

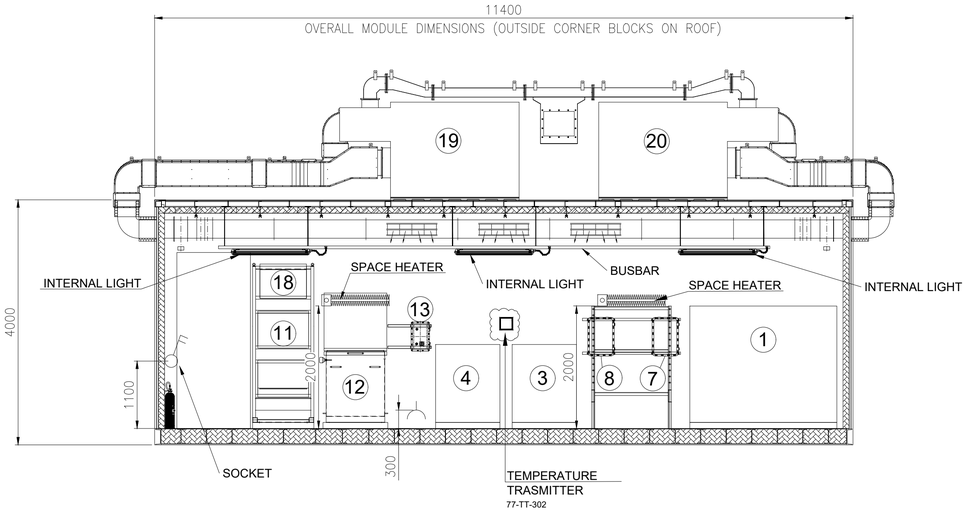
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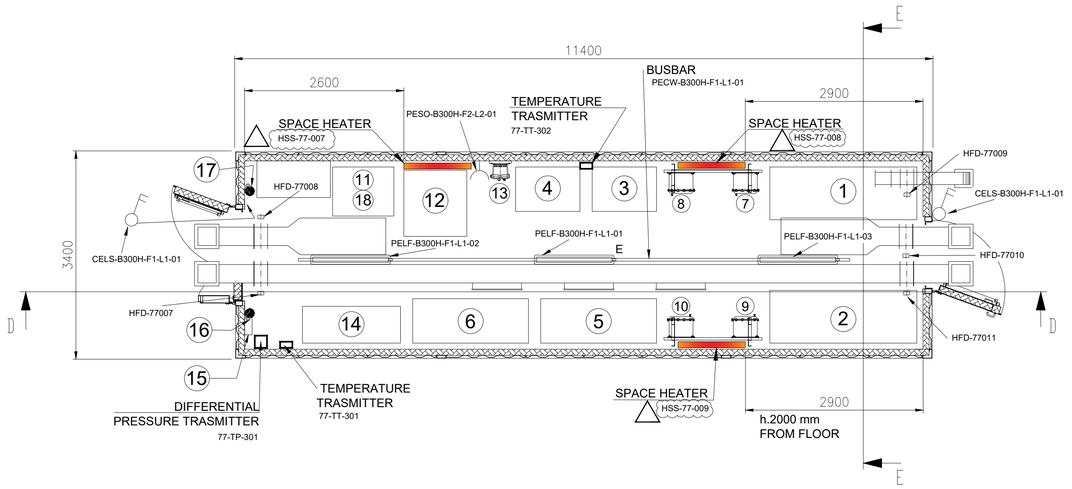




SECTION E-E

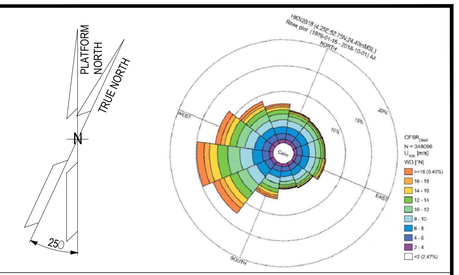


SECTION D-D



EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
11	NC-200F2	NAVAID PANEL	1000	800	2600	535
12	BA-200F2	BATTERY BOX NAVAID	958	993	1210	1552
13	CB-200F2	ISOLATOR BOX NAVAID	500	400	765	70
14	B300-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	500
15	-	EYE WASH STATION	228	80	290	5
16	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
17	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
18	BC-200F2	BATTERY CHARGER NAVAID	607	607	2157	500
19	HHU-77005	AIR HANDLING UNIT A	2100	1000	2158	850
20	HHU-77006	AIR HANDLING UNIT B	2100	1000	2158	850
21	HSS-77-007	SPACE HEATER 1	184	145	1100	5
22	HSS-77-008	SPACE HEATER 2	184	145	1100	5
23	HSS-77-009	SPACE HEATER 3	184	145	1100	5



NOTE

1) ALL DIMENSIONS ARE IM MM.
2) THE POSITION OF THE LAMPS INDICATED IS TO BE CONSIDERED THE THEORETICAL ONE, THE FINA ONE WILL BE CONFIRMED IN THE AS-BUILT ISSUE.

REFERENCE

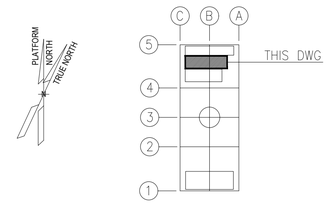
DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00066
"B-300" DETAILED DRAWING	1724000049-AR-DD-00020
PAINTING PROCEDURE	1724000049-MAT-PRO-00006
"B-300" FOUNDATION	1724000049-ST-DD-00012
"B-300" STRUCTURAL CALCULATION	1724000049-ST-CA-00008

LEGEND

- INTERNAL LIGHT
- E — INTERNAL EMERGENCY LIGHT
- SOCKET OUTLET, INDOOR
- LIGHT SWITCH
- ESCAPE CORRIDOR – WIDTH 800mm.
- MAINTENANCE AREA – VENDOR REQUIREMENT
- INSULATION PANEL

HOLDS

KEY PLAN



ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	23/07/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
02	03/07/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
01	16/05/24	M.G.	SKV	C.A.	ISSUE FOR REVIEW (IFR)
00	08/02/24	A.G.	SKV	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND | ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
B-300 GENERAL ARRANGEMENT DRAWINGS

CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 23/07/24
A1	DRAWING NO. 1724000049-AR-DA-00016	SHEET 003	REV. 03

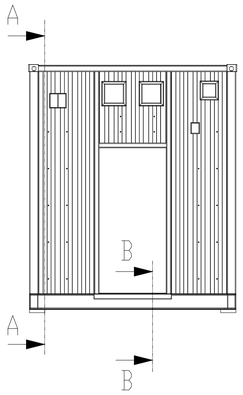
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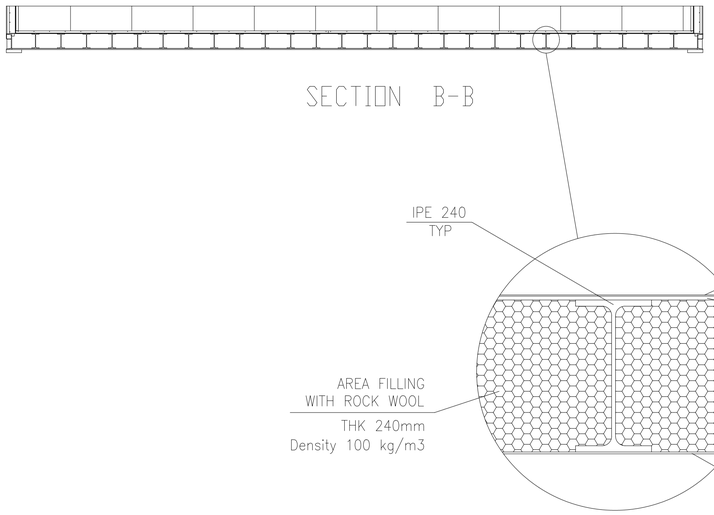
DRAWING NO. 1724000049-AR-DD-00020

REV. 02

MODULE B-300

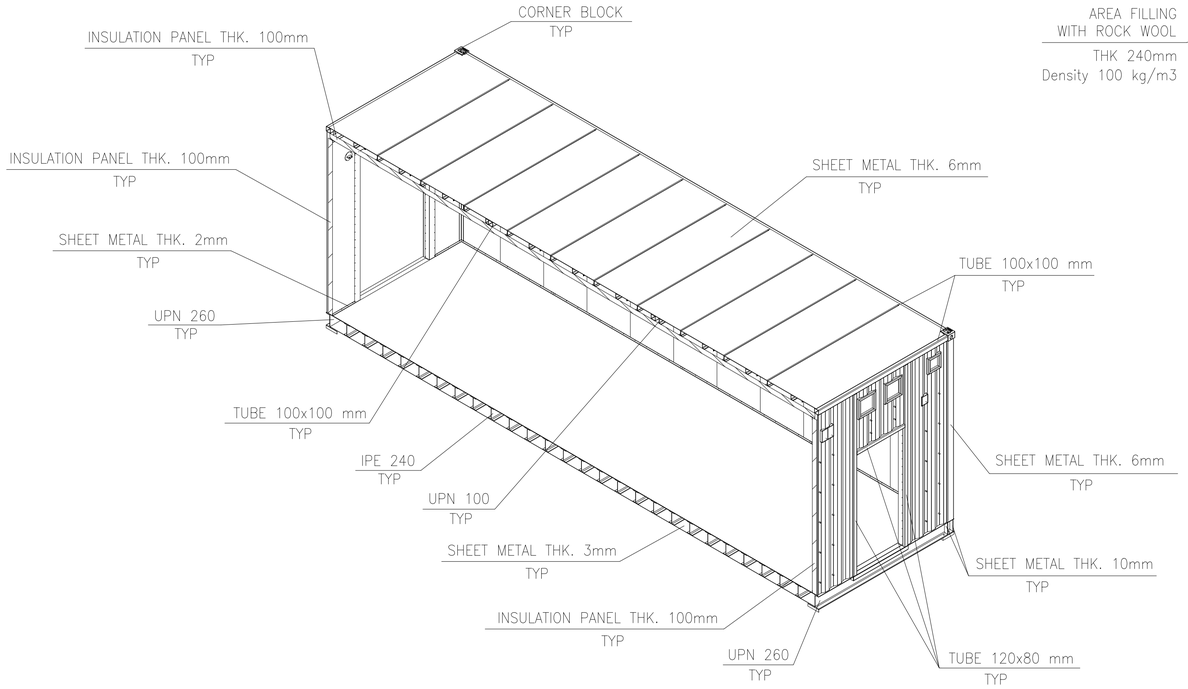
REFERENCE	
DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" STRUCTURAL CALCULATION	1724000049-ST-CA-00008
Weld Procedure Specifications (WPS), Weld Procedure Qualification Report (WPQR), Welding Map and Welders Qualifications	1724000049-WEL-RE-00003

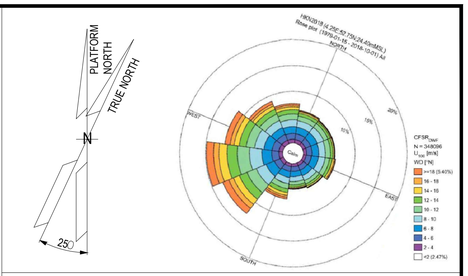




SECTION B-B

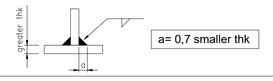
DETAIL "C"





NOTES

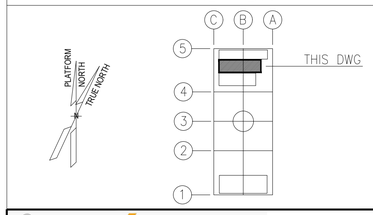
1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.
2. ALL WELDINGS SYMBOLS ARE IN ACCORDANCE WITH A.W.S. CODE D.1.1
3. UNLESS OTHERWISE INDICATED FILLET WELDS SHALL HAVE FOLLOWING DIM.:



LEGEND

HOLDS

KEY PLAN



ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	11/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
01	08/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
00	30/05/24	M.G.	O.A.	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND

ROSETTI MARINO

TITLE :

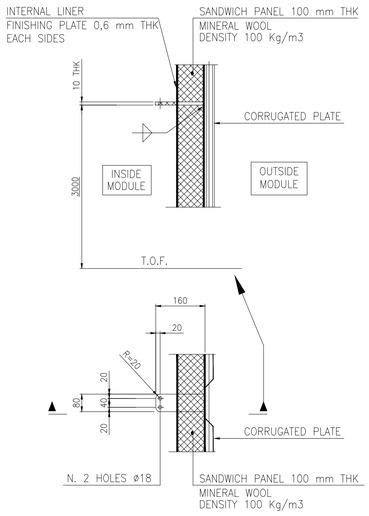
B-300 DETAILED DRAWINGS-E&I SHELTERS

CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 11/07/24
A1	DRAWING NO. 1724000049-AR-DD-00020	SHEET 001	REV. 02

File Name : 1724000049-AR-DD-00020-REV.02

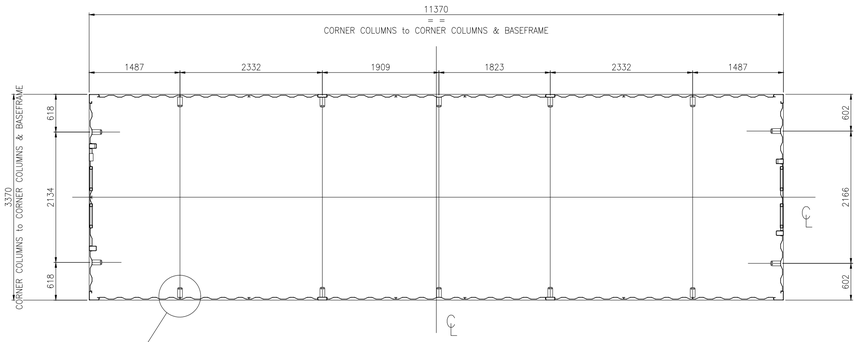
DRAWING NO. 1724000049-AR-DD-00020 REV. 02

REFERENCE	
DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DA-00016
"B-300" HVAC GENERAL ARRANGEMENT	1724000049-HV-DA-00066



WEST WALL

NORTH WALL

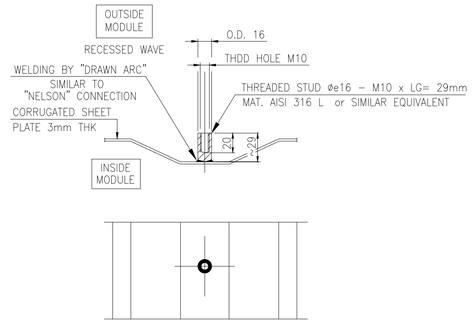


EST WALL

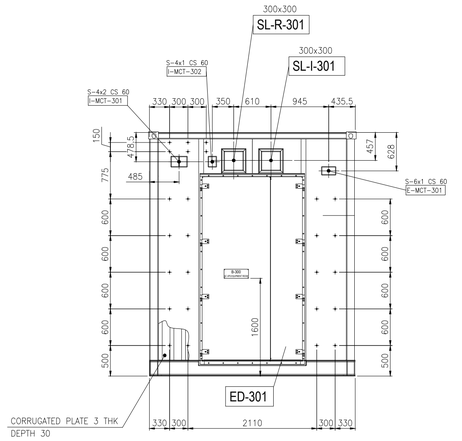
SOUTH WALL

MODULE B-300

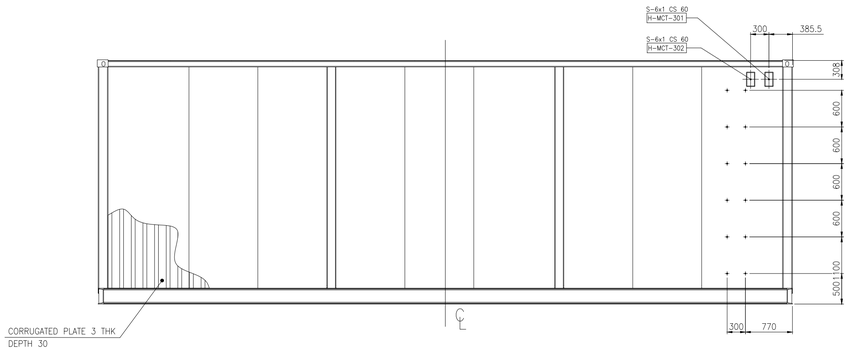
INTERNAL SEA FASTENING PLATES PLAN



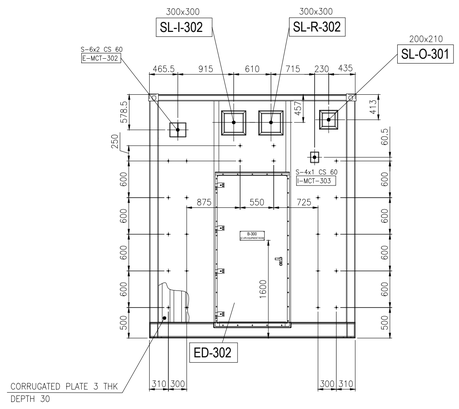
THREADED STUD INSTALLATION



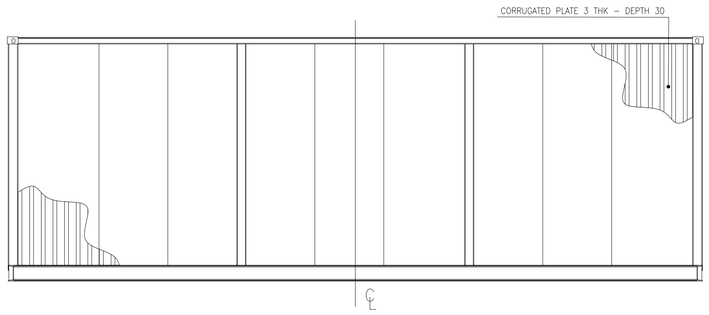
VIEW OF WEST WALL



VIEW OF NORTH WALL



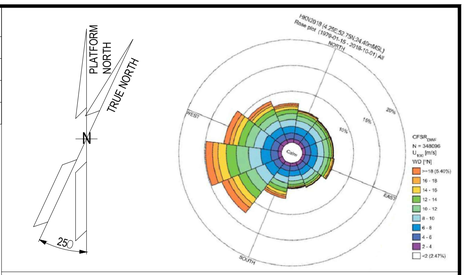
VIEW OF EAST WALL



VIEW OF SOUTH WALL

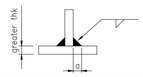
MCT LIST

SERVICE	TAG No.	MCT DIMENSIONS and INSTALLATION SENSE L (mm) HORIZONTAL	H (mm) VERTICAL	W (mm) DEPTH	MCT SIZE TYPE "S" FRAME Primed Mild Steel BRAND: ROXTEC	MCT SIZE TYPE "S" FRAME AISI 316 L BRAND: ROXTEC
ELECTRICAL	E-MCT-301	238	140.5	60	6x1	
	E-MCT-302	271	238	60	6x2	
INSTRUMENTAL	I-MCT-301	271	179.5	60	4x2	
	I-MCT-302	140.5	179.5	60	4x1	
	I-MCT-303	140.5	179.5	60	4x1	
HVAC	H-MCT-301	140.5	238	60	6x1	
	H-MCT-302	140.5	238	60	6x1	



NOTES

1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.
2. ALL WELDINGS SYMBOLS ARE IN ACCORDANCE WITH A.W.S. CODE D.1.1
3. UNLESS OTHERWISE INDICATED FILLET WELDS SHALL HAVE FOLLOWING DIM.:



a= 0,7 smaller thk

LEGEND

THREADED STUD ø16 - M10 x LG= 29mm

T.O.F. TOP OF FLOOR

MCT LEGEND:

MCT TYPE & SIZE
BRAND ROXTEC
MATERIAL
C.S.= PRIMED MILD STEEL
S.S.= AISI 316 L
S 6x2 C.S. 60
MCT DEPTH
E-MCT-301
PROGRESSIVE NUMBER
FROM 01
MCT SERVICE
E= ELECTRICAL
I= INSTRUMENTAL
H= HVAC
MODULE LOCATION
1= B-100 3= B-300
2= B-200 4= B-400

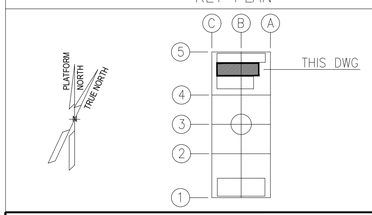
HVAC SLEEVE LEGEND:

300x300
INTERNAL SIZE OF DUCT
L x H (mm)
SL-I-301
PROGRESSIVE NUMBER
FROM 01
SERVICE
I= AIR IN
R= RECYRCLE
O= OVERPRESSURE
MODULE LOCATION
1= B-100 3= B-300
2= B-200 4= B-400

DOOR LEGEND:

ED-301
PROGRESSIVE NUMBER
FROM 01
EXTERNAL DOOR
MODULE LOCATION
1= B-100
2= B-200
3= B-300
4= B-400

KEY PLAN



ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	11/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
01	08/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
00	30/05/24	M.G.	O.A.	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND

ROSETTI MARINO

TITLE :

B-300 DETAILED DRAWINGS-E&I SHELTERS

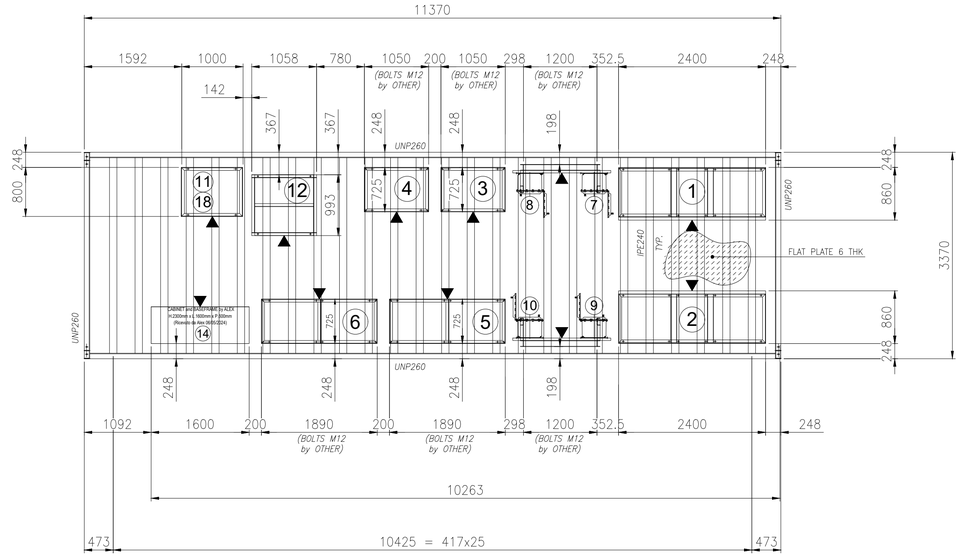
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 11/07/24
A1	DRAWING NO. 1724000049-AR-DD-00020	SHEET 002	REV. 02

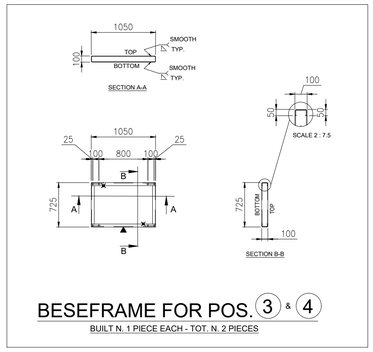
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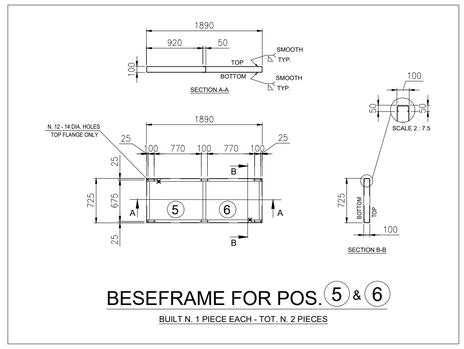
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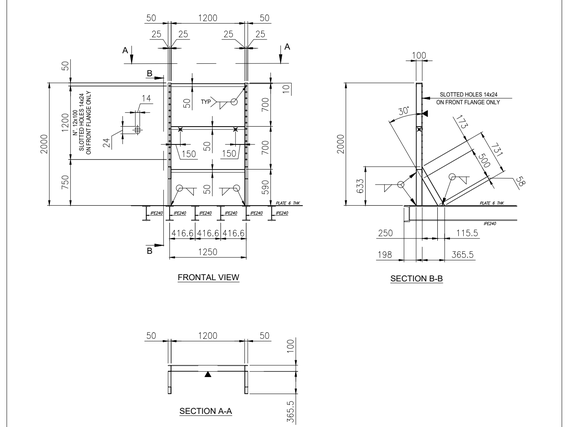
REV. 02

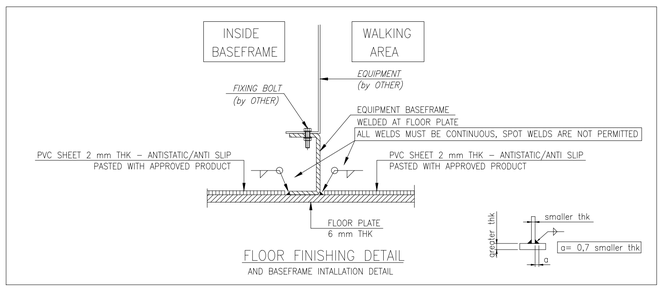
B-300
I&T EQUIPMENT ROOM
BASEFRAME LOCATION PLAN

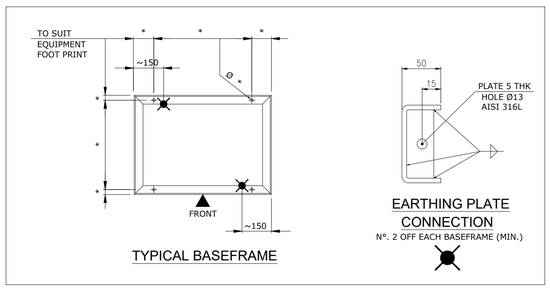


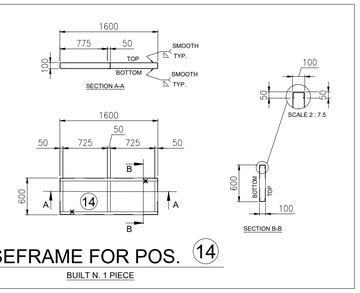


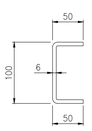








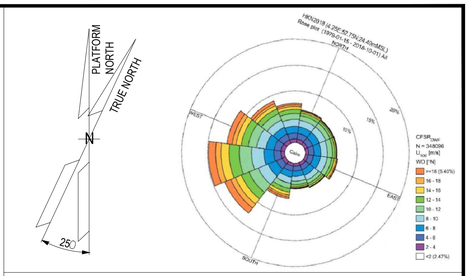




C 100x50x50 THK 6mm.
FROM BENT PLATE THK 6mm.
MAT. CARBON STEEL

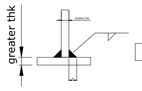
EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)	SCOPE
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258	ASI
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258	ASI
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	ASI
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	ASI
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429	ASI
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429	ASI
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	600	300	800	100	ASI
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	600	300	800	100	ASI
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	600	300	800	100	ASI
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	600	300	800	100	ASI
11	NC-200F2	NAVAID PANEL	1180	810	675	500	ASI
12	BA-200F2	BATTERY BOX NAVAID	1000	500	1135	325	ASI
14	B3000-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	1150	ASI
18	BC-200F2	BATTERY CHARGER NAVAID	607	607	2157	500	ASI



NOTES

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2. ALL WELDINGS SYMBOLS ARE IN ACCORDANCE WITH A.W.S. CODE D.1.1
3. UNLESS OTHERWISE INDICATED FILLET WELDS SHALL HAVE FOLLOWING DIM.:



4. ALL WELDS ON TOP & BOTTOM SIDES OF BASEFRAMES MUST BE PERFECTLY SMOOTHED.
5. WHERE INDICATED " ▲ " SHOULD BE STAMP "FRONT", ABOVE "TOP" AND BELOW "BOTTOM".



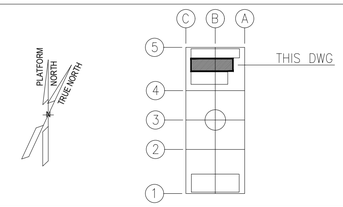
6. SURFACE TREATMENT ACCORDING DOCUMENT N. 1724000049-MAT-PRO-00004 - PAINTING PROCEDURE FINAL COLOUR LIGHT GREY RAL 7035.

LEGEND

ASI = ALEX SISTEMI

HOLDS

KEY PLAN



ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	11/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
01	08/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
00	30/05/24	M.G.	O.A.	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND | ROSETTI MARINO

TITLE :

B-300 DETAILED DRAWINGS-E&I SHELTERS

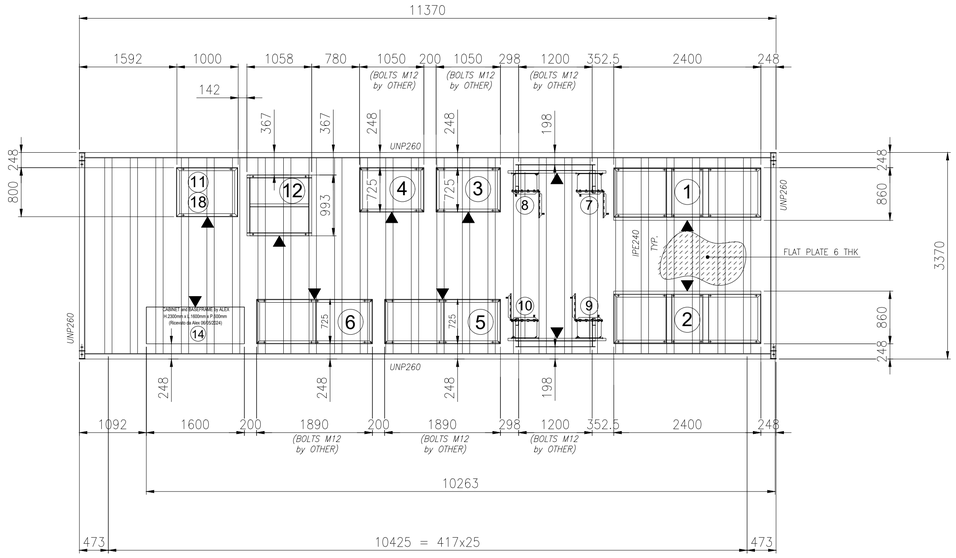
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 11/07/24
A1	DRAWING NO. 1724000049-AR-DD-00020	SHEET 003	REV. 02

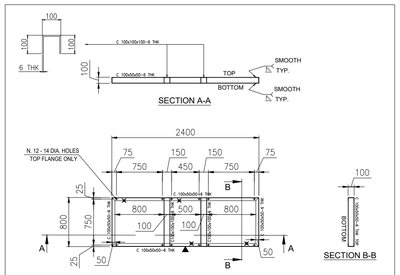
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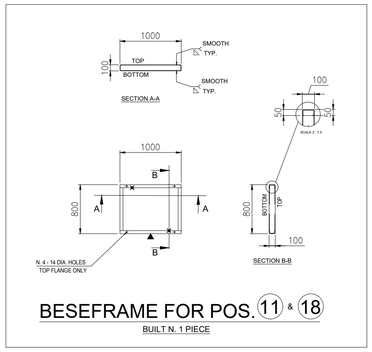
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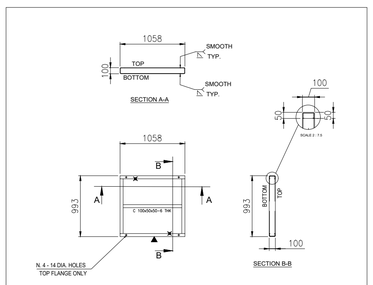
REV. 02

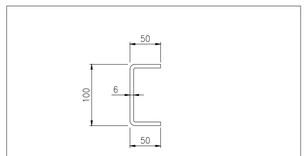
B-300
I&T EQUIPMENT ROOM
BASEFRAME LOCATION PLAN

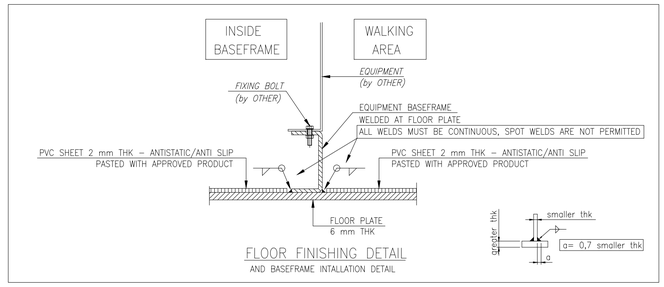


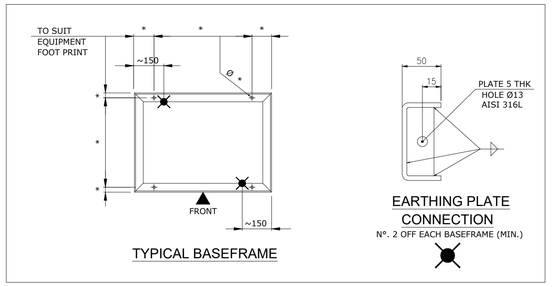






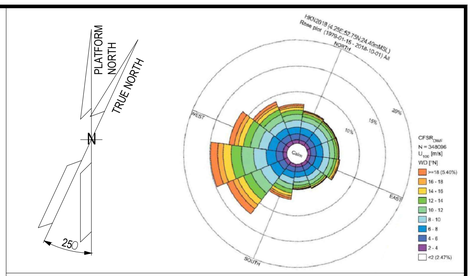






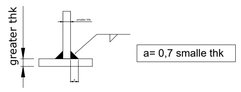
EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)	SCOPE
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258	ASI
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258	ASI
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	ASI
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	ASI
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429	ASI
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429	ASI
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	600	300	800	100	ASI
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	600	300	800	100	ASI
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	600	300	800	100	ASI
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	600	300	800	100	ASI
11	NC-200F2	NAVAID PANEL	1180	810	675	500	ASI
12	BA-200F2	BATTERY BOX NAVAID	1000	500	1135	325	ASI
14	B3000-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	1150	ASI
18	BC-200F2	BATTERY CHARGER NAVAID	607	607	2157	500	ASI

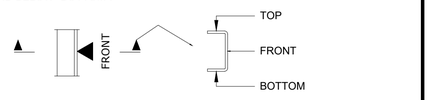


NOTES

1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.
2. ALL WELDINGS SYMBOLS ARE IN ACCORDANCE WITH A.W.S. CODE D.1.1
3. UNLESS OTHERWISE INDICATED FILLET WELDS SHALL HAVE FOLLOWING DIM.:



4. ALL WELDS ON TOP & BOTTOM SIDES OF BASEFRAMES MUST BE PERFECTLY SMOOTHED.
5. WHERE INDICATED " ▲ " SHOULD BE STAMP "FRONT", ABOVE "TOP" AND BELOW "BOTTOM".



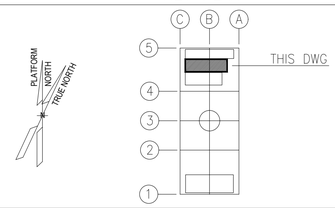
6. SURFACE TREATMENT ACCORDING DOCUMENT N. 1724000049-MAT-PRO-00004 - PAINTING PROCEDURE FINAL COLOUR LIGHT GREY RAL 7035.

LEGEND

ASI = ALEX SISTEMI

HOLDS

KEY PLAN



ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	11/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
01	08/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
00	30/05/24	M.G.	O.A.	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND

ROSETTI MARINO

TITLE :

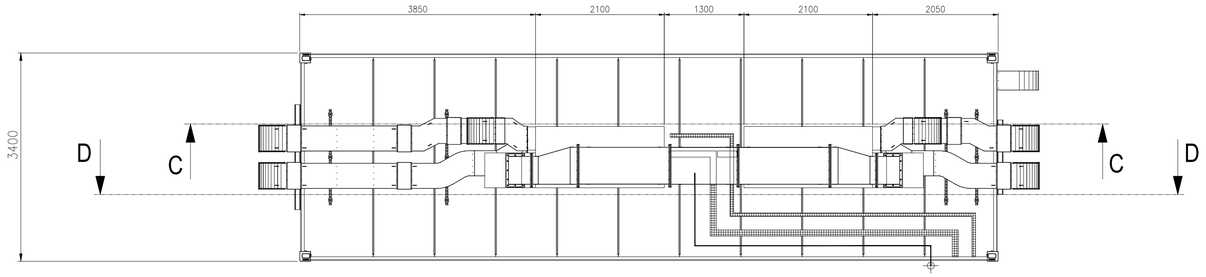
B-300 DETAILED DRAWINGS-E&I SHELTERS

CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 11/07/24
A1	DRAWING NO. 1724000049-AR-DD-00020	SHEET 004	REV. 02

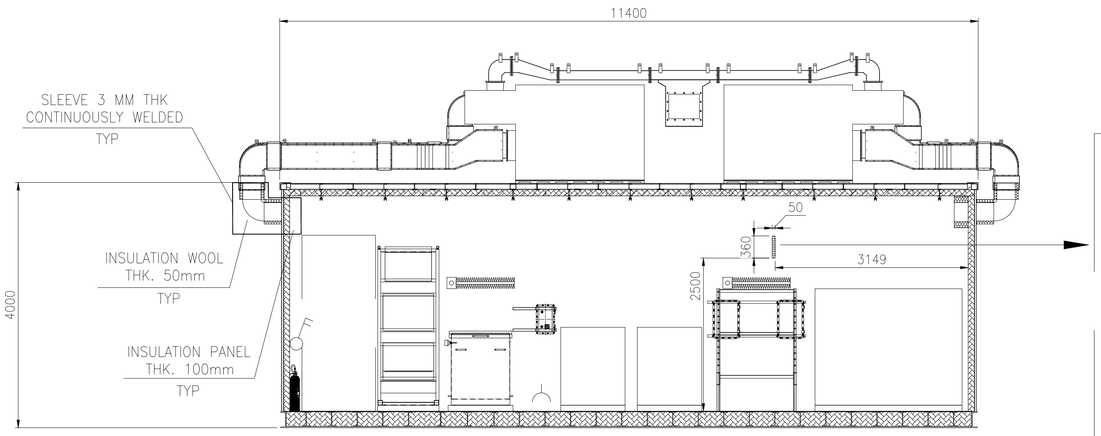
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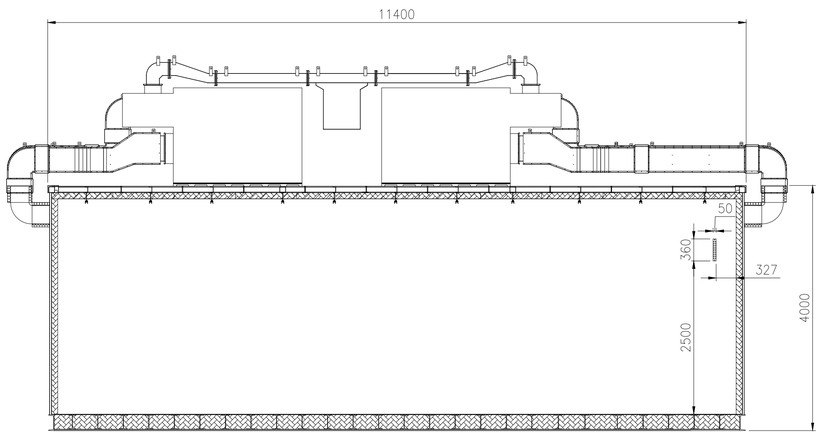
REV. 02



TOP VIEW



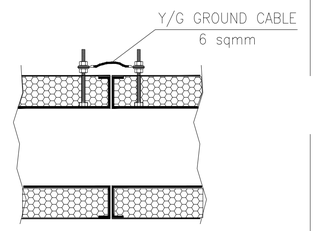
SECTION C-C



SECTION D-D

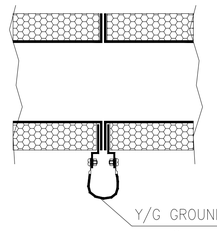
DET. 1

EXTERNAL DUCT



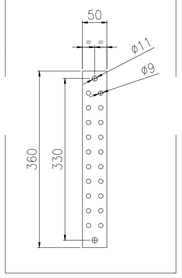
DET. 2

INTERNAL DUCT



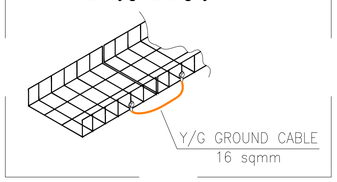
DET. 3

TYPICAL DETAIL
Ground bar



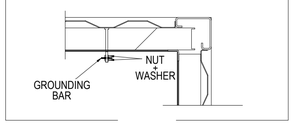
DET. 4

TYPICAL DETAIL
Cable tray grounding system



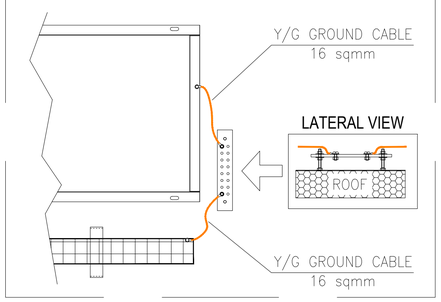
DET. 5

TYPICAL INSTALLATION BTH PE



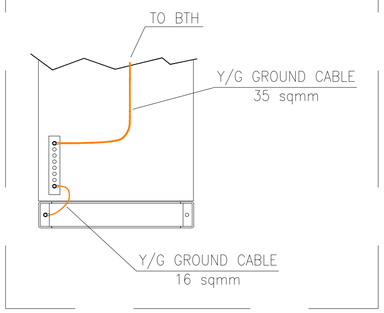
DET. 6

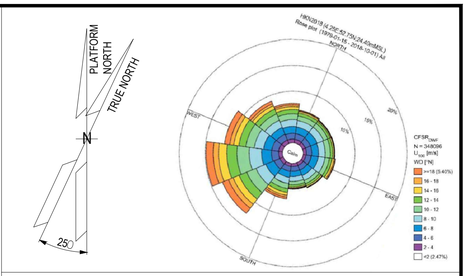
TYPICAL ROOF GROUNDING CONNECTION



DET. 7

TYPICAL CABINET GROUNDING CONNECTION





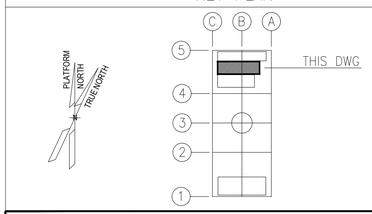
NOTES

1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.

LEGEND

HOLDS

KEY PLAN



ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	11/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
01	08/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
00	30/05/24	M.G.	O.A.	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND

ROSETTI MARINO

TITLE :

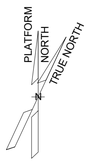
B-300 DETAILED DRAWINGS-E&I SHELTERS

CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 11/07/24
A1	DRAWING NO. 1724000049-AR-DD-00020	SHEET 005	REV. 02

File Name : 1724000049-AR-DD-00020-REV.02

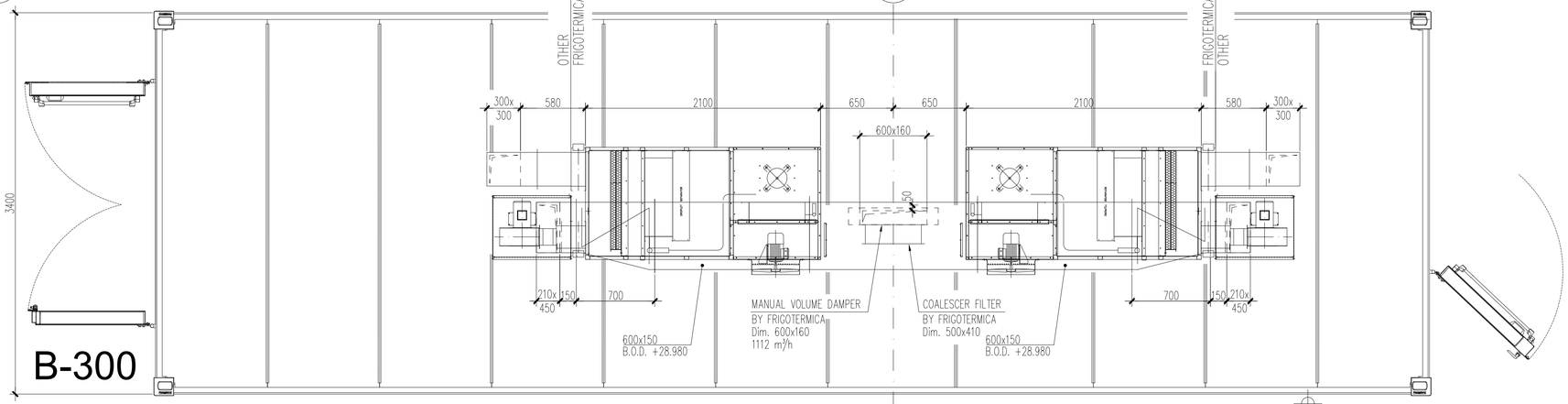
DRAWING NO. 1724000049-HV-DA-00066_0

REV. 00

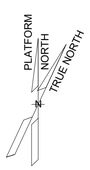


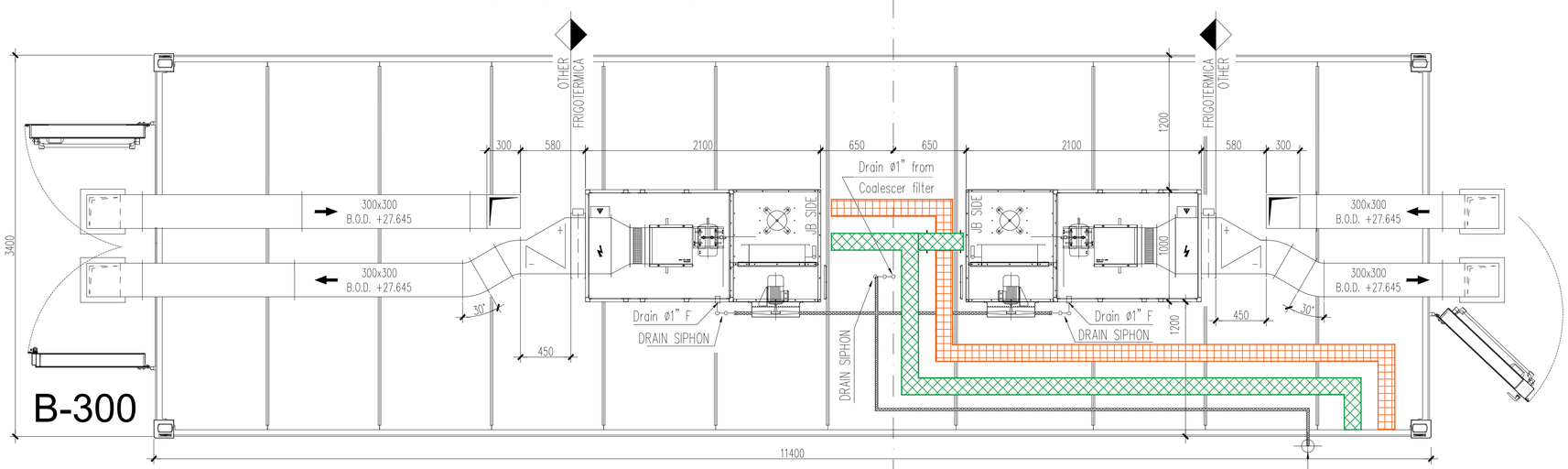
C

B



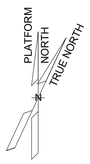
HVAC SYSTEM ROOF PLAN

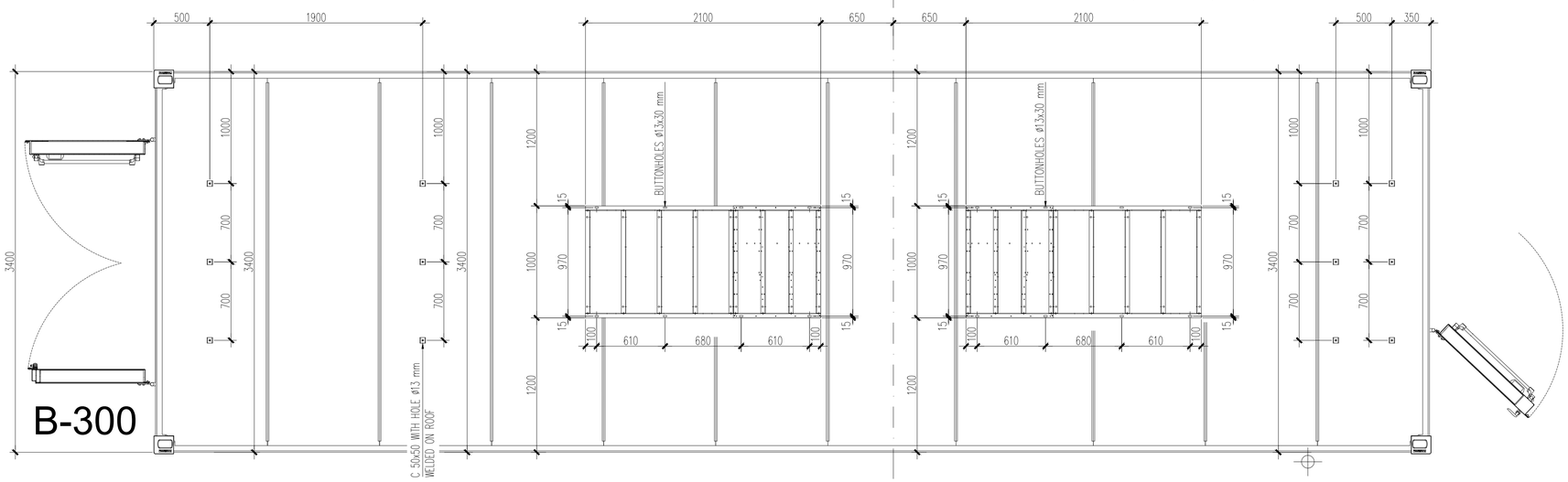




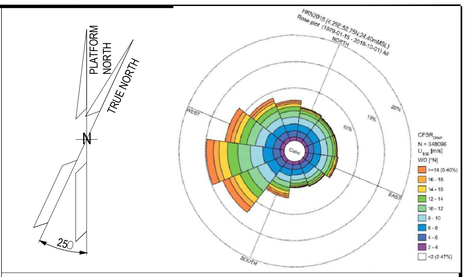
HVAC SYSTEM ROOF PLAN

SLEEVE ø4" ON LOWER DECK
SUITABLE FOR CONDENSING DRAIN PIPE
(SLEEVE SUPPLY by ROSETTI)



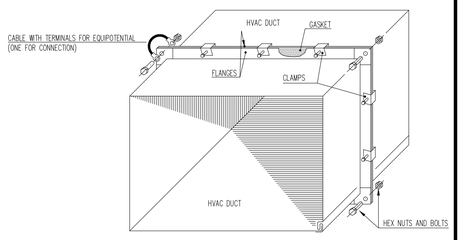


HVAC SUPPORT PLAN ON ROOF



NOTES

Outdoor ductwork in stainless steel AISI 316L
Indoor ductwork in galvanized steel Z275

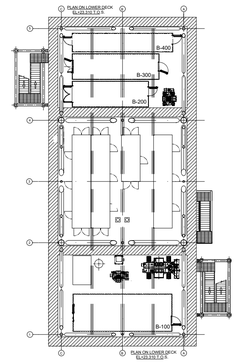


TYPICAL EQUIPOTENTIAL INSTALLING FOR FLANGE CONNECTION INDOOR AIR DUCT

Basket tray Power

Basket tray Instrument

KEY PLAN



ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	13/06/2024	S.Z.	S.S.	M.G.	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

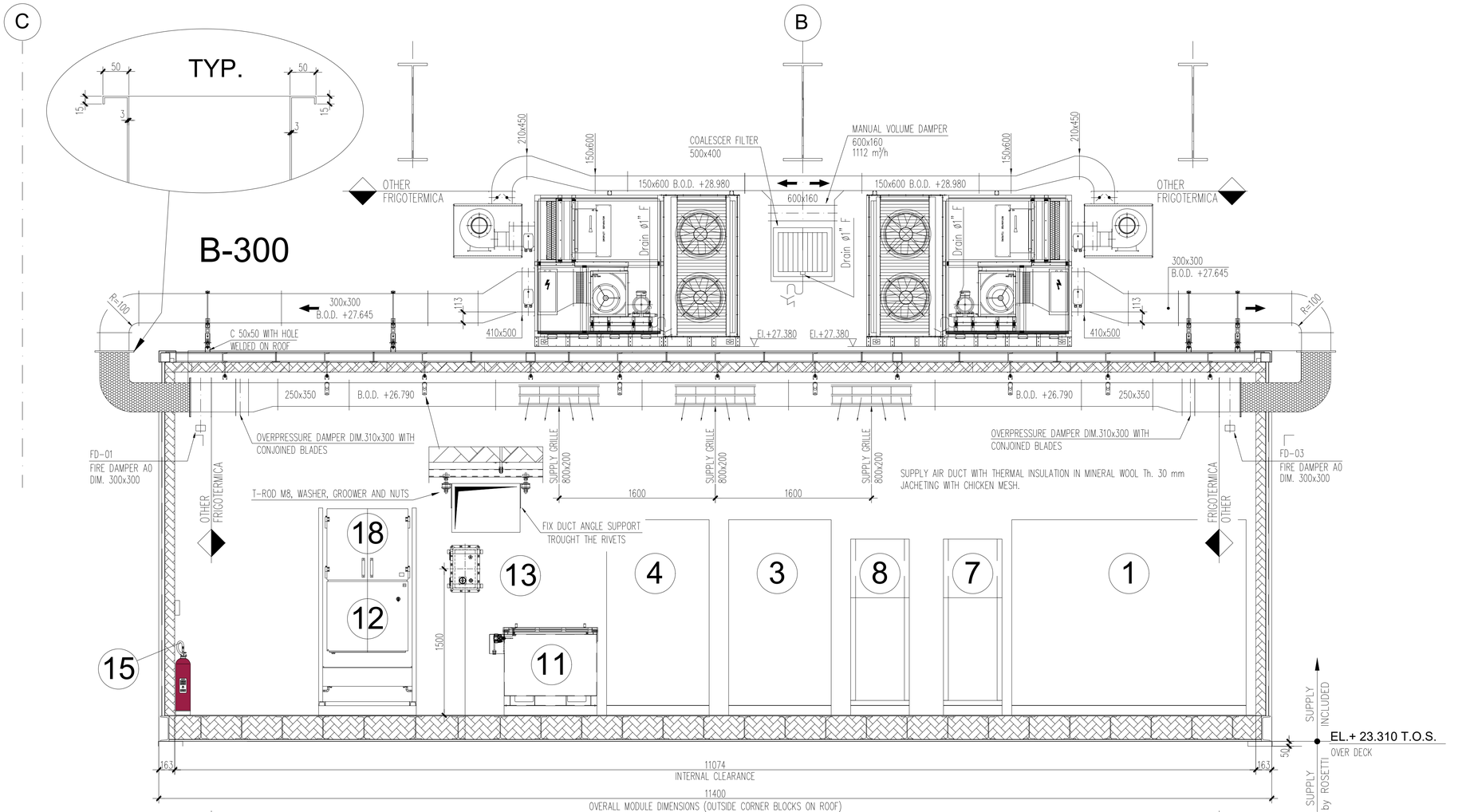
S.S.
MODULE B-300
HVAC SYSTEM - G.A. AND DETAILS

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1 : 25
DRAWN S.Z.	CHECKED S.S.	APPROVED M.G.	DATE 13/06/2024
A1	DRAWING NO. 1724000049-HV-DA-00066	SHEET 001	REV. 00

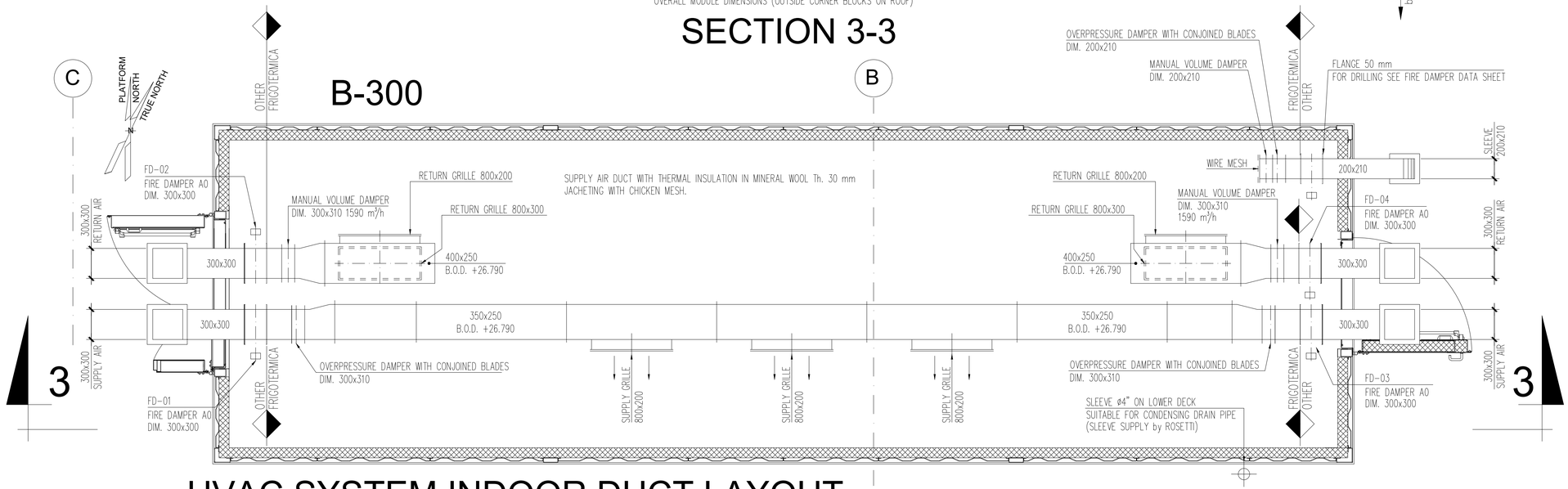
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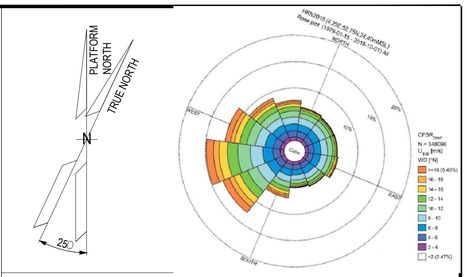
REV. 00



SECTION 3-3

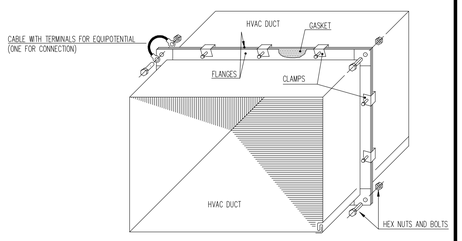


HVAC SYSTEM INDOOR DUCT LAYOUT



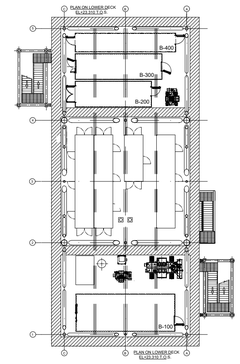
NOTES

Outdoor ductwork in stainless steel AISI 316L
Indoor ductwork in galvanized steel Z275



TYPICAL EQUIPOTENTIAL INSTALLING FOR FLANGE CONNECTION INDOOR AIR DUCT

KEY PLAN



ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	13/06/2024	S.Z.	S.S.	M.G.	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

S.S.
MODULE B-300
HVAC SYSTEM - G.A. AND DETAILS

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1 : 25
DRAWN S.Z.	CHECKED S.S.	APPROVED M.G.	DATE 13/06/2024

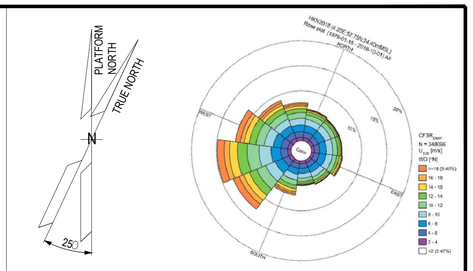
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File Name : 1724000049-HV-DA-00066_0

DRAWING NO. 123A90-1724000049-HV-PID-00041

REV. 01

BASE LOAD POWER HUB (BLPH)
B-300 HV
P&ID HVAC System



NOTES

LEGEND

HOLDS

ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
1	09/07/24	S.Z.	S.S.	M.C.	ISSUE FOR INFORMATION (IFI)
0	10/06/24	S.Z.	S.S.	M.C.	ISSUE FOR INFORMATION (IFI)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH) B-300 HV P&ID HVAC System

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1 : 1
DRAWN G.M.	CHECKED A.O.	APPROVED A.C.	DATE 09/07/24

A1	DRAWING NO. 123A90-1724000049-HV-PID-00041	SHEET 001	REV. 01

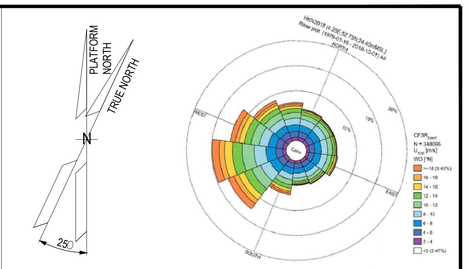
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DRAWING NO. 123A90-1724000049-HV-PID-00041

REV. 01

REV.	SHEET NUMBER	DESCRIPTION	REF. CODE
02	001	FRONT PAGE	IFR
02	002	SUMMARY and GENERAL NOTES	IFR
02	003	P&ID HVAC System	IFR

GENERAL NOTES



NOTES

LEGEND

HOLDS

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
1	09/07/24	S.Z.	S.S.	M.G.	ISSUE FOR INFORMATION (IFI)
0	10/06/24	S.Z.	S.S.	M.G.	ISSUE FOR INFORMATION (IFI)

ALEXSISTEMI spa

CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
B-300 HV-MV Switchgear Room
P&ID HVAC System

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1 : 1
DRAWN G.M.	CHECKED A.O.	APPROVED A.C.	DATE 09/07/24

A1	DRAWING NO. 123A90-1724000049-HV-PID-00041	SHEET 002	REV. 01

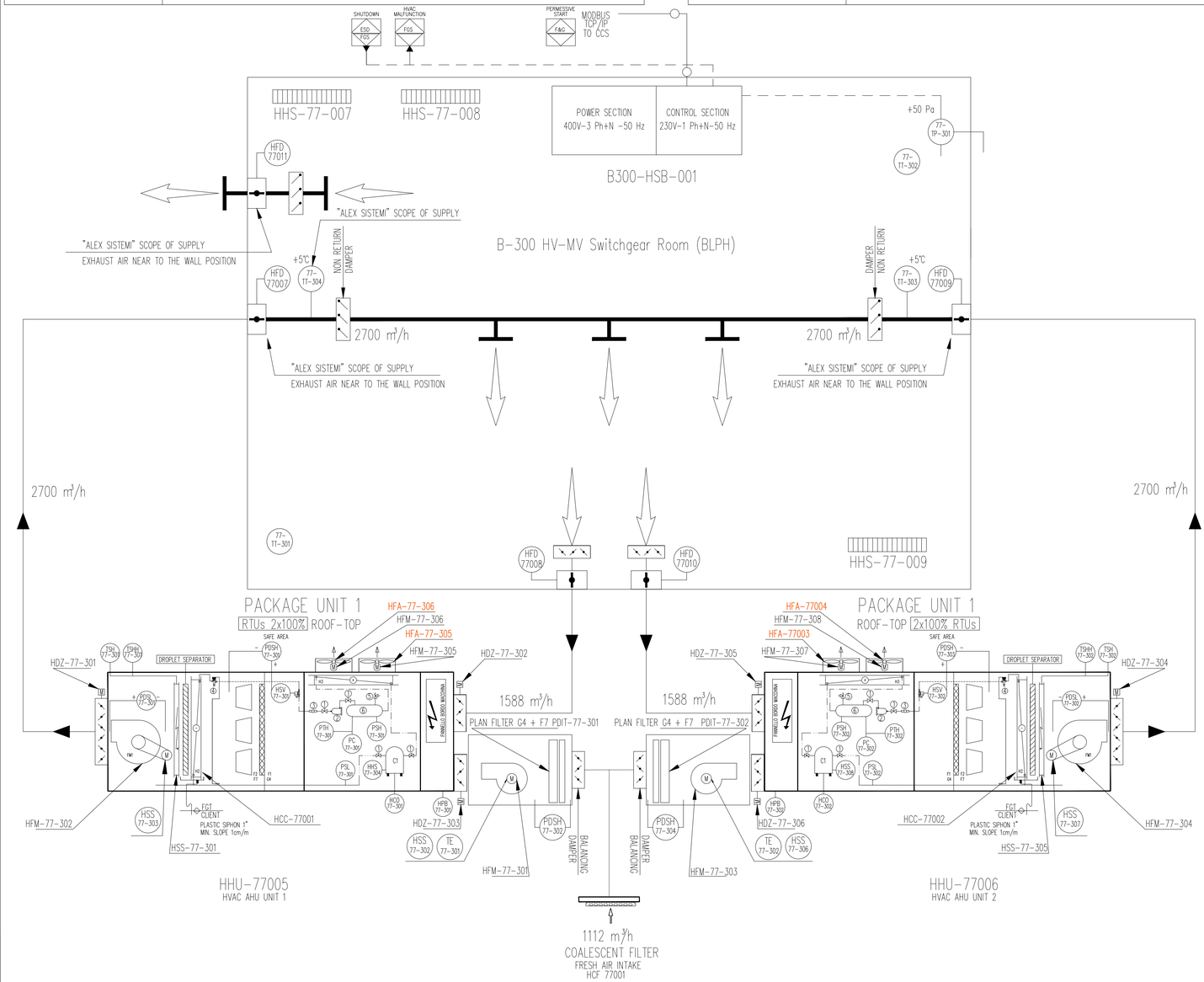
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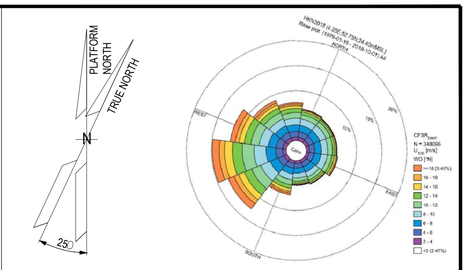
REV. 01

ITEM	HVAC-ROOF TOP
DESCRIPTION	HVAC UNIT
MAKER	FRIGOTERMICA srl
MODEL	4112-TBA
SUPPLY AIR FLOW	750 l/s
COOLING COIL CAPACITY	12 kW AT +26°C Outdoor Temperature
HEATING COIL CAPACITY	6 kW
TENSIONE	400 V - 50 Hz - 3 Ph+N
EXECUTION	SAFE AREA
REFRIGERANT	R513a

ITEM	HVAC-PRESSURISING FAN
DESCRIPTION	HVAC UNIT
MAKER	FRIGOTERMICA srl
MODEL	4112-TBA
SUPPLY AIR FLOW	281 l/s
COOLING COIL CAPACITY	N.A.
HEATING COIL CAPACITY	N.A.
TENSIONE	400 V - 50 Hz - 3 Ph+N
EXECUTION	SAFE AREA
REFRIGERANT	N.A.



LEGEND	
	MOTORISED DAMPER WITH SPRING RETURN
	REGULATION DAMPER
	OVERPRESSURE DAMPER
PDSH	DIFFERENTIAL PRESSURE SWITCH HIGH PRESSURE
PDSL	DIFFERENTIAL PRESSURE SWITCH LOW PRESSURE
TT	TEMPERATURE TRASMITTER
ESR	EMERGENCY PUSH BUTTON
OH	COMPRESSOR OIL HEATER
SV	SOLENOID VALVE
C	REFRIGERANT COMPRESSOR
F1	AIR FILTER "G4"
F2	BAG FILTER "F8"
	CONDENSING COIL
	CONDENSING FAN
	ELECTRICAL HEATER
	SUPPLY FAN
	GLOBE VALVE
	DRYER FILTER
	SIGHT GLASS
	THERMOSTATIC VALVE
	PRESSURE RELIEF VALVE
	MOTORISED FIRE DAMPER WITH SPRING RETURN
	EVAPORATING COIL
	LIQUID RECEIVER
MT	MOISTURE TRASMITTER
PTH	HIG PRESSURE TRASDUCER
TP	COMPRESSOR THERMIC PROTECTION
TSH	SECURITI THERMOSTATE
PSH	HIGH PRESSURE SWITCH
PSL	LOW PRESSURE SWITCH
PC	CONDENSING PRESSURE SWITCH



NOTES

LEGEND

HOLDS

NOTES:

- HVAC POWER CABINET will energize what above shown.
- HVAC CONTROL CABINET will control all what above shown.
- HVAC POWER CABINET will energize light and socket.
- Outside drainage system shall be provided of heatng cable with anti-freeze funcion to avoid ice inside pipes when outside temeprature reaches values close to 0°C.
- Outdoor air ductworks in stainless steel AISI 316

OUTDOOR DESIGN CONDITIONS

Safe Area
Min. design DB Temp: -8,4°C with RH 100 %
Max. design DB Temp: +25°C with RH 90 %

Module hv-mv (66 kW-6.6 kW)

Safe Area
Indoor min. design temperature: +5°C with RH 30 ÷ 70% ±5
Indor max. design temperature: +35°C with RH 30 ÷ 70% ±5
Min. ACH: 6

ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
1	09/07/24	S.Z.	S.S.	M.G.	ISSUE FOR INFORMATION (IFI)
0	10/06/24	S.Z.	S.S.	M.G.	ISSUE FOR INFORMATION (IFI)

CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
B-300 HV-MV Switchgear Room
P&ID HVAC System

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1 : 1
DRAWN G.M.	CHECKED A.O.	APPROVED A.C.	DATE 09/07/24
A1	DRAWING NO. 123A90-1724000049-HV-PID-00041	SHEET 003	REV. 01

File Name : 123A90-1724000049-HV-PID-00041-REV.01

B-300 HVAC - CABLE LIST

Posizione	n:° CABLE	CABLE CHARACTERISTICS				CABLE FROM:				CABLE TO:				JB TAG	CABLE LENGHT (m)	CABLE DIAMETER	CABLE TYPE	NOTE
		SECTION	TIPE	U_0/U (kV)	MATERIAL SHEAT	ITEM	CABLE GLAND	TAG	POSITION	ITEM	CABLE GLAND	TAG	POSITION					
a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	
1		5G25	by Client	by Client	by Client	by Client	by Client	by Client	by Client	HVAC PANEL	by Client	B300-HSB-001	inside B300	N.A.	by Client	25,60	by Client	General power supply 400V 3ph+N+PE
2		3G4	by Client	by Client	by Client	by Client	by Client	by Client	by Client	HVAC PANEL	by Client	B300-HSB-001	inside B300	N.A.	by Client	11,10	by Client	UPS Power Supply 230V 1ph+N+PE
3	77301-CEL-L1	3G2,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	SPACE HEATER 1	2900.M20N	HSS-77-007	inside B300	N.A.	12,5	9,80	LOW VOLTAGE	
4	77302-CEL-L2	3G2,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	SPACE HEATER 2	2900.M20N	HSS-77-008	inside B300	N.A.	15	9,80	LOW VOLTAGE	
5	77303-CEL-L3	3G2,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	SPACE HEATER 3	2900.M20N	HSS-77-009	inside B300	N.A.	19,5	9,80	LOW VOLTAGE	
6	77304-CEL-L1	5G2,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	BLINDO	2900.M20N	PECW-B300H-F1-L1-01	inside B300	N.A.	9	11,60	LOW VOLTAGE	
7	77305-CEL-L1	4G2,5	XLPE/UNEL S2	0,6/1,0	PVC	BLINDO	N.A.	PECW-B300H-F1-L1-01	inside B300	LAMP (E) 2	2900.M20N	PELF-B300H-F1-L1-01	inside B300	N.A.	0,5	10,80	LOW VOLTAGE	
8	77306-CEL-L1	3G2,5	XLPE/UNEL S2	0,6/1,0	PVC	BLINDO	N.A.	PECW-B300H-F1-L1-01	inside B300	LAMP 1	2900.M20N	PELF-B300H-F1-L1-02	inside B300	N.A.	0,5	9,80	LOW VOLTAGE	
9	77307-CEL-L1	3G2,5	XLPE/UNEL S2	0,6/1,0	PVC	BLINDO	N.A.	PECW-B300H-F1-L1-01	inside B300	LAMP 3	2900.M20N	PELF-B300H-F1-L1-03	inside B300	N.A.	0,5	9,80	LOW VOLTAGE	
10	77308-CEL-L2	3G2,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	MODULE SOCKET	2900.M20N	PESO-B300H-F2-L2-01	inside B300	N.A.	8,5	9,80	LOW VOLTAGE	
11	77301-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	MODULE SWITCH 1	2900.M20N	CELS-B300H-F1-L1-01	inside B300	N.A.	17	8,20	CONTROL	
12	77302-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	MODULE SWITCH 2	2900.M20N	CELS-B300H-F1-L1-02	inside B300	N.A.	12	8,20	CONTROL	
13		TBA	by Client	by Client	by Client	SIS	by Client	by Client	by Client	HVAC PANEL	by Client	B300-HSB-001	inside B300	N.A.	by Client		by Client	
14		TBA	by Client	by Client	by Client	SIS	by Client	by Client	by Client	HVAC PANEL	by Client	B300-HSB-001	inside B300	N.A.	by Client		by Client	
15		TBA	by Client	by Client	by Client	PCS	by Client	by Client	by Client	HVAC PANEL	by Client	B300-HSB-001	inside B300	N.A.	by Client		by Client	
16	77348-CEL-L1	3x1,5+Sh	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	TEMPERATURE TRANSMITTER 1	2900.M20N	77-TT-301	inside B300	N.A.	15,5	11,10	CONTROL	
17	77349-CEL-L1	3x1,5+Sh	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	TEMPERATURE TRANSMITTER 2	2900.M20N	77-TT-302	inside B300	N.A.	19,5	11,10	CONTROL	
18	77351-CEL-L1	3x1,5+Sh	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	TEMPERATURE TRANSMITTER 3	2900.M20N	77-TT-303	inside B300	N.A.	15,5	11,10	CONTROL	Mounted on internal sleeve
19	77352-CEL-L1	3x1,5+Sh	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	TEMPERATURE TRANSMITTER 4	2900.M20N	77-TT-304	inside B300	N.A.	16,5	11,10	CONTROL	Mounted on internal sleeve
20	77350-CEL-L1	3x1,5+Sh	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	DIFFERETIAL PRESSURE TRANSMITTER	2900.M20N	77-TP-301	inside B300	N.A.	15,5	11,10	CONTROL	
21	77309-CEL-L1	4G2,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	PRESSURIZING FAN	2900.M20N	HFM-77-301	HHU-77005	HJB-77005-A	20,5	10,80	LOW VOLTAGE	
22	77310-CEL-L1	4G4	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	SUPPLY FAN	2900.M20N	HFM-77-302	HHU-77005	HJB-77005-A	20,5	12,10	LOW VOLTAGE	
23	77311-CEL-L1	4G10	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	COMPRESSOR	2900.M25N	HCO-77-301	HHU-77005	HJB-77005-A	20,5	15,70	LOW VOLTAGE	
24	77312-CEL-L1	4G10	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	ELECTRICAL HEATER	2900.M25N	HSS-77-301	HHU-77005	HJB-77005-A	20,5	15,70	LOW VOLTAGE	
25	77313-CEL-L1	4G2,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	CONDENSER FAN 1	2900.M20N	HFM-77-305	HHU-77005	HJB-77005-A	20,5	10,80	LOW VOLTAGE	
26	77314-CEL-L1	4G2,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	CONDENSER FAN 2	2900.M20N	HFM-77-306	HHU-77005	HJB-77005-A	20,5	10,80	LOW VOLTAGE	
27	77315-CEL-L2	3G1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	POWER SUPPLY MOTORISED DAMPER	2900.M20N	HDZ-77-301	HHU-77005	HJB-77005-A	20,5	9,80	LOW VOLTAGE	
28	77308-CEC-L2	4x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	SIGNAL MOTORISED DAMPER	2900.M20N	HDZ-77-301	HHU-77005	HJB-77005-B	20,5	9,70	CONTROL	
29	77316-CEL-L2	3G1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	POWER SUPPLY MOTORISED DAMPER	2900.M20N	HDZ-77-302	HHU-77005	HJB-77005-A	20,5	9,80	LOW VOLTAGE	
30	77309-CEC-L2	4x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	SIGNAL MOTORISED DAMPER	2900.M20N	HDZ-77-302	HHU-77005	HJB-77005-B	20,5	9,70	CONTROL	
31	77317-CEL-L2	3G1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	POWER SUPPLY MOTORISED DAMPER	2900.M20N	HDZ-77-303	HHU-77005	HJB-77005-A	20,5	9,80	LOW VOLTAGE	
32	77310-CEC-L2	4x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	SIGNAL MOTORISED DAMPER	2900.M20N	HDZ-77-303	HHU-77005	HJB-77005-B	20,5	9,70	CONTROL	
33	77311-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	LOW PRESSURE SWITCH	2900.M20N	PDSL-77-301	HHU-77005	HJB-77005-B	20,5	8,20	CONTROL	
34	77312-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	PRESSURIZING FAN MOTOR PTC	2900.M20N	TE-77-301	HHU-77005	HJB-77005-B	20,5	8,20	CONTROL	
35	77313-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	EMERGENCY BUTTON	2900.M20N	HPB-77-301	HHU-77005	HJB-77005-B	20,5	8,20	CONTROL	
36	77314-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	SUPPLY FAN MOTOR HEATER	2900.M20N	HSS-77-302	HHU-77005	HJB-77005-B	20,5	8,20	CONTROL	
37	77315-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	PRESSURIZING FAN MOTOR HEATER	2900.M20N	HSS-77-303	HHU-77005	HJB-77005-B	20,5	8,20	CONTROL	
38	77347-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	PDSH - FILTER 1 DIFFERENTIAL PRESSURE SWITCH HIGH PRESSURE	2900.M20N	PDSH-77-301	HHU-77005	HJB-77005-B	20,5	8,20	CONTROL	
39	77349-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	PDSH - FILTER 2 DIFFERENTIAL PRESSURE SWITCH HIGH PRESSURE	2900.M20N	PDSH-77-302	HHU-77005	HJB-77005-B	20,5	8,20	CONTROL	
40	77316-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	COMPRESSOR OIL HEATER	2900.M20N	HSS-77-304	HHU-77005	HJB-77005-B	20,5	8,20	CONTROL	
41	77317-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	SOLENOID VALVE	2900.M20N	HSV-77-301	HHU-77005	HJB-77005-B	20,5	8,20	CONTROL	
42	77319-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	CONDENSING PRESSURE SWITCH	2900.M20N	PC-77-301	HHU-77005	HJB-77005-B	20,5	8,20	CONTROL	
43	77320-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	CONDENSING PRESSURE TRASDUCER	2900.M20N	PTH-77-301	HHU-77005	HJB-77005-B	20,5	8,20	CONTROL	
44	77321-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	ELECTRICAL HEATER HIGH TEMP THERMOSTATE	2900.M20N	TSH-77-301	HHU-77005	HJB-77005-B	20,5	8,20	CONTROL	
45	77322-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	ELECTRICAL HEATER VERI HIGH TEMP TRASMITTER	2900.M20N	TSHH-77-301	HHU-77005	HJB-77005-B	20,5	8,20	CONTROL	
46	77323-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	LOW PRESSURE SWITCH	2900.M20N	PSL-77-301	HHU-77005	HJB-77005-B	20,5	8,20	CONTROL	
47	77324-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	HIGH PRESSURE SWITCH	2900.M20N	PSH-77-301	HHU-77005	HJB-77005-B	20,5	8,20	CONTROL	
48	77318-CEL-L1	4G2,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	PRESSURIZING FAN	2900.M20N	HFM-77-303	HHU-77006	HJB-77006-A	20,5	10,80	LOW VOLTAGE	
49	77319-CEL-L1	4G4	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	SUPPLY FAN	2900.M20N	HFM-77-304	HHU-77006	HJB-77006-A	20,5	12,10	LOW VOLTAGE	
50	77320-CEL-L1	4G10	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	COMPRESSOR	2900.M25N	HCO-77-302	HHU-77006	HJB-77006-A	20,5	15,70	LOW VOLTAGE	
51	77321-CEL-L1	4G10	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	ELECTRICAL HEATER	2900.M25N	HSS-77-305	HHU-77006	HJB-77006-A	20,5	15,70	LOW VOLTAGE	
52	77322-CEL-L1	4G2,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	CONDENSER FAN 1	2900.M20N	HFM-77-307	HHU-77006	HJB-77006-A	20,5	10,80	LOW VOLTAGE	
53	77323-CEL-L1	4G2,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	CONDENSER FAN 2	2900.M20N	HFM-77-308	HHU-77006	HJB-77006-A	20,5	10,80	LOW VOLTAGE	
54	77324-CEL-L2	3G1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	POWER SUPPLY MOTORISED DAMPER	2900.M20N	HDZ-77-304	HHU-77006	HJB-77006-A	20,5	9,80	LOW VOLTAGE	
55	77325-CEC-L2	4x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	SIGNAL MOTORISED DAMPER	2900.M20N	HDZ-77-304	HHU-77006	HJB-77006-B	20,5	9,70	CONTROL	
56	77325-CEL-L2	3G1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	POWER SUPPLY MOTORISED DAMPER	2900.M20N	HDZ-77-305	HHU-77006	HJB-77006-A	20,5	9,80	LOW VOLTAGE	
57	77326-CEC-L2	4x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	SIGNAL MOTORISED DAMPER	2900.M20N	HDZ-77-305	HHU-77006	HJB-77006-B	20,5	9,70	CONTROL	
58	77326-CEL-L2	3G1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	POWER SUPPLY MOTORISED DAMPER	2900.M20N	HDZ-77-306	HHU-77006	HJB-77006-A	20,5	9,80	LOW VOLTAGE	
59	77327-CEC-L2	4x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	SIGNAL MOTORISED DAMPER	2900.M20N	HDZ-77-306	HHU-77006	HJB-77006-B	20,5	9,70	CONTROL	
60	77328-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	LOW PRESSURE SWITCH	2900.M20N	PDSL-77-302	HHU-77006	HJB-77006-B	20,5	8,20	CONTROL	
61	77329-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	PRESSURIZING FAN MOTOR PTC	2900.M20N	TE-77-302	HHU-77006	HJB-77006-B	20,5	8,20	CONTROL	
62	77330-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	EMERGENCY BUTTON	2900.M20N	HPB-77-302	HHU-77006	HJB-77006-B	20,5	8,20	CONTROL	
63	77331-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	SUPPLY FAN MOTOR HEATER	2900.M20N	HSS-77-306	HHU-77006	HJB-77006-B	20,5	8,20	CONTROL	
64	77332-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	PRESSURIZING FAN MOTOR HEATER	2900.M20N	HSS-77-307	HHU-77006	HJB-77006-B	20,5	8,20	CONTROL	
65	77350-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	PDSH - FILTER 1 DIFFERENTIAL PRESSURE SWITCH HIGH PRESSURE	2900.M20N	PDSH-77-303	HHU-77006	HJB-77006-B	20,5	8,20	CONTROL	
66	77348-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	PDSH - FILTER 2 DIFFERENTIAL PRESSURE SWITCH HIGH PRESSURE	2900.M20N	PDSH-77-304	HHU-77006	HJB-77006-B	20,5	8,20	CONTROL	
67	77333-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	COMPRESSOR OIL HEATER	2900.M20N	HSS-77-308	HHU-77006	HJB-77006-B	20,5	8,20	CONTROL	
68	77334-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	SOLENOID VALVE	2900.M20N	HSV-77-302	HHU-77006	HJB-77006-B	20,5	8,20	CONTROL	
69	77336-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	CONDENSING PRESSURE SWITCH	2900.M20N	PC-77-302	HHU-77006	HJB-77006-B	20,5	8,20	CONTROL	
70	77337-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	CONDENSING PRESSURE TRASDUCER	2900.M20N	PTH-77-302	HHU-77006	HJB-77006-B	20,5	8,20	CONTROL	
71	77338-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	ELECTRICAL HEATER HIGH TEMP THERMOSTATE	2900.M20N	TSH-77-302	HHU-77006	HJB-77006-B	20,5	8,20	CONTROL	
72	77339-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	ELECTRICAL HEATER VERI HIGH TEMP TRASMITTER	2900.M20N	TSHH-77-302	HHU-77006	HJB-77006-B	20,5	8,20	CONTROL	
73	77340-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	LOW PRESSURE SWITCH	2900.M20N	PSL-77-302	HHU-77006	HJB-77006-B	20,5	8,20	CONTROL	
74	77341-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	HIGH PRESSURE SWITCH	2900.M20N	PSH-77-302	HHU-77006	HJB-77006-B	20,5	8,20	CONTROL	
75	77342-CEC-L2	4x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	Fire and Gas Damper (included actuator)	2900.M20N	HFD-77007	inside B300	N.A.	9	9,70	CONTROL	
76	77343-CEC-L2	4x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	Fire and Gas Damper (included actuator)	2900.M20N	HFD-77008	inside B300	N.A.	8	9,70	CONTROL	
77	77344-CEC-L2	4x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	Fire and Gas Damper (included actuator)	2900.M20N	HFD-77009	inside B300	N.A.	15,5	9,70	CONTROL	
78	77345-CEC-L2	4x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	Fire and Gas Damper (included actuator)	2900.M20N	HFD-77010	inside B300	N.A.	16,5	9,70	CONTROL	
79	77346-CEC-L2	4x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	Fire and Gas Damper (included actuator)	2900.M20N	HFD-77011	inside B300	N.A.	17	9,70	CONTROL	

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Its distribution is electronically controlled. Once printed shall be considered as "NOT CONTROLLED" copy

Section 6 MECHANICAL COMPLETION STATUS INDEX - INSTRUMENTAL DISCIPLINE

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 77-30 & process: MC & discipline : I

Instrumental	77-30 HVAC UPS Equipment Room B-300						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
77-HS-007A	Hand Switch for Fire&Gas Damper HFD-77007	ONSHORE	C10002089	CJX00	100	2024-11-21	RFC 2
77-HS-007B	Hand Switch for Fire&Gas Damper HFD-77007	ONSHORE	C10002090	CJX00	100	2024-10-15	RFC 2
77-HS-008A	Hand Switch for Fire&Gas Damper HFD-77008	ONSHORE	C10002091	CJX00	100	2024-11-21	RFC 2
77-HS-008B	Hand Switch for Fire&Gas Damper HFD-77008	ONSHORE	C10002092	CJX00	100	2024-10-15	RFC 2
77-HS-009A	Hand Switch for Fire&Gas Damper HFD-77009	ONSHORE	C10002093	CJX00	100	2024-11-21	RFC 2
77-HS-009B	Hand Switch for Fire&Gas Damper HFD-77009	ONSHORE	C10002094	CJX00	100	2024-10-15	RFC 2
77-HS-010A	Hand Switch for Fire&Gas Damper HFD-77010	ONSHORE	C10002095	CJX00	100	2024-11-21	RFC 2
77-HS-010B	Hand Switch for Fire&Gas Damper HFD-77010	ONSHORE	C10002096	CJX00	100	2024-10-15	RFC 2
77-HS-011A	Hand Switch for Fire&Gas Damper HFD-77011	ONSHORE	C10002097	CJX00	100	2024-11-21	RFC 2
77-HS-011B	Hand Switch for Fire&Gas Damper HFD-77011	ONSHORE	C10002098	CJX00	100	2024-10-15	RFC 2
B-300	Shelter AC UPS Fitted with UPS System Equipment Room B-300	ONSHORE	C10002303	CZX01I	100	2024-10-08	RFC 2
B300-HSB-001/B400-FGS-003	B-300 HVAC Control Panel / MARSHALLING PCS	ONSHORE	C10002037	CJX10	100	2024-11-20	RFC 2
C-77-HS-007A/77-HS-007B	PUSH BUTTON / MARSHALLING PCS	ONSHORE	C10000379	CJX10	100	2024-10-14	RFC 2
C-77-HS-007B/950-JE-04207	PUSH BUTTON / MARSHALLING PCS	ONSHORE	C10000378	CJX10	100	2024-10-14	RFC 2
C-77-HS-008A/77-HS-008B	PUSH BUTTON / MARSHALLING PCS	ONSHORE	C10000382	CJX10	100	2024-10-14	RFC 2
C-77-HS-008B/950-JE-04207	PUSH BUTTON / MARSHALLING PCS	ONSHORE	C10000381	CJX10	100	2024-10-14	RFC 2
C-77-HS-009A/77-HS-009B	PUSH BUTTON / MARSHALLING PCS	ONSHORE	C10000385	CJX10	100	2024-10-15	RFC 2
C-77-HS-009B/950-JE-04207	PUSH BUTTON / MARSHALLING PCS	ONSHORE	C10000384	CJX10	100	2024-10-15	RFC 2
C-77-HS-010A/77-HS-010B	PUSH BUTTON / MARSHALLING PCS	ONSHORE	C10000388	CJX10	100	2024-10-15	RFC 2
C-77-HS-010B/950-JE-04207	PUSH BUTTON / MARSHALLING PCS	ONSHORE	C10000387	CJX10	100	2024-10-15	RFC 2
C-77-HS-011A/77-HS-011B	PUSH BUTTON / MARSHALLING PCS	ONSHORE	C10000391	CJX10	100	2024-10-15	RFC 2
C-77-HS-011B/950-JE-04207	PUSH BUTTON / MARSHALLING PCS	ONSHORE	C10000390	CJX10	100	2024-10-15	RFC 2
C-77-HY-007/77-HS-007A	FIRE DAMPER / MARSHALLING PCS	ONSHORE	C10000380	CJX10	100	2024-11-21	RFC 2
C-77-HY-008/77-HS-008A	FIRE DAMPER / MARSHALLING PCS	ONSHORE	C10000383	CJX10	100	2024-11-21	RFC 2
C-77-HY-009/77-HS-009A	FIRE DAMPER / MARSHALLING PCS	ONSHORE	C10000386	CJX10	100	2024-11-21	RFC 2
C-77-HY-010/77-HS-010A	FIRE DAMPER / MARSHALLING PCS	ONSHORE	C10000389	CJX10	100	2024-11-21	RFC 2
C-77-HY-011/77-HS-011A	FIRE DAMPER / MARSHALLING PCS	ONSHORE	C10000392	CJX10	100	2024-11-21	RFC 2
C-77-XA-003/B400-SIS-001	UCP FAULT ALARM / MARSHALLING PCS	ONSHORE	C10000186	CJX10	100	2024-11-25	RFC 2
C-77-XS-003/B400-SIS-001	TRIP SIGNAL TO UCP / MARSHALLING PCS	ONSHORE	C10000182	CJX10	100	2024-11-25	RFC 2

ROSETTI MARINO | PROVERLIS | CROSSWIND

ITEM	Tag	C-77-XS-003/B400-SIS-001	: TRIP SIGNAL TO UCP / MARSHALLING PCS	Dwg	123A90-DDL-IN-LIS-40091		
	S/Sys	77-30	: HVAC UPS Equipment Room B-300	Module	LD_B-300/LD_B-400		
TASK	code	C10000182	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity CCK	Discipline	Instrumental	Form	CJX10

Multi/Single-Core Instrument Control Cable

CABLE DATA

Type	Cu-MICA-XLPE-OS-LSZH-SWB-LSZH	Cores/Size mm²	2X2,5 mm2	Color	ORANGE
From	B300-HSB-001	To	B400-SIS-001		

1	Check cable is as specified in project cable schedule.	OK
2	Check relevant documents are at the latest revision.	OK
3	Check cable is routed in accordance with cable layout drawings.	OK
4	Check cable for any physical damage.	OK
5	Check cable is adequately supported and correctly fixed to rack according to Project specification.	Note
6	Check bending radius is within the specified limits.	OK
7	Check cable is correctly loomed and segregated in accordance with specification.	OK
8	Check cable and core marking are in accordance with specification.	OK
9	Check cable labelling is in accordance with specification.	PL
10	Check that glands, shrouds and earthing are in accordance with specification.	OK
11	Check terminations are in accordance with termination diagram	PL
12	Check gland plate for single core cables is non-ferrous.	NA
13	If required produce Red Line Mark Up for "AS BUILT"	

INSULATION	CORE to EARTH		>999	MΩ
	CORE to CORE		>999	MΩ
	CORE to SCREEN		>999	MΩ
	CORE to ARMr		>999	MΩ
	SCREEN to EARTH		>999	MΩ
	SCREEN to ARMr		>999	MΩ
CONTINUITY	CORES		0,4	Ω
	SCREEN		0,4	Ω
	EARTH		NA	Ω
	ARMr		0,4	Ω
	TEST VOLTS		500	V

TEST ALL CORES AND RECORD LOWEST VALUE

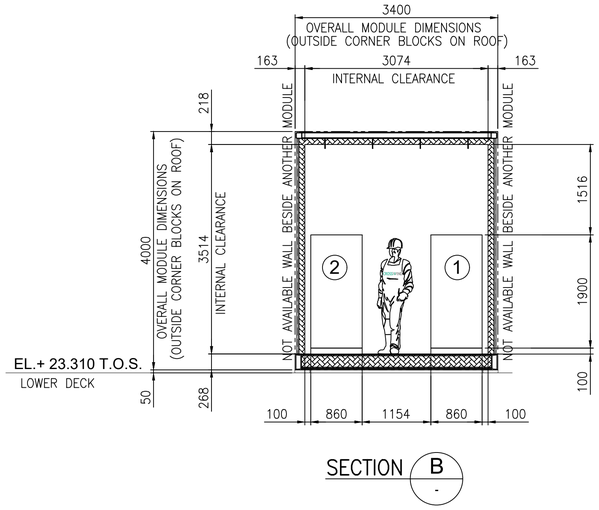
Notes: The lowest value is recorded and must be within project specifications

TESTING INSTRUMENTS USED

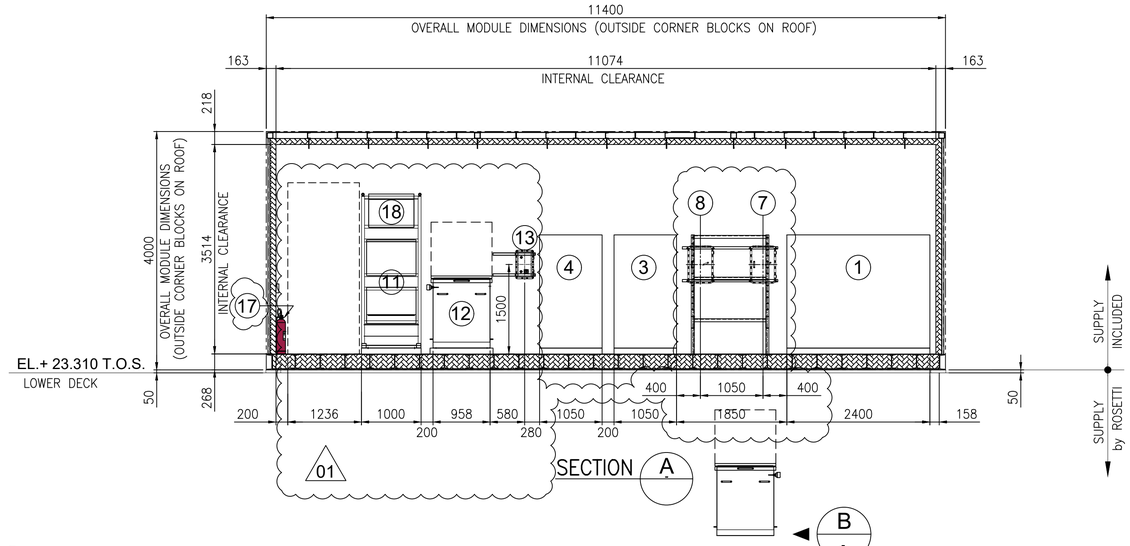
TYPE / SERIAL N°: MEGGER : KEW3125A SERIAL: W8330207 Calibration date: N°7722/24 10/07/2024

Comments Nota 5: refer to PL C30000680

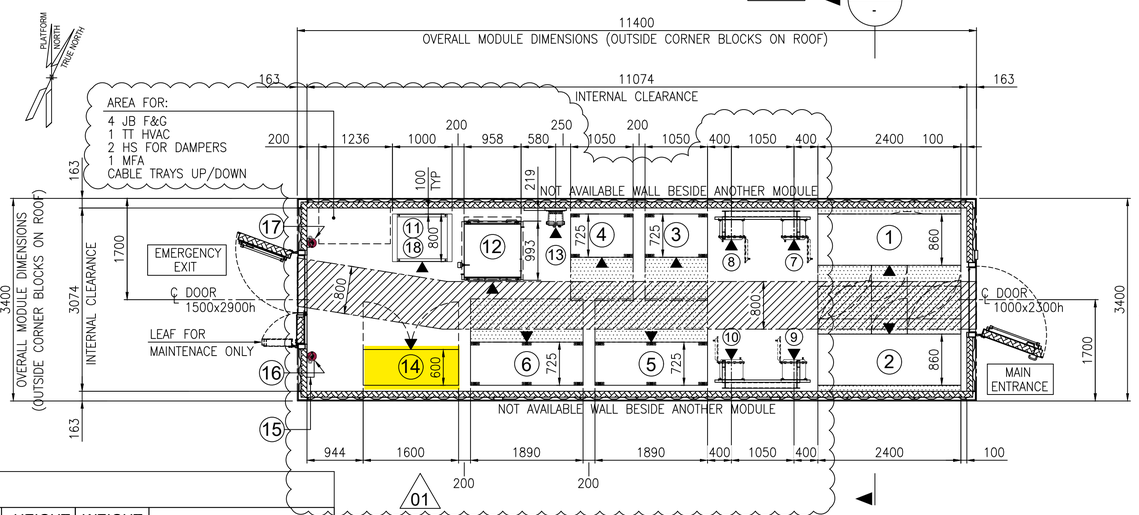
Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM(ROSETTI MARINO)	
Name	Francesco Zucca	Alessio Polo	
Date	2024-11-25	2024-11-25	
Signature	PROVERLIS Digitaly signed by Francesco Zucca 2024-11-25T11:01:37.089Z	PROVERLIS Digitaly signed by Alessio Polo 2024-11-25T18:03:17.480Z	



SECTION B



SECTION A



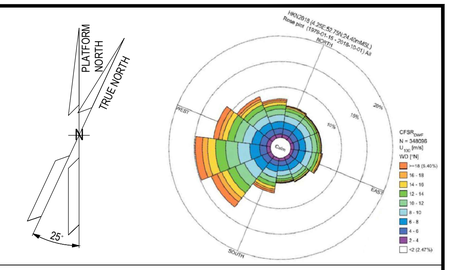
A

B

EQUIPMENT LAYOUT
"B-300" UPSs & BATTERIES SWITCHROOM
BOTTOM PLAN

EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)	NOTES
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258	
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258	
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429	
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA 01	1890	725	1761	3429	
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	450	341	632	100	
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	450	341	632	100	
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	450	341	632	100	
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	450	341	632	100	
11	NC-200F2	NAVAID PANEL 01	1000	800	2600	535	
12	BA-200F2	BATTERY BOX NAVAID	958	993	1210	1552	
13	CB-200F2	ISOLATOR BOX NAVAID	500	400	765	70	
14	B3000-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	1150	
15	-	EYE WASH STATION	228	80	290	5	
16	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20	
17	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20	
18	BC-200F2	BATTERY CHARGER NAVAID 01	-	-	-	-	INCLUDED IN THE RACK OF NC-200F2



NOTES

01

1. U.N.O. ALL DIMENSIONS ARE IN MILLIMETERS.
2. EQUIPMENT DIMENSION ARE DEFINED ACCORDING TO THE LATEST DRAWING AND INFORMATION FROM THE VENDOR
3. DOCUMENT VALID ONLY FOR ELECTRICAL COMPONENT, FOR OTHER SCOPE LOCATION AND INFORMATION, PLEASE REFER TO VENDORS AND PROJECT DOCUMENTS.
   - "B-300" – GENERAL ARRANGEMENT DRAWING DOC. N. 1724000049-AR-DA-00016
   - "B-300" – DETAILED DRAWINGS DOC. N. 1724000049-AR-DD-00020

LEGEND

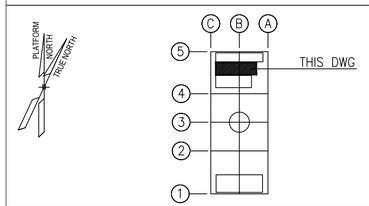
U.N.O. _____ UNLESS NOTED OTHERWISE
T.O.S. _____ TOP OF STEEL
_____ ESCAPE CORRIDOR – WIDTH 800mm.
_____ MAINTENANCE AREA – VENDOR REQUIREMENT
_____ SWITCHGEAR ROOM ENCLOUSURE
_____ FRONT OF EQUIPMENT

HOLDS

REFERENCE

DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DA-00016
"B-300" DETAILED DRAWINGS	1724000049-AR-DD-00020
"B-300" ARCHITECTURAL GENERAL LAYOUT PLAN, WIEW, SECTIONS & TYP. DETAILS	123A90-DDL-AR-DL-10022
PLOT PLAN – LOWER & UPPER DECK	123A90-DDL-PP-DL-70070

KEY PLAN



VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DL-20106**

REV.:	DATE:	SIGNATURE:
1_A	08/08/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	23/07/24	SAM	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	28/03/24	SAM	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

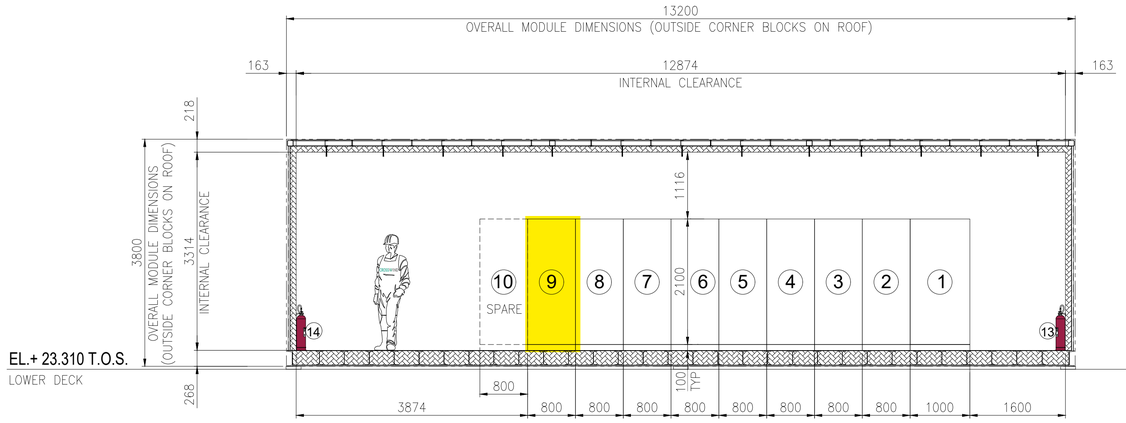
TITLE :
BASE LOAD POWER HUB (BLPH)
ELECTRICAL EQUIPMENT LAYOUT
UPSs & BATTERIES SWITCHROOM

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:50
DRAWN SAM	CHECKED FMA/AMA	APPROVED FPA/DLO	DATE 23/07/24
A1	DRAWING NO. 123A90-DDL-EL-DL-20106	SHEET 001	REV. 01

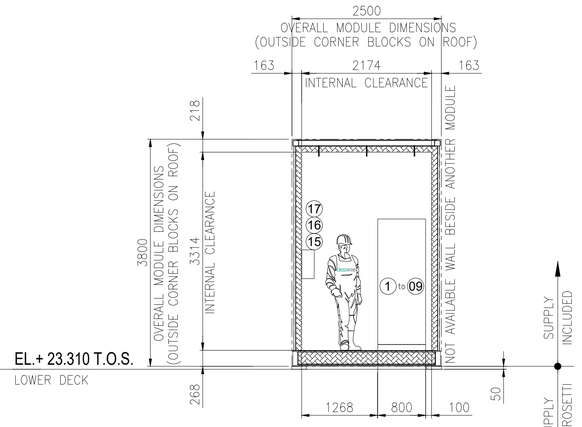
DRAWING NO. 123A90-DDL-EL-DL-20106 REV. 01

File Name : 123A90-DDL-EL-DL-20106 Rev.00.dwg

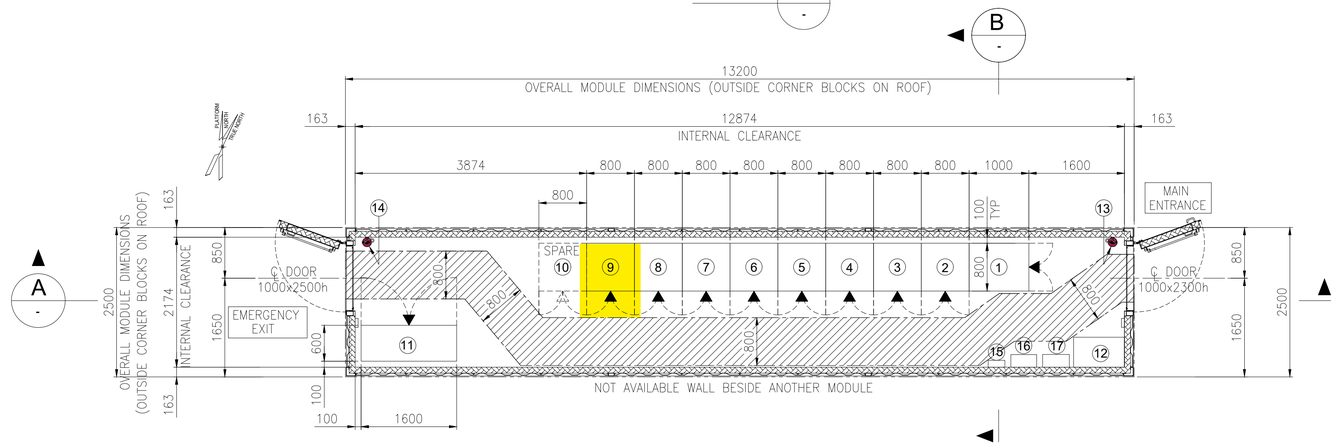
DRAWING NO. 123A90-DDL-IN-DL-40012 REV. 03



SECTION A -



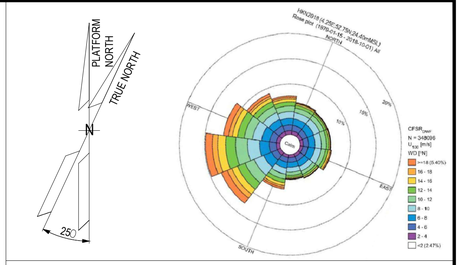
SECTION B -



EQUIPMENT LAYOUT
"B-400" I&T EQUIPMENT ROOM
BOTTOM PLAN

EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	NOTE
1	B400-SRV-001	SERVER CABINET	1000	800	2100	
2	B400-NET-001	NETWORK CABINET	800	800	2100	
3	B400-EMCS-001	EMCS SYSTEM CABINET	800	800	2100	
4	B400-PCS-002	PCS MARSHALLING CABINET	800	800	2100	
5	B400-PCS-001	PCS SYSTEM CABINET 03	800	800	2100	
6	B400-FGS-003	FGS MARSHALLING CABINET 2	800	800	2100	
7	B400-FGS-002	FGS MARSHALLING CABINET 1	800	800	2100	
8	B400-FGS-001	FGS SYSTEM CABINET	800	800	2100	
9	B400-SIS-001	SIS SYSTEM/MARSHALLING CABINET	800	800	2100	
10	-	SPARE				
11	B400-HSB-001	DISTRIBUTION & HVAC PANEL - I&T ROOM	1600	600	2300	
12	-	TABLE	850	500	750	
13	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	
14	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	
15	-	FIRST AID KIT	280	115	200	
16	-	RESUSCITATION UNIT	430	210	480	
17	-	CABINET INCLUDED N.10 ESCAPE MASK	448	213	422	



NOTES

1. U.N.O. ALL DIMENSIONS ARE IN MILLIMETERS.
2. DOCUMENT VALID ONLY FOR INSTRUMENT COMPONENT, FOR OTHER SCOPE LOCATION AND INFORMATION, PLEASE REFER TO VENDORS AND PROJECT DOCUMENTS.

LEGEND

U.N.O. _____ UNLESS NOTED OTHERWISE
T.O.S. _____ TOP OF STEEL
_____ ESCAPE CORRIDOR – WIDTH 800mm.
_____ EQUIPMENT ROOM ENCLOUSURE
_____ FRONT OF EQUIPMENT

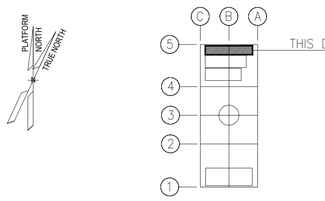
HOLDS

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REFERENCE

DOCUMENT TITLE	DOCUMENT NUMBER
Control System Architecture Detailed Drawings	123A90-DDL-IN-DD-40096
Data Network Architecture Drawings	123A90-DDL-IN-DD-40019
Earthing layouts drawings (CCR, ITER)	123A90-DDL-IN-DL-40013
Instrument and Telecom MCT Layout – Lower Deck	123A90-DDL-IN-DL-40086
"B-400" I&T Equipment Room – Architectural Layout	123A90-DDL-AR-DL-10015
"B-400" ARCHITECTURAL GENERAL LAYOUT PLAN, WIEW, SECTIONS & TYP. DETAILS	123A90-DDL-AR-DL-10015
"B-400" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DA-00017
"B-400" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DD-00021
"B-400" HVAC SYSTEM G.A. and DETAILS	1724000049-HV-DA-00067

KEY PLAN



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
02	27/05/24	MGA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	22/01/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)
00	07/11/23	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND | ROSETTI MARINO

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DL-40012**

REV.:	DATE:	SIGNATURE:
3_A	07/10/24	G.Randi

ROSETTI MARINO SpA

TITLE : BASE LOAD POWER HUB (BLPH)
OFF-SHORE ITER
EQUIPMENT LAYOUT

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:33,3
DRAWN MGA	CHECKED LCA	APPROVED DLO	DATE 27/05/24
A1	DRAWING NO. 123A90-DDL-IN-DL-40012	SHEET 001	REV. 03

File Name : 123A90-DDL-IN-DL-40012 Rev.03.dwg

DRAWING NO. 123A90-DDL-IN-DG-40016

REV. 01

FIELD		I&T EQUIPMENT ROOM (ITER)
HVAC SYSTEMs	CABLE NO	MARSHALLING CABINET B400-SIS-001

<01>

B-100 HVAC CONTROL P. UCP	77-XS-001	TB-XC 100 1BK, 101 2BK	NOTE-2	C-77-XS-001/B400-SIS-001 4PR*2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS	TB-XS-000 1BK 21, 2BK 22	77-XS-001
B-200 HVAC CONTROL P. UCP	77-XS-002	TB-XC 100 1BK, 101 2BK	NOTE-2	C-77-XS-002/B400-SIS-001 4PR*2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS	TB-XS-000 1BK 23, 2BK 24	77-XS-002
B-300 HVAC CONTROL P. UCP	77-XS-003	TB-XC 500 1BK, 501 2BK	NOTE-2	C-77-XS-003/B400-SIS-001 4PR*2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS	TB-XS-000 1BK 25, 2BK 26	77-XS-003
B-400 HVAC CONTROL P. UCP	77-XS-004	TB-XC 500 1BK, 501 2BK	NOTE-2	C-77-XS-004/B400-SIS-001 4PR*2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS	TB-XS-000 1BK 27, 2BK 28	77-XS-004

Shield Bar

Shield Bar

Shield Bar

Shield Bar

I.E.

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_K	18/11/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT– SAFETY SYSTEM WIRING DIAGRAMS
HVAC SYSTEM SHUTDOWN

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

	DRAWING NO.	SHEET	REV.
A3	123A90-DDL-IN-DG-40016	021	01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

DRAWING NO. 123A90-DDL-IN-DG-40016

REV. 01

NOTES:

1. ALL SPARE ENTRIES SHALL BE PROVIDED WITH CERTIFIED EX PROOF PLUGS.
2. CABLE SCREENS / DRAIN WIRE SHALL BE SECURELY INSULATED AND TIED BACK IN THE INSTRUMENT SIDE AND SHAL BE TERMINATED IN THE MARSHALLING SIDE OF THE PANEL.
3. SPARE PAIRS / TRIADS SHALL BE CONNECTED TO TERMINALS IN JUNCTION BOX AND PANEL / MARSHALLING CABINETS.
4. ALL CABLE SCREENS TO BE TERMINATED AT THE INSTRUMENT EARTH BAR IN THE RESPECTIVE EARTH BARS (IS OR NIS) AS APPLICABLE IN THE MARSHALLING CABINET.
5. CONNECTION TERMINAL BLOCK SHALL BE DEFINED DURING CONSTRUCTION PHASE.

<01>

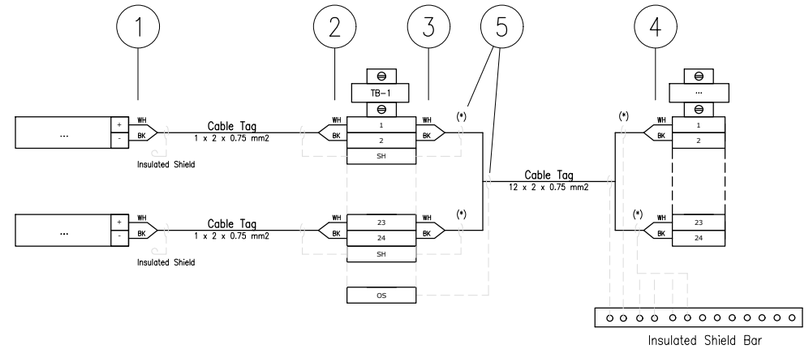
LEGENDS & SYMBOLS:

LEGEND:

I.E.	- GREEN ——— INSTRUMENT SIGNAL EARTH
P.E.	- GREEN/YELLOW —— P.E. EARTH/BONDING
	- TERMINAL BLOCK (TB)
WH	- WHITE
BK	- BLACK
RD	- RED
S	- SHIELD TERMINAL
OS	- OVERALL SHIELD TERMINAL
O/A Shld	- OVERALL SHIELD
I&O/A Shld	- INDIVIDUAL & OVERALL SHIELD
NIS	- NON INTRINSICALLY SAFE
IS	- INTRINSICALLY SAFE
P.E.	- PLANT EARTH
PCS	- PROCESS CONTROL SYSTEM <01>
ESD	- EMERGENCY SHUTDOWN SYSTEM
SIS	- SAFETY INSTRUMENT SYSTEM
FGS	- FIRE & GAS SYSTEM <01>
MC	- MARSHALLING CABINET
AI	- ANALOGUE INPUT
AO	- ANALOGUE OUTPUT
DI	- DIGITAL INPUT
DO	- DIGITAL OUTPUT
JE	- JUNCTION BOX FOR ELECTRICAL SIGNALS <01>

TYPICAL WIRE CROSS-FERRULING:

PHILOSOPHY OF CROSS-FERRULING: <01>



(*) Single shield is foreseen only for AI/AO signals.

1 - INSTRUMENT TERMINAL NO. OR POLARITY/JB NO./JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

2 - INSTRUMENT TERMINAL NO. OR POLARITY/INSTRUMENT TAG NO./JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

3 - PAIR OR CORE NO./MARSHALLING CABINET NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

4 - PAIR OR CORE NO./JB NO./JB TERMINAL NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

5 - HEAT SHRINKABLE BLACK FOR SHIELD OF NIS INSTRUMENT CABLE.
(HEAT SHRINKABLE BLUE FOR SHIELD OF NIS INSTRUMENT CABLE)

6 - IN CASE OF CONNECTION FROM RIGHT TO LEFT, ORDER OF INFORMATION SHALL BE MIRRORED

REFERENCE DRAWINGS

PIPING AND INSTRUMENT DIAGRAM	123A90-DDL-PR-PID-80009
INSTRUMENT INDEX	123A90-DDL-IN-LIS-40088 Rev.01
F&G DETECTORS LAYOUT	123A90-DDL-SAF-DL-30027

CROSSWIND

ROSETTI MARINO

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_K	18/11/24	G.Randi

ROSETTI MARINO SpA

TITLE :
BASE LOAD POWER HUB (BLPH)
INSTRUMENT – SAFETY SYSTEM WIRING DIAGRAMS
GENERAL NOTES/LEGENDS

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

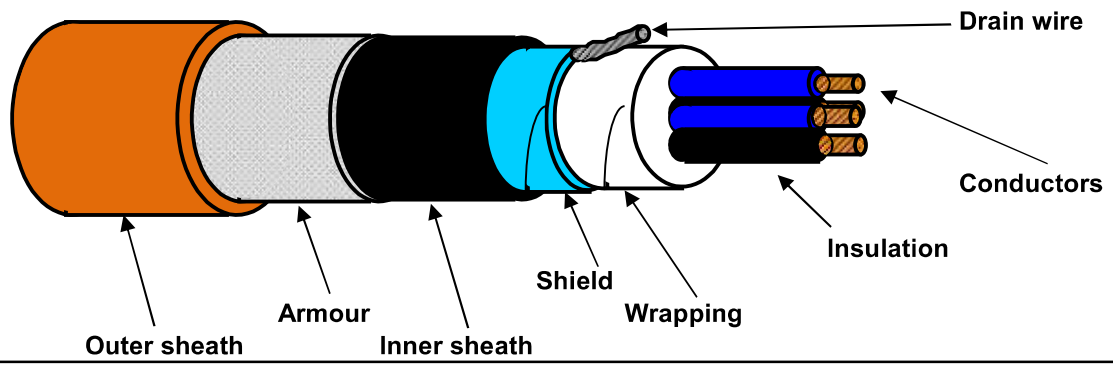
	DRAWING NO.	SHEET	REV.
A3	123A90-DDL-IN-DG-40016	003	01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

Tag Number	Category	Discipline	Eng Status	NativeDoc	Parent Tag	Grouping	Main Function	Secondary Function	Area	From Tag	From Main Function	From Area	To Tag	To Main Function	To Area	Material ID	Material Desc.	Gland Standard	From Gland	From Entry	From Fitting	To Gland	To Entry	To Fitting	Routing	Routing Manual
C-77-XS-003/B400-SIS-001	Cable	IN	VFC	123A90-DDL-IN-LIS-40091		Int-Ext				B300-HSB-001	Distribution & HVAC Panel - Shelter AC UPS Fitted with UPS System Equipment Room	Lower Deck (B-300)	B400-SIS-001	Marshalling SIS	Lower Deck (B-400)	SMICV12-2X2,5	Cable Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250V (300V) 2x2,5mm² - Orange	M20	T2_M20_Double			n.a.				I-MCT-301 / B-300-SEC-1D / B-300-SEC-1C / B-300-SEC-1A / I-MCT-401

Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250 V (300 V)

2X2,5 - INSTRUMENT CABLE - Fire Resistant - Not I.S.



TECHNICAL FEATURES

Conductors :	**7-STRANDED** plain/bare soft annealed copper wires	**IEC 60228 Class 2**
Insulation :	Mica/Glass Tape (MGT) plus XLPE, Nominal Thickness 0,6 mm	
Cores colour code :	**Black NUMBERED (from 1 to 2)**	
Pair Assembling :	Not required	
Pair Wrapping:	Not required	
Drain wire :	Not required	
Pair Shield :	Not required	
Shield Insulation :	Not required	
Total Assembling :	8/1mt	
Overall Wrapping:	by polyester-PET Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Drain wire :	7-Stranded **TINNED** annealed copper drain wire, **size 1,0 sqmm**, in continuous contact with the shield	
Overall Shield :	by Aluminium-**Al** Minimum Thickness 0,008 mm / polyester-**PET** Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Inner sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, Average Thickness 1,1 mm	
Inner sheath color code:	**Black**	
Armour :	Galvanized Steel Wire Braid Armour (coverage ≥ 90%)	
Outer sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, moisture/abrasion/UV Resistant,	
	Average Thickness 1,3 mm	
Outer sheath color code:	**Orange**	
Outer printing (INKJET) :	**FLEI - 2X2,5 SQMM - MGT/XLPE/OS/LSZH/SWB/LSZH - 150/250 V - IEC 60331.21 -**	
(every 1000 mm)	**IEC 60332.1.2 - IEC 60332.3.22 - Year of Manufacture - CE + Meter Marking**	
Under armour diameter :	(10,3 ± 10%) mm	
Over armour diameter :	(11,5 ± 10%) mm	
Outer diameter :	(14,1 ± 10%) mm	
Bending radius :	cable outer diameter x 10 (in fixed installation)	
Voltage Test :	1,5 kV a.c. for 5' (Between Cores) / 1,5 kV a.c. for 5' (Between Cores - Shield)	
Conductors DC Resistance :	≤ 7,86 Ω/km (@ 20°C)	
Insulation Resistance :	≥ 1000 MΩ x Km (@ 20°C)	
Applicable Standards		
Design Guidelines :	**IEC 60092.376**	
ON COMPLETE CABLE		
Fire Resistant test :	**IEC 60331.21**	
Flame Retardant test :	IEC 60332.1.2 - IEC 60332.3.22	
Acid Gas generation :	IEC 60754.1/2	
Smoke density/Light Transmittance :	IEC 61034.2 (LT ≥ 60%)	
Hazardous Areas :	IEC 60079.14 par.9.3.2a	
Temperature Range :		
ON INSULATION	(max +90°C) (max continuous operation temperature of conductors)	
	(max +250°C) (max conductors temperature during short-circuit for 5 seconds)	
ON COMPLETE CABLE		
During Operation :	(-20°C up to +90°C) (in fixed installation)	
During installation :	(- 5°C up to +50°C)	
Note :	**To meet the requirements of installation and use in Zone 1 & Zone 2 (IEC 60079-14) and "Gas & Vapour Tight" the cable must be provided with Penetrating Inner sheath together with correct ATEX approved equipment or accessories.**	

Office	Date	Sign	Rev.	Date	Sign
Drawn by :	04/04/2024	Messa			
Checked :	04/04/2024	Spaccasassi			
Approved :	04/04/2024	Cucinotta			

The data provided, lending assent for the treatment, will be used to the sense of the article 13 of of the Regulation (UE) 2016/679, also through outsiders, in order to allow the realization of the fulfilments informatives, administrative, commercial and accounting related to the contractual relationship. Integral copy of the informative could be requested at our offices.

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ROSETTI MARINO — PROVERLIS — CROSSWIND

ITEM	Tag	C-77-XA-003/B400-SIS-001	: UCP FAULT ALARM / MARSHALLING PCS	Dwg	123A90-DDL-IN-LIS-40091		
	S/Sys	77-30	: HVAC UPS Equipment Room B-300	Module	LD_B-300/LD_B-400		
TASK	code	C10000186	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity CCK	Discipline	Instrumental	Form	CJX10

Multi/Single-Core Instrument Control Cable

CABLE DATA

Type	Cu-MICA-XLPE-OS-LSZH-SWB-LSZH	Cores/Size mm²	1X2X0,75 mm2	Color	ORANGE
From	B300-HSB-001	To	B400-SIS-001		

1	Check cable is as specified in project cable schedule.	PL
2	Check relevant documents are at the latest revision.	OK
3	Check cable is routed in accordance with cable layout drawings.	OK
4	Check cable for any physical damage.	OK
5	Check cable is adequately supported and correctly fixed to rack according to Project specification.	Note
6	Check bending radius is within the specified limits.	OK
7	Check cable is correctly loomed and segregated in accordance with specification.	OK
8	Check cable and core marking are in accordance with specification.	OK
9	Check cable labelling is in accordance with specification.	OK
10	Check that glands, shrouds and earthing are in accordance with specification.	OK
11	Check terminations are in accordance with termination diagram	OK
12	Check gland plate for single core cables is non-ferrous.	NA
13	If required produce Red Line Mark Up for "AS BUILT"	

INSULATION	CORE to EARTH	>999	MΩ
	CORE to CORE	>999	MΩ
	CORE to SCREEN	>999	MΩ
	CORE to ARMr	>999	MΩ
	SCREEN to EARTH	>999	MΩ
	SCREEN to ARMr	>999	MΩ
CONTINUITY	CORES	1,1	Ω
	SCREEN	1,1	Ω
	EARTH	NA	Ω
	ARMr	1,1	Ω
	TEST VOLTS	500	V

TEST ALL CORES AND RECORD LOWEST VALUE

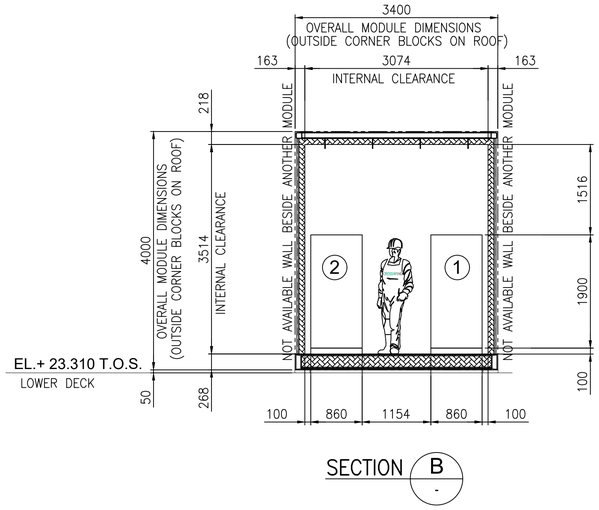
Notes: The lowest value is recorded and must be within project specifications

TESTING INSTRUMENTS USED

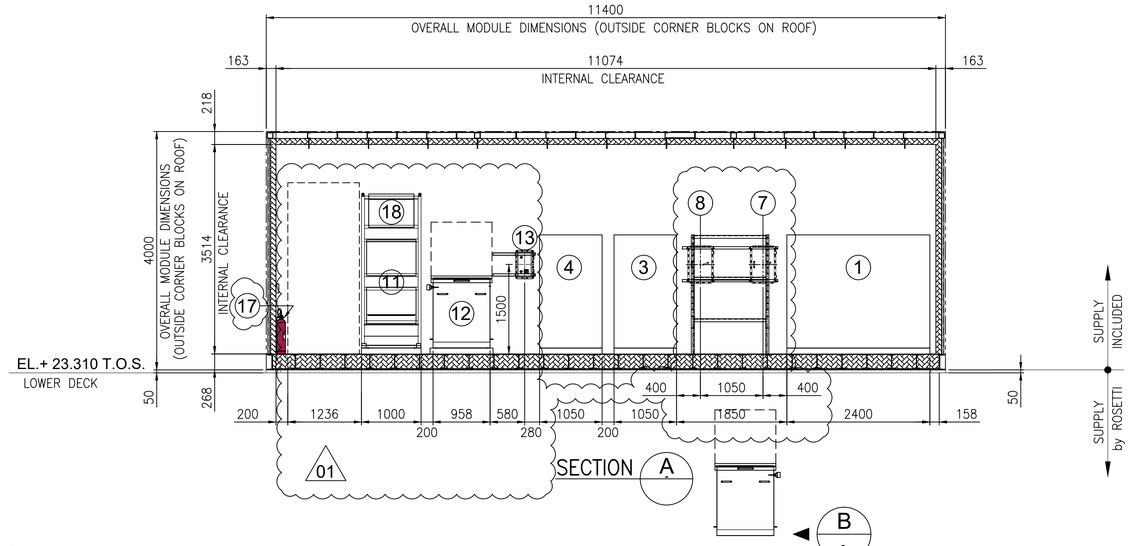
TYPE / SERIAL N°: MEGGER : KEW3125A SERIAL: W8330207 Calibration date: N°7722/24 10/07/2024

Comments Nota 5: refer to PL C30000680

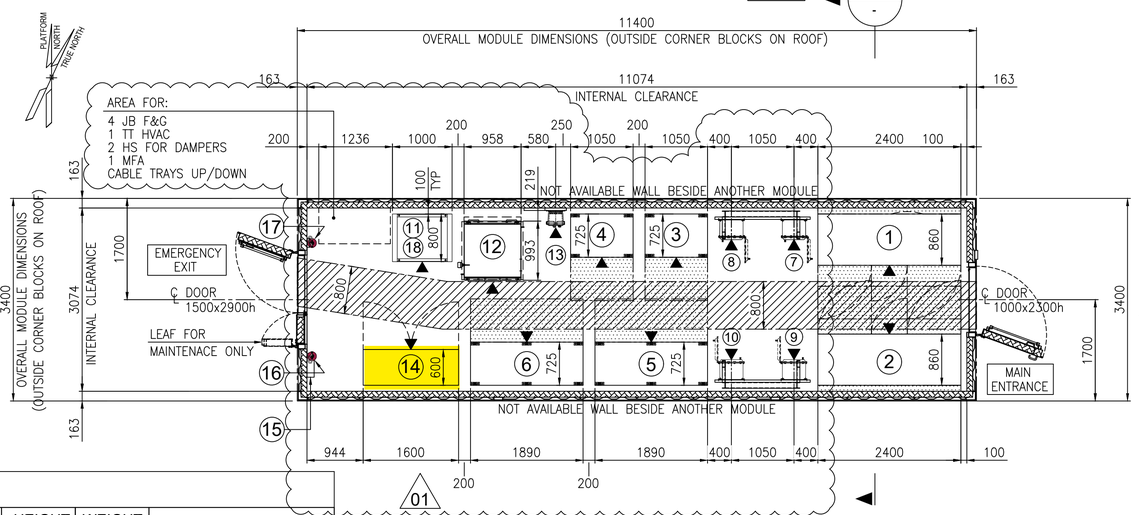
Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM(ROSETTI MARINO)	
Name	Francesco Zucca	Alessio Polo	
Date	2024-11-25	2024-11-25	
Signature	PROVERLIS Digitaly signed by Francesco Zucca 2024-11-25T11:02:45.410Z	PROVERLIS Digitaly signed by Alessio Polo 2024-11-25T18:01:12.107Z	



SECTION B



SECTION A



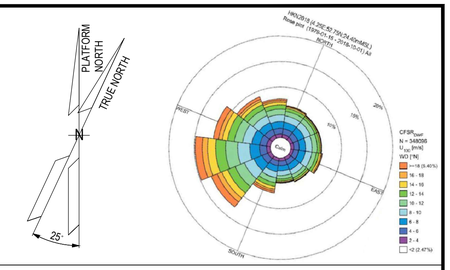
A

B

EQUIPMENT LAYOUT
"B-300" UPSs & BATTERIES SWITCHROOM
BOTTOM PLAN

EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)	NOTES
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258	
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258	
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429	
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA 01	1890	725	1761	3429	
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	450	341	632	100	
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	450	341	632	100	
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	450	341	632	100	
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	450	341	632	100	
11	NC-200F2	NAVAID PANEL 01	1000	800	2600	535	
12	BA-200F2	BATTERY BOX NAVAID	958	993	1210	1552	
13	CB-200F2	ISOLATOR BOX NAVAID	500	400	765	70	
14	B3000-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	1150	
15	-	EYE WASH STATION	228	80	290	5	
16	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20	
17	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20	
18	BC-200F2	BATTERY CHARGER NAVAID 01	-	-	-	-	INCLUDED IN THE RACK OF NC-200F2



NOTES

01

1. U.N.O. ALL DIMENSIONS ARE IN MILLIMETERS.
2. EQUIPMENT DIMENSION ARE DEFINED ACCORDING TO THE LATEST DRAWING AND INFORMATION FROM THE VENDOR
3. DOCUMENT VALID ONLY FOR ELECTRICAL COMPONENT, FOR OTHER SCOPE LOCATION AND INFORMATION, PLEASE REFER TO VENDORS AND PROJECT DOCUMENTS.
   - "B-300" – GENERAL ARRANGEMENT DRAWING DOC. N. 1724000049-AR-DA-00016
   - "B-300" – DETAILED DRAWINGS DOC. N. 1724000049-AR-DD-00020

LEGEND

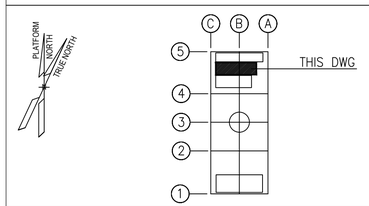
U.N.O. _____ UNLESS NOTED OTHERWISE
T.O.S. _____ TOP OF STEEL
_____ ESCAPE CORRIDOR – WIDTH 800mm.
_____ MAINTENANCE AREA – VENDOR REQUIREMENT
_____ SWITCHGEAR ROOM ENCLOUSURE
_____ FRONT OF EQUIPMENT

HOLDS

REFERENCE

DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DA-00016
"B-300" DETAILED DRAWINGS	1724000049-AR-DD-00020
"B-300" ARCHITECTURAL GENERAL LAYOUT PLAN, WIEW, SECTIONS & TYP. DETAILS	123A90-DDL-AR-DL-10022
PLOT PLAN – LOWER & UPPER DECK	123A90-DDL-PP-DL-70070

KEY PLAN



VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DL-20106**

REV.:	DATE:	SIGNATURE:
1_A	08/08/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	23/07/24	SAM	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	28/03/24	SAM	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

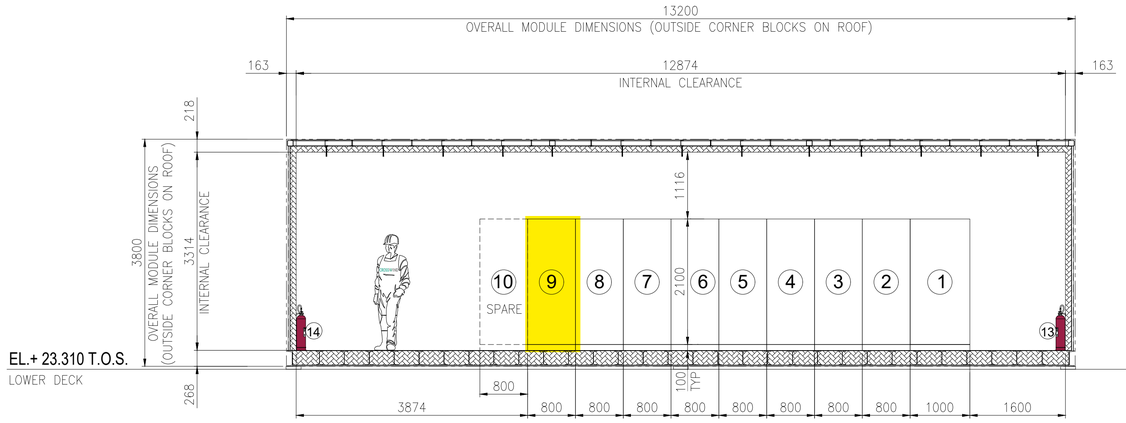
TITLE :
BASE LOAD POWER HUB (BLPH)
ELECTRICAL EQUIPMENT LAYOUT
UPSs & BATTERIES SWITCHROOM

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:50
DRAWN SAM	CHECKED FMA/AMA	APPROVED FPA/DLO	DATE 23/07/24
A1	DRAWING NO. 123A90-DDL-EL-DL-20106	SHEET 001	REV. 01

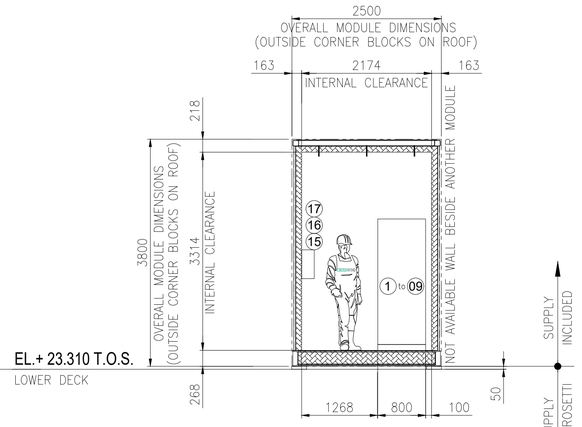
DRAWING NO. 123A90-DDL-EL-DL-20106 REV. 01

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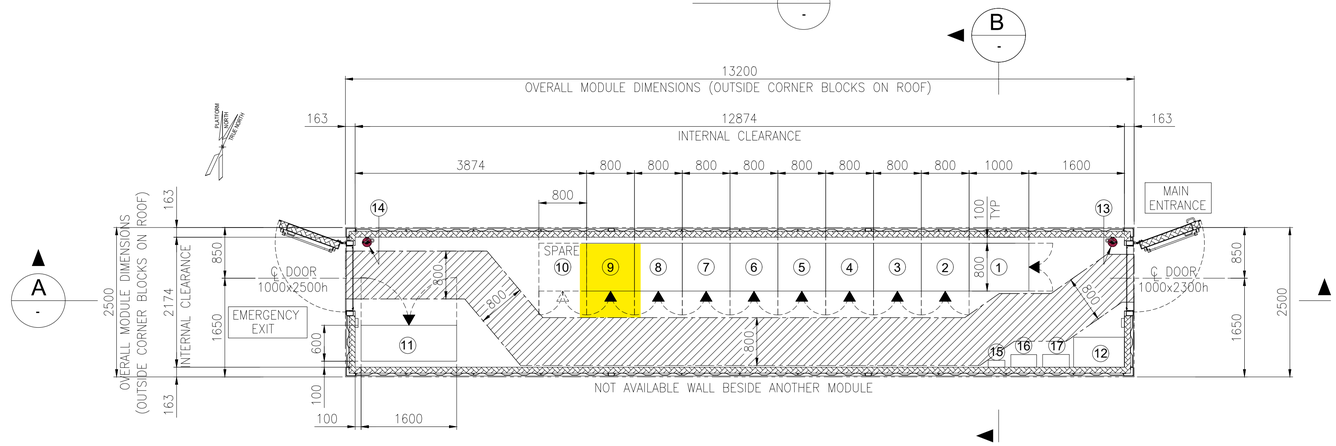
DRAWING NO. 123A90-DDL-IN-DL-40012 REV. 03



SECTION A -



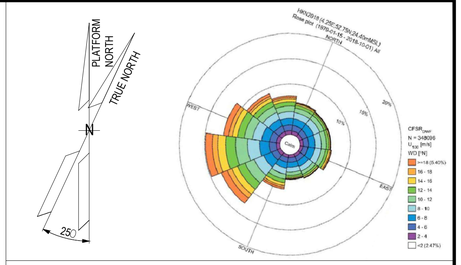
SECTION B -



EQUIPMENT LAYOUT
"B-400" I&T EQUIPMENT ROOM
BOTTOM PLAN

EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	NOTE
1	B400-SRV-001	SERVER CABINET	1000	800	2100	
2	B400-NET-001	NETWORK CABINET	800	800	2100	
3	B400-EMCS-001	EMCS SYSTEM CABINET	800	800	2100	
4	B400-PCS-002	PCS MARSHALLING CABINET	800	800	2100	
5	B400-PCS-001	PCS SYSTEM CABINET 03	800	800	2100	
6	B400-FGS-003	FGS MARSHALLING CABINET 2	800	800	2100	
7	B400-FGS-002	FGS MARSHALLING CABINET 1	800	800	2100	
8	B400-FGS-001	FGS SYSTEM CABINET	800	800	2100	
9	B400-SIS-001	SIS SYSTEM/MARSHALLING CABINET	800	800	2100	
10	-	SPARE				
11	B400-HSB-001	DISTRIBUTION & HVAC PANEL - I&T ROOM	1600	600	2300	
12	-	TABLE	850	500	750	
13	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	
14	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	
15	-	FIRST AID KIT	280	115	200	
16	-	RESUSCITATION UNIT	430	210	480	
17	-	CABINET INCLUDED N.10 ESCAPE MASK	448	213	422	



NOTES

1. U.N.O. ALL DIMENSIONS ARE IN MILLIMETERS.
2. DOCUMENT VALID ONLY FOR INSTRUMENT COMPONENT, FOR OTHER SCOPE LOCATION AND INFORMATION, PLEASE REFER TO VENDORS AND PROJECT DOCUMENTS.

LEGEND

U.N.O. _____ UNLESS NOTED OTHERWISE
T.O.S. _____ TOP OF STEEL
_____ ESCAPE CORRIDOR – WIDTH 800mm.
_____ EQUIPMENT ROOM ENCLOUSURE
_____ FRONT OF EQUIPMENT

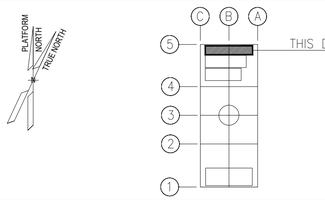
HOLDS

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REFERENCE

DOCUMENT TITLE	DOCUMENT NUMBER
Control System Architecture Detailed Drawings	123A90-DDL-IN-DD-40096
Data Network Architecture Drawings	123A90-DDL-IN-DD-40019
Earthing layouts drawings (CCR, ITER)	123A90-DDL-IN-DL-40013
Instrument and Telecom MCT Layout – Lower Deck	123A90-DDL-IN-DL-40086
"B-400" I&T Equipment Room – Architectural Layout	123A90-DDL-AR-DL-10015
"B-400" ARCHITECTURAL GENERAL LAYOUT PLAN, WIEW, SECTIONS & TYP. DETAILS	123A90-DDL-AR-DL-10015
"B-400" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DA-00017
"B-400" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DD-00021
"B-400" HVAC SYSTEM G.A. and DETAILS	1724000049-HV-DA-00067

KEY PLAN



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
02	27/05/24	MGA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	22/01/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)
00	07/11/23	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND | ROSETTI MARINO

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DL-40012**

REV.:	DATE:	SIGNATURE:
3_A	07/10/24	G.Randi

ROSETTI MARINO SpA

TITLE : BASE LOAD POWER HUB (BLPH)
OFF-SHORE ITER
EQUIPMENT LAYOUT

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:33,3
DRAWN MGA	CHECKED LCA	APPROVED DLO	DATE 27/05/24
A1	DRAWING NO. 123A90-DDL-IN-DL-40012	SHEET 001	REV. 03

File Name : 123A90-DDL-IN-DL-40012 Rev.03.dwg

DRAWING NO. 123A90-DDL-IN-DG-40016

REV. 01

FIELD		I&T EQUIPMENT ROOM (ITER)
HVAC SYSTEMs	CABLE NO	MARSHALLING CABINET
		B400-SIS-001

<01>

B-100 HVAC CONTROL P. UCP

TB-XC 102 (WH) 103 (BK) — NOTE-2

C-77-XA-001/B400-SIS-001
1x2x0.75mm2,ShT+ARM,F.Res,ORANGE,NIS

TB-XA-000 WH 11 BK 12 — 77-XA-001

Shield Bar

B-200 HVAC CONTROL P. UCP

TB-XC 102 (WH) 103 (BK) — NOTE-2

C-77-XA-002/B400-SIS-001
1x2x0.75mm2,ShT+ARM,F.Res,ORANGE,NIS

TB-XA-000 WH 13 BK 14 — 77-XA-002

Shield Bar

B-300 HVAC CONTROL P. UCP

TB-XC 502 (WH) 503 (BK) — NOTE-2

C-77-XA-003/B400-SIS-001
1x2x0.75mm2,ShT+ARM,F.Res,ORANGE,NIS

TB-XA-000 WH 15 BK 16 — 77-XA-003

Shield Bar

B-400 HVAC CONTROL P. UCP

TB-XC 502 (WH) 503 (BK) — NOTE-2

C-77-XA-004/B400-SIS-001
1x2x0.75mm2,ShT+ARM,F.Res,ORANGE,NIS

TB-XA-000 WH 17 BK 18 — 77-XA-004

Shield Bar — I.E.

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_K	18/11/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT– SAFETY SYSTEM WIRING DIAGRAMS
HVAC SYSTEM FAULT ALARM

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

	DRAWING NO.	SHEET	REV.
A3	123A90-DDL-IN-DG-40016	015	01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

DRAWING NO. 123A90-DDL-IN-DG-40016

REV. 01

NOTES:

1. ALL SPARE ENTRIES SHALL BE PROVIDED WITH CERTIFIED EX PROOF PLUGS.
2. CABLE SCREENS / DRAIN WIRE SHALL BE SECURELY INSULATED AND TIED BACK IN THE INSTRUMENT SIDE AND SHAL BE TERMINATED IN THE MARSHALLING SIDE OF THE PANEL.
3. SPARE PAIRS / TRIADS SHALL BE CONNECTED TO TERMINALS IN JUNCTION BOX AND PANEL / MARSHALLING CABINETS.
4. ALL CABLE SCREENS TO BE TERMINATED AT THE INSTRUMENT EARTH BAR IN THE RESPECTIVE EARTH BARS (IS OR NIS) AS APPLICABLE IN THE MARSHALLING CABINET.
5. CONNECTION TERMINAL BLOCK SHALL BE DEFINED DURING CONSTRUCTION PHASE.

<01>

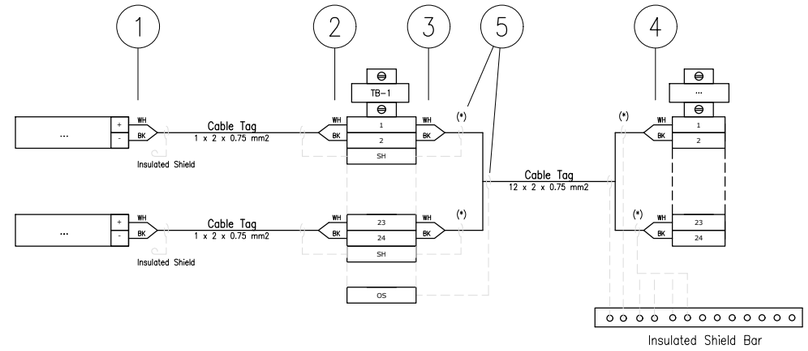
LEGENDS & SYMBOLS:

LEGEND:

I.E.	- GREEN ——— INSTRUMENT SIGNAL EARTH
P.E.	- GREEN/YELLOW —— P.E. EARTH/BONDING
	- TERMINAL BLOCK (TB)
WH	- WHITE
BK	- BLACK
RD	- RED
S	- SHIELD TERMINAL
OS	- OVERALL SHIELD TERMINAL
O/A Shld	- OVERALL SHIELD
I&O/A Shld	- INDIVIDUAL & OVERALL SHIELD
NIS	- NON INTRINSICALLY SAFE
IS	- INTRINSICALLY SAFE
P.E.	- PLANT EARTH
PCS	- PROCESS CONTROL SYSTEM <01>
ESD	- EMERGENCY SHUTDOWN SYSTEM
SIS	- SAFETY INSTRUMENT SYSTEM
FGS	- FIRE & GAS SYSTEM <01>
MC	- MARSHALLING CABINET
AI	- ANALOGUE INPUT
AO	- ANALOGUE OUTPUT
DI	- DIGITAL INPUT
DO	- DIGITAL OUTPUT
JE	- JUNCTION BOX FOR ELECTRICAL SIGNALS <01>

TYPICAL WIRE CROSS-FERRULING:

PHILOSOPHY OF CROSS-FERRULING: <01>



(*) Single shield is foreseen only for AI/AO signals.

1 - INSTRUMENT TERMINAL NO. OR POLARITY/JB NO./JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

2 - INSTRUMENT TERMINAL NO. OR POLARITY/INSTRUMENT TAG NO./JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

3 - PAIR OR CORE NO./MARSHALLING CABINET NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

4 - PAIR OR CORE NO./JB NO./JB TERMINAL NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

5 - HEAT SHRINKABLE BLACK FOR SHIELD OF NIS INSTRUMENT CABLE.
(HEAT SHRINKABLE BLUE FOR SHIELD OF NIS INSTRUMENT CABLE)

6 - IN CASE OF CONNECTION FROM RIGHT TO LEFT, ORDER OF INFORMATION SHALL BE MIRRORED

REFERENCE DRAWINGS

PIPING AND INSTRUMENT DIAGRAM	123A90-DDL-PR-PID-80009
INSTRUMENT INDEX	123A90-DDL-IN-LIS-40088 Rev.01
F&G DETECTORS LAYOUT	123A90-DDL-SAF-DL-30027

CROSSWIND

ROSETTI MARINO

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_K	18/11/24	G.Randi

ROSETTI MARINO SpA

TITLE :
BASE LOAD POWER HUB (BLPH)
INSTRUMENT – SAFETY SYSTEM WIRING DIAGRAMS
GENERAL NOTES/LEGENDS

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

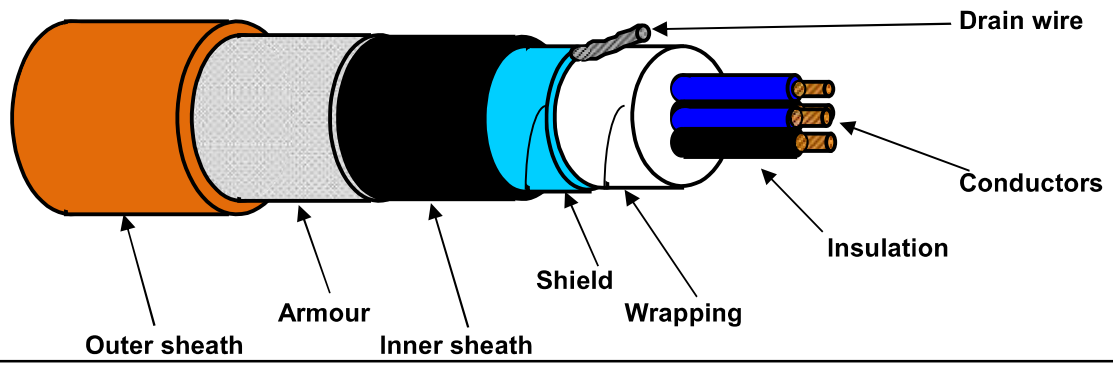
	DRAWING NO.	SHEET	REV.
A3	123A90-DDL-IN-DG-40016	003	01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

Tag Number	Category	Discipline	Eng Status	NativeDoc	Parent Tag	Grouping	Main Function	Secondary Function	Area	From Tag	From Main Function	From Area	To Tag	To Main Function	To Area	Material ID	Material Desc.	Gland Standard	From Gland	From Entry	From Fitting	To Gland	To Entry	To Fitting	Routing	Routing Manual
C-77-XA-003/B400-SIS-001	Cable	IN	VFC	123A90-DDL-IN-LIS-40091		Int-Ext				B300-HSB-001	Distribution & HVAC Panel - Shelter AC UPS Fitted with UPS System Equipment Room	Lower Deck (B-300)	B400-SIS-001	Marshalling SIS	Lower Deck (B-400)	SMICV08-1X2X0,75	Cable Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250V (300V) 1x2x0,75mm² - Orange	M20S	T2_M20S_Double			n.a.				I-MCT-301 / L-SEC-4 / L-SEC-1B / L-SEC-1A / I-MCT-401

Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250 V (300 V)

1X2X0,75 - INSTRUMENT CABLE - Fire Resistant - Not I.S.



TECHNICAL FEATURES

Conductors :	**7-STRANDED** plain/bare soft annealed copper wires	**IEC 60228 Class 2**
Insulation :	Mica/Glass Tape (MGT) plus XLPE, Nominal Thickness 0,5 mm	
Cores colour code :	**White - Black**	
Pair Assembling :	Not required	
Pair Wrapping:	Not required	
Drain wire :	Not required	
Pair Shield :	Not required	
Shield Insulation :	Not required	
Total Assembling :	10/1mt	
Overall Wrapping:	by polyester-PET Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Drain wire :	7-Stranded **TINNED** annealed copper drain wire, **size 0,5 sqmm**, in continuous contact with the shield	
Overall Shield :	by Aluminium-**Al** Minimum Thickness 0,008 mm / polyester-**PET** Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Inner sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, Average Thickness 1,1 mm	
Inner sheath color code:	**Black**	
Armour :	Galvanized Steel Wire Braid Armour (coverage ≥ 90%)	
Outer sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, moisture/abrasion/UV Resistant, Average Thickness 1,2 mm	
Outer sheath color code:	**Orange**	
Outer printing (INKJET) :	**FLEI - 1X2X0,75 SQMM - MGT/XLPE/OS/LSZH/SWB/LSZH - 150/250 V - IEC 60331.21 -**	
(every 1000 mm)	**IEC 60332.1.2 - IEC 60332.3.22 - Year of Manufacture - CE + Meter Marking**	
Under armour diameter :	(8,5 ± 10%) mm	
Over armour diameter :	(9,3 ± 10%) mm	
Outer diameter :	(11,7 ± 10%) mm	
Bending radius :	cable outer diameter x 10 (in fixed installation)	
Voltage Test :	1,5 kV a.c. for 5' (Between Cores) / 1,5 kV a.c. for 5' (Between Cores - Shield)	
Conductors DC Resistance :	≤ 26 Ω/km (@ 20°C)	
Insulation Resistance :	≥ 1000 MΩ x Km (@ 20°C)	
Mutual Capacitance :	≤ 150 nF/km	
L/R ratio :	≤ 25 µH/Ω	
Inductance :	≤ 0,9 mH/km	
Applicable Standards		
Design Guidelines :	**IEC 60092.376**	
ON COMPLETE CABLE		
Fire Resistant test :	**IEC 60331.21**	
Flame Retardant test :	IEC 60332.1.2 - IEC 60332.3.22	
Acid Gas generation :	IEC 60754.1/2	
Smoke density/Light Transmittance :	IEC 61034.2 (LT ≥ 60%)	
Hazardous Areas :	IEC 60079.14 par.9.3.2a	
Temperature Range :		
ON INSULATION	(max +90°C) (max continuous operation temperature of conductors)	
	(max +250°C) (max conductors temperature during short-circuit for 5 seconds)	
ON COMPLETE CABLE		
During Operation :	(-20°C up to +90°C) (in fixed installation)	
During installation :	(- 5°C up to +50°C)	
Note :	**To meet the requirements of installation and use in Zone 1 & Zone 2 (IEC 60079-14) and "Gas & Vapour Tight" the cable must be provided with Penetrating Inner sheath together with correct ATEX approved equipment or accessories.**	

Office	Date	Sign	Rev.	Date	Sign
Drawn by :	04/04/2024	Messa			
Checked :	04/04/2024	Spaccasassi			
Approved :	04/04/2024	Cucinotta			

The data provided herein are meant for the transaction will be used in the sense of the article 19 of the Regulation (UE) 2016/679, also by such subjects in order to allow the realization of the fulfilments informatives, administrative, commercial and accounting related to the contractual relationship. Integral copy of the informative could be requested at our offices.
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ROSETTI MARINO | PROVERLIS | CROSSWIND

ITEM	Tag	C-77-HS-007B/950-JE-04207 : PUSH BUTTON / MARSHALLING PCS				Dwg	123A90-DDL-IN-LIS-40091
	S/Sys	77-30 : HVAC UPS Equipment Room B-300				Module	LD_B-300_Ext/LD_B-300
TASK	code	C10000378		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Instrumental Form CJX10		Multi/Single-Core Instrument Control Cable

CABLE DATA

Type: Cu-MICA-XLPE-OS-LSZH-SWB-LSZH | Cores/Size mm²: 2x2.5 mm2 | Color: ORANGE

From: 77-HS-007B | To: 950-JE-04207

1	Check cable is as specified in project cable schedule.	OK
2	Check relevant documents are at the latest revision.	OK
3	Check cable is routed in accordance with cable layout drawings.	OK
4	Check cable for any physical damage.	OK
5	Check cable is adequately supported and correctly fixed to rack according to Project specification.	OK
6	Check bending radius is within the specified limits.	OK
7	Check cable is correctly loomed and segregated in accordance with specification.	OK
8	Check cable and core marking are in accordance with specification.	OK
9	Check cable labelling is in accordance with specification.	PL
10	Check that glands, shrouds and earthing are in accordance with specification.	OK
11	Check terminations are in accordance with termination diagram	OK
12	Check gland plate for single core cables is non-ferrous.	NA
13	If required produce Red Line Mark Up for "AS BUILT"	

INSULATION	CORE to EARTH	>999	MΩ
	CORE to CORE	>999	MΩ
	CORE to SCREEN	>999	MΩ
	CORE to ARMr	>999	MΩ
	SCREEN to EARTH	>999	MΩ
	SCREEN to ARMr	>999	MΩ
CONTINUITY	CORES	0.5	Ω
	SCREEN	0.7	Ω
	EARTH	0.6	Ω
	ARMr	0.7	Ω
	TEST VOLTS	500	V

TEST ALL CORES AND RECORD LOWEST VALUE

Notes: The lowest value is recorded and must be within project specifications

TESTING INSTRUMENTS USED

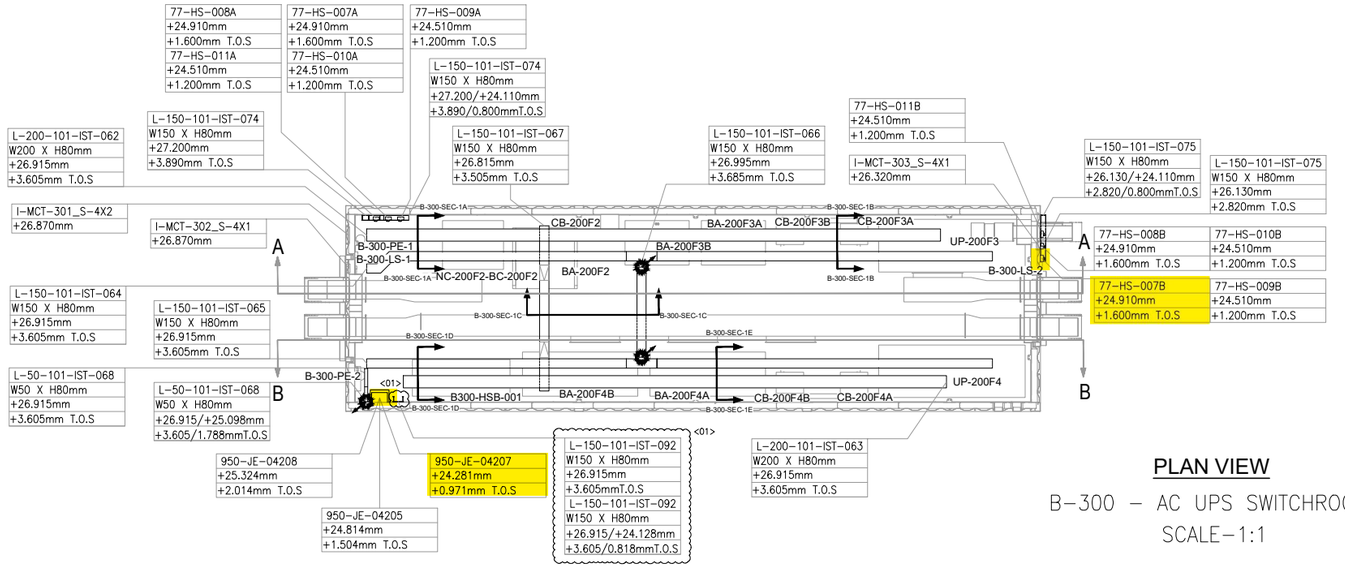
TYPE / SERIAL N°: KEW3125A / W8330207 Calibration date: 10-07-2024

Comments

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM (Rosetti Marino)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-10-11	2024-10-14	
Signature	PROVERLIS Digitaly signed by Carmelo Bongiovanni 2024-10-11T15:35:17.574Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2024-10-14T16:17:51.034Z	

DRAWING NO. 123A90-DDL-IN-DL-40115

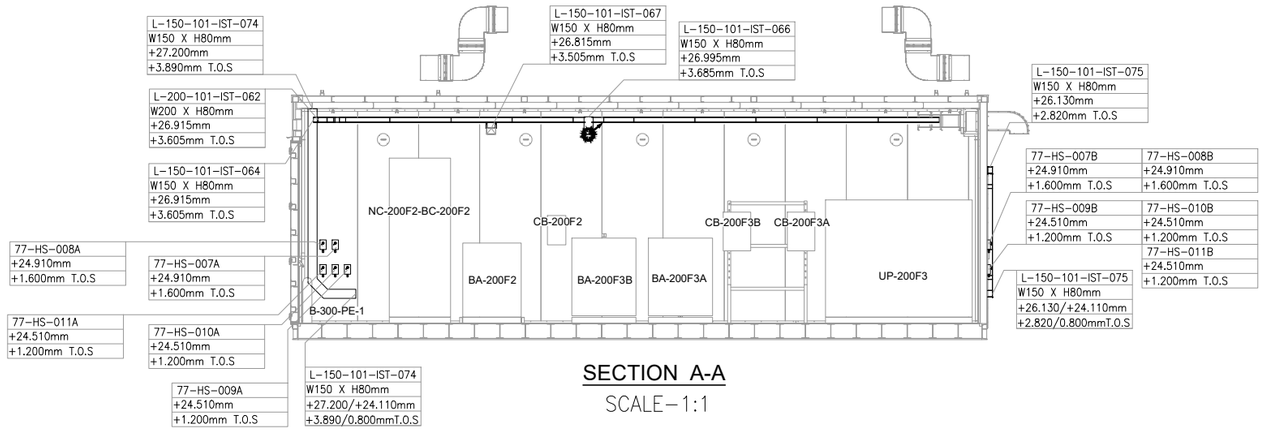
REV. 01



PLAN VIEW

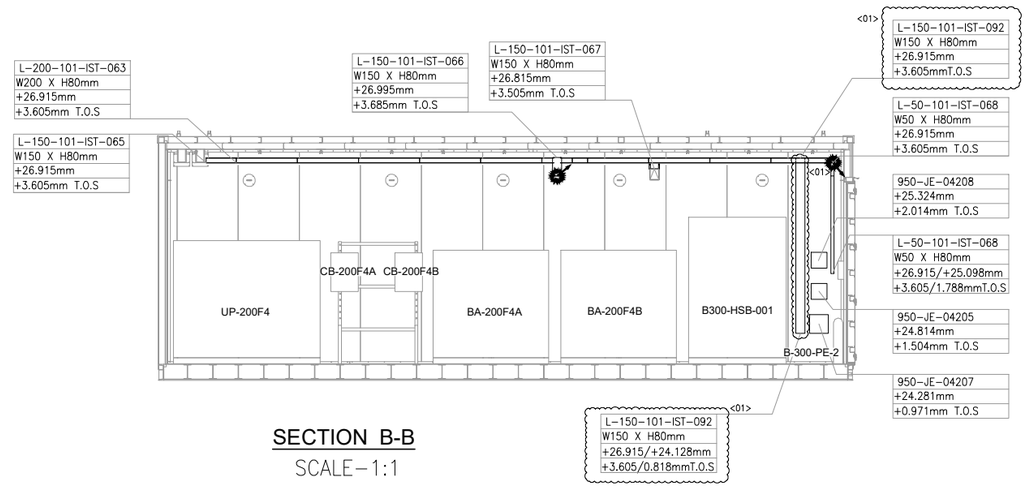
B-300 – AC UPS SWITCHROOM

SCALE-1:1



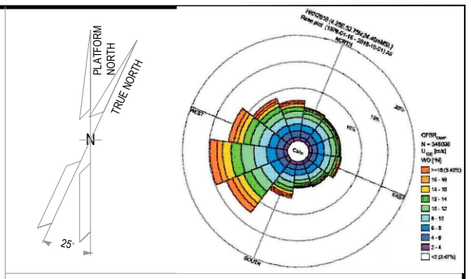
SECTION A-A

SCALE-1:1



SECTION B-B

SCALE-1:1



NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DRAWING IS VALID ONLY FOR CONTAINER CABLE TRAY LAYOUT.

LEGEND

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DL-40115**

REV.:	DATE:	SIGNATURE:
1_A	07/10/24	G.Randi

ROSETTI MARINO SpA

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-IN-DL-40081	INSTRUMENT LAYOUT - UPPER DECK
123A90-DDL-IN-LIS-40091	INSTRUMENT CABLE LIST
123A90-DDL-IN-DG-40015	INSTRUMENT-CCS WIRING DIAGRAMS
123A90-DDL-IN-DG-40016	INSTRUMENT-SAFETY SYSTEM WIRING DIAGRAMS
123A90-DDL-IN-DL-40083	INSTRUMENT MAIN CABLES ROUTING-LOWER DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/08/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)

Base Load Power HUB Cables Tray Layout

B-300 Container Lower Deck – TOS EL. 23.310m

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:50
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 04/10/24

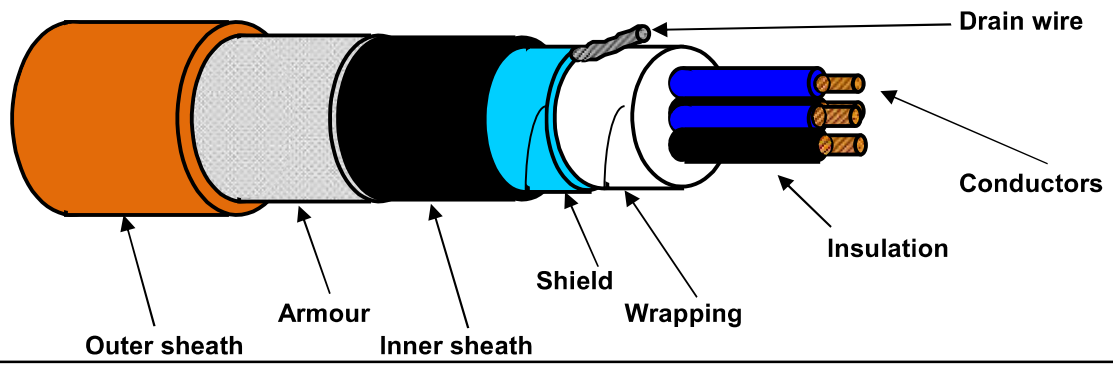
A1	DRAWING NO. 123A90-DDL-IN-DL-40115	SHEET 001	REV. 01

File Name : 123A90-DDL-IN-DL-40115 REV01.dwg

Tag Number	Category	Discipline	Eng Status	NativeDoc	Parent Tag	Grouping	Main Function	Secondary Function	Area	From Tag	From Main Function	From Area	To Tag	To Main Function	To Area	Material ID	Material Desc.	Gland Standard	From Gland	From Entry	From Fitting	To Gland	To Entry	To Fitting	Routing	Routing Manual
C-77-HS-007B/950-JE-04207	Cable	IN	VFC	123A90-DDL-IN-LIS-40091		Int-Ext				77-HS-007B	Hand Switch	Lower Deck (B-300) Ext.	950-JE-04207	DO JB to FGS	Lower Deck (B-300)	SMICV12-2X2,5	Cable Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250V (300V) 2x2,5mm² - Orange	M20	T2_M20_Double			T2_M20_Double				B-300-SEC-1B / B-300-SEC-1C / B-300-SEC-1D

Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250 V (300 V)

2X2,5 - INSTRUMENT CABLE - Fire Resistant - Not I.S.



TECHNICAL FEATURES

Conductors :	**7-STRANDED** plain/bare soft annealed copper wires	**IEC 60228 Class 2**
Insulation :	Mica/Glass Tape (MGT) plus XLPE, Nominal Thickness 0,6 mm	
Cores colour code :	**Black NUMBERED (from 1 to 2)**	
Pair Assembling :	Not required	
Pair Wrapping:	Not required	
Drain wire :	Not required	
Pair Shield :	Not required	
Shield Insulation :	Not required	
Total Assembling :	8/1mt	
Overall Wrapping:	by polyester-PET Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Drain wire :	7-Stranded **TINNED** annealed copper drain wire, **size 1,0 sqmm**, in continuous contact with the shield	
Overall Shield :	by Aluminium-**Al** Minimum Thickness 0,008 mm / polyester-**PET** Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Inner sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, Average Thickness 1,1 mm	
Inner sheath color code:	**Black**	
Armour :	Galvanized Steel Wire Braid Armour (coverage ≥ 90%)	
Outer sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, moisture/abrasion/UV Resistant,	
	Average Thickness 1,3 mm	
Outer sheath color code:	**Orange**	
Outer printing (INKJET) :	**FLEI - 2X2,5 SQMM - MGT/XLPE/OS/LSZH/SWB/LSZH - 150/250 V - IEC 60331.21 -**	
(every 1000 mm)	**IEC 60332.1.2 - IEC 60332.3.22 - Year of Manufacture - CE + Meter Marking**	
Under armour diameter :	(10,3 ± 10%) mm	
Over armour diameter :	(11,5 ± 10%) mm	
Outer diameter :	(14,1 ± 10%) mm	
Bending radius :	cable outer diameter x 10 (in fixed installation)	
Voltage Test :	1,5 kV a.c. for 5' (Between Cores) / 1,5 kV a.c. for 5' (Between Cores - Shield)	
Conductors DC Resistance :	≤ 7,86 Ω/km (@ 20°C)	
Insulation Resistance :	≥ 1000 MΩ x Km (@ 20°C)	
Applicable Standards		
Design Guidelines :	**IEC 60092.376**	
ON COMPLETE CABLE		
Fire Resistant test :	**IEC 60331.21**	
Flame Retardant test :	IEC 60332.1.2 - IEC 60332.3.22	
Acid Gas generation :	IEC 60754.1/2	
Smoke density/Light Transmittance :	IEC 61034.2 (LT ≥ 60%)	
Hazardous Areas :	IEC 60079.14 par.9.3.2a	
Temperature Range :		
ON INSULATION	(max +90°C) (max continuous operation temperature of conductors)	
	(max +250°C) (max conductors temperature during short-circuit for 5 seconds)	
ON COMPLETE CABLE		
During Operation :	(-20°C up to +90°C) (in fixed installation)	
During installation :	(- 5°C up to +50°C)	
Note :	**To meet the requirements of installation and use in Zone 1 & Zone 2 (IEC 60079-14) and "Gas & Vapour Tight" the cable must be provided with Penetrating Inner sheath together with correct ATEX approved equipment or accessories.**	

Office	Date	Sign	Rev.	Date	Sign
Drawn by :	04/04/2024	Messa			
Checked :	04/04/2024	Spaccasassi			
Approved :	04/04/2024	Cucinotta			

The data provided, lending assent for the treatment, will be used to the sense of the article 13 of of the Regulation (UE) 2016/679, also through outsiders, in order to allow the realization of the fulfilments informatives, administrative, commercial and accounting related to the contractual relationship. Integral copy of the informative could be requested at our offices.

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DRAWING NO. 123-A90-DDL-IN-DG-40016

REV. 01

FIELD

INSTRUMENTS

JUNCTION BOX

950-JE-04207

MULTICABLE

No.

I&T EQUIPMENT ROOM (ITER)

MARSHALLING CABINET

B400-FGS-002

<01>

B-300 UPS Room

950-XZ-04202 (+/-) 1BK 2BK — NOTE-2 — C-950-XZ-04202/950-JE-04207 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 1BK 1 / 1BK 2BK 2 / SH

950-XL-04203 (+/-) 1BK 2BK — NOTE-2 — C-950-XL-04203/950-JE-04207 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → 1BK 3 / 3BK 4 / SH

950-XL-04204 (+/-) 1BK 2BK — NOTE-2 — C-950-XL-04204/950-JE-04207 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → 1BK 5 / 5BK 6 / SH

B-300 OUTDOOR

1BK 12 2BK 22 77-HS-007B 11 21 1BK 2BK — NOTE-2 — C-77-HS-007B/950-JE-04207 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → 1BK 7 / 7BK 8 / SH

NOTE-2

C-77-HS-007A/77-HS-007B

~~C-77-HY-007D/77-HY-007A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77007

77-HY-007 1 2 1BK 2BK — C-77-HY-007/77-HS-007A 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 1BK 12 2BK 22 77-HS-007A 11 21 1BK 2BK — NOTE-2

B-300 INDOOR

B-300 OUTDOOR

NOTE-2 NOTE-2

950-JE-04207/B400-FGS-002

24x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

1BK 12 2BK 22 77-HS-008B 11 21 1BK 2BK — NOTE-2 — C-77-HS-008B/950-JE-04207 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → 1BK 9 / 9BK 10 / SH

NOTE-2

C-77-HS-008A/77-HS-008B

~~C-77-HS-008B/77-HS-008A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77008

77-HY-008 1 2 1BK 2BK — C-77-HY-008/77-HS-008A 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 1BK 12 2BK 22 77-HS-008A 11 21 1BK 2BK — NOTE-2

B-300 INDOOR

B-300 OUTDOOR

NOTE-2 NOTE-2

1BK 12 2BK 22 77-HS-009B 11 21 1BK 2BK — NOTE-2 — C-77-HS-009B/950-JE-04207 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → 1BK 11 / 11BK 12 / SH

NOTE-2

C-77-HS-009A/77-HS-009B

~~C-77-HS-009B/77-HS-009A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77009

77-HY-009 1 2 1BK 2BK — C-77-HY-009/77-HS-009A 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 1BK 12 2BK 22 77-HS-009A 11 21 1BK 2BK — NOTE-2

B-300 INDOOR

B-300 OUTDOOR

NOTE-2 NOTE-2

1BK 12 2BK 22 77-HS-010B 11 21 1BK 2BK — NOTE-2 — C-77-HS-010B/950-JE-04207 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → 1BK 13 / 13BK 14 / SH

NOTE-2

C-77-HS-010A/77-HS-010B

~~C-77-HS-010B/77-HS-010A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77010

77-HY-010 1 2 1BK 2BK — C-77-HY-010/77-HS-010A 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 1BK 12 2BK 22 77-HS-010A 11 21 1BK 2BK — NOTE-2

B-300 INDOOR

B-300 OUTDOOR

NOTE-2 NOTE-2

1BK 12 2BK 22 77-HS-011B 11 21 1BK 2BK — NOTE-2 — C-77-HS-011B/950-JE-04207 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → 1BK 15 / 15BK 16 / SH / 17BK 17 / 18 / SH / 19BK 19 / 20BK 20 / SH / 21BK 21 / 22BK 22 / SH / 23BK 23 / 24BK 24 / SH / OS

NOTE-2

C-77-HS-011A/77-HS-011B

~~C-77-HS-011B/77-HS-011A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77011

77-HY-011 1 2 1BK 2BK — C-77-HY-011/77-HS-011A 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 1BK 12 2BK 22 77-HS-011A 11 21 1BK 2BK — NOTE-2

B-300 INDOOR

B-300 OUTDOOR

NOTE-2 NOTE-2

TB-950-JE-04207

1BK 1 — 950-XZ-04202

2BK 2

3BK 3 — 950-XL-04203

4BK 4

5BK 5 — 950-XL-04204

6BK 6

7BK 7 — 77-HY-007

8BK 8

9BK 9 — 77-HY-008

10BK 10

11BK 11 — 77-HY-009

12BK 12

13BK 13 — 77-HY-010

14BK 14

15BK 15 — 77-HY-011

16BK 16

17BK 17 — SPARE

18BK 18

19BK 19 — SPARE

20BK 20

21BK 21 — SPARE

22BK 22

23BK 23 — SPARE

24BK 24

Shield Bar — I.E.

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_D	14/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT–FGS WIRING DIAGRAMS
950–JE–04207

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

A3	DRAWING NO. 123A90–DDL–IN–DG–40016	SHEET 069	REV. 01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

DRAWING NO. 123A90-DDL-IN-DG-40016

REV. 01

NOTES:

1. ALL SPARE ENTRIES SHALL BE PROVIDED WITH CERTIFIED EX PROOF PLUGS.
2. CABLE SCREENS / DRAIN WIRE SHALL BE SECURELY INSULATED AND TIED BACK IN THE INSTRUMENT SIDE AND SHAL BE TERMINATED IN THE MARSHALLING SIDE OF THE PANEL.
3. SPARE PAIRS / TRIADS SHALL BE CONNECTED TO TERMINALS IN JUNCTION BOX AND PANEL / MARSHALLING CABINETS.
4. ALL CABLE SCREENS TO BE TERMINATED AT THE INSTRUMENT EARTH BAR IN THE RESPECTIVE EARTH BARS (IS OR NIS) AS APPLICABLE IN THE MARSHALLING CABINET.
5. CONNECTION TERMINAL BLOCK SHALL BE DEFINED DURING CONSTRUCTION PHASE.

<01>

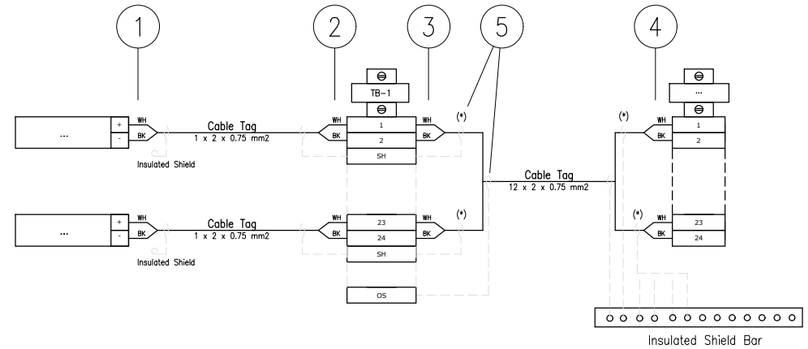
LEGENDS & SYMBOLS:

LEGEND:

I.E.	- GREEN ——— INSTRUMENT SIGNAL EARTH
P.E.	- GREEN/YELLOW —— P.E. EARTH/BONDING
	- TERMINAL BLOCK (TB)
WH	- WHITE
BK	- BLACK
RD	- RED
S	- SHIELD TERMINAL
OS	- OVERALL SHIELD TERMINAL
O/A Shld	- OVERALL SHIELD
I&O/A Shld	- INDIVIDUAL & OVERALL SHIELD
NIS	- NON INTRINSICALLY SAFE
IS	- INTRINSICALLY SAFE
P.E.	- PLANT EARTH
PCS	- PROCESS CONTROL SYSTEM <01>
ESD	- EMERGENCY SHUTDOWN SYSTEM
SIS	- SAFETY INSTRUMENT SYSTEM
FGS	- FIRE & GAS SYSTEM <01>
MC	- MARSHALLING CABINET
AI	- ANALOGUE INPUT
AO	- ANALOGUE OUTPUT
DI	- DIGITAL INPUT
DO	- DIGITAL OUTPUT
JE	- JUNCTION BOX FOR ELECTRICAL SIGNALS <01>

TYPICAL WIRE CROSS-FERRULING:

PHILOSOPHY OF CROSS-FERRULING: <01>



(*) Single shield is foreseen only for AI/AO signals.

1 - INSTRUMENT TERMINAL NO. OR POLARITY/JB NO./JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

2 - INSTRUMENT TAG NO./INSTRUMENT TERMINAL NO. OR POLARITY/JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

3 - PAIR OR CORE NO./MARSHALLING CABINET NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

4 - PAIR OR CORE NO./JB NO./JB TERMINAL NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

5 - HEAT SHRINKABLE BLACK FOR SHIELD OF NIS INSTRUMENT CABLE.
(HEAT SHRINKABLE BLUE FOR SHIELD OF NIS INSTRUMENT CABLE)

REFERENCE DRAWINGS

PIPING AND INSTRUMENT DIAGRAM	123A90-DDL-PR-PID-80009
INSTRUMENT INDEX	123A90-DDL-IN-LIS-40088 Rev.01
F&G DETECTORS LAYOUT	123A90-DDL-SAF-DL-30027

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_D	14/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
INSTRUMENT – SAFETY SYSTEM WIRING DIAGRAMS
GENERAL NOTES/LEGENDS

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

	DRAWING NO.	SHEET	REV.
A3	123A90-DDL-IN-DG-40016	003	01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

ROSETTI MARINO | PROVERLIS | CROSSWIND

ITEM	Tag	C-77-HS-007A/77-HS-007B : PUSH BUTTON / MARSHALLING PCS			Dwg	123A90-DDL-IN-LIS-40091	
	S/Sys	77-30 : HVAC UPS Equipment Room B-300			Module	LD_B-300/LD_B-300_Ext	
TASK	code	C10000379	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity	CCK	Discipline	Instrumental	Form	CJX10	Multi/Single-Core Instrument Control Cable

CABLE DATA

Type	Cu-MICA-XLPE-OS-LSZH-SWB-LSZH	Cores/Size mm²	2x2.5 mm2	Color	ORANGE
From	77-HS-007A	To	77-HS-007B		

1	Check cable is as specified in project cable schedule.	OK
2	Check relevant documents are at the latest revision.	OK
3	Check cable is routed in accordance with cable layout drawings.	OK
4	Check cable for any physical damage.	OK
5	Check cable is adequately supported and correctly fixed to rack according to Project specification.	OK
6	Check bending radius is within the specified limits.	OK
7	Check cable is correctly loomed and segregated in accordance with specification.	OK
8	Check cable and core marking are in accordance with specification.	OK
9	Check cable labelling is in accordance with specification.	OK
10	Check that glands, shrouds and earthing are in accordance with specification.	OK
11	Check terminations are in accordance with termination diagram	OK
12	Check gland plate for single core cables is non-ferrous.	NA
13	If required produce Red Line Mark Up for "AS BUILT"	

INSULATION	CORE to EARTH		>999	MΩ
	CORE to CORE		>999	MΩ
	CORE to SCREEN		>999	MΩ
	CORE to ARMr		>999	MΩ
	SCREEN to EARTH		>999	MΩ
	SCREEN to ARMr		>999	MΩ
CONTINUITY	CORES		0.6	Ω
	SCREEN		0.6	Ω
	EARTH		0.7	Ω
	ARMr		0.6	Ω
	TEST VOLTS		500	V

TEST ALL CORES AND RECORD LOWEST VALUE

Notes: The lowest value is recorded and must be within project specifications

TESTING INSTRUMENTS USED

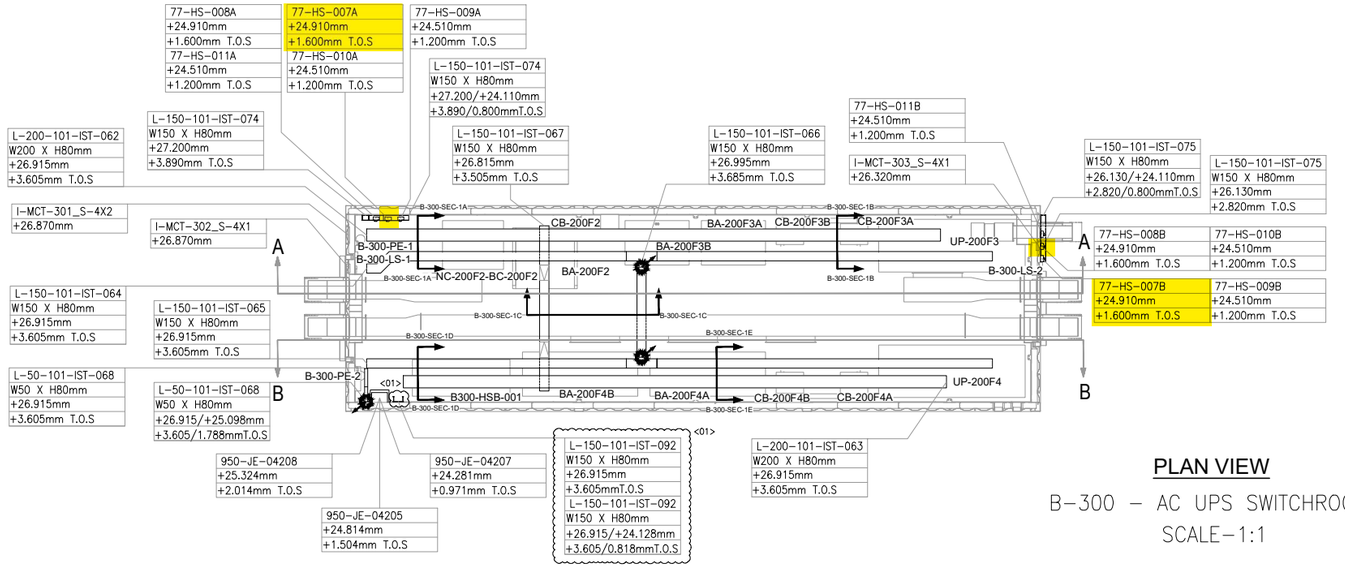
TYPE / SERIAL N°: KEW3125A / W8330207 Calibration date: 10-07-2024

Comments

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM (Rosetti Marino)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-10-11	2024-10-14	
Signature	PROVERLIS Digitaly signed by Carmelo Bongiovanni 2024-10-11T15:35:30.597Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2024-10-14T16:18:45.906Z	

DRAWING NO. 123A90-DDL-IN-DL-40115

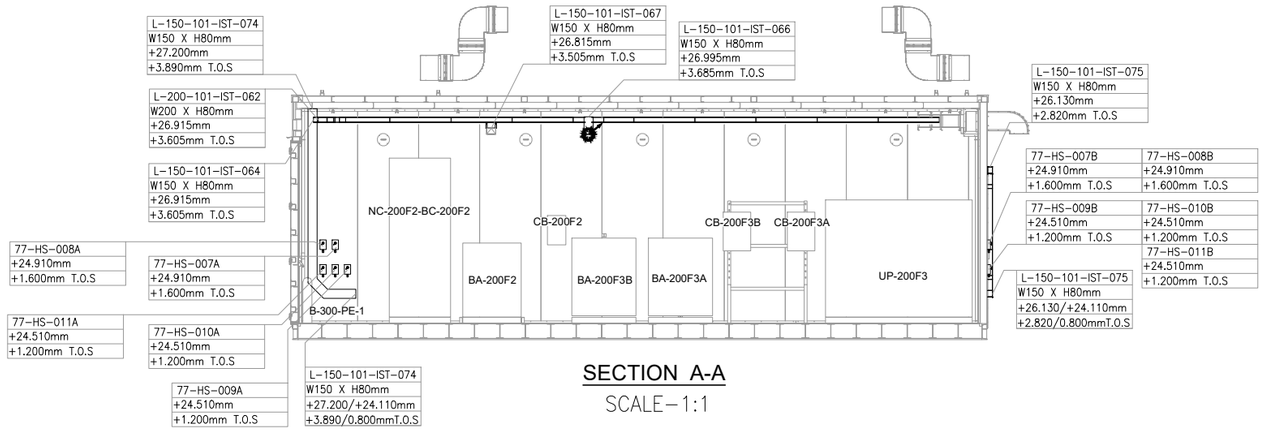
REV. 01



PLAN VIEW

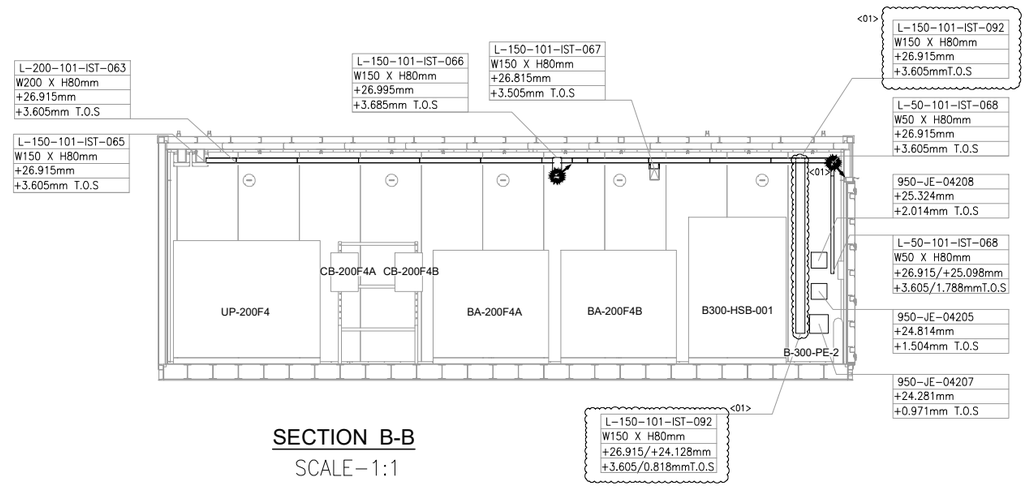
B-300 – AC UPS SWITCHROOM

SCALE-1:1



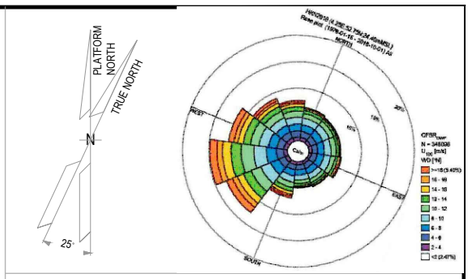
SECTION A-A

SCALE-1:1



SECTION B-B

SCALE-1:1



NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DRAWING IS VALID ONLY FOR CONTAINER CABLE TRAY LAYOUT.

LEGEND

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DL-40115**

REV.:	DATE:	SIGNATURE:
1_A	07/10/24	G.Randi

ROSETTI MARINO SpA

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-IN-DL-40081	INSTRUMENT LAYOUT - UPPER DECK
123A90-DDL-IN-LIS-40091	INSTRUMENT CABLE LIST
123A90-DDL-IN-DG-40015	INSTRUMENT-CCS WIRING DIAGRAMS
123A90-DDL-IN-DG-40016	INSTRUMENT-SAFETY SYSTEM WIRING DIAGRAMS
123A90-DDL-IN-DL-40083	INSTRUMENT MAIN CABLES ROUTING-LOWER DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/08/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)

Base Load Power HUB Cables Tray Layout

B-300 Container Lower Deck – TOS EL. 23.310m

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:50
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 04/10/24

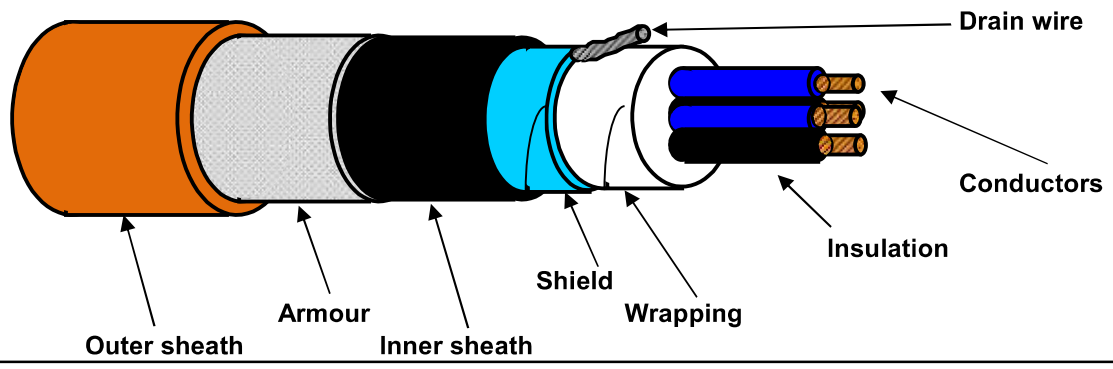
A1	DRAWING NO. 123A90-DDL-IN-DL-40115	SHEET 001	REV. 01

File Name : 123A90-DDL-IN-DL-40115 REV01.dwg

Tag Number	Category	Discipline	Eng Status	NativeDoc	Parent Tag	Grouping	Main Function	Secondary Function	Area	From Tag	From Main Function	From Area	To Tag	To Main Function	To Area	Material ID	Material Desc.	Gland Standard	From Gland	From Entry	From Fitting	To Gland	To Entry	To Fitting	Routing	Routing Manual
C-77-HS-007A/77-HS-007B	Cable	IN	VFC	123A90-DDL-IN-LIS-40091		Int-Ext				77-HS-007A	Hand Switch	Lower Deck (B-300)	77-HS-007B	Hand Switch	Lower Deck (B-300) Ext.	SMICV12-2X2,5	Cable Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250V (300V) 2x2,5mm² - Orange	M20	T2_M20_Double			T2_M20_Double				I-MCT-303 / B-300-SEC-1B / B-300-SEC-1A

Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250 V (300 V)

2X2,5 - INSTRUMENT CABLE - Fire Resistant - Not I.S.



TECHNICAL FEATURES

Conductors :	**7-STRANDED** plain/bare soft annealed copper wires	**IEC 60228 Class 2**
Insulation :	Mica/Glass Tape (MGT) plus XLPE, Nominal Thickness 0,6 mm	
Cores colour code :	**Black NUMBERED (from 1 to 2)**	
Pair Assembling :	Not required	
Pair Wrapping:	Not required	
Drain wire :	Not required	
Pair Shield :	Not required	
Shield Insulation :	Not required	
Total Assembling :	8/1mt	
Overall Wrapping:	by polyester-PET Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Drain wire :	7-Stranded **TINNED** annealed copper drain wire, **size 1,0 sqmm**, in continuous contact with the shield	
Overall Shield :	by Aluminium-**Al** Minimum Thickness 0,008 mm / polyester-**PET** Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Inner sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, Average Thickness 1,1 mm	
Inner sheath color code:	**Black**	
Armour :	Galvanized Steel Wire Braid Armour (coverage ≥ 90%)	
Outer sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, moisture/abrasion/UV Resistant,	
	Average Thickness 1,3 mm	
Outer sheath color code:	**Orange**	
Outer printing (INKJET) :	**FLEI - 2X2,5 SQMM - MGT/XLPE/OS/LSZH/SWB/LSZH - 150/250 V - IEC 60331.21 -**	
(every 1000 mm)	**IEC 60332.1.2 - IEC 60332.3.22 - Year of Manufacture - CE + Meter Marking**	
Under armour diameter :	(10,3 ± 10%) mm	
Over armour diameter :	(11,5 ± 10%) mm	
Outer diameter :	(14,1 ± 10%) mm	
Bending radius :	cable outer diameter x 10 (in fixed installation)	
Voltage Test :	1,5 kV a.c. for 5' (Between Cores) / 1,5 kV a.c. for 5' (Between Cores - Shield)	
Conductors DC Resistance :	≤ 7,86 Ω/km (@ 20°C)	
Insulation Resistance :	≥ 1000 MΩ x Km (@ 20°C)	
Applicable Standards		
Design Guidelines :	**IEC 60092.376**	
ON COMPLETE CABLE		
Fire Resistant test :	**IEC 60331.21**	
Flame Retardant test :	IEC 60332.1.2 - IEC 60332.3.22	
Acid Gas generation :	IEC 60754.1/2	
Smoke density/Light Transmittance :	IEC 61034.2 (LT ≥ 60%)	
Hazardous Areas :	IEC 60079.14 par.9.3.2a	
Temperature Range :		
ON INSULATION	(max +90°C) (max continuous operation temperature of conductors)	
	(max +250°C) (max conductors temperature during short-circuit for 5 seconds)	
ON COMPLETE CABLE		
During Operation :	(-20°C up to +90°C) (in fixed installation)	
During installation :	(- 5°C up to +50°C)	
Note :	**To meet the requirements of installation and use in Zone 1 & Zone 2 (IEC 60079-14) and "Gas & Vapour Tight" the cable must be provided with Penetrating Inner sheath together with correct ATEX approved equipment or accessories.**	

Office	Date	Sign	Rev.	Date	Sign
Drawn by :	04/04/2024	Messa			
Checked :	04/04/2024	Spaccasassi			
Approved :	04/04/2024	Cucinotta			

The data provided, lending assent for the treatment, will be used to the sense of the article 13 of of the Regulation (UE) 2016/679, also through outsiders, in order to allow the realization of the fulfilments informatives, administrative, commercial and accounting related to the contractual relationship. Integral copy of the informative could be requested at our offices.

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DRAWING NO. 123-A90-DDL-IN-DG-40016

REV. 01

FIELD

INSTRUMENTS

JUNCTION BOX

950-JE-04207

MULTICABLE

No.

I&T EQUIPMENT ROOM (ITER)

MARSHALLING CABINET

B400-FGS-002

<01>

B-300 UPS Room

950-XZ-04202 (+/-) 1BK 2BK — NOTE-2 — C-950-XZ-04202/950-JE-04207 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 1BK 1 2BK

950-XL-04203 (+/-) 1BK 2BK — NOTE-2 — C-950-XL-04203/950-JE-04207 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 1BK 3 3BK / 2BK 4 4BK

950-XL-04204 (+/-) 1BK 2BK — NOTE-2 — C-950-XL-04204/950-JE-04207 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 1BK 5 5BK / 2BK 6 6BK

B-300 OUTDOOR

1BK 12 22 2BK 77-HS-007B 1BK 11 21 2BK — NOTE-2 — C-77-HS-007B/950-JE-04207 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 1BK 7 7BK / 2BK 8 8BK

NOTE-2

C-77-HS-007A/77-HS-007B

~~C-77-HY-007D/77-HY-007A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

B-300 INDOOR

FIRE & GAS DAMPER HFD-77007

77-HY-007 1 2 1BK 2BK — C-77-HY-007/77-HS-007A 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 1BK 12 22 2BK 77-HS-007A 1BK 11 21 2BK — NOTE-2

B-300 OUTDOOR

NOTE-2 NOTE-2

B-300 OUTDOOR

1BK 12 22 2BK 77-HS-008B 1BK 11 21 2BK — NOTE-2 — C-77-HS-008B/950-JE-04207 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 1BK 9 9BK / 2BK 10 10BK

NOTE-2

C-77-HS-008A/77-HS-008B

~~C-77-HS-008B/77-HS-008A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

B-300 INDOOR

FIRE & GAS DAMPER HFD-77008

77-HY-008 1 2 1BK 2BK — C-77-HY-008/77-HS-008A 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 1BK 12 22 2BK 77-HS-008A 1BK 11 21 2BK — NOTE-2

B-300 OUTDOOR

NOTE-2 NOTE-2

B-300 OUTDOOR

1BK 12 22 2BK 77-HS-009B 1BK 11 21 2BK — NOTE-2 — C-77-HS-009B/950-JE-04207 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 1BK 11 11BK / 2BK 12 12BK

NOTE-2

C-77-HS-009A/77-HS-009B

~~C-77-HS-009B/77-HS-009A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

B-300 INDOOR

FIRE & GAS DAMPER HFD-77009

77-HY-009 1 2 1BK 2BK — C-77-HY-009/77-HS-009A 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 1BK 12 22 2BK 77-HS-009A 1BK 11 21 2BK — NOTE-2

B-300 OUTDOOR

NOTE-2 NOTE-2

B-300 OUTDOOR

1BK 12 22 2BK 77-HS-010B 1BK 11 21 2BK — NOTE-2 — C-77-HS-010B/950-JE-04207 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 1BK 13 13BK / 2BK 14 14BK

NOTE-2

C-77-HS-010A/77-HS-010B

~~C-77-HS-010B/77-HS-010A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

B-300 INDOOR

FIRE & GAS DAMPER HFD-77010

77-HY-010 1 2 1BK 2BK — C-77-HY-010/77-HS-010A 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 1BK 12 22 2BK 77-HS-010A 1BK 11 21 2BK — NOTE-2

B-300 OUTDOOR

NOTE-2 NOTE-2

B-300 OUTDOOR

1BK 12 22 2BK 77-HS-011B 1BK 11 21 2BK — NOTE-2 — C-77-HS-011B/950-JE-04207 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 1BK 15 15BK / 2BK 16 16BK

NOTE-2

C-77-HS-011A/77-HS-011B

~~C-77-HS-011B/77-HS-011A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

B-300 INDOOR

FIRE & GAS DAMPER HFD-77011

77-HY-011 1 2 1BK 2BK — C-77-HY-011/77-HS-011A 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 1BK 12 22 2BK 77-HS-011A 1BK 11 21 2BK — NOTE-2

NOTE-2 NOTE-2

TB-1: SH, 17 17BK / 18 18BK, SH, 19 19BK / 20 20BK, SH, 21 21BK / 22 22BK, SH, 23 23BK / 24 24BK, SH, OS

950-JE-04207/B400-FGS-002

24x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

TB-950-JE-04207

1BK	1	950-XZ-04202
2BK	2	
3BK	3	950-XL-04203
4BK	4	
5BK	5	950-XL-04204
6BK	6	
7BK	7	77-HY-007
8BK	8	
9BK	9	77-HY-008
10BK	10	
11BK	11	77-HY-009
12BK	12	
13BK	13	77-HY-010
14BK	14	
15BK	15	77-HY-011
16BK	16	
17BK	17	SPARE
18BK	18	
19BK	19	SPARE
20BK	20	
21BK	21	SPARE
22BK	22	
23BK	23	SPARE
24BK	24	

Shield Bar — I.E.

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_D	14/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT–FGS WIRING DIAGRAMS
950–JE–04207

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

A3	DRAWING NO. 123A90–DDL–IN–DG–40016	SHEET 069	REV. 01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

DRAWING NO. 123A90-DDL-IN-DG-40016

REV. 01

NOTES:

1. ALL SPARE ENTRIES SHALL BE PROVIDED WITH CERTIFIED EX PROOF PLUGS.
2. CABLE SCREENS / DRAIN WIRE SHALL BE SECURELY INSULATED AND TIED BACK IN THE INSTRUMENT SIDE AND SHAL BE TERMINATED IN THE MARSHALLING SIDE OF THE PANEL.
3. SPARE PAIRS / TRIADS SHALL BE CONNECTED TO TERMINALS IN JUNCTION BOX AND PANEL / MARSHALLING CABINETS.
4. ALL CABLE SCREENS TO BE TERMINATED AT THE INSTRUMENT EARTH BAR IN THE RESPECTIVE EARTH BARS (IS OR NIS) AS APPLICABLE IN THE MARSHALLING CABINET.
5. CONNECTION TERMINAL BLOCK SHALL BE DEFINED DURING CONSTRUCTION PHASE.

<01>

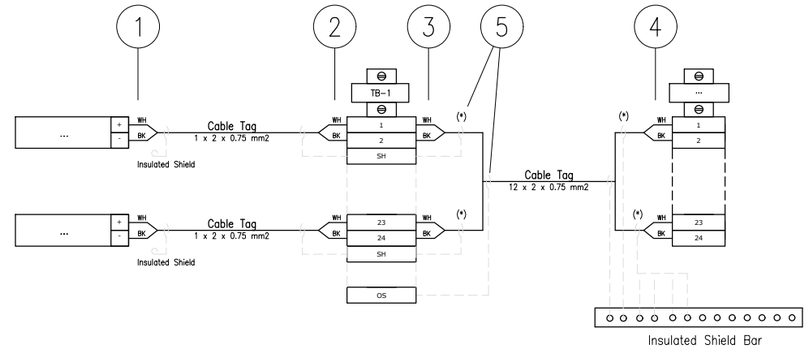
LEGENDS & SYMBOLS:

LEGEND:

I.E.	- GREEN ——— INSTRUMENT SIGNAL EARTH
P.E.	- GREEN/YELLOW —— P.E. EARTH/BONDING
	- TERMINAL BLOCK (TB)
WH	- WHITE
BK	- BLACK
RD	- RED
S	- SHIELD TERMINAL
OS	- OVERALL SHIELD TERMINAL
O/A Shld	- OVERALL SHIELD
I&O/A Shld	- INDIVIDUAL & OVERALL SHIELD
NIS	- NON INTRINSICALLY SAFE
IS	- INTRINSICALLY SAFE
P.E.	- PLANT EARTH
PCS	- PROCESS CONTROL SYSTEM <01>
ESD	- EMERGENCY SHUTDOWN SYSTEM
SIS	- SAFETY INSTRUMENT SYSTEM
FGS	- FIRE & GAS SYSTEM <01>
MC	- MARSHALLING CABINET
AI	- ANALOGUE INPUT
AO	- ANALOGUE OUTPUT
DI	- DIGITAL INPUT
DO	- DIGITAL OUTPUT
JE	- JUNCTION BOX FOR ELECTRICAL SIGNALS <01>

TYPICAL WIRE CROSS-FERRULING:

PHILOSOPHY OF CROSS-FERRULING: <01>



(*) Single shield is foreseen only for AI/AO signals.

1 - INSTRUMENT TERMINAL NO. OR POLARITY/JB NO./JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

2 - INSTRUMENT TAG NO./INSTRUMENT TERMINAL NO. OR POLARITY/JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

3 - PAIR OR CORE NO./MARSHALLING CABINET NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

4 - PAIR OR CORE NO./JB NO./JB TERMINAL NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

5 - HEAT SHRINKABLE BLACK FOR SHIELD OF NIS INSTRUMENT CABLE.
(HEAT SHRINKABLE BLUE FOR SHIELD OF NIS INSTRUMENT CABLE)

REFERENCE DRAWINGS

PIPING AND INSTRUMENT DIAGRAM	123A90-DDL-PR-PID-80009
INSTRUMENT INDEX	123A90-DDL-IN-LIS-40088 Rev.01
F&G DETECTORS LAYOUT	123A90-DDL-SAF-DL-30027

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_D	14/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
INSTRUMENT – SAFETY SYSTEM WIRING DIAGRAMS
GENERAL NOTES/LEGENDS

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

	DRAWING NO.	SHEET	REV.
A3	123A90-DDL-IN-DG-40016	003	01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

ROSETTI MARINO | PROVERLIS | CROSSWIND

ITEM	Tag	C-77-HY-007/77-HS-007A	: FIRE DAMPER / MARSHALLING PCS	Dwg	123A90-DDL-IN-LIS-40091		
	S/Sys	77-30	: HVAC UPS Equipment Room B-300	Module	LD_B-300		
TASK	code	C10000380	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity CCK	Discipline	Instrumental	Form	CJX10

Multi/Single-Core Instrument Control Cable

CABLE DATA

Type: Cu-MICA-XLPE-OS-LSZH-SWB-LSZH | Cores/Size mm²: 2X2,5 mm2 | Color: ORANGE

From: HFD-77007 | To: 77-HS-007A

1	Check cable is as specified in project cable schedule.	OK
2	Check relevant documents are at the latest revision.	OK
3	Check cable is routed in accordance with cable layout drawings.	OK
4	Check cable for any physical damage.	OK
5	Check cable is adequately supported and correctly fixed to rack according to Project specification.	OK
6	Check bending radius is within the specified limits.	OK
7	Check cable is correctly loomed and segregated in accordance with specification.	OK
8	Check cable and core marking are in accordance with specification.	OK
9	Check cable labelling is in accordance with specification.	OK
10	Check that glands, shrouds and earthing are in accordance with specification.	OK
11	Check terminations are in accordance with termination diagram	OK
12	Check gland plate for single core cables is non-ferrous.	OK
13	If required produce Red Line Mark Up for "AS BUILT"	

INSULATION	CORE to EARTH	>999	MΩ
	CORE to CORE	>999	MΩ
	CORE to SCREEN	>999	MΩ
	CORE to ARMr	>999	MΩ
	SCREEN to EARTH	>999	MΩ
	SCREEN to ARMr	>999	MΩ
CONTINUITY	CORES	0,4	Ω
	SCREEN	0,4	Ω
	EARTH	NA	Ω
	ARMr	0,4	Ω
	TEST VOLTS	500	V

TEST ALL CORES AND RECORD LOWEST VALUE

Notes: The lowest value is recorded and must be within project specifications

TESTING INSTRUMENTS USED

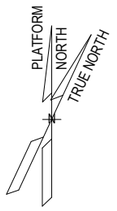
TYPE / SERIAL N°: MEGGER : KEW3125A SERIAL: W8330207 | Calibration date: 10/07/2024

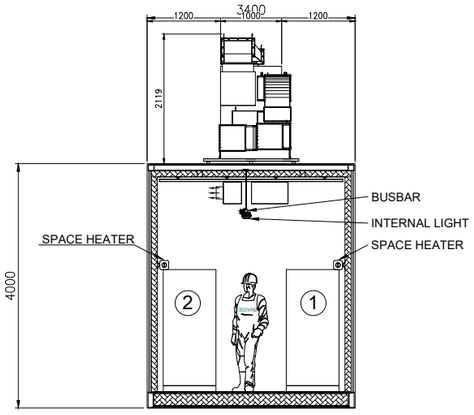
Comments

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICSI IMPIANTI	RM (ROSETTI MARINO)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-10-28	2024-11-21	
Signature	PROVERLIS Digitaly signed by Carmelo Bongiovanni 2024-10-28T06:54:34.102Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2024-11-21T09:37:08.147Z	

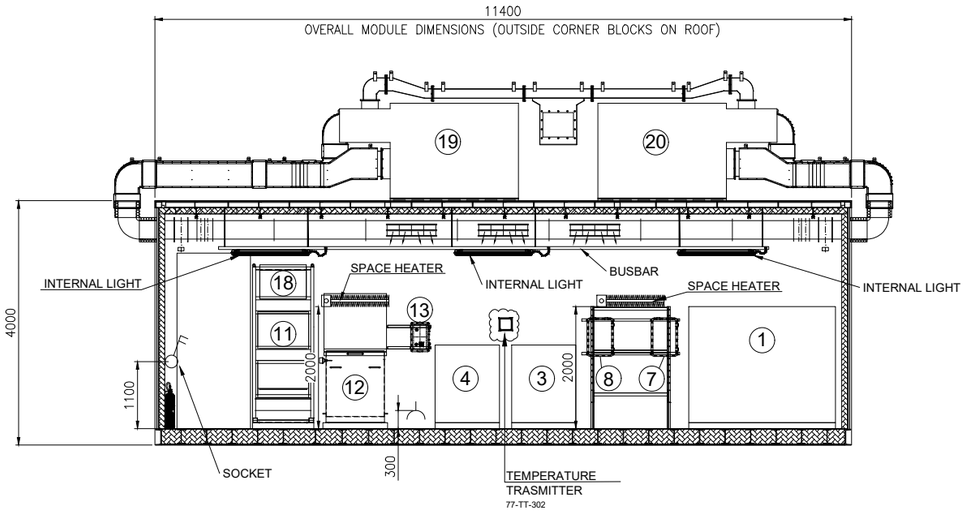
DRAWING NO. 1724000049-AR-DA-00016

REV. 03



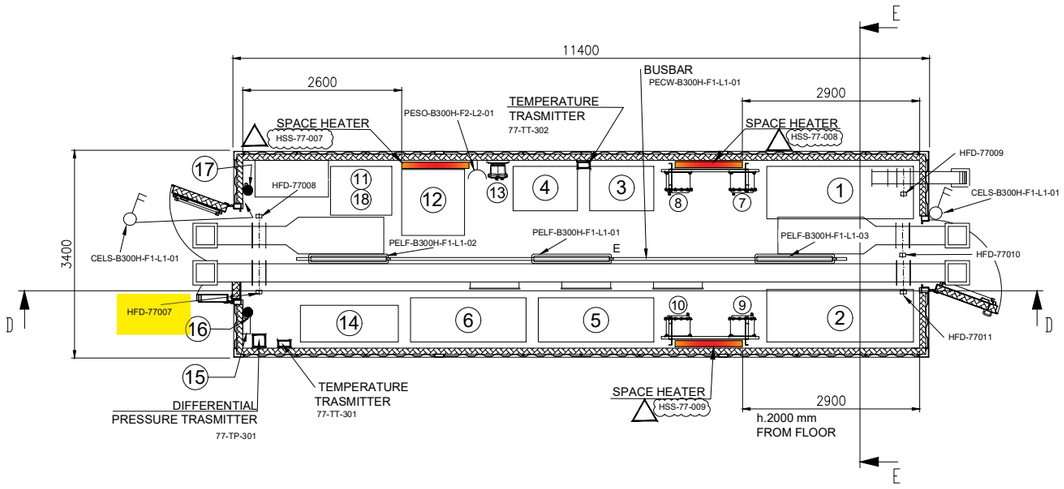


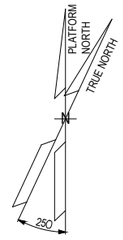
SECTION E-E

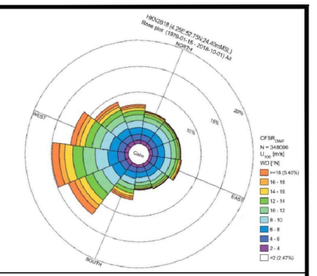


SECTION D-D

EQUIPMENT LIST						
REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
11	NC-200F2	NAVAID PANEL	1000	800	2600	535
12	BA-200F2	BATTERY BOX NAVAID	958	993	1210	1552
13	CB-200F2	ISOLATOR BOX NAVAID	500	400	765	70
14	B300-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	500
15	-	EYE WASH STATION	228	80	290	5
16	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
17	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
18	BC-200F2	BATTERY CHARGER NAVAID	607	607	2157	500
19	HHU-77005	AIR HANDLING UNIT A	2100	1000	2158	850
20	HHU-77006	AIR HANDLING UNIT B	2100	1000	2158	850
21	HSS-77-007	SPACE HEATER 1	184	145	1100	5
22	HSS-77-008	SPACE HEATER 2	184	145	1100	5
23	HSS-77-009	SPACE HEATER 3	184	145	1100	5







NOTE

1) ALL DIMENSIONS ARE IM MM.
2) THE POSITION OF THE LAMPS INDICATED IS TO BE CONSIDERED THE THEORETICAL ONE, THE FINA ONE WILL BE CONFIRMED IN THE AS-BUILT ISSUE.

REFERENCE

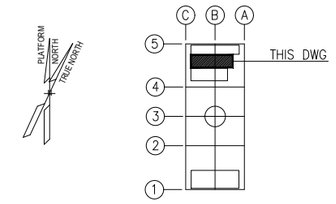
DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00066
"B-300" DETAILED DRAWING	1724000049-AR-DD-00020
PAINTING PROCEDURE	1724000049-MAT-PRO-00006
"B-300" FOUNDATION	1724000049-ST-DD-00012
"B-300" STRUCTURAL CALCULATION	1724000049-ST-CA-00008

LEGEND

- INTERNAL LIGHT
- E INTERNAL EMERGENCY LIGHT
- SOCKET OUTLET, INDOOR
- LIGHT SWITCH
- _____ ESCAPE CORRIDOR – WIDTH 800mm.
- _____ MAINTENANCE AREA – VENDOR REQUIREMENT
- _____ INSULATION PANEL

HOLDS

KEY PLAN



ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	23/07/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
02	03/07/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
01	16/05/24	M.G.	SKV	C.A.	ISSUE FOR REVIEW (IFR)
00	08/02/24	A.G.	SKV	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND | ROSETTI MARINO

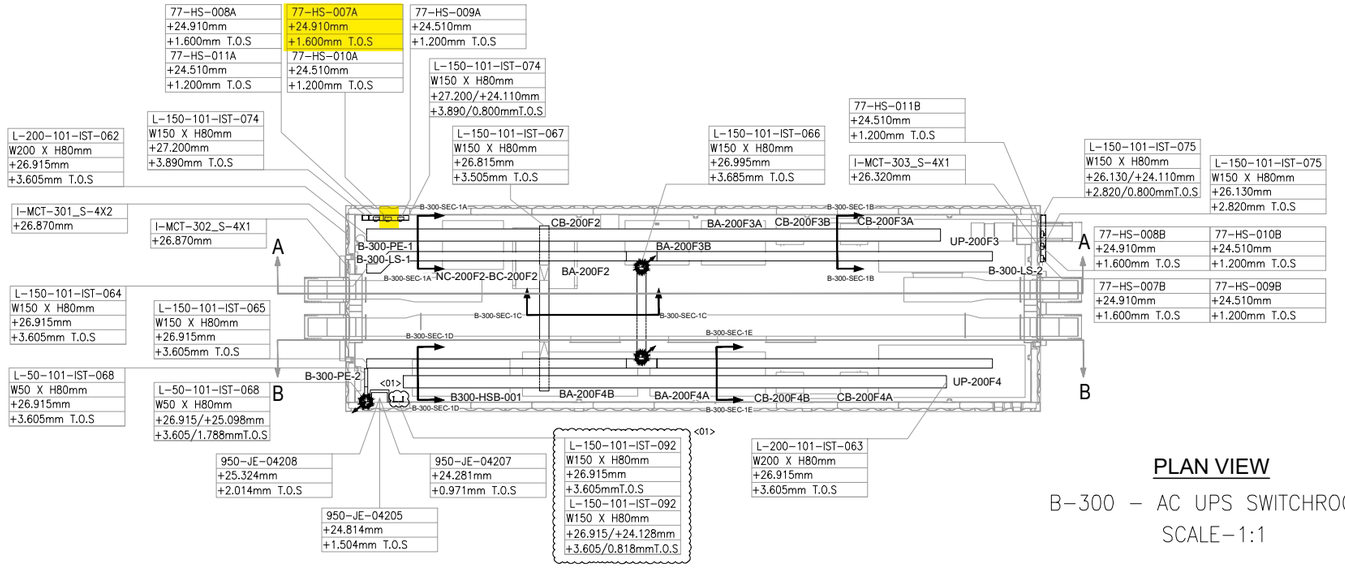
TITLE :
BASE LOAD POWER HUB (BLPH)
B-300 GENERAL ARRANGEMENT DRAWINGS

CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 23/07/24
A1	DRAWING NO. 1724000049-AR-DA-00016	SHEET 003	REV. 03

File Name : 1724000049-AR-DA-00016-REV.03

DRAWING NO. 123A90-DDL-IN-DL-40115

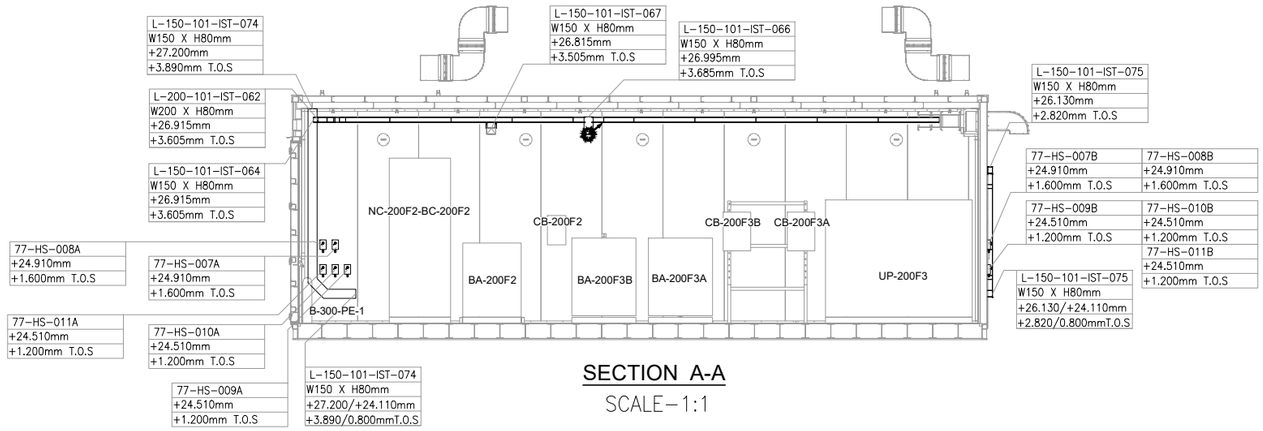
REV. 01



PLAN VIEW

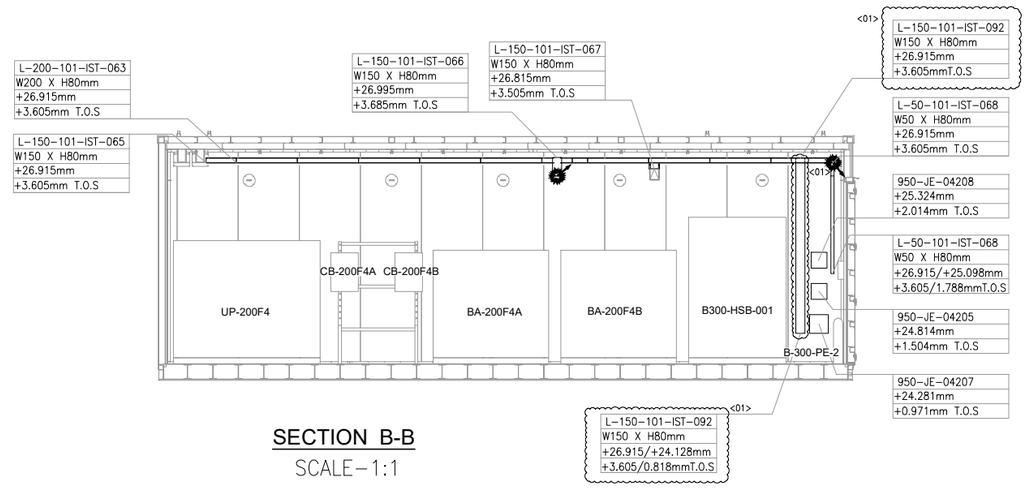
B-300 – AC UPS SWITCHROOM

SCALE-1:1



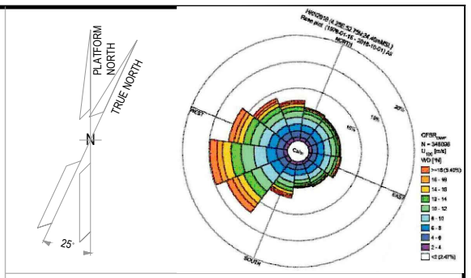
SECTION A-A

SCALE-1:1



SECTION B-B

SCALE-1:1



NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DRAWING IS VALID ONLY FOR CONTAINER CABLE TRAY LAYOUT.

LEGEND

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DL-40115**

REV.:	DATE:	SIGNATURE:
1_A	07/10/24	G.Randi

ROSETTI MARINO SpA

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-IN-DL-40081	INSTRUMENT LAYOUT - UPPER DECK
123A90-DDL-IN-LIS-40091	INSTRUMENT CABLE LIST
123A90-DDL-IN-DG-40015	INSTRUMENT-CCS WIRING DIAGRAMS
123A90-DDL-IN-DG-40016	INSTRUMENT-SAFETY SYSTEM WIRING DIAGRAMS
123A90-DDL-IN-DL-40083	INSTRUMENT MAIN CABLES ROUTING-LOWER DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/08/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)

Base Load Power HUB Cables Tray Layout

B-300 Container Lower Deck – TOS EL. 23.310m

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:50
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 04/10/24

A1	DRAWING NO. 123A90-DDL-IN-DL-40115	SHEET 001	REV. 01

File Name : 123A90-DDL-IN-DL-40115 REV01.dwg

DRAWING NO. 123-A90-DDL-IN-DG-40016 REV. 01

FIELD

INSTRUMENTS

<01>

B-300 UPS Room

950-XZ-04202 — C-950-XZ-04202/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

950-XL-04203 — C-950-XL-04203/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

950-XL-04204 — C-950-XL-04204/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 OUTDOOR

77-HS-007B — C-77-HS-007B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-007A/77-HS-007B

~~C-77-HY-007B/77-HY-007A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77007 — 77-HY-007 — C-77-HY-007/77-HS-007A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

B-300 INDOOR — 77-HS-007A — NOTE-2

B-300 OUTDOOR

77-HS-008B — C-77-HS-008B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-008A/77-HS-008B

~~C-77-HS-008B/77-HS-008A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77008 — 77-HY-008 — C-77-HY-008/77-HS-008A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

B-300 INDOOR — 77-HS-008A — NOTE-2

B-300 OUTDOOR

77-HS-009B — C-77-HS-009B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-009A/77-HS-009B

~~C-77-HS-009B/77-HS-009A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77009 — 77-HY-009 — C-77-HY-009/77-HS-009A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

B-300 INDOOR — 77-HS-009A — NOTE-2

B-300 OUTDOOR

77-HS-010B — C-77-HS-010B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-010A/77-HS-010B

~~C-77-HS-010B/77-HS-010A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77010 — 77-HY-010 — C-77-HY-010/77-HS-010A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

B-300 INDOOR — 77-HS-010A — NOTE-2

B-300 OUTDOOR

77-HS-011B — C-77-HS-011B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-011A/77-HS-011B

~~C-77-HS-011B/77-HS-011A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77011 — 77-HY-011 — C-77-HY-011/77-HS-011A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

B-300 INDOOR — 77-HS-011A — NOTE-2

JUNCTION BOX

950-JE-04207

TB-1

1BK	1
2BK	2
	SH
3BK	3
4BK	4
	SH
5BK	5
6BK	6
	SH
7BK	7
8BK	8
	SH
9BK	9
10BK	10
	SH
11BK	11
12BK	12
	SH
13BK	13
14BK	14
	SH
15BK	15
16BK	16
	SH
17BK	17
18BK	18
	SH
19BK	19
20BK	20
	SH
21BK	21
22BK	22
	SH
23BK	23
24BK	24
	SH
	OS

MULTICABLE No.

950-JE-04207/B400-FGS-002

24x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

I&T EQUIPMENT ROOM (ITER)

MARSHALLING CABINET

B400-FGS-002

TB-950-JE-04207

1	950-XZ-04202
2	
3	950-XL-04203
4	
5	950-XL-04204
6	
7	77-HY-007
8	
9	77-HY-008
10	
11	77-HY-009
12	
13	77-HY-010
14	
15	77-HY-011
16	
17	SPARE
18	
19	SPARE
20	
21	SPARE
22	
23	SPARE
24	

Shield Bar — I.E.

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_H	28/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT–FGS WIRING DIAGRAMS
950–JE–04207

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024
A3	DRAWING NO. 123A90–DDL–IN–DG–40016	SHEET 069	REV. 01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

DRAWING NO. 123A90-DDL-IN-DG-40016

REV. 01

NOTES:

1. ALL SPARE ENTRIES SHALL BE PROVIDED WITH CERTIFIED EX PROOF PLUGS.
2. CABLE SCREENS / DRAIN WIRE SHALL BE SECURELY INSULATED AND TIED BACK IN THE INSTRUMENT SIDE AND SHAL BE TERMINATED IN THE MARSHALLING SIDE OF THE PANEL.
3. SPARE PAIRS / TRIADS SHALL BE CONNECTED TO TERMINALS IN JUNCTION BOX AND PANEL / MARSHALLING CABINETS.
4. ALL CABLE SCREENS TO BE TERMINATED AT THE INSTRUMENT EARTH BAR IN THE RESPECTIVE EARTH BARS (IS OR NIS) AS APPLICABLE IN THE MARSHALLING CABINET.
5. CONNECTION TERMINAL BLOCK SHALL BE DEFINED DURING CONSTRUCTION PHASE.

<01>

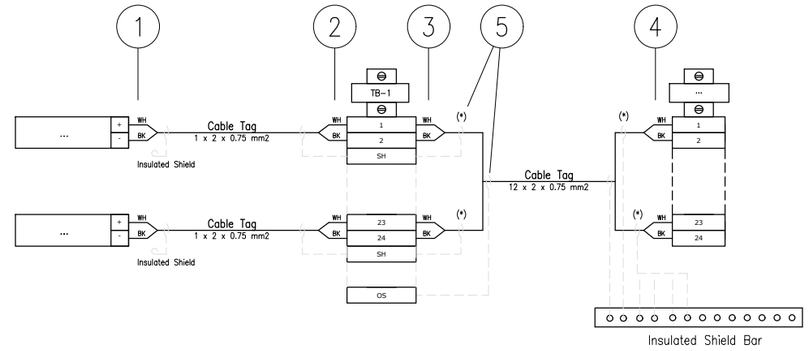
LEGENDS & SYMBOLS:

LEGEND:

I.E.	- GREEN ——— INSTRUMENT SIGNAL EARTH
P.E.	- GREEN/YELLOW —— P.E. EARTH/BONDING
	- TERMINAL BLOCK (TB)
WH	- WHITE
BK	- BLACK
RD	- RED
S	- SHIELD TERMINAL
OS	- OVERALL SHIELD TERMINAL
O/A Shld	- OVERALL SHIELD
I&O/A Shld	- INDIVIDUAL & OVERALL SHIELD
NIS	- NON INTRINSICALLY SAFE
IS	- INTRINSICALLY SAFE
P.E.	- PLANT EARTH
PCS	- PROCESS CONTROL SYSTEM <01>
ESD	- EMERGENCY SHUTDOWN SYSTEM
SIS	- SAFETY INSTRUMENT SYSTEM
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MC	- MARSHALLING CABINET
AI	- ANALOGUE INPUT
AO	- ANALOGUE OUTPUT
DI	- DIGITAL INPUT
DO	- DIGITAL OUTPUT
JE	- JUNCTION BOX FOR ELECTRICAL SIGNALS <01>

TYPICAL WIRE CROSS-FERRULING:

PHILOSOPHY OF CROSS-FERRULING: <01>



(*) Single shield is foreseen only for AI/AO signals.

1 - INSTRUMENT TERMINAL NO. OR POLARITY/JB NO./JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

2 - INSTRUMENT TERMINAL NO. OR POLARITY/INSTRUMENT TAG NO./JB TERMINAL NO.
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(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

4 - PAIR OR CORE NO./JB NO./JB TERMINAL NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

5 - HEAT SHRINKABLE BLACK FOR SHIELD OF NIS INSTRUMENT CABLE.
(HEAT SHRINKABLE BLUE FOR SHIELD OF NIS INSTRUMENT CABLE)

6 - IN CASE OF CONNECTION FROM RIGHT TO LEFT, ORDER OF INFORMATION SHALL BE MIRRORED

REFERENCE DRAWINGS

PIPING AND INSTRUMENT DIAGRAM	123A90-DDL-PR-PID-80009
INSTRUMENT INDEX	123A90-DDL-IN-LIS-40088 Rev.01
F&G DETECTORS LAYOUT	123A90-DDL-SAF-DL-30027

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT – SAFETY SYSTEM WIRING DIAGRAMS
GENERAL NOTES/LEGENDS

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

A3	DRAWING NO. 123A90-DDL-IN-DG-40016	SHEET 003	REV. 01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40016**

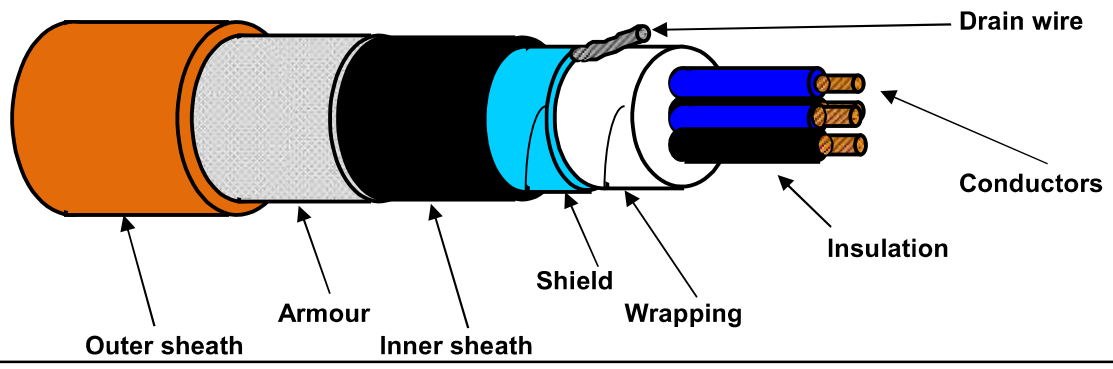
REV.:	DATE:	SIGNATURE:
1_H	28/10/24	G.Randi

ROSETTI MARINO SpA

Tag Number	Category	Discipline	Eng Status	NativeDoc	Parent Tag	Grouping	Main Function	Secondary Function	Area	From Tag	From Main Function	From Area	To Tag	To Main Function	To Area	Material ID	Material Desc.	Gland Standard	From Gland	From Entry	From Fitting	To Gland	To Entry	To Fitting	Routing	Routing Manual
C-77-HY-007/77-HS-007A	Cable	IN	VFC	123A90-DDL-IN-LIS-40091		Int-Ext				HFD-77007	Fire Damper	Lower Deck (B-300)	77-HS-007A	Hand Switch	Lower Deck (B-300)	SMICV12-2X2,5	Cable Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250V (300V) 2x2,5mm² - Orange	M20	T2_M20_Double			T2_M20_Double				B-300-SEC-1D / B-300-SEC-1C / B-300-SEC-1A

Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250 V (300 V)

2X2,5 - INSTRUMENT CABLE - Fire Resistant - Not I.S.



TECHNICAL FEATURES

Conductors :	**7-STRANDED** plain/bare soft annealed copper wires	**IEC 60228 Class 2**
Insulation :	Mica/Glass Tape (MGT) plus XLPE, Nominal Thickness 0,6 mm	
Cores colour code :	**Black NUMBERED (from 1 to 2)**	
Pair Assembling :	Not required	
Pair Wrapping:	Not required	
Drain wire :	Not required	
Pair Shield :	Not required	
Shield Insulation :	Not required	
Total Assembling :	8/1mt	
Overall Wrapping:	by polyester-PET Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Drain wire :	7-Stranded **TINNED** annealed copper drain wire, **size 1,0 sqmm**, in continuous contact with the shield	
Overall Shield :	by Aluminium-**Al** Minimum Thickness 0,008 mm / polyester-**PET** Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Inner sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, Average Thickness 1,1 mm	
Inner sheath color code:	**Black**	
Armour :	Galvanized Steel Wire Braid Armour (coverage ≥ 90%)	
Outer sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, moisture/abrasion/UV Resistant,	
	Average Thickness 1,3 mm	
Outer sheath color code:	**Orange**	
Outer printing (INKJET) :	**FLEI - 2X2,5 SQMM - MGT/XLPE/OS/LSZH/SWB/LSZH - 150/250 V - IEC 60331.21 -**	
(every 1000 mm)	**IEC 60332.1.2 - IEC 60332.3.22 - Year of Manufacture - CE + Meter Marking**	
Under armour diameter :	(10,3 ± 10%) mm	
Over armour diameter :	(11,5 ± 10%) mm	
Outer diameter :	(14,1 ± 10%) mm	
Bending radius :	cable outer diameter x 10 (in fixed installation)	
Voltage Test :	1,5 kV a.c. for 5' (Between Cores) / 1,5 kV a.c. for 5' (Between Cores - Shield)	
Conductors DC Resistance :	≤ 7,86 Ω/km (@ 20°C)	
Insulation Resistance :	≥ 1000 MΩ x Km (@ 20°C)	
Applicable Standards		
Design Guidelines :	**IEC 60092.376**	
ON COMPLETE CABLE		
Fire Resistant test :	**IEC 60331.21**	
Flame Retardant test :	IEC 60332.1.2 - IEC 60332.3.22	
Acid Gas generation :	IEC 60754.1/2	
Smoke density/Light Transmittance :	IEC 61034.2 (LT ≥ 60%)	
Hazardous Areas :	IEC 60079.14 par.9.3.2a	
Temperature Range :		
ON INSULATION	(max +90°C) (max continuous operation temperature of conductors)	
	(max +250°C) (max conductors temperature during short-circuit for 5 seconds)	
ON COMPLETE CABLE		
During Operation :	(-20°C up to +90°C) (in fixed installation)	
During installation :	(- 5°C up to +50°C)	
Note :	**To meet the requirements of installation and use in Zone 1 & Zone 2 (IEC 60079-14) and "Gas & Vapour Tight" the cable must be provided with Penetrating Inner sheath together with correct ATEX approved equipment or accessories.**	

Office	Date	Sign	Rev.	Date	Sign
Drawn by :	04/04/2024	Messa			
Checked :	04/04/2024	Spaccasassi			
Approved :	04/04/2024	Cucinotta			

The data provided, lending assent for the treatment, will be used to the sense of the article 13 of of the Regulation (UE) 2016/679, also through outsiders, in order to allow the realization of the fulfilments informatives, administrative, commercial and accounting related to the contractual relationship. Integral copy of the informative could be requested at our offices.

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ROSETTI MARINO | PROVERLIS | CROSSWIND

ITEM	Tag	C-77-HS-008B/950-JE-04207 : PUSH BUTTON / MARSHALLING PCS			Dwg	123A90-DDL-IN-LIS-40091	
	S/Sys	77-30 : HVAC UPS Equipment Room B-300			Module	LD_B-300_Ext/LD_B-300	
TASK	code	C10000381	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity	CCK	Discipline	Instrumental	Form	CJX10	Multi/Single-Core Instrument Control Cable

CABLE DATA

Type	Cu-MICA-XLPE-OS-LSZH-SWB-LSZH	Cores/Size mm²	2x2.5 mm2	Color	ORANGE
From	77-HS-008B	To	950-JE-04207		

1	Check cable is as specified in project cable schedule.	OK
2	Check relevant documents are at the latest revision.	OK
3	Check cable is routed in accordance with cable layout drawings.	OK
4	Check cable for any physical damage.	OK
5	Check cable is adequately supported and correctly fixed to rack according to Project specification.	OK
6	Check bending radius is within the specified limits.	PL
7	Check cable is correctly loomed and segregated in accordance with specification.	OK
8	Check cable and core marking are in accordance with specification.	OK
9	Check cable labelling is in accordance with specification.	PL
10	Check that glands, shrouds and earthing are in accordance with specification.	OK
11	Check terminations are in accordance with termination diagram	OK
12	Check gland plate for single core cables is non-ferrous.	NA
13	If required produce Red Line Mark Up for "AS BUILT"	

INSULATION	CORE to EARTH		>999	MΩ
	CORE to CORE		>999	MΩ
	CORE to SCREEN		>999	MΩ
	CORE to ARMr		>999	MΩ
	SCREEN to EARTH		>999	MΩ
	SCREEN to ARMr		>999	MΩ
CONTINUITY	CORES		0.4	Ω
	SCREEN		0.5	Ω
	EARTH		0.5	Ω
	ARMr		0.5	Ω
	TEST VOLTS		500	V

TEST ALL CORES AND RECORD LOWEST VALUE

Notes: The lowest value is recorded and must be within project specifications

TESTING INSTRUMENTS USED

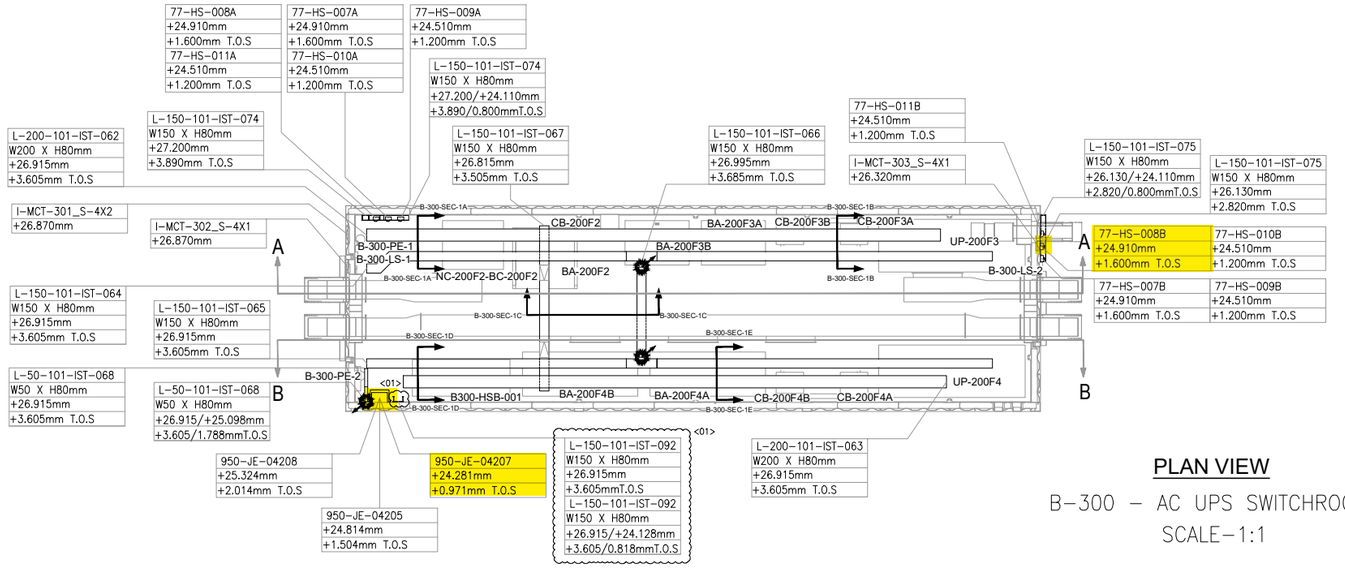
TYPE / SERIAL N°: KEW3125A / W8330207 Calibration date: 10-07-2024

Comments

Page 1/1	Performed by	☉ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM (Rosetti Marino)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-10-11	2024-10-14	
Signature	PROVERLIS Digitaly signed by Carmelo Bongiovanni 2024-10-11T15:36:00.720Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2024-10-14T16:30:00.499Z	

DRAWING NO. 123A90-DDL-IN-DL-40115

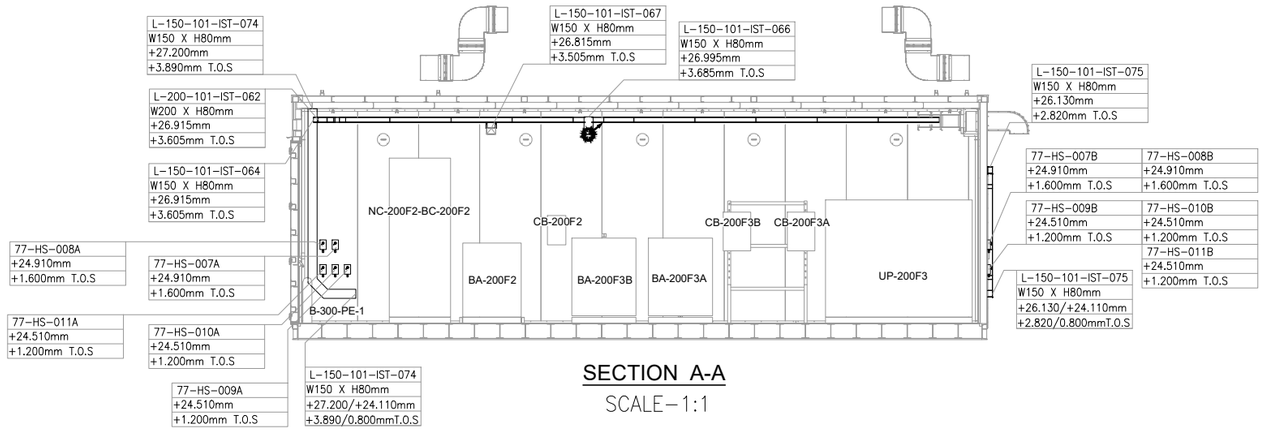
REV. 01



PLAN VIEW

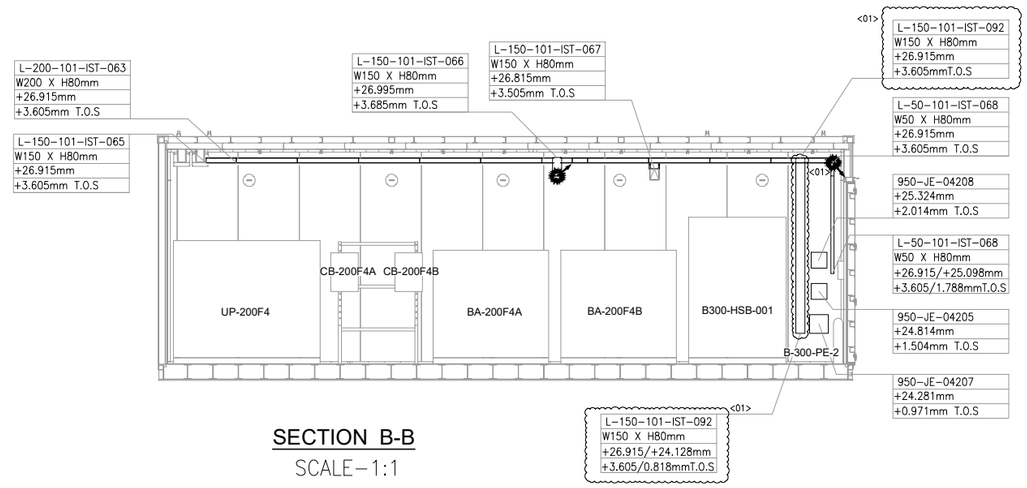
B-300 – AC UPS SWITCHROOM

SCALE-1:1



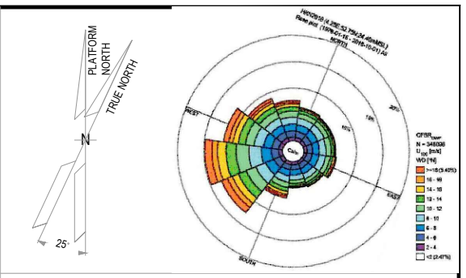
SECTION A-A

SCALE-1:1



SECTION B-B

SCALE-1:1



NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DRAWING IS VALID ONLY FOR CONTAINER CABLE TRAY LAYOUT.

LEGEND

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DL-40115**

REV.:	DATE:	SIGNATURE:
1_A	07/10/24	G.Randi

ROSETTI MARINO SpA

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-IN-DL-40081	INSTRUMENT LAYOUT - UPPER DECK
123A90-DDL-IN-LIS-40091	INSTRUMENT CABLE LIST
123A90-DDL-IN-DG-40015	INSTRUMENT-CCS WIRING DIAGRAMS
123A90-DDL-IN-DG-40016	INSTRUMENT-SAFETY SYSTEM WIRING DIAGRAMS
123A90-DDL-IN-DL-40083	INSTRUMENT MAIN CABLES ROUTING-LOWER DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/08/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)

Base Load Power HUB Cables Tray Layout

B-300 Container Lower Deck – TOS EL. 23.310m

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:50
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 04/10/24

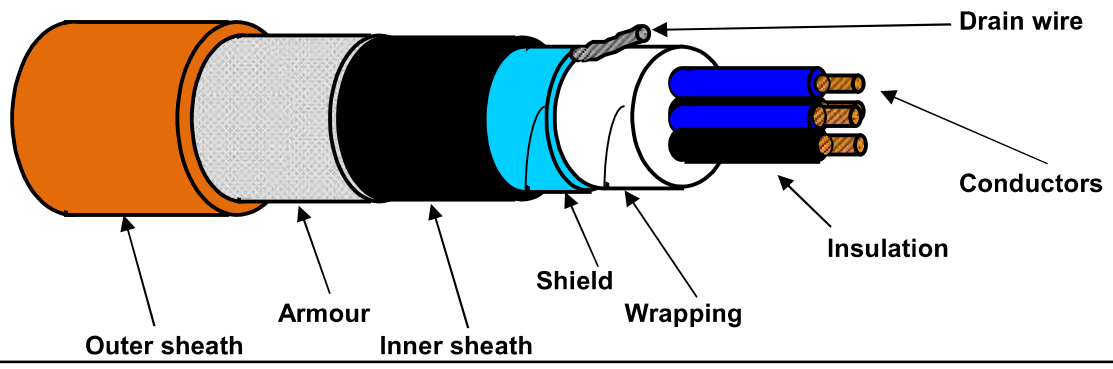
A1	DRAWING NO. 123A90-DDL-IN-DL-40115	SHEET 001	REV. 01

File Name : 123A90-DDL-IN-DL-40115 REV01.dwg

Tag Number	Category	Discipline	Eng Status	NativeDoc	Parent Tag	Grouping	Main Function	Secondary Function	Area	From Tag	From Main Function	From Area	To Tag	To Main Function	To Area	Material ID	Material Desc.	Gland Standard	From Gland	From Entry	From Fitting	To Gland	To Entry	To Fitting	Routing	Routing Manual
C-77-HS-008B/950-JE-04207	Cable	IN	VFC	123A90-DDL-IN-LIS-40091		Int-Ext				77-HS-008B	Hand Switch	Lower Deck (B-300) Ext.	950-JE-04207	DO JB to FGS	Lower Deck (B-300)	SMICV12-2X2,5	Cable Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250V (300V) 2x2,5mm² - Orange	M20	T2_M20_Double			T2_M20_Double				B-300-SEC-1B / B-300-SEC-1C / B-300-SEC-1D

Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250 V (300 V)

2X2,5 - INSTRUMENT CABLE - Fire Resistant - Not I.S.



TECHNICAL FEATURES

Conductors :	**7-STRANDED** plain/bare soft annealed copper wires	**IEC 60228 Class 2**
Insulation :	Mica/Glass Tape (MGT) plus XLPE, Nominal Thickness 0,6 mm	
Cores colour code :	**Black NUMBERED (from 1 to 2)**	
Pair Assembling :	Not required	
Pair Wrapping:	Not required	
Drain wire :	Not required	
Pair Shield :	Not required	
Shield Insulation :	Not required	
Total Assembling :	8/1mt	
Overall Wrapping:	by polyester-PET Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Drain wire :	7-Stranded **TINNED** annealed copper drain wire, **size 1,0 sqmm**, in continuous contact with the shield	
Overall Shield :	by Aluminium-**Al** Minimum Thickness 0,008 mm / polyester-**PET** Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Inner sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, Average Thickness 1,1 mm	
Inner sheath color code:	**Black**	
Armour :	Galvanized Steel Wire Braid Armour (coverage ≥ 90%)	
Outer sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, moisture/abrasion/UV Resistant,	
	Average Thickness 1,3 mm	
Outer sheath color code:	**Orange**	
Outer printing (INKJET) :	**FLEI - 2X2,5 SQMM - MGT/XLPE/OS/LSZH/SWB/LSZH - 150/250 V - IEC 60331.21 -**	
(every 1000 mm)	**IEC 60332.1.2 - IEC 60332.3.22 - Year of Manufacture - CE + Meter Marking**	
Under armour diameter :	(10,3 ± 10%) mm	
Over armour diameter :	(11,5 ± 10%) mm	
Outer diameter :	(14,1 ± 10%) mm	
Bending radius :	cable outer diameter x 10 (in fixed installation)	
Voltage Test :	1,5 kV a.c. for 5' (Between Cores) / 1,5 kV a.c. for 5' (Between Cores - Shield)	
Conductors DC Resistance :	≤ 7,86 Ω/km (@ 20°C)	
Insulation Resistance :	≥ 1000 MΩ x Km (@ 20°C)	
Applicable Standards		
Design Guidelines :	**IEC 60092.376**	
ON COMPLETE CABLE		
Fire Resistant test :	**IEC 60331.21**	
Flame Retardant test :	IEC 60332.1.2 - IEC 60332.3.22	
Acid Gas generation :	IEC 60754.1/2	
Smoke density/Light Transmittance :	IEC 61034.2 (LT ≥ 60%)	
Hazardous Areas :	IEC 60079.14 par.9.3.2a	
Temperature Range :		
ON INSULATION	(max +90°C) (max continuous operation temperature of conductors)	
	(max +250°C) (max conductors temperature during short-circuit for 5 seconds)	
ON COMPLETE CABLE		
During Operation :	(-20°C up to +90°C) (in fixed installation)	
During installation :	(- 5°C up to +50°C)	
Note :	**To meet the requirements of installation and use in Zone 1 & Zone 2 (IEC 60079-14) and "Gas & Vapour Tight" the cable must be provided with Penetrating Inner sheath together with correct ATEX approved equipment or accessories.**	

Office	Date	Sign	Rev.	Date	Sign
Drawn by :	04/04/2024	Messa			
Checked :	04/04/2024	Spaccasassi			
Approved :	04/04/2024	Cucinotta			

The data provided, lending assent for the treatment, will be used to the sense of the article 13 of of the Regulation (UE) 2016/679, also through outsiders, in order to allow the realization of the fulfilments informatives, administrative, commercial and accounting related to the contractual relationship. Integral copy of the informative could be requested at our offices.

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DRAWING NO. 123A90-DDL-IN-DG-40016

REV. 01

NOTES:

1. ALL SPARE ENTRIES SHALL BE PROVIDED WITH CERTIFIED EX PROOF PLUGS.
2. CABLE SCREENS / DRAIN WIRE SHALL BE SECURELY INSULATED AND TIED BACK IN THE INSTRUMENT SIDE AND SHAL BE TERMINATED IN THE MARSHALLING SIDE OF THE PANEL.
3. SPARE PAIRS / TRIADS SHALL BE CONNECTED TO TERMINALS IN JUNCTION BOX AND PANEL / MARSHALLING CABINETS.
4. ALL CABLE SCREENS TO BE TERMINATED AT THE INSTRUMENT EARTH BAR IN THE RESPECTIVE EARTH BARS (IS OR NIS) AS APPLICABLE IN THE MARSHALLING CABINET.
5. CONNECTION TERMINAL BLOCK SHALL BE DEFINED DURING CONSTRUCTION PHASE.

<01>

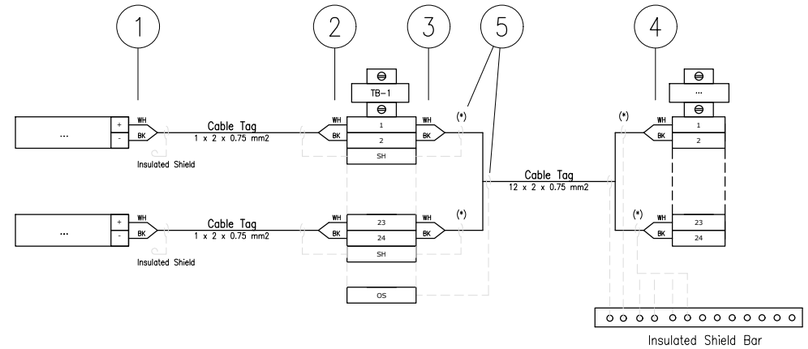
LEGENDS & SYMBOLS:

LEGEND:

I.E.	- GREEN ——— INSTRUMENT SIGNAL EARTH
P.E.	- GREEN/YELLOW —— P.E. EARTH/BONDING
	- TERMINAL BLOCK (TB)
WH	- WHITE
BK	- BLACK
RD	- RED
S	- SHIELD TERMINAL
OS	- OVERALL SHIELD TERMINAL
O/A Shld	- OVERALL SHIELD
I&O/A Shld	- INDIVIDUAL & OVERALL SHIELD
NIS	- NON INTRINSICALLY SAFE
IS	- INTRINSICALLY SAFE
P.E.	- PLANT EARTH
PCS	- PROCESS CONTROL SYSTEM <01>
ESD	- EMERGENCY SHUTDOWN SYSTEM
SIS	- SAFETY INSTRUMENT SYSTEM
FGS	- FIRE & GAS SYSTEM <01>
MC	- MARSHALLING CABINET
AI	- ANALOGUE INPUT
AO	- ANALOGUE OUTPUT
DI	- DIGITAL INPUT
DO	- DIGITAL OUTPUT
JE	- JUNCTION BOX FOR ELECTRICAL SIGNALS <01>

TYPICAL WIRE CROSS-FERRULING:

PHILOSOPHY OF CROSS-FERRULING: <01>



(*) Single shield is foreseen only for AI/AO signals.

1 - INSTRUMENT TERMINAL NO. OR POLARITY/JB NO./JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

2 - INSTRUMENT TAG NO./INSTRUMENT TERMINAL NO. OR POLARITY/JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

3 - PAIR OR CORE NO./MARSHALLING CABINET NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

4 - PAIR OR CORE NO./JB NO./JB TERMINAL NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

5 - HEAT SHRINKABLE BLACK FOR SHIELD OF NIS INSTRUMENT CABLE.
(HEAT SHRINKABLE BLUE FOR SHIELD OF NIS INSTRUMENT CABLE)

REFERENCE DRAWINGS

PIPING AND INSTRUMENT DIAGRAM	123A90-DDL-PR-PID-80009
INSTRUMENT INDEX	123A90-DDL-IN-LIS-40088 Rev.01
F&G DETECTORS LAYOUT	123A90-DDL-SAF-DL-30027

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_D	14/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
INSTRUMENT – SAFETY SYSTEM WIRING DIAGRAMS
GENERAL NOTES/LEGENDS

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

	DRAWING NO.	SHEET	REV.
A3	123A90-DDL-IN-DG-40016	003	01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

DRAWING NO. 123-A90-DDL-IN-DG-40016

REV. 01

FIELD

INSTRUMENTS

JUNCTION BOX

950-JE-04207

MULTICABLE

No.

I&T EQUIPMENT ROOM (ITER)

MARSHALLING CABINET

B400-FGS-002

<01>

B-300 UPS Room

950-XZ-04202 — C-950-XZ-04202/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

950-XL-04203 — C-950-XL-04203/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

950-XL-04204 — C-950-XL-04204/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 OUTDOOR

77-HS-007B — C-77-HS-007B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-007A/77-HS-007B

~~C-77-HY-007B/77-HY-007A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77007

77-HY-007 — C-77-HY-007/77-HS-007A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 77-HS-007A

B-300 OUTDOOR — NOTE-2 — B-300 INDOOR — NOTE-2

77-HS-008B — C-77-HS-008B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-008A/77-HS-008B

~~C-77-HS-008B/77-HS-008A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77008

77-HY-008 — C-77-HY-008/77-HS-008A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 77-HS-008A

B-300 OUTDOOR — NOTE-2 — B-300 INDOOR — NOTE-2

77-HS-009B — C-77-HS-009B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-009A/77-HS-009B

~~C-77-HS-009B/77-HS-009A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77009

77-HY-009 — C-77-HY-009/77-HS-009A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 77-HS-009A

B-300 OUTDOOR — NOTE-2 — B-300 INDOOR — NOTE-2

77-HS-010B — C-77-HS-010B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-010A/77-HS-010B

~~C-77-HS-010B/77-HS-010A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77010

77-HY-010 — C-77-HY-010/77-HS-010A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 77-HS-010A

B-300 OUTDOOR — NOTE-2 — B-300 INDOOR — NOTE-2

77-HS-011B — C-77-HS-011B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-011A/77-HS-011B

~~C-77-HS-011B/77-HS-011A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77011

77-HY-011 — C-77-HY-011/77-HS-011A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 77-HS-011A

B-300 OUTDOOR — NOTE-2 — B-300 INDOOR — NOTE-2

TB-1

1BK	1	1BK
2BK	2	2BK
	SH	
1BK	3	3BK
2BK	4	4BK
	SH	
1BK	5	5BK
2BK	6	6BK
	SH	
1BK	7	7BK
2BK	8	8BK
	SH	
1BK	9	9BK
2BK	10	10BK
	SH	
1BK	11	11BK
2BK	12	12BK
	SH	
1BK	13	13BK
2BK	14	14BK
	SH	
1BK	15	15BK
2BK	16	16BK
	SH	
17		17BK
18		18BK
SH		
19		19BK
20		20BK
SH		
21		21BK
22		22BK
SH		
23		23BK
24		24BK
SH		
OS		

950-JE-04207/B400-FGS-002

24x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

TB-950-JE-04207

1BK	1	950-XZ-04202
2BK	2	
3BK	3	950-XL-04203
4BK	4	
5BK	5	950-XL-04204
6BK	6	
7BK	7	77-HY-007
8BK	8	
9BK	9	77-HY-008
10BK	10	
11BK	11	77-HY-009
12BK	12	
13BK	13	77-HY-010
14BK	14	
15BK	15	77-HY-011
16BK	16	
17BK	17	SPARE
18BK	18	
19BK	19	SPARE
20BK	20	
21BK	21	SPARE
22BK	22	
23BK	23	SPARE
24BK	24	

Shield Bar — I.E.

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_D	14/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT–FGS WIRING DIAGRAMS
950–JE–04207

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

	DRAWING NO.	SHEET	REV.
A3	123A90–DDL–IN–DG–40016	069	01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

ROSETTI MARINO | PROVERLIS | CROSSWIND

ITEM	Tag	C-77-HS-008A/77-HS-008B : PUSH BUTTON / MARSHALLING PCS			Dwg	123A90-DDL-IN-LIS-40091	
	S/Sys	77-30 : HVAC UPS Equipment Room B-300			Module	LD_B-300/LD_B-300_Ext	
TASK	code	C10000382	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity CCK	Discipline Instrumental	Form	CJX10	Multi/Single-Core Instrument Control Cable

CABLE DATA

Type: Cu-MICA-XLPE-OS-LSZH-SWB-LSZH | Cores/Size mm²: 2x2.5 mm2 | Color: ORANGE

From: 77-HS-008A | To: 77-HS-008B

1	Check cable is as specified in project cable schedule.	OK
2	Check relevant documents are at the latest revision.	OK
3	Check cable is routed in accordance with cable layout drawings.	OK
4	Check cable for any physical damage.	OK
5	Check cable is adequately supported and correctly fixed to rack according to Project specification.	OK
6	Check bending radius is within the specified limits.	OK
7	Check cable is correctly loomed and segregated in accordance with specification.	OK
8	Check cable and core marking are in accordance with specification.	OK
9	Check cable labelling is in accordance with specification.	PL
10	Check that glands, shrouds and earthing are in accordance with specification.	OK
11	Check terminations are in accordance with termination diagram	OK
12	Check gland plate for single core cables is non-ferrous.	NA
13	If required produce Red Line Mark Up for "AS BUILT"	

INSULATION	CORE to EARTH	>999	MΩ
	CORE to CORE	>999	MΩ
	CORE to SCREEN	>999	MΩ
	CORE to ARMr	>999	MΩ
	SCREEN to EARTH	>999	MΩ
	SCREEN to ARMr	>999	MΩ
CONTINUITY	CORES	0.5	Ω
	SCREEN	0.6	Ω
	EARTH	0.6	Ω
	ARMr	0.6	Ω
	TEST VOLTS	500	V

TEST ALL CORES AND RECORD LOWEST VALUE

Notes: The lowest value is recorded and must be within project specifications

TESTING INSTRUMENTS USED

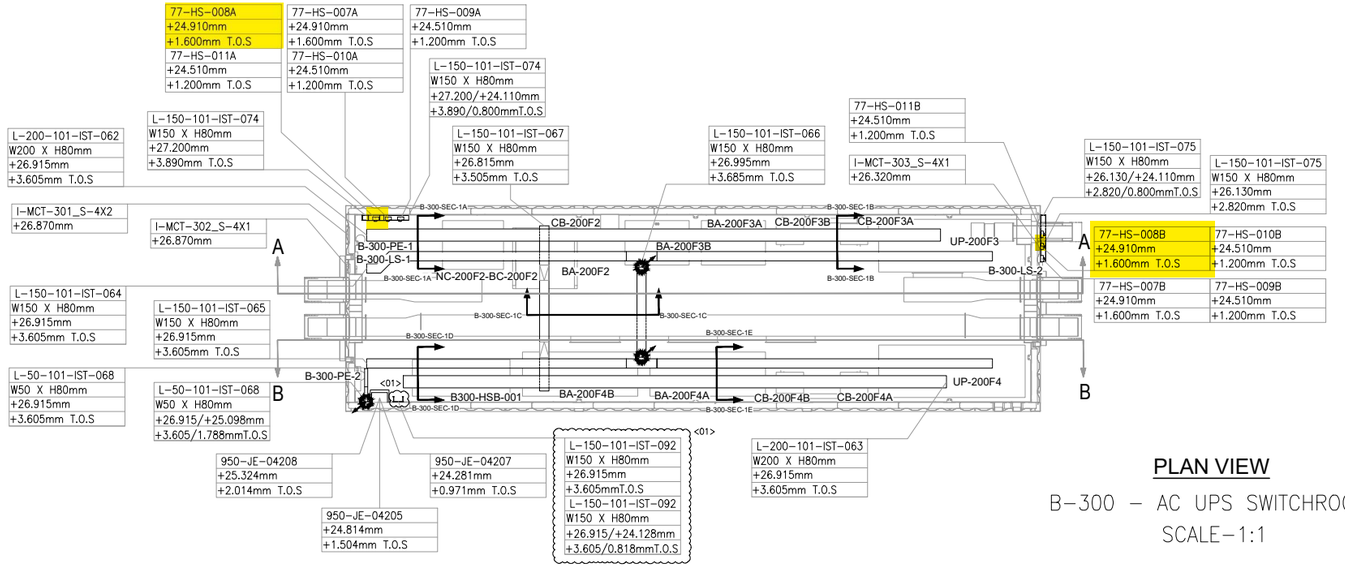
TYPE / SERIAL N°: KEW3125A / W8330207 Calibration date: 10-07-2024

Comments

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM (Rosetti Marino)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-10-11	2024-10-14	
Signature	PROVERLIS Digitaly signed by Carmelo Bongiovanni 2024-10-11T15:36:20.145Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2024-10-14T16:26:51.924Z	

DRAWING NO. 123A90-DDL-IN-DL-40115

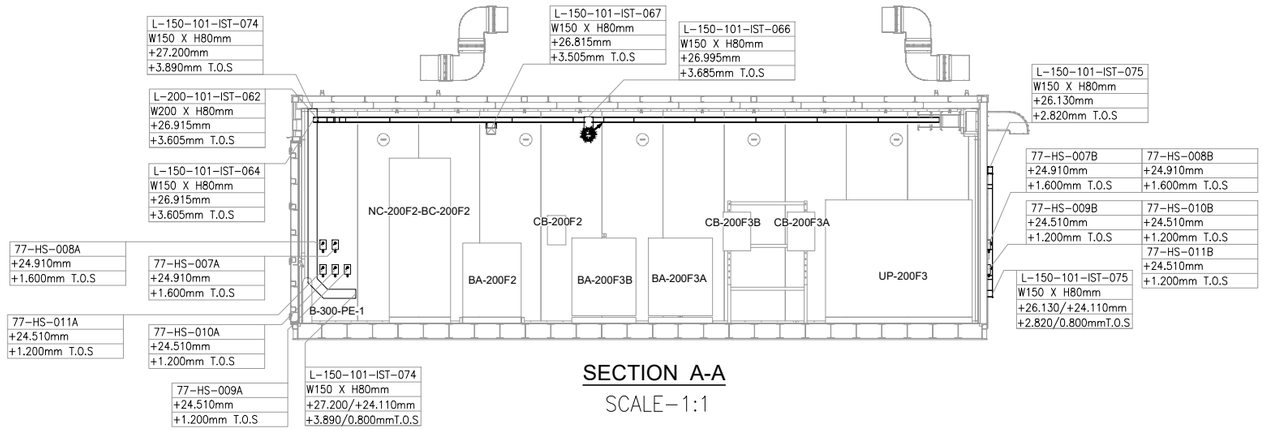
REV. 01



PLAN VIEW

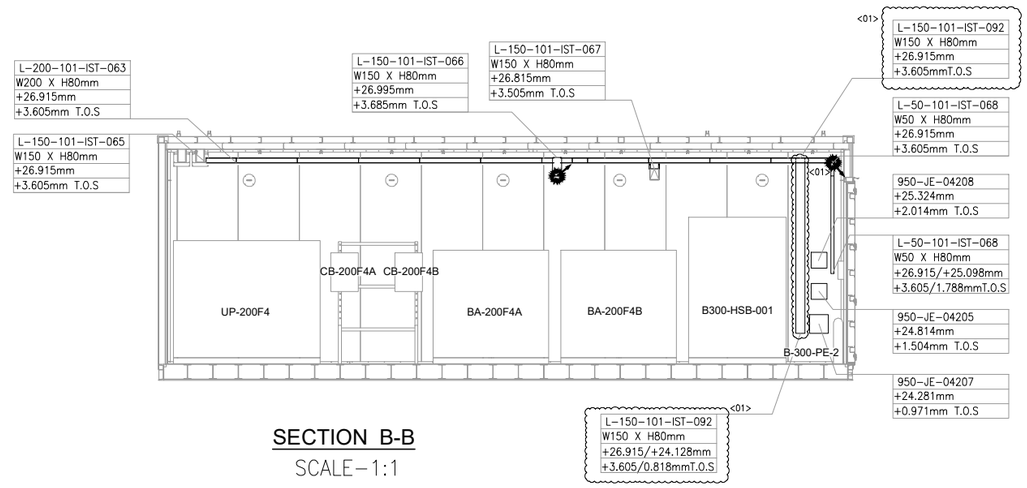
B-300 – AC UPS SWITCHROOM

SCALE-1:1



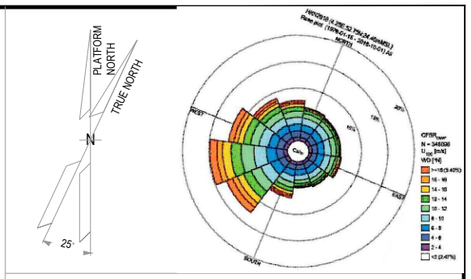
SECTION A-A

SCALE-1:1



SECTION B-B

SCALE-1:1



NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DRAWING IS VALID ONLY FOR CONTAINER CABLE TRAY LAYOUT.

LEGEND

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DL-40115**

REV.:	DATE:	SIGNATURE:
1_A	07/10/24	G.Randi

ROSETTI MARINO SpA

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-IN-DL-40081	INSTRUMENT LAYOUT - UPPER DECK
123A90-DDL-IN-LIS-40091	INSTRUMENT CABLE LIST
123A90-DDL-IN-DG-40015	INSTRUMENT-CCS WIRING DIAGRAMS
123A90-DDL-IN-DG-40016	INSTRUMENT-SAFETY SYSTEM WIRING DIAGRAMS
123A90-DDL-IN-DL-40083	INSTRUMENT MAIN CABLES ROUTING-LOWER DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/08/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)

Base Load Power HUB Cables Tray Layout

B-300 Container Lower Deck – TOS EL. 23.310m

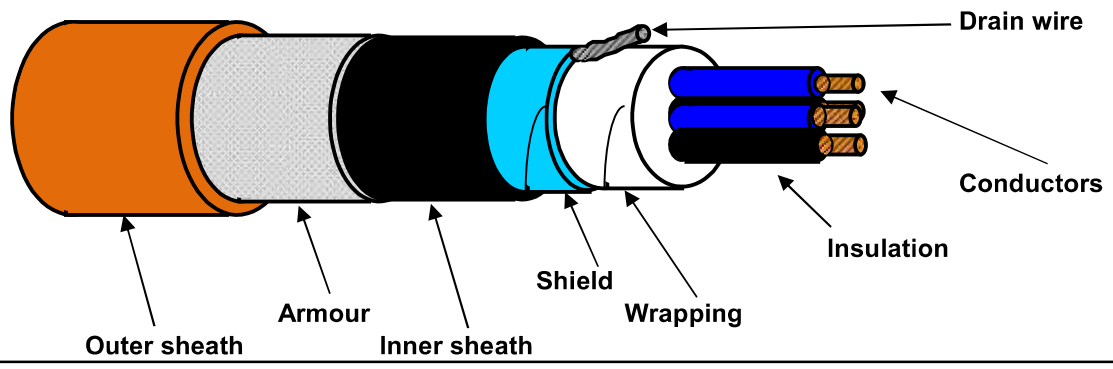
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:50
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 04/10/24
A1	DRAWING NO. 123A90-DDL-IN-DL-40115	SHEET 001	REV. 01

File Name : 123A90-DDL-IN-DL-40115 REV01.dwg

Tag Number	Category	Discipline	Eng Status	NativeDoc	Parent Tag	Grouping	Main Function	Secondary Function	Area	From Tag	From Main Function	From Area	To Tag	To Main Function	To Area	Material ID	Material Desc.	Gland Standard	From Gland	From Entry	From Fitting	To Gland	To Entry	To Fitting	Routing	Routing Manual
C-77-HS-008A/77-HS-008B	Cable	IN	VFC	123A90-DDL-IN-LIS-40091		Int-Ext				77-HS-008A	Hand Switch	Lower Deck (B-300)	77-HS-008B	Hand Switch	Lower Deck (B-300) Ext.	SMICV12-2X2,5	Cable Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250V (300V) 2x2,5mm² - Orange	M20	T2_M20_Double			T2_M20_Double				I-MCT-303 / B-300-SEC-1B / B-300-SEC-1A

Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250 V (300 V)

2X2,5 - INSTRUMENT CABLE - Fire Resistant - Not I.S.



TECHNICAL FEATURES

Conductors :	**7-STRANDED** plain/bare soft annealed copper wires	**IEC 60228 Class 2**
Insulation :	Mica/Glass Tape (MGT) plus XLPE, Nominal Thickness 0,6 mm	
Cores colour code :	**Black NUMBERED (from 1 to 2)**	
Pair Assembling :	Not required	
Pair Wrapping:	Not required	
Drain wire :	Not required	
Pair Shield :	Not required	
Shield Insulation :	Not required	
Total Assembling :	8/1mt	
Overall Wrapping:	by polyester-PET Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Drain wire :	7-Stranded **TINNED** annealed copper drain wire, **size 1,0 sqmm**, in continuous contact with the shield	
Overall Shield :	by Aluminium-**Al** Minimum Thickness 0,008 mm / polyester-**PET** Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Inner sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, Average Thickness 1,1 mm	
Inner sheath color code:	**Black**	
Armour :	Galvanized Steel Wire Braid Armour (coverage ≥ 90%)	
Outer sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, moisture/abrasion/UV Resistant,	
	Average Thickness 1,3 mm	
Outer sheath color code:	**Orange**	
Outer printing (INKJET) :	**FLEI - 2X2,5 SQMM - MGT/XLPE/OS/LSZH/SWB/LSZH - 150/250 V - IEC 60331.21 -**	
(every 1000 mm)	**IEC 60332.1.2 - IEC 60332.3.22 - Year of Manufacture - CE + Meter Marking**	
Under armour diameter :	(10,3 ± 10%) mm	
Over armour diameter :	(11,5 ± 10%) mm	
Outer diameter :	(14,1 ± 10%) mm	
Bending radius :	cable outer diameter x 10 (in fixed installation)	
Voltage Test :	1,5 kV a.c. for 5' (Between Cores) / 1,5 kV a.c. for 5' (Between Cores - Shield)	
Conductors DC Resistance :	≤ 7,86 Ω/km (@ 20°C)	
Insulation Resistance :	≥ 1000 MΩ x Km (@ 20°C)	
Applicable Standards		
Design Guidelines :	**IEC 60092.376**	
ON COMPLETE CABLE		
Fire Resistant test :	**IEC 60331.21**	
Flame Retardant test :	IEC 60332.1.2 - IEC 60332.3.22	
Acid Gas generation :	IEC 60754.1/2	
Smoke density/Light Transmittance :	IEC 61034.2 (LT ≥ 60%)	
Hazardous Areas :	IEC 60079.14 par.9.3.2a	
Temperature Range :		
ON INSULATION	(max +90°C) (max continuous operation temperature of conductors)	
	(max +250°C) (max conductors temperature during short-circuit for 5 seconds)	
ON COMPLETE CABLE		
During Operation :	(-20°C up to +90°C) (in fixed installation)	
During installation :	(- 5°C up to +50°C)	
Note :	**To meet the requirements of installation and use in Zone 1 & Zone 2 (IEC 60079-14) and "Gas & Vapour Tight" the cable must be provided with Penetrating Inner sheath together with correct ATEX approved equipment or accessories.**	

Office	Date	Sign	Rev.	Date	Sign
Drawn by :	04/04/2024	Messa			
Checked :	04/04/2024	Spaccasassi			
Approved :	04/04/2024	Cucinotta			

The data provided, lending assent for the treatment, will be used to the sense of the article 13 of of the Regulation (UE) 2016/679, also through outsiders, in order to allow the realization of the fulfilments informatives, administrative, commercial and accounting related to the contractual relationship. Integral copy of the informative could be requested at our offices.

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DRAWING NO. 123A90-DDL-IN-DG-40016

REV. 01

NOTES:

1. ALL SPARE ENTRIES SHALL BE PROVIDED WITH CERTIFIED EX PROOF PLUGS.
2. CABLE SCREENS / DRAIN WIRE SHALL BE SECURELY INSULATED AND TIED BACK IN THE INSTRUMENT SIDE AND SHAL BE TERMINATED IN THE MARSHALLING SIDE OF THE PANEL.
3. SPARE PAIRS / TRIADS SHALL BE CONNECTED TO TERMINALS IN JUNCTION BOX AND PANEL / MARSHALLING CABINETS.
4. ALL CABLE SCREENS TO BE TERMINATED AT THE INSTRUMENT EARTH BAR IN THE RESPECTIVE EARTH BARS (IS OR NIS) AS APPLICABLE IN THE MARSHALLING CABINET.
5. CONNECTION TERMINAL BLOCK SHALL BE DEFINED DURING CONSTRUCTION PHASE.

<01>

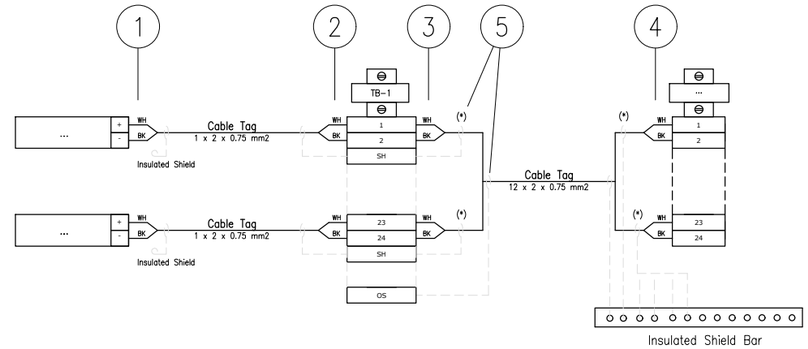
LEGENDS & SYMBOLS:

LEGEND:

I.E.	- GREEN ——— INSTRUMENT SIGNAL EARTH
P.E.	- GREEN/YELLOW —— P.E. EARTH/BONDING
	- TERMINAL BLOCK (TB)
WH	- WHITE
BK	- BLACK
RD	- RED
S	- SHIELD TERMINAL
OS	- OVERALL SHIELD TERMINAL
O/A Shld	- OVERALL SHIELD
I&O/A Shld	- INDIVIDUAL & OVERALL SHIELD
NIS	- NON INTRINSICALLY SAFE
IS	- INTRINSICALLY SAFE
P.E.	- PLANT EARTH
PCS	- PROCESS CONTROL SYSTEM <01>
ESD	- EMERGENCY SHUTDOWN SYSTEM
SIS	- SAFETY INSTRUMENT SYSTEM
FGS	- FIRE & GAS SYSTEM <01>
MC	- MARSHALLING CABINET
AI	- ANALOGUE INPUT
AO	- ANALOGUE OUTPUT
DI	- DIGITAL INPUT
DO	- DIGITAL OUTPUT
JE	- JUNCTION BOX FOR ELECTRICAL SIGNALS <01>

TYPICAL WIRE CROSS-FERRULING:

PHILOSOPHY OF CROSS-FERRULING: <01>



(*) Single shield is foreseen only for AI/AO signals.

1 - INSTRUMENT TERMINAL NO. OR POLARITY/JB NO./JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

2 - INSTRUMENT TAG NO./INSTRUMENT TERMINAL NO. OR POLARITY/JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

3 - PAIR OR CORE NO./MARSHALLING CABINET NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

4 - PAIR OR CORE NO./JB NO./JB TERMINAL NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

5 - HEAT SHRINKABLE BLACK FOR SHIELD OF NIS INSTRUMENT CABLE.
(HEAT SHRINKABLE BLUE FOR SHIELD OF NIS INSTRUMENT CABLE)

REFERENCE DRAWINGS

PIPING AND INSTRUMENT DIAGRAM	123A90-DDL-PR-PID-80009
INSTRUMENT INDEX	123A90-DDL-IN-LIS-40088 Rev.01
F&G DETECTORS LAYOUT	123A90-DDL-SAF-DL-30027

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_D	14/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
INSTRUMENT – SAFETY SYSTEM WIRING DIAGRAMS
GENERAL NOTES/LEGENDS

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

	DRAWING NO.	SHEET	REV.
A3	123A90-DDL-IN-DG-40016	003	01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

DRAWING NO. 123-A90-DDL-IN-DG-40016 REV. 01

FIELD | MULTICABLE | I&T EQUIPMENT ROOM (ITER)

INSTRUMENTS | JUNCTION BOX 950-JE-04207 | No. | MARSHALLING CABINET B400-FGS-002

<01> B-300 UPS Room

950-XZ-04202 (+/-) 1BK 2BK — NOTE-2 — C-950-XZ-04202/950-JE-04207 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 1BK 1 2BK

950-XL-04203 (+/-) 1BK 2BK — NOTE-2 — C-950-XL-04203/950-JE-04207 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 3 4

950-XL-04204 (+/-) 1BK 2BK — NOTE-2 — C-950-XL-04204/950-JE-04207 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 5 6

B-300 OUTDOOR

1BK 2BK 12 22 77-HS-007B 11 21 1BK 2BK — NOTE-2 — C-77-HS-007B/950-JE-04207 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 7 8

NOTE-2

C-77-HS-007A/77-HS-007B
~~C-77-HY-007B/77-HY-007A~~
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77007

77-HY-007 1 2 1BK 2BK — C-77-HY-007/77-HS-007A 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

1BK 2BK 12 22 77-HS-007A 11 21 1BK 2BK — NOTE-2

B-300 OUTDOOR

1BK 2BK 12 22 77-HS-008B 11 21 1BK 2BK — NOTE-2 — C-77-HS-008B/950-JE-04207 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 9 10

NOTE-2

C-77-HS-008A/77-HS-008B
~~C-77-HS-008B/77-HS-008A~~
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77008

77-HY-008 1 2 1BK 2BK — C-77-HY-008/77-HS-008A 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

1BK 2BK 12 22 77-HS-008A 11 21 1BK 2BK — NOTE-2

B-300 OUTDOOR

1BK 2BK 12 22 77-HS-009B 11 21 1BK 2BK — NOTE-2 — C-77-HS-009B/950-JE-04207 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 11 12

NOTE-2

C-77-HS-009A/77-HS-009B
~~C-77-HS-009B/77-HS-009A~~
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77009

77-HY-009 1 2 1BK 2BK — C-77-HY-009/77-HS-009A 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

1BK 2BK 12 22 77-HS-009A 11 21 1BK 2BK — NOTE-2

B-300 OUTDOOR

1BK 2BK 12 22 77-HS-010B 11 21 1BK 2BK — NOTE-2 — C-77-HS-010B/950-JE-04207 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 13 14

NOTE-2

C-77-HS-010A/77-HS-010B
~~C-77-HS-010B/77-HS-010A~~
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77010

77-HY-010 1 2 1BK 2BK — C-77-HY-010/77-HS-010A 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

1BK 2BK 12 22 77-HS-010A 11 21 1BK 2BK — NOTE-2

B-300 OUTDOOR

1BK 2BK 12 22 77-HS-011B 11 21 1BK 2BK — NOTE-2 — C-77-HS-011B/950-JE-04207 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 15 16 17 18 19 20 21 22 23 24

NOTE-2

C-77-HS-011A/77-HS-011B
~~C-77-HS-011B/77-HS-011A~~
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77011

77-HY-011 1 2 1BK 2BK — C-77-HY-011/77-HS-011A 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

1BK 2BK 12 22 77-HS-011A 11 21 1BK 2BK — NOTE-2

TB-1: SH, SH, SH, SH, SH, SH, SH, SH, SH, SH, SH, SH, SH, SH, SH, SH, SH, SH, SH, SH, SH, SH, SH, OS

950-JE-04207/B400-FGS-002
24x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

TB-950-JE-04207

1BK	1	950-XZ-04202
2BK	2	
3BK	3	950-XL-04203
4BK	4	
5BK	5	950-XL-04204
6BK	6	
7BK	7	77-HY-007
8BK	8	
9BK	9	77-HY-008
10BK	10	
11BK	11	77-HY-009
12BK	12	
13BK	13	77-HY-010
14BK	14	
15BK	15	77-HY-011
16BK	16	
17BK	17	SPARE
18BK	18	
19BK	19	SPARE
20BK	20	
21BK	21	SPARE
22BK	22	
23BK	23	SPARE
24BK	24	

Shield Bar — I.E.

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_D	14/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND | ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
INSTRUMENT–FGS WIRING DIAGRAMS
950–JE–04207

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

A3	DRAWING NO. 123A90–DDL–IN–DG–40016	SHEET 069	REV. 01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

ROSETTI MARINO — CROSSWIND

ITEM	Tag	C-77-HY-008/77-HS-008A	: FIRE DAMPER / MARSHALLING PCS	Dwg	123A90-DDL-IN-LIS-40091		
	S/Sys	77-30	: HVAC UPS Equipment Room B-300	Module	LD_B-300		
TASK	code	C10000383	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity CCK	Discipline	Instrumental	Form CJX10	Multi/Single-Core Instrument Control Cable

CABLE DATA

Type: Cu-MICA-XLPE-OS-LSZH-SWB-LSZH — Cores/Size mm²: 2X2,5 mm2 — Color: ORANGE

From: HFD-77008 — To: 77-HS-008A

1	Check cable is as specified in project cable schedule.	OK
2	Check relevant documents are at the latest revision.	PL
3	Check cable is routed in accordance with cable layout drawings.	PL
4	Check cable for any physical damage.	OK
5	Check cable is adequately supported and correctly fixed to rack according to Project specification.	OK
6	Check bending radius is within the specified limits.	OK
7	Check cable is correctly loomed and segregated in accordance with specification.	OK
8	Check cable and core marking are in accordance with specification.	OK
9	Check cable labelling is in accordance with specification.	OK
10	Check that glands, shrouds and earthing are in accordance with specification.	OK
11	Check terminations are in accordance with termination diagram	OK
12	Check gland plate for single core cables is non-ferrous.	OK
13	If required produce Red Line Mark Up for "AS BUILT"	

INSULATION	CORE to EARTH	>999	MΩ
	CORE to CORE	>999	MΩ
	CORE to SCREEN	>999	MΩ
	CORE to ARMr	>999	MΩ
	SCREEN to EARTH	>999	MΩ
	SCREEN to ARMr	>999	MΩ
CONTINUITY	CORES	0,4	Ω
	SCREEN	0,4	Ω
	EARTH	NA	Ω
	ARMr	0,4	Ω
	TEST VOLTS	500	V

TEST ALL CORES AND RECORD LOWEST VALUE

Notes: The lowest value is recorded and must be within project specifications

TESTING INSTRUMENTS USED

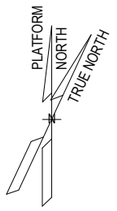
TYPE / SERIAL N°: MEGGER : KEW3125A SERIAL: W8330207 — Calibration date: 10/07/2024

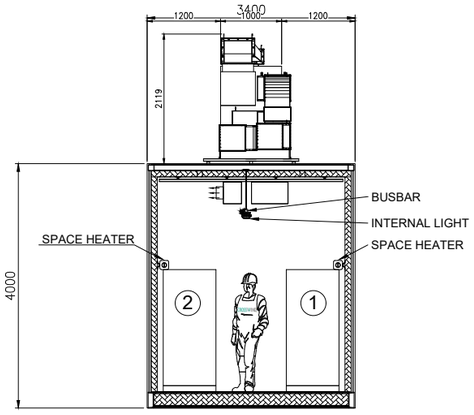
Comments

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICSI IMPIANTI	RM (ROSETTI MARINO)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-10-28	2024-11-21	
Signature	Digitaly signed by Carmelo Bongiovanni 2024-10-28T06:54:43.568Z	Digitaly signed by Giovanni Tangianu 2024-11-21T09:57:41.688Z	

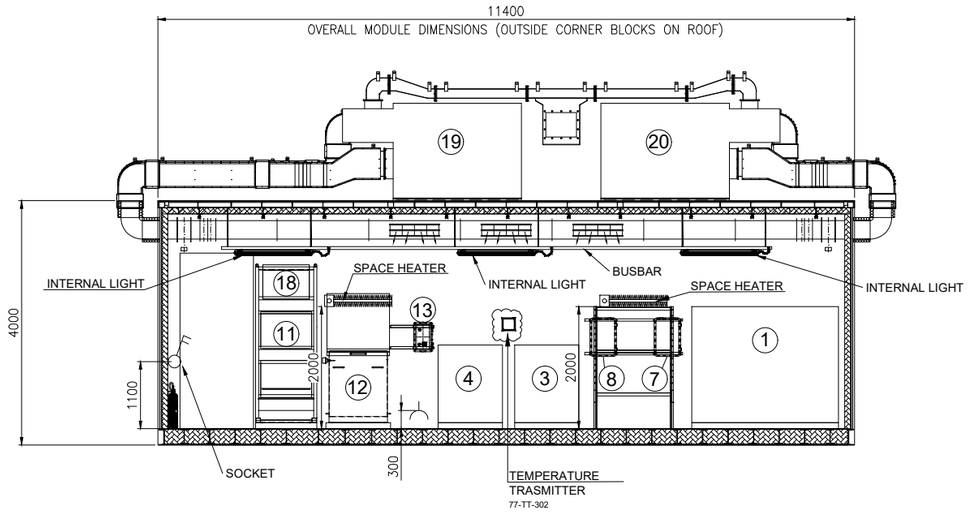
DRAWING NO. 1724000049-AR-DA-00016

REV. 03



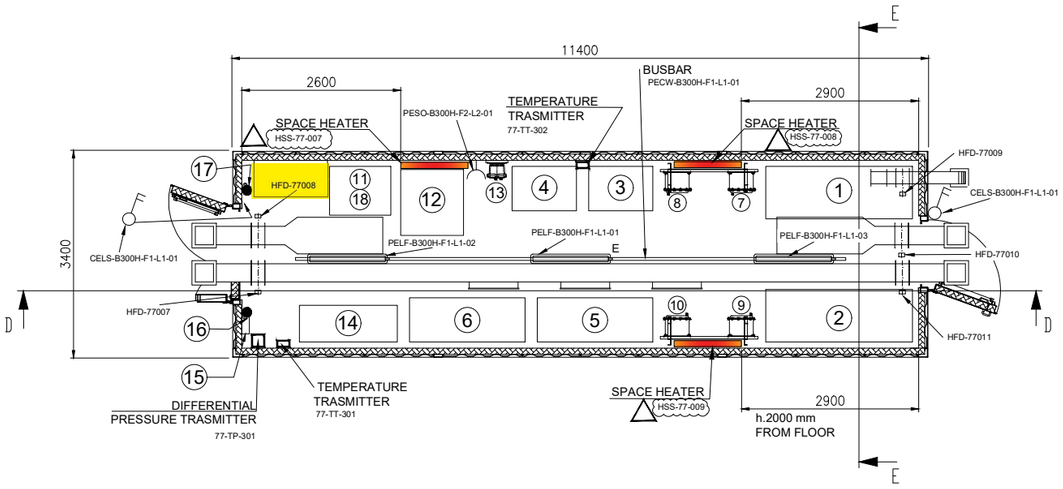


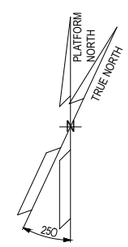
SECTION E-E

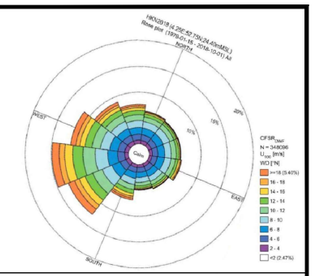


SECTION D-D

EQUIPMENT LIST						
REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
11	NC-200F2	NAVAID PANEL	1000	800	2600	535
12	BA-200F2	BATTERY BOX NAVAID	958	993	1210	1552
13	CB-200F2	ISOLATOR BOX NAVAID	500	400	765	70
14	B300-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	500
15	-	EYE WASH STATION	228	80	290	5
16	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
17	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
18	BC-200F2	BATTERY CHARGER NAVAID	607	607	2157	500
19	HHU-77005	AIR HANDLING UNIT A	2100	1000	2158	850
20	HHU-77006	AIR HANDLING UNIT B	2100	1000	2158	850
21	HSS-77-007	SPACE HEATER 1	184	145	1100	5
22	HSS-77-008	SPACE HEATER 2	184	145	1100	5
23	HSS-77-009	SPACE HEATER 3	184	145	1100	5







NOTE

1) ALL DIMENSIONS ARE IM MM.
2) THE POSITION OF THE LAMPS INDICATED IS TO BE CONSIDERED THE THEORETICAL ONE, THE FINA ONE WILL BE CONFIRMED IN THE AS-BUILT ISSUE.

REFERENCE

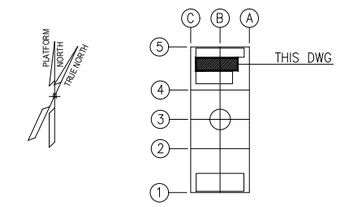
DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00066
"B-300" DETAILED DRAWING	1724000049-AR-DD-00020
PAINTING PROCEDURE	1724000049-MAT-PRO-00006
"B-300" FOUNDATION	1724000049-ST-DD-00012
"B-300" STRUCTURAL CALCULATION	1724000049-ST-CA-00008

LEGEND

- INTERNAL LIGHT
- E INTERNAL EMERGENCY LIGHT
- SOCKET OUTLET, INDOOR
- LIGHT SWITCH
- _____ ESCAPE CORRIDOR – WIDTH 800mm.
- _____ MAINTENANCE AREA – VENDOR REQUIREMENT
- _____ INSULATION PANEL

HOLDS

KEY PLAN



ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	23/07/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
02	03/07/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
01	16/05/24	M.G.	SKV	C.A.	ISSUE FOR REVIEW (IFR)
00	08/02/24	A.G.	SKV	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND | ROSETTI MARINO

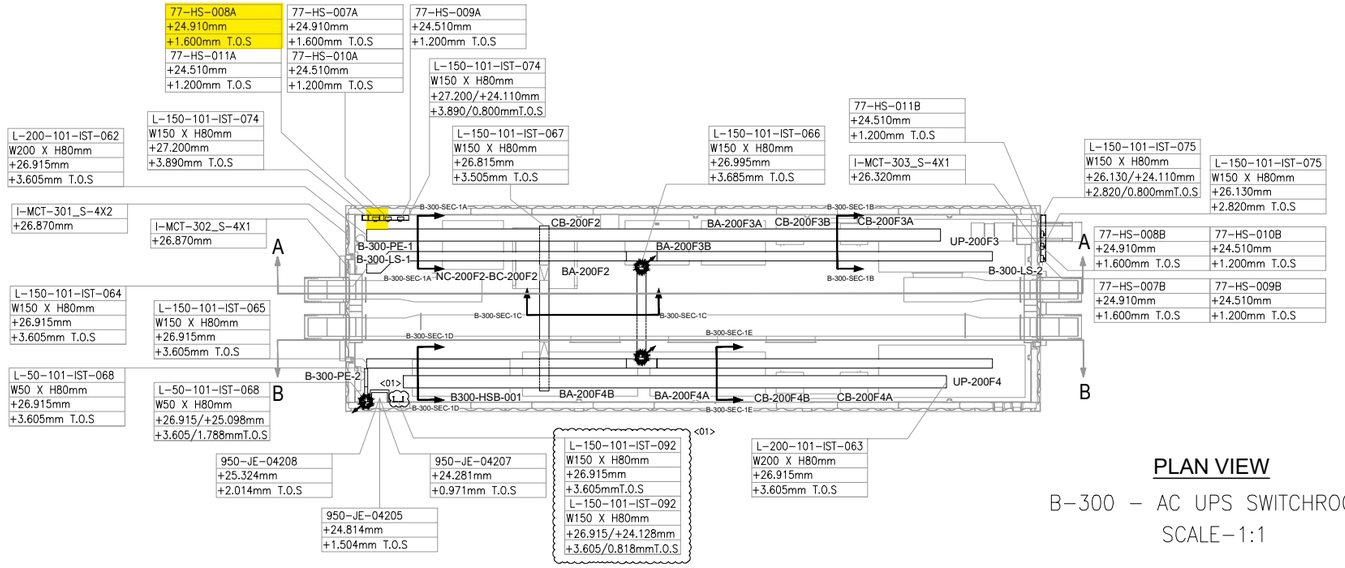
TITLE :
BASE LOAD POWER HUB (BLPH)
B-300 GENERAL ARRANGEMENT DRAWINGS

CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 23/07/24
A1	DRAWING NO. 1724000049-AR-DA-00016	SHEET 003	REV. 03

File Name : 1724000049-AR-DA-00016-REV.03

DRAWING NO. 123A90-DDL-IN-DL-40115

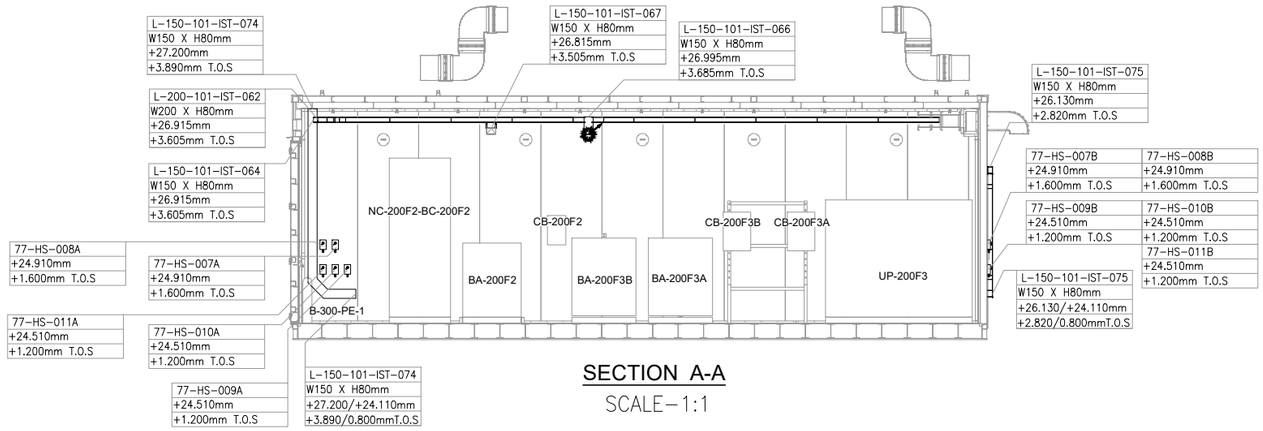
REV. 01



PLAN VIEW

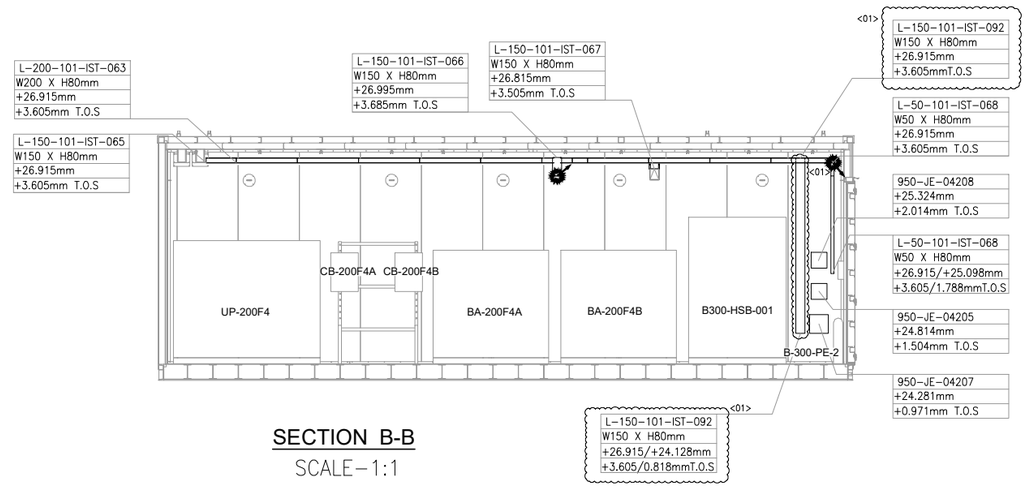
B-300 – AC UPS SWITCHROOM

SCALE-1:1



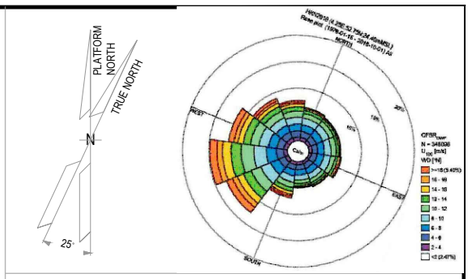
SECTION A-A

SCALE-1:1



SECTION B-B

SCALE-1:1



NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DRAWING IS VALID ONLY FOR CONTAINER CABLE TRAY LAYOUT.

LEGEND

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DL-40115**

REV.:	DATE:	SIGNATURE:
1_A	07/10/24	G.Randi

ROSETTI MARINO SpA

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-IN-DL-40081	INSTRUMENT LAYOUT - UPPER DECK
123A90-DDL-IN-LIS-40091	INSTRUMENT CABLE LIST
123A90-DDL-IN-DG-40015	INSTRUMENT-CCS WIRING DIAGRAMS
123A90-DDL-IN-DG-40016	INSTRUMENT-SAFETY SYSTEM WIRING DIAGRAMS
123A90-DDL-IN-DL-40083	INSTRUMENT MAIN CABLES ROUTING-LOWER DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/08/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)

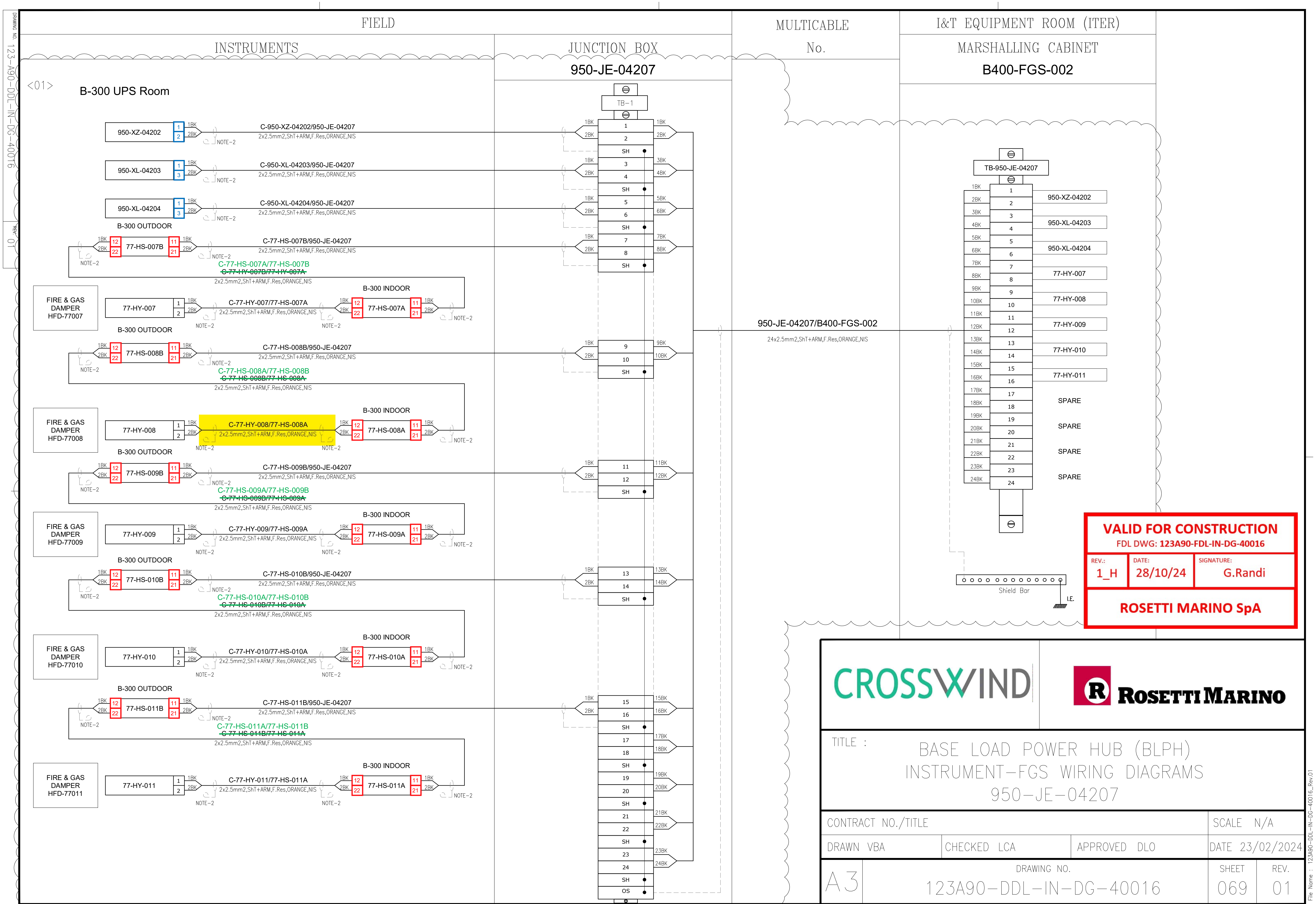
Base Load Power HUB Cables Tray Layout

B-300 Container Lower Deck – TOS EL. 23.310m

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:50
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 04/10/24

A1	DRAWING NO. 123A90-DDL-IN-DL-40115	SHEET 001	REV. 01

File Name : 123A90-DDL-IN-DL-40115 REV01.dwg



VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_H	28/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND | ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH) INSTRUMENT–FGS WIRING DIAGRAMS 950–JE–04207

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024
A3	DRAWING NO. 123A90–DDL–IN–DG–40016	SHEET 069	REV. 01

DRAWING NO. 123–A90–DDL–IN–DG–40016 REV. 01

File Name : 123A90–DDL–IN–DG–40016_Rev.01

DRAWING NO. 123A90-DDL-IN-DG-40016

REV. 01

NOTES:

1. ALL SPARE ENTRIES SHALL BE PROVIDED WITH CERTIFIED EX PROOF PLUGS.
2. CABLE SCREENS / DRAIN WIRE SHALL BE SECURELY INSULATED AND TIED BACK IN THE INSTRUMENT SIDE AND SHAL BE TERMINATED IN THE MARSHALLING SIDE OF THE PANEL.
3. SPARE PAIRS / TRIADS SHALL BE CONNECTED TO TERMINALS IN JUNCTION BOX AND PANEL / MARSHALLING CABINETS.
4. ALL CABLE SCREENS TO BE TERMINATED AT THE INSTRUMENT EARTH BAR IN THE RESPECTIVE EARTH BARS (IS OR NIS) AS APPLICABLE IN THE MARSHALLING CABINET.
5. CONNECTION TERMINAL BLOCK SHALL BE DEFINED DURING CONSTRUCTION PHASE.

<01>

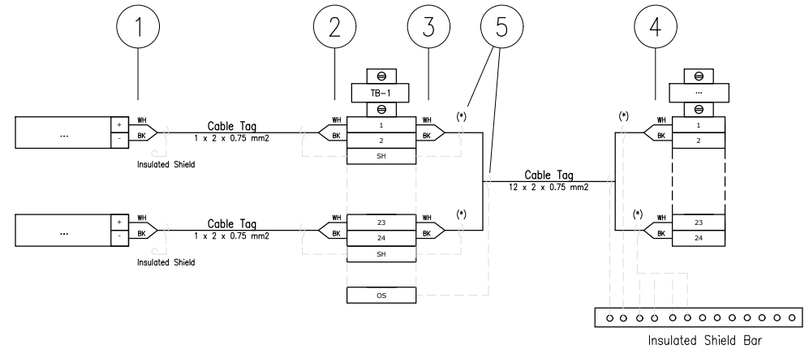
LEGENDS & SYMBOLS:

LEGEND:

I.E.	- GREEN ——— INSTRUMENT SIGNAL EARTH
P.E.	- GREEN/YELLOW —— P.E. EARTH/BONDING
	- TERMINAL BLOCK (TB)
WH	- WHITE
BK	- BLACK
RD	- RED
S	- SHIELD TERMINAL
OS	- OVERALL SHIELD TERMINAL
O/A Shld	- OVERALL SHIELD
I&O/A Shld	- INDIVIDUAL & OVERALL SHIELD
NIS	- NON INTRINSICALLY SAFE
IS	- INTRINSICALLY SAFE
P.E.	- PLANT EARTH
PCS	- PROCESS CONTROL SYSTEM <01>
ESD	- EMERGENCY SHUTDOWN SYSTEM
SIS	- SAFETY INSTRUMENT SYSTEM
FGS	- FIRE & GAS SYSTEM <01>
MC	- MARSHALLING CABINET
AI	- ANALOGUE INPUT
AO	- ANALOGUE OUTPUT
DI	- DIGITAL INPUT
DO	- DIGITAL OUTPUT
JE	- JUNCTION BOX FOR ELECTRICAL SIGNALS <01>

TYPICAL WIRE CROSS-FERRULING:

PHILOSOPHY OF CROSS-FERRULING: <01>



(*) Single shield is foreseen only for AI/AO signals.

1 - INSTRUMENT TERMINAL NO. OR POLARITY/JB NO./JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

2 - INSTRUMENT TERMINAL NO. OR POLARITY/INSTRUMENT TAG NO./JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

3 - PAIR OR CORE NO./MARSHALLING CABINET NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

4 - PAIR OR CORE NO./JB NO./JB TERMINAL NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

5 - HEAT SHRINKABLE BLACK FOR SHIELD OF NIS INSTRUMENT CABLE.
(HEAT SHRINKABLE BLUE FOR SHIELD OF NIS INSTRUMENT CABLE)

6 - IN CASE OF CONNECTION FROM RIGHT TO LEFT, ORDER OF INFORMATION SHALL BE MIRRORED

REFERENCE DRAWINGS

PIPING AND INSTRUMENT DIAGRAM	123A90-DDL-PR-PID-80009
INSTRUMENT INDEX	123A90-DDL-IN-LIS-40088 Rev.01
F&G DETECTORS LAYOUT	123A90-DDL-SAF-DL-30027

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT – SAFETY SYSTEM WIRING DIAGRAMS
GENERAL NOTES/LEGENDS

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

A3	DRAWING NO. 123A90-DDL-IN-DG-40016	SHEET 003	REV. 01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40016**

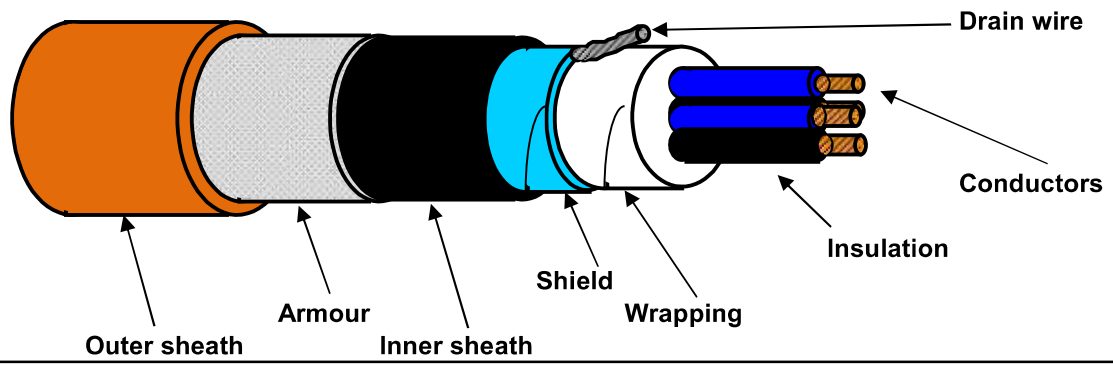
REV.:	DATE:	SIGNATURE:
1_H	28/10/24	G.Randi

ROSETTI MARINO SpA

Tag Number	Category	Discipline	Eng Status	NativeDoc	Parent Tag	Grouping	Main Function	Secondary Function	Area	From Tag	From Main Function	From Area	To Tag	To Main Function	To Area	Material ID	Material Desc.	Gland Standard	From Gland	From Entry	From Fitting	To Gland	To Entry	To Fitting	Routing	Routing Manual
C-77-HY-008/77-HS-008A	Cable	IN	VFC	123A90-DDL-IN-LIS-40091		Int-Ext				HFD-77008	Fire Damper	Lower Deck (B-300)	77-HS-008A	Hand Switch	Lower Deck (B-300)	SMICV12-2X2,5	Cable Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250V (300V) 2x2,5mm² - Orange	M20	T2_M20_Double			T2_M20_Double				B-300-SEC-1A

Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250 V (300 V)

2X2,5 - INSTRUMENT CABLE - Fire Resistant - Not I.S.



TECHNICAL FEATURES

Conductors :	**7-STRANDED** plain/bare soft annealed copper wires	**IEC 60228 Class 2**
Insulation :	Mica/Glass Tape (MGT) plus XLPE, Nominal Thickness 0,6 mm	
Cores colour code :	**Black NUMBERED (from 1 to 2)**	
Pair Assembling :	Not required	
Pair Wrapping:	Not required	
Drain wire :	Not required	
Pair Shield :	Not required	
Shield Insulation :	Not required	
Total Assembling :	8/1mt	
Overall Wrapping:	by polyester-PET Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Drain wire :	7-Stranded **TINNED** annealed copper drain wire, **size 1,0 sqmm**, in continuous contact with the shield	
Overall Shield :	by Aluminium-**Al** Minimum Thickness 0,008 mm / polyester-**PET** Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Inner sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, Average Thickness 1,1 mm	
Inner sheath color code:	**Black**	
Armour :	Galvanized Steel Wire Braid Armour (coverage ≥ 90%)	
Outer sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, moisture/abrasion/UV Resistant,	
	Average Thickness 1,3 mm	
Outer sheath color code:	**Orange**	
Outer printing (INKJET) :	**FLEI - 2X2,5 SQMM - MGT/XLPE/OS/LSZH/SWB/LSZH - 150/250 V - IEC 60331.21 -**	
(every 1000 mm)	**IEC 60332.1.2 - IEC 60332.3.22 - Year of Manufacture - CE + Meter Marking**	
Under armour diameter :	(10,3 ± 10%) mm	
Over armour diameter :	(11,5 ± 10%) mm	
Outer diameter :	(14,1 ± 10%) mm	
Bending radius :	cable outer diameter x 10 (in fixed installation)	
Voltage Test :	1,5 kV a.c. for 5' (Between Cores) / 1,5 kV a.c. for 5' (Between Cores - Shield)	
Conductors DC Resistance :	≤ 7,86 Ω/km (@ 20°C)	
Insulation Resistance :	≥ 1000 MΩ x Km (@ 20°C)	
Applicable Standards		
Design Guidelines :	**IEC 60092.376**	
ON COMPLETE CABLE		
Fire Resistant test :	**IEC 60331.21**	
Flame Retardant test :	IEC 60332.1.2 - IEC 60332.3.22	
Acid Gas generation :	IEC 60754.1/2	
Smoke density/Light Transmittance :	IEC 61034.2 (LT ≥ 60%)	
Hazardous Areas :	IEC 60079.14 par.9.3.2a	
Temperature Range :		
ON INSULATION	(max +90°C) (max continuous operation temperature of conductors)	
	(max +250°C) (max conductors temperature during short-circuit for 5 seconds)	
ON COMPLETE CABLE		
During Operation :	(-20°C up to +90°C) (in fixed installation)	
During installation :	(- 5°C up to +50°C)	
Note :	**To meet the requirements of installation and use in Zone 1 & Zone 2 (IEC 60079-14) and "Gas & Vapour Tight" the cable must be provided with Penetrating Inner sheath together with correct ATEX approved equipment or accessories.**	

Office	Date	Sign	Rev.	Date	Sign
Drawn by :	04/04/2024	Messa			
Checked :	04/04/2024	Spaccasassi			
Approved :	04/04/2024	Cucinotta			

The data provided, lending assent for the treatment, will be used to the sense of the article 13 of of the Regulation (UE) 2016/679, also through outsiders, in order to allow the realization of the fulfilments informatives, administrative, commercial and accounting related to the contractual relationship. Integral copy of the informative could be requested at our offices.

All proprietary rights reserved according to law. This document shall be not reproduced without written permission. FLEI reserves the right to change characteristics and technical data of product shown at any time.

ROSETTI MARINO — CROSSWIND

ITEM	Tag	C-77-HS-009B/950-JE-04207 : PUSH BUTTON / MARSHALLING PCS			Dwg	123A90-DDL-IN-LIS-40091	
	S/Sys	77-30 : HVAC UPS Equipment Room B-300			Module	LD_B-300_Ext/LD_B-300	
TASK	code	C10000384	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity	CCK	Discipline	Instrumental	Form	CJX10	Multi/Single-Core Instrument Control Cable

CABLE DATA

Type	Cu-MICA-XLPE-OS-LSZH-SWB-LSZH	Cores/Size mm²	2x2.5 mm2	Color	ORANGE
From	77-HS-009B	To	950-JE-04207		

1	Check cable is as specified in project cable schedule.	OK
2	Check relevant documents are at the latest revision.	OK
3	Check cable is routed in accordance with cable layout drawings.	OK
4	Check cable for any physical damage.	OK
5	Check cable is adequately supported and correctly fixed to rack according to Project specification.	OK
6	Check bending radius is within the specified limits.	OK
7	Check cable is correctly loomed and segregated in accordance with specification.	OK
8	Check cable and core marking are in accordance with specification.	OK
9	Check cable labelling is in accordance with specification.	PL
10	Check that glands, shrouds and earthing are in accordance with specification.	OK
11	Check terminations are in accordance with termination diagram	OK
12	Check gland plate for single core cables is non-ferrous.	NA
13	If required produce Red Line Mark Up for "AS BUILT"	

INSULATION	CORE to EARTH		>999	MΩ
	CORE to CORE		>999	MΩ
	CORE to SCREEN		>999	MΩ
	CORE to ARMr		>999	MΩ
	SCREEN to EARTH		>999	MΩ
	SCREEN to ARMr		>999	MΩ
CONTINUITY	CORES		0.6	Ω
	SCREEN		0.5	Ω
	EARTH		0.7	Ω
	ARMr		0.5	Ω
	TEST VOLTS		500	V

TEST ALL CORES AND RECORD LOWEST VALUE

Notes: The lowest value is recorded and must be within project specifications

TESTING INSTRUMENTS USED

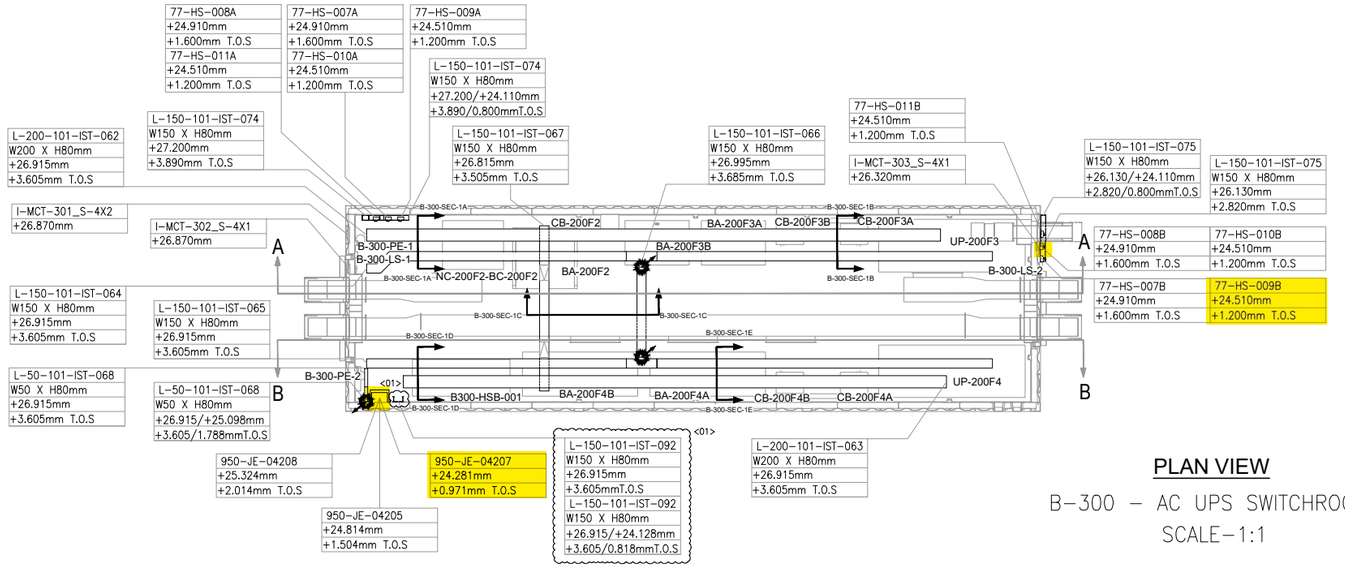
TYPE / SERIAL N°: KEW3125A/W8330207 Calibration date: 10-07-2024

Comments

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM (Rosetti Marino)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-10-11	2024-10-15	
Signature	Digitaly signed by Carmelo Bongiovanni 2024-10-11T15:36:41.723Z	Digitaly signed by Giovanni Tangianu 2024-10-15T11:07:03.508Z	

DRAWING NO. 123A90-DDL-IN-DL-40115

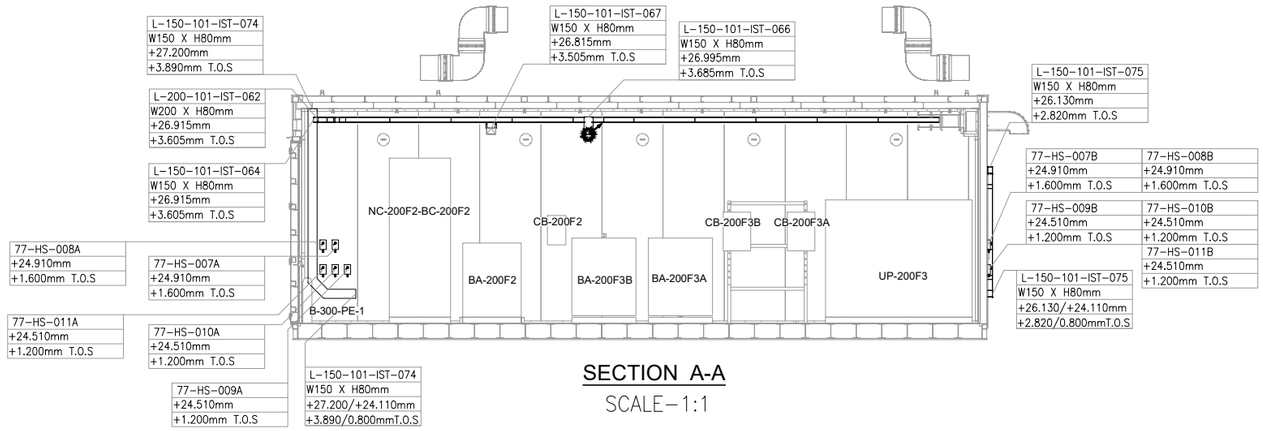
REV. 01



PLAN VIEW

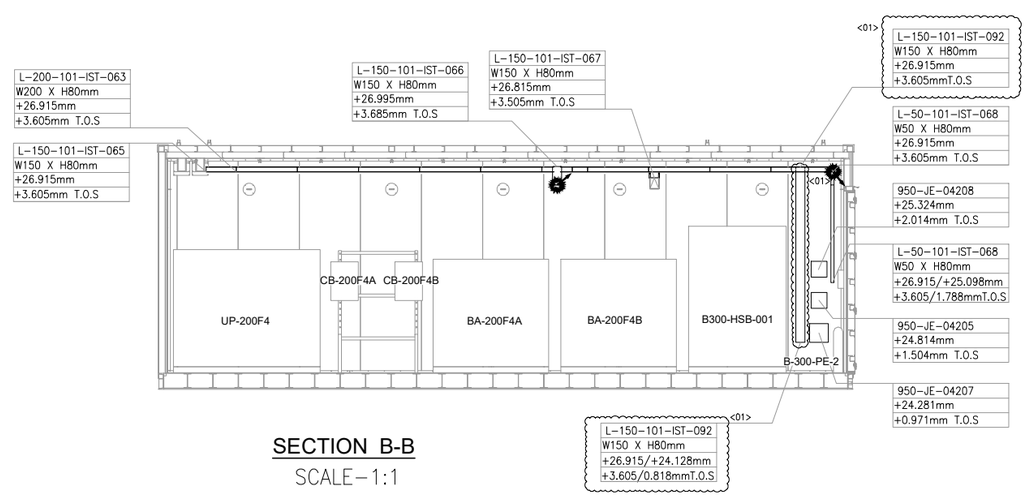
B-300 – AC UPS SWITCHROOM

SCALE-1:1



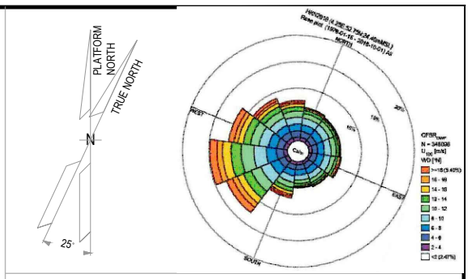
SECTION A-A

SCALE-1:1



SECTION B-B

SCALE-1:1



NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DRAWING IS VALID ONLY FOR CONTAINER CABLE TRAY LAYOUT.

LEGEND

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DL-40115**

REV.:	DATE:	SIGNATURE:
1_A	07/10/24	G.Randi

ROSETTI MARINO SpA

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-IN-DL-40081	INSTRUMENT LAYOUT - UPPER DECK
123A90-DDL-IN-LIS-40091	INSTRUMENT CABLE LIST
123A90-DDL-IN-DG-40015	INSTRUMENT-CCS WIRING DIAGRAMS
123A90-DDL-IN-DG-40016	INSTRUMENT-SAFETY SYSTEM WIRING DIAGRAMS
123A90-DDL-IN-DL-40083	INSTRUMENT MAIN CABLES ROUTING-LOWER DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/08/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)

Base Load Power HUB Cables Tray Layout

B-300 Container Lower Deck – TOS EL. 23.310m

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:50
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 04/10/24

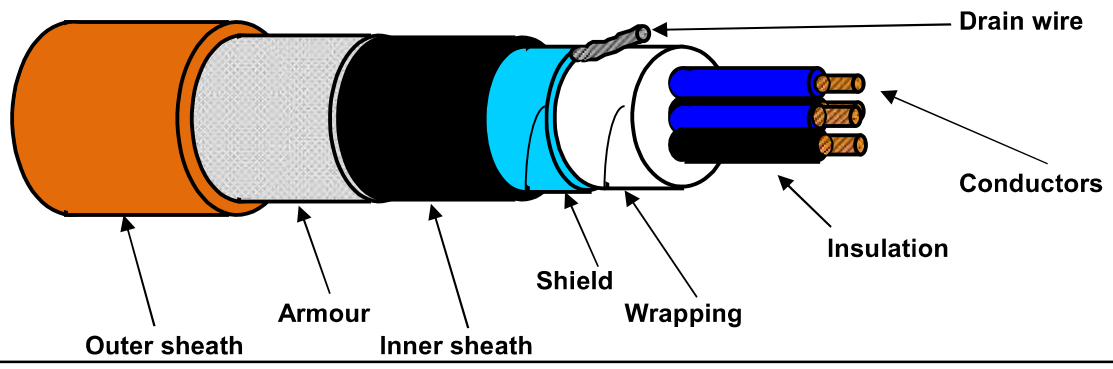
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File Name : 123A90-DDL-IN-DL-40115 REV01.dwg

Tag Number	Category	Discipline	Eng Status	NativeDoc	Parent Tag	Grouping	Main Function	Secondary Function	Area	From Tag	From Main Function	From Area	To Tag	To Main Function	To Area	Material ID	Material Desc.	Gland Standard	From Gland	From Entry	From Fitting	To Gland	To Entry	To Fitting	Routing	Routing Manual
C-77-HS-009B/950-JE-04207	Cable	IN	VFC	123A90-DDL-IN-LIS-40091		Int-Ext				77-HS-009B	Hand Switch	Lower Deck (B-300) Ext.	950-JE-04207	DO JB to FGS	Lower Deck (B-300)	SMICV12-2X2,5	Cable Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250V (300V) 2x2,5mm² - Orange	M20	T2_M20_Double			T2_M20_Double				B-300-SEC-1B / B-300-SEC-1C / B-300-SEC-1D

Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250 V (300 V)

2X2,5 - INSTRUMENT CABLE - Fire Resistant - Not I.S.



TECHNICAL FEATURES

Conductors :	**7-STRANDED** plain/bare soft annealed copper wires	**IEC 60228 Class 2**
Insulation :	Mica/Glass Tape (MGT) plus XLPE, Nominal Thickness 0,6 mm	
Cores colour code :	**Black NUMBERED (from 1 to 2)**	
Pair Assembling :	Not required	
Pair Wrapping:	Not required	
Drain wire :	Not required	
Pair Shield :	Not required	
Shield Insulation :	Not required	
Total Assembling :	8/1mt	
Overall Wrapping:	by polyester-PET Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Drain wire :	7-Stranded **TINNED** annealed copper drain wire, **size 1,0 sqmm**, in continuous contact with the shield	
Overall Shield :	by Aluminium-**Al** Minimum Thickness 0,008 mm / polyester-**PET** Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Inner sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, Average Thickness 1,1 mm	
Inner sheath color code:	**Black**	
Armour :	Galvanized Steel Wire Braid Armour (coverage ≥ 90%)	
Outer sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, moisture/abrasion/UV Resistant,	
	Average Thickness 1,3 mm	
Outer sheath color code:	**Orange**	
Outer printing (INKJET) :	**FLEI - 2X2,5 SQMM - MGT/XLPE/OS/LSZH/SWB/LSZH - 150/250 V - IEC 60331.21 -**	
(every 1000 mm)	**IEC 60332.1.2 - IEC 60332.3.22 - Year of Manufacture - CE + Meter Marking**	
Under armour diameter :	(10,3 ± 10%) mm	
Over armour diameter :	(11,5 ± 10%) mm	
Outer diameter :	(14,1 ± 10%) mm	
Bending radius :	cable outer diameter x 10 (in fixed installation)	
Voltage Test :	1,5 kV a.c. for 5' (Between Cores) / 1,5 kV a.c. for 5' (Between Cores - Shield)	
Conductors DC Resistance :	≤ 7,86 Ω/km (@ 20°C)	
Insulation Resistance :	≥ 1000 MΩ x Km (@ 20°C)	
Applicable Standards		
Design Guidelines :	**IEC 60092.376**	
ON COMPLETE CABLE		
Fire Resistant test :	**IEC 60331.21**	
Flame Retardant test :	IEC 60332.1.2 - IEC 60332.3.22	
Acid Gas generation :	IEC 60754.1/2	
Smoke density/Light Transmittance :	IEC 61034.2 (LT ≥ 60%)	
Hazardous Areas :	IEC 60079.14 par.9.3.2a	
Temperature Range :		
ON INSULATION	(max +90°C) (max continuous operation temperature of conductors)	
	(max +250°C) (max conductors temperature during short-circuit for 5 seconds)	
ON COMPLETE CABLE		
During Operation :	(-20°C up to +90°C) (in fixed installation)	
During installation :	(- 5°C up to +50°C)	
Note :	**To meet the requirements of installation and use in Zone 1 & Zone 2 (IEC 60079-14) and "Gas & Vapour Tight" the cable must be provided with Penetrating Inner sheath together with correct ATEX approved equipment or accessories.**	

Office	Date	Sign	Rev.	Date	Sign
Drawn by :	04/04/2024	Messa			
Checked :	04/04/2024	Spaccasassi			
Approved :	04/04/2024	Cucinotta			

The data provided, lending assent for the treatment, will be used to the sense of the article 13 of of the Regulation (UE) 2016/679, also through outsiders, in order to allow the realization of the fulfilments informatives, administrative, commercial and accounting related to the contractual relationship. Integral copy of the informative could be requested at our offices.

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DRAWING NO. 123A90-DDL-IN-DG-40016

REV. 01

NOTES:

1. ALL SPARE ENTRIES SHALL BE PROVIDED WITH CERTIFIED EX PROOF PLUGS.
2. CABLE SCREENS / DRAIN WIRE SHALL BE SECURELY INSULATED AND TIED BACK IN THE INSTRUMENT SIDE AND SHAL BE TERMINATED IN THE MARSHALLING SIDE OF THE PANEL.
3. SPARE PAIRS / TRIADS SHALL BE CONNECTED TO TERMINALS IN JUNCTION BOX AND PANEL / MARSHALLING CABINETS.
4. ALL CABLE SCREENS TO BE TERMINATED AT THE INSTRUMENT EARTH BAR IN THE RESPECTIVE EARTH BARS (IS OR NIS) AS APPLICABLE IN THE MARSHALLING CABINET.
5. CONNECTION TERMINAL BLOCK SHALL BE DEFINED DURING CONSTRUCTION PHASE.

<01>

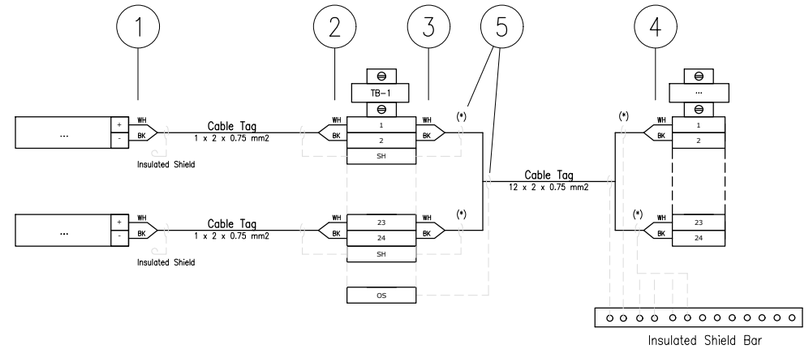
LEGENDS & SYMBOLS:

LEGEND:

I.E.	- GREEN ——— INSTRUMENT SIGNAL EARTH
P.E.	- GREEN/YELLOW —— P.E. EARTH/BONDING
	- TERMINAL BLOCK (TB)
WH	- WHITE
BK	- BLACK
RD	- RED
S	- SHIELD TERMINAL
OS	- OVERALL SHIELD TERMINAL
O/A Shld	- OVERALL SHIELD
I&O/A Shld	- INDIVIDUAL & OVERALL SHIELD
NIS	- NON INTRINSICALLY SAFE
IS	- INTRINSICALLY SAFE
P.E.	- PLANT EARTH
PCS	- PROCESS CONTROL SYSTEM <01>
ESD	- EMERGENCY SHUTDOWN SYSTEM
SIS	- SAFETY INSTRUMENT SYSTEM
FGS	- FIRE & GAS SYSTEM <01>
MC	- MARSHALLING CABINET
AI	- ANALOGUE INPUT
AO	- ANALOGUE OUTPUT
DI	- DIGITAL INPUT
DO	- DIGITAL OUTPUT
JE	- JUNCTION BOX FOR ELECTRICAL SIGNALS <01>

TYPICAL WIRE CROSS-FERRULING:

PHILOSOPHY OF CROSS-FERRULING: <01>



(*) Single shield is foreseen only for AI/AO signals.

1 - INSTRUMENT TERMINAL NO. OR POLARITY/JB NO./JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

2 - INSTRUMENT TAG NO./INSTRUMENT TERMINAL NO. OR POLARITY/JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

3 - PAIR OR CORE NO./MARSHALLING CABINET NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

4 - PAIR OR CORE NO./JB NO./JB TERMINAL NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

5 - HEAT SHRINKABLE BLACK FOR SHIELD OF NIS INSTRUMENT CABLE.
(HEAT SHRINKABLE BLUE FOR SHIELD OF NIS INSTRUMENT CABLE)

REFERENCE DRAWINGS

PIPING AND INSTRUMENT DIAGRAM	123A90-DDL-PR-PID-80009
INSTRUMENT INDEX	123A90-DDL-IN-LIS-40088 Rev.01
F&G DETECTORS LAYOUT	123A90-DDL-SAF-DL-30027

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_D	14/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
INSTRUMENT – SAFETY SYSTEM WIRING DIAGRAMS
GENERAL NOTES/LEGENDS

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

	DRAWING NO.	SHEET	REV.
A3	123A90-DDL-IN-DG-40016	003	01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

DRAWING NO. 123-A90-DDL-IN-DG-40016 REV. 01

FIELD

INSTRUMENTS

JUNCTION BOX
950-JE-04207

MULTICABLE
No.

I&T EQUIPMENT ROOM (ITER)
MARSHALLING CABINET
B400-FGS-002

<01>

B-300 UPS Room

950-XZ-04202 — C-950-XZ-04202/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2 — TB-1 1BK/2BK → 1

950-XL-04203 — C-950-XL-04203/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2 — TB-1 1BK/2BK → 2

950-XL-04204 — C-950-XL-04204/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2 — TB-1 1BK/2BK → SH

B-300 OUTDOOR

77-HS-007B (12/22, 11/21) — C-77-HS-007B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2 — TB-1 1BK → 3, 3BK → 4

C-77-HS-007A/77-HS-007B
~~C-77-HY-007B/77-HY-007A~~
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77007

77-HY-007 (1/2) — C-77-HY-007/77-HS-007A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

77-HS-007A (12/22, 11/21) — NOTE-2 — TB-1 1BK → SH

B-300 OUTDOOR

77-HS-008B (12/22, 11/21) — C-77-HS-008B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2 — TB-1 1BK/2BK → 9, 9BK → 10

C-77-HS-008A/77-HS-008B
~~C-77-HS-008B/77-HS-008A~~
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77008

77-HY-008 (1/2) — C-77-HY-008/77-HS-008A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

77-HS-008A (12/22, 11/21) — NOTE-2 — TB-1 1BK → SH

B-300 OUTDOOR

77-HS-009B (12/22, 11/21) — C-77-HS-009B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2 — TB-1 1BK/2BK → 11, 11BK → 12

C-77-HS-009A/77-HS-009B
~~C-77-HS-009B/77-HS-009A~~
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77009

77-HY-009 (1/2) — C-77-HY-009/77-HS-009A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

77-HS-009A (12/22, 11/21) — NOTE-2 — TB-1 1BK → SH

B-300 OUTDOOR

77-HS-010B (12/22, 11/21) — C-77-HS-010B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2 — TB-1 1BK/2BK → 13, 13BK → 14

C-77-HS-010A/77-HS-010B
~~C-77-HS-010B/77-HS-010A~~
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77010

77-HY-010 (1/2) — C-77-HY-010/77-HS-010A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

77-HS-010A (12/22, 11/21) — NOTE-2 — TB-1 1BK → SH

B-300 OUTDOOR

77-HS-011B (12/22, 11/21) — C-77-HS-011B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2 — TB-1 1BK/2BK → 15, 15BK → 16

C-77-HS-011A/77-HS-011B
~~C-77-HS-011B/77-HS-011A~~
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77011

77-HY-011 (1/2) — C-77-HY-011/77-HS-011A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

77-HS-011A (12/22, 11/21) — NOTE-2 — TB-1 1BK → SH

TB-1: SH, 17, 17BK, 18, 18BK, SH, 19, 19BK, 20, 20BK, SH, 21, 21BK, 22, 22BK, SH, 23, 23BK, 24, 24BK, SH, OS

950-JE-04207/B400-FGS-002
24x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

TB-950-JE-04207 → B400-FGS-002

1	950-XZ-04202
2	
3	950-XL-04203
4	
5	950-XL-04204
6	
7	77-HY-007
8	
9	77-HY-008
10	
11	77-HY-009
12	
13	77-HY-010
14	
15	77-HY-011
16	
17	SPARE
18	
19	SPARE
20	
21	SPARE
22	
23	SPARE
24	

Shield Bar — I.E.

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_D	14/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
INSTRUMENT–FGS WIRING DIAGRAMS
950–JE–04207

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024
A3	DRAWING NO. 123A90–DDL–IN–DG–40016	SHEET 069	REV. 01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

ITEM	Tag	C-77-HS-009A/77-HS-009B	: PUSH BUTTON / MARSHALLING PCS	Dwg	123A90-DDL-IN-LIS-40091		
	S/Sys	77-30	: HVAC UPS Equipment Room B-300	Module	LD_B-300/LD_B-300_Ext		
TASK	code	C10000385	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity CCK	Discipline	Instrumental	Form	CJX10

Multi/Single-Core Instrument Control Cable

CABLE DATA

Type: Cu-MICA-XLPE-OS-LSZH-SWB-LSZH | Cores/Size mm²: 2x2.5 mm2 | Color: ORANGE

From: 77-HS-009A To: 77-HS-009B

1	Check cable is as specified in project cable schedule.	OK
2	Check relevant documents are at the latest revision.	OK
3	Check cable is routed in accordance with cable layout drawings.	OK
4	Check cable for any physical damage.	OK
5	Check cable is adequately supported and correctly fixed to rack according to Project specification.	OK
6	Check bending radius is within the specified limits.	OK
7	Check cable is correctly loomed and segregated in accordance with specification.	OK
8	Check cable and core marking are in accordance with specification.	OK
9	Check cable labelling is in accordance with specification.	PL
10	Check that glands, shrouds and earthing are in accordance with specification.	OK
11	Check terminations are in accordance with termination diagram	OK
12	Check gland plate for single core cables is non-ferrous.	NA
13	If required produce Red Line Mark Up for "AS BUILT"	

INSULATION	CORE to EARTH	>999	MΩ
	CORE to CORE	>999	MΩ
	CORE to SCREEN	>999	MΩ
	CORE to ARMr	>999	MΩ
	SCREEN to EARTH	>999	MΩ
	SCREEN to ARMr	>999	MΩ
CONTINUITY	CORES	0.7	Ω
	SCREEN	0.6	Ω
	EARTH	0.5	Ω
	ARMr	0.6	Ω
	TEST VOLTS	500	V

TEST ALL CORES AND RECORD LOWEST VALUE

Notes: The lowest value is recorded and must be within project specifications

TESTING INSTRUMENTS USED

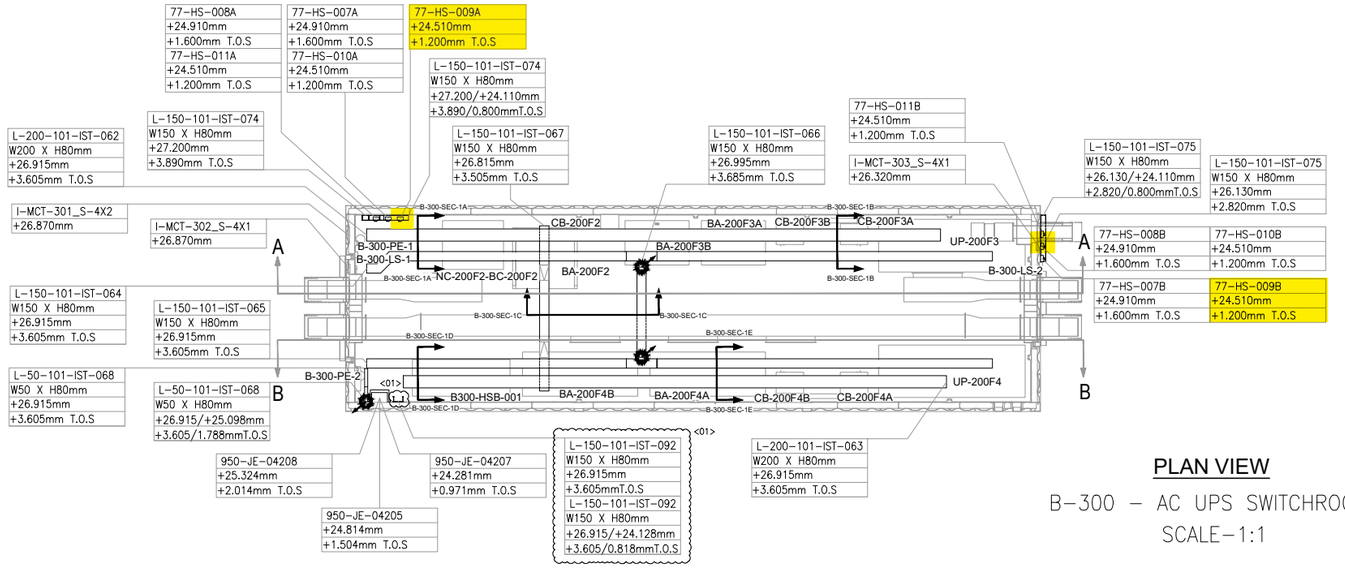
TYPE / SERIAL N°: KEW3125A/W8330207 Calibration date: 10-07-2024

Comments

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM (Rosetti Marino)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-10-11	2024-10-15	
Signature	PROVERLIS Digitaly signed by Carmelo Bongiovanni 2024-10-11T15:36:54.538Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2024-10-15T11:07:47.189Z	

DRAWING NO. 123A90-DDL-IN-DL-40115

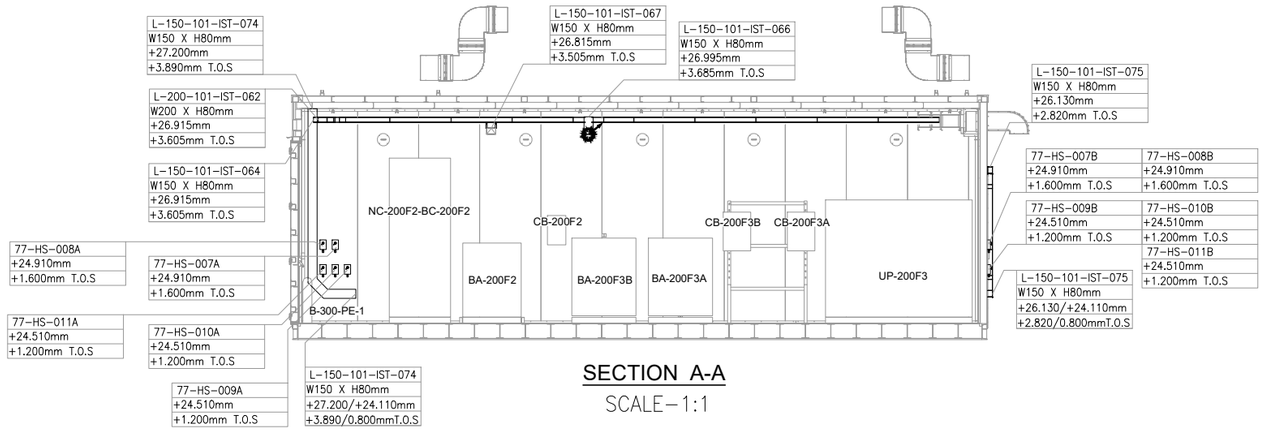
REV. 01



PLAN VIEW

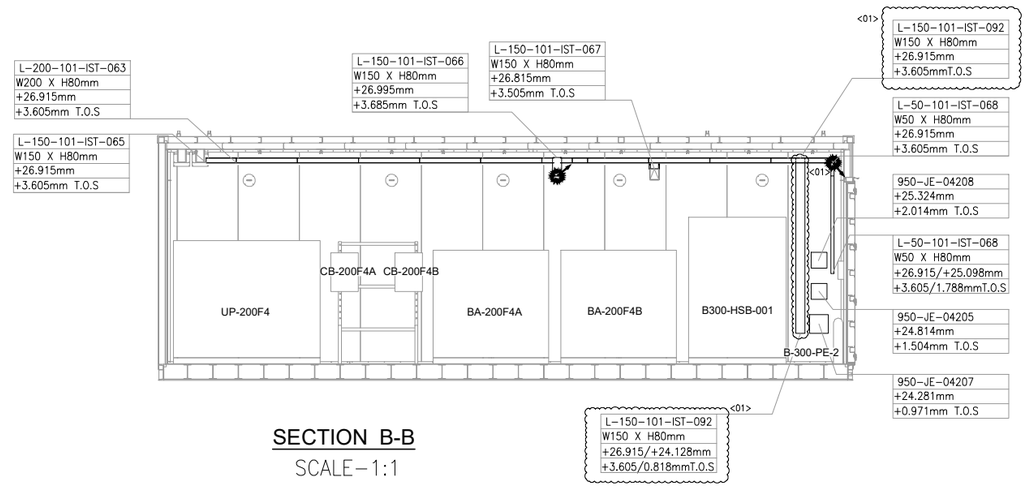
B-300 – AC UPS SWITCHROOM

SCALE-1:1



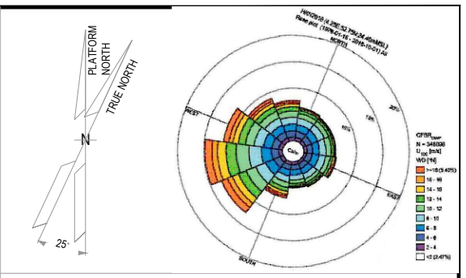
SECTION A-A

SCALE-1:1



SECTION B-B

SCALE-1:1



NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DRAWING IS VALID ONLY FOR CONTAINER CABLE TRAY LAYOUT.

LEGEND

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DL-40115**

REV.:	DATE:	SIGNATURE:
1_A	07/10/24	G.Randi

ROSETTI MARINO SpA

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-IN-DL-40081	INSTRUMENT LAYOUT - UPPER DECK
123A90-DDL-IN-LIS-40091	INSTRUMENT CABLE LIST
123A90-DDL-IN-DG-40015	INSTRUMENT-CCS WIRING DIAGRAMS
123A90-DDL-IN-DG-40016	INSTRUMENT-SAFETY SYSTEM WIRING DIAGRAMS
123A90-DDL-IN-DL-40083	INSTRUMENT MAIN CABLES ROUTING-LOWER DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/08/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)

Base Load Power HUB Cables Tray Layout

B-300 Container Lower Deck – TOS EL. 23.310m

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:50
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 04/10/24

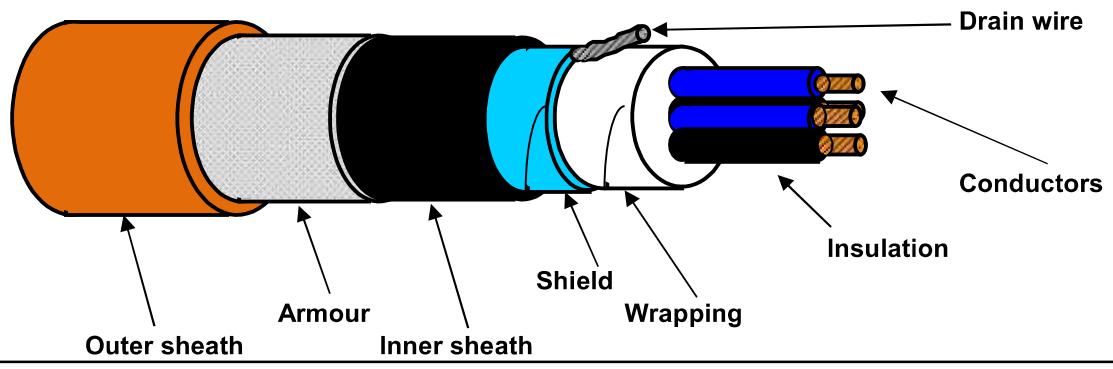
A1	DRAWING NO. 123A90-DDL-IN-DL-40115	SHEET 001	REV. 01

File Name : 123A90-DDL-IN-DL-40115 REV01.dwg

Tag Number	Category	Discipline	Eng Status	NativeDoc	Parent Tag	Grouping	Main Function	Secondary Function	Area	From Tag	From Main Function	From Area	To Tag	To Main Function	To Area	Material ID	Material Desc.	Gland Standard	From Gland	From Entry	From Fitting	To Gland	To Entry	To Fitting	Routing	Routing Manual
C-77-HS-009A/77-HS-009B	Cable	IN	VFC	123A90-DDL-IN-LIS-40091		Int-Ext				77-HS-009A	Hand Switch	Lower Deck (B-300)	77-HS-009B	Hand Switch	Lower Deck (B-300) Ext.	SMICV12-2X2,5	Cable Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250V (300V) 2x2,5mm² - Orange	M20	T2_M20_Double			T2_M20_Double				I-MCT-303 / B-300-SEC-1B / B-300-SEC-1A

Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250 V (300 V)

2X2,5 - INSTRUMENT CABLE - Fire Resistant - Not I.S.



TECHNICAL FEATURES

Conductors :	**7-STRANDED** plain/bare soft annealed copper wires	**IEC 60228 Class 2**
Insulation :	Mica/Glass Tape (MGT) plus XLPE, Nominal Thickness 0,6 mm	
Cores colour code :	**Black NUMBERED (from 1 to 2)**	
Pair Assembling :	Not required	
Pair Wrapping:	Not required	
Drain wire :	Not required	
Pair Shield :	Not required	
Shield Insulation :	Not required	
Total Assembling :	8/1mt	
Overall Wrapping:	by polyester-PET Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Drain wire :	7-Stranded **TINNED** annealed copper drain wire, **size 1,0 sqmm**, in continuous contact with the shield	
Overall Shield :	by Aluminium-**Al** Minimum Thickness 0,008 mm / polyester-**PET** Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Inner sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, Average Thickness 1,1 mm	
Inner sheath color code:	**Black**	
Armour :	Galvanized Steel Wire Braid Armour (coverage ≥ 90%)	
Outer sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, moisture/abrasion/UV Resistant,	
	Average Thickness 1,3 mm	
Outer sheath color code:	**Orange**	
Outer printing (INKJET) :	**FLEI - 2X2,5 SQMM - MGT/XLPE/OS/LSZH/SWB/LSZH - 150/250 V - IEC 60331.21 -**	
(every 1000 mm)	**IEC 60332.1.2 - IEC 60332.3.22 - Year of Manufacture - CE + Meter Marking**	
Under armour diameter :	(10,3 ± 10%) mm	
Over armour diameter :	(11,5 ± 10%) mm	
Outer diameter :	(14,1 ± 10%) mm	
Bending radius :	cable outer diameter x 10 (in fixed installation)	
Voltage Test :	1,5 kV a.c. for 5' (Between Cores) / 1,5 kV a.c. for 5' (Between Cores - Shield)	
Conductors DC Resistance :	≤ 7,86 Ω/km (@ 20°C)	
Insulation Resistance :	≥ 1000 MΩ x Km (@ 20°C)	
Applicable Standards		
Design Guidelines :	**IEC 60092.376**	
ON COMPLETE CABLE		
Fire Resistant test :	**IEC 60331.21**	
Flame Retardant test :	IEC 60332.1.2 - IEC 60332.3.22	
Acid Gas generation :	IEC 60754.1/2	
Smoke density/Light Transmittance :	IEC 61034.2 (LT ≥ 60%)	
Hazardous Areas :	IEC 60079.14 par.9.3.2a	
Temperature Range :		
ON INSULATION	(max +90°C) (max continuous operation temperature of conductors)	
	(max +250°C) (max conductors temperature during short-circuit for 5 seconds)	
ON COMPLETE CABLE		
During Operation :	(-20°C up to +90°C) (in fixed installation)	
During installation :	(- 5°C up to +50°C)	
Note :	**To meet the requirements of installation and use in Zone 1 & Zone 2 (IEC 60079-14) and "Gas & Vapour Tight" the cable must be provided with Penetrating Inner sheath together with correct ATEX approved equipment or accessories.**	

Office	Date	Sign	Rev.	Date	Sign
Drawn by :	04/04/2024	Messa			
Checked :	04/04/2024	Spaccasassi			
Approved :	04/04/2024	Cucinotta			

The data provided, lending assent for the treatment, will be used to the sense of the article 13 of of the Regulation (UE) 2016/679, also through outsiders, in order to allow the realization of the fulfilments informatives, administrative, commercial and accounting related to the contractual relationship. Integral copy of the informative could be requested at our offices.

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DRAWING NO. 123A90-DDL-IN-DG-40016

REV. 01

NOTES:

1. ALL SPARE ENTRIES SHALL BE PROVIDED WITH CERTIFIED EX PROOF PLUGS.
2. CABLE SCREENS / DRAIN WIRE SHALL BE SECURELY INSULATED AND TIED BACK IN THE INSTRUMENT SIDE AND SHAL BE TERMINATED IN THE MARSHALLING SIDE OF THE PANEL.
3. SPARE PAIRS / TRIADS SHALL BE CONNECTED TO TERMINALS IN JUNCTION BOX AND PANEL / MARSHALLING CABINETS.
4. ALL CABLE SCREENS TO BE TERMINATED AT THE INSTRUMENT EARTH BAR IN THE RESPECTIVE EARTH BARS (IS OR NIS) AS APPLICABLE IN THE MARSHALLING CABINET.
5. CONNECTION TERMINAL BLOCK SHALL BE DEFINED DURING CONSTRUCTION PHASE.

<01>

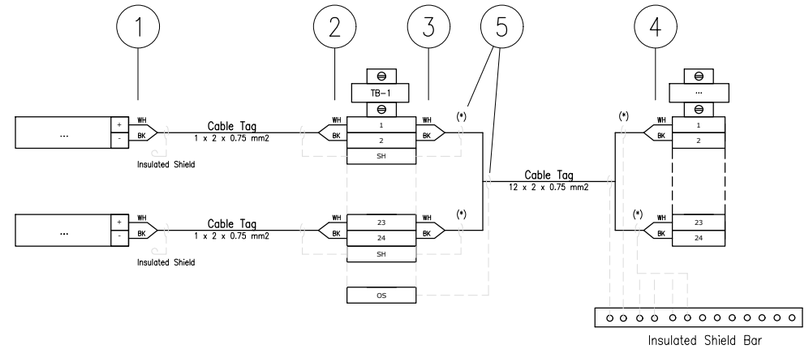
LEGENDS & SYMBOLS:

LEGEND:

I.E.	- GREEN ——— INSTRUMENT SIGNAL EARTH
P.E.	- GREEN/YELLOW —— P.E. EARTH/BONDING
	- TERMINAL BLOCK (TB)
WH	- WHITE
BK	- BLACK
RD	- RED
S	- SHIELD TERMINAL
OS	- OVERALL SHIELD TERMINAL
O/A Shld	- OVERALL SHIELD
I&O/A Shld	- INDIVIDUAL & OVERALL SHIELD
NIS	- NON INTRINSICALLY SAFE
IS	- INTRINSICALLY SAFE
P.E.	- PLANT EARTH
PCS	- PROCESS CONTROL SYSTEM <01>
ESD	- EMERGENCY SHUTDOWN SYSTEM
SIS	- SAFETY INSTRUMENT SYSTEM
FGS	- FIRE & GAS SYSTEM <01>
MC	- MARSHALLING CABINET
AI	- ANALOGUE INPUT
AO	- ANALOGUE OUTPUT
DI	- DIGITAL INPUT
DO	- DIGITAL OUTPUT
JE	- JUNCTION BOX FOR ELECTRICAL SIGNALS <01>

TYPICAL WIRE CROSS-FERRULING:

PHILOSOPHY OF CROSS-FERRULING: <01>



(*) Single shield is foreseen only for AI/AO signals.

1 - INSTRUMENT TERMINAL NO. OR POLARITY/JB NO./JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

2 - INSTRUMENT TAG NO./INSTRUMENT TERMINAL NO. OR POLARITY/JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

3 - PAIR OR CORE NO./MARSHALLING CABINET NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

4 - PAIR OR CORE NO./JB NO./JB TERMINAL NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

5 - HEAT SHRINKABLE BLACK FOR SHIELD OF NIS INSTRUMENT CABLE.
(HEAT SHRINKABLE BLUE FOR SHIELD OF NIS INSTRUMENT CABLE)

REFERENCE DRAWINGS

PIPING AND INSTRUMENT DIAGRAM	123A90-DDL-PR-PID-80009
INSTRUMENT INDEX	123A90-DDL-IN-LIS-40088 Rev.01
F&G DETECTORS LAYOUT	123A90-DDL-SAF-DL-30027

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_D	14/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
INSTRUMENT – SAFETY SYSTEM WIRING DIAGRAMS
GENERAL NOTES/LEGENDS

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

	DRAWING NO.	SHEET	REV.
A3	123A90-DDL-IN-DG-40016	003	01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

DRAWING NO. 123-A90-DDL-IN-DG-40016 REV. 01

FIELD

INSTRUMENTS

JUNCTION BOX
950-JE-04207

MULTICABLE
No.

I&T EQUIPMENT ROOM (ITER)
MARSHALLING CABINET
B400-FGS-002

<01>

B-300 UPS Room

950-XZ-04202 (+/-) 1BK 2BK — NOTE-2 — C-950-XZ-04202/950-JE-04207 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 1BK 1 2BK, 2 SH

950-XL-04203 (+/-) 1BK 2BK — NOTE-2 — C-950-XL-04203/950-JE-04207 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 1BK 3 2BK, 4 3BK 4BK SH

950-XL-04204 (+/-) 1BK 2BK — NOTE-2 — C-950-XL-04204/950-JE-04207 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 1BK 5 2BK, 6 5BK 6BK SH

B-300 OUTDOOR

1BK 12 22 2BK 77-HS-007B 11 21 1BK 2BK — NOTE-2 — C-77-HS-007B/950-JE-04207 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 1BK 7 2BK, 8 7BK 8BK SH

NOTE-2

C-77-HS-007A/77-HS-007B
~~C-77-HY-007B/77-HY-007A~~
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77007

77-HY-007 1 2 1BK 2BK — C-77-HY-007/77-HS-007A 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

1BK 12 22 2BK 77-HS-007A 11 21 1BK 2BK — NOTE-2

B-300 OUTDOOR

1BK 12 22 2BK 77-HS-008B 11 21 1BK 2BK — NOTE-2 — C-77-HS-008B/950-JE-04207 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 1BK 9 2BK, 10 9BK 10BK SH

NOTE-2

C-77-HS-008A/77-HS-008B
~~C-77-HS-008B/77-HS-008A~~
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77008

77-HY-008 1 2 1BK 2BK — C-77-HY-008/77-HS-008A 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

1BK 12 22 2BK 77-HS-008A 11 21 1BK 2BK — NOTE-2

B-300 OUTDOOR

1BK 12 22 2BK 77-HS-009B 11 21 1BK 2BK — NOTE-2 — C-77-HS-009B/950-JE-04207 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 1BK 11 2BK, 12 11BK 12BK SH

NOTE-2

C-77-HS-009A/77-HS-009B
~~C-77-HS-009B/77-HS-009A~~
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77009

77-HY-009 1 2 1BK 2BK — C-77-HY-009/77-HS-009A 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

1BK 12 22 2BK 77-HS-009A 11 21 1BK 2BK — NOTE-2

B-300 OUTDOOR

1BK 12 22 2BK 77-HS-010B 11 21 1BK 2BK — NOTE-2 — C-77-HS-010B/950-JE-04207 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 1BK 13 2BK, 14 13BK 14BK SH

NOTE-2

C-77-HS-010A/77-HS-010B
~~C-77-HS-010B/77-HS-010A~~
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77010

77-HY-010 1 2 1BK 2BK — C-77-HY-010/77-HS-010A 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

1BK 12 22 2BK 77-HS-010A 11 21 1BK 2BK — NOTE-2

B-300 OUTDOOR

1BK 12 22 2BK 77-HS-011B 11 21 1BK 2BK — NOTE-2 — C-77-HS-011B/950-JE-04207 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 1BK 15 2BK, 16 15BK 16BK SH, 17 17BK 18BK SH, 19 19BK 20BK SH, 21 21BK 22BK SH, 23 23BK 24BK SH, OS

NOTE-2

C-77-HS-011A/77-HS-011B
~~C-77-HS-011B/77-HS-011A~~
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77011

77-HY-011 1 2 1BK 2BK — C-77-HY-011/77-HS-011A 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

1BK 12 22 2BK 77-HS-011A 11 21 1BK 2BK — NOTE-2

950-JE-04207/B400-FGS-002
24x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

TB-950-JE-04207

1BK	1	950-XZ-04202
2BK	2	
3BK	3	950-XL-04203
4BK	4	
5BK	5	950-XL-04204
6BK	6	
7BK	7	77-HY-007
8BK	8	
9BK	9	77-HY-008
10BK	10	
11BK	11	77-HY-009
12BK	12	
13BK	13	77-HY-010
14BK	14	
15BK	15	77-HY-011
16BK	16	
17BK	17	SPARE
18BK	18	
19BK	19	SPARE
20BK	20	
21BK	21	SPARE
22BK	22	
23BK	23	SPARE
24BK	24	

Shield Bar — I.E.

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_D	14/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT–FGS WIRING DIAGRAMS
950–JE–04207

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

	DRAWING NO.	SHEET	REV.
A3	123A90–DDL–IN–DG–40016	069	01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

ROSETTI MARINO | PROVERLIS | CROSSWIND

ITEM	Tag	C-77-HY-009/77-HS-009A	: FIRE DAMPER / MARSHALLING PCS	Dwg	123A90-DDL-IN-LIS-40091		
	S/Sys	77-30	: HVAC UPS Equipment Room B-300	Module	LD_B-300		
TASK	code	C10000386	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity CCK	Discipline	Instrumental	Form	CJX10

Multi/Single-Core Instrument Control Cable

CABLE DATA

Type: Cu-MICA-XLPE-OS-LSZH-SWB-LSZH | Cores/Size mm²: 2X2,5 mm2 | Color: ORANGE

From: HFD-77009 | To: 77-HS-009A

1	Check cable is as specified in project cable schedule.	OK
2	Check relevant documents are at the latest revision.	OK
3	Check cable is routed in accordance with cable layout drawings.	OK
4	Check cable for any physical damage.	OK
5	Check cable is adequately supported and correctly fixed to rack according to Project specification.	OK
6	Check bending radius is within the specified limits.	OK
7	Check cable is correctly loomed and segregated in accordance with specification.	OK
8	Check cable and core marking are in accordance with specification.	PL
9	Check cable labelling is in accordance with specification.	OK
10	Check that glands, shrouds and earthing are in accordance with specification.	OK
11	Check terminations are in accordance with termination diagram	OK
12	Check gland plate for single core cables is non-ferrous.	OK
13	If required produce Red Line Mark Up for "AS BUILT"	

INSULATION	CORE to EARTH		>999	MΩ
	CORE to CORE		>999	MΩ
	CORE to SCREEN		>999	MΩ
	CORE to ARMr		>999	MΩ
	SCREEN to EARTH		>999	MΩ
	SCREEN to ARMr		>999	MΩ
CONTINUITY	CORES		0,3	Ω
	SCREEN		0,3	Ω
	EARTH		NA	Ω
	ARMr		0,3	Ω
	TEST VOLTS		500	V

TEST ALL CORES AND RECORD LOWEST VALUE

Notes: The lowest value is recorded and must be within project specifications

TESTING INSTRUMENTS USED

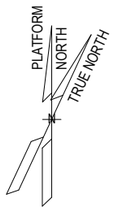
TYPE / SERIAL N°: MEGGER : KEW3125A SERIAL: W8330207 | Calibration date: 10/07/2024

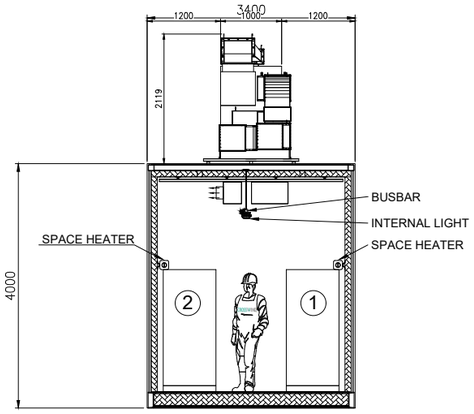
Comments

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICSI IMPIANTI	RM (ROSETTI MARINO)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-10-28	2024-11-21	
Signature	PROVERLIS Digitaly signed by Carmelo Bongiovanni 2024-10-28T06:54:53.623Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2024-11-21T09:58:05.476Z	

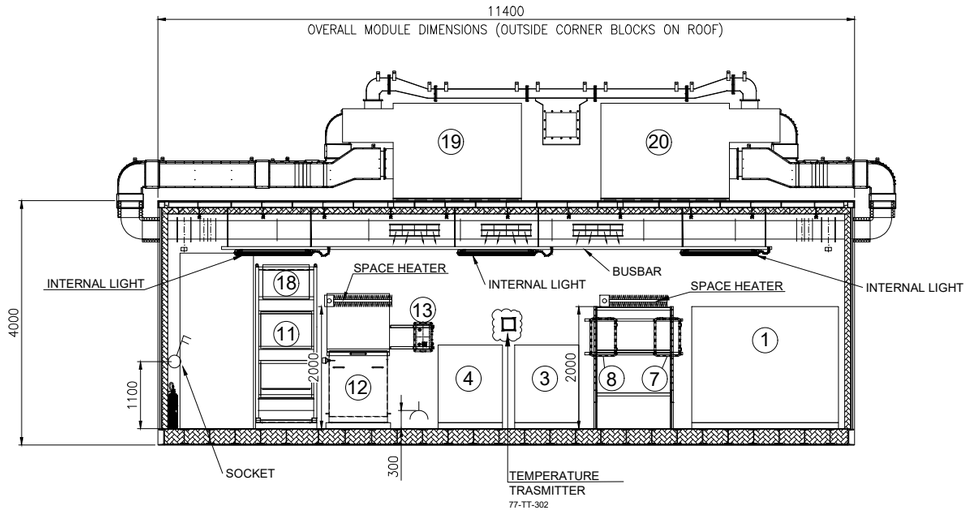
DRAWING NO. 1724000049-AR-DA-00016

REV. 03



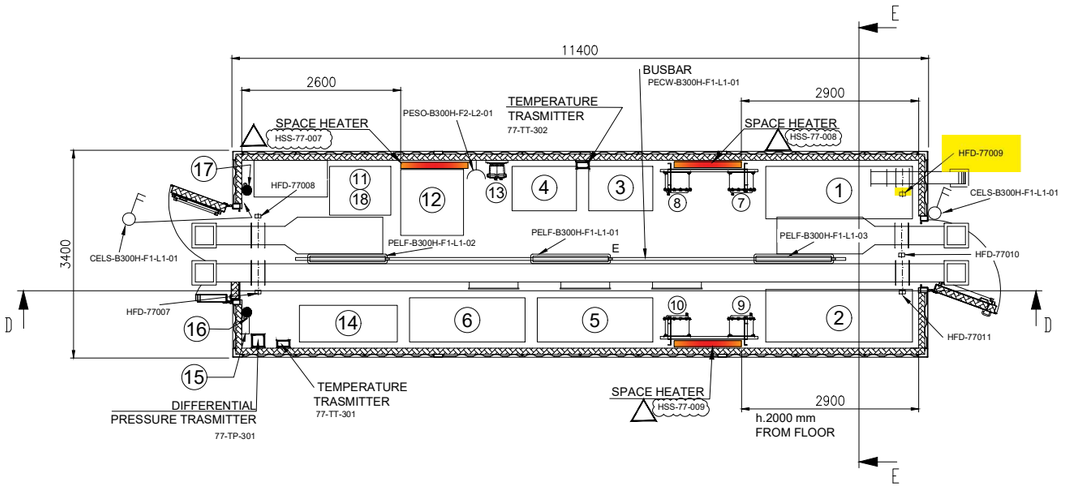


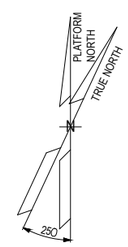
SECTION E-E

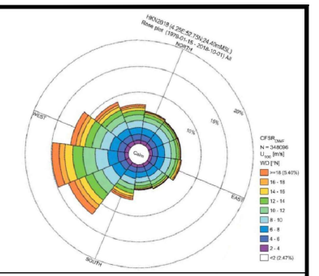


SECTION D-D

EQUIPMENT LIST						
REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
11	NC-200F2	NAVAID PANEL	1000	800	2600	535
12	BA-200F2	BATTERY BOX NAVAID	958	993	1210	1552
13	CB-200F2	ISOLATOR BOX NAVAID	500	400	765	70
14	B300-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	500
15	-	EYE WASH STATION	228	80	290	5
16	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
17	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
18	BC-200F2	BATTERY CHARGER NAVAID	607	607	2157	500
19	HHU-77005	AIR HANDLING UNIT A	2100	1000	2158	850
20	HHU-77006	AIR HANDLING UNIT B	2100	1000	2158	850
21	HSS-77-007	SPACE HEATER 1	184	145	1100	5
22	HSS-77-008	SPACE HEATER 2	184	145	1100	5
23	HSS-77-009	SPACE HEATER 3	184	145	1100	5







NOTE

1) ALL DIMENSIONS ARE IM MM.
2) THE POSITION OF THE LAMPS INDICATED IS TO BE CONSIDERED THE THEORETICAL ONE, THE FINA ONE WILL BE CONFIRMED IN THE AS-BUILT ISSUE.

REFERENCE

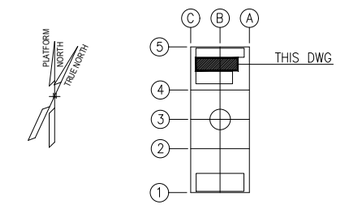
DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00066
"B-300" DETAILED DRAWING	1724000049-AR-DD-00020
PAINTING PROCEDURE	1724000049-MAT-PRO-00006
"B-300" FOUNDATION	1724000049-ST-DD-00012
"B-300" STRUCTURAL CALCULATION	1724000049-ST-CA-00008

LEGEND

- INTERNAL LIGHT
- E INTERNAL EMERGENCY LIGHT
- SOCKET OUTLET, INDOOR
- LIGHT SWITCH
- _____ ESCAPE CORRIDOR – WIDTH 800mm.
- _____ MAINTENANCE AREA – VENDOR REQUIREMENT
- _____ INSULATION PANEL

HOLDS

KEY PLAN



ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	23/07/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
02	03/07/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
01	16/05/24	M.G.	SKV	C.A.	ISSUE FOR REVIEW (IFR)
00	08/02/24	A.G.	SKV	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND | ROSETTI MARINO

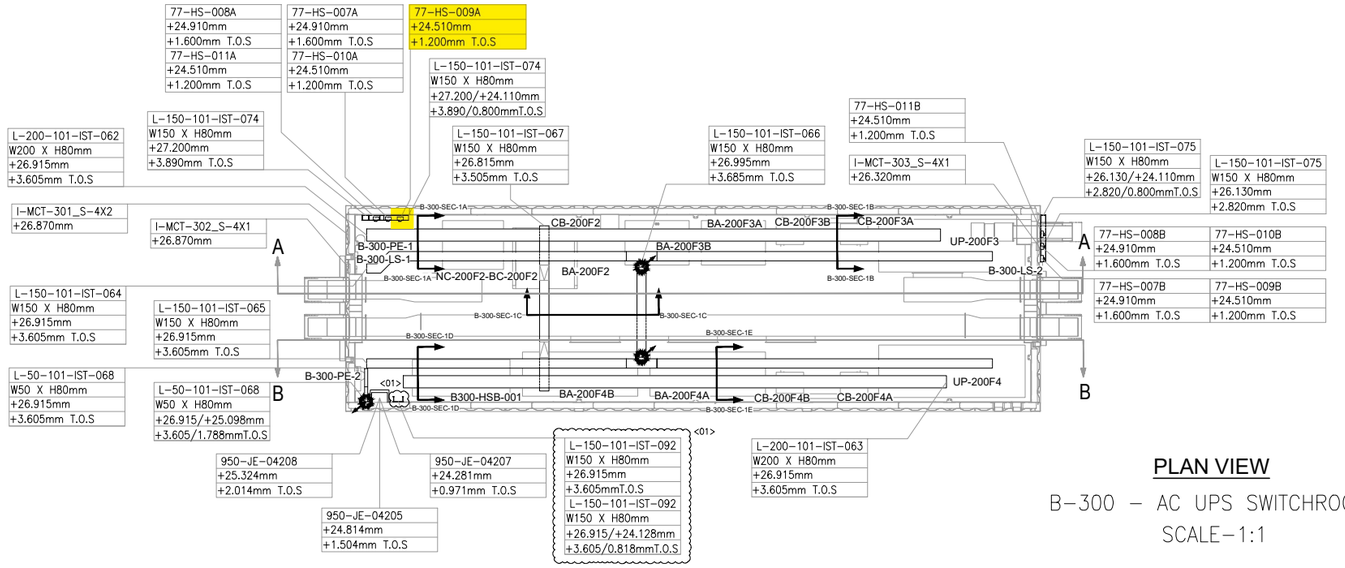
TITLE :
BASE LOAD POWER HUB (BLPH)
B-300 GENERAL ARRANGEMENT DRAWINGS

CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 23/07/24
A1	DRAWING NO. 1724000049-AR-DA-00016	SHEET 003	REV. 03

File Name : 1724000049-AR-DA-00016-REV.03

DRAWING NO. 123A90-DDL-IN-DL-40115

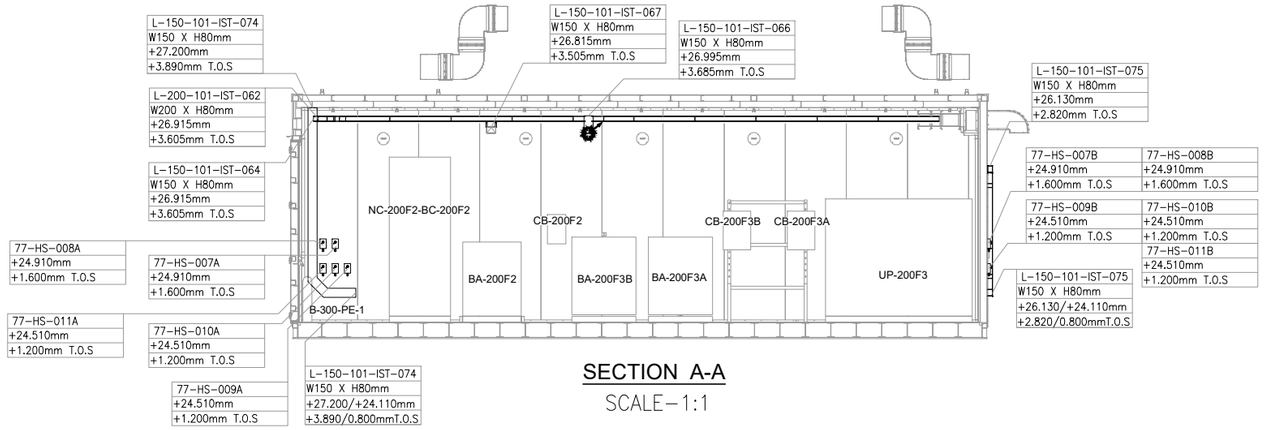
REV. 01



PLAN VIEW

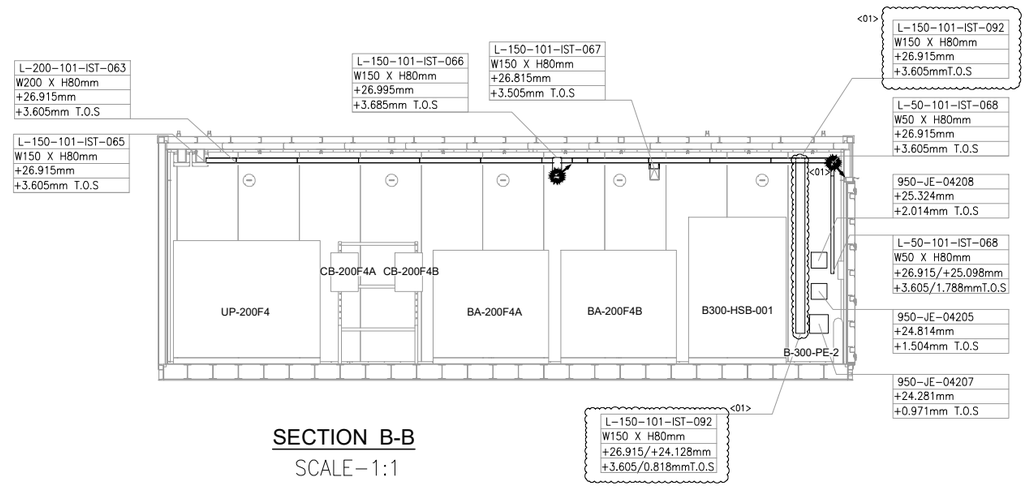
B-300 – AC UPS SWITCHROOM

SCALE-1:1



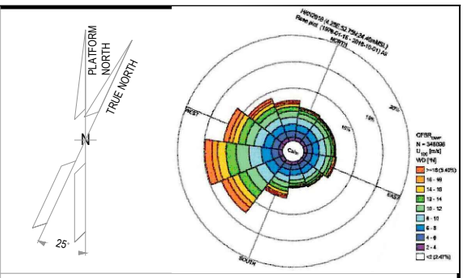
SECTION A-A

SCALE-1:1



SECTION B-B

SCALE-1:1



NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DRAWING IS VALID ONLY FOR CONTAINER CABLE TRAY LAYOUT.

LEGEND

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DL-40115**

REV.:	DATE:	SIGNATURE:
1_A	07/10/24	G.Randi

ROSETTI MARINO SpA

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-IN-DL-40081	INSTRUMENT LAYOUT - UPPER DECK
123A90-DDL-IN-LIS-40091	INSTRUMENT CABLE LIST
123A90-DDL-IN-DG-40015	INSTRUMENT-CCS WIRING DIAGRAMS
123A90-DDL-IN-DG-40016	INSTRUMENT-SAFETY SYSTEM WIRING DIAGRAMS
123A90-DDL-IN-DL-40083	INSTRUMENT MAIN CABLES ROUTING-LOWER DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/08/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)

Base Load Power HUB Cables Tray Layout

B-300 Container Lower Deck – TOS EL. 23.310m

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:50
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 04/10/24

A1	DRAWING NO. 123A90-DDL-IN-DL-40115	SHEET 001	REV. 01

File Name : 123A90-DDL-IN-DL-40115 REV01.dwg

DRAWING NO. 123-A90-DDL-IN-DG-40016 REV. 01

FIELD

INSTRUMENTS

JUNCTION BOX

950-JE-04207

MULTICABLE No.

I&T EQUIPMENT ROOM (ITER)

MARSHALLING CABINET

B400-FGS-002

<01>

B-300 UPS Room

950-XZ-04202 — C-950-XZ-04202/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

950-XL-04203 — C-950-XL-04203/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

950-XL-04204 — C-950-XL-04204/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 OUTDOOR

77-HS-007B — C-77-HS-007B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-007A/77-HS-007B

~~C-77-HY-007B/77-HY-007A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77007

77-HY-007 — C-77-HY-007/77-HS-007A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 77-HS-007A

B-300 OUTDOOR — B-300 INDOOR — NOTE-2

77-HS-008B — C-77-HS-008B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-008A/77-HS-008B

~~C-77-HS-008B/77-HS-008A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77008

77-HY-008 — C-77-HY-008/77-HS-008A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 77-HS-008A

B-300 OUTDOOR — B-300 INDOOR — NOTE-2

77-HS-009B — C-77-HS-009B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-009A/77-HS-009B

~~C-77-HS-009B/77-HS-009A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77009

77-HY-009 — C-77-HY-009/77-HS-009A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 77-HS-009A

B-300 OUTDOOR — B-300 INDOOR — NOTE-2

77-HS-010B — C-77-HS-010B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-010A/77-HS-010B

~~C-77-HS-010B/77-HS-010A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77010

77-HY-010 — C-77-HY-010/77-HS-010A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 77-HS-010A

B-300 OUTDOOR — B-300 INDOOR — NOTE-2

77-HS-011B — C-77-HS-011B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-011A/77-HS-011B

~~C-77-HS-011B/77-HS-011A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77011

77-HY-011 — C-77-HY-011/77-HS-011A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 77-HS-011A

B-300 INDOOR — NOTE-2

TB-1

1	1BK
2	2BK
SH	
3	3BK
4	4BK
SH	
5	5BK
6	6BK
SH	
7	7BK
8	8BK
SH	
9	9BK
10	10BK
SH	
11	11BK
12	12BK
SH	
13	13BK
14	14BK
SH	
15	15BK
16	16BK
SH	
17	17BK
18	18BK
SH	
19	19BK
20	20BK
SH	
21	21BK
22	22BK
SH	
23	23BK
24	24BK
SH	
OS	

950-JE-04207/B400-FGS-002

24x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

TB-950-JE-04207

1	950-XZ-04202
2	
3	950-XL-04203
4	
5	950-XL-04204
6	
7	77-HY-007
8	
9	77-HY-008
10	
11	77-HY-009
12	
13	77-HY-010
14	
15	77-HY-011
16	
17	SPARE
18	
19	SPARE
20	
21	SPARE
22	
23	SPARE
24	

Shield Bar — I.E.

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_H	28/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT–FGS WIRING DIAGRAMS
950–JE–04207

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024
A3	DRAWING NO. 123A90–DDL–IN–DG–40016	SHEET 069	REV. 01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

DRAWING NO. 123A90-DDL-IN-DG-40016

REV. 01

NOTES:

1. ALL SPARE ENTRIES SHALL BE PROVIDED WITH CERTIFIED EX PROOF PLUGS.
2. CABLE SCREENS / DRAIN WIRE SHALL BE SECURELY INSULATED AND TIED BACK IN THE INSTRUMENT SIDE AND SHAL BE TERMINATED IN THE MARSHALLING SIDE OF THE PANEL.
3. SPARE PAIRS / TRIADS SHALL BE CONNECTED TO TERMINALS IN JUNCTION BOX AND PANEL / MARSHALLING CABINETS.
4. ALL CABLE SCREENS TO BE TERMINATED AT THE INSTRUMENT EARTH BAR IN THE RESPECTIVE EARTH BARS (IS OR NIS) AS APPLICABLE IN THE MARSHALLING CABINET.
5. CONNECTION TERMINAL BLOCK SHALL BE DEFINED DURING CONSTRUCTION PHASE.

<01>

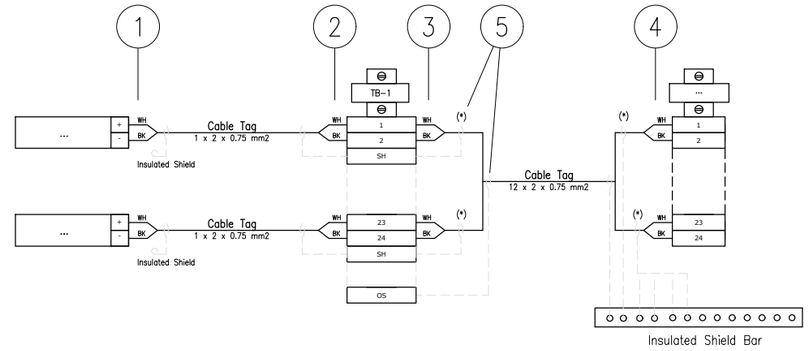
LEGENDS & SYMBOLS:

LEGEND:

I.E.	- GREEN ——— INSTRUMENT SIGNAL EARTH
P.E.	- GREEN/YELLOW —— P.E. EARTH/BONDING
	- TERMINAL BLOCK (TB)
WH	- WHITE
BK	- BLACK
RD	- RED
S	- SHIELD TERMINAL
OS	- OVERALL SHIELD TERMINAL
O/A Shld	- OVERALL SHIELD
I&O/A Shld	- INDIVIDUAL & OVERALL SHIELD
NIS	- NON INTRINSICALLY SAFE
IS	- INTRINSICALLY SAFE
P.E.	- PLANT EARTH
PCS	- PROCESS CONTROL SYSTEM <01>
ESD	- EMERGENCY SHUTDOWN SYSTEM
SIS	- SAFETY INSTRUMENT SYSTEM
FGS	- FIRE & GAS SYSTEM <01>
MC	- MARSHALLING CABINET
AI	- ANALOGUE INPUT
AO	- ANALOGUE OUTPUT
DI	- DIGITAL INPUT
DO	- DIGITAL OUTPUT
JE	- JUNCTION BOX FOR ELECTRICAL SIGNALS <01>

TYPICAL WIRE CROSS-FERRULING:

PHILOSOPHY OF CROSS-FERRULING: <01>



(*) Single shield is foreseen only for AI/AO signals.

1 - INSTRUMENT TERMINAL NO. OR POLARITY/JB NO./JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

2 - INSTRUMENT TERMINAL NO. OR POLARITY/INSTRUMENT TAG NO./JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

3 - PAIR OR CORE NO./MARSHALLING CABINET NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

4 - PAIR OR CORE NO./JB NO./JB TERMINAL NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

5 - HEAT SHRINKABLE BLACK FOR SHIELD OF NIS INSTRUMENT CABLE.
(HEAT SHRINKABLE BLUE FOR SHIELD OF NIS INSTRUMENT CABLE)

6 - IN CASE OF CONNECTION FROM RIGHT TO LEFT, ORDER OF INFORMATION SHALL BE MIRRORED

REFERENCE DRAWINGS

PIPING AND INSTRUMENT DIAGRAM	123A90-DDL-PR-PID-80009
INSTRUMENT INDEX	123A90-DDL-IN-LIS-40088 Rev.01
F&G DETECTORS LAYOUT	123A90-DDL-SAF-DL-30027

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT – SAFETY SYSTEM WIRING DIAGRAMS
GENERAL NOTES/LEGENDS

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

A3	DRAWING NO. 123A90-DDL-IN-DG-40016	SHEET 003	REV. 01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40016**

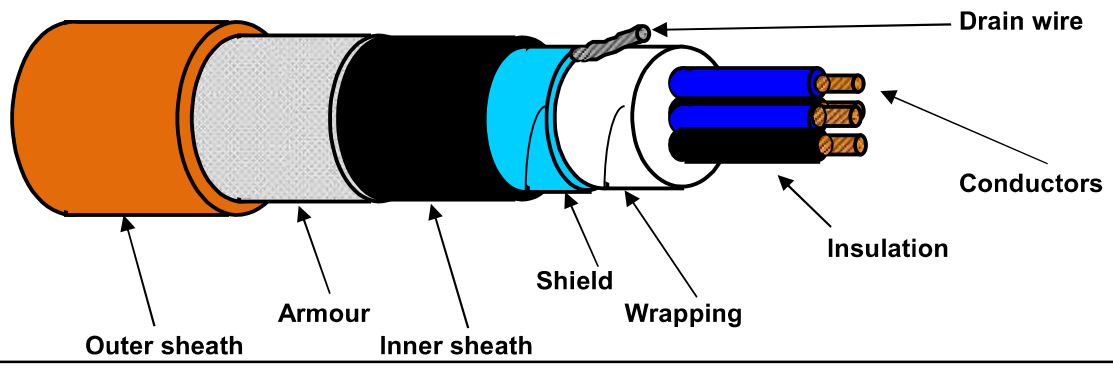
REV.:	DATE:	SIGNATURE:
1_H	28/10/24	G.Randi

ROSETTI MARINO SpA

Tag Number	Category	Discipline	Eng Status	NativeDoc	Parent Tag	Grouping	Main Function	Secondary Function	Area	From Tag	From Main Function	From Area	To Tag	To Main Function	To Area	Material ID	Material Desc.	Gland Standard	From Gland	From Entry	From Fitting	To Gland	To Entry	To Fitting	Routing	Routing Manual
C-77-HY-009/77-HS-009A	Cable	IN	VFC	123A90-DDL-IN-LIS-40091		Int-Int				HFD-77009	Fire Damper	Lower Deck (B-300)	77-HS-009A	Hand Switch	Lower Deck (B-300)	SMICV12-2X2,5	Cable Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250V (300V) 2x2,5mm² - Orange	M20	T2_M20_Double			T2_M20_Double				B-300-SEC-1E / B-300-SEC-1C / B-300-SEC-1A

Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250 V (300 V)

2X2,5 - INSTRUMENT CABLE - Fire Resistant - Not I.S.



TECHNICAL FEATURES

Conductors :	**7-STRANDED** plain/bare soft annealed copper wires	**IEC 60228 Class 2**
Insulation :	Mica/Glass Tape (MGT) plus XLPE, Nominal Thickness 0,6 mm	
Cores colour code :	**Black NUMBERED (from 1 to 2)**	
Pair Assembling :	Not required	
Pair Wrapping:	Not required	
Drain wire :	Not required	
Pair Shield :	Not required	
Shield Insulation :	Not required	
Total Assembling :	8/1mt	
Overall Wrapping:	by polyester-PET Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Drain wire :	7-Stranded **TINNED** annealed copper drain wire, **size 1,0 sqmm**, in continuous contact with the shield	
Overall Shield :	by Aluminium-**Al** Minimum Thickness 0,008 mm / polyester-**PET** Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Inner sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, Average Thickness 1,1 mm	
Inner sheath color code:	**Black**	
Armour :	Galvanized Steel Wire Braid Armour (coverage ≥ 90%)	
Outer sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, moisture/abrasion/UV Resistant,	
	Average Thickness 1,3 mm	
Outer sheath color code:	**Orange**	
Outer printing (INKJET) :	**FLEI - 2X2,5 SQMM - MGT/XLPE/OS/LSZH/SWB/LSZH - 150/250 V - IEC 60331.21 -**	
(every 1000 mm)	**IEC 60332.1.2 - IEC 60332.3.22 - Year of Manufacture - CE + Meter Marking**	
Under armour diameter :	(10,3 ± 10%) mm	
Over armour diameter :	(11,5 ± 10%) mm	
Outer diameter :	(14,1 ± 10%) mm	
Bending radius :	cable outer diameter x 10 (in fixed installation)	
Voltage Test :	1,5 kV a.c. for 5' (Between Cores) / 1,5 kV a.c. for 5' (Between Cores - Shield)	
Conductors DC Resistance :	≤ 7,86 Ω/km (@ 20°C)	
Insulation Resistance :	≥ 1000 MΩ x Km (@ 20°C)	
Applicable Standards		
Design Guidelines :	**IEC 60092.376**	
ON COMPLETE CABLE		
Fire Resistant test :	**IEC 60331.21**	
Flame Retardant test :	IEC 60332.1.2 - IEC 60332.3.22	
Acid Gas generation :	IEC 60754.1/2	
Smoke density/Light Transmittance :	IEC 61034.2 (LT ≥ 60%)	
Hazardous Areas :	IEC 60079.14 par.9.3.2a	
Temperature Range :		
ON INSULATION	(max +90°C) (max continuous operation temperature of conductors)	
	(max +250°C) (max conductors temperature during short-circuit for 5 seconds)	
ON COMPLETE CABLE		
During Operation :	(-20°C up to +90°C) (in fixed installation)	
During installation :	(- 5°C up to +50°C)	
Note :	**To meet the requirements of installation and use in Zone 1 & Zone 2 (IEC 60079-14) and "Gas & Vapour Tight" the cable must be provided with Penetrating Inner sheath together with correct ATEX approved equipment or accessories.**	

Office	Date	Sign	Rev.	Date	Sign
Drawn by :	04/04/2024	Messa			
Checked :	04/04/2024	Spaccasassi			
Approved :	04/04/2024	Cucinotta			

The data provided, lending assent for the treatment, will be used to the sense of the article 13 of of the Regulation (UE) 2016/679, also through outsiders, in order to allow the realization of the fulfilments informatives, administrative, commercial and accounting related to the contractual relationship. Integral copy of the informative could be requested at our offices.

All proprietary rights reserved according to law. This document shall be not reproduced without written permission. FLEI reserves the right to change characteristics and technical data of product shown at any time.

ITEM	Tag	C-77-HS-010B/950-JE-04207 : PUSH BUTTON / MARSHALLING PCS				Dwg	123A90-DDL-IN-LIS-40091
	S/Sys	77-30 : HVAC UPS Equipment Room B-300				Module	LD_B-300_Ext/LD_B-300
TASK	code	C10000387		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Instrumental Form CJX10		Multi/Single-Core Instrument Control Cable

CABLE DATA

Type: Cu-MICA-XLPE-OS-LSZH-SWB-LSZH | Cores/Size mm²: 2x2.5 mm2 | Color: ORANGE

From: 77-HS-010B | To: 950-JE-04207

1	Check cable is as specified in project cable schedule.	OK
2	Check relevant documents are at the latest revision.	OK
3	Check cable is routed in accordance with cable layout drawings.	OK
4	Check cable for any physical damage.	OK
5	Check cable is adequately supported and correctly fixed to rack according to Project specification.	OK
6	Check bending radius is within the specified limits.	OK
7	Check cable is correctly loomed and segregated in accordance with specification.	OK
8	Check cable and core marking are in accordance with specification.	OK
9	Check cable labelling is in accordance with specification.	PL
10	Check that glands, shrouds and earthing are in accordance with specification.	OK
11	Check terminations are in accordance with termination diagram	OK
12	Check gland plate for single core cables is non-ferrous.	NA
13	If required produce Red Line Mark Up for "AS BUILT"	

INSULATION	CORE to EARTH	>999	MΩ
	CORE to CORE	>999	MΩ
	CORE to SCREEN	>999	MΩ
	CORE to ARMr	>999	MΩ
	SCREEN to EARTH	>999	MΩ
	SCREEN to ARMr	>999	MΩ
CONTINUITY	CORES	0.7	Ω
	SCREEN	0.5	Ω
	EARTH	0.6	Ω
	ARMr	0.5	Ω
	TEST VOLTS	500	V

TEST ALL CORES AND RECORD LOWEST VALUE

Notes: The lowest value is recorded and must be within project specifications

TESTING INSTRUMENTS USED

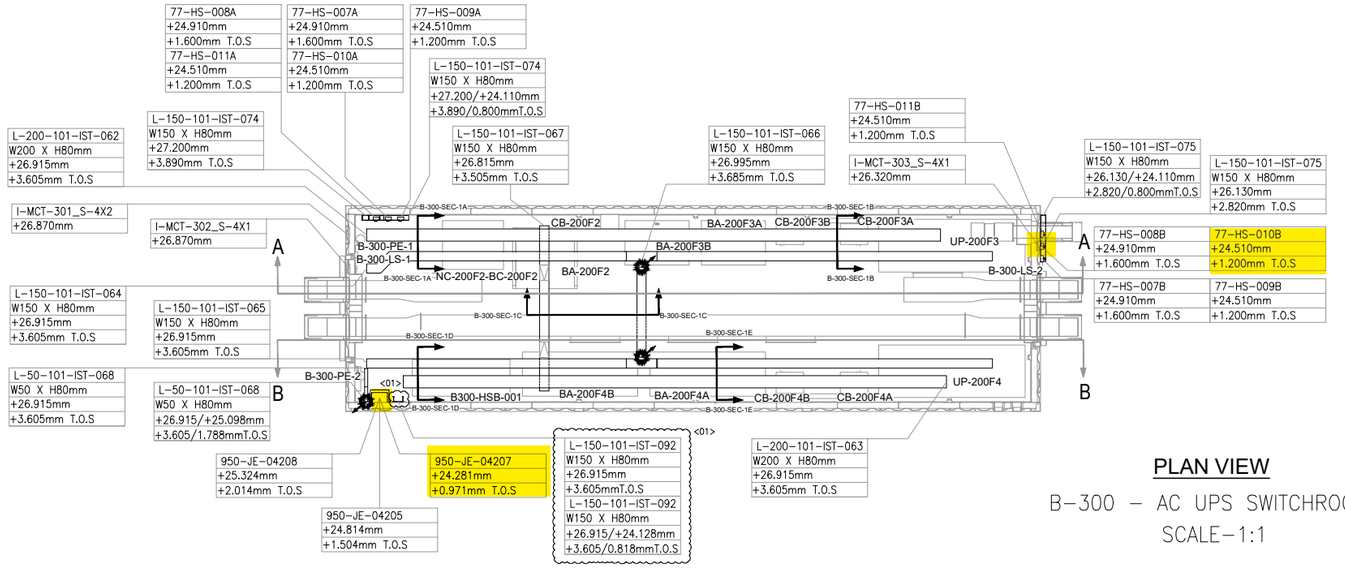
TYPE / SERIAL N°: KEW3125A/W8330207 Calibration date: 10-07-2024

Comments

Page 1/1	Performed by	☉ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM (Rosetti Marino)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-10-11	2024-10-15	
Signature	PROVERLIS Digitaly signed by Carmelo Bongiovanni 2024-10-11T15:37:06.643Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2024-10-15T11:08:32.569Z	

DRAWING NO. 123A90-DDL-IN-DL-40115

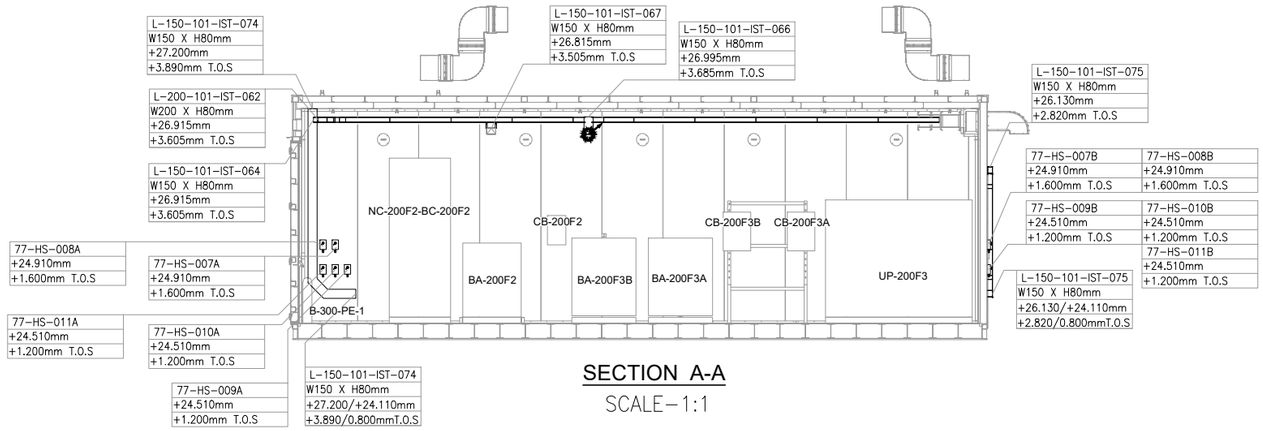
REV. 01



PLAN VIEW

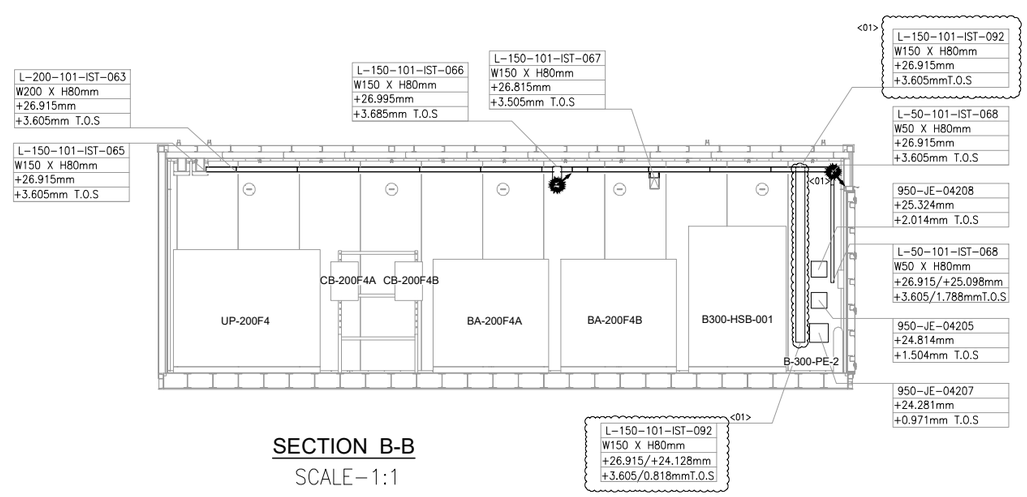
B-300 – AC UPS SWITCHROOM

SCALE-1:1



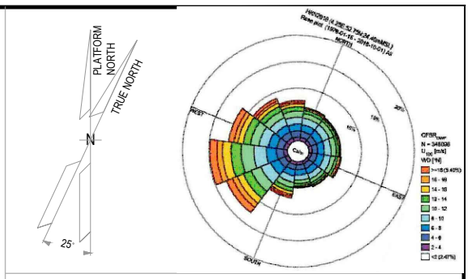
SECTION A-A

SCALE-1:1



SECTION B-B

SCALE-1:1



NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DRAWING IS VALID ONLY FOR CONTAINER CABLE TRAY LAYOUT.

LEGEND

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DL-40115**

REV.:	DATE:	SIGNATURE:
1_A	07/10/24	G.Randi

ROSETTI MARINO SpA

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-IN-DL-40081	INSTRUMENT LAYOUT - UPPER DECK
123A90-DDL-IN-LIS-40091	INSTRUMENT CABLE LIST
123A90-DDL-IN-DG-40015	INSTRUMENT-CCS WIRING DIAGRAMS
123A90-DDL-IN-DG-40016	INSTRUMENT-SAFETY SYSTEM WIRING DIAGRAMS
123A90-DDL-IN-DL-40083	INSTRUMENT MAIN CABLES ROUTING-LOWER DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/08/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND | ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)

Base Load Power HUB Cables Tray Layout

B-300 Container Lower Deck – TOS EL. 23.310m

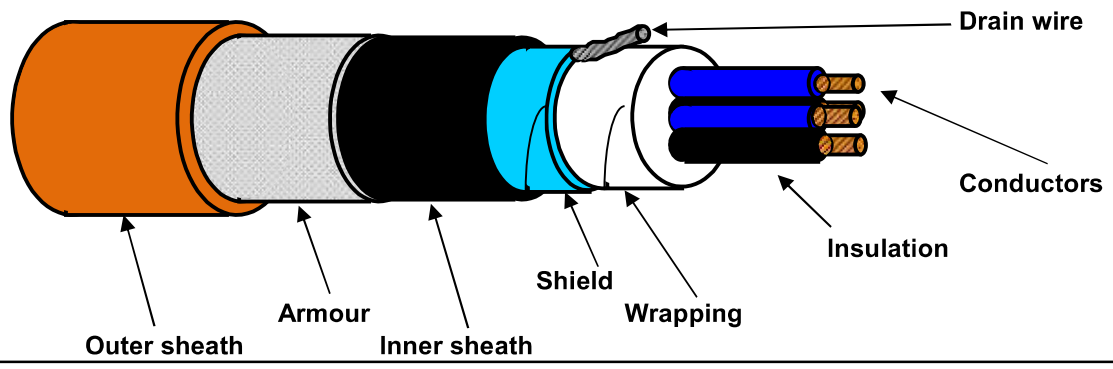
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:50
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 04/10/24
A1	DRAWING NO. 123A90-DDL-IN-DL-40115	SHEET 001	REV. 01

File Name : 123A90-DDL-IN-DL-40115 REV01.dwg

Tag Number	Category	Discipline	Eng Status	NativeDoc	Parent Tag	Grouping	Main Function	Secondary Function	Area	From Tag	From Main Function	From Area	To Tag	To Main Function	To Area	Material ID	Material Desc.	Gland Standard	From Gland	From Entry	From Fitting	To Gland	To Entry	To Fitting	Routing	Routing Manual
C-77-HS-010B/950-JE-04207	Cable	IN	VFC	123A90-DDL-IN-LIS-40091		Int-Ext				77-HS-010B	Hand Switch	Lower Deck (B-300) Ext.	950-JE-04207	DO JB to FGS	Lower Deck (B-300)	SMICV12-2X2,5	Cable Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250V (300V) 2x2,5mm² - Orange	M20	T2_M20_Double			T2_M20_Double				B-300-SEC-1B / B-300-SEC-1C / B-300-SEC-1D

Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250 V (300 V)

2X2,5 - INSTRUMENT CABLE - Fire Resistant - Not I.S.



TECHNICAL FEATURES

Conductors :	**7-STRANDED** plain/bare soft annealed copper wires	**IEC 60228 Class 2**
Insulation :	Mica/Glass Tape (MGT) plus XLPE, Nominal Thickness 0,6 mm	
Cores colour code :	**Black NUMBERED (from 1 to 2)**	
Pair Assembling :	Not required	
Pair Wrapping:	Not required	
Drain wire :	Not required	
Pair Shield :	Not required	
Shield Insulation :	Not required	
Total Assembling :	8/1mt	
Overall Wrapping:	by polyester-PET Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Drain wire :	7-Stranded **TINNED** annealed copper drain wire, **size 1,0 sqmm**, in continuous contact with the shield	
Overall Shield :	by Aluminium-**Al** Minimum Thickness 0,008 mm / polyester-**PET** Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Inner sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, Average Thickness 1,1 mm	
Inner sheath color code:	**Black**	
Armour :	Galvanized Steel Wire Braid Armour (coverage ≥ 90%)	
Outer sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, moisture/abrasion/UV Resistant,	
	Average Thickness 1,3 mm	
Outer sheath color code:	**Orange**	
Outer printing (INKJET) :	**FLEI - 2X2,5 SQMM - MGT/XLPE/OS/LSZH/SWB/LSZH - 150/250 V - IEC 60331.21 -**	
(every 1000 mm)	**IEC 60332.1.2 - IEC 60332.3.22 - Year of Manufacture - CE + Meter Marking**	
Under armour diameter :	(10,3 ± 10%) mm	
Over armour diameter :	(11,5 ± 10%) mm	
Outer diameter :	(14,1 ± 10%) mm	
Bending radius :	cable outer diameter x 10 (in fixed installation)	
Voltage Test :	1,5 kV a.c. for 5' (Between Cores) / 1,5 kV a.c. for 5' (Between Cores - Shield)	
Conductors DC Resistance :	≤ 7,86 Ω/km (@ 20°C)	
Insulation Resistance :	≥ 1000 MΩ x Km (@ 20°C)	
Applicable Standards		
Design Guidelines :	**IEC 60092.376**	
ON COMPLETE CABLE		
Fire Resistant test :	**IEC 60331.21**	
Flame Retardant test :	IEC 60332.1.2 - IEC 60332.3.22	
Acid Gas generation :	IEC 60754.1/2	
Smoke density/Light Transmittance :	IEC 61034.2 (LT ≥ 60%)	
Hazardous Areas :	IEC 60079.14 par.9.3.2a	
Temperature Range :		
ON INSULATION	(max +90°C) (max continuous operation temperature of conductors)	
	(max +250°C) (max conductors temperature during short-circuit for 5 seconds)	
ON COMPLETE CABLE		
During Operation :	(-20°C up to +90°C) (in fixed installation)	
During installation :	(- 5°C up to +50°C)	
Note :	**To meet the requirements of installation and use in Zone 1 & Zone 2 (IEC 60079-14) and "Gas & Vapour Tight" the cable must be provided with Penetrating Inner sheath together with correct ATEX approved equipment or accessories.**	

Office	Date	Sign	Rev.	Date	Sign
Drawn by :	04/04/2024	Messa			
Checked :	04/04/2024	Spaccasassi			
Approved :	04/04/2024	Cucinotta			

The data provided, lending assent for the treatment, will be used to the sense of the article 13 of of the Regulation (UE) 2016/679, also through outsiders, in order to allow the realization of the fulfilments informatives, administrative, commercial and accounting related to the contractual relationship. Integral copy of the informative could be requested at our offices.

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DRAWING NO. 123A90-DDL-IN-DG-40016

REV. 01

NOTES:

1. ALL SPARE ENTRIES SHALL BE PROVIDED WITH CERTIFIED EX PROOF PLUGS.
2. CABLE SCREENS / DRAIN WIRE SHALL BE SECURELY INSULATED AND TIED BACK IN THE INSTRUMENT SIDE AND SHAL BE TERMINATED IN THE MARSHALLING SIDE OF THE PANEL.
3. SPARE PAIRS / TRIADS SHALL BE CONNECTED TO TERMINALS IN JUNCTION BOX AND PANEL / MARSHALLING CABINETS.
4. ALL CABLE SCREENS TO BE TERMINATED AT THE INSTRUMENT EARTH BAR IN THE RESPECTIVE EARTH BARS (IS OR NIS) AS APPLICABLE IN THE MARSHALLING CABINET.
5. CONNECTION TERMINAL BLOCK SHALL BE DEFINED DURING CONSTRUCTION PHASE.

<01>

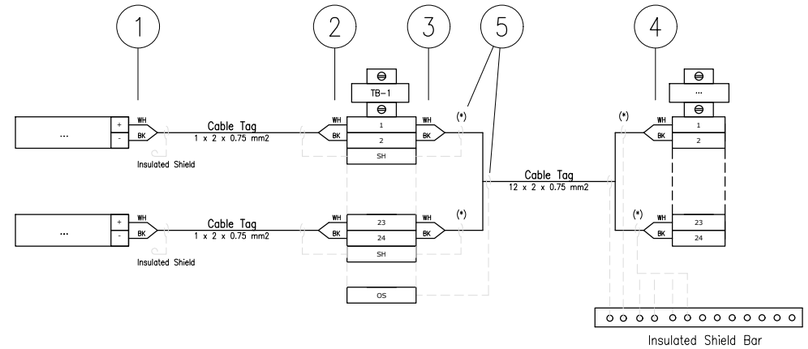
LEGENDS & SYMBOLS:

LEGEND:

I.E.	- GREEN ——— INSTRUMENT SIGNAL EARTH
P.E.	- GREEN/YELLOW —— P.E. EARTH/BONDING
	- TERMINAL BLOCK (TB)
WH	- WHITE
BK	- BLACK
RD	- RED
S	- SHIELD TERMINAL
OS	- OVERALL SHIELD TERMINAL
O/A Shld	- OVERALL SHIELD
I&O/A Shld	- INDIVIDUAL & OVERALL SHIELD
NIS	- NON INTRINSICALLY SAFE
IS	- INTRINSICALLY SAFE
P.E.	- PLANT EARTH
PCS	- PROCESS CONTROL SYSTEM <01>
ESD	- EMERGENCY SHUTDOWN SYSTEM
SIS	- SAFETY INSTRUMENT SYSTEM
FGS	- FIRE & GAS SYSTEM <01>
MC	- MARSHALLING CABINET
AI	- ANALOGUE INPUT
AO	- ANALOGUE OUTPUT
DI	- DIGITAL INPUT
DO	- DIGITAL OUTPUT
JE	- JUNCTION BOX FOR ELECTRICAL SIGNALS <01>

TYPICAL WIRE CROSS-FERRULING:

PHILOSOPHY OF CROSS-FERRULING: <01>



(*) Single shield is foreseen only for AI/AO signals.

1 - INSTRUMENT TERMINAL NO. OR POLARITY/JB NO./JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

2 - INSTRUMENT TAG NO./INSTRUMENT TERMINAL NO. OR POLARITY/JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

3 - PAIR OR CORE NO./MARSHALLING CABINET NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

4 - PAIR OR CORE NO./JB NO./JB TERMINAL NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

5 - HEAT SHRINKABLE BLACK FOR SHIELD OF NIS INSTRUMENT CABLE.
(HEAT SHRINKABLE BLUE FOR SHIELD OF NIS INSTRUMENT CABLE)

REFERENCE DRAWINGS

PIPING AND INSTRUMENT DIAGRAM	123A90-DDL-PR-PID-80009
INSTRUMENT INDEX	123A90-DDL-IN-LIS-40088 Rev.01
F&G DETECTORS LAYOUT	123A90-DDL-SAF-DL-30027

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_D	14/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
INSTRUMENT – SAFETY SYSTEM WIRING DIAGRAMS
GENERAL NOTES/LEGENDS

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

	DRAWING NO.	SHEET	REV.
A3	123A90-DDL-IN-DG-40016	003	01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

DRAWING NO. 123-A90-DDL-IN-DG-40016

REV. 01

FIELD

INSTRUMENTS

JUNCTION BOX

950-JE-04207

MULTICABLE

No.

I&T EQUIPMENT ROOM (ITER)

MARSHALLING CABINET

B400-FGS-002

<01>

B-300 UPS Room

950-XZ-04202 — C-950-XZ-04202/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/2BK — 1 — 1BK/1BK

950-XL-04203 — C-950-XL-04203/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/2BK — 3 — 3BK/4BK

950-XL-04204 — C-950-XL-04204/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/2BK — 5 — 5BK/6BK

B-300 OUTDOOR

77-HS-007B — C-77-HS-007B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/2BK — 7 — 7BK/8BK

C-77-HS-007A/77-HS-007B

~~C-77-HY-007D/77-HY-007A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77007

77-HY-007 — C-77-HY-007/77-HS-007A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — B-300 INDOOR — 77-HS-007A

B-300 OUTDOOR

77-HS-008B — C-77-HS-008B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/2BK — 9 — 9BK/10BK

C-77-HS-008A/77-HS-008B

~~C-77-HS-008B/77-HS-008A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77008

77-HY-008 — C-77-HY-008/77-HS-008A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — B-300 INDOOR — 77-HS-008A

B-300 OUTDOOR

77-HS-009B — C-77-HS-009B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/2BK — 11 — 11BK/12BK

C-77-HS-009A/77-HS-009B

~~C-77-HS-009B/77-HS-009A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77009

77-HY-009 — C-77-HY-009/77-HS-009A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — B-300 INDOOR — 77-HS-009A

B-300 OUTDOOR

77-HS-010B — C-77-HS-010B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/2BK — 13 — 13BK/14BK

C-77-HS-010A/77-HS-010B

~~C-77-HS-010B/77-HS-010A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77010

77-HY-010 — C-77-HY-010/77-HS-010A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — B-300 INDOOR — 77-HS-010A

B-300 OUTDOOR

77-HS-011B — C-77-HS-011B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/2BK — 15 — 15BK/16BK

C-77-HS-011A/77-HS-011B

~~C-77-HS-011B/77-HS-011A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77011

77-HY-011 — C-77-HY-011/77-HS-011A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — B-300 INDOOR — 77-HS-011A

TB-1: SH — 17 — 17BK/18BK — SH — 19 — 19BK/20BK — SH — 21 — 21BK/22BK — SH — 23 — 23BK/24BK — SH — OS

950-JE-04207/B400-FGS-002

24x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

TB-950-JE-04207

1BK	1	950-XZ-04202
2BK	2	
3BK	3	950-XL-04203
4BK	4	
5BK	5	950-XL-04204
6BK	6	
7BK	7	77-HY-007
8BK	8	
9BK	9	77-HY-008
10BK	10	
11BK	11	77-HY-009
12BK	12	
13BK	13	77-HY-010
14BK	14	
15BK	15	77-HY-011
16BK	16	
17BK	17	SPARE
18BK	18	
19BK	19	SPARE
20BK	20	
21BK	21	SPARE
22BK	22	
23BK	23	SPARE
24BK	24	

Shield Bar — I.E.

NOTE-2

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_D	14/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT–FGS WIRING DIAGRAMS
950–JE–04207

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

	DRAWING NO.	SHEET	REV.
A3	123A90–DDL–IN–DG–40016	069	01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

ROSETTI MARINO — CROSSWIND

ITEM	Tag	C-77-HS-010A/77-HS-010B	: PUSH BUTTON / MARSHALLING PCS	Dwg	123A90-DDL-IN-LIS-40091		
	S/Sys	77-30	: HVAC UPS Equipment Room B-300	Module	LD_B-300/LD_B-300_Ext		
TASK	code	C10000388	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity CCK	Discipline	Instrumental	Form	CJX10

Multi/Single-Core Instrument Control Cable

CABLE DATA

Type: Cu-MICA-XLPE-OS-LSZH-SWB-LSZH — Cores/Size mm²: 2x2.5 mm2 — Color: ORANGE

From: 77-HS-010A — To: 77-HS-010B

1	Check cable is as specified in project cable schedule.	OK
2	Check relevant documents are at the latest revision.	OK
3	Check cable is routed in accordance with cable layout drawings.	OK
4	Check cable for any physical damage.	OK
5	Check cable is adequately supported and correctly fixed to rack according to Project specification.	OK
6	Check bending radius is within the specified limits.	OK
7	Check cable is correctly loomed and segregated in accordance with specification.	OK
8	Check cable and core marking are in accordance with specification.	OK
9	Check cable labelling is in accordance with specification.	PL
10	Check that glands, shrouds and earthing are in accordance with specification.	OK
11	Check terminations are in accordance with termination diagram	OK
12	Check gland plate for single core cables is non-ferrous.	NA
13	If required produce Red Line Mark Up for "AS BUILT"	

INSULATION	CORE to EARTH		>999	MΩ
	CORE to CORE		>999	MΩ
	CORE to SCREEN		>999	MΩ
	CORE to ARMr		>999	MΩ
	SCREEN to EARTH		>999	MΩ
	SCREEN to ARMr		>999	MΩ
CONTINUITY	CORES		0.5	Ω
	SCREEN		0.5	Ω
	EARTH		0.7	Ω
	ARMr		0.6	Ω
	TEST VOLTS		500	V

TEST ALL CORES AND RECORD LOWEST VALUE

Notes: The lowest value is recorded and must be within project specifications

TESTING INSTRUMENTS USED

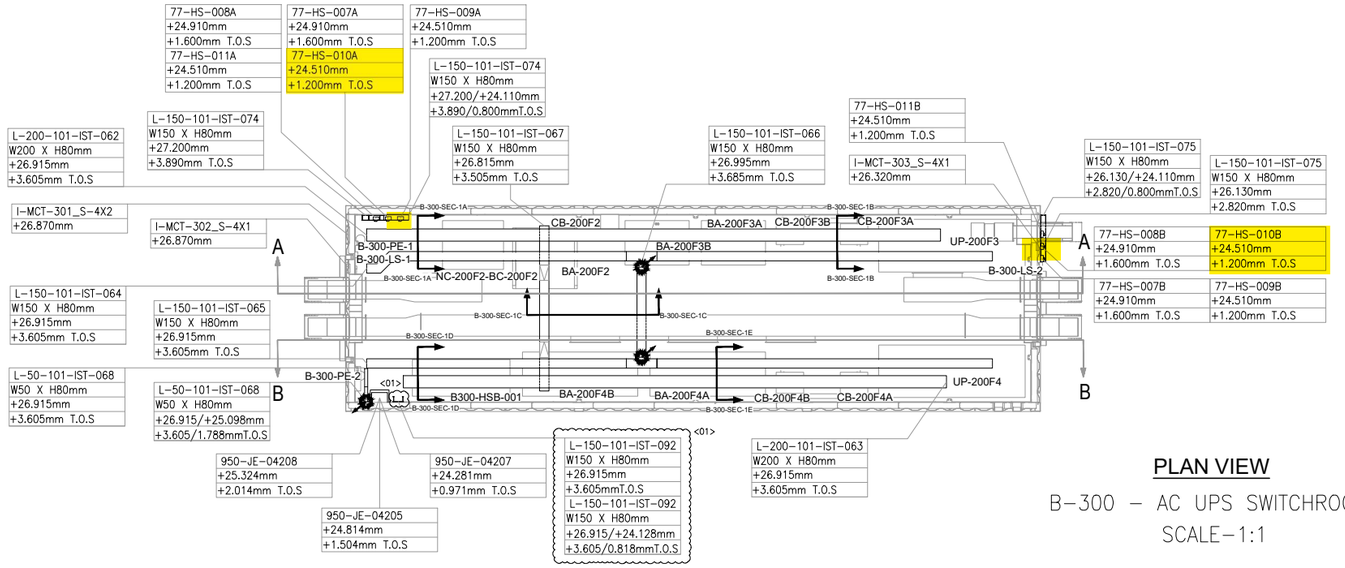
TYPE / SERIAL N°: KEW3125A/W8330207 — Calibration date: 10-07-2024

Comments

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM (Rosetti Marino)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-10-11	2024-10-15	
Signature	Digitaly signed by Carmelo Bongiovanni 2024-10-11T15:37:28.396Z	Digitaly signed by Giovanni Tangianu 2024-10-15T11:09:10.339Z	

DRAWING NO. 123A90-DDL-IN-DL-40115

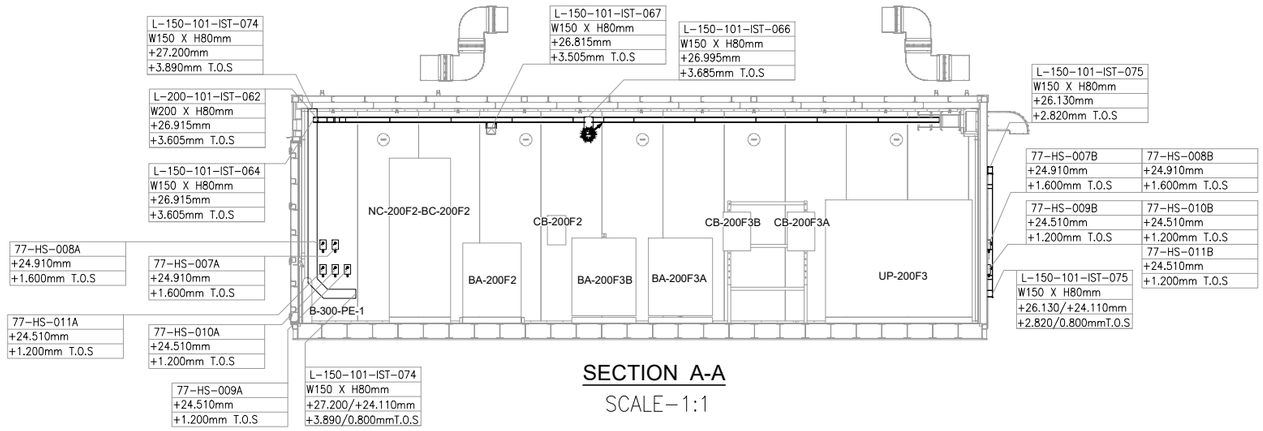
REV. 01



PLAN VIEW

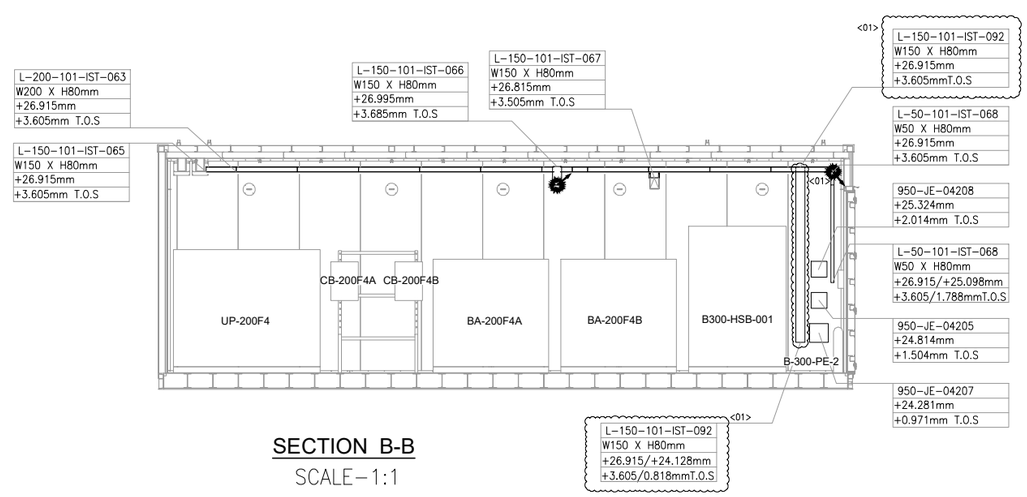
B-300 – AC UPS SWITCHROOM

SCALE-1:1



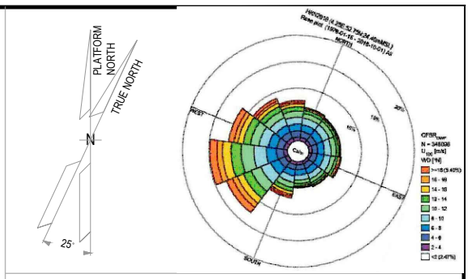
SECTION A-A

SCALE-1:1



SECTION B-B

SCALE-1:1



NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DRAWING IS VALID ONLY FOR CONTAINER CABLE TRAY LAYOUT.

LEGEND

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DL-40115**

REV.:	DATE:	SIGNATURE:
1_A	07/10/24	G.Randi

ROSETTI MARINO SpA

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-IN-DL-40081	INSTRUMENT LAYOUT - UPPER DECK
123A90-DDL-IN-LIS-40091	INSTRUMENT CABLE LIST
123A90-DDL-IN-DG-40015	INSTRUMENT-CCS WIRING DIAGRAMS
123A90-DDL-IN-DG-40016	INSTRUMENT-SAFETY SYSTEM WIRING DIAGRAMS
123A90-DDL-IN-DL-40083	INSTRUMENT MAIN CABLES ROUTING-LOWER DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/08/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)

Base Load Power HUB Cables Tray Layout

B-300 Container Lower Deck – TOS EL. 23.310m

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:50
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 04/10/24

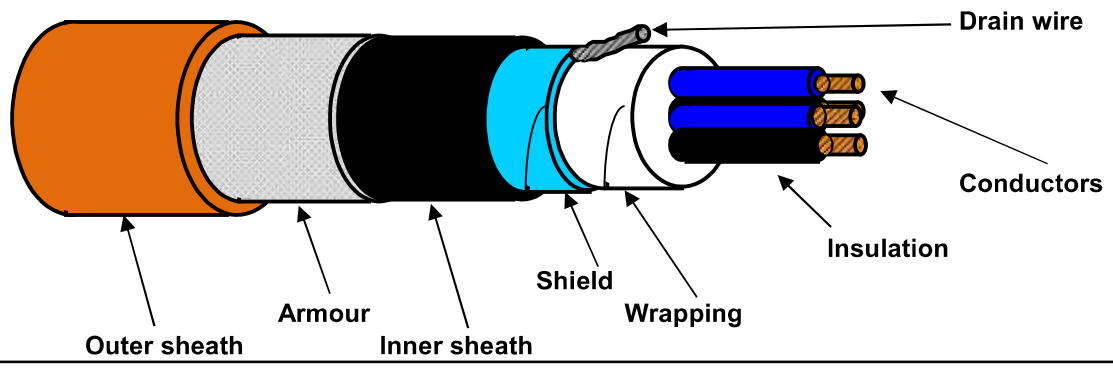
A1	DRAWING NO. 123A90-DDL-IN-DL-40115	SHEET 001	REV. 01

File Name : 123A90-DDL-IN-DL-40115 REV01.dwg

Tag Number	Category	Discipline	Eng Status	NativeDoc	Parent Tag	Grouping	Main Function	Secondary Function	Area	From Tag	From Main Function	From Area	To Tag	To Main Function	To Area	Material ID	Material Desc.	Gland Standard	From Gland	From Entry	From Fitting	To Gland	To Entry	To Fitting	Routing	Routing Manual
C-77-HS-010A/77-HS-010B	Cable	IN	VFC	123A90-DDL-IN-LIS-40091		Int-Ext				77-HS-010A	Hand Switch	Lower Deck (B-300)	77-HS-010B	Hand Switch	Lower Deck (B-300) Ext.	SMICV12-2X2,5	Cable Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250V (300V) 2x2,5mm² - Orange	M20	T2_M20_Double			T2_M20_Double				I-MCT-303 / B-300-SEC-1B / B-300-SEC-1A

Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250 V (300 V)

2X2,5 - INSTRUMENT CABLE - Fire Resistant - Not I.S.



TECHNICAL FEATURES

Conductors :	**7-STRANDED** plain/bare soft annealed copper wires	**IEC 60228 Class 2**
Insulation :	Mica/Glass Tape (MGT) plus XLPE, Nominal Thickness 0,6 mm	
Cores colour code :	**Black NUMBERED (from 1 to 2)**	
Pair Assembling :	Not required	
Pair Wrapping:	Not required	
Drain wire :	Not required	
Pair Shield :	Not required	
Shield Insulation :	Not required	
Total Assembling :	8/1mt	
Overall Wrapping:	by polyester-PET Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Drain wire :	7-Stranded **TINNED** annealed copper drain wire, **size 1,0 sqmm**, in continuous contact with the shield	
Overall Shield :	by Aluminium-**Al** Minimum Thickness 0,008 mm / polyester-**PET** Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Inner sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, Average Thickness 1,1 mm	
Inner sheath color code:	**Black**	
Armour :	Galvanized Steel Wire Braid Armour (coverage ≥ 90%)	
Outer sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, moisture/abrasion/UV Resistant,	
	Average Thickness 1,3 mm	
Outer sheath color code:	**Orange**	
Outer printing (INKJET) :	**FLEI - 2X2,5 SQMM - MGT/XLPE/OS/LSZH/SWB/LSZH - 150/250 V - IEC 60331.21 -**	
(every 1000 mm)	**IEC 60332.1.2 - IEC 60332.3.22 - Year of Manufacture - CE + Meter Marking**	
Under armour diameter :	(10,3 ± 10%) mm	
Over armour diameter :	(11,5 ± 10%) mm	
Outer diameter :	(14,1 ± 10%) mm	
Bending radius :	cable outer diameter x 10 (in fixed installation)	
Voltage Test :	1,5 kV a.c. for 5' (Between Cores) / 1,5 kV a.c. for 5' (Between Cores - Shield)	
Conductors DC Resistance :	≤ 7,86 Ω/km (@ 20°C)	
Insulation Resistance :	≥ 1000 MΩ x Km (@ 20°C)	
Applicable Standards		
Design Guidelines :	**IEC 60092.376**	
ON COMPLETE CABLE		
Fire Resistant test :	**IEC 60331.21**	
Flame Retardant test :	IEC 60332.1.2 - IEC 60332.3.22	
Acid Gas generation :	IEC 60754.1/2	
Smoke density/Light Transmittance :	IEC 61034.2 (LT ≥ 60%)	
Hazardous Areas :	IEC 60079.14 par.9.3.2a	
Temperature Range :		
ON INSULATION	(max +90°C) (max continuous operation temperature of conductors)	
	(max +250°C) (max conductors temperature during short-circuit for 5 seconds)	
ON COMPLETE CABLE		
During Operation :	(-20°C up to +90°C) (in fixed installation)	
During installation :	(- 5°C up to +50°C)	
Note :	**To meet the requirements of installation and use in Zone 1 & Zone 2 (IEC 60079-14) and "Gas & Vapour Tight" the cable must be provided with Penetrating Inner sheath together with correct ATEX approved equipment or accessories.**	

Office	Date	Sign	Rev.	Date	Sign
Drawn by :	04/04/2024	Messa			
Checked :	04/04/2024	Spaccasassi			
Approved :	04/04/2024	Cucinotta			

The data provided, lending assent for the treatment, will be used to the sense of the article 13 of of the Regulation (UE) 2016/679, also through outsiders, in order to allow the realization of the fulfilments informatives, administrative, commercial and accounting related to the contractual relationship. Integral copy of the informative could be requested at our offices.

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DRAWING NO. 123A90-DDL-IN-DG-40016

REV. 01

NOTES:

1. ALL SPARE ENTRIES SHALL BE PROVIDED WITH CERTIFIED EX PROOF PLUGS.
2. CABLE SCREENS / DRAIN WIRE SHALL BE SECURELY INSULATED AND TIED BACK IN THE INSTRUMENT SIDE AND SHAL BE TERMINATED IN THE MARSHALLING SIDE OF THE PANEL.
3. SPARE PAIRS / TRIADS SHALL BE CONNECTED TO TERMINALS IN JUNCTION BOX AND PANEL / MARSHALLING CABINETS.
4. ALL CABLE SCREENS TO BE TERMINATED AT THE INSTRUMENT EARTH BAR IN THE RESPECTIVE EARTH BARS (IS OR NIS) AS APPLICABLE IN THE MARSHALLING CABINET.
5. CONNECTION TERMINAL BLOCK SHALL BE DEFINED DURING CONSTRUCTION PHASE.

<01>

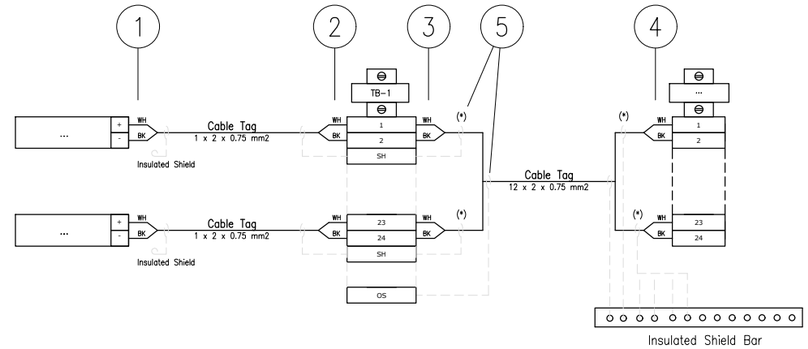
LEGENDS & SYMBOLS:

LEGEND:

I.E.	- GREEN ——— INSTRUMENT SIGNAL EARTH
P.E.	- GREEN/YELLOW —— P.E. EARTH/BONDING
	- TERMINAL BLOCK (TB)
WH	- WHITE
BK	- BLACK
RD	- RED
S	- SHIELD TERMINAL
OS	- OVERALL SHIELD TERMINAL
O/A Shld	- OVERALL SHIELD
I&O/A Shld	- INDIVIDUAL & OVERALL SHIELD
NIS	- NON INTRINSICALLY SAFE
IS	- INTRINSICALLY SAFE
P.E.	- PLANT EARTH
PCS	- PROCESS CONTROL SYSTEM <01>
ESD	- EMERGENCY SHUTDOWN SYSTEM
SIS	- SAFETY INSTRUMENT SYSTEM
FGS	- FIRE & GAS SYSTEM <01>
MC	- MARSHALLING CABINET
AI	- ANALOGUE INPUT
AO	- ANALOGUE OUTPUT
DI	- DIGITAL INPUT
DO	- DIGITAL OUTPUT
JE	- JUNCTION BOX FOR ELECTRICAL SIGNALS <01>

TYPICAL WIRE CROSS-FERRULING:

PHILOSOPHY OF CROSS-FERRULING: <01>



(*) Single shield is foreseen only for AI/AO signals.

1 - INSTRUMENT TERMINAL NO. OR POLARITY/JB NO./JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

2 - INSTRUMENT TAG NO./INSTRUMENT TERMINAL NO. OR POLARITY/JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

3 - PAIR OR CORE NO./MARSHALLING CABINET NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

4 - PAIR OR CORE NO./JB NO./JB TERMINAL NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

5 - HEAT SHRINKABLE BLACK FOR SHIELD OF NIS INSTRUMENT CABLE.
(HEAT SHRINKABLE BLUE FOR SHIELD OF NIS INSTRUMENT CABLE)

REFERENCE DRAWINGS

PIPING AND INSTRUMENT DIAGRAM	123A90-DDL-PR-PID-80009
INSTRUMENT INDEX	123A90-DDL-IN-LIS-40088 Rev.01
F&G DETECTORS LAYOUT	123A90-DDL-SAF-DL-30027

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_D	14/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
INSTRUMENT – SAFETY SYSTEM WIRING DIAGRAMS
GENERAL NOTES/LEGENDS

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

	DRAWING NO.	SHEET	REV.
A3	123A90-DDL-IN-DG-40016	003	01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

DRAWING NO. 123-A90-DDL-IN-DG-40016 REV. 01

FIELD

INSTRUMENTS

JUNCTION BOX

950-JE-04207

MULTICABLE

No.

I&T EQUIPMENT ROOM (ITER)

MARSHALLING CABINET

B400-FGS-002

<01>

B-300 UPS Room

950-XZ-04202 — C-950-XZ-04202/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/2BK — 1 — SH

950-XL-04203 — C-950-XL-04203/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/3BK, 2BK/4BK — 3 — 4 — SH

950-XL-04204 — C-950-XL-04204/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/5BK, 2BK/6BK — 5 — 6 — SH

B-300 OUTDOOR

77-HS-007B — C-77-HS-007B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/7BK, 2BK/8BK — 7 — 8 — SH

C-77-HS-007A/77-HS-007B

~~C-77-HY-007D/77-HY-007A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77007

77-HY-007 — C-77-HY-007/77-HS-007A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 77-HS-007A

B-300 OUTDOOR

B-300 INDOOR

77-HS-008B — C-77-HS-008B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/9BK, 2BK/10BK — 9 — 10 — SH

C-77-HS-008A/77-HS-008B

~~C-77-HS-008B/77-HS-008A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77008

77-HY-008 — C-77-HY-008/77-HS-008A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 77-HS-008A

B-300 OUTDOOR

B-300 INDOOR

77-HS-009B — C-77-HS-009B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/11BK, 2BK/12BK — 11 — 12 — SH

C-77-HS-009A/77-HS-009B

~~C-77-HS-009B/77-HS-009A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77009

77-HY-009 — C-77-HY-009/77-HS-009A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 77-HS-009A

B-300 OUTDOOR

B-300 INDOOR

77-HS-010B — C-77-HS-010B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/13BK, 2BK/14BK — 13 — 14 — SH

C-77-HS-010A/77-HS-010B

~~C-77-HS-010B/77-HS-010A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77010

77-HY-010 — C-77-HY-010/77-HS-010A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 77-HS-010A

B-300 OUTDOOR

B-300 INDOOR

77-HS-011B — C-77-HS-011B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/15BK, 2BK/16BK — 15 — 16 — SH — 17 — 18 — SH — 19 — 20 — SH — 21 — 22 — SH — 23 — 24 — SH — OS

C-77-HS-011A/77-HS-011B

~~C-77-HS-011B/77-HS-011A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77011

77-HY-011 — C-77-HY-011/77-HS-011A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 77-HS-011A

B-300 OUTDOOR

B-300 INDOOR

NOTE-2

950-JE-04207/B400-FGS-002

24x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

TB-950-JE-04207

1BK	1	950-XZ-04202
2BK	2	
3BK	3	950-XL-04203
4BK	4	
5BK	5	950-XL-04204
6BK	6	
7BK	7	77-HY-007
8BK	8	
9BK	9	77-HY-008
10BK	10	
11BK	11	77-HY-009
12BK	12	
13BK	13	77-HY-010
14BK	14	
15BK	15	77-HY-011
16BK	16	
17BK	17	SPARE
18BK	18	
19BK	19	SPARE
20BK	20	
21BK	21	SPARE
22BK	22	
23BK	23	SPARE
24BK	24	

Shield Bar — I.E.

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_D	14/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT–FGS WIRING DIAGRAMS
950–JE–04207

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024
A3	DRAWING NO. 123A90–DDL–IN–DG–40016	SHEET 069	REV. 01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

ROSETTI MARINO | PROVERLIS | CROSSWIND

ITEM	Tag	C-77-HY-010/77-HS-010A	: FIRE DAMPER / MARSHALLING PCS	Dwg	123A90-DDL-IN-LIS-40091		
	S/Sys	77-30	: HVAC UPS Equipment Room B-300	Module	LD_B-300		
TASK	code	C10000389	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity CCK	Discipline	Instrumental	Form	CJX10

Multi/Single-Core Instrument Control Cable

CABLE DATA

Type	Cu-MICA-XLPE-OS-LSZH-SWB-LSZH	Cores/Size mm²	2X2,5 mm2	Color	ORANGE
From	HFD-77010	To	77-HS-010A		

1	Check cable is as specified in project cable schedule.	OK
2	Check relevant documents are at the latest revision.	OK
3	Check cable is routed in accordance with cable layout drawings.	OK
4	Check cable for any physical damage.	OK
5	Check cable is adequately supported and correctly fixed to rack according to Project specification.	OK
6	Check bending radius is within the specified limits.	OK
7	Check cable is correctly loomed and segregated in accordance with specification.	OK
8	Check cable and core marking are in accordance with specification.	OK
9	Check cable labelling is in accordance with specification.	OK
10	Check that glands, shrouds and earthing are in accordance with specification.	OK
11	Check terminations are in accordance with termination diagram	OK
12	Check gland plate for single core cables is non-ferrous.	OK
13	If required produce Red Line Mark Up for "AS BUILT"	

INSULATION	CORE to EARTH	>999	MΩ
	CORE to CORE	>999	MΩ
	CORE to SCREEN	>999	MΩ
	CORE to ARMr	>999	MΩ
	SCREEN to EARTH	>999	MΩ
	SCREEN to ARMr	>999	MΩ
CONTINUITY	CORES	0,4	Ω
	SCREEN	0,4	Ω
	EARTH	NA	Ω
	ARMr	0,4	Ω
	TEST VOLTS	500	V

TEST ALL CORES AND RECORD LOWEST VALUE

Notes: The lowest value is recorded and must be within project specifications

TESTING INSTRUMENTS USED

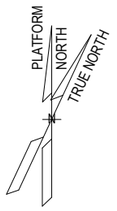
TYPE / SERIAL N°: MEGGER : KEW3125A SERIAL: W8330207 Calibration date: 10/07/2024

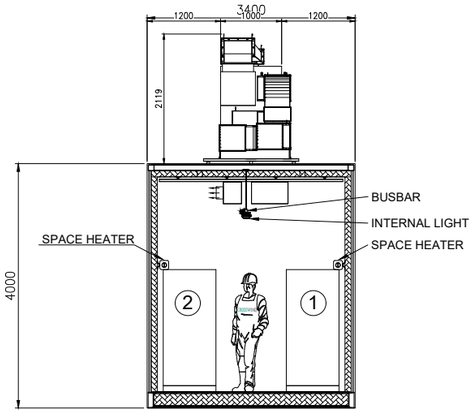
Comments

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICSI IMPIANTI	RM (ROSETTI MARINO)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-10-28	2024-11-21	
Signature	PROVERLIS Digitaly signed by Carmelo Bongiovanni 2024-10-28T06:55:02.636Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2024-11-21T09:58:18.172Z	

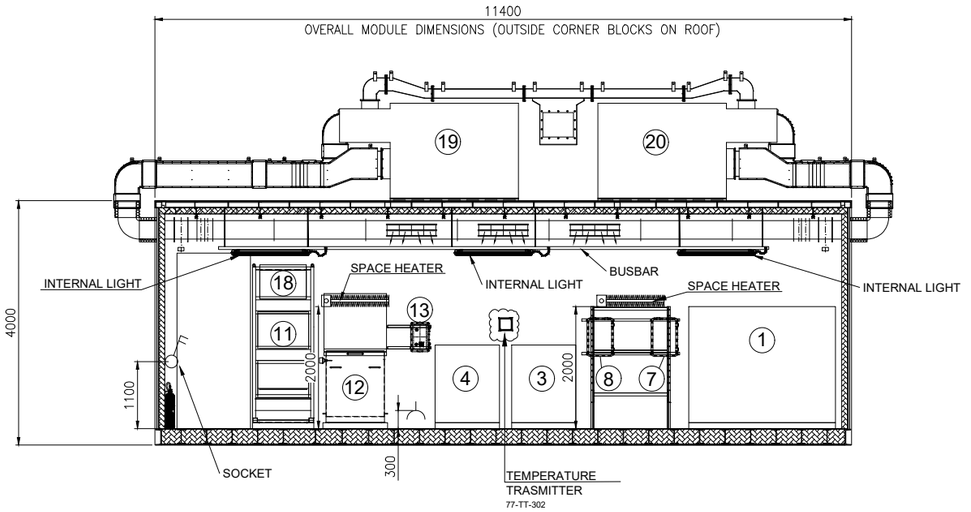
DRAWING NO. 1724000049-AR-DA-00016

REV. 03



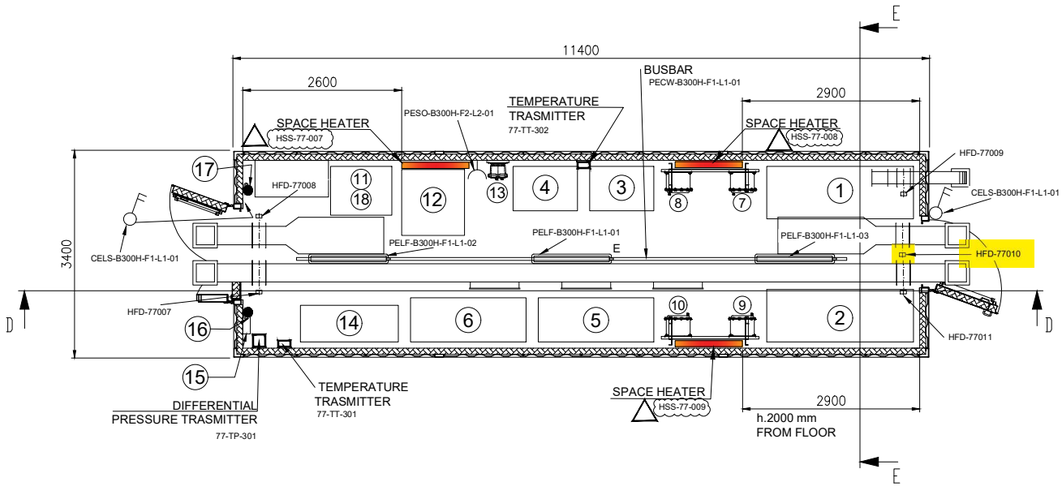


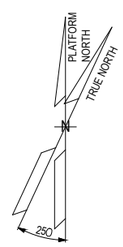
SECTION E-E

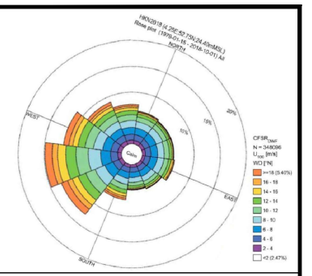


SECTION D-D

EQUIPMENT LIST						
REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
11	NC-200F2	NAVAID PANEL	1000	800	2600	535
12	BA-200F2	BATTERY BOX NAVAID	958	993	1210	1552
13	CB-200F2	ISOLATOR BOX NAVAID	500	400	765	70
14	B300-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	500
15	-	EYE WASH STATION	228	80	290	5
16	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
17	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
18	BC-200F2	BATTERY CHARGER NAVAID	607	607	2157	500
19	HHU-77005	AIR HANDLING UNIT A	2100	1000	2158	850
20	HHU-77006	AIR HANDLING UNIT B	2100	1000	2158	850
21	HSS-77-007	SPACE HEATER 1	184	145	1100	5
22	HSS-77-008	SPACE HEATER 2	184	145	1100	5
23	HSS-77-009	SPACE HEATER 3	184	145	1100	5







NOTE

1) ALL DIMENSIONS ARE IM MM.
2) THE POSITION OF THE LAMPS INDICATED IS TO BE CONSIDERED THE THEORETICAL ONE, THE FINA ONE WILL BE CONFIRMED IN THE AS-BUILT ISSUE.

REFERENCE

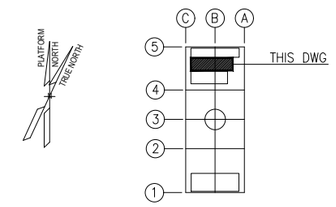
DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00066
"B-300" DETAILED DRAWING	1724000049-AR-DD-00020
PAINTING PROCEDURE	1724000049-MAT-PRO-00006
"B-300" FOUNDATION	1724000049-ST-DD-00012
"B-300" STRUCTURAL CALCULATION	1724000049-ST-CA-00008

LEGEND

- INTERNAL LIGHT
- E INTERNAL EMERGENCY LIGHT
- SOCKET OUTLET, INDOOR
- LIGHT SWITCH
- _____ ESCAPE CORRIDOR – WIDTH 800mm.
- _____ MAINTENANCE AREA – VENDOR REQUIREMENT
- _____ INSULATION PANEL

HOLDS

KEY PLAN



ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	23/07/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
02	03/07/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
01	16/05/24	M.G.	SKV	C.A.	ISSUE FOR REVIEW (IFR)
00	08/02/24	A.G.	SKV	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND | ROSETTI MARINO

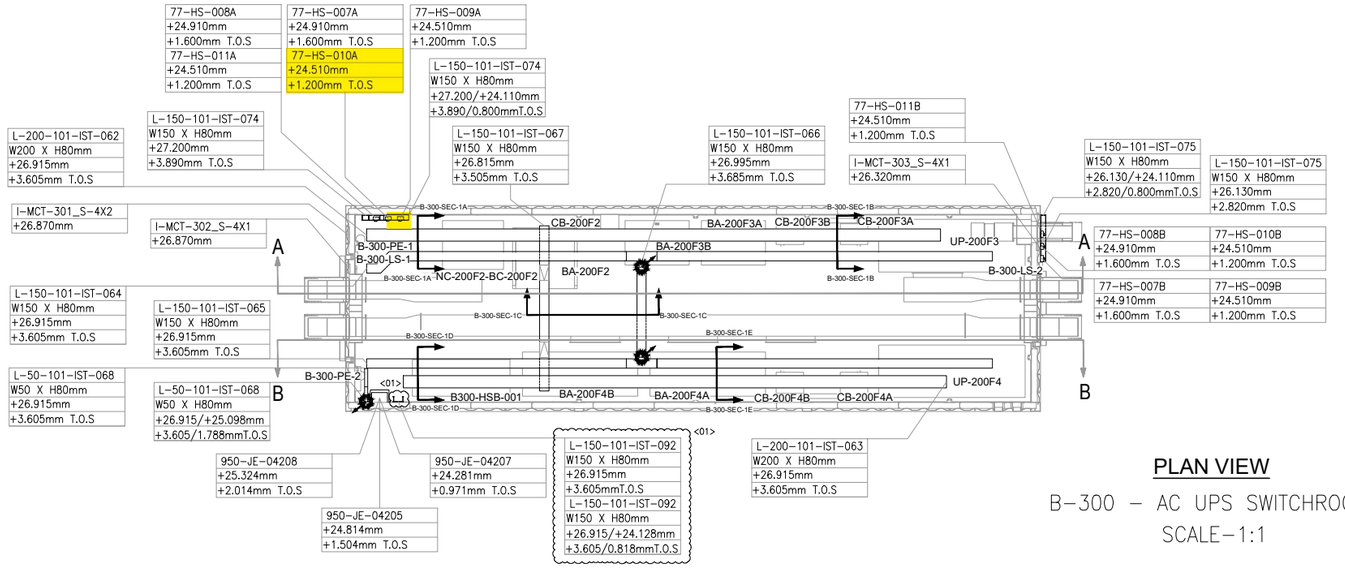
TITLE :
BASE LOAD POWER HUB (BLPH)
B-300 GENERAL ARRANGEMENT DRAWINGS

CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 23/07/24
A1	DRAWING NO. 1724000049-AR-DA-00016	SHEET 003	REV. 03

File Name : 1724000049-AR-DA-00016-REV.03

DRAWING NO. 123A90-DDL-IN-DL-40115

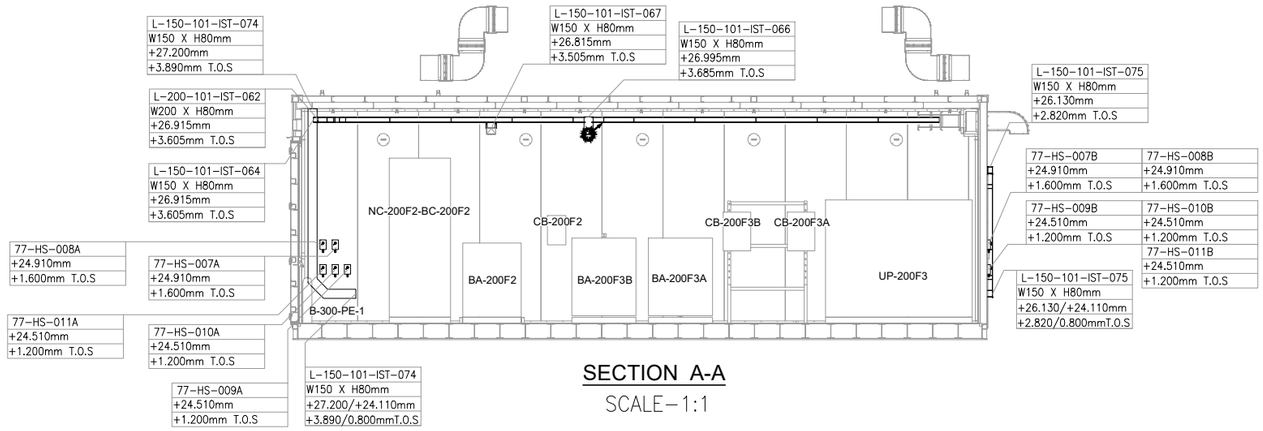
REV. 01



PLAN VIEW

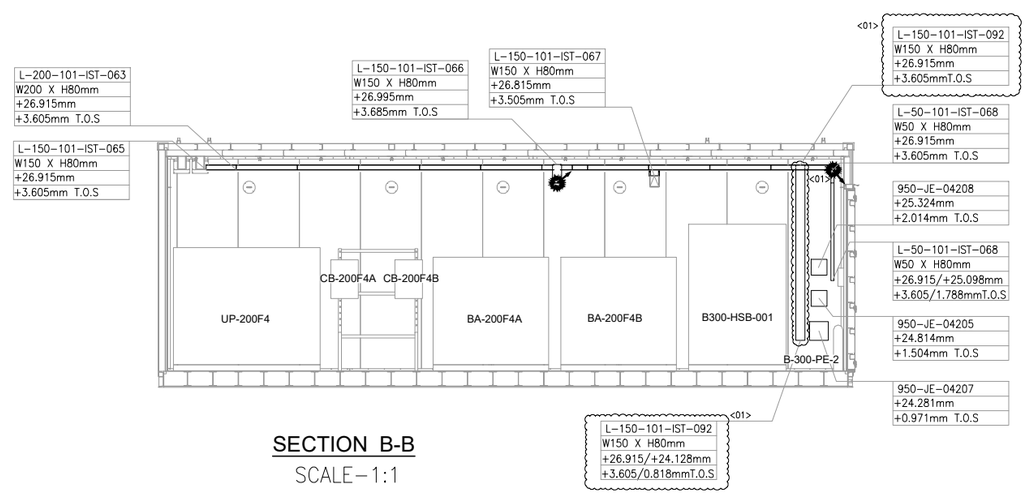
B-300 – AC UPS SWITCHROOM

SCALE-1:1



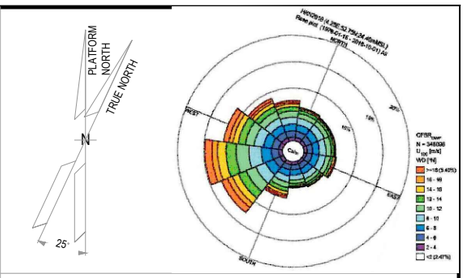
SECTION A-A

SCALE-1:1



SECTION B-B

SCALE-1:1



NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DRAWING IS VALID ONLY FOR CONTAINER CABLE TRAY LAYOUT.

LEGEND

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DL-40115**

REV.:	DATE:	SIGNATURE:
1_A	07/10/24	G.Randi

ROSETTI MARINO SpA

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-IN-DL-40081	INSTRUMENT LAYOUT - UPPER DECK
123A90-DDL-IN-LIS-40091	INSTRUMENT CABLE LIST
123A90-DDL-IN-DG-40015	INSTRUMENT-CCS WIRING DIAGRAMS
123A90-DDL-IN-DG-40016	INSTRUMENT-SAFETY SYSTEM WIRING DIAGRAMS
123A90-DDL-IN-DL-40083	INSTRUMENT MAIN CABLES ROUTING-LOWER DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/08/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)

Base Load Power HUB Cables Tray Layout

B-300 Container Lower Deck – TOS EL. 23.310m

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:50
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 04/10/24

A1	DRAWING NO. 123A90-DDL-IN-DL-40115	SHEET 001	REV. 01

File Name : 123A90-DDL-IN-DL-40115 REV01.dwg

DRAWING NO. 123-A90-DDL-IN-DG-40016 REV. 01

FIELD

INSTRUMENTS

JUNCTION BOX

950-JE-04207

MULTICABLE No.

I&T EQUIPMENT ROOM (ITER)

MARSHALLING CABINET

B400-FGS-002

<01>

B-300 UPS Room

950-XZ-04202 — C-950-XZ-04202/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

950-XL-04203 — C-950-XL-04203/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

950-XL-04204 — C-950-XL-04204/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 OUTDOOR

77-HS-007B — C-77-HS-007B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-007A/77-HS-007B

~~C-77-HY-007B/77-HY-007A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77007 — 77-HY-007 — C-77-HY-007/77-HS-007A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 77-HS-007A

B-300 INDOOR

B-300 OUTDOOR

77-HS-008B — C-77-HS-008B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-008A/77-HS-008B

~~C-77-HS-008B/77-HS-008A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77008 — 77-HY-008 — C-77-HY-008/77-HS-008A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 77-HS-008A

B-300 INDOOR

B-300 OUTDOOR

77-HS-009B — C-77-HS-009B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-009A/77-HS-009B

~~C-77-HS-009B/77-HS-009A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77009 — 77-HY-009 — C-77-HY-009/77-HS-009A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 77-HS-009A

B-300 INDOOR

B-300 OUTDOOR

77-HS-010B — C-77-HS-010B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-010A/77-HS-010B

~~C-77-HS-010B/77-HS-010A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77010 — 77-HY-010 — C-77-HY-010/77-HS-010A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 77-HS-010A

B-300 INDOOR

B-300 OUTDOOR

77-HS-011B — C-77-HS-011B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-011A/77-HS-011B

~~C-77-HS-011B/77-HS-011A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77011 — 77-HY-011 — C-77-HY-011/77-HS-011A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 77-HS-011A

B-300 INDOOR

TB-1

1BK 1 1BK
2BK 2 2BK
SH
1BK 3 3BK
2BK 4 4BK
SH
1BK 5 5BK
2BK 6 6BK
SH
1BK 7 7BK
2BK 8 8BK
SH
1BK 9 9BK
2BK 10 10BK
SH
1BK 11 11BK
2BK 12 12BK
SH
1BK 13 13BK
2BK 14 14BK
SH
1BK 15 15BK
2BK 16 16BK
SH
17 17BK
18 18BK
SH
19 19BK
20 20BK
SH
21 21BK
22 22BK
SH
23 23BK
24 24BK
SH
OS

950-JE-04207/B400-FGS-002

24x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

TB-950-JE-04207

1BK 1 950-XZ-04202
2BK 2
3BK 3 950-XL-04203
4BK 4
5BK 5 950-XL-04204
6BK 6
7BK 7 77-HY-007
8BK 8
9BK 9 77-HY-008
10BK 10
11BK 11 77-HY-009
12BK 12
13BK 13 77-HY-010
14BK 14
15BK 15 77-HY-011
16BK 16
17BK 17 SPARE
18BK 18
19BK 19 SPARE
20BK 20
21BK 21 SPARE
22BK 22
23BK 23 SPARE
24BK 24

Shield Bar — I.E.

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_H	28/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
INSTRUMENT–FGS WIRING DIAGRAMS
950–JE–04207

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024
A3	DRAWING NO. 123A90–DDL–IN–DG–40016	SHEET 069	REV. 01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

DRAWING NO. 123A90-DDL-IN-DG-40016

REV. 01

NOTES:

1. ALL SPARE ENTRIES SHALL BE PROVIDED WITH CERTIFIED EX PROOF PLUGS.
2. CABLE SCREENS / DRAIN WIRE SHALL BE SECURELY INSULATED AND TIED BACK IN THE INSTRUMENT SIDE AND SHAL BE TERMINATED IN THE MARSHALLING SIDE OF THE PANEL.
3. SPARE PAIRS / TRIADS SHALL BE CONNECTED TO TERMINALS IN JUNCTION BOX AND PANEL / MARSHALLING CABINETS.
4. ALL CABLE SCREENS TO BE TERMINATED AT THE INSTRUMENT EARTH BAR IN THE RESPECTIVE EARTH BARS (IS OR NIS) AS APPLICABLE IN THE MARSHALLING CABINET.
5. CONNECTION TERMINAL BLOCK SHALL BE DEFINED DURING CONSTRUCTION PHASE.

<01>

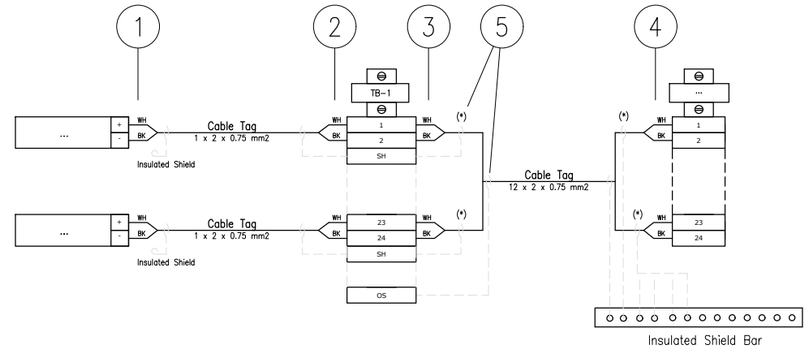
LEGENDS & SYMBOLS:

LEGEND:

I.E.	- GREEN ——— INSTRUMENT SIGNAL EARTH
P.E.	- GREEN/YELLOW —— P.E. EARTH/BONDING
	- TERMINAL BLOCK (TB)
WH	- WHITE
BK	- BLACK
RD	- RED
S	- SHIELD TERMINAL
OS	- OVERALL SHIELD TERMINAL
O/A Shld	- OVERALL SHIELD
I&O/A Shld	- INDIVIDUAL & OVERALL SHIELD
NIS	- NON INTRINSICALLY SAFE
IS	- INTRINSICALLY SAFE
P.E.	- PLANT EARTH
PCS	- PROCESS CONTROL SYSTEM <01>
ESD	- EMERGENCY SHUTDOWN SYSTEM
SIS	- SAFETY INSTRUMENT SYSTEM
FGS	- FIRE & GAS SYSTEM <01>
MC	- MARSHALLING CABINET
AI	- ANALOGUE INPUT
AO	- ANALOGUE OUTPUT
DI	- DIGITAL INPUT
DO	- DIGITAL OUTPUT
JE	- JUNCTION BOX FOR ELECTRICAL SIGNALS <01>

TYPICAL WIRE CROSS-FERRULING:

PHILOSOPHY OF CROSS-FERRULING: <01>



(*) Single shield is foreseen only for AI/AO signals.

1 - INSTRUMENT TERMINAL NO. OR POLARITY/JB NO./JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

2 - INSTRUMENT TERMINAL NO. OR POLARITY/INSTRUMENT TAG NO./JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

3 - PAIR OR CORE NO./MARSHALLING CABINET NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

4 - PAIR OR CORE NO./JB NO./JB TERMINAL NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

5 - HEAT SHRINKABLE BLACK FOR SHIELD OF NIS INSTRUMENT CABLE.
(HEAT SHRINKABLE BLUE FOR SHIELD OF NIS INSTRUMENT CABLE)

6 - IN CASE OF CONNECTION FROM RIGHT TO LEFT, ORDER OF INFORMATION SHALL BE MIRRORED

REFERENCE DRAWINGS

PIPING AND INSTRUMENT DIAGRAM	123A90-DDL-PR-PID-80009
INSTRUMENT INDEX	123A90-DDL-IN-LIS-40088 Rev.01
F&G DETECTORS LAYOUT	123A90-DDL-SAF-DL-30027

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT – SAFETY SYSTEM WIRING DIAGRAMS
GENERAL NOTES/LEGENDS

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

A3	DRAWING NO. 123A90-DDL-IN-DG-40016	SHEET 003	REV. 01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40016**

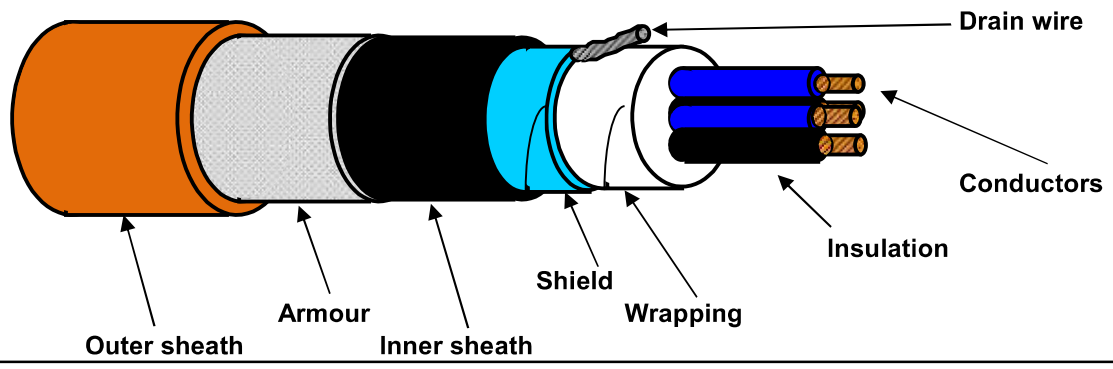
REV.:	DATE:	SIGNATURE:
1_H	28/10/24	G.Randi

ROSETTI MARINO SpA

Tag Number	Category	Discipline	Eng Status	NativeDoc	Parent Tag	Grouping	Main Function	Secondary Function	Area	From Tag	From Main Function	From Area	To Tag	To Main Function	To Area	Material ID	Material Desc.	Gland Standard	From Gland	From Entry	From Fitting	To Gland	To Entry	To Fitting	Routing	Routing Manual
C-77-HY-010/77-HS-010A	Cable	IN	VFC	123A90-DDL-IN-LIS-40091		Int-Int				HFD-77010	Fire Damper	Lower Deck (B-300)	77-HS-010A	Hand Switch	Lower Deck (B-300)	SMICV12-2X2,5	Cable Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250V (300V) 2x2,5mm² - Orange	M20	T2_M20_Double			T2_M20_Double				B-300-SEC-1B / B-300-SEC-1A

Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250 V (300 V)

2X2,5 - INSTRUMENT CABLE - Fire Resistant - Not I.S.



TECHNICAL FEATURES

Conductors :	**7-STRANDED** plain/bare soft annealed copper wires	**IEC 60228 Class 2**
Insulation :	Mica/Glass Tape (MGT) plus XLPE, Nominal Thickness 0,6 mm	
Cores colour code :	**Black NUMBERED (from 1 to 2)**	
Pair Assembling :	Not required	
Pair Wrapping:	Not required	
Drain wire :	Not required	
Pair Shield :	Not required	
Shield Insulation :	Not required	
Total Assembling :	8/1mt	
Overall Wrapping:	by polyester-PET Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Drain wire :	7-Stranded **TINNED** annealed copper drain wire, **size 1,0 sqmm**, in continuous contact with the shield	
Overall Shield :	by Aluminium-**Al** Minimum Thickness 0,008 mm / polyester-**PET** Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Inner sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, Average Thickness 1,1 mm	
Inner sheath color code:	**Black**	
Armour :	Galvanized Steel Wire Braid Armour (coverage ≥ 90%)	
Outer sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, moisture/abrasion/UV Resistant,	
	Average Thickness 1,3 mm	
Outer sheath color code:	**Orange**	
Outer printing (INKJET) :	**FLEI - 2X2,5 SQMM - MGT/XLPE/OS/LSZH/SWB/LSZH - 150/250 V - IEC 60331.21 -**	
(every 1000 mm)	**IEC 60332.1.2 - IEC 60332.3.22 - Year of Manufacture - CE + Meter Marking**	
Under armour diameter :	(10,3 ± 10%) mm	
Over armour diameter :	(11,5 ± 10%) mm	
Outer diameter :	(14,1 ± 10%) mm	
Bending radius :	cable outer diameter x 10 (in fixed installation)	
Voltage Test :	1,5 kV a.c. for 5' (Between Cores) / 1,5 kV a.c. for 5' (Between Cores - Shield)	
Conductors DC Resistance :	≤ 7,86 Ω/km (@ 20°C)	
Insulation Resistance :	≥ 1000 MΩ x Km (@ 20°C)	
Applicable Standards		
Design Guidelines :	**IEC 60092.376**	
ON COMPLETE CABLE		
Fire Resistant test :	**IEC 60331.21**	
Flame Retardant test :	IEC 60332.1.2 - IEC 60332.3.22	
Acid Gas generation :	IEC 60754.1/2	
Smoke density/Light Transmittance :	IEC 61034.2 (LT ≥ 60%)	
Hazardous Areas :	IEC 60079.14 par.9.3.2a	
Temperature Range :		
ON INSULATION	(max +90°C) (max continuous operation temperature of conductors)	
	(max +250°C) (max conductors temperature during short-circuit for 5 seconds)	
ON COMPLETE CABLE		
During Operation :	(-20°C up to +90°C) (in fixed installation)	
During installation :	(- 5°C up to +50°C)	
Note :	**To meet the requirements of installation and use in Zone 1 & Zone 2 (IEC 60079-14) and "Gas & Vapour Tight" the cable must be provided with Penetrating Inner sheath together with correct ATEX approved equipment or accessories.**	

Office	Date	Sign	Rev.	Date	Sign
Drawn by :	04/04/2024	Messa			
Checked :	04/04/2024	Spaccasassi			
Approved :	04/04/2024	Cucinotta			

The data provided, lending assent for the treatment, will be used to the sense of the article 13 of of the Regulation (UE) 2016/679, also through outsiders, in order to allow the realization of the fulfilments informatives, administrative, commercial and accounting related to the contractual relationship. Integral copy of the informative could be requested at our offices.

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ROSETTI MARINO | PROVERLIS | CROSSWIND

ITEM	Tag	C-77-HS-011B/950-JE-04207 : PUSH BUTTON / MARSHALLING PCS				Dwg	123A90-DDL-IN-LIS-40091
	S/Sys	77-30 : HVAC UPS Equipment Room B-300				Module	LD_B-300_Ext/LD_B-300
TASK	code	C10000390		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Instrumental Form CJX10		Multi/Single-Core Instrument Control Cable

CABLE DATA

Type: Cu-MICA-XLPE-OS-LSZH-SWB-LSZH | Cores/Size mm²: 2x2.5 mm2 | Color: ORANGE

From: 77-HS-011B | To: 950-JE-04207

1	Check cable is as specified in project cable schedule.	OK
2	Check relevant documents are at the latest revision.	OK
3	Check cable is routed in accordance with cable layout drawings.	OK
4	Check cable for any physical damage.	OK
5	Check cable is adequately supported and correctly fixed to rack according to Project specification.	OK
6	Check bending radius is within the specified limits.	OK
7	Check cable is correctly loomed and segregated in accordance with specification.	OK
8	Check cable and core marking are in accordance with specification.	OK
9	Check cable labelling is in accordance with specification.	PL
10	Check that glands, shrouds and earthing are in accordance with specification.	OK
11	Check terminations are in accordance with termination diagram	OK
12	Check gland plate for single core cables is non-ferrous.	NA
13	If required produce Red Line Mark Up for "AS BUILT"	

INSULATION	CORE to EARTH		>999	MΩ
	CORE to CORE		>999	MΩ
	CORE to SCREEN		>999	MΩ
	CORE to ARMr		>999	MΩ
	SCREEN to EARTH		>999	MΩ
	SCREEN to ARMr		>999	MΩ
CONTINUITY	CORES		0.5	Ω
	SCREEN		0.6	Ω
	EARTH		0.7	Ω
	ARMr		0.6	Ω
	TEST VOLTS		500	V

TEST ALL CORES AND RECORD LOWEST VALUE

Notes: The lowest value is recorded and must be within project specifications

TESTING INSTRUMENTS USED

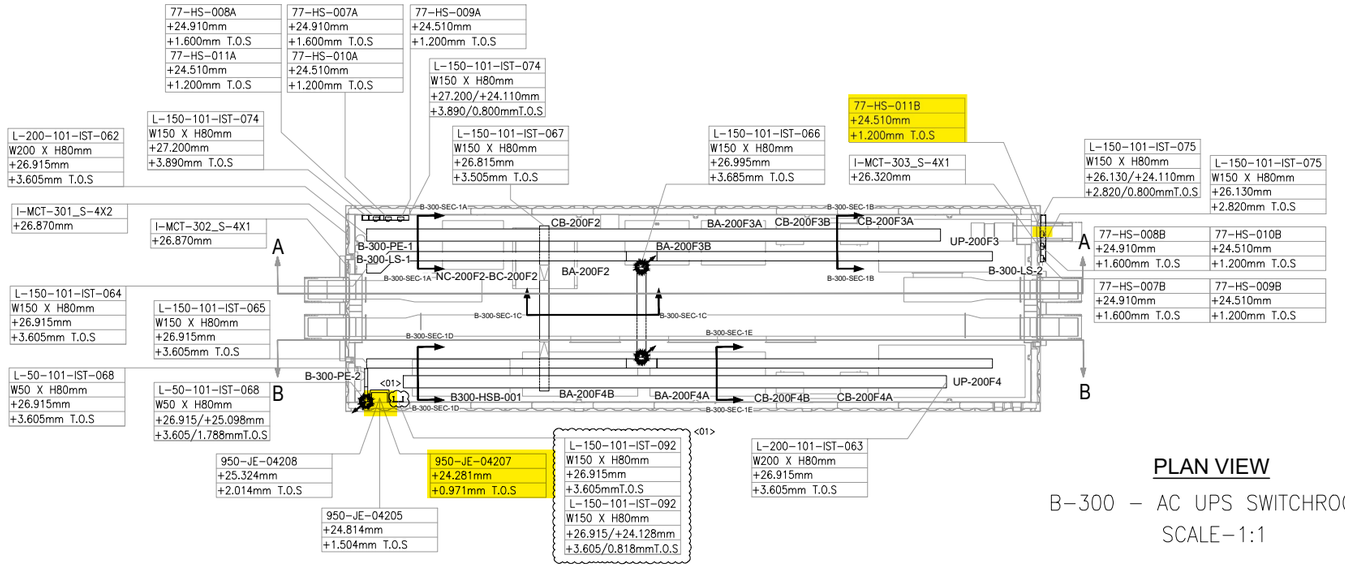
TYPE / SERIAL N°: KEW3125A/W8330207 | Calibration date: 10-07-2024

Comments

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM (Rosetti Marino)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-10-11	2024-10-15	
Signature	PROVERLIS Digitaly signed by Carmelo Bongiovanni 2024-10-11T15:37:40.698Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2024-10-15T11:09:47.108Z	

DRAWING NO. 123A90-DDL-IN-DL-40115

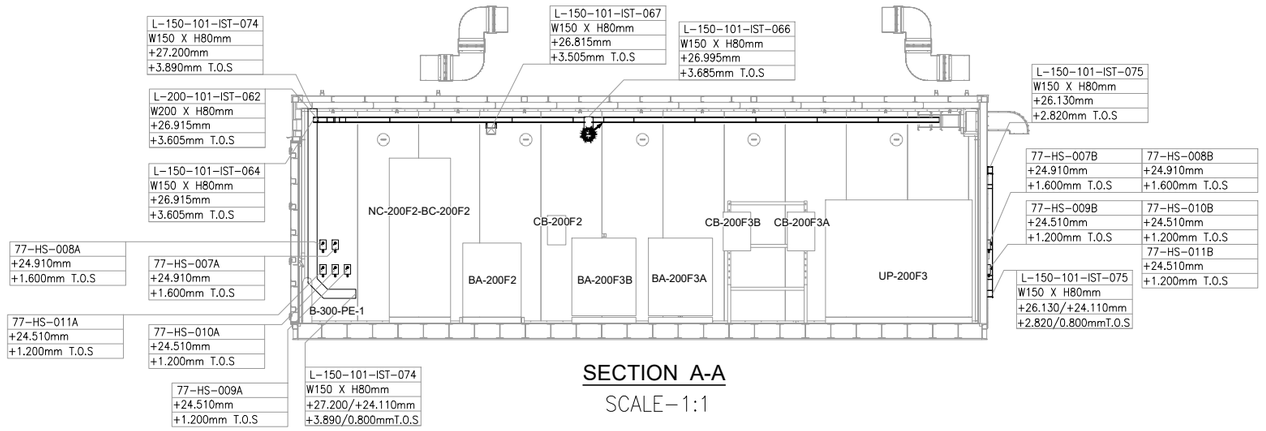
REV. 01



PLAN VIEW

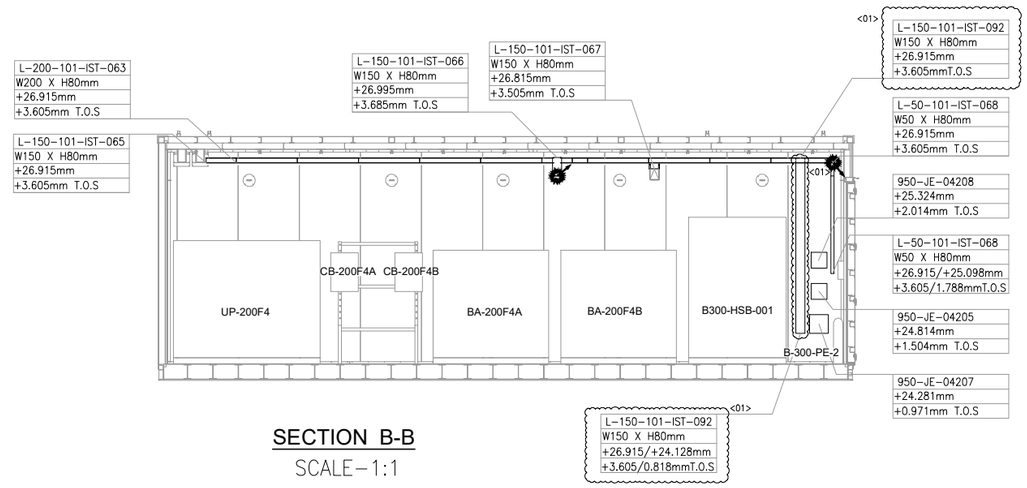
B-300 – AC UPS SWITCHROOM

SCALE-1:1



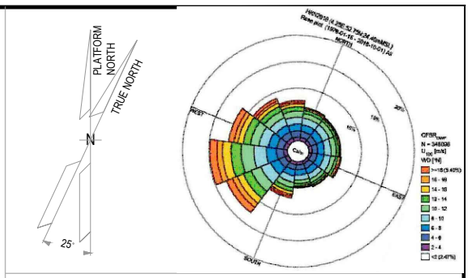
SECTION A-A

SCALE-1:1



SECTION B-B

SCALE-1:1



NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DRAWING IS VALID ONLY FOR CONTAINER CABLE TRAY LAYOUT.

LEGEND

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DL-40115**

REV.:	DATE:	SIGNATURE:
1_A	07/10/24	G.Randi

ROSETTI MARINO SpA

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-IN-DL-40081	INSTRUMENT LAYOUT - UPPER DECK
123A90-DDL-IN-LIS-40091	INSTRUMENT CABLE LIST
123A90-DDL-IN-DG-40015	INSTRUMENT-CCS WIRING DIAGRAMS
123A90-DDL-IN-DG-40016	INSTRUMENT-SAFETY SYSTEM WIRING DIAGRAMS
123A90-DDL-IN-DL-40083	INSTRUMENT MAIN CABLES ROUTING-LOWER DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/08/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)

Base Load Power HUB Cables Tray Layout

B-300 Container Lower Deck – TOS EL. 23.310m

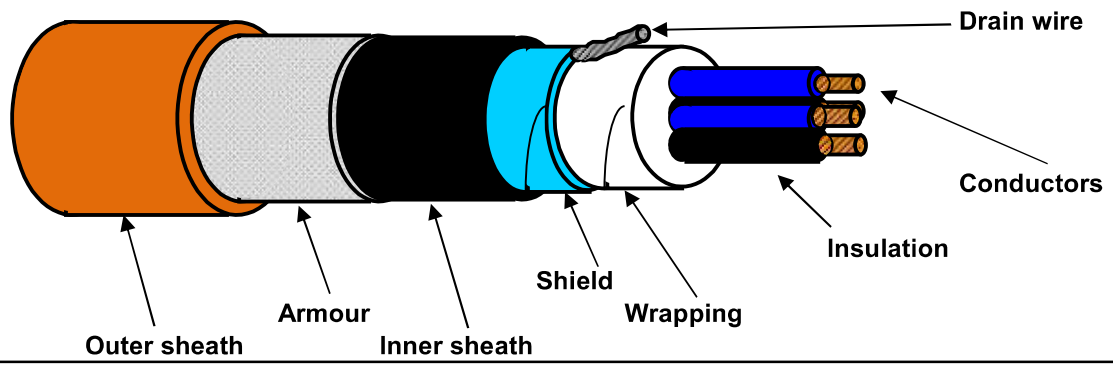
CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:50
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 04/10/24
A1	DRAWING NO. 123A90-DDL-IN-DL-40115	SHEET 001	REV. 01

File Name : 123A90-DDL-IN-DL-40115 REV01.dwg

Tag Number	Category	Discipline	Eng Status	NativeDoc	Parent Tag	Grouping	Main Function	Secondary Function	Area	From Tag	From Main Function	From Area	To Tag	To Main Function	To Area	Material ID	Material Desc.	Gland Standard	From Gland	From Entry	From Fitting	To Gland	To Entry	To Fitting	Routing	Routing Manual
C-77-HS-011B/950-JE-04207	Cable	IN	VFC	123A90-DDL-IN-LIS-40091		Int-Ext				77-HS-011B	Hand Switch	Lower Deck (B-300) Ext.	950-JE-04207	DO JB to FGS	Lower Deck (B-300)	SMICV12-2X2,5	Cable Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250V (300V) 2x2,5mm² - Orange	M20	T2_M20_Double			T2_M20_Double				B-300-SEC-1B / B-300-SEC-1C / B-300-SEC-1D

Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250 V (300 V)

2X2,5 - INSTRUMENT CABLE - Fire Resistant - Not I.S.



TECHNICAL FEATURES

Conductors :	**7-STRANDED** plain/bare soft annealed copper wires	**IEC 60228 Class 2**
Insulation :	Mica/Glass Tape (MGT) plus XLPE, Nominal Thickness 0,6 mm	
Cores colour code :	**Black NUMBERED (from 1 to 2)**	
Pair Assembling :	Not required	
Pair Wrapping:	Not required	
Drain wire :	Not required	
Pair Shield :	Not required	
Shield Insulation :	Not required	
Total Assembling :	8/1mt	
Overall Wrapping:	by polyester-PET Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Drain wire :	7-Stranded **TINNED** annealed copper drain wire, **size 1,0 sqmm**, in continuous contact with the shield	
Overall Shield :	by Aluminium-**Al** Minimum Thickness 0,008 mm / polyester-**PET** Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Inner sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, Average Thickness 1,1 mm	
Inner sheath color code:	**Black**	
Armour :	Galvanized Steel Wire Braid Armour (coverage ≥ 90%)	
Outer sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, moisture/abrasion/UV Resistant,	
	Average Thickness 1,3 mm	
Outer sheath color code:	**Orange**	
Outer printing (INKJET) :	**FLEI - 2X2,5 SQMM - MGT/XLPE/OS/LSZH/SWB/LSZH - 150/250 V - IEC 60331.21 -**	
(every 1000 mm)	**IEC 60332.1.2 - IEC 60332.3.22 - Year of Manufacture - CE + Meter Marking**	
Under armour diameter :	(10,3 ± 10%) mm	
Over armour diameter :	(11,5 ± 10%) mm	
Outer diameter :	(14,1 ± 10%) mm	
Bending radius :	cable outer diameter x 10 (in fixed installation)	
Voltage Test :	1,5 kV a.c. for 5' (Between Cores) / 1,5 kV a.c. for 5' (Between Cores - Shield)	
Conductors DC Resistance :	≤ 7,86 Ω/km (@ 20°C)	
Insulation Resistance :	≥ 1000 MΩ x Km (@ 20°C)	
Applicable Standards		
Design Guidelines :	**IEC 60092.376**	
ON COMPLETE CABLE		
Fire Resistant test :	**IEC 60331.21**	
Flame Retardant test :	IEC 60332.1.2 - IEC 60332.3.22	
Acid Gas generation :	IEC 60754.1/2	
Smoke density/Light Transmittance :	IEC 61034.2 (LT ≥ 60%)	
Hazardous Areas :	IEC 60079.14 par.9.3.2a	
Temperature Range :		
ON INSULATION	(max +90°C) (max continuous operation temperature of conductors)	
	(max +250°C) (max conductors temperature during short-circuit for 5 seconds)	
ON COMPLETE CABLE		
During Operation :	(-20°C up to +90°C) (in fixed installation)	
During installation :	(- 5°C up to +50°C)	
Note :	**To meet the requirements of installation and use in Zone 1 & Zone 2 (IEC 60079-14) and "Gas & Vapour Tight" the cable must be provided with Penetrating Inner sheath together with correct ATEX approved equipment or accessories.**	

Office	Date	Sign	Rev.	Date	Sign
Drawn by :	04/04/2024	Messa			
Checked :	04/04/2024	Spaccasassi			
Approved :	04/04/2024	Cucinotta			

The data provided, lending assent for the treatment, will be used to the sense of the article 13 of of the Regulation (UE) 2016/679, also through outsiders, in order to allow the realization of the fulfilments informatives, administrative, commercial and accounting related to the contractual relationship. Integral copy of the informative could be requested at our offices.

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DRAWING NO. 123A90-DDL-IN-DG-40016

REV. 01

NOTES:

1. ALL SPARE ENTRIES SHALL BE PROVIDED WITH CERTIFIED EX PROOF PLUGS.
2. CABLE SCREENS / DRAIN WIRE SHALL BE SECURELY INSULATED AND TIED BACK IN THE INSTRUMENT SIDE AND SHAL BE TERMINATED IN THE MARSHALLING SIDE OF THE PANEL.
3. SPARE PAIRS / TRIADS SHALL BE CONNECTED TO TERMINALS IN JUNCTION BOX AND PANEL / MARSHALLING CABINETS.
4. ALL CABLE SCREENS TO BE TERMINATED AT THE INSTRUMENT EARTH BAR IN THE RESPECTIVE EARTH BARS (IS OR NIS) AS APPLICABLE IN THE MARSHALLING CABINET.
5. CONNECTION TERMINAL BLOCK SHALL BE DEFINED DURING CONSTRUCTION PHASE.

<01>

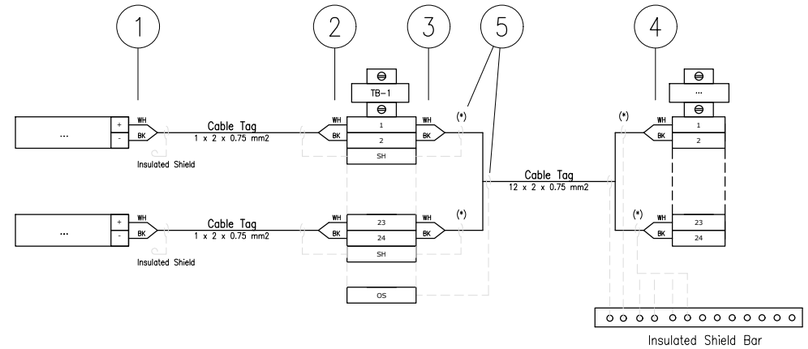
LEGENDS & SYMBOLS:

LEGEND:

I.E.	- GREEN ——— INSTRUMENT SIGNAL EARTH
P.E.	- GREEN/YELLOW —— P.E. EARTH/BONDING
	- TERMINAL BLOCK (TB)
WH	- WHITE
BK	- BLACK
RD	- RED
S	- SHIELD TERMINAL
OS	- OVERALL SHIELD TERMINAL
O/A Shld	- OVERALL SHIELD
I&O/A Shld	- INDIVIDUAL & OVERALL SHIELD
NIS	- NON INTRINSICALLY SAFE
IS	- INTRINSICALLY SAFE
P.E.	- PLANT EARTH
PCS	- PROCESS CONTROL SYSTEM <01>
ESD	- EMERGENCY SHUTDOWN SYSTEM
SIS	- SAFETY INSTRUMENT SYSTEM
FGS	- FIRE & GAS SYSTEM <01>
MC	- MARSHALLING CABINET
AI	- ANALOGUE INPUT
AO	- ANALOGUE OUTPUT
DI	- DIGITAL INPUT
DO	- DIGITAL OUTPUT
JE	- JUNCTION BOX FOR ELECTRICAL SIGNALS <01>

TYPICAL WIRE CROSS-FERRULING:

PHILOSOPHY OF CROSS-FERRULING: <01>



(*) Single shield is foreseen only for AI/AO signals.

1 - INSTRUMENT TERMINAL NO. OR POLARITY/JB NO./JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

2 - INSTRUMENT TAG NO./INSTRUMENT TERMINAL NO. OR POLARITY/JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

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(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

4 - PAIR OR CORE NO./JB NO./JB TERMINAL NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

5 - HEAT SHRINKABLE BLACK FOR SHIELD OF NIS INSTRUMENT CABLE.
(HEAT SHRINKABLE BLUE FOR SHIELD OF NIS INSTRUMENT CABLE)

REFERENCE DRAWINGS

PIPING AND INSTRUMENT DIAGRAM	123A90-DDL-PR-PID-80009
INSTRUMENT INDEX	123A90-DDL-IN-LIS-40088 Rev.01
F&G DETECTORS LAYOUT	123A90-DDL-SAF-DL-30027

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_D	14/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
INSTRUMENT – SAFETY SYSTEM WIRING DIAGRAMS
GENERAL NOTES/LEGENDS

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

	DRAWING NO.	SHEET	REV.
A3	123A90-DDL-IN-DG-40016	003	01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

DRAWING NO. 123-A90-DDL-IN-DG-40016 REV. 01

FIELD

INSTRUMENTS

JUNCTION BOX

950-JE-04207

MULTICABLE

No.

I&T EQUIPMENT ROOM (ITER)

MARSHALLING CABINET

B400-FGS-002

<01>

B-300 UPS Room

950-XZ-04202 — C-950-XZ-04202/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/2BK — 1 — SH

950-XL-04203 — C-950-XL-04203/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/2BK — 3 — 3BK/4BK — SH

950-XL-04204 — C-950-XL-04204/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/2BK — 5 — 5BK/6BK — SH

B-300 OUTDOOR

77-HS-007B — C-77-HS-007B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/2BK — 7 — 7BK/8BK — SH

C-77-HS-007A/77-HS-007B

~~C-77-HY-007D/77-HY-007A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77007

77-HY-007 — C-77-HY-007/77-HS-007A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — B-300 INDOOR — 77-HS-007A

B-300 OUTDOOR

77-HS-008B — C-77-HS-008B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/2BK — 9 — 9BK/10BK — SH

C-77-HS-008A/77-HS-008B

~~C-77-HS-008B/77-HS-008A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77008

77-HY-008 — C-77-HY-008/77-HS-008A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — B-300 INDOOR — 77-HS-008A

B-300 OUTDOOR

77-HS-009B — C-77-HS-009B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/2BK — 11 — 11BK/12BK — SH

C-77-HS-009A/77-HS-009B

~~C-77-HS-009B/77-HS-009A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77009

77-HY-009 — C-77-HY-009/77-HS-009A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — B-300 INDOOR — 77-HS-009A

B-300 OUTDOOR

77-HS-010B — C-77-HS-010B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/2BK — 13 — 13BK/14BK — SH

C-77-HS-010A/77-HS-010B

~~C-77-HS-010B/77-HS-010A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77010

77-HY-010 — C-77-HY-010/77-HS-010A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — B-300 INDOOR — 77-HS-010A

B-300 OUTDOOR

77-HS-011B — C-77-HS-011B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/2BK — 15 — 15BK/16BK — SH — 17 — 17BK/18BK — SH — 19 — 19BK/20BK — SH — 21 — 21BK/22BK — SH — 23 — 23BK/24BK — SH — OS

C-77-HS-011A/77-HS-011B

~~C-77-HS-011B/77-HS-011A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77011

77-HY-011 — C-77-HY-011/77-HS-011A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — B-300 INDOOR — 77-HS-011A

NOTE-2

950-JE-04207/B400-FGS-002

24x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

TB-950-JE-04207

1BK/2BK	1	950-XZ-04202
3BK/4BK	2	
	3	950-XL-04203
5BK/6BK	4	
7BK/8BK	5	950-XL-04204
9BK/10BK	6	
11BK/12BK	7	77-HY-007
13BK/14BK	8	
15BK/16BK	9	77-HY-008
17BK/18BK	10	
19BK/20BK	11	77-HY-009
21BK/22BK	12	
23BK/24BK	13	77-HY-010
	14	
	15	77-HY-011
	16	
	17	SPARE
	18	
	19	SPARE
	20	
	21	SPARE
	22	
	23	SPARE
	24	

Shield Bar — I.E.

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_D	14/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT–FGS WIRING DIAGRAMS
950–JE–04207

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

	DRAWING NO.	SHEET	REV.
A3	123A90–DDL–IN–DG–40016	069	01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

ROSETTI MARINO — CROSSWIND

ITEM	Tag	C-77-HS-011A/77-HS-011B : PUSH BUTTON / MARSHALLING PCS			Dwg	123A90-DDL-IN-LIS-40091	
	S/Sys	77-30 : HVAC UPS Equipment Room B-300			Module	LD_B-300/LD_B-300_Ext	
TASK	code	C10000391	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity	CCK	Discipline	Instrumental	Form	CJX10	Multi/Single-Core Instrument Control Cable

CABLE DATA

Type	Cu-MICA-XLPE-OS-LSZH-SWB-LSZH	Cores/Size mm²	2x2.5 mm2	Color	ORANGE
From	77-HS-011A	To	77-HS-011B		

1	Check cable is as specified in project cable schedule.	OK
2	Check relevant documents are at the latest revision.	OK
3	Check cable is routed in accordance with cable layout drawings.	OK
4	Check cable for any physical damage.	OK
5	Check cable is adequately supported and correctly fixed to rack according to Project specification.	OK
6	Check bending radius is within the specified limits.	OK
7	Check cable is correctly loomed and segregated in accordance with specification.	OK
8	Check cable and core marking are in accordance with specification.	OK
9	Check cable labelling is in accordance with specification.	PL
10	Check that glands, shrouds and earthing are in accordance with specification.	OK
11	Check terminations are in accordance with termination diagram	OK
12	Check gland plate for single core cables is non-ferrous.	NA
13	If required produce Red Line Mark Up for "AS BUILT"	

INSULATION	CORE to EARTH		>999	MΩ
	CORE to CORE		>999	MΩ
	CORE to SCREEN		>999	MΩ
	CORE to ARMr		>999	MΩ
	SCREEN to EARTH		>999	MΩ
	SCREEN to ARMr		>999	MΩ
CONTINUITY	CORES		0.4	Ω
	SCREEN		0.5	Ω
	EARTH		0.5	Ω
	ARMr		0.6	Ω
	TEST VOLTS		500	V

TEST ALL CORES AND RECORD LOWEST VALUE

Notes: The lowest value is recorded and must be within project specifications

TESTING INSTRUMENTS USED

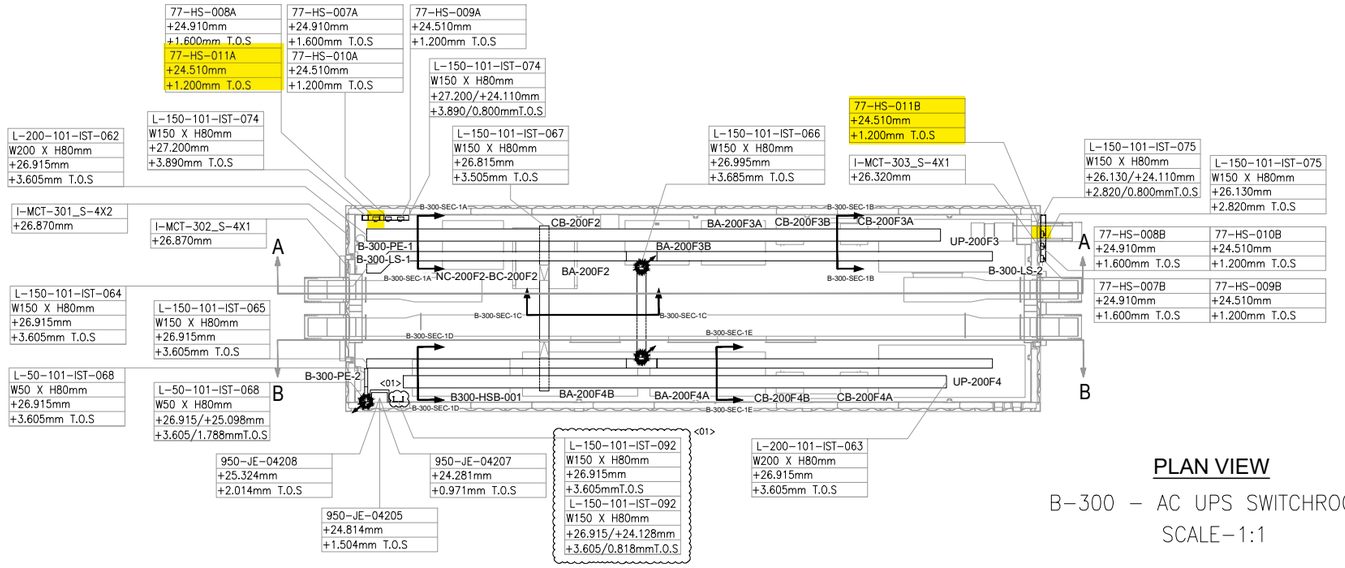
TYPE / SERIAL N°: KEW3125A / W8330207 Calibration date: 10-07-2024

Comments

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM (Rosetti Marino)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-10-11	2024-10-15	
Signature	Digitaly signed by Carmelo Bongiovanni 2024-10-11T15:37:56.944Z	Digitaly signed by Giovanni Tangianu 2024-10-15T11:10:04.099Z	

DRAWING NO. 123A90-DDL-IN-DL-40115

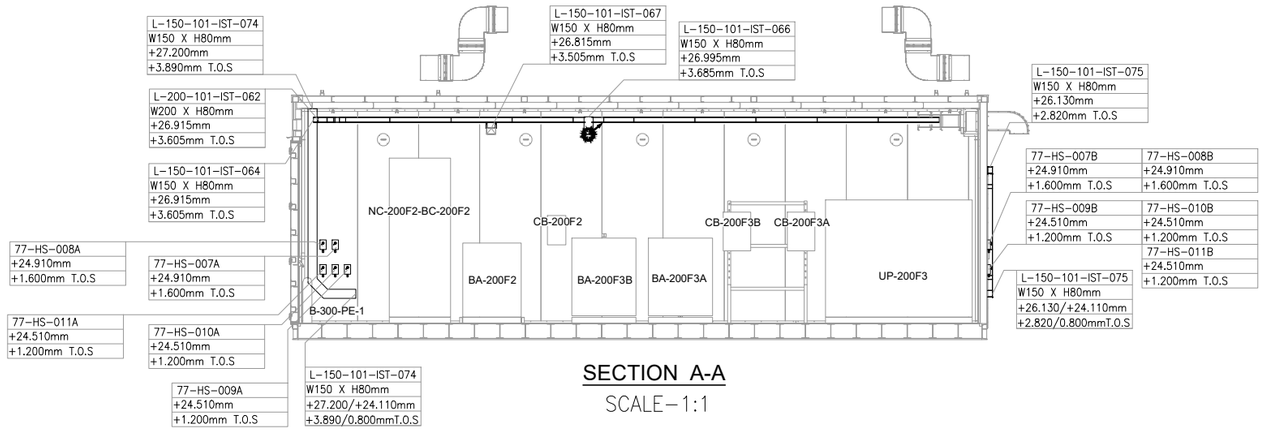
REV. 01



PLAN VIEW

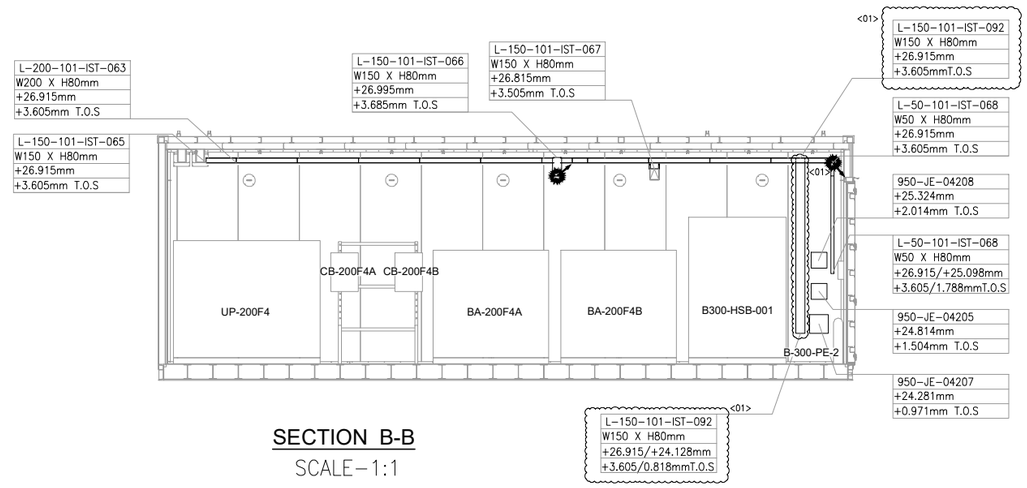
B-300 – AC UPS SWITCHROOM

SCALE-1:1



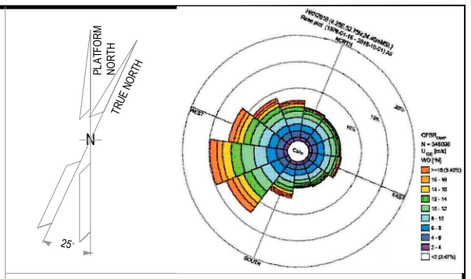
SECTION A-A

SCALE-1:1



SECTION B-B

SCALE-1:1



NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DRAWING IS VALID ONLY FOR CONTAINER CABLE TRAY LAYOUT.

LEGEND

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DL-40115**

REV.:	DATE:	SIGNATURE:
1_A	07/10/24	G.Randi

ROSETTI MARINO SpA

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-IN-DL-40081	INSTRUMENT LAYOUT - UPPER DECK
123A90-DDL-IN-LIS-40091	INSTRUMENT CABLE LIST
123A90-DDL-IN-DG-40015	INSTRUMENT-CCS WIRING DIAGRAMS
123A90-DDL-IN-DG-40016	INSTRUMENT-SAFETY SYSTEM WIRING DIAGRAMS
123A90-DDL-IN-DL-40083	INSTRUMENT MAIN CABLES ROUTING-LOWER DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/08/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND | ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)

Base Load Power HUB Cables Tray Layout

B-300 Container Lower Deck – TOS EL. 23.310m

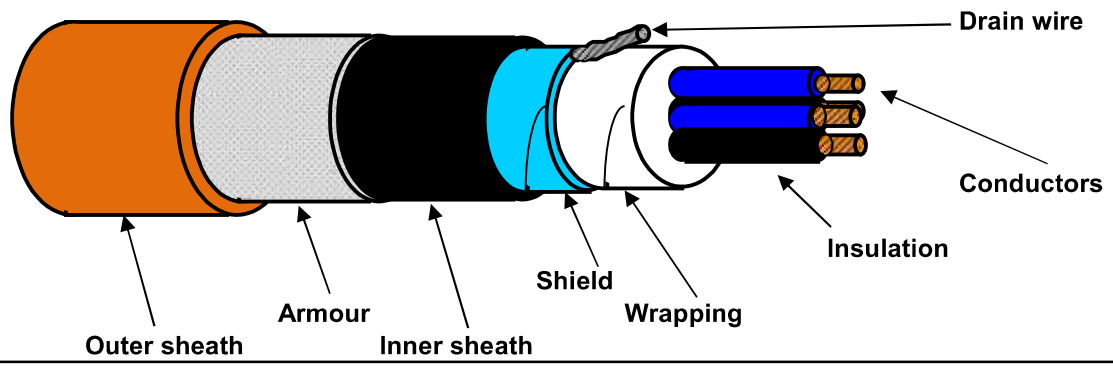
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:50
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 04/10/24
A1	DRAWING NO. 123A90-DDL-IN-DL-40115	SHEET 001	REV. 01

File Name : 123A90-DDL-IN-DL-40115 REV01.dwg

Tag Number	Category	Discipline	Eng Status	NativeDoc	Parent Tag	Grouping	Main Function	Secondary Function	Area	From Tag	From Main Function	From Area	To Tag	To Main Function	To Area	Material ID	Material Desc.	Gland Standard	From Gland	From Entry	From Fitting	To Gland	To Entry	To Fitting	Routing	Routing Manual
C-77-HS-011A/77-HS-011B	Cable	IN	VFC	123A90-DDL-IN-LIS-40091		Int-Ext				77-HS-011A	Hand Switch	Lower Deck (B-300)	77-HS-011B	Hand Switch	Lower Deck (B-300) Ext.	SMICV12-2X2,5	Cable Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250V (300V) 2x2,5mm² - Orange	M20	T2_M20_Double			T2_M20_Double				I-MCT-303 / B-300-SEC-1B / B-300-SEC-1A

Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250 V (300 V)

2X2,5 - INSTRUMENT CABLE - Fire Resistant - Not I.S.



TECHNICAL FEATURES

Conductors :	**7-STRANDED** plain/bare soft annealed copper wires	**IEC 60228 Class 2**
Insulation :	Mica/Glass Tape (MGT) plus XLPE, Nominal Thickness 0,6 mm	
Cores colour code :	**Black NUMBERED (from 1 to 2)**	
Pair Assembling :	Not required	
Pair Wrapping:	Not required	
Drain wire :	Not required	
Pair Shield :	Not required	
Shield Insulation :	Not required	
Total Assembling :	8/1mt	
Overall Wrapping:	by polyester-PET Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Drain wire :	7-Stranded **TINNED** annealed copper drain wire, **size 1,0 sqmm**, in continuous contact with the shield	
Overall Shield :	by Aluminium-**Al** Minimum Thickness 0,008 mm / polyester-**PET** Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Inner sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, Average Thickness 1,1 mm	
Inner sheath color code:	**Black**	
Armour :	Galvanized Steel Wire Braid Armour (coverage ≥ 90%)	
Outer sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, moisture/abrasion/UV Resistant,	
	Average Thickness 1,3 mm	
Outer sheath color code:	**Orange**	
Outer printing (INKJET) :	**FLEI - 2X2,5 SQMM - MGT/XLPE/OS/LSZH/SWB/LSZH - 150/250 V - IEC 60331.21 -**	
(every 1000 mm)	**IEC 60332.1.2 - IEC 60332.3.22 - Year of Manufacture - CE + Meter Marking**	
Under armour diameter :	(10,3 ± 10%) mm	
Over armour diameter :	(11,5 ± 10%) mm	
Outer diameter :	(14,1 ± 10%) mm	
Bending radius :	cable outer diameter x 10 (in fixed installation)	
Voltage Test :	1,5 kV a.c. for 5' (Between Cores) / 1,5 kV a.c. for 5' (Between Cores - Shield)	
Conductors DC Resistance :	≤ 7,86 Ω/km (@ 20°C)	
Insulation Resistance :	≥ 1000 MΩ x Km (@ 20°C)	
Applicable Standards		
Design Guidelines :	**IEC 60092.376**	
ON COMPLETE CABLE		
Fire Resistant test :	**IEC 60331.21**	
Flame Retardant test :	IEC 60332.1.2 - IEC 60332.3.22	
Acid Gas generation :	IEC 60754.1/2	
Smoke density/Light Transmittance :	IEC 61034.2 (LT ≥ 60%)	
Hazardous Areas :	IEC 60079.14 par.9.3.2a	
Temperature Range :		
ON INSULATION	(max +90°C) (max continuous operation temperature of conductors)	
	(max +250°C) (max conductors temperature during short-circuit for 5 seconds)	
ON COMPLETE CABLE		
During Operation :	(-20°C up to +90°C) (in fixed installation)	
During installation :	(- 5°C up to +50°C)	
Note :	**To meet the requirements of installation and use in Zone 1 & Zone 2 (IEC 60079-14) and "Gas & Vapour Tight" the cable must be provided with Penetrating Inner sheath together with correct ATEX approved equipment or accessories.**	

Office	Date	Sign	Rev.	Date	Sign
Drawn by :	04/04/2024	Messa			
Checked :	04/04/2024	Spaccasassi			
Approved :	04/04/2024	Cucinotta			

The data provided, lending assent for the treatment, will be used to the sense of the article 13 of of the Regulation (UE) 2016/679, also through outsiders, in order to allow the realization of the fulfilments informatives, administrative, commercial and accounting related to the contractual relationship. Integral copy of the informative could be requested at our offices.

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DRAWING NO. 123A90-DDL-IN-DG-40016

REV. 01

NOTES:

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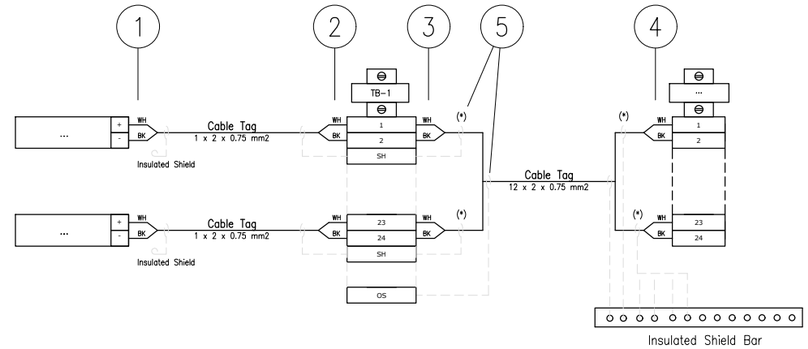
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TYPICAL WIRE CROSS-FERRULING:

PHILOSOPHY OF CROSS-FERRULING: <01>



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(HEAT SHRINKABLE BLUE FOR SHIELD OF NIS INSTRUMENT CABLE)

REFERENCE DRAWINGS

PIPING AND INSTRUMENT DIAGRAM	123A90-DDL-PR-PID-80009
INSTRUMENT INDEX	123A90-DDL-IN-LIS-40088 Rev.01
F&G DETECTORS LAYOUT	123A90-DDL-SAF-DL-30027

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_D	14/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
INSTRUMENT – SAFETY SYSTEM WIRING DIAGRAMS
GENERAL NOTES/LEGENDS

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

	DRAWING NO.	SHEET	REV.
A3	123A90-DDL-IN-DG-40016	003	01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

DRAWING NO. 123-A90-DDL-IN-DG-40016

REV. 01

FIELD

INSTRUMENTS

JUNCTION BOX

950-JE-04207

MULTICABLE

No.

I&T EQUIPMENT ROOM (ITER)

MARSHALLING CABINET

B400-FGS-002

<01>

B-300 UPS Room

950-XZ-04202 (+/-) 1BK 2BK — NOTE-2 — C-950-XZ-04202/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1: 1BK 1 2BK, 2 SH

950-XL-04203 (+/-) 1BK 2BK — NOTE-2 — C-950-XL-04203/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1: 1BK 3 3BK, 4 4BK, SH

950-XL-04204 (+/-) 1BK 2BK — NOTE-2 — C-950-XL-04204/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1: 1BK 5 5BK, 6 6BK, SH

B-300 OUTDOOR

1BK 2BK 12 22 77-HS-007B 11 21 1BK 2BK — NOTE-2 — C-77-HS-007B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1: 1BK 7 7BK, 8 8BK, SH

C-77-HS-007A/77-HS-007B

~~C-77-HY-007B/77-HY-007A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77007

77-HY-007 1 2 1BK 2BK — C-77-HY-007/77-HS-007A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

1BK 2BK 12 22 77-HS-007A 11 21 1BK 2BK — NOTE-2

B-300 OUTDOOR

1BK 2BK 12 22 77-HS-008B 11 21 1BK 2BK — NOTE-2 — C-77-HS-008B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1: 1BK 9 9BK, 10 10BK, SH

C-77-HS-008A/77-HS-008B

~~C-77-HS-008B/77-HS-008A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77008

77-HY-008 1 2 1BK 2BK — C-77-HY-008/77-HS-008A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

1BK 2BK 12 22 77-HS-008A 11 21 1BK 2BK — NOTE-2

B-300 OUTDOOR

1BK 2BK 12 22 77-HS-009B 11 21 1BK 2BK — NOTE-2 — C-77-HS-009B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1: 1BK 11 11BK, 12 12BK, SH

C-77-HS-009A/77-HS-009B

~~C-77-HS-009B/77-HS-009A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77009

77-HY-009 1 2 1BK 2BK — C-77-HY-009/77-HS-009A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

1BK 2BK 12 22 77-HS-009A 11 21 1BK 2BK — NOTE-2

B-300 OUTDOOR

1BK 2BK 12 22 77-HS-010B 11 21 1BK 2BK — NOTE-2 — C-77-HS-010B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1: 1BK 13 13BK, 14 14BK, SH

C-77-HS-010A/77-HS-010B

~~C-77-HS-010B/77-HS-010A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77010

77-HY-010 1 2 1BK 2BK — C-77-HY-010/77-HS-010A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

1BK 2BK 12 22 77-HS-010A 11 21 1BK 2BK — NOTE-2

B-300 OUTDOOR

1BK 2BK 12 22 77-HS-011B 11 21 1BK 2BK — NOTE-2 — C-77-HS-011B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1: 1BK 15 15BK, 16 16BK, SH, 17 17BK, 18 18BK, SH, 19 19BK, 20 20BK, SH, 21 21BK, 22 22BK, SH, 23 23BK, 24 24BK, SH, OS

C-77-HS-011A/77-HS-011B

~~C-77-HS-011B/77-HS-011A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77011

77-HY-011 1 2 1BK 2BK — C-77-HY-011/77-HS-011A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

1BK 2BK 12 22 77-HS-011A 11 21 1BK 2BK — NOTE-2

950-JE-04207/B400-FGS-002

24x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

TB-950-JE-04207

1BK	1	950-XZ-04202
2BK	2	
3BK	3	950-XL-04203
4BK	4	
5BK	5	950-XL-04204
6BK	6	
7BK	7	77-HY-007
8BK	8	
9BK	9	77-HY-008
10BK	10	
11BK	11	77-HY-009
12BK	12	
13BK	13	77-HY-010
14BK	14	
15BK	15	77-HY-011
16BK	16	
17BK	17	SPARE
18BK	18	
19BK	19	SPARE
20BK	20	
21BK	21	SPARE
22BK	22	
23BK	23	SPARE
24BK	24	

Shield Bar — I.E.

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_D	14/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT–FGS WIRING DIAGRAMS
950–JE–04207

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

A3	DRAWING NO. 123A90–DDL–IN–DG–40016	SHEET 069	REV. 01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

ROSETTI MARINO — CROSSWIND

ITEM	Tag	C-77-HY-011/77-HS-011A	: FIRE DAMPER / MARSHALLING PCS	Dwg	123A90-DDL-IN-LIS-40091		
	S/Sys	77-30	: HVAC UPS Equipment Room B-300	Module	LD_B-300		
TASK	code	C10000392	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity CCK	Discipline	Instrumental	Form CJX10	Multi/Single-Core Instrument Control Cable

CABLE DATA

Type	Cu-MICA-XLPE-OS-LSZH-SWB-LSZH	Cores/Size mm²	2X2,5 mm2	Color	ORANGE
From	HFD-77011	To	77-HS-011A		

1	Check cable is as specified in project cable schedule.	OK
2	Check relevant documents are at the latest revision.	OK
3	Check cable is routed in accordance with cable layout drawings.	OK
4	Check cable for any physical damage.	OK
5	Check cable is adequately supported and correctly fixed to rack according to Project specification.	OK
6	Check bending radius is within the specified limits.	OK
7	Check cable is correctly loomed and segregated in accordance with specification.	OK
8	Check cable and core marking are in accordance with specification.	OK
9	Check cable labelling is in accordance with specification.	OK
10	Check that glands, shrouds and earthing are in accordance with specification.	OK
11	Check terminations are in accordance with termination diagram	OK
12	Check gland plate for single core cables is non-ferrous.	OK
13	If required produce Red Line Mark Up for "AS BUILT"	

INSULATION	CORE to EARTH	>999	MΩ
	CORE to CORE	>999	MΩ
	CORE to SCREEN	>999	MΩ
	CORE to ARMr	>999	MΩ
	SCREEN to EARTH	>999	MΩ
	SCREEN to ARMr	>999	MΩ
CONTINUITY	CORES	0,4	Ω
	SCREEN	0,4	Ω
	EARTH	NA	Ω
	ARMr	0,4	Ω
	TEST VOLTS	500	V

TEST ALL CORES AND RECORD LOWEST VALUE

Notes: The lowest value is recorded and must be within project specifications

TESTING INSTRUMENTS USED

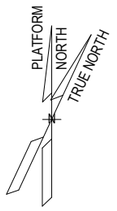
TYPE / SERIAL N°: MEGGER : KEW3125A SERIAL: W8330207 Calibration date: 10/07/2024

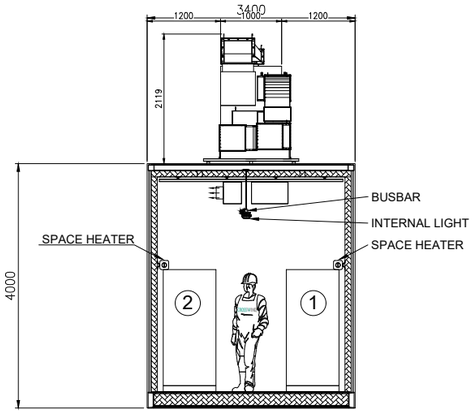
Comments

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICSI IMPIANTI	RM (ROSETTI MARINO)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-10-28	2024-11-21	
Signature	Digitaly signed by Carmelo Bongiovanni 2024-10-28T06:55:11.726Z	Digitaly signed by Giovanni Tangianu 2024-11-21T09:58:29.718Z	

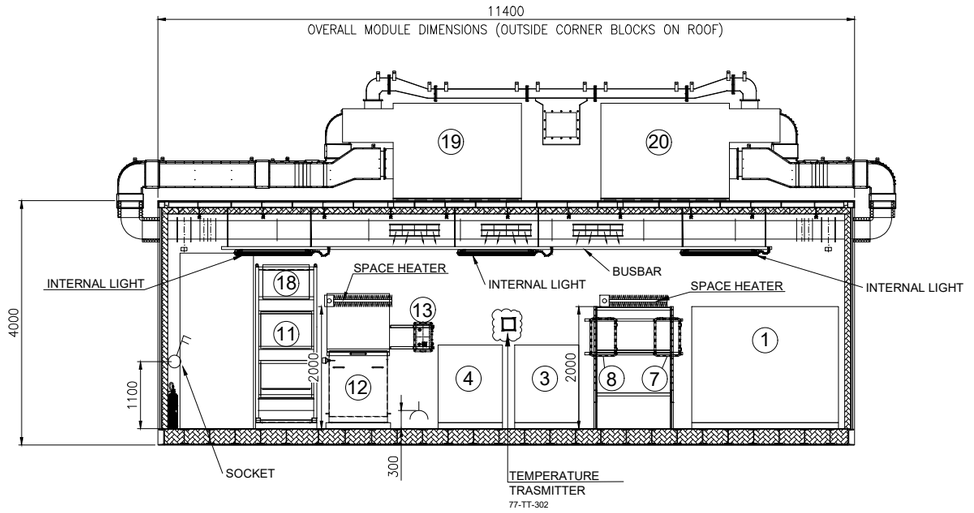
DRAWING NO. 1724000049-AR-DA-00016

REV. 03



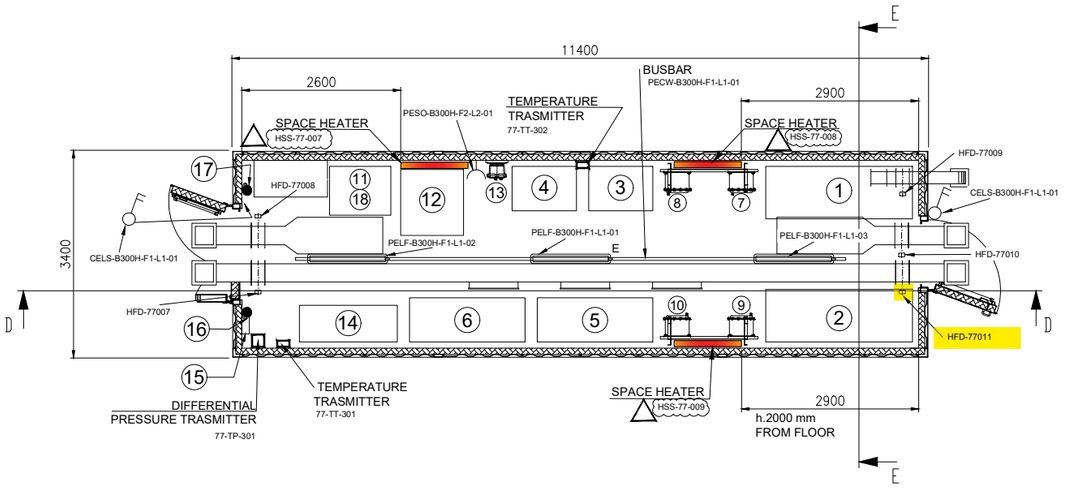


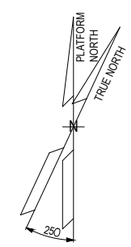
SECTION E-E

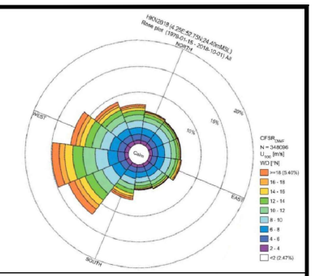


SECTION D-D

EQUIPMENT LIST						
REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
11	NC-200F2	NAVAID PANEL	1000	800	2600	535
12	BA-200F2	BATTERY BOX NAVAID	958	993	1210	1552
13	CB-200F2	ISOLATOR BOX NAVAID	500	400	765	70
14	B300-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	500
15	-	EYE WASH STATION	228	80	290	5
16	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
17	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
18	BC-200F2	BATTERY CHARGER NAVAID	607	607	2157	500
19	HHU-77005	AIR HANDLING UNIT A	2100	1000	2158	850
20	HHU-77006	AIR HANDLING UNIT B	2100	1000	2158	850
21	HSS-77-007	SPACE HEATER 1	184	145	1100	5
22	HSS-77-008	SPACE HEATER 2	184	145	1100	5
23	HSS-77-009	SPACE HEATER 3	184	145	1100	5







NOTE

1) ALL DIMENSIONS ARE IM MM.
2) THE POSITION OF THE LAMPS INDICATED IS TO BE CONSIDERED THE THEORETICAL ONE, THE FINA ONE WILL BE CONFIRMED IN THE AS-BUILT ISSUE.

REFERENCE

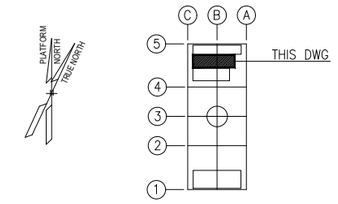
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"B-300" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00066
"B-300" DETAILED DRAWING	1724000049-AR-DD-00020
PAINTING PROCEDURE	1724000049-MAT-PRO-00006
"B-300" FOUNDATION	1724000049-ST-DD-00012
"B-300" STRUCTURAL CALCULATION	1724000049-ST-CA-00008

LEGEND

- INTERNAL LIGHT
- E INTERNAL EMERGENCY LIGHT
- SOCKET OUTLET, INDOOR
- LIGHT SWITCH
- _____ ESCAPE CORRIDOR – WIDTH 800mm.
- _____ MAINTENANCE AREA – VENDOR REQUIREMENT
- _____ INSULATION PANEL

HOLDS

KEY PLAN



ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	23/07/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
02	03/07/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
01	16/05/24	M.G.	SKV	C.A.	ISSUE FOR REVIEW (IFR)
00	08/02/24	A.G.	SKV	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND | ROSETTI MARINO

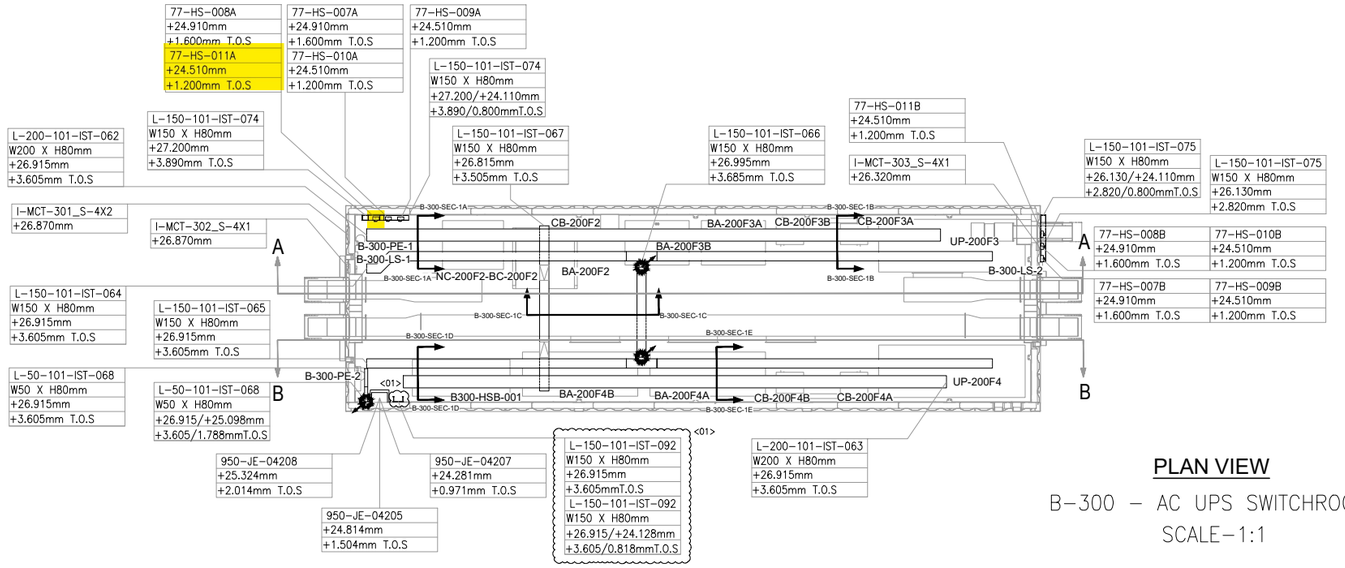
TITLE :
BASE LOAD POWER HUB (BLPH)
B-300 GENERAL ARRANGEMENT DRAWINGS

CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 23/07/24
A1	DRAWING NO. 1724000049-AR-DA-00016	SHEET 003	REV. 03

File Name : 1724000049-AR-DA-00016-REV.03

DRAWING NO. 123A90-DDL-IN-DL-40115

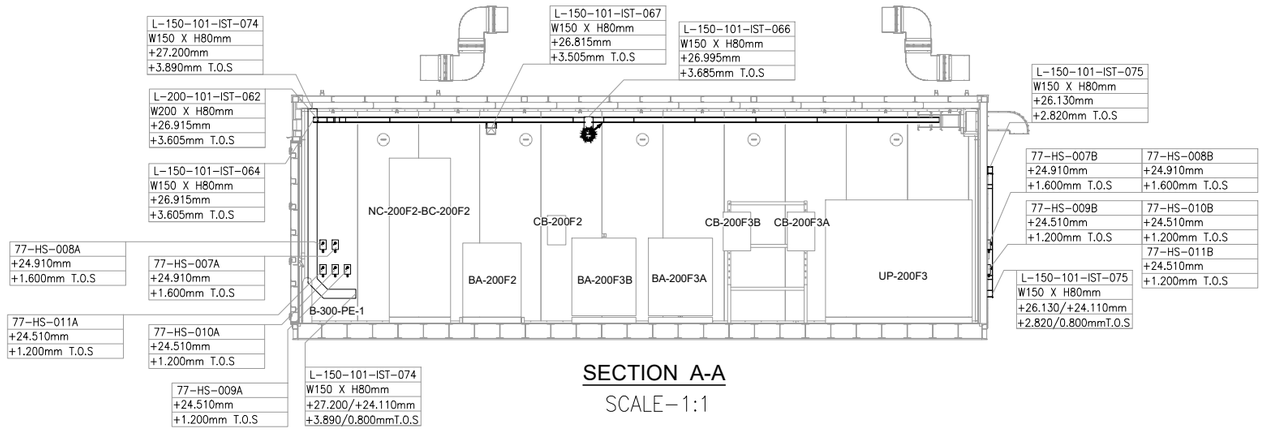
REV. 01



PLAN VIEW

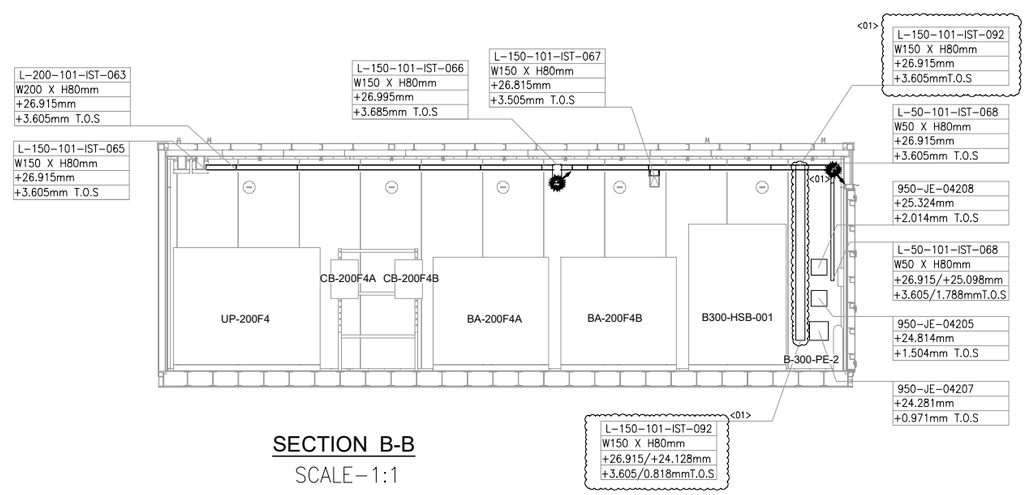
B-300 – AC UPS SWITCHROOM

SCALE-1:1



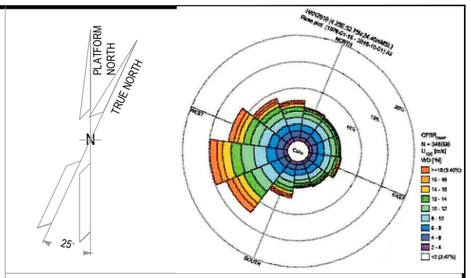
SECTION A-A

SCALE-1:1



SECTION B-B

SCALE-1:1



NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DRAWING IS VALID ONLY FOR CONTAINER CABLE TRAY LAYOUT.

LEGEND

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DL-40115**

REV.:	DATE:	SIGNATURE:
1_A	07/10/24	G.Randi

ROSETTI MARINO SpA

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-IN-DL-40081	INSTRUMENT LAYOUT - UPPER DECK
123A90-DDL-IN-LIS-40091	INSTRUMENT CABLE LIST
123A90-DDL-IN-DG-40015	INSTRUMENT-CCS WIRING DIAGRAMS
123A90-DDL-IN-DG-40016	INSTRUMENT-SAFETY SYSTEM WIRING DIAGRAMS
123A90-DDL-IN-DL-40083	INSTRUMENT MAIN CABLES ROUTING-LOWER DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/08/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)

Base Load Power HUB Cables Tray Layout

B-300 Container Lower Deck – TOS EL. 23.310m

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:50
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 04/10/24

A1	DRAWING NO. 123A90-DDL-IN-DL-40115	SHEET 001	REV. 01

File Name : 123A90-DDL-IN-DL-40115 REV01.dwg

DRAWING NO. 123-A90-DDL-IN-DG-40016

REV. 01

FIELD

INSTRUMENTS

JUNCTION BOX

950-JE-04207

MULTICABLE

No.

I&T EQUIPMENT ROOM (ITER)

MARSHALLING CABINET

B400-FGS-002

<01>

B-300 UPS Room

950-XZ-04202 — C-950-XZ-04202/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

950-XL-04203 — C-950-XL-04203/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

950-XL-04204 — C-950-XL-04204/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 OUTDOOR

77-HS-007B — C-77-HS-007B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-007A/77-HS-007B

~~C-77-HY-007B/77-HY-007A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77007 — 77-HY-007 — C-77-HY-007/77-HS-007A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 77-HS-007A

B-300 INDOOR

B-300 OUTDOOR

77-HS-008B — C-77-HS-008B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-008A/77-HS-008B

~~C-77-HS-008B/77-HS-008A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77008 — 77-HY-008 — C-77-HY-008/77-HS-008A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 77-HS-008A

B-300 INDOOR

B-300 OUTDOOR

77-HS-009B — C-77-HS-009B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-009A/77-HS-009B

~~C-77-HS-009B/77-HS-009A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77009 — 77-HY-009 — C-77-HY-009/77-HS-009A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 77-HS-009A

B-300 INDOOR

B-300 OUTDOOR

77-HS-010B — C-77-HS-010B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-010A/77-HS-010B

~~C-77-HS-010B/77-HS-010A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77010 — 77-HY-010 — C-77-HY-010/77-HS-010A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 77-HS-010A

B-300 INDOOR

B-300 OUTDOOR

77-HS-011B — C-77-HS-011B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-011A/77-HS-011B

~~C-77-HS-011B/77-HS-011A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77011 — 77-HY-011 — C-77-HY-011/77-HS-011A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 77-HS-011A

B-300 INDOOR

TB-1

1BK 1 1BK
2BK 2 2BK
SH
1BK 3 3BK
2BK 4 4BK
SH
1BK 5 5BK
2BK 6 6BK
SH
1BK 7 7BK
2BK 8 8BK
SH
1BK 9 9BK
2BK 10 10BK
SH
1BK 11 11BK
2BK 12 12BK
SH
1BK 13 13BK
2BK 14 14BK
SH
1BK 15 15BK
2BK 16 16BK
SH
17 17BK
18 18BK
SH
19 19BK
20 20BK
SH
21 21BK
22 22BK
SH
23 23BK
24 24BK
SH
OS

950-JE-04207/B400-FGS-002

24x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

TB-950-JE-04207

1BK 1 950-XZ-04202
2BK 2
3BK 3 950-XL-04203
4BK 4
5BK 5 950-XL-04204
6BK 6
7BK 7 77-HY-007
8BK 8
9BK 9 77-HY-008
10BK 10
11BK 11 77-HY-009
12BK 12
13BK 13 77-HY-010
14BK 14
15BK 15 77-HY-011
16BK 16
17BK 17 SPARE
18BK 18
19BK 19 SPARE
20BK 20
21BK 21 SPARE
22BK 22
23BK 23 SPARE
24BK 24

Shield Bar — I.E.

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_H	28/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT–FGS WIRING DIAGRAMS
950–JE–04207

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024
A3	DRAWING NO. 123A90–DDL–IN–DG–40016	SHEET 069	REV. 01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

DRAWING NO. 123A90-DDL-IN-DG-40016

REV. 01

NOTES:

1. ALL SPARE ENTRIES SHALL BE PROVIDED WITH CERTIFIED EX PROOF PLUGS.
2. CABLE SCREENS / DRAIN WIRE SHALL BE SECURELY INSULATED AND TIED BACK IN THE INSTRUMENT SIDE AND SHAL BE TERMINATED IN THE MARSHALLING SIDE OF THE PANEL.
3. SPARE PAIRS / TRIADS SHALL BE CONNECTED TO TERMINALS IN JUNCTION BOX AND PANEL / MARSHALLING CABINETS.
4. ALL CABLE SCREENS TO BE TERMINATED AT THE INSTRUMENT EARTH BAR IN THE RESPECTIVE EARTH BARS (IS OR NIS) AS APPLICABLE IN THE MARSHALLING CABINET.
5. CONNECTION TERMINAL BLOCK SHALL BE DEFINED DURING CONSTRUCTION PHASE.

<01>

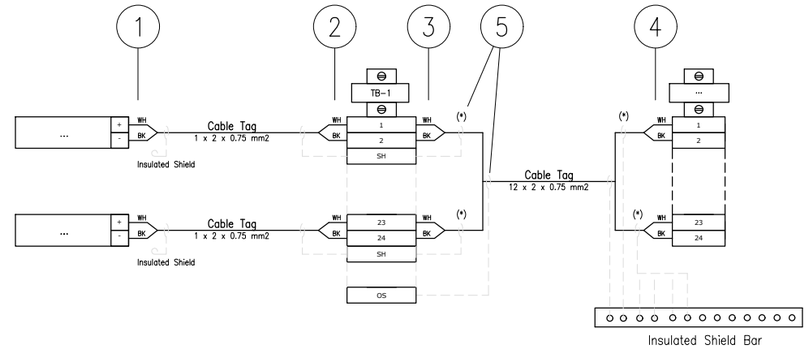
LEGENDS & SYMBOLS:

LEGEND:

I.E.	- GREEN ——— INSTRUMENT SIGNAL EARTH
P.E.	- GREEN/YELLOW —— P.E. EARTH/BONDING
	- TERMINAL BLOCK (TB)
WH	- WHITE
BK	- BLACK
RD	- RED
S	- SHIELD TERMINAL
OS	- OVERALL SHIELD TERMINAL
O/A Shld	- OVERALL SHIELD
I&O/A Shld	- INDIVIDUAL & OVERALL SHIELD
NIS	- NON INTRINSICALLY SAFE
IS	- INTRINSICALLY SAFE
P.E.	- PLANT EARTH
PCS	- PROCESS CONTROL SYSTEM <01>
ESD	- EMERGENCY SHUTDOWN SYSTEM
SIS	- SAFETY INSTRUMENT SYSTEM
FGS	- FIRE & GAS SYSTEM <01>
MC	- MARSHALLING CABINET
AI	- ANALOGUE INPUT
AO	- ANALOGUE OUTPUT
DI	- DIGITAL INPUT
DO	- DIGITAL OUTPUT
JE	- JUNCTION BOX FOR ELECTRICAL SIGNALS <01>

TYPICAL WIRE CROSS-FERRULING:

PHILOSOPHY OF CROSS-FERRULING: <01>



(*) Single shield is foreseen only for AI/AO signals.

1 - INSTRUMENT TERMINAL NO. OR POLARITY/JB NO./JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

2 - INSTRUMENT TERMINAL NO. OR POLARITY/INSTRUMENT TAG NO./JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

3 - PAIR OR CORE NO./MARSHALLING CABINET NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

4 - PAIR OR CORE NO./JB NO./JB TERMINAL NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

5 - HEAT SHRINKABLE BLACK FOR SHIELD OF NIS INSTRUMENT CABLE.
(HEAT SHRINKABLE BLUE FOR SHIELD OF NIS INSTRUMENT CABLE)

6 - IN CASE OF CONNECTION FROM RIGHT TO LEFT, ORDER OF INFORMATION SHALL BE MIRRORED

REFERENCE DRAWINGS

PIPING AND INSTRUMENT DIAGRAM	123A90-DDL-PR-PID-80009
INSTRUMENT INDEX	123A90-DDL-IN-LIS-40088 Rev.01
F&G DETECTORS LAYOUT	123A90-DDL-SAF-DL-30027

CROSSWIND

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TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT – SAFETY SYSTEM WIRING DIAGRAMS
GENERAL NOTES/LEGENDS

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

A3	DRAWING NO. 123A90-DDL-IN-DG-40016	SHEET 003	REV. 01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40016**

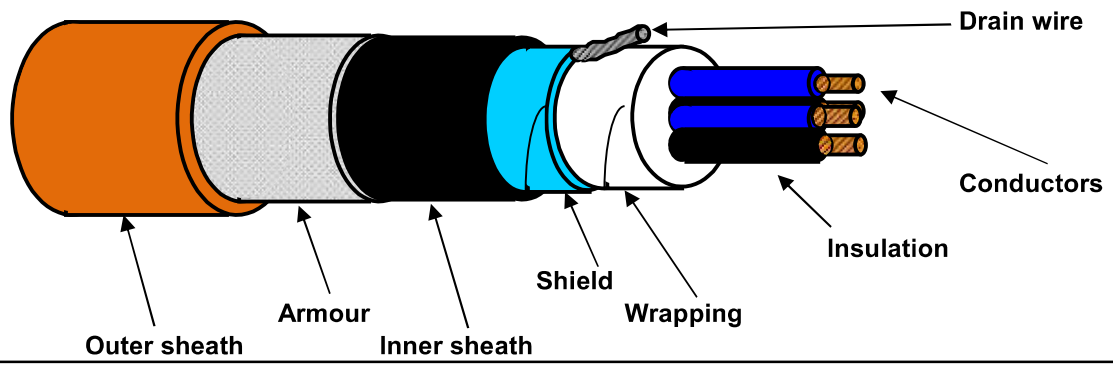
REV.:	DATE:	SIGNATURE:
1_H	28/10/24	G.Randi

ROSETTI MARINO SpA

Tag Number	Category	Discipline	Eng Status	NativeDoc	Parent Tag	Grouping	Main Function	Secondary Function	Area	From Tag	From Main Function	From Area	To Tag	To Main Function	To Area	Material ID	Material Desc.	Gland Standard	From Gland	From Entry	From Fitting	To Gland	To Entry	To Fitting	Routing	Routing Manual
C-77-HY-011/77-HS-011A	Cable	IN	VFC	123A90-DDL-IN-LIS-40091		Int-Int				HFD-77011	Fire Damper	Lower Deck (B-300)	77-HS-011A	Hand Switch	Lower Deck (B-300)	SMICV12-2X2,5	Cable Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250V (300V) 2x2,5mm² - Orange	M20	T2_M20_Double			T2_M20_Double				B-300-SEC-1B / B-300-SEC-1A

Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250 V (300 V)

2X2,5 - INSTRUMENT CABLE - Fire Resistant - Not I.S.



TECHNICAL FEATURES

Conductors :	**7-STRANDED** plain/bare soft annealed copper wires	**IEC 60228 Class 2**
Insulation :	Mica/Glass Tape (MGT) plus XLPE, Nominal Thickness 0,6 mm	
Cores colour code :	**Black NUMBERED (from 1 to 2)**	
Pair Assembling :	Not required	
Pair Wrapping:	Not required	
Drain wire :	Not required	
Pair Shield :	Not required	
Shield Insulation :	Not required	
Total Assembling :	8/1mt	
Overall Wrapping:	by polyester-PET Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Drain wire :	7-Stranded **TINNED** annealed copper drain wire, **size 1,0 sqmm**, in continuous contact with the shield	
Overall Shield :	by Aluminium-**Al** Minimum Thickness 0,008 mm / polyester-**PET** Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Inner sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, Average Thickness 1,1 mm	
Inner sheath color code:	**Black**	
Armour :	Galvanized Steel Wire Braid Armour (coverage ≥ 90%)	
Outer sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, moisture/abrasion/UV Resistant,	
	Average Thickness 1,3 mm	
Outer sheath color code:	**Orange**	
Outer printing (INKJET) :	**FLEI - 2X2,5 SQMM - MGT/XLPE/OS/LSZH/SWB/LSZH - 150/250 V - IEC 60331.21 -**	
(every 1000 mm)	**IEC 60332.1.2 - IEC 60332.3.22 - Year of Manufacture - CE + Meter Marking**	
Under armour diameter :	(10,3 ± 10%) mm	
Over armour diameter :	(11,5 ± 10%) mm	
Outer diameter :	(14,1 ± 10%) mm	
Bending radius :	cable outer diameter x 10 (in fixed installation)	
Voltage Test :	1,5 kV a.c. for 5' (Between Cores) / 1,5 kV a.c. for 5' (Between Cores - Shield)	
Conductors DC Resistance :	≤ 7,86 Ω/km (@ 20°C)	
Insulation Resistance :	≥ 1000 MΩ x Km (@ 20°C)	
Applicable Standards		
Design Guidelines :	**IEC 60092.376**	
ON COMPLETE CABLE		
Fire Resistant test :	**IEC 60331.21**	
Flame Retardant test :	IEC 60332.1.2 - IEC 60332.3.22	
Acid Gas generation :	IEC 60754.1/2	
Smoke density/Light Transmittance :	IEC 61034.2 (LT ≥ 60%)	
Hazardous Areas :	IEC 60079.14 par.9.3.2a	
Temperature Range :		
ON INSULATION	(max +90°C) (max continuous operation temperature of conductors)	
	(max +250°C) (max conductors temperature during short-circuit for 5 seconds)	
ON COMPLETE CABLE		
During Operation :	(-20°C up to +90°C) (in fixed installation)	
During installation :	(- 5°C up to +50°C)	
Note :	**To meet the requirements of installation and use in Zone 1 & Zone 2 (IEC 60079-14) and "Gas & Vapour Tight" the cable must be provided with Penetrating Inner sheath together with correct ATEX approved equipment or accessories.**	

Office	Date	Sign	Rev.	Date	Sign
Drawn by :	04/04/2024	Messa			
Checked :	04/04/2024	Spaccasassi			
Approved :	04/04/2024	Cucinotta			

The data provided, lending assent for the treatment, will be used to the sense of the article 13 of of the Regulation (UE) 2016/679, also through outsiders, in order to allow the realization of the fulfilments informatives, administrative, commercial and accounting related to the contractual relationship. Integral copy of the informative could be requested at our offices.

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ITEM	Tag	B300-HSB-001/B400-FGS-003	: B-300 HVAC Control Panel / MARSHALLING PCS	Dwg	123A90-DDL-IN-LIS-40091		
	S/Sys	77-30	: HVAC UPS Equipment Room B-300	Module	LD_B-300/LD_B-400		
TASK	code	C10002037	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity CCK	Discipline	Instrumental	Form	CJX10

Multi/Single-Core Instrument Control Cable

CABLE DATA

Type	Cu-MICA-XLPE-IS-OS-LSZH-SWB-LSZH	Cores/Size mm²	6X2X0,75 mm2	Color	ORANGE
From	B300-HSB-001	To	B400-FGS-003		

1	Check cable is as specified in project cable schedule.	OK
2	Check relevant documents are at the latest revision.	OK
3	Check cable is routed in accordance with cable layout drawings.	OK
4	Check cable for any physical damage.	OK
5	Check cable is adequately supported and correctly fixed to rack according to Project specification.	PL
6	Check bending radius is within the specified limits.	PL
7	Check cable is correctly loomed and segregated in accordance with specification.	OK
8	Check cable and core marking are in accordance with specification.	OK
9	Check cable labelling is in accordance with specification.	PL
10	Check that glands, shrouds and earthing are in accordance with specification.	OK
11	Check terminations are in accordance with termination diagram	PL
12	Check gland plate for single core cables is non-ferrous.	OK
13	If required produce Red Line Mark Up for "AS BUILT"	

INSULATION	CORE to EARTH	>999	MΩ
	CORE to CORE	>999	MΩ
	CORE to SCREEN	>999	MΩ
	CORE to ARMr	>999	MΩ
	SCREEN to EARTH	>999	MΩ
	SCREEN to ARMr	>999	MΩ
CONTINUITY	CORES	1,3	Ω
	SCREEN	1,3	Ω
	EARTH	N/A	Ω
	ARMr	1,3	Ω
	TEST VOLTS	500	V

TEST ALL CORES AND RECORD LOWEST VALUE

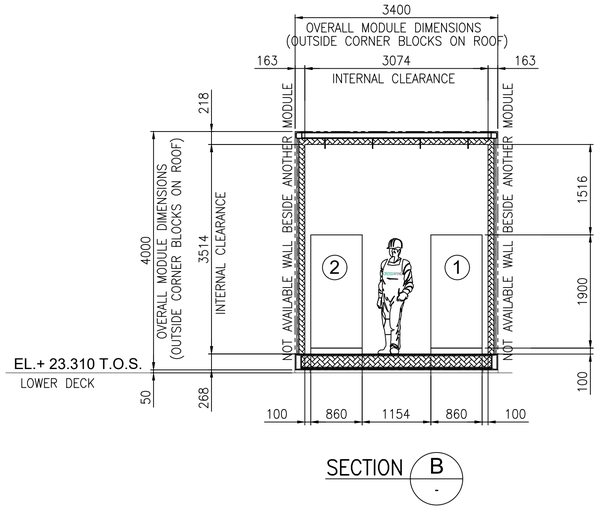
Notes: The lowest value is recorded and must be within project specifications

TESTING INSTRUMENTS USED

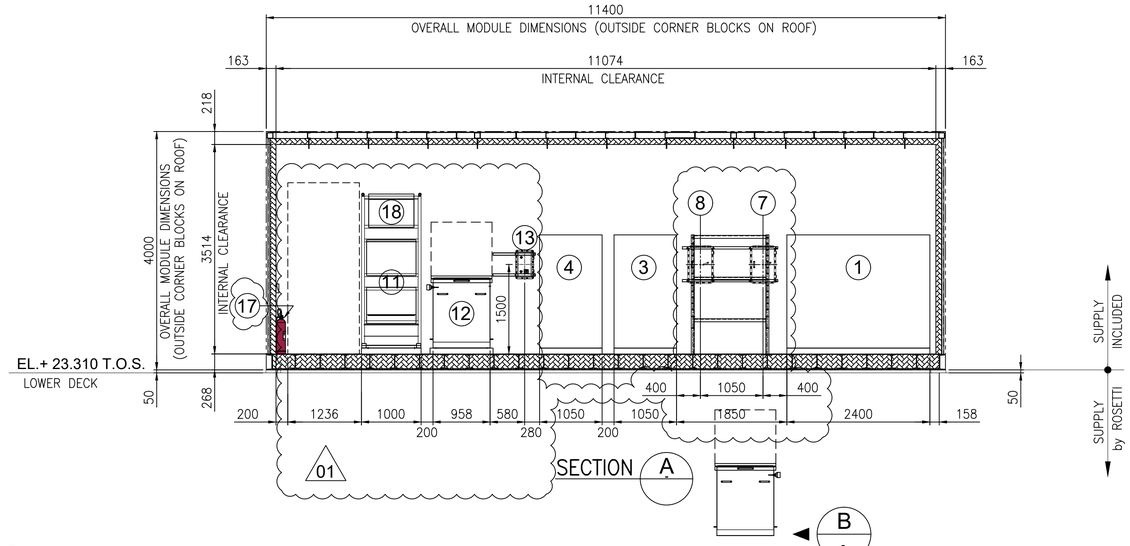
TYPE / SERIAL N°: MEGGER: KEW3125A SERIAL:W8330207 Calibration date: N° 7722/24 10/07/2024

Comments

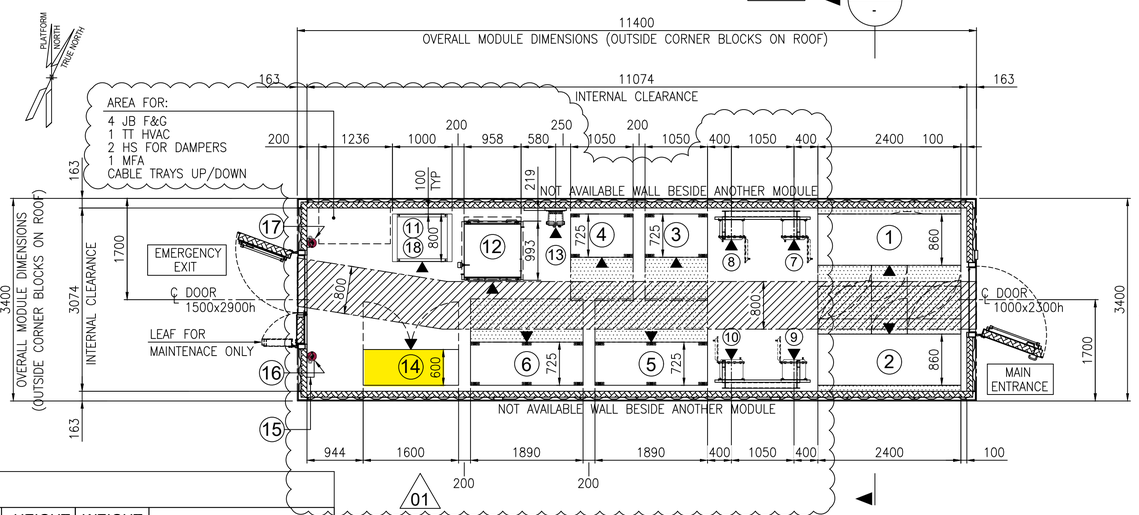
Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	ROSETTI MARINO	
Name	Carmelo Bongiovanni	Alessio Polo	
Date	2024-11-15	2024-11-20	
Signature	PROVERLIS Digitaly signed by Carmelo Bongiovanni 2024-11-15T12:15:39.421Z	PROVERLIS Digitaly signed by Alessio Polo 2024-11-20T10:03:19.245Z	



SECTION B



SECTION A



A

EQUIPMENT LAYOUT
"B-300" UPSs & BATTERIES SWITCHROOM
BOTTOM PLAN

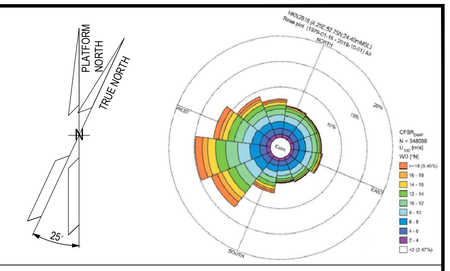
EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)	NOTES
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258	
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258	
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429	
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA 01	1890	725	1761	3429	
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	450	341	632	100	
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	450	341	632	100	
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	450	341	632	100	
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	450	341	632	100	
11	NC-200F2	NAVAID PANEL 01	1000	800	2600	535	
12	BA-200F2	BATTERY BOX NAVAID	958	993	1210	1552	
13	CB-200F2	ISOLATOR BOX NAVAID	500	400	765	70	
14	B3000-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	1150	
15	-	EYE WASH STATION	228	80	290	5	
16	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20	
17	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20	
18	BC-200F2	BATTERY CHARGER NAVAID 01	-	-	-	-	INCLUDED IN THE RACK OF NC-200F2

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-EL-DL-20106

REV.:	DATE:	SIGNATURE:
1_A	08/08/24	G.Randi

ROSETTI MARINO SpA



NOTES

01
1. U.N.O. ALL DIMENSIONS ARE IN MILLIMETERS.
2. EQUIPMENT DIMENSION ARE DEFINED ACCORDING TO THE LATEST DRAWING AND INFORMATION FROM THE VENDOR
3. DOCUMENT VALID ONLY FOR ELECTRICAL COMPONENT, FOR OTHER SCOPE LOCATION AND INFORMATION, PLEASE REFER TO VENDORS AND PROJECT DOCUMENTS.
   - "B-300" – GENERAL ARRANGEMENT DRAWING DOC. N. 1724000049-AR-DA-00016
   - "B-300" – DETAILED DRAWINGS DOC. N. 1724000049-AR-DD-00020

LEGEND

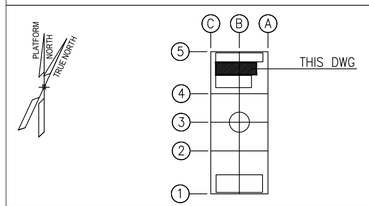
U.N.O. _____ UNLESS NOTED OTHERWISE
T.O.S. _____ TOP OF STEEL
_____ ESCAPE CORRIDOR – WIDTH 800mm.
_____ MAINTENANCE AREA – VENDOR REQUIREMENT
_____ SWITCHGEAR ROOM ENCLOUSURE
_____ FRONT OF EQUIPMENT

HOLDS

REFERENCE

DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DA-00016
"B-300" DETAILED DRAWINGS	1724000049-AR-DD-00020
"B-300" ARCHITECTURAL GENERAL LAYOUT PLAN, WIEW, SECTIONS & TYP. DETAILS	123A90-DDL-AR-DL-10022
PLOT PLAN – LOWER & UPPER DECK	123A90-DDL-PP-DL-70070

KEY PLAN



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	23/07/24	SAM	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	28/03/24	SAM	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND
ROSETTI MARINO

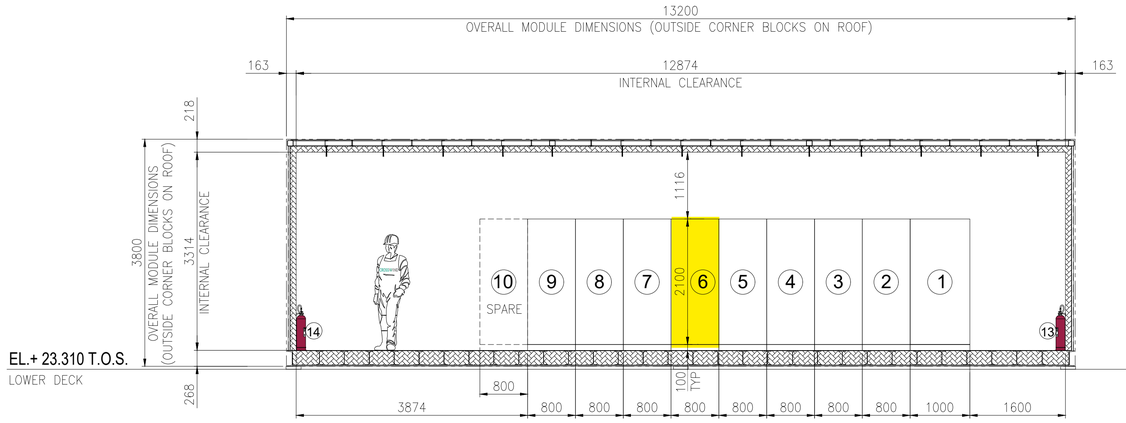
TITLE :
BASE LOAD POWER HUB (BLPH)
ELECTRICAL EQUIPMENT LAYOUT
UPSs & BATTERIES SWITCHROOM

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:50
DRAWN SAM	CHECKED FMA/AMA	APPROVED FPA/DLO	DATE 23/07/24
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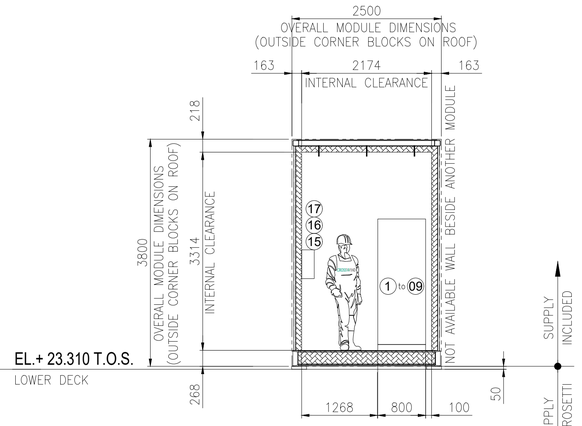
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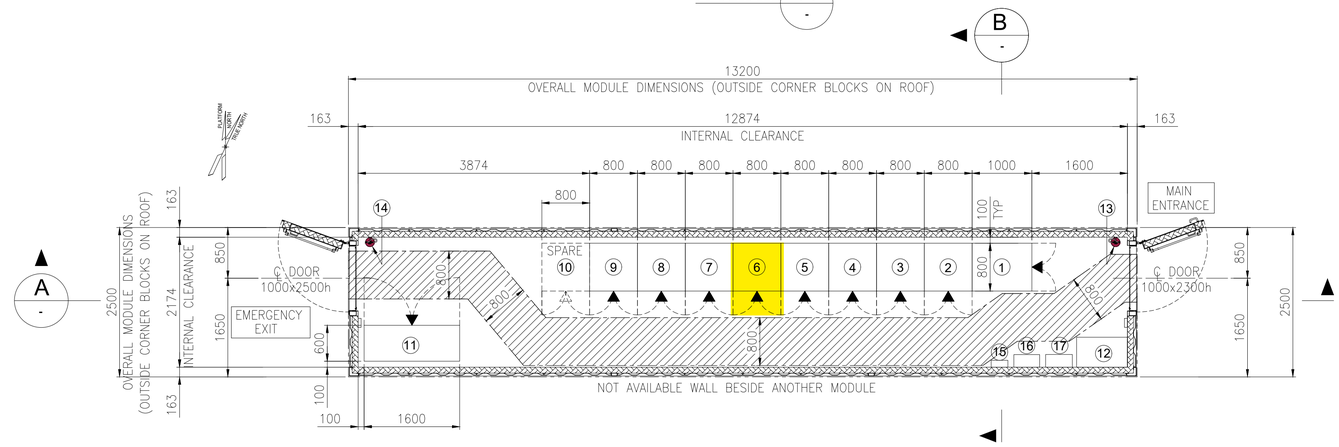
DRAWING NO. 123A90-DDL-IN-DL-40012 REV. 03



SECTION A -



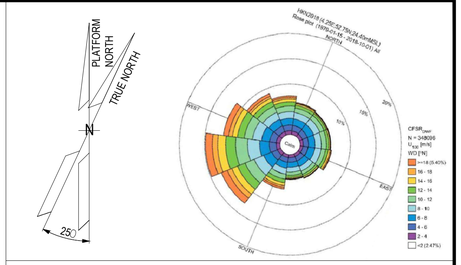
SECTION B -



EQUIPMENT LAYOUT
"B-400" I&T EQUIPMENT ROOM
BOTTOM PLAN

EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	NOTE
1	B400-SRV-001	SERVER CABINET	1000	800	2100	
2	B400-NET-001	NETWORK CABINET	800	800	2100	
3	B400-EMCS-001	EMCS SYSTEM CABINET	800	800	2100	
4	B400-PCS-002	PCS MARSHALLING CABINET	800	800	2100	
5	B400-PCS-001	PCS SYSTEM CABINET 03	800	800	2100	
6	B400-FGS-003	FGS MARSHALLING CABINET 2	800	800	2100	
7	B400-FGS-002	FGS MARSHALLING CABINET 1	800	800	2100	
8	B400-FGS-001	FGS SYSTEM CABINET	800	800	2100	
9	B400-SIS-001	SIS SYSTEM/MARSHALLING CABINET	800	800	2100	
10	-	SPARE				
11	B400-HSB-001	DISTRIBUTION & HVAC PANEL - I&T ROOM	1600	600	2300	
12	-	TABLE	850	500	750	
13	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	
14	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	
15	-	FIRST AID KIT	280	115	200	
16	-	RESUSCITATION UNIT	430	210	480	
17	-	CABINET INCLUDED N.10 ESCAPE MASK	448	213	422	



NOTES

1. U.N.O. ALL DIMENSIONS ARE IN MILLIMETERS.
2. DOCUMENT VALID ONLY FOR INSTRUMENT COMPONENT, FOR OTHER SCOPE LOCATION AND INFORMATION, PLEASE REFER TO VENDORS AND PROJECT DOCUMENTS.

LEGEND

U.N.O. _____ UNLESS NOTED OTHERWISE
T.O.S. _____ TOP OF STEEL
_____ ESCAPE CORRIDOR – WIDTH 800mm.
_____ EQUIPMENT ROOM ENCLOUSURE
_____ FRONT OF EQUIPMENT

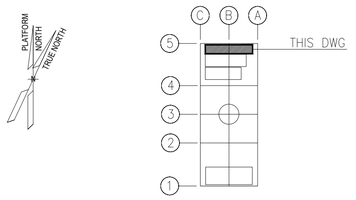
HOLDS

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REFERENCE

DOCUMENT TITLE	DOCUMENT NUMBER
Control System Architecture Detailed Drawings	123A90-DDL-IN-DD-40096
Data Network Architecture Drawings	123A90-DDL-IN-DD-40019
Earthing layouts drawings (CCR, ITER)	123A90-DDL-IN-DL-40013
Instrument and Telecom MCT Layout – Lower Deck	123A90-DDL-IN-DL-40086
"B-400" I&T Equipment Room – Architectural Layout	123A90-DDL-AR-DL-10015
"B-400" ARCHITECTURAL GENERAL LAYOUT PLAN, WIEW, SECTIONS & TYP. DETAILS	123A90-DDL-AR-DL-10015
"B-400" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DA-00017
"B-400" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DD-00021
"B-400" HVAC SYSTEM G.A. and DETAILS	1724000049-HV-DA-00067

KEY PLAN



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
02	27/05/24	MGA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	22/01/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)
00	07/11/23	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND | ROSETTI MARINO

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DL-40012**

REV.:	DATE:	SIGNATURE:
3_A	07/10/24	G.Randi

ROSETTI MARINO SpA

TITLE : BASE LOAD POWER HUB (BLPH)
OFF-SHORE ITER
EQUIPMENT LAYOUT

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE 1:33,3
DRAWN MGA | CHECKED LCA | APPROVED DLO | DATE 27/05/24
A1 | DRAWING NO. 123A90-DDL-IN-DL-40012 | SHEET 001 | REV. 03

File Name : 123A90-DDL-IN-DL-40012 Rev.03.dwg

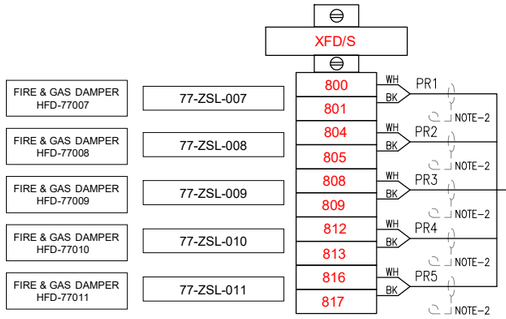
DRAWING NO. 123-A90-DDL-IN-DG-40016

REV. 01

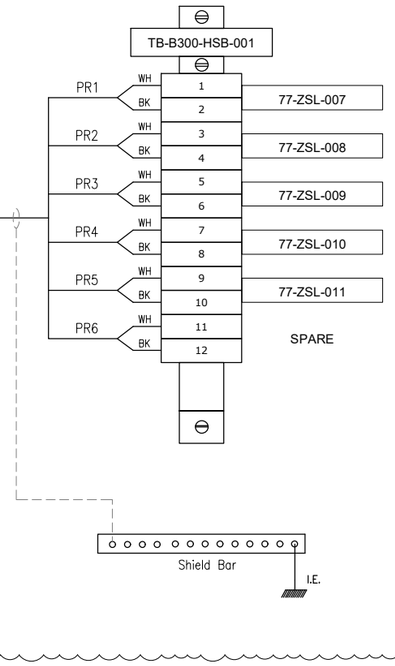
FIELD	MULTICABLE	I&T EQUIPMENT ROOM (ITER)
B-300 UPS ROOM	No.	MARSHALLING CABINET ~~B400-FGS-002~~ B400-FGS-003

<01>

HVAC Panel B300-HSB-001



B300-HSB-001/B400-FGS-003
~~B300-HSB-001/B400-FGS-002~~
6x2x0.75mm2,Sh+ShT+ARM,F.Res,ORANGE,NIS



VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_K	18/11/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT-FGS WIRING DIAGRAMS
FIRE DAMPER FEEDBACK - B-300

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

A3	DRAWING NO. 123A90-DDL-IN-DG-40016	SHEET 058	REV. 01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

DRAWING NO. 123A90-DDL-IN-DG-40016

REV. 01

NOTES:

1. ALL SPARE ENTRIES SHALL BE PROVIDED WITH CERTIFIED EX PROOF PLUGS.
2. CABLE SCREENS / DRAIN WIRE SHALL BE SECURELY INSULATED AND TIED BACK IN THE INSTRUMENT SIDE AND SHAL BE TERMINATED IN THE MARSHALLING SIDE OF THE PANEL.
3. SPARE PAIRS / TRIADS SHALL BE CONNECTED TO TERMINALS IN JUNCTION BOX AND PANEL / MARSHALLING CABINETS.
4. ALL CABLE SCREENS TO BE TERMINATED AT THE INSTRUMENT EARTH BAR IN THE RESPECTIVE EARTH BARS (IS OR NIS) AS APPLICABLE IN THE MARSHALLING CABINET.
5. CONNECTION TERMINAL BLOCK SHALL BE DEFINED DURING CONSTRUCTION PHASE.

<01>

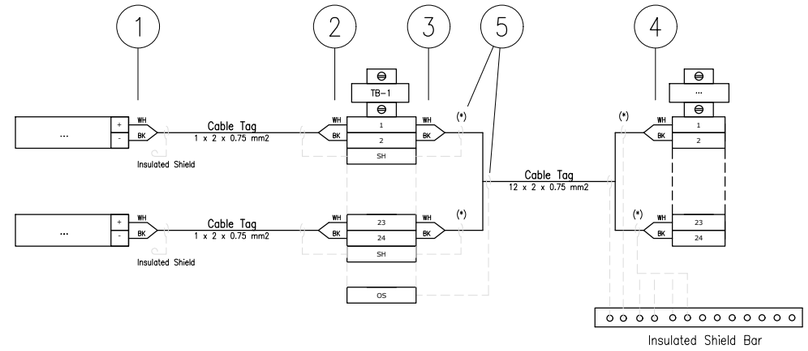
LEGENDS & SYMBOLS:

LEGEND:

I.E.	- GREEN ——— INSTRUMENT SIGNAL EARTH
P.E.	- GREEN/YELLOW —— P.E. EARTH/BONDING
	- TERMINAL BLOCK (TB)
WH	- WHITE
BK	- BLACK
RD	- RED
S	- SHIELD TERMINAL
OS	- OVERALL SHIELD TERMINAL
O/A Shld	- OVERALL SHIELD
I&O/A Shld	- INDIVIDUAL & OVERALL SHIELD
NIS	- NON INTRINSICALLY SAFE
IS	- INTRINSICALLY SAFE
P.E.	- PLANT EARTH
PCS	- PROCESS CONTROL SYSTEM <01>
ESD	- EMERGENCY SHUTDOWN SYSTEM
SIS	- SAFETY INSTRUMENT SYSTEM
FGS	- FIRE & GAS SYSTEM <01>
MC	- MARSHALLING CABINET
AI	- ANALOGUE INPUT
AO	- ANALOGUE OUTPUT
DI	- DIGITAL INPUT
DO	- DIGITAL OUTPUT
JE	- JUNCTION BOX FOR ELECTRICAL SIGNALS <01>

TYPICAL WIRE CROSS-FERRULING:

PHILOSOPHY OF CROSS-FERRULING: <01>



(*) Single shield is foreseen only for AI/AO signals.

1 - INSTRUMENT TERMINAL NO. OR POLARITY/JB NO./JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

2 - INSTRUMENT TERMINAL NO. OR POLARITY/INSTRUMENT TAG NO./JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

3 - PAIR OR CORE NO./MARSHALLING CABINET NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

4 - PAIR OR CORE NO./JB NO./JB TERMINAL NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

5 - HEAT SHRINKABLE BLACK FOR SHIELD OF NIS INSTRUMENT CABLE.
(HEAT SHRINKABLE BLUE FOR SHIELD OF NIS INSTRUMENT CABLE)

6 - IN CASE OF CONNECTION FROM RIGHT TO LEFT, ORDER OF INFORMATION SHALL BE MIRRORED

REFERENCE DRAWINGS

PIPING AND INSTRUMENT DIAGRAM	123A90-DDL-PR-PID-80009
INSTRUMENT INDEX	123A90-DDL-IN-LIS-40088 Rev.01
F&G DETECTORS LAYOUT	123A90-DDL-SAF-DL-30027

CROSSWIND

ROSETTI MARINO

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_K	18/11/24	G.Randi

ROSETTI MARINO SpA

TITLE :
BASE LOAD POWER HUB (BLPH)
INSTRUMENT – SAFETY SYSTEM WIRING DIAGRAMS
GENERAL NOTES/LEGENDS

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

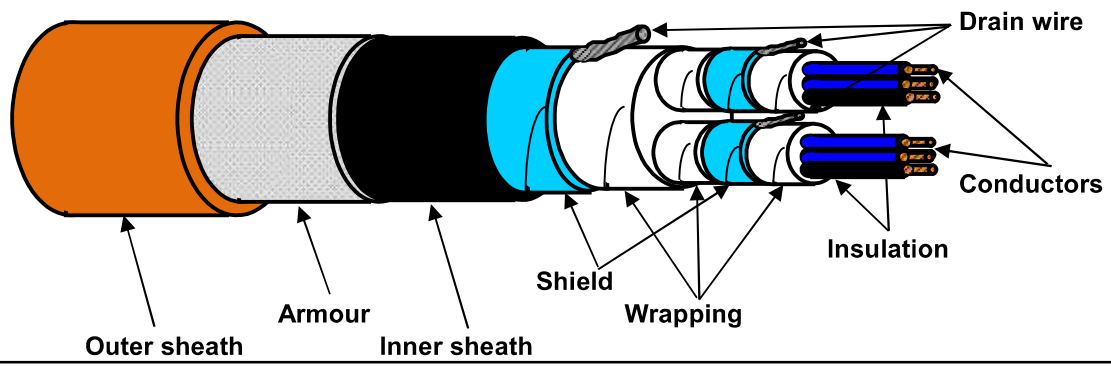
	DRAWING NO.	SHEET	REV.
A3	123A90-DDL-IN-DG-40016	003	01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

Tag Number	Category	Discipline	Eng Status	NativeDoc	Layout	Parent Tag	Main Function	Secondary Function	Area	From Tag	From Main Function	From Area	From Tag Section	To Tag	To Main Function	To Area	To Tag Section	Material ID	Material Desc.	Gland Standard	From Gland	From Entry	From Fitting	To Gland	To Entry	To Fitting	Routing	Routing Manual
B300-HSB-001/B400-FGS-003	Cable	IN	VFC	123A90-DDL-IN-LIS-40091						B300-HSB-001	Distribution & HVAC Panel - Shelter AC UPS Fitted with UPS System Equipment Room	Lower Deck (B-300)	77-ZSL-007/8/9/10/11	B400-FGS-003	Marshalling FGS	Lower Deck (B-400)		SMICV10-6X2X0,75	Cable Cu Cl.2/MGT/XLPE/IS/OS/LSZH/SWB/LSZH 150/250V (300V) 6x2x0,75mm² - Orange	M25	n.a.			n.a.				I-MCT-301 / B-300-SEC-1C / B-300-SEC-1A / L-SEC-4 / L-SEC-1B / L-SEC-1A / B-400-SEC-1A / B-400-SEC-1B / I-MCT-401

Cu Cl.2/MGT/XLPE/IS/OS/LSZH/SWB/LSZH 150/250 V (300 V)

6X2X0,75 - INSTRUMENT CABLE - Fire Resistant - Not I.S.



TECHNICAL FEATURES

Conductors :	**7-STRANDED** plain/bare soft annealed copper wires	**IEC 60228 Class 2**
Insulation :	Mica/Glass Tape (MGT) plus XLPE, Nominal Thickness 0,5 mm	
Cores colour code :	**White - Black (each core NUMBERED for PAIR identification)**	
Pair Assembling :	10/1mt	
Pair Wrapping:	by polyester-PET Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Drain wire :	7-Stranded **TINNED** annealed copper drain wire, **size 0,5 sqmm**, in continuous contact with the shield	
Pair Shield :	by Aluminium-**Al** Minimum Thickness 0,008 mm / polyester-**PET** Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Shield Insulation :	by polyester-PET Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Total Assembling :	3/1mt	
Overall Wrapping:	by polyester-PET Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Drain wire :	7-Stranded **TINNED** annealed copper drain wire, **size 0,5 sqmm**, in continuous contact with the shield	
Overall Shield :	by Aluminium-**Al** Minimum Thickness 0,008 mm / polyester-**PET** Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Inner sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, Average Thickness 1,5 mm	
Inner sheath color code:	**Black**	
Armour :	Galvanized Steel Wire Braid Armour (coverage ≥ 90%)	
Outer sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, moisture/abrasion/UV Resistant,	
	Average Thickness 1,7 mm	
Outer sheath color code:	**Orange**	
Outer printing (INKJET) :	**FLEI - 6X2X0,75 SQMM - MGT/XLPE/IS/OS/LSZH/SWB/LSZH - 150/250 V - IEC 60331.21 -**	
(every 1000 mm)	**IEC 60332.1.2 - IEC 60332.3.22 - Year of Manufacture - CE + Meter Marking**	
Under armour diameter :	(20,6 ± 10%) mm	
Over armour diameter :	(21,8 ± 10%) mm	
Outer diameter :	(25,2 ± 10%) mm	
Bending radius :	cable outer diameter x 10 (in fixed installation)	
Voltage Test :	1,5 kV a.c. for 5' (Between Cores) / 1,5 kV a.c. for 5' (Between Cores - Shield)	
Conductors DC Resistance :	≤ 26 Ω/km (@ 20°C)	
Insulation Resistance :	≥ 1000 MΩ x Km (@ 20°C)	
Mutual Capacitance :	≤ 150 nF/km	
L/R ratio :	≤ 25 µH/Ω	
Inductance :	≤ 0,9 mH/km	
Applicable Standards		
Design Guidelines :	**IEC 60092.376**	
ON COMPLETE CABLE		
Fire Resistant test :	**IEC 60331.21**	
Flame Retardant test :	IEC 60332.1.2 - IEC 60332.3.22	
Acid Gas generation :	IEC 60754.1/2	
Smoke density/Light Transmittance :	IEC 61034.2 (LT ≥ 60%)	
Hazardous Areas :	IEC 60079.14 par.9.3.2a	
Temperature Range :		
ON INSULATION	(max +90°C) (max continuous operation temperature of conductors)	
	(max +250°C) (max conductors temperature during short-circuit for 5 seconds)	
ON COMPLETE CABLE		
During Operation :	(-20°C up to +90°C) (in fixed installation)	
During installation :	(- 5°C up to +50°C)	
Note :	**To meet the requirements of installation and use in Zone 1 & Zone 2 (IEC 60079-14) and "Gas & Vapour Tight" the cable must be provided with Penetrating Inner sheath together with correct ATEX approved equipment or accessories.**	

Office	Date	Sign	Rev.	Date	Sign
Drawn by :	06/05/2024	Messa			
Checked :	06/05/2024	Spaccasassi			
Approved :	06/05/2024	Cucinotta			

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ITEM	Tag	77-HS-007A	: Hand Switch for Fire&Gas Damper HFD-77007		Dwg		
	S/Sys	77-30	: HVAC UPS Equipment Room B-300		Module		
TASK	code	C10002089		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Instrumental	Form CJX00	Miscellaneous

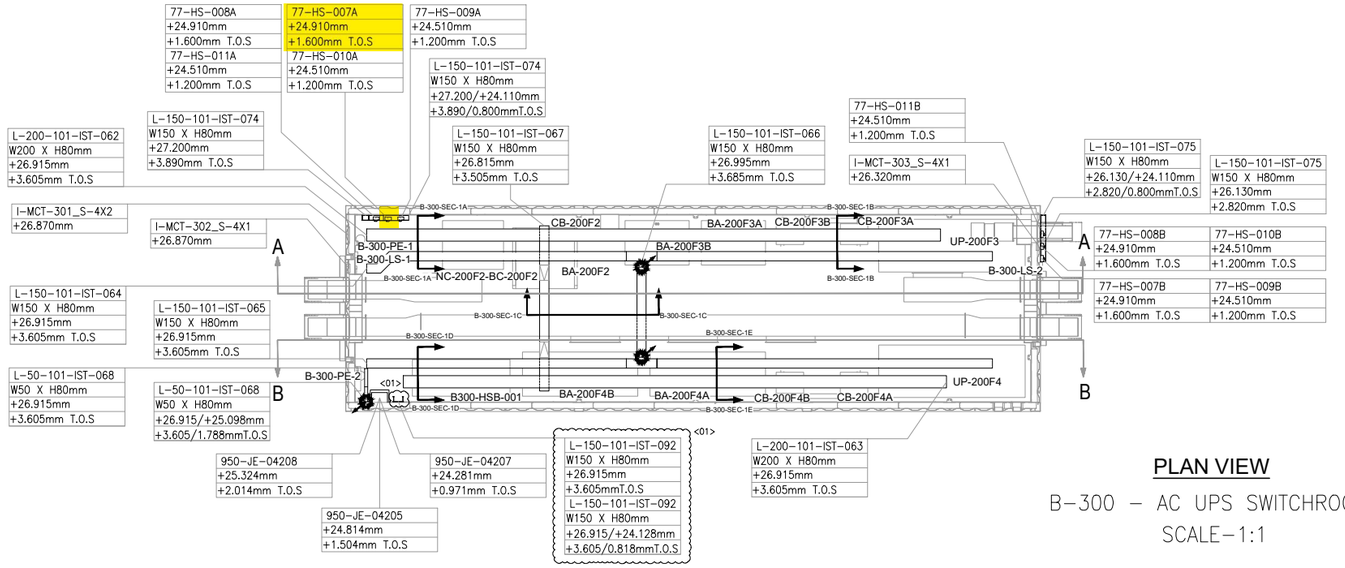
1	Check for mechanical damage.	OK
2	Check installed equipment is suitable and conforms to specification.	OK
3	Check installation conforms to P&ID and hook-up drawing.	OK
4	Check tube fittings manufacturer is the one chosen for the plant.	NA
5	Check that piping connections provide the block & bleed facility (if required).	NA
6	Check that all stop plugs are properly installed	NA
7	Check identification (tag number, tag plates).	OK
8	Check supporting and protection against vibrations.	OK
9	Check the conformity of earthing as per specification (I.P.E. or I.E.)	OK
10	If required produce Red Line Mark Up for "AS BUILT"	

Comments:

	Performed by	☉ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM (ROSETTI MARINO)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-10-28	2024-11-21	
Signature	PROVERLIS Digitaly signed by Carmelo Bongiovanni 2024-10-28T09:13:35.870Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2024-11-21T08:30:11.014Z	

DRAWING NO. 123A90-DDL-IN-DL-40115

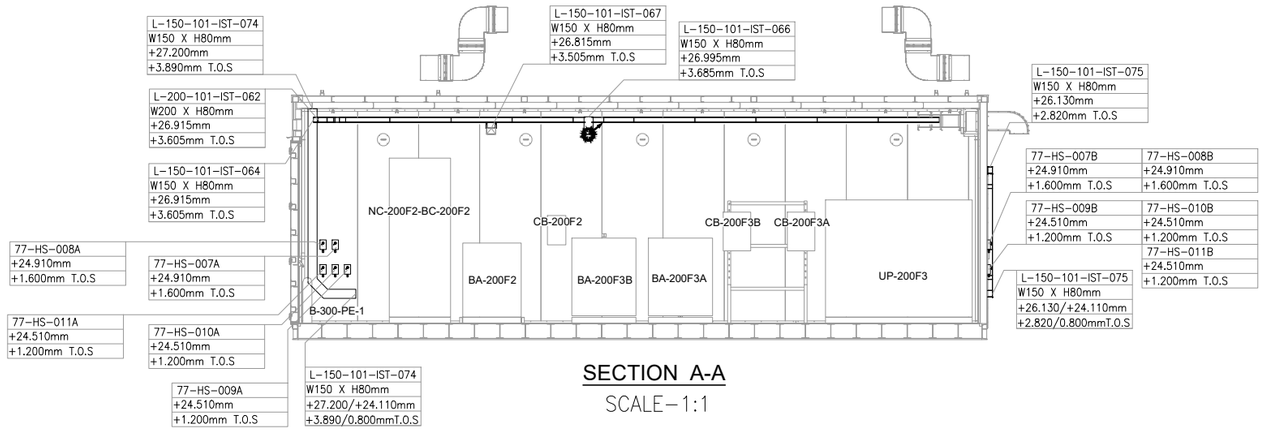
REV. 01



PLAN VIEW

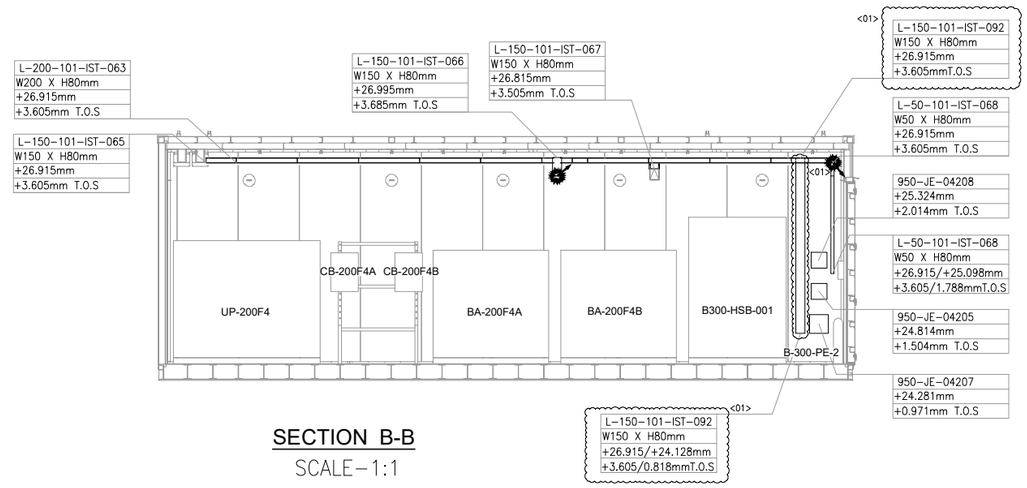
B-300 – AC UPS SWITCHROOM

SCALE-1:1



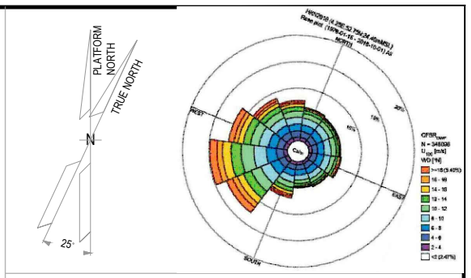
SECTION A-A

SCALE-1:1



SECTION B-B

SCALE-1:1



NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DRAWING IS VALID ONLY FOR CONTAINER CABLE TRAY LAYOUT.

LEGEND

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DL-40115**

REV.:	DATE:	SIGNATURE:
1_A	07/10/24	G.Randi

ROSETTI MARINO SpA

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-IN-DL-40081	INSTRUMENT LAYOUT - UPPER DECK
123A90-DDL-IN-LIS-40091	INSTRUMENT CABLE LIST
123A90-DDL-IN-DG-40015	INSTRUMENT-CCS WIRING DIAGRAMS
123A90-DDL-IN-DG-40016	INSTRUMENT-SAFETY SYSTEM WIRING DIAGRAMS
123A90-DDL-IN-DL-40083	INSTRUMENT MAIN CABLES ROUTING-LOWER DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/08/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)

Base Load Power HUB Cables Tray Layout

B-300 Container Lower Deck – TOS EL. 23.310m

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:50
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 04/10/24

A1	DRAWING NO. 123A90-DDL-IN-DL-40115	SHEET 001	REV. 01

File Name : 123A90-DDL-IN-DL-40115 REV01.dwg

DRAWING NO. 123-A90-DDL-IN-DG-40016 REV. 01

FIELD

INSTRUMENTS

JUNCTION BOX

950-JE-04207

MULTICABLE

No.

I&T EQUIPMENT ROOM (ITER)

MARSHALLING CABINET

B400-FGS-002

<01>

B-300 UPS Room

950-XZ-04202 — C-950-XZ-04202/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

950-XL-04203 — C-950-XL-04203/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

950-XL-04204 — C-950-XL-04204/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 OUTDOOR

77-HS-007B — C-77-HS-007B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-007A/77-HS-007B

~~C-77-HY-007D/77-HY-007A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77007

77-HY-007 — C-77-HY-007/77-HS-007A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 OUTDOOR

B-300 INDOOR

77-HS-007A — NOTE-2

77-HS-008B — C-77-HS-008B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-008A/77-HS-008B

~~C-77-HS-008B/77-HS-008A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77008

77-HY-008 — C-77-HY-008/77-HS-008A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 OUTDOOR

B-300 INDOOR

77-HS-008A — NOTE-2

77-HS-009B — C-77-HS-009B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-009A/77-HS-009B

~~C-77-HS-009B/77-HS-009A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77009

77-HY-009 — C-77-HY-009/77-HS-009A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

77-HS-009A — NOTE-2

B-300 OUTDOOR

77-HS-010B — C-77-HS-010B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-010A/77-HS-010B

~~C-77-HS-010B/77-HS-010A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77010

77-HY-010 — C-77-HY-010/77-HS-010A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 OUTDOOR

B-300 INDOOR

77-HS-010A — NOTE-2

77-HS-011B — C-77-HS-011B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-011A/77-HS-011B

~~C-77-HS-011B/77-HS-011A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77011

77-HY-011 — C-77-HY-011/77-HS-011A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

77-HS-011A — NOTE-2

TB-1

1BK 1 1BK
2BK 2 2BK
SH
1BK 3 3BK
2BK 4 4BK
SH
1BK 5 5BK
2BK 6 6BK
SH
1BK 7 7BK
2BK 8 8BK
SH
1BK 9 9BK
2BK 10 10BK
SH
1BK 11 11BK
2BK 12 12BK
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1BK 13 13BK
2BK 14 14BK
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1BK 15 15BK
2BK 16 16BK
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17 17BK
18 18BK
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19 19BK
20 20BK
SH
21 21BK
22 22BK
SH
23 23BK
24 24BK
SH
OS

950-JE-04207/B400-FGS-002

24x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

TB-950-JE-04207

1BK 1 950-XZ-04202
2BK 2
3BK 3 950-XL-04203
4BK 4
5BK 5 950-XL-04204
6BK 6
7BK 7 77-HY-007
8BK 8
9BK 9 77-HY-008
10BK 10
11BK 11 77-HY-009
12BK 12
13BK 13 77-HY-010
14BK 14
15BK 15 77-HY-011
16BK 16
17BK 17 SPARE
18BK 18
19BK 19 SPARE
20BK 20
21BK 21 SPARE
22BK 22
23BK 23 SPARE
24BK 24

Shield Bar — I.E.

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_H	28/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT–FGS WIRING DIAGRAMS
950–JE–04207

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024
A3	DRAWING NO. 123A90–DDL–IN–DG–40016		SHEET 069 / REV. 01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

I-3

DRAWING NO. 123A90-DDL-IN-DD-40017

REV. 00



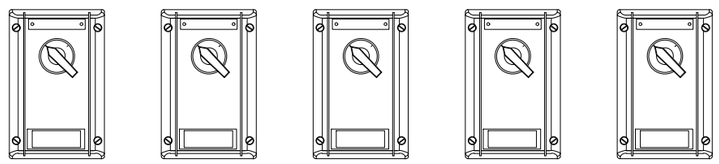
B-100
~~B-101~~



B-200
~~B-201~~



B-300
~~B-301~~



B-400
~~B-401~~

POS.	DESCRIPTION	Q.TY
-	SELFING TAPPING SCREW	-

CONTAINER	ITEM	DESCRIPTION	TAGNAME
B-100 ~~B-101~~	1	HAND SWITCH FOR DAMPER TEST	~~77-HS-011A~~ 77-HS-001A
	2	HAND SWITCH FOR DAMPER TEST	~~77-HS-012A~~ 77-HS-002A
	3	HAND SWITCH FOR DAMPER TEST	~~77-HS-013A~~ 77-HS-003A
B-200 ~~B-201~~	1	HAND SWITCH FOR DAMPER TEST	~~77-HS-014A~~ 77-HS-004A
	2	HAND SWITCH FOR DAMPER TEST	~~77-HS-015A~~ 77-HS-005A
	3	HAND SWITCH FOR DAMPER TEST	~~77-HS-016A~~ 77-HS-006A
B-300 ~~B-301~~	1	HAND SWITCH FOR DAMPER TEST	~~77-HS-017A~~ 77-HS-007A
	2	HAND SWITCH FOR DAMPER TEST	~~77-HS-018A~~ 77-HS-008A
	3	HAND SWITCH FOR DAMPER TEST	~~77-HS-019A~~ 77-HS-009A
	4	HAND SWITCH FOR DAMPER TEST	77-HS-010A
	5	HAND SWITCH FOR DAMPER TEST	77-HS-011A
B-400 ~~B-401~~	1	HAND SWITCH FOR DAMPER TEST	77-HS-012A
	2	HAND SWITCH FOR DAMPER TEST	77-HS-013A
	3	HAND SWITCH FOR DAMPER TEST	77-HS-014A
	4	HAND SWITCH FOR DAMPER TEST	77-HS-015A
	5	HAND SWITCH FOR DAMPER TEST	77-HS-016A

NOTES

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	02/09/2024	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	11/07/2024	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT INSTALLATION DETAILS
HAND SWITCH INSIDE CONTAINERS

CONTRACT NO./TITLE | SCALE /

DRAWN VBA | CHECKED LCA | APPROVED DLO | DATE 11/07/2024

A3 | DRAWING NO. 123A90-DDL-IN-DD-40017 | SHEET 046 | REV. 01

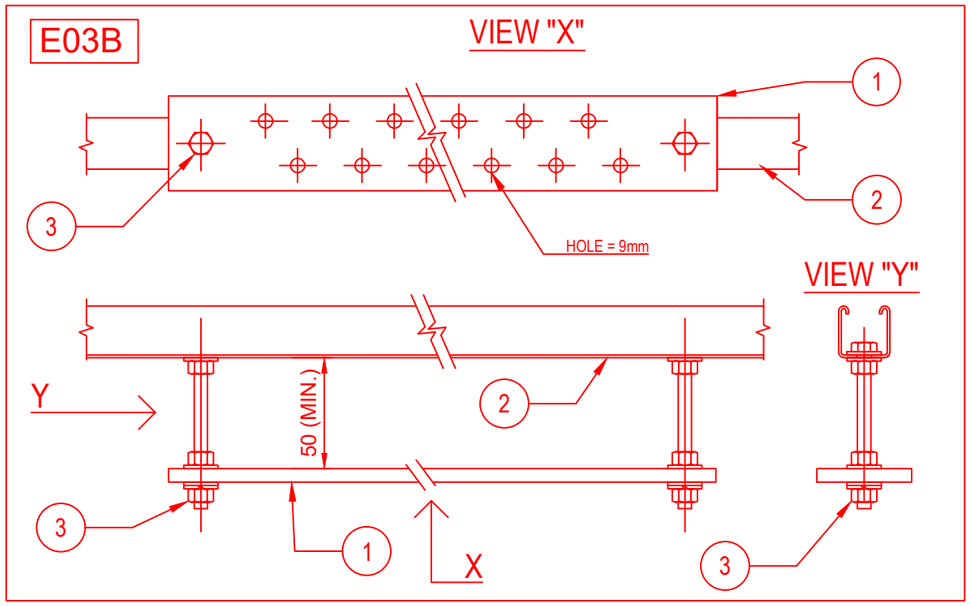
VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DD-40017**

REV.:	DATE:	SIGNATURE:
1_C	15/10/24	G.Randi

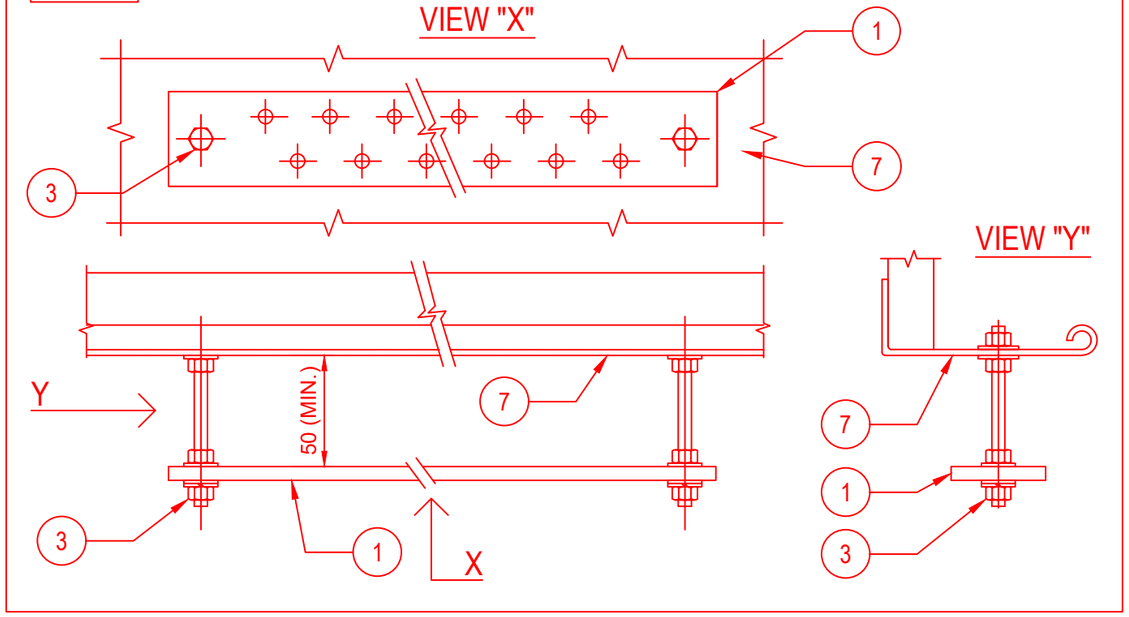
ROSETTI MARINO SpA

TYPICAL DETAIL VALID FOR EXTERNAL USE ONLY

E03B

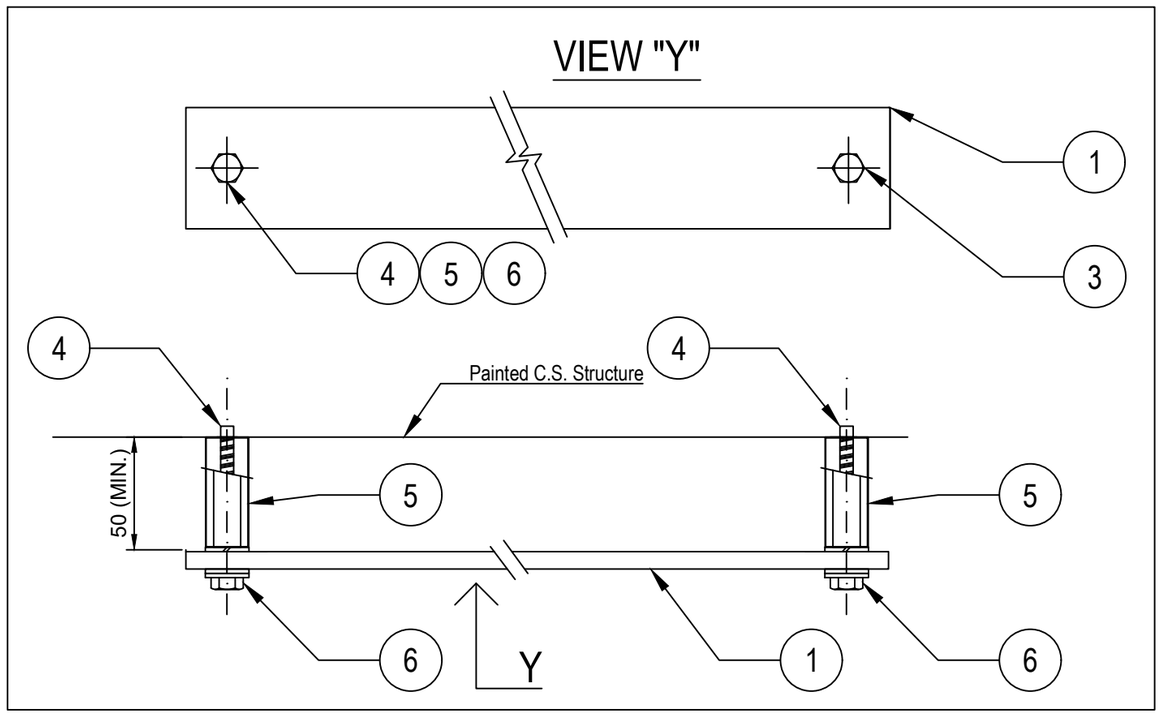


E03C



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	EARTHING BAR	TINNED COPPER	285X50X5	1	
2	SINGLE U-CHANNEL PERFORATED ON N.3 SIDE	AISI 316L		2	
3	HEXAG. BOLTS, PLANE WASHERS, GROWER SPRING WASHER AND NUT	AISI 316L	M10X30	2	
4	THREADED STUD	AISI 316L	M10X28	2	NOTE 1
5	FEMALE / MALE COUPLING	AISI 316L	M10X50	2	NOTE 2
6	PLANE WASHER, GROWER AND NUT	AISI 316L	M10	2	
7	CABLE LADDER	AISI 316L			

E03D



NOTES:

1) THREADED STUD mod. HILTI S-BT-ER M10/15 SN6 CERTIFIED FOR EARTHING SYSTEM.
2) STANDOFF ADAPTER mod. HILTI M10-HC120 50.
3) FOR TYPICALS E03B AND E03C (EARTHING BAR FIXED TO U-CHANNEL OR CABLE TRAY/LADDER) THE EARTHING BAR SHALL BE CONNECTED TO EARTHING POINT IN N.1 POINT WITH 35sqmm Y/G CABLE

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_G	25/10/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS-EARTHING SYSTEM
EARTHING BAR INSTALLED ON WELDED PROFILE OR THREADED STUD

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

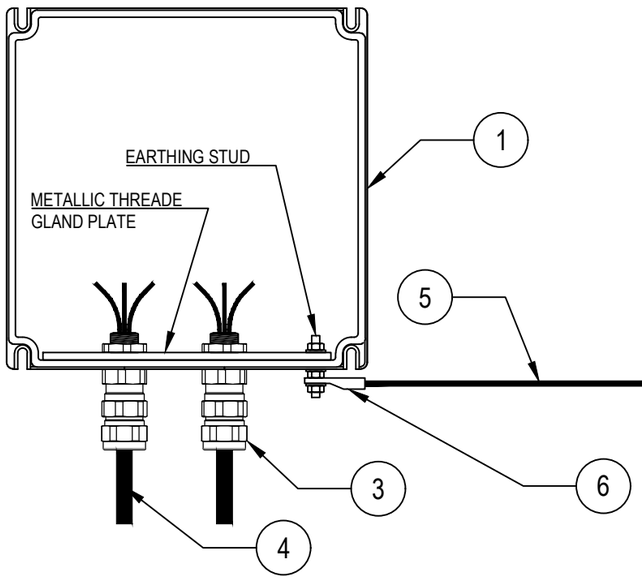
A3 | DRAWING NO. 123A90-DDL-EL-DD-20090 | SHEET 004 | REV. 02

F.to UNI A3: 420mmx297mm

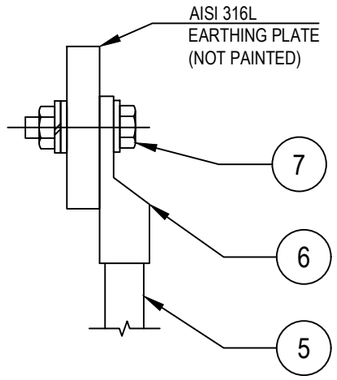
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E04

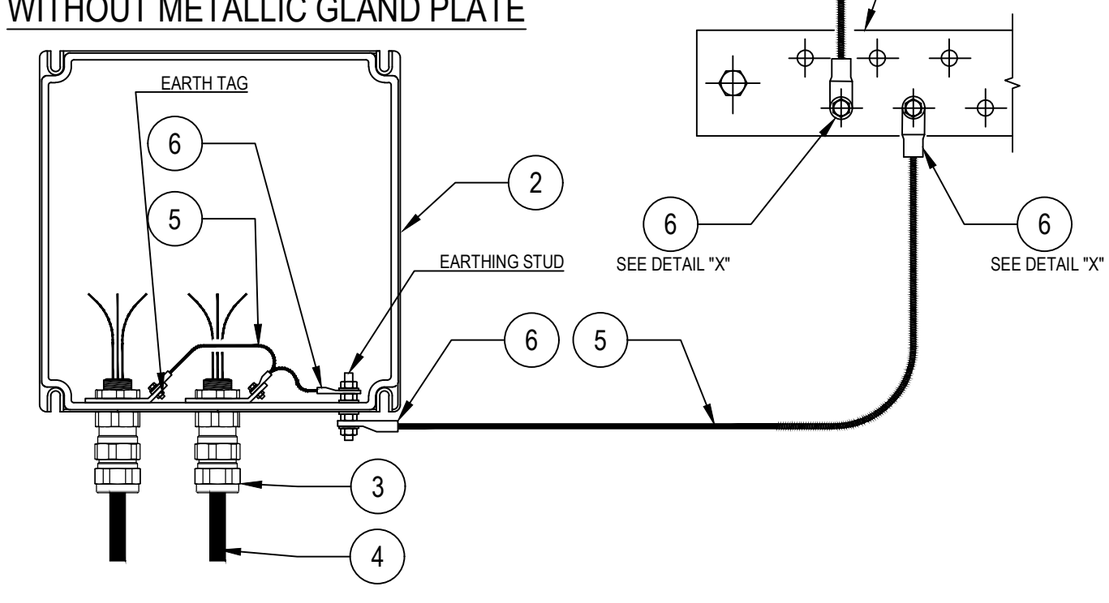
DETAIL OF NON METALLIC ENCLOSURE WITH METALLIC GLAND PLATE



DETAIL "X"



DETAIL OF NON METALLIC ENCLOSURE WITHOUT METALLIC GLAND PLATE



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	JUNCTION BOX WITH PLATE (EX)	GRP			
2	JUNCTION BOX WITHOUT GLAND PLATE (EX)	GRP			
3	DOUBLE SEAL CABLE GLAND (EX) FOR ARMOURED CABLE	NICK.PL.BRASS			~~NOTE 2~~
4	ARMOURED CABLE				
5	Y/G INSULATING COPPER CONDUCTOR	COPPER	$6mm^2$		NOTE 1
6	COMPRESSION TYPE LUG FOR INSULATION COPPER CONDUCTOR	TINNED COPPER	$6mm^2$		NOTE 1
7	BOLT, PLANE WASHER, GROWER SPRING WASHER AND NUT	AISI 316L			

NOTES:
1) FOR EARTHING BAR SEE TYPICAL DETAILS E03
~~2) CABLE LUG CRIMPING METHOD SHALL BE HEXAGONAL COMPRESSION DIES ONLY.~~

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_G	25/10/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS-EARTHING SYSTEM
EARTHING FOR CABLE ARMOUR BY CABLE GLAND

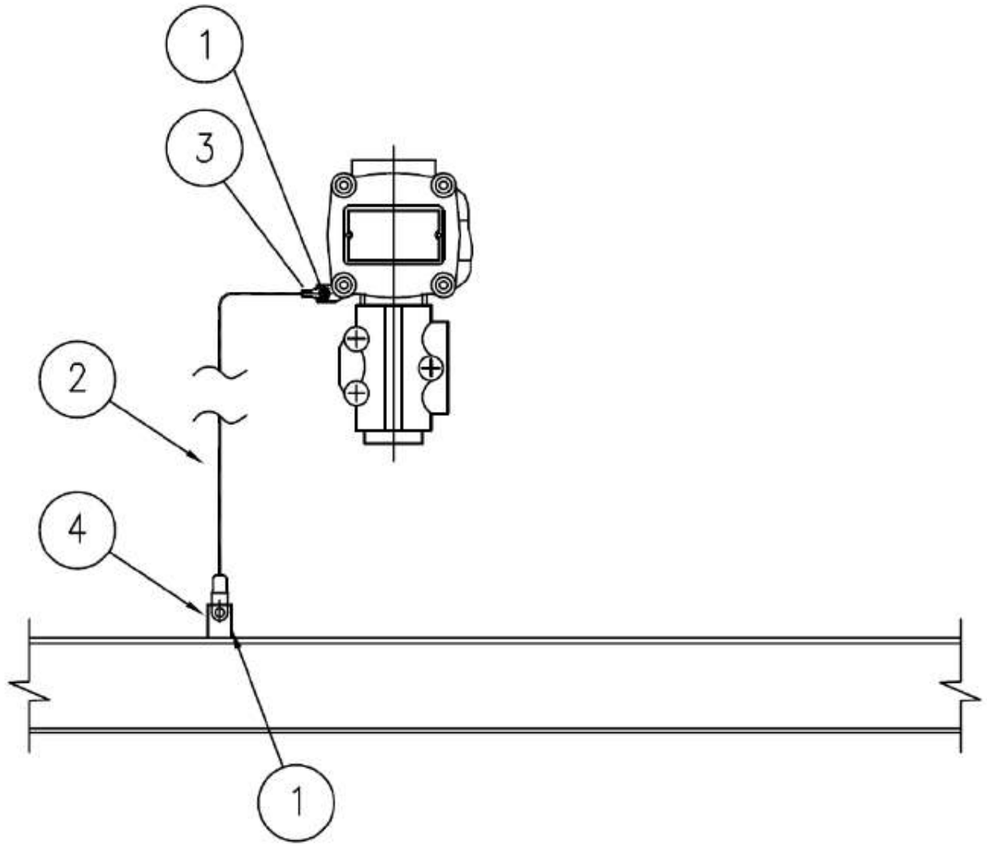
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 123A90-DDL-EL-DD-20090 | SHEET 010 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 123A90-DDL-EL-DD-20090 REV.02.DWG

E33



MATERIALS

POS.	Q.TY	DESCRIPTION	NOTES
1	1	A4 STAINLESS STEEL BOLT COMPLETE WITH NUT AND WASHERS	
2	1	Y/G INSULATING COPPER CONDUCTOR - 6mm²	
3	1	COMPRESSION TYPE LUG FOR INSULATING COPPER CONDUCTOR	
4	1	EARTHING BAR / PLATE / THREADED STUD	(1)

NOTE:
1) FOR DETAIL OF EARTHING PLATE, EARTHING BOSS AND THREADED STUD SEE TYP. E11A/C/D/E

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-EL-DD-20090

REV.:	DATE:	SIGNATURE:
2_G	25/10/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS-EARTHING SYSTEM
EARTHING FOR GENERIC INSTRUMENT

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK

SCALE : NTS

A3

DRAWING NO. 123A90-DDL-EL-DD-20090

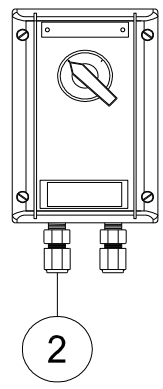
SHEET 027

REV. 02

F.to UNI A3: 420mmx297mm

File Name : 123A90-DDL-EL-DD-20090 REV.02.DWG

ELECTRICAL HOOK-UP FOR HAND SWITCH TEST OF THE DAMPERS



INSTRUMENT TAG	
1	77-HS-001A
2	77-HS-001B
3	77-HS-002A
4	77-HS-002B
5	77-HS-003A
6	77-HS-003B
7	77-HS-004A
8	77-HS-004B
9	77-HS-005A
10	77-HS-005B
11	77-HS-006A
12	77-HS-006B
13	77-HS-007A
14	77-HS-007B
15	77-HS-008A
16	77-HS-008B
17	77-HS-009A
18	77-HS-009B
19	77-HS-010A
20	77-HS-010B
21	77-HS-011A
22	77-HS-011B
23	77-HS-012A
24	77-HS-012B
25	77-HS-013A
26	77-HS-013B
27	77-HS-014A
28	77-HS-014B
29	77-HS-015A
30	77-HS-015B
31	77-HS-016A
32	77-HS-016B

POS.	NORM/STD CODE	DESCRIPTION	SIZE/ CONNECTION TYPE	Q.TY
2		Nickel Plated Brass Double Compression Cable Gland Ex-d/e IIC (or IIB + H2) T1	M20	2

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-IN-HD-40079
REV.: 2_A | DATE: 08/10/24 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

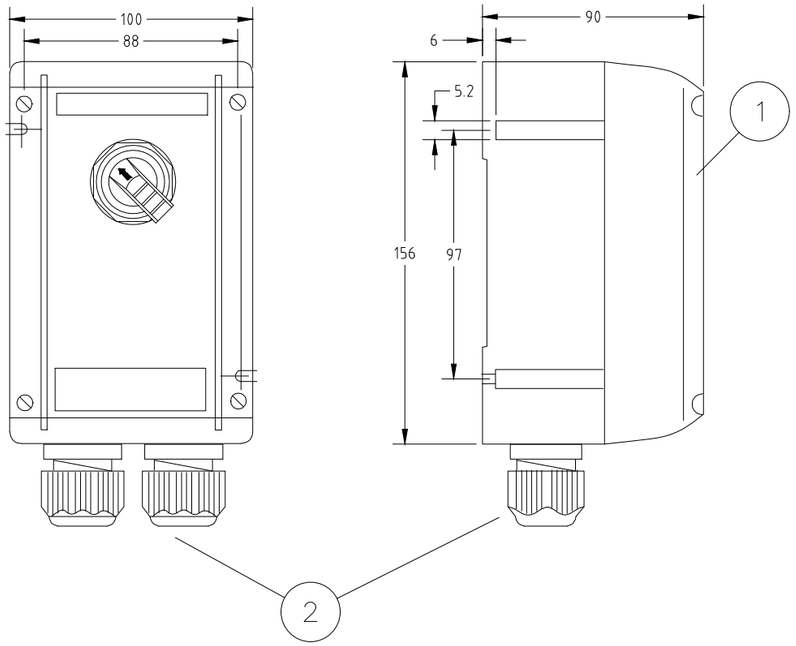
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PUSH BUTTON DPDT CONTACT

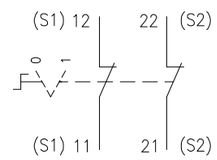
ITEM	DESCRIPTIONS	NR
1	Control Station, CO.SI.ME GHG 432	1
2	Cable Gland M20 Ex eb Polyamide	2
3		
4		
5		
6		
7		
8		
9		
10		

INSTALLATION
QUANTITY

32



WIRING



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	03/09/24	DB	MO	SM	ACCEPTED FOR CONSTRUCTION (AFC)
00	08/07/24	DB	MO	SM	ISSUE FOR REVIEW (IFR)

FORES ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
GENERAL ARRANGEMENT
PUSH BUTTON DPDT CONTACT

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK

SCALE : NTS

A3

DRAWING NO. 1724000821-IN-DA-00003

SHEET 014

REV. 01

F.to UNI A3: 420mmx297mm

File Name : 1724000821-IN-DA-00003 Rev. 01



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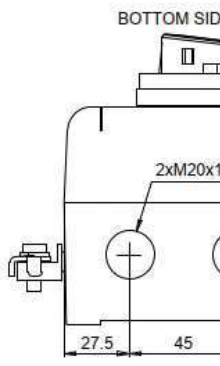


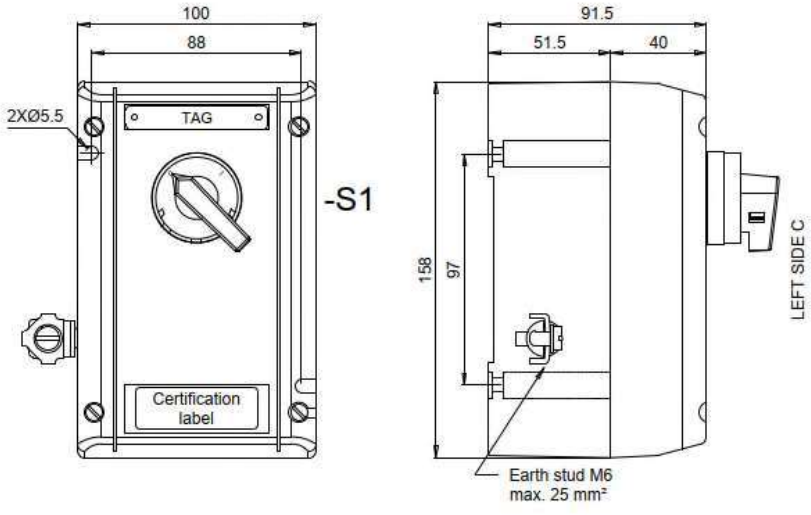
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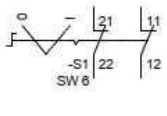
Technical data

	Ex-control stations Type 432 I Type 434	
Marking accd. to 2014/34/EU	Ⓔx II 2 G Ex ed ib m IIC T6 Ⓔx II 2 D Ex tD A21 IP66 T80 °C	
EC-Type Examination Certificate	PTB 00 ATEX 3117	
IECEx Certificate of Conformity	IECEx BKI 04.0003	
Marking accd. to IECEx	Ex e II T6, Ex e ib IIC T6, Ex ed IIC T6 or Ex ed ib IIC T6	
Permissible ambient temperature	–20 °C up to +40 °C –55 °C up to +55 °C (option)	
Rated voltage	690 V AC (with control switch GHG 23 up to 500 V)	
Rated current	16 A (with control switch GHG 23 max. 10 A)	
Rated making-/rated breaking capacity accd. EN 60947-5-1	Ex41 AC-15: U_e 250 V / I_e 6 A U_e 500 V / I_e 4 A DC-13: U_e 24 V / I_e 6 A U_e 110 V / I_e 0.5 A	Ex23 AC-15: U_e 230 V / I_e 6 A U_e 500 V / I_e 4 A DC-13: U_e 24 V / I_e 2 A U_e 230 V / I_e 0.5 A
Connecting terminals	2 x 4 mm²	
Protection class	I	
Degree of protection accd. to EN 60529	IP66	
Cable glands/Gland plates/Enclosure drilling	2 x M25 cable gland incl. 1 blanking plug or optional 2 x M20 thread with internal brass plate	
Enclosure material	Polyamide	
Enclosure colour	black	

	Type 432
Dimensions (L x W x H)	156 x 100 x 90 mm
Weight (empty)	0.47 kg

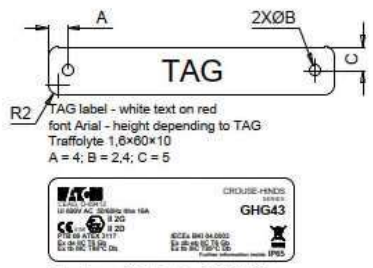






Contact arrangement		
	21-22	11-12
0	X	X
I		

X	Contact close
(none)	Contact open



Techical data:
Manufactured by Eaton Crouse-Hinds Division
Model: GHG 432
Certificate No.
PTB 00 ATEX 3117
IECEx BKI 04.0003
Marking: ATEX and IECEx
II 2G Ex de IIC T6 Gb
II 2D Ex tb IIIC T80°C Db
-40°C ≤ tamb ≤ +55°C
Ui 690V
IP65

Specific characteristics:
- Polyamide (PA), black
- Closed with stainless steel screw
- Bottom with internal earth plate in brass
- M6 internal/external stainless steel earth stud

Components:
- No. 1 black selector switch with 2 position 2NC

Entries bottom side B:
- No. 2 M20 threaded taped with transit tape

No.1 1,6×60×10 mm white text on red background traffolyte tag fixed with stainless steel screws on the cover, sealed on the back with PU adhesive and engraved

Also a certification label fixed with back self adhesive on the cover

Quantity: 32

PUSH BUTTON DPDT CONTACT

POS.	TAG NUMBER	SERVICE
1	77-HS-001A	B-100 Fire Damper AHU1 Inlet Air
2	77-HS-001B	B-100 Fire Damper AHU1 Inlet Air
3	77-HS-002A	B-100 Fire Damper AHU2 Inlet Air
4	77-HS-002B	B-100 Fire Damper AHU2 Inlet Air
5	77-HS-003A	B-100 Fire Damper Exhaust Air
6	77-HS-003B	B-100 Fire Damper Exhaust Air
7	77-HS-004A	B-200 Fire Damper AHU3 Inlet Air
8	77-HS-004B	B-200 Fire Damper AHU3 Inlet Air
9	77-HS-005A	B-200 Fire Damper AHU4 Inlet Air
10	77-HS-005B	B-200 Fire Damper AHU4 Inlet Air
11	77-HS-006A	B-200 Fire Damper Exhaust Air
12	77-HS-006B	B-200 Fire Damper Exhaust Air
13	77-HS-007A	B-300 Fire Damper AHU5 Inlet Air
14	77-HS-007B	B-300 Fire Damper AHU5 Inlet Air
15	77-HS-008A	B-300 Fire Damper AHU5 Return Air
16	77-HS-008B	B-300 Fire Damper AHU5 Return Air
17	77-HS-009A	B-300 Fire Damper AHU6 Inlet Air
18	77-HS-009B	B-300 Fire Damper AHU6 Inlet Air
19	77-HS-010A	B-300 Fire Damper AHU6 Return Air
20	77-HS-010B	B-300 Fire Damper AHU6 Return Air
21	77-HS-011A	B-300 Fire Damper Exhaust Air
22	77-HS-011B	B-300 Fire Damper Exhaust Air
23	77-HS-012A	B-400 Fire Damper AHU7 Inlet Air
24	77-HS-012B	B-400 Fire Damper AHU7 Inlet Air
25	77-HS-013A	B-400 Fire Damper AHU7 Return Air
26	77-HS-013B	B-400 Fire Damper AHU7 Return Air
27	77-HS-014A	B-400 Fire Damper AHU8 Inlet Air
28	77-HS-014B	B-400 Fire Damper AHU8 Inlet Air
29	77-HS-015A	B-400 Fire Damper AHU8 Return Air
30	77-HS-015B	B-400 Fire Damper AHU8 Return Air
31	77-HS-016A	B-400 Fire Damper Exhaust Air
32	77-HS-016B	B-400 Fire Damper Exhaust Air

File: 1724000821-IN-DS-00004-02.xlsx
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ITEM	Tag	77-HS-007B	: Hand Switch for Fire&Gas Damper HFD-77007		Dwg	123A90-DDL-IN-DL-40115	
	S/Sys	77-30	: HVAC UPS Equipment Room B-300		Module	LD_B-300	
TASK	code	C10002090	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity CCK	Discipline Instrumental	Form	CJX00	Miscellaneous

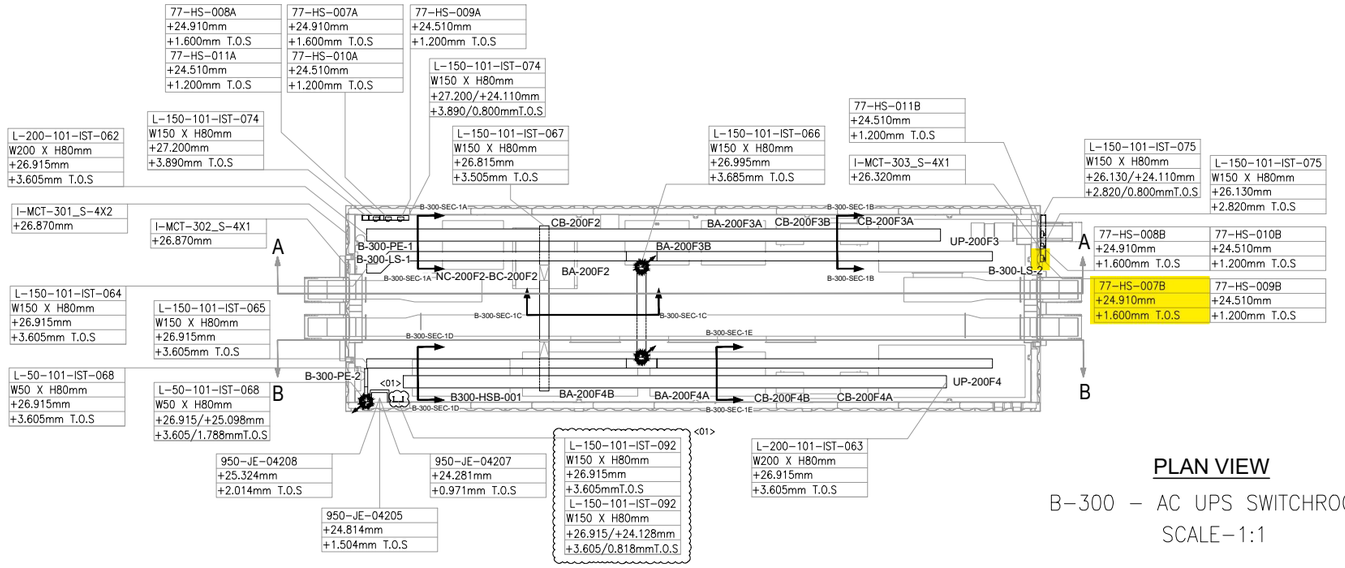
1	Check for mechanical damage.	OK
2	Check installed equipment is suitable and conforms to specification.	PL
3	Check installation conforms to P&ID and hook-up drawing.	OK
4	Check tube fittings manufacturer is the one chosen for the plant.	NA
5	Check that piping connections provide the block & bleed facility (if required).	NA
6	Check that all stop plugs are properly installed	NA
7	Check identification (tag number, tag plates).	OK
8	Check supporting and protection against vibrations.	PL
9	Check the conformity of earthing as per specification (I.P.E. or I.E.)	PL
10	If required produce Red Line Mark Up for "AS BUILT"	

Comments:

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM (Rosetti Marino)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-10-11	2024-10-15	
Signature	PROVERLIS Digitaly signed by Carmelo Bongiovanni 2024-10-11T15:38:11.331Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2024-10-15T11:04:00.764Z	

DRAWING NO. 123A90-DDL-IN-DL-40115

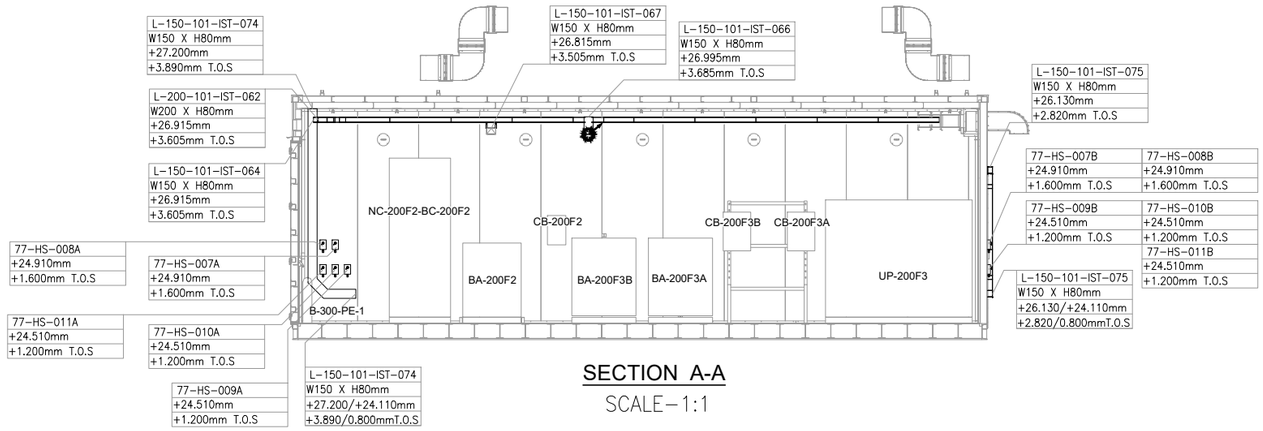
REV. 01



PLAN VIEW

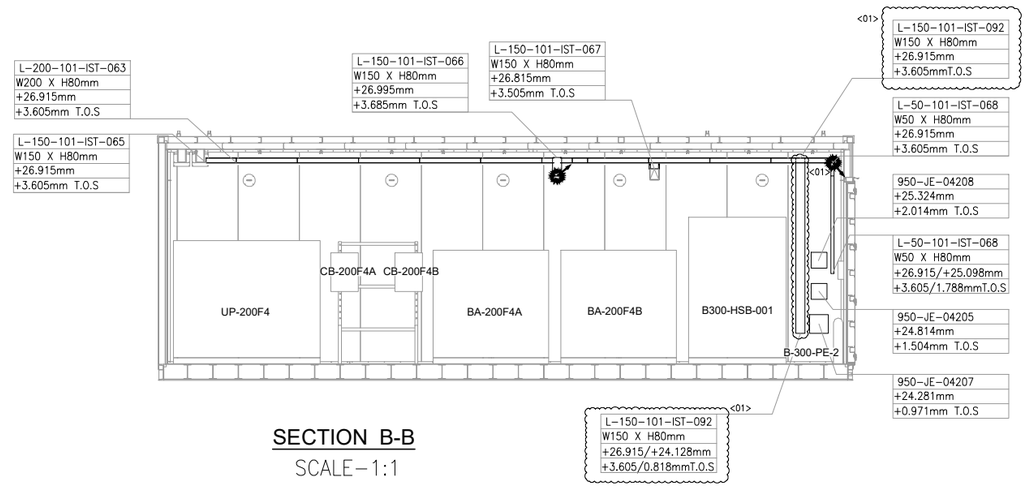
B-300 – AC UPS SWITCHROOM

SCALE-1:1



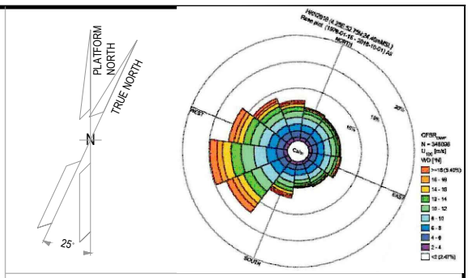
SECTION A-A

SCALE-1:1



SECTION B-B

SCALE-1:1



NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DRAWING IS VALID ONLY FOR CONTAINER CABLE TRAY LAYOUT.

LEGEND

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DL-40115**

REV.:	DATE:	SIGNATURE:
1_A	07/10/24	G.Randi

ROSETTI MARINO SpA

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-IN-DL-40081	INSTRUMENT LAYOUT - UPPER DECK
123A90-DDL-IN-LIS-40091	INSTRUMENT CABLE LIST
123A90-DDL-IN-DG-40015	INSTRUMENT-CCS WIRING DIAGRAMS
123A90-DDL-IN-DG-40016	INSTRUMENT-SAFETY SYSTEM WIRING DIAGRAMS
123A90-DDL-IN-DL-40083	INSTRUMENT MAIN CABLES ROUTING-LOWER DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/08/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)

Base Load Power HUB Cables Tray Layout

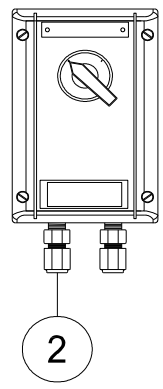
B-300 Container Lower Deck – TOS EL. 23.310m

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:50
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 04/10/24

A1	DRAWING NO. 123A90-DDL-IN-DL-40115	SHEET 001	REV. 01

File Name : 123A90-DDL-IN-DL-40115 REV01.dwg

ELECTRICAL HOOK-UP FOR HAND SWITCH TEST OF THE DAMPERS



INSTRUMENT TAG	
1	77-HS-001A
2	77-HS-001B
3	77-HS-002A
4	77-HS-002B
5	77-HS-003A
6	77-HS-003B
7	77-HS-004A
8	77-HS-004B
9	77-HS-005A
10	77-HS-005B
11	77-HS-006A
12	77-HS-006B
13	77-HS-007A
14	77-HS-007B
15	77-HS-008A
16	77-HS-008B
17	77-HS-009A
18	77-HS-009B
19	77-HS-010A
20	77-HS-010B
21	77-HS-011A
22	77-HS-011B
23	77-HS-012A
24	77-HS-012B
25	77-HS-013A
26	77-HS-013B
27	77-HS-014A
28	77-HS-014B
29	77-HS-015A
30	77-HS-015B
31	77-HS-016A
32	77-HS-016B

POS.	NORM/STD CODE	DESCRIPTION	SIZE/ CONNECTION TYPE	Q.TY
2		Nickel Plated Brass Double Compression Cable Gland Ex-d/e IIC (or IIB + H2) T1	M20	2

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-IN-HD-40079
REV.: 2_A | DATE: 08/10/24 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

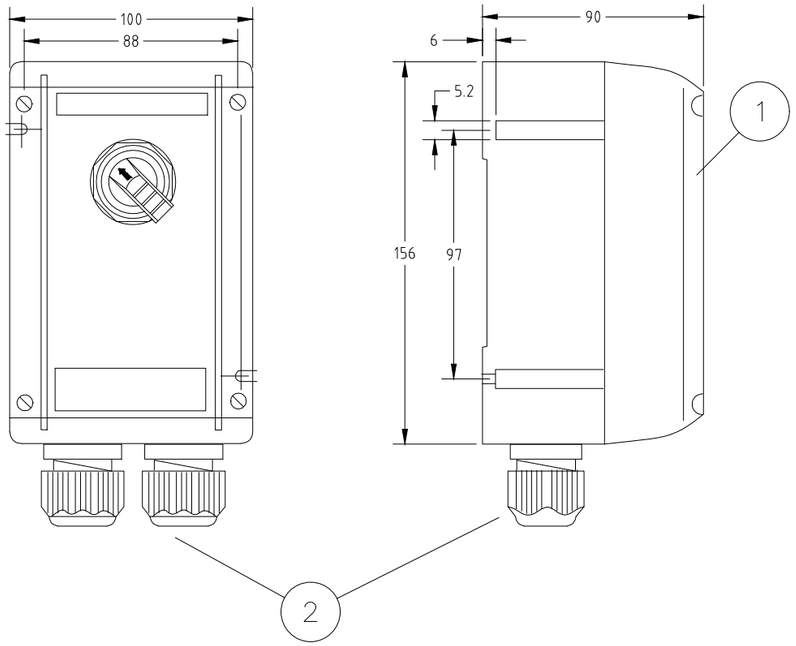
This document undergoes an issuance cycle within EDMS "Fusionlive".
Its distribution is electronically controlled. Once printed shall be considered as "NOT CONTROLLED" copy

PUSH BUTTON DPDT CONTACT

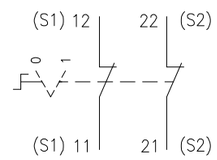
ITEM	DESCRIPTIONS	NR
1	Control Station, CO.SI.ME GHG 432	1
2	Cable Gland M20 Ex eb Polyamide	2
3		
4		
5		
6		
7		
8		
9		
10		

INSTALLATION
QUANTITY

32



WIRING



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	03/09/24	DB	MO	SM	ACCEPTED FOR CONSTRUCTION (AFC)
00	08/07/24	DB	MO	SM	ISSUE FOR REVIEW (IFR)

FORES ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
GENERAL ARRANGEMENT
PUSH BUTTON DPDT CONTACT

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK

SCALE : NTS

A3

DRAWING NO. 1724000821-IN-DA-00003

SHEET 014

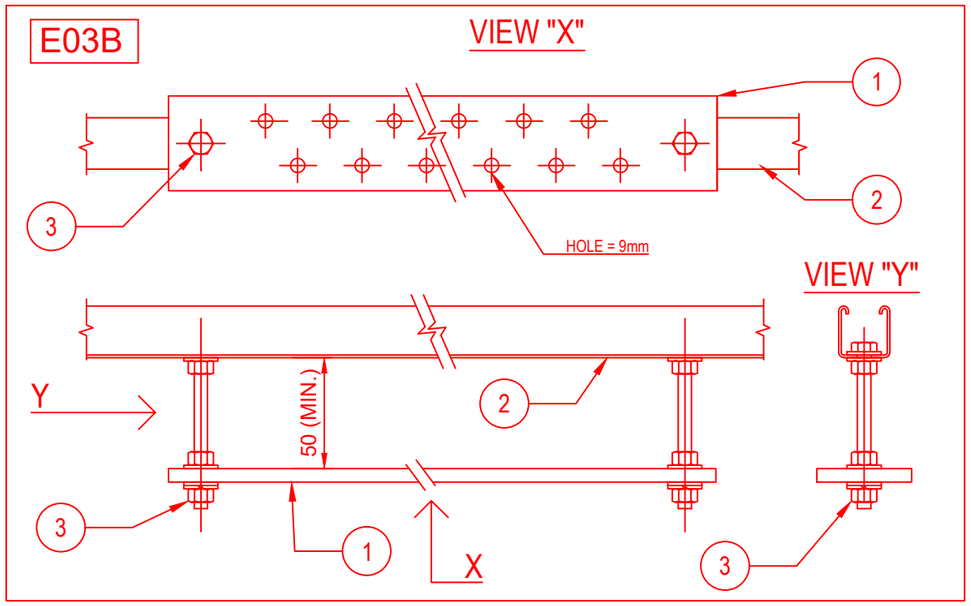
REV. 01

F.to UNI A3: 420mmx297mm

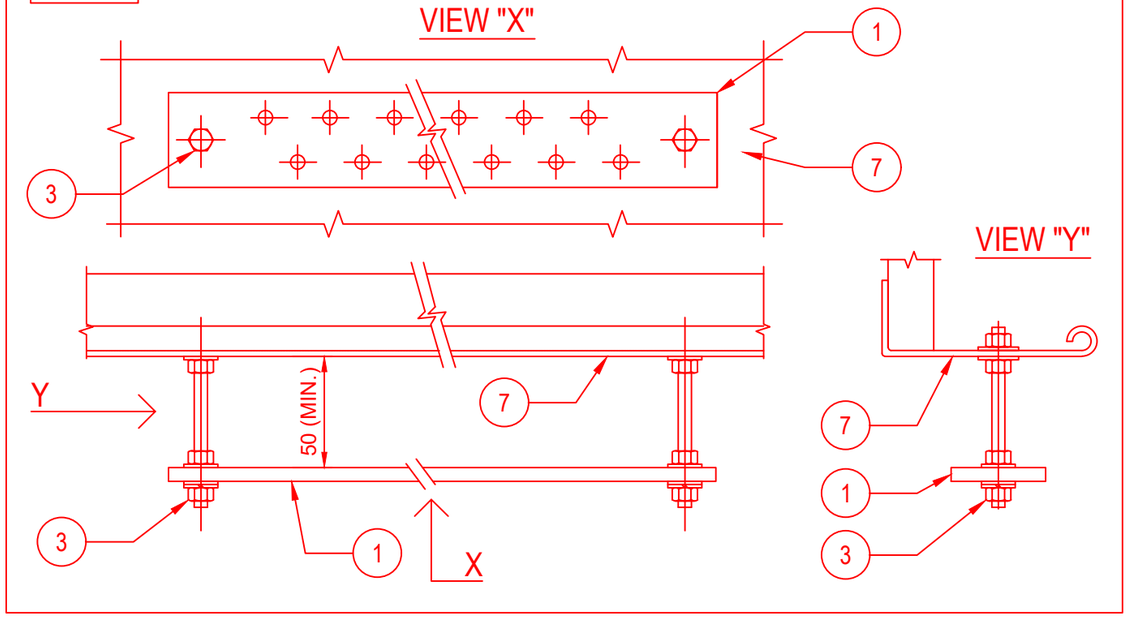
File Name : 1724000821-IN-DA-00003 Rev. 01

TYPICAL DETAIL VALID FOR EXTERNAL USE ONLY

E03B

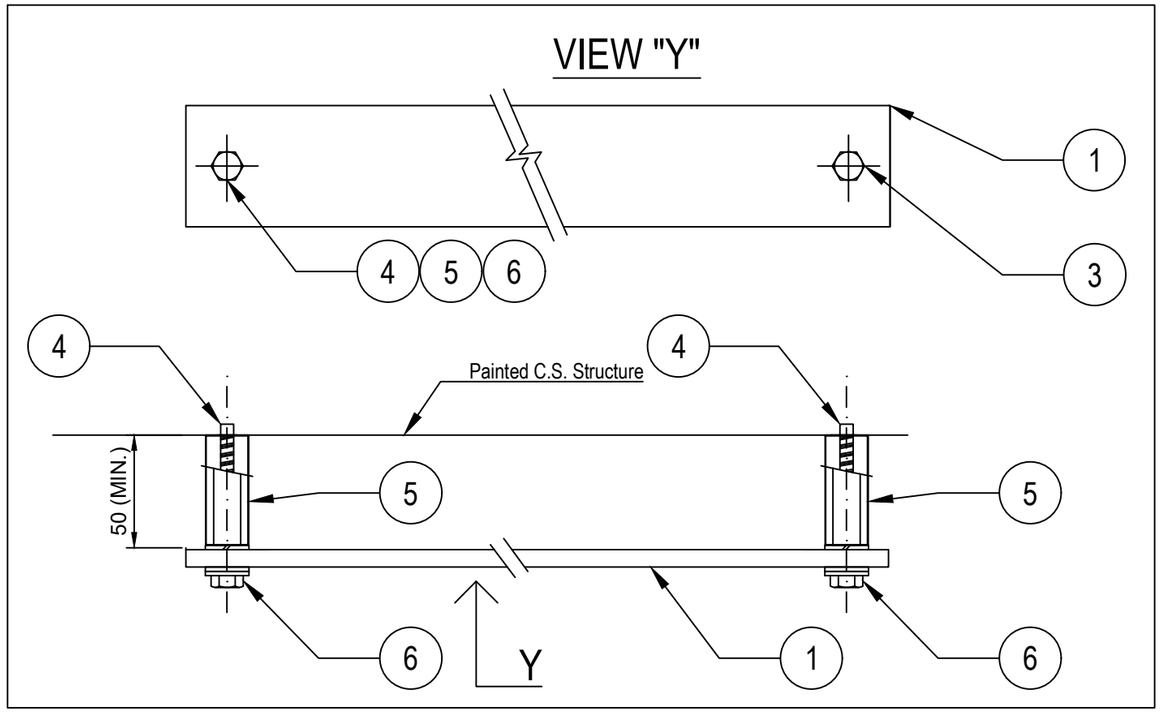


E03C



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	EARTHING BAR	TINNED COPPER	285X50X5	1	
2	SINGLE U-CHANNEL PERFORATED ON N.3 SIDE	AISI 316L		2	
3	HEXAG. BOLTS, PLANE WASHERS, GROWER SPRING WASHER AND NUT	AISI 316L	M10X30	2	
4	THREADED STUD	AISI 316L	M10X28	2	NOTE 1
5	FEMALE / MALE COUPLING	AISI 316L	M10X50	2	NOTE 2
6	PLANE WASHER, GROWER AND NUT	AISI 316L	M10	2	
7	CABLE LADDER	AISI 316L			

E03D



NOTES:

1) THREADED STUD mod. HILTI S-BT-ER M10/15 SN6 CERTIFIED FOR EARTHING SYSTEM.
2) STANDOFF ADAPTER mod. HILTI M10-HC120 50.
3) FOR TYPICALS E03B AND E03C (EARTHING BAR FIXED TO U-CHANNEL OR CABLE TRAY/LADDER) THE EARTHING BAR SHALL BE CONNECTED TO EARTHING POINT IN N.1 POINT WITH 35sqmm Y/G CABLE

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_E	09/10/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS–EARTHING SYSTEM
EARTHING BAR INSTALLED ON WELDED PROFILE OR THREADED STUD

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

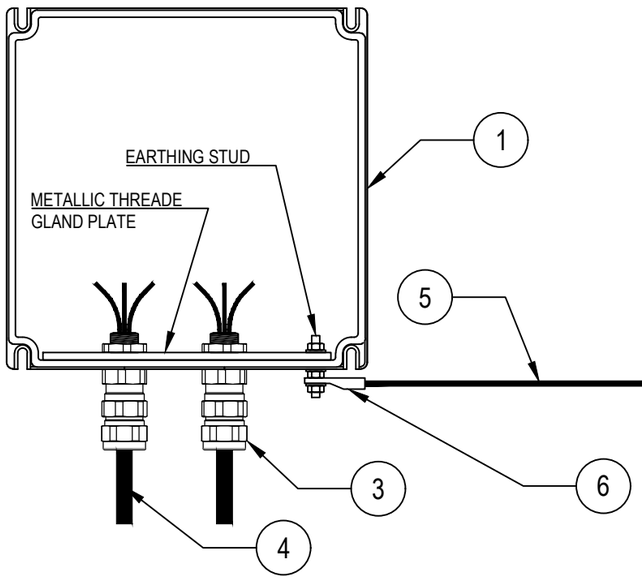
A3 | DRAWING NO. 123A90-DDL-EL-DD-20090 | SHEET 004 | REV. 02

F.to UNI A3: 420mmx297mm

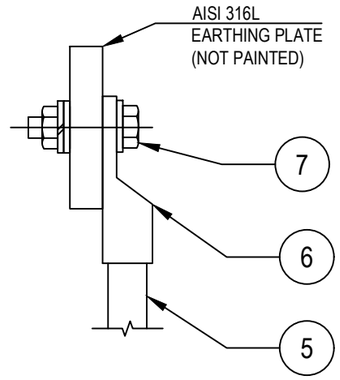
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E04

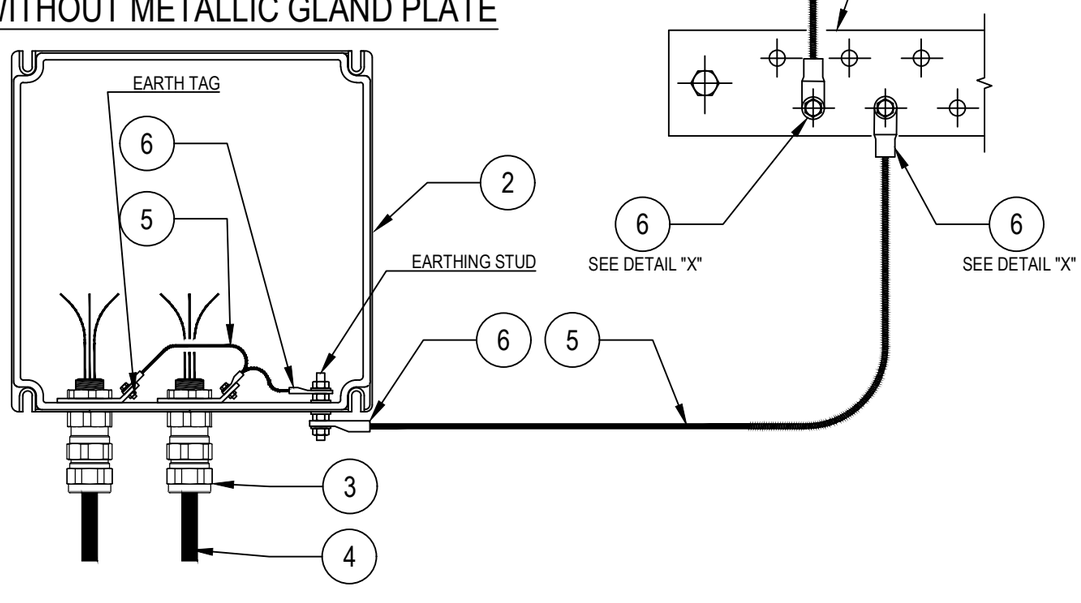
DETAIL OF NON METALLIC ENCLOSURE WITH METALLIC GLAND PLATE



DETAIL "X"



DETAIL OF NON METALLIC ENCLOSURE WITHOUT METALLIC GLAND PLATE



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	JUNCTION BOX WITH PLATE (EX)	GRP			
2	JUNCTION BOX WITHOUT GLAND PLATE (EX)	GRP			
3	DOUBLE SEAL CABLE GLAND (EX) FOR ARMOURED CABLE	NICK.PL.BRASS			~~NOTE 2~~
4	ARMOURED CABLE				
5	Y/G INSULATING COPPER CONDUCTOR	COPPER	$6mm^2$		NOTE 1
6	COMPRESSION TYPE LUG FOR INSULATION COPPER CONDUCTOR	TINNED COPPER	$6mm^2$		NOTE 1
7	BOLT, PLANE WASHER, GROWER SPRING WASHER AND NUT	AISI 316L			

NOTES:
1) FOR EARTHING BAR SEE TYPICAL DETAILS E03
~~2) CABLE LUG CRIMPING METHOD SHALL BE HEXAGONAL COMPRESSION DIES ONLY.~~

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_E	09/10/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS-EARTHING SYSTEM
EARTHING FOR CABLE ARMOUR BY CABLE GLAND

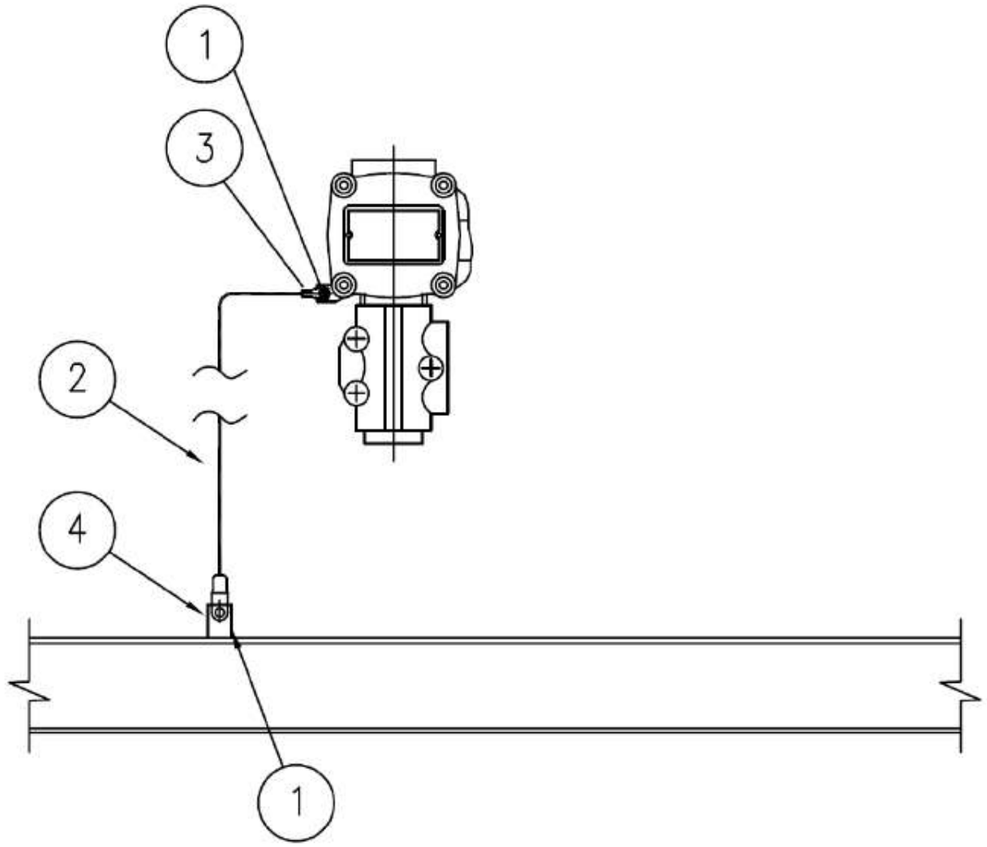
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 123A90-DDL-EL-DD-20090 | SHEET 010 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 123A90-DDL-EL-DD-20090 REV.02.DWG

E33



MATERIALS

POS.	Q.TY	DESCRIPTION	NOTES
1	1	A4 STAINLESS STEEL BOLT COMPLETE WITH NUT AND WASHERS	
2	1	Y/G INSULATING COPPER CONDUCTOR - 6mm²	
3	1	COMPRESSION TYPE LUG FOR INSULATING COPPER CONDUCTOR	
4	1	EARTHING BAR / PLATE / THREADED STUD	(1)

NOTE:
1) FOR DETAIL OF EARTHING PLATE, EARTHING BOSS AND THREADED STUD SEE TYP. E11A/C/D/E

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_E	09/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS–EARTHING SYSTEM
EARTHING FOR GENERIC INSTRUMENT

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 123A90–DDL–EL–DD–20090 | SHEET 027 | REV. 02

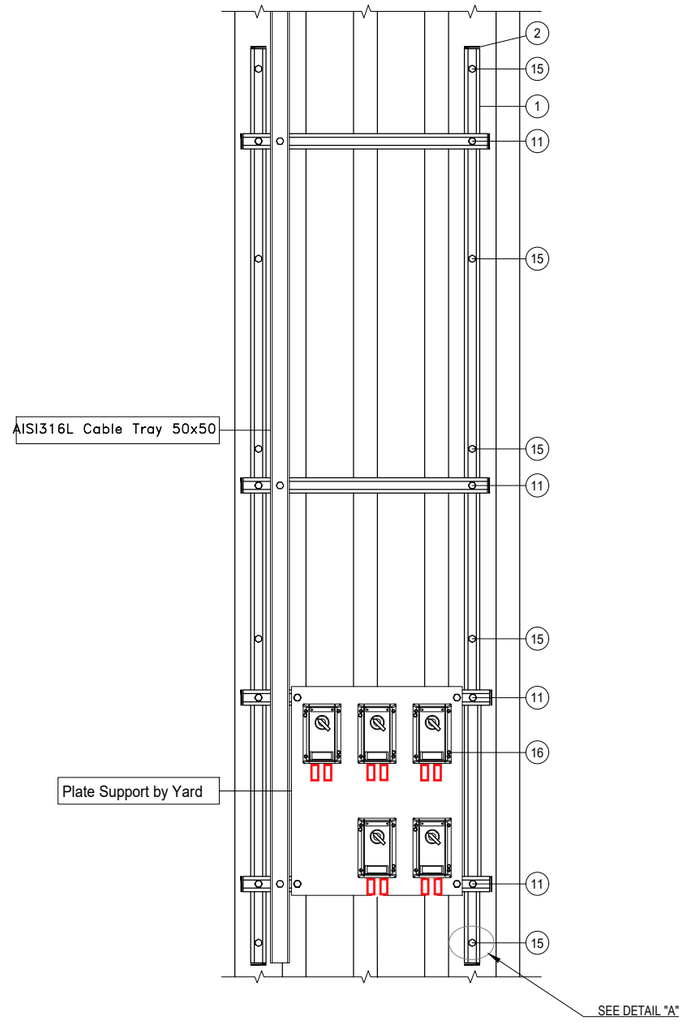
F.to UNI A3: 420mmx297mm

File Name : 123A90-DDL-EL-DD-20090 REV.02.DWG

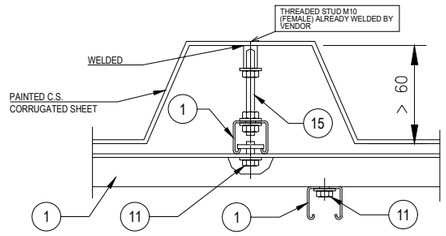
I-5

DRAWING NO. 123A90-DDL-IN-DD-40017

REV. 00



DETAIL "A"



POS.	DESCRIPTION	Q.TY
1	AISI 316L U-CHANNEL 41x41	5m
2	LDPE PLUG FOR U-CHANNEL 41x41	12
11	AISI 316L SPRING NUT M8 FOR U-CHANNEL 41X41 + BOLT M8x35 + WASHER M8	18
15	THREADED ROD M10 (L=110mm) + PLATE WASHER, LARGE PLATE WASHERS SPRING WASHER AND NUTS	10
16	AISI 316L BOLT M5x35 + NUT M5 + WASHER M5	10

CONTAINER	ITEM	DESCRIPTION	TAGNAME
B-300 ~~B-301~~	1	HAND SWITCH FOR DAMPER TEST	~~77-HS-017B~~ 77-HS-007B
	2	HAND SWITCH FOR DAMPER TEST	~~77-HS-018B~~ 77-HS-008B
	3	HAND SWITCH FOR DAMPER TEST	~~77-HS-019B~~ 77-HS-009B
	4	HAND SWITCH FOR DAMPER TEST	77-HS-010B
	5	HAND SWITCH FOR DAMPER TEST	77-HS-011B
B-400 ~~B-401~~	1	HAND SWITCH FOR DAMPER TEST	77-HS-012B
	2	HAND SWITCH FOR DAMPER TEST	77-HS-013B
	3	HAND SWITCH FOR DAMPER TEST	77-HS-014B
	4	HAND SWITCH FOR DAMPER TEST	77-HS-015B
	5	HAND SWITCH FOR DAMPER TEST	77-HS-016B

NOTES

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	02/09/2024	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	11/07/2024	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

VALID FOR CONSTRUCTION
FDL DWG: 123A90-123A90-FDL-IN-DD-40017

REV.:	DATE:	SIGNATURE:
1_B	18/09/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
INSTRUMENT INSTALLATION DETAILS
HAND SWITCH OUTSIDE CONTAINERS

CONTRACT NO./TITLE			SCALE /
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 11/07/2024

A3	DRAWING NO. 123A90-DDL-IN-DD-40017	SHEET 048	REV. 01



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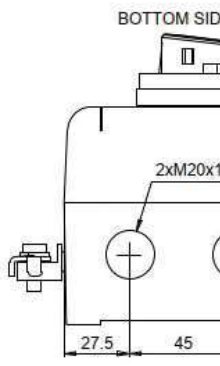


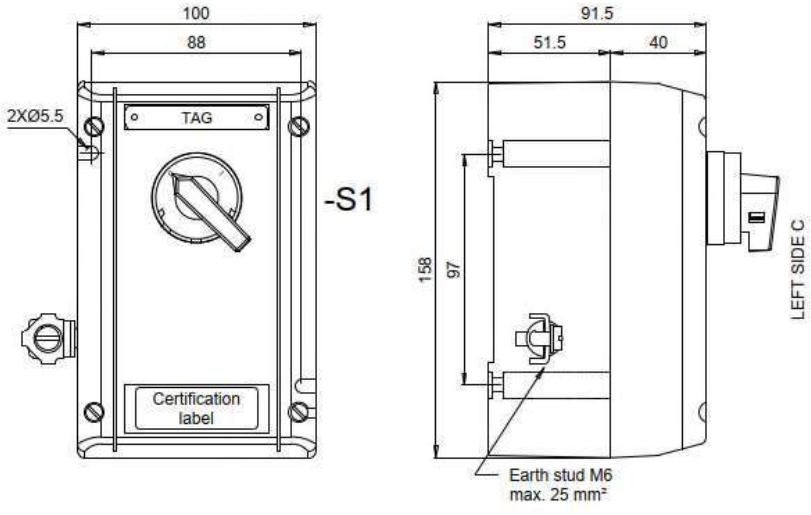
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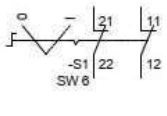
Technical data

	Ex-control stations Type 432 I Type 434	
Marking accd. to 2014/34/EU	Ⓔx II 2 G Ex ed ib m IIC T6 Ⓔx II 2 D Ex tD A21 IP66 T80 °C	
EC-Type Examination Certificate	PTB 00 ATEX 3117	
IECEx Certificate of Conformity	IECEx BKI 04.0003	
Marking accd. to IECEx	Ex e II T6, Ex e ib IIC T6, Ex ed IIC T6 or Ex ed ib IIC T6	
Permissible ambient temperature	–20 °C up to +40 °C –55 °C up to +55 °C (option)	
Rated voltage	690 V AC (with control switch GHG 23 up to 500 V)	
Rated current	16 A (with control switch GHG 23 max. 10 A)	
Rated making-/rated breaking capacity accd. EN 60947-5-1	Ex41 AC-15: U_e 250 V / I_e 6 A U_e 500 V / I_e 4 A DC-13: U_e 24 V / I_e 6 A U_e 110 V / I_e 0.5 A	Ex23 AC-15: U_e 230 V / I_e 6 A U_e 500 V / I_e 4 A DC-13: U_e 24 V / I_e 2 A U_e 230 V / I_e 0.5 A
Connecting terminals	2 x 4 mm²	
Protection class	I	
Degree of protection accd. to EN 60529	IP66	
Cable glands/Gland plates/Enclosure drilling	2 x M25 cable gland incl. 1 blanking plug or optional 2 x M20 thread with internal brass plate	
Enclosure material	Polyamide	
Enclosure colour	black	

	Type 432
Dimensions (L x W x H)	156 x 100 x 90 mm
Weight (empty)	0.47 kg

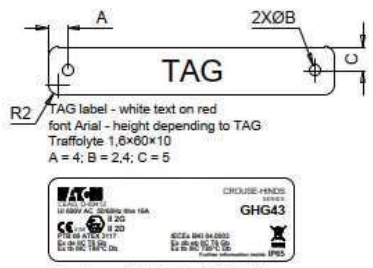






Contact arrangement		
	21-22	11-12
0	X	X
I		

X	Contact close
(none)	Contact open



Techical data:
Manufactured by Eaton Crouse-Hinds Division
Model: GHG 432
Certificate No.
PTB 00 ATEX 3117
IECEx BKI 04.0003
Marking: ATEX and IECEx
II 2G Ex de IIC T6 Gb
II 2D Ex tb IIIC T80°C Db
-40°C ≤ tamb ≤ +55°C
Ui 690V
IP65

Specific characteristics:
- Polyamide (PA), black
- Closed with stainless steel screw
- Bottom with internal earth plate in brass
- M6 internal/external stainless steel earth stud

Components:
- No. 1 black selector switch with 2 position 2NC

Entries bottom side B:
- No. 2 M20 threaded taped with transit tape

No.1 1,6×60×10 mm white text on red background traffolyte tag fixed with stainless steel screws on the cover, sealed on the back with PU adhesive and engraved

Also a certification label fixed with back self adhesive on the cover

Quantity: 32

DRAWING NO. 123-A90-DDL-IN-DG-40016 REV. 01

FIELD

INSTRUMENTS

JUNCTION BOX
950-JE-04207

MULTICABLE
No.

I&T EQUIPMENT ROOM (ITER)
MARSHALLING CABINET
B400-FGS-002

<01>

B-300 UPS Room

950-XZ-04202 (+/-) 1BK 2BK — NOTE-2
C-950-XZ-04202/950-JE-04207
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS
TB-1: 1BK 1 — 1BK 2 — SH

950-XL-04203 (+/-) 1BK 2BK — NOTE-2
C-950-XL-04203/950-JE-04207
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS
TB-1: 1BK 3 — 3BK 4 — SH

950-XL-04204 (+/-) 1BK 2BK — NOTE-2
C-950-XL-04204/950-JE-04207
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS
TB-1: 1BK 5 — 5BK 6 — SH

B-300 OUTDOOR
1BK 2BK 12 22 77-HS-007B 11 21 1BK 2BK — NOTE-2
C-77-HS-007B/950-JE-04207
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS
TB-1: 1BK 7 — 7BK 8 — SH

C-77-HS-007A/77-HS-007B
~~C-77-HY-007B/77-HY-007A~~
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77007
77-HY-007 1 2 1BK 2BK — NOTE-2
C-77-HY-007/77-HS-007A
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS
B-300 INDOOR
1BK 12 22 77-HS-007A 11 21 1BK 2BK — NOTE-2

B-300 OUTDOOR
1BK 2BK 12 22 77-HS-008B 11 21 1BK 2BK — NOTE-2
C-77-HS-008B/950-JE-04207
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS
TB-1: 1BK 9 — 9BK 10 — SH

C-77-HS-008A/77-HS-008B
~~C-77-HS-008B/77-HS-008A~~
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77008
77-HY-008 1 2 1BK 2BK — NOTE-2
C-77-HY-008/77-HS-008A
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS
B-300 INDOOR
1BK 12 22 77-HS-008A 11 21 1BK 2BK — NOTE-2

B-300 OUTDOOR
1BK 2BK 12 22 77-HS-009B 11 21 1BK 2BK — NOTE-2
C-77-HS-009B/950-JE-04207
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS
TB-1: 1BK 11 — 11BK 12 — SH

C-77-HS-009A/77-HS-009B
~~C-77-HS-009B/77-HS-009A~~
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77009
77-HY-009 1 2 1BK 2BK — NOTE-2
C-77-HY-009/77-HS-009A
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS
B-300 INDOOR
1BK 12 22 77-HS-009A 11 21 1BK 2BK — NOTE-2

B-300 OUTDOOR
1BK 2BK 12 22 77-HS-010B 11 21 1BK 2BK — NOTE-2
C-77-HS-010B/950-JE-04207
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS
TB-1: 1BK 13 — 13BK 14 — SH

C-77-HS-010A/77-HS-010B
~~C-77-HS-010B/77-HS-010A~~
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77010
77-HY-010 1 2 1BK 2BK — NOTE-2
C-77-HY-010/77-HS-010A
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS
B-300 INDOOR
1BK 12 22 77-HS-010A 11 21 1BK 2BK — NOTE-2

B-300 OUTDOOR
1BK 2BK 12 22 77-HS-011B 11 21 1BK 2BK — NOTE-2
C-77-HS-011B/950-JE-04207
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS
TB-1: 1BK 15 — 15BK 16 — SH — 17 — 17BK 18 — SH — 19 — 19BK 20 — SH — 21 — 21BK 22 — SH — 23 — 23BK 24 — SH — OS

C-77-HS-011A/77-HS-011B
~~C-77-HS-011B/77-HS-011A~~
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77011
77-HY-011 1 2 1BK 2BK — NOTE-2
C-77-HY-011/77-HS-011A
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS
B-300 INDOOR
1BK 12 22 77-HS-011A 11 21 1BK 2BK — NOTE-2

950-JE-04207/B400-FGS-002
24x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

TB-950-JE-04207
1BK 1 — 950-XZ-04202
2BK 2
3BK 3 — 950-XL-04203
4BK 4
5BK 5 — 950-XL-04204
6BK 6
7BK 7 — 77-HY-007
8BK 8
9BK 9 — 77-HY-008
10BK 10
11BK 11 — 77-HY-009
12BK 12
13BK 13 — 77-HY-010
14BK 14
15BK 15 — 77-HY-011
16BK 16
17BK 17 — SPARE
18BK 18
19BK 19 — SPARE
20BK 20
21BK 21 — SPARE
22BK 22
23BK 23 — SPARE
24BK 24

Shield Bar — I.E.

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_D	14/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
INSTRUMENT–FGS WIRING DIAGRAMS
950–JE–04207

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024
A3	DRAWING NO. 123A90–DDL–IN–DG–40016		SHEET 069 / REV. 01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

ITEM	Tag	77-HS-008A	: Hand Switch for Fire&Gas Damper HFD-77008		Dwg		
	S/Sys	77-30	: HVAC UPS Equipment Room B-300		Module		
TASK	code	C10002091		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Instrumental	Form CJX00	Miscellaneous

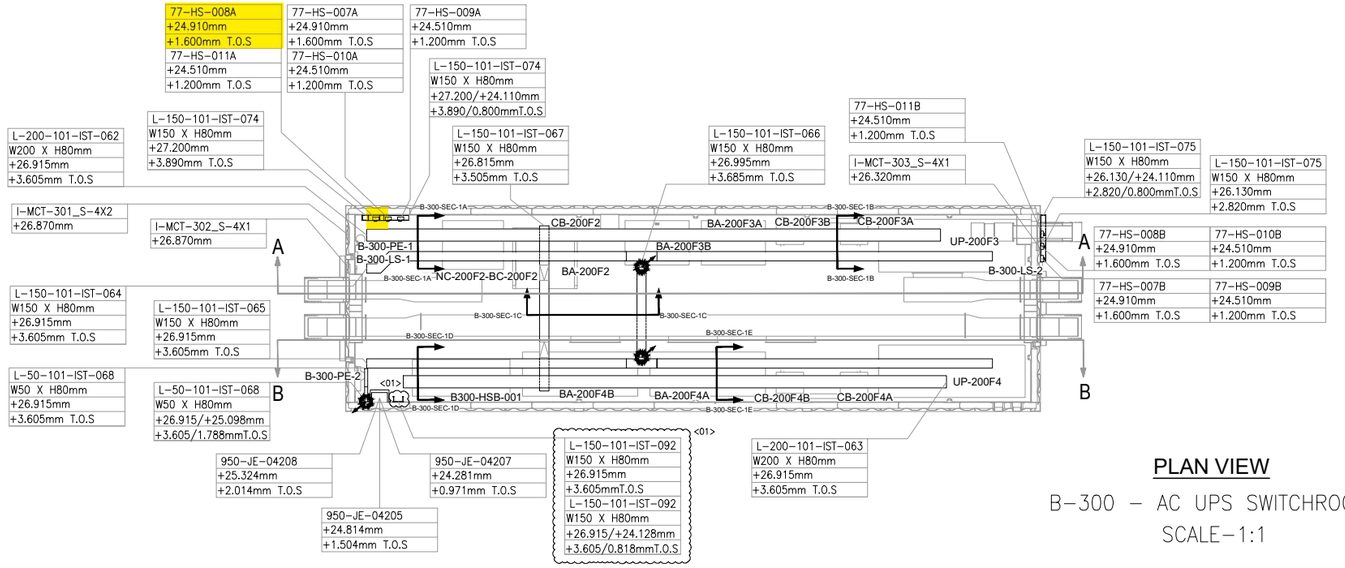
1	Check for mechanical damage.	OK
2	Check installed equipment is suitable and conforms to specification.	OK
3	Check installation conforms to P&ID and hook-up drawing.	OK
4	Check tube fittings manufacturer is the one chosen for the plant.	NA
5	Check that piping connections provide the block & bleed facility (if required).	NA
6	Check that all stop plugs are properly installed	NA
7	Check identification (tag number, tag plates).	OK
8	Check supporting and protection against vibrations.	OK
9	Check the conformity of earthing as per specification (I.P.E. or I.E.)	OK
10	If required produce Red Line Mark Up for "AS BUILT"	

Comments:

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM (ROSETTI MARINO)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-10-28	2024-11-21	
Signature	PROVERLIS Digitaly signed by Carmelo Bongiovanni 2024-10-28T09:13:44.355Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2024-11-21T08:31:04.160Z	

DRAWING NO. 123A90-DDL-IN-DL-40115

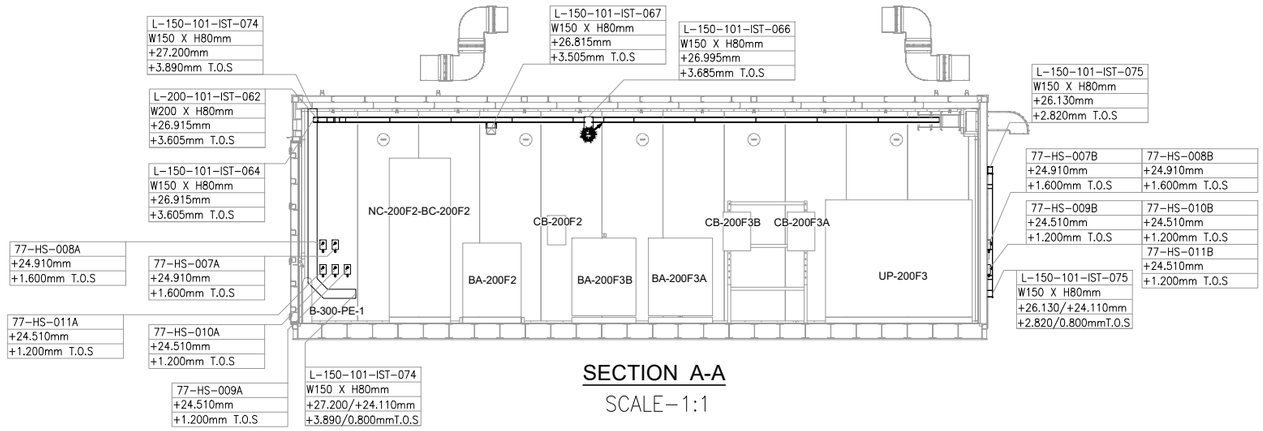
REV. 01



PLAN VIEW

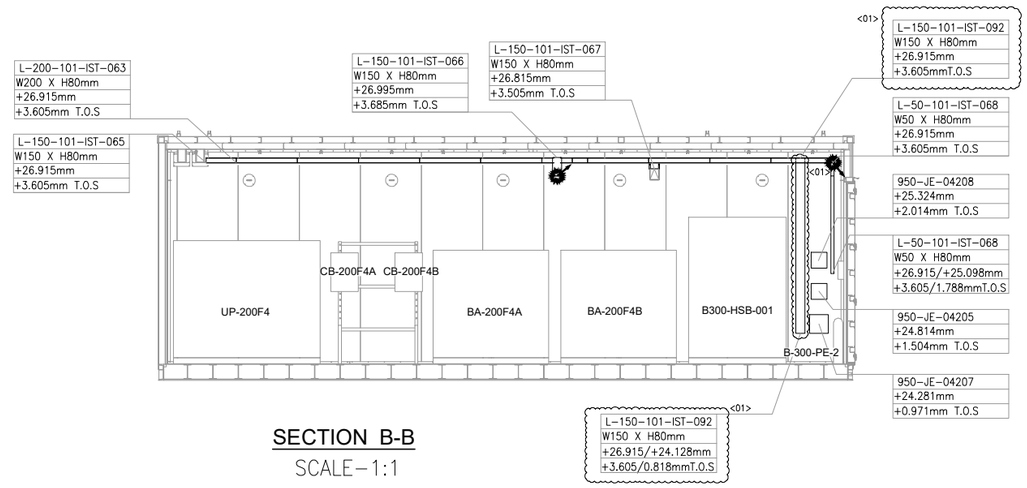
B-300 – AC UPS SWITCHROOM

SCALE-1:1



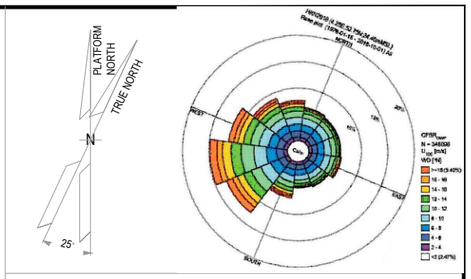
SECTION A-A

SCALE-1:1



SECTION B-B

SCALE-1:1



NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DRAWING IS VALID ONLY FOR CONTAINER CABLE TRAY LAYOUT.

LEGEND

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DL-40115**

REV.:	DATE:	SIGNATURE:
1_A	07/10/24	G.Randi

ROSETTI MARINO SpA

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-IN-DL-40081	INSTRUMENT LAYOUT - UPPER DECK
123A90-DDL-IN-LIS-40091	INSTRUMENT CABLE LIST
123A90-DDL-IN-DG-40015	INSTRUMENT-CCS WIRING DIAGRAMS
123A90-DDL-IN-DG-40016	INSTRUMENT-SAFETY SYSTEM WIRING DIAGRAMS
123A90-DDL-IN-DL-40083	INSTRUMENT MAIN CABLES ROUTING-LOWER DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/08/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)

Base Load Power HUB Cables Tray Layout

B-300 Container Lower Deck – TOS EL. 23.310m

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:50
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 04/10/24

A1	DRAWING NO. 123A90-DDL-IN-DL-40115	SHEET 001	REV. 01

File Name : 123A90-DDL-IN-DL-40115 REV01.dwg

DRAWING NO. 123-A90-DDL-IN-DG-40016 REV. 01

FIELD | MULTICABLE | I&T EQUIPMENT ROOM (ITER)

INSTRUMENTS | JUNCTION BOX 950-JE-04207 | No. | MARSHALLING CABINET B400-FGS-002

<01> B-300 UPS Room

950-XZ-04202 (1BK, 2BK) — NOTE-2 — C-950-XZ-04202/950-JE-04207, 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 1BK, 2BK

950-XL-04203 (1BK, 3BK) — NOTE-2 — C-950-XL-04203/950-JE-04207, 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 1BK, 3BK

950-XL-04204 (1BK, 3BK) — NOTE-2 — C-950-XL-04204/950-JE-04207, 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 1BK, 4BK

B-300 OUTDOOR

77-HS-007B (12, 22 / 11, 21) — NOTE-2 — C-77-HS-007B/950-JE-04207, 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 5BK, 6BK

C-77-HS-007A/77-HS-007B
~~C-77-HY-007D/77-HY-007A~~
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77007

77-HY-007 (1, 2) — NOTE-2 — C-77-HY-007/77-HS-007A, 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

B-300 INDOOR

77-HS-007A (12, 22 / 11, 21) — NOTE-2 → TB-1 7BK, 8BK

B-300 OUTDOOR

77-HS-008B (12, 22 / 11, 21) — NOTE-2 — C-77-HS-008B/950-JE-04207, 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 9BK, 10BK

C-77-HS-008A/77-HS-008B
~~C-77-HS-008B/77-HS-008A~~
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77008

77-HY-008 (1, 2) — NOTE-2 — C-77-HY-008/77-HS-008A, 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

B-300 INDOOR

77-HS-008A (12, 22 / 11, 21) — NOTE-2

B-300 OUTDOOR

77-HS-009B (12, 22 / 11, 21) — NOTE-2 — C-77-HS-009B/950-JE-04207, 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 11BK, 12BK

C-77-HS-009A/77-HS-009B
~~C-77-HS-009B/77-HS-009A~~
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77009

77-HY-009 (1, 2) — NOTE-2 — C-77-HY-009/77-HS-009A, 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

B-300 INDOOR

77-HS-009A (12, 22 / 11, 21) — NOTE-2

B-300 OUTDOOR

77-HS-010B (12, 22 / 11, 21) — NOTE-2 — C-77-HS-010B/950-JE-04207, 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 13BK, 14BK

C-77-HS-010A/77-HS-010B
~~C-77-HS-010B/77-HS-010A~~
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77010

77-HY-010 (1, 2) — NOTE-2 — C-77-HY-010/77-HS-010A, 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

B-300 INDOOR

77-HS-010A (12, 22 / 11, 21) — NOTE-2

B-300 OUTDOOR

77-HS-011B (12, 22 / 11, 21) — NOTE-2 — C-77-HS-011B/950-JE-04207, 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS → TB-1 15BK, 16BK, 17BK, 18BK, 19BK, 20BK, 21BK, 22BK, 23BK, 24BK

C-77-HS-011A/77-HS-011B
~~C-77-HS-011B/77-HS-011A~~
2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77011

77-HY-011 (1, 2) — NOTE-2 — C-77-HY-011/77-HS-011A, 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

B-300 INDOOR

77-HS-011A (12, 22 / 11, 21) — NOTE-2

TB-1: 1BK, 2BK, SH, 3BK, 4BK, 5BK, 6BK, 7BK, 8BK, 9BK, 10BK, 11BK, 12BK, 13BK, 14BK, 15BK, 16BK, 17BK, 18BK, 19BK, 20BK, 21BK, 22BK, 23BK, 24BK, OS

950-JE-04207/B400-FGS-002
24x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

TB-950-JE-04207

1	950-XZ-04202
2	
3	950-XL-04203
4	
5	950-XL-04204
6	
7	77-HY-007
8	
9	77-HY-008
10	
11	77-HY-009
12	
13	77-HY-010
14	
15	77-HY-011
16	
17	SPARE
18	
19	SPARE
20	
21	SPARE
22	
23	SPARE
24	

Shield Bar — I.E.

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_H	28/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND | ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
INSTRUMENT–FGS WIRING DIAGRAMS
950–JE–04207

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

	DRAWING NO.	SHEET	REV.
A3	123A90–DDL–IN–DG–40016	069	01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

I-3

DRAWING NO. 123A90-DDL-IN-DD-40017

REV. 00



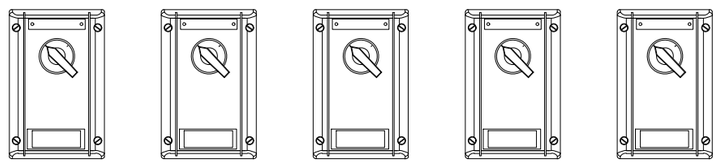
B-100
~~B-101~~



B-200
~~B-201~~



B-300
~~B-301~~



B-400
~~B-401~~

POS.	DESCRIPTION	Q.TY
-	SELFING TAPPING SCREW	-

CONTAINER	ITEM	DESCRIPTION	TAGNAME
B-100 ~~B-101~~	1	HAND SWITCH FOR DAMPER TEST	~~77-HS-011A~~ 77-HS-001A
	2	HAND SWITCH FOR DAMPER TEST	~~77-HS-012A~~ 77-HS-002A
	3	HAND SWITCH FOR DAMPER TEST	~~77-HS-013A~~ 77-HS-003A
B-200 ~~B-201~~	1	HAND SWITCH FOR DAMPER TEST	~~77-HS-014A~~ 77-HS-004A
	2	HAND SWITCH FOR DAMPER TEST	~~77-HS-015A~~ 77-HS-005A
	3	HAND SWITCH FOR DAMPER TEST	~~77-HS-016A~~ 77-HS-006A
B-300 ~~B-301~~	1	HAND SWITCH FOR DAMPER TEST	~~77-HS-017A~~ 77-HS-007A
	2	HAND SWITCH FOR DAMPER TEST	~~77-HS-018A~~ 77-HS-008A
	3	HAND SWITCH FOR DAMPER TEST	~~77-HS-019A~~ 77-HS-009A
	4	HAND SWITCH FOR DAMPER TEST	77-HS-010A
	5	HAND SWITCH FOR DAMPER TEST	77-HS-011A
B-400 ~~B-401~~	1	HAND SWITCH FOR DAMPER TEST	77-HS-012A
	2	HAND SWITCH FOR DAMPER TEST	77-HS-013A
	3	HAND SWITCH FOR DAMPER TEST	77-HS-014A
	4	HAND SWITCH FOR DAMPER TEST	77-HS-015A
	5	HAND SWITCH FOR DAMPER TEST	77-HS-016A

NOTES

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	02/09/2024	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	11/07/2024	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT INSTALLATION DETAILS
HAND SWITCH INSIDE CONTAINERS

CONTRACT NO./TITLE | SCALE /

DRAWN VBA | CHECKED LCA | APPROVED DLO | DATE 11/07/2024

A3 | DRAWING NO. 123A90-DDL-IN-DD-40017 | SHEET 046 | REV. 01

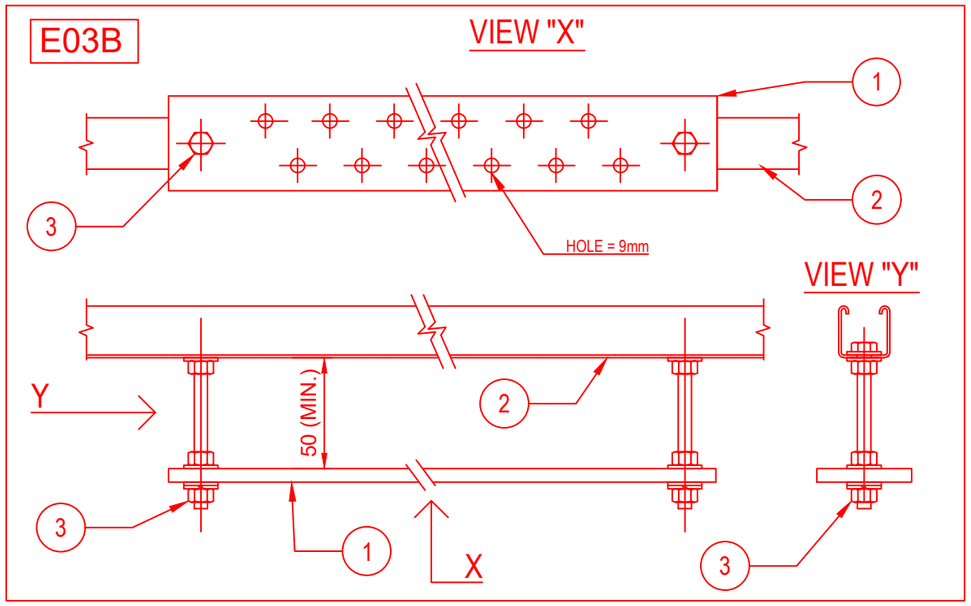
VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DD-40017**

REV.:	DATE:	SIGNATURE:
1_C	15/10/24	G.Randi

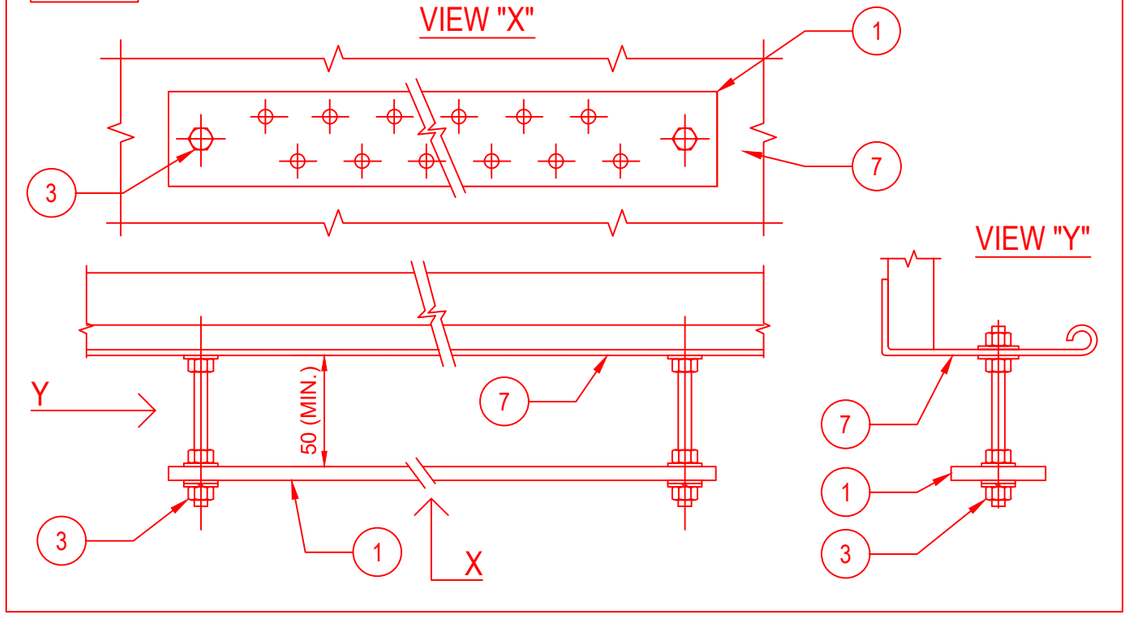
ROSETTI MARINO SpA

TYPICAL DETAIL VALID FOR EXTERNAL USE ONLY

E03B

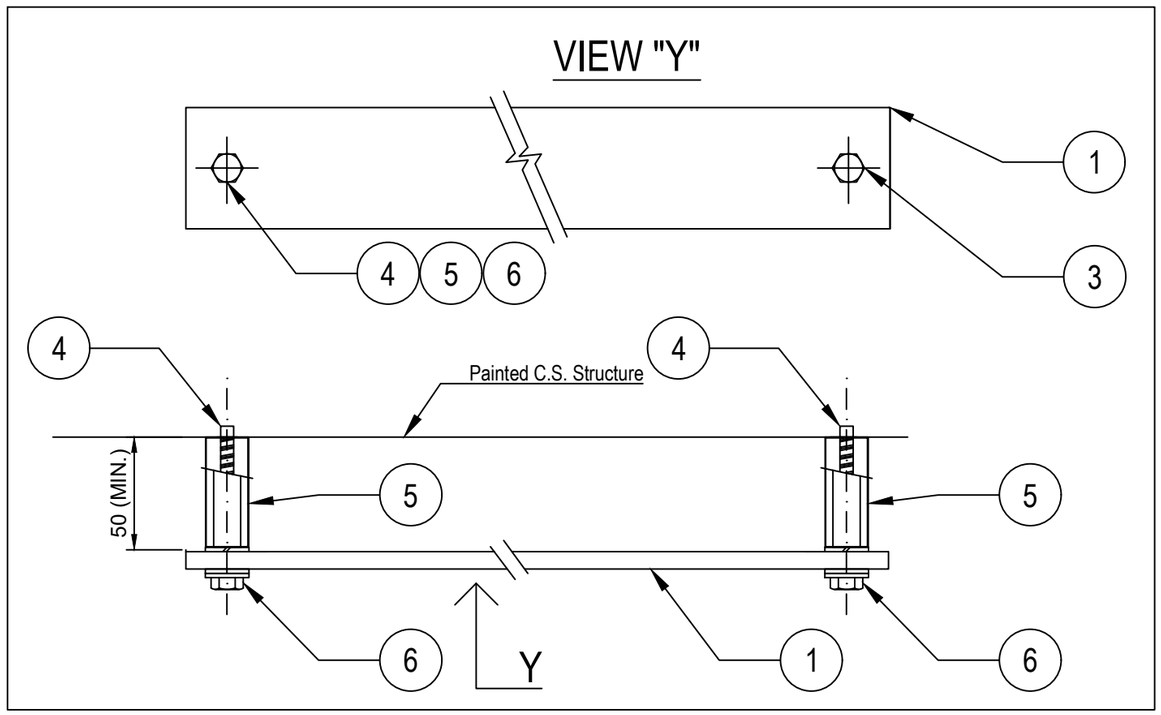


E03C



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	EARTHING BAR	TINNED COPPER	285X50X5	1	
2	SINGLE U-CHANNEL PERFORATED ON N.3 SIDE	AISI 316L		2	
3	HEXAG. BOLTS, PLANE WASHERS, GROWER SPRING WASHER AND NUT	AISI 316L	M10X30	2	
4	THREADED STUD	AISI 316L	M10X28	2	NOTE 1
5	FEMALE / MALE COUPLING	AISI 316L	M10X50	2	NOTE 2
6	PLANE WASHER, GROWER AND NUT	AISI 316L	M10	2	
7	CABLE LADDER	AISI 316L			

E03D



NOTES:

1) THREADED STUD mod. HILTI S-BT-ER M10/15 SN6 CERTIFIED FOR EARTHING SYSTEM.
2) STANDOFF ADAPTER mod. HILTI M10-HC120 50.
3) FOR TYPICALS E03B AND E03C (EARTHING BAR FIXED TO U-CHANNEL OR CABLE TRAY/LADDER) THE EARTHING BAR SHALL BE CONNECTED TO EARTHING POINT IN N.1 POINT WITH 35sqmm Y/G CABLE

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_G	25/10/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS-EARTHING SYSTEM
EARTHING BAR INSTALLED ON WELDED PROFILE OR THREADED STUD

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

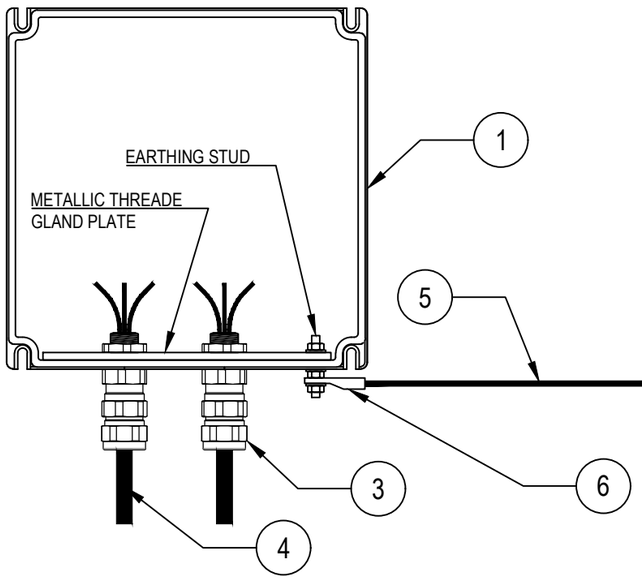
A3 | DRAWING NO. 123A90-DDL-EL-DD-20090 | SHEET 004 | REV. 02

F.to UNI A3: 420mmx297mm

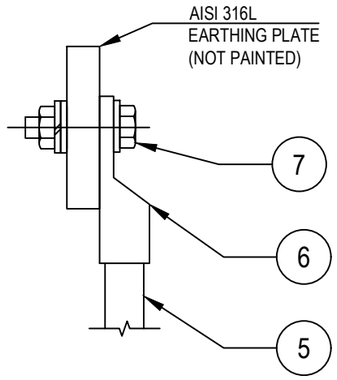
File Name : 123A90-DDL-EL-DD-20090 REV.02 RLMU.DWG

E04

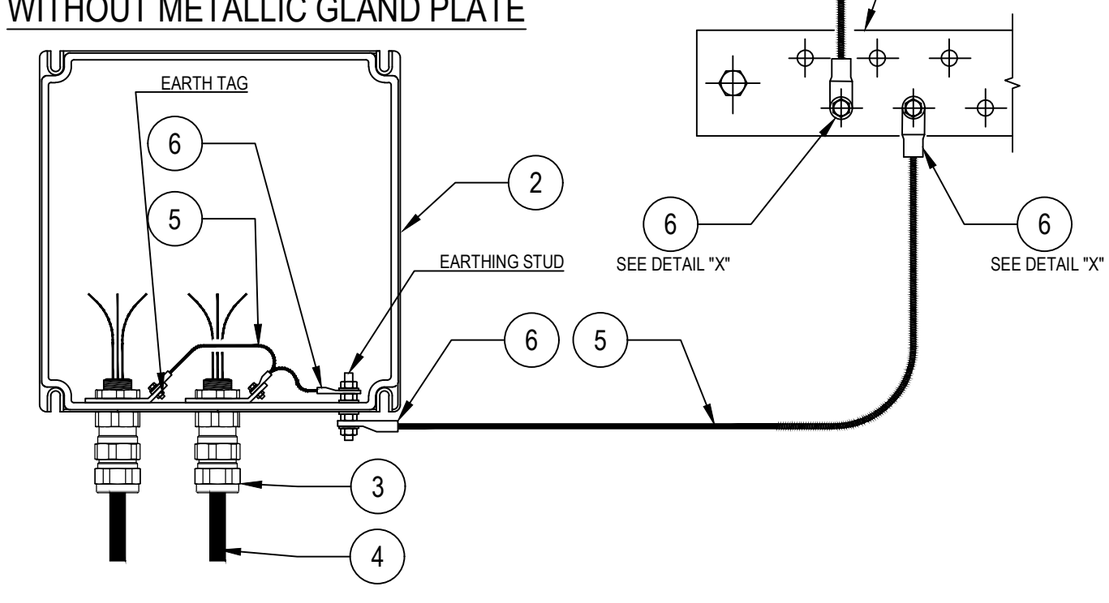
DETAIL OF NON METALLIC ENCLOSURE WITH METALLIC GLAND PLATE



DETAIL "X"



DETAIL OF NON METALLIC ENCLOSURE WITHOUT METALLIC GLAND PLATE



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	JUNCTION BOX WITH PLATE (EX)	GRP			
2	JUNCTION BOX WITHOUT GLAND PLATE (EX)	GRP			
3	DOUBLE SEAL CABLE GLAND (EX) FOR ARMOURED CABLE	NICK.PL.BRASS			~~NOTE 2~~
4	ARMOURED CABLE				
5	Y/G INSULATING COPPER CONDUCTOR	COPPER	$6mm^2$		NOTE 1
6	COMPRESSION TYPE LUG FOR INSULATION COPPER CONDUCTOR	TINNED COPPER	$6mm^2$		NOTE 1
7	BOLT, PLANE WASHER, GROWER SPRING WASHER AND NUT	AISI 316L			

NOTES:
1) FOR EARTHING BAR SEE TYPICAL DETAILS E03
~~2) CABLE LUG CRIMPING METHOD SHALL BE HEXAGONAL COMPRESSION DIES ONLY.~~

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_G	25/10/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS-EARTHING SYSTEM
EARTHING FOR CABLE ARMOUR BY CABLE GLAND

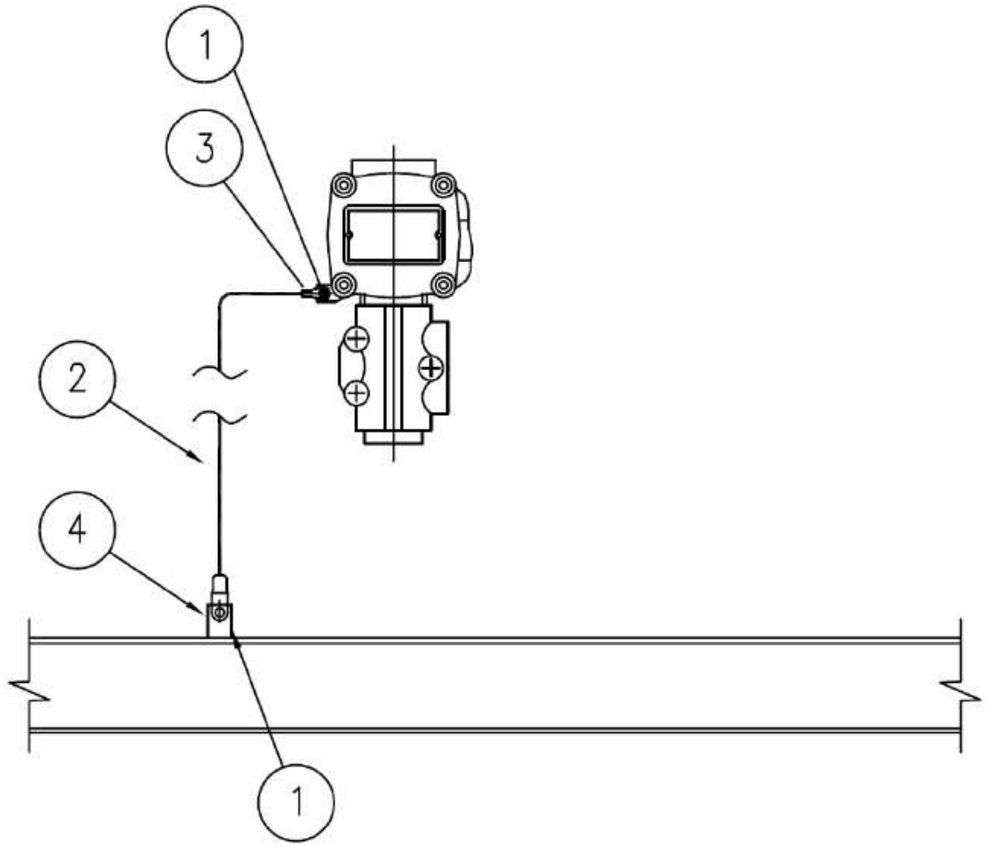
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 123A90-DDL-EL-DD-20090 | SHEET 010 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 123A90-DDL-EL-DD-20090 REV.02.DWG

E33



MATERIALS

POS.	Q.TY	DESCRIPTION	NOTES
1	1	A4 STAINLESS STEEL BOLT COMPLETE WITH NUT AND WASHERS	
2	1	Y/G INSULATING COPPER CONDUCTOR - 6mm²	
3	1	COMPRESSION TYPE LUG FOR INSULATING COPPER CONDUCTOR	
4	1	EARTHING BAR / PLATE / THREADED STUD	(1)

NOTE:
1) FOR DETAIL OF EARTHING PLATE, EARTHING BOSS AND THREADED STUD SEE TYP. E11A/C/D/E

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-EL-DD-20090

REV.:	DATE:	SIGNATURE:
2_G	25/10/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS-EARTHING SYSTEM
EARTHING FOR GENERIC INSTRUMENT

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK

SCALE : NTS

A3

DRAWING NO. 123A90-DDL-EL-DD-20090

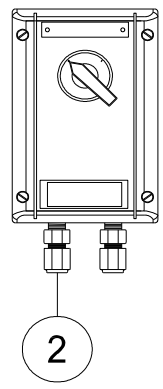
SHEET 027

REV. 02

F.to UNI A3: 420mmx297mm

File Name : 123A90-DDL-EL-DD-20090 REV.02.DWG

ELECTRICAL HOOK-UP FOR HAND SWITCH TEST OF THE DAMPERS



INSTRUMENT TAG	
1	77-HS-001A
2	77-HS-001B
3	77-HS-002A
4	77-HS-002B
5	77-HS-003A
6	77-HS-003B
7	77-HS-004A
8	77-HS-004B
9	77-HS-005A
10	77-HS-005B
11	77-HS-006A
12	77-HS-006B
13	77-HS-007A
14	77-HS-007B
15	77-HS-008A
16	77-HS-008B
17	77-HS-009A
18	77-HS-009B
19	77-HS-010A
20	77-HS-010B
21	77-HS-011A
22	77-HS-011B
23	77-HS-012A
24	77-HS-012B
25	77-HS-013A
26	77-HS-013B
27	77-HS-014A
28	77-HS-014B
29	77-HS-015A
30	77-HS-015B
31	77-HS-016A
32	77-HS-016B

POS.	NORM/STD CODE	DESCRIPTION	SIZE/ CONNECTION TYPE	Q.TY
2		Nickel Plated Brass Double Compression Cable Gland Ex-d/e IIC (or IIB + H2) T1	M20	2

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-IN-HD-40079
REV.: 2_A | DATE: 08/10/24 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

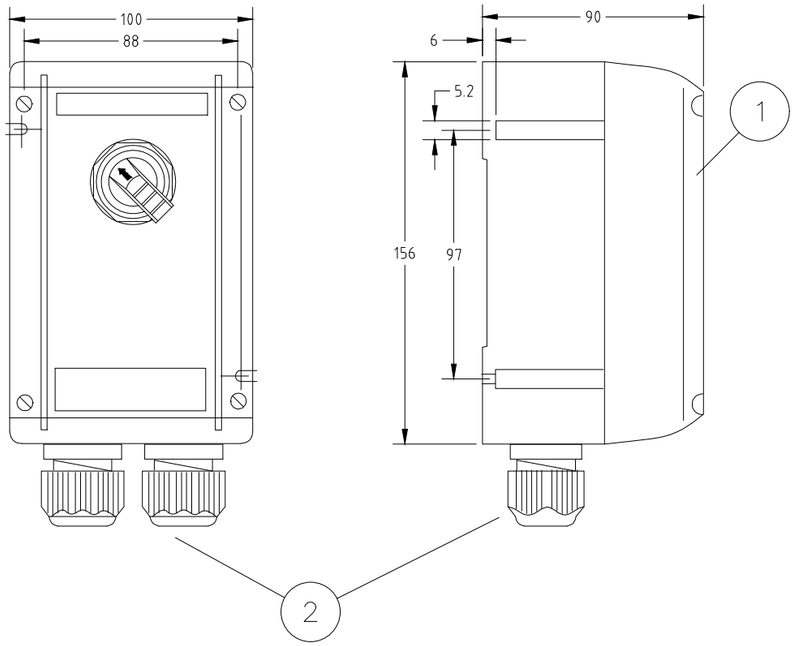
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PUSH BUTTON DPDT CONTACT

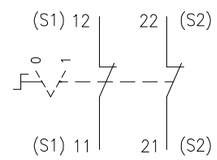
ITEM	DESCRIPTIONS	NR
1	Control Station, CO.SI.ME GHG 432	1
2	Cable Gland M20 Ex eb Polyamide	2
3		
4		
5		
6		
7		
8		
9		
10		

INSTALLATION
QUANTITY

32



WIRING



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	03/09/24	DB	MO	SM	ACCEPTED FOR CONSTRUCTION (AFC)
00	08/07/24	DB	MO	SM	ISSUE FOR REVIEW (IFR)

FORES ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
GENERAL ARRANGEMENT
PUSH BUTTON DPDT CONTACT

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK

SCALE : NTS

A3

DRAWING NO. 1724000821-IN-DA-00003

SHEET 014

REV. 01

F.to UNI A3: 420mmx297mm

File Name : 1724000821-IN-DA-00003 Rev. 01



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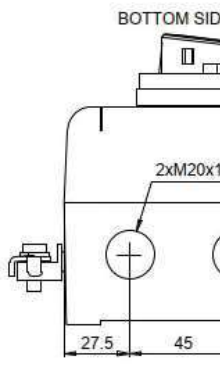


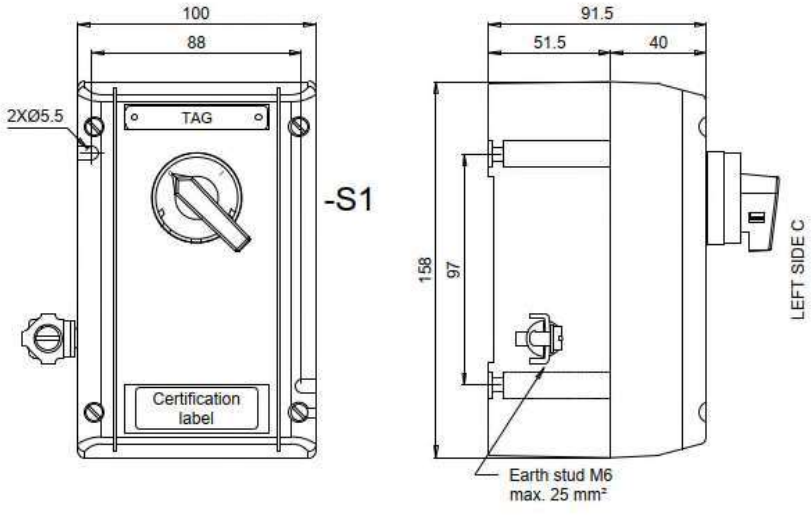
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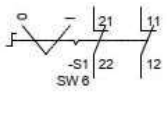
Technical data

	Ex-control stations Type 432 I Type 434	
Marking accd. to 2014/34/EU	Ⓔx II 2 G Ex ed ib m IIC T6 Ⓔx II 2 D Ex tD A21 IP66 T80 °C	
EC-Type Examination Certificate	PTB 00 ATEX 3117	
IECEx Certificate of Conformity	IECEx BKI 04.0003	
Marking accd. to IECEx	Ex e II T6, Ex e ib IIC T6, Ex ed IIC T6 or Ex ed ib IIC T6	
Permissible ambient temperature	–20 °C up to +40 °C –55 °C up to +55 °C (option)	
Rated voltage	690 V AC (with control switch GHG 23 up to 500 V)	
Rated current	16 A (with control switch GHG 23 max. 10 A)	
Rated making-/rated breaking capacity accd. EN 60947-5-1	Ex41 AC-15: U_e 250 V / I_e 6 A U_e 500 V / I_e 4 A DC-13: U_e 24 V / I_e 6 A U_e 110 V / I_e 0.5 A	Ex23 AC-15: U_e 230 V / I_e 6 A U_e 500 V / I_e 4 A DC-13: U_e 24 V / I_e 2 A U_e 230 V / I_e 0.5 A
Connecting terminals	2 x 4 mm²	
Protection class	I	
Degree of protection accd. to EN 60529	IP66	
Cable glands/Gland plates/Enclosure drilling	2 x M25 cable gland incl. 1 blanking plug or optional 2 x M20 thread with internal brass plate	
Enclosure material	Polyamide	
Enclosure colour	black	

	Type 432
Dimensions (L x W x H)	156 x 100 x 90 mm
Weight (empty)	0.47 kg

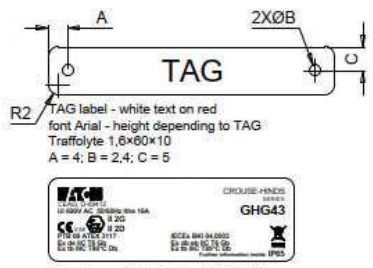






Contact arrangement		
	21-22	11-12
0	X	X
I		

X	Contact close
(none)	Contact open



Techical data:
Manufactured by Eaton Crouse-Hinds Division
Model: GHG 432
Certificate No.
PTB 00 ATEX 3117
IECEx BKI 04.0003
Marking: ATEX and IECEx
II 2G Ex de IIC T6 Gb
II 2D Ex tb IIIC T80°C Db
-40°C ≤ tamb ≤ +55°C
Ui 690V
IP65

Specific characteristics:
- Polyamide (PA), black
- Closed with stainless steel screw
- Bottom with internal earth plate in brass
- M6 internal/external stainless steel earth stud

Components:
- No. 1 black selector switch with 2 position 2NC

Entries bottom side B:
- No. 2 M20 threaded taped with transit tape

No.1 1,6×60×10 mm white text on red background traffolyte tag fixed with stainless steel screws on the cover, sealed on the back with PU adhesive and engraved

Also a certification label fixed with back self adhesive on the cover

Quantity: 32

PUSH BUTTON DPDT CONTACT

POS.	TAG NUMBER	SERVICE
1	77-HS-001A	B-100 Fire Damper AHU1 Inlet Air
2	77-HS-001B	B-100 Fire Damper AHU1 Inlet Air
3	77-HS-002A	B-100 Fire Damper AHU2 Inlet Air
4	77-HS-002B	B-100 Fire Damper AHU2 Inlet Air
5	77-HS-003A	B-100 Fire Damper Exhaust Air
6	77-HS-003B	B-100 Fire Damper Exhaust Air
7	77-HS-004A	B-200 Fire Damper AHU3 Inlet Air
8	77-HS-004B	B-200 Fire Damper AHU3 Inlet Air
9	77-HS-005A	B-200 Fire Damper AHU4 Inlet Air
10	77-HS-005B	B-200 Fire Damper AHU4 Inlet Air
11	77-HS-006A	B-200 Fire Damper Exhaust Air
12	77-HS-006B	B-200 Fire Damper Exhaust Air
13	77-HS-007A	B-300 Fire Damper AHU5 Inlet Air
14	77-HS-007B	B-300 Fire Damper AHU5 Inlet Air
15	77-HS-008A	B-300 Fire Damper AHU5 Return Air
16	77-HS-008B	B-300 Fire Damper AHU5 Return Air
17	77-HS-009A	B-300 Fire Damper AHU6 Inlet Air
18	77-HS-009B	B-300 Fire Damper AHU6 Inlet Air
19	77-HS-010A	B-300 Fire Damper AHU6 Return Air
20	77-HS-010B	B-300 Fire Damper AHU6 Return Air
21	77-HS-011A	B-300 Fire Damper Exhaust Air
22	77-HS-011B	B-300 Fire Damper Exhaust Air
23	77-HS-012A	B-400 Fire Damper AHU7 Inlet Air
24	77-HS-012B	B-400 Fire Damper AHU7 Inlet Air
25	77-HS-013A	B-400 Fire Damper AHU7 Return Air
26	77-HS-013B	B-400 Fire Damper AHU7 Return Air
27	77-HS-014A	B-400 Fire Damper AHU8 Inlet Air
28	77-HS-014B	B-400 Fire Damper AHU8 Inlet Air
29	77-HS-015A	B-400 Fire Damper AHU8 Return Air
30	77-HS-015B	B-400 Fire Damper AHU8 Return Air
31	77-HS-016A	B-400 Fire Damper Exhaust Air
32	77-HS-016B	B-400 Fire Damper Exhaust Air

File: 1724000821-IN-DS-00004-02.xlsx
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ROSETTI MARINO | PROVERLIS | CROSSWIND

ITEM	Tag	77-HS-008B	: Hand Switch for Fire&Gas Damper HFD-77008			Dwg	123A90-DDL-IN-DL-40115
	S/Sys	77-30	: HVAC UPS Equipment Room B-300			Module	LD_B-300
TASK	code	C10002092		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Instrumental	Form	CJX00 Miscellaneous

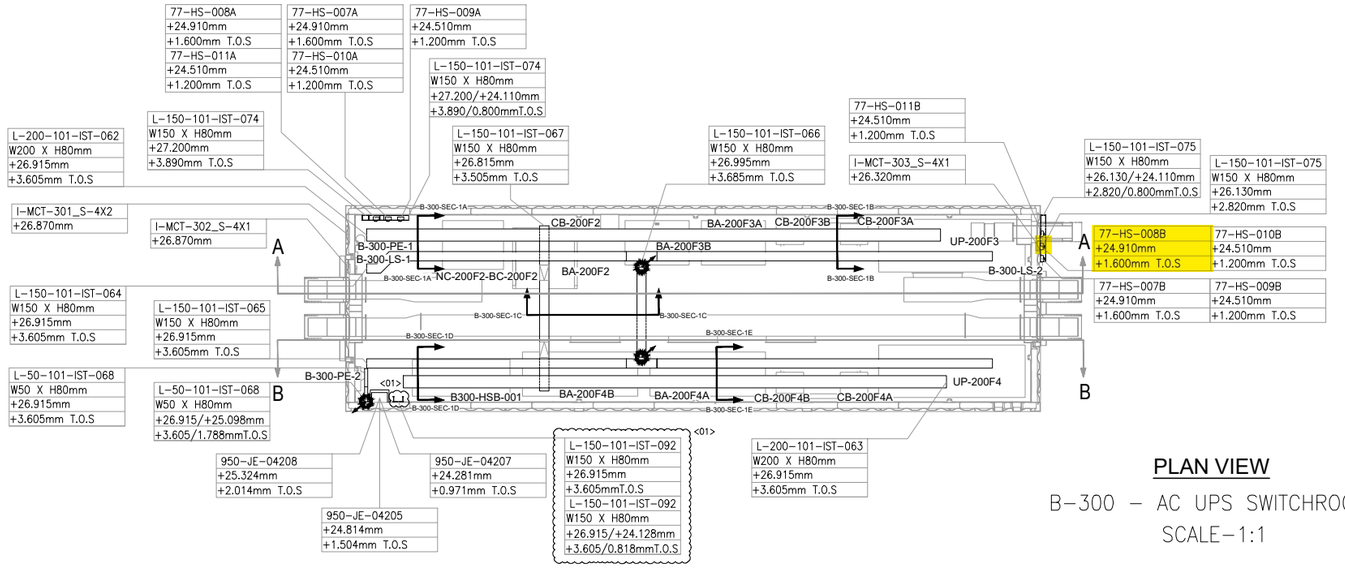
1	Check for mechanical damage.	OK
2	Check installed equipment is suitable and conforms to specification.	OK
3	Check installation conforms to P&ID and hook-up drawing.	OK
4	Check tube fittings manufacturer is the one chosen for the plant.	NA
5	Check that piping connections provide the block & bleed facility (if required).	NA
6	Check that all stop plugs are properly installed	NA
7	Check identification (tag number, tag plates).	OK
8	Check supporting and protection against vibrations.	OK
9	Check the conformity of earthing as per specification (I.P.E. or I.E.)	OK
10	If required produce Red Line Mark Up for "AS BUILT"	

Comments:

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM (Rosetti Marino)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-10-11	2024-10-15	
Signature	PROVERLIS Digitaly signed by Carmelo Bongiovanni 2024-10-11T15:38:22.304Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2024-10-15T11:03:44.843Z	

DRAWING NO. 123A90-DDL-IN-DL-40115

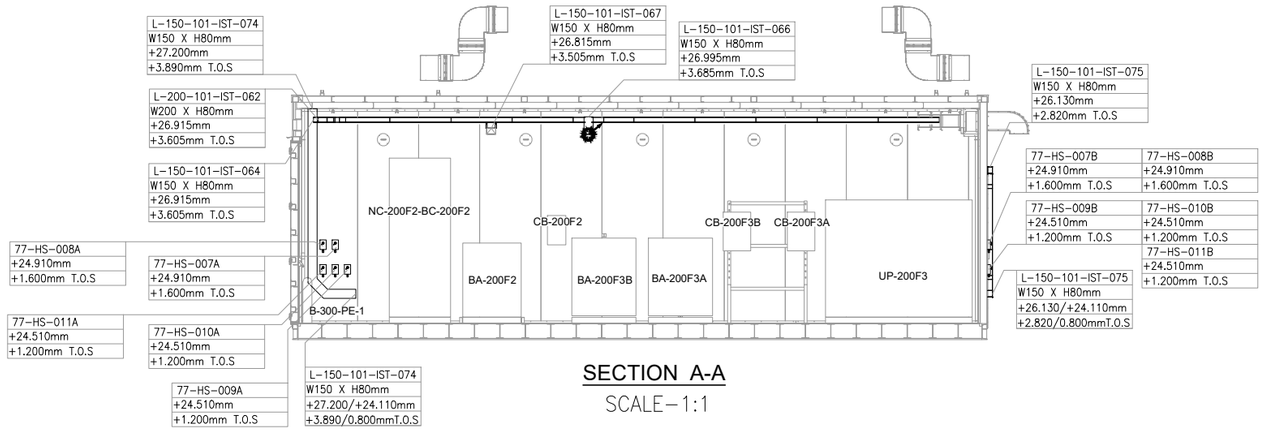
REV. 01



PLAN VIEW

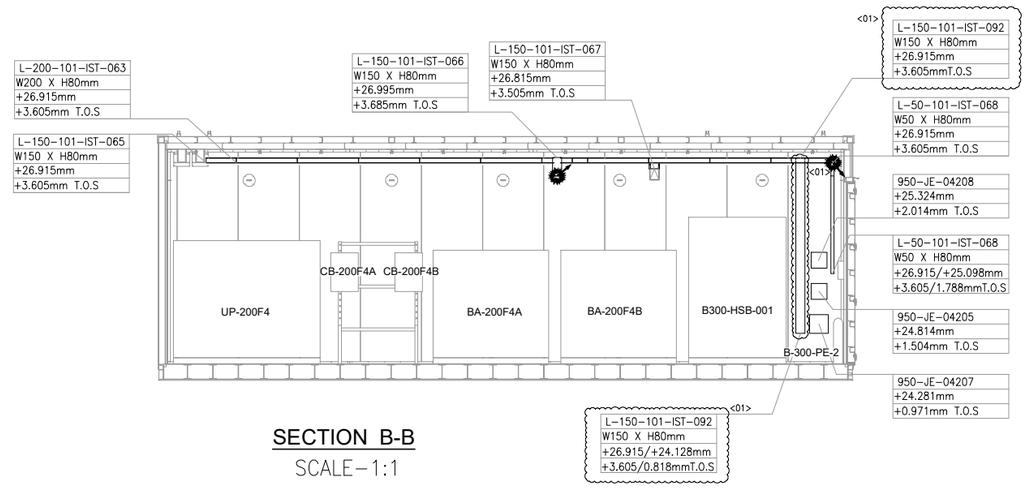
B-300 – AC UPS SWITCHROOM

SCALE-1:1



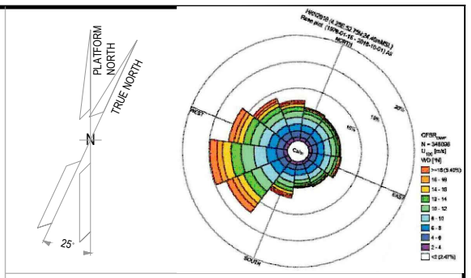
SECTION A-A

SCALE-1:1



SECTION B-B

SCALE-1:1



NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DRAWING IS VALID ONLY FOR CONTAINER CABLE TRAY LAYOUT.

LEGEND

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DL-40115**

REV.:	DATE:	SIGNATURE:
1_A	07/10/24	G.Randi

ROSETTI MARINO SpA

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-IN-DL-40081	INSTRUMENT LAYOUT - UPPER DECK
123A90-DDL-IN-LIS-40091	INSTRUMENT CABLE LIST
123A90-DDL-IN-DG-40015	INSTRUMENT-CCS WIRING DIAGRAMS
123A90-DDL-IN-DG-40016	INSTRUMENT-SAFETY SYSTEM WIRING DIAGRAMS
123A90-DDL-IN-DL-40083	INSTRUMENT MAIN CABLES ROUTING-LOWER DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/08/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)

Base Load Power HUB Cables Tray Layout

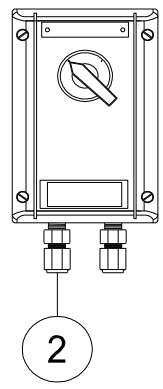
B-300 Container Lower Deck – TOS EL. 23.310m

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:50
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 04/10/24

A1	DRAWING NO. 123A90-DDL-IN-DL-40115	SHEET 001	REV. 01

File Name : 123A90-DDL-IN-DL-40115 REV01.dwg

ELECTRICAL HOOK-UP FOR HAND SWITCH TEST OF THE DAMPERS



INSTRUMENT TAG	
1	77-HS-001A
2	77-HS-001B
3	77-HS-002A
4	77-HS-002B
5	77-HS-003A
6	77-HS-003B
7	77-HS-004A
8	77-HS-004B
9	77-HS-005A
10	77-HS-005B
11	77-HS-006A
12	77-HS-006B
13	77-HS-007A
14	77-HS-007B
15	77-HS-008A
16	77-HS-008B
17	77-HS-009A
18	77-HS-009B
19	77-HS-010A
20	77-HS-010B
21	77-HS-011A
22	77-HS-011B
23	77-HS-012A
24	77-HS-012B
25	77-HS-013A
26	77-HS-013B
27	77-HS-014A
28	77-HS-014B
29	77-HS-015A
30	77-HS-015B
31	77-HS-016A
32	77-HS-016B

POS.	NORM/STD CODE	DESCRIPTION	SIZE/ CONNECTION TYPE	Q.TY
2		Nickel Plated Brass Double Compression Cable Gland Ex-d/e IIC (or IIB + H2) T1	M20	2

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-IN-HD-40079
REV.: 2_A | DATE: 08/10/24 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

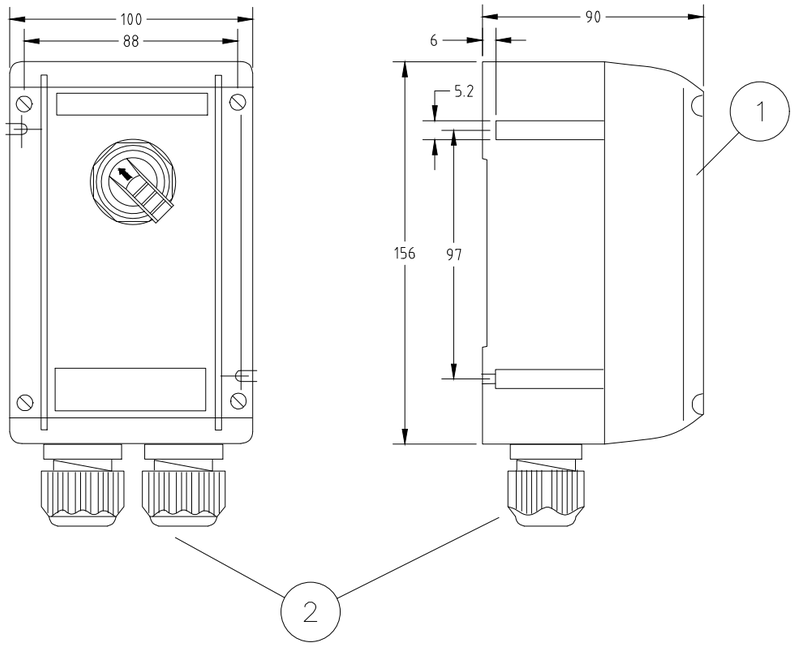
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PUSH BUTTON DPDT CONTACT

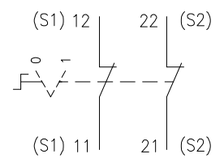
ITEM	DESCRIPTIONS	NR
1	Control Station, CO.SI.ME GHG 432	1
2	Cable Gland M20 Ex eb Polyamide	2
3		
4		
5		
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8		
9		
10		

INSTALLATION
QUANTITY

32



WIRING



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	03/09/24	DB	MO	SM	ACCEPTED FOR CONSTRUCTION (AFC)
00	08/07/24	DB	MO	SM	ISSUE FOR REVIEW (IFR)

FORES ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
GENERAL ARRANGEMENT
PUSH BUTTON DPDT CONTACT

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK

SCALE : NTS

A3

DRAWING NO. 1724000821-IN-DA-00003

SHEET 014

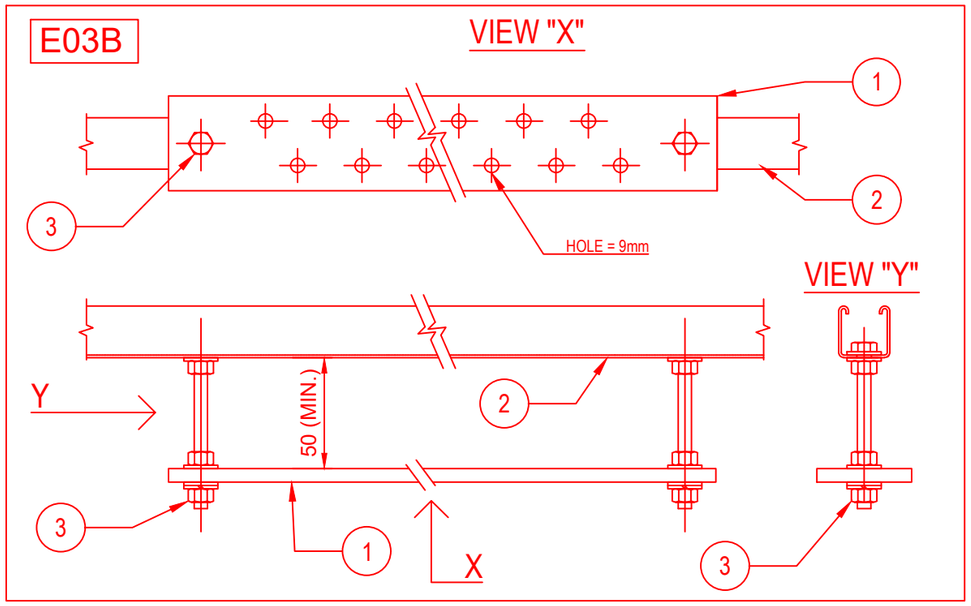
REV. 01

F.to UNI A3: 420mmx297mm

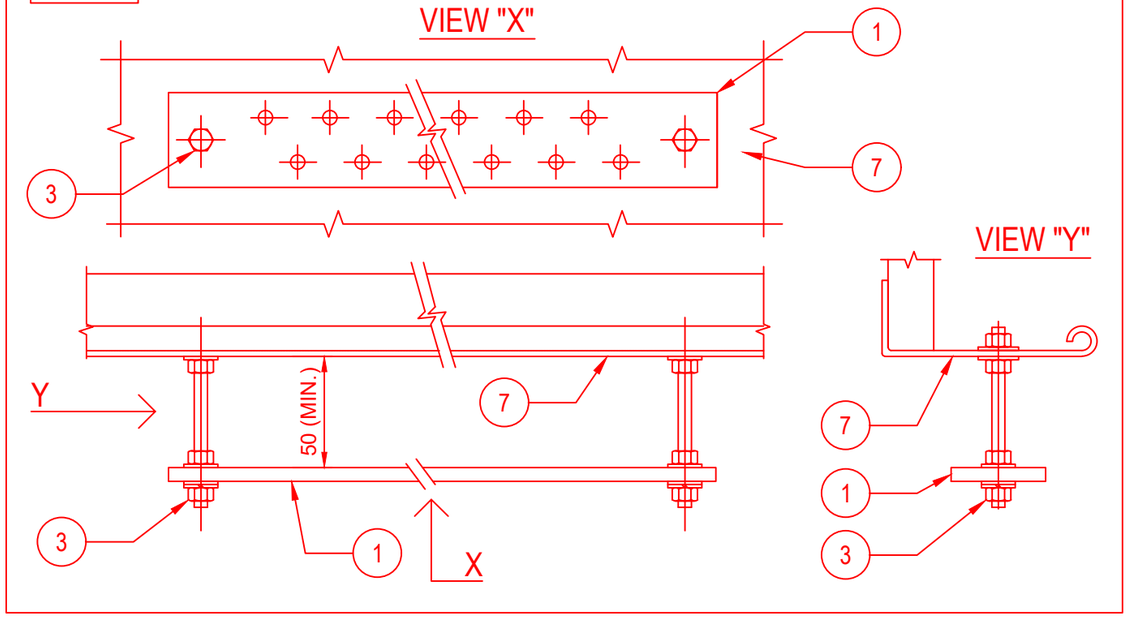
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TYPICAL DETAIL VALID FOR EXTERNAL USE ONLY

E03B

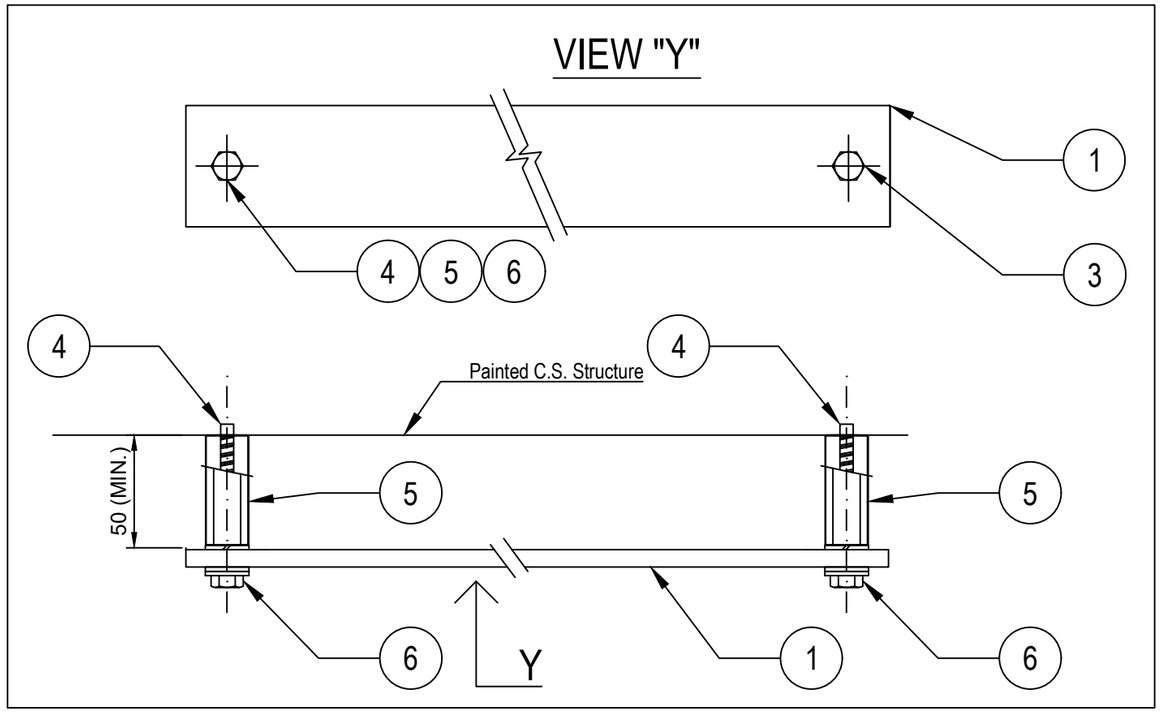


E03C



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	EARTHING BAR	TINNED COPPER	285X50X5	1	
2	SINGLE U-CHANNEL PERFORATED ON N.3 SIDE	AISI 316L		2	
3	HEXAG. BOLTS, PLANE WASHERS, GROWER SPRING WASHER AND NUT	AISI 316L	M10X30	2	
4	THREADED STUD	AISI 316L	M10X28	2	NOTE 1
5	FEMALE / MALE COUPLING	AISI 316L	M10X50	2	NOTE 2
6	PLANE WASHER, GROWER AND NUT	AISI 316L	M10	2	
7	CABLE LADDER	AISI 316L			

E03D



NOTES:

1) THREADED STUD mod. HILTI S-BT-ER M10/15 SN6 CERTIFIED FOR EARTHING SYSTEM.
2) STANDOFF ADAPTER mod. HILTI M10-HC120 50.
3) FOR TYPICALS E03B AND E03C (EARTHING BAR FIXED TO U-CHANNEL OR CABLE TRAY/LADDER) THE EARTHING BAR SHALL BE CONNECTED TO EARTHING POINT IN N.1 POINT WITH 35sqmm Y/G CABLE

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_E	09/10/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS–EARTHING SYSTEM
EARTHING BAR INSTALLED ON WELDED PROFILE OR THREADED STUD

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

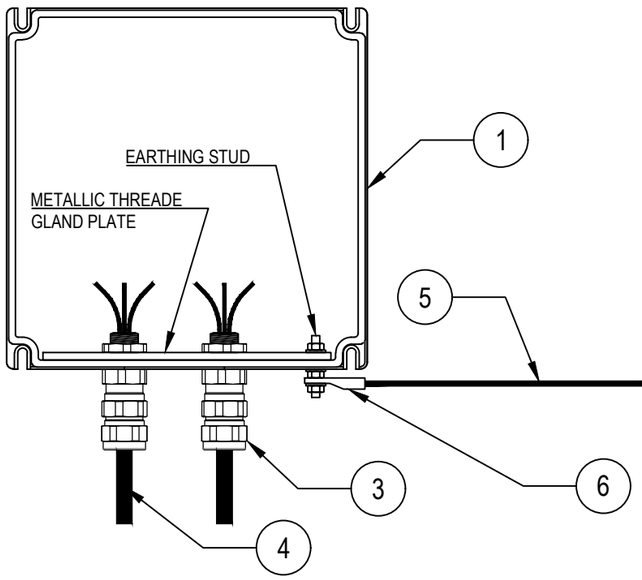
A3 | DRAWING NO. 123A90-DDL-EL-DD-20090 | SHEET 004 | REV. 02

F.to UNI A3: 420mmx297mm

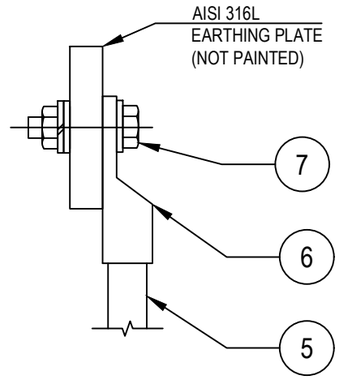
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E04

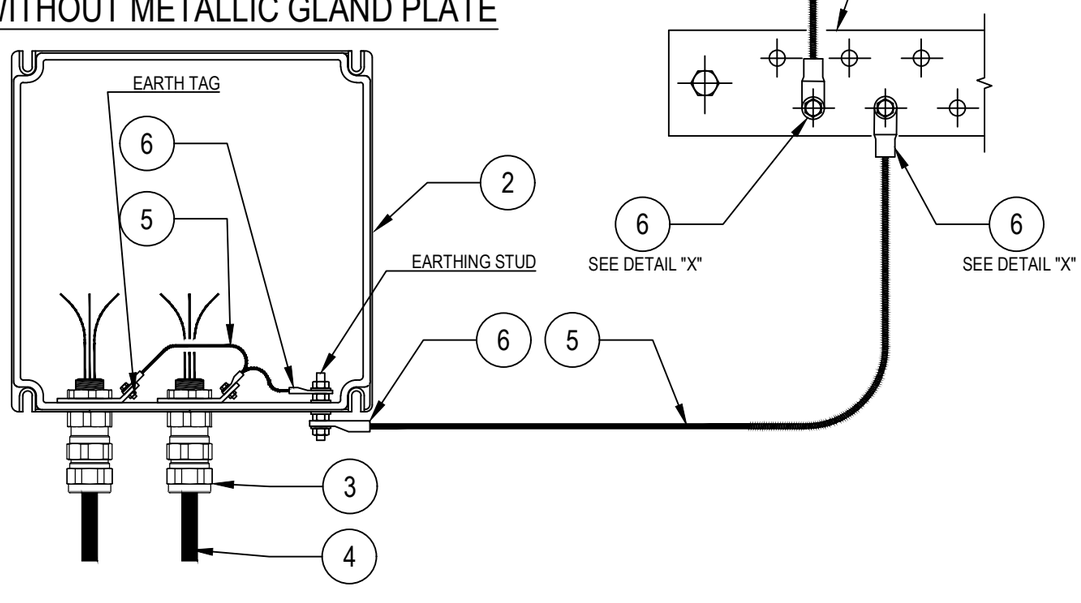
DETAIL OF NON METALLIC ENCLOSURE WITH METALLIC GLAND PLATE



DETAIL "X"



DETAIL OF NON METALLIC ENCLOSURE WITHOUT METALLIC GLAND PLATE



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	JUNCTION BOX WITH PLATE (EX)	GRP			
2	JUNCTION BOX WITHOUT GLAND PLATE (EX)	GRP			
3	DOUBLE SEAL CABLE GLAND (EX) FOR ARMOURED CABLE	NICK.PL.BRASS			~~NOTE 2~~
4	ARMOURED CABLE				
5	Y/G INSULATING COPPER CONDUCTOR	COPPER	$6mm^2$		NOTE 1
6	COMPRESSION TYPE LUG FOR INSULATION COPPER CONDUCTOR	TINNED COPPER	$6mm^2$		NOTE 1
7	BOLT, PLANE WASHER, GROWER SPRING WASHER AND NUT	AISI 316L			

NOTES:
1) FOR EARTHING BAR SEE TYPICAL DETAILS E03
~~2) CABLE LUG CRIMPING METHOD SHALL BE HEXAGONAL COMPRESSION DIES ONLY.~~

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_E	09/10/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS-EARTHING SYSTEM
EARTHING FOR CABLE ARMOUR BY CABLE GLAND

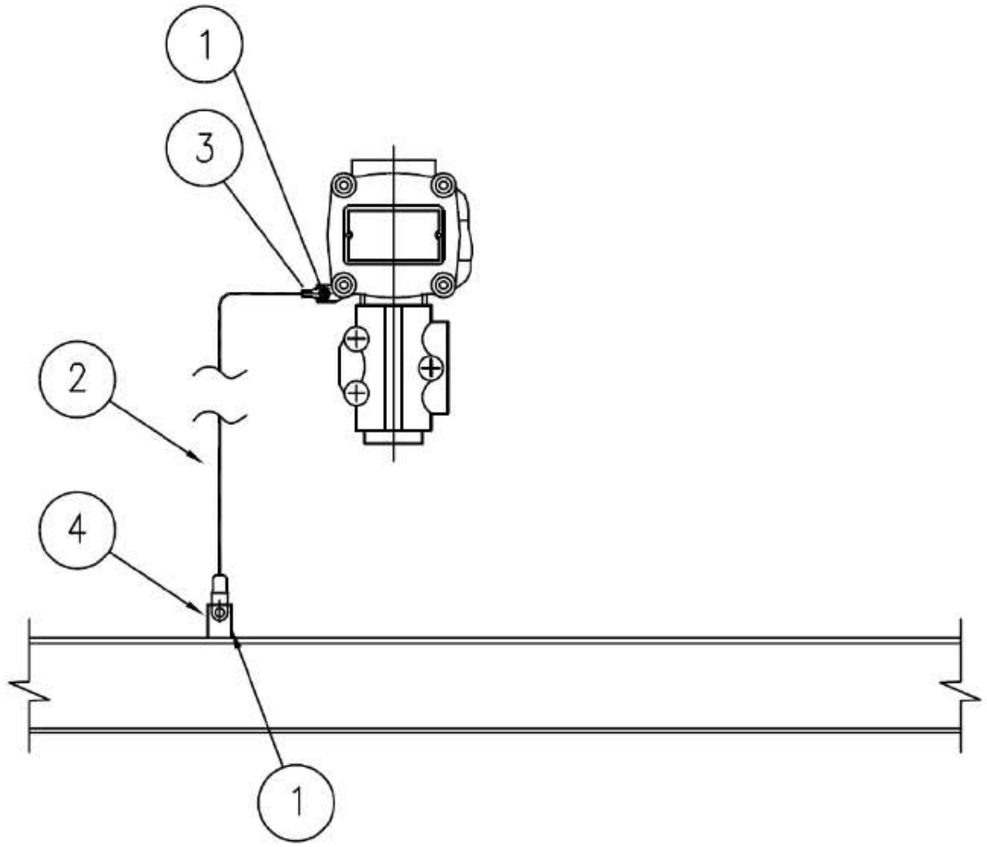
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 123A90-DDL-EL-DD-20090 | SHEET 010 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 123A90-DDL-EL-DD-20090 REV.02.DWG

E33



MATERIALS

POS.	Q.TY	DESCRIPTION	NOTES
1	1	A4 STAINLESS STEEL BOLT COMPLETE WITH NUT AND WASHERS	
2	1	Y/G INSULATING COPPER CONDUCTOR - 6mm²	
3	1	COMPRESSION TYPE LUG FOR INSULATING COPPER CONDUCTOR	
4	1	EARTHING BAR / PLATE / THREADED STUD	(1)

NOTE:
1) FOR DETAIL OF EARTHING PLATE, EARTHING BOSS AND THREADED STUD SEE TYP. E11A/C/D/E

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_E	09/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS–EARTHING SYSTEM
EARTHING FOR GENERIC INSTRUMENT

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 123A90–DDL–EL–DD–20090 | SHEET 027 | REV. 02

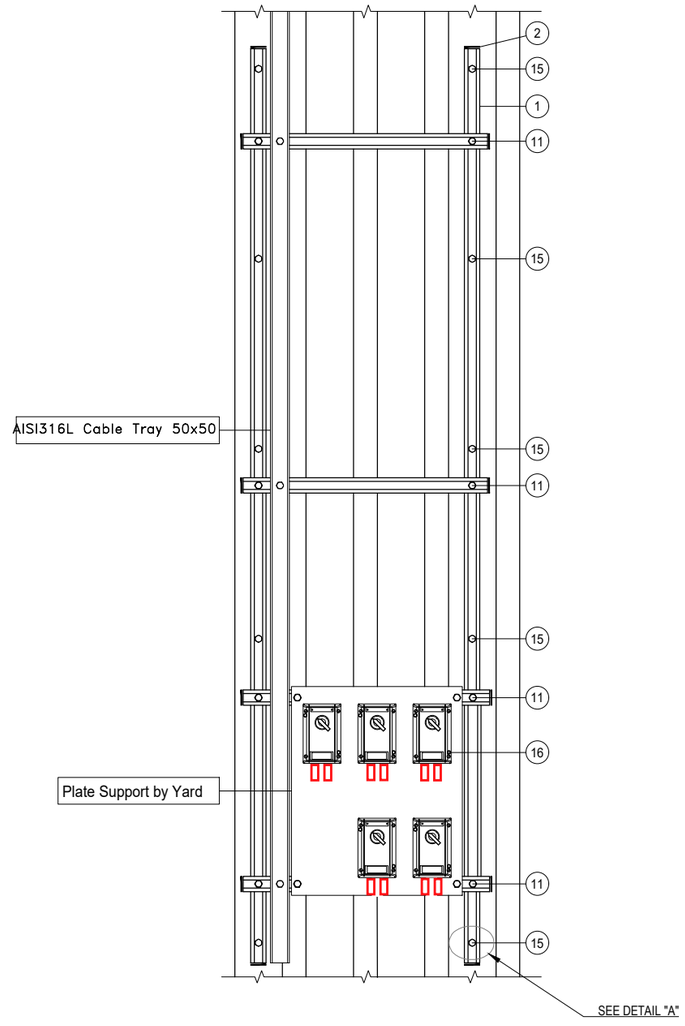
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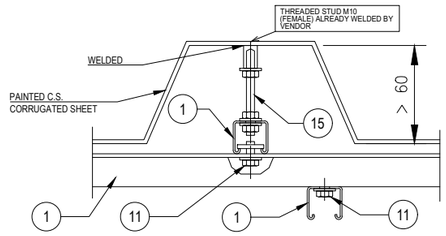
I-5

DRAWING NO. 123A90-DDL-IN-DD-40017

REV. 00



DETAIL "A"



POS.	DESCRIPTION	Q.TY
1	AISI 316L U-CHANNEL 41x41	5m
2	LDPE PLUG FOR U-CHANNEL 41x41	12
11	AISI 316L SPRING NUT M8 FOR U-CHANNEL 41X41 + BOLT M8x35 + WASHER M8	18
15	THREADED ROD M10 (L=110mm) + PLATE WASHER, LARGE PLATE WASHERS SPRING WASHER AND NUTS	10
16	AISI 316L BOLT M5x35 + NUT M5 + WASHER M5	10

CONTAINER	ITEM	DESCRIPTION	TAGNAME
B-300 ~~B-301~~	1	HAND SWITCH FOR DAMPER TEST	~~77-HS-017B~~ 77-HS-007B
	2	HAND SWITCH FOR DAMPER TEST	~~77-HS-018B~~ 77-HS-008B
	3	HAND SWITCH FOR DAMPER TEST	~~77-HS-019B~~ 77-HS-009B
	4	HAND SWITCH FOR DAMPER TEST	77-HS-010B
	5	HAND SWITCH FOR DAMPER TEST	77-HS-011B
B-400 ~~B-401~~	1	HAND SWITCH FOR DAMPER TEST	77-HS-012B
	2	HAND SWITCH FOR DAMPER TEST	77-HS-013B
	3	HAND SWITCH FOR DAMPER TEST	77-HS-014B
	4	HAND SWITCH FOR DAMPER TEST	77-HS-015B
	5	HAND SWITCH FOR DAMPER TEST	77-HS-016B

NOTES

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	02/09/2024	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	11/07/2024	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

VALID FOR CONSTRUCTION
FDL DWG: 123A90-123A90-FDL-IN-DD-40017

REV.:	DATE:	SIGNATURE:
1_B	18/09/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
INSTRUMENT INSTALLATION DETAILS
HAND SWITCH OUTSIDE CONTAINERS

CONTRACT NO./TITLE			SCALE /
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 11/07/2024

A3	DRAWING NO. 123A90-DDL-IN-DD-40017	SHEET 048	REV. 01



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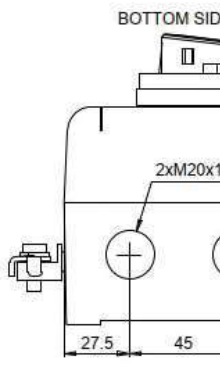


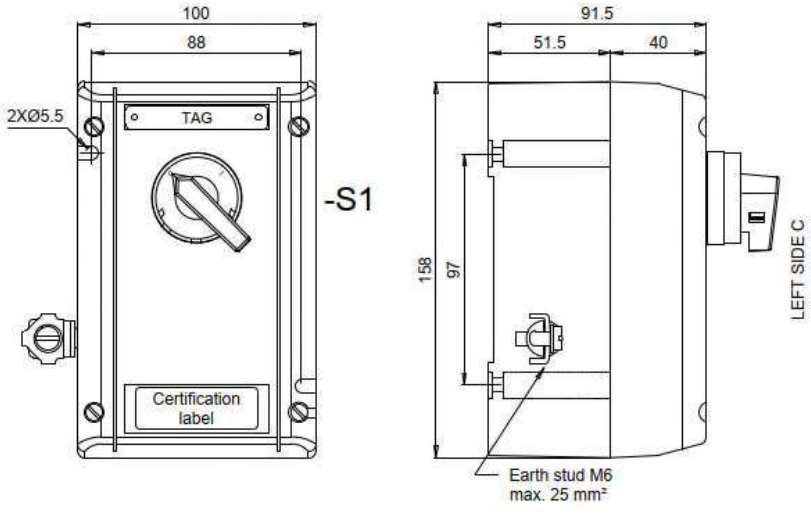
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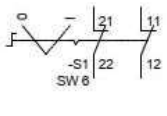
Technical data

	Ex-control stations Type 432 I Type 434	
Marking accd. to 2014/34/EU	Ⓔx II 2 G Ex ed ib m IIC T6 Ⓔx II 2 D Ex tD A21 IP66 T80 °C	
EC-Type Examination Certificate	PTB 00 ATEX 3117	
IECEx Certificate of Conformity	IECEx BKI 04.0003	
Marking accd. to IECEx	Ex e II T6, Ex e ib IIC T6, Ex ed IIC T6 or Ex ed ib IIC T6	
Permissible ambient temperature	–20 °C up to +40 °C –55 °C up to +55 °C (option)	
Rated voltage	690 V AC (with control switch GHG 23 up to 500 V)	
Rated current	16 A (with control switch GHG 23 max. 10 A)	
Rated making-/rated breaking capacity accd. EN 60947-5-1	Ex41 AC-15: U_e 250 V / I_e 6 A U_e 500 V / I_e 4 A DC-13: U_e 24 V / I_e 6 A U_e 110 V / I_e 0.5 A	Ex23 AC-15: U_e 230 V / I_e 6 A U_e 500 V / I_e 4 A DC-13: U_e 24 V / I_e 2 A U_e 230 V / I_e 0.5 A
Connecting terminals	2 x 4 mm²	
Protection class	I	
Degree of protection accd. to EN 60529	IP66	
Cable glands/Gland plates/Enclosure drilling	2 x M25 cable gland incl. 1 blanking plug or optional 2 x M20 thread with internal brass plate	
Enclosure material	Polyamide	
Enclosure colour	black	

	Type 432
Dimensions (L x W x H)	156 x 100 x 90 mm
Weight (empty)	0.47 kg

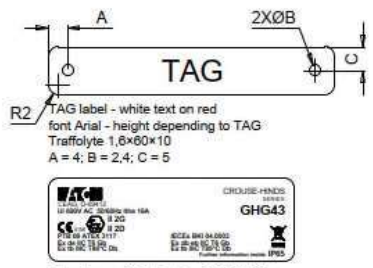






Contact arrangement		
	21-22	11-12
0	X	X
I		

X	Contact close
(none)	Contact open



Techical data:
Manufactured by Eaton Crouse-Hinds Division
Model: GHG 432
Certificate No.
PTB 00 ATEX 3117
IECEx BKI 04.0003
Marking: ATEX and IECEx
II 2G Ex de IIC T6 Gb
II 2D Ex tb IIIC T80°C Db
-40°C ≤ tamb ≤ +55°C
Ui 690V
IP65

Specific characteristics:
- Polyamide (PA), black
- Closed with stainless steel screw
- Bottom with internal earth plate in brass
- M6 internal/external stainless steel earth stud

Components:
- No. 1 black selector switch with 2 position 2NC

Entries bottom side B:
- No. 2 M20 threaded taped with transit tape

No.1 1,6×60×10 mm white text on red background traffolyte tag fixed with stainless steel screws on the cover, sealed on the back with PU adhesive and engraved

Also a certification label fixed with back self adhesive on the cover

Quantity: 32

DRAWING NO. 123-A90-DDL-IN-DG-40016

REV. 01

FIELD

INSTRUMENTS

JUNCTION BOX

950-JE-04207

MULTICABLE

No.

I&T EQUIPMENT ROOM (ITER)

MARSHALLING CABINET

B400-FGS-002

<01>

B-300 UPS Room

950-XZ-04202 — C-950-XZ-04202/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

950-XL-04203 — C-950-XL-04203/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

950-XL-04204 — C-950-XL-04204/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 OUTDOOR

77-HS-007B — C-77-HS-007B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-007A/77-HS-007B

~~C-77-HY-007B/77-HY-007A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77007

77-HY-007 — C-77-HY-007/77-HS-007A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 77-HS-007A

B-300 INDOOR

B-300 OUTDOOR

77-HS-008B — C-77-HS-008B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-008A/77-HS-008B

~~C-77-HS-008B/77-HS-008A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77008

77-HY-008 — C-77-HY-008/77-HS-008A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 77-HS-008A

B-300 INDOOR

B-300 OUTDOOR

77-HS-009B — C-77-HS-009B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-009A/77-HS-009B

~~C-77-HS-009B/77-HS-009A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77009

77-HY-009 — C-77-HY-009/77-HS-009A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 77-HS-009A

B-300 INDOOR

B-300 OUTDOOR

77-HS-010B — C-77-HS-010B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-010A/77-HS-010B

~~C-77-HS-010B/77-HS-010A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77010

77-HY-010 — C-77-HY-010/77-HS-010A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 77-HS-010A

B-300 INDOOR

B-300 OUTDOOR

77-HS-011B — C-77-HS-011B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-011A/77-HS-011B

~~C-77-HS-011B/77-HS-011A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77011

77-HY-011 — C-77-HY-011/77-HS-011A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — 77-HS-011A

B-300 INDOOR

TB-1

1 — 2 — SH — 3 — 4 — SH — 5 — 6 — SH — 7 — 8 — SH — 9 — 10 — SH — 11 — 12 — SH — 13 — 14 — SH — 15 — 16 — SH — 17 — 18 — SH — 19 — 20 — SH — 21 — 22 — SH — 23 — 24 — SH — OS

950-JE-04207/B400-FGS-002

24x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

TB-950-JE-04207

1 — 950-XZ-04202

2

3 — 950-XL-04203

4

5 — 950-XL-04204

6

7 — 77-HY-007

8

9 — 77-HY-008

10

11 — 77-HY-009

12

13 — 77-HY-010

14

15 — 77-HY-011

16

17 — SPARE

18

19 — SPARE

20

21 — SPARE

22

23 — SPARE

24

Shield Bar — I.E.

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_D	14/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT–FGS WIRING DIAGRAMS
950–JE–04207

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024
A3	DRAWING NO. 123A90–DDL–IN–DG–40016	SHEET 069	REV. 01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

ITEM	Tag	77-HS-009A	: Hand Switch for Fire&Gas Damper HFD-77009			Dwg	
	S/Sys	77-30	: HVAC UPS Equipment Room B-300			Module	
TASK	code	C10002093		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Instrumental Form CJX00		Miscellaneous

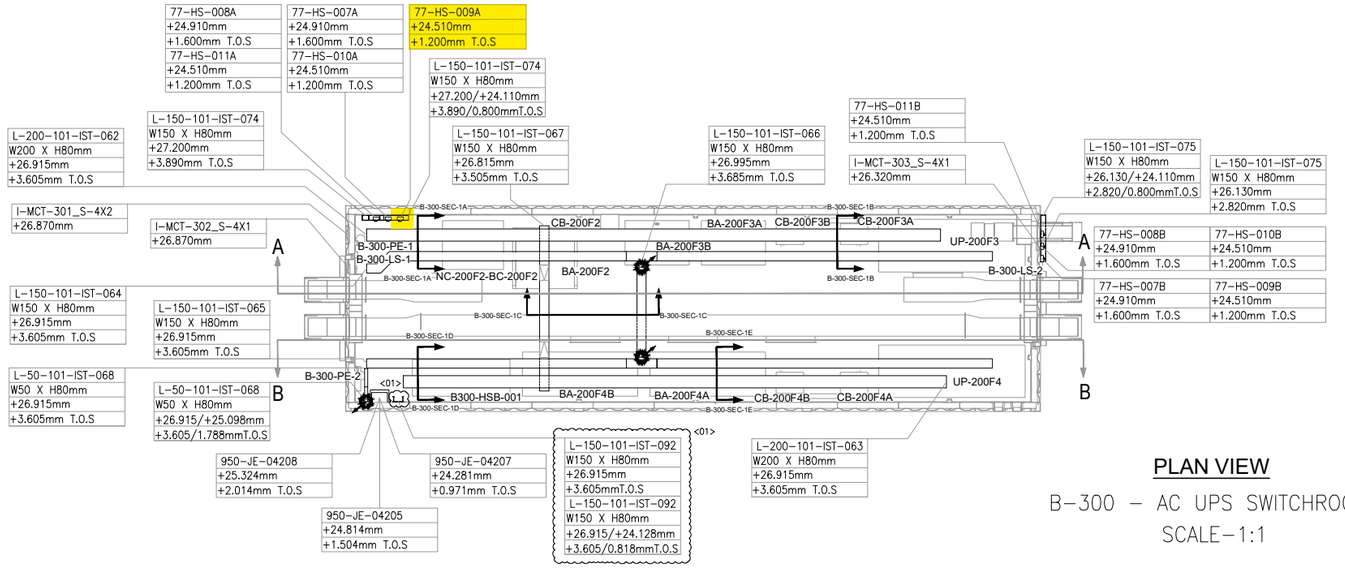
1	Check for mechanical damage.	OK
2	Check installed equipment is suitable and conforms to specification.	OK
3	Check installation conforms to P&ID and hook-up drawing.	OK
4	Check tube fittings manufacturer is the one chosen for the plant.	NA
5	Check that piping connections provide the block & bleed facility (if required).	NA
6	Check that all stop plugs are properly installed	NA
7	Check identification (tag number, tag plates).	OK
8	Check supporting and protection against vibrations.	OK
9	Check the conformity of earthing as per specification (I.P.E. or I.E.)	OK
10	If required produce Red Line Mark Up for "AS BUILT"	

Comments:

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM (ROSETTI MARINO)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-10-28	2024-11-21	
Signature	PROVERLIS Digitaly signed by Carmelo Bongiovanni 2024-10-28T09:13:53.348Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2024-11-21T08:32:04.860Z	

DRAWING NO. 123A90-DDL-IN-DL-40115

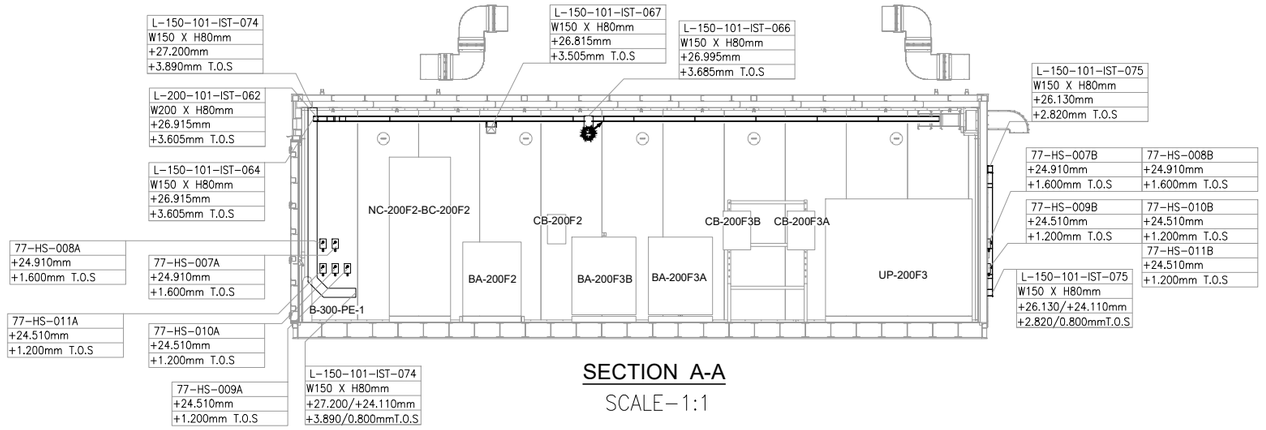
REV. 01



PLAN VIEW

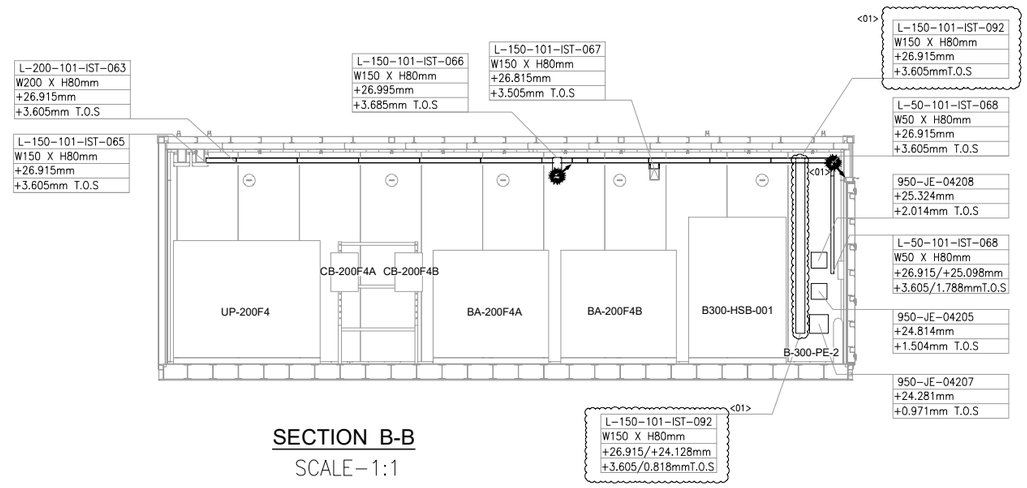
B-300 – AC UPS SWITCHROOM

SCALE-1:1



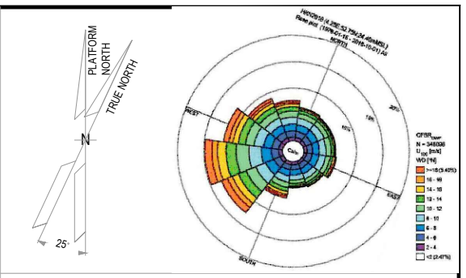
SECTION A-A

SCALE-1:1



SECTION B-B

SCALE-1:1



NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DRAWING IS VALID ONLY FOR CONTAINER CABLE TRAY LAYOUT.

LEGEND

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DL-40115**

REV.:	DATE:	SIGNATURE:
1_A	07/10/24	G.Randi

ROSETTI MARINO SpA

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-IN-DL-40081	INSTRUMENT LAYOUT - UPPER DECK
123A90-DDL-IN-LIS-40091	INSTRUMENT CABLE LIST
123A90-DDL-IN-DG-40015	INSTRUMENT-CCS WIRING DIAGRAMS
123A90-DDL-IN-DG-40016	INSTRUMENT-SAFETY SYSTEM WIRING DIAGRAMS
123A90-DDL-IN-DL-40083	INSTRUMENT MAIN CABLES ROUTING-LOWER DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/08/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)

Base Load Power HUB Cables Tray Layout

B-300 Container Lower Deck – TOS EL. 23.310m

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:50
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 04/10/24

A1	DRAWING NO. 123A90-DDL-IN-DL-40115	SHEET 001	REV. 01

File Name : 123A90-DDL-IN-DL-40115 REV01.dwg

DRAWING NO. 123-A90-DDL-IN-DG-40016 REV. 01

FIELD

INSTRUMENTS

JUNCTION BOX

950-JE-04207

MULTICABLE No.

I&T EQUIPMENT ROOM (ITER)

MARSHALLING CABINET

B400-FGS-002

<01>

B-300 UPS Room

950-XZ-04202 — C-950-XZ-04202/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2 — TB-1 1BK/2BK — 1 — SH

950-XL-04203 — C-950-XL-04203/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2 — 1BK/2BK — 3 — 4 — SH

950-XL-04204 — C-950-XL-04204/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2 — 1BK/2BK — 5 — 6 — SH

B-300 OUTDOOR

77-HS-007B — C-77-HS-007B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2 — 1BK/2BK — 7 — 8 — SH

C-77-HS-007A/77-HS-007B

~~C-77-HY-007D/77-HY-007A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77007

77-HY-007 — C-77-HY-007/77-HS-007A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

77-HS-007A — NOTE-2

B-300 OUTDOOR

77-HS-008B — C-77-HS-008B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2 — 1BK/2BK — 9 — 10 — SH

C-77-HS-008A/77-HS-008B

~~C-77-HS-008B/77-HS-008A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77008

77-HY-008 — C-77-HY-008/77-HS-008A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

77-HS-008A — NOTE-2

B-300 OUTDOOR

77-HS-009B — C-77-HS-009B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2 — 1BK/2BK — 11 — 12 — SH

C-77-HS-009A/77-HS-009B

~~C-77-HS-009B/77-HS-009A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77009

77-HY-009 — C-77-HY-009/77-HS-009A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

77-HS-009A — NOTE-2

B-300 OUTDOOR

77-HS-010B — C-77-HS-010B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2 — 1BK/2BK — 13 — 14 — SH

C-77-HS-010A/77-HS-010B

~~C-77-HS-010B/77-HS-010A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77010

77-HY-010 — C-77-HY-010/77-HS-010A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

77-HS-010A — NOTE-2

B-300 OUTDOOR

77-HS-011B — C-77-HS-011B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2 — 1BK/2BK — 15 — 16 — SH — 17 — 18 — SH — 19 — 20 — SH — 21 — 22 — SH — 23 — 24 — SH — OS

C-77-HS-011A/77-HS-011B

~~C-77-HS-011B/77-HS-011A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77011

77-HY-011 — C-77-HY-011/77-HS-011A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

77-HS-011A — NOTE-2

950-JE-04207/B400-FGS-002

24x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

TB-950-JE-04207

1BK/2BK	1	950-XZ-04202
3BK/4BK	2	
5BK/6BK	3	950-XL-04203
7BK/8BK	4	
9BK/10BK	5	950-XL-04204
11BK/12BK	6	
13BK/14BK	7	77-HY-007
15BK/16BK	8	
17BK/18BK	9	77-HY-008
19BK/20BK	10	
21BK/22BK	11	77-HY-009
23BK/24BK	12	
	13	77-HY-010
	14	
	15	77-HY-011
	16	
	17	SPARE
	18	
	19	SPARE
	20	
	21	SPARE
	22	
	23	SPARE
	24	

Shield Bar — I.E.

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_H	28/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT–FGS WIRING DIAGRAMS
950–JE–04207

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024
A3	DRAWING NO. 123A90–DDL–IN–DG–40016	SHEET 069	REV. 01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

I-3

DRAWING NO. 123A90-DDL-IN-DD-40017

REV. 00



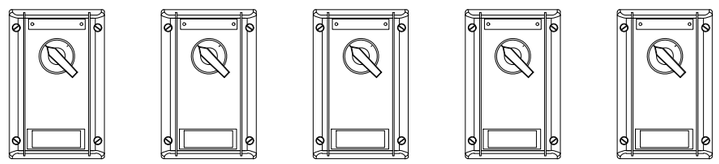
B-100
~~B-101~~



B-200
~~B-201~~



B-300
~~B-301~~



B-400
~~B-401~~

POS.	DESCRIPTION	Q.TY
-	SELFING TAPPING SCREW	-

CONTAINER	ITEM	DESCRIPTION	TAGNAME
B-100 ~~B-101~~	1	HAND SWITCH FOR DAMPER TEST	~~77-HS-011A~~ 77-HS-001A
	2	HAND SWITCH FOR DAMPER TEST	~~77-HS-012A~~ 77-HS-002A
	3	HAND SWITCH FOR DAMPER TEST	~~77-HS-013A~~ 77-HS-003A
B-200 ~~B-201~~	1	HAND SWITCH FOR DAMPER TEST	~~77-HS-014A~~ 77-HS-004A
	2	HAND SWITCH FOR DAMPER TEST	~~77-HS-015A~~ 77-HS-005A
	3	HAND SWITCH FOR DAMPER TEST	~~77-HS-016A~~ 77-HS-006A
B-300 ~~B-301~~	1	HAND SWITCH FOR DAMPER TEST	~~77-HS-017A~~ 77-HS-007A
	2	HAND SWITCH FOR DAMPER TEST	~~77-HS-018A~~ 77-HS-008A
	3	HAND SWITCH FOR DAMPER TEST	~~77-HS-019A~~ 77-HS-009A
	4	HAND SWITCH FOR DAMPER TEST	77-HS-010A
	5	HAND SWITCH FOR DAMPER TEST	77-HS-011A
B-400 ~~B-401~~	1	HAND SWITCH FOR DAMPER TEST	77-HS-012A
	2	HAND SWITCH FOR DAMPER TEST	77-HS-013A
	3	HAND SWITCH FOR DAMPER TEST	77-HS-014A
	4	HAND SWITCH FOR DAMPER TEST	77-HS-015A
	5	HAND SWITCH FOR DAMPER TEST	77-HS-016A

NOTES

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	02/09/2024	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	11/07/2024	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT INSTALLATION DETAILS
HAND SWITCH INSIDE CONTAINERS

CONTRACT NO./TITLE | SCALE /

DRAWN VBA | CHECKED LCA | APPROVED DLO | DATE 11/07/2024

A3 | DRAWING NO. 123A90-DDL-IN-DD-40017 | SHEET 046 | REV. 01

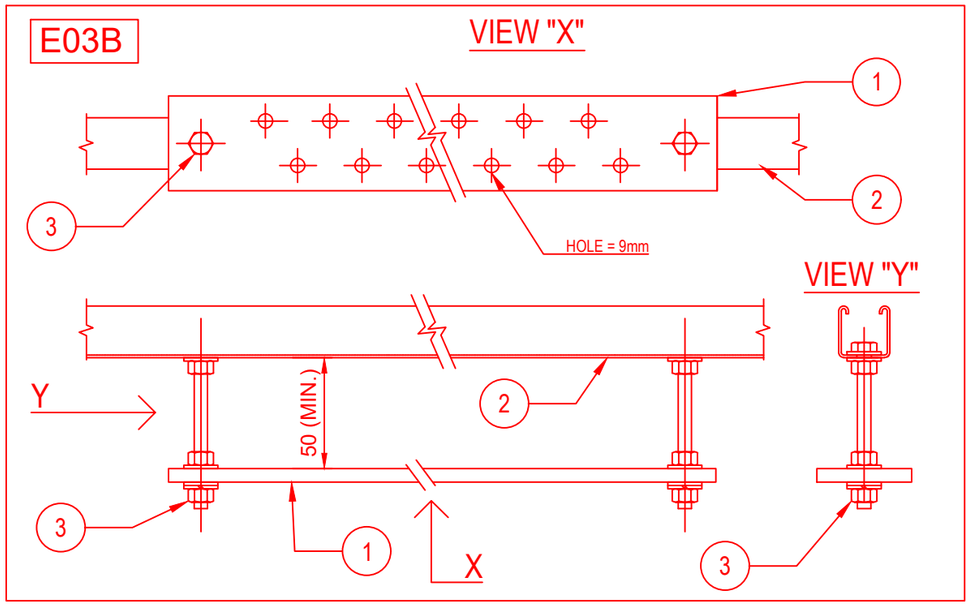
VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DD-40017**

REV.:	DATE:	SIGNATURE:
1_C	15/10/24	G.Randi

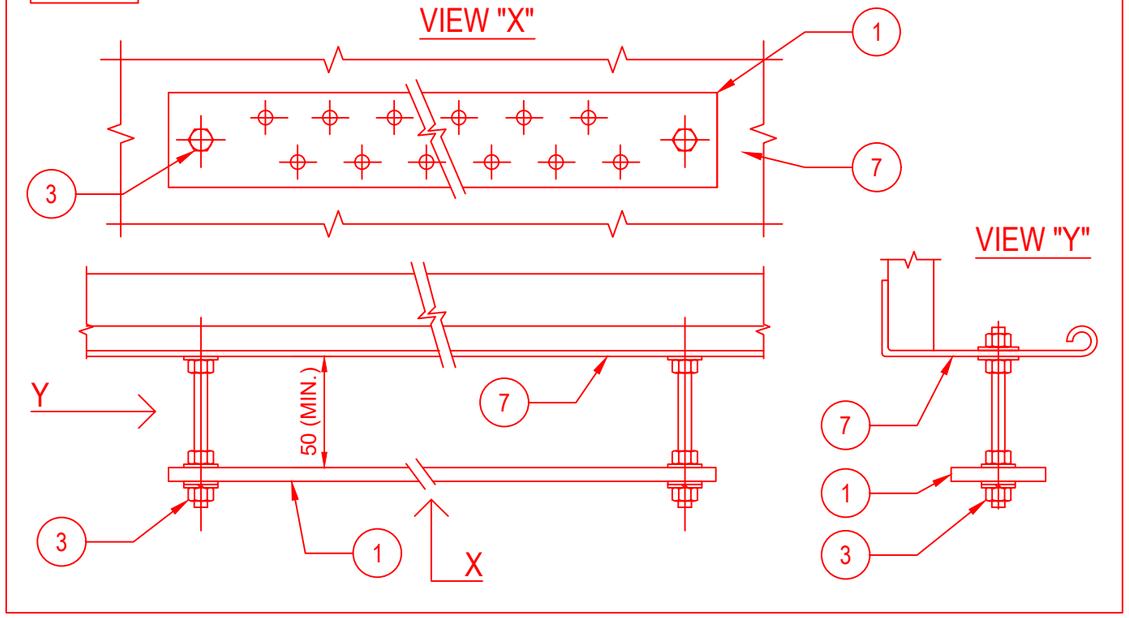
ROSETTI MARINO SpA

TYPICAL DETAIL VALID FOR EXTERNAL USE ONLY

E03B

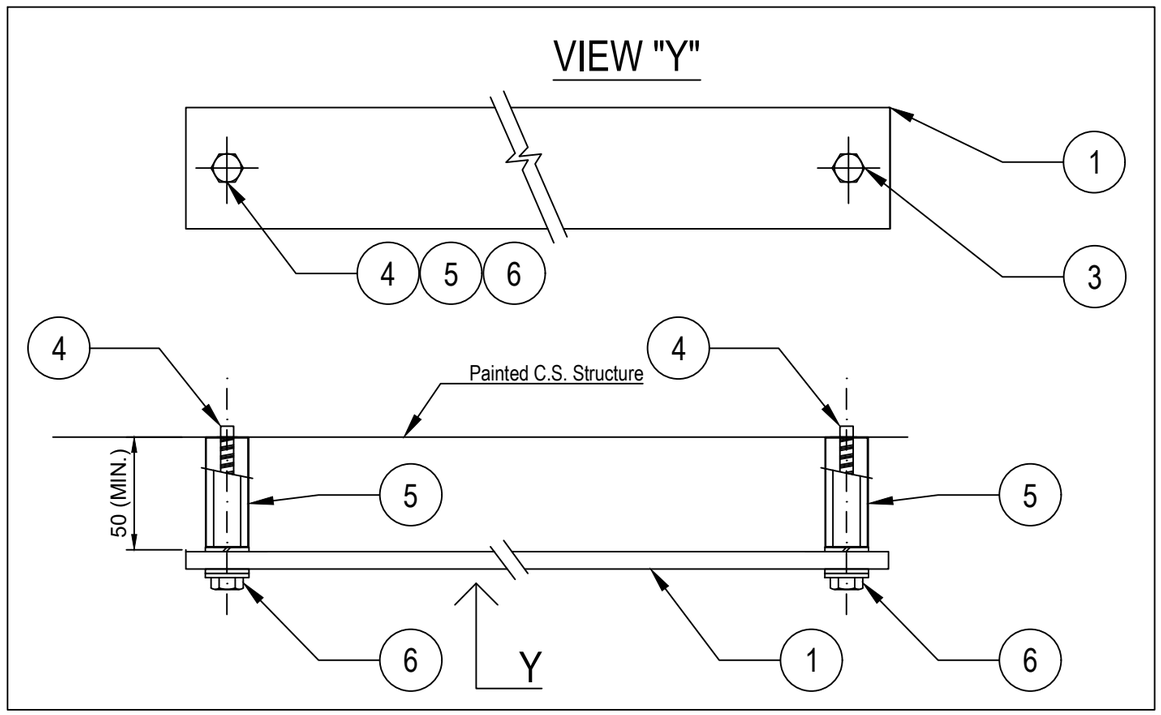


E03C



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	EARTHING BAR	TINNED COPPER	285X50X5	1	
2	SINGLE U-CHANNEL PERFORATED ON N.3 SIDE	AISI 316L		2	
3	HEXAG. BOLTS, PLANE WASHERS, GROWER SPRING WASHER AND NUT	AISI 316L	M10X30	2	
4	THREADED STUD	AISI 316L	M10X28	2	NOTE 1
5	FEMALE / MALE COUPLING	AISI 316L	M10X50	2	NOTE 2
6	PLANE WASHER, GROWER AND NUT	AISI 316L	M10	2	
7	CABLE LADDER	AISI 316L			

E03D



NOTES:

1) THREADED STUD mod. HILTI S-BT-ER M10/15 SN6 CERTIFIED FOR EARTHING SYSTEM.
2) STANDOFF ADAPTER mod. HILTI M10-HC120 50.
3) FOR TYPICALS E03B AND E03C (EARTHING BAR FIXED TO U-CHANNEL OR CABLE TRAY/LADDER) THE EARTHING BAR SHALL BE CONNECTED TO EARTHING POINT IN N.1 POINT WITH 35sqmm Y/G CABLE

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_G	25/10/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS-EARTHING SYSTEM
EARTHING BAR INSTALLED ON WELDED PROFILE OR THREADED STUD

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

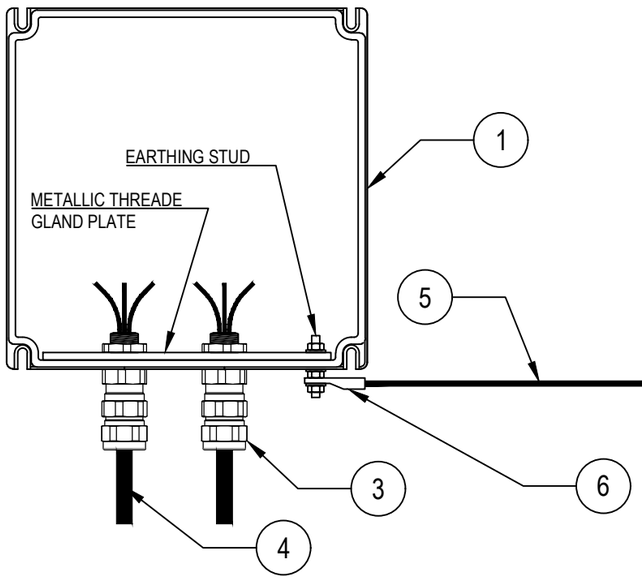
A3 | DRAWING NO. 123A90-DDL-EL-DD-20090 | SHEET 004 | REV. 02

F.to UNI A3: 420mmx297mm

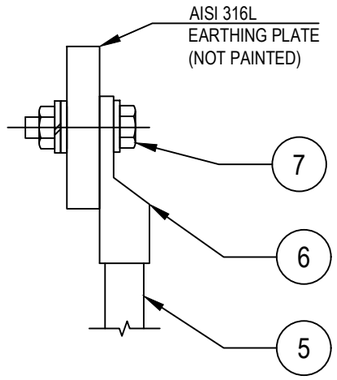
File Name : 123A90-DDL-EL-DD-20090 REV.02 RLMU.DWG

E04

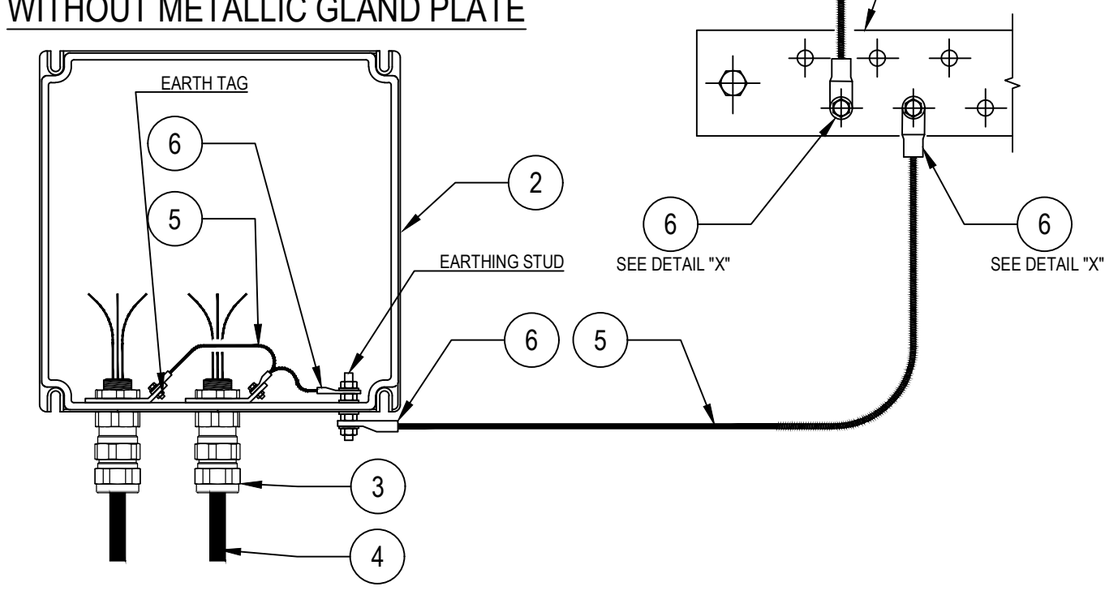
DETAIL OF NON METALLIC ENCLOSURE WITH METALLIC GLAND PLATE



DETAIL "X"



DETAIL OF NON METALLIC ENCLOSURE WITHOUT METALLIC GLAND PLATE



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	JUNCTION BOX WITH PLATE (EX)	GRP			
2	JUNCTION BOX WITHOUT GLAND PLATE (EX)	GRP			
3	DOUBLE SEAL CABLE GLAND (EX) FOR ARMOURED CABLE	NICK.PL.BRASS			~~NOTE 2~~
4	ARMOURED CABLE				
5	Y/G INSULATING COPPER CONDUCTOR	COPPER	$6mm^2$		NOTE 1
6	COMPRESSION TYPE LUG FOR INSULATION COPPER CONDUCTOR	TINNED COPPER	$6mm^2$		NOTE 1
7	BOLT, PLANE WASHER, GROWER SPRING WASHER AND NUT	AISI 316L			

NOTES:
1) FOR EARTHING BAR SEE TYPICAL DETAILS E03
~~2) CABLE LUG CRIMPING METHOD SHALL BE HEXAGONAL COMPRESSION DIES ONLY.~~

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_G	25/10/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS-EARTHING SYSTEM
EARTHING FOR CABLE ARMOUR BY CABLE GLAND

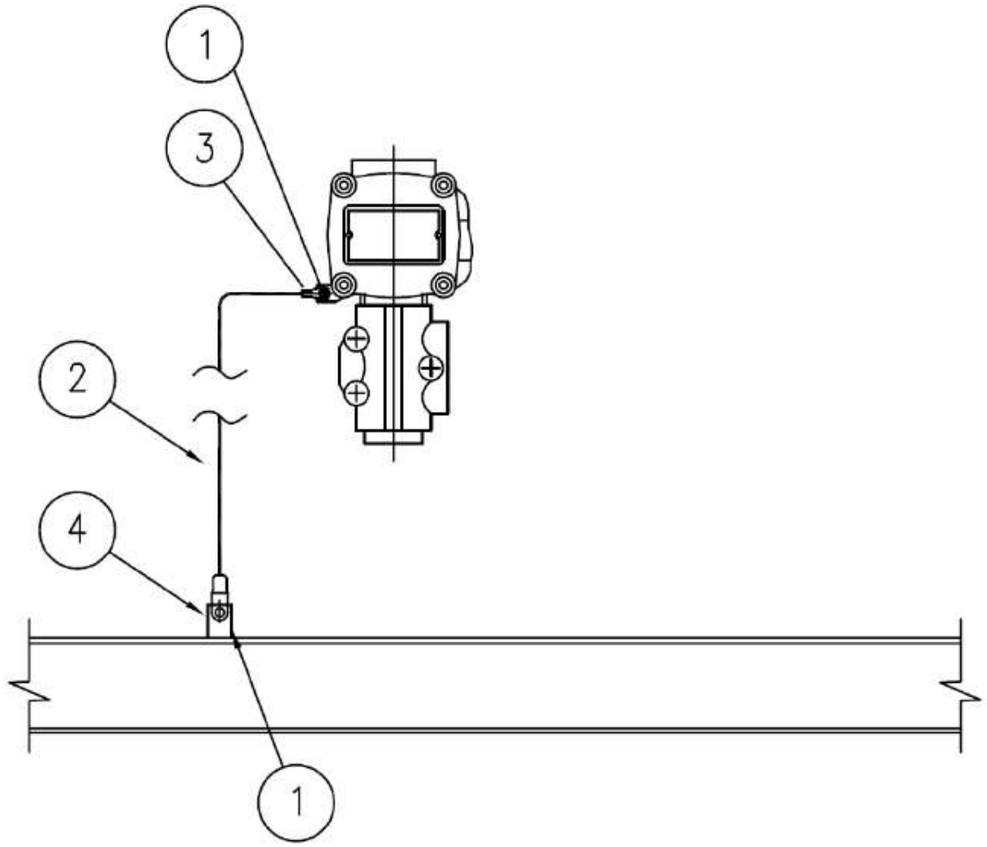
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 123A90-DDL-EL-DD-20090 | SHEET 010 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 123A90-DDL-EL-DD-20090 REV.02.DWG

E33



MATERIALS

POS.	Q.TY	DESCRIPTION	NOTES
1	1	A4 STAINLESS STEEL BOLT COMPLETE WITH NUT AND WASHERS	
2	1	Y/G INSULATING COPPER CONDUCTOR - 6mm²	
3	1	COMPRESSION TYPE LUG FOR INSULATING COPPER CONDUCTOR	
4	1	EARTHING BAR / PLATE / THREADED STUD	(1)

NOTE:
1) FOR DETAIL OF EARTHING PLATE, EARTHING BOSS AND THREADED STUD SEE TYP. E11A/C/D/E

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-EL-DD-20090

REV.:	DATE:	SIGNATURE:
2_G	25/10/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS-EARTHING SYSTEM
EARTHING FOR GENERIC INSTRUMENT

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK

SCALE : NTS

A3

DRAWING NO. 123A90-DDL-EL-DD-20090

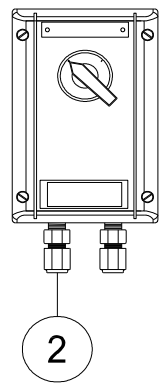
SHEET 027

REV. 02

F.to UNI A3: 420mmx297mm

File Name : 123A90-DDL-EL-DD-20090 REV.02.DWG

ELECTRICAL HOOK-UP FOR HAND SWITCH TEST OF THE DAMPERS



INSTRUMENT TAG	
1	77-HS-001A
2	77-HS-001B
3	77-HS-002A
4	77-HS-002B
5	77-HS-003A
6	77-HS-003B
7	77-HS-004A
8	77-HS-004B
9	77-HS-005A
10	77-HS-005B
11	77-HS-006A
12	77-HS-006B
13	77-HS-007A
14	77-HS-007B
15	77-HS-008A
16	77-HS-008B
17	77-HS-009A
18	77-HS-009B
19	77-HS-010A
20	77-HS-010B
21	77-HS-011A
22	77-HS-011B
23	77-HS-012A
24	77-HS-012B
25	77-HS-013A
26	77-HS-013B
27	77-HS-014A
28	77-HS-014B
29	77-HS-015A
30	77-HS-015B
31	77-HS-016A
32	77-HS-016B

POS.	NORM/STD CODE	DESCRIPTION	SIZE/ CONNECTION TYPE	Q.TY
2		Nickel Plated Brass Double Compression Cable Gland Ex-d/e IIC (or IIB + H2) T1	M20	2

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-IN-HD-40079
REV.: 2_A | DATE: 08/10/24 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

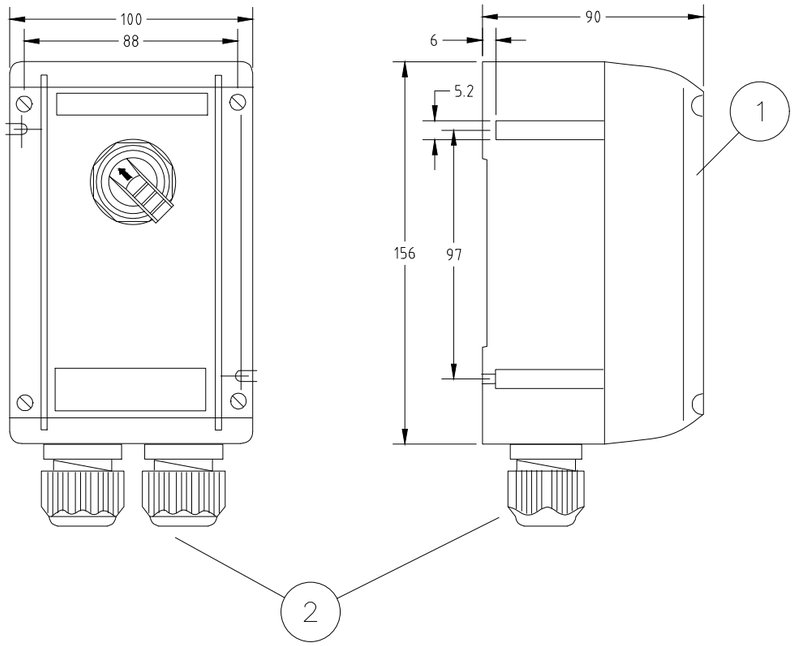
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PUSH BUTTON DPDT CONTACT

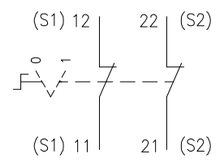
ITEM	DESCRIPTIONS	NR
1	Control Station, CO.SI.ME GHG 432	1
2	Cable Gland M20 Ex eb Polyamide	2
3		
4		
5		
6		
7		
8		
9		
10		

INSTALLATION
QUANTITY

32



WIRING



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	03/09/24	DB	MO	SM	ACCEPTED FOR CONSTRUCTION (AFC)
00	08/07/24	DB	MO	SM	ISSUE FOR REVIEW (IFR)

FORES ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
GENERAL ARRANGEMENT
PUSH BUTTON DPDT CONTACT

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK

SCALE : NTS

A3

DRAWING NO. 1724000821-IN-DA-00003

SHEET 014

REV. 01

F.to UNI A3: 420mmx297mm

File Name : 1724000821-IN-DA-00003 Rev. 01



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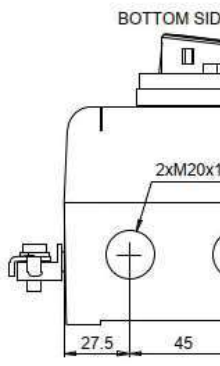


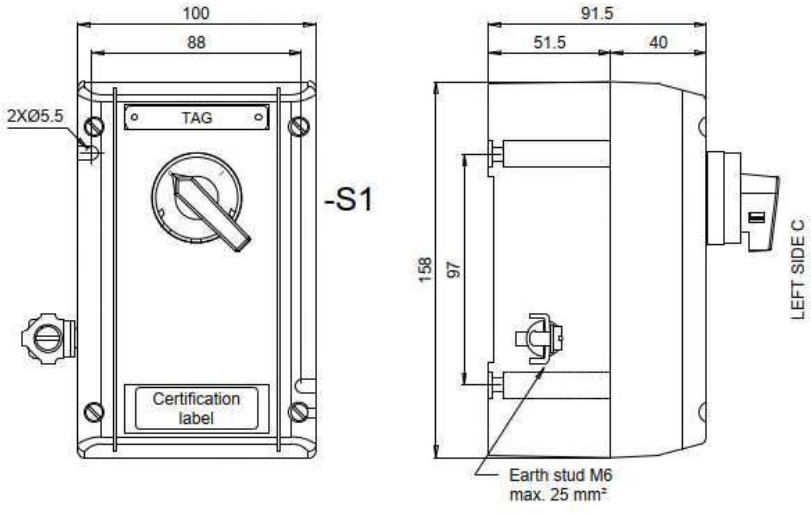
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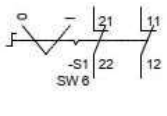
Technical data

	Ex-control stations Type 432 I Type 434	
Marking accd. to 2014/34/EU	Ⓔx II 2 G Ex ed ib m IIC T6 Ⓔx II 2 D Ex tD A21 IP66 T80 °C	
EC-Type Examination Certificate	PTB 00 ATEX 3117	
IECEx Certificate of Conformity	IECEx BKI 04.0003	
Marking accd. to IECEx	Ex e II T6, Ex e ib IIC T6, Ex ed IIC T6 or Ex ed ib IIC T6	
Permissible ambient temperature	–20 °C up to +40 °C –55 °C up to +55 °C (option)	
Rated voltage	690 V AC (with control switch GHG 23 up to 500 V)	
Rated current	16 A (with control switch GHG 23 max. 10 A)	
Rated making-/rated breaking capacity accd. EN 60947-5-1	Ex41 AC-15: U_e 250 V / I_e 6 A U_e 500 V / I_e 4 A DC-13: U_e 24 V / I_e 6 A U_e 110 V / I_e 0.5 A	Ex23 AC-15: U_e 230 V / I_e 6 A U_e 500 V / I_e 4 A DC-13: U_e 24 V / I_e 2 A U_e 230 V / I_e 0.5 A
Connecting terminals	2 x 4 mm²	
Protection class	I	
Degree of protection accd. to EN 60529	IP66	
Cable glands/Gland plates/Enclosure drilling	2 x M25 cable gland incl. 1 blanking plug or optional 2 x M20 thread with internal brass plate	
Enclosure material	Polyamide	
Enclosure colour	black	

	Type 432
Dimensions (L x W x H)	156 x 100 x 90 mm
Weight (empty)	0.47 kg

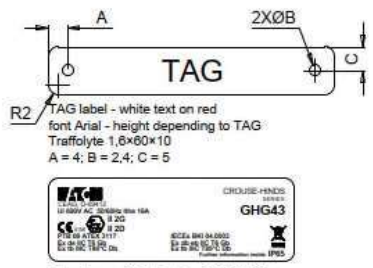






Contact arrangement		
	21-22	11-12
0	X	X
I		

X	Contact close
(none)	Contact open



Techical data:
Manufactured by Eaton Crouse-Hinds Division
Model: GHG 432
Certificate No.
PTB 00 ATEX 3117
IECEx BKI 04.0003
Marking: ATEX and IECEx
II 2G Ex de IIC T6 Gb
II 2D Ex tb IIIC T80°C Db
-40°C ≤ tamb ≤ +55°C
Ui 690V
IP65

Specific characteristics:
- Polyamide (PA), black
- Closed with stainless steel screw
- Bottom with internal earth plate in brass
- M6 internal/external stainless steel earth stud

Components:
- No. 1 black selector switch with 2 position 2NC

Entries bottom side B:
- No. 2 M20 threaded taped with transit tape

No.1 1,6×60×10 mm white text on red background traffolyte tag fixed with stainless steel screws on the cover, sealed on the back with PU adhesive and engraved

Also a certification label fixed with back self adhesive on the cover

Quantity: 32

PUSH BUTTON DPDT CONTACT

POS.	TAG NUMBER	SERVICE
1	77-HS-001A	B-100 Fire Damper AHU1 Inlet Air
2	77-HS-001B	B-100 Fire Damper AHU1 Inlet Air
3	77-HS-002A	B-100 Fire Damper AHU2 Inlet Air
4	77-HS-002B	B-100 Fire Damper AHU2 Inlet Air
5	77-HS-003A	B-100 Fire Damper Exhaust Air
6	77-HS-003B	B-100 Fire Damper Exhaust Air
7	77-HS-004A	B-200 Fire Damper AHU3 Inlet Air
8	77-HS-004B	B-200 Fire Damper AHU3 Inlet Air
9	77-HS-005A	B-200 Fire Damper AHU4 Inlet Air
10	77-HS-005B	B-200 Fire Damper AHU4 Inlet Air
11	77-HS-006A	B-200 Fire Damper Exhaust Air
12	77-HS-006B	B-200 Fire Damper Exhaust Air
13	77-HS-007A	B-300 Fire Damper AHU5 Inlet Air
14	77-HS-007B	B-300 Fire Damper AHU5 Inlet Air
15	77-HS-008A	B-300 Fire Damper AHU5 Return Air
16	77-HS-008B	B-300 Fire Damper AHU5 Return Air
17	77-HS-009A	B-300 Fire Damper AHU6 Inlet Air
18	77-HS-009B	B-300 Fire Damper AHU6 Inlet Air
19	77-HS-010A	B-300 Fire Damper AHU6 Return Air
20	77-HS-010B	B-300 Fire Damper AHU6 Return Air
21	77-HS-011A	B-300 Fire Damper Exhaust Air
22	77-HS-011B	B-300 Fire Damper Exhaust Air
23	77-HS-012A	B-400 Fire Damper AHU7 Inlet Air
24	77-HS-012B	B-400 Fire Damper AHU7 Inlet Air
25	77-HS-013A	B-400 Fire Damper AHU7 Return Air
26	77-HS-013B	B-400 Fire Damper AHU7 Return Air
27	77-HS-014A	B-400 Fire Damper AHU8 Inlet Air
28	77-HS-014B	B-400 Fire Damper AHU8 Inlet Air
29	77-HS-015A	B-400 Fire Damper AHU8 Return Air
30	77-HS-015B	B-400 Fire Damper AHU8 Return Air
31	77-HS-016A	B-400 Fire Damper Exhaust Air
32	77-HS-016B	B-400 Fire Damper Exhaust Air

File: 1724000821-IN-DS-00004-02.xlsx
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ITEM	Tag	77-HS-009B	: Hand Switch for Fire&Gas Damper HFD-77009		Dwg	123A90-DDL-IN-DL-40115	
	S/Sys	77-30	: HVAC UPS Equipment Room B-300		Module	LD_B-300	
TASK	code	C10002094	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity CCK	Discipline Instrumental	Form	CJX00	Miscellaneous

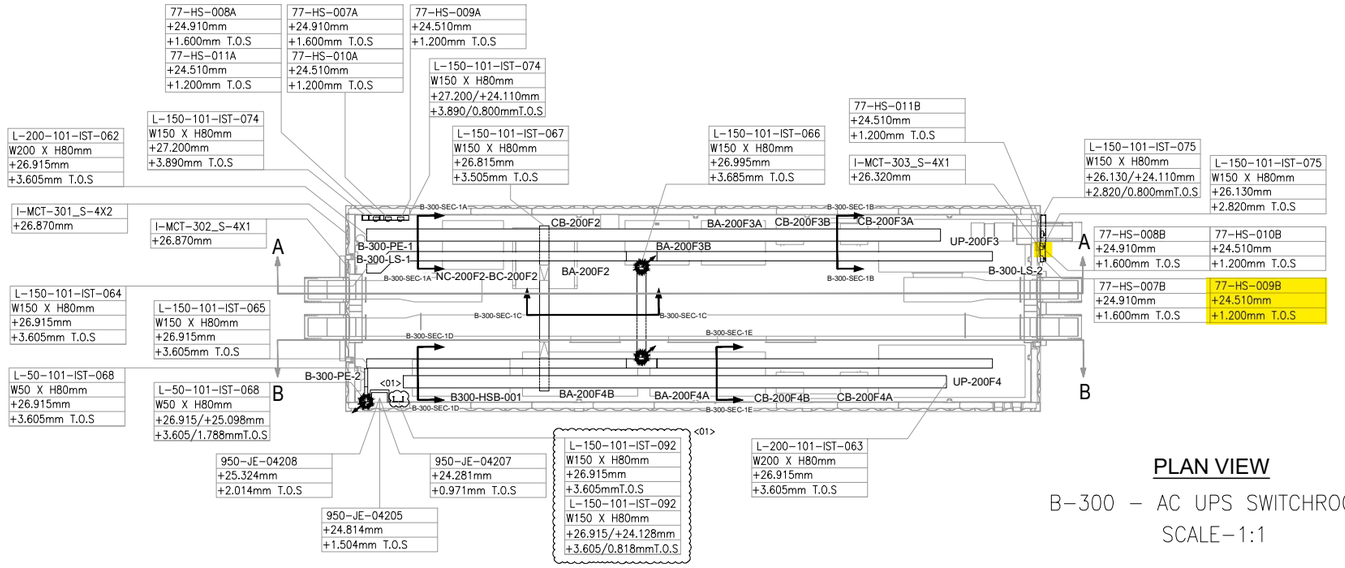
1	Check for mechanical damage.	OK
2	Check installed equipment is suitable and conforms to specification.	OK
3	Check installation conforms to P&ID and hook-up drawing.	OK
4	Check tube fittings manufacturer is the one chosen for the plant.	NA
5	Check that piping connections provide the block & bleed facility (if required).	NA
6	Check that all stop plugs are properly installed	NA
7	Check identification (tag number, tag plates).	OK
8	Check supporting and protection against vibrations.	OK
9	Check the conformity of earthing as per specification (I.P.E. or I.E.)	OK
10	If required produce Red Line Mark Up for "AS BUILT"	

Comments:

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM (Rosetti Marino)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-10-11	2024-10-15	
Signature	PROVERLIS Digitaly signed by Carmelo Bongiovanni 2024-10-11T15:38:34.908Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2024-10-15T11:03:34.562Z	

DRAWING NO. 123A90-DDL-IN-DL-40115

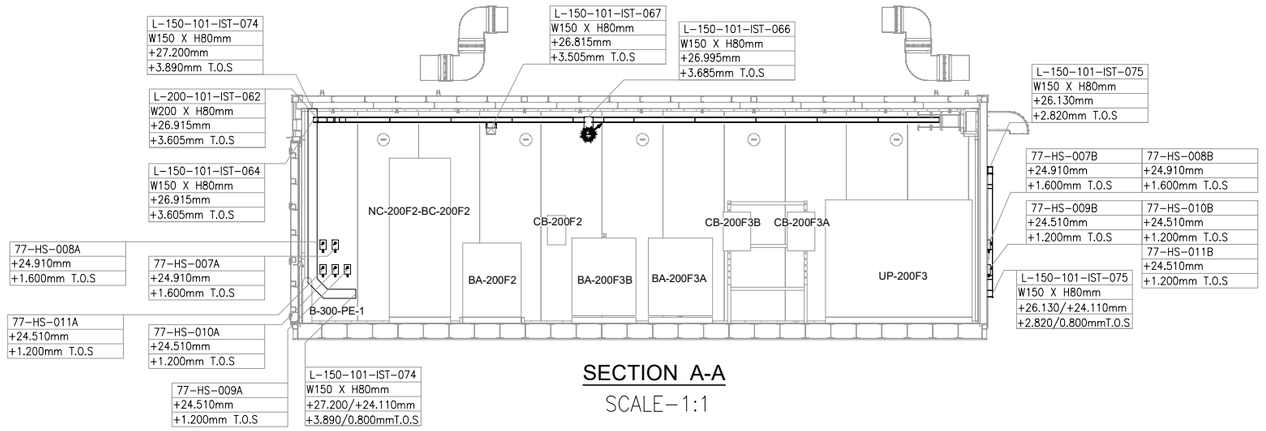
REV. 01



PLAN VIEW

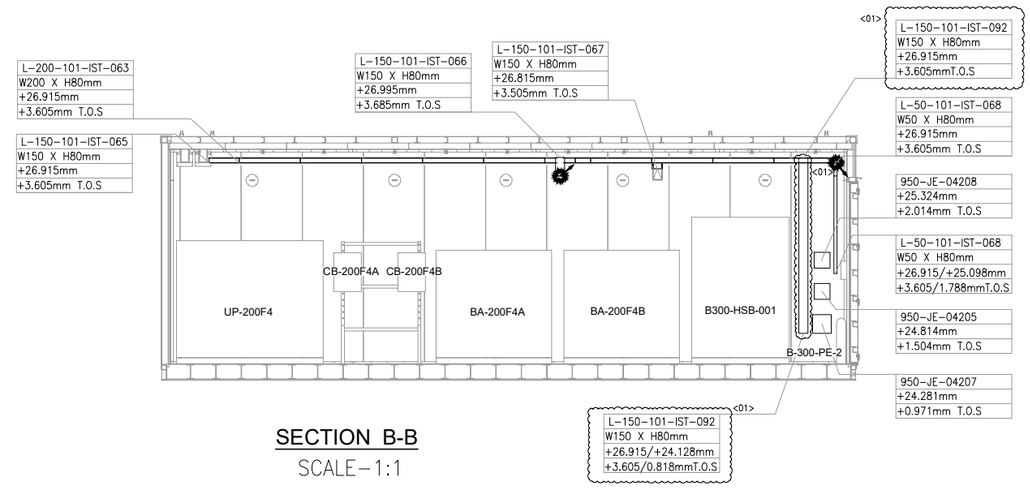
B-300 – AC UPS SWITCHROOM

SCALE-1:1



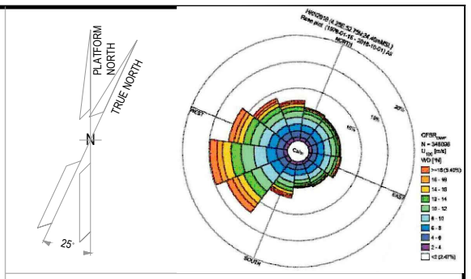
SECTION A-A

SCALE-1:1



SECTION B-B

SCALE-1:1



NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DRAWING IS VALID ONLY FOR CONTAINER CABLE TRAY LAYOUT.

LEGEND

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DL-40115**

REV.:	DATE:	SIGNATURE:
1_A	07/10/24	G.Randi

ROSETTI MARINO SpA

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-IN-DL-40081	INSTRUMENT LAYOUT - UPPER DECK
123A90-DDL-IN-LIS-40091	INSTRUMENT CABLE LIST
123A90-DDL-IN-DG-40015	INSTRUMENT-CCS WIRING DIAGRAMS
123A90-DDL-IN-DG-40016	INSTRUMENT-SAFETY SYSTEM WIRING DIAGRAMS
123A90-DDL-IN-DL-40083	INSTRUMENT MAIN CABLES ROUTING-LOWER DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/08/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)

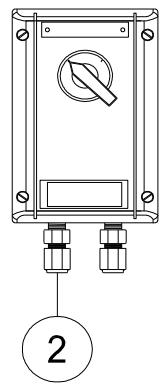
Base Load Power HUB Cables Tray Layout

B-300 Container Lower Deck – TOS EL. 23.310m

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE	1:50
DRAWN VBA	CHECKED LCA	APPROVED DLO		DATE	04/10/24
A1	DRAWING NO. 123A90-DDL-IN-DL-40115			SHEET 001	REV. 01

File Name : 123A90-DDL-IN-DL-40115 REV01.dwg

ELECTRICAL HOOK-UP FOR HAND SWITCH TEST OF THE DAMPERS



INSTRUMENT TAG	
1	77-HS-001A
2	77-HS-001B
3	77-HS-002A
4	77-HS-002B
5	77-HS-003A
6	77-HS-003B
7	77-HS-004A
8	77-HS-004B
9	77-HS-005A
10	77-HS-005B
11	77-HS-006A
12	77-HS-006B
13	77-HS-007A
14	77-HS-007B
15	77-HS-008A
16	77-HS-008B
17	77-HS-009A
18	77-HS-009B
19	77-HS-010A
20	77-HS-010B
21	77-HS-011A
22	77-HS-011B
23	77-HS-012A
24	77-HS-012B
25	77-HS-013A
26	77-HS-013B
27	77-HS-014A
28	77-HS-014B
29	77-HS-015A
30	77-HS-015B
31	77-HS-016A
32	77-HS-016B

POS.	NORM/STD CODE	DESCRIPTION	SIZE/ CONNECTION TYPE	Q.TY
2		Nickel Plated Brass Double Compression Cable Gland Ex-d/e IIC (or IIB + H2) T1	M20	2

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-IN-HD-40079
REV.: 2_A | DATE: 08/10/24 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

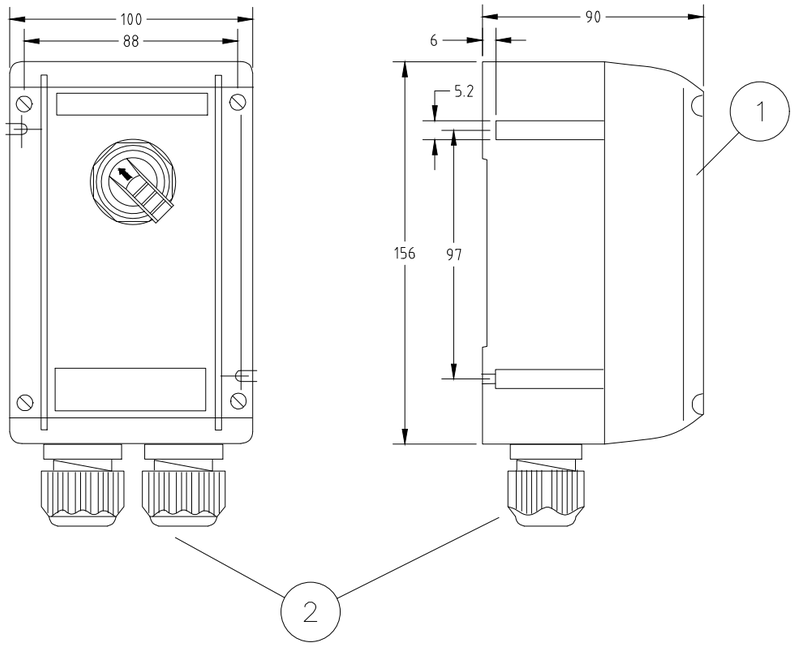
This document undergoes an issuance cycle within EDMS "Fusionlive".
Its distribution is electronically controlled. Once printed shall be considered as "NOT CONTROLLED" copy

PUSH BUTTON DPDT CONTACT

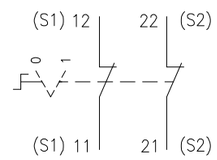
ITEM	DESCRIPTIONS	NR
1	Control Station, CO.SI.ME GHG 432	1
2	Cable Gland M20 Ex eb Polyamide	2
3		
4		
5		
6		
7		
8		
9		
10		

INSTALLATION
QUANTITY

32



WIRING



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	03/09/24	DB	MO	SM	ACCEPTED FOR CONSTRUCTION (AFC)
00	08/07/24	DB	MO	SM	ISSUE FOR REVIEW (IFR)

FORES ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
GENERAL ARRANGEMENT
PUSH BUTTON DPDT CONTACT

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK

SCALE : NTS

A3

DRAWING NO. 1724000821-IN-DA-00003

SHEET 014

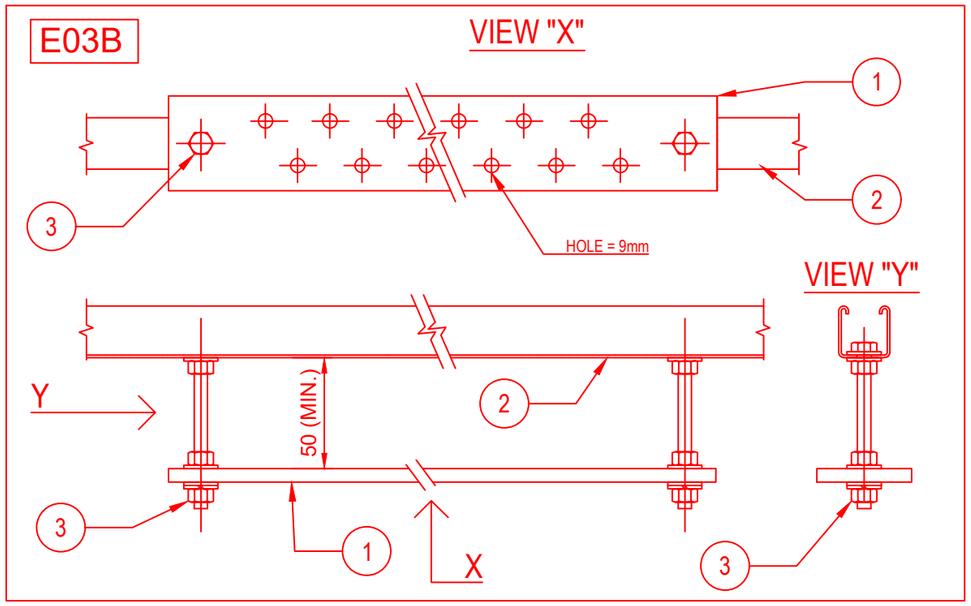
REV. 01

F.to UNI A3: 420mmx297mm

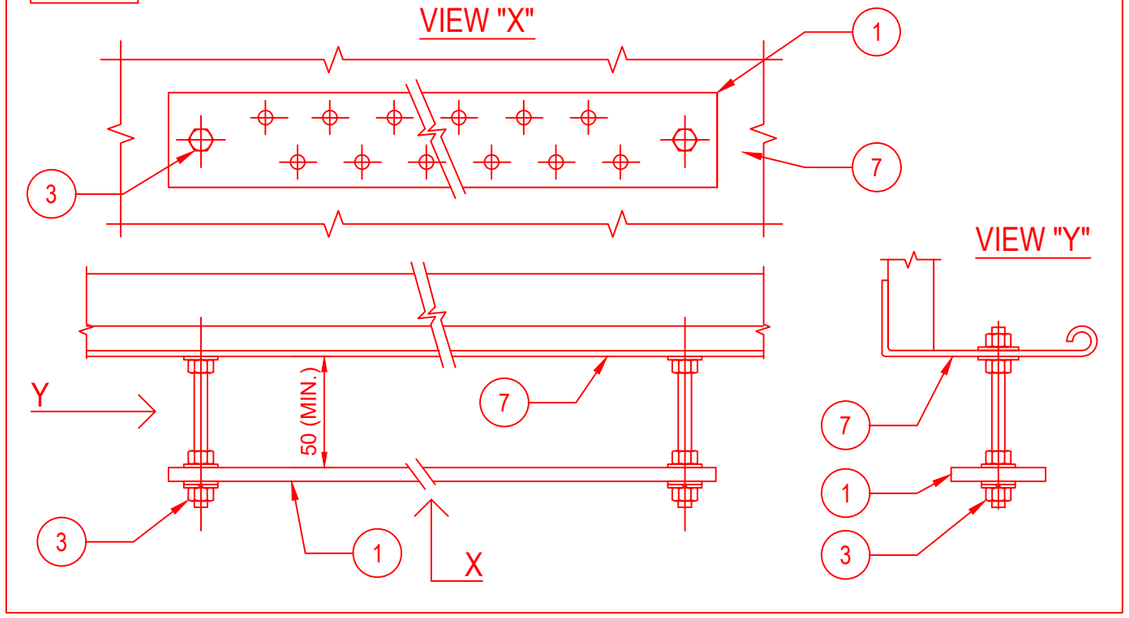
File Name : 1724000821-IN-DA-00003 Rev. 01

TYPICAL DETAIL VALID FOR EXTERNAL USE ONLY

E03B

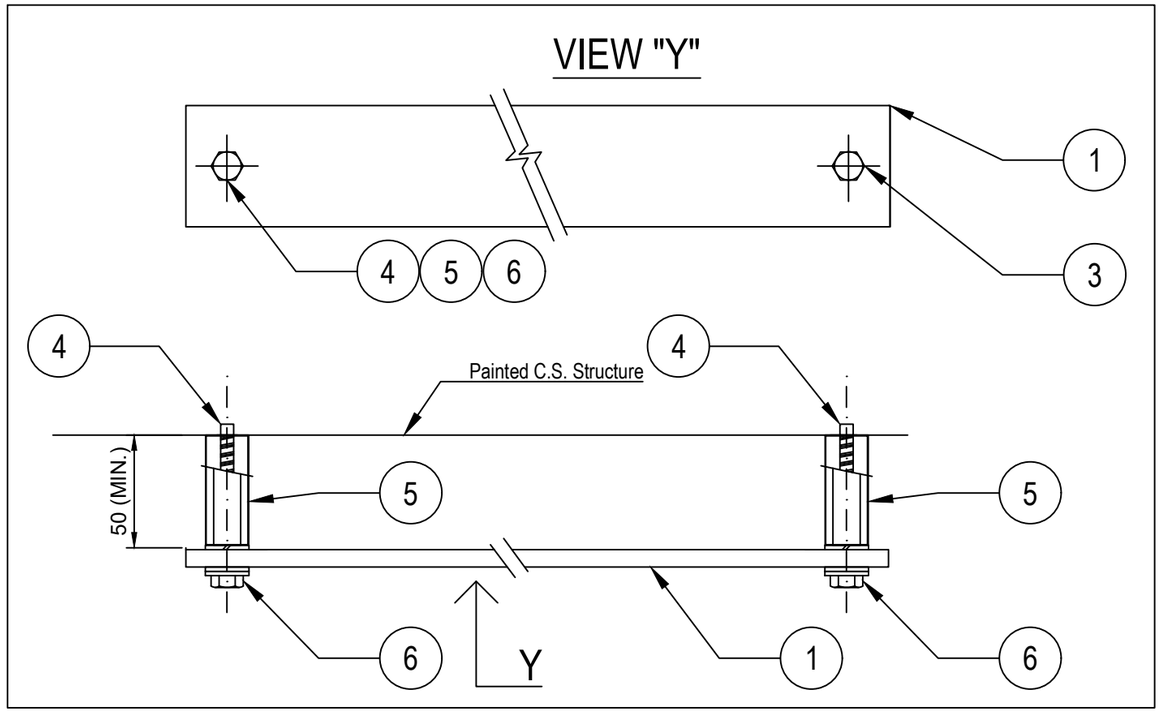


E03C



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	EARTHING BAR	TINNED COPPER	285X50X5	1	
2	SINGLE U-CHANNEL PERFORATED ON N.3 SIDE	AISI 316L		2	
3	HEXAG. BOLTS, PLANE WASHERS, GROWER SPRING WASHER AND NUT	AISI 316L	M10X30	2	
4	THREADED STUD	AISI 316L	M10X28	2	NOTE 1
5	FEMALE / MALE COUPLING	AISI 316L	M10X50	2	NOTE 2
6	PLANE WASHER, GROWER AND NUT	AISI 316L	M10	2	
7	CABLE LADDER	AISI 316L			

E03D



NOTES:

1) THREADED STUD mod. HILTI S-BT-ER M10/15 SN6 CERTIFIED FOR EARTHING SYSTEM.
2) STANDOFF ADAPTER mod. HILTI M10-HC120 50.
3) FOR TYPICALS E03B AND E03C (EARTHING BAR FIXED TO U-CHANNEL OR CABLE TRAY/LADDER) THE EARTHING BAR SHALL BE CONNECTED TO EARTHING POINT IN N.1 POINT WITH 35sqmm Y/G CABLE

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_E	09/10/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS–EARTHING SYSTEM
EARTHING BAR INSTALLED ON WELDED PROFILE OR THREADED STUD

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

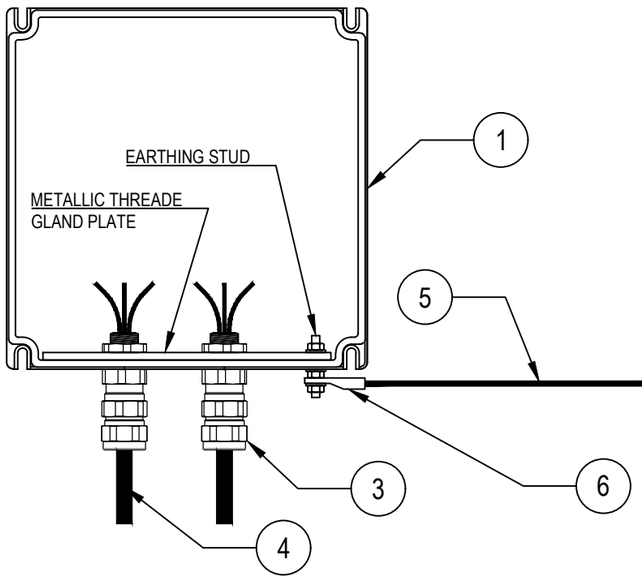
A3 | DRAWING NO. 123A90-DDL-EL-DD-20090 | SHEET 004 | REV. 02

F.to UNI A3: 420mmx297mm

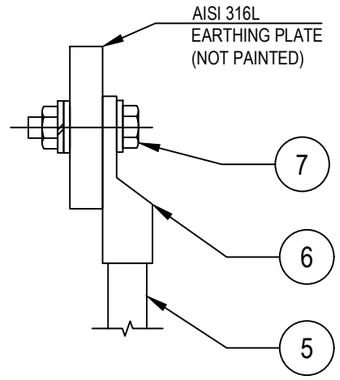
File Name : 123A90-DDL-EL-DD-20090 REV.02 RLMU.DWG

E04

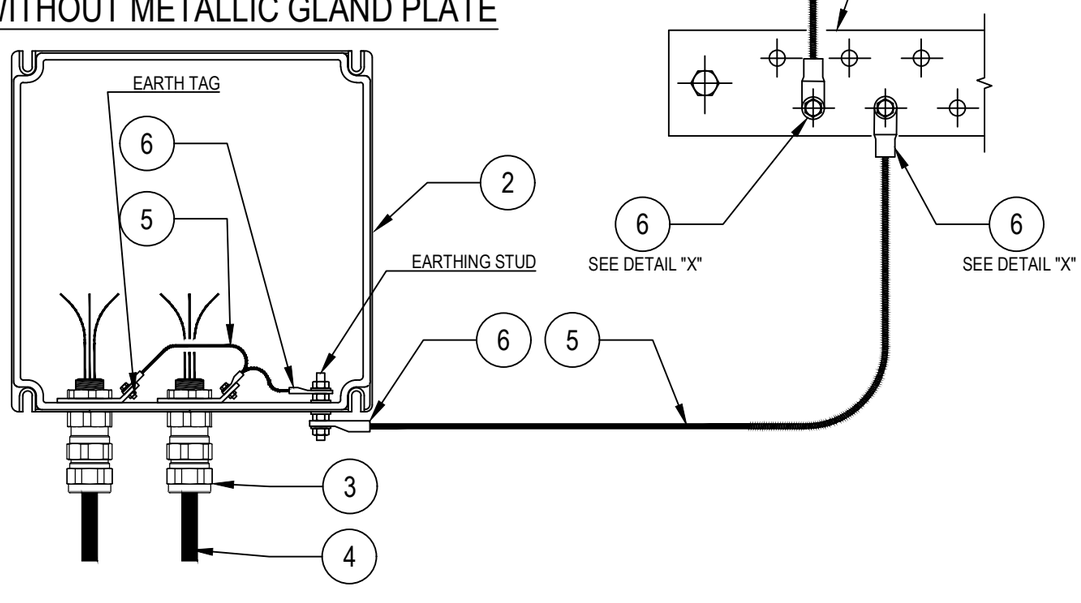
DETAIL OF NON METALLIC ENCLOSURE WITH METALLIC GLAND PLATE



DETAIL "X"



DETAIL OF NON METALLIC ENCLOSURE WITHOUT METALLIC GLAND PLATE



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	JUNCTION BOX WITH PLATE (EX)	GRP			
2	JUNCTION BOX WITHOUT GLAND PLATE (EX)	GRP			
3	DOUBLE SEAL CABLE GLAND (EX) FOR ARMOURED CABLE	NICK.PL.BRASS			~~NOTE 2~~
4	ARMOURED CABLE				
5	Y/G INSULATING COPPER CONDUCTOR	COPPER	$6mm^2$		NOTE 1
6	COMPRESSION TYPE LUG FOR INSULATION COPPER CONDUCTOR	TINNED COPPER	$6mm^2$		NOTE 1
7	BOLT, PLANE WASHER, GROWER SPRING WASHER AND NUT	AISI 316L			

NOTES:
1) FOR EARTHING BAR SEE TYPICAL DETAILS E03
~~2) CABLE LUG CRIMPING METHOD SHALL BE HEXAGONAL COMPRESSION DIES ONLY.~~

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_E	09/10/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS-EARTHING SYSTEM
EARTHING FOR CABLE ARMOUR BY CABLE GLAND

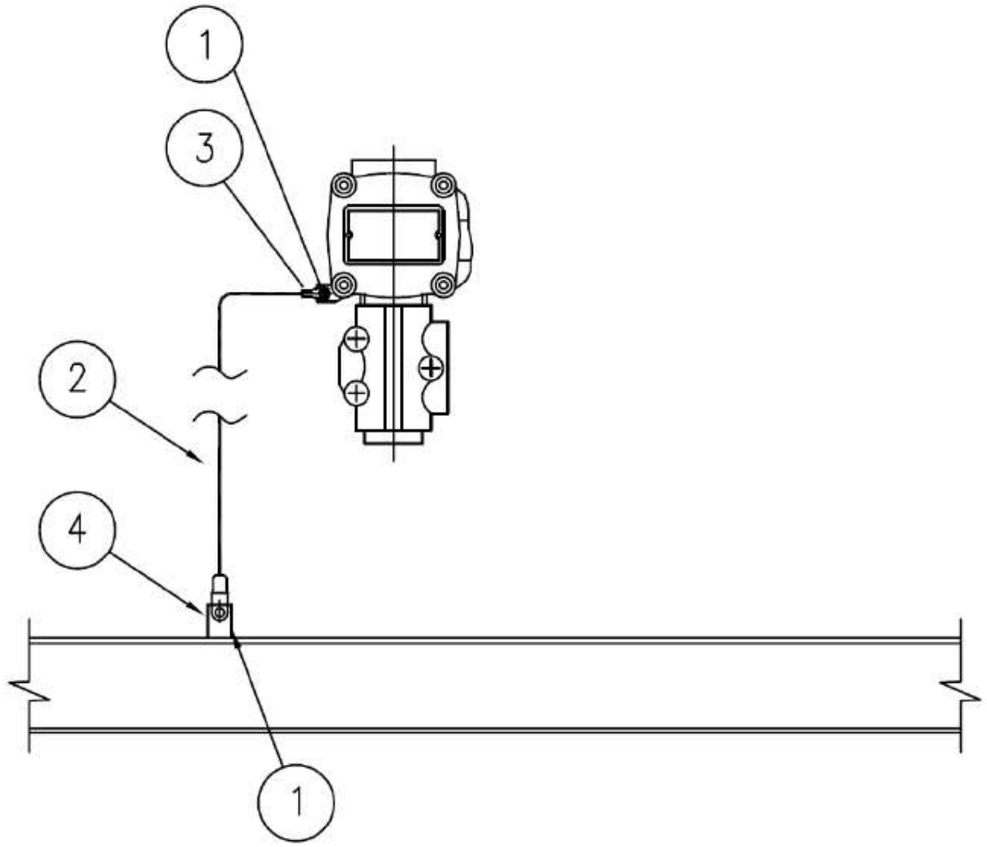
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 123A90-DDL-EL-DD-20090 | SHEET 010 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 123A90-DDL-EL-DD-20090 REV.02.DWG

E33



MATERIALS

POS.	Q.TY	DESCRIPTION	NOTES
1	1	A4 STAINLESS STEEL BOLT COMPLETE WITH NUT AND WASHERS	
2	1	Y/G INSULATING COPPER CONDUCTOR - 6mm²	
3	1	COMPRESSION TYPE LUG FOR INSULATING COPPER CONDUCTOR	
4	1	EARTHING BAR / PLATE / THREADED STUD	(1)

NOTE:
1) FOR DETAIL OF EARTHING PLATE, EARTHING BOSS AND THREADED STUD SEE TYP. E11A/C/D/E

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_E	09/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS–EARTHING SYSTEM
EARTHING FOR GENERIC INSTRUMENT

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 123A90–DDL–EL–DD–20090 | SHEET 027 | REV. 02

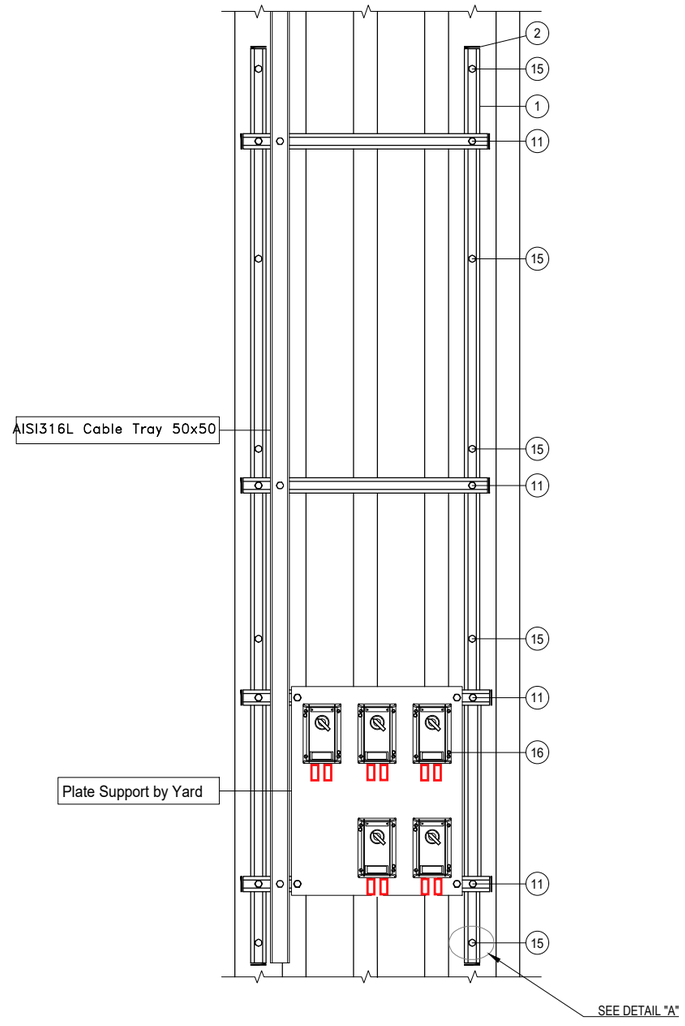
F.to UNI A3: 420mmx297mm

File Name : 123A90-DDL-EL-DD-20090 REV.02.DWG

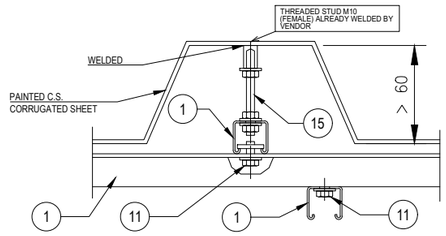
I-5

DRAWING NO. 123A90-DDL-IN-DD-40017

REV. 00



DETAIL "A"



POS.	DESCRIPTION	Q.TY
1	AISI 316L U-CHANNEL 41x41	5m
2	LDPE PLUG FOR U-CHANNEL 41x41	12
11	AISI 316L SPRING NUT M8 FOR U-CHANNEL 41X41 + BOLT M8x35 + WASHER M8	18
15	THREADED ROD M10 (L=110mm) + PLATE WASHER, LARGE PLATE WASHERS SPRING WASHER AND NUTS	10
16	AISI 316L BOLT M5x35 + NUT M5 + WASHER M5	10

CONTAINER	ITEM	DESCRIPTION	TAGNAME
B-300 ~~B-301~~	1	HAND SWITCH FOR DAMPER TEST	~~77-HS-017B~~ 77-HS-007B
	2	HAND SWITCH FOR DAMPER TEST	~~77-HS-018B~~ 77-HS-008B
	3	HAND SWITCH FOR DAMPER TEST	~~77-HS-019B~~ 77-HS-009B
	4	HAND SWITCH FOR DAMPER TEST	77-HS-010B
	5	HAND SWITCH FOR DAMPER TEST	77-HS-011B
B-400 ~~B-401~~	1	HAND SWITCH FOR DAMPER TEST	77-HS-012B
	2	HAND SWITCH FOR DAMPER TEST	77-HS-013B
	3	HAND SWITCH FOR DAMPER TEST	77-HS-014B
	4	HAND SWITCH FOR DAMPER TEST	77-HS-015B
	5	HAND SWITCH FOR DAMPER TEST	77-HS-016B

NOTES

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	02/09/2024	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	11/07/2024	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

VALID FOR CONSTRUCTION
FDL DWG: 123A90-123A90-FDL-IN-DD-40017

REV.:	DATE:	SIGNATURE:
1_B	18/09/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
INSTRUMENT INSTALLATION DETAILS
HAND SWITCH OUTSIDE CONTAINERS

CONTRACT NO./TITLE			SCALE /
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 11/07/2024

A3	DRAWING NO. 123A90-DDL-IN-DD-40017	SHEET 048	REV. 01



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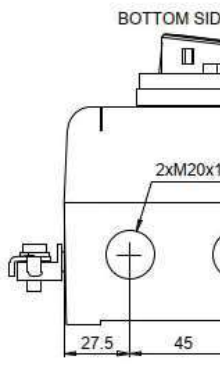


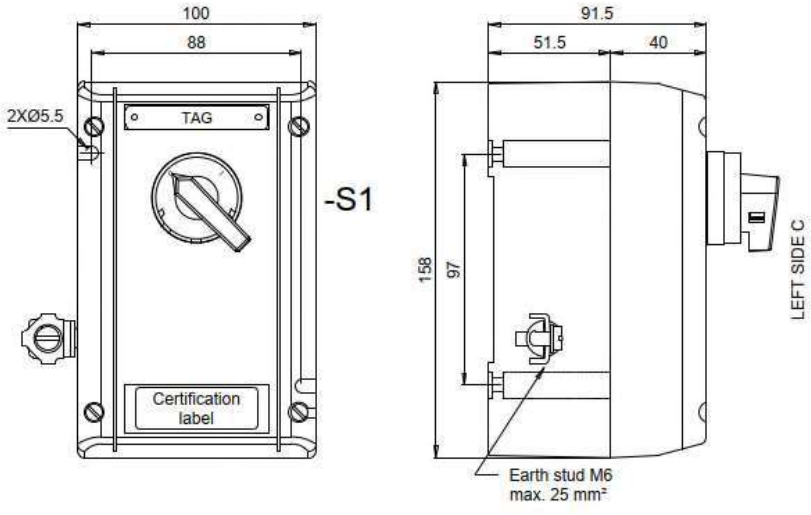
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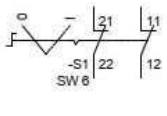
Technical data

	Ex-control stations Type 432 I Type 434	
Marking accd. to 2014/34/EU	Ⓔx II 2 G Ex ed ib m IIC T6 Ⓔx II 2 D Ex tD A21 IP66 T80 °C	
EC-Type Examination Certificate	PTB 00 ATEX 3117	
IECEx Certificate of Conformity	IECEx BKI 04.0003	
Marking accd. to IECEx	Ex e II T6, Ex e ib IIC T6, Ex ed IIC T6 or Ex ed ib IIC T6	
Permissible ambient temperature	–20 °C up to +40 °C –55 °C up to +55 °C (option)	
Rated voltage	690 V AC (with control switch GHG 23 up to 500 V)	
Rated current	16 A (with control switch GHG 23 max. 10 A)	
Rated making-/rated breaking capacity accd. EN 60947-5-1	Ex41 AC-15: U_e 250 V / I_e 6 A U_e 500 V / I_e 4 A DC-13: U_e 24 V / I_e 6 A U_e 110 V / I_e 0.5 A	Ex23 AC-15: U_e 230 V / I_e 6 A U_e 500 V / I_e 4 A DC-13: U_e 24 V / I_e 2 A U_e 230 V / I_e 0.5 A
Connecting terminals	2 x 4 mm²	
Protection class	I	
Degree of protection accd. to EN 60529	IP66	
Cable glands/Gland plates/Enclosure drilling	2 x M25 cable gland incl. 1 blanking plug or optional 2 x M20 thread with internal brass plate	
Enclosure material	Polyamide	
Enclosure colour	black	

	Type 432
Dimensions (L x W x H)	156 x 100 x 90 mm
Weight (empty)	0.47 kg

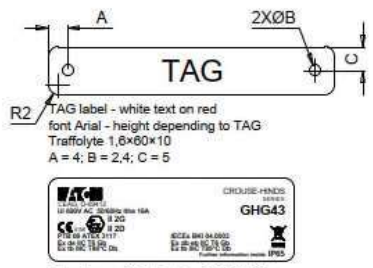






Contact arrangement		
	21-22	11-12
0	X	X
I		

X	Contact close
(none)	Contact open



Techical data:
Manufactured by Eaton Crouse-Hinds Division
Model: GHG 432
Certificate No.
PTB 00 ATEX 3117
IECEx BKI 04.0003
Marking: ATEX and IECEx
II 2G Ex de IIC T6 Gb
II 2D Ex tb IIIC T80°C Db
-40°C ≤ tamb ≤ +55°C
Ui 690V
IP65

Specific characteristics:
- Polyamide (PA), black
- Closed with stainless steel screw
- Bottom with internal earth plate in brass
- M6 internal/external stainless steel earth stud

Components:
- No. 1 black selector switch with 2 position 2NC

Entries bottom side B:
- No. 2 M20 threaded taped with transit tape

No.1 1,6×60×10 mm white text on red background traffolyte tag fixed with stainless steel screws on the cover, sealed on the back with PU adhesive and engraved

Also a certification label fixed with back self adhesive on the cover

Quantity: 32

DRAWING NO. 123-A90-DDL-IN-DG-40016 REV. 01

FIELD

INSTRUMENTS

JUNCTION BOX

950-JE-04207

MULTICABLE

No.

I&T EQUIPMENT ROOM (ITER)

MARSHALLING CABINET

B400-FGS-002

<01>

B-300 UPS Room

950-XZ-04202 — C-950-XZ-04202/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

950-XL-04203 — C-950-XL-04203/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

950-XL-04204 — C-950-XL-04204/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 OUTDOOR

77-HS-007B — C-77-HS-007B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-007A/77-HS-007B

~~C-77-HY-007B/77-HY-007A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77007

77-HY-007 — C-77-HY-007/77-HS-007A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

77-HS-007A — NOTE-2

B-300 OUTDOOR

77-HS-008B — C-77-HS-008B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-008A/77-HS-008B

~~C-77-HS-008B/77-HS-008A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77008

77-HY-008 — C-77-HY-008/77-HS-008A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

77-HS-008A — NOTE-2

B-300 OUTDOOR

77-HS-009B — C-77-HS-009B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-009A/77-HS-009B

~~C-77-HS-009B/77-HS-009A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77009

77-HY-009 — C-77-HY-009/77-HS-009A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

77-HS-009A — NOTE-2

B-300 OUTDOOR

77-HS-010B — C-77-HS-010B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-010A/77-HS-010B

~~C-77-HS-010B/77-HS-010A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77010

77-HY-010 — C-77-HY-010/77-HS-010A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

77-HS-010A — NOTE-2

B-300 OUTDOOR

77-HS-011B — C-77-HS-011B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-011A/77-HS-011B

~~C-77-HS-011B/77-HS-011A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77011

77-HY-011 — C-77-HY-011/77-HS-011A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

77-HS-011A — NOTE-2

TB-1

1 — 1BK
2 — 2BK
SH
3 — 3BK
4 — 4BK
SH
5 — 5BK
6 — 6BK
SH
7 — 7BK
8 — 8BK
SH
9 — 9BK
10 — 10BK
SH
11 — 11BK
12 — 12BK
SH
13 — 13BK
14 — 14BK
SH
15 — 15BK
16 — 16BK
SH
17 — 17BK
18 — 18BK
SH
19 — 19BK
20 — 20BK
SH
21 — 21BK
22 — 22BK
SH
23 — 23BK
24 — 24BK
SH
OS

950-JE-04207/B400-FGS-002

24x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

TB-950-JE-04207

1 — 1BK — 950-XZ-04202
2 — 2BK
3 — 3BK — 950-XL-04203
4 — 4BK
5 — 5BK — 950-XL-04204
6 — 6BK
7 — 7BK — 77-HY-007
8 — 8BK
9 — 9BK — 77-HY-008
10 — 10BK
11 — 11BK — 77-HY-009
12 — 12BK
13 — 13BK — 77-HY-010
14 — 14BK
15 — 15BK — 77-HY-011
16 — 16BK
17 — 17BK — SPARE
18 — 18BK
19 — 19BK — SPARE
20 — 20BK
21 — 21BK — SPARE
22 — 22BK
23 — 23BK — SPARE
24 — 24BK

Shield Bar — I.E.

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_D	14/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT–FGS WIRING DIAGRAMS
950–JE–04207

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024
A3	DRAWING NO. 123A90–DDL–IN–DG–40016	SHEET 069	REV. 01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

ITEM	Tag	77-HS-010A	: Hand Switch for Fire&Gas Damper HFD-77010		Dwg		
	S/Sys	77-30	: HVAC UPS Equipment Room B-300		Module		
TASK	code	C10002095		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Instrumental Form CJX00		Miscellaneous

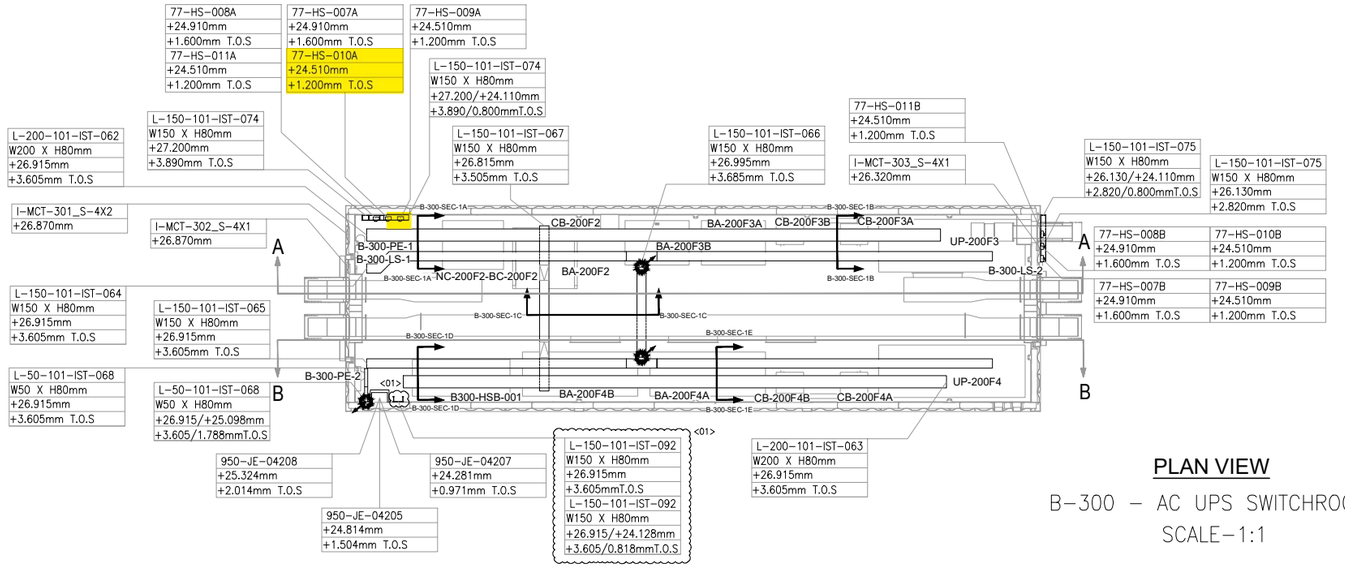
1	Check for mechanical damage.	OK
2	Check installed equipment is suitable and conforms to specification.	OK
3	Check installation conforms to P&ID and hook-up drawing.	OK
4	Check tube fittings manufacturer is the one chosen for the plant.	NA
5	Check that piping connections provide the block & bleed facility (if required).	NA
6	Check that all stop plugs are properly installed	NA
7	Check identification (tag number, tag plates).	OK
8	Check supporting and protection against vibrations.	OK
9	Check the conformity of earthing as per specification (I.P.E. or I.E.)	OK
10	If required produce Red Line Mark Up for "AS BUILT"	

Comments:

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM (ROSETTI MARINO)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-10-28	2024-11-21	
Signature	PROVERLIS Digitaly signed by Carmelo Bongiovanni 2024-10-28T09:14:02.921Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2024-11-21T08:32:23.538Z	

DRAWING NO. 123A90-DDL-IN-DL-40115

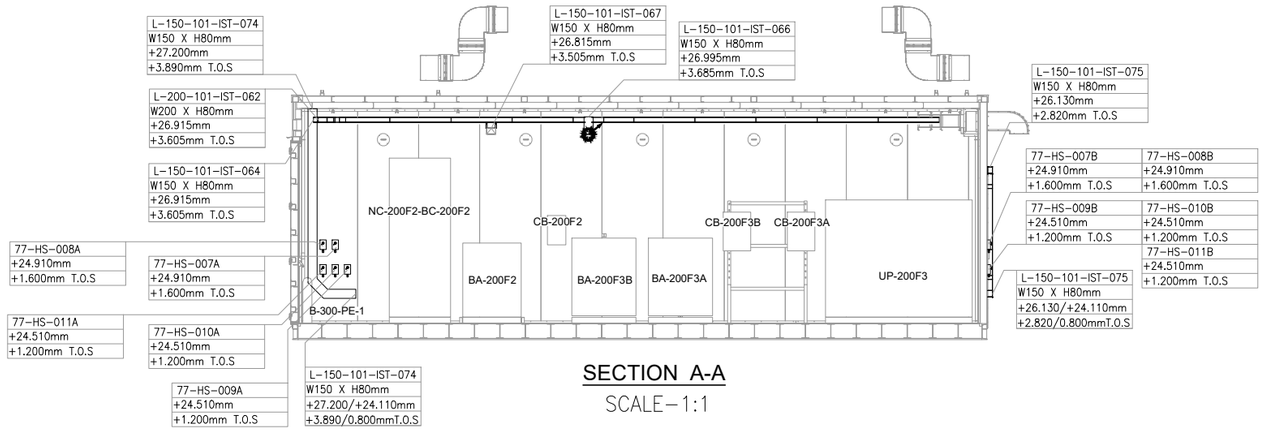
REV. 01



PLAN VIEW

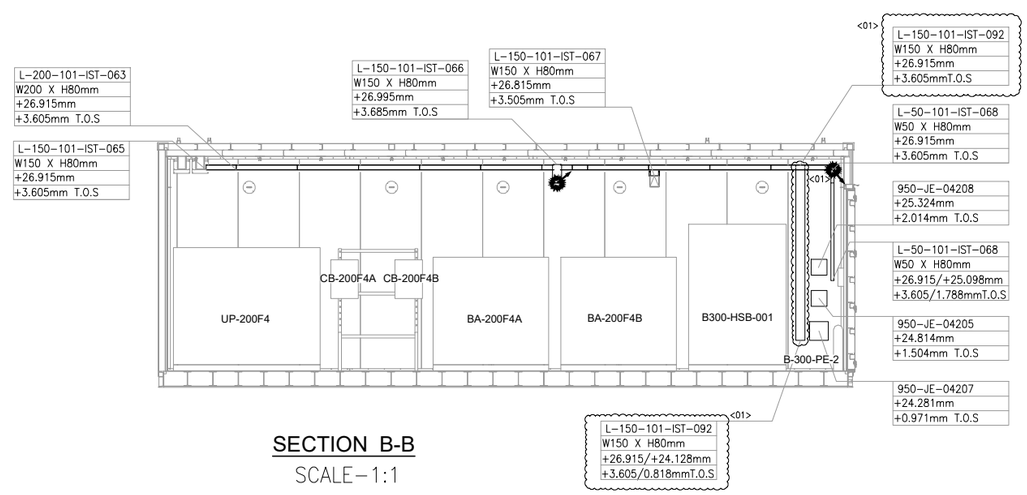
B-300 – AC UPS SWITCHROOM

SCALE-1:1



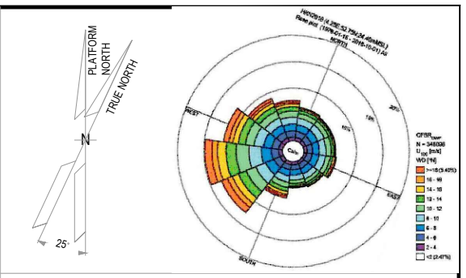
SECTION A-A

SCALE-1:1



SECTION B-B

SCALE-1:1



NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DRAWING IS VALID ONLY FOR CONTAINER CABLE TRAY LAYOUT.

LEGEND

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DL-40115**

REV.:	DATE:	SIGNATURE:
1_A	07/10/24	G.Randi

ROSETTI MARINO SpA

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-IN-DL-40081	INSTRUMENT LAYOUT - UPPER DECK
123A90-DDL-IN-LIS-40091	INSTRUMENT CABLE LIST
123A90-DDL-IN-DG-40015	INSTRUMENT-CCS WIRING DIAGRAMS
123A90-DDL-IN-DG-40016	INSTRUMENT-SAFETY SYSTEM WIRING DIAGRAMS
123A90-DDL-IN-DL-40083	INSTRUMENT MAIN CABLES ROUTING-LOWER DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/08/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)

Base Load Power HUB Cables Tray Layout

B-300 Container Lower Deck – TOS EL. 23.310m

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:50
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 04/10/24

A1	DRAWING NO. 123A90-DDL-IN-DL-40115	SHEET 001	REV. 01

File Name : 123A90-DDL-IN-DL-40115 REV01.dwg

DRAWING NO. 123-A90-DDL-IN-DG-40016

REV. 01

FIELD

INSTRUMENTS

JUNCTION BOX

950-JE-04207

MULTICABLE

No.

I&T EQUIPMENT ROOM (ITER)

MARSHALLING CABINET

B400-FGS-002

<01>

B-300 UPS Room

950-XZ-04202 — C-950-XZ-04202/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

950-XL-04203 — C-950-XL-04203/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

950-XL-04204 — C-950-XL-04204/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 OUTDOOR

77-HS-007B — C-77-HS-007B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-007A/77-HS-007B

~~C-77-HY-007B/77-HY-007A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77007

77-HY-007 — C-77-HY-007/77-HS-007A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

77-HS-007A — NOTE-2

B-300 OUTDOOR

77-HS-008B — C-77-HS-008B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-008A/77-HS-008B

~~C-77-HS-008B/77-HS-008A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77008

77-HY-008 — C-77-HY-008/77-HS-008A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

77-HS-008A — NOTE-2

B-300 OUTDOOR

77-HS-009B — C-77-HS-009B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-009A/77-HS-009B

~~C-77-HS-009B/77-HS-009A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77009

77-HY-009 — C-77-HY-009/77-HS-009A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

77-HS-009A — NOTE-2

B-300 OUTDOOR

77-HS-010B — C-77-HS-010B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-010A/77-HS-010B

~~C-77-HS-010B/77-HS-010A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77010

77-HY-010 — C-77-HY-010/77-HS-010A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

77-HS-010A — NOTE-2

B-300 OUTDOOR

77-HS-011B — C-77-HS-011B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-011A/77-HS-011B

~~C-77-HS-011B/77-HS-011A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77011

77-HY-011 — C-77-HY-011/77-HS-011A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

77-HS-011A — NOTE-2

TB-1

1BK 1 1BK
2BK 2 2BK
SH
1BK 3 3BK
2BK 4 4BK
SH
1BK 5 5BK
2BK 6 6BK
SH
1BK 7 7BK
2BK 8 8BK
SH
1BK 9 9BK
2BK 10 10BK
SH
1BK 11 11BK
2BK 12 12BK
SH
1BK 13 13BK
2BK 14 14BK
SH
1BK 15 15BK
2BK 16 16BK
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17 17BK
18 18BK
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19 19BK
20 20BK
SH
21 21BK
22 22BK
SH
23 23BK
24 24BK
SH
OS

950-JE-04207/B400-FGS-002

24x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

TB-950-JE-04207

1BK 1 950-XZ-04202
2BK 2
3BK 3 950-XL-04203
4BK 4
5BK 5 950-XL-04204
6BK 6
7BK 7 77-HY-007
8BK 8
9BK 9 77-HY-008
10BK 10
11BK 11 77-HY-009
12BK 12
13BK 13 77-HY-010
14BK 14
15BK 15 77-HY-011
16BK 16
17BK 17 SPARE
18BK 18
19BK 19 SPARE
20BK 20
21BK 21 SPARE
22BK 22
23BK 23 SPARE
24BK 24

Shield Bar — I.E.

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_H	28/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT–FGS WIRING DIAGRAMS
950–JE–04207

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024
A3	DRAWING NO. 123A90–DDL–IN–DG–40016	SHEET 069	REV. 01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

I-3

DRAWING NO. 123A90-DDL-IN-DD-40017

REV. 00



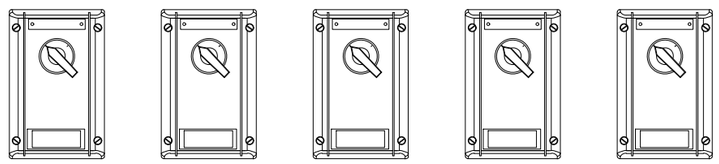
B-100
~~B-101~~



B-200
~~B-201~~



B-300
~~B-301~~



B-400
~~B-401~~

POS.	DESCRIPTION	Q.TY
-	SELFING TAPPING SCREW	-

CONTAINER	ITEM	DESCRIPTION	TAGNAME
B-100 ~~B-101~~	1	HAND SWITCH FOR DAMPER TEST	~~77-HS-011A~~ 77-HS-001A
	2	HAND SWITCH FOR DAMPER TEST	~~77-HS-012A~~ 77-HS-002A
	3	HAND SWITCH FOR DAMPER TEST	~~77-HS-013A~~ 77-HS-003A
B-200 ~~B-201~~	1	HAND SWITCH FOR DAMPER TEST	~~77-HS-014A~~ 77-HS-004A
	2	HAND SWITCH FOR DAMPER TEST	~~77-HS-015A~~ 77-HS-005A
	3	HAND SWITCH FOR DAMPER TEST	~~77-HS-016A~~ 77-HS-006A
B-300 ~~B-301~~	1	HAND SWITCH FOR DAMPER TEST	~~77-HS-017A~~ 77-HS-007A
	2	HAND SWITCH FOR DAMPER TEST	~~77-HS-018A~~ 77-HS-008A
	3	HAND SWITCH FOR DAMPER TEST	~~77-HS-019A~~ 77-HS-009A
	4	HAND SWITCH FOR DAMPER TEST	77-HS-010A
	5	HAND SWITCH FOR DAMPER TEST	77-HS-011A
B-400 ~~B-401~~	1	HAND SWITCH FOR DAMPER TEST	77-HS-012A
	2	HAND SWITCH FOR DAMPER TEST	77-HS-013A
	3	HAND SWITCH FOR DAMPER TEST	77-HS-014A
	4	HAND SWITCH FOR DAMPER TEST	77-HS-015A
	5	HAND SWITCH FOR DAMPER TEST	77-HS-016A

NOTES

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	02/09/2024	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	11/07/2024	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT INSTALLATION DETAILS
HAND SWITCH INSIDE CONTAINERS

CONTRACT NO./TITLE | SCALE /

DRAWN VBA | CHECKED LCA | APPROVED DLO | DATE 11/07/2024

A3 | DRAWING NO. 123A90-DDL-IN-DD-40017 | SHEET 046 | REV. 01

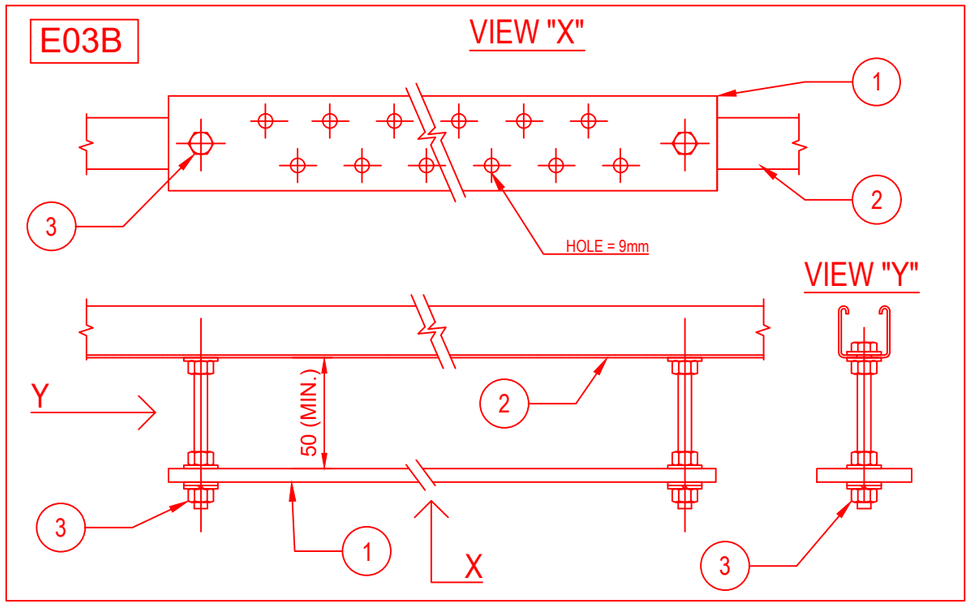
VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DD-40017**

REV.:	DATE:	SIGNATURE:
1_C	15/10/24	G.Randi

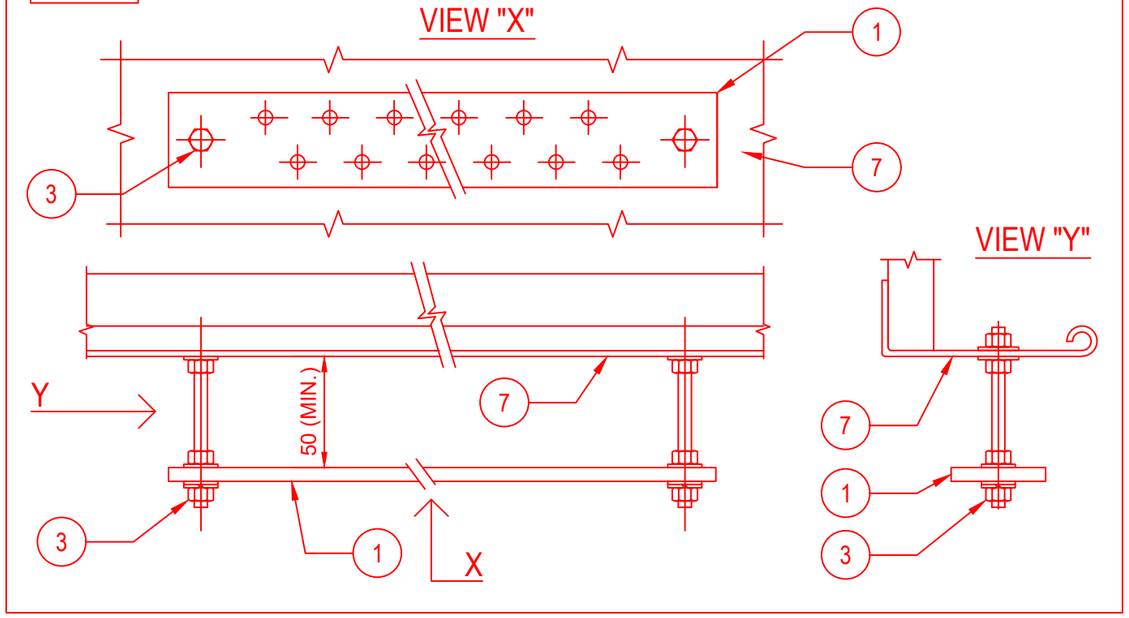
ROSETTI MARINO SpA

TYPICAL DETAIL VALID FOR EXTERNAL USE ONLY

E03B

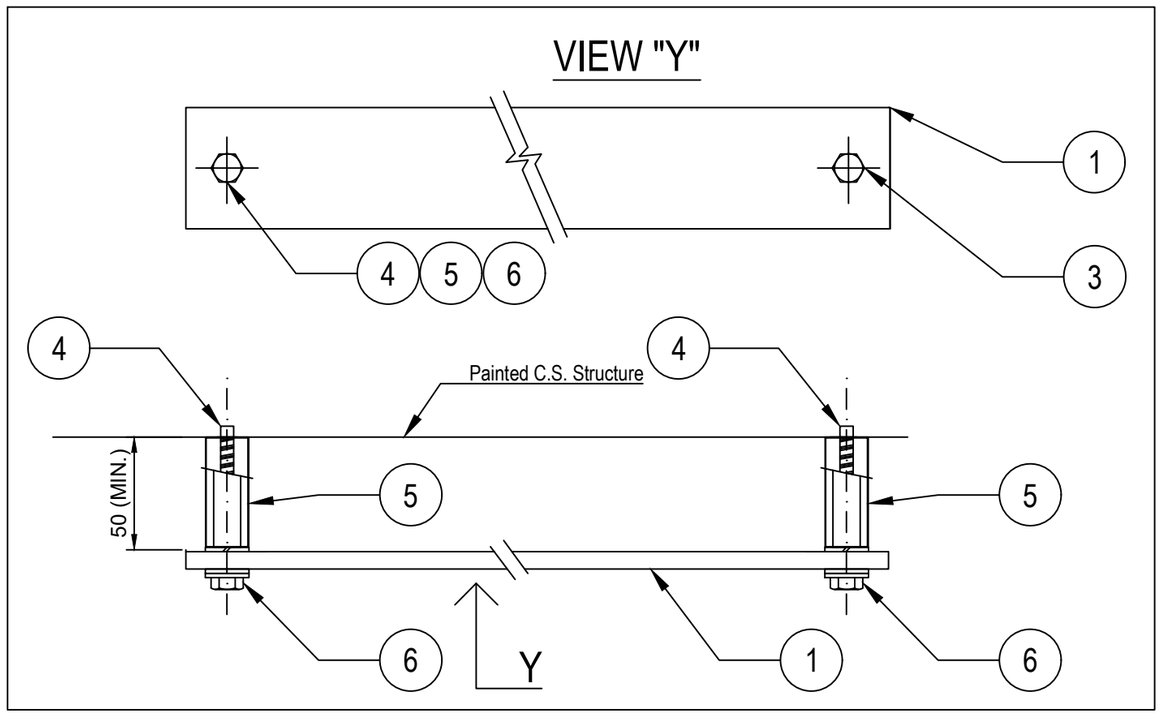


E03C



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	EARTHING BAR	TINNED COPPER	285X50X5	1	
2	SINGLE U-CHANNEL PERFORATED ON N.3 SIDE	AISI 316L		2	
3	HEXAG. BOLTS, PLANE WASHERS, GROWER SPRING WASHER AND NUT	AISI 316L	M10X30	2	
4	THREADED STUD	AISI 316L	M10X28	2	NOTE 1
5	FEMALE / MALE COUPLING	AISI 316L	M10X50	2	NOTE 2
6	PLANE WASHER, GROWER AND NUT	AISI 316L	M10	2	
7	CABLE LADDER	AISI 316L			

E03D



NOTES:

1) THREADED STUD mod. HILTI S-BT-ER M10/15 SN6 CERTIFIED FOR EARTHING SYSTEM.
2) STANDOFF ADAPTER mod. HILTI M10-HC120 50.
3) FOR TYPICALS E03B AND E03C (EARTHING BAR FIXED TO U-CHANNEL OR CABLE TRAY/LADDER) THE EARTHING BAR SHALL BE CONNECTED TO EARTHING POINT IN N.1 POINT WITH 35sqmm Y/G CABLE

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_G	25/10/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS-EARTHING SYSTEM
EARTHING BAR INSTALLED ON WELDED PROFILE OR THREADED STUD

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

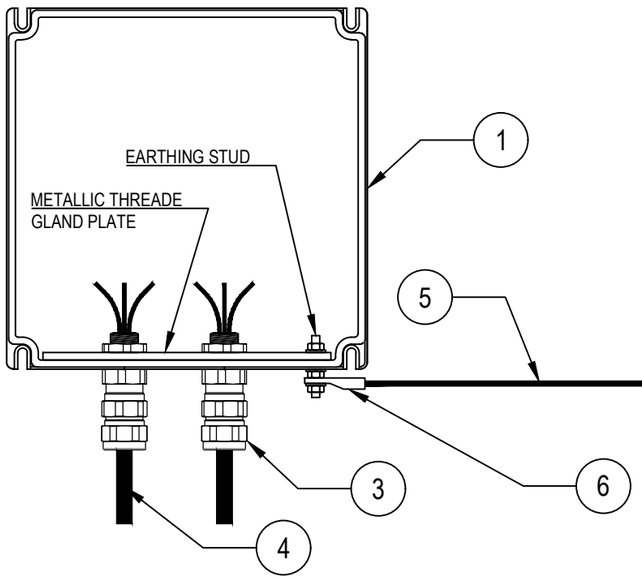
A3 | DRAWING NO. 123A90-DDL-EL-DD-20090 | SHEET 004 | REV. 02

F.to UNI A3: 420mmx297mm

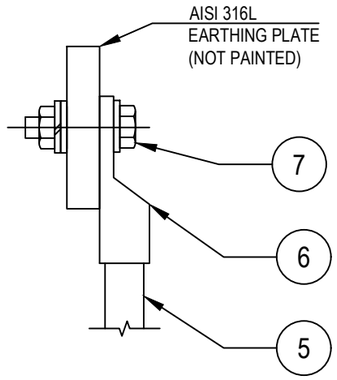
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E04

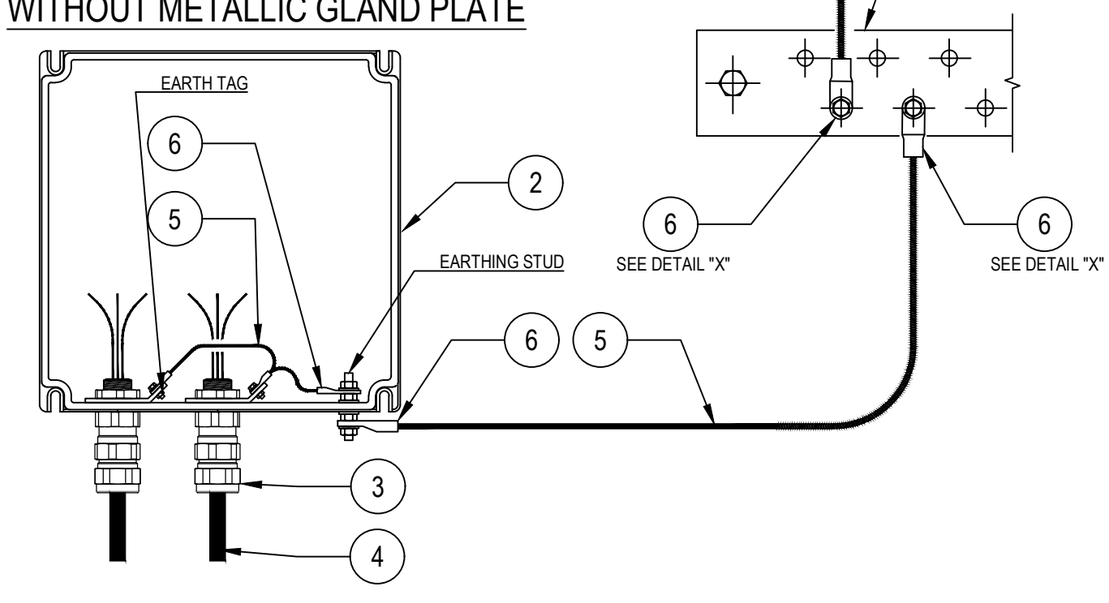
DETAIL OF NON METALLIC ENCLOSURE WITH METALLIC GLAND PLATE



DETAIL "X"



DETAIL OF NON METALLIC ENCLOSURE WITHOUT METALLIC GLAND PLATE



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	JUNCTION BOX WITH PLATE (EX)	GRP			
2	JUNCTION BOX WITHOUT GLAND PLATE (EX)	GRP			
3	DOUBLE SEAL CABLE GLAND (EX) FOR ARMOURED CABLE	NICK.PL.BRASS			~~NOTE 2~~
4	ARMOURED CABLE				
5	Y/G INSULATING COPPER CONDUCTOR	COPPER	$6mm^2$		NOTE 1
6	COMPRESSION TYPE LUG FOR INSULATION COPPER CONDUCTOR	TINNED COPPER	$6mm^2$		NOTE 1
7	BOLT, PLANE WASHER, GROWER SPRING WASHER AND NUT	AISI 316L			

NOTES:
1) FOR EARTHING BAR SEE TYPICAL DETAILS E03
~~2) CABLE LUG CRIMPING METHOD SHALL BE HEXAGONAL COMPRESSION DIES ONLY.~~

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_G	25/10/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS-EARTHING SYSTEM
EARTHING FOR CABLE ARMOUR BY CABLE GLAND

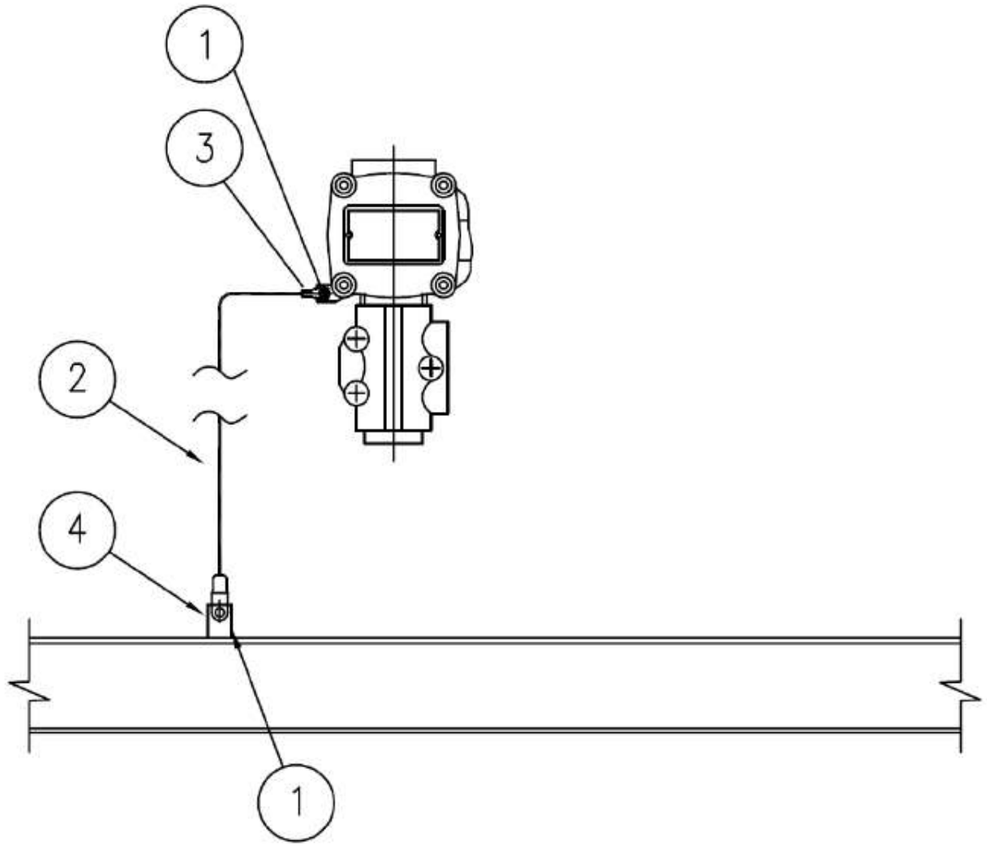
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 123A90-DDL-EL-DD-20090 | SHEET 010 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 123A90-DDL-EL-DD-20090 REV.02.DWG

E33



MATERIALS

POS.	Q.TY	DESCRIPTION	NOTES
1	1	A4 STAINLESS STEEL BOLT COMPLETE WITH NUT AND WASHERS	
2	1	Y/G INSULATING COPPER CONDUCTOR - 6mm²	
3	1	COMPRESSION TYPE LUG FOR INSULATING COPPER CONDUCTOR	
4	1	EARTHING BAR / PLATE / THREADED STUD	(1)

NOTE:
1) FOR DETAIL OF EARTHING PLATE, EARTHING BOSS AND THREADED STUD SEE TYP. E11A/C/D/E

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-EL-DD-20090

REV.:	DATE:	SIGNATURE:
2_G	25/10/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS-EARTHING SYSTEM
EARTHING FOR GENERIC INSTRUMENT

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK

SCALE : NTS

A3

DRAWING NO. 123A90-DDL-EL-DD-20090

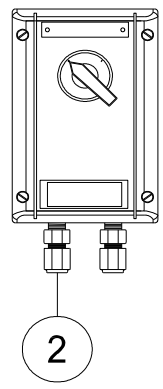
SHEET 027

REV. 02

F.to UNI A3: 420mmx297mm

File Name : 123A90-DDL-EL-DD-20090 REV.02.DWG

ELECTRICAL HOOK-UP FOR HAND SWITCH TEST OF THE DAMPERS



INSTRUMENT TAG	
1	77-HS-001A
2	77-HS-001B
3	77-HS-002A
4	77-HS-002B
5	77-HS-003A
6	77-HS-003B
7	77-HS-004A
8	77-HS-004B
9	77-HS-005A
10	77-HS-005B
11	77-HS-006A
12	77-HS-006B
13	77-HS-007A
14	77-HS-007B
15	77-HS-008A
16	77-HS-008B
17	77-HS-009A
18	77-HS-009B
19	77-HS-010A
20	77-HS-010B
21	77-HS-011A
22	77-HS-011B
23	77-HS-012A
24	77-HS-012B
25	77-HS-013A
26	77-HS-013B
27	77-HS-014A
28	77-HS-014B
29	77-HS-015A
30	77-HS-015B
31	77-HS-016A
32	77-HS-016B

POS.	NORM/STD CODE	DESCRIPTION	SIZE/ CONNECTION TYPE	Q.TY
2		Nickel Plated Brass Double Compression Cable Gland Ex-d/e IIC (or IIB + H2) T1	M20	2

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-IN-HD-40079
REV.: 2_A | DATE: 08/10/24 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

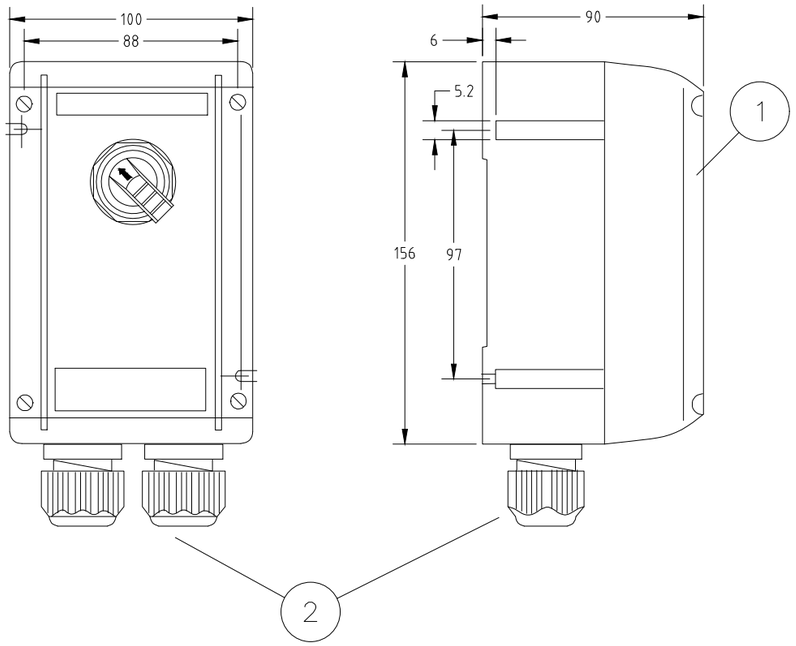
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PUSH BUTTON DPDT CONTACT

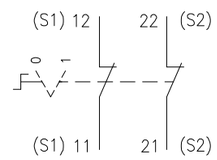
ITEM	DESCRIPTIONS	NR
1	Control Station, CO.SI.ME GHG 432	1
2	Cable Gland M20 Ex eb Polyamide	2
3		
4		
5		
6		
7		
8		
9		
10		

INSTALLATION
QUANTITY

32



WIRING



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	03/09/24	DB	MO	SM	ACCEPTED FOR CONSTRUCTION (AFC)
00	08/07/24	DB	MO	SM	ISSUE FOR REVIEW (IFR)

FORES ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
GENERAL ARRANGEMENT
PUSH BUTTON DPDT CONTACT

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK

SCALE : NTS

A3

DRAWING NO. 1724000821-IN-DA-00003

SHEET 014

REV. 01

F.to UNI A3: 420mmx297mm

File Name : 1724000821-IN-DA-00003 Rev. 01



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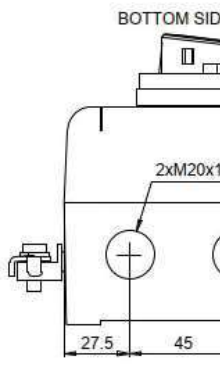


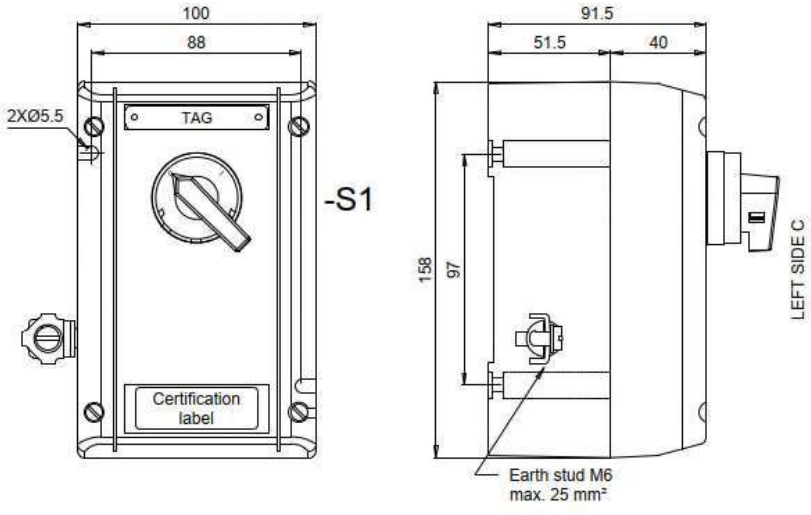
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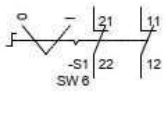
Technical data

	Ex-control stations Type 432 I Type 434	
Marking accd. to 2014/34/EU	Ⓔx II 2 G Ex ed ib m IIC T6 Ⓔx II 2 D Ex tD A21 IP66 T80 °C	
EC-Type Examination Certificate	PTB 00 ATEX 3117	
IECEx Certificate of Conformity	IECEx BKI 04.0003	
Marking accd. to IECEx	Ex e II T6, Ex e ib IIC T6, Ex ed IIC T6 or Ex ed ib IIC T6	
Permissible ambient temperature	–20 °C up to +40 °C –55 °C up to +55 °C (option)	
Rated voltage	690 V AC (with control switch GHG 23 up to 500 V)	
Rated current	16 A (with control switch GHG 23 max. 10 A)	
Rated making-/rated breaking capacity accd. EN 60947-5-1	Ex41 AC-15: U_e 250 V / I_e 6 A U_e 500 V / I_e 4 A DC-13: U_e 24 V / I_e 6 A U_e 110 V / I_e 0.5 A	Ex23 AC-15: U_e 230 V / I_e 6 A U_e 500 V / I_e 4 A DC-13: U_e 24 V / I_e 2 A U_e 230 V / I_e 0.5 A
Connecting terminals	2 x 4 mm²	
Protection class	I	
Degree of protection accd. to EN 60529	IP66	
Cable glands/Gland plates/Enclosure drilling	2 x M25 cable gland incl. 1 blanking plug or optional 2 x M20 thread with internal brass plate	
Enclosure material	Polyamide	
Enclosure colour	black	

	Type 432
Dimensions (L x W x H)	156 x 100 x 90 mm
Weight (empty)	0.47 kg

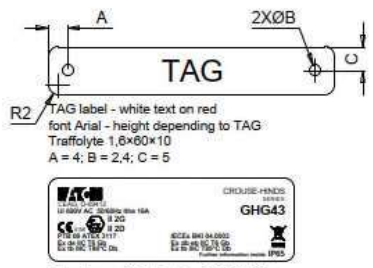






Contact arrangement		
	21-22	11-12
0	X	X
I		

X	Contact close
(none)	Contact open



Techical data:
Manufactured by Eaton Crouse-Hinds Division
Model: GHG 432
Certificate No.
PTB 00 ATEX 3117
IECEx BKI 04.0003
Marking: ATEX and IECEx
II 2G Ex de IIC T6 Gb
II 2D Ex tb IIIC T80°C Db
-40°C ≤ tamb ≤ +55°C
Ui 690V
IP65

Specific characteristics:
- Polyamide (PA), black
- Closed with stainless steel screw
- Bottom with internal earth plate in brass
- M6 internal/external stainless steel earth stud

Components:
- No. 1 black selector switch with 2 position 2NC

Entries bottom side B:
- No. 2 M20 threaded taped with transit tape

No.1 1,6×60×10 mm white text on red background traffolyte tag fixed with stainless steel screws on the cover, sealed on the back with PU adhesive and engraved

Also a certification label fixed with back self adhesive on the cover

Quantity: 32

PUSH BUTTON DPDT CONTACT

POS.	TAG NUMBER	SERVICE
1	77-HS-001A	B-100 Fire Damper AHU1 Inlet Air
2	77-HS-001B	B-100 Fire Damper AHU1 Inlet Air
3	77-HS-002A	B-100 Fire Damper AHU2 Inlet Air
4	77-HS-002B	B-100 Fire Damper AHU2 Inlet Air
5	77-HS-003A	B-100 Fire Damper Exhaust Air
6	77-HS-003B	B-100 Fire Damper Exhaust Air
7	77-HS-004A	B-200 Fire Damper AHU3 Inlet Air
8	77-HS-004B	B-200 Fire Damper AHU3 Inlet Air
9	77-HS-005A	B-200 Fire Damper AHU4 Inlet Air
10	77-HS-005B	B-200 Fire Damper AHU4 Inlet Air
11	77-HS-006A	B-200 Fire Damper Exhaust Air
12	77-HS-006B	B-200 Fire Damper Exhaust Air
13	77-HS-007A	B-300 Fire Damper AHU5 Inlet Air
14	77-HS-007B	B-300 Fire Damper AHU5 Inlet Air
15	77-HS-008A	B-300 Fire Damper AHU5 Return Air
16	77-HS-008B	B-300 Fire Damper AHU5 Return Air
17	77-HS-009A	B-300 Fire Damper AHU6 Inlet Air
18	77-HS-009B	B-300 Fire Damper AHU6 Inlet Air
19	77-HS-010A	B-300 Fire Damper AHU6 Return Air
20	77-HS-010B	B-300 Fire Damper AHU6 Return Air
21	77-HS-011A	B-300 Fire Damper Exhaust Air
22	77-HS-011B	B-300 Fire Damper Exhaust Air
23	77-HS-012A	B-400 Fire Damper AHU7 Inlet Air
24	77-HS-012B	B-400 Fire Damper AHU7 Inlet Air
25	77-HS-013A	B-400 Fire Damper AHU7 Return Air
26	77-HS-013B	B-400 Fire Damper AHU7 Return Air
27	77-HS-014A	B-400 Fire Damper AHU8 Inlet Air
28	77-HS-014B	B-400 Fire Damper AHU8 Inlet Air
29	77-HS-015A	B-400 Fire Damper AHU8 Return Air
30	77-HS-015B	B-400 Fire Damper AHU8 Return Air
31	77-HS-016A	B-400 Fire Damper Exhaust Air
32	77-HS-016B	B-400 Fire Damper Exhaust Air

File: 1724000821-IN-DS-00004-02.xlsx
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ITEM	Tag	77-HS-010B	: Hand Switch for Fire&Gas Damper HFD-77010			Dwg	123A90-DDL-IN-DL-40115
	S/Sys	77-30	: HVAC UPS Equipment Room B-300			Module	LD_B-300
TASK	code	C10002096		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Instrumental	Form	CJX00 Miscellaneous

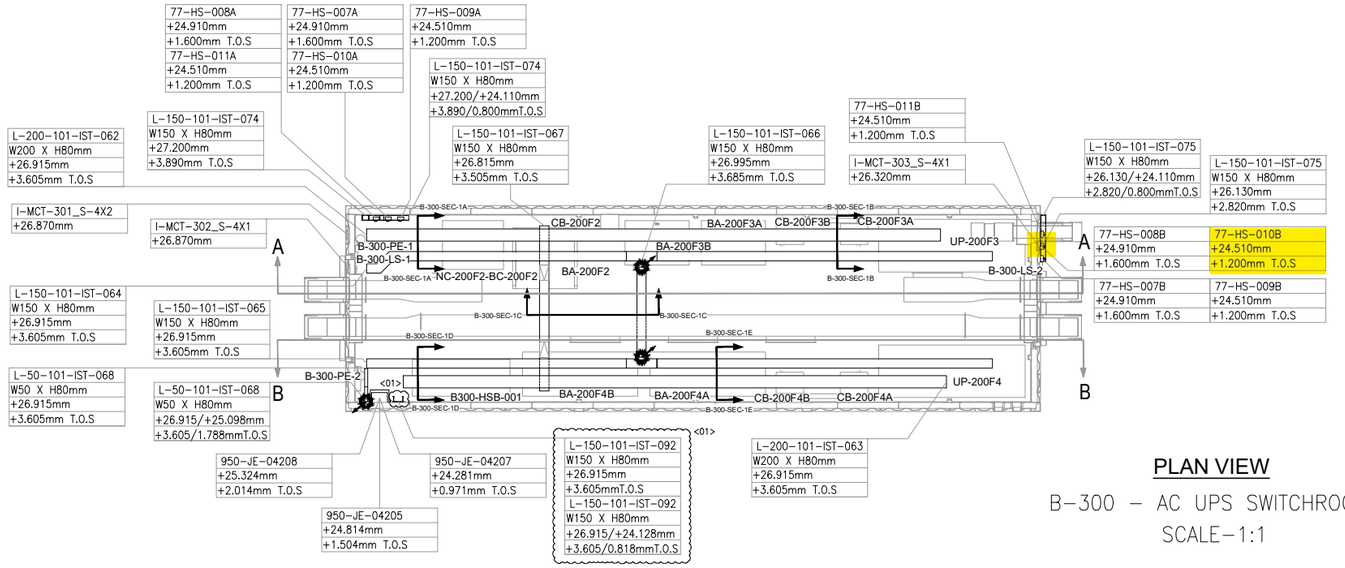
1	Check for mechanical damage.	OK
2	Check installed equipment is suitable and conforms to specification.	OK
3	Check installation conforms to P&ID and hook-up drawing.	OK
4	Check tube fittings manufacturer is the one chosen for the plant.	NA
5	Check that piping connections provide the block & bleed facility (if required).	NA
6	Check that all stop plugs are properly installed	NA
7	Check identification (tag number, tag plates).	OK
8	Check supporting and protection against vibrations.	OK
9	Check the conformity of earthing as per specification (I.P.E. or I.E.)	OK
10	If required produce Red Line Mark Up for "AS BUILT"	

Comments:

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM (Rosetti Marino)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-10-11	2024-10-15	
Signature	PROVERLIS Digitaly signed by Carmelo Bongiovanni 2024-10-11T15:38:50.288Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2024-10-15T11:03:20.283Z	

DRAWING NO. 123A90-DDL-IN-DL-40115

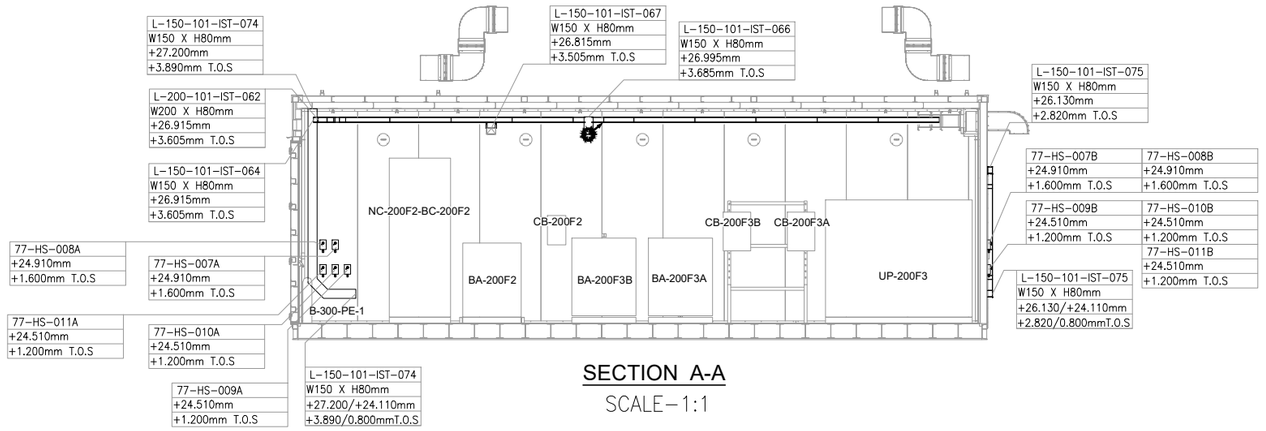
REV. 01



PLAN VIEW

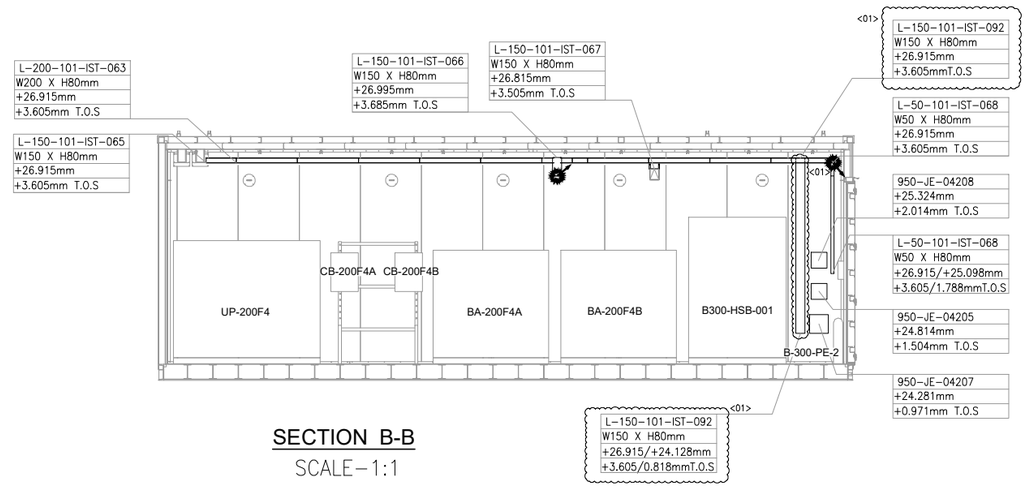
B-300 – AC UPS SWITCHROOM

SCALE-1:1



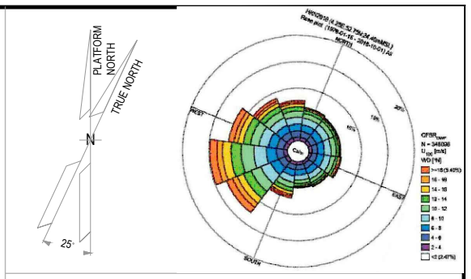
SECTION A-A

SCALE-1:1



SECTION B-B

SCALE-1:1



NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DRAWING IS VALID ONLY FOR CONTAINER CABLE TRAY LAYOUT.

LEGEND

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DL-40115**

REV.:	DATE:	SIGNATURE:
1_A	07/10/24	G.Randi

ROSETTI MARINO SpA

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-IN-DL-40081	INSTRUMENT LAYOUT - UPPER DECK
123A90-DDL-IN-LIS-40091	INSTRUMENT CABLE LIST
123A90-DDL-IN-DG-40015	INSTRUMENT-CCS WIRING DIAGRAMS
123A90-DDL-IN-DG-40016	INSTRUMENT-SAFETY SYSTEM WIRING DIAGRAMS
123A90-DDL-IN-DL-40083	INSTRUMENT MAIN CABLES ROUTING-LOWER DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/08/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)

Base Load Power HUB Cables Tray Layout

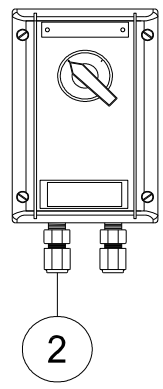
B-300 Container Lower Deck – TOS EL. 23.310m

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:50
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 04/10/24

A1	DRAWING NO. 123A90-DDL-IN-DL-40115	SHEET 001	REV. 01

File Name : 123A90-DDL-IN-DL-40115 REV01.dwg

ELECTRICAL HOOK-UP FOR HAND SWITCH TEST OF THE DAMPERS



INSTRUMENT TAG	
1	77-HS-001A
2	77-HS-001B
3	77-HS-002A
4	77-HS-002B
5	77-HS-003A
6	77-HS-003B
7	77-HS-004A
8	77-HS-004B
9	77-HS-005A
10	77-HS-005B
11	77-HS-006A
12	77-HS-006B
13	77-HS-007A
14	77-HS-007B
15	77-HS-008A
16	77-HS-008B
17	77-HS-009A
18	77-HS-009B
19	77-HS-010A
20	77-HS-010B
21	77-HS-011A
22	77-HS-011B
23	77-HS-012A
24	77-HS-012B
25	77-HS-013A
26	77-HS-013B
27	77-HS-014A
28	77-HS-014B
29	77-HS-015A
30	77-HS-015B
31	77-HS-016A
32	77-HS-016B

POS.	NORM/STD CODE	DESCRIPTION	SIZE/ CONNECTION TYPE	Q.TY
2		Nickel Plated Brass Double Compression Cable Gland Ex-d/e IIC (or IIB + H2) T1	M20	2

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-IN-HD-40079
REV.: 2_A | DATE: 08/10/24 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

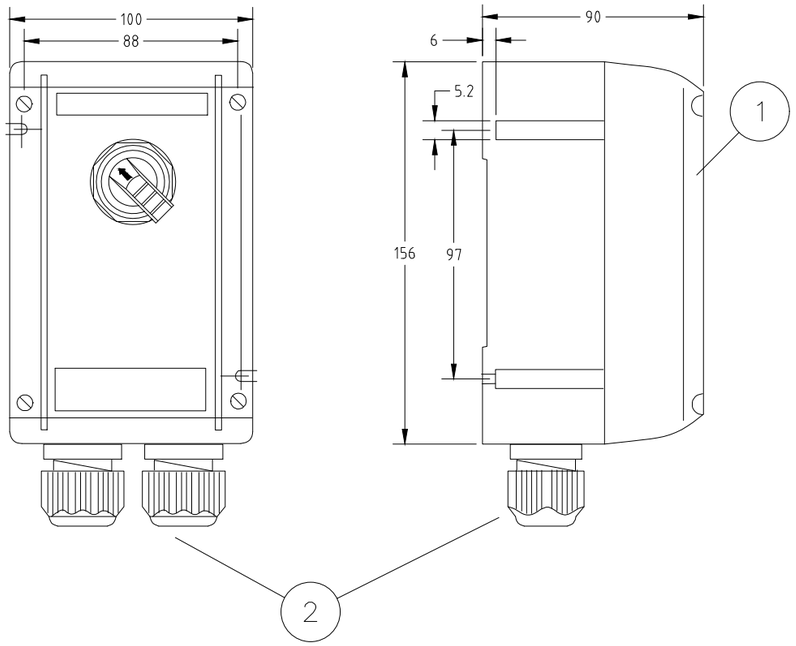
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PUSH BUTTON DPDT CONTACT

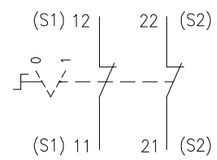
ITEM	DESCRIPTIONS	NR
1	Control Station, CO.SI.ME GHG 432	1
2	Cable Gland M20 Ex eb Polyamide	2
3		
4		
5		
6		
7		
8		
9		
10		

INSTALLATION
QUANTITY

32



WIRING



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	03/09/24	DB	MO	SM	ACCEPTED FOR CONSTRUCTION (AFC)
00	08/07/24	DB	MO	SM	ISSUE FOR REVIEW (IFR)

FORES ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
GENERAL ARRANGEMENT
PUSH BUTTON DPDT CONTACT

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK

SCALE : NTS

A3

DRAWING NO. 1724000821-IN-DA-00003

SHEET 014

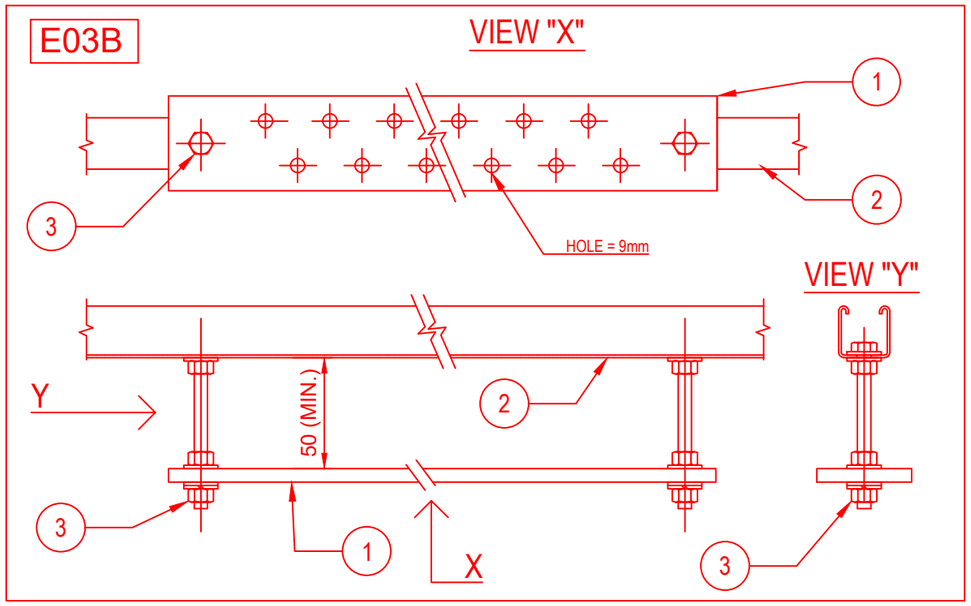
REV. 01

F.to UNI A3: 420mmx297mm

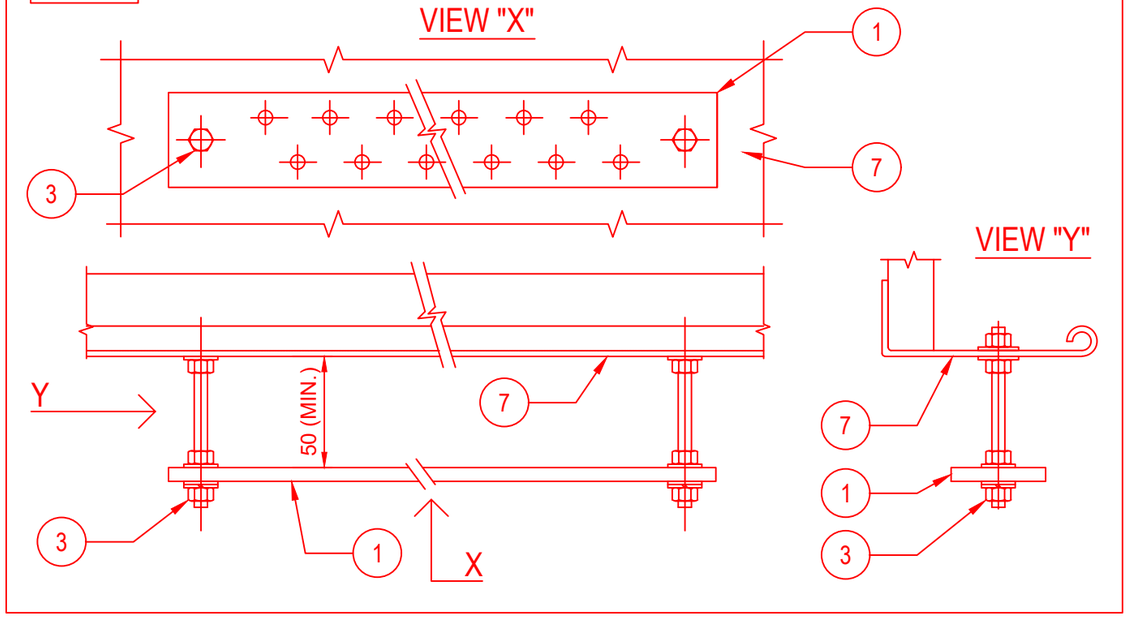
File Name : 1724000821-IN-DA-00003 Rev. 01

TYPICAL DETAIL VALID FOR EXTERNAL USE ONLY

E03B

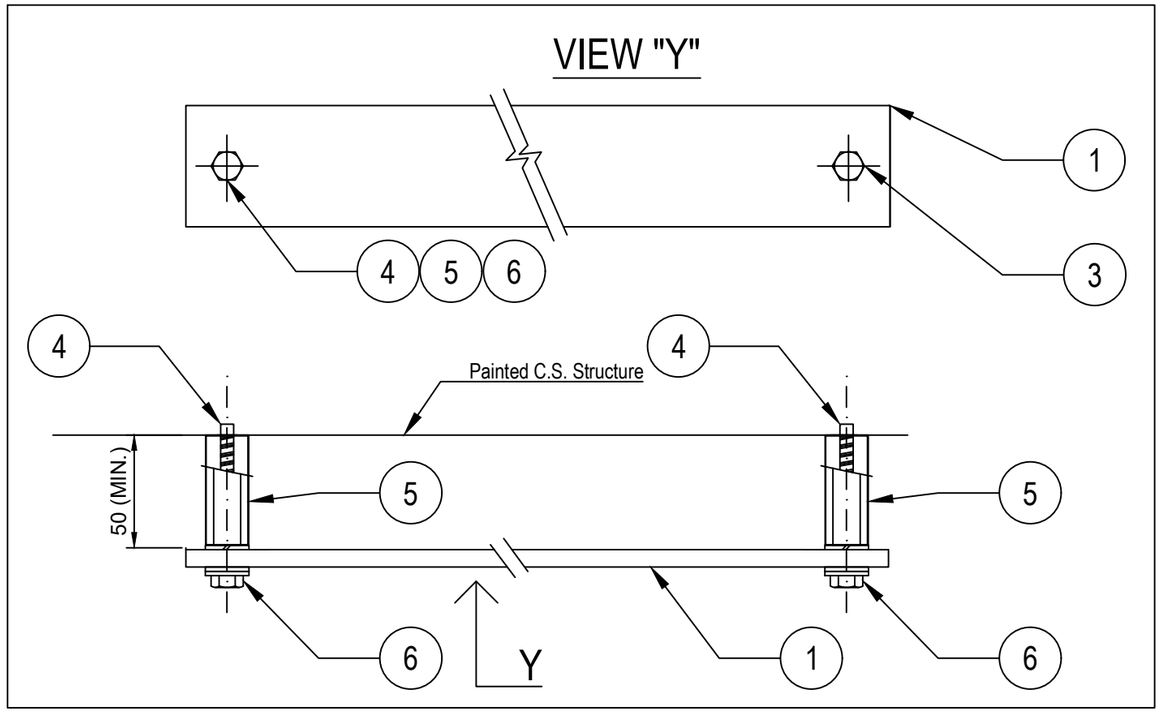


E03C



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	EARTHING BAR	TINNED COPPER	285X50X5	1	
2	SINGLE U-CHANNEL PERFORATED ON N.3 SIDE	AISI 316L		2	
3	HEXAG. BOLTS, PLANE WASHERS, GROWER SPRING WASHER AND NUT	AISI 316L	M10X30	2	
4	THREADED STUD	AISI 316L	M10X28	2	NOTE 1
5	FEMALE / MALE COUPLING	AISI 316L	M10X50	2	NOTE 2
6	PLANE WASHER, GROWER AND NUT	AISI 316L	M10	2	
7	CABLE LADDER	AISI 316L			

E03D



NOTES:

1) THREADED STUD mod. HILTI S-BT-ER M10/15 SN6 CERTIFIED FOR EARTHING SYSTEM.
2) STANDOFF ADAPTER mod. HILTI M10-HC120 50.
3) FOR TYPICALS E03B AND E03C (EARTHING BAR FIXED TO U-CHANNEL OR CABLE TRAY/LADDER) THE EARTHING BAR SHALL BE CONNECTED TO EARTHING POINT IN N.1 POINT WITH 35sqmm Y/G CABLE

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_E	09/10/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS–EARTHING SYSTEM
EARTHING BAR INSTALLED ON WELDED PROFILE OR THREADED STUD

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

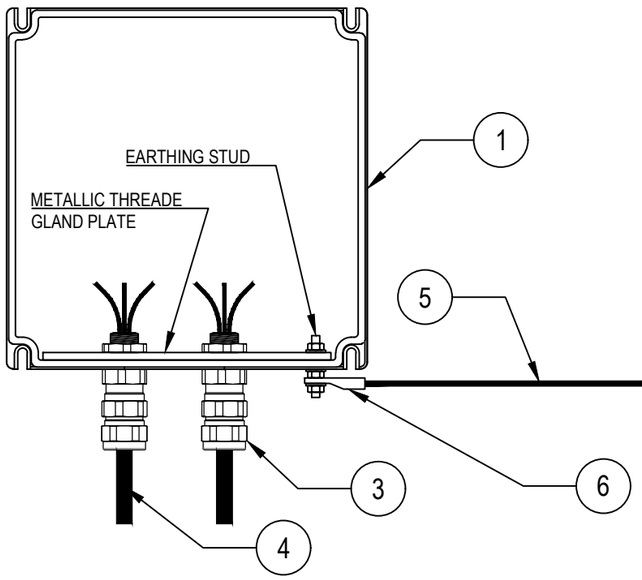
A3 | DRAWING NO. 123A90-DDL-EL-DD-20090 | SHEET 004 | REV. 02

F.to UNI A3: 420mmx297mm

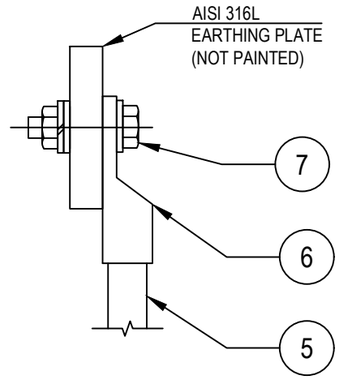
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E04

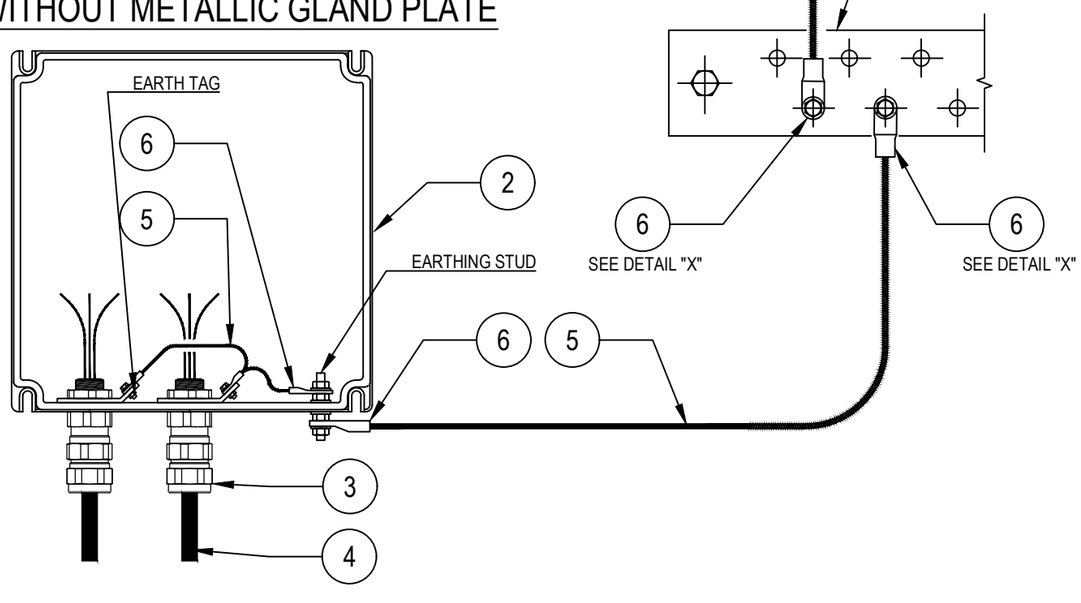
DETAIL OF NON METALLIC ENCLOSURE WITH METALLIC GLAND PLATE



DETAIL "X"



DETAIL OF NON METALLIC ENCLOSURE WITHOUT METALLIC GLAND PLATE



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	JUNCTION BOX WITH PLATE (EX)	GRP			
2	JUNCTION BOX WITHOUT GLAND PLATE (EX)	GRP			
3	DOUBLE SEAL CABLE GLAND (EX) FOR ARMOURED CABLE	NICK.PL.BRASS			~~NOTE 2~~
4	ARMOURED CABLE				
5	Y/G INSULATING COPPER CONDUCTOR	COPPER	$6mm^2$		NOTE 1
6	COMPRESSION TYPE LUG FOR INSULATION COPPER CONDUCTOR	TINNED COPPER	$6mm^2$		NOTE 1
7	BOLT, PLANE WASHER, GROWER SPRING WASHER AND NUT	AISI 316L			

NOTES:
1) FOR EARTHING BAR SEE TYPICAL DETAILS E03
~~2) CABLE LUG CRIMPING METHOD SHALL BE HEXAGONAL COMPRESSION DIES ONLY.~~

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_E	09/10/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS-EARTHING SYSTEM
EARTHING FOR CABLE ARMOUR BY CABLE GLAND

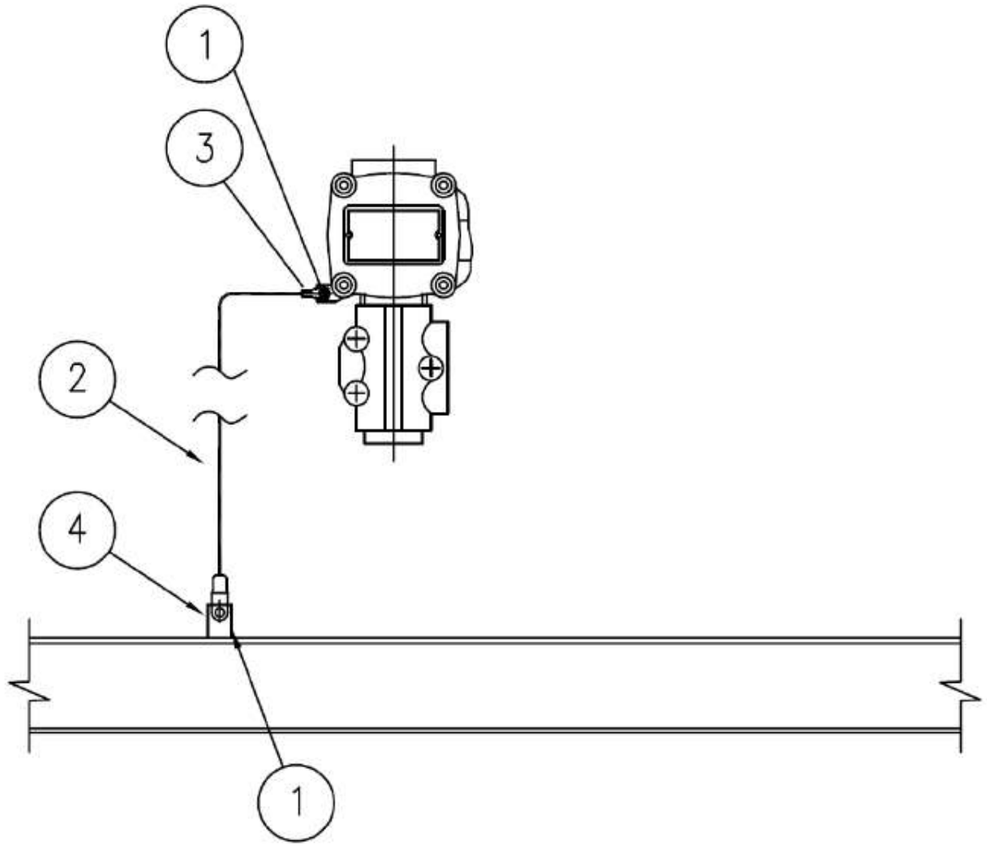
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 123A90-DDL-EL-DD-20090 | SHEET 010 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 123A90-DDL-EL-DD-20090 REV.02.DWG

E33



MATERIALS

POS.	Q.TY	DESCRIPTION	NOTES
1	1	A4 STAINLESS STEEL BOLT COMPLETE WITH NUT AND WASHERS	
2	1	Y/G INSULATING COPPER CONDUCTOR - 6mm²	
3	1	COMPRESSION TYPE LUG FOR INSULATING COPPER CONDUCTOR	
4	1	EARTHING BAR / PLATE / THREADED STUD	(1)

NOTE:
1) FOR DETAIL OF EARTHING PLATE, EARTHING BOSS AND THREADED STUD SEE TYP. E11A/C/D/E

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_E	09/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS–EARTHING SYSTEM
EARTHING FOR GENERIC INSTRUMENT

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 123A90–DDL–EL–DD–20090 | SHEET 027 | REV. 02

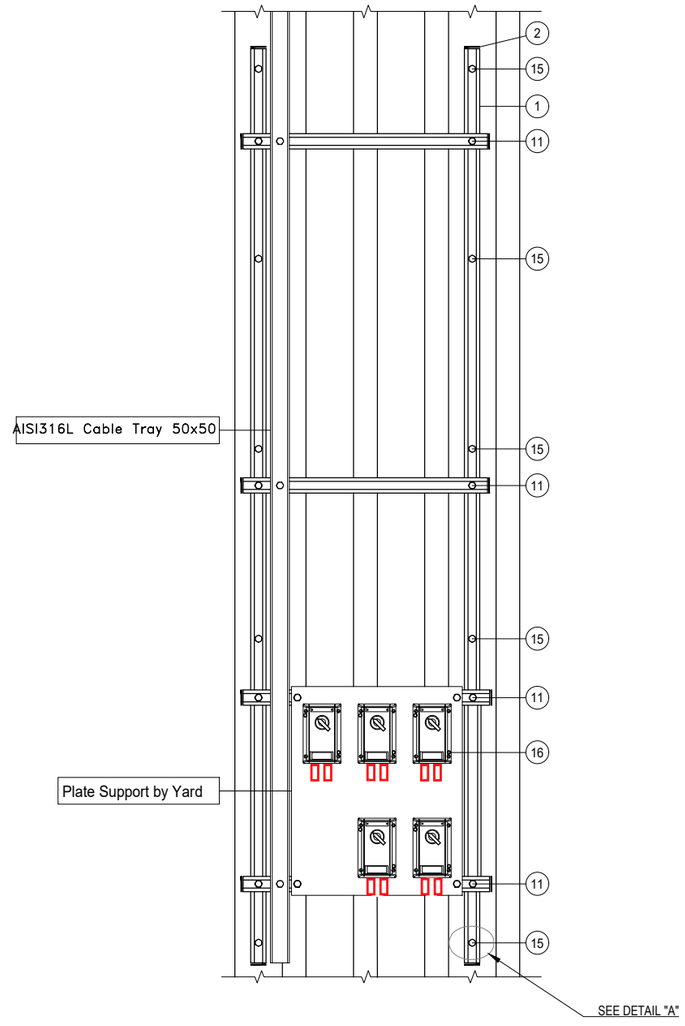
F.to UNI A3: 420mmx297mm

File Name : 123A90-DDL-EL-DD-20090 REV.02.DWG

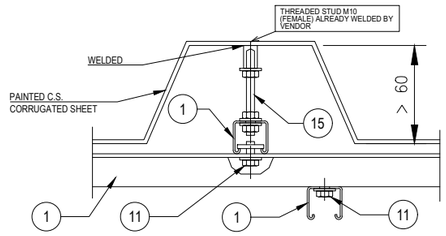
I-5

DRAWING NO. 123A90-DDL-IN-DD-40017

REV. 00



DETAIL "A"



POS.	DESCRIPTION	Q.TY
1	AISI 316L U-CHANNEL 41x41	5m
2	LDPE PLUG FOR U-CHANNEL 41x41	12
11	AISI 316L SPRING NUT M8 FOR U-CHANNEL 41X41 + BOLT M8x35 + WASHER M8	18
15	THREADED ROD M10 (L=110mm) + PLATE WASHER, LARGE PLATE WASHERS SPRING WASHER AND NUTS	10
16	AISI 316L BOLT M5x35 + NUT M5 + WASHER M5	10

CONTAINER	ITEM	DESCRIPTION	TAGNAME
B-300 ~~B-301~~	1	HAND SWITCH FOR DAMPER TEST	~~77-HS-017B~~ 77-HS-007B
	2	HAND SWITCH FOR DAMPER TEST	~~77-HS-018B~~ 77-HS-008B
	3	HAND SWITCH FOR DAMPER TEST	~~77-HS-019B~~ 77-HS-009B
	4	HAND SWITCH FOR DAMPER TEST	77-HS-010B
	5	HAND SWITCH FOR DAMPER TEST	77-HS-011B
B-400 ~~B-401~~	1	HAND SWITCH FOR DAMPER TEST	77-HS-012B
	2	HAND SWITCH FOR DAMPER TEST	77-HS-013B
	3	HAND SWITCH FOR DAMPER TEST	77-HS-014B
	4	HAND SWITCH FOR DAMPER TEST	77-HS-015B
	5	HAND SWITCH FOR DAMPER TEST	77-HS-016B

NOTES

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	02/09/2024	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	11/07/2024	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

VALID FOR CONSTRUCTION
FDL DWG: 123A90-123A90-FDL-IN-DD-40017

REV.:	DATE:	SIGNATURE:
1_B	18/09/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
INSTRUMENT INSTALLATION DETAILS
HAND SWITCH OUTSIDE CONTAINERS

CONTRACT NO./TITLE			SCALE /
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 11/07/2024

A3	DRAWING NO. 123A90-DDL-IN-DD-40017	SHEET 048	REV. 01



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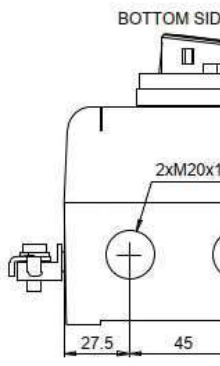


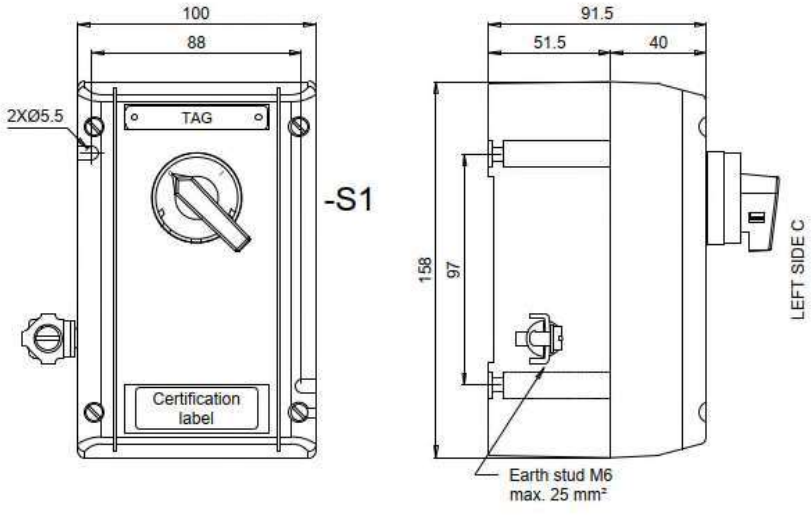
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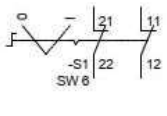
Technical data

	Ex-control stations Type 432 I Type 434	
Marking accd. to 2014/34/EU	Ⓔx II 2 G Ex ed ib m IIC T6 Ⓔx II 2 D Ex tD A21 IP66 T80 °C	
EC-Type Examination Certificate	PTB 00 ATEX 3117	
IECEx Certificate of Conformity	IECEx BKI 04.0003	
Marking accd. to IECEx	Ex e II T6, Ex e ib IIC T6, Ex ed IIC T6 or Ex ed ib IIC T6	
Permissible ambient temperature	–20 °C up to +40 °C –55 °C up to +55 °C (option)	
Rated voltage	690 V AC (with control switch GHG 23 up to 500 V)	
Rated current	16 A (with control switch GHG 23 max. 10 A)	
Rated making-/rated breaking capacity accd. EN 60947-5-1	Ex41 AC-15: U_e 250 V / I_e 6 A U_e 500 V / I_e 4 A DC-13: U_e 24 V / I_e 6 A U_e 110 V / I_e 0.5 A	Ex23 AC-15: U_e 230 V / I_e 6 A U_e 500 V / I_e 4 A DC-13: U_e 24 V / I_e 2 A U_e 230 V / I_e 0.5 A
Connecting terminals	2 x 4 mm²	
Protection class	I	
Degree of protection accd. to EN 60529	IP66	
Cable glands/Gland plates/Enclosure drilling	2 x M25 cable gland incl. 1 blanking plug or optional 2 x M20 thread with internal brass plate	
Enclosure material	Polyamide	
Enclosure colour	black	

	Type 432
Dimensions (L x W x H)	156 x 100 x 90 mm
Weight (empty)	0.47 kg

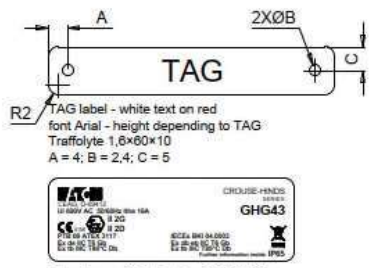






Contact arrangement		
	21-22	11-12
0	X	X
I		

X	Contact close
(none)	Contact open



Techical data:
Manufactured by Eaton Crouse-Hinds Division
Model: GHG 432
Certificate No.
PTB 00 ATEX 3117
IECEx BKI 04.0003
Marking: ATEX and IECEx
II 2G Ex de IIC T6 Gb
II 2D Ex tb IIIC T80°C Db
-40°C ≤ tamb ≤ +55°C
Ui 690V
IP65

Specific characteristics:
- Polyamide (PA), black
- Closed with stainless steel screw
- Bottom with internal earth plate in brass
- M6 internal/external stainless steel earth stud

Components:
- No. 1 black selector switch with 2 position 2NC

Entries bottom side B:
- No. 2 M20 threaded taped with transit tape

No.1 1,6×60×10 mm white text on red background traffolyte tag fixed with stainless steel screws on the cover, sealed on the back with PU adhesive and engraved

Also a certification label fixed with back self adhesive on the cover

Quantity: 32

DRAWING NO. 123-A90-DDL-IN-DG-40016

REV. 01

FIELD

INSTRUMENTS

JUNCTION BOX

950-JE-04207

MULTICABLE

No.

I&T EQUIPMENT ROOM (ITER)

MARSHALLING CABINET

B400-FGS-002

<01>

B-300 UPS Room

950-XZ-04202 — C-950-XZ-04202/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/2BK — 1 — 1BK/1BK

950-XL-04203 — C-950-XL-04203/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/2BK — 3 — 3BK/4BK

950-XL-04204 — C-950-XL-04204/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/2BK — 5 — 5BK/6BK

B-300 OUTDOOR

77-HS-007B (12/22, 11/21) — C-77-HS-007B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 7 — 7BK/8BK

C-77-HS-007A/77-HS-007B

~~C-77-HY-007D/77-HY-007A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77007 — 77-HY-007 (1/2) — C-77-HY-007/77-HS-007A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

B-300 OUTDOOR

B-300 INDOOR

77-HS-007A (12/22, 11/21)

77-HS-008B (12/22, 11/21) — C-77-HS-008B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 9 — 9BK/10BK

C-77-HS-008A/77-HS-008B

~~C-77-HS-008B/77-HS-008A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77008 — 77-HY-008 (1/2) — C-77-HY-008/77-HS-008A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

B-300 OUTDOOR

B-300 INDOOR

77-HS-008A (12/22, 11/21)

77-HS-009B (12/22, 11/21) — C-77-HS-009B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 11 — 11BK/12BK

C-77-HS-009A/77-HS-009B

~~C-77-HS-009B/77-HS-009A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77009 — 77-HY-009 (1/2) — C-77-HY-009/77-HS-009A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

B-300 INDOOR

77-HS-009A (12/22, 11/21)

B-300 OUTDOOR

77-HS-010B (12/22, 11/21) — C-77-HS-010B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 13 — 13BK/14BK

C-77-HS-010A/77-HS-010B

~~C-77-HS-010B/77-HS-010A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77010 — 77-HY-010 (1/2) — C-77-HY-010/77-HS-010A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

B-300 INDOOR

77-HS-010A (12/22, 11/21)

B-300 OUTDOOR

77-HS-011B (12/22, 11/21) — C-77-HS-011B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 15 — 15BK/16BK

C-77-HS-011A/77-HS-011B

~~C-77-HS-011B/77-HS-011A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77011 — 77-HY-011 (1/2) — C-77-HY-011/77-HS-011A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

B-300 INDOOR

77-HS-011A (12/22, 11/21)

TB-1: SH, 17 — 17BK/18BK; SH, 19 — 19BK/20BK; SH, 21 — 21BK/22BK; SH, 23 — 23BK/24BK; SH, OS

950-JE-04207/B400-FGS-002

24x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

TB-950-JE-04207

1	950-XZ-04202
2	
3	950-XL-04203
4	
5	950-XL-04204
6	
7	77-HY-007
8	
9	77-HY-008
10	
11	77-HY-009
12	
13	77-HY-010
14	
15	77-HY-011
16	
17	SPARE
18	
19	SPARE
20	
21	SPARE
22	
23	SPARE
24	

Shield Bar — I.E.

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_D	14/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT–FGS WIRING DIAGRAMS
950–JE–04207

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024
A3	DRAWING NO. 123A90–DDL–IN–DG–40016	SHEET 069	REV. 01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

ITEM	Tag	77-HS-011A	: Hand Switch for Fire&Gas Damper HFD-77011			Dwg	
	S/Sys	77-30	: HVAC UPS Equipment Room B-300			Module	
TASK	code	C10002097		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Instrumental Form CJX00		Miscellaneous

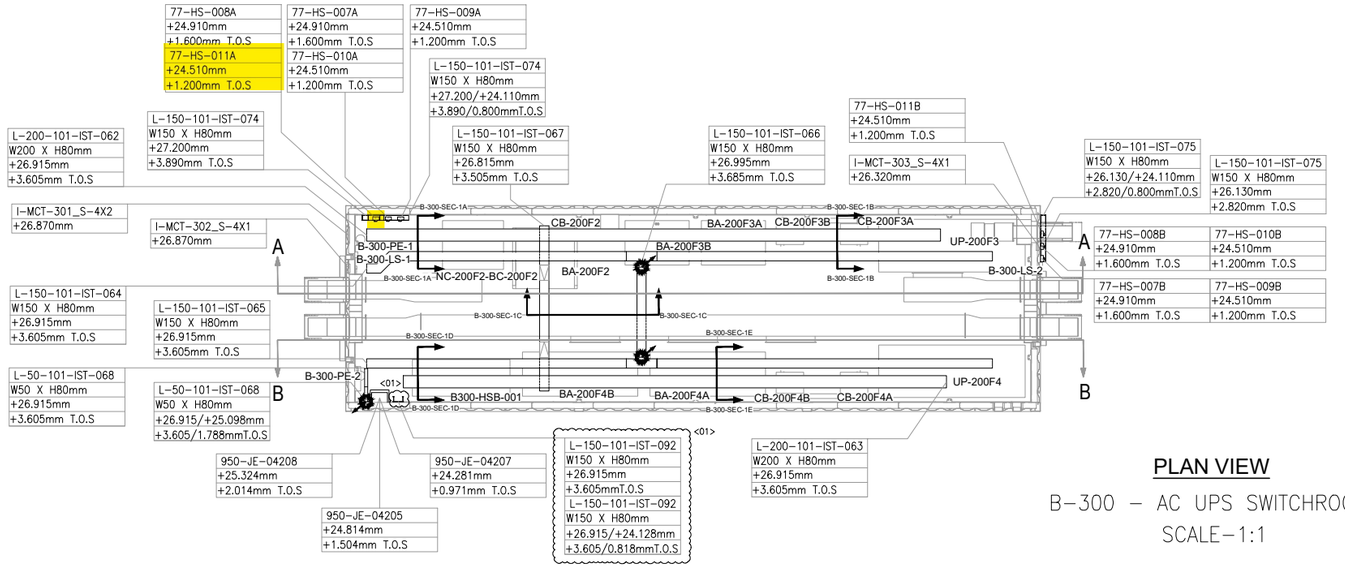
1	Check for mechanical damage.	OK
2	Check installed equipment is suitable and conforms to specification.	OK
3	Check installation conforms to P&ID and hook-up drawing.	OK
4	Check tube fittings manufacturer is the one chosen for the plant.	NA
5	Check that piping connections provide the block & bleed facility (if required).	NA
6	Check that all stop plugs are properly installed	NA
7	Check identification (tag number, tag plates).	OK
8	Check supporting and protection against vibrations.	OK
9	Check the conformity of earthing as per specification (I.P.E. or I.E.)	OK
10	If required produce Red Line Mark Up for "AS BUILT"	

Comments:

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM (ROSETTI MARINO)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-10-28	2024-11-21	
Signature	PROVERLIS Digitaly signed by Carmelo Bongiovanni 2024-10-28T09:14:13.384Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2024-11-21T08:32:40.258Z	

DRAWING NO. 123A90-DDL-IN-DL-40115

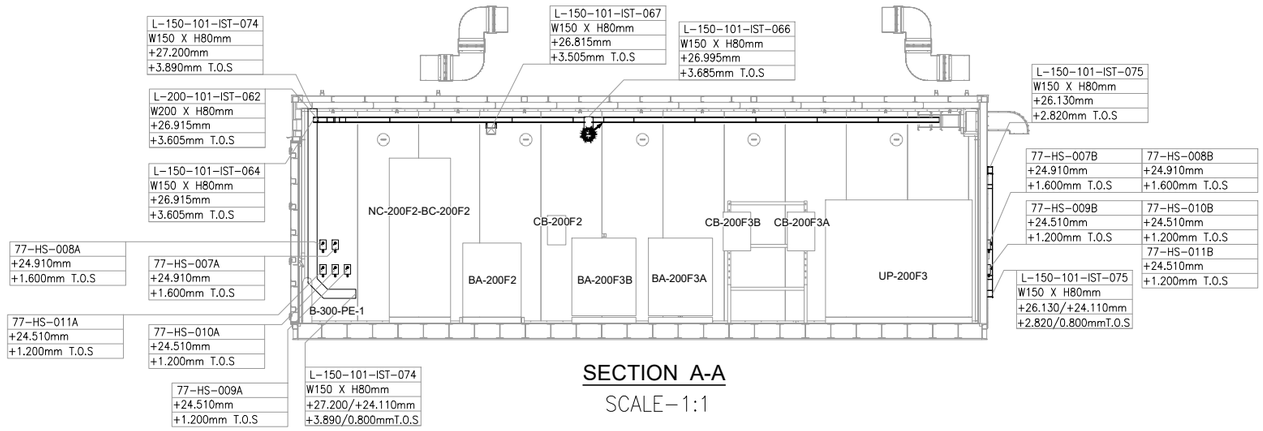
REV. 01



PLAN VIEW

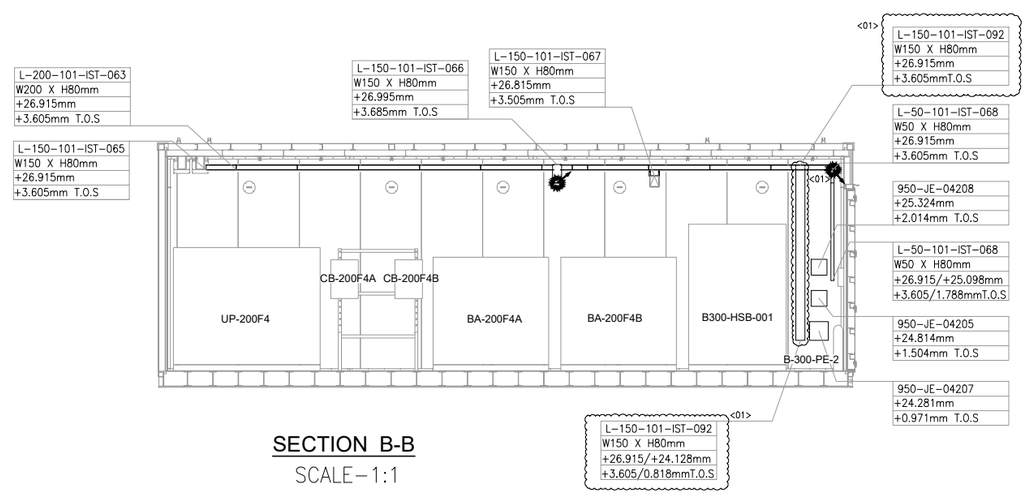
B-300 – AC UPS SWITCHROOM

SCALE-1:1



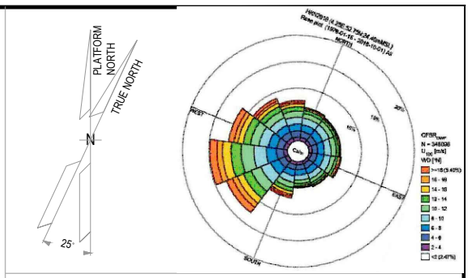
SECTION A-A

SCALE-1:1



SECTION B-B

SCALE-1:1



NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DRAWING IS VALID ONLY FOR CONTAINER CABLE TRAY LAYOUT.

LEGEND

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DL-40115**

REV.:	DATE:	SIGNATURE:
1_A	07/10/24	G.Randi

ROSETTI MARINO SpA

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-IN-DL-40081	INSTRUMENT LAYOUT - UPPER DECK
123A90-DDL-IN-LIS-40091	INSTRUMENT CABLE LIST
123A90-DDL-IN-DG-40015	INSTRUMENT-CCS WIRING DIAGRAMS
123A90-DDL-IN-DG-40016	INSTRUMENT-SAFETY SYSTEM WIRING DIAGRAMS
123A90-DDL-IN-DL-40083	INSTRUMENT MAIN CABLES ROUTING-LOWER DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/08/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)

Base Load Power HUB Cables Tray Layout

B-300 Container Lower Deck – TOS EL. 23.310m

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:50
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 04/10/24

A1	DRAWING NO. 123A90-DDL-IN-DL-40115	SHEET 001	REV. 01

File Name : 123A90-DDL-IN-DL-40115 REV01.dwg

DRAWING NO. 123-A90-DDL-IN-DG-40016 REV. 01

FIELD

INSTRUMENTS

JUNCTION BOX

950-JE-04207

MULTICABLE No.

I&T EQUIPMENT ROOM (ITER)

MARSHALLING CABINET

B400-FGS-002

<01>

B-300 UPS Room

950-XZ-04202 — C-950-XZ-04202/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

950-XL-04203 — C-950-XL-04203/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

950-XL-04204 — C-950-XL-04204/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 OUTDOOR

77-HS-007B — C-77-HS-007B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-007A/77-HS-007B

~~C-77-HY-007B/77-HY-007A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77007

77-HY-007 — C-77-HY-007/77-HS-007A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

77-HS-007A — NOTE-2

B-300 OUTDOOR

77-HS-008B — C-77-HS-008B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-008A/77-HS-008B

~~C-77-HS-008B/77-HS-008A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77008

77-HY-008 — C-77-HY-008/77-HS-008A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

77-HS-008A — NOTE-2

B-300 OUTDOOR

77-HS-009B — C-77-HS-009B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-009A/77-HS-009B

~~C-77-HS-009B/77-HS-009A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77009

77-HY-009 — C-77-HY-009/77-HS-009A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

77-HS-009A — NOTE-2

B-300 OUTDOOR

77-HS-010B — C-77-HS-010B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-010A/77-HS-010B

~~C-77-HS-010B/77-HS-010A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77010

77-HY-010 — C-77-HY-010/77-HS-010A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

77-HS-010A — NOTE-2

B-300 OUTDOOR

77-HS-011B — C-77-HS-011B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

C-77-HS-011A/77-HS-011B

~~C-77-HS-011B/77-HS-011A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77011

77-HY-011 — C-77-HY-011/77-HS-011A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — NOTE-2

B-300 INDOOR

77-HS-011A — NOTE-2

TB-1

1 — 1BK
2 — 2BK
SH
3 — 3BK
4 — 4BK
SH
5 — 5BK
6 — 6BK
SH
7 — 7BK
8 — 8BK
SH
9 — 9BK
10 — 10BK
SH
11 — 11BK
12 — 12BK
SH
13 — 13BK
14 — 14BK
SH
15 — 15BK
16 — 16BK
SH
17 — 17BK
18 — 18BK
SH
19 — 19BK
20 — 20BK
SH
21 — 21BK
22 — 22BK
SH
23 — 23BK
24 — 24BK
SH
OS

950-JE-04207/B400-FGS-002

24x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

TB-950-JE-04207

1 — 1BK — 950-XZ-04202
2 — 2BK
3 — 3BK — 950-XL-04203
4 — 4BK
5 — 5BK — 950-XL-04204
6 — 6BK
7 — 7BK — 77-HY-007
8 — 8BK
9 — 9BK — 77-HY-008
10 — 10BK
11 — 11BK — 77-HY-009
12 — 12BK
13 — 13BK — 77-HY-010
14 — 14BK
15 — 15BK — 77-HY-011
16 — 16BK
17 — 17BK — SPARE
18 — 18BK
19 — 19BK — SPARE
20 — 20BK
21 — 21BK — SPARE
22 — 22BK
23 — 23BK — SPARE
24 — 24BK

Shield Bar — I.E.

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_H	28/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT–FGS WIRING DIAGRAMS
950–JE–04207

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024
A3	DRAWING NO. 123A90–DDL–IN–DG–40016	SHEET 069	REV. 01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

I-3

DRAWING NO. 123A90-DDL-IN-DD-40017

REV. 00



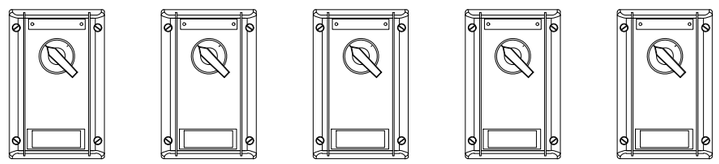
B-100
~~B-101~~



B-200
~~B-201~~



B-300
~~B-301~~



B-400
~~B-401~~

POS.	DESCRIPTION	Q.TY
-	SELFING TAPPING SCREW	-

CONTAINER	ITEM	DESCRIPTION	TAGNAME
B-100 ~~B-101~~	1	HAND SWITCH FOR DAMPER TEST	~~77-HS-011A~~ 77-HS-001A
	2	HAND SWITCH FOR DAMPER TEST	~~77-HS-012A~~ 77-HS-002A
	3	HAND SWITCH FOR DAMPER TEST	~~77-HS-013A~~ 77-HS-003A
B-200 ~~B-201~~	1	HAND SWITCH FOR DAMPER TEST	~~77-HS-014A~~ 77-HS-004A
	2	HAND SWITCH FOR DAMPER TEST	~~77-HS-015A~~ 77-HS-005A
	3	HAND SWITCH FOR DAMPER TEST	~~77-HS-016A~~ 77-HS-006A
B-300 ~~B-301~~	1	HAND SWITCH FOR DAMPER TEST	~~77-HS-017A~~ 77-HS-007A
	2	HAND SWITCH FOR DAMPER TEST	~~77-HS-018A~~ 77-HS-008A
	3	HAND SWITCH FOR DAMPER TEST	~~77-HS-019A~~ 77-HS-009A
	4	HAND SWITCH FOR DAMPER TEST	77-HS-010A
	5	HAND SWITCH FOR DAMPER TEST	77-HS-011A
B-400 ~~B-401~~	1	HAND SWITCH FOR DAMPER TEST	77-HS-012A
	2	HAND SWITCH FOR DAMPER TEST	77-HS-013A
	3	HAND SWITCH FOR DAMPER TEST	77-HS-014A
	4	HAND SWITCH FOR DAMPER TEST	77-HS-015A
	5	HAND SWITCH FOR DAMPER TEST	77-HS-016A

NOTES

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	02/09/2024	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	11/07/2024	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT INSTALLATION DETAILS
HAND SWITCH INSIDE CONTAINERS

CONTRACT NO./TITLE | SCALE /

DRAWN VBA | CHECKED LCA | APPROVED DLO | DATE 11/07/2024

A3 | DRAWING NO. 123A90-DDL-IN-DD-40017 | SHEET 046 | REV. 01

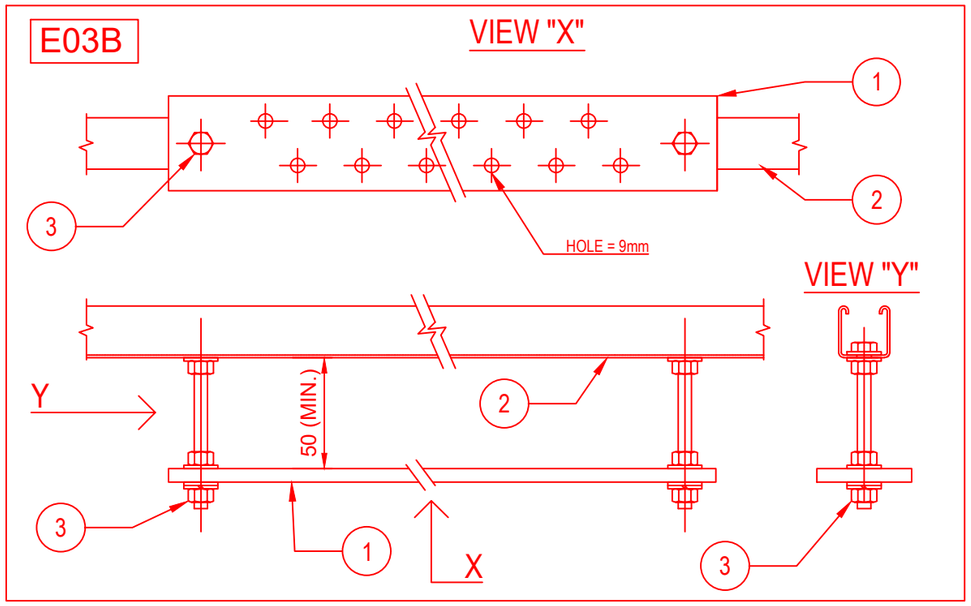
VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DD-40017**

REV.:	DATE:	SIGNATURE:
1_C	15/10/24	G.Randi

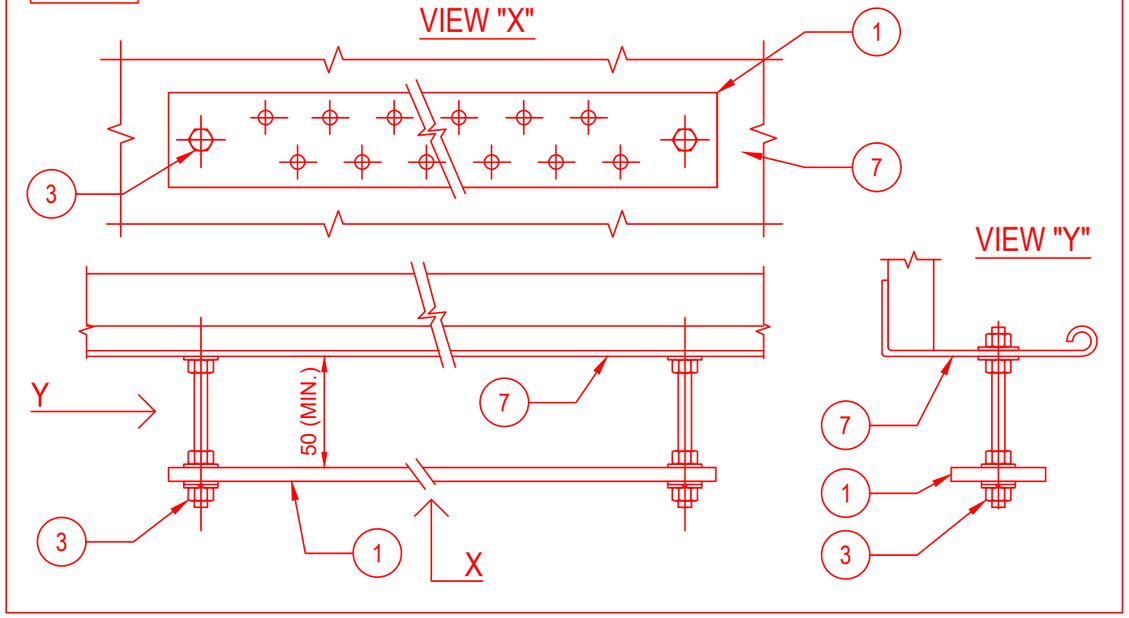
ROSETTI MARINO SpA

TYPICAL DETAIL VALID FOR EXTERNAL USE ONLY

E03B

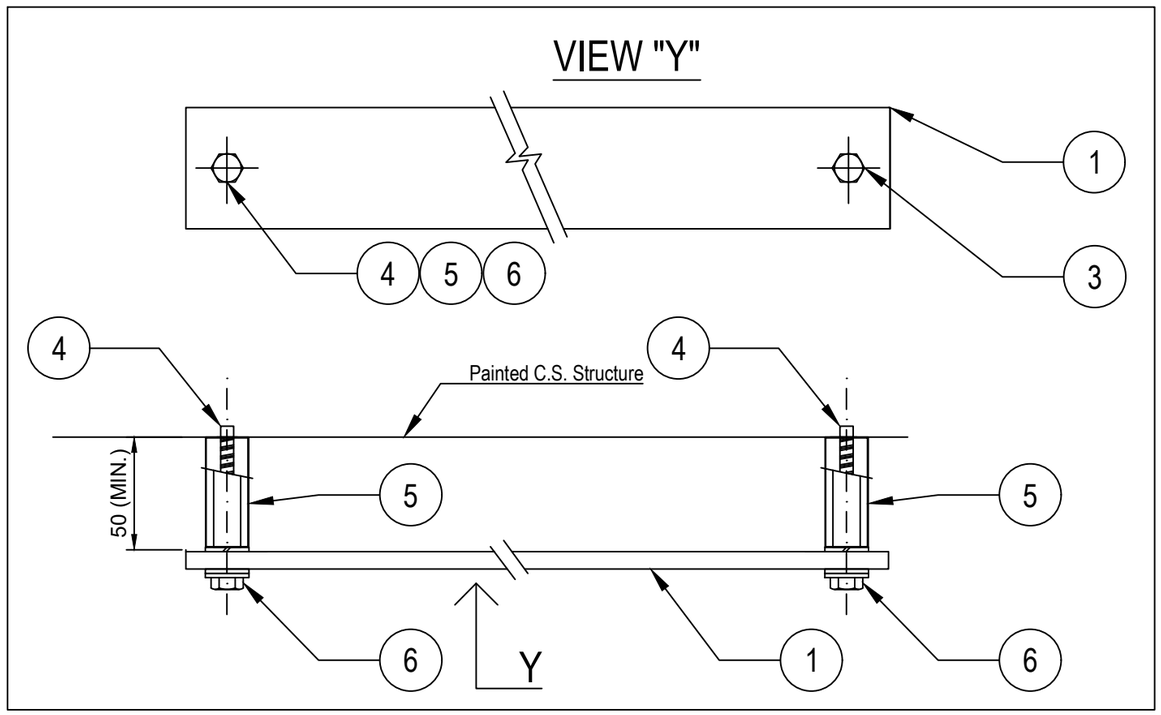


E03C



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	EARTHING BAR	TINNED COPPER	285X50X5	1	
2	SINGLE U-CHANNEL PERFORATED ON N.3 SIDE	AISI 316L		2	
3	HEXAG. BOLTS, PLANE WASHERS, GROWER SPRING WASHER AND NUT	AISI 316L	M10X30	2	
4	THREADED STUD	AISI 316L	M10X28	2	NOTE 1
5	FEMALE / MALE COUPLING	AISI 316L	M10X50	2	NOTE 2
6	PLANE WASHER, GROWER AND NUT	AISI 316L	M10	2	
7	CABLE LADDER	AISI 316L			

E03D



NOTES:

1) THREADED STUD mod. HILTI S-BT-ER M10/15 SN6 CERTIFIED FOR EARTHING SYSTEM.
2) STANDOFF ADAPTER mod. HILTI M10-HC120 50.
3) FOR TYPICALS E03B AND E03C (EARTHING BAR FIXED TO U-CHANNEL OR CABLE TRAY/LADDER) THE EARTHING BAR SHALL BE CONNECTED TO EARTHING POINT IN N.1 POINT WITH 35sqmm Y/G CABLE

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_G	25/10/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS-EARTHING SYSTEM
EARTHING BAR INSTALLED ON WELDED PROFILE OR THREADED STUD

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

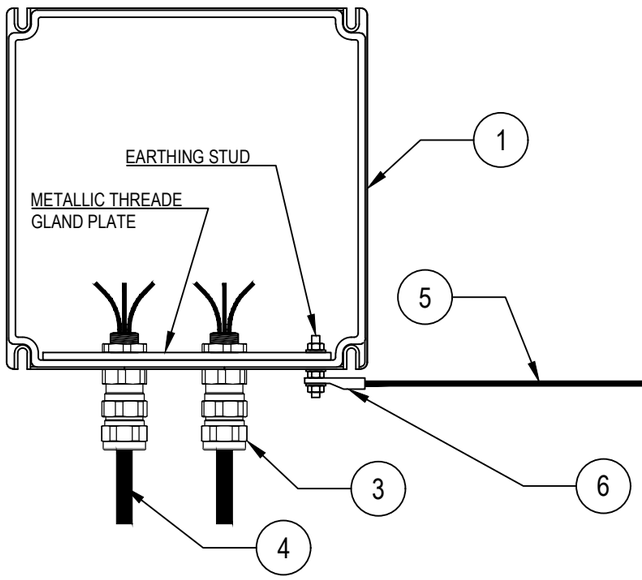
A3 | DRAWING NO. 123A90-DDL-EL-DD-20090 | SHEET 004 | REV. 02

F.to UNI A3: 420mmx297mm

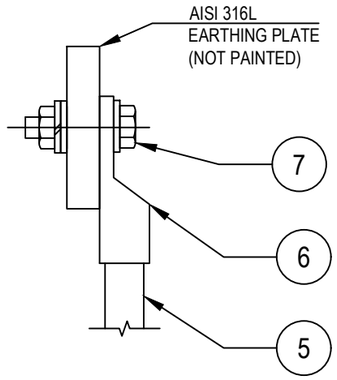
File Name : 123A90-DDL-EL-DD-20090 REV.02 RLMU.DWG

E04

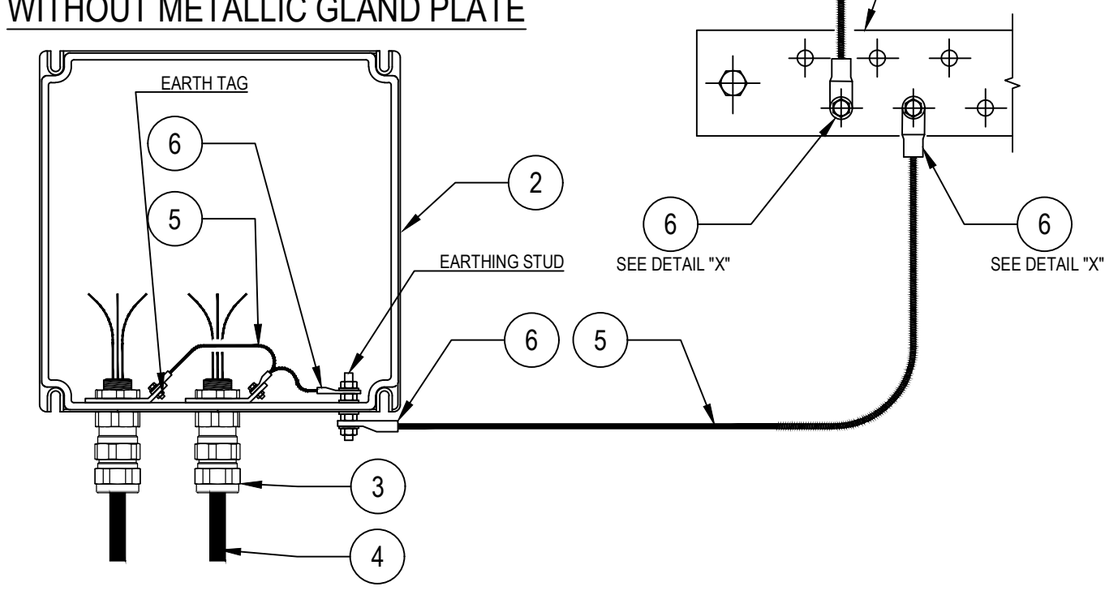
DETAIL OF NON METALLIC ENCLOSURE WITH METALLIC GLAND PLATE



DETAIL "X"



DETAIL OF NON METALLIC ENCLOSURE WITHOUT METALLIC GLAND PLATE



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	JUNCTION BOX WITH PLATE (EX)	GRP			
2	JUNCTION BOX WITHOUT GLAND PLATE (EX)	GRP			
3	DOUBLE SEAL CABLE GLAND (EX) FOR ARMOURED CABLE	NICK.PL.BRASS			~~NOTE 2~~
4	ARMOURED CABLE				
5	Y/G INSULATING COPPER CONDUCTOR	COPPER	$6mm^2$		NOTE 1
6	COMPRESSION TYPE LUG FOR INSULATION COPPER CONDUCTOR	TINNED COPPER	$6mm^2$		NOTE 1
7	BOLT, PLANE WASHER, GROWER SPRING WASHER AND NUT	AISI 316L			

NOTES:
1) FOR EARTHING BAR SEE TYPICAL DETAILS E03
~~2) CABLE LUG CRIMPING METHOD SHALL BE HEXAGONAL COMPRESSION DIES ONLY.~~

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_G	25/10/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS-EARTHING SYSTEM
EARTHING FOR CABLE ARMOUR BY CABLE GLAND

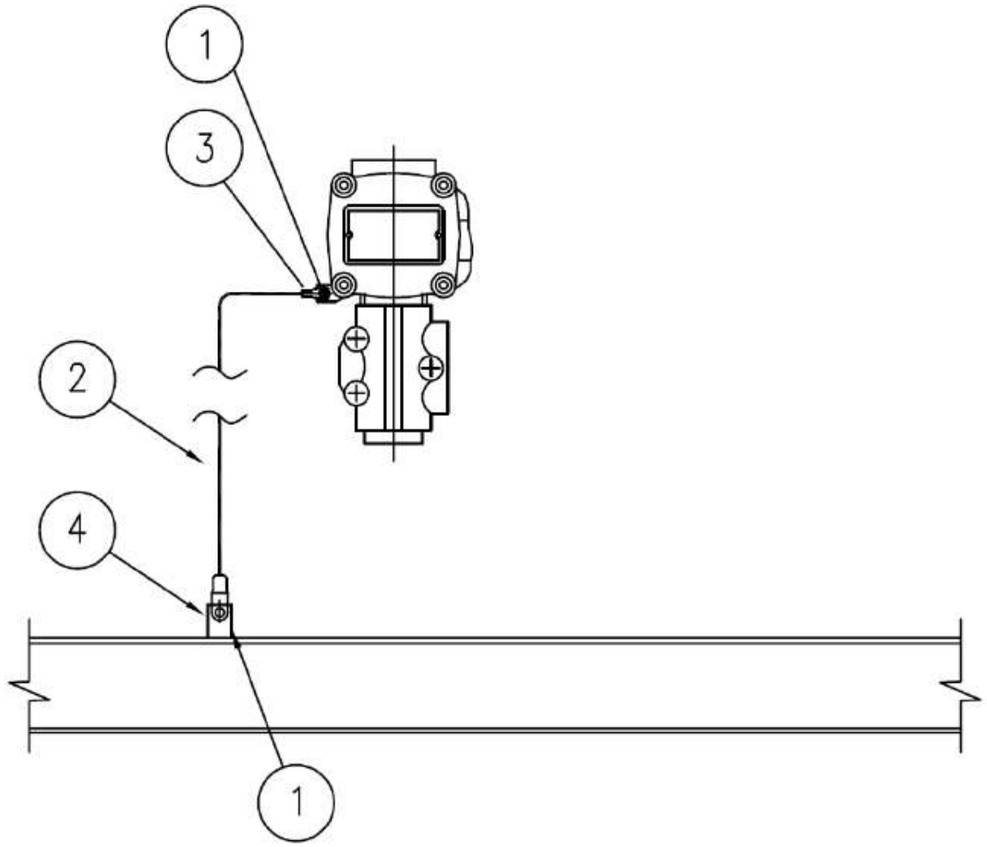
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 123A90-DDL-EL-DD-20090 | SHEET 010 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 123A90-DDL-EL-DD-20090 REV.02.DWG

E33



MATERIALS

POS.	Q.TY	DESCRIPTION	NOTES
1	1	A4 STAINLESS STEEL BOLT COMPLETE WITH NUT AND WASHERS	
2	1	Y/G INSULATING COPPER CONDUCTOR - 6mm²	
3	1	COMPRESSION TYPE LUG FOR INSULATING COPPER CONDUCTOR	
4	1	EARTHING BAR / PLATE / THREADED STUD	(1)

NOTE:
1) FOR DETAIL OF EARTHING PLATE, EARTHING BOSS AND THREADED STUD SEE TYP. E11A/C/D/E

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-EL-DD-20090

REV.:	DATE:	SIGNATURE:
2_G	25/10/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS-EARTHING SYSTEM
EARTHING FOR GENERIC INSTRUMENT

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK

SCALE : NTS

A3

DRAWING NO. 123A90-DDL-EL-DD-20090

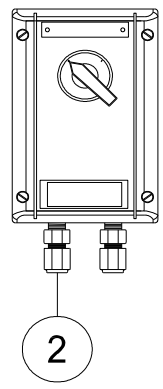
SHEET 027

REV. 02

F.to UNI A3: 420mmx297mm

File Name : 123A90-DDL-EL-DD-20090 REV.02.DWG

ELECTRICAL HOOK-UP FOR HAND SWITCH TEST OF THE DAMPERS



INSTRUMENT TAG	
1	77-HS-001A
2	77-HS-001B
3	77-HS-002A
4	77-HS-002B
5	77-HS-003A
6	77-HS-003B
7	77-HS-004A
8	77-HS-004B
9	77-HS-005A
10	77-HS-005B
11	77-HS-006A
12	77-HS-006B
13	77-HS-007A
14	77-HS-007B
15	77-HS-008A
16	77-HS-008B
17	77-HS-009A
18	77-HS-009B
19	77-HS-010A
20	77-HS-010B
21	77-HS-011A
22	77-HS-011B
23	77-HS-012A
24	77-HS-012B
25	77-HS-013A
26	77-HS-013B
27	77-HS-014A
28	77-HS-014B
29	77-HS-015A
30	77-HS-015B
31	77-HS-016A
32	77-HS-016B

POS.	NORM/STD CODE	DESCRIPTION	SIZE/ CONNECTION TYPE	Q.TY
2		Nickel Plated Brass Double Compression Cable Gland Ex-d/e IIC (or IIB + H2) T1	M20	2

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-IN-HD-40079
REV.: 2_A | DATE: 08/10/24 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

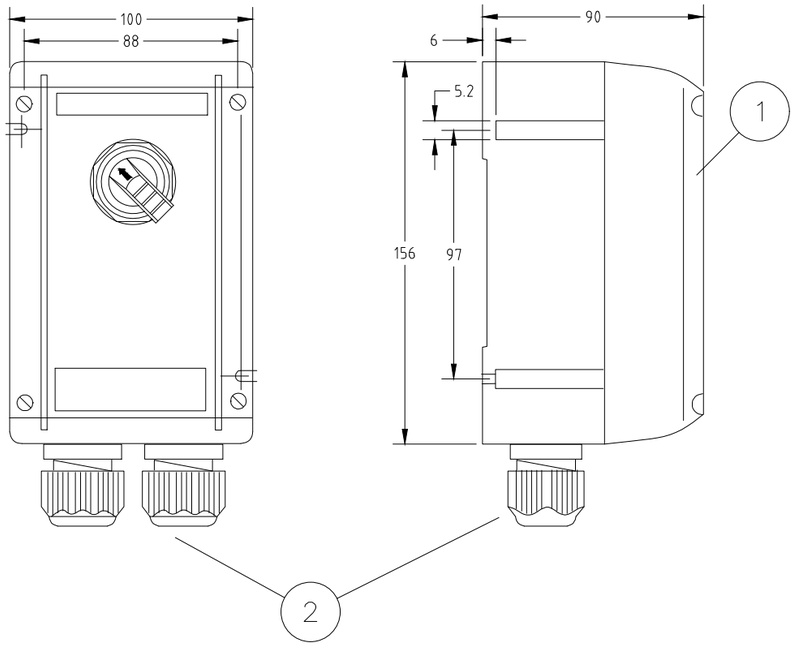
This document undergoes an issuance cycle within EDMS "Fusionlive".
Its distribution is electronically controlled. Once printed shall be considered as "NOT CONTROLLED" copy

PUSH BUTTON DPDT CONTACT

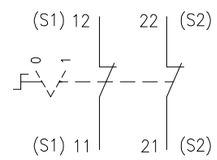
ITEM	DESCRIPTIONS	NR
1	Control Station, CO.SI.ME GHG 432	1
2	Cable Gland M20 Ex eb Polyamide	2
3		
4		
5		
6		
7		
8		
9		
10		

INSTALLATION
QUANTITY

32



WIRING



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	03/09/24	DB	MO	SM	ACCEPTED FOR CONSTRUCTION (AFC)
00	08/07/24	DB	MO	SM	ISSUE FOR REVIEW (IFR)

FORES ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
GENERAL ARRANGEMENT
PUSH BUTTON DPDT CONTACT

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK

SCALE : NTS

A3

DRAWING NO. 1724000821-IN-DA-00003

SHEET 014

REV. 01

F.to UNI A3: 420mmx297mm

File Name : 1724000821-IN-DA-00003 Rev. 01



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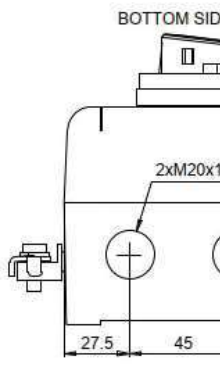


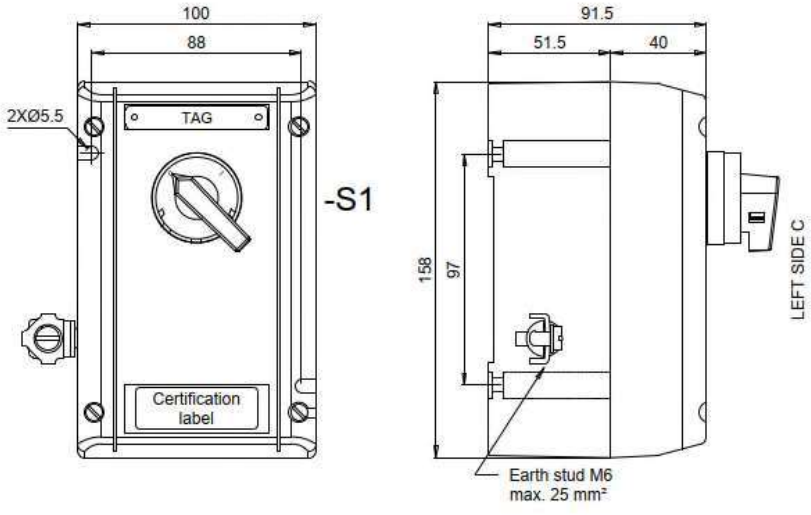
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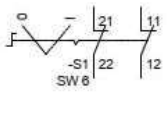
Technical data

	Ex-control stations Type 432 I Type 434	
Marking accd. to 2014/34/EU	Ⓔx II 2 G Ex ed ib m IIC T6 Ⓔx II 2 D Ex tD A21 IP66 T80 °C	
EC-Type Examination Certificate	PTB 00 ATEX 3117	
IECEx Certificate of Conformity	IECEx BKI 04.0003	
Marking accd. to IECEx	Ex e II T6, Ex e ib IIC T6, Ex ed IIC T6 or Ex ed ib IIC T6	
Permissible ambient temperature	–20 °C up to +40 °C –55 °C up to +55 °C (option)	
Rated voltage	690 V AC (with control switch GHG 23 up to 500 V)	
Rated current	16 A (with control switch GHG 23 max. 10 A)	
Rated making-/rated breaking capacity accd. EN 60947-5-1	Ex41 AC-15: U_e 250 V / I_e 6 A U_e 500 V / I_e 4 A DC-13: U_e 24 V / I_e 6 A U_e 110 V / I_e 0.5 A	Ex23 AC-15: U_e 230 V / I_e 6 A U_e 500 V / I_e 4 A DC-13: U_e 24 V / I_e 2 A U_e 230 V / I_e 0.5 A
Connecting terminals	2 x 4 mm²	
Protection class	I	
Degree of protection accd. to EN 60529	IP66	
Cable glands/Gland plates/Enclosure drilling	2 x M25 cable gland incl. 1 blanking plug or optional 2 x M20 thread with internal brass plate	
Enclosure material	Polyamide	
Enclosure colour	black	

	Type 432
Dimensions (L x W x H)	156 x 100 x 90 mm
Weight (empty)	0.47 kg

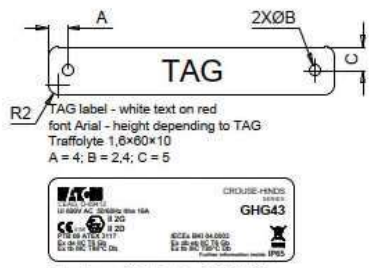






Contact arrangement		
	21-22	11-12
0	X	X
I		

X	Contact close
(none)	Contact open



Techical data:
Manufactured by Eaton Crouse-Hinds Division
Model: GHG 432
Certificate No.
PTB 00 ATEX 3117
IECEx BKI 04.0003
Marking: ATEX and IECEx
II 2G Ex de IIC T6 Gb
II 2D Ex tb IIIC T80°C Db
-40°C ≤ tamb ≤ +55°C
Ui 690V
IP65

Specific characteristics:
- Polyamide (PA), black
- Closed with stainless steel screw
- Bottom with internal earth plate in brass
- M6 internal/external stainless steel earth stud

Components:
- No. 1 black selector switch with 2 position 2NC

Entries bottom side B:
- No. 2 M20 threaded taped with transit tape

No.1 1,6×60×10 mm white text on red background traffolyte tag fixed with stainless steel screws on the cover, sealed on the back with PU adhesive and engraved

Also a certification label fixed with back self adhesive on the cover

Quantity: 32

ITEM	Tag	77-HS-011B	: Hand Switch for Fire&Gas Damper HFD-77011		Dwg	123A90-DDL-IN-DL-40115	
	S/Sys	77-30	: HVAC UPS Equipment Room B-300		Module	LD_B-300	
TASK	code	C10002098	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity CCK	Discipline Instrumental	Form	CJX00	Miscellaneous

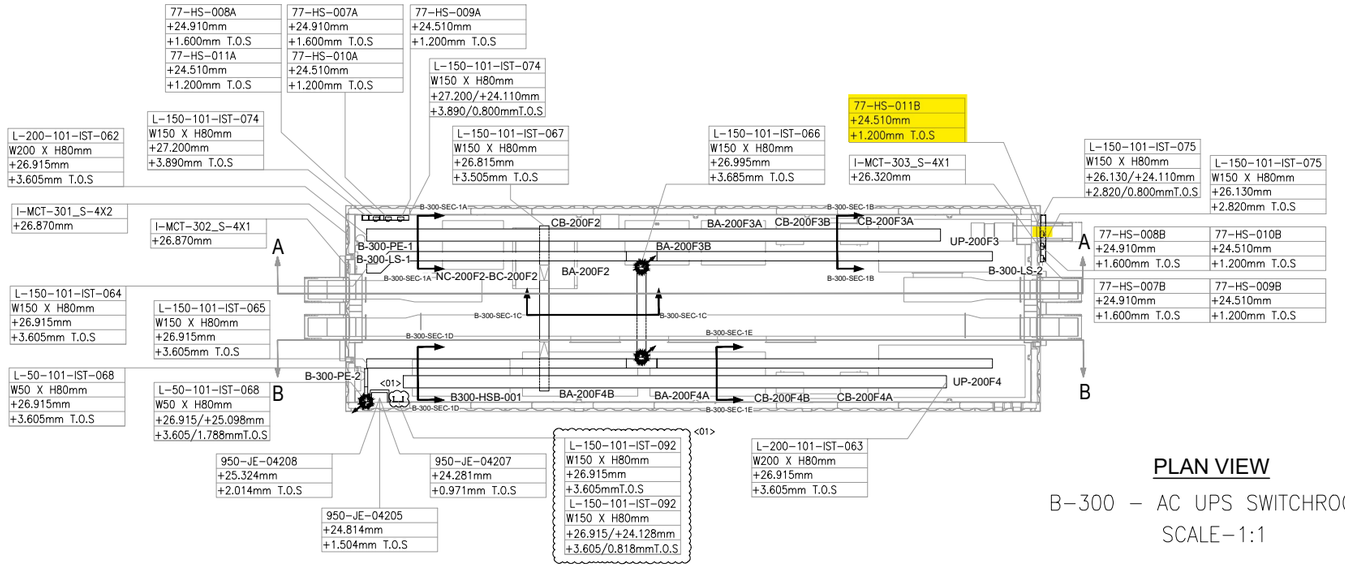
1	Check for mechanical damage.	OK
2	Check installed equipment is suitable and conforms to specification.	PL
3	Check installation conforms to P&ID and hook-up drawing.	OK
4	Check tube fittings manufacturer is the one chosen for the plant.	NA
5	Check that piping connections provide the block & bleed facility (if required).	NA
6	Check that all stop plugs are properly installed	NA
7	Check identification (tag number, tag plates).	OK
8	Check supporting and protection against vibrations.	OK
9	Check the conformity of earthing as per specification (I.P.E. or I.E.)	OK
10	If required produce Red Line Mark Up for "AS BUILT"	

Comments:

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM(ROSETTI MARINO)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-10-11	2025-04-01	
Signature	PROVERLIS Digitaly signed by Carmelo Bongiovanni 2024-10-11T15:39:02.141Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2025-04-01T12:13:18.520Z	

DRAWING NO. 123A90-DDL-IN-DL-40115

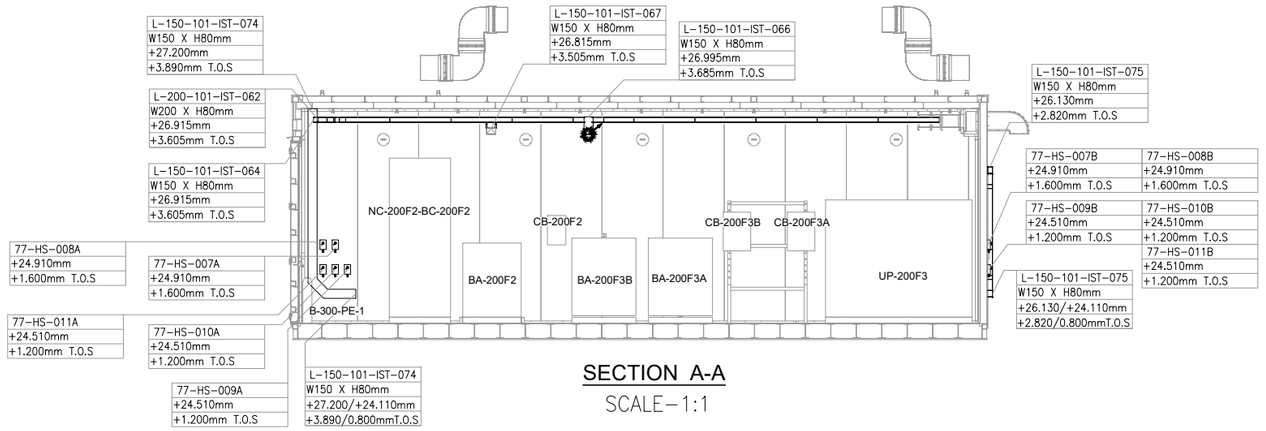
REV. 01



PLAN VIEW

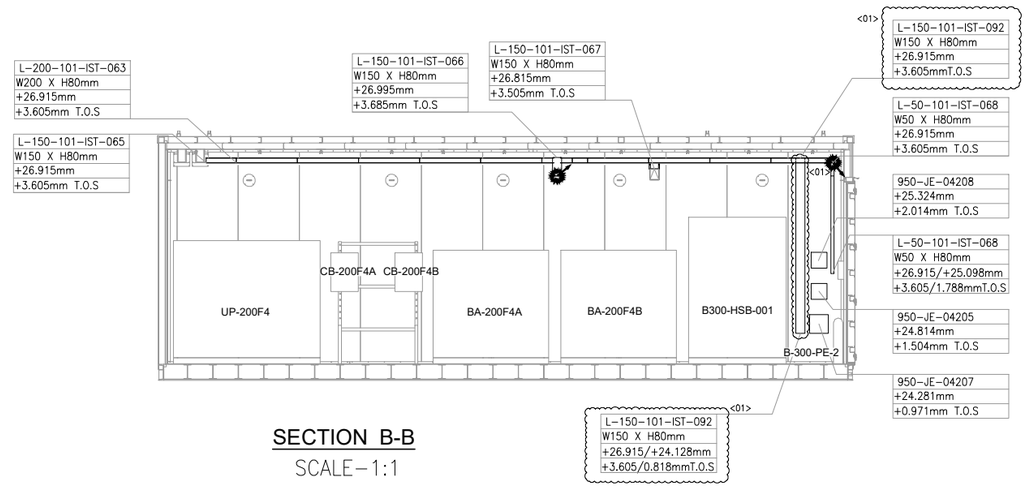
B-300 – AC UPS SWITCHROOM

SCALE-1:1



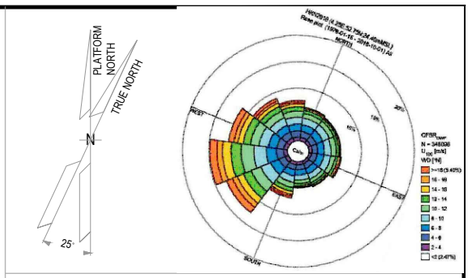
SECTION A-A

SCALE-1:1



SECTION B-B

SCALE-1:1



NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DRAWING IS VALID ONLY FOR CONTAINER CABLE TRAY LAYOUT.

LEGEND

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DL-40115**

REV.:	DATE:	SIGNATURE:
1_A	07/10/24	G.Randi

ROSETTI MARINO SpA

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-IN-DL-40081	INSTRUMENT LAYOUT - UPPER DECK
123A90-DDL-IN-LIS-40091	INSTRUMENT CABLE LIST
123A90-DDL-IN-DG-40015	INSTRUMENT-CCS WIRING DIAGRAMS
123A90-DDL-IN-DG-40016	INSTRUMENT-SAFETY SYSTEM WIRING DIAGRAMS
123A90-DDL-IN-DL-40083	INSTRUMENT MAIN CABLES ROUTING-LOWER DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/08/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)

Base Load Power HUB Cables Tray Layout

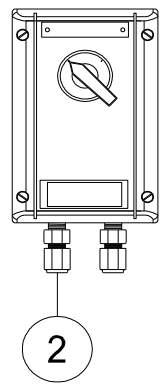
B-300 Container Lower Deck – TOS EL. 23.310m

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:50
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 04/10/24

A1	DRAWING NO. 123A90-DDL-IN-DL-40115	SHEET 001	REV. 01

File Name : 123A90-DDL-IN-DL-40115 REV01.dwg

ELECTRICAL HOOK-UP FOR HAND SWITCH TEST OF THE DAMPERS



INSTRUMENT TAG	
1	77-HS-001A
2	77-HS-001B
3	77-HS-002A
4	77-HS-002B
5	77-HS-003A
6	77-HS-003B
7	77-HS-004A
8	77-HS-004B
9	77-HS-005A
10	77-HS-005B
11	77-HS-006A
12	77-HS-006B
13	77-HS-007A
14	77-HS-007B
15	77-HS-008A
16	77-HS-008B
17	77-HS-009A
18	77-HS-009B
19	77-HS-010A
20	77-HS-010B
21	77-HS-011A
22	77-HS-011B
23	77-HS-012A
24	77-HS-012B
25	77-HS-013A
26	77-HS-013B
27	77-HS-014A
28	77-HS-014B
29	77-HS-015A
30	77-HS-015B
31	77-HS-016A
32	77-HS-016B

POS.	NORM/STD CODE	DESCRIPTION	SIZE/ CONNECTION TYPE	Q.TY
2		Nickel Plated Brass Double Compression Cable Gland Ex-d/e IIC (or IIB + H2) T1	M20	2

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-IN-HD-40079
REV.: 2_A | DATE: 08/10/24 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

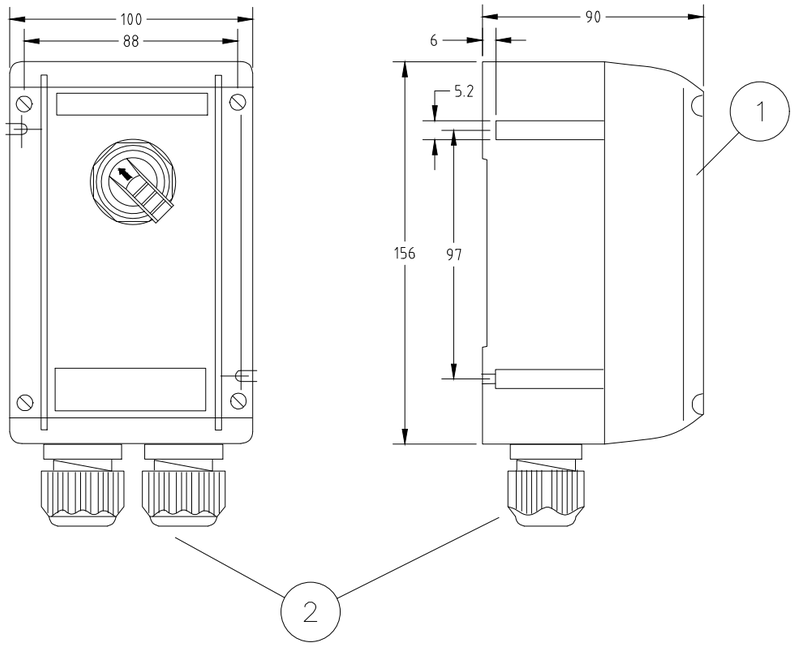
This document undergoes an issuance cycle within EDMS "Fusionlive".
Its distribution is electronically controlled. Once printed shall be considered as "NOT CONTROLLED" copy

PUSH BUTTON DPDT CONTACT

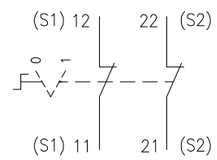
ITEM	DESCRIPTIONS	NR
1	Control Station, CO.SI.ME GHG 432	1
2	Cable Gland M20 Ex eb Polyamide	2
3		
4		
5		
6		
7		
8		
9		
10		

INSTALLATION
QUANTITY

32



WIRING



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	03/09/24	DB	MO	SM	ACCEPTED FOR CONSTRUCTION (AFC)
00	08/07/24	DB	MO	SM	ISSUE FOR REVIEW (IFR)

FORES ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
GENERAL ARRANGEMENT
PUSH BUTTON DPDT CONTACT

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK

SCALE : NTS

A3

DRAWING NO. 1724000821-IN-DA-00003

SHEET 014

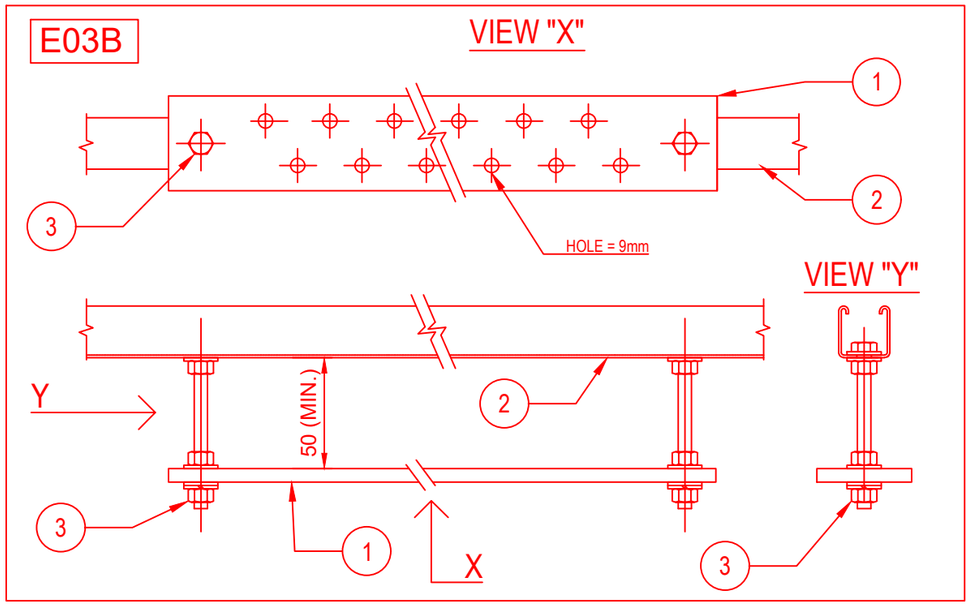
REV. 01

F.to UNI A3: 420mmx297mm

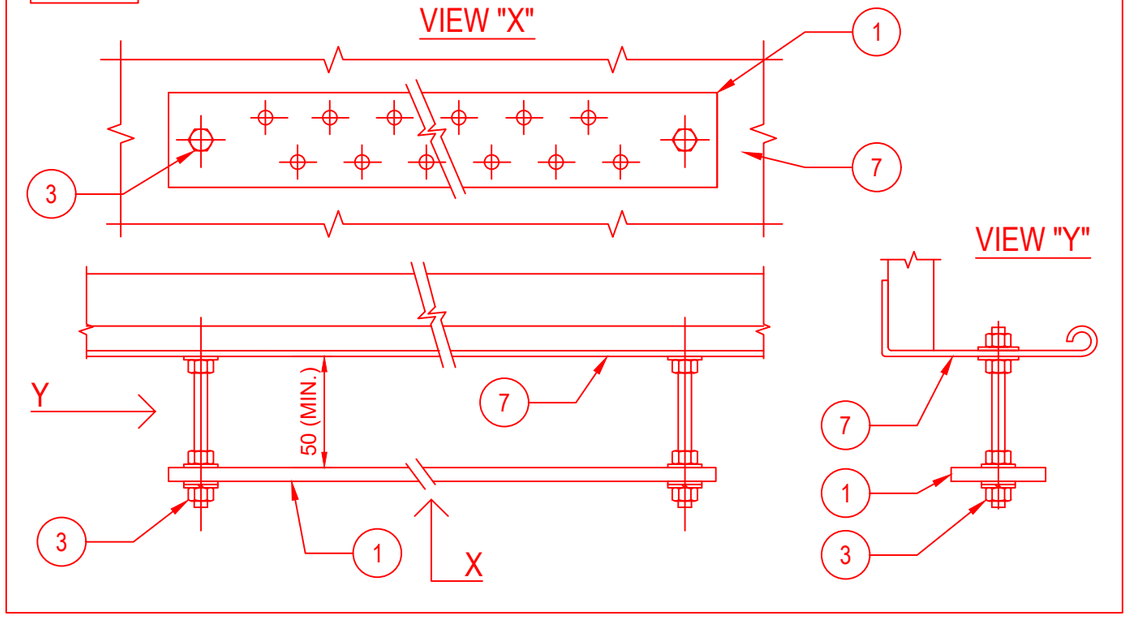
File Name : 1724000821-IN-DA-00003 Rev. 01

TYPICAL DETAIL VALID FOR EXTERNAL USE ONLY

E03B

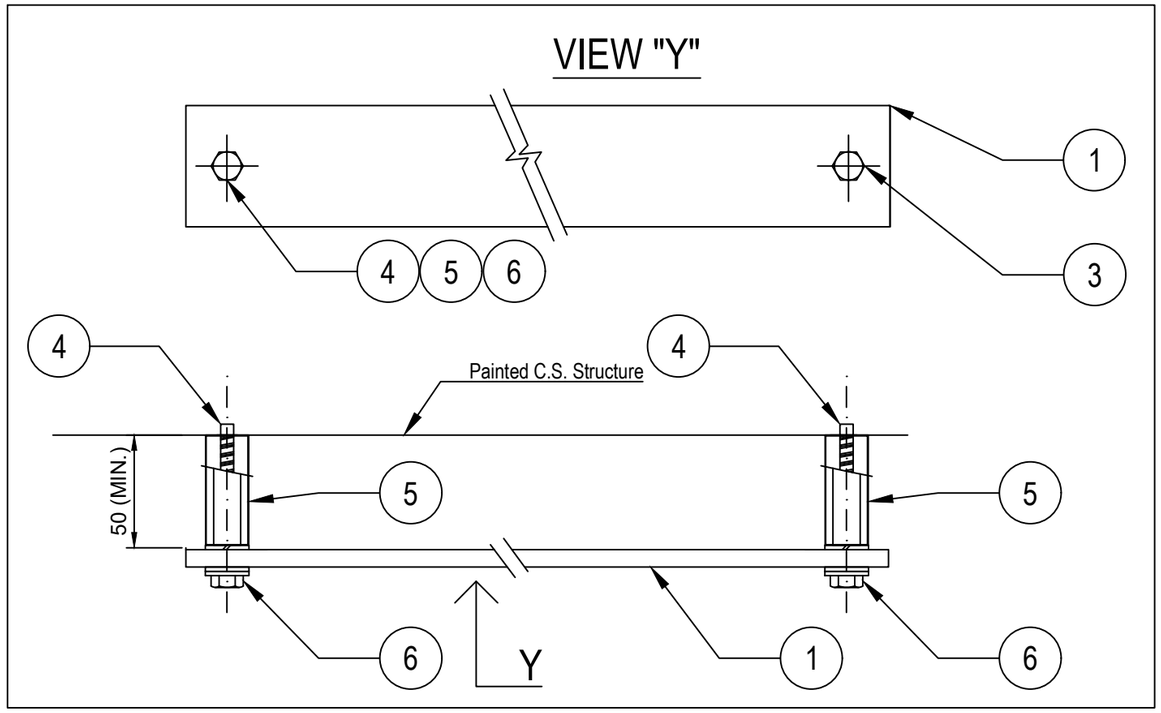


E03C



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	EARTHING BAR	TINNED COPPER	285X50X5	1	
2	SINGLE U-CHANNEL PERFORATED ON N.3 SIDE	AISI 316L		2	
3	HEXAG. BOLTS, PLANE WASHERS, GROWER SPRING WASHER AND NUT	AISI 316L	M10X30	2	
4	THREADED STUD	AISI 316L	M10X28	2	NOTE 1
5	FEMALE / MALE COUPLING	AISI 316L	M10X50	2	NOTE 2
6	PLANE WASHER, GROWER AND NUT	AISI 316L	M10	2	
7	CABLE LADDER	AISI 316L			

E03D



NOTES:

1) THREADED STUD mod. HILTI S-BT-ER M10/15 SN6 CERTIFIED FOR EARTHING SYSTEM.
2) STANDOFF ADAPTER mod. HILTI M10-HC120 50.
3) FOR TYPICALS E03B AND E03C (EARTHING BAR FIXED TO U-CHANNEL OR CABLE TRAY/LADDER) THE EARTHING BAR SHALL BE CONNECTED TO EARTHING POINT IN N.1 POINT WITH 35sqmm Y/G CABLE

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_E	09/10/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS–EARTHING SYSTEM
EARTHING BAR INSTALLED ON WELDED PROFILE OR THREADED STUD

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

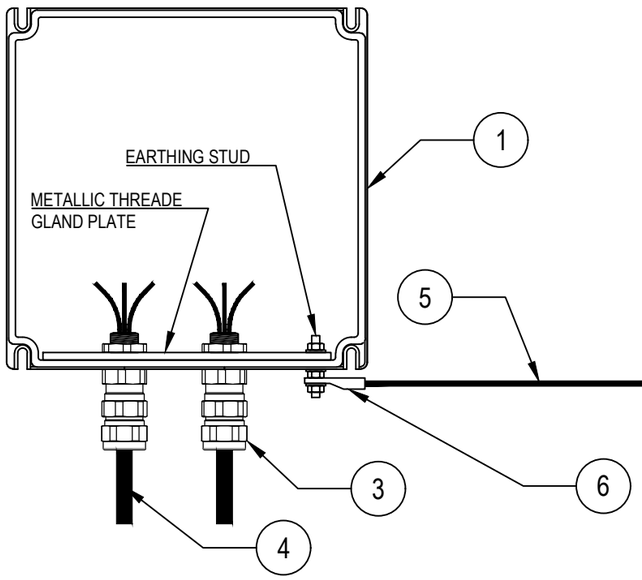
A3 | DRAWING NO. 123A90-DDL-EL-DD-20090 | SHEET 004 | REV. 02

F.to UNI A3: 420mmx297mm

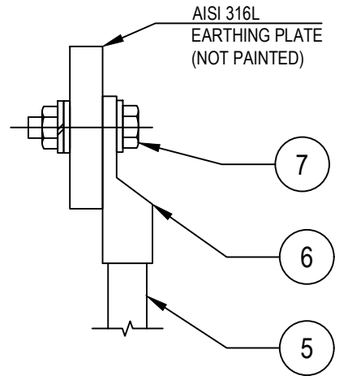
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E04

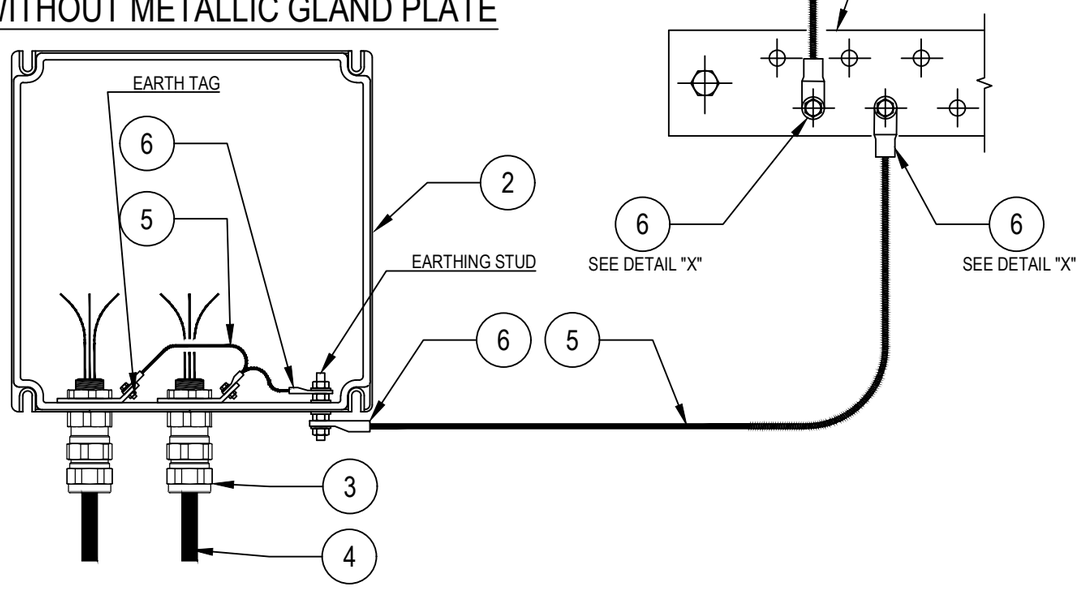
DETAIL OF NON METALLIC ENCLOSURE WITH METALLIC GLAND PLATE



DETAIL "X"



DETAIL OF NON METALLIC ENCLOSURE WITHOUT METALLIC GLAND PLATE



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	JUNCTION BOX WITH PLATE (EX)	GRP			
2	JUNCTION BOX WITHOUT GLAND PLATE (EX)	GRP			
3	DOUBLE SEAL CABLE GLAND (EX) FOR ARMOURED CABLE	NICK.PL.BRASS			~~NOTE 2~~
4	ARMOURED CABLE				
5	Y/G INSULATING COPPER CONDUCTOR	COPPER	$6mm^2$		NOTE 1
6	COMPRESSION TYPE LUG FOR INSULATION COPPER CONDUCTOR	TINNED COPPER	$6mm^2$		NOTE 1
7	BOLT, PLANE WASHER, GROWER SPRING WASHER AND NUT	AISI 316L			

NOTES:
1) FOR EARTHING BAR SEE TYPICAL DETAILS E03
~~2) CABLE LUG CRIMPING METHOD SHALL BE HEXAGONAL COMPRESSION DIES ONLY.~~

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_E	09/10/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS-EARTHING SYSTEM
EARTHING FOR CABLE ARMOUR BY CABLE GLAND

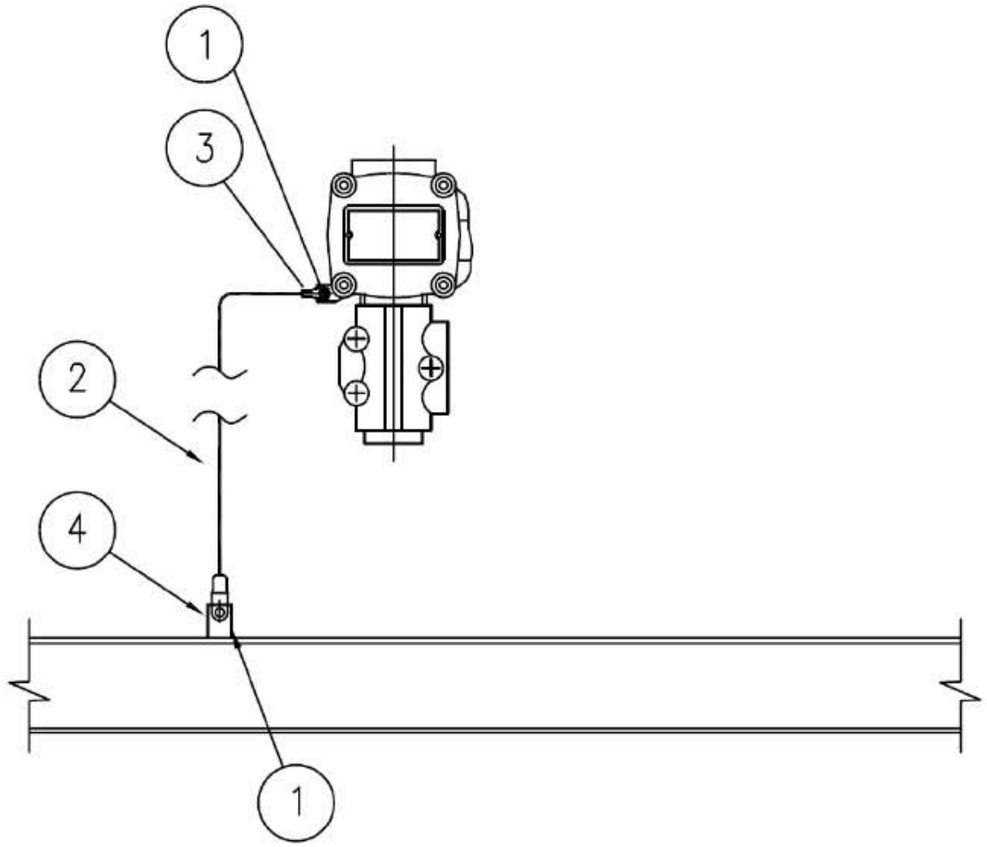
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 123A90-DDL-EL-DD-20090 | SHEET 010 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 123A90-DDL-EL-DD-20090 REV.02.DWG

E33



MATERIALS

POS.	Q.TY	DESCRIPTION	NOTES
1	1	A4 STAINLESS STEEL BOLT COMPLETE WITH NUT AND WASHERS	
2	1	Y/G INSULATING COPPER CONDUCTOR - 6mm²	
3	1	COMPRESSION TYPE LUG FOR INSULATING COPPER CONDUCTOR	
4	1	EARTHING BAR / PLATE / THREADED STUD	(1)

NOTE:
1) FOR DETAIL OF EARTHING PLATE, EARTHING BOSS AND THREADED STUD SEE TYP. E11A/C/D/E

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_E	09/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS–EARTHING SYSTEM
EARTHING FOR GENERIC INSTRUMENT

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 123A90–DDL–EL–DD–20090 | SHEET 027 | REV. 02

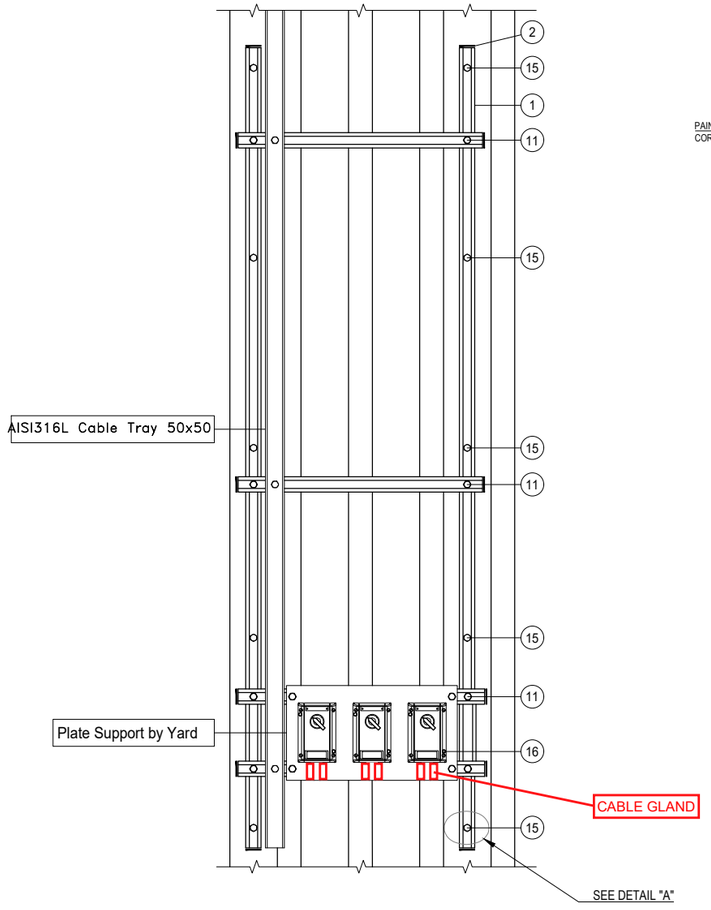
F.to UNI A3: 420mmx297mm

File Name : 123A90-DDL-EL-DD-20090 REV.02.DWG

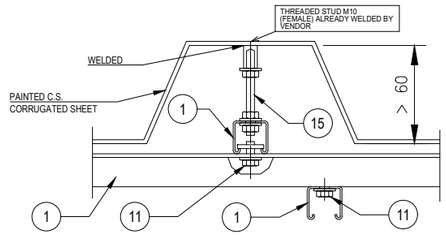
I-4

DRAWING NO. 123A90-DDL-IN-DD-40017

REV. 00



DETAIL "A"



POS.	DESCRIPTION	Q.TY
1	AISI 316L U-CHANNEL 41x41	5m
2	LDPE PLUG FOR U-CHANNEL 41x41	12
11	AISI 316L SPRING NUT M8 FOR U-CHANNEL 41X41 + BOLT M8x35 + WASHER M8	18
15	THREADED ROD M10 (L=110mm) + PLATE WASHER, LARGE PLATE WASHERS SPRING WASHER AND NUTS	10
16	AISI 316L BOLT M5x35 + NUT M5 + WASHER M5	6

CONTAINER	ITEM	DESCRIPTION	TAGNAME
B-100 ~~B-101~~	1	HAND SWITCH FOR DAMPER TEST	~~77-HS-011B~~ 77-HS-001B
	2	HAND SWITCH FOR DAMPER TEST	~~77-HS-012B~~ 77-HS-002B
	3	HAND SWITCH FOR DAMPER TEST	~~77-HS-013B~~ 77-HS-003B
B-200 ~~B-201~~	1	HAND SWITCH FOR DAMPER TEST	~~77-HS-014B~~ 77-HS-004B
	2	HAND SWITCH FOR DAMPER TEST	~~77-HS-015B~~ 77-HS-005B
	3	HAND SWITCH FOR DAMPER TEST	~~77-HS-016B~~ 77-HS-006B

NOTES

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	02/09/2024	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	11/07/2024	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

VALID FOR CONSTRUCTION
FDL DWG: 123A90-123A90-FDL-IN-DD-40017

REV.:	DATE:	SIGNATURE:
1_B	18/09/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
INSTRUMENT INSTALLATION DETAILS
HAND SWITCH OUTSIDE CONTAINERS

CONTRACT NO./TITLE			SCALE /
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 11/07/2024

A3	DRAWING NO. 123A90-DDL-IN-DD-40017	SHEET 047	REV. 01

I-3

DRAWING NO. 123A90-DDL-IN-DD-40017

REV. 00



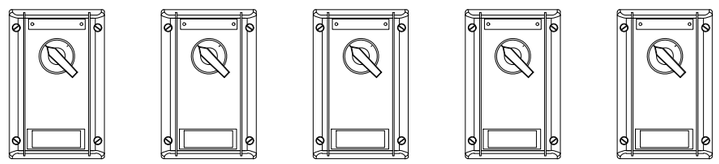
B-100
~~B-101~~



B-200
~~B-201~~



B-300
~~B-301~~



B-400
~~B-401~~

POS.	DESCRIPTION	Q.TY
-	SELFING TAPPING SCREW	-

CONTAINER	ITEM	DESCRIPTION	TAGNAME
B-100 ~~B-101~~	1	HAND SWITCH FOR DAMPER TEST	~~77-HS-011A~~ 77-HS-001A
	2	HAND SWITCH FOR DAMPER TEST	~~77-HS-012A~~ 77-HS-002A
	3	HAND SWITCH FOR DAMPER TEST	~~77-HS-013A~~ 77-HS-003A
B-200 ~~B-201~~	1	HAND SWITCH FOR DAMPER TEST	~~77-HS-014A~~ 77-HS-004A
	2	HAND SWITCH FOR DAMPER TEST	~~77-HS-015A~~ 77-HS-005A
	3	HAND SWITCH FOR DAMPER TEST	~~77-HS-016A~~ 77-HS-006A
B-300 ~~B-301~~	1	HAND SWITCH FOR DAMPER TEST	~~77-HS-017A~~ 77-HS-007A
	2	HAND SWITCH FOR DAMPER TEST	~~77-HS-018A~~ 77-HS-008A
	3	HAND SWITCH FOR DAMPER TEST	~~77-HS-019A~~ 77-HS-009A
	4	HAND SWITCH FOR DAMPER TEST	77-HS-010A
	5	HAND SWITCH FOR DAMPER TEST	77-HS-011A
B-400 ~~B-401~~	1	HAND SWITCH FOR DAMPER TEST	77-HS-012A
	2	HAND SWITCH FOR DAMPER TEST	77-HS-013A
	3	HAND SWITCH FOR DAMPER TEST	77-HS-014A
	4	HAND SWITCH FOR DAMPER TEST	77-HS-015A
	5	HAND SWITCH FOR DAMPER TEST	77-HS-016A

NOTES

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	02/09/2024	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	11/07/2024	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

VALID FOR CONSTRUCTION
FDL DWG: **123A90-123A90-FDL-IN-DD-40017**

REV.:	DATE:	SIGNATURE:
1_B	18/09/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
INSTRUMENT INSTALLATION DETAILS
HAND SWITCH INSIDE CONTAINERS

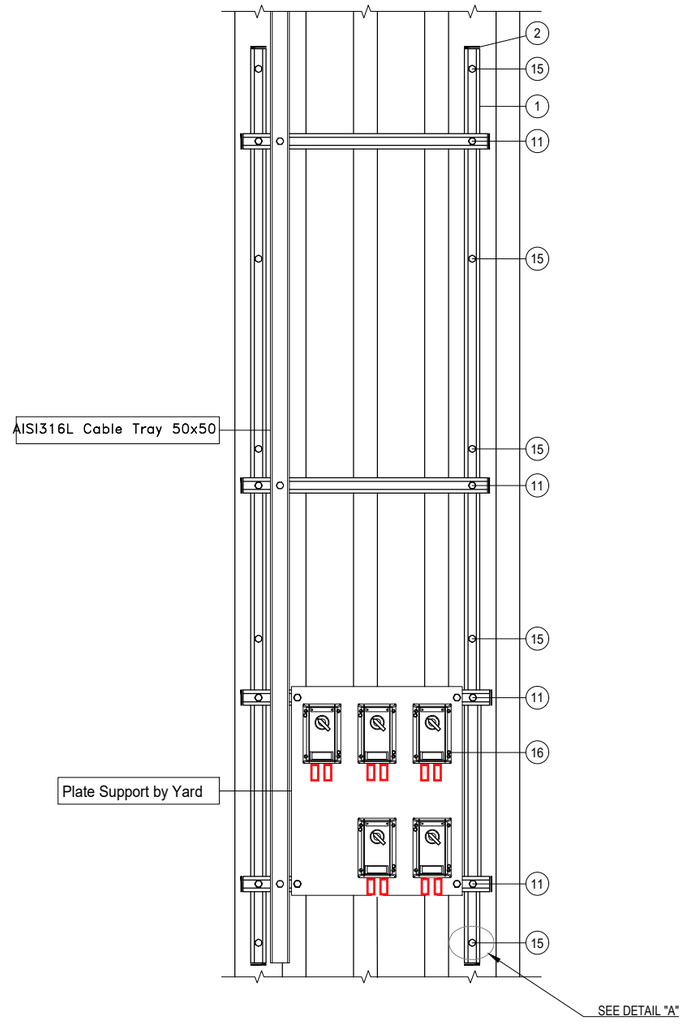
CONTRACT NO./TITLE			SCALE /
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 11/07/2024

A3	DRAWING NO. 123A90-DDL-IN-DD-40017	SHEET 046	REV. 01

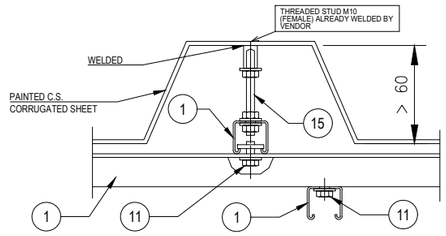
I-5

DRAWING NO. 123A90-DDL-IN-DD-40017

REV. 00



DETAIL "A"



POS.	DESCRIPTION	Q.TY
1	AISI 316L U-CHANNEL 41x41	5m
2	LDPE PLUG FOR U-CHANNEL 41x41	12
11	AISI 316L SPRING NUT M8 FOR U-CHANNEL 41X41 + BOLT M8x35 + WASHER M8	18
15	THREADED ROD M10 (L=110mm) + PLATE WASHER, LARGE PLATE WASHERS SPRING WASHER AND NUTS	10
16	AISI 316L BOLT M5x35 + NUT M5 + WASHER M5	10

CONTAINER	ITEM	DESCRIPTION	TAGNAME
B-300 ~~B-301~~	1	HAND SWITCH FOR DAMPER TEST	~~77-HS-017B~~ 77-HS-007B
	2	HAND SWITCH FOR DAMPER TEST	~~77-HS-018B~~ 77-HS-008B
	3	HAND SWITCH FOR DAMPER TEST	~~77-HS-019B~~ 77-HS-009B
	4	HAND SWITCH FOR DAMPER TEST	77-HS-010B
	5	HAND SWITCH FOR DAMPER TEST	77-HS-011B
B-400 ~~B-401~~	1	HAND SWITCH FOR DAMPER TEST	77-HS-012B
	2	HAND SWITCH FOR DAMPER TEST	77-HS-013B
	3	HAND SWITCH FOR DAMPER TEST	77-HS-014B
	4	HAND SWITCH FOR DAMPER TEST	77-HS-015B
	5	HAND SWITCH FOR DAMPER TEST	77-HS-016B

NOTES

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	02/09/2024	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	11/07/2024	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

VALID FOR CONSTRUCTION
FDL DWG: 123A90-123A90-FDL-IN-DD-40017

REV.:	DATE:	SIGNATURE:
1_B	18/09/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
INSTRUMENT INSTALLATION DETAILS
HAND SWITCH OUTSIDE CONTAINERS

CONTRACT NO./TITLE			SCALE /
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 11/07/2024

A3	DRAWING NO. 123A90-DDL-IN-DD-40017	SHEET 048	REV. 01



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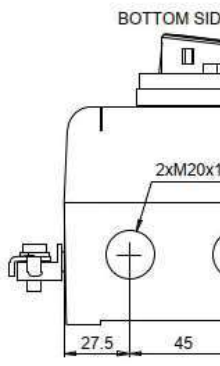


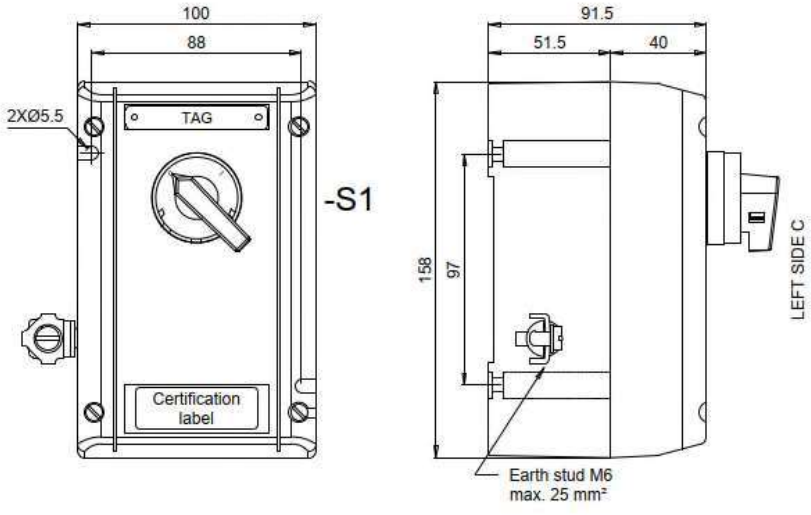
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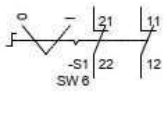
Technical data

	Ex-control stations Type 432 I Type 434	
Marking accd. to 2014/34/EU	Ⓔx II 2 G Ex ed ib m IIC T6 Ⓔx II 2 D Ex tD A21 IP66 T80 °C	
EC-Type Examination Certificate	PTB 00 ATEX 3117	
IECEx Certificate of Conformity	IECEx BKI 04.0003	
Marking accd. to IECEx	Ex e II T6, Ex e ib IIC T6, Ex ed IIC T6 or Ex ed ib IIC T6	
Permissible ambient temperature	–20 °C up to +40 °C –55 °C up to +55 °C (option)	
Rated voltage	690 V AC (with control switch GHG 23 up to 500 V)	
Rated current	16 A (with control switch GHG 23 max. 10 A)	
Rated making-/rated breaking capacity accd. EN 60947-5-1	Ex41 AC-15: U_e 250 V / I_e 6 A U_e 500 V / I_e 4 A DC-13: U_e 24 V / I_e 6 A U_e 110 V / I_e 0.5 A	Ex23 AC-15: U_e 230 V / I_e 6 A U_e 500 V / I_e 4 A DC-13: U_e 24 V / I_e 2 A U_e 230 V / I_e 0.5 A
Connecting terminals	2 x 4 mm²	
Protection class	I	
Degree of protection accd. to EN 60529	IP66	
Cable glands/Gland plates/Enclosure drilling	2 x M25 cable gland incl. 1 blanking plug or optional 2 x M20 thread with internal brass plate	
Enclosure material	Polyamide	
Enclosure colour	black	

	Type 432
Dimensions (L x W x H)	156 x 100 x 90 mm
Weight (empty)	0.47 kg

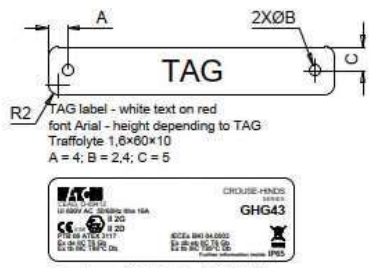






Contact arrangement		
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X	Contact close
(none)	Contact open



Techical data:
Manufactured by Eaton Crouse-Hinds Division
Model: GHG 432
Certificate No.
PTB 00 ATEX 3117
IECEx BKI 04.0003
Marking: ATEX and IECEx
II 2G Ex de IIC T6 Gb
II 2D Ex tb IIIC T80°C Db
-40°C ≤ tamb ≤ +55°C
Ui 690V
IP65

Specific characteristics:
- Polyamide (PA), black
- Closed with stainless steel screw
- Bottom with internal earth plate in brass
- M6 internal/external stainless steel earth stud

Components:
- No. 1 black selector switch with 2 position 2NC

Entries bottom side B:
- No. 2 M20 threaded taped with transit tape

No.1 1,6×60×10 mm white text on red background traffolyte tag fixed with stainless steel screws on the cover, sealed on the back with PU adhesive and engraved

Also a certification label fixed with back self adhesive on the cover

Quantity: 32

DRAWING NO. 123-A90-DDL-IN-DG-40016

REV. 01

FIELD

INSTRUMENTS

JUNCTION BOX

950-JE-04207

MULTICABLE

No.

I&T EQUIPMENT ROOM (ITER)

MARSHALLING CABINET

B400-FGS-002

<01>

B-300 UPS Room

950-XZ-04202 — C-950-XZ-04202/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/2BK — 1 — 1BK/2BK

950-XL-04203 — C-950-XL-04203/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/2BK — 3 — 3BK/4BK

950-XL-04204 — C-950-XL-04204/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/2BK — 5 — 5BK/6BK

B-300 OUTDOOR

77-HS-007B (12/22, 11/21) — C-77-HS-007B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/2BK — 7 — 7BK/8BK

C-77-HS-007A/77-HS-007B

~~C-77-HY-007B/77-HY-007A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77007

77-HY-007 (1/2) — C-77-HY-007/77-HS-007A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

B-300 INDOOR

77-HS-007A (12/22, 11/21)

B-300 OUTDOOR

77-HS-008B (12/22, 11/21) — C-77-HS-008B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/2BK — 9 — 9BK/10BK

C-77-HS-008A/77-HS-008B

~~C-77-HS-008B/77-HS-008A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77008

77-HY-008 (1/2) — C-77-HY-008/77-HS-008A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

B-300 INDOOR

77-HS-008A (12/22, 11/21)

B-300 OUTDOOR

77-HS-009B (12/22, 11/21) — C-77-HS-009B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/2BK — 11 — 11BK/12BK

C-77-HS-009A/77-HS-009B

~~C-77-HS-009B/77-HS-009A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77009

77-HY-009 (1/2) — C-77-HY-009/77-HS-009A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

B-300 INDOOR

77-HS-009A (12/22, 11/21)

B-300 OUTDOOR

77-HS-010B (12/22, 11/21) — C-77-HS-010B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/2BK — 13 — 13BK/14BK

C-77-HS-010A/77-HS-010B

~~C-77-HS-010B/77-HS-010A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77010

77-HY-010 (1/2) — C-77-HY-010/77-HS-010A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

B-300 INDOOR

77-HS-010A (12/22, 11/21)

B-300 OUTDOOR

77-HS-011B (12/22, 11/21) — C-77-HS-011B/950-JE-04207 — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS — TB-1 1BK/2BK — 15 — 15BK/16BK

C-77-HS-011A/77-HS-011B

~~C-77-HS-011B/77-HS-011A~~

2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

FIRE & GAS DAMPER HFD-77011

77-HY-011 (1/2) — C-77-HY-011/77-HS-011A — 2x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

B-300 INDOOR

77-HS-011A (12/22, 11/21)

TB-1 terminals: 1, 2, SH, 3, 4, SH, 5, 6, SH, 7, 8, SH, 9, 10, SH, 11, 12, SH, 13, 14, SH, 15, 16, SH, 17, 18, SH, 19, 20, SH, 21, 22, SH, 23, 24, SH, OS

950-JE-04207/B400-FGS-002

24x2.5mm2,ShT+ARM,F.Res,ORANGE,NIS

TB-950-JE-04207

1	950-XZ-04202
2	
3	950-XL-04203
4	
5	950-XL-04204
6	
7	77-HY-007
8	
9	77-HY-008
10	
11	77-HY-009
12	
13	77-HY-010
14	
15	77-HY-011
16	
17	SPARE
18	
19	SPARE
20	
21	SPARE
22	
23	SPARE
24	

Shield Bar — I.E.

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_D	14/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT–FGS WIRING DIAGRAMS
950–JE–04207

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

	DRAWING NO.	SHEET	REV.
A3	123A90–DDL–IN–DG–40016	069	01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

ITEM	Tag	B-300	: Shelter AC UPS Fitted with UPS System Equipment Room B-300			Dwg	123A90-DDL-EL-DL-20138
	S/Sys	77-30	: UPS System Equipment Room B-300			Module	LD_B-300
TASK	code	C10002303		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Instrumental	Form	CZX01I Package - I

1	Check that electrical component is not damaged.	OK
2	Check that the cables are adequately supported and protected.	Note
3	Check that the equipment, including cables and glands, have been correctly installed (only visual inspection).	Note
4	Check that all equipment has been earthed and bonded.	OK
5	Check if accessibility and maintenance are possible and safe.	PL
6	Verify that all vendor punch list created during FAT are uploaded in the Database.	OK
7	Check if accessibility and maintenance are possible and safe.	OK
8	Check identification tag plate	Note
9	If required produce Red Line Mark Up for "AS BUILT"	

Comments:

Note : Refer to Punch list raised during first step of FAT:

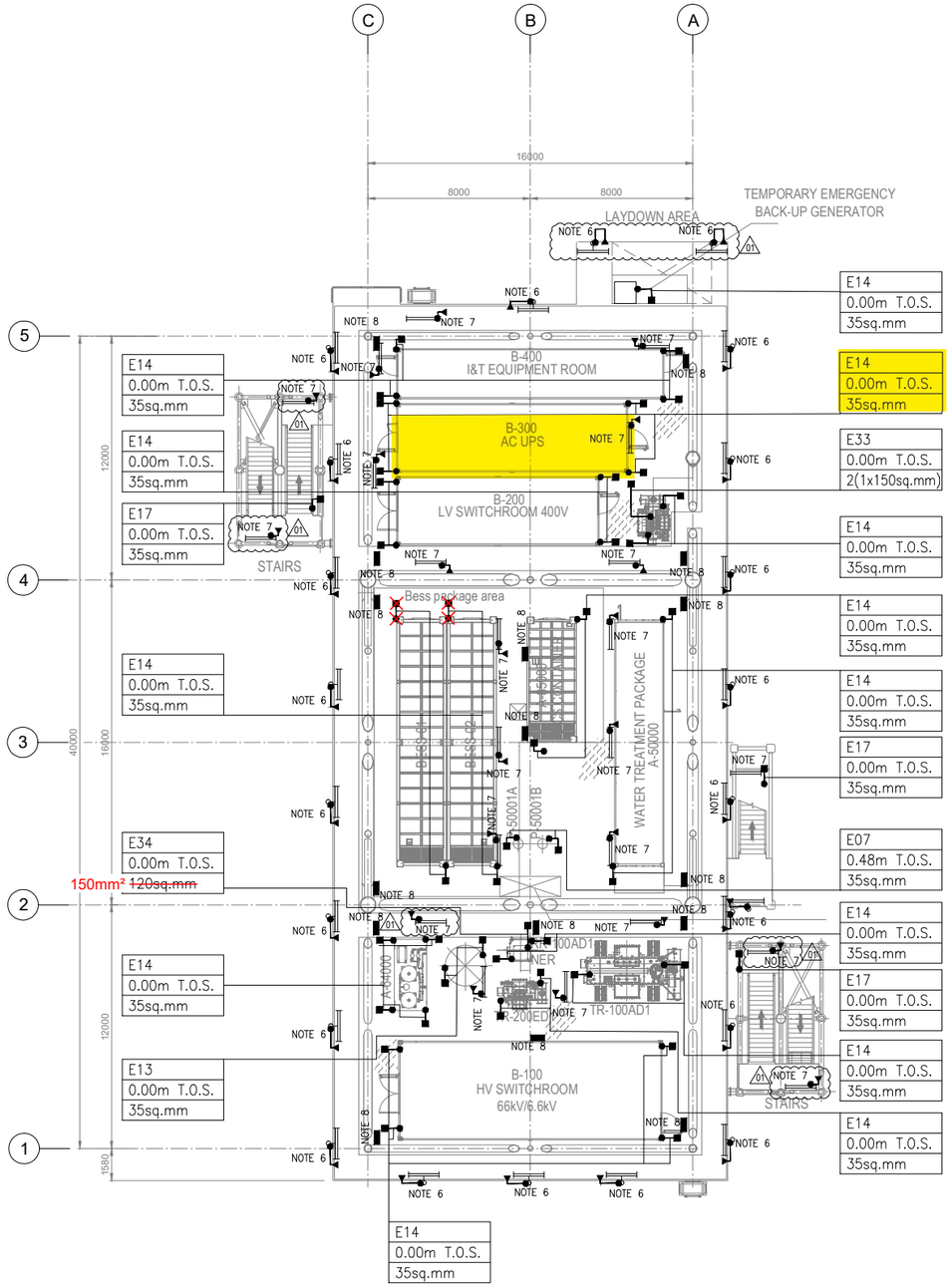
Point 2 PL: C30000024
Point 3 PL: C30000048
Point 7 PL: C30000036

FAT will be completed at RM yard after MC phase.

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM (ROSETTI MARINO)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-10-07	2024-10-08	
Signature	Digitaly signed by Carmelo Bongiovanni 2024-10-07T14:10:20.147Z	Digitaly signed by Giovanni Tangianu 2024-10-08T13:23:44.939Z	

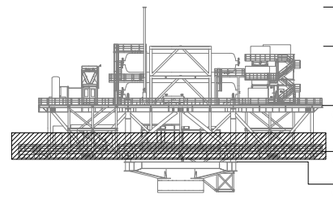
DRAWING NO. 123A90-DDL-EL-DL-20133

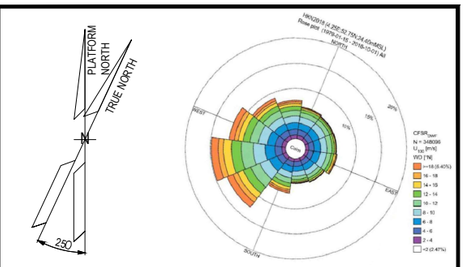
REV. 01



PLAN ON LOWER DECK
EL+23.310 T.O.S.

KEY PLAN





NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DOCUMENT IS ONLY VALID FOR EARTHING LAYOUT.
4. ALL ELECTRICAL EQUIPMENT NOT DIRECTLY WELDED TO SKID FRAME SHALL BE BONDED TO STEEL TO THE STRUCTURE OF SKID BASEFRAME.
5. FOR LIGHTNING PROTECTION SYSTEM SURGE PROTECTIVE DEVICES (SPD), REFER TO THE DOCUMENT 123A90-DDL-EL-RE-20154.
6. ALL NON-WELDED POLES WILL BE EARTHED AS PER TYPICAL E05 AND E24. 01
7. ALL LINEAR LIGHTING FIXTURE WILL BE EARTHED AS PER TYPICAL E32.
8. EARTH BAR WILL BE FIXED TO THE PRIMARY BEAMS OF THE UPPER DECK. COMPLETE EARTHING INCLUDING WITH 2 THREADED STUDS. ALL EARTH BAR WILL BE EARTHED AS PER TYPICAL E03D / 6.00M T.O.S. / 35 SQ MM.
9. EQUIPOTENTIAL BONDING GROUPING FOR BOLTED HANDRAILS ARE PROVIDED EVERY 3M FOR THE ENTIRE PERIMETER AS TYPICAL E16 AND WILL BE DEFINED DURING ASSEMBLY PHASE

LEGEND

- LIGHTING FIXTURE POLE MOUNTED
- LINEAR LIGHTING FIXTURE
- EARTHING BOSS AISI316L
- COMPRESSION TYPE LUG TINNED COPPER
- THREADED STUD FOR EARTHING CONNECTION
- Exx EARTHING TYPICAL CODE
- EARTHING BAR

TYP.	TYPICAL
ELE	ELEVATION
SIZE	

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-EL-DD-20090	ELECTRICAL TYPICAL INSTALLATION DETAILS - EARTHING SYSTEM
123A90-DDL-EL-RE-20154	LIGHTNING PROTECTION SYSTEM CALCULATION REPORT
123A90-DDL-EL-DL-20119	LIGHTING & SOCKET LAYOUT - LOWER DECK
123A90-DDL-EL-DL-20101	ELECTRICAL EQUIPMENT LAYOUT - LOWER DECK

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	25/07/24	SAM	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	29/05/24	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND | ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
EARTHING & LIGHTNING LAYOUT
LOWER DECK

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:150
DRAWN SPS	CHECKED FMA/AMA	APPROVED FPA/DLO	DATE 25/07/24
A1	DRAWING NO. 123A90-DDL-EL-DL-20133	SHEET 001	REV. 01

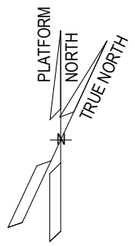
SHEET 001 OF 002

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DL-20133**

REV.:	DATE:	SIGNATURE:
1_B	11/09/24	G.Randi

ROSETTI MARINO SpA

File Name : 123A90-DDL-EL-DL-20133



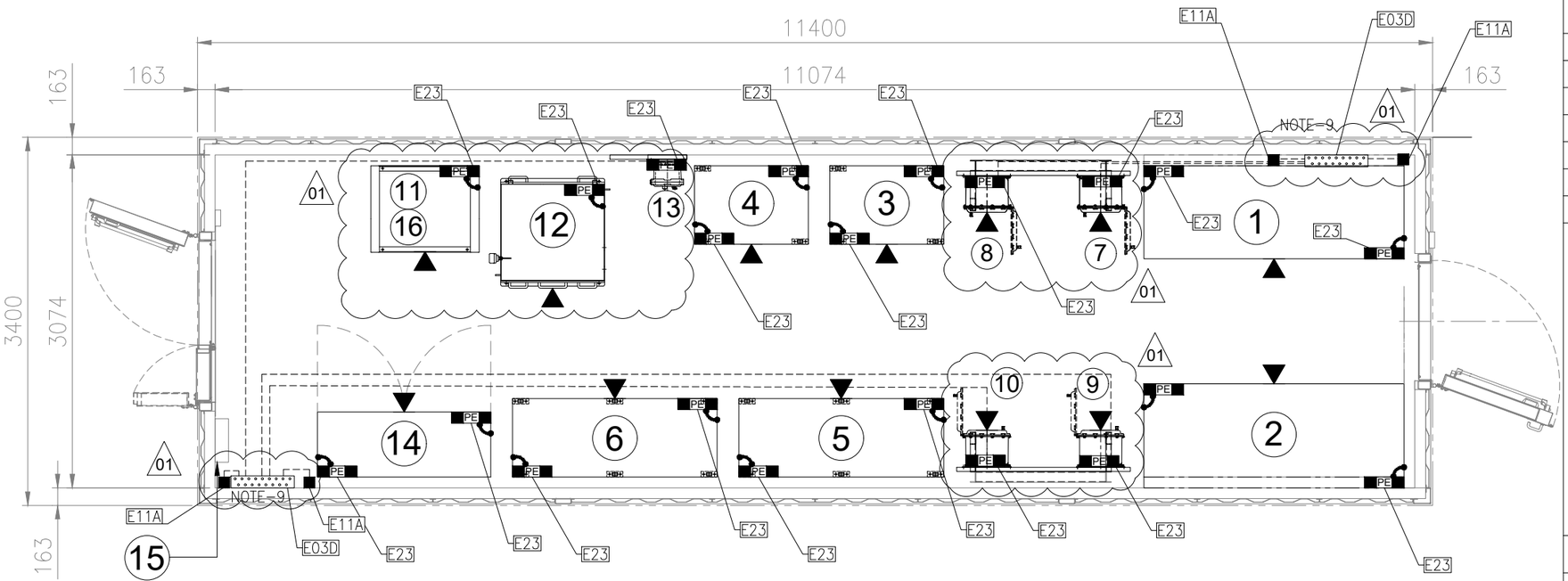
	EQUIPMENT LIST	
REF.	TAG No.	DESCRIPTION
1	UP-200F3	AC UPS 35kVA
2	UP-200F4	AC UPS 15kVA
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA
11	NC-200F2_BC-200F2A/B	NAVAID PANEL
12	BA-200F2	BATTERY BOX NAVAID
13	CB-200F2	ISOLATOR BOX NAVAID
14	B300-HSB-001	DISTRIBUTION & HVAC PANEL – AC/UPS ROOM
15	–	EYE WASH STATION
16	BC-200F2	BATTERY CHARGER NAVAID

01

01

NOTES

1. THIS DOUCMENT IS VALID ONLY FOR EARTHING LAYOUT.
2. THE CABLE SIZE SHALL BE CONFIRMED.
3. THE EXACT POSITION OF EARTHING/MARSHALLING BUS BAR SHALL BE DEFINED BY VENDOR.
4. THE EARTHING BUS BAR INSTALLATION SHALL BE PREFERABLY IN VERTICAL MODE.
5. FOR TYPICAL DETAILS PLEASE REFER DOCUMENT "123A90-DDL-EL-DD-20090-ELECTRICAL TYPICAL INSTALLATION DETAILS-EARTHING SYSTEM".
6. DUE TO THE TOP CABLE ENTRIES THE EARTHING BUS BAR INSIDE THE CABINETS SHALL BE INSTALLED AT THE TOP OF THE CABINETS THEMSELVES.
7. FOR LIGHTNING PROTECTION SYSTEM SURGE PROTECTIVE DEVICES (SPD), REFER DOCUMENT 123A90-DDL-EL-RE-20154.
8. ALL THE NON WELDED OBJECTS SHALL BE EARTHED.
9. CONTAINER WILL HAVE A BTH (EARTHING BAR TINNED COPPER) WITH 2 EARTHING BOSS, INSTALLED IN THE SOUTH-WEST CORNER AT AN ELEVATION OF 2.5M FROM THE CONTAINER FLOOR. EARTHING BOSS SHALL BE INSTALLED AT SAME ELEVATION 2.5M.



EARTHING LAYOUT

"B-300" UPSs & BATTERIES SWITCHROOM

PLAN

EL.+ 23.310 T.O.S.

SYMBOL	DESCRIPTION
PE	EARTHING BUS
	EARTHING BAR TINNED COPPER WITH no.18 HOLES
-------	35sq.mm Y/G INSULATED COPPER CONDUCTOR FOR PE
PE	PROTECTIVE EARTH
■	EARTHING BOSS AISI316L
	JUMPER CONNECTION
▲ 01	FRONT OF EQUIPMENT

REFERENCE

DOCUMENT NUMBER	DOCUMENT TITLE
123A90-DDL-EL-DD-20090	ELECTRICAL TYPICAL INSTALLATION DETAILS -EARTHING SYSTEM
123A90-DDL-EL-DL-20106	ELECTRICAL EQUIPMENT LAYOUT-UPSs & BATTERIES SWITCHROOM
1724000049-AR-DD-00020	B-300 DETAILED DRAWINGS – E&I SHELTERS

01

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DL-20138**

REV.:	DATE:	SIGNATURE:
1_A	08/08/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	25/07/24	ASR	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/05/24	SAM	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
EARTHING & LIGHTNING LAYOUT – UPSs & BATTERIES SWITCHROOM
"B-300" UPSs & BATTERIES SWITCHROOM

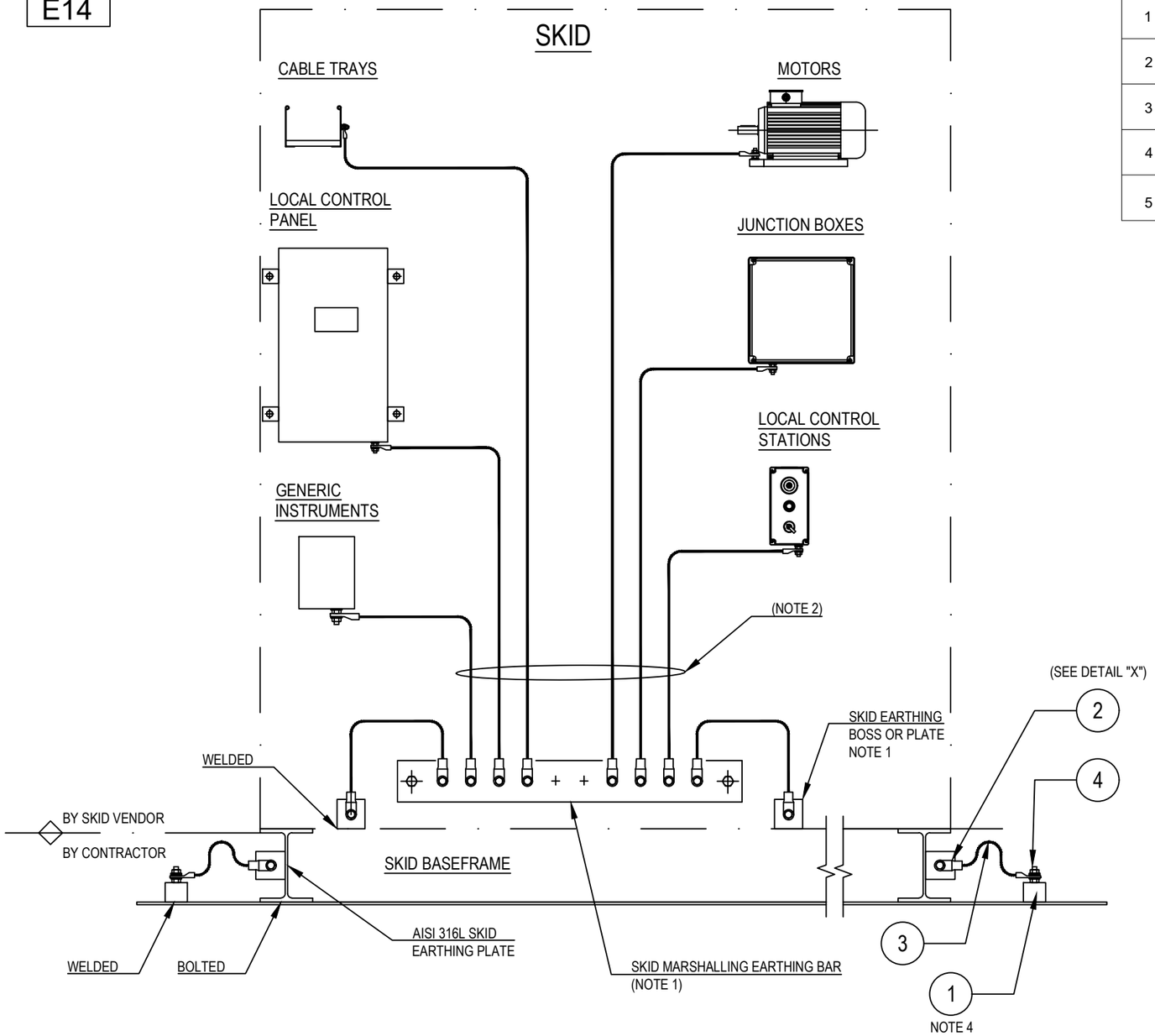
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : 1:50

A3 | DRAWING NO. 123A90-DDL-EL-DL-20138 | SHEET 003 | REV. 01

F.to UNI A3: 420mmx297mm

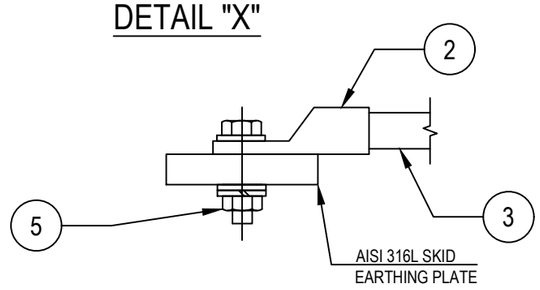
File Name : 123A90-DDL-EL-DL-20138 Rev. 01

E14



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	EARTHING BOSS WITH THREADED HOLE M10	AISI 316L	50X50		NOTE 5
2	COMPRESSION TYPE LUG FOR INSULATION COPPER CONDUCTOR	TINNED COPPER	35mm^2		~~NOTE 3~~
3	Y/G INSULATING COPPER CONDUCTOR	COPPER	35mm^2		~~NOTE 3~~
4	STUD BOLT WITH PLANE WASHER, SPRING WASHER AND NUT	AISI 316L	M10X50		
5	HEXAG. BOLT COMPLETE WITH PLANE WASHERS, SPRING WASHER AND NUT	AISI 316L	M10X30		

DETAIL "X"



NOTES:
1) EARTHING BAR/BOSS/PLATE SUPPLIED BY SKID MANUFACTURER
2) ALL EQUIPMENTS AND CABLE TRAYS WILL BE EARTHING ON SKID EARTHING BAR BY SKID MANUFACTURER
3) ~~CABLE LUG CRIMPING METHOD SHALL BE HEXAGONAL COMPRESSION DIES ONLY~~
4) FOR EARTHING BOSS TYPICAL DETAIL E11A
5) EXTERNAL EARTHING CONNECTION ONLY SHALL BE PROTECTED AGAINST CORROSION USING OXIDE RESISTANT COMPOUND (E.G. COPPER GREASE)

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_D	25/09/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS–EARTHING SYSTEM
EARTHING FOR SKID BASEFRAME

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

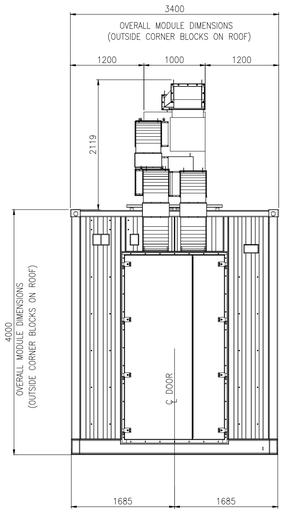
A3 | DRAWING NO. 123A90-DDL-EL-DD-20090 | SHEET 014 | REV. 02

F.to UNI A3: 420mmx297mm

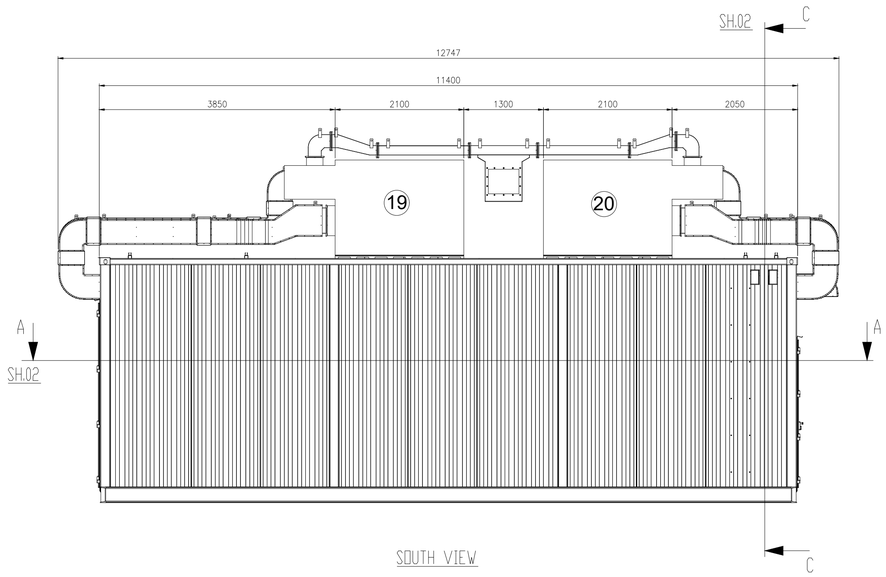
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DRAWING NO. 1724000049-AR-DA-00016

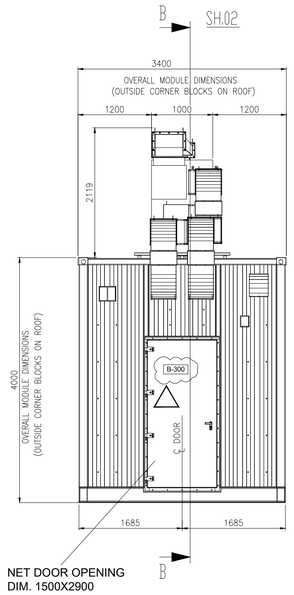
REV. 03



WEST VIEW

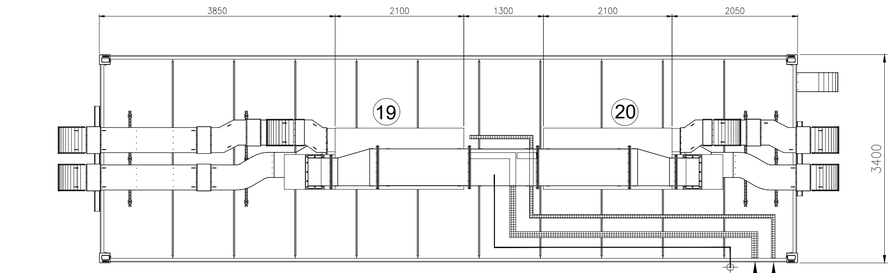


SOUTH VIEW



NET DOOR OPENING
DIM. 1500X2900

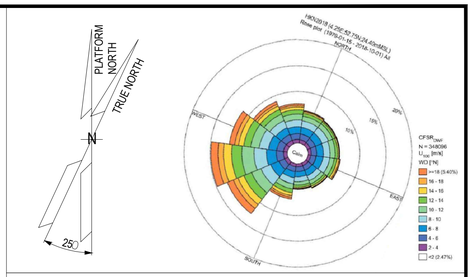
EAST VIEW



TOP VIEW

EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
11	NC-200F2	NAVAID PANEL	1000	800	2600	535
12	BA-200F2	BATTERY BOX NAVAID	958	993	1210	1552
13	CB-200F2	ISOLATOR BOX NAVAID	500	400	765	70
14	B300-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	500
15	-	EYE WASH STATION	228	80	290	5
16	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
17	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
18	BC-200F2	BATTERY CHARGER NAVAID	607	607	2157	500
19	HHU-77005	AIR HANDLING UNIT A	2100	1000	2158	850
20	HHU-77006	AIR HANDLING UNIT B	2100	1000	2158	850
21	HSS-77-007	SPACE HEATER 1	184	145	1100	5
22	HSS-77-008	SPACE HEATER 2	184	145	1100	5
23	HSS-77-009	SPACE HEATER 3	184	145	1100	5



NOTE

1) ALL DIMENSIONS ARE IM MM.
2) THE POSITION OF THE LAMPS INDICATED IS TO BE CONSIDERED THE THEORETICAL ONE, THE FINA ONE WILL BE CONFIRMED IN THE AS-BUILT ISSUE.

REFERENCE

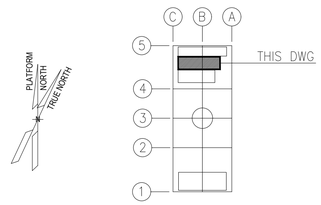
DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00066
"B-300" DETAILED DRAWING	1724000049-AR-DD-00020
PAINTING PROCEDURE	1724000049-MAT-PRO-00006
"B-300" FOUNDATION	1724000049-ST-DD-00012
"B-300" STRUCTURAL CALCULATION	1724000049-ST-CA-00008

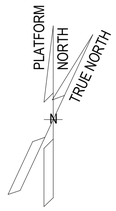
LEGEND

- INTERNAL LIGHT
- E INTERNAL EMERGENCY LIGHT
- SOCKET OUTLET, INDOOR
- LIGHT SWITCH
- ESCAPE CORRIDOR – WIDTH 800mm.
- MAINTENANCE AREA – VENDOR REQUIREMENT
- INSULATION PANEL

HOLDS

KEY PLAN





ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	23/07/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
02	03/07/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
01	16/05/24	M.G.	SKV	C.A.	ISSUE FOR REVIEW (IFR)
00	08/02/24	A.G.	SKV	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

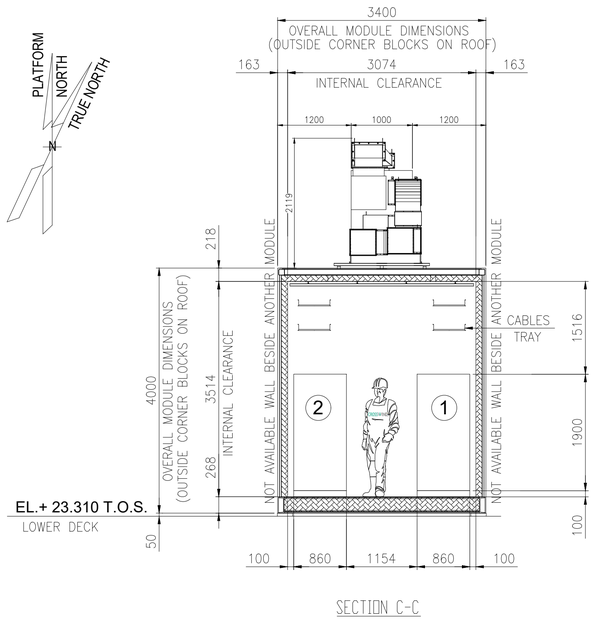
CROSSWIND | ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
B-300 GENERAL ARRANGEMENT DRAWINGS

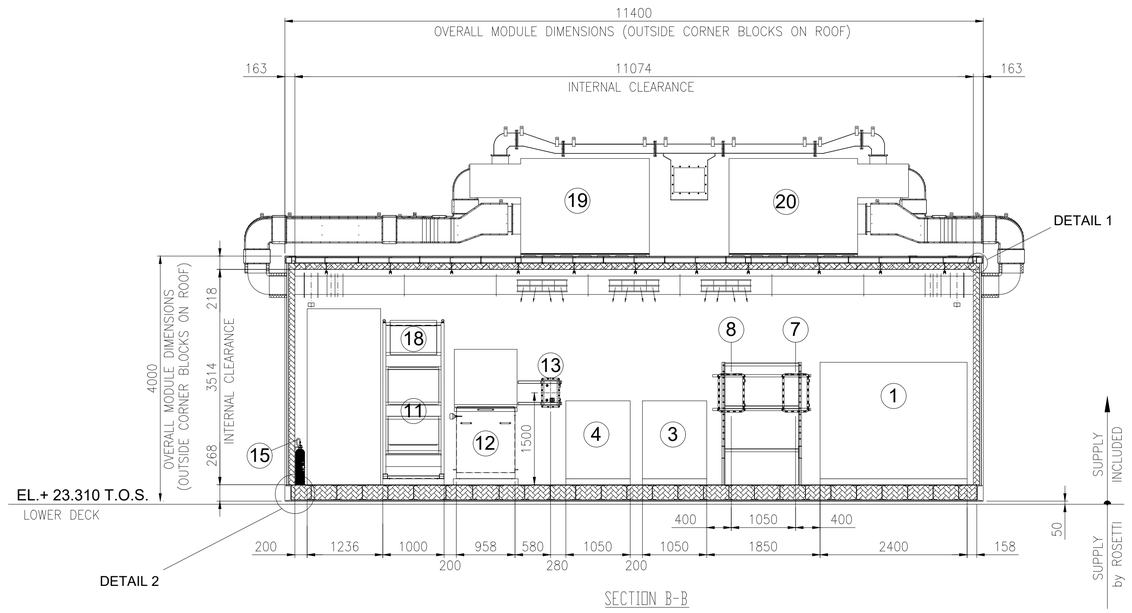
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 23/07/24
A1	DRAWING NO. 1724000049-AR-DA-00016	SHEET 001	REV. 03

File Name : 1724000049-AR-DA-00016-REV.03

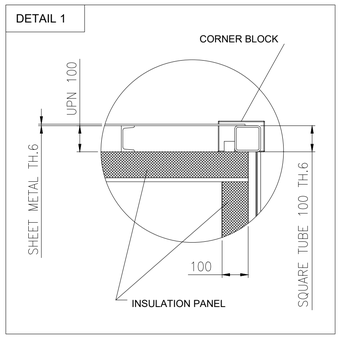
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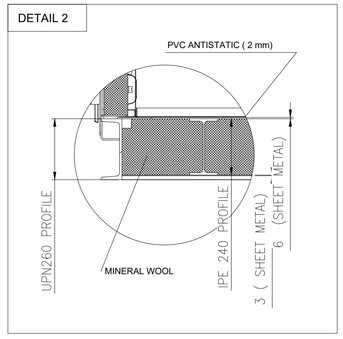


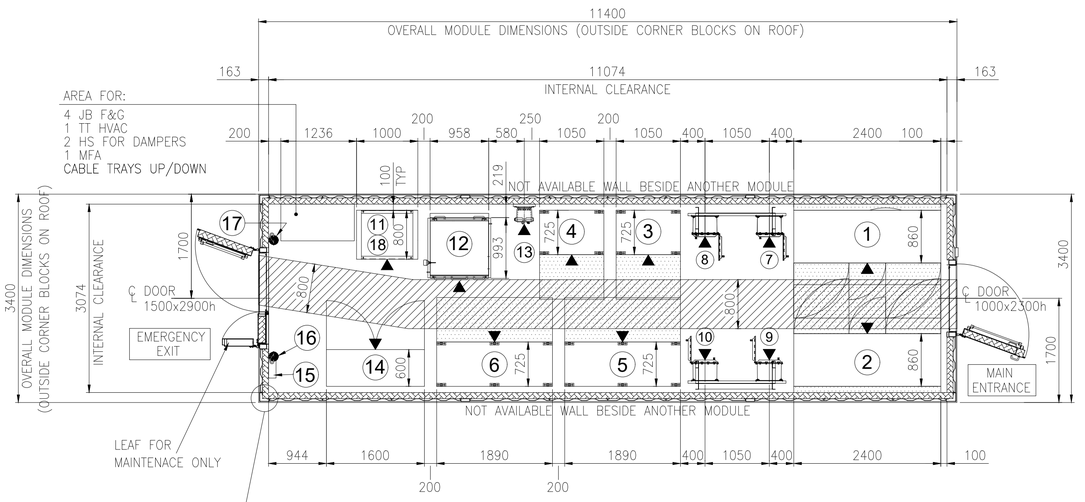
SECTION C-C



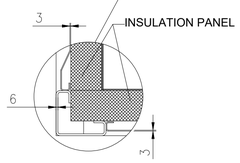
SECTION B-B







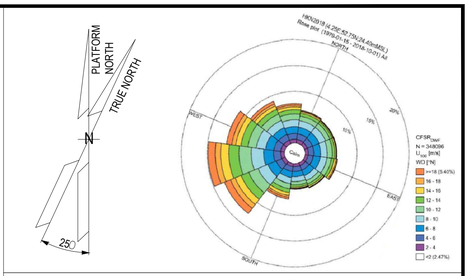
SECTION A-A



EQUIPMENT LAYOUT
"B-300" AC UPS FITTED WITH UPS SYSTEM EQUIPMENT ROOM
BOTTOM PLAN

EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
11	NC-200F2	NAVAID PANEL	1000	800	2600	535
12	BA-200F2	BATTERY BOX NAVAID	958	993	1210	1552
13	CB-200F2	ISOLATOR BOX NAVAID	500	400	765	70
14	B300-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	500
15	-	EYE WASH STATION	228	80	290	5
16	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
17	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
18	BC-200F2	BATTERY CHARGER NAVAID	607	607	2157	500
19	HHU-77005	AIR HANDLING UNIT A	2100	1000	2158	850
20	HHU-77006	AIR HANDLING UNIT B	2100	1000	2158	850
21	HSS-77-007	SPACE HEATER 1	184	145	1100	5
22	HSS-77-008	SPACE HEATER 2	184	145	1100	5
23	HSS-77-009	SPACE HEATER 3	184	145	1100	5



NOTE

1) ALL DIMENSIONS ARE IM MM.
2) THE POSITION OF THE LAMPS INDICATED IS TO BE CONSIDERED THE THEORETICAL ONE, THE FINA ONE WILL BE CONFIRMED IN THE AS-BUILT ISSUE.

REFERENCE

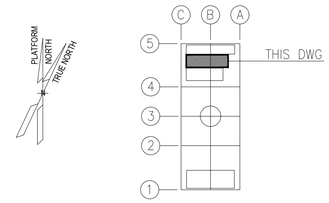
DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00066
"B-300" DETAILED DRAWING	1724000049-AR-DD-00020
PAINTING PROCEDURE	1724000049-MAT-PRO-00006
"B-300" FOUNDATION	1724000049-ST-DD-00012
"B-300" STRUCTURAL CALCULATION	1724000049-ST-CA-00008

LEGEND

- INTERNAL LIGHT
- E INTERNAL EMERGENCY LIGHT
- SOCKET OUTLET, INDOOR
- LIGHT SWITCH
- ESCAPE CORRIDOR – WIDTH 800mm.
- MAINTENANCE AREA – VENDOR REQUIREMENT
- INSULATION PANEL

HOLDS

KEY PLAN



ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	23/07/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
02	03/07/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
01	16/05/24	M.G.	SKV	C.A.	ISSUE FOR REVIEW (IFR)
00	08/02/24	A.G.	SKV	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

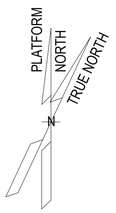
CROSSWIND | ROSETTI MARINO

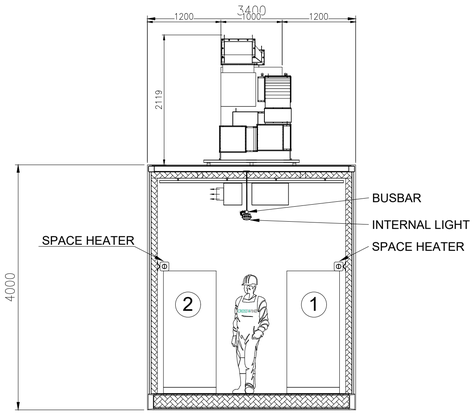
TITLE : BASE LOAD POWER HUB (BLPH)
B-300 GENERAL ARRANGEMENT DRAWINGS

CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 23/07/24
A1	DRAWING NO. 1724000049-AR-DA-00016	SHEET 002	REV. 03

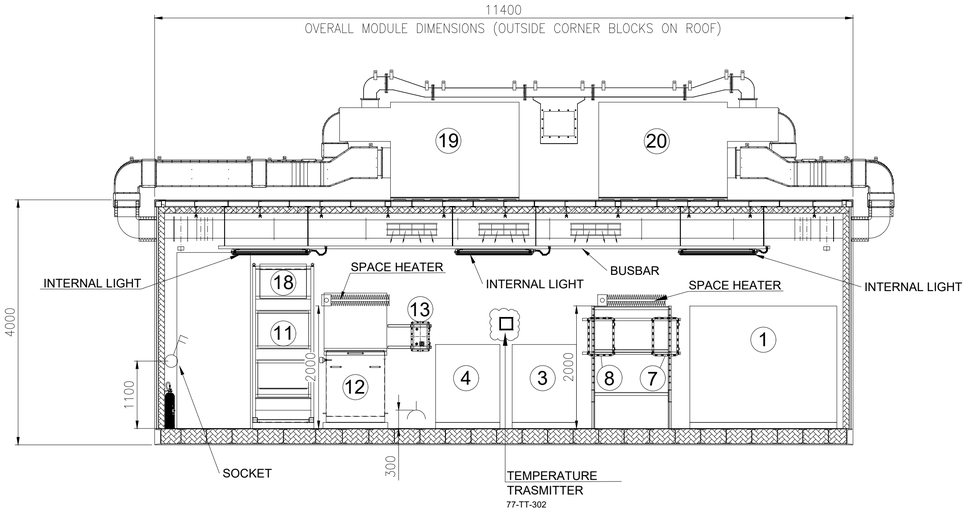
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DRAWING NO. 1724000049-AR-DA-00016 | REV. 03

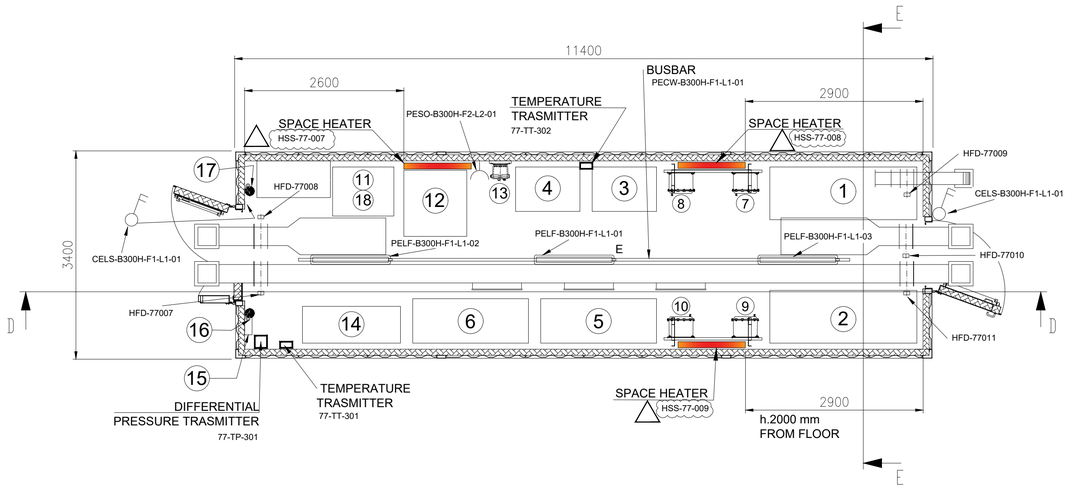




SECTION E-E

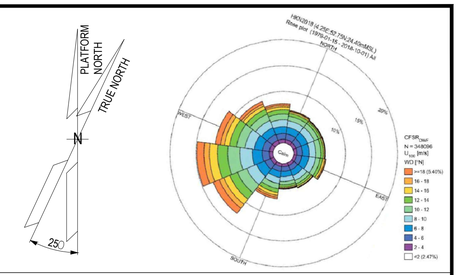


SECTION D-D



EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
11	NC-200F2	NAVAID PANEL	1000	800	2600	535
12	BA-200F2	BATTERY BOX NAVAID	958	993	1210	1552
13	CB-200F2	ISOLATOR BOX NAVAID	500	400	765	70
14	B300-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	500
15	-	EYE WASH STATION	228	80	290	5
16	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
17	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
18	BC-200F2	BATTERY CHARGER NAVAID	607	607	2157	500
19	HHU-77005	AIR HANDLING UNIT A	2100	1000	2158	850
20	HHU-77006	AIR HANDLING UNIT B	2100	1000	2158	850
21	HSS-77-007	SPACE HEATER 1	184	145	1100	5
22	HSS-77-008	SPACE HEATER 2	184	145	1100	5
23	HSS-77-009	SPACE HEATER 3	184	145	1100	5



NOTE

1) ALL DIMENSIONS ARE IM MM.
2) THE POSITION OF THE LAMPS INDICATED IS TO BE CONSIDERED THE THEORETICAL ONE, THE FINA ONE WILL BE CONFIRMED IN THE AS-BUILT ISSUE.

REFERENCE

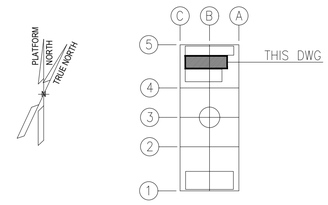
DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00066
"B-300" DETAILED DRAWING	1724000049-AR-DD-00020
PAINTING PROCEDURE	1724000049-MAT-PRO-00006
"B-300" FOUNDATION	1724000049-ST-DD-00012
"B-300" STRUCTURAL CALCULATION	1724000049-ST-CA-00008

LEGEND

- INTERNAL LIGHT
- E — INTERNAL EMERGENCY LIGHT
- SOCKET OUTLET, INDOOR
- LIGHT SWITCH
- ESCAPE CORRIDOR – WIDTH 800mm.
- MAINTENANCE AREA – VENDOR REQUIREMENT
- INSULATION PANEL

HOLDS

KEY PLAN



ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	23/07/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
02	03/07/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
01	16/05/24	M.G.	SKV	C.A.	ISSUE FOR REVIEW (IFR)
00	08/02/24	A.G.	SKV	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND | ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
B-300 GENERAL ARRANGEMENT DRAWINGS

CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 23/07/24
A1	DRAWING NO. 1724000049-AR-DA-00016	SHEET 003	REV. 03

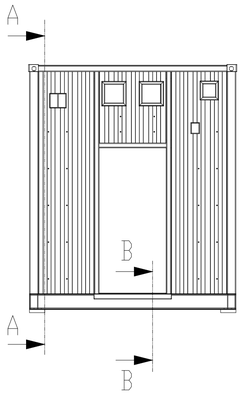
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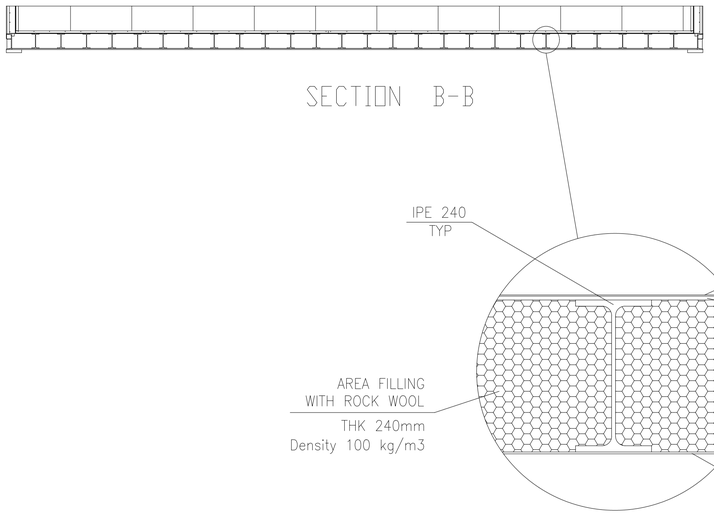
DRAWING NO. 1724000049-AR-DD-00020

REV. 02

MODULE B-300

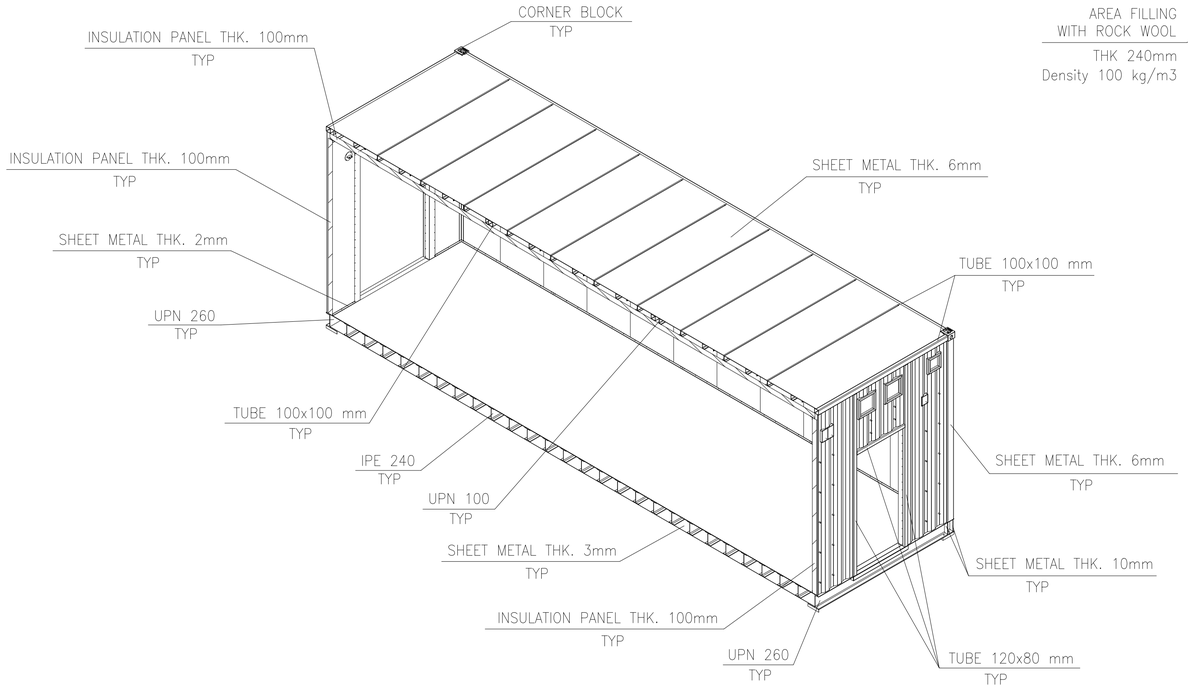
REFERENCE	
DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" STRUCTURAL CALCULATION	1724000049-ST-CA-00008
Weld Procedure Specifications (WPS), Weld Procedure Qualification Report (WPQR), Welding Map and Welders Qualifications	1724000049-WEL-RE-00003

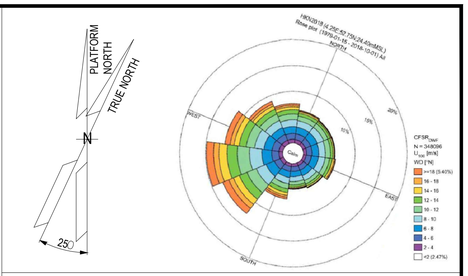




SECTION B-B

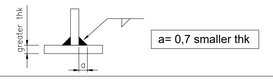
DETAIL "C"





NOTES

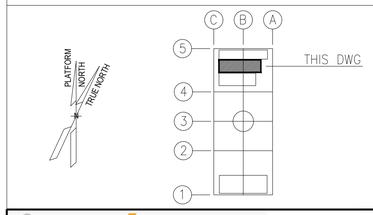
1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.
2. ALL WELDINGS SYMBOLS ARE IN ACCORDANCE WITH A.W.S. CODE D.1.1
3. UNLESS OTHERWISE INDICATED FILLET WELDS SHALL HAVE FOLLOWING DIM.:



LEGEND

HOLDS

KEY PLAN



ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	11/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
01	08/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
00	30/05/24	M.G.	O.A.	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND

ROSETTI MARINO

TITLE :

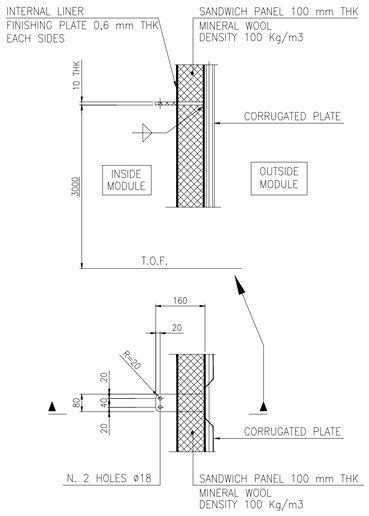
B-300 DETAILED DRAWINGS-E&I SHELTERS

CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 11/07/24
A1	DRAWING NO. 1724000049-AR-DD-00020	SHEET 001	REV. 02

File Name : 1724000049-AR-DD-00020-REV.02

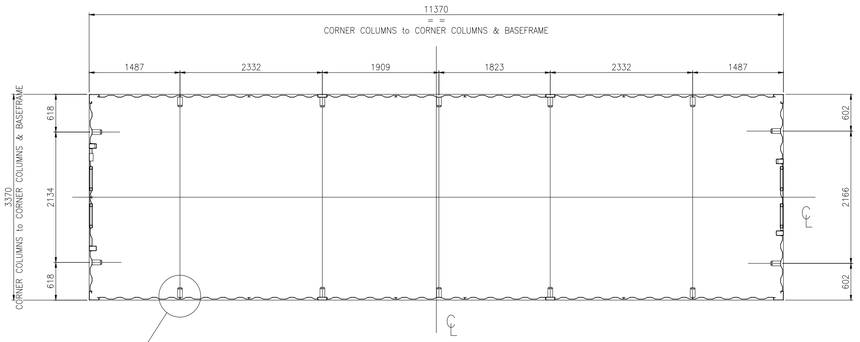
DRAWING NO. 1724000049-AR-DD-00020 REV. 02

REFERENCE	
DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DA-00016
"B-300" HVAC GENERAL ARRANGEMENT	1724000049-HV-DA-00066



WEST WALL

NORTH WALL

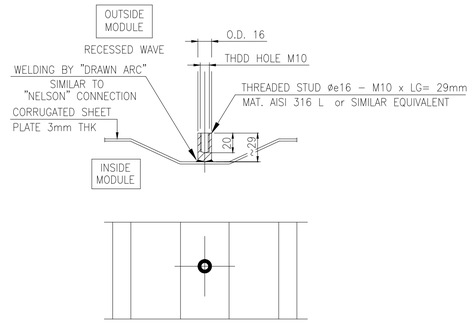


EST WALL

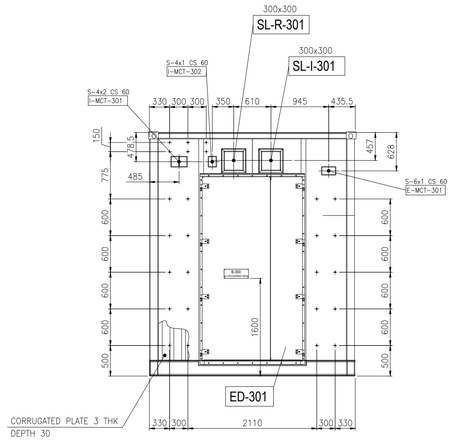
SOUTH WALL

MODULE B-300

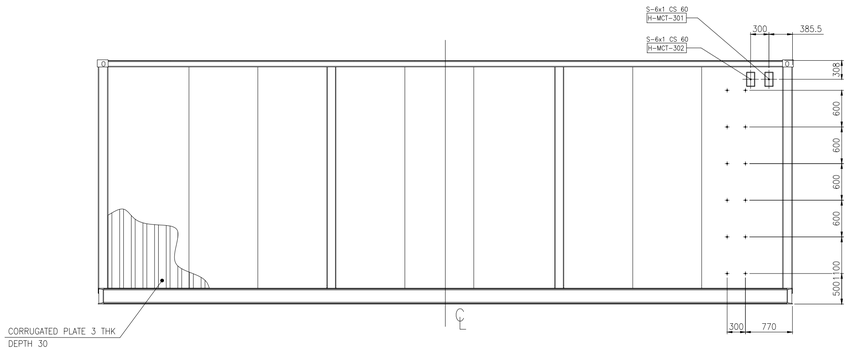
INTERNAL SEA FASTENING PLATES PLAN



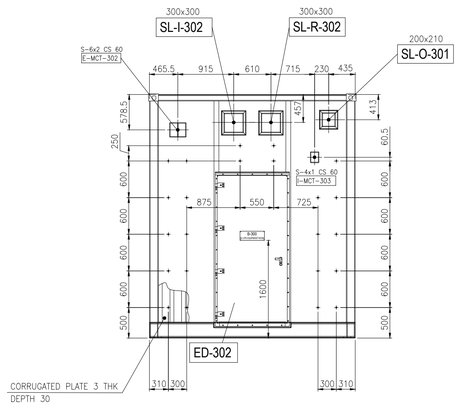
THREADED STUD INSTALLATION



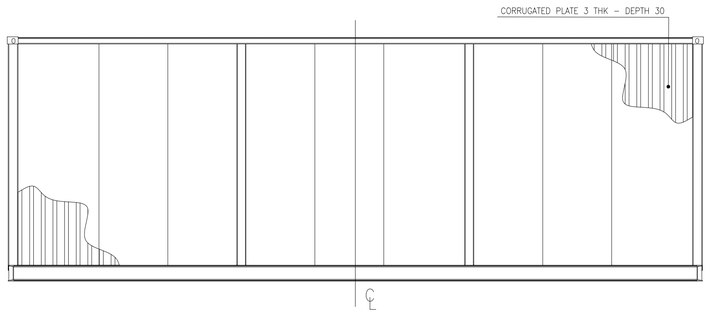
VIEW OF WEST WALL



VIEW OF NORTH WALL



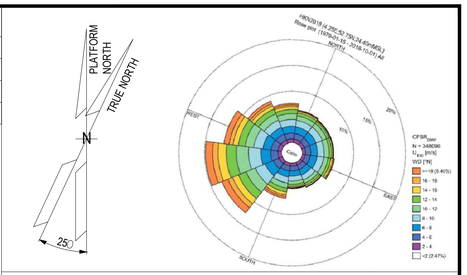
VIEW OF EAST WALL



VIEW OF SOUTH WALL

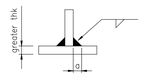
MCT LIST

SERVICE	TAG No.	MCT DIMENSIONS and INSTALLATION SENSE L (mm) HORIZONTAL	H (mm) VERTICAL	W (mm) DEPTH	MCT SIZE TYPE "S" FRAME Primed Mild Steel BRAND: ROXTEC	MCT SIZE TYPE "S" FRAME AISI 316 L BRAND: ROXTEC
ELECTRICAL	E-MCT-301	238	140.5	60	6x1	
	E-MCT-302	271	238	60	6x2	
INSTRUMENTAL	I-MCT-301	271	179.5	60	4x2	
	I-MCT-302	140.5	179.5	60	4x1	
	I-MCT-303	140.5	179.5	60	4x1	
HVAC	H-MCT-301	140.5	238	60	6x1	
	H-MCT-302	140.5	238	60	6x1	



NOTES

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2. ALL WELDINGS SYMBOLS ARE IN ACCORDANCE WITH A.W.S. CODE D.1.1
3. UNLESS OTHERWISE INDICATED FILLET WELDS SHALL HAVE FOLLOWING DIM.:



a= 0,7 smaller thk

LEGEND

THREADED STUD ø16 - M10 x LG= 29mm

T.O.F. TOP OF FLOOR

MCT LEGEND:

MCT TYPE & SIZE
BRAND ROXTEC
MATERIAL
C.S.= PRIMED MILD STEEL
S.S.= AISI 316 L
S 6x2 C.S. 60
MCT DEPTH
E-MCT-301
PROGRESSIVE NUMBER
FROM 01
MCT SERVICE
E= ELECTRICAL
I= INSTRUMENTAL
H= HVAC
MODULE LOCATION
1= B-100 3= B-300
2= B-200 4= B-400

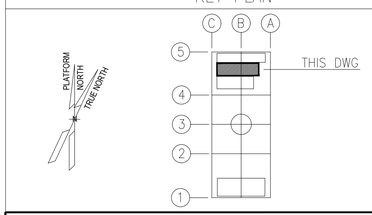
HVAC SLEEVE LEGEND:

300x300
INTERNAL SIZE OF DUCT
L x H (mm)
SL-I-301
PROGRESSIVE NUMBER
FROM 01
SERVICE
I= AIR IN
R= RECYRCLE
O= OVERPRESSURE
MODULE LOCATION
1= B-100 3= B-300
2= B-200 4= B-400

DOOR LEGEND:

ED-301
PROGRESSIVE NUMBER
FROM 01
EXTERNAL DOOR
MODULE LOCATION
1= B-100
2= B-200
3= B-300
4= B-400

KEY PLAN



ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	11/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
01	08/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
00	30/05/24	M.G.	O.A.	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND

ROSETTI MARINO

TITLE :

B-300 DETAILED DRAWINGS-E&I SHELTERS

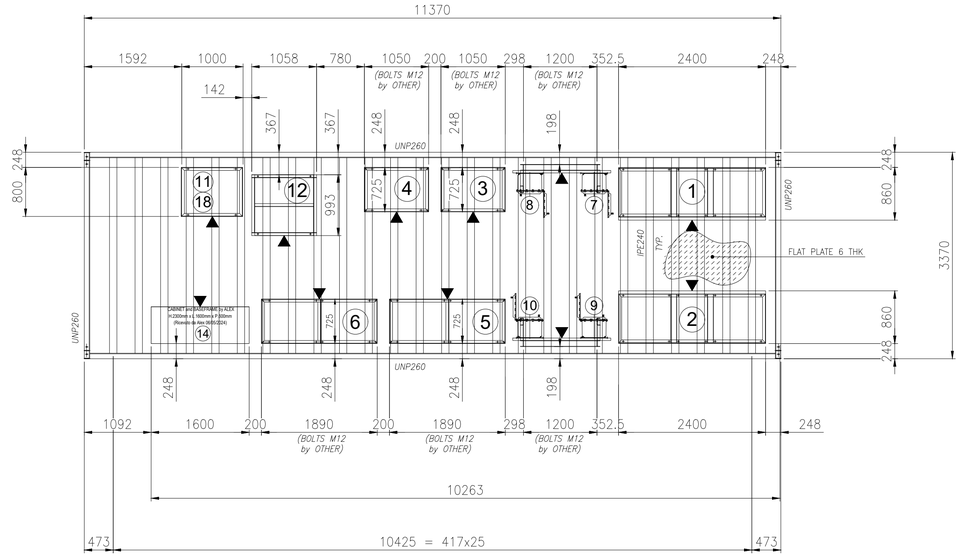
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 11/07/24
A1	DRAWING NO. 1724000049-AR-DD-00020	SHEET 002	REV. 02

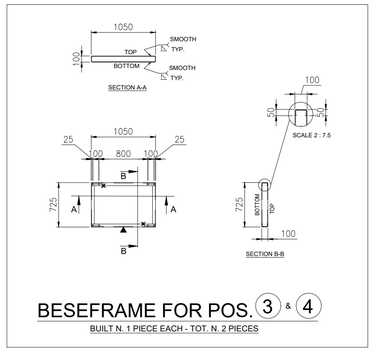
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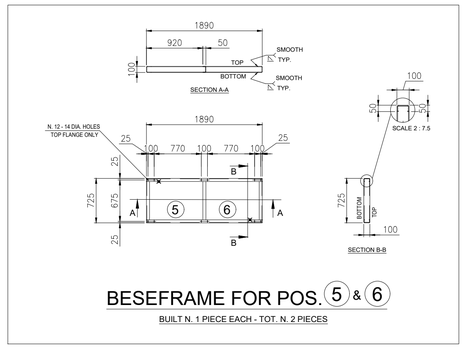
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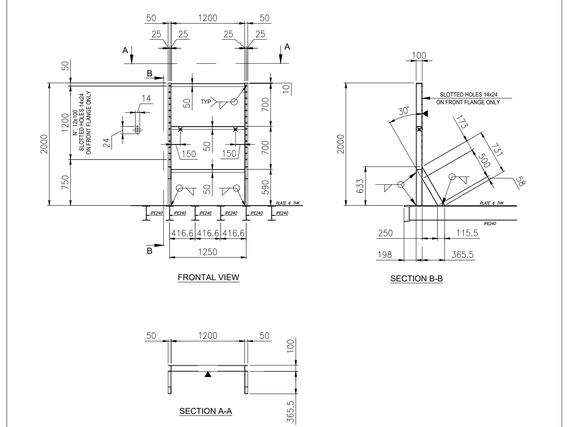
REV. 02

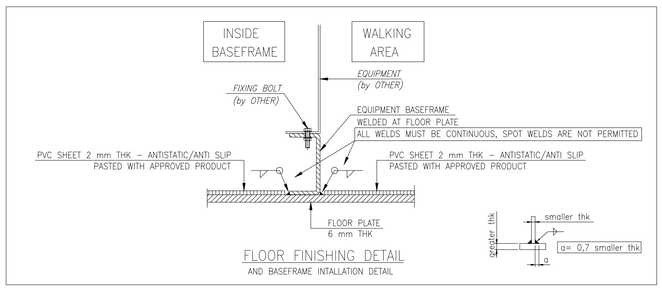
B-300
I&T EQUIPMENT ROOM
BASEFRAME LOCATION PLAN

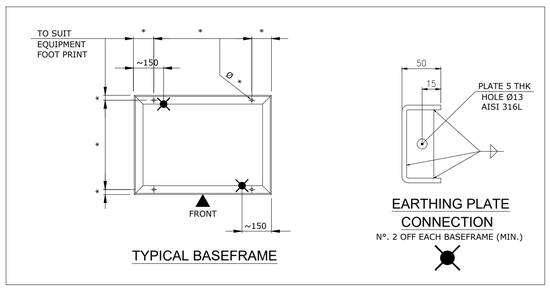


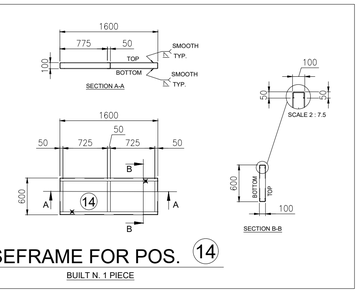


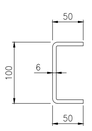








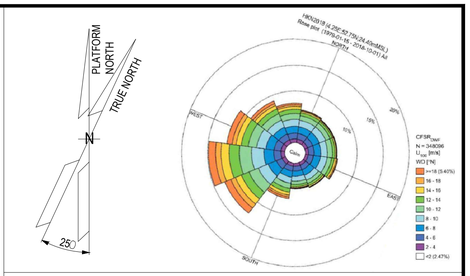




C 100x50x50 THK 6mm.
FROM BENT PLATE THK 6mm.
MAT. CARBON STEEL

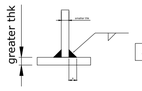
EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)	SCOPE
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258	ASI
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258	ASI
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	ASI
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	ASI
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429	ASI
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429	ASI
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	600	300	800	100	ASI
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	600	300	800	100	ASI
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	600	300	800	100	ASI
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	600	300	800	100	ASI
11	NC-200F2	NAVAID PANEL	1180	810	675	500	ASI
12	BA-200F2	BATTERY BOX NAVAID	1000	500	1135	325	ASI
14	B3000-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	1150	ASI
18	BC-200F2	BATTERY CHARGER NAVAID	607	607	2157	500	ASI



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5. WHERE INDICATED " ▲ " SHOULD BE STAMP "FRONT", ABOVE "TOP" AND BELOW "BOTTOM".



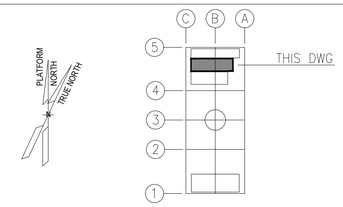
6. SURFACE TREATMENT ACCORDING DOCUMENT N. 1724000049-MAT-PRO-00004 - PAINTING PROCEDURE FINAL COLOUR LIGHT GREY RAL 7035.

LEGEND

ASI = ALEX SISTEMI

HOLDS

KEY PLAN



ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	11/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
01	08/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
00	30/05/24	M.G.	O.A.	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND | ROSETTI MARINO

TITLE :

B-300 DETAILED DRAWINGS-E&I SHELTERS

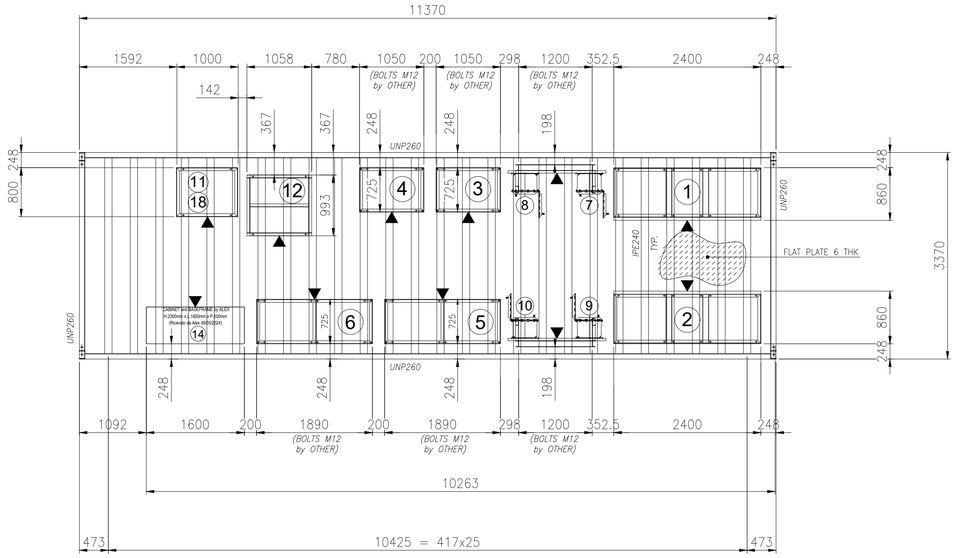
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 11/07/24
A1	DRAWING NO. 1724000049-AR-DD-00020	SHEET 003	REV. 02

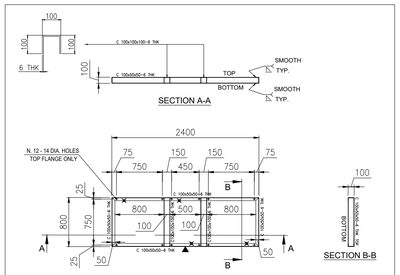
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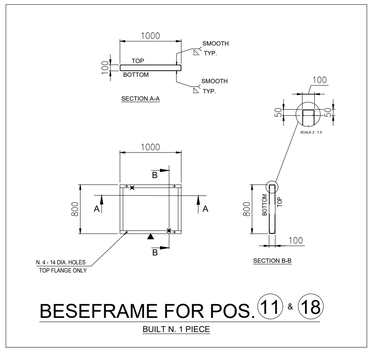
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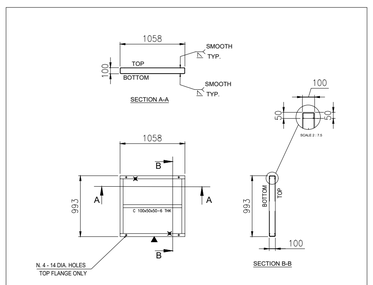
REV. 02

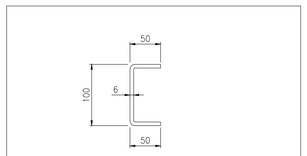
B-300
I&T EQUIPMENT ROOM
BASEFRAME LOCATION PLAN

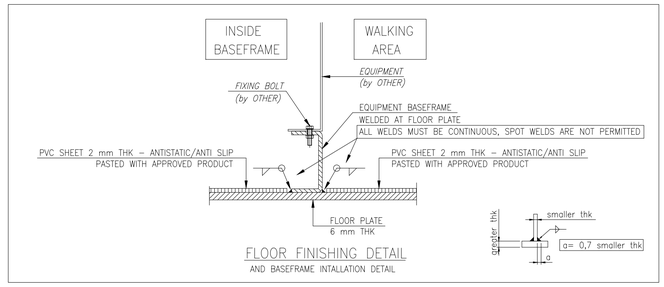


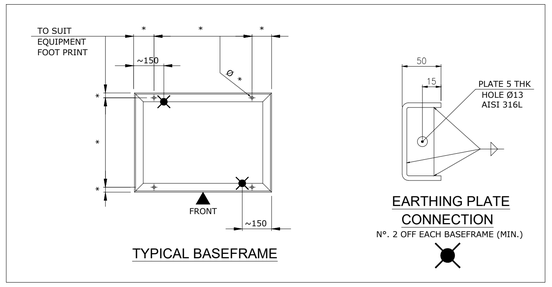






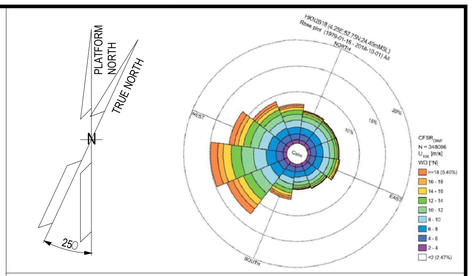






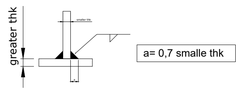
EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)	SCOPE
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258	ASI
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258	ASI
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	ASI
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	ASI
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429	ASI
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429	ASI
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	600	300	800	100	ASI
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	600	300	800	100	ASI
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	600	300	800	100	ASI
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	600	300	800	100	ASI
11	NC-200F2	NAVAID PANEL	1180	810	675	500	ASI
12	BA-200F2	BATTERY BOX NAVAID	1000	500	1135	325	ASI
14	B3000-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	1150	ASI
18	BC-200F2	BATTERY CHARGER NAVAID	607	607	2157	500	ASI

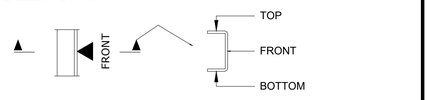


NOTES

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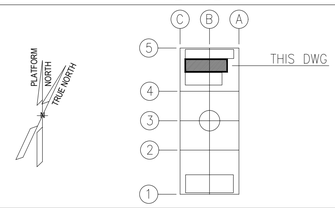
6. SURFACE TREATMENT ACCORDING DOCUMENT N. 1724000049-MAT-PRO-00004 - PAINTING PROCEDURE FINAL COLOUR LIGHT GREY RAL 7035.

LEGEND

ASI = ALEX SISTEMI

HOLDS

KEY PLAN



ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	11/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
01	08/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
00	30/05/24	M.G.	O.A.	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND

ROSETTI MARINO

TITLE :

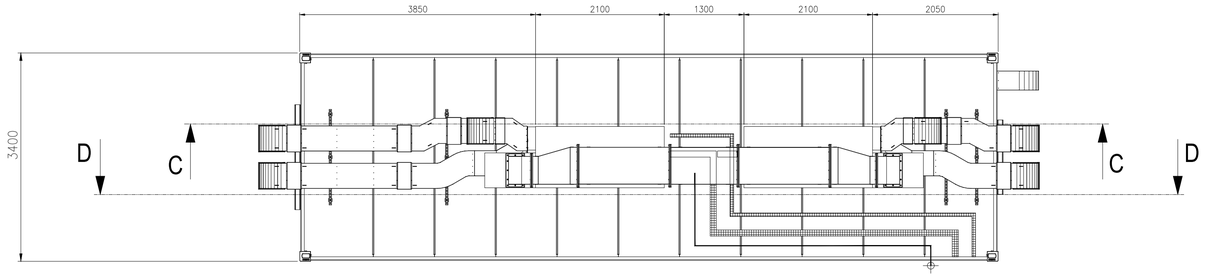
B-300 DETAILED DRAWINGS-E&I SHELTERS

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DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 11/07/24
A1	DRAWING NO. 1724000049-AR-DD-00020	SHEET 004	REV. 02

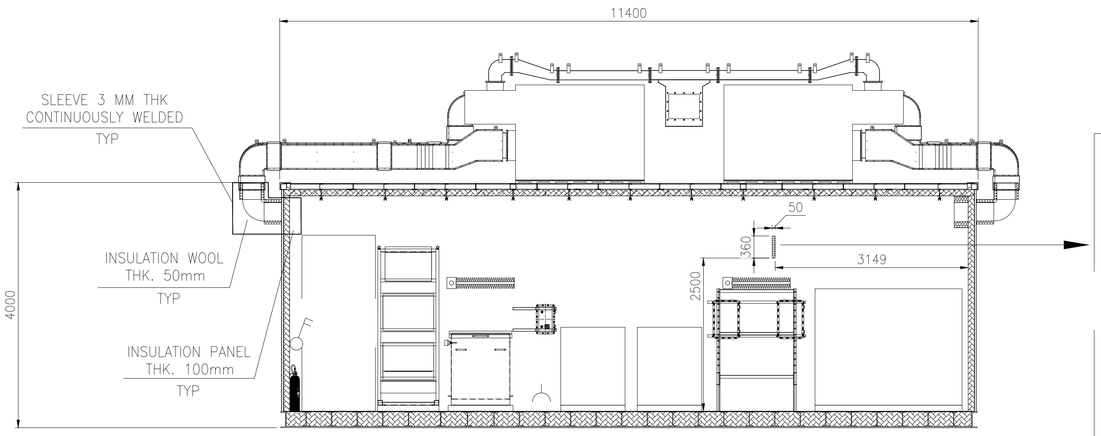
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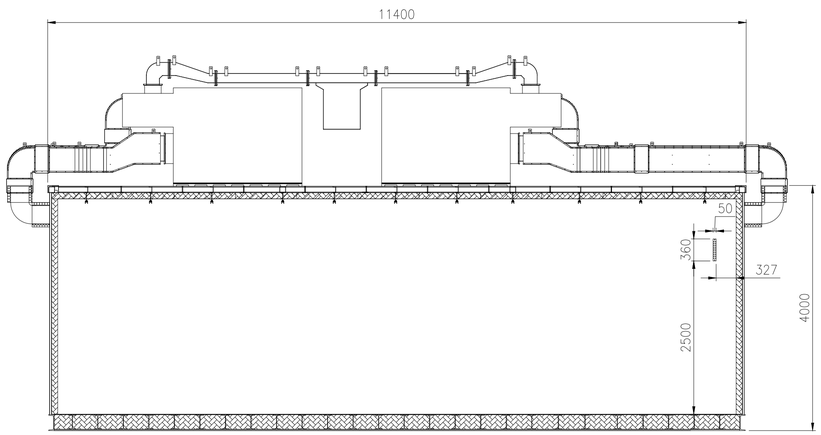
REV. 02



TOP VIEW



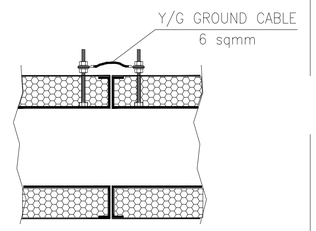
SECTION C-C



SECTION D-D

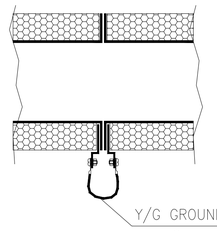
DET. 1

EXTERNAL DUCT



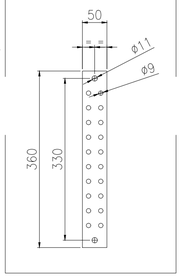
DET. 2

INTERNAL DUCT



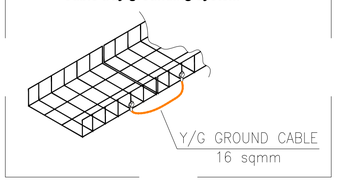
DET. 3

TYPICAL DETAIL
Ground bar



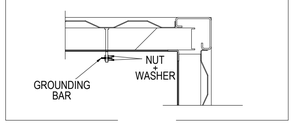
DET. 4

TYPICAL DETAIL
Cable tray grounding system



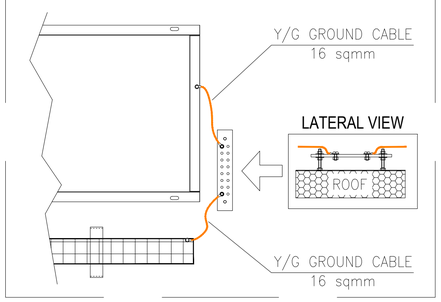
DET. 5

TYPICAL INSTALLATION BTH PE



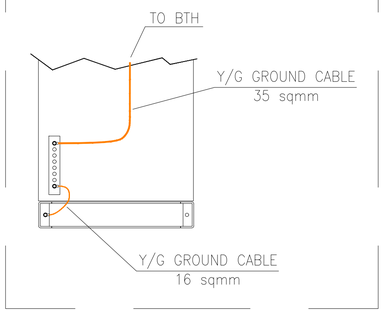
DET. 6

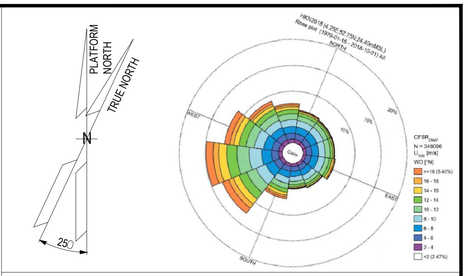
TYPICAL ROOF GROUNDING CONNECTION



DET. 7

TYPICAL CABINET GROUNDING CONNECTION





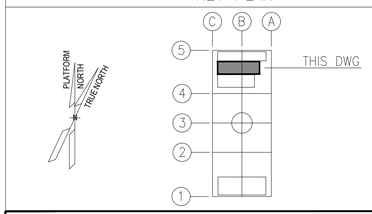
NOTES

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LEGEND

HOLDS

KEY PLAN



ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	11/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
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00	30/05/24	M.G.	O.A.	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND

ROSETTI MARINO

TITLE :

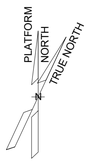
B-300 DETAILED DRAWINGS-E&I SHELTERS

CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 11/07/24
A1	DRAWING NO. 1724000049-AR-DD-00020	SHEET 005	REV. 02

File Name : 1724000049-AR-DD-00020-REV.02

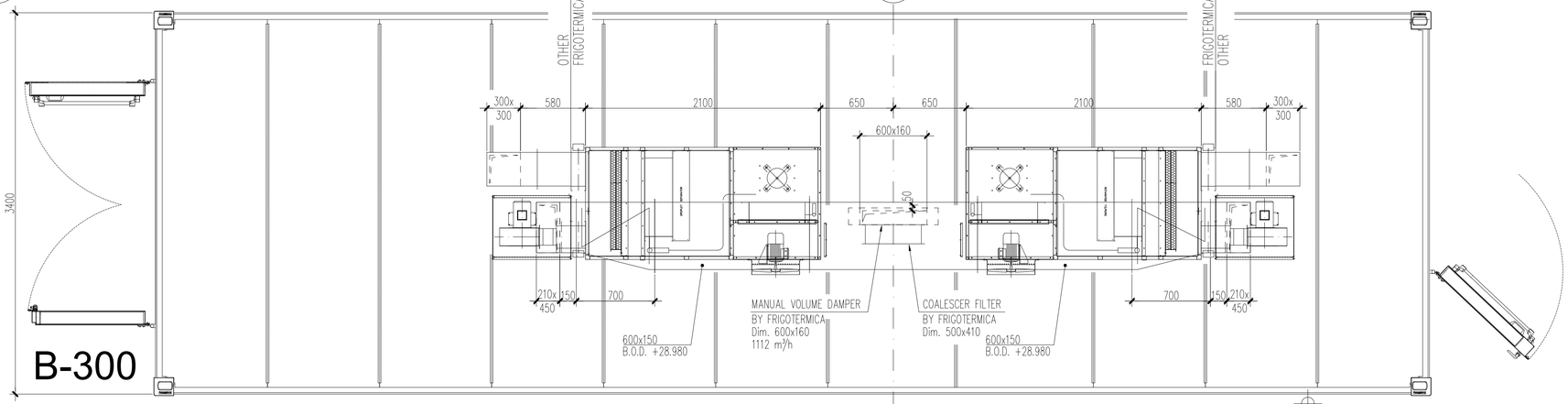
DRAWING NO. 1724000049-HV-DA-00066_0

REV. 00

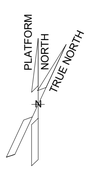


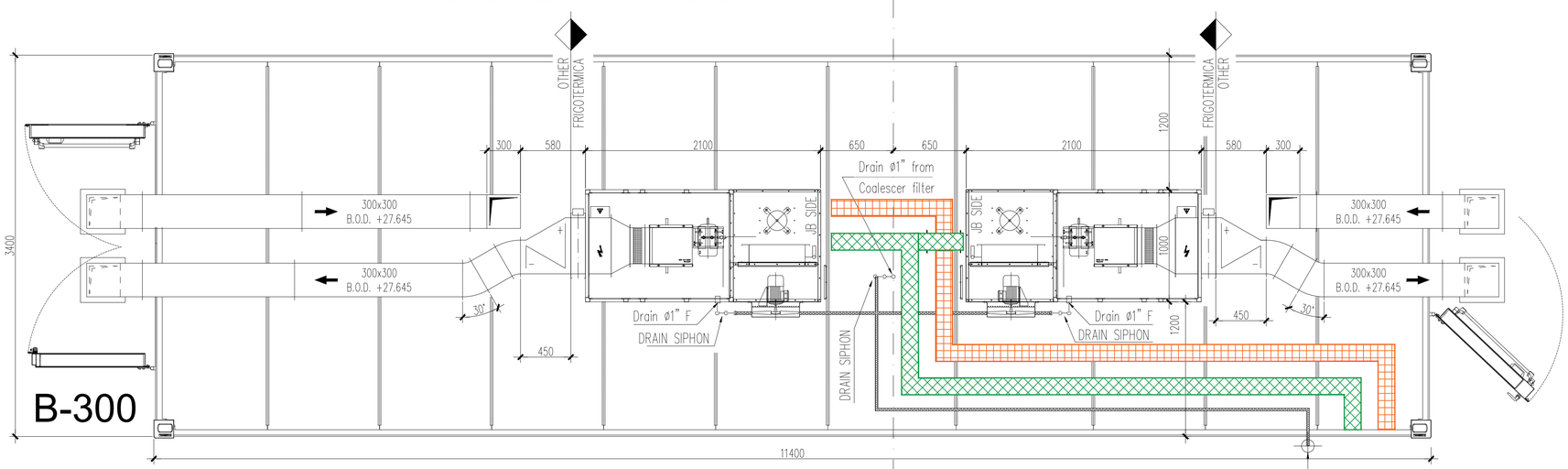
C

B



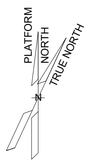
HVAC SYSTEM ROOF PLAN

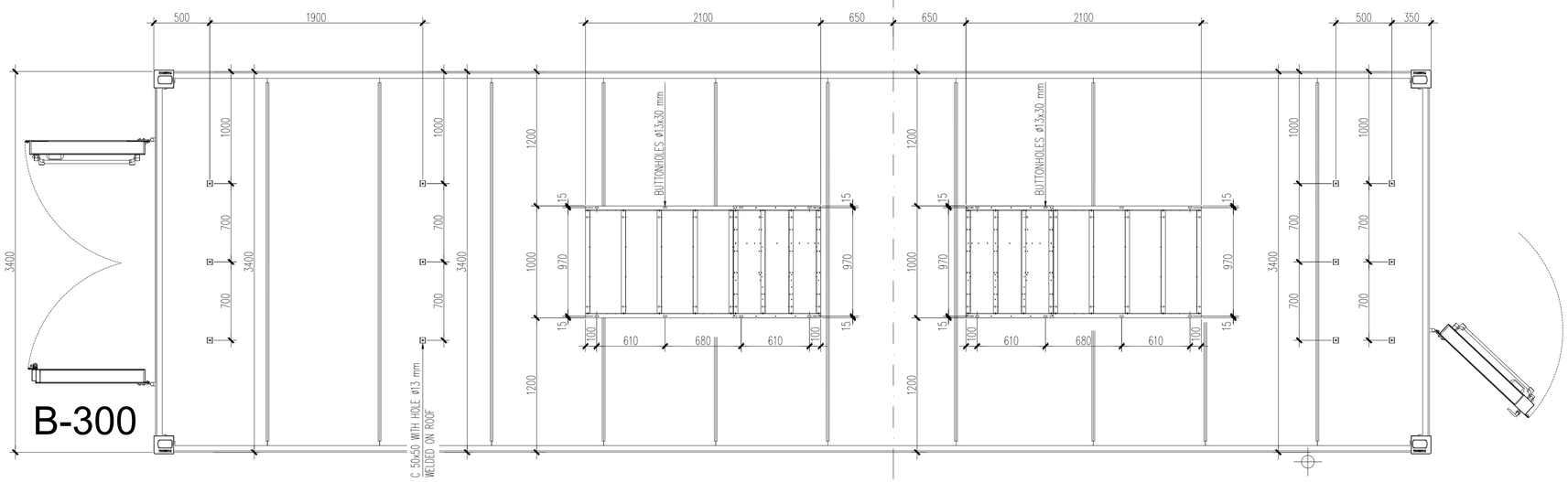




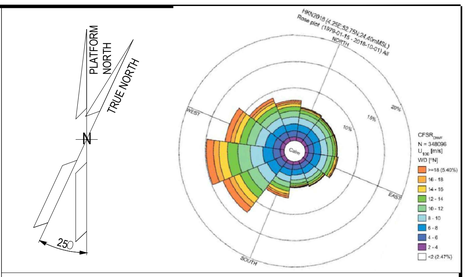
HVAC SYSTEM ROOF PLAN

SLEEVE ø4" ON LOWER DECK
SUITABLE FOR CONDENSING DRAIN PIPE
(SLEEVE SUPPLY by ROSETTI)



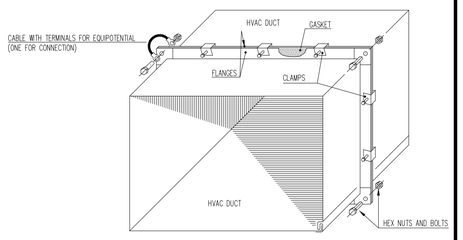


HVAC SUPPORT PLAN ON ROOF



NOTES

Outdoor ductwork in stainless steel AISI 316L
Indoor ductwork in galvanized steel Z275

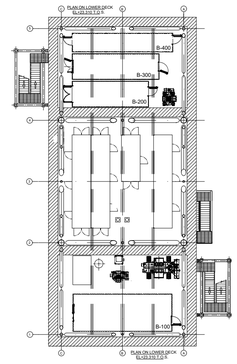


TYPICAL EQUIPOTENTIAL INSTALLING FOR FLANGE CONNECTION INDOOR AIR DUCT

Basket tray Power

Basket tray Instrument

KEY PLAN



ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	13/06/2024	S.Z.	S.S.	M.G.	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

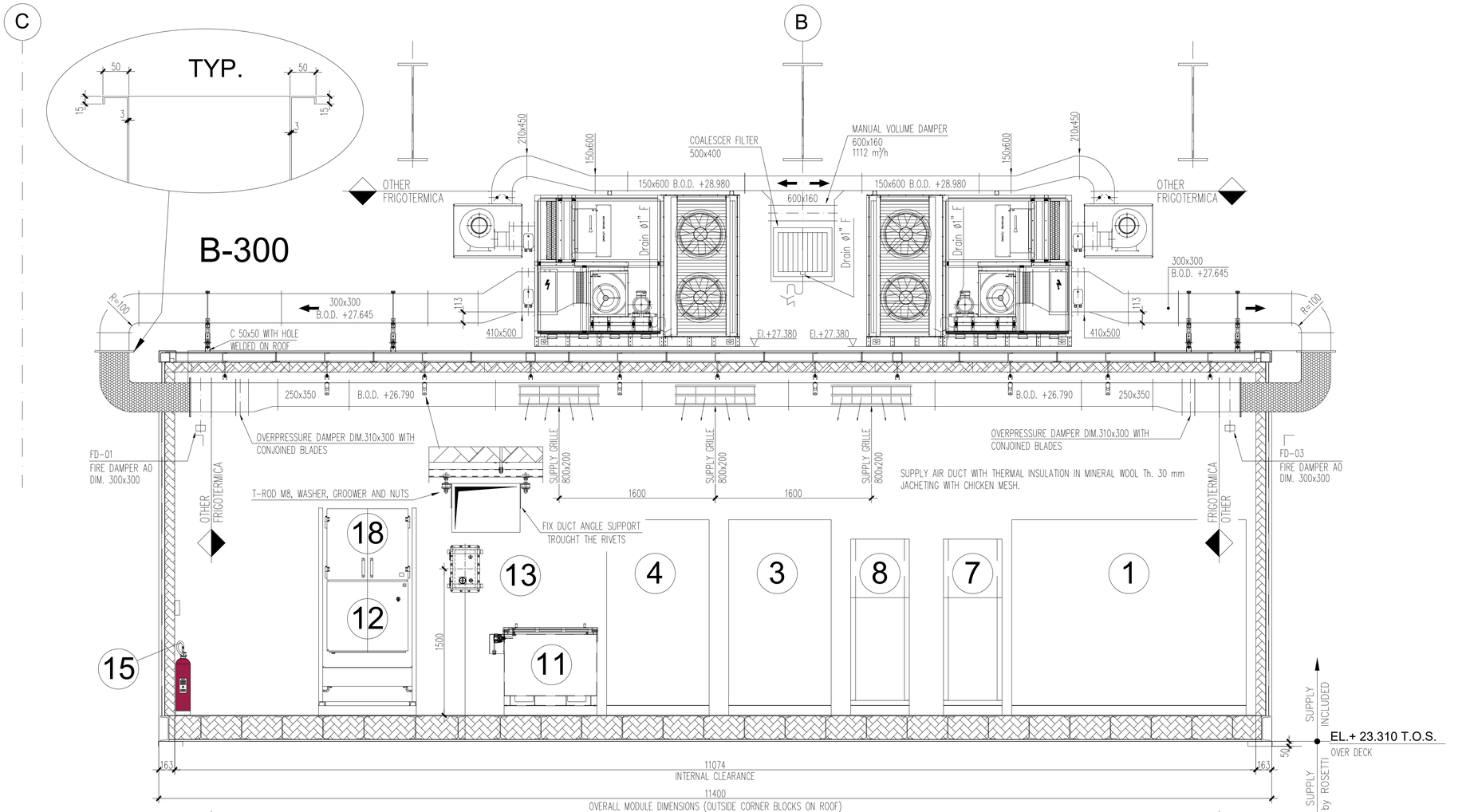
S.S.
MODULE B-300
HVAC SYSTEM - G.A. AND DETAILS

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1 : 25
DRAWN S.Z.	CHECKED S.S.	APPROVED M.G.	DATE 13/06/2024
A1	DRAWING NO. 1724000049-HV-DA-00066	SHEET 001	REV. 00

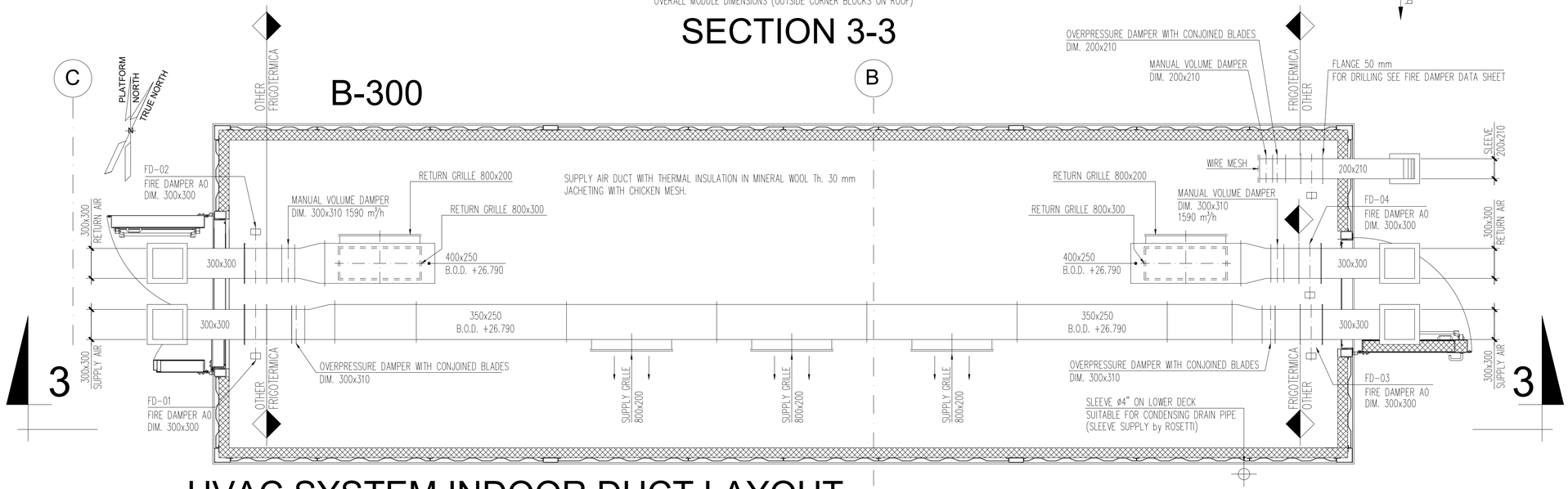
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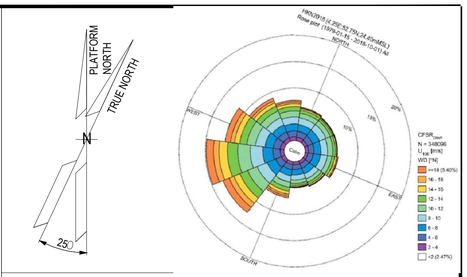
REV. 00



SECTION 3-3

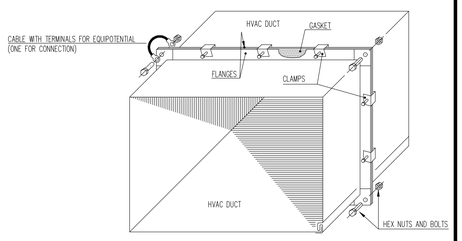


HVAC SYSTEM INDOOR DUCT LAYOUT



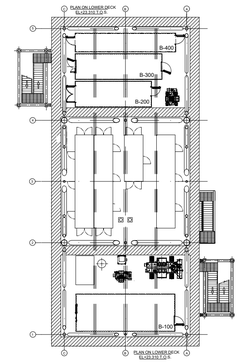
NOTES

Outdoor ductwork in stainless steel AISI 316L
Indoor ductwork in galvanized steel Z275



TYPICAL EQUIPOTENTIAL INSTALLING FOR FLANGE CONNECTION INDOOR AIR DUCT

KEY PLAN



ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	13/06/2024	S.Z.	S.S.	M.G.	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

S.S.
MODULE B-300
HVAC SYSTEM - G.A. AND DETAILS

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1 : 25
DRAWN S.Z.	CHECKED S.S.	APPROVED M.G.	DATE 13/06/2024

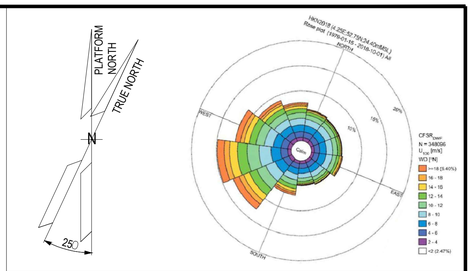
A1	DRAWING NO. 1724000049-HV-DA-00066	SHEET 002	REV. 00

File Name : 1724000049-HV-DA-00066_0

DRAWING NO. 123A90-1724000049-HV-PID-00041

REV. 01

BASE LOAD POWER HUB (BLPH)
B-300 HV
P&ID HVAC System



NOTES

LEGEND

HOLDS

ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
1	09/07/24	S.Z.	S.S.	M.C.	ISSUE FOR INFORMATION (IFI)
0	10/06/24	S.Z.	S.S.	M.C.	ISSUE FOR INFORMATION (IFI)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH) B-300 HV P&ID HVAC System

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1 : 1
DRAWN G.M.	CHECKED A.O.	APPROVED A.C.	DATE 09/07/24

A1	DRAWING NO. 123A90-1724000049-HV-PID-00041	SHEET 001	REV. 01

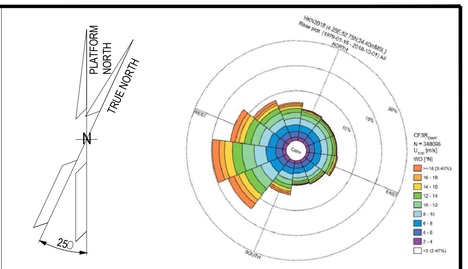
File Name : 123A90-1724000049-HV-PID-00041-REV.01

DRAWING NO. 123A90-1724000049-HV-PID-00041

REV. 01

REV.	SHEET NUMBER	DESCRIPTION	REF. CODE
02	001	FRONT PAGE	IFR
02	002	SUMMARY and GENERAL NOTES	IFR
02	003	P&ID HVAC System	IFR

GENERAL NOTES



NOTES

LEGEND

HOLDS

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
1	09/07/24	S.Z.	S.S.	M.G.	ISSUE FOR INFORMATION (IFI)
0	10/06/24	S.Z.	S.S.	M.G.	ISSUE FOR INFORMATION (IFI)

ALEXSISTEMI spa

CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
B-300 HV-MV Switchgear Room
P&ID HVAC System

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1 : 1
DRAWN G.M.	CHECKED A.O.	APPROVED A.C.	DATE 09/07/24

A1	DRAWING NO. 123A90-1724000049-HV-PID-00041	SHEET 002	REV. 01

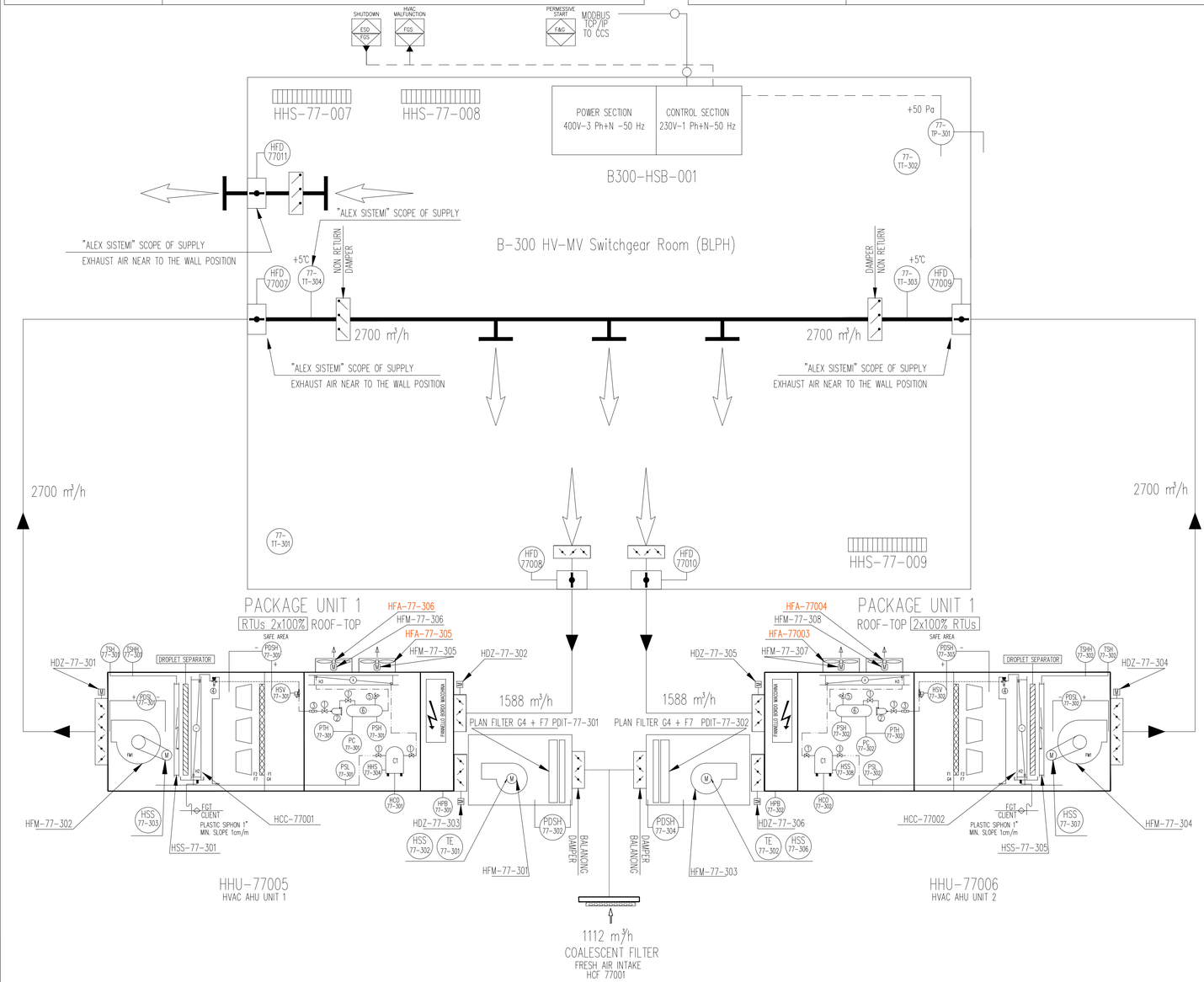
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DRAWING NO. 123A90-1724000049-HV-PID-00041

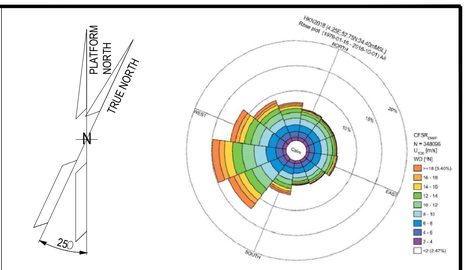
REV. 01

ITEM	HVAC-ROOF TOP
DESCRIPTION	HVAC UNIT
MAKER	FRIGOTERMICA srl
MODEL	4112-TBA
SUPPLY AIR FLOW	750 l/s
COOLING COIL CAPACITY	12 kW AT +26°C Outdoor Temperature
HEATING COIL CAPACITY	6 kW
TENSIONE	400 V - 50 Hz - 3 Ph+N
EXECUTION	SAFE AREA
REFRIGERANT	R513a

ITEM	HVAC-PRESSURISING FAN
DESCRIPTION	HVAC UNIT
MAKER	FRIGOTERMICA srl
MODEL	4112-TBA
SUPPLY AIR FLOW	281 l/s
COOLING COIL CAPACITY	N.A.
HEATING COIL CAPACITY	N.A.
TENSIONE	400 V - 50 Hz - 3 Ph+N
EXECUTION	SAFE AREA
REFRIGERANT	N.A.



LEGEND	
	MOTORISED DAMPER WITH SPRING RETURN
	REGULATION DAMPER
	OVERPRESSURE DAMPER
PDSH	DIFFERENTIAL PRESSURE SWITCH HIGH PRESSURE
PDSL	DIFFERENTIAL PRESSURE SWITCH LOW PRESSURE
TT	TEMPERATURE TRASMITTER
ESR	EMERGENCY PUSH BUTTON
OH	COMPRESSOR OIL HEATER
SV	SOLENOID VALVE
C	REFRIGERANT COMPRESSOR
F1	AIR FILTER "G4"
F2	BAG FILTER "F8"
	CONDENSING COIL
	CONDENSING FAN
	ELECTRICAL HEATER
	SUPPLY FAN
	GLOBE VALVE
	DRYER FILTER
	SIGHT GLASS
	THERMOSTATIC VALVE
	PRESSURE RELIEF VALVE
	MOTORISED FIRE DAMPER WITH SPRING RETURN
	EVAPORATING COIL
	LIQUID RECEIVER
MT	MOISTURE TRASMITTER
PTH	HIG PRESSURE TRASDUCER
TP	COMPRESSOR THERMIC PROTECTION
TSH	SECURITI THERMOSTATE
PSH	HIGH PRESSURE SWITCH
PSL	LOW PRESSURE SWITCH
PC	CONDENSING PRESSURE SWITCH



NOTES

LEGEND

HOLDS

NOTES:

- HVAC POWER CABINET will energize what above shown.
- HVAC CONTROL CABINET will control all what above shown.
- HVAC POWER CABINET will energize light and socket.
- Outside drainage system shall be provided of heatng cable with anti-freeze funcion to avoid ice inside pipes when outside temeprature reaches values close to 0°C.
- Outdoor air ductworks in stainless steel AISI 316

OUTDOOR DESIGN CONDITIONS

Safe Area
Min. design DB Temp: -8,4°C with RH 100 %
Max. design DB Temp: +25°C with RH 90 %

Module hv-mv (66 kW-6.6 kW)

Safe Area
Indoor min. design temperature: +5°C with RH 30 ÷ 70% ±5
Indor max. design temperature: +35°C with RH 30 ÷ 70% ±5
Min. ACH: 6

ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
1	09/07/24	S.Z.	S.S.	M.G.	ISSUE FOR INFORMATION (IFI)
0	10/06/24	S.Z.	S.S.	M.G.	ISSUE FOR INFORMATION (IFI)

CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
B-300 HV-MV Switchgear Room
P&ID HVAC System

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1 : 1
DRAWN G.M.	CHECKED A.O.	APPROVED A.C.	DATE 09/07/24
A1	DRAWING NO. 123A90-1724000049-HV-PID-00041	SHEET 003	REV. 01

File Name : 123A90-1724000049-HV-PID-00041-REV.01

B-300 HVAC - CABLE LIST

Posizione	n:° CABLE	CABLE CHARACTERISTICS				CABLE FROM:				CABLE TO:				JB TAG	CABLE LENGHT (m)	CABLE DIAMETER	CABLE TYPE	NOTE
		SECTION	TIPE	U_0/U (kV)	MATERIAL SHEAT	ITEM	CABLE GLAND	TAG	POSITION	ITEM	CABLE GLAND	TAG	POSITION					
a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	
1		5G25	by Client	by Client	by Client	by Client	by Client	by Client	by Client	HVAC PANEL	by Client	B300-HSB-001	inside B300	N.A.	by Client	25,60	by Client	General power supply 400V 3ph+N+PE
2		3G4	by Client	by Client	by Client	by Client	by Client	by Client	by Client	HVAC PANEL	by Client	B300-HSB-001	inside B300	N.A.	by Client	11,10	by Client	UPS Power Supply 230V 1ph+N+PE
3	77301-CEL-L1	3G2,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	SPACE HEATER 1	2900.M20N	HSS-77-007	inside B300	N.A.	12,5	9,80	LOW VOLTAGE	
4	77302-CEL-L2	3G2,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	SPACE HEATER 2	2900.M20N	HSS-77-008	inside B300	N.A.	15	9,80	LOW VOLTAGE	
5	77303-CEL-L3	3G2,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	SPACE HEATER 3	2900.M20N	HSS-77-009	inside B300	N.A.	19,5	9,80	LOW VOLTAGE	
6	77304-CEL-L1	5G2,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	BLINDO	2900.M20N	PECW-B300H-F1-L1-01	inside B300	N.A.	9	11,60	LOW VOLTAGE	
7	77305-CEL-L1	4G2,5	XLPE/UNEL S2	0,6/1,0	PVC	BLINDO	N.A.	PECW-B300H-F1-L1-01	inside B300	LAMP (E) 2	2900.M20N	PELF-B300H-F1-L1-01	inside B300	N.A.	0,5	10,80	LOW VOLTAGE	
8	77306-CEL-L1	3G2,5	XLPE/UNEL S2	0,6/1,0	PVC	BLINDO	N.A.	PECW-B300H-F1-L1-01	inside B300	LAMP 1	2900.M20N	PELF-B300H-F1-L1-02	inside B300	N.A.	0,5	9,80	LOW VOLTAGE	
9	77307-CEL-L1	3G2,5	XLPE/UNEL S2	0,6/1,0	PVC	BLINDO	N.A.	PECW-B300H-F1-L1-01	inside B300	LAMP 3	2900.M20N	PELF-B300H-F1-L1-03	inside B300	N.A.	0,5	9,80	LOW VOLTAGE	
10	77308-CEL-L2	3G2,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	MODULE SOCKET	2900.M20N	PESO-B300H-F2-L2-01	inside B300	N.A.	8,5	9,80	LOW VOLTAGE	
11	77301-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	MODULE SWITCH 1	2900.M20N	CELS-B300H-F1-L1-01	inside B300	N.A.	17	8,20	CONTROL	
12	77302-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	MODULE SWITCH 2	2900.M20N	CELS-B300H-F1-L1-02	inside B300	N.A.	12	8,20	CONTROL	
13		TBA	by Client	by Client	by Client	SIS	by Client	by Client	by Client	HVAC PANEL	by Client	B300-HSB-001	inside B300	N.A.	by Client		by Client	
14		TBA	by Client	by Client	by Client	SIS	by Client	by Client	by Client	HVAC PANEL	by Client	B300-HSB-001	inside B300	N.A.	by Client		by Client	
15		TBA	by Client	by Client	by Client	PCS	by Client	by Client	by Client	HVAC PANEL	by Client	B300-HSB-001	inside B300	N.A.	by Client		by Client	
16	77348-CEL-L1	3x1,5+Sh	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	TEMPERATURE TRANSMITTER 1	2900.M20N	77-TT-301	inside B300	N.A.	15,5	11,10	CONTROL	
17	77349-CEL-L1	3x1,5+Sh	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	TEMPERATURE TRANSMITTER 2	2900.M20N	77-TT-302	inside B300	N.A.	19,5	11,10	CONTROL	
18	77351-CEL-L1	3x1,5+Sh	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	TEMPERATURE TRANSMITTER 3	2900.M20N	77-TT-303	inside B300	N.A.	15,5	11,10	CONTROL	Mounted on internal sleeve
19	77352-CEL-L1	3x1,5+Sh	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	TEMPERATURE TRANSMITTER 4	2900.M20N	77-TT-304	inside B300	N.A.	16,5	11,10	CONTROL	Mounted on internal sleeve
20	77350-CEL-L1	3x1,5+Sh	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	DIFFERETIAL PRESSURE TRANSMITTER	2900.M20N	77-TP-301	inside B300	N.A.	15,5	11,10	CONTROL	
21	77309-CEL-L1	4G2,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	PRESSURIZING FAN	2900.M20N	HFM-77-301	HHU-77005	HJB-77005-A	20,5	10,80	LOW VOLTAGE	
22	77310-CEL-L1	4G4	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	SUPPLY FAN	2900.M20N	HFM-77-302	HHU-77005	HJB-77005-A	20,5	12,10	LOW VOLTAGE	
23	77311-CEL-L1	4G10	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	COMPRESSOR	2900.M25N	HCO-77-301	HHU-77005	HJB-77005-A	20,5	15,70	LOW VOLTAGE	
24	77312-CEL-L1	4G10	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	ELECTRICAL HEATER	2900.M25N	HSS-77-301	HHU-77005	HJB-77005-A	20,5	15,70	LOW VOLTAGE	
25	77313-CEL-L1	4G2,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	CONDENSER FAN 1	2900.M20N	HFM-77-305	HHU-77005	HJB-77005-A	20,5	10,80	LOW VOLTAGE	
26	77314-CEL-L1	4G2,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	CONDENSER FAN 2	2900.M20N	HFM-77-306	HHU-77005	HJB-77005-A	20,5	10,80	LOW VOLTAGE	
27	77315-CEL-L2	3G1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	POWER SUPPLY MOTORISED DAMPER	2900.M20N	HDZ-77-301	HHU-77005	HJB-77005-A	20,5	9,80	LOW VOLTAGE	
28	77308-CEC-L2	4x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	SIGNAL MOTORISED DAMPER	2900.M20N	HDZ-77-301	HHU-77005	HJB-77005-B	20,5	9,70	CONTROL	
29	77316-CEL-L2	3G1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	POWER SUPPLY MOTORISED DAMPER	2900.M20N	HDZ-77-302	HHU-77005	HJB-77005-A	20,5	9,80	LOW VOLTAGE	
30	77309-CEC-L2	4x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	SIGNAL MOTORISED DAMPER	2900.M20N	HDZ-77-302	HHU-77005	HJB-77005-B	20,5	9,70	CONTROL	
31	77317-CEL-L2	3G1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	POWER SUPPLY MOTORISED DAMPER	2900.M20N	HDZ-77-303	HHU-77005	HJB-77005-A	20,5	9,80	LOW VOLTAGE	
32	77310-CEC-L2	4x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	SIGNAL MOTORISED DAMPER	2900.M20N	HDZ-77-303	HHU-77005	HJB-77005-B	20,5	9,70	CONTROL	
33	77311-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	LOW PRESSURE SWITCH	2900.M20N	PDSL-77-301	HHU-77005	HJB-77005-B	20,5	8,20	CONTROL	
34	77312-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	PRESSURIZING FAN MOTOR PTC	2900.M20N	TE-77-301	HHU-77005	HJB-77005-B	20,5	8,20	CONTROL	
35	77313-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	EMERGENCY BUTTON	2900.M20N	HPB-77-301	HHU-77005	HJB-77005-B	20,5	8,20	CONTROL	
36	77314-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	SUPPLY FAN MOTOR HEATER	2900.M20N	HSS-77-302	HHU-77005	HJB-77005-B	20,5	8,20	CONTROL	
37	77315-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	PRESSURIZING FAN MOTOR HEATER	2900.M20N	HSS-77-303	HHU-77005	HJB-77005-B	20,5	8,20	CONTROL	
38	77347-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	PDSH - FILTER 1 DIFFERENTIAL PRESSURE SWITCH HIGH PRESSURE	2900.M20N	PDSH-77-301	HHU-77005	HJB-77005-B	20,5	8,20	CONTROL	
39	77349-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	PDSH - FILTER 2 DIFFERENTIAL PRESSURE SWITCH HIGH PRESSURE	2900.M20N	PDSH-77-302	HHU-77005	HJB-77005-B	20,5	8,20	CONTROL	
40	77316-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	COMPRESSOR OIL HEATER	2900.M20N	HSS-77-304	HHU-77005	HJB-77005-B	20,5	8,20	CONTROL	
41	77317-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	SOLENOID VALVE	2900.M20N	HSV-77-301	HHU-77005	HJB-77005-B	20,5	8,20	CONTROL	
42	77319-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	CONDENSING PRESSURE SWITCH	2900.M20N	PC-77-301	HHU-77005	HJB-77005-B	20,5	8,20	CONTROL	
43	77320-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	CONDENSING PRESSURE TRASDUCER	2900.M20N	PTH-77-301	HHU-77005	HJB-77005-B	20,5	8,20	CONTROL	
44	77321-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	ELECTRICAL HEATER HIGH TEMP THERMOSTATE	2900.M20N	TSH-77-301	HHU-77005	HJB-77005-B	20,5	8,20	CONTROL	
45	77322-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	ELECTRICAL HEATER VERI HIGH TEMP TRASMITTER	2900.M20N	TSHH-77-301	HHU-77005	HJB-77005-B	20,5	8,20	CONTROL	
46	77323-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	LOW PRESSURE SWITCH	2900.M20N	PSL-77-301	HHU-77005	HJB-77005-B	20,5	8,20	CONTROL	
47	77324-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	HIGH PRESSURE SWITCH	2900.M20N	PSH-77-301	HHU-77005	HJB-77005-B	20,5	8,20	CONTROL	
48	77318-CEL-L1	4G2,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	PRESSURIZING FAN	2900.M20N	HFM-77-303	HHU-77006	HJB-77006-A	20,5	10,80	LOW VOLTAGE	
49	77319-CEL-L1	4G4	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	SUPPLY FAN	2900.M20N	HFM-77-304	HHU-77006	HJB-77006-A	20,5	12,10	LOW VOLTAGE	
50	77320-CEL-L1	4G10	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	COMPRESSOR	2900.M25N	HCO-77-302	HHU-77006	HJB-77006-A	20,5	15,70	LOW VOLTAGE	
51	77321-CEL-L1	4G10	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	ELECTRICAL HEATER	2900.M25N	HSS-77-305	HHU-77006	HJB-77006-A	20,5	15,70	LOW VOLTAGE	
52	77322-CEL-L1	4G2,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	CONDENSER FAN 1	2900.M20N	HFM-77-307	HHU-77006	HJB-77006-A	20,5	10,80	LOW VOLTAGE	
53	77323-CEL-L1	4G2,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	CONDENSER FAN 2	2900.M20N	HFM-77-308	HHU-77006	HJB-77006-A	20,5	10,80	LOW VOLTAGE	
54	77324-CEL-L2	3G1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	POWER SUPPLY MOTORISED DAMPER	2900.M20N	HDZ-77-304	HHU-77006	HJB-77006-A	20,5	9,80	LOW VOLTAGE	
55	77325-CEC-L2	4x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	SIGNAL MOTORISED DAMPER	2900.M20N	HDZ-77-304	HHU-77006	HJB-77006-B	20,5	9,70	CONTROL	
56	77325-CEL-L2	3G1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	POWER SUPPLY MOTORISED DAMPER	2900.M20N	HDZ-77-305	HHU-77006	HJB-77006-A	20,5	9,80	LOW VOLTAGE	
57	77326-CEC-L2	4x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	SIGNAL MOTORISED DAMPER	2900.M20N	HDZ-77-305	HHU-77006	HJB-77006-B	20,5	9,70	CONTROL	
58	77326-CEL-L2	3G1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	POWER SUPPLY MOTORISED DAMPER	2900.M20N	HDZ-77-306	HHU-77006	HJB-77006-A	20,5	9,80	LOW VOLTAGE	
59	77327-CEC-L2	4x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	SIGNAL MOTORISED DAMPER	2900.M20N	HDZ-77-306	HHU-77006	HJB-77006-B	20,5	9,70	CONTROL	
60	77328-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	LOW PRESSURE SWITCH	2900.M20N	PDSL-77-302	HHU-77006	HJB-77006-B	20,5	8,20	CONTROL	
61	77329-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	PRESSURIZING FAN MOTOR PTC	2900.M20N	TE-77-302	HHU-77006	HJB-77006-B	20,5	8,20	CONTROL	
62	77330-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	EMERGENCY BUTTON	2900.M20N	HPB-77-302	HHU-77006	HJB-77006-B	20,5	8,20	CONTROL	
63	77331-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	SUPPLY FAN MOTOR HEATER	2900.M20N	HSS-77-306	HHU-77006	HJB-77006-B	20,5	8,20	CONTROL	
64	77332-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	PRESSURIZING FAN MOTOR HEATER	2900.M20N	HSS-77-307	HHU-77006	HJB-77006-B	20,5	8,20	CONTROL	
65	77350-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	PDSH - FILTER 1 DIFFERENTIAL PRESSURE SWITCH HIGH PRESSURE	2900.M20N	PDSH-77-303	HHU-77006	HJB-77006-B	20,5	8,20	CONTROL	
66	77348-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	PDSH - FILTER 2 DIFFERENTIAL PRESSURE SWITCH HIGH PRESSURE	2900.M20N	PDSH-77-304	HHU-77006	HJB-77006-B	20,5	8,20	CONTROL	
67	77333-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	COMPRESSOR OIL HEATER	2900.M20N	HSS-77-308	HHU-77006	HJB-77006-B	20,5	8,20	CONTROL	
68	77334-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	SOLENOID VALVE	2900.M20N	HSV-77-302	HHU-77006	HJB-77006-B	20,5	8,20	CONTROL	
69	77336-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	CONDENSING PRESSURE SWITCH	2900.M20N	PC-77-302	HHU-77006	HJB-77006-B	20,5	8,20	CONTROL	
70	77337-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	CONDENSING PRESSURE TRASDUCER	2900.M20N	PTH-77-302	HHU-77006	HJB-77006-B	20,5	8,20	CONTROL	
71	77338-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	ELECTRICAL HEATER HIGH TEMP THERMOSTATE	2900.M20N	TSH-77-302	HHU-77006	HJB-77006-B	20,5	8,20	CONTROL	
72	77339-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	ELECTRICAL HEATER VERI HIGH TEMP TRASMITTER	2900.M20N	TSHH-77-302	HHU-77006	HJB-77006-B	20,5	8,20	CONTROL	
73	77340-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	LOW PRESSURE SWITCH	2900.M20N	PSL-77-302	HHU-77006	HJB-77006-B	20,5	8,20	CONTROL	
74	77341-CEC-L1	2x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	HIGH PRESSURE SWITCH	2900.M20N	PSH-77-302	HHU-77006	HJB-77006-B	20,5	8,20	CONTROL	
75	77342-CEC-L2	4x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	Fire and Gas Damper (included actuator)	2900.M20N	HFD-77007	inside B300	N.A.	9	9,70	CONTROL	
76	77343-CEC-L2	4x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	Fire and Gas Damper (included actuator)	2900.M20N	HFD-77008	inside B300	N.A.	8	9,70	CONTROL	
77	77344-CEC-L2	4x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	Fire and Gas Damper (included actuator)	2900.M20N	HFD-77009	inside B300	N.A.	15,5	9,70	CONTROL	
78	77345-CEC-L2	4x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	Fire and Gas Damper (included actuator)	2900.M20N	HFD-77010	inside B300	N.A.	16,5	9,70	CONTROL	
79	77346-CEC-L2	4x1,5	XLPE/UNEL S2	0,6/1,0	PVC	HVAC PANEL	N.A.	B300-HSB-001	inside B300	Fire and Gas Damper (included actuator)	2900.M20N	HFD-77011	inside B300	N.A.	17	9,70	CONTROL	

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Section 7 MECHANICAL COMPLETION STATUS INDEX - MECHANICAL DISCIPLINE

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 77-30 & process: MC & discipline : M

Mechanical	77-30 HVAC UPS Equipment Room B-300						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
B-300	Shelter AC UPS Fitted with UPS System Equipment Room B-300	ONSHORE	C10002304	CZX01M	100	2024-10-08	RFC 2

ITEM	Tag	B-300	: Shelter AC UPS Fitted with UPS System Equipment Room B-300			Dwg	123A90-DDL-EL-DL-20138
	S/Sys	77-30	: UPS System Equipment Room B-300			Module	LD_B-300
TASK	code	C10002304		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Mechanical Form CZX01M		Package - M

1	Check that the nameplate details and tag number are complete and correct.	OK
2	Check that the holding down arrangements are correct.	Note
3	Check for all interface piping/mechanical reinstated on site by contractor.	Note
4	Check that the package Mechanical equipment is complete and not damaged.	OK
5	Check all the equipment for correct lubrication, for oil leaks and cleanliness.	Note
6	Check for the free rotation of rotating equipment.	Note
7	Check the insulation, painting and for correct tagging and identification.	Note
8	Check that the earthing system of the equipment is as per specification.	OK
9	Check that the Package is fixed and tightened to the structures.	OK
10	Check the release note, FAT report and outstanding Punch list for the Package	Note
11	If required produce Red Line Mark Up for "AS BUILT".	

Comments:

Note(2/3) : Refer to Punch list raised during first step of FAT:

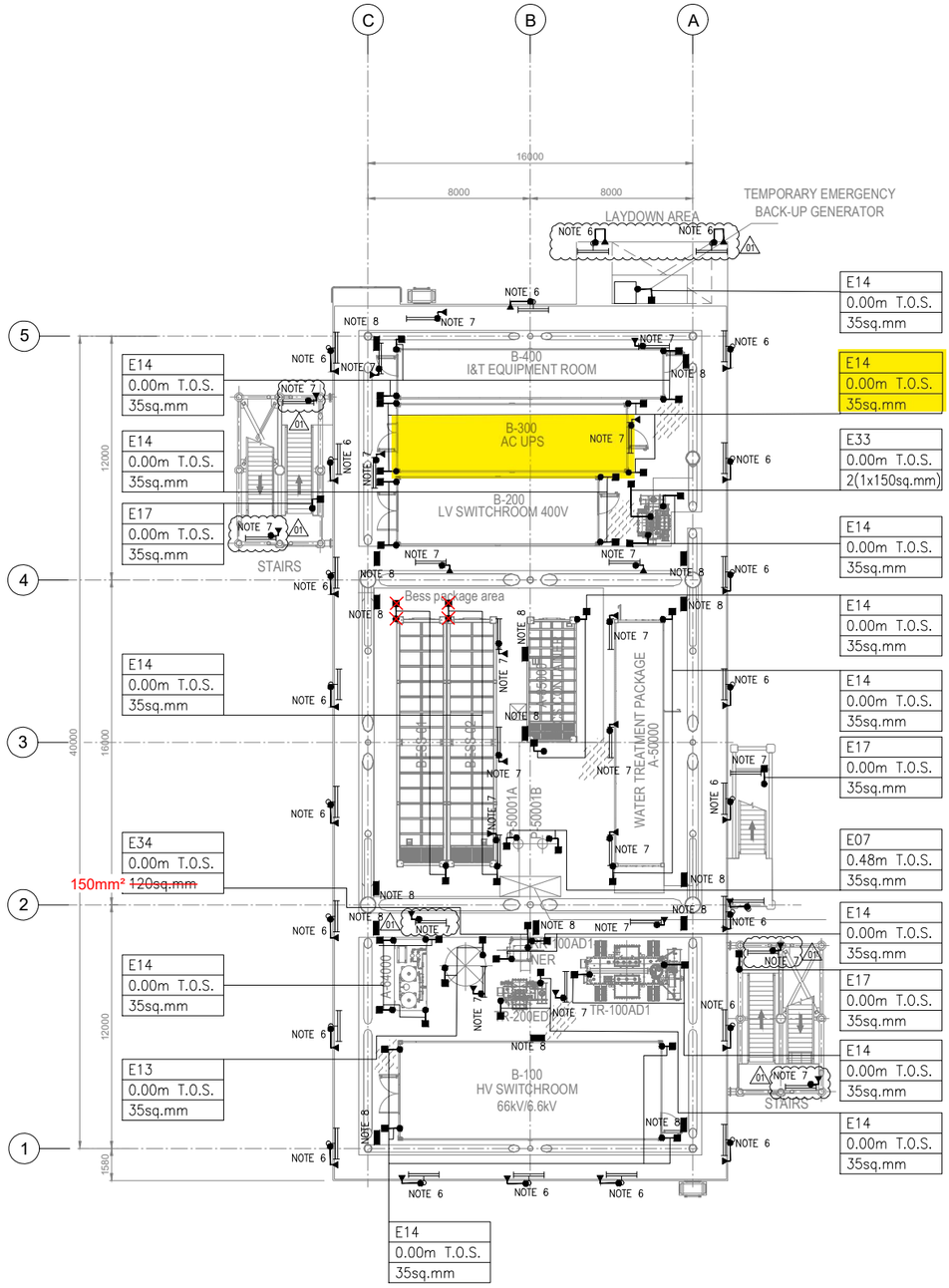
Point 2 PL: C30000016 / C30000020
Point 3 PL: C30000052 / C30000078 / C30000090 / C30000094

Note(5-6-7-10): FAT will be completed at RM yard after MC phase.

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM (ROSETTI Marino)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-10-07	2024-10-08	
Signature	PROVERLIS Digitaly signed by Carmelo Bongiovanni 2024-10-07T14:10:43.721Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2024-10-08T13:49:04.024Z	

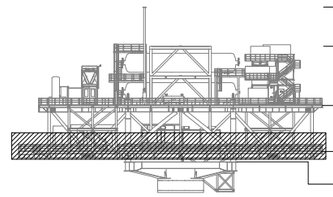
DRAWING NO. 123A90-DDL-EL-DL-20133

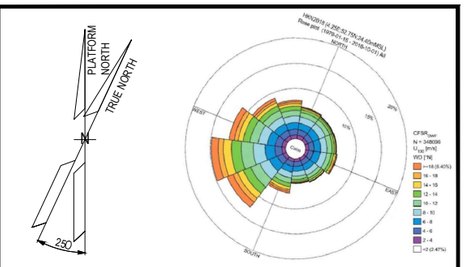
REV. 01



PLAN ON LOWER DECK
EL+23.310 T.O.S.

KEY PLAN





NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DOCUMENT IS ONLY VALID FOR EARTHING LAYOUT.
4. ALL ELECTRICAL EQUIPMENT NOT DIRECTLY WELDED TO SKID FRAME SHALL BE BONDED TO STEEL TO THE STRUCTURE OF SKID BASEFRAME.
5. FOR LIGHTNING PROTECTION SYSTEM SURGE PROTECTIVE DEVICES (SPD), REFER TO THE DOCUMENT 123A90-DDL-EL-RE-20154.
6. ALL NON-WELDED POLES WILL BE EARTHED AS PER TYPICAL E05 AND E24. 01
7. ALL LINEAR LIGHTING FIXTURE WILL BE EARTHED AS PER TYPICAL E32.
8. EARTH BAR WILL BE FIXED TO THE PRIMARY BEAMS OF THE UPPER DECK. COMPLETE EARTHING INCLUDING WITH 2 THREADED STUDS. ALL EARTH BAR WILL BE EARTHED AS PER TYPICAL E03D / 6.00M T.O.S. / 35 SQ MM.
9. EQUIPOTENTIAL BONDING GROUPING FOR BOLTED HANDRAILS ARE PROVIDED EVERY 3M FOR THE ENTIRE PERIMETER AS TYPICAL E16 AND WILL BE DEFINED DURING ASSEMBLY PHASE

LEGEND

- LIGHTING FIXTURE POLE MOUNTED
- LINEAR LIGHTING FIXTURE
- EARTHING BOSS AISI316L
- COMPRESSION TYPE LUG TINNED COPPER
- THREADED STUD FOR EARTHING CONNECTION
- Exx EARTHING TYPICAL CODE
- EARTHING BAR

TYP.	TYPICAL
ELE	ELEVATION
SIZE	

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-EL-DD-20090	ELECTRICAL TYPICAL INSTALLATION DETAILS - EARTHING SYSTEM
123A90-DDL-EL-RE-20154	LIGHTNING PROTECTION SYSTEM CALCULATION REPORT
123A90-DDL-EL-DL-20119	LIGHTING & SOCKET LAYOUT - LOWER DECK
123A90-DDL-EL-DL-20101	ELECTRICAL EQUIPMENT LAYOUT - LOWER DECK

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	25/07/24	SAM	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	29/05/24	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND | ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
EARTHING & LIGHTNING LAYOUT
LOWER DECK

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:150
DRAWN SPS	CHECKED FMA/AMA	APPROVED FPA/DLO	DATE 25/07/24
A1	DRAWING NO. 123A90-DDL-EL-DL-20133	SHEET 001	REV. 01

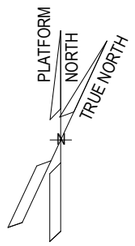
SHEET 001 OF 002

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DL-20133**

REV.:	DATE:	SIGNATURE:
1_B	11/09/24	G.Randi

ROSETTI MARINO SpA

File Name : 123A90-DDL-EL-DL-20133



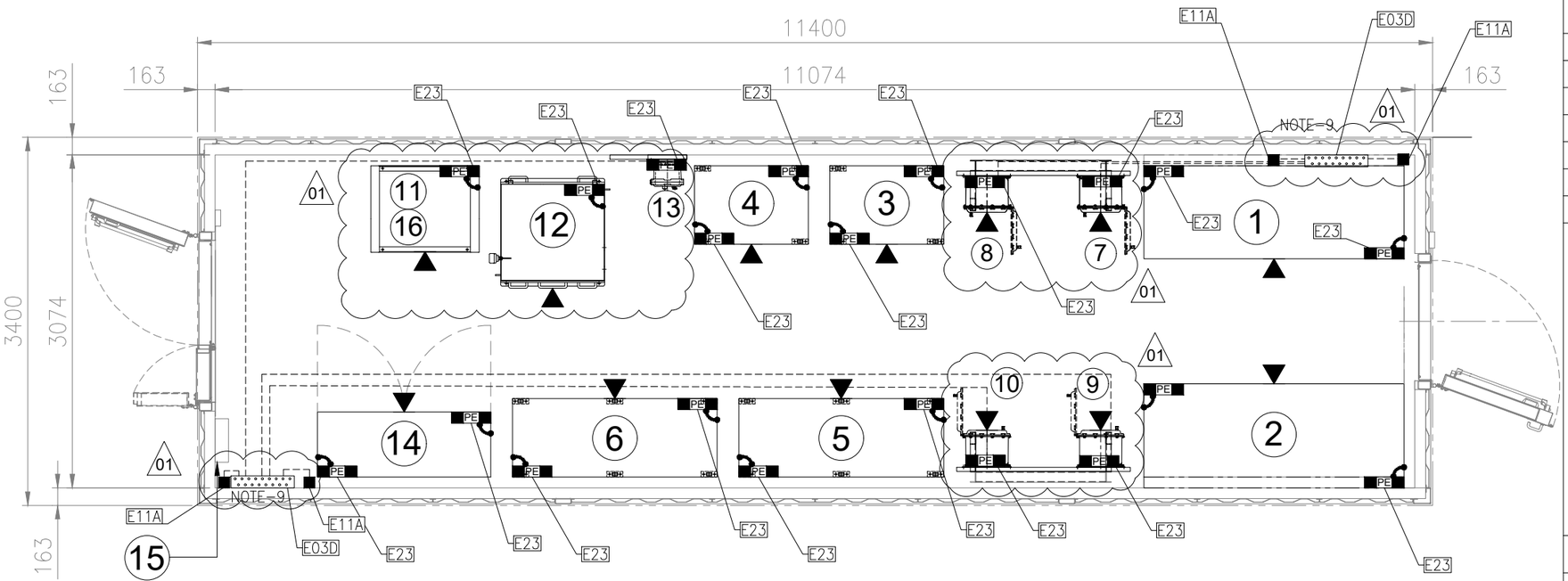
	EQUIPMENT LIST	
REF.	TAG No.	DESCRIPTION
1	UP-200F3	AC UPS 35kVA
2	UP-200F4	AC UPS 15kVA
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA
11	NC-200F2_BC-200F2A/B	NAVAID PANEL
12	BA-200F2	BATTERY BOX NAVAID
13	CB-200F2	ISOLATOR BOX NAVAID
14	B300-HSB-001	DISTRIBUTION & HVAC PANEL – AC/UPS ROOM
15	–	EYE WASH STATION
16	BC-200F2	BATTERY CHARGER NAVAID

01

01

NOTES

1. THIS DOUCMENT IS VALID ONLY FOR EARTHING LAYOUT.
2. THE CABLE SIZE SHALL BE CONFIRMED.
3. THE EXACT POSITION OF EARTHING/MARSHALLING BUS BAR SHALL BE DEFINED BY VENDOR.
4. THE EARTHING BUS BAR INSTALLATION SHALL BE PREFERABLY IN VERTICAL MODE.
5. FOR TYPICAL DETAILS PLEASE REFER DOCUMENT "123A90-DDL-EL-DD-20090-ELECTRICAL TYPICAL INSTALLATION DETAILS-EARTHING SYSTEM".
6. DUE TO THE TOP CABLE ENTRIES THE EARTHING BUS BAR INSIDE THE CABINETS SHALL BE INSTALLED AT THE TOP OF THE CABINETS THEMSELVES.
7. FOR LIGHTNING PROTECTION SYSTEM SURGE PROTECTIVE DEVICES (SPD), REFER DOCUMENT 123A90-DDL-EL-RE-20154.
8. ALL THE NON WELDED OBJECTS SHALL BE EARTHED.
9. CONTAINER WILL HAVE A BTH (EARTHING BAR TINNED COPPER) WITH 2 EARTHING BOSS, INSTALLED IN THE SOUTH-WEST CORNER AT AN ELEVATION OF 2.5M FROM THE CONTAINER FLOOR. EARTHING BOSS SHALL BE INSTALLED AT SAME ELEVATION 2.5M.



EARTHING LAYOUT

"B-300" UPSs & BATTERIES SWITCHROOM

PLAN

EL.+ 23.310 T.O.S.

SYMBOL	DESCRIPTION
PE	EARTHING BUS
	EARTHING BAR TINNED COPPER WITH no.18 HOLES
-------	35sq.mm Y/G INSULATED COPPER CONDUCTOR FOR PE
PE	PROTECTIVE EARTH
■	EARTHING BOSS AISI316L
	JUMPER CONNECTION
▲ 01	FRONT OF EQUIPMENT

REFERENCE

DOCUMENT NUMBER	DOCUMENT TITLE
123A90-DDL-EL-DD-20090	ELECTRICAL TYPICAL INSTALLATION DETAILS -EARTHING SYSTEM
123A90-DDL-EL-DL-20106	ELECTRICAL EQUIPMENT LAYOUT-UPSs & BATTERIES SWITCHROOM
1724000049-AR-DD-00020	B-300 DETAILED DRAWINGS – E&I SHELTERS

01

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DL-20138**

REV.:	DATE:	SIGNATURE:
1_A	08/08/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	25/07/24	ASR	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/05/24	SAM	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
EARTHING & LIGHTNING LAYOUT – UPSs & BATTERIES SWITCHROOM
"B-300" UPSs & BATTERIES SWITCHROOM

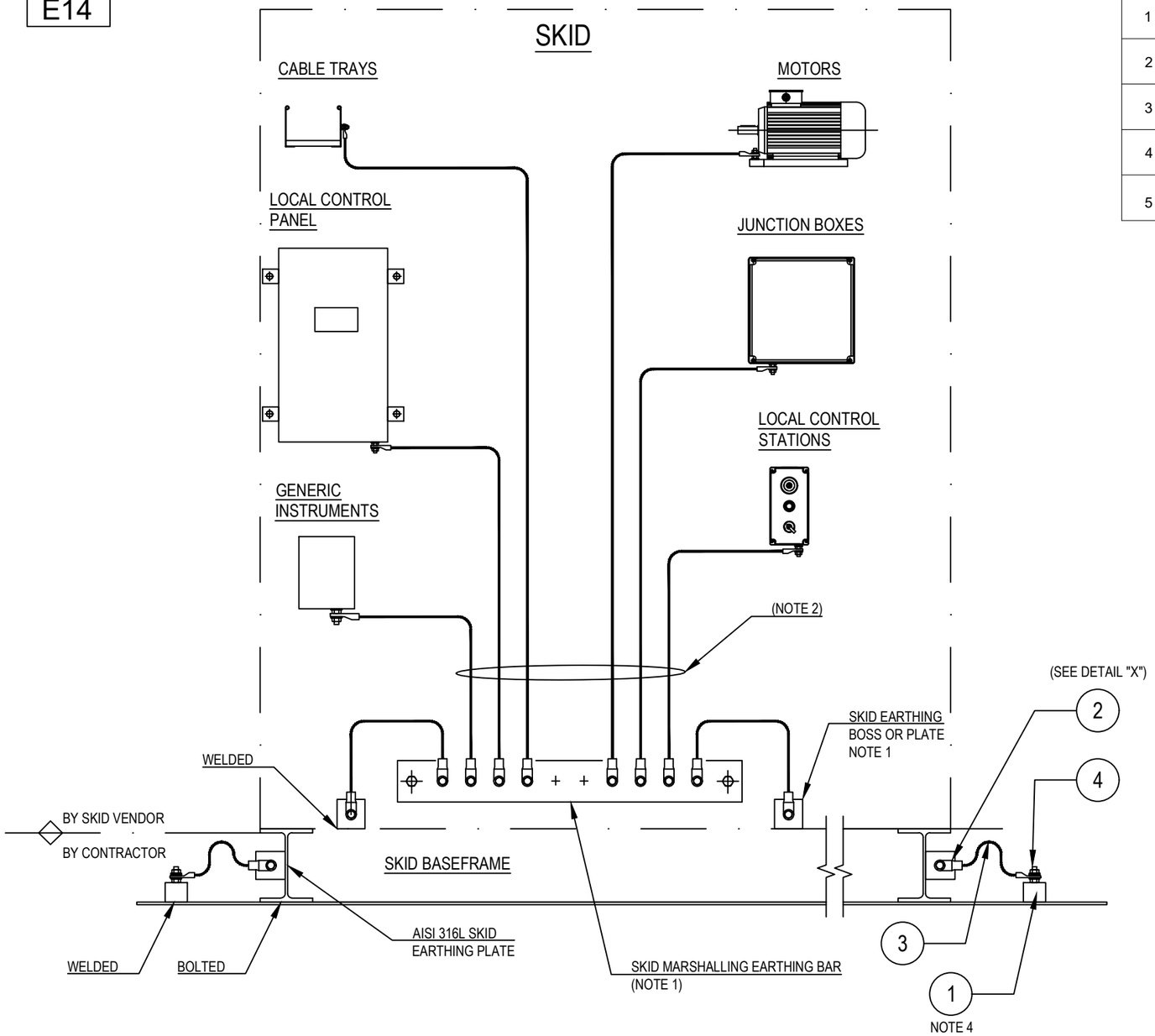
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : 1:50

A3 | DRAWING NO. 123A90-DDL-EL-DL-20138 | SHEET 003 | REV. 01

F.to UNI A3: 420mmx297mm

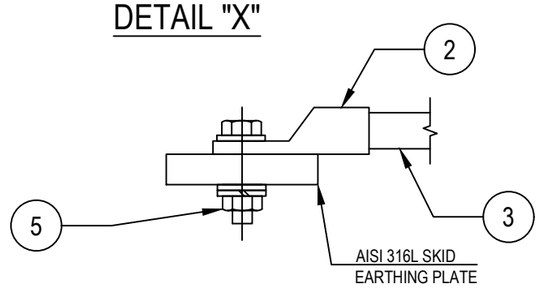
File Name : 123A90-DDL-EL-DL-20138 Rev. 01

E14



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	EARTHING BOSS WITH THREADED HOLE M10	AISI 316L	50X50		NOTE 5
2	COMPRESSION TYPE LUG FOR INSULATION COPPER CONDUCTOR	TINNED COPPER	35mm^2		~~NOTE 3~~
3	Y/G INSULATING COPPER CONDUCTOR	COPPER	35mm^2		~~NOTE 3~~
4	STUD BOLT WITH PLANE WASHER, SPRING WASHER AND NUT	AISI 316L	M10X50		
5	HEXAG. BOLT COMPLETE WITH PLANE WASHERS, SPRING WASHER AND NUT	AISI 316L	M10X30		

DETAIL "X"



NOTES:
1) EARTHING BAR/BOSS/PLATE SUPPLIED BY SKID MANUFACTURER
2) ALL EQUIPMENTS AND CABLE TRAYS WILL BE EARTHING ON SKID EARTHING BAR BY SKID MANUFACTURER
3) ~~CABLE LUG CRIMPING METHOD SHALL BE HEXAGONAL COMPRESSION DIES ONLY~~
4) FOR EARTHING BOSS TYPICAL DETAIL E11A
5) EXTERNAL EARTHING CONNECTION ONLY SHALL BE PROTECTED AGAINST CORROSION USING OXIDE RESISTANT COMPOUND (E.G. COPPER GREASE)

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_D	25/09/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS–EARTHING SYSTEM
EARTHING FOR SKID BASEFRAME

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 123A90-DDL-EL-DD-20090 | SHEET 014 | REV. 02

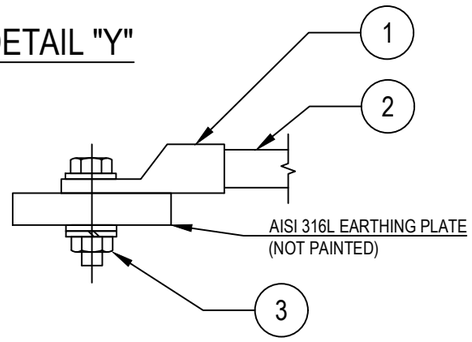
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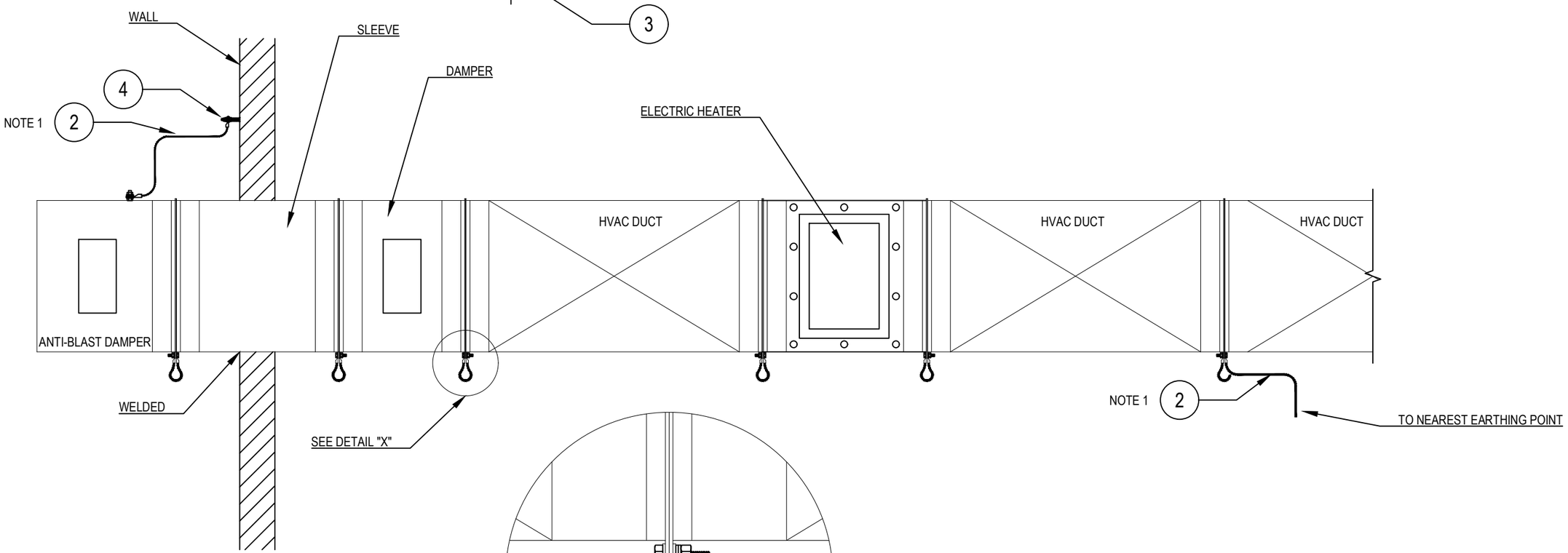
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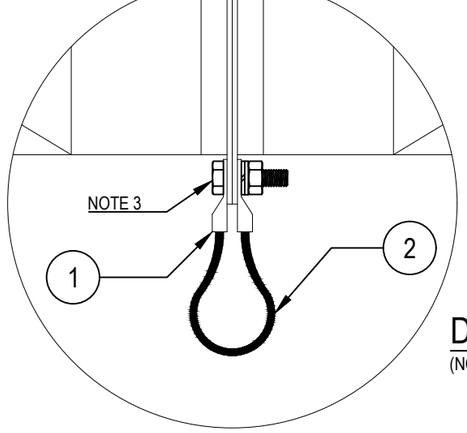
E26

POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	COMPRESSION TYPE LUG FOR INSULATION COPPER CONDUCTOR	TINNED COPPER	$6mm^2$	1	
2	Y/G INSULATING COPPER CONDUCTOR	COPPER	$6mm^2$	1	
3	HEXAG. BOLT COMPLETE WITH PLANE WASHERS, SPRING WASHER AND NUT	AISI 316L	M10X30	1	
4	HILTI S-BT-ER M10/15 SN6	AISI 316L		1	NOTE 4

DETAIL "Y"







DETAIL "X"

(NOTE 2)

NOTES:
1) HVAC DUCT SHALL BE CONNECTED TO THE EQUIPOTENTIAL BONDING SYSTEM AT BOTH ENDS AND EVERY 25 m. FULL CONTINUITY SHALL BE ENSURED. IN CASE OF SHORT LENGTH ELEMENTS (LESS THAN 3 M) ONE END ONLY MAY BE CONNECTED TO THE EQUIPOTENTIAL BONDING SYSTEM.
2) REACH EARTHING BONDING SHALL BE INSTALLED WHEN CONTINUITY CANNOT BE ENSURED.
3) AISI 316L HARDWARE INCLUDED WITH HVAC DUCT.
4) REFER TO TYP. "E11D" SHEET 003.

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_D	25/09/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS–EARTHING SYSTEM
EARTHING FOR HVAC DUCT AND ITS COMPONENTS

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK

SCALE : NTS

A3

DRAWING NO. 123A90-DDL-EL-DD-20090

SHEET 017

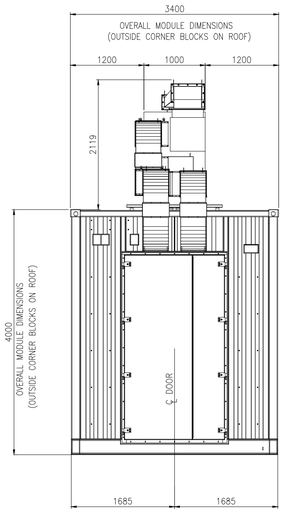
REV. 02

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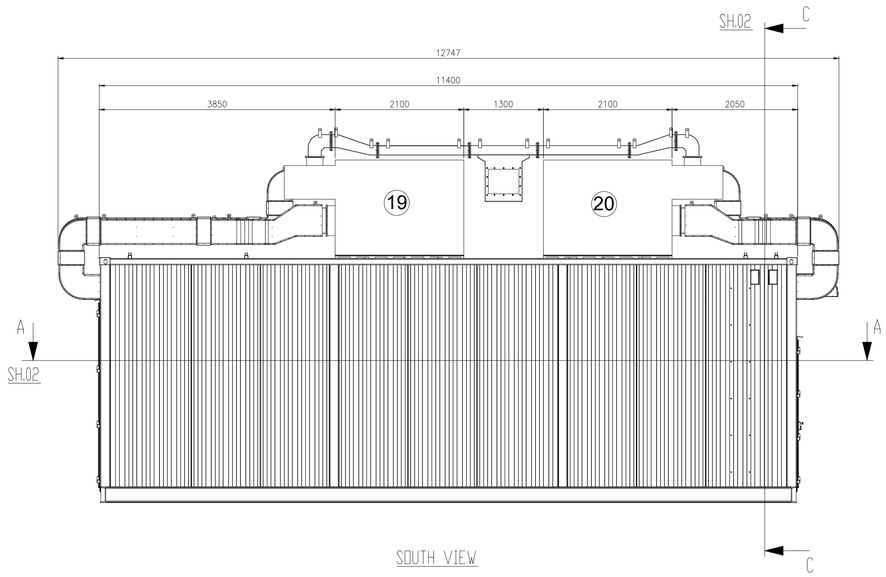
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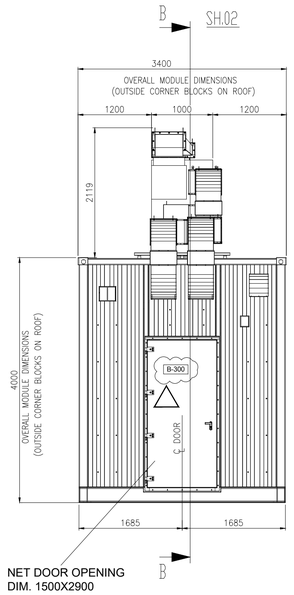
REV. 03



WEST VIEW

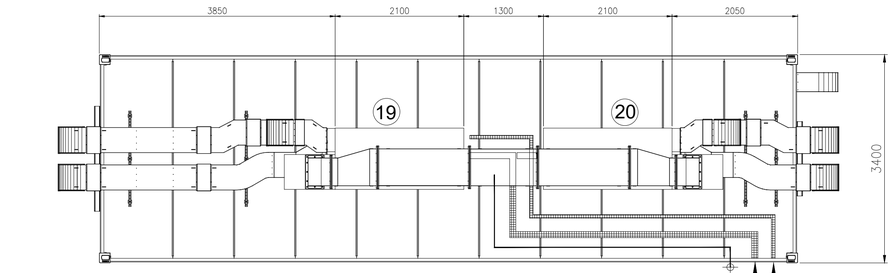


SOUTH VIEW



NET DOOR OPENING
DIM. 1500X2900

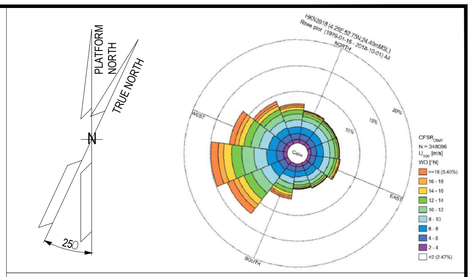
EAST VIEW



TOP VIEW

EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
11	NC-200F2	NAVAID PANEL	1000	800	2600	535
12	BA-200F2	BATTERY BOX NAVAID	958	993	1210	1552
13	CB-200F2	ISOLATOR BOX NAVAID	500	400	765	70
14	B300-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	500
15	-	EYE WASH STATION	228	80	290	5
16	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
17	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
18	BC-200F2	BATTERY CHARGER NAVAID	607	607	2157	500
19	HHU-77005	AIR HANDLING UNIT A	2100	1000	2158	850
20	HHU-77006	AIR HANDLING UNIT B	2100	1000	2158	850
21	HSS-77-007	SPACE HEATER 1	184	145	1100	5
22	HSS-77-008	SPACE HEATER 2	184	145	1100	5
23	HSS-77-009	SPACE HEATER 3	184	145	1100	5



NOTE

1) ALL DIMENSIONS ARE IM MM.
2) THE POSITION OF THE LAMPS INDICATED IS TO BE CONSIDERED THE THEORETICAL ONE, THE FINA ONE WILL BE CONFIRMED IN THE AS-BUILT ISSUE.

REFERENCE

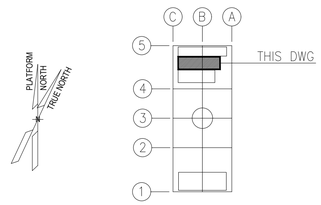
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"B-300" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00066
"B-300" DETAILED DRAWING	1724000049-AR-DD-00020
PAINTING PROCEDURE	1724000049-MAT-PRO-00006
"B-300" FOUNDATION	1724000049-ST-DD-00012
"B-300" STRUCTURAL CALCULATION	1724000049-ST-CA-00008

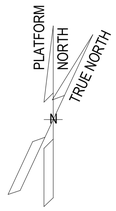
LEGEND

- INTERNAL LIGHT
- E INTERNAL EMERGENCY LIGHT
- SOCKET OUTLET, INDOOR
- LIGHT SWITCH
- ESCAPE CORRIDOR – WIDTH 800mm.
- MAINTENANCE AREA – VENDOR REQUIREMENT
- INSULATION PANEL

HOLDS

KEY PLAN





ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	23/07/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
02	03/07/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
01	16/05/24	M.G.	SKV	C.A.	ISSUE FOR REVIEW (IFR)
00	08/02/24	A.G.	SKV	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

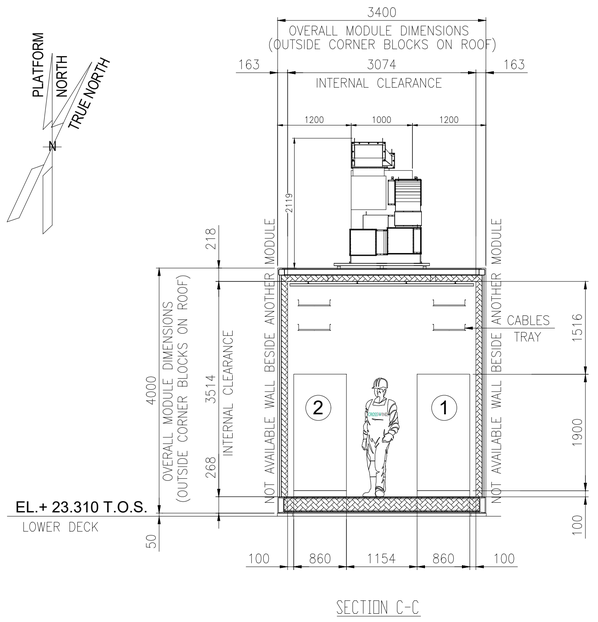
CROSSWIND | ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
B-300 GENERAL ARRANGEMENT DRAWINGS

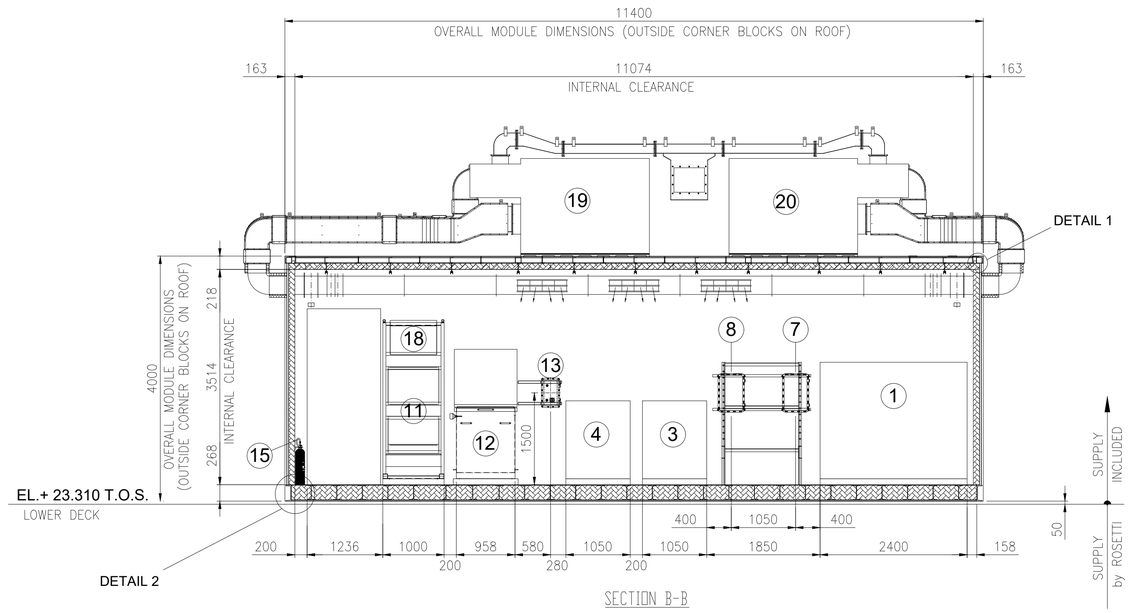
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 23/07/24
A1	DRAWING NO. 1724000049-AR-DA-00016	SHEET 001	REV. 03

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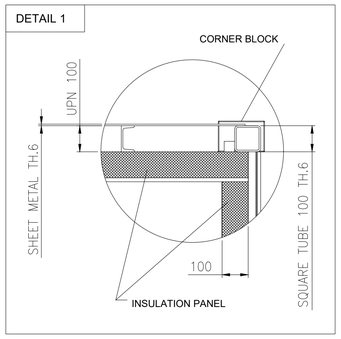
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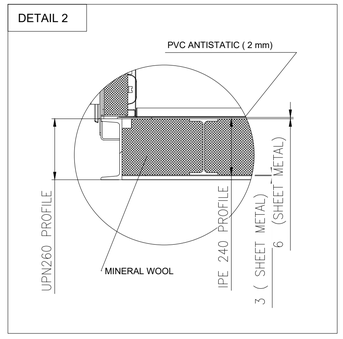


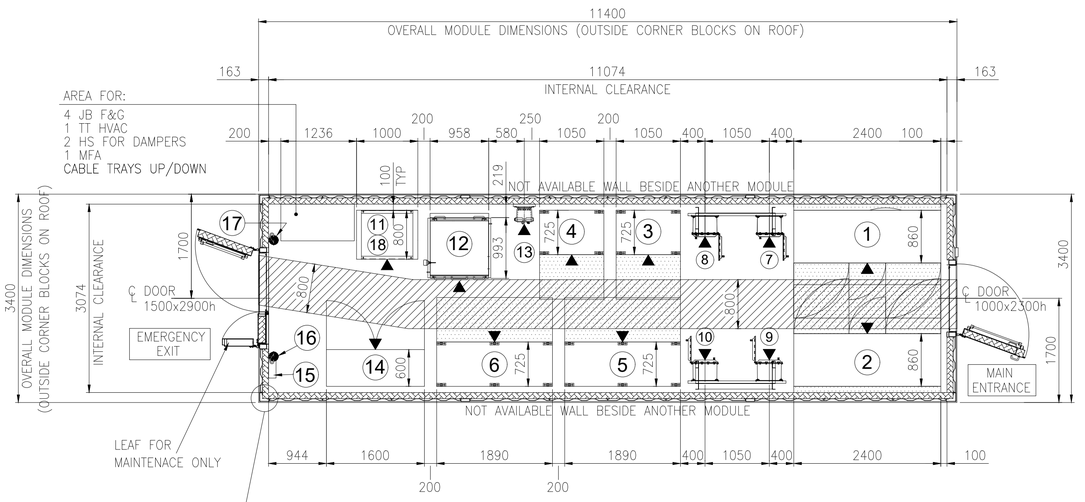
SECTION C-C



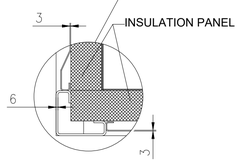
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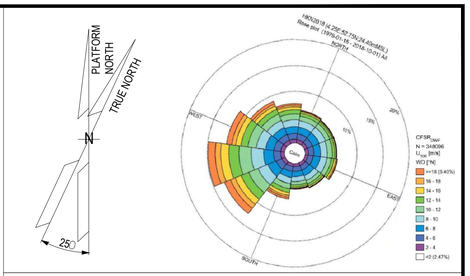
SECTION A-A



EQUIPMENT LAYOUT
"B-300" AC UPS FITTED WITH UPS SYSTEM EQUIPMENT ROOM
BOTTOM PLAN

EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
11	NC-200F2	NAVAID PANEL	1000	800	2600	535
12	BA-200F2	BATTERY BOX NAVAID	958	993	1210	1552
13	CB-200F2	ISOLATOR BOX NAVAID	500	400	765	70
14	B300-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	500
15	-	EYE WASH STATION	228	80	290	5
16	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
17	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
18	BC-200F2	BATTERY CHARGER NAVAID	607	607	2157	500
19	HHU-77005	AIR HANDLING UNIT A	2100	1000	2158	850
20	HHU-77006	AIR HANDLING UNIT B	2100	1000	2158	850
21	HSS-77-007	SPACE HEATER 1	184	145	1100	5
22	HSS-77-008	SPACE HEATER 2	184	145	1100	5
23	HSS-77-009	SPACE HEATER 3	184	145	1100	5



NOTE

1) ALL DIMENSIONS ARE IM MM.
2) THE POSITION OF THE LAMPS INDICATED IS TO BE CONSIDERED THE THEORETICAL ONE, THE FINA ONE WILL BE CONFIRMED IN THE AS-BUILT ISSUE.

REFERENCE

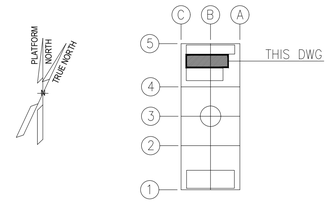
DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00066
"B-300" DETAILED DRAWING	1724000049-AR-DD-00020
PAINTING PROCEDURE	1724000049-MAT-PRO-00006
"B-300" FOUNDATION	1724000049-ST-DD-00012
"B-300" STRUCTURAL CALCULATION	1724000049-ST-CA-00008

LEGEND

- INTERNAL LIGHT
- E INTERNAL EMERGENCY LIGHT
- SOCKET OUTLET, INDOOR
- LIGHT SWITCH
- ESCAPE CORRIDOR – WIDTH 800mm.
- MAINTENANCE AREA – VENDOR REQUIREMENT
- INSULATION PANEL

HOLDS

KEY PLAN



ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	23/07/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
02	03/07/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
01	16/05/24	M.G.	SKV	C.A.	ISSUE FOR REVIEW (IFR)
00	08/02/24	A.G.	SKV	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

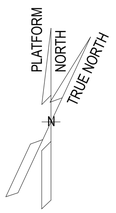
CROSSWIND | ROSETTI MARINO

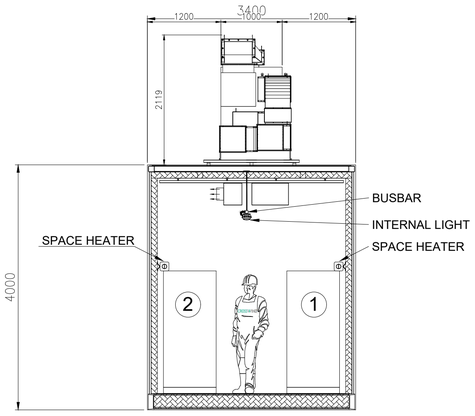
TITLE : BASE LOAD POWER HUB (BLPH)
B-300 GENERAL ARRANGEMENT DRAWINGS

CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 23/07/24
A1	DRAWING NO. 1724000049-AR-DA-00016	SHEET 002	REV. 03

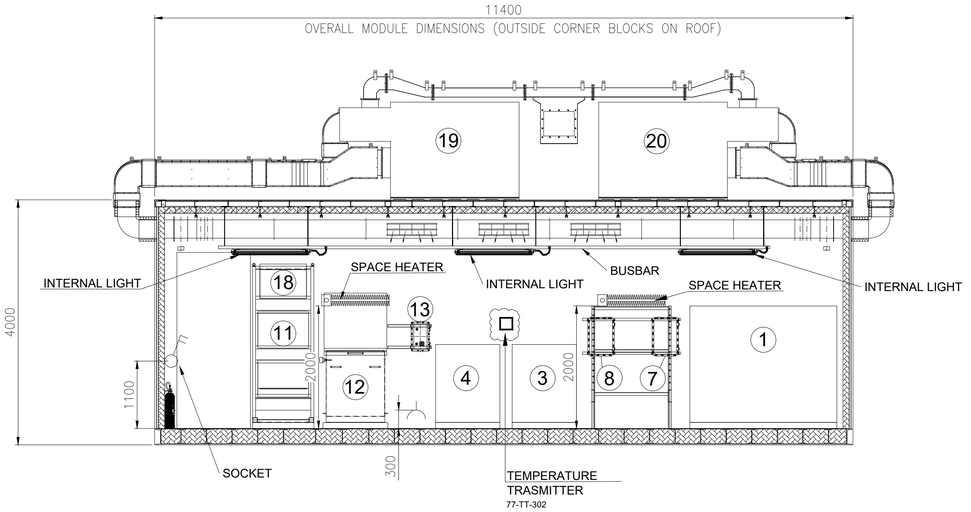
File Name : 1724000049-AR-DA-00016-REV.03

DRAWING NO. 1724000049-AR-DA-00016 | REV. 03

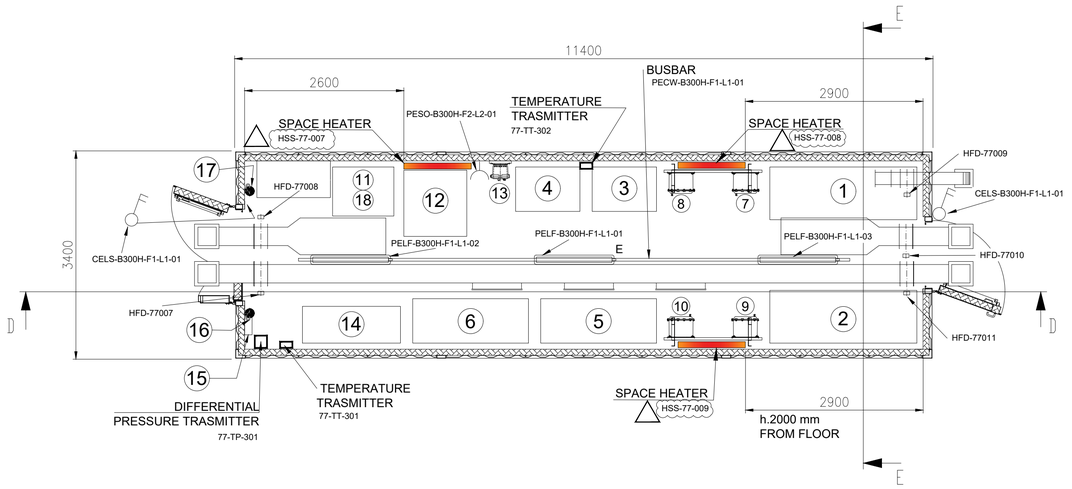




SECTION E-E

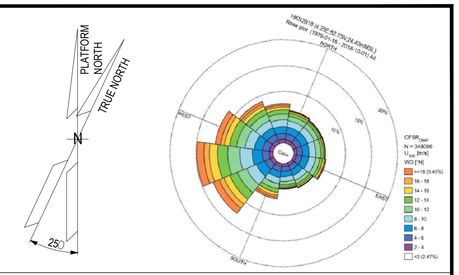


SECTION D-D



EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
11	NC-200F2	NAVAID PANEL	1000	800	2600	535
12	BA-200F2	BATTERY BOX NAVAID	958	993	1210	1552
13	CB-200F2	ISOLATOR BOX NAVAID	500	400	765	70
14	B300-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	500
15	-	EYE WASH STATION	228	80	290	5
16	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
17	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
18	BC-200F2	BATTERY CHARGER NAVAID	607	607	2157	500
19	HHU-77005	AIR HANDLING UNIT A	2100	1000	2158	850
20	HHU-77006	AIR HANDLING UNIT B	2100	1000	2158	850
21	HSS-77-007	SPACE HEATER 1	184	145	1100	5
22	HSS-77-008	SPACE HEATER 2	184	145	1100	5
23	HSS-77-009	SPACE HEATER 3	184	145	1100	5



NOTE

1) ALL DIMENSIONS ARE IM MM.
2) THE POSITION OF THE LAMPS INDICATED IS TO BE CONSIDERED THE THEORETICAL ONE, THE FINA ONE WILL BE CONFIRMED IN THE AS-BUILT ISSUE.

REFERENCE

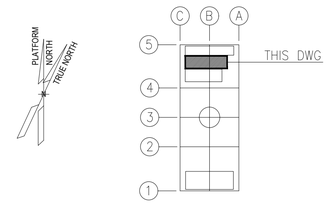
DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00066
"B-300" DETAILED DRAWING	1724000049-AR-DD-00020
PAINTING PROCEDURE	1724000049-MAT-PRO-00006
"B-300" FOUNDATION	1724000049-ST-DD-00012
"B-300" STRUCTURAL CALCULATION	1724000049-ST-CA-00008

LEGEND

- INTERNAL LIGHT
- E — INTERNAL EMERGENCY LIGHT
- SOCKET OUTLET, INDOOR
- LIGHT SWITCH
- ESCAPE CORRIDOR – WIDTH 800mm.
- MAINTENANCE AREA – VENDOR REQUIREMENT
- INSULATION PANEL

HOLDS

KEY PLAN



ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	23/07/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
02	03/07/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
01	16/05/24	M.G.	SKV	C.A.	ISSUE FOR REVIEW (IFR)
00	08/02/24	A.G.	SKV	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND | ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
B-300 GENERAL ARRANGEMENT DRAWINGS

CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 23/07/24
A1	DRAWING NO. 1724000049-AR-DA-00016	SHEET 003	REV. 03

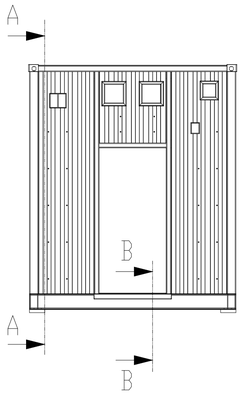
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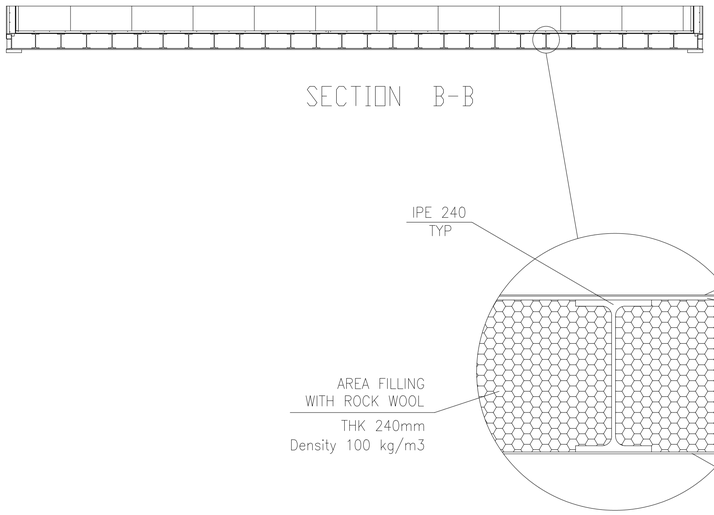
DRAWING NO. 1724000049-AR-DD-00020

REV. 02

MODULE B-300

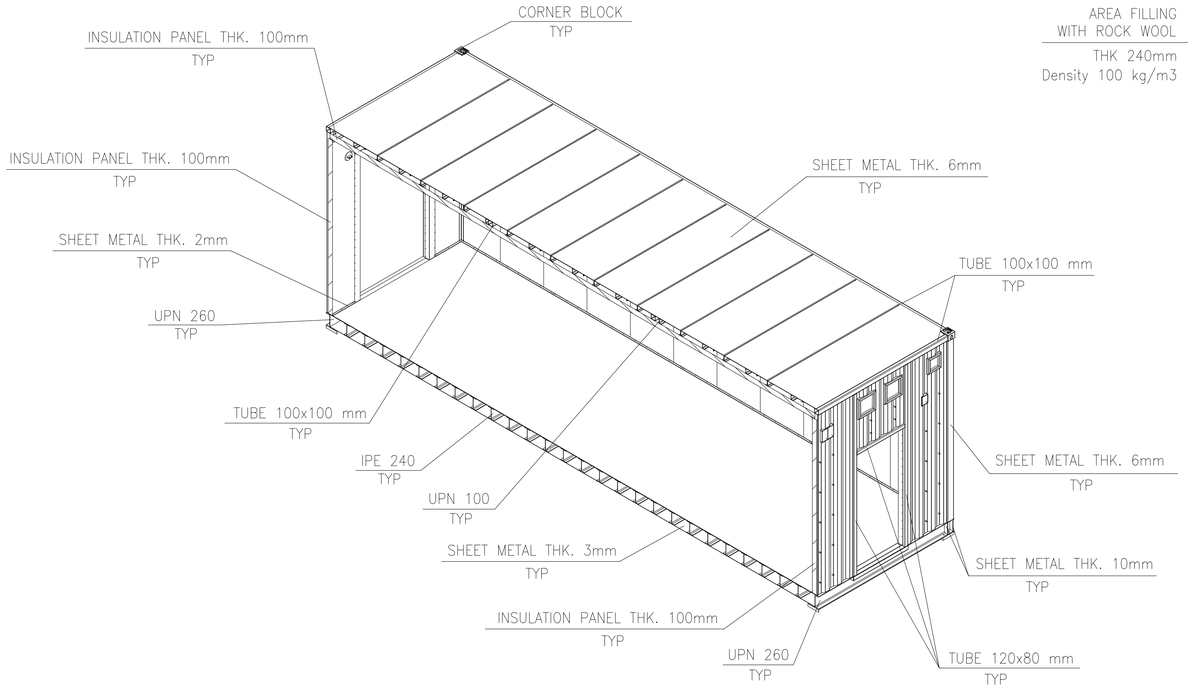
REFERENCE	
DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" STRUCTURAL CALCULATION	1724000049-ST-CA-00008
Weld Procedure Specifications (WPS), Weld Procedure Qualification Report (WPQR), Welding Map and Welders Qualifications	1724000049-WEL-RE-00003

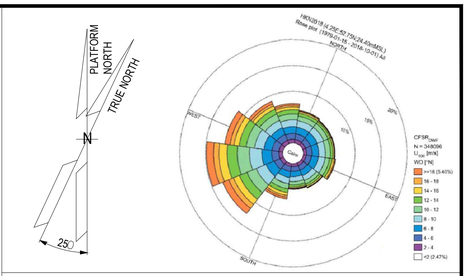




SECTION B-B

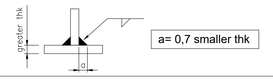
DETAIL "C"





NOTES

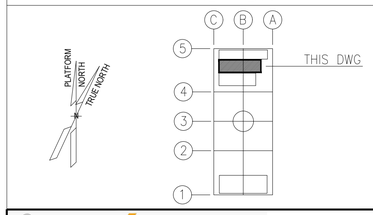
1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.
2. ALL WELDINGS SYMBOLS ARE IN ACCORDANCE WITH A.W.S. CODE D.1.1
3. UNLESS OTHERWISE INDICATED FILLET WELDS SHALL HAVE FOLLOWING DIM.:



LEGEND

HOLDS

KEY PLAN



ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	11/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
01	08/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
00	30/05/24	M.G.	O.A.	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND

ROSETTI MARINO

TITLE :

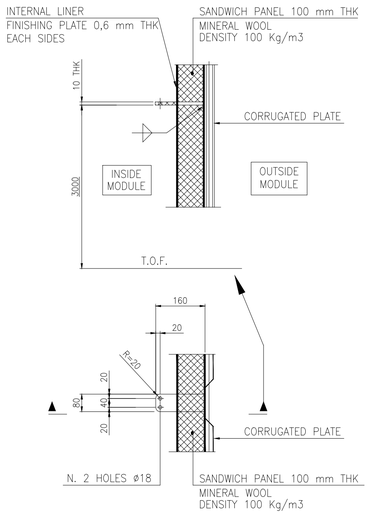
B-300 DETAILED DRAWINGS-E&I SHELTERS

CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 11/07/24
A1	DRAWING NO. 1724000049-AR-DD-00020	SHEET 001	REV. 02

File Name : 1724000049-AR-DD-00020-REV.02

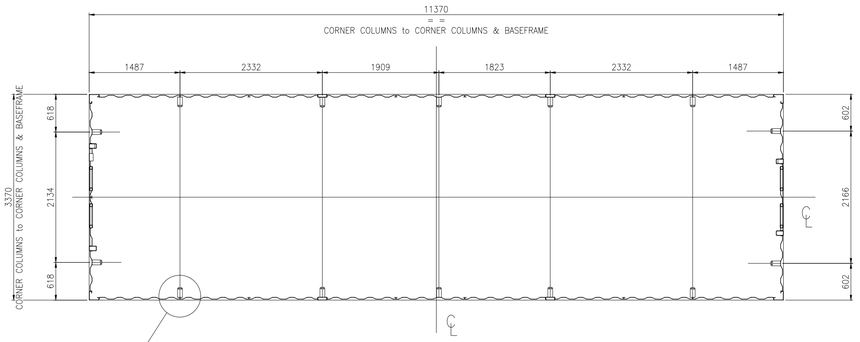
DRAWING NO. 1724000049-AR-DD-00020 REV. 02

REFERENCE	
DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DA-00016
"B-300" HVAC GENERAL ARRANGEMENT	1724000049-HV-DA-00066



WEST WALL

NORTH WALL

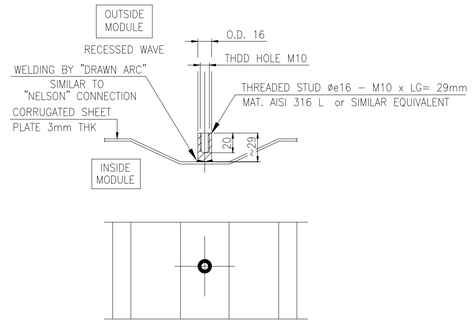


EST WALL

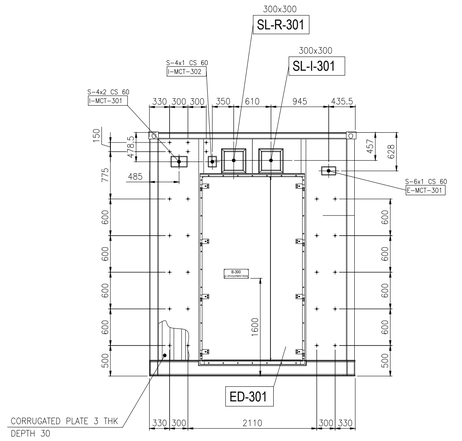
SOUTH WALL

MODULE B-300

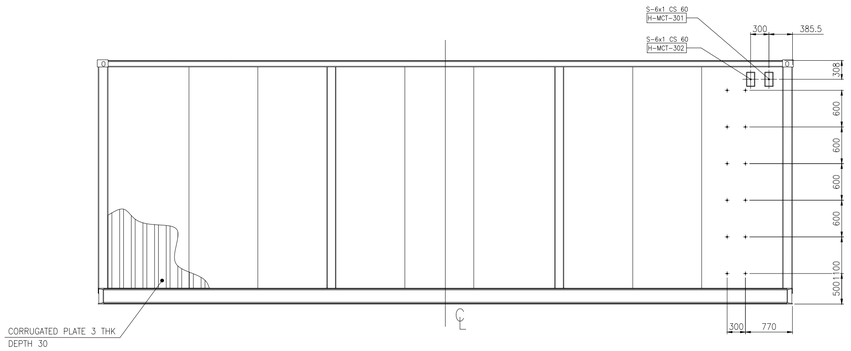
INTERNAL SEA FASTENING PLATES PLAN



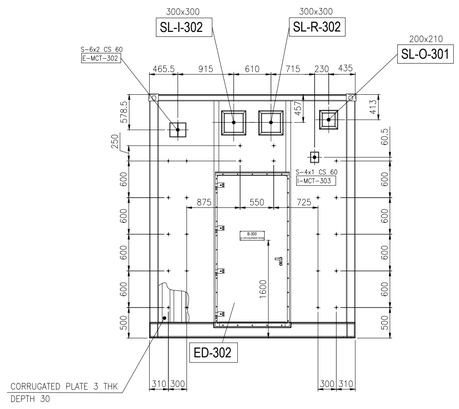
THREADED STUD INSTALLATION



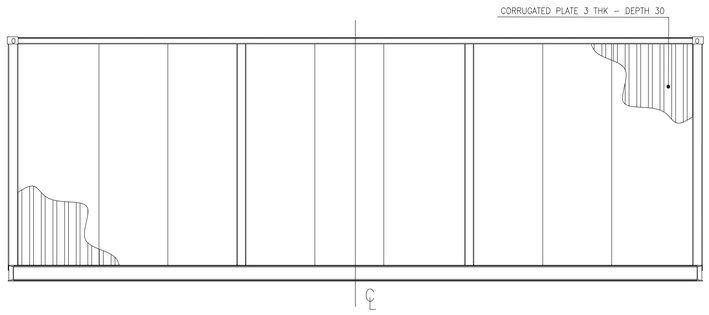
VIEW OF WEST WALL



VIEW OF NORTH WALL



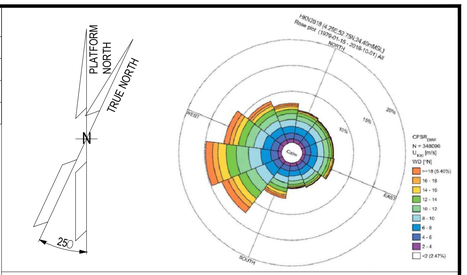
VIEW OF EAST WALL



VIEW OF SOUTH WALL

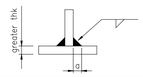
MCT LIST

SERVICE	TAG No.	MCT DIMENSIONS and INSTALLATION SENSE L (mm) HORIZONTAL	H (mm) VERTICAL	W (mm) DEPTH	MCT SIZE TYPE "S" FRAME Primed Mild Steel BRAND: ROXTEC	MCT SIZE TYPE "S" FRAME AISI 316 L BRAND: ROXTEC
ELECTRICAL	E-MCT-301	238	140.5	60	6x1	
	E-MCT-302	271	238	60	6x2	
INSTRUMENTAL	I-MCT-301	271	179.5	60	4x2	
	I-MCT-302	140.5	179.5	60	4x1	
	I-MCT-303	140.5	179.5	60	4x1	
HVAC	H-MCT-301	140.5	238	60	6x1	
	H-MCT-302	140.5	238	60	6x1	



NOTES

1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.
2. ALL WELDINGS SYMBOLS ARE IN ACCORDANCE WITH A.W.S. CODE D.1.1
3. UNLESS OTHERWISE INDICATED FILLET WELDS SHALL HAVE FOLLOWING DIM.:



a= 0,7 smaller thk

LEGEND

THREADED STUD ø16 - M10 x LG= 29mm

T.O.F. TOP OF FLOOR

MCT LEGEND:

MCT TYPE & SIZE
BRAND ROXTEC
MATERIAL
C.S.= PRIMED MILD STEEL
S.S.= AISI 316 L
S 6x2 C.S. 60
MCT DEPTH
E-MCT-301
PROGRESSIVE NUMBER
FROM 01
MCT SERVICE
E= ELECTRICAL
I= INSTRUMENTAL
H= HVAC
MODULE LOCATION
1= B-100 3= B-300
2= B-200 4= B-400

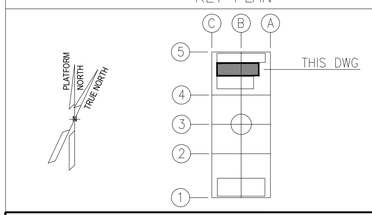
HVAC SLEEVE LEGEND:

300x300
INTERNAL SIZE OF DUCT
L x H (mm)
SL-I-301
PROGRESSIVE NUMBER
FROM 01
SERVICE
I= AIR IN
R= RECYRCLE
O= OVERPRESSURE
MODULE LOCATION
1= B-100 3= B-300
2= B-200 4= B-400

DOOR LEGEND:

ED-301
PROGRESSIVE NUMBER
FROM 01
EXTERNAL DOOR
MODULE LOCATION
1= B-100
2= B-200
3= B-300
4= B-400

KEY PLAN



ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	11/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
01	08/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
00	30/05/24	M.G.	O.A.	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND

ROSETTI MARINO

TITLE :

B-300 DETAILED DRAWINGS-E&I SHELTERS

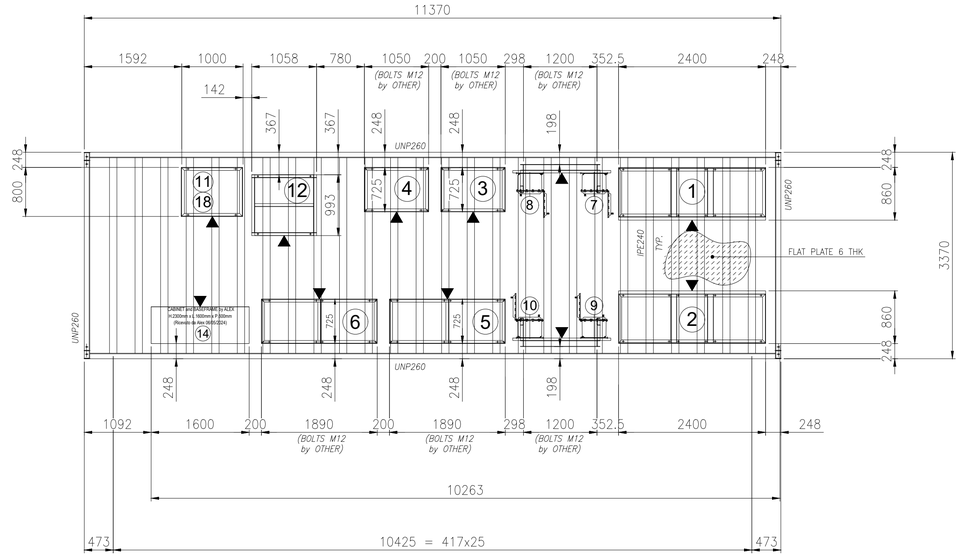
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 11/07/24
A1	DRAWING NO. 1724000049-AR-DD-00020	SHEET 002	REV. 02

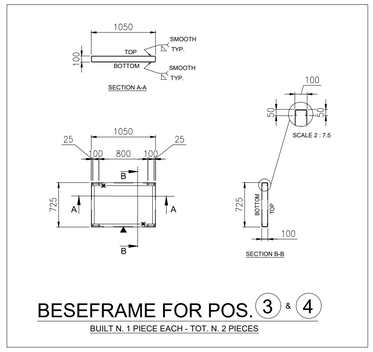
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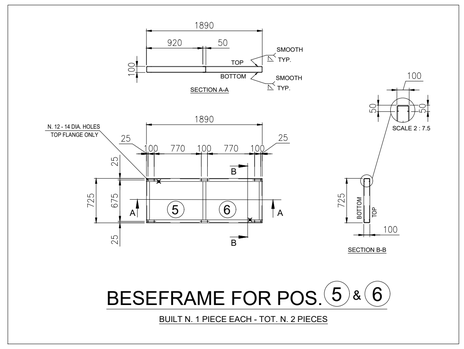
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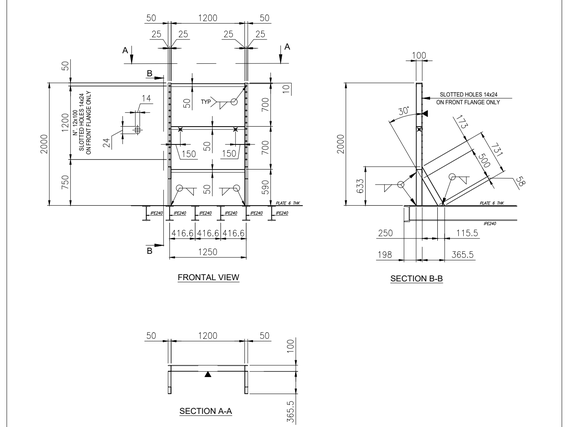
REV. 02

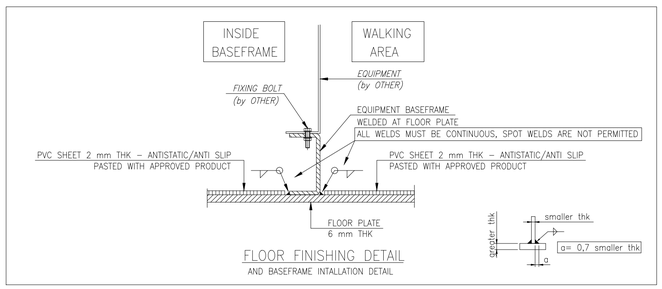
B-300
I&T EQUIPMENT ROOM
BASEFRAME LOCATION PLAN

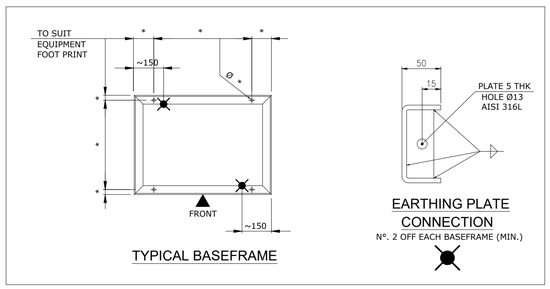


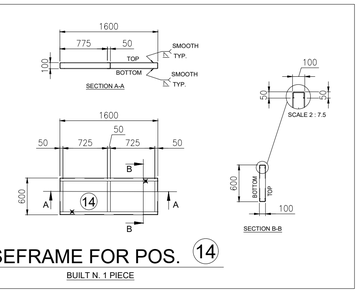


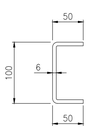








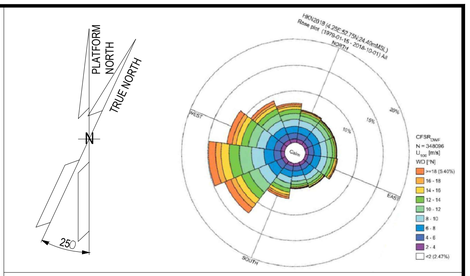




C 100x50x50 THK 6mm.
FROM BENT PLATE THK 6mm.
MAT. CARBON STEEL

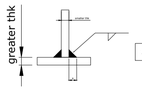
EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)	SCOPE
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258	ASI
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258	ASI
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	ASI
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	ASI
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429	ASI
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429	ASI
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	600	300	800	100	ASI
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	600	300	800	100	ASI
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	600	300	800	100	ASI
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	600	300	800	100	ASI
11	NC-200F2	NAVAID PANEL	1180	810	675	500	ASI
12	BA-200F2	BATTERY BOX NAVAID	1000	500	1135	325	ASI
14	B3000-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	1150	ASI
18	BC-200F2	BATTERY CHARGER NAVAID	607	607	2157	500	ASI



NOTES

1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.
2. ALL WELDINGS SYMBOLS ARE IN ACCORDANCE WITH A.W.S. CODE D.1.1
3. UNLESS OTHERWISE INDICATED FILLET WELDS SHALL HAVE FOLLOWING DIM.:



4. ALL WELDS ON TOP & BOTTOM SIDES OF BASEFRAMES MUST BE PERFECTLY SMOOTHED.
5. WHERE INDICATED " ▲ " SHOULD BE STAMP "FRONT", ABOVE "TOP" AND BELOW "BOTTOM".



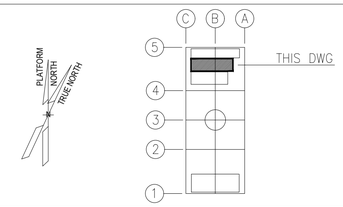
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LEGEND

ASI = ALEX SISTEMI

HOLDS

KEY PLAN



ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	11/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
01	08/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
00	30/05/24	M.G.	O.A.	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND | ROSETTI MARINO

TITLE :

B-300 DETAILED DRAWINGS-E&I SHELTERS

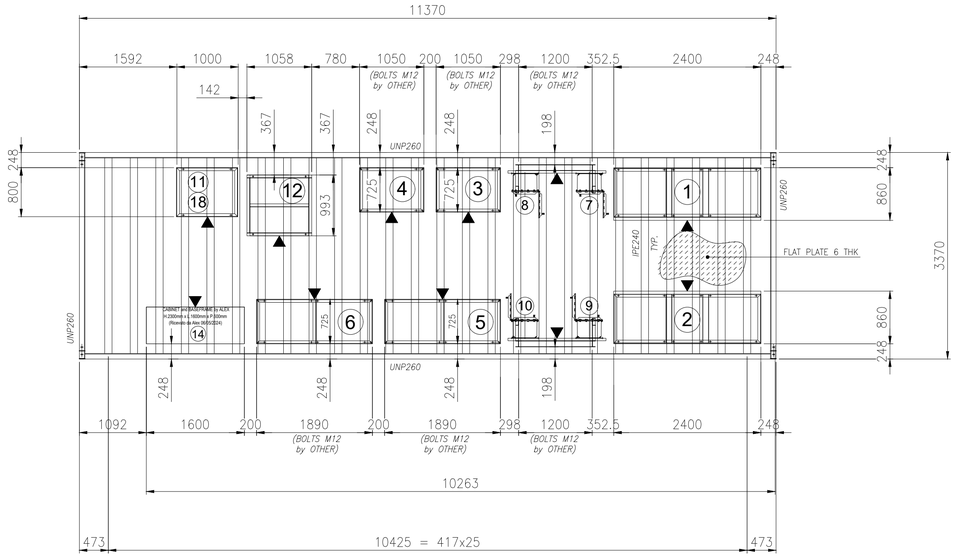
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 11/07/24
A1	DRAWING NO. 1724000049-AR-DD-00020	SHEET 003	REV. 02

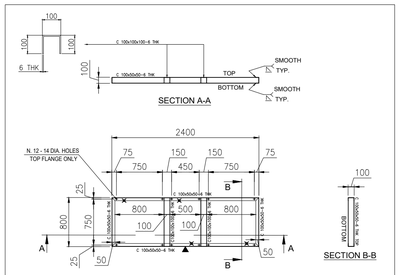
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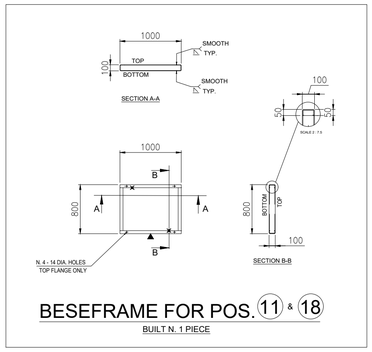
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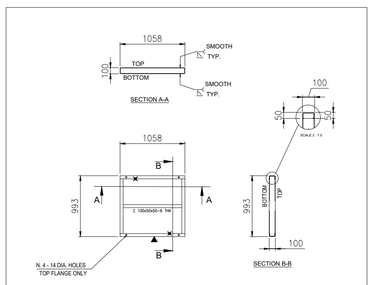
REV. 02

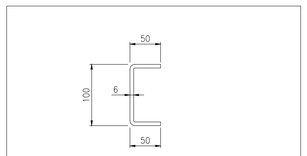
B-300
I&T EQUIPMENT ROOM
BASEFRAME LOCATION PLAN

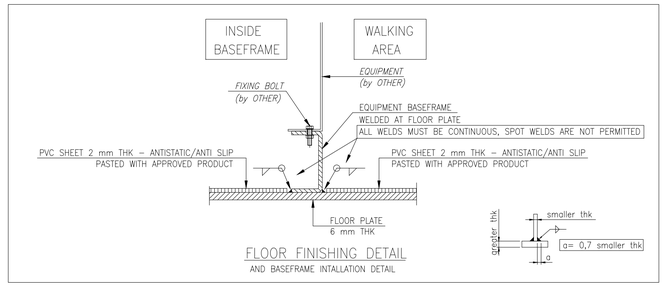


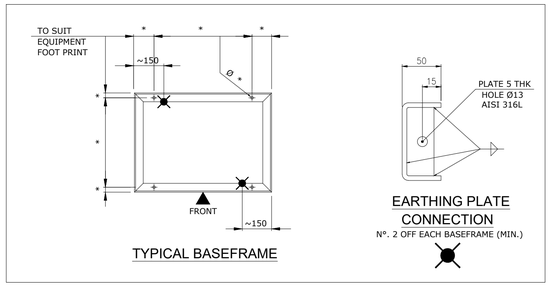






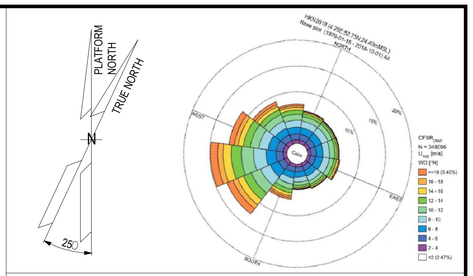






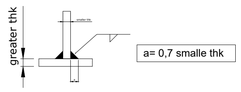
EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)	SCOPE
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258	ASI
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258	ASI
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	ASI
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	ASI
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429	ASI
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429	ASI
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	600	300	800	100	ASI
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	600	300	800	100	ASI
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	600	300	800	100	ASI
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	600	300	800	100	ASI
11	NC-200F2	NAVAID PANEL	1180	810	675	500	ASI
12	BA-200F2	BATTERY BOX NAVAID	1000	500	1135	325	ASI
14	B3000-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	1150	ASI
18	BC-200F2	BATTERY CHARGER NAVAID	607	607	2157	500	ASI

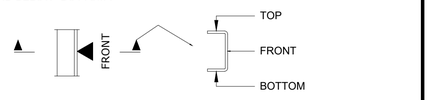


NOTES

1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.
2. ALL WELDINGS SYMBOLS ARE IN ACCORDANCE WITH A.W.S. CODE D.1.1
3. UNLESS OTHERWISE INDICATED FILLET WELDS SHALL HAVE FOLLOWING DIM.:



4. ALL WELDS ON TOP & BOTTOM SIDES OF BASEFRAMES MUST BE PERFECTLY SMOOTHED.
5. WHERE INDICATED " ▲ " SHOULD BE STAMP "FRONT", ABOVE "TOP" AND BELOW "BOTTOM".



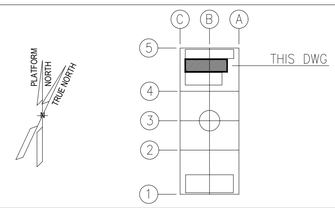
6. SURFACE TREATMENT ACCORDING DOCUMENT N. 1724000049-MAT-PRO-00004 - PAINTING PROCEDURE FINAL COLOUR LIGHT GREY RAL 7035.

LEGEND

ASI = ALEX SISTEMI

HOLDS

KEY PLAN



ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	11/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
01	08/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
00	30/05/24	M.G.	O.A.	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND

ROSETTI MARINO

TITLE :

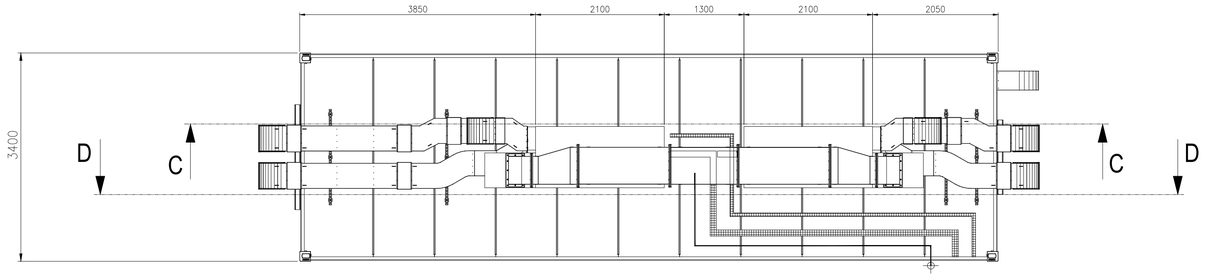
B-300 DETAILED DRAWINGS-E&I SHELTERS

CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 11/07/24
A1	DRAWING NO. 1724000049-AR-DD-00020	SHEET 004	REV. 02

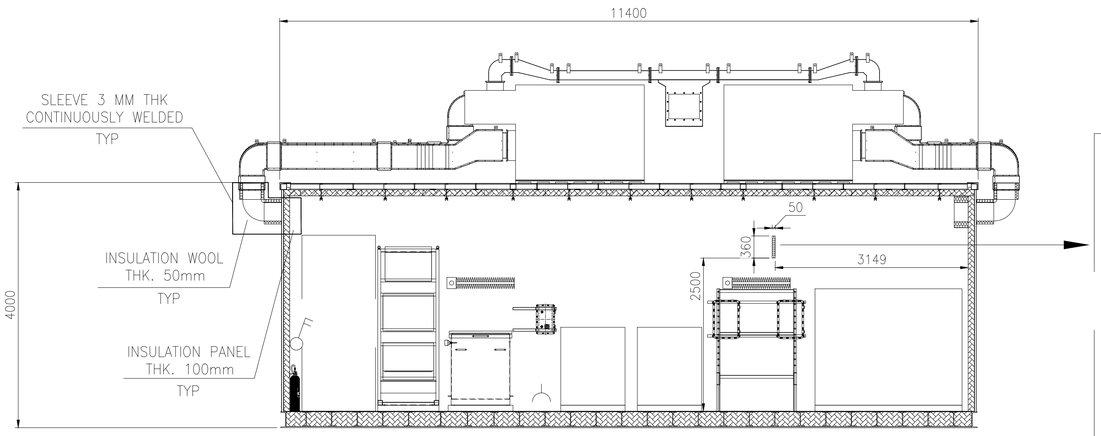
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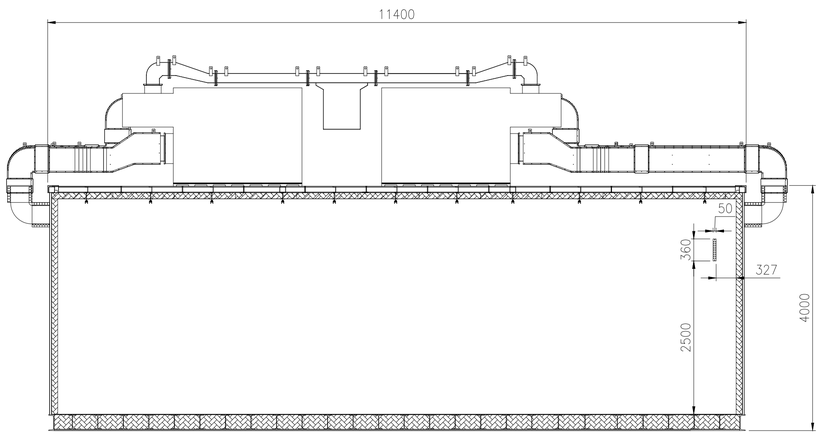
REV. 02



TOP VIEW



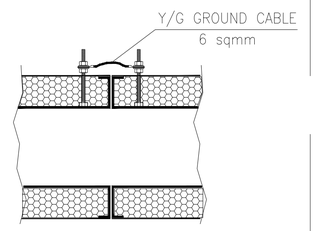
SECTION C-C



SECTION D-D

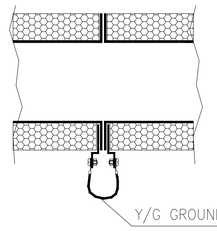
DET. 1

EXTERNAL DUCT



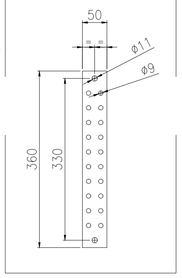
DET. 2

INTERNAL DUCT



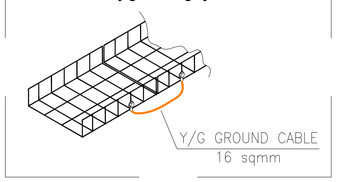
DET. 3

TYPICAL DETAIL
Ground bar



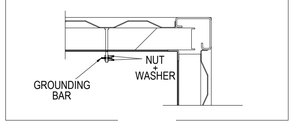
DET. 4

TYPICAL DETAIL
Cable tray grounding system



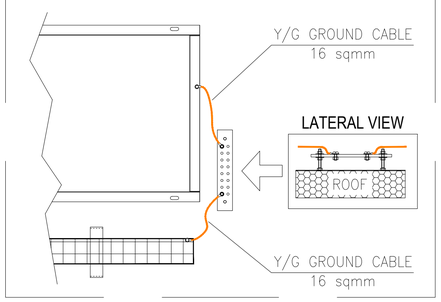
DET. 5

TYPICAL INSTALLATION BTH PE



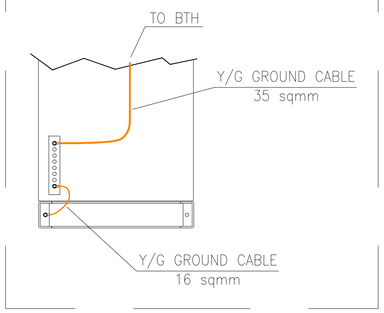
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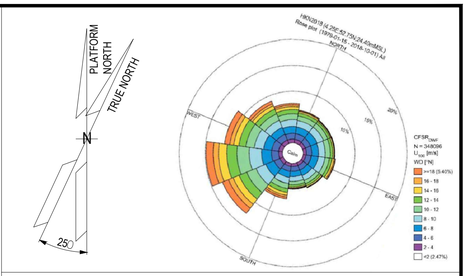
TYPICAL ROOF GROUNDING CONNECTION



DET. 7

TYPICAL CABINET GROUNDING CONNECTION





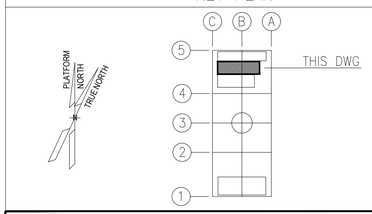
NOTES

1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.

LEGEND

HOLDS

KEY PLAN



ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	11/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
01	08/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
00	30/05/24	M.G.	O.A.	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND

ROSETTI MARINO

TITLE :

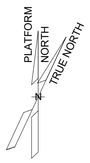
B-300 DETAILED DRAWINGS-E&I SHELTERS

CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 11/07/24
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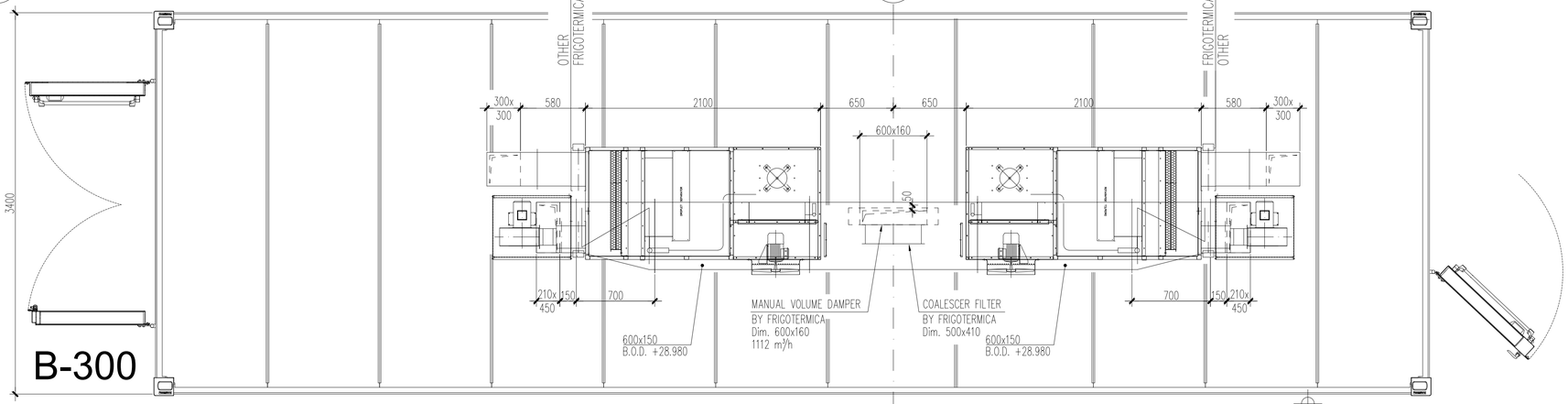
DRAWING NO. 1724000049-HV-DA-00066_0

REV. 00

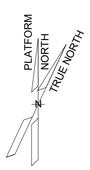


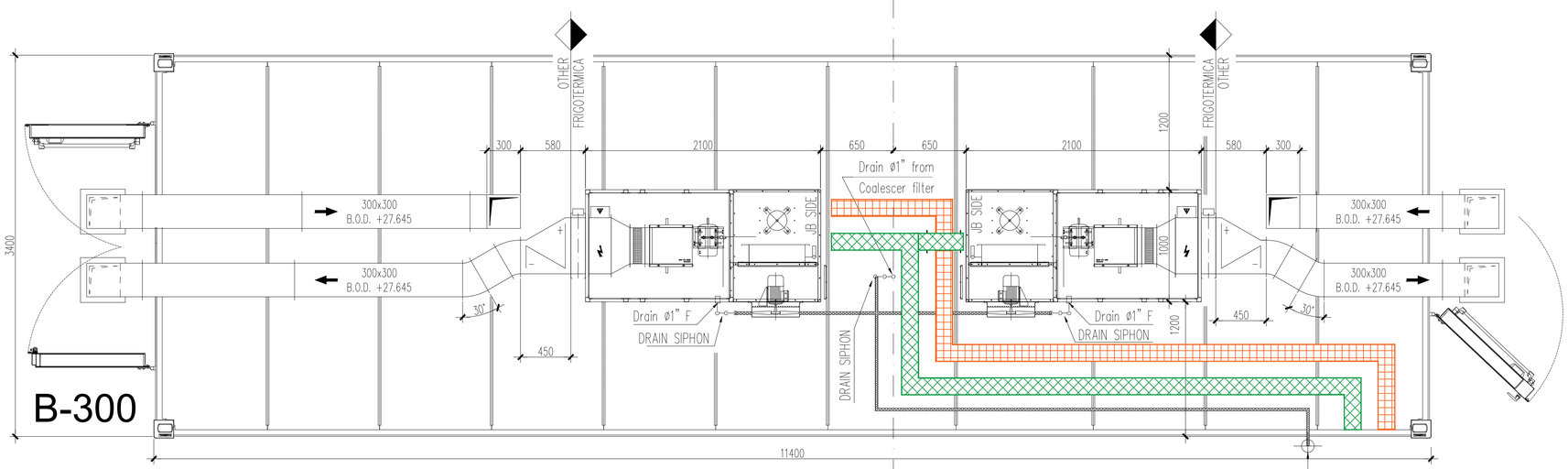
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B



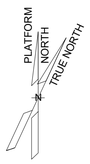
HVAC SYSTEM ROOF PLAN

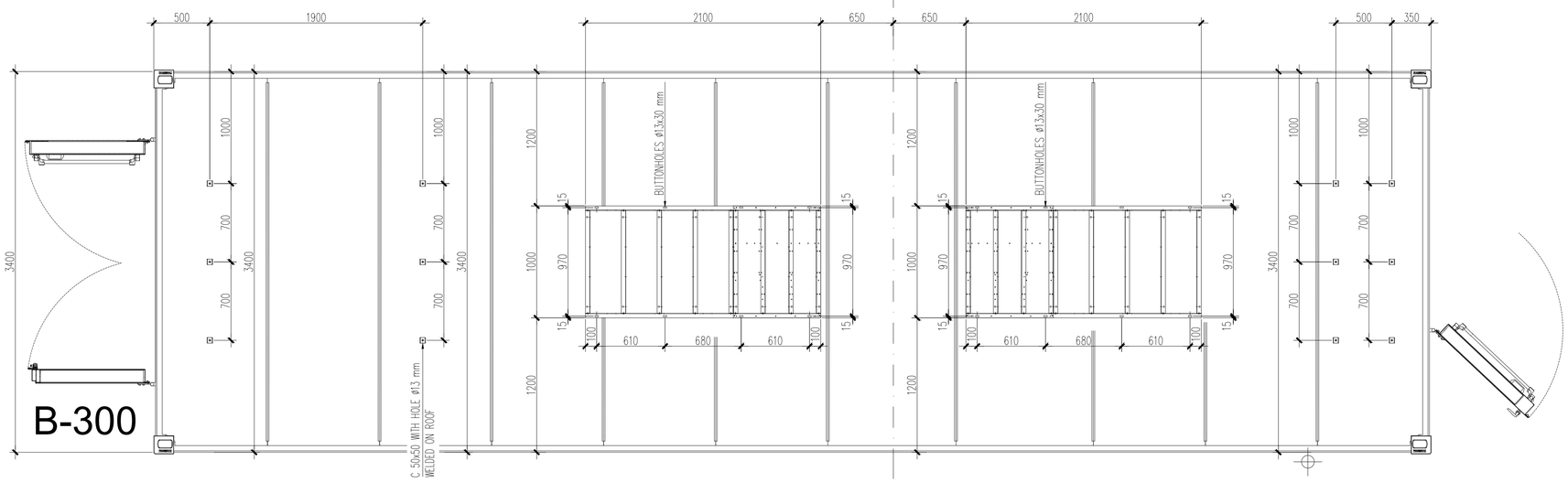




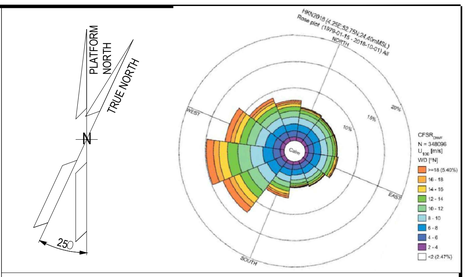
HVAC SYSTEM ROOF PLAN

SLEEVE ø4" ON LOWER DECK
SUITABLE FOR CONDENSING DRAIN PIPE
(SLEEVE SUPPLY by ROSETTI)



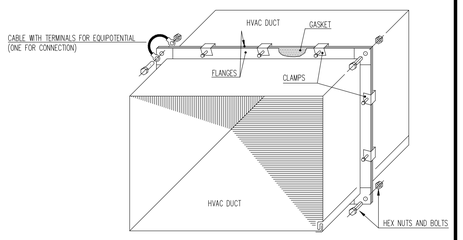


HVAC SUPPORT PLAN ON ROOF



NOTES

Outdoor ductwork in stainless steel AISI 316L
Indoor ductwork in galvanized steel Z275

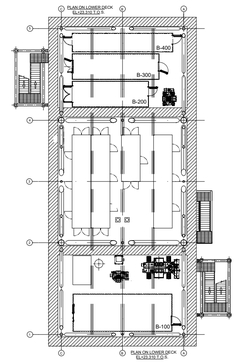


TYPICAL EQUIPOTENTIAL INSTALLING FOR FLANGE CONNECTION INDOOR AIR DUCT

Basket tray Power

Basket tray Instrument

KEY PLAN



ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
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CROSSWIND

ROSETTI MARINO

TITLE :

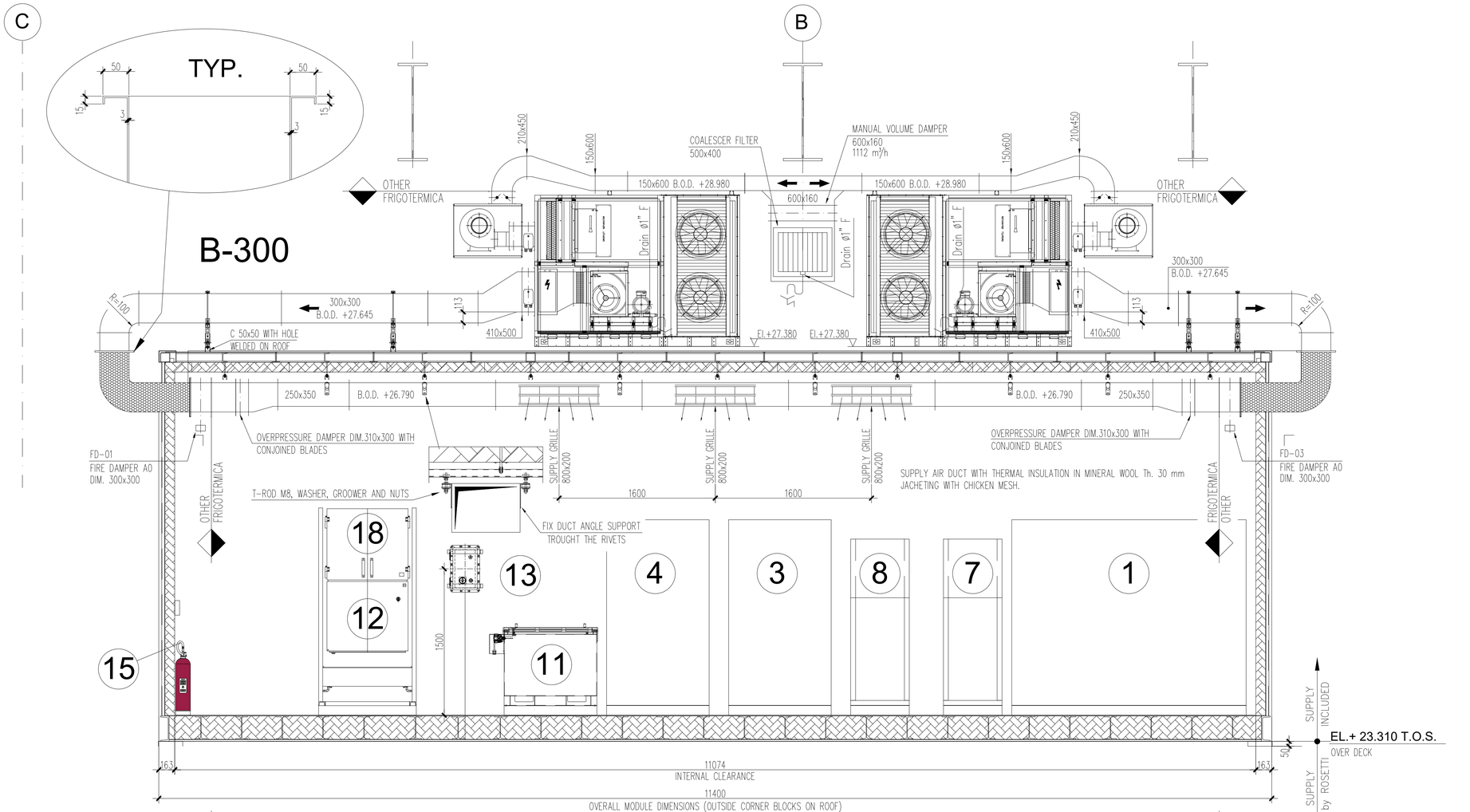
S.S.
MODULE B-300
HVAC SYSTEM - G.A. AND DETAILS

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1 : 25
DRAWN S.Z.	CHECKED S.S.	APPROVED M.G.	DATE 13/06/2024
A1	DRAWING NO. 1724000049-HV-DA-00066	SHEET 001	REV. 00

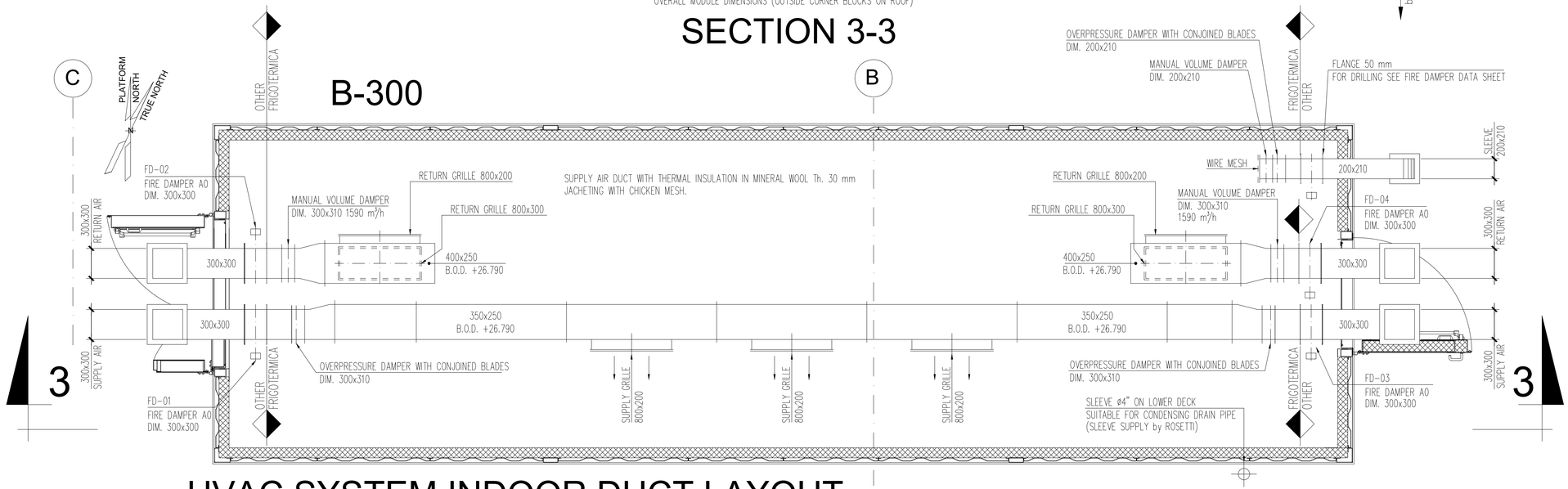
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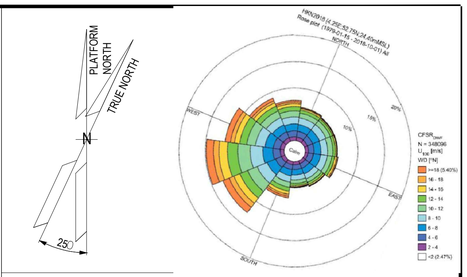
REV. 00



SECTION 3-3

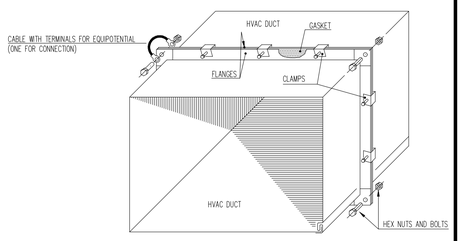


HVAC SYSTEM INDOOR DUCT LAYOUT



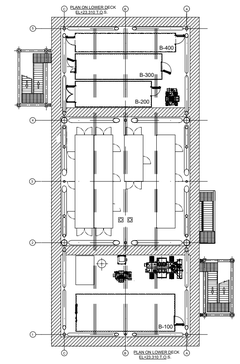
NOTES

Outdoor ductwork in stainless steel AISI 316L
Indoor ductwork in galvanized steel Z275



TYPICAL EQUIPOTENTIAL INSTALLING FOR FLANGE CONNECTION INDOOR AIR DUCT

KEY PLAN



ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	13/06/2024	S.Z.	S.S.	M.G.	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

S.S.
MODULE B-300
HVAC SYSTEM - G.A. AND DETAILS

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1 : 25
DRAWN S.Z.	CHECKED S.S.	APPROVED M.G.	DATE 13/06/2024

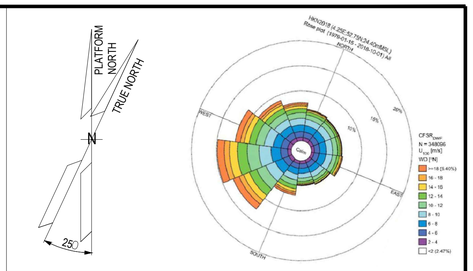
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File Name : 1724000049-HV-DA-00066_0

DRAWING NO. 123A90-1724000049-HV-PID-00041

REV. 01

BASE LOAD POWER HUB (BLPH)
B-300 HV
P&ID HVAC System



NOTES

LEGEND

HOLDS

ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
1	09/07/24	S.Z.	S.S.	M.C.	ISSUE FOR INFORMATION (IFI)
0	10/06/24	S.Z.	S.S.	M.C.	ISSUE FOR INFORMATION (IFI)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH) B-300 HV P&ID HVAC System

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1 : 1
DRAWN G.M.	CHECKED A.O.	APPROVED A.C.	DATE 09/07/24

A1	DRAWING NO. 123A90-1724000049-HV-PID-00041	SHEET 001	REV. 01

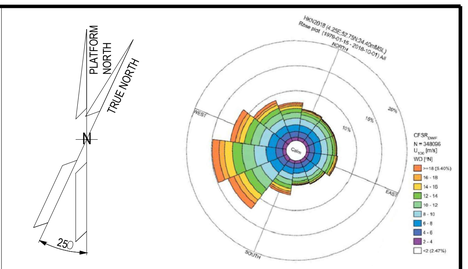
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DRAWING NO. 123A90-1724000049-HV-PID-00041

REV. 01

REV.	SHEET NUMBER	DESCRIPTION	REF. CODE
02	001	FRONT PAGE	IFR
02	002	SUMMARY and GENERAL NOTES	IFR
02	003	P&ID HVAC System	IFR

GENERAL NOTES



NOTES

LEGEND

HOLDS

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
1	09/07/24	S.Z.	S.S.	M.G.	ISSUE FOR INFORMATION (IFI)
0	10/06/24	S.Z.	S.S.	M.G.	ISSUE FOR INFORMATION (IFI)

ALEXSISTEMI spa

CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
B-300 HV-MV Switchgear Room
P&ID HVAC System

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1 : 1
DRAWN G.M.	CHECKED A.O.	APPROVED A.C.	DATE 09/07/24

A1	DRAWING NO. 123A90-1724000049-HV-PID-00041	SHEET 002	REV. 01

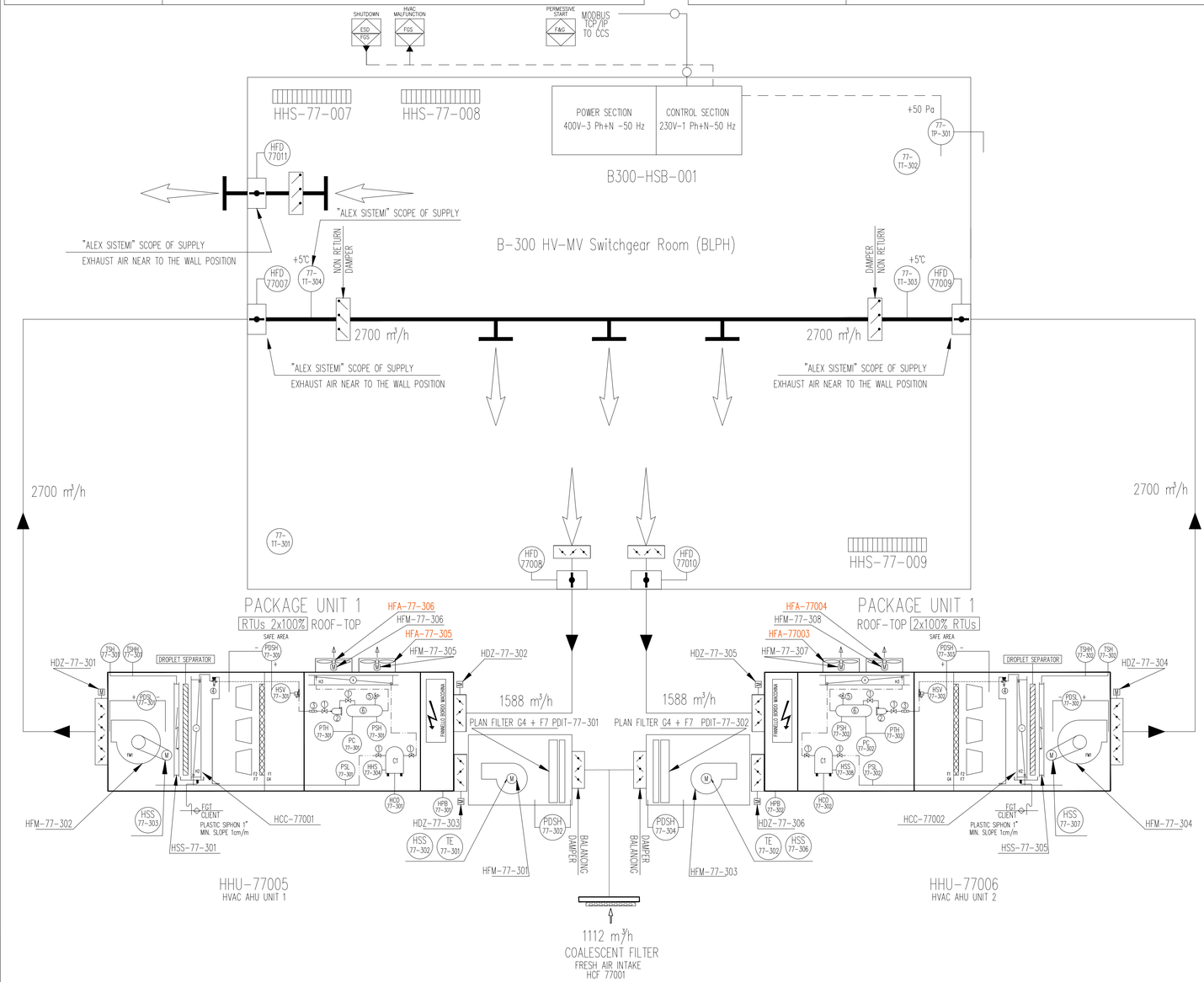
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DRAWING NO. 123A90-1724000049-HV-PID-00041

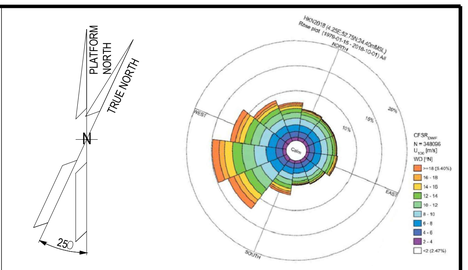
REV. 01

ITEM	HVAC-ROOF TOP
DESCRIPTION	HVAC UNIT
MAKER	FRIGOTERMICA srl
MODEL	4112-TBA
SUPPLY AIR FLOW	750 l/s
COOLING COIL CAPACITY	12 kW AT +26°C Outdoor Temperature
HEATING COIL CAPACITY	6 kW
TENSIONE	400 V - 50 Hz - 3 Ph+N
EXECUTION	SAFE AREA
REFRIGERANT	R513a

ITEM	HVAC-PRESSURISING FAN
DESCRIPTION	HVAC UNIT
MAKER	FRIGOTERMICA srl
MODEL	4112-TBA
SUPPLY AIR FLOW	281 l/s
COOLING COIL CAPACITY	N.A.
HEATING COIL CAPACITY	N.A.
TENSIONE	400 V - 50 Hz - 3 Ph+N
EXECUTION	SAFE AREA
REFRIGERANT	N.A.



LEGEND	
	MOTORISED DAMPER WITH SPRING RETURN
	REGULATION DAMPER
	OVERPRESSURE DAMPER
PDSH	DIFFERENTIAL PRESSURE SWITCH HIGH PRESSURE
PDSL	DIFFERENTIAL PRESSURE SWITCH LOW PRESSURE
TT	TEMPERATURE TRASMITTER
ESR	EMERGENCY PUSH BUTTON
OH	COMPRESSOR OIL HEATER
SV	SOLENOID VALVE
C	REFRIGERANT COMPRESSOR
F1	AIR FILTER "G4"
F2	BAG FILTER "F8"
	CONDENSING COIL
	CONDENSING FAN
	ELECTRICAL HEATER
	SUPPLY FAN
	GLOBE VALVE
	DRYER FILTER
	SIGHT GLASS
	THERMOSTATIC VALVE
	PRESSURE RELIEF VALVE
	MOTORISED FIRE DAMPER WITH SPRING RETURN
	EVAPORATING COIL
	LIQUID RECEIVER
MT	MOISTURE TRASMITTER
PTH	HIG PRESSURE TRASDUCER
TP	COMPRESSOR THERMIC PROTECTION
TSH	SECURITI THERMOSTATE
PSH	HIGH PRESSURE SWITCH
PSL	LOW PRESSURE SWITCH
PC	CONDENSING PRESSURE SWITCH



NOTES

LEGEND

HOLDS

NOTES:

- HVAC POWER CABINET will energize what above shown.
- HVAC CONTROL CABINET will control all what above shown.
- HVAC POWER CABINET will energize light and socket.
- Outside drainage system shall be provided of heatng cable with anti-freeze funcion to avoid ice inside pipes when outside temeprature reaches values close to 0°C.
- Outdoor air ductworks in stainless steel AISI 316

OUTDOOR DESIGN CONDITIONS

Safe Area
Min. design DB Temp: -8,4°C with RH 100 %
Max. design DB Temp: +25°C with RH 90 %

Module hv-mv (66 kW-6.6 kW)

Safe Area
Indoor min. design temperature: +5°C with RH 30 ÷ 70% ±5
Indor max. design temperature: +35°C with RH 30 ÷ 70% ±5
Min. ACH: 6

ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
1	09/07/24	S.Z.	S.S.	M.G.	ISSUE FOR INFORMATION (IFI)
0	10/06/24	S.Z.	S.S.	M.G.	ISSUE FOR INFORMATION (IFI)

CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
B-300 HV-MV Switchgear Room
P&ID HVAC System

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1 : 1
DRAWN G.M.	CHECKED A.O.	APPROVED A.C.	DATE 09/07/24
A1	DRAWING NO. 123A90-1724000049-HV-PID-00041	SHEET 003	REV. 01

File Name : 123A90-1724000049-HV-PID-00041-REV.01

Section 8 MECHANICAL COMPLETION STATUS INDEX - TELECOMMUNICATION DISCIPLINE

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 77-30 & process: MC & discipline : T

Telecom	77-30 HVAC UPS Equipment Room B-300						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
B300-HSB-001/B400-NET-001	COMMUNICATION / NETWORK CABINET	ONSHORE	C10004355	CIX09	100	2024-11-22	RFC 2

ROSETTI MARINO

CROSSWIND

ITEM	Tag	B300-HSB-001/B400-NET-001 : COMMUNICATION / NETWORK CABINET			Dwg	123A90-DDL-IN-LIS-40091	
	S/Sys	77-30 : HVAC UPS Equipment Room B-300			Module	LD_B-300/LD_B-400	
TASK	code	C10004355	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity	CCK	Discipline	Telecom	Form	CIX09	Telecom Cable RJ45

CABLE DATA

Type	FTP-LSZH-IS-OS-SWB-LSZH	Cores/Size mm²	4X2X23AWG mm2	Color	GREY
From	B300-HSB-001	To	B400-NET-001		

1	Confirm cable is as specified in project cable schedule	OK
2	Check cable physical integrity.	OK
3	Check is installed in accordance with layout drawing (segregation, distance…).	OK
4	Check cable is supported and fixed to rack according to project specification.	Note
5	Check bending radius is within the specified limits.	OK
6	Confirm cable glands suit for cable type, correctly mounted and tightened.	OK
7	Confirm cable labelling is in accordance with specifications.	PL
8	Check cable is correctly loomed and segregated in accordance with specification.	OK
9	Check proper fitting of heat shrink sleeves and cable glands (if applicable).	OK
10	Check cores marking are in accordance with termination diagram.	OK
11	Check terminations are in accordance with latest termination diagram.	OK
12	To roll up that measured lenght complies with pulled lenght.	OK
13	To roll up the cable complies with Cat. 5E performance requirements (250 Mhz).	OK
14	Attach LAN tester print out to this test sheet.	OK
15	if required produce Red Line Mark Up for "AS BUILT"	

Comments: Nota 4: refer to PL C3000680

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM(ROSETTI MARINO)	
Name	Carmelo Bongiovanni	Giovanni Tangianu	
Date	2024-11-12	2024-11-22	
Signature	PROVERLIS Digitaly signed by Carmelo Bongiovanni 2024-11-12T17:50:31.244Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2024-11-22T16:18:50.746Z	

ROSETTI MARINO

Cable ID: B300-HSB-001/B400-NET-001

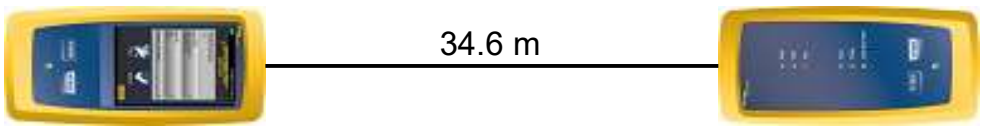
Test Limit: ISO11801 PL2 Class Ea
Limits Version: V7.6
Date / Time: 21-11-2024 16:09:24
Headroom 5.1 dB (NEXT 3,6-4,5)
Cable Type: Cat 6A S/FTP
NVP: 77.0%

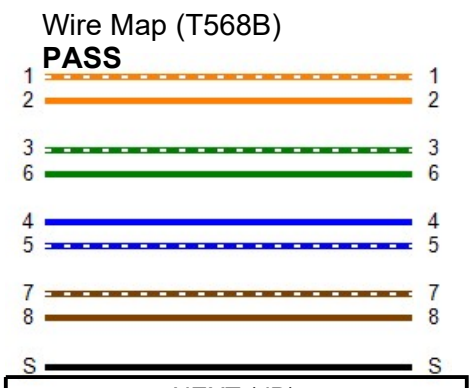
Main: Versiv
S/N: 2226344
Software Version: V6.7 Build 1
Calibration Date: 12-12-2022
Adapter: DSX-8000 (DSX-PLA804)
S/N: 22340270

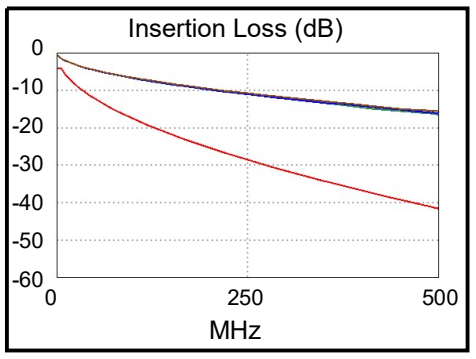
Test Summary: PASS

Remote: Versiv
S/N: 2226336
Software Version: V6.7 Build 1
Calibration Date: 12-12-2022
Adapter: DSX-8000R (DSX-PLA804)
S/N: 22340257

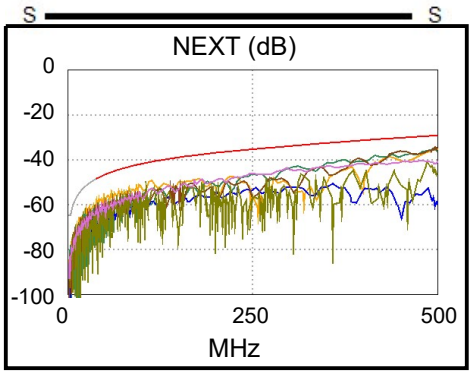
Length (m), Limit 90.0	[Pair 4,5]	34.6
Prop. Delay (ns), Limit 496	[Pair 1,2]	153
Delay Skew (ns), Limit 43	[Pair 1,2]	3
Resistance (ohms), Limit 20.60	[Pair 3,6]	4.96
Insertion Loss Margin (dB)	[Pair 3,6]	25.1
Frequency (MHz)	[Pair 3,6]	500.0
Limit (dB)	[Pair 3,6]	41.6

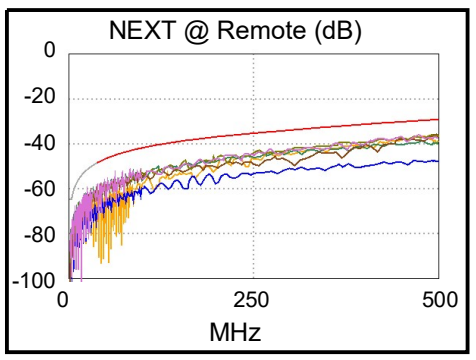




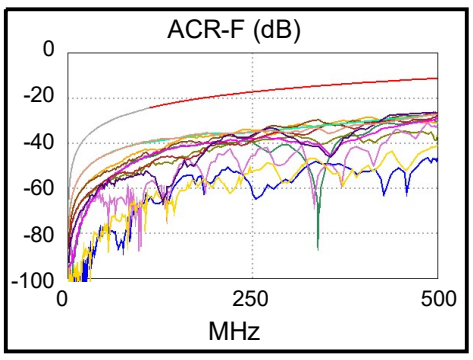


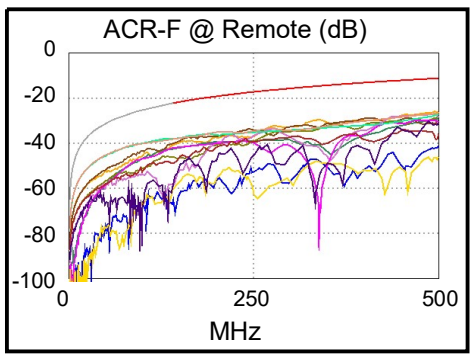
Worst Case Margin			Worst Case Value	
PASS	MAIN	SR	MAIN	SR
Worst Pair	3,6-4,5	4,5-7,8	3,6-4,5	4,5-7,8
NEXT (dB)	5.1	5.7	5.1	5.7
Freq. (MHz)	496.0	477.0	496.0	477.0
Limit (dB)	29.3	29.7	29.3	29.7
Worst Pair	4,5	4,5	4,5	3,6
PS NEXT (dB)	5.0	5.5	5.0	5.8
Freq. (MHz)	496.0	476.0	496.0	500.0
Limit (dB)	26.5	26.9	26.5	26.4



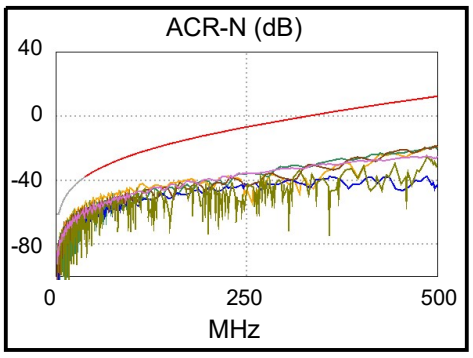


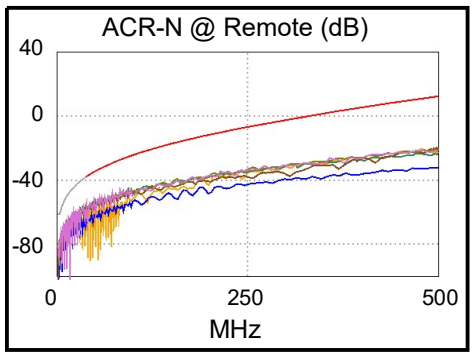
PASS	MAIN	SR	MAIN	SR
Worst Pair	4,5-7,8	7,8-4,5	3,6-1,2	1,2-3,6
ACR-F (dB)	13.0	13.0	15.1	14.7
Freq. (MHz)	3.3	3.5	497.0	495.0
Limit (dB)	55.0	54.4	11.3	11.3
Worst Pair	3,6	4,5	3,6	4,5
PS ACR-F (dB)	14.7	14.9	15.2	14.9
Freq. (MHz)	459.0	500.0	499.0	500.0
Limit (dB)	9.0	8.3	8.3	8.3



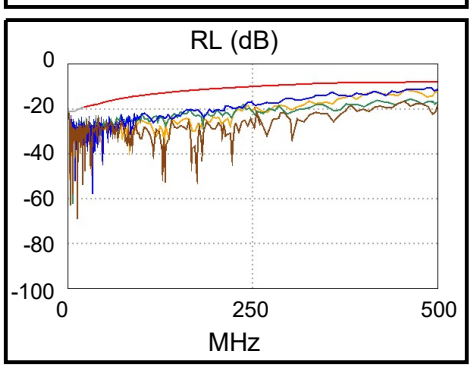


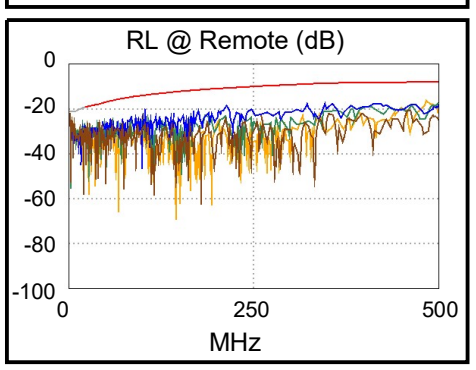
PASS	MAIN	SR	MAIN	SR
Worst Pair	1,2-3,6	4,5-7,8	3,6-4,5	3,6-4,5
ACR-N (dB)	15.9	17.4	30.5	32.1
Freq. (MHz)	38.5	41.8	496.0	500.0
Limit (dB)	37.8	36.7	-12.1	-12.4
Worst Pair	3,6	7,8	3,6	3,6
PS ACR-N (dB)	17.6	17.4	30.5	31.0
Freq. (MHz)	48.8	42.0	499.0	500.0
Limit (dB)	32.3	34.2	-15.2	-15.3





PASS	MAIN	SR	MAIN	SR
Worst Pair	4,5	3,6	4,5	1,2
RL (dB)	2.2	7.2	2.2	8.0
Freq. (MHz)	490.0	21.8	490.0	484.0
Limit (dB)	8.0	19.3	8.0	8.0



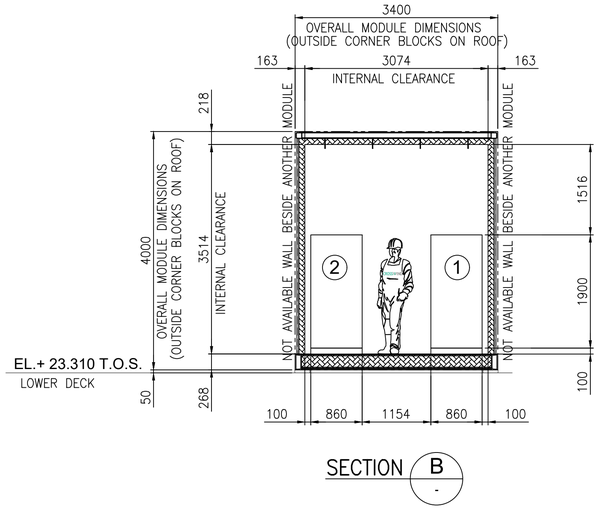


Compliant Network Standards:

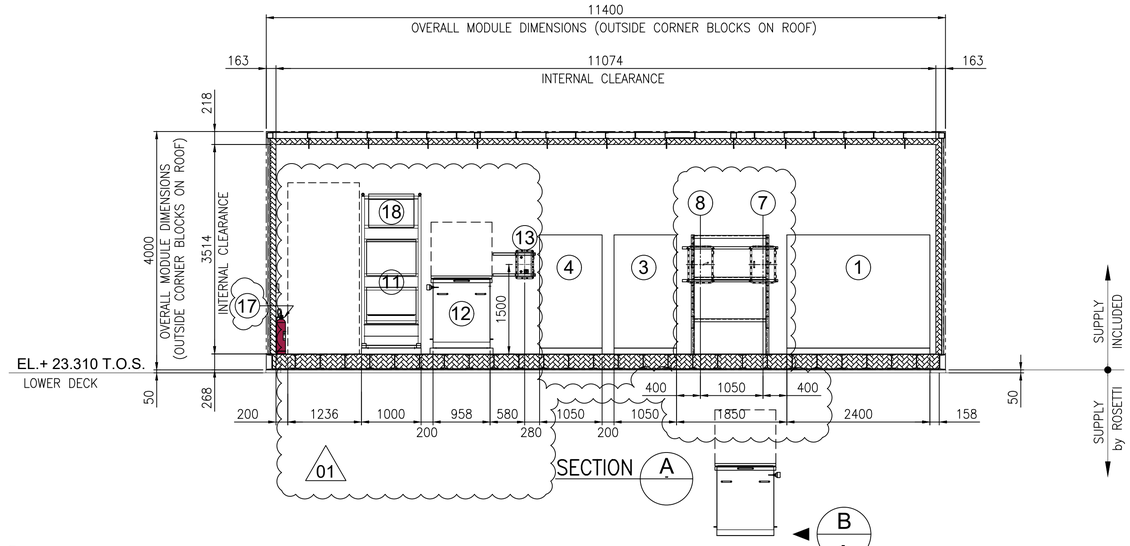
10BASE-T	100BASE-TX	100BASE-T4
1000BASE-T	2.5GBASE-T	5GBASE-T
10GBASE-T	ATM-25	ATM-51
ATM-155	100VG-AnyLan	TR-4
TR-16 Active	TR-16 Passive	

LinkWare™ PC Version 11.4

FLUKE networks

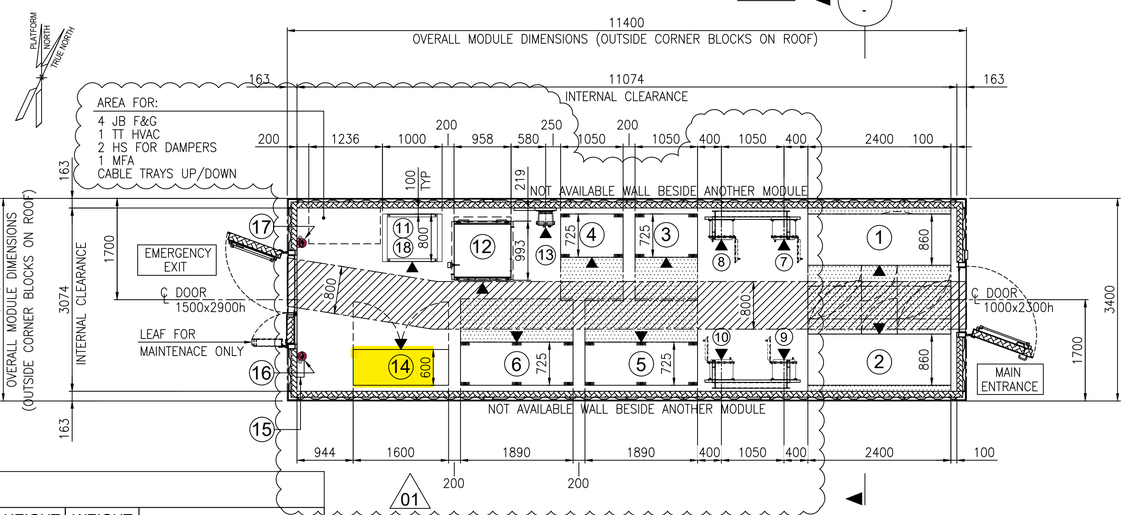


SECTION B



01

SECTION A



A

01

EQUIPMENT LAYOUT
"B-300" UPSs & BATTERIES SWITCHROOM
BOTTOM PLAN

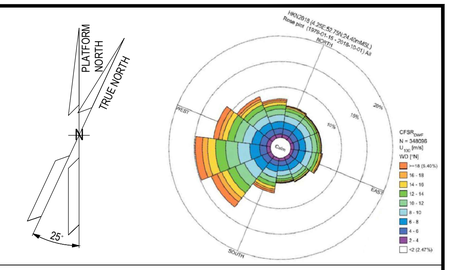
EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)	NOTES
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258	
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258	
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429	
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA 01	1890	725	1761	3429	
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	450	341	632	100	
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	450	341	632	100	
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	450	341	632	100	
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	450	341	632	100	
11	NC-200F2	NAVAID PANEL 01	1000	800	2600	535	
12	BA-200F2	BATTERY BOX NAVAID	958	993	1210	1552	
13	CB-200F2	ISOLATOR BOX NAVAID	500	400	765	70	
14	B3000-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	1150	
15	-	EYE WASH STATION	228	80	290	5	
16	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20	
17	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20	
18	BC-200F2	BATTERY CHARGER NAVAID 01	-	-	-	-	INCLUDED IN THE RACK OF NC-200F2

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-EL-DL-20106

REV.:	DATE:	SIGNATURE:
1_A	08/08/24	G.Randi

ROSETTI MARINO SpA



NOTES

01

1. U.N.O. ALL DIMENSIONS ARE IN MILLIMETERS.
2. EQUIPMENT DIMENSION ARE DEFINED ACCORDING TO THE LATEST DRAWING AND INFORMATION FROM THE VENDOR
3. DOCUMENT VALID ONLY FOR ELECTRICAL COMPONENT, FOR OTHER SCOPE LOCATION AND INFORMATION, PLEASE REFER TO VENDORS AND PROJECT DOCUMENTS.
   - "B-300" – GENERAL ARRANGEMENT DRAWING DOC. N. 1724000049-AR-DA-00016
   - "B-300" – DETAILED DRAWINGS DOC. N. 1724000049-AR-DD-00020

LEGEND

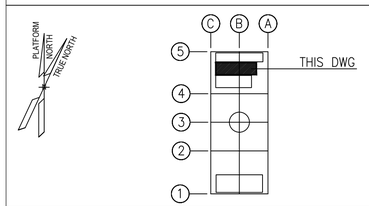
U.N.O. _____ UNLESS NOTED OTHERWISE
T.O.S. _____ TOP OF STEEL
_____ ESCAPE CORRIDOR – WIDTH 800mm.
_____ MAINTENANCE AREA – VENDOR REQUIREMENT
_____ SWITCHGEAR ROOM ENCLOUSURE
_____ FRONT OF EQUIPMENT

HOLDS

REFERENCE

DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DA-00016
"B-300" DETAILED DRAWINGS	1724000049-AR-DD-00020
"B-300" ARCHITECTURAL GENERAL LAYOUT PLAN, WIEW, SECTIONS & TYP. DETAILS	123A90-DDL-AR-DL-10022
PLOT PLAN – LOWER & UPPER DECK	123A90-DDL-PP-DL-70070

KEY PLAN



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	23/07/24	SAM	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	28/03/24	SAM	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

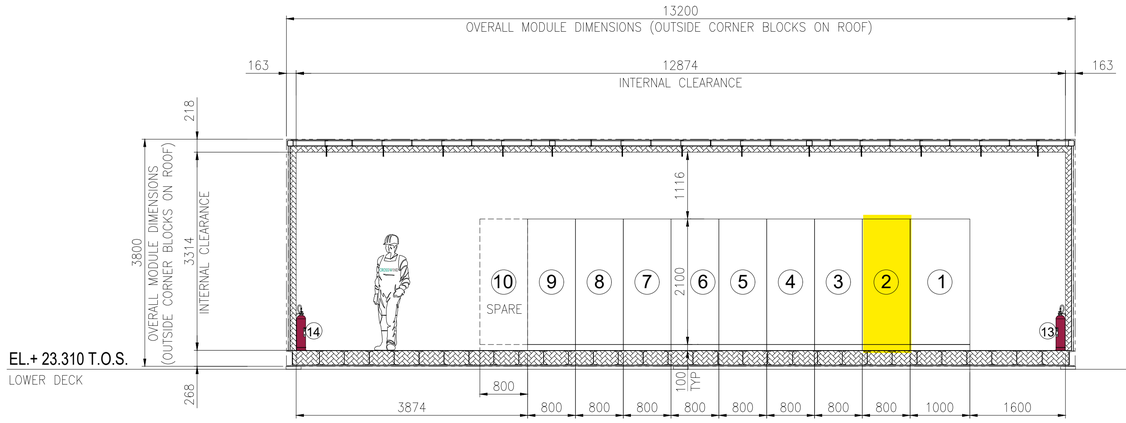
CROSSWIND
ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
ELECTRICAL EQUIPMENT LAYOUT
UPSs & BATTERIES SWITCHROOM

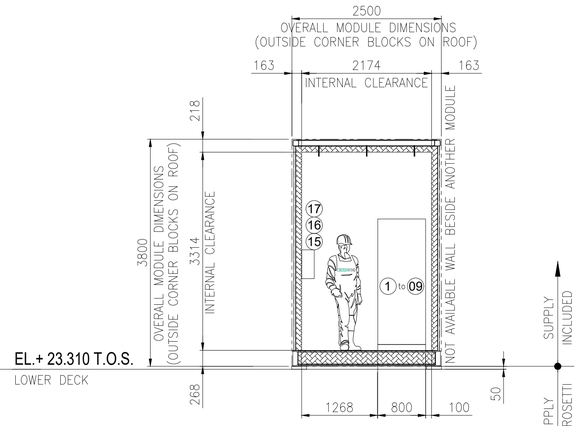
CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:50
DRAWN SAM	CHECKED FMA/AMA	APPROVED FPA/DLO	DATE 23/07/24
A1	DRAWING NO. 123A90-DDL-EL-DL-20106	SHEET 001	REV. 01

File Name : 123A90-DDL-EL-DL-20106 Rev.00.dwg

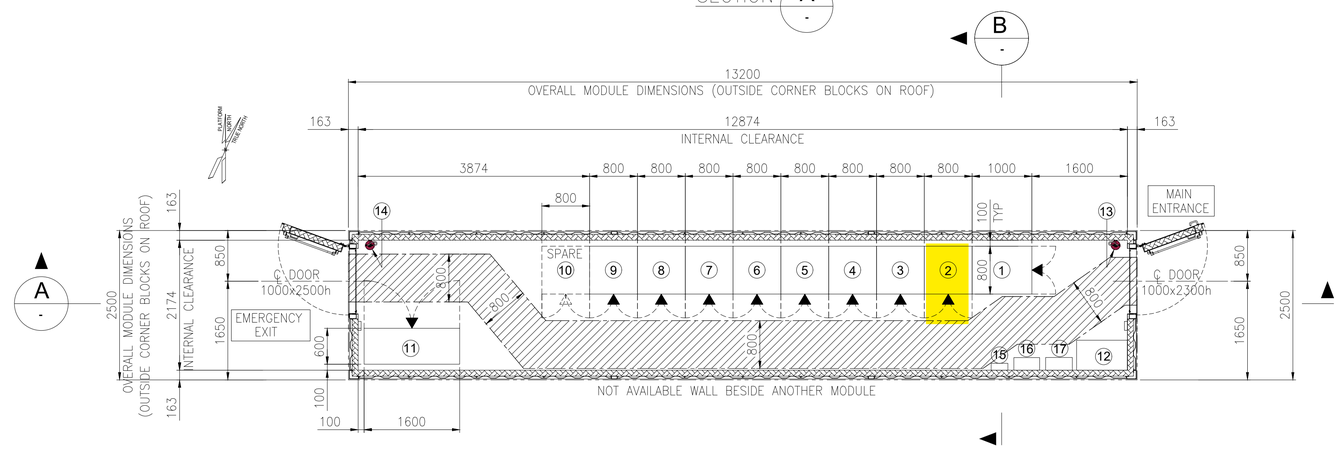
DRAWING NO. 123A90-DDL-IN-DL-40012 REV. 03



SECTION A -



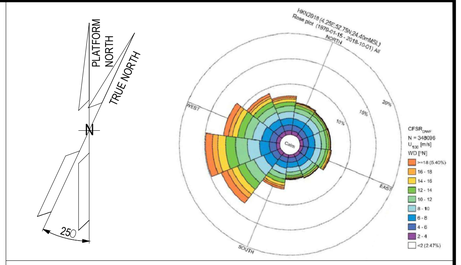
SECTION B -



EQUIPMENT LAYOUT
"B-400" I&T EQUIPMENT ROOM
BOTTOM PLAN

EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	NOTE
1	B400-SRV-001	SERVER CABINET	1000	800	2100	
2	B400-NET-001	NETWORK CABINET	800	800	2100	
3	B400-EMCS-001	EMCS SYSTEM CABINET	800	800	2100	
4	B400-PCS-002	PCS MARSHALLING CABINET	800	800	2100	
5	B400-PCS-001	PCS SYSTEM CABINET 03	800	800	2100	
6	B400-FGS-003	FGS MARSHALLING CABINET 2	800	800	2100	
7	B400-FGS-002	FGS MARSHALLING CABINET 1	800	800	2100	
8	B400-FGS-001	FGS SYSTEM CABINET	800	800	2100	
9	B400-SIS-001	SIS SYSTEM/MARSHALLING CABINET	800	800	2100	
10	-	SPARE				
11	B400-HSB-001	DISTRIBUTION & HVAC PANEL - I&T ROOM	1600	600	2300	
12	-	TABLE	850	500	750	
13	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	
14	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	
15	-	FIRST AID KIT	280	115	200	
16	-	RESUSCITATION UNIT	430	210	480	
17	-	CABINET INCLUDED N.10 ESCAPE MASK	448	213	422	



NOTES

1. U.N.O. ALL DIMENSIONS ARE IN MILLIMETERS.
2. DOCUMENT VALID ONLY FOR INSTRUMENT COMPONENT, FOR OTHER SCOPE LOCATION AND INFORMATION, PLEASE REFER TO VENDORS AND PROJECT DOCUMENTS.

LEGEND

U.N.O. _____ UNLESS NOTED OTHERWISE
T.O.S. _____ TOP OF STEEL
_____ ESCAPE CORRIDOR – WIDTH 800mm.
_____ EQUIPMENT ROOM ENCLOUSURE
_____ FRONT OF EQUIPMENT

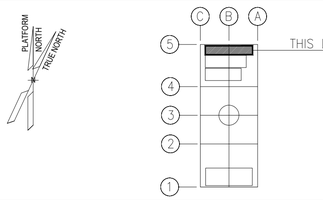
HOLDS

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REFERENCE

DOCUMENT TITLE	DOCUMENT NUMBER
Control System Architecture Detailed Drawings	123A90-DDL-IN-DD-40096
Data Network Architecture Drawings	123A90-DDL-IN-DD-40019
Earthing layouts drawings (CCR, ITER)	123A90-DDL-IN-DL-40013
Instrument and Telecom MCT Layout – Lower Deck	123A90-DDL-IN-DL-40086
"B-400" I&T Equipment Room – Architectural Layout	123A90-DDL-AR-DL-10015
"B-400" ARCHITECTURAL GENERAL LAYOUT PLAN, WIEW, SECTIONS & TYP. DETAILS	123A90-DDL-AR-DL-10015
"B-400" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DA-00017
"B-400" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DD-00021
"B-400" HVAC SYSTEM G.A. and DETAILS	1724000049-HV-DA-00067

KEY PLAN



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
02	27/05/24	MGA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	22/01/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)
00	07/11/23	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH) OFF-SHORE ITER EQUIPMENT LAYOUT

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE 1:33,3

DRAWN MGA | CHECKED LCA | APPROVED DLO | DATE 27/05/24

A1 | DRAWING NO. 123A90-DDL-IN-DL-40012 | SHEET 001 | REV. 03

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DL-40012**

REV.:	DATE:	SIGNATURE:
3_A	07/10/24	G.Randi

ROSETTI MARINO SpA

File Name : 123A90-DDL-IN-DL-40012 Rev.03.dwg

DRAWING NO. 123A90-DDL-IN-DG-40015

REV. 01

AC UPS (B-300)

I&T EQUIPMENT ROOM (ITER B400)

NETWORK CABINET - B400-NET-001

HVAC CABINET B300-HSB-001 Ref. Vendor Doc.: 1724000049-HV-DA-00028	ITEM: SCALANCE XC208 PORT: P3 LAN	RJ45	B300-HSB-001/B400-NET-001 CAT.6A4x2xAWG23,Sh+ShT+ARM,F.Ret,GREEN,NIS	RJ45	SWITCH: COOP-01 PORT: P13
AC UP 35kVA UP -200F3 Ref. Vendor Doc.: 1724000372-EL-DG-00009	ITEM: MULTICANCOM2 UPS1 -A9 / -A29.1 PORT: -X5	RJ45	UP-200F3/B400-NET-001.01 CAT.6A4x2xAWG23,Sh+ShT+ARM,F.Ret,GREEN,NIS	RJ45	SWITCH: COOP-01 PORT: P05
AC UP 35kVA UP -200F3 Ref. Vendor Doc.: 1724000372-EL-DG-00009	ITEM: MULTICANCOM2 UPS2 -A9 / -A29.1 PORT: -X5	RJ45	UP-200F3/B400-NET-001.02 CAT.6A4x2xAWG23,Sh+ShT+ARM,F.Ret,GREEN,NIS	RJ45	SWITCH: COOP-01 PORT: ~~P06~~ P23
AC UP 15kVA UP -200F4 Ref. Vendor Doc.: 1724000372-EL-DG-00009	ITEM: MULTICANCOM2 UPS2 -A9 / -A29.1 PORT: -X5	RJ45	UP-200F4/B400-NET-001.01 CAT.6A4x2xAWG23,Sh+ShT+ARM,F.Ret,GREEN,NIS	RJ45	SWITCH: COOP-01 PORT: ~~P07~~ P24
AC UP 15kVA UP -200F4 Ref. Vendor Doc.: 1724000372-EL-DG-00009	ITEM: MULTICANCOM2 UPS2 -A9 / -A29.1 PORT: -X5	RJ45	UP-200F4/B400-NET-001.02 CAT.6A4x2xAWG23,Sh+ShT+ARM,F.Ret,GREEN,NIS	RJ45	SWITCH: COOP-01 PORT: P08

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40015**

REV.:	DATE:	SIGNATURE:
1_E	19/11/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
INSTRUMENT – PCS WIRING DIAGRAMS
COMMUNICATION – CAT-6

CONTRACT NO./TITLE			SCALE 1:1
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

A3	DRAWING NO. 123A90-DDL-IN-DG-40015	SHEET 035	REV. 01

File Name : 123A90-DDL-IN-DG-40015_Rev.01

DRAWING NO. 123A90-DDL-IN-DG-40015

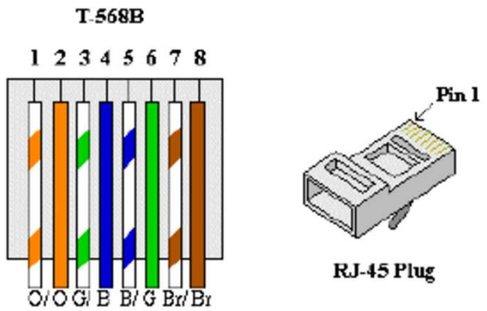
REV. 01

NOTES:

1. ALL SPARE ENTRIES SHALL BE PROVIDED WITH CERTIFIED EX PROOF PLUGS.
2. CABLE SCREENS / DRAIN WIRE SHALL BE SECURELY INSULATED AND TIED BACK IN THE INSTRUMENT SIDE AND SHAL BE TERMINATED IN THE MARSHALLING SIDE OF THE PANEL.
3. SPARE PAIRS / TRIADS SHALL BE CONNECTED TO TERMINALS IN JUNCTION BOX AND PANEL / MARSHALLING CABINETS.
4. ALL CABLE SCREENS TO BE TERMINATED AT THE INSTRUMENT EARTH BAR IN THE RESPECTIVE EARTH BARS (IS OR NIS) AS APPLICABLE IN THE MARSHALLING CABINET.
5. SWITCH TAG NAME AND PORT WILL BE DEFINED DURING THE CONSTRUCTION PHASE
6. FIBER OPTIC TAG NAME WILL BE DEFINED DURING THE CONSTRUCTION PHASE.

<01>

7. CAT. 6A CABLE SHALL BE TERMINATED MEETING REQUIREMENTS OF STANDARD EIA/TIA 568B:



RJ-45 Plug

8. FOR OPTICAL FIBERS, USE THE FOLLOWING COLOR CODING:
   01) RED
   02) GREEN
   03) BLUE
   04) YELLOW
   05) GREY
   06) PURPLE
   07) BROWN
   08) ORANGE
   09) WHITE
   10) PINK
   11) BLACK
   12) TURQUOISE

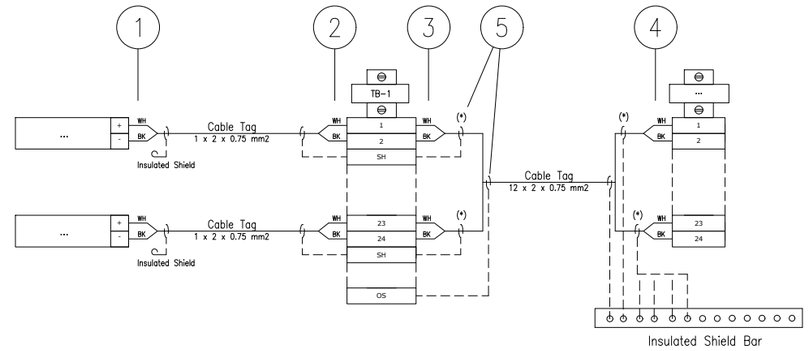
LEGENDS & SYMBOLS:

LEGEND:

I.E.	- GREEN ——— INSTRUMENT SIGNAL EARTH
P.E.	- GREEN / YELLOW —— P.E. EARTH / BONDING
	- TERMINAL BLOCK (TB)
WH	- WHITE
BK	- BLACK
RD	- RED
S	- SHIELD TERMINAL
OS	- OVERALL SHIELD TERMINAL
O/A Shld	- OVERALL SHIELD
I&O/A Shld	- INDIVIDUAL & OVERALL SHIELD
NIS	- NON INTRINSICALLY SAFE
IS	- INTRINSICALLY SAFE
P.E.	- PLANT EARTH
PCS	- PROCESS CONTROL SYSTEM
ESD	- EMERGENCY SHUTDOWN SYSTEM
SIS	- SAFETY INSTRUMENT SYSTEM
MC	- MARSHALLING CABINET
AI	- ANALOGUE INPUT
AO	- ANALOGUE OUTPUT
DI	- DIGITAL INPUT
DO	- DIGITAL OUTPUT

TYPICAL WIRE CROSS-FERRULING:

PHILOSOPHY OF CROSS-FERRULING: <01>



(*) Single shield is foreseen only for AI/AO signals.

1 - INSTRUMENT TERMINAL NO. OR POLARITY/JB NO./JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

2 - INSTRUMENT TERMINAL NO. OR POLARITY/INSTRUMENT TAG NO./JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

3 - PAIR OR CORE NO./MARSHALLING CABINET NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

4 - PAIR OR CORE NO./JB NO./JB TERMINAL NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

5 - HEAT SHRINKABLE BLACK FOR SHIELD OF NIS INSTRUMENT CABLE.
(HEAT SHRINKABLE BLUE FOR SHIELD OF NIS INSTRUMENT CABLE)

6 - IN CASE OF CONNECTION FROM RIGHT TO LEFT, ORDER OF INFORMATION SHALL BE MIRRORED

REFERENCE DRAWINGS

PIPING AND INSTRUMENT DIAGRAM	123A90-DDL-PR-PID-80009
INSTRUMENT INDEX	123A90-DDL-IN-LIS-40088 Rev.01

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40015**

REV.:	DATE:	SIGNATURE:
1_E	19/11/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
INSTRUMENT – PCS WIRING DIAGRAMS
GENERAL NOTES/LEGENDS

CONTRACT NO./TITLE			SCALE 1:1
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

A3	DRAWING NO. 123A90-DDL-IN-DG-40015	SHEET 003	REV. 01

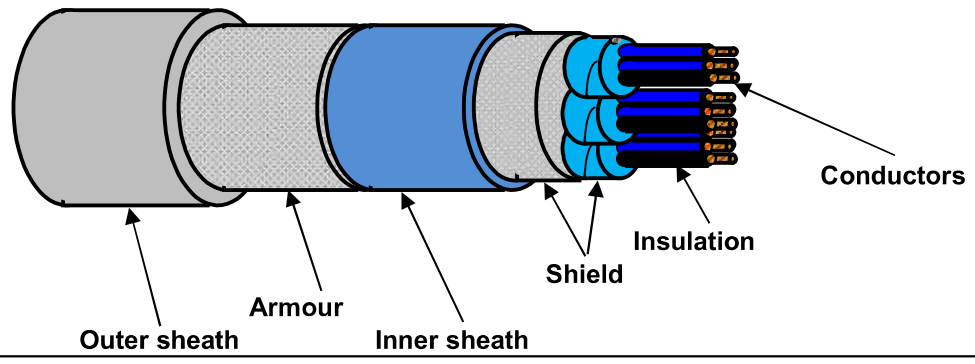
File Name : 123A90-DDL-IN-DG-40015_Rev.01

Tag Number	Category	Discipline	Eng Status	NativeDoc	Parent Tag	Grouping	Main Function	Secondary Function	Area	From Tag	From Main Function	From Area	To Tag	To Main Function	To Area	Material ID	Material Desc.	Gland Standard	From Gland	From Entry	From Fitting	To Gland	To Entry	To Fitting	Routing	Routing Manual
B300-HSB-001/B400-NET-001	Cable	IN	VFC	123A90-DDL-IN-LIS-40091		Int-Ext				B300-HSB-001	Distribution & HVAC Panel - Shelter AC UPS Fitted with UPS System Equipment Room	Lower Deck (B-300)	B400-NET-001	Network Cabinet / EMCS System	Lower Deck (B-400)	TELCV03-4X2X23AWG	Cable CAT 6A S/FTP 4x2x23AWG Armoured LSZH - Grey	M20S	n.a.			n.a.				I-MCT-301 / B-300-SEC-1D / B-300-SEC-1C / B-300-SEC-1A / L-SEC-4 / L-SEC-1B / L-SEC-1A / B-400-SEC-3A / B-400-SEC-2I / B-400-SEC-2G / B-400-SEC-2E / B-400-SEC-2C / B-400-SEC-3B / I-MCT-402

FLEI s.r.l.

CAT. 6A S/FTP ARMOURED LSZH

4X2X23AWG - Based on Draka UC500 HS23



TECHNICAL FEATURES

Conductors :	**SOLID** plain annealed copper wires (AWG23) **ø 0,56 mm**
Insulation :	Foamskin PE - **ø 1,38 mm**
Cores colour code :	**blue/white; orange/white; green/white; brown/white**
Pair Assembling :	Cores twisted in pairs
Pair Shield :	Al-laminated plastic foil
Overall Shield:	Tinned copper braid
Inner sheath :	Extruded LSZH Thermoplastic Compound
Inner sheath color code:	**Blue**
Armour :	**Galvanized Steel Wire Braid Armour (coverage ≥ 90%)**
Outer sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, moisture/abrasion/UV Resistant, Average Thickness 1,2 mm
Outer sheath color code:	**Grey**
Outer printing (INKJET) :	**FLEI - 4X2X23AWG - CAT.6A S/FTP ARMOURED LSZH - IEC 60332.1.2 - IEC 60332.3.22 -**
(every 1000 mm)	**Year of Manufacture - CE + Meter Marking**
Under armour diameter :	(7,5 ± 10%) mm
Over armour diameter :	(8,3 ± 10%) mm
Outer diameter :	(10,7 ± 10%) mm
Bending radius :	cable outer diameter x 8 (in fixed installation)
Test Voltage :	1000 V DC for 1' (Between Cores) / 1000 V DC for 1' (Between Cores - Shield)
Loop Resistance :	≤ 154 Ω/Km (@ 20°C)
Insulation Resistance :	≥ 2000 MΩ x km (@ 20°C)
Mutual Capacitance :	Nom. 43 nF/km
Characteristic Impedance :	(100 ± 5) Ω
Applicable Standards	
Design Guidelines :	**Generally to ISO/IEC 11801 / IEC 61156-5 / EN 50173-1 / EN 50288-10 / IEEE 802.3at / af / bt**
ON COMPLETE CABLE	
Flame Retardant test :	IEC 60332.1.2 - IEC 60332.3.22
Acid Gas generation :	IEC 60754.1/2
Smoke density/Light Transm	IEC 61034.2 (LT ≥ 60%)
Hazardous Areas :	IEC 60079.14 par.9.3.2a
Temperature Range :	
ON COMPLETE CABLE	
During Operation :	(-20°C up to +60°C) (in fixed installation)
During installation :	(0°C up to +50°C)
Note :	**To meet the requirements of installation and use in Zone 1 & Zone 2 (IEC 60079-14) and "Gas & Vapour Tight" the cable must be provided with Penetrating Inner Sheath together with correct ATEX approved equipment or accessories.**

Office	Date	Sign	Rev.	Date	Sign
Drawn by :	29/05/2024	Messa			
Checked :	29/05/2024	Spaccasassi			
Approved :	29/05/2024	Cucinotta			

The data provided, lending assent for the treatment, will be used to the sense of the article 13 of of the Regulation (UE) 2016/679, also through outsiders, in order to allow the realization of the fulfilments informatives, administrative, commercial and accounting related to the contractual relationship. Integral copy of the informative could be requested at our offices.

All proprietary rights reserved according to law. This document shall be not reproduced without written permission. FLEI reserves the right to change characteristics and technical data of product shown at any time.

Section 9 MECHANICAL COMPLETION STATUS INDEX - HVAC DISCIPLINE

NOT APPLICABLE

Section 10 MECHANICAL COMPLETION STATUS INDEX - PIPING DISCIPLINE

NOT APPLICABLE

Section 11 MECHANICAL COMPLETION INDEX - SAFETY DISCIPLINE

NOT APPLICABLE

Section 12 FAT / VENDOR REPORTS

ALEXSISTEMI spa

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV = ISO 9001 =

Doc. Name:
Dimensional Check and Visual Inspection

Report No.07

OUR JOB X176-24X	Date 23/07/2024	Page 1

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** AC UPS EQUIPMENT ROOM B-300
S/N: B300	**FAT procedure:** 1724000049-QC-PRO-00056

LOCATION : ON SITE ☒ OFF SITE ☐

DATE OF TEST: 23/07/2024

REFERENCE DRAWING: 1724000049-AR-DA-00016 / 1724000049-ST-DD-00012 / 1724000049-AR-DD-00020

REFERENCE DOCUMENT: ISO 17637 / EEMUA 158

Inspection List	YES	NO	N.A.
Verificare tutte le quote di seguito indicate a disegno:			
NORTH VIEW	✓		
EAST VIEW	✓		
SOUT VIEW	✓		
WEST VIEW	✓		
TOP VIEW	✓		
SECTION A-A	✓		
SECTION B-B	✓		
SECTION C-C	✓		
SECTION D-D	✓		
SECTION E-E	✓		
BASEFRAME LOCATION	✓		

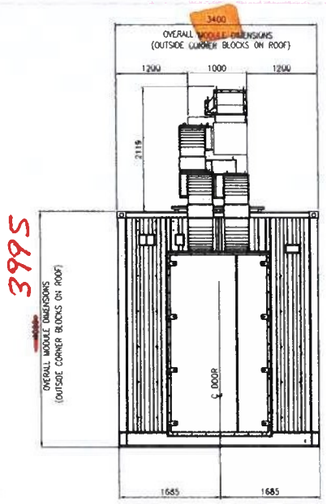
Comments:

DWG attached.

ALEX SISTEMI *Quality Assurance*	Customer	Final Customer	3rd Part	other
ALEXSISTEMI spa	COICEA CATALIN ROSETTI MARINO (R)			

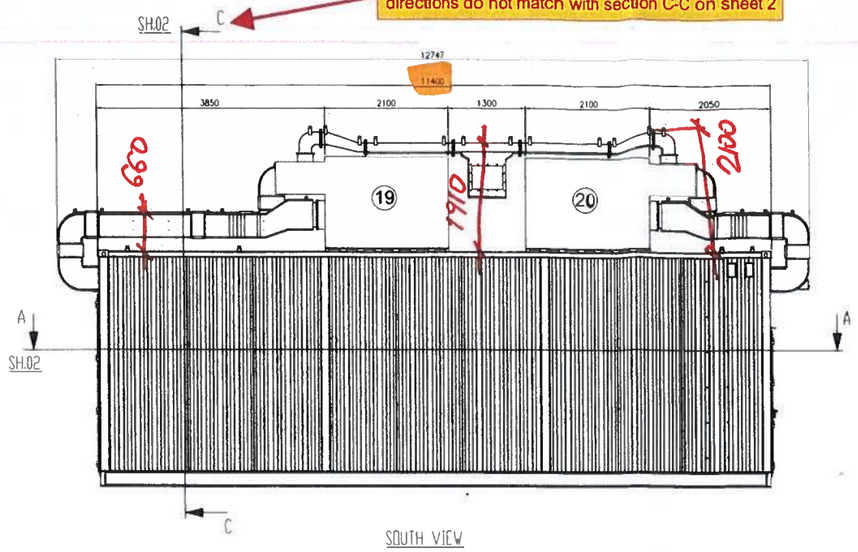
DRAWING NO 1724000049-AR-DA-00016 REV. 02

Check and revise section C-C. Position and arrow directions do not match with section C-C on sheet 2

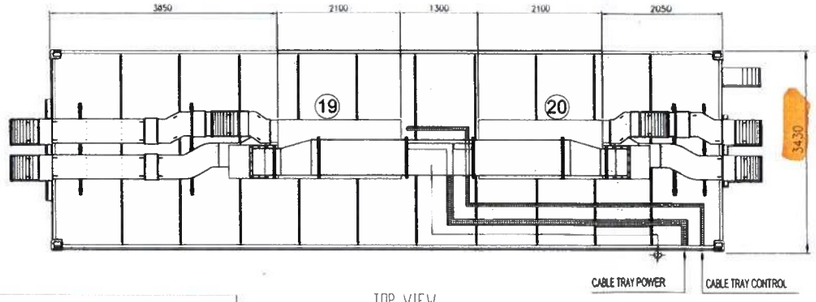


~~EAST VIEW~~

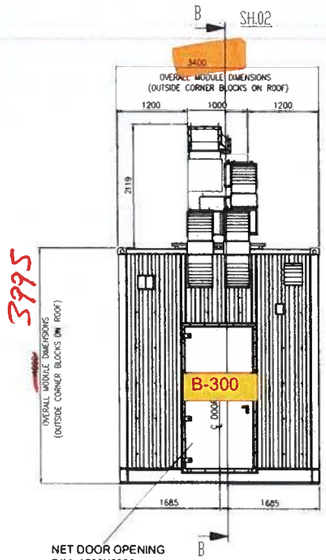
WEST VIEW



SOUTH VIEW



TOP VIEW



NET DOOR OPENING
DIM. 1500X2900

~~WEST VIEW~~

EAST VIEW

EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
11	NC-200F2	NAVAID PANEL	1000	800	2600	535
12	BA-200F2	BATTERY BOX NAVAID	958	993	1210	1552
13	CB-200F2	ISOLATOR BOX NAVAID	500	400	765	70
14	B300-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	500
15	-	EYE WASH STATION	228	80	290	5
16	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
17	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
18	BC-200F2	BATTERY CHARGER NAVAID	607	607	2157	500
19	HHU-77005	AIR HANDLING UNIT A	2100	1000	2158	850
20	HHU-77006	AIR HANDLING UNIT B	2100	1000	2158	850
21	HSS-77-001	SPACE HEATER 1	184	145	1100	5
22	HSS-77-002	SPACE HEATER 2	184	145	1100	5
23	HSS-77-003	SPACE HEATER 3	184	145	1100	5

GENERAL REMARK:
Check line position and arrow directions for all sections (eg. sections B-B and D-D show same details)

ROSETTI MARINO

1	NO COMMENTS - APPROVED - WORK MAY PROCEED
2	MINOR COMMENTS - REVISE AND RESUBMIT - WORK MAY PROCEED
3	MAJOR COMMENTS – REJECTED – DO NOT PROCEED
4	APPROVAL NOT REQUIRED

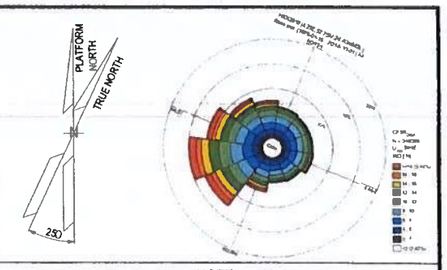
NOTE: Approval doesn't relieve the supplier from mandatory compliance with contractual documents and specifications. Comments made do not imply acceptance of any cost or delivery impact.

Sign: R. Bossi — Date: 10/07/2024

PLATFORM NORTH
TRUE NORTH

MASTER COPY
INTERNAL TEST

02



NOTE

1) ALL DIMENSIONS ARE IM MM.

REFERENCE

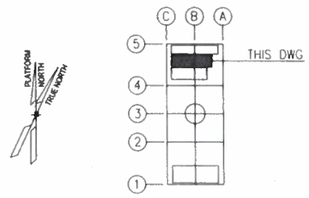
DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00066
"B-300" DETAILED DRAWING	1724000049-AR-DD-00020
PAINTING PROCEDURE	1724000049-MAT-PRO-00006

LEGEND

- INTERNAL LIGHT
- E INTERNAL EMERGENCY LIGHT
- SOCKET OUTLET, INDOOR
- LIGHT SWITCH
- ESCAPE CORRIDOR – WIDTH 800mm.
- MAINTENANCE AREA – VENDOR REQUIREMENT
- INSULATION PANEL

HOLDS

KEY PLAN



ALEX SISTEMI

Next revision: 03 Accepted For Construction (AFC)

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	03/07/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
01	16/05/24	M.G.	SKV	C.A.	ISSUE FOR REVIEW (IFR)
00	08/02/24	A.G.	SKV	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

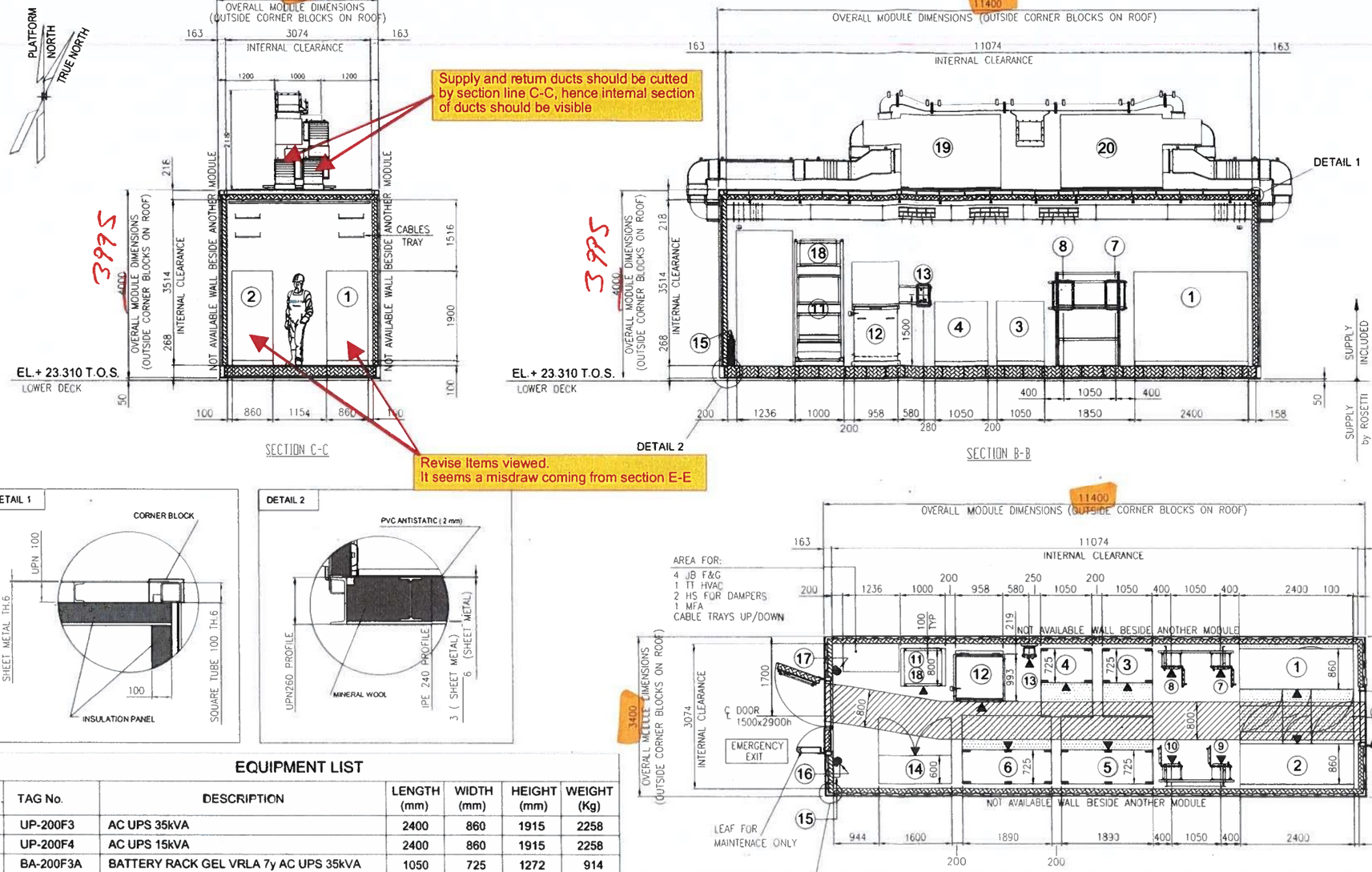
CROSSWIND — ROSETTI MARINO

TITLE: BASE LOAD POWER HUB (BLPH)
B-300 GENERAL ARRANGEMENT DRAWINGS

CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 03/07/24
A1	DRAWING NO. 1724000049-AR-DA-00016	SHEET 001	REV 02

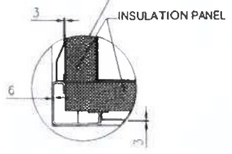
File Name: 1724000049-AR-DA-00016-REV.02

DRAWING NO. 1724000049-AR-DA-00016 REV 02



EQUIPMENT LIST

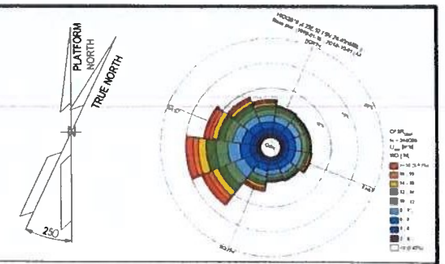
REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
11	NC-200F2	NAVAID PANEL	1000	800	2600	535
12	BA-200F2	BATTERY BOX NAVAID	958	993	1210	1552
13	CB-200F2	ISOLATOR BOX NAVAID	500	400	765	70
14	B300-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	500
15	-	EYE WASH STATION	228	80	290	5
16	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
17	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
18	BC-200F2	BATTERY CHARGER NAVAID	607	607	2157	500
19	HHU-77005	AIR HANDLING UNIT A	2100	1000	2158	850
20	HHU-77006	AIR HANDLING UNIT B	2100	1000	2158	850
21	HSS-77-001	SPACE HEATER 1	184	145	1100	5
22	HSS-77-002	SPACE HEATER 2	184	145	1100	5
23	HSS-77-003	SPACE HEATER 3	184	145	1100	5



EQUIPMENT LAYOUT
"B-300" AC UPS FITTED WITH UPS SYSTEM EQUIPMENT ROOM
BOTTOM PLAN

MASTER COPY
INTERNAL TEST

02



NOTE

1) ALL DIMENSIONS ARE IM MM

REFERENCE

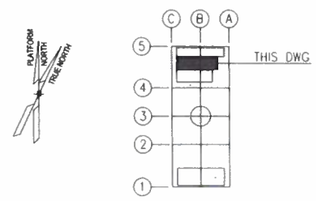
DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00066
"B-300" DETAILED DRAWING	1724000049-AR-DD-00020
PAINTING PROCEDURE	1724000049-MAT-PRO-00006

LEGEND

- INTERNAL LIGHT
- E INTERNAL EMERGENCY LIGHT
- SOCKET OUTLET, INDOOR
- LIGHT SWITCH
- ESCAPE CORRIDOR - WIDTH 800mm.
- MAINTENANCE AREA - VENDOR REQUIREMENT
- INSULATION PANEL

HOLDS

KEY PLAN



ALEX

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	03/07/24	M.G	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
01	16/05/24	M.G.	SKV	C.A.	ISSUE FOR REVIEW (IFR)
00	08/02/24	A.G.	SKV	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

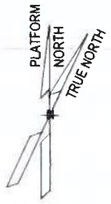
CROSSWIND — ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
B-300 GENERAL ARRANGEMENT DRAWINGS

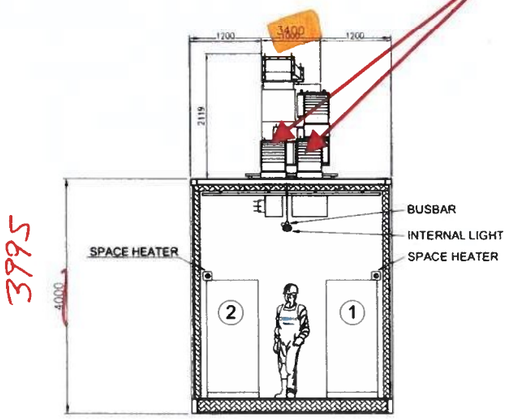
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 03/07/24
A1	DRAWING NO. 1724000049-AR-DA-00016	SHEET 002	REV. 02

File Name : 1724000049-AR-DA-00016-REV.02

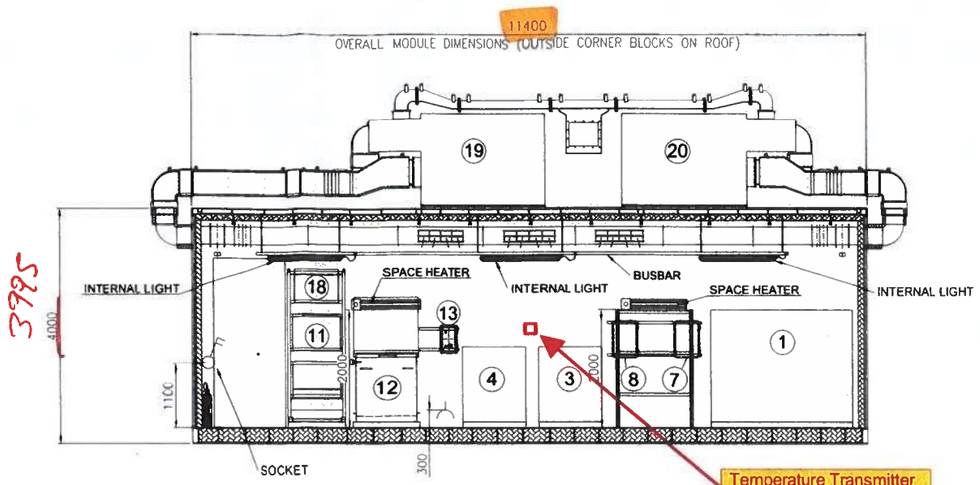
DRAWING NO. 1724000049-AR-DA-00016 REV. 02



Supply and return ducts should be cutted by section line E-E, hence internal section of ducts should be visible

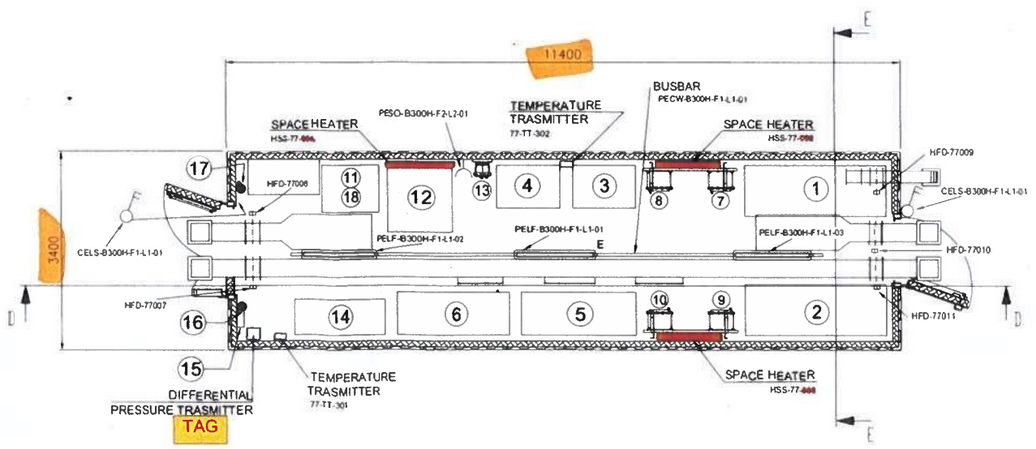


SECTION E-E



SECTION D-D

Temperature Transmitter TAG



EQUIPMENT LIST

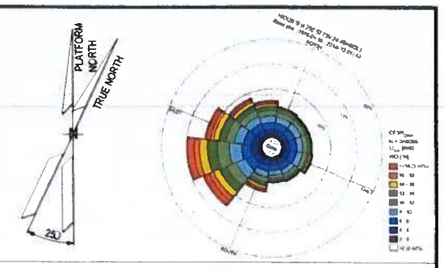
REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	600	300	800	100
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	600	300	800	100
11	NC-200F2	NAVAID PANEL	1000	800	2600	535
12	BA-200F2	BATTERY BOX NAVAID	958	993	1210	1552
13	CB-200F2	ISOLATOR BOX NAVAID	500	400	765	70
14	B300-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	500
15	-	EYE WASH STATION	228	80	290	5
16	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
17	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
18	BC-200F2	BATTERY CHARGER NAVAID	607	607	2157	500
19	HHU-77005	AIR HANDLING UNIT A	2100	1000	2158	850
20	HHU-77006	AIR HANDLING UNIT B	2100	1000	2158	850
21	~~HSS-77-001~~	SPACE HEATER 1	184	145	1100	5
22	~~HSS-77-002~~	SPACE HEATER 2	184	145	1100	5
23	~~HSS-77-003~~	SPACE HEATER 3	184	145	1100	5

Note for lighting system:
The position of the lamps indicated is to be considered the theoretical one, the fina one will be confirmed in the As-Built issue.

Revise TAGs according to all documents (P&IDs, HVAC & Lighting Panel, HVAC GA & Details, etc.)

02

MASTER COPY
INTERNAL TEST



NOTE

1) ALL DIMENSIONS ARE IM MM.

REFERENCE

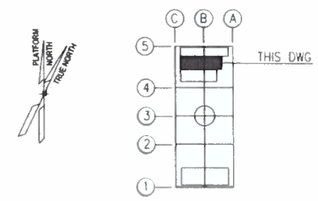
DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00066
"B-300" DETAILED DRAWING	1724000049-AR-DD-00020
PAINTING PROCEDURE	1724000049-MAT-PRO-00006

LEGEND

- INTERNAL LIGHT
- E INTERNAL EMERGENCY LIGHT
- SOCKET OUTLET, INDOOR
- LIGHT SWITCH
- ESCAPE CORRIDOR - WIDTH 800mm.
- MAINTENANCE AREA - VENDOR REQUIREMENT
- INSULATION PANEL

HOLDS

KEY PLAN



ALEX

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	03/07/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
01	16/05/24	M.G.	SKV	C.A.	ISSUE FOR REVIEW (IFR)
00	08/02/24	A.G.	SKV	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND

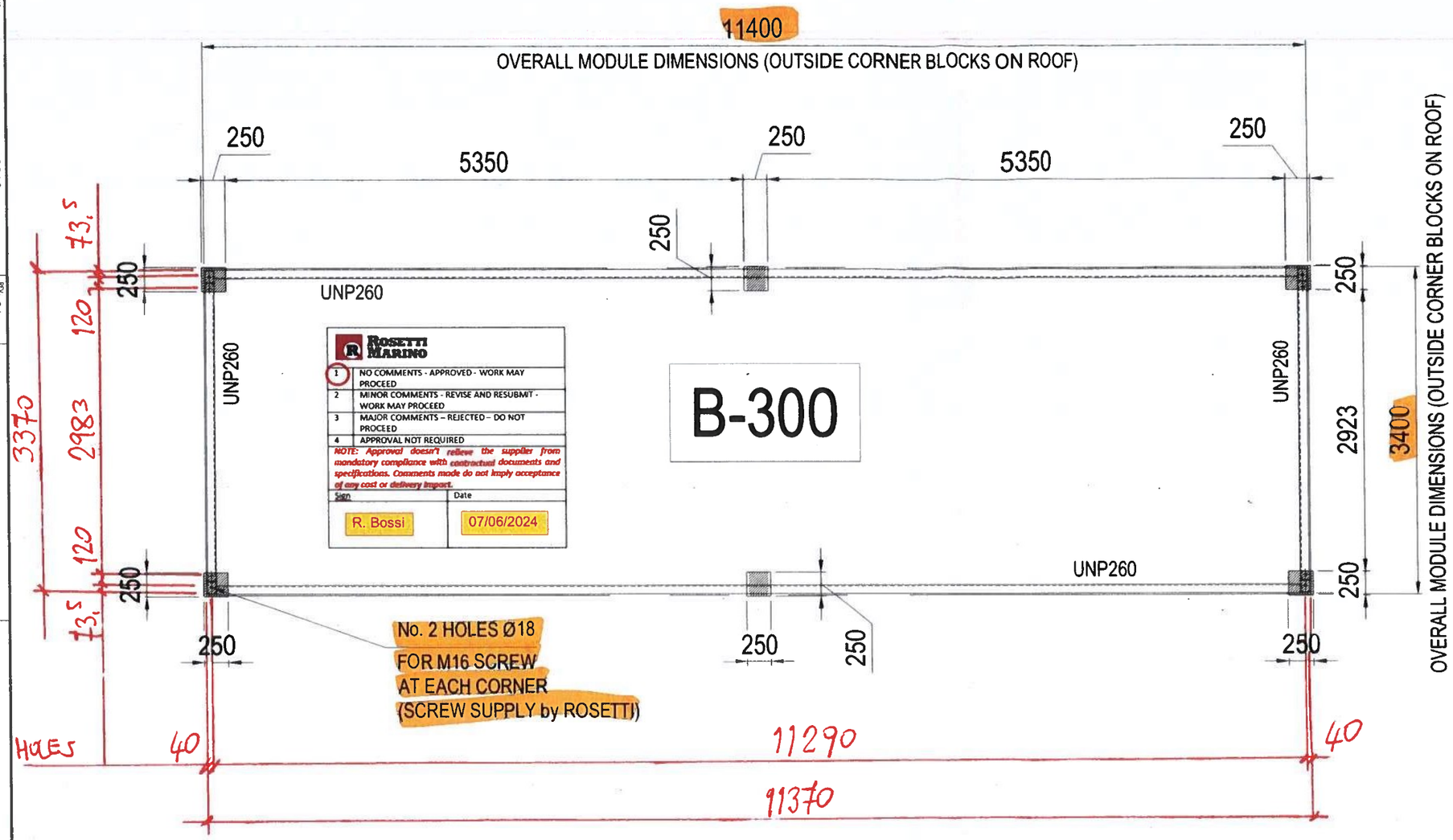
ROSETTI MARINO

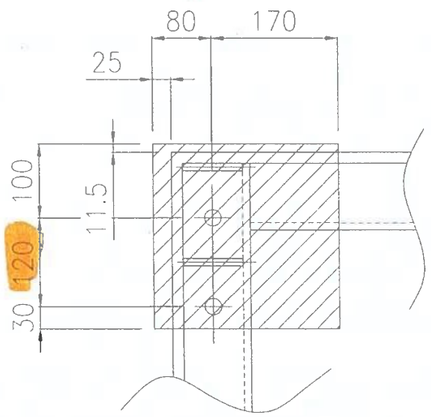
TITLE : BASE LOAD POWER HUB (BLPH)
B-300 GENERAL ARRANGEMENT DRAWINGS

CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 03/07/24
A1	DRAWING NO 1724000049-AR-DA-00016	SHEET 003	REV. 02

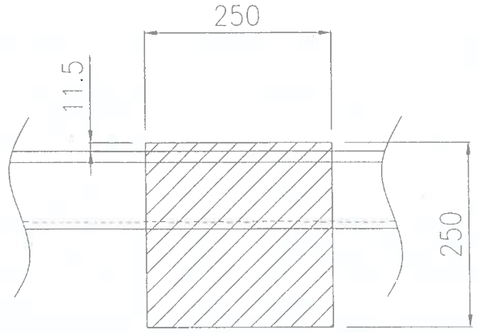
File Name 1724000049-AR-DA-00016-REV02

DRAWING NO. 1724000049-ST-DD-00012 REV 01

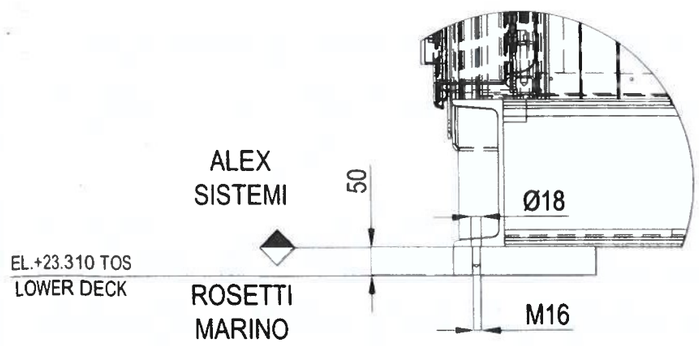




TYPICAL CORNER PLATE POSITION

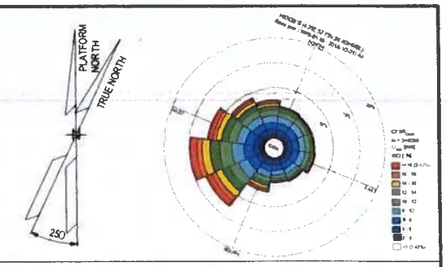


TYPICAL CENTRAL PLATE POSITION



TYPICAL FIXING DETAIL
SCALE 1 : 10

MASTER COPY
INTERNAL TEST



NOTE

1) ALL DIMENSIONS ARE IM MM.

REFERENCE

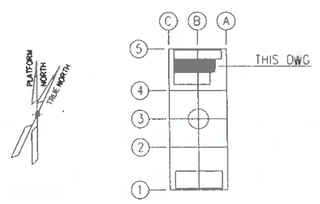
DOCUMENT TITLE	DOCUMENT NUMBER
B-300 STRUCTURAL CALCULATION - E&I SHELTERS	1724000049-ST-CA-00008

LEGEND

Plate 50 mm thk. welded on Lower Deck - Supply by Rosetti

HOLDS

KEY PLAN



ALEX

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	03/06/24	M.G.	M.R.	O.A.	APPROVED FOR CONSTRUCTION (AFC)
00	16/04/24	M.G.	M.R.	O.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND

ROSETTI MARINO

TITLE: B-300 FOUNDATION DRAWING - E&I SHELTERS

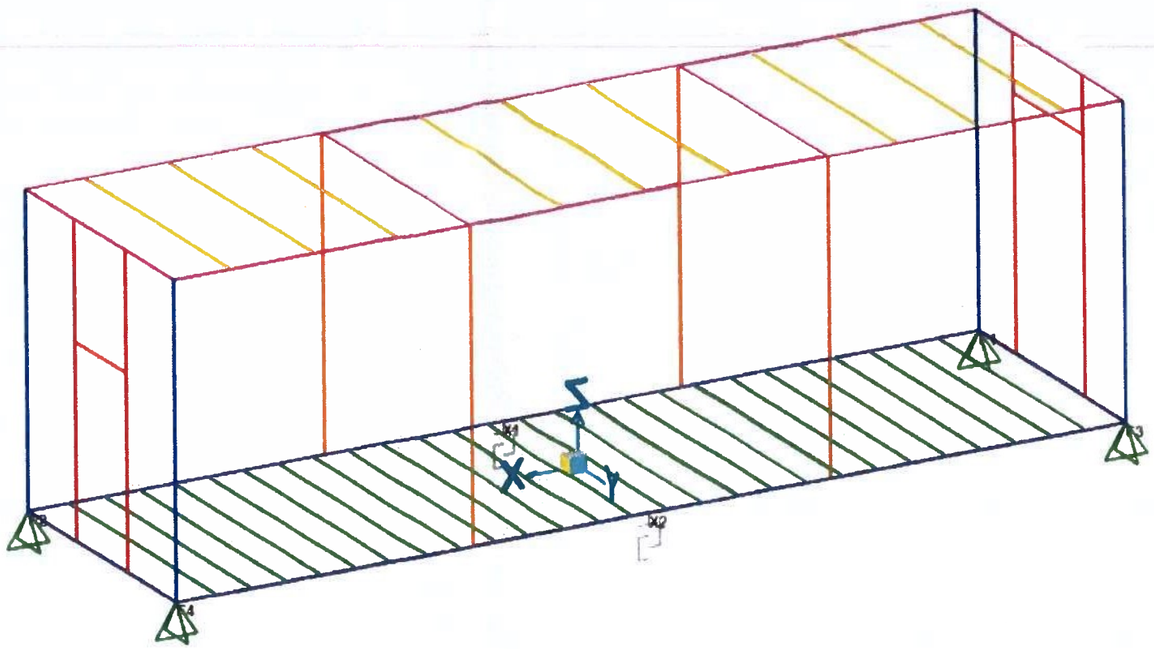
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE N.A.
DRAWN M.G.	CHECKED M.R.	APPROVED O.A.	DATE 03/06/24
A1	DRAWING NO. 1724000049-ST-DD-00012	SHEET 001/002	REV 01

File Name 1724000049-ST-DD-00012-REV01

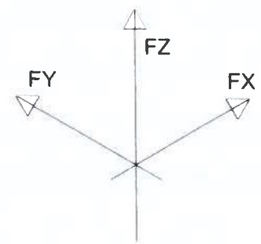
DRAWING NO 1724000049-ST-DD-00012 REV 01

TABLE: Joint Reactions

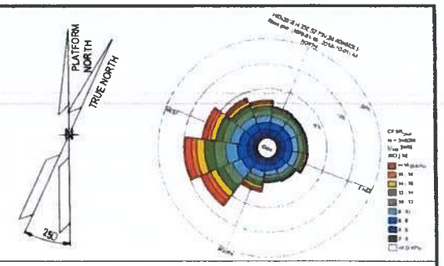
Joint	OutputCase	CaseType	StepType	Fx	Fy	Fz	Mx	My	Mz
Text	Text	Text	Text	KN	KN	KN	KN-m	KN.m	KN-m
F1	DEAD	NonStatic	Last Step	8,15	3,98	20,56	0,00	0,00	0,00
F1	SD	NonStatic	Last Step	17,79	5,10	26,86	0,00	0,00	0,00
F1	LIVE	NonStatic	Last Step	18,94	6,80	43,72	0,00	0,00	0,00
F1	WIND X	NonStatic	Last Step	-11,64	0,34	-9,78	0,00	0,00	0,00
F1	WIND Y	NonStatic	Last Step	-12,43	-25,98	-33,62	0,00	0,00	0,00
F1	NOT X	NonStatic	Last Step	-0,07	-0,01	-0,02	0,00	0,00	0,00
F1	NOT Y	NonStatic	Last Step	-0,04	-0,07	-0,06	0,00	0,00	0,00
F1	SLU LIVE	Combination		65,55	22,92	132,49	0,00	0,00	0,00
F1	SLU WIND X	Combination		35,85	12,57	88,06	0,00	0,00	0,00
F1	SLU WIND Y	Combination		34,89	-19,01	59,46	0,00	0,00	0,00
F1	SLE LIVE	Combination		44,78	15,80	91,06	0,00	0,00	0,00
F1	SLE WIND X	Combination		10,47	1,55	27,47	0,00	0,00	0,00
F1	SLE WIND Y	Combination		9,91	-16,88	10,79	0,00	0,00	0,00
F2	DEAD	NonStatic	Last Step	-8,15	3,95	20,50	0,00	0,00	0,00
F2	SD	NonStatic	Last Step	-15,55	4,85	31,79	0,00	0,00	0,00
F2	LIVE	NonStatic	Last Step	-19,68	6,13	33,86	0,00	0,00	0,00
F2	WIND X	NonStatic	Last Step	-1,08	-2,06	-5,72	0,00	0,00	0,00
F2	WIND Y	NonStatic	Last Step	12,41	-26,02	-33,53	0,00	0,00	0,00
F2	NOT X	NonStatic	Last Step	-0,07	0,01	0,02	0,00	0,00	0,00
F2	NOT Y	NonStatic	Last Step	0,04	-0,07	-0,06	0,00	0,00	0,00
F2	SLU LIVE	Combination		-63,48	21,52	125,06	0,00	0,00	0,00
F2	SLU WIND X	Combination		-52,52	7,87	91,19	0,00	0,00	0,00
F2	SLU WIND Y	Combination		-36,33	-20,88	57,82	0,00	0,00	0,00
F2	SLE LIVE	Combination		-43,41	14,87	86,10	0,00	0,00	0,00
F2	SLE WIND X	Combination		-21,09	-1,13	36,46	0,00	0,00	0,00
F2	SLE WIND Y	Combination		-11,65	-17,90	17,00	0,00	0,00	0,00
F3	DEAD	NonStatic	Last Step	8,15	-3,98	20,51	0,00	0,00	0,00
F3	SD	NonStatic	Last Step	11,42	-4,47	17,26	0,00	0,00	0,00
F3	LIVE	NonStatic	Last Step	20,70	-7,01	46,69	0,00	0,00	0,00
F3	WIND X	NonStatic	Last Step	-11,74	-0,31	-9,79	0,00	0,00	0,00
F3	WIND Y	NonStatic	Last Step	4,72	-19,65	18,12	0,00	0,00	0,00
F3	NOT X	NonStatic	Last Step	-0,07	0,01	-0,02	0,00	0,00	0,00
F3	NOT Y	NonStatic	Last Step	0,04	-0,07	0,06	0,00	0,00	0,00
F3	SLU LIVE	Combination		58,73	-22,47	122,63	0,00	0,00	0,00
F3	SLU WIND X	Combination		33,23	-25,68	92,38	0,00	0,00	0,00
F3	SLU WIND Y	Combination		52,98	-48,88	125,86	0,00	0,00	0,00
F3	SLE LIVE	Combination		40,24	-15,52	84,50	0,00	0,00	0,00
F3	SLE WIND X	Combination		9,22	-14,72	33,46	0,00	0,00	0,00
F3	SLE WIND Y	Combination		20,74	-28,25	52,99	0,00	0,00	0,00
F4	DEAD	NonStatic	Last Step	-8,15	-3,95	20,50	0,00	0,00	0,00
F4	SD	NonStatic	Last Step	-13,65	-5,48	33,05	0,00	0,00	0,00
F4	LIVE	NonStatic	Last Step	-19,97	-5,92	33,74	0,00	0,00	0,00
F4	WIND X	NonStatic	Last Step	-1,16	2,03	-5,71	0,00	0,00	0,00
F4	WIND Y	NonStatic	Last Step	-4,70	-19,60	18,02	0,00	0,00	0,00
F4	NOT X	NonStatic	Last Step	-0,07	-0,01	0,02	0,00	0,00	0,00
F4	NOT Y	NonStatic	Last Step	-0,04	-0,07	0,06	0,00	0,00	0,00
F4	SLU LIVE	Combination		-61,15	-22,33	126,93	0,00	0,00	0,00
F4	SLU WIND X	Combination		-55,32	-22,49	108,58	0,00	0,00	0,00
F4	SLU WIND Y	Combination		-59,56	-48,45	137,06	0,00	0,00	0,00
F4	SLE LIVE	Combination		-41,87	-15,42	87,36	0,00	0,00	0,00
F4	SLE WIND X	Combination		-24,48	-13,35	53,32	0,00	0,00	0,00
F4	SLE WIND Y	Combination		-26,95	-28,49	69,93	0,00	0,00	0,00
X1	DEAD	NonStatic	Last Step	0,00	0,00	24,94	0,00	0,00	0,00
X1	SD	NonStatic	Last Step	0,00	0,02	65,88	0,00	0,00	0,00
X1	LIVE	NonStatic	Last Step	0,00	0,01	52,89	0,00	0,00	0,00
X1	WIND X	NonStatic	Last Step	0,00	0,00	0,00	0,00	0,00	0,00
X1	WIND Y	NonStatic	Last Step	0,00	0,00	0,00	0,00	0,00	0,00
X1	NOT X	NonStatic	Last Step	0,00	0,00	0,00	0,00	0,00	0,00
X1	NOT Y	NonStatic	Last Step	0,00	0,00	0,00	0,00	0,00	0,00
X1	SLU LIVE	Combination		0,00	0,05	210,58	0,00	0,00	0,00
X1	SLU WIND X	Combination		0,00	0,04	186,78	0,00	0,00	0,00
X1	SLU WIND Y	Combination		0,00	0,04	186,78	0,00	0,00	0,00
X1	SLE LIVE	Combination		0,00	0,03	143,71	0,00	0,00	0,00
X1	SLE WIND X	Combination		0,00	0,02	90,82	0,00	0,00	0,00
X1	SLE WIND Y	Combination		0,00	0,02	90,82	0,00	0,00	0,00
X2	DEAD	NonStatic	Last Step	0,00	0,00	24,95	0,00	0,00	0,00
X2	SD	NonStatic	Last Step	0,00	-0,01	43,97	0,00	0,00	0,00
X2	LIVE	NonStatic	Last Step	0,00	-0,01	55,99	0,00	0,00	0,00
X2	WIND X	NonStatic	Last Step	0,00	0,00	0,00	0,00	0,00	0,00
X2	WIND Y	NonStatic	Last Step	0,00	0,00	0,00	0,00	0,00	0,00
X2	NOT X	NonStatic	Last Step	0,00	0,00	0,00	0,00	0,00	0,00
X2	NOT Y	NonStatic	Last Step	0,00	0,00	0,00	0,00	0,00	0,00
X2	SLU LIVE	Combination		0,00	-0,04	182,36	0,00	0,00	0,00
X2	SLU WIND X	Combination		0,00	-0,03	157,17	0,00	0,00	0,00
X2	SLU WIND Y	Combination		0,00	-0,03	157,17	0,00	0,00	0,00
X2	SLE LIVE	Combination		0,00	-0,03	124,90	0,00	0,00	0,00
X2	SLE WIND X	Combination		0,00	-0,01	68,91	0,00	0,00	0,00
X2	SLE WIND Y	Combination		0,00	-0,01	68,91	0,00	0,00	0,00







MASTER COPY
INTERNAL TEST



NOTE

1) ALL DIMENSIONS ARE IM MM

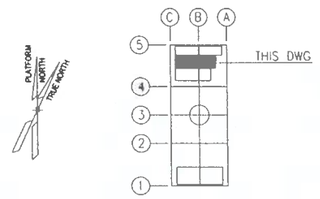
REFERENCE

DOCUMENT TITLE	DOCUMENT NUMBER
B-300 STRUCTURAL CALCULATION - E&I SHELTERS	1724000049-ST-CA-00008

LEGEND

HOLDS

KEY PLAN



ALEX

REV	DATE	DRN	CHKD	APPD	DESCRIPTION
01	03/06/24	M.G.	M.R.	O.A.	APPROVED FOR CONSTRUCTION (AFC)
00	16/04/24	M.G.	M.R.	O.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND — ROSETTI MARINO

TITLE: B-300 FOUNDATION DRAWING - E&I SHELTERS

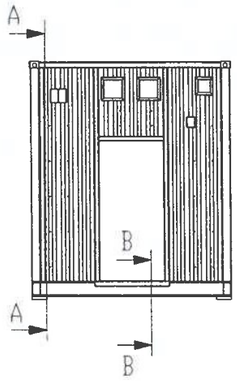
CONTRACT NO /TITLE CONTRACT_NO 1724000049			SCALE N.A.
DRAWN M.G.	CHECKED M.R.	APPROVED O.A.	DATE 03/06/24
A1	DRAWING NO 1724000049-ST-DD-00012	SHEET 002/002	REV 01

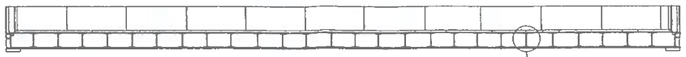
File Name : 1724000049-ST-DD-00012-REV.01

DRAWING NO. 1724000049-AR-DD-00020 REV. 02

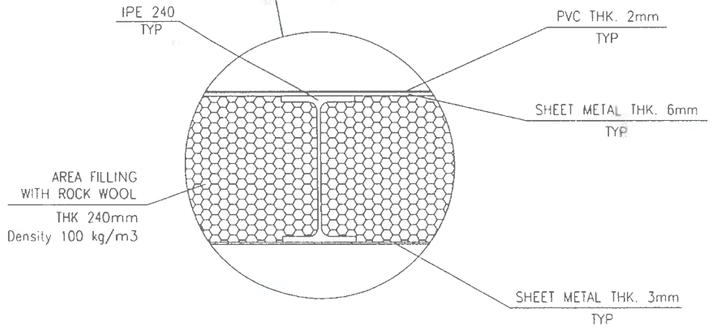
MODULE B-300

REFERENCE	
DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" STRUCTURAL CALCULATION	1724000049-ST-CA-00008
Weld Procedure Specifications (WPS), Weld Procedure Qualification Report (WPQR), Welding Map and Welders Qualifications	1724000049-WEL-RE-00003

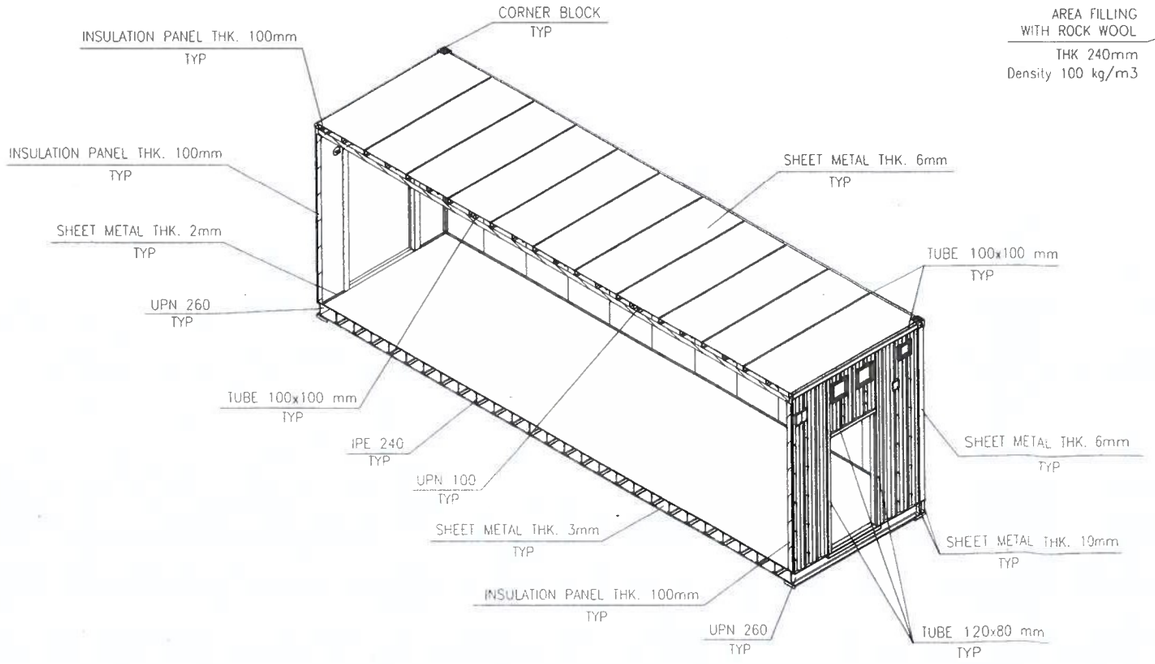




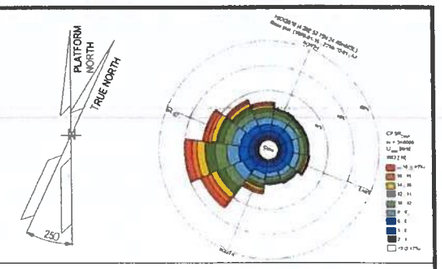
SECTION B-B



DETAIL "C"

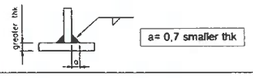


MASTER COPY
INTERNAL TEST



NOTES

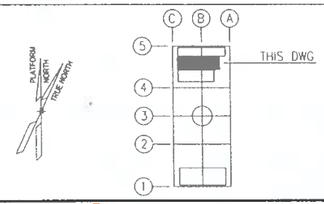
1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.
2. ALL WELDINGS SYMBOLS ARE IN ACCORDANCE WITH A.W.S. CODE D.1.1
3. UNLESS OTHERWISE INDICATED FILLET WELDS SHALL HAVE FOLLOWING DIM.:



LEGEND

HOLDS

KEY PLAN



ALEX

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	11/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
01	08/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
00	30/05/24	M.G.	O.A.	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND | ROSETTI MARINO

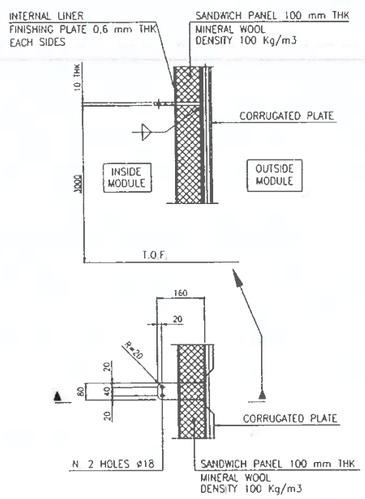
TITLE :
B-300 DETAILED DRAWINGS-E&I SHELTERS

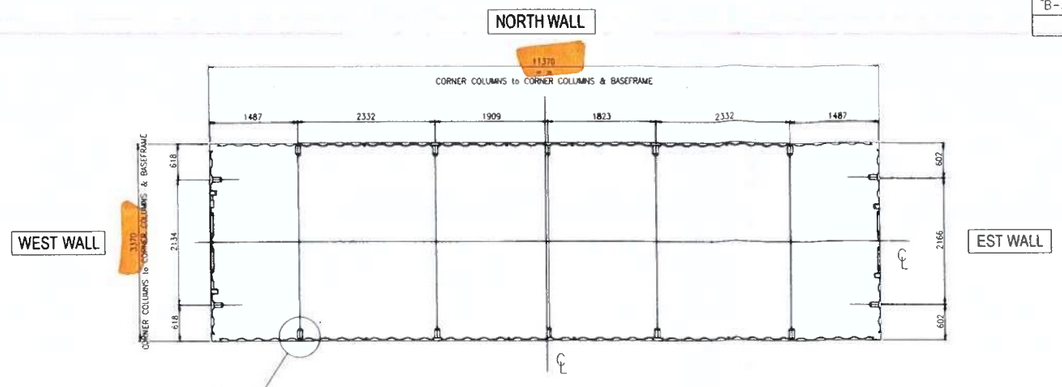
CONTRACT NO./TITLE CONTRACT_NO. 1724000049		SCALE 1:50
DRAWN M.G.	CHECKED O.A. / APPROVED C.A.	DATE 11/07/24
A1	DRAWING NO. 1724000049 AR DD 00020	SHEET 001 / REV 02

File Name 1724000049-AR-DD-00020-REV.02

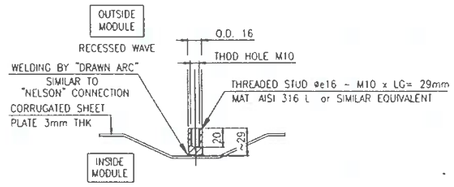
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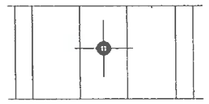
REFERENCE	
DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DA-00016
"B-300" HVAC GENERAL ARRANGEMENT	1724000049-HV-DA-00066



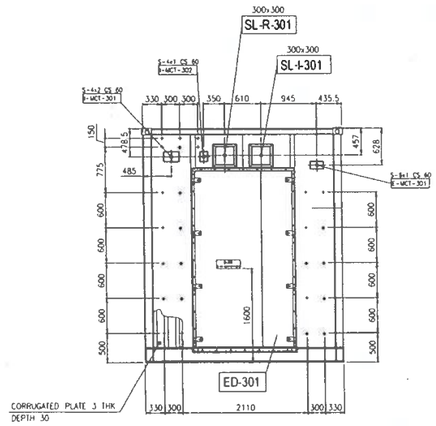


MODULE B-300
INTERNAL SEA FASTENING PLATES
PLAN

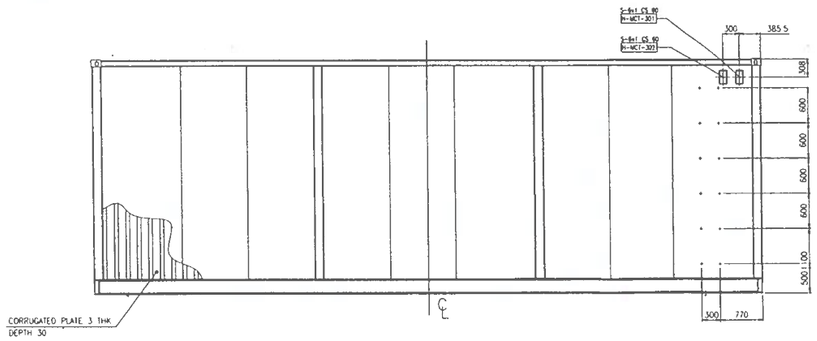




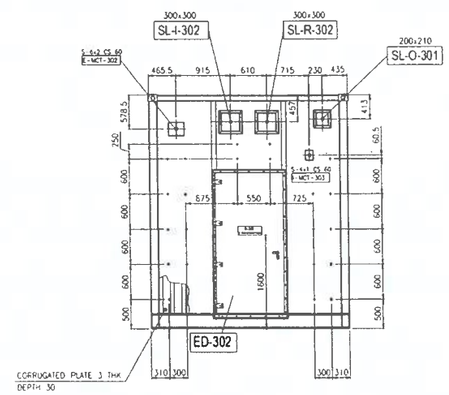
THREADED STUD INSTALLATION



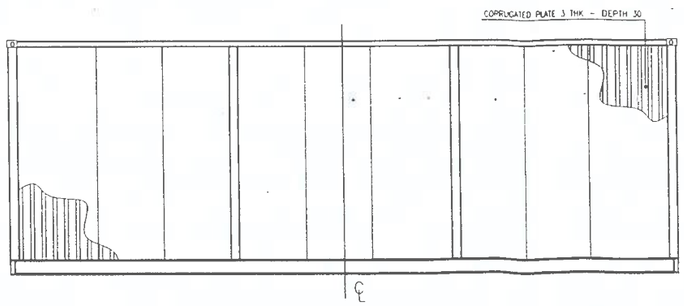
VIEW OF WEST WALL



VIEW OF NORTH WALL



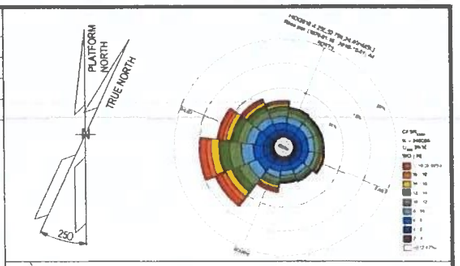
VIEW OF EAST WALL



VIEW OF SOUTH WALL

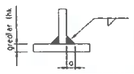
MASTER COPY
INTERNAL TEST

MCT LIST						
SERVICE	TAG No	MCT DIMENSIONS and INSTALLATION SENSE L (mm) HORIZONTAL	H (mm) VERTICAL	W (mm) DEPTH	MCT SIZE TYPE "S" FRAME Primed Mild Steel BRAND: ROXTEC	MCT SIZE TYPE "S" FRAME AISI 316 L BRAND: ROXTEC
ELECTRICAL	E-MCT-301	238	140.5	60	6x1	
	E-MCT-302	271	238	60	6x2	
INSTRUMENTAL	I-MCT-301	271	179.5	60	4x2	
	I-MCT-302	140.5	179.5	60	4x1	
	I-MCT-303	140.5	179.5	60	4x1	
HVAC	H-MCT-301	140.5	238	60	6x1	
	H-MCT-302	140.5	238	60	6x1	



NOTES

1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.
2. ALL WELDINGS SYMBOLS ARE IN ACCORDANCE WITH A.W.S. CODE D.1.1
3. UNLESS OTHERWISE INDICATED FILLET WELDS SHALL HAVE FOLLOWING DIM.:



LEGEND

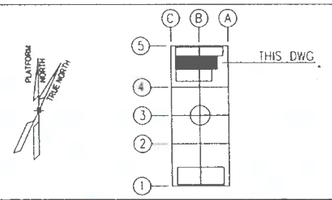
THREADED STUD ø16 - M10 x LG= 29mm
T.O.F. — TOP OF FLOOR

MCT LEGEND: E-MCT-301
- MCT TYPE & SIZE / BRAND ROXTEC
- MATERIAL: C.S.= PRIMED MILD STEEL; S.S.= AISI 316 L
- S 6x2 C.S. 60 — MCT DEPTH
- MCT SERVICE: E= ELECTRICAL; I= INSTRUMENTAL; H= HVAC
- PROGRESSIVE NUMBER FROM 01
- MODULE LOCATION: 1= B-100, 2= B-200, 3= B-300, 4= B-400

HVAC SLEEVE LEGEND: 300x300 — SL-I-301
- INTERNAL SIZE OF DUCT L x H (mm)
- SERVICE: I= AIR IN; R= RECYRCLE; O= OVERPRESSURE
- PROGRESSIVE NUMBER FROM 01
- MODULE LOCATION: 1= B-100, 2= B-200, 3= B-300, 4= B-400

DOOR LEGEND: ED-301
- EXTERNAL DOOR
- PROGRESSIVE NUMBER FROM 01
- MODULE LOCATION: 1= B-100, 2= B-200, 3= B-300, 4= B-400

KEY PLAN



REV	DATE	DRN	CHKD	APPD	DESCRIPTION
02	11/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
01	08/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
00	30/05/24	M.G.	O.A.	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

ALEX

CROSSWIND

ROSETTI MARINO

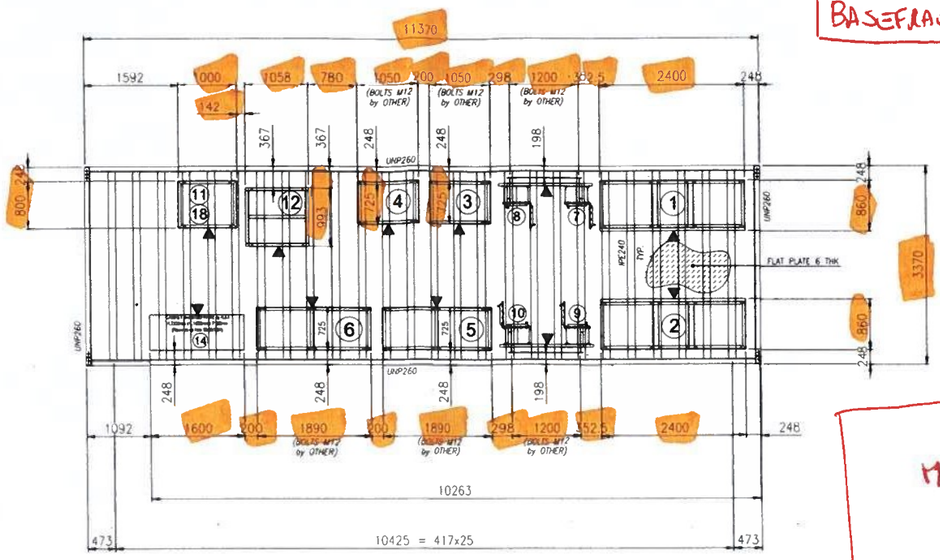
TITLE
B-300 DETAILED DRAWINGS-E&I SHELTERS

CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 11/07/24
A1	DRAWING NO. 1724000049-AR-DD-00020	SHEET 002	REV 02

File Name 1724000049 AR DD 00020 REV.02

DRAWING NO. 1724000049-AR-DD-00020 REV. 02

B-300
I&T EQUIPMENT ROOM
BASEFRAME LOCATION PLAN

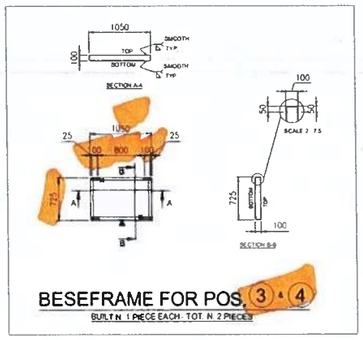


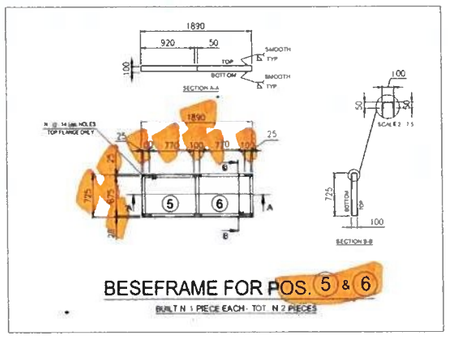
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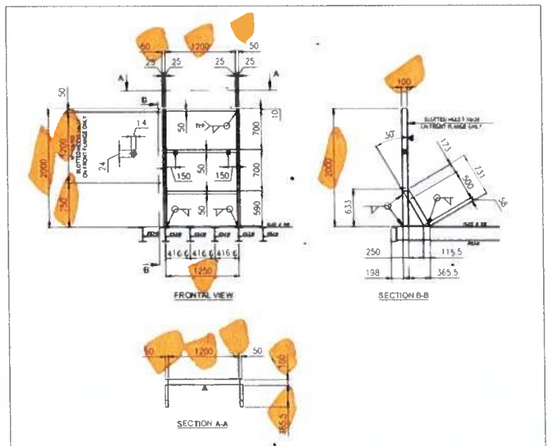
BASEFRAME (12)

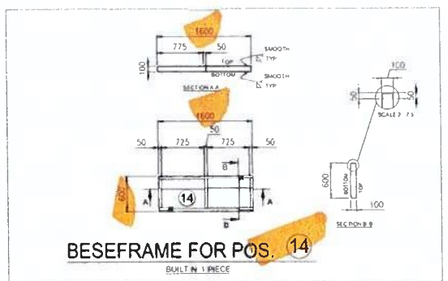
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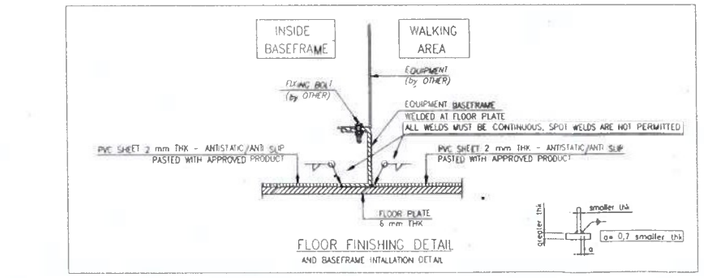
BASEFRAME (11) (18)

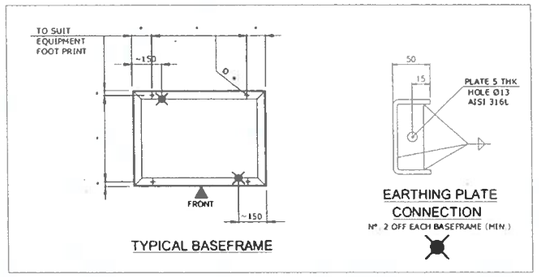


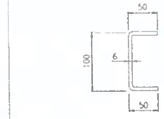








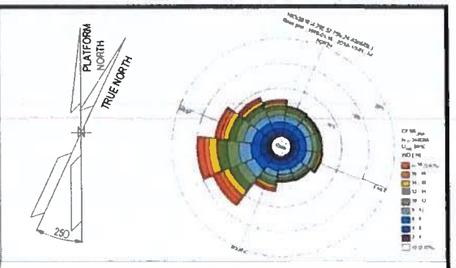




C 100x50x50 THK 6mm.
FROM BENT PLATE THK 6mm.
MAT. CARBON STEEL

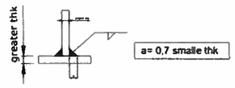
EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)	SCOPE
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258	ASI
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258	ASI
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	ASI
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	ASI
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429	ASI
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429	ASI
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	600	300	800	100	ASI
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	600	300	800	100	ASI
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	600	300	800	100	ASI
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	600	300	800	100	ASI
11	NC-200F2	NAVAID PANEL	1180	810	675	500	ASI
12	BA-200F2	BATTERY BOX NAVAID	1000	500	1135	325	ASI
14	B3000-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	1150	ASI
18	BC-200F2	BATTERY CHARGER NAVAID	607	607	2157	500	ASI



NOTES

1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.
2. ALL WELDINGS SYMBOLS ARE IN ACCORDANCE WITH A.W.S. CODE D.1.1
3. UNLESS OTHERWISE INDICATED FILLET WELDS SHALL HAVE FOLLOWING DIM.:



4. ALL WELDS ON TOP & BOTTOM SIDES OF BASEFRAMES MUST BE PERFECTLY SMOOTHED.
5. WHERE INDICATED " ▲ " SHOULD BE STAMP "FRONT", ABOVE "TOP" AND BELOW "BOTTOM".



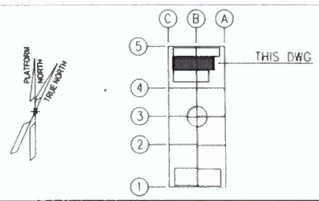
6. SURFACE TREATMENT ACCORDING DOCUMENT N. 1724000049-MAT-PRO-00004 - PAINTING PROCEDURE FINAL COLOUR LIGHT GREY RAL 7035.

LEGEND

ASI = ALEX SISTEMI

HOLDS

KEY PLAN



ALEX

REV.	DATE	DRN.	CHKD	APPD	DESCRIPTION
02	11/07/24	M.C.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
01	08/07/24	M.C.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
00	30/05/24	M.C.	O.A.	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND — ROSETTI MARINO

TITLE:

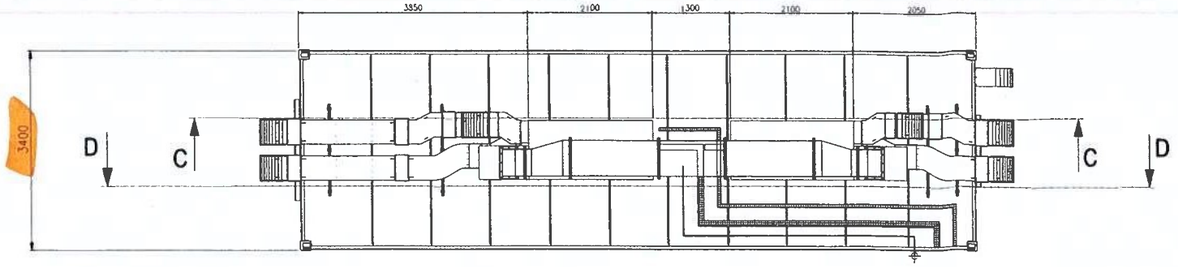
B-300 DETAILED DRAWINGS-E&I SHELTERS

CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.C.	CHECKED O.A.	APPROVED C.A.	DATE 11/07/24
A1	DRAWING NO. 1724000049-AR-DD-00020		SHEET 003 / REV. 02

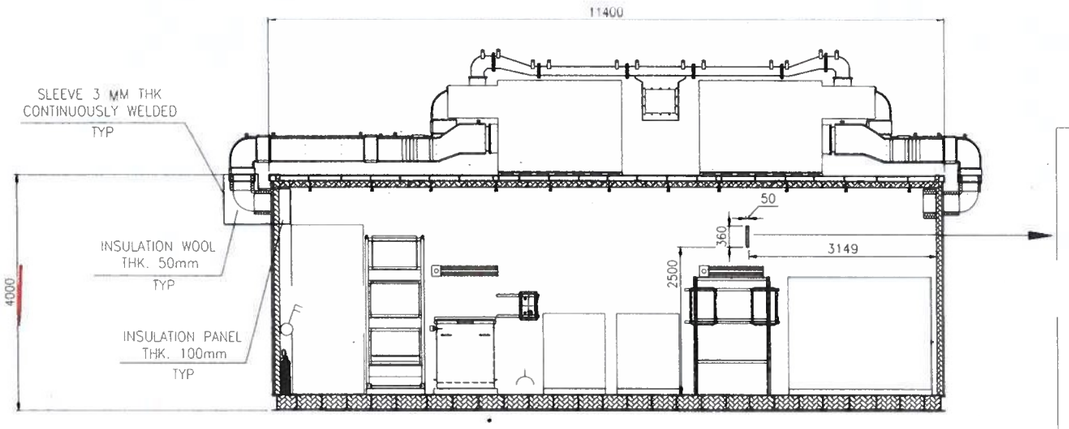
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MASTER COPY
INTERNAL TEST

DRAWING NO. 1724000049-AR-DD-00020 REV. 02

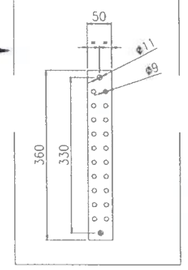


TOP VIEW

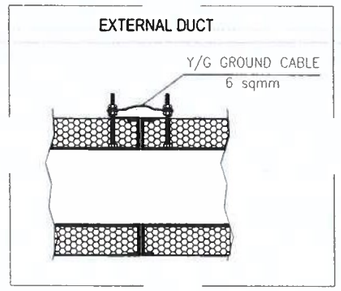


SECTION C-C

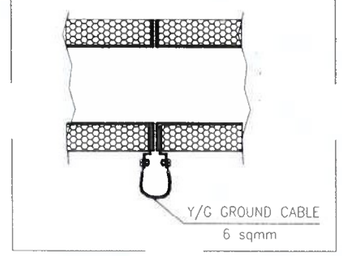
DET. 3
TYPICAL DETAIL
Ground bar



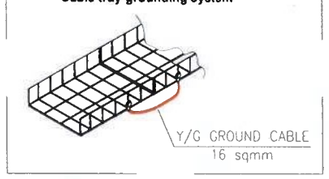
DET. 1
EXTERNAL DUCT

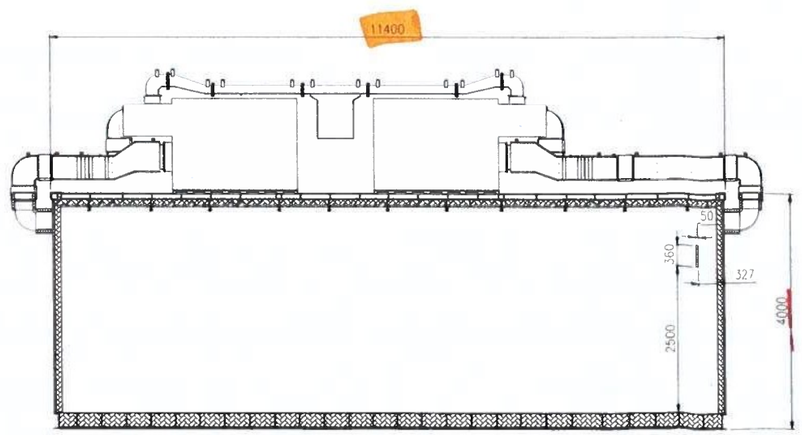


DET. 2
INTERNAL DUCT



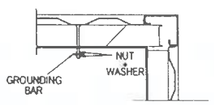
DET. 4
TYPICAL DETAIL
Cable tray grounding system



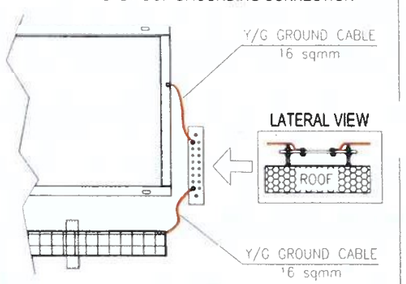


SECTION D-D

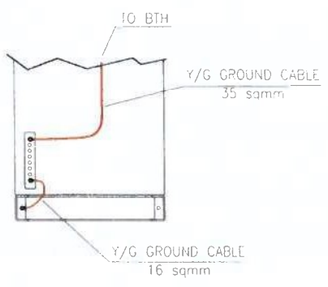
DET. 5
TYPICAL INSTALLATION BTH PE



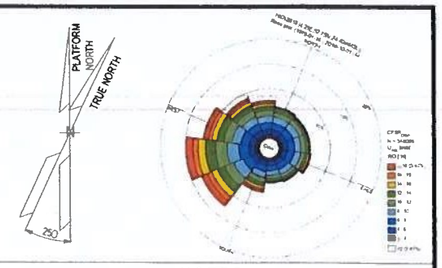
DET. 6
TYPICAL ROOF GROUNDING CONNECTION



DET. 7
TYPICAL CABINET GROUNDING CONNECTION



MASTER COPY
INTERNAL TEST



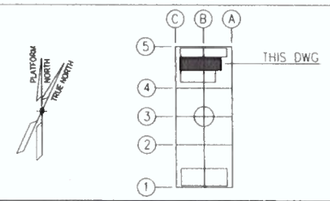
NOTES

1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.

LEGEND

HOLDS

KEY PLAN



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	11/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
01	08/07/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
00	30/05/24	M.G.	O.A.	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

ALEX

CROSSWIND

ROSETTI MARINO

TITLE :
B-300 DETAILED DRAWINGS-E&I SHELTERS

CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 11/07/24
A1	DRAWING NO. 1724000049-AR-DD-00020	SHEET 005	REV. 02

File Name : 1724000049-AR-DD-00020-REV.02

ALEXSISTEMI spa

Doc. Name:		Report No.07
PAINTING CHECK		Mod 1.4.2
OUR JOB X176-24X	Date 23/07/2024	Page 1/1

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** AC UPS EQUIPMENT ROOM B-300
S/N: B300	**FAT procedure:** 1724000049-QC-PRO-00056

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 23/07/2024

REFERENCE DRAWING:

REFERENCE DOCUMENT: 1724000049-MAT-PRO-00004

Inspection List	YES	NO	N.A.
1 Verification of paint and color code according to design specification			
Visual Check External Color walls, roof, base frame RAL 7035	X		
Visual Check External Color doors RAL 7035	X		
Layer thickness of external coating µm 320 total	X		
Visual Check Internal Equipment Baseframe	X		

Comments:

** Touch-up and cleaning are required before proceeding with packaging*

ALEX SISTEMI *Quality Assurance*	Customer	Final Customer	3rd Part	other
ALEXSISTEMI spa	COICEA CATALIN ROSETTI MARINO			

ALEXSISTEMI spa

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV = ISO 9001 =

Doc. Name: CHECK AND FUNCTIONAL TEST		Report No.07
OUR JOB X176-24X	Date 23/07/2024	Page 1

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** AC UPS EQUIPMENT ROOM B-300
S/N: B300	**FAT procedure:** 1724000049-QC-PRO-00056

LOCATION : ON SITE ☑ OFF SITE ☐

DATE OF TEST: 23/07/2024

REFERENCE DRAWING:

REFERENCE DOCUMENT: ECA-00-ELE-DEB- 0001 Rev.7 Electrical Design Criteria

Inspection List	YES	NO	N.A.
Functional Test of Doors :			
Opening/Closing doors, doors locking	X		

Comments:

ALEX SISTEMI *Quality Assurance*	Customer	Final Customer	3rd Part	other
ALEXSISTEMI spa	COICEVA CATALIN & ROSETTI MARINO (R)			

ALEXSISTEMI spa

Doc. Name: ELECTRICAL TESTS		Report No.07 Mod 1.4.6
OUR JOB X176-24X	Date 23/07/2024	Page 1/1

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** AC UPS EQUIPMENT ROOM B-300
S/N: B300	**FAT procedure:** 1724000049-QC-PRO-00056

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 23/07/2024

REFERENCE DRAWING:

- 1724000049-AR-DA-00016 - B-300 GENERAL ARRANGMENT DRAWINGS - E&I SHELTERS
- 1724000049-HV-DA-00066 - MODULE B-300 – HVAC SYSTEM–G.A. AND DETAILS
- 1724000049-HV-DA-00028 - B-300 HVAC and LIGHTING PANEL WIRING DRAWINGS and GENERAL ARRANGEMENT (INCL INTERCONNECTING) - E&I SHELTERS

REFERENCE DOCUMENT:

- 1724000049-HV-PID-00041 - B-300 PID - E&I SHELTERS
- 1724000049-HV-LIS-00049 - B-300 HVAC COMPONENTS LIST AND DS - E&I SHELTERS
- 1724000049-HV-RE-00055 - HVAC SYST DESCRIPTION (MANAGEMENT LOGICS) - E&I SHELTERS
- 1724000049-QC-PRO-00056 (FAT Procedure)
- ECA-00-ELE-DEB-0001 Rev.7 Electrical Design Criteria

Inspection List	YES	NO	N.A.
Functional Test of Electrical System			
- Check of Lighting System, Control Panel, and socket/switch.			X
- Cable tag and wiring			X
- Cable tray and conduit installation			X
- Grounding System Installation			X
Functional Test of Grounding System			
- Check the functionality of Grounding System (less than 200 mΩ)			X

Comments:

The items listed above are marked as N.A. because FAT activities have not been conducted. The HVAC system supply and installation were not completed by the specified date, making it impossible to perform all the functional tests outlined in the table.

Doc. Name: ELECTRICAL TESTS		Report No.07 Mod 1.4.6
OUR JOB X176-24X	Date 23/07/2024	Page 1/1

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** AC UPS EQUIPMENT ROOM B-300
S/N: B300	**FAT procedure:** 1724000049-QC-PRO-00056

At this stage, checking the lighting system was not possible, as this activity must be performed only after the lights are installed at the correct height.

ALEX SISTEMI *Quality Assurance*	Customer	Final Customer	3rd Part	Other
ALEXSISTEMI spa				

Doc. Name: CHECK AND FUNCTIONAL TEST OF HVAC SYSTEM		Report No.03 Mod 1.4.7
OUR JOB X176-24X	Date 23/07/2024	Page 1/1

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** AC UPS EQUIPMENT ROOM B-300
S/N: B300	**FAT procedure:** 1724000049-QC-PRO-00056

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 23/07/2024

REFERENCE DRAWING:

- 1724000049-AR-DA-00016 - B-300 GENERAL ARRANGMENT DRAWINGS - E&I SHELTERS
- 1724000049-HV-DA-00066 - MODULE B-300 – HVAC SYSTEM–G.A. AND DETAILS
- 1724000049-HV-DA-00028 - B-300 HVAC and LIGHTING PANEL WIRING DRAWINGS and GENERAL ARRANGEMENT (INCL INTERCONNECTING) - E&I SHELTERS

REFERENCE DOCUMENT:

- 1724000049-HV-PID-00041 - B-300 PID - E&I SHELTERS
- 1724000049-HV-CA-00037 - B-300 HVAC CALCULATION REPORT (Incl HVAC SYS CALC and HEAT DISSIPATION CALC) - E&I SHELTERS
- 1724000049-HV-LIS-00049 - B-300 HVAC COMPONENTS LIST AND DS - E&I SHELTERS
- 1724000049-HV-RE-00055 - HVAC SYST DESCRIPTION (MANAGEMENT LOGICS) - E&I SHELTERS
- 1724000049-QC-PRO-00056 (FAT Procedure)
- ECA-00-ELE-DEB-0001 Rev.7 Electrical Design Criteria

Inspection List	PASS	FAIL	N.A.	value
Functional & performance Test of A/C System (HVAC Test):				
• Visual and correct installation of HVAC fans.			x	
• Functional check of fans.			x	
• Check the functionality and performance of A/C System			x	

Doc. Name: CHECK AND FUNCTIONAL TEST OF HVAC SYSTEM		Report No.03 Mod 1.4.7
OUR JOB X176-24X	Date 23/07/2024	Page 1/1

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** AC UPS EQUIPMENT ROOM B-300
S/N: B300	**FAT procedure:** 1724000049-QC-PRO-00056

Comments:

The items listed above are marked as N.A. because FAT activities have not been conducted. The HVAC system supply and installation were not completed by the specified date, making it impossible to perform all the functional tests outlined in the table.

ALEX SISTEMI *Quality Assurance*	Customer	Final Customer	3rd Part	other
ALEXSISTEMI spa				

Section 13 MECHANICAL COMPLETION CHANGES / MARK-UPS

NOT APPLICABLE