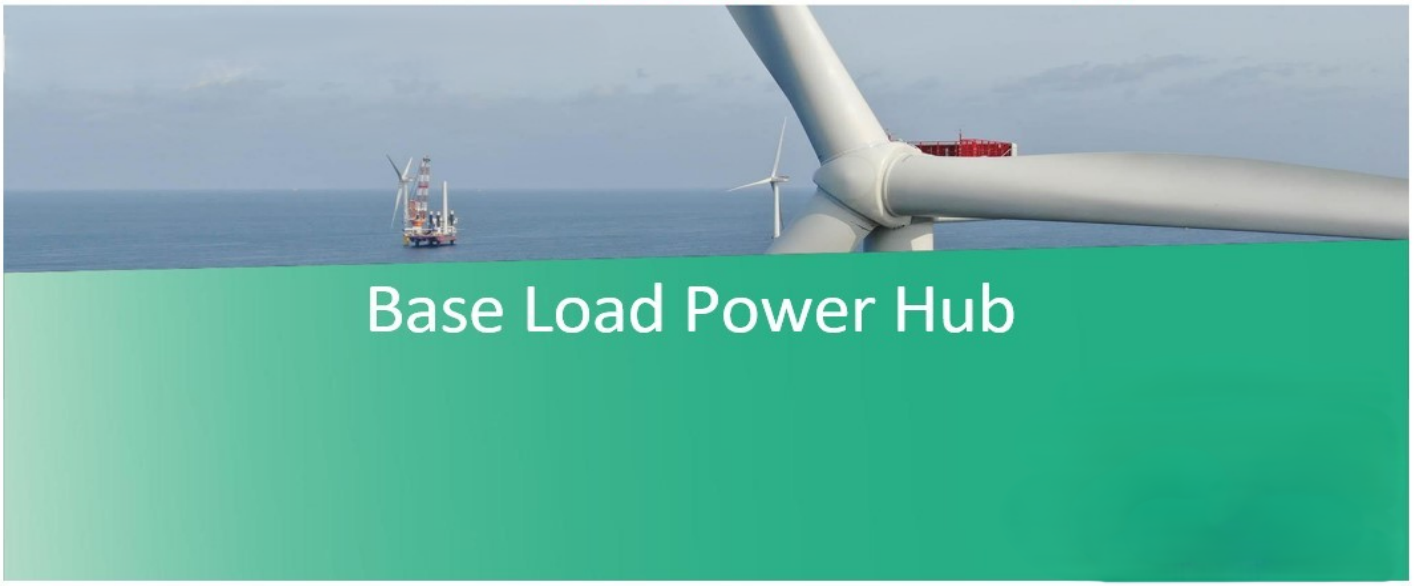
CROSSWIND

ROSETTI MARINO

PROVERUS

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



COMMISSIONING DOSSIER (ONSHORE)

SYSTEM	77 Heating & Ventilation
SUBSYSTEM	77-10 HVAC HV/MV Switchgear Room B-100

CROSSWIND

123A90 - HOLLANDSE KUST NOORD WIND PARK
BLPH Project

COMMISSIONING DOSSIER INDEX

ROSETTI MARINO

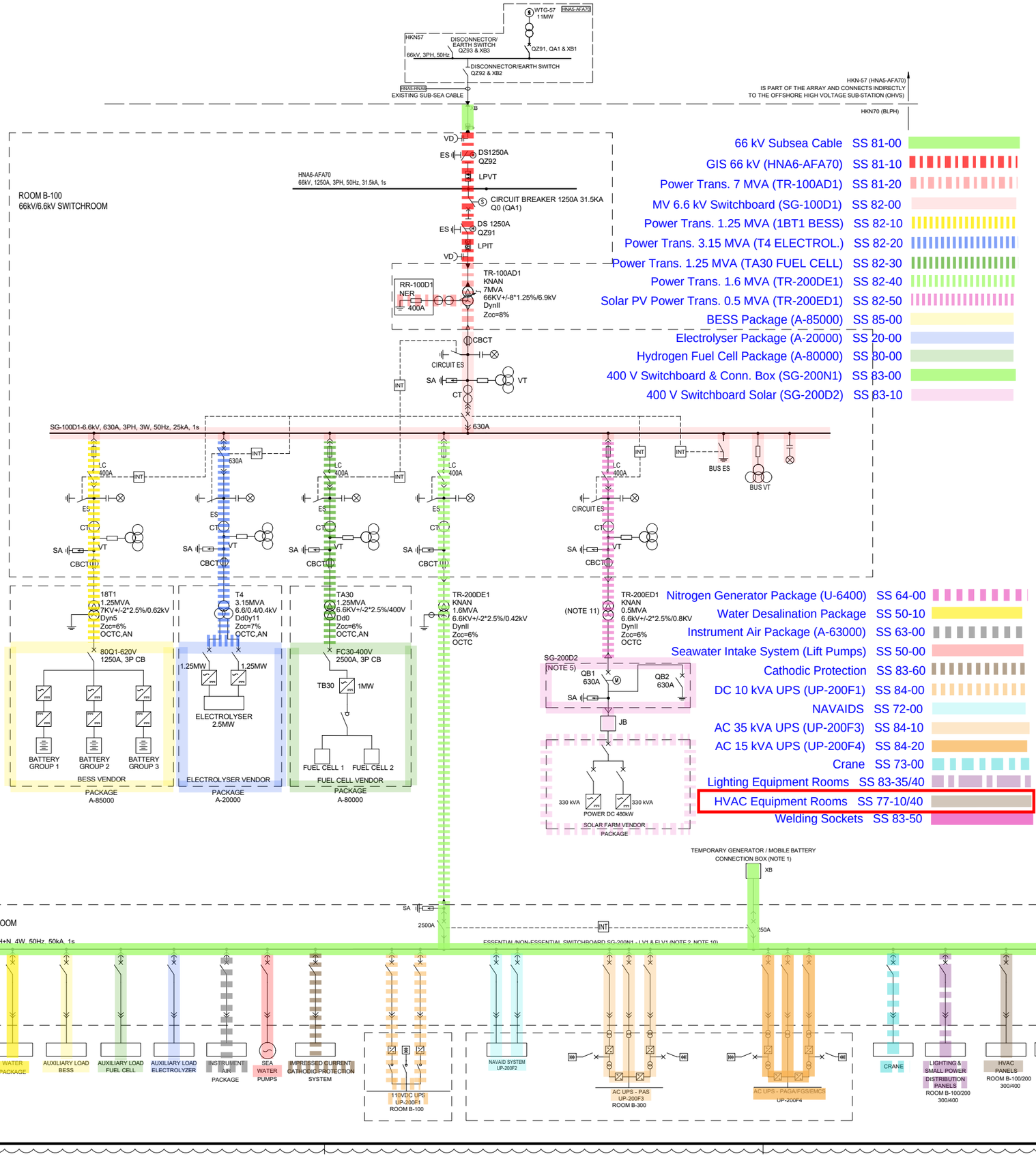
Sub System N°:	77-10	**Tick as appropriate**	ONSHORE	OK
Description:	HVAC HV/MV Switchgear Room B-100		OFFSHORE	

1. *SUB-SYSTEM DEFINITION*	OK
1.1 Sub-System Description / Boundary Limit Drawings	
2. *READY FOR OPERATION CERTIFICATE*	OK
2.1 Achievement Of Ready for Operation Certificate (RFO)	
2.2 Exception Punch Lists (per discipline)	
2.3 “As-Commissioned” P&ID’s / SLD’s / D&ID’s / C&E’s	
3. *CONSOLIDATED PUNCH LISTS*	OK
3.1 Cleared and Residual Items (sorted by discipline)	
4. *FUNCTIONAL TESTS SHEETS*	OK
4.1 Electrical functional test sheets index	
4.2 Electrical “As-Commissioned” interconnection diagrams	
4.3 Instrumentation Functional Test Sheets Index	
4.4 Instrumentation “As-Commissioned” interconnection diagrams	
4.5 Telecommunication Functional Test Sheets Index	
4.6 Telecommunication “As-Commissioned” I.C.D. / TSLD’s	
5. *SITE / OPERATIONAL:*	NA
5.1 Operational Test Procedure	
5.2 Operational Test Certificates	
6. *PIPING AND VESSEL PREPARATION*	NA
6.1 Final Mechanical / Vessel Inspection Checks Index	
6.2 Leak Test / Drying / Inerting Test Sheets Index	
6.3 Chemical Loading & First Fill records Index	
6.4 Chemical Cleaning Reports and Records Index	
6.5 Lubrication Schedule	
7. *VENDORS*	OK
7.1 Vendor Package Summary Index	
7.2 SAT Procedure with associated punch list and reference (Front Page)	
7.3 Vendor Spares & Special Tools lists references	
7.4 Vendor Data / Operations / Maintenance Manuals References	
8. *LIST OF MODIFICATIONS*	NA
8.1 List of changes initiated during the WORKSITE Commissioning phase pertaining to the relevant Sub-System will be incorporated in this section with relevant references (with location and position of blinds/spades, isolation LO & LC valves, list of electrical isolation status, and remaining inhibits and overrides)	
9. *SUPPORTING DOCUMENTS*	NA
9.1 Other supporting documents (as applicable)	

	Contractor Commissioning Site Leader	Company Commissioning Site Leader
Name	Anthony Iveson	Martin Taylor
Date	2025-05-22	2025-05-22
Signature	PROVERLIS Digitaly signed by Anthony Iveson 2025-05-22T12:05:20.156Z	PROVERLIS Digitaly signed by Martin Taylor 2025-05-22T13:35:56.449Z

Section 1 SUB-SYSTEM DEFINITION

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 :

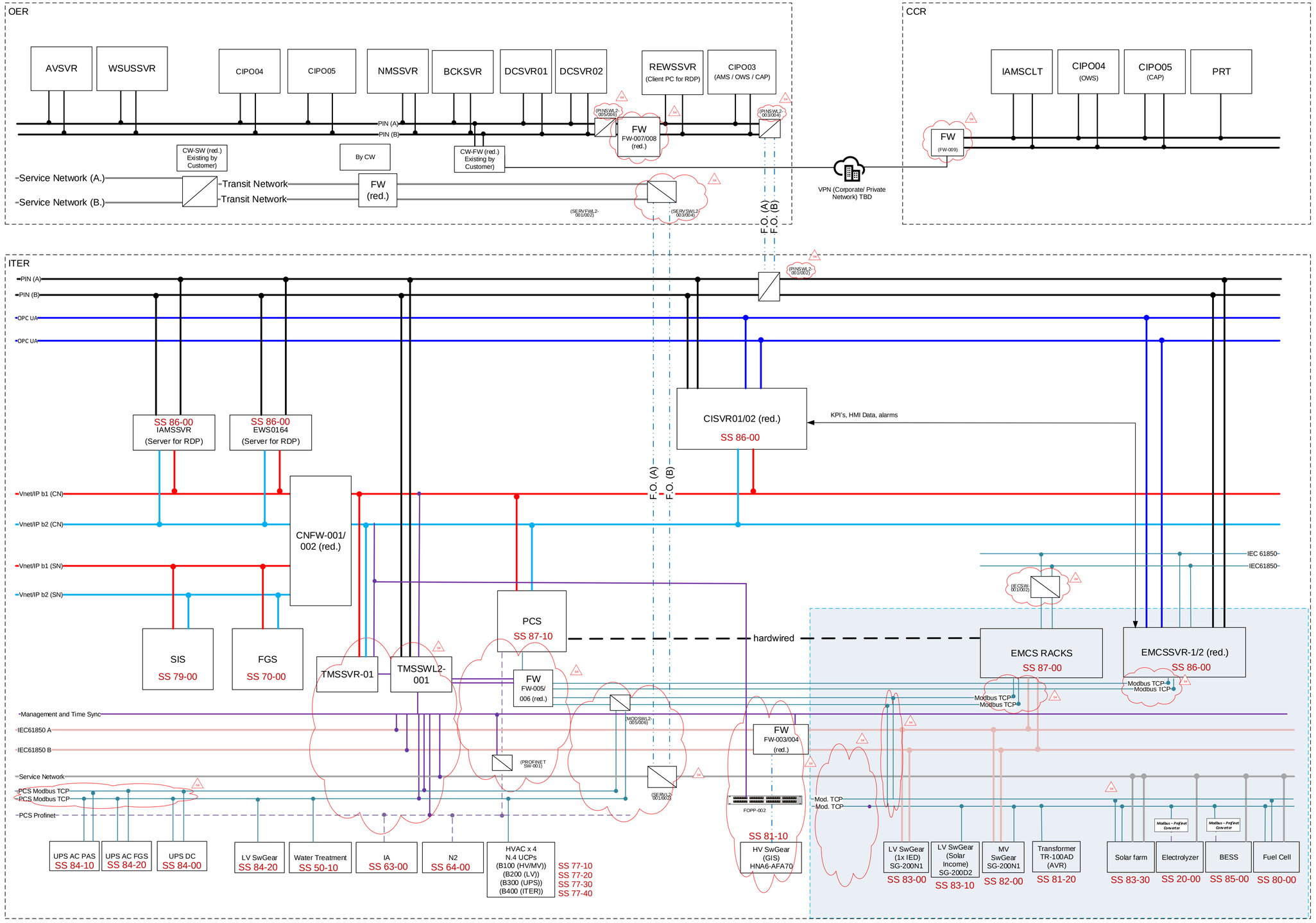
OVERALL/KEY SINGLE LINE DIAGRAM

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

CROSSWIND BLPH PROJECT - SYSTEM BLOCK DIAGRAM



AMS	: Alarm Management System	FCS	: Field Control Station
AV	: Anti-virus	FGS	: Fire & Gas System
BCK	: Backup Server	FO	: Fiber Optic
BESS	: Battery Energy Storage System	FOPP	: Fiber Optic Patch Panel (by others)
BLPH	: Base Load Power Hub	FTA	: Field Termination Assembly
CAP	: Critical Alarm Panel	HIST	: Historian
CCR	: Central Control Room	HKN	: Hollandse Kust Noord
CI	: Collaborative Infomation	IAMS	: Instrument Asset Management System
CN	: Control Network	ITER	: Instrument & Telecom Equipment Room
DC	: Domain Controller	LHVS	: Land High Voltage Station
DMZ	: De-militarized Zone	MCC	: Motor Control Center
ESB	: IO communication bus	MODB	: Modbus
EWS	: Engineering Work Station	MQTT	: Message Queuing Telemetry Transport
FC	: Field Communication (Vnet/IP)	NMS	: Network Management System
OER	: Onshore Equipment Room		
OHVS	: Offshore High Voltage Station		
OWS	: Operator Work Station		
PIN	: Plant Information Network		
PKG	: Package		
RDP	: Remote Desktop Protocol		
SCS	: Safety Control Station		
SIS	: Safety Instrumented System		
SN	: Safety Network		
SW	: Switch		
UCP	: Unit Control Panel (3rd party systems)		
VM	: Virtual Machine		
Vnet/IP	: Yokogawa's Control network		
WSUS	: Windows Security Update Services		

LEGEND:

- PIN (Plant Information Network)
- Vnet/IP BUS 1 PCS
- Vnet/IP BUS 2 PCS
- Vnet/IP BUS 1 SIS/FGS
- Vnet/IP BUS 2 SIS/FGS
- ESB bus connection
- IEC61850 connection
- OPC UA connection
- Service Network connection
- Modbus TCP connection
- Profinet (non redundant)
- Fiber Optic Patch Cords
- Fiber Optic connection (core by Crosswind)
- Fiber Optic backbone (by Crosswind)
- System Cable connection
- Management and Time sync.

Note 1 : Exact assignment of Servers per cabinet to be defined in cabinet General Arrangement Drawing.
Note 2 : For IP Addresses refer to 1724000594-IN-RE-00043 Cyber Security Settings
Note 3 : All Network Components will be installed in Network Cabinet.
Note 4 : Supply of Console Desk in CCR is in Customer Scope.
Note 5 : All Network Switches and Firewall is configured in VLAN.
Note 6 : Intermediate FO Connection between HNA5 and OER Intentionally not shown.

Zone-1	: PCS Control Zone	Zone-2	: Safety Control Zone
Zone-3	: PCS Zone	Zone-4	: Application Server Facility Zone
Zone-5	: Security Management Zone-1	Zone-6	: Security Management Zone-2
Zone-7	: Demilitirized Zone	Zone-8	: Croswind Zone
Zone-9	: Service Network Zone	Zone-10	: Application Server Facility Zone-OD
Zone-11	: Third Party System Zone		: Out of Scope

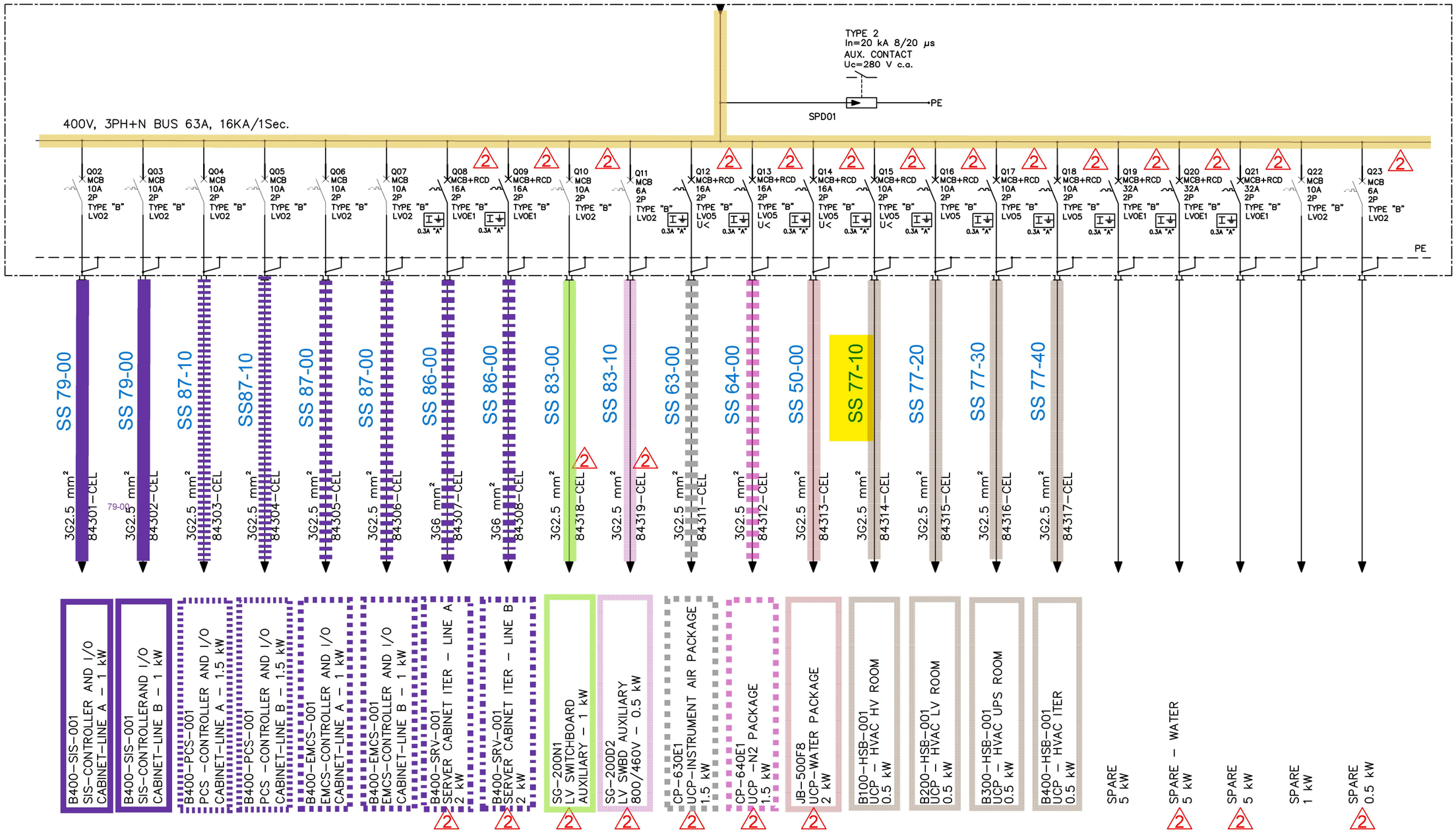
REV	DWG BY	CHK BY	APP BY	DATE
04	SKR	MP/AB	SC	12-Feb-25
03	SKR	MP/AB	SC	26-Aug-24
02	SKR	MP/AB	SC	28-Jun-24
01	SKR	MP/AB	SC	24-May-24
00	SKR	AB	SC	23-Apr-24

Doc No : 1724000594-IN-DD-00015
Doc Name : System Architecture

ROSETTI MARINO
HOLLANDSE KUST NOORD WIND PART Project
CROSSWIND
YOKOGAWA

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

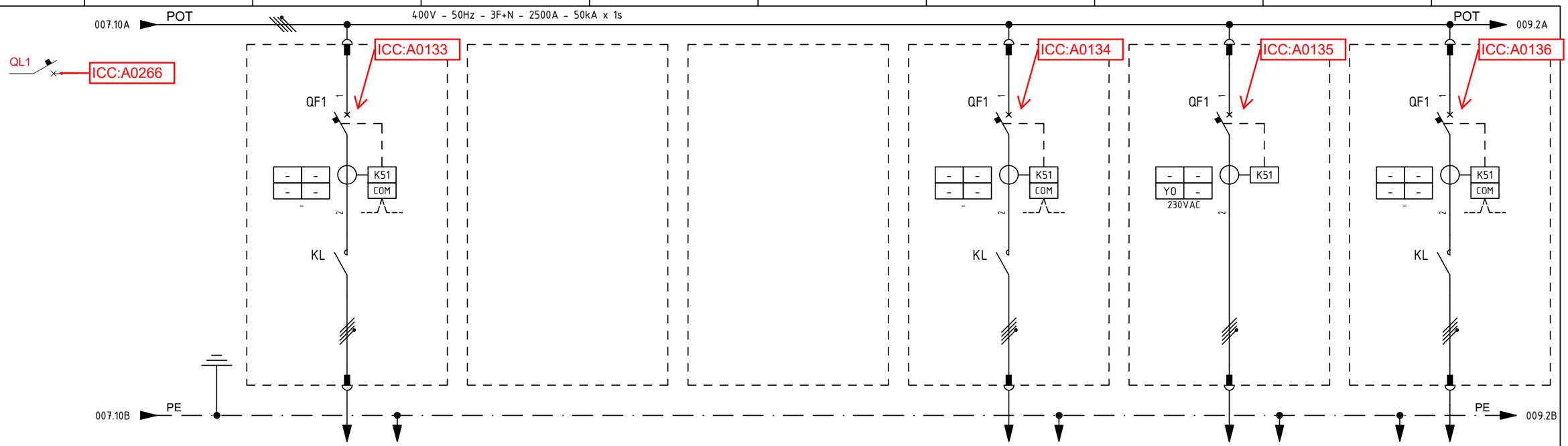
TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL SINGLE LINE DIAGRAMS AC UPS SYSTEMS
AC UPS – PAS DISTRIBUTION BOARD SLD (UP–200F3)

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		-			JB-500E8		UP-200F3		B100-HSB-001	
UTILITY			2	SPARE		FUTURE			WATER PACKAGE		AC UPS PAS - 30 MIN UP-200F3 - LINE B		HVAC PANELS HV ROOM	
COLUMN/CUBICLE			3	A3 / +05		A3 / +06			A3 / +08		A4 / +01		A4 / +02	
RATED POWER | RATED CURRENT			4/5	5.5 kW	9.93 A	-	-		67 kW	107.00 A	36.0 kW	57.8 A	18 kW	34.1 A
TYPICAL FUNCTIONAL			6	LK1-40					LK2-160		L1-100		LK1-40	
CIRCUIT BREAKER (ABB)	TYPE		7	XT2S - 160					XT4S - 250		XT2S - 160		XT2S - 160	
	VERSION		8	4P - FIXED					4P - FIXED		4P - FIXED		4P - FIXED	
	TRIP UNITS		9	EKIP HI TOUCH LSIG (In = 40A)					EKIP HI TOUCH LSIG (In = 160A)		EKIP DIP LSIG (In = 100A)		EKIP HI TOUCH LSIG (In = 40A)	
	Icu	KA	10	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	
		Range t	12	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		(1 - 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	
INST. SHORT-CIRCUIT	I	Range A	15	(1.5 - 15) x In					(1.5 - 15) x In		(1 - 10) x In		(1.5 - 15) x In	
		Range t	16	instantaneous					instantaneous		<= 0.02 sec		instantaneous	
EARTH FAULT PROTECTION	G	Range A	17	(0.1 - 1) x In					(0.1 - 1) x In		(0.2 - 1) x In		(0.1 - 1) x In	
		Range t	18	t=k / t=k/I^2					t=k / t=k/I^2		0.1 - 0.8 sec		t=k / t=k/I^2	
CONTACTOR (ABB)			19	AF40-40-00-13 (70A-AC1); 100-250VAC/DC					AF190-40-11-13 (275A-AC1); 100-250 VAC/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 50.10		SUBSISTEM 84.10		SUBSISTEM 77.10	
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	-					5G70		4G35		5G16	

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

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)

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

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 008

REV. 03

F.to UNI A3: 420mmx297mm

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

Section 2 READY FOR OPERATION

Section 2.1 Achievement Of Ready for Operation Certificate (RFO)

123A90 - HOLLANDSE KUST NOORD WIND PARK
BLPH Project

Ready For Operation (RFO) Certificate

COMPLETE	●	PARTIAL	

Revision:	2		Issued on:	2025-05-19	

System:	77	/	Heating & Ventilation

SubSystem:	77-10	/	HVAC HV/MV Switchgear Room B-100

We hereby confirm that all Mechanical Completion (MC) and Pre-Commissioning/Commissioning (Pre-Comm./Comm.) activities for the above-mentioned System/Sub-System have been successfully completed in accordance with project specifications, relevant standards and contractual requirements. The System/Sub-System has been tested and verified to ensure readiness for operation. Issuance of this Certificate shall not release CONTRACTOR from any of his obligations, responsibilities or liabilities under the CONTRACT.

- **Mechanical Completion:** All required MC activities have been completed and approved
- **Pre-Commissioning & Commissioning:** All required Pre-Comm. and Comm. activities and OTPs have been completed and approved (Status Index attached)
- **Punch List:** All Punch items categorized as A and B have been cleared (PL report attached)
- **Documentation:** As-built documentation and Commissioning dossier has been completed, reviewed and approved

PUNCH LIST	PENDING POINTS
Note: All Category "A" and "B" Items must be cleared prior to issuance of the Ready For Operation (RFO) Certificate	B: 2

REMARKS:

	CONTRACTOR Commissioning Manager	COMPANY Commissioning Lead
Name	Anthony Iveson	Martin Taylor
Date	2025-05-19	2025-05-22
Signature	PROVERLIS Digitaly signed by Anthony Iveson 2025-05-19T09:39:32.250Z	PROVERLIS Digitaly signed by Martin Taylor 2025-05-22T09:25:07.036Z

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 77-10 & process: COMM

Electrical	77-10 HVAC HV/MV Switchgear Room B-100						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
A4/+02-QF1	DRAWER HVAC PANELS HV ROOM - A4/+02-QF1	ONSHORE	C10002866	FP00	100	2024-10-22	RFO 2
		ONSHORE	C10002867	FTR-2	100	2024-09-20	RFO 2
		ONSHORE	C10002868	FTR-6	100	2024-10-03	RFO 2
		ONSHORE	C10003014	FTR-5	100	2025-04-29	RFO 2
B100-HSB-001	Distribution & HVAC Panel - HV MV Room	ONSHORE	C10002987	FP00	100	2024-10-29	RFO 2
UP-200F3-QF39	UCP - HVAC ROOM	ONSHORE	C10004576	FTR-2	100	2024-12-07	RFO 2

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 77-10 & process: COMM

Instrumental	77-10 HVAC HV/MV Switchgear Room B-100						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
77-XA-001	B-100 HV/MV SWGR room HVAC fault	ONSHORE	C10003794	FJ01D	100	2025-03-11	RFO 2
77-XS-001	SHUT-DOWN B-100 HV/MV SWGR room HVAC	ONSHORE	C10003798	FJ01D	100	2025-03-11	RFO 2
B100-HSB-001	Distribution & HVAC Panel - HV MV Room	ONSHORE	C10004879	FJ05	100	2025-05-16	RFO 2

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-10 HVAC HV/MV Switchgear Room B-100

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000210	A	77-HS-001A C10002077	Missing earthing connection. Point valid for all HS inside B-100.	-	Installed	Gtangianu 2024-10-16	CBongiovanni 2024-10-18	Ecarotenuto 2024-10-18	2024-10-18
C30000895	A	C-77-XA-001/B400-SIS-001 C10000184	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
C30000195	B	77-HS-001B C10002078	EARTHING BAR SHALL BE CONNECTED TO EARTHING POINT IN N.1 POINT WITH 35sqmm Y/G CABLE	-		Gtangianu 2024-10-16	2024-12-28	Gtangianu 2024-12-28	2024-12-28
C30000196	B	C-77-HS-001A/77-HS-001B C10000355	Missing plastic cable tag on MCT inside B-100. (This point is valid for all HS cables).	-		Gtangianu 2024-10-16	2025-01-03	Ecarotenuto 2025-01-03	2025-01-03
C30000197	B	77-HS-001A C10002077	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 2024-10-16	2024-11-23	Lmussi 2024-11-23	2024-11-23
C30000198	B	77-HS-001A C10002077	Elevation of instrument is not in accordance with Layout. Point valid for 77-HS-001A / 77-HS-002A / 77-HS-003A . See attachment	-		Gtangianu 2024-10-16	2025-03-04	Gtangianu 2025-03-04	2025-03-04
C30000199	B	C-77-HS-002B/950-JE-06203 C10000357	Missing plastic cable tag side 950-JE-06203	-		Gtangianu 2024-10-16	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000200	B	C-77-HS-001B/950-JE-06203 C10000354	Missing plastic cable tag side 950-JE-06203	-		Gtangianu 2024-10-16	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000201	B	C-77-HS-003B/950-JE-06203 C10000360	Missing plastic cable tag side 950-JE-06203	-		Gtangianu 2024-10-16	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-10 HVAC HV/MV Switchgear Room B-100

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000202	B	C-77-HY-001/77-HS-001A C10000356	Missing plastic cable tag side C-77-HY-001	-		Gtangianu 2024-10-16	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000203	B	C-77-HY-003/77-HS-003A C10000362	Missing plastic cable tag side C-77-HY-003	-		Gtangianu 2024-10-16	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000204	B	C-77-HY-002/77-HS-002A C10000359	Identification tag wire missing inside C-77-HY-002 connection.	-		Gtangianu 2024-10-16	2024-12-17	Gtangianu 2024-12-17	2024-12-17
C30000205	B	C-77-HY-003/77-HS-003A C10000362	Identification tag wire missing inside C-77-HY-003 connection.	-		Gtangianu 2024-10-16	2024-12-17	Gtangianu 2024-12-17	2024-12-17
C30000206	B	C-77-HY-001/77-HS-001A C10000356	Identification tag wire missing inside C-77-HY-001 connection.	-		Gtangianu 2024-10-16	2025-01-30	APolo 2025-01-30	2025-01-30
C30000207	B	C-77-HS-003B/950-JE-06203 C10000360	Identification tag wire missing inside 950-JE-06203 connection.	-		Gtangianu 2024-10-16	2025-01-07	Gtangianu 2025-01-07	2025-01-07
C30000208	B	C-77-HS-002B/950-JE-06203 C10000357	Identification tag wire missing inside 950-JE-06203 connection.	-		Gtangianu 2024-10-16	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000209	B	C-77-HS-001B/950-JE-06203 C10000354	Identification tag wire missing inside 950-JE-06203 connection.	-		Gtangianu 2024-10-16	2025-01-07	Gtangianu 2025-01-07	2025-01-07
C30000211	B	C-77-HS-001A/77-HS-001B C10000355	Plastic cable ties used to fix the cable tag should be replaced on all external routing.	-		Gtangianu 2024-10-16	2024-12-23	Ecarotenuto 2024-12-23	2024-12-23

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-10 HVAC HV/MV Switchgear Room B-100

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000212	B	C-77-HS-002A/77-HS-002B C10000358	Plastic cable ties used to fix the cable tag should be replaced on all external routing.	-		Gtangianu 2024-10-16	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000213	B	C-77-HS-003A/77-HS-003B C10000361	Plastic cable ties used to fix the cable tag should be replaced on all external routing.	-		Gtangianu 2024-10-16	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000214	B	C-77-HY-002/77-HS-002A C10000359	Missing plastic cable tag side C-77-HY-002.	-		Gtangianu 2024-10-16	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000232	B	B-100 C10002297	77-TP-101 INSTRUMENT IS NOT ACCESIBLE FOR MAINTENANCE.	-	POINT CLOSED - INSTRUMENT IS FREE FOR MAINTENANCE	Gtangianu 2024-10-18	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000611	B	B100-HSB-001/B400-FGS-003 C10002035	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
C30000612	B	B100-HSB-001/B400-FGS-003 C10002035	Missing the cable Plastic tag of project, cabinet side B400-FGS-002	.		APolo 2024-11-19	2025-02-04	APolo 2025-02-04	2025-02-04
C30000613	B	B100-HSB-001/B400-FGS-003 C10002035	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
C30000614	B	B100-HSB-001/B400-FGS-003 C10002035	Missing the cross-ferruling (Cores + Shields) . Pannel side B100-HSB-001 . (see document 123A90-DDL-IN-DG-40016 sh.3)	.		APolo 2024-11-19	2024-12-17	Gtangianu 2024-12-17	2024-12-17
C30000615	B	B100-HSB-001/B400-FGS-003 C10002035	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

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-10 HVAC HV/MV Switchgear Room B-100

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000883	B	C-77-XS-001/B400-SIS-001 C10000180	Missing cable tag , cabinet side B400-SIS-001	.		APolo 2024-11-25	2025-01-03	Gtangianu 2025-01-03	2025-01-03
C30000884	B	C-77-XS-001/B400-SIS-001 C10000180	Missing the cross-ferruling (Cores) . Cabinet side B400-SIS-001 / B-100 HVAC . (see document 123A90-DDL-IN-DG-40016 sh.3)	.		APolo 2024-11-25	2025-04-11	Gtangianu 2025-04-11	2025-04-11
C30000885	B	C-77-XS-001/B400-SIS-001 C10000180	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
C30000892	B	C-77-XA-001/B400-SIS-001 C10000184	Missing cable tag , cabinet input B400-SIS-001.	.		APolo 2024-11-25	2025-01-03	Gtangianu 2025-01-03	2025-01-03
C30000893	B	C-77-XA-001/B400-SIS-001 C10000184	Missing the cross-ferruling (Cores) . Cabinet side B400-SIS-001 / B-100 HVAC. (see document 123A90-DDL-IN-DG-40016 sh.3)	.		APolo 2024-11-25	2025-04-11	Gtangianu 2025-04-11	2025-04-11
C30000894	B	C-77-XA-001/B400-SIS-001 C10000184	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

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-10 HVAC HV/MV Switchgear Room B-100

Electrical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000528	A	B100-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
C30000532	A	B100-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	Spot check with Yokogawa and the communication work	SLinari 2024-10-30	Vendor 2025-02-22	SLinari 2025-02-22	2025-02-22
C30000022	B	B-100	Roof-top cables to be fixed with cable ties made by AISI 316L		ACTIVITY PERFORMED	SLinari 2024-08-02	SLinari 2024-12-05	SLinari 2024-12-05	2024-12-05
C30000026	B	B-100	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
C30000030	B	B-100	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
C30000034	B	B-100	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
C30000038	B	B-100	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
C30000042	B	B-100	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 - SEE PICTURES	SLinari 2024-08-02	SLinari 2024-12-05	SLinari 2024-12-05	2024-12-05
C30000050	B	B-100	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 77-10 HVAC HV/MV Switchgear Room B-100

Electrical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000084	B	B-100	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
C30000088	B	B-100	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
C30000092	B	B-100	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
C30000231	B	B-100 C10002296	Lighting system to be completed	-	COMPLETED	Gtangianu 2024-10-18	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000233	B	83023-CEL C10000548	Cable to be fixed with proper cable ties (point valid for internal and external cable routing).	-		Gtangianu 2024-10-18	2025-01-30	APolo 2025-01-30	2025-01-30
C30000234	B	B100-HSB-001 C10000835	Switch identification tags are hand written . To be replaced.	-		Gtangianu 2024-10-18	2025-04-09	Gtangianu 2025-04-09	2025-04-09
C30000235	B	B100-HSB-001 C10000835	Identification numbers on the terminal strip are hand written .To be Replaced.	-		Gtangianu 2024-10-18	2025-02-25	Ecarotenuto 2025-02-25	2025-02-25
C30000236	B	B100-HSB-001 C10000835	Black Thermoshrink is used on earthing connection inside the panel. To be replaced	-		Gtangianu 2024-10-18	2024-12-03	Ecarotenuto 2024-12-03	2024-12-03
C30000520	B	B100-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

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation
SUBSYSTEM 77-10 HVAC HV/MV Switchgear Room B-100

Electrical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000524	B	B100-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 2025-02-22	SLinari 2025-02-22	2025-02-22
C30000536	B	B100-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
C30000914	B	84314-CEL C10000590	the philosophy of cross-ferruling are wrong cabinet side B100-HSB-001 / DP-200F3 . (see document 123A90-DDL-IN-DG-40016 sh.3)	.		APolo 2024-11-25	2025-02-15	AAndreani 2025-02-15	2025-02-15
C30001424	B	B-100 C10002296	(Open during WD) The ground wires connecting the BTM inside the B100 must be arranged, and all bolts used in the BTM is not typical. . See	.		Gtangianu 2024-12-06	2025-02-04	Gtangianu 2025-02-04	2025-02-04

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PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-10 HVAC HV/MV Switchgear Room B-100

Mechanical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000548	A	B100-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
C30000556	A	B-100	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	COMPONENTS LIST AND DS - E&I SHELTERS has been re issued and approved	SLinari 2024-10-30	Vendor 2025-04-04	SLinari 2025-04-04	2025-04-04
C30000014	B	B-100	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
C30000018	B	B-100	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
C30000046	B	B-100	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
C30000515	B	B-100	Damper actuator HFZ-77001 is out of order. During SAT activities the actuator did not open the fire and gas damper.	It must be replaced	Fire damper replaced	SLinari 2024-10-30	GDelmissier 2025-05-09	GDelmissier 2025-05-09	2025-05-09
C30000540	B	B-100	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
C30000544	B	B-100	None pressure relief damper HDR-77-101 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.	The damper HDR-77-101 has been adjusted. Inside the shelter a constant pressure	SLinari 2024-10-30	GDelmissier 2025-05-09	GDelmissier 2025-05-09	2025-05-09
C30000552	B	B-100	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 77-10 HVAC HV/MV Switchgear Room B-100

Mechanical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000560	B	B-100	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	all documentation has been re issued and approved by vendor, in particulat	SLinari 2024-10-30	Vendor 2025-04-04	SLinari 2025-04-04	2025-04-04
C30004324	B	B-100	During execution of Cause & Effect OTP doc. n. 123A90-PML-COM-PRO-03054, it had been noted that on equipment packages provided with		Logic implemented and tested	GDelmissier 2025-04-15	GDelmissier 2025-05-15	GDelmissier 2025-05-15	2025-05-15
C30004382	B	B-100	With reference to punch C30000515, a temporary actuator was installed to continue commissioning activities.	Replace the temporary actuator with the originally specified actuator.		GDelmissier 2025-05-12			

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-10 HVAC HV/MV Switchgear Room B-100

HVAC

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000054	B	B-100	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. C30000560	SLinari 2024-08-02	SLinari 2025-02-06	SLinari 2025-02-06	2025-02-06
C30000058	B	B-100	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
C30000068	B	B-100	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
C30000072	B	B-100	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
C30000076	B	B-100	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 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000080	B	B-100	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

Project CROSSWIND

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SYSTEM 77 Heating & Ventilation
SUBSYSTEM 77-10 HVAC HV/MV Switchgear Room B-100

Telecom									
CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000786	B	B100-HSB-001/ B400-NET-001 C10004353	Identification tag wires missing both side the B100-HSB-001/B400-NET-001 connections.	.		Gtangianu 2024-11-22	2025-02-04	Gtangianu 2025-02-04	2025-02-04

Section 2.2 Exception Punch Lists (per discipline)

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

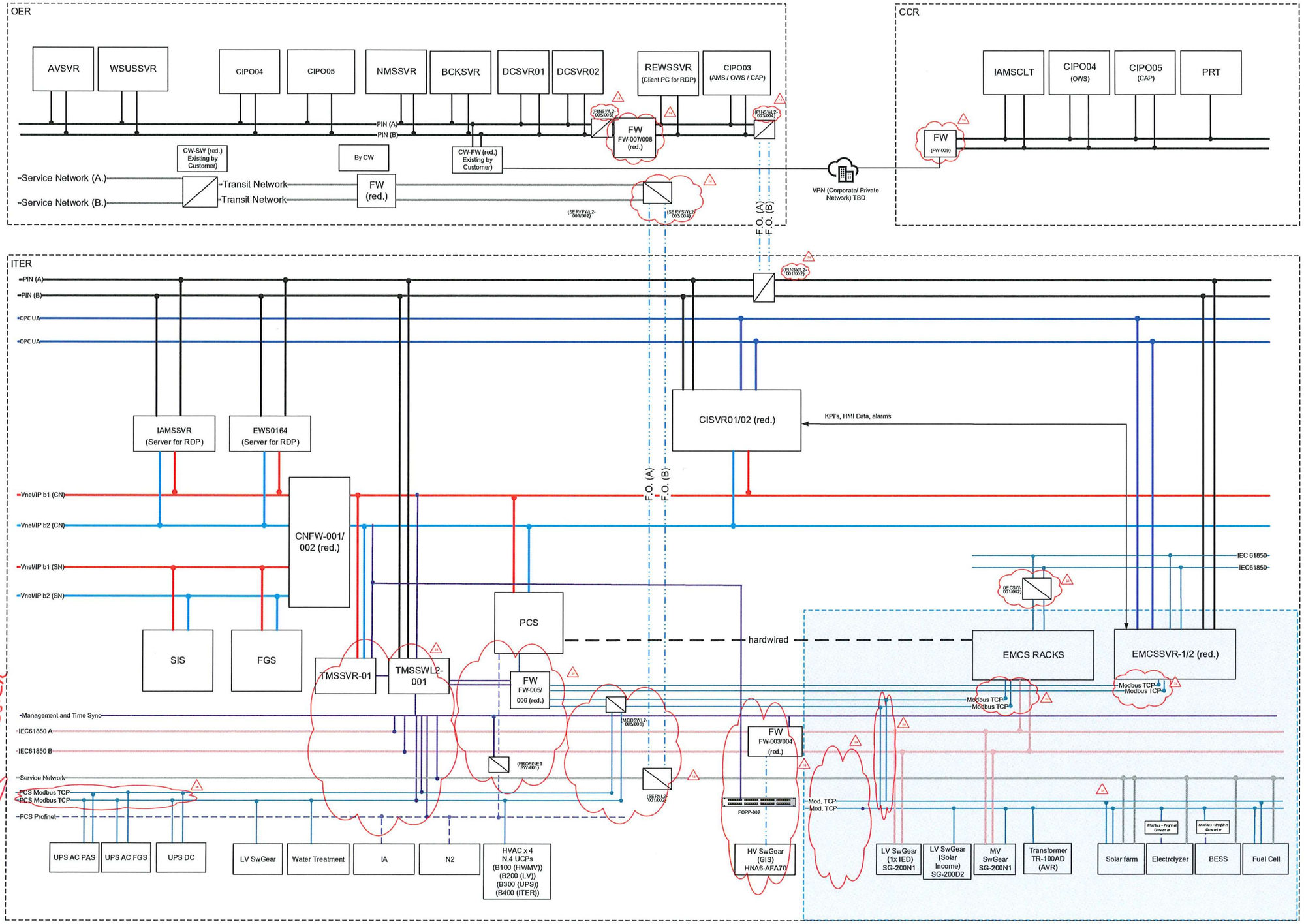
SUBSYSTEM 77-10 HVAC HV/MV Switchgear Room B-100

Mechanical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000552	B	B-100	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			
C30004382	B	B-100	With reference to punch C30000515, a temporary actuator was installed to continue commissioning activities.	Replace the temporary actuator with the originally specified actuator.		GDelmissier 2025-05-12			

Section 2.3 “As-Commissioned” P&ID's / SLD's / D&ID's / C&E's

CROSSWIND BLPH PROJECT - SYSTEM BLOCK DIAGRAM



As Commissioning
08-05-2025
Gianluca De Nisco

AMS	: Alarm Management System	FCS	: Field Control Station
AV	: Anti-virus	FGS	: Fire & Gas System
BCK	: Backup Server	FO	: Fiber Optic
BESS	: Battery Energy Storage System	FOPP	: Fiber Optic Patch Panel (by others)
BLPH	: Base Load Power Hub	FTA	: Field Termination Assembly
CAP	: Critical Alarm Panel	HIST	: Historian
CCR	: Central Control Room	HKN	: Hollandse Kust Noord
CI	: Collaborative Information	IAMS	: Instrument Asset Management System
CN	: Control Network	ITER	: Instrument & Telecom Equipment Room
DC	: Domain Controller	LHVS	: Land High Voltage Station
DMZ	: De-militarized Zone	MCC	: Motor Control Center
ESB	: IO communication bus	MODB	: Modbus
EWS	: Engineering Work Station	MQTT	: Message Queuing Telemetry Transport
FC	: Field Communication (Vnet/IP)	NMS	: Network Management System
OER	: Onshore Equipment Room		
OHVS	: Offshore High Voltage Station		
OWS	: Operator Work Station		
PIN	: Plant Information Network		
PKG	: Package		
RDP	: Remote Desktop Protocol		
SCS	: Safety Control Station		
SIS	: Safety Instrumented System		
SN	: Safety Network		
SW	: Switch		
UCP	: Unit Control Panel (3rd party systems)		
VM	: Virtual Machine		
Vnet/IP	: Yokogawa's Control network		
WSUS	: Windows Security Update Services		

LEGEND:

- PIN (Plant Information Network)
- Vnet/IP BUS 1 PCS
- Vnet/IP BUS 2 PCS
- Vnet/IP BUS 1 SIS/FGS
- Vnet/IP BUS 2 SIS/FGS
- ESB bus connection
- IEC61850 connection
- OPC UA connection
- Service Network connection
- Modbus TCP connection
- Profinet (non redundant)
- Fiber Optic Patch Cords
- Fiber Optic connection (core by Crosswind)
- Fiber Optic backbone (by Crosswind)
- System Cable connection
- Management and Time sync.

Note 1 : Exact assignment of Servers per cabinet to be defined in cabinet General Arrangement Drawing.
Note 2 : For IP Addresses refer to 1724000594-IN-RE-00043 Cyber Security Settings
Note 3 : All Network Components will be installed in Network Cabinet.
Note 4 : Supply of Console Desk in CCR is in Customer Scope.
Note 5 : All Network Switches and Firewall is configured in VLAN.
Note 6 : Intermediate FO Connection between HNA5 and OER Intentionally not shown.

Zone-1 : PCS Control Zone
Zone-2 : Safety Control Zone
Zone-3 : PCS Zone
Zone-4 : Application Server Facility Zone
Zone-5 : Security Management Zone-1
Zone-6 : Security Management Zone-2
Zone-7 : Demilitirized Zone
Zone-8 : Croswind Zone
Zone-9 : Service Network Zone
Zone-10: Application Server Facility Zone-OD
Zone-11: Third Party System Zone
: Out of Scope

REV	DWG BY	CHK BY	APP BY	DATE
04	SKR	MP/AB	SC	12-Feb-25
03	SKR	MP/AB	SC	26-Aug-24
02	SKR	MP/AB	SC	28-Jun-24
01	SKR	MP/AB	SC	24-May-24
00	SKR	AB	SC	23-Apr-24

Doc No : 1724000594-IN-DD-00015
Doc Name : System Architecture

ROSETTI MARINO
HOLLANDSE KUST NOORD WIND PART Project
CROSSWIND
YOKOGAWA

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CAE EPLAN Electric P8

AUXILIARY
From Lighting & Small Power DB BOP DP-200N1
(Cubicle 33-Q41)
103-240V/N/PE~50/60Hz

LINE A
From LV Switchgear SG-200N1
(Cubicle A3/01)
Mains
400V;3/PE~50Hz

From LV Switchgear SG-200N1
(Cubicle A7/02)
Bypass mains
400V;3/PE~50Hz

LINE B
From LV Switchgear SG-200N1
(Cubicle A4/01)
Mains 400V;3/PE~50Hz

back-up fuse gS10A 3G2.5mm2

gG63A 4G35mm2

Not included in the AEG shipment

Code	Description
Q1	Rectifier input mains breaker
T40	Rectifier input isolation transformer
A1	Rectifier
A2	Inverter
T1	Inverter output isolation transformer
A3-A4	Static by-pass switch
A18	Display control module
A85	Heater
H1	Light

+MBC1
BY-200F3
Bypass transformer cabinet 40 kVA
1000007888.320
10009757

-X1 1U,1V,1W,PE
-X10 U,V,W,PE
-X13 U,N,PE
-X14 U,N
-X1 3U,3V,3W,PE
-A85
-H1
-Q10 L=80/65A I=0,8kA Icu=50kA
-T8 400V/400V 40kVA
-Q28.1 NC
-Q28.2 NC
-X1 2U,2V,2W,PE
-X4 1U,1V,1W,1N,PE
-X4 2U,2V,2W,2N,PE
-X1 4U,4V,4W,PE

+UPS1
BC-200F3A
Protect 8.33 40-400-210-400
1000007888.010
10009756

+UPS2
BC-200F3B
Protect 8.33 40-400-210-400
1000007888.310
10009755

-Q1 L=100/85A I=1,0kA Icu=50kA
-T40
-A1 REC
-A2 INV
-T1
-F1,-F2,-F3
-A3 SBS
-A4
-A18 Display
-A20 Parallel Adapter
INV CAN -X3 1 3 → 203/1.6
INV Sync -X5 1 4 → 205/1.6
203/1.6 → -X3 1 3 INV CAN
205/1.6 → -X5 1 4 INV Sync
-L11,-L12,-L13 Parallel preventive choke coil
-A12,-A13 Remote signaling
-A24.1 BLU PRO
-F91
-E2-X2 L-,L+,PE
-X15 2,3
-X130 1,2
-E3-X3 U,V,W,N,PE
-X2 1L+,1L-,PE
-X15 2,3
-X91 1M
-X5 1U,1V,1W,1N,PE
-X2 2L+,2L-,PE
-X15 4,5
-X91 2M
-X130 1,2,PE
-X2 3L+,3L-,PE
-X15 6,7
-X91 3M
-X2 4L+,4L-,PE
-X15 8,9
-X91 4M
-X130 3,4,PE
-Q71 NC
-Q72 NC
-Q29 INV operation / Manual bypass
-F25
DP-200F3
-QF31 B32A 300mA
-QF32 B32A 300mA
-QF33 B32A 300mA
-QF34 B16A 300mA 5pc
-QF38 B16A 300mA
-QF39 B10A 300mA 4pc
-QF42 B13A 300mA
-QF43 B13A 8pc
-QF50 B10A
-QF51 B6A
-QF52 B6A
-X31 U,N,PE
-X32 U,N,PE
-X33 U,N,PE
-X34 U,N,PE
-X38 V,N,PE
-X39 V,N,PE
-X42 W,N,PE
-X43 W,N,PE
-X50 U,N,PE
-X51 V,N,PE
-X52 V,N,PE

Not included in the AEG shipment
max. gG16A
max. gG16A
Load
400/230V;3/N/PE~50Hz

2(1x70 mm2)

+BFB1
CB-200F3A
Battery fuse box 200 A
-Q2 L=200A
DC 24V max. 300W

+BFB2
CB-200F3B
Battery fuse box 200 A
-Q2 L=200A
DC 24V max. 300W

+BAT1
BA-200F3A
Batteries installed on rack
18 x FLG 12-150
Battery voltage 216V
Battery capacity 150Ah
string 1
-R81"

+BAT2
BA-200F3B
Batteries installed on rack
18 x FLG 12-150
Battery voltage 216V
Battery capacity 150Ah
string 1
-R81"

*1 Attention! In the event of battery undervoltage < 130 V, the UPS automatically switches off battery isolator Q2.
If this happens, switch X15:3 must be switched into the open position (undervoltage trip blocked).
For restart, please refer to the chapter in the UPS operating instructions (charging the DC link capacitors) attached.
Unlock the tripped switch Q2 by switching to open position.
After charging the DC link capacitors, switch on Q2.
Attention! When the battery voltage reaches > 200 V, switch X15:3 must be switched back to the closed position.

*2 Connection cables are not included.

NO MARK UP
AS COMMISSIONED
DAVIDE TUCCONELLI
20/05/2025

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724000372-EL-DG-00009

REV.:	DATE:	SIGNATURE:
3_B	02/04/25	G.Randi

ROSETTI MARINO SpA

21	1123333222253	18.09.2024	Dynamic	Date	14.05.2024	ROSETTI MARINO	AEG	System 40 kVA	
22	1123333222269	27.10.2024	Dynamic	Checked	Ch.Picco	Rotterdam Rot. World [NOR] Netherlands		Single-line diagram	
Size	Revision	Date	Name	Name				1000007888_010 en	A0

1000007888_010

DRAWING NO. 123490-1724000049-HV-PID-00039

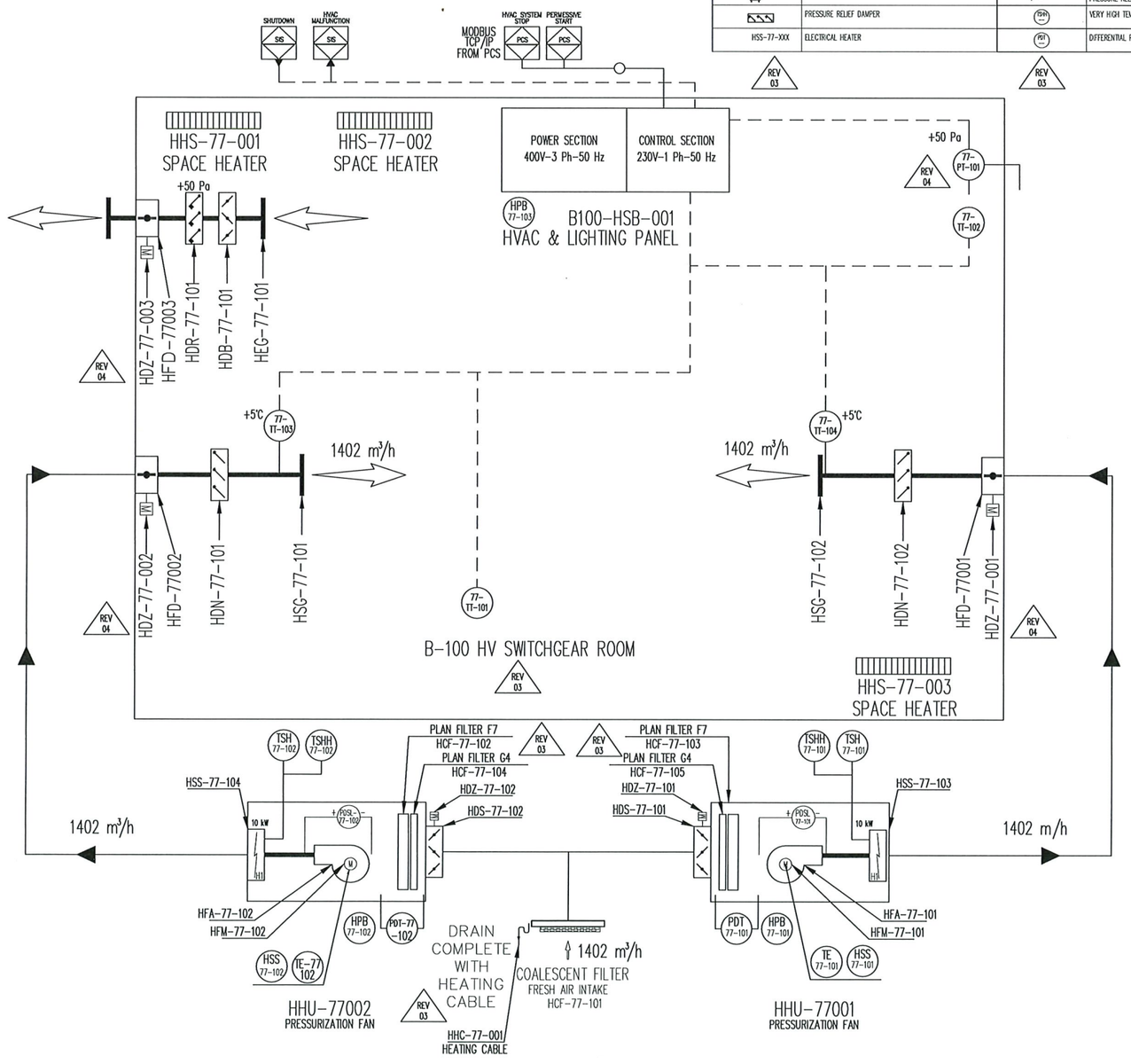
REV. 04

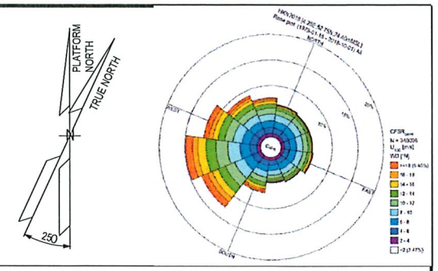
ITEM	HVAC-PRESSURISING FAN
DESCRIPTION	HVAC UNIT
MAKER	FRIGOTERMICA srl
MODEL	4112-DMPD-400
SUPPLY AIR FLOW	389 l/s
COOLING COIL CAPACITY	N.A.
HEATING COIL CAPACITY	10 kW
TENSIONE	400 V - 50 Hz - 3 Ph+N
EXECUTION	SAFE AREA
REFRIGERANT	N.A.

LEGEND

	MOTORISED DAMPER WITH SPRING RETURN	F1	AIR FILTER "G4"		MOTORISED FIRE DAMPER WITH SPRING RETURN
	REGULATION DAMPER	F2	BAG FILTER "F8"		EVAPORATING COIL
	OVERPRESSURE DAMPER		CONDENSING COIL		
PDSH	DIFFERENTIAL PRESSURE SWITCH HIGH PRESSURE		CONDENSING FAN		
PDSL	DIFFERENTIAL PRESSURE SWITCH LOW PRESSURE		HEATING COIL	R	LIQUID RECEIVER
TT	TEMPERATURE TRASMITTER		SUPPLY FAN	HT	MOISTURE TRASMITTER
HPB	EMERGENCY PUSH BUTTON		GLOBE VALVE	PTH	HIG PRESSURE TRASDUCER
OH	COMPRESSOR OIL HEATER		DRYER FILTER	TP	COMPRESSOR THERMIC PROTECTION
SV	SOLENOID VALVE		SIGHT GLASS	TSH	HIGH TEMPERATURE SECURITY THERMOSTATE
	REFRIGERANT COMPRESSOR		THERMOSTATIC VALVE	PSH	HIGH PRESSURE SWITCH
	PRESSURE RELIEF DAMPER		PRESSURE RELIEF VALVE	PSL	LOW PRESSURE SWITCH
HSS-77-XXX	ELECTRICAL HEATER	TSH	VERY HIGH TEMPERATURE SECURITY THERMOSTATE	PC	CONDENSING PRESSURE SWITCH
		PDT	DIFFERENTIAL PRESSURE SWITCH FOR FILTER		SPACE HEATER
				PT	DIFFERENTIAL PRESSURE TRANSMITTER
				HHC-77-XXX	HEATING CABLE

REV 03





NOTES

LEGEND

HOLDS

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 B100 HV Switchroom REV 03

Safe Area
Indoor min. design temperature: +5°C with RH 30 ÷ 70%
Indor max. design temperature: +35°C with RH 30 ÷ 70%
Min. ACH: 6

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 coble 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

AS COMMISSIONED 12-05-2025 GIANDOMENICO DE MASSIS

ALEXSISTEMI S.r.l.

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
04	06/02/24	S.Z.	S.S.	M.C.	ISSUE FOR INFORMATION (IFI)
03	03/12/24	S.Z.	S.S.	M.C.	ISSUE FOR INFORMATION (IFI)
02	29/10/24	S.Z.	S.S.	M.C.	ISSUE FOR INFORMATION (IFI)
01	09/07/24	S.Z.	S.S.	M.C.	ISSUE FOR INFORMATION (IFI)
00	10/06/24	S.Z.	S.S.	M.C.	ISSUE FOR INFORMATION (IFI)

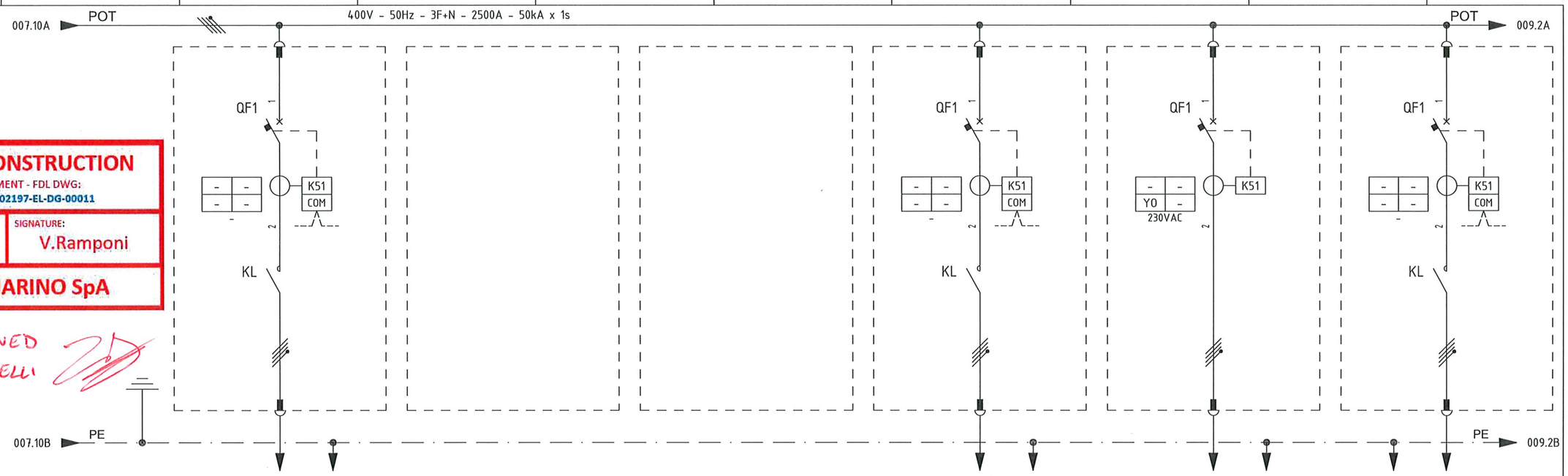
CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH 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 19/12/24
A1	DRAWING NO. 1724000049-HV-PID-00039	SHEET 003	REV. 04

File Name : 123490-1724000049-HV-PID-00039



VALID FOR CONSTRUCTION

VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1723002197-EL-DG-00011

REV.:	DATE:	SIGNATURE:
4_A	18/12/24	V.Ramponi

ROSETTI MARINO SpA

AS-COMMISSIONED
DAVIDE ZUCCONELLI
20/03/2025
NO MARK UP

					JB-500E8	UP-200F3	B100-HSB-001
ITEM			1	SPARE -			
UTILITY			2	SPARE FUTURE	WATER PACKAGE	AC UPS PAS - 30 MIN UP-200F3 - LINE B	HVAC PANELS HV ROOM
COLUMN/CUBICLE			3	A3 / +05 A3 / +06	A3 / +08	A4 / +01	A4 / +02
RATED POWER | RATED CURRENT			4/5	- kW | - A - | -	67 kW | 107.00 A	36.0 kW | 57.8 A	18 kW | 34.1 A
TYPICAL FUNCTIONAL			6	LK1-40	LK2-160	L1-100	LK1-40
CIRCUIT BREAKER (ABB)	TYPE		7	XT2S - 160	XT4S - 250	XT2S - 160	XT2S - 160
	VERSION		8	4P - FIXED	4P - FIXED	4P - FIXED	4P - FIXED
	TRIP UNITS		9	EKIP HI TOUCH LSIG (In = 40A)	EKIP HI TOUCH LSIG (In = 160A)	EKIP DIP LSIG (In = 100A)	EKIP HI TOUCH LSIG (In = 40A)
	Icu	KA	10	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
		Range t	12	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	(1 - 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
INST. SHORT-CIRCUIT	I	Range A	15	(1.5 - 15) x In	(1.5 - 15) x In	(1 - 10) x In	(1.5 - 15) x In
		Range t	16	instantaneous	instantaneous	<= 0.02 sec	instantaneous
EARTH FAULT PROTECTION	G	Range A	17	(0.1 - 1) x In	(0.1 - 1) x In	(0.2 - 1) x In	(0.1 - 1) x In
		Range t	18	t=k / t=k/I^2	t=k / t=k/I^2	0.1 - 0.8 sec	t=k / t=k/I^2
CONTACTOR (ABB)			19	AF40-40-00-13 (70A-AC1); 100-250VAC/DC	AF190-40-11-13 (275A-AC1); 100-250 VAC/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	-	-	-	-
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	-	5G70	4G35	5G16

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
4	28/08/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
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)

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

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

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 008

REV. 04

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00011 Rev. 04

Section 3 CONSOLIDATED PUNCH LISTS

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-10 HVAC HV/MV Switchgear Room B-100

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000210	A	77-HS-001A C10002077	Missing earthing connection. Point valid for all HS inside B-100.	-	Installed	Gtangianu 2024-10-16	CBongiovanni 2024-10-18	Ecarotenuto 2024-10-18	2024-10-18
C30000895	A	C-77-XA-001/B400-SIS-001 C10000184	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
C30000195	B	77-HS-001B C10002078	EARTHING BAR SHALL BE CONNECTED TO EARTHING POINT IN N.1 POINT WITH 35sqmm Y/G CABLE	-		Gtangianu 2024-10-16	2024-12-28	Gtangianu 2024-12-28	2024-12-28
C30000196	B	C-77-HS-001A/77-HS-001B C10000355	Missing plastic cable tag on MCT inside B-100. (This point is valid for all HS cables).	-		Gtangianu 2024-10-16	2025-01-03	Ecarotenuto 2025-01-03	2025-01-03
C30000197	B	77-HS-001A C10002077	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 2024-10-16	2024-11-23	Lmussi 2024-11-23	2024-11-23
C30000198	B	77-HS-001A C10002077	Elevation of instrument is not in accordance with Layout. Point valid for 77-HS-001A / 77-HS-002A / 77-HS-003A . See attachment	-		Gtangianu 2024-10-16	2025-03-04	Gtangianu 2025-03-04	2025-03-04
C30000199	B	C-77-HS-002B/950-JE-06203 C10000357	Missing plastic cable tag side 950-JE-06203	-		Gtangianu 2024-10-16	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000200	B	C-77-HS-001B/950-JE-06203 C10000354	Missing plastic cable tag side 950-JE-06203	-		Gtangianu 2024-10-16	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000201	B	C-77-HS-003B/950-JE-06203 C10000360	Missing plastic cable tag side 950-JE-06203	-		Gtangianu 2024-10-16	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-10 HVAC HV/MV Switchgear Room B-100

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000202	B	C-77-HY-001/77-HS-001A C10000356	Missing plastic cable tag side C-77-HY-001	-		Gtangianu 2024-10-16	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000203	B	C-77-HY-003/77-HS-003A C10000362	Missing plastic cable tag side C-77-HY-003	-		Gtangianu 2024-10-16	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000204	B	C-77-HY-002/77-HS-002A C10000359	Identification tag wire missing inside C-77-HY-002 connection.	-		Gtangianu 2024-10-16	2024-12-17	Gtangianu 2024-12-17	2024-12-17
C30000205	B	C-77-HY-003/77-HS-003A C10000362	Identification tag wire missing inside C-77-HY-003 connection.	-		Gtangianu 2024-10-16	2024-12-17	Gtangianu 2024-12-17	2024-12-17
C30000206	B	C-77-HY-001/77-HS-001A C10000356	Identification tag wire missing inside C-77-HY-001 connection.	-		Gtangianu 2024-10-16	2025-01-30	APolo 2025-01-30	2025-01-30
C30000207	B	C-77-HS-003B/950-JE-06203 C10000360	Identification tag wire missing inside 950-JE-06203 connection.	-		Gtangianu 2024-10-16	2025-01-07	Gtangianu 2025-01-07	2025-01-07
C30000208	B	C-77-HS-002B/950-JE-06203 C10000357	Identification tag wire missing inside 950-JE-06203 connection.	-		Gtangianu 2024-10-16	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000209	B	C-77-HS-001B/950-JE-06203 C10000354	Identification tag wire missing inside 950-JE-06203 connection.	-		Gtangianu 2024-10-16	2025-01-07	Gtangianu 2025-01-07	2025-01-07
C30000211	B	C-77-HS-001A/77-HS-001B C10000355	Plastic cable ties used to fix the cable tag should be replaced on all external routing.	-		Gtangianu 2024-10-16	2024-12-23	Ecarotenuto 2024-12-23	2024-12-23

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-10 HVAC HV/MV Switchgear Room B-100

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000212	B	C-77-HS-002A/77-HS-002B C10000358	Plastic cable ties used to fix the cable tag should be replaced on all external routing.	-		Gtangianu 2024-10-16	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000213	B	C-77-HS-003A/77-HS-003B C10000361	Plastic cable ties used to fix the cable tag should be replaced on all external routing.	-		Gtangianu 2024-10-16	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000214	B	C-77-HY-002/77-HS-002A C10000359	Missing plastic cable tag side C-77-HY-002.	-		Gtangianu 2024-10-16	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000232	B	B-100 C10002297	77-TP-101 INSTRUMENT IS NOT ACCESIBLE FOR MAINTENANCE.	-	POINT CLOSED - INSTRUMENT IS FREE FOR MAINTENANCE	Gtangianu 2024-10-18	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000611	B	B100-HSB-001/B400-FGS-003 C10002035	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
C30000612	B	B100-HSB-001/B400-FGS-003 C10002035	Missing the cable Plastic tag of project, cabinet side B400-FGS-002	.		APolo 2024-11-19	2025-02-04	APolo 2025-02-04	2025-02-04
C30000613	B	B100-HSB-001/B400-FGS-003 C10002035	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
C30000614	B	B100-HSB-001/B400-FGS-003 C10002035	Missing the cross-ferruling (Cores + Shields) . Pannel side B100-HSB-001 . (see document 123A90-DDL-IN-DG-40016 sh.3)	.		APolo 2024-11-19	2024-12-17	Gtangianu 2024-12-17	2024-12-17
C30000615	B	B100-HSB-001/B400-FGS-003 C10002035	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

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-10 HVAC HV/MV Switchgear Room B-100

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000883	B	C-77-XS-001/B400-SIS-001 C10000180	Missing cable tag , cabinet side B400-SIS-001	.		APolo 2024-11-25	2025-01-03	Gtangianu 2025-01-03	2025-01-03
C30000884	B	C-77-XS-001/B400-SIS-001 C10000180	Missing the cross-ferruling (Cores) . Cabinet side B400-SIS-001 / B-100 HVAC . (see document 123A90-DDL-IN-DG-40016 sh.3)	.		APolo 2024-11-25	2025-04-11	Gtangianu 2025-04-11	2025-04-11
C30000885	B	C-77-XS-001/B400-SIS-001 C10000180	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
C30000892	B	C-77-XA-001/B400-SIS-001 C10000184	Missing cable tag , cabinet input B400-SIS-001.	.		APolo 2024-11-25	2025-01-03	Gtangianu 2025-01-03	2025-01-03
C30000893	B	C-77-XA-001/B400-SIS-001 C10000184	Missing the cross-ferruling (Cores) . Cabinet side B400-SIS-001 / B-100 HVAC. (see document 123A90-DDL-IN-DG-40016 sh.3)	.		APolo 2024-11-25	2025-04-11	Gtangianu 2025-04-11	2025-04-11
C30000894	B	C-77-XA-001/B400-SIS-001 C10000184	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

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-10 HVAC HV/MV Switchgear Room B-100

Electrical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000528	A	B100-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
C30000532	A	B100-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	Spot check with Yokogawa and the communication work	SLinari 2024-10-30	Vendor 2025-02-22	SLinari 2025-02-22	2025-02-22
C30000022	B	B-100	Roof-top cables to be fixed with cable ties made by AISI 316L		ACTIVITY PERFORMED	SLinari 2024-08-02	SLinari 2024-12-05	SLinari 2024-12-05	2024-12-05
C30000026	B	B-100	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
C30000030	B	B-100	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
C30000034	B	B-100	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
C30000038	B	B-100	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
C30000042	B	B-100	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 - SEE PICTURES	SLinari 2024-08-02	SLinari 2024-12-05	SLinari 2024-12-05	2024-12-05
C30000050	B	B-100	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 77-10 HVAC HV/MV Switchgear Room B-100

Electrical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000084	B	B-100	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
C30000088	B	B-100	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
C30000092	B	B-100	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
C30000231	B	B-100 C10002296	Lighting system to be completed	-	COMPLETED	Gtangianu 2024-10-18	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000233	B	83023-CEL C10000548	Cable to be fixed with proper cable ties (point valid for internal and external cable routing).	-		Gtangianu 2024-10-18	2025-01-30	APolo 2025-01-30	2025-01-30
C30000234	B	B100-HSB-001 C10000835	Switch identification tags are hand written . To be replaced.	-		Gtangianu 2024-10-18	2025-04-09	Gtangianu 2025-04-09	2025-04-09
C30000235	B	B100-HSB-001 C10000835	Identification numbers on the terminal strip are hand written .To be Replaced.	-		Gtangianu 2024-10-18	2025-02-25	Ecarotenuto 2025-02-25	2025-02-25
C30000236	B	B100-HSB-001 C10000835	Black Thermoshrink is used on earthing connection inside the panel. To be replaced	-		Gtangianu 2024-10-18	2024-12-03	Ecarotenuto 2024-12-03	2024-12-03
C30000520	B	B100-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

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-10 HVAC HV/MV Switchgear Room B-100

Electrical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000524	B	B100-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 2025-02-22	SLinari 2025-02-22	2025-02-22
C30000536	B	B100-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
C30000914	B	84314-CEL C10000590	the philosophy of cross-ferruling are wrong cabinet side B100-HSB-001 / DP-200F3 . (see document 123A90-DDL-IN-DG-40016 sh.3)	.		APolo 2024-11-25	2025-02-15	AAndreani 2025-02-15	2025-02-15
C30001424	B	B-100 C10002296	(Open during WD) The ground wires connecting the BTM inside the B100 must be arranged, and all bolts used in the BTM is not typical. . See	.		Gtangianu 2024-12-06	2025-02-04	Gtangianu 2025-02-04	2025-02-04

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-10 HVAC HV/MV Switchgear Room B-100

Mechanical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000548	A	B100-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
C30000556	A	B-100	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	COMPONENTS LIST AND DS - E&I SHELTERS has been re issued and approved	SLinari 2024-10-30	Vendor 2025-04-04	SLinari 2025-04-04	2025-04-04
C30000014	B	B-100	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
C30000018	B	B-100	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
C30000046	B	B-100	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
C30000515	B	B-100	Damper actuator HFZ-77001 is out of order. During SAT activities the actuator did not open the fire and gas damper.	It must be replaced	Fire damper replaced	SLinari 2024-10-30	GDelmissier 2025-05-09	GDelmissier 2025-05-09	2025-05-09
C30000540	B	B-100	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
C30000544	B	B-100	None pressure relief damper HDR-77-101 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.	The damper HDR-77-101 has been adjusted. Inside the shelter a constant pressure	SLinari 2024-10-30	GDelmissier 2025-05-09	GDelmissier 2025-05-09	2025-05-09
C30000552	B	B-100	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.	Done.	SLinari 2024-10-30	RDegliEsposti 2025-07-30	RDegliEsposti 2025-07-30	2025-07-30

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-10 HVAC HV/MV Switchgear Room B-100

Mechanical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000560	B	B-100	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	all documentation has been re issued and approved by vendor, in particulat	SLinari 2024-10-30	Vendor 2025-04-04	SLinari 2025-04-04	2025-04-04
C30004324	B	B-100	During execution of Cause & Effect OTP doc. n. 123A90-PML-COM-PRO-03054, it had been noted that on equipment packages provided with		Logic implemented and tested	GDelmissier 2025-04-15	GDelmissier 2025-05-15	GDelmissier 2025-05-15	2025-05-15
C30004382	B	B-100	With reference to punch C30000515, a temporary actuator was installed to continue commissioning activities.	Replace the temporary actuator with the originally specified actuator.	The final actuat has been installed	GDelmissier 2025-05-12	GDelmissier 2025-07-03	GDelmissier 2025-07-03	2025-07-03

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-10 HVAC HV/MV Switchgear Room B-100

HVAC

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000054	B	B-100	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. C30000560	SLinari 2024-08-02	SLinari 2025-02-06	SLinari 2025-02-06	2025-02-06
C30000058	B	B-100	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
C30000068	B	B-100	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
C30000072	B	B-100	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
C30000076	B	B-100	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 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000080	B	B-100	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

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM	77	Heating & Ventilation
SUBSYSTEM	77-10	HVAC HV/MV Switchgear Room B-100

Telecom

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000786	B	B100-HSB-001/ B400-NET-001 C10004353	Identification tag wires missing both side the B100-HSB-001/B400-NET-001 connections.	.		Gtangianu 2024-11-22	2025-02-04	Gtangianu 2025-02-04	2025-02-04

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000893

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000184	1.4 Discipline	Instrumental
1.2 Item	C-77-XA-001/B400-SIS-001	UCP FAULT ALARM / MARSHALLING PCS	
1.3 Subsystem	77-10	HVAC HV/MV Switchgear Room B-100	

2 - OBSERVATION

Missing the cross-ferruling (Cores) . Cabinet side B400-SIS-001 / B-100 HVAC. (see document 123A90-DDL-IN-DG-40016 sh.3)

Name: Alessio Polo
Date: 2024-11-25
Signature:

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	

4 - PERFORMED ACTION

Name:
Date:
Signature:

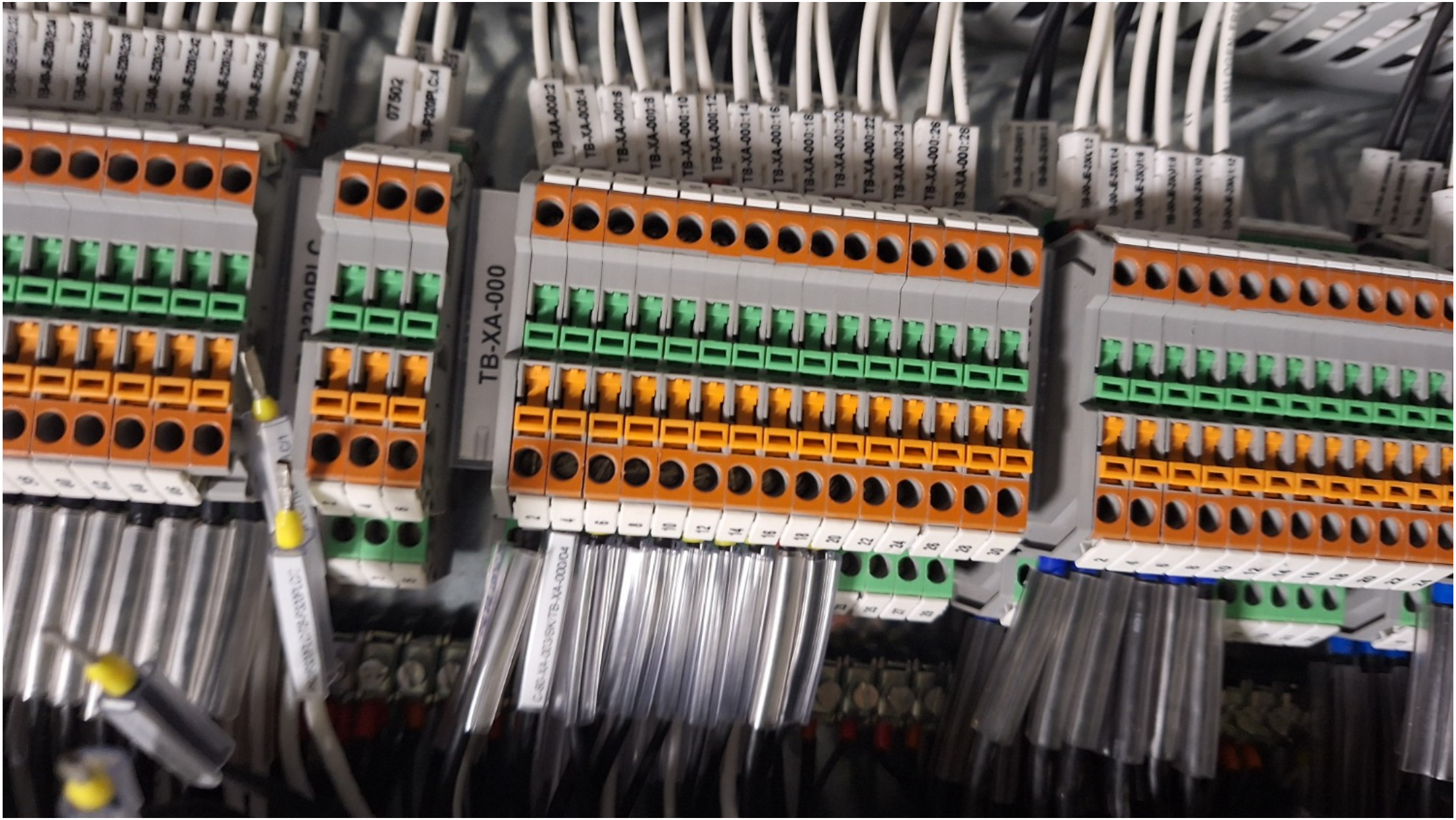
5 - CLEARANCE CHECK

Installed.

Name: Giovanni Tangianu
Date: 2025-04-11
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:


TB-XA-000


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ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000894

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000184	1.4 Discipline	Instrumental
1.2 Item	C-77-XA-001/B400-SIS-001	UCP FAULT ALARM / MARSHALLING PCS	
1.3 Subsystem	77-10	HVAC HV/MV Switchgear Room B-100	

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:

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	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Andrea Andreani

Date: 2025-02-28

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000895

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000184	1.4 Discipline	Instrumental
1.2 Item	C-77-XA-001/B400-SIS-001	UCP FAULT ALARM / MARSHALLING PCS	
1.3 Subsystem	77-10	HVAC HV/MV Switchgear Room B-100	

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:

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	

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:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:


C-77-XA-
77210-CEL-L1
77206-CEL-L1
77201-CEL-L1

ROSETTI MARINO CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000914

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000590	1.4 Discipline	Electrical
1.2 Item	84314-CEL	AC UPS - PAS DB / UCP - HVAC HV Room	
1.3 Subsystem	77-10	HVAC HV/MV Switchgear Room B-100	

2 - OBSERVATION

the philosophy of cross-ferruling are wrong cabinet side B100-HSB-001 / DP-200F3 . (see document 123A90-DDL-IN-DG-40016 sh.3)

Name: Alessio Polo

Date: 2024-11-25

Signature:

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	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Andrea Andreani

Date: 2025-02-15

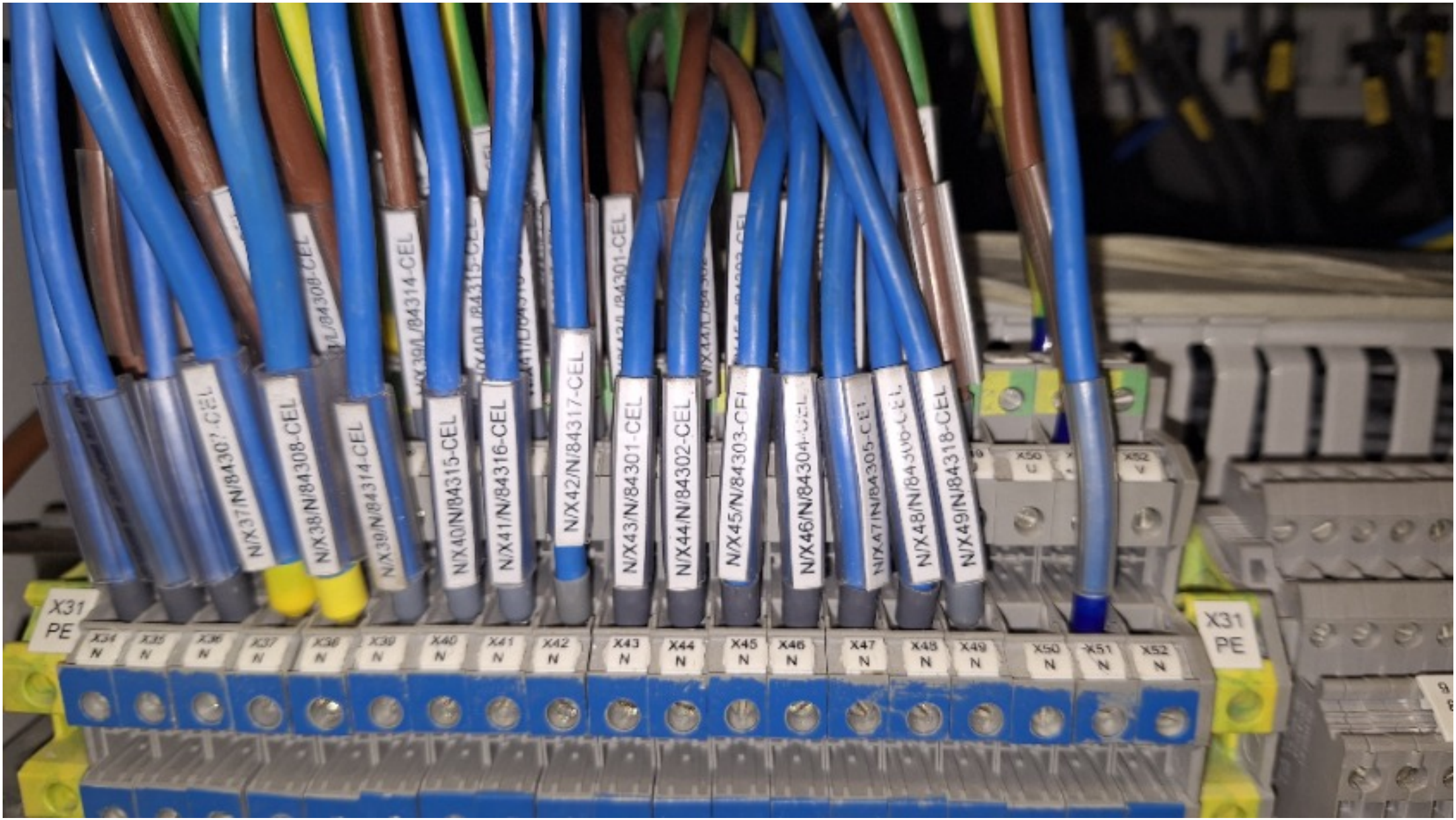
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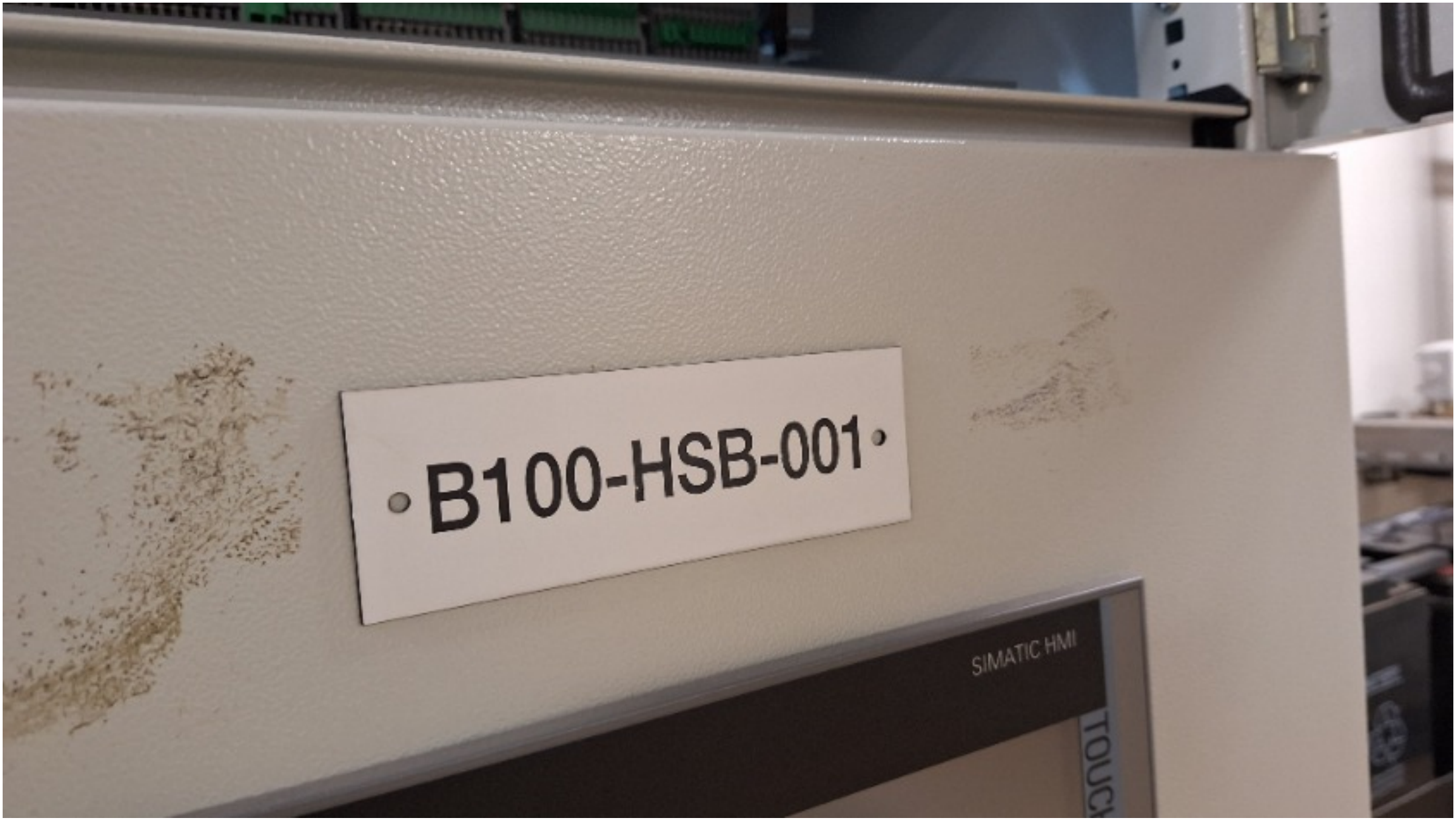
6- CLEARANCE APPROVAL

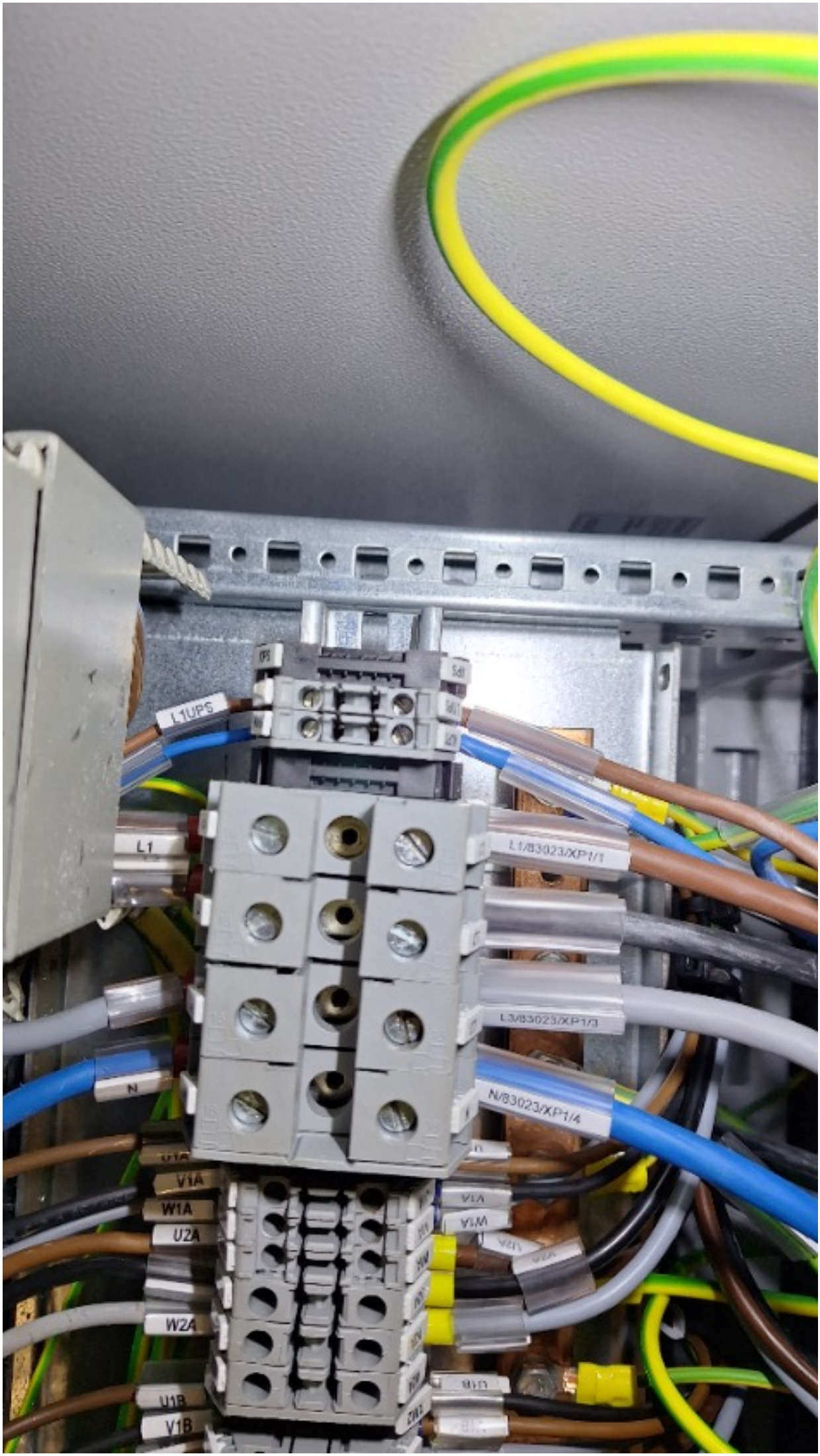
Name:

Date:

Signature:


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N/X38/N/84308-CEL
N/X39/N/84314-CEL
N/X40/N/84315-CEL
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N/X42/N/84317-CEL
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N/X44/N/84302-CEL
N/X45/N/84303-CEL
N/X46/N/84304-CEL
N/X47/N/84305-CEL
N/X48/N/84306-CEL
N/X49/N/84318-CEL
X31
PE


B100-HSB-001
SIMATIC HMI


L1UPS
L1
N
V1A
W1A
U2A
W2A
V1B
L1/B3023/XP1/1
L3/B3023/XP1/3
N/B3023/XP1/4

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001424

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002296	1.4 Discipline	Electrical
1.2 Item	B-100		Shelter HV-MV (66 kV / 6,6 kV) Switchroom B-100
1.3 Subsystem	77-10		HVAC HV/MV Switchgear Room B-100

2 - OBSERVATION

(Open during WD) The ground wires connecting the BTM inside the B100 must be arranged, and all bolts used in the BTM is not typical. . See attached photo.

Name: Giovanni Tangianu

Date: 2024-12-06

Signature:

3 - DEFECT ASSESSMENT

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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	2024-12-06
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done. all bolt Have been change.

Name: Giovanni Tangianu

Date: 2025-02-04

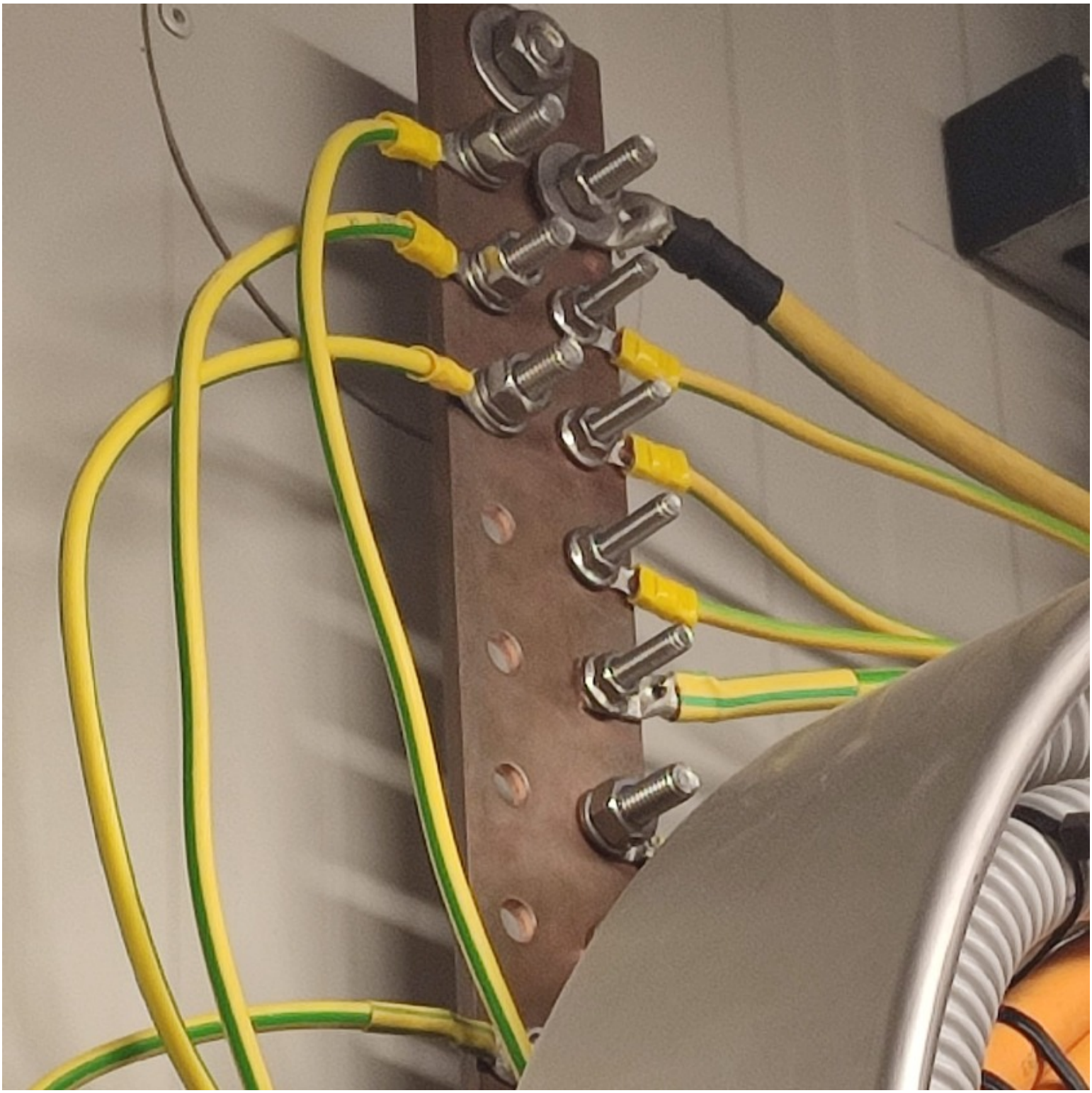
Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:



ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004324

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	B-100		Shelter HV-MV (66 kV / 6,6 kV) Switchroom B-100
1.3 Subsystem	77-10		HVAC HV/MV Switchgear Room B-100

2 - OBSERVATION

During execution of Cause & Effect OTP doc. n. 123A90-PML-COM-PRO-03054, it had been noted that on equipment packages provided with a dedicated PLC controller, it was not possible to remotely reset the C&E trip command. Equipment package PLC internal logic to be updated and tested from Yokogawa workstation

Name

Date

Signature

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giandonato Delmissier
3.4 Activity code	COMM Commissioning	Date	2025-04-15
3.5 Action by		Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

Logic implemented and tested

Name Giandonato Delmissier

Date 2025-05-15

Signature

5 - CLEARANCE CHECK

done

Name Giandonato Delmissier

Date 2025-05-15

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004382

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	B-100		Shelter HV-MV (66 kV / 6,6 kV) Switchroom B-100
1.3 Subsystem	77-10		HVAC HV/MV Switchgear Room B-100

2 - OBSERVATION

With reference to punch C30000515, a temporary actuator was installed to continue commissioning activities.

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal	Replace the temporary actuator with the originally specified actuator.		
3.2 Material required			
3.3 Priority	B PL B	Name	Giandonato Delmissier
3.4 Activity code	COMM Commissioning	Date	2025-05-12
3.5 Action by	COMM Commissioning	Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

The final actuat has been installed

Name Giandonato Delmissier

Date 2025-07-03

Signature

5 - CLEARANCE CHECK

done

Name Giandonato Delmissier

Date 2025-07-03

Signature

6- CLEARANCE APPROVAL

Name

Date 2025-07-08

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000204

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000359	CJX10	1.4 Discipline	Instrumental
1.2 Item	C-77-HY-002/77-HS-002A		FIRE DAMPER / MARSHALLING PCS	
1.3 Subsystem	77-10		HVAC HV/MV Switchgear Room B-100	

2 - OBSERVATION

Identification tag wire missing inside C-77-HY-002 connection.

Name: Giovanni Tangianu

Date: 2024-10-16

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: Giovanni Tangianu

Date: 2024-10-16

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

4 - PERFORMED ACTION

.

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Installed.

Name: Giovanni Tangianu

Date: 2024-12-17

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000205

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000362	CJX10	1.4 Discipline	Instrumental
1.2 Item	C-77-HY-003/77-HS-003A		FIRE DAMPER / MARSHALLING PCS	
1.3 Subsystem	77-10		HVAC HV/MV Switchgear Room B-100	

2 - OBSERVATION

Identification tag wire missing inside C-77-HY-003 connection.

Name: Giovanni Tangianu

Date: 2024-12-17

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: Giovanni Tangianu

Date: 2024-10-16

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

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

Installed.

Name: Giovanni Tangianu

Date: 2024-12-17

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000206

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000356	CJX10	1.4 Discipline	Instrumental
1.2 Item	C-77-HY-001/77-HS-001A		FIRE DAMPER / MARSHALLING PCS	
1.3 Subsystem	77-10		HVAC HV/MV Switchgear Room B-100	

2 - OBSERVATION

Identification tag wire missing inside C-77-HY-001 connection.

Name

Date

Signature

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	2024-10-16
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

DONE

Name Alessio Polo

Date 2025-01-30

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000207

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000360	CJX10	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-003B/950-JE-06203		PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-10		HVAC HV/MV Switchgear Room B-100	

2 - OBSERVATION

Identification tag wire missing inside 950-JE-06203 connection.

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: Giovanni Tangianu

Date: 2024-10-16

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

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

Installed.

Name: Giovanni Tangianu

Date: 2025-01-07

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000208

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000357	CJX10	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-002B/950-JE-06203		PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-10		HVAC HV/MV Switchgear Room B-100	

2 - OBSERVATION

Identification tag wire missing inside 950-JE-06203 connection.

Name

Date

Signature

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	2024-10-16
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

done

Name Eleonora Carotenuto

Date 2024-12-14

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000209

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000354	CJX10	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-001B/950-JE-06203		PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-10		HVAC HV/MV Switchgear Room B-100	

2 - OBSERVATION

Identification tag wire missing inside 950-JE-06203 connection.

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 Giovanni Tangianu

Date 2024-10-16

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

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

Installed.

Name Giovanni Tangianu

Date 2025-01-07

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000210

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002077	CJX00	1.4 Discipline	Instrumental
1.2 Item	77-HS-001A		Hand Switch for Fire&Gas Damper HFD-77001	
1.3 Subsystem	77-10		HVAC HV/MV Switchgear Room B-100	

2 - OBSERVATION

Missing earthing connection. Point valid for all HS inside B-100.

Name

Date

Signature

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	A PL A	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-10-16
3.5 Action by		Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

Installed

Name Carmelo Bongiovanni

Date 2024-10-18

Signature

5 - CLEARANCE CHECK

Checked

Name Eleonora Carotenuto

Date 2024-10-18

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000211

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000355	CJX10	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-001A/77-HS-001B		PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-10		HVAC HV/MV Switchgear Room B-100	

2 - OBSERVATION

Plastic cable ties used to fix the cable tag should be replaced on all external routing.

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: Giovanni Tangianu

Date: 2024-10-16

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

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

done

Name: Eleonora Carotenuto

Date: 2024-12-23

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000212

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000358	CJX10	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-002A/77-HS-002B		PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-10		HVAC HV/MV Switchgear Room B-100	

2 - OBSERVATION

Plastic cable ties used to fix the cable tag should be replaced on all external routing.

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 Giovanni Tangianu

Date 2024-10-16

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

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

done

Name Eleonora Carotenuto

Date 2024-12-14

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000213

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000361	CJX10	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-003A/77-HS-003B		PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-10		HVAC HV/MV Switchgear Room B-100	

2 - OBSERVATION

Plastic cable ties used to fix the cable tag should be replaced on all external routing.

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 Giovanni Tangianu

Date 2024-10-16

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

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

done

Name Eleonora Carotenuto

Date 2024-12-14

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000214

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000359	CJX10	1.4 Discipline	Instrumental
1.2 Item	C-77-HY-002/77-HS-002A		FIRE DAMPER / MARSHALLING PCS	
1.3 Subsystem	77-10		HVAC HV/MV Switchgear Room B-100	

2 - OBSERVATION

Missing plastic cable tag side C-77-HY-002.

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 Giovanni Tangianu

Date 2024-10-16

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

4 - PERFORMED ACTION

Name

Date

Signature

5 - CLEARANCE CHECK

done

Name Eleonora Carotenuto

Date 2024-12-14

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000231

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002296	1.4 Discipline	Electrical
1.2 Item	B-100		Shelter HV-MV (66 kV / 6,6 kV) Switchroom B-100
1.3 Subsystem	77-10		HVAC HV/MV Switchgear Room B-100

2 - OBSERVATION

Lighting system to be completed

Name: Giovanni Tangianu

Date: 2024-10-18

Signature:

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	2024-10-18
3.5 Action by	VND Vendor	Signature	

4 - PERFORMED ACTION

COMPLETED

Name: ALEX SISTEMI

Date: 2024-10-29

Signature:

5 - CLEARANCE CHECK

COMPLETED

Name: Stefano Linari

Date: 2024-10-29

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000232

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002297	1.4 Discipline	Instrumental
1.2 Item	B-100		Shelter HV-MV (66 kV / 6,6 kV) Switchroom B-100
1.3 Subsystem	77-10		HVAC HV/MV Switchgear Room B-100

2 - OBSERVATION

77-TP-101 INSTRUMENT IS NOT ACCESIBLE FOR MAINTENANCE.

Name: Giovanni Tangianu
Date: 2024-10-18
Signature:

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	2024-10-18
3.5 Action by	VND Vendor	Signature	

4 - PERFORMED ACTION

POINT CLOSED - INSTRUMENT IS FREE FOR MAINTENANCE

Name: ALEX SISTEMI
Date: 2024-10-29
Signature:

5 - CLEARANCE CHECK

POINT CLOSED - INSTRUMENT IS FREE FOR MAINTENANCE

Name: Stefano Linari
Date: 2024-10-29
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000233

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000548	1.4 Discipline	Electrical
1.2 Item	83023-CEL	LV Switchgear / HVAC Panels - HV Room	
1.3 Subsystem	77-10	HVAC HV/MV Switchgear Room B-100	

2 - OBSERVATION

Cable to be fixed with proper cable ties (point valid for internal and external cable routing).

Name: Giovanni Tangianu

Date: 2024-10-18

Signature:

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	2024-10-18
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Alessio Polo

Date: 2025-01-30

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000234

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000835	1.4 Discipline	Electrical
1.2 Item	B100-HSB-001	Distribution & HVAC Panel - HV MV Room	
1.3 Subsystem	77-10	HVAC HV/MV Switchgear Room B-100	

2 - OBSERVATION

Switch identification tags are hand written . To be replaced.

Name: Giovanni Tangianu

Date: 2024-10-18

Signature:

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	2024-10-18
3.5 Action by	VND Vendor	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Installed.

Name: Giovanni Tangianu

Date: 2025-04-09

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000235

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000835	1.4 Discipline	Electrical
1.2 Item	B100-HSB-001	Distribution & HVAC Panel - HV MV Room	
1.3 Subsystem	77-10	HVAC HV/MV Switchgear Room B-100	

2 - OBSERVATION

Identification numbers on the terminal strip are hand written .To be Replaced.

Name: Giovanni Tangianu

Date: 2024-10-18

Signature:

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	2024-10-18
3.5 Action by	VND Vendor	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

REPLACED

Name: Eleonora Carotenuto

Date: 2025-02-25

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000236

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000835	1.4 Discipline	Electrical
1.2 Item	B100-HSB-001	Distribution & HVAC Panel - HV MV Room	
1.3 Subsystem	77-10	HVAC HV/MV Switchgear Room B-100	

2 - OBSERVATION

Black Thermoshrink is used on earthing connection inside the panel. To be replaced

Name: Giovanni Tangianu

Date: 2024-10-18

Signature:

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	2024-10-18
3.5 Action by	VND Vendor	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Duplicate point. See PI n°C30000520

Name: Eleonora Carotenuto

Date: 2024-12-03

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000515

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	B-100		Shelter HV-MV (66 kV / 6,6 kV) Switchroom B-100
1.3 Subsystem	77-10		HVAC HV/MV Switchgear Room B-100

2 - OBSERVATION

Damper actuator HFZ-77001 is out of order. During SAT activities the actuator did not open the fire and gas damper.

Name

Date

Signature

3 - DEFECT ASSESSMENT

3.1 Corrective action proposal	It must be replaced		
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

Fire damper replaced

Name Giandonato Delmissier

Date 2025-05-09

Signature

5 - CLEARANCE CHECK

Done

Name Giandonato Delmissier

Date 2025-05-09

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000520

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B100-HSB-001		Distribution & HVAC Panel - HV MV Room
1.3 Subsystem	77-10		HVAC HV/MV Switchgear Room B-100

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	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

accepted

Name Vendor Crosswind

Date 2025-02-25

Signature

5 - CLEARANCE CHECK

done

Name Stefano Linari

Date 2025-02-25

Signature

6- CLEARANCE APPROVAL

Name

Date 2025-02-25

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000524

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B100-HSB-001		Distribution & HVAC Panel - HV MV Room
1.3 Subsystem	77-10		HVAC HV/MV Switchgear Room B-100

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	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

implemented

Name: Vendor Crosswind

Date: 2025-02-22

Signature

5 - CLEARANCE CHECK

done

Name: Stefano Linari

Date: 2025-02-22

Signature

6- CLEARANCE APPROVAL

Name

Date: 2025-02-22

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000528

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B100-HSB-001		Distribution & HVAC Panel - HV MV Room
1.3 Subsystem	77-10		HVAC HV/MV Switchgear Room B-100

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

5 - CLEARANCE CHECK

done

Name Stefano Linari

Date 2025-02-22

Signature

6- CLEARANCE APPROVAL

Name

Date 2025-02-22

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000532

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B100-HSB-001		Distribution & HVAC Panel - HV MV Room
1.3 Subsystem	77-10		HVAC HV/MV Switchgear Room B-100

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	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

Spot check with Yokogawa and the communication work

Name Vendor Crosswind

Date 2025-02-22

Signature

5 - CLEARANCE CHECK

done

Name Stefano Linari

Date 2025-02-22

Signature

6- CLEARANCE APPROVAL

Name

Date 2025-02-22

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000536

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B100-HSB-001		Distribution & HVAC Panel - HV MV Room
1.3 Subsystem	77-10		HVAC HV/MV Switchgear Room B-100

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	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

Implemented

Name Vendor Crosswind

Date 2025-02-25

Signature

5 - CLEARANCE CHECK

done

Name Stefano Linari

Date 2025-02-25

Signature

6- CLEARANCE APPROVAL

Name

Date 2025-02-25

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000540

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	B-100		Shelter HV-MV (66 kV / 6,6 kV) Switchroom B-100
1.3 Subsystem	77-10		HVAC HV/MV Switchgear Room B-100

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

5 - CLEARANCE CHECK

done

Name: Stefano Linari

Date: 2025-02-20

Signature

6- CLEARANCE APPROVAL

Name

Date: 2025-02-20

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000544

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	B-100		Shelter HV-MV (66 kV / 6,6 kV) Switchroom B-100
1.3 Subsystem	77-10		HVAC HV/MV Switchgear Room B-100

2 - OBSERVATION

None pressure relief damper HDR-77-101 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		Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

The damper HDR-77-101 has been adjusted. Inside the shelter a constant pressure of 52 Pa.

Name Giandonato Delmissier

Date 2025-05-09

Signature

5 - CLEARANCE CHECK

done

Name Giandonato Delmissier

Date 2025-05-09

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000548

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	B100-HSB-001		Distribution & HVAC Panel - HV MV Room
1.3 Subsystem	77-10		HVAC HV/MV Switchgear Room B-100

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	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

Implemented by Vendor

Name Vendor Crosswind

Date 2025-02-20

Signature

5 - CLEARANCE CHECK

done

Name Stefano Linari

Date 2025-02-20

Signature

6- CLEARANCE APPROVAL

Name

Date 2025-02-20

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000552

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	B-100		Shelter HV-MV (66 kV / 6,6 kV) Switchroom B-100
1.3 Subsystem	77-10		HVAC HV/MV Switchgear Room B-100

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

4 - PERFORMED ACTION

Done.

Name Raffaele Degli Esposti

Date 2025-07-30

Signature

5 - CLEARANCE CHECK

done

Name Raffaele Degli Esposti

Date 2025-07-30

Signature

6- CLEARANCE APPROVAL

Name

Date 2025-07-30

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000556

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	B-100		Shelter HV-MV (66 kV / 6,6 kV) Switchroom B-100
1.3 Subsystem	77-10		HVAC HV/MV Switchgear Room B-100

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

4 - PERFORMED ACTION

COMPONENTS LIST AND DS - E&I SHELTERS has been re issued and approved with all informations of installed pvc and plastic ties

Name Vendor Crosswind

Date 2025-04-04

Signature

5 - CLEARANCE CHECK

done

Name Stefano Linari

Date 2025-04-04

Signature

6- CLEARANCE APPROVAL

Name

Date 2025-04-04

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000560

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	B-100		Shelter HV-MV (66 kV / 6,6 kV) Switchroom B-100
1.3 Subsystem	77-10		HVAC HV/MV Switchgear Room B-100

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	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

all documentation has been re issued and approved by vendor, in particulat interconnecting has been re issued on 14/03/2025

Name Vendor Crosswind

Date 2025-04-04

Signature

5 - CLEARANCE CHECK

done

Name Stefano Linari

Date 2025-04-04

Signature

6- CLEARANCE APPROVAL

Name

Date 2025-04-04

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000611

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002035	1.4 Discipline	Instrumental
1.2 Item	B100-HSB-001/B400-FGS-003	B-100 HVAC Control Panel / MARSHALLING PCS	
1.3 Subsystem	77-10	HVAC HV/MV Switchgear Room B-100	

2 - OBSERVATION

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

Name: Alessio Polo
Date: 2024-11-19
Signature:

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	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

DONE

Name: Paolo Schintu
Date: 2025-02-26
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000612

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002035	1.4 Discipline	Instrumental
1.2 Item	B100-HSB-001/B400-FGS-003		B-100 HVAC Control Panel / MARSHALLING PCS
1.3 Subsystem	77-10		HVAC HV/MV Switchgear Room B-100

2 - OBSERVATION

Missing the cable Plastic tag of project, cabinet side B400-FGS-002

Name: Alessio Polo

Date: 2024-11-19

Signature:

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	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Alessio Polo

Date: 2025-02-04

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000613

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002035	1.4 Discipline	Instrumental
1.2 Item	B100-HSB-001/B400-FGS-003	B-100 HVAC Control Panel / MARSHALLING PCS	
1.3 Subsystem	77-10	HVAC HV/MV Switchgear Room B-100	

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:

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	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

DONE

Name: Josip Krizanic
Date: 2025-02-21
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:


2
4
TB-B100-HSB-001
PR1/TB-B100-HSB-001/77-ZSL-001/2
PR2/TB-B100-HSB-001/77-ZSL-002/4
PR3/TB-B100-HSB-001/77-ZSL-003/6
2
4
6
8
10
PR1/TB-B200-HSB-001/77-ZSL-004/2
2

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000614

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002035	1.4 Discipline	Instrumental
1.2 Item	B100-HSB-001/B400-FGS-003	B-100 HVAC Control Panel / MARSHALLING PCS	
1.3 Subsystem	77-10	HVAC HV/MV Switchgear Room B-100	

2 - OBSERVATION

Missing the cross-ferruling (Cores + Shields) . Pannel side B100-HSB-001 . (see document 123A90-DDL-IN-DG-40016 sh.3)

Name: Alessio Polo
Date: 2024-11-19
Signature:

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	

4 - PERFORMED ACTION

Name:
Date:
Signature:

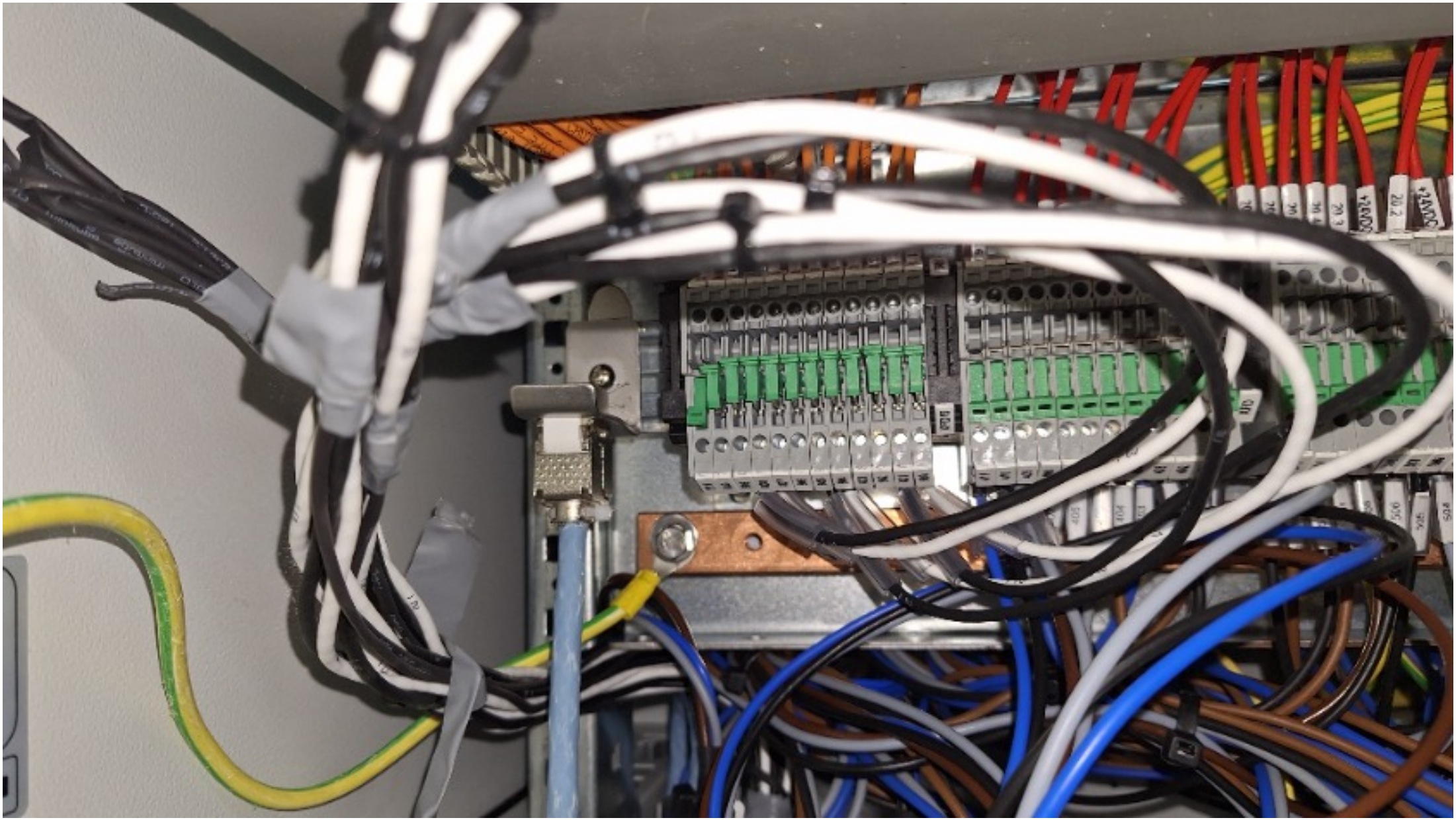
5 - CLEARANCE CHECK

Installed.

Name: Giovanni Tangianu
Date: 2024-12-17
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:



ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000615

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002035	1.4 Discipline	Instrumental
1.2 Item	B100-HSB-001/B400-FGS-003	B-100 HVAC Control Panel / MARSHALLING PCS	
1.3 Subsystem	77-10	HVAC HV/MV Switchgear Room B-100	

2 - OBSERVATION

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

Name: Alessio Polo
Date: 2024-11-19
Signature:

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	

4 - PERFORMED ACTION

Name:
Date:
Signature:

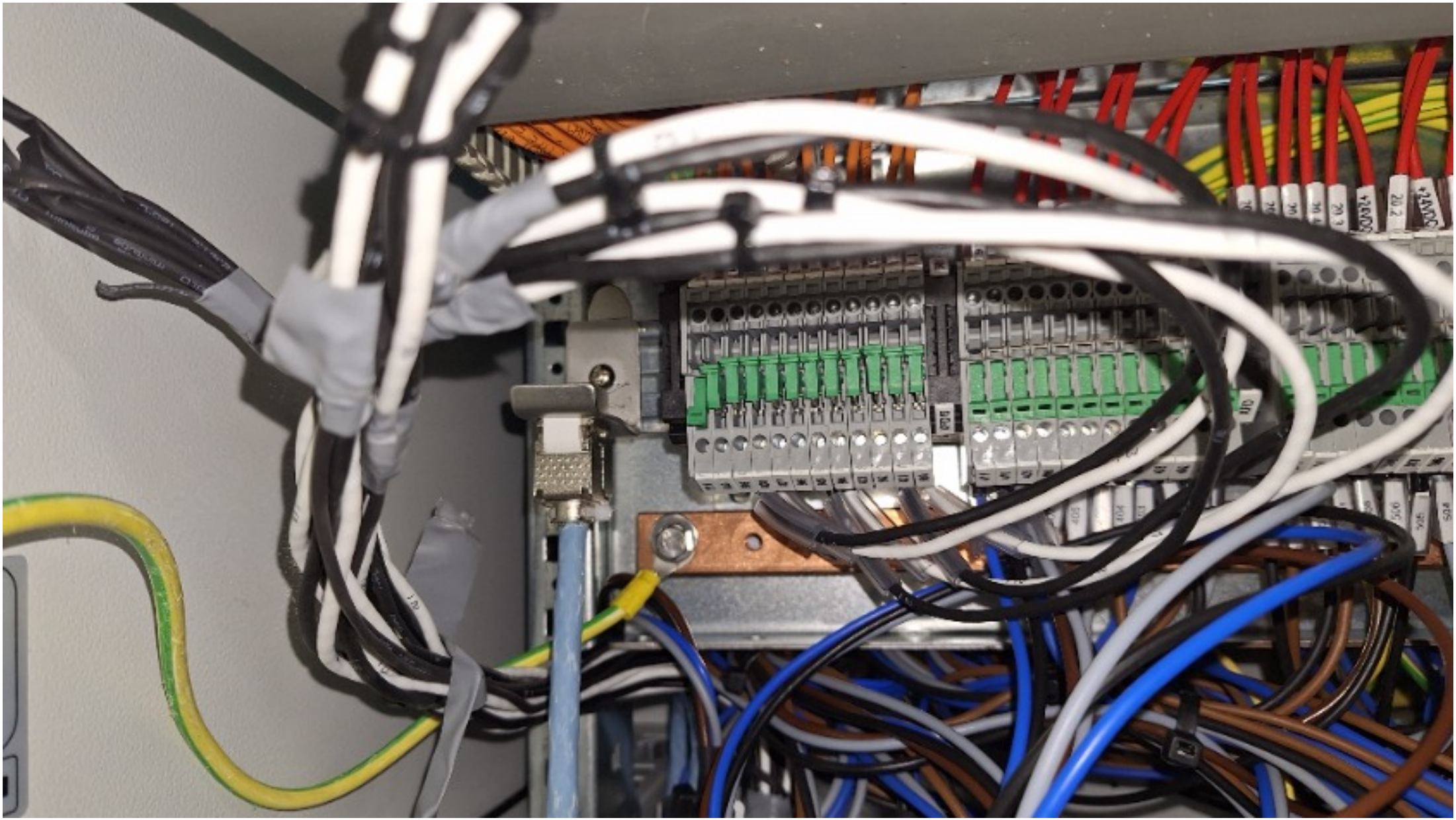
5 - CLEARANCE CHECK

Done.

Name: Giovanni Tangianu
Date: 2025-01-03
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:



ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000786

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10004353	1.4 Discipline	Telecom
1.2 Item	B100-HSB-001/B400-NET-001	COMMUNICATION / NETWORK CABINET	
1.3 Subsystem	77-10	HVAC HV/MV Switchgear Room B-100	

2 - OBSERVATION

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

Name: Giovanni Tangianu

Date: 2024-11-22

Signature:

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	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Installed.

Name: Giovanni Tangianu

Date: 2025-02-04

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000883

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000180	1.4 Discipline	Instrumental
1.2 Item	C-77-XS-001/B400-SIS-001	TRIP SIGNAL TO UCP / MARSHALLING PCS	
1.3 Subsystem	77-10	HVAC HV/MV Switchgear Room B-100	

2 - OBSERVATION

Missing cable tag , cabinet side B400-SIS-001

Name: Alessio Polo

Date: 2024-11-25

Signature:

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	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Installed.

Name: Giovanni Tangianu

Date: 2025-01-03

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:



ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000884

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000180	1.4 Discipline	Instrumental
1.2 Item	C-77-XS-001/B400-SIS-001	TRIP SIGNAL TO UCP / MARSHALLING PCS	
1.3 Subsystem	77-10	HVAC HV/MV Switchgear Room B-100	

2 - OBSERVATION

Missing the cross-ferruling (Cores) . Cabinet side B400-SIS-001 / B-100 HVAC . (see document 123A90-DDL-IN-DG-40016 sh.3)

Name: Alessio Polo
Date: 2024-11-25
Signature:

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	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

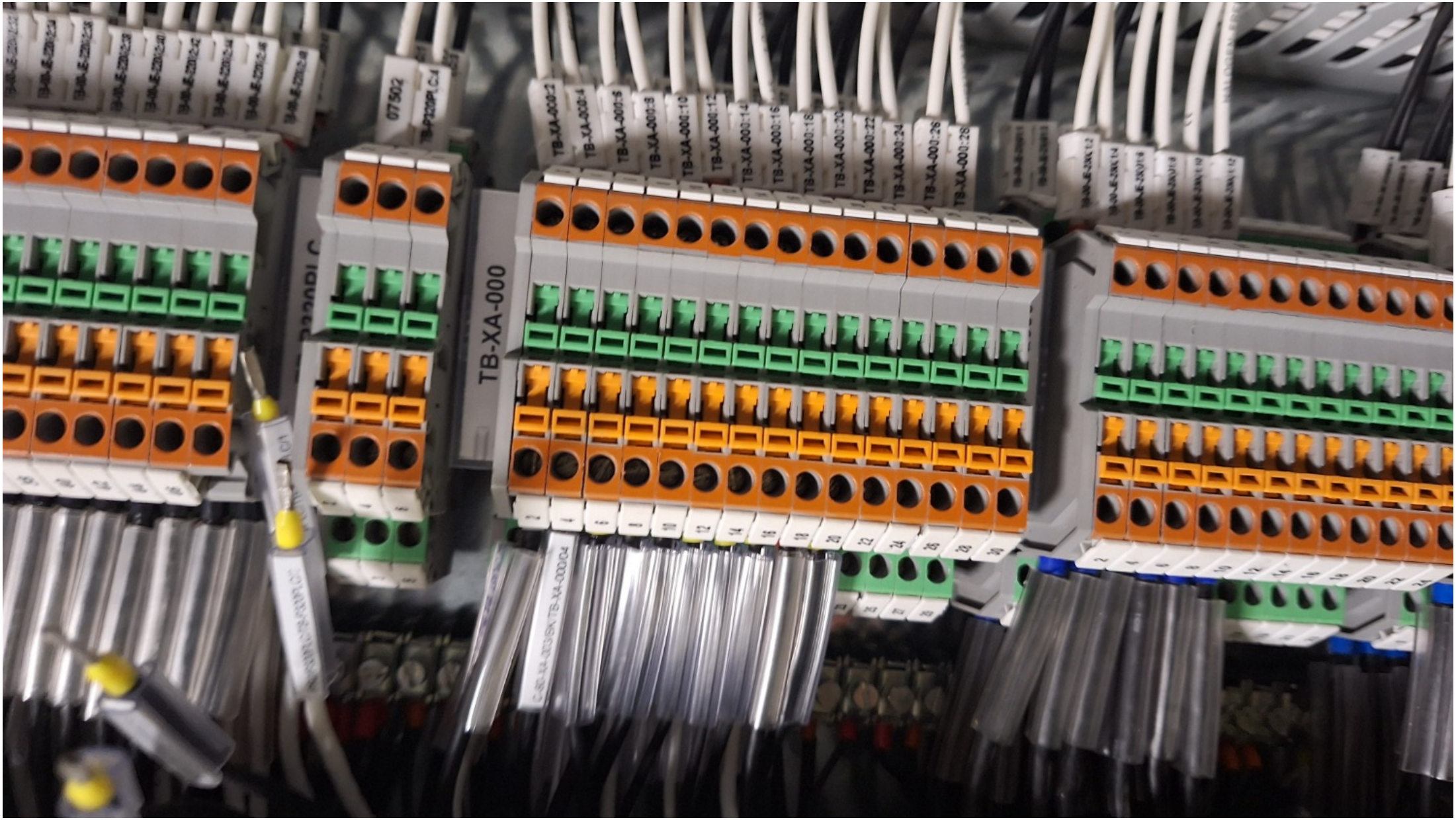
Installed.

Name: Giovanni Tangianu
Date: 2025-04-11
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:


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TB-XA-000

ROSETTI MARINO CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000885

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000180	1.4 Discipline	Instrumental
1.2 Item	C-77-XS-001/B400-SIS-001	TRIP SIGNAL TO UCP / MARSHALLING PCS	
1.3 Subsystem	77-10	HVAC HV/MV Switchgear Room B-100	

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:

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	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Andrea Andreani

Date: 2025-02-28

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000892

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000184	1.4 Discipline	Instrumental
1.2 Item	C-77-XA-001/B400-SIS-001	UCP FAULT ALARM / MARSHALLING PCS	
1.3 Subsystem	77-10	HVAC HV/MV Switchgear Room B-100	

2 - OBSERVATION

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

Name: Alessio Polo

Date: 2024-11-25

Signature:

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	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done.

Name: Giovanni Tangianu

Date: 2025-01-03

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:



ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000014

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	B-100		Shelter HV-MV (66 kV / 6,6 kV) Switchroom B-100
1.3 Subsystem	90-01		HV-MV Switchgear Room B-100

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: Stefano Linari
Date: 2024-10-08
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:

5 - CLEARANCE CHECK

DONE

Name: Stefano Linari
Date: 2025-02-06
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:


LIVE POWER
SOTTO TENSIONE
400 V
B-100
HV SWITCHROOM

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000018

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	B-100		Shelter HV-MV (66 kV / 6,6 kV) Switchroom B-100
1.3 Subsystem	90-01		HV-MV Switchgear Room B-100

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	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 ALEX SISTEMI

Date 2024-10-29

Signature

5 - CLEARANCE CHECK

DONE

Name Stefano Linari

Date 2024-10-29

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000022

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B-100		Shelter HV-MV (66 kV / 6,6 kV) Switchroom B-100
1.3 Subsystem	90-01		HV-MV Switchgear Room B-100

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	Name	Stefano Linari
3.4 Activity code	MC Mechanical Completion	Date	2024-08-02
3.5 Action by		Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

ACTIVITY PERFORMED

Name Stefano Linari

Date 2024-12-05

Signature

5 - CLEARANCE CHECK

ACTIVITY PERFORMED

Name Stefano Linari

Date 2024-12-05

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000026

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B-100		Shelter HV-MV (66 kV / 6,6 kV) Switchroom B-100
1.3 Subsystem	90-01		HV-MV Switchgear Room B-100

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

5 - CLEARANCE CHECK

EARTHING INSTALLED

Name Stefano Linari

Date 2024-10-29

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000030

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B-100		Shelter HV-MV (66 kV / 6,6 kV) Switchroom B-100
1.3 Subsystem	90-01		HV-MV Switchgear Room B-100

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	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

5 - CLEARANCE CHECK

EARTHING INSTALLED

Name Stefano Linari

Date 2024-10-29

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000034

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B-100		Shelter HV-MV (66 kV / 6,6 kV) Switchroom B-100
1.3 Subsystem	90-01		HV-MV Switchgear Room B-100

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	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 anche checked

Name ALEX SISTEMI

Date 2024-10-29

Signature

5 - CLEARANCE CHECK

installed anche checked

Name Stefano Linari

Date 2024-10-29

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000038

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B-100		Shelter HV-MV (66 kV / 6,6 kV) Switchroom B-100
1.3 Subsystem	90-01		HV-MV Switchgear Room B-100

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	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 - see picture

Name Stefano Linari

Date 2024-12-05

Signature

5 - CLEARANCE CHECK

activity done - see picture

Name Stefano Linari

Date 2024-12-05

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature


LIVE POWER

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000042

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B-100		Shelter HV-MV (66 kV / 6,6 kV) Switchroom B-100
1.3 Subsystem	90-01		HV-MV Switchgear Room B-100

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	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 - SEE PICTURES

Name Stefano Linari

Date 2024-12-05

Signature

5 - CLEARANCE CHECK

ACTIVITY DONE - SEE PICTURES

Name Stefano Linari

Date 2024-12-05

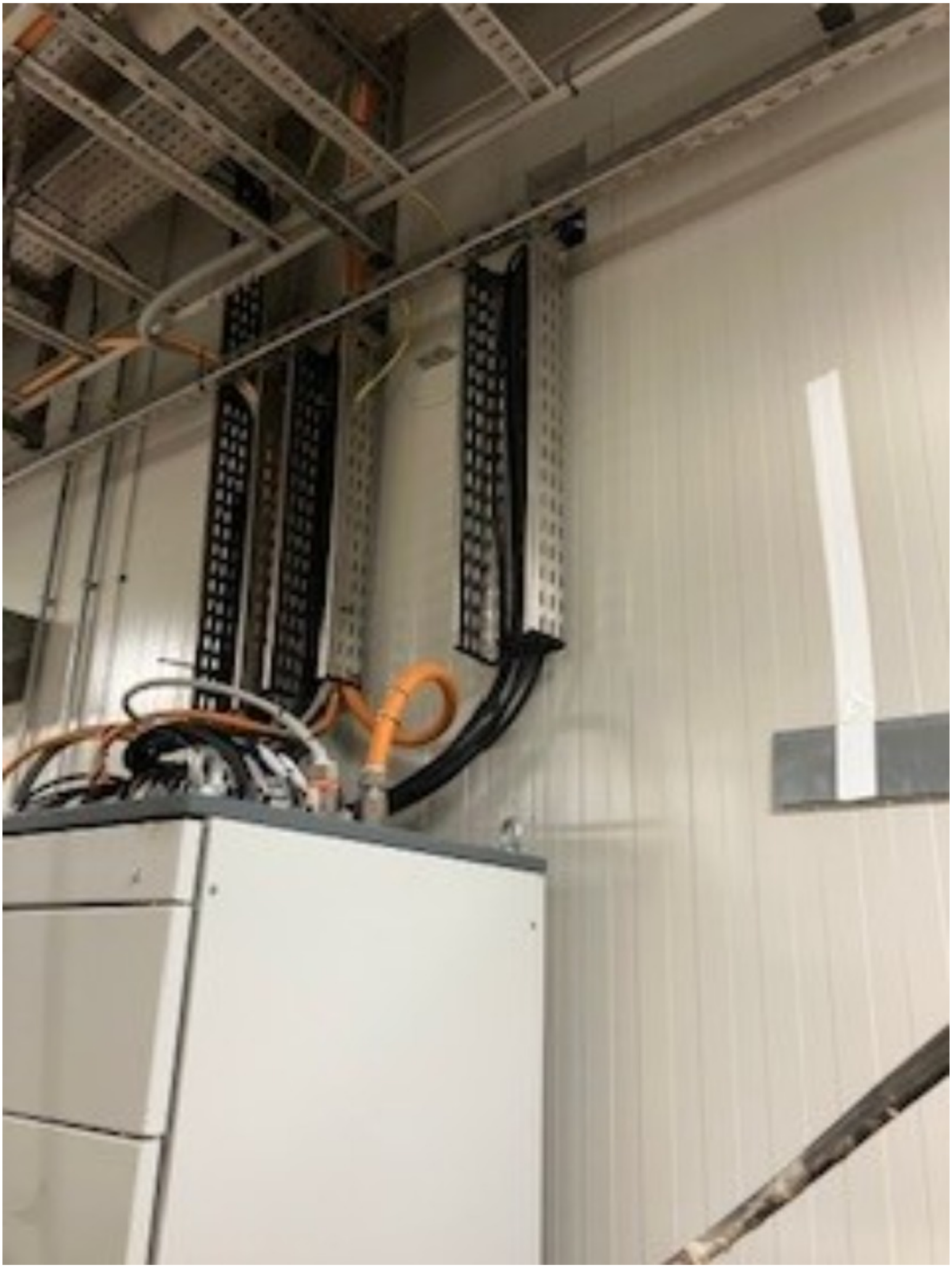
Signature

6- CLEARANCE APPROVAL

Name

Date

Signature





ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000046

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	B-100		Shelter HV-MV (66 kV / 6,6 kV) Switchroom B-100
1.3 Subsystem	90-01		HV-MV Switchgear Room B-100

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	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

CHECKED CEMBRE INSTALLATION MANUAL - ACCEPTED

Name ALEX SISTEMI

Date 2024-10-29

Signature

5 - CLEARANCE CHECK

CHECKED CEMBRE INSTALLATION MANUAL - ACCEPTED

Name Stefano Linari

Date 2024-10-29

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000050

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B-100		Shelter HV-MV (66 kV / 6,6 kV) Switchroom B-100
1.3 Subsystem	90-01		HV-MV Switchgear Room B-100

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

5 - CLEARANCE CHECK

FIXED

Name Stefano Linari

Date 2024-10-29

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000054

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	HVAC
1.2 Item	B-100		Shelter HV-MV (66 kV / 6,6 kV) Switchroom B-100
1.3 Subsystem	90-01		HV-MV Switchgear Room B-100

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. C30000560

Name Stefano Linari

Date 2025-02-06

Signature

5 - CLEARANCE CHECK

can be close - refer to PL n. C30000560

Name Stefano Linari

Date 2025-02-06

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000058

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	HVAC
1.2 Item	B-100		Shelter HV-MV (66 kV / 6,6 kV) Switchroom B-100
1.3 Subsystem	90-01		HV-MV Switchgear Room B-100

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	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

5 - CLEARANCE CHECK

INSTALLED

Name Stefano Linari

Date 2024-10-29

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000068

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	HVAC
1.2 Item	B-100		Shelter HV-MV (66 kV / 6,6 kV) Switchroom B-100
1.3 Subsystem	90-01		HV-MV Switchgear Room B-100

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

5 - CLEARANCE CHECK

INSTALLED

Name Stefano Linari

Date 2024-10-29

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000072

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	HVAC
1.2 Item	B-100		Shelter HV-MV (66 kV / 6,6 kV) Switchroom B-100
1.3 Subsystem	90-01		HV-MV Switchgear Room B-100

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	MC Mechanical Completion	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

5 - CLEARANCE CHECK

PERFORMED - SEE REPORTS

Name Stefano Linari

Date 2024-10-29

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000076

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	HVAC
1.2 Item	B-100		Shelter HV-MV (66 kV / 6,6 kV) Switchroom B-100
1.3 Subsystem	90-01		HV-MV Switchgear Room B-100

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 ALEX SISTEMI

Date 2024-10-29

Signature

5 - CLEARANCE CHECK

INSTALLED

Name Stefano Linari

Date 2024-10-29

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000080

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	HVAC
1.2 Item	B-100		Shelter HV-MV (66 kV / 6,6 kV) Switchroom B-100
1.3 Subsystem	90-01		HV-MV Switchgear Room B-100

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

5 - CLEARANCE CHECK

INSTALLED

Name Stefano Linari

Date 2024-10-29

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000084

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B-100		Shelter HV-MV (66 kV / 6,6 kV) Switchroom B-100
1.3 Subsystem	90-01		HV-MV Switchgear Room B-100

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

5 - CLEARANCE CHECK

INSTALLED

Name Stefano Linari

Date 2024-10-29

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000088

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B-100		Shelter HV-MV (66 kV / 6,6 kV) Switchroom B-100
1.3 Subsystem	90-01		HV-MV Switchgear Room B-100

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	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

5 - CLEARANCE CHECK

INSTALLED

Name Stefano Linari

Date 2024-10-29

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000092

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B-100		Shelter HV-MV (66 kV / 6,6 kV) Switchroom B-100
1.3 Subsystem	90-01		HV-MV Switchgear Room B-100

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

5 - CLEARANCE CHECK

ACTIVITY DONE - ALL DUCTS HAS BEEN INSTALLED

Name Stefano Linari

Date 2024-12-05

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000195

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002078	1.4 Discipline	Instrumental
1.2 Item	77-HS-001B		Hand Switch for Fire&Gas Damper HFD-77001
1.3 Subsystem	77-10		HVAC HV/MV Switchgear Room B-100

2 - OBSERVATION

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

Name: Giovanni Tangianu
Date: 2024-10-16
Signature:

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	2024-10-16
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

Installed.

Name: Giovanni Tangianu
Date: 2024-12-28
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000196

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000355	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-001A/77-HS-001B	PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-10	HVAC HV/MV Switchgear Room B-100	

2 - OBSERVATION

Missing plastic cable tag on MCT inside B-100. (This point is valid for all HS cables).

Name: Giovanni Tangianu

Date: 2024-10-16

Signature:

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	2024-10-16
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Eleonora Carotenuto

Date: 2025-01-03

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000197

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002077	1.4 Discipline	Instrumental
1.2 Item	77-HS-001A		Hand Switch for Fire&Gas Damper HFD-77001
1.3 Subsystem	77-10		HVAC HV/MV Switchgear Room B-100

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-001 / 77-HS-001B / 77-HS-002A / 77-HS-002B./77-HS-003A / 77-HS-003B.

Name: Giovanni Tangianu
Date: 2024-10-16
Signature:

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	2024-10-16
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

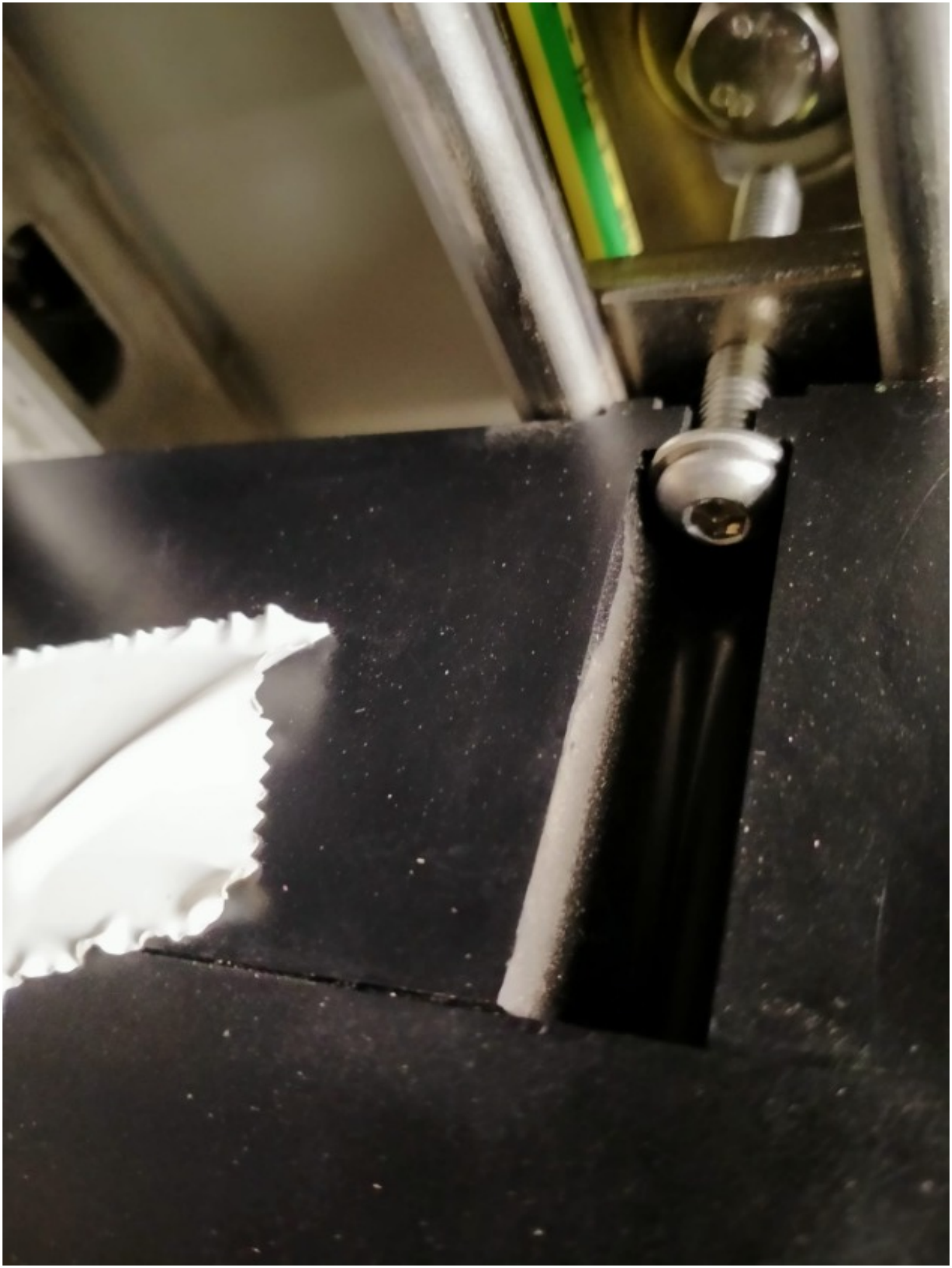
Done

Name: Luca Mussi
Date: 2024-11-20
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:


77-HS-001A
GHG43
BVS 22 ATEX E 032 X
Ex eb IIC T6 Gb
Ex tb IIIC T80°C Db
IECEx BVS 22.0029X
Ex eb IIC T6 Gb
Ex tb IIIC T80°C Db
IP66





ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000198

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002077	1.4 Discipline	Instrumental
1.2 Item	77-HS-001A		Hand Switch for Fire&Gas Damper HFD-77001
1.3 Subsystem	77-10		HVAC HV/MV Switchgear Room B-100

2 - OBSERVATION

Elevation of instrument is not in accordance with Layout. Point valid for 77-HS-001A / 77-HS-002A / 77-HS-003A . See attachment

Name: Giovanni Tangianu
Date: 2024-10-16
Signature:

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	2024-10-16
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

Done.

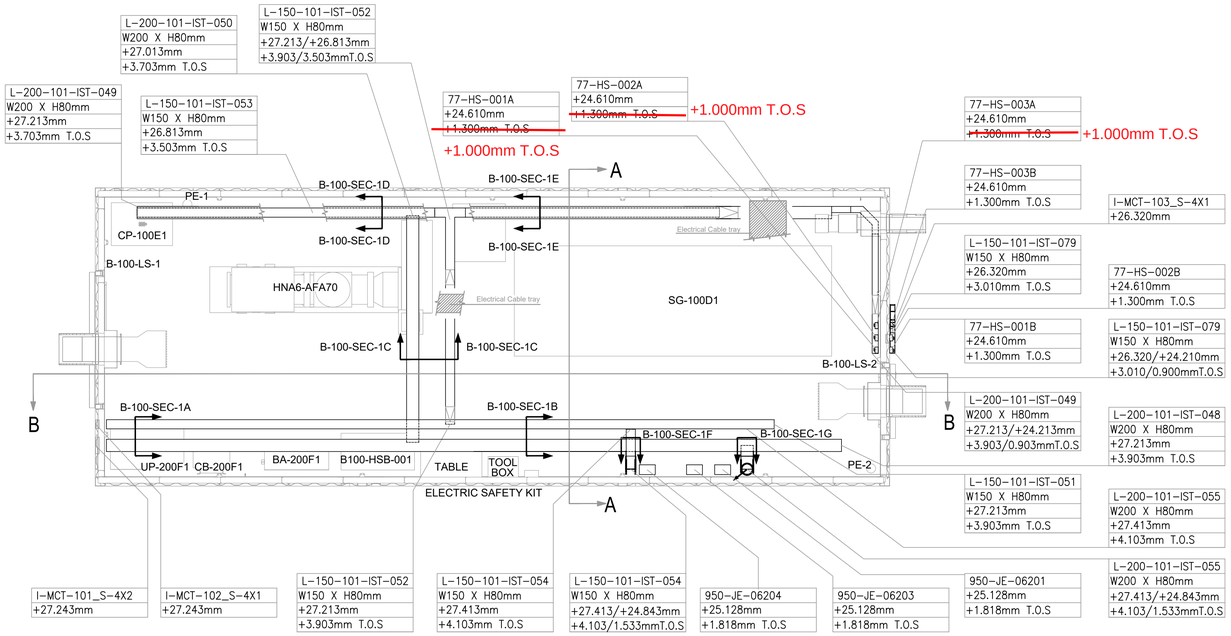
Name: Giovanni Tangianu
Date: 2025-03-04
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:

DRAWING NO. 123A90-DDL-IN-DL-40113

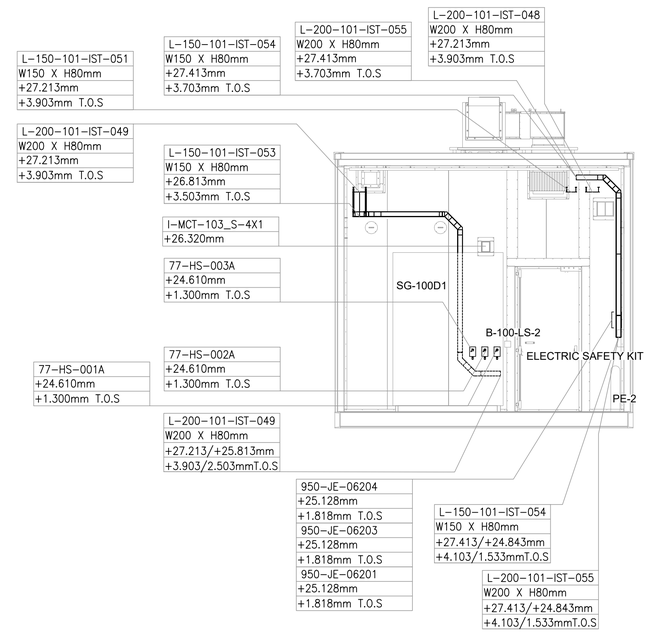
REV. 01



PLAN VIEW

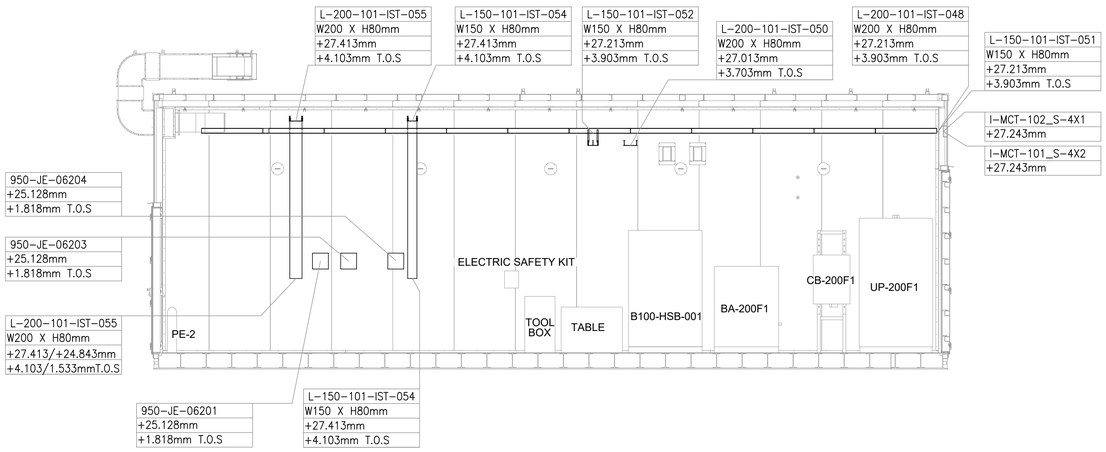
B-100 HV/MV SWITCHROOM

SCALE-1:1



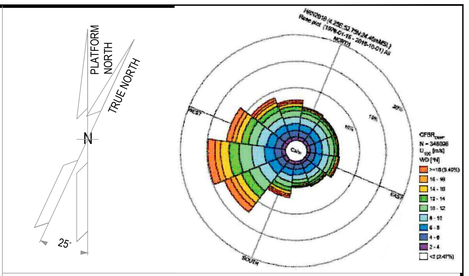
SECTION A-A

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-40113

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-100 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-40113	SHEET 001	REV. 01

File Name : 123A90-DDL-IN-DL-40113 REV:01.dwg

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000199

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000357	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-002B/950-JE-06203	PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-10	HVAC HV/MV Switchgear Room B-100	

2 - OBSERVATION

Missing plastic cable tag side 950-JE-06203

Name: Giovanni Tangianu

Date: 2024-10-16

Signature:

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	2024-10-16
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

done

Name: Eleonora Carotenuto

Date: 2024-12-14

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000200

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000354	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-001B/950-JE-06203	PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-10	HVAC HV/MV Switchgear Room B-100	

2 - OBSERVATION

Missing plastic cable tag side 950-JE-06203

Name: Giovanni Tangianu

Date: 2024-10-16

Signature:

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	2024-10-16
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

done

Name: Eleonora Carotenuto

Date: 2024-12-14

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000201

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000360	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-003B/950-JE-06203	PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-10	HVAC HV/MV Switchgear Room B-100	

2 - OBSERVATION

Missing plastic cable tag side 950-JE-06203

Name: Giovanni Tangianu

Date: 2024-10-16

Signature:

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	2024-10-16
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

done

Name: Eleonora Carotenuto

Date: 2024-12-14

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000202

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000356	1.4 Discipline	Instrumental
1.2 Item	C-77-HY-001/77-HS-001A	FIRE DAMPER / MARSHALLING PCS	
1.3 Subsystem	77-10	HVAC HV/MV Switchgear Room B-100	

2 - OBSERVATION

Missing plastic cable tag side C-77-HY-003

Name: Giovanni Tangianu

Date: 2024-10-16

Signature:

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	2024-10-16
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

done

Name: Eleonora Carotenuto

Date: 2024-12-14

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000203

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000362	1.4 Discipline	Instrumental
1.2 Item	C-77-HY-003/77-HS-003A	FIRE DAMPER / MARSHALLING PCS	
1.3 Subsystem	77-10	HVAC HV/MV Switchgear Room B-100	

2 - OBSERVATION

Missing plastic cable tag side C-77-HY-003

Name: Giovanni Tangianu

Date: 2024-10-16

Signature:

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	2024-10-16
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

done

Name: Eleonora Carotenuto

Date: 2024-12-14

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

Section 4 FUNCTIONAL TESTS SHEETS

Section 4.1 Electrical functional test sheets index

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 77-10 & process: COMM & discipline : E

Electrical	77-10 HVAC HV/MV Switchgear Room B-100						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
A4/+02-QF1	DRAWER HVAC PANELS HV ROOM - A4/+02-QF1	ONSHORE	C10002866	FP00	100	2024-10-22	RFO 2
		ONSHORE	C10002867	FTR-2	100	2024-09-20	RFO 2
		ONSHORE	C10002868	FTR-6	100	2024-10-03	RFO 2
		ONSHORE	C10003014	FTR-5	100	2025-04-29	RFO 2
B100-HSB-001	Distribution & HVAC Panel - HV MV Room	ONSHORE	C10002987	FP00	100	2024-10-29	RFO 2
UP-200F3-QF39	UCP - HVAC ROOM	ONSHORE	C10004576	FTR-2	100	2024-12-07	RFO 2

ROSETTI MARINO | PROVERLIS | CROSSWIND

ITEM	Tag	A4/+02-QF1	: DRAWER HVAC PANELS HV ROOM - A4/+02-QF1			Dwg	1723002197-EL-DG-00011
	S/Sys	77-10	: HVAC HV/MV Switchgear Room B-100			Module	
TASK	code	C10002866		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	PRE-COMM	Activity FTS	Discipline	Electrical	Form	FP00 Miscellaneous electrical Consumer

DATA

Switchboard	SG-200N1	Circuit ref:	A4/+02-QF1
Breaker rating (A)	160/40A	Nominal current (A)	34,1A

FUNCTION TEST REQUIREMENT

1	Check pre-commissioning activities have been carried out				OK
2	Check equipment for cleaness				OK
3	Measure I/R value of equipment and feeder cable at 1000V (Min value: 10 Mohm)	540	MΩ		OK
4	Energise control of equipment feeder				OK
5	Full test feeder breaker operation in test position				OK
6	Check protection setting				OK
7	Test interface trips and signals (remote alarms & status). Check the relevant ITR presence in the system				OK
8	Test control and safety functions according to manufacturer's procedure.				OK
9	Energize				OK
10	Measure Voltage and Current values at feeder breaker	398	V	0.3 A	OK
11	Attach test procedure, if any				NA

FUNCTION TEST REQUIREMENT	RESULT

Testing & measurement instruments used

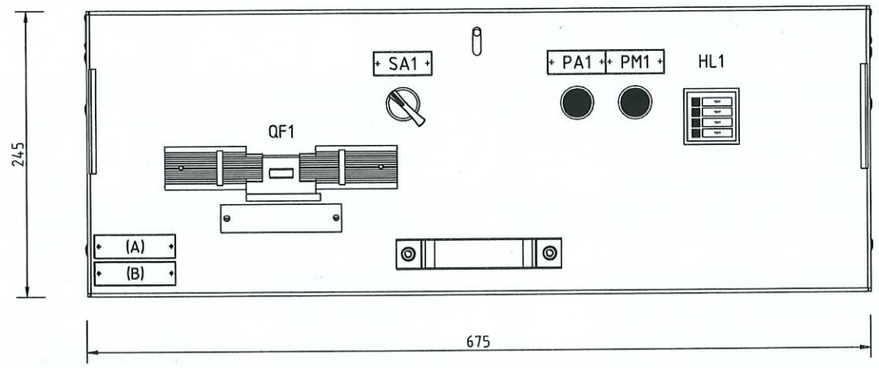
Type	Serial n°	Calibration certificate	Validity
FLUKE 1663	5380144	7727/24	10/07/2025
FLUKE 376	A1711003	7710/24	10/07/2025

Comments:

Page 1/1	Performed by	☐ WITNESS ☑ REVIEW	☐ WITNESS ☐ REVIEW
Company	RM COMM	RM COMM	CPY NOT PRESENT
Name	Mattia Girotti	Kristian Castellani	Witness waived
Date	2024-10-21	2024-10-22	2024-10-22
Signature	PROVERLIS Digitaly signed by Mattia Girotti 2024-10-21T08:53:44.330Z	PROVERLIS Digitaly signed by Kristian Castellani 2024-10-22T06:18:30.603Z	PROVERLIS Digitaly signed by Witness waived 2024-10-22T07:54:06.212Z

DOOR FRONT LAY-OUT

TYPICAL : LINE FEEDER "LK1-n"

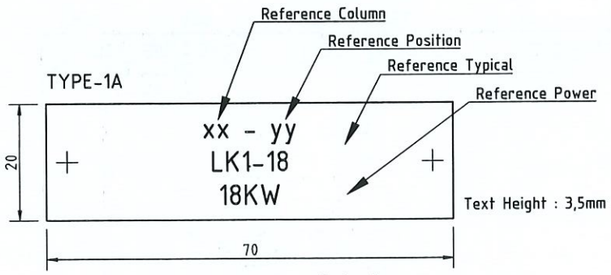


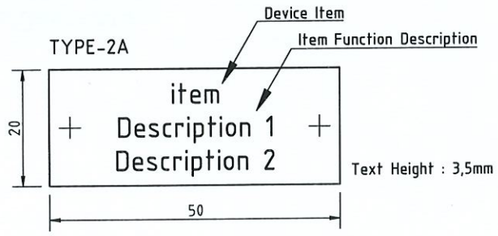
NOTE :

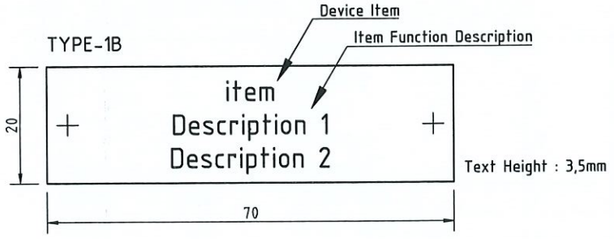
A) IDENTIFICATION name plate (type-1A) , with :
- Drawer position [Column / Position inside SWB]
- Typical name [reference applicability typical used]
- Power [reference applicability typical used]

B) USER name plate (type-1B), with :
- Item User [to see SLD diagrams]
- User Description [to see SLD diagrams]

DEVICES name plate			
ITEM	DESCRIPTION 1	DESCRIPTION 2	NOTE
QF1	Circuit Breaker		NO plate
SA1	LOC-REM	SELECTOR	Type-2A
PA1	STOP	~~MOTOR~~ OK	Type-2A
PM1	RUN	~~MOTOR~~ OK	Type-2A
HL1	Multiled	Signalling	NO plate







=	TYPICAL
+	LK-x
DWG n° :	231298/SD/31
Item n° :	PF1002983/26

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

Door Front Lay-Out - Typical "LK1-n" & "LK2-n"

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00031

SHEET 034

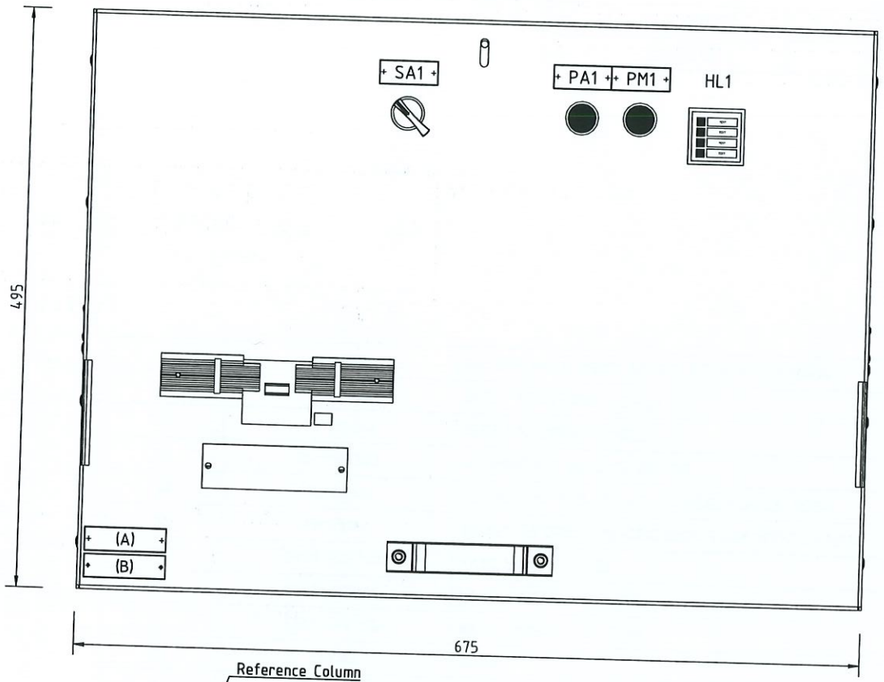
REV. 00

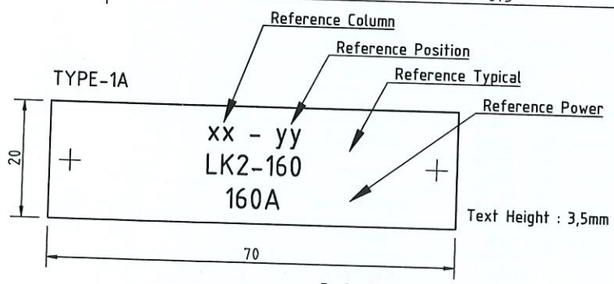
F.to UNI A3: 420mmx297mm

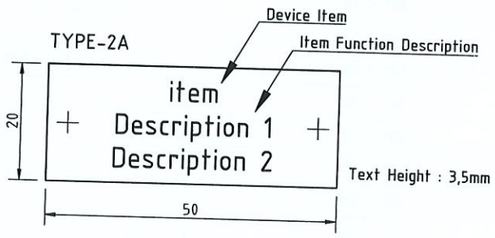
File Name : 1723002197-EL-DG-00031 Rev. 00

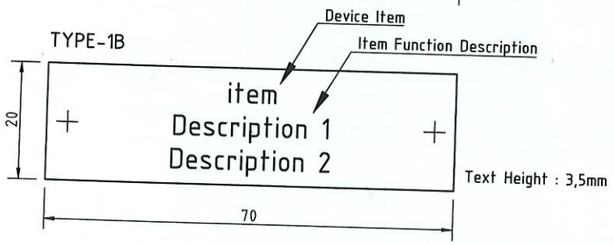
DOOR FRONT LAY-OUT

TYPICAL : LINE FEEDER "LK2-n"









NOTE :

A) IDENTIFICATION name plate (type-1A) , with :
- Drawer position [Column / Position inside SWB]
- Typical name [reference applicability typical used]
- Power [reference applicability typical used]

B) USER name plate (type-1B), with :
- Item User [to see SLD diagrams]
- User Description [to see SLD diagrams]

DEVICES name plate			
ITEM	DESCRIPTION 1	DESCRIPTION 2	NOTE
QF1	Circuit Breaker		NO plate
SA1	LOC-REM	SELECTOR	Type-2A
PA1	STOP	MOTOR ok	Type-2A
PM1	RUN	MOTOR ok	Type-2A
HL1	Multiled	Signalling	NO plate

= TYPICAL
+ LK-x
DWG n° : 231298/SD/31
Item n° : PF1002983/26

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

Door Front Lay-Out - Typical "LK1-n" & "LK2-n"

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00031

SHEET 035

REV. 00

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 00

USERS LEGEND

TYPICAL : LINE FEEDER "LK1-n" "LK2-n"

TYPICAL APPLICABILITY					
ITEM	ITEM TAG	DESCRIPTION TAG	REFERENCE POSITION (written on name name plate "type-1A)	REFERENCE NOMINAL CURRENT C.B. TRIP UNIT (written on name name plate "type-1A)	REFERENCE TYPICAL (written on name name plate "type-1A)
1	DP-200N2	DB-LIGHTING & SMALL POWER INSIDE LV ROOM	A2 / +05	40A	LK1-40
2	JB-200E2	CRANE	A3 / +02	40A	LK1-40
3	DP-200N1	DB-LIGHTING & SMALL POWER BoP	A3 / +03	40A	LK1-40
4	SPARE	SPARE	A3 / +04	63A	LK1-63
5	SPARE	SPARE	A3 / +05	40A	LK1-40
6	A-50000	WATER PACKAGE	A3 / +08	160A	LK2-160
7	B100-HSB-001	HVAC PANELS HV ROOM	A4 / +02	40A	LK1-40
8	A-80000	FUELL CELL AUXIALIRY LOAD	A4 / +03	63A	LK1-63
9	CP-850F03	BESS PCS CABINET	A4 / +04	40A	LK1-40
10	DP-300N1	DB-LIGHTING & SMALL POWER INSIDE UPS ROOM	A4 / +05	40A	LK1-40
11	SPARE	SPARE	A4 / +06	40A	LK1-40
12	DP-630E01A	INSTRUMENTS AIR PACKAGE 01A	A4 / +08	160A	LK2-160
13	SPARE	SPARE	A5 / +01	40A	LK1-40
14	B200-HSB-001	HVAC PANELS - LV ROOM	A5 / +02	40A	LK1-40
15	B300-HSB-001	HVAC PANELS - UPS ROOM	A5 / +03	40A	LK1-40
16	B400-HSB-001	HVAC PANELS - ITER	A5 / +04	40A	LK1-40
17	CN-200N1	IMPRESSED CURR. CATHODIC PROTECTION (ICCP) SYSTEM	A5 / +05	40A	LK1-40
18	DP-400N1	DB-LIGHTING & SMALL POWER INSIEDE INSTR. ROOM	A5 / +06	40A	LK1-40
19	DP-630E01B	INSTRUMENTS AIR PACKAGE 01B	A5 / +08	160A	LK2-160
20	CP-850F01	BESS LV1 CABINAT (+DISTR 1)	A6 / +02	40A	LK1-40
21	CP-850F02	BESS LV2 CABINAT (+DISTR 2)	A6 / +03	40A	LK1-40
22	DP-100N1	DB-LIGHTING & SMALL POWER INSIDE HV/MV ROOM	A6 / +04	40A	LK1-40

= TYPICAL
+ LK-x

OWG n° : 231298/SD/31
Item n° : PF1002983/26

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

Users Legend - Typical "LK1-n" & "LK2-n"

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

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 036 | REV. 00

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 00

ITEMS ACRONYM

TYPICAL : LINE FEEDER "LK1-n" "LK2-n"

Composition of Typical :

LK-x = Common Parts
LK1-"nn" or LK2-"nn"= Specific Parts

Example for Composition of LK1-63:
- to take "LK-x" plus "LK1-63"

Example for Composition of LK2-160:
- to take "LK-x" plus "LK2-160"

	ACRONYM ITEMS (Comun parts)	ACRONYM ITEMS (Specific parts)				
	LK-x	LK1-40 (In=40A) (Current Trip Unit)	LK1-63 (In=63A) (Current Trip Unit)	LK2-160 (In=160A) (Current Trip Unit)		
ASSOCIATED TYPICAL	This Item include all devices that are comun for both "Specific Parts" Items	This Items include only devices that are detail for "Specific Parts" Items				
LK1-40	X	X				
LK1-63	X		X			
LK2-160	X			X		
-						

=	TYPICAL					
+	LK-x					
DWG n° : 231298/SD/31						
Item n° : PF1002983/26						
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)	
REV.	DATE	DRN	CHKD	APPD	DESCRIPTION	

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

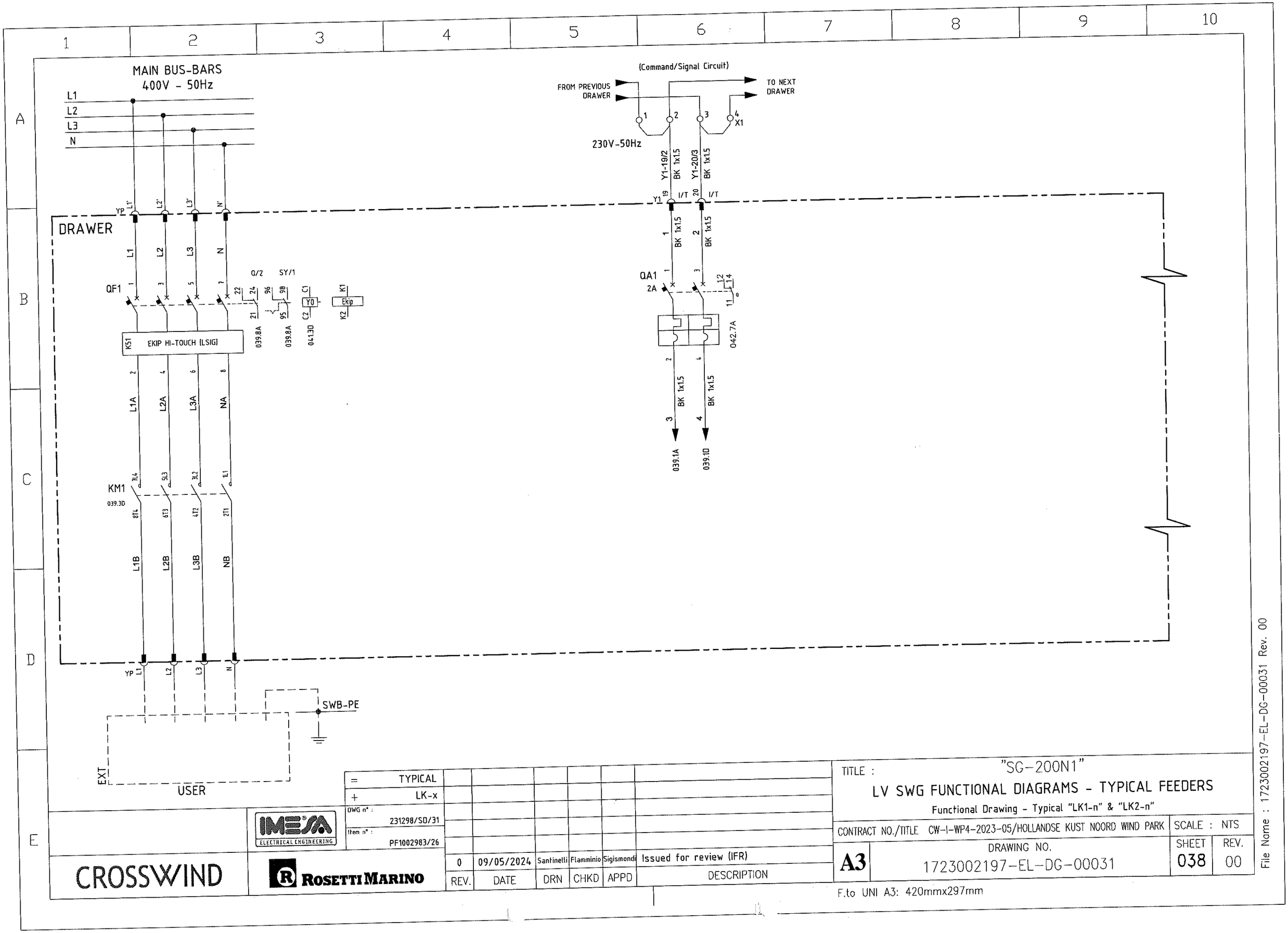
TITLE : "SG-200N1"
LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS
Items Acronym - Typical "LK1-n" & "LK2-n"

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

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 037 | REV. 00

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 00



=	TYPICAL						
+	LK-x						
DWG n° : 231298/SD/31							
Item n° : PF1002983/26							
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)		
REV.	DATE	DRN	CHKD	APPD	DESCRIPTION		

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

Functional Drawing - Typical "LK1-n" & "LK2-n"

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00031

SHEET 038

REV. 00

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 00

APERTO IN INS.

038.6C 3 230V-50Hz

KA3 039.8D

KA6 042.9D

SA1 LOC REM CLOSE ON "LOC" 042.9A 039.7B 039.5B

SA1 039.3B CLOSE ON "REM"

PM1 GR

KM1 039.3D

PA1 RD

KA7 042.6D

KA6 042.5D

KA3 039.8D

SA1 039.3B CLOSE ON "REM"

KM1 039.3D

KA5 039.9D

QF1 038.1B Q

QF1 038.1B SY

Y1 22 T Y1 21 I/T

3 040.1B

7 BK 1x1.5

8 BK 1x1.5

9 BK 1x1.5

10 BK 1x1.5

11 BK 1x1.5

12 BK 1x1.5

5 BK 1x1.5

6 BK 1x1.5

13 BK 1x1.5

14 BK 1x1.5

15 BK 1x1.5

16 BK 1x1.5

17 BK 1x1.5

18 BK 1x1.5

19 BK 1x1.5

KM1 A1 A2 MAIN CONTACTOR

KA1 A1 A2 STATUS C.B/CONTACTOR

KA2 A1 A2 USER AVAILABLE

KA3 A1 A2 C.B. OPEN/CLOSED

KA4 A1 A2 C.B. TRIPPED

KA5 A1 A2 DRAWER ON TEST

038.6C 4

4 040.1D

038.1C 2T1 1L1
038.1C 4T2 3L2
038.1C 6T3 5L3
038.1C 8T4 7L4
039.6B 14 13
039.4B 24 23
039.5B 34 33
040.3B 44 43

042.4A 11 12 14 22 21 24 32 31 34 42 41 44

042.6A 11 12 14 22 21 24 32 31 34 42 41 44

039.6A 039.2A 040.3B 11 12 14 22 21 24 32 31 34 42 41 44

040.4B 042.6A 11 12 14 22 21 24 32 31 34 42 41 44

042.5A 039.7B 11 12 14 22 21 24 32 31 34 42 41 44

= TYPICAL
+ LK-x

DWG n° : 231298/SD/31
Item n° : PF1002983/26

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

Functional Drawing - Typical "LK1-n" & "LK2-n"

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

SCALE : NTS

A3

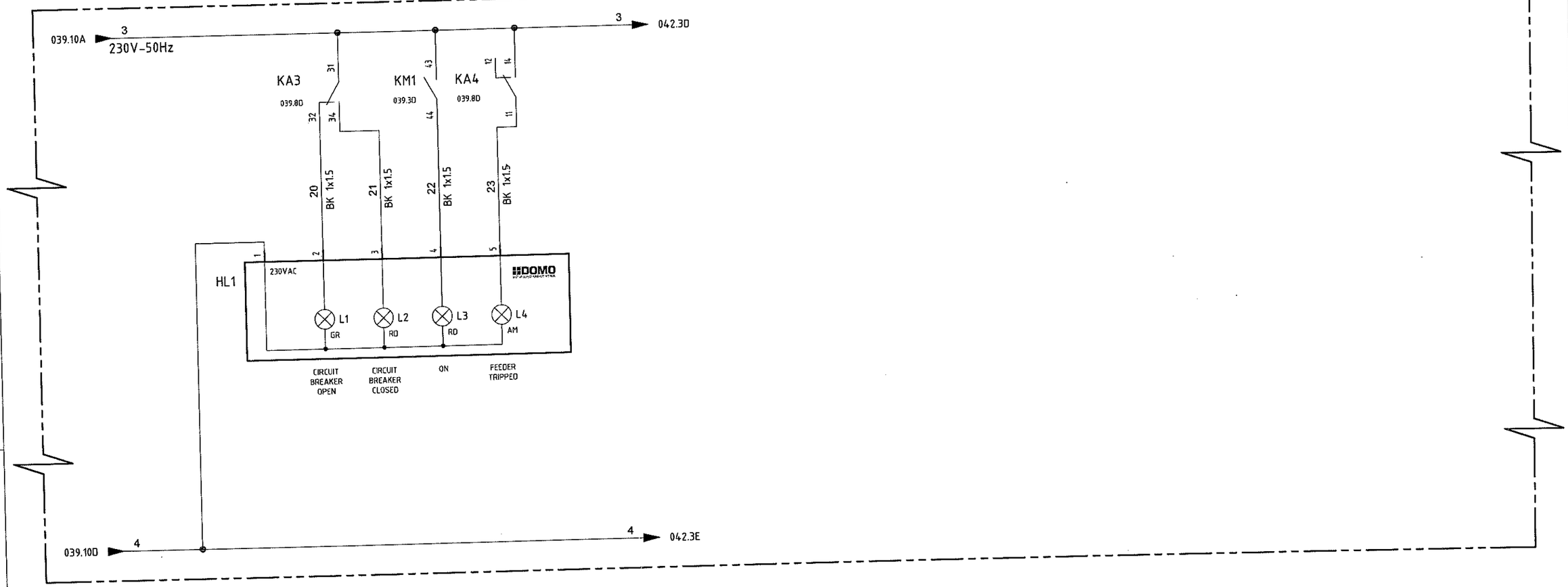
DRAWING NO. 1723002197-EL-DG-00031

SHEET 039

REV. 00

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 00



=	TYPICAL						
+	LK-x						
DWG n° :	231298/SD/31						
Item n° :	PF1002983/26						
		0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
		REV.	DATE	DRN	CHKD	APPD	DESCRIPTION

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

Functional Drawing - Typical "LK1-n" & "LK2-n"

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

SCALE : NTS

A3

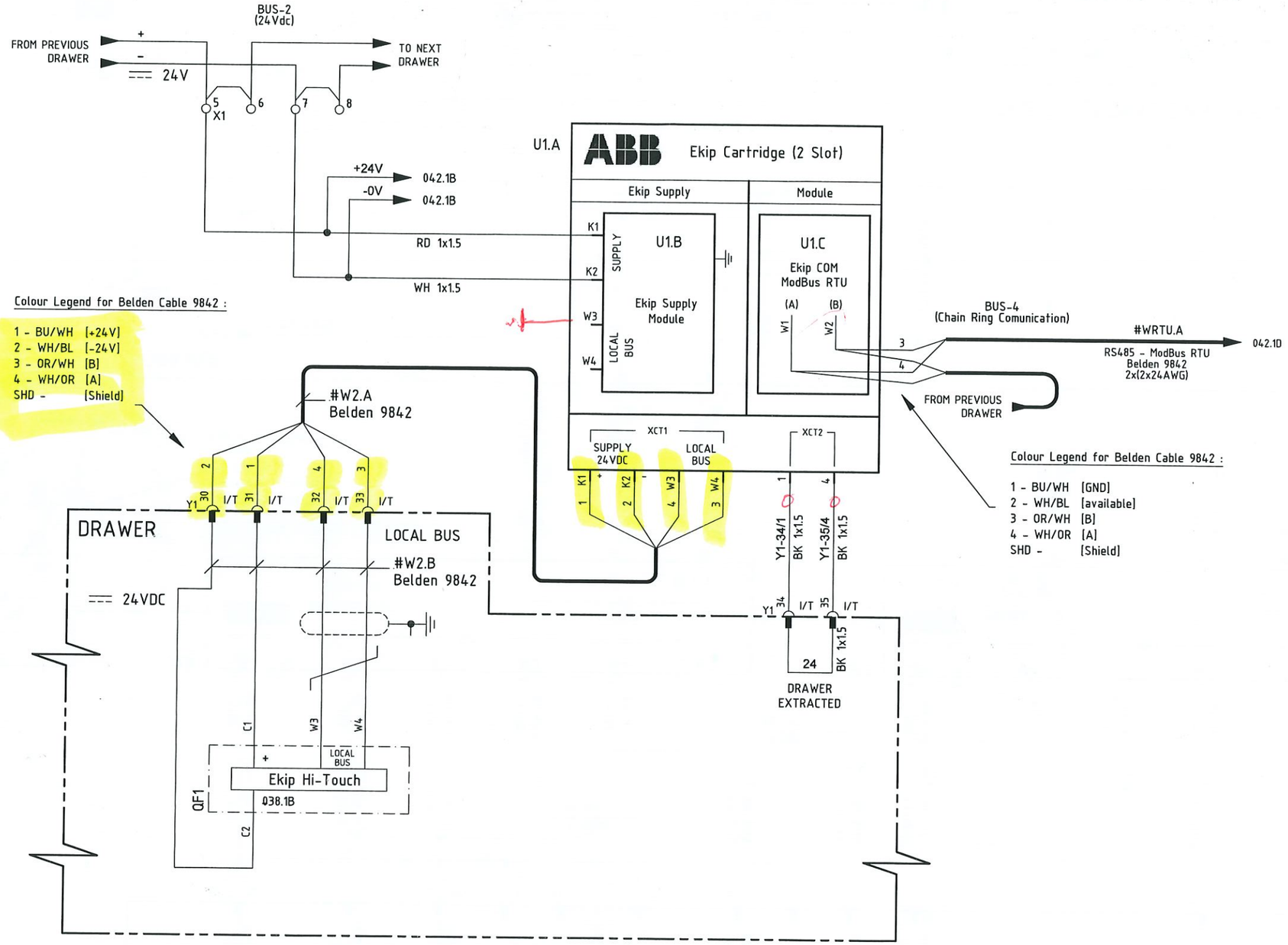
DRAWING NO. 1723002197-EL-DG-00031

SHEET 040

REV. 00

F.to UNI A3: 420mmx297mm

3 Name : 1723002197-EL-DG-00031 Rev. 00



=	TYPICAL						
+	LK-x						
DWG n° : 231298/SD/31							
Item n° : PF1002983/26							
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)		
REV.	DATE	DRN	CHKD	APPD	DESCRIPTION		

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

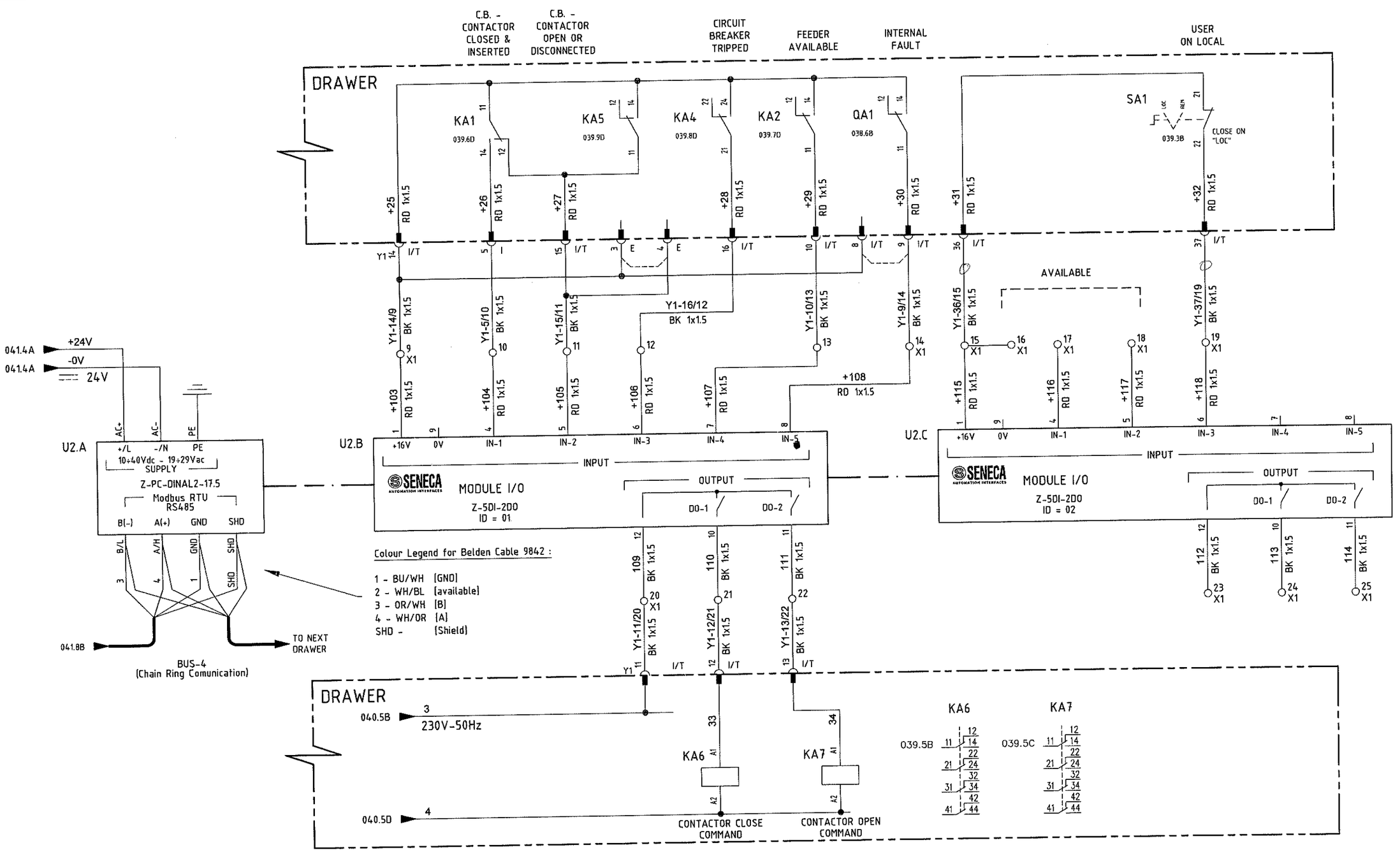
Functional Drawing - Typical "LK1-n" & "LK2-n"

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

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 041 | REV. 00

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 00



=	TYPICAL						
+	LK-x						
OWG n° : 231298/SD/31							
item n° : PF1002983/26							
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)		
REV.	DATE	DRN	CHKD	APPD	DESCRIPTION		

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

Functional Drawing - Typical "LK1-n" & "LK2-n"

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00031

SHEET 042

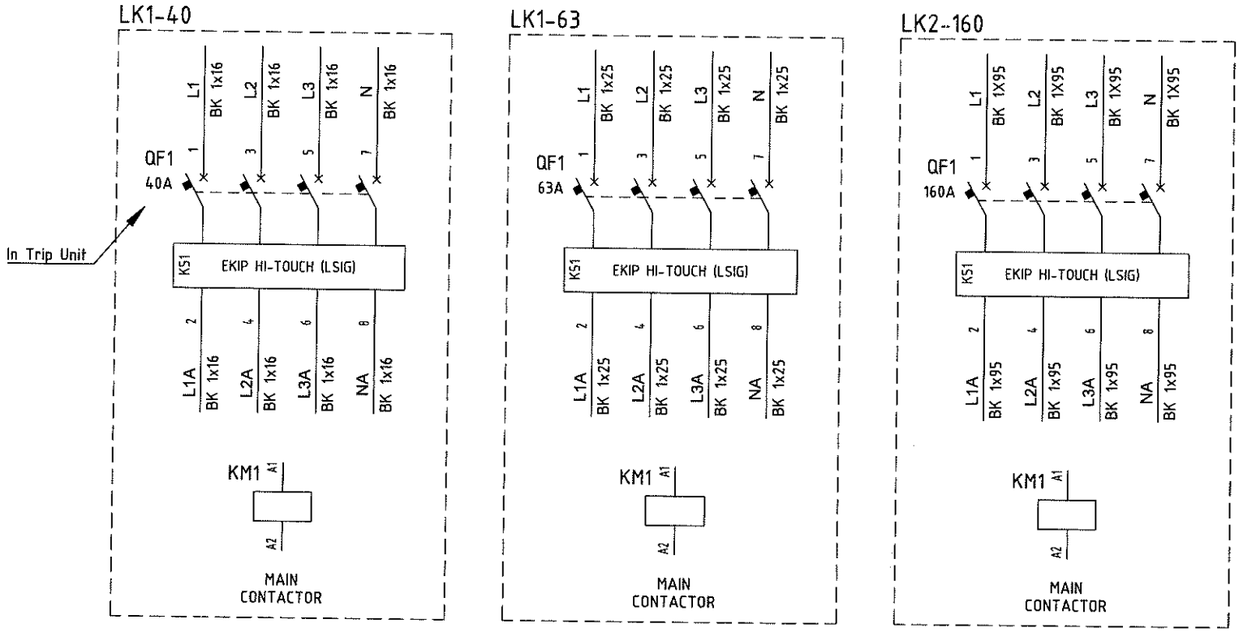
REV. 00

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 00

SPECIFIC PARTS

TYPICAL : LINE FEEDER "LK1-n" "LK2-n"



=	TYPICAL						
+	LK-x						
DWG n° :	231298/SD/31						
Item n° :	PF1002983/26						
		0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
		REV.	DATE	DRN	CHKD	APPD	DESCRIPTION

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

Functional Drawing - Typical "LK1-n" & "LK2-n"

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00031

SHEET 043

REV. 00

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 00

AUXILIARY SOCKET

136450/001 (PF – 2 pcs) + 136458/004 (PM – 2 pcs)

N° PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
JUMP			•	•				•	•																																			
RACKED–OUT			X	X				X	X																																			
TEST								X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
RACKED–IN					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
PIN USED			042.5B	042.5B	042.4B			042.6B	042.7B	042.6B	042.5D	042.5D	042.6D	042.3B	042.4B	042.6B			038.6A	038.6A	039.9A	039.9A								041.3C	041.3C	041.4C	041.4C	041.6C	041.7C	042.7B	042.9B							

TYPICAL - LK-x - Y1

SX DX

- FIELD WHIT "X" - CONTACT CLOSE WHEN DRAWER IS IN RACKED-OUT POSITION
- FIELD WHIT "X" - CONTACT CLOSE WHEN DRAWER IS IN TEST POSITION
- FIELD WHIT "X" - CONTACT CLOSE WHEN DRAWER IS IN RACKED-IN POSITION
- CROS-REFERENCE USED PIN

x 19 CASSETTI

=	TYPICAL						
+	LK-x						
DWG n° :	231298/SD/31						
Item n° :	PF1002983/26						
		0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
		REV.	DATE	DRN	CHKD	APPD	DESCRIPTION

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "SG–200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

Functional Drawing - Typical "LK1-n" & "LK2-n"

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

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 044 | REV. 00

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 00

TYPICAL - LK-x

X1

NumM	Fg.	Sez.	Tipo	Descrizione	Costruttore
			BT003	BT/3 End bracket	Cabur
1	038.5A	2.5	HD100GR__	HMD.2/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
2	038.6A	2.5	HD100GR__	HMD.2/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
3	038.6A	2.5	HD100GR__	HMD.2/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
4	038.6A	2.5	HD100GR__	HMD.2/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
5	041.3A	2.5	HD100GR__	HMD.2/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
6	041.3A	2.5	HD100GR__	HMD.2/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
7	041.4A	2.5	HD100GR__	HMD.2/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
8	041.4A	2.5	HD100GR__	HMD.2/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
			HD101GR	HMD/PT/GR End section - Grey	Cabur
9	042.3B	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
10	042.4B	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
11	042.4B	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
12	042.5B	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
13	042.6B	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
14	042.7B	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
15	042.7B	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
16	042.7B	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
17	042.8B	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
18	042.8B	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
19	042.9B	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
20	042.5C	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
21	042.5C	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
22	042.6C	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
23	042.9C	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
24	042.9C	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
25	042.10C	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
			HD201GR	HMD.1/PT/GR End section - Grey	Cabur
			BT003	BT/3 End bracket	Cabur

=	TYPICAL
+	LK-x

IMESA ELECTRICAL ENGINEERING

DWG n° : 231298/SD/31

Item n° : PF1002983/26

CROSSWIND

ROSETTI MARINO

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

Functional Drawing - Typical "LK1-n" & "LK2-n"

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00031

SHEET 045

REV. 00

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 00

Nome/Item	Fg/Sh	Tipo/Type	Q.ta/Q.ty	Descrizione/Description	Costruttore/Manufacturer	Quadro (descrizione)
HL1	040	ML22/484L230STLTTR	1	MULTILED 48x48 - 4 LED - Vaux=230Vac/dc + LAMP TEST + TROP	DOMO	TYPICAL LK-x
KA1	039	ER 592 6	1	CR-M230AC4L SUPPLY 230VAC 4C/O 250V/6A LED	ABB	TYPICAL LK-x
		ER 609 8	1	CR-MH HOLDER FOR CR-M RELAY	ABB	TYPICAL LK-x
		ER 686 6	1	CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M)	ABB	TYPICAL LK-x
KA2	039	ER 592 6	1	CR-M230AC4L SUPPLY 230VAC 4C/O 250V/6A LED	ABB	TYPICAL LK-x
		ER 609 8	1	CR-MH HOLDER FOR CR-M RELAY	ABB	TYPICAL LK-x
		ER 686 6	1	CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M)	ABB	TYPICAL LK-x
KA3	039	ER 592 6	1	CR-M230AC4L SUPPLY 230VAC 4C/O 250V/6A LED	ABB	TYPICAL LK-x
		ER 609 8	1	CR-MH HOLDER FOR CR-M RELAY	ABB	TYPICAL LK-x
		ER 686 6	1	CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M)	ABB	TYPICAL LK-x
KA4	039	ER 592 6	1	CR-M230AC4L SUPPLY 230VAC 4C/O 250V/6A LED	ABB	TYPICAL LK-x
		ER 609 8	1	CR-MH HOLDER FOR CR-M RELAY	ABB	TYPICAL LK-x
		ER 686 6	1	CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M)	ABB	TYPICAL LK-x
KA5	039	ER 592 6	1	CR-M230AC4L SUPPLY 230VAC 4C/O 250V/6A LED	ABB	TYPICAL LK-x
		ER 609 8	1	CR-MH HOLDER FOR CR-M RELAY	ABB	TYPICAL LK-x
		ER 686 6	1	CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M)	ABB	TYPICAL LK-x
KA6	042	ER 592 6	1	CR-M230AC4L SUPPLY 230VAC 4C/O 250V/6A LED	ABB	TYPICAL LK-x
		ER 609 8	1	CR-MH HOLDER FOR CR-M RELAY	ABB	TYPICAL LK-x
		ER 686 6	1	CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M)	ABB	TYPICAL LK-x
KA7	042	ER 592 6	1	CR-M230AC4L SUPPLY 230VAC 4C/O 250V/6A LED	ABB	TYPICAL LK-x
		ER 609 8	1	CR-MH HOLDER FOR CR-M RELAY	ABB	TYPICAL LK-x
		ER 686 6	1	CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M)	ABB	TYPICAL LK-x
PA1	039	KW 075 2	1	MP1-10R PUSH BUTTON RED WITH BLACK RING	ABB	TYPICAL LK-x
		EO 569 7	1	MCBH-00 FIXING SUPPORT 3 CONTACTS	ABB	TYPICAL LK-x
		EO 571 3	2	MCB-01 CONTACT NC FOR PUSHBUTTOM	ABB	TYPICAL LK-x
PM1	039	KW 076 0	1	MP1-10G PUSH BUTTON GREEN WITH BLACK RING	ABB	TYPICAL LK-x
		EO 569 7	1	MCBH-00 FIXING SUPPORT 3 CONTACTS	ABB	TYPICAL LK-x
		EO 570 5	2	MCB-10 CONTACT NO FOR PUSHBUTTONS	ABB	TYPICAL LK-x
QA1	038	S550239	1	S202M C 2 AUTOMATIC CIRCUIT BREAKER 10KA 2P	ABB	TYPICAL LK-x
		A563819	1	S2-CS/H6R AUXILIARY STATE CONTACT 1CO	ABB	TYPICAL LK-x
SA1	039	KW 329 3	1	M2SS2-10B HANDLE SELECTOR 2P 90° BLACK RING BLACK	ABB	TYPICAL LK-x
		EO 569 7	1	MCBH-00 FIXING SUPPORT 3 CONTACTS	ABB	TYPICAL LK-x
		EO 570 5	2	MCB-10 CONTACT NO FOR PUSHBUTTONS	ABB	TYPICAL LK-x
		EO 571 3	2	MCB-01 CONTACT NC FOR PUSHBUTTOM	ABB	TYPICAL LK-x
U1.2	041	1SDA074173R1	1	MODUL EKIP SUPPLY 24÷48VDC	ABB	TYPICAL LK-x
U1.3	041	1SDA105166R1	1	Module Ekip Com Modbus RS485 Tmax XT	ABB	TYPICAL LK-x
U1.A	041	1SDA105203R1	1	EKIP CARTRIDGE 2SLOT FOR XT2-XT4-XT5	ABB	TYPICAL LK-x
U2.A	042	Z-PC-DINAL2-17.5	1	DIN RAIL 2SLOT WITH HEAD FOR "Z-5DI-2DO"	SENECA	TYPICAL LK-x
U2.B	042	Z-5DI-2DO	1	I/O MODUL 5DI+2DO modbus RS485 Vaux=10÷40Vdc 19÷28Vac	SENECA	TYPICAL LK-x
U2.C	042	Z-5DI-2DO	1	I/O MODUL 5DI+2DO modbus RS485 Vaux=10÷40Vdc 19÷28Vac	SENECA	TYPICAL LK-x
X1		HD100GR_	8	HMD.2/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur	TYPICAL LK-x
		HD400GR_	17	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur	TYPICAL LK-x
		BT003	2	BT/3 End bracket	Cabur	TYPICAL LK-x
		HD101GR	1	HMD/PT/GR End section - Grey	Cabur	TYPICAL LK-x

=	TYPICAL
+	LK-x

DWG n° : 231298/SD/31

Item n° : PF1002983/26

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

Functional Drawing - Typical "LK1-n" & "LK2-n"

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00031

SHEET 046

REV. 00

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 00

Nome/Item	Fg/Sh	Tipo/Type	Q.ta/Q.ty	Descrizione/Description	Costruttore/Manufacturer	Quadro (descrizione)
X1		HD201GR	1	HMD.1/PT/GR End section - Grey	Cabur	TYPICAL LK-x

Nome/Item	Fg/Sh	Tipo/Type	Q.ta/Q.ty	Descrizione/Description	Costruttore/Manufacturer	Quadro (descrizione)
KM1	043	AF40400013	1	AF40-40-00-13 CONTACTOR 4P 40A 100-250VAC/DC	ABB	TYPICAL LK1-40
		CA440E	1	CA4-40E AUXILIARY FRONT CONTACT 4NO	ABB	TYPICAL LK1-40
QF1	043	1SDA068169R1	1	XT2S 160 BREAKING PART 4p F F	ABB	TYPICAL LK1-40
		1SDA100162R1	1	ELECTRONIC TRIP RELEASE Ekip Hi-Touch LSIG In=40A XT2 4p	ABB	TYPICAL LK1-40
		1SDA066431R1	1	AUX-C 1Q+1SY 250Vac/dc XT1..XT5 F/P	ABB	TYPICAL LK1-40

Nome/Item	Fg/Sh	Tipo/Type	Q.ta/Q.ty	Descrizione/Description	Costruttore/Manufacturer	Quadro (descrizione)
KM1	043	AF52400013	1	AF52-30-00-13 CONTACTOR 4P 53A(AC3) 100-250VAC/DC	ABB	TYPICAL LK1-63
		CA440E	1	CA4-40E AUXILIARY FRONT CONTACT 4NO	ABB	TYPICAL LK1-63
QF1	043	1SDA068169R1	1	XT2S 160 BREAKING PART 4p F F	ABB	TYPICAL LK1-63
		1SDA100163R1	1	ELECTRONIC TRIP RELEASE Ekip Hi-Touch LSIG In=63A XT2 4p	ABB	TYPICAL LK1-63
		1SDA066431R1	1	AUX-C 1Q+1SY 250Vac/dc XT1..XT5 F/P	ABB	TYPICAL LK1-63

Nome/Item	Fg/Sh	Tipo/Type	Q.ta/Q.ty	Descrizione/Description	Costruttore/Manufacturer	Quadro (descrizione)
KM1	043	AF190401113	1	AF190-40-11-13 CONT 4P 190A AC3 100-250VAC/DC	ABB	TYPICAL LK2-160
		CAL1911	1	CAL19-11 CONTATTO AUSILIARIO 1NA+1NC PER AF116÷AF370	ABB	TYPICAL LK2-160
		CAL1911B	2	CAL19-11B AUXILIARY CONTACT 1NA+1NC PER AF116÷AF370	ABB	TYPICAL LK2-160
QF1	043	1SDA068179R1	1	XT4S 250 BREAKING PART 4p F F	ABB	TYPICAL LK2-160
		1SDA100334R1	1	ELECTRONIC TRIP RELEASE Ekip Hi-Touch LSIG In=160A XT4 4p	ABB	TYPICAL LK2-160
		1SDA066431R1	1	AUX-C 1Q+1SY 250Vac/dc XT1..XT5 F/P	ABB	TYPICAL LK2-160

=	TYPICAL
+	LK-x

DWG n° : 231298/SD/31

Item n° : PF1002983/26

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

Functional Drawing - Typical "LK1-n" & "LK2-n"

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00031

SHEET 047

REV. 00

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 00

ITEM	Tag	A4/+02-QF1	:	DRAWER HVAC PANELS HV ROOM - A4/+02-QF1	Dwg	1723002197-EL-DG-00011	
	S/Sys	77-10	:	HVAC HV/MV Switchgear Room B-100	Module		
TASK	code	C10002867	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	PRE-COMM	Activity	FTS	Discipline	Electrical	Form	FTR-2	Protection Relay

FTR2 - Protection relay
Record sheet

RELAY DATA

Manufacturer:	ABB	Serial N°:	EF5001653690N000	Relay type:	EKIP HI TOUCH LSIG
Auxiliary supply:	24Vdc	Location:	B200	Cubicle:	A4/+02
Switchboard:	SG-200N1				

Current transformers

Tag	Number of	Ratio	Location

Voltage transformers

Tag	Number of	Ratio	Location

Test result (refer to manufacturer's procedure)

ANSI function	Setting	Injection	Trip value	Time delay Setting	Time delay Trip value
L	40A	120A		3s	1957ms
S	200A	250A		0.1s	102ms
I	400A	450A		INSTANT	24ms
G	8A	# Note1		0.1s	102ms

Testing & measurement instruments used

Type	Serial n°	Calibration certificate	Validity
ABB EKIP T&P	E34013804410W050		

Comments: See the attachments for full tests

Note1: 5A was injected into the neutral to trip the "G" protection while an equal amount of 5A was removed on the phase to create a potential difference

Page 1/1	Performed by	☐ WITNESS ☉ REVIEW	☐ WITNESS ☐ REVIEW
Company	RM COMM	RM COMM	CPY NOT PRESENT
Name	Mattia Girotti	Kristian Castellani	Witness waived
Date	2024-09-18	2024-09-18	2024-09-20
Signature			

A4/T02

AS COMMISSIONED: MATWA 6/1625

21/5/25

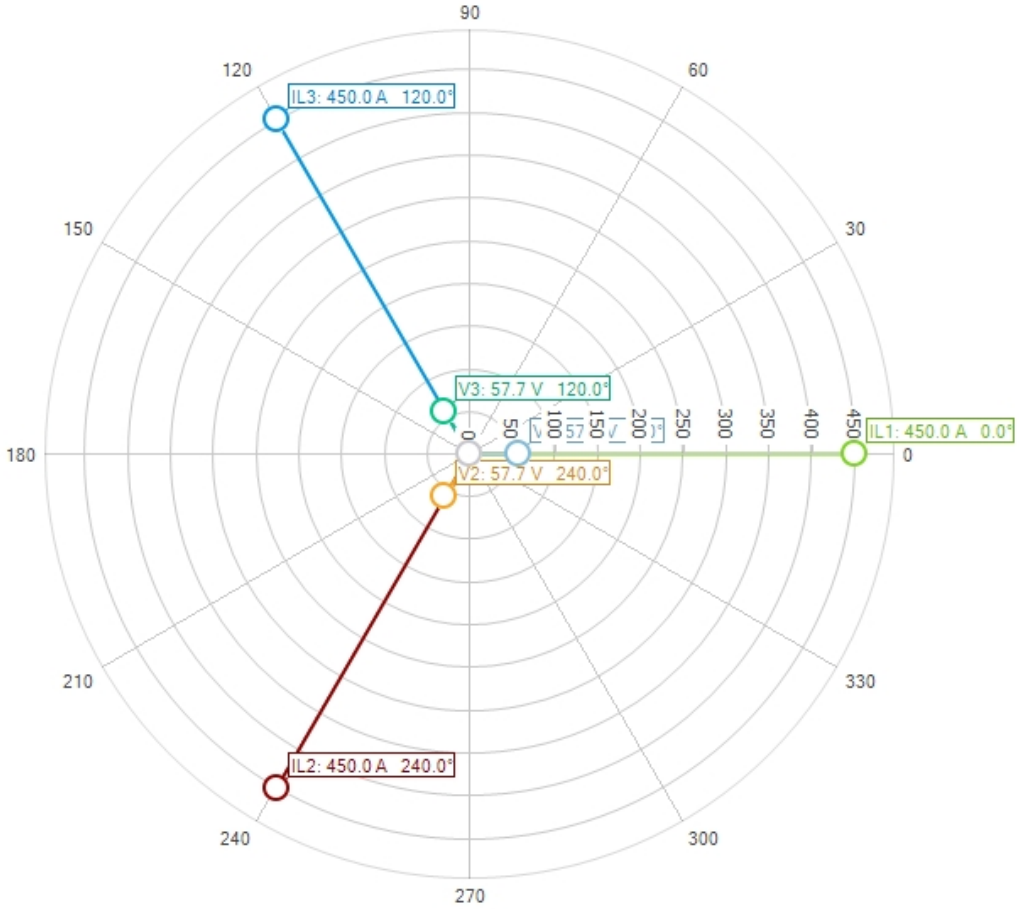
Page Name	Group Name	Variable Name	Variable Value	Variable Unit
Settings A				
	Overload Protection (L - ANSI 49)			
		PU nominal current In	40	
		Status	Enabled	
		Function	t=k/i^2	
		Prealarm I1	90	% I1
		Threshold I1	1.000	In
		Time t1 std	3.00	s
		Thermal memory (TM)	Disabled	
		TM Algorithm	RMS-independent	
		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)	5.00	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	Enabled	
		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	10.00	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

A4/102

AS COMMISSIONED: MATRIA GIROTTI

21/5/25

		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	



Test

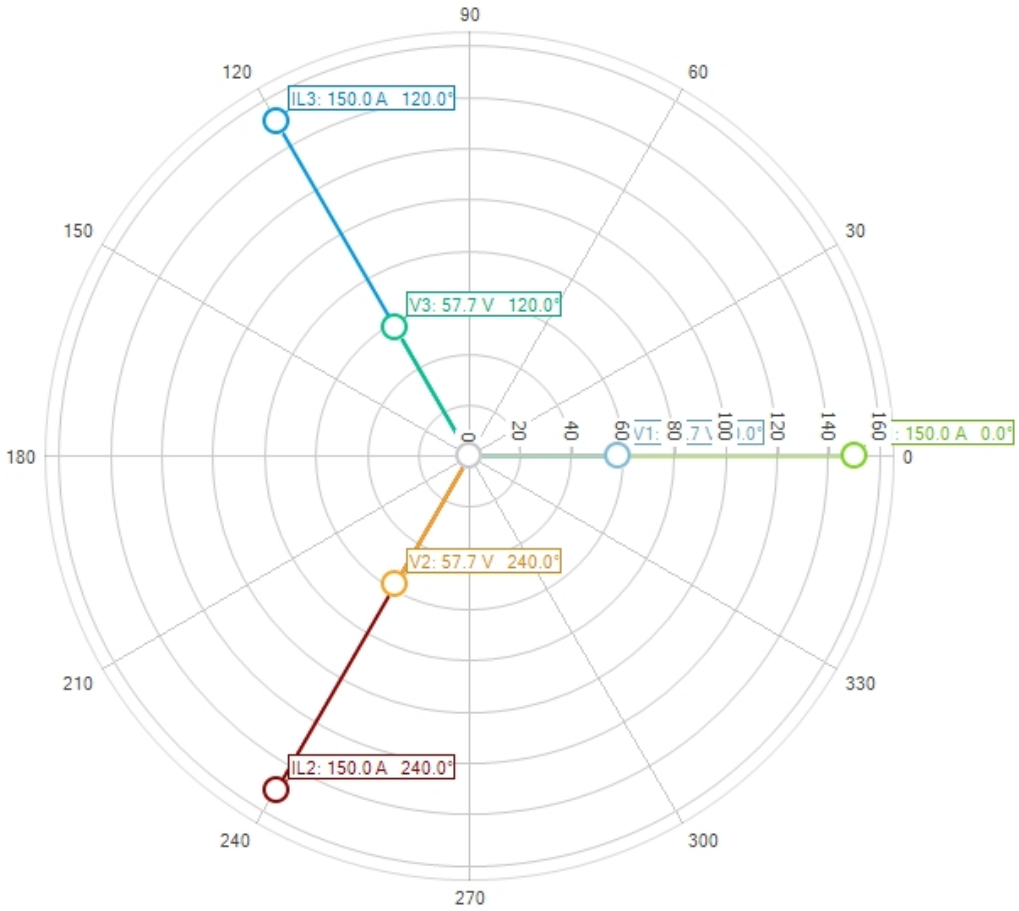
Name	Test 4
Session	Default session
Customer	
Location	
Operator	

Device

Tag name	A4/+02
Relay Serial Number	EF5001653690N000
Circuit Breaker Serial Number	CE61041910number
	XT2/4
Device settings	In = 40 A Un = 100 V fn = 50 Hz
Protection Settings	Protection = L Curve type = t=k/i^2 Threshold = 1.000 In Time = 3.00 s Protection = S Curve type = t=k Threshold = 5.00 In Time = 0.10 s Protection = I Threshold = 10.00 In Protection = G Curve type = t=k Threshold = 0.200 In Time = 0.10 s
Preconditions	All preconditions satisfied.

Test result

Test completed with trip. Protection I tripped in 24 ms.



Test

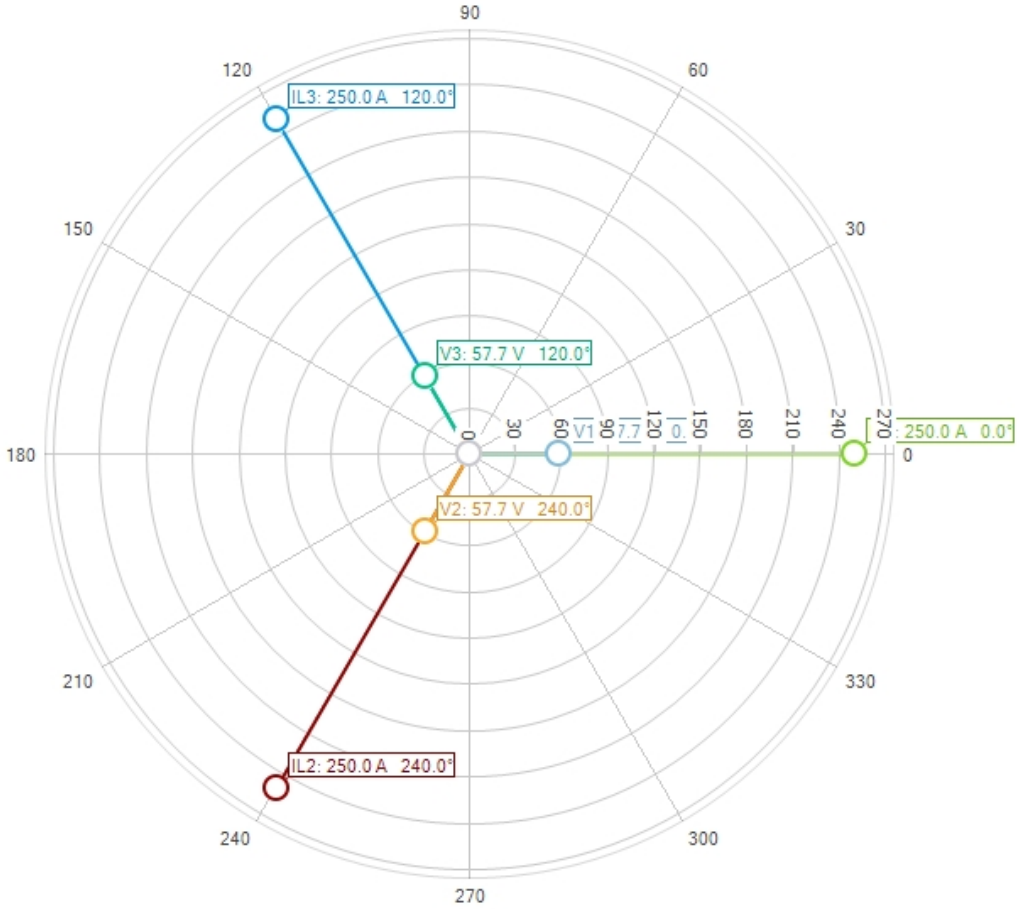
Name	Test 2
Session	Default session
Customer	
Location	
Operator	

Device

Tag name	A4/+02
Relay Serial Number	EF5001653690N000
Circuit Breaker Serial Number	CE61041910number
	XT2/4
Device settings	In = 40 A Un = 100 V fn = 50 Hz
Protection Settings	Protection = L Curve type = t=k/i^2 Threshold = 1.000 In Time = 3.00 s Protection = S Curve type = t=k Threshold = 5.00 In Time = 0.10 s Protection = I Threshold = 10.00 In Protection = G Curve type = t=k Threshold = 0.200 In Time = 0.10 s
Preconditions	All preconditions satisfied.

Test result

Test completed with trip. Protection L tripped in 1957 ms.



Test

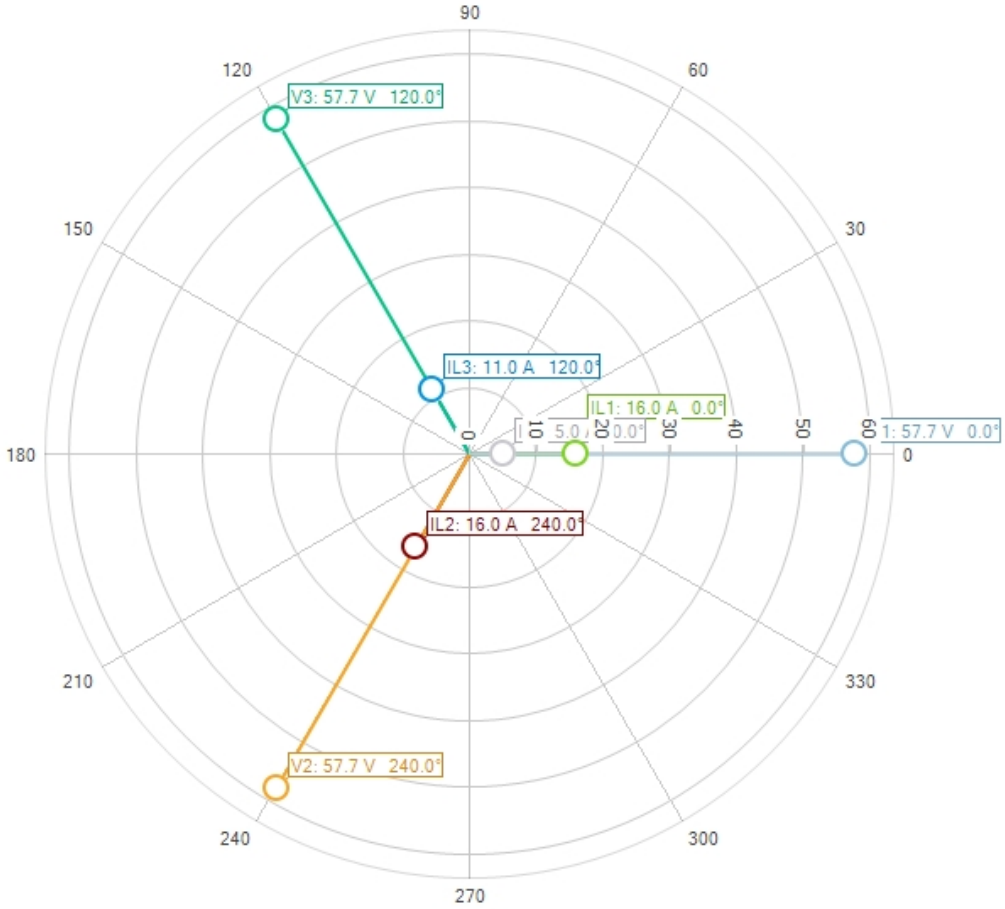
Name	Test 3
Session	Default session
Customer	
Location	
Operator	

Device

Tag name	A4/+02
Relay Serial Number	EF5001653690N000
Circuit Breaker Serial Number	CE61041910number
	XT2/4
Device settings	In = 40 A Un = 100 V fn = 50 Hz
Protection Settings	Protection = L Curve type = t=k/i^2 Threshold = 1.000 In Time = 3.00 s Protection = S Curve type = t=k Threshold = 5.00 In Time = 0.10 s Protection = I Threshold = 10.00 In Protection = G Curve type = t=k Threshold = 0.200 In Time = 0.10 s
Preconditions	All preconditions satisfied.

Test result

Test completed with trip. Protection S tripped in 102 ms.



Test

Name	G
Session	Default session
Customer	
Location	
Operator	

Device

Tag name	A4/+02
Relay Serial Number	EF5001653690N000
Circuit Breaker Serial Number	CE61041910number
	XT2/4
Device settings	In = 40 A Un = 100 V fn = 50 Hz
Protection Settings	Protection = L Curve type = t=k/i^2 Threshold = 1.000 In Time = 3.00 s Protection = S Curve type = t=k Threshold = 5.00 In Time = 0.10 s Protection = I Threshold = 10.00 In Protection = G Curve type = t=k Threshold = 0.200 In Time = 0.10 s
Preconditions	All preconditions satisfied.

Test result

Test completed with trip. Protection G tripped in 102 ms.

ITEM	Tag	A4/+02-QF1	: DRAWER HVAC PANELS HV ROOM - A4/+02-QF1	Dwg	1723002197-EL-DG-00011		
	S/Sys	77-10	: HVAC HV/MV Switchgear Room B-100	Module			
TASK	code	C10002868	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	PRE-COMM	Activity FTS	Discipline	Electrical	Form FTR-6	Electrical IO

FTR 6 - Electrical I/O check record sheet

Equipment Tag:	HVAC PANELS HV ROOM	Instrument Type / Serial N° :	FLUKE 175_17140796
Cubicle N°:	A4/+02	Calibration certificate date:	7715/24_10/07/2025

Link Type:	●	Hardwired	Communication	(strike through unapplicable type)
I/O Type:	●	Digital	Analogic	(strike through unapplicable type)

DIGITAL

Item	Signal description	Link Type (Hardwired/ Communication)	I/O Type (Digital/Analogic)	Point of Origin (From)	Point of Receival (to)	Text Labelling Display Satisfactory (Y/N)	Blinking/Static Display Satisfactory (Y/N)	Color Coding Satisfactory (Y/N)	Status Check			Time Stamping Satisfactory (Y/N)	Refresh Time (if >1s)	Appearing in all applicable display (Y/N)
									Event (Y/N)	Alarm (Y/N)	Fault (Y/N)			
1	CB CLOSED & INSERTED	HW	DI	A4/+02 - KA1/11-14	A4/+02 - X1/9-10	N/A	N/A	N/A	Y	N/A	N/A	N/A	N/A	N/A
2	CB OPEN OR DISCONNECTED	HW	DI	A4/+02 - KA1/11-12	A4/+02 - X1/9-11	N/A	N/A	N/A	Y	N/A	N/A	N/A	N/A	N/A
3	DRAWER ON TEST	HW	DI	A4/+02 - KA5/11-14	A4/+02 - X1/9-11	N/A	N/A	N/A	Y	N/A	N/A	N/A	N/A	N/A
4	CB TRIPPED	HW	DI	A4/+02 - KA4/21-22	A4/+02 - X1/9-12	N/A	N/A	N/A	N/A	N/A	Y	N/A	N/A	N/A
5	FEEDER AVAILABLE	HW	DI	A4/+02 - KA2/11-14	A4/+02 - X1/9-13	N/A	N/A	N/A	Y	N/A	N/A	N/A	N/A	N/A
6	INTERNAL FAULT	HW	DI	A4/+02 - QA1/11-14	A4/+02 - X1/9-14	N/A	N/A	N/A	N/A	N/A	Y	N/A	N/A	N/A
7	USER ON LOCAL	HW	DI	A4/+02 - SA1/21-22	A4/+02 - X1/15-19	N/A	N/A	N/A	Y	N/A	N/A	N/A	N/A	N/A
8														

ANALOGIC

Item	Signal description	Link Type (Hardwired/ Communication)	I/O Type (Digital/Analogic)	Point of Origin (From)	Point of Receival (to)	Min value sent	Min value received	Max value sent	Max value received	Intermediate value sent	Intermediate value received	Out of scale test (OK, Not OK)	Refresh time (if >2s)	Appearing in all applicable display (Y/N)
1														
2														
3														

Comments: The test of the cubicle was carried out on a test bench.

Page 1/1	Performed by	☐ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RM COMM	RM COMM	CPY NOT PRESENT
Name	Davide Zucconelli	Kristian Castellani	Witness waived
Date	2024-10-03	2024-10-03	2024-10-03
Signature	PROVERLIS Digitaly signed by Davide Zucconelli 2024-10-03T10:54:18.964Z	PROVERLIS Digitaly signed by Kristian Castellani 2024-10-03T13:50:39.851Z	PROVERLIS Digitaly signed by Witness waived 2024-10-03T14:28:32.051Z

ROSETTI MARINO | PROVERLIS | CROSSWIND

ITEM	Tag	B100-HSB-001	: Distribution & HVAC Panel - HV MV Room			Dwg	123A90-DDL-EL-DL-20104
	S/Sys	77-10	: HVAC HV/MV Switchgear Room B-100			Module	LD_B-100
TASK	code	C10002987		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	PRE-COMM	Activity FTS	Discipline	Electrical	Form	FP00 Miscellaneous electrical Consumer

DATA

Switchboard	B100-HSB-001	Circuit ref:	B100-HSB-001-QS1
Breaker rating (A)	160A	Nominal current (A)	40A

FUNCTION TEST REQUIREMENT

1	Check pre-commissioning activities have been carried out				OK
2	Check equipment for cleaness				OK
3	Measure I/R value of equipment and feeder cable at 1000V (Min value: 10 Mohm)	279	MΩ		OK
4	Energise control of equipment feeder				OK
5	Full test feeder breaker operation in test position				OK
6	Check protection setting				OK
7	Test interface trips and signals (remote alarms & status). Check the relevant ITR presence in the system				Note
8	Test control and safety functions according to manufacturer's procedure.				OK
9	Energize				OK
10	Measure Voltage and Current values at feeder breaker	401	V	30 A	OK
11	Attach test procedure, if any				NA

FUNCTION TEST REQUIREMENT	RESULT

Testing & measurement instruments used

Type	Serial n°	Calibration certificate	Validity
FLUKE 1663	5380144	7727/24	10/07/2025
FLUKE 376	A1711003	7710/24	10/07/2025

Comments: All the signal (from HVAC Panel to PCS) will be tested with Yokogawa.

Page 1/1	Performed by	☐ WITNESS ☑ REVIEW	☐ WITNESS ☐ REVIEW
Company	RM COMM	RM COMM	CPY NOT PRESENT
Name	Mattia Girotti	Kristian Castellani	Witness waived
Date	2024-10-25	2024-10-29	2024-10-29
Signature	PROVERLIS Digitaly signed by Mattia Girotti 2024-10-25T06:08:27.843Z	PROVERLIS Digitaly signed by Kristian Castellani 2024-10-29T08:52:25.651Z	PROVERLIS Digitaly signed by Witness waived 2024-10-29T09:03:34.061Z

ITEM	Tag	A4/+02-QF1	: DRAWER HVAC PANELS HV ROOM - A4/+02-QF1			Dwg	1723002197-EL-DG-00011
	S/Sys	77-10	: HVAC HV/MV Switchgear Room B-100			Module	
TASK	code	C10003014		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	COMM	Activity FTS	Discipline	Electrical	Form	FTR-5 Remote Signalling

FTR5 - Remote signalling
Record sheet

DATA

Switchboard:	SG-200N1	Cubicle N°:	A4/+02

FUNCTION TEST

	Order/Inputs				Status/Output											
	Start order		Stop order		Run		Fault		Stop Signalisation		Available/Ready to start		TRIP		CB OPEN/CLOSED	
UCP																
ECS																
SSS																
PSS																
PCS	●	●	●	●	●	●	●	●			●	●	●	●	●	●
Control Station																
Control Panel																
HVAC Panel																
MCC	●	●	●	●	●	●							●	●	●	●

Column 1 (To check) to be filled during commissioning preparation stage - black if the check is asked
Column 2 (Checked) to be filled black if check is Ok

Comments: During the test, we tested all the Analog Input with success: Current "L1",Current "L2",Current "L3", Voltage "L1-L2", Voltage "L2-L3", Voltage "L1-L3", Frequency, Apparent Power, Real Power, Reactive Power and Power Factor.

	Performed by	☐ WITNESS ☒ REVIEW	☒ WITNESS ☐ REVIEW
Company	RM COMM	RM COMM	CW
Name	Mattia Girotti	Kristian Castellani	David Musgrove
Date	2025-04-29	2025-04-29	2025-04-29
Signature	PROVERLIS Digitaly signed by Mattia Girotti 2025-04-29T07:43:51.329Z	PROVERLIS Digitaly signed by Kristian Castellani 2025-04-29T14:06:56.595Z	PROVERLIS Digitaly signed by David Musgrove 2025-04-29T15:29:07.281Z

ITEM	Tag	UP-200F3-QF39	: UCP - HVAC ROOM		Dwg	1724000372-EL-DG-00009	
	S/Sys	77-10	: HVAC HV/MV Switchgear Room B-100		Module		
TASK	code	C10004576	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	PRE-COMM	Activity FTS	Discipline Electrical	Form	FTR-2	Protection Relay

FTR2 - Protection relay
Record sheet

RELAY DATA

Manufacturer:	ABB	Serial N°:	NA	Relay type:	A TYPE
Auxiliary supply:	24V	Location:	B300	Cubicle:	NA
Switchboard:	UP-200F3				

Current transformers

Tag	Number of	Ratio	Location

Voltage transformers

Tag	Number of	Ratio	Location

Test result (refer to manufacturer's procedure)

ANSI function	Setting	Injection	Trip value	Time delay	
				Setting	Trip value
64	300mA	300mA	210mA	FIXED	36.9

Testing & measurement instruments used

Type	Serial n°	Calibration certificate	Validity
FLUKE 1663	5380144	7727/24	10/07/2025

Comments:

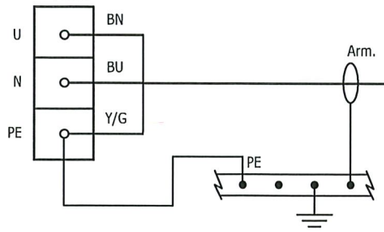
Page 1/1	Performed by	☐ WITNESS ☑ REVIEW	☐ WITNESS ☐ REVIEW
Company	RM COMM	RM COMM	CPY NOT PRESENT
Name	Davide Zucconelli	Kristian Castellani	Witness waived
Date	2024-12-04	2024-12-05	2024-12-07
Signature	Digitaly signed by Davide Zucconelli 2024-12-04T12:51:05.822Z	Digitaly signed by Kristian Castellani 2024-12-05T09:35:08.477Z	Digitaly signed by Witness waived 2024-12-07T10:37:22.849Z

Section 4.2 Electrical
“As-Commissioned” interconnection diagrams

FROM	TO

DESCRIPTION: AC UPS - PAS DB
TAG NUMBER: ~~DP-200F3~~ UP-200 F3 BY PASS

-X35

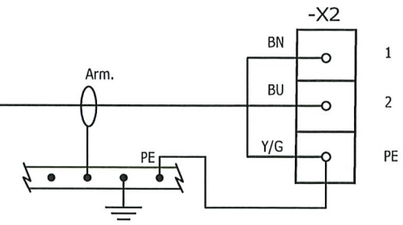


84312-CEL
3G2.5 mm²

MARCO MORETTO
19/3/25

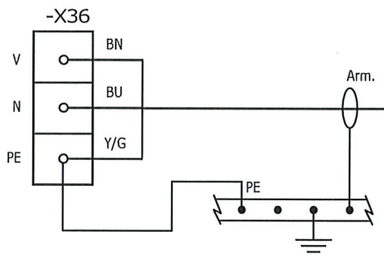
DESCRIPTION: UCP - N2 PACKAGE
TAG NUMBER: ~~CP-640E1~~ 64-LP001

SS 64-00



NO MARK UP MARCO MORETTO
21/3/25

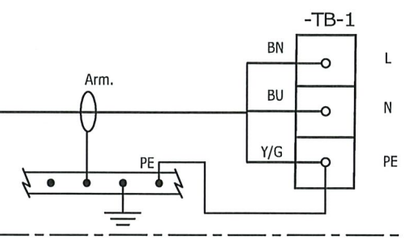
-X36



84313-CEL
3G2.5 mm²

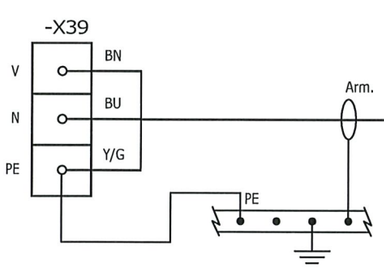
DESCRIPTION: UCP - WATER PACKAGE
TAG NUMBER: JB-500F8

SS ~~60-10~~ 50-10



NO MARK UP MARCO MORETTO
21/3/25

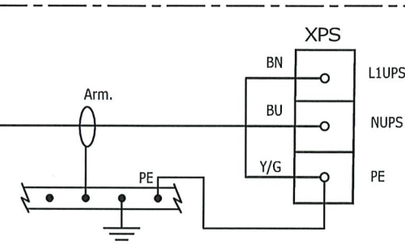
-X39



84314-CEL
3G2.5 mm²

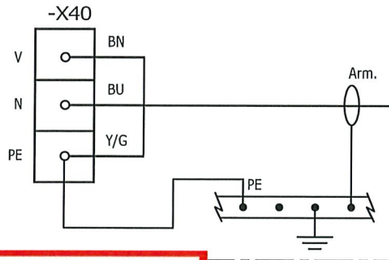
DESCRIPTION: UCP - HVAC HV ROOM
TAG NUMBER: B100-HSB-001

SS 77-10



NO MARK UP MARCO MORETTO
21/3/25

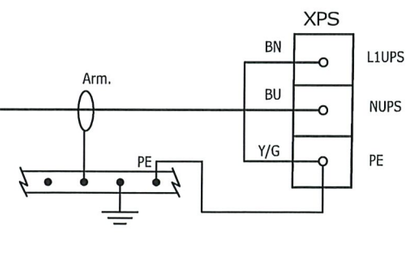
-X40



84315-CEL
3G2.5 mm²

DESCRIPTION: UCP - HVAC LV ROOM
TAG NUMBER: B200-HSB-001

SS 77-20



AS COMMISSIONED: MATTIA GIRETTI
21/3/25

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

REV.:	DATE:	SIGNATURE:
2_F	09/01/25	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

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)

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 041

REV. 02

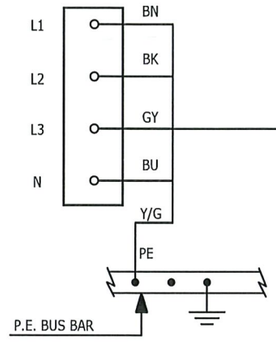
F.to UNI A3: 420mmx297mm

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

FROM	TO

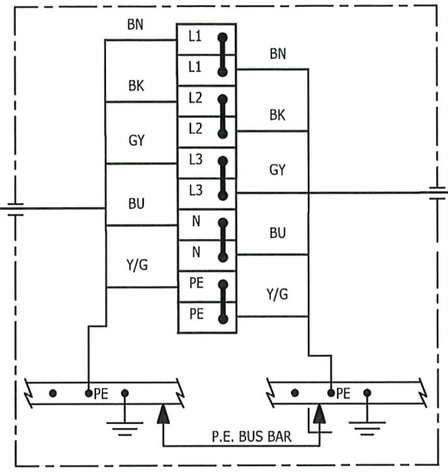
DESCRIPTION: LV Switchgear
TAG NUMBER: SG-200N1

COLUMN/CUBIC.: A6/+08



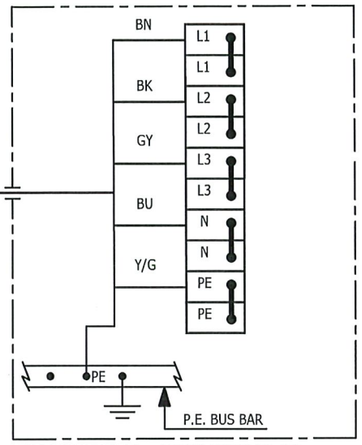
83021-CEL-01
5G50 mm²

DESCRIPTION: WELDING SOCKETS (TOP DECK)
TAG NUMBER: ESW-200N1-01

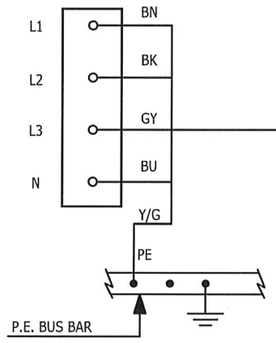


83021-CEL-02
5G50 mm²

TAG NUMBER: ESW-200N1-02

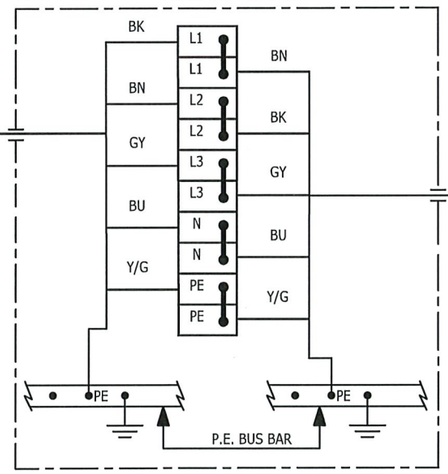


COLUMN/CUBIC.: A7/+08



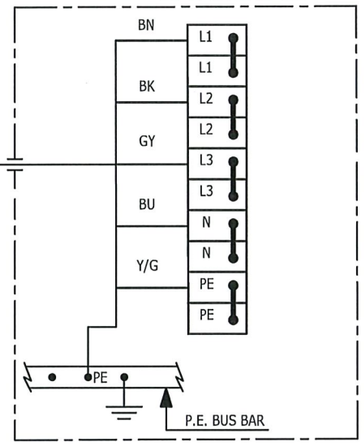
83022-CEL-01
5G50 mm²

DESCRIPTION: WELDING SOCKET (LOWER DECK)
TAG NUMBER: ESW-200N2-01

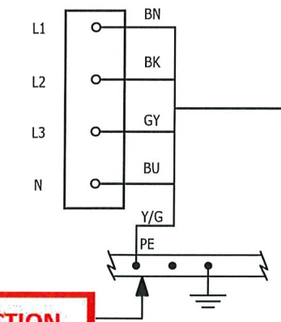


83022-CEL-02
5G50 mm²

TAG NUMBER: ESW-200N2-02



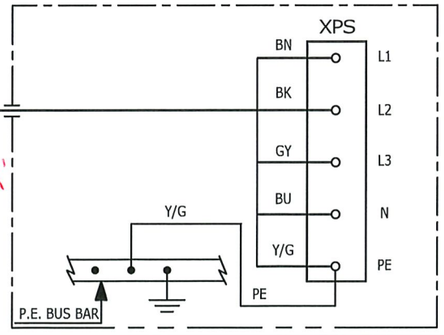
COLUMN/CUBIC.: A4/+02



83023-CEL
5G16 mm²

NO MARK UP WHEN WORKING
21/3/25

DESCRIPTION: HVAC PANELS - HV ROOM
TAG NUMBER: B100-HSB-001



AS COMMISSIONED: MATTIA GIROTTI

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

REV.:	DATE:	SIGNATURE:
2_F	09/01/25	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

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)

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.	SHEET	REV.
	123A90-DDL-EL-DG-20149	025	02

F.to UNI A3: 420mmx297mm

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

BASE LOAD POWER HUB (BLPH)

B-100

INTERCONNECTION WIRING DIAGRAM

B100-HSB-001

AS COMMISSIONED
ZUCCOMELLI DAVIDE
16/04/2025
NO MARK UP

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
04	14/03/25	G.M.	A.O.	A.C.	ISSUE FOR INFORMATION (IFI)
03	13/11/24	G.M.	A.O.	A.C.	ISSUE FOR INFORMATION (IFI)
02	15/10/24	G.M.	A.O.	A.C.	ISSUE FOR INFORMATION (IFI)
01	04/09/24	G.M.	A.O.	A.C.	ISSUE FOR INFORMATION (IFI)
00	10/07/24	G.M.	A.O.	A.C.	ISSUE FOR INFORMATION (IFI)

CROSSWIND

ROSETTI MARINO

REV.	MOD.	DATE	SIGN		
04	ISSUED FOR INFORMATION (IFI)	19/12/24		DATE	01/07/24
03	ISSUED FOR INFORMATION (IFI)	13/11/24		DRN	F.M.
02	ISSUED FOR INFORMATION (IFI)	15/10/24		CHKD	S.S.
				APPD	M.G.

ALEXSISTEMI spa

CLIENT: CROSSWIND

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

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

SCALE : NTS

A3

DRAWING NO. 1724000049-EL-DG-00022

SHEET 001

REV. 04

BASE LOAD POWER HUB (BLPH)
B-100
COVER

ROSETTI MARINO

1724000049-EL-DG-00022

FG. 1
F.S. 2

LISTA FOGLI \ INDEX

Foglio Sheet	Descrizione Description	Revisioni Revisions 1	2	3	4	5	6	7	8	9
1	COVER	X	X	X	X					
2	INDEX	X	X	X	X					
3	SIMBOL LIST	X	X	X	X					
4	INTERCONNECTION	X	X	X	X					
5	INTERCONNECTION	X	X	X	X					
6	INTERCONNECTION	X	X	X	X					
7	INTERCONNECTION	X	X	X	X					
8	INTERCONNECTION	X	X	X	X					

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

AS COMMISSIONED ZUCCOMELLI DAVIDE
16/04/2025 NO MARK UP

REV.	MOD.	DATE	SIGN
04	ISSUED FOR INFORMATION (IFI)	19/12/24	
03	ISSUED FOR INFORMATION (IFI)	13/11/24	
02	ISSUED FOR INFORMATION (IFI)	15/10/24	
DATE		01/07/24	
DRN		F.M.	
CHKD		S.S.	
APPD		M.G.	

ALEXSISTEMI spa

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-100
INDEX

ROSETTI MARINO

1724000049-EL-DG-00022

FG. 2
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		CONTACT ACTUATED BY A TEMPERATURE
E	CLOSING BUTTON	89.	FUSE DISCONNECTING SWITCH	2 3 4	TERMINAL STRIP
E	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		AS COMMISSIONED 16/04/2025 ZUCCOMELLI DAVIDE NO MARK UP
79.	LIMIT SWITCH N.C.		ELECTROVALVE		

REV.	MOD.	DATE	SIGN		
04	ISSUED FOR INFORMATION (IFI)	19/12/24		DATE	01/07/24
03	ISSUED FOR INFORMATION (IFI)	13/11/24		DRN	F.M.
02	ISSUED FOR INFORMATION (IFI)	15/10/24		CHKD	S.S.
				APPD	M.G.

ALEXSISTEMI spa

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-100

SIMBOL LIST

ROSETTI MARINO

1724000049-EL-DG-00022

FG. 3
F.S. 4

B100-HSB-01
PANEL SIDE

+QG - XM1
POWER PRESS FAN 1

U1A	U1A	77114-CBL-L1	4G2.5	XLPE/UNEL S2
V1A	V1A			
W1A	W1A			
U2A	U2A	77115-CBL-L1	4G6	XLPE/UNEL S2
V2A	V2A			
W2A	W2A			

AS COMMISSIONED
ZUCCOMELLI MATTIA
16/04/2025
NO MARK UP

+QG - XPF1
AUX PRESS FAN 1

11.3	200	77103-CBC-L1	2X1.5	XLPE/UNEL S2
11.4	201			
+24VDC	202	77104-CBC-L1	2X1.5	XLPE/UNEL S2
12.3	203			
+24VDC	204	77105-CBC-L1	2X1.5	XLPE/UNEL S2
12.7	205			
23.5	206	77106-CBC-L1	2X1.5	XLPE/UNEL S2
B	207			
+24VDC	208	77121-CBC-L1	2X1.5	XLPE/UNEL S2
16.2	209			
+24VDC	210	77120-CBC-L1	2X1.5	XLPE7UNEL S2
16.3	211			
A.A	212	77118-CBL-L2	3G1.5	XLPE/UNEL S2
B.A	213			
+24VDC	214	77111-CBC-L2	4X1.5	XLPE/UNEL S2
12.1	215			
+24VDC	216			
12.2	217			

HHU-77001 UNIT
HJB-77001-A

+QG - XM1
POWER PRESS FAN 1

U1A, V1A, W1A, U2A, V2A, W2A

HHU-77001 UNIT
HJB-77001-B

+QG - XPF1
AUX PRESS FAN 1

200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217

REV.	MOD.	DATE	SIGN
04	ISSUED FOR INFORMATION (IFI)	19/12/24	
03	ISSUED FOR INFORMATION (IFI)	13/11/24	
02	ISSUED FOR INFORMATION (IFI)	15/10/24	

DATE	01/07/24
DRN	F.M.
CHKD	S.S.
APPD	M.G.

ALEXSISTEMI spa

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-100
INTERCONNECTION

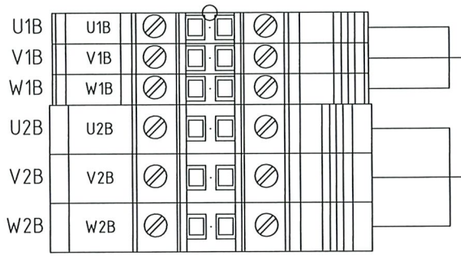
ROSETTI MARINO

1724000049-EL-DG-00022

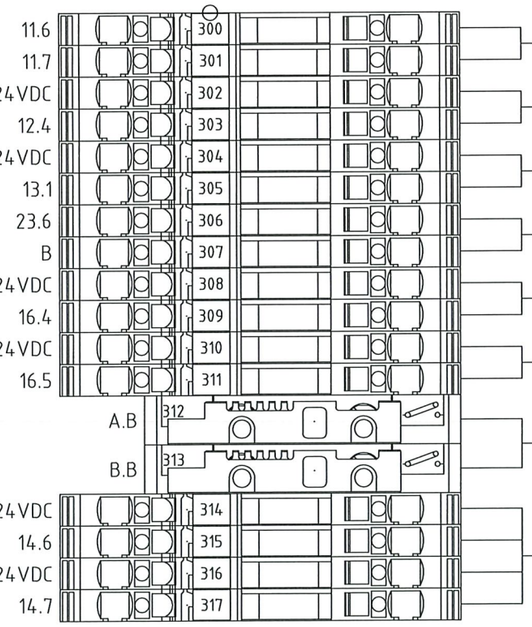
FG. 4
F.S. 5

B100-HSB-01
PANEL SIDE

+QG - XM2
POWER PRESS FAN 2



+QG - XPF2
AUX PRES FAN 2

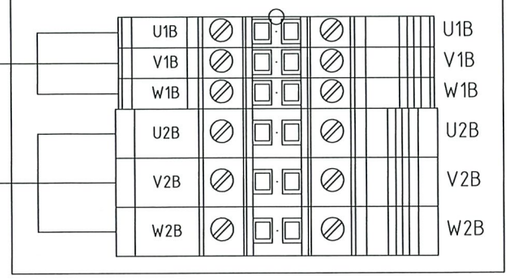


77116-CBL-L1	4G2.5	XLPE/UNBL S2
77117-CBL-L1	4G6	XLPE/UNBL S2
77107-CBC-L1	2X1.5	XLPE/UNBL S2
77108-CBC-L1	2x1.5	XLPE7UNBL S2
77109-CBC-L1	2X1.5	XLPE7UNBL S2
77110-CBC-L1	2X1.5	XLPE/UNBL S2
77123-CBC-L1	2X1.5	XLPE/UNBL S2
77122-CBC-L1	2X1.5	XLPE/UNBL S2
77119-CBL-L2	3G1.5	XLPE/UNBL S2
77112-CBC-L2	4X1.5	XLPE/UNBL S2

AS COMMISSIONED
ZUCCOLOTTO DAVIDE
16/04/2025
NO MARK UP

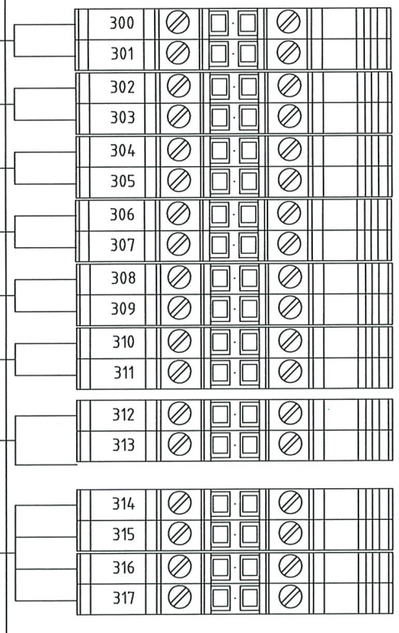
HHU-77002 UNIT
HJB-77002-A

+QG - XM2
POWER PRESS FAN 2



HHU-77002 UNIT
HJB-77002-B

+QG - XPF2
AUX PRES FAN 2



REV.	MOD.	DATE	SIGN	APPD
04	ISSUED FOR INFORMATION (IFI)	19/12/24		DATE 01/07/24
03	ISSUED FOR INFORMATION (IFI)	13/11/24		DRN F.M.
02	ISSUED FOR INFORMATION (IFI)	15/10/24		CHKD S.S.
				APPD M.G.

ALEXSISTEMI spa

CLIENT: CROSSWIND

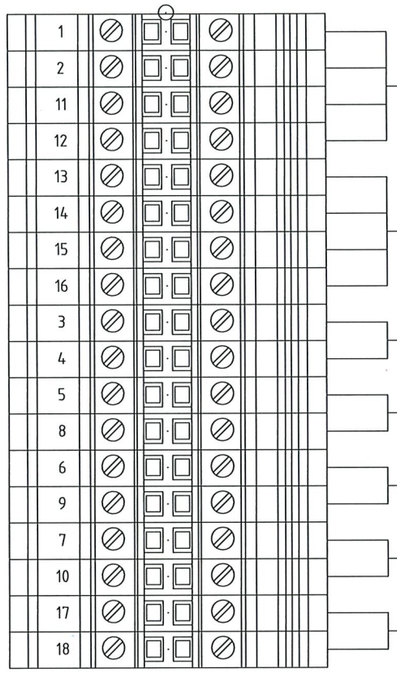
BASE LOAD POWER HUB (BLPH)
B-100
INTERCONNECTION

ROSETTI MARINO

1724000049-EL-DG-00022

FG. 5
F.S. 6

B100-HSB-01
PANEL SIDE
+QG - XAC
ACCESSORIES



77101-CBL-L1	5G2.5	XLPE/UNEL S2	PECW-B100H-F1-L1-01
77105-CBL-L1	5G2.5	XLPE/UNEL S2	PECW-B100H-F1-L1-02
77110-CBL-L2	3G2.5	XLPE/UNEL S2	PESO-B100H-F2-L2-01
77111-CBL-L1	3G2.5	XLPE/UNEL S2	HHS-77-001
77112-CBL-L2	3G2.5	XLPE/UNEL S2	HHS-77-002
77113-CBL-L3	3G2.5	XLPE/UNEL S2	HHS-77-003
HEATING CABLE	2X1.5	XLPE/UNEL S2	HJB-7700XXX

BROWN
BLACK
GREY
Y/G
L1
L2
N
GND

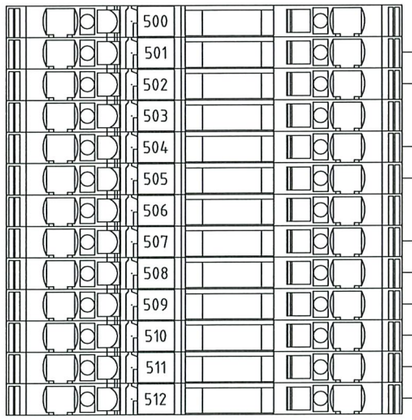
L1
N

L
N

22
23

As commissioned
Zucchelli David
16/04/2025
No mark up

+QG - XT



77123-CBC-L2	3X1.5+Sh	XLPE/UNEL S2	77-TT-101
77124-CBC-L2	3X1.5+Sh	XLPE/UNEL S2	77-TT-102
77125-CBC-L2	3X1.5+Sh	XLPE/UNEL S2	77-TP-101
77126-CBC-L2	3X1.5+Sh	XLPE/UNEL S2	77-TT-103
77127-CBC-L2	3X1.5+Sh	XLPE/UNEL S2	77-TT-104

+Vdc
Out mA
1
2

BROWN
BLACK
1
2

REV.	MOD.	DATE	SIGN
04	ISSUED FOR INFORMATION (IFI)	19/12/24	
03	ISSUED FOR INFORMATION (IFI)	13/11/24	
02	ISSUED FOR INFORMATION (IFI)	15/10/24	

DATE	01/07/24
DRN	F.M.
CHKD	S.S.
APPD	M.G.

ALEXSISTEMI spa

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-100
INTERCONNECTION

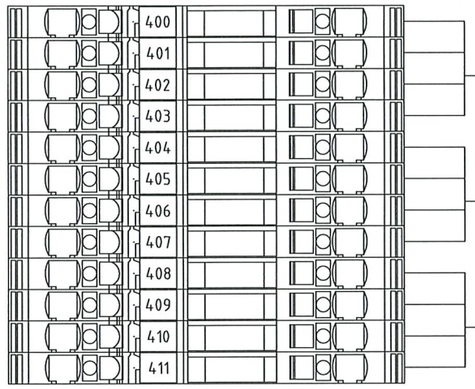
ROSETTI MARINO

1724000049-EL-DG-00022

FG. 6
F.S. 7

B100-HSB-01
PANEL SIDE

+QG - XFD
FIRE DAMPER



77113-CBC-L2 4X1.5 XLPE/UNEL S2 → + / − / PE → HFD-77001

77114-CBC-L2 4X1.5 XLPE/UNEL S2 → + / − / PE → HFD-77002

77115-CBC-L2 4X1.5 XLPE/UNEL S2 → + / − / PE → HFD-77003

+QG - XFD/S
FIRE DAMPER SIGNAL

HFD-77001 CLOSED SIGNAL → 4 / 5

HFD-77001 OPEN SIGNAL → 7 / 8

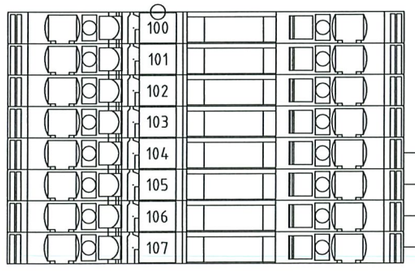
HFD-77002 CLOSED SIGNAL → 4 / 5

HFD-77002 OPEN SIGNAL → 7 / 8

HFD-77003 CLOSED SIGNAL → 4 / 5

HFD-77003 OPEN SIGNAL → 7 / 8

+QG - XC
Client



AS COMMISSIONED
SUCCESSFUL DAVIDE
16/04/2025
NO MARK UP

77101-CBC-L1 2X1.5 XLPE/UNEL S2 → BROWN / BLUE → 1 / 2 → CELS-B100H-F1-L1-01

77102-CBC-L1 2X1.5 XLPE/UNEL S2 → BROWN / BLUE → 1 / 2 → CELS-B100H-F1-L1-02

REV.	MOD.	DATE	SIGN
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03	ISSUED FOR INFORMATION (IFI)	13/11/24	
02	ISSUED FOR INFORMATION (IFI)	15/10/24	

DATE	01/07/24
DRN	F.M.
CHKD	S.S.
APPD	M.G.

ALEXSISTEMI spa

CLIENT: CROSSWIND

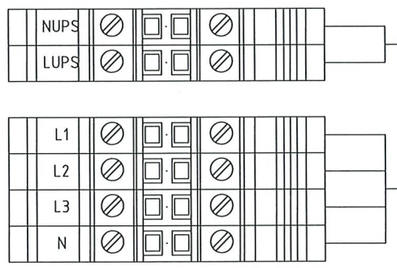
BASE LOAD POWER HUB (BLPH)
B-100
INTERCONNECTION

ROSETTI MARINO

1724000049-EL-DG-00022

FG. 7
F.S. 8

B100-HSB-01
PANEL SIDE
+QG - XPS
POWER SUPPLY



UPS POWER SUPPLY	3G2.5	FROM CLIENT	
POWER SUPPLY	5G16	FROM CLIENT	

AS COMMISSIONED
ZUCCOMBINI DAVIDE
16/04/2025
NO MARK UP

REV.	MOD.	DATE	SIGN
04	ISSUED FOR INFORMATION (IFI)	19/12/24	
03	ISSUED FOR INFORMATION (IFI)	13/11/24	
02	ISSUED FOR INFORMATION (IFI)	15/10/24	

DATE	01/07/24
DRN	F.M.
CHKD	S.S.
APPD	M.G.

ALEXSISTEMI spa

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-100

INTERCONNECTION

ROSETTI MARINO

1724000049-EL-DG-00022

FG. 8
F.S. //

Section 4.3 Instrumentation functional test sheets index

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 77-10 & discipline : I

Instrumental	77-10 HVAC HV/MV Switchgear Room B-100						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
77-XA-001	B-100 HV/MV SWGR room HVAC fault	ONSHORE	C10003794	FJ01D	100	2025-03-11	RFO 2
77-XS-001	SHUT-DOWN B-100 HV/MV SWGR room HVAC	ONSHORE	C10003798	FJ01D	100	2025-03-11	RFO 2
B100-HSB-001	Distribution & HVAC Panel - HV MV Room	ONSHORE	C10004879	FJ05	100	2025-05-16	RFO 2

ROSETTI MARINO | PROVERLIS | CROSSWIND

ITEM	Tag	77-XA-001	: B-100 HV/MV SWGR room HVAC fault	Dwg	123A90-DDL-IN-LIS-40089		
	S/Sys	77-10	: HVAC HV/MV Switchgear Room B-100	Module			
TASK	code	C10003794	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	COMM	Activity FTS	Discipline	Instrumental	Form FJ01D	Digital Loop

LOOP DATA

Loop TAG	77-XA-001			TSLD	123A90-FDL-IN-DG-40014 rev.1A		
IO Type	Input Yes	Output No		Energy by transmitter	No	Energy by system	Yes
Marshalling	B400-SIS-001	Terminal 07A/07B		Slot 01	Rack 03	Chanel 07	

LOOP TEST

1	Check earth isolation of the loop.					OK
2	Connect loop to terminal					OK
3	Energise Loop (close loop) and record status	Normal	Yes	Alarm/trip	No	OK
4	De-Energise Loop (open loop) and record status	Normal	No	Alarm/trip	Yes	OK
5	Record Fail Safe position	Open	NA	Closed	NA	NA

LOOP SERVICE

		Action	Alarm / Control			Display	
		Trip	GA	DCS	SOE	DCS	
6	Loop energized	No	Yes	Yes	Yes	OK	OK
7	Loop not energized	Yes	Yes	Yes	Yes	OK	OK
8	Checking of line monitoring	NA	NA	NA	NA	NA	NA
9	Checking of Maintenance Inhibition	NA	NA	NA	NA	NA	NA
10	Associated safety Level / bar						NA
11	Associated outputs						NA

LOOP DOCUMENTATION

12	Loop diagram is marked up and attached to this test sheet	OK
13	Cause and effect chart is highlighted accordingly	OK
14	Any defect is recorded for punch list issuance	NA

TESTING & MEASUREMENT INSTRUMENT USED

Type	Serial N.	Calibration Certificate	Validity
MULTIMETER FLUKE	AW1/018 17140769	7715/24	10/07/2025

Comments:

Page 1/1	Performed by	☐ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RM	RM COMM	CW Com
Name	Emerik Copkovic	Giandonato Delmissier	Jamie McAllister
Date	2025-02-28	2025-03-05	2025-03-11

PROVERLIS Digitaly signed by Emerik Copkovic 2025-02-28T19:05:58.694Z

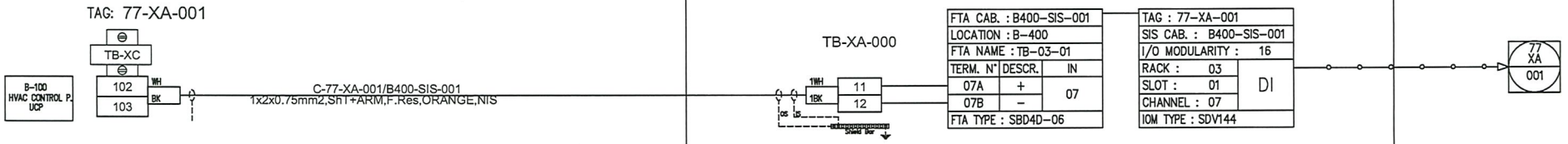
PROVERLIS Digitaly signed by Giandonato Delmissier 2025-03-05T09:37:51.259Z

PROVERLIS Digitaly signed by Jamie McAllister 2025-03-11T11:32:37.080Z

Signature			

DRAWING NO. 123A90-DDL-IN-DG-40014 REV. 01

FIELD	ITER – B400	CENTRAL CONTROL ROOM
	SAFETY INSTRUMENTED SYSTEM	OPERATOR CONSOLE



NO RED MARK UP

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	06/12/2024	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	23/10/2024	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-IN-DG-40014
REV: 1_A | DATE: 20/12/24 | SIGNATURE: C.Pilato
ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE : INSTRUMENT LOOP DIAGRAM
77-XA-001
B-100 HV/MV SWGR ROOM HVAC FAULT

CONTRACT NO./TITLE CONTRACT_NO.			SCALE 1:1
DRAWN: VBA	CHECKED: LCA	APPROVED: DLO	DATE 23/10/2024
A3	DRAWING NO. 123A90-DDL-IN-DG-40014	SHEET 134	REV. 01

File Name : 123A90-DDL-IN-DG-40014_SXV.01

ROSETTI MARINO | PROVERLIS | CROSSWIND

ITEM	Tag	77-XS-001	: SHUT-DOWN B-100 HV/MV SWGR room HVAC	Dwg	123A90-DDL-IN-LIS-40089		
	S/Sys	77-10	: HVAC HV/MV Switchgear Room B-100	Module			
TASK	code	C10003798	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	COMM	Activity FTS	Discipline	Instrumental	Form FJ01D	Digital Loop

LOOP DATA

Loop TAG	77-XS-001			TSLD	123A90-FDL-IN-DG-40014 rev.1A		
IO Type	Input No	Output Yes		Energy by transmitter	No	Energy by system	Yes
Marshalling	B400-SIS-001	Terminal 11A/11B		Slot 05	Rack 02	Chanel 11	

LOOP TEST

1	Check earth isolation of the loop.					OK
2	Connect loop to terminal					OK
3	Energise Loop (close loop) and record status	Normal	Yes	Alarm/trip	No	OK
4	De-Energise Loop (open loop) and record status	Normal	No	Alarm/trip	Yes	OK
5	Record Fail Safe position	Open	Yes	Closed	No	OK

LOOP SERVICE

		Action	Alarm / Control			Display	
		Trip	GA	DCS	SOE	DCS	
6	Loop energized	No	Yes	Yes	Yes	OK	OK
7	Loop not energized	Yes	Yes	Yes	Yes	OK	OK
8	Checking of line monitoring	NA	NA	NA	NA	NA	NA
9	Checking of Maintenance Inhibition	NA	NA	NA	NA	NA	NA
10	Associated safety Level / bar						NA
11	Associated outputs						NA

LOOP DOCUMENTATION

12	Loop diagram is marked up and attached to this test sheet	OK
13	Cause and effect chart is highlighted accordingly	OK
14	Any defect is recorded for punch list issuance	NA

TESTING & MEASUREMENT INSTRUMENT USED

Type	Serial N.	Calibration Certificate	Validity
MULTIMETER FLUKE	AW1/018 17140769	7715/24	10/07/2025

Comments:

	Performed by	WITNESS ☐ REVIEW	WITNESS ☐ REVIEW
Company	RM	RM COMM	CW Com
Name	Emerik Copkovic	Giandonato Delmissier	Jamie McAllister
Date	2025-02-28	2025-03-05	2025-03-11

PROVERLIS Digitaly signed by Emerik Copkovic 2025-02-28T19:06:34.398Z

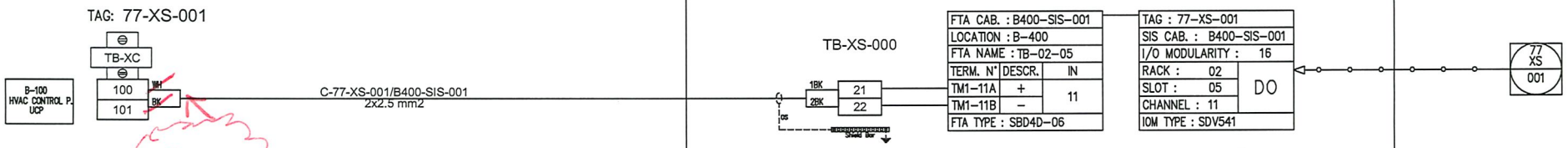
PROVERLIS Digitaly signed by Giandonato Delmissier 2025-03-05T09:38:39.499Z

PROVERLIS Digitaly signed by Jamie McAllister 2025-03-11T11:33:17.613Z

Signature			

DRAWING NO. 123A90-DDL-IN-DG-40014 REV. 00

FIELD	ITER – B400	CENTRAL CONTROL ROOM
	SAFETY INSTRUMENTED SYSTEM	OPERATOR CONSOLE



BK 1
BK 2

MARK UP
21/02/25

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	23/10/2024	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-IN-DG-40014
REV.: 0_A | DATE: 23/10/24 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE : INSRUMENT LOOP DIAGRAM
77-XS-001
SHUT-DOWN B-100 HV/MV SWGR ROOM HVAC

CONTRACT NO./TITLE CONTRACT_NO.			SCALE 1:1
DRAWN: VBA	CHECKED: LCA	APPROVED: DLO	DATE 23/10/2024

A3	DRAWING NO. 123A90-DDL-IN-DG-40014	SHEET 148	REV. 00

File Name : 123A90-DDL-IN-DG-40014_REV.00

ITEM	Tag	B100-HSB-001	: Distribution & HVAC Panel - HV MV Room		Dwg	123A90-DDL-EL-DL-20104	
	S/Sys	77-10	: HVAC HV/MV Switchgear Room B-100		Module	LD_B-100	
TASK	code	C10004879	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	COMM	Activity FTS	Discipline Instrumental	Form	FJ05	Serial Communication Test

SERIAL COMMUNICATION TEST

Reference document number: 1724000049-HV-LIS-00051 REV. 05

Associated subsystems: 77-10

Completion date: 15/05/2025

Comments/Remarks:

	Performed by	☐ WITNESS ☒ REVIEW	☒ WITNESS ☐ REVIEW
Company	ROSETTI MARINO		CW Comm
Name	Fabio Sirigu	Anthony Iveson	Jamie McAllister
Date	2025-05-15	2025-05-16	2025-05-16
Signature	PROVERLIS Digitaly signed by Fabio Sirigu 2025-05-15T13:57:30.546Z	PROVERLIS Digitaly signed by Anthony Iveson 2025-05-16T12:08:45.245Z	PROVERLIS Digitaly signed by Jamie McAllister 2025-05-16T13:42:07.194Z

CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	B-100 HVAC IO LIST - E&I SHELTERS	Sh. 1 of 6 Date: 28/01/2025 REV 5

Base Load Power Hub (BLPH)

B-100 HVAC I/O LIST - E&I SHELTERS

Document Number: 1724000049-HV-LIS-00051

Document Class: 3

15/05/2025
COMMISSIONING

CW Comm

Rev.	Date	Description	Prepared	Reviewed	Approved
05	28/01/2025	Issue for Information (IFI)	M.G.	O.A.	C.A.
04	19/12/2024	Issue for Information (IFI)	M.G.	O.A.	C.A.
03	11/11/2024	Issue for Information (IFI)	M.G.	O.A.	C.A.
02	17/10/2024	Issue for Information (IFI)	M.G.	O.A.	C.A.
01	26/09/2024	Issue for Information (IFI)	F.M.	S.S.	M.G.
00	07/06/2024	Issue for Information (IFI)	F.M.	S.S.	M.G.

ALEXSISTEMI spa

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CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	B-100 HVAC IO LIST - E&I SHELTERS	Sh. 2 of 6 Date:28/01/2025 Rev. 5

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SH.	DESCRIPTION	REVISIONS							
		00	01	02	03	04	05		
1	Cover	X	X	X	X	X	X		
2	Table of Contents	X	X	X	X	X	X		
3	Revision / Change Log	X	X	X	X	X	X		
4	I/O List	X	X	X	X	X	X		

15/05/25
CW Comm

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Revision / Change Log

Rev.	Description
00	ISSUE FOR INFORMATION (IFI)
01	ISSUE FOR INFORMATION (IFI)
02	ISSUE FOR INFORMATION (IFI)
03	ISSUE FOR INFORMATION (IFI)
04	ISSUE FOR INFORMATION (IFI)
05	ISSUE FOR INFORMATION (IFI)

HOLDS LIST

No.	Description
1.	
2.	
3.	
4.	

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CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-WP4-2023-05	ROSETTI MARINO
Document Titel:	B-100 HVAC IO LIST - E&I SHELTERS	Sh. 4 of 6 Date: 28/01/2025 Rev: 5

Rev	Item	P&ID	PLC I / O	Service Description	Terminal Block I/O	SIGNAL TAG	Equipment	IO Type	Location		Logic State		Range		E.U.	Alarms				Ex	Red	Mon	Signal Type	Power	Note
									From	To	State 0	State 1	Min	Max		LL	L	H	HH						
Outside system signals																									
2	1	123A90-1724000049HV-PID-00039	I 2,4	SHUT DOWN	XC - 100 / 101	77-XS-001	B100-HSB-001	DI	SIS	HVAC UCP	ALARM	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		24 Vdc From SIS, Free voltage contact for HVAC system
2	2	123A90-1724000049HV-PID-00039	Q0,2	HVAC CRITICAL FAULT	XC - 102 / 103	77XA-001	B100-HSB-001	DO	HVAC UCP	SIS	ALARM	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		24 Vdc From HVAC & Lighting Panel, Free voltage contact for SIS system
3	3	123A90-1724000049HV-PID-00039	I 4,7	F&G DAMPER HDF-77001 CLOSE SIGNAL	XFD/S - 800 / 801	77-ZSL-001	HDF-77001	DO	HVAC UCP	F&G	NOT CLOSE	CLOSED	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		24 Vdc From HVAC & Lighting Panel, Free voltage contact for F&G system
3	4	123A90-1724000049HV-PID-00039	I 5,1	F&G DAMPER HDF-77002 CLOSE SIGNAL	XFD/S - 804 / 805	77-ZSL-002	HDF-77002	DO	HVAC UCP	F&G	NOT CLOSE	CLOSED	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		24 Vdc From HVAC & Lighting Panel, Free voltage contact for F&G system
3	5	123A90-1724000049HV-PID-00039	I 5,3	F&G DAMPER HDF-77003 CLOSE SIGNAL	XFD/S - 808 / 809	77-ZSL-003	HDF-77003	DO	HVAC UCP	F&G	NOT CLOSE	CLOSED	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		24 Vdc From HVAC & Lighting Panel, Free voltage contact for F&G system
HVAC system signals																									
4	6	123A90-1724000049HV-PID-00039	I 0,0	MOTORISED DAMPER CLOSED			HDZ-77-101	DI	HDS-77001	HVAC UCP	NOT CLOSED	CLOSED	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	7	123A90-1724000049HV-PID-00039	I 0,1	MOTORISED DAMPER OPEN			HDZ-77-101	DI	HDS-77001	HVAC UCP	NOT OPEN	OPEN	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	8	123A90-1724000049HV-PID-00039	I 0,4	MAIN BRAKER TRIP SIGNAL			HVAC UCP	DI	HVAC UCP	HVAC UCP	ALARM	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	9	123A90-1724000049HV-PID-00039	I 0,5	PRESSURIZING FAN UNIT HHU-77001 THERMIC PROTECTION			TE-77-101	DI	TE-77-101	HVAC UCP	RUNNING	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	10	123A90-1724000049HV-PID-00039	I 0,6	HHU-77001 ELECTRICAL HEATER HIGH/VERY HIGH TEMPERATURE THERMOSTATE			TSH/HH-77-101	DI	TSH/HH-77-101	HVAC UCP	ALARM	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	11	123A90-1724000049HV-PID-00039	I 0,7	PRESSURIZING FAN UNIT HHU-77001 TRIP			HFM-77-101	DI	HVAC UCP	HVAC UCP	ALARM	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	12	123A90-1724000049HV-PID-00039	I 1,0	PRESSURIZING FAN UNIT HHU-77001 VSD MALFUNCTION			HFM-77-101	DI	HVAC UCP	HVAC UCP	RUNNING	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	13	123A90-1724000049HV-PID-00039	I 1,1	PRESSURIZING FAN UNIT HHU-77002 THERMIC PROTECTION			TE-77-102	DI	HVAC UCP	HVAC UCP	ALARM	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	14	123A90-1724000049HV-PID-00039	I 1,2	HHU-77002 ELECTRICAL HEATER HIGH/VERY HIGH TEMPERATURE THERMOSTATE			TSH/HH-77-102	DI	TSH/HH-77-102	HVAC UCP	ALARM	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	15	123A90-1724000049HV-PID-00039	I 1,3	PRESSURIZING FAN UNIT HHU-77002 TRIP			HFM-77-102	DI	HVAC UCP	HVAC UCP	ALARM	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	16	123A90-1724000049HV-PID-00039	I 1,4	PRESSURIZING FAN UNIT HHU-77002 VSD MALFUNCTION			HFM-77-102	DI	HVAC UCP	HVAC UCP	ALARM	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	17	123A90-1724000049HV-PID-00039	I1.5	ELECTRICAL HEATER HHU-77001 TRIP			HSS-77-103	DI	HVAC UCP	HVAC UCP	ALARM	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
2	18	123A90-1724000049HV-PID-00039	I 1,6	ELECTRICAL HEATER HHU-77002 TRIP			HSS-77-104	DI	HVAC UCP	HVAC UCP	RUNNING	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	19	123A90-1724000049HV-PID-00039	I 1,7	HHU-77001 ELECTRICAL HEATER MODULATION FAULT			HSS-77-103	DI	HVAC UCP	HVAC UCP	ALARM	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	20	123A90-1724000049HV-PID-00039	I 2,0	HHU-77002 ELECTRICAL HEATER MODULATION FAULT			HSS-77-104	DI	HVAC UCP	HVAC UCP	ALARM	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	21	123A90-1724000049HV-PID-00039	I 2,1	TRIP SIGNAL AUX			B100-HSB-001	DI	HVAC UCP	HVAC UCP	ALARM	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	22	123A90-1724000049HV-PID-00039	I 2,2	TRIP SIGNAL LIGHT POWER SUPPLY			B100-HSB-001	DI	HVAC UCP	HVAC UCP	ALARM	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	23	123A90-1724000049HV-PID-00039	I 2,3	TRIP SIGNAL MODULE SOCKET			B100-HSB-001	DI	HVAC UCP	HVAC UCP	ALARM	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	24	123A90-1724000049HV-PID-00039	I 2,5	MOTORISED DAMPER CLOSED			HDZ-77-102	DI	HDZ-77-102	HVAC UCP	NOT CLOSED	CLOSED											VFC 24 Vdc		-
4	25	123A90-1724000049HV-PID-00039	I 2,6	MOTORISED DAMPER OPEN			HDZ-77-102	DI	HDZ-77-102	HVAC UCP	NOT OPEN	OPEN											VFC 24 Vdc		-
4	26	123A90-1724000049HV-PID-00039	I 2,7	HHU-77001 AUTOMATIC SELECTOR			HHU-77001	DI	HHU-77001	HVAC UCP	NOT AUTOMATIC	AUTOMATIC	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	27	123A90-1724000049HV-PID-00039	I 3,0	TRIP AUX SECTION HHU-77001			HHU-77001	DI	HVAC UCP	HVAC UCP	ALARM	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	28	123A90-1724000049HV-PID-00039	I 3,1	GENERAL PANEL AUX TRIP			B100-HSB-001	DI	HVAC UCP	HVAC UCP	ALARM	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	29	123A90-1724000049HV-PID-00039	I 3,2	HHU-77001 SECTION MAIN BRAKER TRIP			HHU-77001	DI	HVAC UCP	HVAC UCP	ALARM	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	30	123A90-1724000049HV-PID-00039	I 3,3	HHU-77002 SECTION MAIN BRAKER TRIP			HHU-77002	DI	HVAC UCP	HVAC UCP	ALARM	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	31	123A90-1724000049HV-PID-00039	I 3,4	SPACE HEATER TRIP			HHS-77-001/2/3	DI	HVAC UCP	HVAC UCP	ALARM	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	32	123A90-1724000049HV-PID-00039	I 3,6	SPACE HEATER RUN			HHS-77-001/2/3	DI	HVAC UCP	HVAC UCP	STOP	RUN	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	33	123A90-1724000049HV-PID-00039	I 4,0	HHU-77002 AUTOMATIC SELECTOR			HHU-77002	DI	HVAC UCP	HVAC UCP	NOT AUTOMATIC	AUTOMATIC	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	34	123A90-1724000049HV-PID-00039	I 4,1	HHU-77001 FAN LOW PRESSURE			PDSL-77-101	DI	HVAC UCP	HHU-77001	STOP	RUN	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	35	123A90-1724000049HV-PID-00039	I 4,2	HHU-77001 FILTER FLOW SWITCH HIGH PRESSURE			PDT-77-101	DI	HVAC UCP	HHU-77001	NORMAL	DIRTY	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	36	123A90-1724000049HV-PID-00039	I 4,3	HHU-77002 FAN LOW PRESSURE			PDSL-77-102	DI	HVAC UCP	HHU-77002	STOP	RUN	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	37	123A90-1724000049HV-PID-00039	I 4,4	HHU-77002 FILTER FLOW SWITCH HIGH PRESSURE			PDT-77-102	DI	HVAC UCP	HHU-77002	NORMAL	DIRTY	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	38	123A90-1724000049HV-PID-00039	I 4,5	HHU-77001 MANUAL SELECTOR			HHU-77001	DI	HVAC UCP	HVAC UCP	NOT MANUAL	MANUAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	39	123A90-1724000049HV-PID-00039	I 4,6	HHU-77002 MANUAL SELECTOR			HHU-77002	DI	HVAC UCP	HVAC UCP	NOT MANUAL	MANUAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	40	123A90-1724000049HV-PID-00039	I 4,7	HFD-77001 CLOSED SIGNAL		77-ZSL-001	HFD-77001	DI	HFD-77001	HVAC UCP	NOT CLOSED	CLOSED	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	41	123A90-1724000049HV-PID-00039	I 5,0	HFD-77001 OPEN SIGNAL		77-ZSH-001	HFD-77001	DI	HFD-77001	HVAC UCP	NOT OPEN	OPEN	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	42	123A90-1724000049HV-PID-00039	I 5,1	HFD-77002 CLOSED SIGNAL		77-ZSL-002	HFD-77002	DI	HFD-77002	HVAC UCP	NOT CLOSED	CLOSED	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	43	123A90-1724000049HV-PID-00039	I 5,2	HFD-77002 OPEN SIGNAL		77-ZSH-002	HFD-77002	DI	HFD-77002	HVAC UCP	NOT OPEN	OPEN	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	44	123A90-1724000049HV-PID-00039	I 5,3	HFD-77003 CLOSED SIGNAL		77-ZSL-003	HFD-77003	DI	HFD-77003	HVAC UCP	NOT CLOSED	CLOSED	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	45	123A90-1724000049HV-PID-00039	I 5,4	HFD-77003 OPEN SIGNAL		77-ZSH-003	HFD-77003	DI	HFD-77003	HVAC UCP	NOT OPEN	OPEN	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	46	123A90-1724000049HV-PID-00039	I 0,2	HEATING CABLE TRIP			HHC-77-001	DI	HVAC UCP	HVAC UCP	TRIP	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	47	123A90-1724000049HV-PID-00039	Q 0,0	PRESSURIZING FAN UNIT HHU-77001 VSD START			HFM-77-101	DO	HVAC UCP	HVAC UCP	STOP	START	-	-	-	-	-	-	-	-	-	-	24 V DC		-
4	48	123A90-1724000049HV-PID-00039	Q 0,1	PRESSURIZING FAN UNIT HHU-77002 VSD START			HFM-77-102	DO	HVAC UCP	HVAC UCP	STOP	START	-	-	-	-	-	-	-	-	-	-	24 V DC		-
4	49	123A90-1724000049HV-PID-00039	Q 0,3	DAMPER OPEN COMMAND			HDZ-77-101	DO	HVAC UCP	HDZ-77001	CLOSE	OPEN	-	-	-	-	-	-	-	-	-	-	24 V DC		-
4	50	123A90-1724000049HV-PID-00039	Q 0,4	PRESSURIZING FAN UNIT HHU-77001 HEATER START			HSS-77-102	DO	HVAC UCP	HVAC UCP	STOP	START	-	-	-	-	-	-	-	-	-	-	24 V DC		-
4	51	123A90-1724000049HV-PID-00039	Q 0,5	PRESSURIZING FAN UNIT HHU-77002 HEATER START			HSS-77-103	DO	HVAC UCP	HVAC UCP	STOP	START	-	-	-	-	-	-	-	-	-	-	24 V DC		-
4	52	123A90-1724000049HV-PID-00039	Q 0,6	SPACE HEATER START			HHS-77-001/2/3	DO	HVAC UCP	HVAC UCP	STOP	START	-	-	-	-	-	-	-	-	-	-	24 V DC		-
4	53	123A90-1724000049HV-PID-00039	Q 0,7	DAMPER OPEN COMMAND			HDZ-77-102	DO	HVAC UCP	HDZ-77002	CLOSE	OPEN	-	-	-	-	-	-	-	-	-	-	24 V DC		-

15/05/25 Cw Com JMC

15/05/2025 COMMISSIONING Mm Di Marco

CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-WP4-2023-05	ROSETTI MARINO
Document Titel:	B-100 HVAC IO LIST - E&I SHELTERS	Sh. 5 of 6 Date: 28/01/2025 Rev: 5

Rev	Item	P&ID	PLC I / O	Service Description	SIGNAL TAG	Equipment	IO Type	Location		Logic State		Range		E.U.	Alarms				Ex	Red	Mon	Signal Type	Power	Note
								From	To	State 0	State 1	Min	Max		LL	L	H	HH						
4	54	123A90-1724000049HV-PID-00039	AQ 0,0	PRESSURIZING FAN UNIT HHU-77001 VSD MODULATION		HFM-77-101	AO	HVAC UCP	HVAC UCP	-	-	4	20mA	-	-	-	-	-	-	-	-	4-20mA		-
4	55	123A90-1724000049HV-PID-00039	AQ 0,1	PRESSURIZING FAN UNIT HHU-77002 VSD MODULATION		HFM-77-102	AO	HVAC UCP	HVAC UCP	-	-	4	20mA	-	-	-	-	-	-	-	-	4-20mA		-
4	56	123A90-1724000049HV-PID-00039	AQ 0,2	HHU-77001 ELECTRICAL HEATER MODULATION		HSS-77-103	AO	HVAC UCP	HVAC UCP	-	-	4	20mA	-	-	-	-	-	-	-	-	4-20mA		-
4	57	123A90-1724000049HV-PID-00039	AQ 0,3	HHU-77002 ELECTRICAL HEATER MODULATION		HSS-77-104	AO	HVAC UCP	HVAC UCP	-	-	4	20mA	-	-	-	-	-	-	-	-	4-20mA		-
4	58	123A90-1724000049HV-PID-00039	AI 0,0	TEMPERATURE TRASMITTER 001		77-TT-101	AI	77-TT-101	HVAC UCP	-	-	-10	60	°C	-	-	-	-	-	-	-	4-20mA		-
4	59	123A90-1724000049HV-PID-00039	AI 0,1	TEMPERATURE TRASMITTER 002		77-TT-102	AI	77-TT-102	HVAC UCP	-	-	-10	60	°C	-	-	-	-	-	-	-	4-20mA		-
4	60	123A90-1724000049HV-PID-00039	AI 0,3	TEMPERATURE TRASMITTER 003		77-TT-103	AI	77-TT-103	HVAC UCP	-	-	-10	60	°C								4-20mA		
4	61	123A90-1724000049HV-PID-00039	AI 1,0	TEMPERATURE TRASMITTER 004		77-TT-104	AI	77-TT-104	HVAC UCP	-	-	-10	60	°C								4-20mA		
4	62	123A90-1724000049HV-PID-00039	AI 0,2	DIFFERENTIAL PRESSURE TRASMITTER PDIT-001		77-PT-101	AI	77-PT-101	HVAC UCP	-	-	0	500	Pa	-	-	-	-	-	-	-	4-20mA		-

HVAC ModBUs Signal

Rev	Item	P&ID	PLC I / O	Service Description	EQUIPMENT TAG	SIGNAL TAG	SIGNAL TYPE		SIGNAL TO PCS	MODBUS			STATUS		E.U.	RANGE		READ (R) WRITE (W)		Note
							PROTOCOL	TYPE		SLAVE ADDRESS	REGISTER	BIT NO.	HIGH - 1	LOW - 0		MIN	MAX			
Rev	Item	P&ID	PLC I / O	Service Description	EQUIPMENT TAG	SIGNAL TAG	SIGNAL TYPE		SIGNAL TO PCS	MODBUS			STATUS		E.U.	RANGE		READ (R) WRITE (W)		Note
							PROTOCOL	TYPE		SLAVE ADDRESS	REGISTER	BIT NO.	HIGH - 1	LOW - 0		MIN	MAX			
4	67	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HFD-77001 NOT OPEN JMC	HFD-77001	HFD-77001-ZSH	ModBus TCP/IP	BOOL	DIGITAL		40001	0	NOT OPEN	OK				R		
4	68	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HFD-77001 NOT CLOSE	HFD-77001	HFD-77001-ZSL	ModBus TCP/IP	BOOL	DIGITAL		40001	1	NOT CLOSE	OK				R		
4	69	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HFD-77002 NOT OPEN JMC	HFD-77002	HFD-77002-ZSH	ModBus TCP/IP	BOOL	DIGITAL		40001	2	NOT OPEN	OK				R		
4	70	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HFD-77002 NOT CLOSE	HFD-77002	HFD-77002-ZSL	ModBus TCP/IP	BOOL	DIGITAL		40001	3	NOT CLOSE	OK				R		
4	71	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HFD-77003 NOT OPEN JMC	HFD-77003	HFD-77003-ZSH	ModBus TCP/IP	BOOL	DIGITAL		40001	4	NOT OPEN	OK				R		
4	72	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HFD-77003 NOT CLOSE	HFD-77003	HFD-77003-ZSL	ModBus TCP/IP	BOOL	DIGITAL		40001	5	NOT CLOSE	OK				R		
4	73	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HDZ-77-101 NOT OPEN	HDZ-77-101	HDZ-77-101-ZSH	ModBus TCP/IP	BOOL	DIGITAL		40001	6	NOT OPEN	OK				R		
4	74	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HDZ-77-101 NOT CLOSE JMC	HDZ-77-101	HDZ-77-101-ZSL	ModBus TCP/IP	BOOL	DIGITAL		40001	7	NOT CLOSE	OK				R		
4	75	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HDZ-77-102 NOT OPEN	HDZ-77-102	HDZ-77-102-ZSH	ModBus TCP/IP	BOOL	DIGITAL		40001	8	NOT OPEN	OK				R		
4	76	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HDZ-77-102 NOT CLOSE JMC	HDZ-77-102	HDZ-77-102-ZSL	ModBus TCP/IP	BOOL	DIGITAL		40001	9	NOT CLOSE	OK				R		
4	77	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HFM-77-101 PTC Protection JMC	HFM-77-101	HFM-77-101-PTCP	ModBus TCP/IP	BOOL	DIGITAL		40001	10	FAULT	OK				R		
4	78	123A90-1724000049HV-PID-00039	Modbus TCP/IP	TSH/HH-77-101 Electrical heater protection thermostate JMC	TSH-HH-77-101	HSS-77-101-TSPH	ModBus TCP/IP	BOOL	DIGITAL		40001	11	FAULT	OK				R		
4	79	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HFM-77-101 TRIP SIGNAL 2	HFM-77-101	HFM-77-101-TRIP	ModBus TCP/IP	BOOL	DIGITAL		40001	12	FAULT	OK				R		
4	80	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HFM-77-101 VSD MALFUNCTION 2 JMC	HFM-77-101	HFM-77-101-VSDF	ModBus TCP/IP	BOOL	DIGITAL		40001	13	FAULT	OK				R		
4	81	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HSS-77-103 TRIP 101 JMC	HSS-77-103 101	HSS-77-103-TRP	ModBus TCP/IP	BOOL	DIGITAL		40001	14	FAULT	OK				R		
4	82	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HSS-77-103 MODULATION FAULT 101 JMC	HSS-77-103 101	HSS-77-103-MF	ModBus TCP/IP	BOOL	DIGITAL		40001	15	FAULT	OK				R		
4	83	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HHU-77001 AUX TRIP JMC	HHU-77001	HHU-77001-ATRP	ModBus TCP/IP	BOOL	DIGITAL		40002	0	FAULT	OK				R		
4	84	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HHU-77001 MAIN BRAKER TRIP JMC	HHU-77001	HHU-77001-MBTRP	ModBus TCP/IP	BOOL	DIGITAL		40002	1	FAULT	OK				R		
4	85	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HHU-77001 NO FLOW N/A	HHU-77001	HHU-77001-NF	ModBus TCP/IP	BOOL	DIGITAL		40002	2	FAULT	OK				R		
4	86	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HFM-77-102 Ptc Protection JMC	HFM-77-102	HFM-77-102-PTCP	ModBus TCP/IP	BOOL	DIGITAL		40002	3	FAULT	OK				R		
4	87	123A90-1724000049HV-PID-00039	Modbus TCP/IP	TSH/HH-77-102 JMC	TSH/HH-77-102	TSH/HH-77-102-TSPH	ModBus TCP/IP	BOOL	DIGITAL		40002	4	FAULT	OK				R		
4	88	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HFM-77-102 trip 2	HFM-77-102	HFM-77-102-TRP	ModBus TCP/IP	BOOL	DIGITAL		40002	5	FAULT	OK				R		
4	89	123A90-1724000049HV-PID-00039	Modbus TCP/IP	IIFM-77-102 VSD Malfunction 2 JMC	IIFM-77-102	IIFM-77-102-VSDF	ModBus TCP/IP	BOOL	DIGITAL		40002	6	FAULT	OK				R		
4	90	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HSS-77-104 TRIP 102 JMC	HSS-77-104 102	HSS-77-104-TRP	ModBus TCP/IP	BOOL	DIGITAL		40002	7	FAULT	OK				R		
4	91	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HSS-77-104 Modulation Fault 102 JMC	HSS-77-104 102	HSS-77-104-MF	ModBus TCP/IP	BOOL	DIGITAL		40002	8	FAULT	OK				R		
4	92	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HHU-77002 aux Trip JMC	HHU-77002	HHU-77002-ATRP	ModBus TCP/IP	BOOL	DIGITAL		40002	9	FAULT	OK				R		
4	93	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HHU-77002 Main Braker Trip JMC	HHU-77002	HHU-77002-MBTRP	ModBus TCP/IP	BOOL	DIGITAL		40002	10	FAULT	OK				R		
4	94	123A90-1724000049HV-PID-00039	Modbus TCP/IP	B100-HSB-001 Main Braker Trip JMC	B100-HSB-001	B100-HSB-001-MBTRP	ModBus TCP/IP	BOOL	DIGITAL		40002	11	FAULT	OK				R		
4	95	123A90-1724000049HV-PID-00039	Modbus TCP/IP	B100-HSB-001 Module LIght Trip JMC	B100-HSB-001	B100-HSB-001-MLTRP	ModBus TCP/IP	BOOL	DIGITAL		40002	12	FAULT	OK				R		
4	96	123A90-1724000049HV-PID-00039	Modbus TCP/IP	B100-HSB-001 Module Socket Trip JMC	B100-HSB-001	B100-HSB-001-MSTRP	ModBus TCP/IP	BOOL	DIGITAL		40002	13	FAULT	OK				R		
4	97	123A90-1724000049HV-PID-00039	Modbus TCP/IP	B100-HSB-001 AuX Trip JMC	B100-HSB-001	B100-HSB-001-ATRP	ModBus TCP/IP	BOOL	DIGITAL		40002	14	FAULT	OK				R		
4	98	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HHS-77-001/2/3 Space Heater trip JMC	HHS-77-001/2/3	HHS-77-001/2/3-SHTRP	ModBus TCP/IP	BOOL	DIGITAL		40002	15	FAULT	OK				R		
4	99	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HHS-77-001/2/3 Fault N/A	HHS-77-001/2/3	HHS-77-001/2/3-SHF	ModBus TCP/IP	BOOL	DIGITAL		40003	0	FAULT	OK				R		
4	100	123A90-1724000049HV-PID-00039	Modbus TCP/IP	77-TT-101 Fault JMC	77-TT-101	77-TT-101-F	ModBus TCP/IP	BOOL	DIGITAL		40003	1	FAULT	OK				R		
4	101	123A90-1724000049HV-PID-00039	Modbus TCP/IP	77-TT-102 Fault JMC	77-TT-102	77-TT-102-F	ModBus TCP/IP	BOOL	DIGITAL		40003	2	FAULT	OK				R		
4	102	123A90-1724000049HV-PID-00039	Modbus TCP/IP	77-TT-103 Fault JMC	77-TT-103	77-TT-103-F	ModBus TCP/IP	BOOL	DIGITAL		40003	3	FAULT	OK				R		
4	103	123A90-1724000049HV-PID-00039	Modbus TCP/IP	77-TT-104 Fault JMC	77-TT-104	77-TT-104-F	ModBus TCP/IP	BOOL	DIGITAL		40003	4	FAULT	OK				R		
4	104	123A90-1724000049HV-PID-00039	Modbus TCP/IP	77-PT-101 Fault ALARM IS 401 ON HMI	77-PT-101	77-PT-101-F	ModBus TCP/IP	BOOL	DIGITAL		40003	5	FAULT	OK				R		
4	105	123A90-1724000049HV-PID-00039	Modbus TCP/IP	Major Fault JMC	B100-HSB-001	B100-HSB-001-MJF	ModBus TCP/IP	BOOL	DIGITAL		40003	6	FAULT	OK				R		

15/05/2025 JMC

15/05/2025 COMMISSIONING

CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-WP4-2023-05	ROSETTI MARINO
Document Titel:	B-100 HVAC IO LIST - E&I SHELTERS	Sh. 6 of 6 Date: 28/01/2025 Rev: 5

Rev	Item	P&ID	PLC I / O	Service Description	EQUIPMENT TAG	SIGNAL TAG	SIGNAL TYPE		SIGNAL TO PCS	MODBUS			STATUS		E.U.	RANGE				READ (R) WRITE (W)		Note
							PROTOCOL	TYPE		SLAVE ADDRESS	REGISTER	BIT NO.	HIGH - 1	LOW - 0		MIN		MAX				
4	106	123A90-1724000049HV-PID-00039	Modbus TCP/IP	Module Low Pressure	B100-HSB-001	B100-HSB-001-LP	ModBus TCP/IP	BOOL	DIGITAL		40003	7	FAULT	OK						R		
4	107	123A90-1724000049HV-PID-00039	Modbus TCP/IP	ModBUS Fault	B100-HSB-001	B100-HSB-001-MODBUSF	ModBus TCP/IP	BOOL	DIGITAL		40003	8	FAULT	OK						R		
4	108	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HHU-77002 NO FLOW	HHU-77002-NF	HHU-77002-NF	ModBus TCP/IP	BOOL	DIGITAL		40003	9	FAULT	OK						R		
4	109	123A90-1724000049HV-PID-00039	Modbus TCP/IP	SPARE			ModBus TCP/IP	BOOL	DIGITAL		40003	10										
4	110	123A90-1724000049HV-PID-00039	Modbus TCP/IP	SPARE			ModBus TCP/IP	BOOL	DIGITAL		40003	11										
4	111	123A90-1724000049HV-PID-00039	Modbus TCP/IP	SPARE			ModBus TCP/IP	BOOL	DIGITAL		40003	12										
4	112	123A90-1724000049HV-PID-00039	Modbus TCP/IP	SPARE			ModBus TCP/IP	BOOL	DIGITAL		40003	13										
4	113	123A90-1724000049HV-PID-00039	Modbus TCP/IP	ModBus Server Error	B100-HSB-001	B100-HSB-001-MSE	ModBus TCP/IP	BOOL	DIGITAL		40003	14	OK	FAULT						R		
4	114	123A90-1724000049HV-PID-00039	Modbus TCP/IP	SPARE NO CHECK			ModBus TCP/IP	BOOL	DIGITAL		40003	15								W		
4	115	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HHU-77001 Status x3 AVA/Run/Fault JMC ✓	HHU-77001	HHU-77001-S	ModBus TCP/IP	INT	ANALOG		40004				NA					R		1=AVAILABLE 2=RUN 3=FAULT
4	116	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HHU-77002 Status x3 JMC ✓	HHU-77002	HHU-77002-S	ModBus TCP/IP	INT	ANALOG		40005				NA					R		1=AVAILABLE 2=RUN 3=FAULT
4	117	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HHS-77001/2/3 Status JMC ✓	HHS-77001/2/3	HHS-77001/2/3-S	ModBus TCP/IP	INT	ANALOG		40006				NA					R		1=AVAILABLE 2=RUN 3=FAULT
4	118	123A90-1724000049HV-PID-00039	Modbus TCP/IP	B 100 Medium Internal Temperature JMC ✓	B100-HSB-001	B100-HSB-001-IT	ModBus TCP/IP	INt	ANALOG		40007				°C					R		DIVIDE THE NUMBER BY TEN TO GET THE CORRECT VALUE
4	119	123A90-1724000049HV-PID-00039	Modbus TCP/IP	B100 internal pressure JMC ✓	B100-HSB-001	B100-HSB-001-IP	ModBus TCP/IP	INT	ANALOG		40008				Pa					R		DIVIDE THE NUMBER BY TEN TO GET THE CORRECT VALUE
4	120	123A90-1724000049HV-PID-00039	Modbus TCP/IP	ModBus WatchDog JMC ✓	B100-HSB-001	B100-HSB-001-WD	ModBus TCP/IP	BOOL	DIGITAL		40009				NA					W		PULSATING HIGH/LOW SIGNAL WITH FREQUENCI UNDER 15S
4	121	123A90-1724000049HV-PID-00039	Modbus TCP/IP	System Start From PCS JMC ✓	B100-HSB-001	B100-HSB-001-SSTART	ModBus TCP/IP	BOOL	DIGITAL		40010		START	NONE	NA					W		SART SIGNAL FROM PCS
4	122	123A90-1724000049HV-PID-00039	Modbus TCP/IP	System Stop From PCS JMC ✓	B100-HSB-001	B100-HSB-001-SSTOP	ModBus TCP/IP	BOOL	DIGITAL		40011		STOP	NONE	NA					W		STOP SIGNAL FROM PCS
4	123	123A90-1724000049HV-PID-00039	Modbus TCP/IP	Resel Alarm From PCS JMC ✓	B100-HSB-001	B100-HSB-001-RA	ModBus TCP/IP	BOOL	DIGITAL		40012		RESET	NONE	NA					W		SIGNAL FOR RESET ALARM
5	124	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HHU-77001 VSD Percentage of capacity utilisation JMC ✓	B100-HSB-001	B100-HSB-001-HFM1P	ModBus TCP/IP	INT	ANALOG		40013				NA					R		
5	125	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HHU-77002 VSD Percentage of capacity utilisation JMC ✓	B100-HSB-001	B100-HSB-001-HFM2P	ModBus TCP/IP	INT	ANALOG		40014				NA					R		
5	126	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HHU-77001 SELECTOR STATUS OFF/MAN/AUTO JMC ✓	B100-HSB-001	B100-HSB-001-SS	ModBus TCP/IP	INT	ANALOG		40015				NA					R		1= AUTO 2= MANUAL 3=OFF
5	127	123A90-1724000049HV-PID-00039	Modbus TCP/IP	HHU-77002 SELECTOR STATUS off/MAN/AUTO JMC ✓	B100-HSB-001	B100-HSB-002-SS	ModBus TCP/IP	INT	ANALOG		40016				NA					R		1= AUTO 2= MANUAL 3=OFF

Section 4.4 Instrumentation “As-Commissioned” interconnection diagrams

NOT APPLICABLE

Section 4.5 Telecommunication functional test sheets index

NOT APPLICABLE

Section 4.6 Telecommunication
“As-Commissioned” I.C.D. / TSLD's

NOT APPLICABLE

Section 5 SITE / OPERATIONAL

Section 5.1 Operational Test Procedure

Section 5.2 Operational Test Certificates

NOT APPLICABLE

Section 6 PIPING AND VESSEL PREPARATION

Section 6.1 Final Mechanical / Vessel Inspection Checks Index

NOT APPLICABLE

Section 6.2 Leak Test / Drying / Inerting Test Sheets Index

NOT APPLICABLE

Section 6.3 Chemical Loading & First Fill records Index

NOT APPLICABLE

Section 6.4 Chemical Cleaning Reports and Records Index

NOT APPLICABLE

Section 6.5 Lubrication Schedule

NOT APPLICABLE

Section 7 VENDOR

Section 7.1 Vendor Package Summary Index

NOT APPLICABLE

Section 7.2 SAT Procedure with associated punch list and reference (Front Page)

FAT PROCEDURE COMPLIANCE CHECKLIST

Project: HOLLANDSE KUST NOORD WIND PARK - BLPH

Document Reference: 1724000049-QC-PRO-00056 Rev. 04

Supplier: ALEX Sistemi – PO 1724000049

Subsystems covered:

- 77-10 HVAC HV/MV Switchgear Room B-100
- 77-20 HVAC LV Switchgear Room B-200
- 77-30 HVAC UPS Equipment Room B-300
- 77-40 HVAC I&T Equipment Room B-400

Note: This checklist summarises the execution and verification of FAT activities as described in the approved procedure (Ref. 1724000049-QC-PRO-00056 Rev. 04). The activities were carried out in October 23rd to 25th 2024.
Its purpose is to provide a formal, structured record confirming that the required test has been completed in accordance with the procedure, including acceptance criteria and relevant observations.
All activities and declarations included herein have been performed and compiled under the responsibility of Rosetti Marino.
An additional column has been added to indicate supporting documentation where available.
Where measurement values were not explicitly recorded in individual test reports, conformity has been stated based on witnessed execution and internal verification records.

Section	Test Description	Acceptance Criteria	Result	Reference	Notes
9.1	Dimensional Check and Visual Inspection of the shelter structure and components to verify compliance with GA drawings, correct installation, absence of transport damage, and conformity with project specifications (UNI EN ISO 13920 Class B).	All measured dimensions must comply with approved drawings and specified tolerances. Surfaces must be free of defects and properly treated.	Compliant	IR-ASI-0049-01 B-100 – Attach. 1 B-100 – Attach. 2 B-200 – Attach. 1 B-200 – Attach. 2 B-300 – Attach. 1 B-300 – Attach. 2 B-400 – Attach. 1 B-400 – Attach. 2 HVAC system GA	Verified during FAT carried out at ALEX fabrication premises on 24-25-26/07/2024 and confirmed in Oct 2024 site checks.
9.2	Visual and instrumental inspection of painting quality, including measurement of dry film thickness (DFT) to verify compliance with the approved painting specification.	DFT values must meet the minimum specified in the painting procedure using calibrated instruments.	Compliant	IR-ASI-0049-01 B-100 – Attach. 1 B-100 – Attach. 2 B-200 – Attach. 1 B-200 – Attach. 2 B-300 – Attach. 1 B-300 – Attach. 2 B-400 – Attach. 1 B-400 – Attach. 2	Verified during FAT carried out at ALEX fabrication premises on 24-25-26/07/2024. Measurements taken and confirmed compliant; values not recorded.
9.3	Verification of nameplate installation and content, ensuring correct labeling, location, and data	Nameplates must be correctly installed, readable, and match equipment tags and documentation.	Compliant	FAT Report 1 B-100 – Attach. 1 B-100 – Attach. 2 B-200 – Attach. 1 B-200 – Attach. 2	Visual inspection completed and confirmed.

Section	Test Description	Acceptance Criteria	Result	Reference	Notes
	conformity with approved documentation.			B-300 – Attach. 1 B-300 – Attach. 2 B-400 – Attach. 1 B-400 – Attach. 2	
9.4	Check of type, quantity, and installation position of components (internal and external) in accordance with the latest General Arrangement drawings and bill of materials.	Component positioning and quantity must match drawings. Any deviation must be approved.	Compliant	FAT Report 1 B-100 – Attach. 1 B-100 – Attach. 2 B-200 – Attach. 1 B-200 – Attach. 2 B-300 – Attach. 1 B-300 – Attach. 2 B-400 – Attach. 1 B-400 – Attach. 2	Verified during FAT and in field installation.
9.5	Functional testing of all lighting systems, including normal and emergency lights. Measurements of illumination levels and battery autonomy for emergency lights.	Lighting must operate as intended. Illumination and autonomy must meet design values.	Compliant	Activity witnessed and supervised by Rosetti. No dedicated report was issued	Tested in FAT. Emergency lighting confirmed operational.
9.6	Verification of grounding system integrity, including bonding resistance measurements and visual confirmation of connections.	Measured resistance must be < 200 mΩ. All metallic parts must be properly grounded.	Compliant	FAT Report 1 Grounding Test Report	Confirmed via measurements during FAT.
9.7	Review of material and component certificates, NDE reports, and traceability documents to ensure compliance with the ITP and project specifications.	All main materials and components must have valid certificates of conformity.	Compliant	No dedicated report was issued	Document review completed as per ITP. Activity performed by Rosetti Team, during the visit to Alex fabrication premises in July 2024 and completed during Site testing activities in October 2024
9.8	Full functional and performance test of the HVAC system, including pressure, temperature stability, redundancy, and I/O checks. Dummy loads are used to simulate heat input.	The system must maintain temperature within set points and ensure ≥ 50 Pa overpressure. I/O and alarms must operate per design.	Compliant	HVAC Report 1 HVAC Report 2	Executed in Oct 2024; values confirmed. No formal performance report issued.

Section	Test Description	Acceptance Criteria	Result	Reference	Notes
9.9	Fire & Gas system functional testing, including energisation, detector calibration, and full Cause & Effect simulation per project documentation.	All sequences must operate correctly, with the successful test of detectors and alarm response.	Compliant	Refer to B ITRs loaded in PROVERLIS	Simulated input tests were performed; they were confirmed by RM.

ADDITIONAL TEST (Not foreseen in the above-mentioned procedure)

During the commissioning phase, activities were carried out specifically to verify the interface between the HVAC units and the platform control system.
These tests focused on the validation of I/O signal exchange, interlocks, and control logic communication.
All activities were tracked and documented using the dedicated ITR forms managed through the PROVERLIS system.

Performed by	Verified by
Signature: Date: 16/05/2025 Name: Stefano Linari	Signature: Date: 16 Name: Raffaele Degli Esposti

IR-ASI-0049-01

ROSETTI MARINO	INSPECTION REPORT	Report No. IR-ASI-0049-01	SHEET 1 di 7
		Data *Date 24-25-26/07/2024*	Rev. *Rev. 0*
PROGETTO *Project* **Base Load Power Hub (BLPH)**	**CLIENTE** *Client* CROSSWIND	**COMMESSA** / *Job* ***123 A90***	**COMMESSA FORNITORE** / *Job Vendor* ALEX SISTEMI
FORNITORE *Supplier: ALEX SISTEMI SPA*	**No. Ordine** *P.O. No. 1724000049 Rev.00*	**OGGETTO** *Object ELE/INST EQUIPMENT ROOM*	

DESCRIZIONE DEL MATERIALE / *Material Description*

POS. *Item*	QUANTITA' *Quantity*	DESCRIZIONE *Description*	Nr. TAG *TAG No.*	TIPO DI ISPEZIONE / *Kind of Inspection*	ESITO / *Result*
10	1	HV-MV (66kV 6.6kV) Switchroom B-100	B-100	Visual Check & FAT	**Satifactory with Punch List**
20	1	LV (400V) SWITCH ROOM B-200	B-200	Visual Check & FAT	**Satifactory with Punch List**
30	1	AC UPS EQUIPMENT ROOM B-300	B-300	Visual Check & FAT	**Satifactory with Punch List**
40	1	I&T EQUIPMENT ROOM B-400	B-400	Visual Check & FAT	**Satifactory with Punch List**

DOCUMENTI APPLICABILI / *Applicable Documents*

TITOLO DOCUMENTO / *Document Title*	NUMERO DOCUMENTO / *Document Number*	REVISIONE / *Revision*	STATO DOCUMENTO / *Document Status*
HV-MV (66kV 6.6kV) Switchroom B-100	1724000049-QC-PRO-00056	3	AFC-08/06/2024 approved
Inspection and Test Plan	1724000049-QC-ITP-00002	2	AFC-19/04/2024 approved
B-100 GENERAL ARRANGEMENT DRAWINGS	1724000049-AR-DA-00014	2	AFC-28/06/2024 approved
B-200 GENERAL ARRANGEMENT DRAWINGS	1724000049-AR-DA-00015	2	AFC-28/06/2024 approved
B-300 GENERAL ARRANGEMENT DRAWINGS	1724000049-AR-DA-00016	2	AFC-03/07/2024 approved
B-400 GENERAL ARRANGEMENT DRAWINGS	1724000049-AR-DA-00017	2	AFC-04/07/2024 approved

DISTRIBUZIONE A: / *Distribution to:*

☒**GESTIONE FORNITURE** / *Supply Management Department*	☒**CAPO COMMESSA** / *Project Manager*
☒**PRODUZIONE** / *Production*	☒**FORNITORE** / *Supplier*
☒**PPLM** / *Project Procurement & Logistic Manager*	☒**P.Q.M.**
☒**MAGAZZINO** / *Warehouse*	☒**P.E.M.**

ATTIVITA' ESEGUITE / *Activities Carried Out*

A - INTRODUZIONE / *Preliminary Introduction*

The present report refers to the inspection visit carried out on 24-25-26/07/2024 at Eudosia Sistemi Via Modigliani 8,Inveruno (MI).The following inspection activities were witnessed by Rosetti Marino and they have performed: Visual Check and Fat following the procedure for E&I Shelters B-100/B-200/B-300/B-400.
Attendees the test: Coicea Catalin(RM);Basile Martino(RM);Luca Caviglia(RM);Maurizio Gatti(RM); Salvatore Cordova(Alex Sistemi);Andrea Dicandia(Alex Sistemi);Oliviero Albizzati(Alex Sistemi) Pasquale Anacleto (Client Crosswind); Walter Gobbi (Client Crosswind).

B –SCOPO DELL'ISPEZIONE / *Scope of Inspection*

DESCRIZIONE DEI TEST PRESENZIATI / *Description of witnessed tests*	ESITO / *Result*
VISUAL INSPECTION AND CHECK DIMENSIONAL B-100; B-200; B-300; B-400	**Satifactory with Punch List**
FAT (Functional Acceptance Test) B-100 and B-200	**Satifactory with Punch List**

L' INCARICATO / *The person in charge*	IL RAPP. DEL CLIENTE / *Client's Representative*	IL FORNITORE / *Supplier*
ROSETTI MARINO *Supply Management Dept.* ROSETTI MARINO SpA Stefano Linari 31/07/24 Supply Management Dept.		

QUESTO DOCUMENTO NON SOLLEVA IL FORNITORE DALLA RESPONSABILITA' DI EVENTUALI DIFETTI E/O MALFUNZIONAMENTI RILEVATI DURANTE L'USO /
This document does not relieve the Supplier of the responsibility of any possible defects and/or misfunctioning arising during the utilisation.

Doc. Name: PAINTING CHECK		Report No.01 Mod 1.4.2
OUR JOB X176-24X	Date 24/07/2024	Page 1/1

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** HV (66KV 6.6KV) SWITCH ROOM B-100
S/N: B100	**FAT procedure:** 1724000049-QC-PRO-00056

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 24/07/2024

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	✓		
Visual Check External Color doors RAL 7035	✓		
Layer thickness of external coating µm 320 total	✓		
Visual Check Internal Equipment Baseframe RAL 7035	✓		

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	CROSSWIND		

Mod1.4.2

Doc. Name: CHECK AND FUNCTIONAL TEST		Report No.01
OUR JOB X176-24X	Date 24/07/2024	Page 1

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** HV (66KV 6.6KV) SWITCH ROOM B-100
S/N: B100	**FAT procedure:** 1724000049-QC-PRO-00056

LOCATION : ON SITE ☒ OFF SITE ☐

DATE OF TEST: 24/07/2024

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	✓		

Comments:

ALEX SISTEMI *Quality Assurance*	Customer	Final Customer	3rd Part	other
ALEXSISTEMI spa	COICEA CATALIN ROSETTI MARINO (IV)	CROSSWIND		

Doc. Name: ELECTRICAL TESTS		Report No.01 Mod 1.4.6
OUR JOB X176-24X	Date 24/07/2024	Page 1/1

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** HV (66KV 6.6KV) SWITCH ROOM B-100
S/N: B100	**FAT procedure:** 1724000049-QC-PRO-00056

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 24/07/2024

REFERENCE DRAWING:

- 1724000049-AR-DA-00014 - B-100 GENERAL ARRANGMENT DRAWINGS - E&I SHELTERS
- 1724000049-HV-DA-00064 - MODULE B-100 – HVAC SYSTEM–G.A. AND DETAILS
- 1724000049-HV-DA-00026 - B-100 HVAC and LIGHTING PANEL WIRING DRAWINGS and GENERAL ARRANGEMENT (INCL INTERCONNECTING) - E&I SHELTERS

REFERENCE DOCUMENT:

- 1724000049-HV-PID-00039 - B-100 PID - E&I SHELTERS
- 1724000049-HV-LIS-00047 - B-100 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.

Mod1.4.6

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** HV (66KV 6.6KV) SWITCH ROOM B-100
S/N: B100	**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.
However, the following preliminary checks have been completed:

- Main unit changeover by simulating a system fault.
- Switching on of space heaters.
- Maintaining overpressure through VSD control.
- Reading temperature and differential pressure values on the HMI.

ALEX SISTEMI *Quality Assurance*	Customer	Final Customer	3rd Part	Other
ALEXSISTEMI spa	ROSETTI MARINO	CROSSWIND W 29/07/24		

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** HV (66KV 6.6KV) SWITCH ROOM B-100
S/N: B100	**FAT procedure:** 1724000049-QC-PRO-00056

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 25/07/2024

REFERENCE DRAWING:

- 1724000049-AR-DA-00014 - B-100 GENERAL ARRANGMENT DRAWINGS - E&I SHELTERS
- 1724000049-HV-DA-00064 - MODULE B-100 – HVAC SYSTEM–G.A. AND DETAILS
- 1724000049-HV-DA-00026 - B-100 HVAC and LIGHTING PANEL WIRING DRAWINGS and GENERAL ARRANGEMENT (INCL INTERCONNECTING) - E&I SHELTERS

REFERENCE DOCUMENT:

- 1724000049-HV-PID-00039 - B-100 PID - E&I SHELTERS
- 1724000049-HV-CA-00035 - B-100 HVAC CALCULATION REPORT (Incl HVAC SYS CALC and HEAT DISSIPATION CALC) - E&I SHELTERS
- 1724000049-HV-LIS-00047 - B-100 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.05 Mod 1.4.7
OUR JOB X176-24X	Date 25/07/2024	Page 1/1

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** HV (66KV 6.6KV) SWITCH ROOM B-100
S/N: B100	**FAT procedure:** 1724000049-QC-PRO-00056

Comments:

Some 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. However, the following preliminary checks have been completed:

- Main unit changeover by simulating a system fault.
- Switching on of space heaters.
- Maintaining overpressure through VSD control.
- Reading temperature and differential pressure values on the HMI.

ALEX SISTEMI *Quality Assurance*	Customer	Final Customer	3rd Part	other
ALEXSISTEMI spa	ROSETTI MARINO	x CROSSWIND 29/07/24		

ROSETTI MARINO	INSPECTION REPORT	Report No. IR-ASI-0049-01	SHEET 2 di 7
		Data *Date 24-25-26/07/2024*	Rev. *Rev. 0*
PROGETTO *Project* **Base Load Power Hub (BLPH)**	**CLIENTE** *Client* CROSSWIND	**COMMESSA** / *Job* ***123 A90***	**COMMESSA FORNITORE** / *Job Vendor* ALEX SISTEMI
FORNITORE *Supplier: ALEX SISTEMI SPA*	**No. Ordine** *P.O. No. 1724000049 Rev.00*	**OGGETTO** *Object ELE/INST EQUIPMENT ROOM*	

C –DETTAGLIO DEGLI STRUMENTI UTILIZZATI PER TEST E ISPEZIONE / *Details of Inspection and Test Instruments used*

NOME DELLO STRUMENTO *Equipment name*	PRODUTTORE *Manufacturer*	MODELLO *Model*	PROSSIMA TARATURA *Next calibration*

D –ALLEGATI / *Attachments (***CERTIFICATI E TEST REPORT** / *Certificates and Test Reports)*

NUMERO DOCUMENTO / *Document Number*	DESCRIZIONE / *Description*	TIPO / *Type*	NR. PAGINE / *No. Pages*
B100.attachment 1	Reports & drawings	report	10
B100.attachment 2	Reports & drawings	report	6
B100.attachment 3_Review	Reports & drawings_review	report	14
B200.attachment 1	Reports & drawings	report	10
B200.attachment 2	Reports & drawings	report	6
B200.attachment 3_Review	Reports & drawings_review	report	16
B300.attachment 1	Reports & drawings	report	9
B300.attachment 2	Reports & drawings	report	4
B300.attachment 3_Review	Reports & drawings_review	report	16
B400.attachment 1	Reports & drawings	report	10
B400.attachment 2	Reports & drawings	report	4
B300.attachment 3_Review	Reports & drawings_review	report	16

E – DETTAGLI ED ESITO DELL'ISPEZIONE / *Details and Results of Inspection*

F – CONCLUSIONI / *Conclusions*

FAT were witnessed by Rosetti Marino and CW as per ITP and relevant procedures and results are SATISFACTORY, as mentioned in the body of this report.
All remarks are indicated in the FAT reports
List of Punch list has been agreed between all parties.
The closure date will be define in the next few weeks between RM and ASI with a dedicated schedule.

G – PUNTI IRRISOLTI / *Outstanding points*

PLR-0049-ASI-001_20240731

H – STATO PACKING LIST / *Packing List Status*	☒ **EMESSO** / *Issued*	☐ **NON EMESSO** / *Not Issued*	26/07/2024 **ULTIMA DATA UTILE** / *Last Date*

PUNCH LIST REPORT: VEDI ALLEGATO N° / *Refer to Attachment n° NOT APPLICABLE*

L' INCARICATO / *The person in charge*	IL RAPP. DEL CLIENTE / *Client's Representative*	IL FORNITORE / *Supplier*
ROSETTI MARINO *Supply Management dept.* Stefano Linari *Quality Control Dept.* ROSETTI MARINO SpA 31/07/24		

QUESTO DOCUMENTO NON SOLLEVA IL FORNITORE DALLA RESPONSABILITA' DI EVENTUALI DIFETTI E/O MALFUNZIONAMENTI RILEVATI DURANTE L'USO /
This document does not relieve the Supplier of the responsibility of any possible defects and/or misfunctioning arising during the utilisation.

ROSETTI MARINO	INSPECTION REPORT	Report No. IR-ASI-0049-01	SHEET 3 di 7
		Data *Date 24-25-26/07/2024*	Rev. *Rev. 0*
PROGETTO *Project* **Base Load Power Hub (BLPH)**	**CLIENTE** *Client* CROSSWIND	**COMMESSA** / *Job* ***123 A90***	**COMMESSA FORNITORE** / *Job Vendor* ALEX SISTEMI
FORNITORE *Supplier: ALEX SISTEMI SPA*	**No. Ordine** *P.O. No. 1724000049 Rev.00*	**OGGETTO** *Object ELE/INST EQUIPMENT ROOM*	

REPORT FOTOGRAFICO (SE PRESENTE) / *Digital Pictures (if any)*



B-400



B-300

L' INCARICATO / *The person in charge*	**IL RAPP. DEL CLIENTE** / *Client's Representative*	**IL FORNITORE** / *Supplier*
ROSETTI MARINO *Supply Management dept.* 31/07/24 ROSETTI MARINO SpA Stefano Linari Quality Control Dept.		

QUESTO DOCUMENTO NON SOLLEVA IL FORNITORE DALLA RESPONSABILITA' DI EVENTUALI DIFETTI E/O MALFUNZIONAMENTI RILEVATI DURANTE L'USO /
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ROSETTI MARINO	INSPECTION REPORT	Report No. IR-ASI-0049-01	SHEET 4 di 7
		Data *Date 24-25-26/07/2024*	Rev. *Rev. 0*
PROGETTO *Project* **Base Load Power Hub (BLPH)**	**CLIENTE** *Client* CROSSWIND	**COMMESSA** / *Job* ***123 A90***	**COMMESSA FORNITORE** / *Job Vendor* ALEX SISTEMI
FORNITORE *Supplier: ALEX SISTEMI SPA*	**No. Ordine** *P.O. No. 1724000049 Rev.00*	**OGGETTO** *Object ELE/INST EQUIPMENT ROOM*	



B-200



B-100



B100 ROOF TOP



B100 ROOF TOP

L' INCARICATO / *The person in charge*	IL RAPP. DEL CLIENTE / *Client's Representative*	IL FORNITORE / *Supplier*
31/07/24 ROSETTI MARINO SpA *Supply Management dept.* Stefano Linari Quality Control Dept.		

QUESTO DOCUMENTO NON SOLLEVA IL FORNITORE DALLA RESPONSABILITA' DI EVENTUALI DIFETTI E/O MALFUNZIONAMENTI RILEVATI DURANTE L'USO /
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MOD-PRO-16-Rev. 2016-00 Inspection Report

ROSETTI MARINO	INSPECTION REPORT	Report No. IR-ASI-0049-01	SHEET 5 di 7
		Data *Date 24-25-26/07/2024*	Rev. *Rev. 0*
PROGETTO *Project* **Base Load Power Hub (BLPH)**	**CLIENTE** *Client* CROSSWIND	**COMMESSA** / *Job* ***123 A90***	**COMMESSA FORNITORE** / *Job Vendor* ALEX SISTEMI
FORNITORE *Supplier: ALEX SISTEMI SPA*	**No. Ordine** *P.O. No. 1724000049 Rev.00*	**OGGETTO** *Object ELE/INST EQUIPMENT ROOM*	





B200



B200 -ROOF TOP



L' INCARICATO / *The person in charge*	IL RAPP. DEL CLIENTE / *Client's Representative*	IL FORNITORE / *Supplier*
31/07/24 **ROSETTI MARINO** *Supply Management dept.* ROSETTI MARINO SpA Stefano Linari Supply Management Dept.		

QUESTO DOCUMENTO NON SOLLEVA IL FORNITORE DALLA RESPONSABILITA' DI EVENTUALI DIFETTI E/O MALFUNZIONAMENTI RILEVATI DURANTE L'USO /
This document does not relieve the Supplier of the responsibility of any possible defects and/or misfunctioning arising during the utilisation.

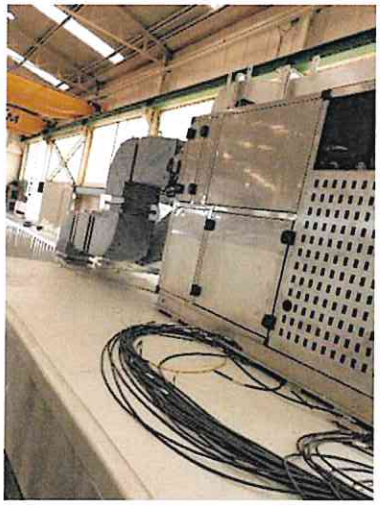
ROSETTI MARINO	INSPECTION REPORT	Report No. IR-ASI-0049-01	SHEET 6 di 7
		Data *Date 24-25-26/07/2024*	Rev. *Rev. 0*
PROGETTO *Project* **Base Load Power Hub (BLPH)**	**CLIENTE** *Client* CROSSWIND	**COMMESSA** / *Job* ***123 A90***	**COMMESSA FORNITORE** / *Job Vendor* ALEX SISTEMI
FORNITORE *Supplier: ALEX SISTEMI SPA*	**No. Ordine** *P.O. No. 1724000049 Rev.00*	**OGGETTO** *Object ELE/INST EQUIPMENT ROOM*	



B300 Inside



B300 ROOF TOP



B300 ROOF TOP



L' INCARICATO / *The person in charge*	IL RAPP. DEL CLIENTE / *Client's Representative*	IL FORNITORE / *Supplier*
31/07/24 ROSETTI MARINO SpA Supply Management dept. Stefano Quality Control Dept.		

QUESTO DOCUMENTO NON SOLLEVA IL FORNITORE DALLA RESPONSABILITA' DI EVENTUALI DIFETTI E/O MALFUNZIONAMENTI RILEVATI DURANTE L'USO /
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MOD-PRO-16-Rev. 2016-00 Inspection Report

ROSETTI MARINO	INSPECTION REPORT	Report No. IR-ASI-0049-01	SHEET 7 di 7
		Data *Date 24-25-26/07/2024*	Rev. *Rev. 0*
PROGETTO *Project* **Base Load Power Hub (BLPH)**	**CLIENTE** *Client* CROSSWIND	**COMMESSA** / *Job* ***123 A90***	**COMMESSA FORNITORE** / *Job Vendor* ALEX SISTEMI
FORNITORE *Supplier: ALEX SISTEMI SPA*	**No. Ordine** *P.O. No. 1724000049 Rev.00*	**OGGETTO** *Object ELE/INST EQUIPMENT ROOM*	



B400 INSIDE



B400 ROOF TOP



NON VALIDO PER IL RILASCIO DELLA FORNITURA / *It is not valid for the supply's release*

L' INCARICATO / *The person in charge*	**IL RAPP. DEL CLIENTE** / *Client's Representative*	**IL FORNITORE** / *Supplier*
ROSETTI MARINO *Supply Management dept* ROSETTI MARINO SpA *Stefano Liman* Quality Control Dept. 31/07/24		

QUESTO DOCUMENTO NON SOLLEVA IL FORNITORE DALLA RESPONSABILITA' DI EVENTUALI DIFETTI E/O MALFUNZIONAMENTI RILEVATI DURANTE L'USO /
This document does not relieve the Supplier of the responsibility of any possible defects and/or misfunctioning arising during the utilisation.

ROSETTI MARINO	Base Load Power Hub (BLPH) Punch List Entry Form	CROSSWIND
Sub-system code:	Sub-system description:	Date: **31/07/2024**

Category "A" ➔ Items to be cleared before the issuance of the RFCC (Ready for Commissioning Certificate).
Category "B" ➔ Items to be cleared before the issuance of the RFOC (Ready For Operations Certificate).
Category "C" ➔ Items to be cleared before Sail Away.

Item N.	Check sheet ref.	Disc.	Tag Number	Raised By	Defect Description / Corrective Action	Attachments	Cat.	Action By	Duty Phase	Deadline date
1.	/	MECH	B-100 / B-200 B-300 / B-400	ROSETTI MARINO	Handles fixed on external doors, are made by plastic material. Temporary key cylinder and handles to be replaced with ones made by SS material (AISI 316L) To be done at RM yard		B	Alex Sistemi		
2.	/	MECH	B-100 / B-200 B-300 / B-400	ROSETTI MARINO	Master key (common for all modules) to be provided		B	Alex Sistemi		
3.	/	ELE	B-100 / B-200 B-300 / B-400	ROSETTI MARINO	Roof-top cables to be fixed with cable ties made by AISI 316L		B	RM		
4.	/	ELE	B-100 / B-200 B-300 / B-400	ROSETTI MARINO	Earthing connection to be provided for all space heaters To be done at RM yard		B	Alex Sistemi		
5.	/	ELE	B-100 / B-200 B-300 / B-400	ROSETTI MARINO	Earthing connection to be provided for all HVAC units To be done at RM yard		B	Alex Sistemi		
6.	/	ELE	B-100 / B-200 B-300 / B-400	ROSETTI MARINO	Identification trafolite tag to be provided for all E&I Items (lights, switch, space heaters, etc.) All trafolyte labels missing will be installed at RM yard		B	Alex Sistemi		
7.	/	ELE	B-100 / B-200 B-300 / B-400	ROSETTI MARINO	HVAC cable tags to be provided on the panel top. Alex Sistemi will supply all loose cable tags. RM will install it		B	Alex Sistemi/ RM		

8.	/	ELE	B-100 / B-200 B-300 / B-400	ROSETTI MARINO	Cable's tag to be provided / fixed at all MCTs (IN/OUT) Alex Sistemi will supply all loose cable tags. RM will install it		B	Alex Sistemi/ RM		
9.	/	MECH	B-100 / B-200 B-300 / B-400	ROSETTI MARINO	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		B	Alex Sistemi		
10.	/	ELE	B-100 / B-200 B-300 / B-400	ROSETTI MARINO	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		B	Alex Sistemi/ RM		
11.	/	HVAC	B-100 / B-200 B-300 / B-400	ROSETTI MARINO	All documentation listed in the SMIR, shall be re issued in final revision and approved by RM and CW		B	Alex Sistemi		
12.	/	HVAC	B-100 / B-200 B-300 / B-400	ROSETTI MARINO	The items to be installed at RM site are coalescent filters and fire dampers. To be completed at RM yard		B	Alex Sistemi		
13.	/	HVAC	B-100 / B-200 B-300 / B-400	ROSETTI MARINO	HVAC Systems to be partially checked on sitefor B-100 and B-200 and completely for B-300and B-400. During FAT activities were tested few logics for B-100 and B-200 HVAC panels: unit changeover (due to fault), space heaters switch-on, overpressure maintaining through VSD control, temperature and differential pressure values reading on HMI). B-300 and B-400 HVAC unitsmust be completed yet. All notes/remarks are indicated in the FAT procedures and reports		B	Alex Sistemi		
14.	/	HVAC	B-100 / B-200 B-300 / B-400	ROSETTI MARINO	B-300 and B-400 HVAC Unit wirings must be completed. To be completed at RM yard		B	Alex Sistemi		

15.	/	HVAC	B-100 / B-200 B-300 / B-400	ROSETTI MARINO	TAG on front panels to be updated following last document revisions. In general, all TAG labels to be completely checked; several are missing. All trafolyte labels missing will be installed at RM yard		B	Alex Sistemi		
16	/	HVAC	B-100 / B-200 B-300 / B-400	ROSETTI MARINO	All balancing and setting activities to be done on site. It was not possible during FAT due to HVAC system installation not completed. All notes/remarks are indicated in the FAT procedures and reports		B	Alex Sistemi		
17	/	HVAC	B-100 / B-200 B-300 / B-400	ROSETTI MARINO	Drainpipes and heating cables are missing, since they must be necessary installed on site to avoid damages. To be completed at RM yard		B	Alex Sistemi		
18	/	HVAC	B-100 / B-200 B-300 / B-400	ROSETTI MARINO	Duct insulation and cladding to be completed on site; it's needed to cover all duct junctions. Alex Sistemi will supply all material RM will install it during re installation of HVAC.		B	Alex Sistemi/ RM		
19	/	ELE	B-100 / B-200 B-300 / B-400	ROSETTI MARINO	Earthing connection to be provided for all electrical conduits. Alex Sistemi will supply all material RM will install it		B	Alex Sistemi/ RM		
20	/	ELE	B-100 / B-200 B-300 / B-400	ROSETTI MARINO	Teflon to be provided between different materials for Hvac ducts unistrut and supports		B	Alex Sistemi		
21	/	ELE	B-100 / B-200 B-300 / B-400	ROSETTI MARINO	External ducts (inside) welding to be cleaning before re installation		B	RM		

Raised by
Contractor / Subcontractor: _____

Checked by
Contractor QA/QC: _____
ROSETTI MARINO SpA
Stefano Linati
Quality Control Dept.
01-08-24
ALEXSISTEMI
31/07/2024

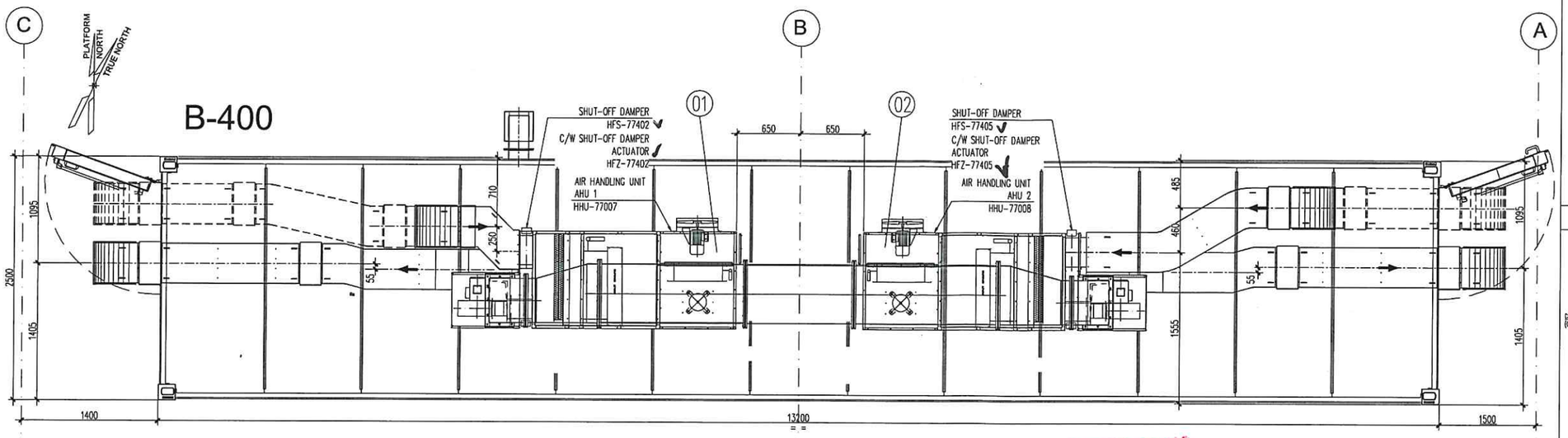
Accepted by
COMPANY: _____ x CROSSWIND
1/08/24

P1/1

HVAC SYSTEM GA

DRAWING NO. 1724000049-HV-DA-00067_1

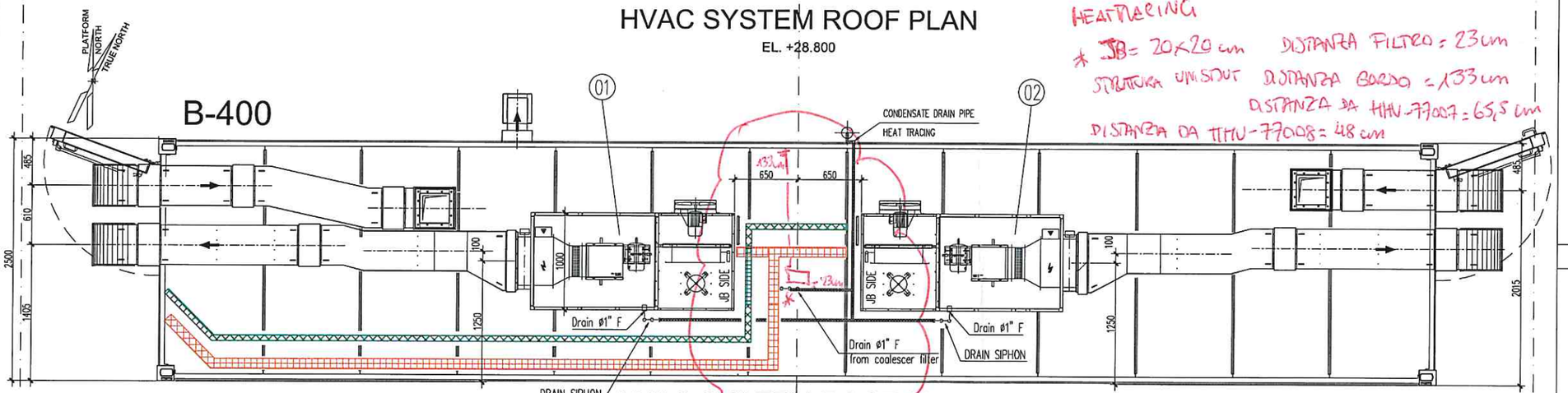
REV. 01



HVAC SYSTEM ROOF PLAN

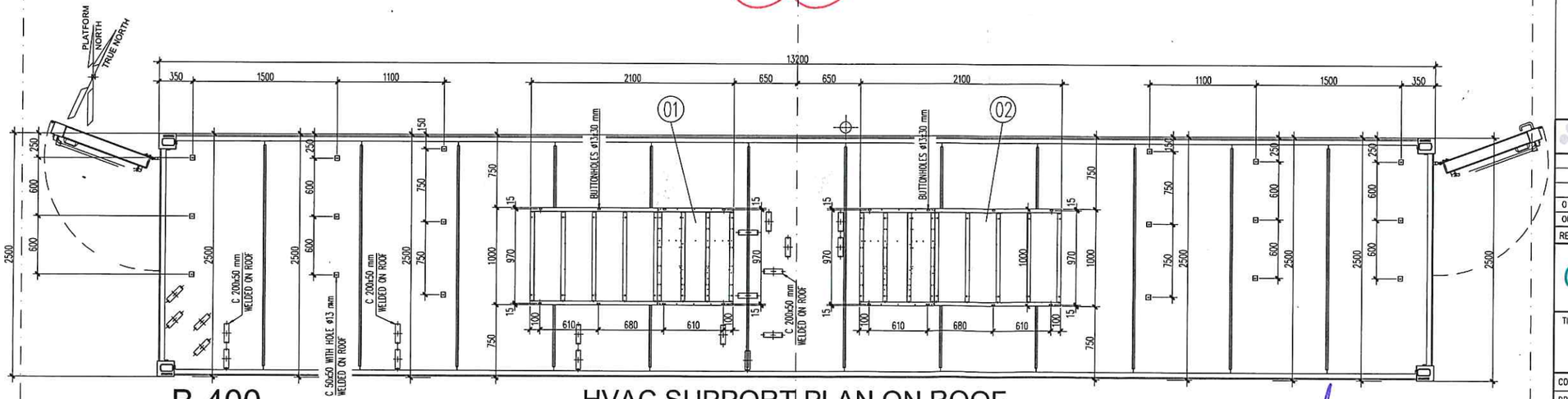
EL. +28.800

HEATTRACING
* JB= 20x20 cm DISTANZA FILTRO = 23cm
STRUTTURA UNISTRUT DISTANZA BORDO = 133cm
DISTANZA DA HHU-77007 = 65,5 cm
DISTANZA DA HHU-77008 = 48 cm



HVAC SYSTEM ROOF PLAN

EL. +28.000



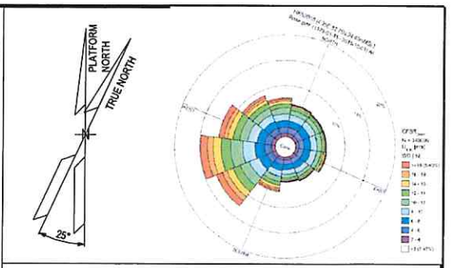
HVAC SUPPORT PLAN ON ROOF

EL. +27.300

B-400

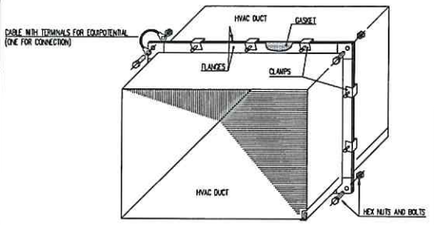
MASTER

ROSETTI MARINO SpA
Stefano Linari
Quality Control Dept. 23/10/24



NOTES

Outdoor ductwork in stainless steel AISI 316L
Indoor ductwork in galvanized steel Z275



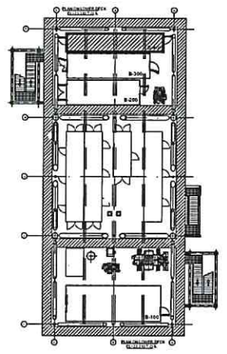
TYPICAL EQUIPOTENTIAL INSTALLING FOR FLANGE CONNECTION INDOOR AIR DUCT

Basket tray Power AISI 316L

Basket tray Instrument AISI 316L

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGTH (Kg)
01	HHU-77007	AIR HANDLING UNIT A	2100	1000	2158	850
02	HHU-77008	AIR HANDLING UNIT B	2100	1000	2158	850

KEY PLAN



ALEXSISTEMI

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	18/10/2024	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
00	13/06/2024	S.Z.	S.S.	M.G.	ISSUE FOR REVIEW (IFR)

CROSSWIND | ROSETTI MARINO

TITLE :
S.S.
MODULE B-400
HVAC SYSTEM – G.A. AND DETAILS

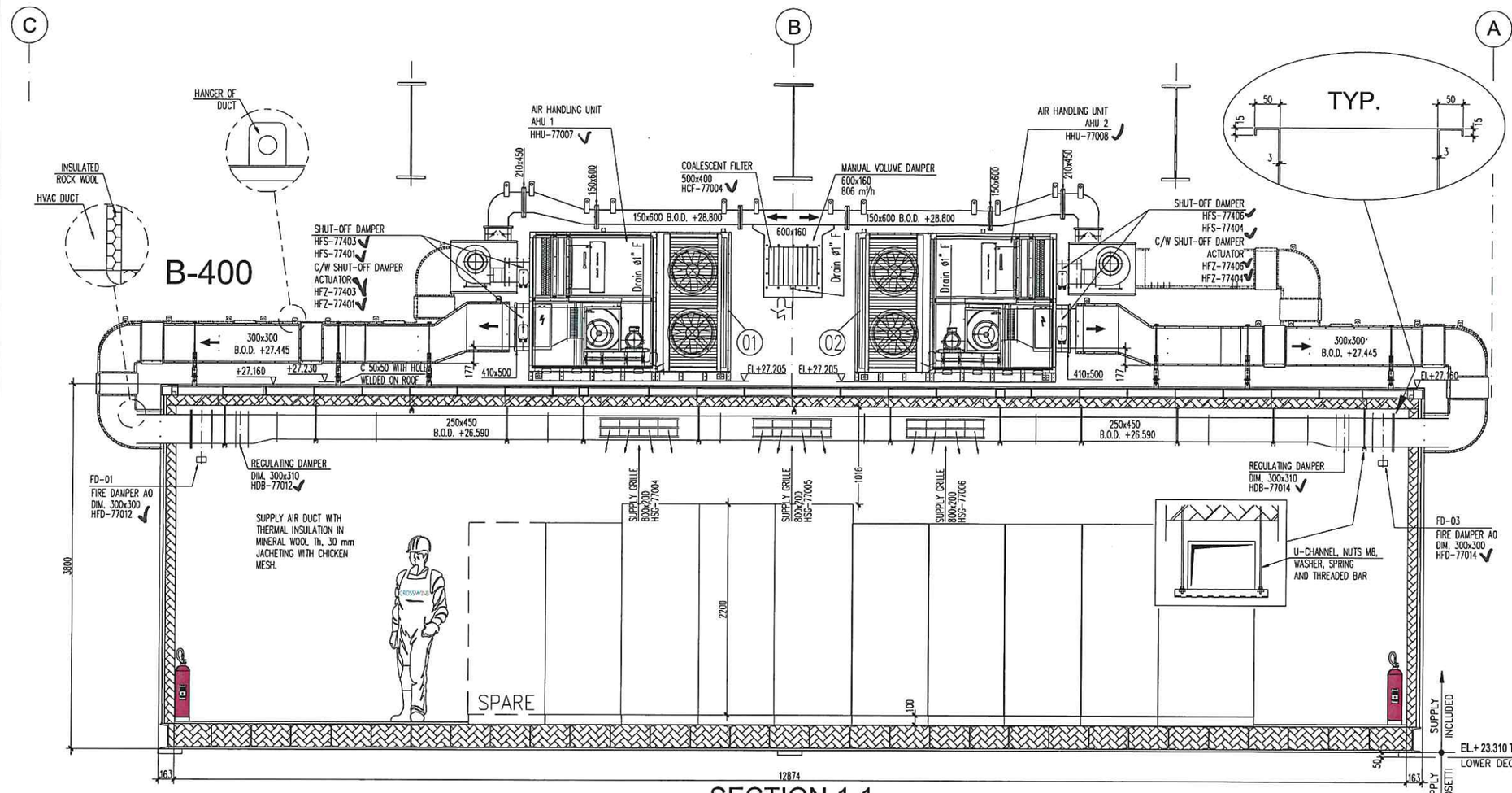
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1 : 25
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 18/10/2024
A1	DRAWING NO. 1724000049-HV-DA-00067	SHEET 001	REV. 01

File Name : 1724000049-HV-DA-00067_1

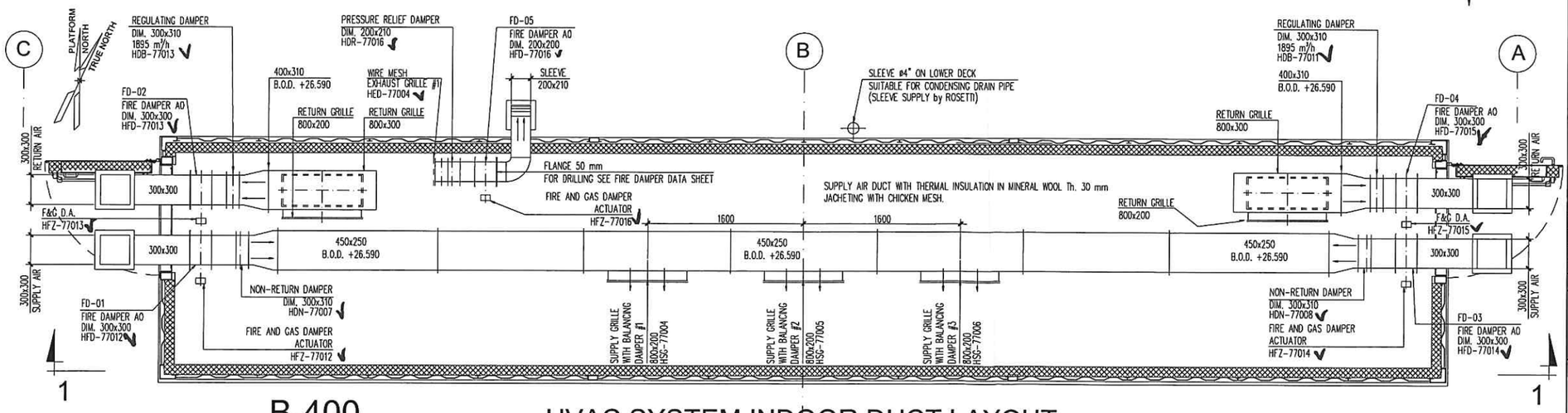
ALEX SISTEMI : Matteo Lorenzini

DRAWING NO. 1724000049-HV-DA-00067_1

REV. 01



SECTION 1-1



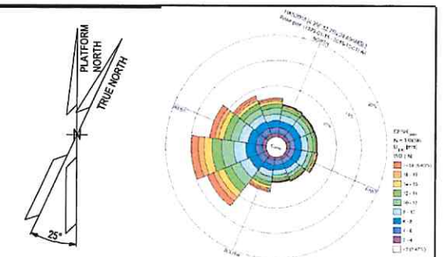
B-400

HVAC SYSTEM INDOOR DUCT LAYOUT

MASTER

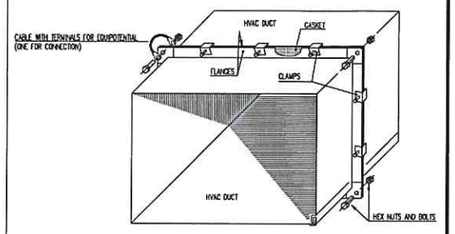
ROSETTI MARINO SpA
Stefano Linari
Quality Control Dept.
24/10/24

ALEX SISTEMI : Matteo Loredesi



NOTES

Outdoor ductwork in stainless steel AISI 316L
Indoor ductwork in galvanized steel Z275



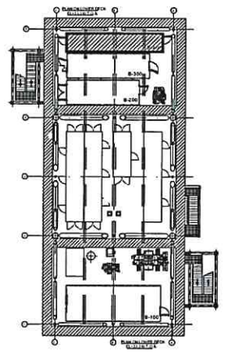
TYPICAL EQUIPOTENTIAL INSTALLING FOR FLANGE CONNECTION INDOOR AIR DUCT

Basket tray Power AISI 316L

Basket tray Instrument AISI 316L

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGTH (Kg)
01	HHU-77007	AIR HANDLING UNIT A	2100	1000	2158	850
02	HHU-77008	AIR HANDLING UNIT B	2100	1000	2158	850

KEY PLAN



ALEXSISTEMI

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	16/10/2024	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
00	13/06/2024	S.Z.	S.S.	M.G.	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

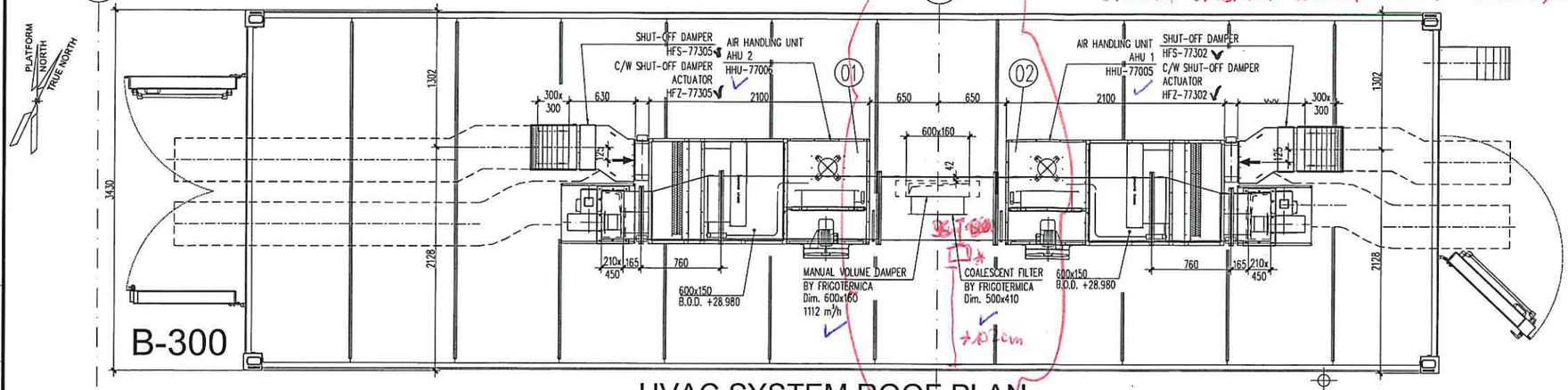
TITLE :
S.S.
MODULE B-400
HVAC SYSTEM – G.A. AND DETAILS

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1 : 25
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 16/10/2024
A1	DRAWING NO. 1724000049-HV-DA-00067	SHEET 002	REV. 01

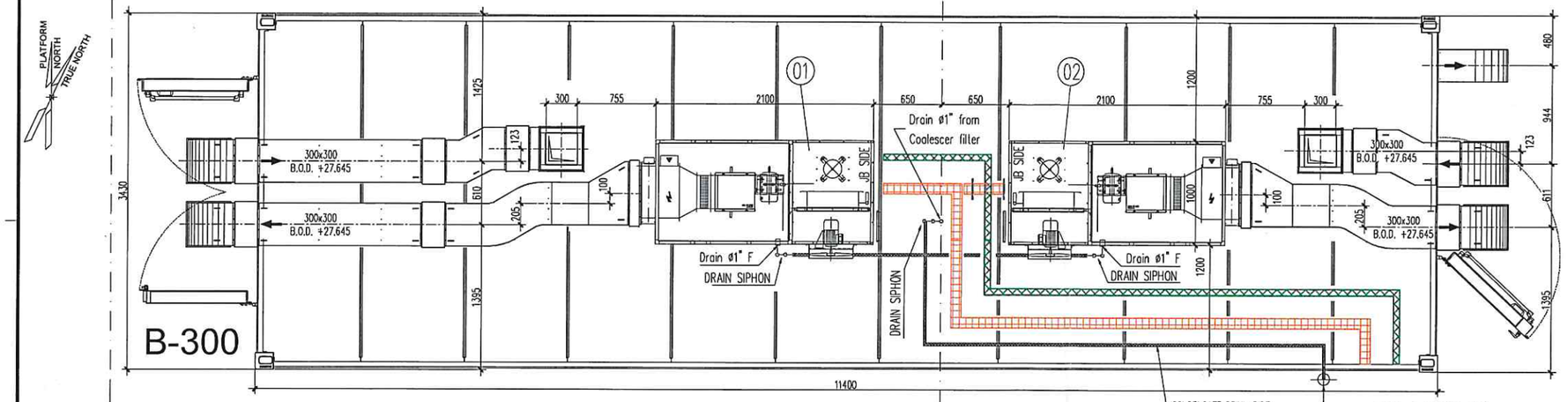
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DRAWING NO. 1724000049-HV-DA-00066_1 | REV. 01

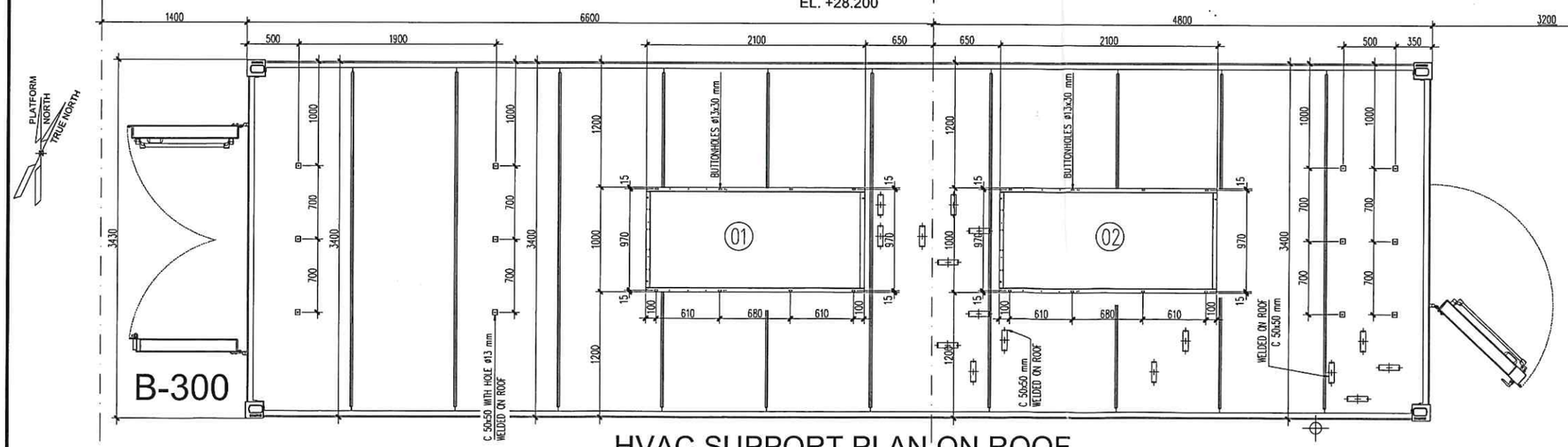
HEAT TRACING
SB: 20 x 20 cm DISTANZA FILTRO: 95 cm
STRUTTURA UNISTRUT DISTANZA BORDO MACCHINA: 102 cm



HVAC SYSTEM ROOF PLAN
EL. +28.980



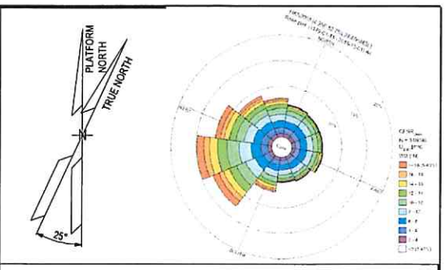
HVAC SYSTEM ROOF PLAN
EL. +28.200



HVAC SUPPORT PLAN ON ROOF
EL. +27.480

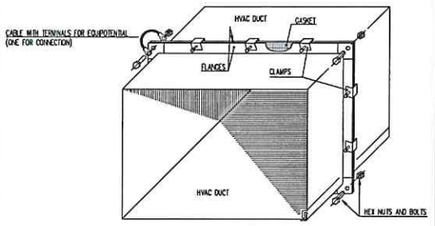
MASTER

ROSETTI MARINO SpA
Stefano Linari
Quality Control Dept.
23/10/24



NOTES

Outdoor ductwork in stainless steel AISI 316L
Indoor ductwork in galvanized steel Z275



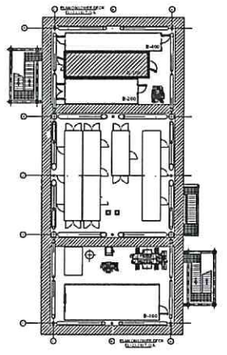
TYPICAL EQUIPOTENTIAL INSTALLING FOR FLANGE CONNECTION INDOOR AIR DUCT

Basket tray Power AISI 316L

Basket tray Instrument AISI 316L

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGTH (Kg)
01	HHU-77005	AIR HANDLING UNIT A	2100	1000	2158	850
02	HHU-77006	AIR HANDLING UNIT B	2100	1000	2158	850

KEY PLAN



ALEX SISTEMI

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	18/10/2024	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
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 M.G. | CHECKED O.A. | APPROVED C.A. | DATE 18/10/2024
A1 | DRAWING NO. 1724000049-HV-DA-00066 | SHEET 001 | REV. 01

File Name : 1724000049-HV-DA-00066_1

ALEX SISTEMI : Matteo Vecchiet

DRAWING NO. 1724000049-HV-DA-00066_1 | REV. 01

TYP.

B-300

AIR HANDLING UNIT AHU 2 HHU-77006

AIR HANDLING UNIT AHU 1 HHU-77005

COALESCENT FILTER 500x400 HCF-77003

MANUAL VOLUME DAMPER 600x160 1112 m³/h

SHUT-OFF DAMPER HFS-77306 HFS-77304 C/W SHUT-OFF DAMPER ACTUATOR HFZ-77306 HFZ-77304

SHUT-OFF DAMPER HFS-77303 HFS-77301 C/W SHUT-OFF DAMPER ACTUATOR HFZ-77303 HFZ-77301

HANGER OF DUCT

INSULATED ROCK WOOL HVAC DUCT

FD-01 FIRE DAMPER AO DIM. 300x300 HFD-77009

FD-03 FIRE DAMPER AO DIM. 300x300 HFD-77007

NON-RETURN DAMPER DIM. 300x310 HDN-77006

NON-RETURN DAMPER DIM. 300x310 HDN-77005

SUPPLY GRILLE 800x200 HSG-77007

SUPPLY GRILLE 800x200 HSG-77006

SUPPLY GRILLE 800x200 HSG-77005

SUPPLY AIR DUCT WITH THERMAL INSULATION IN MINERAL WOOL Th. 30 mm JACHETING WITH CHICKEN MESH.

U-CHANNEL, NUTS M8, WASHER, SPRING AND THREADED BAR

SUPPLY INCLUDED

SUPPLY by ROSETTI

EL.+ 23.310 T.O.S. LOWER DECK

11074 INTERNAL CLEARANCE

11400 OVERALL MODULE DIMENSIONS (OUTSIDE CORNER BLOCKS ON ROOF)

SECTION 1-1

B-300

PRESSURE RELIEF DAMPER DIM. 200x210 HDR-77011

WIRE MESH EXHAUST GRILLE #1 HED-77003

FD-05 FIRE DAMPER AO DIM. 200x210 HFD-77011

FLANGE 50 mm FOR DRILLING SEE FIRE DAMPER DATA SHEET

F&G D.A. HFZ-77011

FD-02 FIRE DAMPER AO DIM. 300x300 HFD-77010

FIRE AND GAS DAMPER ACTUATOR HFZ-77010

REGULATING DAMPER DIM. 300x310 1590 m³/h HDB-77010

RETURN GRILLE 800x200

RETURN GRILLE 800x300

SUPPLY AIR DUCT WITH THERMAL INSULATION IN MINERAL WOOL Th. 30 mm JACHETING WITH CHICKEN MESH.

RETURN GRILLE 800x200

RETURN GRILLE 800x300

REGULATING DAMPER DIM. 300x310 1590 m³/h HDB-77008

FD-04 FIRE DAMPER AO DIM. 300x300 HFD-77008

F&G D.A. HFZ-77008

NON-RETURN DAMPER DIM. 300x310 HDN-77006

FIRE AND GAS DAMPER ACTUATOR HFZ-77009

SUPPLY GRILLE WITH BALANCING DAMPER #3 800x200 HSG-77007

SUPPLY GRILLE WITH BALANCING DAMPER #2 800x200 HSG-77006

SUPPLY GRILLE WITH BALANCING DAMPER #1 800x200 HSG-77005

NON-RETURN DAMPER DIM. 300x310 HDN-77005

FIRE AND GAS DAMPER ACTUATOR HFZ-77007

FD-03 FIRE DAMPER AO DIM. 300x300 HFD-77007

(SLEEVE SUPPLY by ROSETTI) SUITABLE FOR CONDENSING DRAIN PIPE SLEEVE #4" ON LOWER DECK

HVAC SYSTEM INDOOR DUCT LAYOUT

PLATFORM NORTH TRUE NORTH 25°

NOTES

Outdoor ductwork in stainless steel AISI 316L
Indoor ductwork in galvanized steel Z275

CABLE WITH TERMINALS FOR EQUIPOTENTIAL (ONE FOR CONNECTION) HVAC DUCT GASKET FLANGES CLAMPS HVAC DUCT HEX NUTS AND BOLTS

TYPICAL EQUIPOTENTIAL INSTALLING FOR FLANGE CONNECTION INDOOR AIR DUCT

Basket tray Power AISI 316L

Basket tray Instrument AISI 316L

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGTH (Kg)
01	HHU-77005	AIR HANDLING UNIT A	2100	1000	2158	850
02	HHU-77006	AIR HANDLING UNIT B	2100	1000	2158	850

KEY PLAN

ALEXSISTEMI

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	18/10/2024	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
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 M.G. | CHECKED O.A. | APPROVED C.A. | DATE 18/10/2024
A1 | DRAWING NO. 1724000049-HV-DA-00066 | SHEET 002 | REV. 01

File Name : 1724000049-HV-DA-00066_1

MASTER

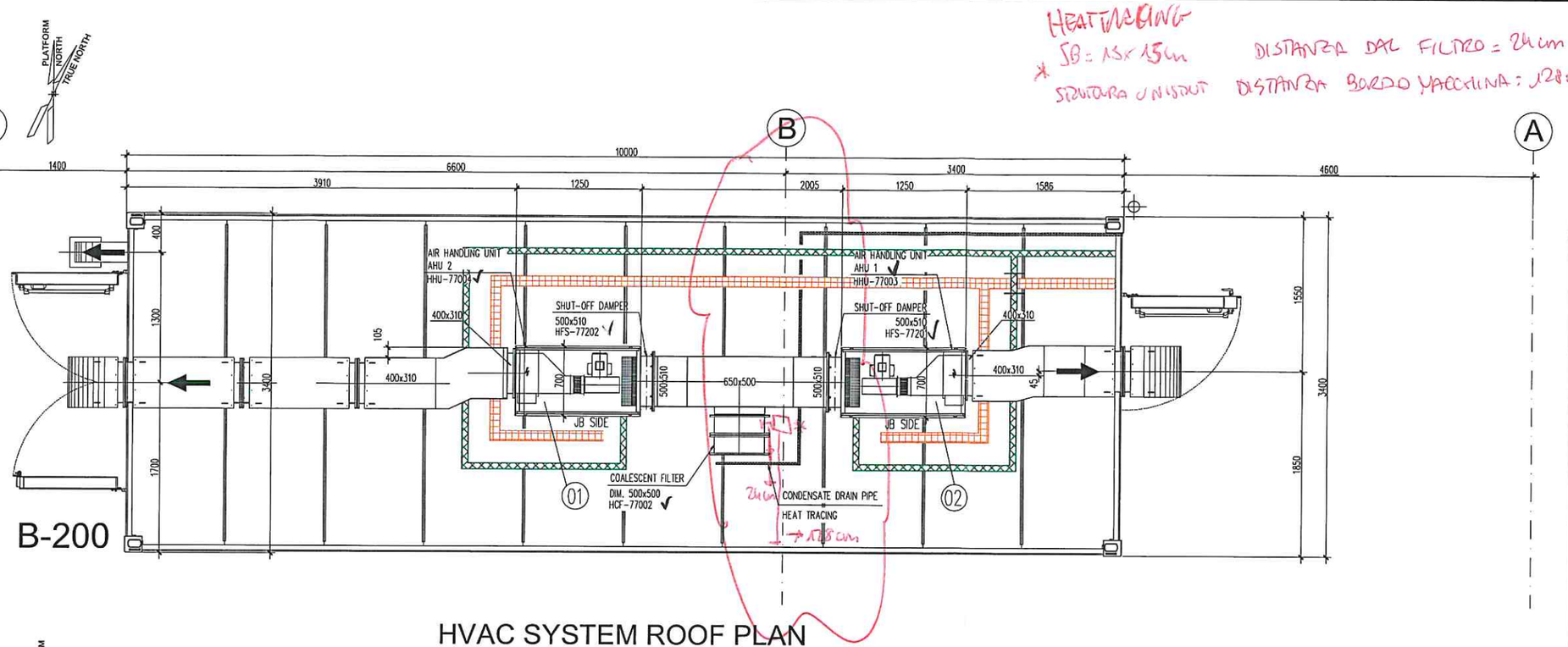
ROSETTI MARINO SpA
Stefano Linari 23/10/24
Quality Control Dept.

ALEX SISTEMI : Matteo Marchesi

DRAWING NO. 1724000049-HV-DA-00065_1

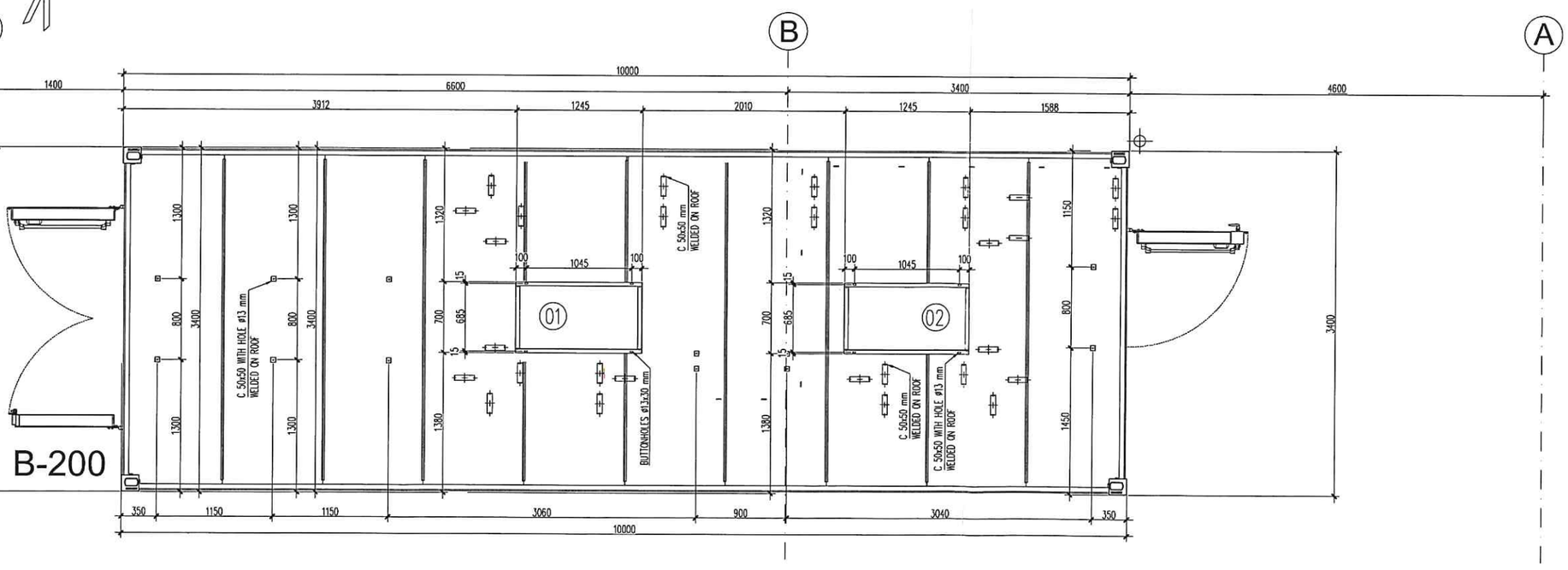
REV. 01

HEATTRACING
* JB = 15x 15cm DISTANZA DAL FILTRO = 24cm
STRUTTURA UNISTRUT DISTANZA BORDO YACHTLINA = 128cm



HVAC SYSTEM ROOF PLAN

EL. +28.800



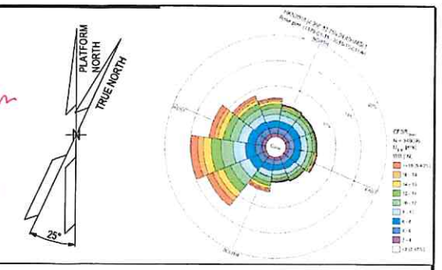
HVAC SUPPORT PLAN ON ROOF

EL. +28.050

MASTER

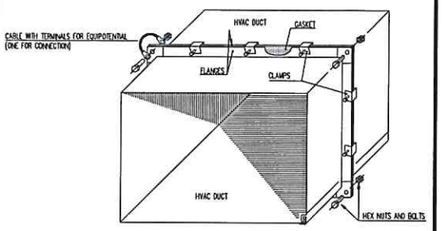
ROSETTI MARINO SpA
Stefano Linari 23/10/24
Quality Control Dept.

ALEX SISTEMI : Carlo Nardi



NOTES

Outdoor ductwork in stainless steel AISI 316L
Indoor ductwork in galvanized steel Z275



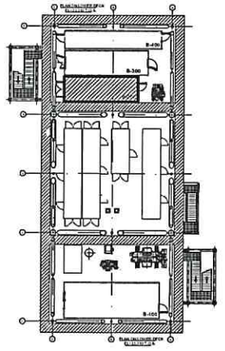
TYPICAL EQUIPOTENTIAL INSTALLING FOR FLANGE CONNECTION INDOOR AIR DUCT

Basket tray Power AISI 316L

Basket tray Instrument AISI 316L

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGTH (Kg)
01	HHU-77003	AIR HANDLING UNIT A	1250	850	900	140
02	HHU-77004	AIR HANDLING UNIT B	1250	850	900	140

KEY PLAN



ALEXSISTEMI

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	18/10/2024	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
00	13/06/2024	S.Z.	S.S.	M.G.	ISSUE FOR REVIEW (IFR)

CROSSWIND

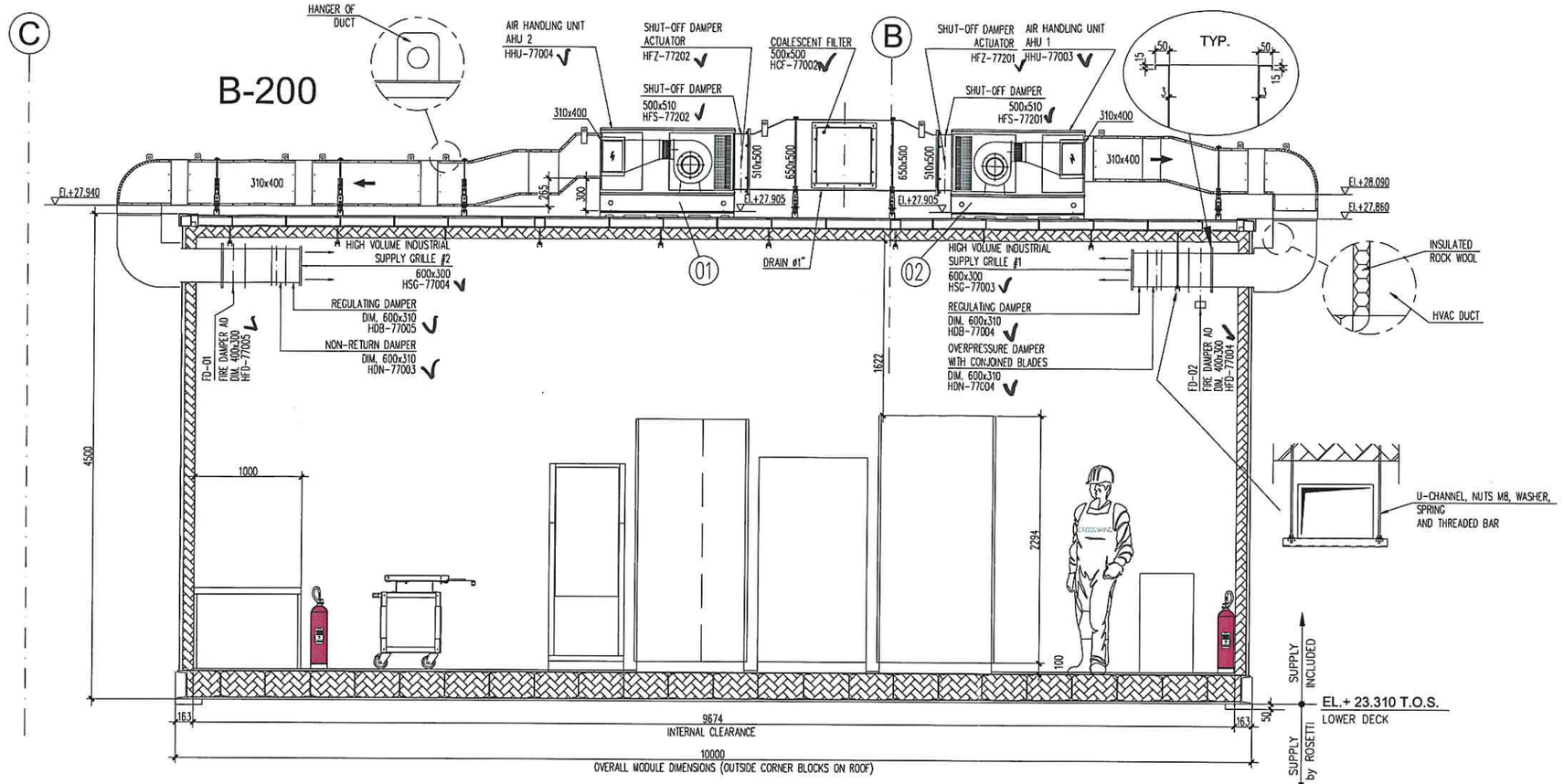
ROSETTI MARINO

TITLE :
S.S.
MODULE B-200
HVAC SYSTEM – G.A. AND DETAILS

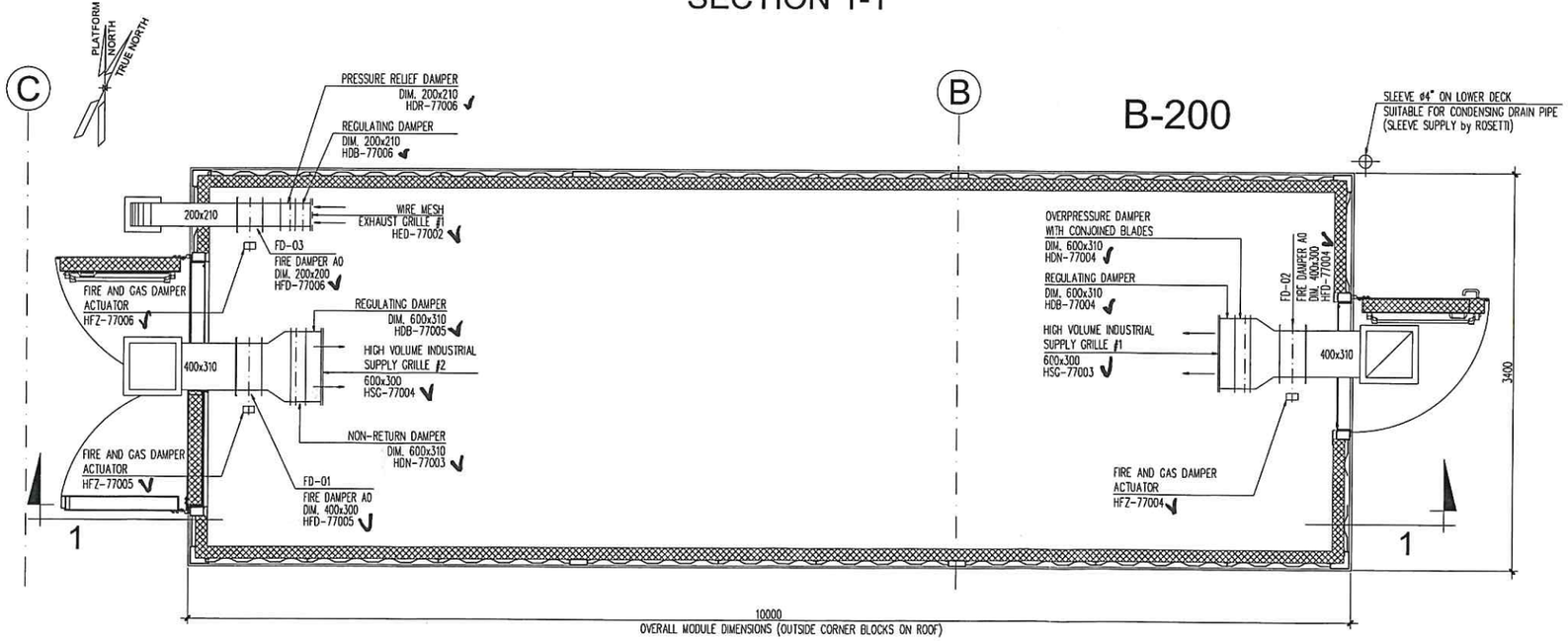
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1 : 25
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 18/10/2024
A1	DRAWING NO. 1724000049-HV-DA-00065		SHEET 001 / REV. 01

File Name : 1724000049-HV-DA-00065_1

DRAWING NO. 1724000049-HV-DA-00065_1 | REV. 01



SECTION 1-1

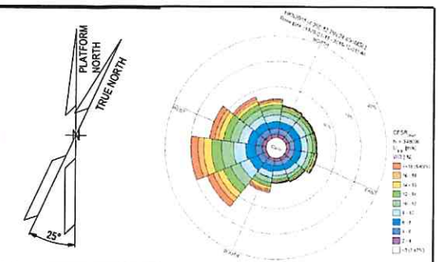


HVAC SYSTEM INDOOR DUCT LAYOUT

MASTER

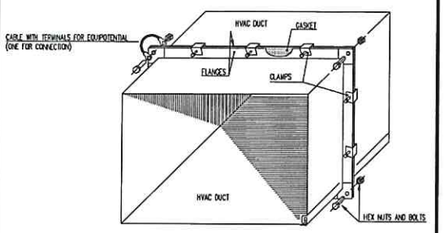
ROSETTI MARINO SpA
Stefano Linari 23/10/24
Quality Control Dept.

ALEX SISTEMI : Matteo Lazzari



NOTES

Outdoor ductwork in stainless steel AISI 316L
Indoor ductwork in galvanized steel Z275



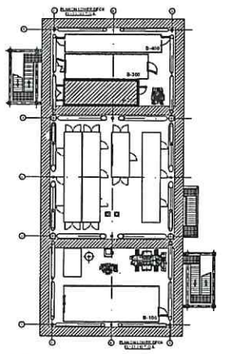
TYPICAL EQUIPOTENTIAL INSTALLING FOR FLANGE CONNECTION INDOOR AIR DUCT

Basket tray Power AISI 316L

Basket tray Instrument AISI 316L

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGTH (Kg)
01	HHU-77003	AIR HANDLING UNIT A	1250	850	900	140
02	HHU-77004	AIR HANDLING UNIT B	1250	850	900	140

KEY PLAN



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	18/10/2024	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
00	13/06/2024	S.Z.	S.S.	M.G.	ISSUE FOR REVIEW (IFR)

CROSSWIND | ROSETTI MARINO

TITLE :
S.S.
MODULE B-200
HVAC SYSTEM – G.A. AND DETAILS

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1 : 25
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 18/10/2024
A1	DRAWING NO. 1724000049-HV-DA-00065	SHEET 002	REV. 01

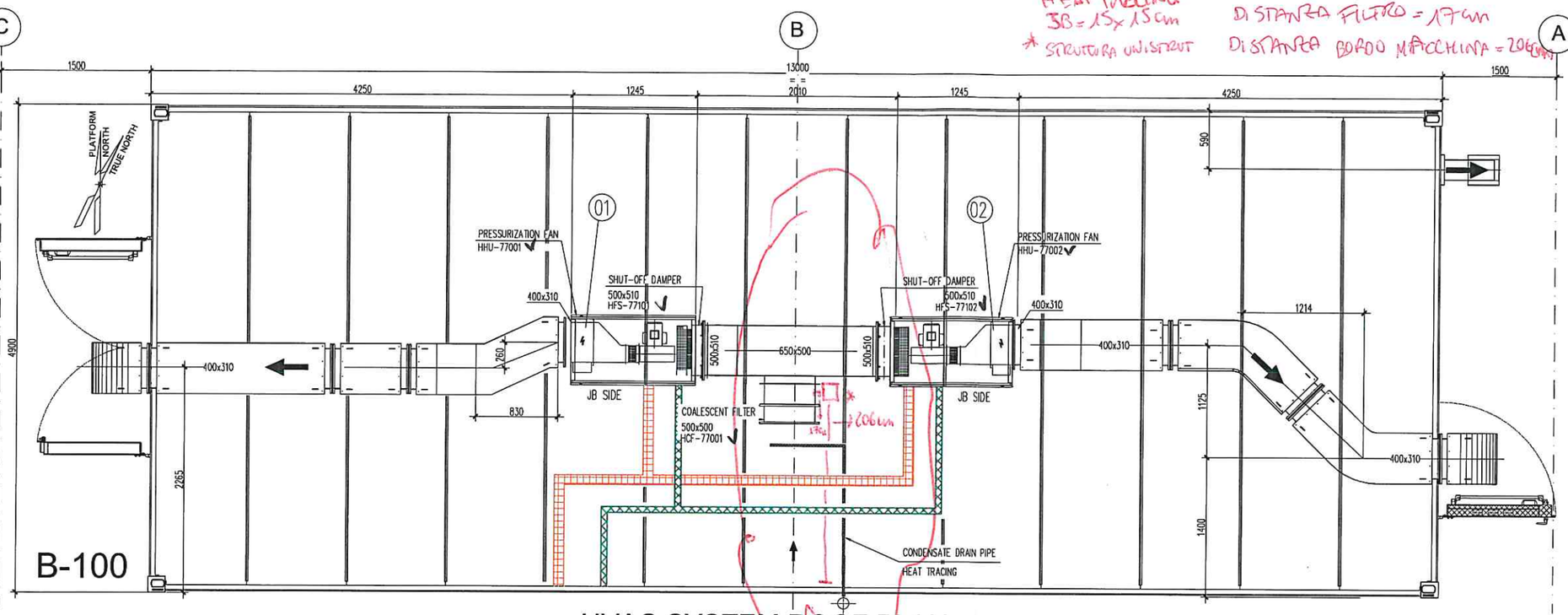
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DRAWING NO. 1724000049-HV-DA-00064_1

REV. 01

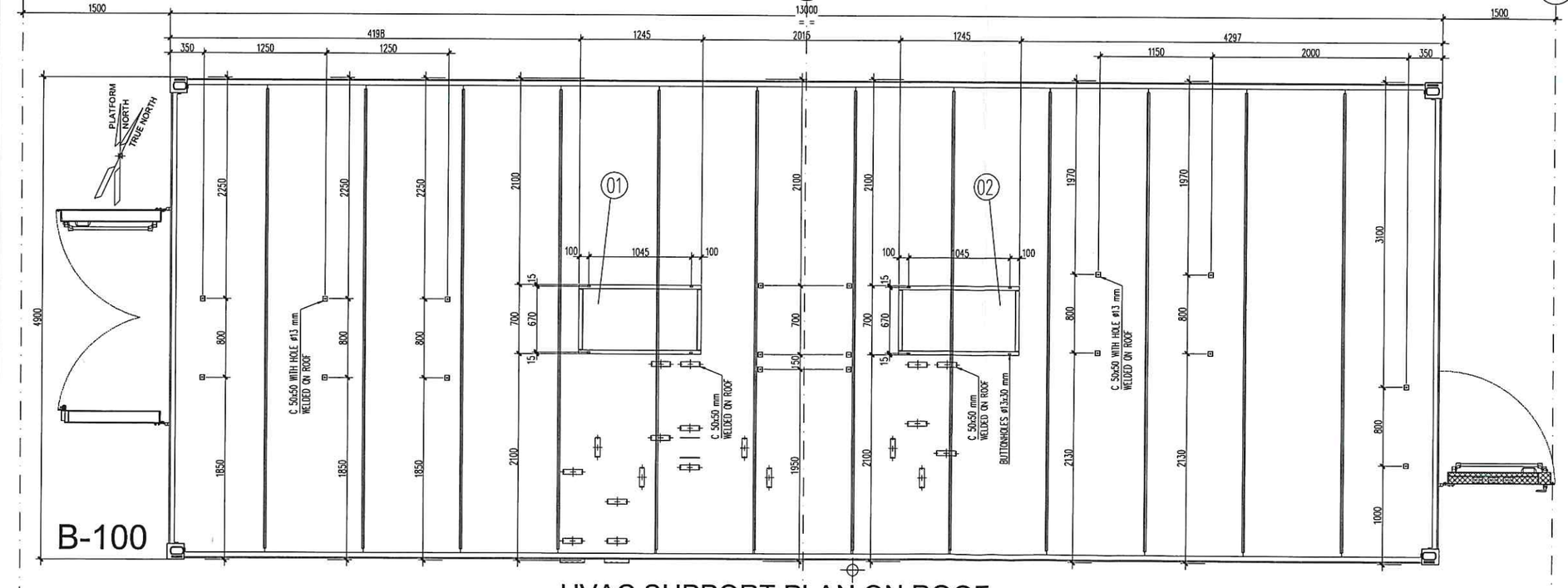
HEAT TRACING
3B = 15x15 cm
* STRUTTURA UNISTRUT

DISTANZA FILTRO = 17cm
DISTANZA BORDO MACCHINA = 206cm



HVAC SYSTEM ROOF PLAN

EL. +28.800



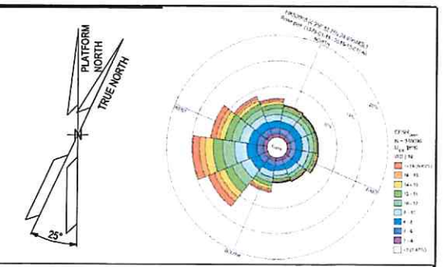
HVAC SUPPORT PLAN ON ROOF

EL. +28.050

MASTER

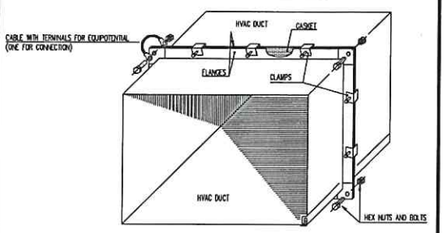
ROSETTI MARINO SpA
Stefano Linari 23/10/24
Quality Control Dept.

ALEX SISTEMI :



NOTES

Outdoor ductwork in stainless steel AISI 316L
Indoor ductwork in galvanized steel Z275



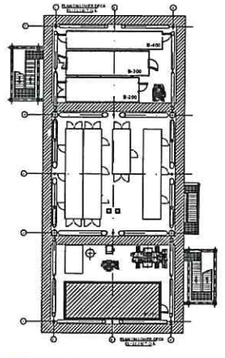
TYPICAL EQUIPOTENTIAL INSTALLING FOR FLANGE CONNECTION INDOOR AIR DUCT

Basket tray Power AISI 316L

Basket tray Instrument AISI 316L

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGTH (Kg)
01	HHU-77001	AIR HANDLING UNIT A	1250	850	900	140
02	HHU-77002	AIR HANDLING UNIT B	1250	850	900	140

KEY PLAN



ALEXSISTEMI

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	18/10/2024	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
00	13/06/2024	S.Z.	S.S.	M.G.	ISSUE FOR REVIEW (IFR)

CROSSWIND

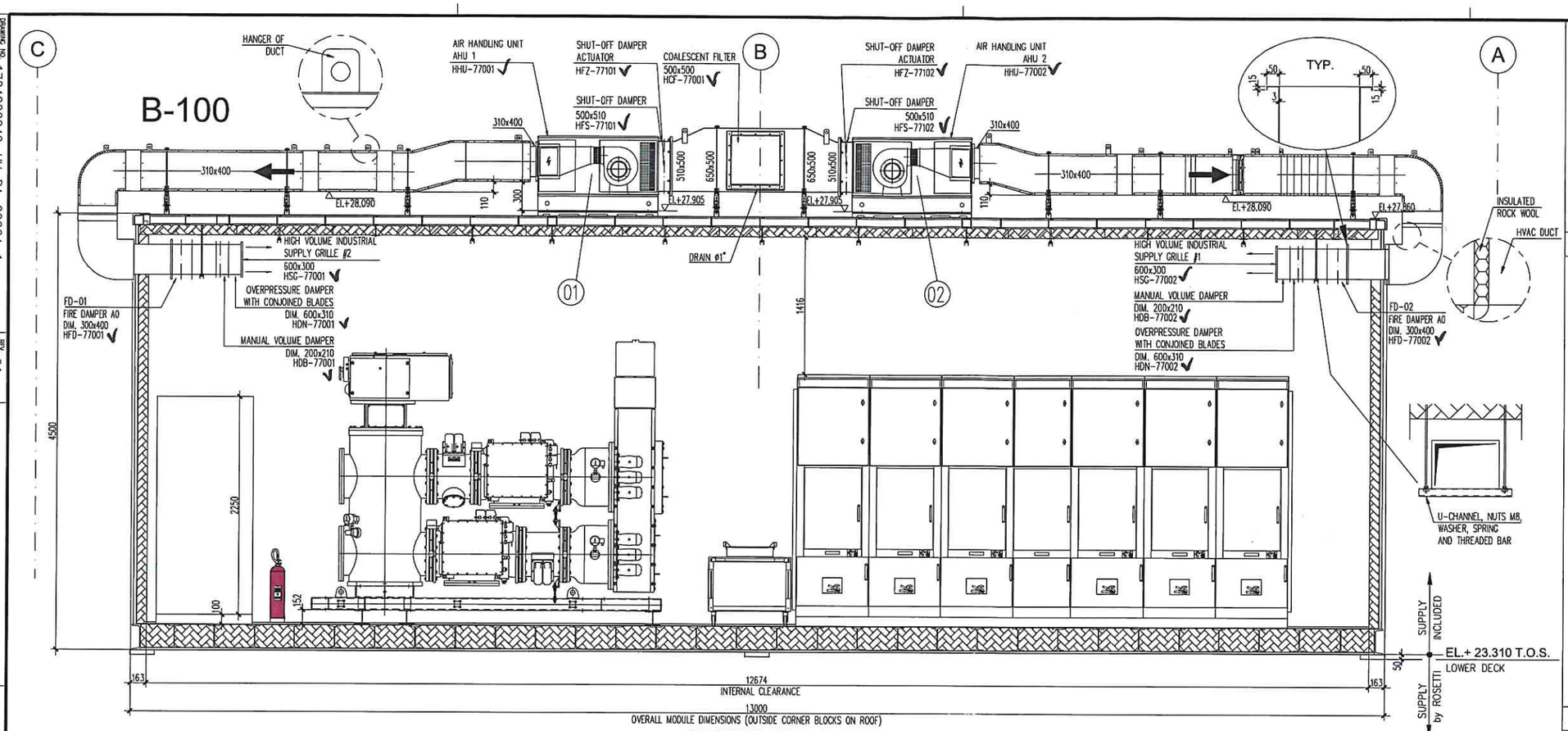
ROSETTI MARINO

TITLE :
S.S.
MODULE B-100
HVAC SYSTEM - G.A. AND DETAILS

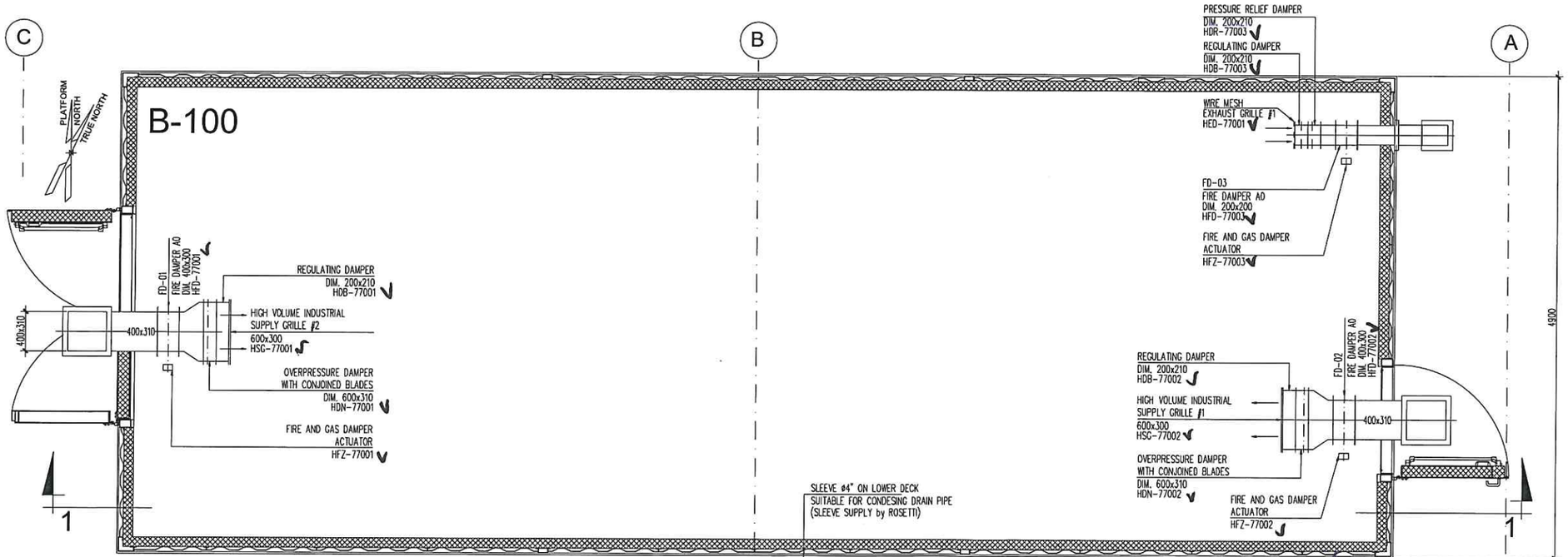
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1 : 25
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 18/10/2024
A1	DRAWING NO. 1724000049-HV-DA-00064		SHEET 001 / REV. 01

File Name : 1724000049-HV-DA-00064_1

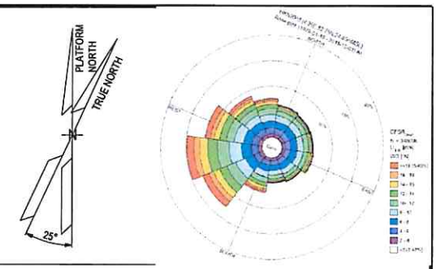
DRAWING NO. 1724000049-HV-DA-00064_1 REV. 01



SECTION 1-1

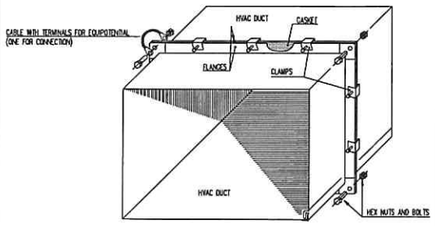


HVAC SYSTEM INDOOR DUCT LAYOUT



NOTES

Outdoor ductwork in stainless steel AISI 316L
Indoor ductwork in galvanized steel Z275



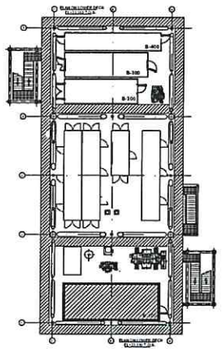
TYPICAL EQUIPOTENTIAL INSTALLING FOR FLANGE CONNECTION INDOOR AIR DUCT

Basket tray Power AISI 316L

Basket tray Instrument AISI 316L

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGTH (Kg)
01	HHU-77001	AIR HANDLING UNIT A	1250	850	900	140
02	HHU-77002	AIR HANDLING UNIT B	1250	850	900	140

KEY PLAN



ALEXSISTEMI

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	18/10/2024	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
00	13/06/2024	S.Z.	S.S.	M.G.	ISSUE FOR REVIEW (IFR)

CROSSWIND — ROSETTI MARINO

TITLE :
S.S.
MODULE B-100
HVAC SYSTEM – G.A. AND DETAILS

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1 : 25
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 18/10/2024
A1	DRAWING NO. 1724000049-HV-DA-00064	SHEET 002	REV. 01

File Name : 1724000049-HV-DA-00064_1

MASTER

ROSETTI MARINO SpA
Stefano Linari
Quality Control Dept.
23/10/24

ALEX SISTEMI : Matteo Mocchi

B-100 – ATTACH. 1

ALEXSISTEMI spa

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV =ISO 9001=

Doc. Name: **Dimensional Check and Visual Inspection**		*Report No.01*
OUR JOB X176-24X	Date 24/07/2024	Page 1

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** HV (66KV 6.6KV) SWITCH ROOM B-100
S/N: B100	**FAT procedure:** 1724000049-QC-PRO-00056

LOCATION : ON SITE ☒ OFF SITE ☐

DATE OF TEST: 24/07/2024

REFERENCE DRAWING: 1724000049-AR-DA-00014 / 1724000049-ST-DD-00010 / 1724000049-AR-DD-00018

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	✓		

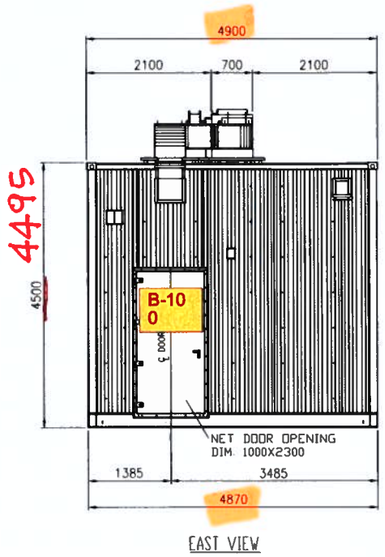
Comments:

DWG attached.

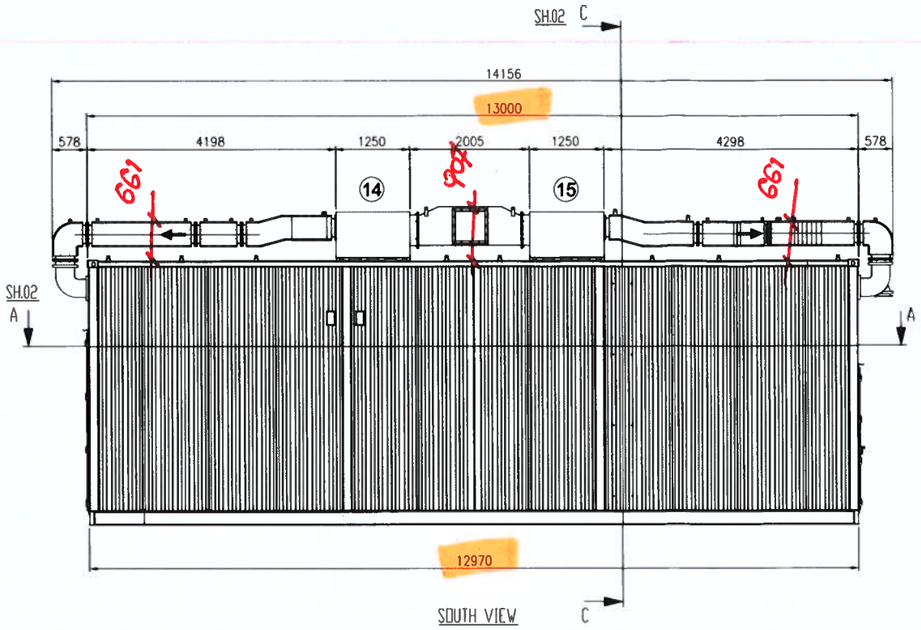
ALEX SISTEMI *Quality Assurance*	Customer	Final Customer	3rd Part	other
ALEXSISTEMI spa	COICEA CUTTALIN ROSETTI MARINO	x CROSSWIND		

Mod.P13.1

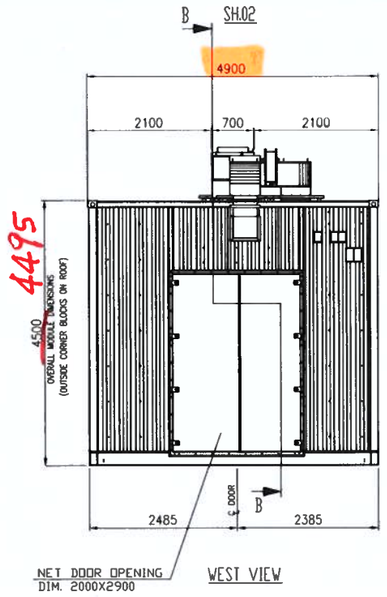
DRAWING NO. 1724000049-AR-DA-00014 REV. 02



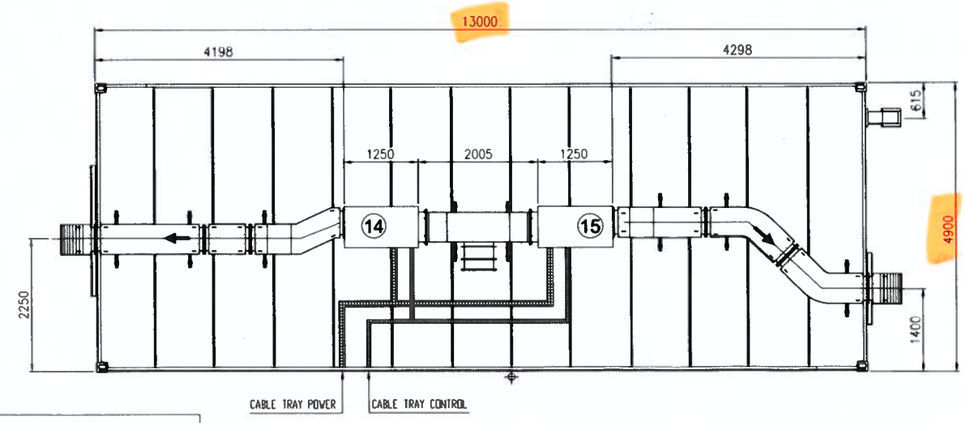
EAST VIEW



SOUTH VIEW



WEST VIEW



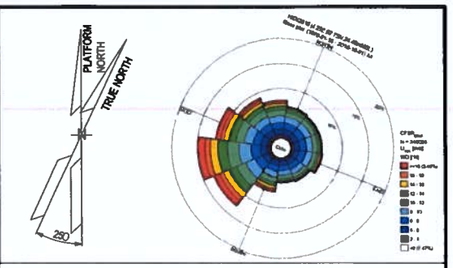
TOP VIEW

EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGTH (Kg)
1	HNA6-AFA70	66kV SWITCHGEAR (GIS)	3689	2025	2651	2600
2	SG-100D1	6.6kV SWITCHGEAR	5180	1800	2500	7400
3	UP-200F1	DC UPS PANEL	1200	850	2105	500
4	BA-200F1	DC UPS BATTERY RACK	1050	510	1272	522
5	CB-200F1	ISOLATOR FOR DC UPS	600	300	800	100
6	CP-100E1	66 kV SWITCHGEAR LOCAL CONTROL PANEL	1000	700	2100	2100
7	B100-HSB-001	DISTRIBUTION & HVAC PANEL - HV MV ROOM	1200	600	1900	400
8	-	SERVICE TROLLEY FOR 6.6kV SWITCHGEAR	943	862	874	70
9	-	TOOL BOX	495	335	920	20
10	-	ELECTRIC SAFETY KIT	230	110	280	20
11	-	TABLE	1000	500	750	50
12	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
13	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
14	HHU-77001A	AIR HANDLING UNIT A	1250	850	900	140
15	HHU-77001B	AIR HANDLING UNIT B	1250	850	900	140
16	HSS-77-001	SPACE HEATER 1	184	145	1100	5
17	HSS-77-002	SPACE HEATER 2	184	145	1100	5
18	HSS-77-003	SPACE HEATER 3	184	145	1100	5

MASTER COPY
INTERNAL TEST

02



NOTE

1) ALL DIMENSIONS ARE IM MM.
~~2) INTERNAL LIGHTS DIMENSION AND QUANTITY TO BE DEFINE AFTER ADVANCE ENGINEERING~~
~~3) GROUDING SYSTEM WILL BE ADDED IN NEXT REVISION~~

remove Note 2 and 3 typical for all sh.

REFERENCE

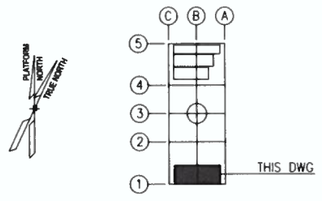
DOCUMENT TITLE	DOCUMENT NUMBER
"B-100" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00064
"B-100" DETAILED DRAWING	1724000049-AR-DD-00018
PAINTING PROCEDURE	1724000049-MAT-PRO-00004

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 s.r.l.

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	28/06/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
01	14/05/24	M.G.	SKV	C.A.	ISSUE FOR REVIEW (IFR)
00	08/02/24	A.G.	SKV	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

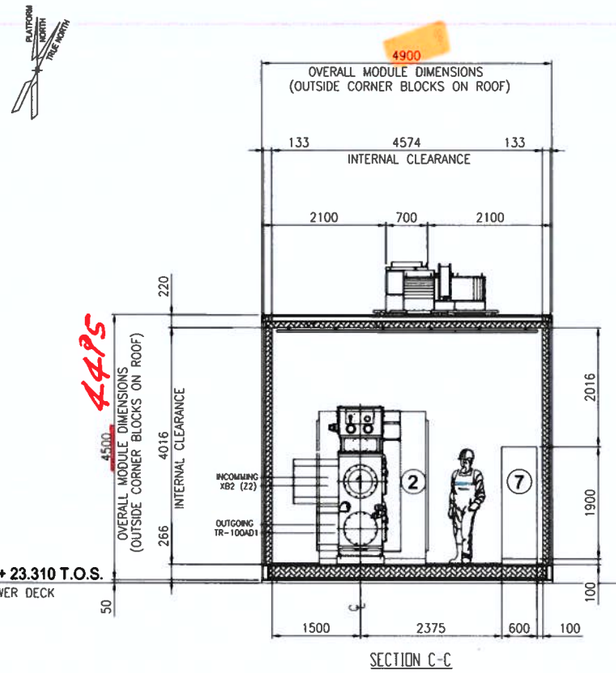
CROSSWIND — ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
B-100 GENERAL ARRANGEMENT DRAWINGS

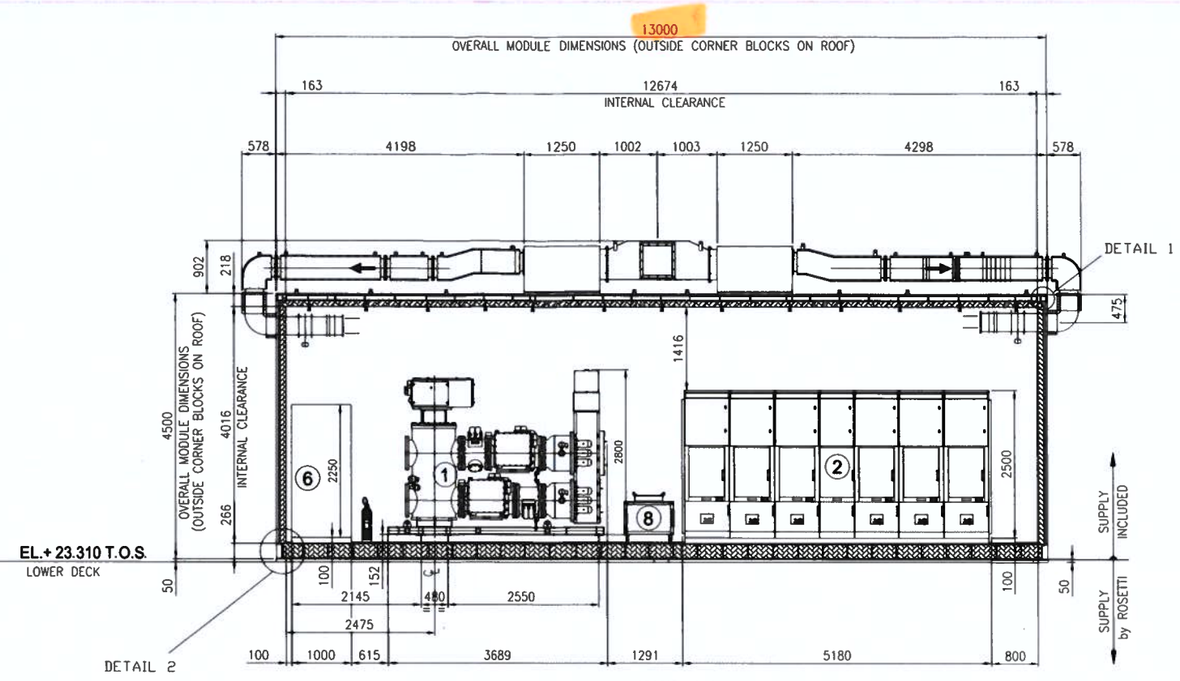
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 28/06/24
A1	DRAWING NO. 1724000049-AR-DA-00014	SHEET 001	REV. 02

File Name : 1724000049-AR-DA-00014-REV.02

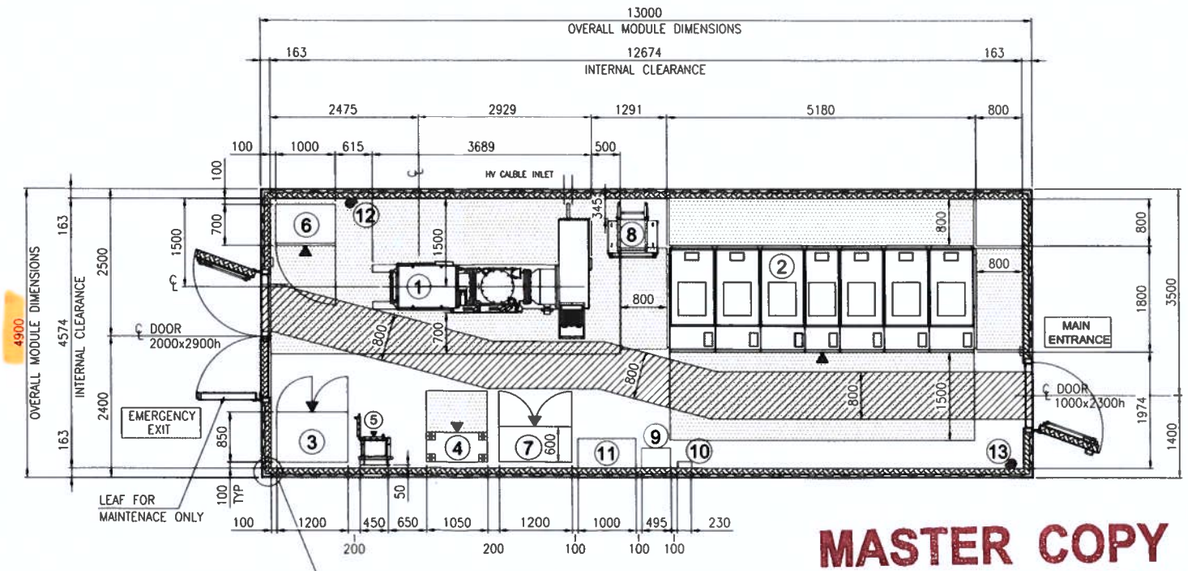
DRAWING NO 1724000049-AR-DA-00014 REV. 02



SECTION C-C



SECTION B-B



SECTION A-A

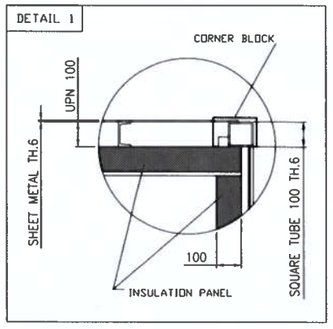
EQUIPMENT LAYOUT

"B-100" HV (66kV/6.6kV) SWITCHGEAR ROOM

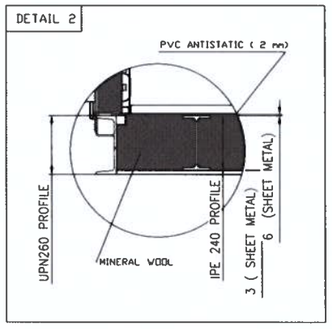
BOTTOM PLAN

02

DETAIL 1

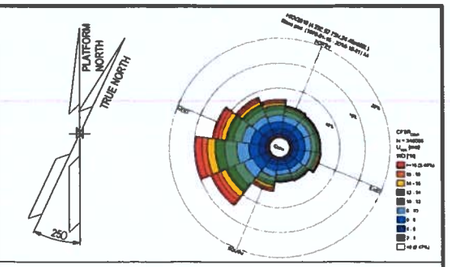


DETAIL 2



EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGTH (Kg)
1	HNA6-AFA70	66kV SWITCHGEAR (GIS)	3689	2025	2651	2600
2	SG-100D1	6.6kV SWITCHGEAR	5180	1800	2500	7400
3	UP-200F1	DC UPS PANEL	1200	850	2105	500
4	BA-200F1	DC UPS BATTERY RACK	1050	510	1272	522
5	CB-200F1	ISOLATOR FOR DC UPS	600	300	800	100
6	CP-100E1	66 kV SWITCHGEAR LOCAL CONTROL PANEL	1000	700	2100	2100
7	B100-HSB-001	DISTRIBUTION & HVAC PANEL - HV MV ROOM	1200	600	1900	400
8	-	SERVICE TROLLEY FOR 6.6kV SWITCHGEAR	943	862	874	70
9	-	TOOL BOX	495	335	920	20
10	-	ELECTRIC SAFETY KIT	230	110	280	20
11	-	TABLE	1000	500	750	50
12	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
13	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
14	HHU-77001A	AIR HANDLING UNIT A	1250	850	900	140
15	HHU-77001B	AIR HANDLING UNIT B	1250	850	900	140
16	HSS-77-001	SPACE HEATER 1	184	145	1100	5
17	HSS-77-002	SPACE HEATER 2	184	145	1100	5
18	HSS-77-003	SPACE HEATER 3	184	145	1100	5



NOTES

1) ALL DIMENSIONS ARE IM MM.
2) INTERNAL LIGHTS DIMENSION AND QUANTITY TO BE DEFINE AFTER ADVANCE ENGINEERING
3) GROUDING SYSTEM WILL BE ADDED IN NEXT REVISION

REFERENCE

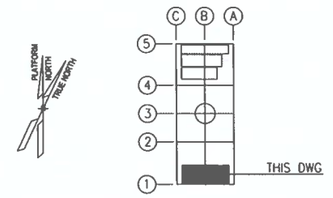
DOCUMENT TITLE	DOCUMENT NUMBER
"B-100" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00064
"B-100" DETAILED DRAWING	1724000049-AR-DD-00018
PAINTING PROCEDURE	1724000049-MAT-PRO-00004

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

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	28/06/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
01	14/05/24	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

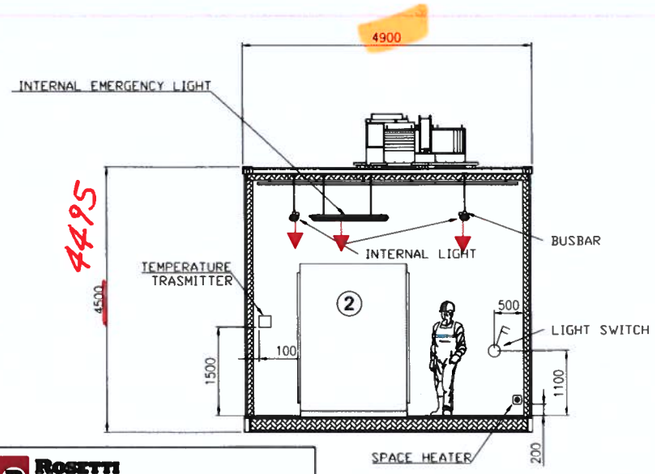
TITLE : BASE LOAD POWER HUB (BLPH)
B-100 GENERAL ARRANGEMENT DRAWINGS

CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 28/06/24
A1	DRAWING NO. 1724000049-AR-DA-00014	SHEET 002	REV. 02

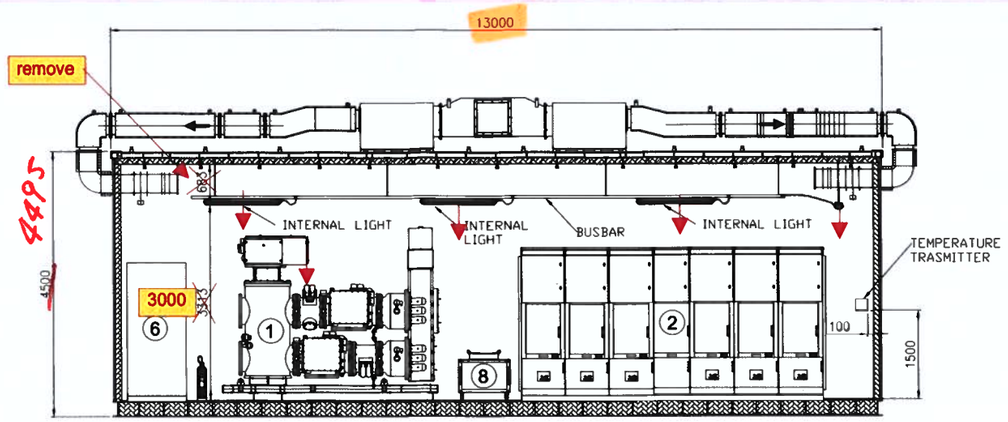
File Name : 1724000049-AR-DA-00014-REV.02

MASTER COPY
INTERNAL TEST

DRAWING NO. 1724000049-AR-DA-00014 REV. 02

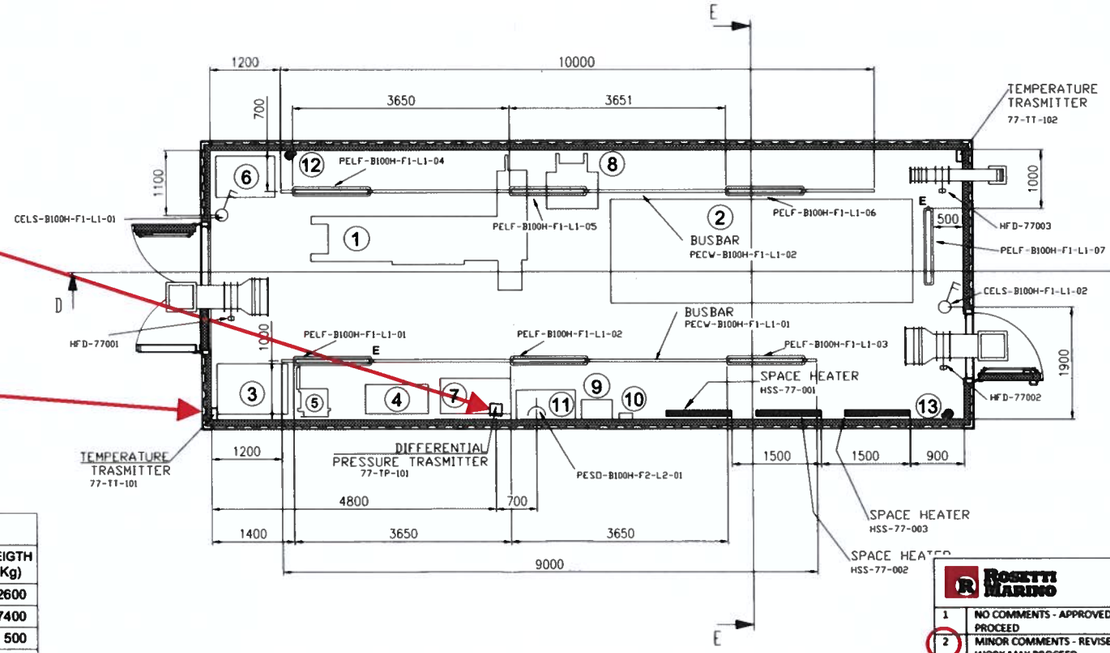


SECTION E-E



SECTION D-D

Verify that TAGs used on this document are the same used on all other documents



A better placing for differential pressure probe need to be evaluated, both for maintenance purposes and better differential pressure detection, preferably not behind other equipments.

A better placing for temperature probe need to be evaluated, both for maintenance purposes and better temperature detection, preferably not behind other equipments.

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	Date
R. Bossi	10/07/2024

EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGTH (Kg)
1	HNA6-AFA70	66kV SWITCHGEAR (GIS)	3689	2025	2651	2600
2	SG-100D1	6.6kV SWITCHGEAR	5180	1800	2500	7400
3	UP-200F1	DC UPS PANEL	1200	850	2105	500
4	BA-200F1	DC UPS BATTERY RACK	1050	510	1272	522
5	CB-200F1	ISOLATOR FOR DC UPS	600	300	800	100
6	CP-100E1	66 kV SWITCHGEAR LOCAL CONTROL PANEL	1000	700	2100	2100
7	B100-HSB-001	DISTRIBUTION & HVAC PANEL - HV ~~MV~~ ROOM	1200	600	1900	400
8	-	SERVICE TROLLEY FOR 6.6kV SWITCHGEAR	943	862	874	70
9	-	TOOL BOX	495	335	920	20
10	-	ELECTRIC SAFETY KIT	230	110	280	20
11	-	TABLE	1000	500	750	50
12	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
13	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
14	~~HHU-77081A~~	AIR HANDLING UNIT A	1250	850	900	140
15	~~HHU-77081B~~	AIR HANDLING UNIT B	1250	850	900	140
16	HSS-77-001	SPACE HEATER 1	184	145	1100	5
17	HSS-77-002	SPACE HEATER 2	184	145	1100	5
18	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 final one will be confirmed in the As-Built issue.

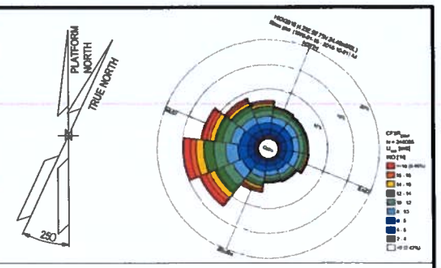
Revise TAG according to all documents (P&IDs, HVAC & Lighting Panel, HVAC GA & Details, etc.)

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	Date
R. Bossi	10/07/2024

MASTER COPY
INTERNAL TEST



NOTE

1) ALL DIMENSIONS ARE IM MM.
2) INTERNAL LIGHTS DIMENSION AND QUANTITY TO BE DEFINE AFTER ADVANCE ENGINEERING.
3) GROUDING SYSTEM WILL BE ADDED IN NEXT REVISION

REFERENCE

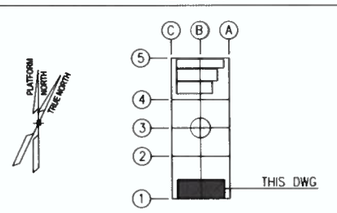
DOCUMENT TITLE	DOCUMENT NUMBER
"B-100" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00064
"B-100" DETAILED DRAWING	1724000049-AR-DD-00018
PAINTING PROCEDURE	1724000049-MAT-PRO-00004

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

Next revision: 03 Accepted For Construction (AFC)

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	28/06/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
01	14/05/24	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-100 GENERAL ARRANGEMENT DRAWINGS

CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 28/06/24
A1	DRAWING NO. 1724000049-AR-DA-00014	SHEET 003	REV. 02

File Name : 1724000049-AR-DA-00014-REV.02

DRAWING NO. 1724000049-ST-DD-00010 REV. 01

13000

OVERALL MODULE DIMENSIONS (OUTSIDE CORNER BLOCKS ON ROOF)

250 | 6175 | 200 | 6175 | 250

250 | 250 | UNP260 | 250 | 250

UNP260 — UNP260

4423 — 4900 — OVERALL MODULE DIMENSIONS (OUTSIDE CORNER BLOCKS ON ROOF)

4970 | 4483 | 120 | 13.5

250 | 250 | UNP260 | 250 | 250

No. 2 HOLES Ø18
FOR M16 SCREW
AT EACH CORNER
(SCREW SUPPLY by ROSETTI)

250 | 200 | 250 | 250

HOLES | 40 | 12970 | 40

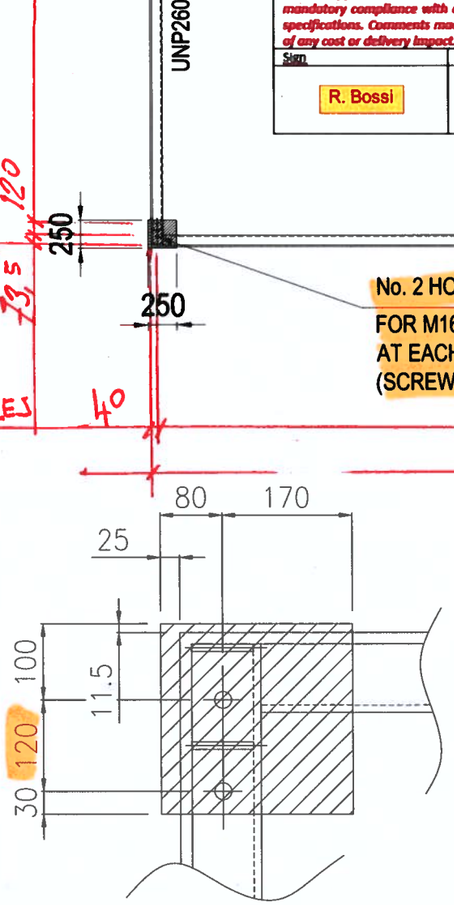
ROSETTI MARINO

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

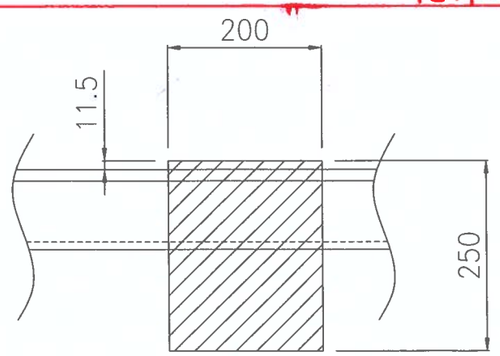
NOTE: Approval doesn't relieve the supplier from mandatory compliance with contractual documents and specifications. Comments made do not imply acceptance of any cost or delivery impact.

Sign	Date
R. Bossi	07/06/2024

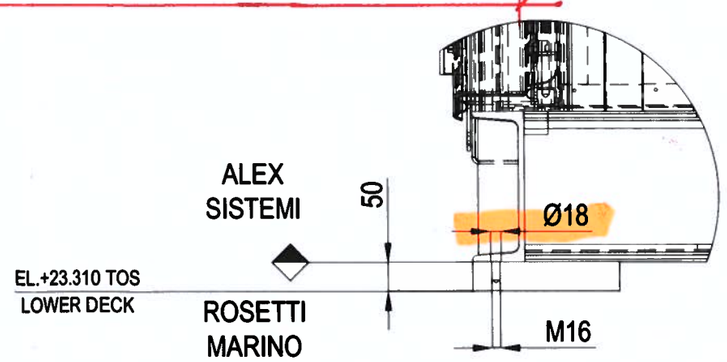
B-100



TYPICAL CORNER PLATE POSITION

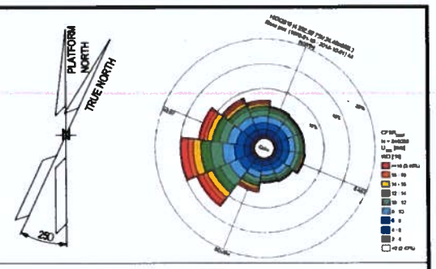


TYPICAL CENTRAL PLATE POSITION



TYPICAL FIXING DETAIL
SCALE 1 : 10

MASTER COPY
INTERNAL TEST



NOTE

1) ALL DIMENSIONS ARE IM MM.

REFERENCE

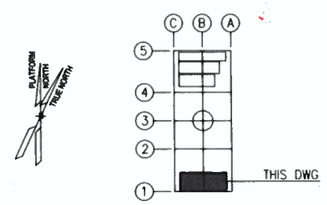
DOCUMENT TITLE	DOCUMENT NUMBER
B-100 STRUCTURAL CALCULATION - E&I SHELTERS	1724000049-ST-CA-00006

LEGEND

Plate 50 mm thk. welded on
Lower Deck - Supply by Rosetti

HOLDS

KEY PLAN



ALEXSISTEMI

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-100 FOUNDATION DRAWING - E&I SHELTERS

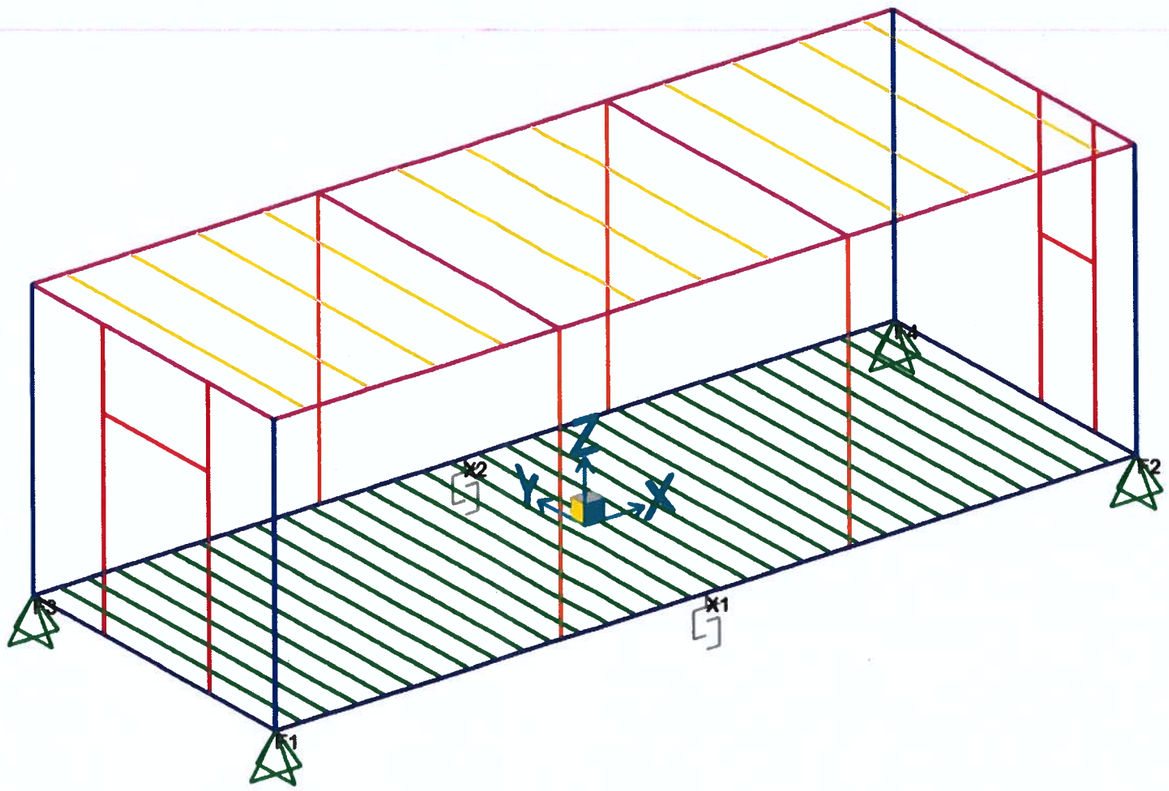
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE N.A.
DRAWN M.G.	CHECKED M.R.	APPROVED O.A.	DATE 03/06/24
A1	DRAWING NO. 1724000049-ST-DD-00010		SHEET 001/002 REV. 01

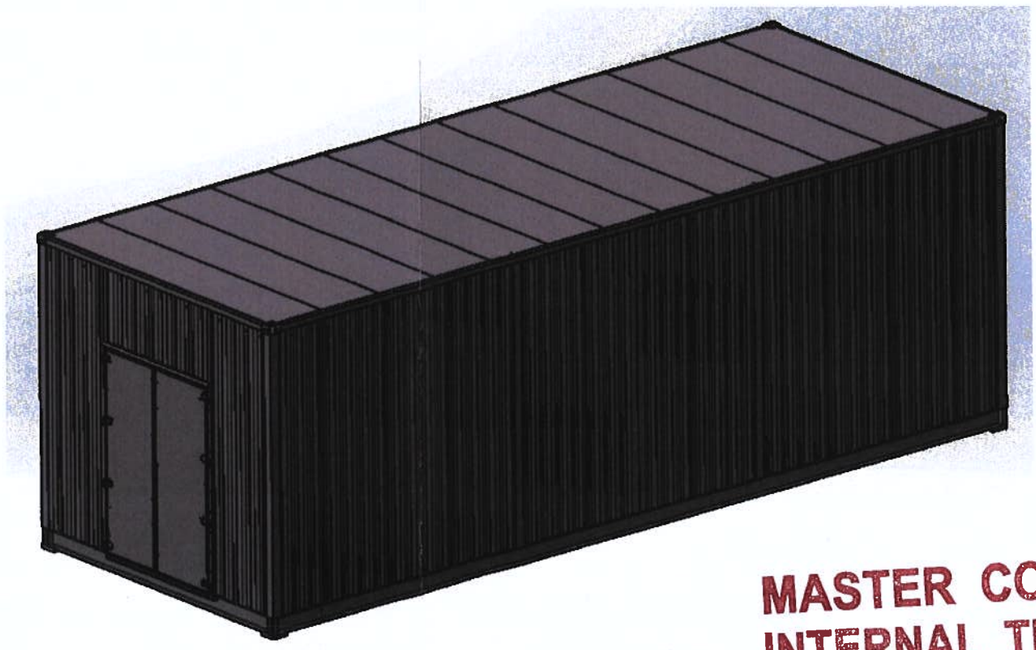
File Name : 1724000049-ST-DD-00010-REV01

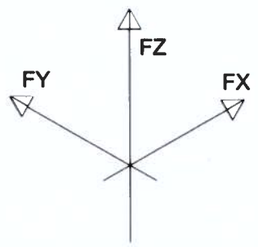
DRAWING NO. 1724000049-ST-DD-00010 REV. 01

TABLE: Joint Reactions

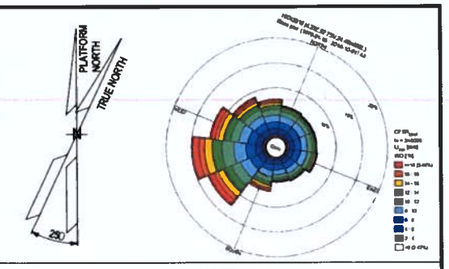
Joint	OutputCase	CaseType	StepType	Fx	Fy	Fz	Mx	My	Mz
Text	Text	Text	Text	KN	KN	KN	KN-m	KN-m	KN-m
F1	DEAD	NonStatic	Last Step	12,82	4,16	31,39	0,00	0,00	0,00
F1	SD	NonStatic	Last Step	16,38	5,33	21,73	0,00	0,00	0,00
F1	LIVE	NonStatic	Last Step	35,09	-0,18	78,19	0,00	0,00	0,00
F1	WIND X	NonStatic	Last Step	-19,31	1,03	-16,62	0,00	0,00	0,00
F1	WIND Y	NonStatic	Last Step	-16,35	-34,39	-38,28	0,00	0,00	0,00
F1	NOT X	NonStatic	Last Step	-0,10	-0,02	-0,03	0,00	0,00	0,00
F1	NOT Y	NonStatic	Last Step	-0,04	-0,10	-0,07	0,00	0,00	0,00
F1	SLU LIVE	Combination		93,68	12,99	190,55	0,00	0,00	0,00
F1	SLU WIND X	Combination		44,02	4,30	118,95	0,00	0,00	0,00
F1	SLU WIND Y	Combination		47,58	-38,21	92,96	0,00	0,00	0,00
F1	SLE LIVE	Combination		64,15	9,20	131,20	0,00	0,00	0,00
F1	SLE WIND X	Combination		4,84	0,09	24,91	0,00	0,00	0,00
F1	SLE WIND Y	Combination		6,92	-24,71	9,75	0,00	0,00	0,00
F2	DEAD	NonStatic	Last Step	-12,89	4,23	31,70	0,00	0,00	0,00
F2	SD	NonStatic	Last Step	-16,73	4,65	38,99	0,00	0,00	0,00
F2	LIVE	NonStatic	Last Step	-34,60	2,23	65,52	0,00	0,00	0,00
F2	WIND X	NonStatic	Last Step	-2,48	-2,84	-9,63	0,00	0,00	0,00
F2	WIND Y	NonStatic	Last Step	16,10	-35,47	-38,40	0,00	0,00	0,00
F2	NOT X	NonStatic	Last Step	-0,10	0,02	0,03	0,00	0,00	0,00
F2	NOT Y	NonStatic	Last Step	0,04	-0,10	-0,07	0,00	0,00	0,00
F2	SLU LIVE	Combination		-93,82	15,71	197,91	0,00	0,00	0,00
F2	SLU WIND X	Combination		-77,15	-0,20	142,47	0,00	0,00	0,00
F2	SLU WIND Y	Combination		-54,85	-39,35	107,95	0,00	0,00	0,00
F2	SLE LIVE	Combination		-64,28	11,02	136,16	0,00	0,00	0,00
F2	SLE WIND X	Combination		-27,33	-4,69	49,50	0,00	0,00	0,00
F2	SLE WIND Y	Combination		-14,32	-27,53	29,36	0,00	0,00	0,00
F3	DEAD	NonStatic	Last Step	12,94	-4,19	31,46	0,00	0,00	0,00
F3	SD	NonStatic	Last Step	16,46	-5,46	21,91	0,00	0,00	0,00
F3	LIVE	NonStatic	Last Step	34,14	0,36	76,92	0,00	0,00	0,00
F3	WIND X	NonStatic	Last Step	-19,52	-1,01	-16,62	0,00	0,00	0,00
F3	WIND Y	NonStatic	Last Step	2,37	-24,36	12,03	0,00	0,00	0,00
F3	NOT X	NonStatic	Last Step	-0,10	0,02	-0,03	0,00	0,00	0,00
F3	NOT Y	NonStatic	Last Step	0,04	-0,10	0,07	0,00	0,00	0,00
F3	SLU LIVE	Combination		92,65	-13,21	189,20	0,00	0,00	0,00
F3	SLU WIND X	Combination		48,71	-22,20	133,26	0,00	0,00	0,00
F3	SLU WIND Y	Combination		74,98	-50,22	167,64	0,00	0,00	0,00
F3	SLE LIVE	Combination		63,49	-9,37	130,33	0,00	0,00	0,00
F3	SLE WIND X	Combination		10,53	-18,05	40,41	0,00	0,00	0,00
F3	SLE WIND Y	Combination		25,85	-34,40	60,46	0,00	0,00	0,00
F4	DEAD	NonStatic	Last Step	-12,88	-4,20	30,83	0,00	0,00	0,00
F4	SD	NonStatic	Last Step	-16,11	-4,52	37,51	0,00	0,00	0,00
F4	LIVE	NonStatic	Last Step	-34,62	-2,41	65,64	0,00	0,00	0,00
F4	WIND X	NonStatic	Last Step	-2,36	2,82	-9,63	0,00	0,00	0,00
F4	WIND Y	NonStatic	Last Step	-2,12	-23,11	12,15	0,00	0,00	0,00
F4	NOT X	NonStatic	Last Step	-0,10	-0,02	0,03	0,00	0,00	0,00
F4	NOT Y	NonStatic	Last Step	-0,04	-0,10	0,07	0,00	0,00	0,00
F4	SLU LIVE	Combination		-93,03	-16,01	194,92	0,00	0,00	0,00
F4	SLU WIND X	Combination		-81,63	-17,62	154,59	0,00	0,00	0,00
F4	SLU WIND Y	Combination		-81,34	-48,74	180,72	0,00	0,00	0,00
F4	SLE LIVE	Combination		-63,76	-11,25	134,07	0,00	0,00	0,00
F4	SLE WIND X	Combination		-32,13	-12,95	62,45	0,00	0,00	0,00
F4	SLE WIND Y	Combination		-31,96	-31,10	77,70	0,00	0,00	0,00
X1	DEAD	NonStatic	Last Step	0,00	0,01	37,72	0,00	0,00	0,00
X1	SD	NonStatic	Last Step	0,00	0,01	44,32	0,00	0,00	0,00
X1	LIVE	NonStatic	Last Step	0,00	0,08	103,90	0,01	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	0,14	271,37	0,01	0,00	0,00
X1	SLU WIND X	Combination		0,00	0,11	224,62	0,01	0,00	0,00
X1	SLU WIND Y	Combination		0,00	0,11	224,62	0,01	0,00	0,00
X1	SLE LIVE	Combination		0,00	0,10	185,94	0,01	0,00	0,00
X1	SLE WIND X	Combination		0,00	0,02	82,05	0,00	0,00	0,00
X1	SLE WIND Y	Combination		0,00	0,02	82,05	0,00	0,00	0,00
X2	DEAD	NonStatic	Last Step	0,00	-0,01	37,74	0,00	0,00	0,00
X2	SD	NonStatic	Last Step	0,00	-0,01	43,58	0,00	0,00	0,00
X2	LIVE	NonStatic	Last Step	0,00	-0,08	102,92	-0,01	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	-0,14	268,80	-0,01	0,00	0,00
X2	SLU WIND X	Combination		0,00	-0,10	222,49	-0,01	0,00	0,00
X2	SLU WIND Y	Combination		0,00	-0,10	222,49	-0,01	0,00	0,00
X2	SLE LIVE	Combination		0,00	-0,09	184,23	-0,01	0,00	0,00
X2	SLE WIND X	Combination		0,00	-0,02	81,32	0,00	0,00	0,00
X2	SLE WIND Y	Combination		0,00	-0,02	81,32	0,00	0,00	0,00







MASTER COPY
INTERNAL TEST



NOTE

1) ALL DIMENSIONS ARE IM MM.

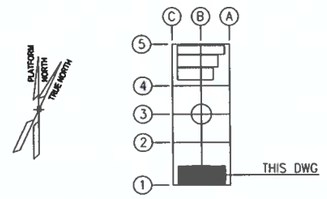
REFERENCE

DOCUMENT TITLE	DOCUMENT NUMBER
B-100 STRUCTURAL CALCULATION - E&I SHELTERS	1724000049-ST-CA-00006

LEGEND

HOLDS

KEY PLAN



ALEXSISTEMI spa

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-100 FOUNDATION DRAWING - E&I SHELTERS

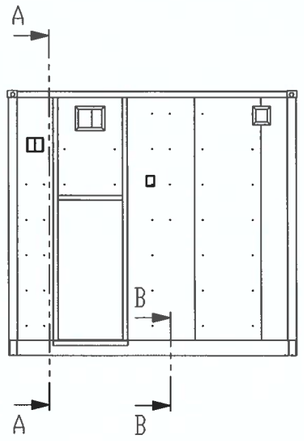
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE N.A.
DRAWN M.G.	CHECKED M.R.	APPROVED O.A.	DATE 03/06/24
A1	DRAWING NO. 1724000049-ST-DD-00010	SHEET 002/002	REV. 01

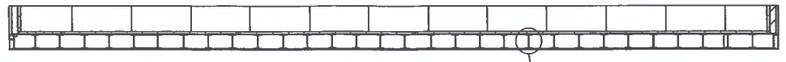
File Name : 1724000049-ST-DD-00010-REV.01

DRAWING NO. 1724000049-AR-DD-00018 | REV. 02

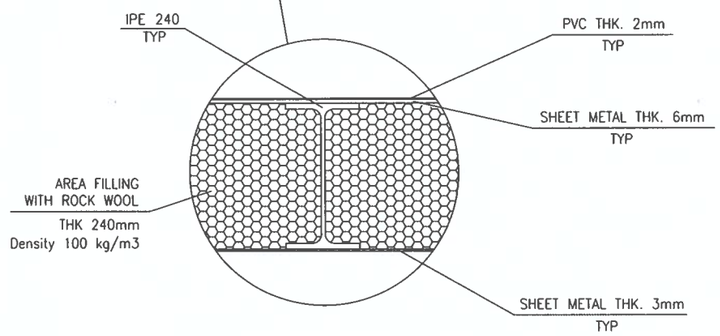
MODULE B-100

REFERENCE	
DOCUMENT TITLE	DOCUMENT NUMBER
"B-100" STRUCTURAL CALCULATION	1724000049-ST-CA-00006
Weld Procedure Specifications (WPS), Weld Procedure Qualification Report (WPQR), Welding Map and Welders Qualifications	1724000049-WEL-RE-00003

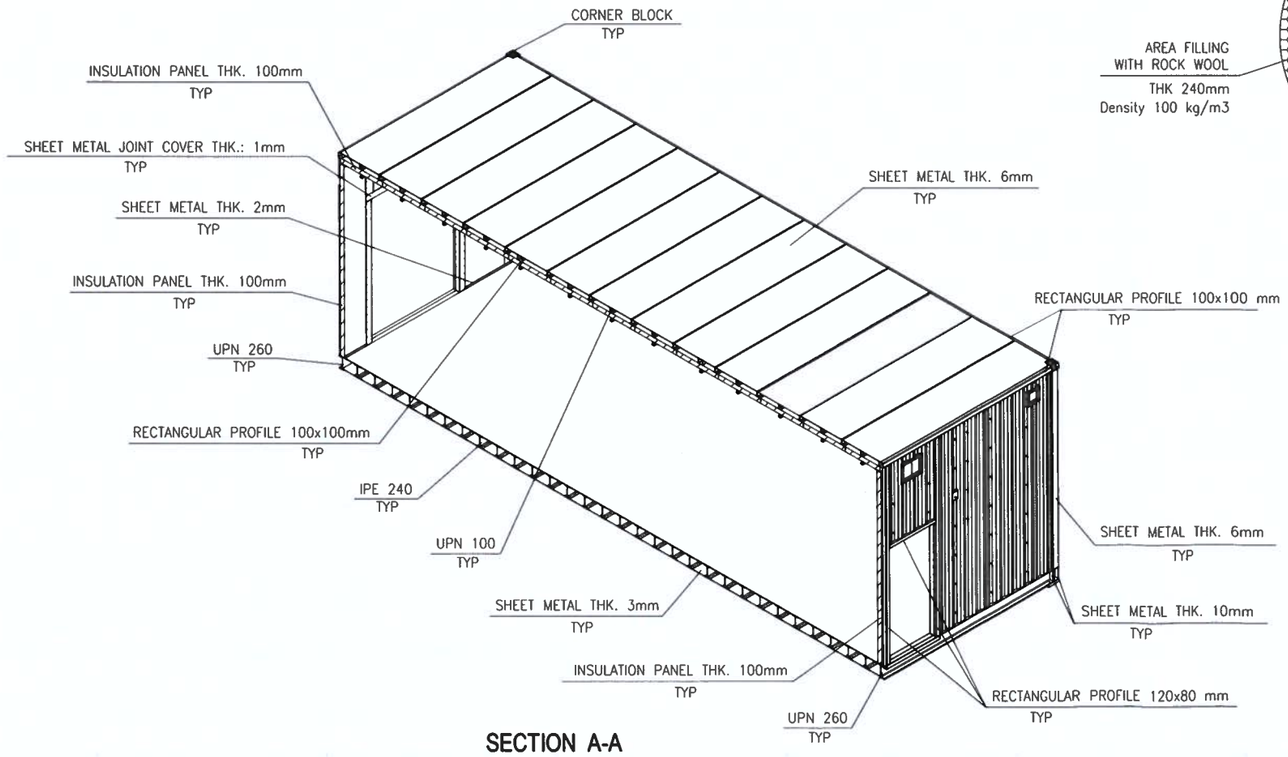




SECTION B-B

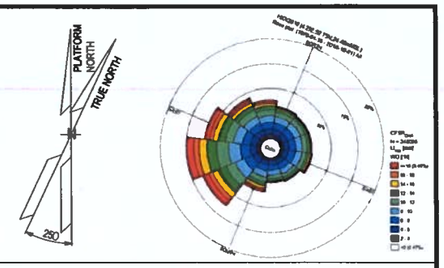


DETAIL "C"



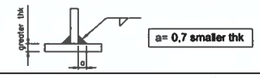
SECTION A-A

MASTER COPY
INTERNAL TEST



NOTES

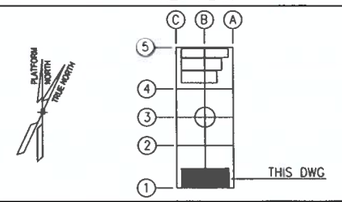
1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.
2. ALL WELDINGS SYMBOLS ARE IN ACCORDANCE WITH A.W.S. CODE D.1.1
3. UNLESS OTHERWISE INDICATED FILLET WELDS SHALL HAVE FOLLOWING DIM.:



LEGEND

HOLDS

KEY PLAN



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	23/05/24	M.G.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)

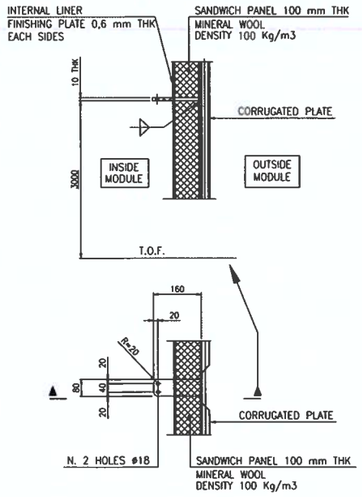
CROSSWIND | ROSETTI MARINO

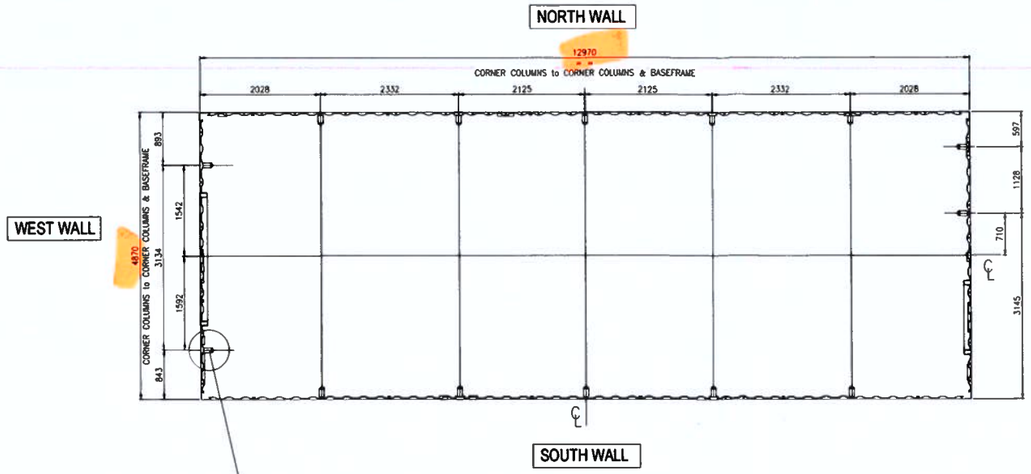
TITLE :
B-100 DETAILED DRAWINGS-E&I SHELTERS

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-00018		SHEET 001 / REV. 02

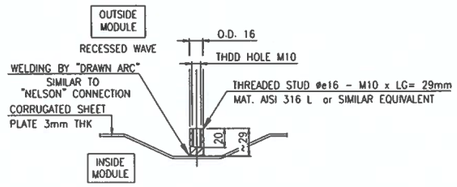
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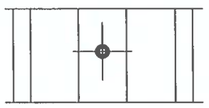
DRAWING NO 1724000049-AR-DD-00018 REV. 02



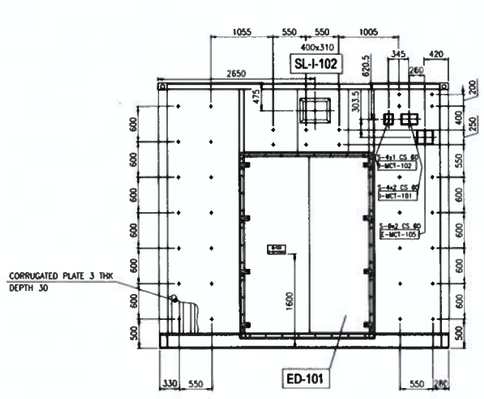


MODULE B-100
INTERNAL SEA FASTENING PLATES PLAN

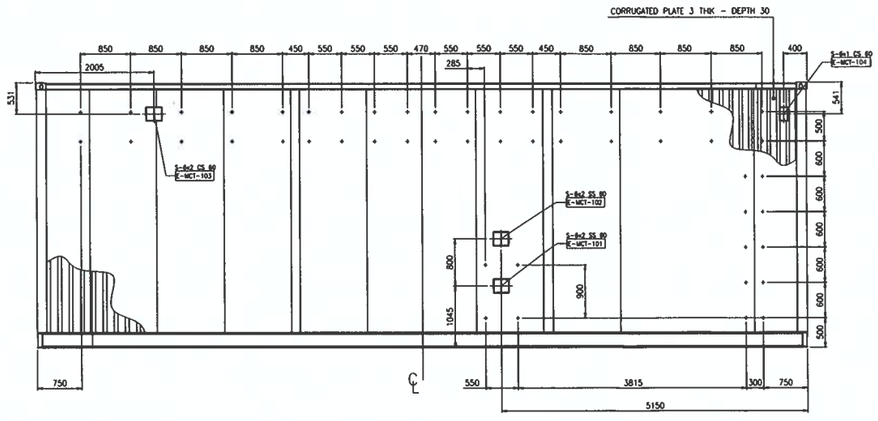




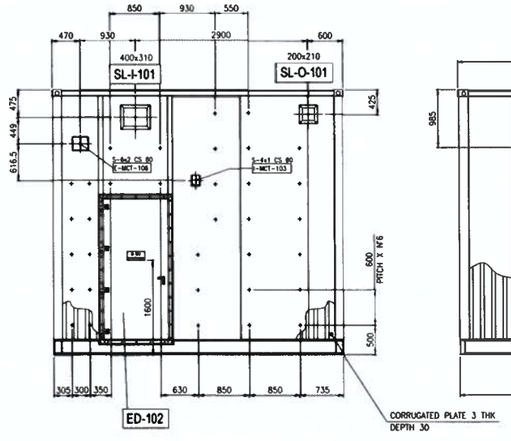
THREADED STUD INSTALLATION



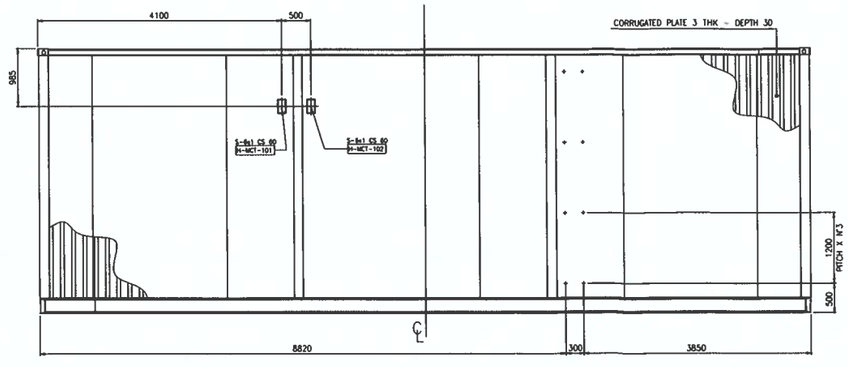
VIEW OF WEST WALL



VIEW OF NORTH WALL



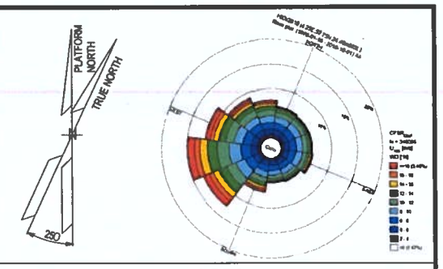
VIEW OF EAST WALL



VIEW OF SOUTH WALL

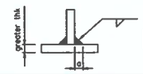
MASTER COPY
INTERNAL TEST

REFERENCE	
DOCUMENT TITLE	DOCUMENT NUMBER
"B-100" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DA-00014
"B-100" HVAC GENERAL ARRANGEMENT	1724000049-HV-DA-00064



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

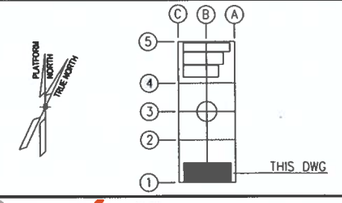
THREADED STUD ø16 - M10 x LG= 29mm
T.O.F. TOP OF FLOOR

MCT LEGEND: E-MCT-101
- MCT TYPE & SIZE / BRAND ROXTEC
- MATERIAL: C.S.= PRIMED MILD STEEL; S.S.= AISI 316 L
- S 6x2 C.S. 60 — MCT DEPTH
- PROGRESSIVE NUMBER FROM 01
- MCT SERVICE: E= ELECTRICAL; I= INSTRUMENTAL; H= HVAC
- MODULE LOCATION: 1= B-100, 2= B-200, 3= B-300, 4= B-400

HVAC SLEEVE LEGEND: SL-I-101
- 300x300 — INTERNAL SIZE OF DUCT L x H (mm)
- PROGRESSIVE NUMBER FROM 01
- SERVICE: I= AIR IN; R= RECYRCLE; O= OVERPRESSURE
- MODULE LOCATION: 1= B-100, 2= B-200, 3= B-300, 4= B-400

DOOR LEGEND: ED-101
- EXTERNAL DOOR
- PROGRESSIVE NUMBER FROM 01
- MODULE LOCATION: 1= B-100, 2= B-200, 3= B-300, 4= B-400

KEY PLAN



MCT LIST

	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-101	271	238	60		6x2
	E-MCT-102	271	238	60		6x2
	E-MCT-103	271	238	60	6x2	
	E-MCT-104	140.5	238	60	6x1	
	E-MCT-105	271	238	60	6x2	
	E-MCT-106	271	238	60	6x2	
INSTRUMENTAL	I-MCT-101	271	179.5	60	4x2	
	I-MCT-102	140.5	179.5	60	4x1	
	I-MCT-103	140.5	179.5	60	4x1	
HVAC	H-MCT-101	140.5	238	60	6x1	
	H-MCT-102	140.5	238	60	6x1	

ALEXSISTEMI

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	23/05/24	M.G.	O.A.	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND — ROSETTI MARINO

TITLE :
B-100 DETAILED DRAWINGS-E&I SHELTERS

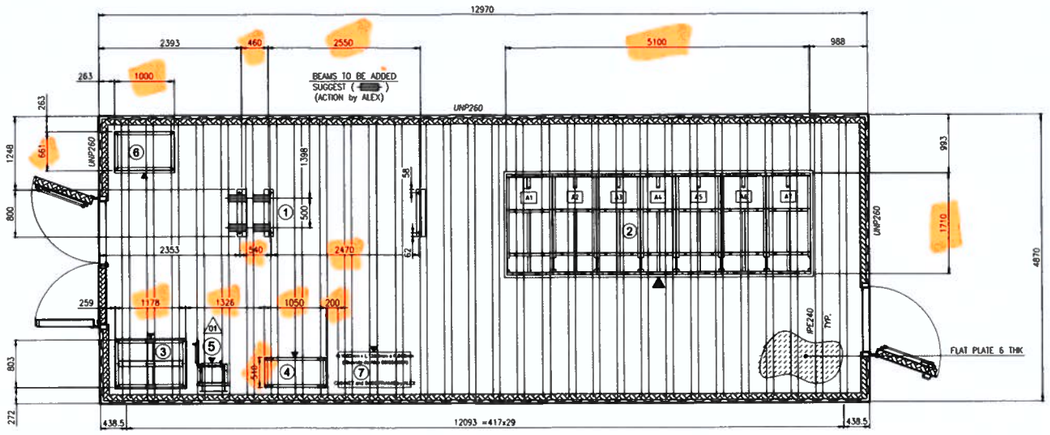
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 11/07/24
A1	DRAWING NO. 1724000049-AR-DD-00018	SHEET 002	REV. 02

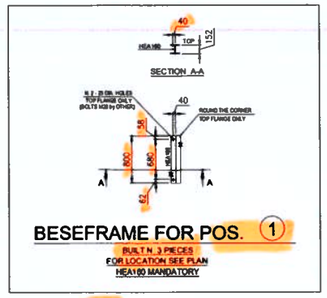
File Name : 1724000049-AR-DD-00018-REV.02

DRAWING NO. 1724000049-AR-DD-00018 REV. 02

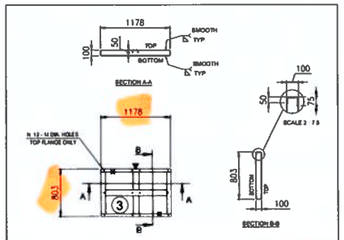
B-100
I&T EQUIPMENT ROOM
BASEFRAME LOCATION PLAN

MASTER COPY
INTERNAL TEST

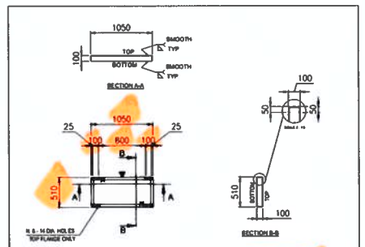




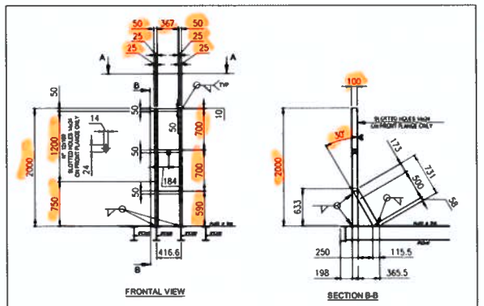
BESEFRAME FOR POS. 1
BUILT N. 3 PIECES
FOR LOCATION SEE PLAN
HEA180 MANDATORY



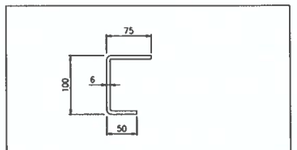
BESEFRAME FOR POS. 3
BUILT N. 1 PIECE



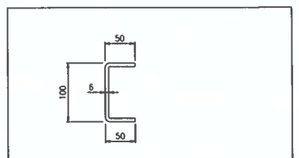
BESEFRAME FOR POS. 4
BUILT N. 1 PIECE EACH



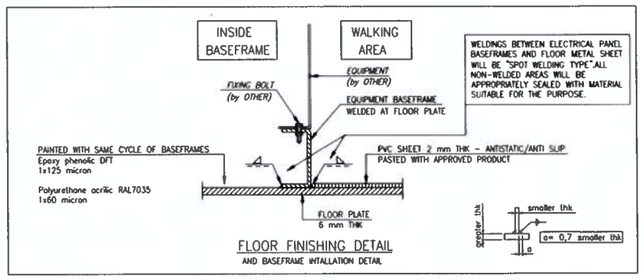
BESEFRAME FOR POS. 5
BUILT N. 1 PIECE EACH



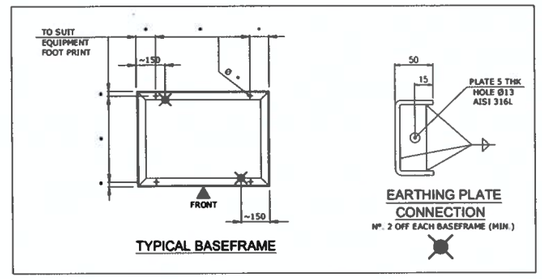
C 100x80x50 THK 6mm.
FROM BENT PLATE THK 6mm.
MAT. CARBON STEEL



C 100x50x50 THK 6mm.
FROM BENT PLATE THK 6mm.
MAT. CARBON STEEL

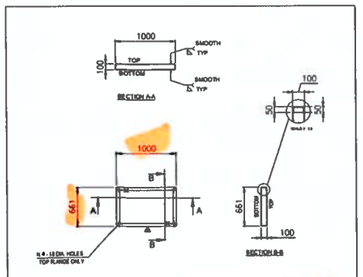


FLOOR FINISHING DETAIL
AND BASEFRAME INTALLATION DETAIL

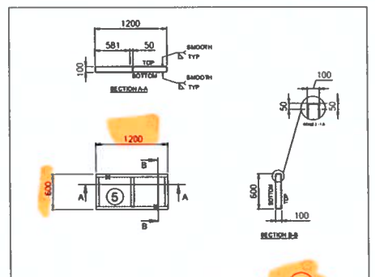


TYPICAL BASEFRAME

EARTHING PLATE CONNECTION
N°. 2 OFF EACH BASEFRAME (MIN.)



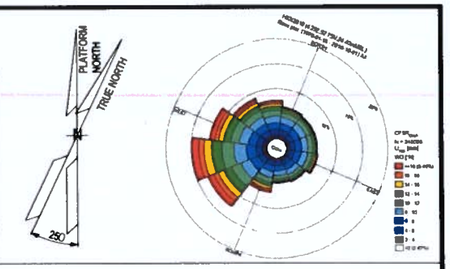
BESEFRAME FOR POS. 6
BUILT N. 1 PIECE



BESEFRAME FOR POS. 7
BUILT N. 1 PIECE

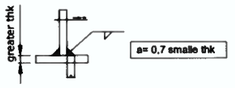
EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGTH (Kg)	SCOPE
1	HNA6-AFA70	66kV SWITCHGEAR (GIS)	3689	2025	2651	2600	ASI
2	SG-100D1	6.6kV SWITCHGEAR	5180	1800	2500	7400	ROSETTI MARINO
3	UP-200F1	DC UPS PANEL	1200	850	2105	500	ASI
4	BA-200F1	DC UPS BATTERY RACK	1050	510	1272	522	ASI
5	CB-200F1	ISOLATOR FOR DC UPS	600	300	800	100	ASI
6	CP-100E1	66 kV SWITCHGEAR LOCAL CONTROL PANEL	1000	700	2100	2100	ASI
7	B100-HSB-001	DISTRIBUTION & HVAC PANEL - HV MV ROOM	1200	600	1900	TBD	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".

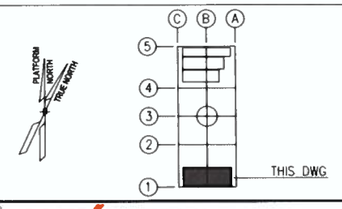


6. SURFACE TREATMENT ACCORDING DOCUMENT N. 1724000049-MAT-PRO-00004 - PAINTING PROCEDURE FINAL COLOUR LIGHT GREY RAL 7035.

LEGEND

ASI = ALEX SISTEMI

KEY PLAN



ALEXSISTEMI s.p.a.

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	23/05/24	M.G.	O.A.	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND

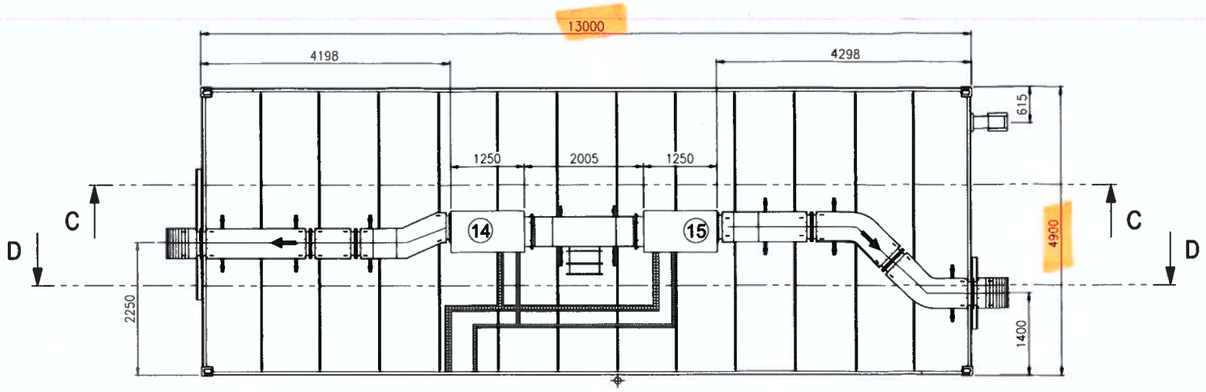
ROSETTI MARINO

TITLE :
B-100 DETAILED DRAWINGS-E&I SHELTERS

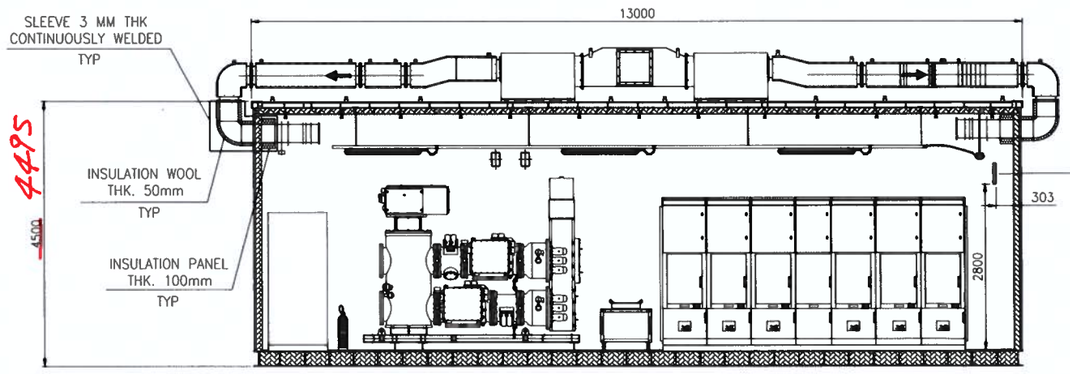
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 11/07/24
A1	DRAWING NO. 1724000049-AR-DD-00018	SHEET 003	REV. 02

File Name : 1724000049-AR-DD-00018-REV.02

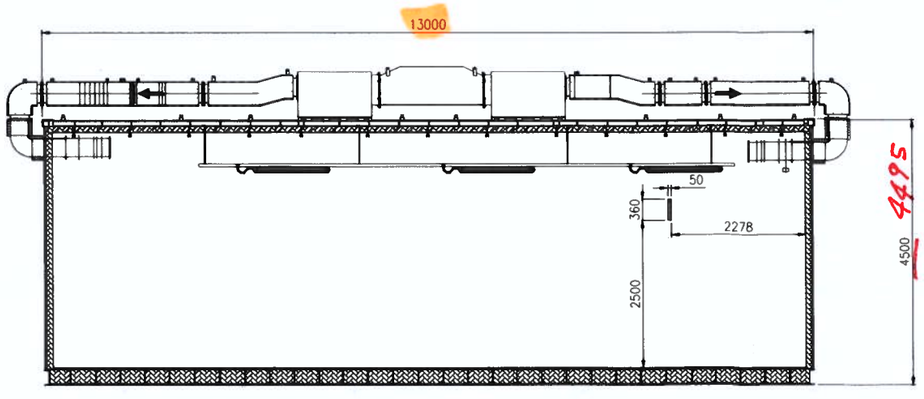
DRAWING NO. 1724000049-AR-DD-00018 | REV. 02



TOP VIEW



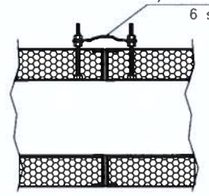
SECTION C-C



SECTION D-D

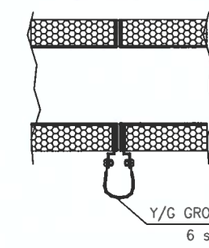
DET. 1

EXTERNAL DUCT



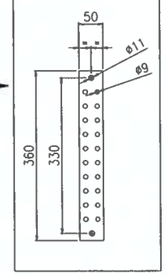
DET. 2

INTERNAL DUCT



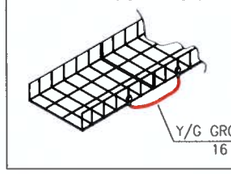
DET. 3

TYPICAL DETAIL
Ground bar



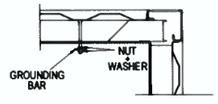
DET. 4

TYPICAL DETAIL
Cable tray grounding system



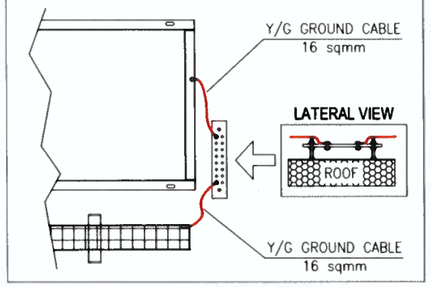
DET. 5

TYPICAL INSTALLATION BTH PE



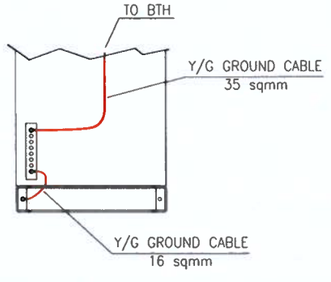
DET. 6

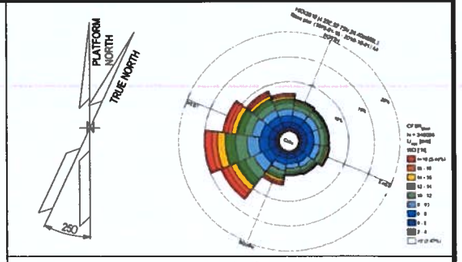
TYPICAL ROOF GROUNDING CONNECTION



DET. 7

TYPICAL CABINET GROUNDING CONNECTION



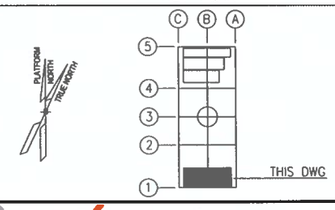


NOTES

1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.

LEGEND

KEY PLAN



ALEXSISTEMI S.r.l.

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	23/05/24	M.G.	O.A.	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND | ROSETTI MARINO

TITLE :
B-100 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-00018	SHEET 004	REV. 02

File Name : 1724000049-AR-DD-00018-REV.02

B-100 – ATTACH. 2

Doc. Name: PAINTING CHECK		Report No.01 Mod 1.4.2
OUR JOB X176-24X	Date 24/07/2024	Page 1/1

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** HV (66KV 6.6KV) SWITCH ROOM B-100
S/N: B100	**FAT procedure:** 1724000049-QC-PRO-00056

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 24/07/2024

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	✓		
Visual Check External Color doors RAL 7035	✓		
Layer thickness of external coating µm 320 total	✓		
Visual Check Internal Equipment Baseframe RAL 7035	✓		

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	CROSSWIND		

Mod1.4.2

Doc. Name: CHECK AND FUNCTIONAL TEST		Report No.01
OUR JOB X176-24X	Date 24/07/2024	Page 1

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** HV (66KV 6.6KV) SWITCH ROOM B-100
S/N: B100	**FAT procedure:** 1724000049-QC-PRO-00056

LOCATION : ON SITE ☒ OFF SITE ☐

DATE OF TEST: 24/07/2024

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	✓		

Comments:

ALEX SISTEMI *Quality Assurance*	Customer	Final Customer	3rd Part	other
ALEXSISTEMI spa	COICEA CATALIN ROSETTI MARINO (IV)	CROSSWIND		

Doc. Name: ELECTRICAL TESTS		Report No.01 Mod 1.4.6
OUR JOB X176-24X	Date 24/07/2024	Page 1/1

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** HV (66KV 6.6KV) SWITCH ROOM B-100
S/N: B100	**FAT procedure:** 1724000049-QC-PRO-00056

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 24/07/2024

REFERENCE DRAWING:

- 1724000049-AR-DA-00014 - B-100 GENERAL ARRANGMENT DRAWINGS - E&I SHELTERS
- 1724000049-HV-DA-00064 - MODULE B-100 – HVAC SYSTEM–G.A. AND DETAILS
- 1724000049-HV-DA-00026 - B-100 HVAC and LIGHTING PANEL WIRING DRAWINGS and GENERAL ARRANGEMENT (INCL INTERCONNECTING) - E&I SHELTERS

REFERENCE DOCUMENT:

- 1724000049-HV-PID-00039 - B-100 PID - E&I SHELTERS
- 1724000049-HV-LIS-00047 - B-100 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.

Mod1.4.6

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** HV (66KV 6.6KV) SWITCH ROOM B-100
S/N: B100	**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.
However, the following preliminary checks have been completed:

- Main unit changeover by simulating a system fault.
- Switching on of space heaters.
- Maintaining overpressure through VSD control.
- Reading temperature and differential pressure values on the HMI.

ALEX SISTEMI *Quality Assurance*	Customer	Final Customer	3rd Part	Other
ALEXSISTEMI spa	ROSETTI MARINO	CROSSWIND W 29/07/24		

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** HV (66KV 6.6KV) SWITCH ROOM B-100
S/N: B100	**FAT procedure:** 1724000049-QC-PRO-00056

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 25/07/2024

REFERENCE DRAWING:

- 1724000049-AR-DA-00014 - B-100 GENERAL ARRANGMENT DRAWINGS - E&I SHELTERS
- 1724000049-HV-DA-00064 - MODULE B-100 – HVAC SYSTEM–G.A. AND DETAILS
- 1724000049-HV-DA-00026 - B-100 HVAC and LIGHTING PANEL WIRING DRAWINGS and GENERAL ARRANGEMENT (INCL INTERCONNECTING) - E&I SHELTERS

REFERENCE DOCUMENT:

- 1724000049-HV-PID-00039 - B-100 PID - E&I SHELTERS
- 1724000049-HV-CA-00035 - B-100 HVAC CALCULATION REPORT (Incl HVAC SYS CALC and HEAT DISSIPATION CALC) - E&I SHELTERS
- 1724000049-HV-LIS-00047 - B-100 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.05 Mod 1.4.7
OUR JOB X176-24X	Date 25/07/2024	Page 1/1

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** HV (66KV 6.6KV) SWITCH ROOM B-100
S/N: B100	**FAT procedure:** 1724000049-QC-PRO-00056

Comments:

Some 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. However, the following preliminary checks have been completed:

- Main unit changeover by simulating a system fault.
- Switching on of space heaters.
- Maintaining overpressure through VSD control.
- Reading temperature and differential pressure values on the HMI.

ALEX SISTEMI *Quality Assurance*	Customer	Final Customer	3rd Part	other
ALEXSISTEMI spa	ROSETTI MARINO	x CROSSWIND 29/07/24		

B-200 – ATTACH. 1

ALEXSISTEMI spa

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV = ISO 9001 =

Doc. Name: **Dimensional Check and Visual Inspection**		Report No.02
OUR JOB X176-24X	Date 24/07/2024	Page 1

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** LV (400V) SWITCH ROOM B-200
S/N: B200	**FAT procedure:** 1724000049-QC-PRO-00056

LOCATION : ON SITE ☒ OFF SITE ☐

DATE OF TEST: 24/07/2024

REFERENCE DRAWING: 1724000049-AR-DA-00015 / 1724000049-ST-DD-00011 / 1724000049-AR-DD-00019

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	✓		

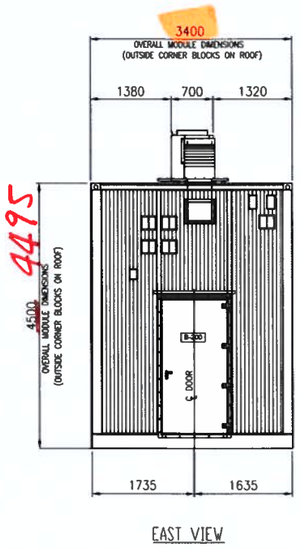
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DWG attached.

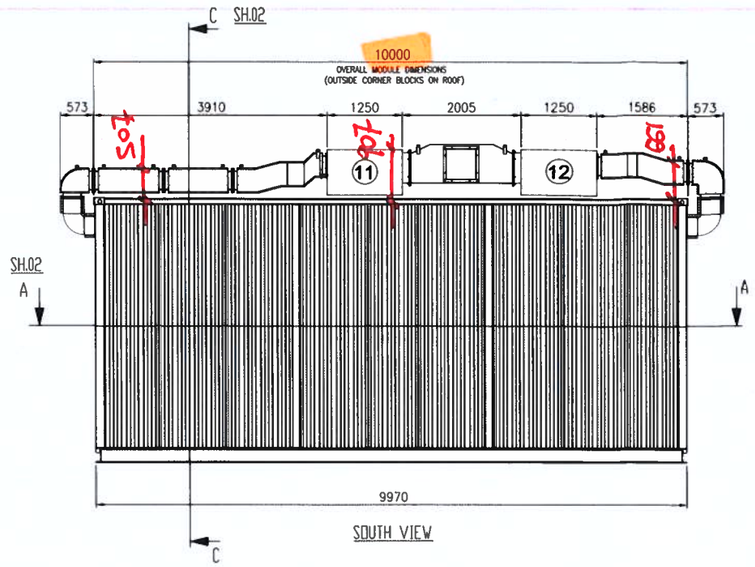
ALEX SISTEMI *Quality Assurance*	Customer	Final Customer	3rd Part	other
ALEXSISTEMI spa	COICEA CATALIN ROSETTI MARINO (XV)	CROSSWIND W		

Mod.P13.1

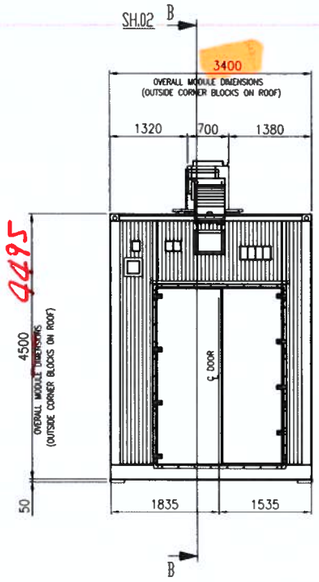
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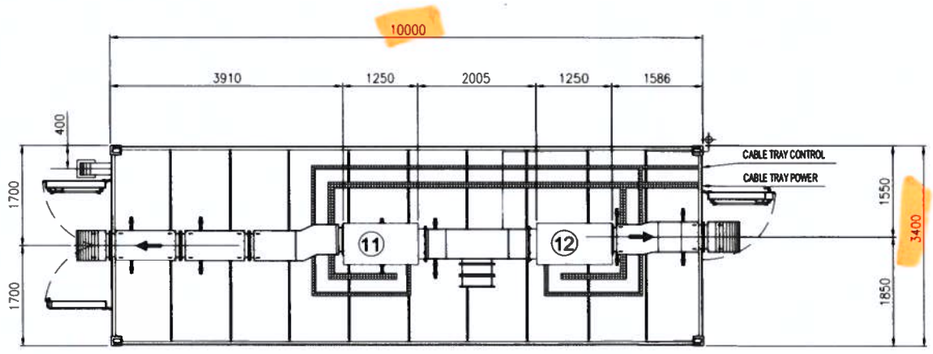
EAST VIEW



SOUTH VIEW



WEST VIEW



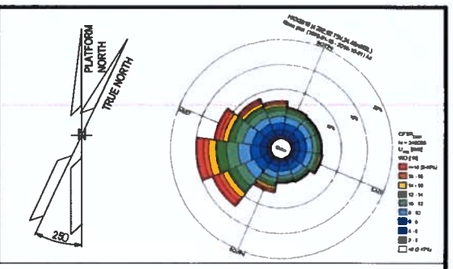
TOP VIEW

EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)
1	SG-200N1	400V SWITCHGEAR	7850	700	2331	4900
2	DP-200N1	DISTRIBUTION BOARD FOR LIGHTING AND SMALL POWER B.O.P.	1146	520	2250	600
3		*DELETED*				
4	CN-200N1	ICCP PANEL	700	580	1830	250
5	B200-HSB-001	DISTRIBUTION & HVAC PANEL - LV ROOM	1200	600	1900	400
6	-	TOOL BOX	495	335	200	20
7	-	TABLE	1000	500	750	50
8	SG-200D2	ACB PANEL FOR SOLAR PACKAGE	1096	844	2294	1000
9	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
10	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
11	HHU-77003	AIR HANDLING UNIT A	1250	850	900	140
12	HHU-77004	AIR HANDLING UNIT B	1250	850	900	140
13	HSS-77-001	SPACE HEATER 1	184	145	1100	5
14	HSS-77-002	SPACE HEATER 2	184	145	1100	5
15	HSS-77-003	SPACE HEATER 3	184	145	1100	5

MASTER COPY
INTERNAL TEST

02



NOTE

1) ALL DIMENSIONS ARE IM MM.
2) ~~INTERNAL LIGHTS DIMENSION AND QUANTITY TO BE DEFINE AFTER ADVANCE ENGINEERING~~
3) ~~GROUDING SYSTEM WILL BE ADDED IN NEXT REVISION~~

remove Note 2 and 3 typical for all sh.

REFERENCE

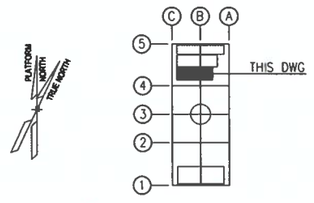
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"B-200" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00065
"B-200" DETAILED DRAWING	1724000049-AR-DD-00019
PAINTING PROCEDURE	1724000049-MAT-PRO-00005

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
02	28/06/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
01	14/05/24	M.G.	SKV	C.A.	ISSUE FOR REVIEW (IFR)
00	08/02/24	A.G.	SKV	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

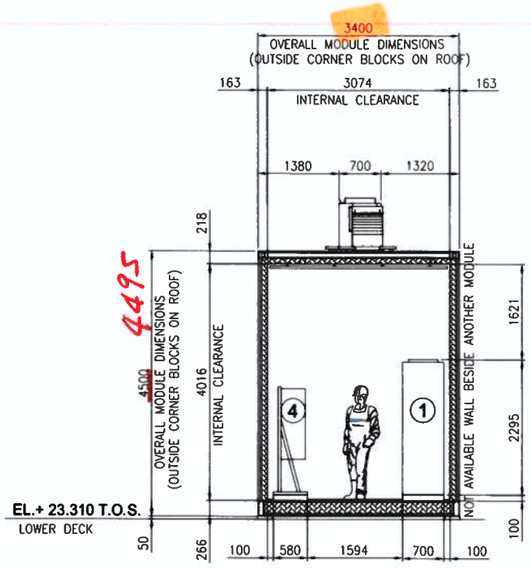
CROSSWIND | ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
B-200 GENERAL ARRANGEMENT DRAWINGS

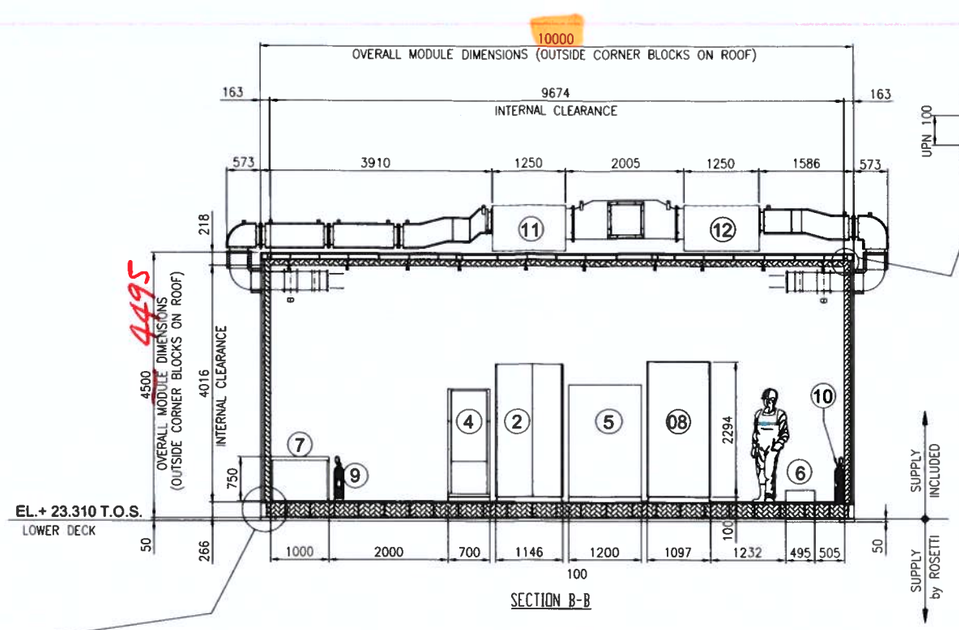
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DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 28/06/24
A1	DRAWING NO. 1724000049-AR-DA-00015	SHEET 001	REV. 02

File Name : 1724000049-AR-DA-00015-REV.02

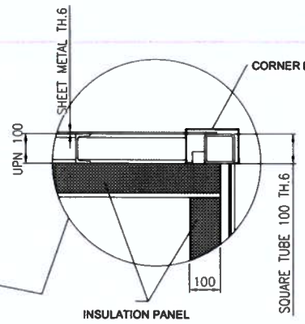
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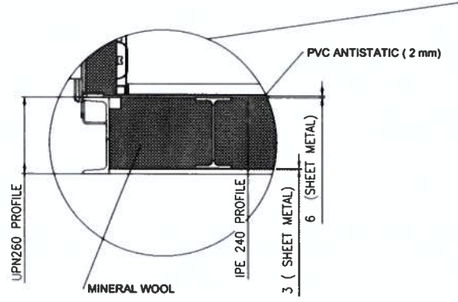


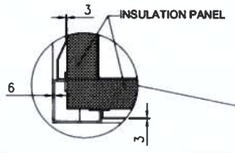
SECTION C-C

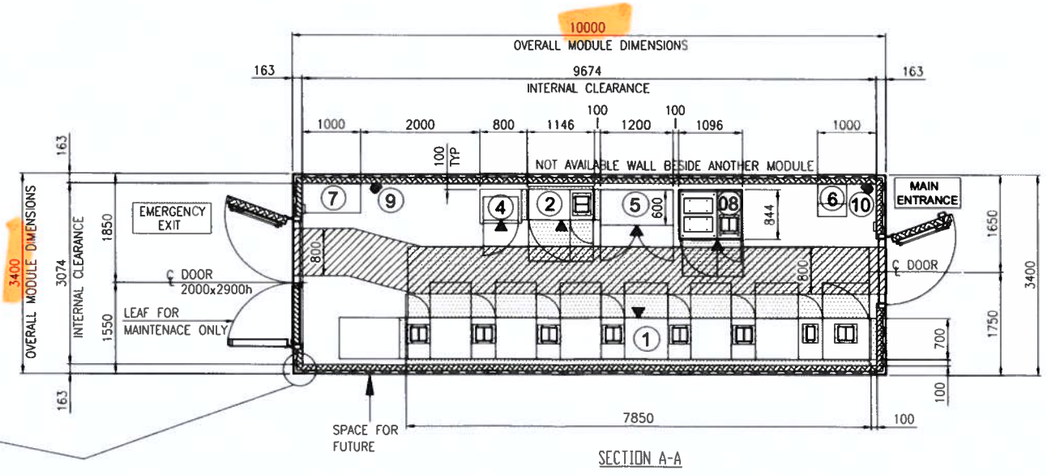


SECTION B-B









SECTION A-A

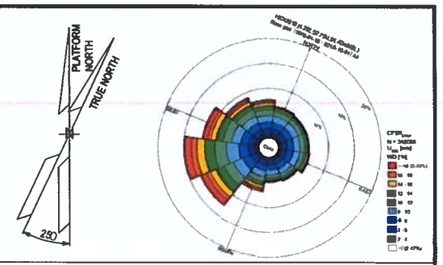
EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)
1	SG-200N1	400V SWITCHGEAR	7850	700	2331	4900
2	DP-200N1	DISTRIBUTION BOARD FOR LIGHTING AND SMALL POWER B.O.P.	1146	520	2250	600
3		*DELETED*				
4	CN-200N1	ICCP PANEL	700	580	1830	250
5	B200-HSB-001	DISTRIBUTION & HVAC PANEL - LV ROOM	1200	600	1900	400
6	-	TOOL BOX	495	335	200	20
7	-	TABLE	1000	500	750	50
8	SG-200D2	ACB PANEL FOR SOLAR PACKAGE	1096	844	2294	1000
9	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
10	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
11	HHU-77003	AIR HANDLING UNIT A	1250	850	900	140
12	HHU-77004	AIR HANDLING UNIT B	1250	850	900	140
13	HSS-77-001	SPACE HEATER 1	184	145	1100	5
14	HSS-77-002	SPACE HEATER 2	184	145	1100	5
15	HSS-77-003	SPACE HEATER 3	184	145	1100	5

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

MASTER COPY
INTERNAL TEST

02



NOTE

1) ALL DIMENSIONS ARE IM MM.
2) INTERNAL LIGHTS DIMENSION AND QUANTITY TO BE DEFINE AFTER ADVANCE ENGINEERING
3) GROUDING SYSTEM WILL BE ADDED IN NEXT REVISION

REFERENCE

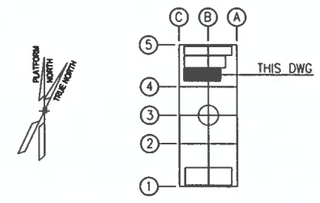
DOCUMENT TITLE	DOCUMENT NUMBER
"B-200" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00065
"B-200" DETAILED DRAWING	1724000049-AR-DD-00019
PAINTING PROCEDURE	1724000049-MAT-PRO-00005

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

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	28/06/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
01	14/05/24	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

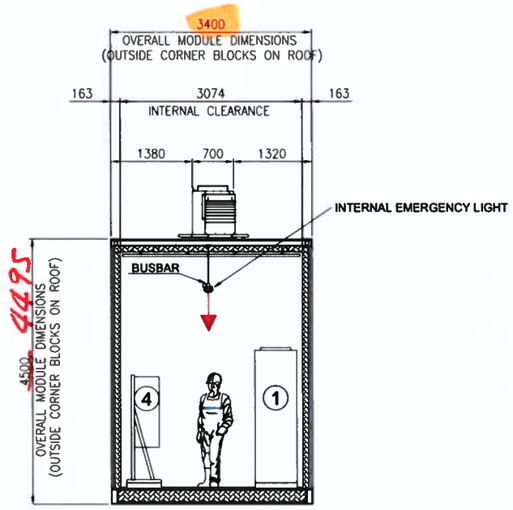
TITLE : BASE LOAD POWER HUB (BLPH)
B-200 GENERAL ARRANGEMENT DRAWINGS

CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 14/05/24
A1	DRAWING NO. 1724000049-AR-DA-00015	SHEET 002	REV. 02

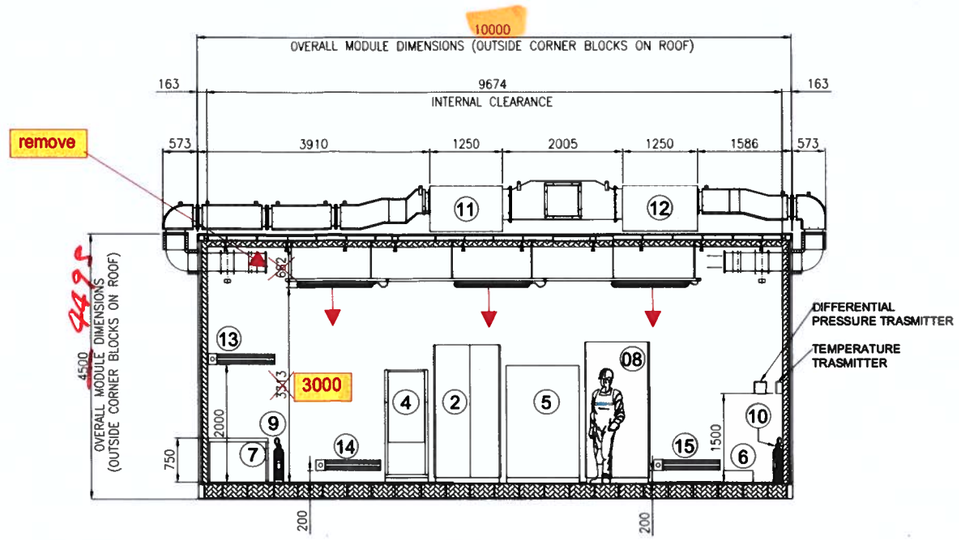
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DRAWING NO. 1724000049-AR-DA-00015

REV. 02



SECTION E-E



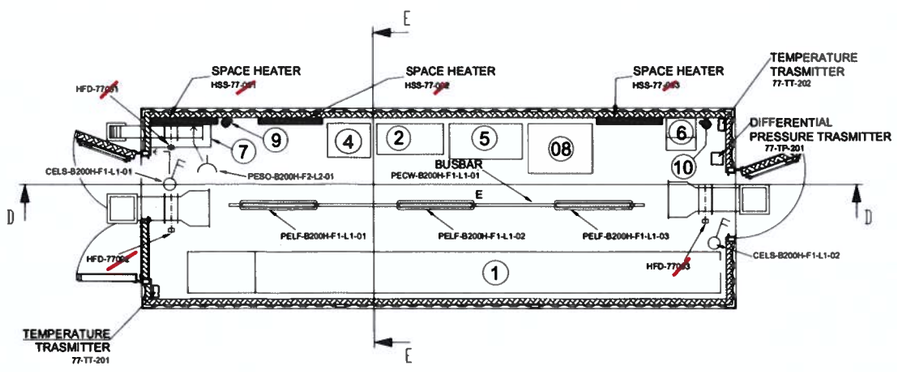
SECTION D-D

Verify that TAGs used on this document are the same used on all other documents, without doubles TAG

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	Date
R. Bossi	10/07/2024



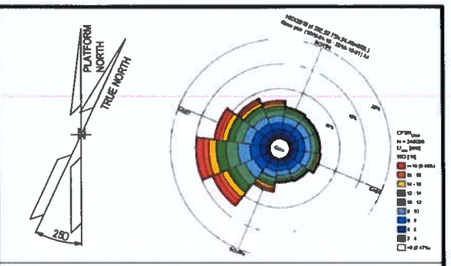
EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)
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3		*DELETED*				
4	CN-200N1	ICCP PANEL	700	580	1830	250
5	B200-HSB-001	DISTRIBUTION & HVAC PANEL - LV ROOM	1200	600	1900	400
6	-	TOOL BOX	495	335	200	20
7	-	TABLE	1000	500	750	50
8	SG-200D2	ACB PANEL FOR SOLAR PACKAGE	1096	844	2294	1000
9	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
10	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20
11	HHU-77003	AIR HANDLING UNIT A	1250	850	900	140
12	HHU-77004	AIR HANDLING UNIT B	1250	850	900	140
13	HSS-77-~~001~~	SPACE HEATER 1	184	145	1100	5
14	HSS-77-~~002~~	SPACE HEATER 2	184	145	1100	5
15	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 final one will be confirmed in the As-Built issue.

Revise TAG according to all documents (P&IDs, HVAC & Lighting Panel, HVAC GA & Details, etc.)

02



NOTE

1) ALL DIMENSIONS ARE IM MM.
2) INTERNAL LIGHTS DIMENSION AND QUANTITY TO BE DEFINE AFTER ADVANCE ENGINEERING
3) GROUDING SYSTEM WILL BE ADDED IN NEXT REVISION

REFERENCE

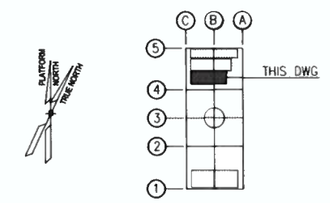
DOCUMENT TITLE	DOCUMENT NUMBER
"B-200" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00065
"B-200" DETAILED DRAWING	1724000049-AR-DD-00019
PAINTING PROCEDURE	1724000049-MAT-PRO-00005

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 s.r.l.

Next revision: 03 Accepted For Construction (AFC)

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	28/06/24	M.G.	SKV	C.A.	ACCEPTED FOR CONSTRUCTION (AFC)
01	14/05/24	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

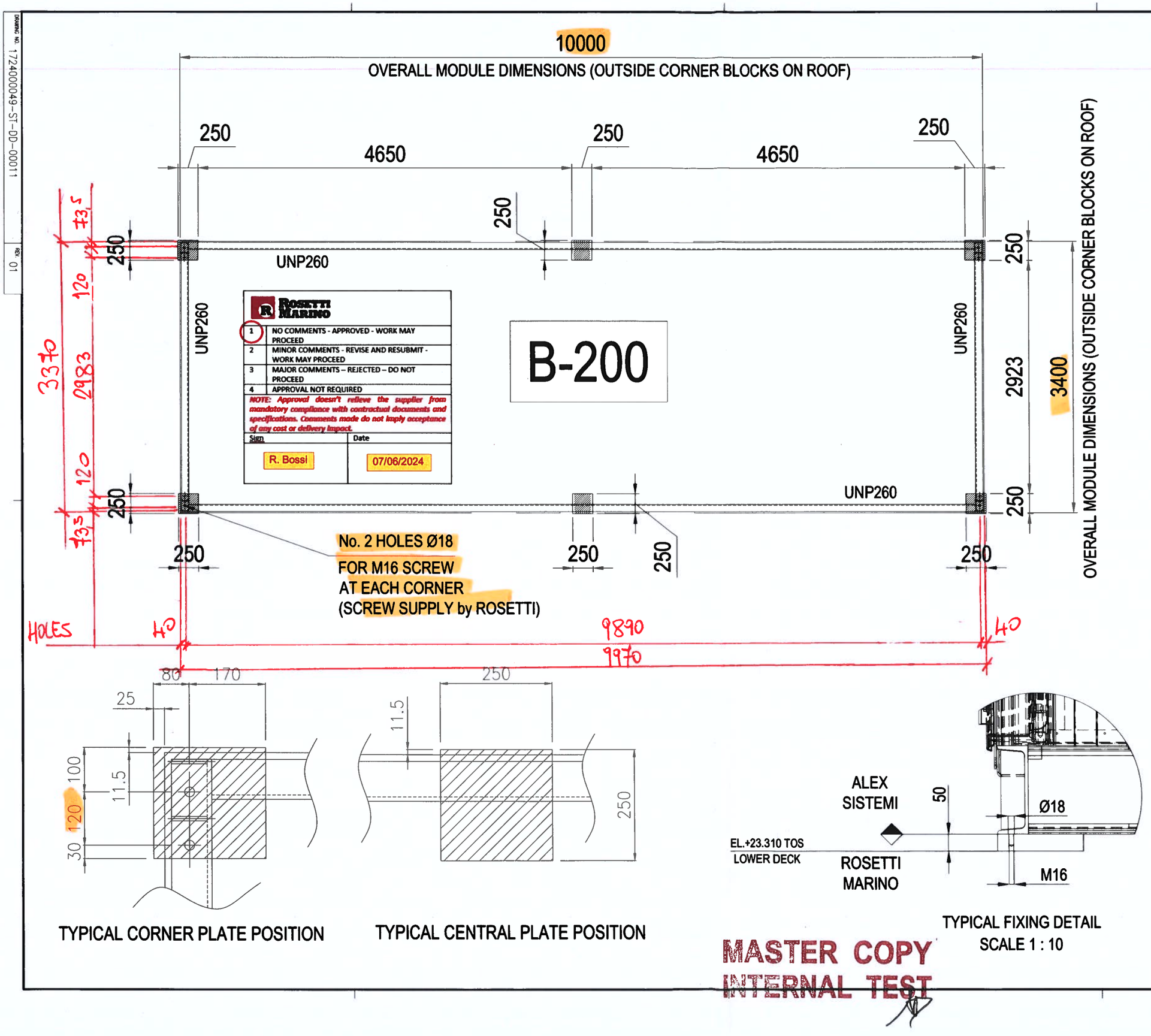
TITLE : BASE LOAD POWER HUB (BLPH)
B-200 GENERAL ARRANGEMENT DRAWINGS

CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 28/06/24
A1	DRAWING NO. 1724000049-AR-DA-00015	SHEET 003	REV. 02

File Name : 1724000049-AR-DA-00015-REV.02

MASTER COPY
INTERNAL TEST

DRAWING NO. 1724000049-ST-DD-00011 REV. 01



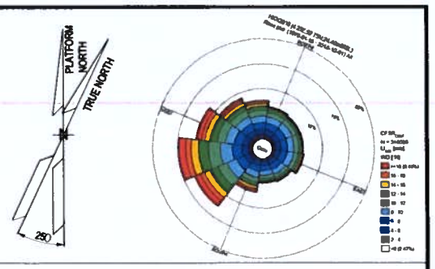
ROSETTI MARINO

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	Date
R. Bossi	07/06/2024

B-200



NOTE

1) ALL DIMENSIONS ARE IM MM.

REFERENCE

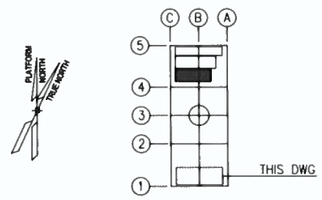
DOCUMENT TITLE	DOCUMENT NUMBER
B-200 STRUCTURAL CALCULATION - E&I SHELTERS	1724000049-ST-CA-00007

LEGEND

Plate 50 mm thk. welded on
Lower Deck - Supply by Rosetti

HOLDS

KEY PLAN



ALEXSISTEMI s.p.a.

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-200 FOUNDATION DRAWING - E&I SHELTERS

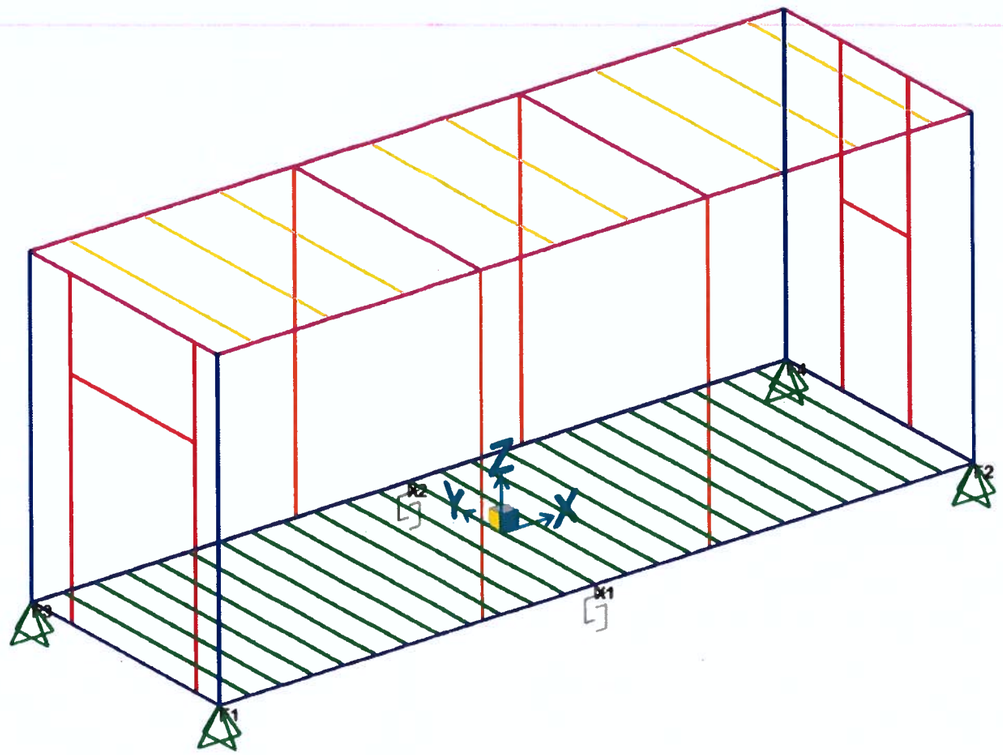
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE N.A.
DRAWN M.G.	CHECKED M.R.	APPROVED O.A.	DATE 03/06/24
A1	DRAWING NO. 1724000049-ST-DD-00011	SHEET 001/002	REV. 01

File Name : 1724000049-ST-DD-00011-REV.01

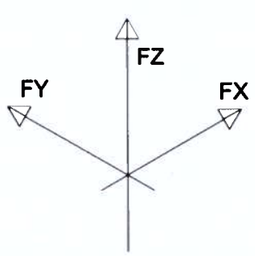
MASTER COPY
INTERNAL TEST

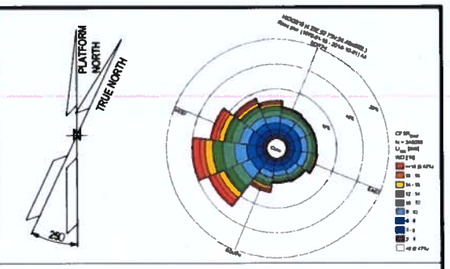
DRAWING NO 1724000049-ST-DD-00011 REV. 01

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	7,06	3,99	20,50	0,00	0,00	0,00
F1	SD	NonStatic	Last Step	13,01	4,55	19,04	0,00	0,00	0,00
F1	LIVE	NonStatic	Last Step	14,07	5,34	39,40	0,00	0,00	0,00
F1	WIND X	NonStatic	Last Step	-11,37	2,10	-9,99	0,00	0,00	0,00
F1	WIND Y	NonStatic	Last Step	-11,97	-27,03	-35,97	0,00	0,00	0,00
F1	NOT X	NonStatic	Last Step	-0,06	-0,01	-0,02	0,00	0,00	0,00
F1	NOT Y	NonStatic	Last Step	-0,03	-0,06	-0,07	0,00	0,00	0,00
F1	SLU LIVE	Combination		49,68	19,93	114,19	0,00	0,00	0,00
F1	SLU WIND X	Combination		22,69	12,58	70,68	0,00	0,00	0,00
F1	SLU WIND Y	Combination		21,98	-22,38	39,50	0,00	0,00	0,00
F1	SLE LIVE	Combination		34,05	13,81	78,85	0,00	0,00	0,00
F1	SLE WIND X	Combination		5,01	2,47	18,67	0,00	0,00	0,00
F1	SLE WIND Y	Combination		4,60	-17,93	0,48	0,00	0,00	0,00
F2	DEAD	NonStatic	Last Step	-7,04	3,97	20,19	0,00	0,00	0,00
F2	SD	NonStatic	Last Step	-13,96	6,14	38,62	0,00	0,00	0,00
F2	LIVE	NonStatic	Last Step	-13,28	3,92	24,14	0,00	0,00	0,00
F2	WIND X	NonStatic	Last Step	-3,45	-2,84	-3,91	0,00	0,00	0,00
F2	WIND Y	NonStatic	Last Step	11,75	-27,17	-35,34	0,00	0,00	0,00
F2	NOT X	NonStatic	Last Step	-0,06	0,01	0,02	0,00	0,00	0,00
F2	NOT Y	NonStatic	Last Step	0,03	-0,06	-0,07	0,00	0,00	0,00
F2	SLU LIVE	Combination		-50,06	20,16	120,32	0,00	0,00	0,00
F2	SLU WIND X	Combination		-45,73	6,00	93,00	0,00	0,00	0,00
F2	SLU WIND Y	Combination		-27,49	-23,20	55,28	0,00	0,00	0,00
F2	SLE LIVE	Combination		-34,31	13,96	82,90	0,00	0,00	0,00
F2	SLE WIND X	Combination		-20,96	-0,94	44,26	0,00	0,00	0,00
F2	SLE WIND Y	Combination		-10,32	-17,97	22,25	0,00	0,00	0,00
F3	DEAD	NonStatic	Last Step	7,04	-3,98	20,19	0,00	0,00	0,00
F3	SD	NonStatic	Last Step	12,77	-4,86	18,96	0,00	0,00	0,00
F3	LIVE	NonStatic	Last Step	14,04	-5,08	38,74	0,00	0,00	0,00
F3	WIND X	NonStatic	Last Step	-11,51	-2,08	-10,05	0,00	0,00	0,00
F3	WIND Y	NonStatic	Last Step	5,77	-18,59	22,08	0,00	0,00	0,00
F3	NOT X	NonStatic	Last Step	-0,06	0,01	-0,02	0,00	0,00	0,00
F3	NOT Y	NonStatic	Last Step	0,03	-0,06	0,07	0,00	0,00	0,00
F3	SLU LIVE	Combination		49,32	-20,17	112,85	0,00	0,00	0,00
F3	SLU WIND X	Combination		27,47	-26,58	86,97	0,00	0,00	0,00
F3	SLU WIND Y	Combination		48,20	-46,39	125,52	0,00	0,00	0,00
F3	SLE LIVE	Combination		33,81	-13,98	77,93	0,00	0,00	0,00
F3	SLE WIND X	Combination		9,99	-16,56	35,77	0,00	0,00	0,00
F3	SLE WIND Y	Combination		22,09	-28,12	58,25	0,00	0,00	0,00
F4	DEAD	NonStatic	Last Step	-7,06	-3,98	20,32	0,00	0,00	0,00
F4	SD	NonStatic	Last Step	-11,82	-5,83	29,87	0,00	0,00	0,00
F4	LIVE	NonStatic	Last Step	-14,83	-4,17	30,77	0,00	0,00	0,00
F4	WIND X	NonStatic	Last Step	-3,46	2,81	-3,85	0,00	0,00	0,00
F4	WIND Y	NonStatic	Last Step	-5,55	-18,31	21,44	0,00	0,00	0,00
F4	NOT X	NonStatic	Last Step	-0,06	-0,01	0,02	0,00	0,00	0,00
F4	NOT Y	NonStatic	Last Step	-0,03	-0,06	0,06	0,00	0,00	0,00
F4	SLU LIVE	Combination		-49,27	-20,26	117,50	0,00	0,00	0,00
F4	SLU WIND X	Combination		-49,44	-19,65	104,31	0,00	0,00	0,00
F4	SLU WIND Y	Combination		-51,96	-45,00	134,66	0,00	0,00	0,00
F4	SLE LIVE	Combination		-33,80	-14,04	81,05	0,00	0,00	0,00
F4	SLE WIND X	Combination		-24,09	-12,55	52,86	0,00	0,00	0,00
F4	SLE WIND Y	Combination		-25,56	-27,34	70,57	0,00	0,00	0,00
X1	DEAD	NonStatic	Last Step	0,00	0,00	22,31	0,00	0,00	0,00
X1	SD	NonStatic	Last Step	0,00	0,01	48,86	0,00	0,00	0,00
X1	LIVE	NonStatic	Last Step	0,00	0,01	37,09	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	0,02	157,92	0,00	0,00	0,00
X1	SLU WIND X	Combination		0,00	0,02	141,23	0,00	0,00	0,00
X1	SLU WIND Y	Combination		0,00	0,02	141,23	0,00	0,00	0,00
X1	SLE LIVE	Combination		0,00	0,01	108,26	0,00	0,00	0,00
X1	SLE WIND X	Combination		0,00	0,01	71,17	0,00	0,00	0,00
X1	SLE WIND Y	Combination		0,00	0,01	71,17	0,00	0,00	0,00
X2	DEAD	NonStatic	Last Step	0,00	0,00	22,38	0,00	0,00	0,00
X2	SD	NonStatic	Last Step	0,00	-0,01	43,73	0,00	0,00	0,00
X2	LIVE	NonStatic	Last Step	0,00	-0,01	40,88	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	-0,02	156,02	0,00	0,00	0,00
X2	SLU WIND X	Combination		0,00	-0,02	137,62	0,00	0,00	0,00
X2	SLU WIND Y	Combination		0,00	-0,02	137,62	0,00	0,00	0,00
X2	SLE LIVE	Combination		0,00	-0,01	107,00	0,00	0,00	0,00
X2	SLE WIND X	Combination		0,00	-0,01	66,11	0,00	0,00	0,00
X2	SLE WIND Y	Combination		0,00	-0,01	66,11	0,00	0,00	0,00









NOTE

1) ALL DIMENSIONS ARE IM MM.

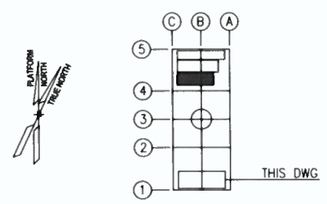
REFERENCE

DOCUMENT TITLE	DOCUMENT NUMBER
B-200 STRUCTURAL CALCULATION - E&I SHELTERS	1724000049-ST-CA-00007

LEGEND

HOLDS

KEY PLAN



ALEXSISTEMI S.p.A.

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

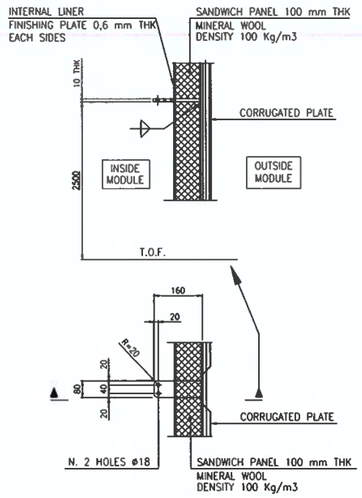
TITLE : B-200 FOUNDATION DRAWING - E&I SHELTERS

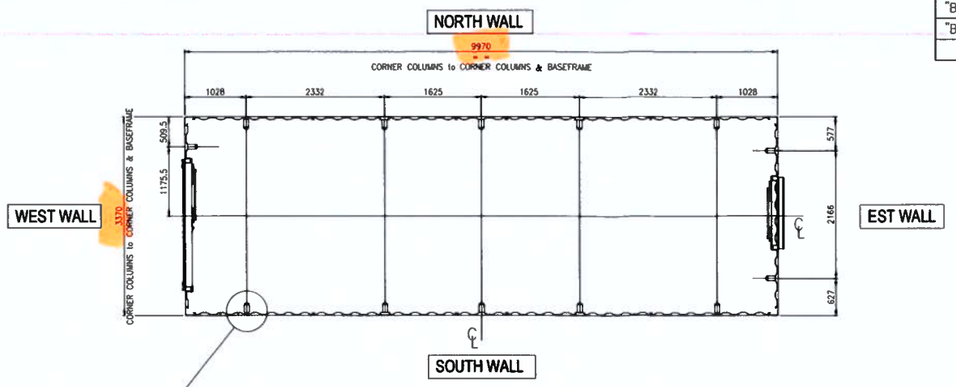
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE N.A.
DRAWN M.G.	CHECKED M.R.	APPROVED O.A.	DATE 03/06/24
A1	DRAWING NO. 1724000049-ST-DD-00011	SHEET 002/002	REV. 01

File Name : 1724000049-ST-DD-00011-REV.01

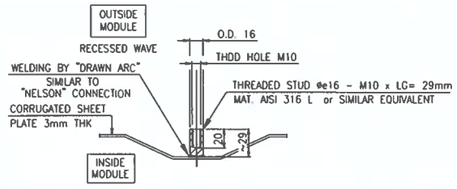
MASTER COPY
INTERNAL TEST

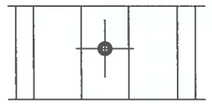
DRAWING NO. 1724000049-AR-DD-00019 REV. 02



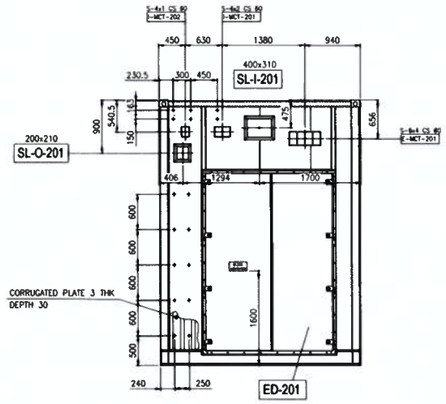


MODULE B-200
INTERNAL SEA FASTENING PLATES PLAN

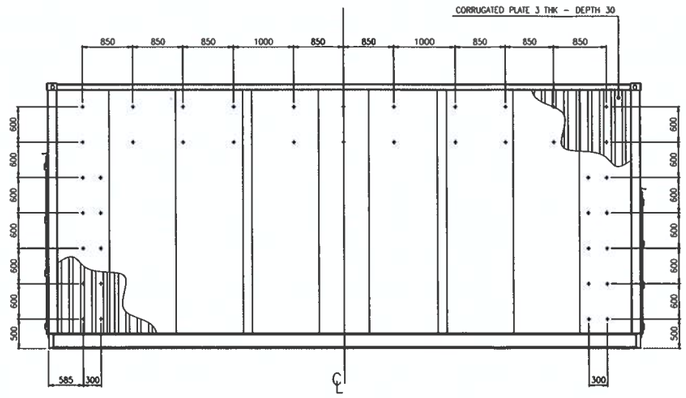




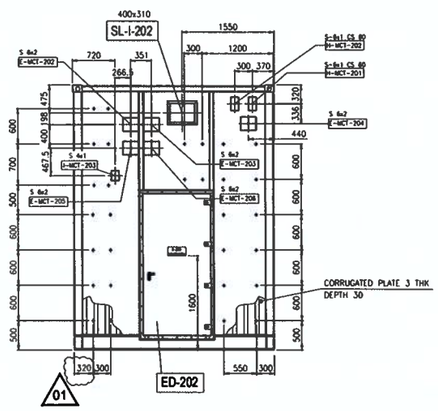
THREADED STUD INSTALLATION



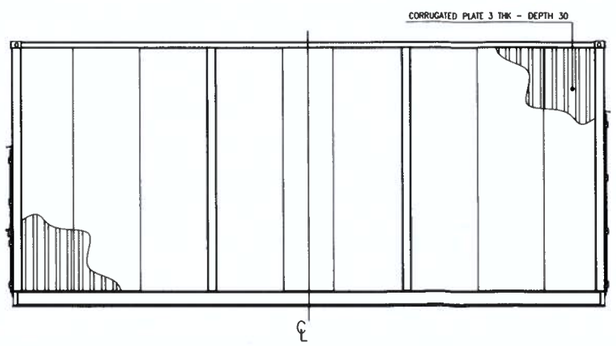
VIEW OF WEST WALL



VIEW OF NORTH WALL



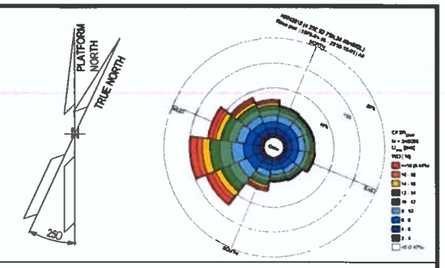
VIEW OF EAST WALL



VIEW OF SOUTH WALL

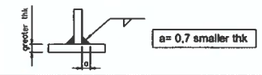
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INTERNAL TEST

REFERENCE	
DOCUMENT TITLE	DOCUMENT NUMBER
"B-200" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DA-00015
"B-200" HVAC GENERAL ARRANGEMENT	1724000049-HV-DA-00065



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

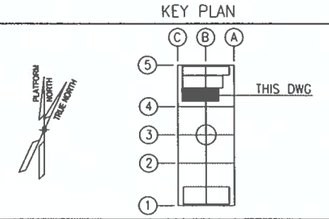
THREADED STUD ø16 - M10 x LG= 29mm
T.O.F. TOP OF FLOOR

MCT LEGEND:
MCT TYPE & SIZE / BRAND ROXTEC — MATERIAL: C.S.= PRIMED MILD STEEL, S.S.= AISI 316 L — MCT DEPTH
S 6x2 C.S. 60 — E-MCT-201
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 — INTERNAL SIZE OF DUCT L x H (mm)
SL-I-201
PROGRESSIVE NUMBER FROM 01
SERVICE: I= AIR IN, R= RECYCLE, O= OVERPRESSURE
MODULE LOCATION: 1= B-100, 2= B-200, 3= B-300, 4= B-400

DOOR LEGEND:
ED-201
EXTERNAL DOOR
PROGRESSIVE NUMBER FROM 01
MODULE LOCATION: 1= B-100, 2= B-200, 3= B-300, 4= B-400

KEY PLAN



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-201	532	238	60	6x4	
	E-MCT-202	271	238	60		6x2
	E-MCT-203	271	238	60		6x2
	E-MCT-204	271	238	60	6x2	
	E-MCT-205	271	238	60		6x2
	E-MCT-206	271	238	60		6x2
INSTRUMENTAL	I-MCT-201	271	179.5	60	4x2	
	I-MCT-202	140.5	179.5	60	4x1	
	I-MCT-203	140.5	179.5	60	4x1	
HVAC	H-MCT-201	140.5	238	60	6x1	
	H-MCT-202	140.5	238	60	6x1	

ALEXSISTEMI

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	23/05/24	M.G.	O.A.	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND — ROSETTI MARINO

TITLE :
B-200 DETAILED DRAWINGS-E&I SHELTERS

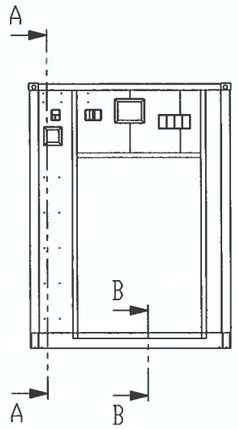
CONTRACT NO./TITLE CONTRACT_NO. 1724000049 — SCALE 1:50
DRAWN M.G. — CHECKED O.A. — APPROVED C.A. — DATE 11/07/24
A1 — DRAWING NO. 1724000049-AR-DD-00019 — SHEET 002 — REV. 02

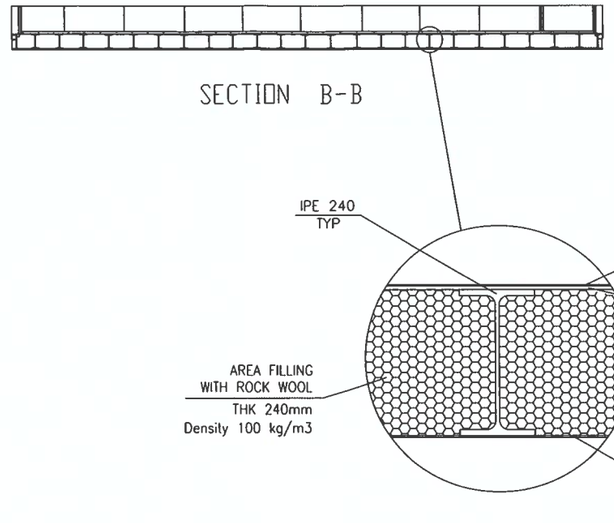
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DRAWING NO. 1724000049-AR-DD-00019 | REV. 02

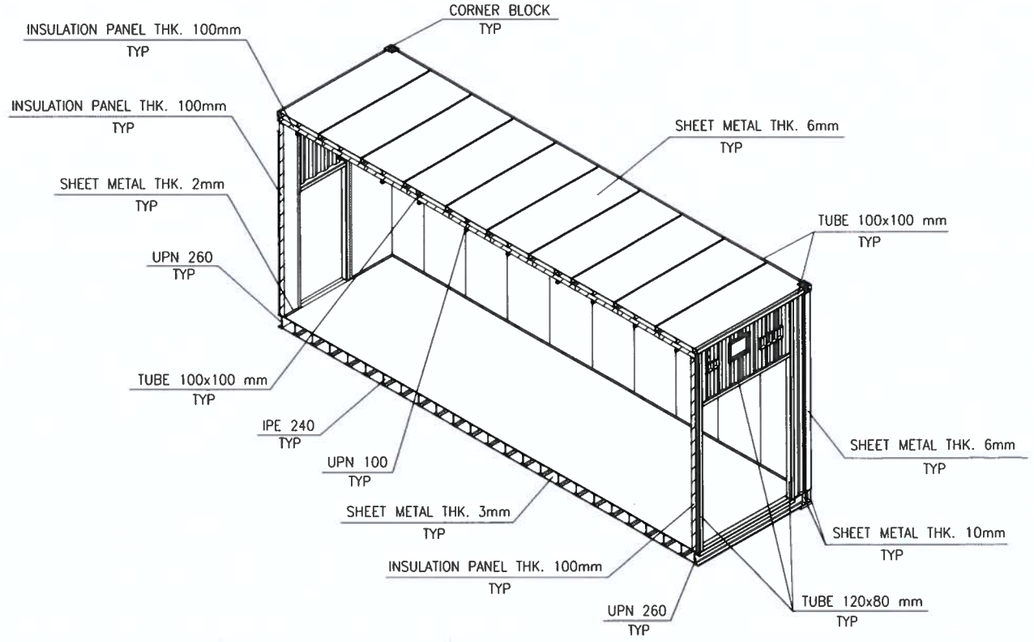
MODULE B-200

REFERENCE	
DOCUMENT TITLE	DOCUMENT NUMBER
"B-200" STRUCTURAL CALCULATION	1724000049-ST-CA-00007
Weld Procedure Specifications (WPS), Weld Procedure Qualification Report (WPQR), Welding Map and Welders Qualifications	1724000049-WEL-RE-00003



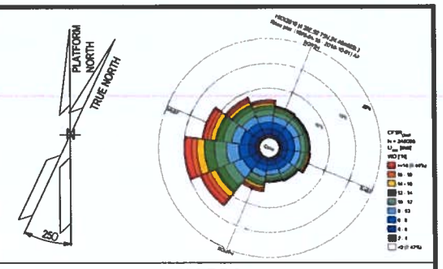


DETAIL "C"



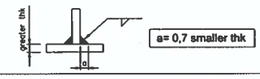
SECTION A-A

MASTER COPY
INTERNAL TEST



NOTES

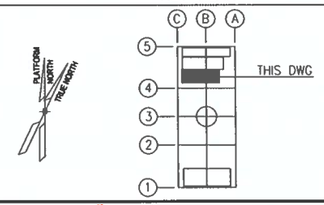
1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.
2. ALL WELDINGS SYMBOLS ARE IN ACCORDANCE WITH A.W.S. CODE D.1.1
3. UNLESS OTHERWISE INDICATED FILLET WELDS SHALL HAVE FOLLOWING DIM.:



LEGEND

HOLDS

KEY PLAN



ALEXSISTEMI

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	23/05/24	M.G.	O.A.	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND | ROSETTI MARINO

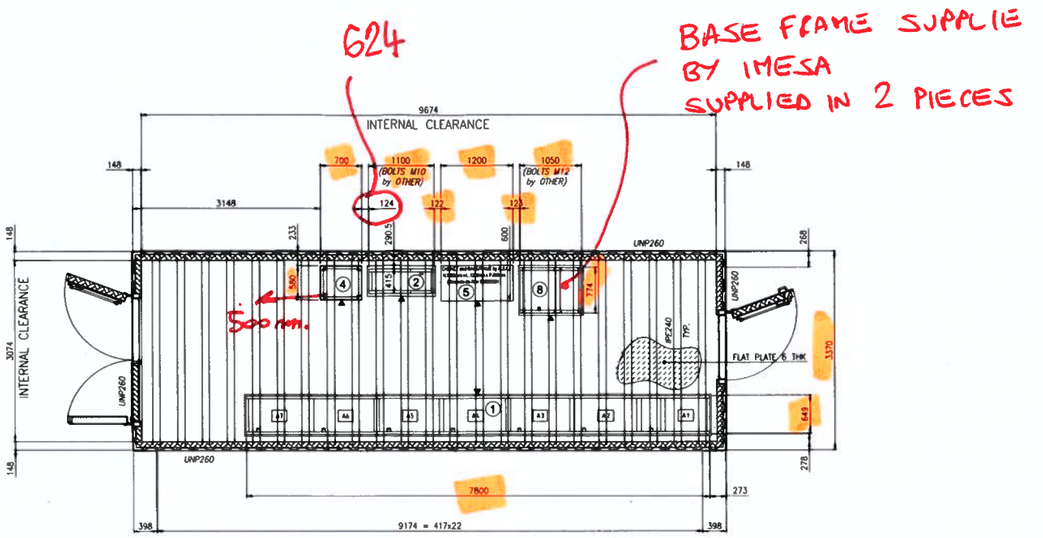
TITLE :
B-200 DETAILED DRAWINGS-E&I SHELTERS

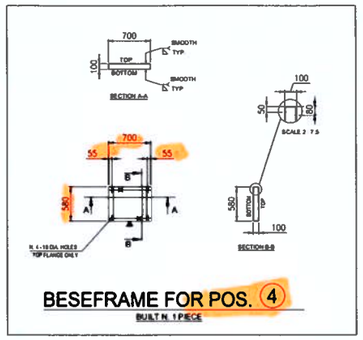
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 11/07/24
A1	DRAWING NO. 1724000049-AR-DD-00019	SHEET 001	REV. 02

File Name : 1724000049-AR-DD-00019-REV.02

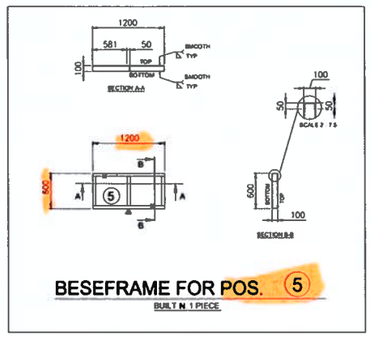
DRAWING NO. 1724000049-AR-DD-00019 REV. 02

B-200
I&T EQUIPMENT ROOM
BASEFRAME LOCATION PLAN

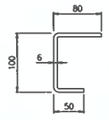




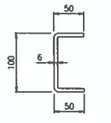
BESEFRAME FOR POS. 4
BUILT N. 1 PIECE



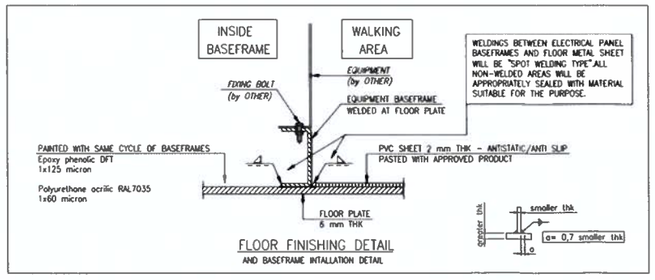
BESEFRAME FOR POS. 5
BUILT N. 1 PIECE



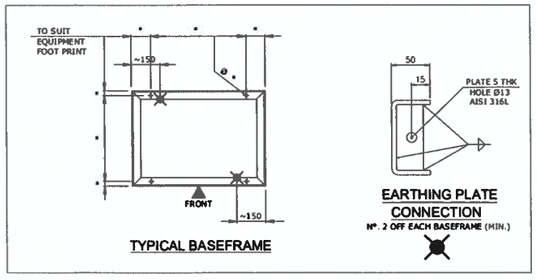
C 100x80x50 THK 6mm.
FROM BENT PLATE THK 6mm.
MAT. CARBON STEEL



C 100x50x50 THK 6mm.
FROM BENT PLATE THK 6mm.
MAT. CARBON STEEL

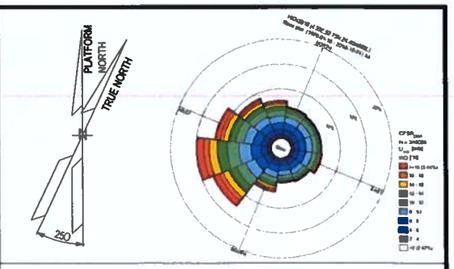


FLOOR FINISHING DETAIL
AND BASEFRAME INTALLATION DETAIL



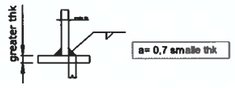
TYPICAL BASEFRAME

EARTHING PLATE CONNECTION
N°. 2 OFF EACH BASEFRAME (MIN.)



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".



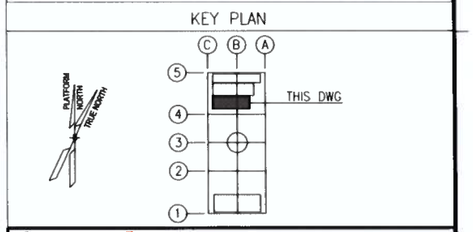
6. SURFACE TREATMENT ACCORDING DOCUMENT N. 1724000049-MAT-PRO-00004 - PAINTING PROCEDURE FINAL COLOUR LIGHT GREY RAL 7035.

LEGEND

ASI = ALEX SISTEMI

EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)	SCOPE
1	SG-200N1	400V SWITCHGEAR	7850	700	2331	4900	ROSETTI MARINO
2	DP-200N1	DISTRIBUTION BOARD FOR LIGHTING AND SMALL POWER B.O.P.	1146	520	2250	600	ROSETTI MARINO
4	CN-200N1	ICCP PANEL	700	580	1830	250	ASI
5	B200-HSB-001	DISTRIBUTION & HVAC PANEL - LV ROOM	1200	600	1900	TBD	ASI
8	SG-200D2	ACB PANEL FOR SOLAR PACKAGE	1096	844	2294	1000	ROSETTI MARINO



ALEXSISTEMI S.r.l.

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	23/05/24	M.G.	O.A.	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND

ROSETTI MARINO

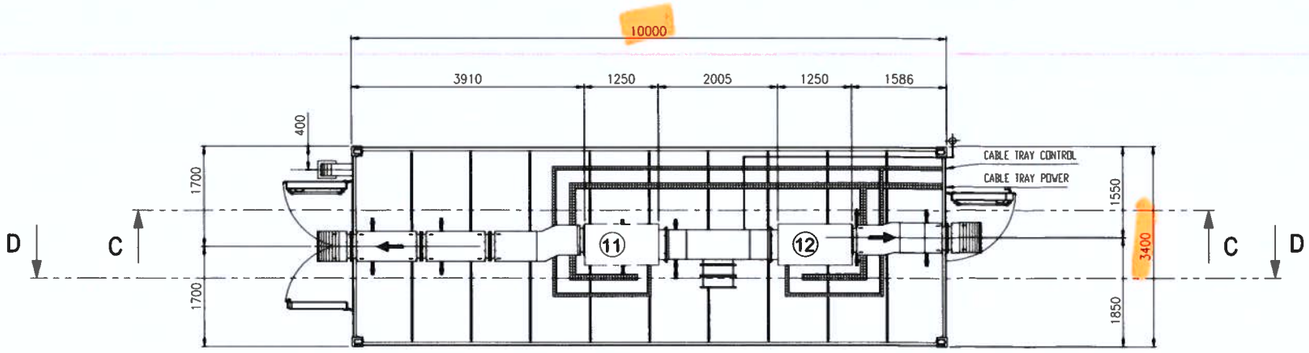
TITLE :
B-200 DETAILED DRAWINGS-E&I SHELTERS

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-00019		SHEET 003 / REV. 02

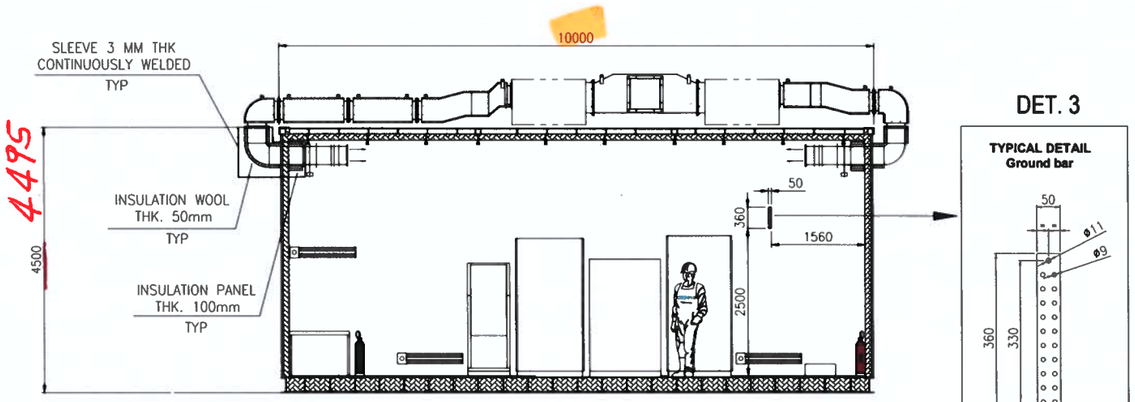
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MASTER COPY
INTERNAL TEST

DRAWING NO. 1724000049-AR-DD-00019 REV. 02



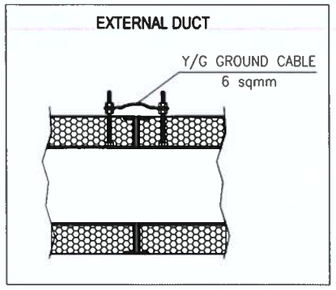
TOP VIEW



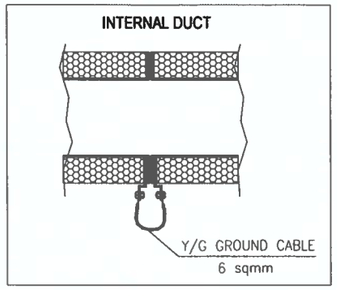
SECTION C-C

DET. 3

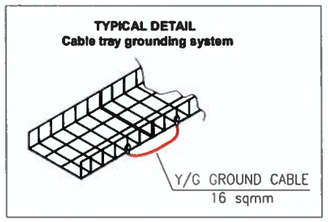
DET. 1



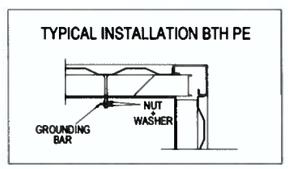
DET. 2



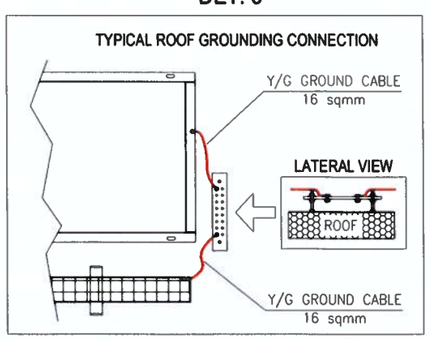
DET. 4



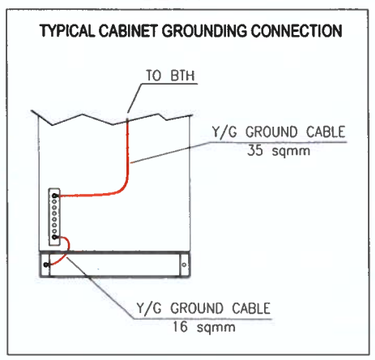
DET. 5

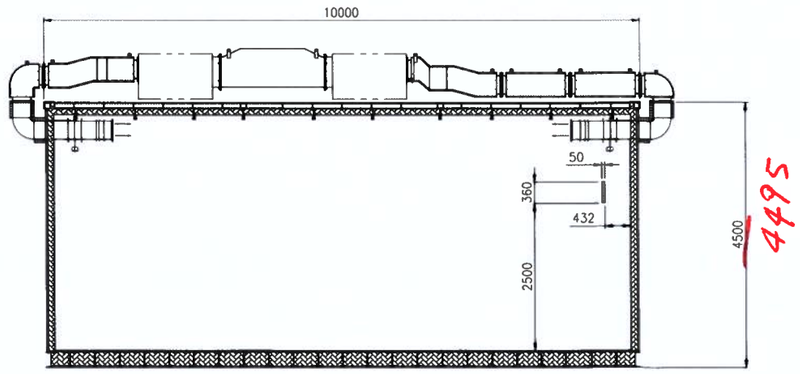


DET. 6

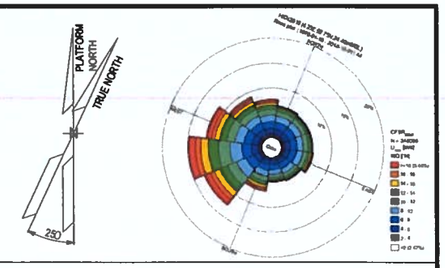


DET. 7





SECTION D-D

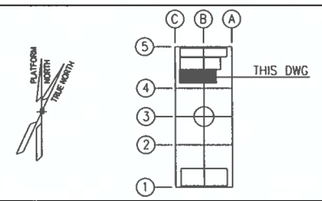


NOTES

1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.

LEGEND

KEY PLAN



ALEXSISTEMI

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	23/05/24	M.G.	O.A.	C.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND | ROSETTI MARINO

TITLE :
B-200 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-00019	SHEET 004	REV. 02

File Name : 1724000049-AR-DD-00019-REV.02

B-200 – ATTACH. 2

Doc. Name: CHECK AND FUNCTIONAL TEST		Report No.02
OUR JOB X176-24X	Date 24/07/2024	Page 1

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** LV (400V) SWITCH ROOM B-200
S/N: B200	**FAT procedure:** 1724000049-QC-PRO-00056

LOCATION : ON SITE ☒ OFF SITE ☐

DATE OF TEST: 24/07/2024

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	✓		

Comments:

ALEX SISTEMI *Quality Assurance*	Customer	Final Customer	3rd Part	other
ALEXSISTEMI spa	COICEA CATALIN LD ROSETTI MARINO (X)			

Doc. Name: PAINTING CHECK		Report No.02 Mod 1.4.2
OUR JOB X176-24X	Date 24/07/2024	Page 1/1

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** LV (400V) SWITCH ROOM B-200
S/N: B200	**FAT procedure:** 1724000049-QC-PRO-00056

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 24/07/2024

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	✓		
Visual Check External Color doors RAL 7035	✓		
Layer thickness of external coating µm 320 total	✓		
Visual Check Internal Equipment Baseframe RAL 7035	✓		

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 (X)	CROSSWIND		

Mod1.4.2

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** LV (400 V) SWITCH ROOM B-200
S/N: B200	**FAT procedure:** 1724000049-QC-PRO-00056

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 24/07/2024

REFERENCE DRAWING:

- 1724000049-AR-DA-00015 - B-200 GENERAL ARRANGMENT DRAWINGS - E&I SHELTERS
- 1724000049-HV-DA-00065 - MODULE B-200 – HVAC SYSTEM–G.A. AND DETAILS
- 1724000049-HV-DA-00027 - B-200 HVAC and LIGHTING PANEL WIRING DRAWINGS and GENERAL ARRANGEMENT (INCL INTERCONNECTING) - E&I SHELTERS

REFERENCE DOCUMENT:

- 1724000049-HV-PID-00040 - B-200 PID - E&I SHELTERS
- 1724000049-HV-LIS-00048 - B-200 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.

Mod1.4.6

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** LV (400 V) SWITCH ROOM B-200
S/N: B200	**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.
However, the following preliminary checks have been completed:

- Main unit changeover by simulating a system fault.
- Switching on of space heaters.
- Maintaining overpressure through VSD control.
- Reading temperature and differential pressure values on the HMI.

ALEX SISTEMI *Quality Assurance*	Customer	Final Customer	3rd Part	Other
ALEXSISTEMI spa	ROSETTI MARINO	CROSSWIND 29/07/24		

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** LV (400 V) SWITCH ROOM B-200
S/N: B200	**FAT procedure:** 1724000049-QC-PRO-00056

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 25/07/2024

REFERENCE DRAWING:

- 1724000049-AR-DA-00015 - B-200 GENERAL ARRANGMENT DRAWINGS - E&I SHELTERS
- 1724000049-HV-DA-00065 - MODULE B-200 – HVAC SYSTEM–G.A. AND DETAILS
- 1724000049-HV-DA-00027 - B-200 HVAC and LIGHTING PANEL WIRING DRAWINGS and GENERAL ARRANGEMENT (INCL INTERCONNECTING) - E&I SHELTERS

REFERENCE DOCUMENT:

- 1724000049-HV-PID-00040 - B-200 PID - E&I SHELTERS
- 1724000049-HV-CA-00036 - B-200 HVAC CALCULATION REPORT (Incl HVAC SYS CALC and HEAT DISSIPATION CALC) - E&I SHELTERS
- 1724000049-HV-LIS-00048 - B-200 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	

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** LV (400 V) SWITCH ROOM B-200
S/N: B200	**FAT procedure:** 1724000049-QC-PRO-00056

Comments:

Some 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. However, the following preliminary checks have been completed:

- Main unit changeover by simulating a system fault.
- Switching on of space heaters.
- Maintaining overpressure through VSD control.
- Reading temperature and differential pressure values on the HMI.

ALEX SISTEMI *Quality Assurance*	Customer	Final Customer	3rd Part	other
ALEXSISTEMI spa	ROSETTI MARINO	CROSSWIND 29/07/24		

B-300 – ATTACH. 1

ALEXSISTEMI spa

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV = ISO 9001 =

Doc. Name:
Dimensional Check and Visual Inspection *Report No.03*

OUR JOB X176-24X	Date 26/07/2024	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: 26/07/2024

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:

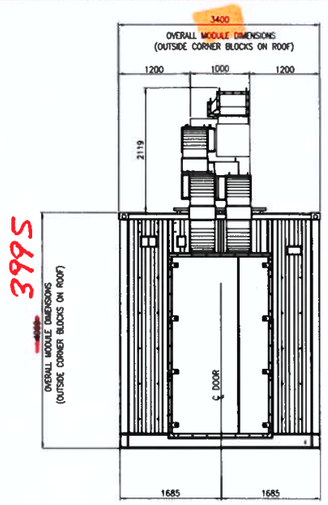
DWG attached.

ALEX SISTEMI *Quality Assurance*	Customer	Final Customer	3rd Part	other
ALEXSISTEMI spa	COICEA CATALIN ROSETTI MARINO (X)	x CROSSWIND W		

Mod.P13.1

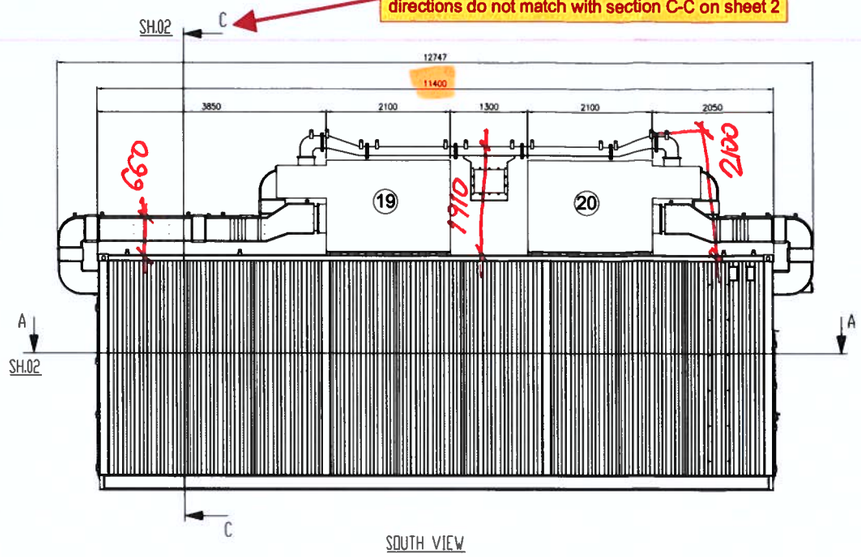
DRAWING NO. 1724000049-AR-DA-00016 REV. 02

Check and revise section C-C. Position and arrow directions do not match with section C-C on sheet 2

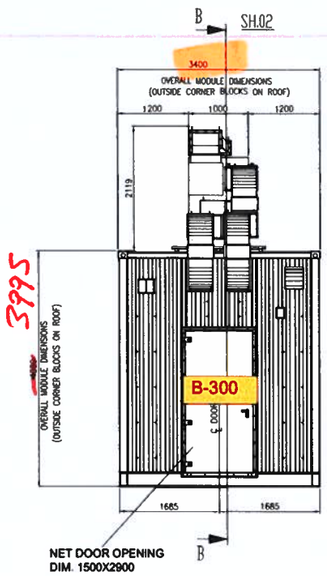


~~EAST VIEW~~

WEST VIEW

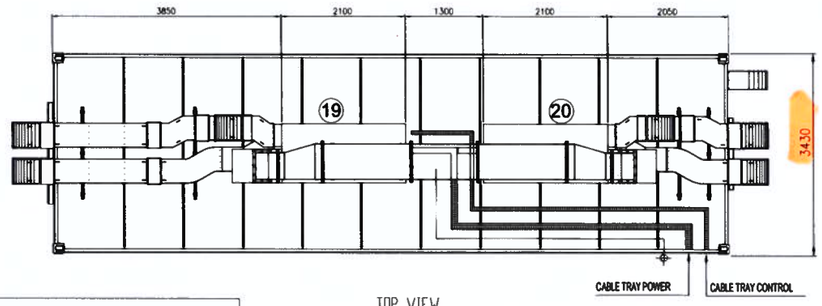


SOUTH VIEW



~~WEST VIEW~~

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-77-001	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

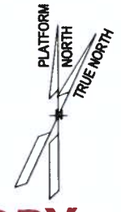
GENERAL REMARK:
Check line position and arrow directions for all sections (eg. sections B-B and D-D show same details)

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

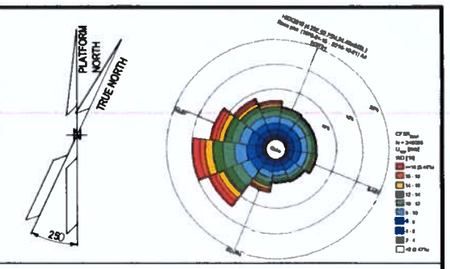
NOTE: Approval doesn't relieve the supplier from mandatory compliance with contractual documents and specifications. Comments made do not imply acceptance of any cost or delivery impact.

Sign	Date
R. Bossi	10/07/2024



MASTER COPY
INTERNAL TEST

02



NOTE

1) ALL DIMENSIONS ARE IM MM.

REFERENCE

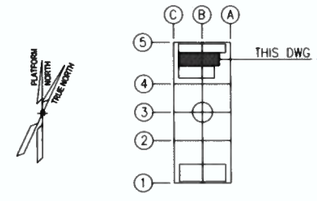
DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00066
"B-300" DETAILED DRAWING	1724000049-AR-DD-00020
PAINTING PROCEDURE	1724000049-MAT-PRO-00006

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



ALEXSISTEMI spa

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)

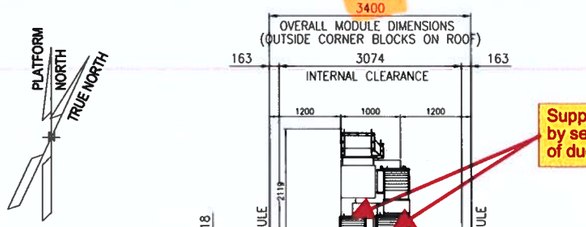
CROSSWIND | ROSETTI MARINO

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

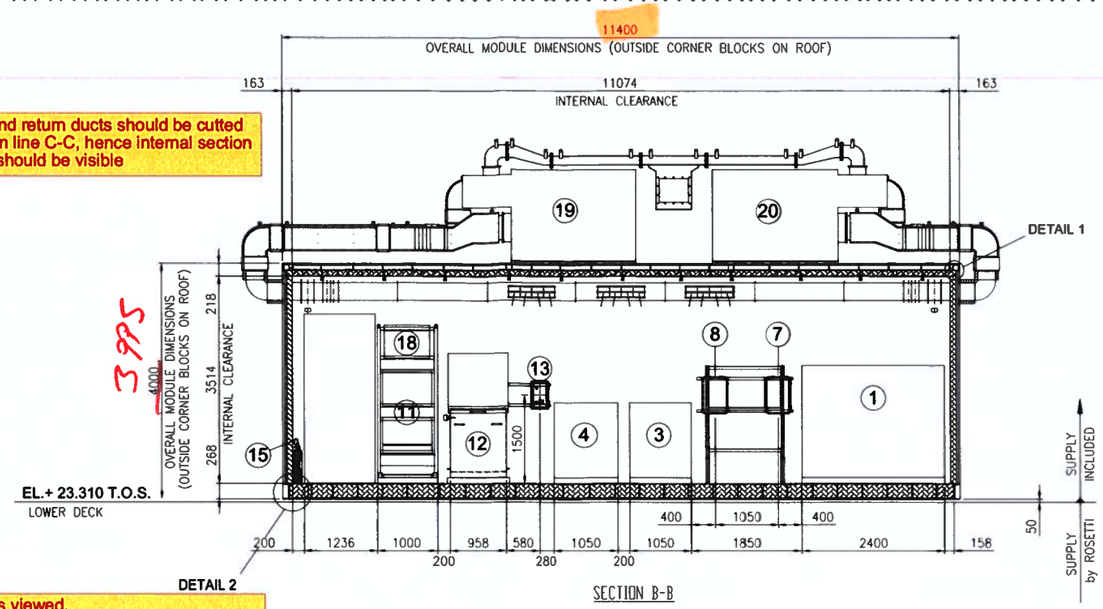
File Name : 1724000049-AR-DA-00016-REV.02

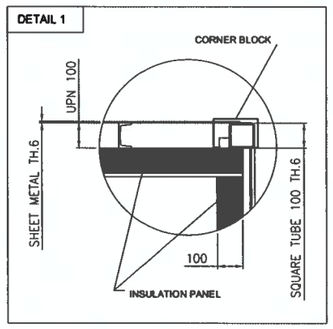
DRAWING NO. 1724000049-AR-DA-00016 REV. 02

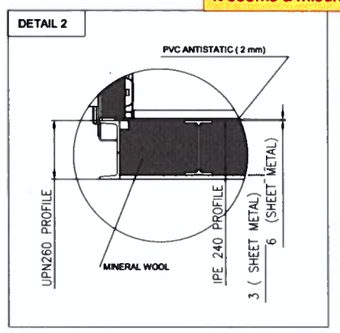


Supply and return ducts should be cutted by section line C-C, hence internal section of ducts should be visible

Revise Items viewed.
It seems a misdraw coming from section E-E

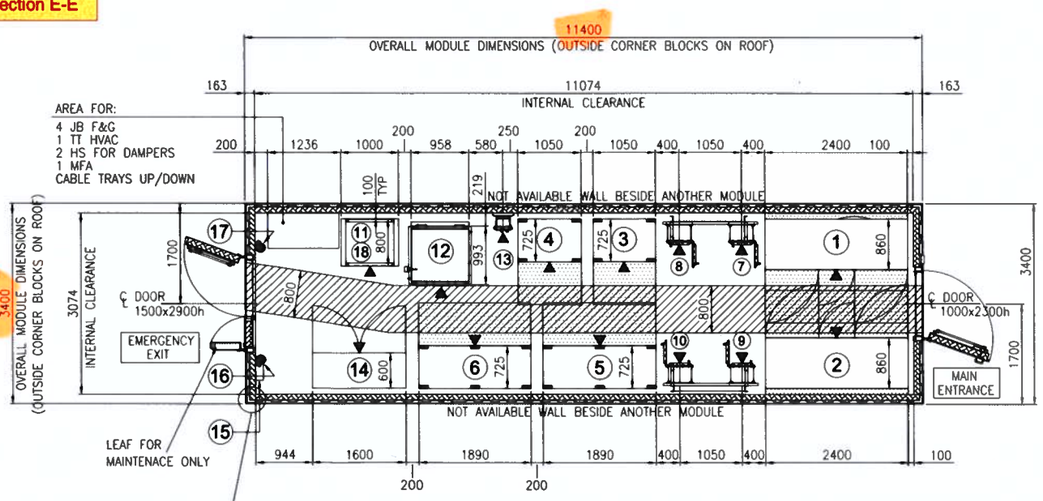


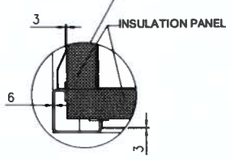




EQUIPMENT LIST

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

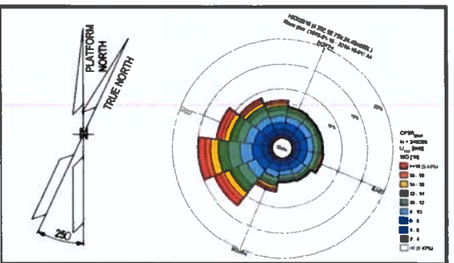




EQUIPMENT LAYOUT
"B-300" AC UPS FITTED WITH UPS SYSTEM EQUIPMENT ROOM
BOTTOM PLAN

MASTER COPY
INTERNAL TEST

02



NOTE

1) ALL DIMENSIONS ARE IM MM.

REFERENCE

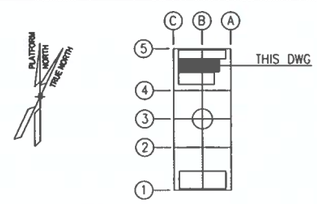
DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00066
"B-300" DETAILED DRAWING	1724000049-AR-DD-00020
PAINTING PROCEDURE	1724000049-MAT-PRO-00006

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



ALEXSISTEMI srl

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)

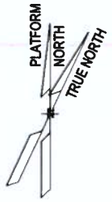
CROSSWIND | ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
B-300 GENERAL ARRANGEMENT DRAWINGS

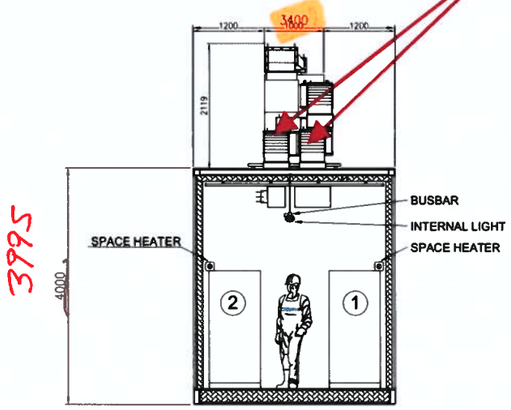
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 03/07/24
A1	DRAWING NO. 1724000049-AR-DA-00016	SHEET 002	REV. 02

File Name : 1724000049-AR-DA-00016-REV.02

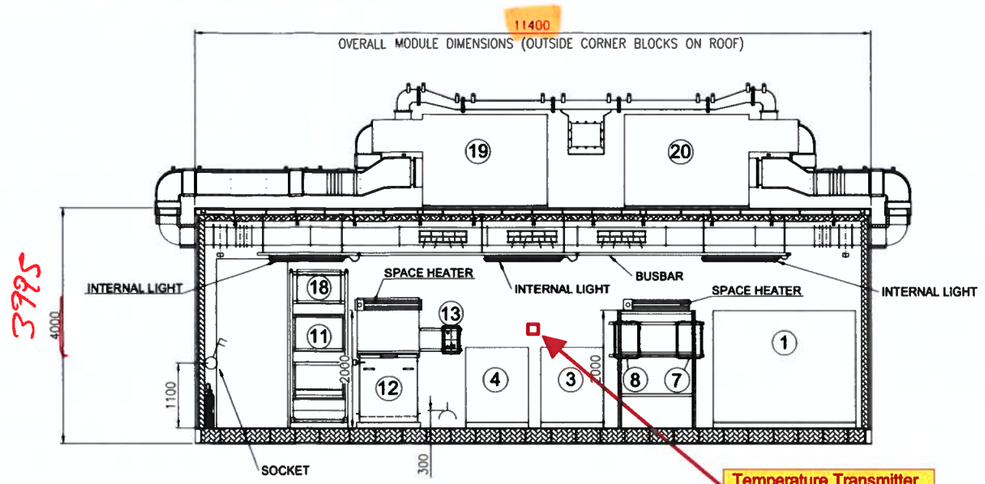
DRAWING NO. 1724000049-AR-DA-00016 REV. 02



Supply and return ducts should be cutted by section line E-E, hence internal section of ducts should be visible

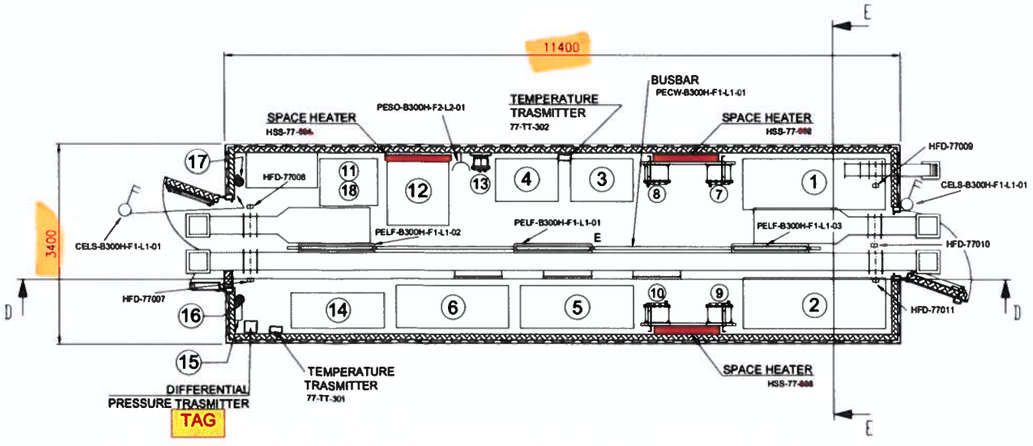


SECTION E-E



SECTION D-D

Temperature Transmitter TAG



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.

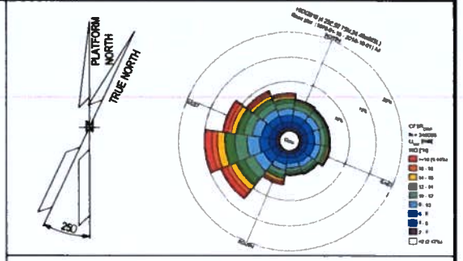
EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258
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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
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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

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

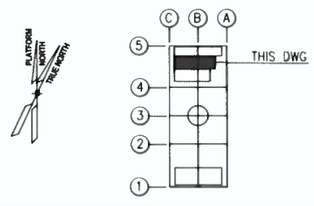
DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00066
"B-300" DETAILED DRAWING	1724000049-AR-DD-00020
PAINTING PROCEDURE	1724000049-MAT-PRO-00006

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



ALEXSISTEMI S.r.l.

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-REV.02

DRAWING NO. 1724000049-ST-DD-00012 REV. 01

11400

OVERALL MODULE DIMENSIONS (OUTSIDE CORNER BLOCKS ON ROOF)

250 5350 250 5350 250

250

UNP260

UNP260

UNP260

UNP260

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	Date
R. Bossi	07/06/2024

B-300

73.5 120 2983 120 73.5 = 3370

250 2923 250 = 3400

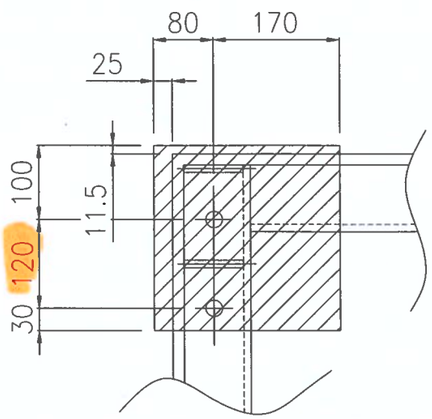
OVERALL MODULE DIMENSIONS (OUTSIDE CORNER BLOCKS ON ROOF)

250 250 250 250

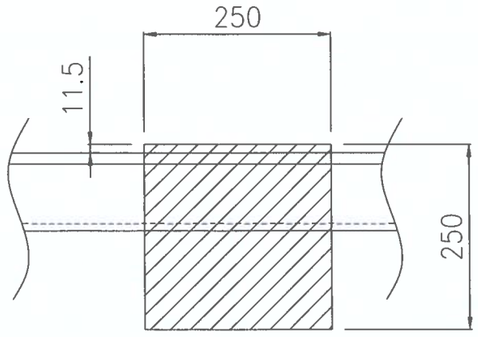
No. 2 HOLES Ø18
FOR M16 SCREW
AT EACH CORNER
(SCREW SUPPLY by ROSETTI)

HOLES 40 11290 40

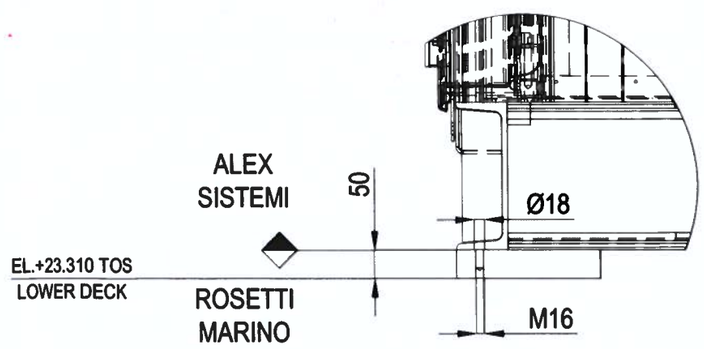
11370



TYPICAL CORNER PLATE POSITION

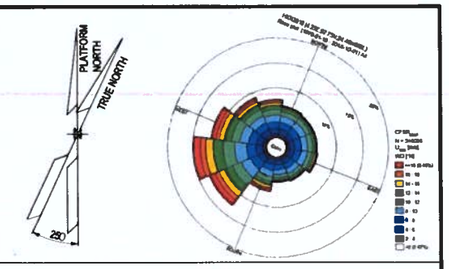


TYPICAL CENTRAL PLATE POSITION



TYPICAL FIXING DETAIL
SCALE 1 : 10

MASTER COPY
INTERNAL TEST



NOTE

1) ALL DIMENSIONS ARE IM MM.

REFERENCE

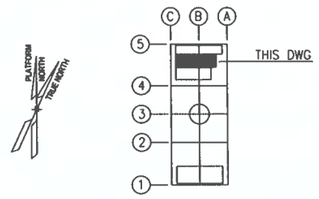
DOCUMENT TITLE	DOCUMENT NUMBER
B-300 STRUCTURAL CALCULATION - E&I SHELTERS	1724000049-ST-CA-00008

LEGEND

Plate 50 mm thk. welded on
Lower Deck - Supply by Rosetti

HOLDS

KEY PLAN



ALEXSISTEMI spa

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

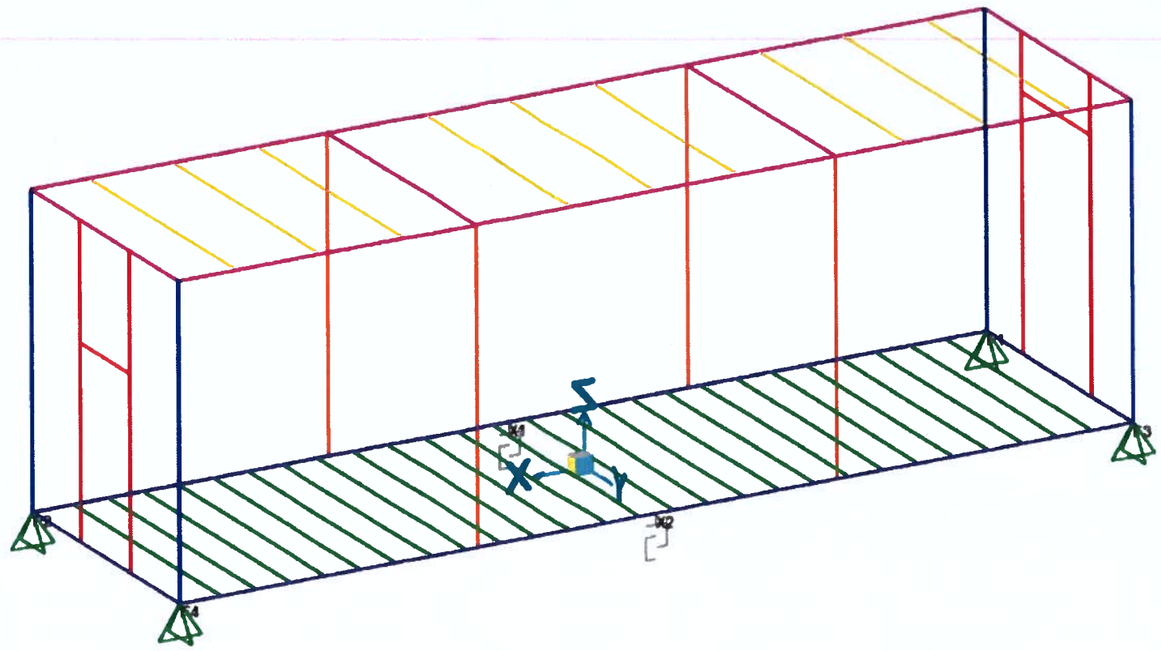
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE N.A.
DRAWN M.G.	CHECKED M.R.	APPROVED O.A.	DATE 03/06/24
A1	DRAWING NO. 1724000049-ST-DD-00012	SHEET 001/002	REV. 01

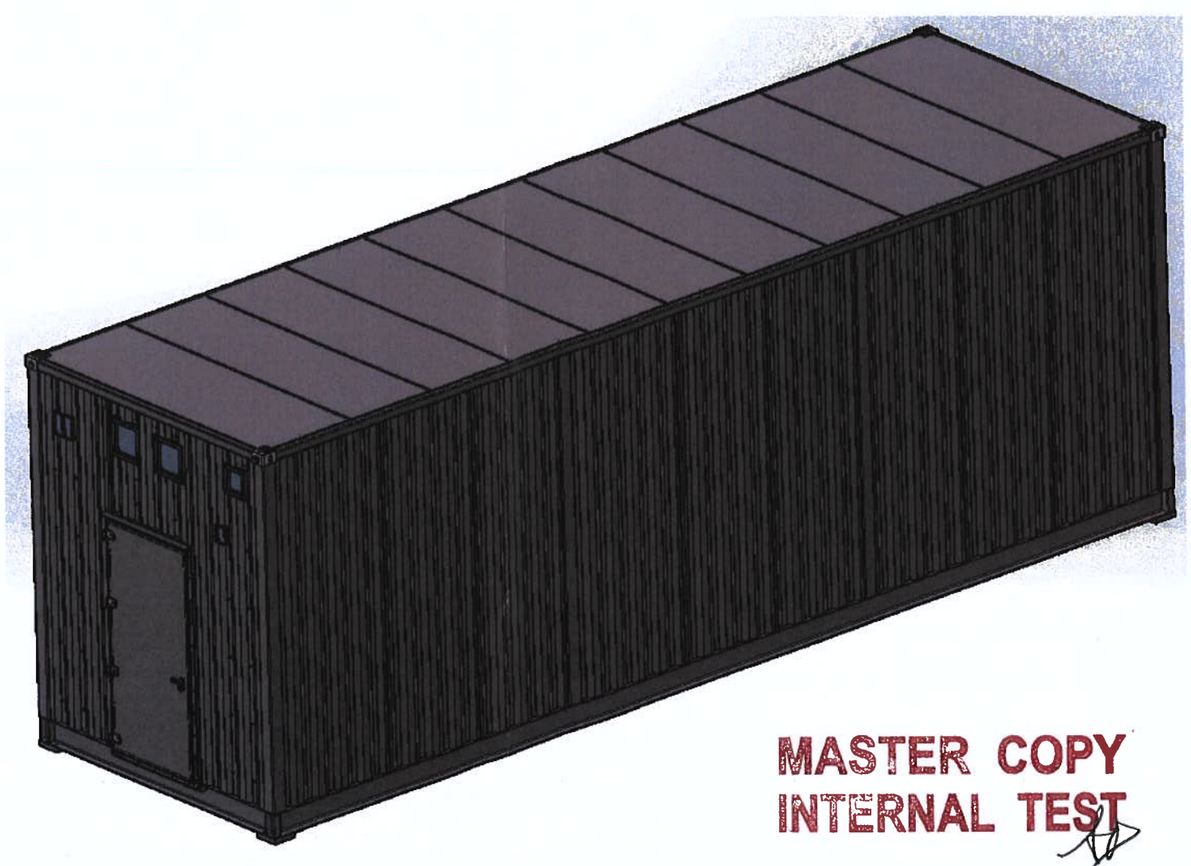
File Name : 1724000049-ST-DD-00012-REV.01

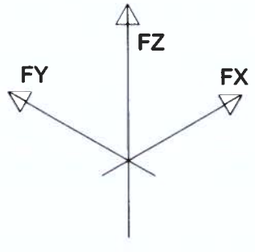
DRAWING NO. 1724000049-ST-DD-00012 REV. 01

TABLE: Joint Reactions

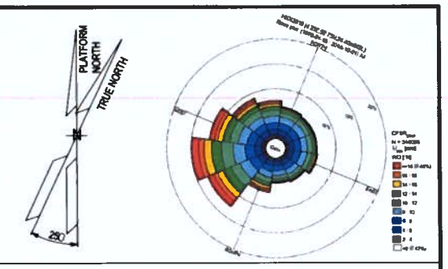
Joint	OutputCase	CaseType	StepType	Fx	Fy	Fz	Mx	My	Mz
Text	Text	Text	Text	KN	KN	KN	KN-m	KN-m	KN-m
F1	DEAD	NonStatic	Last Step	8,15	3,98	20,56	0,00	0,00	0,00
F1	SD	NonStatic	Last Step	17,79	5,10	26,86	0,00	0,00	0,00
F1	LIVE	NonStatic	Last Step	18,94	6,80	43,72	0,00	0,00	0,00
F1	WIND X	NonStatic	Last Step	-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.

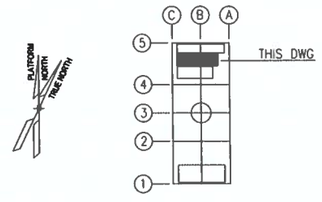
REFERENCE

DOCUMENT TITLE	DOCUMENT NUMBER
B-300 STRUCTURAL CALCULATION - E&I SHELTERS	1724000049-ST-CA-00008

LEGEND

HOLDS

KEY PLAN



ALEXSISTEMI

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

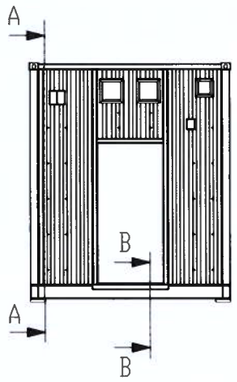
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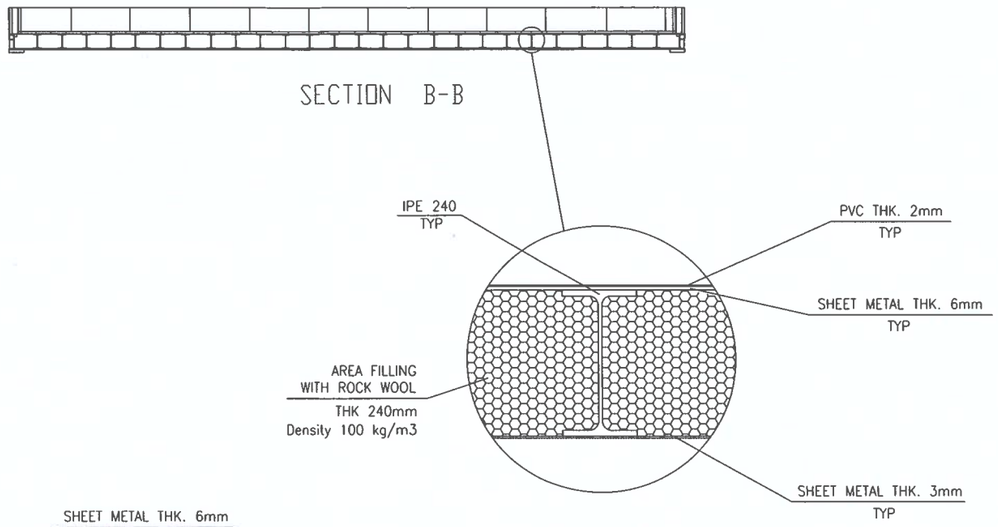
DRAWING NO. 1724000049-AR-DD-00020

REV. 02

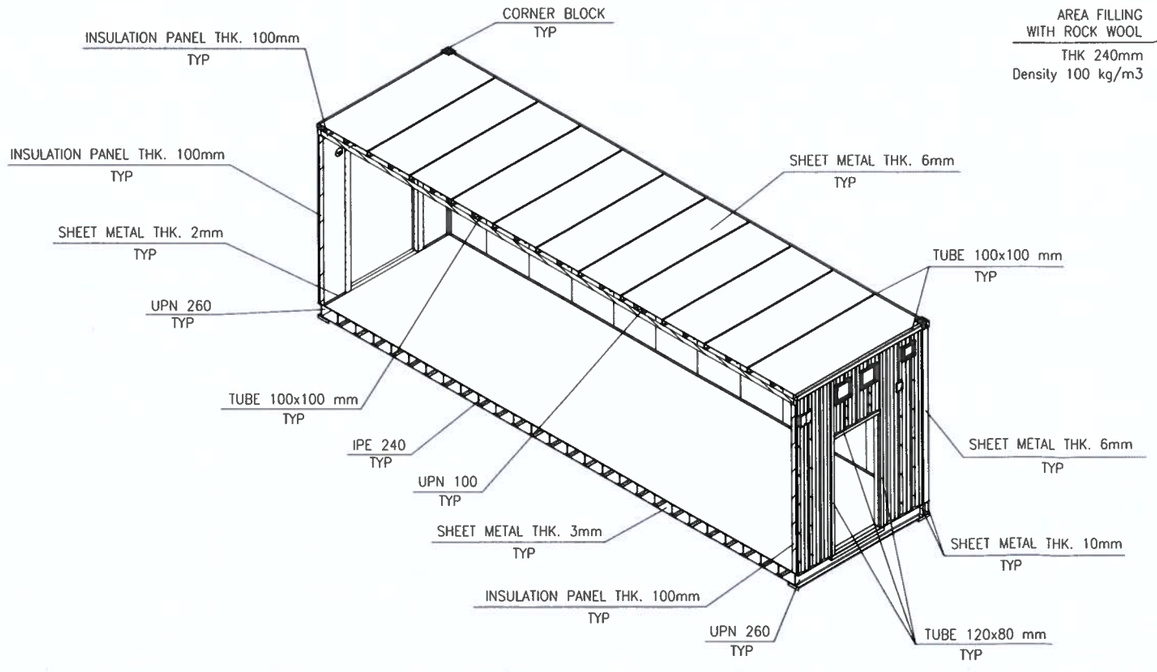
MODULE B-300

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

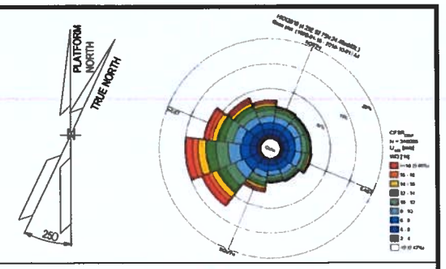




DETAIL "C"

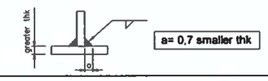


MASTER COPY
INTERNAL TEST



NOTES

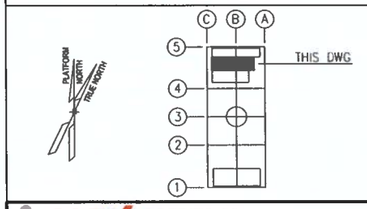
1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.
2. ALL WELDINGS SYMBOLS ARE IN ACCORDANCE WITH A.W.S. CODE D.1.1
3. UNLESS OTHERWISE INDICATED FILLET WELDS SHALL HAVE FOLLOWING DIM.:



LEGEND

HOLDS

KEY PLAN



ALEXSISTEMI

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

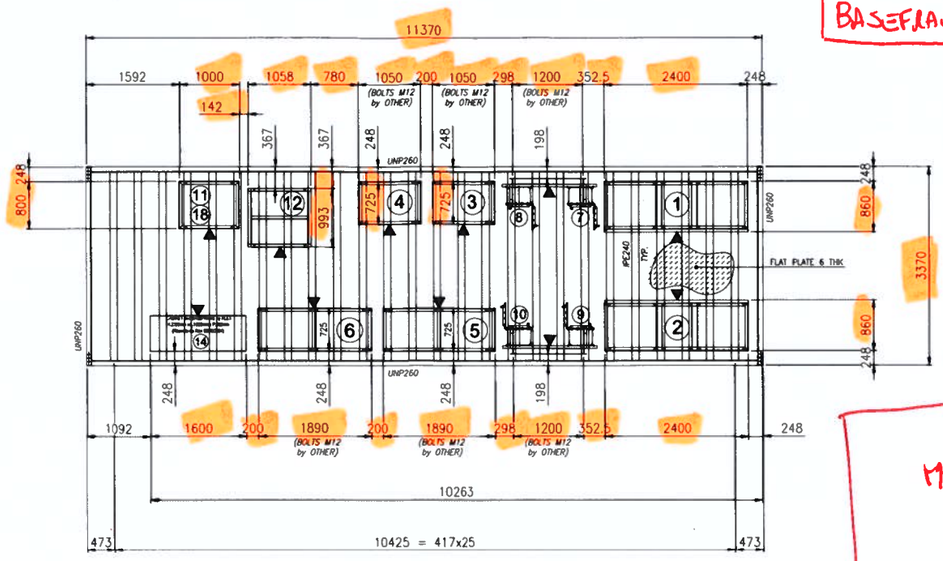
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 11/07/24
A1	DRAWING NO. 1724000049-AR-DD-00020	SHEET 001	REV. 02

File Name : 1724000049-AR-DD-00020-REV.02

DRAWING NO. 1724000049-AR-DD-00020

REV. 02

B-300
I&T EQUIPMENT ROOM
BASEFRAME LOCATION PLAN

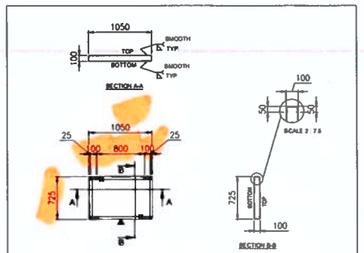


MISSING

BASEFRAME (12)

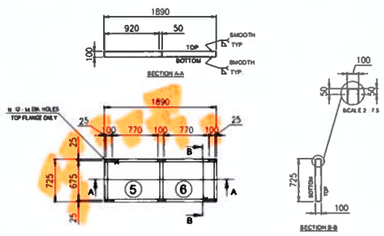
MISSING

BASEFRAME (11) (18)



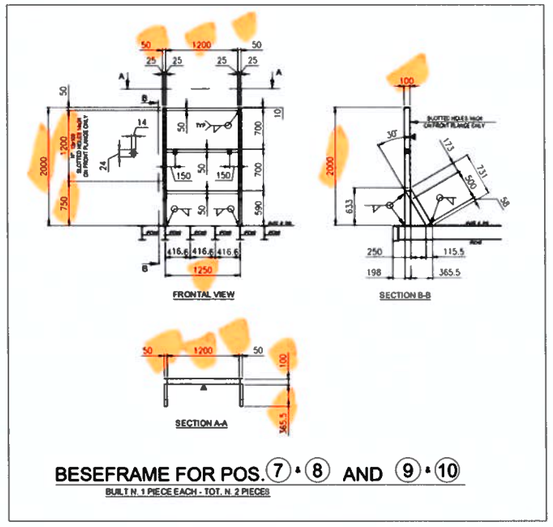
BESEFRAME FOR POS. 3 & 4

BUILT N. 1 PIECE EACH - TOT. N. 2 PIECES



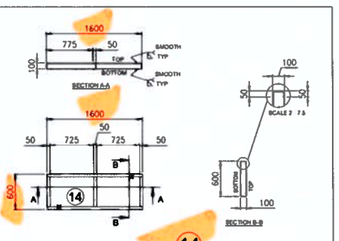
BESEFRAME FOR POS. 5 & 6

BUILT N. 1 PIECE EACH - TOT. N. 2 PIECES



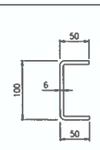
BESEFRAME FOR POS. 7 & 8 AND 9 & 10

BUILT N. 1 PIECE EACH - TOT. N. 2 PIECES

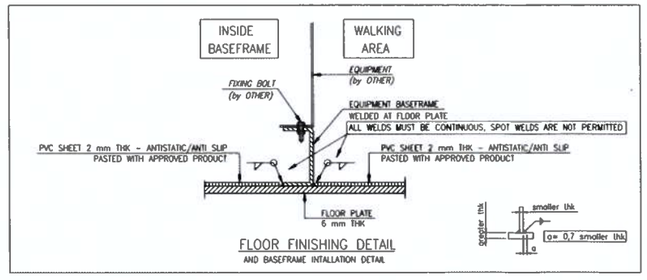


BESEFRAME FOR POS. 14

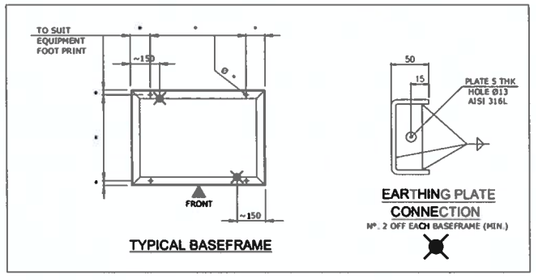
BUILT N. 1 PIECE



C 100x50x50 THK 6mm.
FROM BENT PLATE THK 6mm.
MAT. CARBON STEEL



FLOOR FINISHING DETAIL
AND BASEFRAME INTALLATION DETAIL

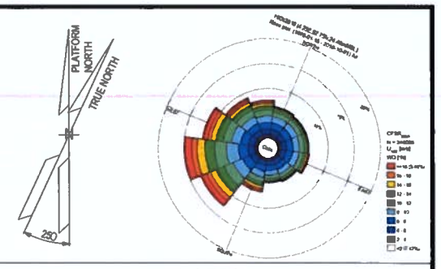


TYPICAL BASEFRAME

EARTHING PLATE CONNECTION
N°. 2 OFF EACH BASEFRAME (MIN.)

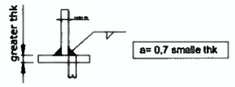
EQUIPMENT LIST

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".



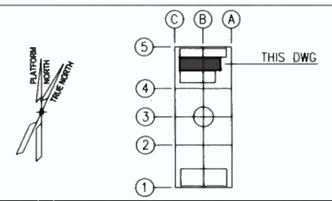
6. SURFACE TREATMENT ACCORDING DOCUMENT N. 1724000049-MAT-PRO-00004 - PAINTING PROCEDURE FINAL COLOUR LIGHT GREY RAL 7035.

LEGEND

ASI = ALEX SISTEMI

HOLDS

KEY PLAN



ALEXSISTEMI

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

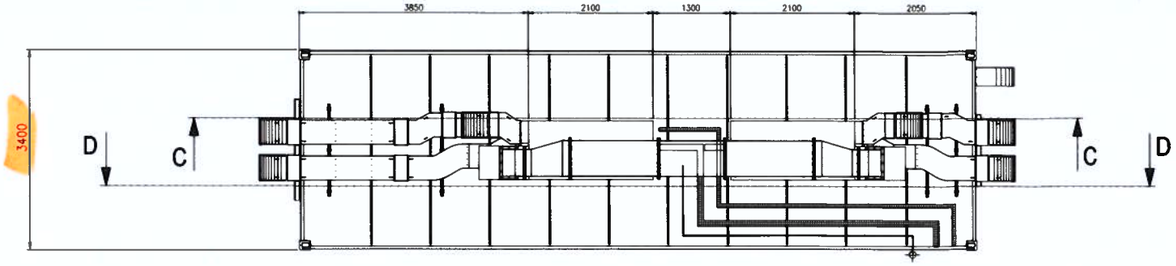
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 11/07/24
A1	DRAWING NO. 1724000049-AR-DD-00020	SHEET 003	REV. 02

File Name : 1724000049-AR-DD-00020-REV.02

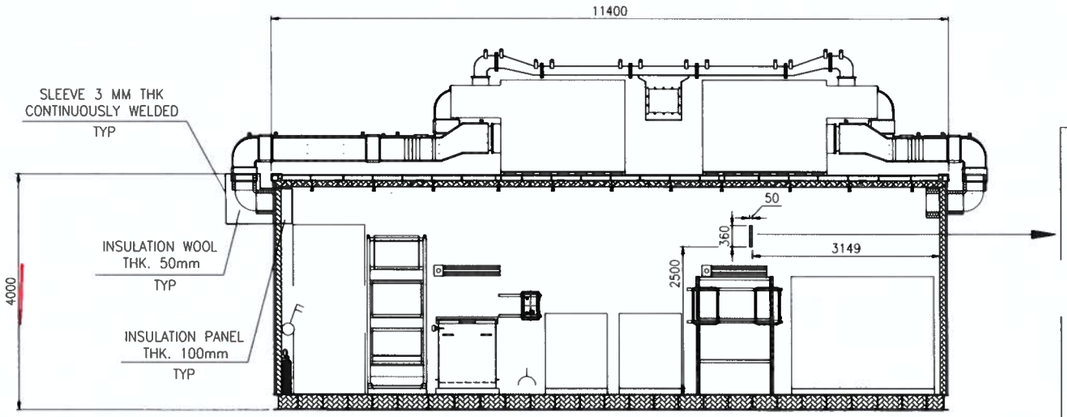
MASTER COPY
INTERNAL TEST

DRAWING NO. 1724000049-AR-DD-00020

REV. 02

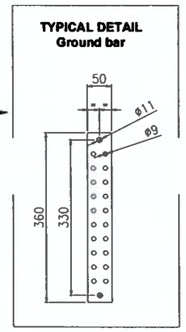


TOP VIEW

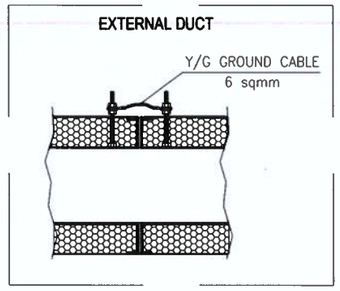


SECTION C-C

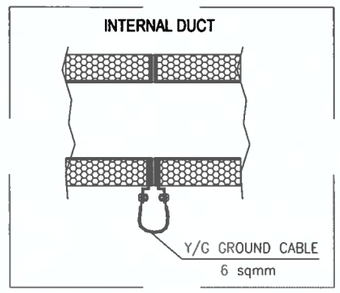
DET. 3



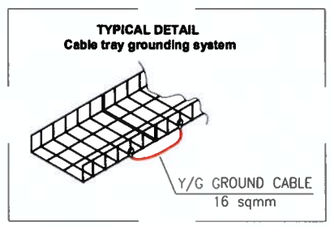
DET. 1



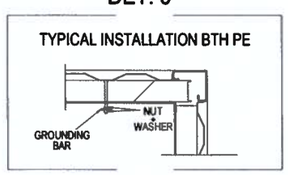
DET. 2



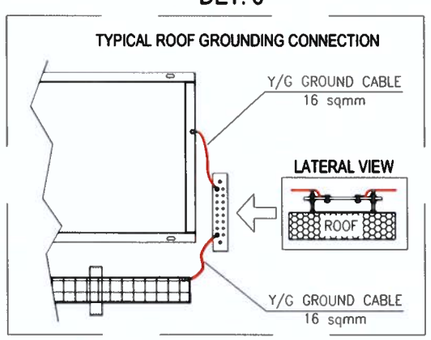
DET. 4



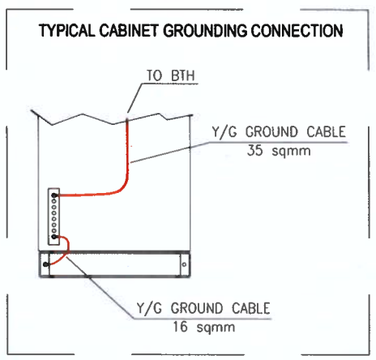
DET. 5

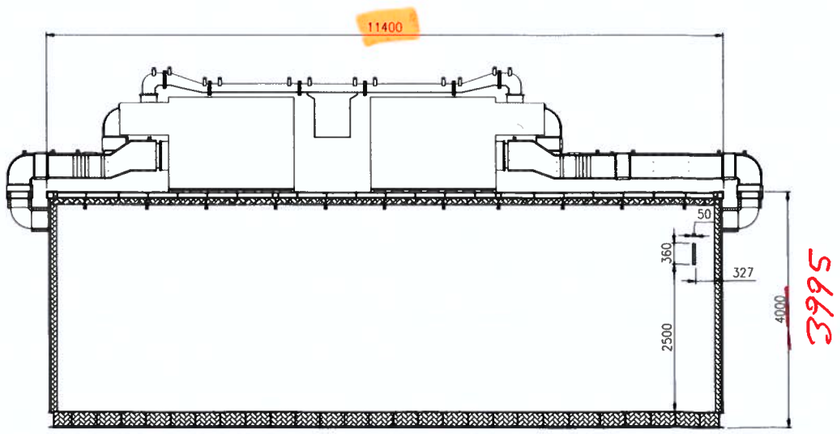


DET. 6



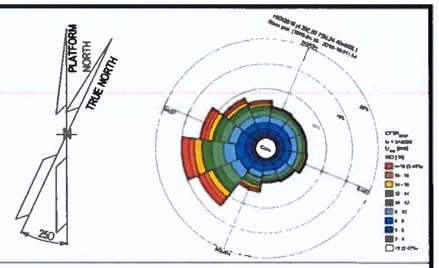
DET. 7





SECTION D-D

MASTER COPY
INTERNAL TEST



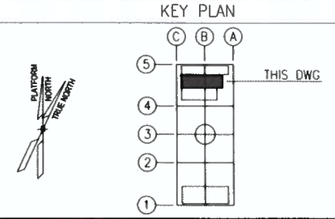
NOTES

1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.

LEGEND

HOLDS

KEY PLAN



ALEXSISTEMI

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

B-300 – ATTACH. 2

Doc. Name: PAINTING CHECK		Report No.03 Mod 1.4.2
OUR JOB X176-24X	Date 26/07/2024	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: 26/07/2024

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	✓		
Visual Check External Color doors RAL 7035	✓		
Layer thickness of external coating µm 320 total	✓		
Visual Check Internal Equipment Baseframe RAL 7035	✓		

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	CROSSWIND		

Mod1.4.2

Doc. Name: CHECK AND FUNCTIONAL TEST		Report No.03
OUR JOB X176-24X	Date 26/07/2024	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: 26/07/2024

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	✓		

Comments:

ALEX SISTEMI *Quality Assurance*	Customer	Final Customer	3rd Part	other
ALEXSISTEMI spa	COICEA CATALIN AD ROSETTI MARINO (XV)	CROSSWIND		

Mod.1.4.9

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: 26/07/2024

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.

Mod1.4.6

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	ROSETTI MARINO	CROSSWIND 29/07/24		

B-400 – ATTACH. 1

ALEXSISTEMI spa

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV = ISO 9001 =

Doc. Name: **Dimensional Check and Visual Inspection**		*Report No.04*
OUR JOB X176-24X	Date 26/07/2024	Page 1

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** I&T EQUIPMENT ROOM B-400
S/N: B400	**FAT procedure:** 1724000049-QC-PRO-00056

LOCATION : ON SITE ☒ OFF SITE ☐

DATE OF TEST: 26/07/2024

REFERENCE DRAWING: 1724000049-AR-DA-00017 / 1724000049-ST-DD-00013 / 1724000049-AR-DD-00021

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	✓		

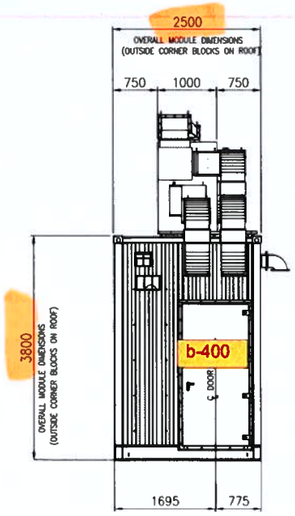
Comments:

DWG attached.

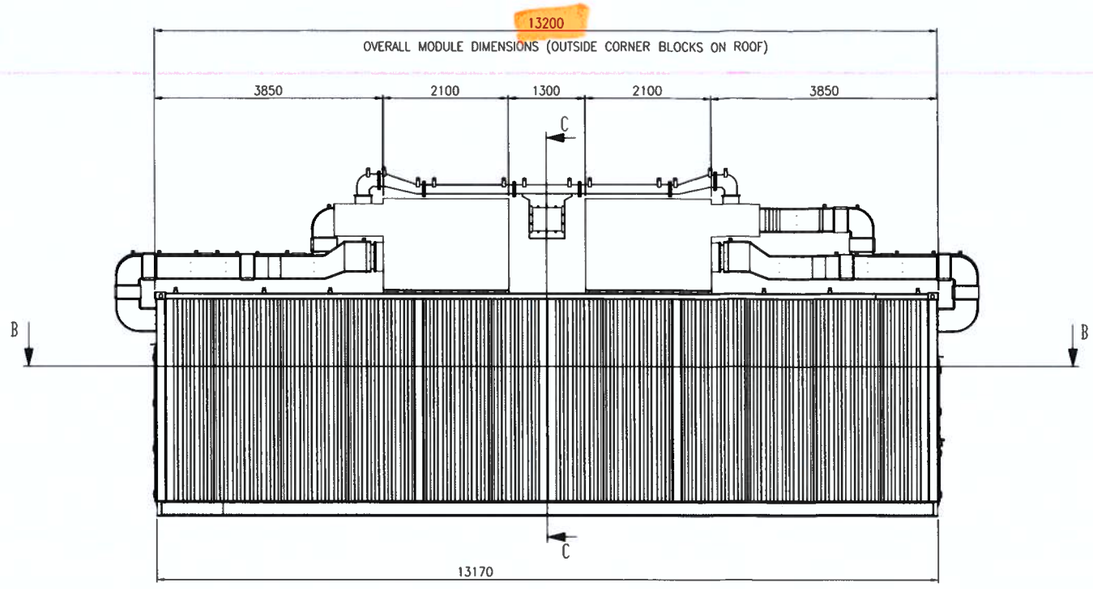
ALEX SISTEMI *Quality Assurance*	Customer	Final Customer	3rd Part	other
ALEXSISTEMI spa	COICEA CATALIN ROSETTI MARINO	CROSSWIND		

Mod.P13.1

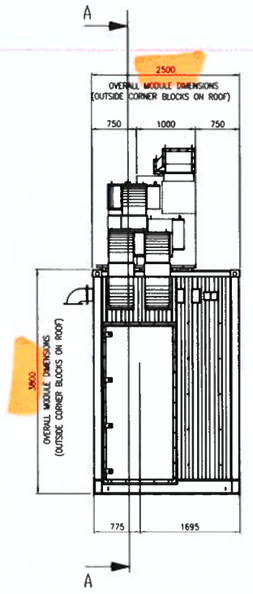
DRAWING NO. 1724000049-AR-DA-00017 REV 02



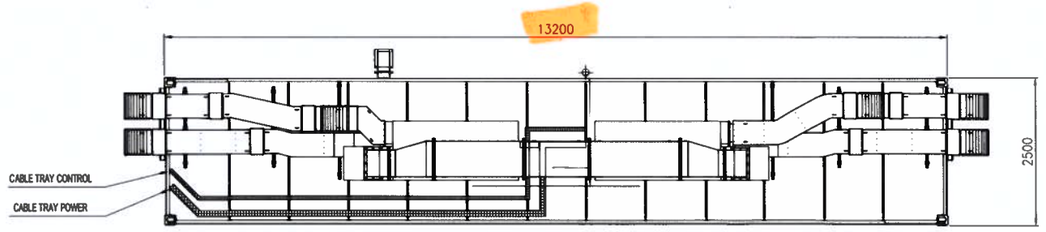
EAST VIEW



SOUTH VIEW



WEST VIEW



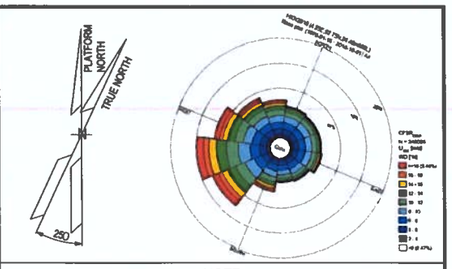
TOP VIEW

EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)	NOTE
1	B400-SRV-001	SERVER CABINET	1000	800	2100	250	SINLGLE CABINET
2	B400-NET-001	NETWORK CABINET	800	800	2100	250	SINLGLE CABINET
3	B400-EMCS-001	EMCS SYSTEM CABINET	800	800	2100	250	SINLGLE CABINET
4	B400-PCS-001	PCS SYSTEM CABINET	800	800	2100	250	DOUBLE CABINET
5	B400-PCS-002	PCS MARSHALLING CABINET	800	800	2100	250	
6	B400-FGS-001	FGS SYSTEM CABINET	800	800	2100	250	TRIPLE CABINET
7	B400-FGS-002	FGS MARSHALLING CABINET 1	800	800	2100	250	
8	B400-FGS-003	FGS MARSHALLING CABINET 2	800	800	2100	250	
9	B400-SIS-001	SIS SYSTEM/MARSHALLING CABINET	800	800	2100	250	SINLGLE CABINET
10	-	SPARE					
11	B400-HSB-001	DISTRIBUTION & HVAC PANEL - I&T ROOM	1600	600	2300	1150	
12	-	TABLE	850	500	750	50	
13	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20	
14	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20	
15	-	FIRST AID KIT	280	115	200	10	
16	-	RESUSCITATION UNIT	430	210	480	10	
17	-	CABINET INCLUDED N.10 ESCAPE MASK	448	213	422	15	
18	HHU-77007	AIR HANDLING UNIT A	2100	1000	2158	850	
19	HHU-77008	AIR HANDLING UNIT B	2100	1000	2158	850	
20	HSS-77-001	SPACE HEATER 1	184	145	1100	5	
21	HSS-77-002	SPACE HEATER 2	184	145	1100	5	
22	HSS-77-003	SPACE HEATER 3	184	145	1100	5	

MASTER COPY
INTERNAL TEST

02



NOTE

1) ALL DIMENSIONS ARE IM MM.

REFERENCE

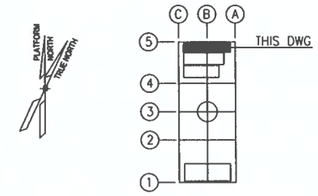
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"B-400" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00067
"B-400" DETAILED DRAWING	1724000049-AR-DD-00021
PAINTING PROCEDURE	1724000049-MAT-PRO-00007

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
02	04/07/24	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

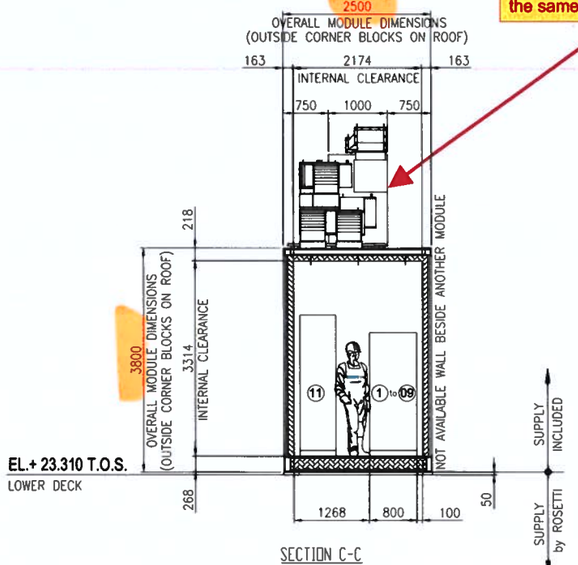
TITLE : BASE LOAD POWER HUB (BLPH)
B-400 GENERAL ARRANGEMENT DRAWINGS

CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 04/07/24
A1	DRAWING NO. 1724000049-AR-DA-00017	SHEET 001	REV. 02

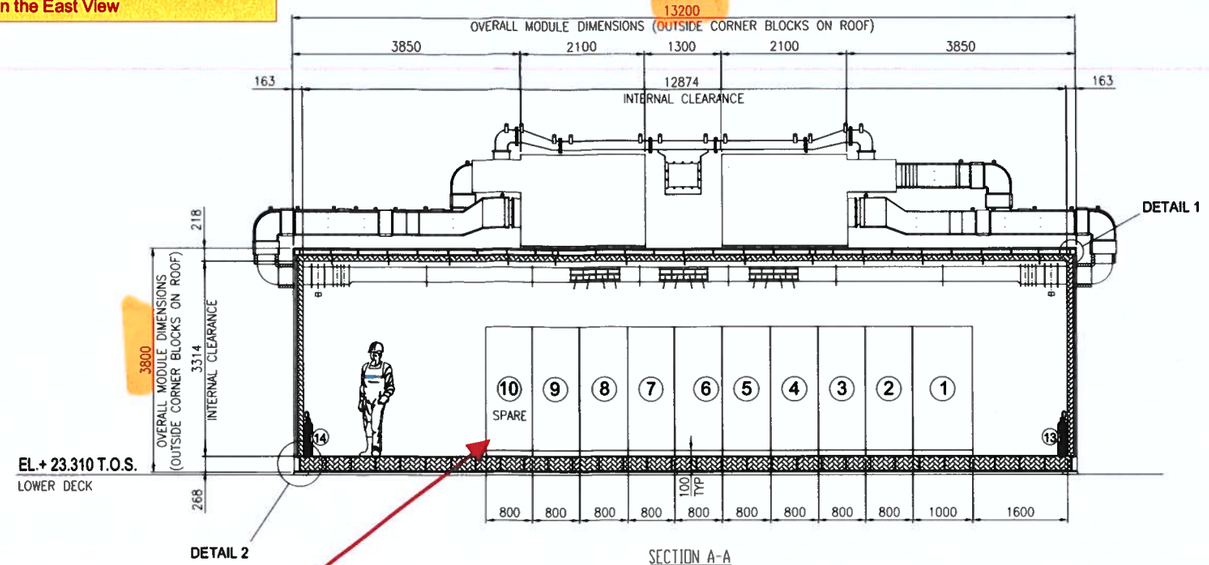
File Name : 1724000049-AR-DA-00017-REV.02

DRAWING NO. 1724000049-AR-DA-00017 REV. 02

Check HVAC units and ducts positions. It should be the same shown in the East View



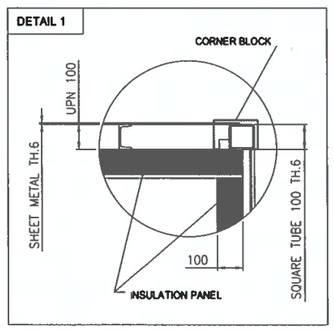
SECTION C-C

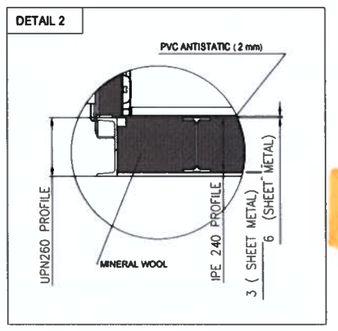


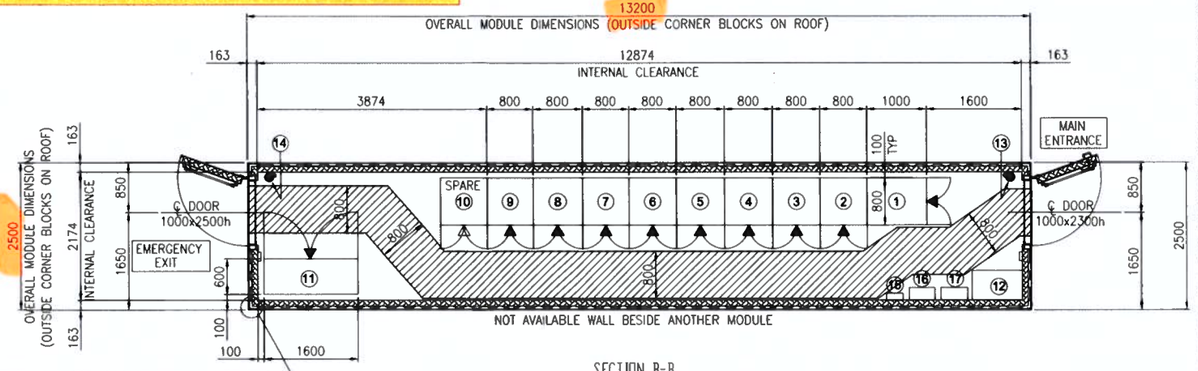
DETAIL 2

SECTION A-A

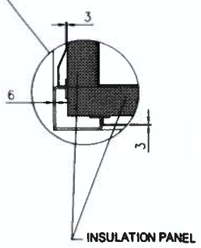
Check numbering and position of items.
This section view is similar to section D-D, although section A-A should be oriented to South







SECTION B-B



EQUIPMENT LAYOUT
"B-400" I&T EQUIPMENT ROOM
BOTTOM PLAN

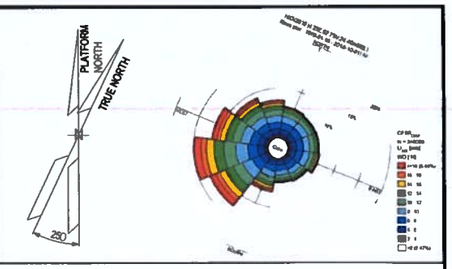
EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)	NOTE
1	B400-SRV-001	SERVER CABINET	1000	800	2100	250	SINLGLE CABINET
2	B400-NET-001	NETWORK CABINET	800	800	2100	250	SINLGLE CABINET
3	B400-EMCS-001	EMCS SYSTEM CABINET	800	800	2100	250	SINLGLE CABINET
4	B400-PCS-001	PCS SYSTEM CABINET	800	800	2100	250	DOUBLE CABINET
5	B400-PCS-002	PCS MARSHALLING CABINET	800	800	2100	250	
6	B400-FGS-001	FGS SYSTEM CABINET	800	800	2100	250	TRIPLE CABINET
7	B400-FGS-002	FGS MARSHALLING CABINET 1	800	800	2100	250	
8	B400-FGS-003	FGS MARSHALLING CABINET 2	800	800	2100	250	
9	B400-SIS-001	SIS SYSTEM/MARSHALLING CABINET	800	800	2100	250	SINLGLE CABINET
10	-	SPARE					
11	B400-HSB-001	DISTRIBUTION & HVAC PANEL - I&T ROOM	1600	600	2300	1150	
12	-	TABLE	850	500	750	50	
13	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20	
14	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20	
15	-	FIRST AID KIT	280	115	200	10	
16	-	RESUSCITATION UNIT	430	210	480	10	
17	-	CABINET INCLUDED N.10 ESCAPE MASK	448	213	422	15	
18	HHU-77007	AIR HANDLING UNIT A	2100	1000	2158	850	
19	HHU-77008	AIR HANDLING UNIT B	2100	1000	2158	850	
20	~~HSS 77 001~~	SPACE HEATER 1	184	145	1100	5	
21	~~HSS 77 002~~	SPACE HEATER 2	184	145	1100	5	
22	~~HSS 77 003~~	SPACE HEATER 3	184	145	1100	5	

Revise TAGs according to all documents (P&IDs, HVAC & Lighting Panel, HVAC GA & Details, etc.)

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

MASTER COPY
INTERNAL TEST



NOTE

1) ALL DIMENSIONS ARE IM MM.

REFERENCE

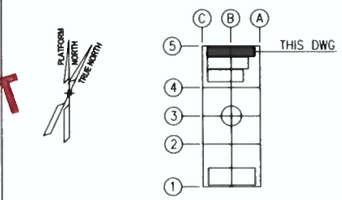
DOCUMENT TITLE	DOCUMENT NUMBER
"B-400" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00067
"B-400" DETAILED DRAWING	1724000049-AR-DD-00021
PAINTING PROCEDURE	1724000049-MAT-PRO-00007

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

Next revision: 03 Accepted For Construction (AFC)

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	04/07/24	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

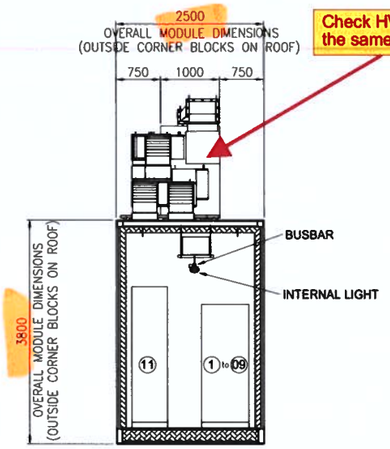
TITLE : BASE LOAD POWER HUB (BLPH)
B-400 GENERAL ARRANGEMENT DRAWINGS

CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 04/07/24
A1	DRAWING NO. 1724000049-AR-DA-00017	SHEET 002	REV. 02

File Name : 1724000049-AR-DA-00017-REV.02

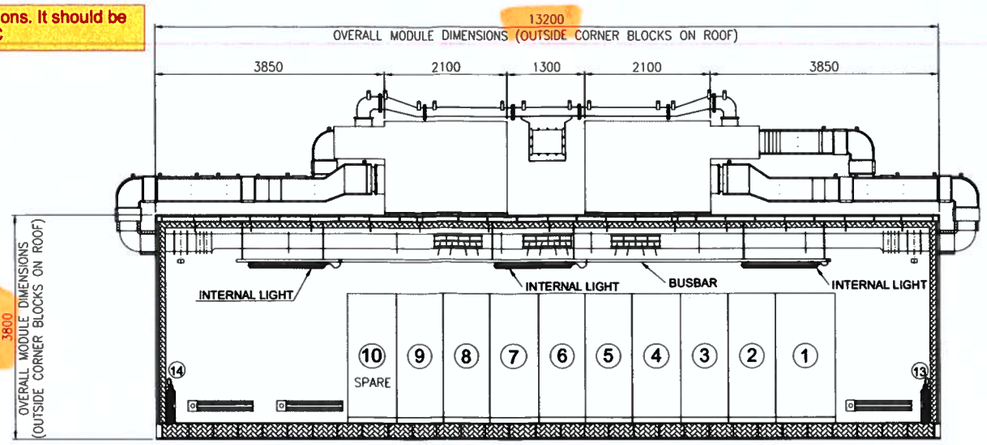
02

DRAWING NO. 1724000049-AR-DA-00017 REV 02

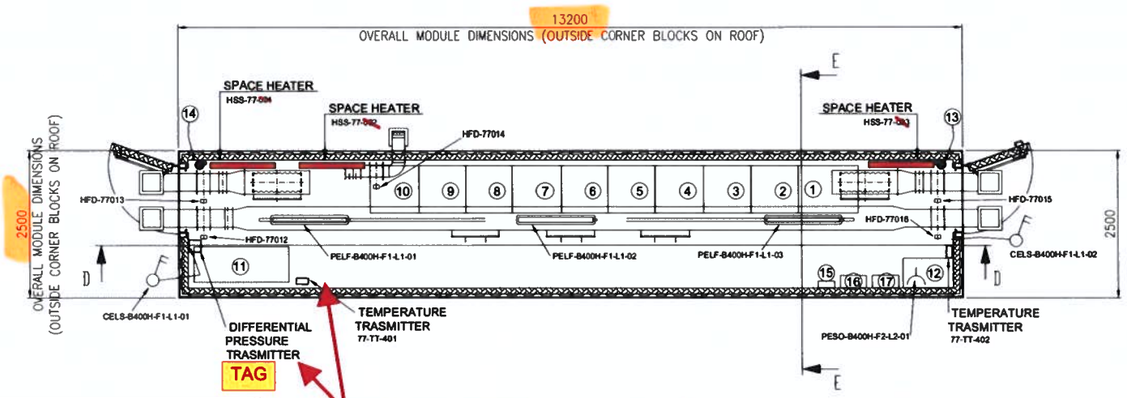


SECTION E-E

Check HVAC units and ducts positions. It should be the same shown in the Section C-C



SECTION D-D



Evaluate if move Differential Pressure Transmitter next to Temperature Transmitter

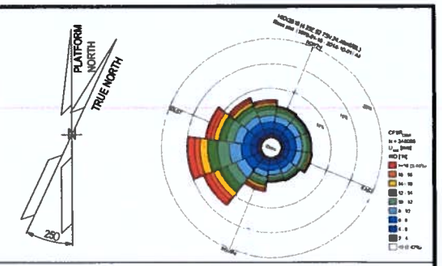
EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)	NOTE
1	B400-SRV-001	SERVER CABINET	1000	800	2100	250	SINLGLE CABINET
2	B400-NET-001	NETWORK CABINET	800	800	2100	250	SINLGLE CABINET
3	B400-EMCS-001	EMCS SYSTEM CABINET	800	800	2100	250	SINLGLE CABINET
4	B400-PCS-001	PCS SYSTEM CABINET	800	800	2100	250	DOUBLE CABINET
5	B400-PCS-002	PCS MARSHALLING CABINET	800	800	2100	250	
6	B400-FGS-001	FGS SYSTEM CABINET	800	800	2100	250	TRIPLE CABINET
7	B400-FGS-002	FGS MARSHALLING CABINET 1	800	800	2100	250	
8	B400-FGS-003	FGS MARSHALLING CABINET 2	800	800	2100	250	
9	B400-SIS-001	SIS SYSTEM/MARSHALLING CABINET	800	800	2100	250	SINLGLE CABINET
10	-	SPARE					
11	B400-HSB-001	DISTRIBUTION & HVAC PANEL - I&T ROOM	1600	600	2300	1150	
12	-	TABLE	850	500	750	50	
13	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20	
14	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20	
15	-	FIRST AID KIT	280	115	200	10	
16	-	RESUSCITATION UNIT	430	210	480	10	
17	-	CABINET INCLUDED N.10 ESCAPE MASK	448	213	422	15	
18	HHU-77007	AIR HANDLING UNIT A	2100	1000	2158	850	
19	HHU-77008	AIR HANDLING UNIT B	2100	1000	2158	850	
20	HSS-77-001	SPACE HEATER 1	184	145	1100	5	
21	HSS-77-002	SPACE HEATER 2	184	145	1100	5	
22	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.

MASTER COPY
INTERNAL TEST

02



NOTE

1) ALL DIMENSIONS ARE IM MM.

REFERENCE

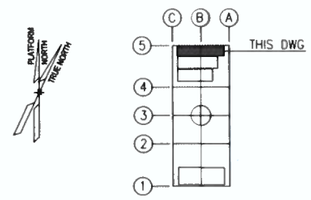
DOCUMENT TITLE	DOCUMENT NUMBER
"B-400" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00067
"B-400" DETAILED DRAWING	1724000049-AR-DD-00021
PAINTING PROCEDURE	1724000049-MAT-PRO-00007

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

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	04/07/24	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-400 GENERAL ARRANGEMENT DRAWINGS

CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 04/07/24
A1	DRAWING NO. 1724000049-AR-DA-00017	SHEET 003	REV. 02

File Name : 1724000049-AR-DA-00017-REV.02

DRAWING NO. 1724000049-ST-DD-00013

REV. 01

13170

13090

40

40

13200

OVERALL MODULE DIMENSIONS (OUTSIDE CORNER BLOCKS ON ROOF)

250 | 6275 | 200 | 6275 | 250

UNP260

B-400

UNP260

UNP260

UNP260

250 | 2023 | 250 = 2500

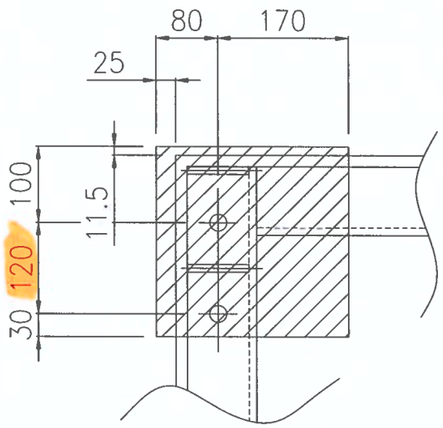
OVERALL MODULE DIMENSIONS (OUTSIDE CORNER BLOCKS ON ROOF)

2470

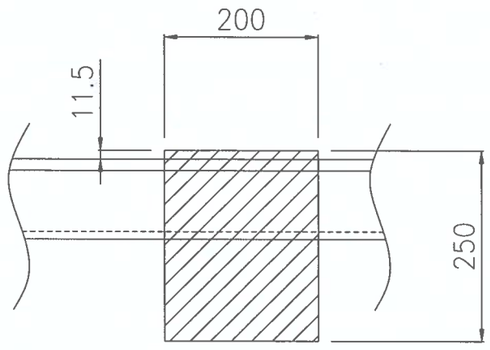
735 | 129 | 250 | 2983 | 120 | 250 | 735

250 | 200 | 250 | 250

No. 2 HOLES Ø18
FOR M16 SCREW
AT EACH CORNER
(SCREW SUPPLY by ROSETTI)



TYPICAL CORNER PLATE POSITION



TYPICAL CENTRAL PLATE POSITION

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

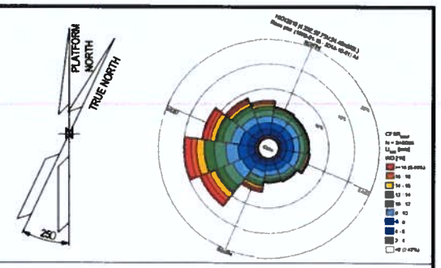
NOTE: Approval doesn't relieve the supplier from mandatory compliance with contractual documents and specifications. Comments made do not imply acceptance of any cost or delivery impact.

Sign	Date
R. Bossi	07/06/2024



TYPICAL FIXING DETAIL
SCALE 1 : 10

MASTER COPY
INTERNAL TEST



NOTE

1) ALL DIMENSIONS ARE IM MM.

REFERENCE

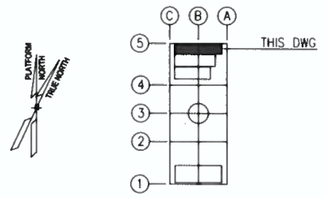
DOCUMENT TITLE	DOCUMENT NUMBER
B-400 STRUCTURAL CALCULATION - E&I SHELTERS	1724000049-ST-CA-00009

LEGEND

Plate 50 mm thk. welded on
Lower Deck - Supply by Rosetti

HOLDS

KEY PLAN



ALEXSISTEMI spa

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-400 FOUNDATION DRAWING -
E&I SHELTERS

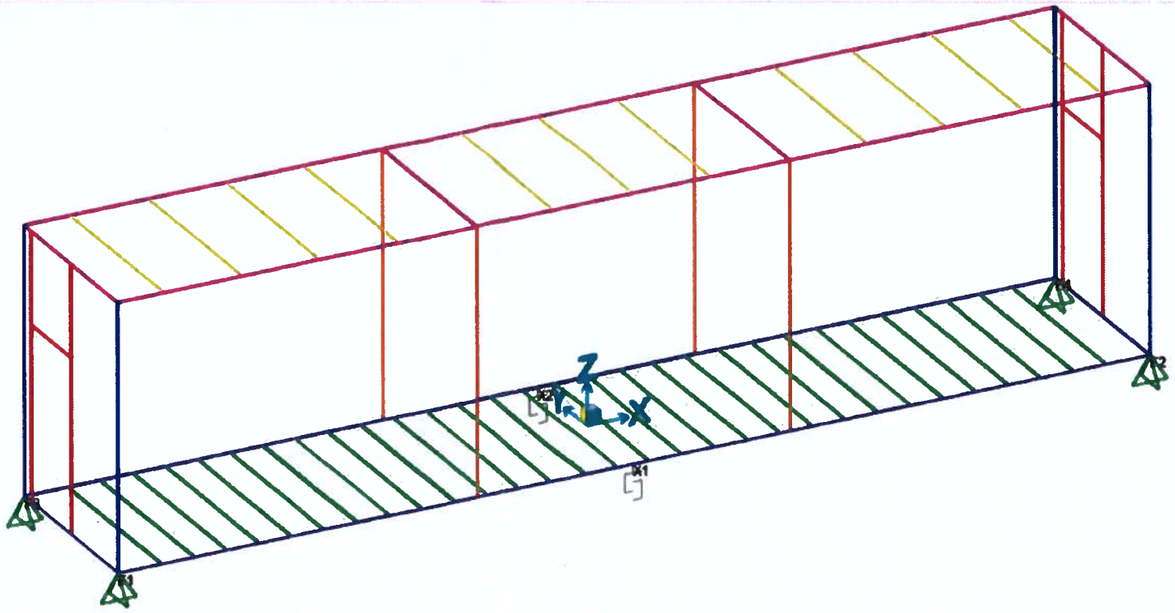
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE N.A.
DRAWN M.G.	CHECKED M.R.	APPROVED O.A.	DATE 03/06/24
A1	DRAWING NO. 1724000049-ST-DD-00013	SHEET 001/002	REV. 01

File Name : 1724000049-ST-DD-00013-REV01

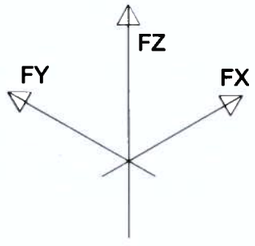
DRAWING NO. 1724000049-ST-DD-00013 REV. 01

TABLE: Joint Reactions

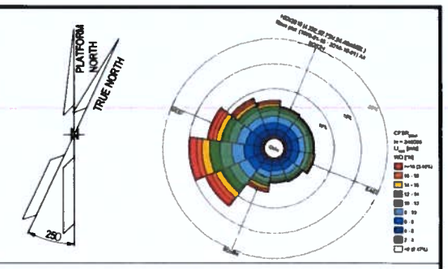
Joint	OutputCase	CaseType	StepType	Fx	Fy	Fz	Mx	My	Mz
Text	Text	Text	Text	KN	KN	KN	KN-m	KN-m	KN-m
F3	DEAD	NonStatic	Last Step	7,70	-3,33	18,50	0,00	0,00	0,00
F3	SD	NonStatic	Last Step	6,05	-2,10	13,16	0,00	0,00	0,00
F3	LIVE	NonStatic	Last Step	19,91	-7,03	38,05	0,00	0,00	0,00
F3	WIND X	NonStatic	Last Step	-9,76	0,24	-7,81	0,00	0,00	0,00
F3	WIND Y	NonStatic	Last Step	10,42	-22,47	29,38	0,00	0,00	0,00
F3	NOT X	NonStatic	Last Step	-0,06	0,01	-0,01	0,00	0,00	0,00
F3	NOT Y	NonStatic	Last Step	0,05	-0,06	0,07	0,00	0,00	0,00
F3	SLU LIVE	Combination		48,93	-18,09	100,94	0,00	0,00	0,00
F3	SLU WIND X	Combination		28,46	-21,30	80,91	0,00	0,00	0,00
F3	SLU WIND Y	Combination		52,67	-48,55	125,54	0,00	0,00	0,00
F3	SLE LIVE	Combination		33,65	-12,51	69,77	0,00	0,00	0,00
F3	SLE WIND X	Combination		7,11	-11,98	32,72	0,00	0,00	0,00
F3	SLE WIND Y	Combination		21,23	-27,87	58,75	0,00	0,00	0,00
F4	DEAD	NonStatic	Last Step	-7,69	-3,32	18,50	0,00	0,00	0,00
F4	SD	NonStatic	Last Step	-5,26	-1,66	9,47	0,00	0,00	0,00
F4	LIVE	NonStatic	Last Step	-20,38	-7,26	40,24	0,00	0,00	0,00
F4	WIND X	NonStatic	Last Step	0,99	1,65	-5,48	0,00	0,00	0,00
F4	WIND Y	NonStatic	Last Step	-10,40	-22,48	29,40	0,00	0,00	0,00
F4	NOT X	NonStatic	Last Step	-0,06	-0,01	0,01	0,00	0,00	0,00
F4	NOT Y	NonStatic	Last Step	-0,05	-0,06	0,07	0,00	0,00	0,00
F4	SLU LIVE	Combination		-48,60	-17,77	98,72	0,00	0,00	0,00
F4	SLU WIND X	Combination		-41,06	-18,77	81,20	0,00	0,00	0,00
F4	SLU WIND Y	Combination		-54,73	-47,73	123,06	0,00	0,00	0,00
F4	SLE LIVE	Combination		-33,44	-12,30	68,29	0,00	0,00	0,00
F4	SLE WIND X	Combination		-15,19	-10,13	31,39	0,00	0,00	0,00
F4	SLE WIND Y	Combination		-23,16	-27,02	55,80	0,00	0,00	0,00
X1	DEAD	NonStatic	Last Step	0,00	0,00	25,06	0,00	0,00	0,00
X1	SD	NonStatic	Last Step	0,00	0,00	15,16	0,00	0,00	0,00
X1	LIVE	NonStatic	Last Step	0,00	0,02	67,30	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	6,26	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	0,01	0,00	0,00	0,00
X1	SLU LIVE	Combination		0,00	0,03	156,29	0,00	0,00	0,00
X1	SLU WIND X	Combination		0,00	0,02	127,88	0,00	0,00	0,00
X1	SLU WIND Y	Combination		0,00	0,02	135,40	0,00	0,00	0,00
X1	SLE LIVE	Combination		0,00	0,02	107,54	0,00	0,00	0,00
X1	SLE WIND X	Combination		0,00	0,00	42,11	0,00	0,00	0,00
X1	SLE WIND Y	Combination		0,00	0,00	46,50	0,00	0,00	0,00
X2	DEAD	NonStatic	Last Step	0,00	0,00	24,89	0,00	0,00	0,00
X2	SD	NonStatic	Last Step	0,00	0,00	17,19	0,00	0,00	0,00
X2	LIVE	NonStatic	Last Step	0,00	-0,02	65,54	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	-0,03	156,45	0,00	0,00	0,00
X2	SLU WIND X	Combination		0,00	-0,02	126,96	0,00	0,00	0,00
X2	SLU WIND Y	Combination		0,00	-0,02	126,96	0,00	0,00	0,00
X2	SLE LIVE	Combination		0,00	-0,02	107,62	0,00	0,00	0,00
X2	SLE WIND X	Combination		0,00	0,00	42,08	0,00	0,00	0,00
X2	SLE WIND Y	Combination		0,00	0,00	42,08	0,00	0,00	0,00







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INTERNAL TEST



NOTE

1) ALL DIMENSIONS ARE IM MM.

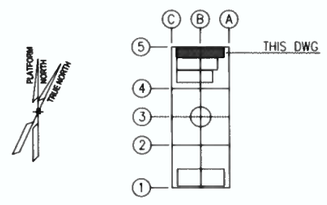
REFERENCE

DOCUMENT TITLE	DOCUMENT NUMBER
B-400 STRUCTURAL CALCULATION - E&I SHELTERS	1724000049-ST-CA-00009

LEGEND

HOLDS

KEY PLAN



ALEXSISTEMI s.p.a.

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-400 FOUNDATION DRAWING -
E&I SHELTERS

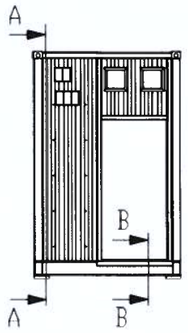
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE N.A.
DRAWN M.G.	CHECKED M.R.	APPROVED O.A.	DATE 03/06/24
A1	DRAWING NO. 1724000049-ST-DD-00013	SHEET 002/002	REV. 01

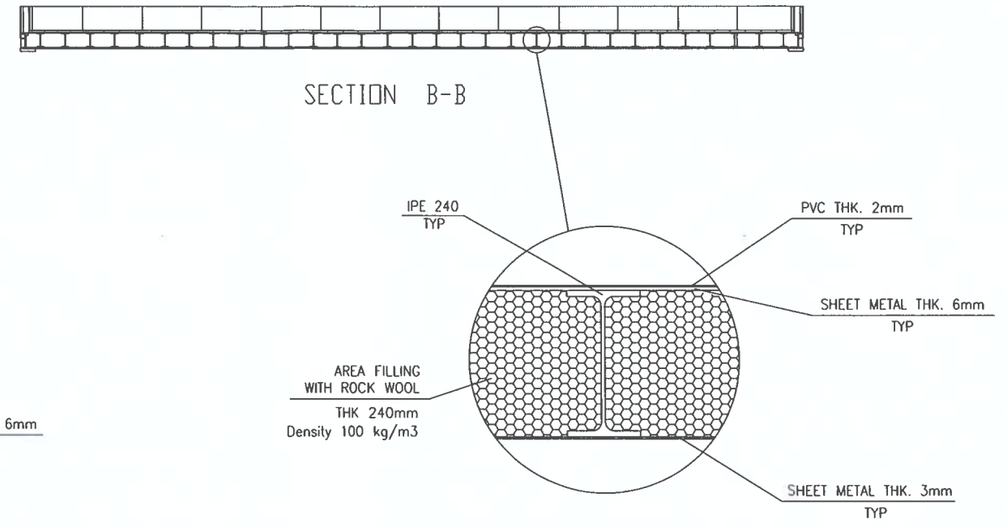
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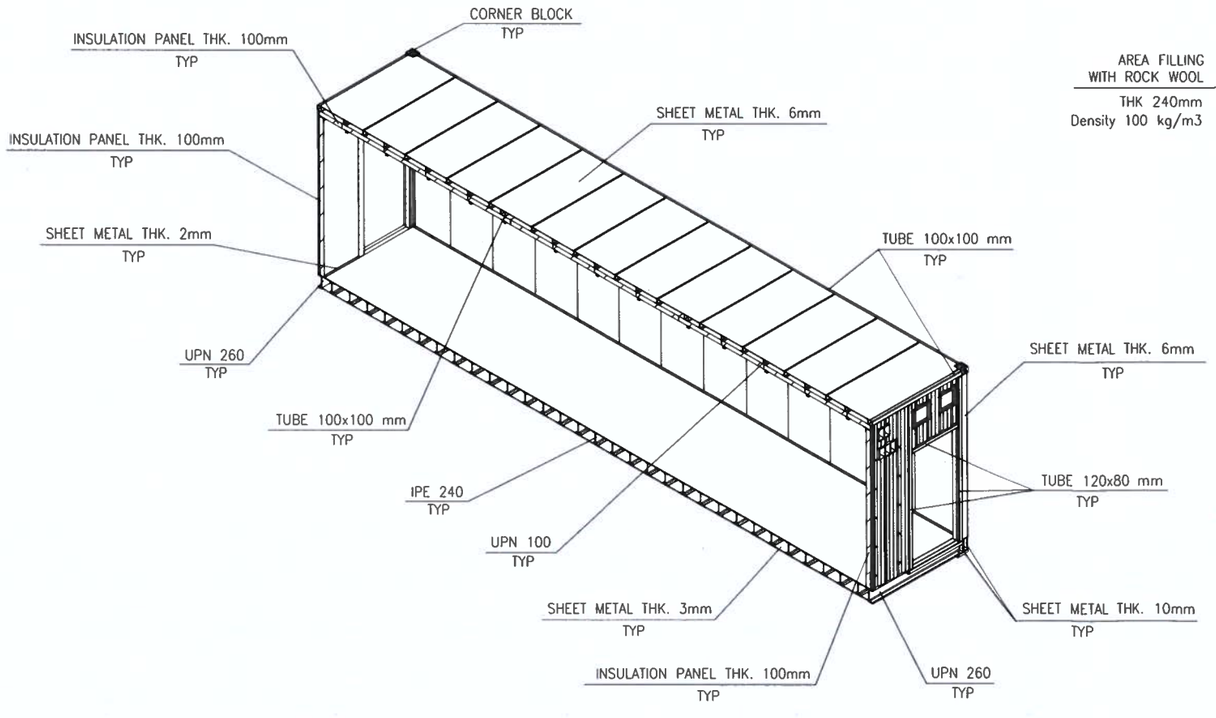
DRAWING NO. 1724000049-AR-DD-00021 REV. 02

MODULE B-400

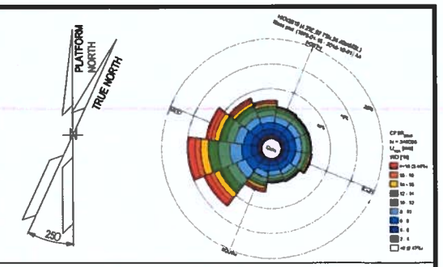
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DOCUMENT TITLE	DOCUMENT NUMBER
"B-400" STRUCTURAL CALCULATION	1724000049-ST-CA-00009
Weld Procedure Specifications (WPS), Weld Procedure Qualification Report (WPQR), Welding Map and Welders Qualifications	1724000049-WEL-RE-00003





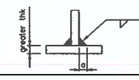


MASTER COPY
INTERNAL TEST



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.:

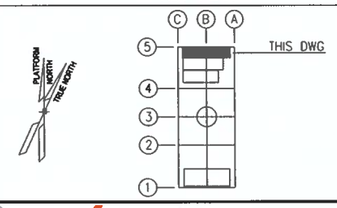


a= 0,7 smaller thk

LEGEND

HOLDS

KEY PLAN



ALEXSISTEMI

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

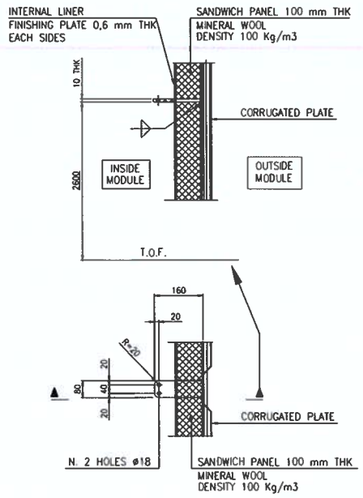
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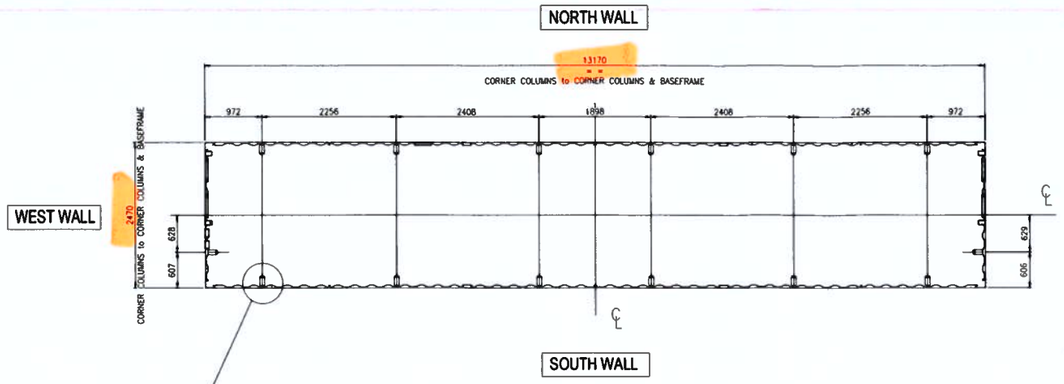
B-400 DETAILED DRAWINGS-E&I SHELTERS

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-00021	SHEET 001	REV. 02

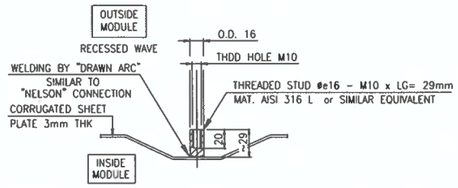
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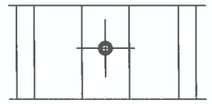
DRAWING NO. 1724000049-AR-DD-00021 | REV. 02



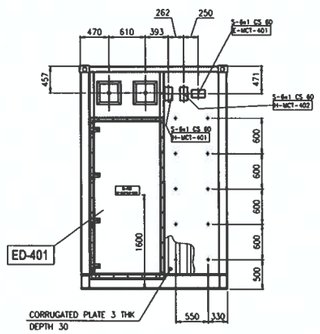


MODULE B-400
INTERNAL SEA FASTENING PLATES
PLAN

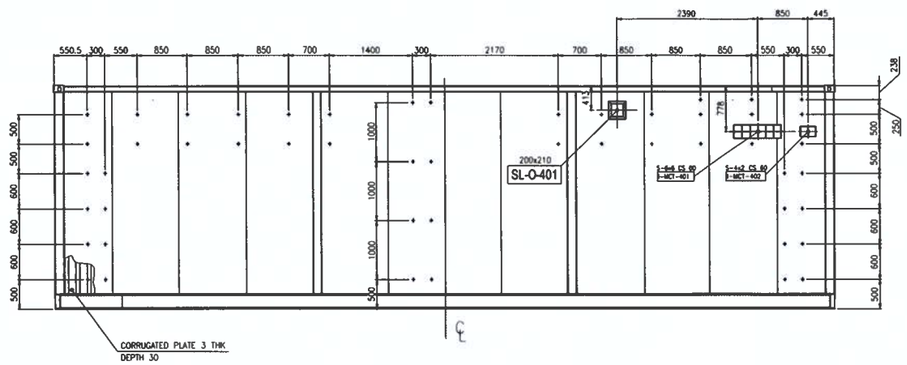




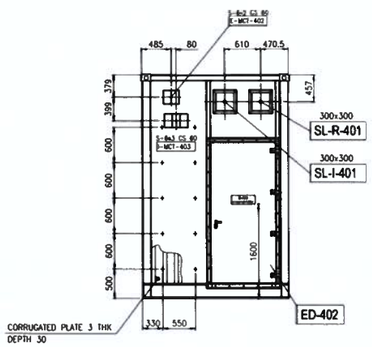
THREADED STUD INSTALLATION



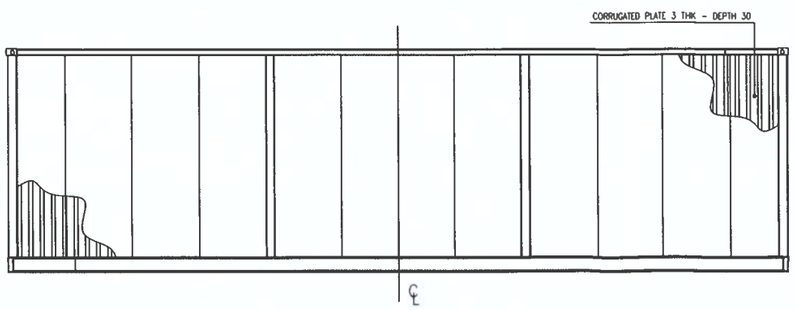
VIEW OF WEST WALL



VIEW OF NORTH WALL



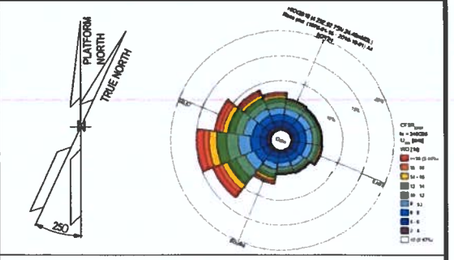
VIEW OF EAST WALL



VIEW OF SOUTH WALL

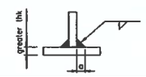
MASTER COPY
INTERNAL TEST

REFERENCE	
DOCUMENT TITLE	DOCUMENT NUMBER
"B-400" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DA-00017
"B-400" HVAC GENERAL ARRANGEMENT	1724000049-HV-DA-00067



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

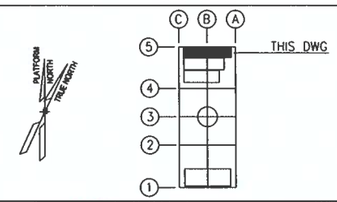
THREADED STUD ø16 - M10 x LG= 29mm
T.O.F. — TOP OF FLOOR

MCT LEGEND: E-MCT-401
- MCT TYPE & SIZE: BRAND ROXTEC; S 6x2 C.S. 60
- MATERIAL: C.S.= PRIMED MILD STEEL; S.S.= AISI 316 L
- MCT DEPTH
- MCT SERVICE: E= ELECTRICAL; I= INSTRUMENTAL; H= HVAC
- PROGRESSIVE NUMBER FROM 01
- MODULE LOCATION: 1= B-100 3= B-300 2= B-200 4= B-400

HVAC SLEEVE LEGEND: 300x300 SL-I-401
- 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 3= B-300 2= B-200 4= B-400

DOOR LEGEND: ED-401
- EXTERNAL DOOR
- PROGRESSIVE NUMBER FROM 01
- MODULE LOCATION: 1= B-100; 2= B-200; 3= B-300; 4= B-400

KEY PLAN



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-401	238	140.5	60	6x1	
	E-MCT-402	271	238	60	6x2	
INSTRUMENTAL	I-MCT-401	793	238	60	6x6	
	I-MCT-402	271	179.5	60	4x2	
	I-MCT-403	411.5	238	60	6x3	
HVAC	H-MCT-401	140.5	238	60	6x1	
	H-MCT-402	140.5	238	60	6x1	

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)

ALEXSISTEMI

CROSSWIND | ROSETTI MARINO

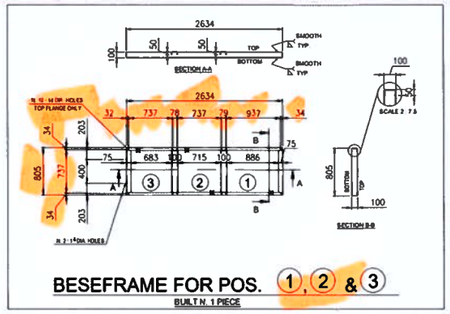
TITLE :
B-400 DETAILED DRAWINGS-E&I SHELTERS

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-00021 | SHEET 002 | REV 02

File Name : 1724000049-AR-DD-00021-REV.02

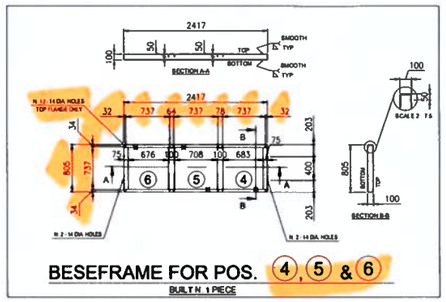
DRAWING NO. 1724000049-AR-DD-00021 REV. 02

B-400
I&T EQUIPMENT ROOM
BASEFRAME LOCATION PLAN



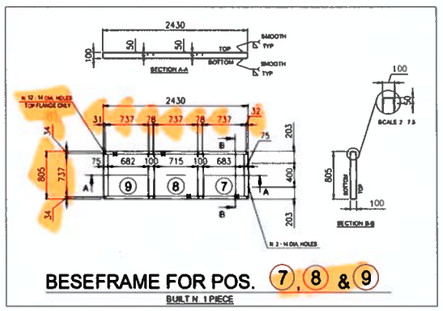
BESEFRAME FOR POS. 1, 2 & 3

BUILT N. 1 PIECE



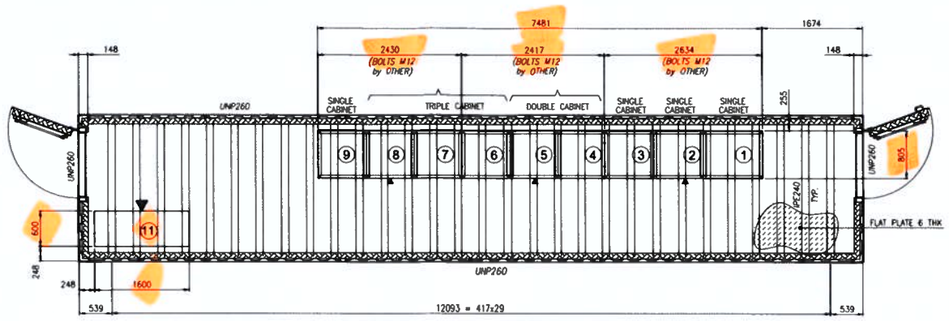
BESEFRAME FOR POS. 4, 5 & 6

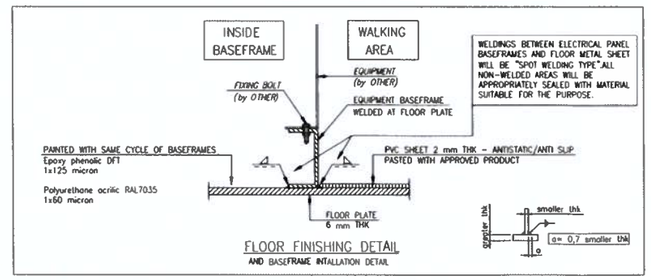
BUILT N. 1 PIECE



BESEFRAME FOR POS. 7, 8 & 9

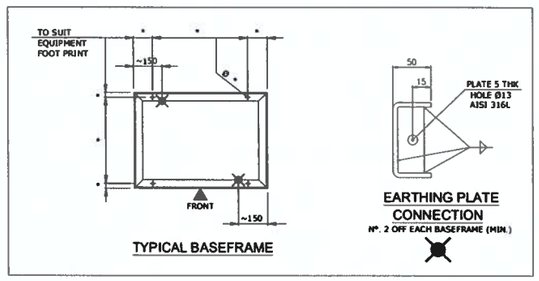
BUILT N. 1 PIECE





FLOOR FINISHING DETAIL

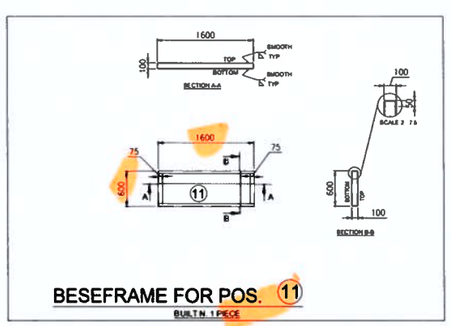
AND BASEFRAME INTALLATION DETAIL



TYPICAL BASEFRAME

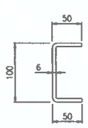
EARTHING PLATE CONNECTION

Nº. 2 OFF EACH BASEFRAME (MIN.)



BESEFRAME FOR POS. 11

BUILT N. 1 PIECE

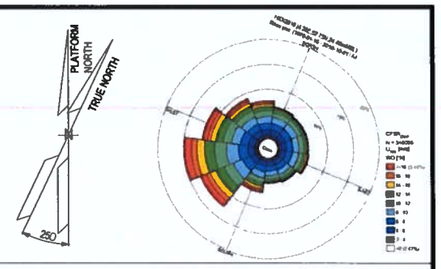


C 100x50x50 THK 6mm.
FROM BENT PLATE THK 6mm.
MAT. CARBON STEEL

EQUIPMENT LIST

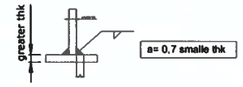
REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)	SCOPE
1	B400-SRV-001	SERVER CABINET	1000	800	2100	250	ASI
2	B400-NET-001	NETWORK CABINET	800	800	2100	250	ASI
3	B400-EMCS-001	EMCS SYSTEM CABINET	800	800	2100	250	ASI
4	B400-PCS-001	PCS SYSTEM CABINET	800	800	2100	250	ASI
5	B400-PCS-002	PCS MARSHALLING CABINET	800	800	2100	250	ASI
6	B400-FGS-001	FGS SYSTEM CABINET	800	800	2100	250	ASI
7	B400-FGS-002	FGS MARSHALLING CABINET 1	800	800	2100	250	ASI
8	B400-FGS-003	FGS MARSHALLING CABINET 2	800	800	2100	250	ASI
9	B400-SIS-001	SIS SYSTEM/MARSHALLING CABINET	800	800	2100	250	ASI
10	-	SPARE					
11	B400-HSB-001	DISTRIBUTION & HVAC PANEL - I&T ROOM	1600	600	2300	1150	ASI

MASTER COPY
INTERNAL TEST

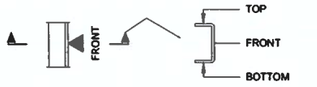


NOTES

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.:



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".



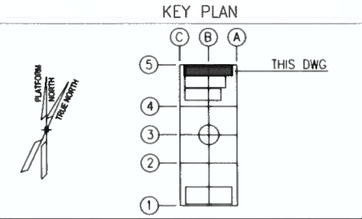
6. SURFACE TREATMENT ACCORDING DOCUMENT N. 1724000049-MAT-PRO-00004 - PAINTING PROCEDURE FINAL COLOUR LIGHT GREY RAL 7035.

LEGEND

ASI = ALEX SISTEMI

HOLDS

KEY PLAN



ALEXSISTEMI S.r.l.

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

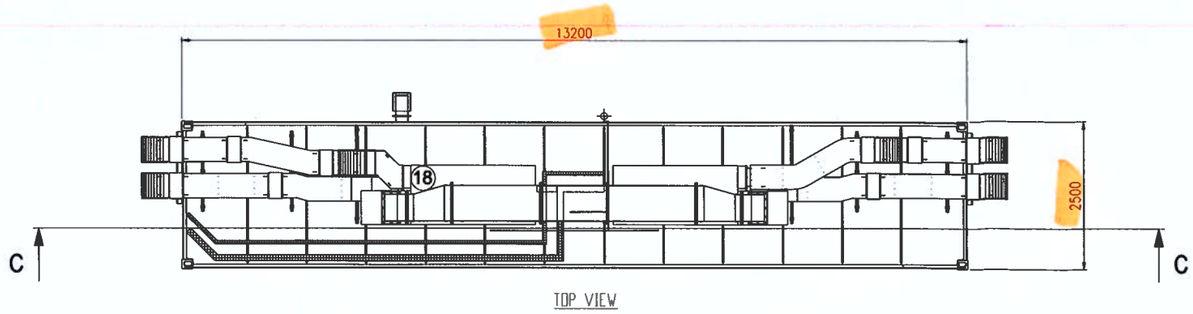
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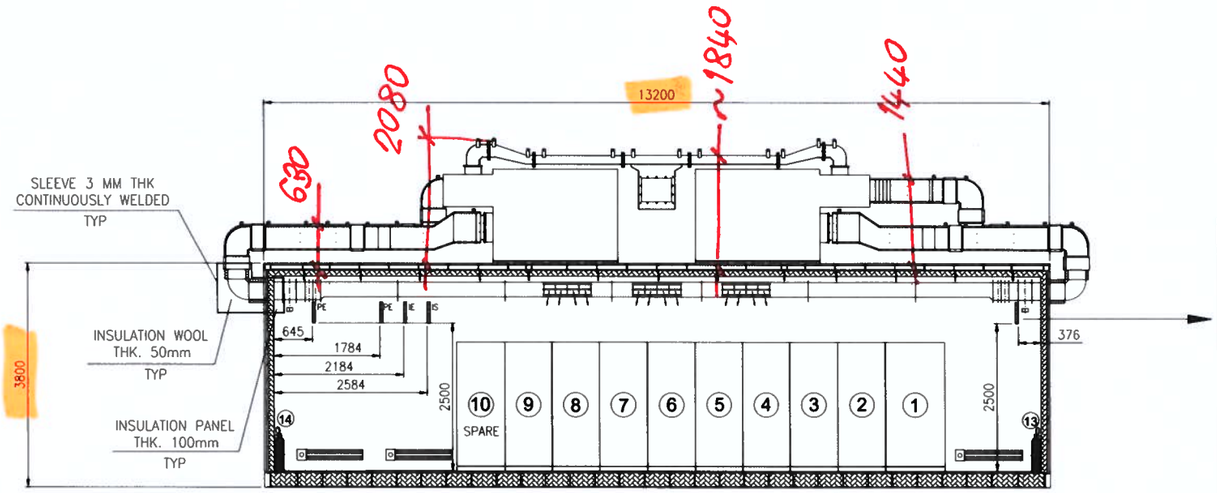
B-400 DETAILED DRAWINGS-E&I SHELTERS

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-00021	SHEET 003	REV. 02

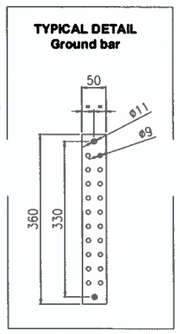
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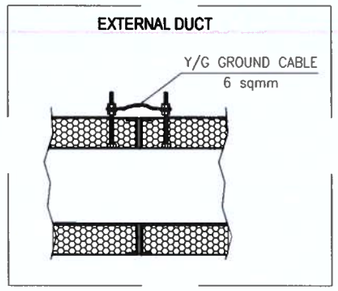




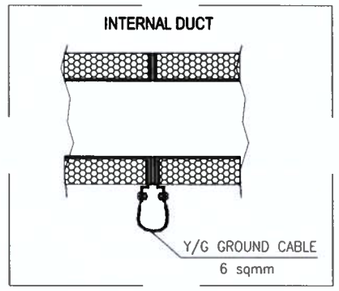
DET. 3



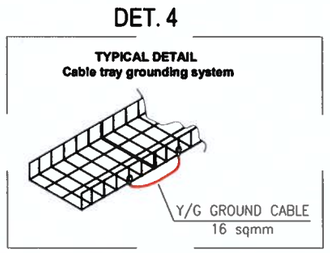
DET. 1



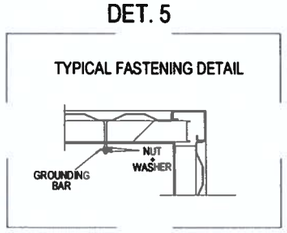
DET. 2



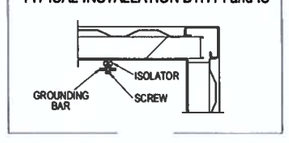
DET. 4



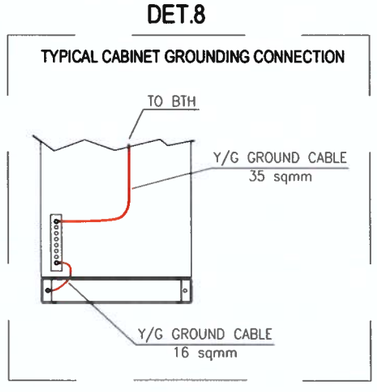
DET. 5



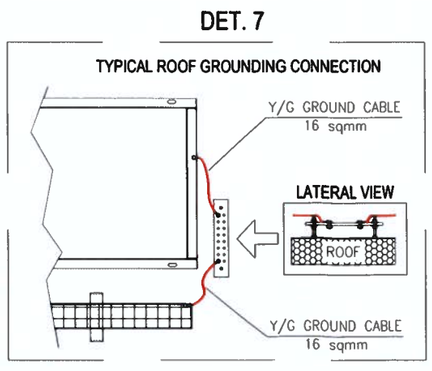
DET. 6

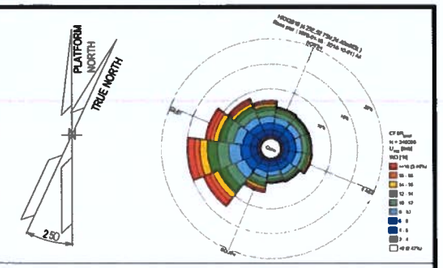


DET.8



DET. 7





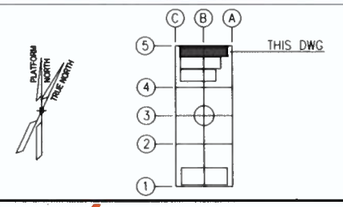
NOTES

1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.

LEGEND

HOLDS

KEY PLAN



ALEXSISTEMI s.p.a.

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-400 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-00021	SHEET 004	REV. 02

File Name: 1724000049-AR-DD-00021-REV.02

MASTER COPY
INTERNAL TEST

B-400 – ATTACH. 2

Doc. Name: PAINTING CHECK		Report No.04 Mod 1.4.2
OUR JOB X176-24X	Date 26/07/2024	Page 1/1

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** I&T EQUIPMENT ROOM B-400
S/N: B400	**FAT procedure:** 1724000049-QC-PRO-00056

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 26/07/2024

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	✓		
Visual Check External Color doors RAL 7035	✓		
Layer thickness of external coating µm 320 total	✓		
Visual Check Internal Equipment Baseframe RAL 7035	✓		

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 (1X/)	CROSSWIND		

Mod1.4.2

Doc. Name: CHECK AND FUNCTIONAL TEST		Report No.04
OUR JOB X176-24X	Date 26/07/2024	Page 1

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** I&T EQUIPMENT ROOM B-400
S/N: B400	**FAT procedure:** 1724000049-QC-PRO-00056

LOCATION : ON SITE ☒ OFF SITE ☐

DATE OF TEST: 26/07/2024

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	✓		

Comments:

ALEX SISTEMI *Quality Assurance*	Customer	Final Customer	3rd Part	other
ALEXSISTEMI spa	COICEA CATALIN ROSETTI MARINO (IX)	CROSSWIND		

Mod.1.4.9

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** I&T EQUIPMENT ROOM B-400
S/N: B400	**FAT procedure:** 1724000049-QC-PRO-00056

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 26/07/2024

REFERENCE DRAWING:

- 1724000049-AR-DA-00017 - B-400 GENERAL ARRANGMENT DRAWINGS - E&I SHELTERS
- 1724000049-HV-DA-00067 - MODULE B-400 – HVAC SYSTEM–G.A. AND DETAILS
- 1724000049-HV-DA-00029 - B-400 HVAC and LIGHTING PANEL WIRING DRAWINGS and GENERAL ARRANGEMENT (INCL INTERCONNECTING) - E&I SHELTERS

REFERENCE DOCUMENT:

- 1724000049-HV-PID-00042 - B-400 PID - E&I SHELTERS
- 1724000049-HV-LIS-00050 - B-400 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.

Mod1.4.6

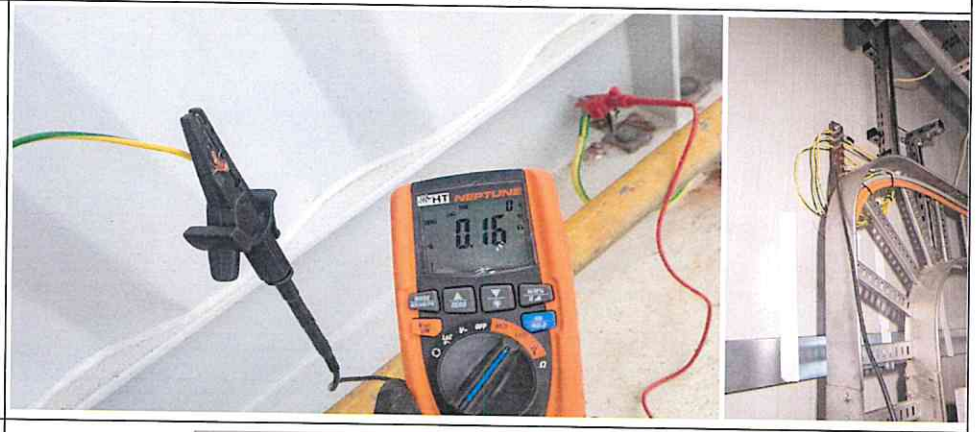
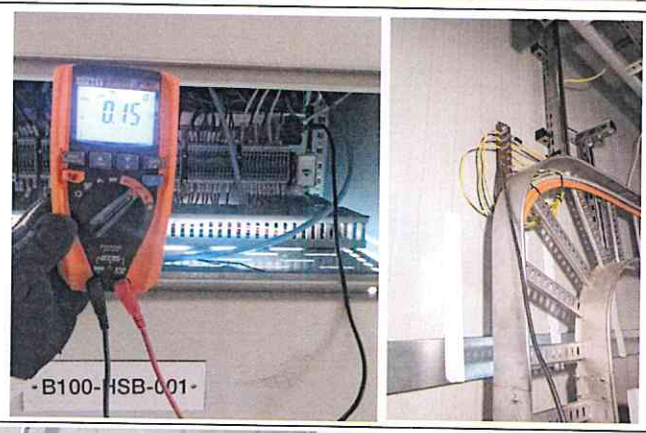
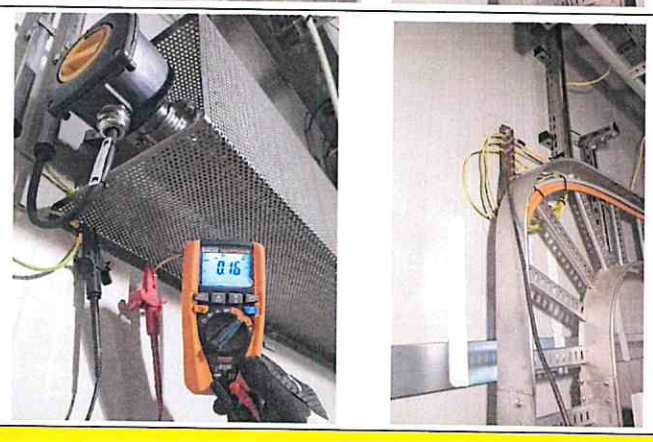
Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** I&T EQUIPMENT ROOM B-400
S/N: B400	**FAT procedure:** 1724000049-QC-PRO-00056

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	ROSETTI MARINO	CROSSWIND 29/07/24		

GROUNDING REPORT

GROUNDING SYSTEM CHECK REPORT (B-100)

Measurement point	Value	Photos
From the external ground cable to the internal BTM	160mΩ	
From panel to BTM	150mΩ	
From the pressure differential instrument to BTM	180mΩ	
From conduit to BTM	150mΩ	
From space heater to BTM	160mΩ	
AVERAGE	**160mΩ**	

All measures were taken in Ω

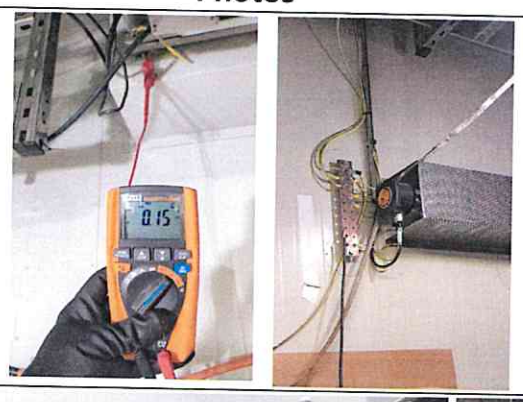
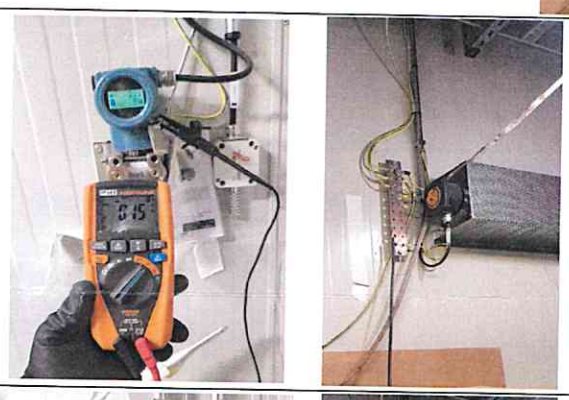
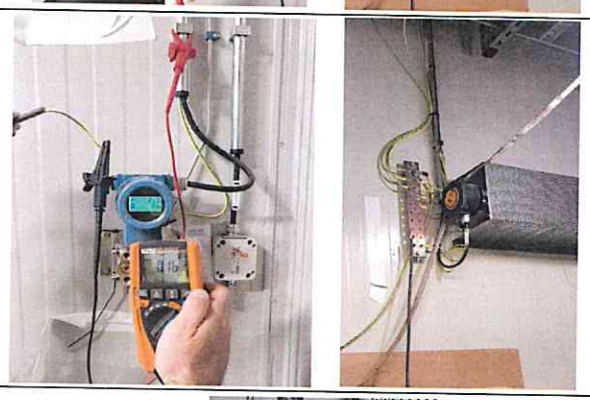
Approval RM

ROSETTI MARINO SpA
Stefano Linari
Quality Control Dept.
23/10/24

24/10/2024

ALEX SISTEMI:

GROUNDING SYSTEM CHECK REPORT (B-200)

Measurement point	Value	Photos
From HVAC to BTM	150mΩ	
From panel to BTM	150mΩ	
From the pressure differential instrument to BTM	150mΩ	
From conduit to BTM	160mΩ	
From space heater to BTM	150mΩ	
AVERAGE	**152mΩ**	

All measures were taken in Ω

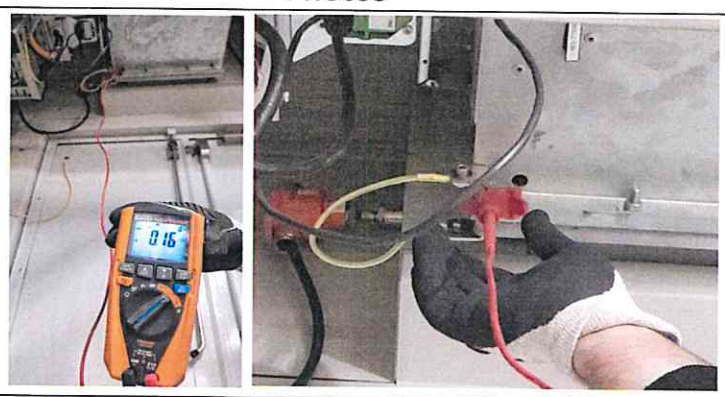
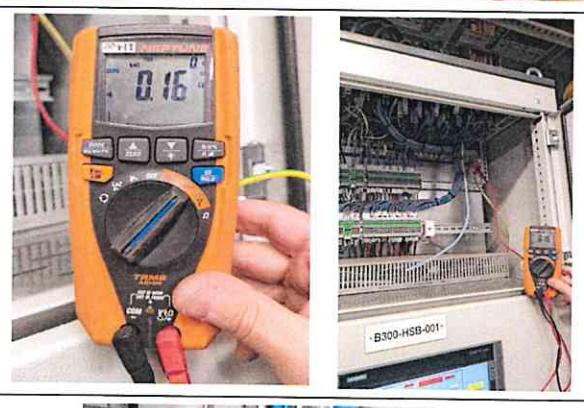
Approval RM

ROSETTI MARINO SpA
Stefano Linari
Quality Control Dept.
23/10/24

24/10/2024

ALEX SISTEMI : Matteo Marchi

GROUNDING SYSTEM CHECK REPORT (B-300)

Measurement point	Value	Photos
From HVAC to BTM	160mΩ	
From panel to BTM	160mΩ	
From the pressure differential instrument to BTM	180mΩ	
From conduit to BTM	160mΩ	
From space heater to BTM	160mΩ	
AVERAGE	**164mΩ**	

All measures were taken in Ω

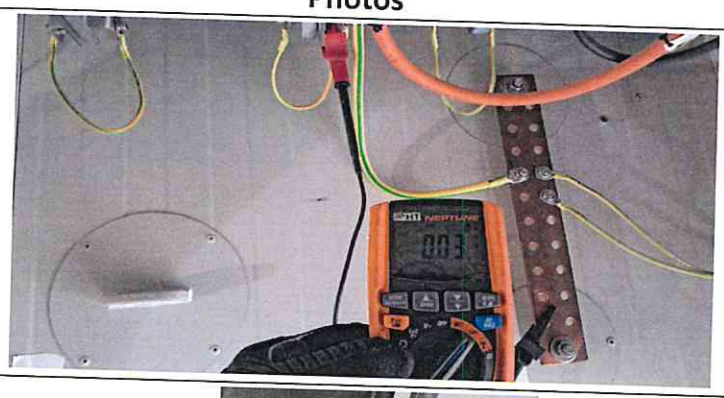
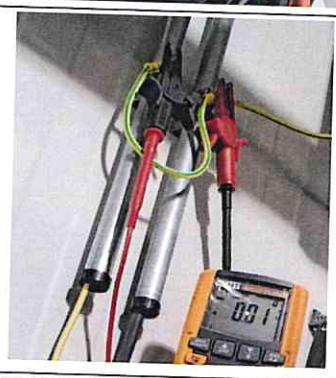
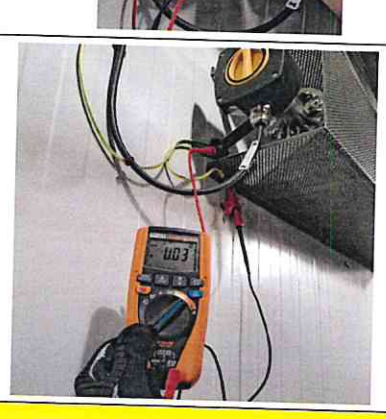
Approval RM

ROSETTI MARINO SpA
Stefano Linari
Quality Control Dept.
23/10/24

24/10/2024

ALEX SISTEMI: Matteo Lorenzi

GROUNDING SYSTEM CHECK REPORT (B-400)

Measurement point	Value	Photos
From HVAC to BTM	30mΩ	
From conduit to BTM	10mΩ	
From conduit to BTM	30mΩ	
From conduit to BTM	30mΩ	
From space heater to BTM	30mΩ	
AVERAGE	**26mΩ**	

All measures were taken in Ω

Approval RM

ROSETTI MARINO SpA
Stefano Linari
Quality Control Dept.
23/10/24

24/10/2024

ALEX SISTEMI :

HVAC REP.1

HHV 77003

testo 440 dP

V 1.0.6 — 83164119

Applicazione: Portata
11/02/2019 16:53:40
Tipo di misura: Media per punti
Punti di misura: 9

Portata 1250,9 m³/h

Num. Serie Sonda: 20795382

Num.	m³/h	m/s	°C
1	304,0	0,65	22,3
2	224,5	0,48	22,1
3	-149,7	-0,32	22,0
4	425,6	0,91	21,4
5	-149,7	-0,32	21,3
6	654,8	1,40	21,2
7	3484,5	7,45	20,2
8	3283,3	7,02	19,6
9	3180,4	6,80	19,4

Geometria: Area
Area: 129920 mm²
Fattore di Correzione: 100%
Pressione atmosferica:
1013,00 hPa

HHV-77001

testo 440 dP

V 1.0.6 — 83164119

Applicazione: Portata
12/02/2019 17:16:05
Tipo di misura: Media per punti
Punti di misura: 9

Portata 1907,7 m³/h

Num. Serie Sonda: 20795382

Num.	m³/h	m/s	°C
1	3942,8	8,43	22,5
2	3797,8	8,12	22,7
3	3942,8	8,43	22,7
4	1552,8	3,32	22,6
5	1379,8	2,95	22,5
6	1861,5	3,98	22,5
7	608,0	1,30	22,5
8	257,2	0,55	22,5
9	-173,1	-0,37	22,5

Geometria: Area
Area: 129920 mm²
Fattore di Correzione: 100%
Pressione atmosferica:
1013,00 hPa

HHV 77004

testo 440 dP

V 1.0.6 — 83164119

Applicazione: Portata
11/02/2019 17:13:48
Tipo di misura: Media per punti
Punti di misura: 9

Portata 1589,2 m³/h

Num. Serie Sonda: 20795382

Num.	m³/h	m/s	°C
1	3222,5	6,89	28,3
2	3222,5	6,89	28,4
3	3250,6	6,95	28,5
4	3138,3	6,71	29,7
5	827,9	1,77	30,0
6	257,2	0,55	29,9
7	102,9	0,22	29,8
8	154,3	0,33	29,7
9	126,3	0,27	29,7

Geometria: Area
Area: 129920 mm²
Fattore di Correzione: 100%
Pressione atmosferica:
1013,00 hPa

HHV 77002

testo 440 dP

V 1.0.6 — 83164119

Applicazione: Portata
12/02/2019 17:26:41
Tipo di misura: Media per punti
Punti di misura: 9

Portata 1760,2 m³/h

Num. Serie Sonda: 20795382

Num.	m³/h	m/s	°C
1	374,2	0,80	23,7
2	261,9	0,56	23,3
3	-121,6	-0,26	23,3
4	1459,3	3,12	25,5
5	940,1	2,01	25,5
6	884,0	1,89	25,9
7	3961,5	8,47	26,3
8	3938,1	8,42	26,4
9	4143,9	8,86	26,4

Geometria: Area
Area: 129920 mm²
Fattore di Correzione: 100%
Pressione atmosferica:
1013,00 hPa

ROSETTI MARINO SPA
Stefano Linari
Quality Control Dept.

ATEX SISTEMI: Matteo Lazzeri

HVAC REP.2

MAU 77008

testo 440 dP

V 1.0.6 — 83164119

Applicazione: Portata
12/02/2019 11:39:38
Tipo di misura: Media per punti
Punti di misura: 9

Portata 875,5 m³/h

Num.	Serie Sonda: m³/h	m/s	20795382 °C
1	697,0	1,21	19,6
2	944,6	1,64	19,2
3	1157,8	2,01	19,2
4	817,9	1,42	19,1
5	800,6	1,39	18,9
6	956,2	1,66	18,6
7	783,4	1,36	18,4
8	944,6	1,64	18,3
9	777,6	1,35	18,3

Geometria: Area
Area: 160000 mm²
Fattore di Correzione: 100%
Pressione atmosferica:
1013,00 hPa

MAU - 77007

testo 440 dP

V 1.0.6 — 83164119

Applicazione: Portata
12/02/2019 11:28:29
Tipo di misura: Media per punti
Punti di misura: 9

Portata 1554,3 m³/h

Num.	Serie Sonda: m³/h	m/s	20795382 °C
1	1163,6	1,85	22,5
2	1320,9	2,10	22,8
3	1320,9	2,10	22,8
4	1302,0	2,07	22,8
5	1786,3	2,84	23,0
6	1754,9	2,79	23,3
7	1654,2	2,63	23,6
8	1912,1	3,04	23,9
9	1773,8	2,82	24,3

Geometria: Area
Area: 174720 mm²
Fattore di Correzione: 100%
Pressione atmosferica:
1013,00 hPa

MAU - 77006

testo 440 dP

V 1.0.6 — 83164119

Applicazione: Portata
11/02/2019 12:01:46
Tipo di misura: Media per punti
Punti di misura: 8

Portata 1600,8 m³/h

Num.	Serie Sonda: m³/h	m/s	20795382 °C
1	1679,4	2,67	29,6
2	1786,3	2,84	29,9
3	1717,1	2,73	29,8
4	1541,0	2,45	29,9
5	1471,8	2,34	29,9
6	1484,4	2,36	29,7
7	1515,9	2,41	29,6
8	1610,2	2,56	29,8

Geometria: Area
Area: 174720 mm²
Fattore di Correzione: 100%
Pressione atmosferica:
1013,00 hPa

MAU-77005

testo 440 dP

V 1.0.6 — 83164119

Applicazione: Portata
11/02/2019 12:34:49
Tipo di misura: Media per punti
Punti di misura: 8

Portata 571,7 m³/h

Num.	Serie Sonda: m³/h	m/s	20795382 °C
1	593,3	1,03	21,7
2	633,6	1,10	21,6
3	541,4	0,94	21,5
4	524,2	0,91	21,4
5	558,7	0,97	21,2
6	576,0	1,00	21,2
7	581,8	1,01	21,1
8	564,5	0,98	21,0

Geometria: Area
Area: 160000 mm²
Fattore di Correzione: 100%
Pressione atmosferica:
1013,00 hPa

testo 440 dP

V 1.0.6 — 83164119

Applicazione: Portata
12/02/2019 11:55:22
Tipo di misura: Media per punti
Punti di misura: 6

Portata 1088,4 m³/h

Num.	Serie Sonda: m³/h	m/s	20795382 °C
1	1200,9	2,97	30,7
2	1192,8	2,95	30,9
3	946,2	2,34	30,5
4	1055,4	2,61	30,3
5	1067,5	2,64	30,2
6	1067,5	2,64	30,2

Geometria: Area
Area: 112320 mm²
Fattore di Correzione: 100%
Pressione atmosferica:
1013,00 hPa

testo 440 dP

V 1.0.6 — 83164119

Applicazione: Portata
12/02/2019 11:30:38
Tipo di misura: Media per punti
Punti di misura: 6

Portata 1265,0 m³/h

Num.	Serie Sonda: m³/h	m/s	20795382 °C
1	974,5	2,41	25,1
2	1087,7	2,69	25,5
3	1326,3	3,28	25,9
4	1293,9	3,20	25,8
5	1451,6	3,59	25,8
6	1455,7	3,60	25,8

Geometria: Area
Area: 112320 mm²
Fattore di Correzione: 100%
Pressione atmosferica:
1013,00 hPa

testo 440 dP

V 1.0.6 — 83164119

Applicazione: Portata
11/02/2019 12:04:12
Tipo di misura: Media per punti
Punti di misura: 6

Portata 1026,4 m³/h

Num.	Serie Sonda: m³/h	m/s	20795382 °C
1	1023,0	2,53	30,1
2	1200,9	2,97	30,1
3	1055,4	2,61	30,3
4	962,4	2,38	30,4
5	958,3	2,37	30,7
6	958,3	2,37	30,8

Geometria: Area
Area: 112320 mm²
Fattore di Correzione: 100%
Pressione atmosferica:
1013,00 hPa

testo 440 dP

V 1.0.6 — 83164119

Applicazione: Portata
11/02/2019 12:41:48
Tipo di misura: Media per punti
Punti di misura: 8

Portata 1501,7 m³/h

Num.	Serie Sonda: m³/h	m/s	20795382 °C
1	1421,5	2,26	24,9
2	1547,3	2,46	25,3
3	1320,9	2,10	25,7
4	1534,7	2,44	26,1
5	1559,9	2,48	26,2
6	1503,3	2,39	26,3
7	1585,1	2,52	26,4
8	1541,0	2,45	26,3

Geometria: Area
Area: 174720 mm²
Fattore di Correzione: 100%
Pressione atmosferica:
1013,00 hPa

testo 440 dP

V 1.0.6 — 83164119

Applicazione: Portata
12/02/2019 11:53:45
Tipo di misura: Media per punti
Punti di misura: 9

Portata 1696,9 m³/h

Num.	Serie Sonda: m³/h	m/s	20795382 °C
1	1773,8	2,82	26,5
2	1729,7	2,75	26,6
3	1629,1	2,59	27,2
4	1641,7	2,61	28,1
5	1868,1	2,97	28,3
6	1635,4	2,60	28,7
7	1748,6	2,78	28,8
8	1616,5	2,57	28,9
9	1629,1	2,59	29,0

Geometria: Area
Area: 174720 mm²
Fattore di Correzione: 100%
Pressione atmosferica:
1013,00 hPa

testo 440 dP

V 1.0.6 — 83164119

Applicazione: Portata
12/02/2019 11:39:38
Tipo di misura: Media per punti
Punti di misura: 9

Portata 875,5 m³/h

Num.	Serie Sonda: m³/h	m/s	20795382 °C
1	697,0	1,21	19,6
2	944,6	1,64	19,2
3	1157,8	2,01	19,2
4	817,9	1,42	19,1
5	800,6	1,39	18,9
6	956,2	1,66	18,6
7	783,4	1,36	18,4
8	944,6	1,64	18,3
9	777,6	1,35	18,3

Geometria: Area
Area: 160000 mm²
Fattore di Correzione: 100%
Pressione atmosferica:
1013,00 hPa

testo 440 dP

V 1.0.6 — 83164119

Applicazione: Portata
11/02/2019 12:14:34
Tipo di misura: Media per punti
Punti di misura: 9

Portata 447,4 m³/h

Num.	Serie Sonda: m³/h	m/s	20795382 °C
1	409,0	0,71	23,2
2	455,0	0,79	22,9
3	403,2	0,70	22,7
4	391,7	0,68	22,3
5	472,3	0,82	22,1
6	512,6	0,89	21,9
7	489,6	0,85	21,5
8	460,8	0,80	21,3
9	432,0	0,75	21,2

Geometria: Area
Area: 160000 mm²
Fattore di Correzione: 100%
Pressione atmosferica:
1013,00 hPa

testo 440 dP

V 1.0.6 — 83164119

Applicazione: Portata
11/02/2019 12:44:09
Tipo di misura: Media per punti
Punti di misura: 8

Portata 1133,7 m³/h

Num.	Serie Sonda: m³/h	m/s	20795382 °C
1	1120,1	2,77	26,6
2	1079,6	2,67	26,7
3	1079,6	2,67	26,9
4	1091,8	2,70	27,0
5	1136,2	2,81	27,0
6	1180,7	2,92	27,4
7	1184,8	2,93	27,5
8	1196,9	2,96	27,7

Geometria: Area
Area: 112320 mm²
Fattore di Correzione: 100%
Pressione atmosferica:
1013,00 hPa

ROSETTI MARINO SpA
Stefano Linari
Quality Control Dept.
23/10/24

AGEX SISTEMI: Matteo Forchesi

FAT REPORT 1

Doc. Name: CHECK AND FUNCTIONAL TEST OF HVAC SYSTEM		Report No.01 Mod 1.4.7
OUR JOB X176-24X	Date 24/10/2024	Page 1/1

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** HV (66KV 6.6KV) SWITCH ROOM B-100
S/N: B100	**FAT procedure:** 1724000049-QC-PRO-00056

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 24/10/2024

REFERENCE DRAWING:

- 1724000049-AR-DA-00014 - B-100 GENERAL ARRANGMENT DRAWINGS - E&I SHELTERS
- 1724000049-HV-DA-00064 - MODULE B-100 – HVAC SYSTEM–G.A. AND DETAILS
- 1724000049-HV-DA-00026 - B-100 HVAC and LIGHTING PANEL WIRING DRAWINGS and GENERAL ARRANGEMENT (INCL INTERCONNECTING) - E&I SHELTERS

REFERENCE DOCUMENT:

- 1724000049-HV-PID-00039 - B-100 PID - E&I SHELTERS
- 1724000049-HV-CA-00035 - B-100 HVAC CALCULATION REPORT (Incl HVAC SYS CALC and HEAT DISSIPATION CALC) - E&I SHELTERS
- 1724000049-HV-LIS-00047 - B-100 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.01 Mod 1.4.7
OUR JOB X176-24X	Date 24/10/2024	Page 1/1

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** HV (66KV 6.6KV) SWITCH ROOM B-100
S/N: B100	**FAT procedure:** 1724000049-QC-PRO-00056

Comments:

SAT activities were carried out at the Rosetti Marino yard, after the main HVAC system installation was completed. Following this, all functional tests listed in the above table were conducted, although most of the documentation was in draft form, as it has not yet been officially issued.

Some activities and related tests are still required to finalize SAT and to make the HVAC system supply and installation fully compliant. These remaining tasks will be outlined and sent to Alex Sistemi, along with corrective actions to address them.

The key items that remain outstanding are:

- Completion of detailed engineering documentation
- Completion of the drainage system and heating cable installations
- Completion of the emergency lighting installation (during SAT the lights didn't turn on)

ALEX SISTEMI *Quality Assurance*	Customer	Final Customer	3rd Part	other
MATTEO MARCHESI Matteo Marchesi 23/10/24	CAVIGLIA LUCA ROSETTI MARINO Luca Caviglia 23/10/24			

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** LV (400 V) SWITCH ROOM B-200
S/N: B200	**FAT procedure:** 1724000049-QC-PRO-00056

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 23/10/2024

REFERENCE DRAWING:

- 1724000049-AR-DA-00015 - B-200 GENERAL ARRANGMENT DRAWINGS - E&I SHELTERS
- 1724000049-HV-DA-00065 - MODULE B-200 – HVAC SYSTEM–G.A. AND DETAILS
- 1724000049-HV-DA-00027 - B-200 HVAC and LIGHTING PANEL WIRING DRAWINGS and GENERAL ARRANGEMENT (INCL INTERCONNECTING) - E&I SHELTERS

REFERENCE DOCUMENT:

- 1724000049-HV-PID-00040 - B-200 PID - E&I SHELTERS
- 1724000049-HV-CA-00036 - B-200 HVAC CALCULATION REPORT (Incl HVAC SYS CALC and HEAT DISSIPATION CALC) - E&I SHELTERS
- 1724000049-HV-LIS-00048 - B-200 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.01 Mod 1.4.7
OUR JOB X176-24X	Date 23/10/2024	Page 1/1

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** LV (400 V) SWITCH ROOM B-200
S/N: B200	**FAT procedure:** 1724000049-QC-PRO-00056

Comments:

SAT activities were carried out at the Rosetti Marino yard, after the main HVAC system installation was completed. Following this, all functional tests listed in the above table were conducted, although most of the documentation was in draft form, as it has not yet been officially issued.

Some activities and related tests are still required to finalize SAT and to make the HVAC system supply and installation fully compliant. These remaining tasks will be outlined and sent to Alex Sistemi, along with corrective actions to address them.

The key items that remain outstanding are:

- Completion of detailed engineering documentation
- Completion of the drainage system and heating cable installations
- Completion of the emergency lighting installation (during SAT the lights didn't turn on)

ALEX SISTEMI *Quality Assurance*	Customer	Final Customer	3rd Part	other
MATTEO MARENZI 23/10/24	CAVIGLIA LUCA ROSETTI MARINO 23/10/24			

Doc. Name: CHECK AND FUNCTIONAL TEST OF HVAC SYSTEM		Report No.01 Mod 1.4.7
OUR JOB X176-24X	Date 23/10/2024	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: 23/10/2024

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.01 Mod 1.4.7
OUR JOB X176-24X	Date 23/10/2024	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:

SAT activities were carried out at the Rosetti Marino yard, after the main HVAC system installation was completed. Following this, all functional tests listed in the above table were conducted, although most of the documentation was in draft form, as it has not yet been officially issued.

Some activities and related tests are still required to finalize SAT and to make the HVAC system supply and installation fully compliant. These remaining tasks will be outlined and sent to Alex Sistemi, along with corrective actions to address them.

The key items that remain outstanding are:

- Completion of detailed engineering documentation
- Completion of the drainage system and heating cable installations

ALEX SISTEMI *Quality Assurance*	Customer	Final Customer	3rd Part	other
MATTEO MARCHESI 23/10/24	CAVIGLIA LUCA ROSETTI MARINO 23/10/24			

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** I&T EQUIPMENT ROOM B-400
S/N: B400	**FAT procedure:** 1724000049-QC-PRO-00056

Comments:

SAT activities were carried out at the Rosetti Marino yard, after the main HVAC system installation was completed. Following this, all functional tests listed in the above table were conducted, although most of the documentation was in draft form, as it has not yet been officially issued.

Some activities and related tests are still required to finalize SAT and to make the HVAC system supply and installation fully compliant. These remaining tasks will be outlined and sent to Alex Sistemi, along with corrective actions to address them.

The key items that remain outstanding are:

- Completion of detailed engineering documentation
- Completion of the drainage system and heating cable installations
- Completion of the emergency lighting installation (during SAT the lights didn't turn on)

ALEX SISTEMI *Quality Assurance*	Customer	Final Customer	3rd Part	other
MATTEO MARCHESI Matteo Marchesi 23/10/24	CAVIGLIA LUCA ROSETTI MARINO Luca Caviglia 23/10/24			

Doc. Name: CHECK AND FUNCTIONAL TEST OF HVAC SYSTEM		Report No.01 Mod 1.4.7
OUR JOB X176-24X	Date 25/10/2024	Page 1/1

Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** I&T EQUIPMENT ROOM B-400
S/N: B400	**FAT procedure:** 1724000049-QC-PRO-00056

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 24/10/2024

REFERENCE DRAWING:

- 1724000049-AR-DA-00017 - B-400 GENERAL ARRANGMENT DRAWINGS - E&I SHELTERS
- 1724000049-HV-DA-00067 - MODULE B-400 – HVAC SYSTEM–G.A. AND DETAILS
- 1724000049-HV-DA-00029 - B-400 HVAC and LIGHTING PANEL WIRING DRAWINGS and GENERAL ARRANGEMENT (INCL INTERCONNECTING) - E&I SHELTERS

REFERENCE DOCUMENT:

- 1724000049-HV-PID-00042 - B-400 PID - E&I SHELTERS
- 1724000049-HV-CA-00038 - B-400 HVAC CALCULATION REPORT (Incl HVAC SYS CALC and HEAT DISSIPATION CALC) - E&I SHELTERS
- 1724000049-HV-LIS-00050 - B-400 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			

Section 7.3 Vendor Spares & Special Tools lists references

CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO Sheet 3 of 4 Date : 26/02/2025 Rev: 0
Document Title:	**HVAC System** **Commissioning and Start-Up and 2 Year Spares List**	**Commissioning**

Pos	Codice/Code	Descrizione/Description	Rif./Ref.	Qtà/Qty	Costo unit./Unit price	Costo tot./Tot. price
	B100					
1	592x592x48	Air filter G4		2	€ 84.36	€ 168.72
2	592x592x48	Air filter F7		2	€ 252.08	€ 504.16
	B200					
3	592x592x48	Air filter G4		2	€ 84.36	€ 168.72
4	592x592x48	Air filter F7		2	€ 252.08	€ 504.16
	B300					
5	592x592x48	Air filter G4		2	€ 84.36	€ 168.72
6	288x593x48	Air filter G4		2	€ 84.36	€ 168.72
7	592x592x48	Air filter F7		2	€ 252.08	€ 504.16
8	288x593x48	Air filter F7		2	€ 199.53	€ 399.06
9	A47	Fan belt		2	€ 84.36	€ 168.72
	B400					
10	592x592x48	Air filter G4		2	€ 84.36	€ 168.72
11	288x593x48	Air filter G4		2	€ 84.36	€ 168.72
12	592x592x48	Air filter F7		2	€ 252.08	€ 504.16
13	288x593x48	Air filter F7		2	€ 199.53	€ 399.06
14	A47	Fan belt		2	€ 84.36	€ 168.72
					TOTAL PAGE €	***€ 2.586.42***

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CROSSWIND

HOLLANDSE KUST NOORD WIND PARK Project
Contract No. CW-I-WP4-2023-05

ROSETTI MARINO

Sheet 4 of 4
Date : 26/02/2025
Rev: 0

Document Title:

HVAC System
Commissioning and Start-Up and 2 Year Spares List

2 Year Spare Parts

Pos	Codice/Code	Descrizione/Description	Rif./Ref.	Qtà/Qty	Costo unit./Unit price	Costo tot./Tot. price
	B100					
1	592x592x48	Air filter G4		16	€ 84.36	€ 1.349.76
2	592x592x48	Air filter F7		16	€ 252.08	€ 4.033.28
3	DA03S220S	Damper actuator		1	€ 790.41	€ 790.41
4	PS 600	Pressure switch		2	€ 217.29	€ 434.58
5	RM280	Fan with motor		1	€ 2.156.96	€ 2.156.96
6	55340240040	Relay 24v DC		5	€ 84.36	€ 421.80
7	6SL3210-5BE22-2CV0	2,2 Kw Inverter		1	€ 1.540.96	€ 1.540.96
8	GRP-H-25-48-D-1-0000	Static power slave unit		1	€ 629.96	€ 629.96
9	GRM-H-25-48-AN-OL-00000	Static power master unit		1	€ 1.002.13	€ 1.002.13
10	6ES7155-6BH01-0BA0	Digital imput module		1	€ 447.55	€ 447.55
11	6ES7132-6BH01-0BA0	Digital output module		1	€ 494.07	€ 494.07
12	6ES7134-6HD01-0BA1	Analog input module		1	€ 804.76	€ 804.76
13	6ES7513-1RM03-0BA0	CPU 1513-R		1	€ 6.273.83	€ 6.273.83
14	5SY7410-7	Circuit braker 400v 15kA 10A		1	€ 319.34	€ 319.34
15	3RV2011-1EA10	Circuit braker for motor protection 2,8 / 4 A		1	€ 199.53	€ 199.53
	B200					
16	592x592x48	Air filter G4		16	€ 84.36	€ 1.349.76
17	592x592x48	Air filter F7		16	€ 252.08	€ 4.033.28
18	DA03S220S	Damper actuator		1	€ 790.41	€ 790.41
19	PS 600	Pressure switch		2	€ 217.29	€ 434.58
20	RM280	Fan with motor		1	€ 2.156.96	€ 2.156.96
21	55340240040	Relay 24v DC		5	€ 84.36	€ 421.80
22	6SL3210-5BE22-2CV0	2,2 Kw Inverter		1	€ 1.540.96	€ 1.540.96
23	GRP-H-25-48-D-1-0000	Static power slave unit		1	€ 629.96	€ 629.96
24	GRM-H-25-48-AN-OL-00000	Static power master unit		1	€ 1.002.13	€ 1.002.13
25	6ES7155-6BH01-0BA0	Digital imput module		1	€ 447.55	€ 447.55
26	6ES7132-6BH01-0BA0	Digital output module		1	€ 494.07	€ 494.07
27	6ES7134-6HD01-0BA1	Analog input module		1	€ 804.76	€ 804.76
28	6ES7513-1RM03-0BA0	CPU 1513-R		1	€ 6.273.83	€ 6.273.83
29	5SY7410-7	Circuit braker 400v 15kA 10A		1	€ 319.34	€ 319.34
30	3RV2011-1EA10	Circuit braker for motor protection 2,8 / 4 A		1	€ 199.53	€ 199.53
	B300					
31	592x592x48	Air filter G4		16	€ 84.36	€ 1.349.76
32	288x593x48	Air filter G4		16	€ 84.36	€ 1.349.76
33	592x592x48	Air filter F7		16	€ 252.08	€ 4.033.28
34	288x593x48	Air filter F7		16	€ 199.53	€ 3.192.48
35	DA03S220S	Damper actuator		2	€ 790.41	€ 1.580.82
36	PS 600	Pressure switch		4	€ 217.29	€ 869.16
37	55340240040	Relay 24v DC		5	€ 84.36	€ 421.80
38	5.53482E+11	Relay 230V AC		10	€ 84.36	€ 843.60
39	DTMSMM1	Temporrized relay		4	€ 163.08	€ 652.32
40	6SL3210-5BE15-5CV0	0,55kW Inverter		1	€ 1.112.48	€ 1.112.48
41	6SL3210-5BE21-1CV0	1,1kW Inverter		1	€ 1.275.33	€ 1.275.33
42	GRP-H-25-48-D-1-0000	Static power slave unit		1	€ 629.96	€ 629.96
43	GRM-H-25-48-AN-OL-00000	Static power master unit		1	€ 1.002.13	€ 1.002.13
44	6ES7155-6BH01-0BA0	Digital imput module		1	€ 447.55	€ 447.55
45	6ES7132-6BH01-0BA0	Digital output module		1	€ 494.07	€ 494.07
46	6ES7134-6HD01-0BA1	Analog input module		1	€ 804.76	€ 804.76
47	6ES7513-1RM03-0BA0	CPU 1513-R		1	€ 6.273.83	€ 6.273.83
48	5SY7410-7	Circuit braker 400v 15kA 10A		1	€ 319.34	€ 319.34
49	3RV2011-1AA10	Circuit braker for motor protection 1,1 / 1,6 A		1	€ 199.53	€ 199.53
50	3RV2011-1GA10	Circuit braker for motor protection 4,5 / 6,3 A		1	€ 199.53	€ 199.53
51	3RV2011-1JA10	Circuit braker for motor protection 7 / 10 A		1	€ 234.80	€ 234.80
52	3RT2015-1AP01	Power contactor 230V		1	€ 144.29	€ 144.29
53	A47	Fan belt		8	€ 84.36	€ 674.88
54	C-SBN453H8G	Compressor		1	€ 1.775.04	€ 1.775.04
55	T3A 100LB4	Supply fan motor		1	€ 1.194.28	€ 1.194.28
56	SR454T	Condenser fan		1	€ 2.727.31	€ 2.727.31
	B400					
57	592x592x48	Air filter G4		16	€ 84.36	€ 1.349.76
58	288x593x48	Air filter G4		16	€ 84.36	€ 1.349.76
59	592x592x48	Air filter F7		16	€ 252.08	€ 4.033.28
60	288x593x48	Air filter F7		16	€ 199.53	€ 3.192.48
61	DA03S220S	Damper actuator		2	€ 790.41	€ 1.580.82
62	PS 600	Pressure switch		4	€ 217.29	€ 869.16
63	55340240040	Relay 24v DC		5	€ 84.36	€ 421.80
64	5.53482E+11	Relay 230V AC		10	€ 84.36	€ 843.60
65	DTMSMM1	Temporrized relay		4	€ 163.08	€ 652.32
66	6SL3210-5BE15-5CV0	0,55kW Inverter		1	€ 1.112.48	€ 1.112.48
67	6SL3210-5BE21-1CV0	1,1kW Inverter		1	€ 1.275.33	€ 1.275.33
68	GRP-H-25-48-D-1-0000	Static power slave unit		1	€ 629.96	€ 629.96
69	GRM-H-25-48-AN-OL-00000	Static power master unit		1	€ 1.002.13	€ 1.002.13
70	6ES7155-6BH01-0BA0	Digital imput module		1	€ 447.55	€ 447.55
71	6ES7132-6BH01-0BA0	Digital output module		1	€ 494.07	€ 494.07
72	6ES7134-6HD01-0BA1	Analog input module		1	€ 804.76	€ 804.76
73	6ES7513-1RM03-0BA0	CPU 1513-R		1	€ 6.273.83	€ 6.273.83
74	5SY7410-7	Circuit braker 400v 15kA 10A		1	€ 319.34	€ 319.34
75	3RV2011-1AA10	Circuit braker for motor protection 1,1 / 1,6 A		1	€ 199.53	€ 199.53
76	3RV2011-1GA10	Circuit braker for motor protection 4,5 / 6,3 A		1	€ 199.53	€ 199.53
77	3RV2011-1BA10	Circuit braker for motor protection 14 / 20 A		1	€ 199.53	€ 199.53
78	3RT2015-1AP01	Power contactor 230V		1	€ 144.29	€ 144.29
79	A47	Fan belt		8	€ 84.36	€ 674.88
80	C-SBN753H8H	Compressor		1	€ 2.727.31	€ 2.727.31
81	T3A 100LB4	Supply fan motor		1	€ 1.194.28	€ 1.194.28
82	SR454T	Condenser fan		1	€ 2.727.31	€ 2.727.31
					TOTAL PAGE €	***€ 110.319.02***

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Section 7.4 Vendor Data / Operations / Maintenance Manuals References

CAE EPLAN Electric P8

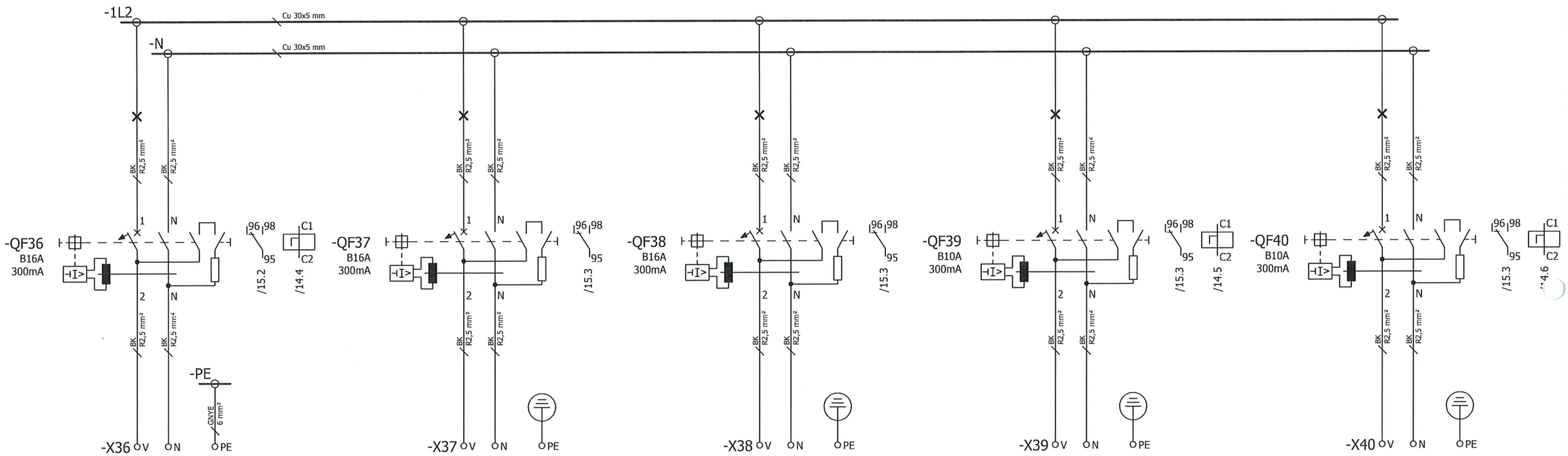
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VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724000372-EL-DG-00009

REV.:	DATE:	SIGNATURE:
3_A	15/11/24	G.Randi

ROSETTI MARINO SpA

NO MARK UP
AS COMMISSIONED: NATALIA GIROTI
24/3/25



Load
230V/N/PE~50Hz

JB-500-F8
UCP WATER PACKAGE
2KW

Load
230V/N/PE~50Hz

B400-SRV-001
SERVER CABINET ITER - LINE A

Load
230V/N/PE~50Hz

B400-SRV-001
SERVER CABINET ITER - LINE B

Load
230V/N/PE~50Hz

B100-HSB-001
UCP-HVAC HV ROOM
0.5KW

Load
230V/N/PE~50Hz

B200-HSB-001
UCP-HVAC LV ROOM
0.5KW

1000007888_010

				Date	23.05.2024
01	500000002053	13.08.2024	Beckschäfer	Editor	Beckschäfer
02	500000002089	27.08.2024	Beckschäfer	Checked	Ch.Peck
Stat	Alteration	Date	Name	Norm	

ROSETTI MARINO
Hollandse Kust Noord (HKN) wind farm

AEG POWER SOLUTIONS

Load
Bypass transformer cabinet
with manual bypass 40 kVA
Circuit diagram

1000007888.020
10009757

1000007888_010 en

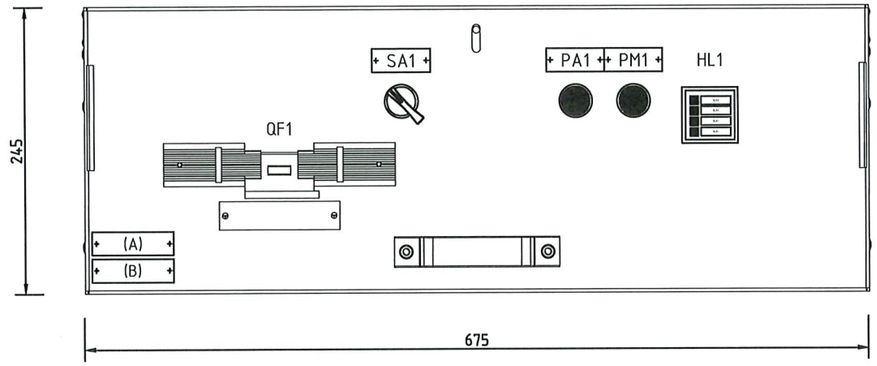
=
+ MBC1
& EFS

A3

sheet 8
sheets 17

DOOR FRONT LAY-OUT

TYPICAL : LINE FEEDER "LK1-n"

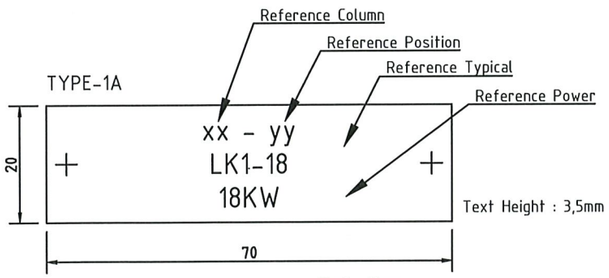


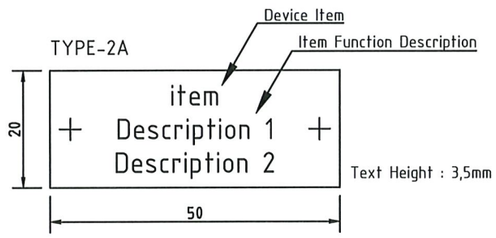
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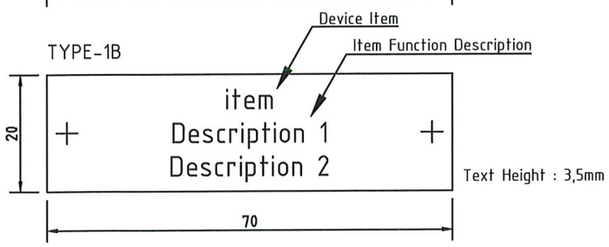
A) IDENTIFICATION name plate (type-1A) , with :
- Drawer position [Column / Position inside SWB]
- Typical name [reference applicability typical used]
- Power [reference applicability typical used]

B) USER name plate (type-1B), with :
- Item User [to see SLD diagrams]
- User Description [to see SLD diagrams]

DEVICES name plate			
ITEM	DESCRIPTION 1	DESCRIPTION 2	NOTE
QF1	Circuit Breaker		NO plate
SA1	LOC-REM	SELECTOR	Type-2A
PA1	STOP	MOTOR	Type-2A
PM1	RUN	MOTOR	Type-2A
HL1	Multiled	Signalling	NO plate







AS COMMISSIONED : MARINA GIORGI
26/3/25
NO MARK UP

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031

REV.:	DATE:	SIGNATURE:
2_A	18/03/25	G.Randi

ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

= TYPICAL
+ LK-x
DWG n° : 231298/SD/31
Item n° : PF1002983/26

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	10/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

TITLE : "SG-200N1"
LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS
Door Front Lay-Out - Typical "LK1-n" & "LK2-n"

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

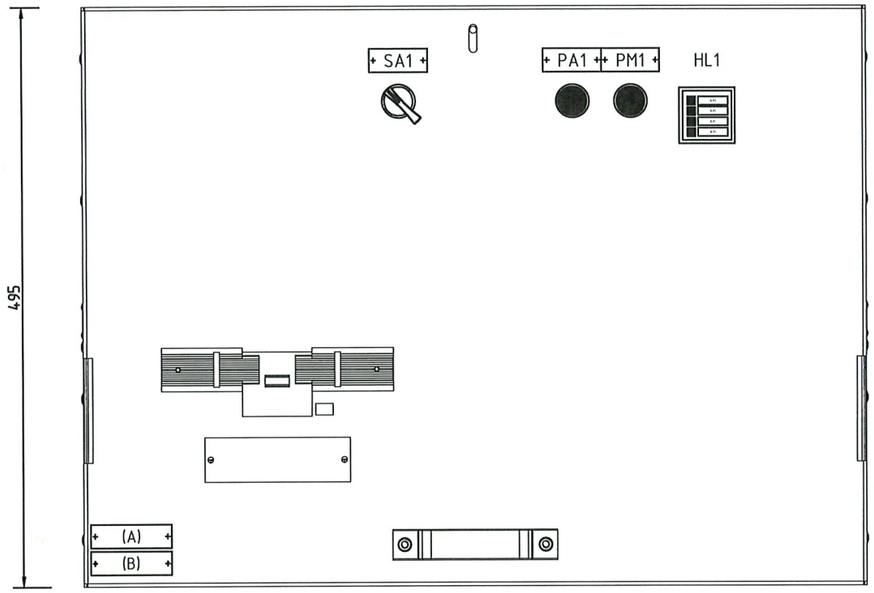
A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 034 | REV. 02

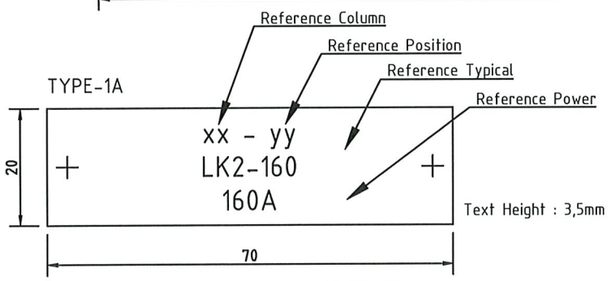
F.to UNI A3: 420mmx297mm

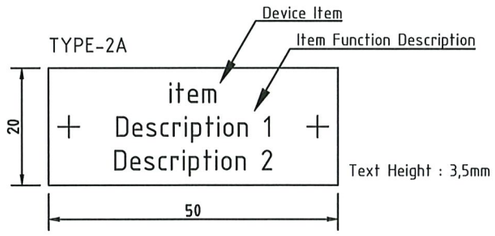
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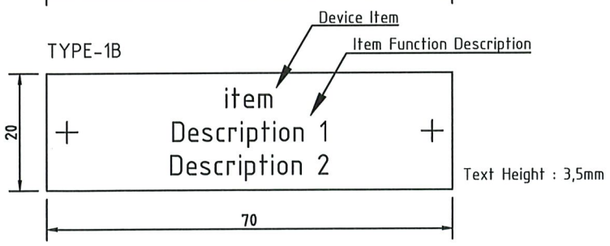
DOOR FRONT LAY-OUT

TYPICAL : LINE FEEDER "LK2-n"









NOTE :

A) IDENTIFICATION name plate (type-1A) , with :
- Drawer position [Column / Position inside SWB]
- Typical name [reference applicability typical used]
- Power [reference applicability typical used]

B) USER name plate (type-1B), with :
- Item User [to see SLD diagrams]
- User Description [to see SLD diagrams]

DEVICES name plate

ITEM	DESCRIPTION 1	DESCRIPTION 2	NOTE
QF1	Circuit Breaker		NO plate
SA1	LOC-REM	SELECTOR	Type-2A
PA1	STOP	MOTOR	Type-2A
PM1	RUN	MOTOR	Type-2A
HL1	Multiled	Signalling	NO plate

AS COMMISSIONED : MARIA GIROZ
24/3/25
NO MARK UP

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031
REV.: 2_A | DATE: 18/03/25 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

= TYPICAL
+ LK-x
DWG n° : 231298/SD/31
Item n° : PF1002983/26

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	10/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

TITLE : "SG-200N1"
LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS
Door Front Lay-Out - Typical "LK1-n" & "LK2-n"

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

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 035 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

USERS LEGEND

TYPICAL : LINE FEEDER "LK1-n" "LK2-n"

TYPICAL APPLICABILITY					
ITEM	ITEM TAG	DESCRIPTION TAG	REFERENCE POSITION (written on name name plate "type-1A)	REFERENCE NOMINAL CURRENT C.B. TRIP UNIT (written on name name plate "type-1A)	REFERENCE TYPICAL (written on name name plate "type-1A)
1	SPARE	SPARE	A2 / +05	40A	LK1-40
2	SPARE	SPARE	A3 / +02	40A	LK1-40
3	DP-200N1	DB-LIGHTING & SMALL POWER BoP	A3 / +03	100A	LK1-100
4	JB-200E3	CRANE	A3 / +04	63A	LK1-63
5	SPARE	SPARE	A3 / +05	40A	LK1-40
6	JB-500E8	WATER PACKAGE	A3 / +08	160A	LK2-160
7	B100-HSB-001	HVAC PANELS HV ROOM	A4 / +02	40A	LK1-40
8	A-80000	FUELL CELL AUXIALIRY LOAD	A4 / +03	63A	LK1-63
9	CP-850F03	BESS PCS CABINET	A4 / +04	40A	LK1-40
10	SPARE	SPARE	A4 / +05	40A	LK1-40
11	SPARE	SPARE	A4 / +06	40A	LK1-40
12	K-63001-A	INSTRUMENTS AIR PACKAGE 01A	A4 / +08	160A	LK2-160
13	SPARE	SPARE	A5 / +01	40A	LK1-40
14	B200-HSB-001	HVAC PANELS - LV ROOM	A5 / +02	40A	LK1-40
15	B300-HSB-001	HVAC PANELS - UPS ROOM	A5 / +03	63A	LK1-63
16	B400-HSB-001	HVAC PANELS - ITER	A5 / +04	63A	LK1-63
17	CN-200N1	IMPRESSED CURR. CATHODIC PROTECTION (ICCP) SYSTEM	A5 / +05	40A	LK1-40
18	SPARE	SPARE	A5 / +06	40A	LK1-40
19	K-63001-B	INSTRUMENTS AIR PACKAGE 01B	A5 / +08	160A	LK2-160
20	CP-850E1	BESS LV1 CABINAT (+DISTR 1)	A6 / +02	40A	LK1-40
21	CP-850E2	BESS LV2 CABINAT (+DISTR 2)	A6 / +03	40A	LK1-40
22	SPARE	SPARE	A6 / +04	40A	LK1-40

AS COMMISSIONED: NATALIA GIROLI
24/3/25
NO MARK UP

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031
REV.: 2_A | DATE: 18/03/25 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

= TYPICAL
+ LK-x
DWG n° : 231298/SD/31
Item n° : PF1002983/26

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
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TITLE : "SG-200N1"
LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS
Users Legend - Typical "LK1-n" & "LK2-n"

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

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 036 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

ITEMS ACRONYM

TYPICAL : LINE FEEDER "LK1-n" "LK2-n"

Composition of Typical :

LK-x = Common Parts
LK1-"nn" or LK2-"nn"= Specific Parts

Example for Composition of LK1-63:
- to take "LK-x" plus "LK1-63"

Example for Composition of LK2-160:
- to take "LK-x" plus "LK2-160"

	ACRONYM ITEMS [Comun parts]	ACRONYM ITEMS [Specific parts]					
	LK-x	LK1-40 [In=40A] [Current Trip Unit]	LK1-63 [In=63A] [Current Trip Unit]	LK1-100 [In=100A] [Current Trip Unit]	LK2-160 [In=160A] [Current Trip Unit]		
ASSOCIATED TYPICAL	This Item include all devices that are comun for both "Specific Parts" Items	This Items include only devices that are detail for "Specific Parts" Items					
LK1-40	X	X					
LK1-63	X		X				
LK1-100	X			X			
LK2-160	X				X		
-							

AS COMMISSIONED: NATALIA GIRGIN
24/3/25
NO MARK UP

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031
REV.: 2_A | DATE: 18/03/25 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

= TYPICAL
+ LK-x
DWG n° : 231298/SD/31
Item n° : PF1002983/26

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
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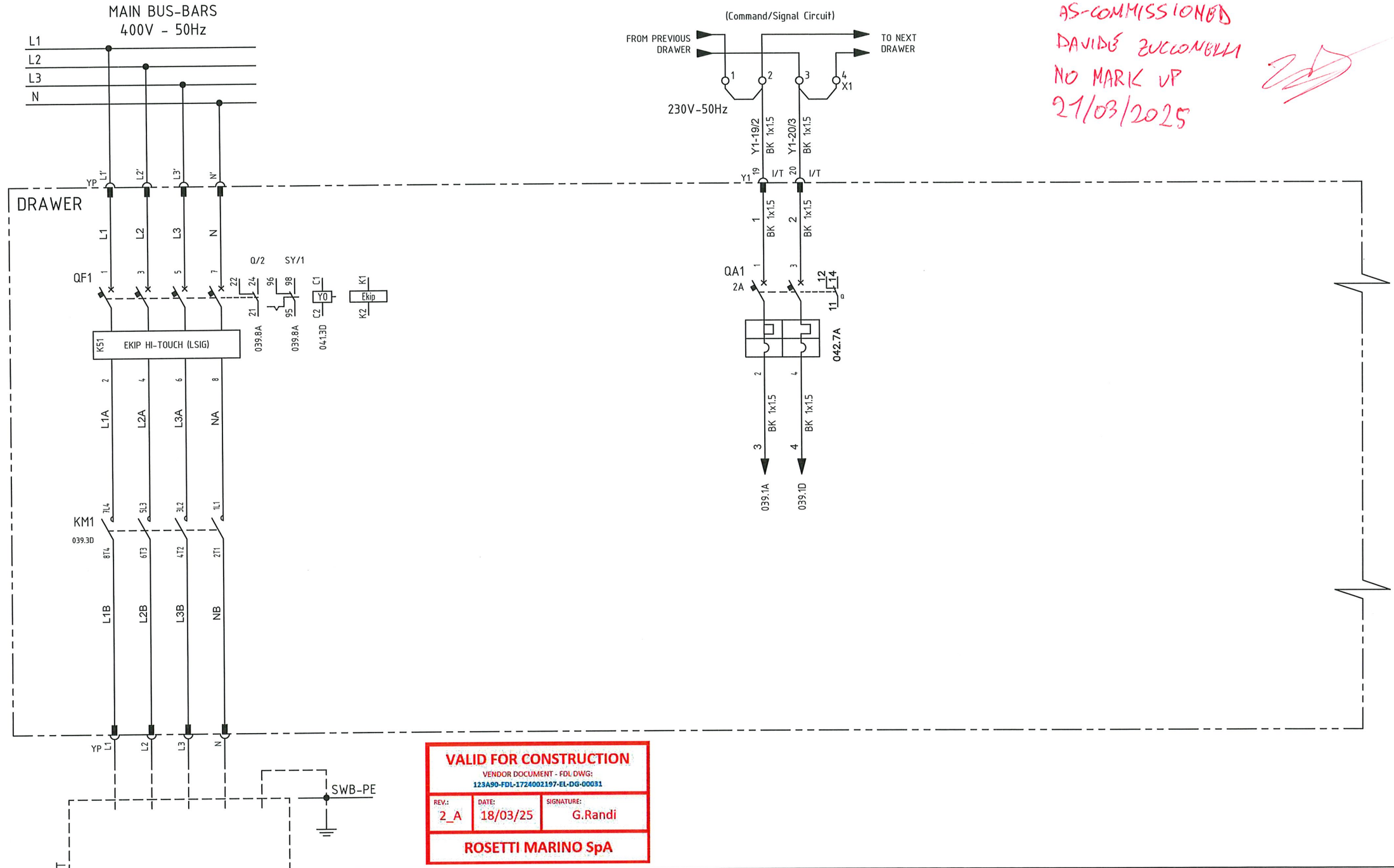
TITLE : "SG-200N1"
LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS
Items Acronym - Typical "LK1-n" & "LK2-n"

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

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 037 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02



AS-COMMISSIONED
DAVIDE ZUCCONELLI
NO MARK UP
21/03/2025

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031

REV.:	DATE:	SIGNATURE:
2_A	18/03/25	G.Randi

ROSETTI MARINO SpA

=	TYPICAL
+	LK-x

DWG n° : 231298/SD/31
Item n° : PF1002983/26

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
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TITLE : "SG-200N1"
LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS
Functional Drawing - Typical "LK1-n" & "LK2-n"

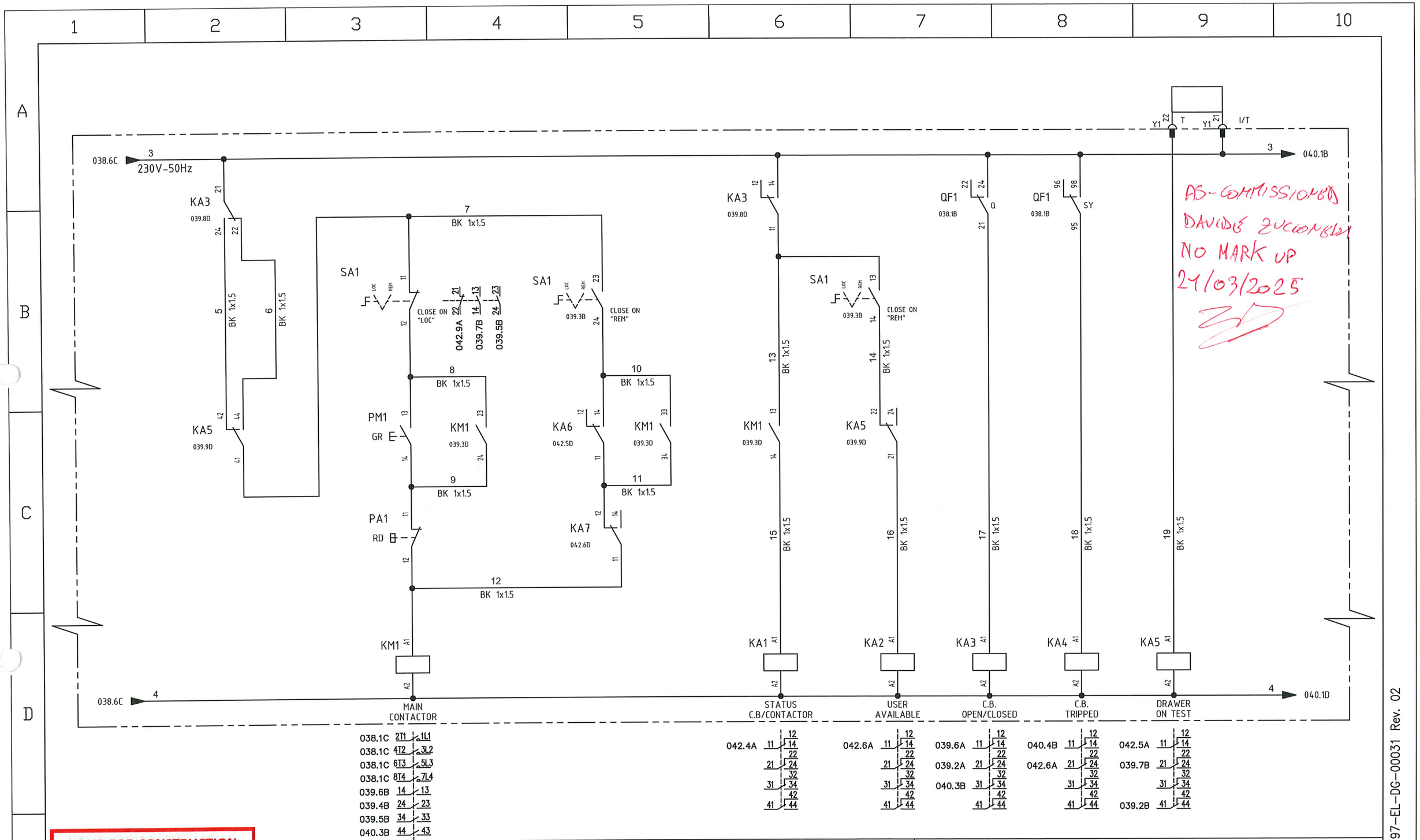
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 038 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

CROSSWIND
IMESA ELECTRICAL ENGINEERING
ROSETTI MARINO



VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031

REV.:	DATE:	SIGNATURE:
2_A	18/03/25	G.Randi

ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

=	TYPICAL
+	LK-x
DWG n° :	231298/SD/31
Item n° :	PF1002983/26

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
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TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

Functional Drawing - Typical "LK1-n" & "LK2-n"

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00031

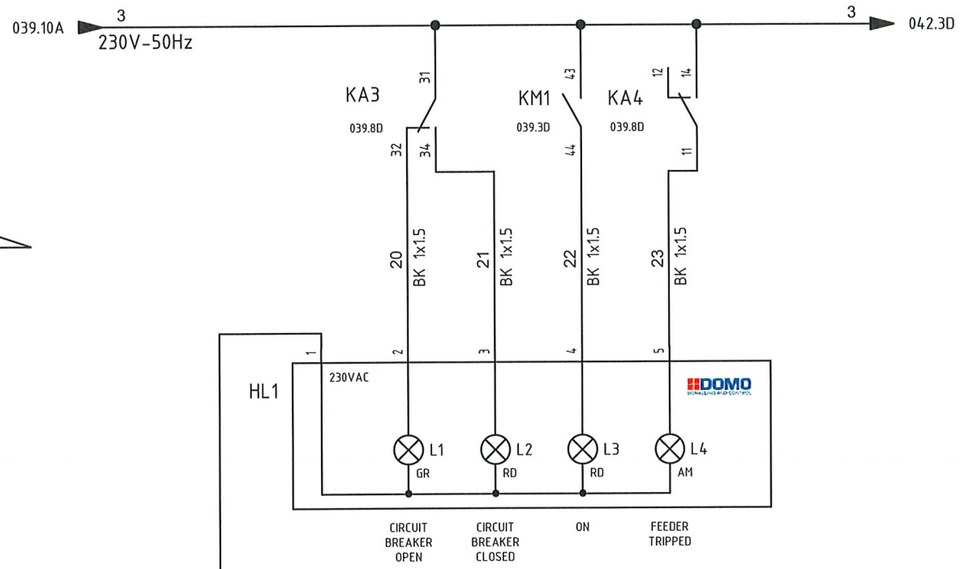
SHEET 039

REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

AS-COMMISSIONED
DAVIDE ZUCCONELLI
NO MARK UP
27/03/2025



VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031

REV.:	DATE:	SIGNATURE:
2_A	18/03/25	G.Randi

ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

= TYPICAL
+ LK-x
DWG n° : 231298/SD/31
Item n° : PF1002983/26

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
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TITLE : "SG-200N1"
LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS
Functional Drawing - Typical "LK1-n" & "LK2-n"

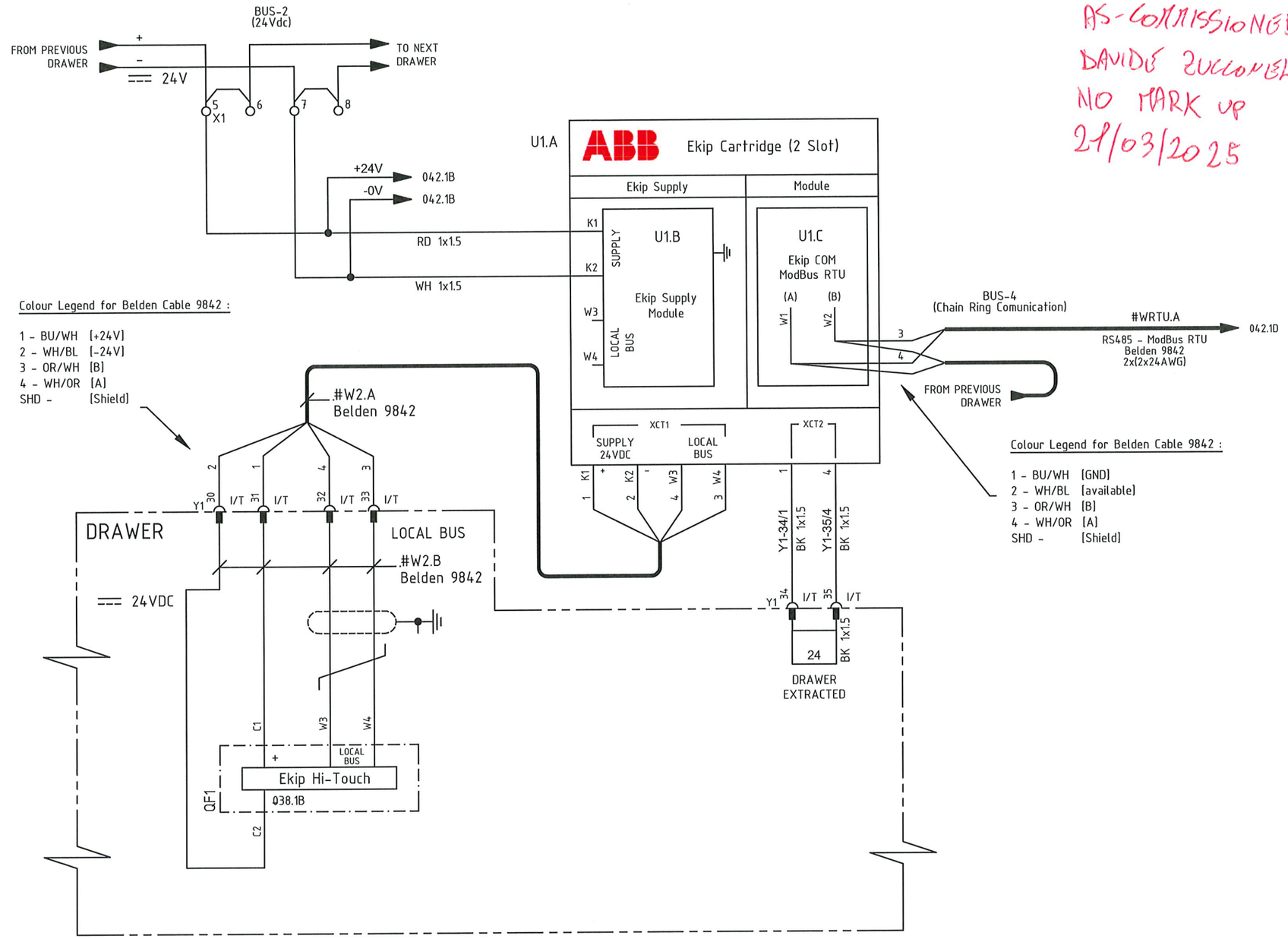
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 040 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

AS-COMMISSIONED
DAVIDE ZUCCONELLI
NO MARK UP
21/03/2025



VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031

REV.:	DATE:	SIGNATURE:
2_A	18/03/25	G.Randi

ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

=	TYPICAL
+	LK-x
DWG n° :	231298/SD/31
Item n° :	PF1002983/26

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
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TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

Functional Drawing - Typical "LK1-n" & "LK2-n"

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00031

SHEET 041

REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

AS-COMMISSIONED
DAVIDE ZUCCOMELLI
NO MARK UP
21/03/2025

DRAWER

C.B. - CONTACTOR CLOSED & INSERTED
C.B. - CONTACTOR OPEN OR DISCONNECTED
CIRCUIT BREAKER TRIPPED
FEEDER AVAILABLE
INTERNAL FAULT
USER ON LOCAL

KA1 039.6D
KA5 039.9D
KA4 039.8D
KA2 039.7D
QA1 038.6B
SA1 039.3B
CLOSE ON "LOC"

+25 RD 1x1.5 · +26 RD 1x1.5 · +27 RD 1x1.5 · +28 RD 1x1.5 · +29 RD 1x1.5 · +30 RD 1x1.5 · +31 RD 1x1.5 · +32 RD 1x1.5

Y1 14 I/T · 5 I · 15 I/T · 3 E · 4 E · 16 I/T · 10 I/T · 8 I/T · 9 I/T · 36 I/T · 37 I/T

Y1-14/9 BK 1x1.5 · Y1-5/10 BK 1x1.5 · Y1-15/11 BK 1x1.5 · Y1-16/12 BK 1x1.5 · Y1-10/13 BK 1x1.5 · Y1-9/14 BK 1x1.5 · Y1-36/15 BK 1x1.5 · Y1-37/19 BK 1x1.5

AVAILABLE

+103 RD 1x1.5 · +104 RD 1x1.5 · +105 RD 1x1.5 · +106 RD 1x1.5 · +107 RD 1x1.5 · +108 RD 1x1.5 · +115 RD 1x1.5 · +116 RD 1x1.5 · +117 RD 1x1.5 · +118 RD 1x1.5

041.4A +24V
041.4A -0V
=== 24V

U2.A
AC+ AC- PE
+/L -/N PE
10÷40Vdc - 19÷29Vac SUPPLY
Z-PC-DINAL2-17.5
Modbus RTU RS485
B(-) A(+) GND SHD
B/L A/H GND SHD
3 4 1 SHD
041.9B
TO NEXT DRAWER
BUS-4
(Chain Ring Comunication)

U2.B
+16V 0V IN-1 IN-2 IN-3 IN-4 IN-5
INPUT
SENECA AUTOMATION INTERFACES
MODULE I/O
Z-5DI-2DO
ID = 01
OUTPUT
DO-1 DO-2

U2.C
+16V 0V IN-1 IN-2 IN-3 IN-4 IN-5
INPUT
SENECA AUTOMATION INTERFACES
MODULE I/O
Z-5DI-2DO
ID = 02
OUTPUT
DO-1 DO-2

Colour Legend for Belden Cable 9842 :

1 - BU/WH [GND]
2 - WH/BL [available]
3 - OR/WH [B]
4 - WH/OR [A]
SHD - [Shield]

109 BK 1x1.5 · 110 BK 1x1.5 · 111 BK 1x1.5 · 112 BK 1x1.5 · 113 BK 1x1.5 · 114 BK 1x1.5
Y1-11/20 BK 1x1.5 · Y1-12/21 BK 1x1.5 · Y1-13/22 BK 1x1.5

Y1 11 I/T · 12 I/T · 13 I/T

DRAWER
040.5B 3 230V-50Hz
040.5D 4

KA6 · KA7
CONTACTOR CLOSE COMMAND
CONTACTOR OPEN COMMAND

KA6 039.5B 11 12 14 22 21 24 32 31 34 42 41 44
KA7 039.5C 11 12 14 22 21 24 32 31 34 42 41 44

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031
REV.: 2_A | DATE: 18/03/25 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

= TYPICAL
+ LK-x
DWG n° : 231298/SD/31
Item n° : PF1002983/26

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
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TITLE : "SG-200N1"
LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS
Functional Drawing - Typical "LK1-n" & "LK2-n"

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

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 042 | REV. 02

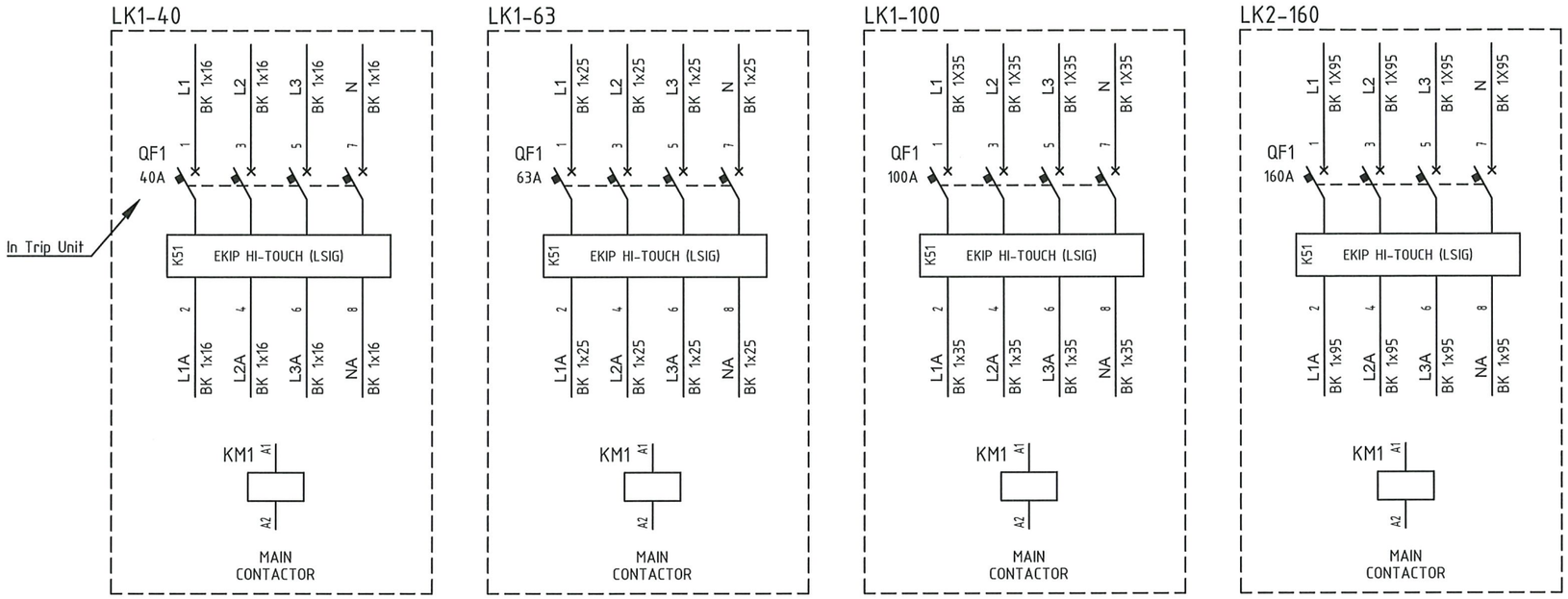
F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

SPECIFIC PARTS

TYPICAL : LINE FEEDER "LK1-n" "LK2-n"

AS-COMMISSIONED
DAVIDE ZUCCONELLI
NO MARK UP
21/03/2025



VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031
REV.: 2_A | DATE: 18/03/25 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

= TYPICAL
+ LK-x
DWG n° : 231298/SD/31
Item n° : PF1002983/26

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TITLE : "SG-200N1"
LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS
Functional Drawing - Typical "LK1-n" & "LK2-n"

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

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 043 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

AUXILIARY SOCKET

136450/001 (PF – 2 pcs) + 136458/004 (PM – 2 pcs)

N° PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
JUMP			●	●				●	●																																			
RACKED-OUT			✕	✕				✕	✕																																			
TEST								X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
RACKED-IN					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
PIN USED			042.5B	042.5B	042.4B			042.6B	042.7B	042.6B	042.5D	042.5D	042.6D	042.3B	042.4B	042.6B			038.6A	038.6A	039.9A	039.9A								041.3C	041.3C	041.4C	041.4C	041.6C	041.7C	042.7B	042.9B							

1	FIELD WHIT "X" - CONTACT CLOSE WHEN DRAWER IS IN RACKED-OUT POSITION
2	FIELD WHIT "X" - CONTACT CLOSE WHEN DRAWER IS IN TEST POSITION
3	FIELD WHIT "X" - CONTACT CLOSE WHEN DRAWER IS IN RACKED-IN POSITION
4	CROS-REFERENCE USED PIN

TYPICAL - LK-x - Y1

AS COMMISSIONED
DAVIDE ZUCCONELLI
NO MARK UP
21/03/2025

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031
REV.: 2_A | DATE: 18/03/25 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

= TYPICAL
+ LK-x
DWG n° : 231298/SD/31
Item n° : PF1002983/26

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TITLE : "SG-200N1"
LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS
Functional Drawing - Typical "LK1-n" & "LK2-n"

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

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 044 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

TYPICAL - LK-x
X1

NumM	Fg.	Sez.	Tipo	Descrizione	Costruttore
			BT003	BT/3 End bracket	Cabur
1	038.5A	2.5	HD100GR__	HMD.2/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
2	038.6A	2.5	HD100GR__	HMD.2/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
3	038.6A	2.5	HD100GR__	HMD.2/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
4	038.6A	2.5	HD100GR__	HMD.2/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
5	041.3A	2.5	HD100GR__	HMD.2/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
6	041.3A	2.5	HD100GR__	HMD.2/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
7	041.4A	2.5	HD100GR__	HMD.2/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
8	041.4A	2.5	HD100GR__	HMD.2/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
			HD101GR	HMD/PT/GR End section - Grey	Cabur
9	042.3B	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
10	042.4B	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
11	042.4B	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
12	042.5B	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
13	042.6B	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
14	042.7B	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
15	042.7B	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
16	042.7B	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
17	042.8B	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
18	042.8B	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
19	042.9B	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
20	042.5C	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
21	042.5C	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
22	042.6C	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
23	042.9C	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
24	042.9C	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
25	042.10C	2.5	HD400GR__	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
			HD201GR	HMD.1/PT/GR End section - Grey	Cabur
			BT003	BT/3 End bracket	Cabur

AS-COMMISSIONED
DAVIDE ZUCCHINELLI
NO MARK UP
21/03/2025

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031
REV.: 2_A | DATE: 18/03/25 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

= TYPICAL
+ LK-x
DWG n° : 231298/SD/31
Item n° : PF1002983/26

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	10/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

TITLE : "SG-200N1"
LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS
Functional Drawing - Typical "LK1-n" & "LK2-n"

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

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 045 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

Nome/Item	Fg/Sh	Tipo/Type	Q.ta/Q.ty	Descrizione/Description	Costruttore/Manufacturer	Quadro (descrizione)
HL1	040	ML22/484L230STLTTR	1	MULTILED 48x48 - 4 LED - Vaux=230Vac/dc + LAMP TEST + TROP	DOMO	TYPICAL LK-x
KA1	039	ER 592 6	1	CR-M230AC4L SUPPLY 230VAC 4C/O 250V/6A LED	ABB	TYPICAL LK-x
		ER 609 8	1	CR-MH HOLDER FOR CR-M RELAY	ABB	TYPICAL LK-x
		ER 686 6	1	CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M)	ABB	TYPICAL LK-x
KA2	039	ER 592 6	1	CR-M230AC4L SUPPLY 230VAC 4C/O 250V/6A LED	ABB	TYPICAL LK-x
		ER 609 8	1	CR-MH HOLDER FOR CR-M RELAY	ABB	TYPICAL LK-x
		ER 686 6	1	CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M)	ABB	TYPICAL LK-x
KA3	039	ER 592 6	1	CR-M230AC4L SUPPLY 230VAC 4C/O 250V/6A LED	ABB	TYPICAL LK-x
		ER 609 8	1	CR-MH HOLDER FOR CR-M RELAY	ABB	TYPICAL LK-x
		ER 686 6	1	CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M)	ABB	TYPICAL LK-x
KA4	039	ER 592 6	1	CR-M230AC4L SUPPLY 230VAC 4C/O 250V/6A LED	ABB	TYPICAL LK-x
		ER 609 8	1	CR-MH HOLDER FOR CR-M RELAY	ABB	TYPICAL LK-x
		ER 686 6	1	CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M)	ABB	TYPICAL LK-x
KA5	039	ER 592 6	1	CR-M230AC4L SUPPLY 230VAC 4C/O 250V/6A LED	ABB	TYPICAL LK-x
		ER 609 8	1	CR-MH HOLDER FOR CR-M RELAY	ABB	TYPICAL LK-x
		ER 686 6	1	CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M)	ABB	TYPICAL LK-x
KA6	042	ER 592 6	1	CR-M230AC4L SUPPLY 230VAC 4C/O 250V/6A LED	ABB	TYPICAL LK-x
		ER 609 8	1	CR-MH HOLDER FOR CR-M RELAY	ABB	TYPICAL LK-x
		ER 686 6	1	CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M)	ABB	TYPICAL LK-x
KA7	042	ER 592 6	1	CR-M230AC4L SUPPLY 230VAC 4C/O 250V/6A LED	ABB	TYPICAL LK-x
		ER 609 8	1	CR-MH HOLDER FOR CR-M RELAY	ABB	TYPICAL LK-x
		ER 686 6	1	CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M)	ABB	TYPICAL LK-x
PA1	039	KW 075 2	1	MP1-10R PUSH BUTTON RED WITH BLACK RING	ABB	TYPICAL LK-x
		EO 569 7	1	MCBH-00 FIXING SUPPORT 3 CONTACTS	ABB	TYPICAL LK-x
		EO 571 3	2	MCB-01 CONTACT NC FOR PUSHBUTTOM	ABB	TYPICAL LK-x
PM1	039	KW 076 0	1	MP1-10G PUSH BUTTON GREEN WITH BLACK RING	ABB	TYPICAL LK-x
		EO 569 7	1	MCBH-00 FIXING SUPPORT 3 CONTACTS	ABB	TYPICAL LK-x
		EO 570 5	2	MCB-10 CONTACT NO FOR PUSHBUTTONS	ABB	TYPICAL LK-x
QA1	038	S550239	1	S202M C 2 AUTOMATIC CIRCUIT BREAKER 10KA 2P	ABB	TYPICAL LK-x
		A563819	1	S2-CS/H6R AUXILIARY STATE CONTACT 1CO	ABB	TYPICAL LK-x
SA1	039	KW 329 3	1	M2SS2-10B HANDLE SELECTOR 2P 90° BLACK RING BLACK	ABB	TYPICAL LK-x
		EO 569 7	1	MCBH-00 FIXING SUPPORT 3 CONTACTS	ABB	TYPICAL LK-x
		EO 570 5	2	MCB-10 CONTACT NO FOR PUSHBUTTONS	ABB	TYPICAL LK-x
		EO 571 3	2	MCB-01 CONTACT NC FOR PUSHBUTTOM	ABB	TYPICAL LK-x
U1.2	041	1SDA074173R1	1	MODUL EKIP SUPPLY 24÷48VDC	ABB	TYPICAL LK-x
U1.3	041	1SDA105166R1	1	Module Ekip Com Modbus RS485 Tmax XT	ABB	TYPICAL LK-x
U1.A	041	1SDA105203R1	1	EKIP CARTRIDGE 2SLOT FOR XT2-XT4-XT5	ABB	TYPICAL LK-x
U2.A	042	Z-PC-DINAL2-17.5	1	DIN RAIL 2SLOT WITH HEAD FOR "Z-5DI-2DO"	SENECA	TYPICAL LK-x
U2.B	042	Z-5DI-2DO	1	I/O MODUL 5DI+2DO modbus RS485 Vaux=10÷40Vdc 19÷28Vac	SENECA	TYPICAL LK-x
U2.C	042	Z-5DI-2DO	1	I/O MODUL 5DI+2DO modbus RS485 Vaux=10÷40Vdc 19÷28Vac	SENECA	TYPICAL LK-x
X1		HD100GR_	8	HMD.2/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur	TYPICAL LK-x
		HD400GR_	17	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur	TYPICAL LK-x
		BT003	2	BT/3 End bracket	Cabur	TYPICAL LK-x
		HD101GR	1	HMD/PT/GR End section - Grey	Cabur	TYPICAL LK-x

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031
REV.: 2_A | DATE: 18/03/25 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

= TYPICAL
+ LK-x
DWG n° : 231298/SD/31
Item n° : PF1002983/26

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	10/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

TITLE : "SG-200N1"
LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS
Functional Drawing - Typical "LK1-n" & "LK2-n"

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

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 046 | REV. 02

File Name : 1723002197-EL-DG-00031 Rev. 02

AS-COMMISSIONED DAVIDE ZUCCONELLI NO MARK UP 21/03/2025

Foto UNI A3: 420mmx297mm

Nome/Item	Fg/Sh	Tipo/Type	Q.ta/Q.ty	Descrizione/Description	Costruttore/Manufacturer	Quadro (descrizione)
X1		HD201GR	1	HMD.1/PT/GR End section - Grey	Cabur	TYPICAL LK-x

AS-COMMISSIONED
DAVIDE ZUCCOMELLI

NO MARK UP
21/03/2025

Nome/Item	Fg/Sh	Tipo/Type	Q.ta/Q.ty	Descrizione/Description	Costruttore/Manufacturer	Quadro (descrizione)
KM1	043	AF40400013	1	AF40-40-00-13 CONTACTOR 4P 40A 100-250VAC/DC	ABB	TYPICAL LK1-40
		CA440E	1	CA4-40E AUXILIARY FRONT CONTACT 4NO	ABB	TYPICAL LK1-40
QF1	043	1SDA068169R1	1	XT2S 160 BREAKING PART 4p F F	ABB	TYPICAL LK1-40
		1SDA100162R1	1	ELECTRONIC TRIP RELEASE Ekip Hi-Touch LSIG In=40A XT2 4p	ABB	TYPICAL LK1-40
		1SDA066431R1	1	AUX-C 1Q+1SY 250Vac/dc XT1..XT5 F/P	ABB	TYPICAL LK1-40

Nome/Item	Fg/Sh	Tipo/Type	Q.ta/Q.ty	Descrizione/Description	Costruttore/Manufacturer	Quadro (descrizione)
KM1	043	AF52400013	1	AF52-30-00-13 CONTACTOR 4P 53A(AC3) 100-250VAC/DC	ABB	TYPICAL LK1-63
		CA440E	1	CA4-40E AUXILIARY FRONT CONTACT 4NO	ABB	TYPICAL LK1-63
QF1	043	1SDA068169R1	1	XT2S 160 BREAKING PART 4p F F	ABB	TYPICAL LK1-63
		1SDA100163R1	1	ELECTRONIC TRIP RELEASE Ekip Hi-Touch LSIG In=63A XT2 4p	ABB	TYPICAL LK1-63
		1SDA066431R1	1	AUX-C 1Q+1SY 250Vac/dc XT1..XT5 F/P	ABB	TYPICAL LK1-63

Nome/Item	Fg/Sh	Tipo/Type	Q.ta/Q.ty	Descrizione/Description	Costruttore/Manufacturer	Quadro (descrizione)
KM1	043	AF80400013	1	AF80-30-00-13 CONTACTOR 4P 80A(AC3) 100-250VAC/DC	ABB	TYPICAL LK1-100
		CA440E	1	CA4-40E AUXILIARY FRONT CONTACT 4NO	ABB	TYPICAL LK1-100
QF1	043	1SDA068169R1	1	XT2S 160 BREAKING PART 4p F F	ABB	TYPICAL LK1-100
		1SDA100164R1	1	ELECTRONIC TRIP RELEASE Ekip Hi-Touch LSIG In=100A XT2 4p	ABB	TYPICAL LK1-100
		1SDA066431R1	1	AUX-C 1Q+1SY 250Vac/dc XT1..XT5 F/P	ABB	TYPICAL LK1-100

Nome/Item	Fg/Sh	Tipo/Type	Q.ta/Q.ty	Descrizione/Description	Costruttore/Manufacturer	Quadro (descrizione)
KM1	043	AF190401113	1	AF190-40-11-13 CONT 4P 190A AC3 100-250VAC/DC	ABB	TYPICAL LK2-160
		CAL1911	1	CAL19-11 CONTATTO AUSILIARIO 1NA+1NC PER AF116÷AF370	ABB	TYPICAL LK2-160
		CAL1911B	2	CAL19-11B AUXILIARY CONTACT 1NA+1NC PER AF116÷AF370	ABB	TYPICAL LK2-160
QF1	043	1SDA068179R1	1	XT4S 250 BREAKING PART 4p F F	ABB	TYPICAL LK2-160
		1SDA100334R1	1	ELECTRONIC TRIP RELEASE Ekip Hi-Touch LSIG In=160A XT4 4p	ABB	TYPICAL LK2-160
		1SDA066431R1	1	AUX-C 1Q+1SY 250Vac/dc XT1..XT5 F/P	ABB	TYPICAL LK2-160

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031
REV.: 2_A | DATE: 18/03/25 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

= TYPICAL
+ LK-x
DWG n° : 231298/SD/31
Item n° : PF1002983/26

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	10/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

TITLE : "SG-200N1"
LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS
Functional Drawing - Typical "LK1-n" & "LK2-n"

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

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 047 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

BASE LOAD POWER HUB (BLPH)

B-100 HVAC and LIGHTING PANELWIRING DRAWINGS and GENERAL ARRANGEMENT (INCL INTERCONNECTION) - E&I SHELTERS

B100-HSB-001

NO MARK UP
AS COMMISSIONED: MATTIA GIROTTI
26/3/25

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
05	24/01/25				ACCEPT FOR CONSTRUCTION (AFC)
04	10/12/24				ACCEPT FOR CONSTRUCTION (AFC)
03	05/09/24				ISSUE FOR REVIEW (IFR)
02	13/06/24				ISSUE FOR REVIEW (IFR)
01	15/04/24				ISSUE FOR REVIEW (IFR)
00	15/04/24				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. 1724000049-HV-DA-00026

SHEET 001

REV. 05

REV.	MODIFICA	DATA	FIRMA
05	ACCEPT FOR CONSTRUCTION	24/01/25	
04	ACCEPT FOR CONSTRUCTION	10/12/24	
03	ISSUED FOR APPROVAL	05/09/24	

DATA	15/04/2024
DISEGN.	F.M.
VISTO	S.S.
APPR.	M.G.

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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM
COVER

ROSETTI MARINO ALEXSISTEMI

1724000049-HV-DA-00026

FG. 1
F.S. 2

NO MARK UP
AS COMMISSIONED: MATTIA GIROTTI 26/3/25

LISTA FOGLI \ INDEX

Foglio Sheet	Descrizione Description	Revisioni Revisions 1	2	3	4	5	6	7	8	9
1	COVER	X	X	X	X	X				
2	INDEX	X	X	X	X	X				
3	SIMBOL LIST	X	X	X	X	X				
4	EXTERNAL VIEW	X	X	X	X	X				
5	INTERNAL VIEW	X	X	X	X	X				
6	POWER SECTION	X	X	X	X	X				
6A	POWER SECTION	X	X	X	X	X				
6B	POWER SECTION	X	X	X	X	X				
7	POWER SECTION	X	X	X	X	X				
8	POWER SECTION	X	X	X	X	X				
9	POWER SECTION	X	X	X	X	X				
9A	POWER SECTION	X	X	X	X	X				
10	AUX SECTION	X	X	X	X	X				
11	AUX SECTION	X	X	X	X	X				
11A	AUX SECTION	X	X	X	X	X				
12	AUX SECTION	X	X	X	X	X				
13	AUX SECTION	X	X	X	X	X				
14	AUX SECTION	X	X	X	X	X				
15	AUX SECTION	X	X	X	X	X				
16	AUX SECTION	X	X	X	X	X				
17	AUX SECTION	X	X	X	X	X				
18	AUX SECTION	X	X	X	X	X				
19	AUX SECTION	X	X	X	X	X				
20	AUX SECTION	X	X	X	X	X				
20A	AUX SECTION	X	X	X	X	X				
20B	AUX SECTION	X	X	X	X	X				
20C	PLC ARCHITECTURE	X	X	X	X	X				
20D	PLC ARCHITECTURE	X	X	X	X	X				

Foglio Sheet	Descrizione Description	Revisioni Revisions 1	2	3	4	5	6	7	8	9
21	ELECTRICAL HEATER MODULATION	X	X	X	X	X				
22	ELECTRICAL HEATER MODULATION	X	X	X	X	X				
23	AVAILABLE SIGNAL	X	X	X	X	X				
24	TERMINAL STRIP	X	X	X	X	X				
25	TERMINAL STRIP	X	X	X	X	X				
26	MATERIAL LIST	X	X	X	X	X				
27	MATERIAL LIST	X	X	X	X	X				
28	MATERIAL LIST	X	X	X	X	X				
29	MATERIAL LIST	X	X	X	X	X				
30	MATERIAL LIST	X	X	X	X	X				
31	MATERIAL LIST	X	X	X	X	X				

REV.	MODIFICA	DATA	FIRMA
05	ACCEPT FOR CONSTRUCTION	24/01/25	
04	ACCEPT FOR CONSTRUCTION	10/12/24	
03	ISSUED FOR APPROVAL	05/09/24	

DATA	15/04/2024
DISEGN.	F.M.
VISTO	S.S.
APPR.	M.G.

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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM

INDEX

ROSETTI MARINO | ALEXSISTEMI spa

1724000049-HV-DA-00026

FG. 2
F.S. 3

NO MARK UP AS COMMISSIONED: MARIA GIRONI 26/3/25

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
E	CLOSING BUTTON	89.	FUSE DISCONNECTING SWITCH	2 3 4	TERMINAL STRIP
E	OPENING BUTTON	6. d	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
05	ACCEPT FOR CONSTRUCTION	24/01/25	
04	ACCEPT FOR CONSTRUCTION	10/12/24	
03	ISSUED FOR APPROVAL	05/09/24	

DATA 15/04/2024
DISEGN. F.M.
VISTO S.S.
APPR. M.G.

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–100 HV SWITCH ROOM
SIMBOL LIST

ROSETTI MARINO | ALEXSISTEMI

1724000049–HV–DA–00026

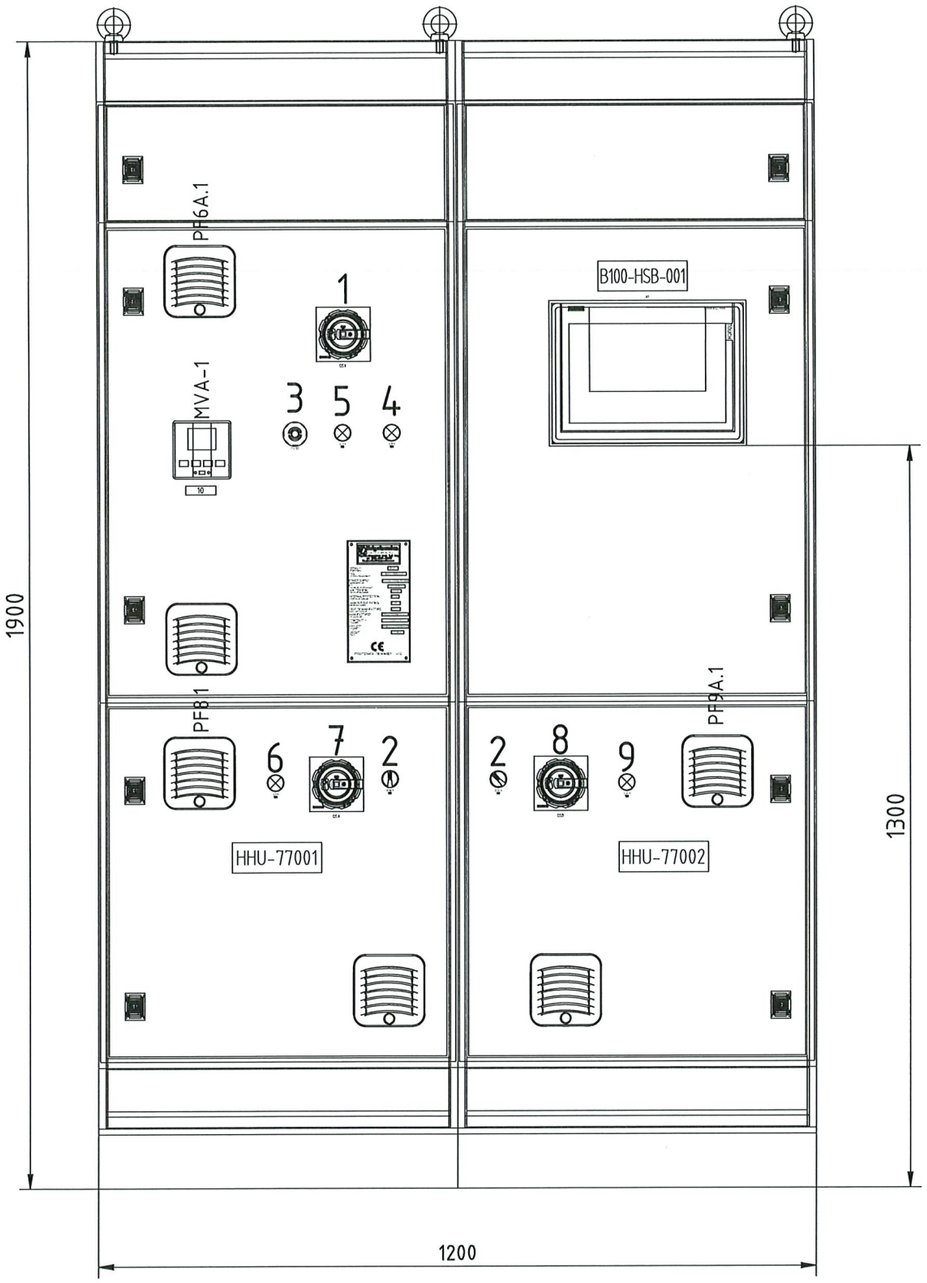
FG. 3
F.S. 4

NO MARK UP

AS COMMISSIONED: MATRIA GIRO n.

26/3/25

EXTERNAL VIEW



LABEL	
1	MAIN SWITCH
2	AUTO-0-MANUAL
3	HPB-003
4	24VDC VOLTAGEPRESENCE
5	230V VOLTAGE PRESENCE
6	230V VOLTAGE PRESENCE
7	HHU-77001 MAIN SWITH
8	HHU-77002 MAIN SWITCH
9	230V VOLTAGE PRESENCE
10	MULTIMETER

CABINET QUOTE:
LENGHT 1200 mm
HEIGHT 1900 mm
DEPT 600mm

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SERIAL n.: *Matricola n.:*	1626
TAG: *Codice identificativo:*	B100-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:*	40 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:*	700 Kg

CE

FRIGOTERMICA JOB NUMBER: 4112

SCALA 1:10

REV.	MODIFICA	DATA	FIRMA
05	ACCEPT FOR CONSTRUCTION	24/01/25	
04	ACCEPT FOR CONSTRUCTION	10/12/24	
03	ISSUED FOR APPROVAL	05/09/24	

DATA	15/04/2024
DISEGN.	F.M.
VISTO	S.S.
APPR.	M.G.

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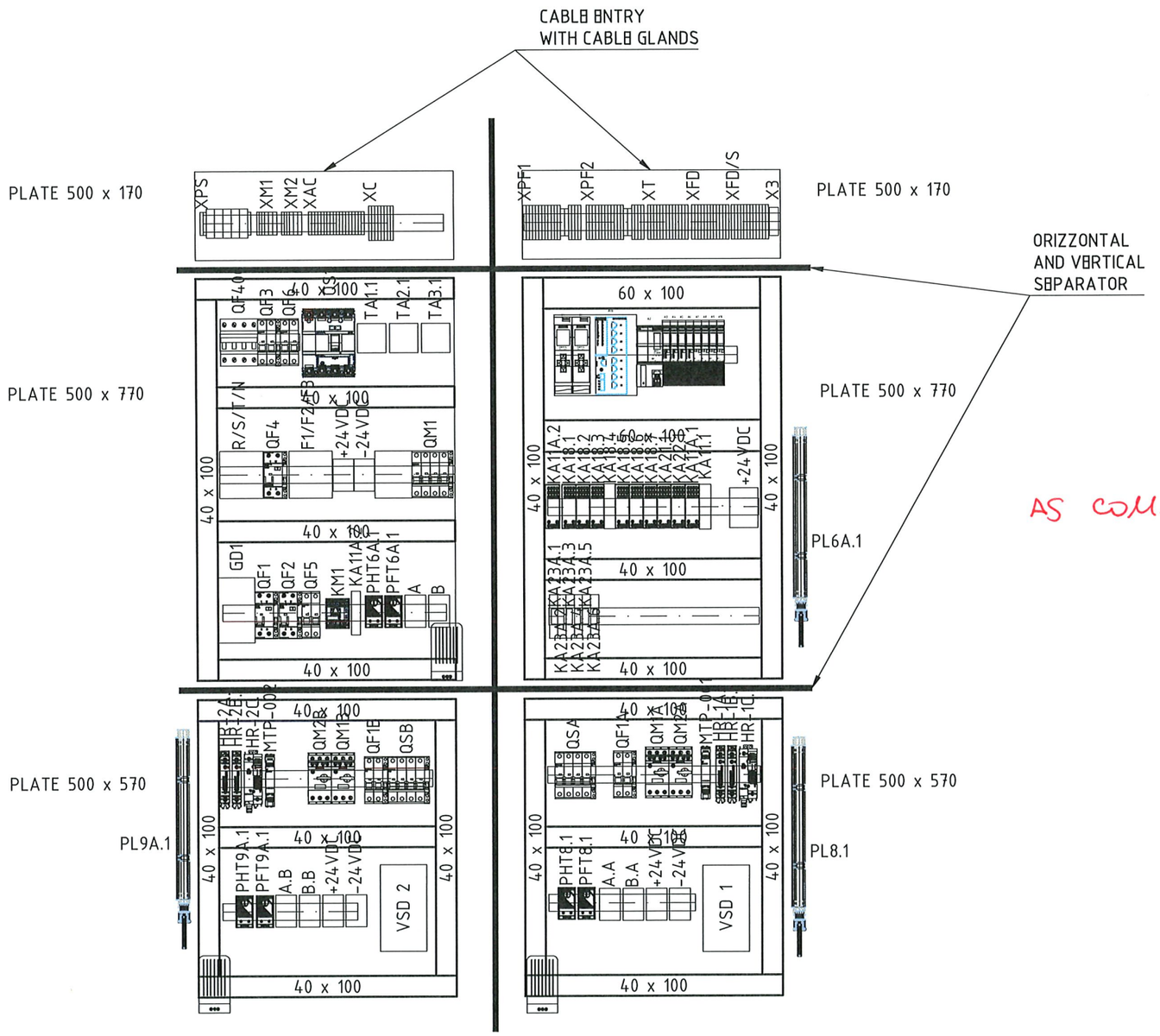
BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM
EXTERNAL VIEW

ROSETTI MARINO | ALEXSISTEMI s.p.a.

1724000049-HV-DA-00026

FG. 4
F.S. 5

INTERNAL VIEW



NO MARK UP

AS COMMISSIONED: MATTIA GIROTTI

26/3/25

SCALA 1:10

REV.	MODIFICA	DATA	FIRMA		
05	ACCEPT FOR CONSTRUCTION	24/01/25		DATA	15/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24		DISEGN.	F.M.
03	ISSUED FOR APPROVAL	05/09/24		VISTO	S.S.
				APPR.	M.G.

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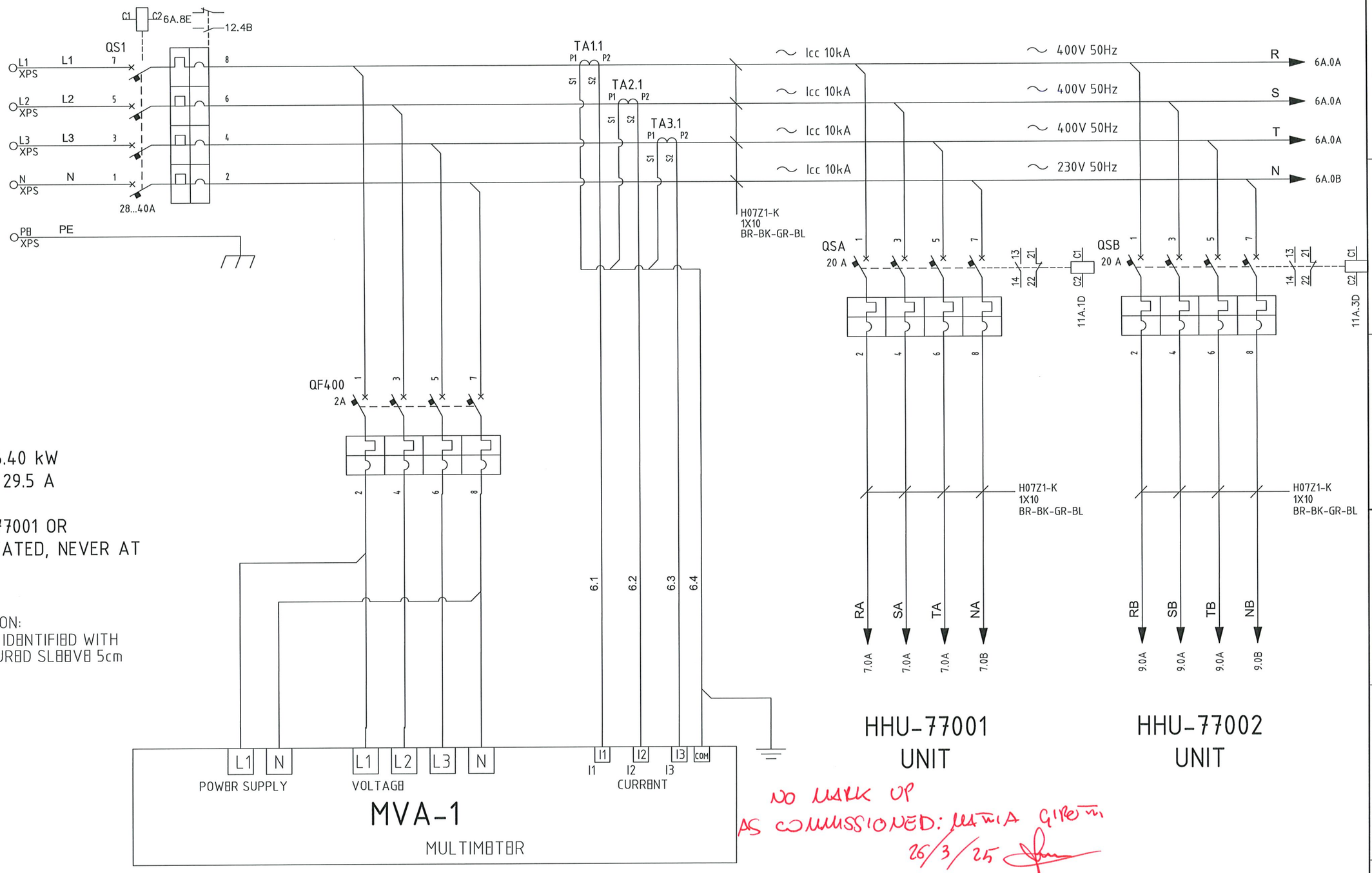
BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM
INTERNAL VIEW

ROSETTI MARINO | ALEXSISTEMI s.p.s.

1724000049-HV-DA-00026

F.G. 5
F.S. 6

POWER SUPPLY
FROM
LV SWITCHGEAR
3PH + N + PE
400V 50Hz
5G25
TAG SG-200N1



RATED POWER: 16.40 kW
RATED CURRENT: 29.5 A

ONLY UNIT HHU-77001 OR
HHU-77002 ACTIVATED, NEVER AT
SAME TIME

COLOR IDENTIFICATION:
COLORED CABLES OR IDENTIFIED WITH
HEAT SHRINK COLOURED SLEEVES 5cm

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

230V 1P + N
- ⟶ BROWN
- ⟶ BLU

24Vdc
- ⟶ RED
- ⟶ BLACK

NO MARK UP
AS COMMISSIONED: MARIA GIRETTI
26/3/25

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

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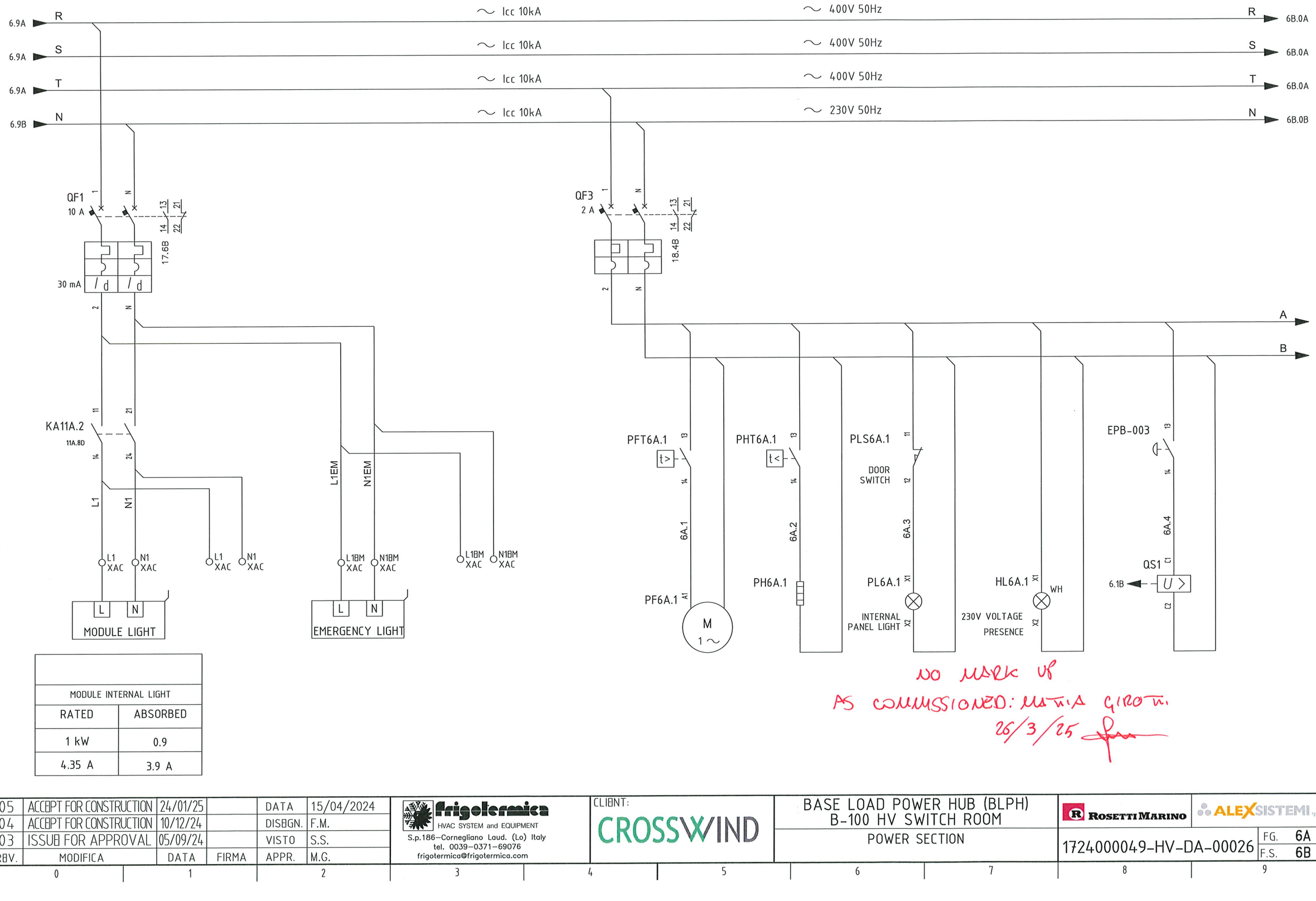
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BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM
POWER SECTION

ROSETTI MARINO | ALEXSISTEMI s.p.a.

1724000049-HV-DA-00026

FG. 6
F.S. 6A



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

NO MARK UP
AS COMMISSIONED: MATIA GIROTTI
26/3/25

REV.	MODIFICA	DATA	FIRMA		
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04	ACCEPT FOR CONSTRUCTION	10/12/24		DISEGN.	F.M.
03	ISSUED FOR APPROVAL	05/09/24		VISTO	S.S.
				APPR.	M.G.

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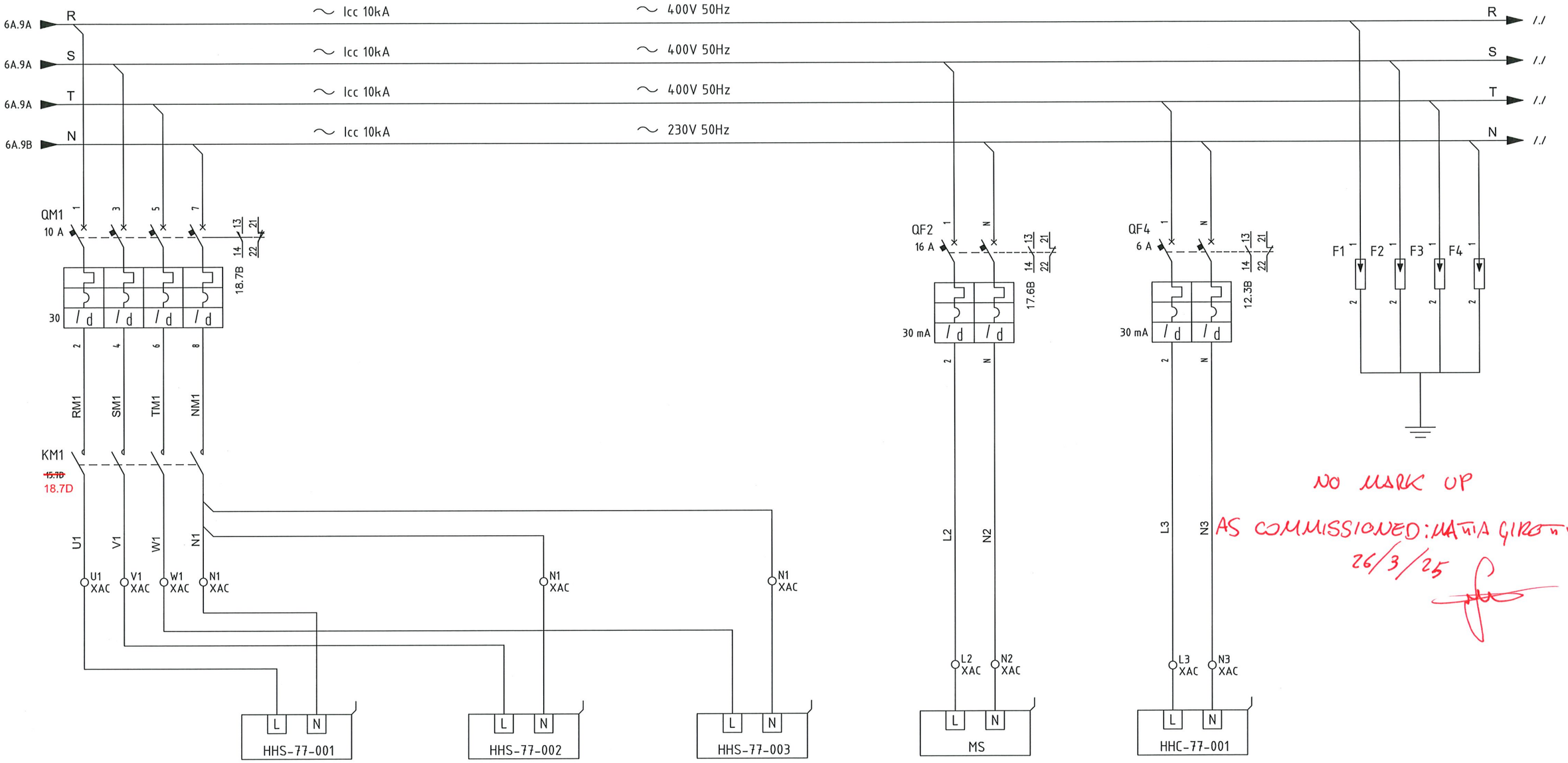
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BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM
POWER SECTION

ROSETTI MARINO | ALEXSISTEMI s.r.l.

1724000049-HV-DA-00026

FG. 6A
F.S. 6B



NO MARK UP

AS COMMISSIONED: MATTIA GIROTTI
26/3/25

HSS-77-001	
ELECTRICAL HEATER	
RATED	ABSORBED
2 kW	2 kW
8.7 A	8.7 A

HSS-77-002	
ELECTRICAL HEATER	
RATED	ABSORBED
2 kW	2 kW
8.7 A	8.7 A

HSS-77-003	
ELECTRICAL HEATER	
RATED	ABSORBED
2 kW	2 kW
8.7 A	8.7 A

MODULE INTERNAL SOCKET	
RATED	ABSORBED
2 kW	1.8 kW
8.7 A	7.83 A

HHC-77-001	
HEATING CABLE	
RATED	ABSORBED
0.12 kW	0.12 kW
0.7 A	0.7 A

REV.	MODIFICA	DATA	FIRMA
04	ACCEPT FOR CONSTRUCTION	10/12/24	
03	ISSUED FOR APPROVAL	05/09/24	
02	ISSUED FOR APPROVAL	13/06/24	

DATA	15/04/2024
DESIGN.	F.M.
VISTO	S.S.
APPR.	M.G.

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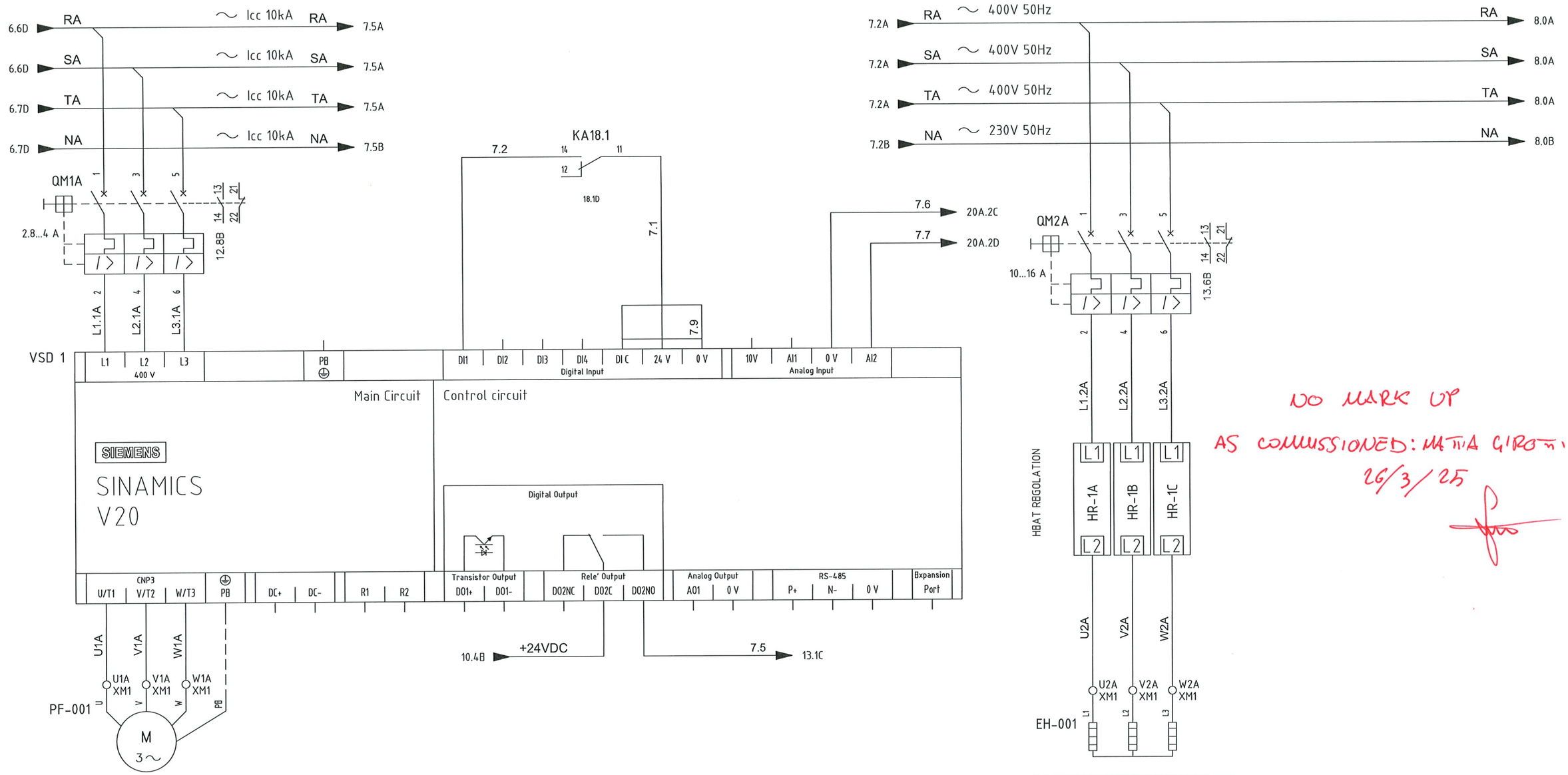
CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM
POWER SECTION

ROSETTI MARINO | ALEXSISTEMI s.p.a.

1724000049-HV-DA-00026

FG. 6B
F.S. 7



NO MARK UP
AS COMMISSIONED: MATTIA GIROTTI
26/3/25

HFM-77-101	
PRESSURIZING FAN 1	
RATED	ABSORBED
1.1 kW	1 kW
2.3 A	2 A

HSS-77-103	
ELECTRICA HEATER	
RATED	ABSORBED
10 kW	10 kW
14.5 A	14.5 A

RBV.	MODIFICA	DATA	FIRMA
05	ACCEPT FOR CONSTRUCTION	24/01/25	
04	ACCEPT FOR CONSTRUCTION	10/12/24	
03	ISSUED FOR APPROVAL	05/09/24	

DATA	15/04/2024
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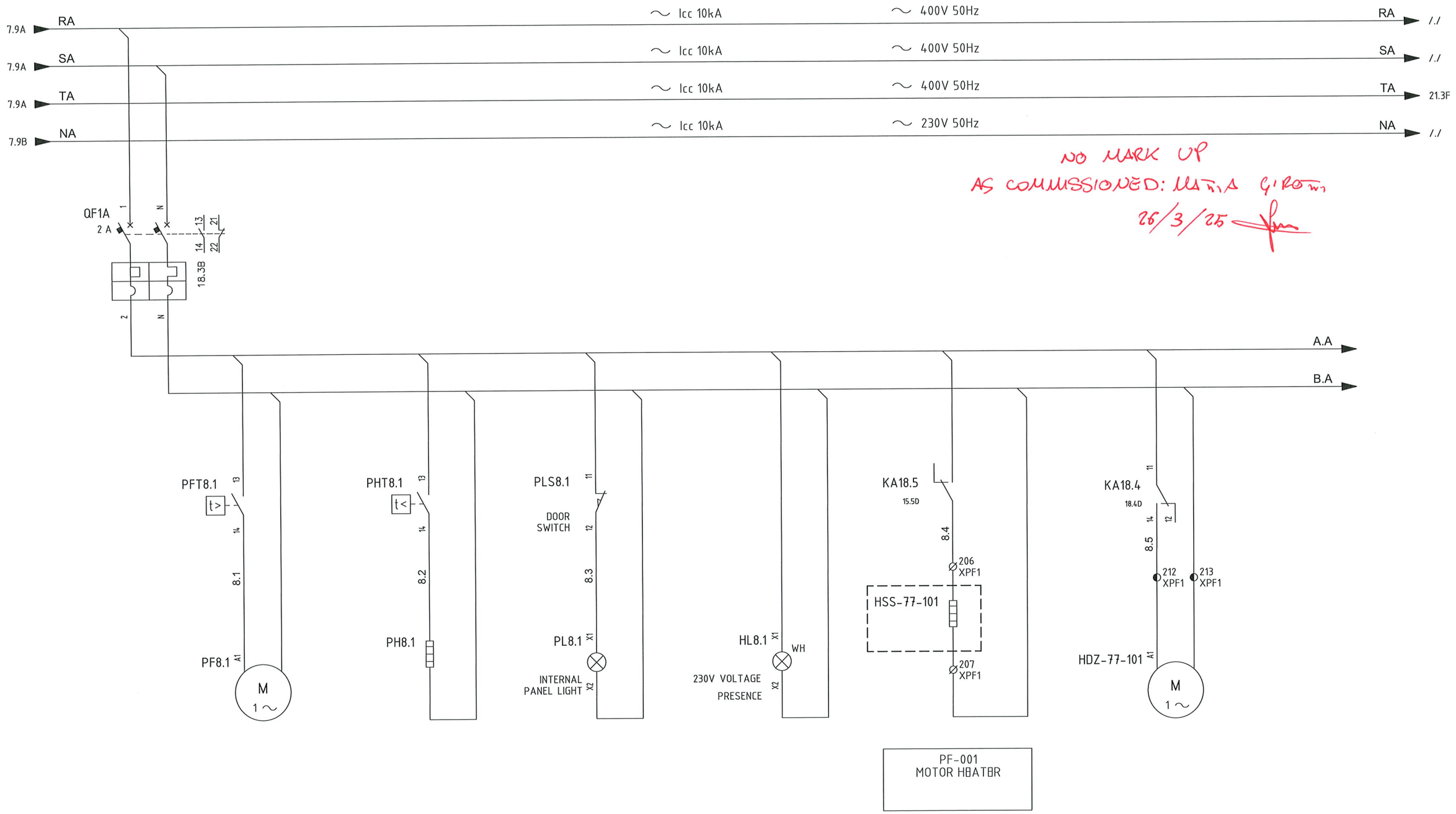
CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM
POWER SECTION

ROSETTI MARINO | ALEXSISTEMI s.p.a.

1724000049-HV-DA-00026

FG. 7
F.S. 8



REV.	MODIFICA	DATA	FIRMA		
05	ACCEPT FOR CONSTRUCTION	24/01/25		DATA	15/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24		DISEGN.	F.M.
03	ISSUED FOR APPROVAL	05/09/24		VISTO	S.S.
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BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM

POWER SECTION

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1724000049-HV-DA-00026

FG. 8
F.S. 9

6.8D RB ~ Icc 10kA RB 9.5A
6.8D SB ~ Icc 10kA SB 9.5A
6.9D TB ~ Icc 10kA TB 9.5A
6.9D NB ~ Icc 10kA NB 9.5B

9.2A RB ~ 400V 50Hz RB 9A.0A
9.2A SB ~ 400V 50Hz SB 9A.0A
9.2A TB ~ 400V 50Hz TB 9A.0A
9.2B NB ~ 230V 50Hz NB 9A.0B

QM1B 1 3 5 13 21 14 22
2.8...4 A
13.5B
L1.1B 2 L2.1B 4 L3.1B 6

KA18.2
9.2 14 11 12
18.2D
9.1
9.6

9.7 20A.2D
9.8 20A.2B

QM2B 1 3 5 13 21 14 22
10...16 A
17.1B
L1.2B 2 L2.2B 4 L3.2B 6

VSD 2
L1 L2 L3 400 V | PB | 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 | PB | 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

U1B V1B W1B
U1B XM2 V1B XM2 W1B XM2 PB
PF-002 U V W
M 3~

10.4B +24VDC
9.9 13.4C

HBAT REGOLATION
L1 HR-2A L2
L1 HR-2B L2
L1 HR-2C L2
U2B V2B W2B
U2B XM2 V2B XM2 W2B XM2
EH-002 L1 L2 L3

NO MARK UP
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26/3/25

HFM-77-102	
PRESSURIZING FAN 2	
RATED	ABSORBED
1.1 kW	1 kW
2.3 A	2 A

HHS-77-104	
ELECTRICAL HEATER	
RATED	ABSORBED
10 kW	10 kW
14.5 A	14.5 A

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DATA 15/04/2024
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VISTO S.S.
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B-100 HV SWITCH ROOM
POWER SECTION

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1724000049-HV-DA-00026
FG. 9
F.S. 9A

9.9A RB ~ Icc 10kA ~ 400V 50Hz RB /./

9.9A SB ~ Icc 10kA ~ 400V 50Hz SB /./

9.9A TB ~ Icc 10kA ~ 400V 50Hz TB 22.3F

9.9B NB ~ Icc 10kA ~ 230V 50Hz NB /./

NO MARK UP
AS COMMISSIONED: MARIA GIROTTI
26/3/25

QF1B
2 A
1 N 13 21
14 22
17.3B
2 N

A.B

B.B

PFT9A.1 13 t> 14 9A.1 PF9A.1 A1 M 1 ~

PHT9A.1 13 t< 14 9A.2 PH9.1

PLS9A.1 11 DOOR SWITCH 12 9A.3 PL9A.1 X1 X2

HL9A.1 X1 WH X2 230V VOLTAGE PRESENCE

KA18.6 15.7D 9A.4 306 XPF2 HSS-77-102 307 XPF2

KA18.7 18.7D 11 14 12 9A.5 312 XPF2 313 XPF2 HDZ-77-102 A1 M 1 ~

PF-002
MOTOR HEATER

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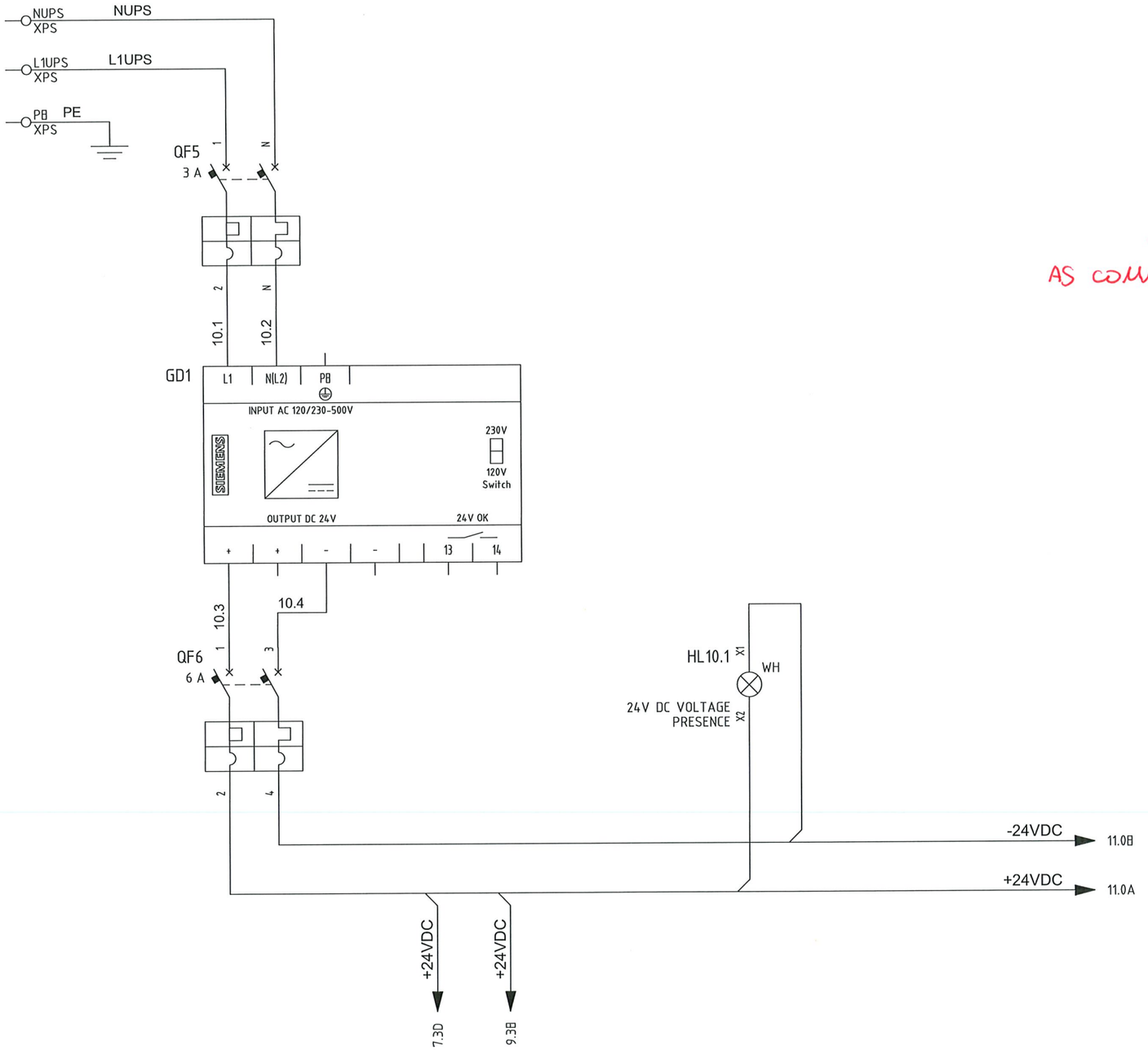
BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM
POWER SECTION

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1724000049-HV-DA-00026

FG. 9A
F.S. 10

UPS POWER SUPPLY
FROM
AC UPS - PAS DB
1PH + N + PE 230V
50Hz
3G4
TAG DP-200F3



RATED POWER: 0.7 kW
RATED CURRENT: 3 A

ABSORBED POWER: 0.5 kW
ABSORBED CURRENT: 2 A

NO MARK UP
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B-100 HV SWITCH ROOM
AUX SECTION

ROSETTI MARINO | ALEXSISTEMI S.p.A.

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FG. 10
F.S. 11

SHUT DOWN
FROM
CUSTOMER SIS

PF-001
PRESSURIZING FAN
THERMIC PROTECTION
PTC-001

PF-002
PRESSURIZING FAN
THERMIC PROTECTION
PTC-002

10.7B +24VDC

+24VDC 11A.0A

24V DC
FROM SIS
B400-SIS-0901
1= OK
0= SHUT
DOWN

100 XC — 11.1 — KA11.1 A1 — A2 — 101 XC — 11.2

14.4B — 11 12 14 — 21 22 24 — 31 32 34 — 41 42 44

MTP-001 — SIEMENS

MOTOR THERMIC PROTECTION — ϑ> — TRIPPED

A1/11 — T1 — T2 — A2 — - — NC — NO — 12 — 14

11.3 — 11.4 — 200 XPF1 — 201 XPF1

11.5 — 12.5B

MTP-002 — SIEMENS

MOTOR THERMIC PROTECTION — ϑ> — TRIPPED

A1/11 — T1 — T2 — A2 — - — NC — NO — 12 — 14

11.6 — 11.7 — 300 XPF2 — 301 XPF2

11.8 — 13.2C

10.7B -24VDC

-24VDC 11A.0B

NO MARK UP
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1724000049-HV-DA-00026

FG. 11
F.S. 11A

HPB-77-101
EMERGENCY POWER
BUTTON
HHU-77001

HPB-77-102
EMERGENCY POWER
BUTTON
HHU-77002

LIGHT SWITCH

11.9A +24VDC

+24VDC 12.0A

202 XPF1

302 XPF2

HPB-77-101

HPB-77-102

203 XPF1

303 XPF2

11A.3

11A.4

QSA

QSB

6.6B

6.8B

104 XC

106 XC

LIGHT
PUSH BUTTON

105 XC

107 XC

11A.6

KA11A.1

A1

A2

A

A

KA11A.1
11A.6D

11A.5

KA11A.2

B

B

6A.0C 14 11
6A.0C 24 21

11A.8C 11 12 14 21 22 24 31 32 34 41 42 44

11.9B -24VDC

-24VDC 12.0A

NO MARK UP
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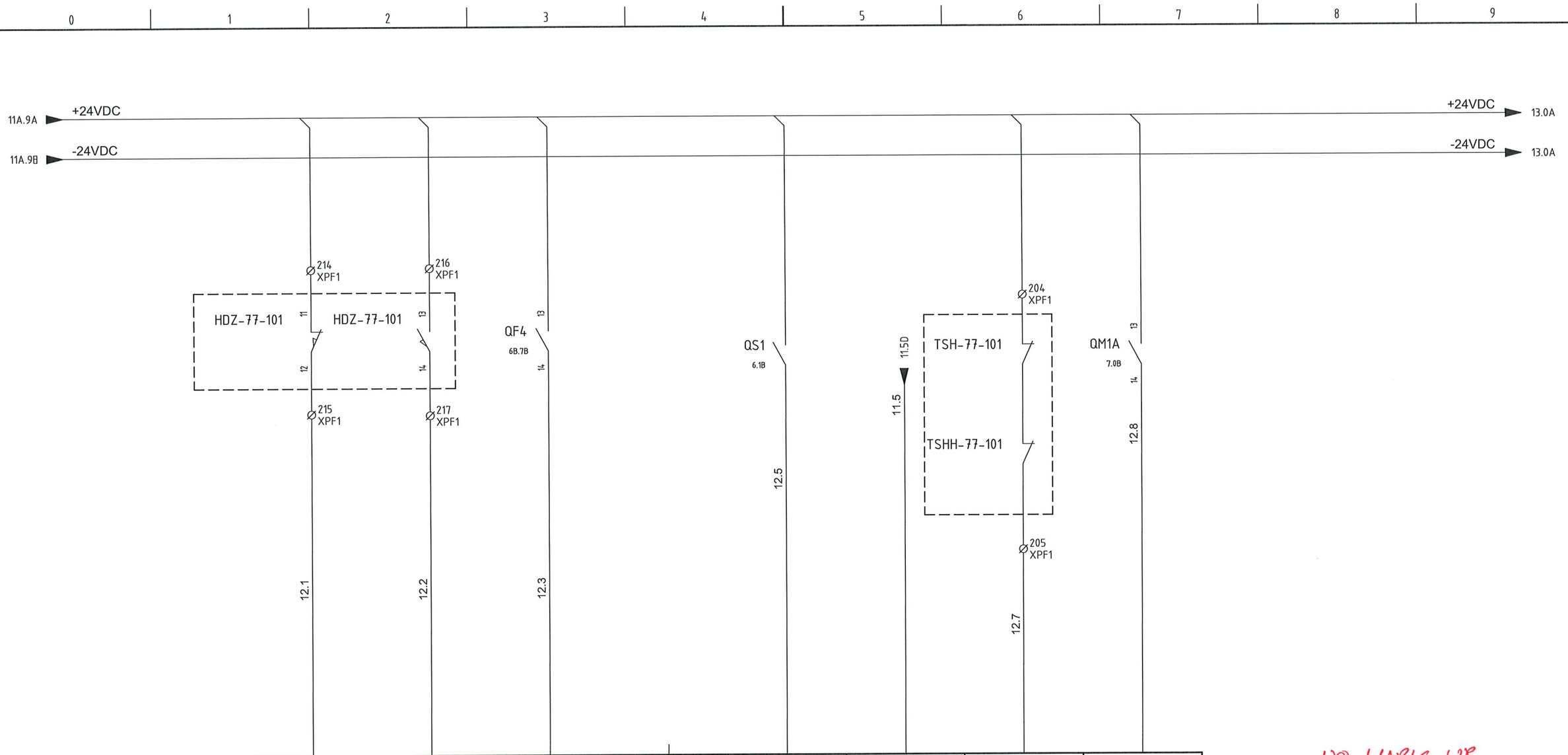
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B-100 HV SWITCH ROOM
AUX SECTION

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1724000049-HV-DA-00026

FG. 11A
F.S. 12



1	2	3	4	5	6	7	8
10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7
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: A3 Sheet:	Name: A3 Sheet:	Name: A3 Sheet:	Name: A3 Sheet:	Name: A3 Sheet:	Name: A3 Sheet:	Name: A3 Sheet:	Name: A3 Sheet:
HDZ-77-101 CLOSE FEEDBACK 1= CLOSE 0= NOT CLOSE	HDZ-77-101 OPEN FEEDBACK 1= OPEN 0= NOT OPEN	HHC-77-001 HETING CABLE TRIP	SPARE	MAIN BRAKER TRIP SIGNAL	TE-77-101 MOTOR. TERM.PROT 0=MALFUNC. 1=NORMAL	TSH/HH-77-101 EL.HEATER THERM. 0=MALFUNC. 1=NORMAL	TRIP SIGNAL HFM-77-101 0=MALFUNC. 1=NORMAL

NO MARK UP
AS COMMISSIONED: MUTA GIRATI
26/3/25

REV.	MODIFICA	DATA	FIRMA	APPR.	
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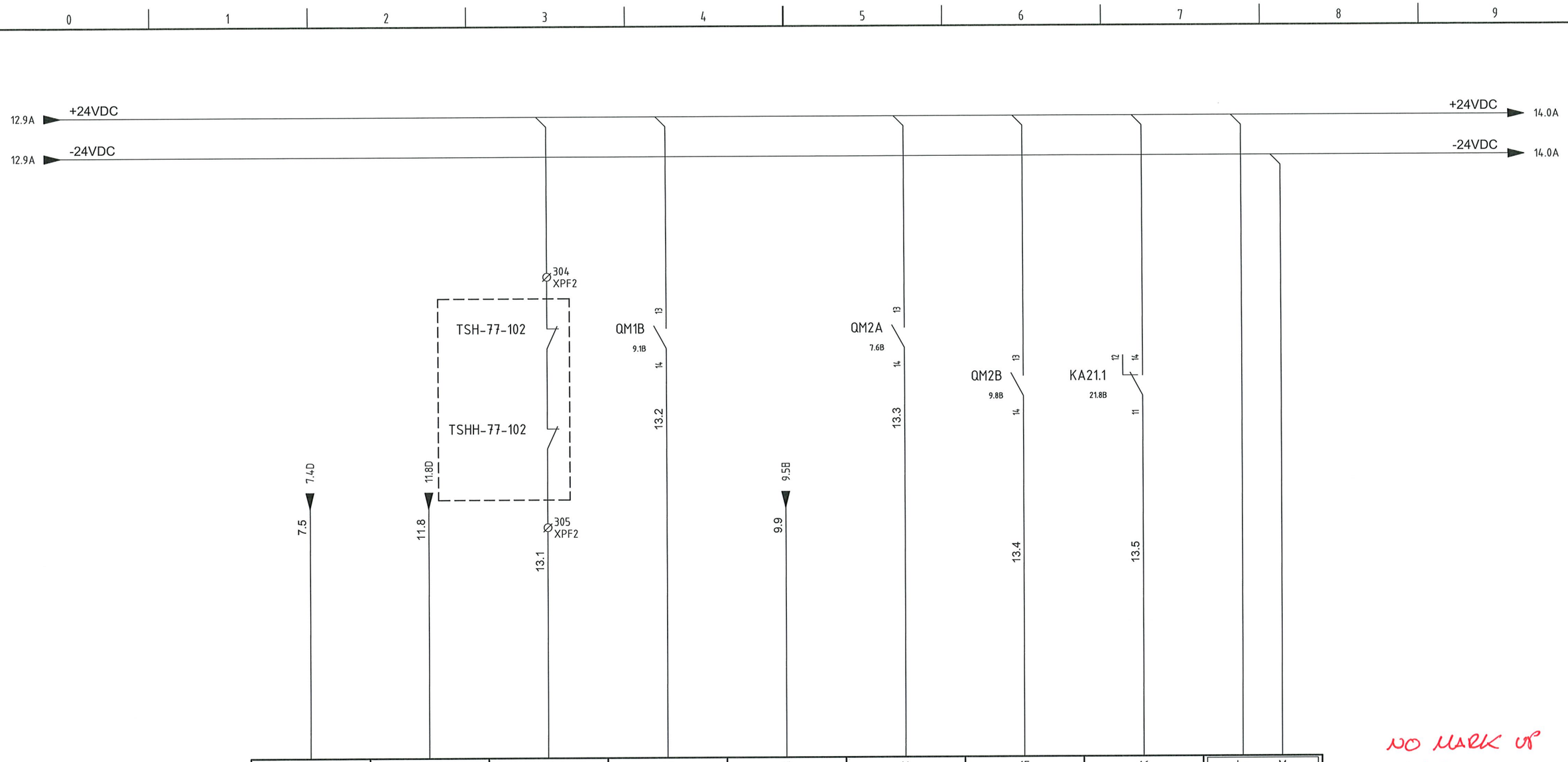
CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM
AUX SECTION

ROSETTI MARINO | ALEXSISTEMI s.p.a.

1724000049-HV-DA-00026

FG. 12
F.S. 13



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: A3 / Sheet:	Name: A3 / Sheet:	Name: A3 / Sheet:	Name: A3 / Sheet:	Name: A3 / Sheet:	Name: A3 / Sheet:	Name: A3 / Sheet:	Name: A3 / Sheet:	Name: A3 / Sheet:
VSD-1 MALFUN. SIGNAL 0=MALFUNC. 1=NORMAL	TE-77-102 MOTOR. TERM.PROT 0=MALFUNC. 1=NORMAL	TSH/HH-77-102 EL.HEATER THERM. 0=MALFUNC. 1=NORMAL	TRIP SIGNAL HFM-77-102 0=MALFUNC. 1=NORMAL	VSD-2 MALFUN. SIGNAL 0=MALFUNC. 1=NORMAL	HSS-77-101 TRIP SIGNAL 0=MALFUNC. 1=NORMAL	HSS-77-102 TRIP SIGNAL 0=MALFUNC. 1=NORMAL	HSS-77-101 MALFUNCTION 0=MALFUNC. 1=NORMAL	

NO MARK UP AS COMMISSIONED: MARIA GIROTTI 26/3/25

REV.	MODIFICA	DATA	FIRMA
05	ACCEPT FOR CONSTRUCTION	24/01/25	
04	ACCEPT FOR CONSTRUCTION	10/12/24	
03	ISSUED FOR APPROVAL	05/09/24	

DATA	15/04/2024
DISEGN.	F.M.
VISTO	S.S.
APPR.	M.G.

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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM
AUX SECTION

ROSETTI MARINO | ALEXSISTEMI s.p.s.

1724000049-HV-DA-00026

FG. 13
F.S. 14

13.9A +24VDC

13.9A -24VDC

+24VDC 15.0A

-24VDC 15.0A

KA22.1 12 14 — 22.8B — 11 — 14.1

QF1B 13 — 9A.0B — 14 — 14.2

QF1 13 — 6A.1B — 14 — 14.3

QF2 13 — 6A.2B — 14 — 14.4

KA11.1 22 24 — 11.2C — 21 — 14.5

HDZ-77-102 11 — 12 — 314 XPF2 — 315 XPF2 — 14.6

HDZ-77-102 13 — 14 — 316 XPF2 — 317 XPF2 — 14.7

SA14.1 RD 13 — 14 — 14.8

16.5B 14 13 — 14 13

1=AUTOMATIC
0= STOP
2= MANUAL

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:
HSS-77-102 MALFUNCTION 0=MALFUNC. 1=NORMAL	TRIP AUX SECTION HHU-77002 PF-002 SECTION	TRIP SIGNAL MODULE LIGHT	TRIP SIGNAL MODULE SOCKET	HVAC SHUT DOWN FROM SIS 0=SHUTDOWN 1=NORMAL	HDZ-77-102 CLOSE FEEDBACK 1= CLOSE 0= NOT CLOSE	HDZ-77-102 OPEN FEEDBACK 1= OPEN 0= NOT OPEN	HHU-77001 SELECTOR AUTOMATIC 0= NOT AUTOMATIC 1= AUTOMATIC

NO MARK UP
AS COMMISSIONED:
MATIA GIROTTI
26/3/28

REV.	MODIFICA	DATA	FIRMA
05	ACCEPT FOR CONSTRUCTION	24/01/25	
04	ACCEPT FOR CONSTRUCTION	10/12/24	
03	ISSUED FOR APPROVAL	05/09/24	

DATA 15/04/2024
DISEGN. F.M.
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APPR. M.G.

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BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM
AUX SECTION

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FG. 14
F.S. 15

14.9A +24VDC

14.9A -24VDC

+24VDC 16.0A

-24VDC 16.0A

QF1A	QF3	QSA	QSB	QM1	KM1
8.0B	6A.4B	6.6B	6.8B	6B.1B	~~15.7B~~ 20.7D
15.1	15.2	15.3	15.4	15.5	15.7

13 14

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:
TRIP AUX SECTION HHU-77001 Trip Aux Section PF-001	GENERAL PANEL AUX TRIP General Panel Aux Trip	HHU-77001 MAIN BRAKER TRIP	HHU-77002 MAIN BRAKER TRIP	HSS-77-001/2/3 SPACE HEATER TRIP	SPARE	HSS-77-001/2/3 SPACE HEATER RUN	SPARE	

NO MARK UP AS COMMISSIONED:

MATTIA GIROTTI 26/3/25

REV.	MODIFICA	DATA	FIRMA
04	ACCEPT FOR CONSTRUCTION	10/12/24	
03	ISSUED FOR APPROVAL	05/09/24	
02	ISSUED FOR APPROVAL	13/06/24	

DATA	15/04/2024
DISEGN.	F.M.
VISTO	S.S.
APPR.	M.G.

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BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM
AUX SECTION

ROSETTI MARINO | ALEXSISTEMI

1724000049-HV-DA-00026

FG. 15
F.S. 16

15.9A +24VDC

15.9A -24VDC

+24VDC 17.0A

-24VDC 17.0A

1=AUTOMATIC
0= STOP
2= MANUAL

SA16.1 RD

16.6B

208 XPF1 — PDSL-77-101 — 209 XPF1

210 XPF1 — PDT-77-101 — 211 XPF1

308 XPF2 — PDSL-77-102 — 309 XPF2

310 XPF2 — PDT-77-102 — 311 XPF2

SA14.1 14.7B

SA16.1 16.1B

KA23A.1 23A.1B

16.1 16.2 16.3 16.4 16.5 16.6 16.7 16.8

9	10	11	12	13	14	15	16
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: A5 Sheet:	Name: A5 Sheet:	Name: A5 Sheet:	Name: A5 Sheet:	Name: A5 Sheet:	Name: A5 Sheet:	Name: A5 Sheet:	Name: A5 Sheet:
HHU-77002 AUTOMATIC SELECTOR 0=NOT AUTOMATIC 1=AUTOMATIC	HHU-77001 FAN FLOW SWITCH 0=NO FLOW 1= FLOW	HHU-77001 FILTER DIFF SWITCH 0=NORMAL 1=CLOGGED	HHU-77002 FAN FLOW SWITCH 0=NO FLOW 1=FLOW	HHU-77002 FILTER DIFF SWITCH 0=NORMAL 1=CLOGGED	HHU-77001 MANUAL SELECTOR 0=NOT MANUAL 1= MANUAL	HHU-77002 MANUAL SELECTOR 0=NOT MANUAL 1= MANUAL	HFD-77001 CLOSE CONTACT 0= NOT CLOSE 1= CLOSE

NO MARK UP
AS COMMISSIONED:
MATTIA GIROTTI
26/3/25

REV.	MODIFICA	DATA	FIRMA
05	ACCEPT FOR CONSTRUCTION	24/01/25	
04	ACCEPT FOR CONSTRUCTION	10/12/24	
03	ISSUED FOR APPROVAL	05/09/24	

DATA 15/04/2024
DISEGN. F.M.
VISTO S.S.
APPR. M.G.

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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM
AUX SECTION

ROSETTI MARINO — ALEXSISTEMI s.p.a.

1724000049-HV-DA-00026

FG. 16
F.S. 17

16.9A +24VDC

16.9A -24VDC

+24VDC 18.0C

-24VDC 18.0D

KA23A.2	KA23A.3	KA23A.4	KA23A.5	KA23A.6
23A.2B	23A.3B	23A.4B	23A.6B	23A.7B
11	11	11	11	11
14	14	14	14	14
12	12	12	12	12
17.1	17.2	17.3	17.4	17.5

9	10	11	12	13	14	15	16	L+ M
15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	
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: A5 / Sheet:	Name: A5 / Sheet:	Name: A5 / Sheet:	Name: A5 / Sheet:	Name: A5 / Sheet:	Name: A5 / Sheet:	Name: A5 / Sheet:	Name: A5 / Sheet:	Name: A5 / Sheet:
HFD-77001 OPEN CONTACT 0=NOT OPEN 1=OPEN	HFD-77002 CLOSE CONTACT 0= NOT CLOSE 1= CLOSE	HFD-77002 OPEN CONTACT 0=NOT OPEN 1= OPEN	HFD-77003 CLOSE CONTACT 0= NOT CLOSE 1= CLOSE	HFD-77003 OPEN CONTACT 0= NOT OPEN 1= OPNE	SPARE	SPARE	SPARE	

NO MARK UP AS COMMISSIONED!
MUIA GIROLA
26/3/25

REV.	MODIFICA	DATA	FIRMA
05	ACCEPT FOR CONSTRUCTION	24/01/25	
04	ACCEPT FOR CONSTRUCTION	10/12/24	
03	ISSUED FOR APPROVAL	05/09/24	

DATA 15/04/2024
DISEGN. F.M.
VISTO S.S.
APPR. M.G.

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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM
AUX SECTION

ROSETTI MARINO | ALEXSISTEMI s.p.a.

1724000049-HV-DA-00026

FG. 17
F.S. 18

VSD 1 START COMMAND vsd 1 start command		VSD 2 START COMMAND vsd 2 start command		HVAC MALFUNCTION SIGNAL TO SIS 0=MALFUNC. 1=NORMAL		HDZ-77-101 OPEN COMMAND		PF-001 MOTOR HEATER PF-001 Motor Heater		PF-002 MOTOR HEATER PF-002 Motor Heater		HHS-77001 SPACE HEAER START		HDZ-77-102 OPEN COMMAND	
Name: A6	Sheet:	Name: A6	Sheet:	Name: A6	Sheet:	Name: A6	Sheet:	Name: A6	Sheet:	Name: A6	Sheet:	Name: A6	Sheet:	Name: A6	Sheet:
CPU: QUADRO GENERAL MOD.: 7		CPU: QUADRO GENERAL MOD.: 7		CPU: QUADRO GENERAL MOD.: 7		CPU: QUADRO GENERAL MOD.: 7		CPU: QUADRO GENERAL MOD.: 7		CPU: QUADRO GENERAL MOD.: 7		CPU: QUADRO GENERAL MOD.: 7		CPU: QUADRO GENERAL MOD.: 7	
Q0.0		Q0.1		Q0.2		Q0.3		Q0.4		Q0.5		Q0.6		Q0.7	
1		2		3		4		5		6		7		8	

18.1 18.2 18.3 18.5 18.6 18.7

17.9A +24VDC → 19.0D +24VDC

17.9A -24VDC → 19.0D -24VDC

KA18.1 KA18.2 KA18.3 KA18.4 KA18.5 KA18.6 KM1 KA18.7 (A1 / A2)

7.3A 9.4A 23.1B 8.7D 8.6D 23.4B 9A.6D 23.5B 9A.8D

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

6B.1C
6B.1C
6B.1C
6B.1C
~~20A.2B~~
15.6C

NO MARK UP
AS COMMISSIONED: MATIA GIROM.
26/3/25

REV.	MODIFICA	DATA	FIRMA
04	ACCEPT FOR CONSTRUCTION	10/12/24	
03	ISSUED FOR APPROVAL	05/09/24	
02	ISSUED FOR APPROVAL	13/06/24	

DATA	15/04/2024
DISEGN.	F.M.
VISTO	S.S.
APPR.	M.G.

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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM
AUX SECTION

ROSETTI MARINO | ALEXSISTEMI

1724000049-HV-DA-00026

F.G. 18
F.S. 19

SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	
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:
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
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

18.9C +24VDC → +24VDC 20.0A

18.9D -24VDC → -24VDC 20.0A

NO MARK UP

AS COMMISSIONED: MAT.A GIROTTI

26/3/25

REV.	MODIFICA	DATA	FIRMA		
05	ACCEPT FOR CONSTRUCTION	24/01/25		DATA	15/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24		DISEGN.	F.M.
03	ISSUED FOR APPROVAL	05/09/24		VISTO	S.S.
				APPR.	M.G.

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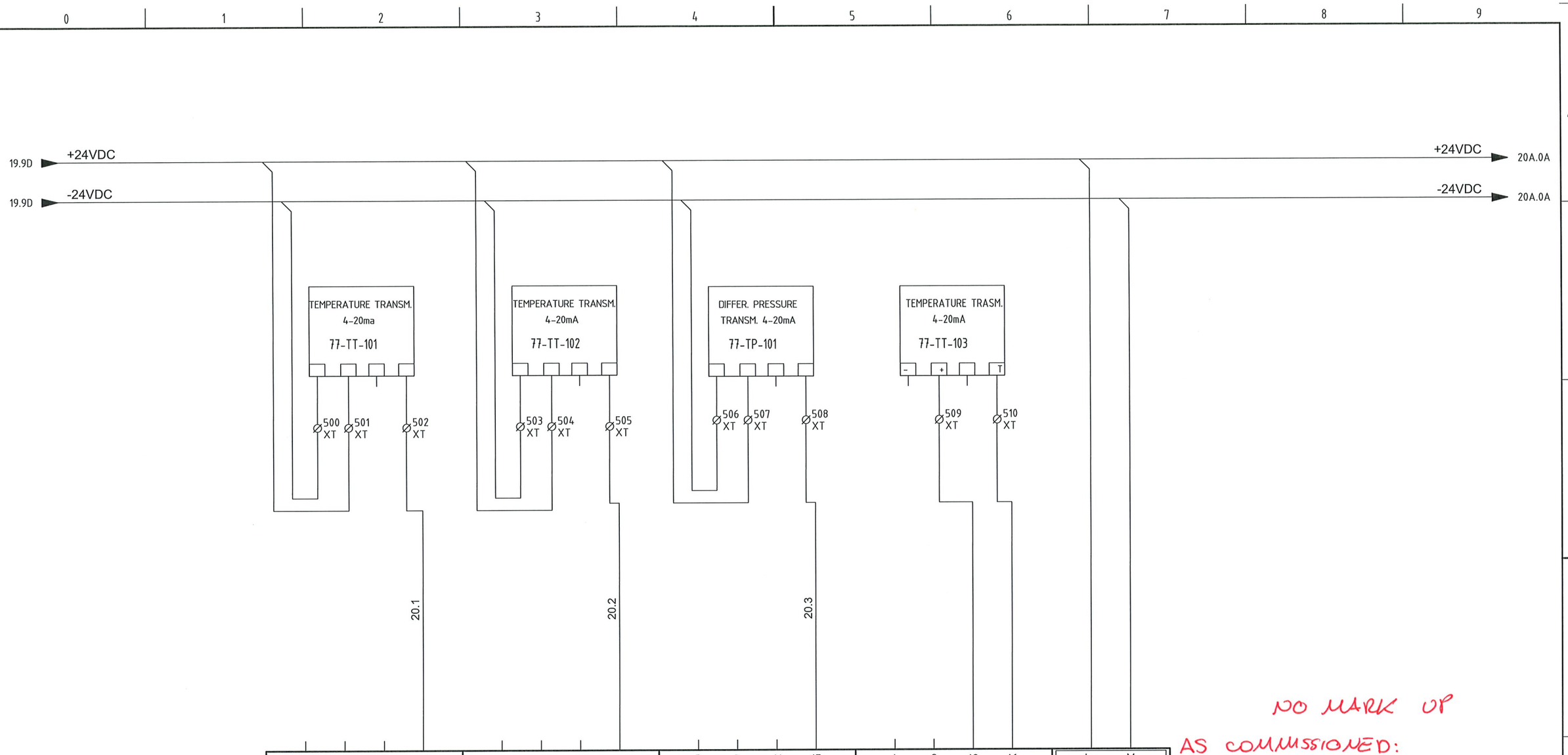
CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM
AUX SECTION

ROSETTI MARINO | ALEXSISTEMI spa

1724000049-HV-DA-00026

F.G. 19
F.S. 20



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.: 8	CPU: QUADRO GENERALE MOD.: 8	CPU: QUADRO GENERALE MOD.: 8	CPU: QUADRO GENERALE MOD.: 8	CPU: QUADRO GENERALE MOD.: 8
Name: A7 / Sheet:	Name: A7 / Sheet:	Name: A7 / Sheet:	Name: A7 / Sheet:	Name: A7 / Sheet:
77-TT-101 TEMPERATURE TRANSMITTER	77-TT-102 TEMPERATURE TRANSMITTER	77-PT-101 DIFFERENTIAL PRESSURE TRANSMITTER SIGNAL	77-TT-103 DUCT TEMPERATURE TRASMITTER	

NO MARK UP
AS COMMISSIONED:
MATTIA GIROTTI
26/3/25

REV.	MODIFICA	DATA	FIRMA
05	ACCEPT FOR CONSTRUCTION	24/01/25	
04	ACCEPT FOR CONSTRUCTION	10/12/24	
03	ISSUED FOR APPROVAL	05/09/24	

DATA	15/04/2024
DISEGN.	F.M.
VISTO	S.S.
APPR.	M.G.

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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM
AUX SECTION

ROSETTI MARINO | ALEXSISTEMI s.p.a.

1724000049-HV-DA-00026

FG. 20
F.S. 20A

20.9A +24VDC

20.9A -24VDC

+24VDC 20B.0A

-24VDC 20B.0A

VSD 1 MODULATION VSD 1 modulation		VSD 2 MODULATION VSD 2 modulation		HSS-77-101 MODULATION SIGNAL EH-001 Modulation Signal		HSS-77-102 MODULATION SIGNAL EH-002 Modulation Signal			
Name: A8	Sheet:	Name: A8	Sheet:	Name: A8	Sheet:	Name: A8	Sheet:	Name: A8	Sheet:
CPU: QUADRO GENERAL MOD.: 10		CPU: QUADRO GENERAL MOD.: 10		CPU: QUADRO GENERAL MOD.: 10		CPU: QUADRO GENERAL MOD.: 10		CPU: QUADRO GENERAL 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

7.5B 7.6

7.5B 7.7

9.6B 9.7

9.6B 9.8

20A.1 21.7B

20A.2 21.7B

20A.3 22.7C

20A.4 22.7C

NO MARK UP
AS COMMISSIONED: MATIA GIROTTI
26/3/25

REV.	MODIFICA	DATA	FIRMA
05	ACCEPT FOR CONSTRUCTION	24/01/25	
04	ACCEPT FOR CONSTRUCTION	10/12/24	
03	ISSUED FOR APPROVAL	05/09/24	

DATA	15/04/2024
DISEGN.	F.M.
VISTO	S.S.
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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM
AUX SECTION

ROSETTI MARINO | ALEXSISTEMI

1724000049-HV-DA-00026

FG. 20A
F.S. 20B

20A.9A +24VDC

20A.9A -24VDC

+24VDC 20C.0A

-24VDC 20C.0A

SPARE	SPARE	SPARE	SPARE	
Name: A9 / Sheet:	Name: A9 / Sheet:	Name: A9 / Sheet:	Name: A9 / Sheet:	Name: A9 / 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

NO MARK UP

AS COMMISSIONED: MATTIA GIROTTI

26/3/25

REV.	MODIFICA	DATA	FIRMA
05	ACCEPT FOR CONSTRUCTION	24/01/25	
04	ACCEPT FOR CONSTRUCTION	10/12/24	
03	ISSUED FOR APPROVAL	05/09/24	

DATA 15/04/2024
DISEGN. F.M.
VISTO S.S.
APPR. M.G.

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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM
AUX SECTION

ROSETTI MARINO | ALEXSISTEMI

1724000049-HV-DA-00026

FG. 20B
F.S. 20C

20B.9A +24VDC

20B.9A -24VDC

+24VDC 20D.0B

-24VDC 20D.0F

TEMPERATURE TRASM.
4-20 mA
77-TT-104

- + T

511 XT

512 XT

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: A10 / Sheet:	Name: A10 / Sheet:	Name: A10 / Sheet:	Name: A10 / Sheet:	Name: A10 / Sheet:
77-TT-104 DUCT TEMPERATURE TRANSMITTER	SPARE	SPARE	SPARE	

NO MARK UP
AS COMMISSIONED:
MATIA GIROTTI
26/3/25

REV.	MODIFICA	DATA	FIRMA		
05	ACCEPT FOR CONSTRUCTION	24/01/25		DATA	15/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24		DISEGN.	F.M.
03	ISSUED FOR APPROVAL	05/09/24		VISTO	S.S.
				APPR.	M.G.

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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM
AUX SECTION

ROSETTI MARINO | ALEXSISTEMI S.p.A.

1724000049-HV-DA-00026

FG. 20C
F.S. 20D

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

CABLE 1

CABLE 2

CABLE 3

CABLE 4

X1 P1 R PROFINET

X1 P2 R PROFINET

X1 P1 R PROFINET

X1 P2 R PROFINET

D1

D2

SIEMENS

RUN

SIMATIC S7-1500

ESC OK

L+

M

L+

M

DC 24V (X80)

DC 24V (X80)

TO PAGE 20E

DC 24V (X80)

L+	M
1	2

FG

NO MARK UP
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26/3/25

20C.9A +24VDC

20C.9A -24VDC

+24VDC 20B.0B

-24VDC 20B.0F

REV.	MODIFICA	DATA	FIRMA
05	ACCEPT FOR CONSTRUCTION	24/01/25	
04	ACCEPT FOR CONSTRUCTION	10/12/24	
03	ISSUED FOR APPROVAL	05/09/24	

DATA	15/04/2024
DISEGN.	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-100 HV SWITCH ROOM

PLC ARCHITECTURE

ROSETTI MARINO | ALEXSISTEMI s.p.a.

1724000049-HV-DA-00026

FG. 20D

F.S. 20E

FROM PAGE 40

CABLE 4

CABLE 1

CABLE 2

MODBUS TCP/P TO CLIENT

RJ45 CONNECTION N TERMINAL STRIP

1	TD	PROFINET IO - Port 1 RJ45
2	TD_N	
3	RD	
4	GND	
5	GND	
6	RD_N	
7	GND	
8	GND	

1	TD	PROFINET IO - Port 2 RJ45
2	TD_N	
3	RD	
4	GND	
5	GND	
6	RD_N	
7	GND	
8	GND	

1	L1+	DC 24V
2	M1	
3	M2	
4	L2+	

1	F1	
2	F2	

1	1L+	DC 24V
2	2L+	
3	1M	
4	2M	

A2

BA 2xRJ45

SIEMENS

PN ER MT

SIMATIC ET 200SP

IM 155-6 PN/2 HF

PWR

6ES7155-6AU01-0CN0

X1 PROFINET (LAN)

6ES7193-6RA00-0AA0

PR1 PR2

LK1 LK2

MAC ADDRESS

X80 24VDC

A3	A4	A5	A6	A7	A8	A9	A10
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
DIAG	DIAG	DIAG	DIAG	DIAG	DIAG	DIAG	DIAG
6ES7131-6BH01-0BA0	6ES7131-6BH01-0BA0	6ES7131-6BH01-0BA0	6ES7132-6BF01-0BA0	6ES7134-6HD01-0BA1	6ES7135-6HD00-0BA1	6ES7135-6HD00-0BA1	6ES7134-6HD01-0BA1

A11

SIEMENS

SCALANCE XC208

P1 P2 P3 P4 P5 P6 P7 P8

SELECT/SET

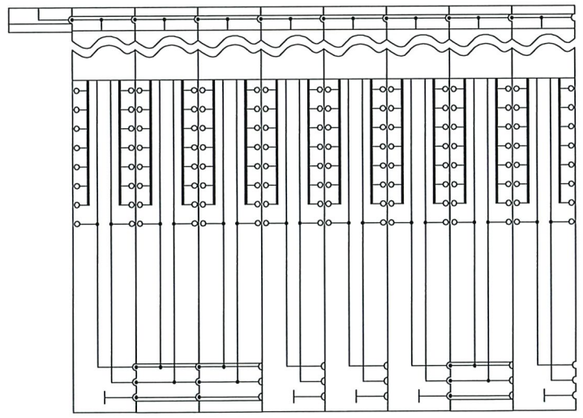
CONSOLE

FAULT F1 F2

L1+ M1 M2 L2+

208-0BA00-2AC2

P1	LAN	
P2	LAN	
P3	LAN	
P4	LAN	
P5	LAN	
P6	LAN	
P7	LAN	
P8	LAN	



NO MARK UP AS COMMISSIONED: MATTIA GIROTTI 26/3/25

20D.9B +24VDC → +24VDC 21.0A

20D.9F -24VDC → -24VDC 21.0A

REV.	MODIFICA	DATA	FIRMA
05	ACCEPT FOR CONSTRUCTION	24/01/25	
04	ACCEPT FOR CONSTRUCTION	10/12/24	
03	ISSUED FOR APPROVAL	05/09/24	

DATA 15/04/2024
DISEGN. F.M.
VISTO S.S.
APPR. M.G.

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CLIENT: CROSSWIND

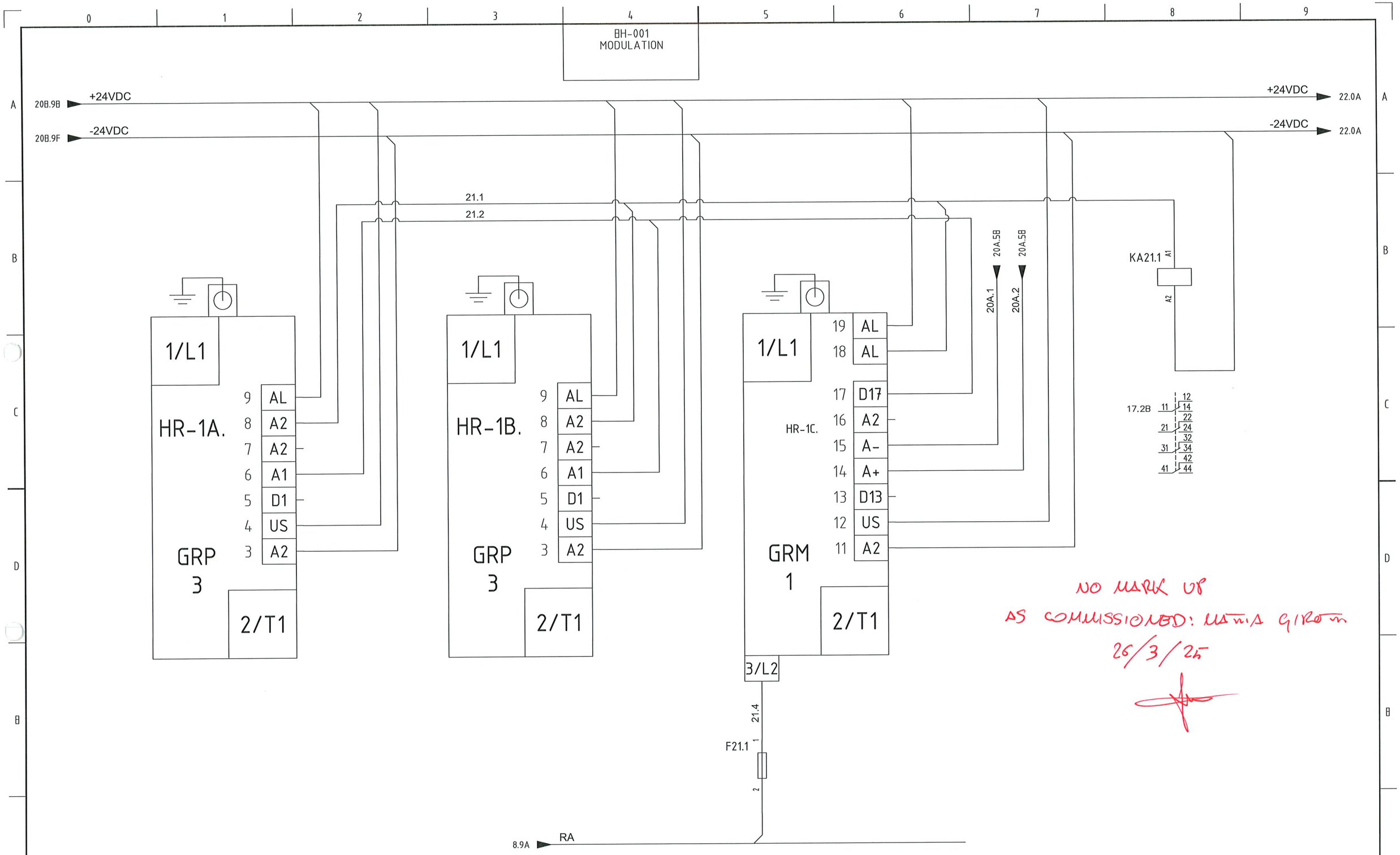
BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM

PLC ARCHITECTURE

ROSETTI MARINO | ALEXSISTEMI s.p.a.

1724000049-HV-DA-00026

FG. 20E
F.S. 21



REV.	MODIFICA	DATA	FIRMA
05	ACCEPT FOR CONSTRUCTION	24/01/25	
04	ACCEPT FOR CONSTRUCTION	10/12/24	
03	ISSUED FOR APPROVAL	05/09/24	

DATA	15/04/2024
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BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM

ELECTRICAL HEATER MODULATION

ROSETTI MARINO | ALEXSISTEMI s.r.l.

1724000049-HV-DA-00026

F.G. 21
F.S. 22

BH-002
MODULATION

21.9A +24VDC → /.

21.9A -24VDC → /.

22.1

22.2

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

3/L2

20A.6B

20A.7B

20A.3

20A.4

KA22.1 A1 A2

17.3B 11 12 14 21 22 24 31 32 34 41 42 44

FU22.1 1 22.20 2

9A.9A RB

NO MARK UP
AS COMMISSIONED: MMA 9/RO m
26/3/25

REV.	MODIFICA	DATA	FIRMA		
05	ACCEPT FOR CONSTRUCTION	24/01/25		DATA	15/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24		DISEGN.	F.M.
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BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM

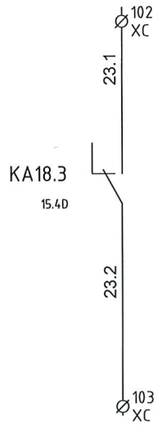
ELECTRICAL HEATER MODULATION

ROSETTI MARINO | ALEXSISTEMI s.p.a.

1724000049-HV-DA-00026

FG. 22
F.S. 23

AVAILABLE SIGNAL
GENERAL FAULT
TO SIS



CLOSE= NORMAL
OPEN= MALFUNCTION

SIGNAL TO SIS
B400-SIS-0901

NO MARK UP
AS COMMISSIONED: MATIA GIROTTI
26/3/25

REV.	MODIFICA	DATA	FIRMA		
05	ACCEPT FOR CONSTRUCTION	24/01/25		DATA	15/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24		DISEGN.	F.M.
03	ISSUED FOR APPROVAL	05/09/24		VISTO	S.S.
				APPR.	M.G.

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BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM

AVAILABLE SIGNAL

ROSETTI MARINO | ALEXSISTEMI s.p.a.

1724000049-HV-DA-00026

FG. 23
F.S. 23A

HFD-77001
CLOSED FEEDBACK

HFD-77002
CLOSED FEEDBACK

HFD-77003
CLOSED FEEDBACK

HFD-77001
OPEN FEEDBACK

HFD-77002
OPEN FEEDBACK

HFD-77003
OPEN FEEDBACK

+24VDC

+24VDC

400 XFD
402 XFD
404 XFD
406 XFD
408 XFD
410 XFD

HFD-77001 11 12 HFD-77001 13 14
HFD-77002 11 12 HFD-77002 13 14
HFD-77003 11 12 HFD-77003 13 14

401 XFD
403 XFD
405 XFD
407 XFD
409 XFD
411 XFD

KA23A.1 A1 A2
KA23A.2 A1 A2
KA23A.3 A1 A2
KA23A.4 A1 A2
KA23A.5 A1 A2
KA23A.6 A1 A2

-24VDC

-24VDC

16.7B 11 12 14 22 21 24 23.2B
17.1B 11 12 14 22 21 24 23.4B
17.2B 11 12 14 22 21 24 23.5B
17.3B 11 12 14 22 21 24 23.7B
17.4B 11 12 14 22 21 24 23.4D
17.4B 11 12 14 22 21 24 23.5D

NO MARK UP
AS COMMISSIONED: MATIA GIROTTI
26/3/25

REV.	MODIFICA	DATA	FIRMA
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DATA	15/04/2024
DESIGN.	F.M.
VISTO	S.S.
APPR.	M.G.

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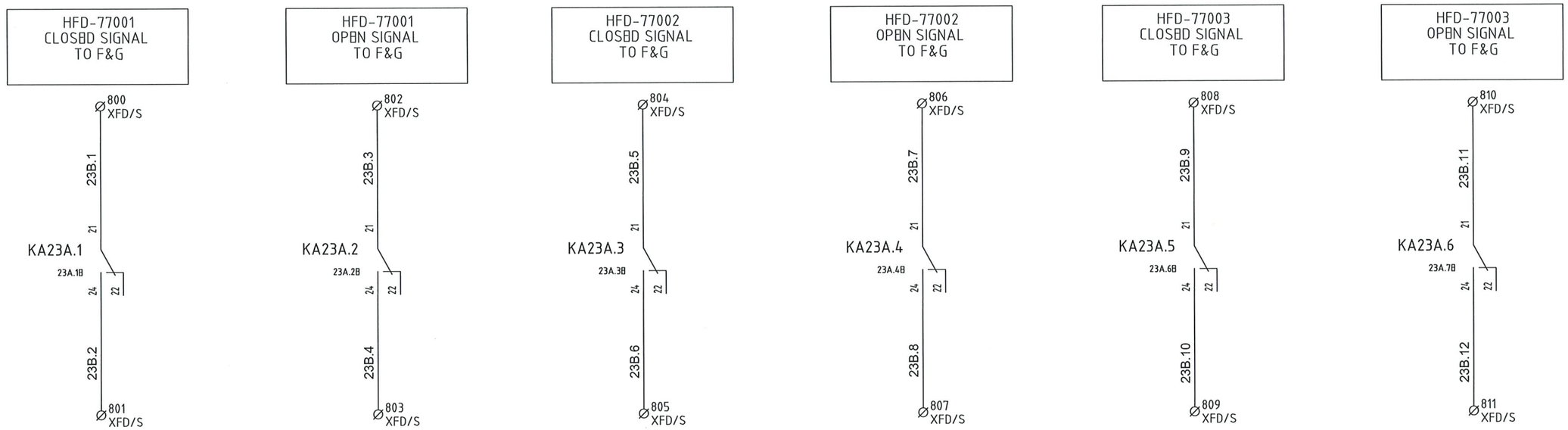
BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM

FIRE DAMPER

ROSETTI MARINO | ALEXSISTEMI s.p.s.

1724000049-HV-DA-00026

FG. 23A
F.S. 23B



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REV.	MODIFICA	DATA	FIRMA
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03	ISSUED FOR APPROVAL	05/09/24	

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BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM
FIRE DAMPER

ROSETTI MARINO | ALEXSISTEMI s.p.a.

1724000049-HV-DA-00026

FG. 23B
F.S. 24

+QG - XPS
POWER SUPPLY

NUPS | L1UPS | PE

1 | 2 | 7

L1 | L2 | L3 | N | PE

3 | 4 | 5 | 6 | 8

230V 1F + N + PE
50Hz
FROM
AC UPS-PAS DB
3G4
DP-200F3

400V 3F +N + PE
50Hz
FROM
LV SWITCHGEAR
5G25
SG-200N1

+QG - XM1
POWER PRESS FAN 1

U1A | V1A | W1A | U2A | V2A | W2A

U1A | V1A | W1A | U2A | V2A | W2A

4G2.5 FG16OM16

4G6 FG16OM16

HFM-77-001 FAN MOTOR

HSS-77-101 ELECTRICAL HEATER

U V W M 3~

+QG - XM2
POWER PRESS FAN 2

U1B | V1B | W1B | U2B | V2B | W2B

U1B | V1B | W1B | U2B | V2B | W2B

4G2.5 FG16OM16

4G6 FG16OM16

HFM-77-002 FAN MOTOR

HSS-77--102 ELECTRICAL HEATER

U V W M 3~

+QG - XAC
ACCESSORIES

L1 | N1 | L1 | N1 | L2 | N2 | U1 | N1 | V1 | N1 | W1 | N1 | L1BM | N1BM | L1BM | N1BM | L3 | N3

1 | 2 | 13 | 14 | 3 | 4 | 5 | 8 | 6 | 9 | 7 | 10 | 11 | 12 | 15 | 16 | 17 | 18

3G2.5	MODULE LIGHT	LIGHT	
3G2.5	MODULE LIGHT	LIGHT	
3G3	MODULE SOCKET	SOCKET	
3G2.5	SPACE HEATER	HSS-77-001	
3G2.5	SPACE HEATER	HSS-77-002	
3G2.5	SPACE HEATER	HSS-77-003	
3G2.5	MODULE BM LIGHT	EM. LIGHT	
3G2.5	MODULE BM LIGHT	EM. LIGHT	
3G2.5	HEATING CABLE	HHT-77-001	

NO MARK UP
AS COMMISSIONED: MARIA GIROTTI
26/3/25

REV.	MODIFICA	DATA	FIRMA
05	ACCEPT FOR CONSTRUCTION	24/01/25	
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BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM
TERMINAL STRIP

ROSETTI MARINO | ALEXSISTEMI s.p.a.

1724000049-HV-DA-00026

FG. 24
F.S. 25

NO MARK UP AS COMMISSIONED: MATIA GIROTTI 26/3/25

+QG - XC
Client

+24VDC 11.1 23.3 23.2 +24VDC 6C.4 +24VDC 6C.4

100 101 102 103 104 105 106 107

- SHUTDOWN FROM SIS
- HVAC MALF. SIGNAL TO SIS
- LIGHT BUTTON
- LIGHT BUTTON

+QG - XPF1
AUX PRBS FAN 1

11.3 11.4 +24VDC 12.3 +24VDC 12.7 23.5 B +24VDC 16.2 +24VDC 16.3 A.A B.A +24VDC 12.1 +24VDC 12.2

200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217

- 3G1.5 FG16OM16 — PTC MOTOR PROTECTION — TE-77-101
- 3G1.5 FG16OM16 — BMERGENCY STOP BUTTON — HPB-77-101
- 3G1.5 FG16OM16 — BLECTRICAL HEATER THERMOSTATE PROTECTION — TSH/HH-77-101
- 3G1.5 FG16OM16 — MOTOR FAN BLECTRICAL HEATER — HSS-77-103
- 2X1.5 FG16OM16 — FAN FLOW SWITCH — PDSL-77-101
- 2X1.5 FG16OM16 — FILTER FLOW SWITCH — PDT-77-101
- 3G2.5 — POWER SUPPLY — 240V — HDZ-77-101
- 4X1.5 — SIGNAL FEEDBACK — S1 S2 S3 S4 S5 S6 — ZSC <5° — ZSO >85° — HDZ-77-101

+QG - XPF2
AUX PRBS FAN 2

11.6 11.7 +24VDC 12.4 +24VDC 13.1 23.6 B +24VDC 16.4 +24VDC 16.5 A.B B.B +24VDC 14.6 +24VDC 14.7

300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317

- 3G1.5 FG16OM16 — PTC MOTOR PROTECTION — TE-77-102
- 3G1.5 FG16OM16 — BMERGENCY STOP BUTTON — HPB-77-102
- 3G1.5 FG16OM16 — BLECTRICAL HEATER THERMOSTATE PROTECTION — TSH/HH-77-102
- 3G1.5 FG16OM16 — MOTOR FAN BLECTRICAL HEATER — HSS-77-104
- 2X1.5 FG16OM16 — FAN FLOW SWITCH — PDSL-77-102
- 2X1.5 FG16OM16 — FILTER FLOW SWITCH — PDT-77-102
- 3G2.5 — POWER SUPPLY — 240V — HDZ-77-102
- 4X1.5 — SIGNAL FEEDBACK — S1 S2 S3 S4 S5 S6 — ZSC <5° — ZSO >85° — HDZ-77-102

+QG - XT

+24VDC -24VDC 20.1 +24VDC -24VDC 20.2 +24VDC -24VDC 20.3 20.13 20.15 20C.17 20C.19

500 501 502 503 504 505 506 507 508 509 510 511 512

- 3X1.5+Sh — TEMPERATURE TRANSMITTER BY CLIENT — 77-TT-101
- 3X1.5+Sh — TEMPERATURE TRANSMITTER BY CLIENT — 77-TT-102
- 3X1.5+Sh — DIFFERENTIAL PRESSURE TRANSM BY CLIENT — 77-TP-101
- 2X1.5+Sh — DUCT TEMPERATURE TRASMITTER — TBA — 77-TT-103
- 2X1.5+Sh — DUCT TEMPERATURE TRASMITTER — TBA — 77-TT-104

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
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03	ISSUED FOR APPROVAL	05/09/24		VISTO	S.S.

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BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM
TERMINAL STRIP

ROSETTI MARINO — ALEXSISTEMI s.p.a.

1724000049-HV-DA-00026

FG. 25
F.S. 25A

+QG - XFD
FIRE DAMPER

+24VDC 16.8 | +24VDC 17.1 | +24VDC 17.2 | +24VDC 17.3 | +24VDC 17.4 | +24VDC 17.5

400 | 401 | 402 | 403 | 404 | 405 | 406 | 407 | 408 | 409 | 410 | 411

4X1.5 | 4X1.5 | 4X1.5

FEEDBACK SIGNAL | FEEDBACK SIGNAL | FEEDBACK SIGNAL

1 | 2 | S1 | S2 | S3 | S4 | S5 | S6

240V | ZSC <5° | ZSO >85°

HFD-77001 | HFD-77002 | HFD-77003

+QG - XFD/S
FIRE DAMPER SIGNAL

23B.1 | 23B.6 | 23B.3 | 23B.10 | 23B.5 | 23B.14 | 23B.7 | 23B.18 | 23B.9 | 23B.22 | 23B.11 | 23B.26

800 | 801 | 802 | 803 | 804 | 805 | 806 | 807 | 808 | 809 | 810 | 811

HFD-77001 CLOSED SIGNAL | HFD-77002 CLOSED SIGNAL | HFD-77003 CLOSED SIGNAL

HFD-77001 OPEN SIGNAL | HFD-77002 OPEN SIGNAL | HFD-77003 OPEN SIGNAL

NO MARK UP
AS COMMISSIONED:
MARIA GIROTTI
26/3/25

X3
RJ45

RJ45 CLIENT CONNECTION

MODBUS TCP/IP
CONNECTION
FROM
B400-NET-001

REV.	MODIFICA	DATA	FIRMA
05	ACCEPT FOR CONSTRUCTION	24/01/25	
04	ACCEPT FOR CONSTRUCTION	10/12/24	
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BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM
TERMINAL STRIP

ROSETTI MARINO | ALEXSISTEMI

1724000049-HV-DA-00026

FG. 25A
F.S. 26

NO MARK UP AS COMMISSIONED: MARIA GIROTTI 26/3/25

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
				Hq	4	2
	R5CPFE6100	Compensation panel for modular cabinet height 100 width 600	dkc	Hq	4	2
	R5CPME6200	Solid modular door for cabinet width 600, door height 200	dkc	Hq	4	2
	RZPCE6200	modular wiring panel L.600 H.200	dkc			2
	R5CPME6600	Solid modular cabinet door 600 width, 600 door height	dkc	Hq	4	2
	RZPCE6600	Modular wiring panel L.600 H.600	dkc			2
	R5CPME6800	Solid modular cabinet door width 600, door height 800	dkc	Hq	4	2
	RZPCE6800	Modular wiring panel L.600 H.800	dkc			2
	R5CQE1866R	Cabinet comp. 1800x600x600 back	dkc	Hq	4	2
	R5LE1862	SIDE DOOR FOR CQE PANEL DEPTH 600 HEIGHT 1800	dkc			2
	R1ZCOR1	Modular plinth corner H100 4pcs	dkc			2
	R1ZPRO601	Front/side flange H100 length 600	dkc			3
	R5TOE60	Rebate crossbar for modular doors, width 600	dkc			5
	RZMVE18	Vertical support height 1800	dkc			2
	RZA33	Lifting Ring	dkc			3
	RZKE65	CQE cabinet union kit	dkc			2
	rzkre65	Flat Cooling Kit for CQE Cabinets	dkc			2
	rzksre65	L-shaped union reinforcement kit for CQE cabinets	dkc			2
	RZSOE545	HORIZONTAL SUPPORT TOTAL CABINET DEPTH 600	dkc			5
	RZDOE6545	HORIZONTAL PARTITION TOTAL CABINET WIDTH 600 DEPTH 600	dkc			5
	RZDVE1860	Vertical partition for CQE 1800x600	dkc			2
32 x 15	534-2	DIN rail EN60715 32x15x1.5 closed	Arnocanali	Hq	5	3.98
32 x 15	PD32Z	Sendzimir rail 32x15x9 closed	Canloplast	Hq	5	0.41
40 x 100	E35	can.cabl.40x100 sg	Canloplast	Hq	5	9.79
60 x 100	E184	Can.Cabl.60x100 SG S/4	Canloplast	Hq	5	0.84
77-TT-103				Hq		1
77-TT-104				Hq		1
A1	6AV2124-0MC01-0AX0	SIMATIC HMI TP1200 Comfort. Touch control, 12" widescreen display	siemens	Hq	20d	1
A2	6ES7155-6AU01-0CN0	IM 155-6 PN HF/2 V4.2 Interface Module	siemens	Hq	20th	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	20th	1
	6ES7193-6BP00-0DA0	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	20th	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	20th	1
	6ES7193-6BP00-0BA0	Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A)	siemens			1
A6	6ES7132-6BH01-0BA0	Digital Output Module: DQ 16x24VDC/0.5A ST	siemens	Hq	20th	1
	6ES7193-6BP00-0DA0	Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A)	siemens			1
A7	6ES7134-6HD01-0BA1	Analog Input Module: AI 4XU/I 2-Wire ST	siemens	Hq	20th	1
	6ES7193-6BP00-0DA0	Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A)	siemens			1
A8	6ES7135-6HD00-0BA1	Analog Output Module: AQ 4XU/I ST	siemens	Hq	20th	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	20th	1
	6ES7193-6BP00-0BA0	Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A)	siemens			1
A10	6ES7134-6HD01-0BA1	Analog Input Module: AI 4XU/I 2-Wire ST	siemens	Hq	20th	1

REV.	MODIFICA	DATA	FIRMA
05	ACCEPT FOR CONSTRUCTION	24/01/25	
04	ACCEPT FOR CONSTRUCTION	10/12/24	
03	ISSUED FOR APPROVAL	05/09/24	

DATA	15/04/2024
DISEGN.	F.M.
VISTO	S.S.
APPR.	M.G.

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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM

MATERIAL LIST
LISTA METERIALI

ROSETTI MARINO | ALEXSISTEMI s.p.s.

1724000049-HV-DA-00026

FG. 26
F.S. 27

NO MARK UP AS COMMISSIONED: MATTIA GIROTTO 26/3/25

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
A10	6ES7193-6BP00-0DA0	Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A)	siemens	Hq	20th	1
A11	6GK5208-0BA00-2AC2	XC208 Managed Switch with 8 RJ45 100Mbit/s Ports	siemens	Hq	20th	1
D1	6ES7513-1RM03-0AB0	CPU 1513R-1PN	siemens	Hq	20d	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	20d	1
	6ES7954-8LF02-0AA0	Memory card, 24 MB	siemens			1
	6ES7590-1AB60-0AA0	Profile rail S7-1500, 160 mm	siemens			1
BM. LIGHT				Hq		1
BM. LIGHT				Hq		1
BPB-003	3su1900-0dy30-0aa0	Protective collar for merge button, plastic, yellow, 22mm hole	siemens	Hq	6th	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
F1		docker		Hq	6b	1
F2		docker		Hq	6b	1
F3		docker		Hq	6b	1
F4		docker		Hq	6b	1
F21.1		Single-pole fuse		Hq	21	1
FU22.1		Single-pole fuse		Hq	22	1
GD1	6EP1333-3BA10	Sitop PSU200M single-phase and two-phase, DC 24V/5A. Stabilized power supply Input: 120-230/230-500V AC, Output: DC 24V/5A	siemens	Hq	10	1
HDZ-77-101		Single-phase alternating current motor		Hq	8	1
HDZ-77-101		NC Limit Switch		Hq	12	1
HDZ-77-101		Limit Switch: No		Hq	12	1
HDZ-77-102		Single-phase alternating current motor		Hq	9a	1
HDZ-77-102		NC Limit Switch		Hq	14	1
HDZ-77-102		Limit Switch: No		Hq	14	1
HFD-77001		NC Limit Switch		Hq	23rd	1
HFD-77001		Limit Switch: No		Hq	23rd	1
HFD-77001				Hq	25th	1
HFD-77002		NC Limit Switch		Hq	23rd	1
HFD-77002		Limit Switch: No		Hq	23rd	1
HFD-77002				Hq	25th	1
HFD-77003		NC Limit Switch		Hq	23rd	1
HFD-77003		Limit Switch: No		Hq	23rd	1
HFD-77003				Hq	25th	1
HHT-77-001				Hq		1
HL6A.1	3SU1001-6AA60-0AA0	Indicator light with smooth lens, white	siemens	Hq	6th	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
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
HL9A.1	3SU1001-6AA60-0AA0	Indicator light with smooth lens, white	siemens	Hq	9a	1
	3SU1401-1BH60-1AA0	White LED module for mounting on front plate, 24 ... 240 V AC/DC. Screw terminals	siemens			1

REV.	MODIFICA	DATA	FIRMA
05	ACCEPT FOR CONSTRUCTION	24/01/25	
04	ACCEPT FOR CONSTRUCTION	10/12/24	
03	ISSUED FOR APPROVAL	05/09/24	

DATA 15/04/2024
DISEGN. F.M.
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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM

MATERIAL LIST
LISTA METERIALI

ROSETTI MARINO | ALEXSISTEMI

1724000049-HV-DA-00026

FG. 27
F.S. 28

NO MARK UP AS COMMISSIONED: MARIA GIROTTI 26/3/25

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
HL9A.1	3su1500-0aa10-0aa0	Support without module. plastic	siemens	Hq	9a	1
HL10.1	3SU1001-6AA60-0AA0	Indicator light with smooth lens, white	siemens	Hq	10	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				Hq	7	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	21	1
HR-1B				Hq	7	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	21	1
HR-1C				Hq	7	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	21	1
HR-2A				Hq	9	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	22	1
HR-2B				Hq	9	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	22	1
HR-2C				Hq	9	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	22	1
HSS-77-001				Hq		1
HSS-77-002				Hq		1
HSS-77-003				Hq		1
KA11.1	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	11	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
KA11A.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	11th	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
KA11A.2	202290244000	Modular Pulse Relay No. of contacts: 2 Contact configuration: No Contact material: AGSNo2 Mounting: DIN rail Function: Mechanical Sizing current: 16 A. Width in subdivision units: 1 Type of supply voltage	Finder	Hq	11th	1
KA18.1	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	18	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
KA18.2	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	18	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

REV.	MODIFICA	DATA	FIRMA
05	ACCEPT FOR CONSTRUCTION	24/01/25	
04	ACCEPT FOR CONSTRUCTION	10/12/24	
03	ISSUED FOR APPROVAL	05/09/24	

DATA 15/04/2024
DISEGN. F.M.
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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM

MATERIAL LIST
LISTA METERIALI

ROSETTI MARINO | ALEXSISTEMI s.p.a.

1724000049-HV-DA-00026

FG. 28
F.S. 29

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
KA18.2	094913	*Latching and unhooking jumper*	*Finder*	*Hq*	18	1
KA18.3	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*	18	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
KA18.4	*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*	18	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
KA18.5	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*	18	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
KA18.6	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*	18	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
KA18.7	*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*	18	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
KA21.1	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*	21	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
KA22.1	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*	22	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

NO MARK UP
AS COMMISSIONED: MATIA GIRO 26/3/25

05	ACCEPT FOR CONSTRUCTION	24/01/25		DATA	15/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24		DISEGN.	F.M.
03	ISSUED FOR APPROVAL	05/09/24		VISTO	S.S.
REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.

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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM

MATERIAL LIST
LISTA METERIALI

ROSETTI MARINO | ALEXSISTEMI s.p.a.

1724000049-HV-DA-00026

FG. 29
F.S. 30

NO MARK UP AS COMMISSIONED: MATTIA GIROTTO 26/3/25

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
KA23A.1	465290240040 9702spa	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 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 Finder	Hq	23rd	1 1
KA23A.2	465290240040 9702spa	minirelay. (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 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 Finder	Hq	23rd	1 1
KA23A.3	465290240040 9702spa	minirelay. (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 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 Finder	Hq	23rd	1 1
KA23A.4	465290240040 9702spa	minirelay. (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 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 Finder	Hq	23rd	1 1
KA23A.5	465290240040 9702spa	minirelay. (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 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 Finder	Hq	23rd	1 1
KA23A.6	465290240040 9702spa	minirelay. (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 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 Finder	Hq	23rd	1 1
KM1	3RT2316-1BB40 3RH29111HA22	Contactor, 4 NO, AC-1: 18 to 24 V DC, 4-pole, 4 NO, size S00, screw terminals Bloc.Aus.2L 2R 1L,1L,S00/S0,	siemens siemens	Hq	18	1 1
LIGHT				Hq		1
LIGHT				Hq		1
MTP-001	3RN2000-1AW30	Motor protection relay for PTC thermistor supervision 24/240 V AC/DC 1 changeover contact	siemens	Hq	11	1
MTP-002	3RN2000-1AW30	Motor protection relay for PTC thermistor supervision 24/240 V AC/DC 1 changeover contact	siemens	Hq	11	1
MVA-1	DMG600	multimeter with icon-based LCD	Lovato	Hq	6	1
PDSL-77-101		Pressure-controlled (pressure switch) No		Hq	16	1
PDSL-77-101				Hq		1
PDSL-77-102		Pressure-controlled (pressure switch) No		Hq	16	1
PDSL-77-102				Hq		1
PDT-77-101		Pressure-controlled (pressure switch) No		Hq	16	1
PDT-77-101				Hq		1
PDT-77-102		Pressure-controlled (pressure switch) No		Hq	16	1
PDT-77-102				Hq		1

REV.	MODIFICA	DATA	FIRMA
05	ACCEPT FOR CONSTRUCTION	24/01/25	
04	ACCEPT FOR CONSTRUCTION	10/12/24	
03	ISSUED FOR APPROVAL	05/09/24	

DATA 15/04/2024
DISEGN. F.M.
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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM

MATERIAL LIST
LISTA METERIALI

ROSETTI MARINO | ALEXSISTEMI s.p.a.

1724000049-HV-DA-00026

FG. 30
F.S. 31

NO MARK UP AS COMMISSIONED: MARIA GIROTTI 29/3/25

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
PF6A.1	GSF10	air intake filter 100x100	Cosmotec	Hq	6th	1
	GSV1000220	Panel Fan 100x100 230V 24m³/h	Cosmotec			1
PF8.1	GSV1000220	Panel Fan 100x100 230V 24m³/h	Cosmotec	Hq	8	1
	GSF10	air intake filter 100x100	Cosmotec			1
PF9A.1	GSV1000220	Panel Fan 100x100 230V 24m³/h	Cosmotec	Hq	9a	1
	GSF10	air intake filter 100x100	Cosmotec			1
PFT6A.1	007026.00001	Thermostate Panel Fan	Fandis	Hq	6th	1
PFT8.1	007026.00001	Thermostate Panel Fan	Fandis	Hq	8	1
PFT9A.1	007026.00001	Thermostate Panel Fan	Fandis	Hq	9a	1
PH6A.1	050ra50	Anticondensing Heater 230V 50W	New Elfin	Hq	6th	1
PH8.1	050ra50	Anticondensing Heater 230V 50W	New Elfin	Hq	8	1
PH9.1	050ra50	Anticondensing Heater 230V 50W	New Elfin	Hq	9a	1
PHT6A.1	007038.00001	Antcondensing Thermostat 230V	Fandis	Hq	6th	1
PHT8.1	007038.00001	Antcondensing Thermostat 230V	Fandis	Hq	8	1
PHT9A.1	007038.00001	Antcondensing Thermostat 230V	Fandis	Hq	9a	1
PL6A.1	050PEL3C	230V lamp	New Elfin	Hq	6th	1
	050kfm	Magnet kit	New Elfin			1
PL8.1	050PEL3C	230V lamp	New Elfin	Hq	8	1
	050kfm	Magnet kit	New Elfin			1
PL9A.1	050PEL3C	230V lamp	New Elfin	Hq	9a	1
	050kfm	Magnet kit	New Elfin			1
PLS6A.1	RAMC05	Micro Door Opening Switch 1 No & 1NC	dkc	Hq	6th	1
PLS8.1	RAMC05	Micro Door Opening Switch 1 No & 1NC	dkc	Hq	8	1
PLS9A.1	RAMC05	Micro Door Opening Switch 1 No & 1NC	dkc	Hq	9a	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	6th	1
	5ST3010	Auxiliary contact block, 1 NO 1 NC for 5SL, 5SY, 5SP circuit breaker	siemens			1
QF1A	5SY4502-7	Circuit breaker 230 V 10KA, 1P N, C, 2A, D=70 mm	siemens	Hq	8	1
	5ST3010	Auxiliary contact block, 1 NO 1 NC for 5SL, 5SY, 5SP circuit breaker	siemens			1
QF1B	5SY4502-7	Circuit breaker 230 V 10KA, 1P N, C, 2A, D=70 mm	siemens	Hq	9a	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	6b	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	6th	1
	5ST3010	Auxiliary contact block, 1 NO 1 NC for 5SL, 5SY, 5SP circuit breaker	siemens			1
QF4	5su1354-1kk06	RCD, 10 kA, 1P N, AC Type, 30 mA, C, In: 6 A, One AC: 230 V	siemens	Hq	6b	1
	5ST3010	Auxiliary contact block, 1 NO 1 NC for 5SL, 5SY, 5SP circuit breaker	siemens			1
QF5	5SY7503-7	Circuit breaker 230 V 15Ka, 1P N, C, 3 A, D=70 mm	siemens	Hq	10	1
QF6	5SY5206-7	Universal current circuit breaker 440 V DC - 400 V AC 10Ka, 2P, C, 6 A	siemens	Hq	10	1
QF400	5SY74027	Int. MT 4P C2 ICN 15KA, ICU 50KA	siemens	Hq	6	1
QM1	5SY7410-7	Circuit breaker 400 V 15kA, 4P, C, 10 A, D=70 mm	siemens	Hq	6b	1
	5SM23420	Block diff. 4P 40A 30mA Type AC x 5sy	siemens			1
	5ST3010	Auxiliary contact block, 1 NO 1 NC for 5SL, 5SY, 5SP circuit breaker	siemens			1
QM1A	3RV2011-1EA10	Circuit breaker size S00 for motor protection, class 10, trip A 2.8...4 A, trip N 52 A, screw terminal	siemens	Hq	7	1
	3RV2901-1E	Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers	siemens			1

REV.	MODIFICA	DATA	FIRMA
05	ACCEPT FOR CONSTRUCTION	24/01/25	
04	ACCEPT FOR CONSTRUCTION	10/12/24	
03	ISSUED FOR APPROVAL	05/09/24	

DATA	15/04/2024
DISEGN.	F.M.
VISTO	S.S.
APPR.	M.G.

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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM

MATERIAL LIST
LISTA METERIALI

ROSETTI MARINO | ALEXSISTEMI s.p.s.

1724000049-HV-DA-00026

FG. 31
F.S. 32

NO MARK UP AS COMMISSIONED: MARIA GIROTTI 26/3/25

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
QM1B	3RV2011-1EA10	Circuit breaker size S00 for motor protection, class 10, trip A 2.8...4 A, trip N 52 A, screw terminal	siemens	Hq	9	1
	3RV2901-1E	Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers	siemens			1
QM2A	3RV2011-4AA10	Circuit breaker size S00 for motor protection, class 10, trip A 10...16 A, trip N 208 A, screw terminal	siemens	Hq	7	1
	3RV2901-1E	Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers	siemens			1
QM2B	3RV2011-4AA10	Circuit breaker size S00 for motor protection, class 10, trip A 10...16 A, trip N 208 A, screw terminal	siemens	Hq	9	1
	3RV2901-1E	Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers	siemens			1
QS1	3VA1140-3GE42-0AA0	3VA1 switch IEC chassis 160 switching capacity class n ICU=25 KA 415 V 4-pole, TM220 system protection, ATFM, IN=40 A Overload protection IR=28 A... 40 A Short-Circuit Protection II=10 x in N-Conductor Protection 100% LUG terminal	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
QSA	5SY4420-7	Circuit breaker 400 V 10Ka, 4P, C, 20A, D=70 mm	siemens	Hq	6	1
	5ST3010	Auxiliary contact block, 1 NO 1 NC for 5SL, 5SY, 5SP circuit breaker	siemens			1
	5st3060	Rotary control padlockable door lock IP65 black	siemens			1
	5st3031	24-48 V DC opening trip, for 5SL4, 5SY, 5SP, RCBO 5SU1, FI 5SV circuit breaker	siemens			1
QSB	5SY4420-7	Circuit breaker 400 V 10Ka, 4P, C, 20A, D=70 mm	siemens	Hq	6	1
	5ST3010	Auxiliary contact block, 1 NO 1 NC for 5SL, 5SY, 5SP circuit breaker	siemens			1
	5st3060	Rotary control padlockable door lock IP65 black	siemens			1
	5st3031	24-48 V DC opening trip, for 5SL4, 5SY, 5SP, RCBO 5SU1, FI 5SV circuit breaker	siemens			1
SA14.1	3su1002-2bl10-0aa0	Black selector 3 positions (I or II), illuminable. permanent, 2 x 45°	siemens	Hq	14	1
	3su1500-0aa10-0aa0	Support without module. plastic	siemens			1
	3SU1400-1AA10-1BA0	Module of contacts for fixing on the front plate. 1 NO, screw terminals	siemens			2
SA16.1	3su1002-2bl10-0aa0	Black selector 3 positions (I or II), illuminable. permanent, 2 x 45°	siemens	Hq	16	1
	3su1500-0aa10-0aa0	Support without module. plastic	siemens			1
	3SU1400-1AA10-1BA0	Module of contacts for fixing on the front plate. 1 NO, screw terminals	siemens			2
SOCKET				Hq		1
TA1.1	TAC022150X05	Amperometric transformer hole 22, transformation ratio 150/5 A	Frer	Hq	6	1
TA2.1	TAC022150X05	Amperometric transformer hole 22, transformation ratio 150/5 A	Frer	Hq	6	1
TA3.1	TAC022150X05	Amperometric transformer hole 22, transformation ratio 150/5 A	Frer	Hq	6	1
VSD 1	6SL3210-5BE22-2CV0	SinamiCs V20 3AC380-480V 2.2KW with C3 Filter	siemens	Hq	7	1
VSD 2	6SL3210-5BE22-2CV0	SinamiCs V20 3AC380-480V 2.2KW with C3 Filter	siemens	Hq	9	1
X3		RJ45 port per panel		Hq	25th	1
XAC	CBC04GR	CBC.4/GR Feed-through clamp	Cabur	Hq		18
XC	CBS02GR	Sectionable clamp 2.5 mm2	Cabur	Hq		8
XFD	CBS02GR	Sectionable clamp 2.5 mm2	Cabur	Hq		12
XFD/S	CBS02GR	Sectionable clamp 2.5 mm2	Cabur	Hq		12
XM1	CBC02GR	CBC.2/GR Thru-Clamp	Cabur	Hq		3
	CBC06GR	CBC.6/GR Thru-Clamp	Cabur			3
XM2	CBC02GR	CBC.2/GR Thru-Clamp	Cabur	Hq		3
	CBC06GR	CBC.6/GR Thru-Clamp	Cabur			3

REV.	MODIFICA	DATA	FIRMA
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DATA	15/04/2024
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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM

MATERIAL LIST
LISTA METERIALI

ROSETTI MARINO | ALEXSISTEMI s.p.a.

1724000049-HV-DA-00026

FG. 32
F.S. 33

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
XPF1	*CBS02GR*	*Sectionable clamp 2.5 mm2*	*Cabur*	*Hq*		16
	SF900GR	*SFR.4/GR Sectionable clamp*	*Cabur*			2
XPF2	*CBS02GR*	*Sectionable clamp 2.5 mm2*	*Cabur*	*Hq*		16
	SF900GR	*SFR.4/GR Sectionable clamp*	*Cabur*			2
XPS	*CBC04GR*	*CBC.4/GR Feed-through clamp*	*Cabur*	*Hq*		3
	CBC35gr	*CBC.35/GR Feed-through clamp*	*Cabur*			5
XT	*CBS02GR*	*Sectionable clamp 2.5 mm2*	*Cabur*	*Hq*		13

NO MARK UP
AS COMMISSIONED: MATIA GIROTTO
26/3/25

REV.	MODIFICA	DATA	FIRMA		
05	ACCEPT FOR CONSTRUCTION	24/01/25		DATA	15/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24		DISEGN.	F.M.
03	ISSUED FOR APPROVAL	05/09/24		VISTO	S.S.
				APPR.	M.G.

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BASE LOAD POWER HUB (BLPH)
B-100 HV SWITCH ROOM

Distinta Materiali
Bill of Materials

ROSETTI MARINO | ALEXSISTEMI s.p.a.

1724000049-HV-DA-00026

FG. 33
F.S. //

Section 8 LIST OF MODIFICATIONS

NOT APPLICABLE

Section 8.1 List of changes

NOT APPLICABLE

Section 9 SUPPORTING DOCUMENTS

NOT APPLICABLE