CROSSWIND

ROSETTI MARINO

PROVERBUS

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



COMMISSIONING DOSSIER (ONSHORE)

SYSTEM	77 Heating & Ventilation
SUBSYSTEM	77-40 HVAC I&T Equipment Room B-400

CROSSWIND

123A90 - HOLLANDSE KUST NOORD WIND PARK
BLPH Project

COMMISSIONING DOSSIER INDEX

ROSETTI MARINO

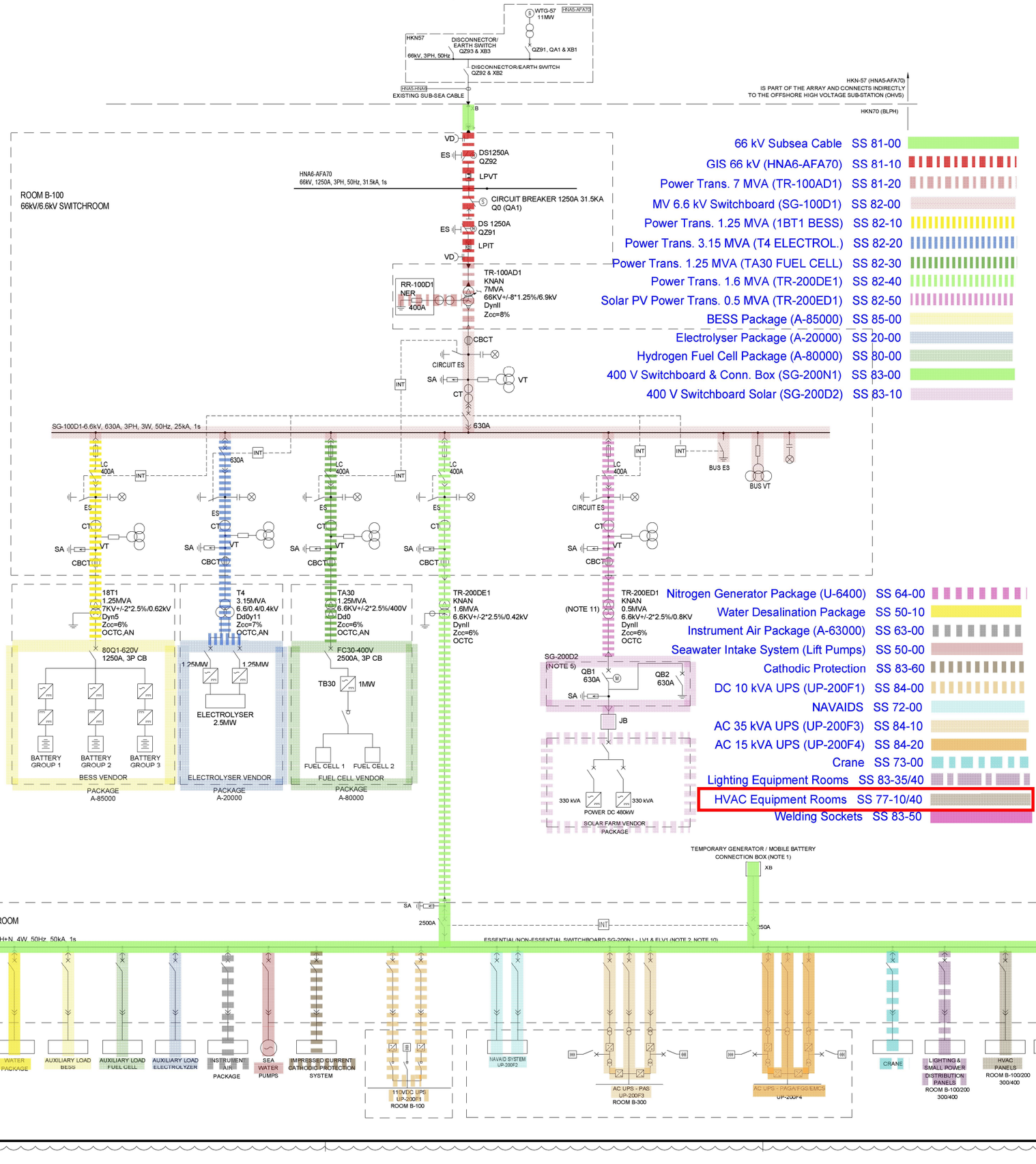
Sub System N°:	77-40	**Tick as appropriate**	ONSHORE	OK
Description:	HVAC I&T Equipment Room B-400		OFFSHORE	

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 2025-05-22T12:17:40.654Z	PROVERLIS Digitaly signed by Martin Taylor 2025-05-22T13:49:15.591Z

Section 1 SUB-SYSTEM DEFINITION

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



66 kV Subsea Cable	SS 81-00
GIS 66 kV (HNA6-AFA70)	SS 81-10
Power Trans. 7 MVA (TR-100AD1)	SS 81-20
MV 6.6 kV Switchboard (SG-100D1)	SS 82-00
Power Trans. 1.25 MVA (1BT1 BESS)	SS 82-10
Power Trans. 3.15 MVA (T4 ELECTROL.)	SS 82-20
Power Trans. 1.25 MVA (TA30 FUEL CELL)	SS 82-30
Power Trans. 1.6 MVA (TR-200DE1)	SS 82-40
Solar PV Power Trans. 0.5 MVA (TR-200ED1)	SS 82-50
BESS Package (A-85000)	SS 85-00
Electrolyser Package (A-20000)	SS 20-00
Hydrogen Fuel Cell Package (A-80000)	SS 80-00
400 V Switchboard & Conn. Box (SG-200N1)	SS 83-00
400 V Switchboard Solar (SG-200D2)	SS 83-10
Nitrogen Generator Package (U-6400)	SS 64-00
Water Desalination Package	SS 50-10
Instrument Air Package (A-63000)	SS 63-00
Seawater Intake System (Lift Pumps)	SS 50-00
Cathodic Protection	SS 83-60
DC 10 kVA UPS (UP-200F1)	SS 84-00
NAVAIDS	SS 72-00
AC 35 kVA UPS (UP-200F3)	SS 84-10
AC 15 kVA UPS (UP-200F4)	SS 84-20
Crane	SS 73-00
Lighting Equipment Rooms	SS 83-35/40
HVAC Equipment Rooms	SS 77-10/40
Welding Sockets	SS 83-50

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	DYFO/MDO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

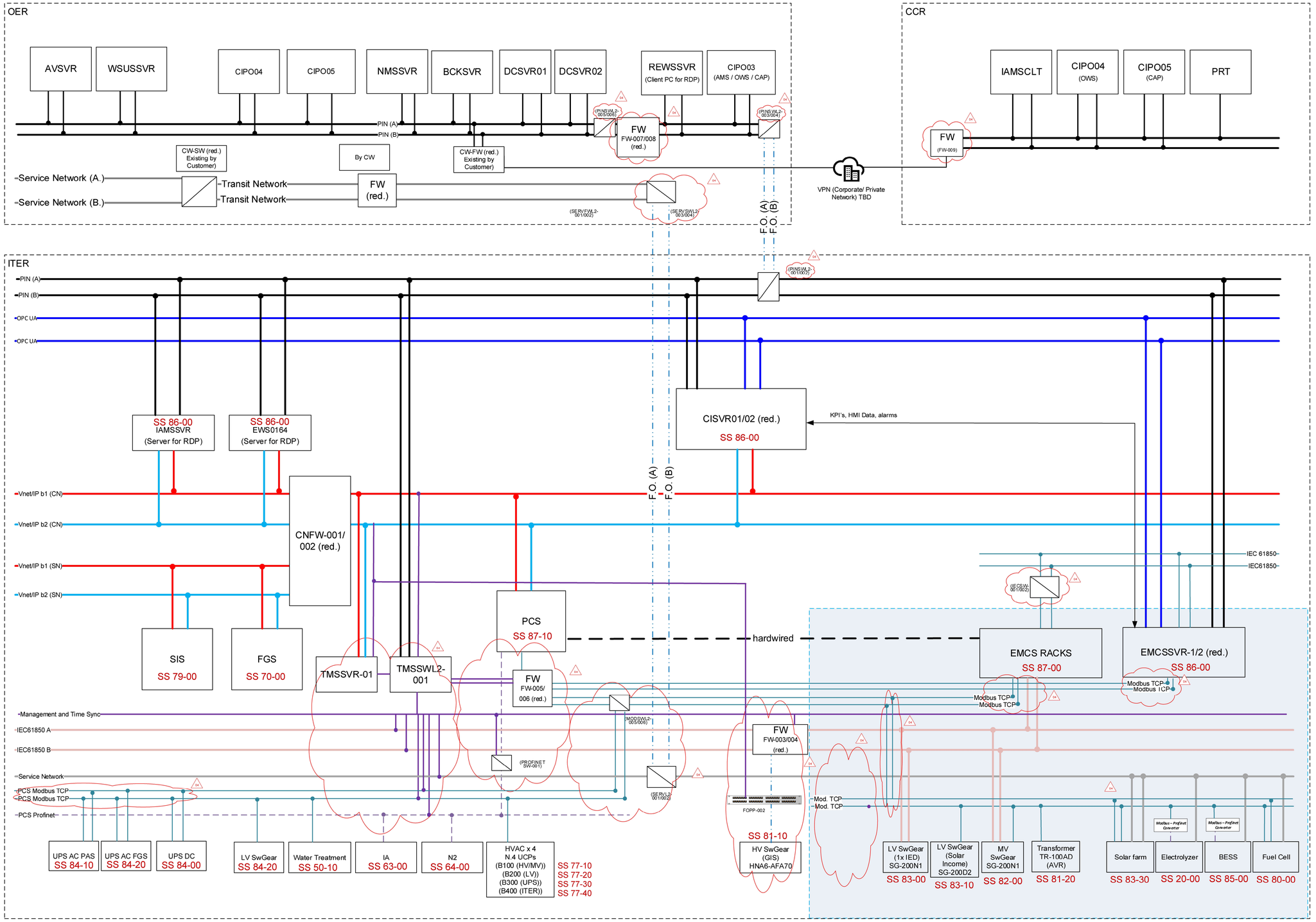
TITLE :

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

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 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

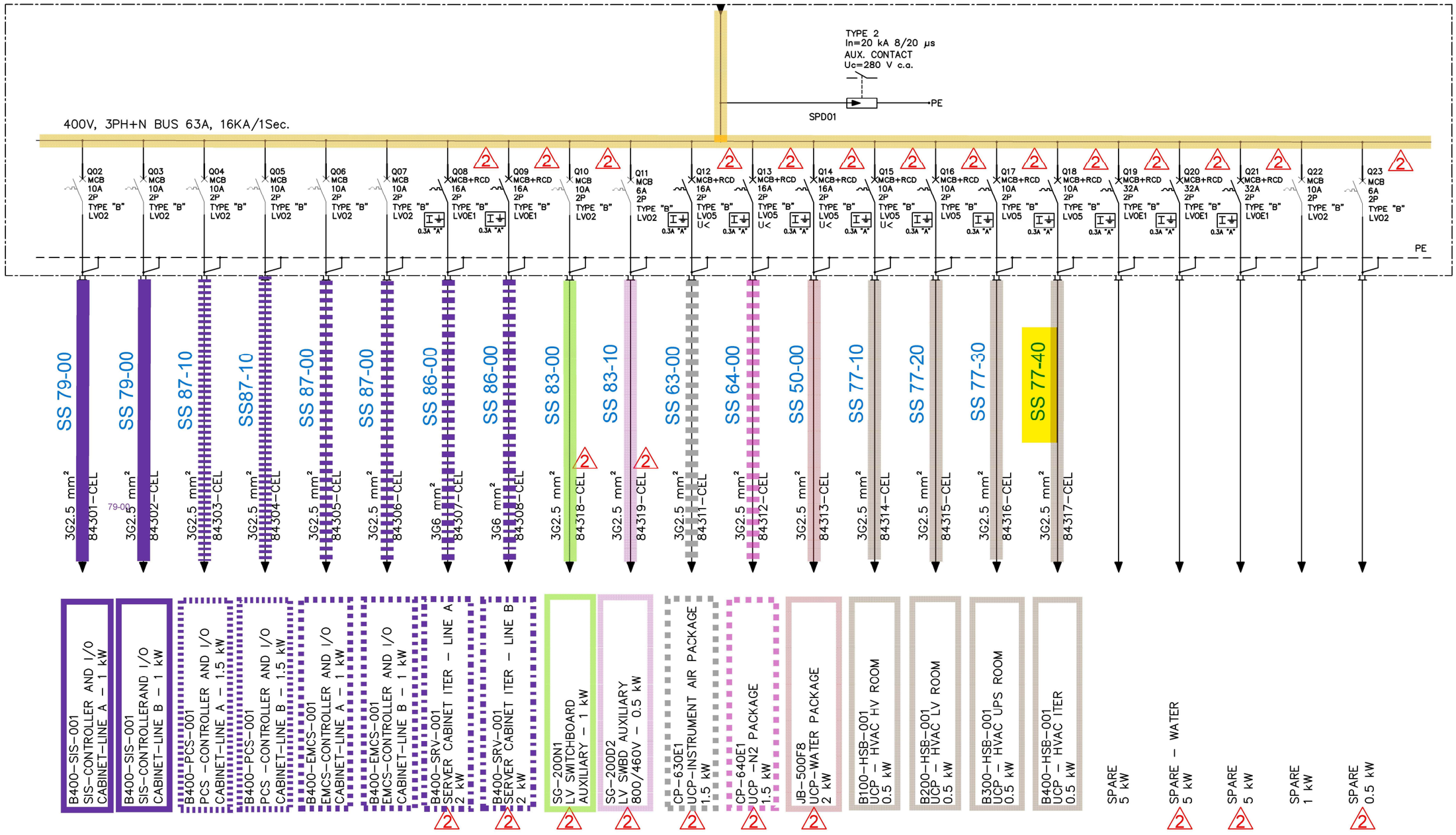
REV	DWG BY	CHK BY	APP BY	DATE
04	SKR	MP/AB	SC	12-Feb-25
03	SKR	MP/AB	SC	26-Aug-24
02	SKR	MP/AB	SC	28-Jun-24
01	SKR	MP/AB	SC	24-May-24
00	SKR	AB	SC	23-Apr-24

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

ROSETTI MARINO
HOLLANDSE KUST NOORD WIND PART Project
CROSSWIND
YOKOGAWA

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

AC UPS DISTRIBUTION BOARD–PAS
DP–200F3



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

CROSSWIND

ROSETTI MARINO

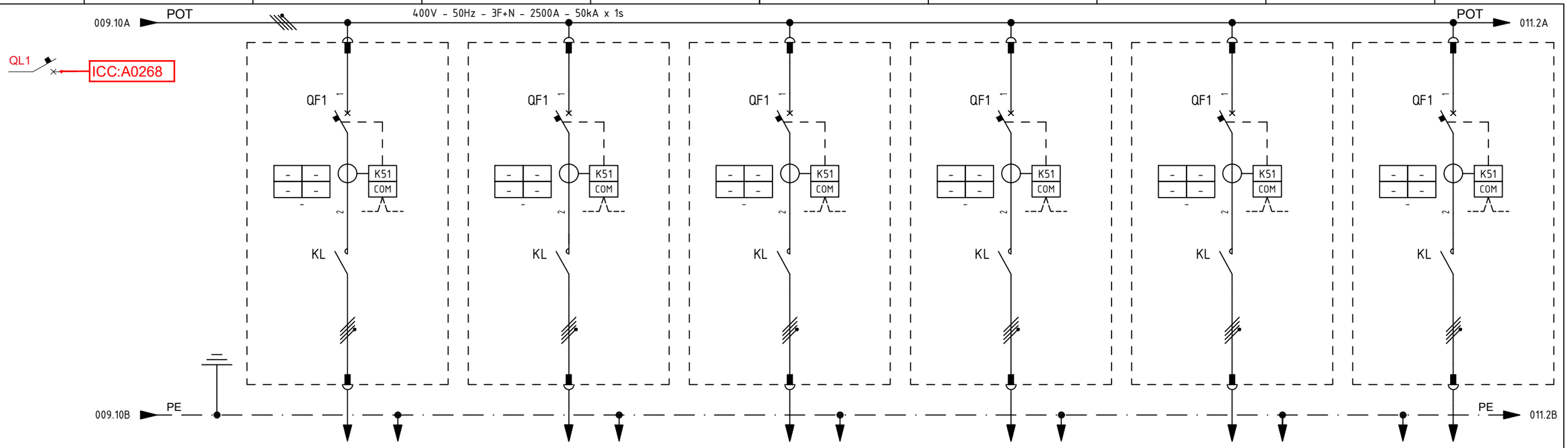
TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL SINGLE LINE DIAGRAMS AC UPS SYSTEMS
AC UPS – PAS DISTRIBUTION BOARD SLD (UP–200F3)

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

A3 | DRAWING NO. 123A90–DDL–EL–DG–20160 | SHEET 005 | REV. 02

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

F.to UNI A3: 420mmx297mm



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

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

IMESA ELECTRICAL ENGINEERING

DWG n° : 231298/SD/11

Item n° : PF1002983/26

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 010

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)

ROSETTI MARINO

123A90 - HOLLANDSE KUST NOORD WIND PARK
BLPH Project

CROSSWIND

Ready For Operation (RFO) Certificate

COMPLETE	●	PARTIAL	

Revision:	2		Issued on:	2025-05-16	
System:	77	/	Heating & Ventilation		
SubSystem:	77-40	/	HVAC I&T Equipment Room B-400		

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: 5

REMARKS:

	CONTRACTOR Commissioning Manager	**COMPANY** Commissioning Lead
Name	Anthony Iveson	Martin Taylor
Date	2025-05-16	2025-05-22
Signature	PROVERLIS Digitaly signed by Anthony Iveson 2025-05-16T09:00:25.997Z	PROVERLIS Digitaly signed by Martin Taylor 2025-05-22T09:24:02.554Z

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 77-40 & process: COMM

Electrical	77-40 HVAC I&T Equipment Room B-400						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
A5/+04-QF1	DRAWER HVAC PANELS ITER ROOM - A5/+04-QF1	ONSHORE	C10002878	FP00	100	2024-10-17	RFO 2
		ONSHORE	C10002879	FTR-2	100	2024-10-02	RFO 2
		ONSHORE	C10002880	FTR-6	100	2024-10-03	RFO 2
		ONSHORE	C10003017	FTR-5	100	2025-05-15	RFO 2
B400-HSB-001	Distribution & HVAC Panel - I&T Equipment Room	ONSHORE	C10002990	FP00	100	2024-10-28	RFO 2
UP-200F3-QF42	UCP - HVAC ITER ROOM	ONSHORE	C10004579	FTR-2	100	2024-12-07	RFO 2

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 77-40 & process: COMM

Instrumental	77-40 HVAC I&T Equipment Room B-400

ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
77-XA-004	B-400 I&T equip. Room HVAC fault	ONSHORE	C10003797	FJ01D	100	2025-02-24	RFO 2
77-XS-004	SHUT-DOWN B-400 I&T equip. Room HVAC	ONSHORE	C10003801	FJ01D	100	2025-02-24	RFO 2
B400-HSB-001	Distribution & HVAC Panel - I&T Equipment Room	ONSHORE	C10004882	FJ05	100	2025-05-15	RFO 2

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-40 HVAC I&T Equipment Room B-400

Mechanical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000518	A	B-400	Confirm with the compressor manufacturer whether starting the compressor without preheating the oil could cause damage	based on the manufacturer's response, either take no action or ensure the electric heater is powered by a UPS. If electric heaters are	Probe installed. Compressor has been insulated. Temperature setting 20°C as	SLinari 2024-10-30	Vendor 2025-02-22	SLinari 2025-02-22	2025-02-22
C30000519	A	B-400	Confirm with the compressor manufacturer whether starting the compressor without preheating the oil could cause damage	based on the manufacturer's response, either take no action or ensure the electric heater is powered by a UPS. If electric heaters are	Probe installed. Compressor has been insulated. Temperature setting 20°C as	SLinari 2024-10-30	Vendor 2025-02-22	SLinari 2025-02-22	2025-02-22
C30000551	A	B400-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
C30000017	B	B-400	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
C30000021	B	B-400	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
C30000049	B	B-400	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
C30000182	B	B-400 C10002307	Holes not used for heaters installation on shelter need to be restored. (see attachment)	-		Gtangianu 2024-10-15	2025-04-09	Gtangianu 2025-04-09	2025-04-09
C30000194	B	B-400 C10002307	(Open during WD) Cleaning is required on rooftop	-		Ecarotenuto 2024-10-16	2025-04-04	Gtangianu 2025-04-04	2025-04-04
C30000543	B	B-400	During SAT drainage pipes were not completely installed, incluede heat tracing and related connection to JB.	The work described has to be concluded. During commissioning heat tracing will be tested	Verified	SLinari 2024-10-30	Vendor 2025-02-20	SLinari 2025-02-20	2025-02-20

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PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-40 HVAC I&T Equipment Room B-400

Mechanical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000547	B	B-400	None pressure relief damper HDR-77-401 work properly as per design conditions. They remain closed even thogh inside the shelters more then	Investigate the malfunction with the manufacturer and take corrctive actions to adjust or replace the pressure relief request.		SLinari 2024-10-30			
C30000555	B	B-400	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			
C30000559	B	B-400	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
C30000563	B	B-400	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
C30004327	B	B-400	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

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PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation
SUBSYSTEM 77-40 HVAC I&T Equipment Room B-400

Electrical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000531	A	B400-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
C30000535	A	B400-HSB-001	The modbus I/O list have been updated during SAT, due to changes needed. During SAT activities several signals have not been checked.	Revise and issue on fusion live the HVAC I/O list documents for each HVAC panel. Before commissioning activities, all signals shall be	Check 100% of signals with Yokogawa. Communication work	SLinari 2024-10-30	Vendor 2025-02-22	SLinari 2025-02-22	2025-02-22
C30000025	B	B-400	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
C30000029	B	B-400	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
C30000033	B	B-400	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
C30000037	B	B-400	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
C30000041	B	B-400	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
C30000045	B	B-400	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 PICTURE	SLinari 2024-08-02	SLinari 2024-12-05	SLinari 2024-12-05	2024-12-05
C30000053	B	B-400	HVAC fixed with screws M8. To be replaced with correct ones, as per drawing. Alex Sistemi will supply all final screws. RM will install it during		FIXED	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29

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PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation
SUBSYSTEM 77-40 HVAC I&T Equipment Room B-400

Electrical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000087	B	B-400	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
C30000091	B	B-400	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
C30000095	B	B-400	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
C30000121	B	A5/+04-QF1 C10002879	New and definitive protection setting to be implemented on SG-200N1 drawer A5/+04.	Update the protection setting.	The definitive setting has been updated.	MGirotti 2024-10-01	MGirotti 2024-11-21	MGirotti 2024-11-21	2024-11-21
C30000179	B	83026-CEL C10000551	Cable to be fixed with proper cable ties o all internal and external routing.	-		Gtangianu 2024-10-15	2025-01-07	Gtangianu 2025-01-07	2025-01-07
C30000180	B	83026-CEL C10000551	Missing cable tags on all internal and external routing and inside both panels (SG-200N1 - B400-HSB-001)	-		Gtangianu 2024-10-15	2025-01-30	APolo 2025-01-30	2025-01-30
C30000181	B	83026-CEL C10000551	Missing identification number of terminal trip XP1 inside the panel B400-HSB-001	-		Gtangianu 2024-10-15	2025-04-09	Gtangianu 2025-04-09	2025-04-09
C30000183	B	B-400 C10002305	All HVAC cables need to be dressed and fixed properly inside internal cable trays	-		Gtangianu 2024-10-15	2025-02-15	Ecarotenuto 2025-02-15	2025-02-15
C30000185	B	B400-HSB-001 C10000840	Black Thermoshrink is used on earthing connection inside the panel.	.		Gtangianu 2024-10-15	2024-12-03	Ecarotenuto 2024-12-03	2024-12-03

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PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-40 HVAC I&T Equipment Room B-400

Electrical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000523	B	B400-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
C30000527	B	B400-HSB-001	Add an auxiliary IP address in addition to those already provided for each CPU, to allow communication and signals exchange between	Update software on all PLCs to enable switching to the standby CPU without losing the necessary communications	Implemented	SLinari 2024-10-30	Vendor 2025-02-20	SLinari 2025-02-20	2025-02-20
C30000539	B	B400-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
C30000811	B	84317-CEL C10000593	Missing SS cable tags on MCT B-300 side	.		Pschintu 2024-11-23	2025-01-30	APolo 2025-01-30	2025-01-30

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PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-40 HVAC I&T Equipment Room B-400

Telecom									
CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30001102	A	B400-HSB-001/ B400-NET-001 C10004777	The copper conductor of the cable armor must be individually connected to the earthing bar. B400-HSB-001. See 123A90-DDL-EL-DD-20090.	.		Ecarotenuto 2024-11-30	2024-12-04	Ecarotenuto 2024-12-04	2024-12-04
C30001101	B	B400-HSB-001/ B400-NET-001 C10004777	Missing cable tag by B400-HSB-001 side	.		Ecarotenuto 2024-11-30	2025-02-22	JKrizanic 2025-02-22	2025-02-22

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PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation
SUBSYSTEM 77-40 HVAC I&T Equipment Room B-400

HVAC

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000057	B	B-400	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. C30000563	SLinari 2024-08-02	SLinari 2025-02-06	SLinari 2025-02-06	2025-02-06
C30000061	B	B-400	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
C30000065	B	B-400	HVAC Systems to be completely checked on B-400. Unit hasn't been completed yet. All notes/remarks are indicated in the FAT		TEST COMPLETED . SEE REPORTS	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000067	B	B-400	B-400 HVAC Unit wirings must be completed at RM yard		COMPLETED	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000071	B	B-400	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
C30000075	B	B-400	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
C30000079	B	B-400	Drain pipes and heating cables are missing, since they must be necessary instalied on site to avoid damages. To be completed at RM yard		installed	SLinari 2024-08-02	SLinari 2025-02-06	SLinari 2025-02-06	2025-02-06
C30000083	B	B-400	Duct insulation and cladding to be completed on site; it's needed to cover all duct junctions. Alex Sistemi will supply ali material, RM will install it		INSTALLED	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29

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PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation
SUBSYSTEM 77-40 HVAC I&T Equipment Room B-400

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000184	B	B-400 C10002306	77-TP-401 INSTRUMENT IS NOT ACCESIBLE FOR MAINTENANCE.	-	POINT CLOSED - INSTRUMENT IS FREE FOR MAINTENANCE	Gtangianu 2024-10-15	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000186	B	77-HS-012A C10002099	Fixing System of instrument on unistrut is not as per typical : 123A90-DDL-IN-DD-40017, sh.047 refer to POS.16. All bolts need to be replaced	-		Gtangianu 2024-10-15	2024-11-23	Lmussi 2024-11-23	2024-11-23
C30000187	B	77-HS-012A C10002099	EARTHING BAR SHALL BE CONNECTED TO EARTHING POINT IN N.1 POINT WITH 35sqmm Y/G CABLE. Point valid for both internal and	-		Gtangianu 2024-10-15	2024-12-28	Gtangianu 2024-12-28	2024-12-28
C30000188	B	77-HS-012A C10002099	Elevation of instrument and cable tray L-150-101-IST-088 are not in accordance with Layout. See attachment	-		Gtangianu 2024-10-15	2025-01-30	APolo 2025-01-30	2025-01-30
C30000189	B	C-77-HY-016/77 -HS-016A C10000436	Cable is not alligned at HS cable gland entry, to be better dressed.	-		Gtangianu 2024-10-15	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000190	B	C-77-HS-016A/7 7-HS-016B C10000435	Cable is not alligned at HS cable gland entry, to be better dressed	.		Gtangianu 2024-10-15	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000191	B	C-77-HS-014A/7 7-HS-014B C10000427	Missing SS cable tag on MCT entry external side.	-		Gtangianu 2024-10-15	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000192	B	C-77-HS-013A/7 7-HS-013B C10000423	Missing SS cable tag on MCT entry external side.	.		Gtangianu 2024-10-15	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000193	B	C-77-HS-012A/7 7-HS-012B C10000419	Missing plastic cable tags on MCT entry internal side. Point valid for all HS cables.	.		Gtangianu 2024-10-15	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14

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PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-40 HVAC I&T Equipment Room B-400

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000776	B	C-77-ZSL-012/B 400-FGS-003 C10000421	Missing core identification tags inside B400-HSB-001	.		Pschintu 2024-11-22	2024-12-17	Gtangianu 2024-12-17	2024-12-17
C30000777	B	C-77-ZSL-012/B 400-FGS-003 C10000421	All cable tags are wrong.	.		Pschintu 2024-11-22	2025-01-03	Gtangianu 2025-01-03	2025-01-03
C30000778	B	C-77-ZSL-013/B 400-FGS-003 C10000425	Missing core identification tags inside B400-HSB-001	.		Pschintu 2024-11-22	2024-12-17	Gtangianu 2024-12-17	2024-12-17
C30000779	B	C-77-ZSL-013/B 400-FGS-003 C10000425	All cable tags are wrong.	.		Pschintu 2024-11-22	2025-01-03	Gtangianu 2025-01-03	2025-01-03
C30000780	B	C-77-ZSL-014/B 400-FGS-003 C10000429	Missing core identification tags inside B400-HSB-001	.		Pschintu 2024-11-22	2024-12-17	Gtangianu 2024-12-17	2024-12-17
C30000781	B	C-77-ZSL-014/B 400-FGS-003 C10000429	All cable tags are wrong.	.		Pschintu 2024-11-22	2025-01-03	Gtangianu 2025-01-03	2025-01-03
C30000782	B	C-77-ZSL-015/B 400-FGS-003 C10000433	Missing core identification tags inside B400-HSB-001	.		Pschintu 2024-11-22	2024-12-17	Gtangianu 2024-12-17	2024-12-17
C30000783	B	C-77-ZSL-015/B 400-FGS-003 C10000433	All cable tags are wrong.	.		Pschintu 2024-11-22	2025-01-03	Gtangianu 2025-01-03	2025-01-03
C30000784	B	C-77-ZSL-016/B 400-FGS-003 C10001433	All cable tags are wrong.	.		Pschintu 2024-11-22	2025-01-03	Gtangianu 2025-01-03	2025-01-03

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SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-40 HVAC I&T Equipment Room B-400

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000785	B	C-77-ZSL-016/B 400-FGS-003 C10001433	Missing core identification tags inside B400-HSB-001	.		Pschintu 2024-11-22			
C30000796	B	C-77-HS-016B/ B400-FGS-002 C10000434	Missing cable tag inside the panel B400-FGS-002	.		Pschintu 2024-11-23	2024-12-11	Pschintu 2024-12-11	2024-12-11
C30000797	B	C-77-HS-012B/ B400-FGS-002 C10000418	Missing cable tag inside the panel B400-FGS-002	.		Pschintu 2024-11-23	2024-12-11	Pschintu 2024-12-11	2024-12-11
C30000798	B	C-77-HS-013B/ B400-FGS-002 C10000422	Missing cable tag inside the panel B400-FGS-002	.		Pschintu 2024-11-23	2024-12-11	Pschintu 2024-12-11	2024-12-11
C30000799	B	C-77-HS-014B/ B400-FGS-002 C10000426	Missing cable tag inside the panel B400-FGS-002	.		Pschintu 2024-11-23	2024-12-11	Pschintu 2024-12-11	2024-12-11
C30000800	B	C-77-HS-015B/ B400-FGS-002 C10000430	Missing cable tag inside the panel B400-FGS-002	.		Pschintu 2024-11-23	2024-12-11	Pschintu 2024-12-11	2024-12-11
C30000801	B	C-77-HS-016B/ B400-FGS-002 C10000434	Missing core identification tag inside the panel B400-FGS-002	.		Pschintu 2024-11-23	2024-12-11	Pschintu 2024-12-11	2024-12-11
C30000802	B	C-77-HS-012B/ B400-FGS-002 C10000418	Missing core identification tag inside the panel B400-FGS-002	.		Pschintu 2024-11-23	2024-12-11	Pschintu 2024-12-11	2024-12-11
C30000803	B	C-77-HS-013B/ B400-FGS-002 C10000422	Missing core identification tag inside the panel B400-FGS-002	.		Pschintu 2024-11-23	2024-12-11	Pschintu 2024-12-11	2024-12-11

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SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-40 HVAC I&T Equipment Room B-400

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000804	B	C-77-HS-015B/ B400-FGS-002 C10000430	Missing core identification tag inside the panel B400-FGS-002	.		Pschintu 2024-11-23	2024-12-17	Gtangianu 2024-12-17	2024-12-17
C30000805	B	C-77-HS-014B/ B400-FGS-002 C10000426	Missing core identification tag inside the panel B400-FGS-002	.		Pschintu 2024-11-23	2024-12-17	Gtangianu 2024-12-17	2024-12-17
C30000983	B	C-77-XS-004/B400-SIS-001 C10000183	Missing core identification tags on both cable termination	.		Pschintu 2024-11-28			
C30000984	B	C-77-XS-004/B400-SIS-001 C10000183	Missing cable tag all along the route	.		Pschintu 2024-11-28	2025-02-04	Pschintu 2025-02-04	2025-02-04
C30000986	B	C-77-XA-004/B400-SIS-001 C10000187	Missing core identification tags on both cable termination	.		Pschintu 2024-11-28			
C30000987	B	C-77-XA-004/B400-SIS-001 C10000187	Missing cable tag all along the route	.		Pschintu 2024-11-28	2025-02-04	Pschintu 2025-02-04	2025-02-04

Section 2.2 Exception Punch Lists (per discipline)

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SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-40 HVAC I&T Equipment Room B-400

Mechanical									
CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000547	B	B-400	None pressure relief damper HDR-77-401 work properly as per design conditions. They remain closed even thogh inside the shelters more then	Investigate the malfunction with the manufacturer and take corrctive actions to adjust or replace the pressure relief request.		SLinari 2024-10-30			
C30000555	B	B-400	Several doors present a not perfect closure on the three deadbolts, probably due to a misalignment.	Check the doors and fix the closure issue. This activity vould be done during commissioning activities.		SLinari 2024-10-30			

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SYSTEM 77 Heating & Ventilation

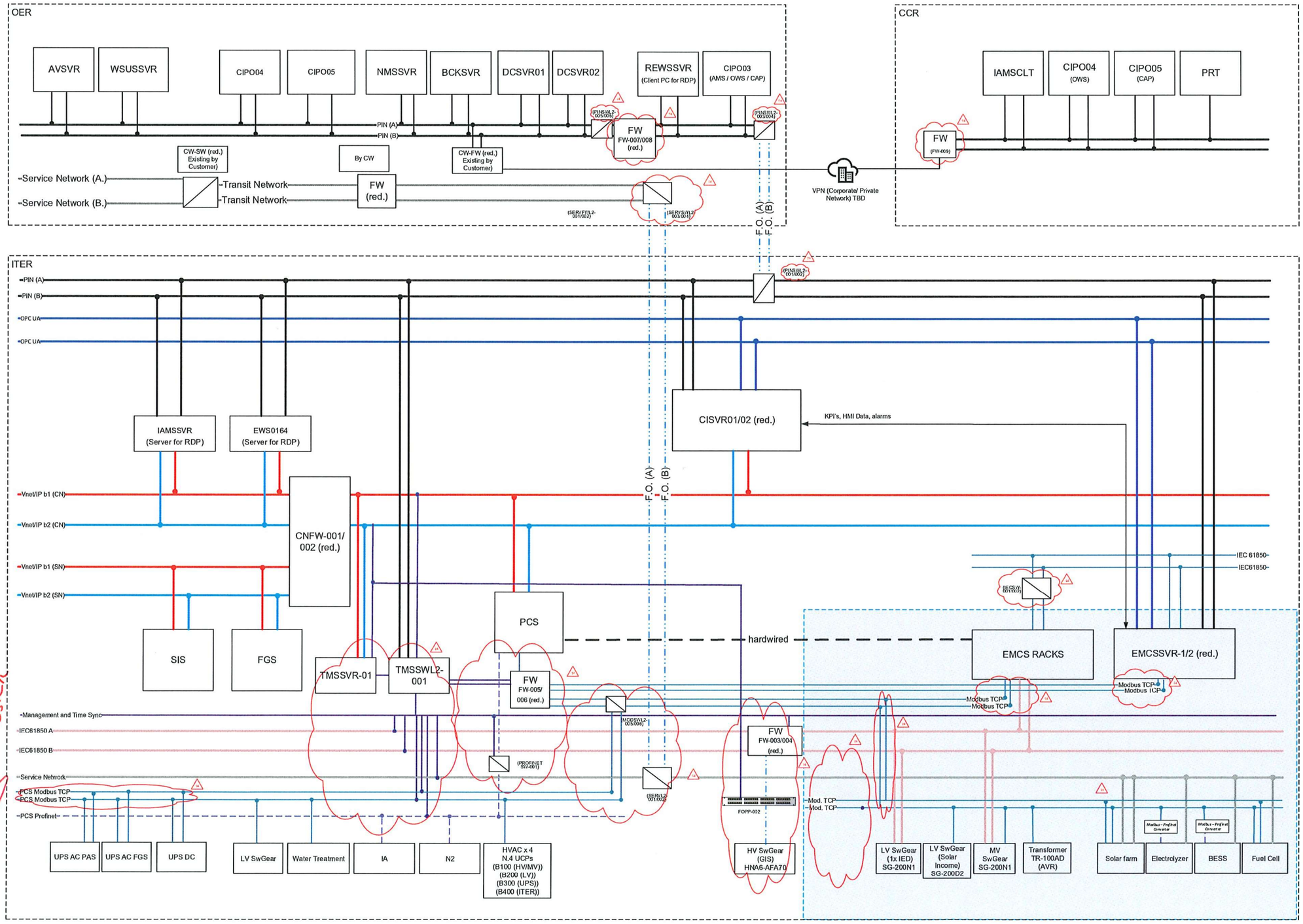
SUBSYSTEM 77-40 HVAC I&T Equipment Room B-400

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000785	B	C-77-ZSL-016/B400-FGS-003 C10001433	Missing core identification tags inside B400-HSB-001	.		Pschintu 2024-11-22			
C30000983	B	C-77-XS-004/B400-SIS-001 C10000183	Missing core identification tags on both cable termination	.		Pschintu 2024-11-28			
C30000986	B	C-77-XA-004/B400-SIS-001 C10000187	Missing core identification tags on both cable termination	.		Pschintu 2024-11-28			

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
Ing. Massimo Cinquegrano

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

PAGE 4/4

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CAE EPLAN Electric P8

AUXILIARY
From Lighting & Small Power DB BOP DP 200N1
(Cubicle 33-Q41)
100-240V/N/PE~50/60Hz
back-up fuse gG10A 3G2.5mm2

LINE A
From LV Switchgear SG-200N1
(Cubicle A3/31)
Mains 400V;3/PE~50Hz
gG80A 4G35mm2

From LV Switchgear SG 200N1
(Cubicle A7/02)
Bypass mains 400V;3/PE~50Hz
gG63A 4G35mm2

LINE B
From LV Switchgear SG-200N1
(Cubicle A4/01)
Mains 400V;3/PE~50Hz
gG80A 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
1000007889.020
10009757

-Q10 L=80/85A I=0,8kA Icu=50kA
-T8 400V/400V 40kVA
-Q28.1 NC
-Q28.2 NC

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

+UPS2
BC-200F3B
Protect 8.33 40-400-210-400
1000007889.310
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
INV Sync -X5 1 4
-L11,-L12,-L13 Parallel preventive choke coil
-A12,-A13 Remote signaling
-A24.1 BLU PRO
-F91

DP-200F3
-Q29 INV operation / Manual bypass
-F25
-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

+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

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

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

*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 ZUCCONELLI
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

1000007888_010

21	3333333253	18.10.2024	Rossetti	Date	14.05.2024
22	3333333269	07.10.2024	Rossetti	Engr.	EEC
Drw.	4443033	Dtl.	99/03	Ntr.	CnPECS

ROSETTI MARINO
Motorship Kyk. Vessel (140M) wind farm

AEG

System 40 kVA
S. Diagram

1000007888_010 en

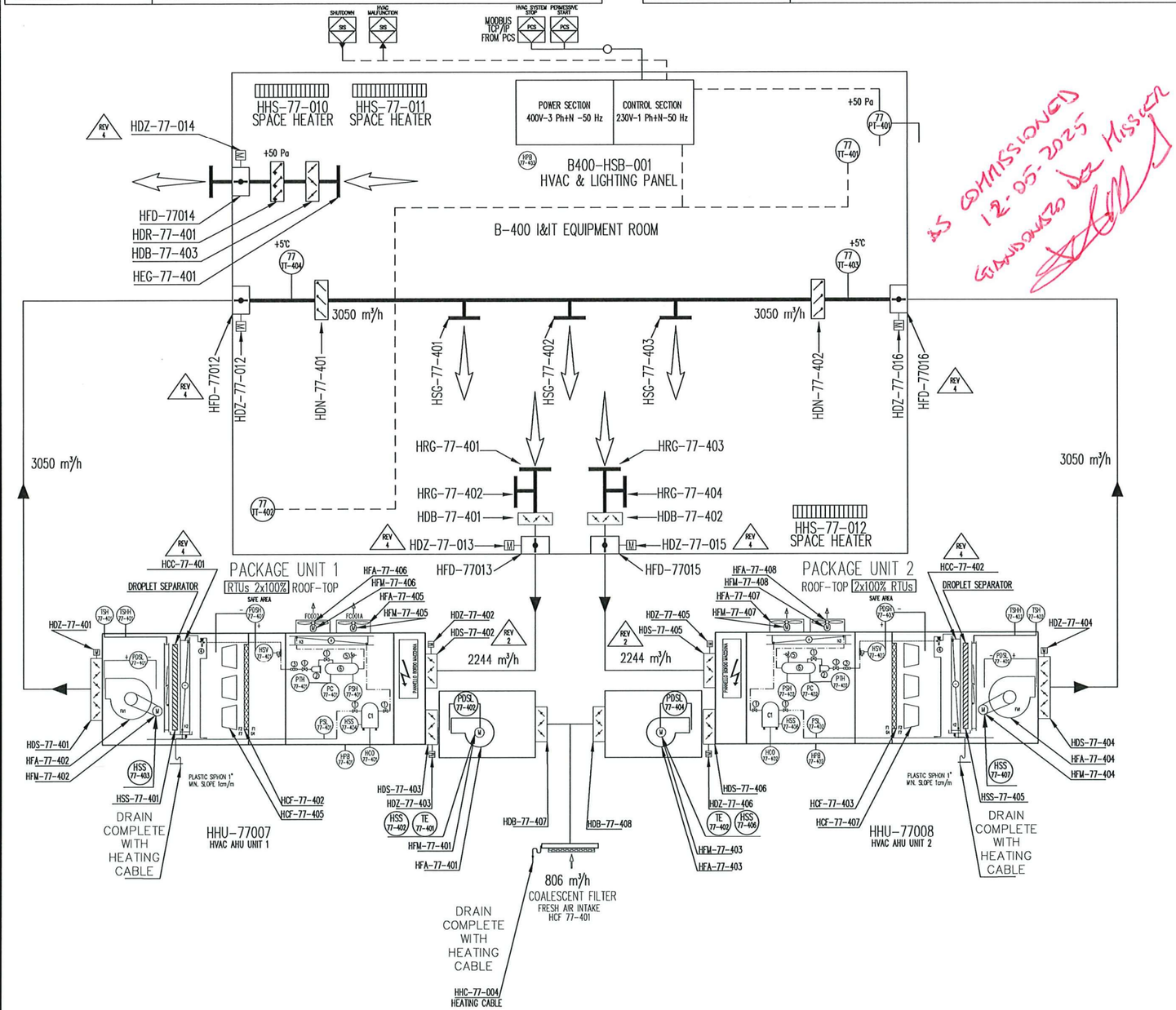
S. Eng. A0

DRAWING NO. 1724000049-HV-PID-00042

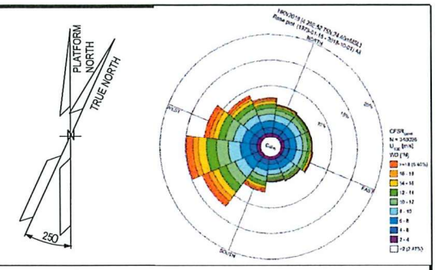
REV. 4

ITEM	HVAC-ROOF TOP
DESCRIPTION	HVAC UNIT
MAKER	FRIGOTERMICA srl
MODEL	4112-DMPD-100
SUPPLY AIR FLOW	847.2 l/s
COOLING COIL CAPACITY	21.8 kW AT +26°C Outdoor Temperature
HEATING COIL CAPACITY	8.6 kW
TENSIONE	400 V – 50 Hz – 3 Ph+N
EXECUTION	SAFE AREA
REFRIGERANT	R513a

ITEM	HVAC-PRESSURISING FAN
DESCRIPTION	HVAC UNIT
MAKER	FRIGOTERMICA srl
MODEL	4112-DMPD-101
SUPPLY AIR FLOW	224 l/s
COOLING COIL CAPACITY	N.A.
HEATING COIL CAPACITY	N.A.
TENSIONE	400 V – 50 Hz – 3 Ph+N
EXECUTION	SAFE AREA
REFRIGERANT	N.A.



AS COMMISSIONED
12-05-2025
GIANDONATO DE MASSIS



LEGEND

	MOTORISED DAMPER WITH SPRING RETURN
	REGULATION DAMPER
	OVERPRESSURE DAMPER
PDH	DIFFERENTIAL PRESSURE SWITCH HIGH PRESSURE
PDL	DIFFERENTIAL PRESSURE SWITCH LOW PRESSURE
TT	TEMPERATURE TRASMITTER
HS	EMERGENCY PUSH BUTTON
OH	COMPRESSOR OIL HEATER
SV	SOLENOID VALVE
C	REFRIGERANT COMPRESSOR
F1	AIR FILTER "G4"
F2	BAG FILTER "F8"
	CONDENSING COIL
	CONDENSING FAN
	HEATING COIL
	SUPPLY FAN
	GLOBE VALVE
	DRYER FILTER
	SIGHT GLASS
	THERMOSTATIC VALVE
	PRESSURE RELIEF VALVE
	MOTORISED FIRE DAMPER WITH SPRING RETURN
	EVAPORATING COIL
	LIQUID RECEIVER
MT	MOISTURE TRASMITTER
PT	HIGH PRESSURE TRASDUCER
TP	COMPRESSOR THERMIC PROTECTION
TSH	HIGH TEMPERATURE SECURITY THERMOSTATE
PSH	HIGH PRESSURE SWITCH
PSL	LOW PRESSURE SWITCH
PC	CONDENSING PRESSURE SWITCH
HTR	ELECTRICAL HEATING
MCP	REFRIGERANT COMPRESSOR
MD	MOTORISE DAMPER
TSHH	VERY HIGH TEMPERATURE SECURITY THERMOSTATE
	PRESSURE RELIEF DAMPER
	SPACE HEATER
HSS-77-XXX	ELECTRICAL HEATER
HHC-77-XXX	HEATING CABLE
PT	DIFFERENTIAL PRESSURE TRANSMITTER

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 heating cable with anti-freeze funcion to avoid ice inside pipes when outside temeprature reaches values close to 0°C.
- Outdoor air ductworks in stainless steel AISI 316

OUTDOOR DESIGN CONDITIONS
Safe Area
Min. design DB Temp: -8.4°C with RH 100 %
Max. design DB Temp: +25°C with RH 90 %

B-400 Module I&T Equipment Room
Safe Area
Indoor min. design temperature: +15°C with RH 30-: 70%
Indor max. design temperature: +25°C with RH 30 ÷ 70%
Min. ACH: 6

NOTES

LEGEND

HOLDS

ALEXSISTEMI spa

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
4	06/02/25	S.Z.	S.S.	M.G.	ISSUE FOR INFORMATION (IFI)
3	03/12/24	S.Z.	S.S.	M.G.	ISSUE FOR INFORMATION (IFI)
2	29/10/24	S.Z.	S.S.	M.G.	ISSUE FOR INFORMATION (IFI)
1	09/07/24	S.Z.	S.S.	M.G.	ISSUE FOR INFORMATION (IFI)
0	10/06/24	S.Z.	S.S.	M.G.	ISSUE FOR INFORMATION (IFI)

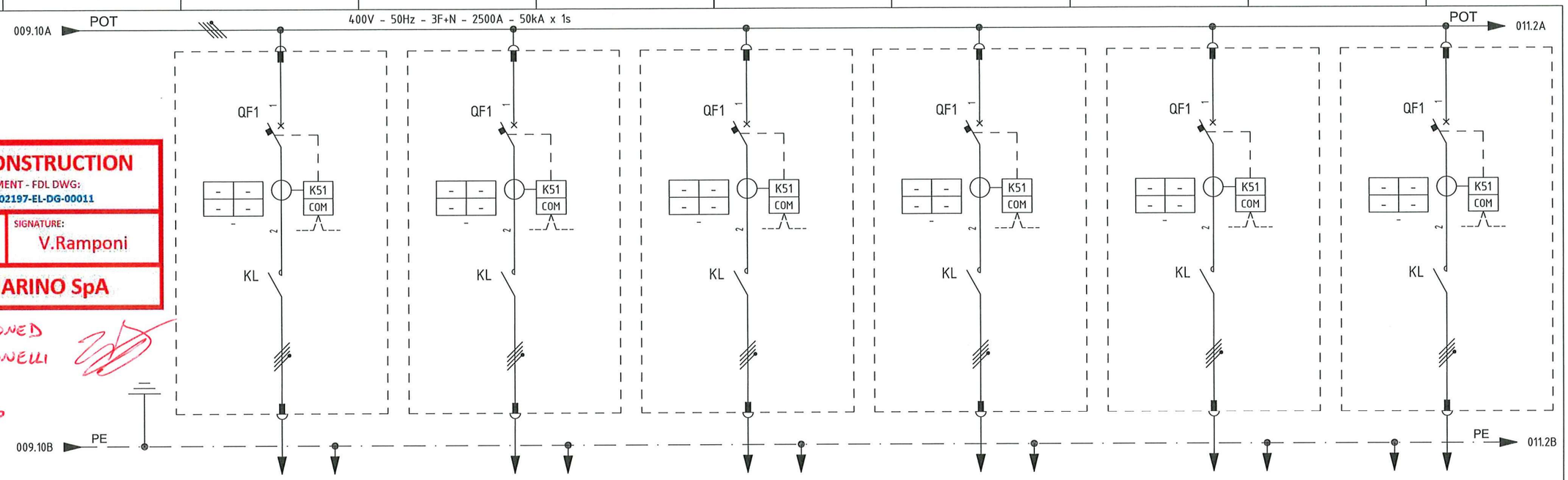
CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT 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 27/01/25
A1	DRAWING NO. 1724000049-HV-PID-00042	SHEET 003	REV. 4

File Name : 1724000049-HV-PID-00042



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

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

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
=					
+					
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)

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 010

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 77-40 HVAC I&T Equipment Room B-400

Mechanical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000518	A	B-400	Confirm with the compressor manufacturer whether starting the compressor without preheating the oil could cause damage	based on the manufacturer's response, either take no action or ensure the electric heater is powered by a UPS. If electric heaters are	Probe installed. Compressor has been insulated. Temperature setting 20°C as	SLinari 2024-10-30	Vendor 2025-02-22	SLinari 2025-02-22	2025-02-22
C30000519	A	B-400	Confirm with the compressor manufacturer whether starting the compressor without preheating the oil could cause damage	based on the manufacturer's response, either take no action or ensure the electric heater is powered by a UPS. If electric heaters are	Probe installed. Compressor has been insulated. Temperature setting 20°C as	SLinari 2024-10-30	Vendor 2025-02-22	SLinari 2025-02-22	2025-02-22
C30000551	A	B400-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
C30000017	B	B-400	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
C30000021	B	B-400	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
C30000049	B	B-400	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
C30000182	B	B-400 C10002307	Holes not used for heaters installation on shelter need to be restored. (see attachment)	-		Gtangianu 2024-10-15	2025-04-09	Gtangianu 2025-04-09	2025-04-09
C30000194	B	B-400 C10002307	(Open during WD) Cleaning is required on rooftop	-		Ecarotenuto 2024-10-16	2025-04-04	Gtangianu 2025-04-04	2025-04-04
C30000543	B	B-400	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

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-40 HVAC I&T Equipment Room B-400

Mechanical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000547	B	B-400	None pressure relief damper HDR-77-401 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.	ON FRIDAY 25TH JULY, HVAC VENDOR SPECIALIST	SLinari 2024-10-30	AIveson 2025-07-26	AIveson 2025-07-26	2025-07-26
C30000555	B	B-400	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
C30000559	B	B-400	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
C30000563	B	B-400	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
C30004327	B	B-400	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

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-40 HVAC I&T Equipment Room B-400

Electrical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000531	A	B400-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
C30000535	A	B400-HSB-001	The modbus I/O list have been updated during SAT, due to changes needed. During SAT activities several signals have not been checked.	Revise and issue on fusion live the HVAC I/O list documents for each HVAC panel. Before commissioning activities, all signals shall be	Check 100% of signals with Yokogawa. Communication work	SLinari 2024-10-30	Vendor 2025-02-22	SLinari 2025-02-22	2025-02-22
C30000025	B	B-400	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
C30000029	B	B-400	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
C30000033	B	B-400	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
C30000037	B	B-400	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
C30000041	B	B-400	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
C30000045	B	B-400	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 PICTURE	SLinari 2024-08-02	SLinari 2024-12-05	SLinari 2024-12-05	2024-12-05
C30000053	B	B-400	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 77-40 HVAC I&T Equipment Room B-400

Electrical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000087	B	B-400	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
C30000091	B	B-400	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
C30000095	B	B-400	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
C30000121	B	A5/+04-QF1 C10002879	New and definitive protection setting to be implemented on SG-200N1 drawer A5/+04.	Update the protection setting.	The definitive setting has been updated.	MGirotti 2024-10-01	MGirotti 2024-11-21	MGirotti 2024-11-21	2024-11-21
C30000179	B	83026-CEL C10000551	Cable to be fixed with proper cable ties o all internal and external routing.	-		Gtangianu 2024-10-15	2025-01-07	Gtangianu 2025-01-07	2025-01-07
C30000180	B	83026-CEL C10000551	Missing cable tags on all internal and external routing and inside both panels (SG-200N1 - B400-HSB-001)	-		Gtangianu 2024-10-15	2025-01-30	APolo 2025-01-30	2025-01-30
C30000181	B	83026-CEL C10000551	Missing identification number of terminal trip XP1 inside the panel B400-HSB-001	-		Gtangianu 2024-10-15	2025-04-09	Gtangianu 2025-04-09	2025-04-09
C30000183	B	B-400 C10002305	All HVAC cables need to be dressed and fixed properly inside internal cable trays	-		Gtangianu 2024-10-15	2025-02-15	Ecarotenuto 2025-02-15	2025-02-15
C30000185	B	B400-HSB-001 C10000840	Black Thermoshrink is used on earthing connection inside the panel.	.		Gtangianu 2024-10-15	2024-12-03	Ecarotenuto 2024-12-03	2024-12-03

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-40 HVAC I&T Equipment Room B-400

Electrical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000523	B	B400-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
C30000527	B	B400-HSB-001	Add an auxiliary IP address in addition to those already provided for each CPU, to allow communication and signals exchange between	Update software on all PLCs to enable switching to the standby CPU without losing the necessary communications	Implemented	SLinari 2024-10-30	Vendor 2025-02-20	SLinari 2025-02-20	2025-02-20
C30000539	B	B400-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
C30000811	B	84317-CEL C10000593	Missing SS cable tags on MCT B-300 side	.		Pschintu 2024-11-23	2025-01-30	APolo 2025-01-30	2025-01-30

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-40 HVAC I&T Equipment Room B-400

Telecom

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30001102	A	B400-HSB-001/ B400-NET-001 C10004777	The copper conductor of the cable armor must be individually connected to the earthing bar. B400-HSB-001. See 123A90-DDL-EL-DD-20090.	.		Ecarotenuto 2024-11-30	2024-12-04	Ecarotenuto 2024-12-04	2024-12-04
C30001101	B	B400-HSB-001/ B400-NET-001 C10004777	Missing cable tag by B400-HSB-001 side	.		Ecarotenuto 2024-11-30	2025-02-22	JKrizanic 2025-02-22	2025-02-22

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-40 HVAC I&T Equipment Room B-400

HVAC

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000057	B	B-400	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. C30000563	SLinari 2024-08-02	SLinari 2025-02-06	SLinari 2025-02-06	2025-02-06
C30000061	B	B-400	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
C30000065	B	B-400	HVAC Systems to be completely checked on B-400. Unit hasn't been completed yet. All notes/remarks are indicated in the FAT		TEST COMPLETED . SEE REPORTS	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000067	B	B-400	B-400 HVAC Unit wirings must be completed at RM yard		COMPLETED	SLinari 2024-08-02	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000071	B	B-400	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
C30000075	B	B-400	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
C30000079	B	B-400	Drain pipes and heating cables are missing, since they must be necessary instalied on site to avoid damages. To be completed at RM yard		installed	SLinari 2024-08-02	SLinari 2025-02-06	SLinari 2025-02-06	2025-02-06
C30000083	B	B-400	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 77-40 HVAC I&T Equipment Room B-400

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000184	B	B-400 C10002306	77-TP-401 INSTRUMENT IS NOT ACCESIBLE FOR MAINTENANCE.	-	POINT CLOSED - INSTRUMENT IS FREE FOR MAINTENANCE	Gtangianu 2024-10-15	SLinari 2024-10-29	SLinari 2024-10-29	2024-10-29
C30000186	B	77-HS-012A C10002099	Fixing System of instrument on unistrut is not as per typical : 123A90-DDL-IN-DD-40017, sh.047 refer to POS.16. All bolts need to be replaced	-		Gtangianu 2024-10-15	2024-11-23	Lmussi 2024-11-23	2024-11-23
C30000187	B	77-HS-012A C10002099	EARTHING BAR SHALL BE CONNECTED TO EARTHING POINT IN N.1 POINT WITH 35sqmm Y/G CABLE. Point valid for both internal and	-		Gtangianu 2024-10-15	2024-12-28	Gtangianu 2024-12-28	2024-12-28
C30000188	B	77-HS-012A C10002099	Elevation of instrument and cable tray L-150-101-IST-088 are not in accordance with Layout. See attachment	-		Gtangianu 2024-10-15	2025-01-30	APolo 2025-01-30	2025-01-30
C30000189	B	C-77-HY-016/77 -HS-016A C10000436	Cable is not alligned at HS cable gland entry, to be better dressed.	-		Gtangianu 2024-10-15	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000190	B	C-77-HS-016A/7 7-HS-016B C10000435	Cable is not alligned at HS cable gland entry, to be better dressed	.		Gtangianu 2024-10-15	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000191	B	C-77-HS-014A/7 7-HS-014B C10000427	Missing SS cable tag on MCT entry external side.	-		Gtangianu 2024-10-15	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000192	B	C-77-HS-013A/7 7-HS-013B C10000423	Missing SS cable tag on MCT entry external side.	.		Gtangianu 2024-10-15	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14
C30000193	B	C-77-HS-012A/7 7-HS-012B C10000419	Missing plastic cable tags on MCT entry internal side. Point valid for all HS cables.	.		Gtangianu 2024-10-15	2024-12-14	Ecarotenuto 2024-12-14	2024-12-14

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation
SUBSYSTEM 77-40 HVAC I&T Equipment Room B-400

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000776	B	C-77-ZSL-012/B 400-FGS-003 C10000421	Missing core identification tags inside B400-HSB-001	.		Pschintu 2024-11-22	2024-12-17	Gtangianu 2024-12-17	2024-12-17
C30000777	B	C-77-ZSL-012/B 400-FGS-003 C10000421	All cable tags are wrong.	.		Pschintu 2024-11-22	2025-01-03	Gtangianu 2025-01-03	2025-01-03
C30000778	B	C-77-ZSL-013/B 400-FGS-003 C10000425	Missing core identification tags inside B400-HSB-001	.		Pschintu 2024-11-22	2024-12-17	Gtangianu 2024-12-17	2024-12-17
C30000779	B	C-77-ZSL-013/B 400-FGS-003 C10000425	All cable tags are wrong.	.		Pschintu 2024-11-22	2025-01-03	Gtangianu 2025-01-03	2025-01-03
C30000780	B	C-77-ZSL-014/B 400-FGS-003 C10000429	Missing core identification tags inside B400-HSB-001	.		Pschintu 2024-11-22	2024-12-17	Gtangianu 2024-12-17	2024-12-17
C30000781	B	C-77-ZSL-014/B 400-FGS-003 C10000429	All cable tags are wrong.	.		Pschintu 2024-11-22	2025-01-03	Gtangianu 2025-01-03	2025-01-03
C30000782	B	C-77-ZSL-015/B 400-FGS-003 C10000433	Missing core identification tags inside B400-HSB-001	.		Pschintu 2024-11-22	2024-12-17	Gtangianu 2024-12-17	2024-12-17
C30000783	B	C-77-ZSL-015/B 400-FGS-003 C10000433	All cable tags are wrong.	.		Pschintu 2024-11-22	2025-01-03	Gtangianu 2025-01-03	2025-01-03
C30000784	B	C-77-ZSL-016/B 400-FGS-003 C10001433	All cable tags are wrong.	.		Pschintu 2024-11-22	2025-01-03	Gtangianu 2025-01-03	2025-01-03

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-40 HVAC I&T Equipment Room B-400

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000785	B	C-77-ZSL-016/B 400-FGS-003 C10001433	Missing core identification tags inside B400-HSB-001	.		Pschintu 2024-11-22	2025-05-22	Gtangianu 2025-05-22	2025-05-22
C30000796	B	C-77-HS-016B/ B400-FGS-002 C10000434	Missing cable tag inside the panel B400-FGS-002	.		Pschintu 2024-11-23	2024-12-11	Pschintu 2024-12-11	2024-12-11
C30000797	B	C-77-HS-012B/ B400-FGS-002 C10000418	Missing cable tag inside the panel B400-FGS-002	.		Pschintu 2024-11-23	2024-12-11	Pschintu 2024-12-11	2024-12-11
C30000798	B	C-77-HS-013B/ B400-FGS-002 C10000422	Missing cable tag inside the panel B400-FGS-002	.		Pschintu 2024-11-23	2024-12-11	Pschintu 2024-12-11	2024-12-11
C30000799	B	C-77-HS-014B/ B400-FGS-002 C10000426	Missing cable tag inside the panel B400-FGS-002	.		Pschintu 2024-11-23	2024-12-11	Pschintu 2024-12-11	2024-12-11
C30000800	B	C-77-HS-015B/ B400-FGS-002 C10000430	Missing cable tag inside the panel B400-FGS-002	.		Pschintu 2024-11-23	2024-12-11	Pschintu 2024-12-11	2024-12-11
C30000801	B	C-77-HS-016B/ B400-FGS-002 C10000434	Missing core identification tag inside the panel B400-FGS-002	.		Pschintu 2024-11-23	2024-12-11	Pschintu 2024-12-11	2024-12-11
C30000802	B	C-77-HS-012B/ B400-FGS-002 C10000418	Missing core identification tag inside the panel B400-FGS-002	.		Pschintu 2024-11-23	2024-12-11	Pschintu 2024-12-11	2024-12-11
C30000803	B	C-77-HS-013B/ B400-FGS-002 C10000422	Missing core identification tag inside the panel B400-FGS-002	.		Pschintu 2024-11-23	2024-12-11	Pschintu 2024-12-11	2024-12-11

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-40 HVAC I&T Equipment Room B-400

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000804	B	C-77-HS-015B/ B400-FGS-002 C10000430	Missing core identification tag inside the panel B400-FGS-002	.		Pschintu 2024-11-23	2024-12-17	Gtangianu 2024-12-17	2024-12-17
C30000805	B	C-77-HS-014B/ B400-FGS-002 C10000426	Missing core identification tag inside the panel B400-FGS-002	.		Pschintu 2024-11-23	2024-12-17	Gtangianu 2024-12-17	2024-12-17
C30000983	B	C-77-XS-004/B400-SIS-001 C10000183	Missing core identification tags on both cable termination	.		Pschintu 2024-11-28	2025-05-22	Gtangianu 2025-05-22	2025-05-22
C30000984	B	C-77-XS-004/B400-SIS-001 C10000183	Missing cable tag all along the route	.		Pschintu 2024-11-28	2025-02-04	Pschintu 2025-02-04	2025-02-04
C30000986	B	C-77-XA-004/B400-SIS-001 C10000187	Missing core identification tags on both cable termination	.		Pschintu 2024-11-28	2025-05-22	Gtangianu 2025-05-22	2025-05-22
C30000987	B	C-77-XA-004/B400-SIS-001 C10000187	Missing cable tag all along the route	.		Pschintu 2024-11-28	2025-02-04	Pschintu 2025-02-04	2025-02-04

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000802

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000418	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-012B/B400-FGS-002	PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

Missing core identification tag inside the panel B400-FGS-002

Name: Paolo Schintu

Date: 2024-11-23

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Paolo Schintu
3.4 Activity code	MC Mechanical Completion	Date	2024-11-23
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done.

Name: Paolo Schintu

Date: 2024-12-11

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000803

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000422	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-013B/B400-FGS-002	PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

Missing core identification tag inside the panel B400-FGS-002

Name: Paolo Schintu

Date: 2024-11-23

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Paolo Schintu
3.4 Activity code	MC Mechanical Completion	Date	2024-11-23
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done.

Name: Paolo Schintu

Date: 2024-12-11

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000804

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000430	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-015B/B400-FGS-002	PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

Missing core identification tag inside the panel B400-FGS-002

Name: Paolo Schintu

Date: 2024-11-23

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Paolo Schintu
3.4 Activity code	MC Mechanical Completion	Date	2024-11-23
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

C30000805

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000426	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-014B/B400-FGS-002	PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

Missing core identification tag inside the panel B400-FGS-002

Name: Paolo Schintu

Date: 2024-11-23

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Paolo Schintu
3.4 Activity code	MC Mechanical Completion	Date	2024-11-23
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

C30000811

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000593	1.4 Discipline	Electrical
1.2 Item	84317-CEL	AC UPS - PAS DB / UCP - HVAC ITER	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

Missing SS cable tags on MCT B-300 side

Name: Paolo Schintu

Date: 2024-11-23

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Paolo Schintu
3.4 Activity code	MC Mechanical Completion	Date	2024-11-23
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

C30000983

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000183	1.4 Discipline	Instrumental
1.2 Item	C-77-XS-004/B400-SIS-001	TRIP SIGNAL TO UCP / MARSHALLING PCS	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

Missing core identification tags on both cable termination

Name: Paolo Schintu

Date: 2024-11-28

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Paolo Schintu
3.4 Activity code	MC Mechanical Completion	Date	2024-11-28
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Installed

Name: Giovanni Tangianu

Date: 2025-05-22

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000984

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000183	1.4 Discipline	Instrumental
1.2 Item	C-77-XS-004/B400-SIS-001	TRIP SIGNAL TO UCP / MARSHALLING PCS	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

Missing cable tag all along the route

Name: Paolo Schintu

Date: 2024-11-28

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Paolo Schintu
3.4 Activity code	MC Mechanical Completion	Date	2024-11-28
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Paolo Schintu

Date: 2025-02-04

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000986

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000187	1.4 Discipline	Instrumental
1.2 Item	C-77-XA-004/B400-SIS-001	UCP FAULT ALARM / MARSHALLING PCS	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

Missing core identification tags on both cable termination

Name: Paolo Schintu

Date: 2024-11-28

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Paolo Schintu
3.4 Activity code	MC Mechanical Completion	Date	2024-11-28
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Installed.

Name: Giovanni Tangianu

Date: 2025-05-22

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000987

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000187	1.4 Discipline	Instrumental
1.2 Item	C-77-XA-004/B400-SIS-001	UCP FAULT ALARM / MARSHALLING PCS	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

Missing cable tag all along the route

Name: Paolo Schintu

Date: 2024-11-28

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Paolo Schintu
3.4 Activity code	MC Mechanical Completion	Date	2024-11-28
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Paolo Schintu

Date: 2025-02-04

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001101

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10004777	1.4 Discipline	Telecom
1.2 Item	B400-HSB-001/B400-NET-001	Distribution & HVAC Panel/Network Cabinet	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

Missing cable tag by B400-HSB-001 side

Name: Eleonora Carotenuto

Date: 2024-11-30

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Eleonora Carotenuto
3.4 Activity code	MC Mechanical Completion	Date	2024-11-30
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Josip Krizanic

Date: 2025-02-22

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001102

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10004777	1.4 Discipline	Telecom
1.2 Item	B400-HSB-001/B400-NET-001	Distribution & HVAC Panel/Network Cabinet	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

The copper conductor of the cable armor must be individually connected to the earthing bar. B400-HSB-001. See 123A90-DDL-EL-DD-20090.

Name: Eleonora Carotenuto
Date: 2024-11-30
Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	A PL A	Name	Eleonora Carotenuto
3.4 Activity code	MC Mechanical Completion	Date	2024-11-30
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

done

Name: Eleonora Carotenuto
Date: 2024-12-04
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004327

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	B-400		I&T Equipment Room B-400
1.3 Subsystem	77-40		HVAC I&T Equipment Room B-400

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

C30000184

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002306	1.4 Discipline	Instrumental
1.2 Item	B-400	I&T Equipment Room B-400	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

77-TP-401 INSTRUMENT IS NOT ACCESIBLE FOR MAINTENANCE.

Name: Giovanni Tangianu
Date: 2024-10-15
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	2024-10-15
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

C30000185

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000840	1.4 Discipline	Electrical
1.2 Item	B400-HSB-001	Distribution & HVAC Panel - I&T Equipment Room	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

Black Thermoshrink is used on earthing connection inside the panel.

Name: Giovanni Tangianu

Date: 2024-10-15

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	2024-10-15
3.5 Action by	VND Vendor	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Duplicate point. See PI n°C30000523

Name: Eleonora Carotenuto

Date: 2024-12-03

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000186

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002099	1.4 Discipline	Instrumental
1.2 Item	77-HS-012A		Hand Switch for Fire&Gas Damper HFD-77012
1.3 Subsystem	77-40		HVAC I&T Equipment Room B-400

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 all HS of B-400 (internal and external).

Name: Giovanni Tangianu

Date: 2024-10-15

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	2024-10-15
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:

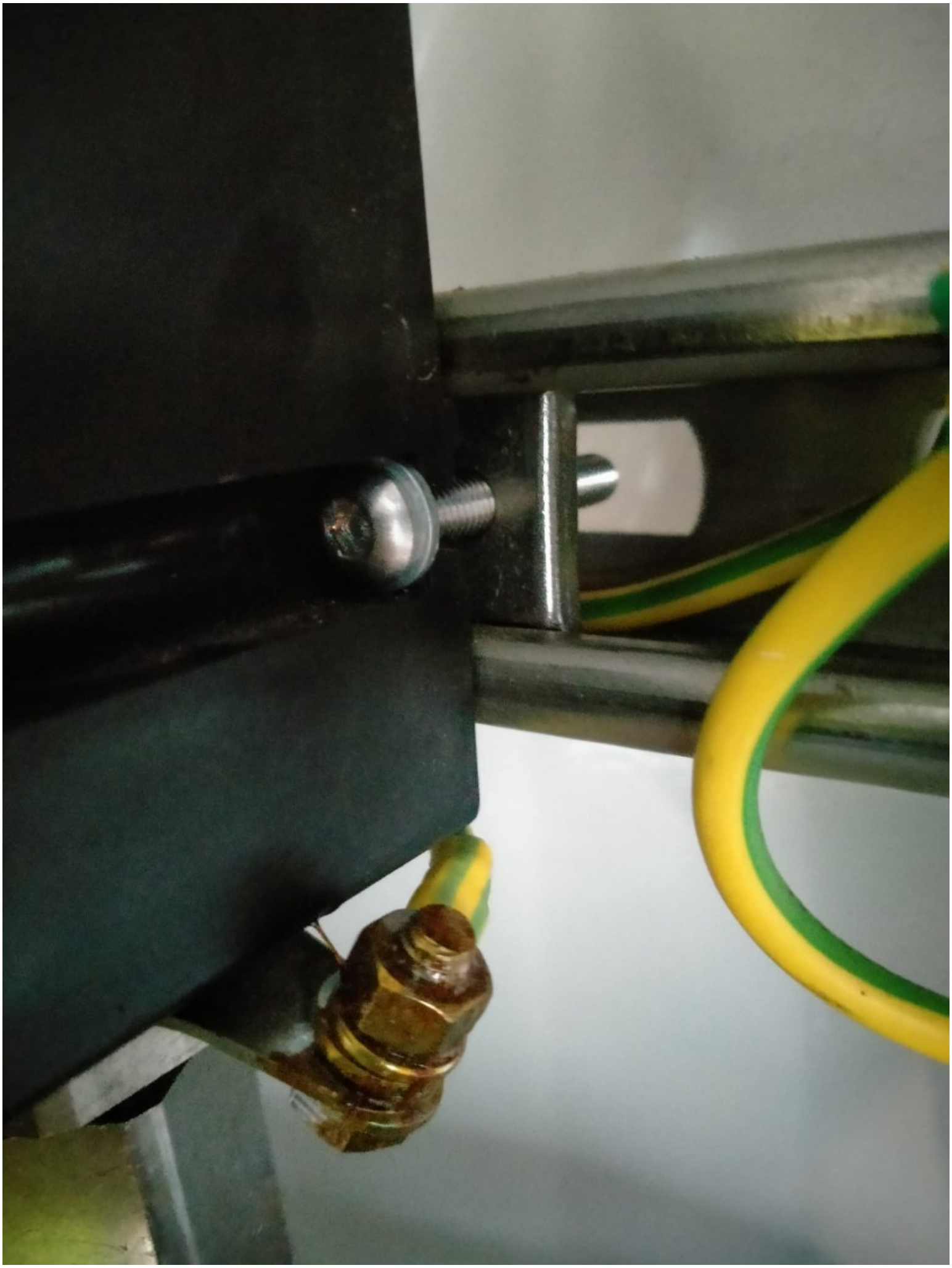
6- CLEARANCE APPROVAL

Name:

Date:

Signature:


77-HS-012B
77-HS-014B
77-HS-015B





ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000187

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002099	1.4 Discipline	Instrumental
1.2 Item	77-HS-012A		Hand Switch for Fire&Gas Damper HFD-77012
1.3 Subsystem	77-40		HVAC I&T Equipment Room B-400

2 - OBSERVATION

EARTHING BAR SHALL BE CONNECTED TO EARTHING POINT IN N.1 POINT WITH 35sqmm Y/G CABLE. Point valid for both internal and external BTM installed on cable tray.

Name: Giovanni Tangianu
Date: 2024-10-15
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	2024-10-15
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

C30000188

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002099	1.4 Discipline	Instrumental
1.2 Item	77-HS-012A		Hand Switch for Fire&Gas Damper HFD-77012
1.3 Subsystem	77-40		HVAC I&T Equipment Room B-400

2 - OBSERVATION

Elevation of instrument and cable tray L-150-101-IST-088 are not in accordance with Layout.
See attachment

Name: Giovanni Tangianu
Date: 2024-10-15
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	2024-10-15
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

DONE

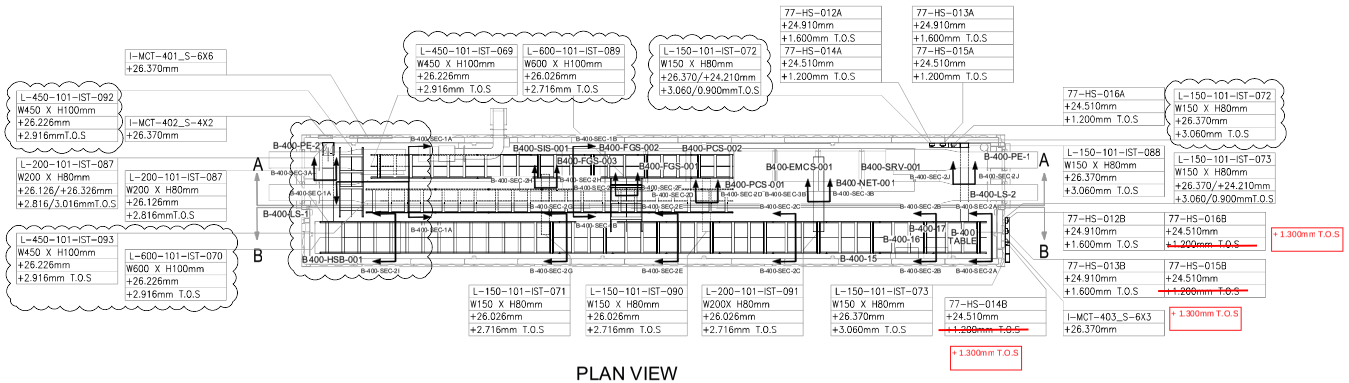
Name: Alessio Polo
Date: 2025-01-30
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:

DRAWING NO. 123A90-DDL-IN-DL-40116

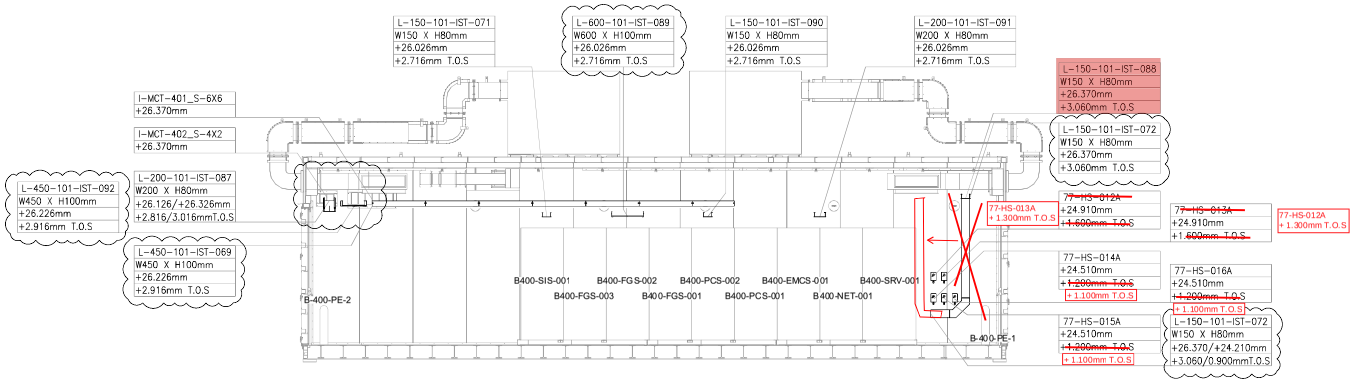
REV. 01



PLAN VIEW

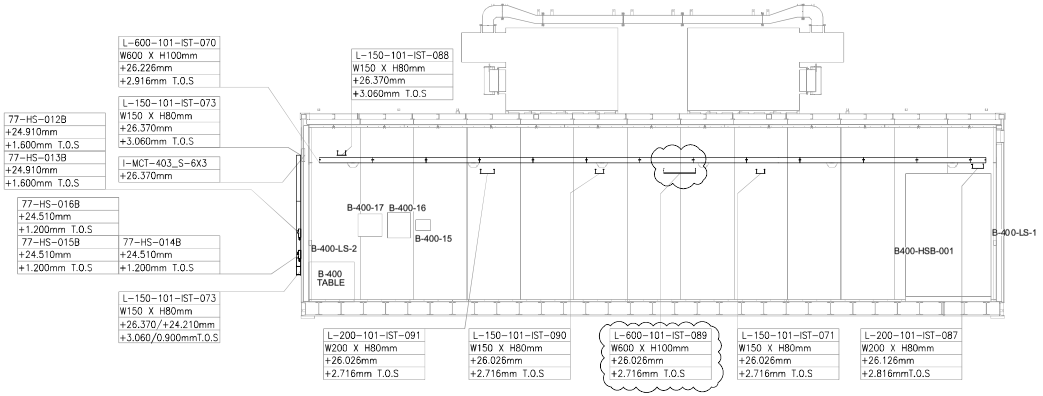
B-400 – I&T EQUIPMENT ROOM

SCALE–1:1



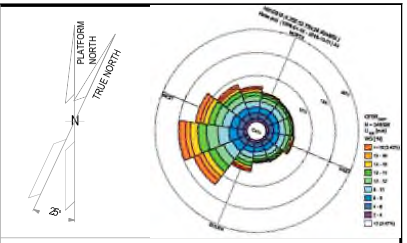
SECTION A-A

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

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-400 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-40116	SHEET 001	REV. 01

File Name : 123A90-DDL-IN-DL-40116 REV01.dwg

VALID FOR CONSTRUCTION

FDL DWG: 123A90-FDL-IN-DL-40116

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

ROSETTI MARINO SpA

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000189

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000436	1.4 Discipline	Instrumental
1.2 Item	C-77-HY-016/77-HS-016A	FIRE DAMPER / MARSHALLING PCS	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

Cable is not alligned at HS cable gland entry, to be better dressed.

Name: Giovanni Tangianu
Date: 2024-10-15
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	2024-10-15
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

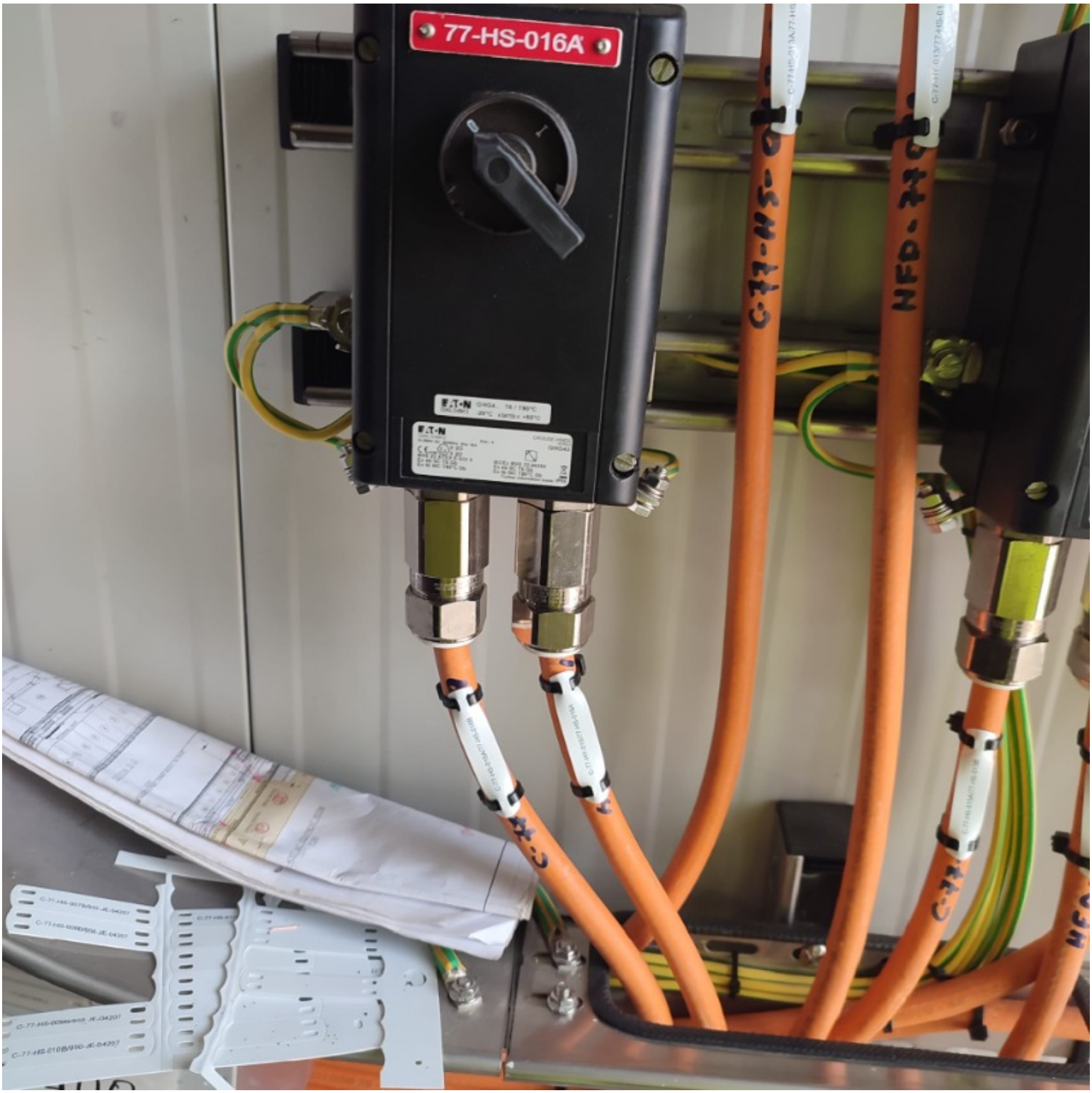
5 - CLEARANCE CHECK

done

Name: Eleonora Carotenuto
Date: 2024-12-14
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:


77-HS-016A

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000190

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000435	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-016A/77-HS-016B	PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

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

Name: Giovanni Tangianu
Date: 2024-10-15
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	2024-10-15
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

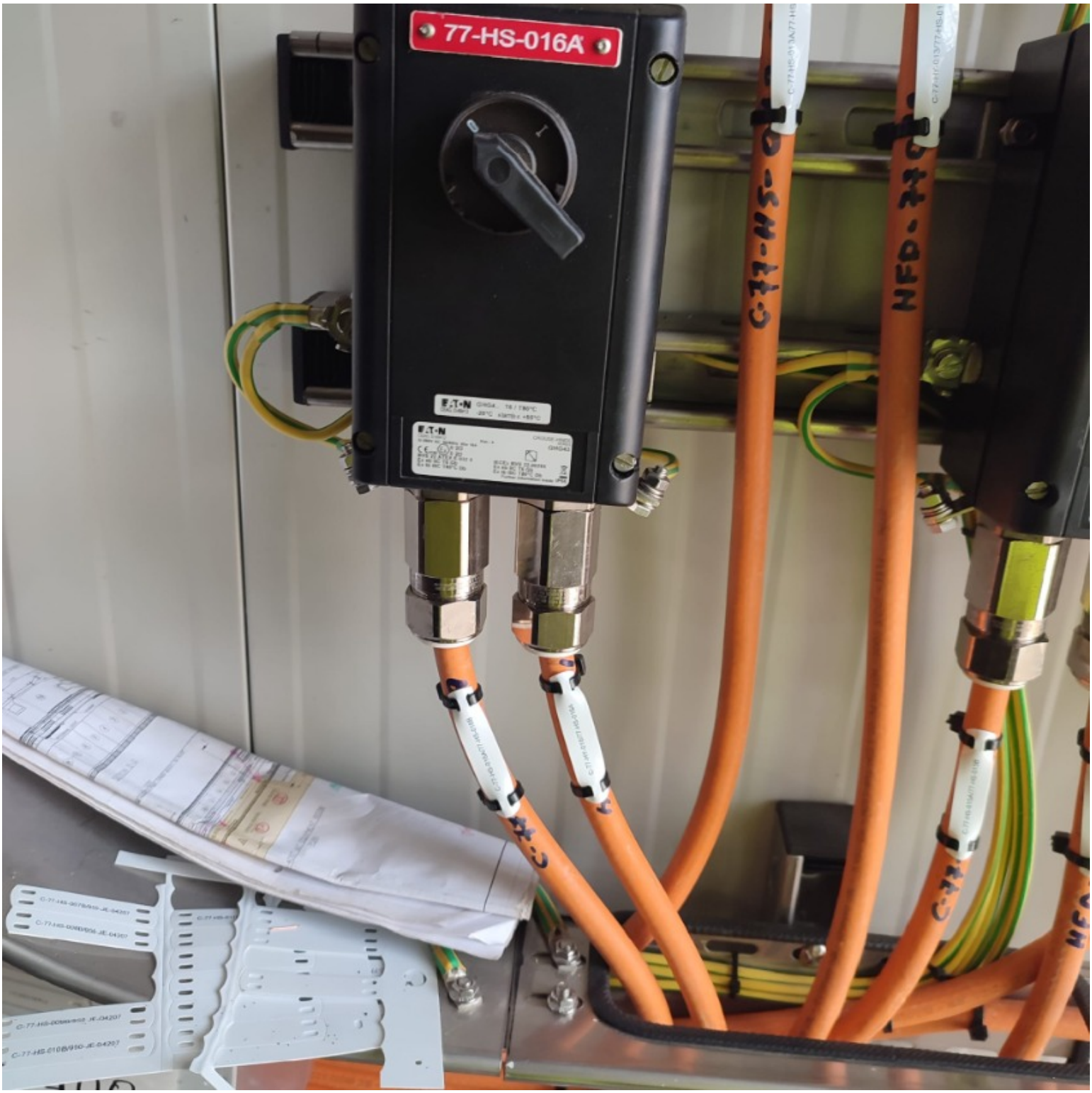
5 - CLEARANCE CHECK

done

Name: Eleonora Carotenuto
Date: 2024-12-14
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:


77-HS-016A

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000191

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000427	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-014A/77-HS-014B	PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

Missing SS cable tag on MCT entry external side.

Name: Giovanni Tangianu

Date: 2024-10-15

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	2024-10-15
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

C30000192

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000423	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-013A/77-HS-013B	PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

Missing SS cable tag on MCT entry external side.

Name: Giovanni Tangianu

Date: 2024-10-15

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	2024-10-15
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

C30000193

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000419	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-012A/77-HS-012B	PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

Missing plastic cable tags on MCT entry internal side. Point valid for all HS cables.

Name: Giovanni Tangianu
Date: 2024-10-15
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	2024-10-15
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

C30000194

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002307	1.4 Discipline	Mechanical
1.2 Item	B-400		I&T Equipment Room B-400
1.3 Subsystem	77-40		HVAC I&T Equipment Room B-400

2 - OBSERVATION

(Open during WD) Cleaning is required on rooftop

Name: Eleonora Carotenuto

Date: 2024-10-16

Signature:

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Eleonora Carotenuto
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: 2025-04-04

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000518

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	B-400		I&T Equipment Room B-400
1.3 Subsystem	77-40		HVAC I&T Equipment Room B-400

2 - OBSERVATION

Confirm with the compressor manufacturer whether starting the compressor without preheating the oil could cause damage (HSS-77-404)

Name

Date

Signature

3 - DEFECT ASSESSMENT

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

4 - PERFORMED ACTION

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

Name Vendor Crosswind

Date 2025-02-22

Signature

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

C30000519

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	B-400		I&T Equipment Room B-400
1.3 Subsystem	77-40		HVAC I&T Equipment Room B-400

2 - OBSERVATION

Confirm with the compressor manufacturer whether starting the compressor without preheating the oil could cause damage (HSS-77-408)

Name

Date

Signature

3 - DEFECT ASSESSMENT

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

4 - PERFORMED ACTION

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

Name Vendor Crosswind

Date 2025-02-22

Signature

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

C30000523

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B400-HSB-001		Distribution & HVAC Panel - I&T Equipment Room
1.3 Subsystem	77-40		HVAC I&T Equipment Room B-400

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

C30000527

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B400-HSB-001		Distribution & HVAC Panel - I&T Equipment Room
1.3 Subsystem	77-40		HVAC I&T Equipment Room B-400

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 2025-02-20

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

C30000531

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B400-HSB-001		Distribution & HVAC Panel - I&T Equipment Room
1.3 Subsystem	77-40		HVAC I&T Equipment Room B-400

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

C30000535

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B400-HSB-001		Distribution & HVAC Panel - I&T Equipment Room
1.3 Subsystem	77-40		HVAC I&T Equipment Room B-400

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

Check 100% of signals with Yokogawa. 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

C30000539

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B400-HSB-001		Distribution & HVAC Panel - I&T Equipment Room
1.3 Subsystem	77-40		HVAC I&T Equipment Room B-400

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

C30000543

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	B-400		I&T Equipment Room B-400
1.3 Subsystem	77-40		HVAC I&T Equipment Room B-400

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

C30000547

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	B-400		I&T Equipment Room B-400
1.3 Subsystem	77-40		HVAC I&T Equipment Room B-400

2 - OBSERVATION

None pressure relief damper HDR-77-401 work properly as per design conditions. They remain closed even thogh inside the shelters more then 50 Pa have been measured during SAT through the differential pressure transmitters (with fans running). SAT was conducted by manually positioning the dampers as they dhould appear when operating correctly (slightly open)

Name

Date

Signature

3 - DEFECT ASSESSMENT

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

4 - PERFORMED ACTION

ON FRIDAY 25TH JULY, HVAC VENDOR SPECIALIST FRIGOTERMICA (SUPPLIER TO TECHNICAL ROOMS MANUFACTURER ALEX SISTEMI) RETURNED TO ROSETTI MARINO'S WORKSITE IN RAVENNA TO PERFORM A NEW BALACING CONFIGURATION ON DEDICATED DAMPERS HDB-77-407 AND HDB-77-408. THE BALACING CONFIGURATION PROVIDED A SUCCESSFUL RESULT ENABLING THE TECHNICAL ROOM B-400 INTERNAL OVERPRESSURE TO STABILISE AT THE 50 Pa SET POINT.

Name: Anthony Iveson

Date: 2025-07-26

Signature

5 - CLEARANCE CHECK

PHOTOS OF THE MEASURED OVERPRESSURE VALUES ARE ATTACVAC HED TO THIS FORM, FOR BOTH HVAC UNITS HHU-77007 AND HHU-7708.

Name: Anthony Iveson

Date: 2025-07-26

Signature

6- CLEARANCE APPROVAL

Name

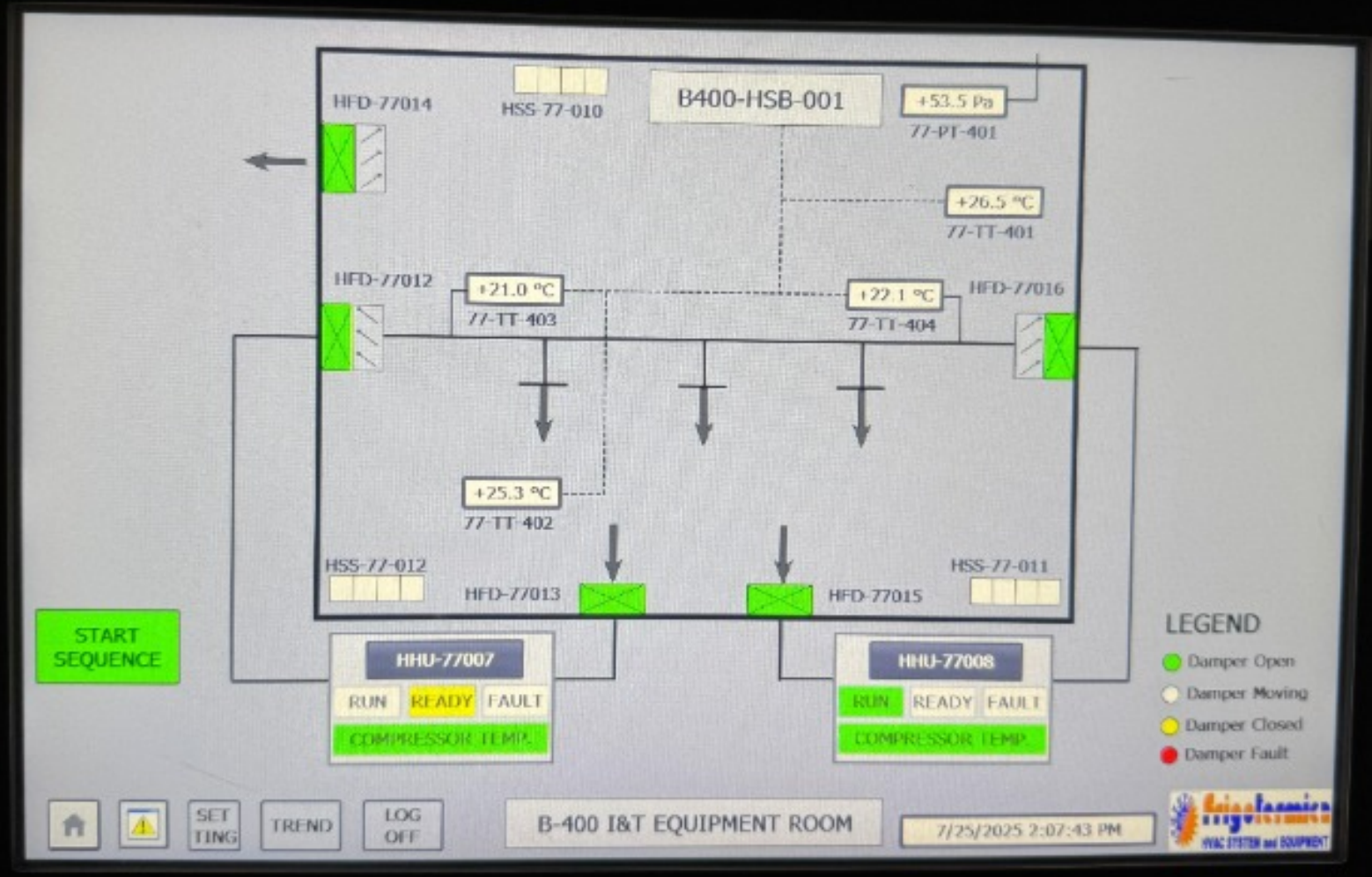
Date: 2025-07-28

Signature


77-PT-401
25-JULY-2025
KEEP COVER TIGHT WHEN CIRCUIT ALIVE
IN EXPLOSIVE ATMOSPHERE
+ 52.8
Pa
HHU-77008

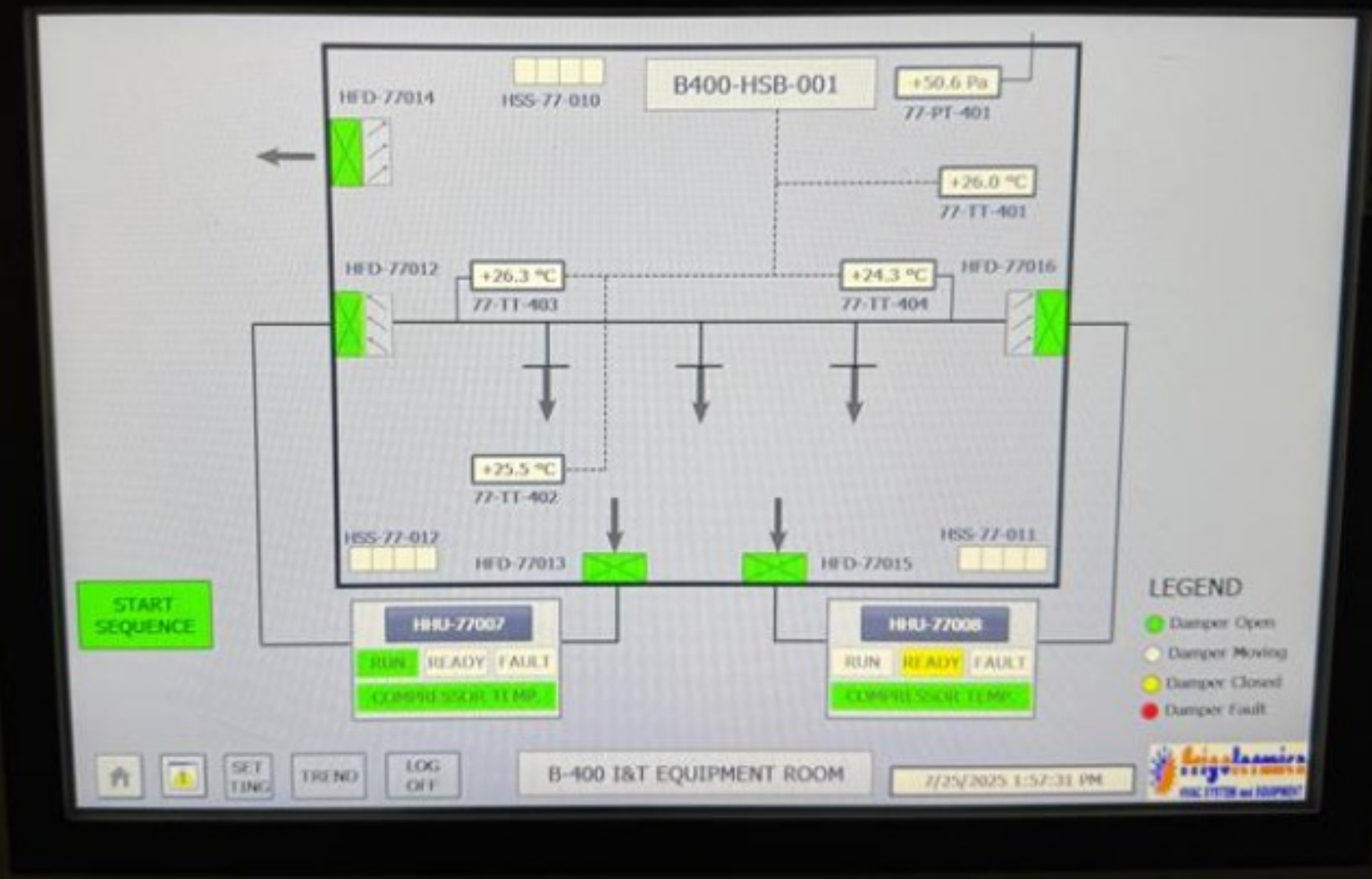
77-PT-401
25-JULY-2025

HHU-77008




77-PT-401
25-JULY-2025
+ 49.8
Pa
IN EXPLOSIVE ATMOSPHERE - KEEP COVER TIGHT WHEN CIRCUIT ALIVE -
HHU-77007

77-PT-401
25-JULY-2025
HHU-77007



ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000551

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	B400-HSB-001		Distribution & HVAC Panel - I&T Equipment Room
1.3 Subsystem	77-40		HVAC I&T Equipment Room B-400

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

C30000555

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	B-400		I&T Equipment Room B-400
1.3 Subsystem	77-40		HVAC I&T Equipment Room B-400

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

C30000559

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	B-400		I&T Equipment Room B-400
1.3 Subsystem	77-40		HVAC I&T Equipment Room B-400

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	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

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

Name ALEX SISTEMI

Date 2025-04-04

Signature

5 - CLEARANCE CHECK

DONE

Name Stefano Linari

Date 2025-04-04

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000563

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	B-400		I&T Equipment Room B-400
1.3 Subsystem	77-40		HVAC I&T Equipment Room B-400

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

C30000776

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000421	1.4 Discipline	Instrumental
1.2 Item	C-77-ZSL-012/B400-FGS-003	PROXIMITY SWITCH / MARSHALLING PCS	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

Missing core identification tags inside B400-HSB-001

Name: Paolo Schintu

Date: 2024-11-22

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Paolo Schintu
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: 2024-12-17

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000777

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000421	1.4 Discipline	Instrumental
1.2 Item	C-77-ZSL-012/B400-FGS-003	PROXIMITY SWITCH / MARSHALLING PCS	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

All cable tags are wrong.

Name: Paolo Schintu
Date: 2024-11-22
Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Paolo Schintu
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

done.

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

6- CLEARANCE APPROVAL

Name:
Date:
Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000778

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000425	1.4 Discipline	Instrumental
1.2 Item	C-77-ZSL-013/B400-FGS-003	PROXIMITY SWITCH / MARSHALLING PCS	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

Missing core identification tags inside B400-HSB-001

Name: Paolo Schintu

Date: 2024-11-22

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Paolo Schintu
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: 2024-12-17

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000779

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000425	1.4 Discipline	Instrumental
1.2 Item	C-77-ZSL-013/B400-FGS-003	PROXIMITY SWITCH / MARSHALLING PCS	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

All cable tags are wrong.

Name: Paolo Schintu

Date: 2024-11-22

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Paolo Schintu
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

Done.

Name: Giovanni Tangianu

Date: 2025-01-03

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000780

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000429	1.4 Discipline	Instrumental
1.2 Item	C-77-ZSL-014/B400-FGS-003	PROXIMITY SWITCH / MARSHALLING PCS	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

Missing core identification tags inside B400-HSB-001

Name: Paolo Schintu

Date: 2024-11-22

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Paolo Schintu
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: 2024-12-17

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000781

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000429	1.4 Discipline	Instrumental
1.2 Item	C-77-ZSL-014/B400-FGS-003	PROXIMITY SWITCH / MARSHALLING PCS	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

All cable tags are wrong.

Name: Paolo Schintu

Date: 2024-11-22

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Paolo Schintu
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

Done.

Name: Giovanni Tangianu

Date: 2025-01-03

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000782

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000433	1.4 Discipline	Instrumental
1.2 Item	C-77-ZSL-015/B400-FGS-003	PROXIMITY SWITCH / MARSHALLING PCS	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

Missing core identification tags inside B400-HSB-001

Name: Paolo Schintu

Date: 2024-11-22

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Paolo Schintu
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: 2024-12-17

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000783

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000433	1.4 Discipline	Instrumental
1.2 Item	C-77-ZSL-015/B400-FGS-003	PROXIMITY SWITCH / MARSHALLING PCS	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

All cable tags are wrong.

Name: Paolo Schintu
Date: 2024-11-22
Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Paolo Schintu
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

Done.

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

6- CLEARANCE APPROVAL

Name:
Date:
Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000784

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10001433	1.4 Discipline	Instrumental
1.2 Item	C-77-ZSL-016/B400-FGS-003	PROXIMITY SWITCH / MARSHALLING PCS	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

All cable tags are wrong.

Name: Paolo Schintu

Date: 2024-11-22

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Paolo Schintu
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

Done.

Name: Giovanni Tangianu

Date: 2025-01-03

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000785

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10001433	1.4 Discipline	Instrumental
1.2 Item	C-77-ZSL-016/B400-FGS-003	PROXIMITY SWITCH / MARSHALLING PCS	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

Missing core identification tags inside B400-HSB-001

Name: Paolo Schintu

Date: 2024-11-22

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Paolo Schintu
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: 2025-05-22

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000796

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000434	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-016B/B400-FGS-002	PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

Missing cable tag inside the panel B400-FGS-002

Name: Paolo Schintu

Date: 2024-11-23

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Paolo Schintu
3.4 Activity code	MC Mechanical Completion	Date	2024-11-23
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done

Name: Paolo Schintu

Date: 2024-12-11

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000797

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000418	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-012B/B400-FGS-002	PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

Missing cable tag inside the panel B400-FGS-002

Name: Paolo Schintu

Date: 2024-11-23

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Paolo Schintu
3.4 Activity code	MC Mechanical Completion	Date	2024-11-23
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done

Name: Paolo Schintu

Date: 2024-12-11

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000798

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000422	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-013B/B400-FGS-002	PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

Missing cable tag inside the panel B400-FGS-002

Name: Paolo Schintu

Date: 2024-11-23

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Paolo Schintu
3.4 Activity code	MC Mechanical Completion	Date	2024-11-23
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done

Name: Paolo Schintu

Date: 2024-12-11

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000799

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000426	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-014B/B400-FGS-002	PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

Missing cable tag inside the panel B400-FGS-002

Name: Paolo Schintu

Date: 2024-11-23

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Paolo Schintu
3.4 Activity code	MC Mechanical Completion	Date	2024-11-23
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done

Name: Paolo Schintu

Date: 2024-12-11

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000800

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000430	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-015B/B400-FGS-002	PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

Missing cable tag inside the panel B400-FGS-002

Name: Paolo Schintu

Date: 2024-11-23

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Paolo Schintu
3.4 Activity code	MC Mechanical Completion	Date	2024-11-23
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done.

Name: Paolo Schintu

Date: 2024-12-11

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000801

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000434	1.4 Discipline	Instrumental
1.2 Item	C-77-HS-016B/B400-FGS-002	PUSH BUTTON / MARSHALLING PCS	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

Missing core identification tag inside the panel B400-FGS-002

Name: Paolo Schintu

Date: 2024-11-23

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Paolo Schintu
3.4 Activity code	MC Mechanical Completion	Date	2024-11-23
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done.

Name: Paolo Schintu

Date: 2024-12-11

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000017

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	B-400		I&T Equipment Room B-400
1.3 Subsystem	90-04		I&T System Equipment Room B-400

2 - OBSERVATION

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

Name

Date

Signature

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

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

4 - PERFORMED ACTION

DONE

Name vendor alex sistemi

Date 2025-02-06

Signature

5 - CLEARANCE CHECK

DONE

Name Stefano Linari

Date 2025-02-06

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature


B-400
I&T EQUIPMENT ROOM

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000021

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	B-400		I&T Equipment Room B-400
1.3 Subsystem	90-04		I&T System Equipment Room B-400

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	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

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

C30000025

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B-400		I&T Equipment Room B-400
1.3 Subsystem	90-04		I&T System Equipment Room B-400

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

C30000029

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B-400		I&T Equipment Room B-400
1.3 Subsystem	90-04		I&T System Equipment Room B-400

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

C30000033

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B-400		I&T Equipment Room B-400
1.3 Subsystem	90-04		I&T System Equipment Room B-400

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

C30000037

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B-400		I&T Equipment Room B-400
1.3 Subsystem	90-04		I&T System Equipment Room B-400

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

C30000041

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B-400		I&T Equipment Room B-400
1.3 Subsystem	90-04		I&T System Equipment Room B-400

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


·B400-HSB-001·



ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000045

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B-400		I&T Equipment Room B-400
1.3 Subsystem	90-04		I&T System Equipment Room B-400

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 PICTURE

Name Stefano Linari

Date 2024-12-05

Signature

5 - CLEARANCE CHECK

ACTIVITY DONE - SEE PICTURE

Name Stefano Linari

Date 2024-12-05

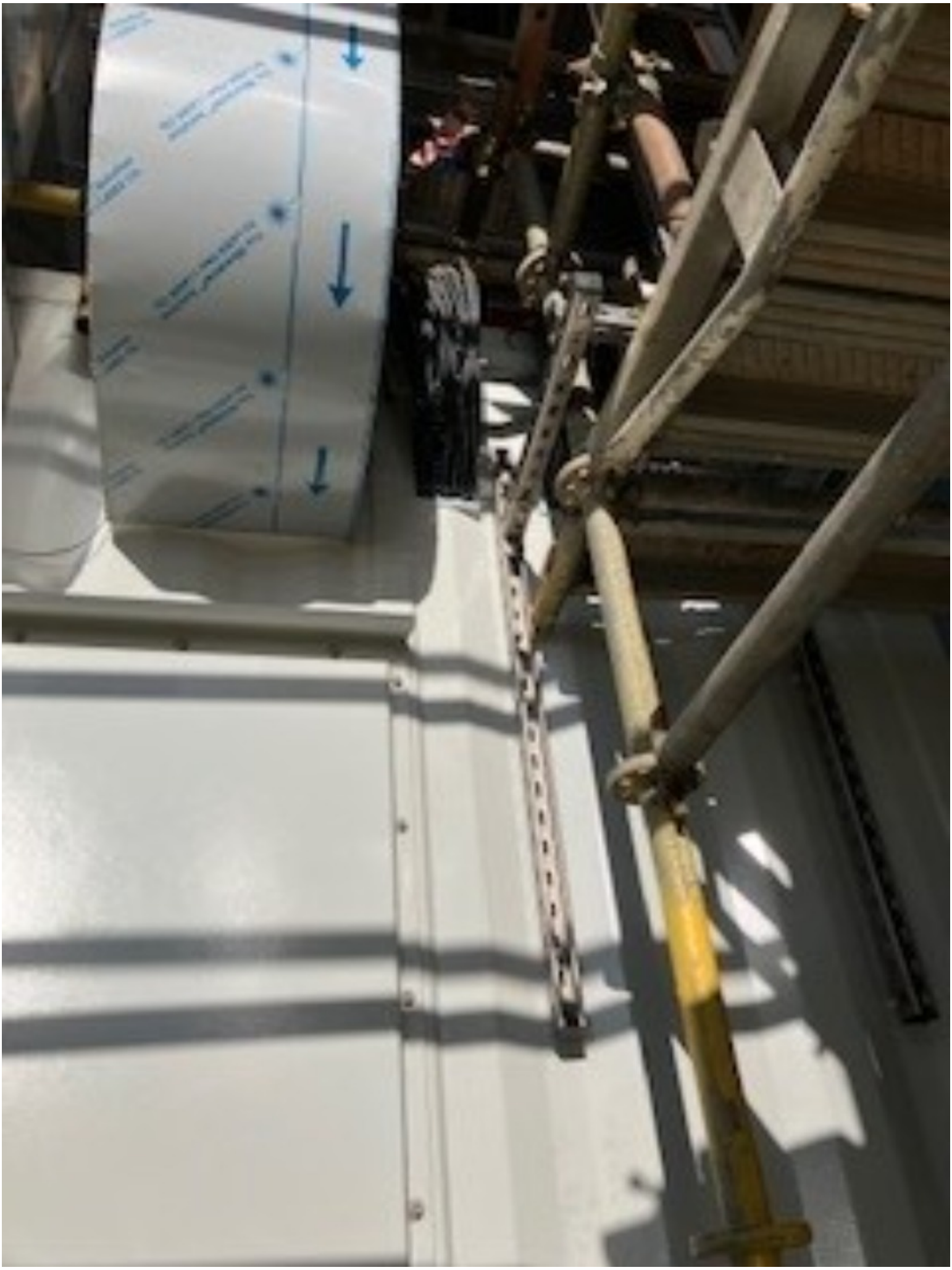
Signature

6- CLEARANCE APPROVAL

Name

Date

Signature



ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000049

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	B-400		I&T Equipment Room B-400
1.3 Subsystem	90-04		I&T System Equipment Room B-400

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

C30000053

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B-400		I&T Equipment Room B-400
1.3 Subsystem	90-04		I&T System Equipment Room B-400

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

C30000057

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	HVAC
1.2 Item	B-400		I&T Equipment Room B-400
1.3 Subsystem	90-04		I&T System Equipment Room B-400

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. C30000563

Name Stefano Linari

Date 2025-02-06

Signature

5 - CLEARANCE CHECK

can be close - refer to PL n. C30000563

Name Stefano Linari

Date 2025-02-06

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000061

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	HVAC
1.2 Item	B-400		I&T Equipment Room B-400
1.3 Subsystem	90-04		I&T System Equipment Room B-400

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

C30000065

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	HVAC
1.2 Item	B-400		I&T Equipment Room B-400
1.3 Subsystem	90-04		I&T System Equipment Room B-400

2 - OBSERVATION

HVAC Systems to be completely checked on B-400. Unit hasn't been completed yet. All notes/remarks are indicated in the FAT procedures and reports

Name

Date

Signature

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

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

4 - PERFORMED ACTION

TEST COMPLETED . SEE REPORTS

Name ALEX SISTEMI

Date 2024-10-29

Signature

5 - CLEARANCE CHECK

TEST COMPLETED . SEE REPORTS

Name Stefano Linari

Date 2024-10-29

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000067

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	HVAC
1.2 Item	B-400		I&T Equipment Room B-400
1.3 Subsystem	90-04		I&T System Equipment Room B-400

2 - OBSERVATION

B-400 HVAC Unit wirings must be completed at RM yard

Name

Date

Signature

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

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

4 - PERFORMED ACTION

COMPLETED

Name ALEX SISTEMI

Date 2024-10-29

Signature

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

C30000071

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	HVAC
1.2 Item	B-400		I&T Equipment Room B-400
1.3 Subsystem	90-04		I&T System Equipment Room B-400

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

C30000075

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	HVAC
1.2 Item	B-400		I&T Equipment Room B-400
1.3 Subsystem	90-04		I&T System Equipment Room B-400

2 - OBSERVATION

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

Name

Date

Signature

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

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

4 - PERFORMED ACTION

PERFORMED - SEE REPORTS

Name ALEX SISTEMI

Date 2024-10-29

Signature

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

C30000079

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	HVAC
1.2 Item	B-400		I&T Equipment Room B-400
1.3 Subsystem	90-04		I&T System Equipment Room B-400

2 - OBSERVATION

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

Name

Date

Signature

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

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

4 - PERFORMED ACTION

installed

Name vendor alex sistemi

Date 2025-02-06

Signature

5 - CLEARANCE CHECK

installed

Name Stefano Linari

Date 2025-02-06

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000083

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	HVAC
1.2 Item	B-400		I&T Equipment Room B-400
1.3 Subsystem	90-04		I&T System Equipment Room B-400

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

C30000087

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B-400		I&T Equipment Room B-400
1.3 Subsystem	90-04		I&T System Equipment Room B-400

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

C30000091

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B-400		I&T Equipment Room B-400
1.3 Subsystem	90-04		I&T System Equipment Room B-400

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

C30000095

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Electrical
1.2 Item	B-400		I&T Equipment Room B-400
1.3 Subsystem	90-04		I&T System Equipment Room B-400

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

C30000121

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002879	1.4 Discipline	Electrical
1.2 Item	A5/+04-QF1	DRAWER HVAC PANELS ITER ROOM - A5/+04-QF1	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

New and definitive protection setting to be implemented on SG-200N1 drawer A5/+04.

Name: Mattia Girotti
Date: 2024-10-01
Signature:

3 - DEFECT ASSESSMENT

Update the protection setting.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Mattia Girotti
3.4 Activity code	COMM Commissioning	Date	2024-10-01
3.5 Action by	PRE-COMM	Signature	

4 - PERFORMED ACTION

The definitive setting has been updated.

Name: Mattia Girotti
Date: 2024-11-21
Signature:

5 - CLEARANCE CHECK

Done.

Name: Mattia Girotti
Date: 2024-11-21
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:

Page Name	Group Name	Variable Name	Variable Value	Variable Unit
Settings A				
	Overload Protection (L - ANSI 49)			
		PU nominal current In	63	
		Status	Enabled	
		Function	t=k/i^2	
		Prealarm I1	90	% I1
		Threshold I1	0.750	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)	4.00	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	8.00	In
		Startup enable	Disabled	
		Startup time	0.10	s
		Startup threshold	1.50	In
		Set Startup th. on ProgStatusD	--------	
		BlockOnStartUp	--------	
		BlockOnOutOfFrequency	--------	
		BlockOnProgStatusA	--------	
		BlockOnProgStatusB	--------	
		BlockOnProgStatusC	--------	
		BlockOnProgStatusD	--------	
		Zone Selectivity status	Disabled	
		Zone Selectivity Type	Logic and Hardware	
	Second I			
		Prot Second I	---	
		Status	Disabled	
		Threshold I31	1.50	In
		Zone Selectivity status	Disabled	
		Zone Selectivity Type	Logic and Hardware	
		Second I Mode	Function Dependent	
		Function	Disabled	
		Delay On	0.00	s
		Delay Off	15.00	s
	Earth fault protection (G - ANSI 50N TD/68/51N)			
		Status	Enabled	
		Trip enable	Enabled	
		BlockOnStartUp	--------	
		BlockOnOutOfFrequency	--------	
		BlockOnProgStatusA	--------	
		BlockOnProgStatusB	--------	
		BlockOnProgStatusC	--------	
		BlockOnProgStatusD	--------	
		Function	t=k	
		Prealarm I4	90	% I4
		Threshold I4 (t=k)	0.200	In
		Time t4 (t=k) IEC - UL489	0.10	s

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

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000179

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000551	1.4 Discipline	Electrical
1.2 Item	83026-CEL	LV Switchgear / HVAC panels - ITER	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

Cable to be fixed with proper cable ties o all internal and external routing.

Name: Giovanni Tangianu

Date: 2024-10-15

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	2024-10-15
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done.

Name: Giovanni Tangianu

Date: 2025-01-07

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000180

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000551	1.4 Discipline	Electrical
1.2 Item	83026-CEL	LV Switchgear / HVAC panels - ITER	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

Missing cable tags on all internal and external routing and inside both panels (SG-200N1 - B400-HSB-001)

Name: Giovanni Tangianu

Date: 2024-10-15

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	2024-10-15
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

C30000181

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000551	1.4 Discipline	Electrical
1.2 Item	83026-CEL	LV Switchgear / HVAC panels - ITER	
1.3 Subsystem	77-40	HVAC I&T Equipment Room B-400	

2 - OBSERVATION

Missing identification number of terminal trip XP1 inside the panel B400-HSB-001

Name: Giovanni Tangianu

Date: 2024-10-15

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	2024-10-15
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

C30000182

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002307	1.4 Discipline	Mechanical
1.2 Item	B-400		I&T Equipment Room B-400
1.3 Subsystem	77-40		HVAC I&T Equipment Room B-400

2 - OBSERVATION

Holes not used for heaters installation on shelter need to be restored. (see attachment)

Name: Giovanni Tangianu

Date: 2024-10-15

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	2024-10-15
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date: 2025-04-09

Signature:

5 - CLEARANCE CHECK

Covers installed.

Name: Giovanni Tangianu

Date: 2025-04-09

Signature:

6- CLEARANCE APPROVAL

Name:

Date: 2025-04-09

Signature:


B-400

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000183

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002305	1.4 Discipline	Electrical
1.2 Item	B-400		I&T Equipment Room B-400
1.3 Subsystem	77-40		HVAC I&T Equipment Room B-400

2 - OBSERVATION

All HVAC cables need to be dressed and fixed properly inside internal cable trays

Name: Giovanni Tangianu

Date: 2024-10-15

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	2024-10-15
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Eleonora Carotenuto

Date: 2025-02-15

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: 77-40 & process: COMM & discipline : E

Electrical	77-40 HVAC I&T Equipment Room B-400						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
A5/+04-QF1	DRAWER HVAC PANELS ITER ROOM - A5/+04-QF1	ONSHORE	C10002878	FP00	100	2024-10-17	RFO 2
		ONSHORE	C10002879	FTR-2	100	2024-10-02	RFO 2
		ONSHORE	C10002880	FTR-6	100	2024-10-03	RFO 2
		ONSHORE	C10003017	FTR-5	100	2025-05-15	RFO 2
B400-HSB-001	Distribution & HVAC Panel - I&T Equipment Room	ONSHORE	C10002990	FP00	100	2024-10-28	RFO 2
UP-200F3-QF42	UCP - HVAC ITER ROOM	ONSHORE	C10004579	FTR-2	100	2024-12-07	RFO 2

ROSETTI MARINO | PROVERLIS | CROSSWIND

ITEM	Tag	A5/+04-QF1	: DRAWER HVAC PANELS ITER ROOM - A5/+04-QF1			Dwg	1723002197-EL-DG-00011
	S/Sys	77-40	: HVAC I&T Equipment Room B-400			Module	
TASK	code	C10002878	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:	A5/+04-QF1
Breaker rating (A)	160A / 63A	Nominal current (A)	61A

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)	300	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	401	V	0.3 A	OK
11	Attach test procedure, if any				NA

FUNCTION TEST REQUIREMENT	RESULT

Testing & measurement instruments used

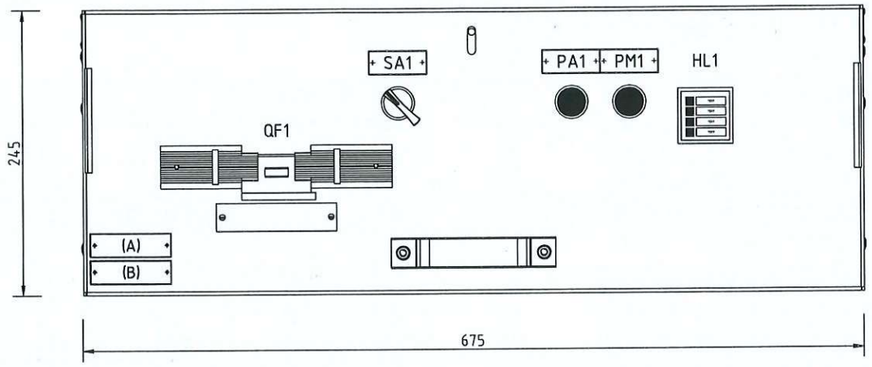
Type	Serial n°	Calibration certificate	Validity
FLUKE 1663	5380144	7727/24	10-07-2025
FLUKE 376	A1711003	7710/24	10-07-2025

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	2024-10-17	2024-10-17	2024-10-17
Signature	Digitaly signed by Mattia Girotti 2024-10-17T07:51:01.746Z	Digitaly signed by Kristian Castellani 2024-10-17T12:05:52.781Z	Digitaly signed by Witness waived 2024-10-17T12:08:45.637Z

DOOR FRONT LAY-OUT

TYPICAL : LINE FEEDER "LK1-n"

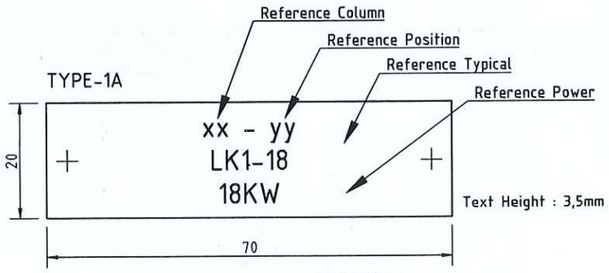


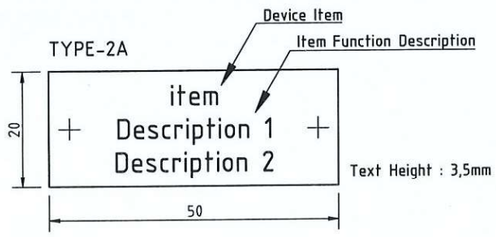
NOTE :

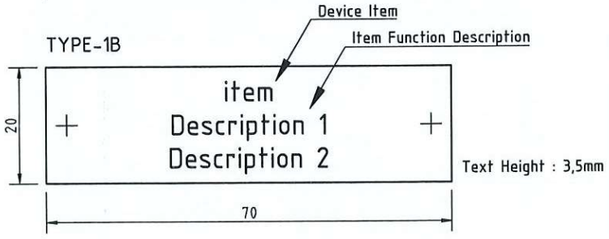
A) IDENTIFICATION name plate (type-1A) , with :
- Drawer position [Column / Position inside SWB]
- Typical name [reference applicability typical used]
- Power [reference applicability typical used]

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

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

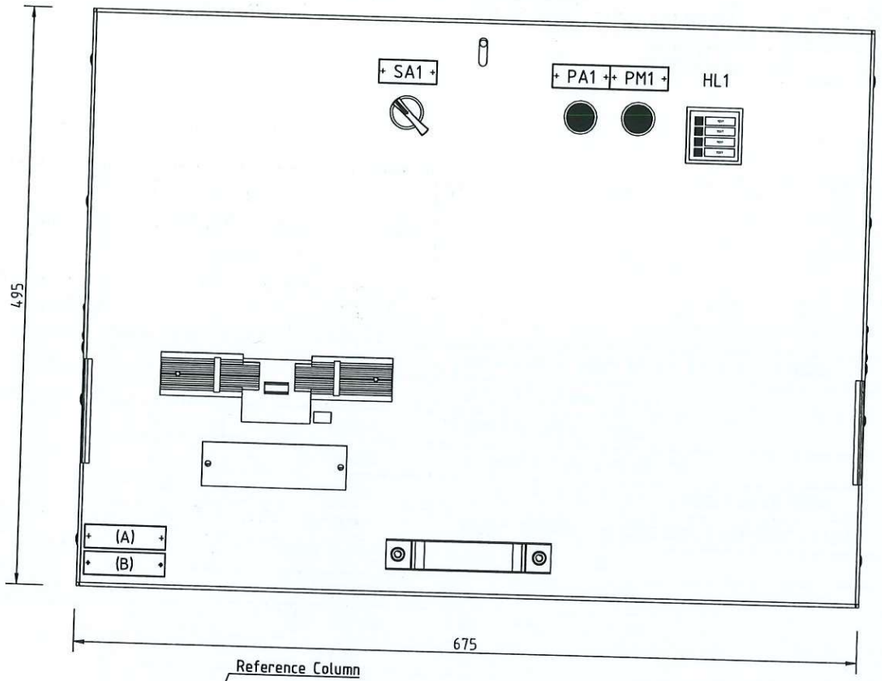
A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 034 | REV. 00

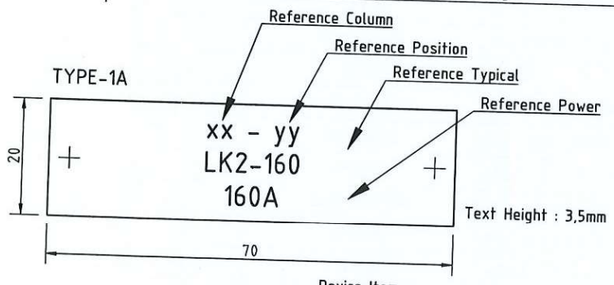
F.to UNI A3: 420mmx297mm

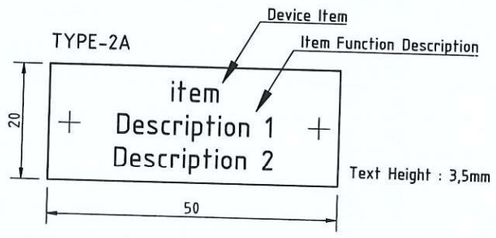
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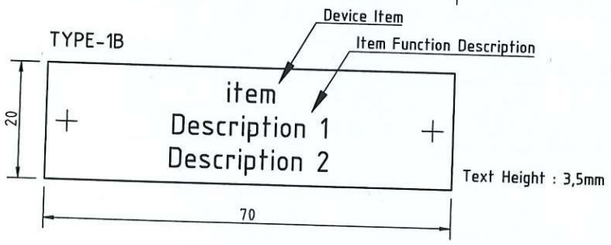
DOOR FRONT LAY-OUT

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 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						
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

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

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

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	

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

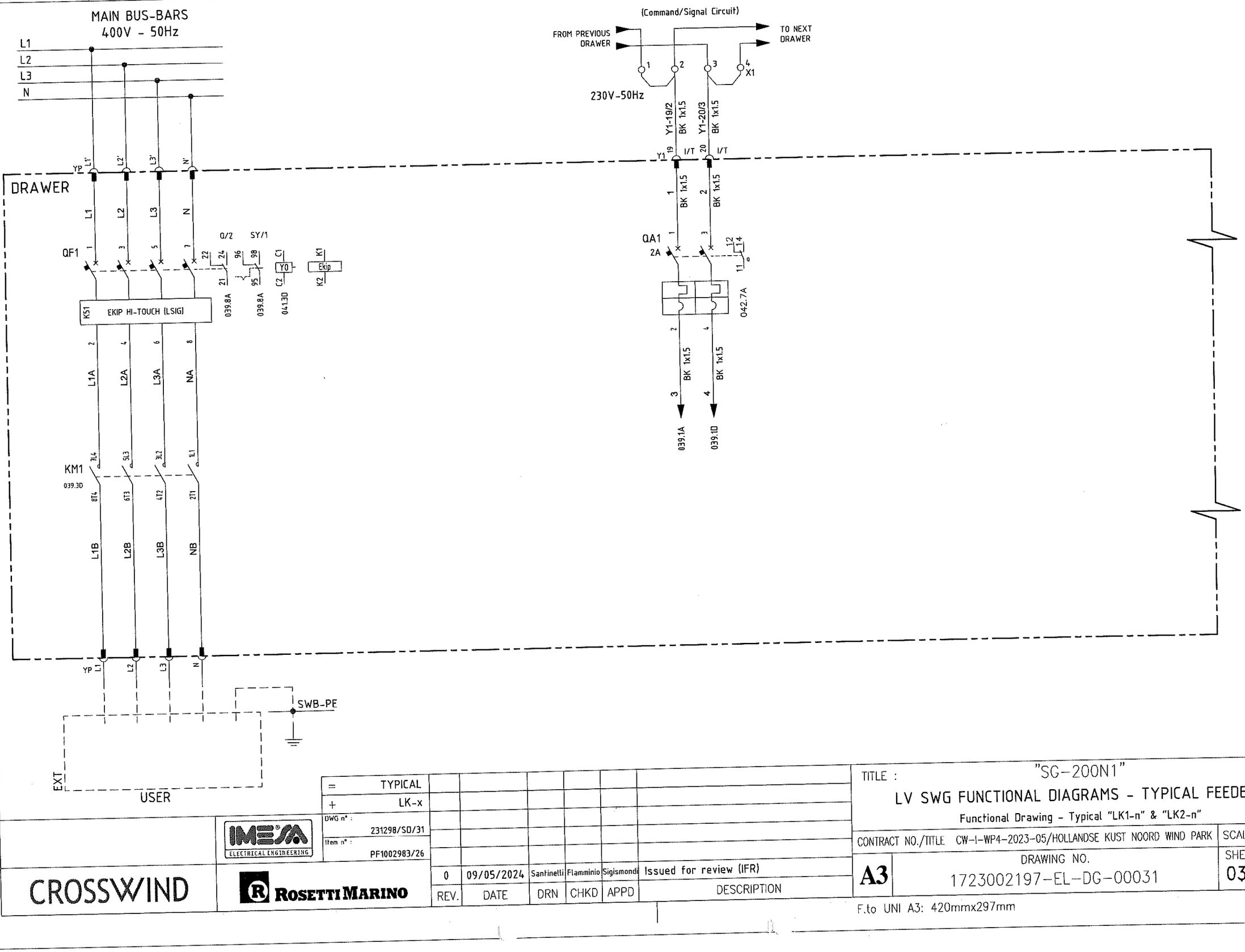
Items Acronym - Typical "LK1-n" & "LK2-n"

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		

CROSSWIND

ROSETTI MARINO

IMESA ELECTRICAL ENGINEERING

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

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

CONTRACT NO./TITLE CW-1-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

3 040.1B

Y1 22 T Y1 21 I/T

KA3 039.8D — 21 24 22

5 BK 1x1.5

6 BK 1x1.5

KA6 042.9D — 42 44 41

7 BK 1x1.5

SA1 — LOC REM — 11 12 — CLOSE ON "LOC" — 21 22 / 13 14 / 23 24 — 042.9A / 039.7B / 039.5B

8 BK 1x1.5

PM1 GR — 13 14

KM1 039.3D — 23 24

9 BK 1x1.5

PA1 RD — 11 12

12 BK 1x1.5

KM1 A1 A2

SA1 — LOC REM — 23 24 — CLOSE ON "REM" — 039.3B

10 BK 1x1.5

KA6 042.5D — 12 14

KM1 039.3D — 33 34

11 BK 1x1.5

KA7 042.6D — 12 14 / 11

KA3 039.8D — 12 14 / 11

13 BK 1x1.5

KM1 039.3D — 13 14

15 BK 1x1.5

KA1 A1 A2

SA1 — LOC REM — 13 14 — CLOSE ON "REM" — 039.3B

14 BK 1x1.5

KA5 039.9D — 22 24 / 21

16 BK 1x1.5

KA2 A1 A2

QF1 038.1B — 22 24 — Q — 21

17 BK 1x1.5

KA3 A1 A2

QF1 038.1B — 96 98 — SY — 95

18 BK 1x1.5

KA4 A1 A2

19 BK 1x1.5

KA5 A1 A2

038.6C 4

4 040.1D

MAIN CONTACTOR

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

STATUS C.B/CONTACTOR — 042.4A — 11 12 14 21 22 24 31 32 34 41 42 44

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

C.B. OPEN/CLOSED — 039.6A 039.2A 040.3B — 11 12 14 21 22 24 31 32 34 41 42 44

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

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

=	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

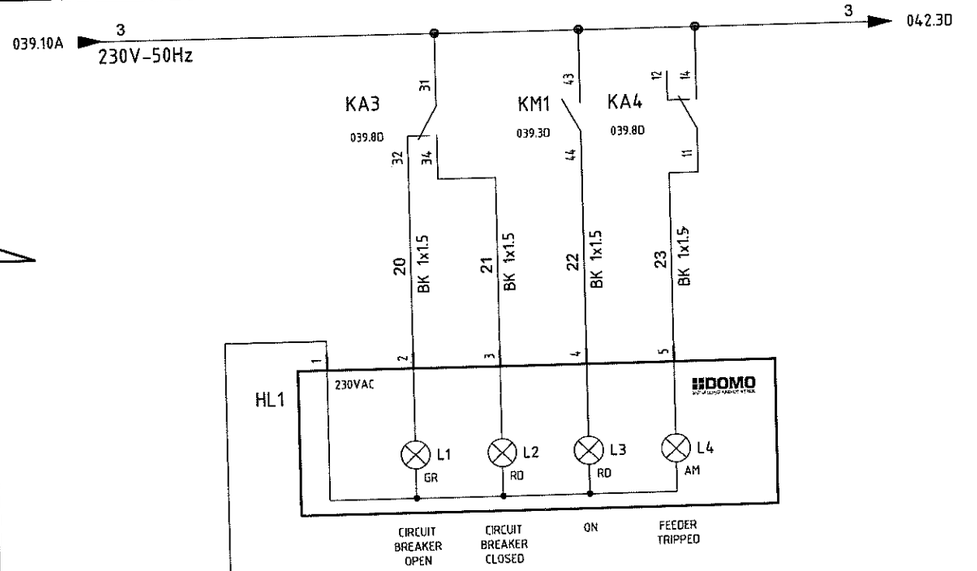
DRAWING NO. 1723002197-EL-DG-00031

SHEET 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

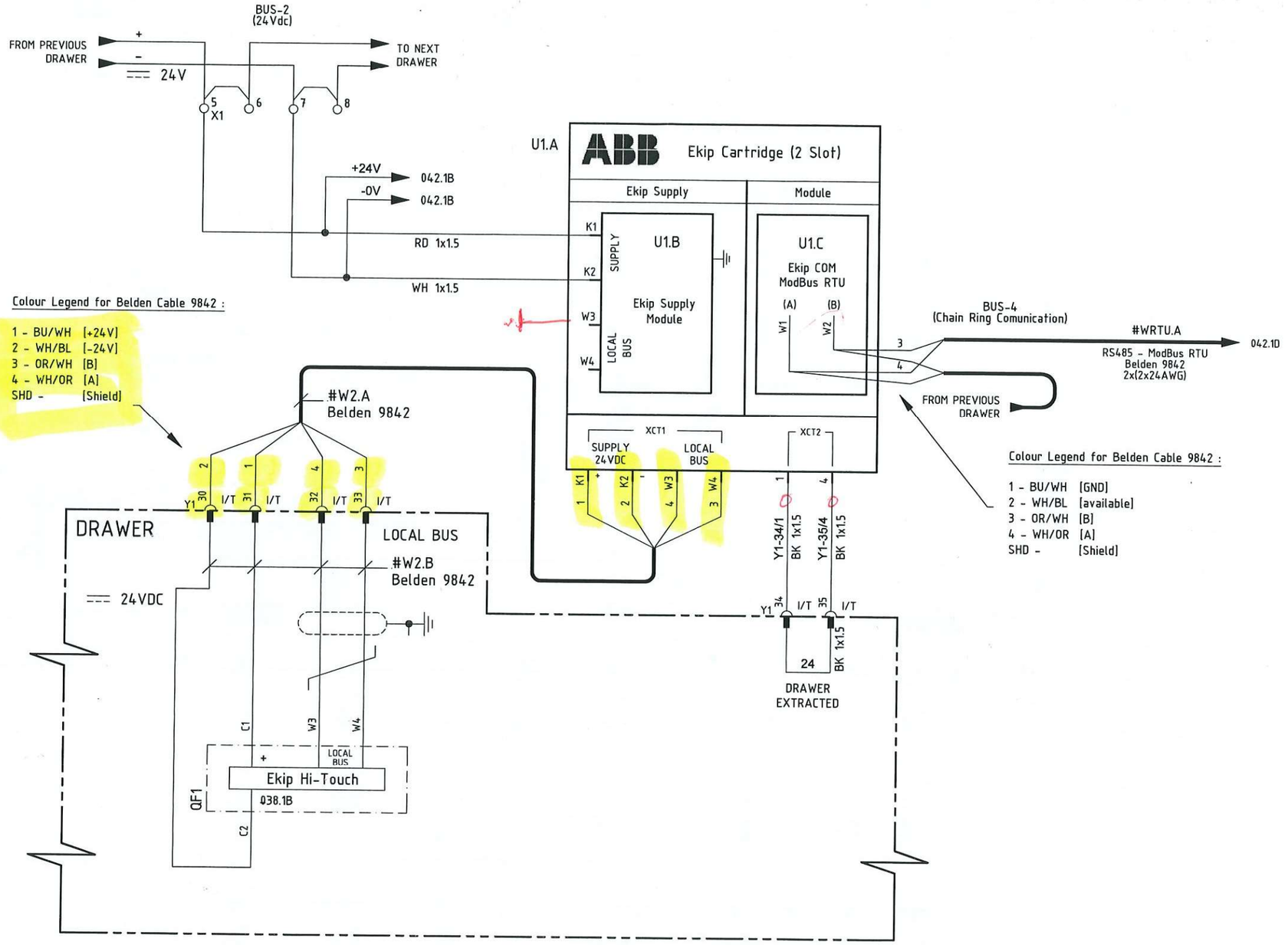
DRAWING NO. 1723002197-EL-DG-00031

SHEET 040

REV. 00

F.to UNI A3: 420mmx297mm

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

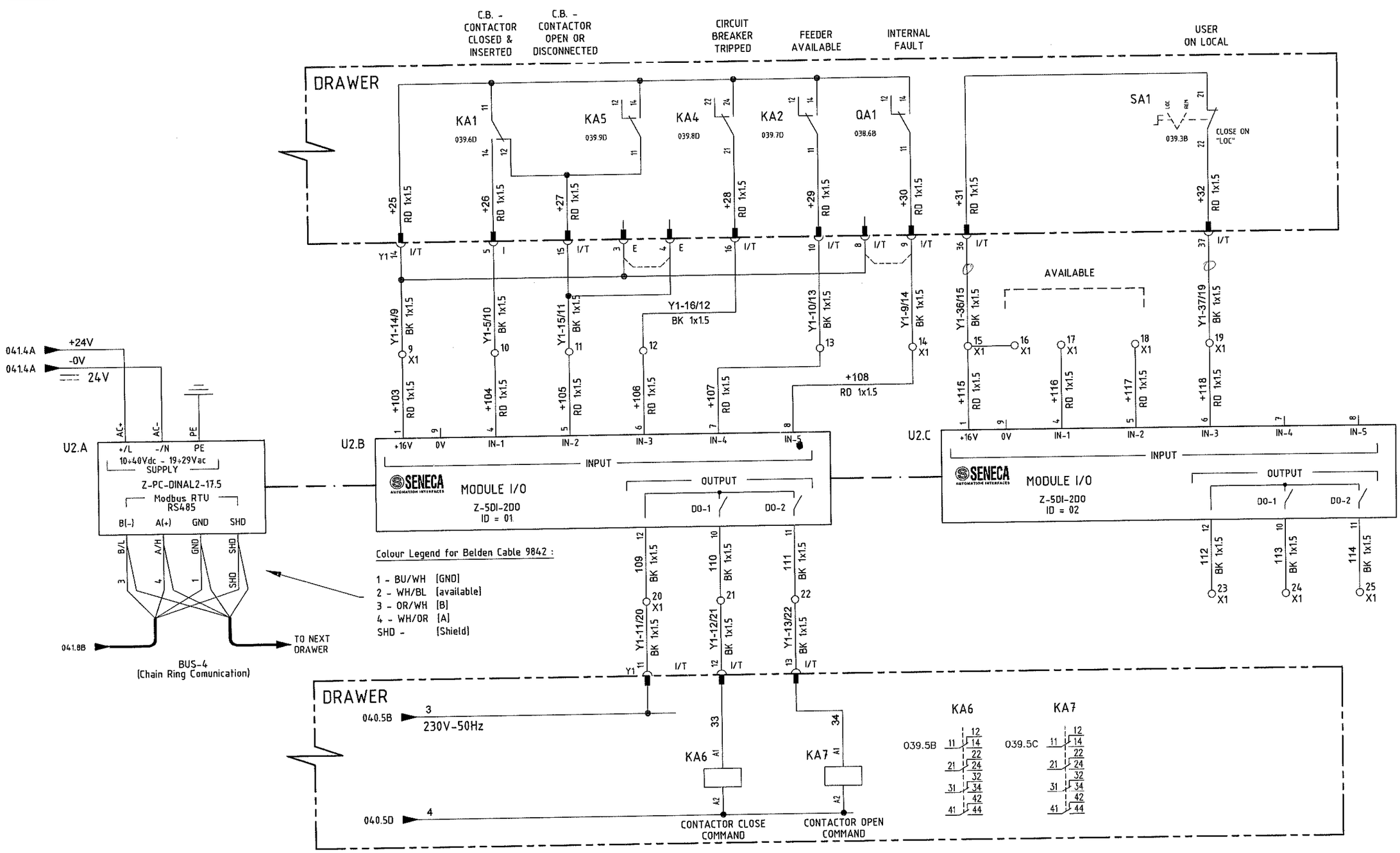
DRAWING NO. 1723002197-EL-DG-00031

SHEET 041

REV. 00

F.to UNI A3: 420mmx297mm

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



=	TYPICAL						
+	LK-x						
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)		
REV.	DATE	DRN	CHKD	APPD	DESCRIPTION		

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

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

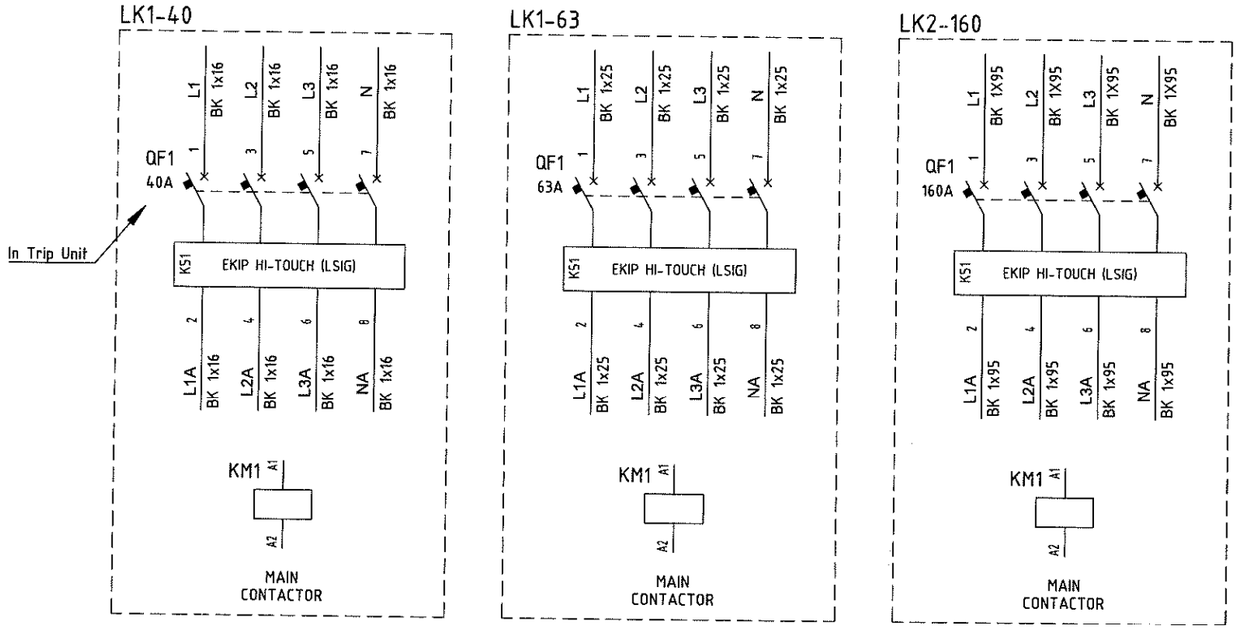
REV. 00

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

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 043

REV. 00

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

F.to UNI A3: 420mmx297mm

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									

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

TYPICAL – LK–x – Y1

SX

DX

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						
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 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

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 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

OWG 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

ROSETTI MARINO | PROVERLIS | CROSSWIND

ITEM	Tag	A5/+04-QF1	: DRAWER HVAC PANELS ITER ROOM - A5/+04-QF1		Dwg	1723002197-EL-DG-00011	
	S/Sys	77-40	: HVAC I&T Equipment Room B-400		Module		
TASK	code	C10002879	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°:	EGA000153700N000	Relay type:	EKIP HI TOUCH LSIG
Auxiliary supply:	24Vdc	Location:	B200	Cubicle:	A5/+04
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	47,3A	150A		3s	2718ms
S	252A	270A		0.1s	103ms
I	504A	540A		INSTANT	22ms
G	12,6A	#Note 1		0.1s	104ms

Testing & measurement instruments used

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

Comments: The protection settings that have been implemented on drawer A5/+04 were defined by the Commissioning team to allow the internal testing of the HVAC system. The definitive settings will be implemented asap, in the meantime a PUNCH B ref. C30000121has been raised to ensure traceability of this outstanding task.

Note1: 15A was injected into the neutral to trip the "G" protection while an equal amount of 15A 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	2024-10-01	2024-10-02	2024-10-02
Signature			

AS/104 AS COMMISSIONED: NATHAN GIBB 21/5/25

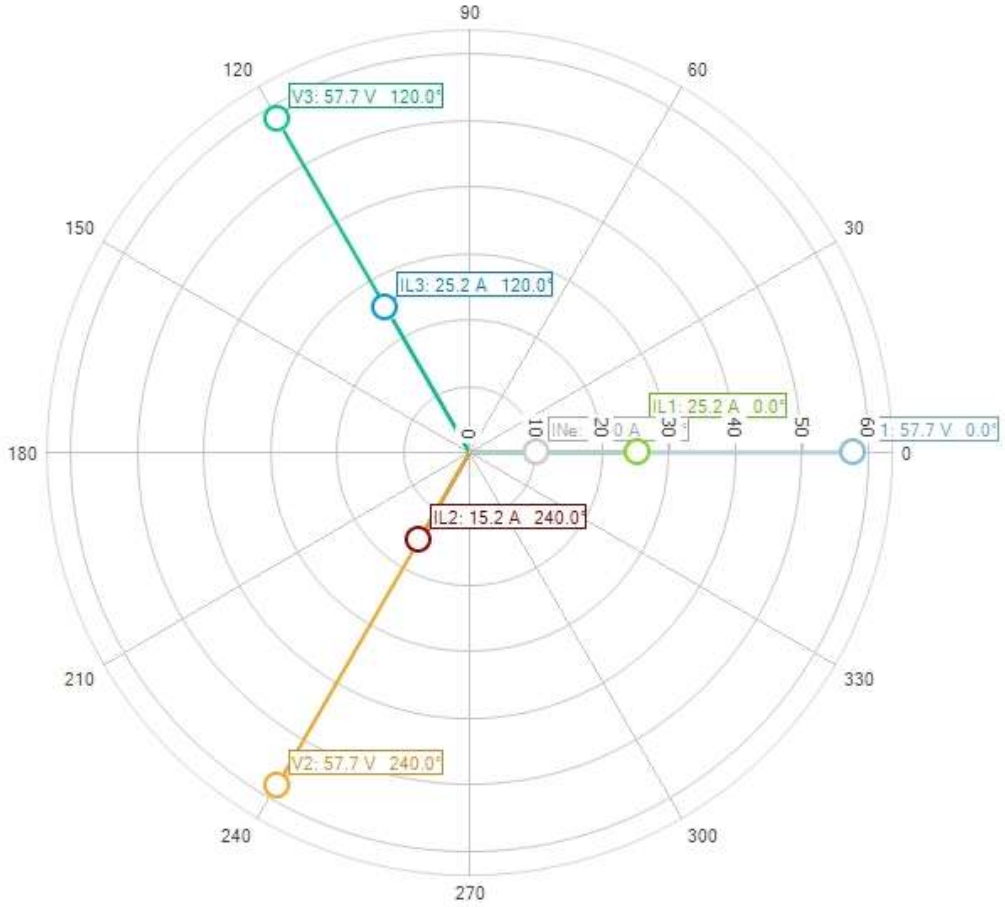
Page Name	Group Name	Variable Name	Variable Value	Variable Unit
Settings A				
	Overload Protection (L - ANSI 49)			
		PU nominal current In	63	
		Status	Enabled	
		Function	t=k/i^2	
		Prealarm I1	90	% I1
		Threshold I1	0.750	In
		Time t1 std	3.00	s
		Thermal memory (TM)	Disabled	
		TM Algorithm	RMS-independent	
		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)	4.00	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	8.00	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

AS/104

AS COMMISSIONED: NATALIA GIBOW

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

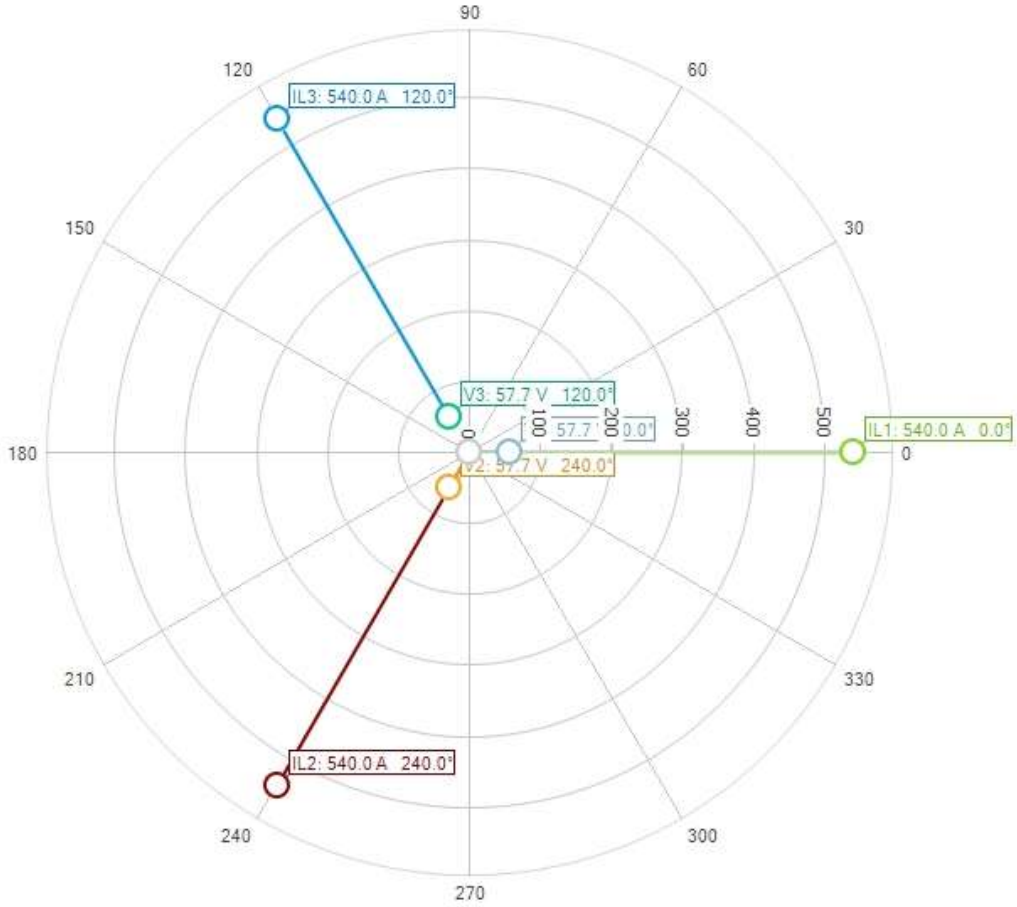
Name	Test 16
Session	Default session
Customer	
Location	
Operator	

Device

Tag name	A5/+04
Relay Serial Number	EGA000153700N000
Circuit Breaker Serial Number	CE71079910number
	XT2/4
Device settings	In = 63 A Un = 100 V fn = 50 Hz
Protection Settings	Protection = L Curve type = t=k/i^2 Threshold = 0.750 In Time = 3.00 s Protection = S Curve type = t=k Threshold = 4.00 In Time = 0.10 s Protection = I Threshold = 8.00 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 104 ms.



Test

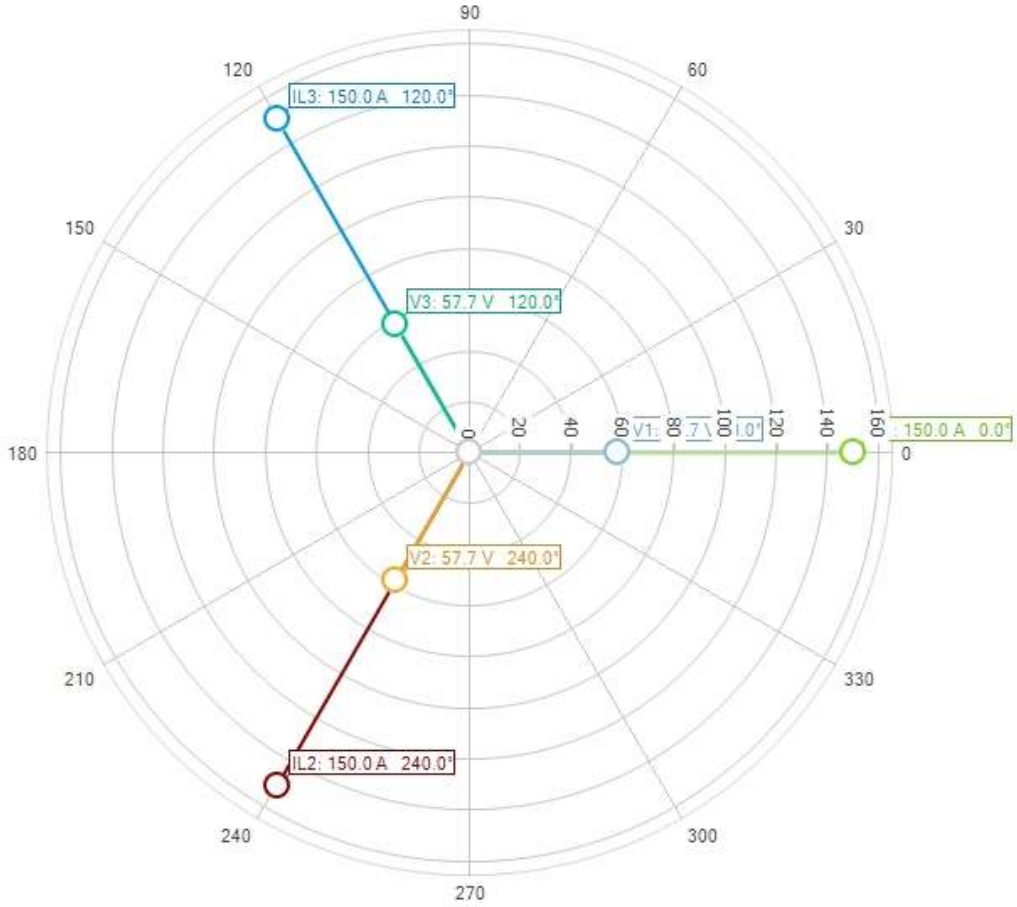
Name	Test 15
Session	Default session
Customer	
Location	
Operator	

Device

Tag name	A5/+04
Relay Serial Number	EGA000153700N000
Circuit Breaker Serial Number	CE71079910number
	XT2/4
Device settings	In = 63 A Un = 100 V fn = 50 Hz
Protection Settings	Protection = L Curve type = t=k/i^2 Threshold = 0.750 In Time = 3.00 s Protection = S Curve type = t=k Threshold = 4.00 In Time = 0.10 s Protection = I Threshold = 8.00 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 22 ms.



Test

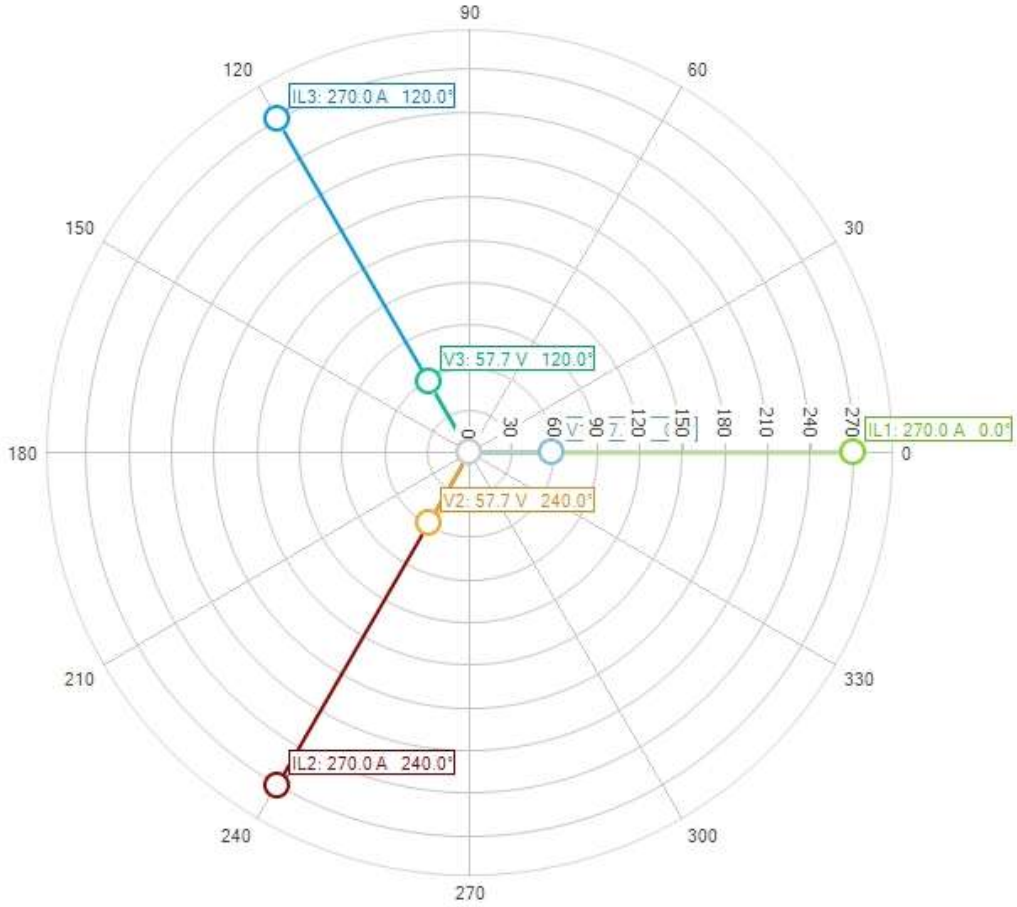
Name	Test 13
Session	Default session
Customer	
Location	
Operator	

Device

Tag name	A5/+04
Relay Serial Number	EGA000153700N000
Circuit Breaker Serial Number	CE71079910number
	XT2/4
Device settings	In = 63 A Un = 100 V fn = 50 Hz
Protection Settings	Protection = L Curve type = t=k/i^2 Threshold = 0.750 In Time = 3.00 s Protection = S Curve type = t=k Threshold = 4.00 In Time = 0.10 s Protection = I Threshold = 8.00 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 2718 ms.



Test

Name	Test 14
Session	Default session
Customer	
Location	
Operator	

Device

Tag name	A5/+04
Relay Serial Number	EGA000153700N000
Circuit Breaker Serial Number	CE71079910number
	XT2/4
Device settings	In = 63 A Un = 100 V fn = 50 Hz
Protection Settings	Protection = L Curve type = t=k/i^2 Threshold = 0.750 In Time = 3.00 s Protection = S Curve type = t=k Threshold = 4.00 In Time = 0.10 s Protection = I Threshold = 8.00 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 103 ms.

ITEM	Tag	A5/+04-QF1	: DRAWER HVAC PANELS ITER ROOM - A5/+04-QF1			Dwg	1723002197-EL-DG-00011
	S/Sys	77-40	: HVAC I&T Equipment Room B-400			Module	
TASK	code	C10002880	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:	B400-HSB-001 - HVAC PANELS ITER	Instrument Type / Serial N° :	FLUKE 175 / 17140769
Cubicle N°:	A5/+04	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: Event (Y/N)	Status Check: Alarm (Y/N)	Status Check: Fault (Y/N)	Time Stamping Satisfactory (Y/N)	Refresh Time (if >1s)	Appearing in all applicable display (Y/N)
1	C.B. - CLOSED & INSERTED	HW	DI	A5/+04 - KA1/11-14	A5/+04 - X1/9-10	NA	NA	NA	Y	NA	NA	NA	NA	NA
2	C.B. - OPEN OR DISCONNECTED	HW	DI	A5/+04 - KA1/11-12	A5/+04 - X1/9-11	NA	NA	NA	Y	NA	NA	NA	NA	NA
3	C.B. - TRIPPED	HW	DI	A5/+04 - KA4/21-24	A5/+04 - X1/9-12	NA	NA	NA	NA	NA	Y	NA	NA	NA
4	INTERNAL FAULT	HW	DI	A5/+04 - QA1/11-14	A5/+04 - X1/9-14	NA	NA	NA	NA	NA	Y	NA	NA	NA
5	FEEDER AVAILABLE	HW	DI	A5/+04 - KA2/11-14	A5/+04 - X1/9-13	NA	NA	NA	Y	NA	NA	NA	NA	NA
6	USER ON LOCAL	HW	DI	A5/+04 - SA1/21-22	A5/+04 - X1/15-19	NA	NA	NA	Y	NA	NA	NA	NA	NA
7	DRAWER ON TEST	HW	DI	A5/+04 - KA5/11-14	A5/+04 - X1/9-11	NA	NA	NA	Y	NA	NA	NA	NA	NA
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	Mattia Girotti	Kristian Castellani	Witness waived
Date	2024-10-02	2024-10-03	2024-10-03
Signature	Digitaly signed by Mattia Girotti 2024-10-02T14:31:40.969Z	Digitaly signed by Kristian Castellani 2024-10-03T07:13:42.714Z	Digitaly signed by Witness waived 2024-10-03T14:29:21.546Z

ROSETTI MARINO — CROSSWIND

ITEM	Tag	B400-HSB-001	: Distribution & HVAC Panel - I&T Equipment Room	Dwg	123A90-DDL-IN-DL-40012		
	S/Sys	77-40	: HVAC I&T Equipment Room B-400	Module	LD_B-400		
TASK	code	C10002990	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	PRE-COMM	Activity	FTS	Discipline	Electrical	Form	FP00		Miscellaneous electrical Consumer

DATA

Switchboard	B400-HSB-001	Circuit ref:	B400-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)	350	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	402	V	21 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	2024-10-28	2024-10-28
Signature	Digitaly signed by Mattia Girotti 2024-10-25T06:07:55.685Z	Digitaly signed by Kristian Castellani 2024-10-28T13:10:58.049Z	Digitaly signed by Witness waived 2024-10-28T13:47:57.614Z

ROSETTI MARINO | PROVERLIS | CROSSWIND

ITEM	Tag	A5/+04-QF1	: DRAWER HVAC PANELS ITER ROOM - A5/+04-QF1	Dwg	1723002197-EL-DG-00011
	S/Sys	77-40	: HVAC I&T Equipment Room B-400	Module	
TASK	code	C10003017	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°:	A5/+04

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.

Page 1/1	Performed by	☐ WITNESS ☑ REVIEW	☐ WITNESS ☐ REVIEW
Company	RM COMM		
Name	Davide Zucconelli	Anthony Iveson	Martin Taylor
Date	2025-05-14	2025-05-14	2025-05-15
Signature	PROVERLIS Digitaly signed by Davide Zucconelli 2025-05-14T06:16:39.635Z	PROVERLIS Digitaly signed by Anthony Iveson 2025-05-14T08:48:33.043Z	PROVERLIS Digitaly signed by Martin Taylor 2025-05-15T04:28:34.106Z

ITEM	Tag	UP-200F3-QF42	: UCP - HVAC ITER ROOM			Dwg	1724000372-EL-DG-00009
	S/Sys	77-40	: HVAC I&T Equipment Room B-400			Module	
TASK	code	C10004579		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:	TYPE A
Auxiliary supply:	24 Vdc	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	240mA	FIXED	37.9ms

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	Mattia Girotti	Kristian Castellani	Witness waived
Date	2024-12-04	2024-12-05	2024-12-07
Signature	PROVERLIS Digitaly signed by Mattia Girotti 2024-12-04T11:29:55.245Z	PROVERLIS Digitaly signed by Kristian Castellani 2024-12-05T09:36:36.286Z	PROVERLIS Digitaly signed by Witness waived 2024-12-07T10:37:52.346Z

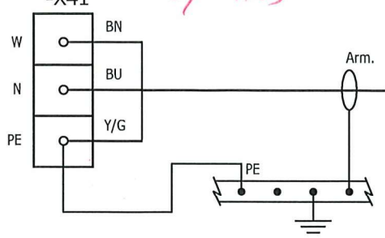
Section 4.2 Electrical “As-Commissioned” interconnection diagrams

FROM	TO

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

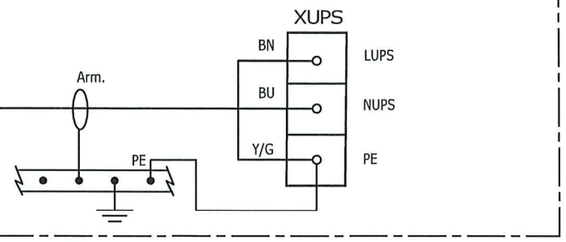
MARCO MORETTO 15/3/25

-X41

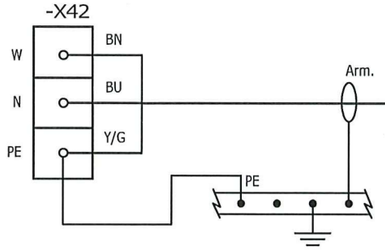


84316-CEL
3G2.5 mm²

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



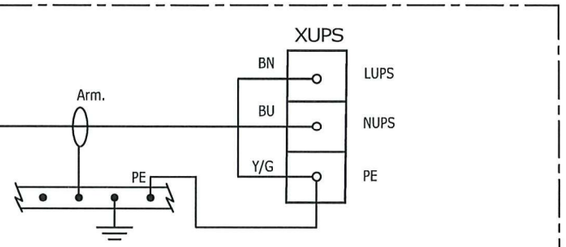
-X42



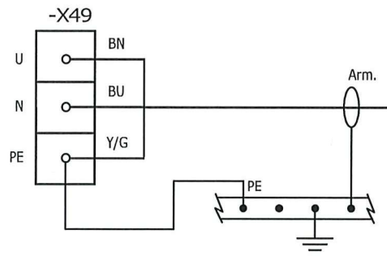
84317-CEL
3G2.5 mm²

NO MARK UP
MARCO MORETTO
21/3/25

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



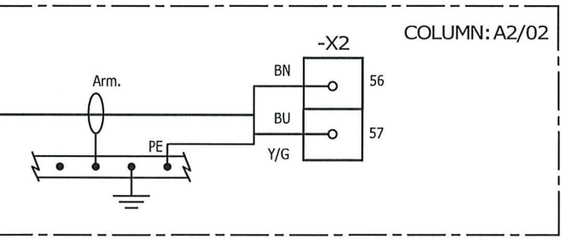
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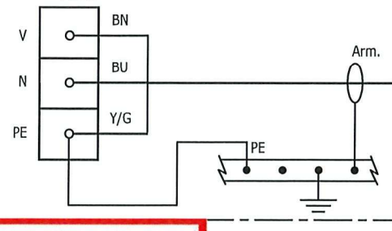
84318-CEL
3G2.5 mm²

NO MARK UP
19/3/25
MARCO MORETTO

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



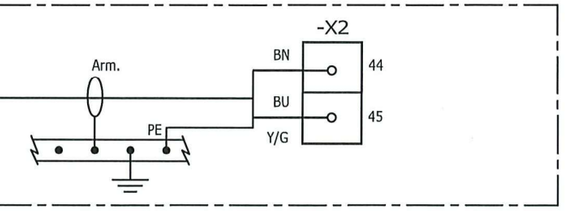
-X51



84319-CEL
3G2.5 mm²

NO MARK UP
18/3/25
MARCO MORETTO

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



AS COMMISSIONED: MATTIA GIRZ.

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 042 | REV. 02

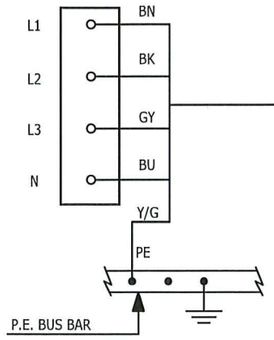
F.to UNI A3: 420mmx297mm

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

FROM	TO

DESCRIPTION: LV SWITCHGEAR
TAG NUMBER: SG-200N1

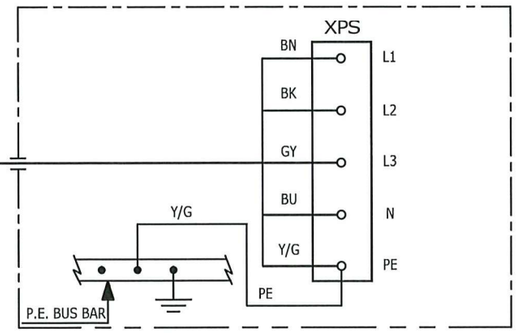
COLUMN/CUBIC.: A5/+02



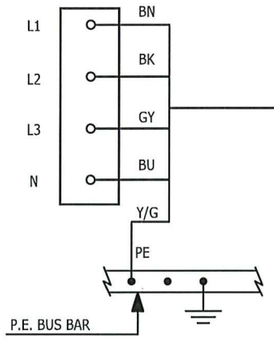
83024-CEL
5G16 mm²

NO MARK UP
MARCO MORETTO
21/3/25

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



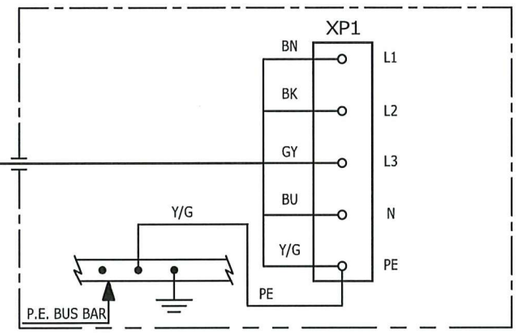
COLUMN/CUBIC.: A5/+03



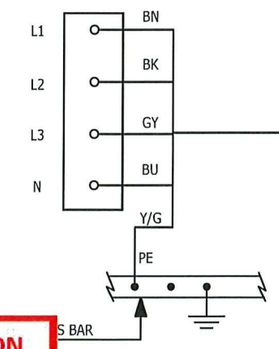
83025-CEL
5G16 mm²

NO MARK UP
MARCO MORETTO
21/3/25

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



COLUMN/CUBIC.: A5/+04

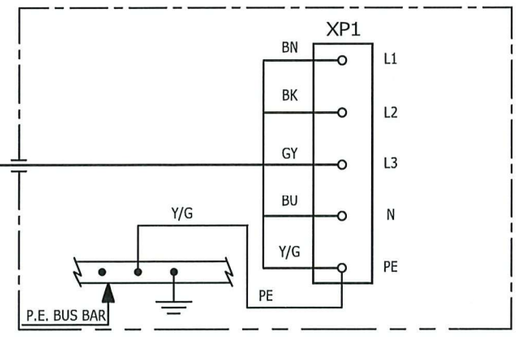


83026-CEL
5G16 mm²

AS COMMISSIONED: NATALINA GIGLI
21/3/25

NO MARK UP
MARCO MORETTO
21/3/25

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



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	026	02

F.to UNI A3: 420mmx297mm

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

BASE LOAD POWER HUB (BLPH)

B-400

INTERCONNECTION WIRING DIAGRAM

B400-HSB-001

AS COMMISSIONED
ZUCCOMUZZI 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	14/11/24	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	APPD	M.G.
04	ISSUE FOR INFORMATION (IFI)	19/12/24		DATE	05/07/2024
03	ISSUE FOR INFORMATION (IFI)	14/11/24		DRN.	F.M.
02	ISSUE FOR INFORMATION (IFI)	15/10/24	F.M.	CHKD	S.S.

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-00025

SHEET 001

REV. 04

BASE LOAD POWER HUB (BLPH)
B-400
COVER

ROSETTI MARINO

1724000049-EL-DG-00025

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					
2A	INDEX	X	X	X	X					
3	SIMBOL LIST	X	X	X	X					
4	INTRCONNECTION	X	X	X	X					
5	INTRCONNECTION	X	X	X	X					
6	INTRCONNECTION	X	X	X	X					
7	INTRCONNECTION	X	X	X	X					
8	INTRCONNECTION	X	X	X	X					
9	INTERCONNECTION	X	X	X	X					
10	INTERCONNECTION	X	X	X	X					
11	INTERCONNECTION	X	X	X	X					
12	INTERCONNECTION	X	X	X	X					

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

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

REV.	MOD.	DATE	SIGN
04	ISSUE FOR INFORMATION (IFI)	19/12/24	
03	ISSUE FOR INFORMATION (IFI)	14/11/24	
02	ISSUE FOR INFORMATION (IFI)	15/10/24	F.M.

DATE	05/07/2024
DRN.	F.M.
CHKD	S.S.
APPD	M.G.

ALEXSISTEMI spa

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400

INDEX

ROSETTI MARINO

1724000049-EL-DG-00025

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
E	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.	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 ZUCCHI MOLLA DAVIDE 16/04/2025 NO MARK UP
79.	LIMIT SWITCH N.C.		ELECTROVALVE		

REV.	MOD.	DATE	SIGN		
04	ISSUB FOR INFORMATION (IFI)	19/12/24		DATE	05/07/2024
03	ISSUB FOR INFORMATION (IFI)	14/11/24		DRN.	F.M.
02	ISSUB FOR INFORMATION (IFI)	15/10/24	F.M.	CHKD	S.S.
				APPD	M.G.

ALEXSISTEMI spa

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400

SIMBOL LIST

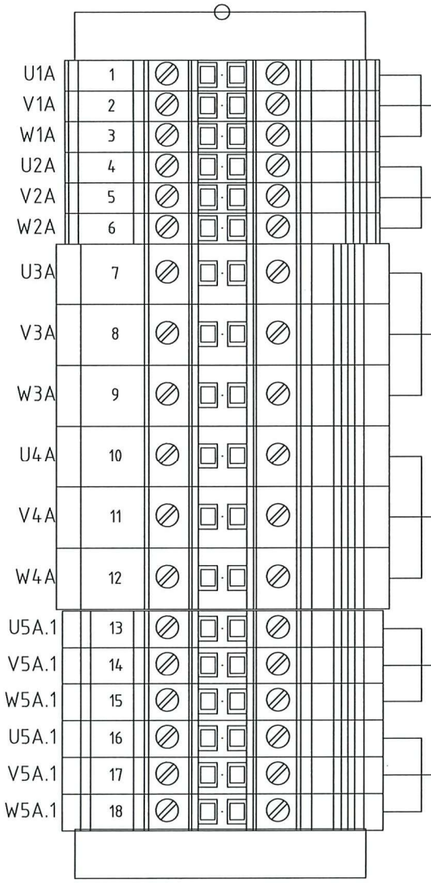
ROSETTI MARINO

1724000049-EL-DG-00025

FG. 3
F.S. 4

B400-HSB-001
PANEL SIDE

+QG - XM1
MOTOR 1

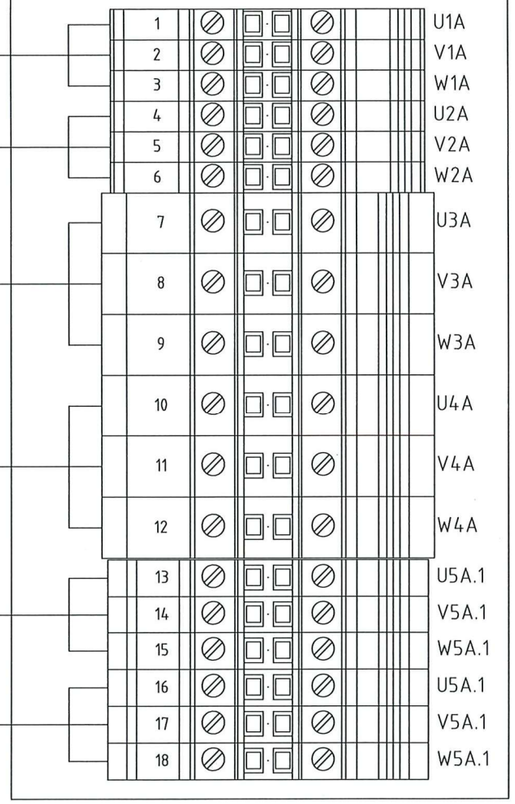


77409-CBL-L1	4G2.5	XLPE/UNBL S2
77410-CBL-L1	4G4	XLPE/UNBL S2
77411-CBL-L1	4G10	XLPE/UNBL S2
77412-CBL-L1	4G10	XLPE/UNBL S2
77413-CBL-L1	4G2.5	XLPE/UNBL S2
77414-CBL-L1	4G2.5	XLPE/UNBL S2

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

HHU-77007
HJB-77007A

+QG - XM1
MOTOR 1



REV.	MOD.	DATE	SIGN
04	ISSUED FOR INFORMATION (IFI)	19/12/24	
03	ISSUED FOR INFORMATION (IFI)	14/11/24	
02	ISSUED FOR INFORMATION (IFI)	15/10/24	F.M.

DATE	05/07/2024
DRN.	F.M.
CHKD	S.S.
APPD	M.G.

ALEXSISTEMI spa

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400

INTRCONNECTION

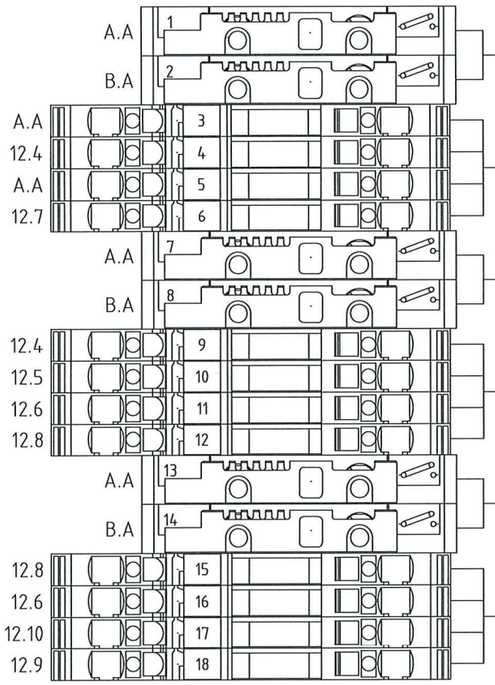
ROSETTI MARINO

1724000049-EL-DG-00025

FG. 4
F.S. 5

B400-HSB-001
PANEL SIDE

+QG - XMD1
MOTORISED DAMPER 1

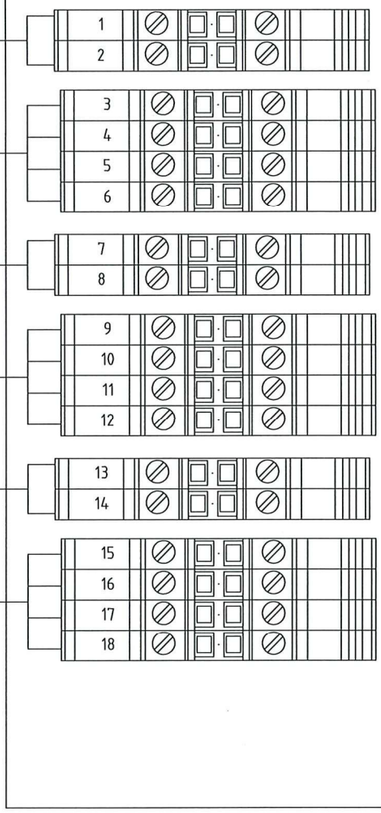


77415-CBL-L1	3G1.5	XLPE/UNBL S2
77408-CBC-L2	4X1.5	XLPE/UNBL S2
77416-CBL-L2	3G1.5	XLPE/UNBL S2
77409-CBC-L2	4X1.5	XLPE/UNBL S2
77417-CBL-L2	3G1.5	XLPE/UNBL S2
77410-CBC-L2	4X1.5	XLPE/UNBL S2

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

HHU-77007
HJB-77007B

+QG - XMD1
MOTORISED DAMPER 1



REV.	MOD.	DATE	SIGN	APPD	M.G.
04	ISSUED FOR INFORMATION (IFI)	19/12/24		DATE	05/07/2024
03	ISSUED FOR INFORMATION (IFI)	14/11/24		DRN.	F.M.
02	ISSUED FOR INFORMATION (IFI)	15/10/24	F.M.	CHKD	S.S.

ALEXSISTEMI spa

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400

INTRCONNECTION

ROSETTI MARINO

1724000049-EL-DG-00025

FG. 5
F.S. 6

B400-HSB-001
PANEL SIDE

+QG - XA1
AUXILIARY 1

HHU-77007
HJB-77007B

+QG - XA1
AUXILIARY 1

A.A	100	77411-CBC-L1	2X1.5	XLPE/UNEL S2	100
13.10	101				101
13.7	102	77412-CBC-L1	2X1.5	XLPE/UNEL S2	102
13.8	103				103
+24VDC	104	77413-CBC-L1	2X1.5	XLPE/UNEL S2	104
26.6	105				105
13.6	106	77414-CBC-L1	2X1.5	XLPE/UNEL S2	106
B.A	107				107
14.1	108	77415-CBC-L1	2X1.5	XLPE/UNEL S2	108
B.A	109				109
14.13	110	77416-CBC-L1	2X1.5	XLPE/UNEL S2	110
B.A	111				111
15.1	112	77417-CBC-L1	2X1.5	XLPE/UNEL S2	112
B.A	113				113
A.A	114	77347-CBC-L1	2X1.5	XLPE/UNEL S2	114
15.2	115				115
A.A	116	77419-CBC-L1	2X1.5	XLPE/UNEL S2	116
15.3	117				117
11.9	118	77420-CBC-L1	2X1.5	XLPE/UNEL S2	118
11.11	119				119
A.A	120	77421-CBC-L1	2X1.5	XLPE/UNEL S2	120
15.8	121				121
15.10	122	77422-CBC-L1	2X1.5	XLPE/UNEL S2	122
15.12	123				123
A.A	124	77423-CBC-L1	2X1.5	XLPE/UNEL S2	124
14.7	125				125
A.A	126	77424-CBC-L1	2X1.5	XLPE/UNEL S2	126
14.9	127				127
A.A	128	77449-CBC-L1	2X1.5	XLPE/UNEL S2	128
15.6	129				129

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

REV.	MOD.	DATE	SIGN
04	ISSUE FOR INFORMATION (IFI)	19/12/24	
03	ISSUE FOR INFORMATION (IFI)	14/11/24	
02	ISSUE FOR INFORMATION (IFI)	15/10/24	F.M.

DATE	05/07/2024
DRN.	F.M.
CHKD	S.S.
APPD	M.G.

ALEXSISTEMI spa

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400

INTRCONNECTION

ROSETTI MARINO

1724000049-EL-DG-00025

FG. 6
F.S. 7

B400-HSB-001
PANEL SIDE

+QG - XM2

MOTOR 2

U1B	1	77418-CBL-L1	4G2.5	XLPE/UNBL S2
V1B	2			
W1B	3			
U2B	4	77419-CBL-L1	4G4	XLPE/UNBL S2
V2B	5			
W2B	6			
U3B	7	77420-CBL-L1	4G10	XLPE/UNBL S2
V3B	8			
W3B	9			
U4B	10	77421-CBL-L1	4G10	XLPE/UNBL S2
V4B	11			
W4B	12			
U5B	13	77422-CBL-L1	4G2.5	XLPE/UNBL S2
V5B	14			
W5B	15			
U5B	16	77423-CBL-L1	4G2.5	XLPE/UNBL S2
V5B	17			
W5B	18			

HHU-77008
HJB-77008A

1	U1B
2	V1B
3	W1B
4	U2B
5	V2B
6	W2B
7	U3B
8	V3B
9	W3B
10	U4B
11	V4B
12	W4B
13	U5B
14	V5B
15	W5B
16	U5B
17	V5B
18	W5B

AS COMMISSIONED
ZUCCOMELLI DAVIDE
16/04/2026
NO MARK UP

REV.	MOD.	DATE	SIGN
04	ISSUED FOR INFORMATION (IFI)	19/12/24	
03	ISSUED FOR INFORMATION (IFI)	14/11/24	
02	ISSUED FOR INFORMATION (IFI)	15/10/24	F.M.

DATE	05/07/2024
DRN.	F.M.
CHKD	S.S.
APPD	M.G.

ALEXSISTEMI spa

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400

INTRCONNECTION

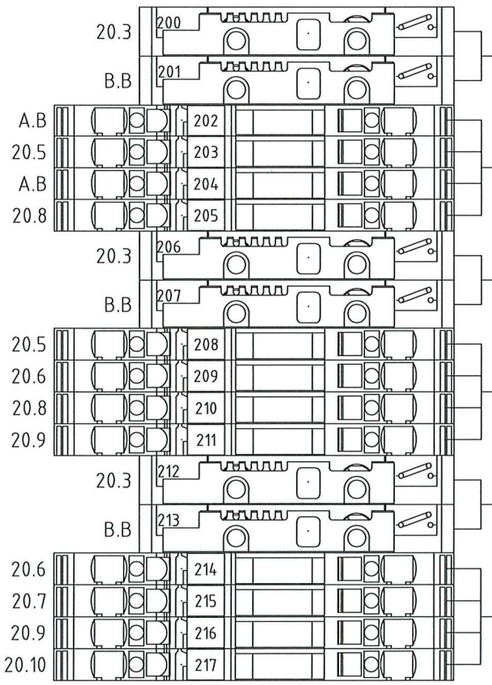
ROSETTI MARINO

1724000049-EL-DG-00025

FG. 7
F.S. 8

B400-HSB-001
PANEL SIDE

+QG - XMD2
MOTORISED DAMPER 2

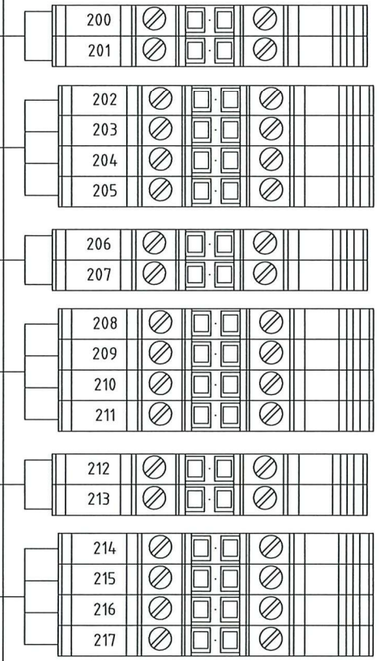


77424-CBL-L2	3G1.5	XLPE/UNBL S2
77425-CBC-L2	4X1.5	XLPE/UNBL S2
77426-CBL-L2	3G1.5	XLPE/UNBL S2
77427-CBC-L2	4X1.5	XLPE/UNBL S2
77428-CBL-L2	3G1.5	XLPE/UNBL S2
77442-CBC-L2	4X1.5	XLPE/UNBL S2

AS COMMISSIONED
ZUCCOMELLI DAVIDE
16/04/2025
MO MARK UP

HHU-77008
HJB-77008B

+QG - XMD2
MOTORISED DAMPER 2



REV.	MOD.	DATE	SIGN
04	ISSUED FOR INFORMATION (IFI)	19/12/24	
03	ISSUED FOR INFORMATION (IFI)	14/11/24	
02	ISSUED FOR INFORMATION (IFI)	15/10/24	F.M.

DATE	05/07/2024
DRN.	F.M.
CHKD	S.S.
APPD	M.G.

ALEXSISTEMI spa

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400

INTRCONNECTION

ROSETTI MARINO

1724000049-EL-DG-00025

FG. 8
F.S. 9

B400-HSB-001
PANEL SIDE

+QG - XA2
AUXILIARY 2

HHU-77008
HJB-77008B

+QG - XA2
AUXILIARY 2

A.B	300	77428-CBC-L1	2X1.5	XLPE/UNEL S2	300
13.11	301				301
21.6	302	77429-CBC-L1	2X1.5	XLPE/UNEL S2	302
21.7	303				303
+24VDC	304	77430-CBC-L1	2X1.5	XLPE/UNEL S2	304
26.7	305				305
21.5	306	77431-CBC-L1	2X1.5	XLPE/UNEL S2	306
B.B	307				307
22.1	308	77432-CBC-L1	2X1.5	XLPE/UNEL S2	308
B.A	309				309
22.13	310	77433-CBC-L1	2X1.5	XLPE/UNEL S2	310
B.A	311				311
23.1	312	77434-CBC-L1	2X1.5	XLPE/UNEL S2	312
B.A	313				313
A.B	314	77450-CBC-L1	2X1.5	XLPE/UNEL S2	314
15.2	315				315
A.B	316	77436-CBC-L1	2X1.5	XLPE/UNEL S2	316
15.3	317				317
19.3	318	77437-CBC-L1	2X1.5	XLPE/UNEL S2	318
19.4	319				319
A.B	320	77438BC-L1	2X1.5	XLPE/UNEL S2	320
15.9	321				321
23.4	322	77439-CBC-L1	2X1.5	XLPE/UNEL S2	322
15.13	323				323
A.B	324	77440-CBC-L1	2X1.5	XLPE/UNEL S2	324
14.7	325				325
A.B	326	77441-CBC-L1	2X1.5	XLPE/UNEL S2	326
14.9	327				327
A.B	328	77448-CBC-L1	2X1.5	XLPE/UNEL S2	328
23.6	329				329

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

REV.	MOD.	DATE	SIGN	APPD	M.G.
04	ISSUED FOR INFORMATION (IFI)	19/12/24		DATE	05/07/2024
03	ISSUED FOR INFORMATION (IFI)	14/11/24		DRN.	F.M.
02	ISSUED FOR INFORMATION (IFI)	15/10/24	F.M.	CHKD	S.S.

ALEXSISTEMI spa

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400

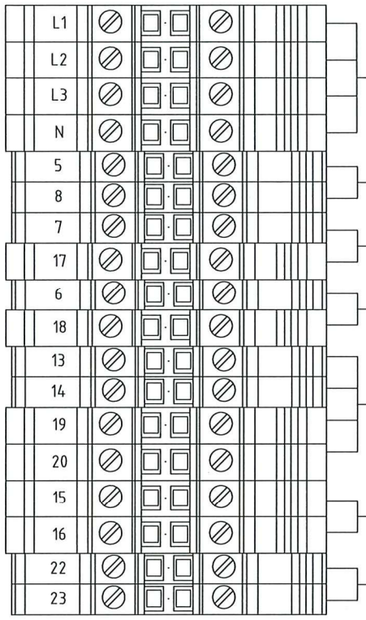
INTERCONNECTION

ROSETTI MARINO

1724000049-EL-DG-00025

FG. 9
F.S. 10

B400-HSB-001
PANEL SIDE
+QG - XP1
POWER SUPPLY 1

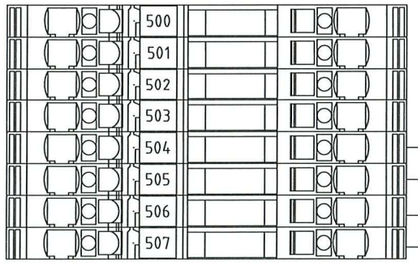


POWER SUPPLY	5G16	FROM CLIENT	HHS-77-010
77401-CBL-L1	3G2.5	XLPE/UNBL S2	HHS-77-011
77402-CBL-L1	3G2.5	XLPE/UNBL S2	HHS-77-012
77403-CBL-L1	3G2.5	XLPE/UNBL S2	PECW-B400H-F1-L1-02
77404-CBL-L1	5G2.5	XLPE/UNBL S2	PESO-B400H-F2-L2-01
77408-CBL-L2	3G2.5	XLPE/UNBL S2	HJB-7700XXX
HEATING CSBLE TBA	2X1.5	XLPE/UNBL S2	

HHS-77-010: L, N
HHS-77-011: L, N
HHS-77-012: L, N
PECW-B400H-F1-L1-02: BROWN L1, BLACK L2, GRBY N, Y/G GND
PESO-B400H-F2-L2-01: L1, N
HJB-7700XXX: 22, 23

AS COMMISSIONED
FULCOMER DAVID
16/04/2025
NO MARK UP

+QG - XC
COMMAND



77401-CBC-L1	2X1.5	XLPE/UNBL S2	CELS-B400H-F1-L1-01
77402-CBC-L1	2X1.5	XLPE/UNBL S2	CELS-B400H-F1-L1-02

CELS-B400H-F1-L1-01: BROWN 1, BLUE 2
CELS-B400H-F1-L1-02: BROWN 1, BLUE 2

REV.	MOD.	DATE	SIGN
04	ISSUED FOR INFORMATION (IFI)	19/12/24	
03	ISSUED FOR INFORMATION (IFI)	14/11/24	
02	ISSUED FOR INFORMATION (IFI)	15/10/24	F.M.

DATE	05/07/2024
DRN.	F.M.
CHKD	S.S.
APPD	M.G.

ALEXSISTEMI spa

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400

INTERCONNECTION

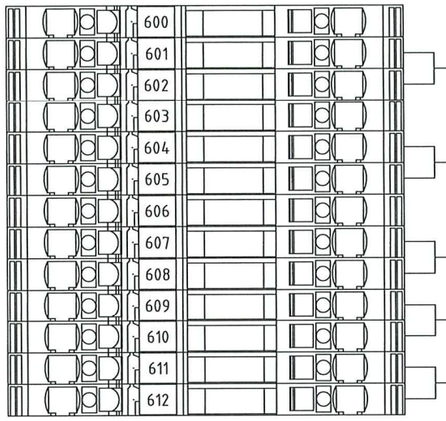
ROSETTI MARINO

1724000049-EL-DG-00025

FG. 10
F.S. 11

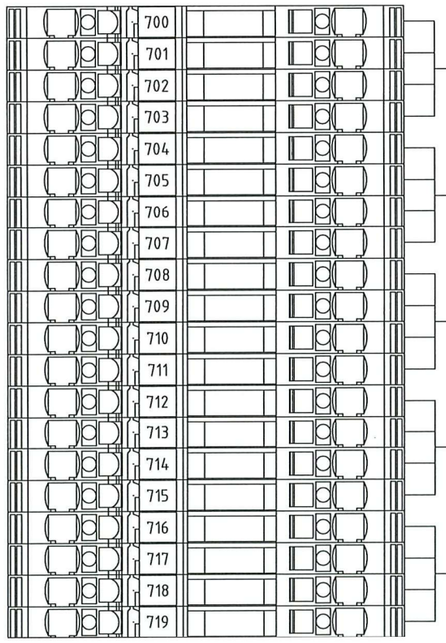
B400-HSB-001
PANEL SIDE

+QG - XT
TRASMITTER



77453-CBC-L1	3X1.5+Sh	XLPE/UNEL S2	77-TT-401
77449-CBC-L1	3X1.5+Sh	XLPE/UNEL S2	77-TT-402
77450-CBC-L1	3X1.5+Sh	XLPE/UNEL S2	77-TP-401
77454-CBC-L1	3X1.5+Sh	XLPE/UNEL S2	77-TT-403
77455-CBC-L1	3X1.5+Sh	XLPE/UNEL S2	77-TT-404

+QG - XFD
FIRE DAMPER



77442-CBC-L2	4X1.5	XLPE/UNEL S2	HFD-77012
77443-CBC-L2	4X1.5	XLPE/UNEL S2	HFD-77013
77444-CBC-L2	4X1.5	XLPE/UNEL S2	HFD-77014
77445-CBC-L2	4X1.5	XLPE/UNEL S2	HFD-77015
77446-CBC-L2	4X1.5	XLPE/UNEL S2	HFD-77016

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

REV.	MOD.	DATE	SIGN	APPD	
04	ISSUED FOR INFORMATION (IFI)	19/12/24		DATE	05/07/2024
03	ISSUED FOR INFORMATION (IFI)	14/11/24		DRN.	F.M.
02	ISSUED FOR INFORMATION (IFI)	15/10/24	F.M.	CHKD	S.S.
				APPD	M.G.

ALEXSISTEMI spa

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400

INTERCONNECTION

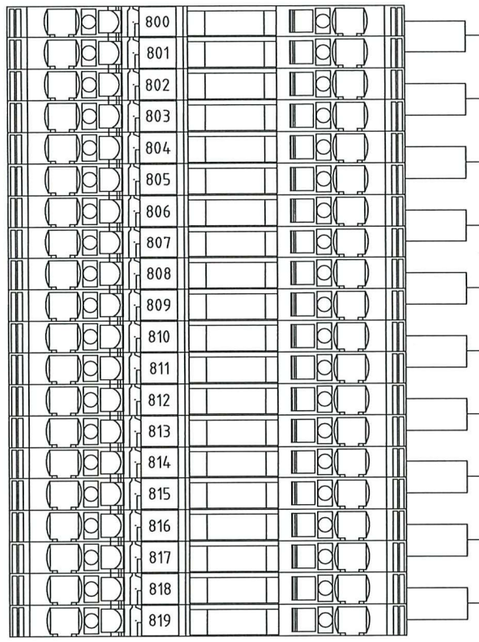
ROSETTI MARINO

1724000049-EL-DG-00025

FG. 11
F.S. 12

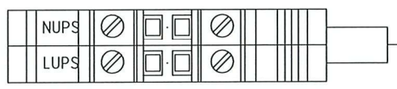
B400-HSB-001
PANEL SIDE

+QG - XFD/S
FIRE DAMPERS SIGNAL TO SIS



4 5	HFD-77012 CLOSED SIGNAL	7 8 HFD-77012 OPEN SIGNAL
4 5	HFD-77013 CLOSED SIGNAL	7 8 HFD-77013 OPEN SIGNAL
4 5	HFD-77014 CLOSED SIGNAL	7 8 HFD-77014 OPEN SIGNAL
4 5	HFD-77015 CLOSED SIGNAL	7 8 HFD-77015 OPEN SIGNAL
4 5	HFD-77016 CLOSED SIGNAL	7 8 HFD-77016 OPEN SIGNAL

+QG - XUPS
UPS POWER SUPPLY



UPS POWER SUPPLY 3G2.5 FROM CLIENT

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

REV.	MOD.	DATE	SIGN	APPD	
04	ISSUED FOR INFORMATION (IFI)	19/12/24		DATE	05/07/2024
03	ISSUED FOR INFORMATION (IFI)	14/11/24		DRN.	F.M.
02	ISSUED FOR INFORMATION (IFI)	15/10/24	F.M.	CHKD	S.S.
				APPD	M.G.

ALEXSISTEMI spa

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400

INTERCONNECTION

ROSETTI MARINO

1724000049-EL-DG-00025

FG. 12
F.S. /

Section 4.3 Instrumentation functional test sheets index

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 77-40 & discipline : I

Instrumental	77-40 HVAC I&T Equipment Room B-400						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
77-XA-004	B-400 I&T equip. Room HVAC fault	ONSHORE	C10003797	FJ01D	100	2025-02-24	RFO 2
77-XS-004	SHUT-DOWN B-400 I&T equip. Room HVAC	ONSHORE	C10003801	FJ01D	100	2025-02-24	RFO 2
B400-HSB-001	Distribution & HVAC Panel - I&T Equipment Room	ONSHORE	C10004882	FJ05	100	2025-05-15	RFO 2

ROSETTI MARINO | PROVERLIS | CROSSWIND

ITEM	Tag	77-XA-004	: B-400 I&T equip. Room HVAC fault	Dwg	123A90-DDL-IN-LIS-40089		
	S/Sys	77-40	: HVAC I&T Equipment Room B-400	Module			
TASK	code	C10003797	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-004			TSLD	123A90-FDL-IN-DG-40014		
IO Type	Input	Yes	Output NA	Energy by transmitter	NA	Energy by system	Yes
Marshalling	B400-SIS-001	Terminal	10A/10B	Slot	01	Rack 03	Chanel 10

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	10/08/2025

Comments:

Page 1/1

	Performed by	☐ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RM	RM COMM	CW OPS
Name	Emerik Copkovic	Giandonato Delmissier	Jamie McAllister
Date	2025-02-24	2025-02-24	2025-02-24

PROVERLIS Digitaly signed by Emerik Copkovic 2025-02-24T07:56:12.785Z

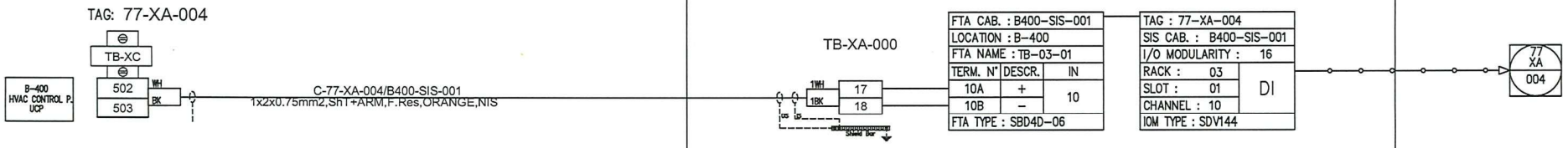
PROVERLIS Digitaly signed by Giandonato Delmissier 2025-02-24T13:35:39.264Z

PROVERLIS Digitaly signed by Jamie McAllister 2025-02-24T15:36:18.929Z

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–004
B–400 I&T EQUIP. 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 137	REV. 01

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

ROSETTI MARINO | PROVERLIS | CROSSWIND

ITEM	Tag	77-XS-004	: SHUT-DOWN B-400 I&T equip. Room HVAC	Dwg	123A90-DDL-IN-LIS-40089		
	S/Sys	77-40	: HVAC I&T Equipment Room B-400	Module			
TASK	code	C10003801	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-004			TSLD	123A90-FDL-IN-DG-40014		
IO Type	Input	No	Output Yes	Energy by transmitter	NA	Energy by system	Yes
Marshalling	B400-SIS-001	Terminal	02A/02B	Slot 07	Rack 02	Chanel 02	

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	10/08/2025

Comments:

	Performed by	☐ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RM	RM COMM	CW OPS
Name	Emerik Copkovic	Giandonato Delmissier	Jamie McAllister
Date	2025-02-24	2025-02-24	2025-02-24

PROVERLIS Digitaly signed by Emerik Copkovic 2025-02-24T07:55:54.049Z

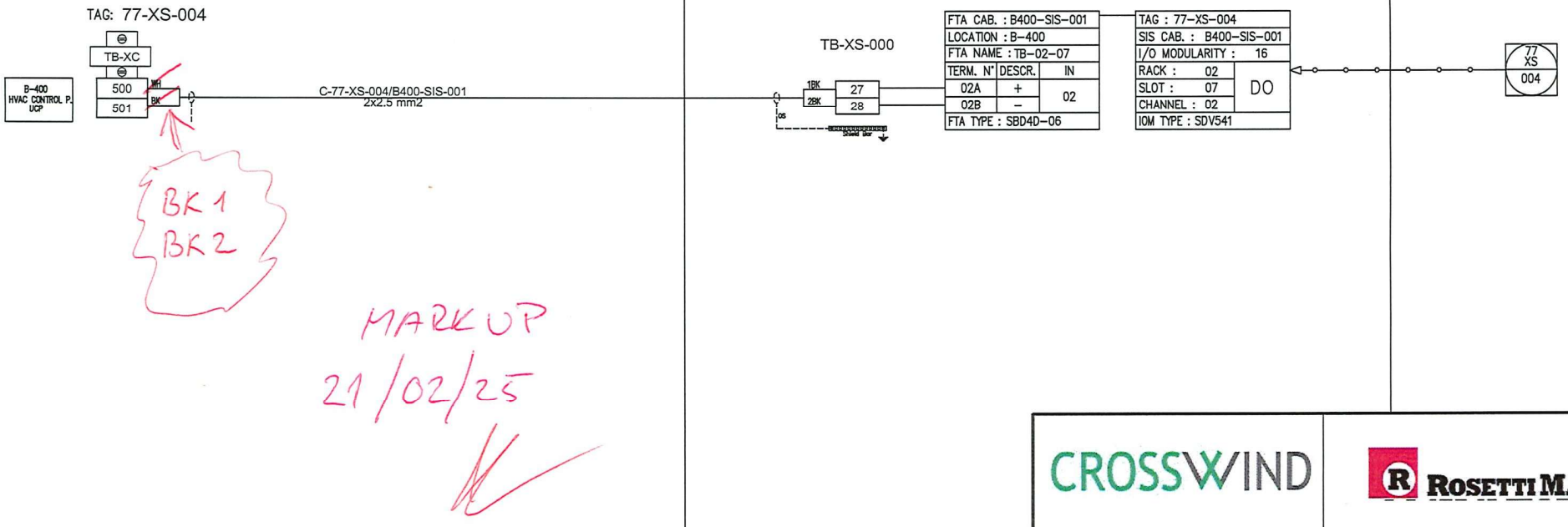
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PROVERLIS Digitaly signed by Jamie McAllister 2025-02-24T15:39:06.611Z

Signature			

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

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



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-004
SHUT-DOWN B-400 I&T EQUIP. 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 151	REV. 00

File Name : 123A90-DDL-IN-DG-40014_REV00

SERIAL COMMUNICATION TEST

Reference document number: 1724000049-HV-LIS-00054 REV. 05

Associated subsystems: 77-40

Completion date: 10/05/2025

Comments/Remarks:

	Performed by	☐ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ROSETTI MARINO		
Name	Fabio Sirigu	Martin Taylor	
Date	2025-05-15	2025-05-15	
Signature	PROVERLIS Digitaly signed by Fabio Sirigu 2025-05-15T05:44:35.137Z	PROVERLIS Digitaly signed by Martin Taylor 2025-05-15T08:13:54.784Z	

Base Load Power Hub (BLPH)

B-400 HVAC I/O LIST - E&I SHELTERS

Document Number:1724000049-HV-LIS-00054

Document Class: 3

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	28/06/2024	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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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		
5	I/O List	X	X	X	X	X	X		
6	I/O List	X	X	X	X	X	X		
7	I/O List	X	X	X	X	X	X		

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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)

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No.	Description
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10/05/2025
COMMISSIONING:

CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-WP4-2023-05	ROSETTI MARINO
Document Titel:	B-400 HVAC IO LIST - E&I SHELTERS	Sh. 4 of 7 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																									
3	1	123A90-1724000049HV-PID-00042	I 0,0	SHUT DOWN	XC - 500 / 501	77-XS-004	B400-HSB-001	DI	SIS	HVAC UCP	ALARM	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		24 Vdc From SIS, Free voltage contact for HVAC system
3	2	123A90-1724000049HV-PID-00042	Q 0,0	HVAC CRITICAL FAULT	XC - 502 / 503	77XA-004	B400-HSB-001	DO	HVAC UCP	SIS	ALARM	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		24 Vdc From HVAC & Lighting Panel, Free voltage contact for SIS system
3	4	123A90-1724000049HV-PID-00042	I 7,2	F&G DAMPER HDF-77012 CLOSE SIGNAL	XFD/S - 800 / 801	77-ZSL-012	HDF-77012	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-00042	I 7,4	F&G DAMPER HDF-77013 CLOSE SIGNAL	XFD/S - 804 / 805	77-ZSL-013	HDF-77013	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	6	123A90-1724000049HV-PID-00042	I 7,6	F&G DAMPER HDF-77014 CLOSE SIGNAL	XFD/S - 808 / 809	77-ZSL-014	HDF-77014	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	7	123A90-1724000049HV-PID-00042	I 8,1	F&G DAMPER HDF-77015 CLOSE SIGNAL	XFD/S - 812 / 813	77-ZSL-015	HDF-77015	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	8	123A90-1724000049HV-PID-00042	I 8,3	F&G DAMPER HDF-77016 CLOSE SIGNAL	XFD/S - 816 / 817	77-ZSL-016	HDF-77016	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	9	123A90-1724000049HV-PID-00042	I0,2	MAIN BRAKER TRIP			B400-HSB-001	DI	HVAC UCP	HVAC UCP	TRIP	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	10	123A90-1724000049HV-PID-00042	I0,3	AUTOMATIC MODE			HHU-77007	DI	HVAC UCP	HVAC UCP	NOT AUTOMATIC	AUTOMATIC	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	11	123A90-1724000049HV-PID-00042	I0,4	AUTOMATIC MODE			HHU-77008	DI	HVAC UCP	HVAC UCP	NOT AUTOMATIC	AUTOMATIC	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		
4	12	123A90-1724000049HV-PID-00042	AI 0,0	TEMPERATURE TRASMITTER 1			77-TT-401	AI	77-TT-401	HVAC UCP	-	-	-10	60	°C	-	-	-	-	-	-	-	4-20 Ma		
4	13	123A90-1724000049HV-PID-00042	AI 0,1	TEMPERATURE TRASMITTER 2			77-TT-402	AI	77-TT-402	HVAC UCP	-	-	-10	60	°C	-	-	-	-	-	-	-	4-20 Ma		
4	14	123A90-1724000049HV-PID-00042	AI 0,2	DIFFERNTIAL PRESSURE TRASMITTER			77-PT-401	AI	77-PT-401	HVAC UCP	-	-	-10	60	°C	-	-	-	-	-	-	-	4-20 Ma		
4	15	123A90-1724000049HV-PID-00042	AI 0,3	TEMPERATURE TRASMITTER 3			77-TT-403	AI	77-TT-403	HVAC UCP	-	-	-10	60	°C	-	-	-	-	-	-	-	4-20 Ma		
4	16	123A90-1724000049HV-PID-00042	AI 1,0	TEMPERATURE TRASMITTER 4			77-TT-404	AI	77-TT-404	HVAC UCP	-	-	0	500	Pa	-	-	-	-	-	-	-	4-20 Ma		
4	17	123A90-1724000049HV-PID-00042	I 0,5	PANEL EMERGENCY POWER BUTTON			HPB-77-403	DI	HPB-77-403	HVAC UCP	ALARM	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		
4	18	123A90-1724000049HV-PID-00042	I 0,6	MODULE LIGHT TRIP			B400-HSB-001	DI	HVAC UCP	HVAC UCP	TRIP	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		
4	19	123A90-1724000049HV-PID-00042	I 0,7	MODULE SOCKET TRIP			B400-HSB-001	DI	HVAC UCP	HVAC UCP	TRIP	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		
4	20	123A90-1724000049HV-PID-00042	I 1,0	SPACE HEATER TRIP			HSS-77010/11/12	DI	HVAC UCP	HVAC UCP	TRIP	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		
4	21	123A90-1724000049HV-PID-00042	I 1,1	SPACE HEATER START FEEDBACK			HSS-77010/11/12	DI	HVAC UCP	HVAC UCP	STOP	RUN	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		
4	22	123A90-1724000049HV-PID-00042	Q0,2	SPACE HEATER ASTART COMMAND			HSS-77010/11/12	DO	HVAC UCP	HVAC UCP	STOP	START	-	-	-	-	-	-	-	-	-	-	24V DC		
4	23	123A90-1724000049HV-PID-00042	I 1,4	AUX SECTION TRIP			B400-HSB-001	DI	HVAC UCP	HVAC UCP	NORMAL	TRIP	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		
4	24	123A90-1724000049HV-PID-00042	Q1,2	RESET CONTACT			B400-HSB-001	DO	HVAC UCP	HVAC UCP	NORMAL	RESET	-	-	-	-	-	-	-	-	-	-	24V DC		
4	25	123A90-1724000049HV-PID-00042	I 6,7	MANUAL MODE			HHU-77007	DI	HVAC UCP	HVAC UCP	NOT MANUAL	MANUAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		
4	26	123A90-1724000049HV-PID-00042	I 7,0	MANUAL MODE			HHU-77008	DI	HVAC UCP	HVAC UCP	NOT MANUAL	MANUAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		
4	27	123A90-1724000049HV-PID-00042	I 7,1	HFD-77012 OPEN SIGNAL		77-ZSH-012	HFD-77012	DI	HFD-77012	HVAC UCP	NOT OPEN	OPEN	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		
4	28	123A90-1724000049HV-PID-00042	I 7,2	HFD-77012 CLOSED SIGNAL		77-ZSL-012	HFD-77012	DI	HFD-77012	HVAC UCP	NOT CLOSED	CLOSED	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		
4	29	123A90-1724000049HV-PID-00042	I 7,3	HFD-77013 OPEN SIGNAL		77-ZSH-013	HFD-77013	DI	HFD-77013	HVAC UCP	NOT OPEN	OPEN	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		
4	30	123A90-1724000049HV-PID-00042	I 7,4	HFD-77013 CLOSED SIGNAL		77-ZSL-013	HFD-77013	DI	HFD-77013	HVAC UCP	NOT CLOSED	CLOSED	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		
4	31	123A90-1724000049HV-PID-00042	I 7,5	HFD-77014 OPEN SIGNAL		77-ZSH-014	HFD-77014	DI	HFD-77014	HVAC UCP	NOT OPEN	OPEN	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		
4	32	123A90-1724000049HV-PID-00042	I 7,6	HFD-77014 CLOSED SIGNAL		77-ZSL-014	HFD-77014	DI	HFD-77014	HVAC UCP	NOT CLOSED	CLOSED	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		
4	33	123A90-1724000049HV-PID-00042	I 8,0	HFD-77015 OPEN SIGNAL		77-ZSH-015	HFD-77015	DI	HFD-77015	HVAC UCP	NOT OPEN	OPEN	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		
4	34	123A90-1724000049HV-PID-00042	I 8,1	HFD-77015 CLOSED SIGNAL		77-ZSL-015	HFD-77015	DI	HFD-77015	HVAC UCP	NOT CLOSED	CLOSED	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		
4	35	123A90-1724000049HV-PID-00042	I 8,2	HFD-77016 OPEN SIGNAL		77-ZSH-016	HFD-77016	DI	HFD-77016	HVAC UCP	NOT OPEN	OPEN	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		
4	36	123A90-1724000049HV-PID-00042	I 8,3	HFD-77016 CLOSED SIGNAL		77-ZSL-016	HFD-77016	DI	HFD-77016	HVAC UCP	NOT CLOSED	CLOSED	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		
4	37	123A90-1724000049HV-PID-00042	I 9,7	TRIP SIGNAL HEATING CABLE			HHC-77-004	DI	HVAC UCP	HVAC UCP	TRIP	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		
4	38			UNIT A																					
4	39	123A90-1724000049HV-PID-00042	Q0,4	HHU-77007 START			HHU-77007	DO	HVAC UCP	HVAC UCP	STOP	START	-	-	-	-	-	-	-	-	-	-	24V DC		
4	40	123A90-1724000049HV-PID-00042	I1,5	MOTORISED DAMPER NOT OPEN			HDZ-77-401/2/3	DI	HHU-77007	HVAC UCP	NORMAL	FAULT	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		
4	41	123A90-1724000049HV-PID-00042	I 1,6	MOTORISED DAMPER CLOSED			HDZ-77-401/2/3	DI	HHU-77007	HVAC UCP	NOT CLOSED	CLOSED	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		
4	42	123A90-1724000049HV-PID-00042	I 1,7	MOTORISED DAMPER OPEN			HDZ-77-401/2/3	DI	HHU-77007	HVAC UCP	NOT OPEN	OPEN	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		
4	43	123A90-1724000049HV-PID-00042	Q 0,5	PRESSURIZING FAN UNIT HHU-77007 HEATER			HSS-77-403	DO	HHU-77007	HVAC UCP	STOP	RUN	-	-	-	-	-	-	-	-	-	-	24V DC		
4	44	123A90-1724000049HV-PID-00042	I 2,0	PRESSURIZING FAN UNIT HHU-77007 THERMIC PROTECTION			TE-77-401	DI	HHU-77007	HVAC UCP	NORMAL	FAULT	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		
4	45	123A90-1724000049HV-PID-00042	I 2,1	PRESSURIZING FAN UNIT HHU-77007 VSD MALFUNCTION			HFM-77-401	DI	HHU-77007	HVAC UCP	NORMAL	FAULT	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		
4	46	123A90-1724000049HV-PID-00042	AQ 0,0	PRESSURIZING FAN MODULATION			HFM-77-401	AO	HVAC UCP	HHU-77007			4	20mA	-	-	-	-	-	-	-	-	4-20mA		
4	47	123A90-1724000049HV-PID-00042	I 2,2	PRESSURISING FAN TRIP			HFM-77-401	DI	HHU-77007	HVAC UCP	TRIP	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		
4	48	123A90-1724000049HV-PID-00042	I 2,3	SUPPLY FAN RUN			HFM-77-402	DI	HHU-77007	HVAC UCP	STOP	RUN	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		
4	49	123A90-1724000049HV-PID-00042	I 2,4	SUPPLY FAN BROKEN BELT ALARM			PDSL-77-401	DI	HHU-77007	HVAC UCP	NORMAL	FAULT	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		
4	50	123A90-1724000049HV-PID-00042	I 2,5	SUPPLY FAN TRIP			HFM-77-402	DI	HHU-77007	HVAC UCP	TRIP	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		
4	51	123A90-1724000049HV-PID-00042	Q 0,6	COMPRESSOR START			HCO-77-401	DO	HVAC UCP	HHU-77007	STOP	START	-	-	-	-	-	-	-	-	-	-	24V DC		

10/05/2025
COMMISSIONING

CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-WP4-2023-05	ROSETTI MARINO
Document Titel:	B-400 HVAC IO LIST - E&I SHELTERS	Sh. 5 of 7 28/01/2025 Rev: 5

Rev	Item	P&ID	PLC I / O	Service Description	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	52	123A90-1724000049HV-PID-00042	I 2,6	COMPRESSOR RUNNING	HCO-77-401	DI	HHU-77007	HVAC UCP	HHU-77007	HVAC UCP	STOP	RUN	-	-	-	-	-	-	-	-	VFC 24 Vdc		
4	53	123A90-1724000049HV-PID-00042	I 2,7	COMPRESSOR TRIP	HCO-77-401	DI	HHU-77007	HVAC UCP	TRIP	NORMAL	-	-									VFC 24 Vdc		
4	54	123A90-1724000049HV-PID-00042	I 3,0	COMPRESSOR HIGH PRESSURE	PSH-77-401	DI	HHU-77007	HVAC UCP	NORMAL	FAULT	-	-									VFC 24 Vdc		
4	55	123A90-1724000049HV-PID-00042	I 3,1	COMPRESSOR LOW PRESSURE	PSL-77-401	DI	HHU-77007	HVAC UCP	NORMAL	FAULT	-	-									VFC 24 Vdc		
4	56	123A90-1724000049HV-PID-00042	I 3,2	CONDENSER FAN TRIP	HFM-77-405/6	DI	HHU-77007	HVAC UCP	TRIP	NORMAL	-	-									VFC 24 Vdc		
4	57	123A90-1724000049HV-PID-00042	I 3,3	CONDENSER FAN VSD MALFUNCTION	HFM-77-405/6	DI	HHU-77007	HVAC UCP	NORMAL	FAULT	-	-									VFC 24 Vdc		
4	58	123A90-1724000049HV-PID-00042	I 3,4	FILTER CLOGGED	PDSH-77-401	DI	HHU-77007	HVAC UCP	NORMAL	FAULT	-	-									VFC 24 Vdc		
4	59	123A90-1724000049HV-PID-00042	I 3,5	ELECTRICAL HEATE RTHERMOSTATE TRIP	HSS-77-401	DI	HHU-77007	HVAC UCP	TRIP	NORMAL	-	-									VFC 24 Vdc		
4	60	123A90-1724000049HV-PID-00042	I 3,6	ELECTRICAL HEATER TRIP	HSS-77-401	DI	HHU-77007	HVAC UCP	TRIP	NORMAL	-	-									VFC 24 Vdc		
4	61	123A90-1724000049HV-PID-00042	AQ 0,2	ELECTRICAL HEATER MODULATION	HSS-77-401	AO	HVAC UCP	HVAC UCP	-	-	4	20mA									4-20mA		
4	62	123A90-1724000049HV-PID-00042	I 3,7	ELECTRICAL HEATER MODULATION FAULT	HSS-77-401	DI	HHU-77007	HVAC UCP	TRIP	NORMAL	-	-									VFC 24 Vdc		
4	63	123A90-1724000049HV-PID-00042	I 4,0	EMERGENCY STOP BUTTON	HPB-77-401	DI	HHU-77007	HVAC UCP	TRIP	NORMAL	-	-									VFC 24 Vdc		
4	64	123A90-1724000049HV-PID-00042	I 4,1	SECTION HHU-77007 MAIN BRAKER OPEN	B400-HSB-001	DI	HVAC UCP	HVAC UCP	TRIP	NORMAL	-	-			-	-	-	-	-	-	VFC 24 Vdc		-
4	65	123A90-1724000049HV-PID-00042	I 0.1	PRESSURIZING FAN LOW PRESSURE	PDSL-77-402	DI	HHU-77007	HVAC UCP	NORMAL	CLOGGED											VFC 24 Vdc		
4	66			UNIT B																			-
4	67	123A90-1724000049HV-PID-00042	Q 0,7	HHU-77008 START	HHU-77008	DO	HHU-77008	HVAC UCP	STOP	START	-	-			-	-	-	-	-	-	24V DC		-
4	68	123A90-1724000049HV-PID-00042	I 4,2	MOTORISED DAMPER NOT OPEN	HDZ-77-404/5/6	DI	HHU-77008	HVAC UCP	NORMAL	FAULT	-	-			-	-	-	-	-	-	VFC 24 Vdc		-
4	69	123A90-1724000049HV-PID-00042	I 4,3	MOTORISED DAMPER CLOSED	HDZ-77-404/5/6	DI	HHU-77008	HVAC UCP	NOT CLOSED	CLOSED	-	-			-	-	-	-	-	-	VFC 24 Vdc		-
4	70	123A90-1724000049HV-PID-00042	I 4,4	MOTORISED DAMPER OPEN	HDZ-77-404/5/6	DI	HHU-77008	HVAC UCP	NOT OPEN	OPEN	-	-			-	-	-	-	-	-	VFC 24 Vdc		-
4	71	123A90-1724000049HV-PID-00042	Q 1,0	PRESSURIZING FAN UNIT HHU-77008 HEATER	HSS-77-407	DO	HHU-77008	HVAC UCP	STOP	RUN	-	-			-	-	-	-	-	-	24V DC		-
4	72	123A90-1724000049HV-PID-00042	I 4,5	PRESSURIZING FAN UNIT HHU-77008 THERMIC PROTECTION	TE-77-402	DI	HHU-77008	HVAC UCP	NORMAL	FAULT	-	-			-	-	-	-	-	-	VFC 24 Vdc		-
4	73	123A90-1724000049HV-PID-00042	I 4,6	PRESSURIZING FAN UNIT HHU-77008 VSD MALFUNCTION	HFM-77-403	DI	HHU-77008	HVAC UCP	NORMAL	FAULT	-	-			-	-	-	-	-	-	VFC 24 Vdc		-
4	74	123A90-1724000049HV-PID-00042	AQ 0,1	PRESSURIZING FAN MODULATION	HFM-77-403	AO	HVAC UCP	HHU-77008			4	20mA			-	-	-	-	-	-	4-20mA		-
4	75	123A90-1724000049HV-PID-00042	I 4,7	PRESSURISING FAN TRIP	HFM-77-403	DI	HHU-77008	HVAC UCP	TRIP	NORMAL	-	-			-	-	-	-	-	-	VFC 24 Vdc		-
4	76	123A90-1724000049HV-PID-00042	I 5,0	SUPPLY FAN RUN	HMF-77-404	DI	HHU-77008	HVAC UCP	STOP	RUN	-	-			-	-	-	-	-	-	VFC 24 Vdc		-
4	77	123A90-1724000049HV-PID-00042	I 5,1	SUPPLY FAN BROKEN BELT ALARM	PDSL-77-402	DI	HHU-77008	HVAC UCP	NORMAL	FAULT	-	-			-	-	-	-	-	-	VFC 24 Vdc		-
4	78	123A90-1724000049HV-PID-00042	I 5,2	SUPPLY FAN TRIP	HMF-77-404	DI	HHU-77008	HVAC UCP	TRIP	NORMAL	-	-			-	-	-	-	-	-	VFC 24 Vdc		-
4	79	123A90-1724000049HV-PID-00042	Q 1,1	COMPRESSOR START	HCO-77-402	DO	HHU-77008	HVAC UCP	STOP	START	-	-			-	-	-	-	-	-	24V DC		-
4	80	123A90-1724000049HV-PID-00042	I 5,3	COMPRESSOR RUNNING	HCO-77-402	DI	HHU-77008	HVAC UCP	STOP	RUN	-	-			-	-	-	-	-	-	VFC 24 Vdc		-
4	81	123A90-1724000049HV-PID-00042	I 5,4	COMPRESSOR TRIP	HCO-77-402	DI	HHU-77008	HVAC UCP	TRIP	NORMAL	-	-			-	-	-	-	-	-	VFC 24 Vdc		-
4	82	123A90-1724000049HV-PID-00042	I 5,5	COMPRESSOR HIGH PRESSURE	PSH-77-402	DI	HHU-77008	HVAC UCP	NORMAL	FAULT	-	-			-	-	-	-	-	-	VFC 24 Vdc		-
4	83	123A90-1724000049HV-PID-00042	I 5,6	COMPRESSOR LOW PRESSURE	PSL-77-402	DI	HHU-77008	HVAC UCP	NORMAL	FAULT	-	-			-	-	-	-	-	-	VFC 24 Vdc		-
4	84	123A90-1724000049HV-PID-00042	I 5,7	CONDENSER FAN TRIP	HFM-77-407/8	DI	HHU-77008	HVAC UCP	TRIP	NORMAL	-	-			-	-	-	-	-	-	VFC 24 Vdc		-
4	85	123A90-1724000049HV-PID-00042	I 6,0	CONDENSER FAN VSD MALFUNCTION	HFM-77-407/8	DI	HHU-77008	HVAC UCP	NORMAL	FAULT	-	-									VFC 24 Vdc		
4	86	123A90-1724000049HV-PID-00042	I 6,1	FILTER CLOGGED	PDSH-77-403	DI	HHU-77008	HVAC UCP	NORMAL	FAULT	-	-									VFC 24 Vdc		
4	87	123A90-1724000049HV-PID-00042	I 6,2	ELECTRICAL HEATE RTHERMOSTATE TRIP	TSH/HH-77-402	DI	HHU-77008	HVAC UCP	TRIP	NORMAL	-	-									VFC 24 Vdc		
4	88	123A90-1724000049HV-PID-00042	I 6,3	ELECTRICAL HEATER TRIP	HSS-77-405	DI	HHU-77008	HVAC UCP	TRIP	NORMAL	-	-									VFC 24 Vdc		
4	89	123A90-1724000049HV-PID-00042	AQ 0,3	ELECTRICAL HEATER MODULATION	HSS-77-405	AO	HHU-77008	HVAC UCP	TRIP	NORMAL	4	20mA									4-20mA		
4	90	123A90-1724000049HV-PID-00042	I 6,4	ELECTRICAL HEATER MODULATION FAULT	HSS-77-405	DI	HHU-77008	HVAC UCP	TRIP	NORMAL	-	-									VFC 24 Vdc		
4	91	123A90-1724000049HV-PID-00042	I6,5	EMERGENCY STOP BUTTON	HPB-77-402	DI	HHU-77008	HVAC UCP	TRIP	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	92	123A90-1724000049HV-PID-00042	I6,6	SECTION HHU-77008 MAIN BRAKER OPEN	B400-HSB-001	DI	HHU-77008	HVAC UCP	TRIP	NORMAL	-	-	-	-	-	-	-	-	-	-	VFC 24 Vdc		-
4	93	123A90-1724000049HV-PID-00042	I 7.7	PRESSURIZING FAN LOW PRESSURE	PDSL-77-404	DI	HHU-77008	HVAC UCP	NORMAL	CLOGGED	-	-									VFC 24 Vdc		

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CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-WP4-2023-05	ROSETTI MARINO
		Sh. 6 of 7
Document Titel:	B-400 HVAC IO LIST - E&I SHELTERS	28/01/2025
		Rev: 5

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)	
							PROTOCOL	TYPE		SLAVE ADDRESS	REGISTER	BIT NO.	HIGH - 1	LOW - 0		MIN		MAX			
4	94	123A90-1724000049HV-PID-00042	Modbus TCP/IP	SPARE			ModBus TCP/IP	BOOL	DIGITAL		40001	0								R	
4	95	123A90-1724000049HV-PID-00042	Modbus TCP/IP	B400-HSB-100 Main Braker Trip	B400-HSB-001	B400-HSB-001-MBT	ModBus TCP/IP	BOOL	DIGITAL		40001	1	TRIP	OK						R	
4	96	123A90-1724000049HV-PID-00042	Modbus TCP/IP	B400-HSB-100 Panel emergency Button	B400-HSB-001	B400-HSB-001-PEB	ModBus TCP/IP	BOOL	DIGITAL		40001	2	TRIP	OK						R	
4	97	123A90-1724000049HV-PID-00042	Modbus TCP/IP	B400-HSB-100 Module Light Trip	B400-HSB-001	B400-HSB-001-MLT	ModBus TCP/IP	BOOL	DIGITAL		40001	3	TRIP	OK						R	MLT-MOD LIGHT TRIP
4	98	123A90-1724000049HV-PID-00042	Modbus TCP/IP	B400-HSB-100 Module Socket Trip	B400-HSB-001	B400-HSB-001-MST	ModBus TCP/IP	BOOL	DIGITAL		40001	4	TRIP	OK						R	MST-MOD SKT TRIP
4	99	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHS-77-0010/11/12 Space Heater Trip	HHS-77-0010/11/12	HHS-77-0010/11/12-TRP	ModBus TCP/IP	BOOL	DIGITAL		40001	5	TRIP	OK						R	
4	100	123A90-1724000049HV-PID-00042	Modbus TCP/IP	B400-HSB-100 Main Panel Aux Section Trip	B400-HSB-001	B400-HSB-001-ATRP	ModBus TCP/IP	BOOL	DIGITAL		40001	6	TRIP	OK						R	
4	101	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHS-77-0010/11/12 Space Heater Fault	HHS-77-0010/11/12	HHS-77-0010/11/12-F	ModBus TCP/IP	BOOL	DIGITAL		40001	7	TRIP	OK						R	
4	102	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77007 Press Fan Low Pressure	HHU-77007	HHU-77007-PFFC	ModBus TCP/IP	BOOL	DIGITAL		40001	8	TRIP	OK						R	CANT SIMULATE
4	103	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77007 motorised dampers Fault	HHU-77007	HHU-77007-MDF	ModBus TCP/IP	BOOL	DIGITAL		40001	9	TRIP	OK						R	-
4	104	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77007 press fan PTC protection	HFM-77-401	HFM-77-401-PTCP	ModBus TCP/IP	BOOL	DIGITAL		40001	10	TRIP	OK						R	-
4	105	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77007 press fan VSD fault	HFM-77-401	HFM-77-401-VSDF	ModBus TCP/IP	BOOL	DIGITAL		40001	11	TRIP	OK						R	-
4	106	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77007 press fan trip	HFM-77-401	HFM-77-401-TRP	ModBus TCP/IP	BOOL	DIGITAL		40001	12	TRIP	OK						R	-
4	107	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77007 broken belt alarm	HFM-77-402	HFM-77-402-BBA	ModBus TCP/IP	BOOL	DIGITAL		40001	13	TRIP	OK						R	-
4	108	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77007 supply fan trip	HFM-77-402	HFM-77-402-TRP	ModBus TCP/IP	BOOL	DIGITAL		40001	14	TRIP	OK						R	-
4	109	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77007 compressor trip	HCO-77-401	HCO-77-401-TRP	ModBus TCP/IP	BOOL	DIGITAL		40001	15	TRIP	OK						R	-
4	110	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77007 high pressure alarm	HCO-77-401	HCO-77-401-HPA	ModBus TCP/IP	BOOL	DIGITAL		40002	0	TRIP	OK						R	-
4	111	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77007 low pressure alarm	HCO-77-401	HCO-77-401-LPA	ModBus TCP/IP	BOOL	DIGITAL		40002	1	TRIP	OK						R	-
4	112	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77007 condenser fan trip	HFM-77-405/406	HFM-77-405/406-TRP	ModBus TCP/IP	BOOL	DIGITAL		40002	2	TRIP	OK						R	-
4	113	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77007 condenser fan VSD fault	HFM-77-405/406	HFM-77-405/406-VSDF	ModBus TCP/IP	BOOL	DIGITAL		40002	3	TRIP	OK						R	-
4	114	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77007 electrical heater Protection thermostate	HSS-77-401	HSS-77-401-TSPH	ModBus TCP/IP	BOOL	DIGITAL	THR-PTR	40002	4	TRIP	OK						R	-
4	115	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77007 electrical heater trip	HSS-77-401	HSS-77-401-TRP	ModBus TCP/IP	BOOL	DIGITAL		40002	5	TRIP	OK						R	-
4	116	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77007 electrical heater modulation fault	HSS-77-401	HSS-77-401-MF	ModBus TCP/IP	BOOL	DIGITAL		40002	6	TRIP	OK						R	-
4	117	123A90-1724000049HV-PID-00042	Modbus TCP/IP	Spare			ModBus TCP/IP	BOOL	DIGITAL		40002	7								R	-
4	118	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77007 main braker open	HHU-77007	HHU-77007-MBT	ModBus TCP/IP	BOOL	DIGITAL		40002	8	TRIP	OK						R	-
4	119	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77007 filter clogged	HHU-77007	HHU-77007-FC	ModBus TCP/IP	BOOL	DIGITAL		40002	9	CLOGGED	OK						R	-
4	120	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77008 motorise dampers fault	HHU-77008	HHU-77008-MDF	ModBus TCP/IP	BOOL	DIGITAL		40002	10	TRIP	OK						R	-
4	121	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77008 press fan PTC protection	HFM-77-403	HFM-77-403-PTCP	ModBus TCP/IP	BOOL	DIGITAL		40002	11	TRIP	OK						R	-
4	122	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77008 press fan VSD fault	HFM-77-403	HFM-77-403-VSDF	ModBus TCP/IP	BOOL	DIGITAL		40002	12	TRIP	OK						R	
4	123	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77008 press fan trip	HFM-77-403	HFM-77-403-TRP	ModBus TCP/IP	BOOL	DIGITAL		40002	13	TRIP	OK						R	
4	124	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77008 broken belt alarm	HFM-77-404	HFM-77-404-BBA	ModBus TCP/IP	BOOL	DIGITAL		40002	14	TRIP	OK						R	
4	125	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77008 supply fan trip	HFM-77-404	HFM-77-404-TRP	ModBus TCP/IP	BOOL	DIGITAL		40002	15	TRIP	OK						R	
4	126	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77008 compressor trip	HCO-77-402	HCO-77-402-TRP	ModBus TCP/IP	BOOL	DIGITAL		40003	0	TRIP	OK						R	
4	127	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77008 high pressure alarm	HCO-77-402	HCO-77-402-HPA	ModBus TCP/IP	BOOL	DIGITAL		40003	1	TRIP	OK						R	
4	128	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77008 low pressure alarm	HCO-77-402	HCO-77-402-LPA	ModBus TCP/IP	BOOL	DIGITAL		40003	2	TRIP	OK						R	-
4	129	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77008 condenser fan trip	HFM-77-407/408	HFM-77-407/408-TRP	ModBus TCP/IP	BOOL	DIGITAL		40003	3	TRIP	OK						R	-
4	130	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77008 condenser fan VSD fault	HFM-77-407/408	HFM-77-407/408-VSDF	ModBus TCP/IP	BOOL	DIGITAL		40003	4	TRIP	OK						R	
4	131	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77008 filter clogged	HHU-77008	HHU-77008-FC	ModBus TCP/IP	BOOL	DIGITAL		40003	5	CLOGGED	OK						R	
4	132	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77008 electrical heater Protection termostate	HSS-77-405	HSS-77-405-TSPH	ModBus TCP/IP	BOOL	DIGITAL	THR-PTR	40003	6	TRIP	OK						R	
4	133	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77008 electrical heater trip	HSS-77-405	HSS-77-405-TRP	ModBus TCP/IP	BOOL	DIGITAL		40003	7	TRIP	OK						R	
4	134	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77008 electrical heater modulation fault	HSS-77-405	HSS-77-405-MF	ModBus TCP/IP	BOOL	DIGITAL		40003	8	TRIP	OK						R	
4	135	123A90-1724000049HV-PID-00042	Modbus TCP/IP	Spare			ModBus TCP/IP	BOOL	DIGITAL		40003	9								R	
4	136	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77008 main braker trip	HHU-77008	HHU-77008-MBTRP	ModBus TCP/IP	BOOL	DIGITAL		40003	10	TRIP	OK						R	
4	137	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HFD-77012 Not Close	HFD-77012	HFD-77012-ZSL	ModBus TCP/IP	BOOL	DIGITAL		40003	11	FAULT	OK						R	
4	138	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HFD-77012 Not Open	HFD-77012	HFD-77012-ZSH	ModBus TCP/IP	BOOL	DIGITAL		40003	12	FAULT	OK						R	
4	139	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HFD-77013 Not Close	HFD-77013	HFD-77013-ZSL	ModBus TCP/IP	BOOL	DIGITAL		40003	13	FAULT	OK						R	
4	140	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HFD-77013 Not Open	HFD-77013	HFD-77013-ZSH	ModBus TCP/IP	BOOL	DIGITAL		40003	14	FAULT	OK						R	

HHU-77008-MBTRP gives
77-404 BRK BELT + THR PTR

E-STOP gives BRK + THR PTR

B400-HSB-001-MBT MAIN TRIP gives
Thermo protection & Broken belt alarm

B400-HHU-77007-MBT gives HFM 77-402 Belt
77-401 THR PTR

10/05/2025
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CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-WP4-2023-05	ROSETTI MARINO
Document Titel:	B-400 HVAC IO LIST - E&I SHELTERS	Sh. 7 of 7 28/01/2025 Rev: 5

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)	
							PROTOCOL	TYPE		SLAVE ADDRESS	REGISTER	BIT NO.	HIGH - 1	LOW - 0		MIN		MAX			
4	141	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HFD-77014 Not Close	HFD-77014	HFD-77014-ZSL	ModBus TCP/IP	BOOL	DIGITAL		40003	15	FAULT	OK						R	
4	142	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HFD-77014 Not Open	HFD-77014	HFD-77014-ZSH	ModBus TCP/IP	BOOL	DIGITAL		40004	0	FAULT	OK						R	
4	143	123A90-1724000049HV-PID-00042	Modbus TCP/IP	Modbus Server Error	B400-HSB-001	B400-HSB-001-MSE	ModBus TCP/IP	BOOL	DIGITAL		40004	1	FAULT	OK						R	
4	144	123A90-1724000049HV-PID-00042	Modbus TCP/IP	ModbusFault	B400-HSB-001	B400-HSB-001-MODBUSF	ModBus TCP/IP	BOOL	DIGITAL		40004	2	FAULT	OK						R	CANT DO
4	145	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77008 press fan Low Pressure	HHU-77008	HHU-77008-PFFC	ModBus TCP/IP	BOOL	DIGITAL		40004	3	FAULT	OK						R	
4	146	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HFD-77015 Not Close	HFD-77015	HFD-77015-ZSL	ModBus TCP/IP	BOOL	DIGITAL		40004	4	FAULT	OK						R	
4	147	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HFD-77015 Not Open	HFD-77015	HFD-77015-ZSH	ModBus TCP/IP	BOOL	DIGITAL		40004	5	FAULT	OK						R	
4	148	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HFD-77016 Not Close	HFD-77016	HFD-77016-ZSL	ModBus TCP/IP	BOOL	DIGITAL		40004	6	FAULT	OK						R	
4	149	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HFD-77016 Not Open	HFD-77016	HFD-77016-ZSH	ModBus TCP/IP	BOOL	DIGITAL		40004	7	FAULT	OK						R	
4	150	123A90-1724000049HV-PID-00042	Modbus TCP/IP	77-TT-401 Fault	77-TT-401	77-TT-401-F	ModBus TCP/IP	BOOL	DIGITAL		40004	8	FAULT	OK						R	
4	151	123A90-1724000049HV-PID-00042	Modbus TCP/IP	77-TT-402 Fault	77-TT-402	77-TT-402-F	ModBus TCP/IP	BOOL	DIGITAL		40004	9	FAULT	OK						R	
4	152	123A90-1724000049HV-PID-00042	Modbus TCP/IP	77-TT-403 Fault	77-TT-403	77-TT-403-F	ModBus TCP/IP	BOOL	DIGITAL		40004	10	FAULT	OK						R	
4	153	123A90-1724000049HV-PID-00042	Modbus TCP/IP	77-TT-404 Fault	77-TT-404	77-TT-404-F	ModBus TCP/IP	BOOL	DIGITAL		40004	11	FAULT	OK						R	
4	154	123A90-1724000049HV-PID-00042	Modbus TCP/IP	77-PT-401 Fault	77-PT-401	77-PT-401-F	ModBus TCP/IP	BOOL	DIGITAL		40004	12	FAULT	OK						R	STANDING FAULT
4	155	123A90-1724000049HV-PID-00042	Modbus TCP/IP	SPARE			ModBus TCP/IP	BOOL	DIGITAL		40004	13								R	
4	156	123A90-1724000049HV-PID-00042	Modbus TCP/IP	SPARE			ModBus TCP/IP	BOOL	DIGITAL		40004	14								R	
4	157	123A90-1724000049HV-PID-00042	Modbus TCP/IP	SPARE			ModBus TCP/IP	BOOL	DIGITAL		40004	15								R	
4	158	123A90-1724000049HV-PID-00042	Modbus TCP/IP	SPARE			ModBus TCP/IP	BOOL	DIGITAL		40005	0								R	
4	159	123A90-1724000049HV-PID-00042	Modbus TCP/IP	SPARE			ModBus TCP/IP	BOOL	DIGITAL		40005	1								R	
4	160	123A90-1724000049HV-PID-00042	Modbus TCP/IP	SPARE			ModBus TCP/IP	BOOL	DIGITAL		40005	2								R	
4	161	123A90-1724000049HV-PID-00042	Modbus TCP/IP	SPARE			ModBus TCP/IP	BOOL	DIGITAL		40005	3								R	
4	162	123A90-1724000049HV-PID-00042	Modbus TCP/IP	SPARE			ModBus TCP/IP	BOOL	DIGITAL		40005	4								R	
4	163	123A90-1724000049HV-PID-00042	Modbus TCP/IP	SPARE			ModBus TCP/IP	BOOL	DIGITAL		40005	5								R	
4	164	123A90-1724000049HV-PID-00042	Modbus TCP/IP	SPARE			ModBus TCP/IP	BOOL	DIGITAL		40005	6								R	
4	165	123A90-1724000049HV-PID-00042	Modbus TCP/IP	SPARE			ModBus TCP/IP	BOOL	DIGITAL		40005	7								R	
4	166	123A90-1724000049HV-PID-00042	Modbus TCP/IP	SPARE			ModBus TCP/IP	BOOL	DIGITAL		40005	8								R	
4	167	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HVAC System Major Fault	B400-HSB-001	B400-HSB-001-MF	ModBus TCP/IP	BOOL	DIGITAL		40005	9	FAULT	OK						R	
4	168	123A90-1724000049HV-PID-00042	Modbus TCP/IP	SPARE			ModBus TCP/IP	BOOL	DIGITAL		40005	10								R	
4	169	123A90-1724000049HV-PID-00042	Modbus TCP/IP	SPARE			ModBus TCP/IP	BOOL	DIGITAL		40005	11								R	
4	170	123A90-1724000049HV-PID-00042	Modbus TCP/IP	SPARE			ModBus TCP/IP	BOOL	DIGITAL		40005	12								R	
4	171	123A90-1724000049HV-PID-00042	Modbus TCP/IP	SPARE			ModBus TCP/IP	BOOL	DIGITAL		40005	13								R	
4	172	123A90-1724000049HV-PID-00042	Modbus TCP/IP	SPARE			ModBus TCP/IP	BOOL	DIGITAL		40005	14								R	
4	173	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77007 STATUS	HHU-77007	HHU-77007-S	ModBus TCP/IP	INT	DIGITAL		40006				NA					R	1=AVAILABLE 2=RUN 3=FAULT
4	174	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77008 STATUS	HHU-77008	HHU-77008-S	ModBus TCP/IP	INT	DIGITAL		40007				NA					R	1=AVAILABLE 2=RUN 3=FAULT
4	175	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHS-77-0010/11/12 STATUS	HHS-77-0010/11/12	HHS-77-0010/11/12-S	ModBus TCP/IP	INT	DIGITAL		40008				NA					R	1=AVAILABLE 2=RUN 3=FAULT
4	176	123A90-1724000049HV-PID-00042	Modbus TCP/IP	B400 Medium Internal Temperature	B400-HSB-001	B400-HSB-001-MT	ModBus TCP/IP	INT	DIGITAL		40009				°C					R	DIVIDE THE NUMBER BY TEN TO GET THE CORRECT VALUE
4	177	123A90-1724000049HV-PID-00042	Modbus TCP/IP	System Start From PCS	B400-HSB-001	B400-HSB-001-SSTART	ModBus TCP/IP	BOOL	DIGITAL		400010		START	NONE	NA					W	SART SIGNAL FROM PCS
4	178	123A90-1724000049HV-PID-00042	Modbus TCP/IP	System Stop From PCS	B400-HSB-001	B400-HSB-001-SSTOP	ModBus TCP/IP	BOOL	DIGITAL		400011		STOP	NONE	Pa					W	STOP SIGNAL FROM PCS
4	179	123A90-1724000049HV-PID-00042	Modbus TCP/IP	B400 Internal Pressure	B400-HSB-001	B400-HSB-001-MP	ModBus TCP/IP	INT	DIGITAL		40012				NA					R	DIVIDE THE NUMBER BY TEN TO GET THE CORRECT VALUE
4	180	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HFM-77-401 Percentage of capacity Utilisation	B400-HSB-001	B400-HSB-001-HFM1P	ModBus TCP/IP	INT	DIGITAL		40013				NA					R	
4	181	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HFM-77-403 Percentage of capacity Utilisation	B400-HSB-001	B400-HSB-001-HFM2P	ModBus TCP/IP	INT	DIGITAL		40014				NA					R	
4	182	123A90-1724000049HV-PID-00042	Modbus TCP/IP	System Reset Fault	B400-HSB-001	B300-HSB-001-SR	ModBus TCP/IP	BOOL	DIGITAL		40015		RESET	NONE	NA					W	SIGNAL FOR RESET ALARM
4	183	123A90-1724000049HV-PID-00042	Modbus TCP/IP	WatchDog	B400-HSB-001	B300-HSB-001-WD	ModBus TCP/IP	BOOL	DIGITAL		40016				NA					W	PULSATING HIGH/LOW SIGNAL WITH FREQUENCY UNDER 15S
5	184	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77007 SELECTOR STATUS	B400-HSB-001	B400-HSB-001-SS	ModBus TCP/IP	INT	ANALOG		40017				NA					R	1= AUTO 2= MANUAL 3=OFF
5	185	123A90-1724000049HV-PID-00042	Modbus TCP/IP	HHU-77008 SELECTOR STATUS	B400-HSB-001	B400-HSB-002-SS	ModBus TCP/IP	INT	ANALOG		40018				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* Stefano Linari 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.

ALEXSISTEMI spa

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		

ALEXSISTEMI spa

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV = ISO 9001 =

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.

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	

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	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 ROSETTI MARINO SpA *Supply Management dept.* Stefano Linari 31/07/24 Quality Control Dept.		

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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*
31/07/24 **ROSETTI MARINO** *Supply Management dept.* *Stefano Linari* Quality Control Dept.		

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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 /
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 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 S.p.A. Stefano Linari Supply 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 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 Cutieri Quality Control 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 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 Linari 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.

Base Load Power Hub (BLPH)

Punch List Entry Form

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 Lingri
Quality Control Dept.

01-08-24
ALEXSISTEMI
Ottimo Alfredi

31/07/2024

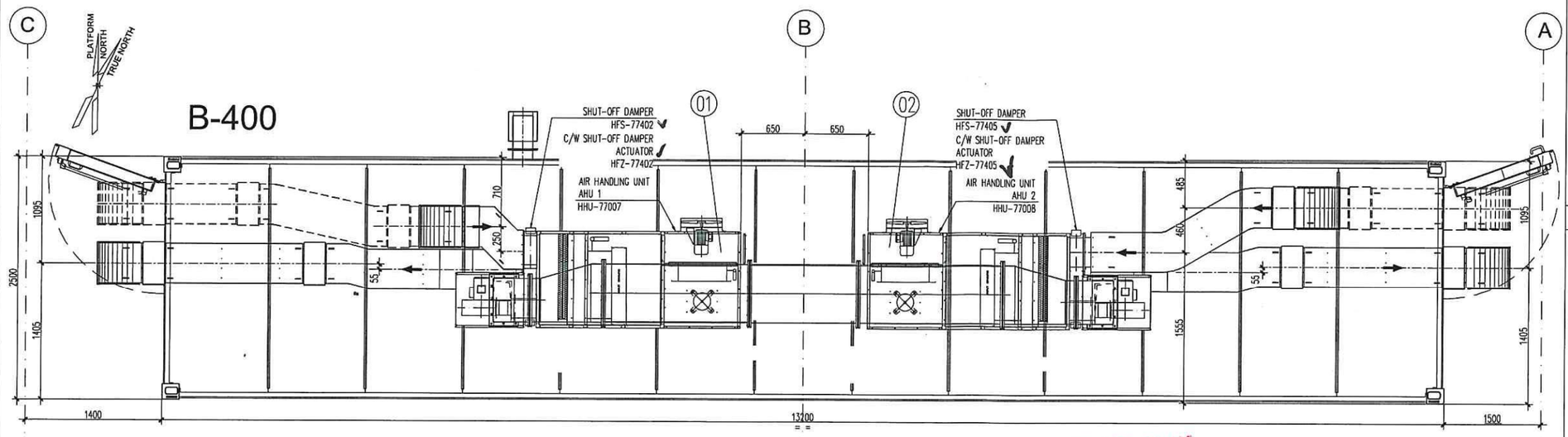
Accepted by
COMPANY: _____ x CROSSWIND

1/08/24

HVAC SYSTEM GA

DRAWING NO. 1724000049-HV-DA-00067_1

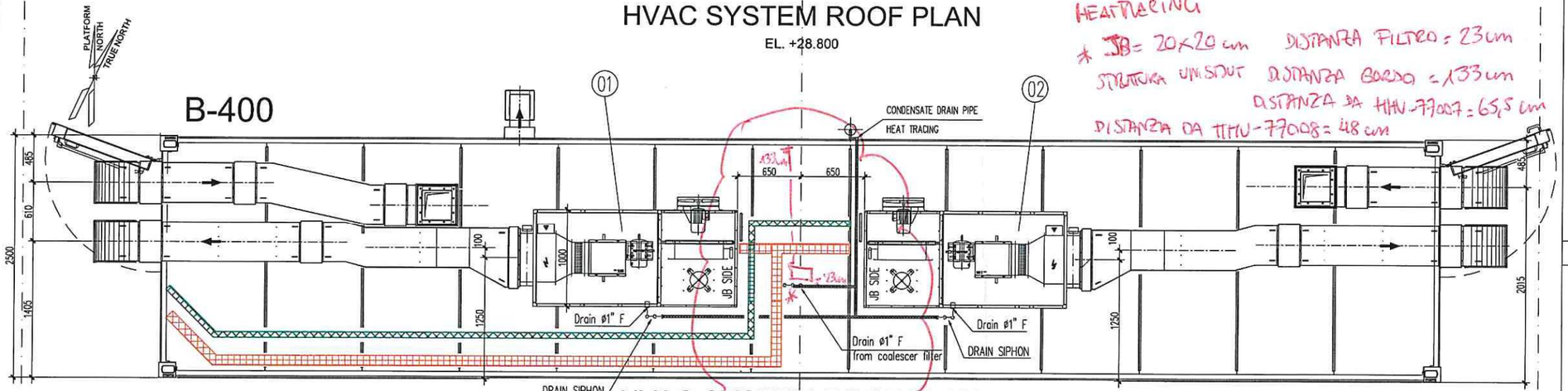
REV. 01



HVAC SYSTEM ROOF PLAN

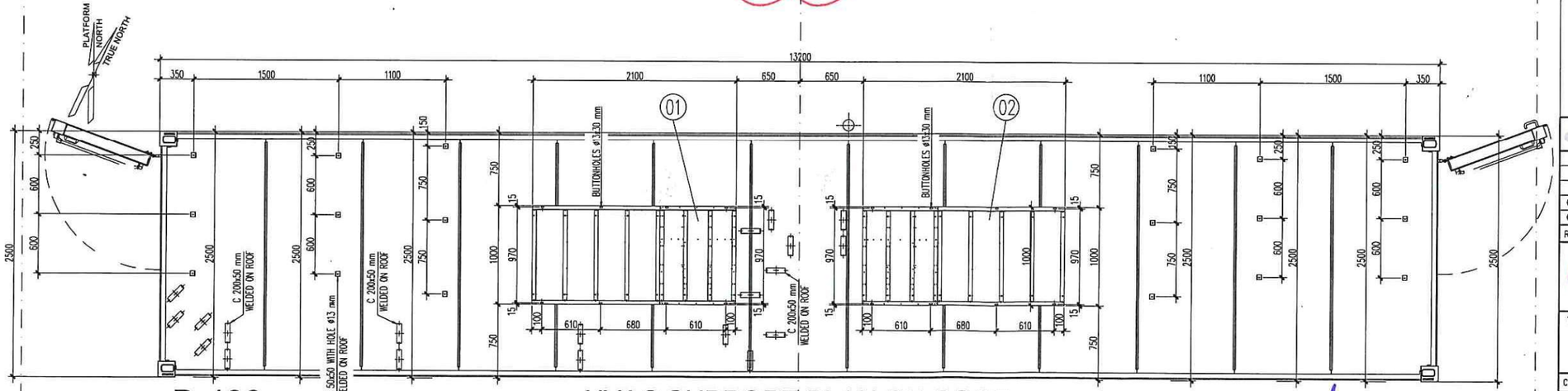
EL. +28.800

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



HVAC SYSTEM ROOF PLAN

EL. +28.000



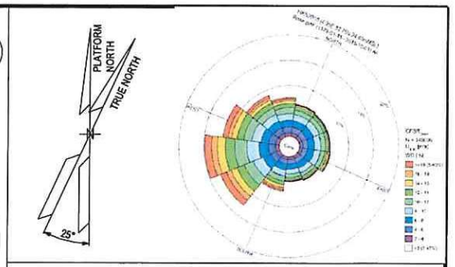
B-400

HVAC SUPPORT PLAN ON ROOF

EL. +27.300

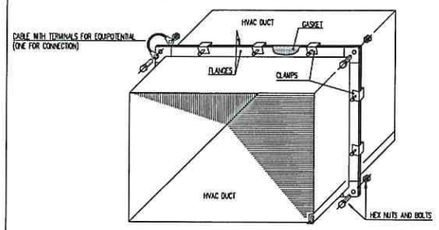
MASTRA

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



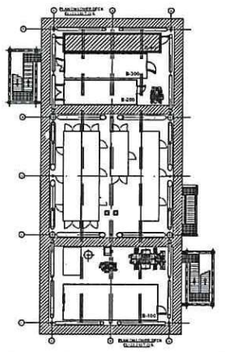
TYPICAL EQUIPOTENTIAL INSTALLING FOR FLANGE CONNECTION INDOOR AIR DUCT

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



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

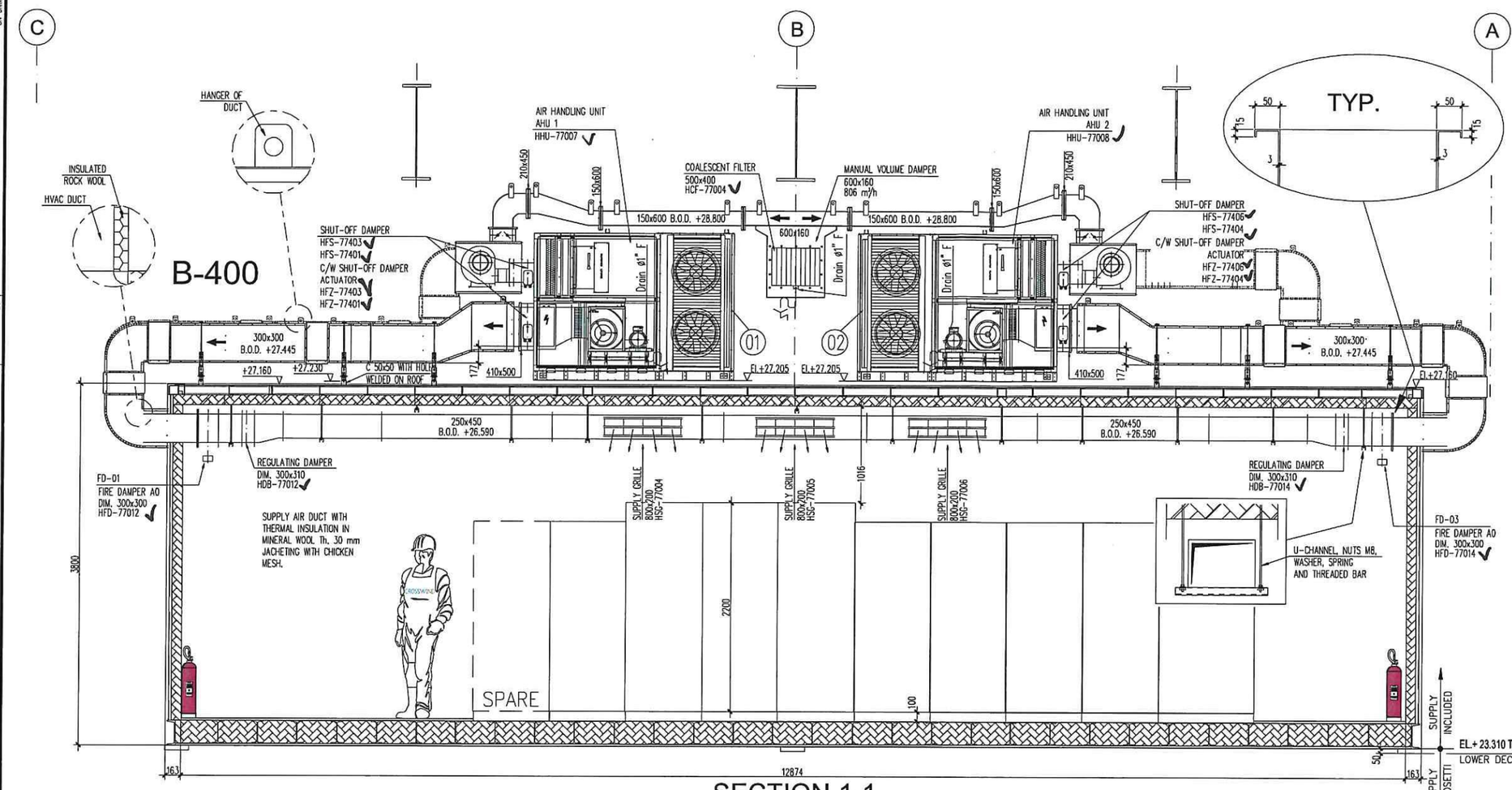
TITLE :
S.S.
MODULE B-400
HVAC SYSTEM – G.A. AND DETAILS

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

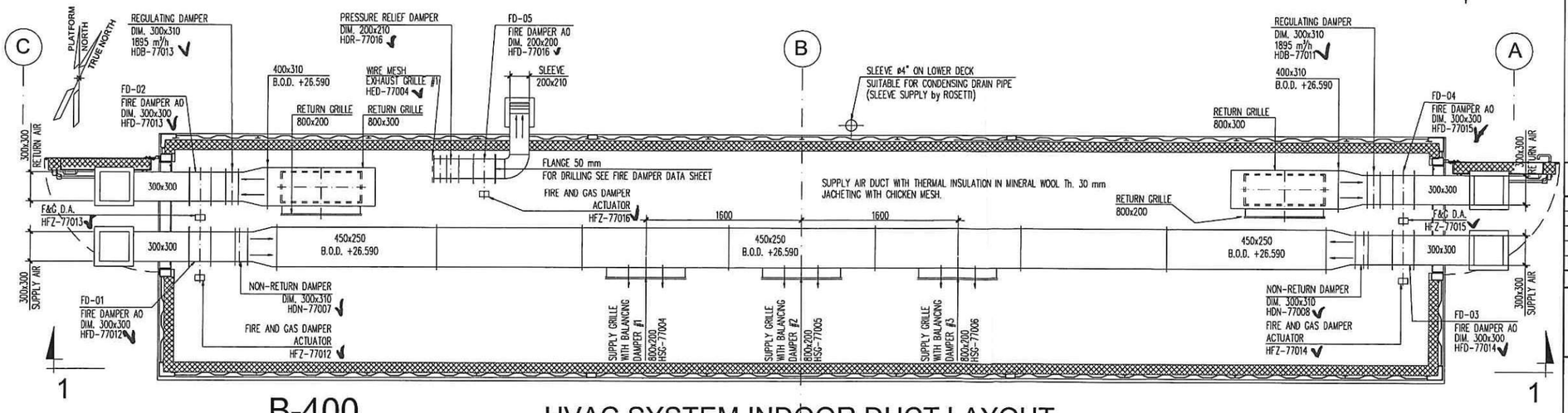
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ALEX SISTEMI : Matteo Lorenzini

DRAWING NO. 1724000049-HV-DA-00067_1 REV. 01



SECTION 1-1

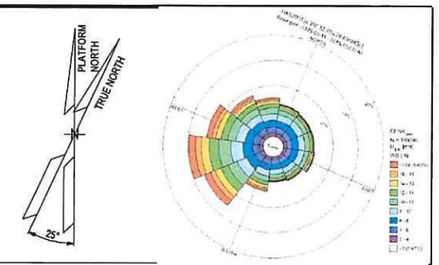


B-400 HVAC SYSTEM INDOOR DUCT LAYOUT

MASTER

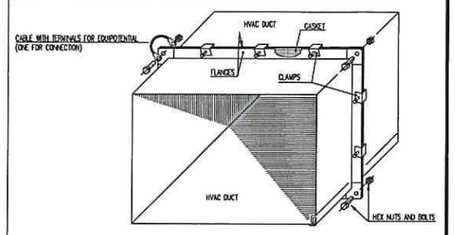
ROSETTI MARINO SpA
Stefano Linari
Quality Control Dept.
24/10/24

ALEX SISTEMI : Matteo Loredesi



NOTES

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



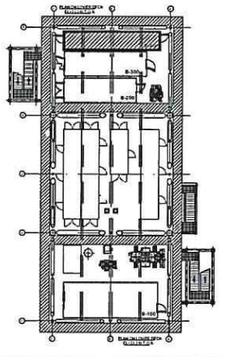
TYPICAL EQUIPOTENTIAL INSTALLING FOR FLANGE CONNECTION INDOOR AIR DUCT

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 C#-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
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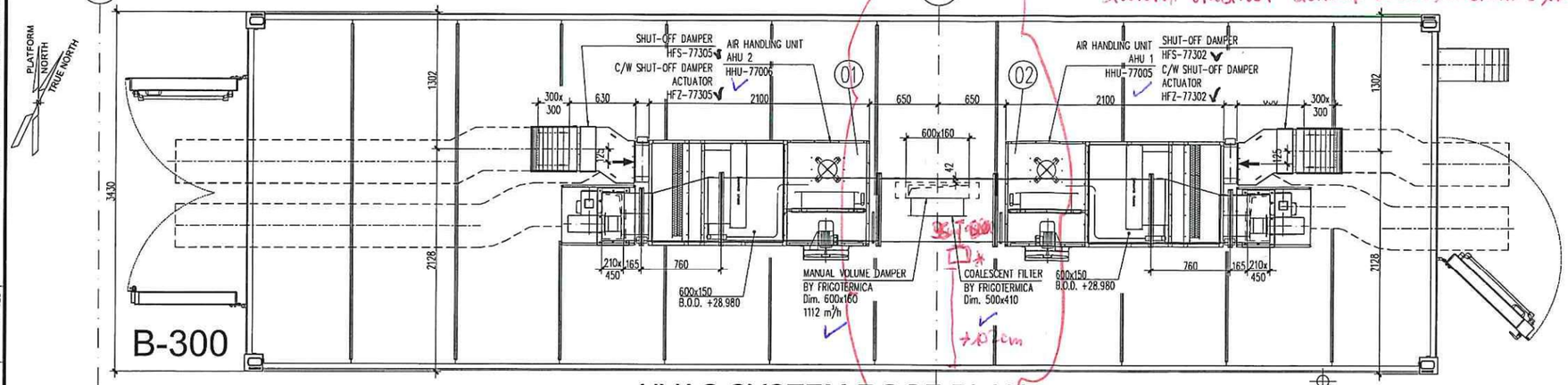
DRAWING No. 1724000049-HV-DA-00066_1

REV. 01

HEAT TRACING

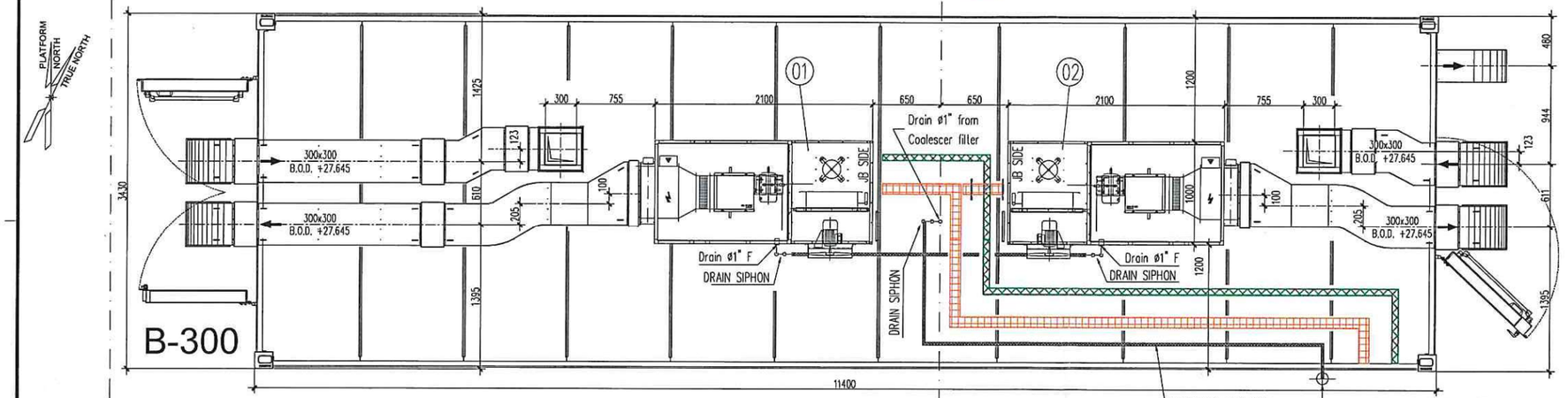
SB: 20 x 20 cm DISTANZA FILTRO = 95 cm

STRUTTURA UNISTRUT DISTANZA BORDO MACCHINA = 102 cm



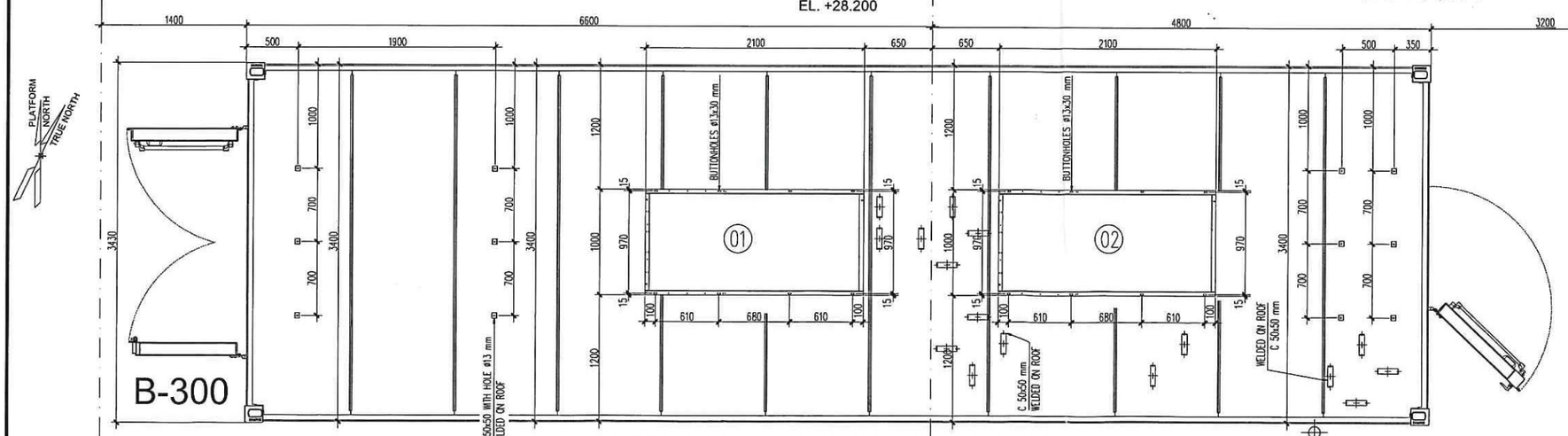
HVAC SYSTEM ROOF PLAN

EL. +28.980



HVAC SYSTEM ROOF PLAN

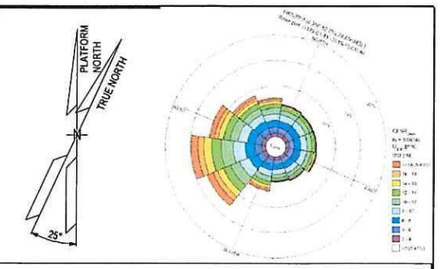
EL. +28.200



HVAC SUPPORT PLAN ON ROOF

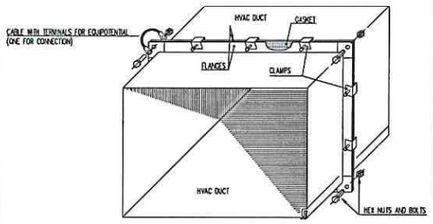
EL. +27.480

MASTER



NOTES

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



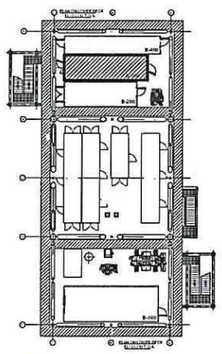
TYPICAL EQUIPOTENTIAL INSTALLING FOR FLANGE CONNECTION INDOOR AIR DUCT

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.C.	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

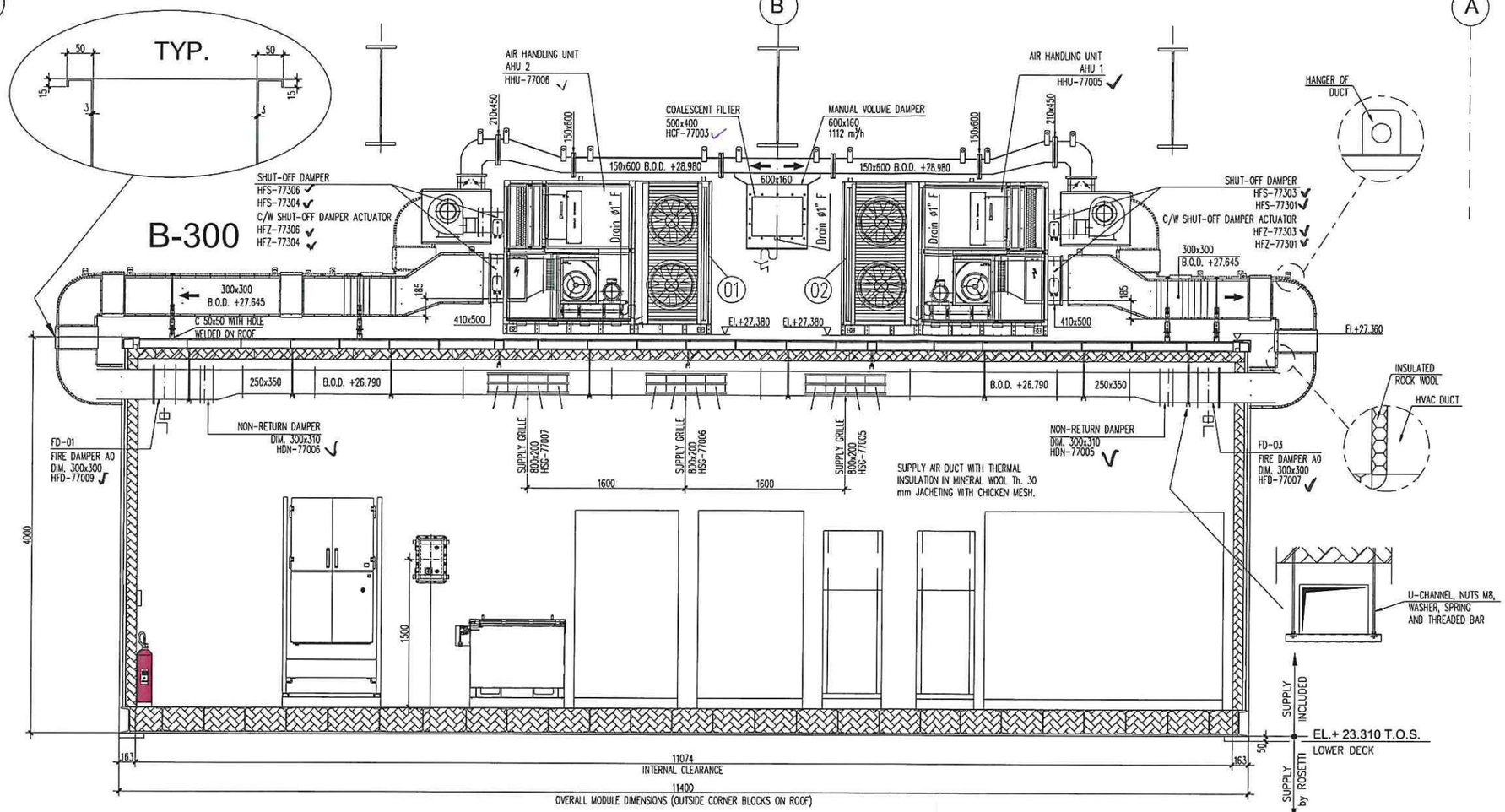
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File Name : 1724000049-HV-DA-00066_1

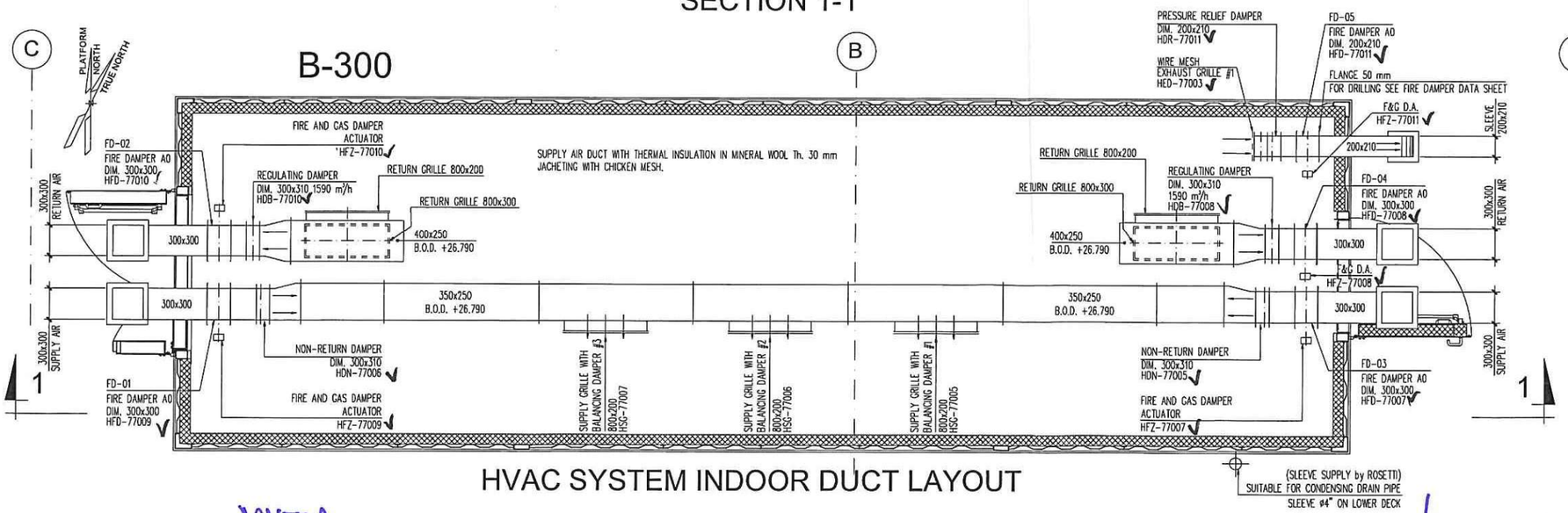
ROSETTI MARINO SpA
Stefano Linari
Quality Control Dept.
23/10/24

ALEX SISTEMI : Matteo Porcheri

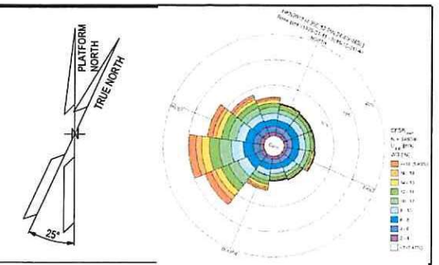
DRAWING NO. 1724000049-HV-DA-00066_1 REV. 01



SECTION 1-1

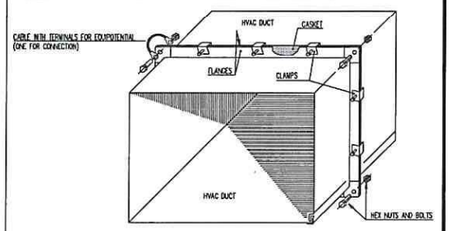


HVAC SYSTEM INDOOR DUCT LAYOUT



NOTES

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



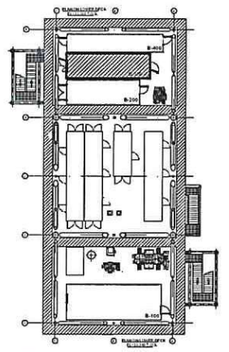
TYPICAL EQUIPOTENTIAL INSTALLING FOR FLANGE CONNECTION INDOOR AIR DUCT

Basket tray Power AISI 316L

Basket tray Instrument AISI 316L

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGTH (Kg)
01	HHU-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

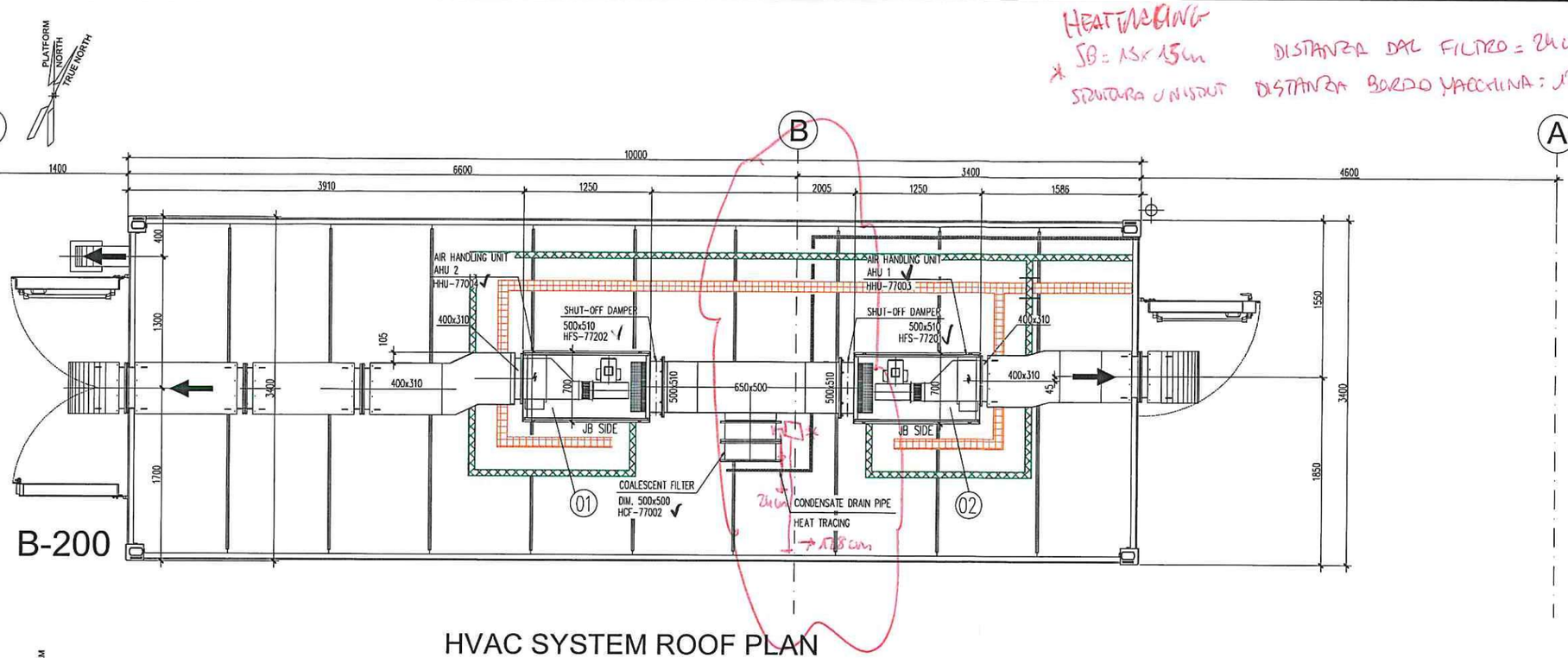
ROSETTI MARINO SpA
Stefano Linari 23/10/24
Quality Control Dept.

ALEX SISTEMI : Matteo Lucchesi

DRAWING NO. 1724000049-HV-DA-00065_1

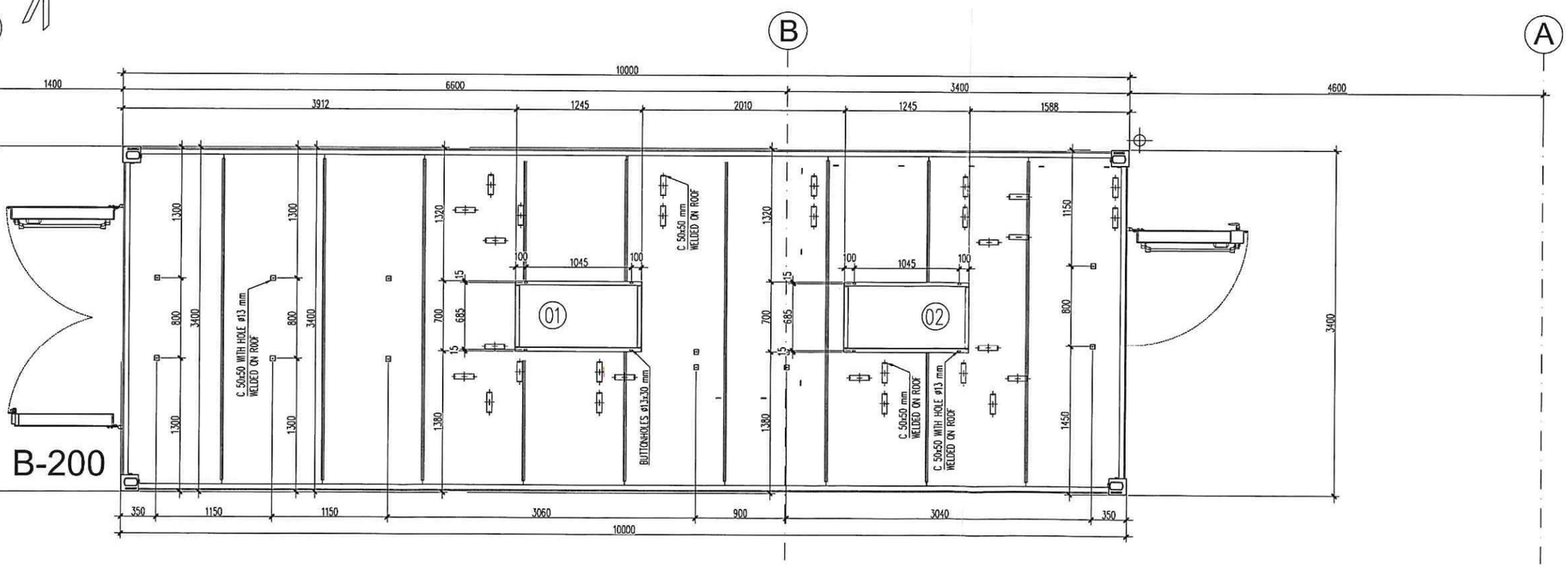
REV. 01

HEATTRACING
* JB: 15x15cm DISTANZA DAL FILTRO = 24cm
STRUTTURA UNISTRUT DISTANZA BORDO YACHTLINA: 128cm



HVAC SYSTEM ROOF PLAN

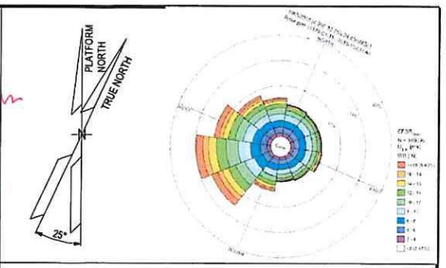
EL. +28.800



HVAC SUPPORT PLAN ON ROOF

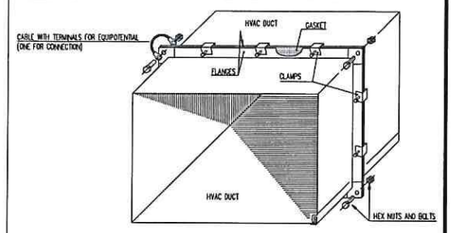
EL. +28.050

MASTER



NOTES

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



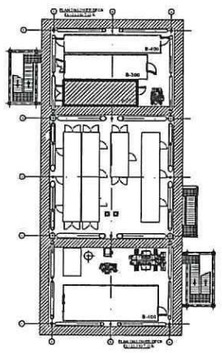
TYPICAL EQUIPOTENTIAL INSTALLING FOR FLANGE CONNECTION INDOOR AIR DUCT

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

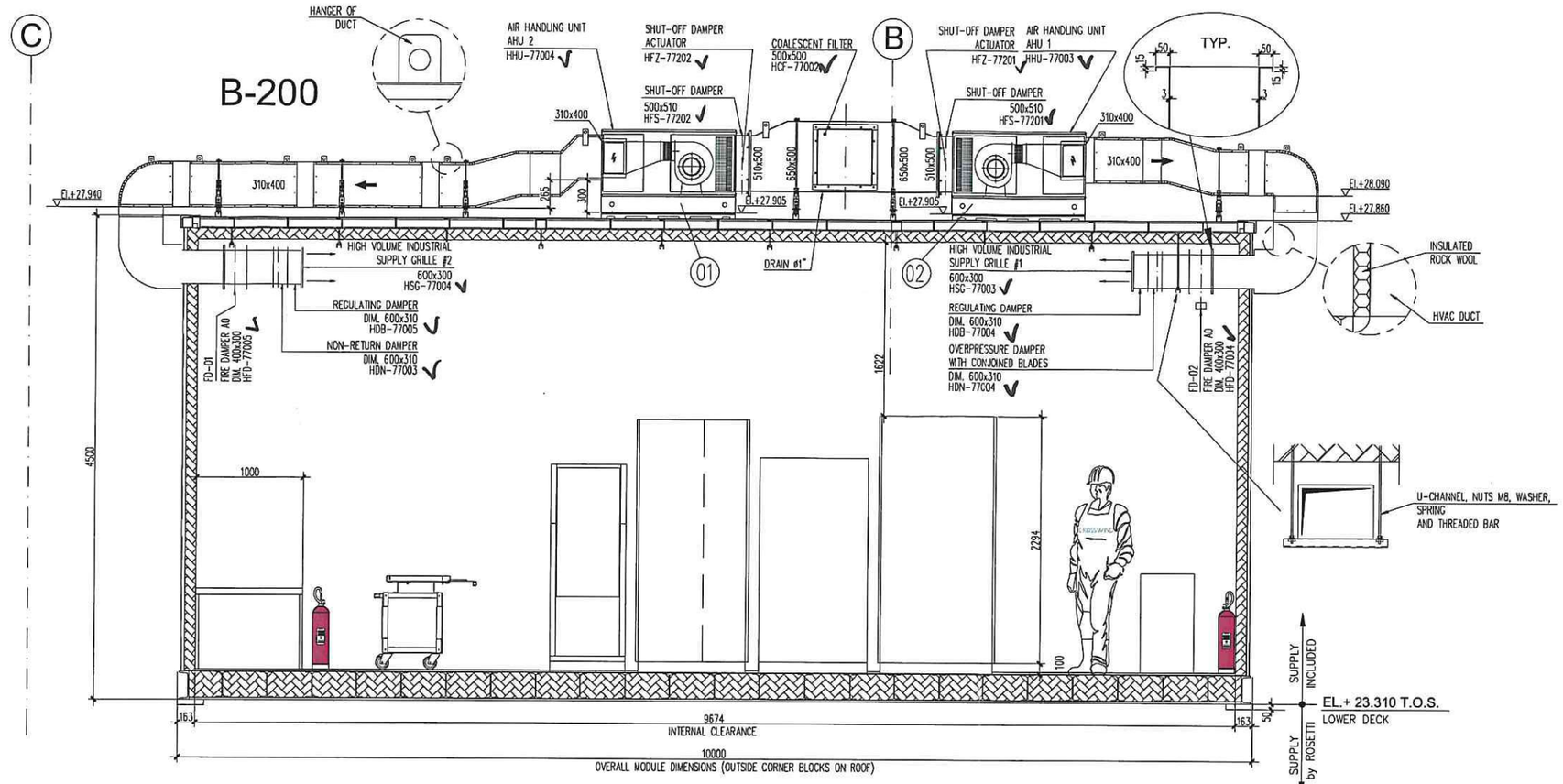
CONTRACT NO./TITLE DW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1 : 25
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 18/10/2024
A1	DRAWING NO. 1724000049-HV-DA-00065		SHEET 001 / REV. 01

File Name : 1724000049-HV-DA-00065_1

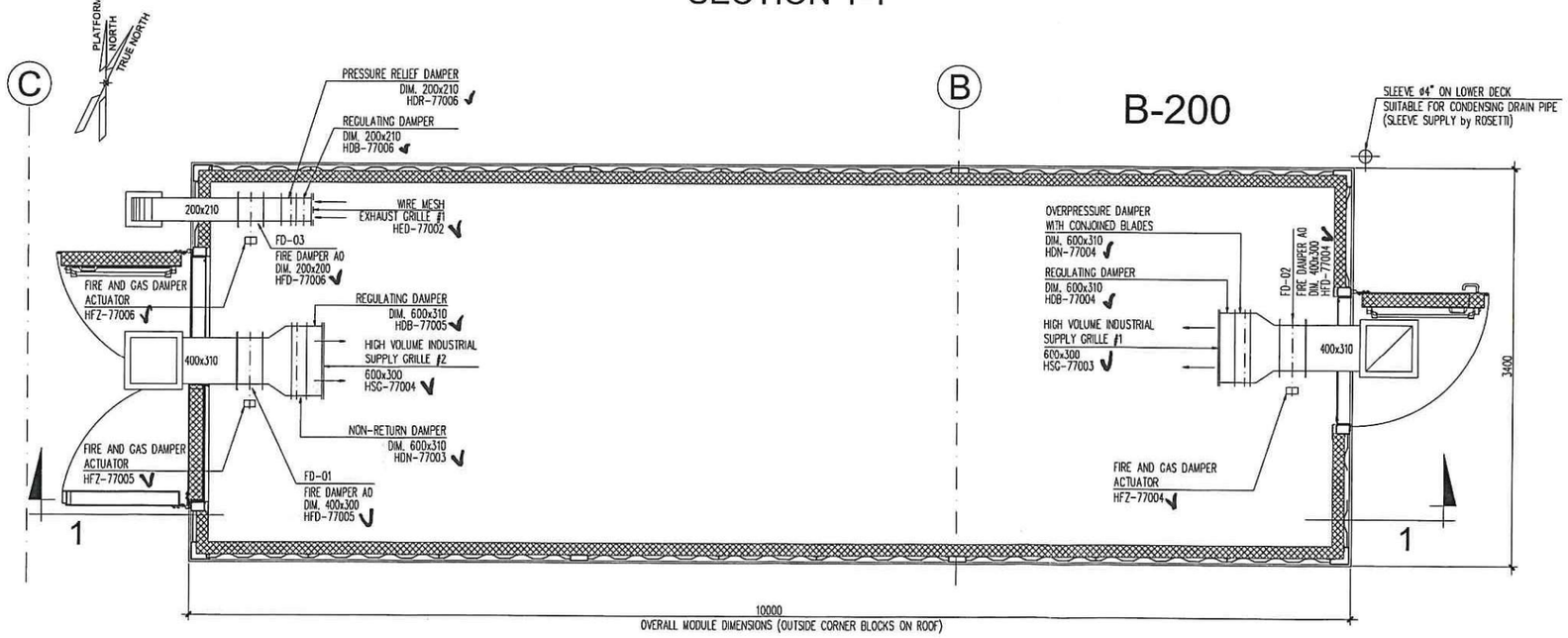
ROSETTI MARINO SpA
Stefano Minari 23/10/24
Quality Control Dept.

ALEX SISTEMI : Carlo Nardi

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



SECTION 1-1

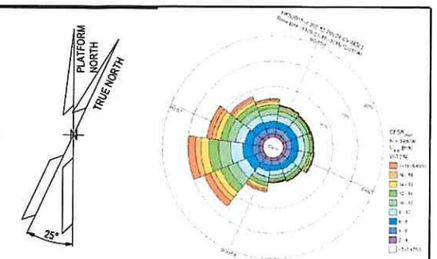


HVAC SYSTEM INDOOR DUCT LAYOUT

MASTER

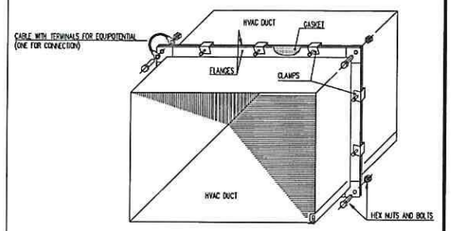
ROSETTI MARINO SpA
Stefano Linari 23/10/24
Quality Control Dept.

ALEX SISTEMI : Matteo Lozzi



NOTES

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



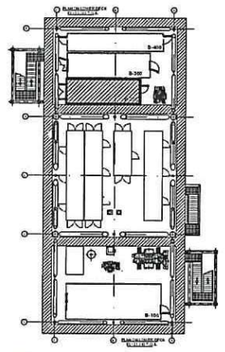
TYPICAL EQUIPOTENTIAL INSTALLING FOR FLANGE CONNECTION INDOOR AIR DUCT

Basket tray Power AISI 316L

Basket tray Instrument AISI 316L

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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

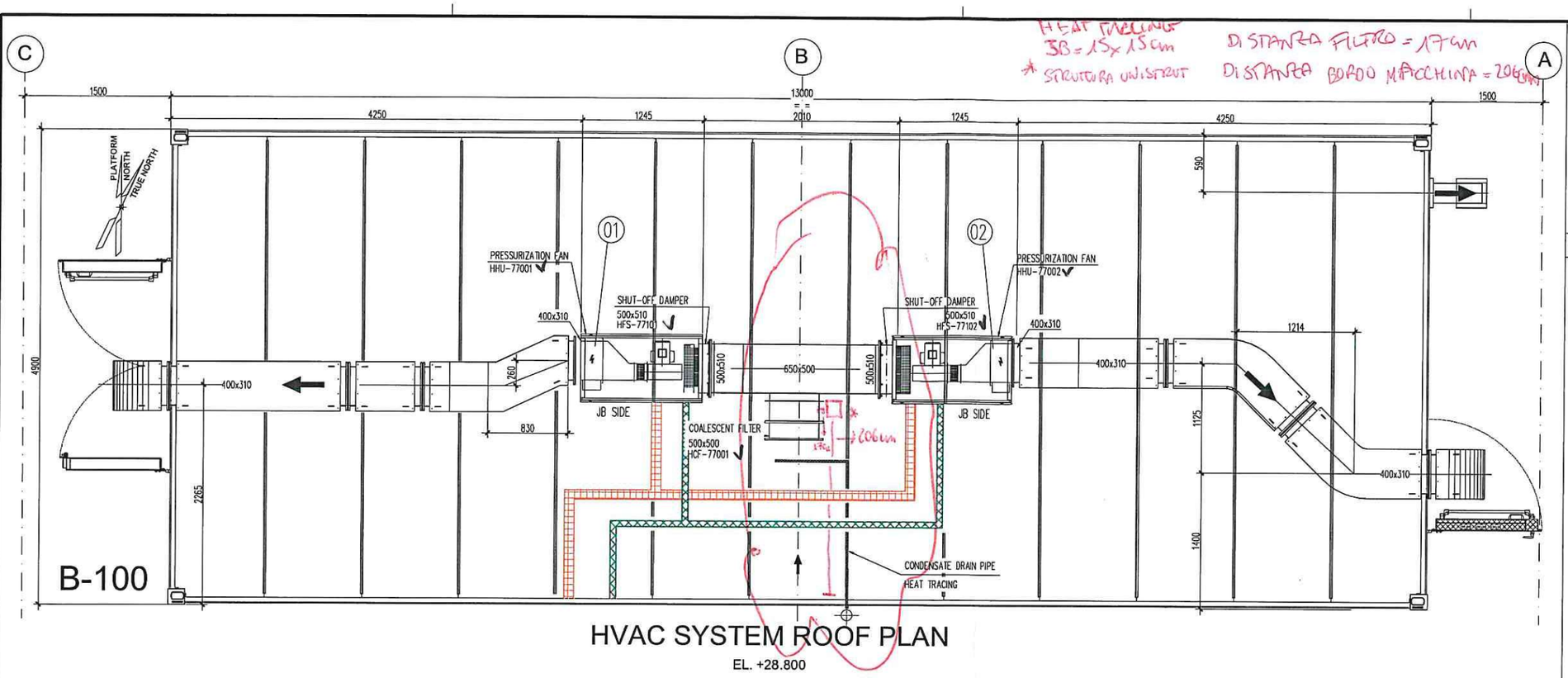
TITLE :
S.S.
MODULE B-200
HVAC SYSTEM – G.A. AND DETAILS

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 002	REV. 01

File Name : 1724000049-HV-DA-00065_1

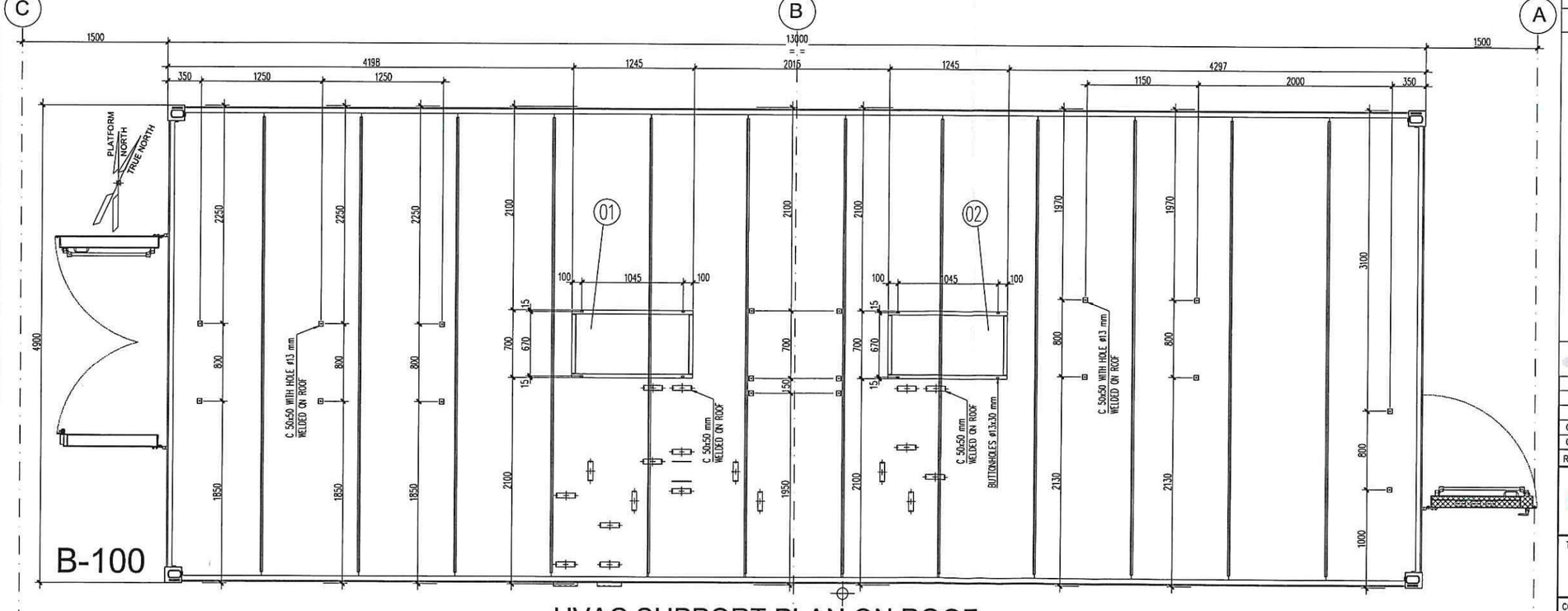
DRAWING NO. 1724000049-HV-DA-00064_1

REV. 01



HVAC SYSTEM ROOF PLAN

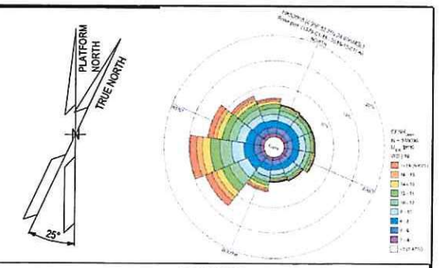
EL. +28.800



HVAC SUPPORT PLAN ON ROOF

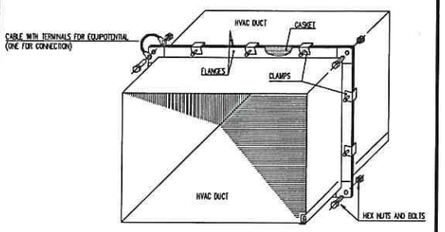
EL. +28.050

MASTER



NOTES

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



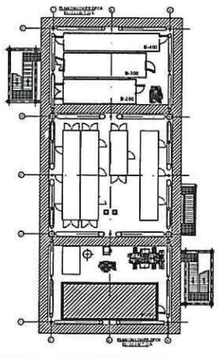
TYPICAL EQUIPOTENTIAL INSTALLING FOR FLANGE CONNECTION INDOOR AIR DUCT

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

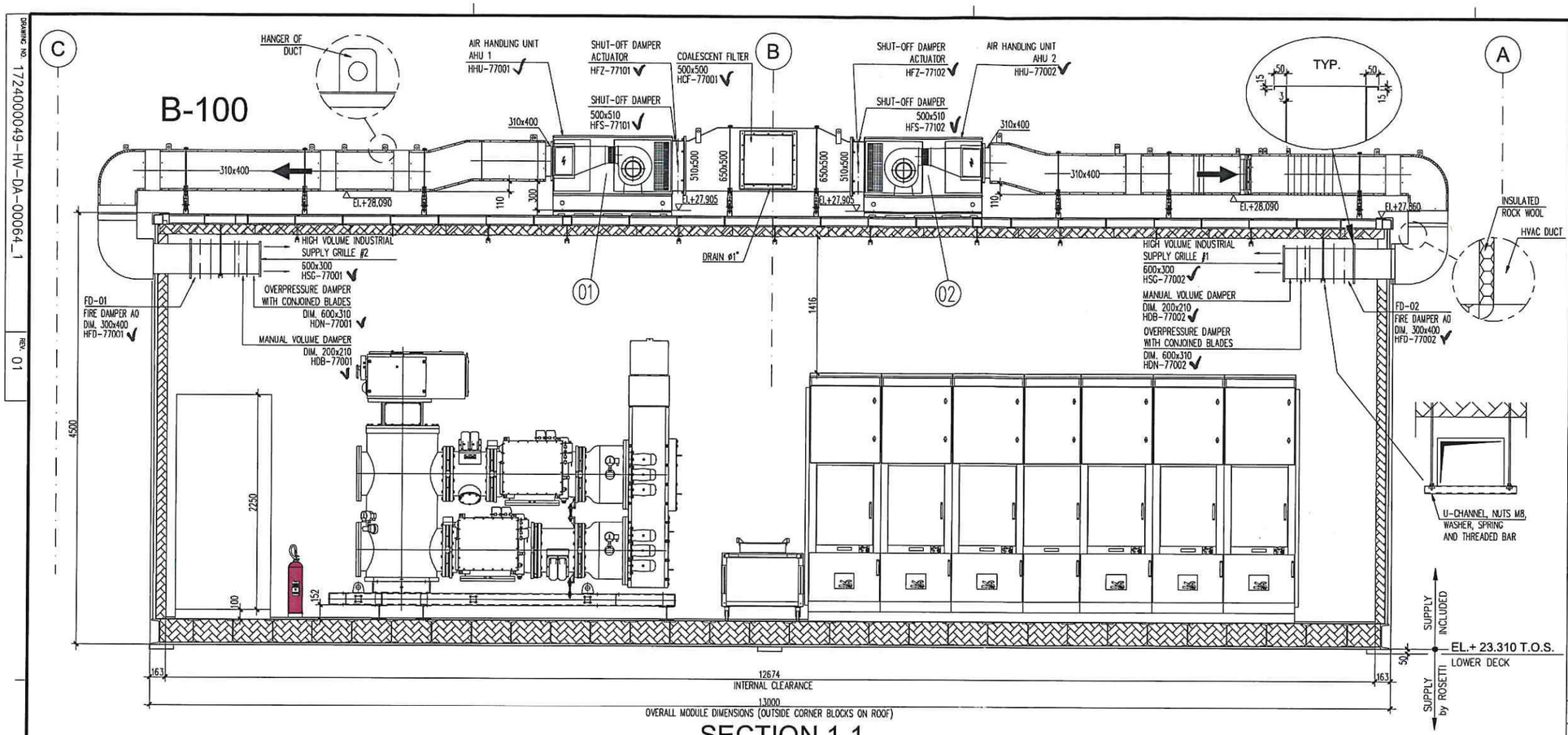
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1 : 25
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 18/10/2024
A1	DRAWING NO. 1724000049-HV-DA-00064		SHEET 001 REV. 01

File Name : 1724000049-HV-DA-00064_1

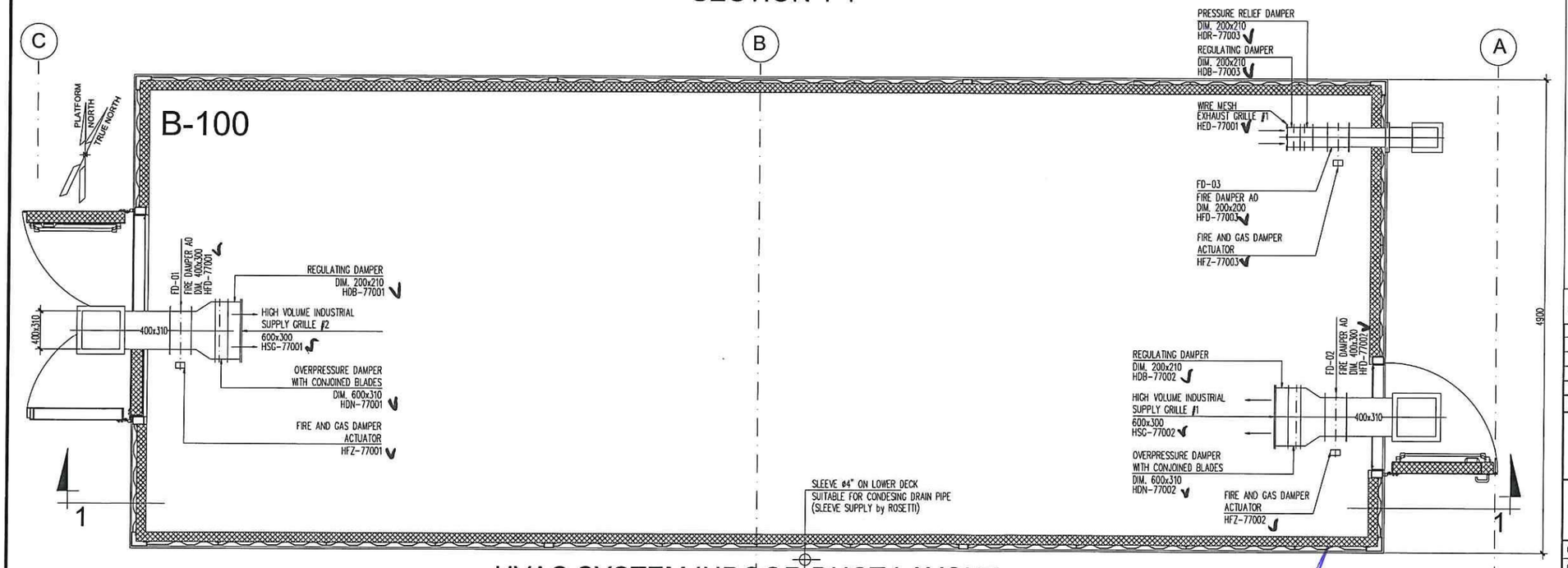
ROSETTI MARINO SpA
Stefano Linari 23/10/24
Quality Control Dept.

ALEX SISTEMI : Matteo Macchi

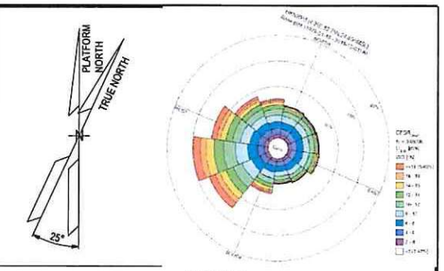
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SECTION 1-1

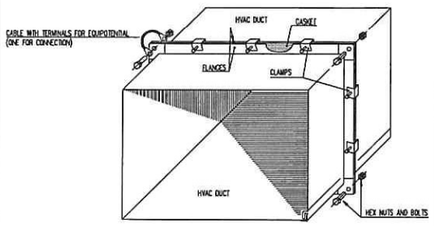


HVAC SYSTEM INDOOR DUCT LAYOUT



NOTES

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



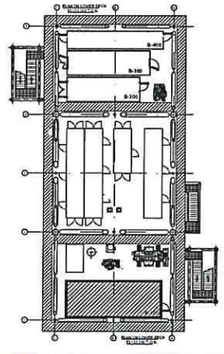
TYPICAL EQUIPOTENTIAL INSTALLING FOR FLANGE CONNECTION INDOOR AIR DUCT

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



ALEX SISTEMI

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	18/10/2024	M.C.	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 :

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

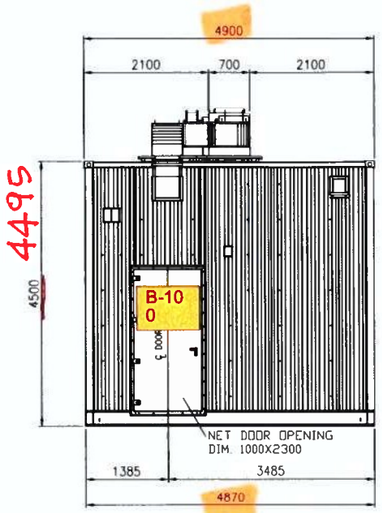
Inspection List	YES	NO	N.A.
Verificare tutte le quote di seguito indicate a disegno:			
NORTH VIEW	✓		
EAST VIEW	✓		
SOUT VIEW	✓		
WEST VIEW	✓		
TOP VIEW	✓		
SECTION A-A	✓		
SECTION B-B	✓		
SECTION C-C	✓		
SECTION D-D	✓		
SECTION E-E	✓		
BASEFRAME LOCATION	✓		

Comments:

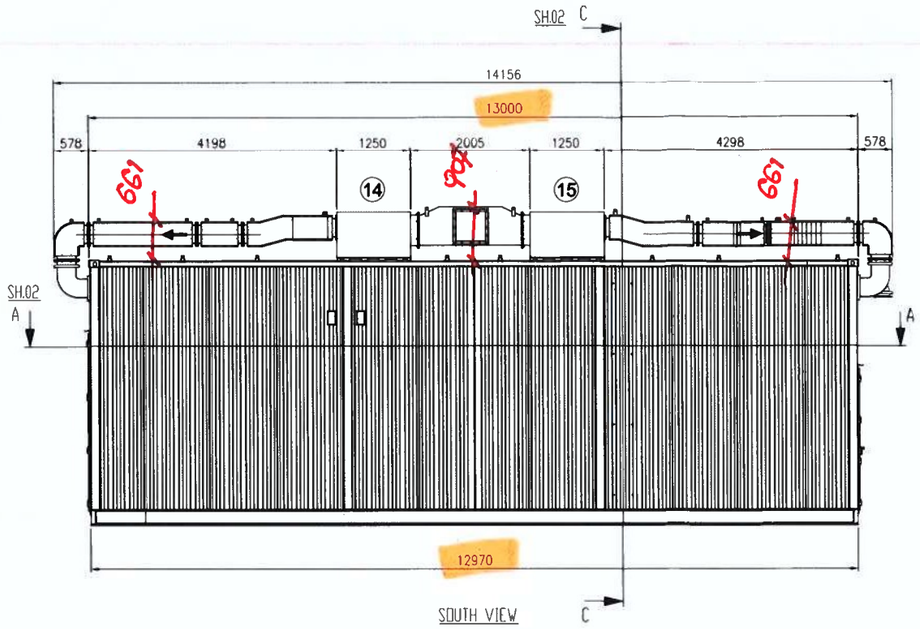
DWG attached.

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

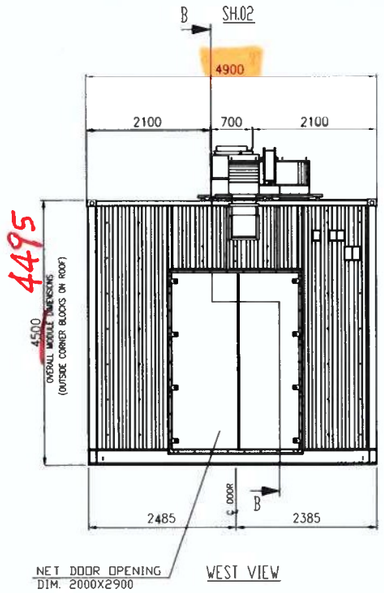
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EAST VIEW

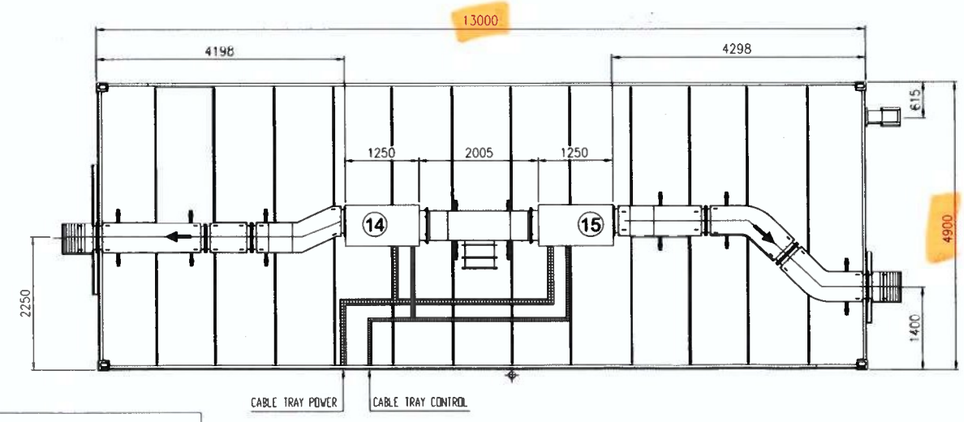


SOUTH VIEW



WEST VIEW





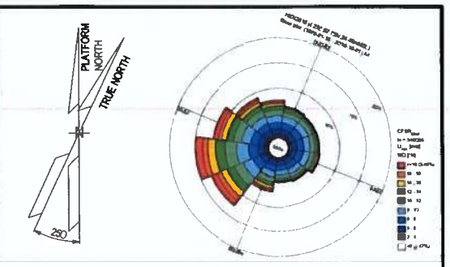
TOP VIEW

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

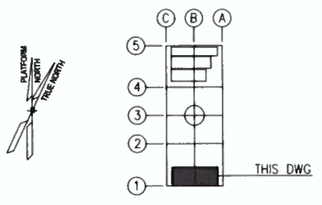
DOCUMENT TITLE	DOCUMENT NUMBER
"B-100" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00064
"B-100" DETAILED DRAWING	1724000049-AR-DD-00018
PAINTING PROCEDURE	1724000049-MAT-PRO-00004

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)

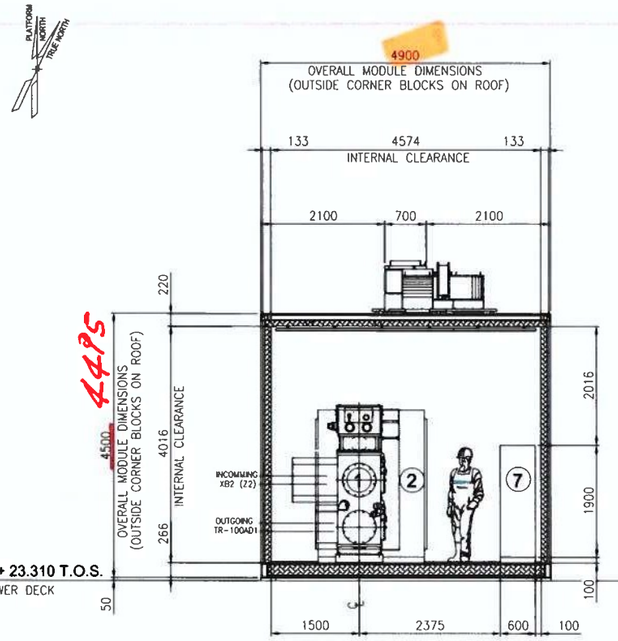
CROSSWIND | ROSETTI MARINO

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

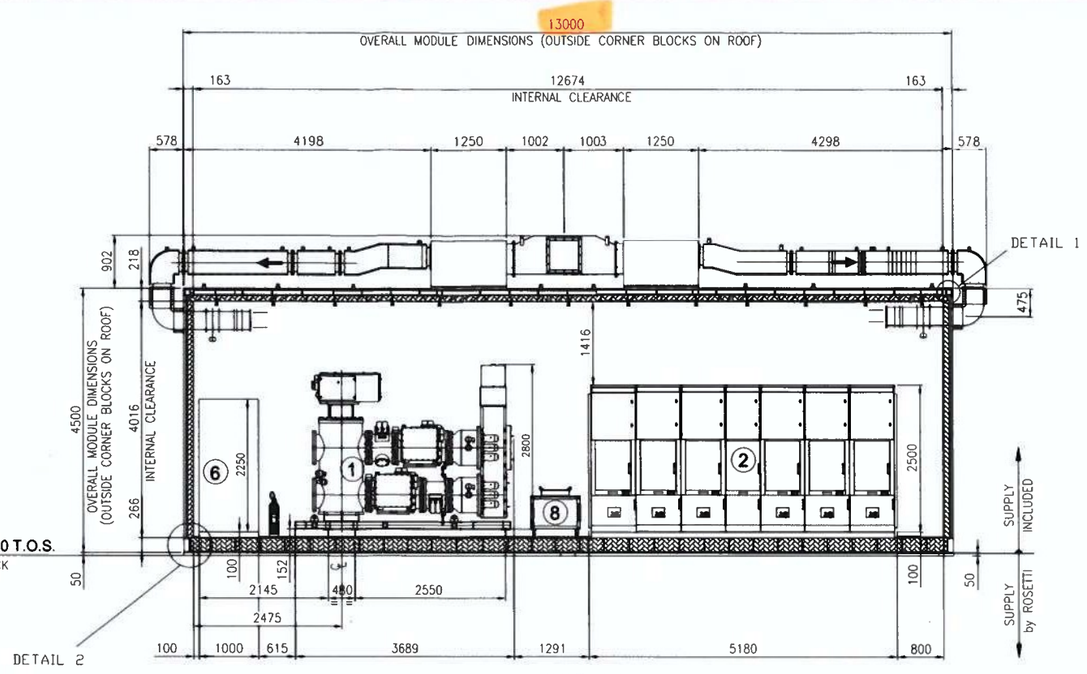
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 28/06/24
A1	DRAWING NO. 1724000049-AR-DA-00014	SHEET 001	REV. 02

File Name : 1724000049-AR-DA-00014-REV02

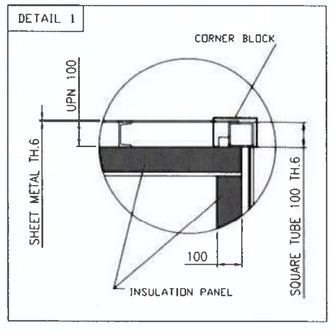
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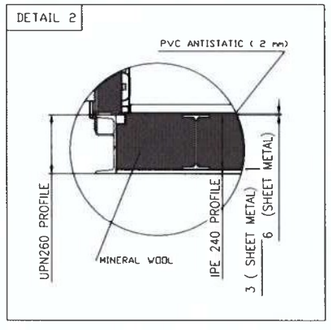


SECTION C-C



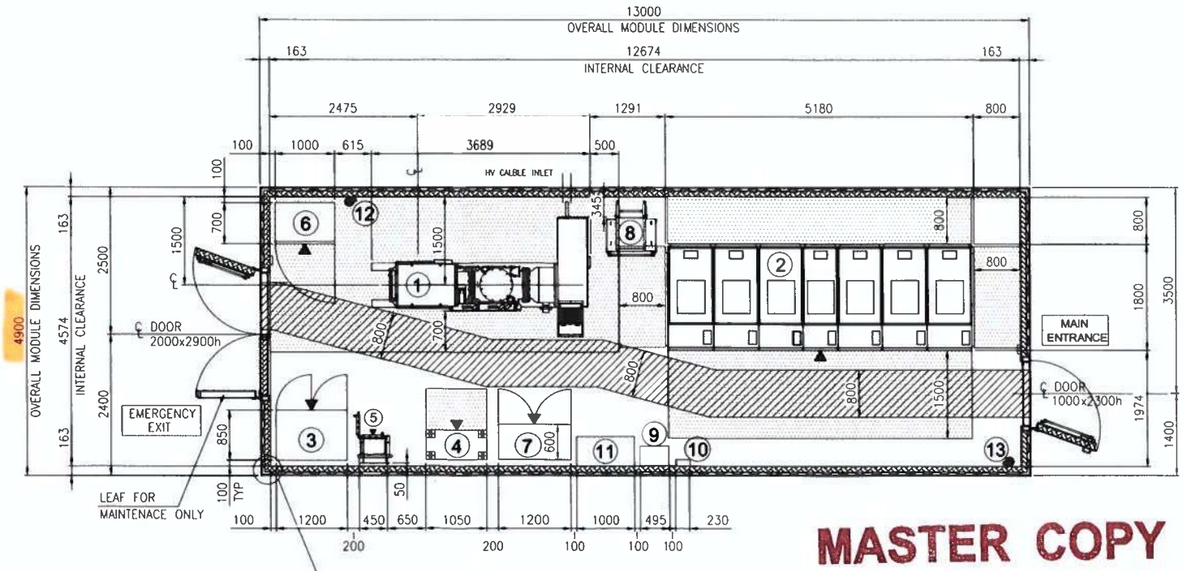
SECTION B-B



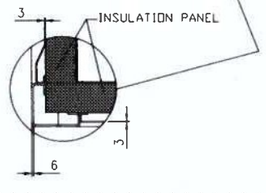


EQUIPMENT LIST

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



SECTION A-A



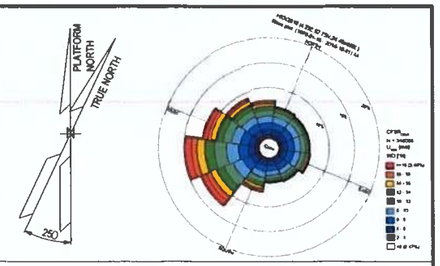
EQUIPMENT LAYOUT

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

BOTTOM PLAN

MASTER COPY
INTERNAL TEST

02



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

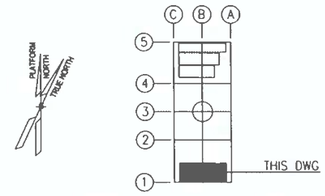
DOCUMENT TITLE	DOCUMENT NUMBER
"B-100" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00064
"B-100" DETAILED DRAWING	1724000049-AR-DD-00018
PAINTING PROCEDURE	1724000049-MAT-PRO-00004

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 s.p.a.

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)

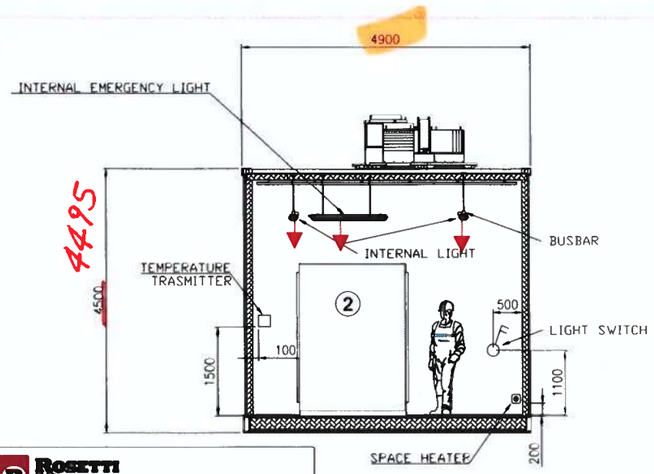
CROSSWIND — ROSETTI MARINO

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

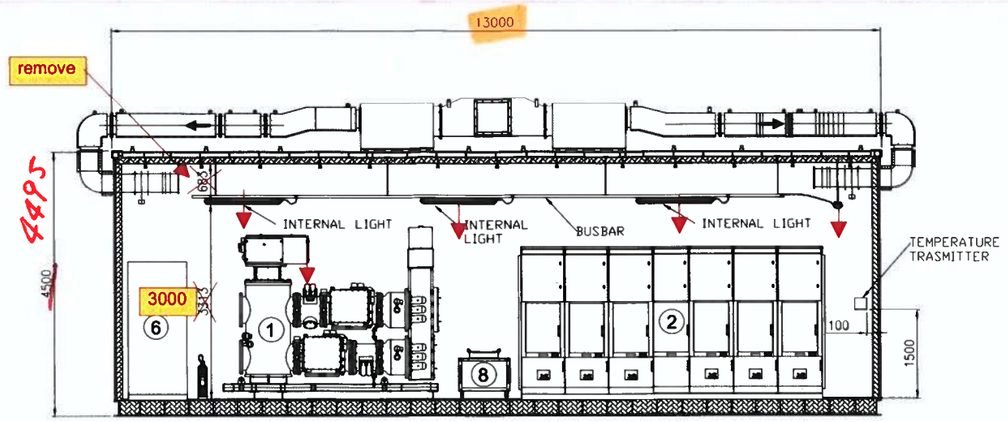
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 28/06/24
A1	DRAWING NO. 1724000049-AR-DA-00014	SHEET 002	REV. 02

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

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

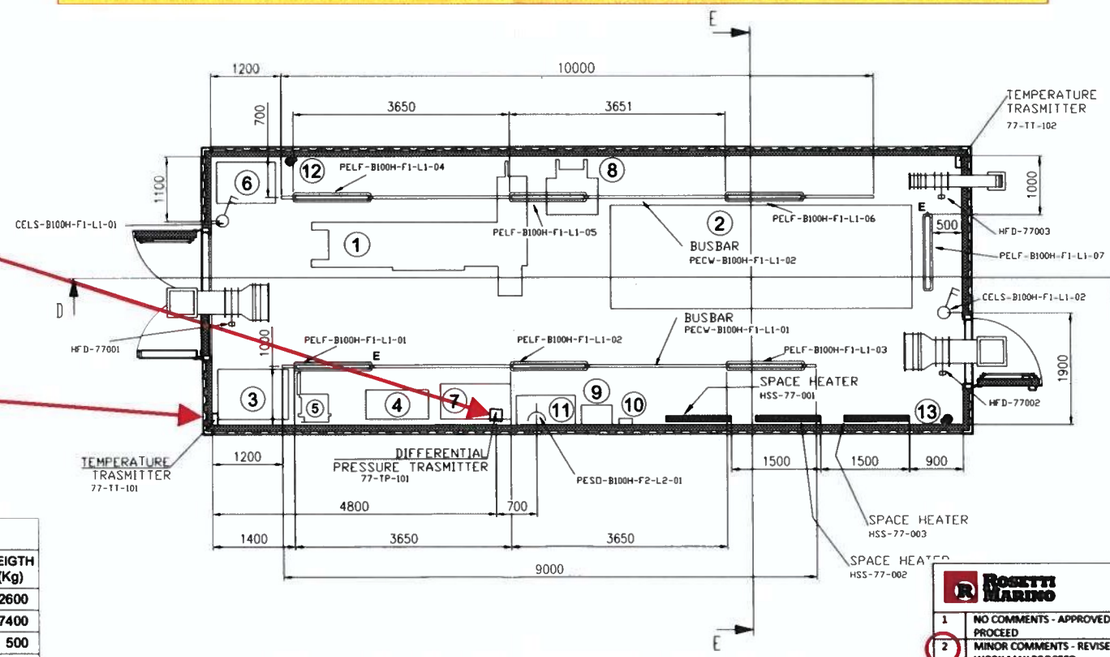


SECTION E-E



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.

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-77601A~~	AIR HANDLING UNIT A	1250	850	900	140
15	~~HHU-77601B~~	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.

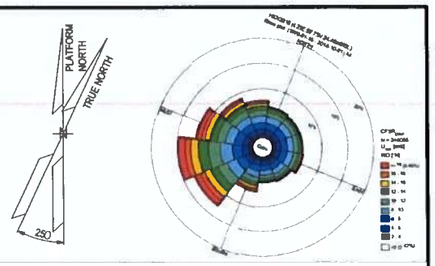
Sign	Date
R. Bossi	10/07/2024

ROSETTI MARINO

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Sign	Date
R. Bossi	10/07/2024



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

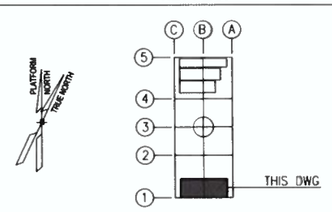
DOCUMENT TITLE	DOCUMENT NUMBER
"B-100" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00064
"B-100" DETAILED DRAWING	1724000049-AR-DD-00018
PAINTING PROCEDURE	1724000049-MAT-PRO-00004

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

MASTER COPY
INTERNAL TEST

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

13000

OVERALL MODULE DIMENSIONS (OUTSIDE CORNER BLOCKS ON ROOF)

250 | 6175 | 200 | 6175 | 250

250

UNP260

250

UNP260

UNP260

250

4423

4900

OVERALL MODULE DIMENSIONS (OUTSIDE CORNER BLOCKS ON ROOF)

4070 4483 120 73.5

120 73.5

250 250 250 200 250 250 250

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

HOLES 40 40

12970

ROSETTI MARINO

1	NO COMMENTS - APPROVED - WORK MAY PROCEED
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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

80 170 25 100 11.5 120 30

TYPICAL CORNER PLATE POSITION

200 11.5 250

TYPICAL CENTRAL PLATE POSITION

ALEX SISTEMI 50 Ø18

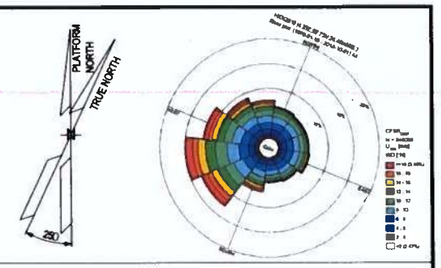
EL.+23.310 TOS
LOWER DECK

ROSETTI MARINO

M16

TYPICAL FIXING DETAIL
SCALE 1 : 10

MASTER COPY
INTERNAL TEST



NOTE

1) ALL DIMENSIONS ARE IM MM.

REFERENCE

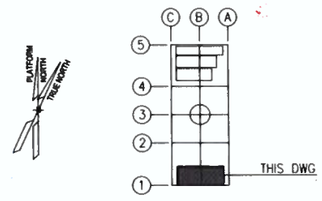
DOCUMENT TITLE	DOCUMENT NUMBER
B-100 STRUCTURAL CALCULATION - E&I SHELTERS	1724000049-ST-CA-00006

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

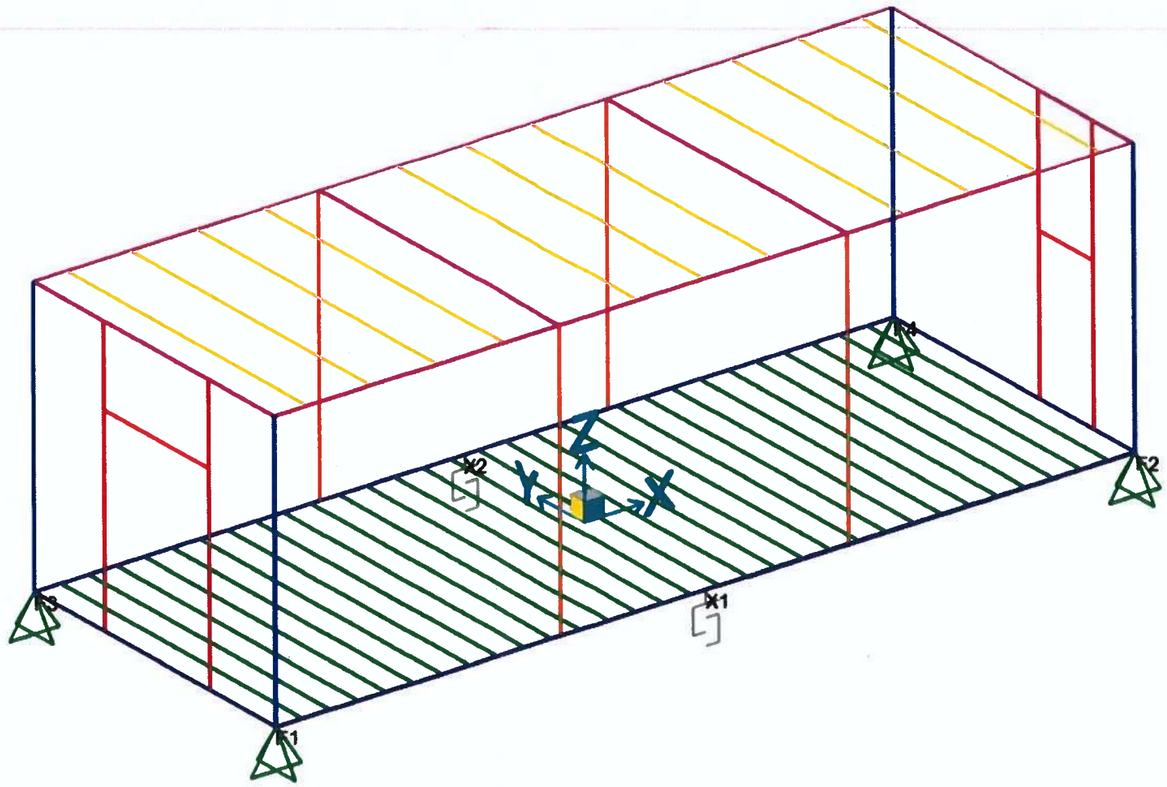
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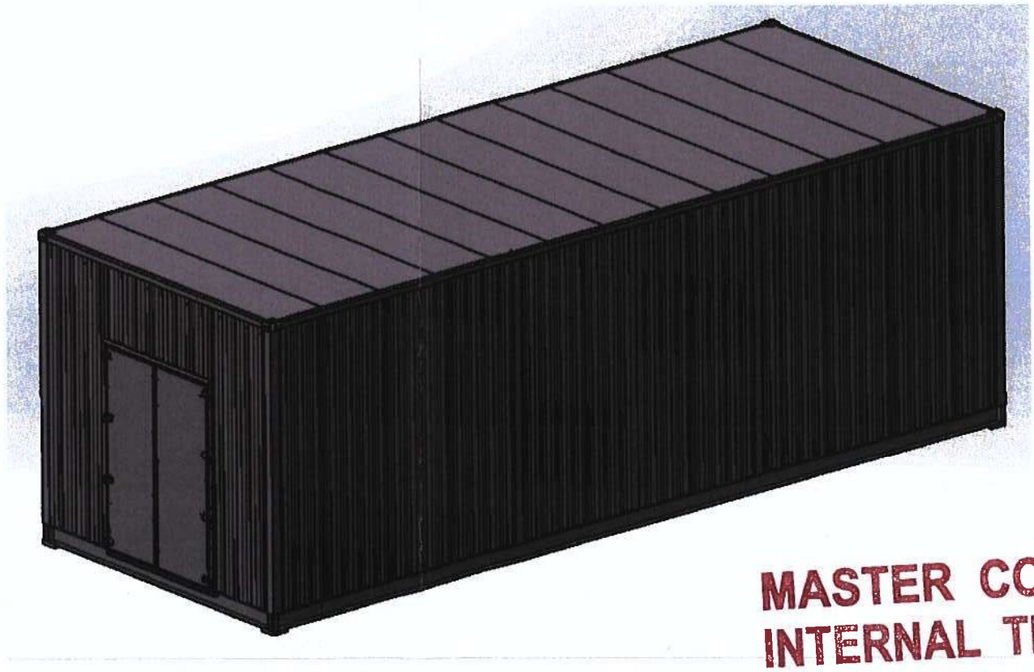
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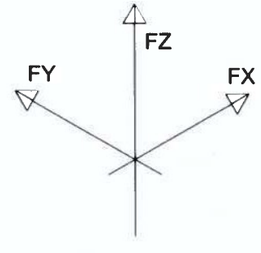
REV. 01

TABLE: Joint Reactions

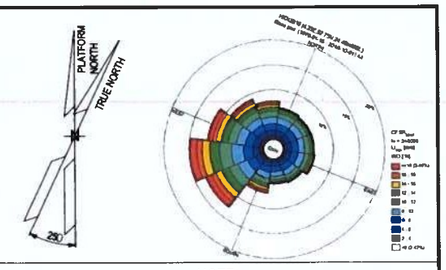
Joint	OutputCase	CaseType	StepType	Fx	Fy	Fz	Mx	My	Mz
Text	Text	Text	Text	KN	KN	KN	KN-m	KN-m	KN-m
F1	DEAD	NonStatic	Last Step	12,82	4,16	31,39	0,00	0,00	0,00
F1	SD	NonStatic	Last Step	16,38	5,33	21,73	0,00	0,00	0,00
F1	LIVE	NonStatic	Last Step	35,09	-0,18	78,19	0,00	0,00	0,00
F1	WIND X	NonStatic	Last 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.

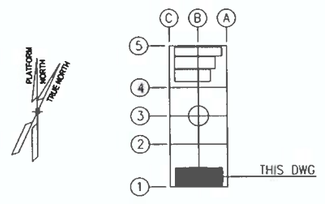
REFERENCE

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.C.	M.R.	O.A.	APPROVED FOR CONSTRUCTION (AFC)
00	16/04/24	M.C.	M.R.	O.A.	ISSUE FOR CLIENT REVIEW (ICR)

CROSSWIND

ROSETTI MARINO

TITLE: B-100 FOUNDATION DRAWING - E&I SHELTERS

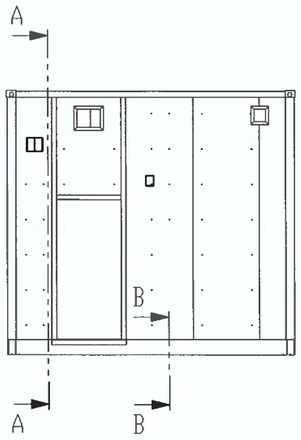
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE N.A.
DRAWN M.C.	CHECKED M.R.	APPROVED O.A.	DATE 03/06/24
A1	DRAWING NO. 1724000049-ST-DD-00010	SHEET 002/002	REV. 01

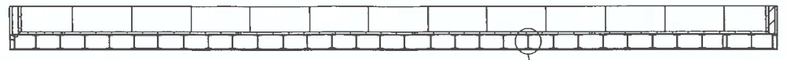
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DRAWING NO. 1724000049-AR-DD-00018 REV. 02

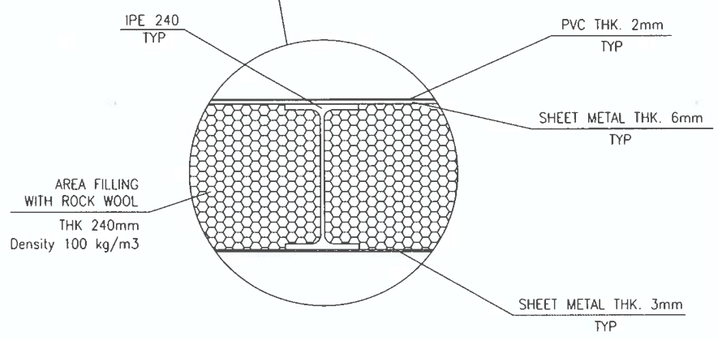
MODULE B-100

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

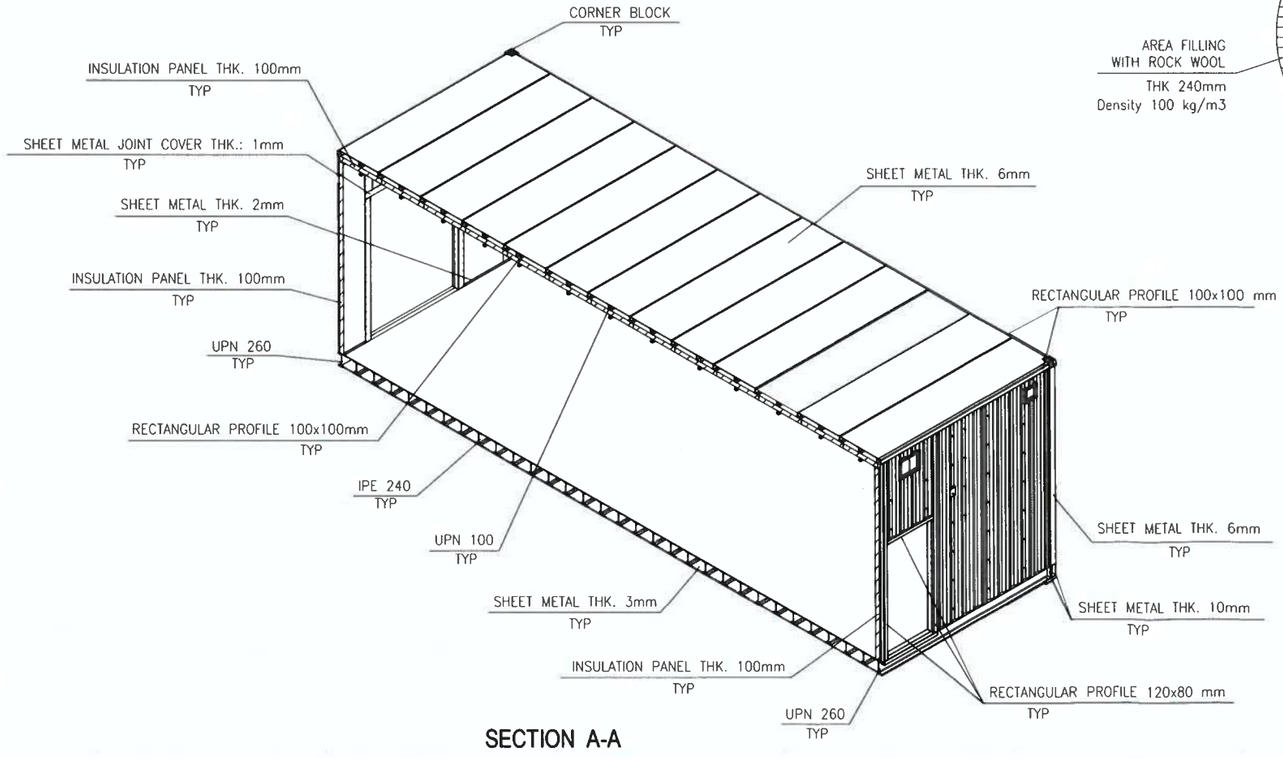




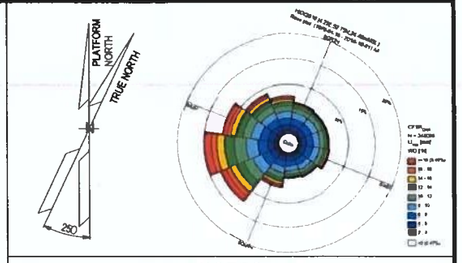
SECTION B-B



DETAIL "C"

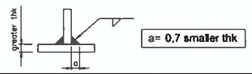


SECTION A-A



NOTES

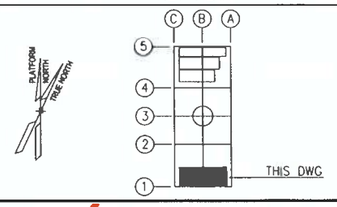
1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.
2. ALL WELDINGS SYMBOLS ARE IN ACCORDANCE WITH A.W.S. CODE D.1.1
3. UNLESS OTHERWISE INDICATED FILLET WELDS SHALL HAVE FOLLOWING DIM.:



LEGEND

HOLDS

KEY PLAN



ALEXSISTEMI s.p.r.

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

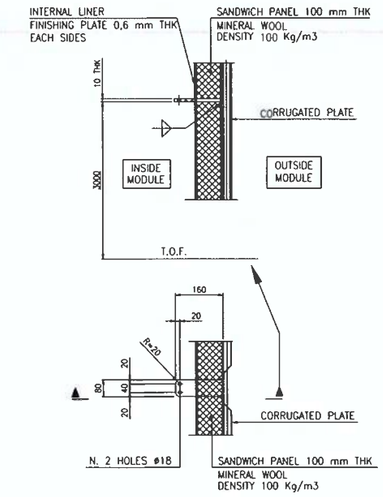
TITLE :
B-100 DETAILED DRAWINGS-E&I SHELTERS

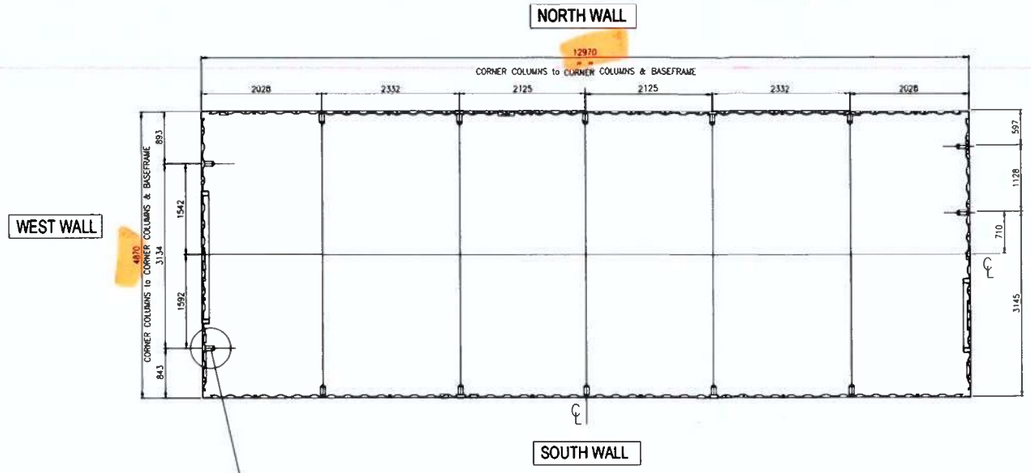
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 11/07/24
A1	DRAWING NO. 1724000049-AR-DD-00018	SHEET 001	REV. 02

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

MASTER COPY
INTERNAL TEST

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

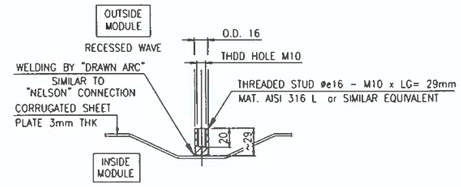


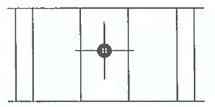


MODULE B-100

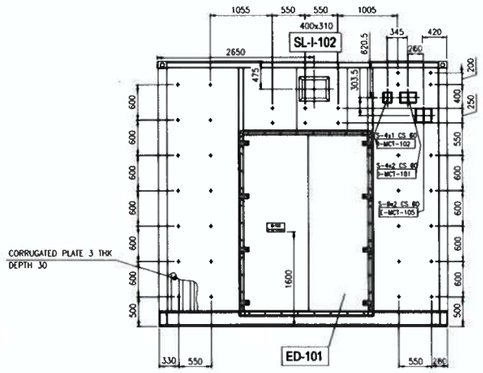
INTERNAL SEA FASTENING PLATES PLAN

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

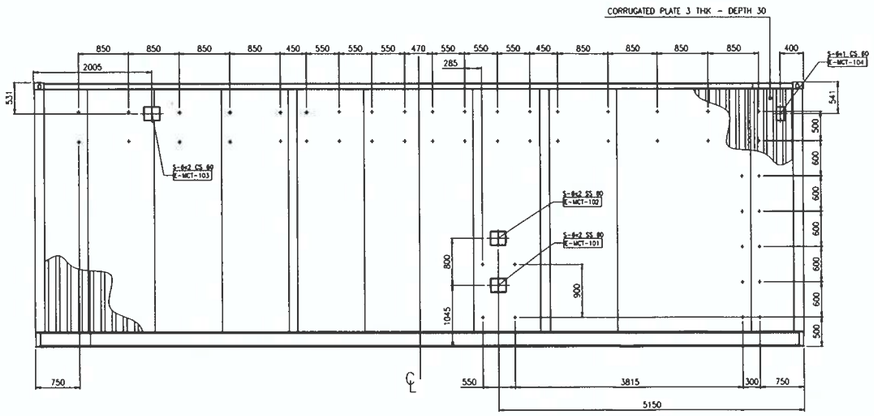




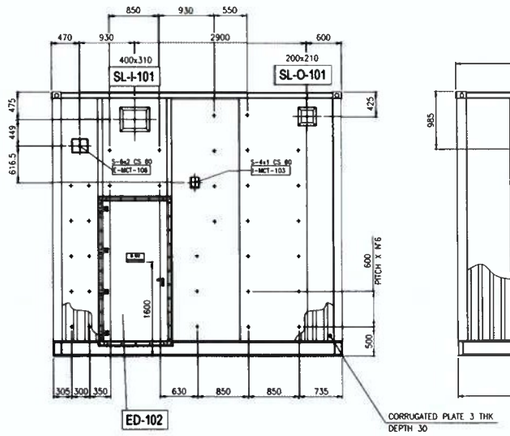
THREADED STUD INSTALLATION



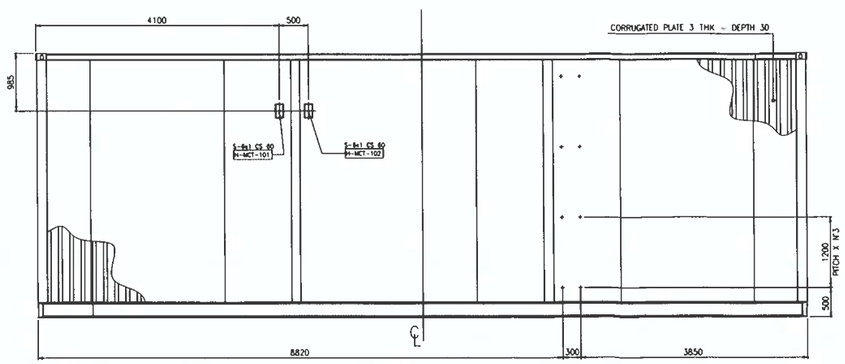
VIEW OF WEST WALL



VIEW OF NORTH WALL

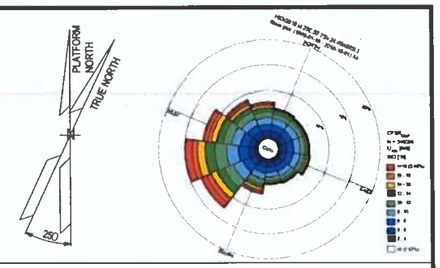


VIEW OF EAST WALL



VIEW OF SOUTH WALL

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

THREADED STUD ø16 - M10 x LG= 29mm

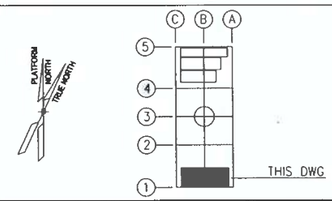
T.O.F. ..... TOP OF FLOOR

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

HVAC SLEEVE LEGEND: 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 3= B-300 2= B-200 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

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-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.C.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
01	08/07/24	M.C.	O.A.	C.A.	ISSUE FOR REVIEW (IFR)
00	23/05/24	M.C.	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.C. | CHECKED O.A. | APPROVED C.A. | DATE 11/07/24

A1 | DRAWING NO. 1724000049-AR-DD-00018 | SHEET 002 | REV. 02

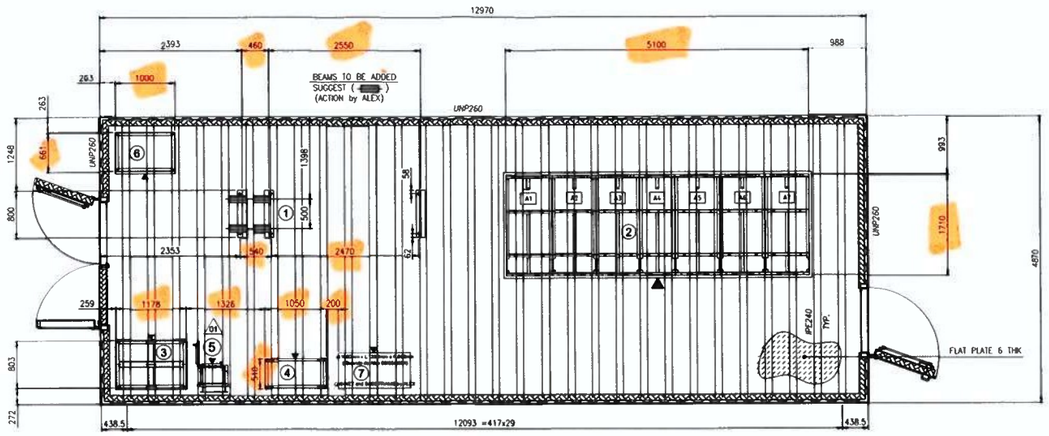
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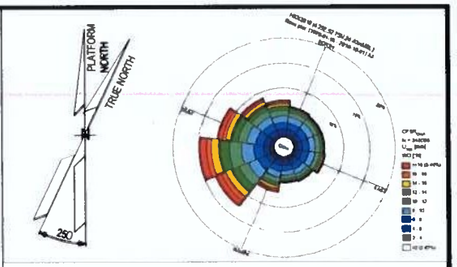
DRAWING NO. 1724000049-AR-DD-00018

REV. 02

B-100
I&T EQUIPMENT ROOM
BASEFRAME LOCATION PLAN

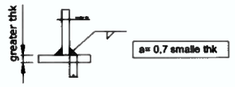
MASTER COPY
INTERNAL TEST





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.:



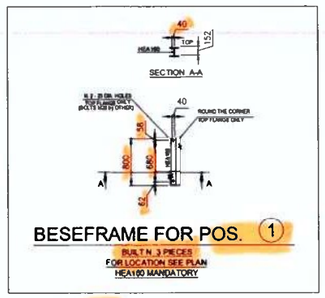
4. ALL WELDS ON TOP & BOTTOM SIDES OF BASEFRAMES MUST BE PERFECTLY SMOOTHED.
5. WHERE INDICATED " ▲ " SHOULD BE STAMP "FRONT", ABOVE "TOP" AND BELOW "BOTTOM".

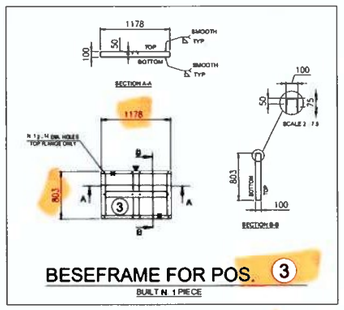


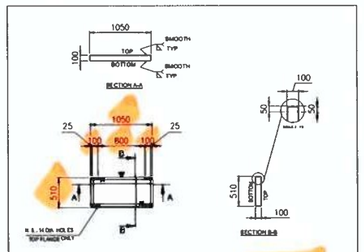
6. SURFACE TREATMENT ACCORDING DOCUMENT N. 1724000049-MAT-PRO-00004 - PAINTING PROCEDURE FINAL COLOUR LIGHT GREY RAL 7035.

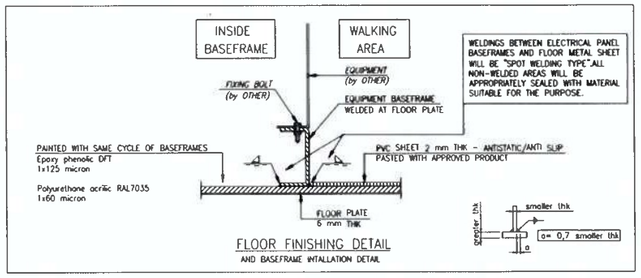
LEGEND

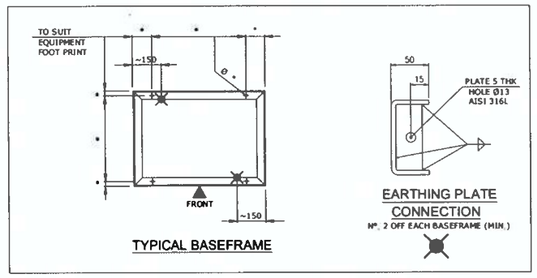
ASI = ALEX SISTEMI

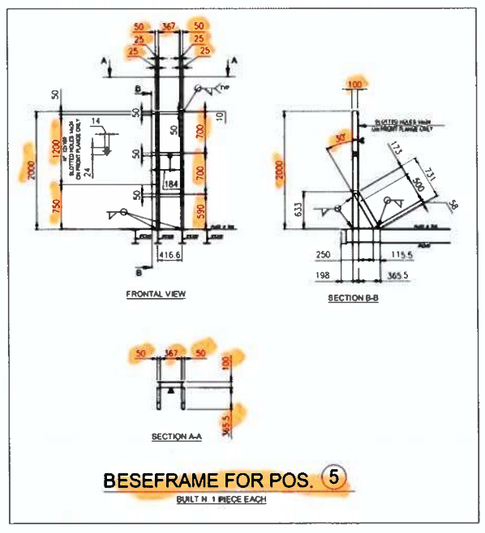


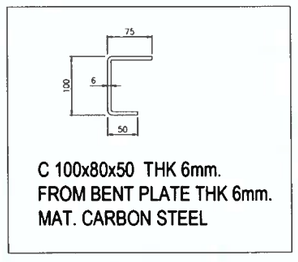


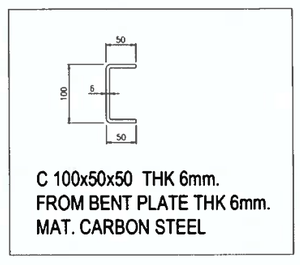


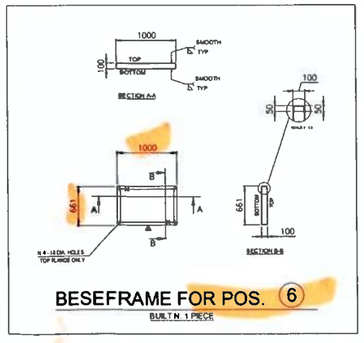


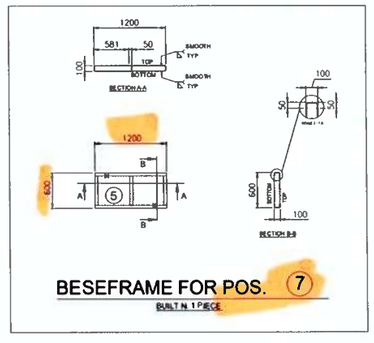








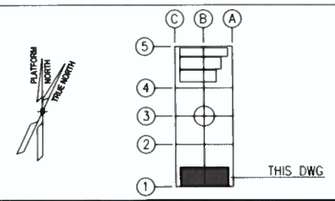




EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGTH (Kg)	SCOPE
1	HNA8-AFA70	68kV 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

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

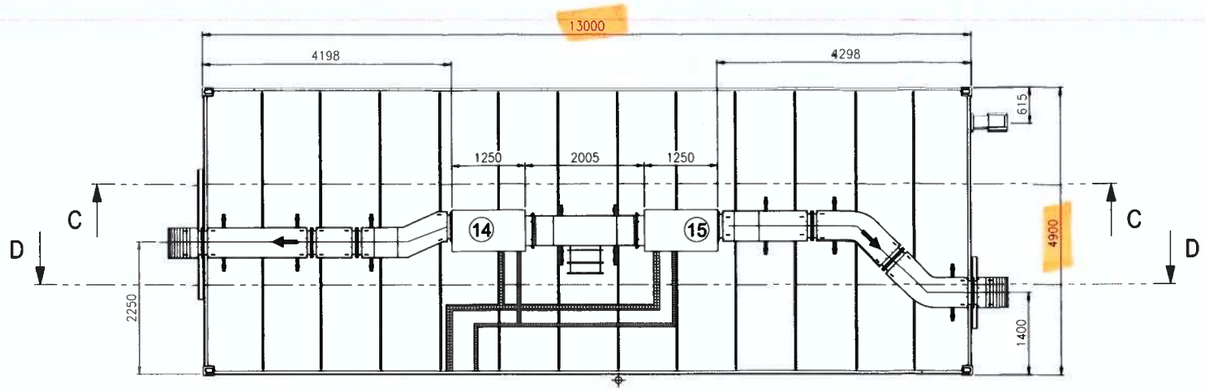
ROSETTI MARINO

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

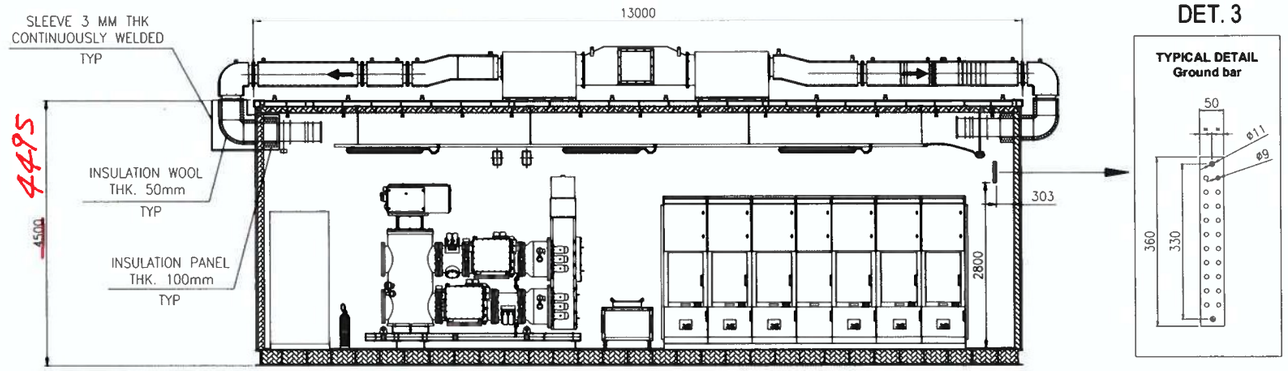
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 11/07/24
A1	DRAWING NO. 1724000049-AR-DD-00018	SHEET 003	REV. 02

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

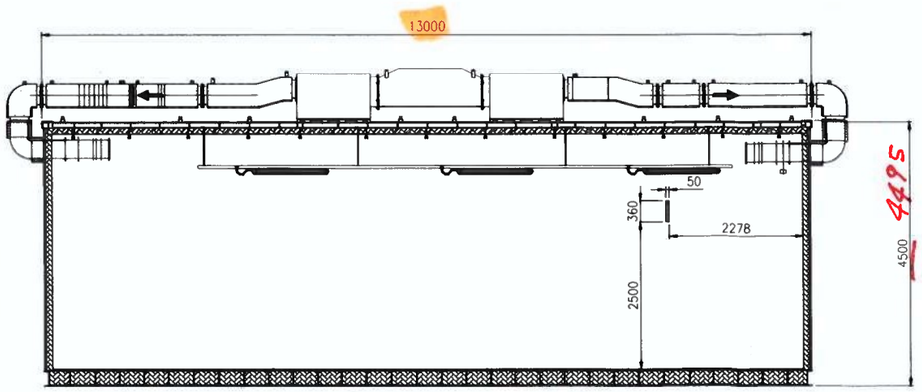
DRAWING NO. 1724000049-AR-DD-00018 | REV. 02



TOP VIEW

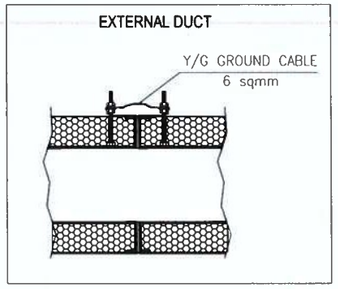


SECTION C-C

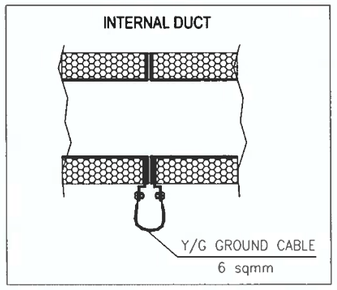


SECTION D-D

DET. 1

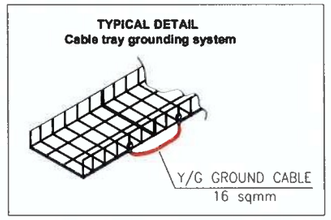


DET. 2

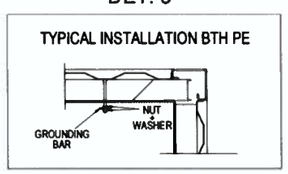


DET. 3

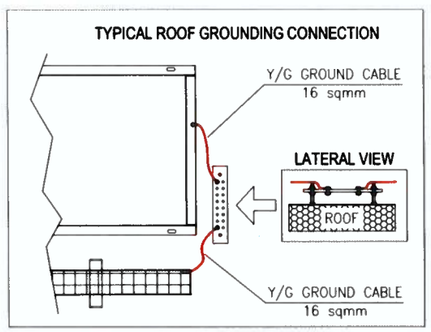
DET. 4



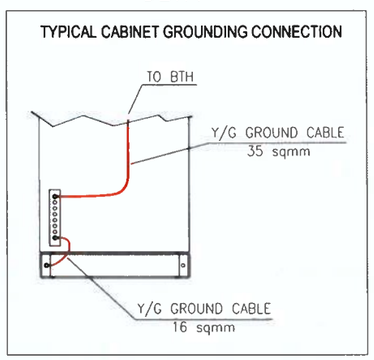
DET. 5

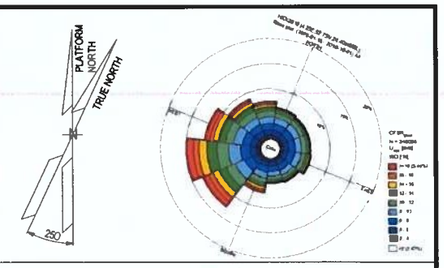


DET. 6



DET. 7



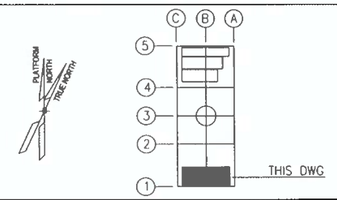


NOTES

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-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

ALEXSISTEMI spa

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		

ALEXSISTEMI spa

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV = ISO 9001 =

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.

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	

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	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

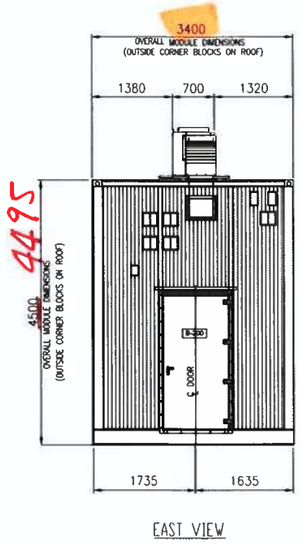
Inspection List	YES	NO	N.A.
Verificare tutte le quote di seguito indicate a disegno:			
NORTH VIEW	✓		
EAST VIEW	✓		
SOUT VIEW	✓		
WEST VIEW	✓		
TOP VIEW	✓		
SECTION A-A	✓		
SECTION B-B	✓		
SECTION C-C	✓		
SECTION D-D	✓		
SECTION E-E	✓		
BASEFRAME LOCATION	✓		

Comments:

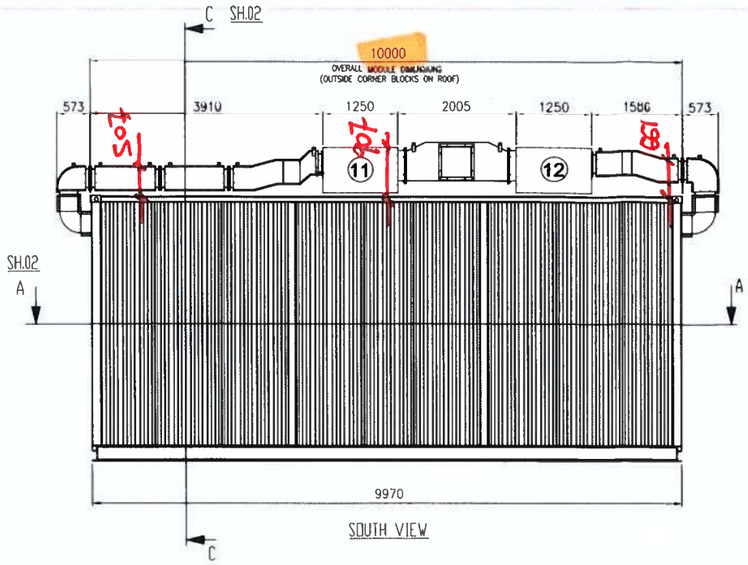
DWG attached.

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

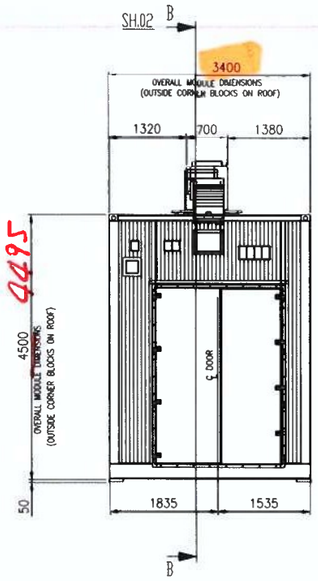
DRAWING NO. 1724000049-AR-DA-00015 REV. 02



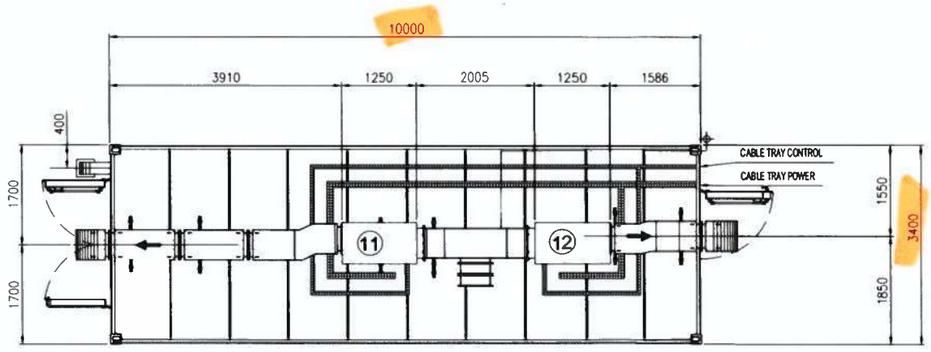
EAST VIEW



SOUTH VIEW



WEST VIEW



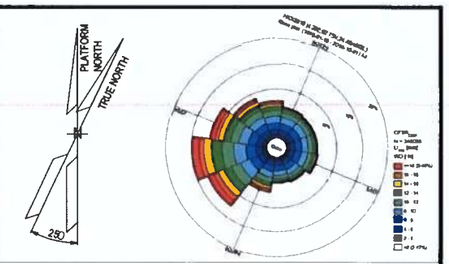
TOP VIEW

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

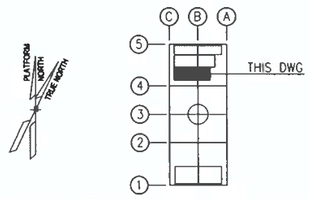
DOCUMENT TITLE	DOCUMENT NUMBER
"B-200" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00065
"B-200" DETAILED DRAWING	1724000049-AR-DD-00019
PAINTING PROCEDURE	1724000049-MAT-PRO-00005

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 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)

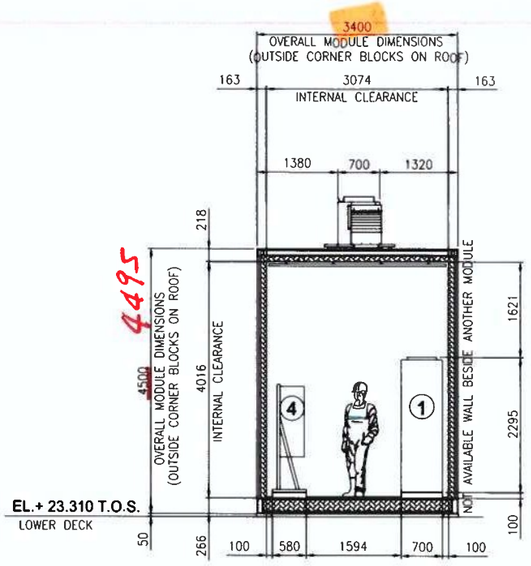
CROSSWIND | ROSETTI MARINO

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

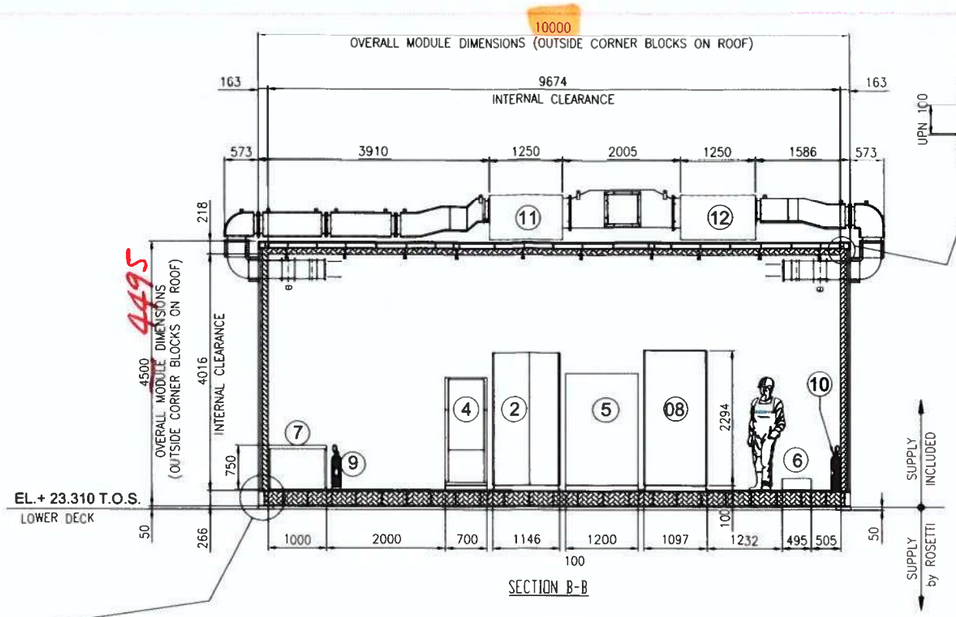
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 28/06/24
A1	DRAWING NO. 1724000049-AR-DA-00015	SHEET 001	REV. 02

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

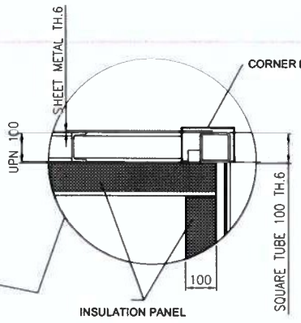
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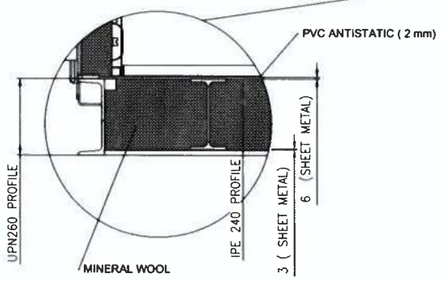


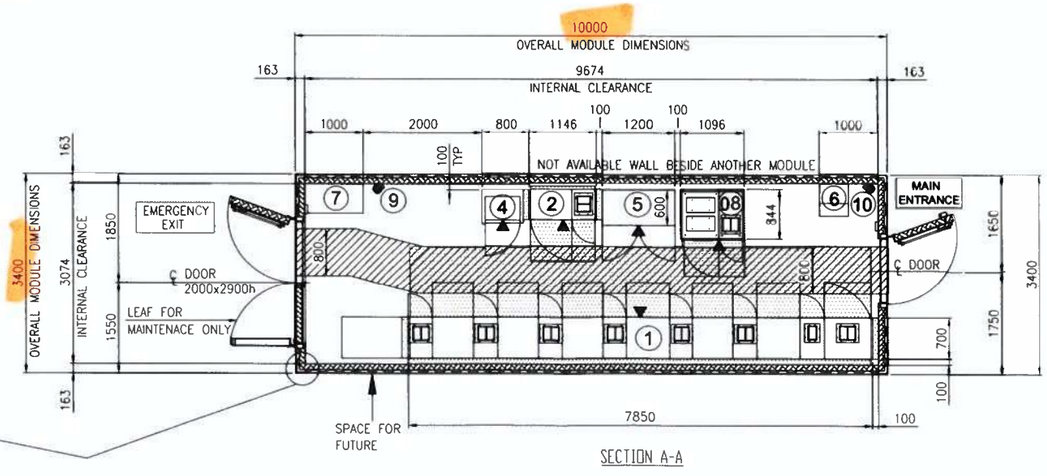
SECTION C-C



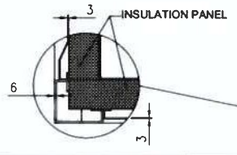
SECTION B-B







SECTION A-A



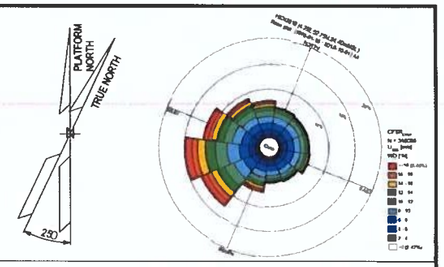
EQUIPMENT LIST

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

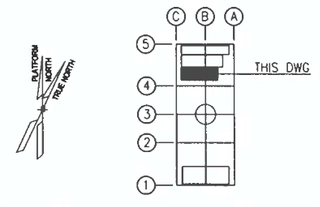
DOCUMENT TITLE	DOCUMENT NUMBER
"B-200" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00065
"B-200" DETAILED DRAWING	1724000049-AR-DD-00019
PAINTING PROCEDURE	1724000049-MAT-PRO-00005

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 S.p.A.

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)

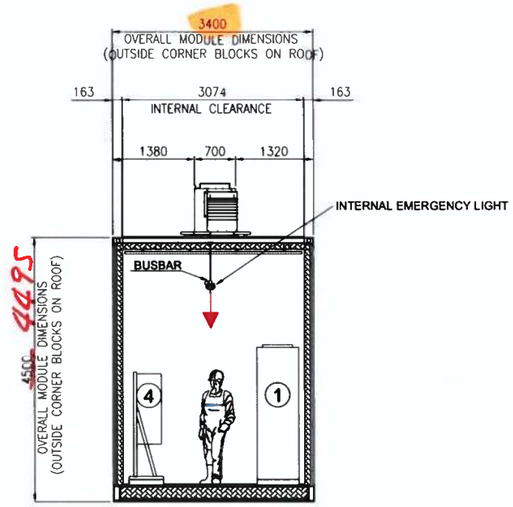
CROSSWIND | ROSETTI MARINO

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

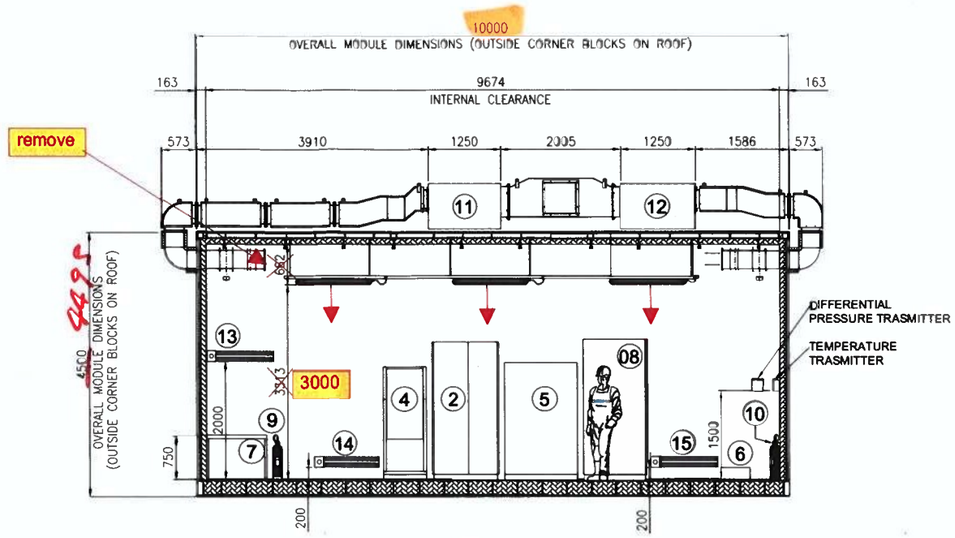
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 14/05/24
A1	DRAWING NO. 1724000049-AR-DA-00015	SHEET 002	REV. 02

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

DRAWING NO. 1724000049-AR-DA-00015 REV. 02



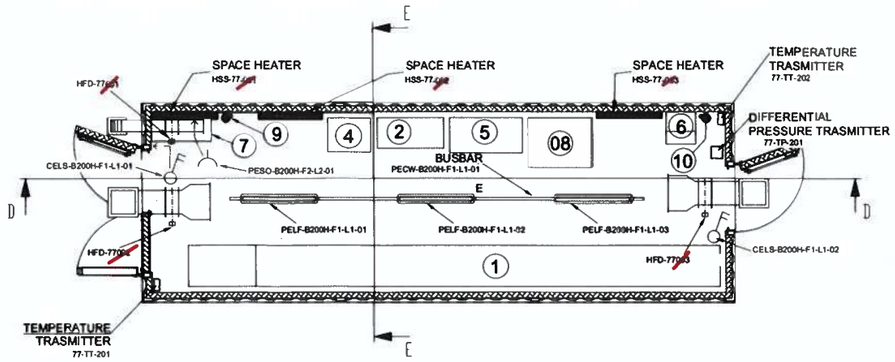
SECTION E-E



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

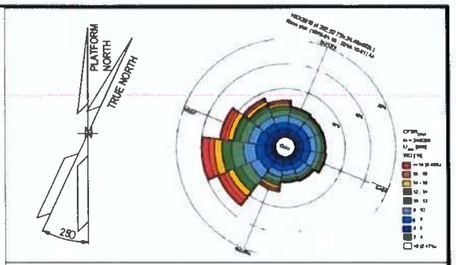


EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)
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

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.)



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

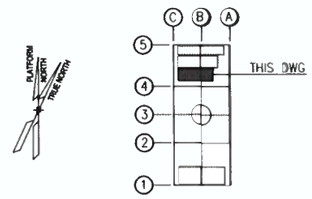
DOCUMENT TITLE	DOCUMENT NUMBER
"B-200" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00065
"B-200" DETAILED DRAWING	1724000049-AR-DD-00019
PAINTING PROCEDURE	1724000049-MAT-PRO-00005

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 spa

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. 1724000043			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

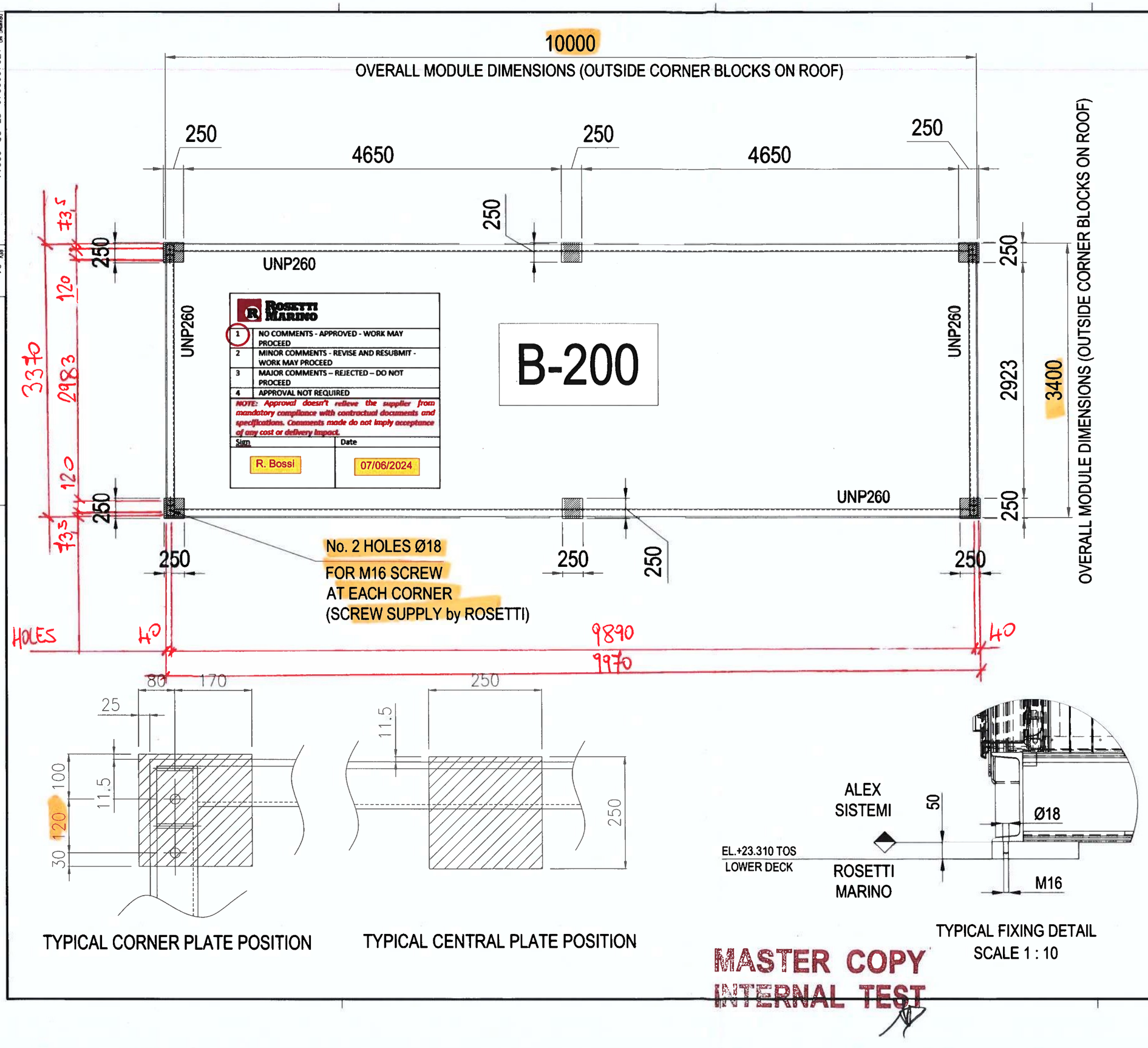
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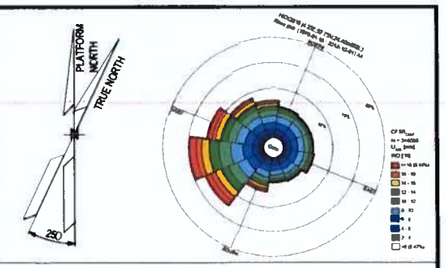
02

MASTER COPY
INTERNAL TEST

DRAWING NO. 1724000049-ST-DD-00011

REV. 01





NOTE

1) ALL DIMENSIONS ARE IM MM.

REFERENCE

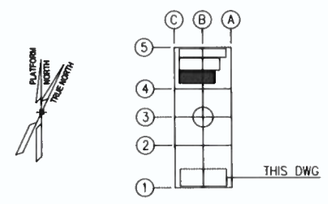
DOCUMENT TITLE	DOCUMENT NUMBER
B-200 STRUCTURAL CALCULATION - E&I SHELTERS	1724000049-ST-CA-00007

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

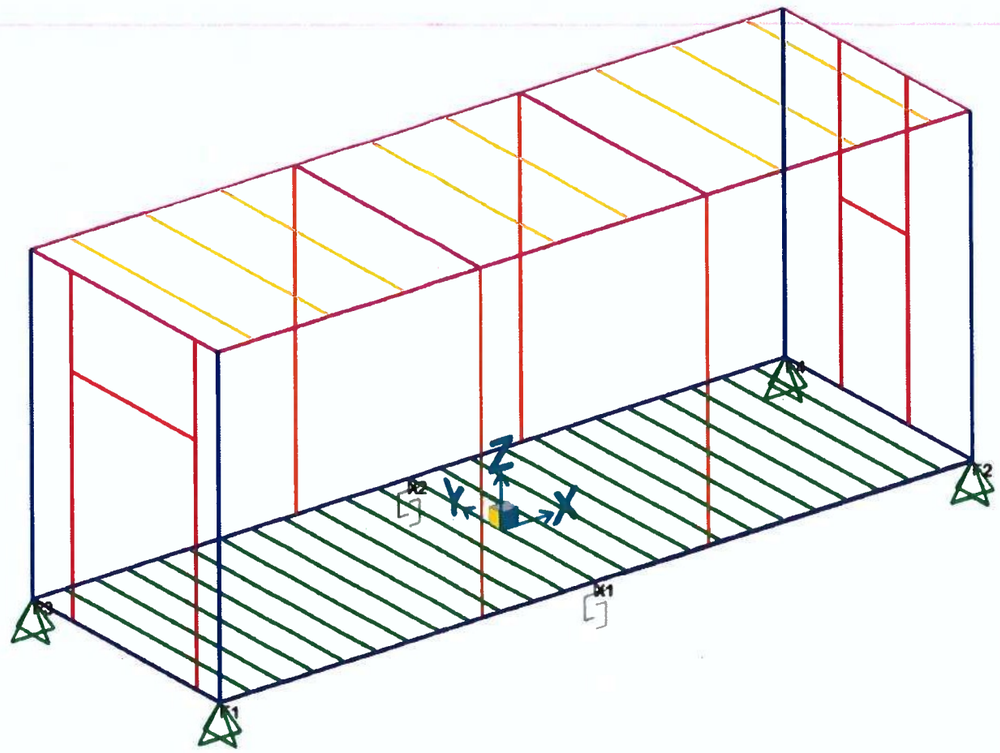
File Name : 1724000049-ST-DD-00011-REV01

MASTER COPY
INTERNAL TEST

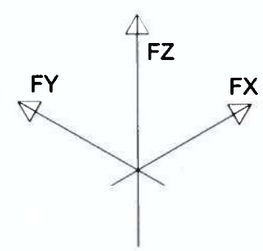
DRAWING NO. 1724000049-ST-DD-00011 REV. 01

TABLE: Joint Reactions

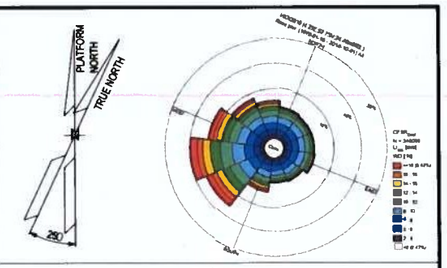
Joint	OutputCase	CaseType	StepType	Fx	Fy	Fz	Mx	My	Mz
Text	Text	Text	Text	KN	KN	KN	KN-m	KN-m	KN-m
F1	DEAD	NonStatic	Last Step	7,06	3,99	20,50	0,00	0,00	0,00
F1	SD	NonStatic	Last Step	13,01	4,55	19,04	0,00	0,00	0,00
F1	LIVE	NonStatic	Last Step	14,07	5,34	39,40	0,00	0,00	0,00
F1	WIND X	NonStatic	Last Step	-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







MASTER COPY
INTERNAL TEST



NOTE

1) ALL DIMENSIONS ARE IN MM.

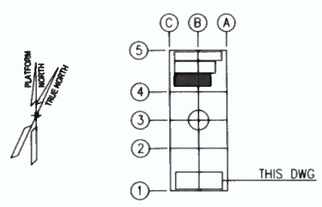
REFERENCE

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

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

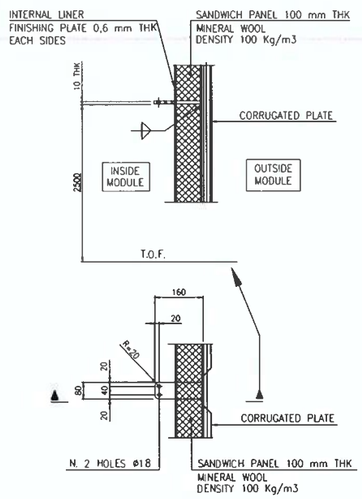
ROSETTI MARINO

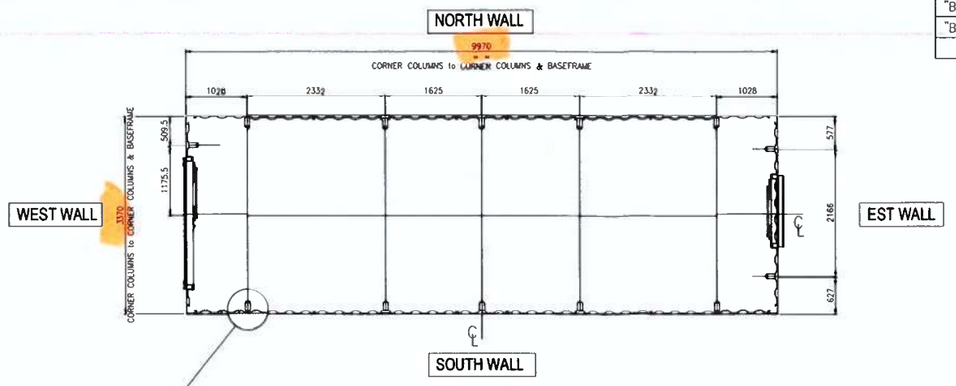
TITLE : B-200 FOUNDATION DRAWING - E&I SHELTERS

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

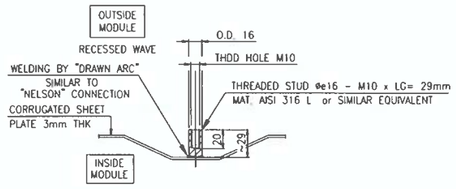
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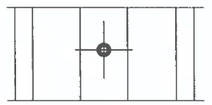
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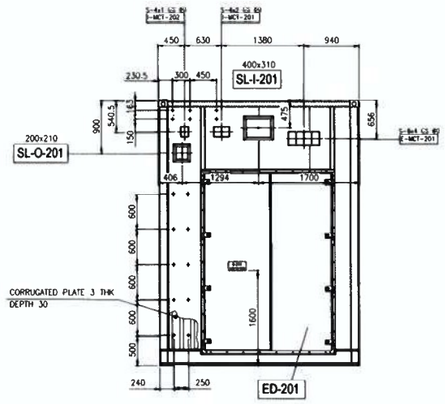


MODULE B-200
INTERNAL SEA FASTENING PLATES
PLAN

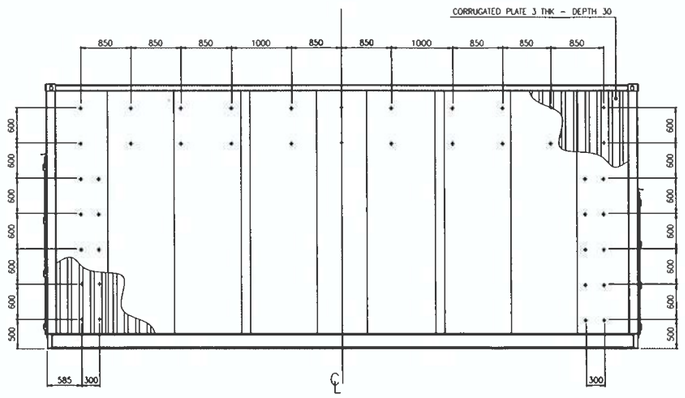




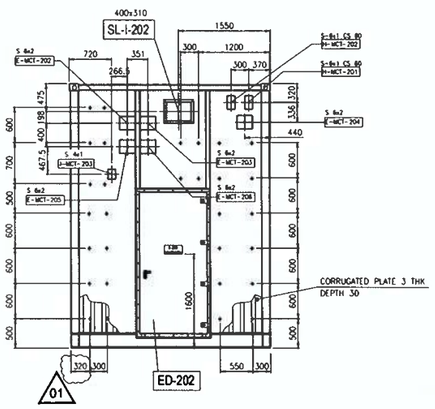
THREADED STUD INSTALLATION



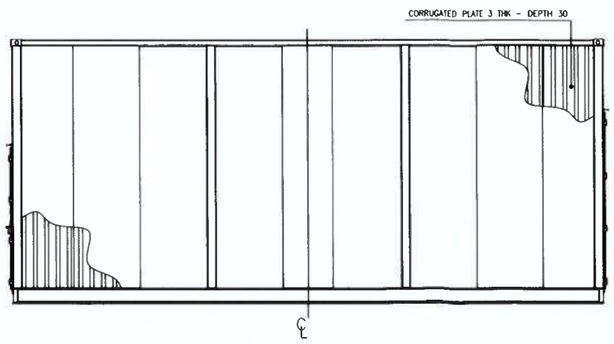
VIEW OF WEST WALL



VIEW OF NORTH WALL



VIEW OF EAST WALL

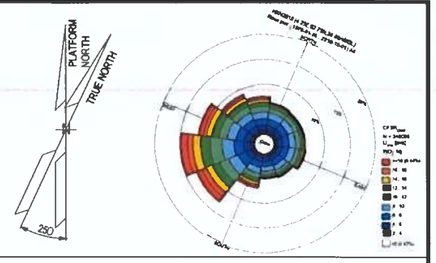


VIEW OF SOUTH WALL

MASTER COPY
INTERNAL TEST

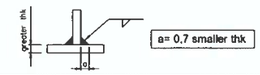
REFERENCE

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

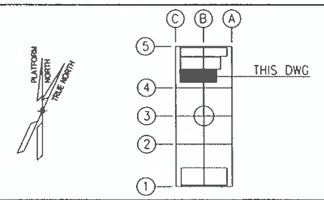
THREADED STUD Øe16 - M10 x LG= 29mm
T.O.F. TOP OF FLOOR

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
SERVICE: I= AIR IN, R= RECYRCLE, O= OVERPRESSURE
PROGRESSIVE NUMBER FROM 01
MODULE LOCATION: 1= B-100, 2= B-200, 3= B-300, 4= B-400

DOOR LEGEND: ED-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

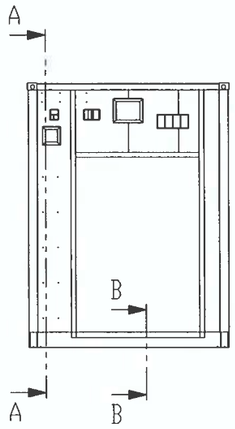
CONTRACT NO./TITLE CONTRACT_NO. 1724000049 — SCALE 1:50
DRAWN M.G. — CHECKED O.A. — APPROVED C.A. — DATE 11/07/24
A1 — DRAWING NO. 1724000049-AR-DD-00019 — SHEET 002 — REV. 02

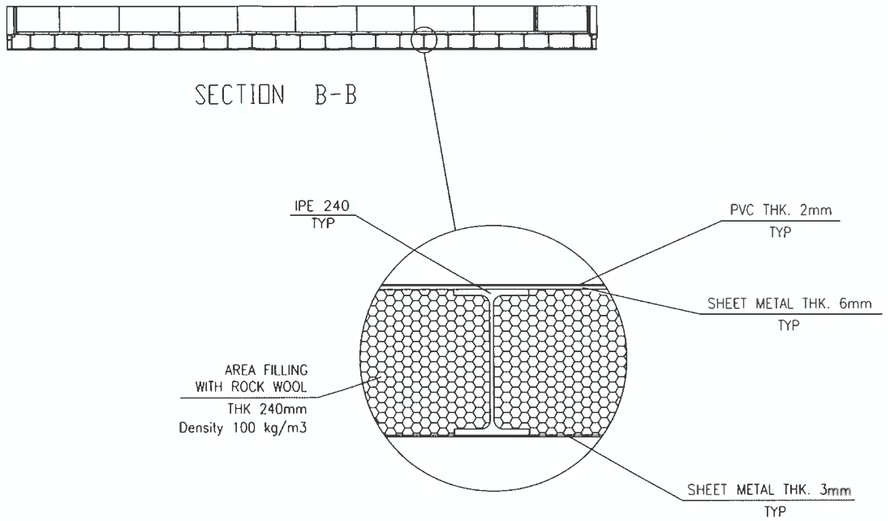
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DRAWING NO. 1724000049-AR-DD-00019 REV. 02

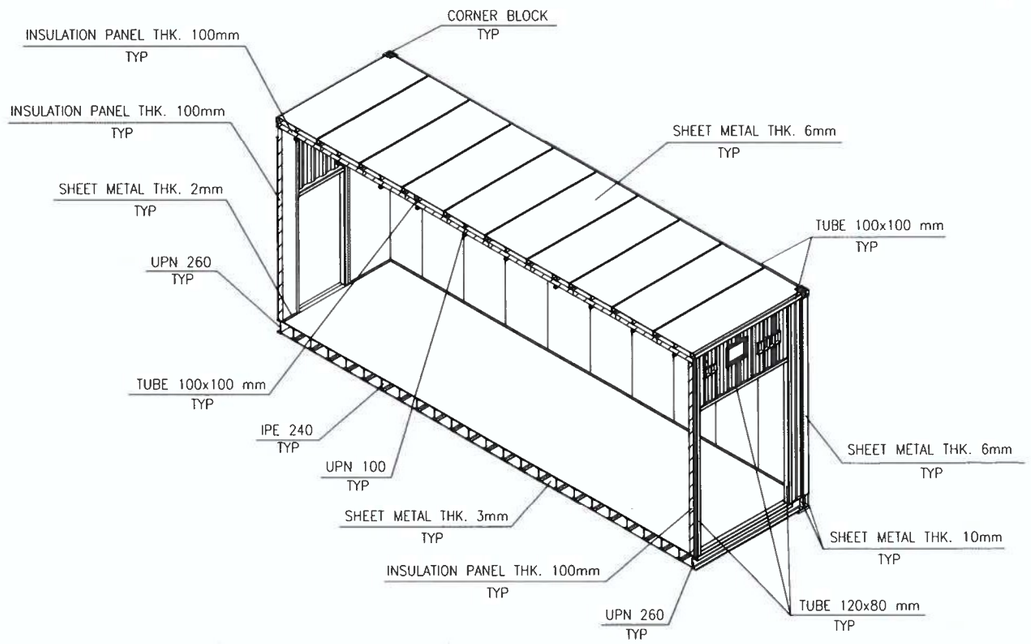
MODULE B-200

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

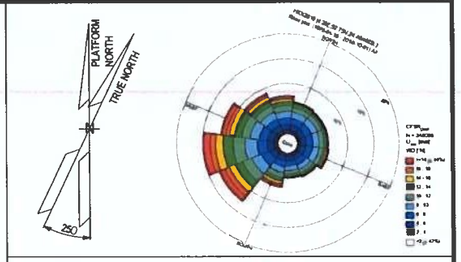




DETAIL "C"

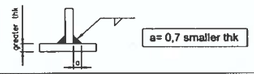


SECTION A-A



NOTES

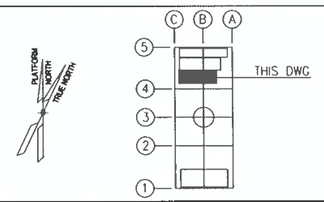
1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.
2. ALL WELDINGS SYMBOLS ARE IN ACCORDANCE WITH A.W.S. CODE D.1.1
3. UNLESS OTHERWISE INDICATED FILLET WELDS SHALL HAVE FOLLOWING DIM.:



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

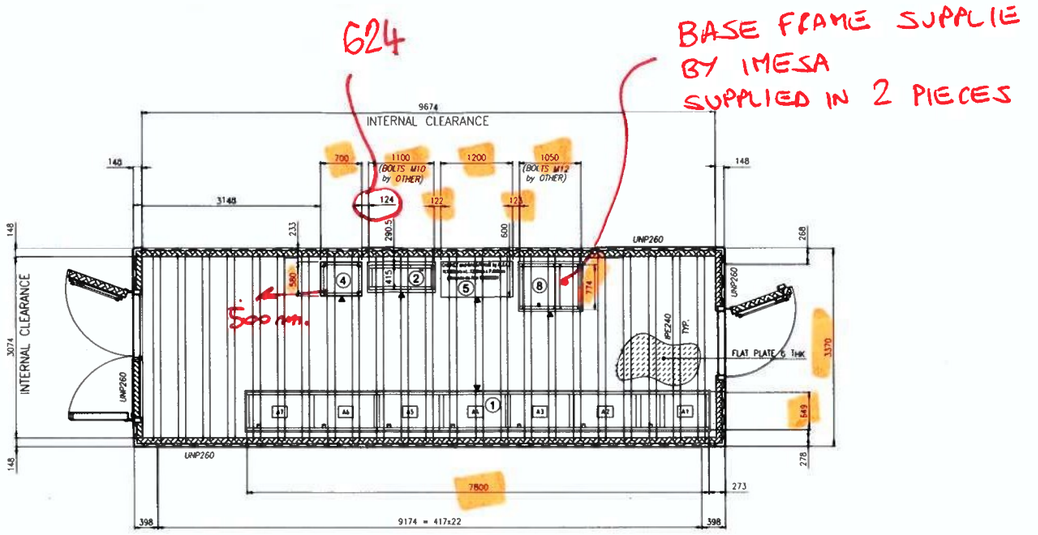
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 11/07/24
A1	DRAWING NO. 1724000049-AR-DD-00019	SHEET 001	REV. 02

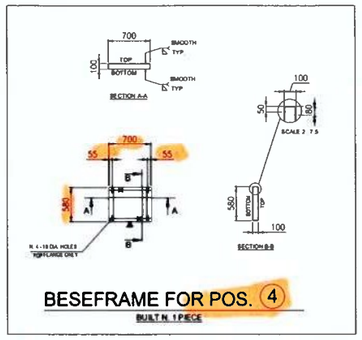
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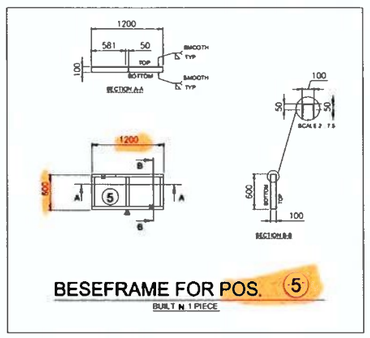
MASTER COPY
INTERNAL TEST

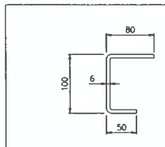
DRAWING NO. 1724000049-AR-DD-00019 REV. 02

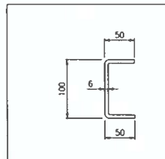
B-200
I&T EQUIPMENT ROOM
BASEFRAME LOCATION PLAN

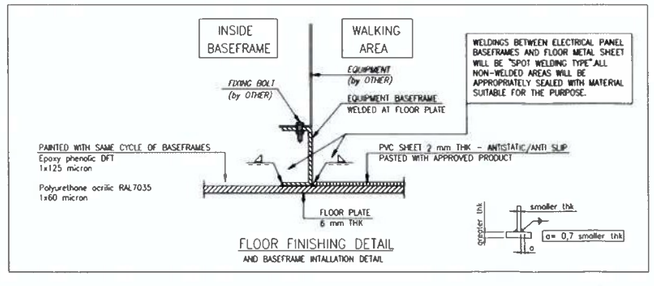


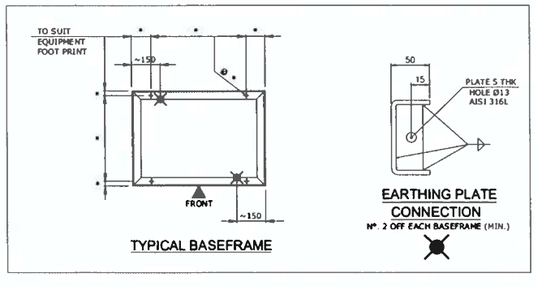






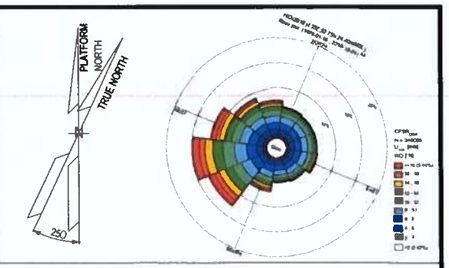






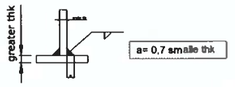
EQUIPMENT LIST

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



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".

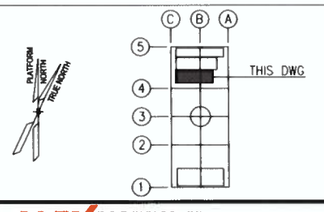


6. SURFACE TREATMENT ACCORDING DOCUMENT N. 1724000049-MAT-PRO-00004 - PAINTING PROCEDURE FINAL COLOUR LIGHT GREY RAL 7035

LEGEND

ASI = ALEX SISTEMI

KEY PLAN



ALEXSISTEMI

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

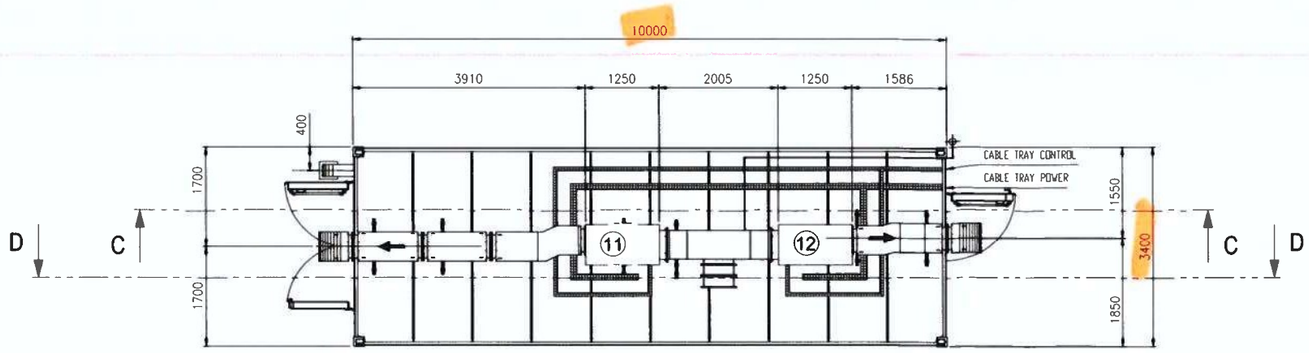
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 11/07/24
A1	DRAWING NO. 1724000049-AR-DD-00019	SHEET 003	REV. 02

File Name : 1724000049-AR-DD-00019-REV.C2

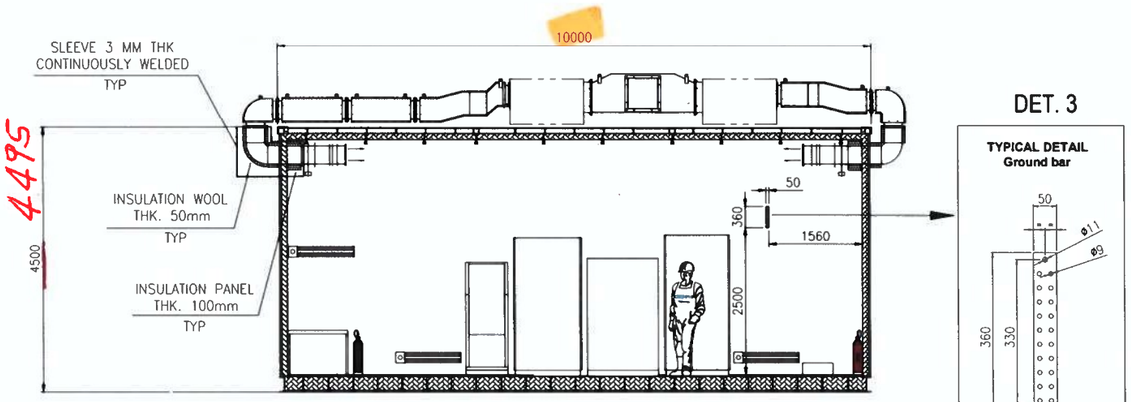
MASTER COPY
INTERNAL TEST

DRAWING NO. 1724000049-AR-DD-00019

REV. 02



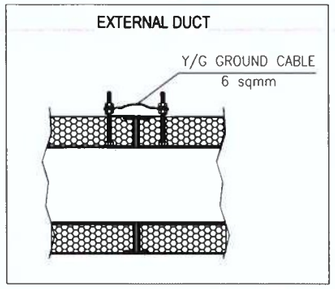
TOP VIEW



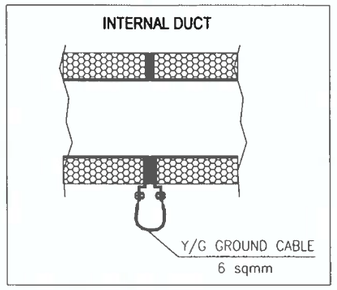
SECTION C-C

DET. 3

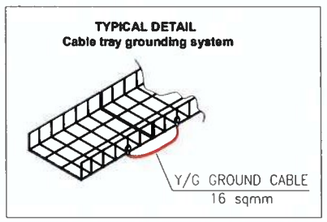
DET. 1



DET. 2

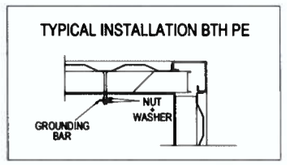


DET. 4

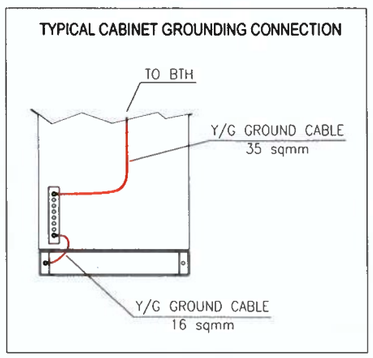


SECTION D-D

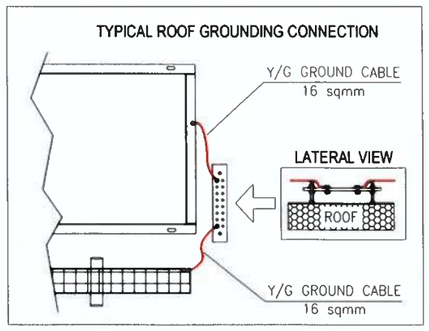
DET. 5

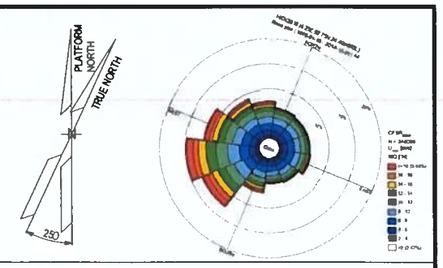


DET. 7



DET. 6



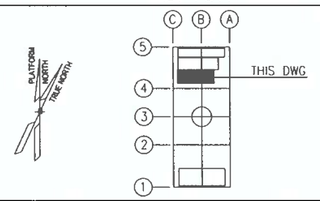


NOTES

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

ALEXSISTEMI spa

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV = ISO 9001 =

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 ROSETTI MARINE (XV)			

ALEXSISTEMI spa

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 MARIAIO	CROSSWIND		

Doc. Name: ELECTRICAL TESTS		Report No.02 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:** 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.

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	✓		

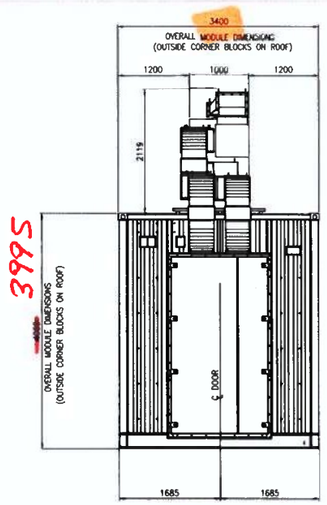
Comments:

DWG attached.

ALEX SISTEMI *Quality Assurance*	Customer	Final Customer	3rd Part	other
ALEXSISTEMI spa	COICEA CATALIN ROSETTI MARINO	xCROSSWIND		

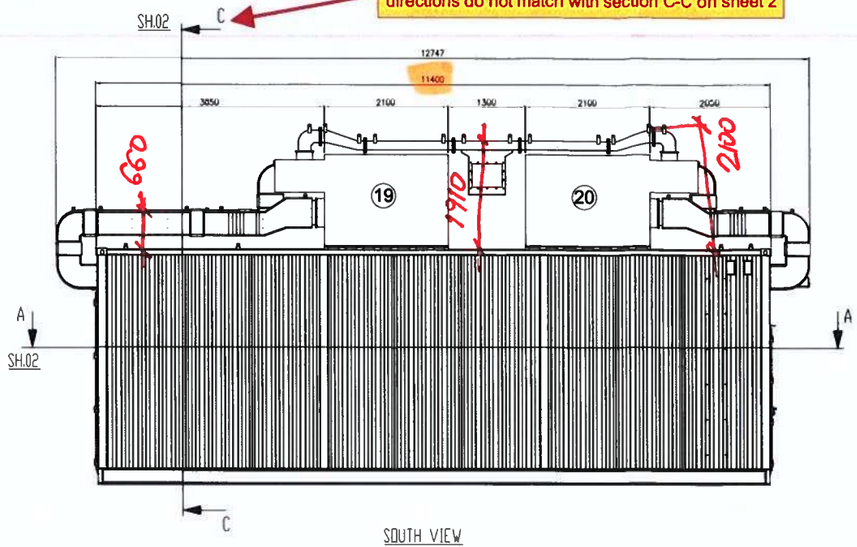
DRAWING NO. 1724000049-AR-DA-00016 REV. 02

Check and revise section C-C. Position and arrow directions do not match with section C-C on sheet 2

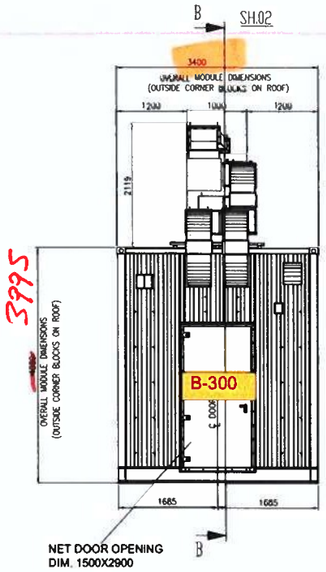


~~EAST VIEW~~

WEST VIEW



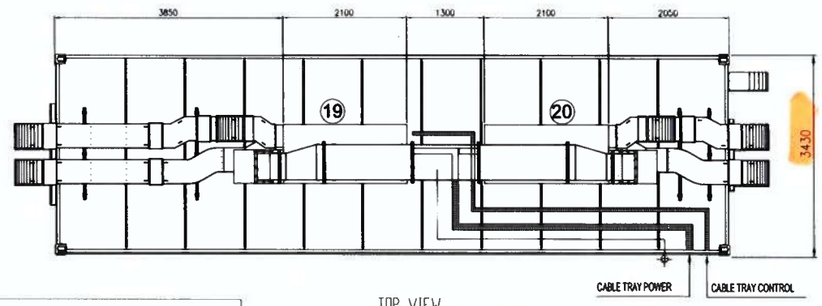
SOUTH VIEW



NET DOOR OPENING DIM. 1500X2900

~~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

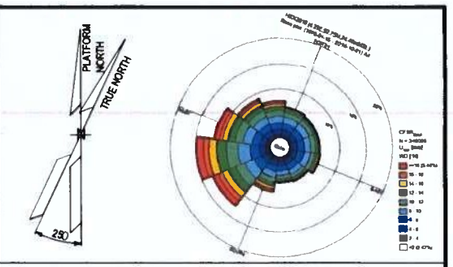
NOTE: Approval doesn't relieve the supplier from mandatory compliance with contractual documents and specifications. Comments made do not imply acceptance of any cost or delivery impact.

Sign	Date
R. Bossi	10/07/2024

PLATFORM NORTH
TRUE NORTH

MASTER COPY
INTERNAL TEST

02



NOTE

1) ALL DIMENSIONS ARE IM MM.

REFERENCE

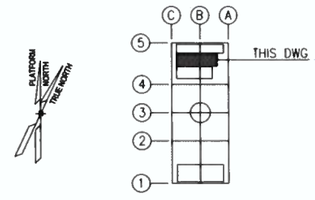
DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00066
"B-300" DETAILED DRAWING	1724000049-AR-DD-00020
PAINTING PROCEDURE	1724000049-MAT-PRO-00006

LEGEND

- INTERNAL LIGHT
- E INTERNAL EMERGENCY LIGHT
- SOCKET OUTLET, INDOOR
- LIGHT SWITCH
- ESCAPE CORRIDOR – WIDTH 800mm.
- MAINTENANCE AREA – VENDOR REQUIREMENT
- INSULATION PANEL

HOLDS

KEY PLAN



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)

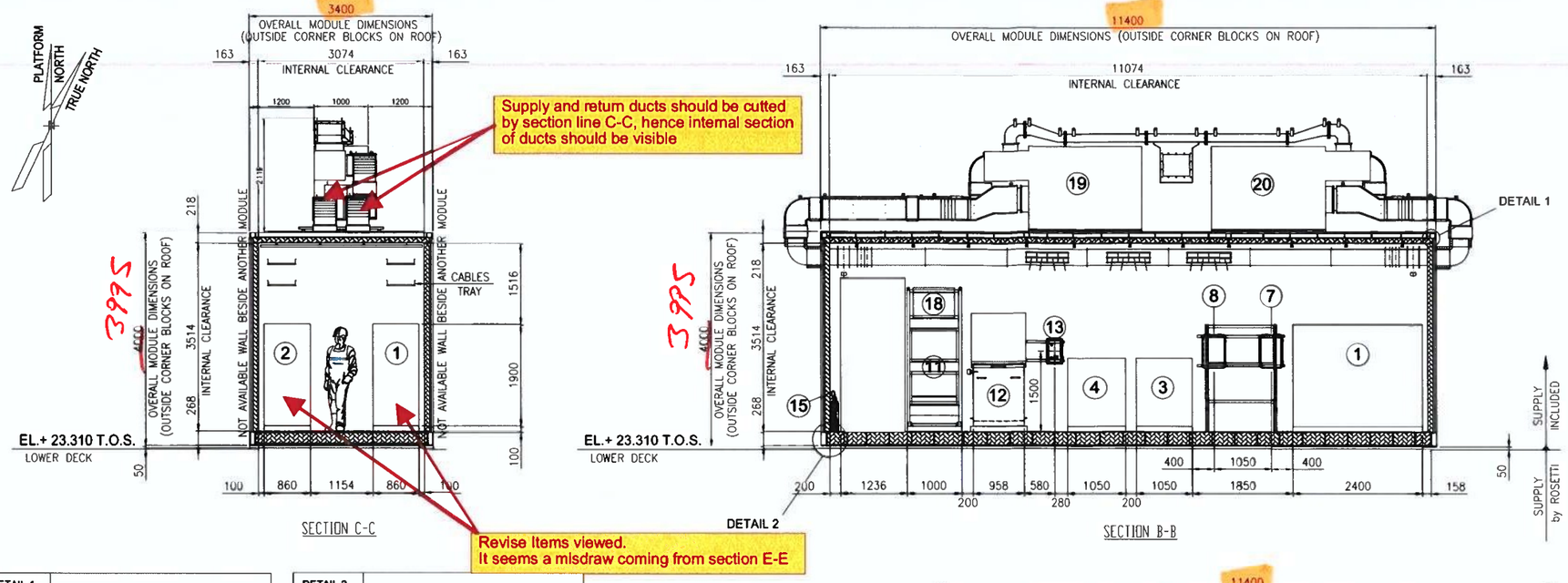
CROSSWIND | ROSETTI MARINO

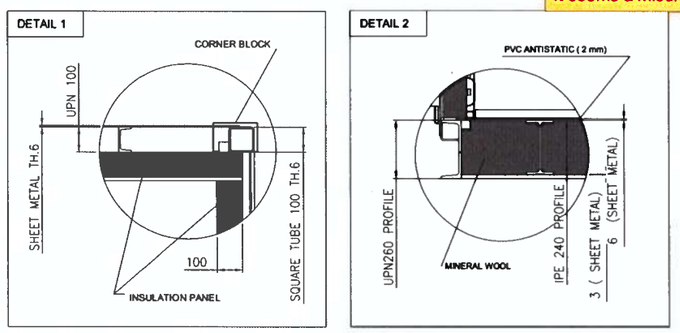
TITLE : BASE LOAD POWER HUB (BLPH)
B-300 GENERAL ARRANGEMENT DRAWINGS

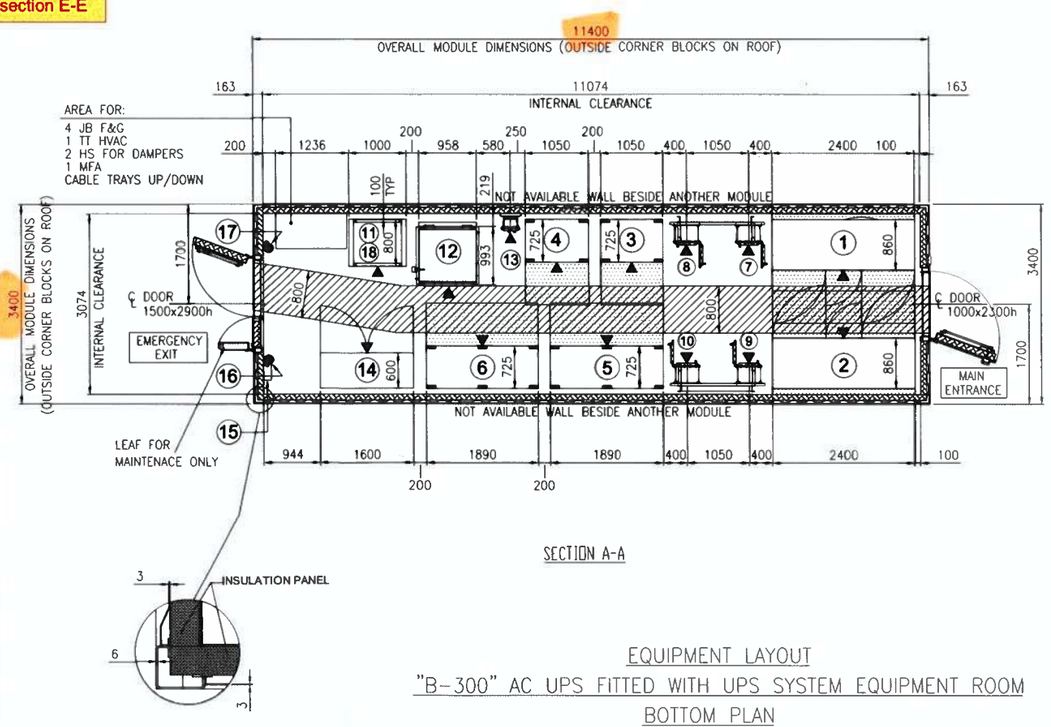
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 03/07/24
A1	DRAWING NO. 1724000049-AR-DA-00016	SHEET 001	REV. 02

File Name : 1724000049-AR-DA-00016-REV 02

DRAWING NO. 1724000049-AR-DA-00016 REV. 02





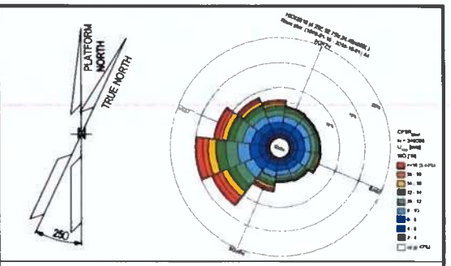


EQUIPMENT LIST

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

MASTER COPY
INTERNAL TEST

02



NOTE

1) ALL DIMENSIONS ARE IM MM.

REFERENCE

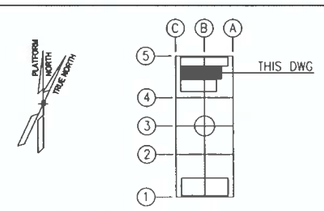
DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00066
"B-300" DETAILED DRAWING	1724000049-AR-DD-00020
PAINTING PROCEDURE	1724000049-MAT-PRO-00006

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

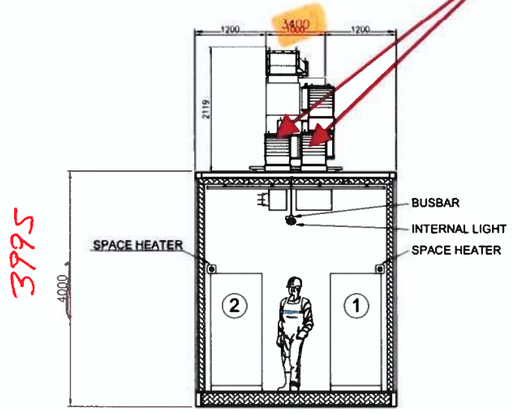
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED SKV	APPROVED C.A.	DATE 03/07/24
A1	DRAWING NO. 1724000049-AR-DA-00016	SHEET 002	REV. 02

File Name : 1724000049-AR-DA-00016-REV.02

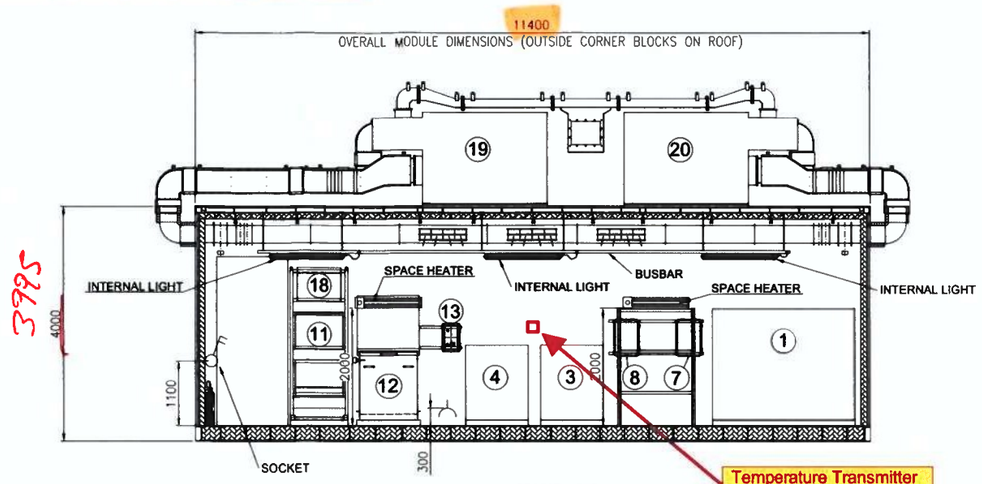
DRAWING NO. 1724000049-AR-DA-00016 REV. 02



Supply and return ducts should be cutted by section line E-E, hence internal section of ducts should be visible

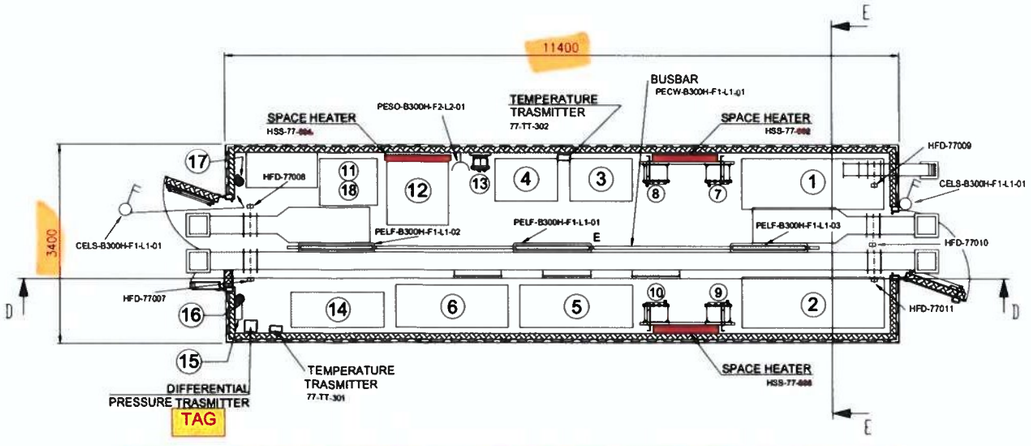


SECTION E-E



SECTION D-D

Temperature Transmitter TAG

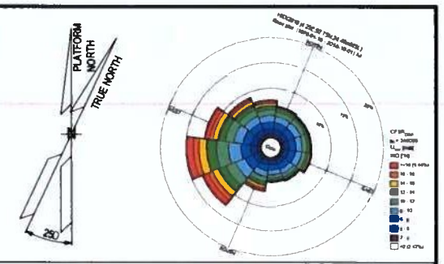


Note for lighting system:
The position of the lamps indicated is to be considered the theoretical one, the fina one will be confirmed in the As-Built issue.

EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258
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
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6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429
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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
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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

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



NOTE

1) ALL DIMENSIONS ARE IM MM.

REFERENCE

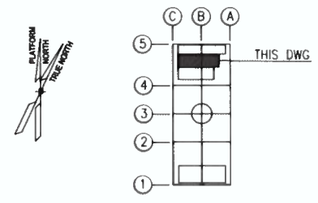
DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00066
"B-300" DETAILED DRAWING	1724000049-AR-DD-00020
PAINTING PROCEDURE	1724000049-MAT-PRO-00006

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

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

02

MASTER COPY
INTERNAL TEST

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

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

UNP260

250 250 250 250

2923

3400

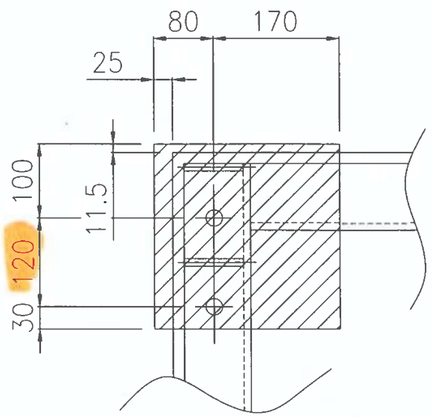
OVERALL MODULE DIMENSIONS (OUTSIDE CORNER BLOCKS ON ROOF)

73,5 120 2983 120 73,5 3370

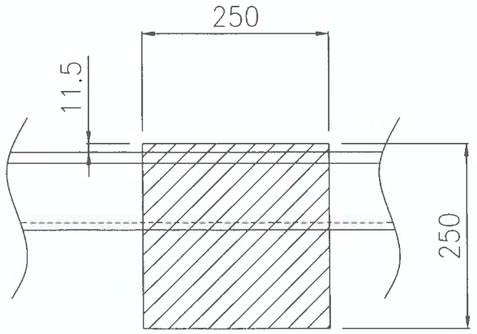
No. 2 HOLES Ø18
FOR M16 SCREW
AT EACH CORNER
(SCREW SUPPLY by ROSETTI)

HOLES 40 11290 40

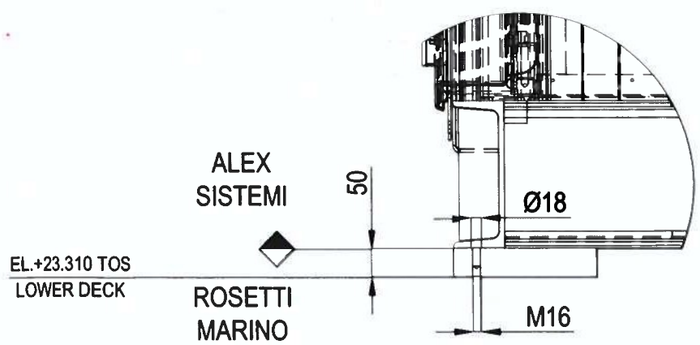
11370



TYPICAL CORNER PLATE POSITION

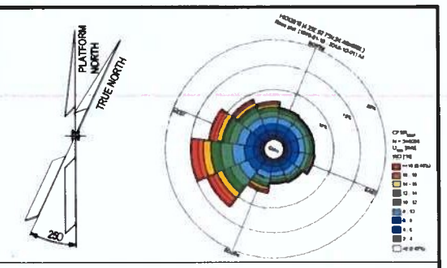


TYPICAL CENTRAL PLATE POSITION



TYPICAL FIXING DETAIL
SCALE 1 : 10

MASTER COPY
INTERNAL TEST



NOTE

1) ALL DIMENSIONS ARE IM MM.

REFERENCE

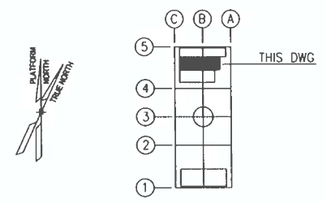
DOCUMENT TITLE	DOCUMENT NUMBER
B-300 STRUCTURAL CALCULATION - E&I SHELTERS	1724000049-ST-CA-00008

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

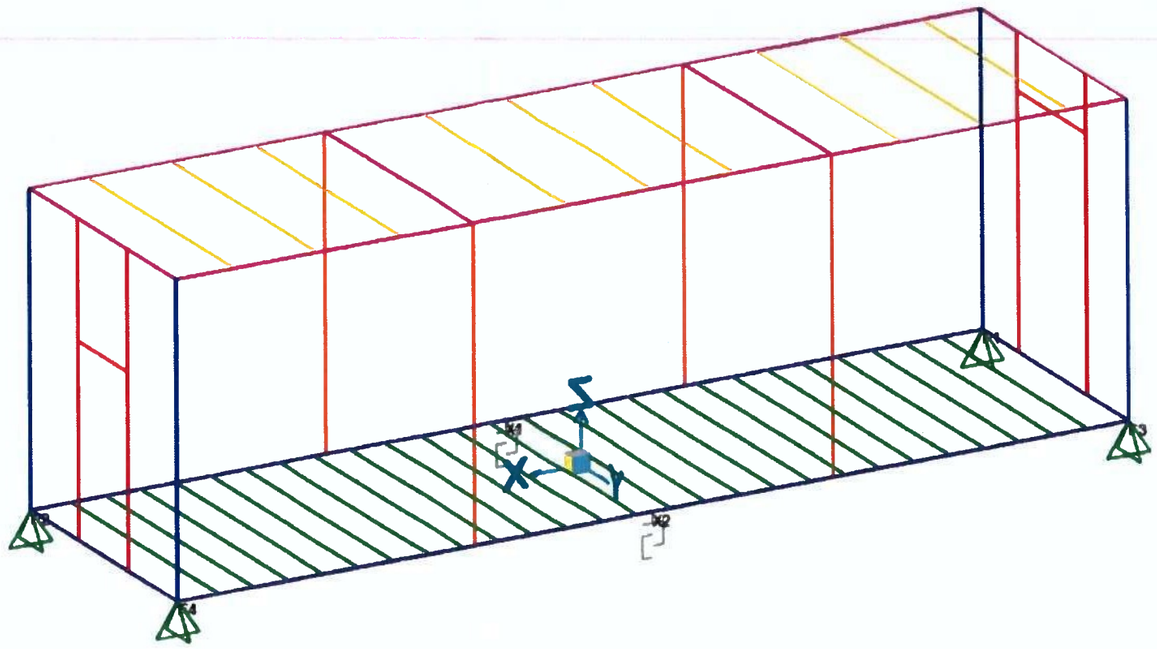
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE N.A.
DRAWN M.G.	CHECKED M.R.	APPROVED O.A.	DATE 03/06/24
A1	DRAWING NO. 1724000049-ST-DD-00012	SHEET 001/002	REV. 01

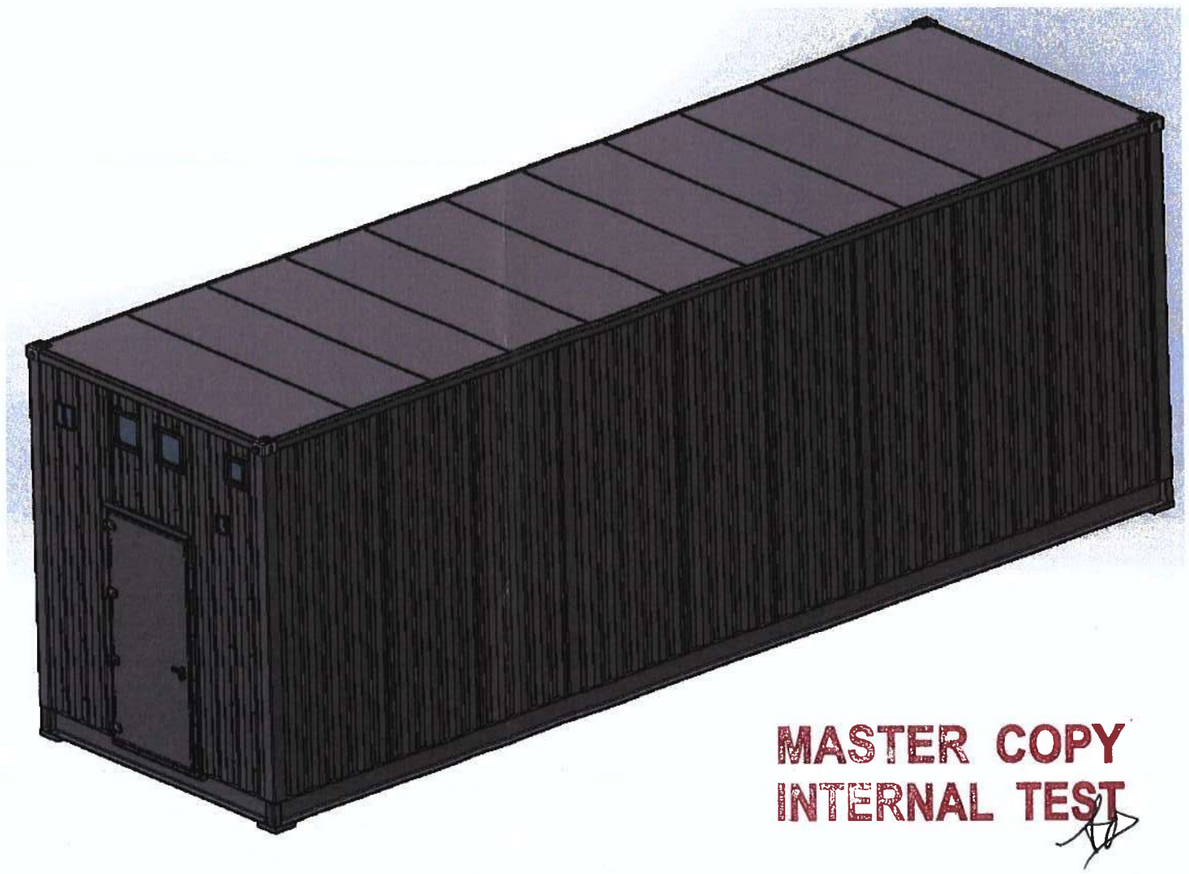
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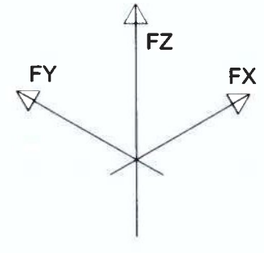
DRAWING NO. 1724000049-ST-DD-00012 REV. 01

TABLE: Joint Reactions

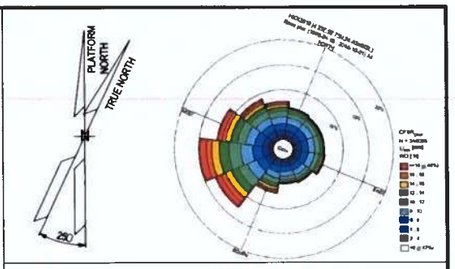
Joint	OutputCase	CaseType	StepType	Fx	Fy	Fz	Mx	My	Mz
Text	Text	Text	Text	KN	KN	KN	KN-m	KN-m	KN-m
F1	DEAD	NonStatic	Last Step	8,15	3,98	20,56	0,00	0,00	0,00
F1	SD	NonStatic	Last Step	17,79	5,10	26,86	0,00	0,00	0,00
F1	LIVE	NonStatic	Last Step	18,94	6,80	43,72	0,00	0,00	0,00
F1	WIND X	NonStatic	Last Step	-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.

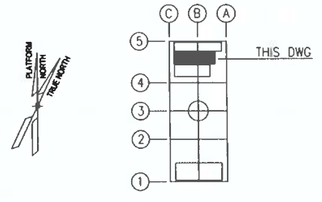
REFERENCE

DOCUMENT TITLE	DOCUMENT NUMBER
B-300 STRUCTURAL CALCULATION - E&I SHELTERS	1724000049-ST-CA-00008

LEGEND

HOLDS

KEY PLAN



ALEXSISTEMI s.r.l.

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

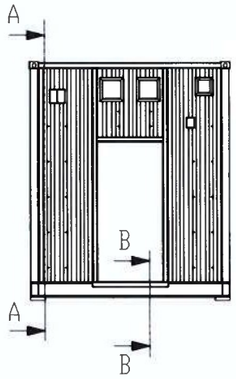
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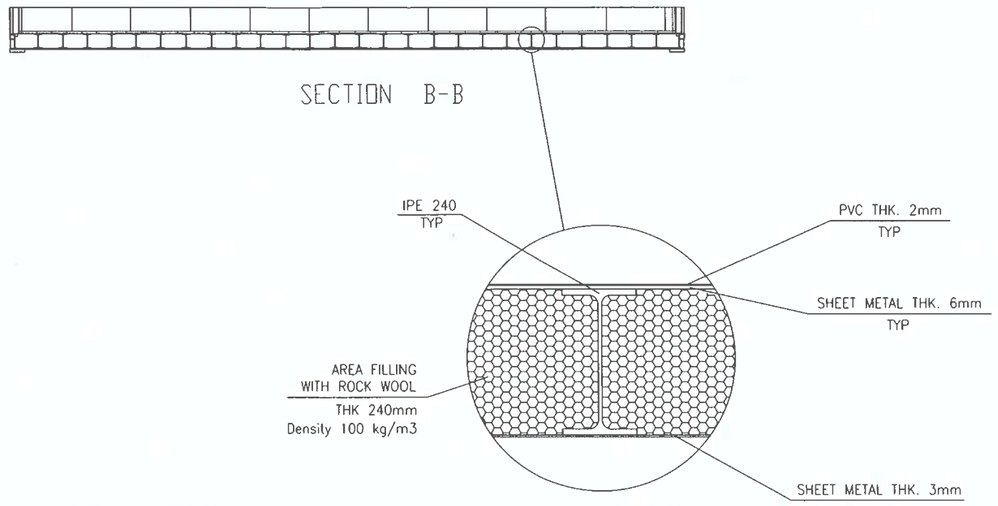
DRAWING NO. 1724000049-AR-DD-00020

REV. 02

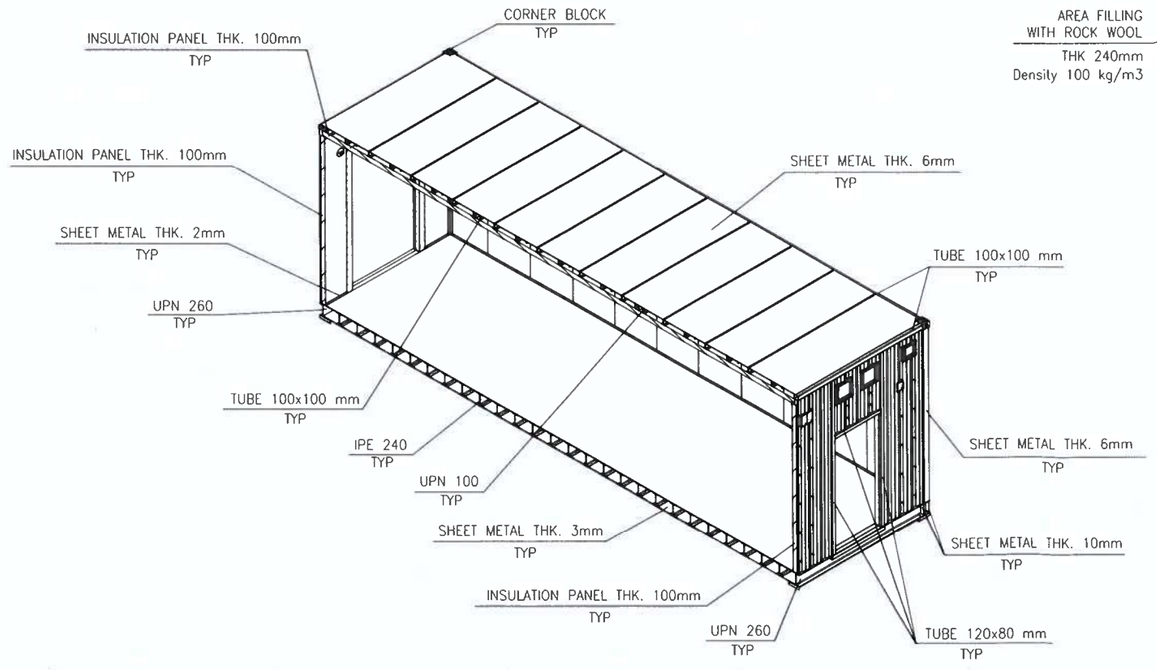
MODULE B-300

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

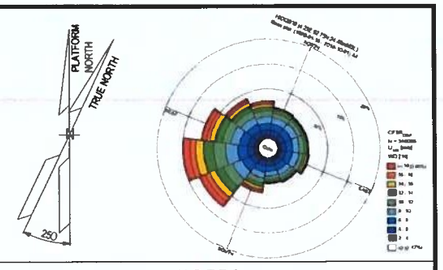




DETAIL "C"

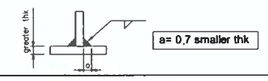


MASTER COPY
INTERNAL TEST



NOTES

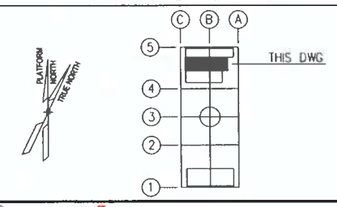
1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.
2. ALL WELDINGS SYMBOLS ARE IN ACCORDANCE WITH A.W.S. CODE D.1.1
3. UNLESS OTHERWISE INDICATED FILLET WELDS SHALL HAVE FOLLOWING DIM.:



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

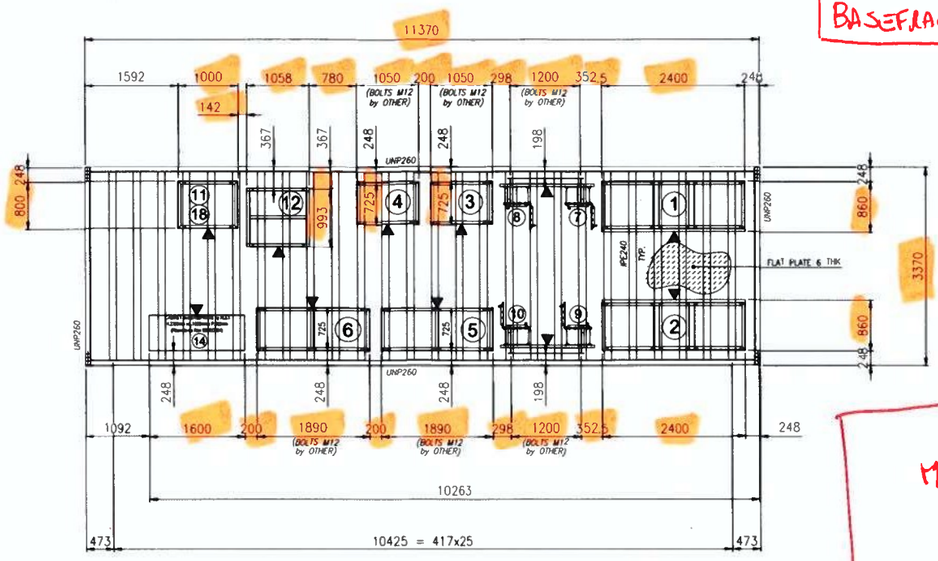
DRAWING NO. 1724000049-AR-DD-00020

REV. 02

B-300
I&T EQUIPMENT ROOM
BASEFRAME LOCATION PLAN

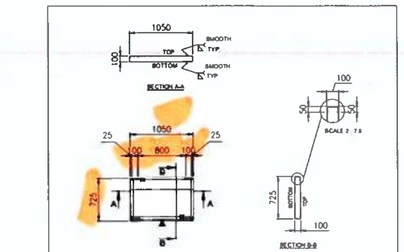
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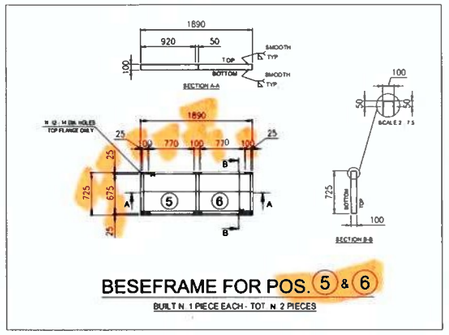
BASEFRAME (12)

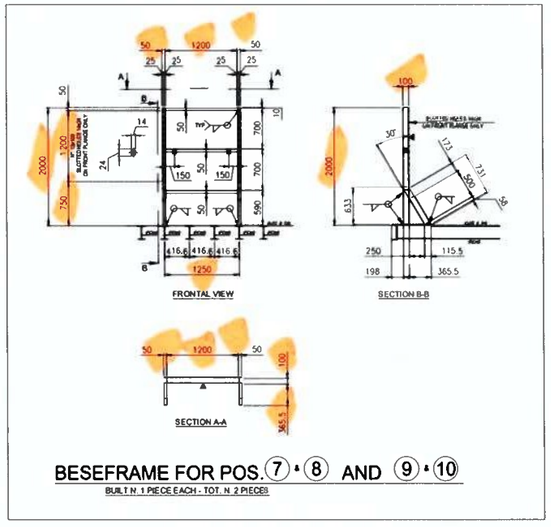


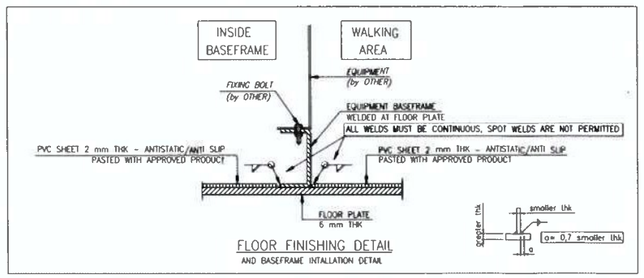
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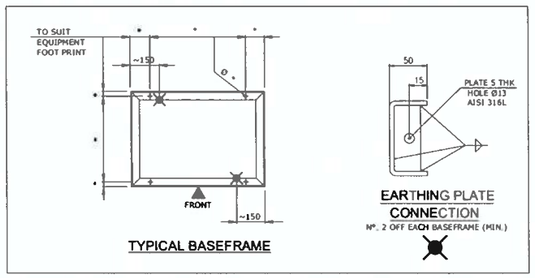
BASEFRAME (11) (18)

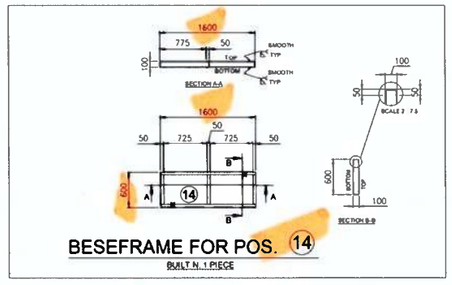


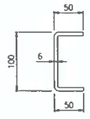








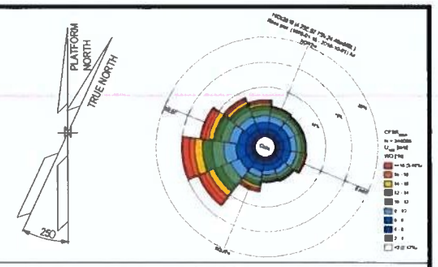




C 100x50x50 THK 6mm.
FROM BENT PLATE THK 6mm.
MAT. CARBON STEEL

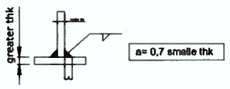
EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)	SCOPE
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258	ASI
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258	ASI
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	ASI
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	ASI
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429	ASI
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429	ASI
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	600	300	800	100	ASI
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	600	300	800	100	ASI
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	600	300	800	100	ASI
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	600	300	800	100	ASI
11	NC-200F2	NAVAID PANEL	1180	810	675	500	ASI
12	BA-200F2	BATTERY BOX NAVAID	1000	500	1135	325	ASI
14	B3000-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	1150	ASI
18	BC-200F2	BATTERY CHARGER NAVAID	607	607	2157	500	ASI



NOTES

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



4. ALL WELDS ON TOP & BOTTOM SIDES OF BASEFRAMES MUST BE PERFECTLY SMOOTHED.
5. WHERE INDICATED " ▲ " SHOULD BE STAMP "FRONT", ABOVE "TOP" AND BELOW "BOTTOM".



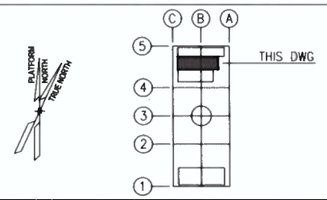
6. SURFACE TREATMENT ACCORDING DOCUMENT N. 1724000049-MAT-PRO-00004 - PAINTING PROCEDURE FINAL COLOUR LIGHT GREY RAL 7035.

LEGEND

ASI = ALEX SISTEMI

HOLDS

KEY PLAN



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

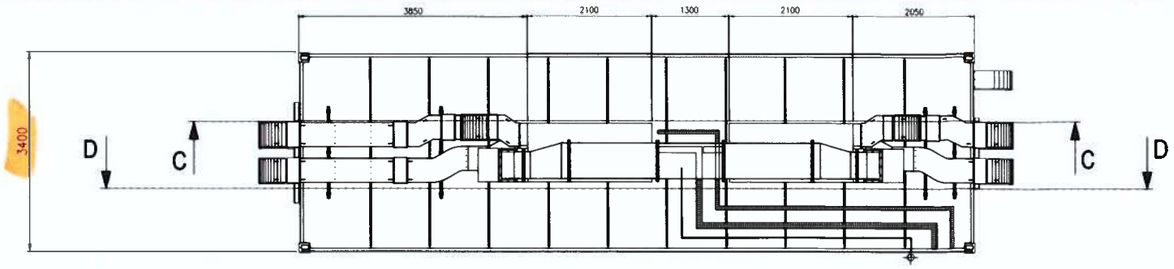
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 11/07/24
A1	DRAWING NO. 1724000049-AR-DD-00020	SHEET 003	REV. 02

File Name : 1724000049-AR-DD-00020-REV.02

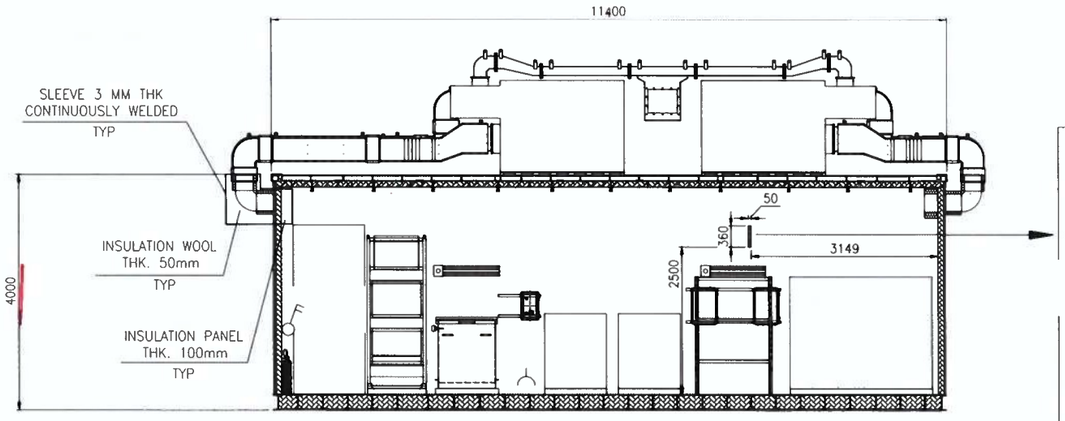
MASTER COPY
INTERNAL TEST

DRAWING NO. 1724000049-AR-DD-00020

REV. 02

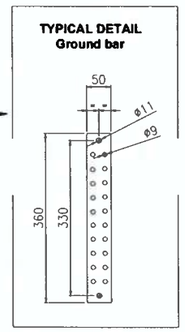


TOP VIEW

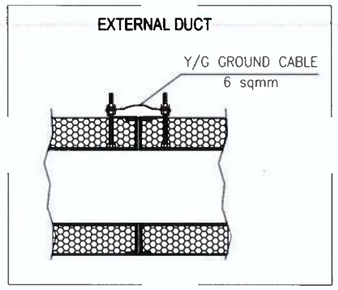


SECTION C-C

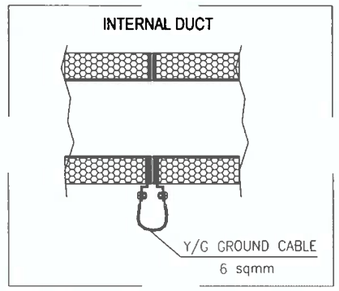
DET. 3



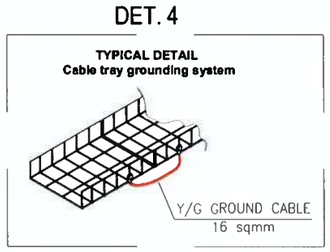
DET. 1



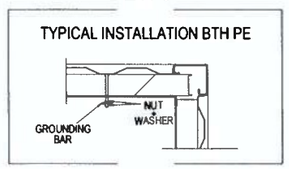
DET. 2



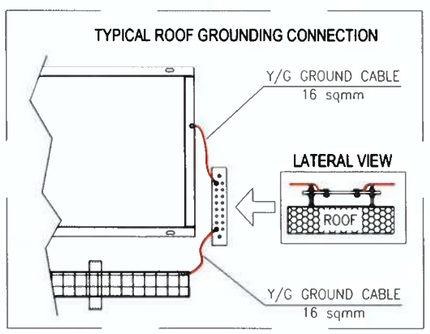
DET. 4



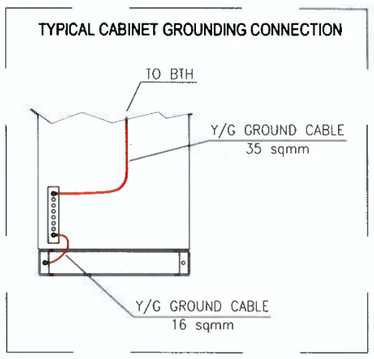
DET. 5

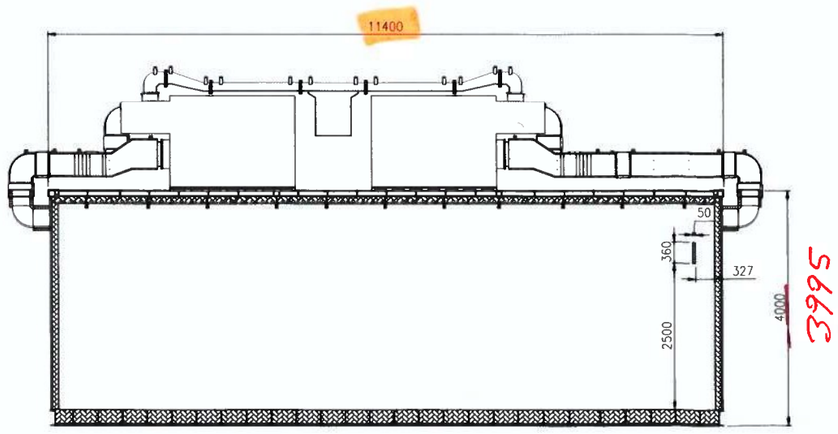


DET. 6



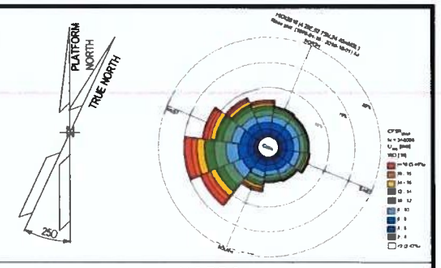
DET. 7





SECTION D-D

MASTER COPY
INTERNAL TEST



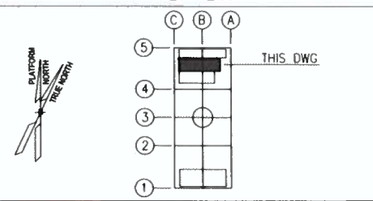
NOTES

1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.

LEGEND

HOLDS

KEY PLAN



ALEXSISTEMI 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

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		

ALEXSISTEMI spa

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV = ISO 9001 =

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 ROSETTI MARINO (X)	CROSSWIND		

Doc. Name: ELECTRICAL TESTS		Report No.03 Mod 1.4.6
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:

- 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.

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

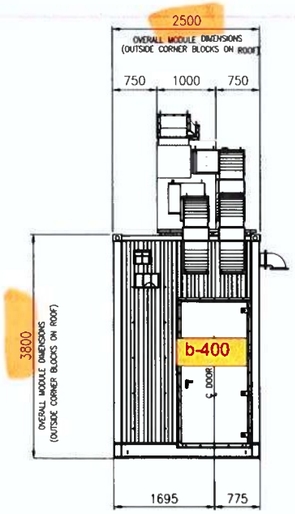
Inspection List	YES	NO	N.A.
Verificare tutte le quote di seguito indicate a disegno:			
NORTH VIEW	✓		
EAST VIEW	✓		
SOUT VIEW	✓		
WEST VIEW	✓		
TOP VIEW	✓		
SECTION A-A	✓		
SECTION B-B	✓		
SECTION C-C	✓		
SECTION D-D	✓		
SECTION E-E	✓		
BASEFRAME LOCATION	✓		

Comments:

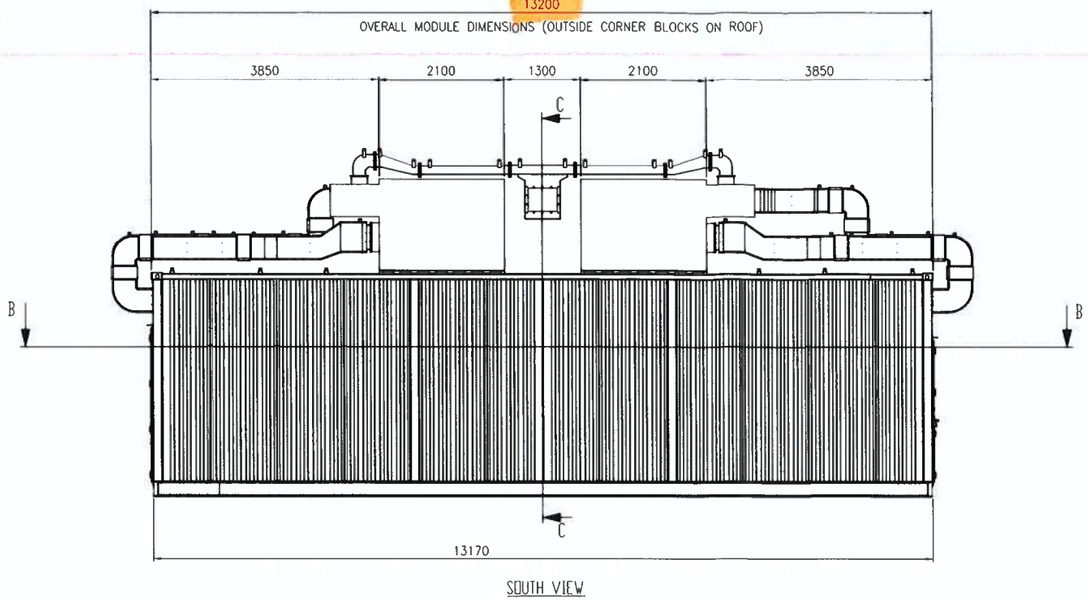
DWG attached.

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

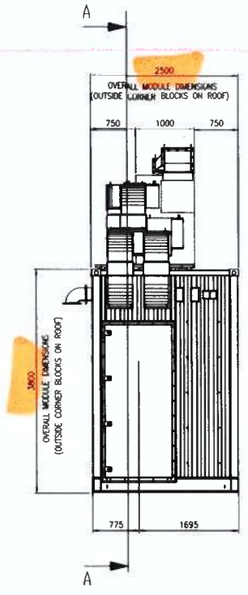
DRAWING NO. 1724000049-AR-DA-00017 REV. 02



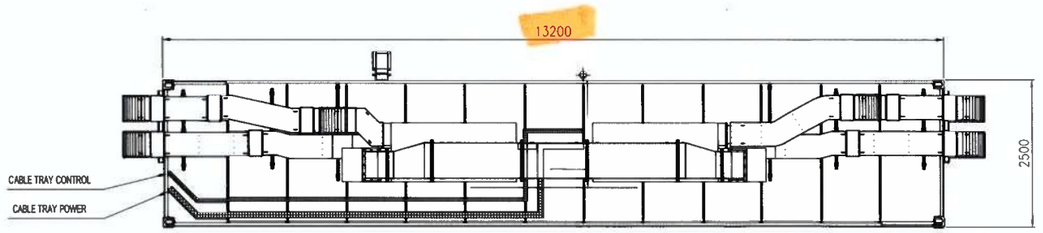
EAST VIEW



SOUTH VIEW



WEST VIEW



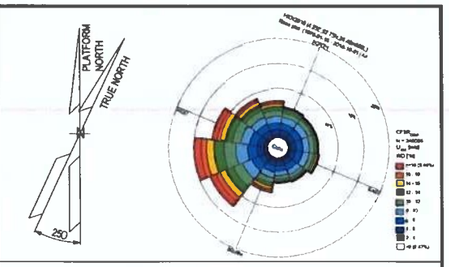
TOP VIEW

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

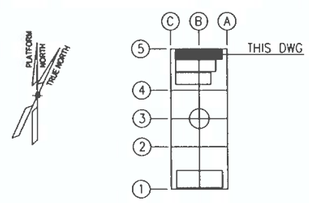
DOCUMENT TITLE	DOCUMENT NUMBER
"B-400" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00067
"B-400" DETAILED DRAWING	1724000049-AR-DD-00021
PAINTING PROCEDURE	1724000049-MAT-PRO-00007

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 S.p.A.

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

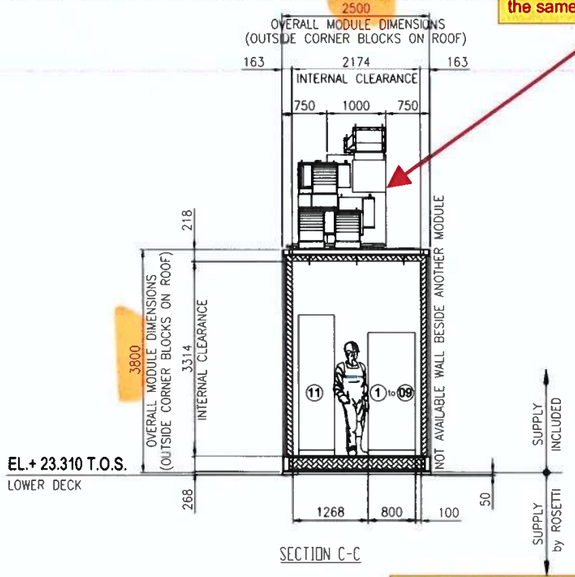
TITLE : BASE LOAD POWER HUB (BLPH)
B-400 GENERAL ARRANGEMENT DRAWINGS

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

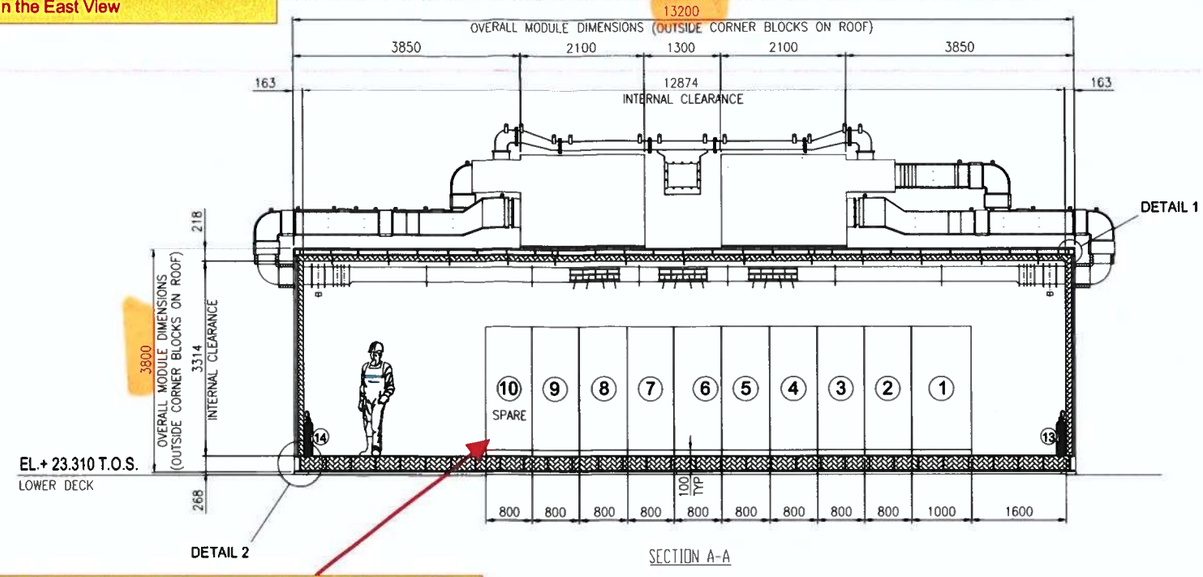
File Name : 1724000049-AR-DA-00017-REV.02

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

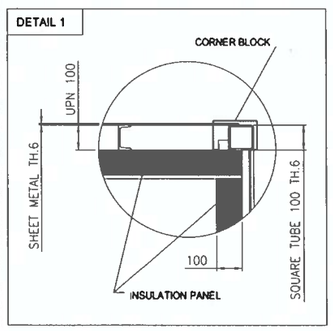


DETAIL 2

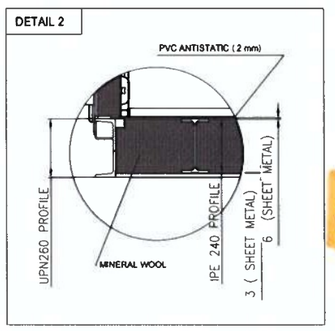
SECTION A-A

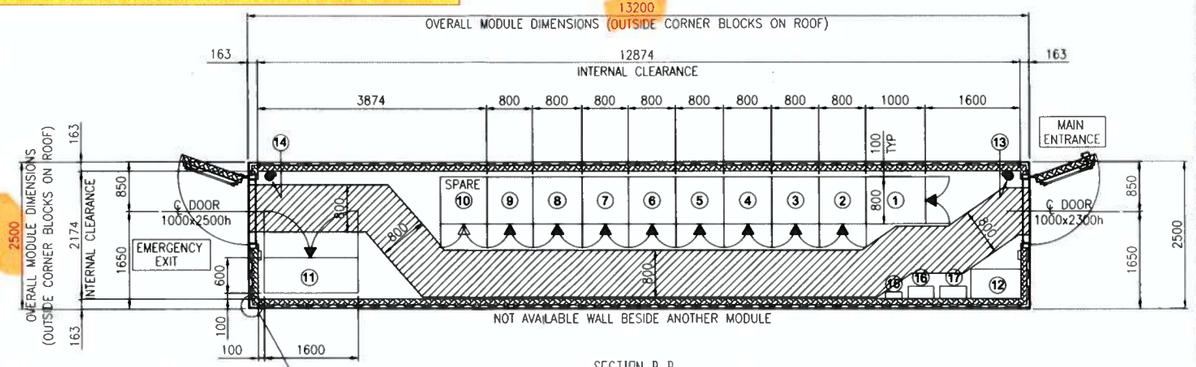
Check numbering and position of items.
This section view is similar to section D-D, although section A-A should be oriented to South

DETAIL 1

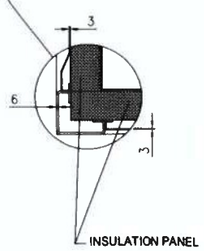


DETAIL 2





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.)

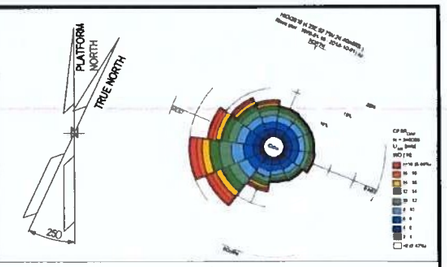
ROSETTI MARINO

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	Date
R. Bossi	10/07/2024

MASTER COPY
INTERNAL TEST



NOTE

1) ALL DIMENSIONS ARE IM MM.

REFERENCE

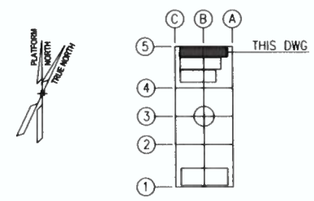
DOCUMENT TITLE	DOCUMENT NUMBER
"B-400" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00067
"B-400" DETAILED DRAWING	1724000049-AR-DD-00021
PAINTING PROCEDURE	1724000049-MAT-PRO-00007

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)

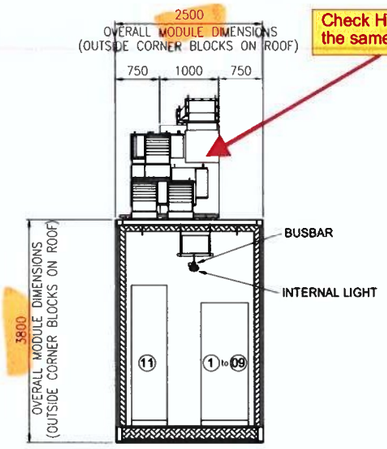
CROSSWIND | ROSETTI MARINO

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

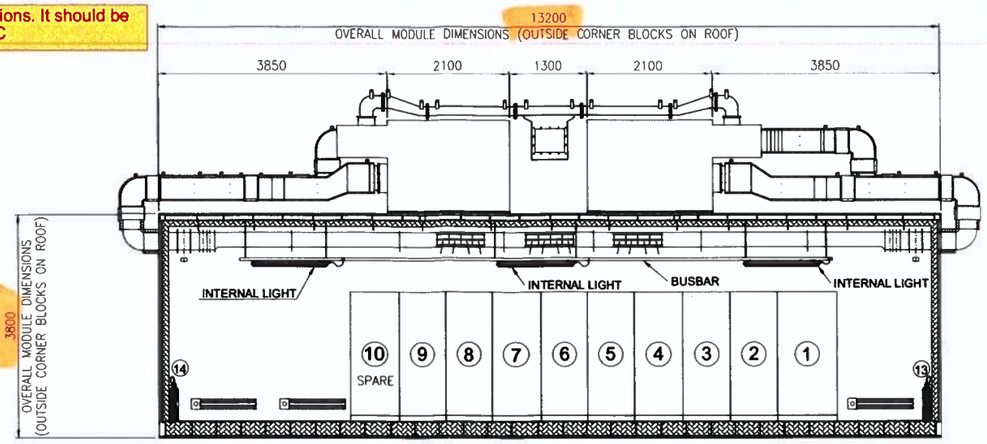
File Name : 1724000049-AR-DA-00017-REV.02

DRAWING NO. 1724000049-AR-DA-00017 REV. 02

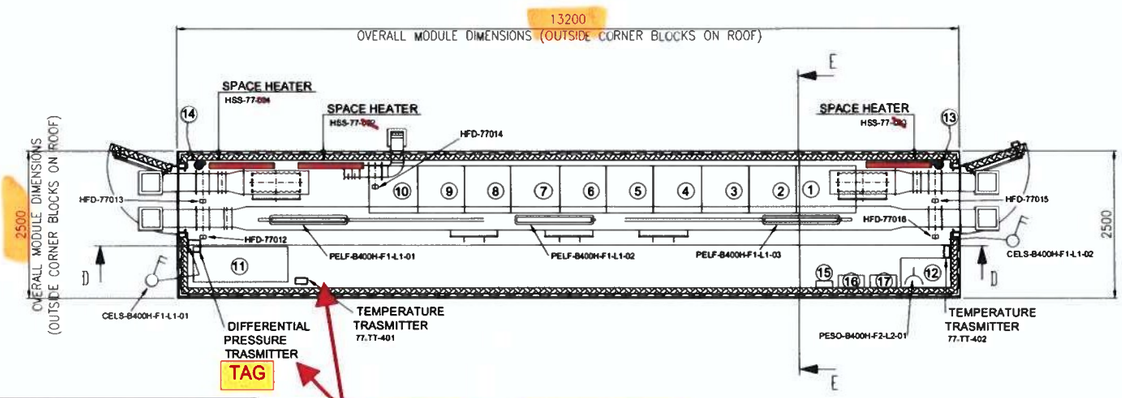


SECTION E-E

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

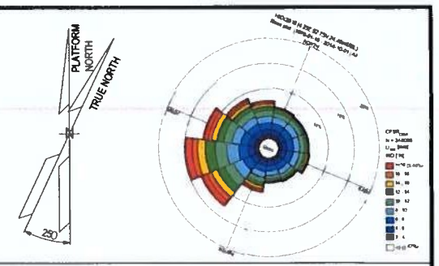
EQUIPMENT LIST

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

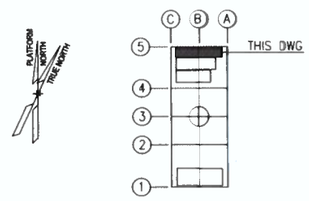
DOCUMENT TITLE	DOCUMENT NUMBER
"B-400" HVAC SYSTEM G.A. & DETAILS	1724000049-HV-DA-00067
"B-400" DETAILED DRAWING	1724000049-AR-DD-00021
PAINTING PROCEDURE	1724000049-MAT-PRO-00007

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

735

129

250

2470

2983

120

250

735

250

UNP260

250

UNP260

B-400

UNP260

UNP260

250 | 2023 | 250

2500

OVERALL MODULE DIMENSIONS (OUTSIDE CORNER BLOCKS ON ROOF)

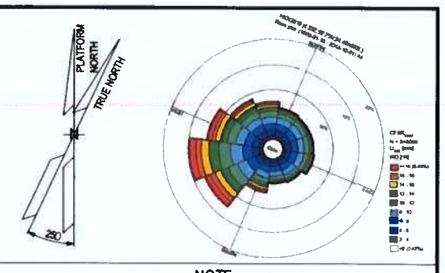
250

200

250

250

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



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

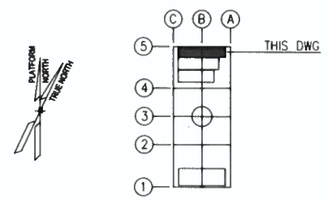
ROSETTI MARINO

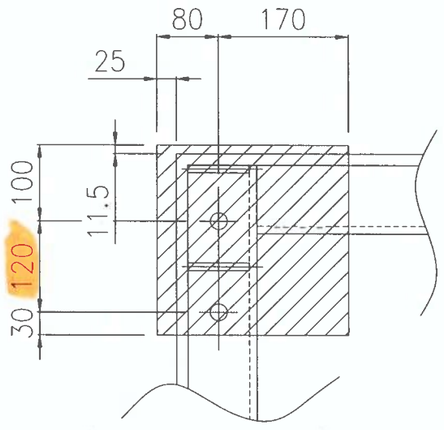
1	NO COMMENTS - APPROVED - WORK MAY PROCEED
2	MINOR COMMENTS - REVISE AND RESUBMIT - WORK MAY PROCEED
3	MAJOR COMMENTS – REJECTED – DO NOT PROCEED
4	APPROVAL NOT REQUIRED

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.

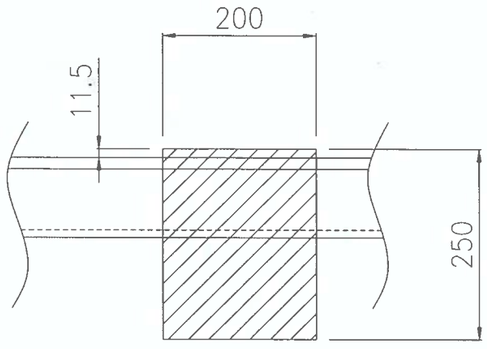
Sign	Date
R. Bossi	07/06/2024

KEY PLAN

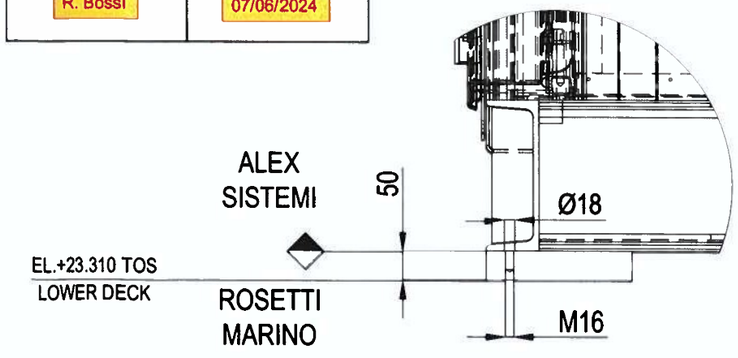




TYPICAL CORNER PLATE POSITION



TYPICAL CENTRAL PLATE POSITION



TYPICAL FIXING DETAIL
SCALE 1 : 10

MASTER COPY
INTERNAL TEST

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

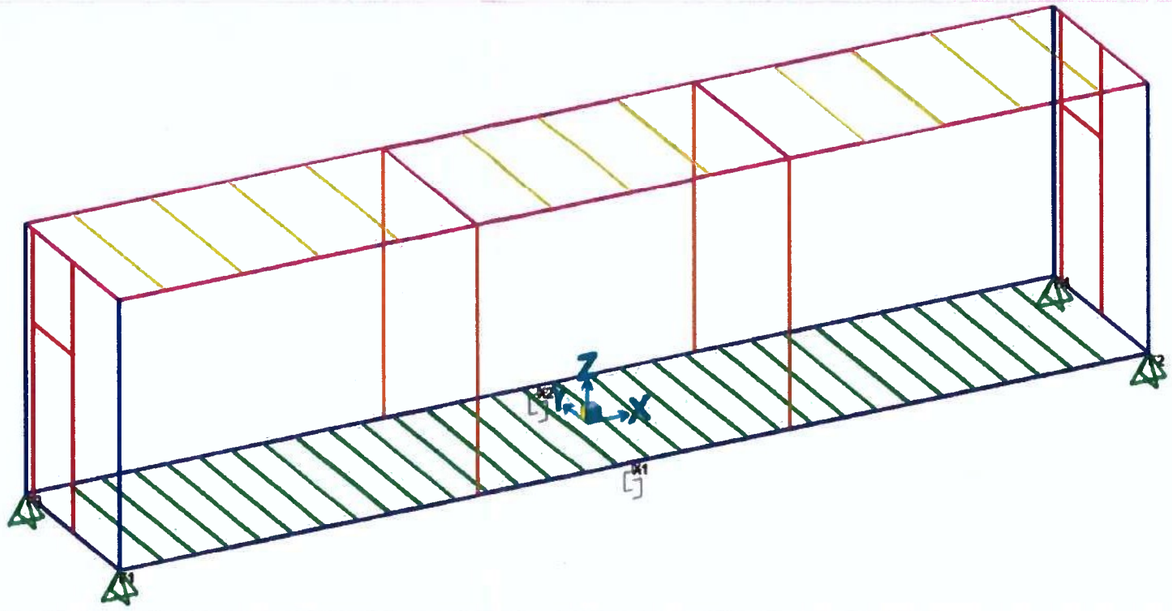
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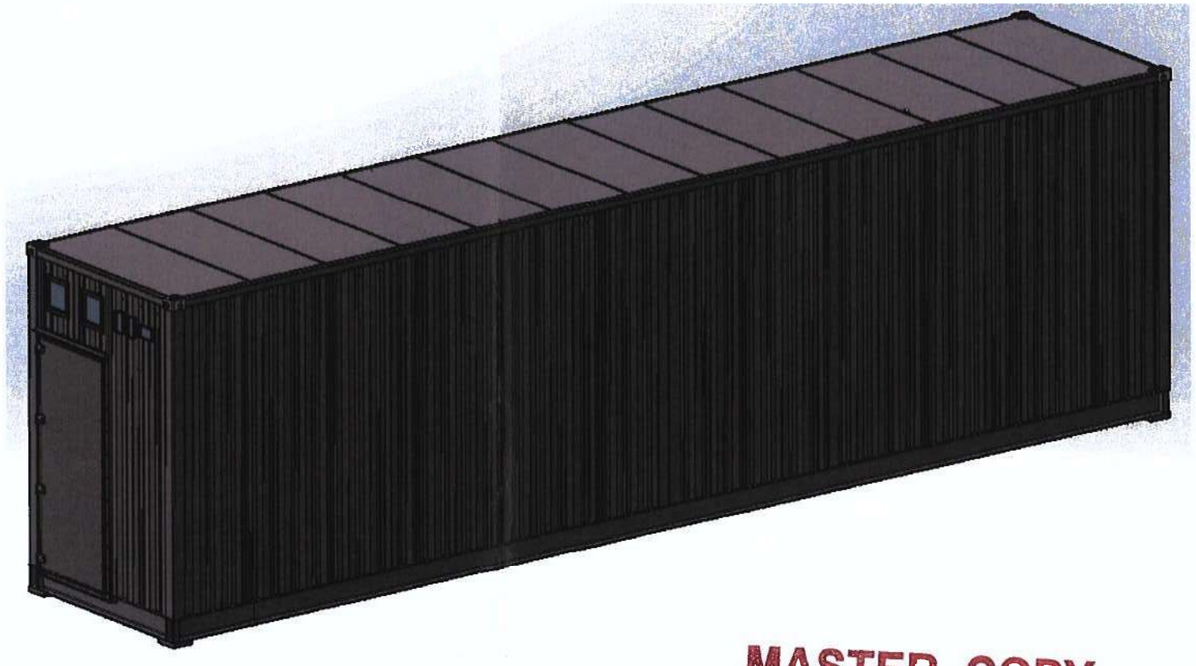
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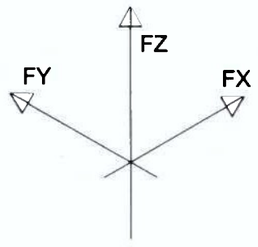
REV. 01

TABLE: Joint Reactions

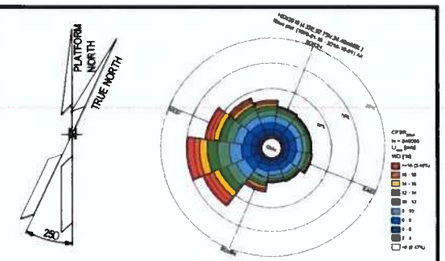
Joint	OutputCase	CaseType	StepType	Fx	Fy	Fz	Mx	My	Mz
Text	Text	Text	Text	KN	KN	KN	KN-m	KN-m	KN-m
F3	DEAD	NonStatic	Last Step	7,70	-3,33	18,50	0,00	0,00	0,00
F3	SD	NonStatic	Last Step	6,05	-2,10	13,16	0,00	0,00	0,00
F3	LIVE	NonStatic	Last Step	19,91	-7,03	38,05	0,00	0,00	0,00
F3	WIND X	NonStatic	Last 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







MASTER COPY
INTERNAL TEST



NOTE

1) ALL DIMENSIONS ARE IM MM.

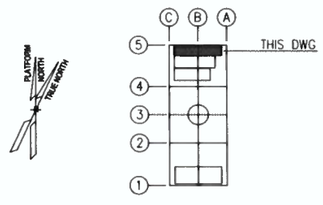
REFERENCE

DOCUMENT TITLE	DOCUMENT NUMBER
B-400 STRUCTURAL CALCULATION - E&I SHELTERS	1724000049-ST-CA-00009

LEGEND

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

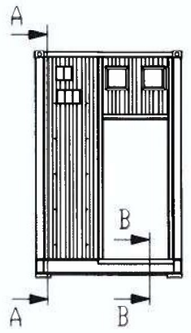
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE N.A.
DRAWN M.G.	CHECKED M.R.	APPROVED O.A.	DATE 03/06/24
A1	DRAWING NO. 1724000049-ST-DD-00013		SHEET 002/002 / REV. 01

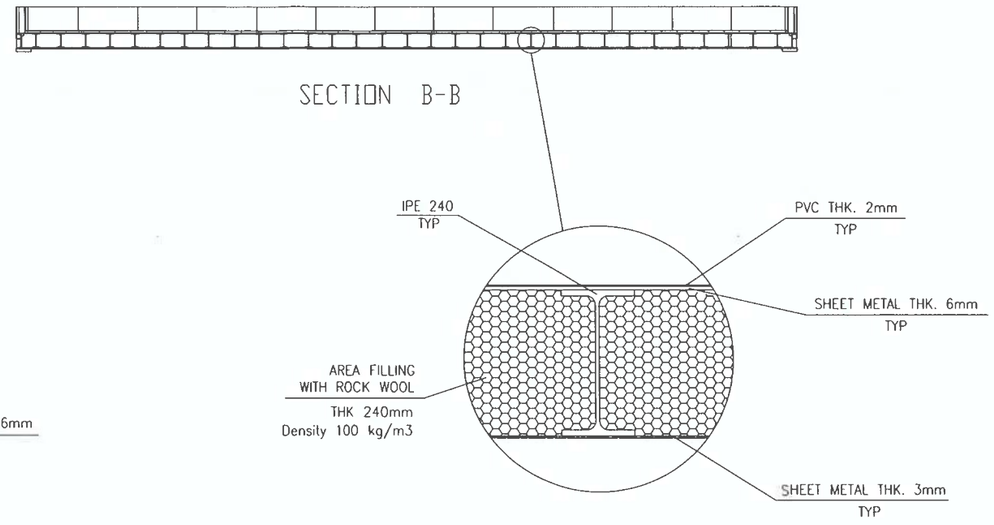
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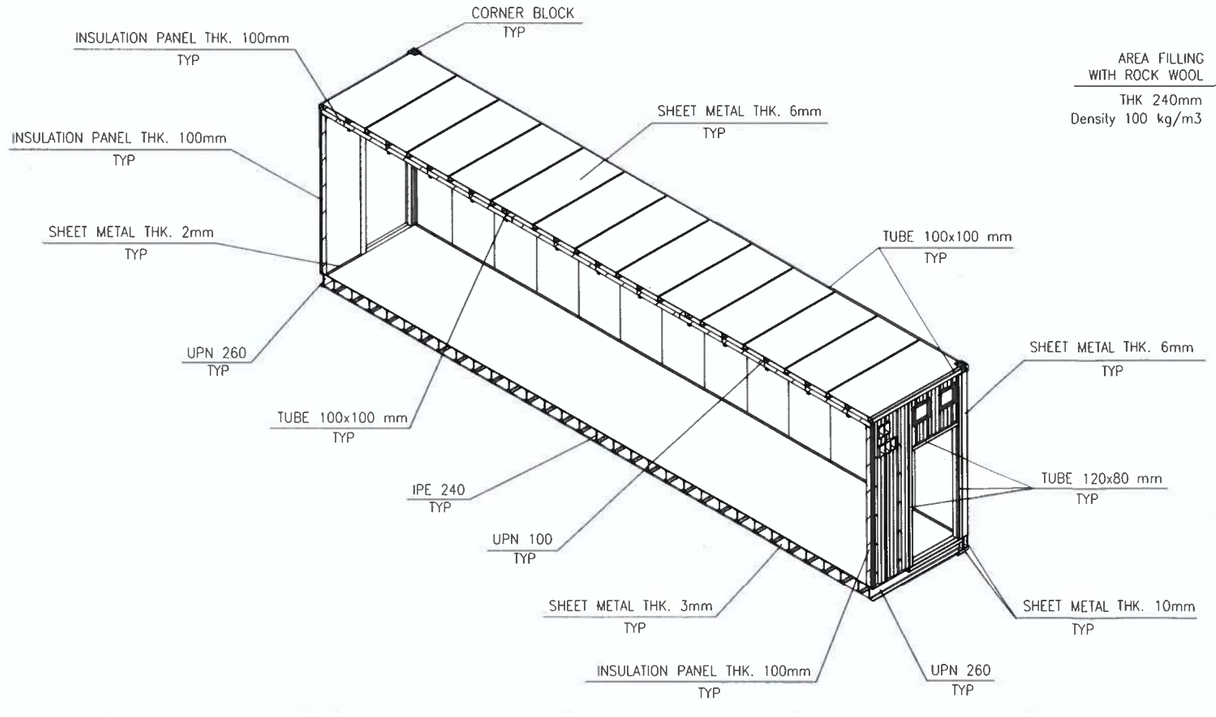
DRAWING NO. 1724000049-AR-DD-00021 | REV. 02

MODULE B-400

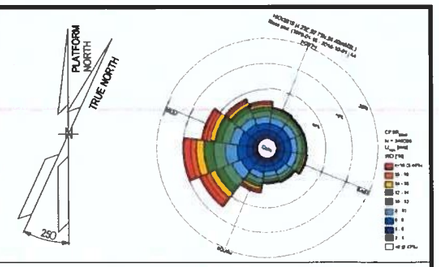
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DOCUMENT TITLE	DOCUMENT NUMBER
"B-400" STRUCTURAL CALCULATION	1724000049-ST-CA-00009
Weld Procedure Specifications (WPS), Weld Procedure Qualification Report (WPQR), Welding Map and Welders Qualifications	1724000049-WEL-RE-00003





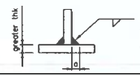


MASTER COPY
INTERNAL TEST



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.:

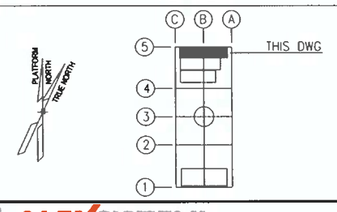


a= 0,7 smaller thk

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)

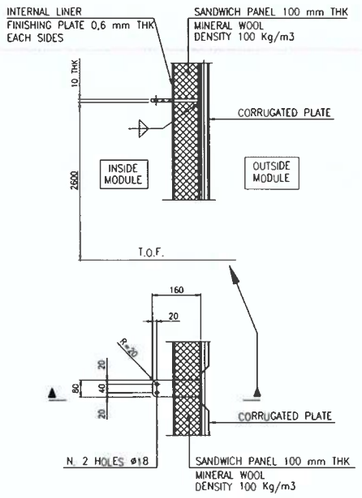
CROSSWIND | ROSETTI MARINO

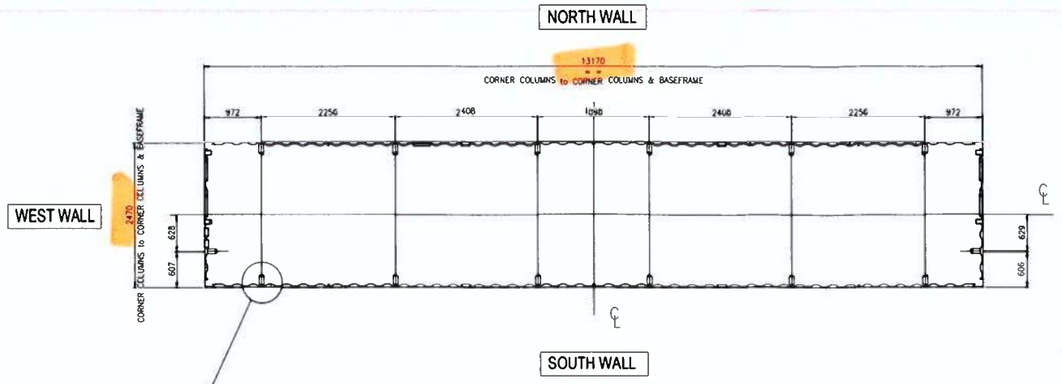
TITLE :
B-400 DETAILED DRAWINGS-E&I SHELTERS

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 001 / REV. 02

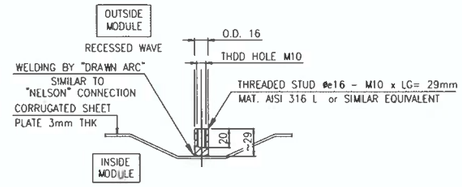
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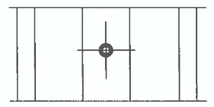
DRAWING NO. 1724000049-AR-DD-00021 REV. 02



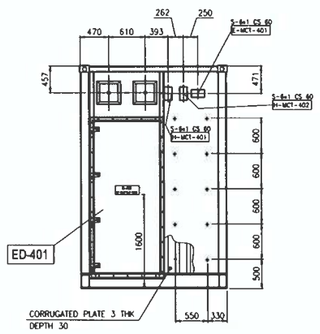


MODULE B-400
INTERNAL SEA FASTENING PLATES PLAN

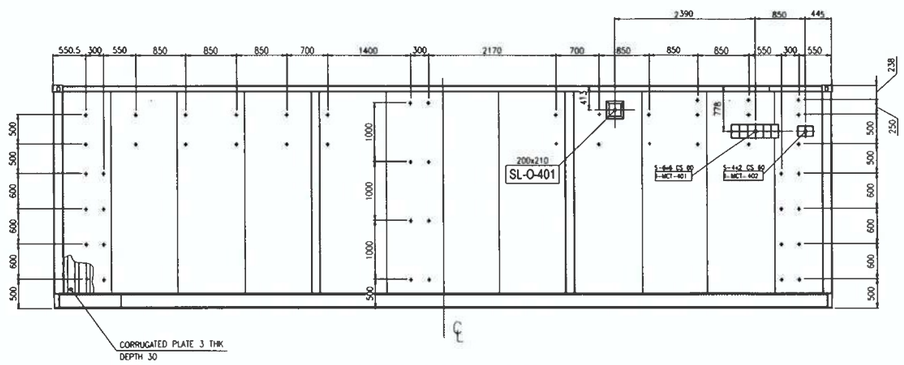




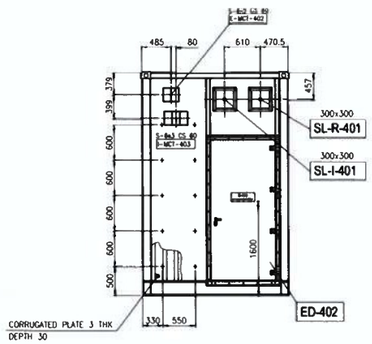
THREADED STUD INSTALLATION



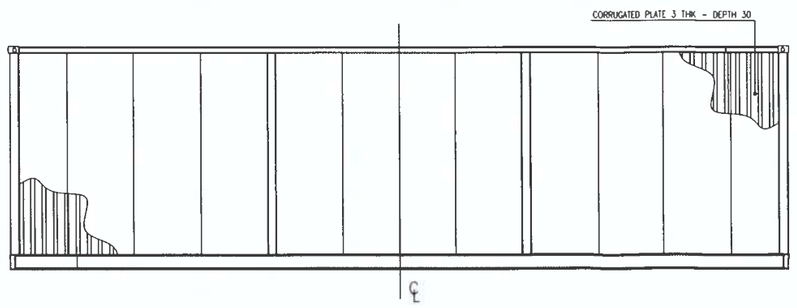
VIEW OF WEST WALL



VIEW OF NORTH WALL



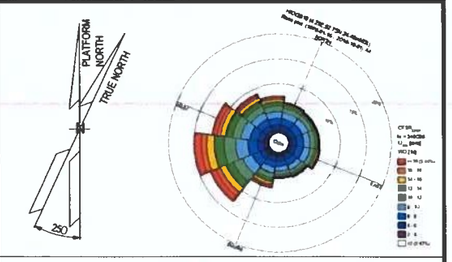
VIEW OF EAST WALL



VIEW OF SOUTH WALL

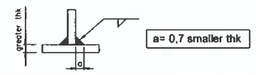
MASTER COPY
INTERNAL TEST

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.:



LEGEND

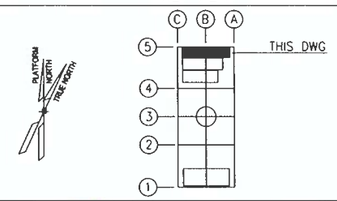
THREADED STUD ø16 - M10 x LG= 29mm
T.O.F. — TOP OF FLOOR

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
- PROGRESSIVE NUMBER FROM 01
- MCT SERVICE: E= ELECTRICAL; I= INSTRUMENTAL; H= HVAC
- MODULE LOCATION: 1= B-100 3= B-300 2= B-200 4= B-400

HVAC SLEEVE LEGEND: 300x300 SL-I-401
- INTERNAL SIZE OF DUCT L x H (mm)
- PROGRESSIVE NUMBER FROM 01
- SERVICE: I= AIR IN; R= RECYCLE; O= OVERPRESSURE
- MODULE LOCATION: 1= B-100 3= B-300 2= B-200 4= B-400

DOOR LEGEND: ED-401
- PROGRESSIVE NUMBER FROM 01
- EXTERNAL DOOR
- 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	6x8	
	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	

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

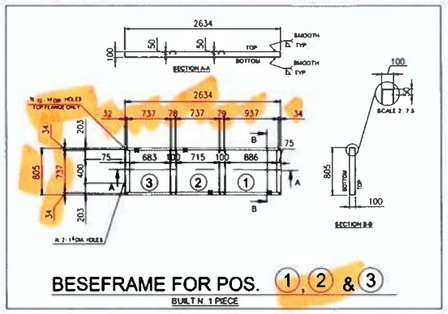
TITLE :
B-400 DETAILED DRAWINGS-E&I SHELTERS

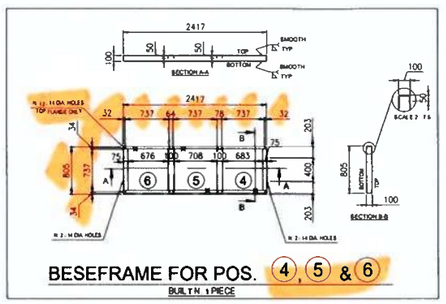
CONTRACT NO./TITLE CONTRACT_NO. 1724000049			SCALE 1:50
DRAWN M.G.	CHECKED O.A.	APPROVED C.A.	DATE 11/07/24
A1	DRAWING NO. 1724000049-AR-DD-00021		SHEET 002 / REV 02

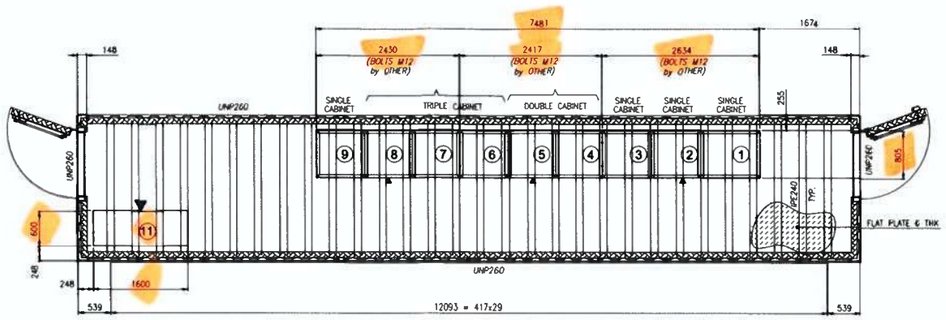
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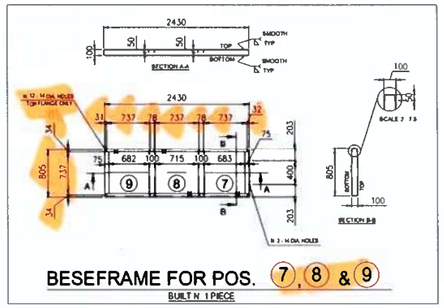
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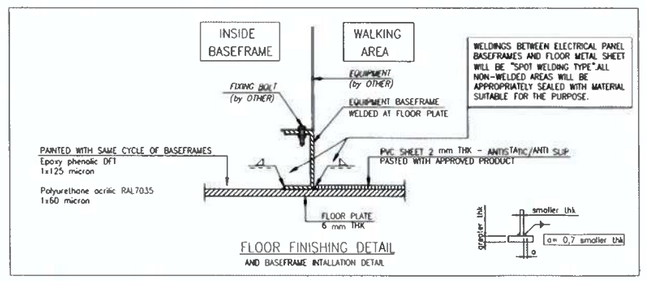
B-400
I&T EQUIPMENT ROOM
BASEFRAME LOCATION PLAN

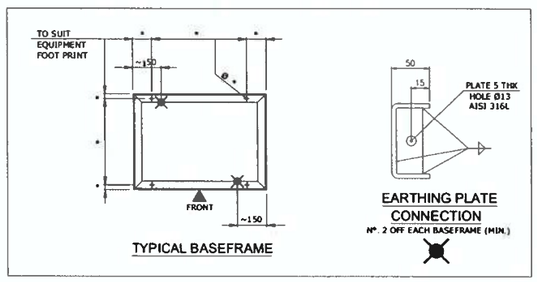


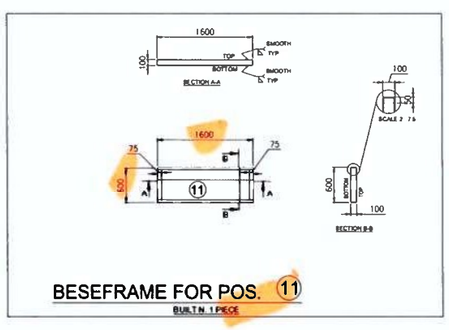


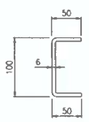








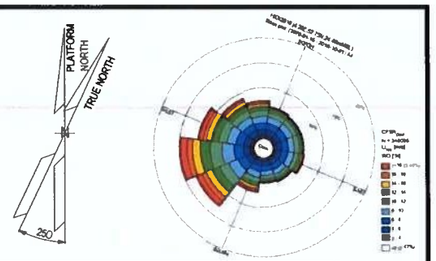




EQUIPMENT LIST

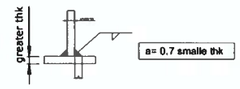
REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)	SCOPE
1	B400-SRV-001	SERVER CABINET	1000	800	2100	250	ASI
2	B400-NET-001	NETWORK CABINET	800	800	2100	250	ASI
3	B400-EMCS-001	EMCS SYSTEM CABINET	800	800	2100	250	ASI
4	B400-PCS-001	PCS SYSTEM CABINET	800	800	2100	250	ASI
5	B400-PCS-002	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".



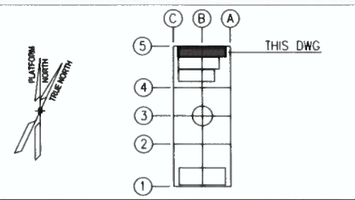
6. SURFACE TREATMENT ACCORDING DOCUMENT N. 1724000049-MAT-PRO-00004 - PAINTING PROCEDURE FINAL COLOUR LIGHT GREY RAL 7035.

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

TITLE :

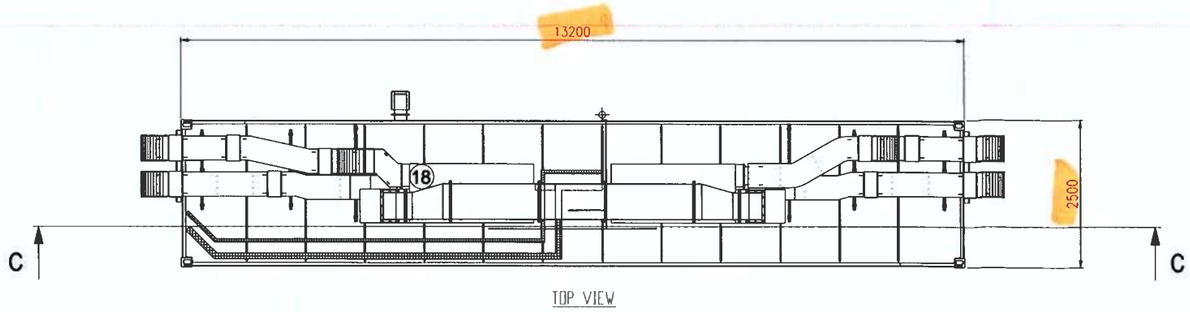
B-400 DETAILED DRAWINGS-E&I SHELTERS

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 003	REV. 02

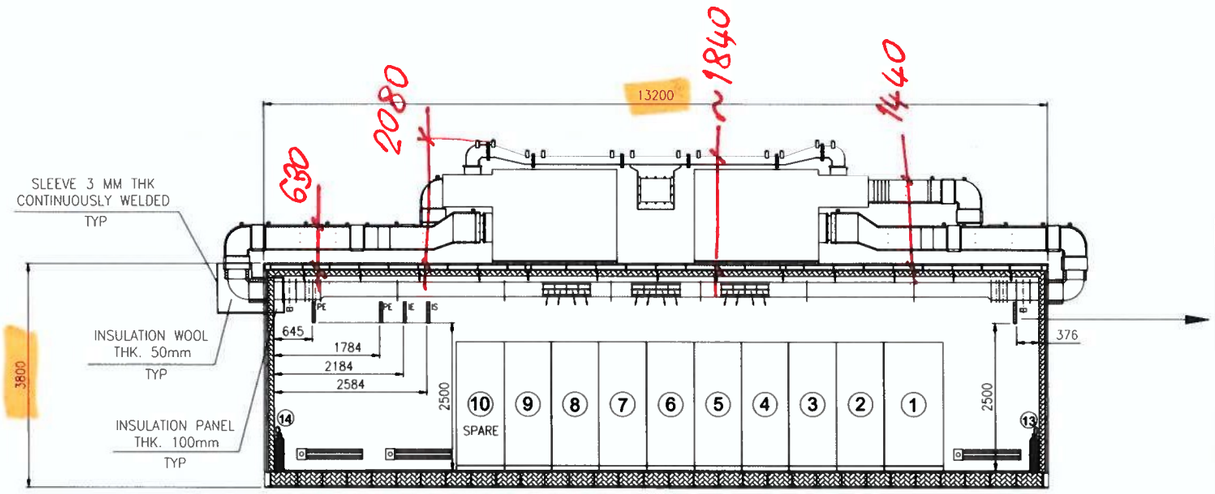
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DRAWING NO. 1724000049-AR-DD-00021

REV. 02

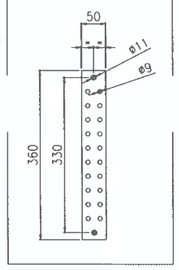


TOP VIEW



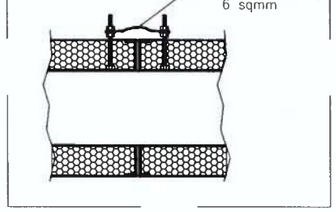
DET. 3

TYPICAL DETAIL
Ground bar



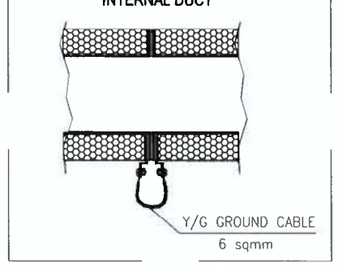
DET. 1

EXTERNAL DUCT



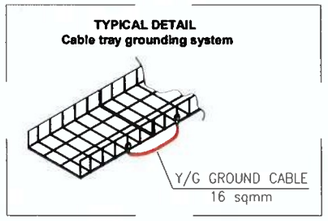
DET. 2

INTERNAL DUCT



DET. 4

TYPICAL DETAIL
Cable tray grounding system



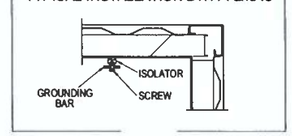
DET. 5

TYPICAL FASTENING DETAIL



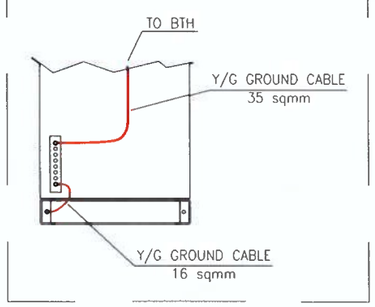
DET. 6

TYPICAL INSTALLATION BTH PI and IS



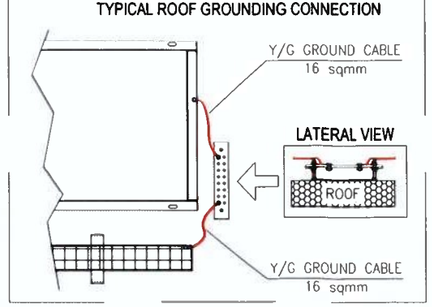
DET.8

TYPICAL CABINET GROUNDING CONNECTION

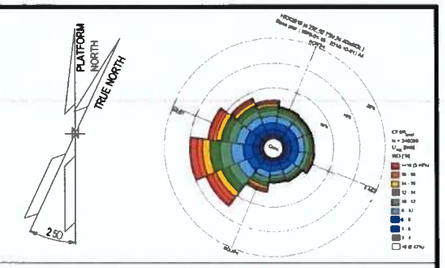


DET. 7

TYPICAL ROOF GROUNDING CONNECTION



MASTER COPY
INTERNAL TEST



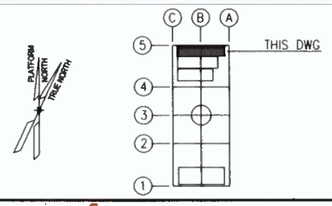
NOTES

1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.

LEGEND

HOLDS

KEY PLAN



ALEXSISTEMI s.p.r.

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

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	CROSSWIND		

ALEXSISTEMI spa

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV =ISO 9001=

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	COICEVA CATIACIN per ROSETTI MARINO	CROSSWIND		

Doc. Name: ELECTRICAL TESTS		Report No.04 Mod 1.4.6
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:

- 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.

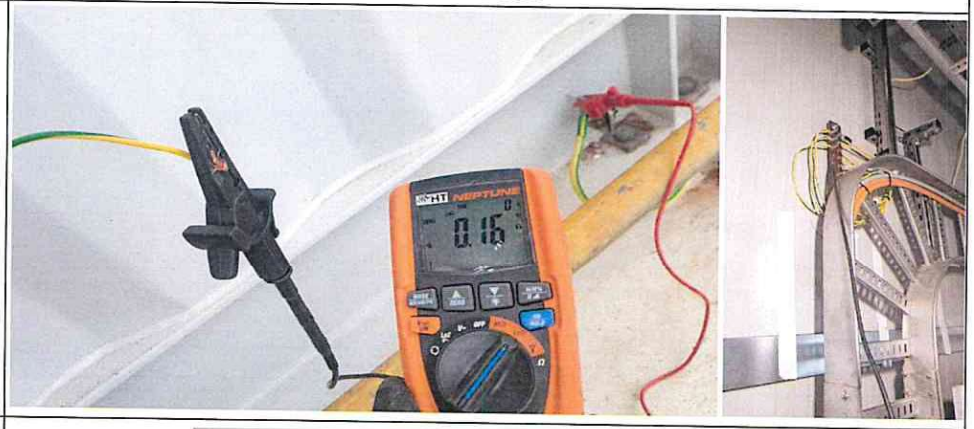
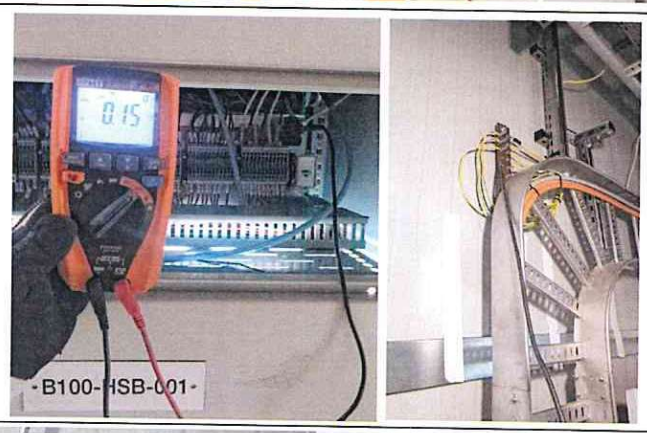
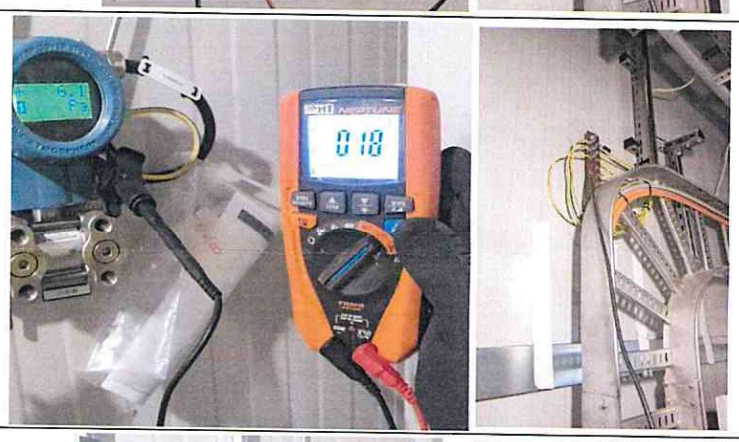
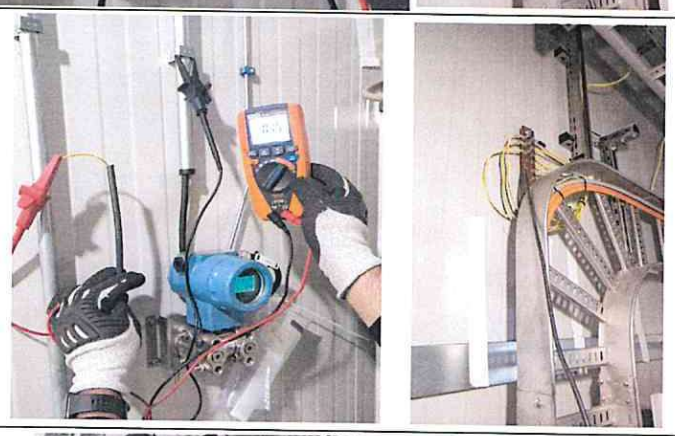
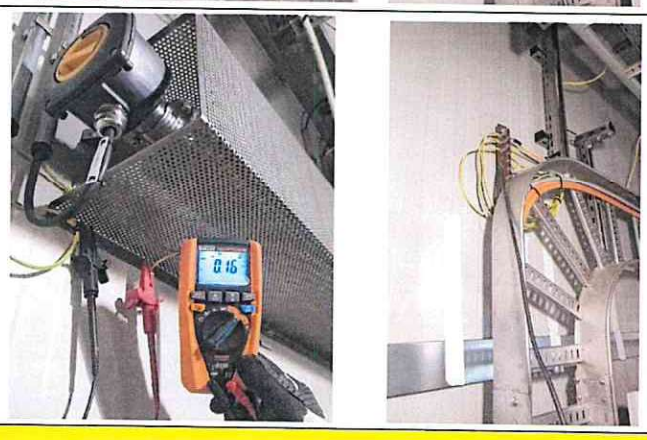
Customer: Rosetti Marino	**Project:** BASE LOAD POWER HUB (BLPH)
C/N: CW-I-WPA-2023-05	**Description:** I&T EQUIPMENT ROOM B-400
S/N: B400	**FAT procedure:** 1724000049-QC-PRO-00056

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

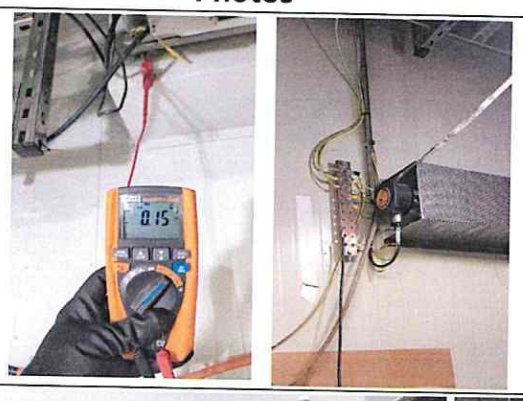
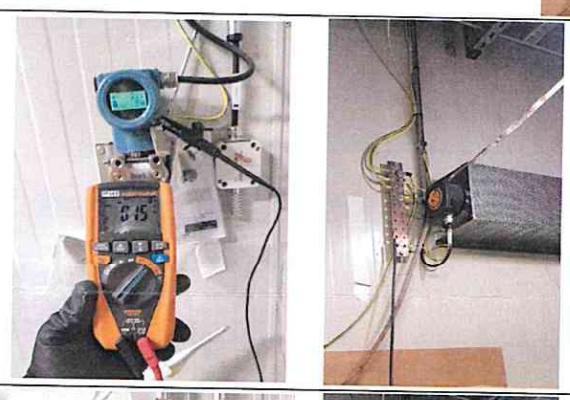
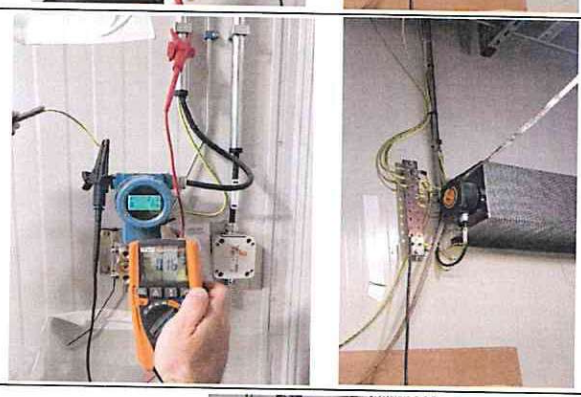
Approval RM

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

24/10/2024

ALEX SISTEMI: Matteo Mozzoni

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

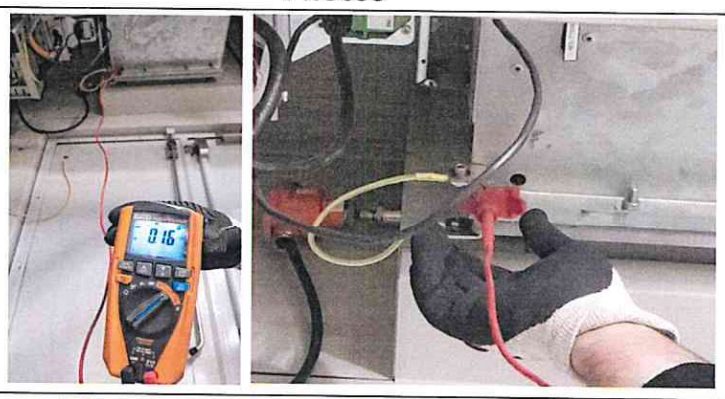
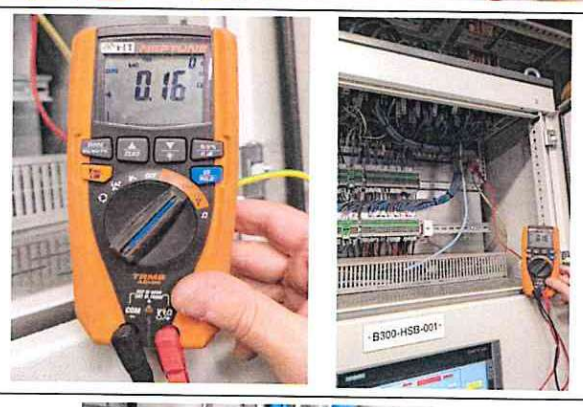
Approval RM

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

24/10/2024

ALEX SISTEMI :

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

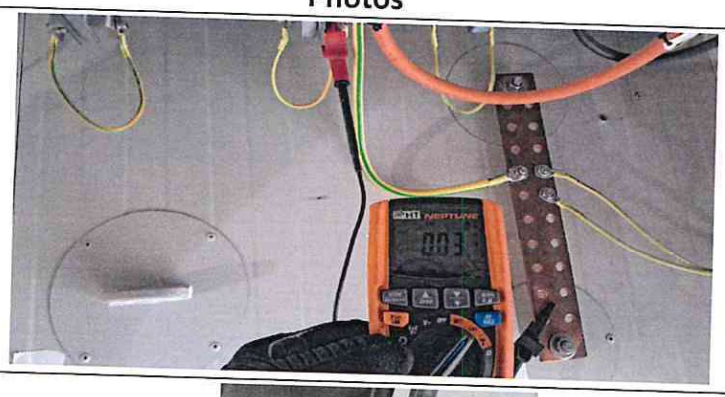
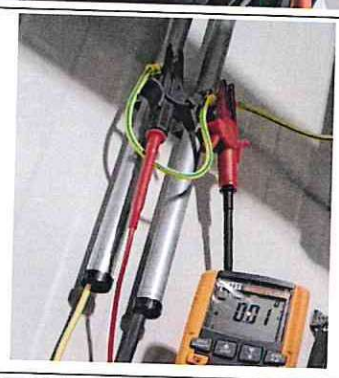
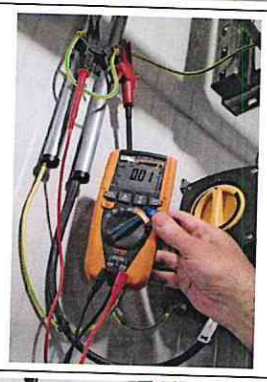
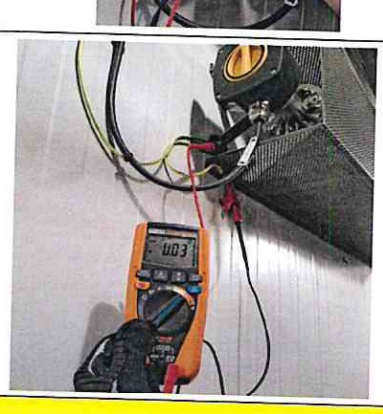
Approval RM

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

HHU 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

HHU-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

HHU 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

HHU 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 Verza

HVAC REP.2

HHV 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

HHV - 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

HHV - 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

HHV-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 Lorenzi

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			

ALEXSISTEMI spa

QUALITY SYSTEM CERTIFICATION DNV ISO 9001

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			

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

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			

ALEXSISTEMI spa

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			

ALEXSISTEMI spa

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			

ALEXSISTEMI spa

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 23/10/24	CAVIGLIA LUCA ROSETTI MARINO 23/10/24			

ALEXSISTEMI spa

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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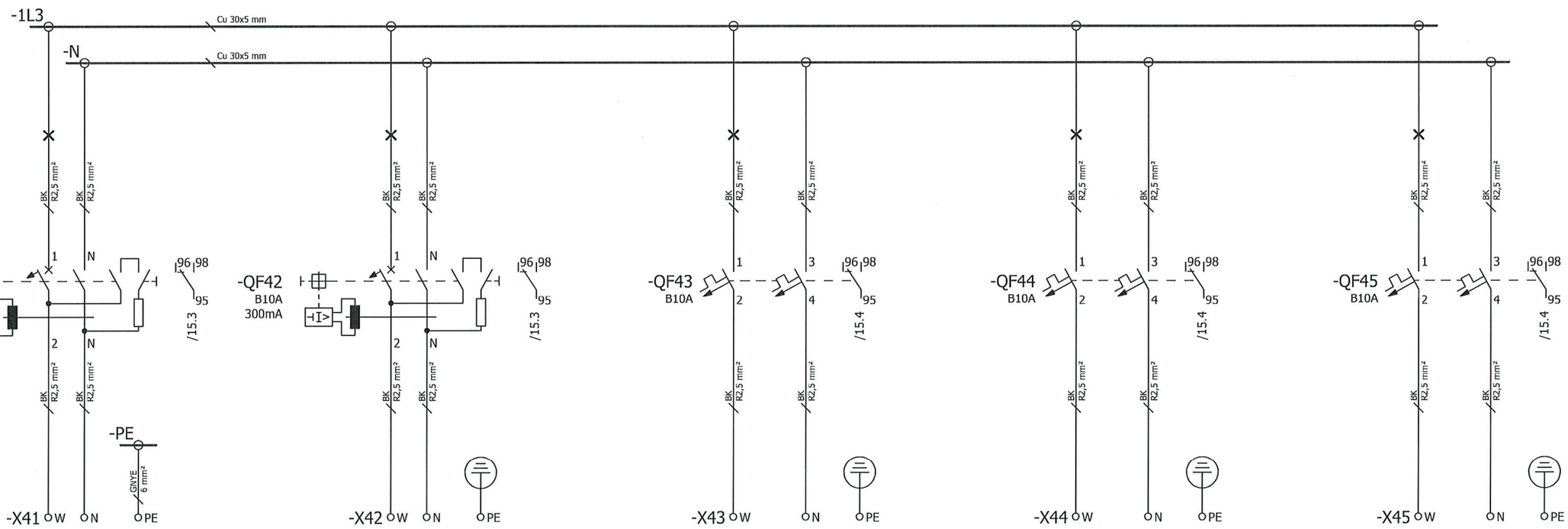
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ROSETTI MARINO SpA

~~NO MARK UP~~

AS COMMISSIONED: MARIA GIROTTI

24/3/25



Load
230V/N/PE~50Hz

B300-HSB-001
UCP-HVAC UPS ROOM
0.5KW

Load
230V/N/PE~50Hz

~~B300~~ B400-HSB-001
UCP-HVAC ITER
0.5KW

Load
230V/N/PE~50Hz

B400-SIS-001
SIS-CONTROLLER AND I/O
CABINET-LINE A - 1KW

Load
230V/N/PE~50Hz

B400-SIS-001
SIS-CONTROLLER AND I/O
CABINET-LINE B - 1KW

Load
230V/N/PE~50Hz

B400-PCS-001
PCS-CONTROLLER AND I/O
CABINET-LINE A - 1.5KW

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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

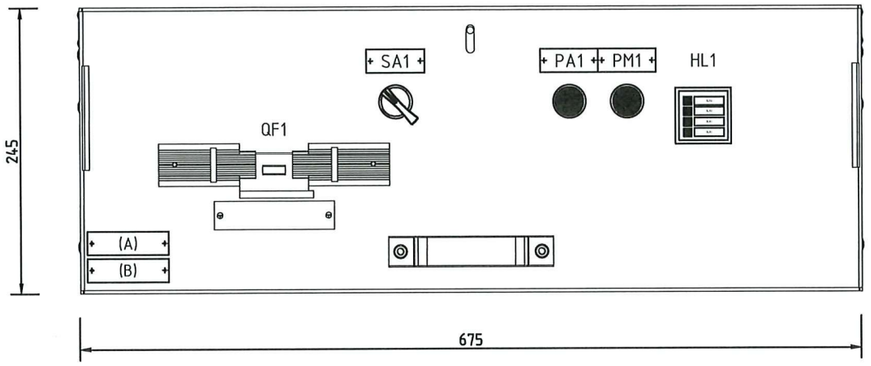
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& EFS

A3

sheet 9
sheets 17

DOOR FRONT LAY-OUT

TYPICAL : LINE FEEDER "LK1-n"

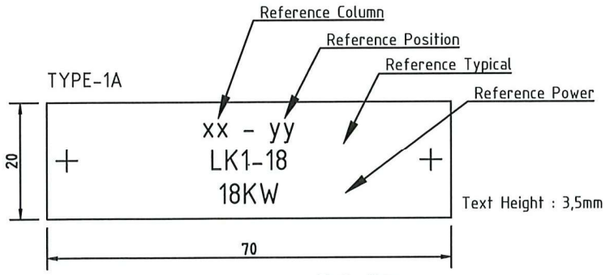


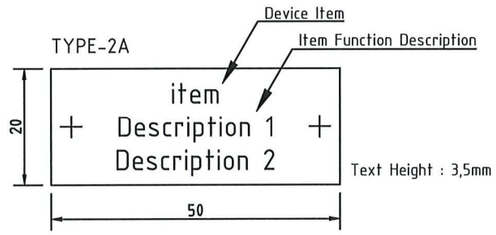
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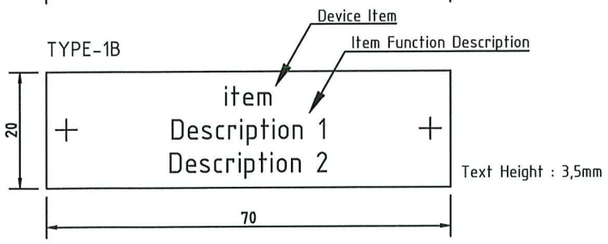
A) IDENTIFICATION name plate (type-1A) , with :
- Drawer position [Column / Position inside SWB]
- Typical name [reference applicability typical used]
- Power [reference applicability typical used]

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 : NAWA GIROTU
24/3/25
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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

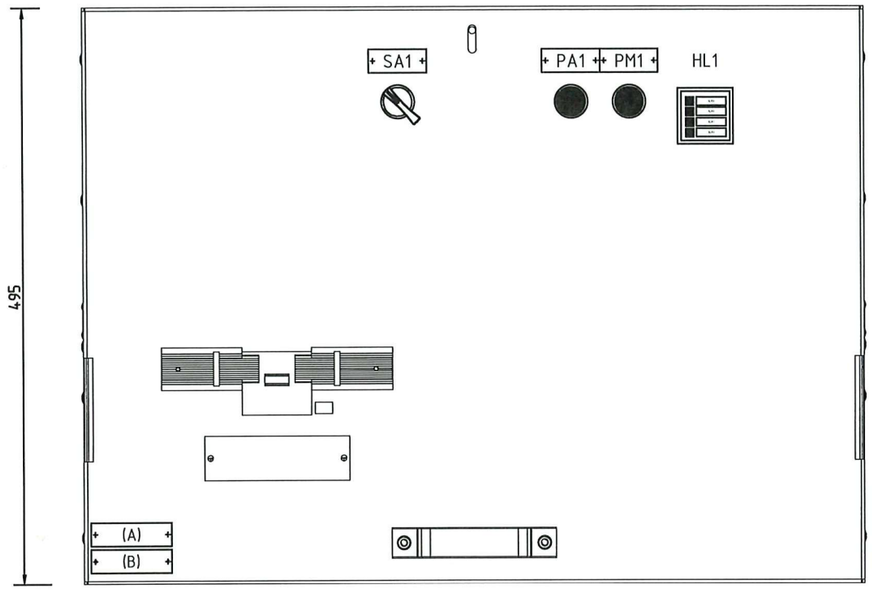
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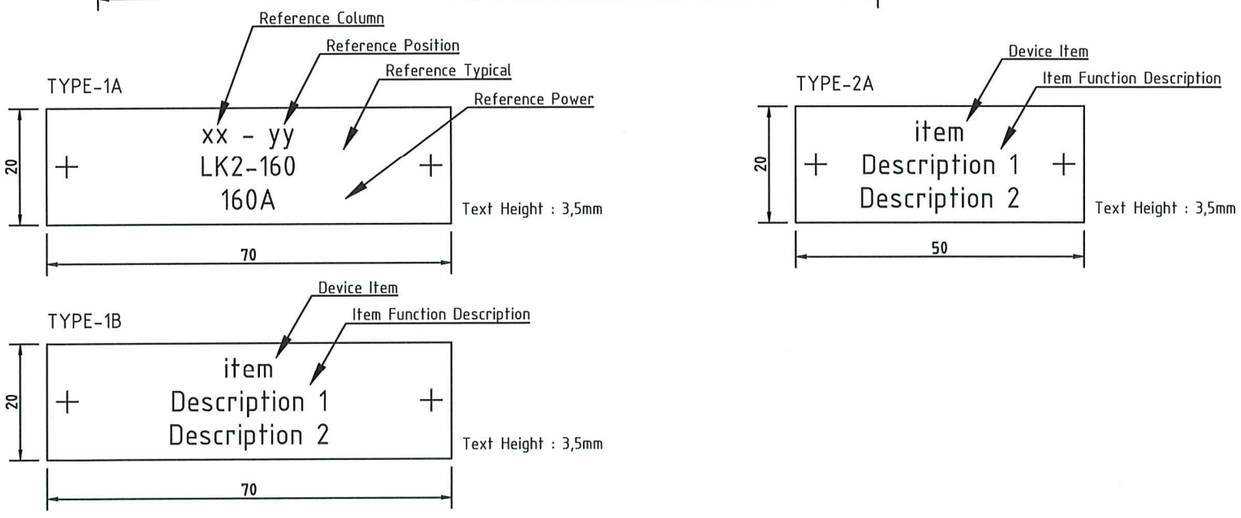
F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

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 : MARCIA GIANTI
24/3/25
NO MARK UP

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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: MARIA GIORGI
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
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: NATWA 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
2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
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0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

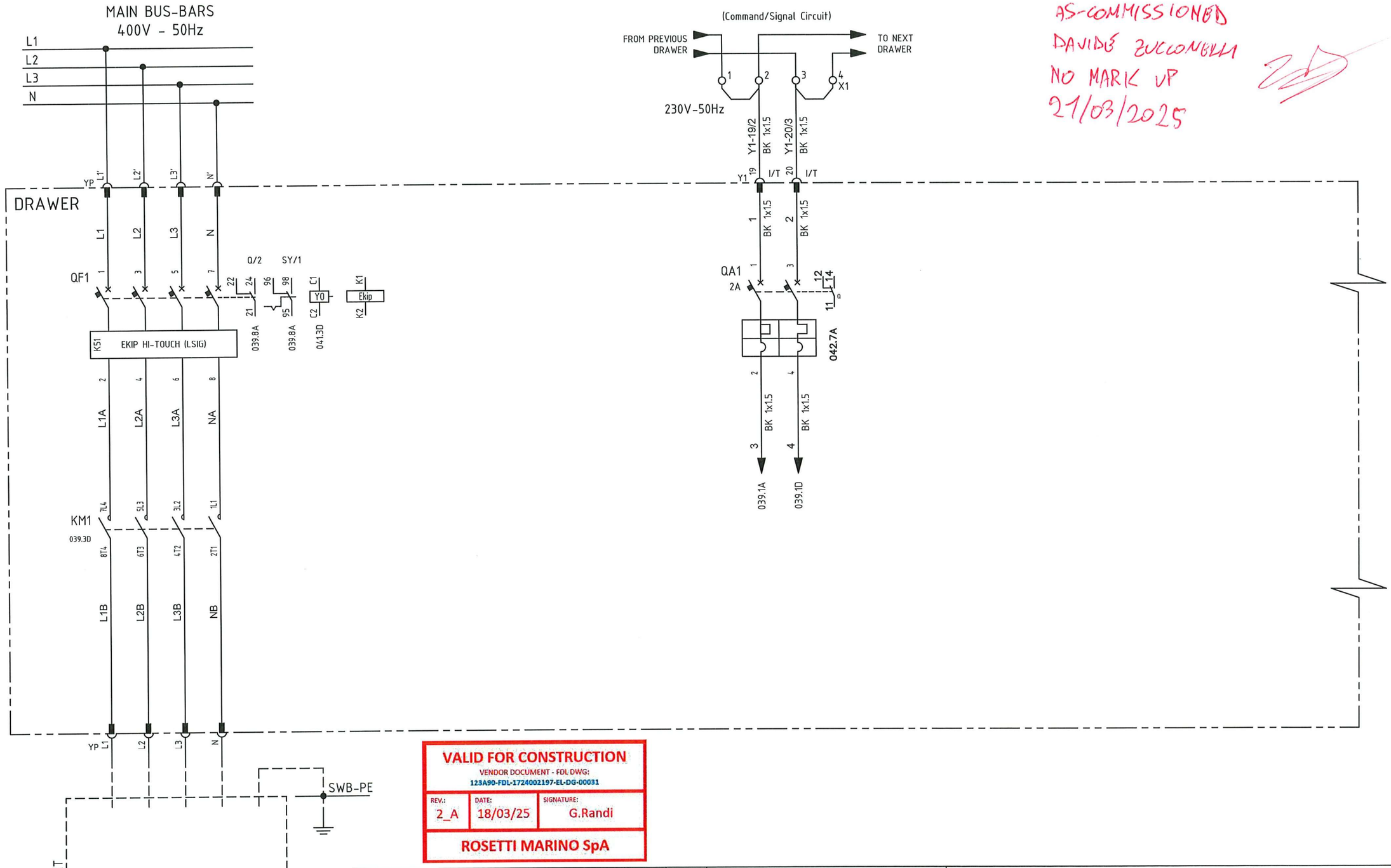
TITLE : "SG-200N1"
LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS
Items Acronym - Typical "LK1-n" & "LK2-n"

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
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)

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

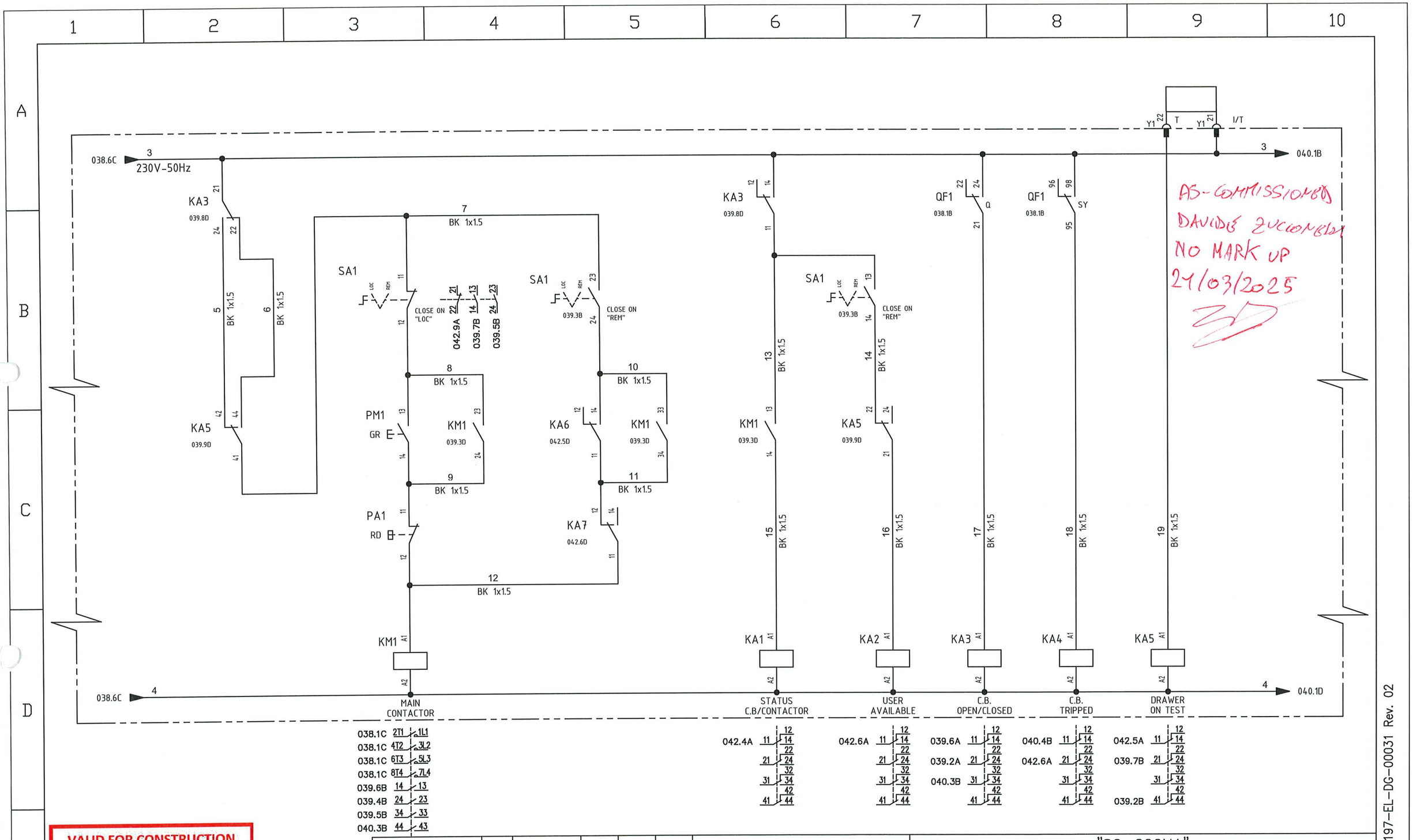
DRAWING NO. 1723002197-EL-DG-00031

SHEET 038

REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02



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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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

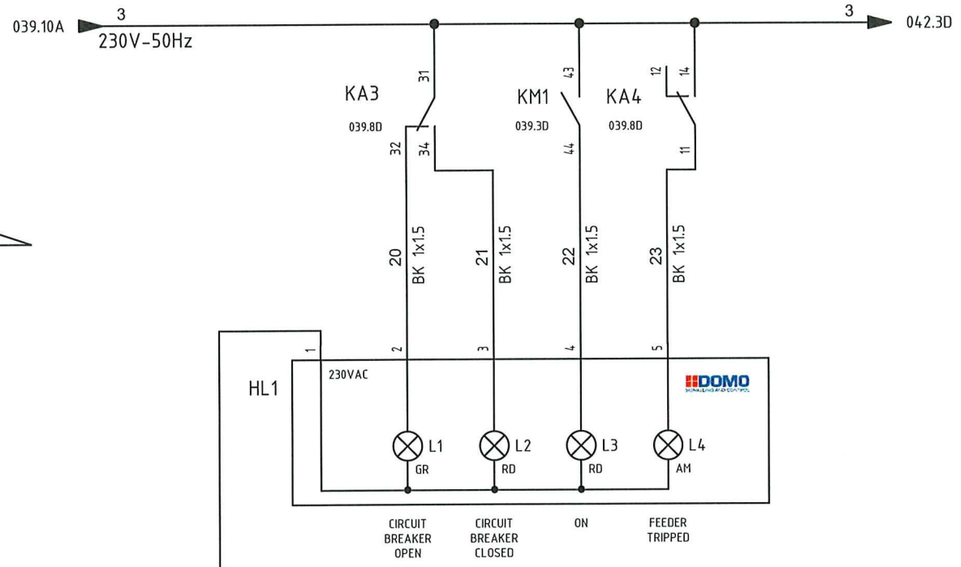
SHEET 039

REV. 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
2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
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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"

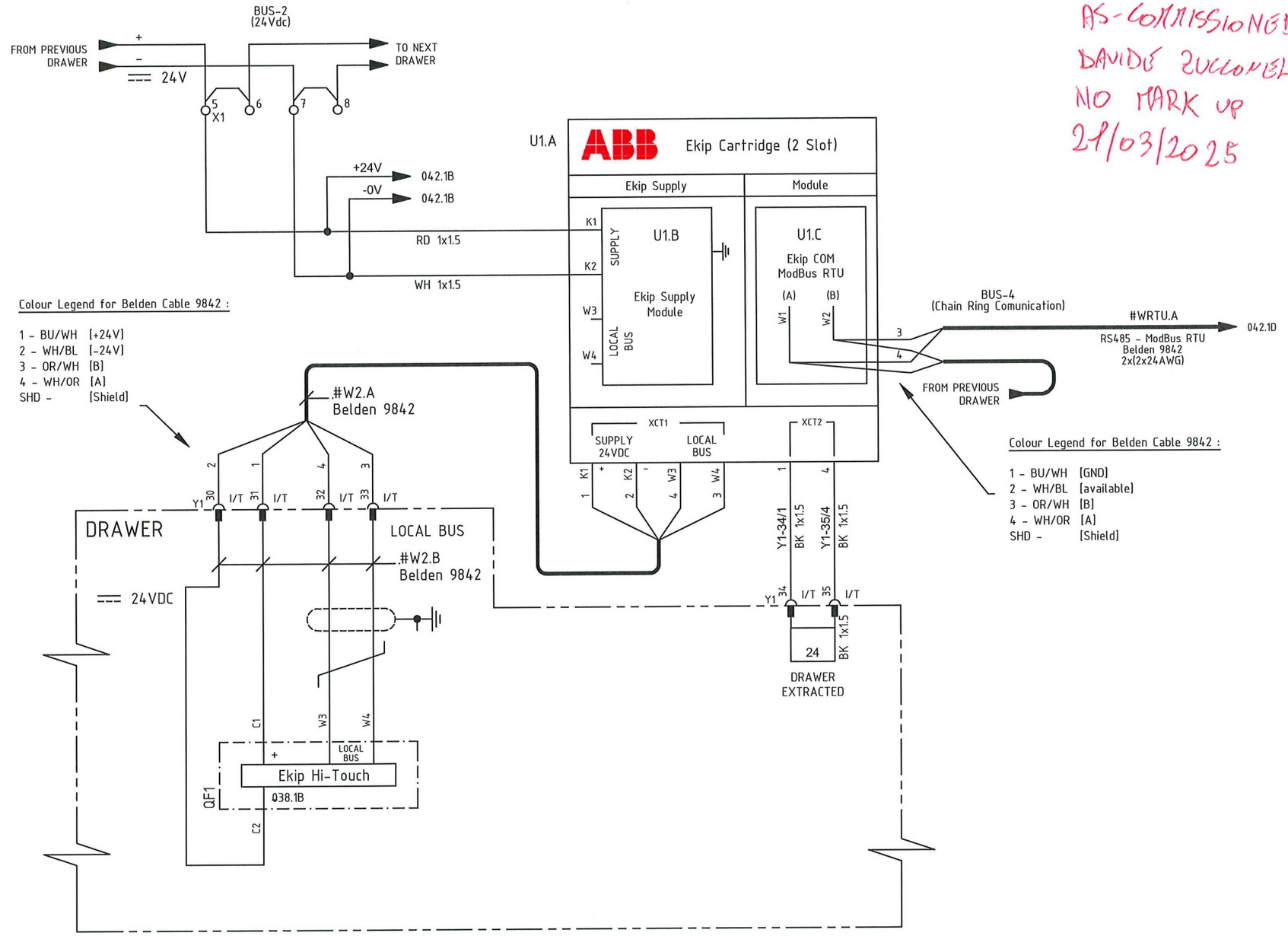
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

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

REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

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DAVIDE ZUCCHELLI
NO MARK UP
21/03/2025

DRAWER

C.B. - CONTACTOR CLOSED & INSERTED — KA1 039.6D
C.B. - CONTACTOR OPEN OR DISCONNECTED — KA5 039.9D
CIRCUIT BREAKER TRIPPED — KA4 039.8D
FEEDER AVAILABLE — KA2 039.7D
INTERNAL FAULT — QA1 038.6B
USER ON LOCAL — SA1 039.3B (CLOSE ON "LOC")

+25 RD 1x1.5 … +32 RD 1x1.5 — Y1 I/T
Y1-14/9 BK 1x1.5 — +103 RD 1x1.5
Y1-5/10 BK 1x1.5 — +104 RD 1x1.5
Y1-15/11 BK 1x1.5 — +105 RD 1x1.5
Y1-16/12 BK 1x1.5 — +106 RD 1x1.5
Y1-10/13 BK 1x1.5 — +107 RD 1x1.5
Y1-9/14 BK 1x1.5 — +108 RD 1x1.5
Y1-36/15 BK 1x1.5 — +115 RD 1x1.5
Y1-37/19 BK 1x1.5 — +118 RD 1x1.5
AVAILABLE: +116 RD 1x1.5, +117 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 — SENECA MODULE I/O Z-5DI-2DO ID = 01
U2.C — SENECA MODULE I/O Z-5DI-2DO ID = 02
+16V 0V IN-1 IN-2 IN-3 IN-4 IN-5
INPUT
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 — Y1-11/20 BK 1x1.5
+110 BK 1x1.5 — Y1-12/21 BK 1x1.5
+111 BK 1x1.5 — Y1-13/22 BK 1x1.5
+112 BK 1x1.5
+113 BK 1x1.5
+114 BK 1x1.5

DRAWER
040.5B 3 230V-50Hz
040.5D 4
KA6 A1/A2 — CONTACTOR CLOSE COMMAND
KA7 A1/A2 — CONTACTOR OPEN COMMAND
KA6 039.5B
KA7 039.5C

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)
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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 042
REV. 02

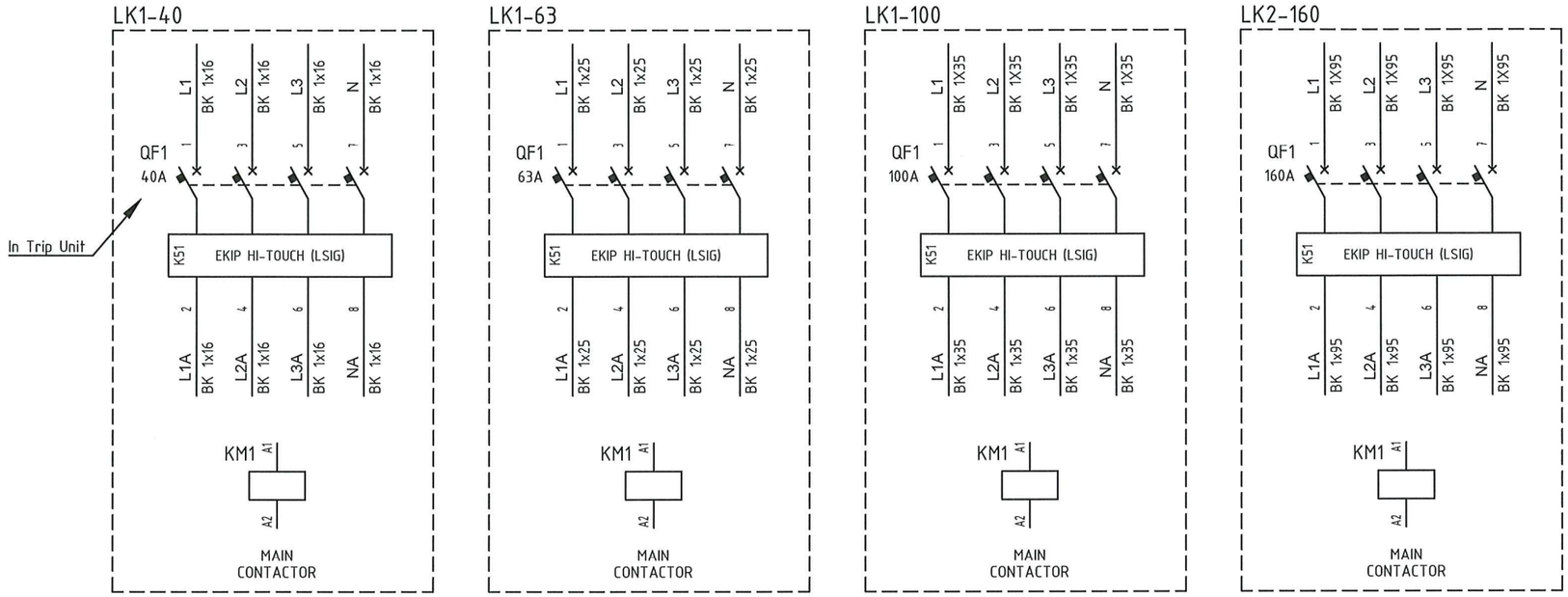
F.to UNI A3: 420mmx297mm

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.:	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 043 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

TYPICAL - LK-x - Y1

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	→																																			
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	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

- 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

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

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
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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 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

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VENDOR DOCUMENT - FDL DWG:
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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 046 | REV. 02

File Name : 1723002197-EL-DG-00031 Rev. 02

Fmto UNI A3: 420mmx297mm

AS-COMMISSIONED DAVIDE ZUCCONELLI NO MARK UP 21/03/2025

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:
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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

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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 047 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

BASE LOAD POWER HUB (BLPH)
B-400 HVAC and LIGHTING PANEL WIRING DRAWING and GENERAL ARRANGEMENT (INCL INTERCONNECTING) - E&I SHELTERS

B400-HSB-001

NO MARK UP
AS COMMISSIONED: M.T.N.A GIROTN.
17/4/25

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
05	27/01/25				ACCEPT FOR CONSTRUCTION (AFC)
04	10/12/24				ACCEPT FOR CONSTRUCTION (AFC)
03	04/09/24				ISSUE FOR CONSTRUCTION (IFC)
02	03/07/24				ISSUE FOR REVIEW (IFR)
01	28/06/24				ISSUE FOR REVIEW (IFR)
00	22/04/24				ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

REV.	MODIFICA	DATA	FIRMA		
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	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

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–00029

SHEET 001

REV. 05

BASE LOAD POWER HUB (BLPH)
B–400 I&T EQUIPMENT ROOM
COVER

ROSETTI MARINO ALEXSISTEMI

1724000049–HV–DA–00029

FG. 1

F.S. 2

NO MARK UP AS COMMISSIONED: MARIA GIROTTI 17/4/25

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				
2A	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				
7	POWER SECTION	X	X	X	X	X				
8	POWER SECTION	X	X	X	X	X				
9	POWER SECTION A	X	X	X	X	X				
10	POWER SECTION A	X	X	X	X	X				
11	POWER SECTION A	X	X	X	X	X				
12	AUX SECTION A	X	X	X	X	X				
13	AUX SECTION A	X	X	X	X	X				
14	AUX SECTION A	X	X	X	X	X				
15	AUX SECTION A	X	X	X	X	X				
16	AUX SECTION A	X	X	X	X	X				
17	POWER SECTION B	X	X	X	X	X				
18	POWER SECTION B	X	X	X	X	X				
19	POWER SECTION B	X	X	X	X	X				
20	AUX SECTION B	X	X	X	X	X				
21	AUX SECTION B	X	X	X	X	X				
22	AUX SECTION B	X	X	X	X	X				
23	AUX SECTION B	X	X	X	X	X				
24	AUX SECTION B	X	X	X	X	X				
25	UPS POWER SUPPLY	X	X	X	X	X				
26	PLC SECTION	X	X	X	X	X				
26A	PLC SECTION	X	X	X	X	X				

Foglio Sheet	Descrizione Description	Revisioni Revisions								
		1	2	3	4	5	6	7	8	9
27	PLC SECTION	X	X	X	X	X				
28	PLC SECTION	X	X	X	X	X				
29	PLC SECTION	X	X	X	X	X				
30	PLC SECTION	X	X	X	X	X				
31	PLC SECTION	X	X	X	X	X				
32	PLC SECTION	X	X	X	X	X				
33	PLC SECTION	X	X	X	X	X				
34	PLC SECTION	X	X	X	X	X				
35	PLC SECTION	X	X	X	X	X				
36	PLC SECTION	X	X	X	X	X				
37	PLC SECTION	X	X	X	X	X				
38	PLC SECTION	X	X	X	X	X				
39	PLC SECTION	X	X	X	X	X				
40	PLC SECTION	X	X	X	X	X				
41	PLC ARCHITECTURE	X	X	X	X	X				
42	EH MODULATION A	X	X	X	X	X				
43	EH MODULATION B	X	X	X	X	X				
44	AVAILABLE SIGNAL	X	X	X	X	X				
45	TERMINAL STRIP	X	X	X	X	X				
46	TERMINAL STRIP	X	X	X	X	X				
47	TERMINAL STRIP	X	X	X	X	X				
48	TERMINAL STRIP	X	X	X	X	X				
49	TERMINAL STRIP	X	X	X	X	X				
50	MATERIAL LIST	X	X	X	X	X				
51	MATERIAL LIST	X	X	X	X	X				
52	MATERIAL LIST	X	X	X	X	X				
53	MATERIAL LIST	X	X	X	X	X				
54	MATERIAL LIST	X	X	X	X	X				

REV.	MODIFICA	DATA	FIRMA	APPR.	
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
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				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-400 I&T EQUIPMENT ROOM

INDEX

ROSETTI MARINO | ALEXSISTEMI s.r.l.

1724000049-HV-DA-00029

FG. 2
F.S. 2A

NO MARK UP AS COMMISSIONED: MINA GIROTTI 17/4/25

LISTA FOGLI \ INDEX

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

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

REV.	MODIFICA	DATA	FIRMA
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.
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DISEGN.	F.M.
VISTO	S.S.
APPR.	M.G.

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B-400 I&T EQUIPMENT ROOM

INDEX

ROSETTI MARINO | ALEXSISTEMI

1724000049-HV-DA-00029

FG. 2A
F.S. 3

NO MARK UP AS COMMISSIONED: MARIA GIROTTI 17/4/25

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
E	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	APPR.	M.G.
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM

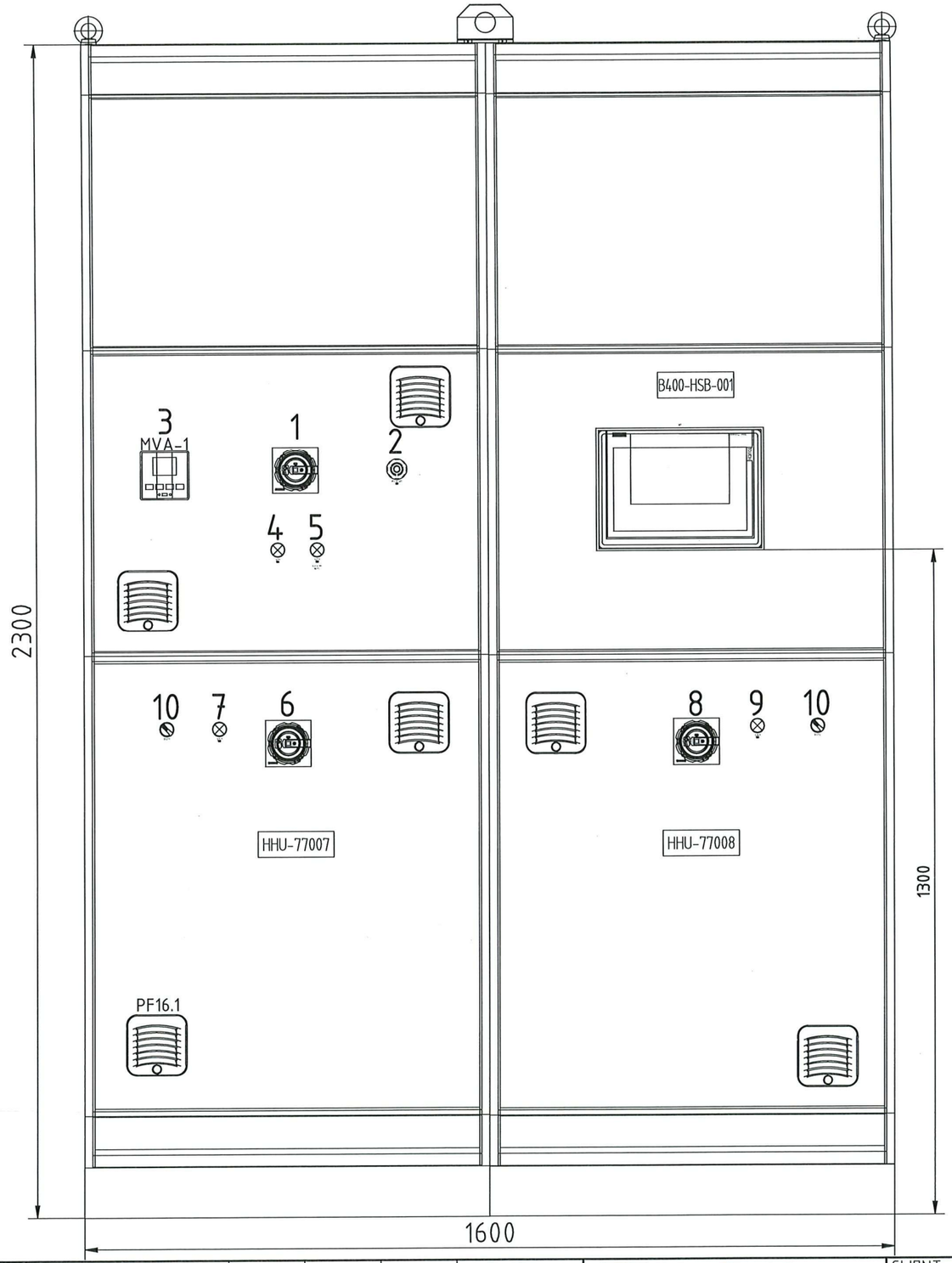
SIMBOL LIST

ROSETTI MARINO | ALEXSISTEMI

1724000049-HV-DA-00029

FG. 3
F.S. 4

EXTERNAL VIEW



LABEL	
1	MAIN SWITCH
2	ERGENCY POWER BUTTON
3	MULTIMETER
4	230V AC PRESENCE
5	24V DC PRESENCE
6	HHU-77007 MAIN SWITCH
7	230VAC PRESENCE
8	HHU-77008 MAIN SWITCH
9	230VAC PRESENCE
10	AUTO-0-MANUAL

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

SERIAL n.: *Matricola n.:*	1629
TAG: *Codice identificativo:*	B400-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:*	1150 Kg

CE

FRIGOTERMICA JOB NUMBER: 4112

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

NO MARK UP
AS COMMISSIONED: MAIA GIROM
17/4/25

SCALE 1:10

REV.	MODIFICA	DATA	FIRMA	APPR.	DATA
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.

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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM
EXTERNAL VIEW

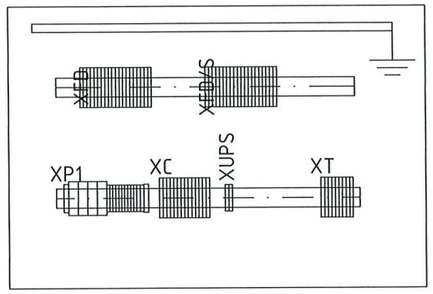
ROSETTI MARINO | ALEXSISTEMI

1724000049-HV-DA-00029

F.G. 4
F.S. 5

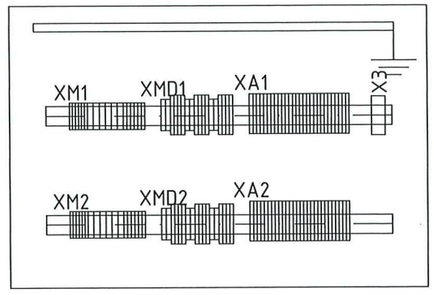
INTERNAL VIEW

PLATE 700 x 470



CABLE ENTRY FROM TOP
WITH CABLE GLANDS

PLATE 700 x 470_2



COPPER BAR

PLATE 700 x 570

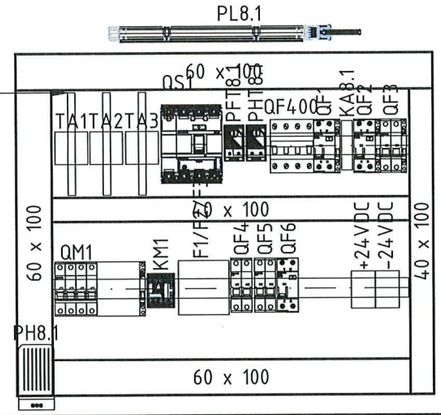
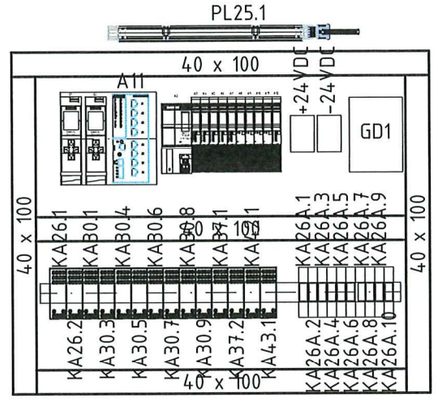


PLATE 700 x 570_2



NO MARK UP
AS COMMISSIONED: MATTIA GIROTTO
17/4/25

PLATE 700 x 870

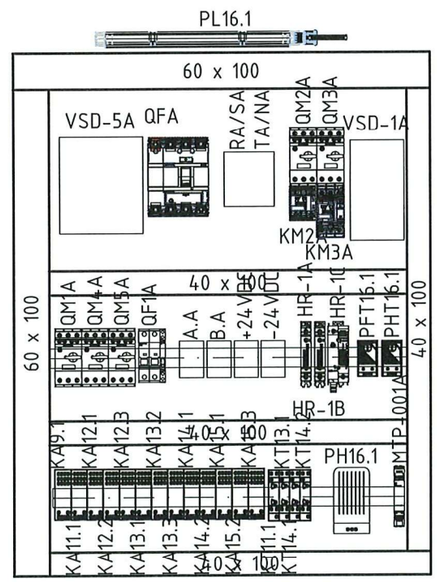
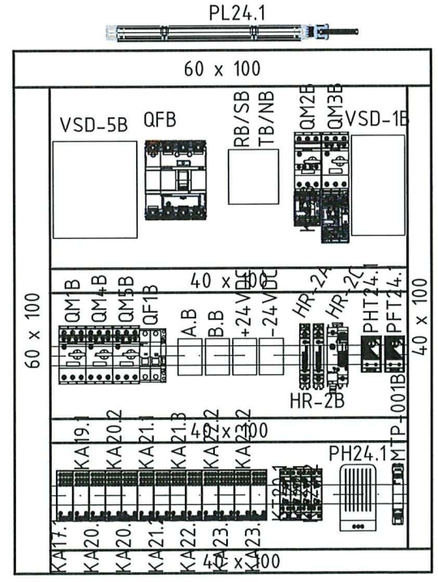


PLATE 700 x 870_2



SCALE 1:10

REV.	MODIFICA	DATA	FIRMA	APPR.	
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
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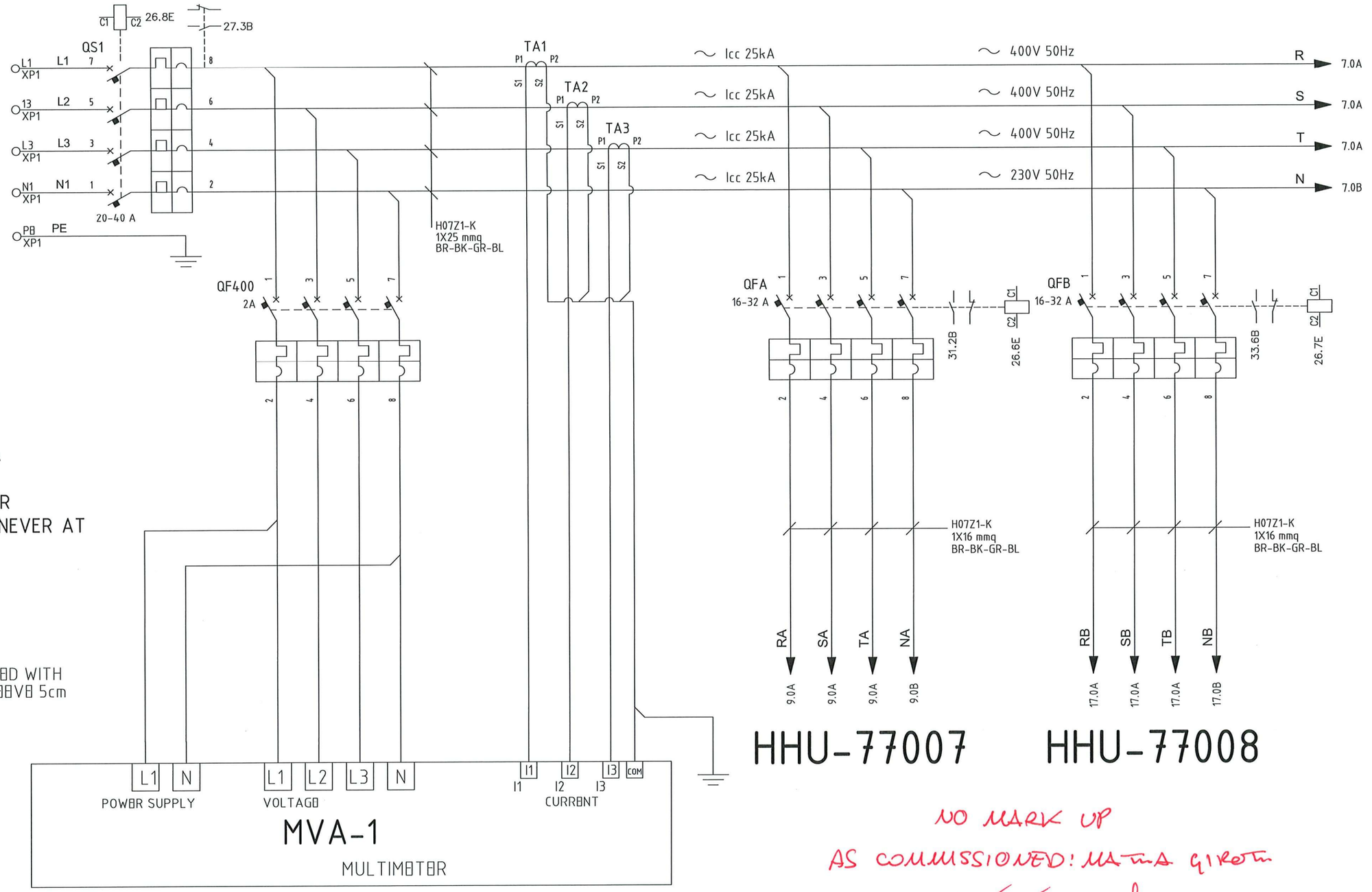
BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM
INTERNAL VIEW

ROSETTI MARINO | ALEXSISTEMI

1724000049-HV-DA-00029

FG. 5
F.S. 6

CLIENT POWER SUPPLY
FROM LV SWITCHGEAR
3 PH + N + PE
400V 50Hz
5G25
TAG SG-200N1



HHU-77007 HHU-77008

RATED POWER: 18.08 kW
RATED CURRENT: 29.10 A

ONLY UNIT HHU-77007 OR
HHU-77008 ACTIVATED, NEVER AT
SAME TIME

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

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

230V 1P + N
- ⟶ BROWN
- ⟶ BLU

24Vdc
- ⟶ RED
- ⟶ BLACK

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

NO MARK UP
AS COMMISSIONED: MATTIA GIROTTI
17/4/25

REV.	MODIFICA	DATA	FIRMA		
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
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				APPR.	M.G.

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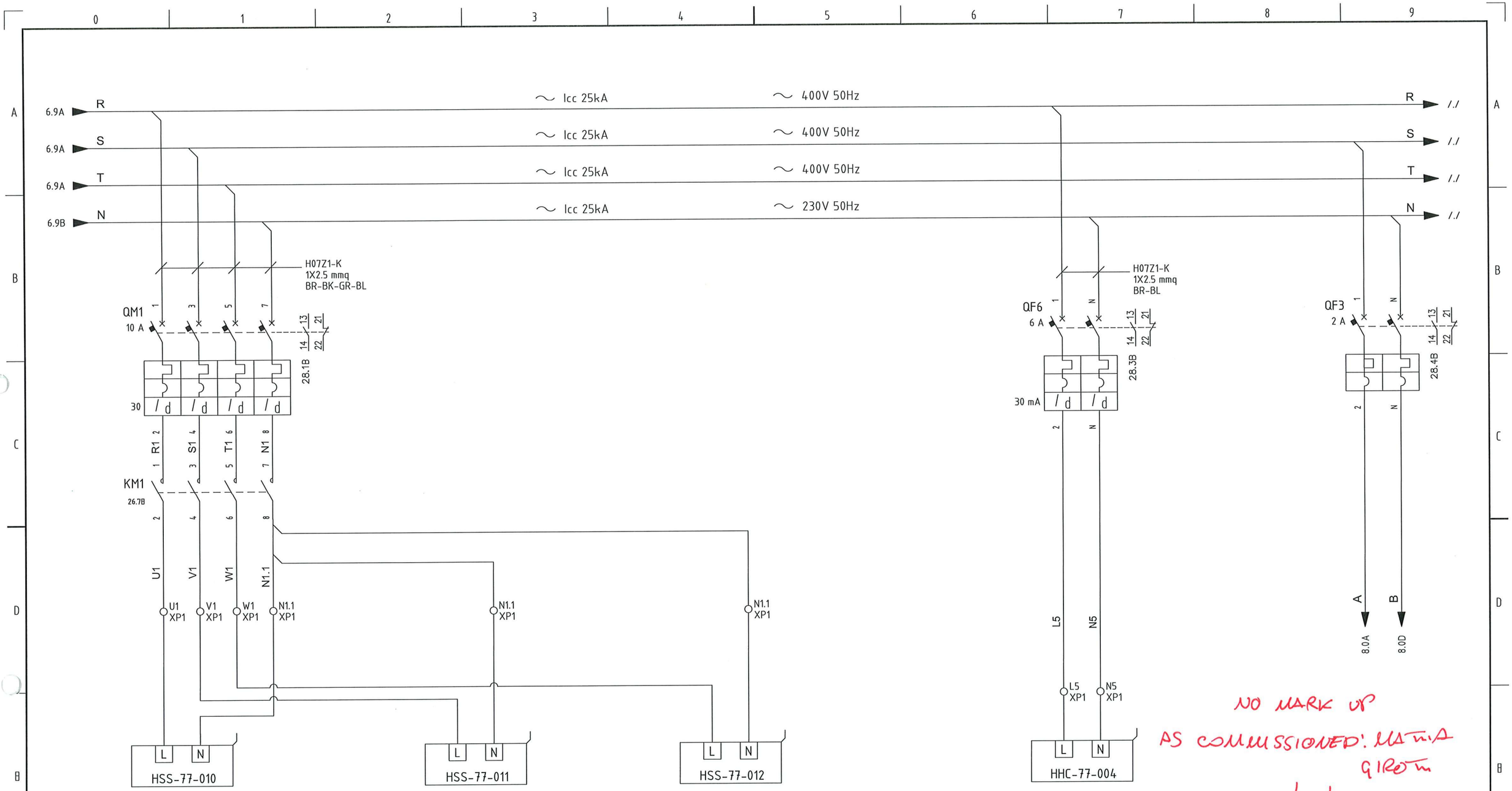
CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM
POWER SECTION

ROSETTI MARINO | ALEXSISTEMI

1724000049-HV-DA-00029

FG. 6
F.S. 7



HSS-77-010	
ELECTRICAL HEATER	
RATED	ABSORBED
2 kW	2 kW
8.7 A	8.7 A

HSS-77-011	
ELECTRICAL HEATER	
RATED	ABSORBED
2 kW	2 kW
8.7 A	8.7 A

HSS-77-012	
ELECTRICAL HEATER	
RATED	ABSORBED
2.7 kW	2 kW
8.7 A	8.7 A

HHC-77-004	
HEATIN CABLE	
RATED	ABSORBED
0.2 kW	0.2 kW
1.1 A	1.1 A

NO MARK UP
AS COMMISSIONED: MATRIA
GIROTTO
17/4/25

REV.	MODIFICA	DATA	FIRMA
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.

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

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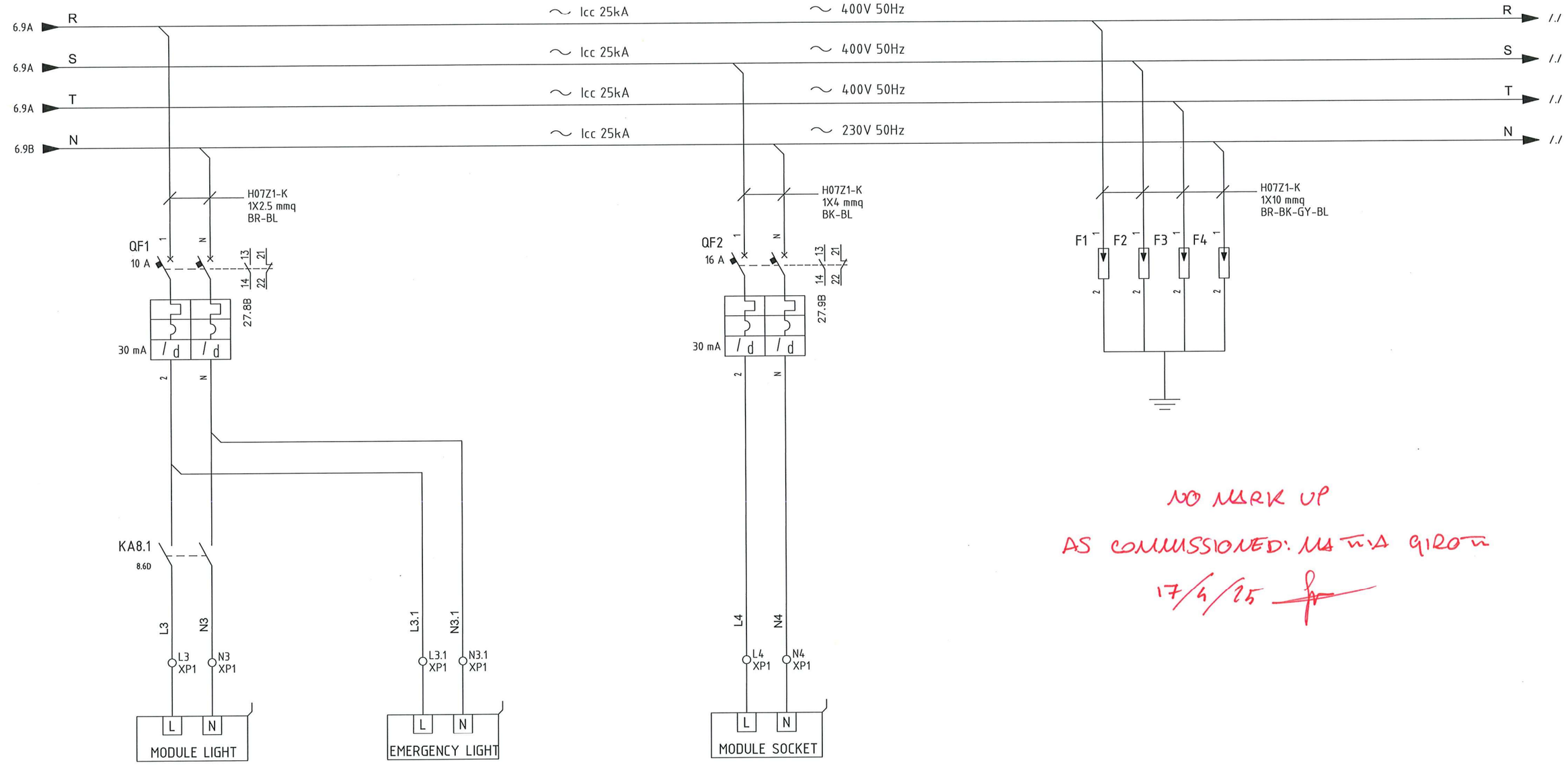
CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM
POWER SECTION

ROSETTI MARINO | ALEXSISTEMI S.p.A.

1724000049-HV-DA-00029

FG. 7
F.S. 7A



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

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

NO MARK UP
AS COMMISSIONED: MATIA GIROTTI
17/4/25

REV.	MODIFICA	DATA	FIRMA		
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DESIGN.	F.M.
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BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM

POWER SECTION
Power section

ROSETTI MARINO | ALEXSISTEMI s.p.a.

1724000049-HV-DA-00029

FG. 7A
F.S. 8

0	1	2	3	4	5	6	7	8	9
	PANEL INTERNAL LIGHT POWER SECTION	PANEL ANTI CONDENSING HEATER POWER SECTION	PANEL FAN VENTILATION POWER SECTION	230V VOLTAGE PRESENCE LIGHT POWER SECTION		MODULE LIGHT			

7.7D A

A ./.

PLS8.1 13 14 8.1

PHT8.1 t< 13 14 8.2

PFT8.1 t> 13 14 8.3

PF8.1 M 1~ A1

HL8.1 X1 WH X2

KA26.2 8.4

KA8.1 A1 A2

PL8.1 X1 X2

PH8.1

7.8D B

B ./.

7A.1D
7A.1D

NO MARK UP
AS COMMISSIONED: M.T.A GIROM
17/4/25

REV.	MODIFICA	DATA	FIRMA		
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
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				APPR.	M.G.

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BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM
POWER SECTION

ROSETTI MARINO | ALEXSISTEMI spa

1724000049-HV-DA-00029

FG. 8
F.S. 9

HHU-77007
SECTION

RATED POWER: 15 kW
RATED CURRENT: 29.76 A

ABSORBED POWER: 10 kW
ABSORBED CURRENT: 18.3 A

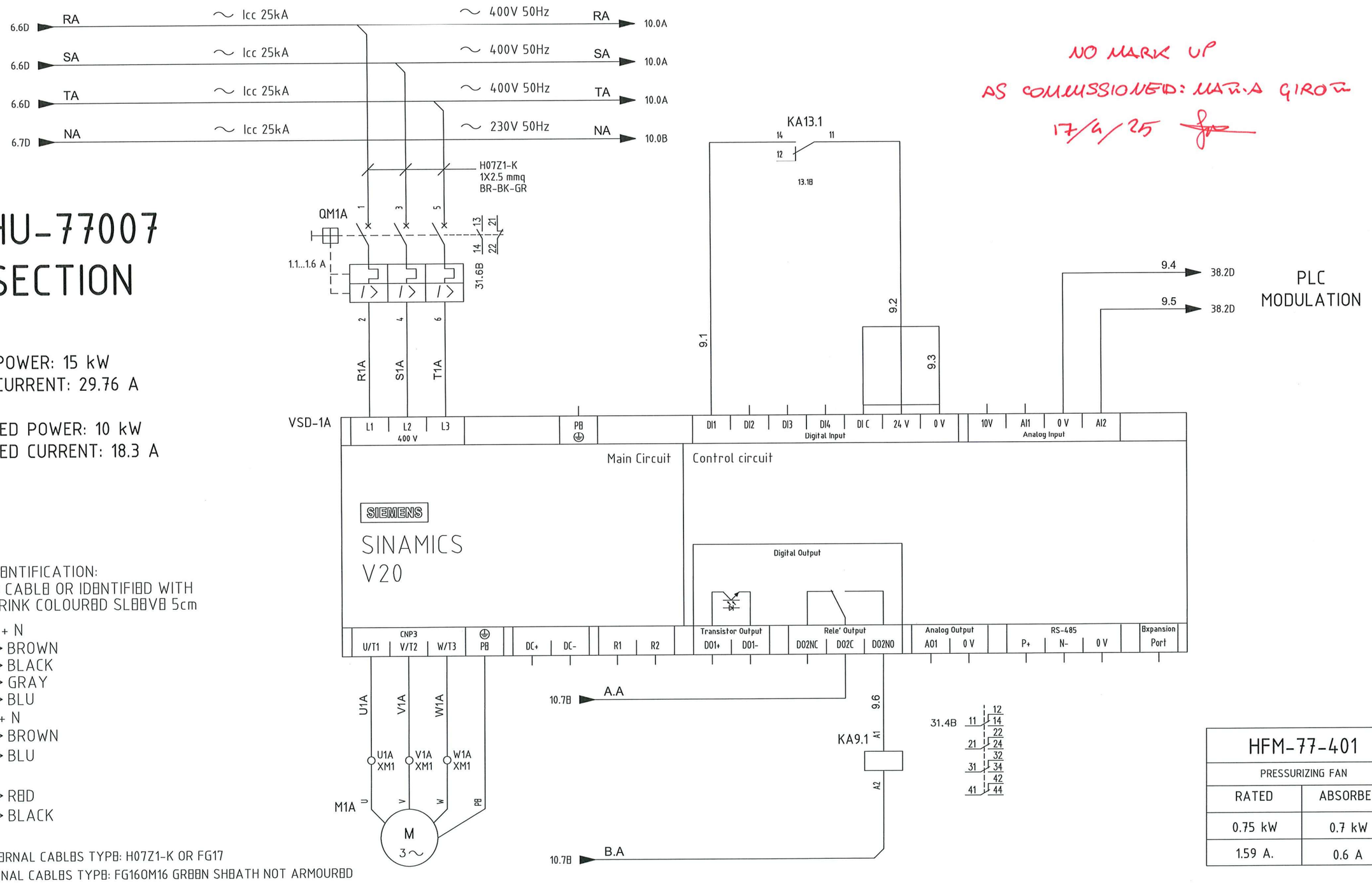
COLOR IDENTIFICATION:
COLORED CABLE OR IDENTIFIED WITH
HEAT SHRINK COLOURED SLEEVE 5cm

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

230V 1P + N
- ⟶ BROWN
- ⟶ BLU

24Vdc
- ⟶ RED
- ⟶ BLACK

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



NO MARK UP
AS COMMISSIONED: MARIA GIROTTI
17/4/25

HFM-77-401	
PRESSURIZING FAN	
RATED	ABSORBED
0.75 kW	0.7 kW
1.59 A.	0.6 A

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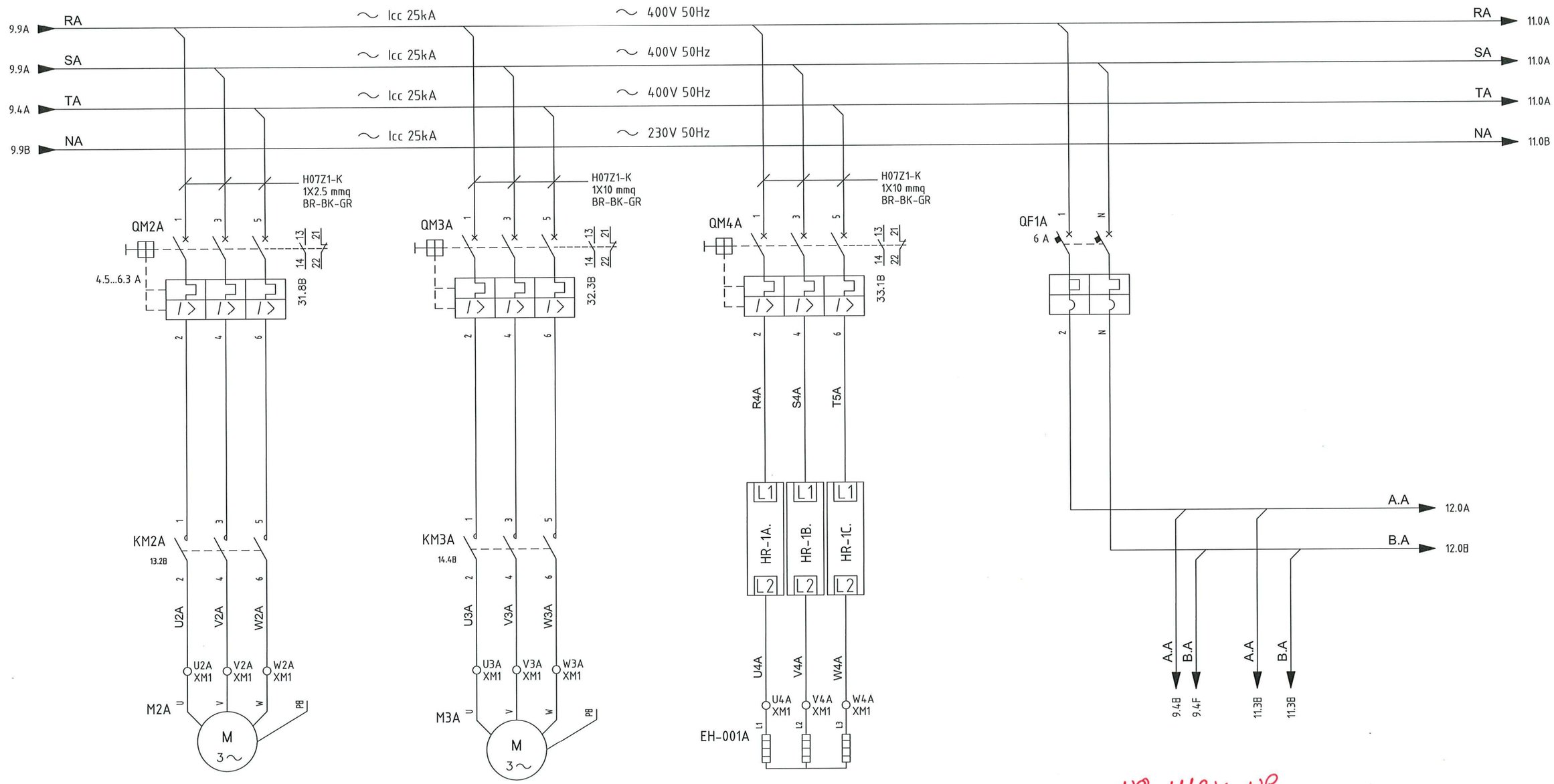
CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM
POWER SECTION A

ROSETTI MARINO | ALEXSISTEMI s.p.a.

1724000049-HV-DA-00029

FG. 9
F.S. 10



HFM-77-402	
SUPPLY FAN	
RATED	ABSORBED
3 kW	2.48 kW
6.33 A	4.21 A

HCO-77-401	
COMPRESSOR 1 A	
RATED	ABSORBED
9.8 kW	6.21 kW
16.8 A	11.5 A

HSS-77-401	
ELECTRICAL HEATER	
RATED	ABSORBED
9 kW	9 kW
13 A	13 A

NO MARK UP
AS COMMISSIONED. MARIA GIROTTO
17/4/25

REV.	MODIFICA	DATA	FIRMA	APPR.	
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
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BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM
POWER SECTION A

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1724000049-HV-DA-00029

FG. 10
F.S. 11

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

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

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

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

H07Z1-K
1X4 mmq
BR-BK-GR

QM5A

2.2...3.2 A

32.6B

R5A S5A T5A

KA15.2

15.4D

11.8 11.9 11.10 11.11

120 XA1

121 XA1

PTH-77-401

VSD-5A

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

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

Digital Output

10.7B A.A

KA11.1

10.8B B.A

14.2B 11 12 14

32.7B 21 22 24

31 32 34

41 42 44

U5A.1 V5A.1 W5A.1

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

M5.1A M 3~

M5.2A M 3~

NO MARK UP
AS COMMISSIONED: MATCH GIVEN.
17/4/25

HFM-77-405	
CONDENSER FAN 1	
RATED	ABSORBED
0.37 kW	0.35 kW
1 A	0.6 A

HFM-77-406	
CONDENSER FAN 2	
RATED	ABSORBED
0.37 kW	0.35 kW
1 A	0.6 A

RØV.	MODIFICA	DATA	FIRMA
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.

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

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B-400 I&T EQUIPMENT ROOM
POWER SECTION A

ROSETTI MARINO | ALEXSISTEMI spa

1724000049-HV-DA-00029

FG. 11
F.S. 12

0	1	2	3	4	5	6	7	8	9
	START / STOP HHU-77007		MOTORISED DAMPER POWER SUPPLY		MOTORISED DAMPER OPEN SIGNAL HHU-77007	MOTORISED DAMPER CLOSED SIGNA HHU-77007		MOTORISED DAMPER NOT OPEN ALARM SIGNAL HHU-77007	

NO MARK UP
AS COMMISSIONED: M.T.A GIROTTI
17/4/25

10.8D A.A

A.A 13.0A

KA30.3 30.5D

KA12.3 12.7B

12.2

KA12.1 12.5B

KT11.1 A1 A2 60"

On–D 12.7B

1 XMD1 HDZ-77-401 M 1~ A1 2 XMD1

7 XMD1 HDZ-77-402 M 1~ A1 8 XMD1

13 XMD1 HDZ-77-403 M 1~ A1 14 XMD1

3 XMD1 HDZ-77-401 5 XMD1

4 XMD1 6 XMD1

12.4 9 XMD1 12.7 11 XMD1

HDZ-77-402

10 XMD1 12 XMD1

12.5 15 XMD1 12.8 17 XMD1

HDZ-77-403

16 XMD1 18 XMD1

12.6 KA12.1 A1 A2

12.9 KA12.2 A1 A2

KA12.3 A1 A2

KA12.3 12.7B

Delay/Ritardo

KT11.1 12.1B

12.11

KA37.1 37.2D

12.10

B.A 10.8D B.A 13.0B

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

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

REV.	MODIFICA	DATA	FIRMA		
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BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM
AUX SECTION A

ROSETTI MARINO | ALEXSISTEMI

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FG. 12
F.S. 13

0	1	2	3	4	5	6	7	8	9

PRESSURIZING FAN START / STOP
HH-77007

SUPPLY AIR FAN START/STOP
HH-77007

SUPPLY AIR FAN BROKEN BELT ALARM
HHU-77007

SUPPLY AIR FAN MOTOR HEATER
HHU-77007

PRESSURIZIN FAN OVERLOAD PROTECTION
HHU-77007

12.9A A.A — A.A 14.0A

KA12.1 (12.5B) 21 24 22 — 13.1
KA13.3 (13.8B) 11 14 12 — 13.2
KA13.1 A1 A2

KA12.1 (12.5B) 31 34 32 — 13.3
KM2A A1 A2

KA37.1 (37.2D) 21 24 22 — 13.4
PDSL-77-401 p> 13 14 — 100 XA1 / 101 XA1
KA13.2 (13.4B) 11 13.5 14 12
KT13.1 A1 A2
13.4B On-D

KT13.1 (13.3B) Delay/Ritardo
KM2A (13.2B) 21 22 — 13.6
KA13.2 A1 A2

HSS-77-403 — 108 XA1 / 109 XA1

MTP-001A A1/11 SIEMENS
ϑ> + -
NC NO
TRIPPED
T1 T2 A2 12 14
13.7 13.8
102 XA1 / 103 XA1

TE-77-401

KA13.3 (13.9) A1 A2

12.9B B.A — B.A 14.0B

9.5B 11 14 / 21 24 / 31 34 / 41 44
10.1D 2 1
10.1D 4 3
10.1D 6 5
14.1B 14 13
31.7B 44 43
13.5B 22 21 / 32 31
13.4C 11 14 / 21 24 / 31 34 / 41 44
29.4B
13.1C 11 14 / 21 24 / 31 34 / 41 44
29.1B

NO MARK UP
AS COMMISSIONED: MATIA GIRETTI.
17/4/25

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
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BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM
AUX SECTION A

ROSETTI MARINO — ALEXSISTEMI

1724000049-HV-DA-00029
FG. 13
F.S. 14

PRESSURIZING FAN MOTOR HEATER
HHU-77007

COMPRESSOR START/STOP
HHU-77007

LOW PRESSURE ALARM
HHU-77007

HIGH PRESSURE ALARM
HHU-77007

COMPRESSOR OIL HEATER
HHU-77007

NO MARK UP
AS COMMISSIONED: MARA GIRO Tn. 17/4/25

13.9A A.A — A.A 15.0A

KA30.4 30.6D — 14.1
KA30.5 35.6D PLC START — 14.2
KM2A 13.2B — 14.3
KA14.1 14.5B — 14.4
KA14.2 14.7B — 14.5
KA11.1 11.4B — 14.6
KT14.1 14.2B Delay/Ritardo — 14.7
PSL-77-401 p< — 128 XA1 — 129 XA1 — 14.7
KT14.2 14.4B Delay/Ritardo — 14.9
KA14.1 14.5B — 14.10
KA37.1 37.2D
PSH-77-401 p> — 126 XA1 — 127 XA1 — 14.11
KA14.2 14.7B — 14.12
KA37.1 37.2D
KM3A 14.4B — 14.13

HSS-77-402 — 110 XA1 — 111 XA1
KT14.1 120" — KM3A — KT14.2 10" — KA14.1 — KA14.2
HSS-77-404 — 112 XA1 — 113 XA1

13.9B B.A — B.A 15.0B

On-D 14.4B — On-D 14.5C

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

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

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

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.

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CLIENT: CROSSWIND

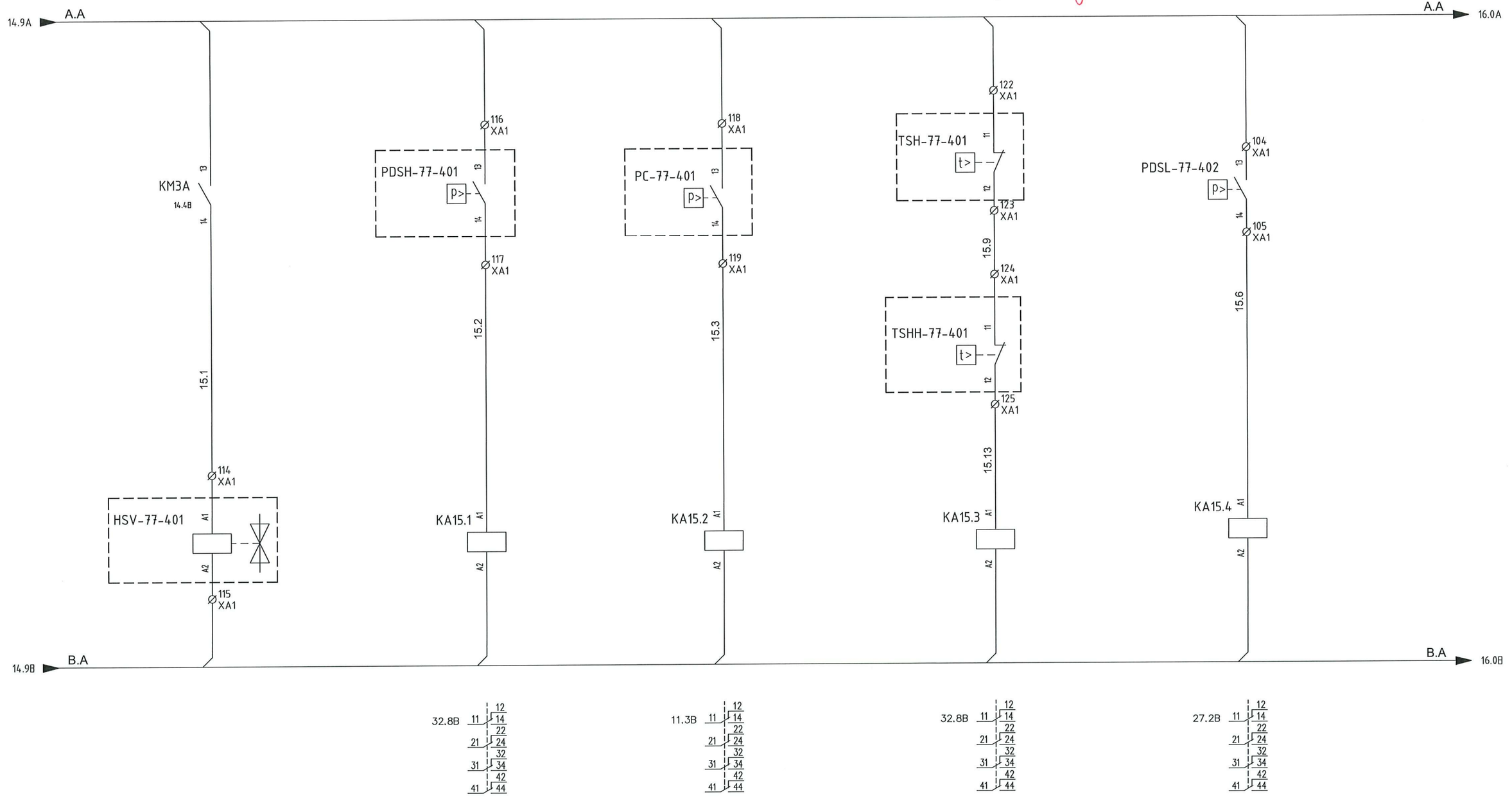
BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM
AUX SECTION A

ROSETTI MARINO — ALEXSISTEMI

1724000049-HV-DA-00029
FG. 14
F.S. 15

0	1	2	3	4	5	6	7	8	9
	SOLENOID VALVE HHU-77007		FILTER CLOGGED HHU-77007	CONDENSING PRESSURE SWITCH HHU-77007		ELECTRICAL HEATER SECURITY THERMOSTATE HHU-77007		PRESSURIZING FAN LOW PRESSURE SWITCH	

NO MARK UP AS COMMISSIONED: MATIA GIROTTI 17/4/25



RØV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.

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BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM
AUX SECTION A

ROSETTI MARINO | ALEXSISTEMI

1724000049-HV-DA-00029

FG. 15
F.S. 16

PANEL INTERNAL LIGHT

HHU-77007

PANEL FAN

HHU-77007

PANEL HEATER

HHU-77007

230V AUX VOLTAGE PRESENCE

HHU-77007

15.9A A.A

A.A /.1

PLS16.1 11 12 16.1

PFT16.1 13 14 16.2 t>

PHT16.1 13 14 16.3 t<

PL16.1 X1 X2

PF16.1 M 1~ A1

PH16.1

HL16.1 X1 X2 WH

15.9B B.A

B.A /.1

NO MARK UP

AS COMMISSIONED: M.M.A GIRON

17/4/25

05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.
REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.

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BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM

AUX SECTION A

ROSETTI MARINO | ALEXSISTEMI spa

1724000049-HV-DA-00029

FG. 16
F.S. 17

NO MARK UP
AS COMMISSIONED: MARIA GIROTTI.
17/4/25

HHU-77008
SECTION

RATED POWER: 15 kW
RATED CURRENT: 29.76 A

ABSORBED POWER: 10 kW
ABSORBED CURRENT: 18.3 A

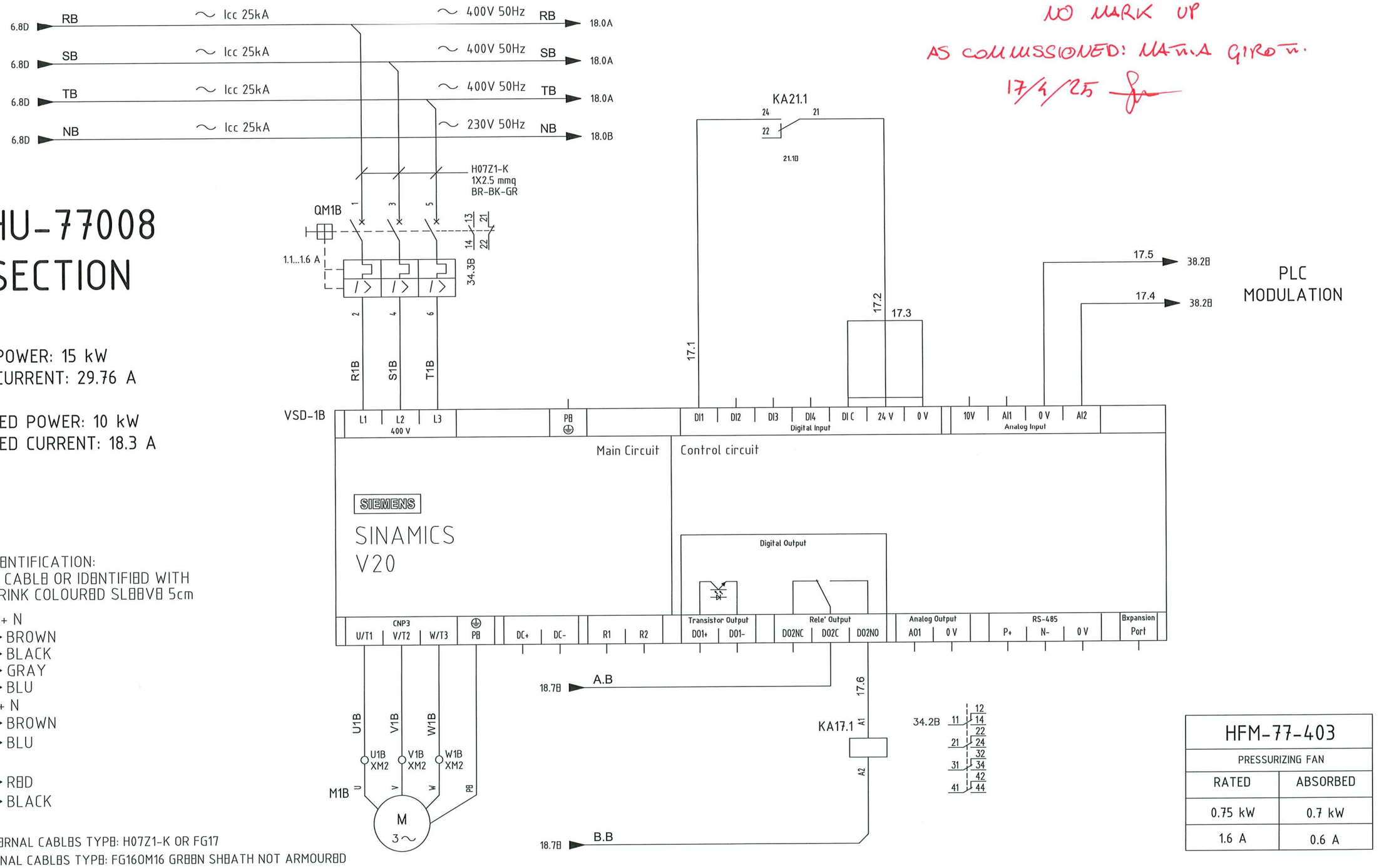
COLOR IDENTIFICATION:
COLORED CABLE OR IDENTIFIED WITH
HEAT SHRINK COLOURED SLEEVE 5cm

400V 3P + N
→ BROWN
→ BLACK
→ GRAY
→ BLU

230V 1P + N
→ BROWN
→ BLU

24Vdc
→ RED
→ BLACK

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



HFM-77-403	
PRESSURIZING FAN	
RATED	ABSORBED
0.75 kW	0.7 kW
1.6 A	0.6 A

REV.	MODIFICA	DATA	FIRMA		
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
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				APPR.	M.G.

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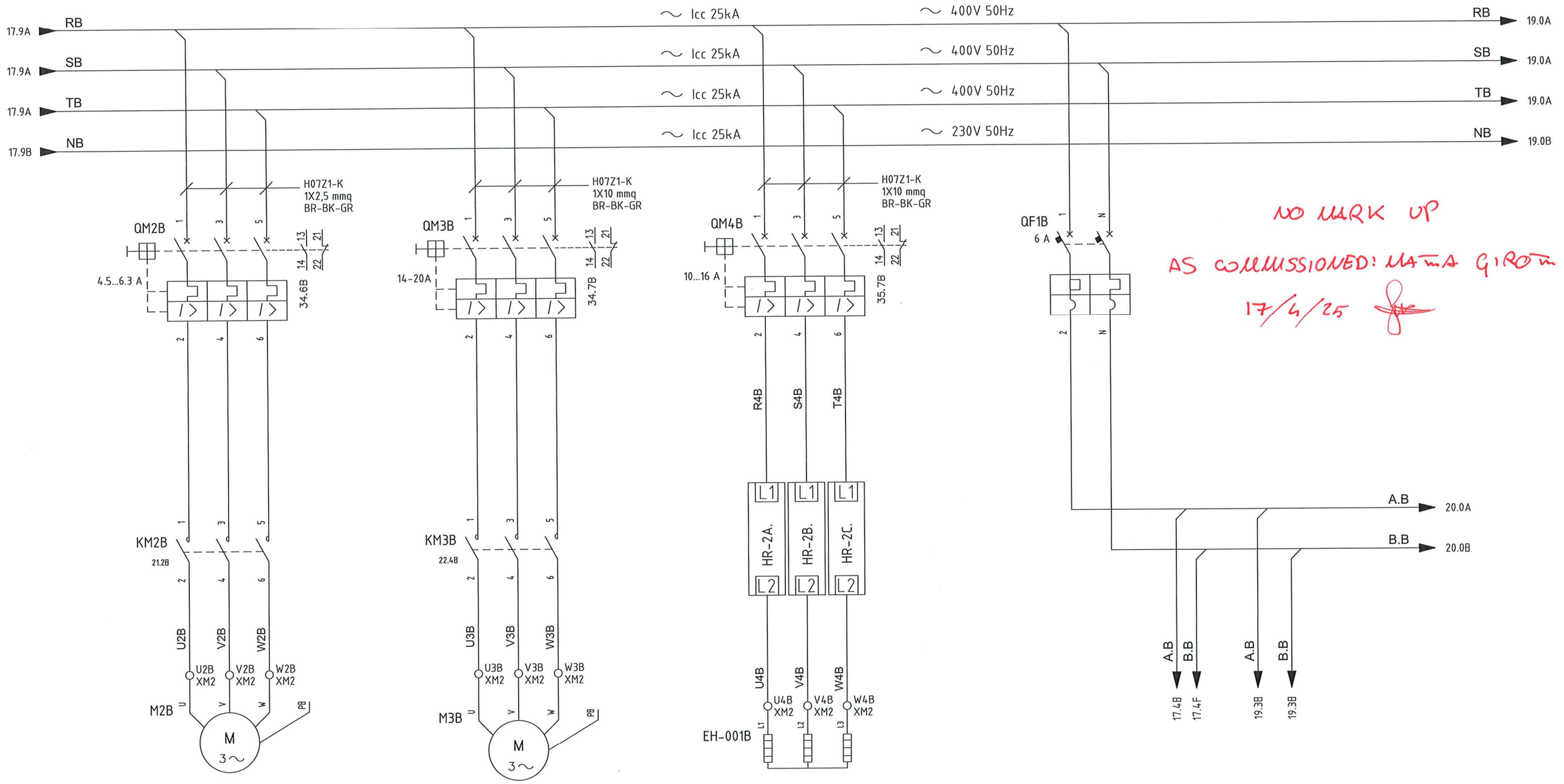
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BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM
POWER SECTION B

ROSETTI MARINO | ALEXSISTEMI spa

1724000049-HV-DA-00029

FG. 17
F.S. 18



NO MARK UP

AS COMMISSIONED: MATTIA GIROTTI

17/4/25

HFM-77-404	
SUPPLY FAN	
RATED	ABSORBED
3.00 kW	2.48 kW
6.33 A	4.21 A

HCO-77-402	
COMPRESSOR 1 A	
RATED	ABSORBED
9.80 kW	6.21 kW
16.8 A	11.5 A

HSS-77-405	
ELECTRICAL HEATER	
RATED	ABSORBED
9 kW	9 kW
13 A	13 A

REV.	MODIFICA	DATA	FIRMA	APPR.	
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
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03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.

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BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM
POWER SECTION B

ROSETTI MARINO | ALEXSISTEMI

1724000049-HV-DA-00029

FG. 18
F.S. 19

18.9A RB ~ Icc 25kA ~ 400V 50Hz RB /./

18.9A SB ~ Icc 25kA ~ 400V 50Hz SB /./

18.9A TB ~ Icc 25kA ~ 400V 50Hz TB /./

18.9B NB ~ Icc 25kA ~ 230V 50Hz NB /./

QM5B 1 3 5 13 21 14 22

2.2...3.2 A

2 4 6

R5B S5B T5B

KA23.2 14 12 11

23.4D

19.1 19.2 19.3 19.4

318 XA2 319 XA2

PTH-77-402

VSD-5B

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

18.7B A.B

19.5

KA19.1 A1 A2

18.8B B.B

22.2B 11 12 14

35.3B 21 22 24

31 32 34

41 42 44

U5B V5B W5B

U5B XM2 V5B XM2 W5B XM2

M5.1A U V W PB M 3~

M5.2A U V W PB M 3~

NO MARK UP

AS COMMISSIONED: MATTIA GIRETTI

17/4/25

HFM-77-407	
CONDENSER FAN 1	
RATED	ABSORBED
0.37 kW	0.35 kW
1 A	0.6 A

HFM-77-408	
CONDENSER FAN 2	
RATED	ABSORBED
0.37 kW	0.35 kW
1 A	0.6 A

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
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BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM

POWER SECTION B

ROSETTI MARINO | ALEXSISTEMI

1724000049-HV-DA-00029

FG. 19

F.S. 20

START / STOP
HHU-77008

MOTORISED DAMPER POWER SUPPLY

MOTORISED DAMPER OPEN SIGNAL
HHU-77008

MOTORISED DAMPER CLOSED SIGNA
HHU-77008

MOTORISED DAMPER NOT OPEN ALARM SIGNAL
HHU-77008

18.8D A.B

A.B 21.0A

KA30.6
35.7D
UNIT B
START FROM PLC

NO MARK UP
AS COMMISSIONED: MARA GIROTTI
17/4/25

KA20.3
20.7B

20.3

KA20.1
20.5B

KT20.1
60"

200 XMD2
201 XMD2
206 XMD2
207 XMD2
212 XMD2
213 XMD2
HDZ-77-404
HDZ-77-405
HDZ-77-406
M 1~

202 XMD2
203 XMD2
204 XMD2
205 XMD2
208 XMD2
209 XMD2
210 XMD2
211 XMD2
214 XMD2
215 XMD2
216 XMD2
217 XMD2
HDZ-77-404
HDZ-77-405
HDZ-77-406

KA20.1
KA20.2

KA20.3
20.7B

Delay/Ritardo
KT20.1
20.1B

KA37.2
37.3D

KA20.3

18.8D B.B

B.B 21.0B

On–D 20.7B

20.1C
21.1B
31.4B
21.2B

33.7B

20.1C
20.8B
33.6B

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
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BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM
AUX SECTION B

ROSETTI MARINO | ALEXSISTEMI

1724000049-HV-DA-00029

FG. 20
F.S. 21

0	1	2	3	4	5	6	7	8	9

PRESSURIZING FAN START / STOP
HHU-77008

SUPPLY AIR FAN START/STOP
HHU-77008

SUPPLY AIR FAN BROKEN BELT ALARM
HHU-77008

SUPPLY AIR FAN MOTOR HEATER
HHU-77008

PRESSURIZIN FAN OVERLOAD PROTECTION
HHU-77008

20.9A A.B → A.B 22.0A

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

KA20.1 20.5B — 41 / 44 / 42
21.3
KM2B A1 / A2

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

300 XA2
PDSL-77-402 — 13 / p> / 14
301 XA2
21.4
KA21.2 21.4B — 24 / 22
KA21.2 A1 / A2

Delay/Ritardo
KT21.1 21.3B — 21 / 22
KM2B 21.2B — 21 / 22
21.5

306 XA2
HSS-77-407
307 XA2

MTP-001B
A1/11
SIEMENS
+ / ϑ> / -
NC / NO
TRIPPED
T1 / T2 / A2 / 12 / 14
21.6 / 21.7
302 XA2 / 303 XA2
TE-77-402

21.8
KA21.3 A1 / A2

20.9B B.B → B.B 22.0B

17.5B: 11-12, 21-22, 24-24, 31-32, 34-34, 41-42, 44-44
18.1D 2-1
18.1D 4-3
18.1D 6-5
22.1B 14-13
34.4B 44-43
21.5B 22-21, 32-31
21.4B On-D
34.4B: 11-12, 14-22, 21-24, 31-32, 34-34, 41-42, 44-44
21.4C: 11-12, 14-22, 21-24, 31-32, 34-34, 41-42, 44-44
21.1C: 11-12, 14-22, 21-24, 31-32, 34-34, 41-42, 44-44
33.8B: 11-12, 14-22, 21-24, 31-32, 34-34, 41-42, 44-44

NO MARK UP
AS COMMISSIONED: MATTIA GIROTTI.
17/4/25

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.

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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM
AUX SECTION B

ROSETTI MARINO | ALEXSISTEMI s.p.a.

1724000049-HV-DA-00029
FG. 21
F.S. 22

0	1	2	3	4	5	6	7	8	9
PRESSURIZING FAN MOTOR HEATER HHU-77008		COMPRESSOR START/STOP HHU-77008			LOW PRESSURE ALARM HHU-77008		HIGH PRESSURE ALARM HHU-77008		COMPRESSOR OIL HEATER HHU-77008

NO MARK UP

AS COMMISSIONED: MARCO GIROTTI 17/4/25

21.9A A.B 23.0A

KA30.7 30.8D — KA30.8 30.9D — KM2B 21.2B — KA22.1 22.5B — KA22.2 22.7B — KA19.1 19.4B — KT22.1 22.2B Delay/Ritardo — PSL-77-402 — PSH-77-402 — KA22.1 22.5B — KA37.2 37.3D — KT22.2 22.4B Delay/Ritardo — KA22.2 22.7B — KA37.2 37.3D — KM3B 22.4B

308 XA2 — 309 XA2 — 324 XA2 — 325 XA2 — 326 XA2 — 327 XA2 — 310 XA2 — 311 XA2

HSS-77-406 — HSS-77-408

KT22.1 A1 120" A2 — KM3B A1 A2 — KT22.2 A1 10" A2 — KA22.1 A1 A2 — KA22.2 A1 A2

21.9B B.B 23.0B

On-D 14.4B — On-D 14.5C

18.3D 2 1 / 4 3 / 6 5
23.1B 14 13
34.7B 44 43
22.8B 22 21 / 32 31

22.2C 11 12 14
22.6B 21 22 24
35.2B 31 32 34
41 42 44

22.2D 11 12 14
22.8B 21 22 24
34.8B 31 32 34
41 42 44

REV.	MODIFICA	DATA	FIRMA	APPR.	
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.

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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM
AUX SECTION B

ROSETTI MARINO — ALEXSISTEMI

1724000049-HV-DA-00029

FG. 22
F.S. 23

0	1	2	3	4	5	6	7	8	9
	SOLENOID VALVE HHU-77008		FILTER CLOGGED HHU-77008	CONDENSING PRESSURE SWITCH HHU-77008		ELECTRICAL HEATER SECURITY THERMOSTATE HHU-77008		PRESSURIZING FAN LOW PRESSURE SWITCH	

NO MARK UP
AS COMMISSIONED: M.T.A GIROTTI 17/4/25

22.9A A.B — A.B 24.0A

KM3B 22.4B — 13 / 14 — 23.1

PDSH-77-403 p> — 314 XA2 / 13 / 14 / 315 XA2 — 23.2

PC-77-402 p> — 316 XA2 / 13 / 14 / 317 XA2 — 23.3

TSH-77-402 t> — 320 XA2 / 11 / 12 / 321 XA2 — 23.4

TSHH-77-402 t> — 322 XA2 / 11 / 12 / 323 XA2 — 23.5

PDSL-77-404 p> — 328 XA2 / 13 / 14 / 329 XA2 — 23.6

HSV-77-402 — A1 / A2 — 312 XA2 / 313 XA2

KA23.1 — A1 / A2

KA23.2 — A1 / A2

KA23.3 — A1 / A2

KA23.4 — A1 / A2

22.9B B.B — B.B 24.0B

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

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

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

27.5B — 11-12 / 21-22 / 31-32 / 41-42 / 14-24-34-44

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
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BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM
AUX SECTION B

ROSETTI MARINO — ALEXSISTEMI s.p.a.

1724000049-HV-DA-00029

FG. 23
F.S. 24

0	1	2	3	4	5	6	7	8	9

PANEL INTERNAL LIGHT
HHU-77008

PANEL FAN
HHU-77008

PANEL HEATER
HHU-77008

230V AUX VOLTAGE PRESENCE
HHU-77008

23.9A A.B

A.B /./

PLS24.1 11 12

PFT24.1 13 14 t>

PHT24.1 13 14 t<

PL24.1 X1 X2

PF24.1 M 1~ A1

PH24.1

HL24.1 X1 X2 WH

23.9B B.B

B.B /./

NO MARK UP
AS COMMISSIONED: M.A GIROTTI
17/4/25

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
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BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM
AUX SECTION B

ROSETTI MARINO | ALEXSISTEMI s.p.a.

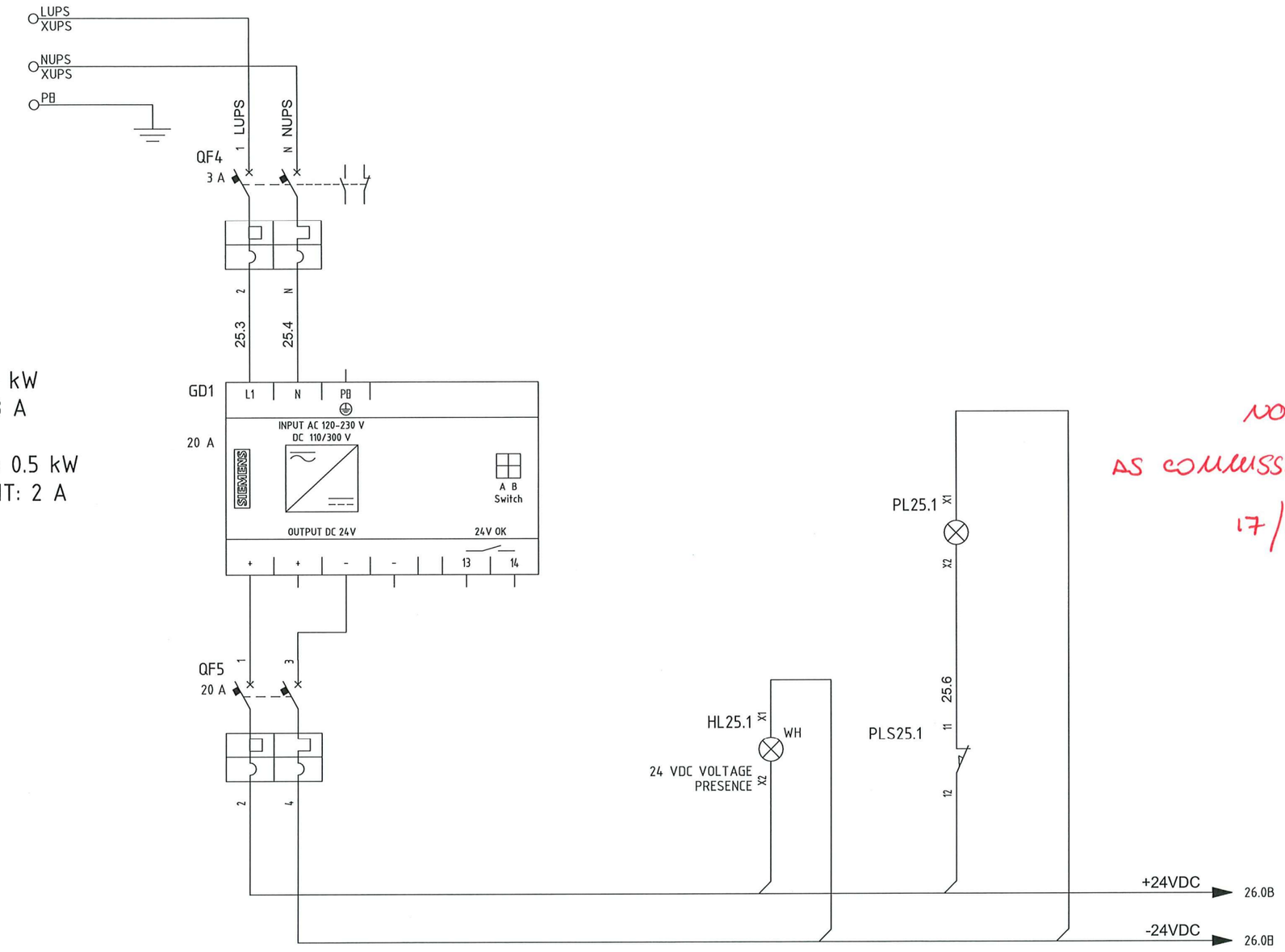
1724000049-HV-DA-00029

FG. 24
F.S. 25

POWER SUPPLY
FROM
AC UPS - PAS DB
1PH + N + PE
230V 50Hz
3G4
TAG DP200-F3

RATED POWER: 0.7 kW
RATED CURRENT: 3 A

ABSORBED POWER: 0.5 kW
ABSORBED CURRENT: 2 A



NO MARK UP
AS COMMISSIONED: MATTIA GIROTTI
17/4/25

REV.	MODIFICA	DATA	FIRMA	APPR.	
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
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				APPR.	M.G.

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BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM

UPS POWER SUPPLY

ROSETTI MARINO | ALEXSISTEMI s.p.

1724000049-HV-DA-00029

FG. 25
F.S. 26

0	1	2	3	4	5	6	7	8	9
SHUT DOWN FROM CUSTOMER SIS			PANEL EMERGENCY BUTTON LIGHT	HHS-77-010/11/12 SPACE HEATER START / STOP COMMAND	MODULE LIGHT	HPB-77-401 EMERGENCY POWER BUTTON HHU-77007	HPB-77-402 EMERGENCY POWER BUTTON HHU-77008	HPB-77-403 EMERGENCY POWER BUTTON B400-HSB-001	

25.7B +24VDC

+24VDC 26A.0A

24V DC
FROM SIS
B400-SIS-0901
1= OK
0= SHUT
DOWN

500 XC
26.1
KA26.1 A1
A2
26.2
501 XC

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

HPB-77-403 33 34
26.8B
26.3

KA30.9 11 14 12
30.3D
26.4

504 XC 506 XC
LIGHT
PUSH BUTTON
505 XC 507 XC
26.5

106 XA1
HPB-77-401 13 14
31.1B
107 XA1
26.6

304 XA2
HPB-77-402 13 14
33.5B
305 XA2
26.7

HPB-77-403 13 14
RD X1 X2
26.8

EPB-002L X1 RD X2
26.3

KM1 A1 A2
26.4

KA26.2 A1 A2
26.5

QFA C1 C2
6.6B U >
26.6

QFB C1 C2
6.8B U >
26.7

QS1 C1 C2
6.2B U >
26.8

25.7B -24VDC

-24VDC 26A.0B

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

NO MARK UP
AS COMMISSIONED: MARIA GIADA
17/4/25

REV.	MODIFICA	DATA	FIRMA	APPR.	
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.

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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-400 I&T EQUIPMENT ROOM
PLC SECTION

ROSETTI MARINO | ALEXSISTEMI

1724000049-HV-DA-00029

FG. 26
F.S. 26A

HFD-77012 CLOSED CONTACT

HFD-77013 CLOSED CONTACT

HFD-77014 CLOSED CONTACT

HFD-77015 CLOSED CONTACT

HFD-77016 CLOSED CONTACT

HFD-77012 OPEN CONTACT

HFD-77013 OPEN CONTACT

HFD-77014 OPEN CONTACT

HFD-77015 OPEN CONTACT

HFD-77016 OPEN CONTACT

26.9B +24VDC → +24VDC 27.0A

700 XFD, 702 XFD, 704 XFD, 706 XFD, 708 XFD, 710 XFD, 712 XFD, 714 XFD, 716 XFD, 718 XFD

HFD-77012 (11, 12, 13, 14) HFD-77012 (11, 12, 13, 14)

HFD-77013 (11, 12, 13, 14) HFD-77013 (11, 12, 13, 14)

HFD-77014 (11, 12, 13, 14) HFD-77014 (11, 12, 13, 14)

HFD-77015 (13, 14, 11, 12) HFD-77015 (13, 14, 11, 12)

HFD-77016 (13, 14, 11, 12) HFD-77016 (13, 14, 11, 12)

701 XFD, 703 XFD, 705 XFD, 707 XFD, 709 XFD, 711 XFD, 713 XFD, 715 XFD, 717 XFD, 719 XFD

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

26.9B -24VDC → -24VDC 27.0A

34.2B 11 12 14 22 21 24 44.2B

34.3B 11 12 14 22 21 24 44.3B

34.4B 11 12 14 22 21 24 44.5B

34.4B 11 12 14 22 21 24 44.6B

34.5B 11 12 14 22 21 24 44.8B

34.6B 11 12 14 22 21 24 44.2E

39B.2B 11 12 14 22 21 24 44.3E

39B.3B 11 12 14 22 21 24 44.5E

39B.4B 11 12 14 22 21 24 44.6E

39B.4B 11 12 14 22 21 24 44.8E

NO MARK UP

AS COMMISSIONED: MARIA GIROTTI 17/4/25

REV.	MODIFICA	DATA	FIRMA	APPR.	
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.
				APPR.	M.G.

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

CLIENT: CROSSWIND

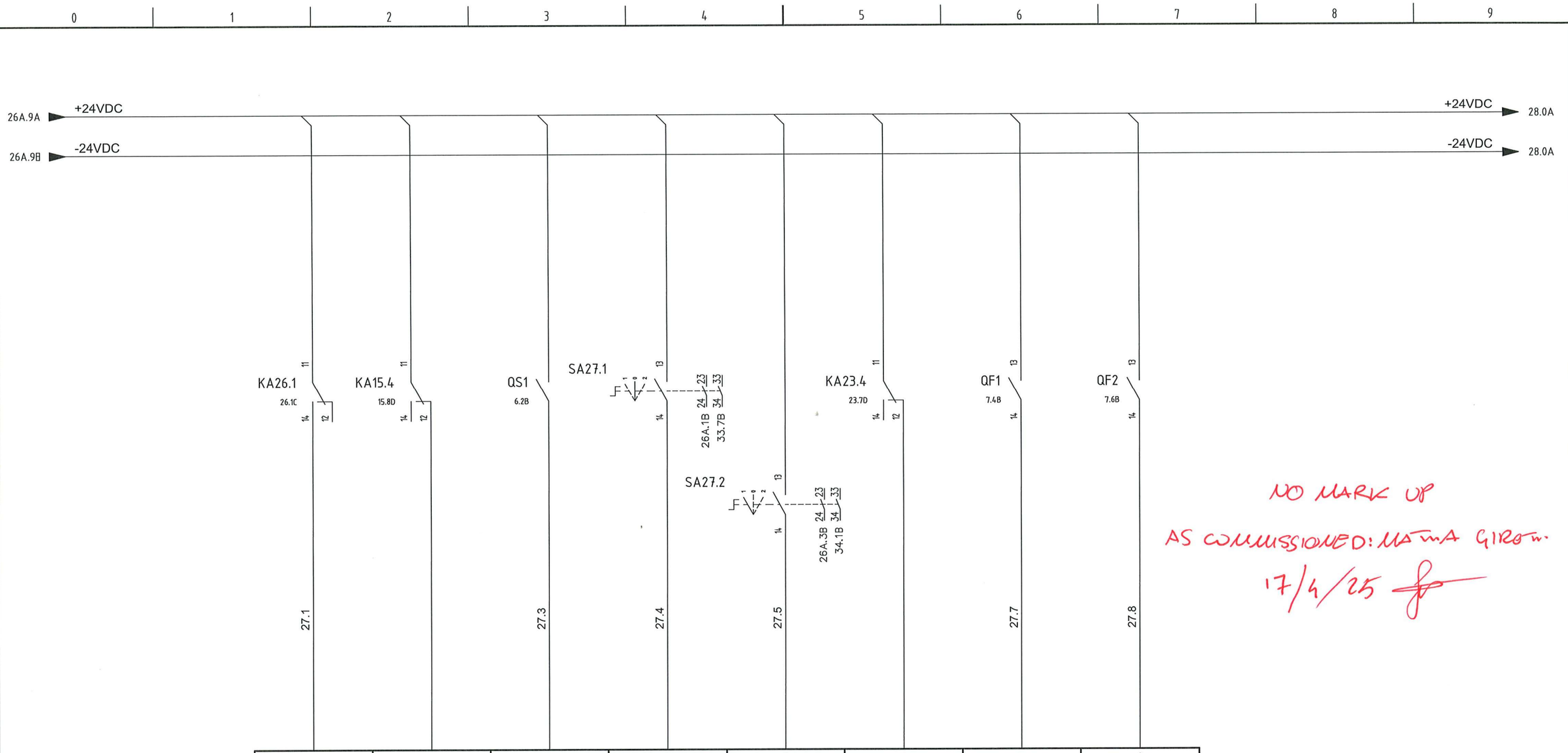
BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM

PLC SECTION
plc section

ROSETTI MARINO | ALEXSISTEMI s.p.a.

1724000049-HV-DA-00029

FG. 26A
F.S. 27



NO MARK UP

AS COMMISSIONED: MATTIA GIROTTI

17/4/25

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: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:
SHUT DOWN FROM SIS 0=SHUT DOWN 1= NORMAL	HHU-77007 PRESS FAN RUN 0=RUN 1 = STOP	MAIN BRAKER TRIP	HHU-77007 AUTOMATIC MODE 1=AUTOMATIC 0= NOT AUTOMATIC	HHU-77008 AUTOMATIC MODE 1=AUTOMATIC 0=NOT AUTOMATIC	HHU-77008 PRESS FAN RUN 0=RUN 1 = STOP	MODULE LIGHT TRIP	MODULE SOCKET TRIP

REV.	MODIFICA	DATA	FIRMA		
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.
				APPR.	M.G.

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CLIENT: CROSSWIND

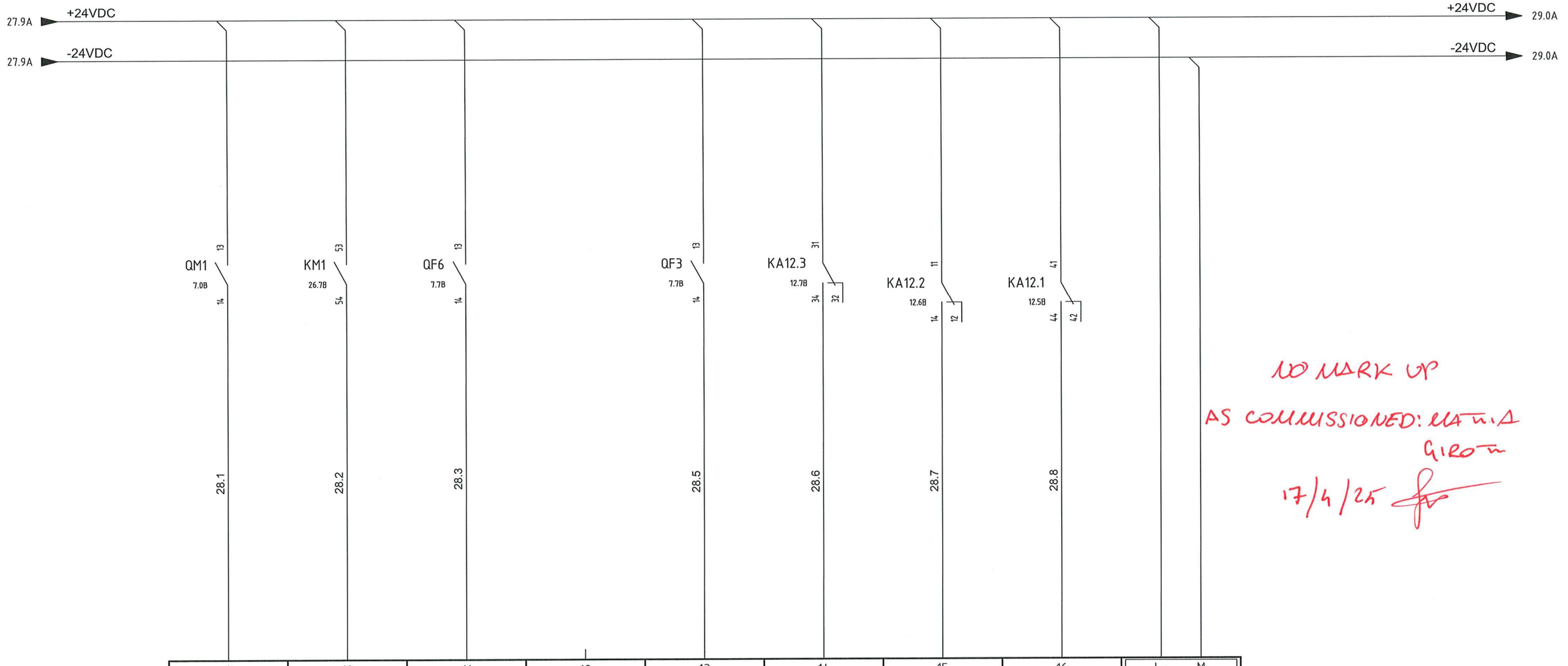
BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM

PLC SECTION

ROSETTI MARINO | ALEXSISTEMI s.p.

1724000049-HV-DA-00029

FG. 27
F.S. 28



9	10	11	12	13	14	15	16	L+ M
I1.0	I1.1	I1.2	I1.3	I1.4	I1.5	I1.6	I1.7	
CPU: QUADRO GENERALE MOD.: 4	CPU: QUADRO GENERALE MOD.: 4	CPU: QUADRO GENERALE MOD.: 4	CPU: QUADRO GENERALE MOD.: 4	CPU: QUADRO GENERALE MOD.: 4	CPU: QUADRO GENERALE MOD.: 4	CPU: QUADRO GENERALE MOD.: 4	CPU: QUADRO GENERALE MOD.: 4	CPU: QUADRO GENERALE MOD.: 4
Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:
HHS-77010/11/12 SPACE HEATER TRIP	HHS-77010/11/12 SPACE HEATER RUN SIGNAL	HEATING CABLE TRIP	SPARE	AUX SECTION TRIP	HHU-77007 MOTORISE DAMPER NOT OPEN FAULT	HHU-77007 MOTORISE DAMPER CLOSED	HHU-77007 MOTORISE DAMPER OPEN	

NO MARK UP
AS COMMISSIONED: MA M.A
GIROM
17/4/25

REV.	MODIFICA	DATA	FIRMA		
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.
				APPR.	M.G.

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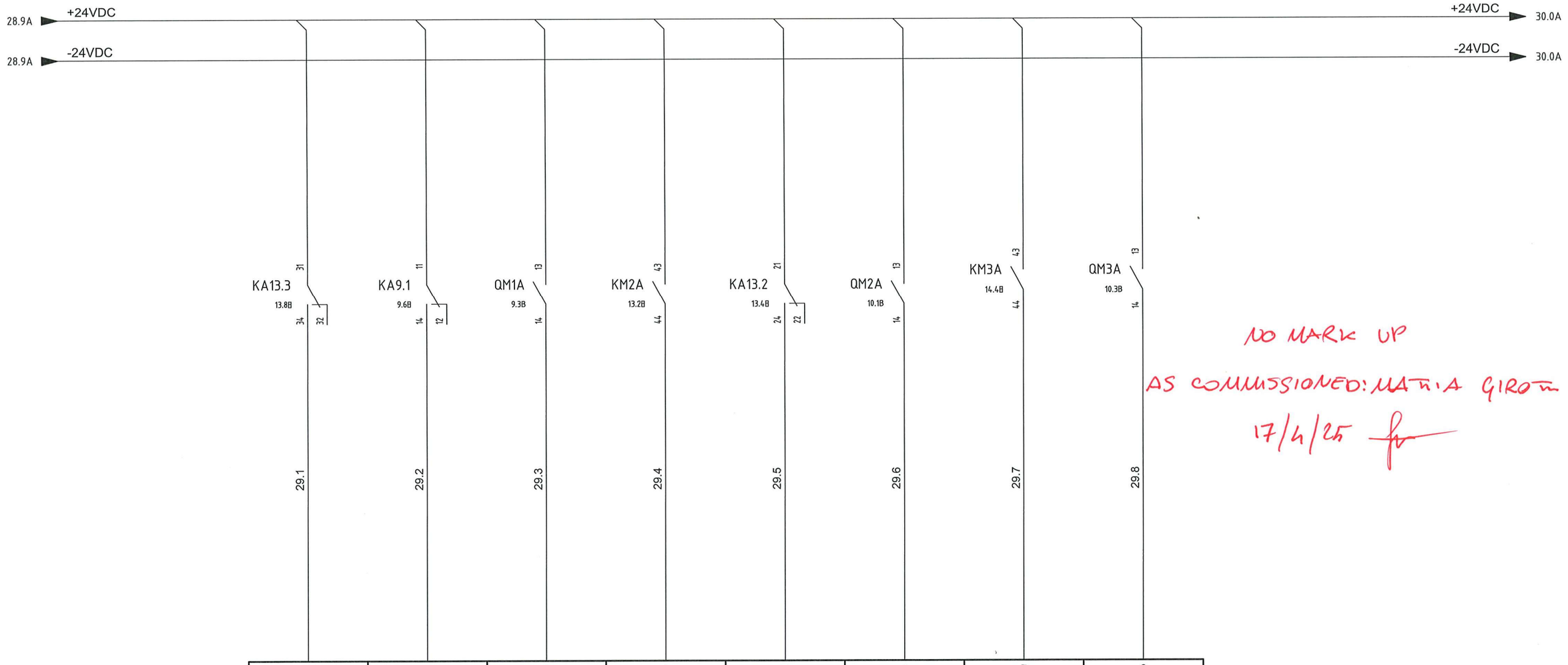
CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM
PLC SECTION

ROSETTI MARINO | ALEXSISTEMI

1724000049-HV-DA-00029

FG. 28
F.S. 29



NO MARK UP
AS COMMISSIONED: MATTIA GIROTTO
17/4/25

1	2	3	4	5	6	7	8
12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7
CPU: QUADRO GENERALE MOD.: 5	CPU: QUADRO GENERALE MOD.: 5	CPU: QUADRO GENERALE MOD.: 5	CPU: QUADRO GENERALE MOD.: 5	CPU: QUADRO GENERALE MOD.: 5	CPU: QUADRO GENERALE MOD.: 5	CPU: QUADRO GENERALE MOD.: 5	CPU: QUADRO GENERALE MOD.: 5
Name: A4 / Sheet:	Name: A4 / Sheet:	Name: A4 / Sheet:	Name: A4 / Sheet:	Name: A4 / Sheet:	Name: A4 / Sheet:	Name: A4 / Sheet:	Name: A4 / Sheet:
HHU-77007 PF-001A THERMIC PROT. RELAY	HHU-77007 PF-001A VSD-1A MALFUNCTION	HHU-77007 PF-001A TRIP	HHU-77007 SUPPLY FAN RUN SIGNAL	HHU-77007 SUPPLY FAN BROKEN BELT ALARM	HHU-77007 SUPPLY FAN TRIP	HHU-77007 COMPRESSOR RUNNING SIGNAL	HHU-77007 COMPRESSOR TRIP

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024

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S.p.186–Cornegliano Laud. (Lo) Italy
tel. 0039–0371–69076
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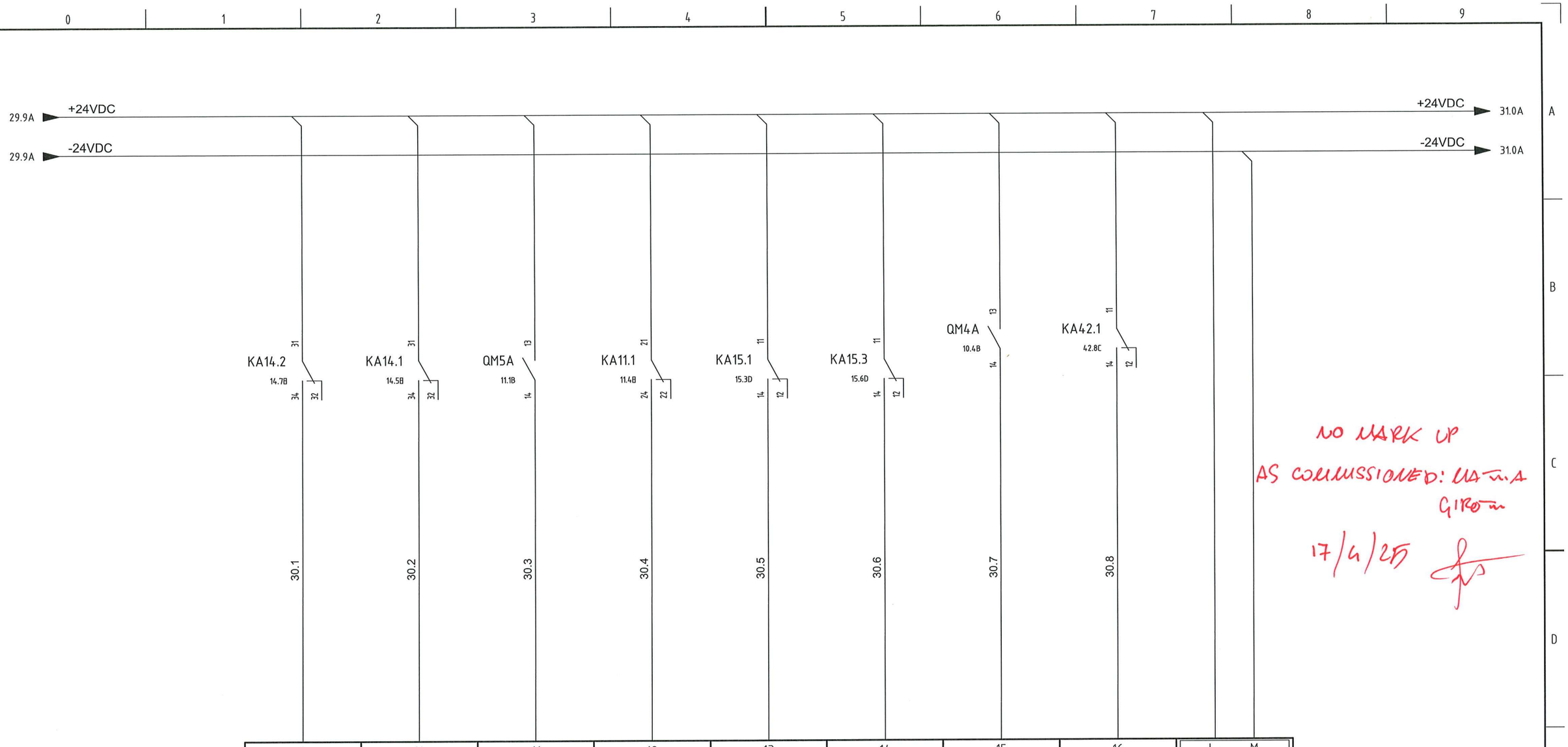
CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM
PLC SECTION

ROSETTI MARINO | ALEXSISTEMI

1724000049-HV-DA-00029

FG. 29
F.S. 30



9	10	11	12	13	14	15	16	L+ M
I3.0	I3.1	I3.2	I3.3	I3.4	I3.5	I3.6	I3.7	
CPU: QUADRO GENERALE MOD.: 5	CPU: QUADRO GENERALE MOD.: 5	CPU: QUADRO GENERALE MOD.: 5	CPU: QUADRO GENERALE MOD.: 5	CPU: QUADRO GENERALE MOD.: 5	CPU: QUADRO GENERALE MOD.: 5	CPU: QUADRO GENERALE MOD.: 5	CPU: QUADRO GENERALE MOD.: 5	CPU: QUADRO GENERALE MOD.: 5
Name: A4 / Sheet:	Name: A4 / Sheet:	Name: A4 / Sheet:	Name: A4 / Sheet:	Name: A4 / Sheet:	Name: A4 / Sheet:	Name: A4 / Sheet:	Name: A4 / Sheet:	Name: A4 / Sheet:
HHU-77007 COMPRESSOR HIGH PRESSURE ALARM	HHU-77007 COMPRESSOR LOW PRESSURE ALARM	HHU-77007 CONDENSER FAN TRIP	HHU-77007 CONDENSER FAN VSD-2A MALFUNCTION	HHU-77007 FILTER CLOGGED	HHU-77007 ELECTRICAL HEATER THERMOSTATE TRIP	HHU-77007 ELECTRICAL HEATER TRIP	HHU-77007 ELECTRICAL HEATER MODULATION FAULT	

NO MARK UP
AS COMMISSIONED: M.A.
GIRO
17/4/25

REV.	MODIFICA	DATA	FIRMA	APPR.	
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.

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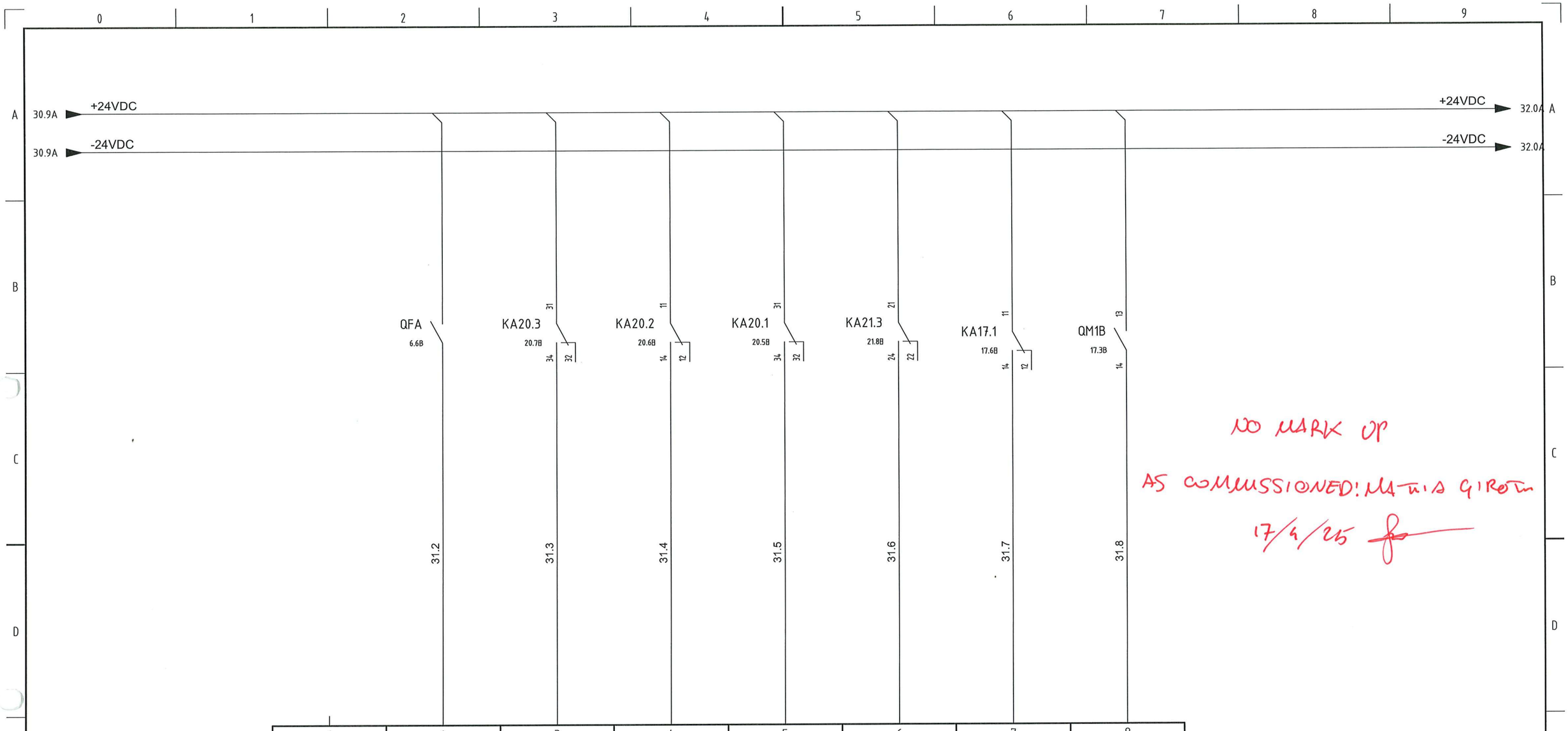
CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM
PLC SECTION

ROSETTI MARINO | ALEXSISTEMI s.p.s.

1724000049-HV-DA-00029

F.G. 30
F.S. 31



1	2	3	4	5	6	7	8
14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7
CPU: QUADRO GENERALE MOD.: 6	CPU: QUADRO GENERALE MOD.: 6	CPU: QUADRO GENERALE MOD.: 6	CPU: QUADRO GENERALE MOD.: 6	CPU: QUADRO GENERALE MOD.: 6	CPU: QUADRO GENERALE MOD.: 6	CPU: QUADRO GENERALE MOD.: 6	CPU: QUADRO GENERALE MOD.: 6
Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:
SPARE	HHU-77008 MAIN SWITCH OPEN	HHU-77008 MOTORISE DAMPER NOT OPEN	HHU-77008 MOTORISE DAMPER CLOSED	HHU-77008 MOTORISE DAMPER OPEN	HHU-77008 PF-001B THERMIC PROT. RELAY	HHU-77008 PF-001B VSD-1B MALFUNCTION	HHU-77008 PF-001B TRIP

NO MARK UP

AS COMMISSIONED: MATTIAS GIROTTI

17/4/25

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.

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

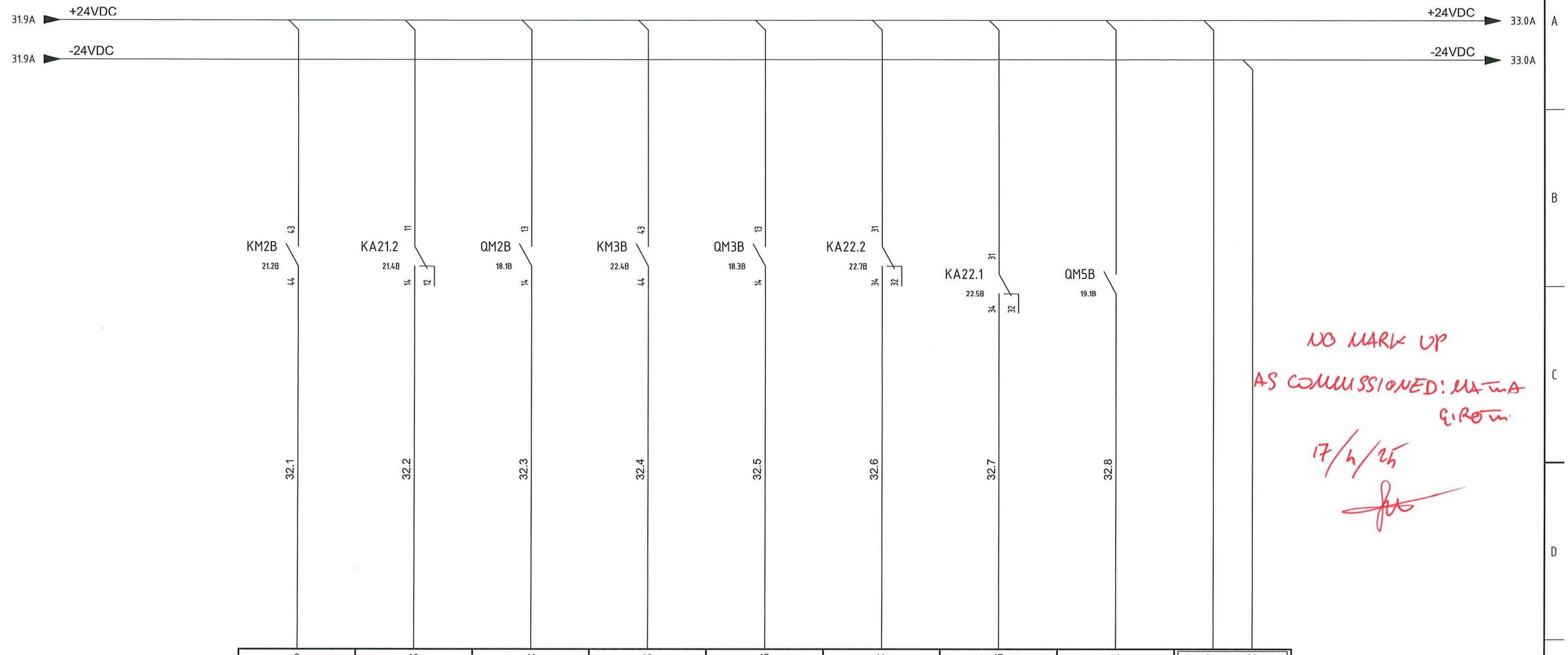
CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM
PLC SECTION

ROSETTI MARINO | ALEXSISTEMI s.p.a.

1724000049-HV-DA-00029

FG. 31
F.S. 32



9	10	11	12	13	14	15	16	L+ M
I5.0	I5.1	I5.2	I5.3	I5.4	I5.5	I5.6	I5.7	
CPU: QUADRO GENERALE MOD.: 6	CPU: QUADRO GENERALE MOD.: 6	CPU: QUADRO GENERALE MOD.: 6	CPU: QUADRO GENERALE MOD.: 6	CPU: QUADRO GENERALE MOD.: 6	CPU: QUADRO GENERALE MOD.: 6	CPU: QUADRO GENERALE MOD.: 6	CPU: QUADRO GENERALE MOD.: 6	CPU: QUADRO GENERALE MOD.: 6
Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:
HHU-77008 SUPPLY FAN RUN SIGNAL	HHU-77008 SUPPLY FAN BROKEN BELT ALARM	HHU-77008 SUPPLY FAN TRIP	HHU-77008 COMPRESSOR RUNNING SIGNAL	HHU-77008 COMPRESSOR TRIP	HHU-77008 COMPRESSOR HIGH PRESSURE ALARM	HHU-77008 COMPRESSOR LOW PRESSURE ALARM	HHU-77008 CONDENSER FAN TRIP	

NO MARK UP
AS COMMISSIONED: MATTIA GIROTTI
17/4/25

REV.					
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.
REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.

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HVAC SYSTEM and EQUIPMENT
S.p.186–Cornegliano Laud. (Lo) Italy
tel. 0039–0371–69076
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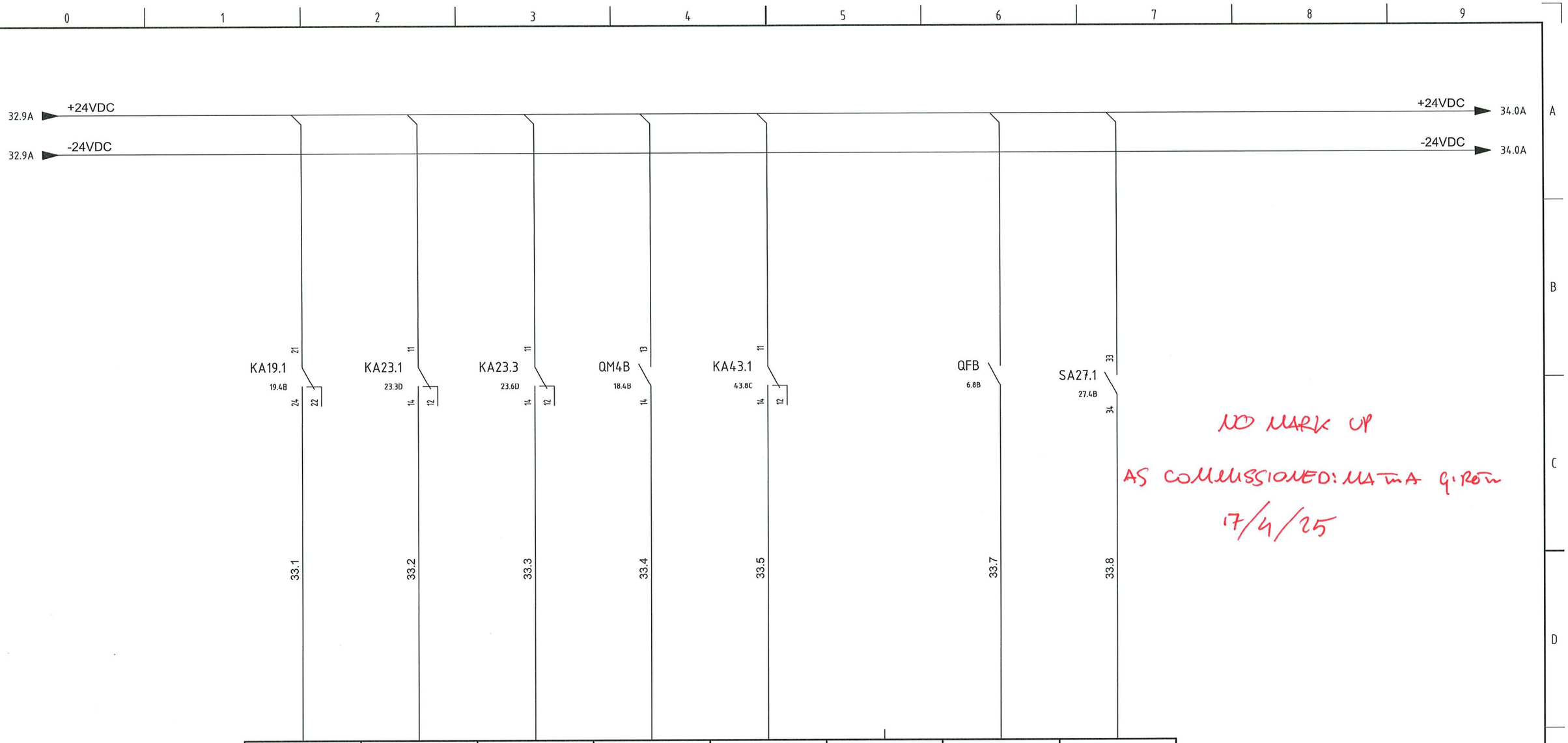
CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM
PLC SECTION

ROSETTI MARINO | ALEXSISTEMI

1724000049-HV-DA-00029

FG. 32
F.S. 33



NO MARK UP

AS COMMISSIONED: MATMA 9.ROTH

17/4/25

1	2	3	4	5	6	7	8
16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7
CPU: QUADRO GENERALE MOD.: 7	CPU: QUADRO GENERALE MOD.: 7	CPU: QUADRO GENERALE MOD.: 7	CPU: QUADRO GENERALE MOD.: 7	CPU: QUADRO GENERALE MOD.: 7	CPU: QUADRO GENERALE MOD.: 7	CPU: QUADRO GENERALE MOD.: 7	CPU: QUADRO GENERALE MOD.: 7
Name: A6 / Sheet:	Name: A6 / Sheet:	Name: A6 / Sheet:	Name: A6 / Sheet:	Name: A6 / Sheet:	Name: A6 / Sheet:	Name: A6 / Sheet:	Name: A6 / Sheet:
HHU-77008 CONDENSER FAN VSD-2A MALFUNCTION	HHU-77008 FILTER CLOGGED	HHU-77008 ELECTRICAL HEATER THERMOSTATE TRIP	HHU-77008 ELECTRICAL HEATER TRIP	HHU-77008 ELECTRICAL HEATER MODULATION FAULT	SPARE	HHU-77008 MAIN SWITCH OPEN	HHU-77007 MANUAL MODE 0=NOT MANUAL 1= MANUAL

REV.	MODIFICA	DATA	FIRMA			
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024	
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.	
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.	
				APPR.	M.G.	

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HVAC SYSTEM and EQUIPMENT
S.p.186–Cornegliano Laud. (Lo) Italy
tel. 0039–0371–69076
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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM

PLC SECTION

ROSETTI MARINO | ALEXSISTEMI s.p.a.

1724000049-HV-DA-00029

FG. 33
F.S. 34

33.9A +24VDC

33.9A -24VDC

+24VDC 35.0C

-24VDC 35.0D

SA27.2 (27.4C) — 33 / 34 — 34.1

KA26A.1 (26A.1B) — 11 / 14 / 12 — 34.2

KA26A.2 (26A.2B) — 11 / 14 / 12 — 34.3

KA26A.3 (26A.3B) — 11 / 14 / 12 — 34.4

KA26A.4 (26A.3B) — 11 / 14 / 12 — 34.5

KA26A.5 (26A.4B) — 11 / 14 / 12 — 34.6

KA26A.6 (26A.5B) — 11 / 14 / 12 — 34.7

NO MARK UP
AS COMMISSIONED! MATTIA GIROTTI
17/4/25

9	10	11	12	13	14	15	16	L+ M
17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	
CPU: QUADRO GENERALE MOD.: 7	CPU: QUADRO GENERALE MOD.: 7	CPU: QUADRO GENERALE MOD.: 7	CPU: QUADRO GENERALE MOD.: 7	CPU: QUADRO GENERALE MOD.: 7	CPU: QUADRO GENERALE MOD.: 7	CPU: QUADRO GENERALE MOD.: 7	CPU: QUADRO GENERALE MOD.: 7	CPU: QUADRO GENERALE MOD.: 7
Name: A6 Sheet:	Name: A6 Sheet:	Name: A6 Sheet:	Name: A6 Sheet:	Name: A6 Sheet:	Name: A6 Sheet:	Name: A6 Sheet:	Name: A6 Sheet:	Name: A6 Sheet:
HHU-77008 MANUAL MODE 0= NOT MANUAL 1= MANUAL	HFD-77012 CLOSE CONTACT 0= NOT CLOSED 1= CLOSED	HFD-77012 OPEN CONTACT 0=NOT OPEN 1= OPEN	HFD-77013 CLOSE CONTACT 0= NOT CLOSE 1= CLOSE	HFD-77013 OPEN CONTACT 0=NOT OPEN 1= OPEN	HFD-77014 CLOSE CONTACT 0= NOT CLOSE 1= CLOSE	HFD-77014 OPEN CONTACT 0=NOT CLOSE 1= CLOSE		

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.

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

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BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM
PLC SECTION

ROSETTI MARINO | ALEXSISTEMI s.r.l.

1724000049-HV-DA-00029

FG. 34
F.S. 35

HVAC MALFUNCTION		SPARE		HHS-77010/11/12 SPACE HEATER START SIGNAL		SPARE		HHU-77007 HVAC UNIT A START SIGNAL		HHU-77007 PF-001A MOTOR HEATER		HHU-77007 COMPRESSOR START SIGNAL		HHU-77008 HVAC UNIT B START SIGNAL	
Name: A7	Sheet:	Name: A7	Sheet:	Name: A7	Sheet:	Name: A7	Sheet:	Name: A7	Sheet:	Name: A7	Sheet:	Name: A7	Sheet:	Name: A7	Sheet:
CPU: QUADRO GENERALE MOD.: 8		CPU: QUADRO GENERALE MOD.: 8		CPU: QUADRO GENERALE MOD.: 8		CPU: QUADRO GENERALE MOD.: 8		CPU: QUADRO GENERALE MOD.: 8		CPU: QUADRO GENERALE MOD.: 8		CPU: QUADRO GENERALE MOD.: 8		CPU: QUADRO GENERALE MOD.: 8	
Q0.0		Q0.1		Q0.2		Q0.3		Q0.4		Q0.5		Q0.6		Q0.7	
1		2		3		4		5		6		7		8	

35.1 35.3 35.5 35.6 35.7 35.8

34.9A +24VDC → +24VDC 36.0C

34.9A -24VDC → -24VDC 36.0D

KA30.1 A1 A2

KA30.9 A1 A2

KA30.3 A1 A2

KA30.4 A1 A2

KA30.5 A1 A2

KA30.6 A1 A2

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

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

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

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

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

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

NO MARK UP

AS COMMISSIONED: M.T.A

GIROTTO

17/4/25

REV.	MODIFICA	DATA	FIRMA	APPR.	
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	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-400 I&T EQUIPMENT ROOM
PLC SECTION

ROSETTI MARINO | ALEXSISTEMI s.p.a.

1724000049-HV-DA-00029

FG. 35
F.S. 36

HHU-77008 PF-001B MOTOR HEATER		HHU-77008 COMPRESSOR START SIGNAL		HVAC UNIT A / B ALARM RESET													
Name: A7	Sheet:	Name: A7	Sheet:	Name: A7	Sheet:	Name: A7	Sheet:	Name: A7	Sheet:	Name: A7	Sheet:	Name: A7	Sheet:	Name: A7	Sheet:	Name: A7	Sheet:
CPU: QUADRO GENERALE MOD. : 8		CPU: QUADRO GENERALE MOD. : 8		CPU: QUADRO GENERALE MOD. : 8		CPU: QUADRO GENERALE MOD. : 8		CPU: QUADRO GENERALE MOD. : 8		CPU: QUADRO GENERALE MOD. : 8		CPU: QUADRO GENERALE MOD. : 8		CPU: QUADRO GENERALE MOD. : 8		CPU: QUADRO GENERALE MOD. : 8	
Q0.8		Q0.9		Q0.10		Q0.11		Q0.12		Q0.13		Q0.14		Q0.15			
9		10		11		12		13		14		15		16		L+	M

36.1 36.2 36.3

35.9C +24VDC → 37.0A +24VDC

35.9D -24VDC → 37.0A -24VDC

KA30.7 (A1 / A2)

KA30.8 (A1 / A2)

KA37.1 (A1 / A2) ALARM RESET RELAY

KA37.2 (A1 / A2)

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

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

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

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

NO MARK UP

AS COMMISSIONED: MARK GIROTTO

17/4/25

REV.	MODIFICA	DATA	FIRMA	APPR.	
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.

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

BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM

PLC SECTION

ROSETTI MARINO | ALEXSISTEMI

1724000049-HV-DA-00029

FG. 36
F.S. 37

36.9C +24VDC

36.9D -24VDC

+24VDC 38.0A

-24VDC 38.0A

ROOM TEMPERATURE TRANSM. 4-20mA
77-TT-401
- + S
606 XT 607 XT 608 XT

ROOM TEMPERATURE TRANSM. 4-20 mA
77-TT-402
- + T
600 XT 601 XT 602 XT

DIFFERENTIAL PRESS. TRANSM. 4-20ma
77-PT-401
- + T
603 XT 604 XT 605 XT

TEMPERATURE TRANSM. 4-20 mA
77-TT-403
- + T
609 XT 610 XT

37.1 37.2 37.3 37.4 37.5

1 5 9 13	2 6 10 14	3 7 11 15	4 8 12 16	L+ M
AI0.0	AI0.1	AI0.2	AI0.3	
CPU: QUADRO GENERALE MOD.: 9	CPU: QUADRO GENERALE MOD.: 9	CPU: QUADRO GENERALE MOD.: 9	CPU: QUADRO GENERALE MOD.: 9	CPU: QUADRO GENERALE MOD.: 9
Name: A8 / Sheet:	Name: A8 / Sheet:	Name: A8 / Sheet:	Name: A8 / Sheet:	Name: A8 / Sheet:
77-TT-401 TEMPERATURE TRANSM 4-20mA	77-TT-402 TEMPERATURE TRANSM 4-20mA	77-PT-401 DIFFERENTIAL PRESS. TRANSMITTER 4-20mA	77-TT-403 TEMPERATURE TRANSM 4-20 mA	

NO MARK UP
AS COMMISSIONED: MMA GIROTTI
17/4/25

REV.	MODIFICA	DATA	FIRMA
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.

DATA 22/04/2024
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-400 I&T EQUIPMENT ROOM
PLC SECTION

ROSETTI MARINO ALEXSISTEMI s.r.l.

1724000049-HV-DA-00029

FG. 37
F.S. 38

37.9A +24VDC

37.9A -24VDC

+24VDC 39.0A

-24VDC 39.0A

HHU-77007 PF-001A VSD MODULATION		HHU-77008 PF-001B VSD MODULATION		HHU-77007 ELECTRICAL HEATER MODULATION		HHU-77008 ELECTRICAL HEATER MODULATION			
Name: A9	Sheet:	Name: A9	Sheet:	Name: A9	Sheet:	Name: A9	Sheet:	Name: A9	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

9.8B 9.4

9.8C 9.5

17.8B 17.5

17.8C 17.4

42.8D 40.1

42.8D 40.2

43.8D 40.3

43.8D 40.4

NO MARK UP

AS COMMISSIONED: MATTIA GIROTTO

17/4/25

REV.	MODIFICA	DATA	FIRMA	APPR.	
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DESIGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.

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

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM

PLC SECTION

ROSETTI MARINO | ALEXSISTEMI s.p.i.

1724000049-HV-DA-00029

FG. 38
F.S. 39

38.9A +24VDC

38.9A -24VDC

+24VDC 40.0B

-24VDC 40.0F

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

NO MARK UP
AS COMMISSIONED: MARIA GIROTTI
17/4/25

REV.	MODIFICA	DATA	FIRMA	APPR.	
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.

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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-400 I&T EQUIPMENT ROOM
PLC SECTION

ROSETTI MARINO | ALEXSISTEMI s.p.a.

1724000049-HV-DA-00029

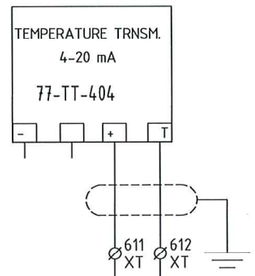
FG. 39
F.S. 39A

38.9A +24VDC

38.9A -24VDC

+24VDC 40.0B

-24VDC 40.0F



NO MARK UP

AS COMMISSIONED: MA-A

GIROM

17/4/25

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.: 12	CPU: QUADRO GENERALE MOD.: 12	CPU: QUADRO GENERALE MOD.: 12	CPU: QUADRO GENERALE MOD.: 12	CPU: QUADRO GENERALE MOD.: 12
Name: A11 / Sheet:	Name: A11 / Sheet:	Name: A11 / Sheet:	Name: A11 / Sheet:	Name: A11 / Sheet:
TT-004 TEMPERATURE TRANSM 4-20mA	SPARE	SPARE	SPARE	

REV.	MODIFICA	DATA	FIRMA	APPR.	
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DESIGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.

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

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM

PLC SECTION

ROSETTI MARINO | ALEXSISTEMI s.p.a.

1724000049-HV-DA-00029

FG. 39A

F.S. 39B

38.9A +24VDC

38.9A -24VDC

+24VDC 40.0B

-24VDC 40.0F

KA26A.7 — 11 — 14 — 12 — 26A.6B

KA26A.8 — 11 — 14 — 12 — 26A.7B

KA26A.9 — 11 — 14 — 12 — 26A.7B

KA26A.10 — 11 — 14 — 12 — 26A.8B

NO MARK UP

AS COMMISSIONED: MAMA GIROM

17/4/25

1	2	3	4	5	6	7	8
18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7
CPU: QUADRO GENERALE MOD.: 13	CPU: QUADRO GENERALE MOD.: 13	CPU: QUADRO GENERALE MOD.: 13	CPU: QUADRO GENERALE MOD.: 13	CPU: QUADRO GENERALE MOD.: 13	CPU: QUADRO GENERALE MOD.: 13	CPU: QUADRO GENERALE MOD.: 13	CPU: QUADRO GENERALE MOD.: 13
Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:
HFD-77015 CLOSE CONTACT 0= NOT CLOSED 1= CLOSED	HFD-77015 OPEN CONTACT 0=NOT OPEN 1= OPEN	HFD-77016 CLOSE CONTACT 0= NOT CLOSE 1= CLOSE	HFD-77016 OPEN CONTACT 0=NOT OPEN 1= OPEN	SPARE *spare*	SPARE *spare*	SPARE *spare*	SPARE *spare*

REV.	MODIFICA	DATA	FIRMA	APPR.	
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.

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

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM

PLC SECTION
plc section

ROSETTI MARINO — ALEXSISTEMI

1724000049-HV-DA-00029

F.G. 39B
F.S. 39C

38.9A +24VDC → +24VDC 40.0B

38.9A -24VDC → -24VDC 40.0F

NO MARK UP
AS COMMISSIONED: MATIAS GIROTTI.
17/4/25

9	10	11	12	13	14	15	16	L+ M
19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	
CPU: QUADRO GENERALE MOD. : 13	CPU: QUADRO GENERALE MOD. : 13	CPU: QUADRO GENERALE MOD. : 13	CPU: QUADRO GENERALE MOD. : 13	CPU: QUADRO GENERALE MOD. : 13	CPU: QUADRO GENERALE MOD. : 13	CPU: QUADRO GENERALE MOD. : 13	CPU: QUADRO GENERALE MOD. : 13	CPU: QUADRO GENERALE MOD. : 13
Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:	Name: / Sheet:
SPARE *spare*	SPARE *spare*	SPARE *spare*	SPARE *spare*	SPARE *spare*	SPARE *spare*	SPARE *spare*	SPARE *spare*	

REV.	MODIFICA	DATA	FIRMA		
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DESIGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	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-400 I&T EQUIPMENT ROOM

PLC SECTION
plc section

ROSETTI MARINO | ALEXSISTEMI spa

1724000049-HV-DA-00029

FG. 39C
F.S. 40

A1

SIEMENS

SIMATIC HMI

TOUCH

12"

X1 P1 PROFINBT

X1 P2 PROFINBT

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 PROFINBT

X1 P2 R PROFINBT

X1 P1 R PROFINBT

X1 P2 R PROFINBT

TO PAGE 41

D1

D2

SIEMENS

RUN

SIMATIC S7-1500

ESC OK

L+

M

L+

M

DC 24V (X80)

DC 24V (X80)

DC 24V (X80)

L+ 1

M 2

FG

NO MARK UP

AS COMMISSIONED: MATTIA GIROTTI

17/4/25

39.9A +24VDC

39.9A -24VDC

+24VDC 41.0B

-24VDC 41.0F

REV.	MODIFICA	DATA	FIRMA	APPR.	
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.

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HVAC SYSTEM and EQUIPMENT
S.p.186–Cornegliano Laud. (Lo) Italy
tel. 0039–0371–69076
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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM

PLC SECTION

ROSETTI MARINO | ALEXSISTEMI spa

1724000049-HV-DA-00029

FG. 40

F.S. 41

FROM PAGE 40

CABLE 4

CABLE 5

CABLE 1

CABLE 2

MODBUS TCP/P TO CLIENT

RJ45 CONNECTION IN TERMINAL STRIP

X1 — RJ45 — PROFINET IO - Port 1 RJ45

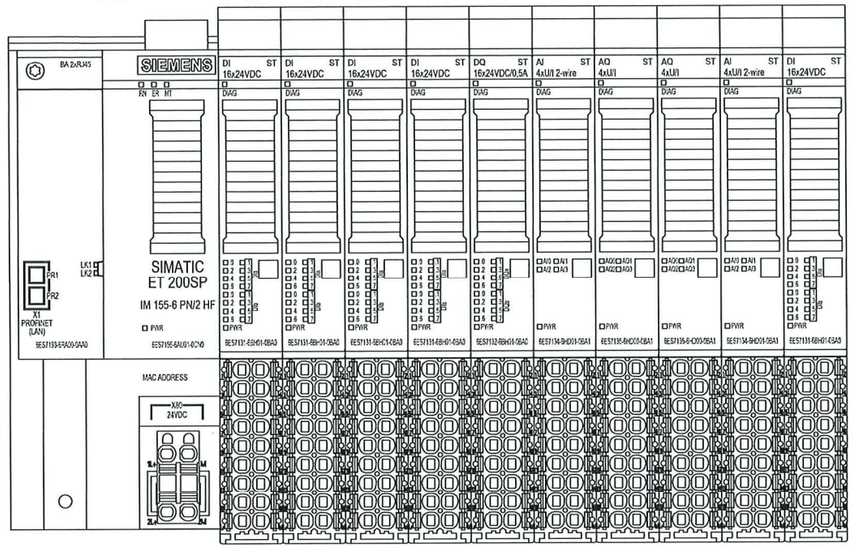
1	TD
2	TD_N
3	RD
4	GND
5	GND
6	RD_N
7	GND
8	GND

X2 — RJ45 — PROFINET IO - Port 2 RJ45

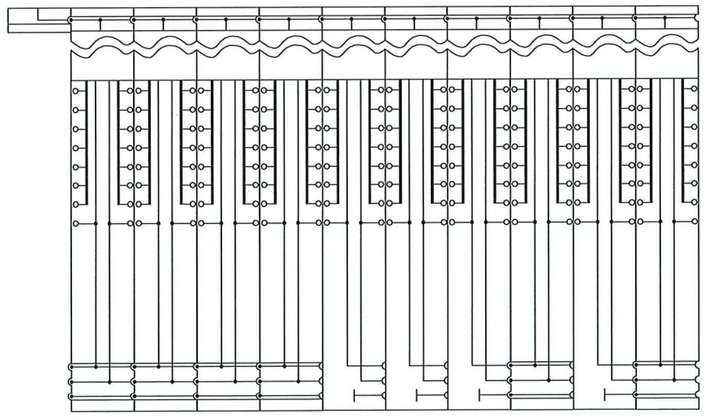
1	TD
2	TD_N
3	RD
4	GND
5	GND
6	RD_N
7	GND
8	GND

1L+	DC 24 V
2L+	
1M	
2M	

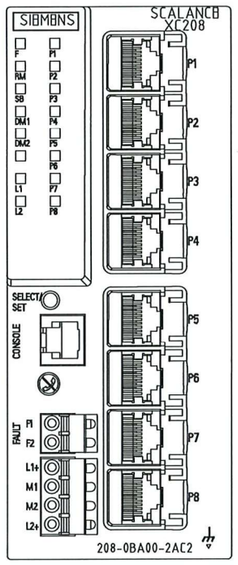
A2 A3 A4 A5 A6 A7 A8 A9 A10 A11 A12



NO MARK UP
AS COMMISSIONED. MATMA GIROM
17/4/25



A12



P1	LAN
P2	LAN
P3	LAN
P4	LAN
P5	LAN
P6	LAN
P7	LAN
P8	LAN

1	F1
2	F2

1	L1+	DC 24V
2	M1	
3	M2	
4	L2+	

40.9B +24VDC → +24VDC 42.0A

40.9F -24VDC → -24VDC 42.0A

REV.	MODIFICA	DATA	FIRMA		
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	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-400 I&T EQUIPMENT ROOM
PLC ARCHITECTURE

ROSETTI MARINO — ALEXSISTEMI s.p.a.

1724000049-HV-DA-00029

FG. 41
F.S. 42

41.9B +24VDC

41.9F -24VDC

+24VDC 43.0A

-24VDC 43.0A

42.1

42.2

1/L1

HR-1A

9 AL
8 A2
7 A2
6 A1
5 D1
4 US
3 A2

GRP 3

2/T1

1/L1

HR-1B

9 AL
8 A2
7 A2
6 A1
5 D1
4 US
3 A2

GRP 3

2/T1

1/L1

HR-1C

19 AL
18 AL
17 D17
16 A2
15 A-
14 A+
13 D13
12 US
11 A2

GRM 1

2/T1

3/L2

FU42.1 TA.1 1 2

11.9A RA

KA42.1 A1 A2

33.2B 11-12 14 21-22 24 31-32 34 41-42 44

40.1 38.4D

40.2 38.4D

NO MARK UP

AS COMMISSIONED: MATTIA GIROTTO 17/4/25

RBV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.

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

CLIENT: CROSSWIND

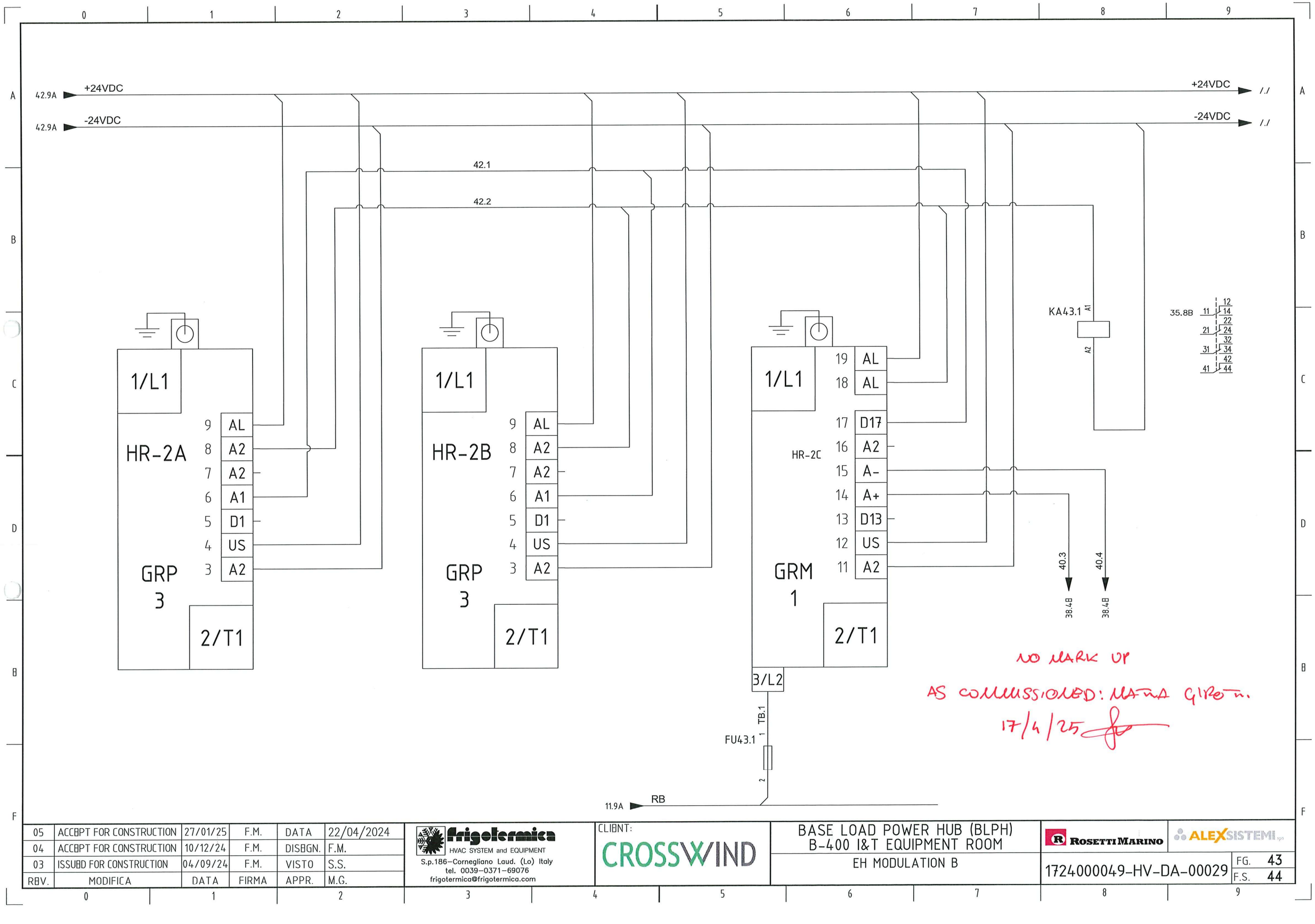
BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM

EH MODULATION A

ROSETTI MARINO | ALEXSISTEMI s.r.l.

1724000049-HV-DA-00029

FG. 42
F.S. 43



REV.	MODIFICA	DATA	FIRMA	APPR.	
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.

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

CLIENT: CROSSWIND

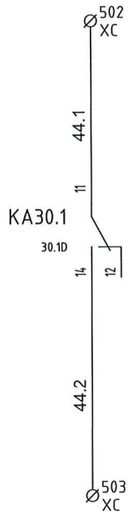
BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM
EH MODULATION B

ROSETTI MARINO | ALEXSISTEMI s.p.r.

1724000049-HV-DA-00029

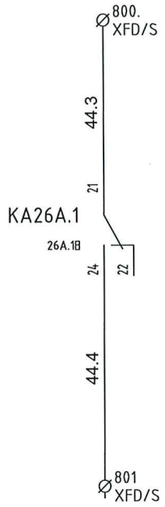
FG. 43
F.S. 44

AVAILABLE SIGNAL
GENERAL FAULT
TO SIS

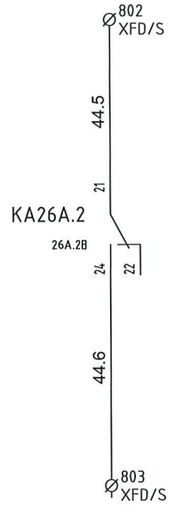


HVAC MALFUNCTION
0=MALF
1=NORMAL

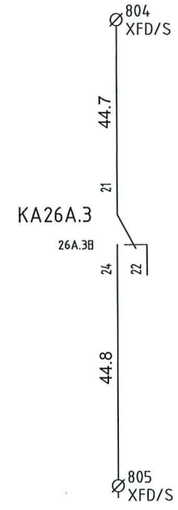
HFD-77012
CLOSED SIGNAL
TO F&G



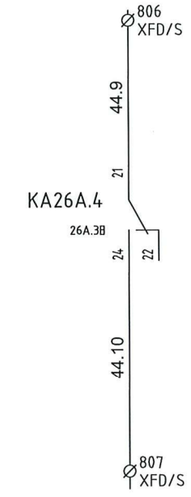
HFD-77012
OPEN SIGNAL
TO F&G



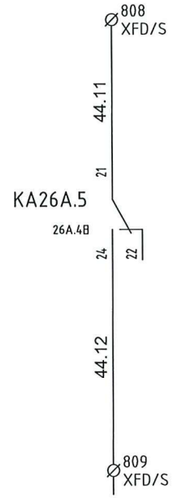
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CLOSED SIGNAL
TO F&G



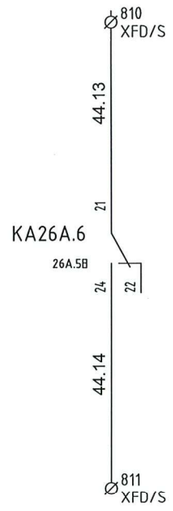
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OPEN SIGNAL
TO F&G



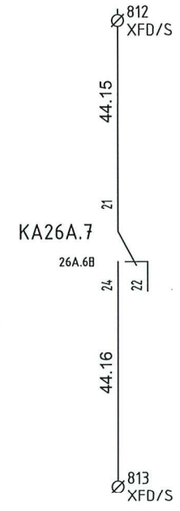
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CLOSED SIGNAL
TO F&G



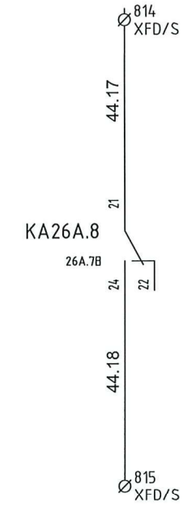
HFD-77014
OPEN SIGNAL
TO F&G



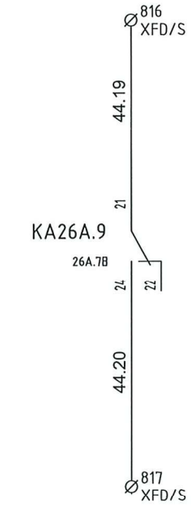
HFD-77015
CLOSED SIGNAL
TO F&G



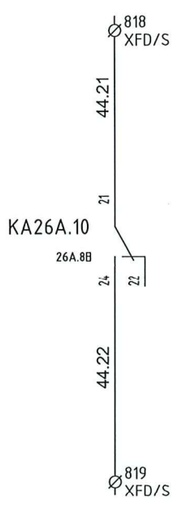
HFD-77015
OPEN SIGNAL
TO F&G



HFD-77016
CLOSED SIGNAL
TO F&G



HFD-77016
OPEN SIGNAL
TO F&G



NO MARK UP
AS COMMISSIONED: MS m.s GIRO m. 17/2/25

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DESIGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.

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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-400 I&T EQUIPMENT ROOM
AVAILABLE SIGNAL

ROSETTI MARINO | ALEXSISTEMI spa

1724000049-HV-DA-00029

FG. 44
F.S. 45

+QG - XP1
POWER SUPPLY 1

L1 | 13 | L3 | N1 | PE

400V 3F + N + PE
50Hz
FROM LV SWITCHGEAR
SECTION 5G25

U1	N1.1	3G2.5
V1	N1.1	3G2.5
W1	N1.1	3G2.5
L3	N3	3G2.5
L3.1	N3.1	3G2.5
L4	N4	3G4
L5	N5	3G2.5

SPACE HEATER	HSS-77-010
SPACE HEATER	HSS-77-011
SPACE HEATER	HSS-77-012
MODULE LIGHT	LIGHT
EMERGENCY LIGHT	EM LIGHT
MODULE LIGHT	SOCKET
HEATING CABLE	HHC-77-004

+QG - XC
COMMAND

26.1	26.2	44.1	44.2	+24VDC	26.5	+24VDC	26.5
500	501	502	503	504	505	506	507

SHUT DOWN FROM SIS

LIGHT BUTTON

HVAC MALFUNCTION TO SIS

LIGHT BUTTON

+QG - XUPS
UPS POWER SUPPLY

LUPS | NUPS | PE
1 | 2 | 3

230V 1F + N + PE
50Hz
UPS POWER SUPPLY
FROM AC UPS-PAS DB
SECTION 3G4
DP200-F3

NO MARK UP
AS COMMISSIONED: MA MA GIROTTO
17/4/25

REV.	MODIFICA	DATA	FIRMA		
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.
				APPR.	M.G.

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frigotermica@frigotermica.com

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM

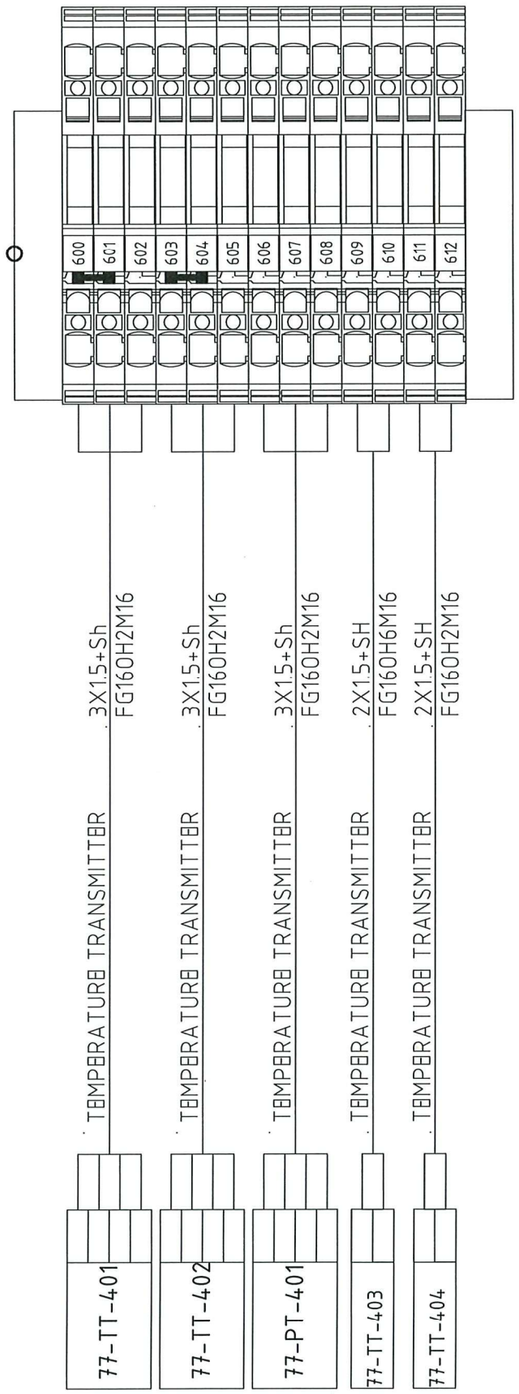
TERMINAL STRIP

ROSETTI MARINO | ALEXSISTEMI

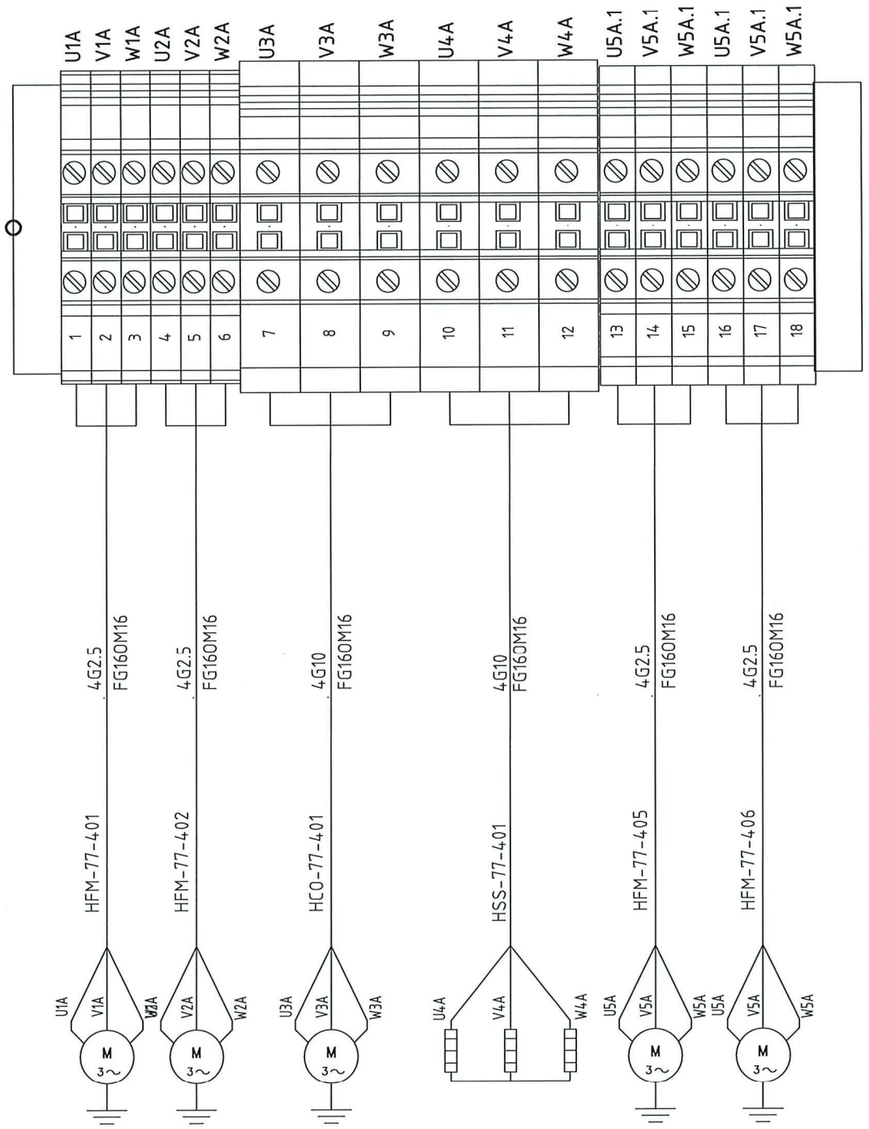
1724000049-HV-DA-00029

FG. 45
F.S. 46

+QG - XT
TRASMITTER



+QG - XM1
MOTOR 1



NO MARK UP
AS COMMISSIONED: M.T.M.A GIROTTI
17/4/25

REV.	MODIFICA	DATA	FIRMA	APPR.	
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM

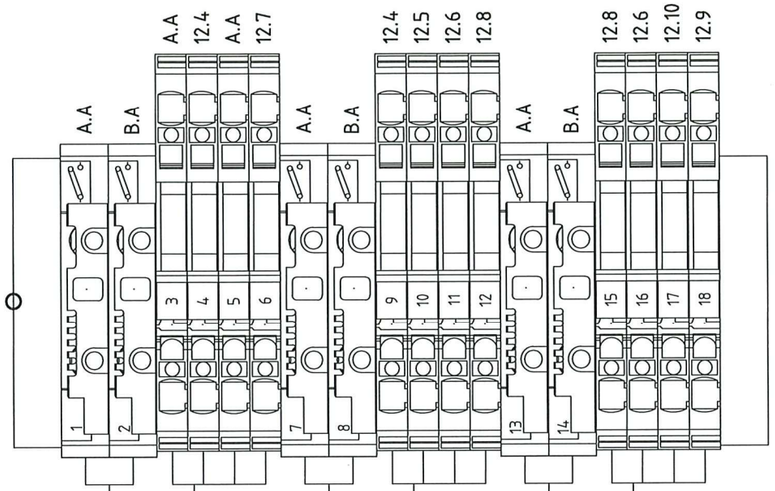
TERMINAL STRIP

ROSETTI MARINO | ALEXSISTEMI s.p.a.

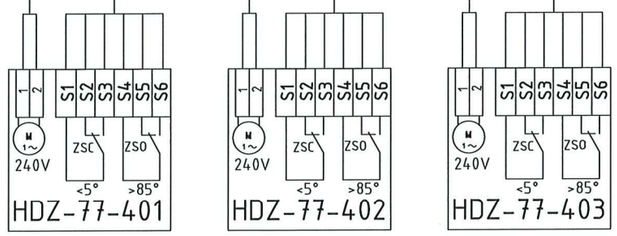
1724000049-HV-DA-00029

FG. 46
F.S. 47

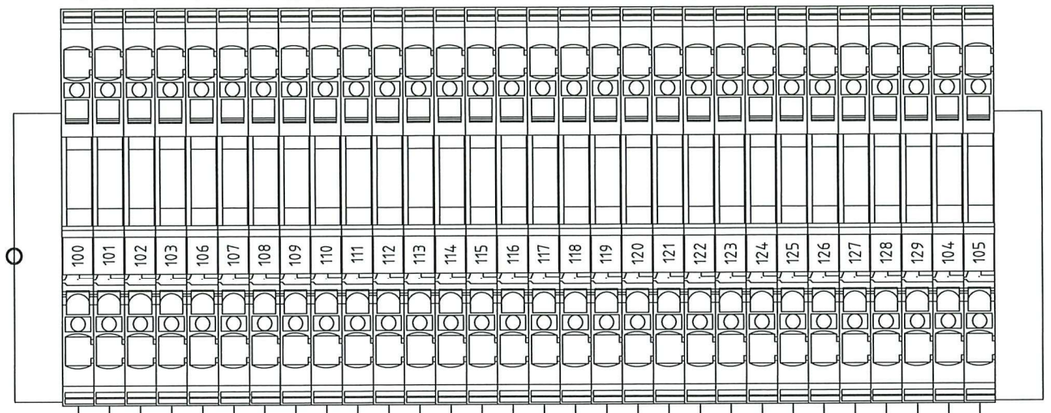
+QG - XMD1
MOTORISED DAMPER 1



.3G1.5 FG16OM16 — MOTORISED DAMPER POWER SUPPLY
.4X1.5 FG16OM16 — MOTORISED DAMPER SIGNAL
.3G1.5 FG16OM16 — MOTORISED DAMPER POWER SUPPLY
.4X1.5 FG16OM16 — MOTORISED DAMPER SIGNAL
.3G1.5 FG16OM16 — MOTORISED DAMPER POWER SUPPLY
.4X1.5 FG16OM16 — MOTORISED DAMPER SIGNAL



+QG - XA1
AUXILIARY 1



.2X1.5 FG16OM16 — DIFFERENTIAL PRESSURE SWITCH
.2X1.5 FG16OM16 — PTC PRESS. FAN
.2X1.5 FG16OM16 — EM. POWER BUTTON
.3G1.5 FG16OM16 — SUPPLY AIR MOTOR HEATER
.3G1.5 FG16OM16 — PRESS. FAN MOTOR HEATER
.3G1.5 FG16OM16 — COMPRESSOR OIL HEATER
.3G1.5 FG16OM16 — SOLENOID VALVE
.2X1.5 FG16OM16 — DIFF PRESSURE SWITCH FILTER CLOGGED
.3G1.5 FG16OM16 — CONDENSING PRESSURE SWITCH
.3.1.5+Sh FG16OH2M16 — CONDENSING PRESSURE TRASDUCER
.3G1.5 FG16OM16 — HIGH TEMPERATURE THERMOSTATE
.3G1.5 FG16OM16 — VERI HIGH TEMPERATURE THERMOSTATE
.3G1.5 FG16OM16 — LOW PRESSURE SWITCH
.3G1.5 FG16OM16 — HIGH PRESSURE SWITCH
.2X1.5 FG16OM16 — PRESSURIZING FAN RUNNING FEEDBACK

PDSL-77-401 — .DIFFERENTIAL PRESSURE SWITCH
TE-77-401 — .PTC PRESS. FAN
HPB-77-401 — .EM. POWER BUTTON
HSS-77-402 — .SUPPLY AIR MOTOR HEATER
HSS-77-403 — .PRESS. FAN MOTOR HEATER
HSS-77-404 — .COMPRESSOR OIL HEATER
HSV-77-401 — .SOLENOID VALVE
PDSH-77-401 — .DIFF PRESSURE SWITCH FILTER CLOGGED
PC-77-401 — .CONDENSING PRESSURE SWITCH
PTH-77-401 — .CONDENSING PRESSURE TRASDUCER
TSH-77-401 — .HIGH TEMPERATURE THERMOSTATE
TSHH-77-401 — .VERI HIGH TEMPERATURE THERMOSTATE
PSL-77-401 — .LOW PRESSURE SWITCH
PSH-77-401 — .HIGH PRESSURE SWITCH
PDSL-77-402 — .PRESSURIZING FAN RUNNING FEEDBACK

NO MARK UP AS COMMISSIONED: MSMA GIROTTI 17/4/25

REV.	MODIFICA	DATA	FIRMA
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.

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

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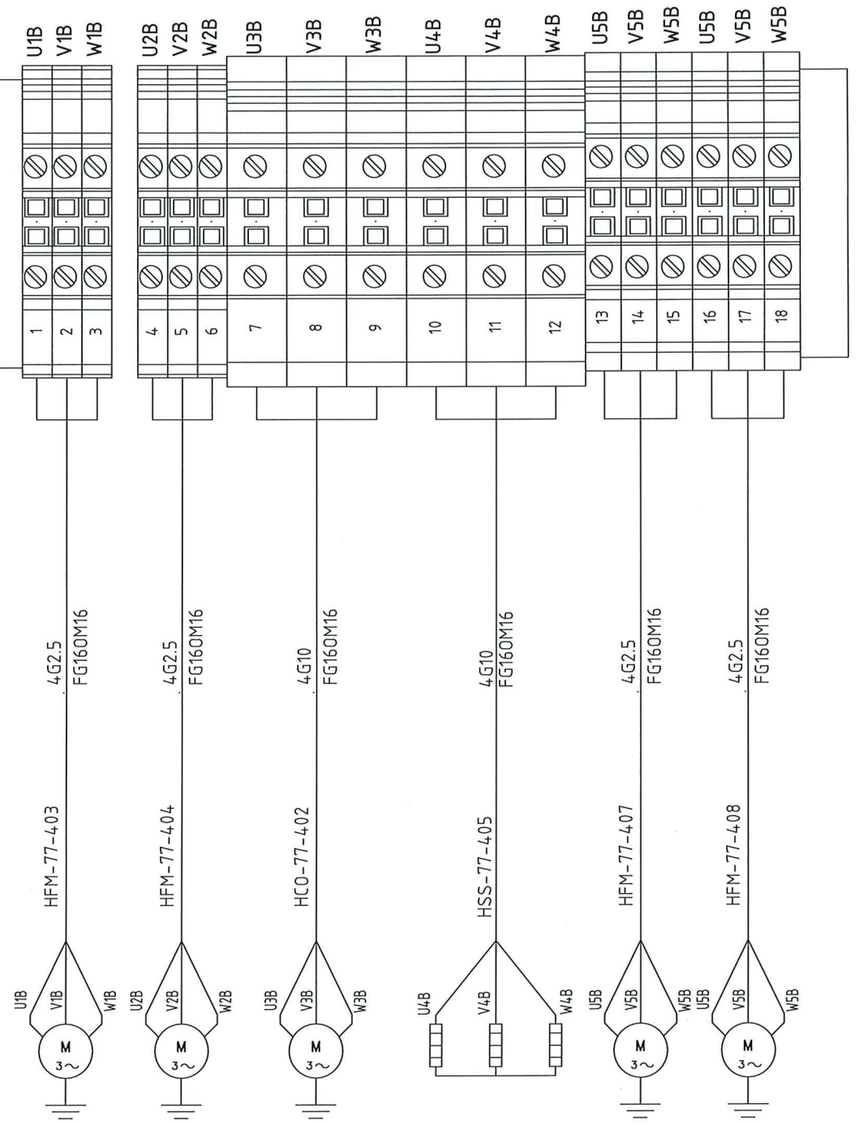
CLIENT: CROSSWIND

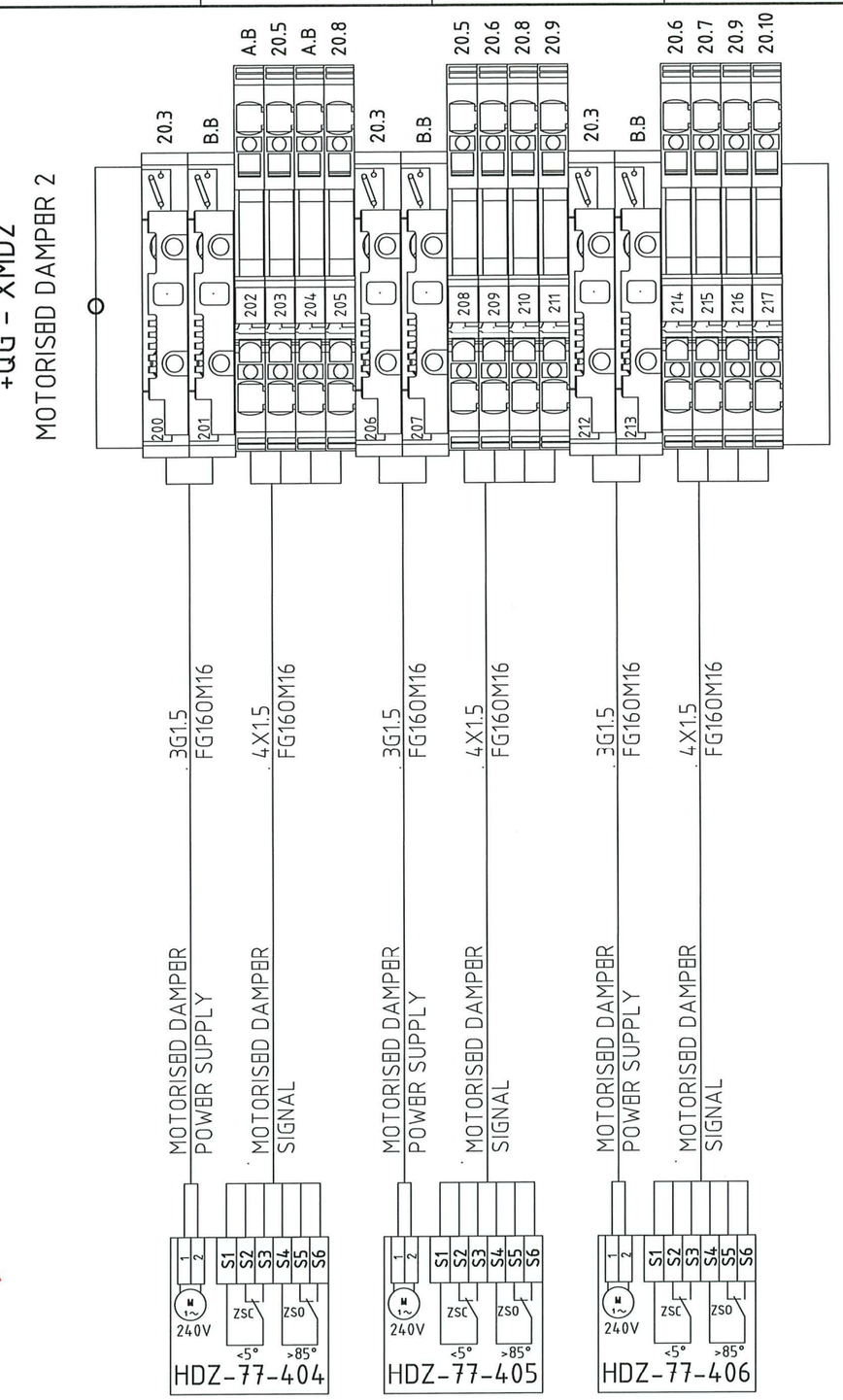
BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM
TERMINAL STRIP

ROSETTI MARINO | ALEXSISTEMI

1724000049-HV-DA-00029

FG. 47
F.S. 48





NO MARK UP
AS COMMISSIONED: MATTIA GIROTTI
17/4/25

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.

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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM
TERMINAL STRIP

ROSETTI MARINO | ALEXSISTEMI s.p.s.

1724000049-HV-DA-00029

FG. 48
F.S. 49

NO MARK UP AS COMMISSIONED: MATRA GIROTTI 17/4/25

+QG - XA2
AUXILIARY 2

A.B	21.4	13.12	13.14	+24VDC	26.7	12.3	B.B	14.1	B.B	5	B.B	15.1	B.B	A.A	23.2	A.A	23.3	11.5	11.6	A.A	23.4	15.9	23.5	A.A	22.8	A.A	22.11	A.B	23.6
300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329

. DIFFERENTIAL PRESSURE SWITCH	. 2X1.5	PDSL-77-402
. PTC PRESS. FAN	. 2X1.5 FG160M16	TE-77-402
. EM. POWER BUTTON	. 2X1.5 FG160M16	HPB-77-402
. SUPPLY AIR MOTOR HEATER	. 3G1.5 FG160M16	HSS-77-407
. PRESS. FAN MOTOR HEATER	. 3G1.5 FG160M16	HSS-77-406
. COMPRESSOR OIL HEATER	. 3G1.5 FG160M16	HSS-77-408
. SOLENOID VALVE	. 3G1.5 FG160M16	HSV-77-402
. DIFF PRESSURE SWITCH FILTER CLOGGED	. 2X1.5 FG160M16	PDSH-77-403
. CONDENSING PRESSURE SWITCH	. 3G1.5 FG160M16	PC-77-402
. CONDENSING PRESSURE TRASDUCER	. 3.1.5+Sh FG160H2M16	PTH-77-402
. HIGH TEMPERATURE THERMOSTATE	. 3G1.5 FG160M16	TSH-77-402
. VERI HIGH TEMPERATURE THERMOSTATE	. 3G1.5 FG160M16	TSHH-77-402
. LOW PRESSURE SWITCH	. 3G1.5 FG160M16	PSL-77-402
. HIGH PRESSURE SWITCH	. 3G1.5 FG160M16	PSH-77-402
. PRESSURUZING FAN RUNNING FEEDBACK	. 3G1.5 FG160M16	PDSL-77-404

+QG - XFD
FIRE DAMPER

+24VDC	34.2	+24VDC	34.3	+24VDC	34.4	+24VDC	34.5	+24VDC	34.6	+24VDC	34.7	+24VDC	39B.8	+24VDC	39B.10	+24VDC	39B.12	+24VDC	39B.14						
700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719						

. SIGNAL FEEDBACK	. 4X1.5	HFD-77012
. SIGNAL FEEDBACK	. 4X1.5	HFD-77013
. SIGNAL FEEDBACK	. 4X1.5	HFD-77014
. SIGNAL FEEDBACK	. 4X1.5	HFD-77015
. SIGNAL FEEDBACK	. 4X1.5	HFD-77016

240V ZSC <5° ZSO >85° S1 S2 S3 S4 S5 S6 1 2

REV.	MODIFICA	DATA	FIRMA	APPR.	
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.

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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-400 I&T EQUIPMENT ROOM
TERMINAL STRIP

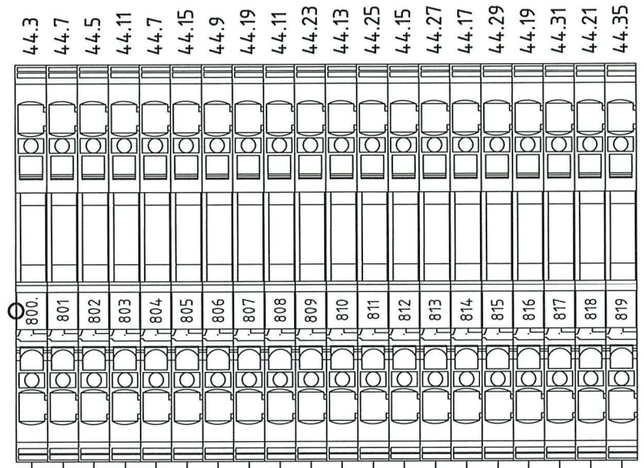
ROSETTI MARINO | ALEXSISTEMI s.r.l.

1724000049-HV-DA-00029

FG. 49
F.S. 49A

+QG - XFD/S

FIRE DAMPERS SIGNAL TO SIS



HFD-77012 CLOSED

HFD-77013 CLOSED

HFD-77014 CLOSED

HFD-77015 CLOSED

HFD-77016 CLOSED

HFD-77012 OPEN

HFD-77013 OPEN

HFD-77014 OPEN

HFD-77015 OPEN

HFD-77016 OPEN

X3

RJ45

RJ45 CLIENT CONNECTION

MODBUS TCP/IP CONNECTION FROM B400-NET-001

NO MARK UP

AS COMMISSIONED: MATTIA GIROTTO

17/4/25

REV.	MODIFICA	DATA	FIRMA
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.

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

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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM

TERMINAL STRIP

ROSETTI MARINO | ALEXSISTEMI

1724000049-HV-DA-00029

F.G. 49A

F.S. 50

NO MARK UP AS COMMISSIONED: MARA GIROTTI 17/4/25

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
				Hq	4	9
	R5CQE2286R	cabinet comp. 2200x800x600 back	dkc	Hq	4	2
	R5CPFE8100	Modular cabinet compensation panel height 100 width 800	dkc			2
	R5TOE80	Rebate crossbar for modular doors, width 800	dkc			5
	RZPCE8900	Modular wiring panel L.800 H.900	dkc			2
	RZPCE8600	Modular wiring panel L.800 H.600	dkc			2
	RZPCE8500	Modular wiring panel L.800 H.500	dkc			2
	R5CPME8900	Solid modular cabinet door 800 width, 900 door height	dkc			2
	R5CPME8600	Solid modular cabinet door width 800, door height 600	dkc			2
	R5CPME8500	Solid modular cabinet door 800 width, 500 door height	dkc			2
	RZSOE545	Total horizontal support cabinet width 600	dkc			5
	rzdoe8545	PARTIAL HORIZONTAL PARTITION CABINET WIDTH 800 TOTAL DEPTH 545 MM	dkc			5
	RZA33	Lifting Ring	dkc			1
	R5LE2262	Side for cabinet depth 600mm height 2200mm2pcs	dkc			1
	R1ZPRO801	Flangefrontal/side H100 Length 800 2pcs	dkc			2
	R1ZPRO601	Front/side flange H100 length 600	dkc			2
	R1ZCOR1	Modular plinth corner H100 4pcs	dkc			2
	RZKE65	CQE cabinet union kit	dkc			1
	rzkre65	Flat Cooling Kit for CQE Cabinets	dkc			1
	rzksre65	L-shaped union reinforcement kit for CQE cabinets	dkc			1
	RZDVE2260	Vertical partition for QE 2200x600	dkc	Hq	4	1
	rztse02	Lifting brackets for CQE PZ2	dkc			1
32 x 15	534-2	DIN rail EN60715 32x15x1.5 closed	Arnocanali	Hq	5	1.1
32 x 15	PD32Z	Sendzimir rail 32x15x9 closed	Canloplast	Hq	5	4.95
40 x 100	E354	Can.cabl.40x100 SG S/4	Canloplast	Hq	5	9.33
60 x 100	E184	Can.Cabl.60x100 SG S/4	Canloplast	Hq	5	4.83
77-TT-403				Hq		1
77-TT-404				Hq		1
A1	6AV2124-0MC01-0AX0	SIMATIC HMI TP1200 Comfort. Touch control, 12" widescreen display	siemens	Hq	40	1
A2	6ES7155-6AU01-0CN0	IM 155-6 PN HF/2 V4.2 Interface Module	siemens	Hq	41	1
	6ES7193-6AR00-0AA0	BA 2xRJ45 (PROFINET busadapter with standard Ethernet socket for IM-PN)	siemens			1
A3	6ES7131-6BH01-0BA0	Digital Input Module: 16x24VDC ST	siemens	Hq	41	1
	6ES7193-6BP00-0BA0	Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A)	siemens			1
A4	6ES7131-6BH01-0BA0	Digital Input Module: 16x24VDC ST	siemens	Hq	41	1
	6ES7193-6BP00-0BA0	Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A)	siemens			1
A5	6ES7131-6BH01-0BA0	Digital Input Module: 16x24VDC ST	siemens	Hq	41	1
	6ES7193-6BP00-0BA0	Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A)	siemens			1
A6	6ES7131-6BH01-0BA0	Digital Input Module: 16x24VDC ST	siemens	Hq	41	1
	6ES7193-6BP00-0BA0	Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A)	siemens			1
A7	6ES7132-6BH01-0BA0	Digital Output Module: DQ 16x24VDC/0.5A ST	siemens	Hq	41	1
	6ES7193-6BP00-0DA0	Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A)	siemens			1
A8	6ES7134-6HD01-0BA1	Analog Input Module: AI 4XU/I 2-Wire ST	siemens	Hq	41	1
	6ES7193-6BP00-0DA0	Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A)	siemens			1
A9	6ES7135-6HD00-0BA1	Analog Output Module: AQ 4XU/I ST	siemens	Hq	41	1
	6ES7193-6BP00-0DA0	Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A)	siemens			1

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.

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

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM

MATERIAL LIST
LISTA METERIALI

ROSETTI MARINO | ALEXSISTEMI spa

1724000049-HV-DA-00029

FG. 50
F.S. 51

NO MARK UP AS COMMISSIONED: MATTIA GIROTTI 17/4/25

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
A10	6ES7135-6HD00-0BA1	Analog Output Module: AQ 4XU/I ST	siemens	Hq	41	1
	6ES7193-6BP00-0BA0	Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A)	siemens			1
A11	6ES7134-6HD01-0BA1	Analog Input Module: AI 4XU/I 2-Wire ST	siemens	Hq	41	1
	6ES7193-6BP00-0DA0	Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A)	siemens			1
A12	6GK5208-0BA00-2AC2	XC208 Managed Switch with 8 RJ45 100Mbit/s Ports	siemens	Hq	41	1
A12	6ES7131-6BH01-0BA0	Digital Input Module: 16x24VDC ST	siemens	Hq	41	1
	6ES7193-6BP00-0BA0	Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A)	siemens			1
D1	6ES7513-1RM03-0AB0	CPU 1513R-1PN	siemens	Hq	40	1
	6ES7954-8LF02-0AA0	Memory card, 24 MB	siemens			1
	6ES7590-1AB60-0AA0	Profile rail S7-1500, 160 mm	siemens			1
D2	6ES7513-1RM03-0AB0	CPU 1513R-1PN	siemens	Hq	40	1
	6ES7954-8LF02-0AA0	Memory card, 24 MB	siemens			1
	6ES7590-1AB60-0AA0	Profile rail S7-1500, 160 mm	siemens			1
BM LIGHT				Hq		1
BPB-002L	3SU1401-1BH20-1AA0	Red LED module for mounting on front plate, 24 ... 240 V AC/DC. Screw terminals	siemens	Hq	26	1
F1		docker		Hq	7th	1
F2		docker		Hq	7th	1
F3		docker		Hq	7th	1
F4		docker		Hq	7th	1
FU42.1	SF900GR	SFR.4/GR Sectionable clamp	Cabur	Hq	42	1
FU43.1	SF900GR	SFR.4/GR Sectionable clamp	Cabur	Hq	43	1
GD1	6EP1336-3BA10	Sitop PSU8200 Single Phase, DC 24 V/20 A. Stabilized Power Supply Input: AC 120...230 V/DC 110-220 V, Output: DC 24 V/20 A	siemens	Hq	25	1
HFD-77012		NC Limit Switch		Hq	26th	1
HFD-77012		Limit Switch: No		Hq	26th	1
HFD-77012				Hq	49	1
HFD-77013		NC Limit Switch		Hq	26th	1
HFD-77013		Limit Switch: No		Hq	26th	1
HFD-77013				Hq	49	1
HFD-77014		NC Limit Switch		Hq	26th	1
HFD-77014		Limit Switch: No		Hq	26th	1
HFD-77014				Hq	49	1
HFD-77015		Limit Switch: No		Hq	26th	1
HFD-77015		NC Limit Switch		Hq	26th	1
HFD-77015				Hq	49	1
HFD-77016		Limit Switch: No		Hq	26th	1
HFD-77016		NC Limit Switch		Hq	26th	1
HFD-77016				Hq	49	1
HL8.1	3SU1001-6AA60-0AA0	Indicator light with smooth lens, white	siemens	Hq	8	1
	3SU1401-1BH60-1AA0	White LED module for mounting on front plate, 24 ... 240 V AC/DC. Screw terminals	siemens			1
	3su1500-0aa10-0aa0	Support without module. plastic	siemens			1
HL16.1	3SU1001-6AA60-0AA0	Indicator light with smooth lens, white	siemens	Hq	16	1
	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
HL24.1	3SU1001-6AA60-0AA0	Indicator light with smooth lens, white	siemens	Hq	24	1

RBV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
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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-400 I&T EQUIPMENT ROOM

MATERIAL LIST
LISTA METERIALI

ROSETTI MARINO | ALEXSISTEMI s.p.a.

1724000049-HV-DA-00029

FG. 51
F.S. 52

NO MARK UP AS COMMISSIONED: MATTIA GIROTTI 17/4/25

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
HL24.1	*3SU1401-1BH60-1AA0*	*White LED module for mounting on front plate, 24 ... 240 V AC/DC. Screw terminals*	*siemens*	*Hq*	24	1
	3su1500-0aa10-0aa0	*Support without module. plastic*	*siemens*			1
HL25.1	*3SU1001-6AA60-0AA0*	*Indicator light with smooth lens, white*	*siemens*	*Hq*	25	1
	3SU1401-1BH60-1AA0	*White LED module for mounting on front plate, 24 ... 240 V AC/DC. Screw terminals*	*siemens*			1
	3su1500-0aa10-0aa0	*Support without module. plastic*	*siemens*			1
HPB-77-403	*3su1900-0dy30-0aa0*	*Protective collar for merge button, plastic, yellow, 22mm hole*	*siemens*	*Hq*	26	1
	3SU1001-1HB20-0AA0	*Emergency stop mushroom pushbutton, illuminatable, twist release, 40 mm diameter, 2 positions*	*siemens*			1
	3su1500-0aa10-0aa0	*Support without module. plastic*	*siemens*			1
	3SU1401-1BH20-1AA0	*Red LED module for mounting on front plate, 24 ... 240 V AC/DC. Screw terminals*	*siemens*			1
HR-1A	*GRP-H-25-48-D-1-0000*	*Static power slave unit for load control, logic/analog control. Maximum current 25A.*	*Gefran*	*Hq*	42	1
HR-1B	*GRP-H-25-48-D-1-0000*	*Static power slave unit for load control, logic/analog control. Maximum current 25A.*	*Gefran*	*Hq*	42	1
HR-1C	*GRM-H-25-48-AN-OL-00000*	*Static power master unit for load control, logic/analog control. Maximum current 25A.*	*Gefran*	*Hq*	42	1
HR-2A	*GRP-H-25-48-D-1-0000*	*Static power slave unit for load control, logic/analog control. Maximum current 25A.*	*Gefran*	*Hq*	43	1
HR-2B	*GRP-H-25-48-D-1-0000*	*Static power slave unit for load control, logic/analog control. Maximum current 25A.*	*Gefran*	*Hq*	43	1
HR-2C	*GRM-H-25-48-AN-OL-00000*	*Static power master unit for load control, logic/analog control. Maximum current 25A.*	*Gefran*	*Hq*	43	1
HSS-77-010				*Hq*		1
HSS-77-011				*Hq*		1
HSS-77-012				*Hq*		1
KA8.1	*EPN520*	*Stepper Relay 16A 230V 2NA 1M*	*Hager*	*Hq*	8	1
KA9.1	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*	*Finder*	*Hq*	9	1
		Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC				
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI*	*Finder*			1
		Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable				
		Protection category: RT I. OPTIO				
KA11.1	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*	*Finder*	*Hq*	11	1
		Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC				
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI*	*Finder*			1
		Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable				
		Protection category: RT I. OPTIO				
KA12.1	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*	*Finder*	*Hq*	12	1
		Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC				
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI*	*Finder*			1
		Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable				
		Protection category: RT I. OPTIO				
KA12.2	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*	*Finder*	*Hq*	12	1
		Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC				
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI*	*Finder*			1
		Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable				
		Protection category: RT I. OPTIO				
KA12.3	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*	*Finder*	*Hq*	12	1
		Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC				

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.

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

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM

MATERIAL LIST
LISTA METERIALI

ROSETTI MARINO | ALEXSISTEMI s.p.a.

1724000049-HV-DA-00029

FG. 52
F.S. 53

NO MARK UP AS COMMISSIONED: MATTIA GIROTTI 17/4/25

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
KA12.3	094913	*Latching and unhooking jumper*	*Finder*	*Hq*	12	1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI*	*Finder*			1
		Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable				
		Protection category: RT I. OPTIO				
KA13.1	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*	*Finder*	*Hq*	13	1
		Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC				
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI*	*Finder*			1
		Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable				
		Protection category: RT I. OPTIO				
KA13.2	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*	*Finder*	*Hq*	13	1
		Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC				
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI*	*Finder*			1
		Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable				
		Protection category: RT I. OPTIO				
KA13.3	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*	*Finder*	*Hq*	13	1
		Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC				
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI*	*Finder*			1
		Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable				
		Protection category: RT I. OPTIO				
KA14.1	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*	*Finder*	*Hq*	14	1
		Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC				
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI*	*Finder*			1
		Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable				
		Protection category: RT I. OPTIO				
KA14.2	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*	*Finder*	*Hq*	14	1
		Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC				
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI*	*Finder*			1
		Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable				
		Protection category: RT I. OPTIO				
KA15.1	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*	*Finder*	*Hq*	15	1
		Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC				
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI*	*Finder*			1
		Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable				
		Protection category: RT I. OPTIO				
KA15.2	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*	*Finder*	*Hq*	15	1
		Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC				
	094913	*Latching and unhooking jumper*	*Finder*			1

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.

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

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM

MATERIAL LIST
LISTA METERIALI

ROSETTI MARINO | ALEXSISTEMI s.p.a.

1724000049-HV-DA-00029

FG. 53
F.S. 54

NO MARK UP AS COMMISSIONED: MARIA GIROTTI 17/4/25

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
KA15.2	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable Protection category: RT I. OPTIO*	*Finder*	*Hq*	15	1
KA15.3	*9404spa* 094913 553482300054	*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 Latching and unhooking jumper* *industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable Protection category: RT I. OPTIO*	*Finder* *Finder* *Finder*	*Hq*	15	1 1 1
KA15.4	*9404spa* 094913 553482300040	*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 Latching and unhooking jumper* *industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable Protection category: RT I. OPTIO*	*Finder* *Finder* *Finder*	*Hq*	15	1 1 1
KA17.1	*9404spa* 094913 553482300054	*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 Latching and unhooking jumper* *industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable Protection category: RT I. OPTIO*	*Finder* *Finder* *Finder*	*Hq*	17	1 1 1
KA19.1	*9404spa* 094913 553482300054	*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 Latching and unhooking jumper* *industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable Protection category: RT I. OPTIO*	*Finder* *Finder* *Finder*	*Hq*	19	1 1 1
KA20.1	*9404spa* 094913 553482300054	*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 Latching and unhooking jumper* *industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable Protection category: RT I. OPTIO*	*Finder* *Finder* *Finder*	*Hq*	20	1 1 1
KA20.2	*9404spa* 094913 553482300054	*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 Latching and unhooking jumper* *industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable Protection category: RT I. OPTIO*	*Finder* *Finder* *Finder*	*Hq*	20	1 1 1
KA20.3	*9404spa* 094913 553482300054	*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 Latching and unhooking jumper* *industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable Protection category: RT I. OPTIO*	*Finder* *Finder* *Finder*	*Hq*	20	1 1 1

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
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frigotermica
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S.p.186–Cornegliano Laud. (Lo) Italy
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B-400 I&T EQUIPMENT ROOM

MATERIAL LIST
LISTA METERIALI

ROSETTI MARINO | ALEXSISTEMI

1724000049-HV-DA-00029

FG. 54
F.S. 55

NO MARK UP AS COMMISSIONED: [illegible] 17/4/25

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
KA21.1	*9404spa* 094913 553482300054	*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* *Latching and unhooking jumper* *industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI* *Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable* *Protection category: RT I. OPTIO*	*Finder* *Finder* *Finder*	*Hq*	21	1 1 1
KA21.2	*9404spa* 094913 553482300054	*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* *Latching and unhooking jumper* *industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI* *Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable* *Protection category: RT I. OPTIO*	*Finder* *Finder* *Finder*	*Hq*	21	1 1 1
KA21.3	*9404spa* 094913 553482300054	*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* *Latching and unhooking jumper* *industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI* *Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable* *Protection category: RT I. OPTIO*	*Finder* *Finder* *Finder*	*Hq*	21	1 1 1
KA22.1	*9404spa* 094913 553482300054	*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* *Latching and unhooking jumper* *industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI* *Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable* *Protection category: RT I. OPTIO*	*Finder* *Finder* *Finder*	*Hq*	22	1 1 1
KA22.2	*9404spa* 094913 553482300054	*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* *Latching and unhooking jumper* *industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI* *Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable* *Protection category: RT I. OPTIO*	*Finder* *Finder* *Finder*	*Hq*	22	1 1 1
KA23.1	*9404spa* 094913 553482300054	*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* *Latching and unhooking jumper* *industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI* *Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable* *Protection category: RT I. OPTIO*	*Finder* *Finder* *Finder*	*Hq*	23	1 1 1
KA23.2	*9404spa* 094913 553482300054	*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* *Latching and unhooking jumper* *industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI* *Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable* *Protection category: RT I. OPTIO*	*Finder* *Finder* *Finder*	*Hq*	23	1 1 1
KA23.3	*9404spa* 094913	*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* *Latching and unhooking jumper*	*Finder* *Finder*	*Hq*	23	1 1

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.

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

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM

MATERIAL LIST
LISTA METERIALI

ROSETTI MARINO | ALEXSISTEMI s.r.l.

1724000049-HV-DA-00029

FG. 55
F.S. 56

NO MARK UP AS COMMISSIONED: MATTIA GIROTTI 17/4/25

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
KA23.3	553482300054	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable Protection category: RT I. OPTIO*	*Finder*	*Hq*	23	1
KA23.4	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*	*Hq*	23	1
	094913	*Latching and unhooking jumper*	*Finder*			1
	553482300040	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable Protection category: RT I. OPTIO*	*Finder*			1
KA26.1	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*	*Hq*	26	1
	553490240040	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in connection Power supply: DC volts DC: 24 V. Non-polarized monostable Protection category: RT I. Option*	*Finder*			1
	094913	*Latching and unhooking jumper*	*Finder*			1
KA26.2	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*	*Hq*	26	1
	553490240040	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in connection Power supply: DC volts DC: 24 V. Non-polarized monostable Protection category: RT I. Option*	*Finder*			1
	094913	*Latching and unhooking jumper*	*Finder*			1
KA26A.1	465290240040	*mini relay. (A): 8 N° Contacts: 2 Contact configuration: CO Material Contacts: AGNI Electrical connection: plug-in fitting Power supply: DC Volt DC: 24 V. Non-polarized Monostable Protection category: RT II. Optional: PU*	*Finder*	*Hq*	*26th*	1
	9702spa	*Plinth with socket terminals Mounting: 35 mm blind bar (A): 8 Degree of protection: IP 20 Accessories: plastic or metal jumper, 8-pole comb, EMC signalling and protection modules, timer*	*Finder*			1
KA26A.2	465290240040	*mini relay. (A): 8 N° Contacts: 2 Contact configuration: CO Material Contacts: AGNI Electrical connection: plug-in fitting Power supply: DC Volt DC: 24 V. Non-polarized Monostable Protection category: RT II. Optional: PU*	*Finder*	*Hq*	*26th*	1
	9702spa	*Plinth with socket terminals Mounting: 35 mm blind bar (A): 8 Degree of protection: IP 20 Accessories: plastic or metal jumper, 8-pole comb, EMC signalling and protection modules, timer*	*Finder*			1
KA26A.3	465290240040	*mini relay. (A): 8 N° Contacts: 2 Contact configuration: CO Material Contacts: AGNI Electrical connection: plug-in fitting Power supply: DC Volt DC: 24 V. Non-polarized Monostable Protection category: RT II. Optional: PU*	*Finder*	*Hq*	*26th*	1
	9702spa	*Plinth with socket terminals Mounting: 35 mm blind bar (A): 8 Degree of protection: IP 20 Accessories: plastic or metal jumper, 8-pole comb, EMC signalling and protection modules, timer*	*Finder*			1
KA26A.4	465290240040	*mini relay. (A): 8 N° Contacts: 2 Contact configuration: CO Material Contacts: AGNI Electrical connection: plug-in fitting Power supply: DC Volt DC: 24 V. Non-polarized Monostable Protection category: RT II. Optional: PU*	*Finder*	*Hq*	*26th*	1
	9702spa	*Plinth with socket terminals Mounting: 35 mm blind bar (A): 8 Degree of protection: IP 20 Accessories: plastic or metal jumper, 8-pole comb, EMC signalling and protection modules, timer*	*Finder*			1
KA26A.5	465290240040	*mini relay. (A): 8 N° Contacts: 2 Contact configuration: CO Material Contacts: AGNI Electrical connection: plug-in fitting Power supply: DC Volt DC: 24 V. Non-polarized Monostable Protection category: RT II. Optional: PU*	*Finder*	*Hq*	*26th*	1

REV.	MODIFICA	DATA	FIRMA	APPR.	
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DESIGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	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-400 I&T EQUIPMENT ROOM

MATERIAL LIST
LISTA METERIALI

ROSETTI MARINO | ALEXSISTEMI s.r.l.

1724000049-HV-DA-00029

FG. 56
F.S. 57

NO MARK UP AS COMMISSIONED: MATTIA GIROTTI 17/4/25

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
KA26A.5	9702spa	Plinth with socket terminals Mounting: 35 mm blind bar (A): 8 Degree of protection: IP 20 Accessories: plastic or metal jumper, 8-pole comb, EMC signalling and protection modules, timer	Finder	Hq	26th	1
KA26A.6	465290240040	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	Finder	Hq	26th	1
	9702spa	Plinth with socket terminals Mounting: 35 mm blind bar (A): 8 Degree of protection: IP 20 Accessories: plastic or metal jumper, 8-pole comb, EMC signalling and protection modules, timer	Finder			1
KA26A.7	465290240040	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	Finder	Hq	26th	1
	9702spa	Plinth with socket terminals Mounting: 35 mm blind bar (A): 8 Degree of protection: IP 20 Accessories: plastic or metal jumper, 8-pole comb, EMC signalling and protection modules, timer	Finder			1
KA26A.8	465290240040	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	Finder	Hq	26th	1
	9702spa	Plinth with socket terminals Mounting: 35 mm blind bar (A): 8 Degree of protection: IP 20 Accessories: plastic or metal jumper, 8-pole comb, EMC signalling and protection modules, timer	Finder			1
KA26A.9	465290240040	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	Finder	Hq	26th	1
	9702spa	Plinth with socket terminals Mounting: 35 mm blind bar (A): 8 Degree of protection: IP 20 Accessories: plastic or metal jumper, 8-pole comb, EMC signalling and protection modules, timer	Finder			1
KA26A.10	465290240040	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	Finder	Hq	26th	1
	9702spa	Plinth with socket terminals Mounting: 35 mm blind bar (A): 8 Degree of protection: IP 20 Accessories: plastic or metal jumper, 8-pole comb, EMC signalling and protection modules, timer	Finder			1
KA30.1	553490240040	industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in connection Power supply: DC volts DC: 24 V. Non-polarized monostable Protection category: RT I. Option	Finder	Hq	35	1
	9404spa	Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC	Finder			1
	094913	Latching and unhooking jumper	Finder			1
KA30.3	553490240040	industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in connection Power supply: DC volts DC: 24 V. Non-polarized monostable Protection category: RT I. Option	Finder	Hq	35	1
	9404spa	Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC	Finder			1
	094913	Latching and unhooking jumper	Finder			1
KA30.4	553490240040	industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in connection Power supply: DC volts DC: 24 V. Non-polarized monostable Protection category: RT I. Option	Finder	Hq	35	1
	9404spa	Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC	Finder			1
	094913	Latching and unhooking jumper	Finder			1

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.

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

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM

MATERIAL LIST
LISTA METERIALI

ROSETTI MARINO | ALEXSISTEMI s.r.l.

1724000049-HV-DA-00029

FG. 57
F.S. 58

NO MARK UP AS COMMISSIONED: MATTIA GIROTTI 17/4/25

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
KA30.5	553490240040	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in connection Power supply: DC volts DC: 24 V. Non-polarized monostable Protection category: RT I. Option*	*Finder*	*Hq*	35	1
	9404spa	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*			1
	094913	*Latching and unhooking jumper*	*Finder*			1
KA30.6	553490240040	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in connection Power supply: DC volts DC: 24 V. Non-polarized monostable Protection category: RT I. Option*	*Finder*	*Hq*	35	1
	9404spa	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*			1
	094913	*Latching and unhooking jumper*	*Finder*			1
KA30.7	553490240040	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in connection Power supply: DC volts DC: 24 V. Non-polarized monostable Protection category: RT I. Option*	*Finder*	*Hq*	36	1
	9404spa	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*			1
	094913	*Latching and unhooking jumper*	*Finder*			1
KA30.8	553490240040	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in connection Power supply: DC volts DC: 24 V. Non-polarized monostable Protection category: RT I. Option*	*Finder*	*Hq*	36	1
	9404spa	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*			1
	094913	*Latching and unhooking jumper*	*Finder*			1
KA30.9	553490240040	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in connection Power supply: DC volts DC: 24 V. Non-polarized monostable Protection category: RT I. Option*	*Finder*	*Hq*	35	1
	9404spa	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*			1
	094913	*Latching and unhooking jumper*	*Finder*			1
KA37.1	553490240040	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in connection Power supply: DC volts DC: 24 V. Non-polarized monostable Protection category: RT I. Option*	*Finder*	*Hq*	36	1
	9404spa	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*			1
	094913	*Latching and unhooking jumper*	*Finder*			1
KA37.2	553490240040	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in connection Power supply: DC volts DC: 24 V. Non-polarized monostable Protection category: RT I. Option*	*Finder*	*Hq*	36	1
	9404spa	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*			1
	094913	*Latching and unhooking jumper*	*Finder*			1
KA42.1	553490240040	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in connection Power supply: DC volts DC: 24 V. Non-polarized monostable Protection category: RT I. Option*	*Finder*	*Hq*	42	1

REV.	MODIFICA	DATA	FIRMA	APPR.	
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	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-400 I&T EQUIPMENT ROOM

MATERIAL LIST
LISTA METERIALI

ROSETTI MARINO | ALEXSISTEMI spa

1724000049-HV-DA-00029

FG. 58
F.S. 59

NO MARK UP AS COMMISSIONED: MMA GIROm 17/4/25

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
KA42.1	*9404spa*	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*	*Hq*	42	1
	094913	*Latching and unhooking jumper*	*Finder*			1
KA43.1	553490240040	*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in connection Power supply: DC volts DC: 24 V. Non-polarized monostable Protection category: RT I. Option*	*Finder*	*Hq*	43	1
	9404spa	*Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*	*Finder*			1
	094913	*Latching and unhooking jumper*	*Finder*			1
KM1	*3RT2316-1BB40*	*Contactor, 4 NO, AC-1: 18 to 24 V DC, 4-pole, 4 NO, size S00, screw terminals*	*siemens*	*Hq*	26	1
	3RH29111HA22	*Bloc.Aus.2L 2R 1L,1L,S00/S0,*	*siemens*			1
KM2A	*3RT2015-1AP01*	*Power contactor, AC-3 7 A, 3 kW / 400 V 1 NO, 230 V AC, 50 / 60 Hz 3 poles, size S00 Screw terminals*	*siemens*	*Hq*	13	1
	3RH29111HA22	*Bloc.Aus.2L 2R 1L,1L,S00/S0,*	*siemens*			1
KM2B	*3RT2015-1AP01*	*Power contactor, AC-3 7 A, 3 kW / 400 V 1 NO, 230 V AC, 50 / 60 Hz 3 poles, size S00 Screw terminals*	*siemens*	*Hq*	21	1
	3RH29111HA22	*Bloc.Aus.2L 2R 1L,1L,S00/S0,*	*siemens*			1
KM3A	*3RT20261AN20*	*cont.11kw,1L 1R,AC 220V 50/60Hz,S0 VT*	*siemens*	*Hq*	14	1
	3RH29111HA22	*Bloc.Aus.2L 2R 1L,1L,S00/S0,*	*siemens*			1
KM3B	*3RT20261AN20*	*cont.11kw,1L 1R,AC 220V 50/60Hz,S0 VT*	*siemens*	*Hq*	22	1
	3RH29111HA22	*Bloc.Aus.2L 2R 1L,1L,S00/S0,*	*siemens*			1
KT11.1	*dtmsmm1*	*Temporised Relay 1 C 230V*	*Microidea*	*Hq*	12	1
KT13.1	*dtmsmm1*	*Temporised Relay 1 C 230V*	*Microidea*	*Hq*	13	1
KT14.1	*dtmsmm1*	*Temporised Relay 1 C 230V*	*Microidea*	*Hq*	14	1
KT14.2	*dtmsmm1*	*Temporised Relay 1 C 230V*	*Microidea*	*Hq*	14	1
KT20.1	*dtmsmm1*	*Temporised Relay 1 C 230V*	*Microidea*	*Hq*	20	1
KT21.1	*dtmsmm1*	*Temporised Relay 1 C 230V*	*Microidea*	*Hq*	21	1
KT22.1	*dtmsmm1*	*Temporised Relay 1 C 230V*	*Microidea*	*Hq*	22	1
KT22.2	*dtmsmm1*	*Temporised Relay 1 C 230V*	*Microidea*	*Hq*	22	1
LIGHT				*Hq*		1
MTP-001A	*3RN2000-1AW30*	*Motor protection relay for PTC thermistor supervision 24/240 V AC/DC 1 changeover contact*	*siemens*	*Hq*	13	1
MTP-001B	*3RN2000-1AW30*	*Motor protection relay for PTC thermistor supervision 24/240 V AC/DC 1 changeover contact*	*siemens*	*Hq*	21	1
MVA-1	*DMG600*	*multimeter with icon-based LCD*	*Lovato*	*Hq*	6	1
PDSL-77-402		*Pressure-controlled (pressure switch) No*		*Hq*	15	1
PDSL-77-404		*Pressure-controlled (pressure switch) No*		*Hq*	23	1
PF8.1	*GSV1000220*	*Panel Fan 100x100 230V 24m³/h*	*Cosmotec*	*Hq*	8	1
	GSF10	*air intake filter 100x100*	*Cosmotec*			1
PF16.1	*GSF10*	*air intake filter 100x100*	*Cosmotec*	*Hq*	16	1
	GSV1000220	*Panel Fan 100x100 230V 24m³/h*	*Cosmotec*			1
PF24.1	*GSV1000220*	*Panel Fan 100x100 230V 24m³/h*	*Cosmotec*	*Hq*	24	1
	GSF10	*air intake filter 100x100*	*Cosmotec*			1
PFT8.1	*007026.00001*	*Thermostate Panel Fan*	*Fandis*	*Hq*	8	1
PFT16.1	*007026.00001*	*Thermostate Panel Fan*	*Fandis*	*Hq*	16	1
PFT24.1	*007026.00001*	*Thermostate Panel Fan*	*Fandis*	*Hq*	24	2
PH8.1	*050ra50*	*Anticondensing Heater 230V 50W*	*New Elfin*	*Hq*	8	1
PH16.1	*050ra50*	*Anticondensing Heater 230V 50W*	*New Elfin*	*Hq*	16	1
PH24.1	*050ra50*	*Anticondensing Heater 230V 50W*	*New Elfin*	*Hq*	24	1

REV.	MODIFICA	DATA	FIRMA	APPR.	
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	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-400 I&T EQUIPMENT ROOM

MATERIAL LIST
LISTA METERIALI

ROSETTI MARINO | ALEXSISTEMI

1724000049-HV-DA-00029

FG. 59
F.S. 60

NO MARK UP AS COMMISSIONED: MARINA GIROTTI 17/4/25

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
PHT8.1	007038.00001	Antcondensing Thermostat 230V	Fandis	Hq	8	1
PHT16.1	007038.00001	Antcondensing Thermostat 230V	Fandis	Hq	16	1
PHT24.1	007038.00001	Antcondensing Thermostat 230V	Fandis	Hq	24	1
PL8.1	050PEL3C	230V lamp	New Elfin	Hq	8	1
	050kfm	Magnet kit	New Elfin			1
PL16.1	050PEL3C	230V lamp	New Elfin	Hq	16	1
	050kfm	Magnet kit	New Elfin			1
PL24.1	050PEL3C	230V lamp	New Elfin	Hq	24	1
	050kfm	Magnet kit	New Elfin			1
PL25.1	050PEL3C-24V	LED Linear Ceiling Light 24V AC/DC, 600LM 368mm	New Elfin	Hq	25	1
	050kfm	Magnet kit	New Elfin			1
PLS8.1	RAMC05	Micro Door Opening Switch 1 No & 1NC	dkc	Hq	8	1
PLS16.1	RAMC05	Micro Door Opening Switch 1 No & 1NC	dkc	Hq	16	1
PLS24.1	RAMC05	Micro Door Opening Switch 1 No & 1NC	dkc	Hq	24	2
PLS25.1	RAMC05	Micro Door Opening Switch 1 No & 1NC	dkc	Hq	25	1
QF1	5SU1354-1KK10	Residual current circuit breaker, 10 kA, 1P N, AC type, 30 mA, C, IN: 10 A, UN AC: 230 V	siemens	Hq	7th	1
	5ST3010	Auxiliary contact block, 1 NO 1 NC for 5SL, 5SY, 5SP circuit breaker	siemens			1
QF1A	5SY7506-7	Circuit breaker 230 V 15KA, 1P N, C, 6 A, D=70 mm	siemens	Hq	10	1
	5ST3010	Auxiliary contact block, 1 NO 1 NC for 5SL, 5SY, 5SP circuit breaker	siemens			1
QF1B	5SY7506-7	Circuit breaker 230 V 15KA, 1P N, C, 6 A, D=70 mm	siemens	Hq	18	1
	5ST3010	Auxiliary contact block, 1 NO 1 NC for 5SL, 5SY, 5SP circuit breaker	siemens			1
QF2	5SU1354-1KK16	RCD, 10 kA, 1P N, AC type, 30 mA, C, IN: 16 A, UN AC: 230 V	siemens	Hq	7th	1
	5ST3010	Auxiliary contact block, 1 NO 1 NC for 5SL, 5SY, 5SP circuit breaker	siemens			1
QF3	5SY7502-7	Circuit breaker 230 V 15KA, 1P N, C, 2 A, D=70 mm	siemens	Hq	7	1
	5ST3010	Auxiliary contact block, 1 NO 1 NC for 5SL, 5SY, 5SP circuit breaker	siemens			1
QF4	5SY7503-7	Circuit breaker 230 V 15Ka, 1P N, C, 3 A, D=70 mm	siemens	Hq	25	1
QF5	5SY5220-7	Universal current circuit breaker 440 V DC - 400 V AC 10Ka, 2P, C, 20 A	siemens	Hq	25	1
QF6	5su1354-1kk06	RCD, 10 kA, 1P N, AC Type, 30 mA, C, In: 6 A, One AC: 230 V	siemens	Hq	7	1
QF400	5SY74027	Int. MT 4P C2 ICN 15KA, ICU 50KA	siemens	Hq	6	1
QFA	3VA1132-4GF42-0AA0	Switch 3VA1 IEC Chassis 160 Switching Capacity Class S ICU=36 KA 415 V 4-Pole, TM240 System Protection, ATAM, IN=32 A Overload Protection IR=22 A... 32 A Short-Circuit Protection II=5...10 x in N-Conductor Protection 100% terminal LUG	siemens	Hq	6	1
	3VA9157-0FK21	com. rinv. Door Lock x 3VA10/1 STD	siemens			1
	3VA9988-0BL30	bobsleigh. Launch SIN 24VAC 50/60 Hz/12-30 VDC	siemens			1
	3VA9988-0AA11	Cont. HP-type status	siemens			1
	3VA9111-0WD40	Cover x 3VA10/1 4P 1pcs.	siemens			2
QFB	3VA1132-4GF42-0AA0	Switch 3VA1 IEC Chassis 160 Switching Capacity Class S ICU=36 KA 415 V 4-Pole, TM240 System Protection, ATAM, IN=32 A Overload Protection IR=22 A... 32 A Short-Circuit Protection II=5...10 x in N-Conductor Protection 100% terminal LUG	siemens	Hq	6	1
	3VA9157-0FK21	com. rinv. Door Lock x 3VA10/1 STD	siemens			1
	3VA9988-0BL30	bobsleigh. Launch SIN 24VAC 50/60 Hz/12-30 VDC	siemens			1
	3VA9988-0AA11	Cont. HP-type status	siemens			1
	3VA9111-0WD40	Cover x 3VA10/1 4P 1pcs.	siemens			2
QM1	5SY7410-7	Circuit breaker 400 V 15kA, 4P, C, 10 A, D=70 mm	siemens	Hq	7	1
	5SM23420	Block diff. 4P 40A 30mA Type AC x 5sy	siemens			1

REV.	MODIFICA	DATA	FIRMA	APPR.	
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	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-400 I&T EQUIPMENT ROOM

MATERIAL LIST
LISTA METERIALI

ROSETTI MARINO | ALEXSISTEMI s.p.a.

1724000049-HV-DA-00029

FG. 60
F.S. 61

NO MARK UP AS COMMISSIONED: MAMA GIRO m. 17/4/25

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
QM1	5ST3010	Auxiliary contact block, 1 NO 1 NC for 5SL, 5SY, 5SP circuit breaker	siemens	Hq	7	1
QM1A	3RV2011-1AA10	Circuit breaker size S00 for motor protection, class 10, trip A 1.1...1.6 A, trip N 21 A, screw terminal	siemens	Hq	9	1
	3RV2901-1E	Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers	siemens			1
QM1B	3RV2011-1AA10	Circuit breaker size S00 for motor protection, class 10, trip A 1.1...1.6 A, trip N 21 A, screw terminal	siemens	Hq	17	1
	3RV2901-1E	Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers	siemens			1
QM2A	3RV2011-1GA10	Circuit breaker size S00 for motor protection, class 10, trip A 4.5...6.3 A, trip N 82 A, screw terminal	siemens	Hq	10	1
	3RV2901-1E	Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers	siemens			1
	3RA19211DA00	El.Col. Electr.Mech. (1pack=1pcs)	siemens			1
QM2B	3RV2011-1GA10	Circuit breaker size S00 for motor protection, class 10, trip A 4.5...6.3 A, trip N 82 A, screw terminal	siemens	Hq	18	1
	3RV2901-1E	Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers	siemens			1
	3RA19211DA00	El.Col. Electr.Mech. (1pack=1pcs)	siemens			1
QM3A	3RV20214BA10	Int.aut.s0, 14-20a,vt	siemens	Hq	10	1
	3RV2901-1E	Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers	siemens			1
	3RA29211AA00	mod.coll.vt x 3rv2-3rt2 ac	siemens			1
QM3B	3RV20214BA10	Int.aut.s0, 14-20a,vt	siemens	Hq	18	1
	3RV2901-1E	Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers	siemens			1
	3RA29211AA00	mod.coll.vt x 3rv2-3rt2 ac	siemens			1
QM4A	3RV20114AA10	int.aut.s00, 11-16a,vt	siemens	Hq	10	1
	3RV2901-1E	Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers	siemens			1
QM4B	3RV2011-4AA10	Circuit breaker size S00 for motor protection, class 10, trip A 10...16 A, trip N 208 A, screw terminal	siemens	Hq	18	1
	3RV2901-1E	Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers	siemens			1
QM5A	3RV2011-1DA10	Circuit breaker size S00 for motor protection, class 10, trip A 2.2...3.2 A, trip N 42 A, screw terminal	siemens	Hq	11	1
	3RV2901-1E	Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers	siemens			1
QM5B	3RV2011-1DA10	Circuit breaker size S00 for motor protection, class 10, trip A 2.2...3.2 A, trip N 42 A, screw terminal	siemens	Hq	19	1
	3RV2901-1E	Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers	siemens			1
QS1	3VA1140-4GF42-0AA0	Switch 3VA1 IEC Chassis 160 Switching Capacity Class S ICU=36 KA 415 V 4-pole, TM240 system protection, ATAM, IN=40 A overload protection IR=28 A... 40 A Short-Circuit Protection II=5...10 x in N-Conductor Protection 100% terminal LUG	siemens	Hq	6	1
	3VA9988-0BL30	bobsleigh. Launch SIN 24VAC 50/60 Hz/12-30 VDC	siemens			1
	3VA9988-0AA11	Cont. HP-type status	siemens			1
	3VA9157-0FK21	com. rinv. Door Lock x 3VA10/1 STD	siemens			1
	3VA9111-0WD40	Cover x 3VA10/1 4P 1pcs.	siemens			2
SA27.1		Three-position selector switch No rest 0		Hq	27	1
SA27.2		Three-position no-sleep selector switch 1		Hq	27	1
TA1	TAC022150X05	Amperometric transformer hole 22, transformation ratio 150/5 A	Frer	Hq	6	1
TA2	TAC022150X05	Amperometric transformer hole 22, transformation ratio 150/5 A	Frer	Hq	6	1
TA3	TAC022150X05	Amperometric transformer hole 22, transformation ratio 150/5 A	Frer	Hq	6	1
VSD-1A	6SL3210-5BE15-5CV0	SinamiCs V20 3AC380-480V 0.55kw with C3 filter	siemens	Hq	9	1

REV.	MODIFICA	DATA	FIRMA	APPR.	
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.
					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-400 I&T EQUIPMENT ROOM

ROSETTI MARINO | ALEXSISTEMI

1724000049-HV-DA-00029

FG. 61
F.S. 62

Nome/Item	Tipo/Type	Descrizione/Description	Costruttore/Manufacturer	Quadro/Board	Fg/Sh	Q.ta/Q.ty
VSD-1B	*6SL3210-5BE15-5CV0*	*SinamiCs V20 3AC380-480V 0.55kw with C3 filter*	*siemens*	*Hq*	17	1
VSD-5A	*6SL3210-5BE21-1CV0*	*SinamiCs V20 3AC380-480V 1.1kw with C3 Filter*	*siemens*	*Hq*	11	1
VSD-5B	*6SL3210-5BE21-1CV0*	*SinamiCs V20 3AC380-480V 1.1kw with C3 Filter*	*siemens*	*Hq*	19	1
X3		*RJ45 port per panel*		*Hq*	*49th*	1
XA1	*CBS02GR*	*Sectionable clamp 2.5 mm2*	*Cabur*	*Hq*		30
	BT005	*BTU Terminal Block*	*Cabur*			2
XA2	*CBS02GR*	*Sectionable clamp 2.5 mm2*	*Cabur*	*Hq*		30
	BT005	*BTU Terminal Block*	*Cabur*			2
XC	*CBS02GR*	*Sectionable clamp 2.5 mm2*	*Cabur*	*Hq*		8
	BT005	*BTU Terminal Block*	*Cabur*			2
XFD	*CBS02GR*	*Sectionable clamp 2.5 mm2*	*Cabur*	*Hq*		20
XFD/S	*CBS02GR*	*Sectionable clamp 2.5 mm2*	*Cabur*	*Hq*		20
XM1	*CBC02GR*	*CBC.2/GR Thru-Clamp*	*Cabur*	*Hq*		6
	CBC10gr	*CBC.10/gr Thru-Clamp*	*Cabur*			6
	CBC04GR	*CBC.4/GR Feed-through clamp*	*Cabur*			6
	BT005	*BTU Terminal Block*	*Cabur*			2
XM2	*CBC02GR*	*CBC.2/GR Thru-Clamp*	*Cabur*	*Hq*		6
	CBC10gr	*CBC.10/gr Thru-Clamp*	*Cabur*			6
	CBC04GR	*CBC.4/GR Feed-through clamp*	*Cabur*			6
	BT005	*BTU Terminal Block*	*Cabur*			2
XMD1	*SF900GR*	*SFR.4/GR Sectionable clamp*	*Cabur*	*Hq*		6
	CBS02GR	*Sectionable clamp 2.5 mm2*	*Cabur*			12
	BT005	*BTU Terminal Block*	*Cabur*			2
XMD2	*SF900GR*	*SFR.4/GR Sectionable clamp*	*Cabur*	*Hq*		6
	CBS02GR	*Sectionable clamp 2.5 mm2*	*Cabur*			12
	BT005	*BTU Terminal Block*	*Cabur*			2
XP1	*CBC35gr*	*CBC.35/GR Feed-through clamp*	*Cabur*	*Hq*		5
	CBC02GR	*CBC.2/GR Thru-Clamp*	*Cabur*			8
	CBC04GR	*CBC.4/GR Feed-through clamp*	*Cabur*			6
	BT005	*BTU Terminal Block*	*Cabur*			2
XT	*CBS02GR*	*Sectionable clamp 2.5 mm2*	*Cabur*	*Hq*		13
	BT005	*BTU Terminal Block*	*Cabur*			2
XUPS	*CBC04GR*	*CBC.4/GR Feed-through clamp*	*Cabur*	*Hq*		2
	BT005	*BTU Terminal Block*	*Cabur*			2

NO MARK UP
AS COMMISSIONED: ultima giro in
17/4/25

REV.	MODIFICA	DATA	FIRMA	APPR.	M.G.
05	ACCEPT FOR CONSTRUCTION	27/01/25	F.M.	DATA	22/04/2024
04	ACCEPT FOR CONSTRUCTION	10/12/24	F.M.	DISEGN.	F.M.
03	ISSUED FOR CONSTRUCTION	04/09/24	F.M.	VISTO	S.S.

frigotermica
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tel. 0039-0371-69076
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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-400 I&T EQUIPMENT ROOM

Distinta Materiali
Bill of Materials

ROSETTI MARINO | ALEXSISTEMI

1724000049-HV-DA-00029

FG. 62
F.S. /

Section 8 LIST OF MODIFICATIONS

NOT APPLICABLE

Section 8.1 List of changes

NOT APPLICABLE

Section 9 SUPPORTING DOCUMENTS

NOT APPLICABLE