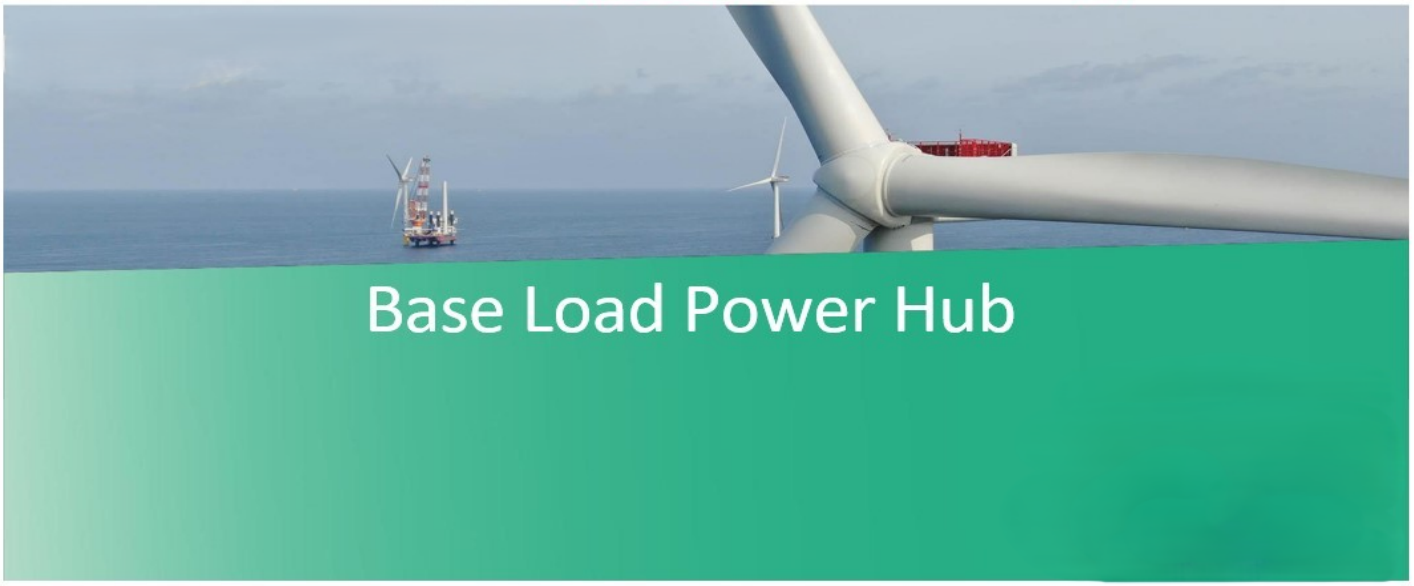
CROSSWIND

ROSETTI MARINO

PROVERLIS

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




# COMMISSIONING DOSSIER (ONSHORE)

| | |
|---|---|
| SYSTEM | 77<br>Heating & Ventilation |
| SUBSYSTEM | 77-30<br>HVAC UPS Equipment Room B-300 |

CROSSWIND

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

# COMMISSIONING DOSSIER INDEX

ROSETTI MARINO

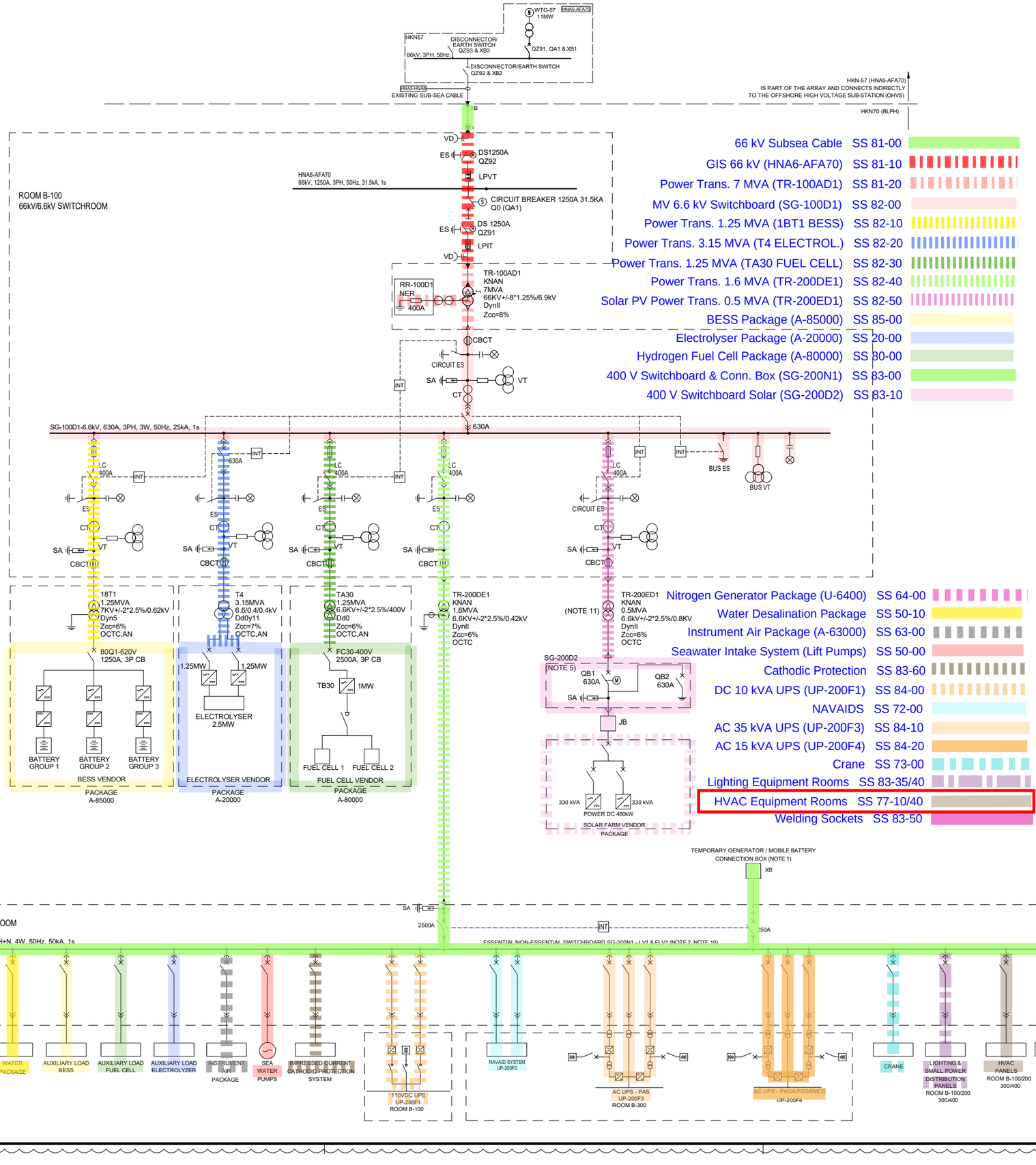
| | | | | |
|---|---|---|---|---|
| **Sub System N°:** | 77-30 | **Tick as appropriate** | ONSHORE | OK |
| **Description:** | HVAC UPS Equipment Room B-300 | | OFFSHORE | |

| | |
|---|---|
| **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 2025-05-22T12:13:46.191Z | PROVERLIS Digitaly signed by Martin Taylor 2025-05-22T13:44:39.204Z |

# Section 1 SUB-SYSTEM DEFINITION

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




## SYMBOL LEGEND:

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

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

## NOTES:

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

## REFERENCES:

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

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

CROSSWIND

ROSETTI MARINO

TITLE :

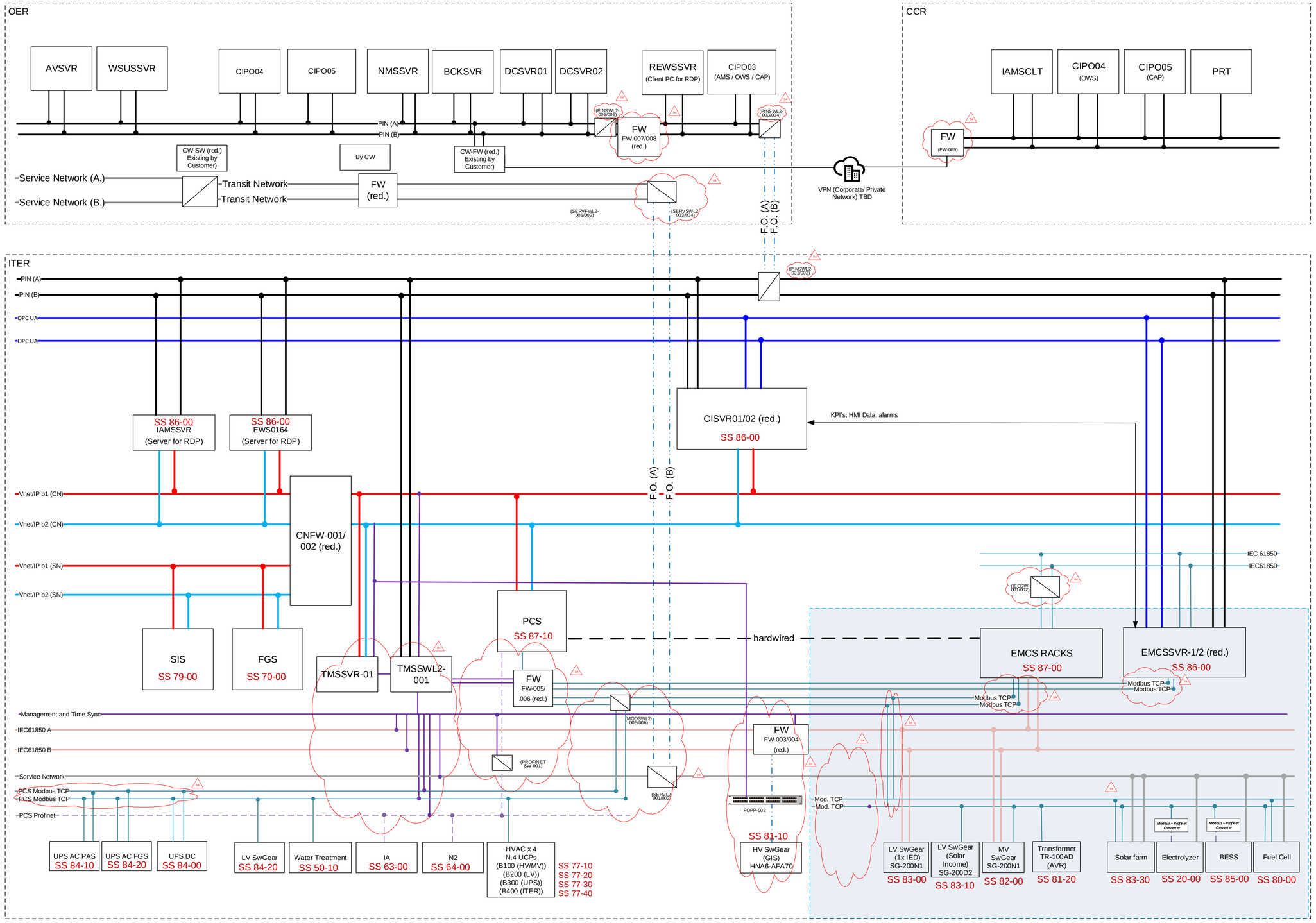
OVERALL/KEY SINGLE LINE DIAGRAM

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

01

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

# CROSSWIND BLPH PROJECT - SYSTEM BLOCK DIAGRAM




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

**LEGEND:**

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

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

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

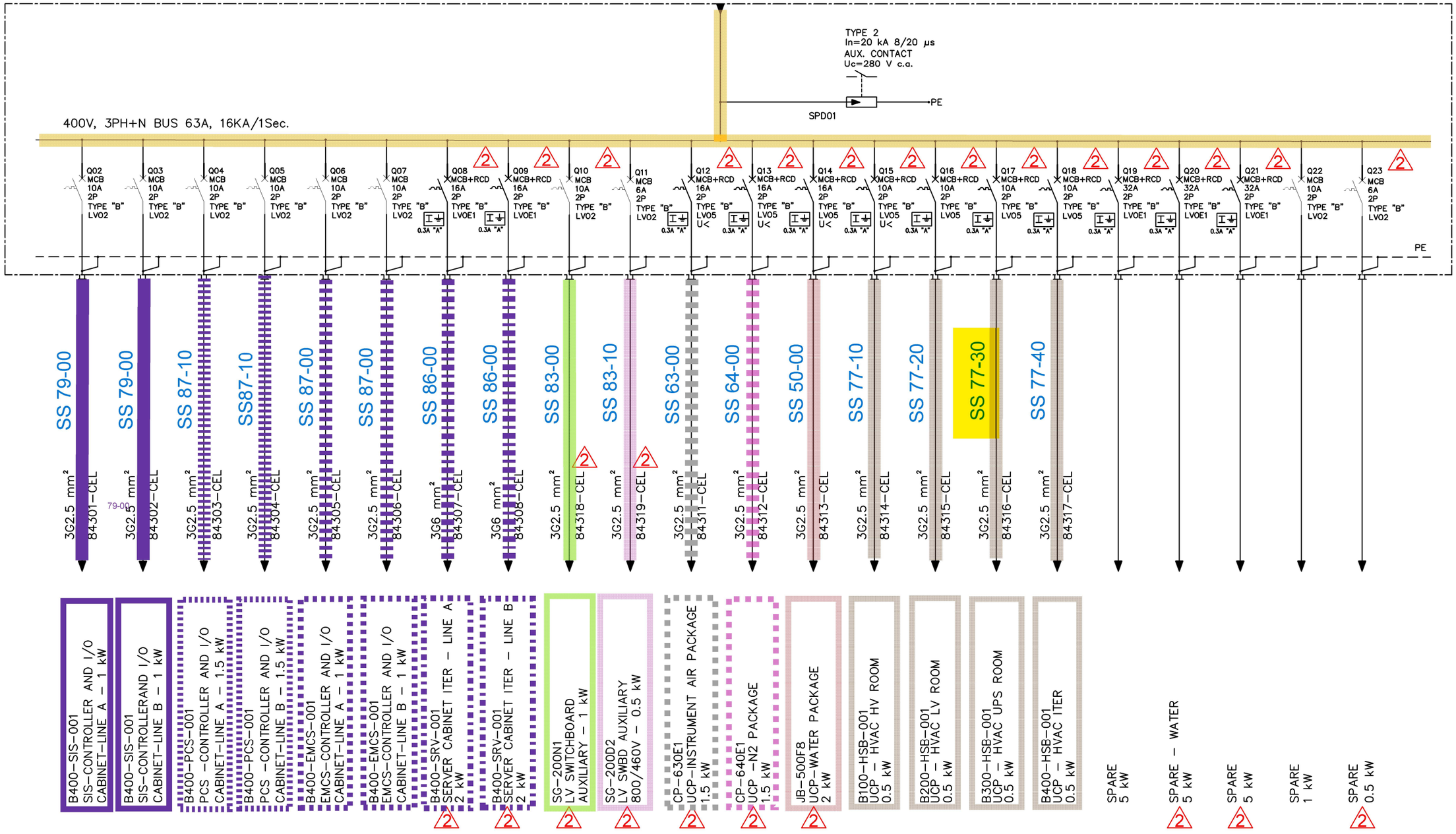
| REV | DWG BY | CHK BY | APP BY | DATE |
|---|---|---|---|---|
| 04 | SKR | MP/AB | SC | 12-Feb-25 |
| 03 | SKR | MP/AB | SC | 26-Aug-24 |
| 02 | SKR | MP/AB | SC | 28-Jun-24 |
| 01 | SKR | MP/AB | SC | 24-May-24 |
| 00 | SKR | AB | SC | 23-Apr-24 |

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

ROSETTI MARINO
HOLLANDSE KUST NOORD WIND PART Project
CROSSWIND
YOKOGAWA

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

AC UPS DISTRIBUTION BOARD–PAS
DP–200F3




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

CROSSWIND

ROSETTI MARINO

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

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

SCALE : 1:X

A3

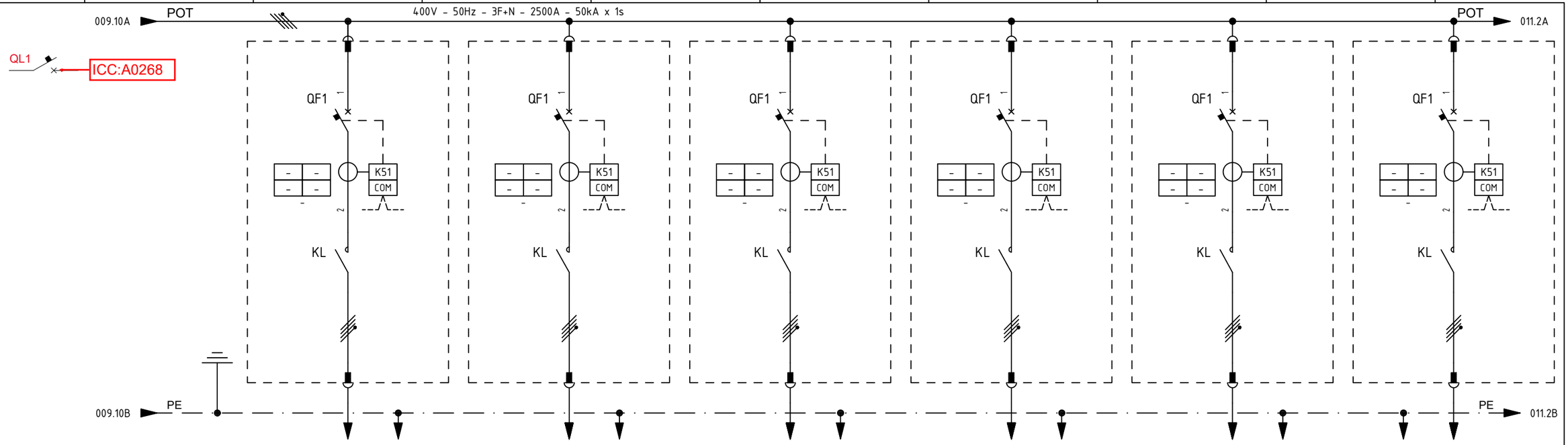
DRAWING NO. 123A90–DDL–EL–DG–20160

SHEET 005

REV. 02

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

F.to UNI A3: 420mmx297mm




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

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

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

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

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

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

F.to UNI A3: 420mmx297mm

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

# Section 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: | 77-30 | / | HVAC UPS Equipment Room B-300 | | |

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: 1 |

**REMARKS:**

| | CONTRACTOR<br>Commissioning Manager | COMPANY<br>Commissioning Lead |
|---|---|---|
| Name | Anthony Iveson | Martin Taylor |
| Date | 2025-05-16 | 2025-05-22 |
| Signature | PROVERLIS Digitaly signed by Anthony Iveson 2025-05-16T09:00:09.880Z | PROVERLIS Digitaly signed by Martin Taylor 2025-05-22T07:27:46.137Z |

CROSSWIND

ROSETTI MARINO

# Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 77-30 & process: COMM

| Electrical | 77-30 HVAC UPS Equipment Room B-300 | | | | | | |
|---|---|---|---|---|---|---|---|
| ITEM | | TASK | | | | | |
| Code | Description | Location | Code | Form | Progress | Date | Certificate |
| A5/+03-QF1 | DRAWER HVAC PANELS UPS ROOM - A5/+03-QF1 | ONSHORE | C10002874 | FP00 | 100 | 2024-10-11 | RFO 2 |
| | | ONSHORE | C10002875 | FTR-2 | 100 | 2024-09-20 | RFO 2 |
| | | ONSHORE | C10002876 | FTR-6 | 100 | 2024-10-03 | RFO 2 |
| | | ONSHORE | C10003016 | FTR-5 | 100 | 2025-05-15 | RFO 2 |
| B300-HSB-001 | Distribution & HVAC Panel - Shelter AC UPS Fitted with UPS System Equipment Room | ONSHORE | C10002989 | FP00 | 100 | 2024-10-29 | RFO 2 |
| UP-200F3-QF41 | UCP - HVAC UPS ROOM | ONSHORE | C10004578 | FTR-2 | 100 | 2024-11-18 | RFO 2 |

# Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 77-30 & process: COMM

| Instrumental | 77-30 HVAC UPS Equipment Room B-300 | | | | | | |
|---|---|---|---|---|---|---|---|
| ITEM | | TASK | | | | | |
| Code | Description | Location | Code | Form | Progress | Date | Certificate |
| 77-XA-003 | B-300 UPS room HVAC fault | ONSHORE | C10003796 | FJ01D | 100 | 2025-02-24 | RFO 2 |
| 77-XS-003 | SHUT-DOWN B-300 UPS room HVAC | ONSHORE | C10003800 | FJ01D | 100 | 2025-02-24 | RFO 2 |
| B300-HSB-001 | Distribution & HVAC Panel - Shelter AC UPS Fitted with UPS System Equipment Room | ONSHORE | C10004881 | FJ05 | 100 | 2025-05-15 | RFO 2 |

CROSSWIND

ROSETTI MARINO

# Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-30 HVAC UPS Equipment Room B-300

Mechanical

| CODE | CAT | ITEM | DEFECT DESCRIPTION | CORRECTIVE ACTION | PERFORMED ACTION | ISSUED | CARRIED | CHECKED | APPROVED |
|---|---|---|---|---|---|---|---|---|---|
| C30000516 | A | B-300 | Confirm with the compressor manufacturer whether starting the compressor without preheating the oil could cause damage | based on the manufacturer's response, either take no action or ensure the electric heater is powered by a UPS. If electric heaters are | Probe installed. Compressor has been insulated. Temperature setting 20°C as | SLinari 2024-10-30 | Vendor 2025-02-22 | SLinari 2025-02-22 | 2025-02-22 |
| C30000517 | A | B-300 | Confirm with the compressor manufacturer whether starting the compressor without preheating the oil could cause damage | based on the manufacturer's response, either take no action or ensure the electric heater is powered by a UPS. If electric heaters are | Probe installed. Compressor has been insulated. Temperature setting 20°C as | SLinari 2024-10-30 | Vendor 2025-02-22 | SLinari 2025-02-22 | 2025-02-22 |
| C30000550 | A | B300-HSB-001 | Make temperature and differental pressure trends visible on all HMIs | Update PLC software to apply the request | Implemented by Vendor | SLinari 2024-10-30 | Vendor 2025-02-20 | SLinari 2025-02-20 | 2025-02-20 |
| C30000016 | B | B-300 | Handles fixed on external doors are made of plastic material. Temporary key cylinder and handles to be replaced with the ones made of SS | | DONE | SLinari 2024-08-02 | SLinari 2025-02-06 | SLinari 2025-02-06 | 2025-02-06 |
| C30000020 | B | B-300 | Master key (common for all modules) to be provided | | DONE | SLinari 2024-08-02 | SLinari 2024-10-29 | SLinari 2024-10-29 | 2024-10-29 |
| C30000048 | B | B-300 | Some brass cable glands are overtightened and need to be untightened to avoid cold flow of cables. Will be performed a spot check at RM | | CHECKED CEMBRE INSTALLATION MANUAL - ACCEPTED | SLinari 2024-08-02 | SLinari 2024-10-29 | SLinari 2024-10-29 | 2024-10-29 |
| C30000542 | B | B-300 | During SAT drainage pipes were not completely installed, incluede heat tracing and related connection to JB. | The work described has to be concluded. During commissioning heat tracing will be tested | Verified | SLinari 2024-10-30 | Vendor 2025-02-20 | SLinari 2025-02-20 | 2025-02-20 |
| C30000546 | B | B-300 | None pressure relief damper HDR-77-301 work properly as per design conditions. They remain closed even thogh inside the shelters more then | Investigate the malfunction with the manufacturer and take corrctive actions to adjust or replace the pressure relief request. | It Work. Has been manually setted. | SLinari 2024-10-30 | Vendor 2025-02-22 | SLinari 2025-02-22 | 2025-02-22 |
| C30000554 | B | B-300 | Several doors present a not perfect closure on the three deadbolts, probably due to a misalignment. | Check the doors and fix the closure issue. This activity vould be done during commissioning activities. | | SLinari 2024-10-30 | | | |

# Project CROSSWIND

PUNCH LIST REPORT

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

Mechanical

| CODE | CAT | ITEM | DEFECT DESCRIPTION | CORRECTIVE ACTION | PERFORMED ACTION | ISSUED | CARRIED | CHECKED | APPROVED |
|---|---|---|---|---|---|---|---|---|---|
| C30000558 | B | B-300 | Since the drainage pipe and heating cable datasheet have not yet been sent to RM, the suitability of the materials used cannot be verified. | Submit both the drainage pipe and heating cable datasheet ( by inserting them HVAC COMPONENTS LIST AND DS - E&I | 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 |
| C30000562 | B | B-300 | Most of documntation is still in draft form. All documents must be finalized and approved by RM before commissioning activities. During | Review and issue al documentation by 15/11/2024 to allow for finalization by the end of november 2024, accounting fot the time | 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 |
| C30004326 | B | B-300 | 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 77-30 HVAC UPS Equipment Room B-300

Electrical

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

# Project CROSSWIND

PUNCH LIST REPORT



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

Electrical

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

# Project CROSSWIND

PUNCH LIST REPORT

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

Electrical

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

# Project CROSSWIND

PUNCH LIST REPORT



SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-30 HVAC UPS Equipment Room B-300

Instrumental

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

# Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-30 HVAC UPS Equipment Room B-300

Instrumental

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

# Project CROSSWIND

PUNCH LIST REPORT



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

Instrumental

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

# Project CROSSWIND

PUNCH LIST REPORT

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

Instrumental

| CODE | CAT | ITEM | DEFECT DESCRIPTION | CORRECTIVE ACTION | PERFORMED ACTION | ISSUED | CARRIED | CHECKED | APPROVED |
|---|---|---|---|---|---|---|---|---|---|
| C30000890 | B | C-77-XS-003/B400-SIS-001 C10000182 | the philosophy of cross-ferruling are wrong cabinet side B400-SIS-001 / B-300 HVAC . (see document 123A90-DDL-IN-DG-40016 sh.3) | . | | APolo 2024-11-25 | 2025-03-11 | JKrizanic 2025-03-11 | 2025-03-11 |
| C30000891 | B | C-77-XS-003/B400-SIS-001 C10000182 | Double shield connected to one terminal on shield bar. this point is valid also for cabinet side B400-SIS-001 | . | | APolo 2024-11-25 | 2025-02-28 | AAndreani 2025-02-28 | 2025-02-28 |
| C30000905 | B | C-77-XA-003/B400-SIS-001 C10000186 | Missing cable tag , cabinet input B400-SIS-001. | . | | APolo 2024-11-25 | 2025-01-03 | Gtangianu 2025-01-03 | 2025-01-03 |
| C30000906 | B | C-77-XA-003/B400-SIS-001 C10000186 | the philosophy of cross-ferruling are wrong cabinet side B400-SIS-001 / B-300 HVAC . (see document 123A90-DDL-IN-DG-40016 sh.3) | . | | APolo 2024-11-25 | 2025-04-11 | Gtangianu 2025-04-11 | 2025-04-11 |
| C30000908 | B | C-77-XA-003/B400-SIS-001 C10000186 | Double shield connected to one terminal on shield bar. this point is valid also for cabinet side B400-SIS-001 | . | | APolo 2024-11-25 | 2025-02-28 | AAndreani 2025-02-28 | 2025-02-28 |

CROSSWIND

ROSETTI MARINO

# Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-30 HVAC UPS Equipment Room B-300

HVAC

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

# Project CROSSWIND

PUNCH LIST REPORT



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

Telecom

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

# Section 2.2 Exception Punch Lists (per discipline)

CROSSWIND

ROSETTI MARINO

# Project CROSSWIND

PUNCH LIST REPORT

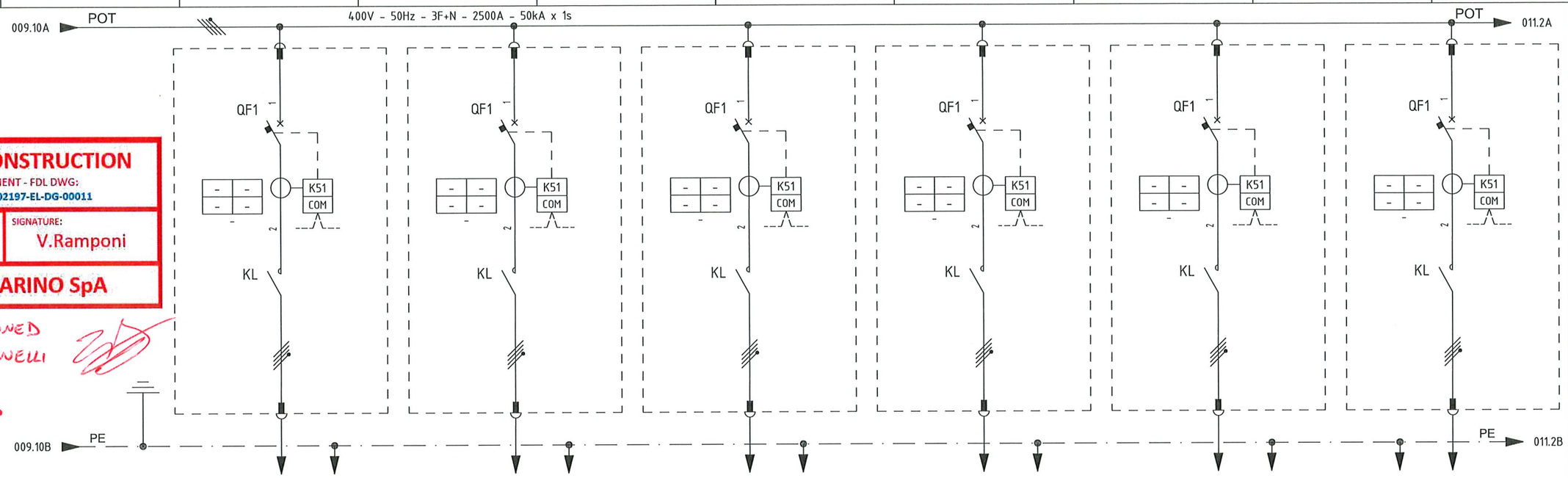
SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-30 HVAC UPS Equipment Room B-300

Mechanical

| CODE | CAT | ITEM | DEFECT DESCRIPTION | CORRECTIVE ACTION | PERFORMED ACTION | ISSUED | CARRIED | CHECKED | APPROVED |
|---|---|---|---|---|---|---|---|---|---|
| C30000554 | B | B-300 | Several doors present a not perfect closure on the three deadbolts, probably due to a misalignment. | Check the doors and fix the closure issue. This activity vould be done during commissioning activities. | | SLinari 2024-10-30 | | | |

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




**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 | - |

| | | | | | | |
|---|---|---|---|---|---|---|
| = | | | | | | |
| + | | | | | | |
| 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) | |
| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION | |

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. 04

F.to UNI A3: 420mmx297mm

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

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CAE EPLAN Electric P8

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

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

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

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

back-up fuse gS10A 3G2.5mm2

gG63A 4G35mm2

Not included in the AEG shipment

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

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

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

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

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

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

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

2(1x70 mm2)

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

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

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

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

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

*2 Connection cables are not included.

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

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

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

ROSETTI MARINO SpA

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

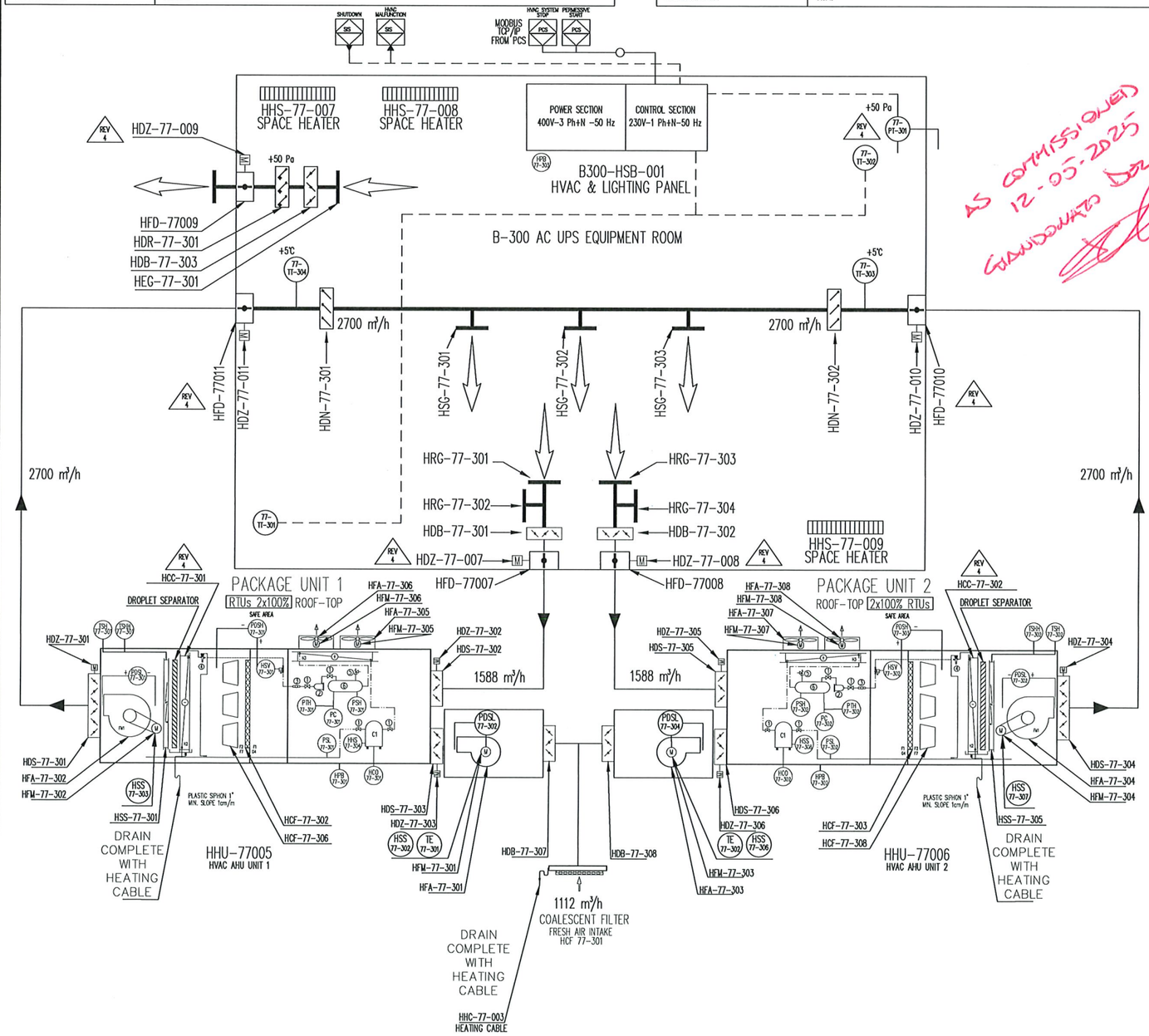
1000007888_010

DRAWING NO. 1724000049-HV-PID-00041

REV. 4

| ITEM | HVAC-ROOF TOP |
|---|---|
| DESCRIPTION | HVAC UNIT |
| MAKER | FRIGOTERMICA srl |
| MODEL | 4112-DMPD-200 |
| SUPPLY AIR FLOW | 750 l/s |
| COOLING COIL CAPACITY | 12 kW AT +26°C Outdoor Temperature |
| HEATING COIL CAPACITY | 6 kW |
| TENSIONE | 400 V – 50 Hz – 3 Ph+N |
| EXECUTION | SAFE AREA |
| REFRIGERANT | R513a |

| ITEM | HVAC-PRESSURISING FAN |
|---|---|
| DESCRIPTION | HVAC UNIT |
| MAKER | FRIGOTERMICA srl |
| MODEL | 4112-DMPD-201 |
| SUPPLY AIR FLOW | 281 l/s |
| COOLING COIL CAPACITY | N.A. |
| HEATING COIL CAPACITY | N.A. |
| TENSIONE | 400 V – 50 Hz – 3 Ph+N |
| EXECUTION | SAFE AREA |
| REFRIGERANT | N.A. |



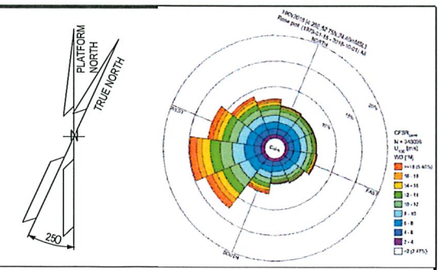

AS COMMISSIONED
12-05-2025
GIANDOMENICO DE MESIER

| LEGEND | |
|---|---|
| | MOTORISED DAMPER WITH SPRING RETURN |
| | REGULATION DAMPER |
| | OVERPRESSURE DAMPER |
| PDSH PDSL | DIFFERENTIAL PRESSURE SWITCH HIGH PRESSURE |
| PDSL | DIFFERENTIAL PRESSURE SWITCH LOW PRESSURE |
| TT | TEMPERATURE TRASMITTER |
| HS | EMERGENCY PUSH BUTTON |
| HR | COMPRESSOR OIL HEATER |
| SV | SOLENOID VALVE |
| C | REFRIGERANT COMPRESSOR |
| F1 | AIR FILTER "G4" |
| F2 | BAG FILTER "F8" |
| | CONDENSING COIL |
| | CONDENSING FAN |
| | ELECTRICAL HEATER |
| | SUPPLY FAN |
| | GLOBE VALVE |
| | DRYER FILTER |
| | SIGHT GLASS |
| | THERMOSTATIC VALVE |
| | PRESSURE RELIEF VALVE |
| | MOTORISED FIRE DAMPER WITH SPRING RETURN |
| | EVAPORATING COIL |
| | LIQUID RECEIVER |
| MT | MOISTURE TRASMITTER |
| PTR | HIGH PRESSURE TRASDUCER |
| TP | COMPRESSOR THERMIC PROTECTION |
| TSH | HIGH TEMPERATURE SECURITY THERMOSTATE |
| PSH | HIGH PRESSURE SWITCH |
| PSL | LOW PRESSURE SWITCH |
| PC | CONDENSING PRESSURE SWITCH |
| HR | ELECTRICAL HEATING |
| HCO | REFRIGERANT COMPRESSOR |
| MD | MOTORISE DAMPER |
| TSH | 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 %

Module B-300 AC UPS Equipment Room
Safe Area
Indoor min. design temperature: +5°C with RH 30 ÷ 70%
Indor max. design temperature: +35°C with RH 30 ÷ 70%
Min. ACH: 6




NOTES

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-300 AC UPS EQUIPMENT ROOM
P&ID HVAC System

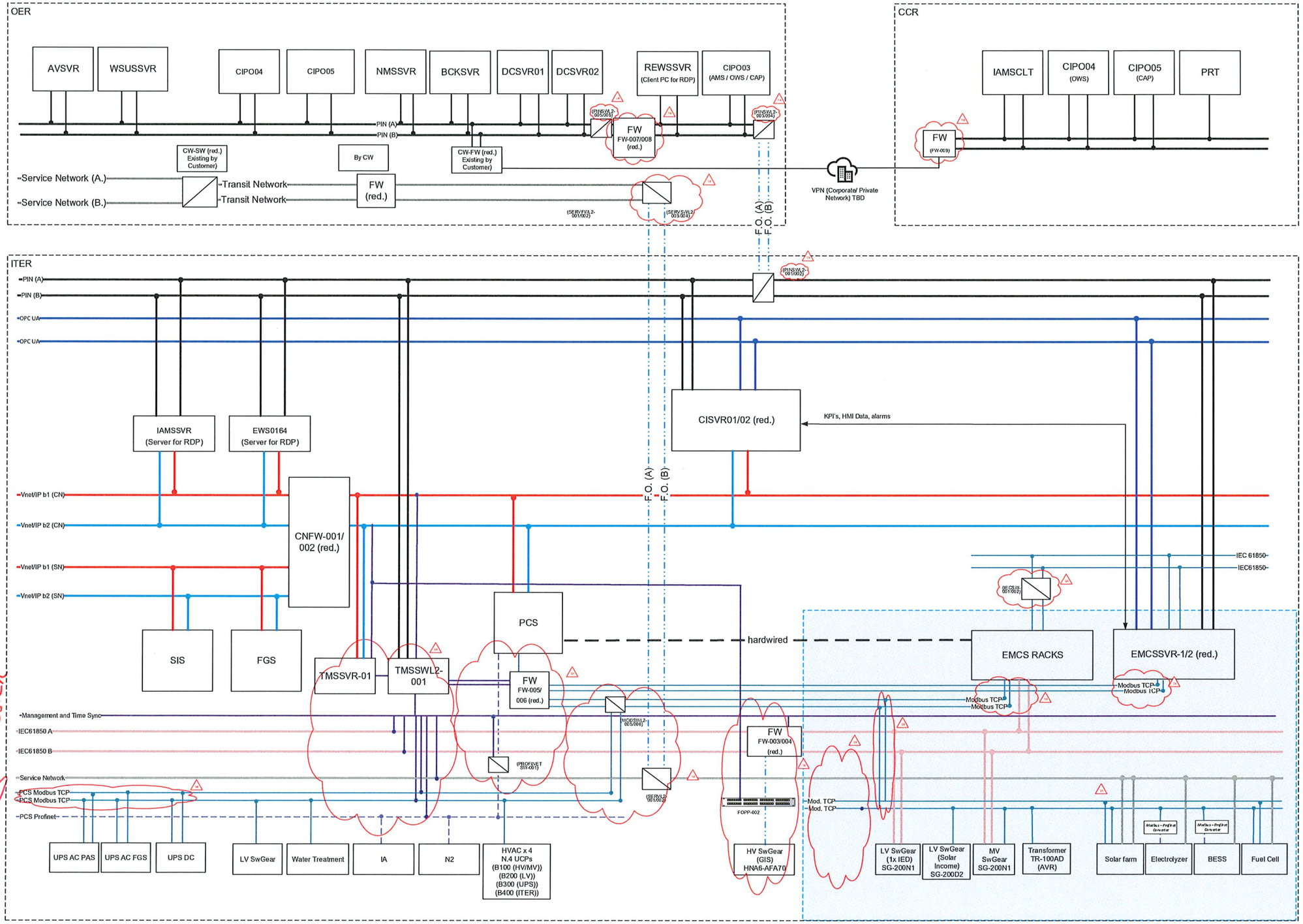
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE 1 : 1

DRAWN G.M. | CHECKED A.O. | APPROVED A.C. | DATE 27/01/25

A1 | DRAWING NO. 1724000049-HV-PID-00041 | SHEET 003 | REV. 4

File Name : 1724000049-HV-PID-00041

# CROSSWIND BLPH PROJECT - SYSTEM BLOCK DIAGRAM




As commissioning
08-05-2026
Giandonato De Mistri

| | | | |
|---|---|---|---|
| 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
Zone-12 : 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

# Section 3 CONSOLIDATED PUNCH LISTS

CROSSWIND

ROSETTI MARINO

# Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-30 HVAC UPS Equipment Room B-300

Mechanical

| CODE | CAT | ITEM | DEFECT DESCRIPTION | CORRECTIVE ACTION | PERFORMED ACTION | ISSUED | CARRIED | CHECKED | APPROVED |
|---|---|---|---|---|---|---|---|---|---|
| C30000516 | A | B-300 | Confirm with the compressor manufacturer whether starting the compressor without preheating the oil could cause damage | based on the manufacturer's response, either take no action or ensure the electric heater is powered by a UPS. If electric heaters are | Probe installed. Compressor has been insulated. Temperature setting 20°C as | SLinari 2024-10-30 | Vendor 2025-02-22 | SLinari 2025-02-22 | 2025-02-22 |
| C30000517 | A | B-300 | Confirm with the compressor manufacturer whether starting the compressor without preheating the oil could cause damage | based on the manufacturer's response, either take no action or ensure the electric heater is powered by a UPS. If electric heaters are | Probe installed. Compressor has been insulated. Temperature setting 20°C as | SLinari 2024-10-30 | Vendor 2025-02-22 | SLinari 2025-02-22 | 2025-02-22 |
| C30000550 | A | B300-HSB-001 | Make temperature and differental pressure trends visible on all HMIs | Update PLC software to apply the request | Implemented by Vendor | SLinari 2024-10-30 | Vendor 2025-02-20 | SLinari 2025-02-20 | 2025-02-20 |
| C30000016 | B | B-300 | Handles fixed on external doors are made of plastic material. Temporary key cylinder and handles to be replaced with the ones made of SS | | DONE | SLinari 2024-08-02 | SLinari 2025-02-06 | SLinari 2025-02-06 | 2025-02-06 |
| C30000020 | B | B-300 | Master key (common for all modules) to be provided | | DONE | SLinari 2024-08-02 | SLinari 2024-10-29 | SLinari 2024-10-29 | 2024-10-29 |
| C30000048 | B | B-300 | Some brass cable glands are overtightened and need to be untightened to avoid cold flow of cables. Will be performed a spot check at RM | | CHECKED CEMBRE INSTALLATION MANUAL - ACCEPTED | SLinari 2024-08-02 | SLinari 2024-10-29 | SLinari 2024-10-29 | 2024-10-29 |
| C30000542 | B | B-300 | During SAT drainage pipes were not completely installed, incluede heat tracing and related connection to JB. | The work described has to be concluded. During commissioning heat tracing will be tested | Verified | SLinari 2024-10-30 | Vendor 2025-02-20 | SLinari 2025-02-20 | 2025-02-20 |
| C30000546 | B | B-300 | None pressure relief damper HDR-77-301 work properly as per design conditions. They remain closed even thogh inside the shelters more then | Investigate the malfunction with the manufacturer and take corrctive actions to adjust or replace the pressure relief request. | It Work. Has been manually setted. | SLinari 2024-10-30 | Vendor 2025-02-22 | SLinari 2025-02-22 | 2025-02-22 |
| C30000554 | B | B-300 | Several doors present a not perfect closure on the three deadbolts, probably due to a misalignment. | Check the doors and fix the closure issue. This activity vould be done during commissioning activities. | Done | SLinari 2024-10-30 | RDegliEsposti 2025-07-30 | RDegliEsposti 2025-07-30 | 2025-07-30 |

# Project CROSSWIND

PUNCH LIST REPORT

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

Mechanical

| CODE | CAT | ITEM | DEFECT DESCRIPTION | CORRECTIVE ACTION | PERFORMED ACTION | ISSUED | CARRIED | CHECKED | APPROVED |
|---|---|---|---|---|---|---|---|---|---|
| C30000558 | B | B-300 | Since the drainage pipe and heating cable datasheet have not yet been sent to RM, the suitability of the materials used cannot be verified. | Submit both the drainage pipe and heating cable datasheet ( by inserting them HVAC COMPONENTS LIST AND DS - E&I | 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 |
| C30000562 | B | B-300 | Most of documntation is still in draft form. All documents must be finalized and approved by RM before commissioning activities. During | Review and issue al documentation by 15/11/2024 to allow for finalization by the end of november 2024, accounting fot the time | 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 |
| C30004326 | B | B-300 | 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 77-30 HVAC UPS Equipment Room B-300

Electrical

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

# Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-30 HVAC UPS Equipment Room B-300

Electrical

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

# Project CROSSWIND

PUNCH LIST REPORT

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

Electrical

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

# Project CROSSWIND

PUNCH LIST REPORT

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

Instrumental

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

# Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 77 Heating & Ventilation

SUBSYSTEM 77-30 HVAC UPS Equipment Room B-300

Instrumental

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

# Project CROSSWIND

PUNCH LIST REPORT



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

Instrumental

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

# Project CROSSWIND

PUNCH LIST REPORT

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

Instrumental

| CODE | CAT | ITEM | DEFECT DESCRIPTION | CORRECTIVE ACTION | PERFORMED ACTION | ISSUED | CARRIED | CHECKED | APPROVED |
|---|---|---|---|---|---|---|---|---|---|
| C30000890 | B | C-77-XS-003/B400-SIS-001 C10000182 | the philosophy of cross-ferruling are wrong cabinet side B400-SIS-001 / B-300 HVAC . (see document 123A90-DDL-IN-DG-40016 sh.3) | . | | APolo 2024-11-25 | 2025-03-11 | JKrizanic 2025-03-11 | 2025-03-11 |
| C30000891 | B | C-77-XS-003/B400-SIS-001 C10000182 | Double shield connected to one terminal on shield bar. this point is valid also for cabinet side B400-SIS-001 | . | | APolo 2024-11-25 | 2025-02-28 | AAndreani 2025-02-28 | 2025-02-28 |
| C30000905 | B | C-77-XA-003/B400-SIS-001 C10000186 | Missing cable tag , cabinet input B400-SIS-001. | . | | APolo 2024-11-25 | 2025-01-03 | Gtangianu 2025-01-03 | 2025-01-03 |
| C30000906 | B | C-77-XA-003/B400-SIS-001 C10000186 | the philosophy of cross-ferruling are wrong cabinet side B400-SIS-001 / B-300 HVAC . (see document 123A90-DDL-IN-DG-40016 sh.3) | . | | APolo 2024-11-25 | 2025-04-11 | Gtangianu 2025-04-11 | 2025-04-11 |
| C30000908 | B | C-77-XA-003/B400-SIS-001 C10000186 | Double shield connected to one terminal on shield bar. this point is valid also for cabinet side B400-SIS-001 | . | | APolo 2024-11-25 | 2025-02-28 | AAndreani 2025-02-28 | 2025-02-28 |

# Project CROSSWIND

PUNCH LIST REPORT

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

HVAC

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

# Project CROSSWIND

PUNCH LIST REPORT

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

Telecom

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

ROSETTI MARINO
CROSSWIND

# PUNCH ITEM ENTRY / CLEARANCE FORM

C30000562

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

| | | | |
|---|---|---|---|
| 3.1 Corrective action proposal | Review and issue al documentation by 15/11/2024 to allow for finalization by the end of november 2024, accounting fot the time required by RM to review these documents. | | |
| 3.2 Material required | | | |
| 3.3 Priority | 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 ---<br>Duplicata issued from database information<br>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

PERFORMED - SEE REPORTS

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

C30000620

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

Name: Alessio Polo

Date: 2024-11-19

Signature:

## 3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

| | | | |
|---|---|---|---|
| 3.3 Priority | B PL B | Name | Alessio Polo |
| 3.4 Activity code | MC Mechanical Completion | Date | 2024-11-19 |
| 3.5 Action by | RM_CONSTR RM | Signature | |

## 4 - PERFORMED ACTION

PERFORMED - SEE REPORTS

Name:

Date:

Signature:

## 5 - CLEARANCE CHECK

Installed.

Name: Giovanni Tangianu

Date: 2025-01-03

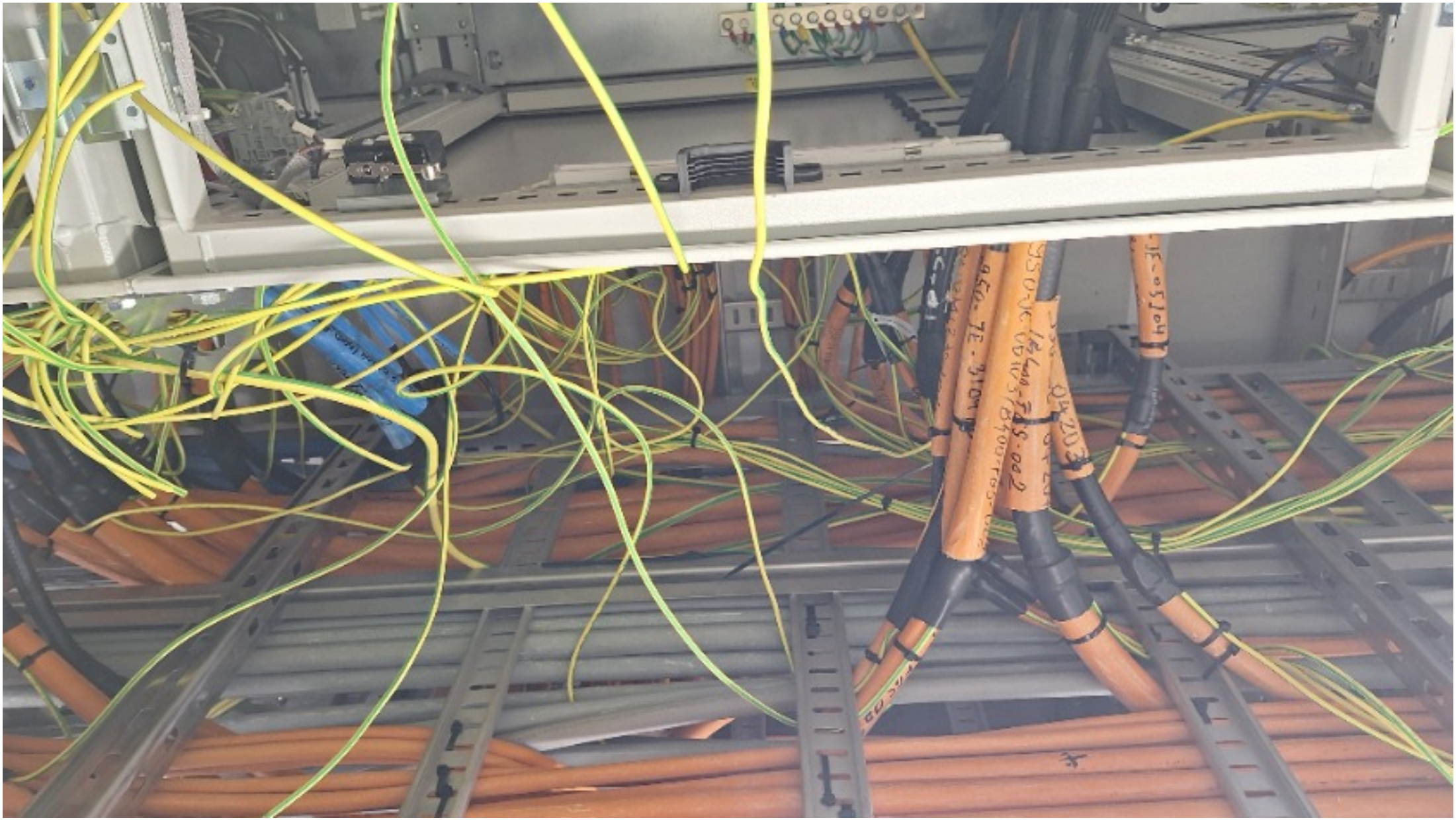
Signature:

## 6- CLEARANCE APPROVAL

Name:

Date:

Signature:



ROSETTI MARINO
CROSSWIND

# PUNCH ITEM ENTRY / CLEARANCE FORM

C30000621

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

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

## 3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

| | | | |
|---|---|---|---|
| 3.3 Priority | B PL B | Name | Alessio Polo |
| 3.4 Activity code | MC Mechanical Completion | Date | 2024-11-19 |
| 3.5 Action by | RM_CONSTR RM | Signature | |

## 4 - PERFORMED ACTION

PERFORMED - SEE REPORTS

Name:
Date:
Signature:

## 5 - CLEARANCE CHECK

DONE

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

## 6- CLEARANCE APPROVAL

Name:
Date:
Signature:

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

ROSETTI MARINO
CROSSWIND

# PUNCH ITEM ENTRY / CLEARANCE FORM

C30000622

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

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

## 3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

| | | | |
|---|---|---|---|
| 3.3 Priority | B PL B | Name | Alessio Polo |
| 3.4 Activity code | MC Mechanical Completion | Date | 2024-11-19 |
| 3.5 Action by | RM_CONSTR RM | Signature | |

## 4 - PERFORMED ACTION

PERFORMED - SEE REPORTS

Name:
Date:
Signature:

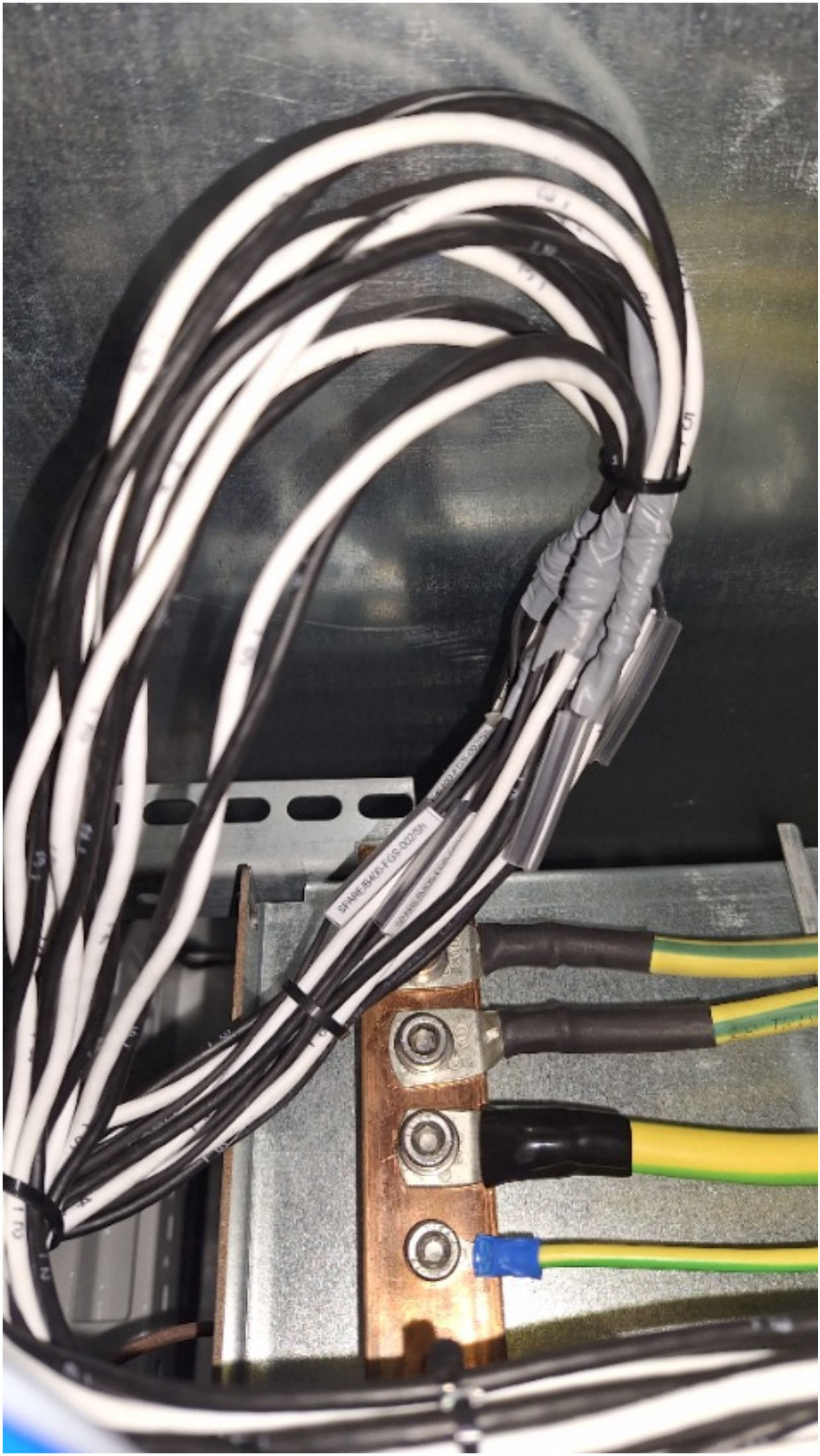
## 5 - CLEARANCE CHECK

Done.

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

## 6- CLEARANCE APPROVAL

Name:
Date:
Signature:



ROSETTI MARINO
CROSSWIND

# PUNCH ITEM ENTRY / CLEARANCE FORM

C30000623

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

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

## 3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

| | | | |
|---|---|---|---|
| 3.3 Priority | B PL B | Name | Alessio Polo |
| 3.4 Activity code | MC Mechanical Completion | Date | 2024-11-19 |
| 3.5 Action by | RM_CONSTR RM | Signature | |

## 4 - PERFORMED ACTION

PERFORMED - SEE REPORTS

Name:
Date:
Signature:

## 5 - CLEARANCE CHECK

DONE

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

## 6- CLEARANCE APPROVAL

Name:
Date:
Signature:

ROSETTI MARINO
CROSSWIND

# PUNCH ITEM ENTRY / CLEARANCE FORM

C30000624

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

Name: Alessio Polo

Date: 2024-11-20

Signature:

## 3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

| | | | |
|---|---|---|---|
| 3.3 Priority | B PL B | Name | Alessio Polo |
| 3.4 Activity code | MC Mechanical Completion | Date | 2024-11-20 |
| 3.5 Action by | RM_CONSTR RM | Signature | |

## 4 - PERFORMED ACTION

PERFORMED - SEE REPORTS

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

C30000684

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

Name: Giovanni Tangianu
Date: 2024-11-21
Signature:

## 3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

| | | | |
|---|---|---|---|
| 3.3 Priority | B PL B | Name | Giovanni Tangianu |
| 3.4 Activity code | MC Mechanical Completion | Date | 2024-11-21 |
| 3.5 Action by | RM_CONSTR RM | Signature | |

## 4 - PERFORMED ACTION

PERFORMED - SEE REPORTS

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

C30000685

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

Name: Giovanni Tangianu
Date: 2024-11-21
Signature:

## 3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

| | | | |
|---|---|---|---|
| 3.3 Priority | B PL B | Name | Giovanni Tangianu |
| 3.4 Activity code | MC Mechanical Completion | Date | 2024-11-21 |
| 3.5 Action by | RM_CONSTR RM | Signature | |

## 4 - PERFORMED ACTION

PERFORMED - SEE REPORTS

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

C30000691

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

Name: Giovanni Tangianu
Date: 2024-11-21
Signature:

## 3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

| | | | |
|---|---|---|---|
| 3.3 Priority | B PL B | Name | Giovanni Tangianu |
| 3.4 Activity code | MC Mechanical Completion | Date | 2024-11-21 |
| 3.5 Action by | VND Vendor | Signature | |

## 4 - PERFORMED ACTION

PERFORMED - SEE REPORTS

Name:
Date:
Signature:

## 5 - CLEARANCE CHECK

Documentation re-issued and aligned to installation

Name: Eleonora Carotenuto
Date: 2025-02-15
Signature:

## 6- CLEARANCE APPROVAL

Name:
Date:
Signature:

ROSETTI MARINO
CROSSWIND

# PUNCH ITEM ENTRY / CLEARANCE FORM

C30000788

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

Name: Giovanni Tangianu
Date: 2024-11-22
Signature:

## 3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

| | | | |
|---|---|---|---|
| 3.3 Priority | B PL B | Name | Giovanni Tangianu |
| 3.4 Activity code | MC Mechanical Completion | Date | 2024-11-22 |
| 3.5 Action by | RM_CONSTR RM | Signature | |

## 4 - PERFORMED ACTION

PERFORMED - SEE REPORTS

Name:
Date:
Signature:

## 5 - CLEARANCE CHECK

Installed.

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

## 6- CLEARANCE APPROVAL

Name:
Date:
Signature:

ROSETTI MARINO
CROSSWIND

# PUNCH ITEM ENTRY / CLEARANCE FORM

C30000889

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

Missing cable tag , cabinet input B400-SIS-001

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

## 3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

| | | | |
|---|---|---|---|
| 3.3 Priority | B PL B | Name | Alessio Polo |
| 3.4 Activity code | MC Mechanical Completion | Date | 2024-11-25 |
| 3.5 Action by | RM_CONSTR RM | Signature | |

## 4 - PERFORMED ACTION

PERFORMED - SEE REPORTS

Name:
Date:
Signature:

## 5 - CLEARANCE CHECK

Installed.

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

## 6- CLEARANCE APPROVAL

Name:
Date:
Signature:



ROSETTI MARINO
CROSSWIND

# PUNCH ITEM ENTRY / CLEARANCE FORM

C30000890

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

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

## 3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

| | | | |
|---|---|---|---|
| 3.3 Priority | B PL B | Name | Alessio Polo |
| 3.4 Activity code | MC Mechanical Completion | Date | 2024-11-25 |
| 3.5 Action by | RM_CONSTR RM | Signature | |

## 4 - PERFORMED ACTION

PERFORMED - SEE REPORTS

Name:
Date:
Signature:

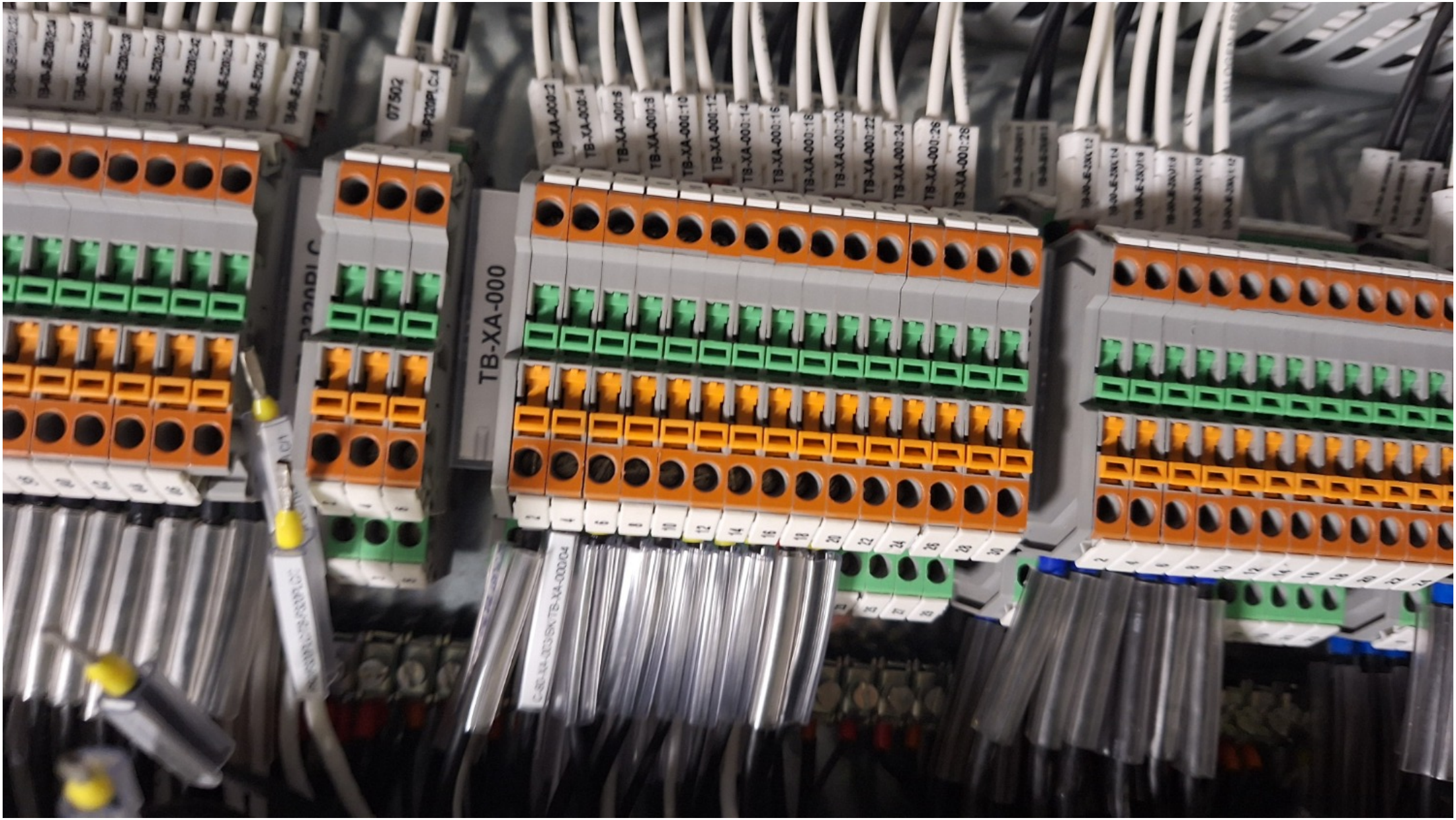
## 5 - CLEARANCE CHECK

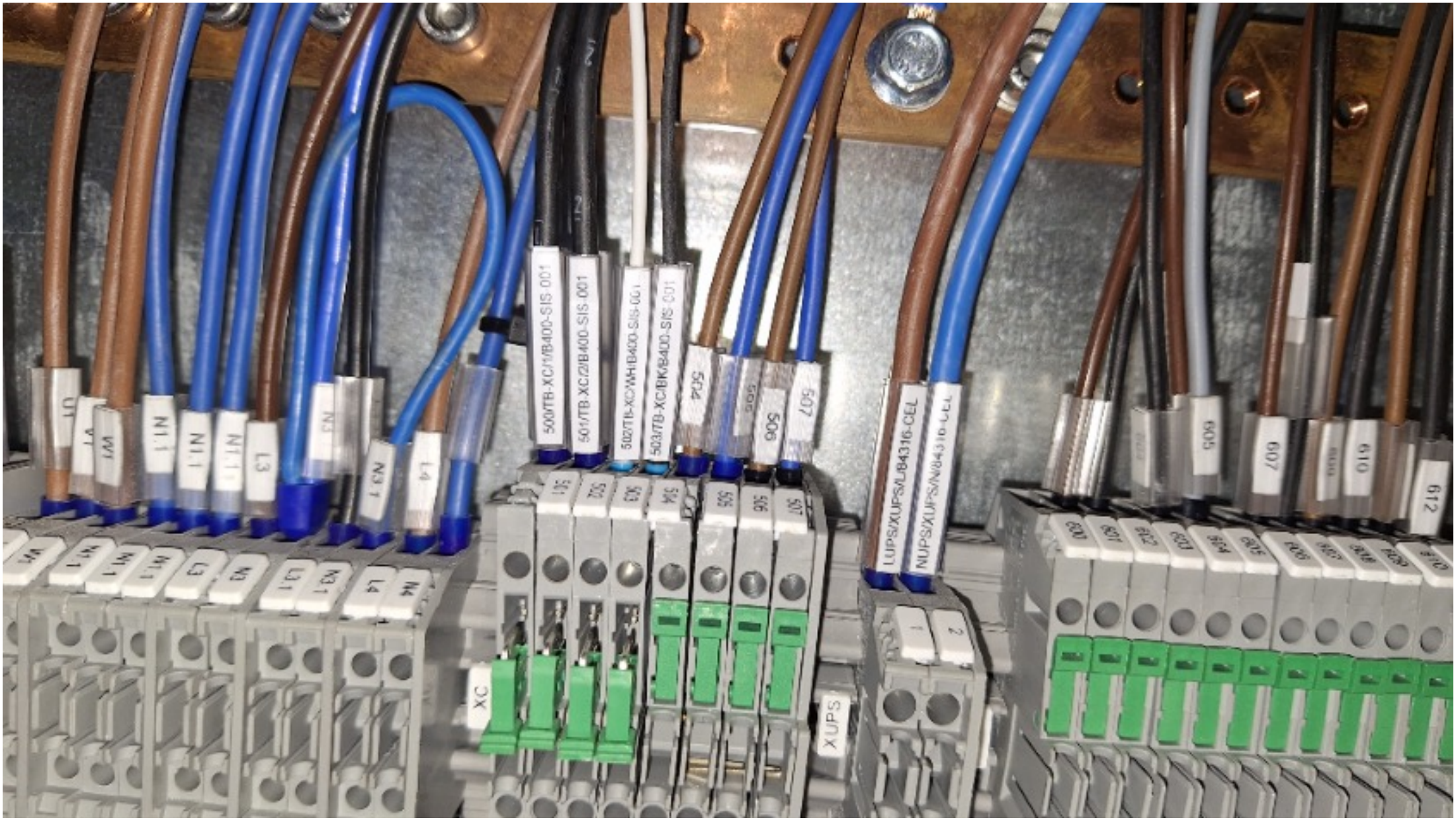
DONE

Name: Josip Krizanic
Date: 2025-03-11
Signature:

## 6- CLEARANCE APPROVAL

Name:
Date:
Signature:


TB-XA-000


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

ROSETTI MARINO
CROSSWIND

# PUNCH ITEM ENTRY / CLEARANCE FORM

C30000891

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

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

## 3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

| | | | |
|---|---|---|---|
| 3.3 Priority | B PL B | Name | Alessio Polo |
| 3.4 Activity code | MC Mechanical Completion | Date | 2024-11-25 |
| 3.5 Action by | RM_CONSTR RM | Signature | |

## 4 - PERFORMED ACTION

PERFORMED - SEE REPORTS

Name:
Date:
Signature:

## 5 - CLEARANCE CHECK

DONE

Name: Andrea Andreani
Date: 2025-02-28
Signature:

## 6- CLEARANCE APPROVAL

Name:
Date:
Signature:

ROSETTI MARINO
CROSSWIND

# PUNCH ITEM ENTRY / CLEARANCE FORM

C30000905

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

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

## 3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

| | | | |
|---|---|---|---|
| 3.3 Priority | B PL B | Name | Alessio Polo |
| 3.4 Activity code | MC Mechanical Completion | Date | 2024-11-25 |
| 3.5 Action by | RM_CONSTR RM | Signature | |

## 4 - PERFORMED ACTION

PERFORMED - SEE REPORTS

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

C30000906

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

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

## 3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

| | | | |
|---|---|---|---|
| 3.3 Priority | B PL B | Name | Alessio Polo |
| 3.4 Activity code | MC Mechanical Completion | Date | 2024-11-25 |
| 3.5 Action by | RM_CONSTR RM | Signature | |

## 4 - PERFORMED ACTION

PERFORMED - SEE REPORTS

Name:
Date:
Signature:

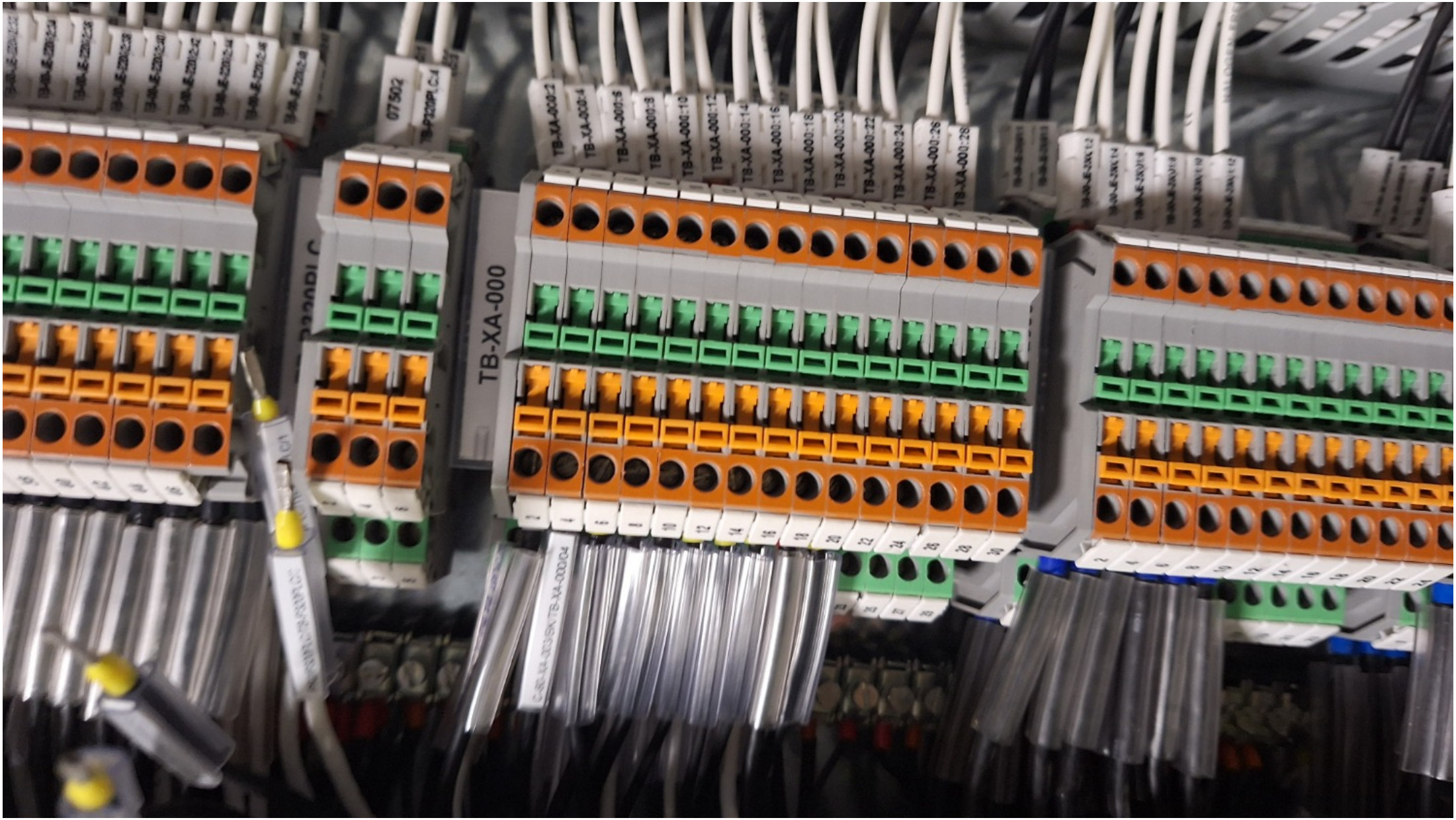
## 5 - CLEARANCE CHECK

Installed.

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

## 6- CLEARANCE APPROVAL

Name:
Date:
Signature:


TB-XA-000

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

ROSETTI MARINO
CROSSWIND

# PUNCH ITEM ENTRY / CLEARANCE FORM

C30000907

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

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

## 3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

| | | | |
|---|---|---|---|
| 3.3 Priority | A PL A | Name | Alessio Polo |
| 3.4 Activity code | MC Mechanical Completion | Date | 2024-11-25 |
| 3.5 Action by | RM_CONSTR RM | Signature | |

## 4 - PERFORMED ACTION

PERFORMED - SEE REPORTS

Name:
Date:
Signature:

## 5 - CLEARANCE CHECK

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

Name: Giovanni Tangianu
Date: 2024-12-05
Signature:

## 6- CLEARANCE APPROVAL

Name:
Date:
Signature:


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

ROSETTI MARINO
CROSSWIND

# PUNCH ITEM ENTRY / CLEARANCE FORM

C30000908

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

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

## 3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

| | | | |
|---|---|---|---|
| 3.3 Priority | B PL B | Name | Alessio Polo |
| 3.4 Activity code | MC Mechanical Completion | Date | 2024-11-25 |
| 3.5 Action by | RM_CONSTR RM | Signature | |

## 4 - PERFORMED ACTION

PERFORMED - SEE REPORTS

Name:
Date:
Signature:

## 5 - CLEARANCE CHECK

DONE

Name: Andrea Andreani
Date: 2025-02-28
Signature:

## 6- CLEARANCE APPROVAL

Name:
Date:
Signature:

ROSETTI MARINO
CROSSWIND

# PUNCH ITEM ENTRY / CLEARANCE FORM

C30004326

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Mechanical

1.2 Item B-300

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

1.3 Subsystem 77-30

HVAC UPS Equipment Room B-300

## 2 - OBSERVATION

During 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

C30000078

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

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

## 4 - PERFORMED ACTION

installed

Name vendor alex sistemi

Date 2025-02-06

Signature

## 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

C30000082

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline HVAC

1.2 Item B-300

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

1.3 Subsystem 90-03

UPS System Equipment Room B-300

## 2 - OBSERVATION

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

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority B PL B

Name Stefano Linari

3.4 Activity code FAT factory acceptance test

Date 2024-08-02

3.5 Action by

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

## 4 - PERFORMED ACTION

INSTALLED

Name Stefano Linari

Date 2024-10-29

Signature

## 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

C30000086

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Electrical

1.2 Item B-300

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

1.3 Subsystem 90-03

UPS System Equipment Room B-300

## 2 - OBSERVATION

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

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority B PL B

3.4 Activity code FAT factory acceptance test

3.5 Action by

Name Stefano Linari

Date 2024-08-02

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

## 4 - PERFORMED ACTION

INSTALLED

Name ALEX SISTEMI

Date 2024-10-29

Signature

## 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

C30000090

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Electrical

1.2 Item B-300

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

1.3 Subsystem 90-03

UPS System Equipment Room B-300

## 2 - OBSERVATION

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

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority B PL B

3.4 Activity code FAT factory acceptance test

3.5 Action by

Name Stefano Linari

Date 2024-08-02

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

## 4 - PERFORMED ACTION

INSTALLED

Name Stefano Linari

Date 2024-10-29

Signature

## 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

C30000094

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Electrical

1.2 Item B-300

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

1.3 Subsystem 90-03

UPS System Equipment Room B-300

## 2 - OBSERVATION

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

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority B PL B

3.4 Activity code FAT factory acceptance test

3.5 Action by

Name Stefano Linari

Date 2024-08-02

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

## 4 - PERFORMED ACTION

ACTIVITY DONE - 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

C30000114

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

Name: Mattia Girotti
Date: 2024-09-18
Signature:

## 3 - DEFECT ASSESSMENT

| | | | |
|---|---|---|---|
| 3.1 Corrective action proposal | Implement new setting | | |
| 3.2 Material required | | | |
| 3.3 Priority | B PL B | Name | Mattia Girotti |
| 3.4 Activity code | COMM Commissioning | Date | 2024-09-18 |
| 3.5 Action by | RM Rosetti Marino Quality | 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 | 0.650 | In |
| | | Time t1 std | 3.00 | s |
| | | Thermal memory (TM) | Disabled | |
| | | TM Algorithm | RMS-independent | |
| | | TM Time | Automatic | |
| | | TM custom time | 830 | s |
| | Time-delayed overcurrent protection (S - ANSI 50 TD/68/51) | | | |
| | | Status | Enabled | |
| | | Trip enable | Enabled | |
| | | BlockOnStartUp | -------- | |
| | | BlockOnOutOfFrequency | -------- | |
| | | BlockOnProgStatusA | -------- | |
| | | BlockOnProgStatusB | -------- | |
| | | BlockOnProgStatusC | -------- | |
| | | BlockOnProgStatusD | -------- | |
| | | Function | t=k | |
| | | Threshold I2 (t=k) | 3.00 | In |
| | | Time t2 (t=k) IEC - UL489 | 0.10 | s |
| | | Startup enable | Disabled | |
| | | Startup time | 0.10 | s |
| | | Startup threshold | 0.60 | In |
| | | Set Startup th. on ProgStatusD | -------- | |
| | | Thermal memory status | Disabled | |
| | | Zone Selectivity status | Disabled | |
| | | Zone Selectivity time | 0.04 | s |
| | | Zone Selectivity Type | Logic and Hardware | |
| | Second time-delayed overcurrent protection (S2 - ANSI 50 TD) | | | |
| | | Status | Disabled | |
| | | Trip enable | Disabled | |
| | | BlockOnStartUp | -------- | |
| | | BlockOnOutOfFrequency | -------- | |
| | | BlockOnProgStatusA | -------- | |
| | | BlockOnProgStatusB | -------- | |
| | | BlockOnProgStatusC | -------- | |
| | | BlockOnProgStatusD | -------- | |
| | | Threshold I5 (t=k) | 2.00 | In |
| | | Time t5 (t=k) | 0.05 | s |
| | | Startup enable | Disabled | |
| | | Startup time | 0.10 | s |
| | | Startup threshold | 2.00 | In |
| | | Set Startup th. on ProgStatusD | -------- | |
| | | Zone Selectivity status | Disabled | |
| | | Zone Selectivity time | 0.04 | s |
| | | Zone Selectivity Type | Logic and Hardware | |
| | Instantaneous overcurrent protection (I - ANSI 50) | | | |
| | | Status | Enabled | |
| | | Threshold I3 | 7.00 | In |
| | | Startup enable | Disabled | |
| | | Startup time | 0.10 | s |
| | | Startup threshold | 1.50 | In |
| | | Set Startup th. on ProgStatusD | -------- | |
| | | BlockOnStartUp | -------- | |
| | | BlockOnOutOfFrequency | -------- | |
| | | BlockOnProgStatusA | -------- | |
| | | BlockOnProgStatusB | -------- | |
| | | BlockOnProgStatusC | -------- | |
| | | BlockOnProgStatusD | -------- | |
| | | Zone Selectivity status | Disabled | |
| | | Zone Selectivity Type | Logic and Hardware | |
| | Second I | | | |
| | | Prot Second I | --- | |
| | | Status | Disabled | |
| | | Threshold I31 | 1.50 | In |
| | | Zone Selectivity status | Disabled | |
| | | Zone Selectivity Type | Logic and Hardware | |
| | | Second I Mode | Function Dependent | |
| | | Function | Disabled | |
| | | Delay On | 0.00 | s |
| | | Delay Off | 15.00 | s |
| | Earth fault protection (G - ANSI 50N TD/68/51N) | | | |
| | | Status | Enabled | |
| | | Trip enable | Enabled | |
| | | BlockOnStartUp | -------- | |
| | | BlockOnOutOfFrequency | -------- | |
| | | BlockOnProgStatusA | -------- | |
| | | BlockOnProgStatusB | -------- | |
| | | BlockOnProgStatusC | -------- | |
| | | BlockOnProgStatusD | -------- | |
| | | Function | t=k | |
| | | Prealarm I4 | 90 | % I4 |
| | | Threshold I4 (t=k) | 0.200 | In |
| | | Time t4 (t=k) IEC - UL489 | 0.10 | s |

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

ROSETTI MARINO
CROSSWIND

# PUNCH ITEM ENTRY / CLEARANCE FORM

C30000148

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

Name: Giovanni Tangianu

Date: 2024-10-07

Signature:

## 3 - DEFECT ASSESSMENT

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

3.2 Material required:

3.3 Priority: B PL B

3.4 Activity code: MC Mechanical Completion

3.5 Action by: VND Vendor

Name: Giovanni Tangianu

Date: 2024-10-07

Signature:

## 4 - PERFORMED ACTION

PERFORMED - SEE REPORTS

Name:

Date:

Signature:

## 5 - CLEARANCE CHECK

DONE

Name: Alessio Polo

Date: 2025-02-04

Signature:

## 6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

# PUNCH ITEM ENTRY / CLEARANCE FORM

C30000149

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

Name: Giovanni Tangianu
Date: 2024-10-07
Signature:

## 3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

| | | | |
|---|---|---|---|
| 3.3 Priority | B PL B | Name | Giovanni Tangianu |
| 3.4 Activity code | MC Mechanical Completion | Date | 2024-10-07 |
| 3.5 Action by | RM_CONSTR RM | Signature | |

## 4 - PERFORMED ACTION

PERFORMED - SEE REPORTS

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

C30000151

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

Lighting system to be completed

Name: Giovanni Tangianu
Date: 2024-10-08
Signature:

## 3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

| | | | |
|---|---|---|---|
| 3.3 Priority | B PL B | Name | Giovanni Tangianu |
| 3.4 Activity code | MC Mechanical Completion | Date | 2024-10-08 |
| 3.5 Action by | VND Vendor | Signature | |

## 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

C30000152

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

Missing copper grease on exsternal earthing connection.

Name: Giovanni Tangianu
Date: 2024-10-08
Signature:

## 3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

| | | | |
|---|---|---|---|
| 3.3 Priority | B PL B | Name | Giovanni Tangianu |
| 3.4 Activity code | MC Mechanical Completion | Date | 2024-10-08 |
| 3.5 Action by | RM_CONSTR RM | Signature | |

## 4 - PERFORMED ACTION

PERFORMED - SEE REPORTS

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

C30000153

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

Name: Giovanni Tangianu
Date: 2024-10-08
Signature:

## 3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

| | | | |
|---|---|---|---|
| 3.3 Priority | B PL B | Name | Giovanni Tangianu |
| 3.4 Activity code | MC Mechanical Completion | Date | 2024-10-08 |
| 3.5 Action by | VND Vendor | Signature | |

## 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

C30000154

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

Name: Giovanni Tangianu

Date: 2024-10-08

Signature:

## 3 - DEFECT ASSESSMENT

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

## 4 - PERFORMED ACTION

PERFORMED - SEE REPORTS

Name:

Date:

Signature:

## 5 - CLEARANCE CHECK

DONE

Name: Paolo Schintu

Date: 2025-02-12

Signature:

## 6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

# PUNCH ITEM ENTRY / CLEARANCE FORM

C30000155

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

Wire tags are hand  written . To be replaced.

Name: Giovanni Tangianu

Date: 2024-10-08

Signature:

## 3 - DEFECT ASSESSMENT

Inside the panel B300-HSB-001

3.1 Corrective action proposal

3.2 Material required

| | | | |
|---|---|---|---|
| 3.3 Priority | B PL B | Name | Giovanni Tangianu |
| 3.4 Activity code | MC Mechanical Completion | Date | 2024-10-08 |
| 3.5 Action by | VND Vendor | Signature | |

## 4 - PERFORMED  ACTION

PERFORMED - SEE REPORTS

Name:

Date:

Signature:

## 5 - CLEARANCE CHECK

DONE

Name: Josip Krizanic

Date: 2025-02-24

Signature:

## 6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

# PUNCH ITEM ENTRY / CLEARANCE FORM

C30000156

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

Name: Giovanni Tangianu
Date: 2024-10-08
Signature:

## 3 - DEFECT ASSESSMENT

Inside the panel B300-HSB-001

3.1 Corrective action proposal

3.2 Material required

| | | | |
|---|---|---|---|
| 3.3 Priority | B PL B | Name | Giovanni Tangianu |
| 3.4 Activity code | MC Mechanical Completion | Date | 2024-10-08 |
| 3.5 Action by | VND Vendor | Signature | |

## 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

C30000157

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

Many wire grounding are with black heat shrink.

Name: Giovanni Tangianu
Date: 2024-10-08
Signature:

## 3 - DEFECT ASSESSMENT

.Inside the panel B300-HSB-001

3.1 Corrective action proposal

3.2 Material required

| | | | |
|---|---|---|---|
| 3.3 Priority | B PL B | Name | Giovanni Tangianu |
| 3.4 Activity code | MC Mechanical Completion | Date | 2024-10-08 |
| 3.5 Action by | VND Vendor | Signature | |

## 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

C30000166

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

Name: Giovanni Tangianu

Date: 2024-10-14

Signature:

## 3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

| | | | |
|---|---|---|---|
| 3.3 Priority | B PL B | Name | Giovanni Tangianu |
| 3.4 Activity code | MC Mechanical Completion | Date | 2024-10-14 |
| 3.5 Action by | RM_CONSTR RM | Signature | |

## 4 - PERFORMED ACTION

PERFORMED - SEE REPORTS

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

C30000167

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

Missing plastic cable tag on MCT inside B-300.

Name: Giovanni Tangianu
Date: 2024-10-14
Signature:

## 3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

| | | | |
|---|---|---|---|
| 3.3 Priority | B PL B | Name | Giovanni Tangianu |
| 3.4 Activity code | MC Mechanical Completion | Date | 2024-10-14 |
| 3.5 Action by | RM_CONSTR RM | Signature | |

## 4 - PERFORMED ACTION

PERFORMED - SEE REPORTS

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

C30000168

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

Missing plastic cable tag on MCT inside B-300.

Name: Giovanni Tangianu

Date: 2024-10-14

Signature:

## 3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

| | | | |
|---|---|---|---|
| 3.3 Priority | B PL B | Name | Giovanni Tangianu |
| 3.4 Activity code | MC Mechanical Completion | Date | 2024-10-14 |
| 3.5 Action by | RM_CONSTR RM | Signature | |

## 4 - PERFORMED ACTION

PERFORMED - SEE REPORTS

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

C30000169

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

Name: Giovanni Tangianu
Date: 2024-10-14
Signature:

## 3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

| | | | |
|---|---|---|---|
| 3.3 Priority | B PL B | Name | Giovanni Tangianu |
| 3.4 Activity code | MC Mechanical Completion | Date | 2024-10-14 |
| 3.5 Action by | RM_CONSTR RM | Signature | |

## 4 - PERFORMED ACTION

PERFORMED - SEE REPORTS

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

C30000170

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

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

## 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

PERFORMED - SEE REPORTS

Name:
Date:
Signature:

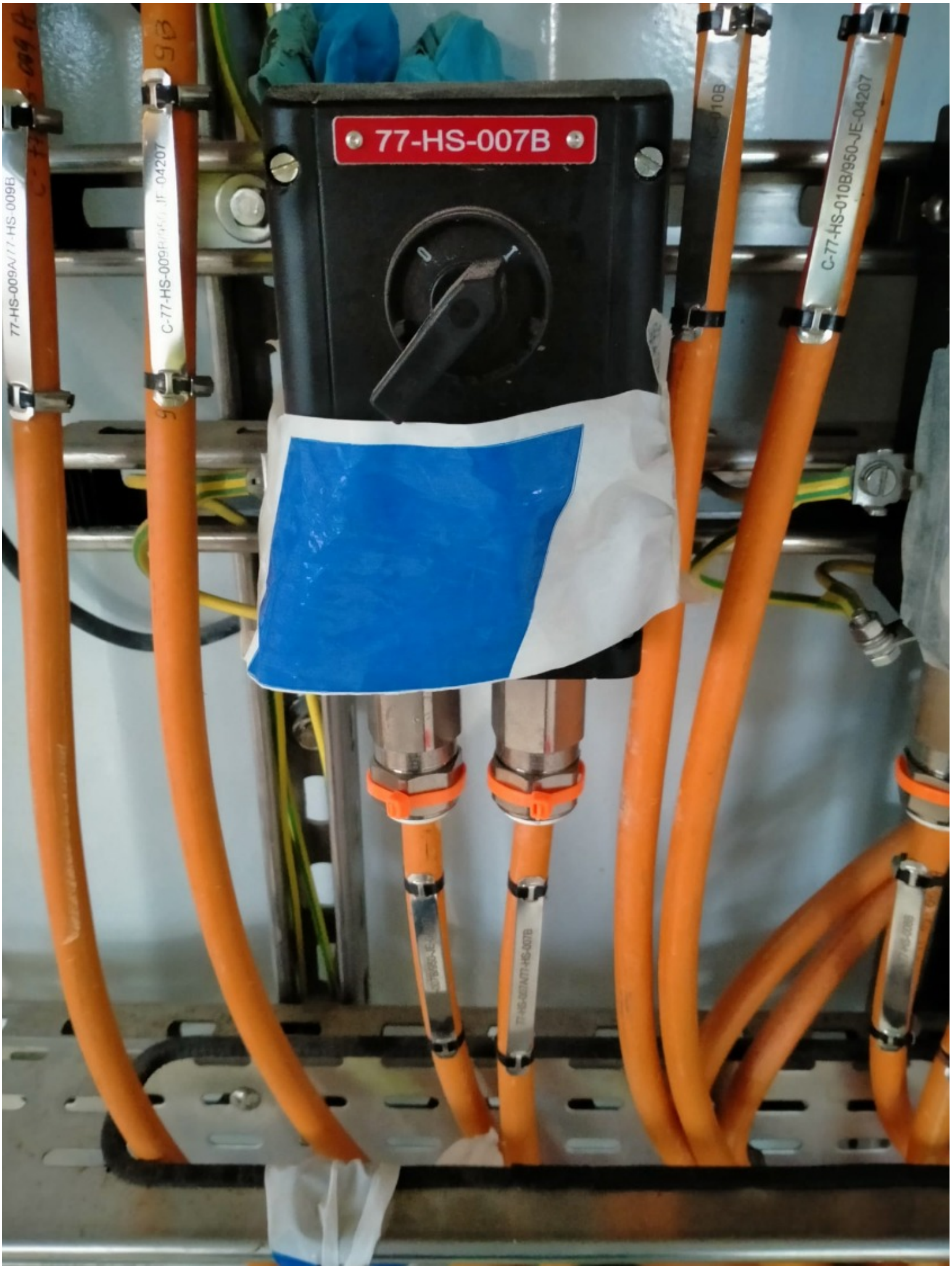
## 5 - CLEARANCE CHECK

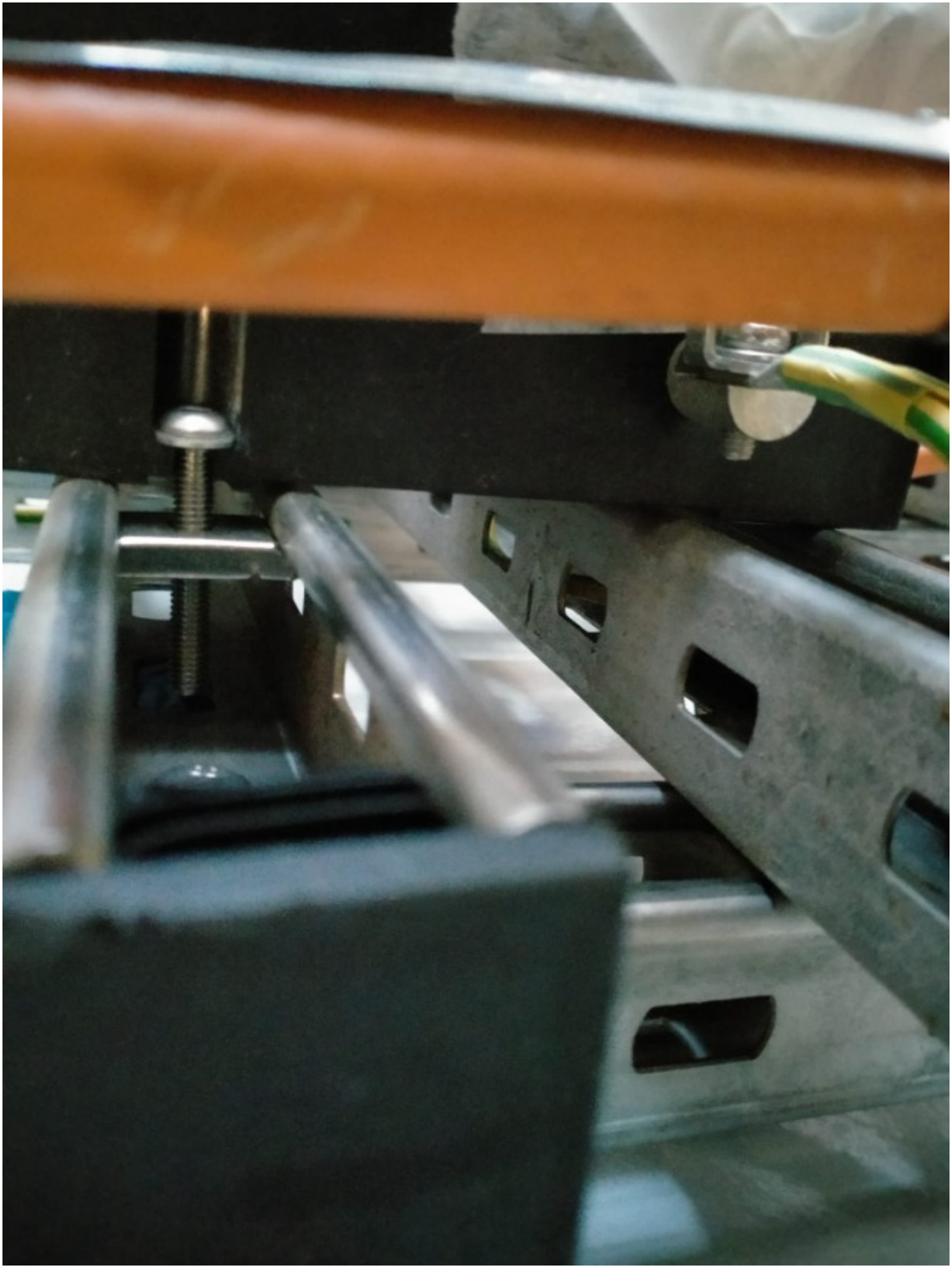
Done

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

## 6- CLEARANCE APPROVAL

Name:
Date:
Signature:


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





ROSETTI MARINO
CROSSWIND

# PUNCH ITEM ENTRY / CLEARANCE FORM

C30000171

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

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

## 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

PERFORMED - SEE REPORTS

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

C30000172

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

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

## 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

PERFORMED - SEE REPORTS

Name:
Date:
Signature:

## 5 - CLEARANCE CHECK

Done.

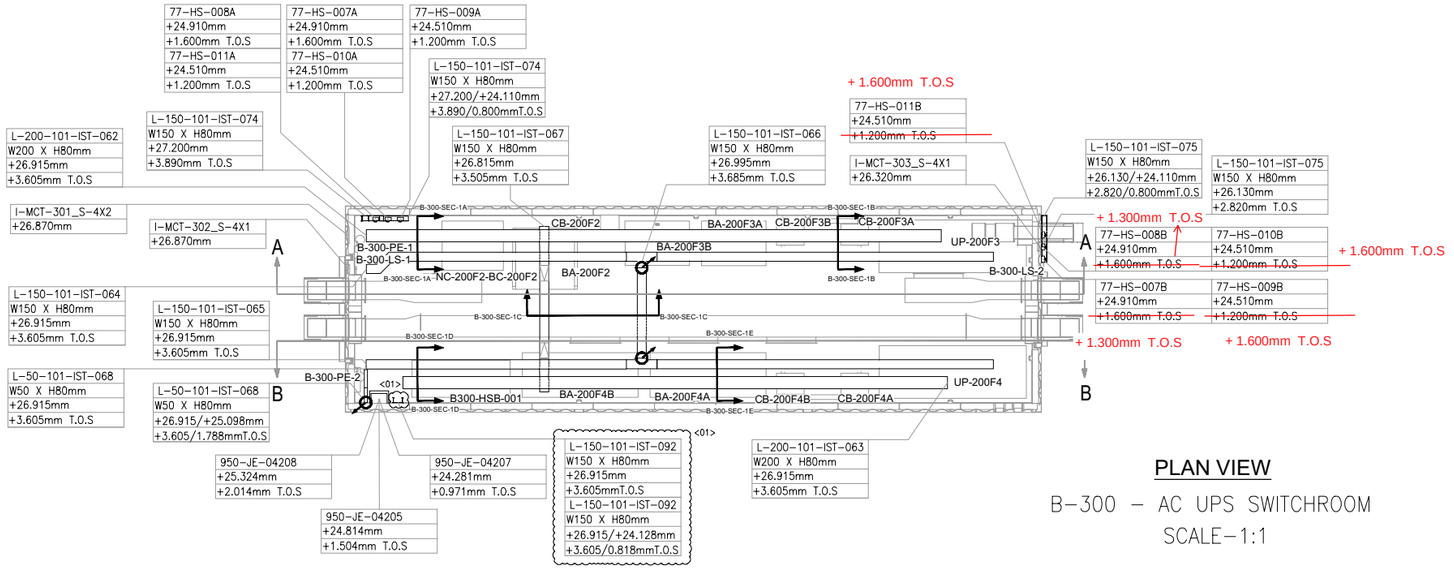
Name: Giovanni Tangianu
Date: 2025-03-04
Signature:

## 6- CLEARANCE APPROVAL

Name:
Date:
Signature:

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

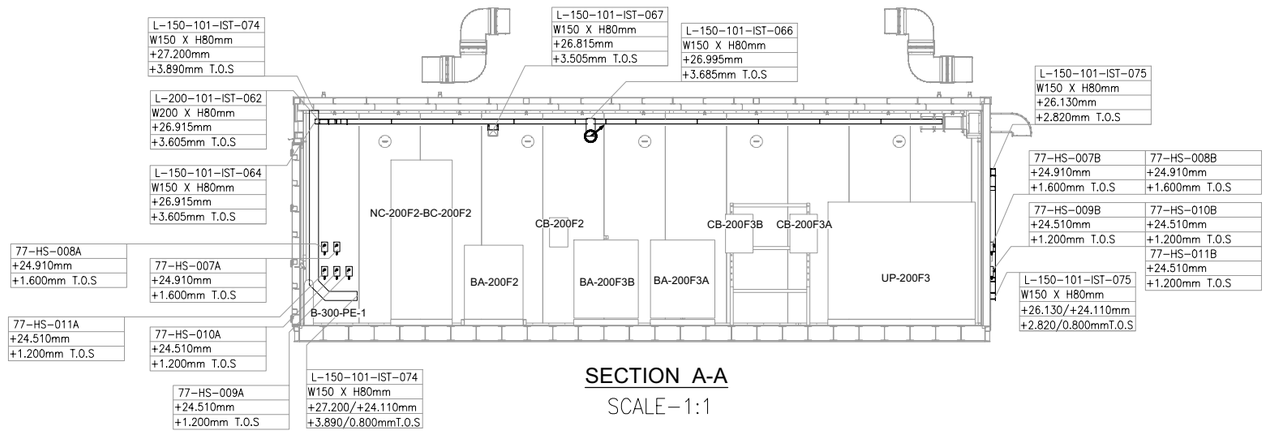
REV. 01




## PLAN VIEW

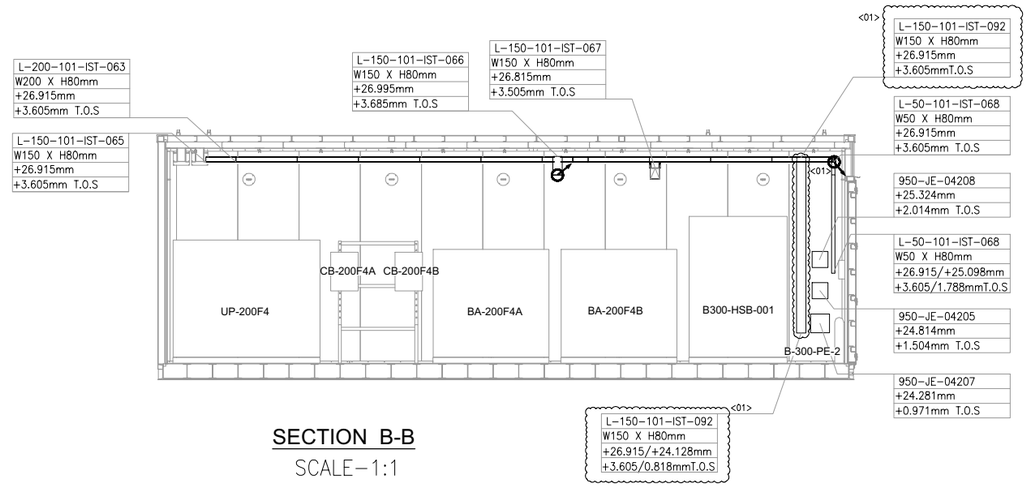
B-300 – AC UPS SWITCHROOM

SCALE-1:1



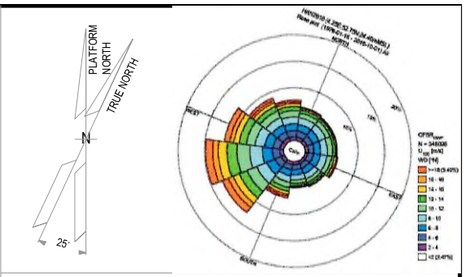

## SECTION A-A

SCALE-1:1




## SECTION B-B

SCALE-1:1




## NOTES

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

## LEGEND

**VALID FOR CONSTRUCTION**

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

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

**ROSETTI MARINO SpA**

## HOLDS

## REFERENCE DOCUMENTS

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

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

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

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)

Base Load Power HUB Cables Tray Layout

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

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

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

ROSETTI MARINO
CROSSWIND

# PUNCH ITEM ENTRY / CLEARANCE FORM

C30000173

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

Missing plastic cable tag on MCT inside B-300

Name: Giovanni Tangianu

Date: 2024-10-15

Signature:

## 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

PERFORMED - SEE REPORTS

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

C30000174

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

Missing plastic cable tag on MCT inside B-300

Name: Giovanni Tangianu

Date: 2024-10-15

Signature:

## 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

PERFORMED - SEE REPORTS

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

C30000175

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

Missing plastic cable tag on MCT inside B-300

Name: Giovanni Tangianu

Date: 2024-10-15

Signature:

## 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

PERFORMED - SEE REPORTS

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

C30000176

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

Missing plastic cable tag on MCT inside B-300

Name: Giovanni Tangianu

Date: 2024-10-15

Signature:

## 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

PERFORMED - SEE REPORTS

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

C30000177

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

Missing plastic cable tag on MCT inside B-300

Name: Giovanni Tangianu

Date: 2024-10-15

Signature:

## 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

PERFORMED - SEE REPORTS

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

C30000178

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

Missing plastic cable tag on MCT inside B-300

Name: Giovanni Tangianu

Date: 2024-10-15

Signature:

## 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

PERFORMED - SEE REPORTS

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

C30000516

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

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

PERFORMED - SEE REPORTS

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

C30000517

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

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

PERFORMED - SEE REPORTS

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

C30000522

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Electrical

1.2 Item B300-HSB-001

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

1.3 Subsystem 77-30

HVAC UPS Equipment Room B-300

## 2 - OBSERVATION

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

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

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

3.2 Material required

3.3 Priority: B PL B

3.4 Activity code: FAT factory acceptance test

3.5 Action by: VND Vendor

Name: Stefano Linari

Date: 2024-10-30

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

## 4 - PERFORMED ACTION

accepted

Name: Vendor Crosswind

Date: 2025-02-25

Signature

## 5 - CLEARANCE CHECK

PERFORMED - SEE REPORTS

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

C30000526

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Electrical

1.2 Item B300-HSB-001

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

1.3 Subsystem 77-30

HVAC UPS Equipment Room B-300

## 2 - OBSERVATION

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

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

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

3.2 Material required

3.3 Priority: B PL B

3.4 Activity code: FAT factory acceptance test

3.5 Action by: VND Vendor

Name: Stefano Linari

Date: 2024-10-30

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

## 4 - PERFORMED ACTION

Implemented

Name: Vendor Crosswind

Date: 2025-02-20

Signature

## 5 - CLEARANCE CHECK

PERFORMED - SEE REPORTS

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

C30000530

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Electrical

1.2 Item B300-HSB-001

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

1.3 Subsystem 77-30

HVAC UPS Equipment Room B-300

## 2 - OBSERVATION

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

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

Add ethernet port locks to allHVAC panel boards

3.1 Corrective action proposal

3.2 Material required

3.3 Priority A PL A

3.4 Activity code FAT factory acceptance test

3.5 Action by VND Vendor

Name Stefano Linari

Date 2024-10-30

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

## 4 - PERFORMED ACTION

installed

Name Vendor Crosswind

Date 2025-02-22

Signature

## 5 - CLEARANCE CHECK

PERFORMED - SEE REPORTS

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

C30000534

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Electrical

1.2 Item B300-HSB-001

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

1.3 Subsystem 77-30

HVAC UPS Equipment Room B-300

## 2 - OBSERVATION

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

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

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

3.2 Material required

3.3 Priority: A PL A

3.4 Activity code: FAT factory acceptance test

3.5 Action by: VND Vendor

Name: Stefano Linari

Date: 2024-10-30

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

## 4 - PERFORMED ACTION

Check 100% of signals with Yokogawa. Communication work

Name: Vendor Crosswind

Date: 2025-02-22

Signature

## 5 - CLEARANCE CHECK

PERFORMED - SEE REPORTS

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

C30000538

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Electrical

1.2 Item B300-HSB-001

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

1.3 Subsystem 77-30

HVAC UPS Equipment Room B-300

## 2 - OBSERVATION

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

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

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

3.2 Material required

3.3 Priority: B PL B

3.4 Activity code: FAT factory acceptance test

3.5 Action by: VND Vendor

Name: Stefano Linari

Date: 2024-10-30

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

## 4 - PERFORMED ACTION

Implemented

Name: Vendor Crosswind

Date: 2025-02-25

Signature

## 5 - CLEARANCE CHECK

PERFORMED - SEE REPORTS

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

C30000542

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Mechanical

1.2 Item B-300

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

1.3 Subsystem 77-30

HVAC UPS Equipment Room B-300

## 2 - OBSERVATION

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

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

3.1 Corrective action proposal: The work described has to be concluded. During commissioning heat tracing will be tested

3.2 Material required

3.3 Priority: B PL B

3.4 Activity code: FAT factory acceptance test

3.5 Action by: VND Vendor

Name: Stefano Linari

Date: 2024-10-30

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

## 4 - PERFORMED ACTION

Verified

Name: Vendor Crosswind

Date: 2025-02-20

Signature

## 5 - CLEARANCE CHECK

PERFORMED - SEE REPORTS

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

C30000546

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

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

## 4 - PERFORMED ACTION

It Work. Has been manually setted.

Name Vendor Crosswind

Date 2025-02-22

Signature

## 5 - CLEARANCE CHECK

PERFORMED - SEE REPORTS

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

C30000550

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Mechanical

1.2 Item B300-HSB-001

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

1.3 Subsystem 77-30

HVAC UPS Equipment Room B-300

## 2 - OBSERVATION

Make temperature and differental pressure trends visible on all HMIs

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

Update PLC software to apply the request

3.1 Corrective action proposal

3.2 Material required

3.3 Priority A PL A

3.4 Activity code FAT factory acceptance test

3.5 Action by VND Vendor

Name Stefano Linari

Date 2024-10-30

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

## 4 - PERFORMED ACTION

Implemented by Vendor

Name Vendor Crosswind

Date 2025-02-20

Signature

## 5 - CLEARANCE CHECK

PERFORMED - SEE REPORTS

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

C30000554

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

| | | | |
|---|---|---|---|
| 3.1 Corrective action proposal | Check the doors and fix the closure issue. This activity vould be done during commissioning activities. | | |
| 3.2 Material required | | | |
| 3.3 Priority | B PL B | Name | Stefano Linari |
| 3.4 Activity code | FAT factory acceptance test | Date | 2024-10-30 |
| 3.5 Action by | 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

PERFORMED - SEE REPORTS

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

C30000558

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

| | | | |
|---|---|---|---|
| 3.1 Corrective action proposal | Submit both the drainage pipe and heating cable datasheet ( by inserting them HVAC COMPONENTS LIST AND DS - E&I SHELTERS and ELECTRICAL COMPONENTS LIST AND DS - E&I SHELTERS, for each shelter), clearly indicating the maximum temperature of the heating cable and the maximum temperature tolerance of the plastic drainage pipe, all system is not tested, will be tested during comm phase | | |
| 3.2 Material required | | | |
| 3.3 Priority | 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 ---<br>Duplicata issued from database information<br>Signature is on original form |

## 4 - PERFORMED ACTION

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

Name Vendor Crosswind

Date 2025-04-04

Signature

## 5 - CLEARANCE CHECK

PERFORMED - SEE REPORTS

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

C30000016

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Mechanical

1.2 Item B-300

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

1.3 Subsystem 90-03

UPS System Equipment Room B-300

## 2 - OBSERVATION

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

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority B PL B

3.4 Activity code FAT factory acceptance test

3.5 Action by

Name Stefano Linari

Date 2024-08-02

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

## 4 - PERFORMED ACTION

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

ROSETTI MARINO
CROSSWIND

# PUNCH ITEM ENTRY / CLEARANCE FORM

C30000020

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Mechanical

1.2 Item B-300

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

1.3 Subsystem 90-03

UPS System Equipment Room B-300

## 2 - OBSERVATION

Master key (common for all modules) to be provided

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority B PL B

3.4 Activity code MC Mechanical Completion

3.5 Action by

Name Stefano Linari

Date 2024-08-02

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

## 4 - PERFORMED ACTION

DONE

Name ALEX SISTEMI

Date 2024-10-29

Signature

## 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

C30000024

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Electrical

1.2 Item B-300

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

1.3 Subsystem 90-03

UPS System Equipment Room B-300

## 2 - OBSERVATION

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

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority B PL B

3.4 Activity code MC Mechanical Completion

3.5 Action by

Name Stefano Linari

Date 2024-08-02

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

## 4 - PERFORMED ACTION

ACTIVITY PERFORMED - SEE PICTURES

Name Stefano Linari

Date 2024-12-05

Signature

## 5 - CLEARANCE CHECK

ACTIVITY PERFORMED - SEE PICTURES

Name Stefano Linari

Date 2024-12-05

Signature

## 6- CLEARANCE APPROVAL

Name

Date

Signature





ROSETTI MARINO
CROSSWIND

# PUNCH ITEM ENTRY / CLEARANCE FORM

C30000028

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Electrical

1.2 Item B-300

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

1.3 Subsystem 90-03

UPS System Equipment Room B-300

## 2 - OBSERVATION

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

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority B PL B

3.4 Activity code FAT factory acceptance test

3.5 Action by

Name Stefano Linari

Date 2024-08-02

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

## 4 - PERFORMED ACTION

EARTHING INSTALLED

Name ALEX SISTEMI

Date 2024-10-29

Signature

## 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

C30000032

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Electrical

1.2 Item B-300

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

1.3 Subsystem 90-03

UPS System Equipment Room B-300

## 2 - OBSERVATION

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

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority B PL B

3.4 Activity code FAT factory acceptance test

3.5 Action by

Name Stefano Linari

Date 2024-08-02

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

## 4 - PERFORMED ACTION

EARTHING INSTALLED

Name ALEX SISTEMI

Date 2024-10-29

Signature

## 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

C30000036

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Electrical

1.2 Item B-300

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

1.3 Subsystem 90-03

UPS System Equipment Room B-300

## 2 - OBSERVATION

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

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority B PL B

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

C30000040

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Electrical

1.2 Item B-300

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

1.3 Subsystem 90-03

UPS System Equipment Room B-300

## 2 - OBSERVATION

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

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority B PL B

3.4 Activity code FAT factory acceptance test

3.5 Action by

Name Stefano Linari

Date 2024-08-02

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

## 4 - PERFORMED ACTION

activity done - see picture

Name Stefano Linari

Date 2024-12-05

Signature

## 5 - CLEARANCE CHECK

activity done - see picture

Name Stefano Linari

Date 2024-12-05

Signature

## 6- CLEARANCE APPROVAL

Name

Date

Signature


LIVE POWER
SOTTO TENSIONE
400 V

ROSETTI MARINO
CROSSWIND

# PUNCH ITEM ENTRY / CLEARANCE FORM

C30000044

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Electrical

1.2 Item B-300

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

1.3 Subsystem 90-03

UPS System Equipment Room B-300

## 2 - OBSERVATION

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

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority B PL B

3.4 Activity code FAT factory acceptance test

3.5 Action by

Name Stefano Linari

Date 2024-08-02

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

## 4 - PERFORMED ACTION

ACTIVITY DONE

Name Stefano Linari

Date 2024-12-05

Signature

## 5 - CLEARANCE CHECK

ACTIVITY DONE

Name Stefano Linari

Date 2024-12-05

Signature

## 6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

# PUNCH ITEM ENTRY / CLEARANCE FORM

C30000048

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Mechanical

1.2 Item B-300

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

1.3 Subsystem 90-03

UPS System Equipment Room B-300

## 2 - OBSERVATION

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

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority B PL B

3.4 Activity code FAT factory acceptance test

3.5 Action by

Name Stefano Linari

Date 2024-08-02

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

## 4 - PERFORMED ACTION

CHECKED CEMBRE INSTALLATION MANUAL - ACCEPTED

Name ALEX SISTEMI

Date 2024-10-29

Signature

## 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

C30000052

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Electrical

1.2 Item B-300

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

1.3 Subsystem 90-03

UPS System Equipment Room B-300

## 2 - OBSERVATION

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

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority B PL B

3.4 Activity code FAT factory acceptance test

3.5 Action by

Name Stefano Linari

Date 2024-08-02

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

## 4 - PERFORMED ACTION

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

C30000056

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

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

## 4 - PERFORMED ACTION

can be close - refer to PL n. C30000562

Name Stefano Linari

Date 2025-02-06

Signature

## 5 - CLEARANCE CHECK

can be close - refer to PL n. C30000562

Name Stefano Linari

Date 2025-02-06

Signature

## 6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

# PUNCH ITEM ENTRY / CLEARANCE FORM

C30000060

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline HVAC

1.2 Item B-300

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

1.3 Subsystem 90-03

UPS System Equipment Room B-300

## 2 - OBSERVATION

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

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority B PL B

3.4 Activity code FAT factory acceptance test

3.5 Action by

Name Stefano Linari

Date 2024-08-02

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

## 4 - PERFORMED ACTION

INSTALLED

Name ALEX SISTEMI

Date 2024-10-29

Signature

## 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

C30000064

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

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

## 4 - PERFORMED ACTION

TEST COMPLETED . SEE REPORTS

Name ALEX SISTEMI

Date 2024-10-29

Signature

## 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

C30000066

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline HVAC

1.2 Item B-300

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

1.3 Subsystem 90-03

UPS System Equipment Room B-300

## 2 - OBSERVATION

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

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority B PL B

3.4 Activity code FAT factory acceptance test

3.5 Action by

Name Stefano Linari

Date 2024-08-02

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

## 4 - PERFORMED ACTION

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

C30000070

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline HVAC

1.2 Item B-300

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

1.3 Subsystem 90-03

UPS System Equipment Room B-300

## 2 - OBSERVATION

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

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

3.3 Priority B PL B

3.4 Activity code FAT factory acceptance test

3.5 Action by

Name Stefano Linari

Date 2024-08-02

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

## 4 - PERFORMED ACTION

INSTALLED

Name ALEX SISTEMI

Date 2024-10-29

Signature

## 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

C30000074

PROVERLIS

## 1 -ELEMENT IDENTIFICATION

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

## 2 - OBSERVATION

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

Name

Date

Signature

## 3 - DEFECT ASSESSMENT

3.1 Corrective action proposal

3.2 Material required

| | | | |
|---|---|---|---|
| 3.3 Priority | B PL B | Name | Stefano Linari |
| 3.4 Activity code | FAT factory acceptance test | Date | 2024-08-02 |
| 3.5 Action by | | Signature | --- Proverlis ---<br>Duplicata issued from database information<br>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

# Section 4 FUNCTIONAL TESTS SHEETS

# Section 4.1 Electrical functional test sheets index

CROSSWIND

ROSETTI MARINO

# Project CROSSWIND

STATUS INDEX DETAIL

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

| Electrical | 77-30 HVAC UPS Equipment Room B-300 | | | | | | |
|---|---|---|---|---|---|---|---|
| ITEM | | TASK | | | | | |
| Code | Description | Location | Code | Form | Progress | Date | Certificate |
| A5/+03-QF1 | DRAWER HVAC PANELS UPS ROOM - A5/+03-QF1 | ONSHORE | C10002874 | FP00 | 100 | 2024-10-11 | RFO 2 |
| | | ONSHORE | C10002875 | FTR-2 | 100 | 2024-09-20 | RFO 2 |
| | | ONSHORE | C10002876 | FTR-6 | 100 | 2024-10-03 | RFO 2 |
| | | ONSHORE | C10003016 | FTR-5 | 100 | 2025-05-15 | RFO 2 |
| B300-HSB-001 | Distribution & HVAC Panel - Shelter AC UPS Fitted with UPS System Equipment Room | ONSHORE | C10002989 | FP00 | 100 | 2024-10-29 | RFO 2 |
| UP-200F3-QF41 | UCP - HVAC UPS ROOM | ONSHORE | C10004578 | FTR-2 | 100 | 2024-11-18 | RFO 2 |

ROSETTI MARINO | PROVERLIS | CROSSWIND

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **ITEM** | Tag | A5/+03-QF1 | : DRAWER HVAC PANELS UPS ROOM - A5/+03-QF1 | | | Dwg | 1723002197-EL-DG-00011 |
| | S/Sys | 77-30 | : HVAC UPS Equipment Room B-300 | | | Module | |
| **TASK** | code | C10002874 | 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/+03-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) | >1000 | 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 |
| | | | |
| | | | |

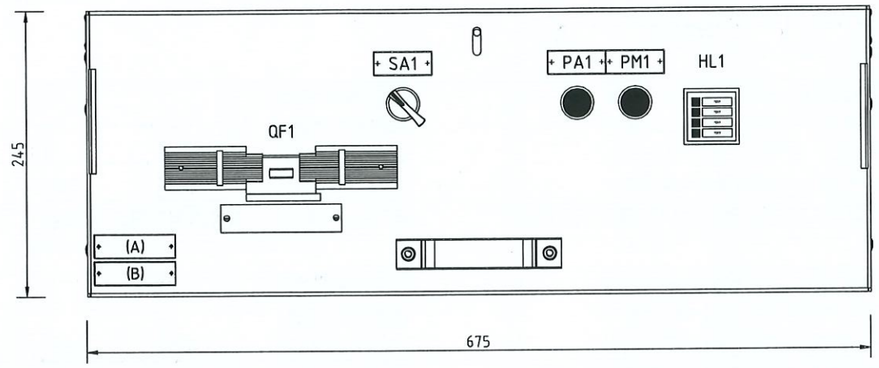
Comments:

**Page 1/1**

| | Performed by | ☐ WITNESS ☐ REVIEW | ☐ WITNESS ☐ REVIEW |
|---|---|---|---|
| **Company** | RM COMM | RMCOMM | CPY NOT PRESENT |
| **Name** | Mattia Girotti | Kristian Castellani | Witness waived |
| **Date** | 2024-10-10 | 2024-10-11 | 2024-10-11 |
| **Signature** | PROVERLIS Digitaly signed by Mattia Girotti 2024-10-10T05:55:53.822Z | PROVERLIS Digitaly signed by Kristian Castellani 2024-10-11T07:34:16.643Z | PROVERLIS Digitaly signed by Witness waived 2024-10-11T07:51:34.389Z |

# DOOR FRONT LAY-OUT

## TYPICAL : LINE FEEDER "LK1-n"

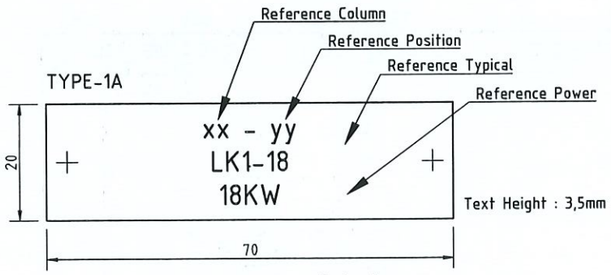


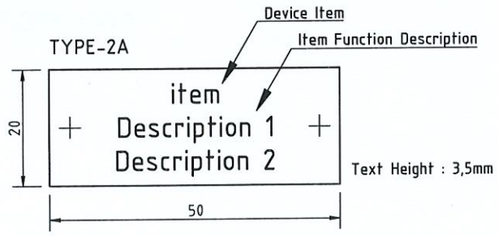

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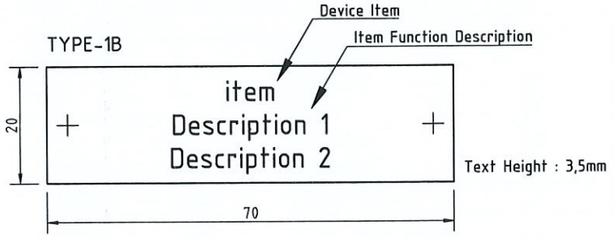
A) IDENTIFICATION name plate (type-1A) , with :
- Drawer position [Column / Position inside SWB]
- Typical name [reference applicability typical used]
- Power [reference applicability typical used]

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~~ OK | Type-2A |
| PM1 | RUN | ~~MOTOR~~ OK | Type-2A |
| HL1 | Multiled | Signalling | NO plate |




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

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

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

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

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00031

SHEET 034

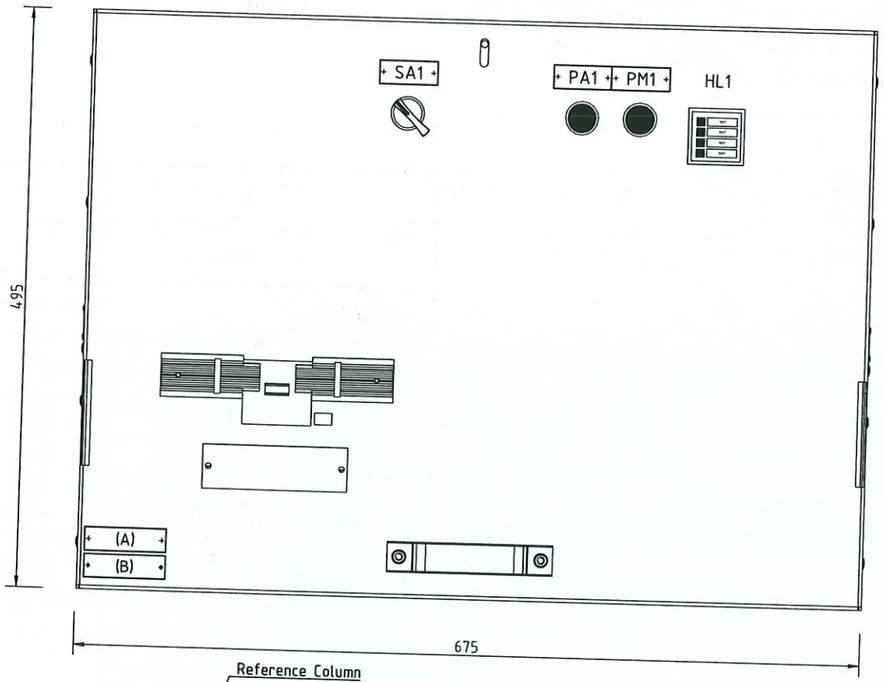
REV. 00

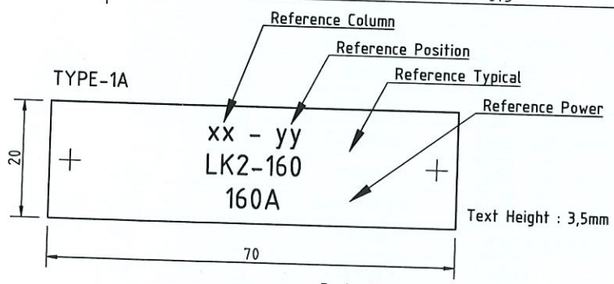
F.to UNI A3: 420mmx297mm

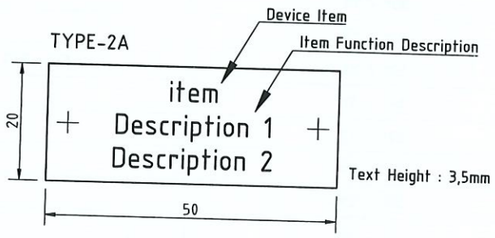
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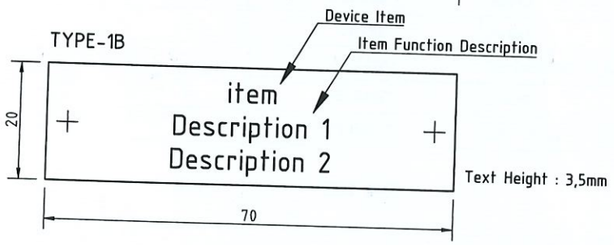
# DOOR FRONT LAY-OUT

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

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

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

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

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

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00031

SHEET 035

REV. 00

F.to UNI A3: 420mmx297mm

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

# USERS LEGEND

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

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

= TYPICAL
+ LK-x

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

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

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

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

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

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

F.to UNI A3: 420mmx297mm

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

# ITEMS ACRONYM

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

Composition of Typical :

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

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

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

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

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

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

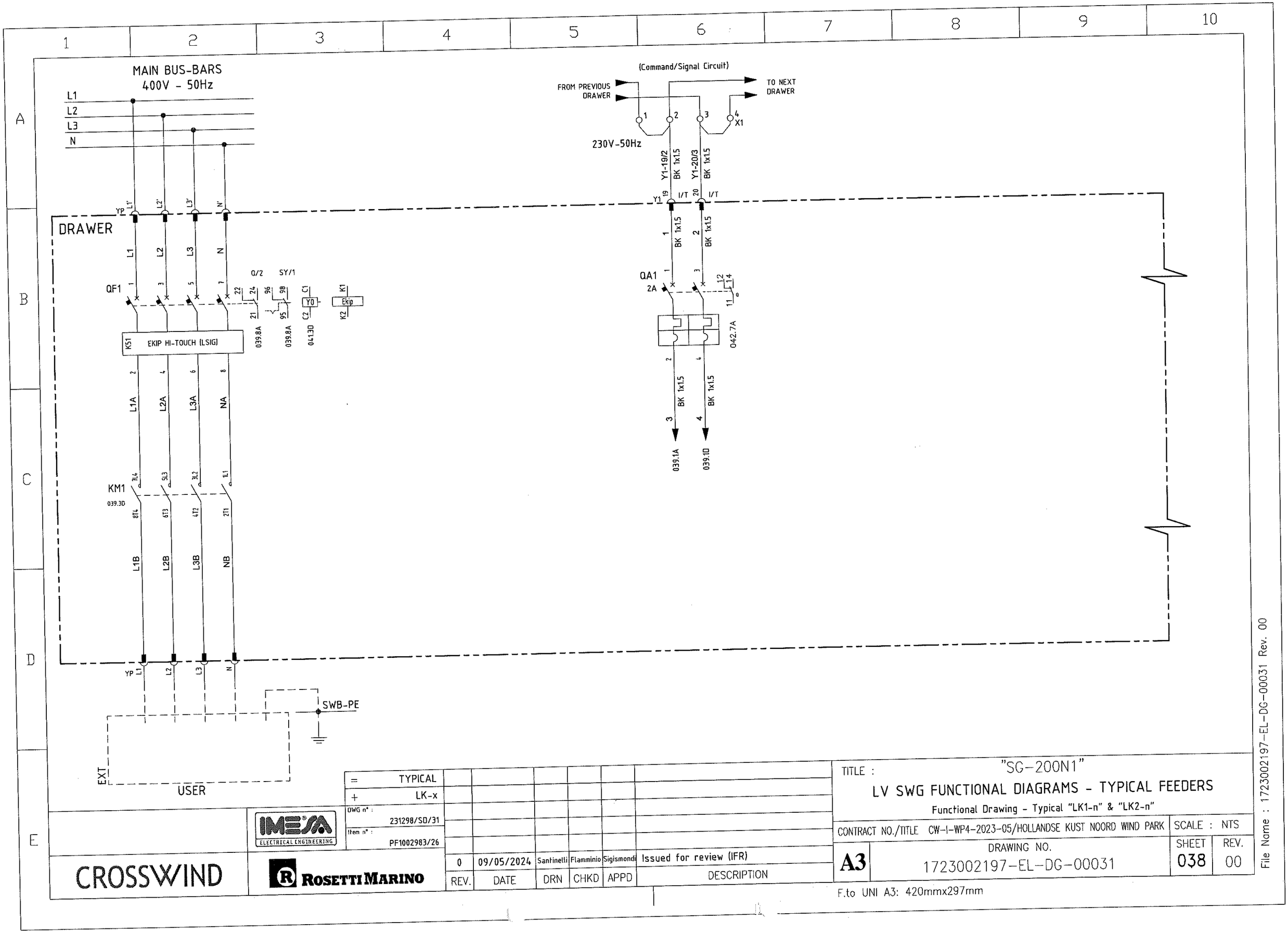
TITLE : "SG-200N1"
LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS
Items Acronym - Typical "LK1-n" & "LK2-n"

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

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

F.to UNI A3: 420mmx297mm

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




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

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

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

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00031

SHEET 038

REV. 00

F.to UNI A3: 420mmx297mm

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

APERTO IN INS.

038.6C 3 230V-50Hz

KA3 039.8D

KA6 042.9D

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

SA1 039.3B CLOSE ON "REM"

PM1 GR

KM1 039.3D

PA1 RD

KA7 042.6D

KA6 042.5D

KA3 039.8D

SA1 039.3B CLOSE ON "REM"

KM1 039.3D

KA5 039.9D

QF1 038.1B Q

QF1 038.1B SY

Y1 22 T Y1 21 I/T

3 040.1B

7 BK 1x1.5

8 BK 1x1.5

9 BK 1x1.5

10 BK 1x1.5

11 BK 1x1.5

12 BK 1x1.5

5 BK 1x1.5

6 BK 1x1.5

13 BK 1x1.5

14 BK 1x1.5

15 BK 1x1.5

16 BK 1x1.5

17 BK 1x1.5

18 BK 1x1.5

19 BK 1x1.5

KM1 A1 A2 MAIN CONTACTOR

KA1 A1 A2 STATUS C.B/CONTACTOR

KA2 A1 A2 USER AVAILABLE

KA3 A1 A2 C.B. OPEN/CLOSED

KA4 A1 A2 C.B. TRIPPED

KA5 A1 A2 DRAWER ON TEST

038.6C 4

4 040.1D

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

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

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

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

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

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

= TYPICAL
+ LK-x

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

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

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

TITLE : "SG-200N1"

# LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

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

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

SCALE : NTS

A3

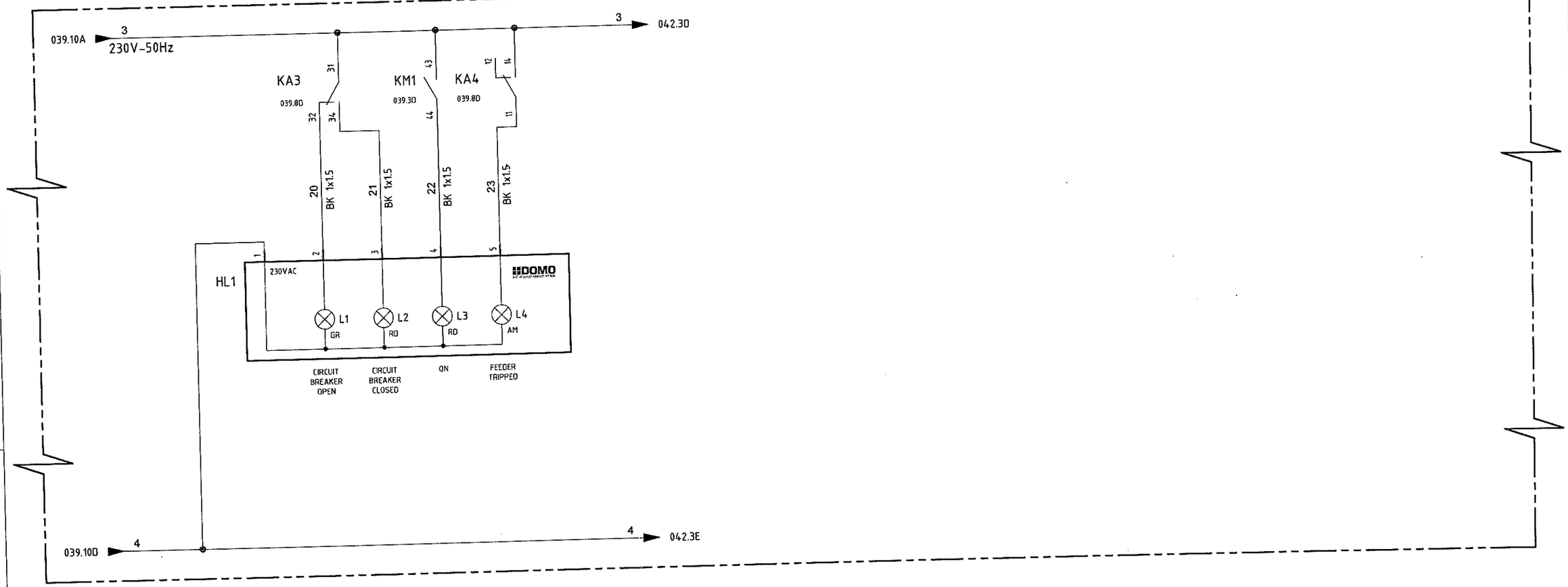
DRAWING NO. 1723002197-EL-DG-00031

SHEET 039

REV. 00

F.to UNI A3: 420mmx297mm

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




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

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

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

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

SCALE : NTS

A3

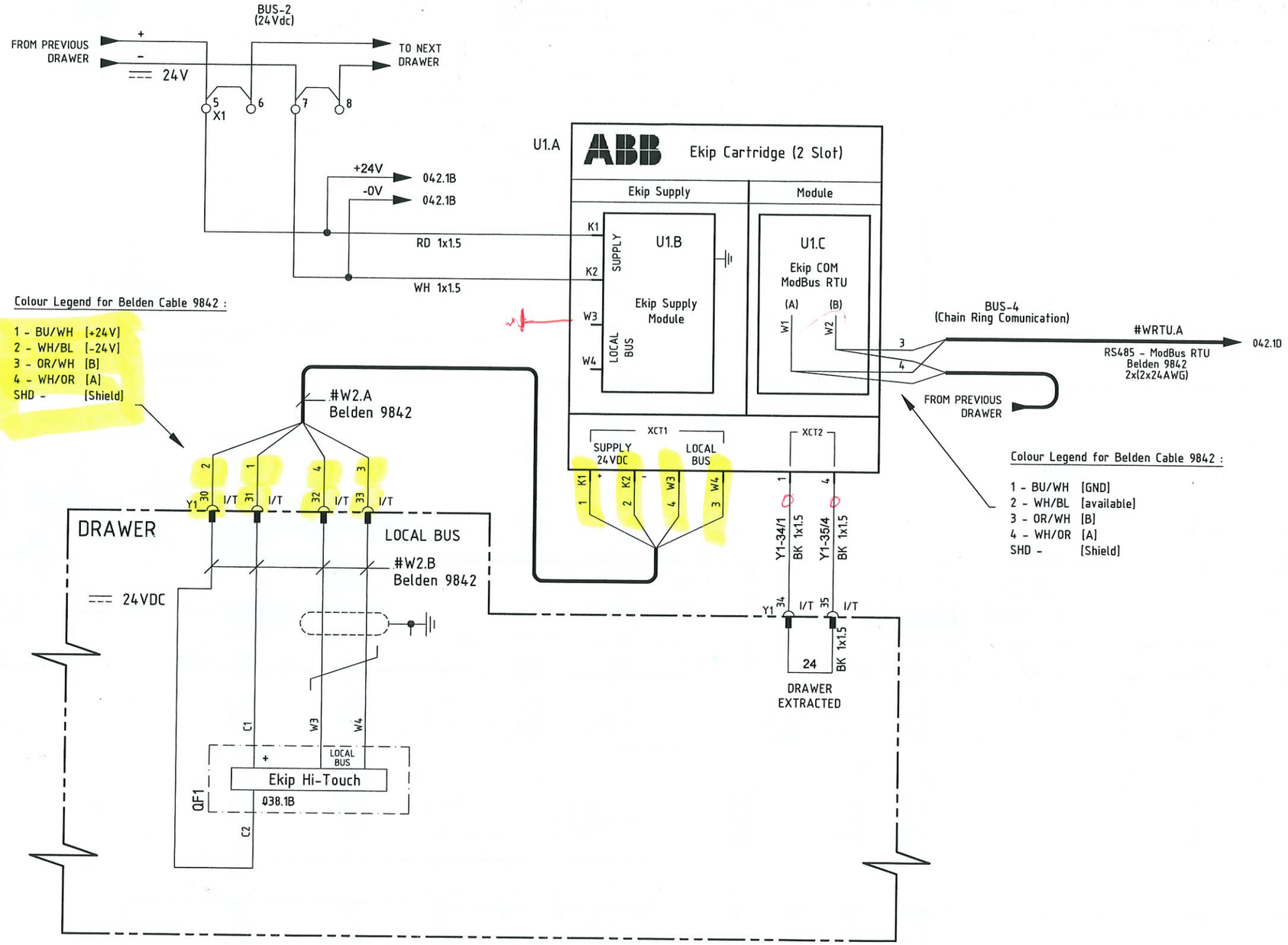
DRAWING NO. 1723002197-EL-DG-00031

SHEET 040

REV. 00

F.to UNI A3: 420mmx297mm

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




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

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

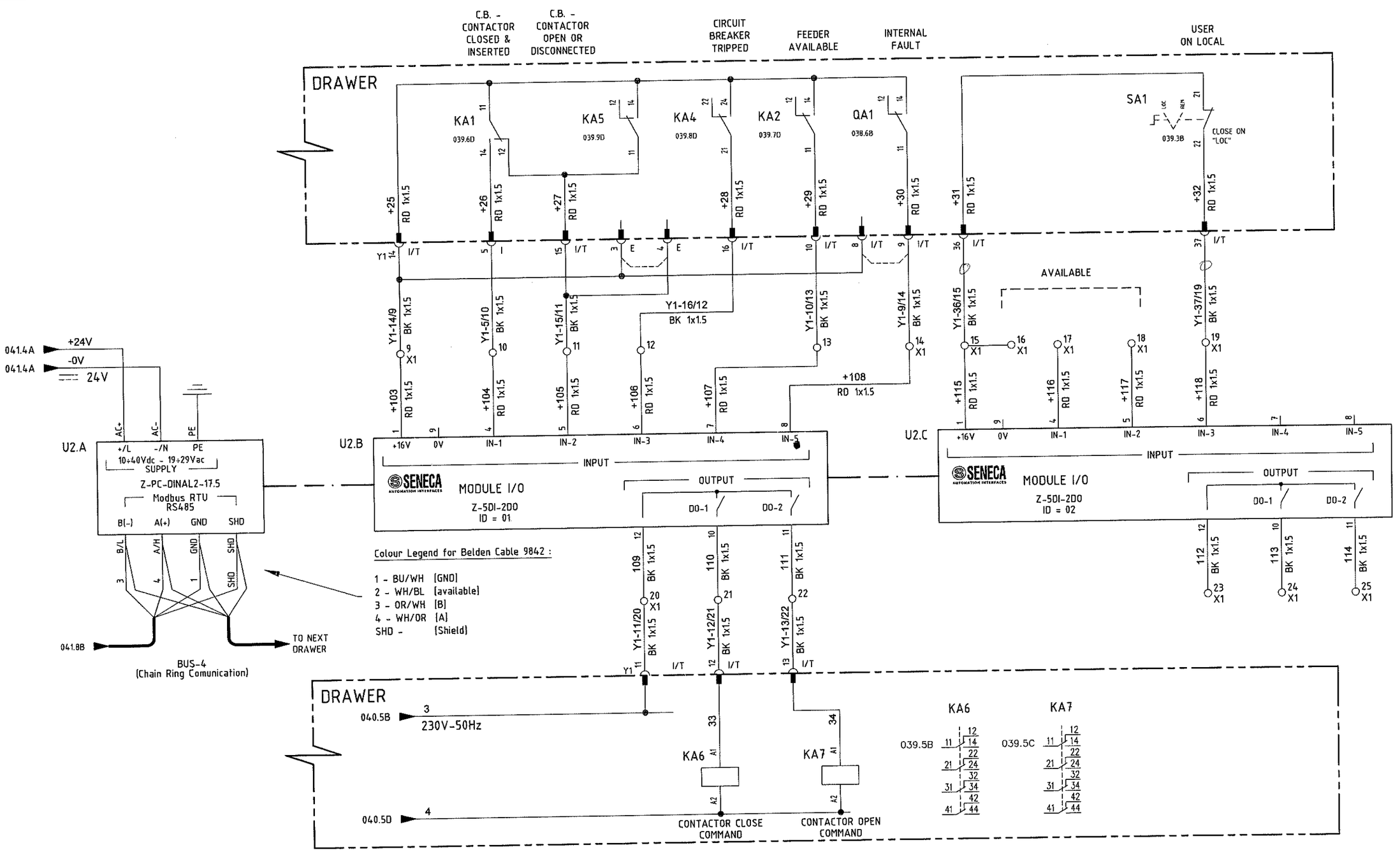
Functional Drawing - Typical "LK1-n" & "LK2-n"

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

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

F.to UNI A3: 420mmx297mm

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




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

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

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

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00031

SHEET 042

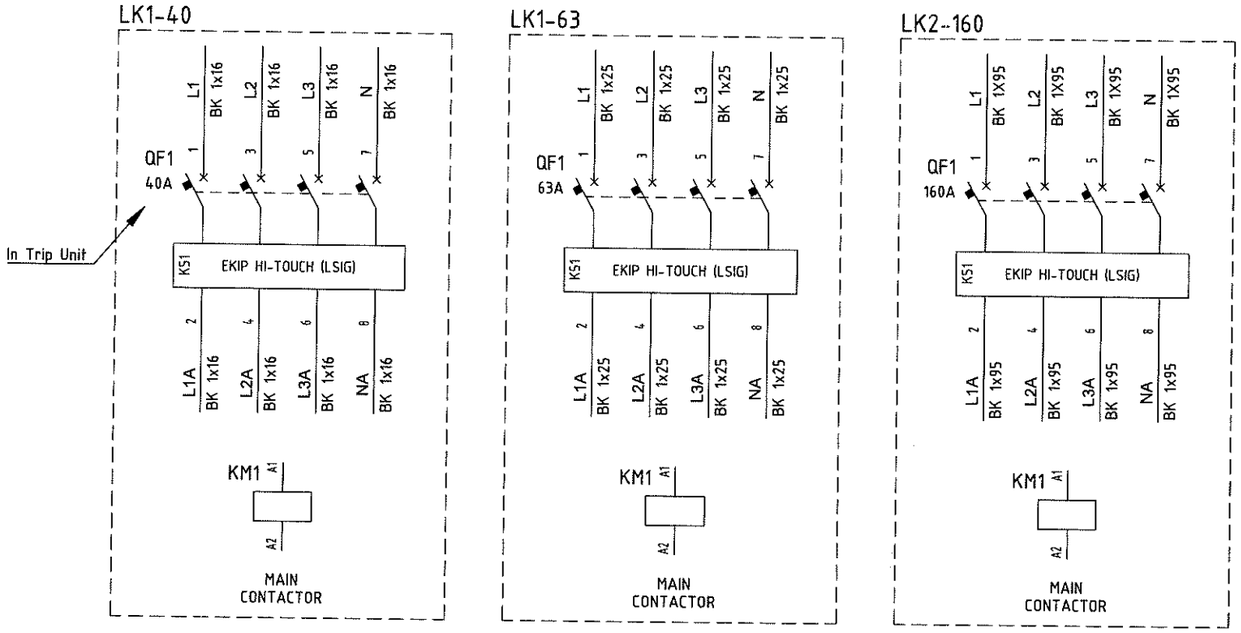
REV. 00

F.to UNI A3: 420mmx297mm

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

# SPECIFIC PARTS

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




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

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

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

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00031

SHEET 043

REV. 00

F.to UNI A3: 420mmx297mm

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

AUXILIARY SOCKET

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

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

TYPICAL - LK-x - Y1

SX DX

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

x 19 CASSETTI

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

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "SG–200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

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

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

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

F.to UNI A3: 420mmx297mm

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

TYPICAL - LK-x

X1

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

| | |
|---|---|
| = | TYPICAL |
| + | LK-x |

IMESA ELECTRICAL ENGINEERING

DWG n° : 231298/SD/31

Item n° : PF1002983/26

CROSSWIND

ROSETTI MARINO

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

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

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

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00031

SHEET 045

REV. 00

F.to UNI A3: 420mmx297mm

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

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

| | |
|---|---|
| = | TYPICAL |
| + | LK-x |

DWG n° : 231298/SD/31

Item n° : PF1002983/26

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

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

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

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00031

SHEET 046

REV. 00

F.to UNI A3: 420mmx297mm

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

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

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

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

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

| | |
|---|---|
| = | TYPICAL |
| + | LK-x |

DWG n° : 231298/SD/31

Item n° : PF1002983/26

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

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

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

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

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00031

SHEET 047

REV. 00

F.to UNI A3: 420mmx297mm

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

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **ITEM** | Tag | A5/+03-QF1 | : | DRAWER HVAC PANELS UPS ROOM - A5/+03-QF1 | Dwg | 1723002197-EL-DG-00011 | |
| | S/Sys | 77-30 | : | HVAC UPS Equipment Room B-300 | Module | | |
| **TASK** | code | C10002875 | 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°: | EGA000253700N000 | Relay type: | EKIP HI TOUCH LSIG |
| Auxiliary supply: | 24Vdc | Location: | B200 | Cubicle: | A5/+03 |
| 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 | Trip value |
| L | 41A | 140A | | 3s | 2347ms |
| S | 189A | 200A | | 0.1s | 102ms |
| I | 441A | 450A | | INSTANT | 22ms |
| G | 12,6A | #Note1 | | 0.1s | 103ms |
| | | | | | |

### 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/+03 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. C30000114 has 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



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

A5/103

AS COMMISSIONED: DATWA GIB2W

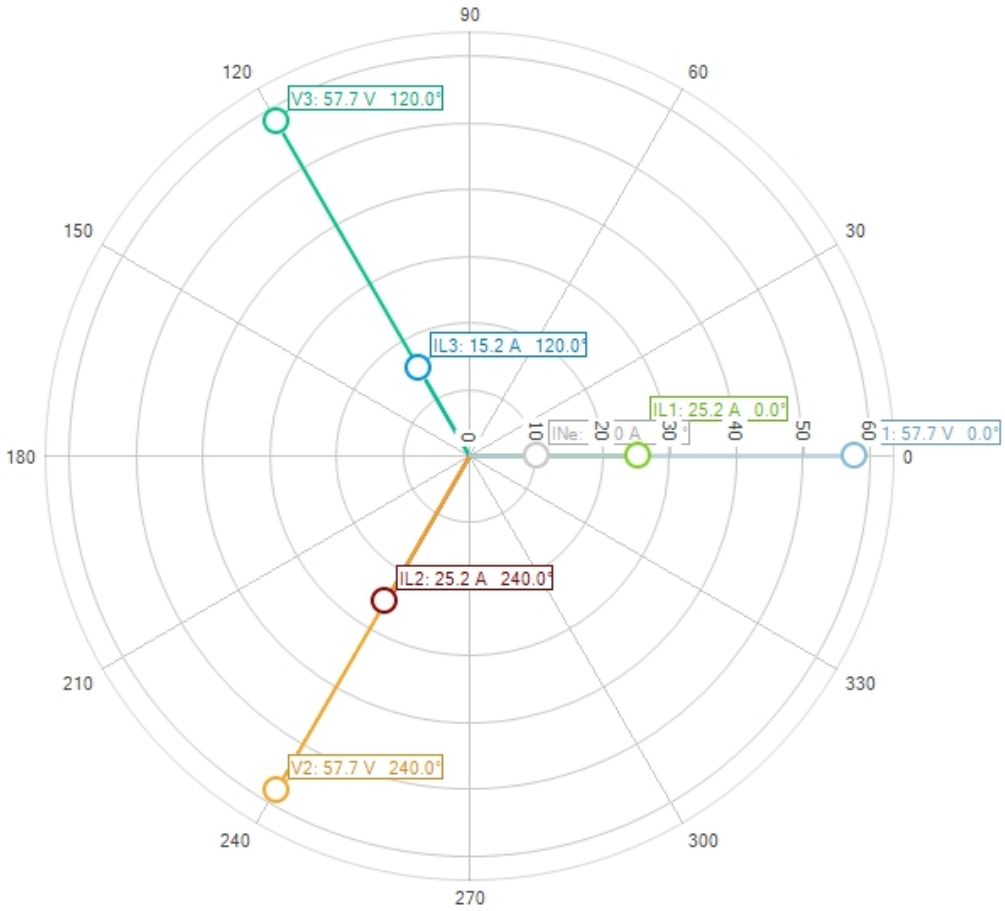
21/5/25

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

AS/T03 AS COMMISSIONED: MATLA GIBOR

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

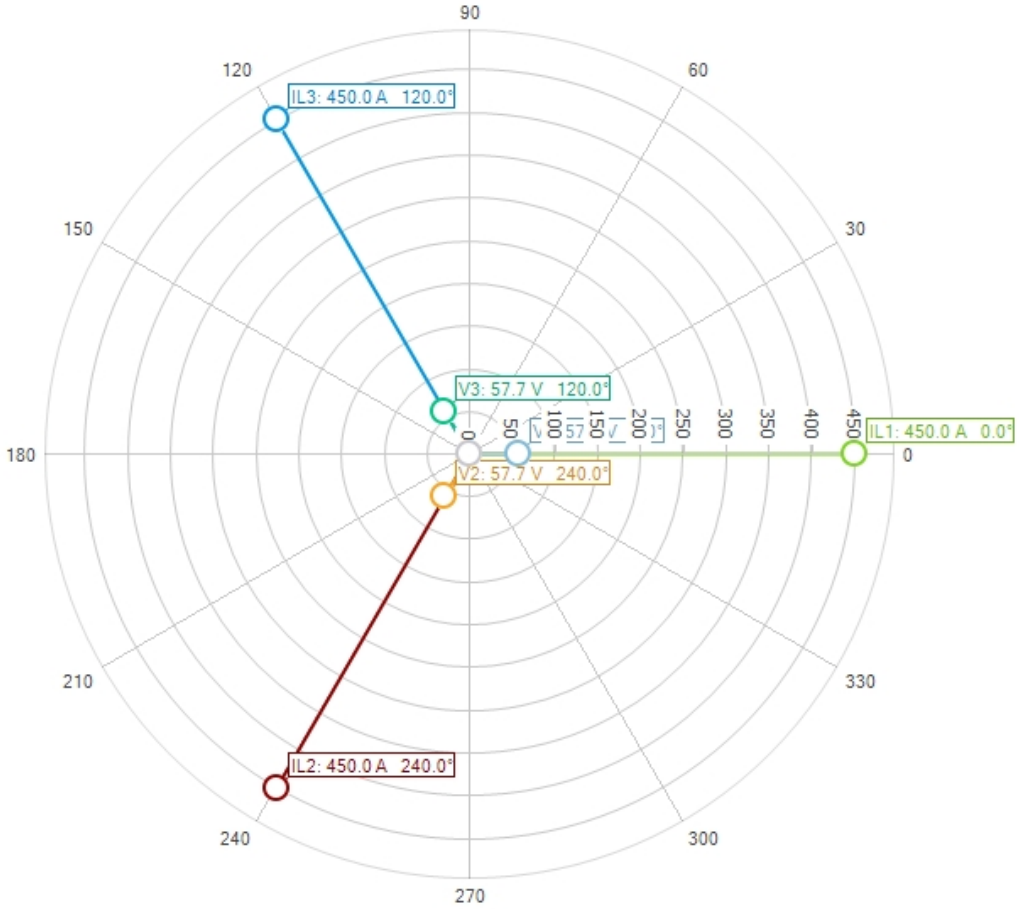
| | |
|---|---|
| Name | Test 12 |
| Session | Default session |
| Customer | |
| Location | |
| Operator | |

## Device

| | |
|---|---|
| Tag name | A5/+03 |
| Relay Serial Number | EGA000253700N000 |
| Circuit Breaker Serial Number | CE71079909number |
| | XT2/4 |
| Device settings | In = 63 A<br>Un = 100 V<br>fn = 50 Hz |
| Protection Settings | Protection = L<br>Curve type = t=k/i^2<br>Threshold = 0.650 In<br>Time = 3.00 s<br><br>Protection = S<br>Curve type = t=k<br>Threshold = 3.00 In<br>Time = 0.10 s<br><br>Protection = I<br>Threshold = 7.00 In<br><br>Protection = G<br>Curve type = t=k<br>Threshold = 0.200 In<br>Time = 0.10 s |
| Preconditions | All preconditions satisfied. |

## Test result

Test completed with trip. Protection G tripped in 103 ms.




## Test

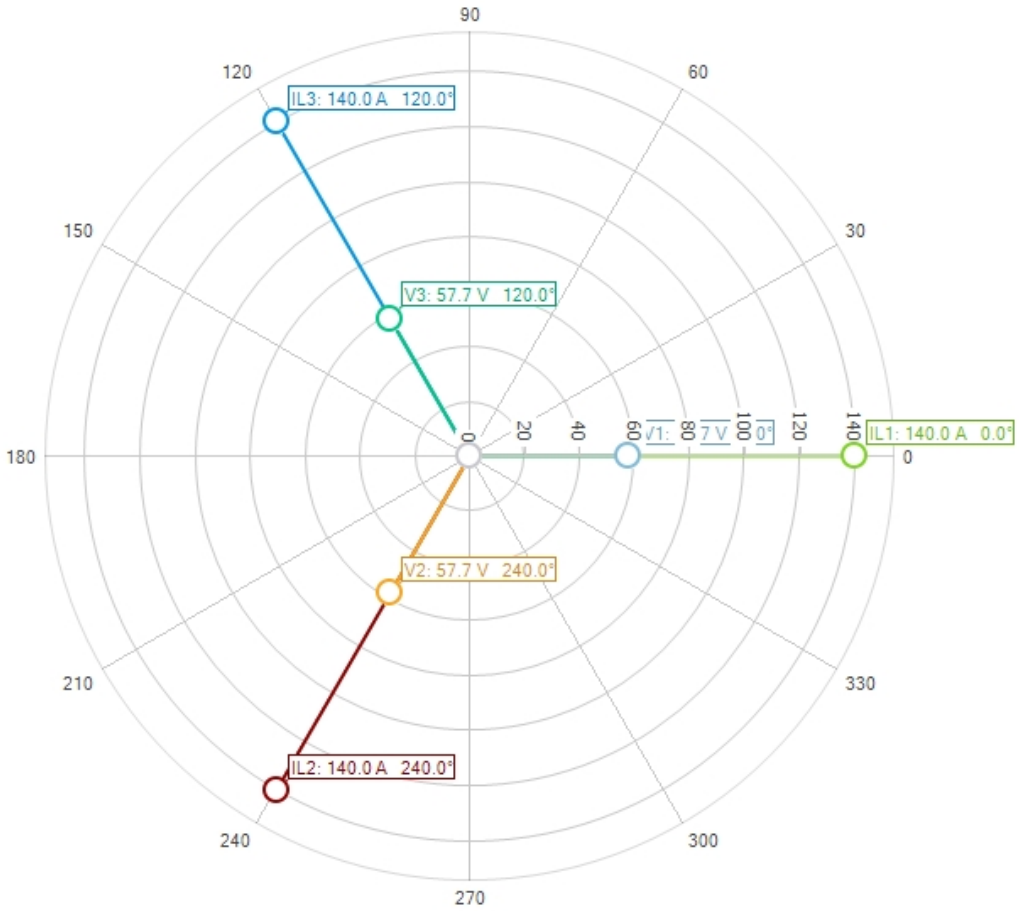
| | |
|---|---|
| Name | Test 11 |
| Session | Default session |
| Customer | |
| Location | |
| Operator | |

## Device

| | |
|---|---|
| Tag name | A5/+03 |
| Relay Serial Number | EGA000253700N000 |
| Circuit Breaker Serial Number | CE71079909number |
| | XT2/4 |
| Device settings | In = 63 A<br>Un = 100 V<br>fn = 50 Hz |
| Protection Settings | Protection = L<br>Curve type = t=k/i^2<br>Threshold = 0.650 In<br>Time = 3.00 s<br><br>Protection = S<br>Curve type = t=k<br>Threshold = 3.00 In<br>Time = 0.10 s<br><br>Protection = I<br>Threshold = 7.00 In<br><br>Protection = G<br>Curve type = t=k<br>Threshold = 0.200 In<br>Time = 0.10 s |
| Preconditions | All preconditions satisfied. |

## Test result

Test completed with trip. Protection I tripped in 22 ms.




## Test

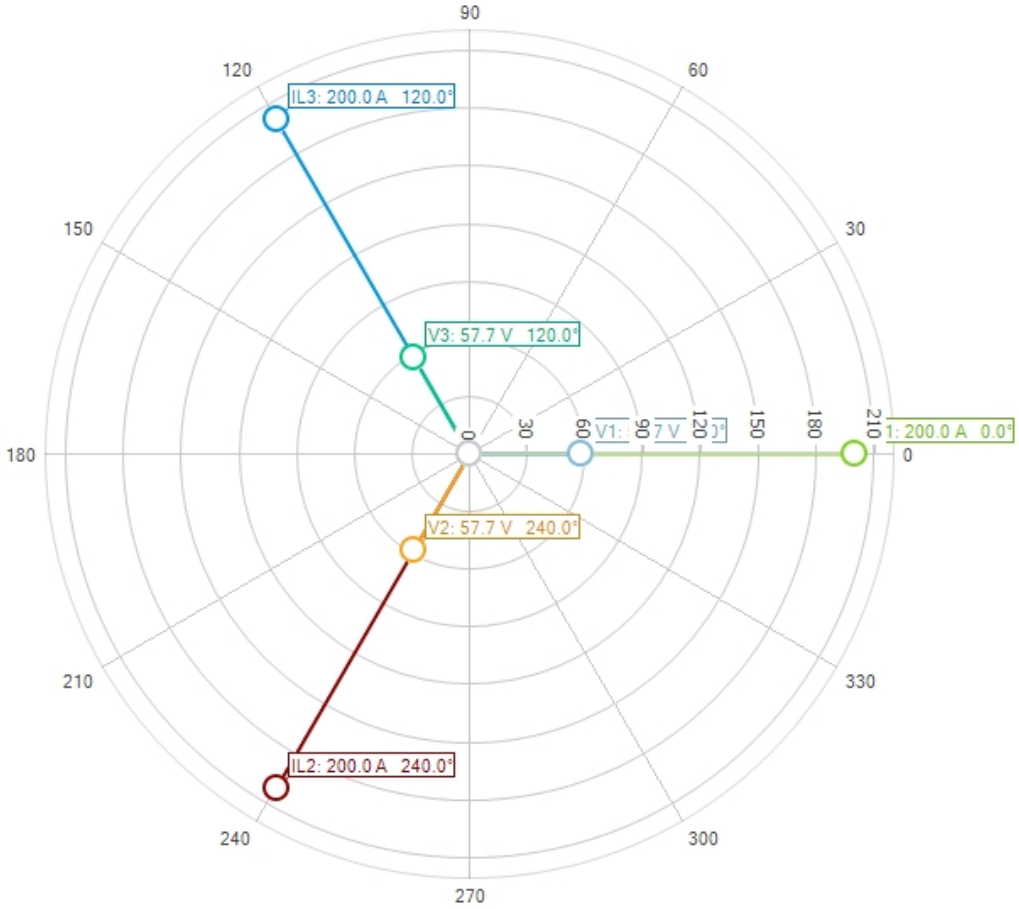
| | |
|---|---|
| Name | Test 9 |
| Session | Default session |
| Customer | |
| Location | |
| Operator | |

## Device

| | |
|---|---|
| Tag name | A5/+03 |
| Relay Serial Number | EGA000253700N000 |
| Circuit Breaker Serial Number | CE71079909number |
| | XT2/4 |
| Device settings | In = 63 A<br>Un = 100 V<br>fn = 50 Hz |
| Protection Settings | Protection = L<br>Curve type = t=k/i^2<br>Threshold = 0.650 In<br>Time = 3.00 s<br><br>Protection = S<br>Curve type = t=k<br>Threshold = 3.00 In<br>Time = 0.10 s<br><br>Protection = I<br>Threshold = 7.00 In<br><br>Protection = G<br>Curve type = t=k<br>Threshold = 0.200 In<br>Time = 0.10 s |
| Preconditions | All preconditions satisfied. |

## Test result

Test completed with trip. Protection L tripped in 2347 ms.




## Test

| | |
|---|---|
| Name | Test 10 |
| Session | Default session |
| Customer | |
| Location | |
| Operator | |

## Device

| | |
|---|---|
| Tag name | A5/+03 |
| Relay Serial Number | EGA000253700N000 |
| Circuit Breaker Serial Number | CE71079909number |
| | XT2/4 |
| Device settings | In = 63 A<br>Un = 100 V<br>fn = 50 Hz |
| Protection Settings | Protection = L<br>Curve type = t=k/i^2<br>Threshold = 0.650 In<br>Time = 3.00 s<br><br>Protection = S<br>Curve type = t=k<br>Threshold = 3.00 In<br>Time = 0.10 s<br><br>Protection = I<br>Threshold = 7.00 In<br><br>Protection = G<br>Curve type = t=k<br>Threshold = 0.200 In<br>Time = 0.10 s |
| Preconditions | All preconditions satisfied. |

## Test result

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

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **ITEM** | Tag | A5/+03-QF1 | : DRAWER HVAC PANELS UPS ROOM - A5/+03-QF1 | | | Dwg | 1723002197-EL-DG-00011 |
| | S/Sys | 77-30 | : HVAC UPS Equipment Room B-300 | | | Module | |
| **TASK** | code | C10002876 | | 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: | B300-HSB-001 - HVAC UPS ROOM | Instrument Type / Serial N° : | FLUKE 175 / 17140769 |
| Cubicle N°: | A5/+03 | 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 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Status Check | | | | | |
| 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) | Event (Y/N) | Alarm (Y/N) | 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/+03 - KA1/11-14 | A5/+03 - X1/9-10 | NA | NA | NA | Y | NA | NA | NA | NA | NA |
| 2 | C.B. - OPEN OR DISCONNECTED | HW | DI | A5/+03 - KA1/11-12 | A5/+03 - X1/9-11 | NA | NA | NA | Y | NA | NA | NA | NA | NA |
| 3 | C.B. - TRIPPED | HW | DI | A5/+03 - KA4/21-24 | A5/+03 - X1/9-12 | NA | NA | NA | NA | NA | Y | NA | NA | NA |
| 4 | INTERNAL FAULT | HW | DI | A5/+03 - QA1/11-14 | A5/+03 - X1/9-14 | NA | NA | NA | NA | NA | Y | NA | NA | NA |
| 5 | FEEDER AVAILABLE | HW | DI | A5/+03 - KA2/11-14 | A5/+03 - X1/9-13 | NA | NA | NA | Y | NA | NA | NA | NA | NA |
| 6 | USER ON LOCAL | HW | DI | A5/+03 - SA1/21-22 | A5/+03 - X1/9-15 | NA | NA | NA | Y | NA | NA | NA | NA | NA |
| 7 | DRAWER ON TEST | HW | DI | A5/+03 - KA5/11-14 | A5/+03 - 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** | PROVERLIS Digitaly signed by Mattia Girotti 2024-10-02T09:39:57.092Z | PROVERLIS Digitaly signed by Kristian Castellani 2024-10-03T07:13:09.366Z | PROVERLIS Digitaly signed by Witness waived 2024-10-03T14:29:03.052Z |

ROSETTI MARINO | PROVERLIS | CROSSWIND

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **ITEM** | Tag | B300-HSB-001 | : Distribution & HVAC Panel - Shelter AC UPS Fitted with UPS System Equipment Room | | | Dwg | 123A90-DDL-EL-DL-20106 |
| | S/Sys | 77-30 | : HVAC UPS Equipment Room B-300 | | | Module | LD_B-300 |
| **TASK** | code | C10002989 | Location | Onshore Activities | | User | Rosetti Marino Quality Control |
| **FORM** | Process | PRE-COMM | Activity FTS | Discipline | Electrical | Form | FP00 Miscellaneous electrical Consumer |

## DATA

| | | | |
|---|---|---|---|
| Switchboard | B300-HSB-001 | Circuit ref: | B300-HSB-001-QS1 |
| Breaker rating (A) | 160A | Nominal current (A) | 32A |

## 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) | >1000 | MΩ | | OK |
| 4 | Energise control of equipment feeder | | | | OK |
| 5 | Full test feeder breaker operation in test position | | | | NA |
| 6 | Check protection setting | | | | OK |
| 7 | Test interface trips and signals (remote alarms & status). Check the relevant ITR presence in the system | | | | Note |
| 8 | Test control and safety functions according to manufacturer's procedure. | | | | OK |
| 9 | Energize | | | | OK |
| 10 | Measure Voltage and Current values at feeder breaker | 400 | V | 17 A | OK |
| 11 | Attach test procedure, if any | | | | NA |

| FUNCTION TEST REQUIREMENT | RESULT |
|---|---|
| | |
| | |
| | |
| | |
| | |

### Testing & measurement instruments used

| Type | Serial n° | Calibration certificate | Validity |
|---|---|---|---|
| FLUKE 163 | 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 | 2024-10-24 | 2024-10-29 | 2024-10-29 |
| Signature | PROVERLIS Digitaly signed by Mattia Girotti 2024-10-24T13:18:07.313Z | PROVERLIS Digitaly signed by Kristian Castellani 2024-10-29T08:52:58.632Z | PROVERLIS Digitaly signed by Witness waived 2024-10-29T09:04:04.880Z |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **ITEM** | Tag | A5/+03-QF1 | : DRAWER HVAC PANELS UPS ROOM - A5/+03-QF1 | | | Dwg | 1723002197-EL-DG-00011 |
| | S/Sys | 77-30 | : HVAC UPS Equipment Room B-300 | | | Module | |
| **TASK** | code | C10003016 | | 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/+03 |
| | | | |
| | | | |

## 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 2025-05-14T06:16:06.900Z | PROVERLIS Digitaly signed by Anthony Iveson 2025-05-14T08:48:15.664Z | PROVERLIS Digitaly signed by Martin Taylor 2025-05-15T04:28:19.245Z |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **ITEM** | Tag | UP-200F3-QF41 | : UCP - HVAC UPS ROOM | | Dwg | 1724000372-EL-DG-00009 | |
| | S/Sys | 77-30 | : HVAC UPS Equipment Room B-300 | | Module | | |
| **TASK** | code | C10004578 | Location | Onshore Activities | User | Rosetti Marino Quality Control | |
| **FORM** | Process | PRE-COMM | Activity | FTS | Discipline | Electrical | Form | FTR-2 | Protection Relay |

# FTR2 - Protection relay
## Record sheet

### RELAY DATA

| | | | | | |
|---|---|---|---|---|---|
| Manufacturer: | ABB | Serial N°: | NA | Relay type: | A-TYPE |
| Auxiliary supply: | NA | Location: | B300 | Cubicle: | QF41 |
| 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 | 270mA | FIXED | 28,0ms |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

### Testing & measurement instruments used

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

Comments:



| | Performed by | ☐ WITNESS ☉ REVIEW | ☐ WITNESS ☐ REVIEW |
|---|---|---|---|
| Company | RM COMM | RM COMM | CPY NOT PRESENT |
| Name | Mattia Girotti | Kristian Castellani | Witness waived |
| Date | 2024-11-08 | 2024-11-18 | 2024-11-18 |
| Signature | PROVERLIS Digitaly signed by Mattia Girotti 2024-11-08T14:57:42.386Z | PROVERLIS Digitaly signed by Kristian Castellani 2024-11-18T13:11:34.882Z | PROVERLIS Digitaly signed by Witness waived 2024-11-18T13:15:25.675Z |

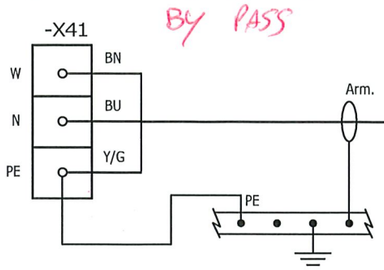
# Section 4.2 Electrical
# “As-Commissioned” interconnection diagrams

| FROM | TO |
|---|---|

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

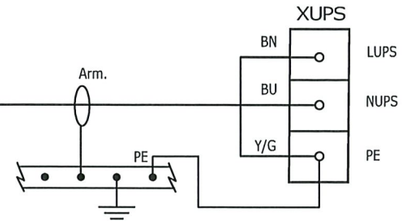
MARCO MORETTO 15/3/25

-X41

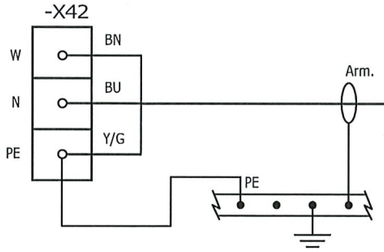



84316-CEL
3G2.5 mm²

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



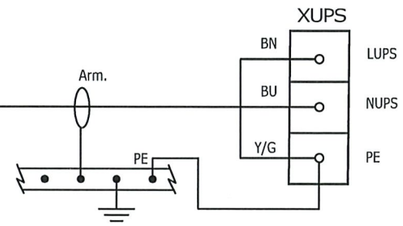

-X42



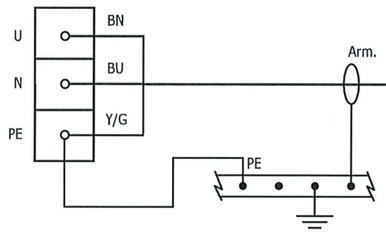

84317-CEL
3G2.5 mm²

NO MARK UP
MARCO MORETTO
21/3/25

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



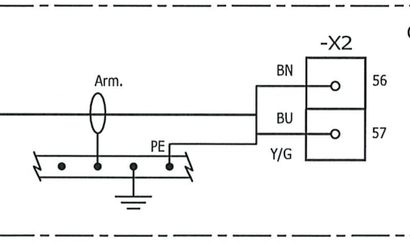

-X49



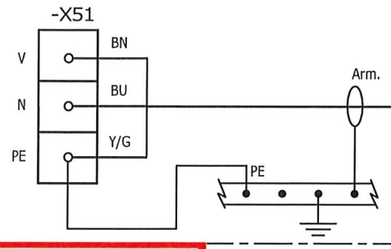

84318-CEL
3G2.5 mm²

NO MARK UP
19/3/25
MARCO MORETTO

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



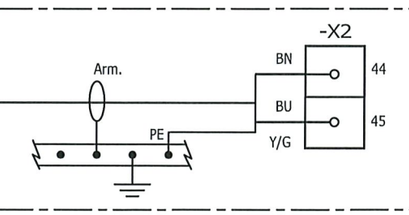

-X51




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 GIRTI

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

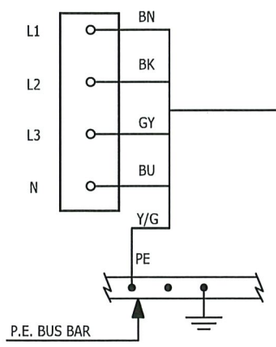
F.to UNI A3: 420mmx297mm

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

| FROM | TO |
|---|---|

DESCRIPTION: LV SWITCHGEAR
TAG NUMBER: SG-200N1

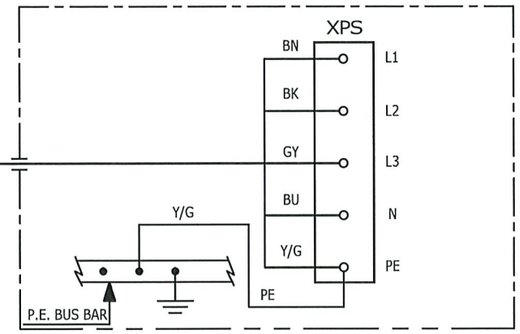
COLUMN/CUBIC.: A5/+02



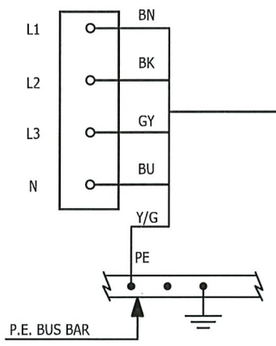

83024-CEL
5G16 mm²

NO MARK UP
MARCO MORETTO
21/3/25

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



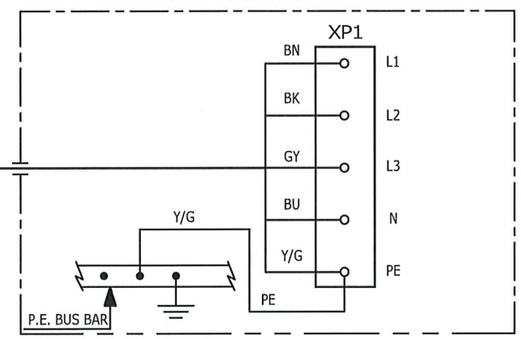

COLUMN/CUBIC.: A5/+03



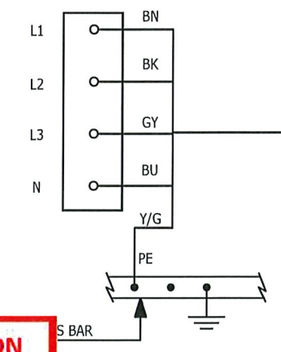

83025-CEL
5G16 mm²

NO MARK UP
MARCO MORETTO
21/3/25

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




COLUMN/CUBIC.: A5/+04

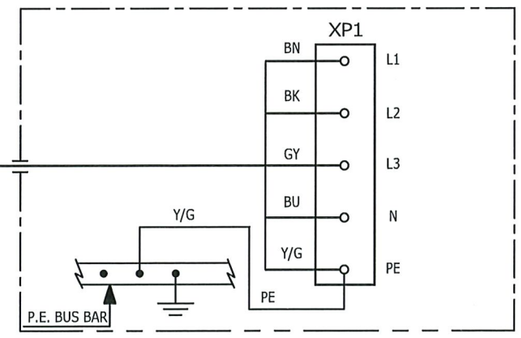



83026-CEL
5G16 mm²

NO MARK UP
MARCO MORETTO
21/3/25

AS COMMISSIONED: MATTIA GIGLI
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-300

# INTERCONNECTION WIRING DIAGRAM

# B300-HSB-001

AS COMMISSIONED
ENGINEER DAVIDS
16/04/2025
NO MARK UP ZDZ

| | | | | | |
|---|---|---|---|---|---|
| 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) |
| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |

CROSSWIND

ROSETTI MARINO

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

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

SCALE : NTS

A3

DRAWING NO. 1724000049-EL-DG-00024

SHEET 001

REV. 04

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

ALEXSISTEMI spa

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300
COVER

ROSETTI MARINO

1724000049-HV-DG-00024

FG. 1
F.S. 2

# LISTA FOGLI \ INDEX

| Foglio Sheet | Descrizione Description | Revisioni Revisions 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | COVER | X | X | X | X | | | | | |
| 2 | INDEX | X | X | X | X | | | | | |
| 3 | SIMBOL LIST | X | X | X | X | | | | | |
| 4 | EXTERNAL VIEW | X | X | X | X | | | | | |
| 5 | INTERCONNECTION | X | X | X | X | | | | | |
| 6 | INTERCONNECTION | X | X | X | X | | | | | |
| 7 | INTERCONNECTION | X | X | X | X | | | | | |
| 8 | INTERCONNECTION | X | X | X | X | | | | | |
| 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 ZUCHOWSKI 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 | 02/07/2024 |
| DRN | F.M. |
| CHKD | S.S. |
| APPD | M.G. |

ALEXSISTEMI spa

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300

INDEX

ROSETTI MARINO

1724000049-HV-DG-00024

FG. 2
F.S. 3

| Symbol | Description | Symbol | Description | Symbol | Description |
|---|---|---|---|---|---|
| TR | VOLTAGE TRANSFORMER | | SONIC INDICATOR | F. | FUSE |
| TA | CURRENT TRANSFORMER | * | INDICATOR INSTRUMENT | | CONTACT N.O. |
| M ~ | MOTOR IN C.A. | | SELECTOR SWITCH | | CONTACT N.C. |
| | GROUND : GENERAL SYMBOL | 52. | SWITCH | | COMMUTATION CONTACT |
| L.. | SIGNAL LAMP | 52. | AUTOMATIC CIRCUIT BREAKER | P | CONTACT ACTUATED BY A PRESSURE |
| L.. | SIGNAL LAMP + HEATER | 52. Id | DIFFERENTIAL AUTOMATIC BREAKER | | CONTACT ACTUATED BY A FLOW |
| L.. | SIGNAL LAMP + VOLTAGE TRANSF. | 89. | DISCONNECTING SWITCH | | CONTACT ACTUATED BY A LEVEL |
| | SIGNAL LAMP–PUSH BUTTON | 89. | LOADED CIRCUIT BREAKER | 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 EVERYWHERE DAVIDE 16/09/2025 NO MARK UP |
| 79. | LIMIT SWITCH N.C. | | ELECTROVALVE | | |

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

ALEXSISTEMI spa

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300

SIMBOL LIST

ROSETTI MARINO

1724000049-HV-DG-00024

FG. 3
F.S. 4

## B300-HSB-001
## PANEL SIDE

+QG - XM1

MOTOR 1

| | | | | |
|---|---|---|---|---|
| U1A | 1 | 77309-CBL-L1 | 4G2.5 | XLPE/UNBL S2 |
| V1A | 2 | | | |
| W1A | 3 | | | |
| U2A | 4 | 77310-CBL-L1 | 4G4 | XLPE/UNBL S2 |
| V2A | 5 | | | |
| W2A | 6 | | | |
| U3A | 7 | 77311-CBL-L1 | 4G10 | XLPE/UNBL S2 |
| V3A | 8 | | | |
| W3A | 9 | | | |
| U4A | 10 | 77312-CBL-L1 | 4G10 | XLPE/UNBL S2 |
| V4A | 11 | | | |
| W4A | 12 | | | |
| U5A.1 | 13 | 77313-CBL-L1 | 4G2.5 | XLPE/UNBL S2 |
| V5A.1 | 14 | | | |
| W5A.1 | 15 | | | |
| U5A.1 | 16 | 77314-CBL-L1 | 4G2.5 | XLPE/UNBL S2 |
| V5A.1 | 17 | | | |
| W5A.1 | 18 | | | |

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

## HHU-77005
## HJB-77005A

+QG - XM1

MOTOR 1

| | |
|---|---|
| 1 | U1A |
| 2 | V1A |
| 3 | W1A |
| 4 | U2A |
| 5 | V2A |
| 6 | W2A |
| 7 | U3A |
| 8 | V3A |
| 9 | W3A |
| 10 | U4A |
| 11 | V4A |
| 12 | W4A |
| 13 | U5A.1 |
| 14 | V5A.1 |
| 15 | W5A.1 |
| 16 | U5A.1 |
| 17 | V5A.1 |
| 18 | W5A.1 |

| REV. | MOD. | DATE | SIGN | APPD | |
|---|---|---|---|---|---|
| 04 | ISSUED FOR INFORMATION (IFI) | 19/12/24 | | DATE | 02/07/2024 |
| 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-300

EXTERNAL VIEW

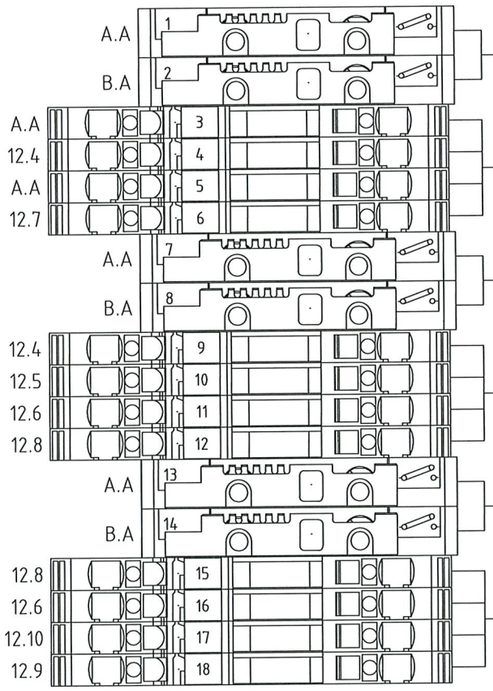
ROSETTI MARINO

1724000049-HV-DG-00024

FG. 4
F.S. 5

B300-HSB-001
PANEL SIDE

+QG - XMD1
MOTORISED DAMPER 1




| | | | |
|---|---|---|---|
| 77315-CBL-L2 | 3G1.5 | XLPE/UNBL S2 | 1 2 |
| 77308-CBC-L2 | 4X1.5 | XLPE/UNBL S2 | 3 4 5 6 |
| 77316-CBL-L2 | 3G1.5 | XLPE/UNBL S2 | 7 8 |
| 77309-CBC-L2 | 4X1.5 | XLPE/UNBL S2 | 9 10 11 12 |
| 77317-CBL-L2 | 3G1.5 | XLPE/UNBL S2 | 13 14 |
| 77310-CBC-L2 | 4X1.5 | XLPE/UNBL S2 | 15 16 17 18 |

HHU-77005
HJB-77005B

+QG - XMD1
MOTORISED DAMPER 1

AS COMMISSIONED
TUCCIARELLI DAVIDE
16/04/2025
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 | 02/07/2024 |
| DRN | F.M. |
| CHKD | S.S. |
| APPD | M.G. |

ALEXSISTEMI spa

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300

INTERCONNECTION

ROSETTI MARINO

1724000049-HV-DG-00024

FG. 5
F.S. 6

## B300-HSB-001
## PANEL SIDE

+QG - XA1
AUXILIARY 1

| | | | | |
|---|---|---|---|---|
| A.A | 100 | 77311-CBC-L1 | 2X1.5 | XLPE/UNEL S2 |
| 13.10 | 101 | | | |
| 13.7 | 102 | 77312-CBC-L1 | 2X1.5 | XLPE/UNEL S2 |
| 13.8 | 103 | | | |
| +24VDC | 104 | 77313-CBC-L1 | 2X1.5 | XLPE/UNEL S2 |
| 26.6 | 105 | | | |
| 13.6 | 106 | 77314-CBC-L1 | 2X1.5 | XLPE/UNEL S2 |
| B.A | 107 | | | |
| 14.1 | 108 | 77315-CBC-L1 | 2X1.5 | XLPE/UNEL S2 |
| B.A | 109 | | | |
| 14.13 | 110 | 77316-CBC-L1 | 2X1.5 | XLPE/UNEL S2 |
| B.A | 111 | | | |
| 15.1 | 112 | 77317-CBC-L1 | 2X1.5 | XLPE/UNEL S2 |
| B.A | 113 | | | |
| A.A | 114 | 77347-CBC-L1 | 2X1.5 | XLPE/UNEL S2 |
| 15.2 | 115 | | | |
| A.A | 116 | 77319-CBC-L1 | 2X1.5 | XLPE/UNEL S2 |
| 15.3 | 117 | | | |
| 11.9 | 118 | 77320-CBC-L1 | 2X1.5 | XLPE/UNEL S2 |
| 11.11 | 119 | | | |
| A.A | 120 | 77321-CBC-L1 | 2X1.5 | XLPE/UNEL S2 |
| 15.8 | 121 | | | |
| 15.10 | 122 | 77322-CBC-L1 | 2X1.5 | XLPE/UNEL S2 |
| 15.12 | 123 | | | |
| A.A | 124 | 77323-CBC-L1 | 2X1.5 | XLPE/UNEL S2 |
| 14.7 | 125 | | | |
| A.A | 126 | 77324-CBC-L1 | 2X1.5 | XLPE/UNEL S2 |
| 14.9 | 127 | | | |
| A.A | 128 | 77349-CBC-L1 | 2X1.5 | XLPE/UNEL S2 |
| 15.6 | 129 | | | |

## HHU-77005
## HJB-77005B

+QG - XA1
AUXILIARY 1

| | |
|---|---|
| 100 | |
| 101 | |
| 102 | |
| 103 | |
| 104 | |
| 105 | |
| 106 | |
| 107 | |
| 108 | |
| 109 | |
| 110 | |
| 111 | |
| 112 | |
| 113 | |
| 114 | |
| 115 | |
| 116 | |
| 117 | |
| 118 | |
| 119 | |
| 120 | |
| 121 | |
| 122 | |
| 123 | |
| 124 | |
| 125 | |
| 126 | |
| 127 | |
| 128 | |
| 129 | |

AS COMMISSIONED
FUNCTIONAL CHECKS
16/04/2025
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 | 02/07/2024 |
| DRN | F.M. |
| CHKD | S.S. |
| APPD | M.G. |

ALEXSISTEMI spa

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300

INTERCONNECTION

ROSETTI MARINO

1724000049-HV-DG-00024

FG. 6
F.S. 7

## B300-HSB-001
## PANEL SIDE

+QG - XM2

MOTOR 2

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

| | | |
|---|---|---|
| 77318-CBL-L1 | 4G2.5 | XLPE/UNBL S2 |
| 77319-CBL-L1 | 4G4 | XLPE/UNBL S2 |
| 77320-CBL-L1 | 4G10 | XLPE/UNBL S2 |
| 77321-CBL-L1 | 4G10 | XLPE/UNBL S2 |
| 77322-CBL-L1 | 4G2.5 | XLPE/UNBL S2 |
| 77323-CBL-L1 | 4G2.5 | XLPE/UNBL S2 |

## HHU-77006
## HJB-77006A

| | | |
|---|---|---|
| 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
EUGENIUS DAVID
16/04/2025
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 | 02/07/2024 |
| DRN | F.M. |
| CHKD | S.S. |
| APPD | M.G. |

ALEXSISTEMI spa

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300

INTERCONNECTION

ROSETTI MARINO

1724000049-HV-DG-00024

FG. 7
F.S. 8

B300-HSB-001
PANEL SIDE

+QG - XMD2
MOTORISED DAMPER 2

| | | | | | |
|---|---|---|---|---|---|
| 20.3 | 200 | | | | |
| B.B | 201 | 77324-CBL-L2 | 3G1.5 | XLPE/UNBL S2 | 200, 201 |
| A.B | 202 | | | | |
| 20.5 | 203 | 77325-CBC-L2 | 4X1.5 | XLPE/UNBL S2 | 202, 203, 204, 205 |
| A.B | 204 | | | | |
| 20.8 | 205 | | | | |
| 20.3 | 206 | | | | |
| B.B | 207 | 77326-CBL-L2 | 3G1.5 | XLPE/UNBL S2 | 206, 207 |
| 20.5 | 208 | | | | |
| 20.6 | 209 | 77327-CBC-L2 | 4X1.5 | XLPE/UNBL S2 | 208, 209, 210, 211 |
| 20.8 | 210 | | | | |
| 20.9 | 211 | | | | |
| 20.3 | 212 | 77328-CBL-L2 | 3G1.5 | XLPE/UNBL S2 | 212, 213 |
| B.B | 213 | | | | |
| 20.6 | 214 | | | | |
| 20.7 | 215 | 77329-CBC-L2 | 4X1.5 | XLPE/UNBL S2 | 214, 215, 216, 217 |
| 20.9 | 216 | | | | |
| 20.10 | 217 | | | | |

HHU-77006
HJB-77006B

+QG - XMD2
MOTORISED DAMPER 2

AS COMMISSIONED
ZUCCOLOTTI DAVIDE
16/04/2025
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 | 02/07/2024 |
| DRN | F.M. |
| CHKD | S.S. |
| APPD | M.G. |

ALEXSISTEMI spa

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300

INTERCONNECTION

ROSETTI MARINO

1724000049-HV-DG-00024

FG. 8
F.S. 9

## B300-HSB-001
## PANEL SIDE

+QG - XA2
AUXILIARY 2

| | | | | |
|---|---|---|---|---|
| A.B | 300 | 77328-CBC-L1 | 2X1.5 | XLPE/UNEL S2 |
| 13.11 | 301 | | | |
| 21.6 | 302 | 77329-CBC-L1 | 2X1.5 | XLPE/UNEL S2 |
| 21.7 | 303 | | | |
| +24VDC | 304 | 77330-CBC-L1 | 2X1.5 | XLPE/UNEL S2 |
| 26.7 | 305 | | | |
| 21.5 | 306 | 77331-CBC-L1 | 2X1.5 | XLPE/UNEL S2 |
| B.B | 307 | | | |
| 22.1 | 308 | 77332-CBC-L1 | 2X1.5 | XLPE/UNEL S2 |
| B.A | 309 | | | |
| 22.13 | 310 | 77333-CBC-L1 | 2X1.5 | XLPE/UNEL S2 |
| B.A | 311 | | | |
| 23.1 | 312 | 77334-CBC-L1 | 2X1.5 | XLPE/UNEL S2 |
| B.A | 313 | | | |
| A.B | 314 | 77350-CBC-L1 | 2X1.5 | XLPE/UNEL S2 |
| 15.2 | 315 | | | |
| A.B | 316 | 77336-CBC-L1 | 2X1.5 | XLPE/UNEL S2 |
| 15.3 | 317 | | | |
| 19.3 | 318 | 77337-CBC-L1 | 2X1.5 | XLPE/UNEL S2 |
| 19.4 | 319 | | | |
| A.B | 320 | 77338-CBC-L1 | 2X1.5 | XLPE/UNEL S2 |
| 15.9 | 321 | | | |
| 23.4 | 322 | 77339-CBC-L1 | 2X1.5 | XLPE/UNEL S2 |
| 15.13 | 323 | | | |
| A.B | 324 | 77340-CBC-L1 | 2X1.5 | XLPE/UNEL S2 |
| 14.7 | 325 | | | |
| A.B | 326 | 77341-CBC-L1 | 2X1.5 | XLPE/UNEL S2 |
| 14.9 | 327 | | | |
| A.B | 328 | 77348-CBC-L1 | 2X1.5 | XLPE/UNEL S2 |
| 23.6 | 329 | | | |

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

## HHU-77006
## HJB-77006B

+QG - XA2
AUXILIARY 2

| |
|---|
| 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 |

| REV. | MOD. | DATE | SIGN | | |
|---|---|---|---|---|---|
| 04 | ISSUED FOR INFORMATION (IFI) | 19/12/24 | | DATE | 02/07/2024 |
| 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-300

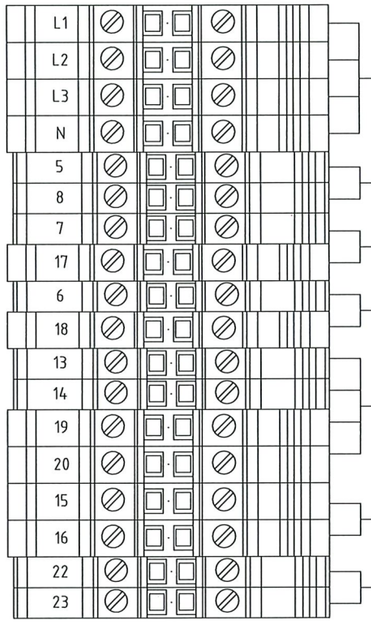
INTERCONNECTION

ROSETTI MARINO

1724000049-HV-DG-00024

FG. 9
F.S. 10

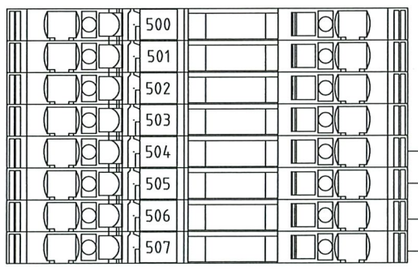
## B300-HSB-001
## PANEL SIDE
+QG - XP1
POWER SUPPLY 1




| | | | |
|---|---|---|---|
| POWER SUPPLY | 5G16 | FROM CLIENT | HHS-77-007 |
| 77301-CBL-L1 | 3G2.5 | XLPE/UNEL S2 | HHS-77-008 |
| 77302-CBL-L2 | 3G2.5 | XLPE/UNEL S2 | HHS-77-009 |
| 77303-CBL-L3 | 3G2.5 | XLPE/UNEL S2 | |
| 77304-CBL-L1 | 5G2.5 | XLPE/UNEL S2 | PECW-B300H-F1-L1-02 |
| 77308-CBL-L2 | 3G2.5 | XLPE/UNEL S2 | PESO-B300H-F2-L2-01 |
| HEATING CABLE | 2X1.5 | XLPE/UNEL S2 | HJB-7700XXX |

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ZUCCOMELLI DAVIDE
16/04/2025
NO MARK UP

## +QG - XC
COMMAND




| | | | |
|---|---|---|---|
| 77301-CBC-L1 | 2X1.5 | XLPE/UNEL S2 | CELS-B300H-F1-L1-01 |
| 77302-CBC-L1 | 2X1.5 | XLPE/UNEL S2 | CELS-B300H-F1-L1-02 |

| 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 | 02/07/2024 |
| DRN | F.M. |
| CHKD | S.S. |
| APPD | M.G. |

ALEXSISTEMI spa

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300

INTERCONNECTION

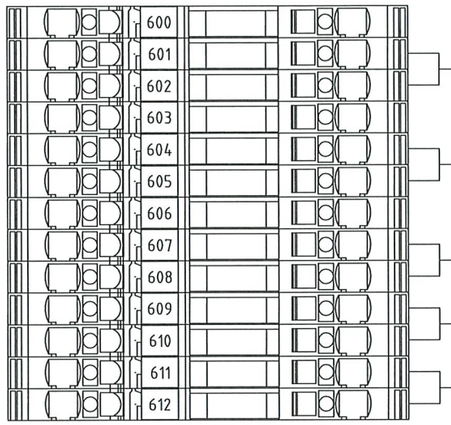
ROSETTI MARINO

1724000049-HV-DG-00024

FG. 10
F.S. 11

# B300-HSB-001
## PANEL SIDE

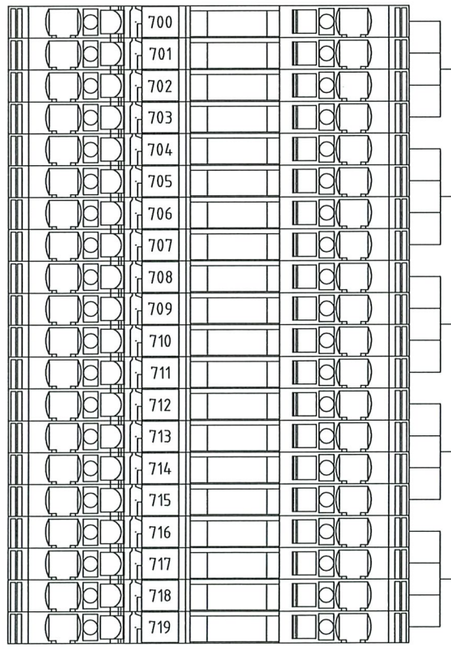
### +QG - XT
TRASMITTER




| | | | |
|---|---|---|---|
| 77353-CBC-L1 | 3X1.5+Sh | XLPE/UNEL S2 | 77-TT-301 (+Vdc, Out mA, 1, 2) |
| 77354-CBC-L1 | 3X1.5+Sh | XLPE/UNEL S2 | 77-TT-302 (+Vdc, Out mA, 1, 2) |
| 77355-CBC-L1 | 3X1.5+Sh | XLPE/UNEL S2 | 77-TP-301 (BROWN, BLACK, 1, 2) |
| 77351-CBC-L1 | 3X1.5+Sh | XLPE/UNEL S2 | 77-TT-303 (+Vdc, Out mA, 1, 2) |
| 77352-CBC-L1 | 3X1.5+Sh | XLPE/UNEL S2 | 77-TT-304 (+Vdc, Out mA, 1, 2) |

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

### +QG - XFD
FIRE DAMPER




| | | | |
|---|---|---|---|
| 77342-CBC-L2 | 4X1.5 | XLPE/UNEL S2 | HFD-77007 (+, –, PE) |
| 77343-CBC-L2 | 4X1.5 | XLPE/UNEL S2 | HFD-77008 (+, –, PE) |
| 77344-CBC-L2 | 4X1.5 | XLPE/UNEL S2 | HFD-77009 (+, –, PE) |
| 77345-CBC-L2 | 4X1.5 | XLPE/UNEL S2 | HFD-77010 (+, –, PE) |
| 77346-CBC-L2 | 4X1.5 | XLPE/UNEL S2 | HFD-77011 (+, –, PE) |

| 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 | 02/07/2024 |
| DRN | F.M. |
| CHKD | S.S. |
| APPD | M.G. |

ALEXSISTEMI spa

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300

INTERCONNECTION

ROSETTI MARINO

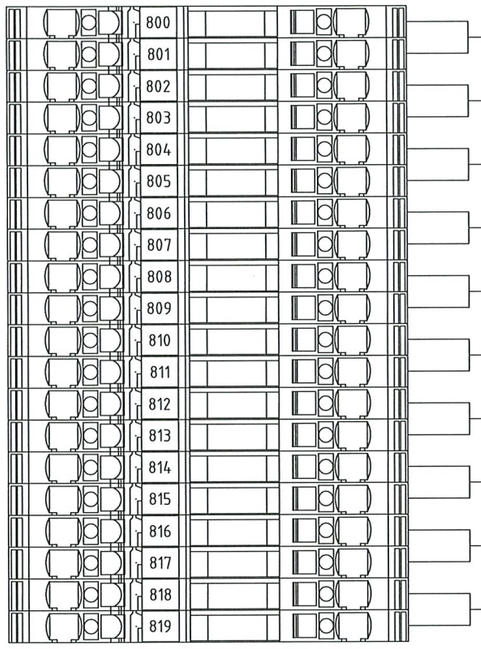
1724000049-HV-DG-00024

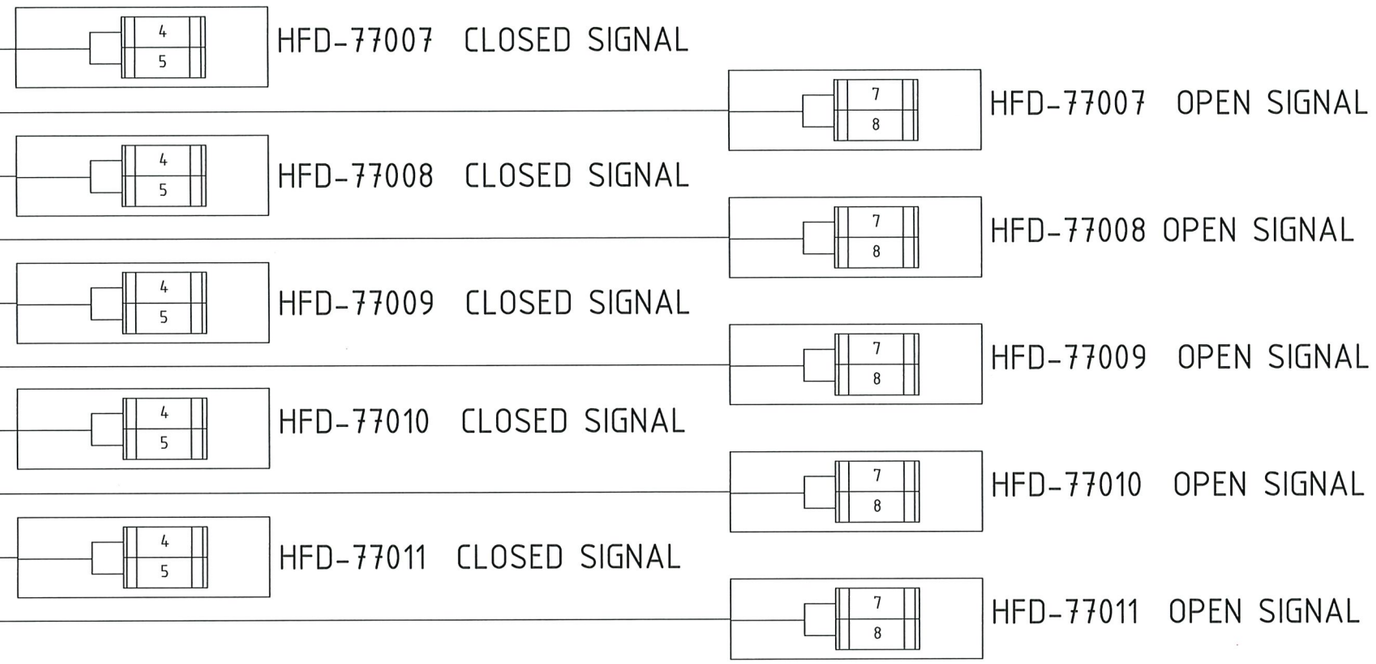
FG. 11
F.S. 12

B300-HSB-001
PANEL SIDE

+QG - XFD/S

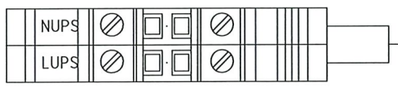
FIRE DAMPERS SIGNAL TO SIS




+QG - XUPS

UPS POWER SUPPLY




UPS POWER SUPPLY 3G2.5 FROM CLIENT

AS COMMISSIONED
EUCOMOLLI DAVIDE
16/07/2025
NO MARK UP

| REV. | MOD. | DATE | SIGN | APPD | M.G. |
|---|---|---|---|---|---|
| 04 | ISSUED FOR INFORMATION (IFI) | 19/12/24 | | DATE | 02/07/2024 |
| 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-300

INTERCONNECTION

ROSETTI MARINO

1724000049-HV-DG-00024

FG. 12
F.S. /

# Section 4.3 Instrumentation functional test sheets index

CROSSWIND

ROSETTI MARINO

# Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 77-30 & discipline : I

| Instrumental | 77-30 HVAC UPS Equipment Room B-300 | | | | | | |
|---|---|---|---|---|---|---|---|
| ITEM | | TASK | | | | | |
| Code | Description | Location | Code | Form | Progress | Date | Certificate |
| 77-XA-003 | B-300 UPS room HVAC fault | ONSHORE | C10003796 | FJ01D | 100 | 2025-02-24 | RFO 2 |
| 77-XS-003 | SHUT-DOWN B-300 UPS room HVAC | ONSHORE | C10003800 | FJ01D | 100 | 2025-02-24 | RFO 2 |
| B300-HSB-001 | Distribution & HVAC Panel - Shelter AC UPS Fitted with UPS System Equipment Room | ONSHORE | C10004881 | FJ05 | 100 | 2025-05-15 | RFO 2 |

ROSETTI MARINO | PROVERLIS | CROSSWIND

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **ITEM** | Tag | 77-XA-003 | : B-300 UPS room HVAC fault | | Dwg | 123A90-DDL-IN-LIS-40089 | |
| | S/Sys | 77-30 | : HVAC UPS Equipment Room B-300 | | Module | | |
| **TASK** | code | C10003796 | 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-003 | | | 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 | 09A/09B | Slot | 01 | Rack 03 | Chanel 09 |

## 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 2025-02-24T07:56:21.649Z

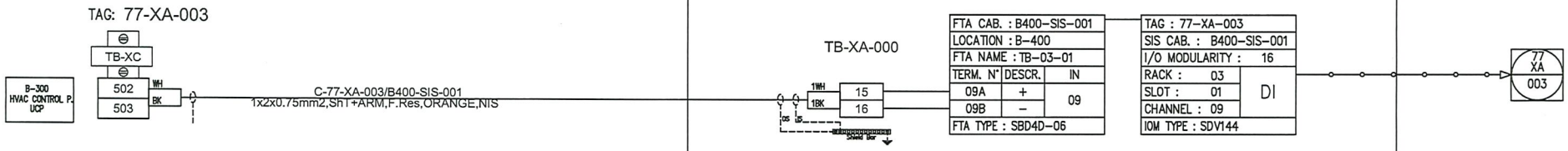
PROVERLIS Digitaly signed by Giandonato Delmissier 2025-02-24T13:34:44.376Z

PROVERLIS Digitaly signed by Jamie McAllister 2025-02-24T15:35:39.490Z

| | | | |
|---|---|---|---|
| **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-003
B-300 UPS 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 136 | REV. 01 |

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

ROSETTI MARINO | PROVERLIS | CROSSWIND

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **ITEM** | Tag | 77-XS-003 | : SHUT-DOWN B-300 UPS room HVAC | Dwg | 123A90-DDL-IN-LIS-40089 | | |
| | S/Sys | 77-30 | : HVAC UPS Equipment Room B-300 | Module | | | |
| **TASK** | code | C10003800 | 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-003 | | | 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 | 01A/01B | Slot | 07 | Rack 02 | Chanel 01 |

## LOOP TEST

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

## LOOP SERVICE

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

## LOOP DOCUMENTATION

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

## TESTING & MEASUREMENT INSTRUMENT USED

| Type | Serial N. | Calibration Certificate | Validity |
|---|---|---|---|
| MULTIMETER FLUKE | AW1/018 17140769 | 7715/24 | 10/08/2025 |
| | | | |

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 2025-02-24T07:56:03.595Z

PROVERLIS Digitaly signed by Giandonato Delmissier 2025-02-24T13:36:08.457Z

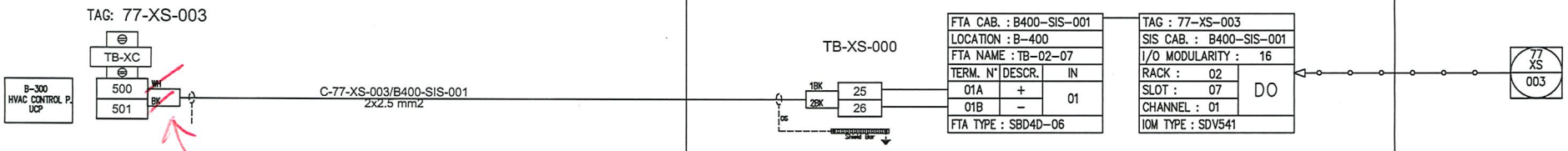
PROVERLIS Digitaly signed by Jamie McAllister 2025-02-24T15:36:55.864Z

| | | | |
|---|---|---|---|
| **Signature** | | | |

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

REV. 00

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




BK1
BK2

MARK UP
21/02/25

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

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

CROSSWIND

ROSETTI MARINO

TITLE : INSRUMENT LOOP DIAGRAM
77-XS-003
SHUT-DOWN B-300 UPS 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 150 | REV. 00 |

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

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **ITEM** | Tag | B300-HSB-001 | : Distribution & HVAC Panel - Shelter AC UPS Fitted with UPS System Equipment Room | | | Dwg | 123A90-DDL-EL-DL-20106 |
| | S/Sys | 77-30 | : HVAC UPS Equipment Room B-300 | | | Module | LD_B-300 |
| **TASK** | code | C10004881 | | Location | Onshore Activities | User | Rosetti Marino Quality Control |
| **FORM** | Process | COMM | Activity FTS | Discipline | Instrumental Form FJ05 | | Serial Communication Test |

# SERIAL COMMUNICATION TEST

Reference document number: 1724000049-HV-LIS-00053 REV. 05

Associated subsystems: 77-30

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 2025-05-15T05:42:28.010Z | PROVERLIS Digitaly signed by Martin Taylor 2025-05-15T08:13:24.936Z | |

# Base Load Power Hub (BLPH)

## B-300 HVAC I/O LIST - E&I SHELTERS

Document Number: 1724000049-HV-LIS-00053

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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| CROSSWIND | HOLLANDSE KUST NOORD WIND PARK Project<br>Contract No. CW-I-WP4-2023-05 | ROSETTI MARINO |
|---|---|---|
| Document Title: | B-300 HVAC IO LIST - E&I SHELTERS | Sh. 2 of 7<br>Date:28/01/2025<br>Rev. 5 |

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| 2 | Table of Contents | X | X | X | X | X | X | | |
| 3 | Revision / Change Log | X | X | X | X | X | X | | |
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## Revision / Change Log

| Rev. | Description |
|---|---|
| 00 | ISSUE FOR INFORMATION (IFI) |
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| 02 | ISSUE FOR INFORMATION (IFI) |
| 03 | ISSUE FOR INFORMATION (IFI) |
| 04 | ISSUE FOR INFORMATION (IFI) |
| 05 | ISSUE FOR INFORMATION (IFI) |
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## HOLDS LIST

| No. | Description |
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| CROSSWIND | HOLLANDSE KUST NOORD WIND PARK Project<br>Contract No. CW-WP4-2023-05 | ROSETTI MARINO |
|---|---|---|
| Document Titel: | B-300 HVAC IO LIST - E&I SHELTERS | Sh.4 of 7<br>28/01/2025<br>Rev: 5 |

10/05/2025
COMMISSIONING

| Rev | Item | P&ID | Tag Number | 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-00041 | I 0,0 | SHUT DOWN | XC - 500 / 501 | 77-XS-003 | B300-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-00041 | Q 0,0 | HVAC CRITICAL FAULT | XC - 502 / 503 | 77XA-003 | B300-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-00041 | I 7,2 | F&G DAMPER HDF-77007 CLOSE SIGNAL | XFD/S - 800 / 801 | 77-ZSL-007 | HDF-77007 | 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-00041 | I 7,4 | F&G DAMPER HDF-77008 CLOSE SIGNAL | XFD/S - 804 / 805 | 77-ZSL-008 | HDF-77008 | 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-00041 | I 7,6 | F&G DAMPER HDF-77009 CLOSE SIGNAL | XFD/S - 808 / 809 | 77-ZSL-009 | HDF-77009 | 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-00041 | I 8,1 | F&G DAMPER HDF-77010 CLOSE SIGNAL | XFD/S - 812 / 813 | 77-ZSL-010 | HDF-77010 | 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-00041 | I 8,3 | F&G DAMPER HDF-77011 CLOSE SIGNAL | XFD/S - 816 / 817 | 77-ZSL-011 | HDF-77011 | 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-00041 | I0,2 | MAIN BRAKER TRIP | | | B300-HSB-001 | DI | HVAC UCP | HVAC UCP | TRIP | NORMAL | - | - | - | - | - | - | - | - | - | - | VFC 24 Vdc | | - |
| 4 | 10 | 123A90-1724000049HV-PID-00041 | I0,3 | AUTOMATIC MODE | | | HHU-77005 | DI | HVAC UCP | HVAC UCP | NOT AUTOMATIC | AUTOMATIC | - | - | - | - | - | - | - | - | - | - | VFC 24 Vdc | | - |
| 4 | 11 | 123A90-1724000049HV-PID-00041 | I0,4 | AUTOMATIC MODE | | | HHU-77006 | DI | HVAC UCP | HVAC UCP | NOT AUTOMATIC | AUTOMATIC | - | - | - | - | - | - | - | - | - | - | VFC 24 Vdc | | - |
| 4 | 12 | 123A90-1724000049HV-PID-00041 | AI 0,0 | TEMPERATURE TRASMITTER 1 | | | 77-TT-301 | AI | 77-TT-301 | HVAC UCP | - | - | -10 | 60 | °C | - | - | - | - | - | - | - | 4-20 Ma | | - |
| 4 | 13 | 123A90-1724000049HV-PID-00041 | AI 0,1 | TEMPERATURE TRASMITTER 2 | | | 77-TT-302 | AI | 77-TT-302 | HVAC UCP | - | - | -10 | 60 | °C | - | - | - | - | - | - | - | 4-20 Ma | | - |
| 4 | 14 | 123A90-1724000049HV-PID-00041 | AI 0,2 | DIFFERNTIAL PRESSURE TRASMITTER | | | 77-PT-301 | AI | 77-PT-301 | HVAC UCP | - | - | -10 | 60 | °C | - | - | - | - | - | - | - | 4-20 Ma | | - |
| 4 | 15 | 123A90-1724000049HV-PID-00041 | AI 0,3 | TEMPERATURE TRASMITTER 3 | | | 77-TT-303 | AI | 77-TT-303 | HVAC UCP | - | - | -10 | 60 | °C | - | - | - | - | - | - | - | 4-20 Ma | | - |
| 4 | 16 | 123A90-1724000049HV-PID-00041 | AI 1,0 | TEMPERATURE TRASMITTER 4 | | | 77-TT-304 | AI | 77-TT-304 | HVAC UCP | - | - | 0 | 500 | Pa | - | - | - | - | - | - | - | 4-20 Ma | | - |
| 4 | 17 | 123A90-1724000049HV-PID-00041 | I 0,5 | PANEL EMERGENCY POWER BUTTON | | | HPB-77-303 | DI | HPB-77-303 | HVAC UCP | ALARM | NORMAL | - | - | - | - | - | - | - | - | - | - | VFC 24 Vdc | | - |
| 4 | 18 | 123A90-1724000049HV-PID-00041 | I 0,6 | MODULE LIGHT TRIP | | | B300-HSB-001 | DI | HVAC UCP | HVAC UCP | TRIP | NORMAL | - | - | - | - | - | - | - | - | - | - | VFC 24 Vdc | | - |
| 4 | 19 | 123A90-1724000049HV-PID-00041 | I 0,7 | MODULE SOCKET TRIP | | | B300-HSB-001 | DI | HVAC UCP | HVAC UCP | TRIP | NORMAL | - | - | - | - | - | - | - | - | - | - | VFC 24 Vdc | | - |
| 4 | 20 | 123A90-1724000049HV-PID-00041 | I 1,0 | SPACE HEATER TRIP | | | HHS-77007/8/9 | DI | HVAC UCP | HVAC UCP | TRIP | NORMAL | - | - | - | - | - | - | - | - | - | - | VFC 24 Vdc | | - |
| 4 | 21 | 123A90-1724000049HV-PID-00041 | I 1,1 | SPACE HEATER START FEEDBACK | | | HHS-77007/8/9 | DI | HVAC UCP | HVAC UCP | STOP | RUN | - | - | - | - | - | - | - | - | - | - | VFC 24 Vdc | | - |
| 4 | 22 | 123A90-1724000049HV-PID-00041 | Q0,2 | SPACE HEATER ASTART COMMAND | | | HHS-77007/8/9 | DO | HVAC UCP | HVAC UCP | STOP | START | - | - | - | - | - | - | - | - | - | - | 24V DC | | - |
| 4 | 23 | 123A90-1724000049HV-PID-00041 | I 1,4 | AUX SECTION TRIP | | | B300-HSB-001 | DI | HVAC UCP | HVAC UCP | NORMAL | TRIP | - | - | - | - | - | - | - | - | - | - | VFC 24 Vdc | | - |
| 4 | 24 | 123A90-1724000049HV-PID-00041 | QI.2 | RESET CONTACT | | | B300-HSB-001 | DO | HVAC UCP | HVAC UCP | NORMAL | RESET | - | - | - | - | - | - | - | - | - | - | 24V DC | | - |
| 4 | 25 | 123A90-1724000049HV-PID-00041 | I 6,7 | MANUAL MODE | | | HHU-77005 | DI | HVAC UCP | HVAC UCP | NOT MANUAL | MANUAL | - | - | - | - | - | - | - | - | - | - | VFC 24 Vdc | | - |
| 4 | 26 | 123A90-1724000049HV-PID-00041 | I 7,0 | MANUAL MODE | | | HHU-77006 | DI | HVAC UCP | HVAC UCP | NOT MANUAL | MANUAL | - | - | - | - | - | - | - | - | - | - | VFC 24 Vdc | | - |
| 4 | 27 | 123A90-1724000049HV-PID-00041 | I 7,1 | HFD-77007 OPEN SIGNAL | | 77-ZSH-007 | HFD-77007 | DI | HFD-77007 | HVAC UCP | NOT OPEN | OPEN | - | - | - | - | - | - | - | - | - | - | VFC 24 Vdc | | - |
| 4 | 28 | 123A90-1724000049HV-PID-00041 | I 7,2 | HFD-77007 CLOSED SIGNAL | | 77-ZSL-007 | HFD-77007 | DI | HFD-77007 | HVAC UCP | NOT CLOSED | CLOSED | - | - | - | - | - | - | - | - | - | - | VFC 24 Vdc | | - |
| 4 | 29 | 123A90-1724000049HV-PID-00041 | I 7,3 | HFD-77008 OPEN SIGNAL | | 77-ZSH-008 | HFD-77008 | DI | HFD-77008 | HVAC UCP | NOT OPEN | OPEN | - | - | - | - | - | - | - | - | - | - | VFC 24 Vdc | | - |
| 4 | 30 | 123A90-1724000049HV-PID-00041 | I 7,4 | HFD-77008 CLOSED SIGNAL | | 77-ZSL-008 | HFD-77008 | DI | HFD-77008 | HVAC UCP | NOT CLOSED | CLOSED | - | - | - | - | - | - | - | - | - | - | VFC 24 Vdc | | - |
| 4 | 31 | 123A90-1724000049HV-PID-00041 | I 7,5 | HFD-77009 OPEN SIGNAL | | 77-ZSH-009 | HFD-77009 | DI | HFD-77009 | HVAC UCP | NOT OPEN | OPEN | - | - | - | - | - | - | - | - | - | - | VFC 24 Vdc | | - |
| 4 | 32 | 123A90-1724000049HV-PID-00041 | I 7,6 | HFD-77009 CLOSED SIGNAL | | 77-ZSL-009 | HFD-77009 | DI | HFD-77009 | HVAC UCP | NOT CLOSED | CLOSED | - | - | - | - | - | - | - | - | - | - | VFC 24 Vdc | | - |
| 4 | 33 | 123A90-1724000049HV-PID-00041 | I 8.0 | HFD-77010 OPEN SIGNAL | | 77-ZSH-010 | HFD-77010 | DI | HFD-77010 | HVAC UCP | NOT OPEN | OPEN | - | - | - | - | - | - | - | - | - | - | VFC 24 Vdc | | - |
| 4 | 34 | 123A90-1724000049HV-PID-00041 | I 8.1 | HFD-77010 CLOSED SIGNAL | | 77-ZSL-010 | HFD-77010 | DI | HFD-77010 | HVAC UCP | NOT CLOSED | CLOSED | - | - | - | - | - | - | - | - | - | - | VFC 24 Vdc | | - |
| 4 | 35 | 123A90-1724000049HV-PID-00041 | I 8.2 | HFD-77011 OPEN SIGNAL | | 77-ZSH-011 | HFD-77011 | DI | HFD-77011 | HVAC UCP | NOT OPEN | OPEN | - | - | - | - | - | - | - | - | - | - | VFC 24 Vdc | | - |
| 4 | 36 | 123A90-1724000049HV-PID-00041 | I 8.3 | HFD-77011 CLOSED SIGNAL | | 77-ZSL-011 | HFD-77011 | DI | HFD-77011 | HVAC UCP | NOT CLOSED | CLOSED | - | - | - | - | - | - | - | - | - | - | VFC 24 Vdc | | - |
| 4 | 37 | 123A90-1724000049HV-PID-00041 | I 9,7 | TRIP SIGNAL HEATING CABLE | | | HHC-77003 | DI | HVAC UCP | HVAC UCP | TRIP | NORMAL | - | - | - | - | - | - | - | - | - | - | VFC 24 Vdc | | - |
| 4 | 38 | | | UNIT A | | | | | | | | | | | | | | | | | | | | | - |
| 4 | 39 | 123A90-1724000049HV-PID-00041 | Q0,4 | HHU-77005 START | | | HHU-77005 | DO | HVAC UCP | HVAC UCP | STOP | START | - | - | - | - | - | - | - | - | - | - | 24V DC | | - |
| 4 | 40 | 123A90-1724000049HV-PID-00041 | II,5 | MOTORISED DAMPER NOT OPEN | | | HDZ-77-301/2/3 | DI | HHU-77005 | HVAC UCP | NORMAL | FAULT | - | - | - | - | - | - | - | - | - | - | VFC 24 Vdc | | - |
| 4 | 41 | 123A90-1724000049HV-PID-00041 | I 1,6 | MOTORISED DAMPER CLOSED | | | HDZ-77-301/2/3 | DI | HHU-77005 | HVAC UCP | NOT CLOSED | CLOSED | - | - | - | - | - | - | - | - | - | - | VFC 24 Vdc | | - |
| 4 | 42 | 123A90-1724000049HV-PID-00041 | I 1,7 | MOTORISED DAMPER OPEN | | | HDZ-77-301/2/3 | DI | HHU-77005 | HVAC UCP | NOT OPEN | OPEN | - | - | - | - | - | - | - | - | - | - | VFC 24 Vdc | | - |
| 4 | 43 | 123A90-1724000049HV-PID-00041 | Q 0,5 | PRESSURIZING FAN UNIT HHU-77005 HEATER | | | HSS-77-303 | DO | HHU-77005 | HVAC UCP | STOP | RUN | - | - | - | - | - | - | - | - | - | - | 24V DC | | - |
| 4 | 44 | 123A90-1724000049HV-PID-00041 | I 2,0 | PRESSURIZING FAN UNIT HHU-77005 THERMIC PROTECTION | | | TE-77-301 | DI | HHU-77005 | HVAC UCP | NORMAL | FAULT | - | - | - | - | - | - | - | - | - | - | VFC 24 Vdc | | - |
| 4 | 45 | 123A90-1724000049HV-PID-00041 | I 2,1 | PRESSURIZING FAN UNIT HHU-77005 VSD MALFUNCTION | | | HFM-77301 | DI | HHU-77005 | HVAC UCP | NORMAL | FAULT | - | - | - | - | - | - | - | - | - | - | VFC 24 Vdc | | - |
| 4 | 46 | 123A90-1724000049HV-PID-00041 | AQ 0,0 | PRESSURIZING FAN MODULATION | | | HFM-77301 | AO | HVAC UCP | HHU-77005 | | | 4 | 20mA | - | - | - | - | - | - | - | - | 4-20mA | | - |
| 4 | 47 | 123A90-1724000049HV-PID-00041 | I 2,2 | PRESSURISING FAN TRIP | | | HFM-77-301 | DI | HHU-77005 | HVAC UCP | TRIP | NORMAL | - | - | - | - | - | - | - | - | - | - | VFC 24 Vdc | | - |
| 4 | 48 | 123A90-1724000049HV-PID-00041 | I 2,3 | SUPPLY FAN RUN | | | HFM-77-302 | DI | HHU-77005 | HVAC UCP | STOP | RUN | - | - | - | - | - | - | - | - | - | - | VFC 24 Vdc | | - |
| 4 | 49 | 123A90-1724000049HV-PID-00041 | I 2,4 | SUPPLY FAN BROKEN BELT ALARM | | | PDSL-77-301 | DI | HHU-77005 | HVAC UCP | NORMAL | FAULT | - | - | - | - | - | - | - | - | - | - | VFC 24 Vdc | | - |
| 4 | 50 | 123A90-1724000049HV-PID-00041 | I 2,5 | SUPPLY FAN TRIP | | | HFM-77-302 | DI | HHU-77005 | HVAC UCP | TRIP | NORMAL | - | - | - | - | - | - | - | - | - | - | VFC 24 Vdc | | - |
| 4 | 51 | 123A90-1724000049HV-PID-00041 | Q 0,6 | COMPRESSOR START | | | HCO-77-301 | DO | HVAC UCP | HHU-77005 | STOP | START | - | - | - | - | - | - | - | - | - | - | 24V DC | | - |
| 4 | 52 | 123A90-1724000049HV-PID-00041 | I 2,6 | COMPRESSOR RUNNING | | | HCO-77-301 | DI | HHU-77005 | HVAC UCP | STOP | RUN | - | - | - | - | - | - | - | - | - | - | VFC 24 Vdc | | - |

10/05/2025
COMMISSIONING:

| CROSSWIND | HOLLANDSE KUST NOORD WIND PARK Project<br>Contract No. CW-WP4-2023-05 | ROSETTI MARINO |
|---|---|---|
| | | Sh.6 of 7 |
| Document Titel: | B-300 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-00041 | Modbus TCP/IP | SPARE | | | ModBus TCP/IP | BOOL | DIGITAL | | 40001 | 0 | | | | | | | | R | |
| 4 | 95 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | B300-HSB-100 Main Braker Trip | B300-HSB-001 | B300-HSB-001-MBTRP | ModBus TCP/IP | BOOL | DIGITAL | | 40001 | 1 | TRIP | OK | | | | | | R | |
| 4 | 96 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | B300-HSB-100 Panel emergency Button | B300-HSB-001 | B300-HSB-001-PEB | ModBus TCP/IP | BOOL | DIGITAL | | 40001 | 2 | TRIP | OK | | | | | | R | BRK BOLT & EM BTN & THR-PTR |
| 4 | 97 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | B300-HSB-100 Module Light Trip | B300-HSB-001 | B300-HSB-001-MLTRP | ModBus TCP/IP | BOOL | DIGITAL | | 40001 | 3 | TRIP | OK | | | | | | R | |
| 4 | 98 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | B300-HSB-100 Module Socket Trip | B300-HSB-001 | B300-HSB-001-MSTRP | ModBus TCP/IP | BOOL | DIGITAL | | 40001 | 4 | TRIP | OK | | | | | | R | |
| 4 | 99 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHS-77-007/8/9 Space Heater Trip | HHS-77-007/8/9 | HHS-77-007/8/9-TRP | ModBus TCP/IP | BOOL | DIGITAL | | 40001 | 5 | TRIP | OK | | | | | | R | |
| 4 | 100 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | B300-HSB-100 Main Panel Aux Section Trip | B300-HSB-001 | B300-HSB-001-ATRP | ModBus TCP/IP | BOOL | DIGITAL | | 40001 | 6 | TRIP | OK | | | | | | R | |
| 4 | 101 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHS-77-007/8/9 Space Heater Fault | HHS-77-007/8/9 | HHS-77-007/8/9-F | ModBus TCP/IP | BOOL | DIGITAL | | 40001 | 7 | TRIP | OK | | | | | | R | |
| 4 | 102 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77005 Press Fan Low Pressure | HHU-77005 | HHU-77005-PFFC | ModBus TCP/IP | BOOL | DIGITAL | | 40001 | 8 | TRIP | OK | | | | | | R | |
| 4 | 103 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77005 motorised dampers Fault | HHU-77005 | HHU-77005-MDF | ModBus TCP/IP | BOOL | DIGITAL | | 40001 | 9 | TRIP | OK | | | | | | R | - |
| 4 | 104 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77005 press fan PTC protection | HFM-77-301 | HFM-77-301-PTCP | ModBus TCP/IP | BOOL | DIGITAL | | 40001 | 10 | TRIP | OK | | | | | | R | - |
| 4 | 105 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77005 press fan VSD fault | HFM-77-301 | HFM-77-301-VSDF | ModBus TCP/IP | BOOL | DIGITAL | | 40001 | 11 | TRIP | OK | | | | | | R | - |
| 4 | 106 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77005 press fan trip | HFM-77-301 | HFM-77-301-TRP | ModBus TCP/IP | BOOL | DIGITAL | | 40001 | 12 | TRIP | OK | | | | | | R | - |
| 4 | 107 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77005 broken belt alarm | HFM-77-302 | HFM-77-302-BBA | ModBus TCP/IP | BOOL | DIGITAL | | 40001 | 13 | TRIP | OK | | | | | | R | - |
| 4 | 108 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77005 supply fan trip | HFM-77-302 | HFM-77-302-TRP | ModBus TCP/IP | BOOL | DIGITAL | | 40001 | 14 | TRIP | OK | | | | | | R | - |
| 4 | 109 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77005 compressor trip | HCO-77-301 | HCO-77-301-TRP | ModBus TCP/IP | BOOL | DIGITAL | | 40001 | 15 | TRIP | OK | | | | | | R | - |
| 4 | 110 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77005 high pressure alarm | HCO-77-301 | HCO-77-301-HPA | ModBus TCP/IP | BOOL | DIGITAL | | 40002 | 0 | TRIP | OK | | | | | | R | - |
| 4 | 111 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77005 low pressure alarm | HCO-77-301 | HCO-77-301-LPA | ModBus TCP/IP | BOOL | DIGITAL | | 40002 | 1 | TRIP | OK | | | | | | R | - |
| 4 | 112 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77005 condenser fan trip | HFM-77-305/306 | HFM-77-305/306-TRP | ModBus TCP/IP | BOOL | DIGITAL | | 40002 | 2 | TRIP | OK | | | | | | R | - |
| 4 | 113 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77005 condenser fan VSD fault | HFM-77-305/306 | HFM-77-305/306-VSDF | ModBus TCP/IP | BOOL | DIGITAL | | 40002 | 3 | TRIP | OK | | | | | | R | - |
| 4 | 114 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77005 electrical heater Protection thermostate | HSS-77-301 | HSS-77-301-TSPH | ModBus TCP/IP | BOOL | DIGITAL | | 40002 | 4 | TRIP | OK | | | | | | R | - |
| 4 | 115 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77005 electrical heater trip | HSS-77-301 | HSS-77-301-TRP | ModBus TCP/IP | BOOL | DIGITAL | | 40002 | 5 | TRIP | OK | | | | | | R | - |
| 4 | 116 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77005 electrical heater modulation fault | HSS-77-301 | HSS-77-301-MF | ModBus TCP/IP | BOOL | DIGITAL | | 40002 | 6 | TRIP | OK | | | | | | R | - |
| 4 | 117 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | Spare | | | ModBus TCP/IP | BOOL | DIGITAL | | 40002 | 7 | | | | | | | | R | - |
| 4 | 118 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77005 main braker trip | HHU-77005 | HHU-77005-MBTRP | ModBus TCP/IP | BOOL | DIGITAL | | 40002 | 8 | TRIP | OK | | | | | | R | - |
| 4 | 119 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77005 filter clogged | HHU-77005 | HHU-77005-PFFC | ModBus TCP/IP | BOOL | DIGITAL | | 40002 | 9 | CLOGGED | OK | | | | | | R | - |
| 4 | 120 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77006 motorise dampers fault | HHU-77006 | HHU-77006-MDF | ModBus TCP/IP | BOOL | DIGITAL | | 40002 | 10 | TRIP | OK | | | | | | R | - |
| 4 | 121 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77006 press fan PTC protection | HFM-77-303 | HFM-77-303-PTCP | ModBus TCP/IP | BOOL | DIGITAL | | 40002 | 11 | TRIP | OK | | | | | | R | - |
| 4 | 122 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77006 press fan VSD fault | HFM-77-303 | HFM-77-303-VSDF | ModBus TCP/IP | BOOL | DIGITAL | | 40002 | 12 | TRIP | OK | | | | | | R | |
| 4 | 123 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77006 press fan trip | HFM-77-303 | HFM-77-303-TRP | ModBus TCP/IP | BOOL | DIGITAL | | 40002 | 13 | TRIP | OK | | | | | | R | |
| 4 | 124 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77006 broken belt alarm | HFM-77-304 | HFM-77-304-BBA | ModBus TCP/IP | BOOL | DIGITAL | | 40002 | 14 | TRIP | OK | | | | | | R | |
| 4 | 125 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77006 supply fan trip | HFM-77-304 | HFM-77-304-TRP | ModBus TCP/IP | BOOL | DIGITAL | | 40002 | 15 | TRIP | OK | | | | | | R | |
| 4 | 126 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77006 compressor trip | HCO-77-302 | HCO-77-302-TRP | ModBus TCP/IP | BOOL | DIGITAL | | 40003 | 0 | TRIP | OK | | | | | | R | |
| 4 | 127 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77006 high pressure alarm | HCO-77-302 | HCO-77-302-HPA | ModBus TCP/IP | BOOL | DIGITAL | | 40003 | 1 | TRIP | OK | | | | | | R | MAJOR FAULT ALSO |
| 4 | 128 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77006 low pressure alarm | HCO-77-302 | HCO-77-302-LPA | ModBus TCP/IP | BOOL | DIGITAL | | 40003 | 2 | TRIP | OK | | | | | | R | - |
| 4 | 129 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77006 condenser fan trip | HFM-77-307/308 | HFM-77-307/308-TRP | ModBus TCP/IP | BOOL | DIGITAL | | 40003 | 3 | TRIP | OK | | | | | | R | - |
| 4 | 130 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77006 condenser fan VSD fault | HFM-77-307/308 | HFM-77-307/308-VSDF | ModBus TCP/IP | BOOL | DIGITAL | | 40003 | 4 | TRIP | OK | | | | | | R | |
| 4 | 131 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77006 filter clogged | HHU-77006 | HHU-77006-FC | ModBus TCP/IP | BOOL | DIGITAL | | 40003 | 5 | CLOGGED | OK | | | | | | R | |
| 4 | 132 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77006 electrical heater Protection termostate | HSS-77-305 | HSS-77-305-TSPH | ModBus TCP/IP | BOOL | DIGITAL | | 40003 | 6 | TRIP | OK | | | | | | R | |
| 4 | 133 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77006 electrical heater trip | HSS-77-305 | HSS-77-305-TRP | ModBus TCP/IP | BOOL | DIGITAL | | 40003 | 7 | TRIP | OK | | | | | | R | |
| 4 | 134 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77006 electrical heater modulation fault | HSS-77-305 | HSS-77-305-MF | ModBus TCP/IP | BOOL | DIGITAL | | 40003 | 8 | TRIP | OK | | | | | | R | |
| 4 | 135 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | Spare | | | ModBus TCP/IP | BOOL | DIGITAL | | 40003 | 9 | | | | | | | | R | |
| 4 | 136 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77006 main braker open | HHU-77006 | HHU-77006-MBTRP | ModBus TCP/IP | BOOL | DIGITAL | | 40003 | 10 | TRIP | OK | | | | | | R | |
| 4 | 137 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HFD-77007 Not Close | HFD-77007 | HFD-77007-ZSL | ModBus TCP/IP | BOOL | DIGITAL | | 40003 | 11 | FAULT | OK | | | | | | R | |
| 4 | 138 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HFD-77007 Not Open | HFD-77007 | HFD-77007-ZSH | ModBus TCP/IP | BOOL | DIGITAL | | 40003 | 12 | FAULT | OK | | | | | | R | |
| 4 | 139 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HFD-77008 Not Close | HFD-77008 | HFD-77008-ZSL | ModBus TCP/IP | BOOL | DIGITAL | | 40003 | 13 | FAULT | OK | | | | | | R | |
| 4 | 140 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HFD-77008 Not Open | HFD-77008 | HFD-77008-ZSH | ModBus TCP/IP | BOOL | DIGITAL | | 40003 | 14 | FAULT | OK | | | | | | R | |

THR-PTR
BKR-BELT-ACAR

B300-HSB-001-MBTRP
BOLT & PTR ALARM

10/05/2025
COMMISSIONING

| CROSSWIND | HOLLANDSE KUST NOORD WIND PARK Project<br>Contract No. CW-WP4-2023-05 | ROSETTI MARINO |
|---|---|---|
| | | Sh.7 of 7 |
| Document Titel: | B-300 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 | 141 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HFD-77009 Not Close | HFD-77009 | HFD-77009-ZSL | ModBus TCP/IP | BOOL | DIGITAL | | 40003 | 15 | FAULT | OK | | | | | | R | |
| 4 | 142 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HFD-77009 Not Open | HFD-77009 | HFD-77009-ZSH | ModBus TCP/IP | BOOL | DIGITAL | | 40004 | 0 | FAULT | OK | | | | | | R | |
| 4 | 143 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | Modbus Server Error | B300-HSB-001 | B300-HSB-001-MSE | ModBus TCP/IP | BOOL | DIGITAL | | 40004 | 1 | FAULT | OK | | | | | | R | |
| 4 | 144 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | ModbusFault | B300-HSB-001 | B300-HSB-001-MODBUSF | ModBus TCP/IP | BOOL | DIGITAL | | 40004 | 2 | FAULT | OK | | | | | | R | |
| 4 | 145 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77006 press fan low pressure | HHU-77006 | HHU-77006-PFFC | ModBus TCP/IP | BOOL | DIGITAL | | 40004 | 3 | FAULT | OK | | | | | | R | |
| 4 | 146 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HFD-77010 Not Close | HFD-77010 | HFD-77010-ZSL | ModBus TCP/IP | BOOL | DIGITAL | | 40004 | 4 | FAULT | OK | | | | | | R | |
| 4 | 147 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HFD-77010 Not Open | HFD-77010 | HFD-77010-ZSH | ModBus TCP/IP | BOOL | DIGITAL | | 40004 | 5 | FAULT | OK | | | | | | R | |
| 4 | 148 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HFD-77011 Not Close | HFD-77011 | HFD-77011-ZSL | ModBus TCP/IP | BOOL | DIGITAL | | 40004 | 6 | FAULT | OK | | | | | | R | |
| 4 | 149 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HFD-77011 Not Open | HFD-77011 | HFD-77011-ZSH | ModBus TCP/IP | BOOL | DIGITAL | | 40004 | 7 | FAULT | OK | | | | | | R | |
| 4 | 150 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | 77-TT-301 Fault | 77-TT-301 | 77-TT-301-F | ModBus TCP/IP | BOOL | DIGITAL | | 40004 | 8 | FAULT | OK | | | | | | R | |
| 4 | 151 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | 77-TT-302 Fault | 77-TT-302 | 77-TT-302-F | ModBus TCP/IP | BOOL | DIGITAL | | 40004 | 9 | FAULT | OK | | | | | | R | |
| 4 | 152 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | 77-TT-303 Fault | 77-TT-303 | 77-TT-303-F | ModBus TCP/IP | BOOL | DIGITAL | | 40004 | 10 | FAULT | OK | | | | | | R | |
| 4 | 153 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | 77-TT-304 Fault | 77-TT-304 | 77-TT-304-F | ModBus TCP/IP | BOOL | DIGITAL | | 40004 | 11 | FAULT | OK | | | | | | R | |
| 4 | 154 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | 77-PT-301 Fault | 77-PT-301 | 77-PT-301-F | ModBus TCP/IP | BOOL | DIGITAL | | 40004 | 12 | FAULT | OK | | | | | | R | |
| 4 | 155 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | SPARE | | R | ModBus TCP/IP | BOOL | DIGITAL | | 40004 | 13 | | | | | | | | R | |
| 4 | 156 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | SPARE | | R | ModBus TCP/IP | BOOL | DIGITAL | | 40004 | 14 | | | | | | | | R | |
| 4 | 157 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | SPARE | | R | ModBus TCP/IP | BOOL | DIGITAL | | 40004 | 15 | | | | | | | | R | |
| 4 | 158 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | SPARE | | R | ModBus TCP/IP | BOOL | DIGITAL | | 40005 | 0 | | | | | | | | R | |
| 4 | 159 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | SPARE | | R | ModBus TCP/IP | BOOL | DIGITAL | | 40005 | 1 | | | | | | | | R | |
| 4 | 160 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | SPARE | | R | ModBus TCP/IP | BOOL | DIGITAL | | 40005 | 2 | | | | | | | | R | |
| 4 | 161 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | SPARE | | R | ModBus TCP/IP | BOOL | DIGITAL | | 40005 | 3 | | | | | | | | R | |
| 4 | 162 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | SPARE | | R | ModBus TCP/IP | BOOL | DIGITAL | | 40005 | 4 | | | | | | | | R | |
| 4 | 163 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | SPARE | | R | ModBus TCP/IP | BOOL | DIGITAL | | 40005 | 5 | | | | | | | | R | |
| 4 | 164 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | SPARE | | R | ModBus TCP/IP | BOOL | DIGITAL | | 40005 | 6 | | | | | | | | R | |
| 4 | 165 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | SPARE | | R | ModBus TCP/IP | BOOL | DIGITAL | | 40005 | 7 | | | | | | | | R | |
| 4 | 166 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | SPARE | | R | ModBus TCP/IP | BOOL | DIGITAL | | 40005 | 8 | | | | | | | | R | |
| 4 | 167 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HVAC System Major Fault | B300-HSB-001 | B300-HSB-001-MF | ModBus TCP/IP | BOOL | DIGITAL | | 40005 | 9 | FAULT | OK | | | | | | R | B306-HSB-001-SMF-001AN |
| 4 | 168 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | SPARE | | R | ModBus TCP/IP | BOOL | DIGITAL | | 40005 | 10 | | | | | | | | R | |
| 4 | 169 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | SPARE | | R | ModBus TCP/IP | BOOL | DIGITAL | | 40005 | 11 | | | | | | | | R | |
| 4 | 170 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | SPARE | | R | ModBus TCP/IP | BOOL | DIGITAL | | 40005 | 12 | | | | | | | | R | |
| 4 | 171 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | SPARE | | R | ModBus TCP/IP | BOOL | DIGITAL | | 40005 | 13 | | | | | | | | R | |
| 4 | 172 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | SPARE | | R | ModBus TCP/IP | BOOL | DIGITAL | | 40005 | 14 | | | | | | | | R | |
| 4 | 173 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | SPARE | | R | ModBus TCP/IP | BOOL | DIGITAL | | 40005 | 15 | | | | | | | | R | |
| 4 | 174 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77005 STATUS | HHU-77005 | HHU-77005-S | ModBus TCP/IP | INT | DIGITAL | | 40006 | | | | NA | | | | | R | 1=AVAILABLE 2=RUN 3=FAULT |
| 4 | 175 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77006 STATUS | HHU-77006 | HHU-77006-S | ModBus TCP/IP | INT | DIGITAL | | 40007 | | | | NA | | | | | R | 1=AVAILABLE 2=RUN 3=FAULT |
| 4 | 176 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHS-77-007/8/9 STATUS | HHS-77-007/8/9 | HHS-77-007/8/9-S | ModBus TCP/IP | INT | DIGITAL | | 40008 | | | | NA | | | | | R | 1=AVAILABLE 2=RUN 3=FAULT |
| 4 | 177 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | B300 Medium Internal Temperature | B300-HSB-001 | B300-HSB-001-MT | ModBus TCP/IP | INT | DIGITAL | | 40009 | | | | NA | | | | | R | DIVIDE THE NUMBER BY TEN TO GET THE CORRECT VALUE |
| 4 | 178 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | System Start From PCS | B300-HSB-001 | B300-HSB-001-SSTART | ModBus TCP/IP | BOOL | DIGITAL | | 40010 | | START | NONE | °C | | | | | W | SART SIGNAL FROM PCS |
| 4 | 179 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | System Stop From PCS | B300-HSB-001 | B300-HSB-001-SSTOP | ModBus TCP/IP | BOOL | DIGITAL | | 40011 | | STOP | NONE | NA | | | | | W | STOP SIGNAL FROM PCS |
| 4 | 180 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | B300 Internal Pressure | B300-HSB-001 | B300-HSB-001-MP | ModBus TCP/IP | INT | DIGITAL | | 40012 | | | | Pa | | | | | R | DIVIDE THE NUMBER BY TEN TO GET THE CORRECT VALUE |
| 4 | 181 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HFM-77-301 Percentage of Capacity Utilisation | B300-HSB-001 | B300-HSB-001-HFM1P | ModBus TCP/IP | INT | DIGITAL | | 40013 | | | | | | | | | R | |
| 4 | 182 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HFM-77-303 Percentage of Capacity Utilisation | B300-HSB-001 | B300-HSB-001-HFM2P | ModBus TCP/IP | INT | DIGITAL | | 40014 | | | | | | | | | R | |
| 4 | 183 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | System Reset Fault | B300-HSB-001 | B300-HSB-001-SR | ModBus TCP/IP | BOOL | DIGITAL | | 40015 | | RESET | NONE | | | | | | W | SIGNAL FOR RESET ALARM |
| 4 | 184 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | WatchDog | B300-HSB-001 | B300-HSB-001-WD | ModBus TCP/IP | BOOL | DIGITAL | | 40016 | | | | | | | | | W | PULSATING HIGH LOW SIGNAL WITH FREQUENCI UNDER 15S |
| 5 | 185 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77005 SELECTOR STATUS | B300-HSB-001 | B300-HSB-001-SS | ModBus TCP/IP | INT | ANALOG | | 40017 | | | | NA | | | | | R | 1= AUTO 2= MANUAL 3=OFF |
| 5 | 186 | 123A90-1724000049HV-PID-00041 | Modbus TCP/IP | HHU-77006 SELECTOR STATUS | B300-HSB-001 | B300-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<br>B-100 – Attach. 1<br>B-100 – Attach. 2<br>B-200 – Attach. 1<br>B-200 – Attach. 2<br>B-300 – Attach. 1<br>B-300 – Attach. 2<br>B-400 – Attach. 1<br>B-400 – Attach. 2<br>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<br>B-100 – Attach. 1<br>B-100 – Attach. 2<br>B-200 – Attach. 1<br>B-200 – Attach. 2<br>B-300 – Attach. 1<br>B-300 – Attach. 2<br>B-400 – Attach. 1<br>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<br>B-100 – Attach. 1<br>B-100 – Attach. 2<br>B-200 – Attach. 1<br>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<br>B-300 – Attach. 2<br>B-400 – Attach. 1<br>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<br>B-100 – Attach. 1<br>B-100 – Attach. 2<br>B-200 – Attach. 1<br>B-200 – Attach. 2<br>B-300 – Attach. 1<br>B-300 – Attach. 2<br>B-400 – Attach. 1<br>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.<br>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<br>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<br>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:<br>Date: 16/05/2025<br><br>Name: Stefano Linari | Signature:<br>Date: 16<br><br>Name: Raffaele Degli Esposti |

# IR-ASI-0049-01

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

DESCRIZIONE DEL MATERIALE / *Material Description*

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

**DOCUMENTI APPLICABILI** / *Applicable Documents*

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

**DISTRIBUZIONE A:** / *Distribution to:*

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

**ATTIVITA' ESEGUITE** / *Activities Carried Out*

**A - INTRODUZIONE** / *Preliminary Introduction*

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

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

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

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

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

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

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

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 24/07/2024

REFERENCE DRAWING:

REFERENCE DOCUMENT: 1724000049-MAT-PRO-00004

| Inspection List | YES | NO | N.A. |
|---|---|---|---|
| | | | |
| **1 Verification of paint and color code according to design specification** | | | |
| | | | |
| Visual Check External Color walls, roof, base frame RAL 7035 | ✓ | | |
| Visual Check External Color doors RAL 7035 | ✓ | | |
| Layer thickness of external coating µm 320 total | ✓ | | |
| Visual Check Internal Equipment Baseframe RAL 7035 | ✓ | | |
| | | | |
| | | | |

**Comments:**

** Touch-up and cleaning are required before proceeding with packaging*

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

Mod1.4.2

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

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

LOCATION : ON SITE ☒ OFF SITE ☐

DATE OF TEST: 24/07/2024

REFERENCE DRAWING:

REFERENCE DOCUMENT: ECA-00-ELE-DEB- 0001 Rev.7 Electrical Design Criteria

| Inspection List | YES | NO | N.A. |
|---|---|---|---|
| | | | |
| Functional Test of Doors : | | | |
| | | | |
| Opening/Closing doors, doors locking | ✓ | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**Comments:**

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

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

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

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 24/07/2024

REFERENCE DRAWING:

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

REFERENCE DOCUMENT:

- 1724000049-HV-PID-00039 - B-100 PID - E&I SHELTERS
- 1724000049-HV-LIS-00047 - B-100 HVAC COMPONENTS LIST AND DS - E&I SHELTERS
- 1724000049-HV-RE-00055 - HVAC SYST DESCRIPTION (MANAGEMENT LOGICS) - E&I SHELTERS
- 1724000049-QC-PRO-00056 (FAT Procedure)
- ECA-00-ELE-DEB-0001 Rev.7 Electrical Design Criteria

| Inspection List | YES | NO | N.A. |
|---|---|---|---|
| **Functional Test of Electrical System** | | | |
| - Check of Lighting System, Control Panel, and socket/switch. | | | X |
| - Cable tag and wiring | | | X |
| - Cable tray and conduit installation | | | X |
| - Grounding System Installation | | | X |
| | | | |
| **Functional Test of Grounding System** | | | |
| - Check the functionality of Grounding System (less than 200 mΩ) | | | X |
| | | | |

**Comments:**

The items listed above are marked as N.A. because FAT activities have not been conducted. The HVAC system supply and installation were not completed by the specified date, making it impossible to perform all the functional tests outlined in the table.

Mod1.4.6

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

At this stage, checking the lighting system was not possible, as this activity must be performed only after the lights are installed at the correct height.
However, the following preliminary checks have been completed:

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

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

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

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 25/07/2024

REFERENCE DRAWING:

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

REFERENCE DOCUMENT:

- 1724000049-HV-PID-00039 - B-100 PID - E&I SHELTERS
- 1724000049-HV-CA-00035 - B-100 HVAC CALCULATION REPORT (Incl HVAC SYS CALC and HEAT DISSIPATION CALC) - E&I SHELTERS
- 1724000049-HV-LIS-00047 - B-100 HVAC COMPONENTS LIST AND DS - E&I SHELTERS
- 1724000049-HV-RE-00055 - HVAC SYST DESCRIPTION (MANAGEMENT LOGICS) - E&I SHELTERS
- 1724000049-QC-PRO-00056 (FAT Procedure)
- ECA-00-ELE-DEB-0001 Rev.7 Electrical Design Criteria

| Inspection List | PASS | FAIL | N.A. | value |
|---|---|---|---|---|
| Functional & performance Test of A/C System (HVAC Test): | | | | |
| • Visual and correct installation of HVAC fans. | | | X | |
| • Functional check of fans. | X | | | |
| • Check the functionality and performance of A/C System | | | X | |
| | | | | |

| Doc. Name: CHECK AND FUNCTIONAL TEST OF HVAC SYSTEM | | Report No.05 Mod 1.4.7 |
|---|---|---|
| OUR JOB X176-24X | Date 25/07/2024 | Page 1/1 |

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

| | | | | |
|---|---|---|---|---|
| | | | | |

**Comments:**

Some items listed above are marked as N.A. because FAT activities have not been conducted. The HVAC system supply and installation were not completed by the specified date, making it impossible to perform all the functional tests outlined in the table. However, the following preliminary checks have been completed:

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

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

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

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

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

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

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

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

**F – CONCLUSIONI** / *Conclusions*

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

**G – PUNTI IRRISOLTI** / *Outstanding points*

PLR-0049-ASI-001_20240731

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

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

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

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

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

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



B-400



B-300

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

QUESTO DOCUMENTO NON SOLLEVA IL FORNITORE DALLA RESPONSABILITA' DI EVENTUALI DIFETTI E/O MALFUNZIONAMENTI RILEVATI DURANTE L'USO /
*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 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<br>ROSETTI MARINO SpA<br>*Supply Management dept.*<br>Stefano Linari<br>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.*
MOD-PRO-16-Rev. 2016-00 Inspection Report

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






B200



B200 -ROOF TOP




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

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

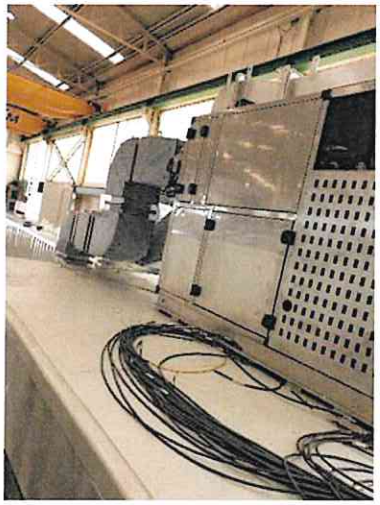
| ROSETTI MARINO | INSPECTION REPORT | Report No. IR-ASI-0049-01 | SHEET 6 di 7 |
|---|---|---|---|
| | | Data *Date 24-25-26/07/2024* | Rev. *Rev. 0* |
| **PROGETTO** *Project* **Base Load Power Hub (BLPH)** | **CLIENTE** *Client* CROSSWIND | **COMMESSA** / *Job* ***123 A90*** | **COMMESSA FORNITORE**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



B300 Inside



B300 ROOF TOP



B300 ROOF TOP




| L' INCARICATO / *The person in charge* | IL RAPP. DEL CLIENTE / *Client's Representative* | IL FORNITORE / *Supplier* |
|---|---|---|
| 31/07/24<br>ROSETTI MARINO SpA<br>Supply Management dept.<br>Stefano 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.*
MOD-PRO-16-Rev. 2016-00 Inspection Report

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



B400 INSIDE



B400 ROOF TOP




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

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

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

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

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

| Item N. | Check sheet ref. | Disc. | Tag Number | Raised By | Defect Description / Corrective Action | Attachments | Cat. | Action By | Duty Phase | Deadline date |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. | / | MECH | B-100 / B-200<br>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)<br>To be done at RM yard | | B | Alex Sistemi | | |
| 2. | / | MECH | B-100 / B-200<br>B-300 / B-400 | ROSETTI MARINO | Master key (common for all modules) to be provided | | B | Alex Sistemi | | |
| 3. | / | ELE | B-100 / B-200<br>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<br>B-300 / B-400 | ROSETTI MARINO | Earthing connection to be provided for all space heaters<br>To be done at RM yard | | B | Alex Sistemi | | |
| 5. | / | ELE | B-100 / B-200<br>B-300 / B-400 | ROSETTI MARINO | Earthing connection to be provided for all HVAC units<br>To be done at RM yard | | B | Alex Sistemi | | |
| 6. | / | ELE | B-100 / B-200<br>B-300 / B-400 | ROSETTI MARINO | Identification trafolite tag to be provided for all E&I Items (lights, switch, space heaters, etc.)<br>All trafolyte labels missing will be installed at RM yard | | B | Alex Sistemi | | |
| 7. | / | ELE | B-100 / B-200<br>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<br>B-300 / B-400 | ROSETTI MARINO | Cable's tag to be provided / fixed at all MCTs (IN/OUT)<br>Alex Sistemi will supply all loose cable tags. RM will install it | | B | Alex Sistemi/ RM | | |
| 9. | / | MECH | B-100 / B-200<br>B-300 / B-400 | ROSETTI MARINO | Some brass cable glands are overtightened and need to be untightened to avoid cold flow of cables<br>Will be performed a spot check at RM yard | | B | Alex Sistemi | | |
| 10. | / | ELE | B-100 / B-200<br>B-300 / B-400 | ROSETTI MARINO | HVAC fixed with screws M8. To be replaced with correct ones, as per drawing<br>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<br>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<br>B-300 / B-400 | ROSETTI MARINO | The items to be installed at RM site are coalescent filters and fire dampers.<br>To be completed at RM yard | | B | Alex Sistemi | | |
| 13. | / | HVAC | B-100 / B-200<br>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.<br>All notes/remarks are indicated in the FAT procedures and reports | | B | Alex Sistemi | | |
| 14. | / | HVAC | B-100 / B-200<br>B-300 / B-400 | ROSETTI MARINO | B-300 and B-400 HVAC Unit wirings must be completed.<br>To be completed at RM yard | | B | Alex Sistemi | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 15. | / | HVAC | B-100 / B-200<br>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.<br>All trafolyte labels missing will be installed at RM yard | | B | Alex Sistemi | | |
| 16 | / | HVAC | B-100 / B-200<br>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.<br>All notes/remarks are indicated in the FAT procedures and reports | | B | Alex Sistemi | | |
| 17 | / | HVAC | B-100 / B-200<br>B-300 / B-400 | ROSETTI MARINO | Drainpipes and heating cables are missing, since they must be necessary installed on site to avoid damages.<br>To be completed at RM yard | | B | Alex Sistemi | | |
| 18 | / | HVAC | B-100 / B-200<br>B-300 / B-400 | ROSETTI MARINO | Duct insulation and cladding to be completed on site; it's needed to cover all duct junctions.<br>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<br>B-300 / B-400 | ROSETTI MARINO | Earthing connection to be provided for all electrical conduits.<br>Alex Sistemi will supply all material RM will install it | | B | Alex Sistemi/ RM | | |
| 20 | / | ELE | B-100 / B-200<br>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<br>B-300 / B-400 | ROSETTI MARINO | External ducts (inside) welding to be cleaning before re installation | | B | RM | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

**Raised by**
Contractor / Subcontractor: _____

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

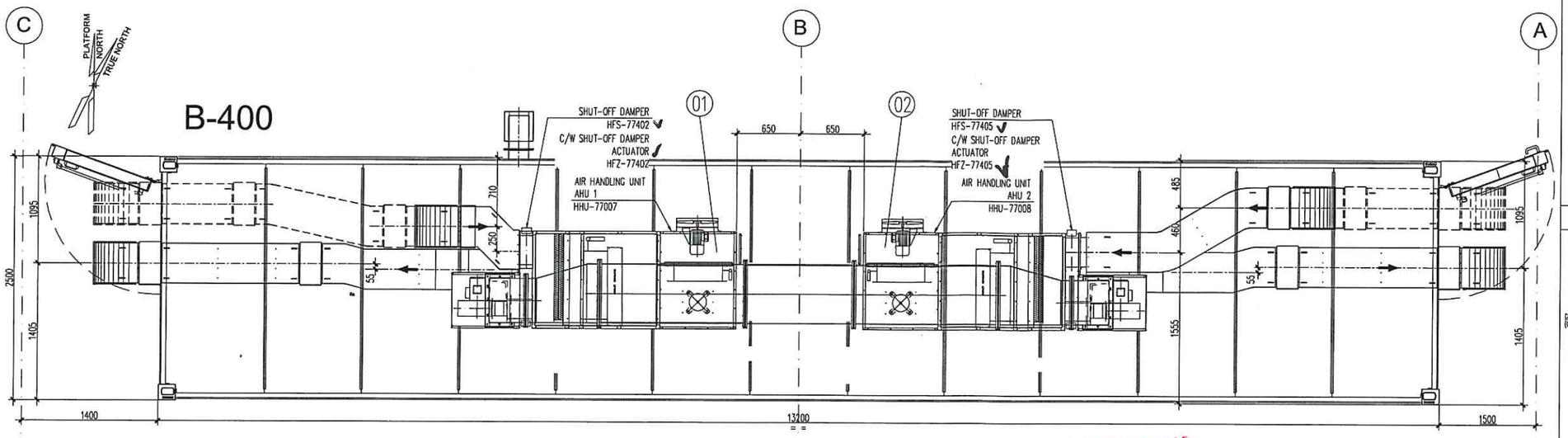
**Accepted by**
COMPANY: _____ x CROSSWIND
1/08/24

P1/1

# HVAC SYSTEM GA

DRAWING NO. 1724000049-HV-DA-00067_1

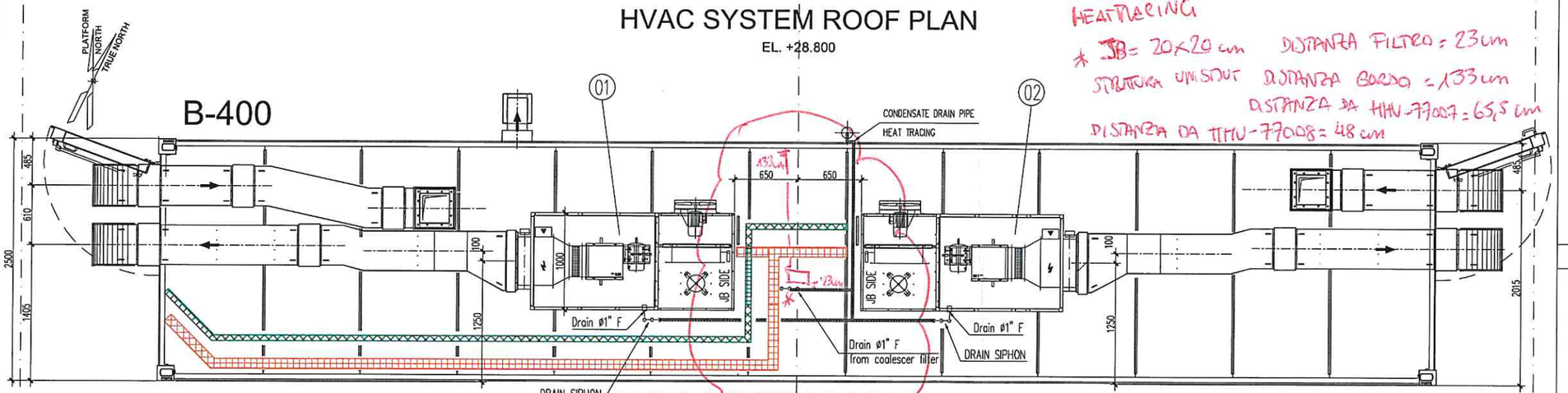
REV. 01




## HVAC SYSTEM ROOF PLAN

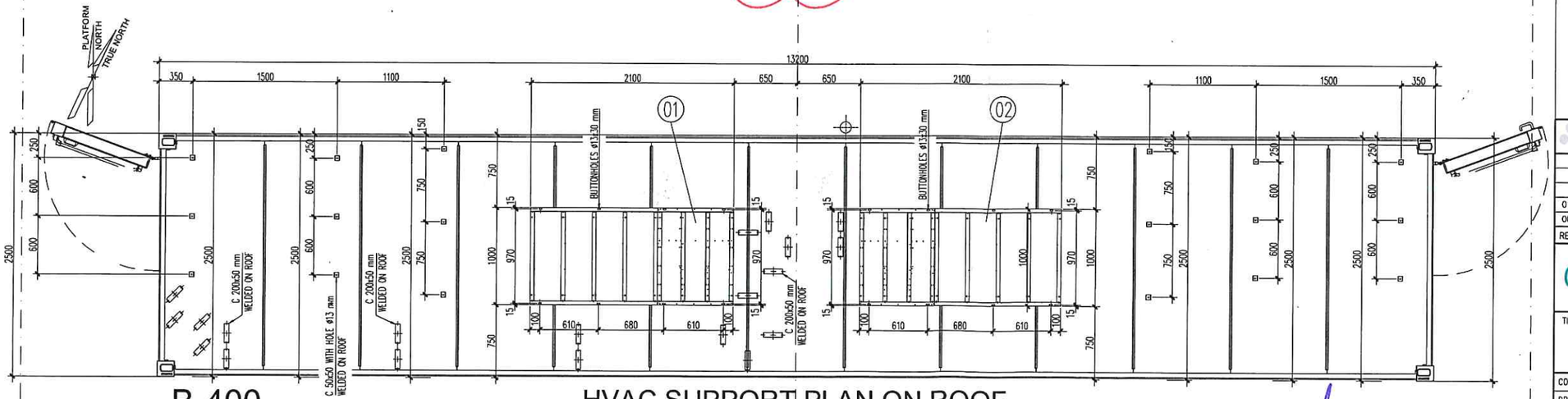
EL. +28.800

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




## HVAC SYSTEM ROOF PLAN

EL. +28.000



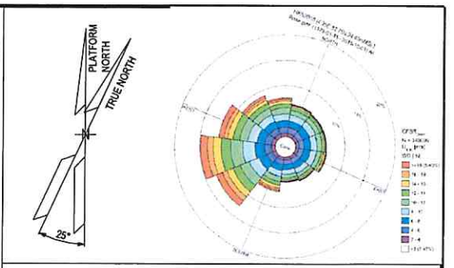

## HVAC SUPPORT PLAN ON ROOF

EL. +27.300

B-400

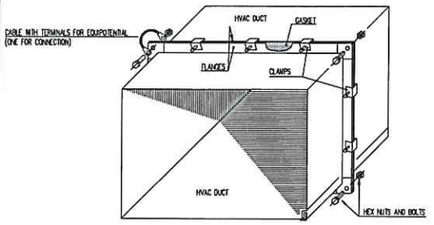
MASTER

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




### NOTES

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



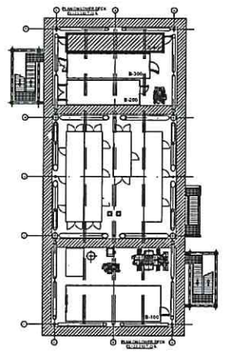

**TYPICAL EQUIPOTENTIAL INSTALLING FOR FLANGE CONNECTION INDOOR AIR DUCT**

Basket tray Power AISI 316L

Basket tray Instrument AISI 316L

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

### KEY PLAN



ALEXSISTEMI

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

CROSSWIND | ROSETTI MARINO

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

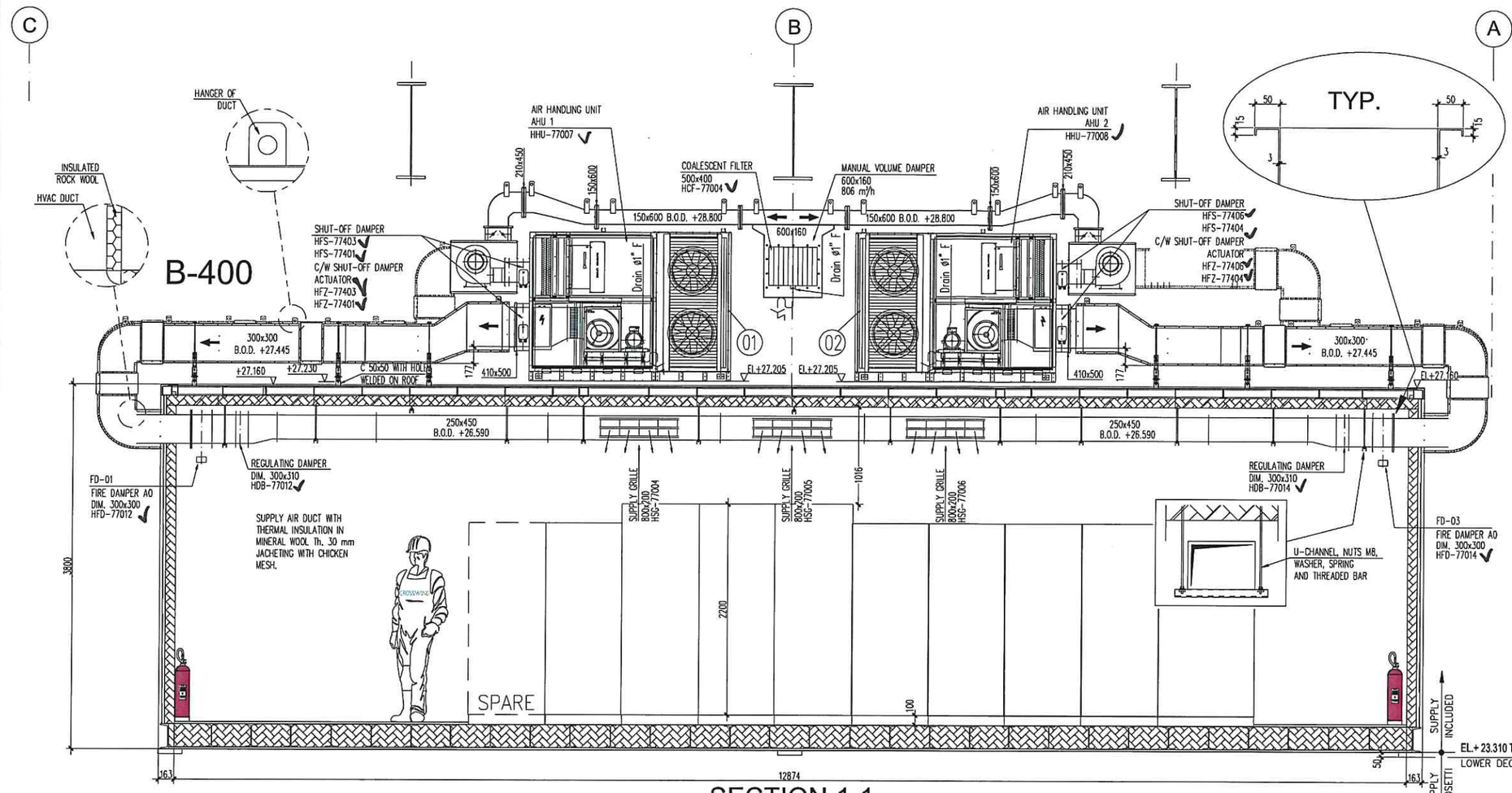
| CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | | | SCALE 1 : 25 |
|---|---|---|---|
| DRAWN M.G. | CHECKED O.A. | APPROVED C.A. | DATE 18/10/2024 |
| A1 | DRAWING NO. 1724000049-HV-DA-00067 | SHEET 001 | REV. 01 |

File Name : 1724000049-HV-DA-00067_1

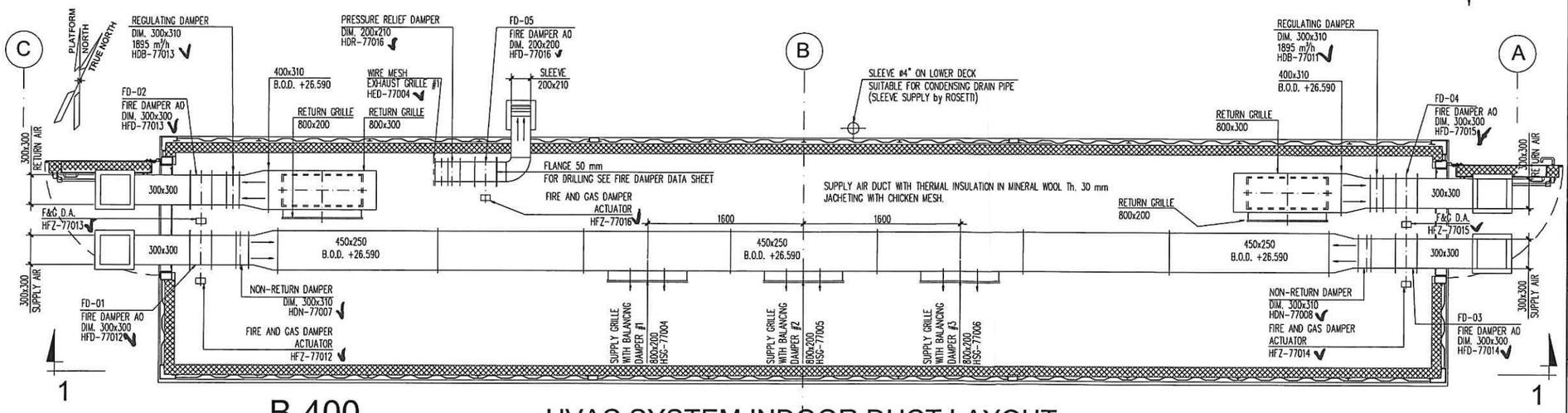
ALEX SISTEMI : Matteo Lorenzini

DRAWING NO. 1724000049-HV-DA-00067_1

REV. 01




SECTION 1-1



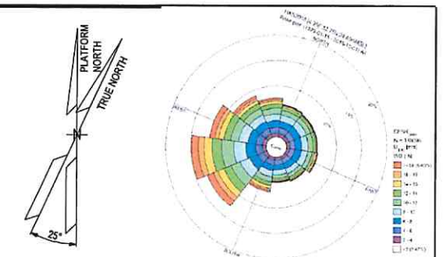

B-400

HVAC SYSTEM INDOOR DUCT LAYOUT

MASTER

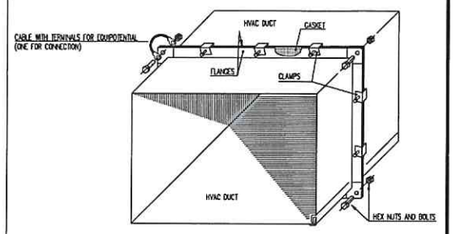
ROSETTI MARINO SpA
Stefano Linari
Quality Control Dept.
24/10/24

ALEX SISTEMI : Matteo Loredesi




NOTES

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



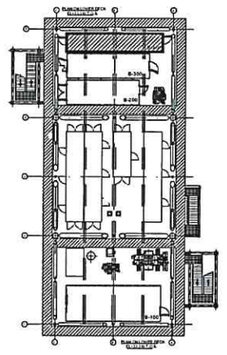

TYPICAL EQUIPOTENTIAL INSTALLING FOR FLANGE CONNECTION INDOOR AIR DUCT

Basket tray Power AISI 316L

Basket tray Instrument AISI 316L

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

KEY PLAN



ALEXSISTEMI

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

CROSSWIND

ROSETTI MARINO

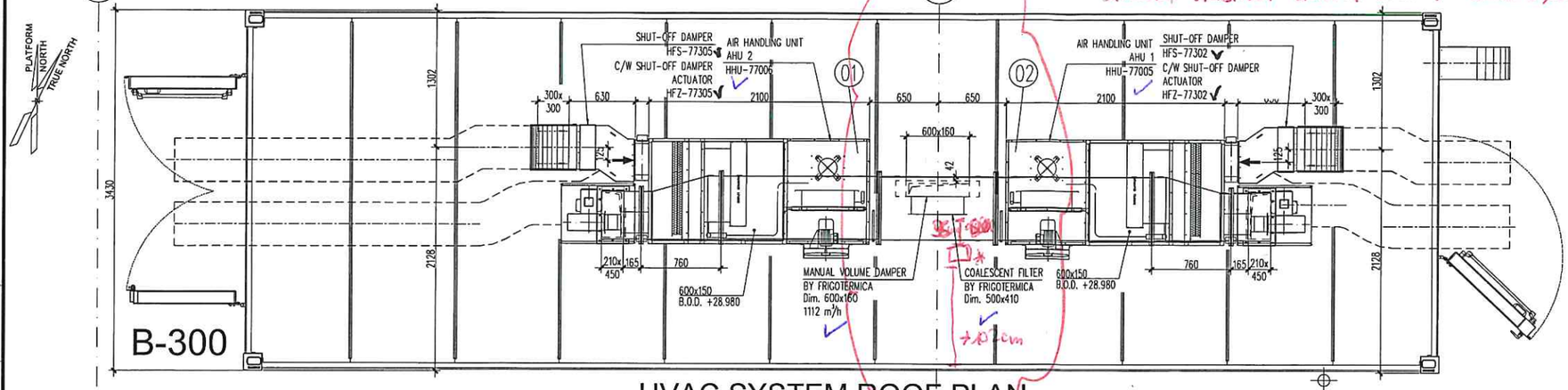
TITLE :
S.S.
MODULE B-400
HVAC SYSTEM – G.A. AND DETAILS

| CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | | | SCALE 1 : 25 |
|---|---|---|---|
| DRAWN M.G. | CHECKED O.A. | APPROVED C.A. | DATE 16/10/2024 |
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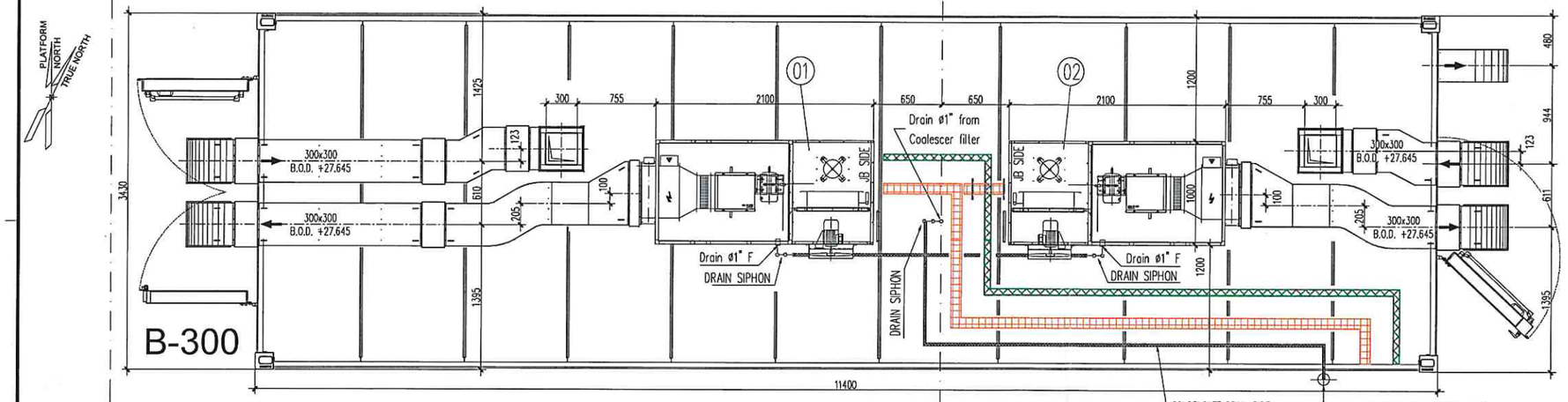
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DRAWING NO. 1724000049-HV-DA-00066_1 | REV. 01

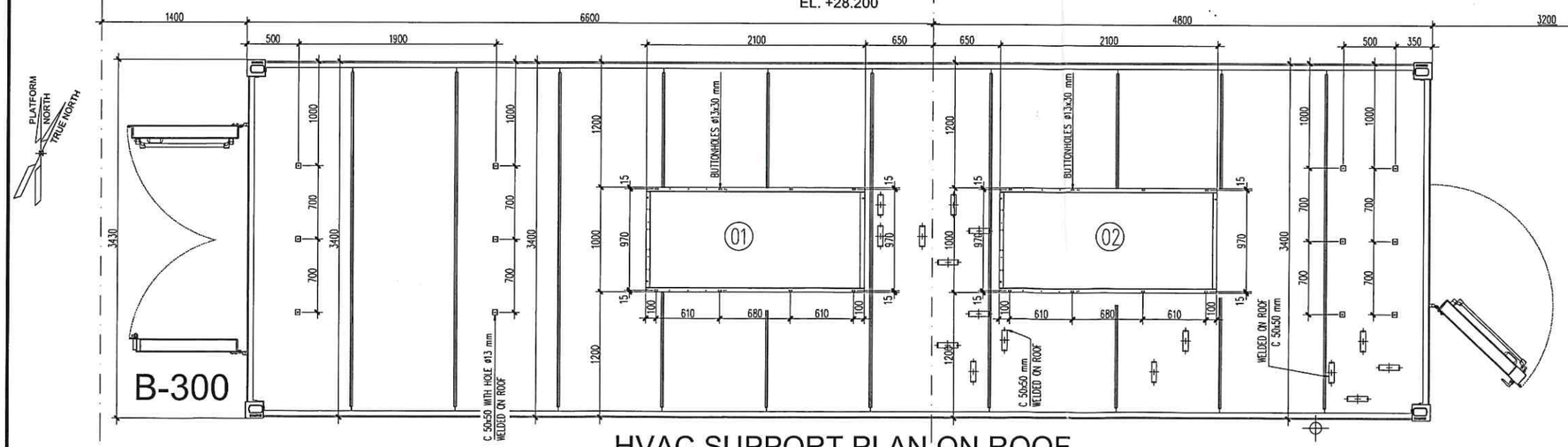
HEAT TRACING
SB: 20 x 20 cm  DISTANZA FILTRO: 95 cm
STRUTTURA UNISTRUT  DISTANZA BORDO MACCHINA: 102 cm




## HVAC SYSTEM ROOF PLAN
EL. +28.980



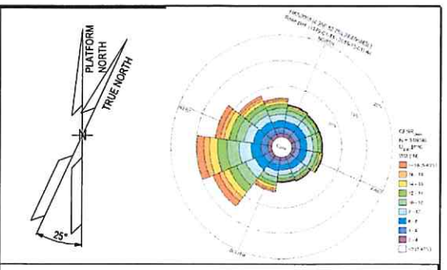

## HVAC SYSTEM ROOF PLAN
EL. +28.200




## HVAC SUPPORT PLAN ON ROOF
EL. +27.480

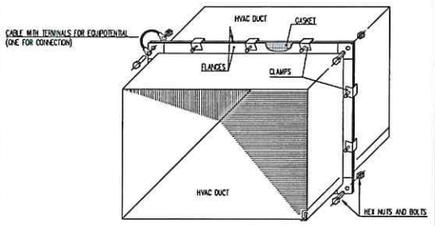
MASTER

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




### NOTES

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



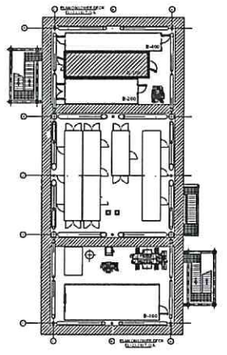

**TYPICAL EQUIPOTENTIAL INSTALLING FOR FLANGE CONNECTION INDOOR AIR DUCT**

Basket tray Power AISI 316L

Basket tray Instrument AISI 316L

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

### KEY PLAN



ALEX SISTEMI

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

CROSSWIND | ROSETTI MARINO

TITLE :
S.S.
MODULE B-300
HVAC SYSTEM – G.A. AND DETAILS

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE 1 : 25
DRAWN M.G. | CHECKED O.A. | APPROVED C.A. | DATE 18/10/2024
A1 | DRAWING NO. 1724000049-HV-DA-00066 | SHEET 001 | REV. 01

File Name : 1724000049-HV-DA-00066_1

ALEX SISTEMI : Matteo Vecchiet

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

TYP.

B-300

AIR HANDLING UNIT AHU 2 HHU-77006

AIR HANDLING UNIT AHU 1 HHU-77005

COALESCENT FILTER 500x400 HCF-77003

MANUAL VOLUME DAMPER 600x160 1112 m³/h

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

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

HANGER OF DUCT

INSULATED ROCK WOOL HVAC DUCT

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

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

NON-RETURN DAMPER DIM. 300x310 HDN-77006

NON-RETURN DAMPER DIM. 300x310 HDN-77005

SUPPLY GRILLE 800x200 HSG-77007

SUPPLY GRILLE 800x200 HSG-77006

SUPPLY GRILLE 800x200 HSG-77005

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

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

SUPPLY INCLUDED

SUPPLY by ROSETTI

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

11074 INTERNAL CLEARANCE

11400 OVERALL MODULE DIMENSIONS (OUTSIDE CORNER BLOCKS ON ROOF)

SECTION 1-1

B-300

PRESSURE RELIEF DAMPER DIM. 200x210 HDR-77011

WIRE MESH EXHAUST GRILLE #1 HED-77003

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

FLANGE 50 mm FOR DRILLING SEE FIRE DAMPER DATA SHEET

F&G D.A. HFZ-77011

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

FIRE AND GAS DAMPER ACTUATOR HFZ-77010

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

RETURN GRILLE 800x200

RETURN GRILLE 800x300

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

RETURN GRILLE 800x200

RETURN GRILLE 800x300

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

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

F&G D.A. HFZ-77008

NON-RETURN DAMPER DIM. 300x310 HDN-77006

FIRE AND GAS DAMPER ACTUATOR HFZ-77009

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

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

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

NON-RETURN DAMPER DIM. 300x310 HDN-77005

FIRE AND GAS DAMPER ACTUATOR HFZ-77007

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

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

HVAC SYSTEM INDOOR DUCT LAYOUT

PLATFORM NORTH TRUE NORTH 25°

NOTES

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

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

TYPICAL EQUIPOTENTIAL INSTALLING FOR FLANGE CONNECTION INDOOR AIR DUCT

Basket tray Power AISI 316L

Basket tray Instrument AISI 316L

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

KEY PLAN

ALEXSISTEMI

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

CROSSWIND | ROSETTI MARINO

TITLE : S.S. MODULE B-300 HVAC SYSTEM – G.A. AND DETAILS

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE 1 : 25

DRAWN M.G. | CHECKED O.A. | APPROVED C.A. | DATE 18/10/2024

A1 | DRAWING NO. 1724000049-HV-DA-00066 | SHEET 002 | REV. 01

File Name : 1724000049-HV-DA-00066_1

MASTER

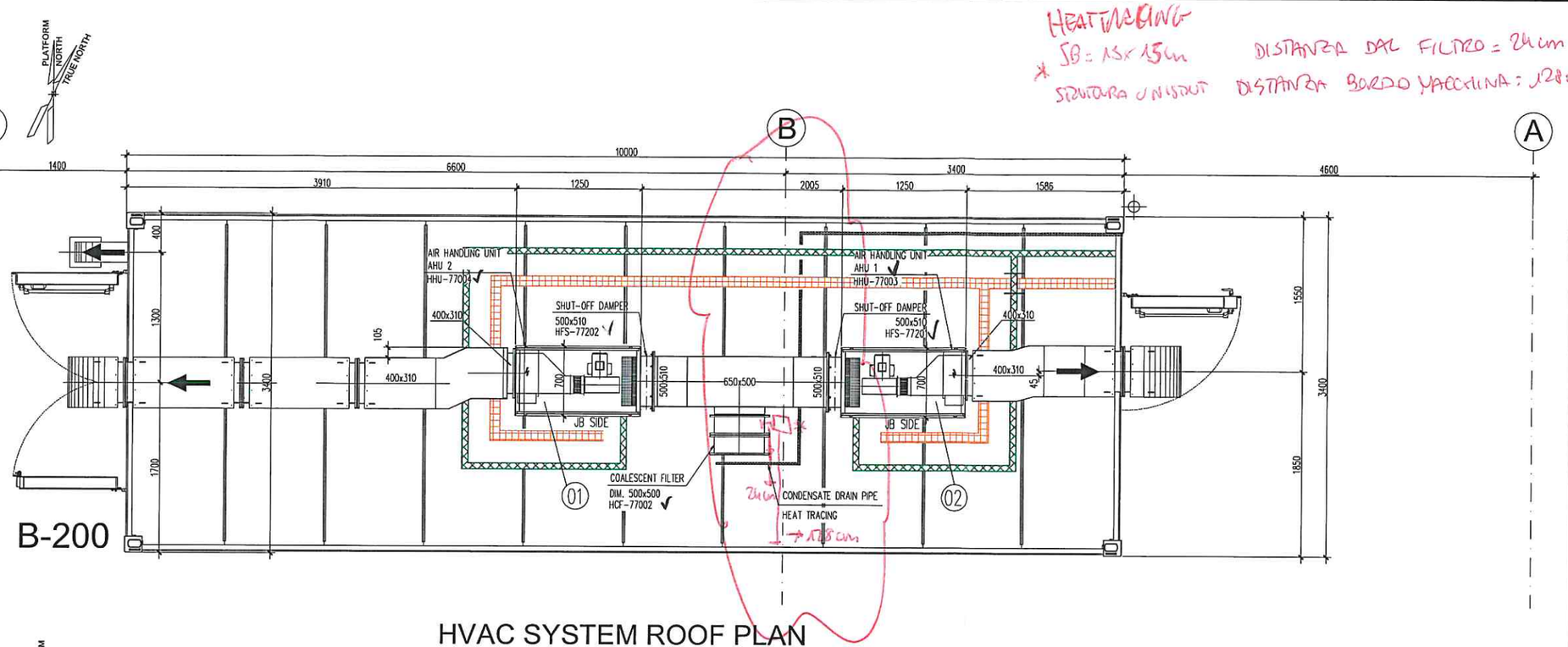
ROSETTI MARINO SpA Stefano Linari 23/10/24 Quality Control Dept.

ALEX SISTEMI : Matteo Marchesi

DRAWING NO. 1724000049-HV-DA-00065_1

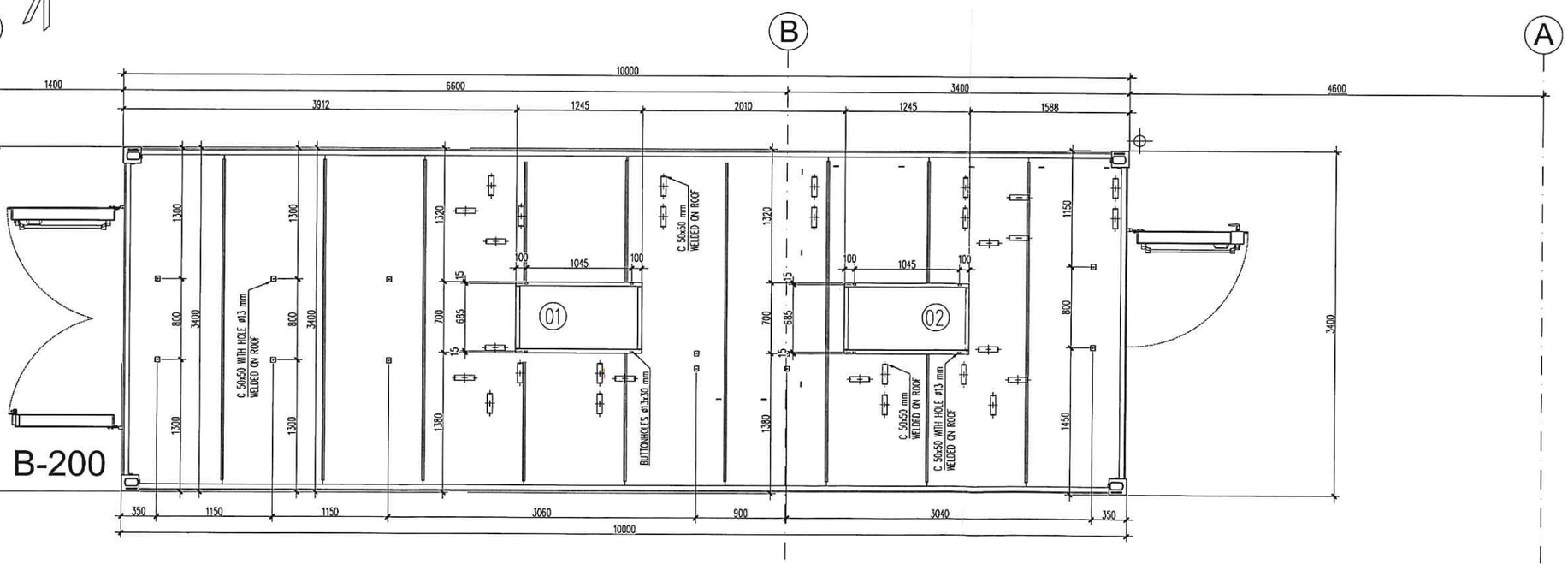
REV. 01

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




HVAC SYSTEM ROOF PLAN

EL. +28.800



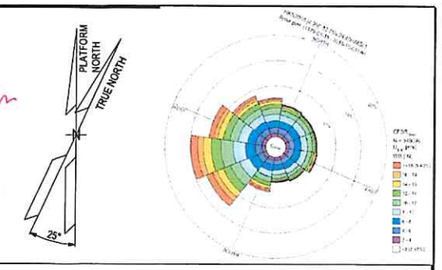

HVAC SUPPORT PLAN ON ROOF

EL. +28.050

MASTER

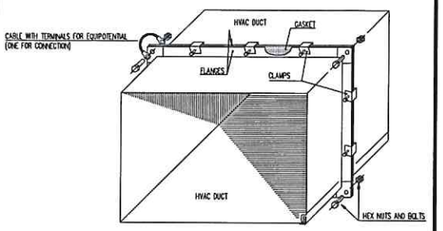
ROSETTI MARINO SpA
Stefano Linari 23/10/24
Quality Control Dept.

ALEX SISTEMI : Carlo Nardi




## NOTES

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



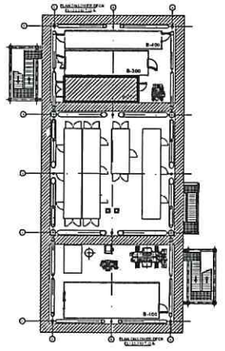

**TYPICAL EQUIPOTENTIAL INSTALLING FOR FLANGE CONNECTION INDOOR AIR DUCT**

Basket tray Power AISI 316L

Basket tray Instrument AISI 316L

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

KEY PLAN



ALEXSISTEMI

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

CROSSWIND

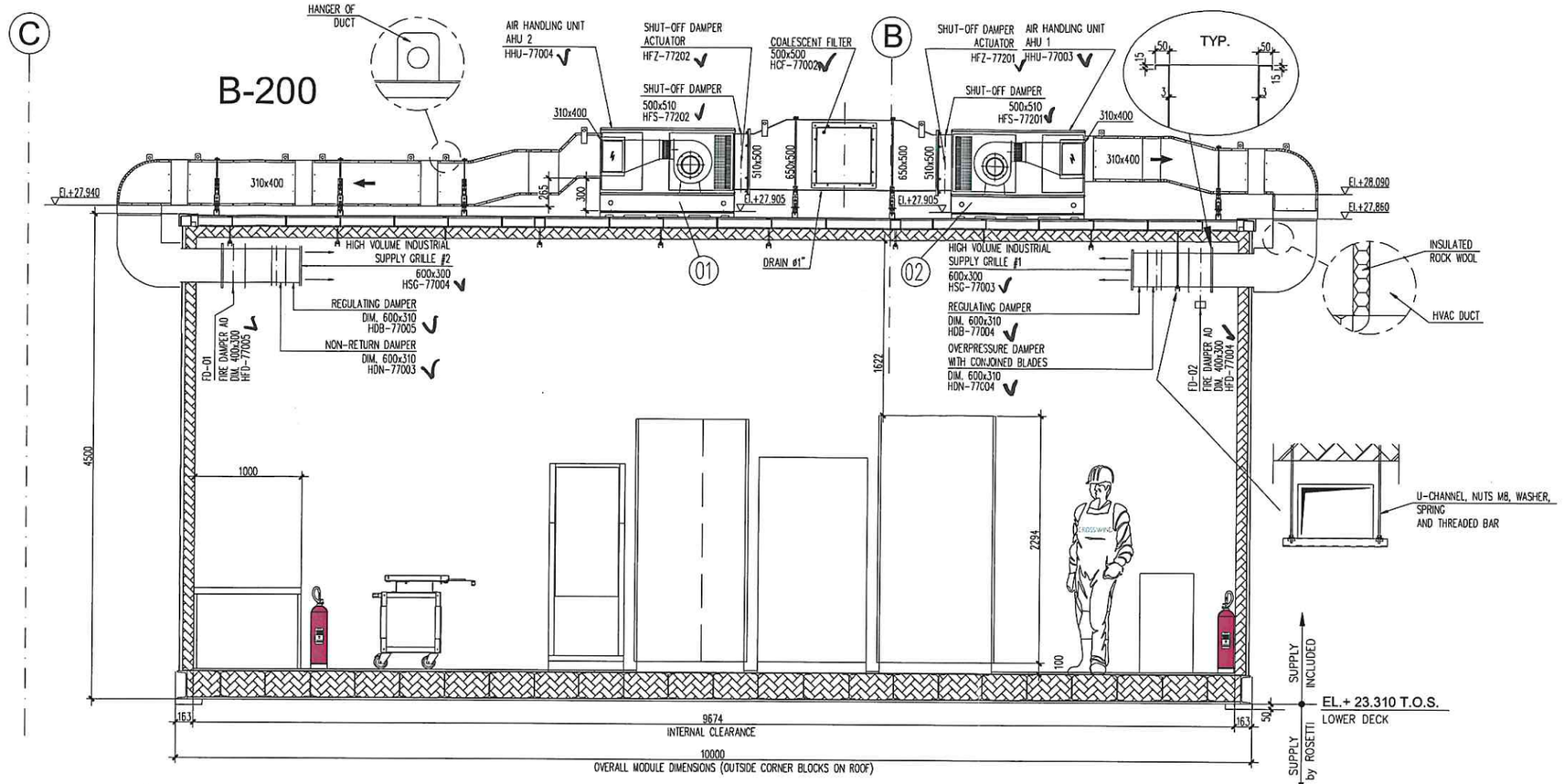
ROSETTI MARINO

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

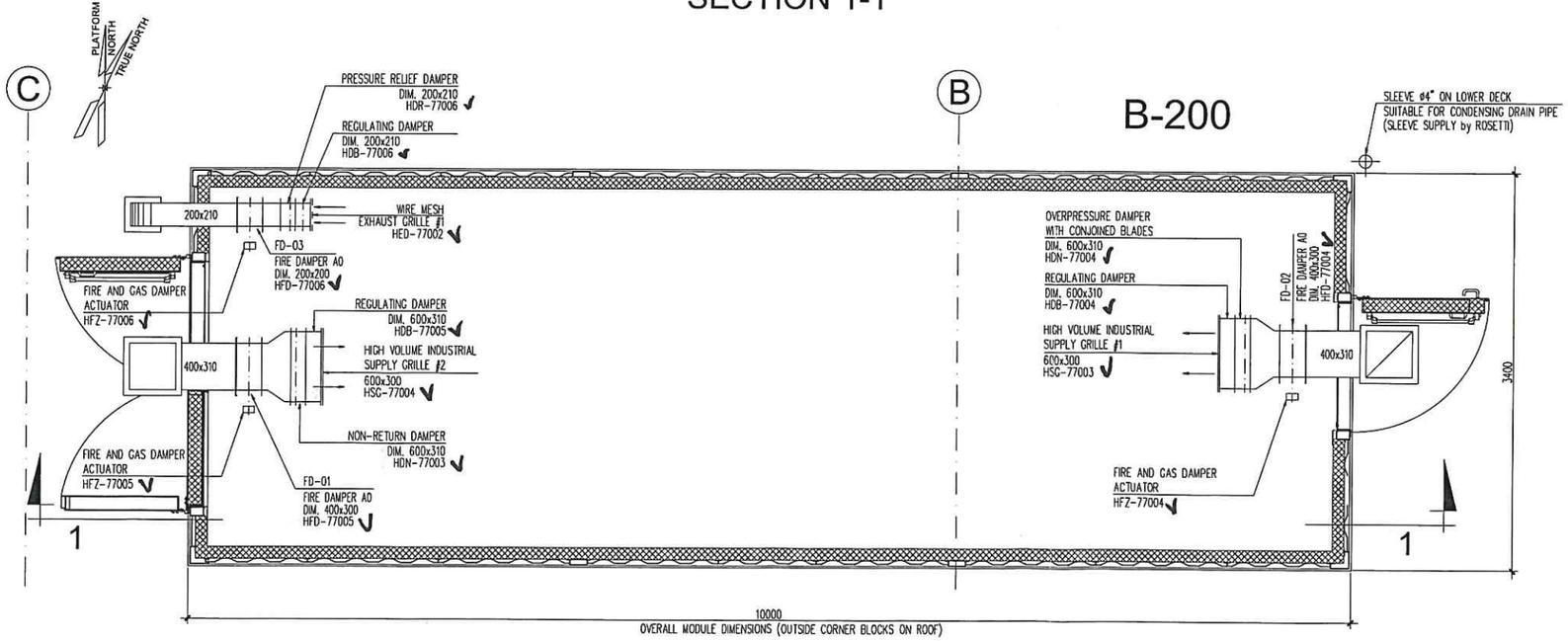
| CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | | | SCALE 1 : 25 |
|---|---|---|---|
| DRAWN M.G. | CHECKED O.A. | APPROVED C.A. | DATE 18/10/2024 |
| A1 | DRAWING NO. 1724000049-HV-DA-00065 | | SHEET 001 / REV. 01 |

File Name : 1724000049-HV-DA-00065_1

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




SECTION 1-1

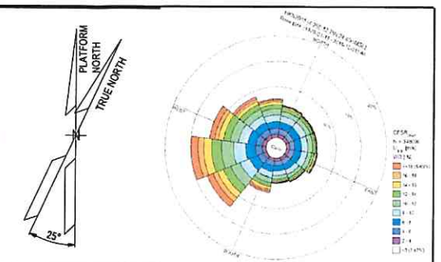



HVAC SYSTEM INDOOR DUCT LAYOUT

MASTER

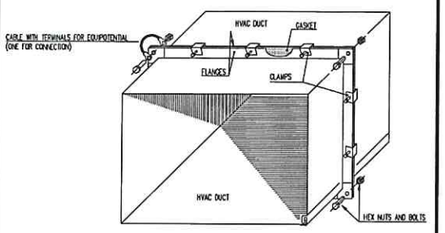
ROSETTI MARINO SpA
Stefano Linari 23/10/24
Quality Control Dept.

ALEX SISTEMI : Matteo Lazzari




NOTES

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



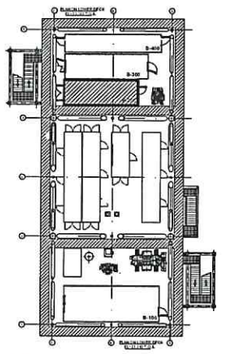

TYPICAL EQUIPOTENTIAL INSTALLING FOR FLANGE CONNECTION INDOOR AIR DUCT

Basket tray Power AISI 316L

Basket tray Instrument AISI 316L

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

KEY PLAN



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

CROSSWIND | ROSETTI MARINO

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

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

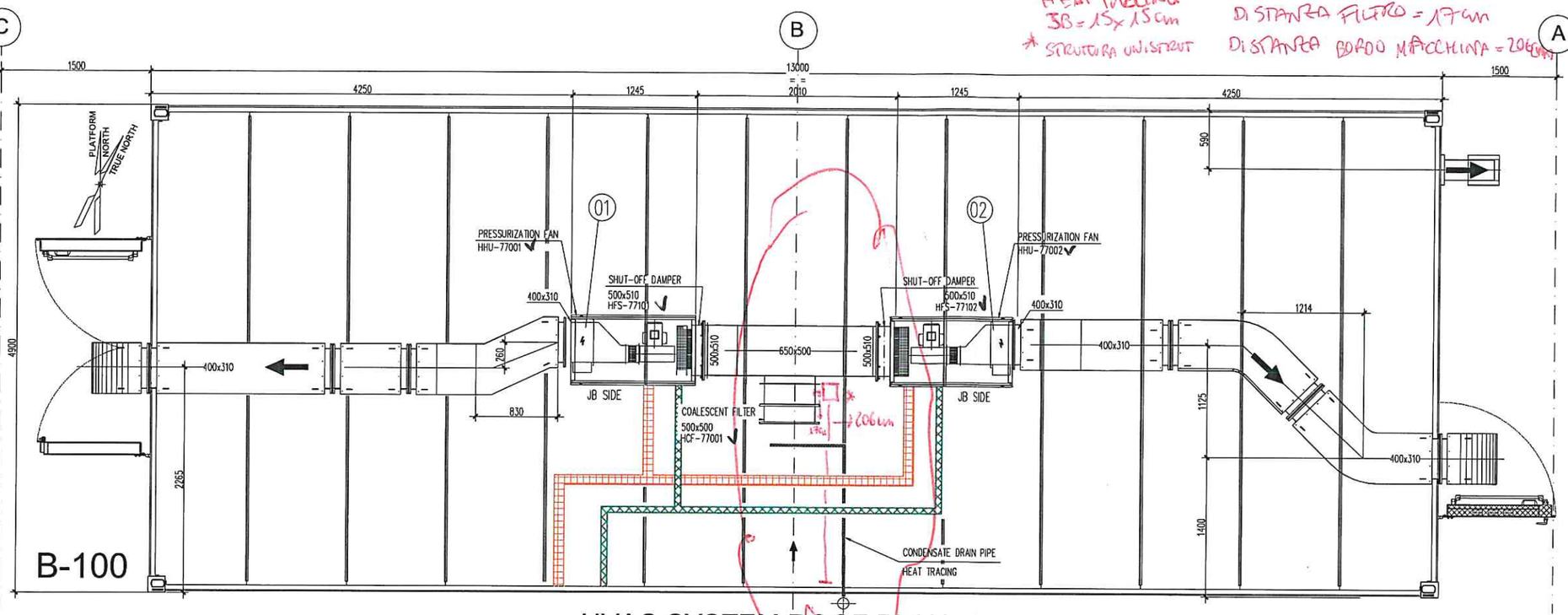
File Name : 1724000049-HV-DA-00065_1

DRAWING NO. 1724000049-HV-DA-00064_1

REV. 01

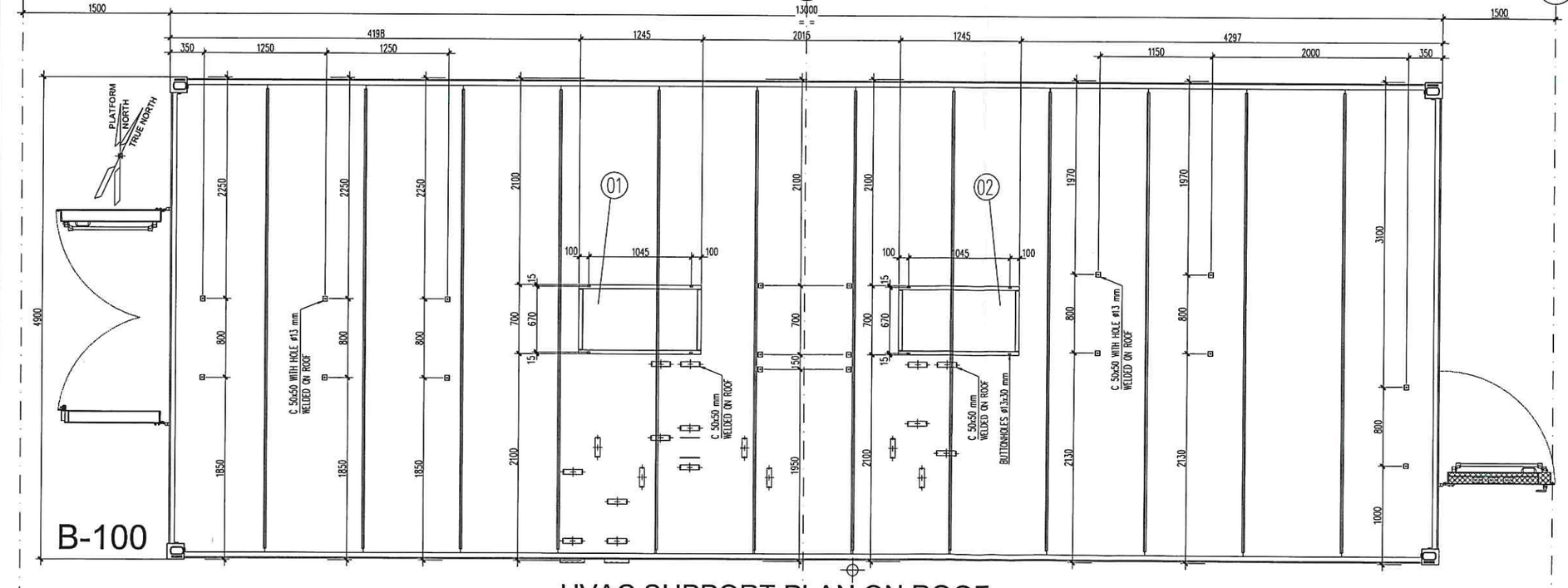
HEAT TRACING
3B = 15x15 cm
* STRUTTURA UNISTRUT

DISTANZA FILTRO = 17cm
DISTANZA BORDO MACCHINA = 206cm




HVAC SYSTEM ROOF PLAN

EL. +28.800



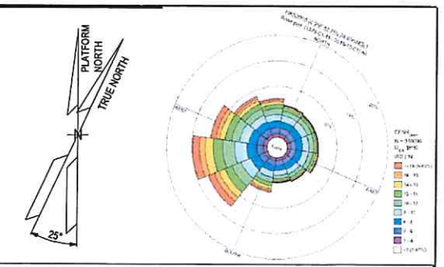

HVAC SUPPORT PLAN ON ROOF

EL. +28.050

MASTER

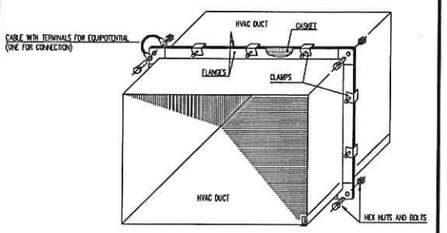
ROSETTI MARINO SpA
Stefano Linari 23/10/24
Quality Control Dept.

ALEX SISTEMI :




## NOTES

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



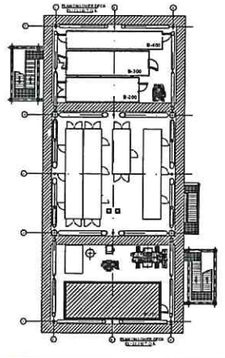

**TYPICAL EQUIPOTENTIAL INSTALLING FOR FLANGE CONNECTION INDOOR AIR DUCT**

Basket tray Power AISI 316L

Basket tray Instrument AISI 316L

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

## KEY PLAN



ALEXSISTEMI

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

CROSSWIND

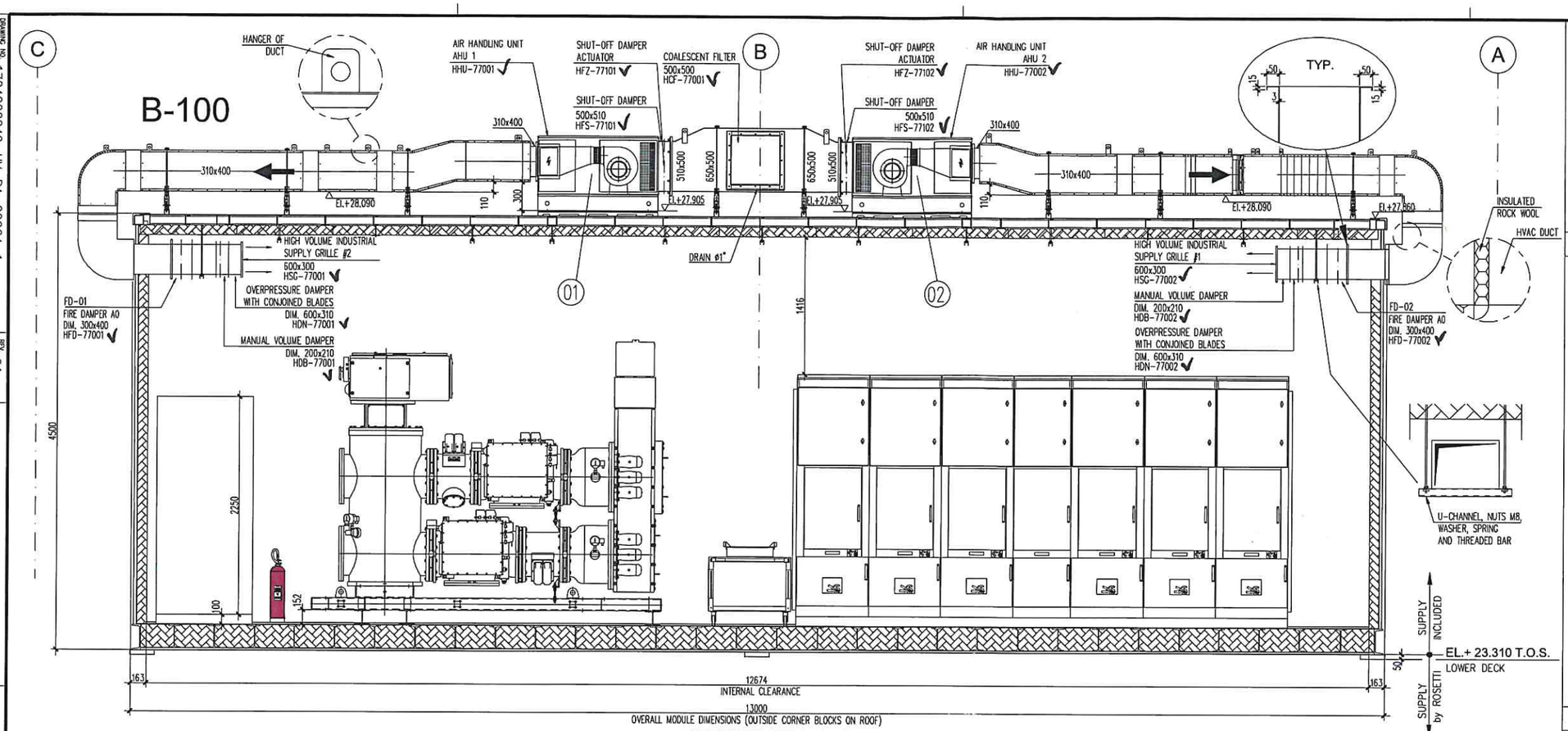
ROSETTI MARINO

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

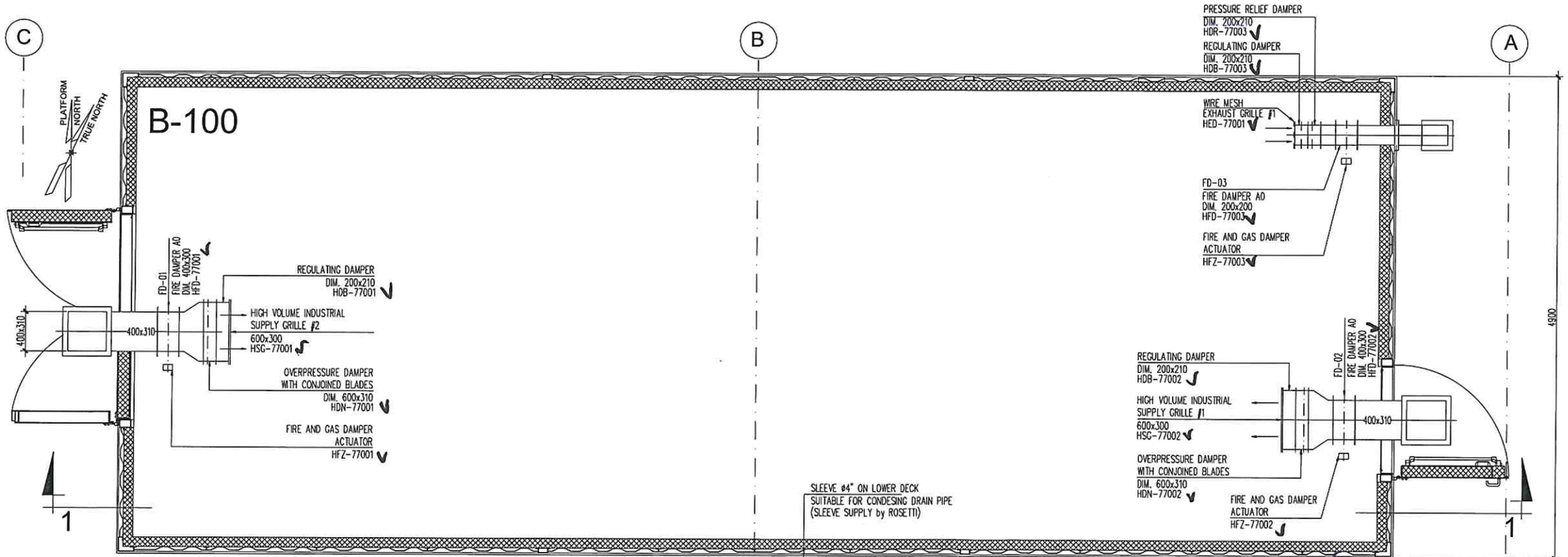
| CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | | | SCALE 1 : 25 |
|---|---|---|---|
| DRAWN M.G. | CHECKED O.A. | APPROVED C.A. | DATE 18/10/2024 |
| A1 | DRAWING NO. 1724000049-HV-DA-00064 | | SHEET 001 / REV. 01 |

File Name : 1724000049-HV-DA-00064_1

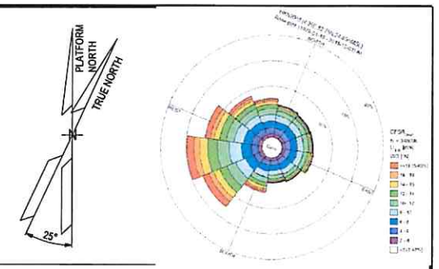
DRAWING NO. 1724000049-HV-DA-00064_1 REV. 01




## SECTION 1-1

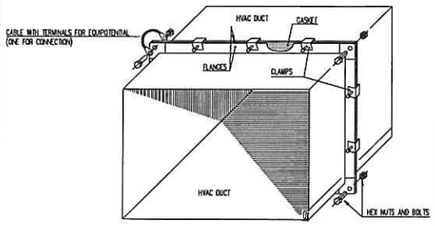



## HVAC SYSTEM INDOOR DUCT LAYOUT




### NOTES

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



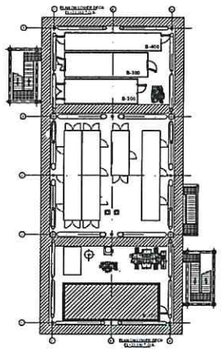

**TYPICAL EQUIPOTENTIAL INSTALLING FOR FLANGE CONNECTION INDOOR AIR DUCT**

Basket tray Power AISI 316L

Basket tray Instrument AISI 316L

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

### KEY PLAN



ALEXSISTEMI

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

CROSSWIND — ROSETTI MARINO

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

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

File Name : 1724000049-HV-DA-00064_1

MASTER

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

ALEX SISTEMI : Matteo Mocchi

# B-100 – ATTACH. 1

ALEXSISTEMI spa

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV =ISO 9001=

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

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

LOCATION : ON SITE ☒ OFF SITE ☐

DATE OF TEST: 24/07/2024

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

REFERENCE DOCUMENT: ISO 17637 / EEMUA 158

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

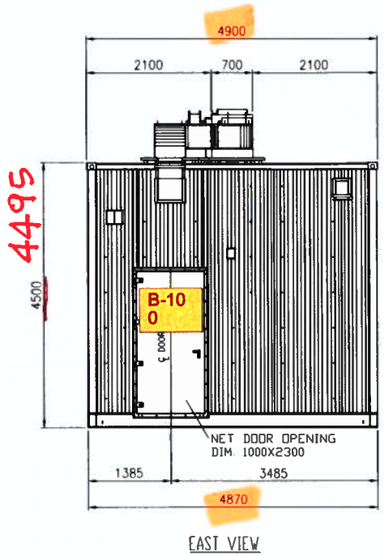
**Comments:**

DWG attached.

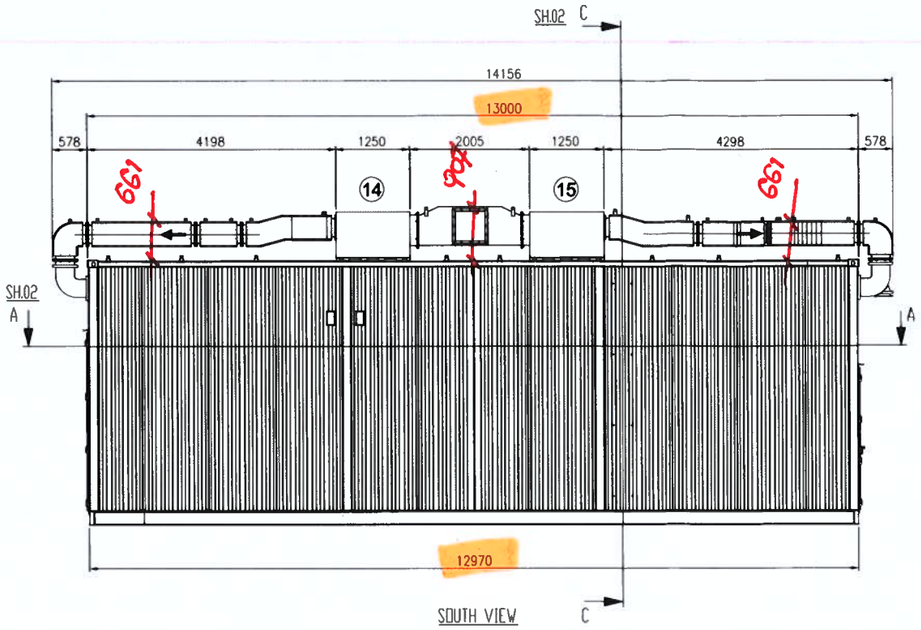
| ALEX SISTEMI *Quality Assurance* | Customer | Final Customer | 3rd Part | other |
|---|---|---|---|---|
| ALEXSISTEMI spa | COICEA CUTTALIN<br>ROSETTI MARINO | x CROSSWIND | | |

Mod.P13.1

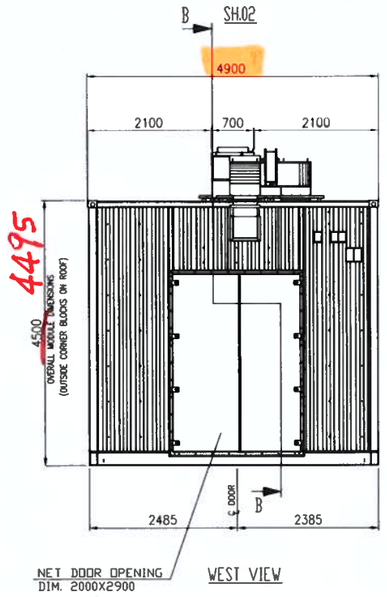
DRAWING NO. 1724000049-AR-DA-00014 REV. 02




EAST VIEW

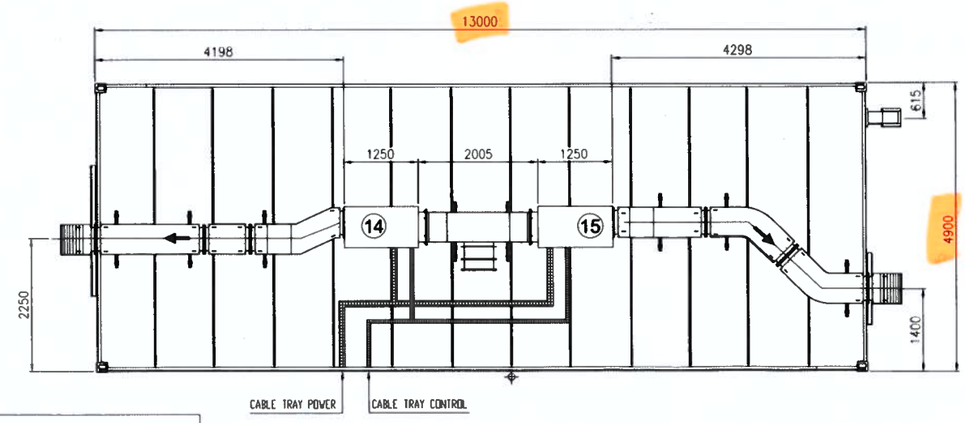



SOUTH VIEW




WEST VIEW



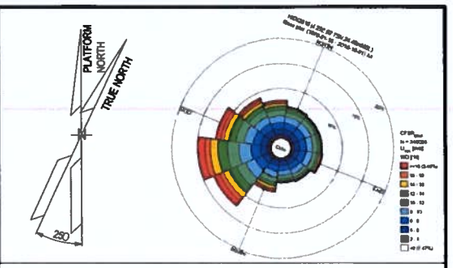

TOP VIEW

## EQUIPMENT LIST

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

MASTER COPY
INTERNAL TEST

02




## NOTE

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

remove Note 2 and 3 typical for all sh.

## REFERENCE

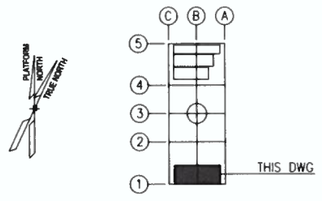
| DOCUMENT TITLE | DOCUMENT NUMBER |
|---|---|
| "B-100" HVAC SYSTEM G.A. & DETAILS | 1724000049-HV-DA-00064 |
| "B-100" DETAILED DRAWING | 1724000049-AR-DD-00018 |
| PAINTING PROCEDURE | 1724000049-MAT-PRO-00004 |

## LEGEND

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

## HOLDS

## KEY PLAN




ALEXSISTEMI s.r.l.

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

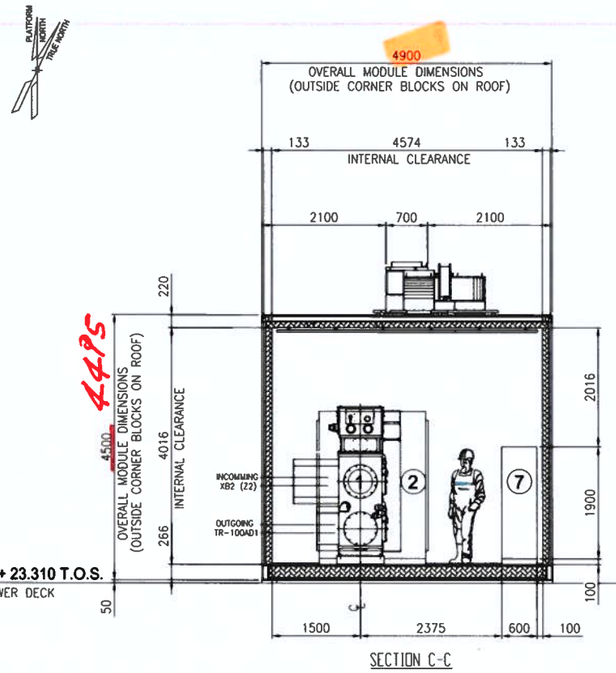
CROSSWIND — ROSETTI MARINO

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

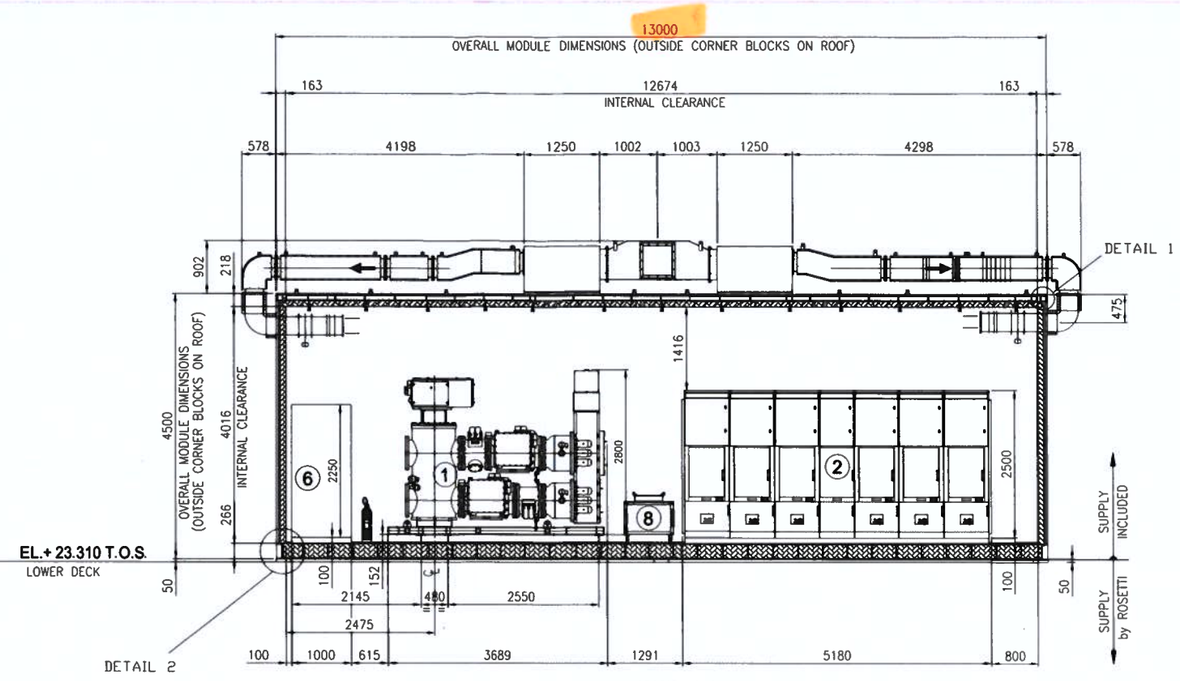
| | | | |
|---|---|---|---|
| CONTRACT NO./TITLE CONTRACT_NO. 1724000049 | | | SCALE 1:50 |
| DRAWN M.G. | CHECKED SKV | APPROVED C.A. | DATE 28/06/24 |
| A1 | DRAWING NO. 1724000049-AR-DA-00014 | SHEET 001 | REV. 02 |

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

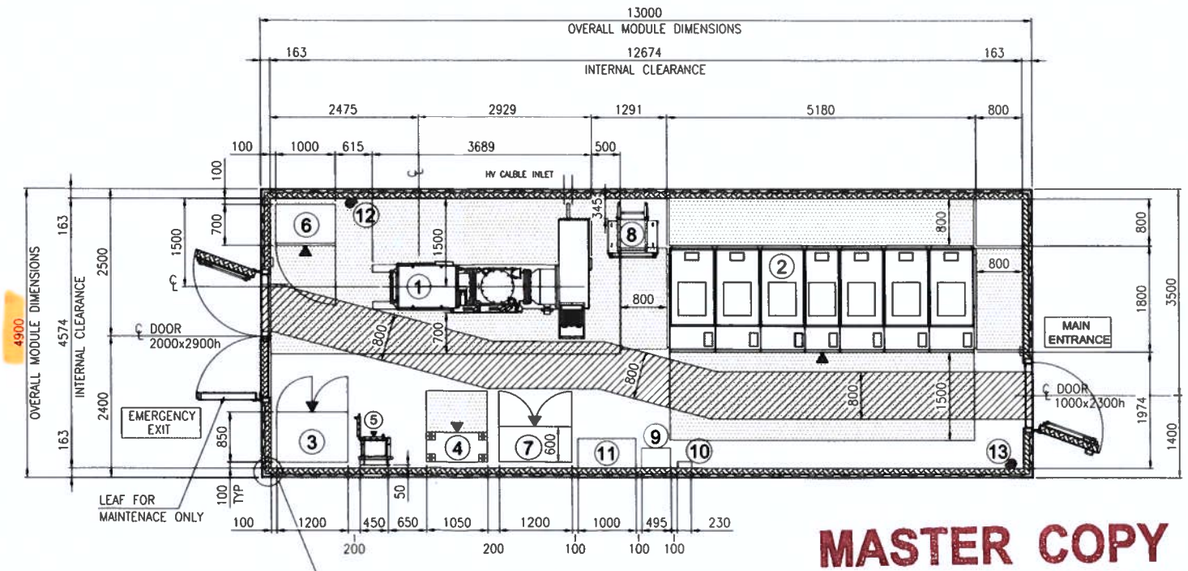
DRAWING NO 1724000049-AR-DA-00014 REV. 02




SECTION C-C




SECTION B-B




SECTION A-A

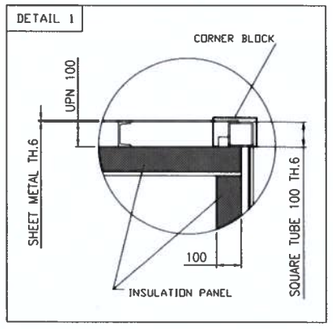
EQUIPMENT LAYOUT

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

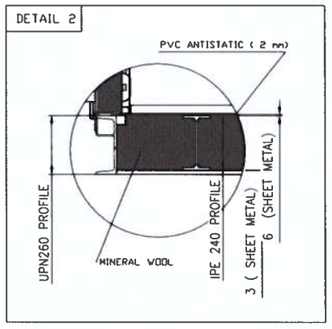
BOTTOM PLAN

02

DETAIL 1

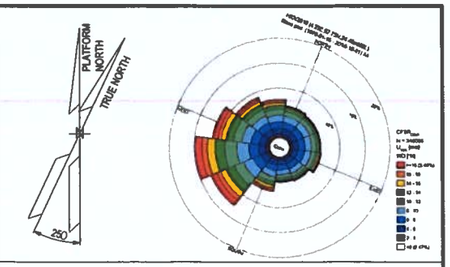



DETAIL 2




## EQUIPMENT LIST

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




## NOTES

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

## REFERENCE

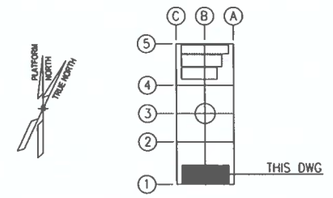
| DOCUMENT TITLE | DOCUMENT NUMBER |
|---|---|
| "B-100" HVAC SYSTEM G.A. & DETAILS | 1724000049-HV-DA-00064 |
| "B-100" DETAILED DRAWING | 1724000049-AR-DD-00018 |
| PAINTING PROCEDURE | 1724000049-MAT-PRO-00004 |

## LEGEND

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

## HOLDS

## KEY PLAN




ALEXSISTEMI

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

CROSSWIND

ROSETTI MARINO

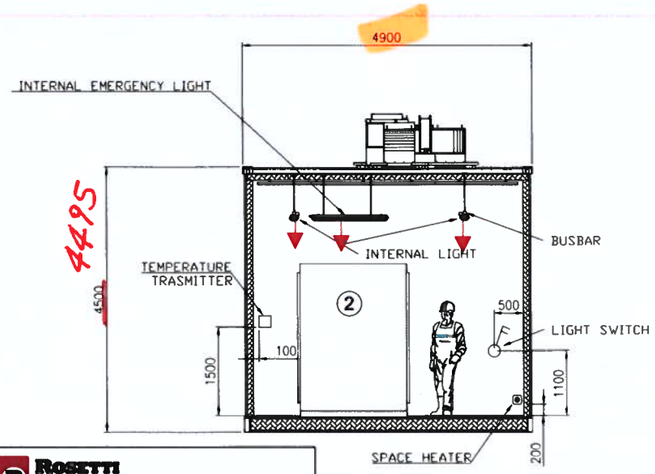
TITLE : BASE LOAD POWER HUB (BLPH)
B-100 GENERAL ARRANGEMENT DRAWINGS

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

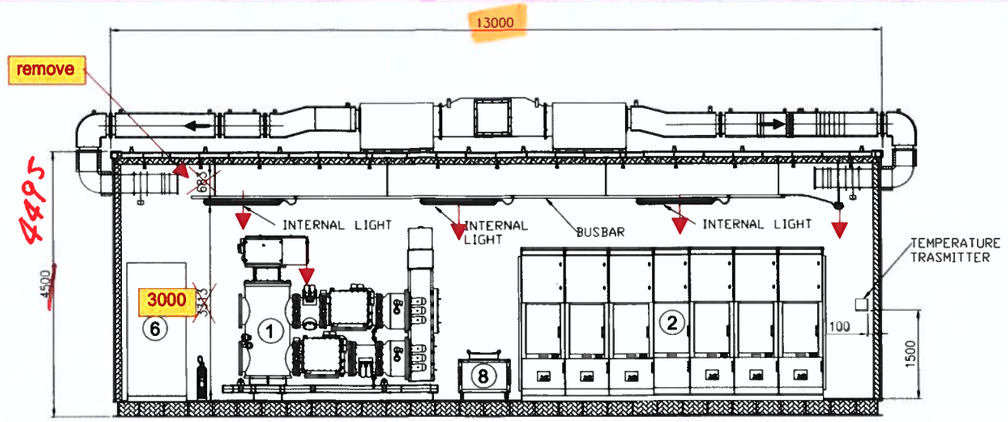
File Name : 1724000049-AR-DA-00014-REV.02

MASTER COPY
INTERNAL TEST

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

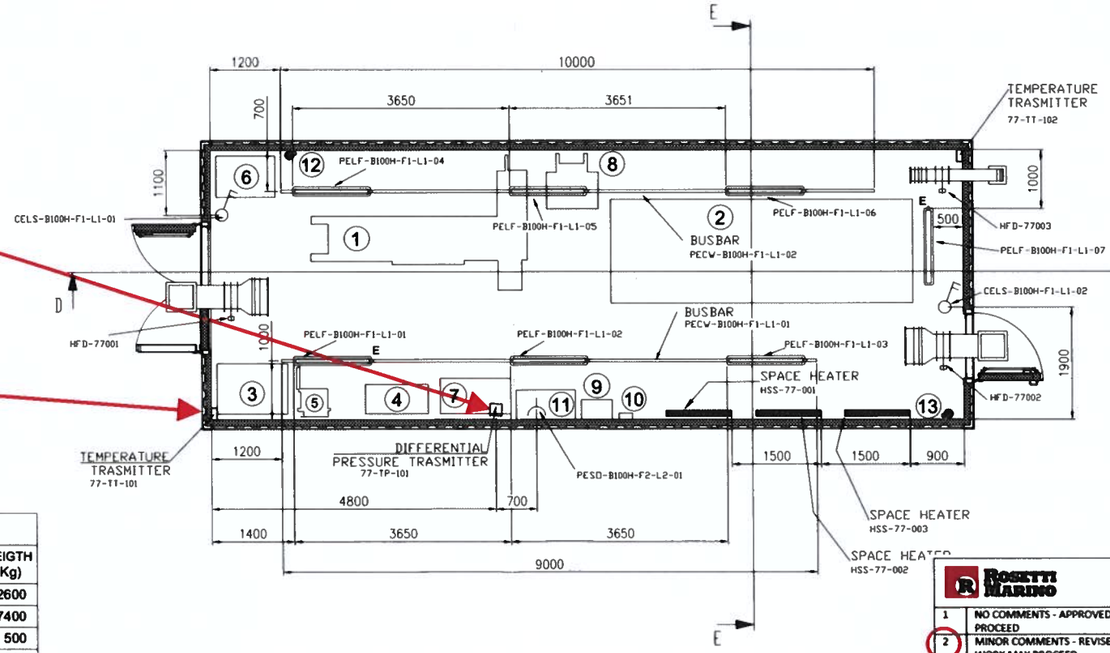



SECTION E-E




SECTION D-D

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




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

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

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

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

| Sign | Date |
|---|---|
| R. Bossi | 10/07/2024 |

### EQUIPMENT LIST

| REF. | TAG No. | DESCRIPTION | LENGTH (mm) | WIDTH (mm) | HEIGHT (mm) | WEIGTH (Kg) |
|---|---|---|---|---|---|---|
| 1 | HNA6-AFA70 | 66kV SWITCHGEAR (GIS) | 3689 | 2025 | 2651 | 2600 |
| 2 | SG-100D1 | 6.6kV SWITCHGEAR | 5180 | 1800 | 2500 | 7400 |
| 3 | UP-200F1 | DC UPS PANEL | 1200 | 850 | 2105 | 500 |
| 4 | BA-200F1 | DC UPS BATTERY RACK | 1050 | 510 | 1272 | 522 |
| 5 | CB-200F1 | ISOLATOR FOR DC UPS | 600 | 300 | 800 | 100 |
| 6 | CP-100E1 | 66 kV SWITCHGEAR LOCAL CONTROL PANEL | 1000 | 700 | 2100 | 2100 |
| 7 | B100-HSB-001 | DISTRIBUTION & HVAC PANEL - HV ~~MV~~ ROOM | 1200 | 600 | 1900 | 400 |
| 8 | - | SERVICE TROLLEY FOR 6.6kV SWITCHGEAR | 943 | 862 | 874 | 70 |
| 9 | - | TOOL BOX | 495 | 335 | 920 | 20 |
| 10 | - | ELECTRIC SAFETY KIT | 230 | 110 | 280 | 20 |
| 11 | - | TABLE | 1000 | 500 | 750 | 50 |
| 12 | - | PORTABLE EXTINGUISHER (CO2) 5 Kg. | 150 | 150 | 750 | 20 |
| 13 | - | PORTABLE EXTINGUISHER (CO2) 5 Kg. | 150 | 150 | 750 | 20 |
| 14 | ~~HHU-77081A~~ | AIR HANDLING UNIT A | 1250 | 850 | 900 | 140 |
| 15 | ~~HHU-77081B~~ | AIR HANDLING UNIT B | 1250 | 850 | 900 | 140 |
| 16 | HSS-77-001 | SPACE HEATER 1 | 184 | 145 | 1100 | 5 |
| 17 | HSS-77-002 | SPACE HEATER 2 | 184 | 145 | 1100 | 5 |
| 18 | HSS-77-003 | SPACE HEATER 3 | 184 | 145 | 1100 | 5 |

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

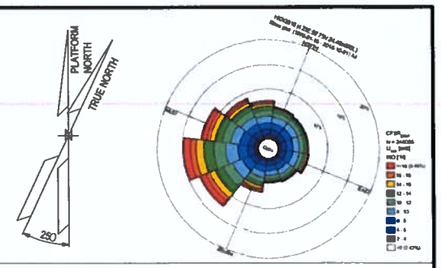
Revise TAG according to all documents (P&IDs, HVAC & Lighting Panel, HVAC GA & Details, etc.)


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

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

| Sign | Date |
|---|---|
| R. Bossi | 10/07/2024 |


MASTER COPY
INTERNAL TEST




### NOTE

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

### REFERENCE

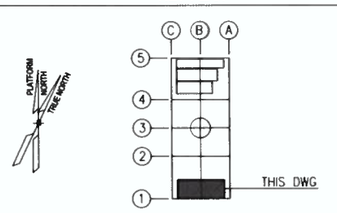
| DOCUMENT TITLE | DOCUMENT NUMBER |
|---|---|
| "B-100" HVAC SYSTEM G.A. & DETAILS | 1724000049-HV-DA-00064 |
| "B-100" DETAILED DRAWING | 1724000049-AR-DD-00018 |
| PAINTING PROCEDURE | 1724000049-MAT-PRO-00004 |

### LEGEND

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

### HOLDS

### KEY PLAN




ALEXSISTEMI

Next revision: 03 Accepted For Construction (AFC)

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

CROSSWIND — ROSETTI MARINO

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

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

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

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

13000

OVERALL MODULE DIMENSIONS (OUTSIDE CORNER BLOCKS ON ROOF)

250 | 6175 | 200 | 6175 | 250

250 | 250 | UNP260 | 250 | 250

UNP260 — UNP260

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

4970 | 4483 | 120 | 13.5

250 | 250 | UNP260 | 250 | 250

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

250 | 200 | 250 | 250

HOLES | 40 | 12970 | 40

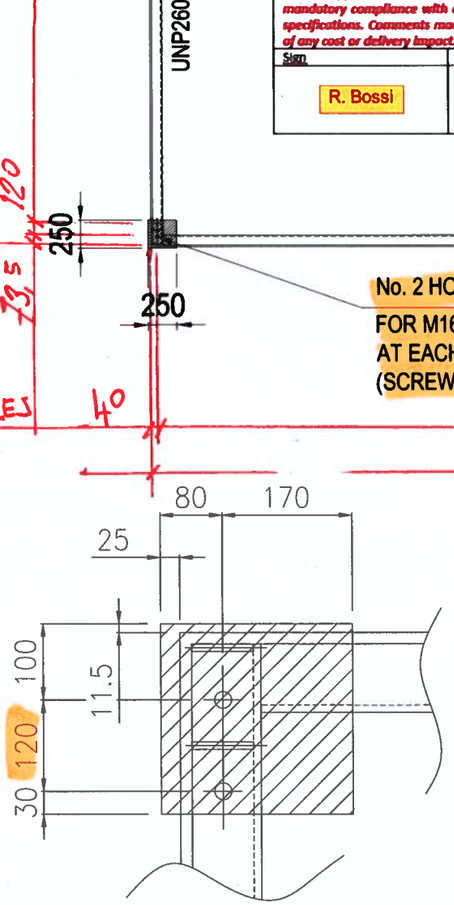
ROSETTI MARINO

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

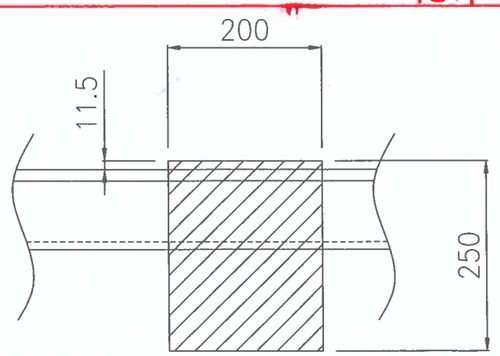
*NOTE: Approval doesn't relieve the supplier from mandatory compliance with contractual documents and specifications. Comments made do not imply acceptance of any cost or delivery impact.*

| Sign | Date |
|---|---|
| R. Bossi | 07/06/2024 |

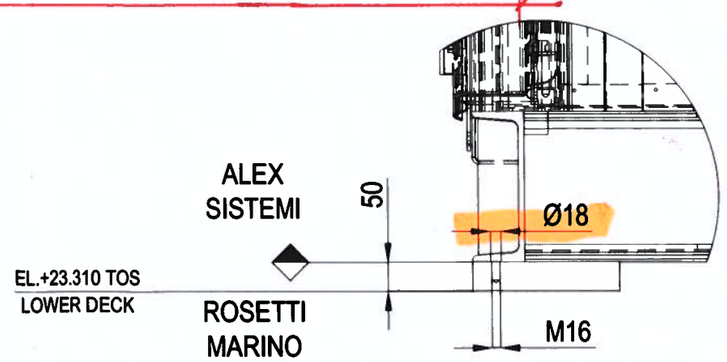
# B-100




TYPICAL CORNER PLATE POSITION

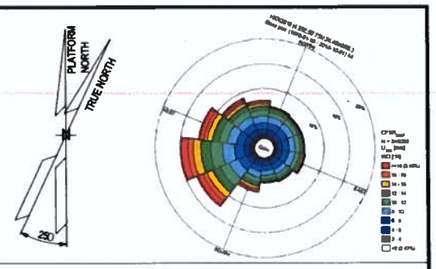



TYPICAL CENTRAL PLATE POSITION




TYPICAL FIXING DETAIL
SCALE 1 : 10

MASTER COPY
INTERNAL TEST




NOTE

1) ALL DIMENSIONS ARE IM MM.

REFERENCE

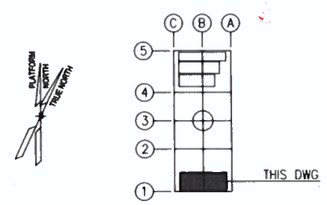
| DOCUMENT TITLE | DOCUMENT NUMBER |
|---|---|
| B-100 STRUCTURAL CALCULATION - E&I SHELTERS | 1724000049-ST-CA-00006 |

LEGEND

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

HOLDS

KEY PLAN




ALEXSISTEMI

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 01 | 03/06/24 | M.G. | M.R. | O.A. | APPROVED FOR CONSTRUCTION (AFC) |
| 00 | 16/04/24 | M.G. | M.R. | O.A. | ISSUE FOR CLIENT REVIEW (ICR) |

CROSSWIND — ROSETTI MARINO

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

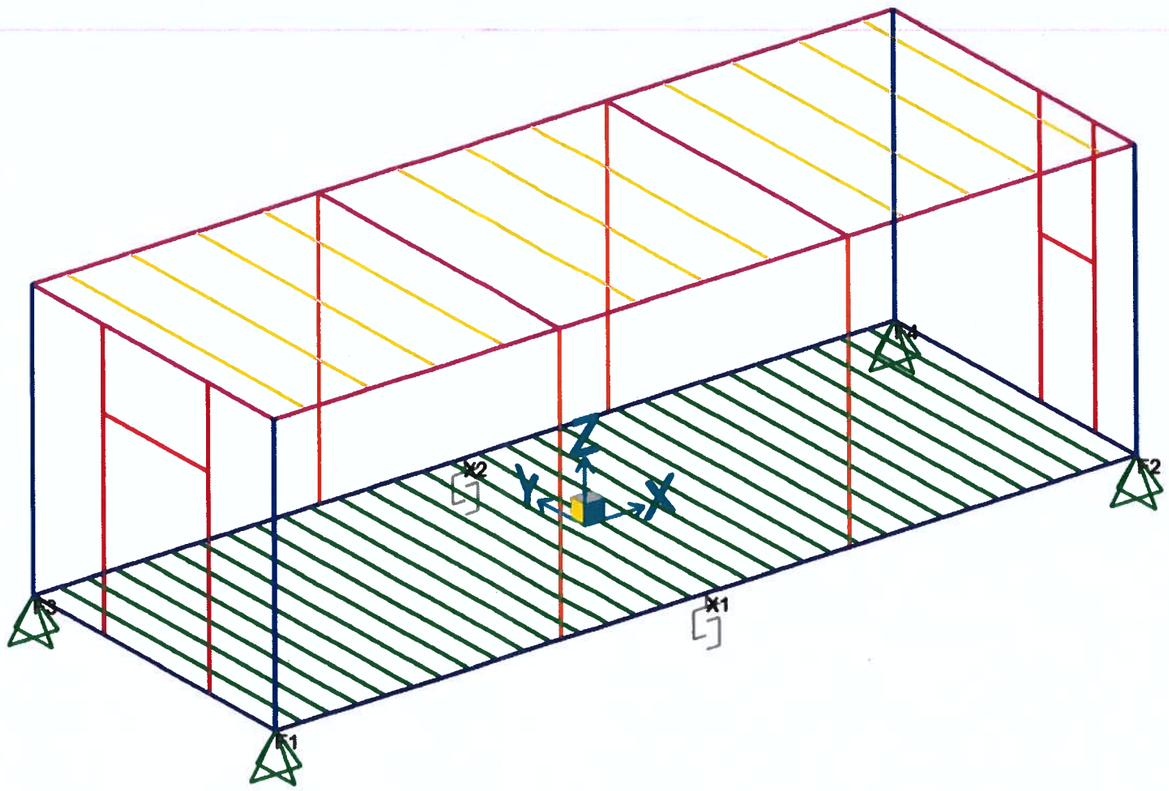
| | | | |
|---|---|---|---|
| CONTRACT NO./TITLE CONTRACT_NO. 1724000049 | | | SCALE N.A. |
| DRAWN M.G. | CHECKED M.R. | APPROVED O.A. | DATE 03/06/24 |
| A1 | DRAWING NO. 1724000049-ST-DD-00010 | | SHEET 001/002 REV. 01 |

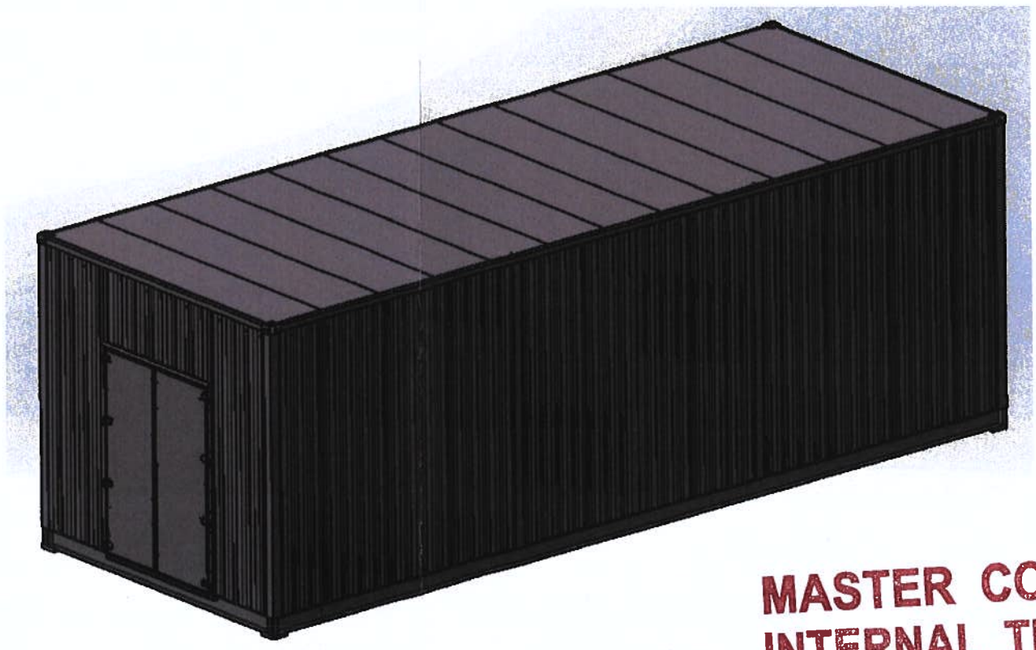
File Name : 1724000049-ST-DD-00010-REV01

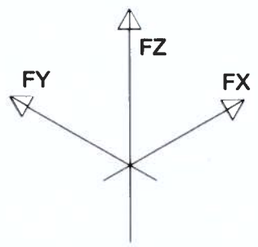
DRAWING NO. 1724000049-ST-DD-00010 REV. 01

**TABLE: Joint Reactions**

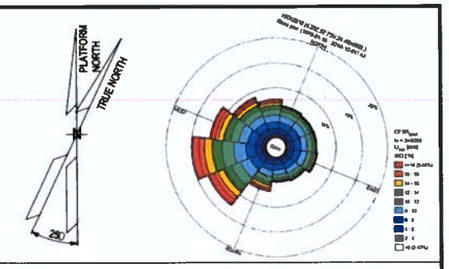
| Joint | OutputCase | CaseType | StepType | Fx | Fy | Fz | Mx | My | Mz |
|---|---|---|---|---|---|---|---|---|---|
| Text | Text | Text | Text | KN | KN | KN | KN-m | KN-m | KN-m |
| F1 | DEAD | NonStatic | Last Step | 12,82 | 4,16 | 31,39 | 0,00 | 0,00 | 0,00 |
| F1 | SD | NonStatic | Last Step |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






MASTER COPY
INTERNAL TEST




## NOTE

1) ALL DIMENSIONS ARE IM MM.

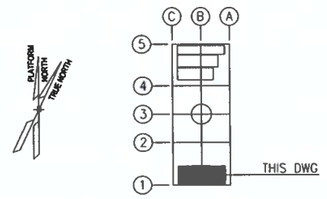
## REFERENCE

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

## LEGEND

## HOLDS

## KEY PLAN




ALEXSISTEMI spa

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 01 | 03/06/24 | M.G. | M.R. | O.A. | APPROVED FOR CONSTRUCTION (AFC) |
| 00 | 16/04/24 | M.G. | M.R. | O.A. | ISSUE FOR CLIENT REVIEW (ICR) |

CROSSWIND

ROSETTI MARINO

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

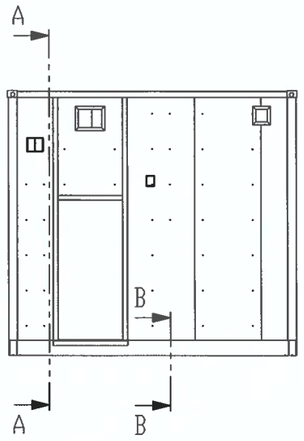
| CONTRACT NO./TITLE CONTRACT_NO. 1724000049 | | | SCALE N.A. |
|---|---|---|---|
| DRAWN M.G. | CHECKED M.R. | APPROVED O.A. | DATE 03/06/24 |
| A1 | DRAWING NO. 1724000049-ST-DD-00010 | SHEET 002/002 | REV. 01 |

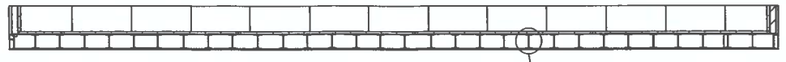
File Name : 1724000049-ST-DD-00010-REV.01

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

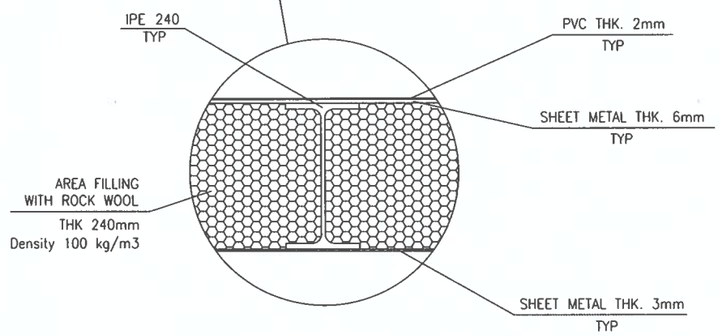
# MODULE B-100

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

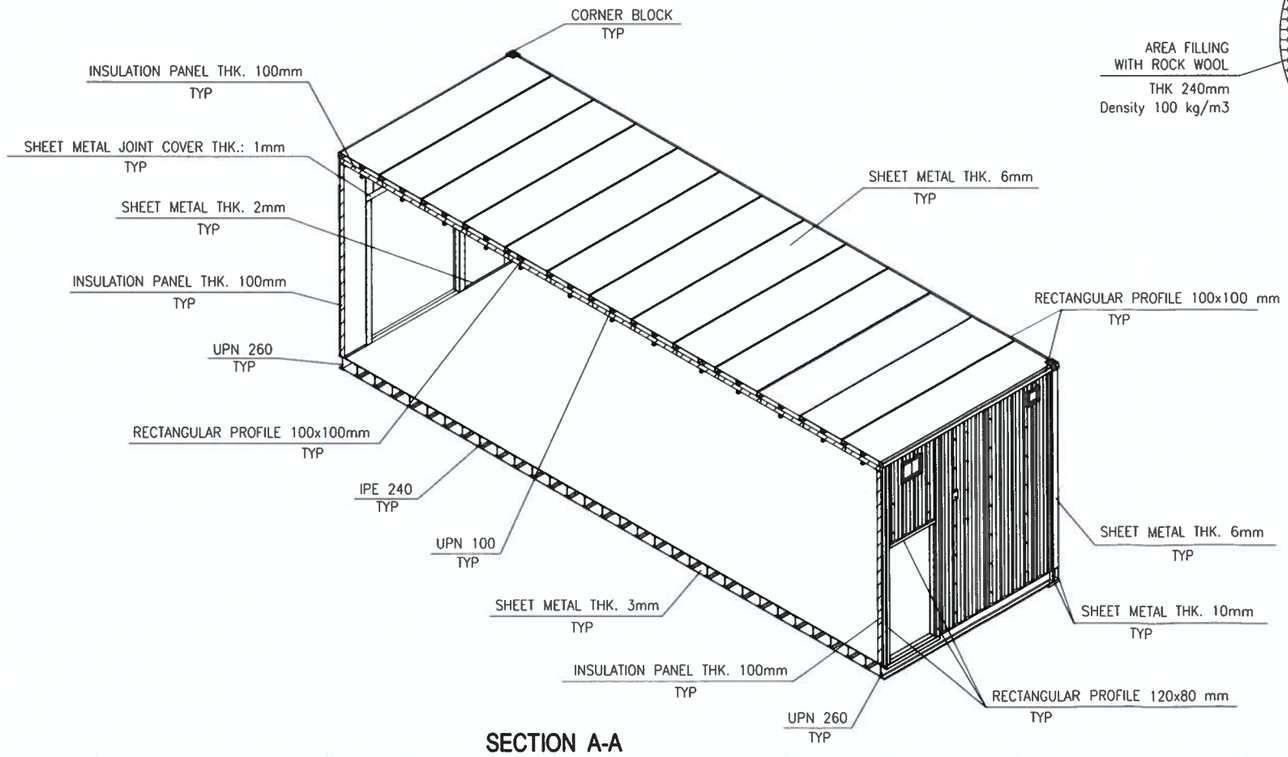


SECTION B-B

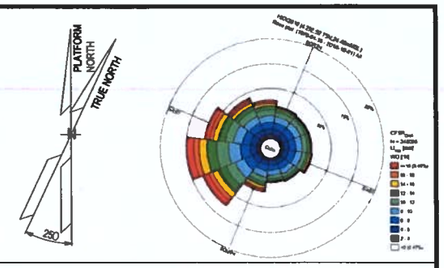



DETAIL "C"



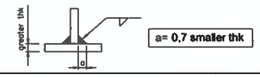

SECTION A-A

MASTER COPY
INTERNAL TEST




## NOTES

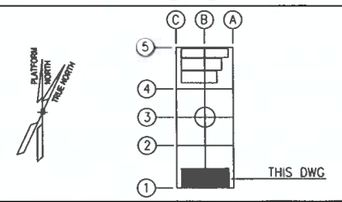
1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.
2. ALL WELDINGS SYMBOLS ARE IN ACCORDANCE WITH A.W.S. CODE D.1.1
3. UNLESS OTHERWISE INDICATED FILLET WELDS SHALL HAVE FOLLOWING DIM.:




## LEGEND

## HOLDS

KEY PLAN




ALEXSISTEMI spa

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 02 | 11/07/24 | M.G. | O.A. | C.A. | ISSUE FOR REVIEW (IFR) |
| 01 | 08/07/24 | M.G. | O.A. | C.A. | ISSUE FOR REVIEW (IFR) |
| 00 | 23/05/24 | M.G. | O.A. | C.A. | ISSUE FOR REVIEW (IFR) |

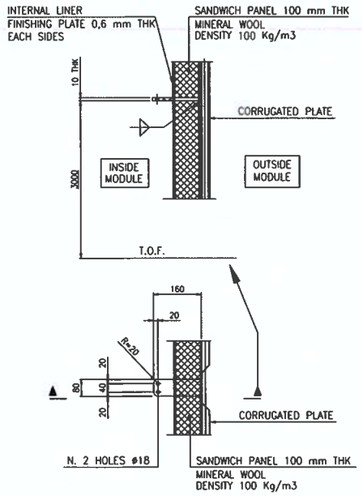
CROSSWIND | ROSETTI MARINO

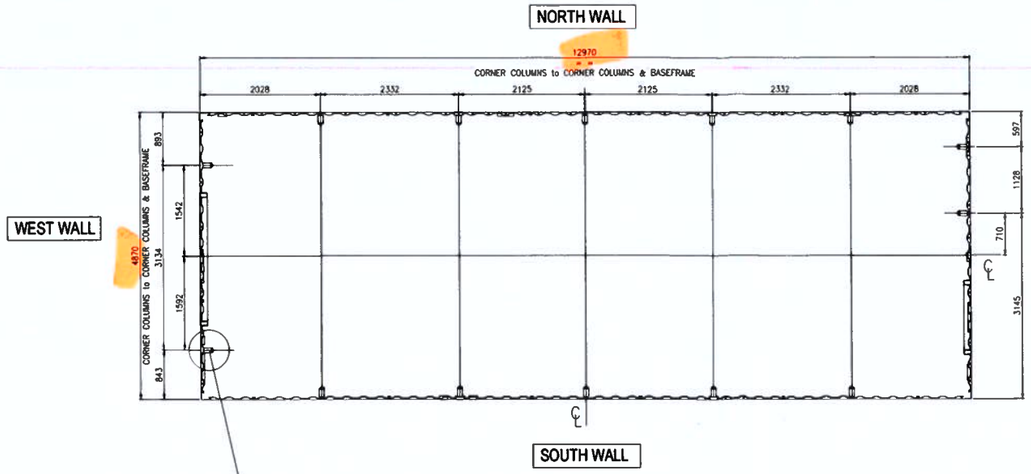
TITLE :
B-100 DETAILED DRAWINGS-E&I SHELTERS

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

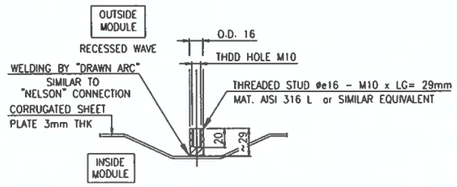
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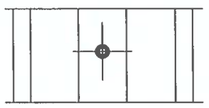
DRAWING NO 1724000049-AR-DD-00018 REV. 02



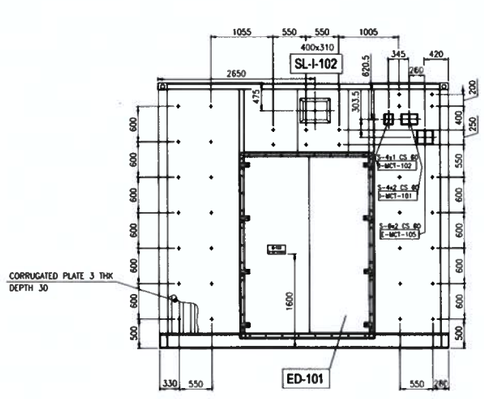




## MODULE B-100
### INTERNAL SEA FASTENING PLATES PLAN

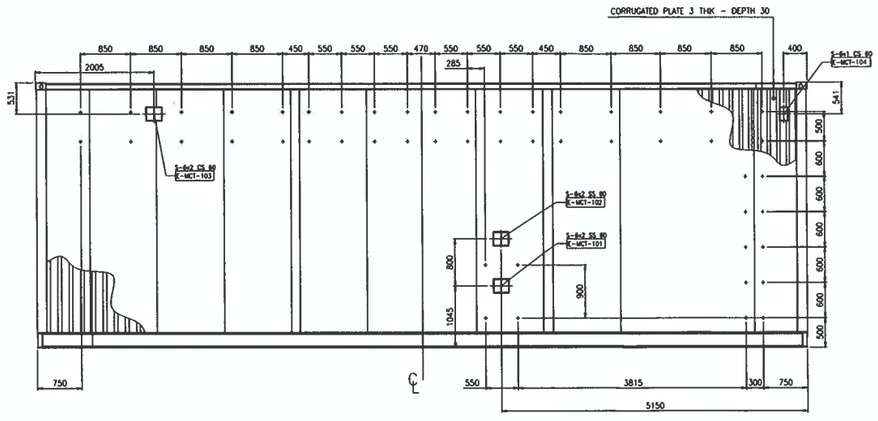


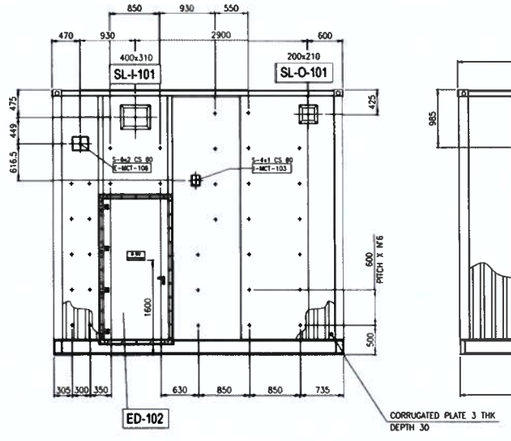
THREADED STUD INSTALLATION



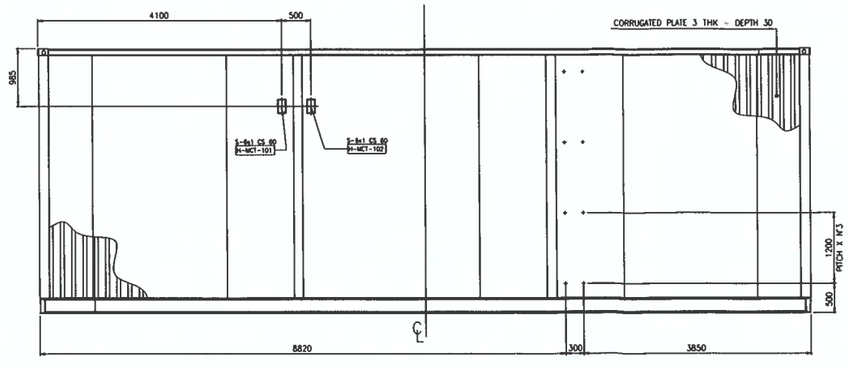

VIEW OF WEST WALL




VIEW OF NORTH WALL



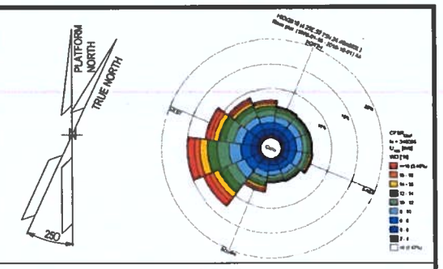

VIEW OF EAST WALL




VIEW OF SOUTH WALL

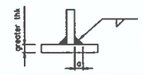
MASTER COPY
INTERNAL TEST

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




## NOTES

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




a= 0,7 smaller thk

## LEGEND

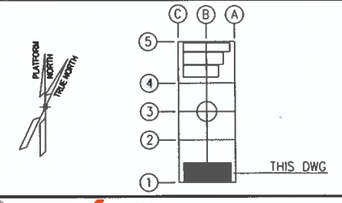
THREADED STUD ø16 - M10 x LG= 29mm
T.O.F. TOP OF FLOOR

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

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

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

KEY PLAN




MCT LIST

| | TAG No. | MCT DIMENSIONS and INSTALLATION SENSE L (mm) HORIZONTAL | H (mm) VERTICAL | W (mm) DEPTH | MCT SIZE TYPE "S" FRAME Primed Mild Steel BRAND: ROXTEC | MCT SIZE TYPE "S" FRAME AISI 316 L BRAND: ROXTEC |
|---|---|---|---|---|---|---|
| ELECTRICAL | E-MCT-101 | 271 | 238 | 60 | | 6x2 |
| | E-MCT-102 | 271 | 238 | 60 | | 6x2 |
| | E-MCT-103 | 271 | 238 | 60 | 6x2 | |
| | E-MCT-104 | 140.5 | 238 | 60 | 6x1 | |
| | E-MCT-105 | 271 | 238 | 60 | 6x2 | |
| | E-MCT-106 | 271 | 238 | 60 | 6x2 | |
| INSTRUMENTAL | I-MCT-101 | 271 | 179.5 | 60 | 4x2 | |
| | I-MCT-102 | 140.5 | 179.5 | 60 | 4x1 | |
| | I-MCT-103 | 140.5 | 179.5 | 60 | 4x1 | |
| HVAC | H-MCT-101 | 140.5 | 238 | 60 | 6x1 | |
| | H-MCT-102 | 140.5 | 238 | 60 | 6x1 | |

ALEXSISTEMI

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 02 | 11/07/24 | M.G. | O.A. | C.A. | ISSUE FOR REVIEW (IFR) |
| 01 | 08/07/24 | M.G. | O.A. | C.A. | ISSUE FOR REVIEW (IFR) |
| 00 | 23/05/24 | M.G. | O.A. | C.A. | ISSUE FOR CLIENT REVIEW (ICR) |

CROSSWIND — ROSETTI MARINO

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

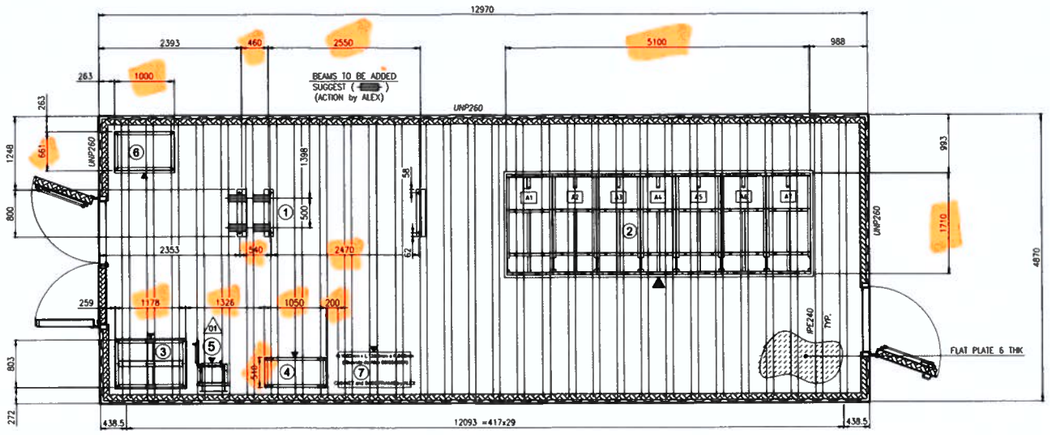
| | | | |
|---|---|---|---|
| CONTRACT NO./TITLE CONTRACT_NO. 1724000049 | | | SCALE 1:50 |
| DRAWN M.G. | CHECKED O.A. | APPROVED C.A. | DATE 11/07/24 |
| A1 | DRAWING NO. 1724000049-AR-DD-00018 | SHEET 002 | REV. 02 |

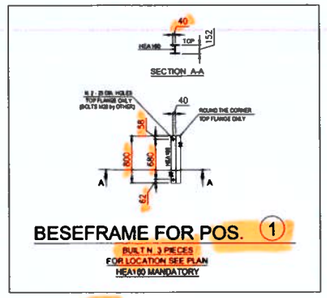
File Name : 1724000049-AR-DD-00018-REV.02

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

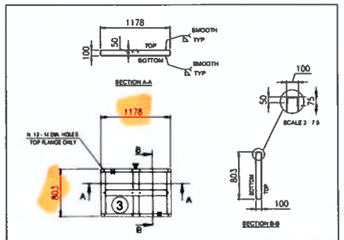
# B-100
# I&T EQUIPMENT ROOM
# BASEFRAME LOCATION PLAN

MASTER COPY
INTERNAL TEST

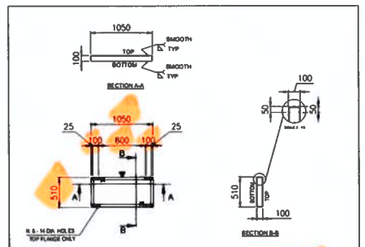


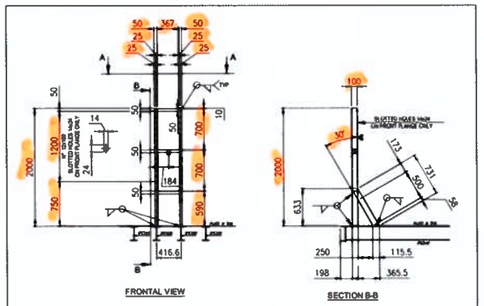

**BESEFRAME FOR POS. 1**
BUILT N. 3 PIECES
FOR LOCATION SEE PLAN
HEA180 MANDATORY



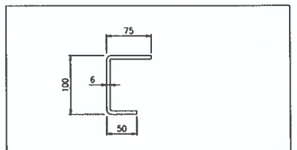

**BESEFRAME FOR POS. 3**
BUILT N. 1 PIECE



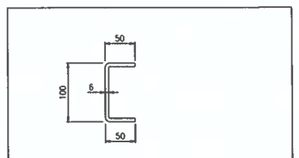

**BESEFRAME FOR POS. 4**
BUILT N. 1 PIECE EACH



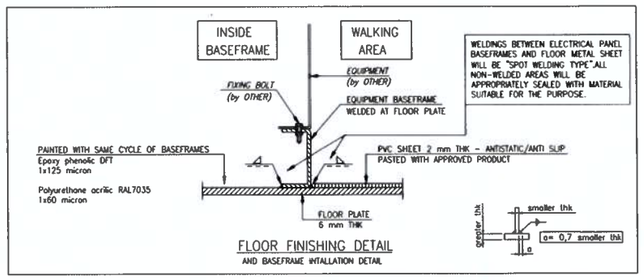

**BESEFRAME FOR POS. 5**
BUILT N. 1 PIECE EACH



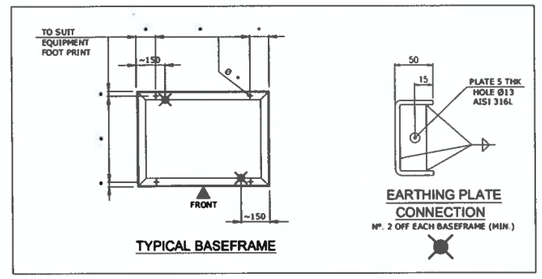

C 100x80x50 THK 6mm.
FROM BENT PLATE THK 6mm.
MAT. CARBON STEEL




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

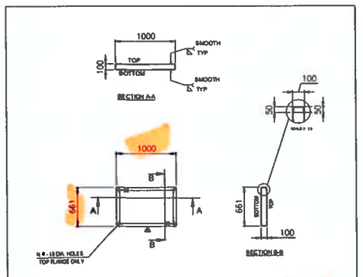



FLOOR FINISHING DETAIL
AND BASEFRAME INTALLATION DETAIL

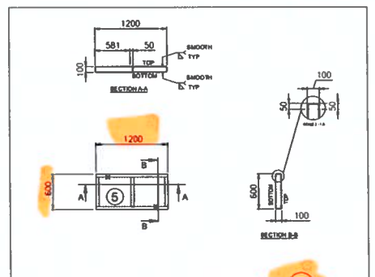



TYPICAL BASEFRAME

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



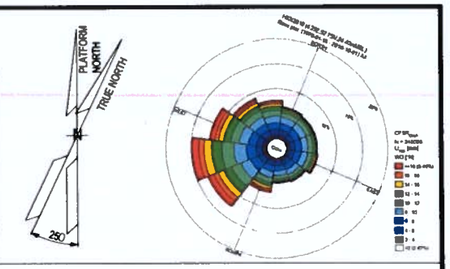

**BESEFRAME FOR POS. 6**
BUILT N. 1 PIECE




**BESEFRAME FOR POS. 7**
BUILT N. 1 PIECE

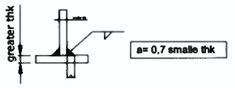
## EQUIPMENT LIST

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




## NOTES

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




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

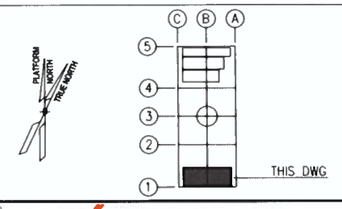



6. SURFACE TREATMENT ACCORDING DOCUMENT N. 1724000049-MAT-PRO-00004 - PAINTING PROCEDURE FINAL COLOUR LIGHT GREY RAL 7035.

## LEGEND

ASI = ALEX SISTEMI

KEY PLAN




ALEXSISTEMI s.p.a.

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 02 | 11/07/24 | M.G. | O.A. | C.A. | ISSUE FOR REVIEW (IFR) |
| 01 | 08/07/24 | M.G. | O.A. | C.A. | ISSUE FOR REVIEW (IFR) |
| 00 | 23/05/24 | M.G. | O.A. | C.A. | ISSUE FOR CLIENT REVIEW (ICR) |

CROSSWIND

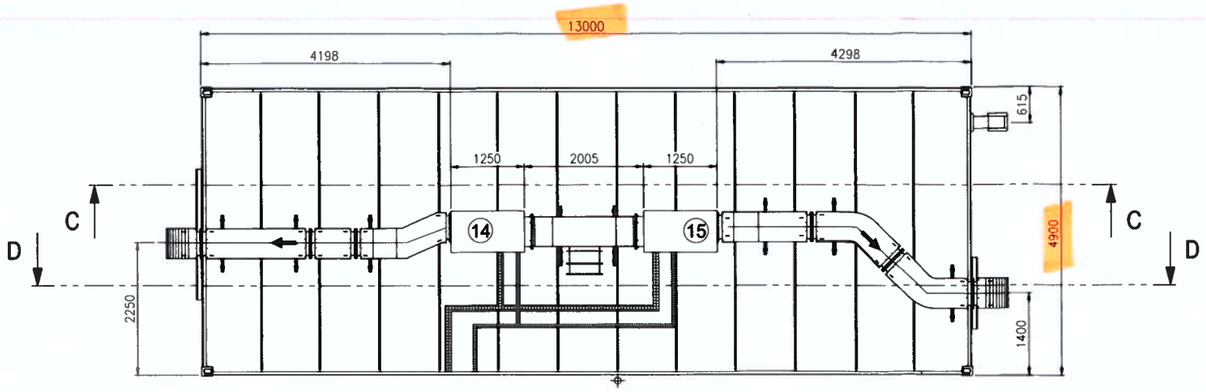
ROSETTI MARINO

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

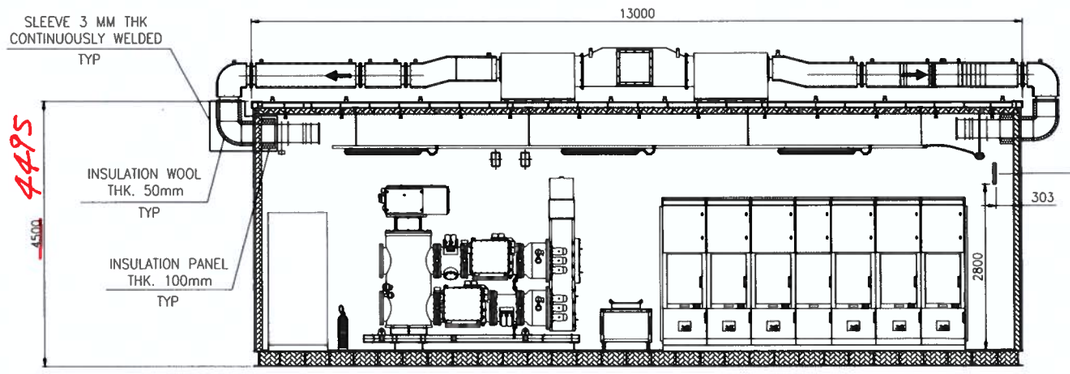
| | | | |
|---|---|---|---|
| CONTRACT NO./TITLE CONTRACT_NO. 1724000049 | | | SCALE 1:50 |
| DRAWN M.G. | CHECKED O.A. | APPROVED C.A. | DATE 11/07/24 |
| A1 | DRAWING NO. 1724000049-AR-DD-00018 | SHEET 003 | REV. 02 |

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

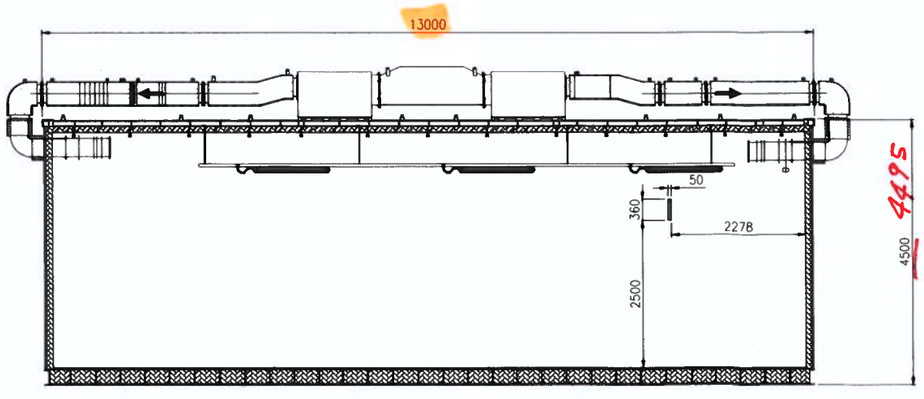
DRAWING NO. 1724000049-AR-DD-00018 | REV. 02




TOP VIEW



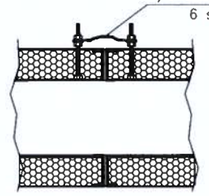

SECTION C-C




SECTION D-D

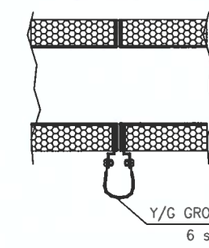
## DET. 1

EXTERNAL DUCT



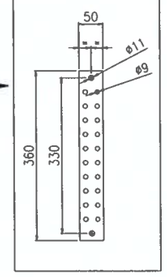

## DET. 2

INTERNAL DUCT



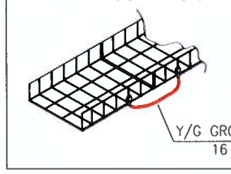

## DET. 3

TYPICAL DETAIL
Ground bar



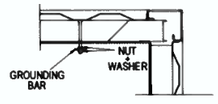

## DET. 4

TYPICAL DETAIL
Cable tray grounding system



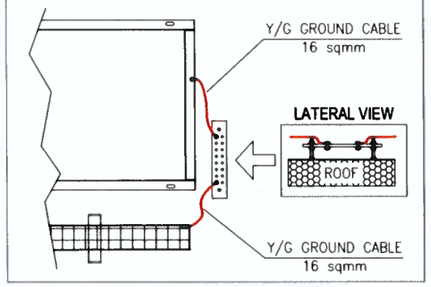

## DET. 5

TYPICAL INSTALLATION BTH PE



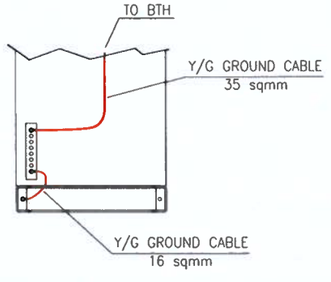

## DET. 6

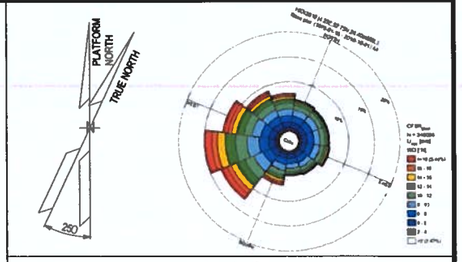
TYPICAL ROOF GROUNDING CONNECTION




## DET. 7

TYPICAL CABINET GROUNDING CONNECTION



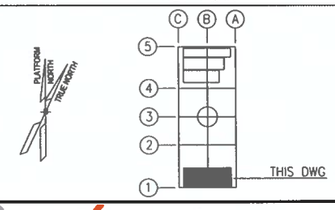




## NOTES

1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.

## LEGEND

KEY PLAN




ALEXSISTEMI S.r.l.

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 02 | 11/07/24 | M.G. | O.A. | C.A. | ISSUE FOR REVIEW (IFR) |
| 01 | 08/07/24 | M.G. | O.A. | C.A. | ISSUE FOR REVIEW (IFR) |
| 00 | 23/05/24 | M.G. | O.A. | C.A. | ISSUE FOR CLIENT REVIEW (ICR) |

CROSSWIND | ROSETTI MARINO

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

| | | | |
|---|---|---|---|
| CONTRACT NO./TITLE CONTRACT_NO. 1724000049 | | | SCALE 1:50 |
| DRAWN M.G. | CHECKED O.A. | APPROVED C.A. | DATE 11/07/24 |
| A1 | DRAWING NO. 1724000049-AR-DD-00018 | SHEET 004 | REV. 02 |

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

# B-100 – ATTACH. 2

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

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

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 24/07/2024

REFERENCE DRAWING:

REFERENCE DOCUMENT: 1724000049-MAT-PRO-00004

| Inspection List | YES | NO | N.A. |
|---|---|---|---|
| | | | |
| **1 Verification of paint and color code according to design specification** | | | |
| | | | |
| Visual Check External Color walls, roof, base frame RAL 7035 | ✓ | | |
| Visual Check External Color doors RAL 7035 | ✓ | | |
| Layer thickness of external coating µm 320 total | ✓ | | |
| Visual Check Internal Equipment Baseframe RAL 7035 | ✓ | | |
| | | | |
| | | | |

**Comments:**

** Touch-up and cleaning are required before proceeding with packaging*

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

Mod1.4.2

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

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

LOCATION : ON SITE ☒ OFF SITE ☐

DATE OF TEST: 24/07/2024

REFERENCE DRAWING:

REFERENCE DOCUMENT: ECA-00-ELE-DEB- 0001 Rev.7 Electrical Design Criteria

| Inspection List | YES | NO | N.A. |
|---|---|---|---|
| | | | |
| Functional Test of Doors : | | | |
| | | | |
| Opening/Closing doors, doors locking | ✓ | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**Comments:**

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

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

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

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 24/07/2024

REFERENCE DRAWING:

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

REFERENCE DOCUMENT:

- 1724000049-HV-PID-00039 - B-100 PID - E&I SHELTERS
- 1724000049-HV-LIS-00047 - B-100 HVAC COMPONENTS LIST AND DS - E&I SHELTERS
- 1724000049-HV-RE-00055 - HVAC SYST DESCRIPTION (MANAGEMENT LOGICS) - E&I SHELTERS
- 1724000049-QC-PRO-00056 (FAT Procedure)
- ECA-00-ELE-DEB-0001 Rev.7 Electrical Design Criteria

| Inspection List | YES | NO | N.A. |
|---|---|---|---|
| **Functional Test of Electrical System** | | | |
| - Check of Lighting System, Control Panel, and socket/switch. | | | X |
| - Cable tag and wiring | | | X |
| - Cable tray and conduit installation | | | X |
| - Grounding System Installation | | | X |
| | | | |
| **Functional Test of Grounding System** | | | |
| - Check the functionality of Grounding System (less than 200 mΩ) | | | X |
| | | | |

**Comments:**

The items listed above are marked as N.A. because FAT activities have not been conducted. The HVAC system supply and installation were not completed by the specified date, making it impossible to perform all the functional tests outlined in the table.

Mod1.4.6

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

At this stage, checking the lighting system was not possible, as this activity must be performed only after the lights are installed at the correct height.
However, the following preliminary checks have been completed:

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

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

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

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 25/07/2024

REFERENCE DRAWING:

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

REFERENCE DOCUMENT:

- 1724000049-HV-PID-00039 - B-100 PID - E&I SHELTERS
- 1724000049-HV-CA-00035 - B-100 HVAC CALCULATION REPORT (Incl HVAC SYS CALC and HEAT DISSIPATION CALC) - E&I SHELTERS
- 1724000049-HV-LIS-00047 - B-100 HVAC COMPONENTS LIST AND DS - E&I SHELTERS
- 1724000049-HV-RE-00055 - HVAC SYST DESCRIPTION (MANAGEMENT LOGICS) - E&I SHELTERS
- 1724000049-QC-PRO-00056 (FAT Procedure)
- ECA-00-ELE-DEB-0001 Rev.7 Electrical Design Criteria

| Inspection List | PASS | FAIL | N.A. | value |
|---|---|---|---|---|
| Functional & performance Test of A/C System (HVAC Test): | | | | |
| • Visual and correct installation of HVAC fans. | | | X | |
| • Functional check of fans. | X | | | |
| • Check the functionality and performance of A/C System | | | X | |
| | | | | |

| Doc. Name: CHECK AND FUNCTIONAL TEST OF HVAC SYSTEM | | Report No.05 Mod 1.4.7 |
|---|---|---|
| OUR JOB X176-24X | Date 25/07/2024 | Page 1/1 |

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

| | | | | |
|---|---|---|---|---|
| | | | | |

**Comments:**

Some items listed above are marked as N.A. because FAT activities have not been conducted. The HVAC system supply and installation were not completed by the specified date, making it impossible to perform all the functional tests outlined in the table. However, the following preliminary checks have been completed:

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

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

# B-200 – ATTACH. 1

ALEXSISTEMI spa

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV = ISO 9001 =

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

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

LOCATION : ON SITE ☒ OFF SITE ☐

DATE OF TEST: 24/07/2024

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

REFERENCE DOCUMENT: ISO 17637 / EEMUA 158

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

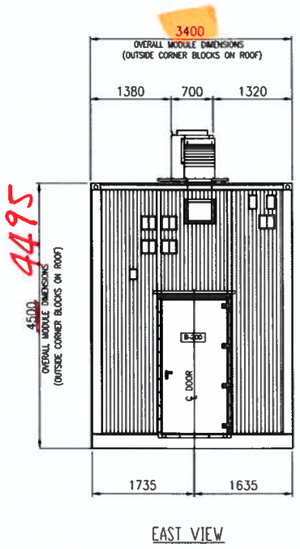
**Comments:**

DWG attached.

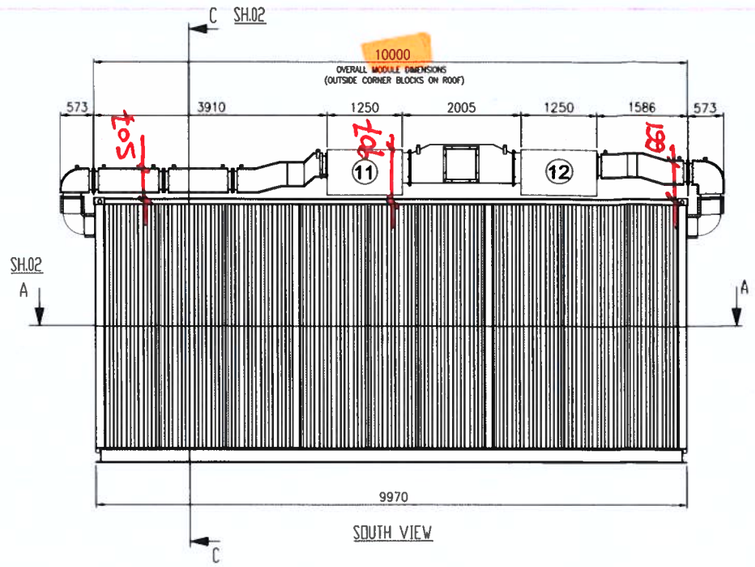
| ALEX SISTEMI *Quality Assurance* | Customer | Final Customer | 3rd Part | other |
|---|---|---|---|---|
| ALEXSISTEMI spa | COICEA CATALIN ROSETTI MARINO (XV) | CROSSWIND W | | |

Mod.P13.1

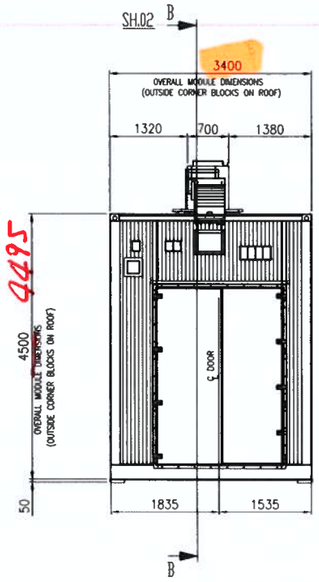
DRAWING NO: 1724000049-AR-DA-00015 REV. 02



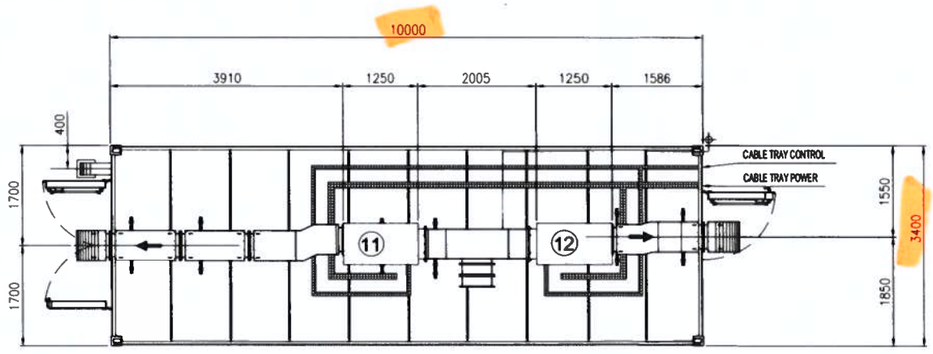

EAST VIEW




SOUTH VIEW




WEST VIEW



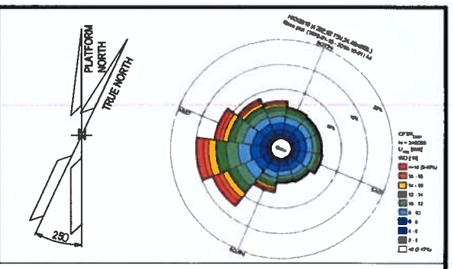

TOP VIEW

## 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

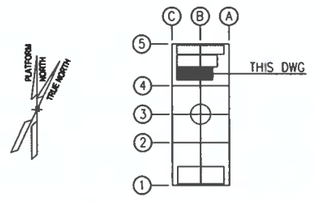
| DOCUMENT TITLE | DOCUMENT NUMBER |
|---|---|
| "B-200" HVAC SYSTEM G.A. & DETAILS | 1724000049-HV-DA-00065 |
| "B-200" DETAILED DRAWING | 1724000049-AR-DD-00019 |
| PAINTING PROCEDURE | 1724000049-MAT-PRO-00005 |

## 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) |

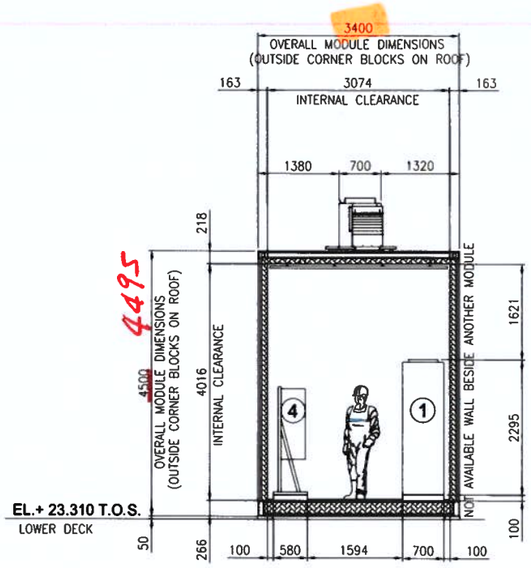
CROSSWIND | ROSETTI MARINO

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

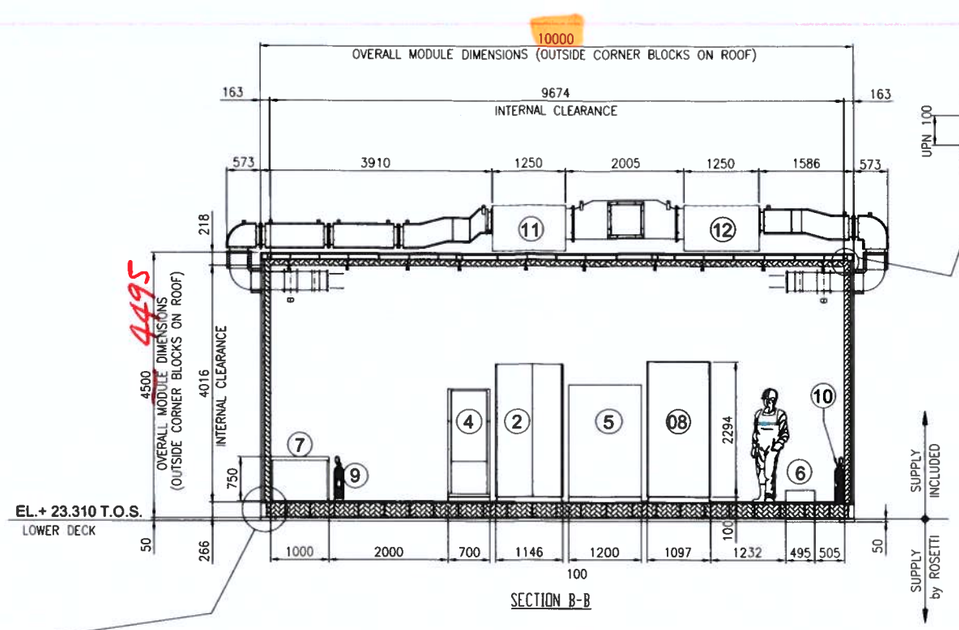
| | | | |
|---|---|---|---|
| CONTRACT NO./TITLE CONTRACT_NO. 1724000049 | | | SCALE 1:50 |
| DRAWN M.G. | CHECKED SKV | APPROVED C.A. | DATE 28/06/24 |
| A1 | DRAWING NO. 1724000049-AR-DA-00015 | SHEET 001 | REV. 02 |

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

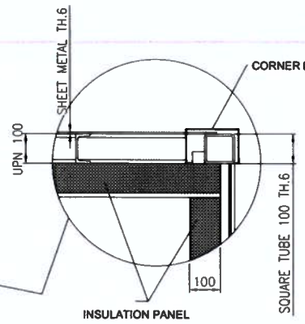
DRAWING NO. 1724000049-AR-DA-00015 REV. 02

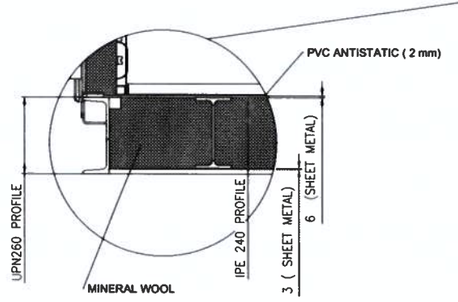


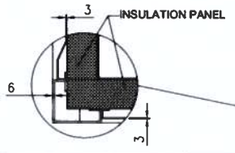

SECTION C-C

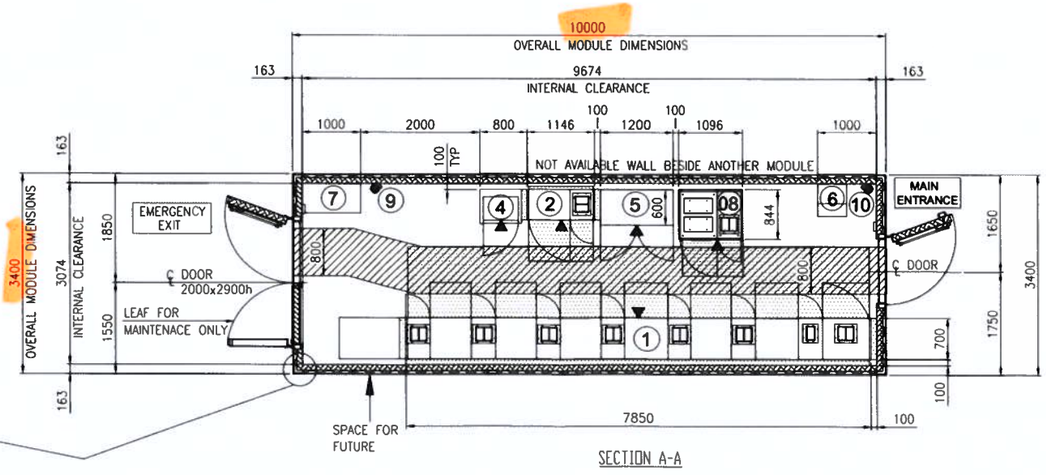



SECTION B-B




SECTION A-A

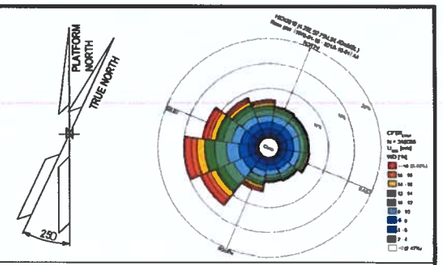
## EQUIPMENT LIST

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

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

MASTER COPY
INTERNAL TEST

02




## NOTE

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

## REFERENCE

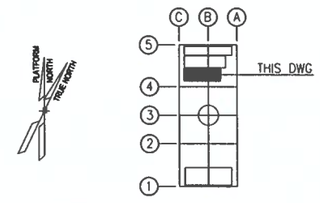
| DOCUMENT TITLE | DOCUMENT NUMBER |
|---|---|
| | |
| "B-200" HVAC SYSTEM G.A. & DETAILS | 1724000049-HV-DA-00065 |
| "B-200" DETAILED DRAWING | 1724000049-AR-DD-00019 |
| PAINTING PROCEDURE | 1724000049-MAT-PRO-00005 |

## LEGEND

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

## HOLDS

## KEY PLAN




ALEXSISTEMI

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

CROSSWIND

ROSETTI MARINO

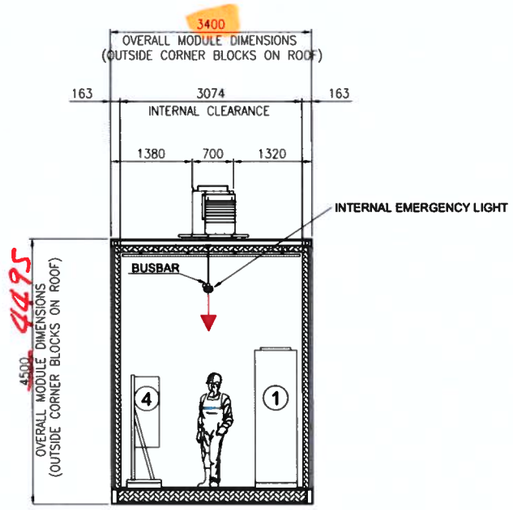
TITLE : BASE LOAD POWER HUB (BLPH)
B-200 GENERAL ARRANGEMENT DRAWINGS

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

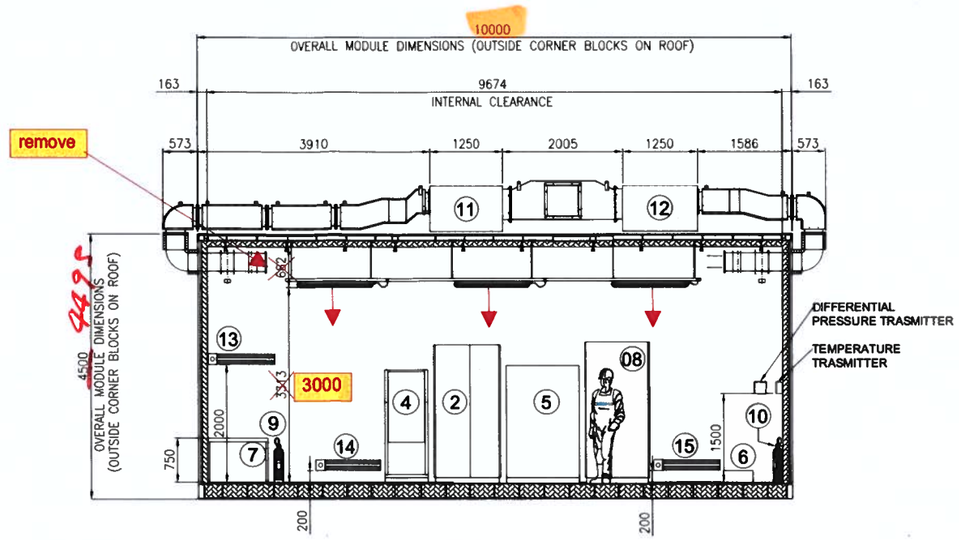
File Name : 1724000049-AR-DA-00015-REV.02

DRAWING NO. 1724000049-AR-DA-00015

REV. 02




SECTION E-E



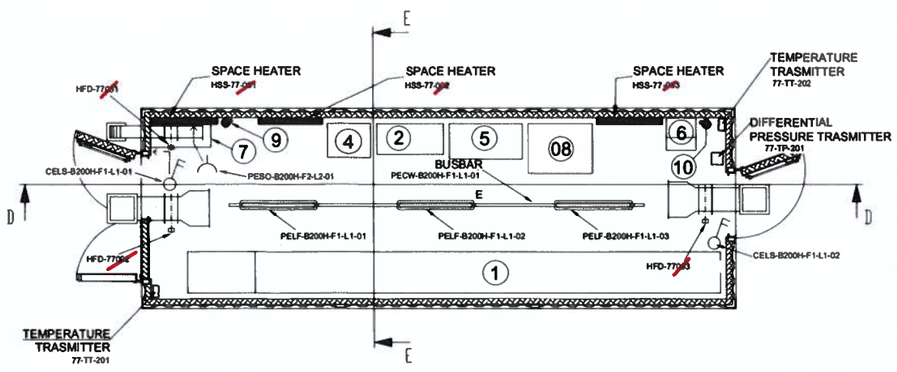

SECTION D-D

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 |



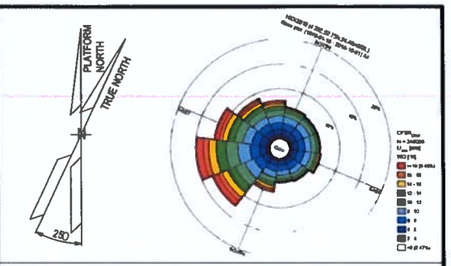

## EQUIPMENT LIST

| 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.)

02




## NOTE

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

## REFERENCE

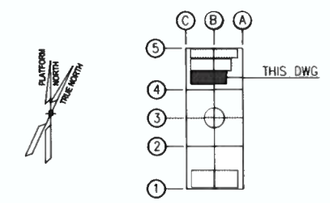
| DOCUMENT TITLE | DOCUMENT NUMBER |
|---|---|
| | |
| "B-200" HVAC SYSTEM G.A. & DETAILS | 1724000049-HV-DA-00065 |
| "B-200" DETAILED DRAWING | 1724000049-AR-DD-00019 |
| PAINTING PROCEDURE | 1724000049-MAT-PRO-00005 |

## LEGEND

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

## HOLDS

## KEY PLAN




ALEXSISTEMI s.r.l.

Next revision: 03 Accepted For Construction (AFC)

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

CROSSWIND | ROSETTI MARINO

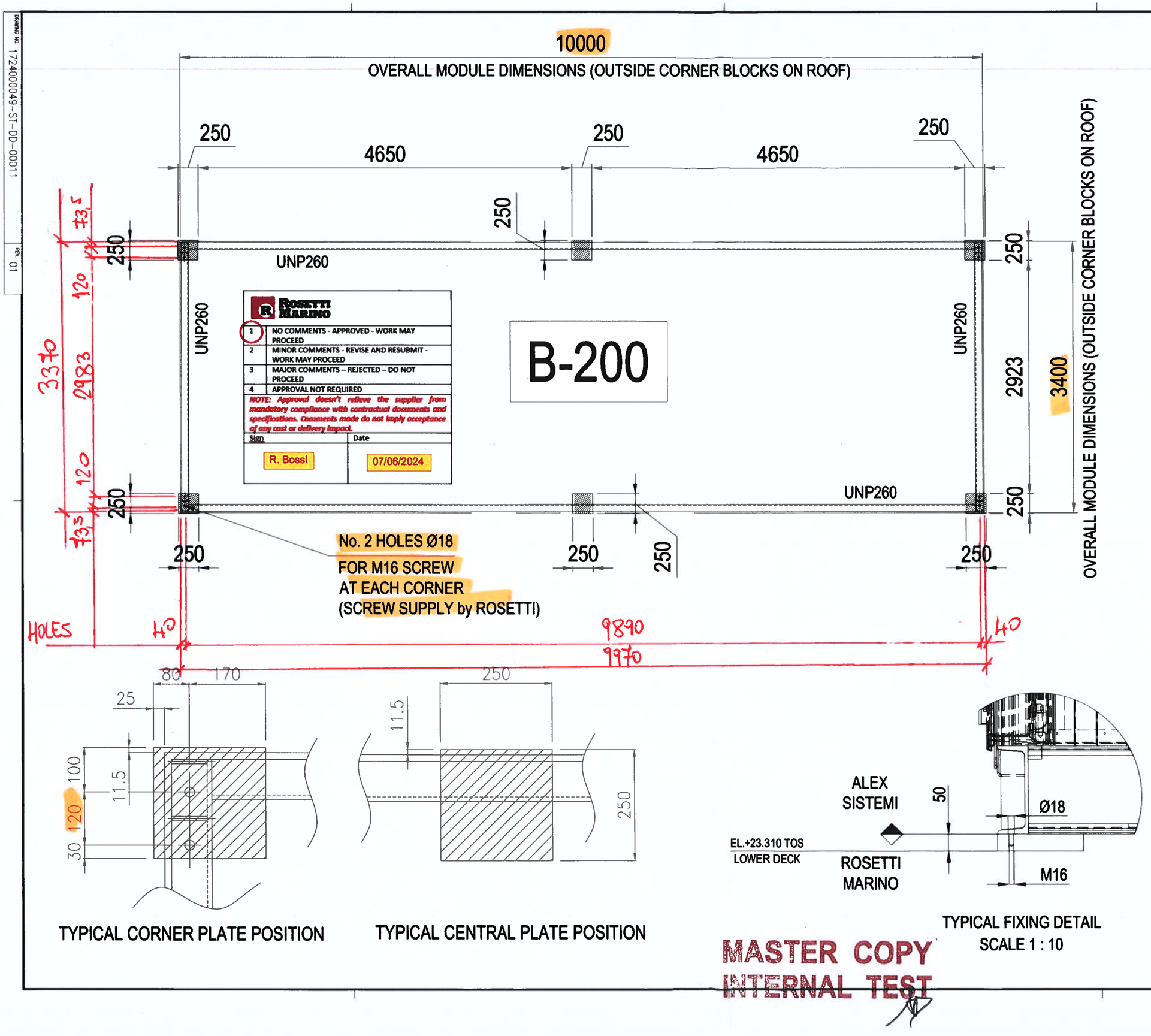
TITLE : BASE LOAD POWER HUB (BLPH)
B-200 GENERAL ARRANGEMENT DRAWINGS

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

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

MASTER COPY
INTERNAL TEST

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



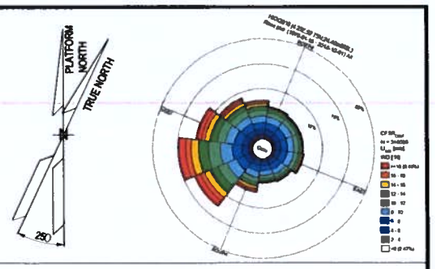

ROSETTI MARINO

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

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

| Sign | Date |
|---|---|
| R. Bossi | 07/06/2024 |

# B-200




**NOTE**

1) ALL DIMENSIONS ARE IM MM.

**REFERENCE**

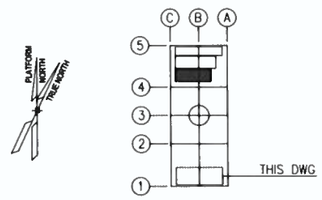
| DOCUMENT TITLE | DOCUMENT NUMBER |
|---|---|
| B-200 STRUCTURAL CALCULATION - E&I SHELTERS | 1724000049-ST-CA-00007 |

**LEGEND**

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

**HOLDS**

**KEY PLAN**




ALEXSISTEMI s.p.a.

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 01 | 03/06/24 | M.G. | M.R. | O.A. | APPROVED FOR CONSTRUCTION (AFC) |
| 00 | 16/04/24 | M.G. | M.R. | O.A. | ISSUE FOR CLIENT REVIEW (ICR) |

CROSSWIND | ROSETTI MARINO

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

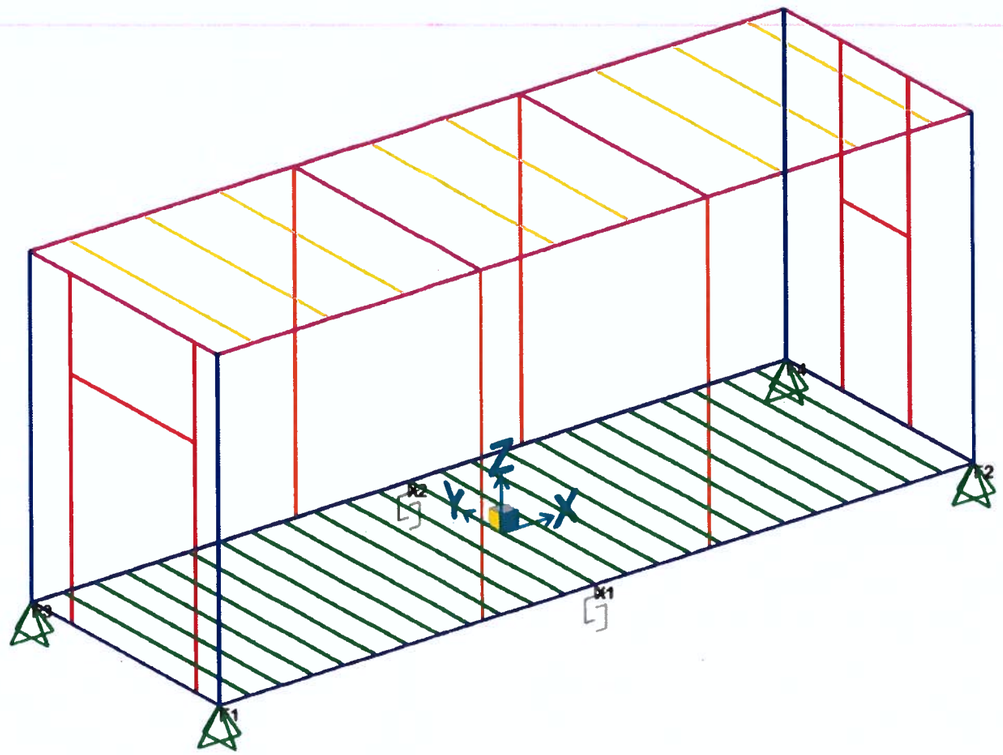
| | | | |
|---|---|---|---|
| CONTRACT NO./TITLE CONTRACT_NO. 1724000049 | | | SCALE N.A. |
| DRAWN M.G. | CHECKED M.R. | APPROVED O.A. | DATE 03/06/24 |
| A1 | DRAWING NO. 1724000049-ST-DD-00011 | SHEET 001/002 | REV. 01 |

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

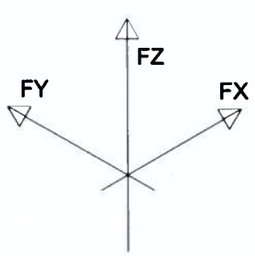
MASTER COPY
INTERNAL TEST

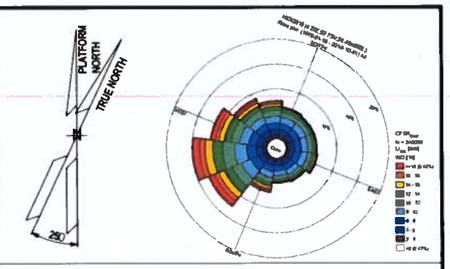
DRAWING NO 1724000049-ST-DD-00011 REV. 01

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






## NOTE

1) ALL DIMENSIONS ARE IM MM.

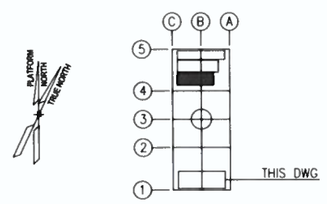
## REFERENCE

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

## LEGEND

## HOLDS

## KEY PLAN




ALEXSISTEMI S.p.A.

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 01 | 03/06/24 | M.G. | M.R. | O.A. | APPROVED FOR CONSTRUCTION (AFC) |
| 00 | 16/04/24 | M.G. | M.R. | O.A. | ISSUE FOR CLIENT REVIEW (ICR) |

CROSSWIND — ROSETTI MARINO

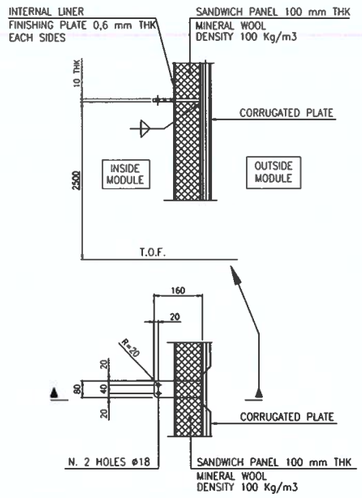
TITLE : B-200 FOUNDATION DRAWING - E&I SHELTERS

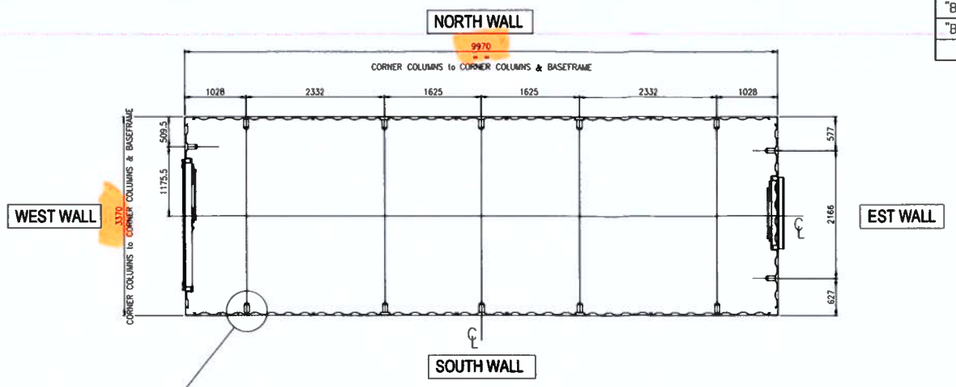
| | | | |
|---|---|---|---|
| CONTRACT NO./TITLE CONTRACT_NO. 1724000049 | | | SCALE N.A. |
| DRAWN M.G. | CHECKED M.R. | APPROVED O.A. | DATE 03/06/24 |
| A1 | DRAWING NO. 1724000049-ST-DD-00011 | SHEET 002/002 | REV. 01 |

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

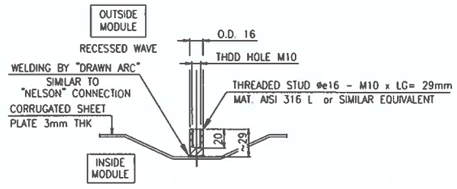
MASTER COPY
INTERNAL TEST

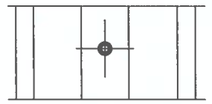
DRAWING NO. 1724000049-AR-DD-00019 REV. 02



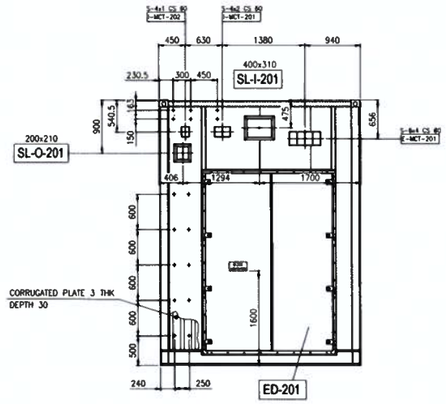




## MODULE B-200
### INTERNAL SEA FASTENING PLATES PLAN

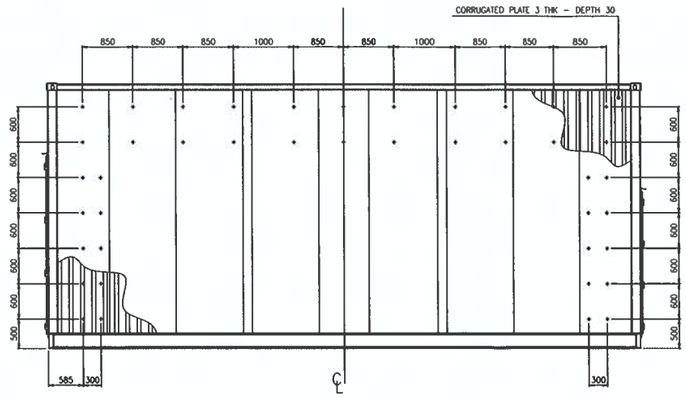


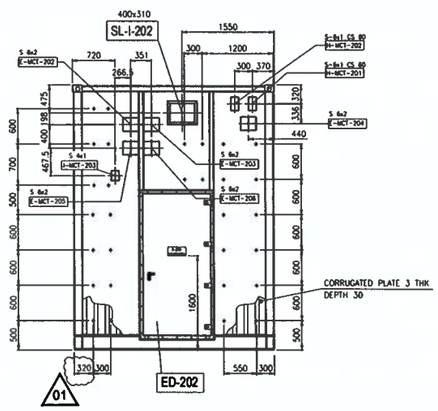
THREADED STUD INSTALLATION



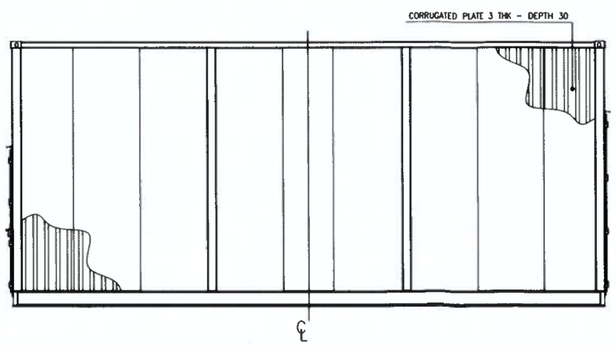

VIEW OF WEST WALL




VIEW OF NORTH WALL



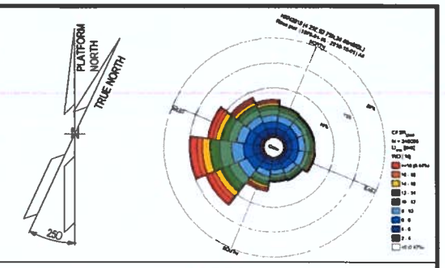

VIEW OF EAST WALL




VIEW OF SOUTH WALL

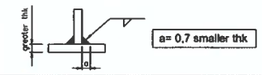
MASTER COPY
INTERNAL TEST

| 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

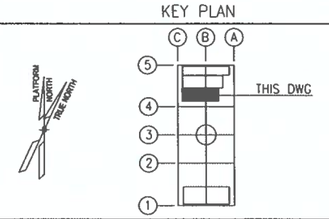
THREADED STUD ø16 - M10 x LG= 29mm
T.O.F. TOP OF FLOOR

MCT LEGEND:
MCT TYPE & SIZE / BRAND ROXTEC — MATERIAL: C.S.= PRIMED MILD STEEL, S.S.= AISI 316 L — MCT DEPTH
S 6x2 C.S. 60 — E-MCT-201
MCT SERVICE: E= ELECTRICAL, I= INSTRUMENTAL, H= HVAC
PROGRESSIVE NUMBER FROM 01
MODULE LOCATION: 1= B-100, 2= B-200, 3= B-300, 4= B-400

HVAC SLEEVE LEGEND:
300x300 — INTERNAL SIZE OF DUCT L x H (mm)
SL-I-201
PROGRESSIVE NUMBER FROM 01
SERVICE: I= AIR IN, R= RECYCLE, O= OVERPRESSURE
MODULE LOCATION: 1= B-100, 2= B-200, 3= B-300, 4= B-400

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

KEY PLAN




### MCT LIST

| SERVICE | TAG No. | MCT DIMENSIONS and INSTALLATION SENSE L (mm) HORIZONTAL | H (mm) VERTICAL | W (mm) DEPTH | MCT SIZE TYPE "S" FRAME Primed Mild Steel BRAND: ROXTEC | MCT SIZE TYPE "S" FRAME AISI 316 L BRAND: ROXTEC |
|---|---|---|---|---|---|---|
| ELECTRICAL | E-MCT-201 | 532 | 238 | 60 | 6x4 | |
| | E-MCT-202 | 271 | 238 | 60 | | 6x2 |
| | E-MCT-203 | 271 | 238 | 60 | | 6x2 |
| | E-MCT-204 | 271 | 238 | 60 | 6x2 | |
| | E-MCT-205 | 271 | 238 | 60 | | 6x2 |
| | E-MCT-206 | 271 | 238 | 60 | | 6x2 |
| INSTRUMENTAL | I-MCT-201 | 271 | 179.5 | 60 | 4x2 | |
| | I-MCT-202 | 140.5 | 179.5 | 60 | 4x1 | |
| | I-MCT-203 | 140.5 | 179.5 | 60 | 4x1 | |
| HVAC | H-MCT-201 | 140.5 | 238 | 60 | 6x1 | |
| | H-MCT-202 | 140.5 | 238 | 60 | 6x1 | |

ALEXSISTEMI

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 02 | 11/07/24 | M.G. | O.A. | C.A. | ISSUE FOR REVIEW (IFR) |
| 01 | 08/07/24 | M.G. | O.A. | C.A. | ISSUE FOR REVIEW (IFR) |
| 00 | 23/05/24 | M.G. | O.A. | C.A. | ISSUE FOR CLIENT REVIEW (ICR) |

CROSSWIND — ROSETTI MARINO

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

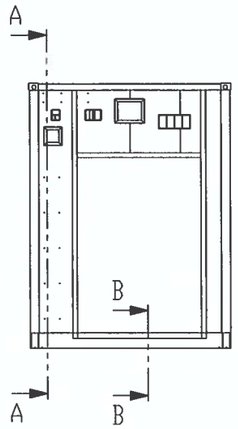
CONTRACT NO./TITLE CONTRACT_NO. 1724000049 — SCALE 1:50
DRAWN M.G. — CHECKED O.A. — APPROVED C.A. — DATE 11/07/24
A1 — DRAWING NO. 1724000049-AR-DD-00019 — SHEET 002 — REV. 02

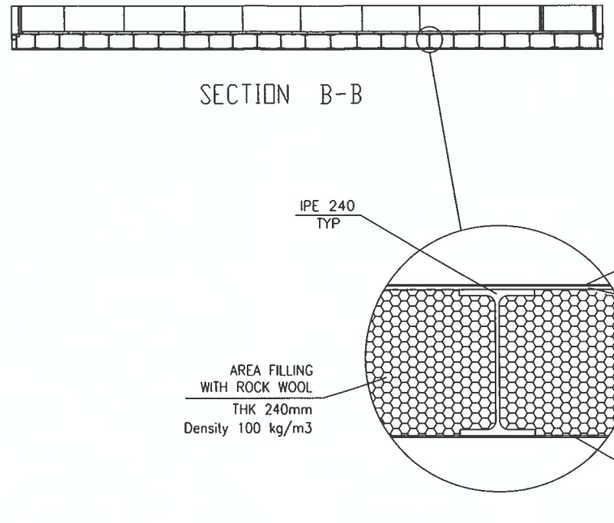
File Name : 1724000049-AR-DD-00019-REV.02

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

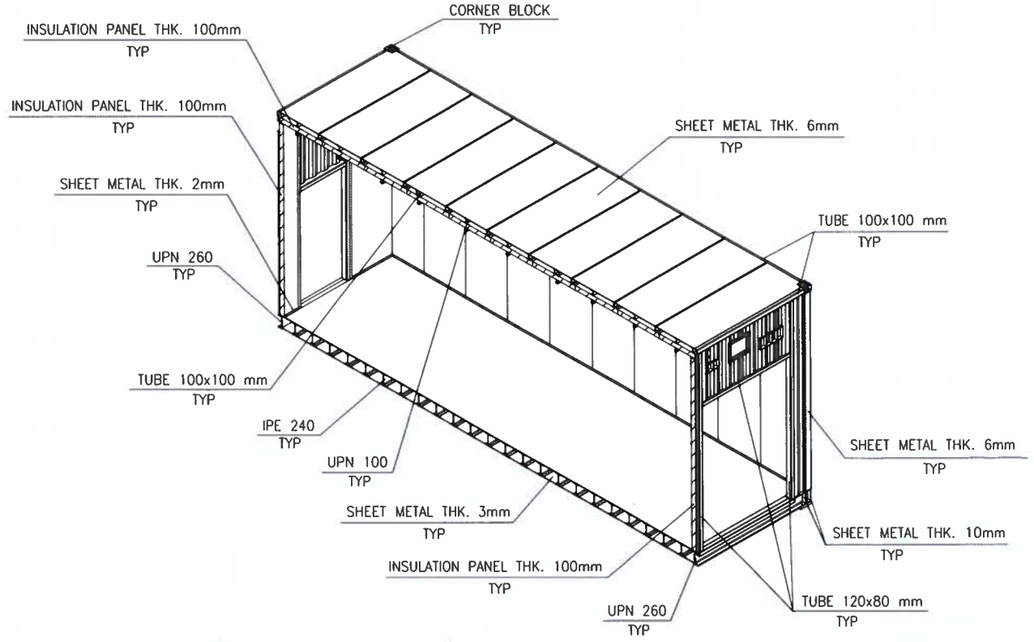
# MODULE B-200

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



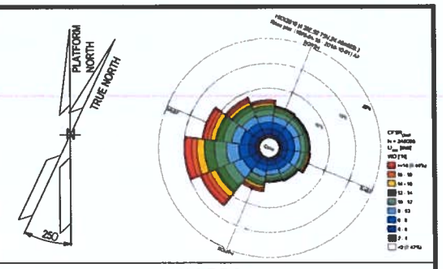




DETAIL "C"



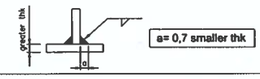

SECTION A-A

MASTER COPY
INTERNAL TEST




## NOTES

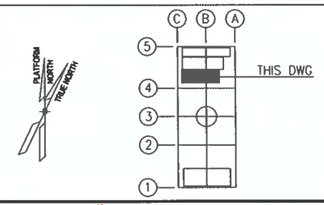
1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.
2. ALL WELDINGS SYMBOLS ARE IN ACCORDANCE WITH A.W.S. CODE D.1.1
3. UNLESS OTHERWISE INDICATED FILLET WELDS SHALL HAVE FOLLOWING DIM.:




## LEGEND

## HOLDS

## KEY PLAN




ALEXSISTEMI

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 02 | 11/07/24 | M.G. | O.A. | C.A. | ISSUE FOR REVIEW (IFR) |
| 01 | 08/07/24 | M.G. | O.A. | C.A. | ISSUE FOR REVIEW (IFR) |
| 00 | 23/05/24 | M.G. | O.A. | C.A. | ISSUE FOR CLIENT REVIEW (ICR) |

CROSSWIND | ROSETTI MARINO

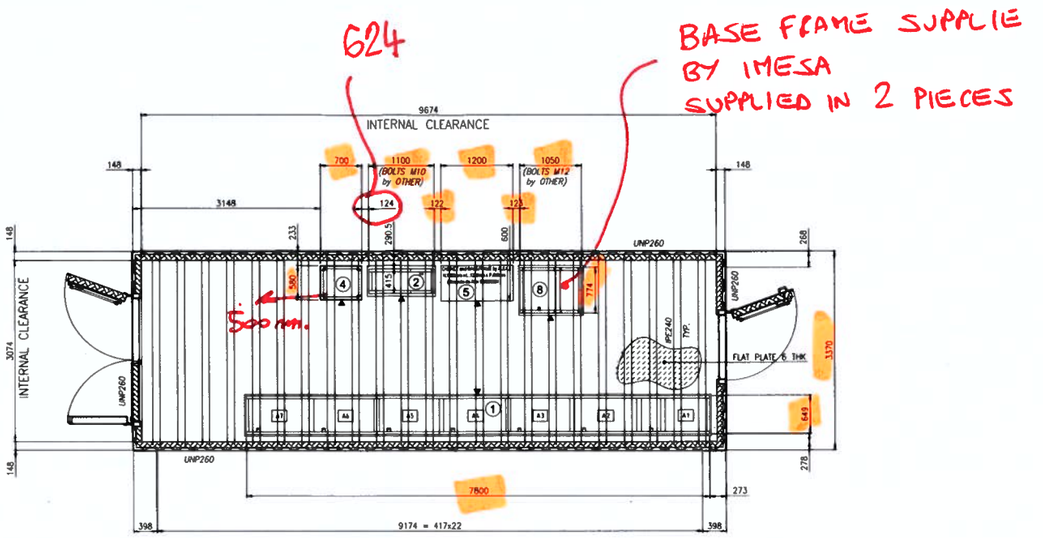
TITLE :
B-200 DETAILED DRAWINGS-E&I SHELTERS

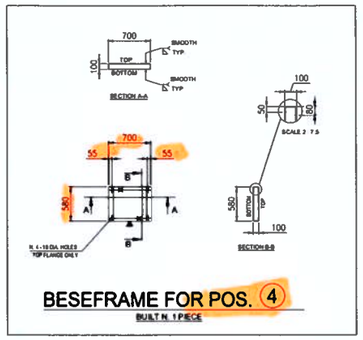
| CONTRACT NO./TITLE CONTRACT_NO. 1724000049 | | | SCALE 1:50 |
|---|---|---|---|
| DRAWN M.G. | CHECKED O.A. | APPROVED C.A. | DATE 11/07/24 |
| A1 | DRAWING NO. 1724000049-AR-DD-00019 | SHEET 001 | REV. 02 |

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

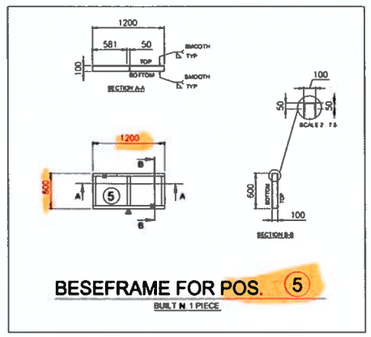
DRAWING NO. 1724000049-AR-DD-00019 REV. 02

# B-200
# I&T EQUIPMENT ROOM
# BASEFRAME LOCATION PLAN

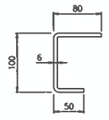


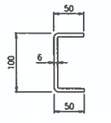

BESEFRAME FOR POS. 4
BUILT N. 1 PIECE



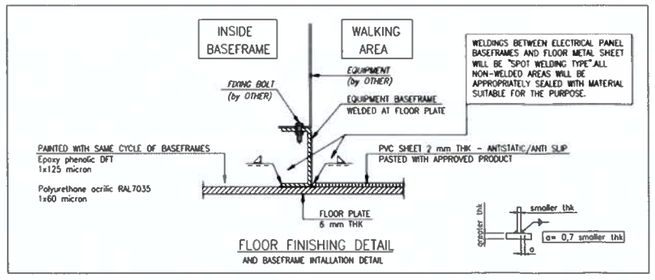

BESEFRAME FOR POS. 5
BUILT N. 1 PIECE



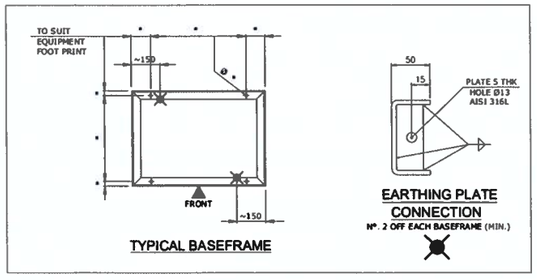

C 100x80x50 THK 6mm.
FROM BENT PLATE THK 6mm.
MAT. CARBON STEEL




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




FLOOR FINISHING DETAIL
AND BASEFRAME INTALLATION DETAIL

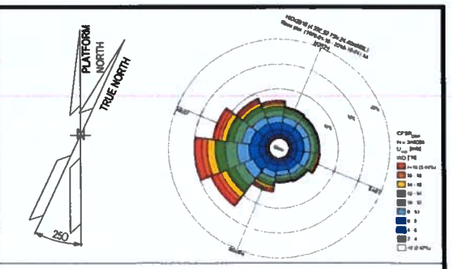



TYPICAL BASEFRAME

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

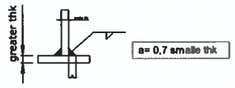
| EQUIPMENT LIST | | | | | | | |
|---|---|---|---|---|---|---|---|
| REF. | TAG No. | DESCRIPTION | LENGTH (mm) | WIDTH (mm) | HEIGHT (mm) | WEIGHT (Kg) | SCOPE |
| 1 | SG-200N1 | 400V SWITCHGEAR | 7850 | 700 | 2331 | 4900 | ROSETTI MARINO |
| 2 | DP-200N1 | DISTRIBUTION BOARD FOR LIGHTING AND SMALL 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 |

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".

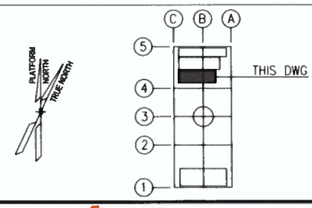



6. SURFACE TREATMENT ACCORDING DOCUMENT N. 1724000049-MAT-PRO-00004 - PAINTING PROCEDURE FINAL COLOUR LIGHT GREY RAL 7035.

## LEGEND

ASI = ALEX SISTEMI

KEY PLAN




ALEXSISTEMI S.r.l.

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 02 | 11/07/24 | M.G. | O.A. | C.A. | ISSUE FOR REVIEW (IFR) |
| 01 | 08/07/24 | M.G. | O.A. | C.A. | ISSUE FOR REVIEW (IFR) |
| 00 | 23/05/24 | M.G. | O.A. | C.A. | ISSUE FOR CLIENT REVIEW (ICR) |

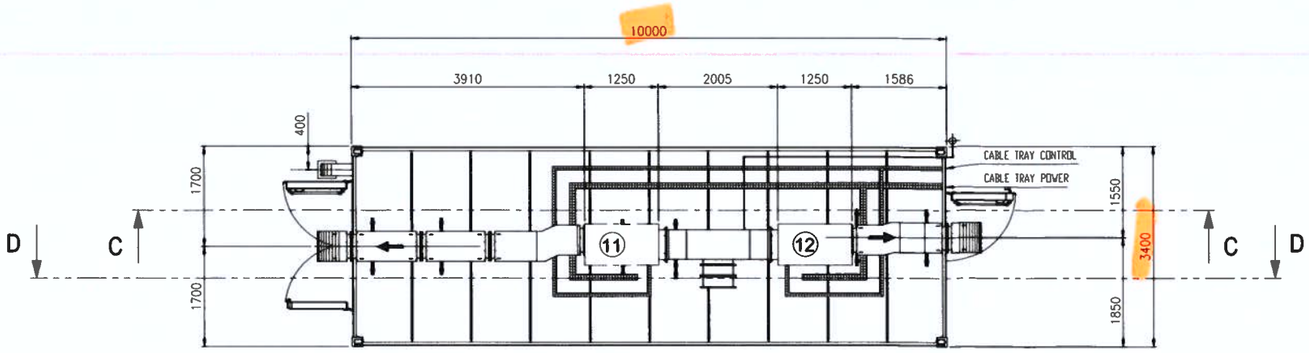
CROSSWIND — ROSETTI MARINO

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

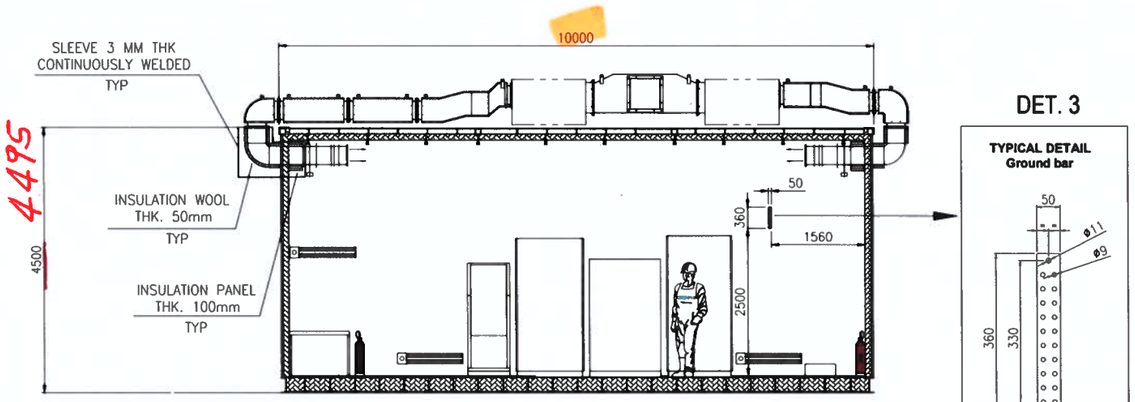
| | | | |
|---|---|---|---|
| CONTRACT NO./TITLE CONTRACT_NO. 1724000049 | | | SCALE 1:50 |
| DRAWN M.G. | CHECKED O.A. | APPROVED C.A. | DATE 11/07/24 |
| A1 | DRAWING NO. 1724000049-AR-DD-00019 | | SHEET 003 / REV. 02 |

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

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




TOP VIEW

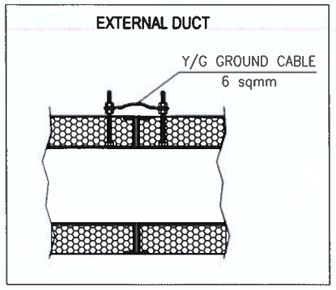



SECTION C-C

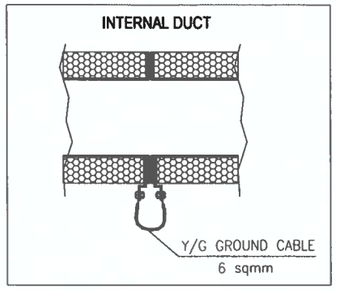
DET. 3



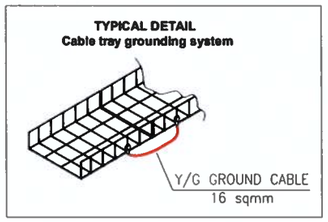

DET. 1



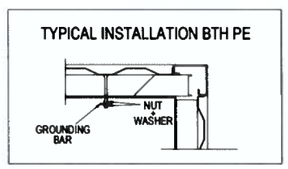

DET. 2



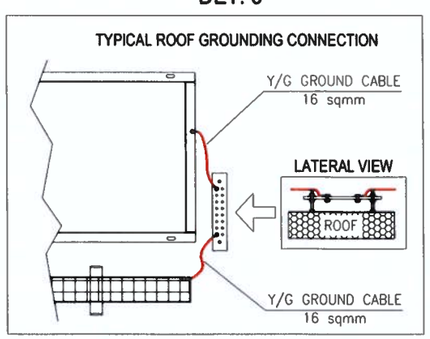

DET. 4



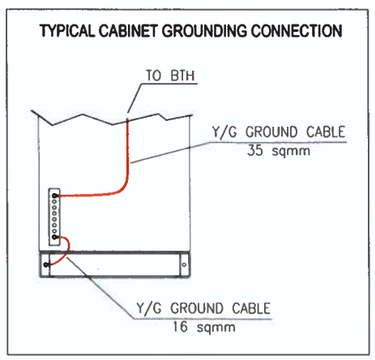

DET. 5

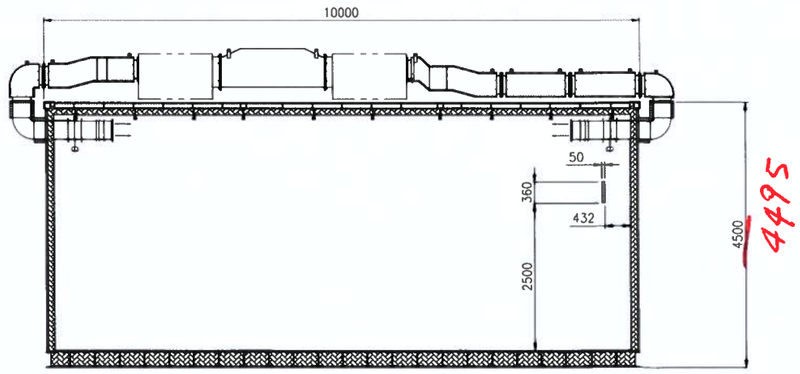



DET. 6

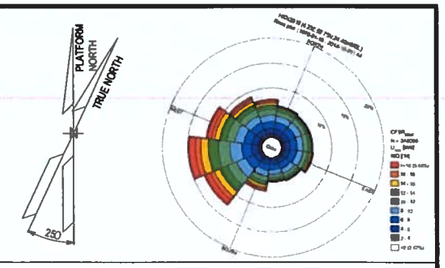



DET. 7




SECTION D-D

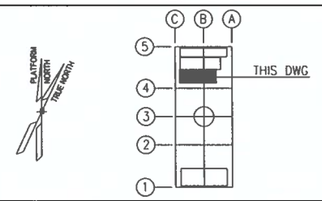



NOTES

1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.

LEGEND

KEY PLAN




ALEXSISTEMI

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 02 | 11/07/24 | M.G. | O.A. | C.A. | ISSUE FOR REVIEW (IFR) |
| 01 | 08/07/24 | M.G. | O.A. | C.A. | ISSUE FOR REVIEW (IFR) |
| 00 | 23/05/24 | M.G. | O.A. | C.A. | ISSUE FOR CLIENT REVIEW (ICR) |

CROSSWIND | ROSETTI MARINO

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

| | | | |
|---|---|---|---|
| CONTRACT NO./TITLE CONTRACT_NO. 1724000049 | | | SCALE 1:50 |
| DRAWN M.G. | CHECKED O.A. | APPROVED C.A. | DATE 11/07/24 |
| A1 | DRAWING NO. 1724000049-AR-DD-00019 | SHEET 004 | REV. 02 |

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

# B-200 – ATTACH. 2

| Doc. Name: CHECK AND FUNCTIONAL TEST | | Report No.02 |
|---|---|---|
| OUR JOB X176-24X | Date 24/07/2024 | Page 1 |

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

LOCATION : ON SITE ☒ OFF SITE ☐

DATE OF TEST: 24/07/2024

REFERENCE DRAWING:

REFERENCE DOCUMENT: ECA-00-ELE-DEB- 0001 Rev.7 Electrical Design Criteria

| Inspection List | YES | NO | N.A. |
|---|---|---|---|
| | | | |
| Functional Test of Doors : | | | |
| | | | |
| Opening/Closing doors, doors locking | ✓ | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**Comments:**

| ALEX SISTEMI *Quality Assurance* | Customer | Final Customer | 3rd Part | other |
|---|---|---|---|---|
| ALEXSISTEMI spa | COICEA CATALIN LD ROSETTI MARINO (X) | | | |

| Doc. Name: PAINTING CHECK | | Report No.02 Mod 1.4.2 |
|---|---|---|
| OUR JOB X176-24X | Date 24/07/2024 | Page 1/1 |

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

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 24/07/2024

REFERENCE DRAWING:

REFERENCE DOCUMENT: 1724000049-MAT-PRO-00004

| Inspection List | YES | NO | N.A. |
|---|---|---|---|
| | | | |
| **1 Verification of paint and color code according to design specification** | | | |
| | | | |
| Visual Check External Color walls, roof, base frame RAL 7035 | ✓ | | |
| Visual Check External Color doors RAL 7035 | ✓ | | |
| Layer thickness of external coating µm 320 total | ✓ | | |
| Visual Check Internal Equipment Baseframe RAL 7035 | ✓ | | |
| | | | |
| | | | |

**Comments:**

** Touch-up and cleaning are required before proceeding with packaging*

| ALEX SISTEMI *Quality Assurance* | Customer | Final Customer | 3rd Part | other |
|---|---|---|---|---|
| ALEXSISTEMI spa | COICEA CATALIN<br>ROSETTI MARINO<br>(X) | CROSSWIND | | |

Mod1.4.2

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

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 24/07/2024

REFERENCE DRAWING:

- 1724000049-AR-DA-00015 - B-200 GENERAL ARRANGMENT DRAWINGS - E&I SHELTERS
- 1724000049-HV-DA-00065 - MODULE B-200 – HVAC SYSTEM–G.A. AND DETAILS
- 1724000049-HV-DA-00027 - B-200 HVAC and LIGHTING PANEL WIRING DRAWINGS and GENERAL ARRANGEMENT (INCL INTERCONNECTING) - E&I SHELTERS

REFERENCE DOCUMENT:

- 1724000049-HV-PID-00040 - B-200 PID - E&I SHELTERS
- 1724000049-HV-LIS-00048 - B-200 HVAC COMPONENTS LIST AND DS - E&I SHELTERS
- 1724000049-HV-RE-00055 - HVAC SYST DESCRIPTION (MANAGEMENT LOGICS) - E&I SHELTERS
- 1724000049-QC-PRO-00056 (FAT Procedure)
- ECA-00-ELE-DEB-0001 Rev.7 Electrical Design Criteria

| Inspection List | YES | NO | N.A. |
|---|---|---|---|
| **Functional Test of Electrical System** | | | |
| - Check of Lighting System, Control Panel, and socket/switch. | | | X |
| - Cable tag and wiring | | | X |
| - Cable tray and conduit installation | | | X |
| - Grounding System Installation | | | X |
| | | | |
| **Functional Test of Grounding System** | | | |
| - Check the functionality of Grounding System (less than 200 mΩ) | | | X |
| | | | |

**Comments:**

The items listed above are marked as N.A. because FAT activities have not been conducted. The HVAC system supply and installation were not completed by the specified date, making it impossible to perform all the functional tests outlined in the table.

Mod1.4.6

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

At this stage, checking the lighting system was not possible, as this activity must be performed only after the lights are installed at the correct height.
However, the following preliminary checks have been completed:

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

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

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

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 25/07/2024

REFERENCE DRAWING:

- 1724000049-AR-DA-00015 - B-200 GENERAL ARRANGMENT DRAWINGS - E&I SHELTERS
- 1724000049-HV-DA-00065 - MODULE B-200 – HVAC SYSTEM–G.A. AND DETAILS
- 1724000049-HV-DA-00027 - B-200 HVAC and LIGHTING PANEL WIRING DRAWINGS and GENERAL ARRANGEMENT (INCL INTERCONNECTING) - E&I SHELTERS

REFERENCE DOCUMENT:

- 1724000049-HV-PID-00040 - B-200 PID - E&I SHELTERS
- 1724000049-HV-CA-00036 - B-200 HVAC CALCULATION REPORT (Incl HVAC SYS CALC and HEAT DISSIPATION CALC) - E&I SHELTERS
- 1724000049-HV-LIS-00048 - B-200 HVAC COMPONENTS LIST AND DS - E&I SHELTERS
- 1724000049-HV-RE-00055 - HVAC SYST DESCRIPTION (MANAGEMENT LOGICS) - E&I SHELTERS
- 1724000049-QC-PRO-00056 (FAT Procedure)
- ECA-00-ELE-DEB-0001 Rev.7 Electrical Design Criteria

| Inspection List | PASS | FAIL | N.A. | value |
|---|---|---|---|---|
| Functional & performance Test of A/C System (HVAC Test): | | | | |
| • Visual and correct installation of HVAC fans. | | | X | |
| • Functional check of fans. | X | | | |
| • Check the functionality and performance of A/C System | | | X | |
| | | | | |

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

| | | | | |
|---|---|---|---|---|
| | | | | |

**Comments:**

Some items listed above are marked as N.A. because FAT activities have not been conducted. The HVAC system supply and installation were not completed by the specified date, making it impossible to perform all the functional tests outlined in the table. However, the following preliminary checks have been completed:

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

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

# B-300 – ATTACH. 1

ALEXSISTEMI spa

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV = ISO 9001 =

*Doc. Name:*
**Dimensional Check and Visual Inspection** *Report No.03*

| OUR JOB X176-24X | Date 26/07/2024 | Page 1 |
|---|---|---|

| | |
|---|---|
| **Customer:** Rosetti Marino | **Project:** BASE LOAD POWER HUB (BLPH) |
| **C/N:** CW-I-WPA-2023-05 | **Description:** AC UPS EQUIPMENT ROOM B-300 |
| **S/N: B300** | **FAT procedure:** 1724000049-QC-PRO-00056 |

LOCATION : ON SITE ☒ OFF SITE ☐

DATE OF TEST: 26/07/2024

REFERENCE DRAWING: 1724000049-AR-DA-00016 / 1724000049-ST-DD-00012 / 1724000049-AR-DD-00020

REFERENCE DOCUMENT: ISO 17637 / EEMUA 158

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

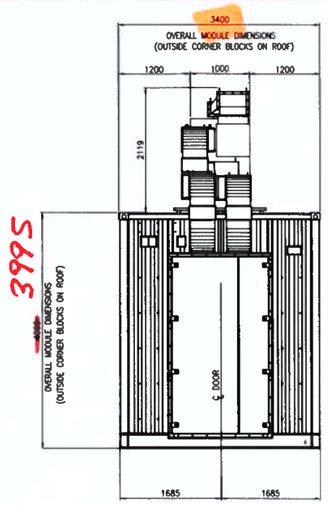
**Comments:**

DWG attached.

| ALEX SISTEMI *Quality Assurance* | Customer | Final Customer | 3rd Part | other |
|---|---|---|---|---|
| ALEXSISTEMI spa | COICEA CATALIN<br>ROSETTI MARINO<br>(1x) | x CROSSWIND | | |

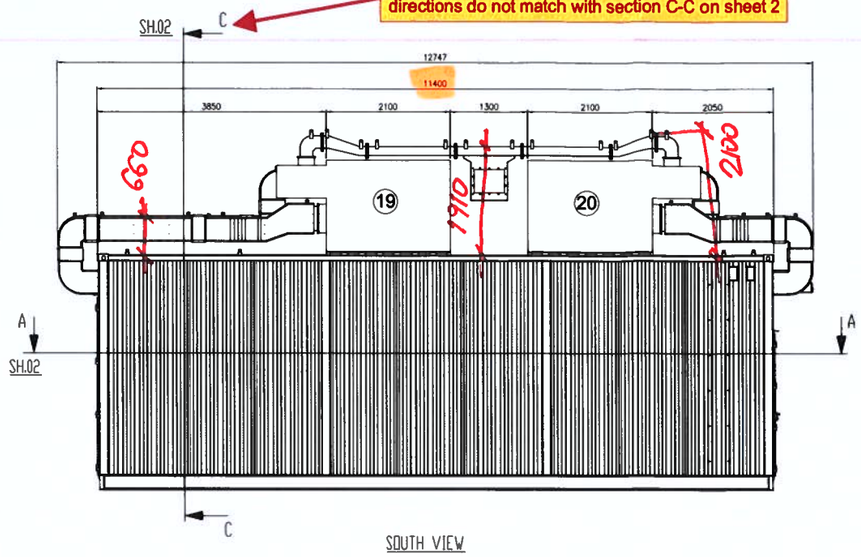
DRAWING NO. 1724000049-AR-DA-00016 REV. 02

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

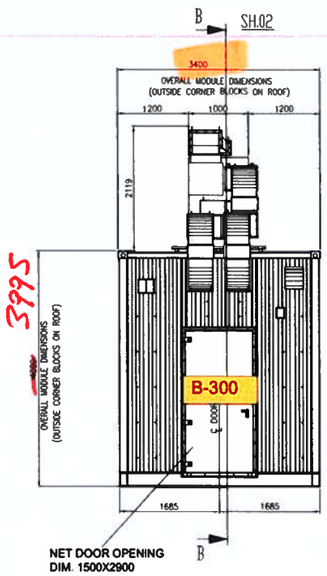



~~EAST VIEW~~

WEST VIEW

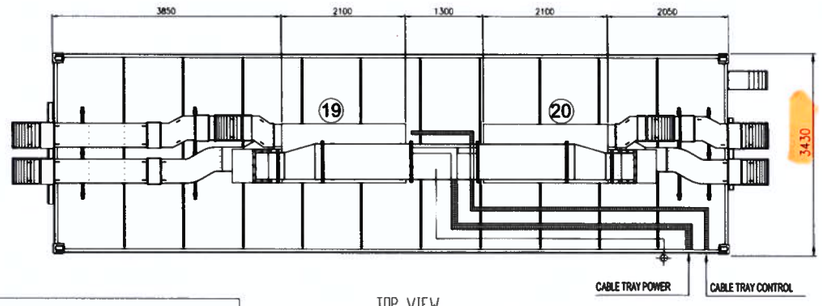



SOUTH VIEW




~~WEST VIEW~~

EAST VIEW




TOP VIEW

## EQUIPMENT LIST

| REF. | TAG No. | DESCRIPTION | LENGTH (mm) | WIDTH (mm) | HEIGHT (mm) | WEIGHT (Kg) |
|---|---|---|---|---|---|---|
| 1 | UP-200F3 | AC UPS 35kVA | 2400 | 860 | 1915 | 2258 |
| 2 | UP-200F4 | AC UPS 15kVA | 2400 | 860 | 1915 | 2258 |
| 3 | BA-200F3A | BATTERY RACK GEL VRLA 7y AC UPS 35kVA | 1050 | 725 | 1272 | 914 |
| 4 | BA-200F3B | BATTERY RACK GEL VRLA 7y AC UPS 35kVA | 1050 | 725 | 1272 | 914 |
| 5 | BA-200F4A | BATTERY RACK GEL VRLA 7y AC UPS 15kVA | 1890 | 725 | 1761 | 3429 |
| 6 | BA-200F4B | BATTERY RACK GEL VRLA 7y AC UPS 15kVA | 1890 | 725 | 1761 | 3429 |
| 7 | CB-200F3A | ISOLATOR BOX AC UPS 35kVA | 600 | 300 | 800 | 100 |
| 8 | CB-200F3B | ISOLATOR BOX AC UPS 35kVA | 600 | 300 | 800 | 100 |
| 9 | CB-200F4A | ISOLATOR BOX AC UPS 15kVA | 600 | 300 | 800 | 100 |
| 10 | CB-200F4B | ISOLATOR BOX AC UPS 15kVA | 600 | 300 | 800 | 100 |
| 11 | NC-200F2 | NAVAID PANEL | 1000 | 800 | 2600 | 535 |
| 12 | BA-200F2 | BATTERY BOX NAVAID | 958 | 993 | 1210 | 1552 |
| 13 | CB-200F2 | ISOLATOR BOX NAVAID | 500 | 400 | 765 | 70 |
| 14 | B300-HSB-001 | DISTRIBUTION & HVAC PANEL - AC/UPS ROOM | 1600 | 600 | 2300 | 500 |
| 15 | - | EYE WASH STATION | 228 | 80 | 290 | 5 |
| 16 | - | PORTABLE EXTINGUISHER (CO2) 5 Kg. | 150 | 150 | 750 | 20 |
| 17 | - | PORTABLE EXTINGUISHER (CO2) 5 Kg. | 150 | 150 | 750 | 20 |
| 18 | BC-200F2 | BATTERY CHARGER NAVAID | 607 | 607 | 2157 | 500 |
| 19 | HHU-77005 | AIR HANDLING UNIT A | 2100 | 1000 | 2158 | 850 |
| 20 | HHU-77006 | AIR HANDLING UNIT B | 2100 | 1000 | 2158 | 850 |
| 21 | HSS-77-001 | SPACE HEATER 1 | 184 | 145 | 1100 | 5 |
| 22 | HSS-77-002 | SPACE HEATER 2 | 184 | 145 | 1100 | 5 |
| 23 | HSS-77-003 | SPACE HEATER 3 | 184 | 145 | 1100 | 5 |

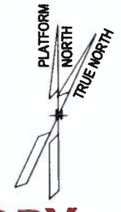
GENERAL REMARK:
Check line position and arrow directions for all sections (eg. sections B-B and D-D show same details)

ROSETTI MARINO

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

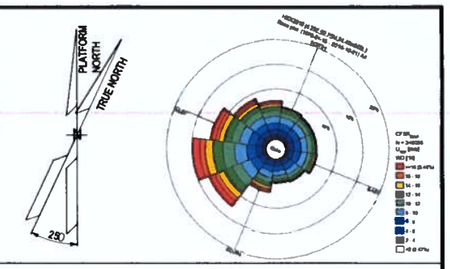
*NOTE: Approval doesn't relieve the supplier from mandatory compliance with contractual documents and specifications. Comments made do not imply acceptance of any cost or delivery impact.*

| Sign | Date |
|---|---|
| R. Bossi | 10/07/2024 |




MASTER COPY
INTERNAL TEST

02




## NOTE

1) ALL DIMENSIONS ARE IM MM.

## REFERENCE

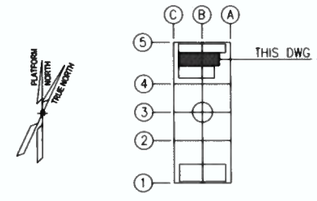
| DOCUMENT TITLE | DOCUMENT NUMBER |
|---|---|
| "B-300" HVAC SYSTEM G.A. & DETAILS | 1724000049-HV-DA-00066 |
| "B-300" DETAILED DRAWING | 1724000049-AR-DD-00020 |
| PAINTING PROCEDURE | 1724000049-MAT-PRO-00006 |

## LEGEND

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

## HOLDS

## KEY PLAN




ALEXSISTEMI spa

Next revision: 03 Accepted For Construction (AFC)

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 02 | 03/07/24 | M.G. | SKV | C.A. | ACCEPTED FOR CONSTRUCTION (AFC) |
| 01 | 16/05/24 | M.G. | SKV | C.A. | ISSUE FOR REVIEW (IFR) |
| 00 | 08/02/24 | A.G. | SKV | C.A. | ISSUE FOR CLIENT REVIEW (ICR) |

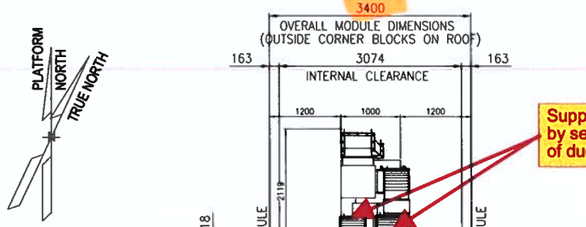
CROSSWIND | ROSETTI MARINO

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

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

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

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

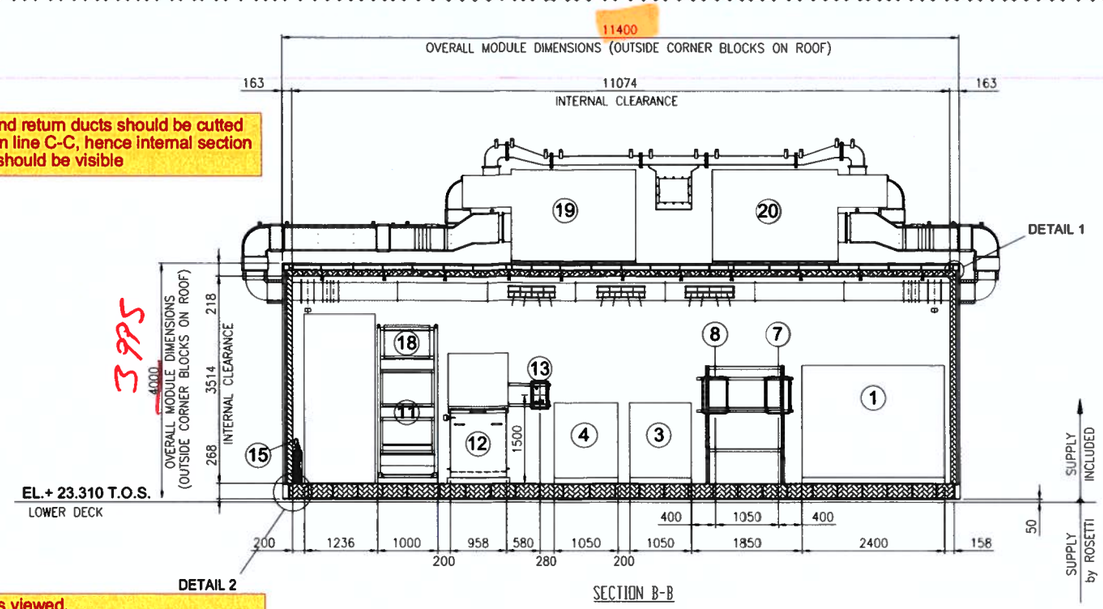


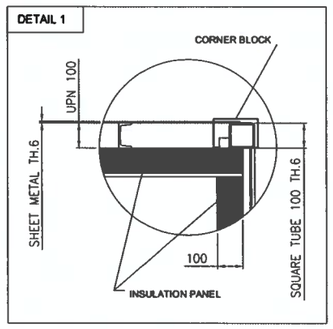


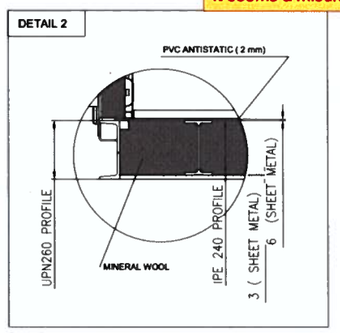


Supply and return ducts should be cutted by section line C-C, hence internal section of ducts should be visible

Revise Items viewed.
It seems a misdraw coming from section E-E

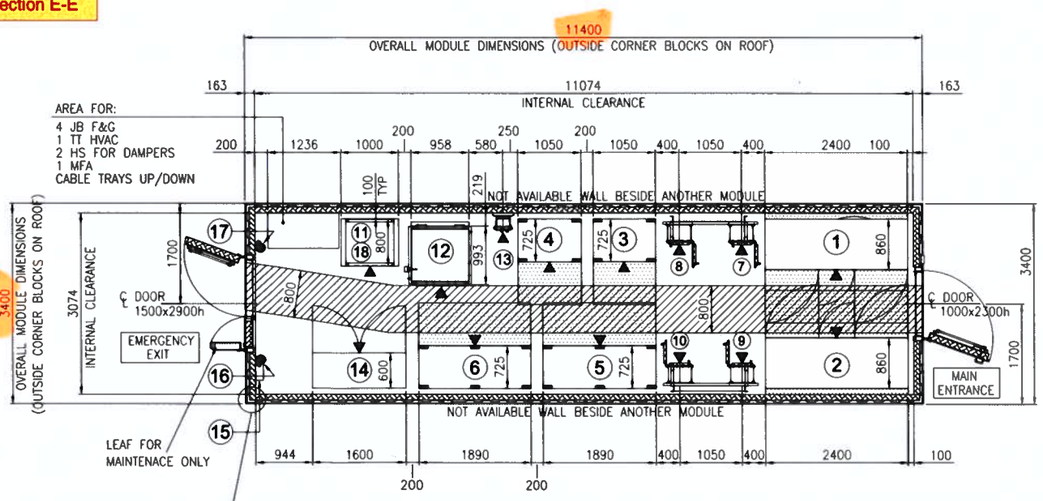


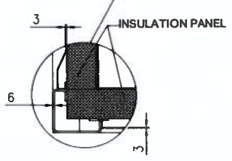




## EQUIPMENT LIST

| REF. | TAG No. | DESCRIPTION | LENGTH (mm) | WIDTH (mm) | HEIGHT (mm) | WEIGHT (Kg) |
|---|---|---|---|---|---|---|
| 1 | UP-200F3 | AC UPS 35kVA | 2400 | 860 | 1915 | 2258 |
| 2 | UP-200F4 | AC UPS 15kVA | 2400 | 860 | 1915 | 2258 |
| 3 | BA-200F3A | BATTERY RACK GEL VRLA 7y AC UPS 35kVA | 1050 | 725 | 1272 | 914 |
| 4 | BA-200F3B | BATTERY RACK GEL VRLA 7y AC UPS 35kVA | 1050 | 725 | 1272 | 914 |
| 5 | BA-200F4A | BATTERY RACK GEL VRLA 7y AC UPS 15kVA | 1890 | 725 | 1761 | 3429 |
| 6 | BA-200F4B | BATTERY RACK GEL VRLA 7y AC UPS 15kVA | 1890 | 725 | 1761 | 3429 |
| 7 | CB-200F3A | ISOLATOR BOX AC UPS 35kVA | 600 | 300 | 800 | 100 |
| 8 | CB-200F3B | ISOLATOR BOX AC UPS 35kVA | 600 | 300 | 800 | 100 |
| 9 | CB-200F4A | ISOLATOR BOX AC UPS 15kVA | 600 | 300 | 800 | 100 |
| 10 | CB-200F4B | ISOLATOR BOX AC UPS 15kVA | 600 | 300 | 800 | 100 |
| 11 | NC-200F2 | NAVAID PANEL | 1000 | 800 | 2600 | 535 |
| 12 | BA-200F2 | BATTERY BOX NAVAID | 958 | 993 | 1210 | 1552 |
| 13 | CB-200F2 | ISOLATOR BOX NAVAID | 500 | 400 | 765 | 70 |
| 14 | B300-HSB-001 | DISTRIBUTION & HVAC PANEL - AC/UPS ROOM | 1600 | 600 | 2300 | 500 |
| 15 | - | EYE WASH STATION | 228 | 80 | 290 | 5 |
| 16 | - | PORTABLE EXTINGUISHER (CO2) 5 Kg. | 150 | 150 | 750 | 20 |
| 17 | - | PORTABLE EXTINGUISHER (CO2) 5 Kg. | 150 | 150 | 750 | 20 |
| 18 | BC-200F2 | BATTERY CHARGER NAVAID | 607 | 607 | 2157 | 500 |
| 19 | HHU-77005 | AIR HANDLING UNIT A | 2100 | 1000 | 2158 | 850 |
| 20 | HHU-77006 | AIR HANDLING UNIT B | 2100 | 1000 | 2158 | 850 |
| 21 | HSS-77-001 | SPACE HEATER 1 | 184 | 145 | 1100 | 5 |
| 22 | HSS-77-002 | SPACE HEATER 2 | 184 | 145 | 1100 | 5 |
| 23 | HSS-77-003 | SPACE HEATER 3 | 184 | 145 | 1100 | 5 |

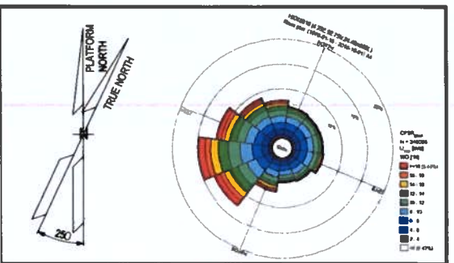



EQUIPMENT LAYOUT
"B-300" AC UPS FITTED WITH UPS SYSTEM EQUIPMENT ROOM
BOTTOM PLAN

MASTER COPY
INTERNAL TEST

02




## NOTE

1) ALL DIMENSIONS ARE IM MM.

## REFERENCE

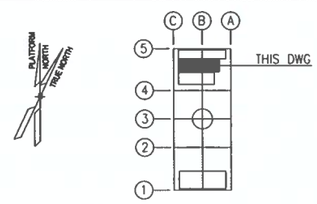
| DOCUMENT TITLE | DOCUMENT NUMBER |
|---|---|
| "B-300" HVAC SYSTEM G.A. & DETAILS | 1724000049-HV-DA-00066 |
| "B-300" DETAILED DRAWING | 1724000049-AR-DD-00020 |
| PAINTING PROCEDURE | 1724000049-MAT-PRO-00006 |

## LEGEND

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

## HOLDS

## KEY PLAN




ALEXSISTEMI srl

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 02 | 03/07/24 | M.G. | SKV | C.A. | ACCEPTED FOR CONSTRUCTION (AFC) |
| 01 | 16/05/24 | M.G. | SKV | C.A. | ISSUE FOR REVIEW (IFR) |
| 00 | 08/02/24 | A.G. | SKV | C.A. | ISSUE FOR CLIENT REVIEW (ICR) |

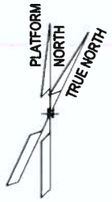
CROSSWIND | ROSETTI MARINO

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

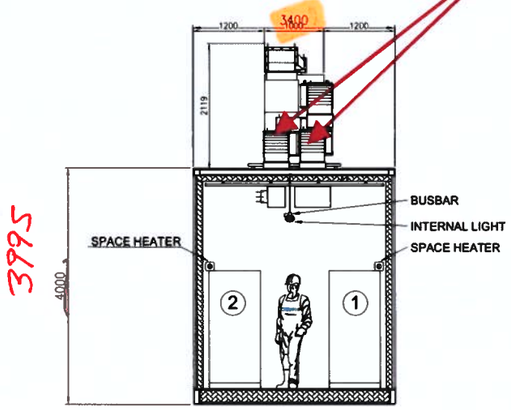
| | | | |
|---|---|---|---|
| CONTRACT NO./TITLE CONTRACT_NO. 1724000049 | | | SCALE 1:50 |
| DRAWN M.G. | CHECKED SKV | APPROVED C.A. | DATE 03/07/24 |
| A1 | DRAWING NO. 1724000049-AR-DA-00016 | SHEET 002 | REV. 02 |

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

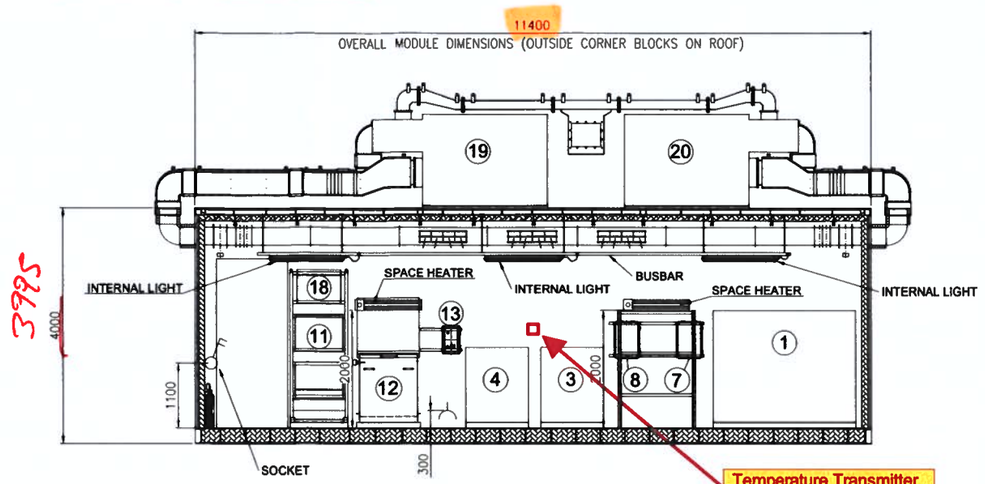
DRAWING NO. 1724000049-AR-DA-00016 REV. 02




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

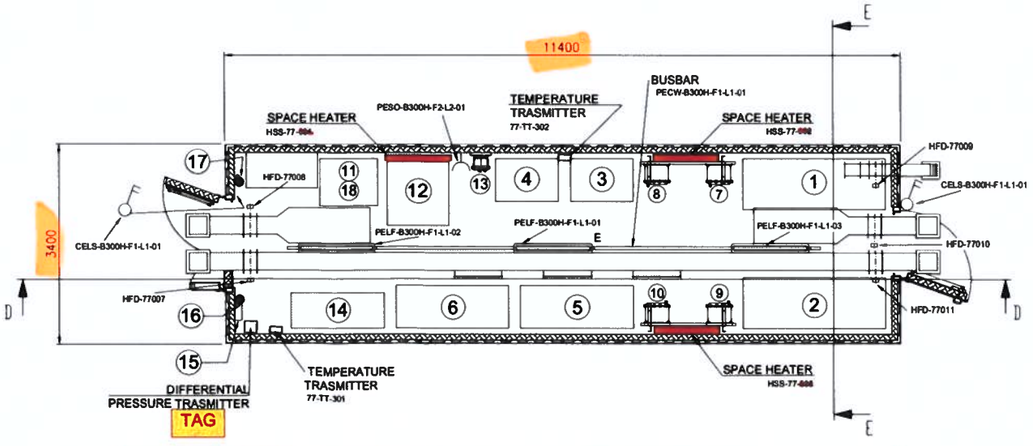



SECTION E-E




SECTION D-D

Temperature Transmitter TAG




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

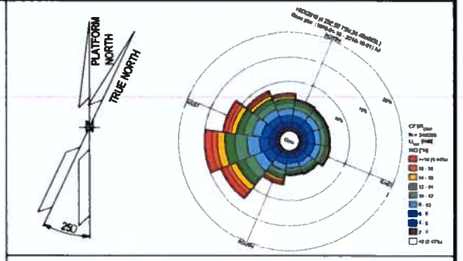
## EQUIPMENT LIST

| REF. | TAG No. | DESCRIPTION | LENGTH (mm) | WIDTH (mm) | HEIGHT (mm) | WEIGHT (Kg) |
|---|---|---|---|---|---|---|
| 1 | UP-200F3 | AC UPS 35kVA | 2400 | 860 | 1915 | 2258 |
| 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 |

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

02

MASTER COPY
INTERNAL TEST




## NOTE

1) ALL DIMENSIONS ARE IM MM.

## REFERENCE

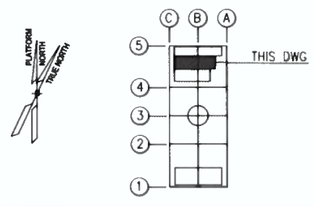
| DOCUMENT TITLE | DOCUMENT NUMBER |
|---|---|
| "B-300" HVAC SYSTEM G.A. & DETAILS | 1724000049-HV-DA-00066 |
| "B-300" DETAILED DRAWING | 1724000049-AR-DD-00020 |
| PAINTING PROCEDURE | 1724000049-MAT-PRO-00006 |

## LEGEND

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

## HOLDS

## KEY PLAN




ALEXSISTEMI S.r.l.

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 02 | 03/07/24 | M.G. | SKV | C.A. | ACCEPTED FOR CONSTRUCTION (AFC) |
| 01 | 16/05/24 | M.G. | SKV | C.A. | ISSUE FOR REVIEW (IFR) |
| 00 | 08/02/24 | A.G. | SKV | C.A. | ISSUE FOR CLIENT REVIEW (ICR) |

CROSSWIND

ROSETTI MARINO

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

| | | | |
|---|---|---|---|
| CONTRACT NO./TITLE CONTRACT_NO. 1724000049 | | | SCALE 1:50 |
| DRAWN M.G. | CHECKED SKV | APPROVED C.A. | DATE 03/07/24 |
| A1 | DRAWING NO. 1724000049-AR-DA-00016 | | SHEET 003 / REV. 02 |

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

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

11400

OVERALL MODULE DIMENSIONS (OUTSIDE CORNER BLOCKS ON ROOF)

250 5350 250 5350 250

250

UNP260

UNP260

UNP260

UNP260

ROSETTI MARINO

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

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

| Sign | Date |
|---|---|
| R. Bossi | 07/06/2024 |

B-300

73.5 120 2983 120 73.5 = 3370

250 2923 250 = 3400

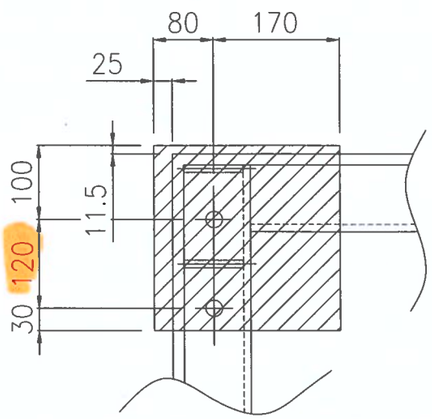
OVERALL MODULE DIMENSIONS (OUTSIDE CORNER BLOCKS ON ROOF)

250 250 250 250

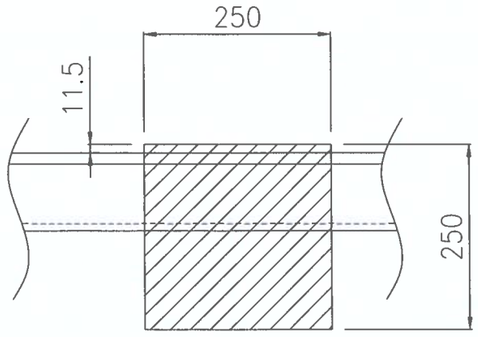
No. 2 HOLES Ø18
FOR M16 SCREW
AT EACH CORNER
(SCREW SUPPLY by ROSETTI)

HOLES 40 11290 40

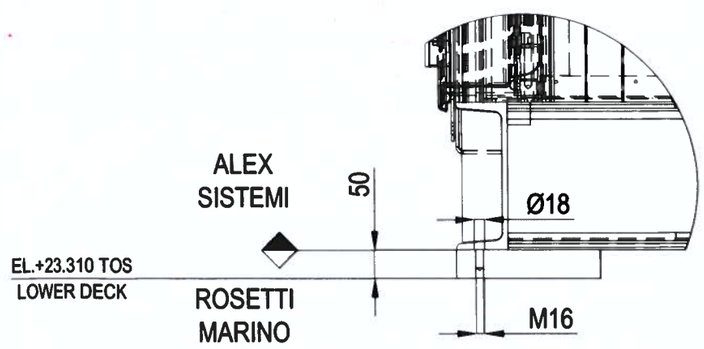
11370




TYPICAL CORNER PLATE POSITION

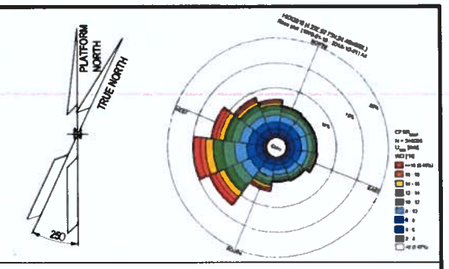



TYPICAL CENTRAL PLATE POSITION




TYPICAL FIXING DETAIL
SCALE 1 : 10

MASTER COPY
INTERNAL TEST




NOTE

1) ALL DIMENSIONS ARE IM MM.

REFERENCE

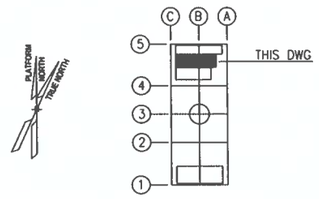
| DOCUMENT TITLE | DOCUMENT NUMBER |
|---|---|
| B-300 STRUCTURAL CALCULATION - E&I SHELTERS | 1724000049-ST-CA-00008 |

LEGEND

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

HOLDS

KEY PLAN




ALEXSISTEMI spa

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 01 | 03/06/24 | M.G. | M.R. | O.A. | APPROVED FOR CONSTRUCTION (AFC) |
| 00 | 16/04/24 | M.G. | M.R. | O.A. | ISSUE FOR CLIENT REVIEW (ICR) |

CROSSWIND

ROSETTI MARINO

TITLE : B-300 FOUNDATION DRAWING - E&I SHELTERS

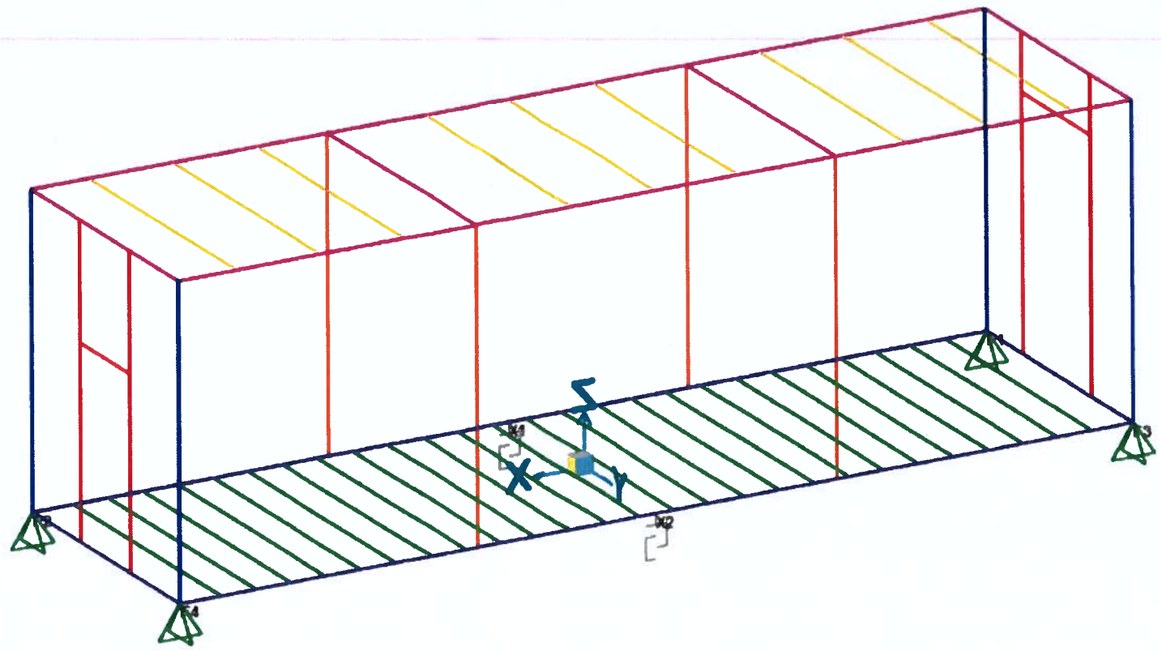
| | | | |
|---|---|---|---|
| CONTRACT NO./TITLE CONTRACT_NO. 1724000049 | | | SCALE N.A. |
| DRAWN M.G. | CHECKED M.R. | APPROVED O.A. | DATE 03/06/24 |
| A1 | DRAWING NO. 1724000049-ST-DD-00012 | SHEET 001/002 | REV. 01 |

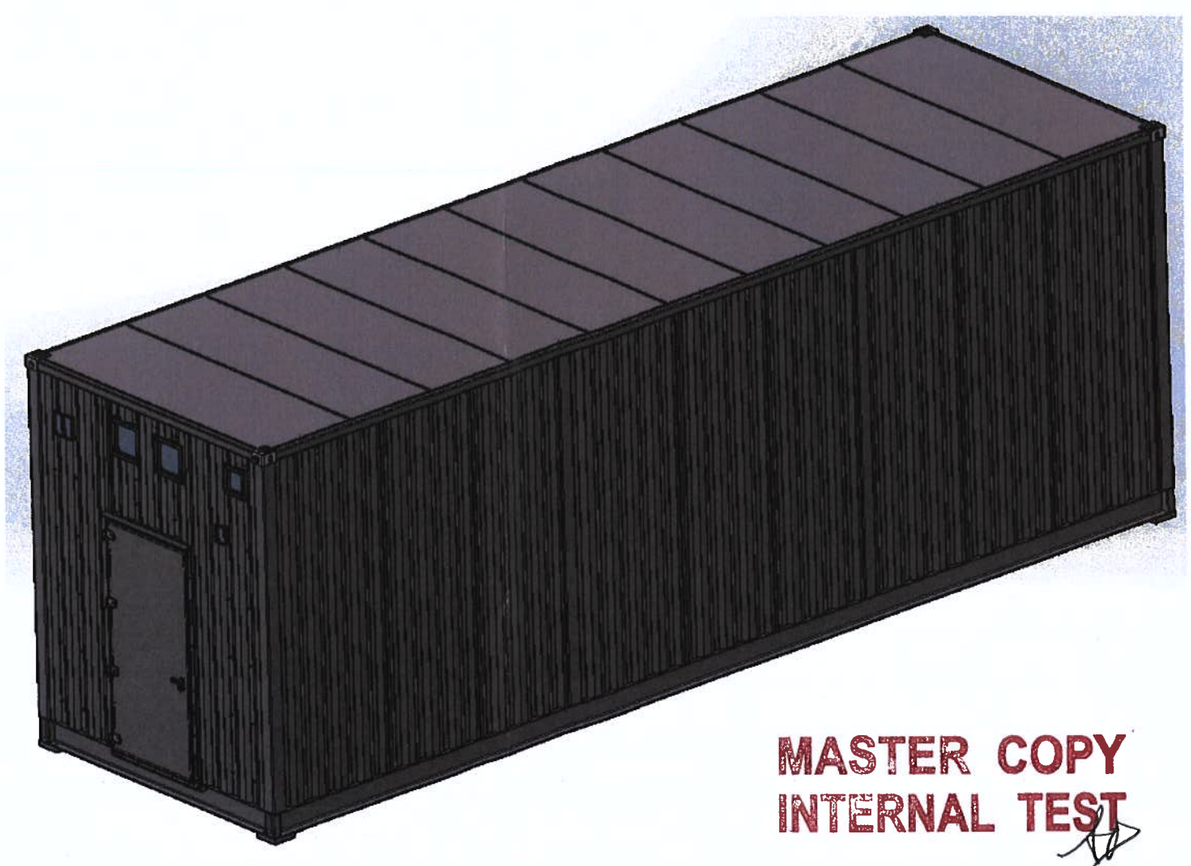
File Name : 1724000049-ST-DD-00012-REV.01

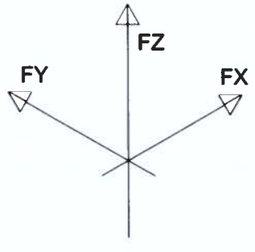
DRAWING NO. 1724000049-ST-DD-00012 REV. 01

**TABLE: Joint Reactions**

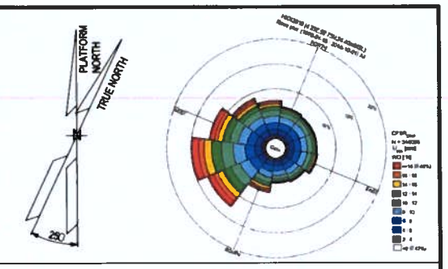
| Joint | OutputCase | CaseType | StepType | Fx | Fy | Fz | Mx | My | Mz |
|---|---|---|---|---|---|---|---|---|---|
| Text | Text | Text | Text | KN | KN | KN | KN-m | KN-m | KN-m |
| F1 | DEAD | NonStatic | Last Step | 8,15 | 3,98 | 20,56 | 0,00 | 0,00 | 0,00 |
| F1 | SD | NonStatic | Last Step | 17,79 | 5,10 | 26,86 | 0,00 | 0,00 | 0,00 |
| F1 | LIVE | NonStatic | Last Step | 18,94 | 6,80 | 43,72 | 0,00 | 0,00 | 0,00 |
| F1 | WIND X | NonStatic | Last Step | -11,64 | 0,34 | -9,78 | 0,00 | 0,00 | 0,00 |
| F1 | WIND Y | NonStatic | Last Step | -12,43 | -25,98 | -33,62 | 0,00 | 0,00 | 0,00 |
| F1 | NOT X | NonStatic | Last Step | -0,07 | -0,01 | -0,02 | 0,00 | 0,00 | 0,00 |
| F1 | NOT Y | NonStatic | Last Step | -0,04 | -0,07 | -0,06 | 0,00 | 0,00 | 0,00 |
| F1 | SLU LIVE | Combination | | 65,55 | 22,92 | 132,49 | 0,00 | 0,00 | 0,00 |
| F1 | SLU WIND X | Combination | | 35,85 | 12,57 | 88,06 | 0,00 | 0,00 | 0,00 |
| F1 | SLU WIND Y | Combination | | 34,89 | -19,01 | 59,46 | 0,00 | 0,00 | 0,00 |
| F1 | SLE LIVE | Combination | | 44,78 | 15,80 | 91,06 | 0,00 | 0,00 | 0,00 |
| F1 | SLE WIND X | Combination | | 10,47 | 1,55 | 27,47 | 0,00 | 0,00 | 0,00 |
| F1 | SLE WIND Y | Combination | | 9,91 | -16,88 | 10,79 | 0,00 | 0,00 | 0,00 |
| F2 | DEAD | NonStatic | Last Step | -8,15 | 3,95 | 20,50 | 0,00 | 0,00 | 0,00 |
| F2 | SD | NonStatic | Last Step | -15,55 | 4,85 | 31,79 | 0,00 | 0,00 | 0,00 |
| F2 | LIVE | NonStatic | Last Step | -19,68 | 6,13 | 33,86 | 0,00 | 0,00 | 0,00 |
| F2 | WIND X | NonStatic | Last Step | -1,08 | -2,06 | -5,72 | 0,00 | 0,00 | 0,00 |
| F2 | WIND Y | NonStatic | Last Step | 12,41 | -26,02 | -33,53 | 0,00 | 0,00 | 0,00 |
| F2 | NOT X | NonStatic | Last Step | -0,07 | 0,01 | 0,02 | 0,00 | 0,00 | 0,00 |
| F2 | NOT Y | NonStatic | Last Step | 0,04 | -0,07 | -0,06 | 0,00 | 0,00 | 0,00 |
| F2 | SLU LIVE | Combination | | -63,48 | 21,52 | 125,06 | 0,00 | 0,00 | 0,00 |
| F2 | SLU WIND X | Combination | | -52,52 | 7,87 | 91,19 | 0,00 | 0,00 | 0,00 |
| F2 | SLU WIND Y | Combination | | -36,33 | -20,88 | 57,82 | 0,00 | 0,00 | 0,00 |
| F2 | SLE LIVE | Combination | | -43,41 | 14,87 | 86,10 | 0,00 | 0,00 | 0,00 |
| F2 | SLE WIND X | Combination | | -21,09 | -1,13 | 36,46 | 0,00 | 0,00 | 0,00 |
| F2 | SLE WIND Y | Combination | | -11,65 | -17,90 | 17,00 | 0,00 | 0,00 | 0,00 |
| F3 | DEAD | NonStatic | Last Step | 8,15 | -3,98 | 20,51 | 0,00 | 0,00 | 0,00 |
| F3 | SD | NonStatic | Last Step | 11,42 | -4,47 | 17,26 | 0,00 | 0,00 | 0,00 |
| F3 | LIVE | NonStatic | Last Step | 20,70 | -7,01 | 46,69 | 0,00 | 0,00 | 0,00 |
| F3 | WIND X | NonStatic | Last Step | -11,74 | -0,31 | -9,79 | 0,00 | 0,00 | 0,00 |
| F3 | WIND Y | NonStatic | Last Step | 4,72 | -19,65 | 18,12 | 0,00 | 0,00 | 0,00 |
| F3 | NOT X | NonStatic | Last Step | -0,07 | 0,01 | -0,02 | 0,00 | 0,00 | 0,00 |
| F3 | NOT Y | NonStatic | Last Step | 0,04 | -0,07 | 0,06 | 0,00 | 0,00 | 0,00 |
| F3 | SLU LIVE | Combination | | 58,73 | -22,47 | 122,63 | 0,00 | 0,00 | 0,00 |
| F3 | SLU WIND X | Combination | | 33,23 | -25,68 | 92,38 | 0,00 | 0,00 | 0,00 |
| F3 | SLU WIND Y | Combination | | 52,98 | -48,88 | 125,86 | 0,00 | 0,00 | 0,00 |
| F3 | SLE LIVE | Combination | | 40,24 | -15,52 | 84,50 | 0,00 | 0,00 | 0,00 |
| F3 | SLE WIND X | Combination | | 9,22 | -14,72 | 33,46 | 0,00 | 0,00 | 0,00 |
| F3 | SLE WIND Y | Combination | | 20,74 | -28,25 | 52,99 | 0,00 | 0,00 | 0,00 |
| F4 | DEAD | NonStatic | Last Step | -8,15 | -3,95 | 20,50 | 0,00 | 0,00 | 0,00 |
| F4 | SD | NonStatic | Last Step | -13,65 | -5,48 | 33,05 | 0,00 | 0,00 | 0,00 |
| F4 | LIVE | NonStatic | Last Step | -19,97 | -5,92 | 33,74 | 0,00 | 0,00 | 0,00 |
| F4 | WIND X | NonStatic | Last Step | -1,16 | 2,03 | -5,71 | 0,00 | 0,00 | 0,00 |
| F4 | WIND Y | NonStatic | Last Step | -4,70 | -19,60 | 18,02 | 0,00 | 0,00 | 0,00 |
| F4 | NOT X | NonStatic | Last Step | -0,07 | -0,01 | 0,02 | 0,00 | 0,00 | 0,00 |
| F4 | NOT Y | NonStatic | Last Step | -0,04 | -0,07 | 0,06 | 0,00 | 0,00 | 0,00 |
| F4 | SLU LIVE | Combination | | -61,15 | -22,33 | 126,93 | 0,00 | 0,00 | 0,00 |
| F4 | SLU WIND X | Combination | | -55,32 | -22,49 | 108,58 | 0,00 | 0,00 | 0,00 |
| F4 | SLU WIND Y | Combination | | -59,56 | -48,45 | 137,06 | 0,00 | 0,00 | 0,00 |
| F4 | SLE LIVE | Combination | | -41,87 | -15,42 | 87,36 | 0,00 | 0,00 | 0,00 |
| F4 | SLE WIND X | Combination | | -24,48 | -13,35 | 53,32 | 0,00 | 0,00 | 0,00 |
| F4 | SLE WIND Y | Combination | | -26,95 | -28,49 | 69,93 | 0,00 | 0,00 | 0,00 |
| X1 | DEAD | NonStatic | Last Step | 0,00 | 0,00 | 24,94 | 0,00 | 0,00 | 0,00 |
| X1 | SD | NonStatic | Last Step | 0,00 | 0,02 | 65,88 | 0,00 | 0,00 | 0,00 |
| X1 | LIVE | NonStatic | Last Step | 0,00 | 0,01 | 52,89 | 0,00 | 0,00 | 0,00 |
| X1 | WIND X | NonStatic | Last Step | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| X1 | WIND Y | NonStatic | Last Step | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| X1 | NOT X | NonStatic | Last Step | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| X1 | NOT Y | NonStatic | Last Step | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| X1 | SLU LIVE | Combination | | 0,00 | 0,05 | 210,58 | 0,00 | 0,00 | 0,00 |
| X1 | SLU WIND X | Combination | | 0,00 | 0,04 | 186,78 | 0,00 | 0,00 | 0,00 |
| X1 | SLU WIND Y | Combination | | 0,00 | 0,04 | 186,78 | 0,00 | 0,00 | 0,00 |
| X1 | SLE LIVE | Combination | | 0,00 | 0,03 | 143,71 | 0,00 | 0,00 | 0,00 |
| X1 | SLE WIND X | Combination | | 0,00 | 0,02 | 90,82 | 0,00 | 0,00 | 0,00 |
| X1 | SLE WIND Y | Combination | | 0,00 | 0,02 | 90,82 | 0,00 | 0,00 | 0,00 |
| X2 | DEAD | NonStatic | Last Step | 0,00 | 0,00 | 24,95 | 0,00 | 0,00 | 0,00 |
| X2 | SD | NonStatic | Last Step | 0,00 | -0,01 | 43,97 | 0,00 | 0,00 | 0,00 |
| X2 | LIVE | NonStatic | Last Step | 0,00 | -0,01 | 55,99 | 0,00 | 0,00 | 0,00 |
| X2 | WIND X | NonStatic | Last Step | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| X2 | WIND Y | NonStatic | Last Step | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| X2 | NOT X | NonStatic | Last Step | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| X2 | NOT Y | NonStatic | Last Step | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| X2 | SLU LIVE | Combination | | 0,00 | -0,04 | 182,36 | 0,00 | 0,00 | 0,00 |
| X2 | SLU WIND X | Combination | | 0,00 | -0,03 | 157,17 | 0,00 | 0,00 | 0,00 |
| X2 | SLU WIND Y | Combination | | 0,00 | -0,03 | 157,17 | 0,00 | 0,00 | 0,00 |
| X2 | SLE LIVE | Combination | | 0,00 | -0,03 | 124,90 | 0,00 | 0,00 | 0,00 |
| X2 | SLE WIND X | Combination | | 0,00 | -0,01 | 68,91 | 0,00 | 0,00 | 0,00 |
| X2 | SLE WIND Y | Combination | | 0,00 | -0,01 | 68,91 | 0,00 | 0,00 | 0,00 |






MASTER COPY
INTERNAL TEST




## NOTE

1) ALL DIMENSIONS ARE IM MM.

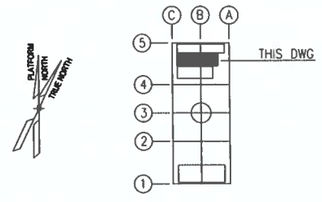
## REFERENCE

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

## LEGEND

## HOLDS

## KEY PLAN




ALEXSISTEMI

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 01 | 03/06/24 | M.G. | M.R. | O.A. | APPROVED FOR CONSTRUCTION (AFC) |
| 00 | 16/04/24 | M.G. | M.R. | O.A. | ISSUE FOR CLIENT REVIEW (ICR) |

CROSSWIND | ROSETTI MARINO

TITLE : B-300 FOUNDATION DRAWING - E&I SHELTERS

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

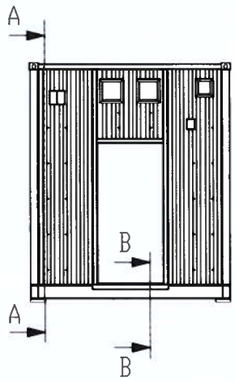
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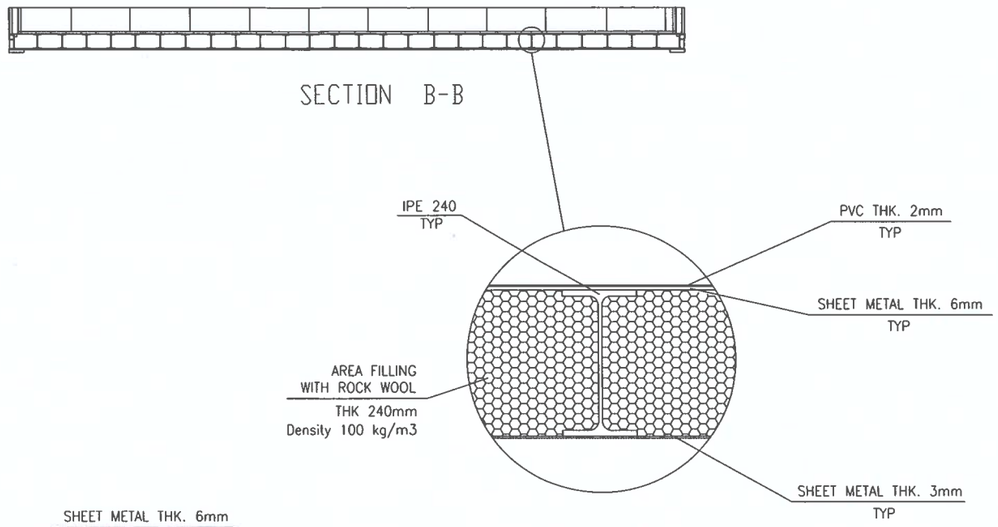
DRAWING NO. 1724000049-AR-DD-00020

REV. 02

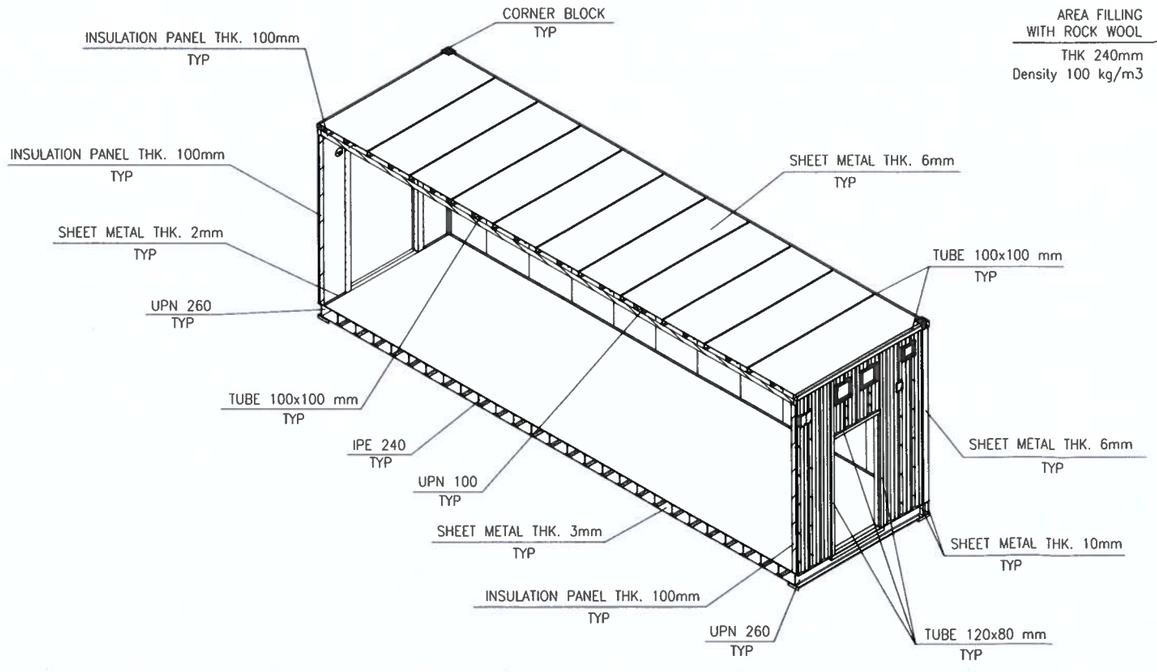
# MODULE B-300

| REFERENCE | |
|---|---|
| DOCUMENT TITLE | DOCUMENT NUMBER |
| "B-300" STRUCTURAL CALCULATION | 1724000049-ST-CA-00008 |
| Weld Procedure Specifications (WPS), Weld Procedure Qualification Report (WPQR), Welding Map and Welders Qualifications | 1724000049-WEL-RE-00003 |

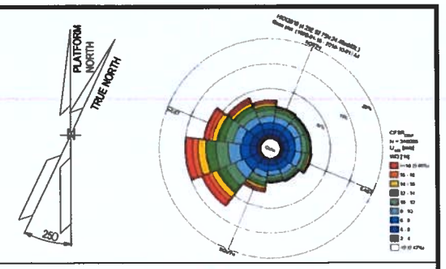



DETAIL "C"

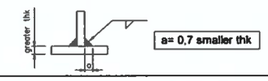



MASTER COPY
INTERNAL TEST




## NOTES

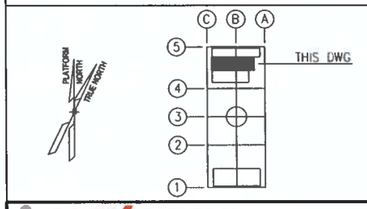
1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.
2. ALL WELDINGS SYMBOLS ARE IN ACCORDANCE WITH A.W.S. CODE D.1.1
3. UNLESS OTHERWISE INDICATED FILLET WELDS SHALL HAVE FOLLOWING DIM.:




## LEGEND

## HOLDS

KEY PLAN




ALEXSISTEMI

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 02 | 11/07/24 | M.G. | O.A. | C.A. | ISSUE FOR REVIEW (IFR) |
| 01 | 08/07/24 | M.G. | O.A. | C.A. | ISSUE FOR REVIEW (IFR) |
| 00 | 30/05/24 | M.G. | O.A. | C.A. | ISSUE FOR CLIENT REVIEW (ICR) |

CROSSWIND | ROSETTI MARINO

TITLE :

**B-300 DETAILED DRAWINGS-E&I SHELTERS**

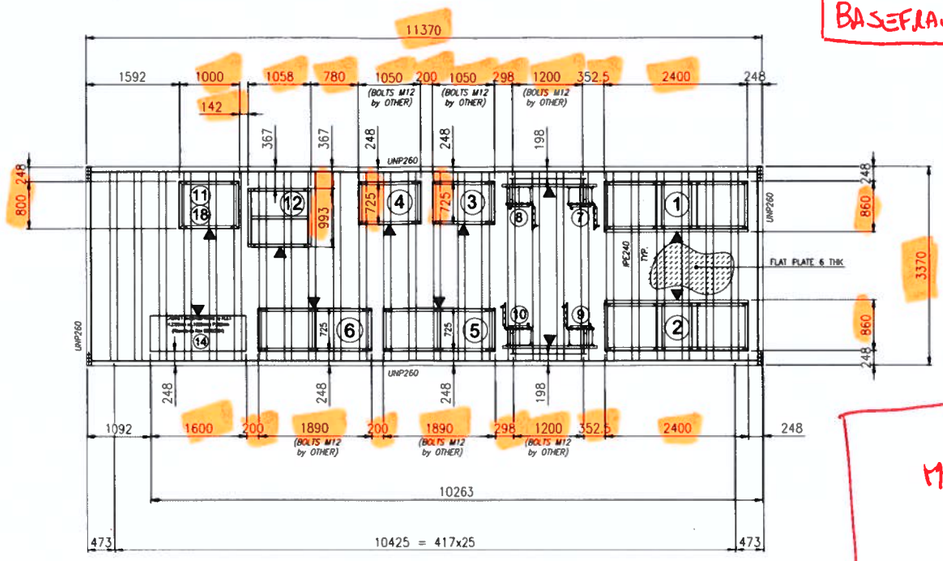
| | | | |
|---|---|---|---|
| CONTRACT NO./TITLE CONTRACT_NO. 1724000049 | | | SCALE 1:50 |
| DRAWN M.G. | CHECKED O.A. | APPROVED C.A. | DATE 11/07/24 |
| A1 | DRAWING NO. 1724000049-AR-DD-00020 | SHEET 001 | REV. 02 |

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

DRAWING NO. 1724000049-AR-DD-00020

REV. 02

# B-300
# I&T EQUIPMENT ROOM
# BASEFRAME LOCATION PLAN

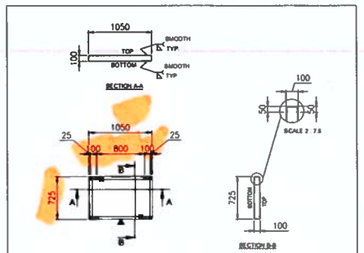



MISSING

BASEFRAME (12)

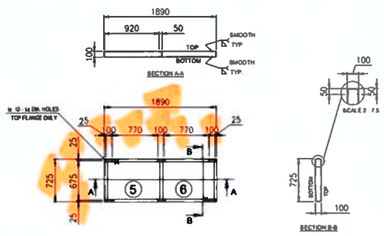
MISSING

BASEFRAME (11) (18)



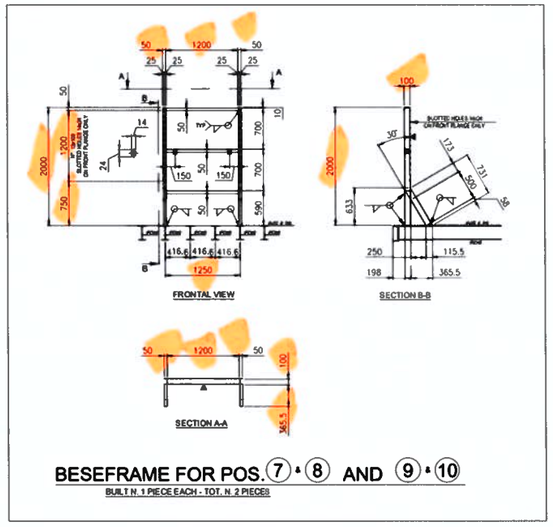

BESEFRAME FOR POS. 3 & 4

BUILT N. 1 PIECE EACH - TOT. N. 2 PIECES



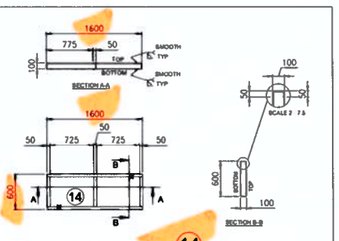

BESEFRAME FOR POS. 5 & 6

BUILT N. 1 PIECE EACH - TOT. N. 2 PIECES



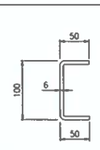

BESEFRAME FOR POS. 7 & 8 AND 9 & 10

BUILT N. 1 PIECE EACH - TOT. N. 2 PIECES

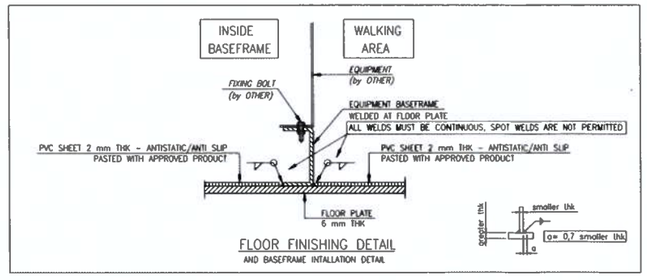



BESEFRAME FOR POS. 14

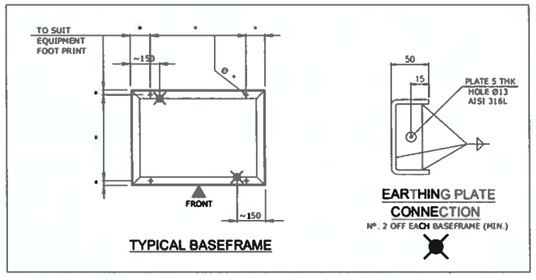
BUILT N. 1 PIECE




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




FLOOR FINISHING DETAIL
AND BASEFRAME INTALLATION DETAIL

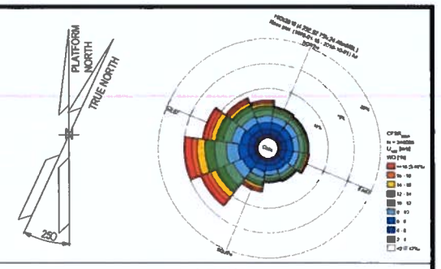



TYPICAL BASEFRAME

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

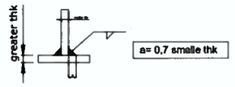
## EQUIPMENT LIST

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




## NOTES

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




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



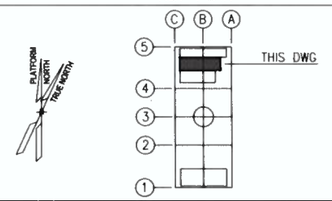

6. SURFACE TREATMENT ACCORDING DOCUMENT N. 1724000049-MAT-PRO-00004 - PAINTING PROCEDURE FINAL COLOUR LIGHT GREY RAL 7035.

## LEGEND

ASI = ALEX SISTEMI

## HOLDS

KEY PLAN




ALEXSISTEMI

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 02 | 11/07/24 | M.G. | O.A. | C.A. | ISSUE FOR REVIEW (IFR) |
| 01 | 08/07/24 | M.G. | O.A. | C.A. | ISSUE FOR REVIEW (IFR) |
| 00 | 30/05/24 | M.G. | O.A. | C.A. | ISSUE FOR CLIENT REVIEW (ICR) |

CROSSWIND

ROSETTI MARINO

TITLE :

B-300 DETAILED DRAWINGS-E&I SHELTERS

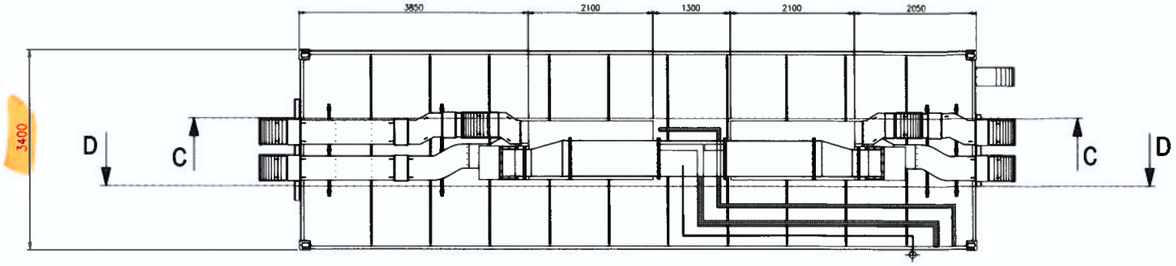
| | | | |
|---|---|---|---|
| CONTRACT NO./TITLE CONTRACT_NO. 1724000049 | | | SCALE 1:50 |
| DRAWN M.G. | CHECKED O.A. | APPROVED C.A. | DATE 11/07/24 |
| A1 | DRAWING NO. 1724000049-AR-DD-00020 | SHEET 003 | REV. 02 |

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

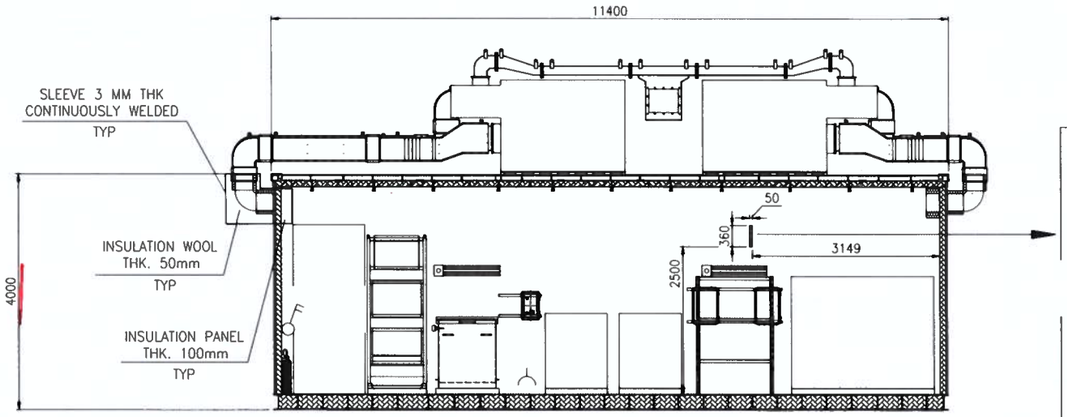
MASTER COPY
INTERNAL TEST

DRAWING NO. 1724000049-AR-DD-00020

REV. 02

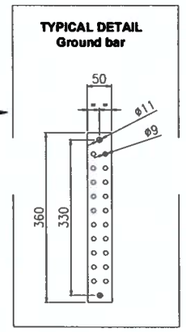



TOP VIEW

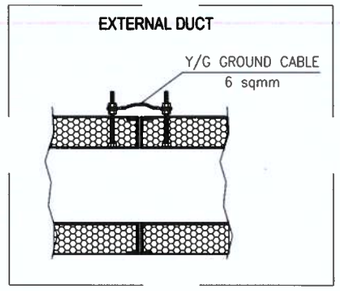



SECTION C-C

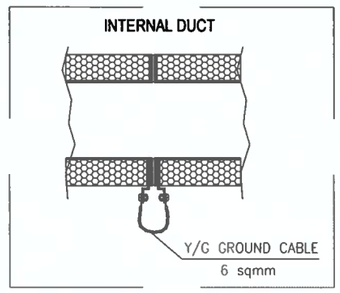
DET. 3



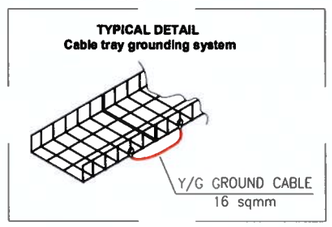

DET. 1



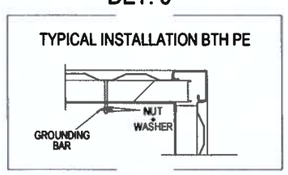

DET. 2



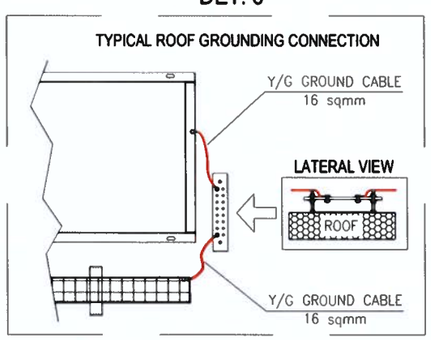

DET. 4



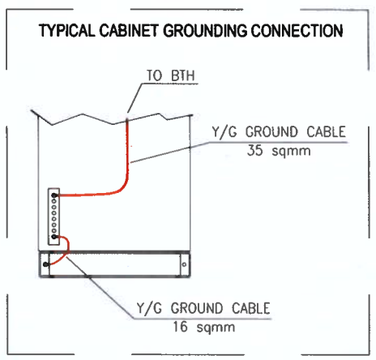

DET. 5

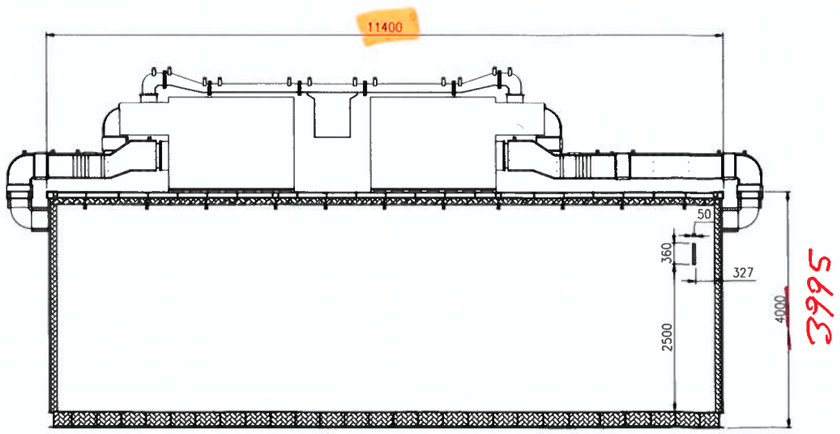



DET. 6



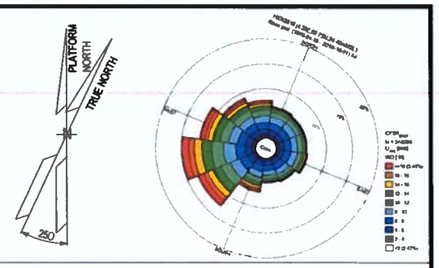

DET. 7




SECTION D-D

MASTER COPY
INTERNAL TEST



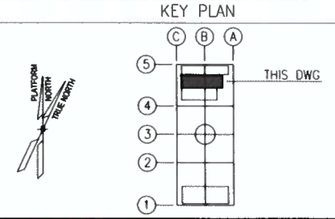

NOTES

1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.

LEGEND

HOLDS

KEY PLAN




ALEXSISTEMI

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 02 | 11/07/24 | M.G. | O.A. | C.A. | ISSUE FOR REVIEW (IFR) |
| 01 | 08/07/24 | M.G. | O.A. | C.A. | ISSUE FOR REVIEW (IFR) |
| 00 | 30/05/24 | M.G. | O.A. | C.A. | ISSUE FOR CLIENT REVIEW (ICR) |

CROSSWIND

ROSETTI MARINO

TITLE :

B-300 DETAILED DRAWINGS-E&I SHELTERS

| CONTRACT NO./TITLE CONTRACT_NO. 1724000049 | | | SCALE 1:50 |
|---|---|---|---|
| DRAWN M.G. | CHECKED O.A. | APPROVED C.A. | DATE 11/07/24 |
| A1 | DRAWING NO. 1724000049-AR-DD-00020 | SHEET 005 | REV. 02 |

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

# B-300 – ATTACH. 2

| Doc. Name: PAINTING CHECK | | Report No.03 Mod 1.4.2 |
|---|---|---|
| OUR JOB X176-24X | Date 26/07/2024 | Page 1/1 |

| | |
|---|---|
| **Customer:** Rosetti Marino | **Project:** BASE LOAD POWER HUB (BLPH) |
| **C/N:** CW-I-WPA-2023-05 | **Description:** AC UPS EQUIPMENT ROOM B-300 |
| **S/N: B300** | **FAT procedure:** 1724000049-QC-PRO-00056 |

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 26/07/2024

REFERENCE DRAWING:

REFERENCE DOCUMENT: 1724000049-MAT-PRO-00004

| Inspection List | YES | NO | N.A. |
|---|---|---|---|
| | | | |
| **1 Verification of paint and color code according to design specification** | | | |
| | | | |
| Visual Check External Color walls, roof, base frame RAL 7035 | ✓ | | |
| Visual Check External Color doors RAL 7035 | ✓ | | |
| Layer thickness of external coating µm 320 total | ✓ | | |
| Visual Check Internal Equipment Baseframe RAL 7035 | ✓ | | |
| | | | |
| | | | |

**Comments:**

** Touch-up and cleaning are required before proceeding with packaging*

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

Mod1.4.2

| Doc. Name: CHECK AND FUNCTIONAL TEST | | Report No.03 |
|---|---|---|
| OUR JOB X176-24X | Date 26/07/2024 | Page 1 |

| | |
|---|---|
| **Customer:** Rosetti Marino | **Project:** BASE LOAD POWER HUB (BLPH) |
| **C/N:** CW-I-WPA-2023-05 | **Description:** AC UPS EQUIPMENT ROOM B-300 |
| **S/N: B300** | **FAT procedure:** 1724000049-QC-PRO-00056 |

LOCATION : ON SITE ☒ OFF SITE ☐

DATE OF TEST: 26/07/2024

REFERENCE DRAWING:

REFERENCE DOCUMENT: ECA-00-ELE-DEB- 0001 Rev.7 Electrical Design Criteria

| Inspection List | YES | NO | N.A. |
|---|---|---|---|
| | | | |
| Functional Test of Doors : | | | |
| | | | |
| Opening/Closing doors, doors locking | ✓ | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**Comments:**

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

Mod.1.4.9

| | |
|---|---|
| **Customer:** Rosetti Marino | **Project:** BASE LOAD POWER HUB (BLPH) |
| **C/N:** CW-I-WPA-2023-05 | **Description:** AC UPS EQUIPMENT ROOM B-300 |
| **S/N: B300** | **FAT procedure:** 1724000049-QC-PRO-00056 |

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 26/07/2024

REFERENCE DRAWING:

- 1724000049-AR-DA-00016 - B-300 GENERAL ARRANGMENT DRAWINGS - E&I SHELTERS
- 1724000049-HV-DA-00066 - MODULE B-300 – HVAC SYSTEM–G.A. AND DETAILS
- 1724000049-HV-DA-00028 - B-300 HVAC and LIGHTING PANEL WIRING DRAWINGS and GENERAL ARRANGEMENT (INCL INTERCONNECTING) - E&I SHELTERS

REFERENCE DOCUMENT:

- 1724000049-HV-PID-00041 - B-300 PID - E&I SHELTERS
- 1724000049-HV-LIS-00049 - B-300 HVAC COMPONENTS LIST AND DS - E&I SHELTERS
- 1724000049-HV-RE-00055 - HVAC SYST DESCRIPTION (MANAGEMENT LOGICS) - E&I SHELTERS
- 1724000049-QC-PRO-00056 (FAT Procedure)
- ECA-00-ELE-DEB-0001 Rev.7 Electrical Design Criteria

| Inspection List | YES | NO | N.A. |
|---|---|---|---|
| **Functional Test of Electrical System** | | | |
| - Check of Lighting System, Control Panel, and socket/switch. | | | X |
| - Cable tag and wiring | | | X |
| - Cable tray and conduit installation | | | X |
| - Grounding System Installation | | | X |
| | | | |
| **Functional Test of Grounding System** | | | |
| - Check the functionality of Grounding System (less than 200 mΩ) | | | X |
| | | | |

**Comments:**

The items listed above are marked as N.A. because FAT activities have not been conducted. The HVAC system supply and installation were not completed by the specified date, making it impossible to perform all the functional tests outlined in the table.

Mod1.4.6

| | |
|---|---|
| **Customer:** Rosetti Marino | **Project:** BASE LOAD POWER HUB (BLPH) |
| **C/N:** CW-I-WPA-2023-05 | **Description:** AC UPS EQUIPMENT ROOM B-300 |
| **S/N: B300** | **FAT procedure:** 1724000049-QC-PRO-00056 |

At this stage, checking the lighting system was not possible, as this activity must be performed only after the lights are installed at the correct height.

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

# B-400 – ATTACH. 1

ALEXSISTEMI spa

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV = ISO 9001 =

| *Doc. Name:* **Dimensional Check and Visual Inspection** | | *Report No.04* |
|---|---|---|
| OUR JOB X176-24X | Date 26/07/2024 | Page 1 |

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

LOCATION : ON SITE ☒ OFF SITE ☐

DATE OF TEST: 26/07/2024

REFERENCE DRAWING: 1724000049-AR-DA-00017 / 1724000049-ST-DD-00013 / 1724000049-AR-DD-00021

REFERENCE DOCUMENT: ISO 17637 / EEMUA 158

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

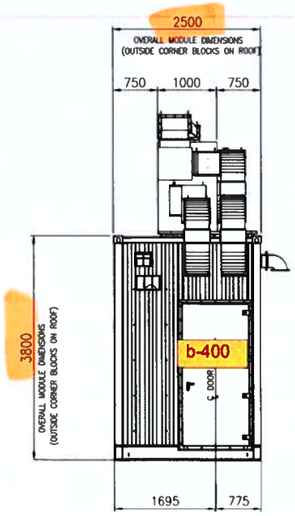
**Comments:**

DWG attached.

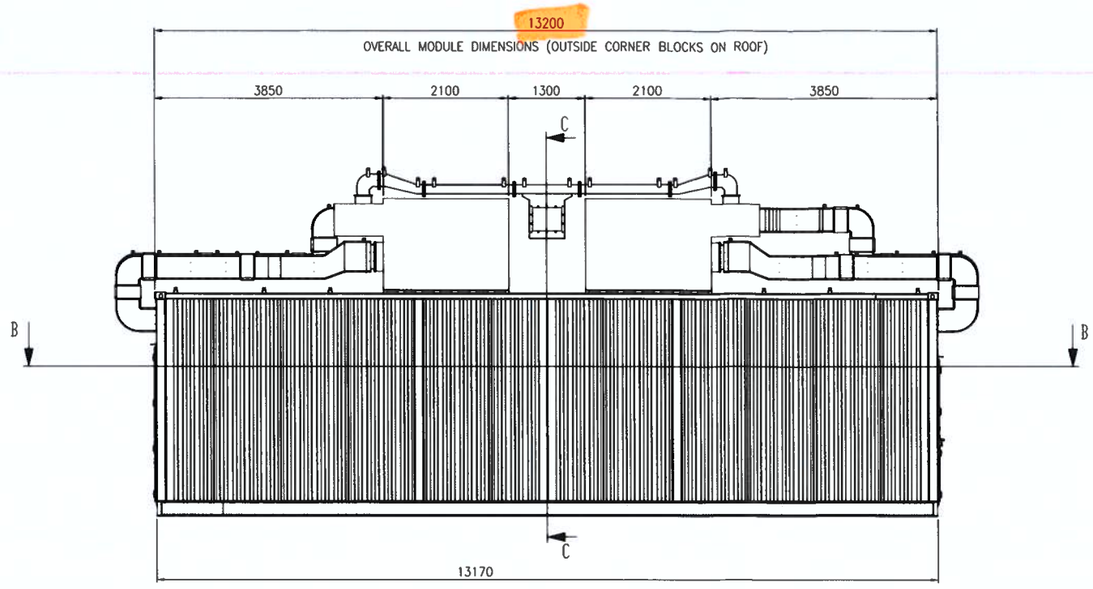
| ALEX SISTEMI *Quality Assurance* | Customer | Final Customer | 3rd Part | other |
|---|---|---|---|---|
| ALEXSISTEMI spa | COICEA CATALIN<br>ROSETTI MARINO | CROSSWIND | | |

Mod.P13.1

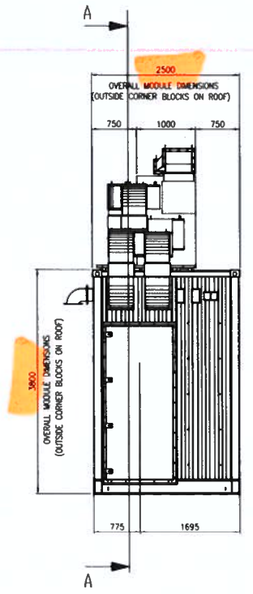
DRAWING NO. 1724000049-AR-DA-00017 REV 02



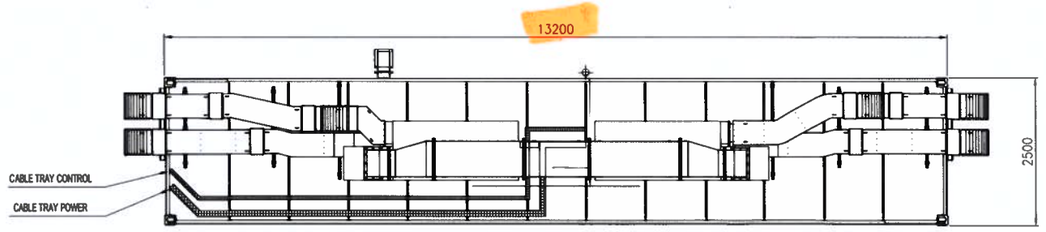

EAST VIEW




SOUTH VIEW




WEST VIEW



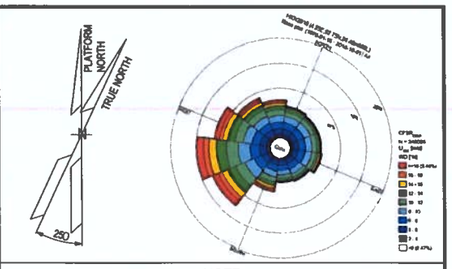

TOP VIEW

## EQUIPMENT LIST

| REF. | TAG No. | DESCRIPTION | LENGTH (mm) | WIDTH (mm) | HEIGHT (mm) | WEIGHT (Kg) | NOTE |
|---|---|---|---|---|---|---|---|
| 1 | B400-SRV-001 | SERVER CABINET | 1000 | 800 | 2100 | 250 | SINLGLE CABINET |
| 2 | B400-NET-001 | NETWORK CABINET | 800 | 800 | 2100 | 250 | SINLGLE CABINET |
| 3 | B400-EMCS-001 | EMCS SYSTEM CABINET | 800 | 800 | 2100 | 250 | SINLGLE CABINET |
| 4 | B400-PCS-001 | PCS SYSTEM CABINET | 800 | 800 | 2100 | 250 | DOUBLE CABINET |
| 5 | B400-PCS-002 | PCS MARSHALLING CABINET | 800 | 800 | 2100 | 250 | |
| 6 | B400-FGS-001 | FGS SYSTEM CABINET | 800 | 800 | 2100 | 250 | TRIPLE CABINET |
| 7 | B400-FGS-002 | FGS MARSHALLING CABINET 1 | 800 | 800 | 2100 | 250 | |
| 8 | B400-FGS-003 | FGS MARSHALLING CABINET 2 | 800 | 800 | 2100 | 250 | |
| 9 | B400-SIS-001 | SIS SYSTEM/MARSHALLING CABINET | 800 | 800 | 2100 | 250 | SINLGLE CABINET |
| 10 | - | SPARE | | | | | |
| 11 | B400-HSB-001 | DISTRIBUTION & HVAC PANEL - I&T ROOM | 1600 | 600 | 2300 | 1150 | |
| 12 | - | TABLE | 850 | 500 | 750 | 50 | |
| 13 | - | PORTABLE EXTINGUISHER (CO2) 5 Kg. | 150 | 150 | 750 | 20 | |
| 14 | - | PORTABLE EXTINGUISHER (CO2) 5 Kg. | 150 | 150 | 750 | 20 | |
| 15 | - | FIRST AID KIT | 280 | 115 | 200 | 10 | |
| 16 | - | RESUSCITATION UNIT | 430 | 210 | 480 | 10 | |
| 17 | - | CABINET INCLUDED N.10 ESCAPE MASK | 448 | 213 | 422 | 15 | |
| 18 | HHU-77007 | AIR HANDLING UNIT A | 2100 | 1000 | 2158 | 850 | |
| 19 | HHU-77008 | AIR HANDLING UNIT B | 2100 | 1000 | 2158 | 850 | |
| 20 | HSS-77-001 | SPACE HEATER 1 | 184 | 145 | 1100 | 5 | |
| 21 | HSS-77-002 | SPACE HEATER 2 | 184 | 145 | 1100 | 5 | |
| 22 | HSS-77-003 | SPACE HEATER 3 | 184 | 145 | 1100 | 5 | |

MASTER COPY
INTERNAL TEST

02




### NOTE

1) ALL DIMENSIONS ARE IM MM.

### REFERENCE

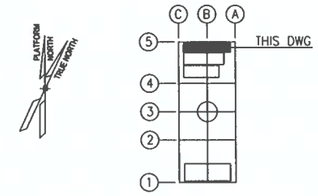
| DOCUMENT TITLE | DOCUMENT NUMBER |
|---|---|
| "B-400" HVAC SYSTEM G.A. & DETAILS | 1724000049-HV-DA-00067 |
| "B-400" DETAILED DRAWING | 1724000049-AR-DD-00021 |
| PAINTING PROCEDURE | 1724000049-MAT-PRO-00007 |

### 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 spa

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 02 | 04/07/24 | M.G. | SKV | C.A. | ACCEPTED FOR CONSTRUCTION (AFC) |
| 01 | 16/05/24 | M.G. | SKV | C.A. | ISSUE FOR REVIEW (IFR) |
| 00 | 08/02/24 | A.G. | SKV | C.A. | ISSUE FOR CLIENT REVIEW (ICR) |

CROSSWIND | ROSETTI MARINO

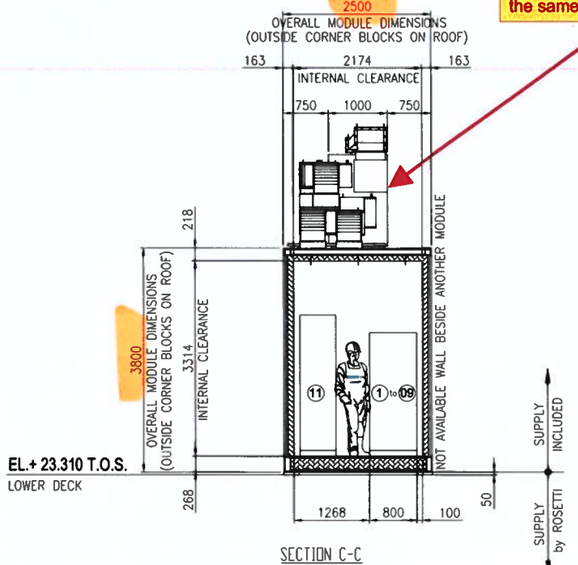
TITLE : BASE LOAD POWER HUB (BLPH)
B-400 GENERAL ARRANGEMENT DRAWINGS

| CONTRACT NO./TITLE CONTRACT_NO. 1724000049 | | | SCALE 1:50 |
|---|---|---|---|
| DRAWN M.G. | CHECKED SKV | APPROVED C.A. | DATE 04/07/24 |
| A1 | DRAWING NO. 1724000049-AR-DA-00017 | SHEET 001 | REV. 02 |

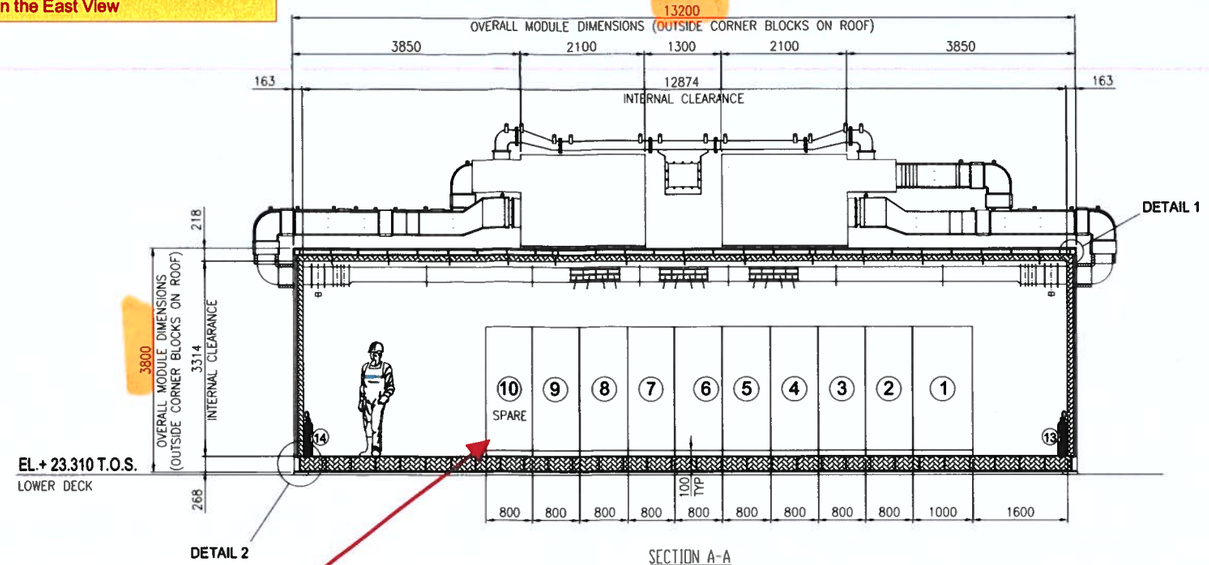
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DRAWING NO. 1724000049-AR-DA-00017 REV. 02

Check HVAC units and ducts positions. It should be the same shown in the East View



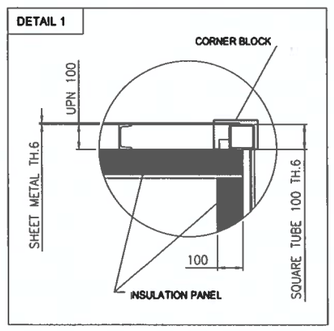

SECTION C-C

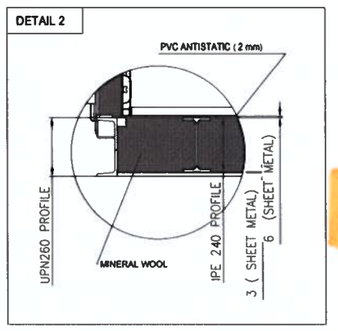


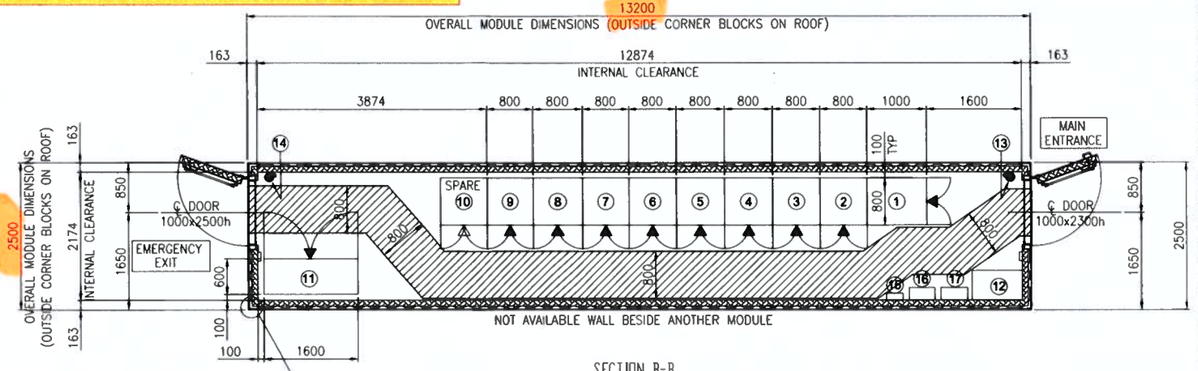

DETAIL 2

SECTION A-A

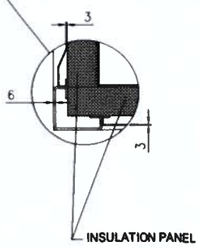
Check numbering and position of items.
This section view is similar to section D-D, although section A-A should be oriented to South




SECTION B-B




EQUIPMENT LAYOUT
"B-400" I&T EQUIPMENT ROOM
BOTTOM PLAN

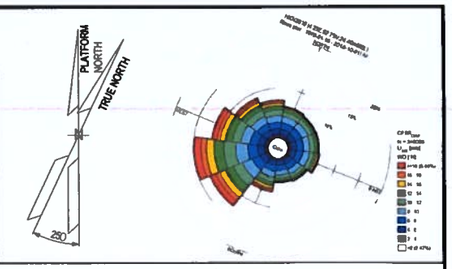
## EQUIPMENT LIST

| REF. | TAG No. | DESCRIPTION | LENGTH (mm) | WIDTH (mm) | HEIGHT (mm) | WEIGHT (Kg) | NOTE |
|---|---|---|---|---|---|---|---|
| 1 | B400-SRV-001 | SERVER CABINET | 1000 | 800 | 2100 | 250 | SINLGLE CABINET |
| 2 | B400-NET-001 | NETWORK CABINET | 800 | 800 | 2100 | 250 | SINLGLE CABINET |
| 3 | B400-EMCS-001 | EMCS SYSTEM CABINET | 800 | 800 | 2100 | 250 | SINLGLE CABINET |
| 4 | B400-PCS-001 | PCS SYSTEM CABINET | 800 | 800 | 2100 | 250 | DOUBLE CABINET |
| 5 | B400-PCS-002 | PCS MARSHALLING CABINET | 800 | 800 | 2100 | 250 | |
| 6 | B400-FGS-001 | FGS SYSTEM CABINET | 800 | 800 | 2100 | 250 | TRIPLE CABINET |
| 7 | B400-FGS-002 | FGS MARSHALLING CABINET 1 | 800 | 800 | 2100 | 250 | |
| 8 | B400-FGS-003 | FGS MARSHALLING CABINET 2 | 800 | 800 | 2100 | 250 | |
| 9 | B400-SIS-001 | SIS SYSTEM/MARSHALLING CABINET | 800 | 800 | 2100 | 250 | SINLGLE CABINET |
| 10 | - | SPARE | | | | | |
| 11 | B400-HSB-001 | DISTRIBUTION & HVAC PANEL - I&T ROOM | 1600 | 600 | 2300 | 1150 | |
| 12 | - | TABLE | 850 | 500 | 750 | 50 | |
| 13 | - | PORTABLE EXTINGUISHER (CO2) 5 Kg. | 150 | 150 | 750 | 20 | |
| 14 | - | PORTABLE EXTINGUISHER (CO2) 5 Kg. | 150 | 150 | 750 | 20 | |
| 15 | - | FIRST AID KIT | 280 | 115 | 200 | 10 | |
| 16 | - | RESUSCITATION UNIT | 430 | 210 | 480 | 10 | |
| 17 | - | CABINET INCLUDED N.10 ESCAPE MASK | 448 | 213 | 422 | 15 | |
| 18 | HHU-77007 | AIR HANDLING UNIT A | 2100 | 1000 | 2158 | 850 | |
| 19 | HHU-77008 | AIR HANDLING UNIT B | 2100 | 1000 | 2158 | 850 | |
| 20 | ~~HSS 77 001~~ | SPACE HEATER 1 | 184 | 145 | 1100 | 5 | |
| 21 | ~~HSS 77 002~~ | SPACE HEATER 2 | 184 | 145 | 1100 | 5 | |
| 22 | ~~HSS 77 003~~ | SPACE HEATER 3 | 184 | 145 | 1100 | 5 | |

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

| ROSETTI MARINO | |
|---|---|
| 1 | NO COMMENTS - APPROVED - WORK MAY PROCEED |
| 2 | MINOR COMMENTS - REVISE AND RESUBMIT - WORK MAY PROCEED |
| 3 | MAJOR COMMENTS – REJECTED – DO NOT PROCEED |
| 4 | APPROVAL NOT REQUIRED |
| NOTE: Approval doesn't relieve the supplier from mandatory compliance with contractual documents and specifications. Comments made do not imply acceptance of any cost or delivery impact. | |
| Sign: R. Bossi | Date: 10/07/2024 |

MASTER COPY
INTERNAL TEST




### NOTE

1) ALL DIMENSIONS ARE IM MM.

### REFERENCE

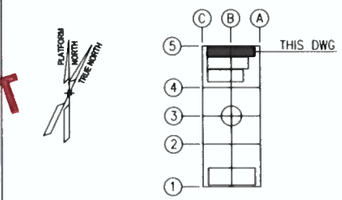
| DOCUMENT TITLE | DOCUMENT NUMBER |
|---|---|
| "B-400" HVAC SYSTEM G.A. & DETAILS | 1724000049-HV-DA-00067 |
| "B-400" DETAILED DRAWING | 1724000049-AR-DD-00021 |
| PAINTING PROCEDURE | 1724000049-MAT-PRO-00007 |

### LEGEND

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

### HOLDS

### KEY PLAN




ALEXSISTEMI

Next revision: 03 Accepted For Construction (AFC)

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 02 | 04/07/24 | M.G. | SKV | C.A. | ACCEPTED FOR CONSTRUCTION (AFC) |
| 01 | 16/05/24 | M.G. | SKV | C.A. | ISSUE FOR REVIEW (IFR) |
| 00 | 08/02/24 | A.G. | SKV | C.A. | ISSUE FOR CLIENT REVIEW (ICR) |

CROSSWIND | ROSETTI MARINO

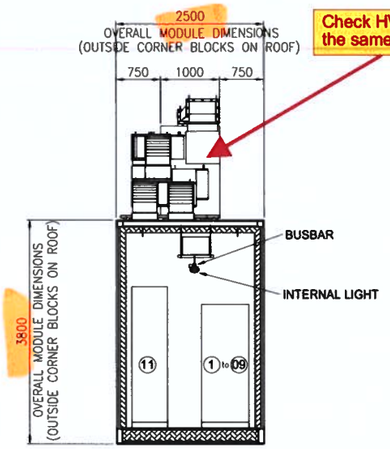
TITLE : BASE LOAD POWER HUB (BLPH)
B-400 GENERAL ARRANGEMENT DRAWINGS

| | | | |
|---|---|---|---|
| CONTRACT NO./TITLE CONTRACT_NO. 1724000049 | | | SCALE 1:50 |
| DRAWN M.G. | CHECKED SKV | APPROVED C.A. | DATE 04/07/24 |
| A1 | DRAWING NO. 1724000049-AR-DA-00017 | SHEET 002 | REV. 02 |

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

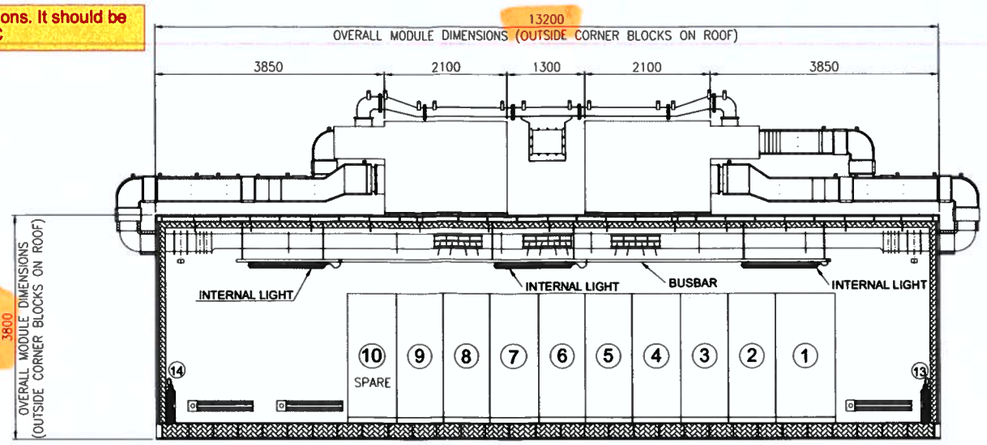
02

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

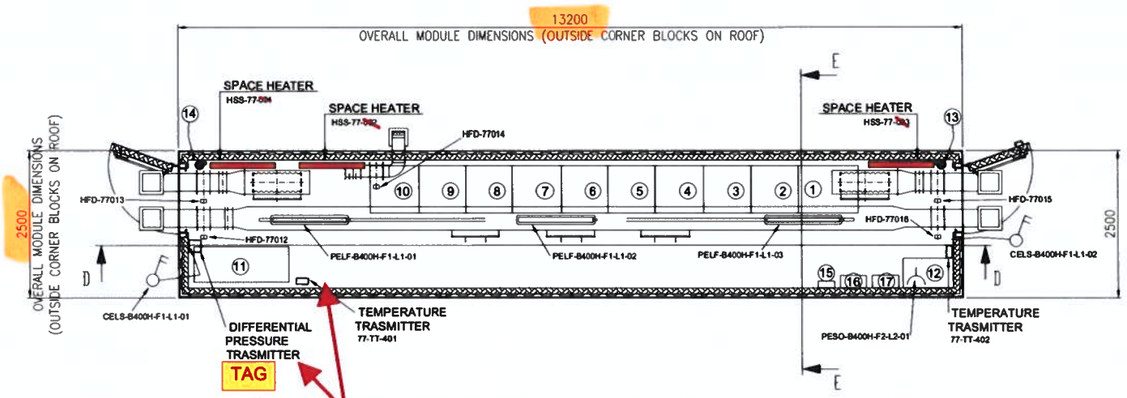



SECTION E-E

Check HVAC units and ducts positions. It should be the same shown in the Section C-C




SECTION D-D




Evaluate if move Differential Pressure Transmitter next to Temperature Transmitter

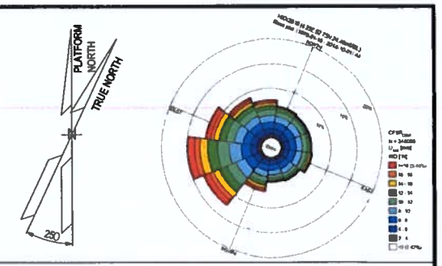
## EQUIPMENT LIST

| REF. | TAG No. | DESCRIPTION | LENGTH (mm) | WIDTH (mm) | HEIGHT (mm) | WEIGHT (Kg) | NOTE |
|---|---|---|---|---|---|---|---|
| 1 | B400-SRV-001 | SERVER CABINET | 1000 | 800 | 2100 | 250 | SINLGLE CABINET |
| 2 | B400-NET-001 | NETWORK CABINET | 800 | 800 | 2100 | 250 | SINLGLE CABINET |
| 3 | B400-EMCS-001 | EMCS SYSTEM CABINET | 800 | 800 | 2100 | 250 | SINLGLE CABINET |
| 4 | B400-PCS-001 | PCS SYSTEM CABINET | 800 | 800 | 2100 | 250 | DOUBLE CABINET |
| 5 | B400-PCS-002 | PCS MARSHALLING CABINET | 800 | 800 | 2100 | 250 | |
| 6 | B400-FGS-001 | FGS SYSTEM CABINET | 800 | 800 | 2100 | 250 | TRIPLE CABINET |
| 7 | B400-FGS-002 | FGS MARSHALLING CABINET 1 | 800 | 800 | 2100 | 250 | |
| 8 | B400-FGS-003 | FGS MARSHALLING CABINET 2 | 800 | 800 | 2100 | 250 | |
| 9 | B400-SIS-001 | SIS SYSTEM/MARSHALLING CABINET | 800 | 800 | 2100 | 250 | SINLGLE CABINET |
| 10 | - | SPARE | | | | | |
| 11 | B400-HSB-001 | DISTRIBUTION & HVAC PANEL - I&T ROOM | 1600 | 600 | 2300 | 1150 | |
| 12 | - | TABLE | 850 | 500 | 750 | 50 | |
| 13 | - | PORTABLE EXTINGUISHER (CO2) 5 Kg. | 150 | 150 | 750 | 20 | |
| 14 | - | PORTABLE EXTINGUISHER (CO2) 5 Kg. | 150 | 150 | 750 | 20 | |
| 15 | - | FIRST AID KIT | 280 | 115 | 200 | 10 | |
| 16 | - | RESUSCITATION UNIT | 430 | 210 | 480 | 10 | |
| 17 | - | CABINET INCLUDED N.10 ESCAPE MASK | 448 | 213 | 422 | 15 | |
| 18 | HHU-77007 | AIR HANDLING UNIT A | 2100 | 1000 | 2158 | 850 | |
| 19 | HHU-77008 | AIR HANDLING UNIT B | 2100 | 1000 | 2158 | 850 | |
| 20 | HSS-77-001 | SPACE HEATER 1 | 184 | 145 | 1100 | 5 | |
| 21 | HSS-77-002 | SPACE HEATER 2 | 184 | 145 | 1100 | 5 | |
| 22 | HSS-77-003 | SPACE HEATER 3 | 184 | 145 | 1100 | 5 | |

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

MASTER COPY
INTERNAL TEST

02




## NOTE

1) ALL DIMENSIONS ARE IM MM.

## REFERENCE

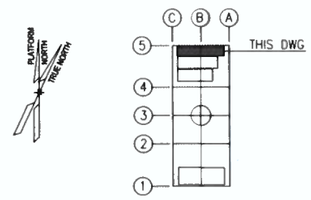
| DOCUMENT TITLE | DOCUMENT NUMBER |
|---|---|
| "B-400" HVAC SYSTEM G.A. & DETAILS | 1724000049-HV-DA-00067 |
| "B-400" DETAILED DRAWING | 1724000049-AR-DD-00021 |
| PAINTING PROCEDURE | 1724000049-MAT-PRO-00007 |

## LEGEND

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

## HOLDS

## KEY PLAN




ALEXSISTEMI

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 02 | 04/07/24 | M.G. | SKV | C.A. | ACCEPTED FOR CONSTRUCTION (AFC) |
| 01 | 16/05/24 | M.G. | SKV | C.A. | ISSUE FOR REVIEW (IFR) |
| 00 | 08/02/24 | A.G. | SKV | C.A. | ISSUE FOR CLIENT REVIEW (ICR) |

CROSSWIND — ROSETTI MARINO

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

| | | | |
|---|---|---|---|
| CONTRACT NO./TITLE CONTRACT_NO. 1724000049 | | | SCALE 1:50 |
| DRAWN M.G. | CHECKED SKV | APPROVED C.A. | DATE 04/07/24 |
| A1 | DRAWING NO. 1724000049-AR-DA-00017 | SHEET 003 | REV. 02 |

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

DRAWING NO. 1724000049-ST-DD-00013

REV. 01

13170

13090

40

40

13200

OVERALL MODULE DIMENSIONS (OUTSIDE CORNER BLOCKS ON ROOF)

250 | 6275 | 200 | 6275 | 250

UNP260

B-400

UNP260

UNP260

UNP260

250 | 2023 | 250 = 2500

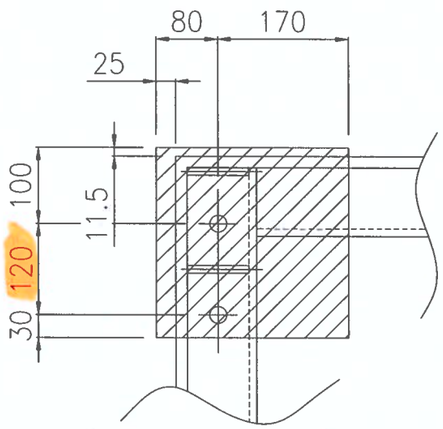
OVERALL MODULE DIMENSIONS (OUTSIDE CORNER BLOCKS ON ROOF)

2470

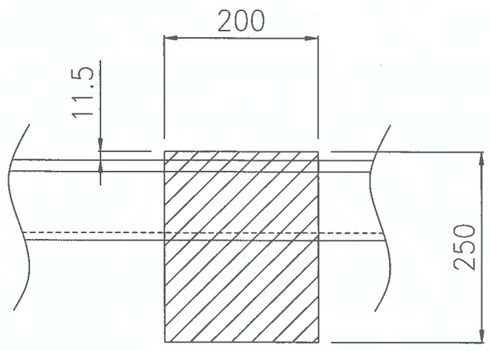
735 | 129 | 250 | 2983 | 120 | 250 | 735

250 | 200 | 250 | 250

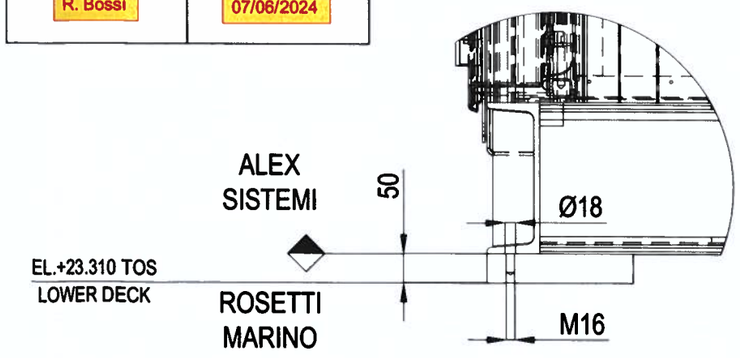
No. 2 HOLES Ø18
FOR M16 SCREW
AT EACH CORNER
(SCREW SUPPLY by ROSETTI)




TYPICAL CORNER PLATE POSITION




TYPICAL CENTRAL PLATE POSITION




TYPICAL FIXING DETAIL
SCALE 1 : 10

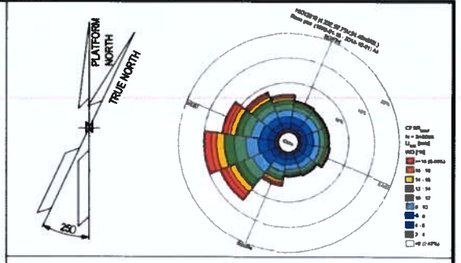
ROSETTI MARINO

| | |
|---|---|
| 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 |

MASTER COPY
INTERNAL TEST




NOTE

1) ALL DIMENSIONS ARE IM MM.

REFERENCE

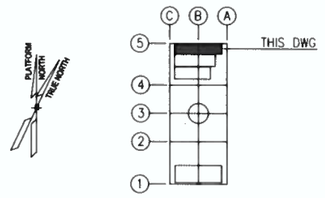
| DOCUMENT TITLE | DOCUMENT NUMBER |
|---|---|
| B-400 STRUCTURAL CALCULATION - E&I SHELTERS | 1724000049-ST-CA-00009 |

LEGEND

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

HOLDS

KEY PLAN




ALEXSISTEMI spa

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 01 | 03/06/24 | M.G. | M.R. | O.A. | APPROVED FOR CONSTRUCTION (AFC) |
| 00 | 16/04/24 | M.G. | M.R. | O.A. | ISSUE FOR CLIENT REVIEW (ICR) |

CROSSWIND

ROSETTI MARINO

TITLE :
B-400 FOUNDATION DRAWING -
E&I SHELTERS

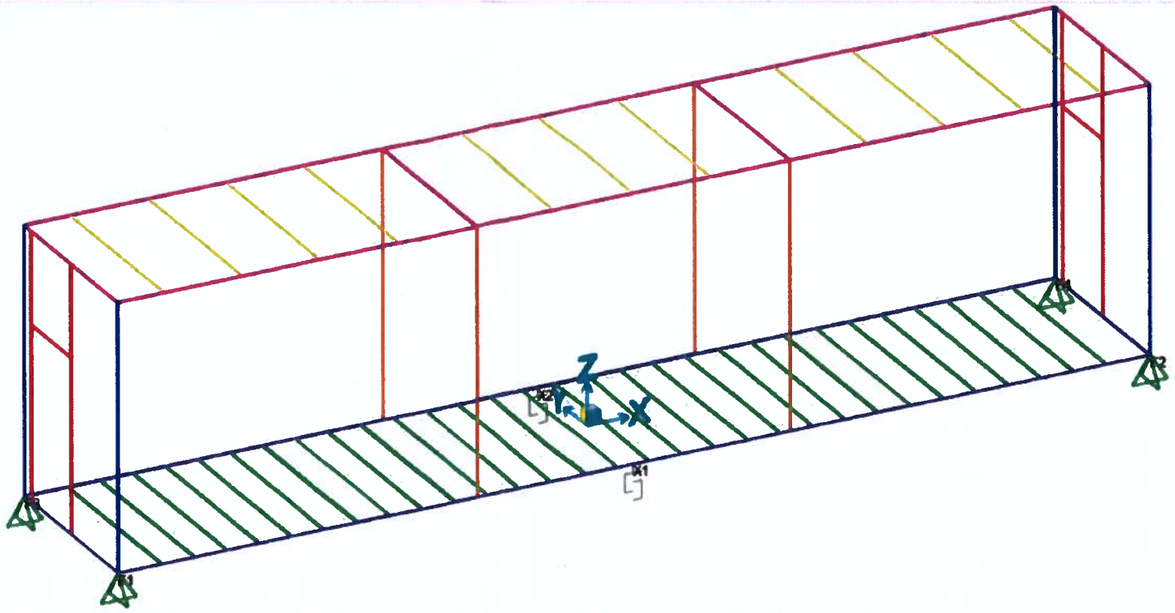
| | | | |
|---|---|---|---|
| CONTRACT NO./TITLE CONTRACT_NO. 1724000049 | | | SCALE N.A. |
| DRAWN M.G. | CHECKED M.R. | APPROVED O.A. | DATE 03/06/24 |
| A1 | DRAWING NO. 1724000049-ST-DD-00013 | SHEET 001/002 | REV. 01 |

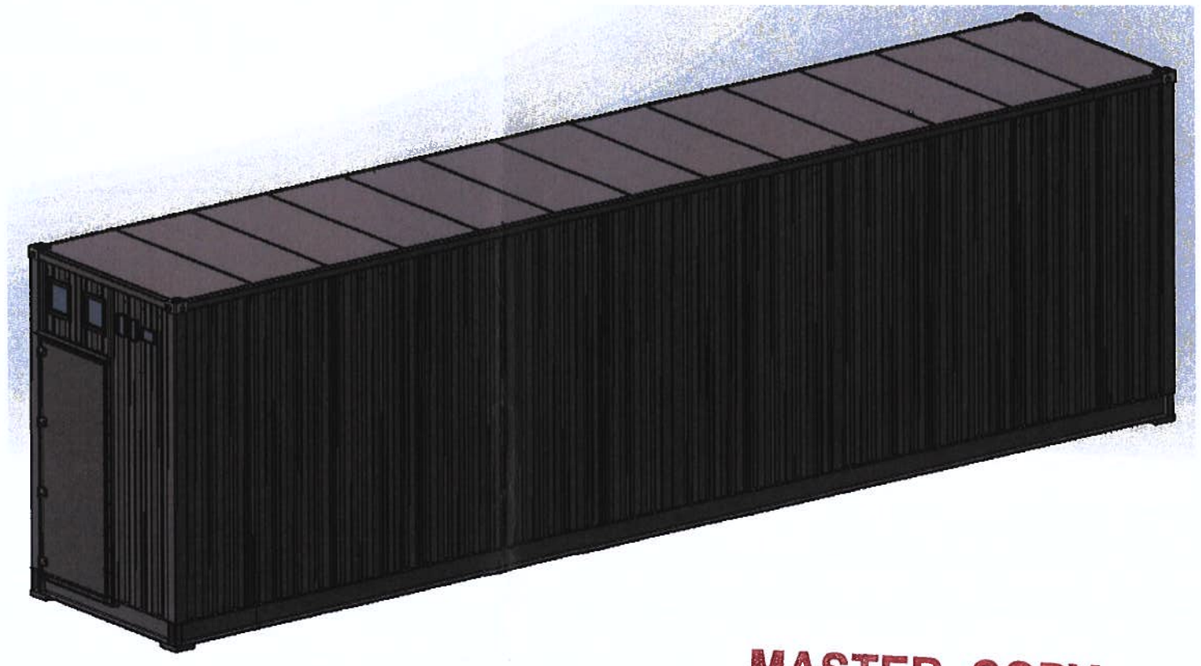
File Name : 1724000049-ST-DD-00013-REV01

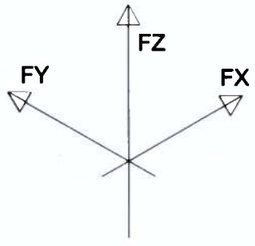
DRAWING NO. 1724000049-ST-DD-00013 REV. 01

**TABLE: Joint Reactions**

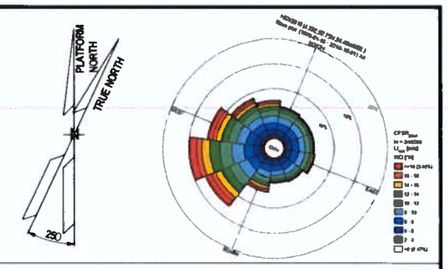
| Joint | OutputCase | CaseType | StepType | Fx | Fy | Fz | Mx | My | Mz |
|---|---|---|---|---|---|---|---|---|---|
| Text | Text | Text | Text | KN | KN | KN | KN-m | KN-m | KN-m |
| F3 | DEAD | NonStatic | Last Step | 7,70 | -3,33 | 18,50 | 0,00 | 0,00 | 0,00 |
| F3 | SD | NonStatic | Last Step | 6,05 | -2,10 | 13,16 | 0,00 | 0,00 | 0,00 |
| F3 | LIVE | NonStatic | Last Step | 19,91 | -7,03 | 38,05 | 0,00 | 0,00 | 0,00 |
| F3 | WIND X | NonStatic | Last Step | -9,76 | 0,24 | -7,81 | 0,00 | 0,00 | 0,00 |
| F3 | WIND Y | NonStatic | Last Step | 10,42 | -22,47 | 29,38 | 0,00 | 0,00 | 0,00 |
| F3 | NOT X | NonStatic | Last Step | -0,06 | 0,01 | -0,01 | 0,00 | 0,00 | 0,00 |
| F3 | NOT Y | NonStatic | Last Step | 0,05 | -0,06 | 0,07 | 0,00 | 0,00 | 0,00 |
| F3 | SLU LIVE | Combination | | 48,93 | -18,09 | 100,94 | 0,00 | 0,00 | 0,00 |
| F3 | SLU WIND X | Combination | | 28,46 | -21,30 | 80,91 | 0,00 | 0,00 | 0,00 |
| F3 | SLU WIND Y | Combination | | 52,67 | -48,55 | 125,54 | 0,00 | 0,00 | 0,00 |
| F3 | SLE LIVE | Combination | | 33,65 | -12,51 | 69,77 | 0,00 | 0,00 | 0,00 |
| F3 | SLE WIND X | Combination | | 7,11 | -11,98 | 32,72 | 0,00 | 0,00 | 0,00 |
| F3 | SLE WIND Y | Combination | | 21,23 | -27,87 | 58,75 | 0,00 | 0,00 | 0,00 |
| F4 | DEAD | NonStatic | Last Step | -7,69 | -3,32 | 18,50 | 0,00 | 0,00 | 0,00 |
| F4 | SD | NonStatic | Last Step | -5,26 | -1,66 | 9,47 | 0,00 | 0,00 | 0,00 |
| F4 | LIVE | NonStatic | Last Step | -20,38 | -7,26 | 40,24 | 0,00 | 0,00 | 0,00 |
| F4 | WIND X | NonStatic | Last Step | 0,99 | 1,65 | -5,48 | 0,00 | 0,00 | 0,00 |
| F4 | WIND Y | NonStatic | Last Step | -10,40 | -22,48 | 29,40 | 0,00 | 0,00 | 0,00 |
| F4 | NOT X | NonStatic | Last Step | -0,06 | -0,01 | 0,01 | 0,00 | 0,00 | 0,00 |
| F4 | NOT Y | NonStatic | Last Step | -0,05 | -0,06 | 0,07 | 0,00 | 0,00 | 0,00 |
| F4 | SLU LIVE | Combination | | -48,60 | -17,77 | 98,72 | 0,00 | 0,00 | 0,00 |
| F4 | SLU WIND X | Combination | | -41,06 | -18,77 | 81,20 | 0,00 | 0,00 | 0,00 |
| F4 | SLU WIND Y | Combination | | -54,73 | -47,73 | 123,06 | 0,00 | 0,00 | 0,00 |
| F4 | SLE LIVE | Combination | | -33,44 | -12,30 | 68,29 | 0,00 | 0,00 | 0,00 |
| F4 | SLE WIND X | Combination | | -15,19 | -10,13 | 31,39 | 0,00 | 0,00 | 0,00 |
| F4 | SLE WIND Y | Combination | | -23,16 | -27,02 | 55,80 | 0,00 | 0,00 | 0,00 |
| X1 | DEAD | NonStatic | Last Step | 0,00 | 0,00 | 25,06 | 0,00 | 0,00 | 0,00 |
| X1 | SD | NonStatic | Last Step | 0,00 | 0,00 | 15,16 | 0,00 | 0,00 | 0,00 |
| X1 | LIVE | NonStatic | Last Step | 0,00 | 0,02 | 67,30 | 0,00 | 0,00 | 0,00 |
| X1 | WIND X | NonStatic | Last Step | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| X1 | WIND Y | NonStatic | Last Step | 0,00 | 0,00 | 6,26 | 0,00 | 0,00 | 0,00 |
| X1 | NOT X | NonStatic | Last Step | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| X1 | NOT Y | NonStatic | Last Step | 0,00 | 0,00 | 0,01 | 0,00 | 0,00 | 0,00 |
| X1 | SLU LIVE | Combination | | 0,00 | 0,03 | 156,29 | 0,00 | 0,00 | 0,00 |
| X1 | SLU WIND X | Combination | | 0,00 | 0,02 | 127,88 | 0,00 | 0,00 | 0,00 |
| X1 | SLU WIND Y | Combination | | 0,00 | 0,02 | 135,40 | 0,00 | 0,00 | 0,00 |
| X1 | SLE LIVE | Combination | | 0,00 | 0,02 | 107,54 | 0,00 | 0,00 | 0,00 |
| X1 | SLE WIND X | Combination | | 0,00 | 0,00 | 42,11 | 0,00 | 0,00 | 0,00 |
| X1 | SLE WIND Y | Combination | | 0,00 | 0,00 | 46,50 | 0,00 | 0,00 | 0,00 |
| X2 | DEAD | NonStatic | Last Step | 0,00 | 0,00 | 24,89 | 0,00 | 0,00 | 0,00 |
| X2 | SD | NonStatic | Last Step | 0,00 | 0,00 | 17,19 | 0,00 | 0,00 | 0,00 |
| X2 | LIVE | NonStatic | Last Step | 0,00 | -0,02 | 65,54 | 0,00 | 0,00 | 0,00 |
| X2 | WIND X | NonStatic | Last Step | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| X2 | WIND Y | NonStatic | Last Step | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| X2 | NOT X | NonStatic | Last Step | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| X2 | NOT Y | NonStatic | Last Step | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| X2 | SLU LIVE | Combination | | 0,00 | -0,03 | 156,45 | 0,00 | 0,00 | 0,00 |
| X2 | SLU WIND X | Combination | | 0,00 | -0,02 | 126,96 | 0,00 | 0,00 | 0,00 |
| X2 | SLU WIND Y | Combination | | 0,00 | -0,02 | 126,96 | 0,00 | 0,00 | 0,00 |
| X2 | SLE LIVE | Combination | | 0,00 | -0,02 | 107,62 | 0,00 | 0,00 | 0,00 |
| X2 | SLE WIND X | Combination | | 0,00 | 0,00 | 42,08 | 0,00 | 0,00 | 0,00 |
| X2 | SLE WIND Y | Combination | | 0,00 | 0,00 | 42,08 | 0,00 | 0,00 | 0,00 |






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INTERNAL TEST




## NOTE

1) ALL DIMENSIONS ARE IM MM.

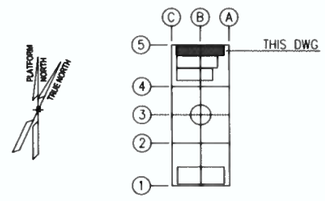
## REFERENCE

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

## LEGEND

## HOLDS

## KEY PLAN




ALEXSISTEMI s.p.a.

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 01 | 03/06/24 | M.G. | M.R. | O.A. | APPROVED FOR CONSTRUCTION (AFC) |
| 00 | 16/04/24 | M.G. | M.R. | O.A. | ISSUE FOR CLIENT REVIEW (ICR) |

CROSSWIND — ROSETTI MARINO

TITLE :
B-400 FOUNDATION DRAWING - E&I SHELTERS

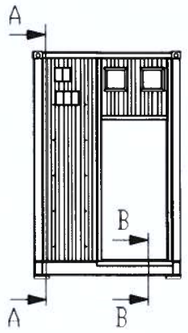
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|---|---|---|---|
| CONTRACT NO./TITLE CONTRACT_NO. 1724000049 | | | SCALE N.A. |
| DRAWN M.G. | CHECKED M.R. | APPROVED O.A. | DATE 03/06/24 |
| A1 | DRAWING NO. 1724000049-ST-DD-00013 | SHEET 002/002 | REV. 01 |

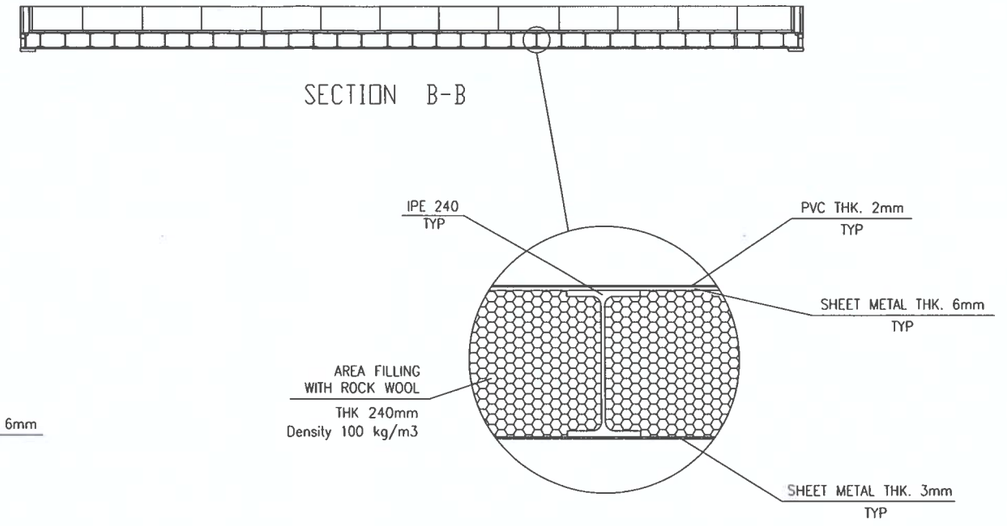
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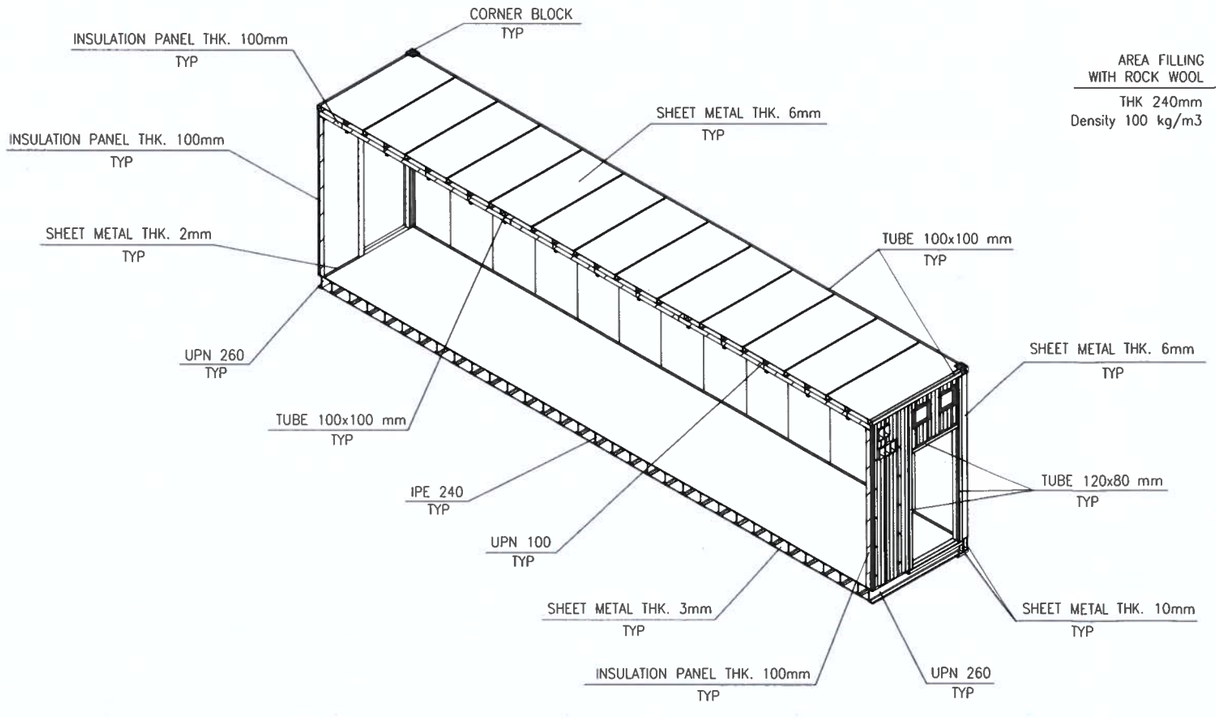
DRAWING NO. 1724000049-AR-DD-00021 REV. 02

# MODULE B-400

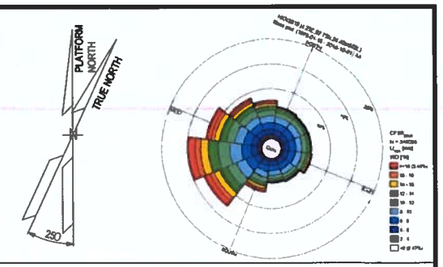
| REFERENCE | |
|---|---|
| DOCUMENT TITLE | DOCUMENT NUMBER |
| "B-400" STRUCTURAL CALCULATION | 1724000049-ST-CA-00009 |
| Weld Procedure Specifications (WPS), Weld Procedure Qualification Report (WPQR), Welding Map and Welders Qualifications | 1724000049-WEL-RE-00003 |



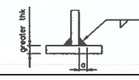




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INTERNAL TEST




## NOTES

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

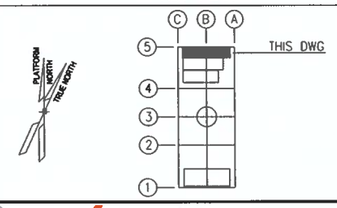



a= 0,7 smaller thk

## LEGEND

## HOLDS

KEY PLAN




ALEXSISTEMI

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 02 | 11/07/24 | M.G. | O.A. | C.A. | ISSUE FOR REVIEW (IFR) |
| 01 | 08/07/24 | M.G. | O.A. | C.A. | ISSUE FOR REVIEW (IFR) |
| 00 | 30/05/24 | M.G. | O.A. | C.A. | ISSUE FOR CLIENT REVIEW (ICR) |

CROSSWIND | ROSETTI MARINO

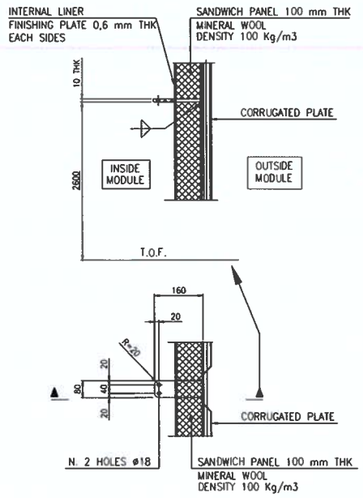
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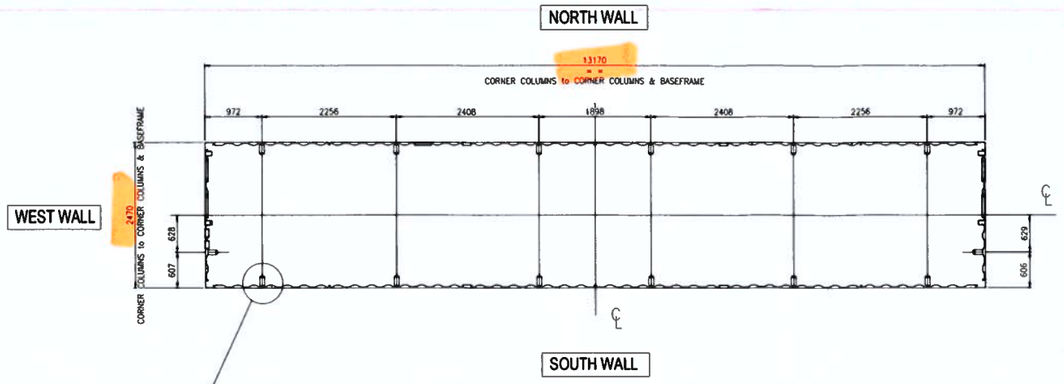
**B-400 DETAILED DRAWINGS-E&I SHELTERS**

| | | | |
|---|---|---|---|
| CONTRACT NO./TITLE CONTRACT_NO. 1724000049 | | | SCALE 1:50 |
| DRAWN M.G. | CHECKED O.A. | APPROVED C.A. | DATE 11/07/24 |
| A1 | DRAWING NO. 1724000049-AR-DD-00021 | SHEET 001 | REV. 02 |

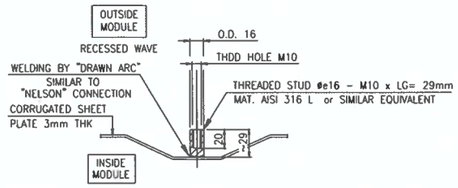
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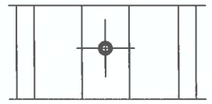
DRAWING NO. 1724000049-AR-DD-00021 | REV. 02



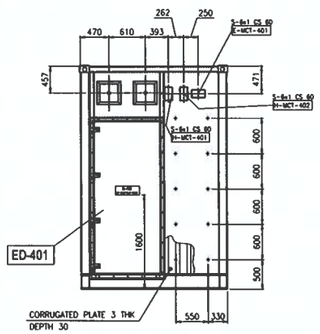




## MODULE B-400
### INTERNAL SEA FASTENING PLATES
### PLAN

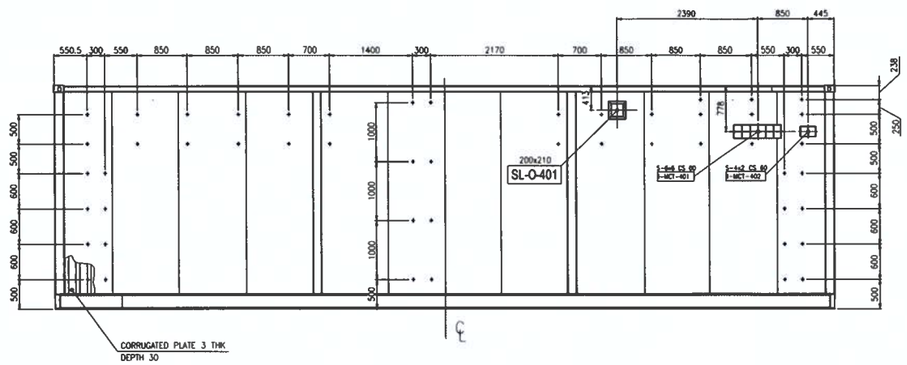


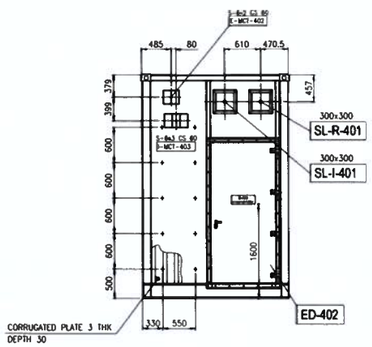
THREADED STUD INSTALLATION



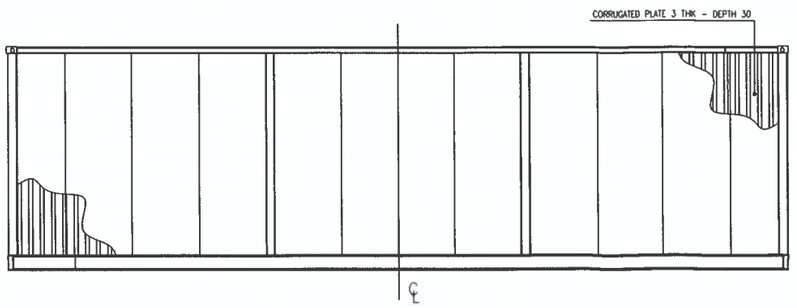

VIEW OF WEST WALL




VIEW OF NORTH WALL



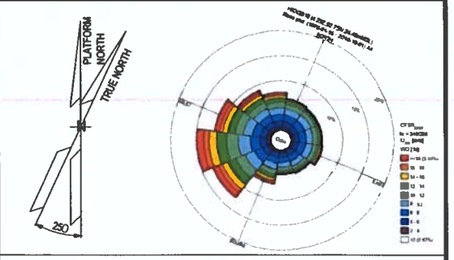

VIEW OF EAST WALL




VIEW OF SOUTH WALL

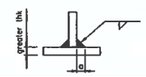
MASTER COPY
INTERNAL TEST

| REFERENCE | |
|---|---|
| DOCUMENT TITLE | DOCUMENT NUMBER |
| "B-400" GENERAL ARRANGEMENT DRAWING | 1724000049-AR-DA-00017 |
| "B-400" HVAC GENERAL ARRANGEMENT | 1724000049-HV-DA-00067 |
| | |




## NOTES

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




a= 0,7 smaller thk

## LEGEND

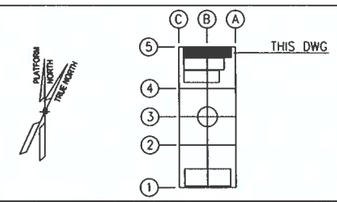
THREADED STUD ø16 - M10 x LG= 29mm
T.O.F. — TOP OF FLOOR

MCT LEGEND: E-MCT-401
- MCT TYPE & SIZE: BRAND ROXTEC; S 6x2 C.S. 60
- MATERIAL: C.S.= PRIMED MILD STEEL; S.S.= AISI 316 L
- MCT DEPTH
- MCT SERVICE: E= ELECTRICAL; I= INSTRUMENTAL; H= HVAC
- PROGRESSIVE NUMBER FROM 01
- MODULE LOCATION: 1= B-100 3= B-300 2= B-200 4= B-400

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

KEY PLAN




MCT LIST

| SERVICE | TAG No. | MCT DIMENSIONS and INSTALLATION SENSE L (mm) HORIZONTAL | H (mm) VERTICAL | W (mm) DEPTH | MCT SIZE TYPE "S" FRAME Primed Mild Steel BRAND: ROXTEC | MCT SIZE TYPE "S" FRAME AISI 316 L BRAND: ROXTEC |
|---|---|---|---|---|---|---|
| ELECTRICAL | E-MCT-401 | 238 | 140.5 | 60 | 6x1 | |
| | E-MCT-402 | 271 | 238 | 60 | 6x2 | |
| INSTRUMENTAL | I-MCT-401 | 793 | 238 | 60 | 6x6 | |
| | I-MCT-402 | 271 | 179.5 | 60 | 4x2 | |
| | I-MCT-403 | 411.5 | 238 | 60 | 6x3 | |
| HVAC | H-MCT-401 | 140.5 | 238 | 60 | 6x1 | |
| | H-MCT-402 | 140.5 | 238 | 60 | 6x1 | |

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 02 | 11/07/24 | M.G. | O.A. | C.A. | ISSUE FOR REVIEW (IFR) |
| 01 | 08/07/24 | M.G. | O.A. | C.A. | ISSUE FOR REVIEW (IFR) |
| 00 | 30/05/24 | M.G. | O.A. | C.A. | ISSUE FOR CLIENT REVIEW (ICR) |

ALEXSISTEMI

CROSSWIND | ROSETTI MARINO

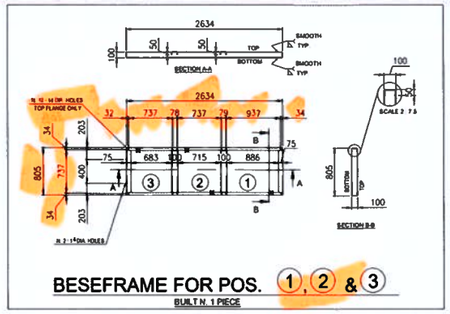
TITLE :
B-400 DETAILED DRAWINGS-E&I SHELTERS

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

File Name : 1724000049-AR-DD-00021-REV.02

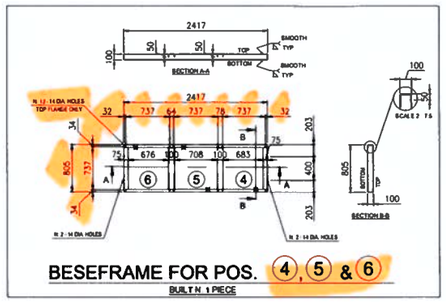
DRAWING NO. 1724000049-AR-DD-00021 REV. 02

# B-400
# I&T EQUIPMENT ROOM
# BASEFRAME LOCATION PLAN



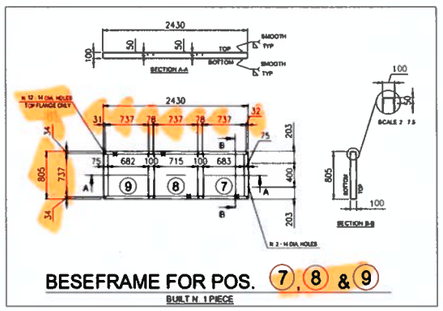

BESEFRAME FOR POS. 1, 2 & 3

BUILT N. 1 PIECE



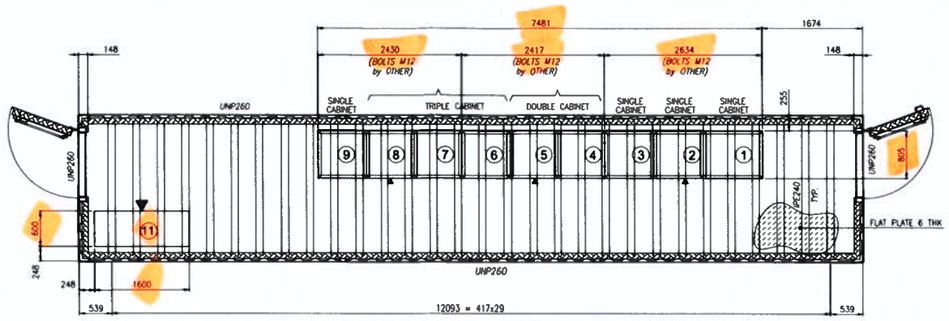

BESEFRAME FOR POS. 4, 5 & 6

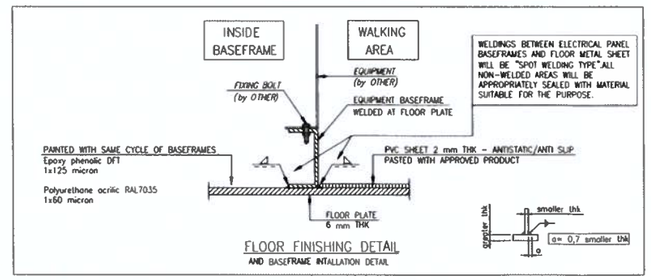
BUILT N. 1 PIECE




BESEFRAME FOR POS. 7, 8 & 9

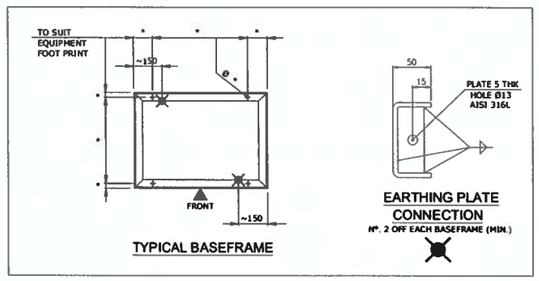
BUILT N. 1 PIECE




FLOOR FINISHING DETAIL

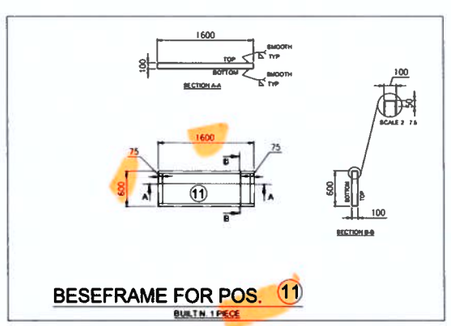
AND BASEFRAME INTALLATION DETAIL




TYPICAL BASEFRAME

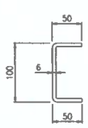
EARTHING PLATE CONNECTION

Nº. 2 OFF EACH BASEFRAME (MIN.)




BESEFRAME FOR POS. 11

BUILT N. 1 PIECE

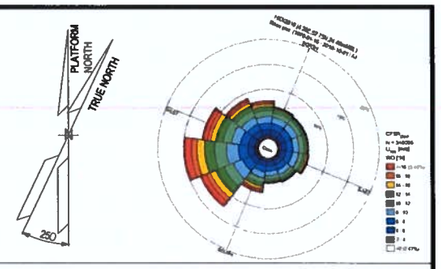



C 100x50x50 THK 6mm.
FROM BENT PLATE THK 6mm.
MAT. CARBON STEEL

## EQUIPMENT LIST

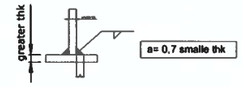
| REF. | TAG No. | DESCRIPTION | LENGTH (mm) | WIDTH (mm) | HEIGHT (mm) | WEIGHT (Kg) | SCOPE |
|---|---|---|---|---|---|---|---|
| 1 | B400-SRV-001 | SERVER CABINET | 1000 | 800 | 2100 | 250 | ASI |
| 2 | B400-NET-001 | NETWORK CABINET | 800 | 800 | 2100 | 250 | ASI |
| 3 | B400-EMCS-001 | EMCS SYSTEM CABINET | 800 | 800 | 2100 | 250 | ASI |
| 4 | B400-PCS-001 | PCS SYSTEM CABINET | 800 | 800 | 2100 | 250 | ASI |
| 5 | B400-PCS-002 | PCS MARSHALLING CABINET | 800 | 800 | 2100 | 250 | ASI |
| 6 | B400-FGS-001 | FGS SYSTEM CABINET | 800 | 800 | 2100 | 250 | ASI |
| 7 | B400-FGS-002 | FGS MARSHALLING CABINET 1 | 800 | 800 | 2100 | 250 | ASI |
| 8 | B400-FGS-003 | FGS MARSHALLING CABINET 2 | 800 | 800 | 2100 | 250 | ASI |
| 9 | B400-SIS-001 | SIS SYSTEM/MARSHALLING CABINET | 800 | 800 | 2100 | 250 | ASI |
| 10 | - | SPARE | | | | | |
| 11 | B400-HSB-001 | DISTRIBUTION & HVAC PANEL - I&T ROOM | 1600 | 600 | 2300 | 1150 | ASI |

MASTER COPY
INTERNAL TEST

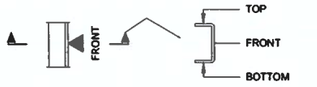



## NOTES

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




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



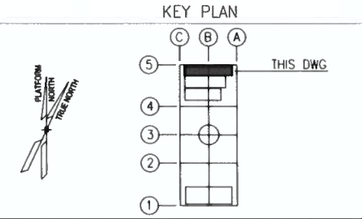

6. SURFACE TREATMENT ACCORDING DOCUMENT N. 1724000049-MAT-PRO-00004 - PAINTING PROCEDURE FINAL COLOUR LIGHT GREY RAL 7035.

## LEGEND

ASI = ALEX SISTEMI

## HOLDS

## KEY PLAN




ALEXSISTEMI S.r.l.

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 02 | 11/07/24 | M.G. | O.A. | C.A. | ISSUE FOR REVIEW (IFR) |
| 01 | 08/07/24 | M.G. | O.A. | C.A. | ISSUE FOR REVIEW (IFR) |
| 00 | 30/05/24 | M.G. | O.A. | C.A. | ISSUE FOR CLIENT REVIEW (ICR) |

CROSSWIND

ROSETTI MARINO

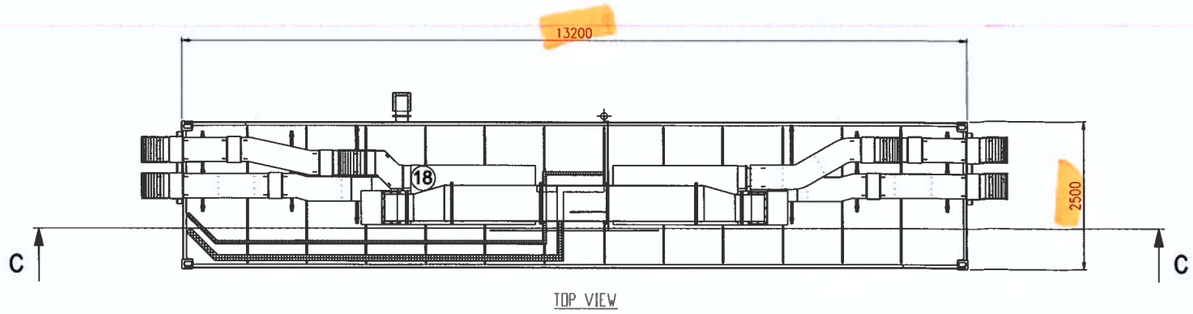
TITLE :

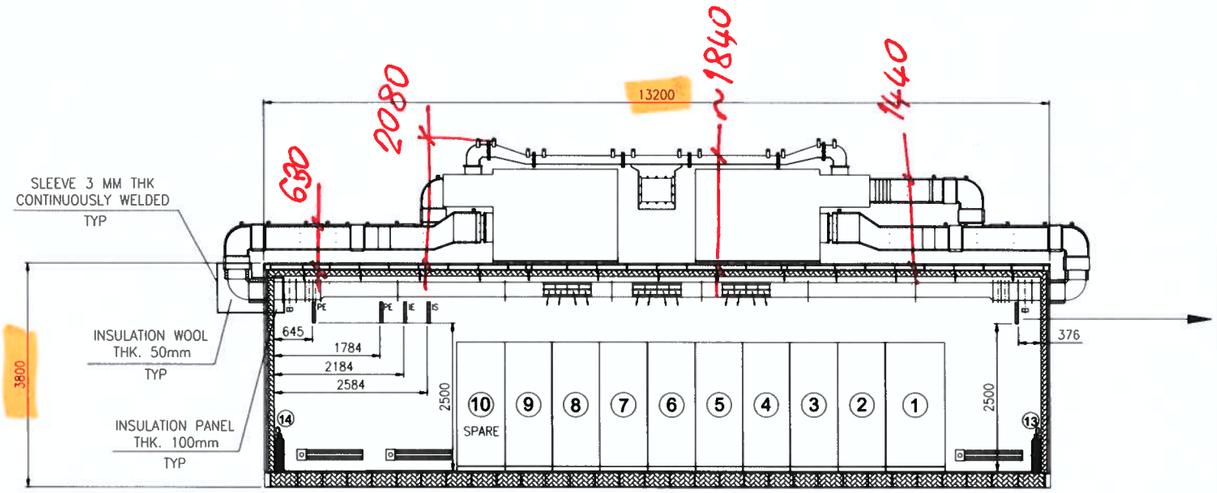
B-400 DETAILED DRAWINGS-E&I SHELTERS

| 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 |

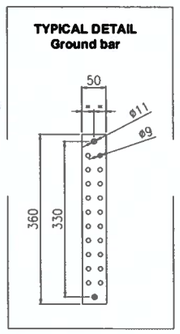
File Name : 1724000049-AR-DD-00021-REV.02

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

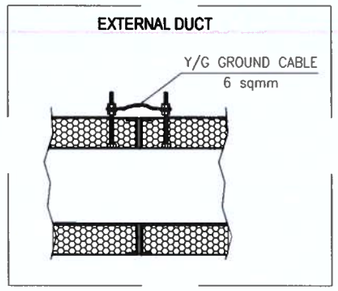


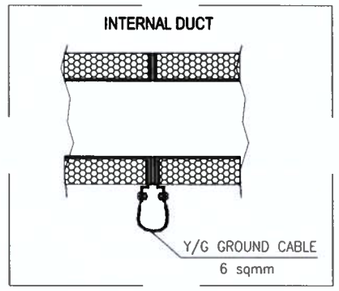

## DET. 3



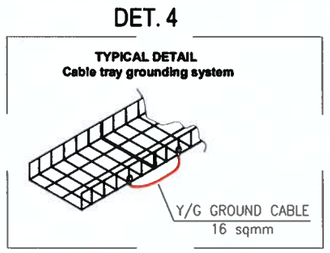

## DET. 1



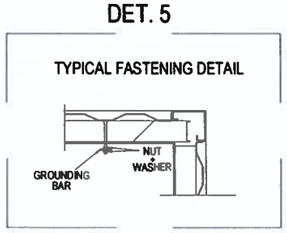

## DET. 2



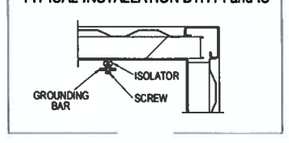

## DET. 4



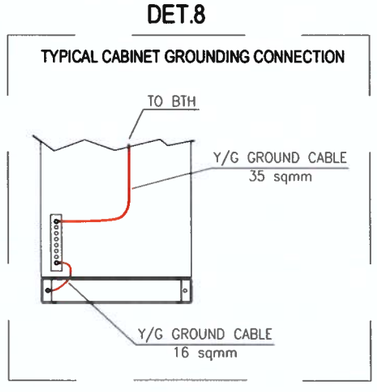

## DET. 5



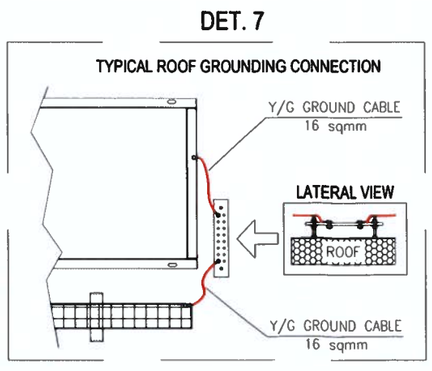

## DET. 6

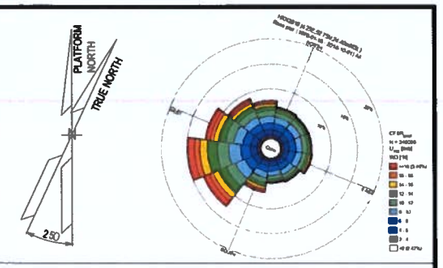



## DET.8




## DET. 7



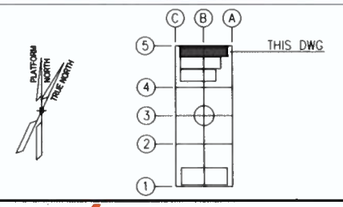

## NOTES

1. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETERS.

## LEGEND

## HOLDS

KEY PLAN




ALEXSISTEMI s.p.a.

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 02 | 11/07/24 | M.G. | O.A. | C.A. | ISSUE FOR REVIEW (IFR) |
| 01 | 08/07/24 | M.G. | O.A. | C.A. | ISSUE FOR REVIEW (IFR) |
| 00 | 30/05/24 | M.G. | O.A. | C.A. | ISSUE FOR CLIENT REVIEW (ICR) |

CROSSWIND | ROSETTI MARINO

TITLE :

B-400 DETAILED DRAWINGS-E&I SHELTERS

| | | | |
|---|---|---|---|
| CONTRACT NO./TITLE CONTRACT_NO. 1724000049 | | | SCALE 1:50 |
| DRAWN M.G. | CHECKED O.A. | APPROVED C.A. | DATE 11/07/24 |
| A1 | DRAWING NO. 1724000049-AR-DD-00021 | SHEET 004 | REV. 02 |

File Name: 1724000049-AR-DD-00021-REV.02

MASTER COPY
INTERNAL TEST

# B-400 – ATTACH. 2

| Doc. Name: PAINTING CHECK | | Report No.04 Mod 1.4.2 |
|---|---|---|
| OUR JOB X176-24X | Date 26/07/2024 | Page 1/1 |

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

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 26/07/2024

REFERENCE DRAWING:

REFERENCE DOCUMENT: 1724000049-MAT-PRO-00004

| Inspection List | YES | NO | N.A. |
|---|---|---|---|
| | | | |
| **1 Verification of paint and color code according to design specification** | | | |
| | | | |
| Visual Check External Color walls, roof, base frame RAL 7035 | ✓ | | |
| Visual Check External Color doors RAL 7035 | ✓ | | |
| Layer thickness of external coating µm 320 total | ✓ | | |
| Visual Check Internal Equipment Baseframe RAL 7035 | ✓ | | |
| | | | |
| | | | |

**Comments:**

** Touch-up and cleaning are required before proceeding with packaging*

| ALEX SISTEMI *Quality Assurance* | Customer | Final Customer | 3rd Part | other |
|---|---|---|---|---|
| ALEXSISTEMI spa | COICEA CATALIN ROSETTI MARINO (1X/) | CROSSWIND | | |

Mod1.4.2

| Doc. Name: CHECK AND FUNCTIONAL TEST | | Report No.04 |
|---|---|---|
| OUR JOB X176-24X | Date 26/07/2024 | Page 1 |

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

LOCATION : ON SITE ☒ OFF SITE ☐

DATE OF TEST: 26/07/2024

REFERENCE DRAWING:

REFERENCE DOCUMENT: ECA-00-ELE-DEB- 0001 Rev.7 Electrical Design Criteria

| Inspection List | YES | NO | N.A. |
|---|---|---|---|
| | | | |
| Functional Test of Doors : | | | |
| | | | |
| Opening/Closing doors, doors locking | ✓ | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**Comments:**

| ALEX SISTEMI *Quality Assurance* | Customer | Final Customer | 3rd Part | other |
|---|---|---|---|---|
| ALEXSISTEMI spa | COICEA CATALIN<br>ROSETTI MARINO<br>(IX) | CROSSWIND | | |

Mod.1.4.9

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

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 26/07/2024

REFERENCE DRAWING:

- 1724000049-AR-DA-00017 - B-400 GENERAL ARRANGMENT DRAWINGS - E&I SHELTERS
- 1724000049-HV-DA-00067 - MODULE B-400 – HVAC SYSTEM–G.A. AND DETAILS
- 1724000049-HV-DA-00029 - B-400 HVAC and LIGHTING PANEL WIRING DRAWINGS and GENERAL ARRANGEMENT (INCL INTERCONNECTING) - E&I SHELTERS

REFERENCE DOCUMENT:

- 1724000049-HV-PID-00042 - B-400 PID - E&I SHELTERS
- 1724000049-HV-LIS-00050 - B-400 HVAC COMPONENTS LIST AND DS - E&I SHELTERS
- 1724000049-HV-RE-00055 - HVAC SYST DESCRIPTION (MANAGEMENT LOGICS) - E&I SHELTERS
- 1724000049-QC-PRO-00056 (FAT Procedure)
- ECA-00-ELE-DEB-0001 Rev.7 Electrical Design Criteria

| Inspection List | YES | NO | N.A. |
|---|---|---|---|
| **Functional Test of Electrical System** | | | |
| - Check of Lighting System, Control Panel, and socket/switch. | | | X |
| - Cable tag and wiring | | | X |
| - Cable tray and conduit installation | | | X |
| - Grounding System Installation | | | X |
| | | | |
| **Functional Test of Grounding System** | | | |
| - Check the functionality of Grounding System (less than 200 mΩ) | | | X |
| | | | |

**Comments:**

The items listed above are marked as N.A. because FAT activities have not been conducted. The HVAC system supply and installation were not completed by the specified date, making it impossible to perform all the functional tests outlined in the table.

Mod1.4.6

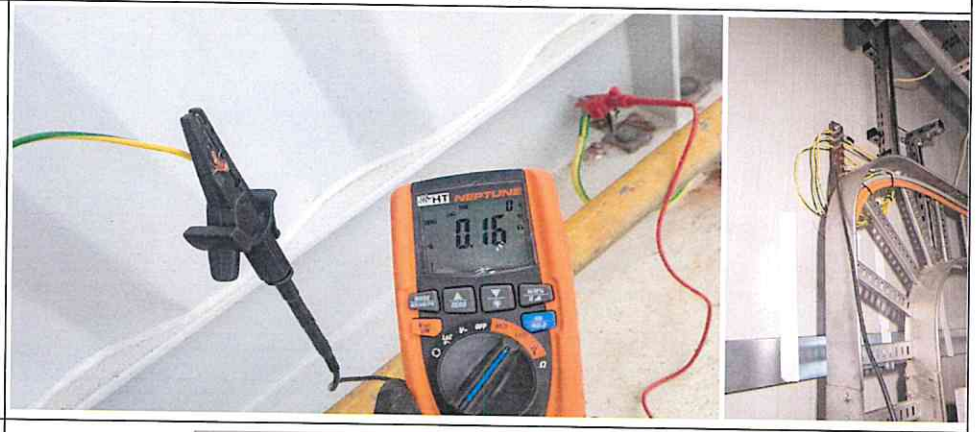
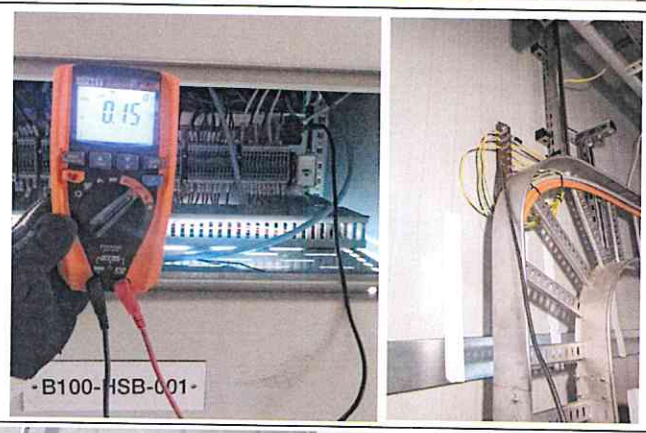
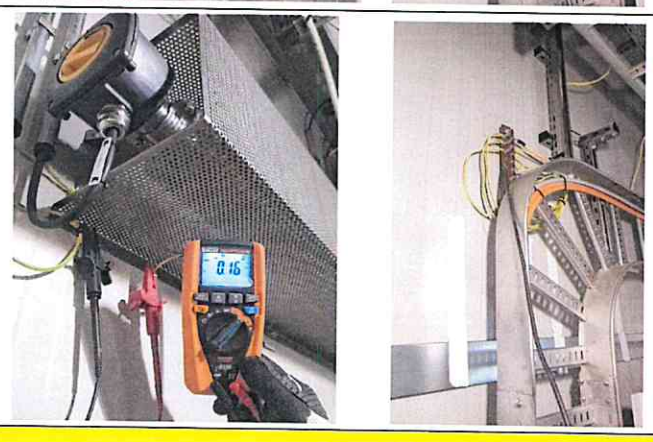
| | |
|---|---|
| **Customer:** Rosetti Marino | **Project:** BASE LOAD POWER HUB (BLPH) |
| **C/N:** CW-I-WPA-2023-05 | **Description:** I&T EQUIPMENT ROOM B-400 |
| **S/N: B400** | **FAT procedure:** 1724000049-QC-PRO-00056 |

At this stage, checking the lighting system was not possible, as this activity must be performed only after the lights are installed at the correct height.

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

# GROUNDING REPORT

# GROUNDING SYSTEM CHECK REPORT (B-100)

| Measurement point | Value | Photos |
|---|---|---|
| From the external ground cable to the internal BTM | 160mΩ |  |
| From panel to BTM | 150mΩ |   |
| From the pressure differential instrument to BTM | 180mΩ |  |
| From conduit to BTM | 150mΩ |  |
| From space heater to BTM | 160mΩ |  |
| **AVERAGE** | **160mΩ** | |

**All measures were taken in Ω**

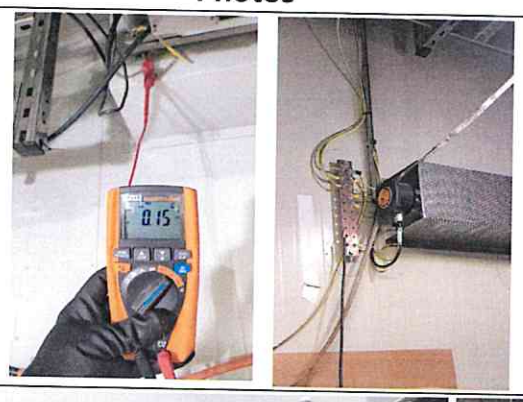
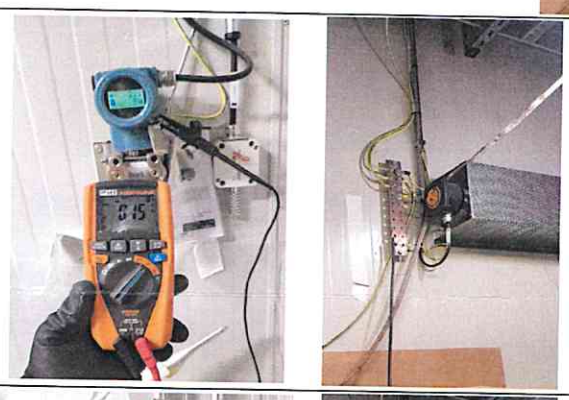
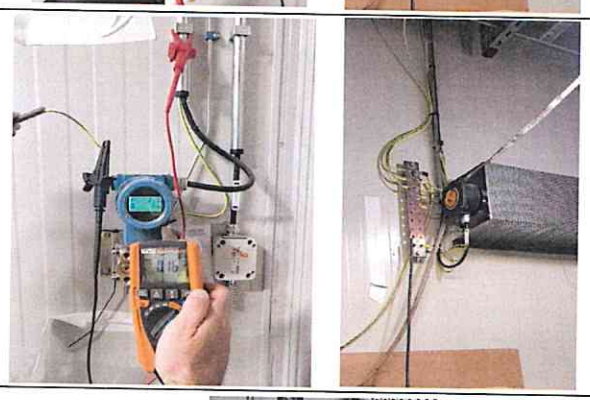
Approval RM

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

*24/10/2024*

ALEX SISTEMI:

# GROUNDING SYSTEM CHECK REPORT (B-200)

| Measurement point | Value | Photos |
|---|---|---|
| From HVAC to BTM | 150mΩ |  |
| From panel to BTM | 150mΩ |   |
| From the pressure differential instrument to BTM | 150mΩ |  |
| From conduit to BTM | 160mΩ |  |
| From space heater to BTM | 150mΩ |  |
| **AVERAGE** | **152mΩ** | |

**All measures were taken in Ω**

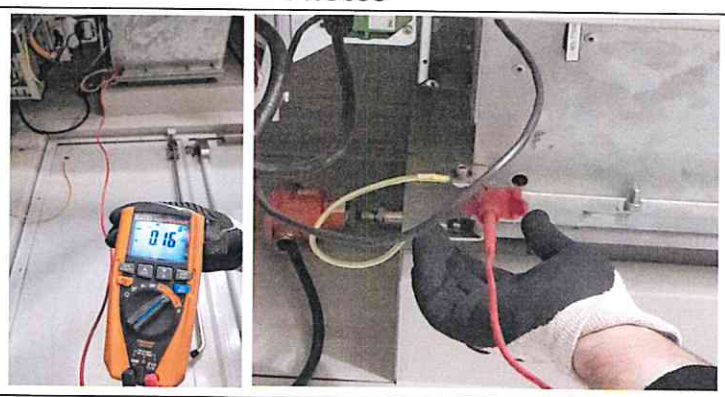
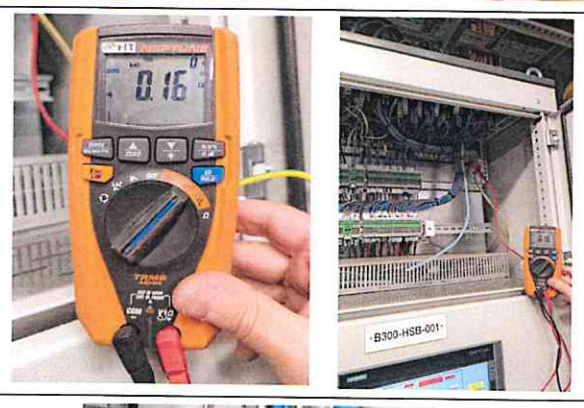
Approval RM

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

24/10/2024

ALEX SISTEMI : Matteo Marchi

# GROUNDING SYSTEM CHECK REPORT (B-300)

| Measurement point | Value | Photos |
|---|---|---|
| From HVAC to BTM | 160mΩ |  |
| From panel to BTM | 160mΩ |  |
| From the pressure differential instrument to BTM | 180mΩ |  |
| From conduit to BTM | 160mΩ |  |
| From space heater to BTM | 160mΩ |  |
| **AVERAGE** | **164mΩ** | |

**All measures were taken in Ω**

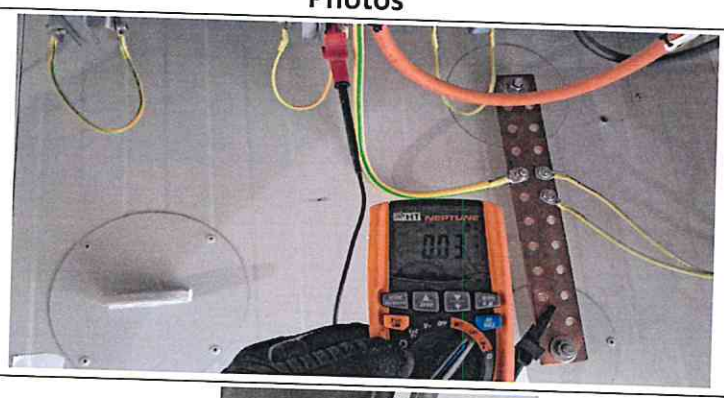
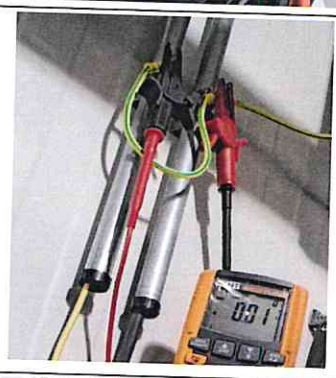
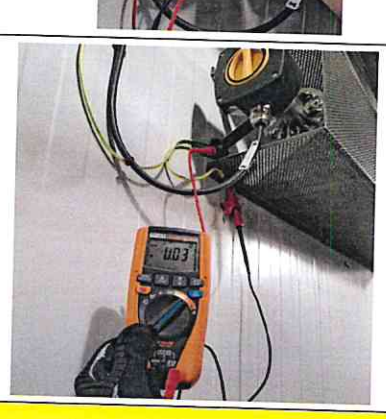
Approval RM

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

*24/10/2024*

ALEX SISTEMI: Matteo Lorenzi

# GROUNDING SYSTEM CHECK REPORT (B-400)

| Measurement point | Value | Photos |
|---|---|---|
| From HVAC to BTM | 30mΩ |  |
| From conduit to BTM | 10mΩ |  |
| From conduit to BTM | 30mΩ |  |
| From conduit to BTM | 30mΩ |  |
| From space heater to BTM | 30mΩ |  |
| **AVERAGE** | **26mΩ** | |

**All measures were taken in Ω**

Approval RM

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

24/10/2024

ALEX SISTEMI :

# HVAC REP.1

HHV 77003

## testo 440 dP

V 1.0.6 — 83164119

Applicazione: Portata
11/02/2019 16:53:40
Tipo di misura: Media per punti
Punti di misura: 9

Portata 1250,9 m³/h

Num. Serie Sonda: 20795382

| Num. | m³/h | m/s | °C |
|---|---|---|---|
| 1 | 304,0 | 0,65 | 22,3 |
| 2 | 224,5 | 0,48 | 22,1 |
| 3 | -149,7 | -0,32 | 22,0 |
| 4 | 425,6 | 0,91 | 21,4 |
| 5 | -149,7 | -0,32 | 21,3 |
| 6 | 654,8 | 1,40 | 21,2 |
| 7 | 3484,5 | 7,45 | 20,2 |
| 8 | 3283,3 | 7,02 | 19,6 |
| 9 | 3180,4 | 6,80 | 19,4 |

Geometria: Area
Area: 129920 mm²
Fattore di Correzione: 100%
Pressione atmosferica:
1013,00 hPa

HHV-77001

## testo 440 dP

V 1.0.6 — 83164119

Applicazione: Portata
12/02/2019 17:16:05
Tipo di misura: Media per punti
Punti di misura: 9

Portata 1907,7 m³/h

Num. Serie Sonda: 20795382

| Num. | m³/h | m/s | °C |
|---|---|---|---|
| 1 | 3942,8 | 8,43 | 22,5 |
| 2 | 3797,8 | 8,12 | 22,7 |
| 3 | 3942,8 | 8,43 | 22,7 |
| 4 | 1552,8 | 3,32 | 22,6 |
| 5 | 1379,8 | 2,95 | 22,5 |
| 6 | 1861,5 | 3,98 | 22,5 |
| 7 | 608,0 | 1,30 | 22,5 |
| 8 | 257,2 | 0,55 | 22,5 |
| 9 | -173,1 | -0,37 | 22,5 |

Geometria: Area
Area: 129920 mm²
Fattore di Correzione: 100%
Pressione atmosferica:
1013,00 hPa

HHV 77004

## testo 440 dP

V 1.0.6 — 83164119

Applicazione: Portata
11/02/2019 17:13:48
Tipo di misura: Media per punti
Punti di misura: 9

Portata 1589,2 m³/h

Num. Serie Sonda: 20795382

| Num. | m³/h | m/s | °C |
|---|---|---|---|
| 1 | 3222,5 | 6,89 | 28,3 |
| 2 | 3222,5 | 6,89 | 28,4 |
| 3 | 3250,6 | 6,95 | 28,5 |
| 4 | 3138,3 | 6,71 | 29,7 |
| 5 | 827,9 | 1,77 | 30,0 |
| 6 | 257,2 | 0,55 | 29,9 |
| 7 | 102,9 | 0,22 | 29,8 |
| 8 | 154,3 | 0,33 | 29,7 |
| 9 | 126,3 | 0,27 | 29,7 |

Geometria: Area
Area: 129920 mm²
Fattore di Correzione: 100%
Pressione atmosferica:
1013,00 hPa

HHV 77002

## testo 440 dP

V 1.0.6 — 83164119

Applicazione: Portata
12/02/2019 17:26:41
Tipo di misura: Media per punti
Punti di misura: 9

Portata 1760,2 m³/h

Num. Serie Sonda: 20795382

| Num. | m³/h | m/s | °C |
|---|---|---|---|
| 1 | 374,2 | 0,80 | 23,7 |
| 2 | 261,9 | 0,56 | 23,3 |
| 3 | -121,6 | -0,26 | 23,3 |
| 4 | 1459,3 | 3,12 | 25,5 |
| 5 | 940,1 | 2,01 | 25,5 |
| 6 | 884,0 | 1,89 | 25,9 |
| 7 | 3961,5 | 8,47 | 26,3 |
| 8 | 3938,1 | 8,42 | 26,4 |
| 9 | 4143,9 | 8,86 | 26,4 |

Geometria: Area
Area: 129920 mm²
Fattore di Correzione: 100%
Pressione atmosferica:
1013,00 hPa

ROSETTI MARINO SPA
Stefano Linari
Quality Control Dept.

ATEX SISTEMI: Matteo Lazzeri

# HVAC REP.2

MAU 77008

## testo 440 dP

V 1.0.6 — 83164119

Applicazione: Portata
12/02/2019 11:39:38
Tipo di misura: Media per punti
Punti di misura: 9

Portata 875,5 m³/h

| Num. | Serie Sonda: m³/h | m/s | 20795382 °C |
|---|---|---|---|
| 1 | 697,0 | 1,21 | 19,6 |
| 2 | 944,6 | 1,64 | 19,2 |
| 3 | 1157,8 | 2,01 | 19,2 |
| 4 | 817,9 | 1,42 | 19,1 |
| 5 | 800,6 | 1,39 | 18,9 |
| 6 | 956,2 | 1,66 | 18,6 |
| 7 | 783,4 | 1,36 | 18,4 |
| 8 | 944,6 | 1,64 | 18,3 |
| 9 | 777,6 | 1,35 | 18,3 |

Geometria: Area
Area: 160000 mm²
Fattore di Correzione: 100%
Pressione atmosferica:
1013,00 hPa

MAU - 77007

## testo 440 dP

V 1.0.6 — 83164119

Applicazione: Portata
12/02/2019 11:28:29
Tipo di misura: Media per punti
Punti di misura: 9

Portata 1554,3 m³/h

| Num. | Serie Sonda: m³/h | m/s | 20795382 °C |
|---|---|---|---|
| 1 | 1163,6 | 1,85 | 22,5 |
| 2 | 1320,9 | 2,10 | 22,8 |
| 3 | 1320,9 | 2,10 | 22,8 |
| 4 | 1302,0 | 2,07 | 22,8 |
| 5 | 1786,3 | 2,84 | 23,0 |
| 6 | 1754,9 | 2,79 | 23,3 |
| 7 | 1654,2 | 2,63 | 23,6 |
| 8 | 1912,1 | 3,04 | 23,9 |
| 9 | 1773,8 | 2,82 | 24,3 |

Geometria: Area
Area: 174720 mm²
Fattore di Correzione: 100%
Pressione atmosferica:
1013,00 hPa

MAU - 77006

## testo 440 dP

V 1.0.6 — 83164119

Applicazione: Portata
11/02/2019 12:01:46
Tipo di misura: Media per punti
Punti di misura: 8

Portata 1600,8 m³/h

| Num. | Serie Sonda: m³/h | m/s | 20795382 °C |
|---|---|---|---|
| 1 | 1679,4 | 2,67 | 29,6 |
| 2 | 1786,3 | 2,84 | 29,9 |
| 3 | 1717,1 | 2,73 | 29,8 |
| 4 | 1541,0 | 2,45 | 29,9 |
| 5 | 1471,8 | 2,34 | 29,9 |
| 6 | 1484,4 | 2,36 | 29,7 |
| 7 | 1515,9 | 2,41 | 29,6 |
| 8 | 1610,2 | 2,56 | 29,8 |

Geometria: Area
Area: 174720 mm²
Fattore di Correzione: 100%
Pressione atmosferica:
1013,00 hPa

MAU-77005

## testo 440 dP

V 1.0.6 — 83164119

Applicazione: Portata
11/02/2019 12:34:49
Tipo di misura: Media per punti
Punti di misura: 8

Portata 571,7 m³/h

| Num. | Serie Sonda: m³/h | m/s | 20795382 °C |
|---|---|---|---|
| 1 | 593,3 | 1,03 | 21,7 |
| 2 | 633,6 | 1,10 | 21,6 |
| 3 | 541,4 | 0,94 | 21,5 |
| 4 | 524,2 | 0,91 | 21,4 |
| 5 | 558,7 | 0,97 | 21,2 |
| 6 | 576,0 | 1,00 | 21,2 |
| 7 | 581,8 | 1,01 | 21,1 |
| 8 | 564,5 | 0,98 | 21,0 |

Geometria: Area
Area: 160000 mm²
Fattore di Correzione: 100%
Pressione atmosferica:
1013,00 hPa

## testo 440 dP

V 1.0.6 — 83164119

Applicazione: Portata
12/02/2019 11:55:22
Tipo di misura: Media per punti
Punti di misura: 6

Portata 1088,4 m³/h

| Num. | Serie Sonda: m³/h | m/s | 20795382 °C |
|---|---|---|---|
| 1 | 1200,9 | 2,97 | 30,7 |
| 2 | 1192,8 | 2,95 | 30,9 |
| 3 | 946,2 | 2,34 | 30,5 |
| 4 | 1055,4 | 2,61 | 30,3 |
| 5 | 1067,5 | 2,64 | 30,2 |
| 6 | 1067,5 | 2,64 | 30,2 |

Geometria: Area
Area: 112320 mm²
Fattore di Correzione: 100%
Pressione atmosferica:
1013,00 hPa

## testo 440 dP

V 1.0.6 — 83164119

Applicazione: Portata
12/02/2019 11:30:38
Tipo di misura: Media per punti
Punti di misura: 6

Portata 1265,0 m³/h

| Num. | Serie Sonda: m³/h | m/s | 20795382 °C |
|---|---|---|---|
| 1 | 974,5 | 2,41 | 25,1 |
| 2 | 1087,7 | 2,69 | 25,5 |
| 3 | 1326,3 | 3,28 | 25,9 |
| 4 | 1293,9 | 3,20 | 25,8 |
| 5 | 1451,6 | 3,59 | 25,8 |
| 6 | 1455,7 | 3,60 | 25,8 |

Geometria: Area
Area: 112320 mm²
Fattore di Correzione: 100%
Pressione atmosferica:
1013,00 hPa

## testo 440 dP

V 1.0.6 — 83164119

Applicazione: Portata
11/02/2019 12:04:12
Tipo di misura: Media per punti
Punti di misura: 6

Portata 1026,4 m³/h

| Num. | Serie Sonda: m³/h | m/s | 20795382 °C |
|---|---|---|---|
| 1 | 1023,0 | 2,53 | 30,1 |
| 2 | 1200,9 | 2,97 | 30,1 |
| 3 | 1055,4 | 2,61 | 30,3 |
| 4 | 962,4 | 2,38 | 30,4 |
| 5 | 958,3 | 2,37 | 30,7 |
| 6 | 958,3 | 2,37 | 30,8 |

Geometria: Area
Area: 112320 mm²
Fattore di Correzione: 100%
Pressione atmosferica:
1013,00 hPa

## testo 440 dP

V 1.0.6 — 83164119

Applicazione: Portata
11/02/2019 12:41:48
Tipo di misura: Media per punti
Punti di misura: 8

Portata 1501,7 m³/h

| Num. | Serie Sonda: m³/h | m/s | 20795382 °C |
|---|---|---|---|
| 1 | 1421,5 | 2,26 | 24,9 |
| 2 | 1547,3 | 2,46 | 25,3 |
| 3 | 1320,9 | 2,10 | 25,7 |
| 4 | 1534,7 | 2,44 | 26,1 |
| 5 | 1559,9 | 2,48 | 26,2 |
| 6 | 1503,3 | 2,39 | 26,3 |
| 7 | 1585,1 | 2,52 | 26,4 |
| 8 | 1541,0 | 2,45 | 26,3 |

Geometria: Area
Area: 174720 mm²
Fattore di Correzione: 100%
Pressione atmosferica:
1013,00 hPa

## testo 440 dP

V 1.0.6 — 83164119

Applicazione: Portata
12/02/2019 11:53:45
Tipo di misura: Media per punti
Punti di misura: 9

Portata 1696,9 m³/h

| Num. | Serie Sonda: m³/h | m/s | 20795382 °C |
|---|---|---|---|
| 1 | 1773,8 | 2,82 | 26,5 |
| 2 | 1729,7 | 2,75 | 26,6 |
| 3 | 1629,1 | 2,59 | 27,2 |
| 4 | 1641,7 | 2,61 | 28,1 |
| 5 | 1868,1 | 2,97 | 28,3 |
| 6 | 1635,4 | 2,60 | 28,7 |
| 7 | 1748,6 | 2,78 | 28,8 |
| 8 | 1616,5 | 2,57 | 28,9 |
| 9 | 1629,1 | 2,59 | 29,0 |

Geometria: Area
Area: 174720 mm²
Fattore di Correzione: 100%
Pressione atmosferica:
1013,00 hPa

## testo 440 dP

V 1.0.6 — 83164119

Applicazione: Portata
12/02/2019 11:39:38
Tipo di misura: Media per punti
Punti di misura: 9

Portata 875,5 m³/h

| Num. | Serie Sonda: m³/h | m/s | 20795382 °C |
|---|---|---|---|
| 1 | 697,0 | 1,21 | 19,6 |
| 2 | 944,6 | 1,64 | 19,2 |
| 3 | 1157,8 | 2,01 | 19,2 |
| 4 | 817,9 | 1,42 | 19,1 |
| 5 | 800,6 | 1,39 | 18,9 |
| 6 | 956,2 | 1,66 | 18,6 |
| 7 | 783,4 | 1,36 | 18,4 |
| 8 | 944,6 | 1,64 | 18,3 |
| 9 | 777,6 | 1,35 | 18,3 |

Geometria: Area
Area: 160000 mm²
Fattore di Correzione: 100%
Pressione atmosferica:
1013,00 hPa

## testo 440 dP

V 1.0.6 — 83164119

Applicazione: Portata
11/02/2019 12:14:34
Tipo di misura: Media per punti
Punti di misura: 9

Portata 447,4 m³/h

| Num. | Serie Sonda: m³/h | m/s | 20795382 °C |
|---|---|---|---|
| 1 | 409,0 | 0,71 | 23,2 |
| 2 | 455,0 | 0,79 | 22,9 |
| 3 | 403,2 | 0,70 | 22,7 |
| 4 | 391,7 | 0,68 | 22,3 |
| 5 | 472,3 | 0,82 | 22,1 |
| 6 | 512,6 | 0,89 | 21,9 |
| 7 | 489,6 | 0,85 | 21,5 |
| 8 | 460,8 | 0,80 | 21,3 |
| 9 | 432,0 | 0,75 | 21,2 |

Geometria: Area
Area: 160000 mm²
Fattore di Correzione: 100%
Pressione atmosferica:
1013,00 hPa

## testo 440 dP

V 1.0.6 — 83164119

Applicazione: Portata
11/02/2019 12:44:09
Tipo di misura: Media per punti
Punti di misura: 8

Portata 1133,7 m³/h

| Num. | Serie Sonda: m³/h | m/s | 20795382 °C |
|---|---|---|---|
| 1 | 1120,1 | 2,77 | 26,6 |
| 2 | 1079,6 | 2,67 | 26,7 |
| 3 | 1079,6 | 2,67 | 26,9 |
| 4 | 1091,8 | 2,70 | 27,0 |
| 5 | 1136,2 | 2,81 | 27,0 |
| 6 | 1180,7 | 2,92 | 27,4 |
| 7 | 1184,8 | 2,93 | 27,5 |
| 8 | 1196,9 | 2,96 | 27,7 |

Geometria: Area
Area: 112320 mm²
Fattore di Correzione: 100%
Pressione atmosferica:
1013,00 hPa

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

AGEX SISTEMI: Matteo Forchesi

# FAT REPORT 1

| Doc. Name: CHECK AND FUNCTIONAL TEST OF HVAC SYSTEM | | Report No.01 Mod 1.4.7 |
|---|---|---|
| OUR JOB X176-24X | Date 24/10/2024 | Page 1/1 |

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

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 24/10/2024

REFERENCE DRAWING:

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

REFERENCE DOCUMENT:

- 1724000049-HV-PID-00039 - B-100 PID - E&I SHELTERS
- 1724000049-HV-CA-00035 - B-100 HVAC CALCULATION REPORT (Incl HVAC SYS CALC and HEAT DISSIPATION CALC) - E&I SHELTERS
- 1724000049-HV-LIS-00047 - B-100 HVAC COMPONENTS LIST AND DS - E&I SHELTERS
- 1724000049-HV-RE-00055 - HVAC SYST DESCRIPTION (MANAGEMENT LOGICS) - E&I SHELTERS
- 1724000049-QC-PRO-00056 (FAT Procedure)
- ECA-00-ELE-DEB-0001 Rev.7 Electrical Design Criteria

| Inspection List | PASS | FAIL | N.A. | value |
|---|---|---|---|---|
| Functional & performance Test of A/C System (HVAC Test): | | | | |
| • Visual and correct installation of HVAC fans. | x | | | |
| • Functional check of fans. | x | | | |
| • Check the functionality and performance of A/C System | x | | | |
| | | | | |

| Doc. Name: CHECK AND FUNCTIONAL TEST OF HVAC SYSTEM | | Report No.01 Mod 1.4.7 |
|---|---|---|
| OUR JOB X176-24X | Date 24/10/2024 | Page 1/1 |

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

| | | | | |
|---|---|---|---|---|
| | | | | |

**Comments:**

SAT activities were carried out at the Rosetti Marino yard, after the main HVAC system installation was completed. Following this, all functional tests listed in the above table were conducted, although most of the documentation was in draft form, as it has not yet been officially issued.

Some activities and related tests are still required to finalize SAT and to make the HVAC system supply and installation fully compliant. These remaining tasks will be outlined and sent to Alex Sistemi, along with corrective actions to address them.

The key items that remain outstanding are:

- Completion of detailed engineering documentation
- Completion of the drainage system and heating cable installations
- Completion of the emergency lighting installation (during SAT the lights didn't turn on)

| ALEX SISTEMI *Quality Assurance* | Customer | Final Customer | 3rd Part | other |
|---|---|---|---|---|
| MATTEO MARCHESI Matteo Marchesi 23/10/24 | CAVIGLIA LUCA ROSETTI MARINO Luca Caviglia 23/10/24 | | | |

| | |
|---|---|
| **Customer:** Rosetti Marino | **Project:** BASE LOAD POWER HUB (BLPH) |
| **C/N:** CW-I-WPA-2023-05 | **Description:** LV (400 V) SWITCH ROOM B-200 |
| **S/N: B200** | **FAT procedure:** 1724000049-QC-PRO-00056 |

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 23/10/2024

REFERENCE DRAWING:

- 1724000049-AR-DA-00015 - B-200 GENERAL ARRANGMENT DRAWINGS - E&I SHELTERS
- 1724000049-HV-DA-00065 - MODULE B-200 – HVAC SYSTEM–G.A. AND DETAILS
- 1724000049-HV-DA-00027 - B-200 HVAC and LIGHTING PANEL WIRING DRAWINGS and GENERAL ARRANGEMENT (INCL INTERCONNECTING) - E&I SHELTERS

REFERENCE DOCUMENT:

- 1724000049-HV-PID-00040 - B-200 PID - E&I SHELTERS
- 1724000049-HV-CA-00036 - B-200 HVAC CALCULATION REPORT (Incl HVAC SYS CALC and HEAT DISSIPATION CALC) - E&I SHELTERS
- 1724000049-HV-LIS-00048 - B-200 HVAC COMPONENTS LIST AND DS - E&I SHELTERS
- 1724000049-HV-RE-00055 - HVAC SYST DESCRIPTION (MANAGEMENT LOGICS) - E&I SHELTERS
- 1724000049-QC-PRO-00056 (FAT Procedure)
- ECA-00-ELE-DEB-0001 Rev.7 Electrical Design Criteria

| Inspection List | PASS | FAIL | N.A. | value |
|---|---|---|---|---|
| Functional & performance Test of A/C System (HVAC Test): | | | | |
| • Visual and correct installation of HVAC fans. | x | | | |
| • Functional check of fans. | x | | | |
| • Check the functionality and performance of A/C System | x | | | |
| | | | | |

| Doc. Name: CHECK AND FUNCTIONAL TEST OF HVAC SYSTEM | | Report No.01 Mod 1.4.7 |
|---|---|---|
| OUR JOB X176-24X | Date 23/10/2024 | Page 1/1 |

| | |
|---|---|
| **Customer:** Rosetti Marino | **Project:** BASE LOAD POWER HUB (BLPH) |
| **C/N:** CW-I-WPA-2023-05 | **Description:** LV (400 V) SWITCH ROOM B-200 |
| **S/N: B200** | **FAT procedure:** 1724000049-QC-PRO-00056 |

| | | | | |
|---|---|---|---|---|
| | | | | |

**Comments:**

SAT activities were carried out at the Rosetti Marino yard, after the main HVAC system installation was completed. Following this, all functional tests listed in the above table were conducted, although most of the documentation was in draft form, as it has not yet been officially issued.

Some activities and related tests are still required to finalize SAT and to make the HVAC system supply and installation fully compliant. These remaining tasks will be outlined and sent to Alex Sistemi, along with corrective actions to address them.

The key items that remain outstanding are:

- Completion of detailed engineering documentation
- Completion of the drainage system and heating cable installations
- Completion of the emergency lighting installation (during SAT the lights didn't turn on)

| ALEX SISTEMI *Quality Assurance* | Customer | Final Customer | 3rd Part | other |
|---|---|---|---|---|
| MATTEO MARENZI 23/10/24 | CAVIGLIA LUCA ROSETTI MARINO 23/10/24 | | | |

| Doc. Name: CHECK AND FUNCTIONAL TEST OF HVAC SYSTEM | | Report No.01 Mod 1.4.7 |
|---|---|---|
| OUR JOB X176-24X | Date 23/10/2024 | Page 1/1 |

| | |
|---|---|
| **Customer:** Rosetti Marino | **Project:** BASE LOAD POWER HUB (BLPH) |
| **C/N:** CW-I-WPA-2023-05 | **Description:** AC UPS EQUIPMENT ROOM B-300 |
| **S/N: B300** | **FAT procedure:** 1724000049-QC-PRO-00056 |

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 23/10/2024

REFERENCE DRAWING:

- 1724000049-AR-DA-00016 - B-300 GENERAL ARRANGMENT DRAWINGS - E&I SHELTERS
- 1724000049-HV-DA-00066 - MODULE B-300 – HVAC SYSTEM–G.A. AND DETAILS
- 1724000049-HV-DA-00028 - B-300 HVAC and LIGHTING PANEL WIRING DRAWINGS and GENERAL ARRANGEMENT (INCL INTERCONNECTING) - E&I SHELTERS

REFERENCE DOCUMENT:

- 1724000049-HV-PID-00041 - B-300 PID - E&I SHELTERS
- 1724000049-HV-CA-00037 - B-300 HVAC CALCULATION REPORT (Incl HVAC SYS CALC and HEAT DISSIPATION CALC) - E&I SHELTERS
- 1724000049-HV-LIS-00049 - B-300 HVAC COMPONENTS LIST AND DS - E&I SHELTERS
- 1724000049-HV-RE-00055 - HVAC SYST DESCRIPTION (MANAGEMENT LOGICS) - E&I SHELTERS
- 1724000049-QC-PRO-00056 (FAT Procedure)
- ECA-00-ELE-DEB-0001 Rev.7 Electrical Design Criteria

| Inspection List | PASS | FAIL | N.A. | value |
|---|---|---|---|---|
| Functional & performance Test of A/C System (HVAC Test): | | | | |
| • Visual and correct installation of HVAC fans. | x | | | |
| • Functional check of fans. | x | | | |
| • Check the functionality and performance of A/C System | x | | | |
| | | | | |

| Doc. Name: CHECK AND FUNCTIONAL TEST OF HVAC SYSTEM | | Report No.01 Mod 1.4.7 |
|---|---|---|
| OUR JOB X176-24X | Date 23/10/2024 | Page 1/1 |

| | |
|---|---|
| **Customer:** Rosetti Marino | **Project:** BASE LOAD POWER HUB (BLPH) |
| **C/N:** CW-I-WPA-2023-05 | **Description:** AC UPS EQUIPMENT ROOM B-300 |
| **S/N: B300** | **FAT procedure:** 1724000049-QC-PRO-00056 |

| | | | | |
|---|---|---|---|---|
| | | | | |

**Comments:**

SAT activities were carried out at the Rosetti Marino yard, after the main HVAC system installation was completed. Following this, all functional tests listed in the above table were conducted, although most of the documentation was in draft form, as it has not yet been officially issued.

Some activities and related tests are still required to finalize SAT and to make the HVAC system supply and installation fully compliant. These remaining tasks will be outlined and sent to Alex Sistemi, along with corrective actions to address them.

The key items that remain outstanding are:

- Completion of detailed engineering documentation
- Completion of the drainage system and heating cable installations

| ALEX SISTEMI *Quality Assurance* | Customer | Final Customer | 3rd Part | other |
|---|---|---|---|---|
| MATTEO MARCHESI 23/10/24 | CAVIGLIA LUCA ROSETTI MARINO 23/10/24 | | | |

| | |
|---|---|
| **Customer:** Rosetti Marino | **Project:** BASE LOAD POWER HUB (BLPH) |
| **C/N:** CW-I-WPA-2023-05 | **Description:** I&T EQUIPMENT ROOM B-400 |
| **S/N: B400** | **FAT procedure:** 1724000049-QC-PRO-00056 |

| | | | | |
|---|---|---|---|---|
| | | | | |

**Comments:**

SAT activities were carried out at the Rosetti Marino yard, after the main HVAC system installation was completed. Following this, all functional tests listed in the above table were conducted, although most of the documentation was in draft form, as it has not yet been officially issued.

Some activities and related tests are still required to finalize SAT and to make the HVAC system supply and installation fully compliant. These remaining tasks will be outlined and sent to Alex Sistemi, along with corrective actions to address them.

The key items that remain outstanding are:

- Completion of detailed engineering documentation
- Completion of the drainage system and heating cable installations
- Completion of the emergency lighting installation (during SAT the lights didn't turn on)

| ALEX SISTEMI *Quality Assurance* | Customer | Final Customer | 3rd Part | other |
|---|---|---|---|---|
| MATTEO MARCHESI Matteo Marchesi 23/10/24 | CAVIGLIA LUCA ROSETTI MARINO Luca Caviglia 23/10/24 | | | |

| Doc. Name: CHECK AND FUNCTIONAL TEST OF HVAC SYSTEM | | Report No.01 Mod 1.4.7 |
|---|---|---|
| OUR JOB X176-24X | Date 25/10/2024 | Page 1/1 |

| | |
|---|---|
| **Customer:** Rosetti Marino | **Project:** BASE LOAD POWER HUB (BLPH) |
| **C/N:** CW-I-WPA-2023-05 | **Description:** I&T EQUIPMENT ROOM B-400 |
| **S/N: B400** | **FAT procedure:** 1724000049-QC-PRO-00056 |

LOCATION: ON SITE ☒ OFF SITE ☐

DATE OF TEST: 24/10/2024

REFERENCE DRAWING:

- 1724000049-AR-DA-00017 - B-400 GENERAL ARRANGMENT DRAWINGS - E&I SHELTERS
- 1724000049-HV-DA-00067 - MODULE B-400 – HVAC SYSTEM–G.A. AND DETAILS
- 1724000049-HV-DA-00029 - B-400 HVAC and LIGHTING PANEL WIRING DRAWINGS and GENERAL ARRANGEMENT (INCL INTERCONNECTING) - E&I SHELTERS

REFERENCE DOCUMENT:

- 1724000049-HV-PID-00042 - B-400 PID - E&I SHELTERS
- 1724000049-HV-CA-00038 - B-400 HVAC CALCULATION REPORT (Incl HVAC SYS CALC and HEAT DISSIPATION CALC) - E&I SHELTERS
- 1724000049-HV-LIS-00050 - B-400 HVAC COMPONENTS LIST AND DS - E&I SHELTERS
- 1724000049-HV-RE-00055 - HVAC SYST DESCRIPTION (MANAGEMENT LOGICS) - E&I SHELTERS
- 1724000049-QC-PRO-00056 (FAT Procedure)
- ECA-00-ELE-DEB-0001 Rev.7 Electrical Design Criteria

| Inspection List | PASS | FAIL | N.A. | value |
|---|---|---|---|---|
| Functional & performance Test of A/C System (HVAC Test): | | | | |
| • Visual and correct installation of HVAC fans. | x | | | |
| • Functional check of fans. | x | | | |
| • Check the functionality and performance of A/C System | x | | | |
| | | | | |

# Section 7.3 Vendor Spares & Special Tools lists references

| CROSSWIND | HOLLANDSE KUST NOORD WIND PARK Project<br>Contract No. CW-I-WP4-2023-05 | ROSETTI MARINO<br>Sheet 3 of 4<br>Date : 26/02/2025<br>Rev: 0 |
|---|---|---|
| Document Title: | **HVAC System**<br>**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 |
| | | | | | | |
| | | | | | | |
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| | | | | | ***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 |
| | | | | | | |
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# Section 7.4 Vendor Data / Operations / Maintenance Manuals References

CAE EPLAN Electric P8

**VALID FOR CONSTRUCTION**
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724000372-EL-DG-00009

| REV.: | DATE: | SIGNATURE: |
|---|---|---|
| 3_A | 15/11/24 | G.Randi |

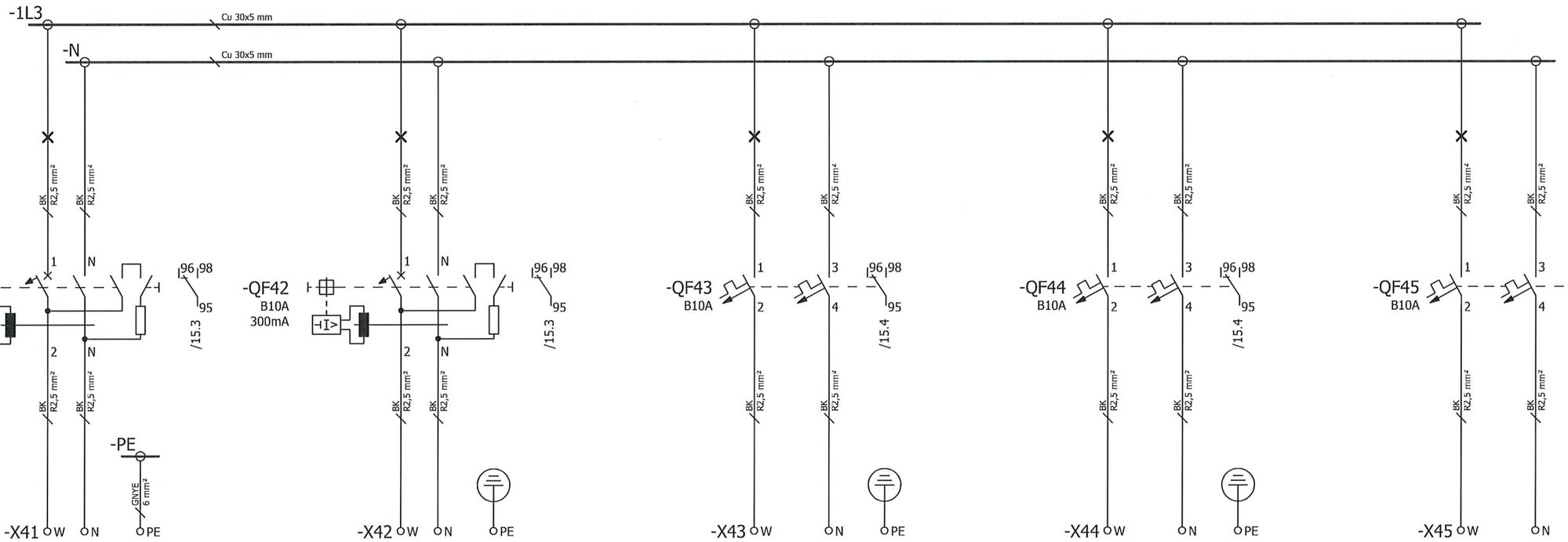
**ROSETTI MARINO SpA**

~~NO MARK UP~~

AS COMMISSIONED: MARIA GIROTTI

24/3/25

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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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| | | | | | |
|---|---|---|---|---|---|
| | | | | Date | 23.05.2024 |
| 01 | 500000002053 | 13.08.2024 | Beckschäfer | Editor | Beckschäfer |
| 02 | 500000002089 | 27.08.2024 | Beckschäfer | Checked | Ch.Peck |
| Stat | Alteration | Date | Name | Norm | |

ROSETTI MARINO
Hollandse Kust Noord (HKN) wind farm

AEG POWER SOLUTIONS

Load
Bypass transformer cabinet
with manual bypass 40 kVA
Circuit diagram

1000007888.020
10009757

1000007888_010 en

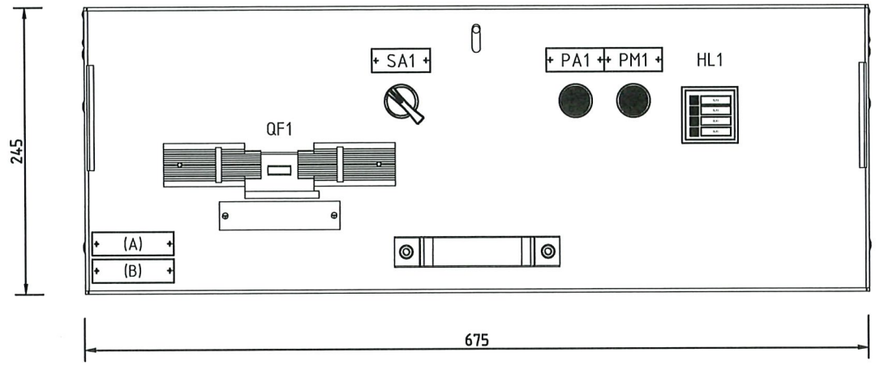
=
+ MBC1
& EFS

A3

sheet 9
sheets 17

# DOOR FRONT LAY-OUT

## TYPICAL : LINE FEEDER "LK1-n"

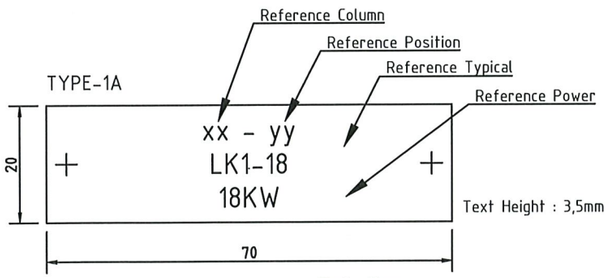


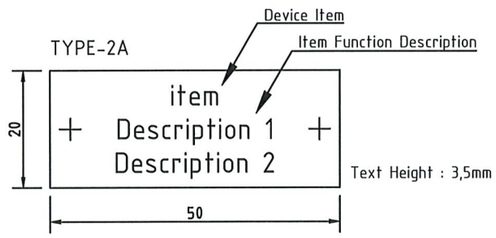

NOTE :

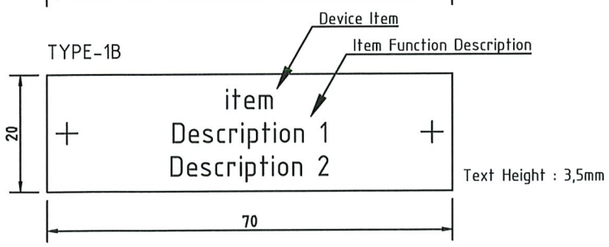
A) IDENTIFICATION name plate (type-1A) , with :
- Drawer position [Column / Position inside SWB]
- Typical name [reference applicability typical used]
- Power [reference applicability typical used]

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 | Type-2A |
| PM1 | RUN | MOTOR | Type-2A |
| HL1 | Multiled | Signalling | NO plate |




AS COMMISSIONED : MARINA GIORGI
26/3/25
NO MARK UP

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031

| REV.: | DATE: | SIGNATURE: |
|---|---|---|
| 2_A | 18/03/25 | G.Randi |

ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

= TYPICAL
+ LK-x
DWG n° : 231298/SD/31
Item n° : PF1002983/26

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 2 | 18/09/2024 | Santinelli | Flamminio | Sigismondi | As Built (ASB) |
| 1 | 10/07/2024 | Santinelli | Flamminio | Sigismondi | Accepted for Construction (AFC) |
| 0 | 09/05/2024 | Santinelli | Flamminio | Sigismondi | Issued for review (IFR) |

TITLE : "SG-200N1"
LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS
Door Front Lay-Out - Typical "LK1-n" & "LK2-n"

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

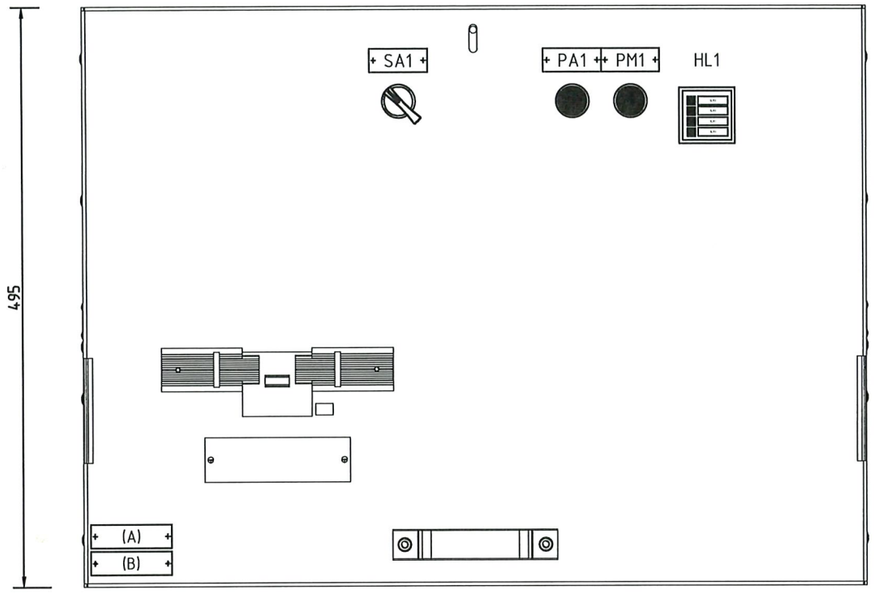
A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 034 | REV. 02

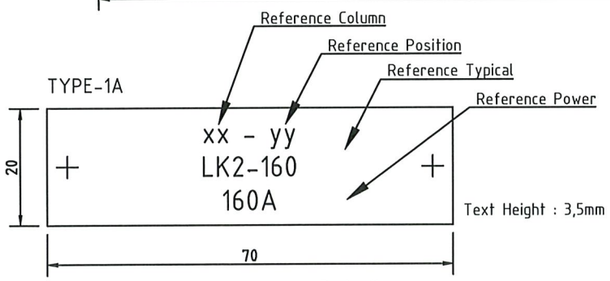
F.to UNI A3: 420mmx297mm

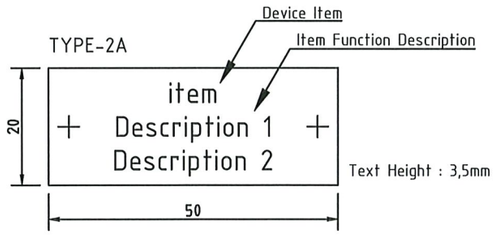
File Name : 1723002197-EL-DG-00031 Rev. 02

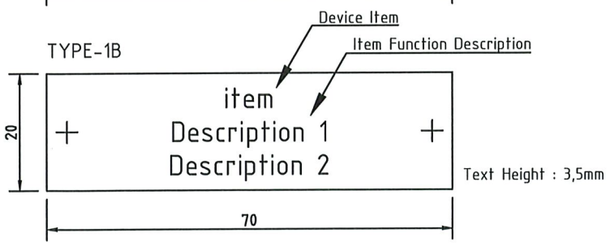
# DOOR FRONT LAY-OUT

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 : MARIA GIROZ
24/3/25
NO MARK UP

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031
REV.: 2_A | DATE: 18/03/25 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

= TYPICAL
+ LK-x
DWG n° : 231298/SD/31
Item n° : PF1002983/26

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
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TITLE : "SG-200N1"
LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS
Door Front Lay-Out - Typical "LK1-n" & "LK2-n"

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 035 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

# USERS LEGEND

## TYPICAL : LINE FEEDER "LK1-n" "LK2-n"

| TYPICAL APPLICABILITY | | | | | |
|---|---|---|---|---|---|
| ITEM | ITEM TAG | DESCRIPTION TAG | REFERENCE POSITION (written on name name plate "type-1A) | REFERENCE NOMINAL CURRENT C.B. TRIP UNIT (written on name name plate "type-1A) | REFERENCE TYPICAL (written on name name plate "type-1A) |
| 1 | SPARE | SPARE | A2 / +05 | 40A | LK1-40 |
| 2 | SPARE | SPARE | A3 / +02 | 40A | LK1-40 |
| 3 | DP-200N1 | DB-LIGHTING & SMALL POWER BoP | A3 / +03 | 100A | LK1-100 |
| 4 | JB-200E3 | CRANE | A3 / +04 | 63A | LK1-63 |
| 5 | SPARE | SPARE | A3 / +05 | 40A | LK1-40 |
| 6 | JB-500E8 | WATER PACKAGE | A3 / +08 | 160A | LK2-160 |
| 7 | B100-HSB-001 | HVAC PANELS HV ROOM | A4 / +02 | 40A | LK1-40 |
| 8 | A-80000 | FUELL CELL AUXIALIRY LOAD | A4 / +03 | 63A | LK1-63 |
| 9 | CP-850F03 | BESS PCS CABINET | A4 / +04 | 40A | LK1-40 |
| 10 | SPARE | SPARE | A4 / +05 | 40A | LK1-40 |
| 11 | SPARE | SPARE | A4 / +06 | 40A | LK1-40 |
| 12 | K-63001-A | INSTRUMENTS AIR PACKAGE 01A | A4 / +08 | 160A | LK2-160 |
| 13 | SPARE | SPARE | A5 / +01 | 40A | LK1-40 |
| 14 | B200-HSB-001 | HVAC PANELS - LV ROOM | A5 / +02 | 40A | LK1-40 |
| 15 | B300-HSB-001 | HVAC PANELS - UPS ROOM | A5 / +03 | 63A | LK1-63 |
| 16 | B400-HSB-001 | HVAC PANELS - ITER | A5 / +04 | 63A | LK1-63 |
| 17 | CN-200N1 | IMPRESSED CURR. CATHODIC PROTECTION (ICCP) SYSTEM | A5 / +05 | 40A | LK1-40 |
| 18 | SPARE | SPARE | A5 / +06 | 40A | LK1-40 |
| 19 | K-63001-B | INSTRUMENTS AIR PACKAGE 01B | A5 / +08 | 160A | LK2-160 |
| 20 | CP-850E1 | BESS LV1 CABINAT (+DISTR 1) | A6 / +02 | 40A | LK1-40 |
| 21 | CP-850E2 | BESS LV2 CABINAT (+DISTR 2) | A6 / +03 | 40A | LK1-40 |
| 22 | SPARE | SPARE | A6 / +04 | 40A | LK1-40 |

AS COMMISSIONED: NATALIA GIROLI
24/3/25
NO MARK UP

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031
REV.: 2_A | DATE: 18/03/25 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

= TYPICAL
+ LK-x
DWG n° : 231298/SD/31
Item n° : PF1002983/26

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
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TITLE : "SG-200N1"
LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS
Users Legend - Typical "LK1-n" & "LK2-n"

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 036 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

# ITEMS ACRONYM

## TYPICAL : LINE FEEDER "LK1-n" "LK2-n"

Composition of Typical :

LK-x = Common Parts
LK1-"nn" or LK2-"nn"= Specific Parts

Example for Composition of LK1-63:
- to take "LK-x" plus "LK1-63"

Example for Composition of LK2-160:
- to take "LK-x" plus "LK2-160"

| | ACRONYM ITEMS [Comun parts] | ACRONYM ITEMS [Specific parts] | | | | | |
|---|---|---|---|---|---|---|---|
| | LK-x | LK1-40 [In=40A] [Current Trip Unit] | LK1-63 [In=63A] [Current Trip Unit] | LK1-100 [In=100A] [Current Trip Unit] | LK2-160 [In=160A] [Current Trip Unit] | | |
| ASSOCIATED TYPICAL | This Item include all devices that are comun for both "Specific Parts" Items | This Items include only devices that are detail for "Specific Parts" Items | | | | | |
| LK1-40 | X | X | | | | | |
| LK1-63 | X | | X | | | | |
| LK1-100 | X | | | X | | | |
| LK2-160 | X | | | | X | | |
| - | | | | | | | |

AS COMMISSIONED: NATALIA GIRGIN
24/3/25
NO MARK UP

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031
REV.: 2_A | DATE: 18/03/25 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

= TYPICAL
+ LK-x
DWG n° : 231298/SD/31
Item n° : PF1002983/26

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|---|---|---|---|---|---|
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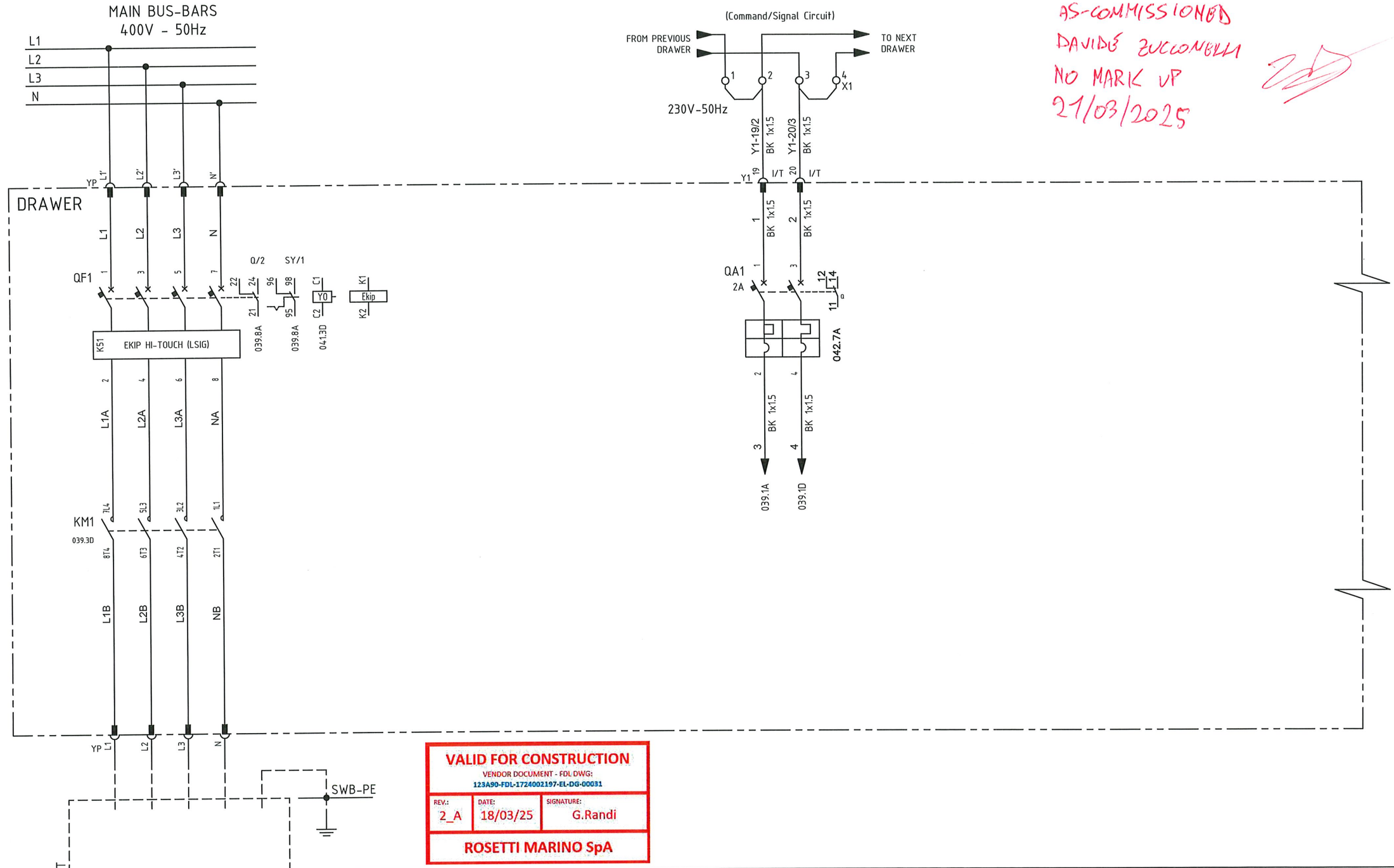
TITLE : "SG-200N1"
LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS
Items Acronym - Typical "LK1-n" & "LK2-n"

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 037 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02




AS-COMMISSIONED
DAVIDE ZUCCONELLI
NO MARK UP
21/03/2025

**VALID FOR CONSTRUCTION**
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031

| REV.: | DATE: | SIGNATURE: |
|---|---|---|
| 2_A | 18/03/25 | G.Randi |

ROSETTI MARINO SpA

| | |
|---|---|
| = | TYPICAL |
| + | LK-x |

DWG n° : 231298/SD/31
Item n° : PF1002983/26

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 2 | 18/09/2024 | Santinelli | Flamminio | Sigismondi | As Built (ASB) |
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TITLE : "SG-200N1"
LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS
Functional Drawing - Typical "LK1-n" & "LK2-n"

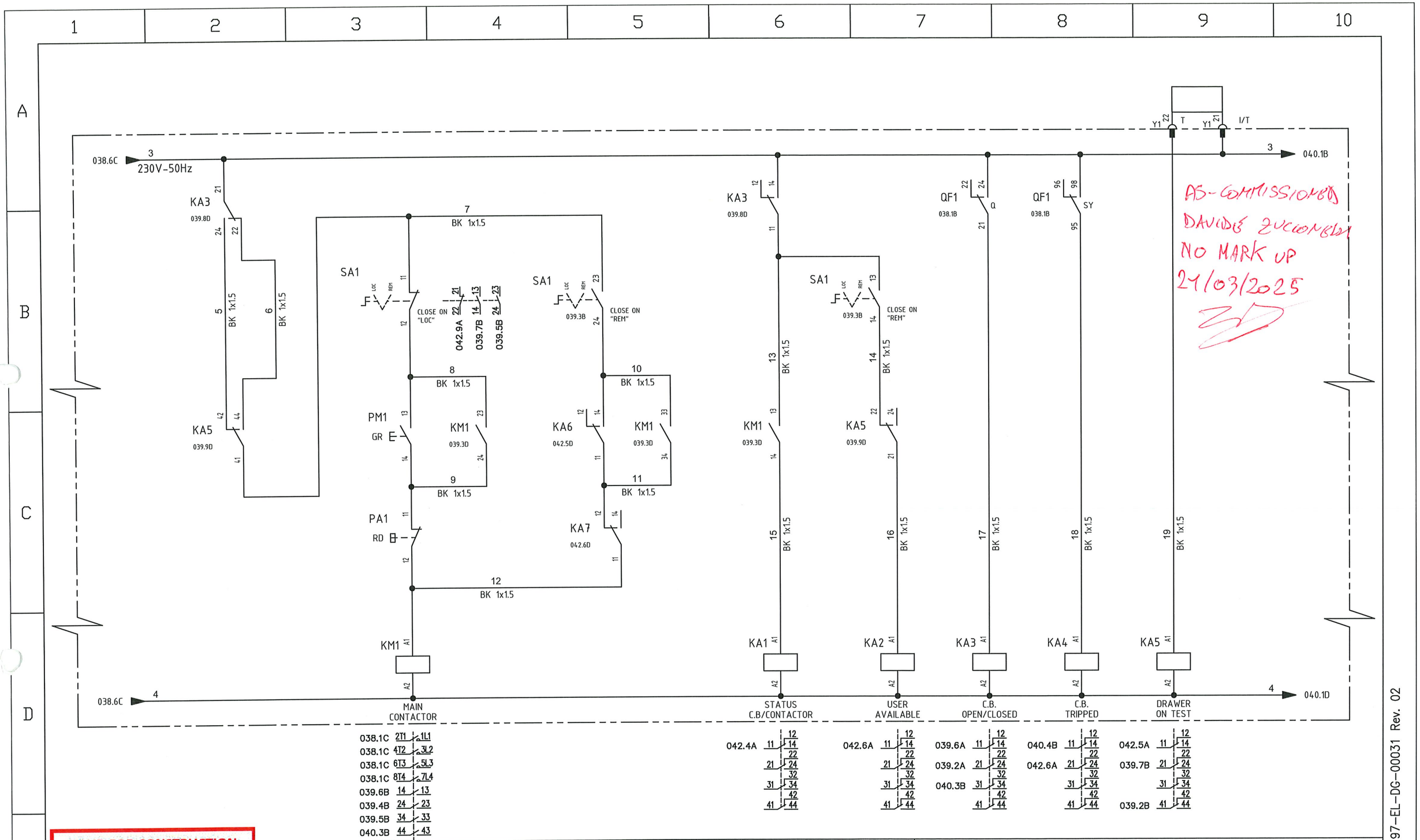
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 038 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

CROSSWIND
IMESA ELECTRICAL ENGINEERING
ROSETTI MARINO




VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031

| REV.: | DATE: | SIGNATURE: |
|---|---|---|
| 2_A | 18/03/25 | G.Randi |

ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

| | |
|---|---|
| = | TYPICAL |
| + | LK-x |
| DWG n° : | 231298/SD/31 |
| Item n° : | PF1002983/26 |

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 2 | 18/09/2024 | Santinelli | Flamminio | Sigismondi | As Built (ASB) |
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TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

Functional Drawing - Typical "LK1-n" & "LK2-n"

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00031

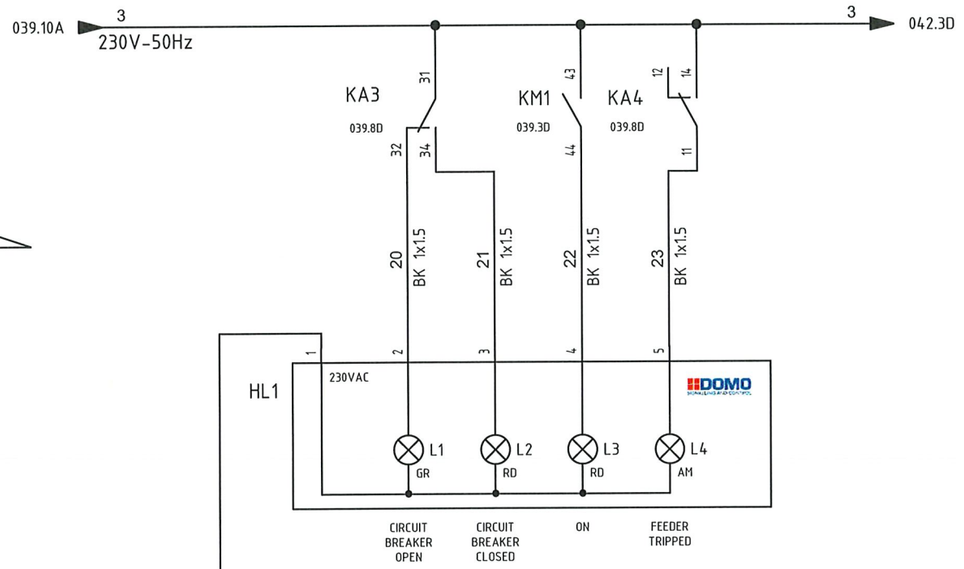
SHEET 039

REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

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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

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TITLE : "SG-200N1"
LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS
Functional Drawing - Typical "LK1-n" & "LK2-n"

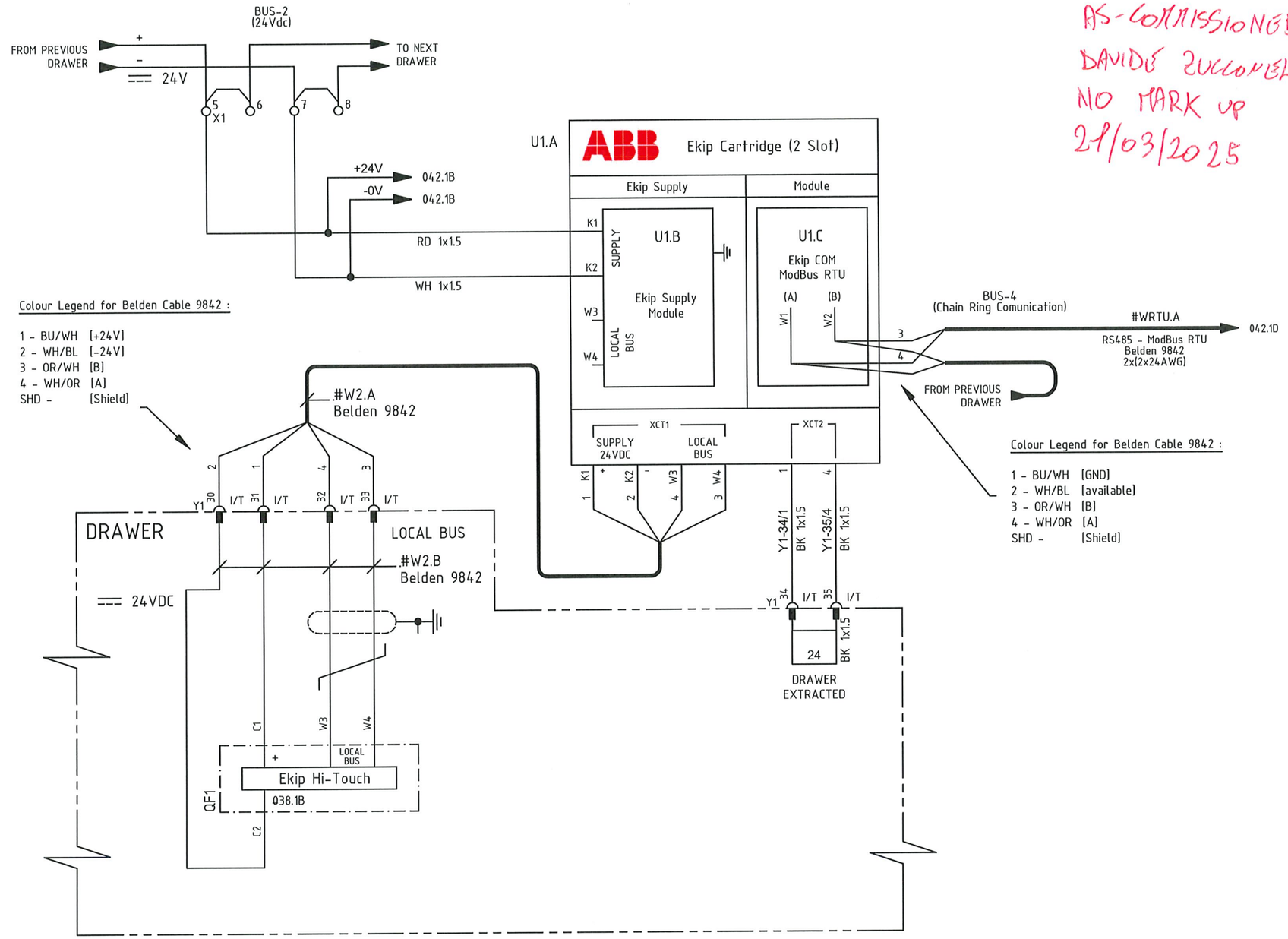
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 040 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

AS-COMMISSIONED
DAVIDE ZUCCONELLI
NO MARK UP
21/03/2025




VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031

| REV.: | DATE: | SIGNATURE: |
|---|---|---|
| 2_A | 18/03/25 | G.Randi |

ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

| | |
|---|---|
| = | TYPICAL |
| + | LK-x |
| DWG n° : | 231298/SD/31 |
| Item n° : | PF1002983/26 |

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
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TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

Functional Drawing - Typical "LK1-n" & "LK2-n"

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00031

SHEET 041

REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

AS-COMMISSIONED
DAVIDE ZUCCOMELLI
NO MARK UP
21/03/2025

DRAWER

C.B. - CONTACTOR CLOSED & INSERTED
C.B. - CONTACTOR OPEN OR DISCONNECTED
CIRCUIT BREAKER TRIPPED
FEEDER AVAILABLE
INTERNAL FAULT
USER ON LOCAL

KA1 039.6D
KA5 039.9D
KA4 039.8D
KA2 039.7D
QA1 038.6B
SA1 039.3B
CLOSE ON "LOC"

+25 RD 1x1.5 · +26 RD 1x1.5 · +27 RD 1x1.5 · +28 RD 1x1.5 · +29 RD 1x1.5 · +30 RD 1x1.5 · +31 RD 1x1.5 · +32 RD 1x1.5

Y1 14 I/T · 5 I · 15 I/T · 3 E · 4 E · 16 I/T · 10 I/T · 8 I/T · 9 I/T · 36 I/T · 37 I/T

Y1-14/9 BK 1x1.5 · Y1-5/10 BK 1x1.5 · Y1-15/11 BK 1x1.5 · Y1-16/12 BK 1x1.5 · Y1-10/13 BK 1x1.5 · Y1-9/14 BK 1x1.5 · Y1-36/15 BK 1x1.5 · Y1-37/19 BK 1x1.5

AVAILABLE

+103 RD 1x1.5 · +104 RD 1x1.5 · +105 RD 1x1.5 · +106 RD 1x1.5 · +107 RD 1x1.5 · +108 RD 1x1.5 · +115 RD 1x1.5 · +116 RD 1x1.5 · +117 RD 1x1.5 · +118 RD 1x1.5

041.4A +24V
041.4A -0V
=== 24V

U2.A
AC+ AC- PE
+/L -/N PE
10÷40Vdc - 19÷29Vac SUPPLY
Z-PC-DINAL2-17.5
Modbus RTU RS485
B(-) A(+) GND SHD
B/L A/H GND SHD
3 4 1 SHD
041.9B
TO NEXT DRAWER
BUS-4
(Chain Ring Comunication)

U2.B
+16V 0V IN-1 IN-2 IN-3 IN-4 IN-5
INPUT
SENECA AUTOMATION INTERFACES
MODULE I/O
Z-5DI-2DO
ID = 01
OUTPUT
DO-1 DO-2

U2.C
+16V 0V IN-1 IN-2 IN-3 IN-4 IN-5
INPUT
SENECA AUTOMATION INTERFACES
MODULE I/O
Z-5DI-2DO
ID = 02
OUTPUT
DO-1 DO-2

Colour Legend for Belden Cable 9842 :

1 - BU/WH [GND]
2 - WH/BL [available]
3 - OR/WH [B]
4 - WH/OR [A]
SHD - [Shield]

109 BK 1x1.5 · 110 BK 1x1.5 · 111 BK 1x1.5 · 112 BK 1x1.5 · 113 BK 1x1.5 · 114 BK 1x1.5
Y1-11/20 BK 1x1.5 · Y1-12/21 BK 1x1.5 · Y1-13/22 BK 1x1.5

Y1 11 I/T · 12 I/T · 13 I/T

DRAWER
040.5B 3 230V-50Hz
040.5D 4

KA6 · KA7
CONTACTOR CLOSE COMMAND
CONTACTOR OPEN COMMAND

KA6 039.5B 11 12 14 22 21 24 32 31 34 42 41 44
KA7 039.5C 11 12 14 22 21 24 32 31 34 42 41 44

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031
REV.: 2_A | DATE: 18/03/25 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

= TYPICAL
+ LK-x
DWG n° : 231298/SD/31
Item n° : PF1002983/26

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TITLE : "SG-200N1"
LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS
Functional Drawing - Typical "LK1-n" & "LK2-n"

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 042 | REV. 02

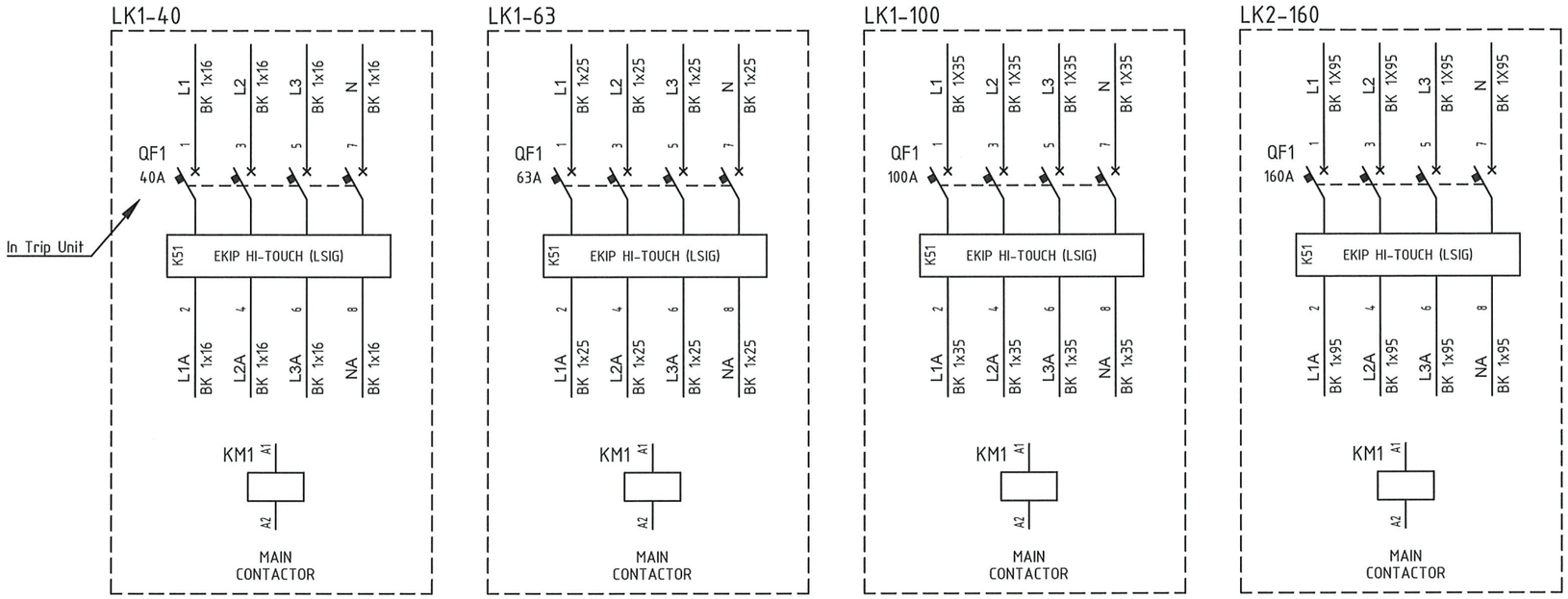
F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

# SPECIFIC PARTS

## TYPICAL : LINE FEEDER "LK1-n" "LK2-n"

AS-COMMISSIONED
DAVIDE ZUCCONELLI
NO MARK UP
21/03/2025




VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031
REV.: 2_A | DATE: 18/03/25 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

= TYPICAL
+ LK-x
DWG n° : 231298/SD/31
Item n° : PF1002983/26

| 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 043 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

AUXILIARY SOCKET

136450/001 (PF – 2 pcs) + 136458/004 (PM – 2 pcs)

| N° PIN | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JUMP | | | ● | ● | | | | ● | ● | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RACKED-OUT | | | ✕ | ✕ | | | | ✕ | ✕ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TEST | | | | | | | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | | | | | | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| RACKED-IN | | | | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | | | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | |
| PIN USED | | | 042.5B | 042.5B | 042.4B | | | 042.6B | 042.7B | 042.6B | 042.5D | 042.5D | 042.6D | 042.3B | 042.4B | 042.6B | | | 038.6A | 038.6A | 039.9A | 039.9A | | | | | | | | 041.3C | 041.3C | 041.4C | 041.4C | 041.6C | 041.7C | 042.7B | 042.9B | | | | | | | |

| | |
|---|---|
| 1 | FIELD WHIT "X" - CONTACT CLOSE WHEN DRAWER IS IN RACKED-OUT POSITION |
| 2 | FIELD WHIT "X" - CONTACT CLOSE WHEN DRAWER IS IN TEST POSITION |
| 3 | FIELD WHIT "X" - CONTACT CLOSE WHEN DRAWER IS IN RACKED-IN POSITION |
| 4 | CROS-REFERENCE USED PIN |

TYPICAL - LK-x - Y1

AS COMMISSIONED
DAVIDE ZUCCONELLI
NO MARK UP
21/03/2025

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031
REV.: 2_A | DATE: 18/03/25 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

= TYPICAL
+ LK-x
DWG n° : 231298/SD/31
Item n° : PF1002983/26

| 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 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) |
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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 045 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

| Nome/Item | Fg/Sh | Tipo/Type | Q.ta/Q.ty | Descrizione/Description | Costruttore/Manufacturer | Quadro (descrizione) |
|---|---|---|---|---|---|---|
| HL1 | 040 | ML22/484L230STLTTR | 1 | MULTILED 48x48 - 4 LED - Vaux=230Vac/dc + LAMP TEST + TROP | DOMO | TYPICAL LK-x |
| KA1 | 039 | ER 592 6 | 1 | CR-M230AC4L SUPPLY 230VAC 4C/O 250V/6A LED | ABB | TYPICAL LK-x |
| | | ER 609 8 | 1 | CR-MH HOLDER FOR CR-M RELAY | ABB | TYPICAL LK-x |
| | | ER 686 6 | 1 | CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M) | ABB | TYPICAL LK-x |
| KA2 | 039 | ER 592 6 | 1 | CR-M230AC4L SUPPLY 230VAC 4C/O 250V/6A LED | ABB | TYPICAL LK-x |
| | | ER 609 8 | 1 | CR-MH HOLDER FOR CR-M RELAY | ABB | TYPICAL LK-x |
| | | ER 686 6 | 1 | CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M) | ABB | TYPICAL LK-x |
| KA3 | 039 | ER 592 6 | 1 | CR-M230AC4L SUPPLY 230VAC 4C/O 250V/6A LED | ABB | TYPICAL LK-x |
| | | ER 609 8 | 1 | CR-MH HOLDER FOR CR-M RELAY | ABB | TYPICAL LK-x |
| | | ER 686 6 | 1 | CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M) | ABB | TYPICAL LK-x |
| KA4 | 039 | ER 592 6 | 1 | CR-M230AC4L SUPPLY 230VAC 4C/O 250V/6A LED | ABB | TYPICAL LK-x |
| | | ER 609 8 | 1 | CR-MH HOLDER FOR CR-M RELAY | ABB | TYPICAL LK-x |
| | | ER 686 6 | 1 | CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M) | ABB | TYPICAL LK-x |
| KA5 | 039 | ER 592 6 | 1 | CR-M230AC4L SUPPLY 230VAC 4C/O 250V/6A LED | ABB | TYPICAL LK-x |
| | | ER 609 8 | 1 | CR-MH HOLDER FOR CR-M RELAY | ABB | TYPICAL LK-x |
| | | ER 686 6 | 1 | CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M) | ABB | TYPICAL LK-x |
| KA6 | 042 | ER 592 6 | 1 | CR-M230AC4L SUPPLY 230VAC 4C/O 250V/6A LED | ABB | TYPICAL LK-x |
| | | ER 609 8 | 1 | CR-MH HOLDER FOR CR-M RELAY | ABB | TYPICAL LK-x |
| | | ER 686 6 | 1 | CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M) | ABB | TYPICAL LK-x |
| KA7 | 042 | ER 592 6 | 1 | CR-M230AC4L SUPPLY 230VAC 4C/O 250V/6A LED | ABB | TYPICAL LK-x |
| | | ER 609 8 | 1 | CR-MH HOLDER FOR CR-M RELAY | ABB | TYPICAL LK-x |
| | | ER 686 6 | 1 | CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M) | ABB | TYPICAL LK-x |
| PA1 | 039 | KW 075 2 | 1 | MP1-10R PUSH BUTTON RED WITH BLACK RING | ABB | TYPICAL LK-x |
| | | EO 569 7 | 1 | MCBH-00 FIXING SUPPORT 3 CONTACTS | ABB | TYPICAL LK-x |
| | | EO 571 3 | 2 | MCB-01 CONTACT NC FOR PUSHBUTTOM | ABB | TYPICAL LK-x |
| PM1 | 039 | KW 076 0 | 1 | MP1-10G PUSH BUTTON GREEN WITH BLACK RING | ABB | TYPICAL LK-x |
| | | EO 569 7 | 1 | MCBH-00 FIXING SUPPORT 3 CONTACTS | ABB | TYPICAL LK-x |
| | | EO 570 5 | 2 | MCB-10 CONTACT NO FOR PUSHBUTTONS | ABB | TYPICAL LK-x |
| QA1 | 038 | S550239 | 1 | S202M C 2 AUTOMATIC CIRCUIT BREAKER 10KA 2P | ABB | TYPICAL LK-x |
| | | A563819 | 1 | S2-CS/H6R AUXILIARY STATE CONTACT 1CO | ABB | TYPICAL LK-x |
| SA1 | 039 | KW 329 3 | 1 | M2SS2-10B HANDLE SELECTOR 2P 90° BLACK RING BLACK | ABB | TYPICAL LK-x |
| | | EO 569 7 | 1 | MCBH-00 FIXING SUPPORT 3 CONTACTS | ABB | TYPICAL LK-x |
| | | EO 570 5 | 2 | MCB-10 CONTACT NO FOR PUSHBUTTONS | ABB | TYPICAL LK-x |
| | | EO 571 3 | 2 | MCB-01 CONTACT NC FOR PUSHBUTTOM | ABB | TYPICAL LK-x |
| U1.2 | 041 | 1SDA074173R1 | 1 | MODUL EKIP SUPPLY 24÷48VDC | ABB | TYPICAL LK-x |
| U1.3 | 041 | 1SDA105166R1 | 1 | Module Ekip Com Modbus RS485 Tmax XT | ABB | TYPICAL LK-x |
| U1.A | 041 | 1SDA105203R1 | 1 | EKIP CARTRIDGE 2SLOT FOR XT2-XT4-XT5 | ABB | TYPICAL LK-x |
| U2.A | 042 | Z-PC-DINAL2-17.5 | 1 | DIN RAIL 2SLOT WITH HEAD FOR "Z-5DI-2DO" | SENECA | TYPICAL LK-x |
| U2.B | 042 | Z-5DI-2DO | 1 | I/O MODUL 5DI+2DO modbus RS485 Vaux=10÷40Vdc 19÷28Vac | SENECA | TYPICAL LK-x |
| U2.C | 042 | Z-5DI-2DO | 1 | I/O MODUL 5DI+2DO modbus RS485 Vaux=10÷40Vdc 19÷28Vac | SENECA | TYPICAL LK-x |
| X1 | | HD100GR_ | 8 | HMD.2/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type | Cabur | TYPICAL LK-x |
| | | HD400GR_ | 17 | HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type | Cabur | TYPICAL LK-x |
| | | BT003 | 2 | BT/3 End bracket | Cabur | TYPICAL LK-x |
| | | HD101GR | 1 | HMD/PT/GR End section - Grey | Cabur | TYPICAL LK-x |

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031
REV.: 2_A | DATE: 18/03/25 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

= TYPICAL
+ LK-x
DWG n° : 231298/SD/31
Item n° : PF1002983/26

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 2 | 18/09/2024 | Santinelli | Flamminio | Sigismondi | As Built (ASB) |
| 1 | 10/07/2024 | Santinelli | Flamminio | Sigismondi | Accepted for Construction (AFC) |
| 0 | 09/05/2024 | Santinelli | Flamminio | Sigismondi | Issued for review (IFR) |

TITLE : "SG-200N1"
LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS
Functional Drawing - Typical "LK1-n" & "LK2-n"

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 046 | REV. 02

File Name : 1723002197-EL-DG-00031 Rev. 02

AS-COMMISSIONED DAVIDE ZUCCONELLI NO MARK UP 21/03/2025

Foto UNI A3: 420mmx297mm

| Nome/Item | Fg/Sh | Tipo/Type | Q.ta/Q.ty | Descrizione/Description | Costruttore/Manufacturer | Quadro (descrizione) |
|---|---|---|---|---|---|---|
| X1 | | HD201GR | 1 | HMD.1/PT/GR End section - Grey | Cabur | TYPICAL LK-x |

AS-COMMISSIONED
DAVIDE ZUCCOMELLI

NO MARK UP
21/03/2025

| Nome/Item | Fg/Sh | Tipo/Type | Q.ta/Q.ty | Descrizione/Description | Costruttore/Manufacturer | Quadro (descrizione) |
|---|---|---|---|---|---|---|
| KM1 | 043 | AF40400013 | 1 | AF40-40-00-13 CONTACTOR 4P 40A 100-250VAC/DC | ABB | TYPICAL LK1-40 |
| | | CA440E | 1 | CA4-40E AUXILIARY FRONT CONTACT 4NO | ABB | TYPICAL LK1-40 |
| QF1 | 043 | 1SDA068169R1 | 1 | XT2S 160 BREAKING PART 4p F F | ABB | TYPICAL LK1-40 |
| | | 1SDA100162R1 | 1 | ELECTRONIC TRIP RELEASE Ekip Hi-Touch LSIG In=40A XT2 4p | ABB | TYPICAL LK1-40 |
| | | 1SDA066431R1 | 1 | AUX-C 1Q+1SY 250Vac/dc XT1..XT5 F/P | ABB | TYPICAL LK1-40 |

| Nome/Item | Fg/Sh | Tipo/Type | Q.ta/Q.ty | Descrizione/Description | Costruttore/Manufacturer | Quadro (descrizione) |
|---|---|---|---|---|---|---|
| KM1 | 043 | AF52400013 | 1 | AF52-30-00-13 CONTACTOR 4P 53A(AC3) 100-250VAC/DC | ABB | TYPICAL LK1-63 |
| | | CA440E | 1 | CA4-40E AUXILIARY FRONT CONTACT 4NO | ABB | TYPICAL LK1-63 |
| QF1 | 043 | 1SDA068169R1 | 1 | XT2S 160 BREAKING PART 4p F F | ABB | TYPICAL LK1-63 |
| | | 1SDA100163R1 | 1 | ELECTRONIC TRIP RELEASE Ekip Hi-Touch LSIG In=63A XT2 4p | ABB | TYPICAL LK1-63 |
| | | 1SDA066431R1 | 1 | AUX-C 1Q+1SY 250Vac/dc XT1..XT5 F/P | ABB | TYPICAL LK1-63 |

| Nome/Item | Fg/Sh | Tipo/Type | Q.ta/Q.ty | Descrizione/Description | Costruttore/Manufacturer | Quadro (descrizione) |
|---|---|---|---|---|---|---|
| KM1 | 043 | AF80400013 | 1 | AF80-30-00-13 CONTACTOR 4P 80A(AC3) 100-250VAC/DC | ABB | TYPICAL LK1-100 |
| | | CA440E | 1 | CA4-40E AUXILIARY FRONT CONTACT 4NO | ABB | TYPICAL LK1-100 |
| QF1 | 043 | 1SDA068169R1 | 1 | XT2S 160 BREAKING PART 4p F F | ABB | TYPICAL LK1-100 |
| | | 1SDA100164R1 | 1 | ELECTRONIC TRIP RELEASE Ekip Hi-Touch LSIG In=100A XT2 4p | ABB | TYPICAL LK1-100 |
| | | 1SDA066431R1 | 1 | AUX-C 1Q+1SY 250Vac/dc XT1..XT5 F/P | ABB | TYPICAL LK1-100 |

| Nome/Item | Fg/Sh | Tipo/Type | Q.ta/Q.ty | Descrizione/Description | Costruttore/Manufacturer | Quadro (descrizione) |
|---|---|---|---|---|---|---|
| KM1 | 043 | AF190401113 | 1 | AF190-40-11-13 CONT 4P 190A AC3 100-250VAC/DC | ABB | TYPICAL LK2-160 |
| | | CAL1911 | 1 | CAL19-11 CONTATTO AUSILIARIO 1NA+1NC PER AF116÷AF370 | ABB | TYPICAL LK2-160 |
| | | CAL1911B | 2 | CAL19-11B AUXILIARY CONTACT 1NA+1NC PER AF116÷AF370 | ABB | TYPICAL LK2-160 |
| QF1 | 043 | 1SDA068179R1 | 1 | XT4S 250 BREAKING PART 4p F F | ABB | TYPICAL LK2-160 |
| | | 1SDA100334R1 | 1 | ELECTRONIC TRIP RELEASE Ekip Hi-Touch LSIG In=160A XT4 4p | ABB | TYPICAL LK2-160 |
| | | 1SDA066431R1 | 1 | AUX-C 1Q+1SY 250Vac/dc XT1..XT5 F/P | ABB | TYPICAL LK2-160 |

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
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REV.: 2_A | DATE: 18/03/25 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

= TYPICAL
+ LK-x
DWG n° : 231298/SD/31
Item n° : PF1002983/26

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 2 | 18/09/2024 | Santinelli | Flamminio | Sigismondi | As Built (ASB) |
| 1 | 10/07/2024 | Santinelli | Flamminio | Sigismondi | Accepted for Construction (AFC) |
| 0 | 09/05/2024 | Santinelli | Flamminio | Sigismondi | Issued for review (IFR) |

TITLE : "SG-200N1"
LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS
Functional Drawing - Typical "LK1-n" & "LK2-n"

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 047 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

# BASE LOAD POWER HUB (BLPH)
# B-300 HVAC and LIGHTING PANEL WIRING DRAWING and GENERAL ARRANGEMENT (INCL INTERCONNECTING) - E&I SHELTERS

## B300-HSB-001

AS COMMISSIONED
SUCCESSFUL DAMS
16/04/2025
MO MARK JP

| REV. | DATE | DRN | CHKD | APPD | DESCRIPTION |
|---|---|---|---|---|---|
| 05 | 24/01/25 | | | | ACCEPT FOR CONSTRUCTION (AFC) |
| 04 | 10/12/24 | | | | ACCEPT FOR CONSTRUCTION (AFC) |
| 03 | 04/09/24 | | | | ISSUE FOR REVIEW (IFR) |
| 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

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-00028

SHEET 001

REV. 05

| 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 | APPR. | M.G. |
| DISEGN. | F.M. | | |
| VISTO | S.S. | | |

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frigotermica@frigotermica.com

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
COVER

ROSETTI MARINO

1724000049-HV-DA-00028

F.G. 1
F.S. 2

AS COMMISSIONED ZUCCHINNI DAVIDE NO MARK UP 16/04/2025

# 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. | M.G. |
|---|---|---|---|---|---|
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BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
INDEX

ROSETTI MARINO

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FG. 2
F.S. 2A

AS COMMISSIONED ZUCCOLOTTI DAVIDE 16/04/2025 NO MARK UP 2A

# 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. | | | | | |
|---|---|---|---|---|---|
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| 04 | ACCEPT FOR CONSTRUCTION | 10/12/24 | F.M. | DESIGN. | 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-300AC UPS EQUIPMENT ROOM

INDEX

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FG. 2A
F.S. 3

| Symbol | Description | Symbol | Description | Symbol | Description |
|---|---|---|---|---|---|
| TR | VOLTAGE TRANSFORMER | | SONIC INDICATOR | F. | FUSE |
| TA | CURRENT TRANSFORMER | * | INDICATOR INSTRUMENT | | CONTACT N.O. |
| M ~ | MOTOR IN C.A. | | SELECTOR SWITCH | | CONTACT N.C. |
| | GROUND : GENERAL SYMBOL | 52. | SWITCH | | COMMUTATION CONTACT |
| L.. | SIGNAL LAMP | 52. | AUTOMATIC CIRCUIT BREAKER | P | CONTACT ACTUATED BY A PRESSURE |
| L.. | SIGNAL LAMP + HEATER | 52. Id | DIFFERENTIAL AUTOMATIC BREAKER | | CONTACT ACTUATED BY A FLOW |
| L.. | SIGNAL LAMP + VOLTAGE TRANSF. | 89. | DISCONNECTING SWITCH | | CONTACT ACTUATED BY A LEVEL |
| | SIGNAL LAMP–PUSH BUTTON | 89. | LOADED CIRCUIT BREAKER | θ | CONTACT ACTUATED BY A TEMPERATURE |
| 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 | | AS COMMISSIONED ZUCCHELLI DAVIDE 16/04/2025 NO MARK UP |
| 79. | LIMIT SWITCH N.C. | | ELECTROVALVE | | |

| REV. | MODIFICA | DATA | FIRMA | APPR. | |
|---|---|---|---|---|---|
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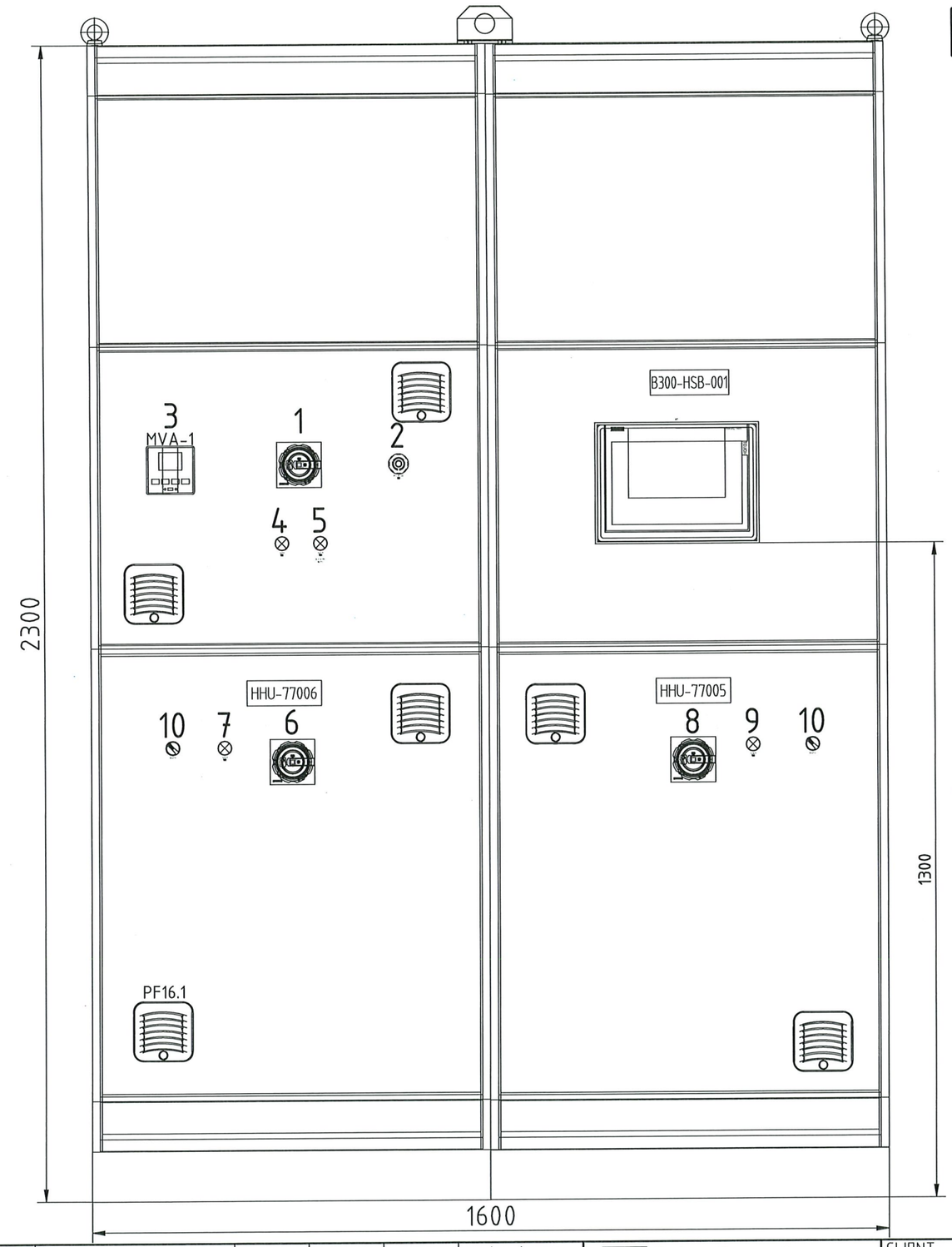
BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
SIMBOL LIST

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 3
F.S. 4

# EXTERNAL VIEW




| LABEL | |
|---|---|
| 1 | MAIN SWITCH |
| 2 | ERGENCY POWER BUTTON |
| 3 | MULTIMETER |
| 4 | 230V AC PRESENCE |
| 5 | 24V DC PRESENCE |
| 6 | HHU-77006 MAIN SWITCH |
| 7 | 230VAC PRESENCE |
| 8 | HHU-77005 MAIN SWITCH |
| 9 | 230VAC PRESENCE |
| 10 | AUTO-0-MANUAL |

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CABINET QUOTE:
LENGHT 1600mm
HEIGHT 2300mm
DEPT 600mm

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| | |
|---|---|
| SERIAL n.: *Matricola n.:* | 1628 |
| TAG: *Codice identificativo:* | B300-HSB-001 |
| POWER SUPPLY: *Alimenatzione:* | 400 Vac 50Hz 3Ph+N |
| Icc: *Coorente cortocircuito:* | 25 kA/1s |
| AUX. TENSION: *Tensione ausiliaria:* | 24 Vdc |
| INTERNAL PROTECTION: *Protezione interna:* | IP54 |
| MAIN BUS BAR RATING: *Barra principale:* | 32 A |
| YEAR OF MANUFACTURE: *Anno produzione:* | 2024 |
| MANUFACTURER: *Costruzione:* | FRIGOTERMICA s.r.l. |
| CONTRACT n.: *Contratto:* | 51/240554 |
| PROJECT: *Progetto:* | BASE LOAD POWER HUB |
| WEIGHT: *Peso:* | 1150 Kg |

CE

FRIGOTERMICA JOB NUMBER: 4112

SCALE 1:10

| REV. | MODIFICA | DATA | FIRMA | | |
|---|---|---|---|---|---|
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BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
EXTERNAL VIEW

ROSETTI MARINO

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FG. 4
F.S. 5

# INTERNAL VIEW

CABLE ENTRY FROM TOP
WITH CABLE GLANDS

PLATE 700 x 470

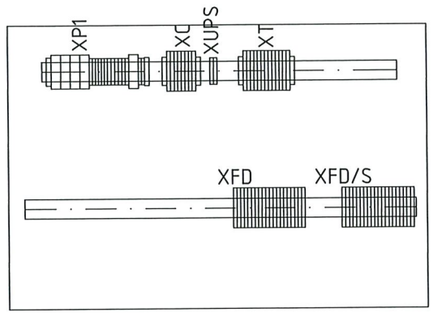
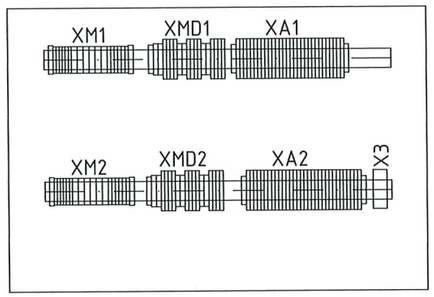



PLATE 700 x 470_2




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PLATE 700 x 570

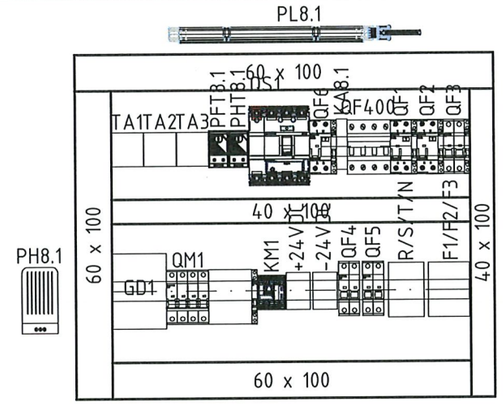



PLATE 700 x 570_2

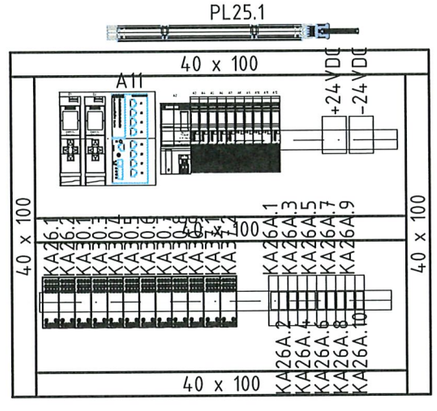



PLATE 700 x 870_2

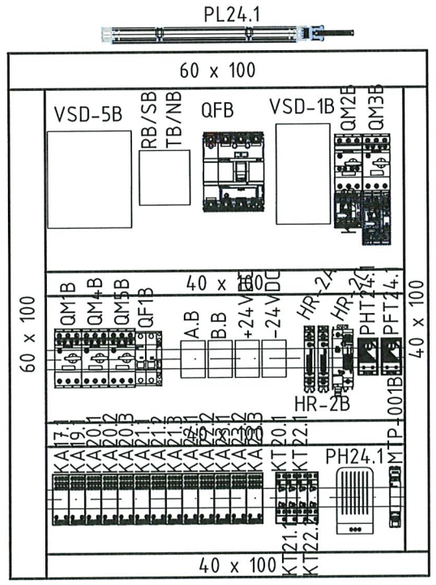
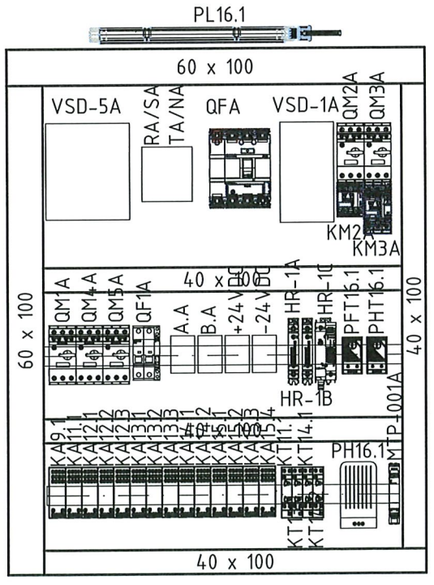



PLATE 700 x 870




SCALE 1:10

| REV. | MODIFICA | DATA | FIRMA | | |
|---|---|---|---|---|---|
| 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-300AC UPS EQUIPMENT ROOM

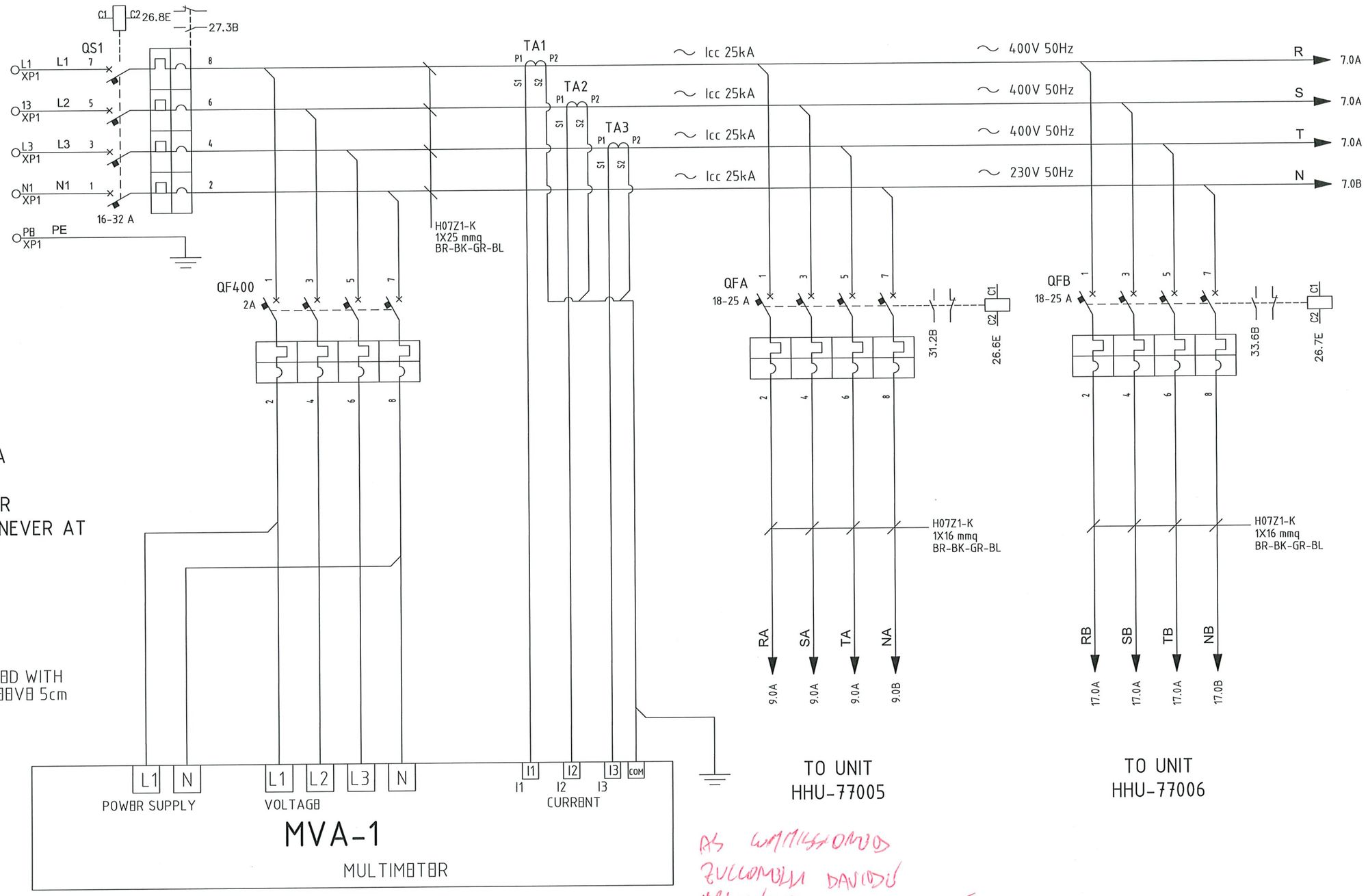
INTERNAL VIEW

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 5
F.S. 6

CLIENT POWER SUPPLY
FROM LV SWITCHGEAR
3 PH + N + PE
400V 50Hz
5G25
TAG SG-200N1




RATED POWER: 15.13 kW
RATED CURRENT: 24.75 A

ONLY UNIT HHU-77005 OR
HHU-77006 ACTIVATED, NEVER AT
SAME TIME

COLOR IDENTIFICATION:
COLORED CABLE OR IDENTIFIED WITH
HEAT SHRINK COLOURED SLEEVE 5cm

400V 3P + N
⟶ BROWN
⟶ BLACK
⟶ GRAY
⟶ BLU

230V 1P + N
⟶ BROWN
⟶ BLU

24Vdc
⟶ RED
⟶ BLACK

PANEL INTERNAL CABLES TYPE: H07Z1-K OR FG17
UNIT INTERNAL CABLES TYPE: FG16OM16 GREEN SHEATH NOT ARMOURED

TO UNIT
HHU-77005

TO UNIT
HHU-77006

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ZULLO MOLLI DAVIDE
16/04/2025
NO MARK UP

| REV. | MODIFICA | DATA | FIRMA | | |
|---|---|---|---|---|---|
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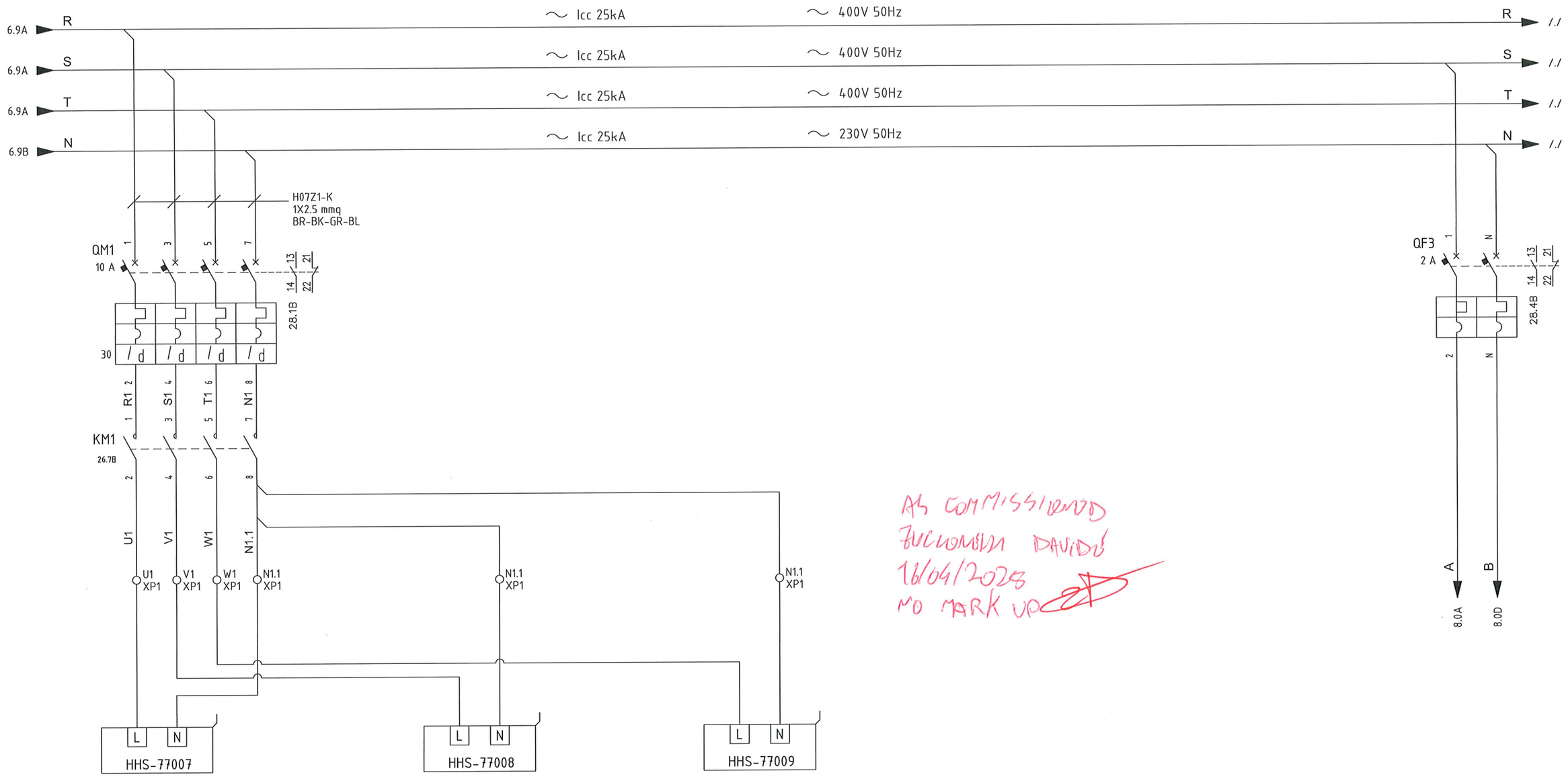

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BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
POWER SECTION

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FG. 6
F.S. 7




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| HHS-77-007 | |
|---|---|
| ELECTRICAL HEATER | |
| RATED | ABSORBED |
| 2 kW | 2 kW |
| 8.7 A | 8.7 A |

| HSS-77-008 | |
|---|---|
| ELECTRICAL HEATER | |
| RATED | ABSORBED |
| 2 kW | 2 kW |
| 8.7 A | 8.7 A |

| HSS-77-009 | |
|---|---|
| ELECTRICAL HEATER | |
| RATED | ABSORBED |
| 2.7 kW | 2 kW |
| 8.7 A | 8.7 A |

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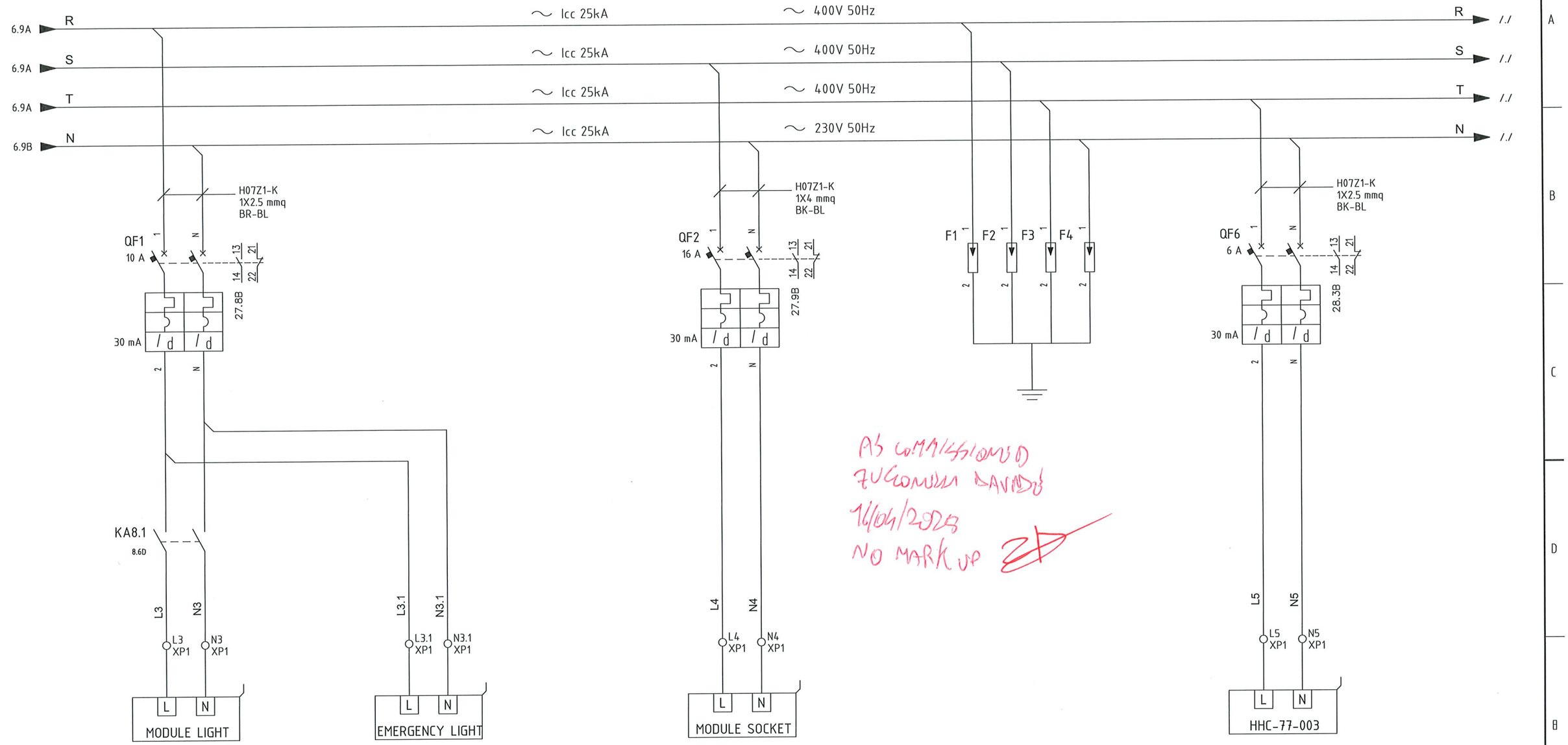
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BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
POWER SECTION

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FG. 7
F.S. 7A




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16/04/2025
NO MARK UP

| MODULE INTERNAL LIGHT | |
|---|---|
| RATED | ABSORBED |
| 1 kW | 0.9 kW |
| 4.35 A | 3.9 A |

| MODULE INTERNAL SOCKET | |
|---|---|
| RATED | ABSORBED |
| 3.5 kW | 3.5 kW |
| 16 A | 16 A |

| HHC-77-003 | |
|---|---|
| HEATING CABLE | |
| RATED | ABSORBED |
| 0.25 kW | 0.25 kW |
| 1.2 A | 1.2 A |

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DATA 22/04/2024
DISEGN. F.M.
VISTO S.S.
APPR. M.G.

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BASE LOAD POWER HUB (BLPH)
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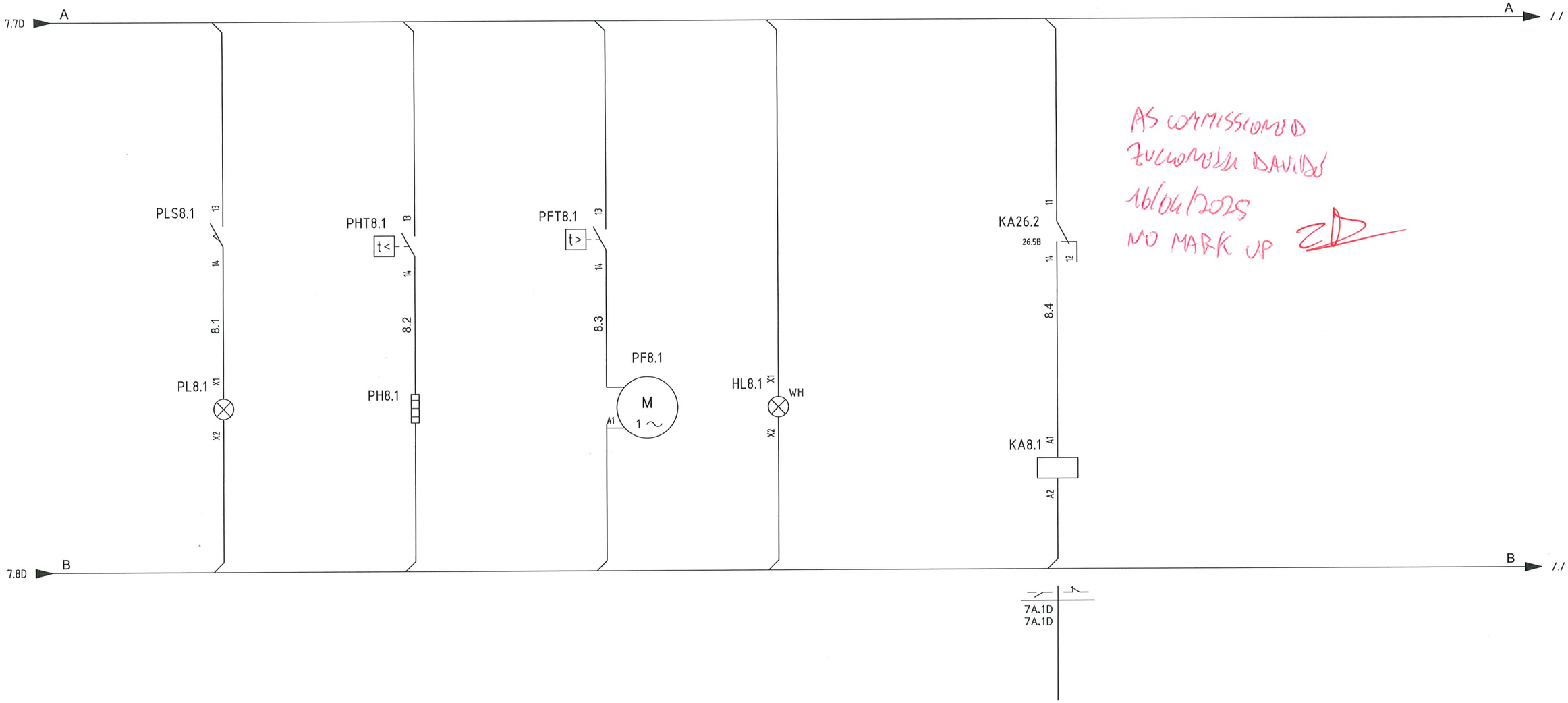
POWER SECTION
*Power section*

ROSETTI MARINO

1724000049-HV-DA-00028

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 | | | |




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16/04/2025
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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
POWER SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 8
F.S. 9

# HHU-77005
# SECTION

RATED POWER: 11 kW
RATED CURRENT: 18.81 A

ABSORBED POWER: 7.6 kW
ABSORBED CURRENT: 14.4 A

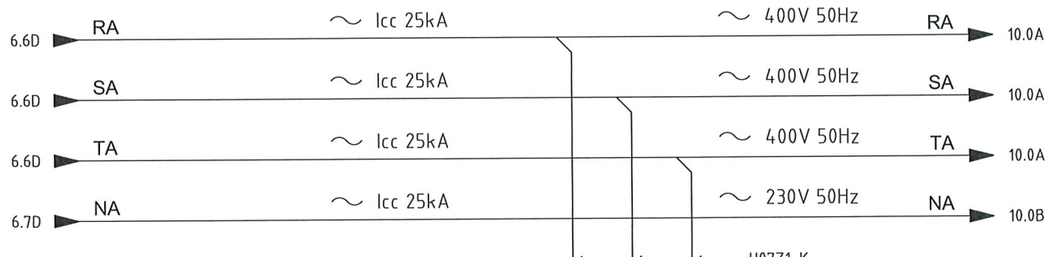
COLOR IDENTIFICATION:
COLORED CABLE OR IDENTIFIED WITH
HEAT SHRINK COLOURED SLEEVE 5cm

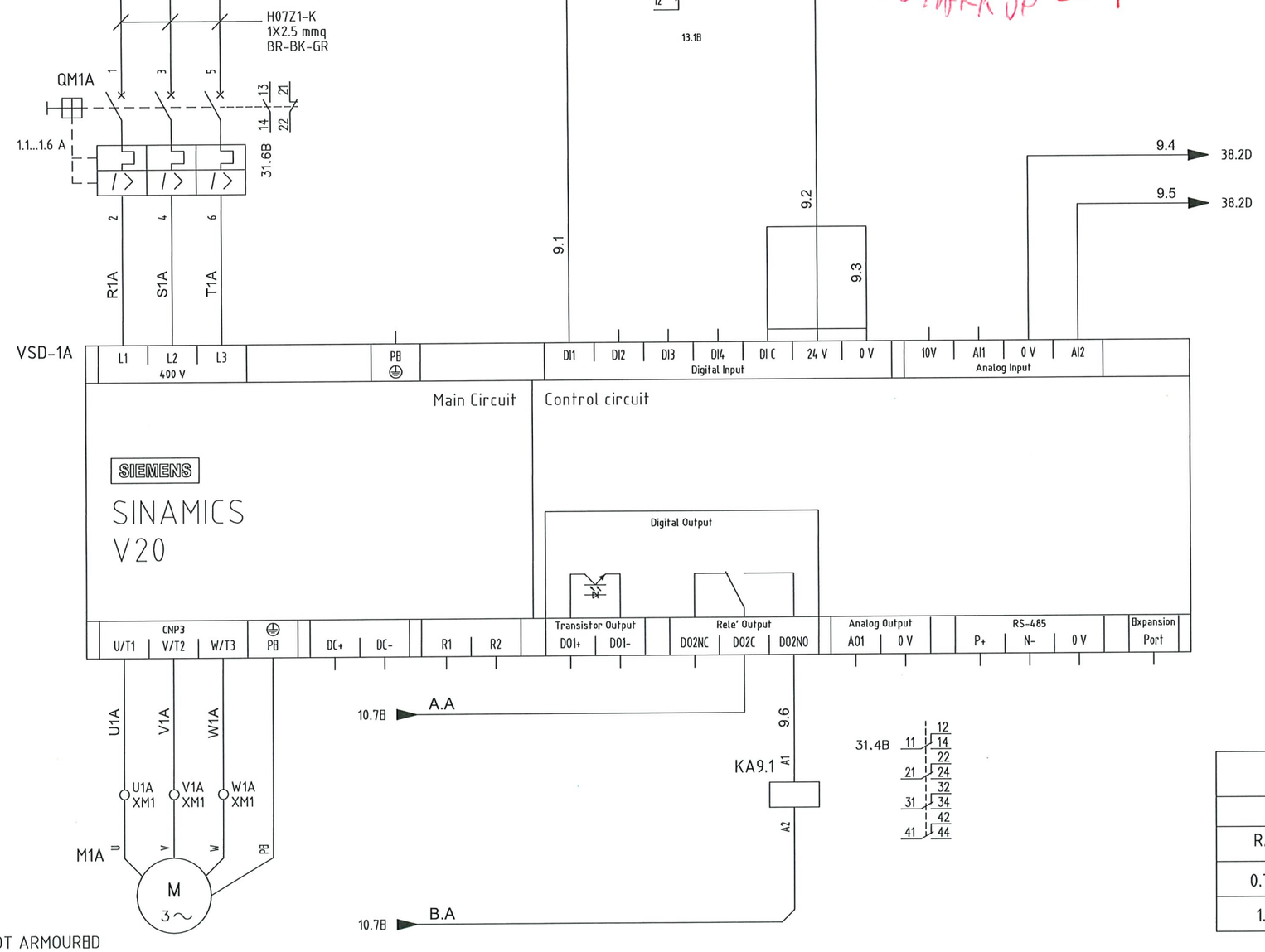
400V 3P + N
- ⟶ BROWN
- ⟶ BLACK
- ⟶ GRAY
- ⟶ BLU

230V 1P + N
- ⟶ BROWN
- ⟶ BLU

24Vdc
- ⟶ RED
- ⟶ BLACK

PANEL INTERNAL CABLES TYPE: H07Z1-K OR FG17
UNIT INTERNAL CABLES TYPE: FG16OM16 GREEN SHEATH NOT ARMOURED




AS COMMISSIONED
ZUCCOMELLI DAVIDE
16/04/2024
NO MARK UP

| HFM-77-301 | |
|---|---|
| PRESSURIZING FAN | |
| RATED | ABSORBED |
| 0.75 kW | 0.7 kW |
| 1.59 A | 0.6 A |

| 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

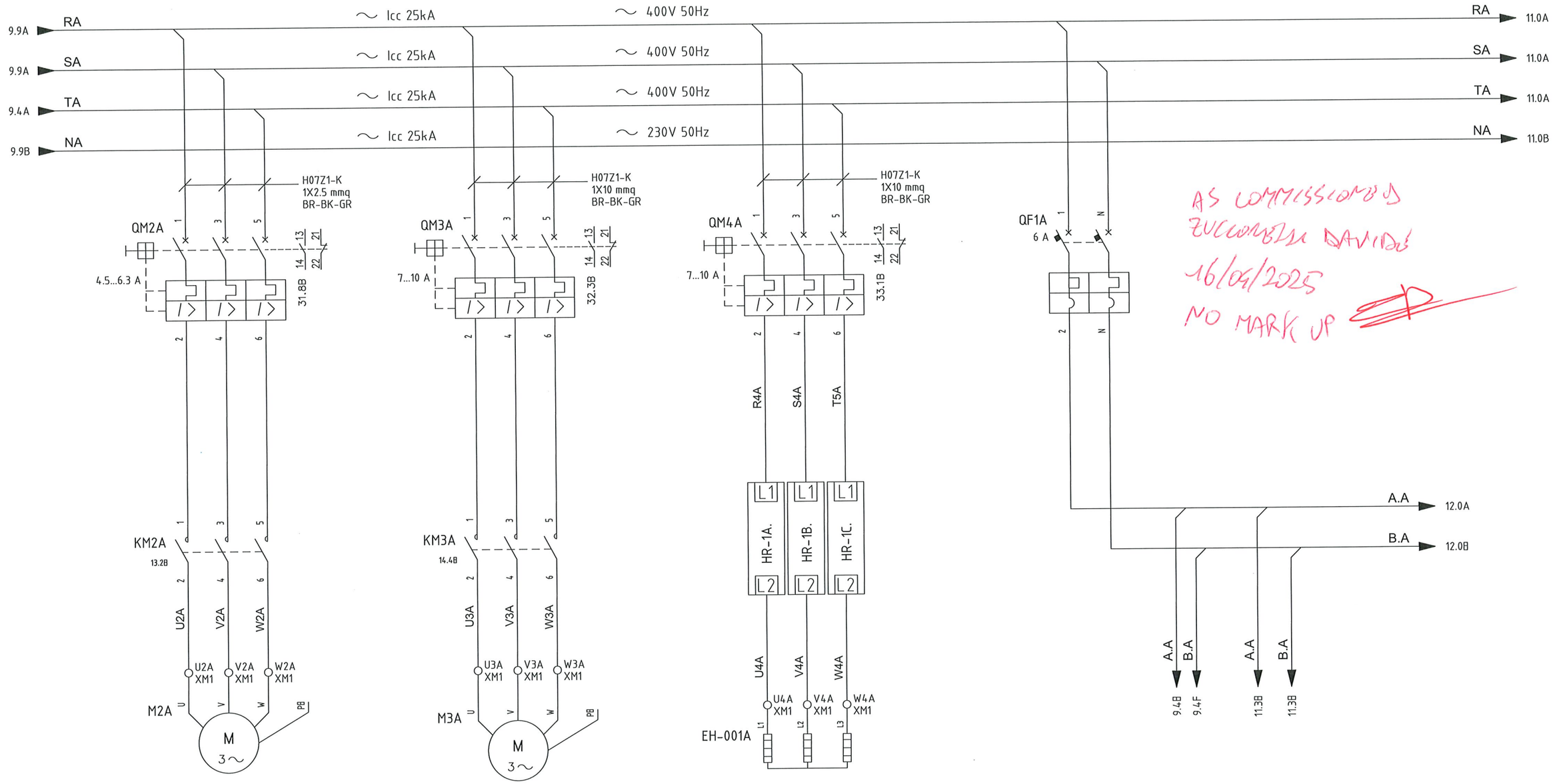

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
POWER SECTION A

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 9
F.S. 10




AS COMMISSIONED
ZUCCOMBLIA DAVIDE
16/04/2025
NO MARK UP

| HFM-77-302 | |
|---|---|
| SUPPLY FAN | |
| RATED | ABSORBED |
| 3 kW | 2.48 kW |
| 6.35 A | 4.21 A |

| HCO-77-301 | |
|---|---|
| COMPRESSOR 1 A | |
| RATED | ABSORBED |
| 5.8 kW | 3.80 kW |
| 9.86 A | 7.3 A |

| HSS-77-301 | |
|---|---|
| ELECTRICAL HEATER | |
| RATED | ABSORBED |
| 6.00 kW | 6.00 kW |
| 8.67 A | 8.67 A |

| REV. | MODIFICA | DATA | FIRMA |
|---|---|---|---|
| 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-300AC UPS EQUIPMENT ROOM
POWER SECTION A

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 10
F.S. 11

10.9A RA ~ Icc 25kA ~ 400V 50Hz → RA /./

10.9A SA ~ Icc 25kA ~ 400V 50Hz → SA /./

10.9A TA ~ Icc 25kA ~ 400V 50Hz → TA 42.4F

10.9B NA ~ Icc 25kA ~ 230V 50Hz → NA /./

H07Z1-K
1X4 mmq
BR-BK-GR

QM5A

2.2...3.2 A

32.6B

R5A S5A T5A

KA15.2

15.4D

11.8 11.9 11.10 11.11

118 XA1

119 XA1

PTH-77-301

VSD-5A

L1 L2 L3 400 V | 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 A01 0 V | RS-485 P+ N- 0 V | Expansion Port

10.7B A.A

KA11.1 A1 A2

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

M5.1A U5A.1 XM1 V5A.1 XM1 W5A.1 XM1 U V W PB M 3~

M5.2A U5A.1 XM1 V5A.1 XM1 W5A.1 XM1 U V W PB M 3~

AS COMMISSIONED
ZUCCOMELLI DAVIDE
16/04/2025
NO MARK UP

| HFM-77-305 | |
|---|---|
| CONDENSER FAN 1 | |
| RATED | ABSORBED |
| 0.37 kW | 0.35 kW |
| 1 A | 0.6 A |

| HFM-77-306 | |
|---|---|
| CONDENSER FAN 2 | |
| RATED | ABSORBED |
| 0.37 kW | 0.35 kW |
| 1 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. |
| 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-300AC UPS EQUIPMENT ROOM
POWER SECTION A

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 11
F.S. 12

START / STOP
HHU-77005

MOTORISED DAMPER
POWER SUPPLY

MOTORISED DAMPER
OPEN SIGNAL
HHU-77005

MOTORISED DAMPER
CLOSED SIGNA
HHU-77005

MOTORISED DAMPER
NOT OPEN
ALARM SIGNAL
HHU-77005

10.8D A.A

A.A 13.0A

KA30.3
30.5D

KA12.3
12.7B

12.2

KA12.1
12.5B

KT11.1
120"

On-D 12.7B

HDZ-77-301
HDZ-77-302
HDZ-77303
HDZ-77-303

M
1 ~

12.3
12.4
12.5
12.6
12.7
12.8
12.9
12.10
12.11

Delay/Ritardo

KA37.1
37.2D

KA12.2

AS COMMISSIONED
ALLOWED DAVIDS
16/04/2024
NO MARK UP 2P

10.8D B.A

B.A 13.0B

12.1C 11 12 14 22
13.1B 21 24
13.2B 31 32 34
31.2B 41 42 44

31.2B 11 12 14 22
21 24
31 32 34
41 42 44

12.1C 11 12 14 22
12.8B 21 24
28.5B 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. |
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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
AUX SECTION A

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 12
F.S. 13

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|

PRESSURIZING FAN START / STOP
HH-77005

SUPPLY AIR FAN START/STOP
HH-77005

SUPPLY AIR FAN BROKEN BELT ALARM
HHU-77005

SUPPLY AIR FAN MOTOR HEATER
HHU-77005

PRESSURIZIN FAN OVERLOAD PROTECTION
HHU-77005

12.9A A.A — A.A 14.0A

KA12.1 21 24 22 — 12.5B
13.1
KA13.3 11 14 12 — 13.8B
13.2
KA13.1 A1 A2

KA12.1 31 34 32 — 12.5B
13.3
KM2A A1 A2

KA37.1 21 24 22 — 37.2D
13.4
KT13.1 A1 A2

PDSL-77-301 p> 13 14
100 XA1
101 XA1
13.5
KA13.2 11 14 12 — 13.4B
KA13.2 A1 A2

Delay/Ritardo
KT13.1 — 13.3B

KM2A 21 22 — 13.2B
13.6

HSS-77-303
106 XA1
107 XA1

MTP-001A
A1/11
SIEMENS
ϑ> + -
TRIPPED
NC NO
T1 T2 A2 12 14
13.7 13.8
102 XA1 103 XA1

TE-77-301

13.9
KA13.3 A1 A2

12.9B B.A — B.A 14.0B

9.5B 11 14 12 / 21 24 22 / 31 34 32 / 41 42 44

10.1D 2 1
10.1D 4 3
10.1D 6 5
14.1B 14 13
31.7B 44 43
13.5B 22 21 / 32 31

13.4B On-D

13.4C 11 14 12 / 21 24 22 / 29.4B 31 34 32 / 41 42 44

AS COMMISSIONED
ZULLO MILLA DAVID
16/04/2025
NO MARK UP

13.1C 11 14 12 / 21 24 22 / 29.1B 31 34 32 / 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. |
| | | | | APPR. | M.G. |

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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
AUX SECTION A

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 13
F.S. 14

PRESSURIZING FAN MOTOR HEATER
HHU-77005

COMPRESSOR START/STOP
HHU-77005

LOW PRESSURE ALARM
HHU-77005

HIGH PRESSURE ALARM
HHU-77005

COMPRESSOR OIL HEATER
HHU-77005

13.9A A.A

A.A 15.0A

KA30.4
30.6D

KA30.5
35.6D
PLC START

KM2A
13.2B

KA14.1
14.5B

KA14.2
14.7B

KA11.1
11.4B

KT14.1
14.2B
Delay/Ritardo

PSL-77-301

PSH-77-301

KA14.1
14.5B

KT14.2
14.4B
Delay/Ritardo

KA37.1
37.2D

KA14.2
14.7B

KA37.1
37.2D

KM3A
14.4B

HSS-77-302

KT14.1
120"

KM3A

KT14.2
10"

KA14.1

KA14.2

HSS-77-304

13.9B B.A

B.A 15.0B

On–D 14.4B

On–D 14.5C

10.3D
10.3D
10.3D
15.1B
32.2B
14.8B

14.2C
14.6B
32.5B

14.2D
14.8B
32.4B

AS COMMISSIONED
ZUCCOMULLI DAVIDE
16/04/2025
NO MARK UP

| 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-300AC UPS EQUIPMENT ROOM
AUX SECTION A

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 14
F.S. 15

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|

SOLENOID VALVE
HHU-77005

FILTER CLOGGED
HHU-77005

CONDENSING PRESSURE SWITCH
HHU-77005

ELECTRICAL HEATER SECURITY THERMOSTATE
HHU-77005

PRESSURIZING FAN LOW PRESSURE SWITCH
PDSL-77-302
HHU-77005

14.9A A.A → A.A 16.0A

KM3A
14.4B
13 14 15.1

PDSH-77-301
114 XA1 — 13 — 14 — 115 XA1
15.2

PC-77-301
116 XA1 — 13 — 14 — 117 XA1
15.3

TSH-77-301
120 XA1 — 11 — 12 — 121 XA1
15.4

TSHH-77-301
122 XA1 — 11 — 12 — 123 XA1
15.5

PDSL-77-302
128 XA1 — 11 — 12 — 129 XA1
15.6

HSV-77-301
112 XA1 — A1 — A2 — 113 XA1

KA15.1 A1 A2
KA15.2 A1 A2
KA15.3 A1 A2
KA15.4 A1 A2

14.9B B.A → B.A 16.0B

32.8B 11 12 14 21 22 24 31 32 34 41 42 44
11.3B 11 12 14 21 22 24 31 32 34 41 42 44
32.8B 11 12 14 21 22 24 31 32 34 41 42 44
27.2B 11 12 14 21 22 24 31 32 34 41 42 44

AS COMMISSIONED
ZUCCONELLI DAVIDE
16/04/2026
NO MARK UP
2D

| 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-300AC UPS EQUIPMENT ROOM
AUX SECTION A

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 15
F.S. 16

PANEL INTERNAL LIGHT

HHU-77005

PANEL FAN

HHU-77005

PANEL HEATER

HHU-77005

230V AUX VOLTAGE PRESENCE

HHU-77005

15.9A A.A

A.A /./

PLS16.1 11 12 16.1

PFT16.1 t> 13 14 16.2

PHT16.1 t< 13 14 16.3

PL16.1 X1 X2

PF16.1 M 1~ A1

PH16.1

HL16.1 X1 X2 WH

15.9B B.A

B.A /./

AS COMMISSIONED
ZUCCONELLI DAVIDE
16/04/2025
NO MARK UP

| 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-300AC UPS EQUIPMENT ROOM

AUX SECTION A

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 16
F.S. 17

# HHU-77006
# SECTION

RATED POWER: 11 kW
RATED CURRENT: 18.81 A

ABSORBED POWER: 7.6 kW
ABSORBED CURRENT: 14 A

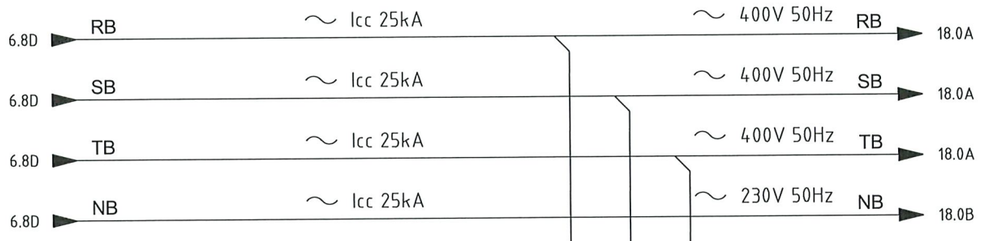
COLOR IDENTIFICATION:
COLORED CABLE OR IDENTIFIED WITH
HEAT SHRINK COLOURED SLEEVE 5cm

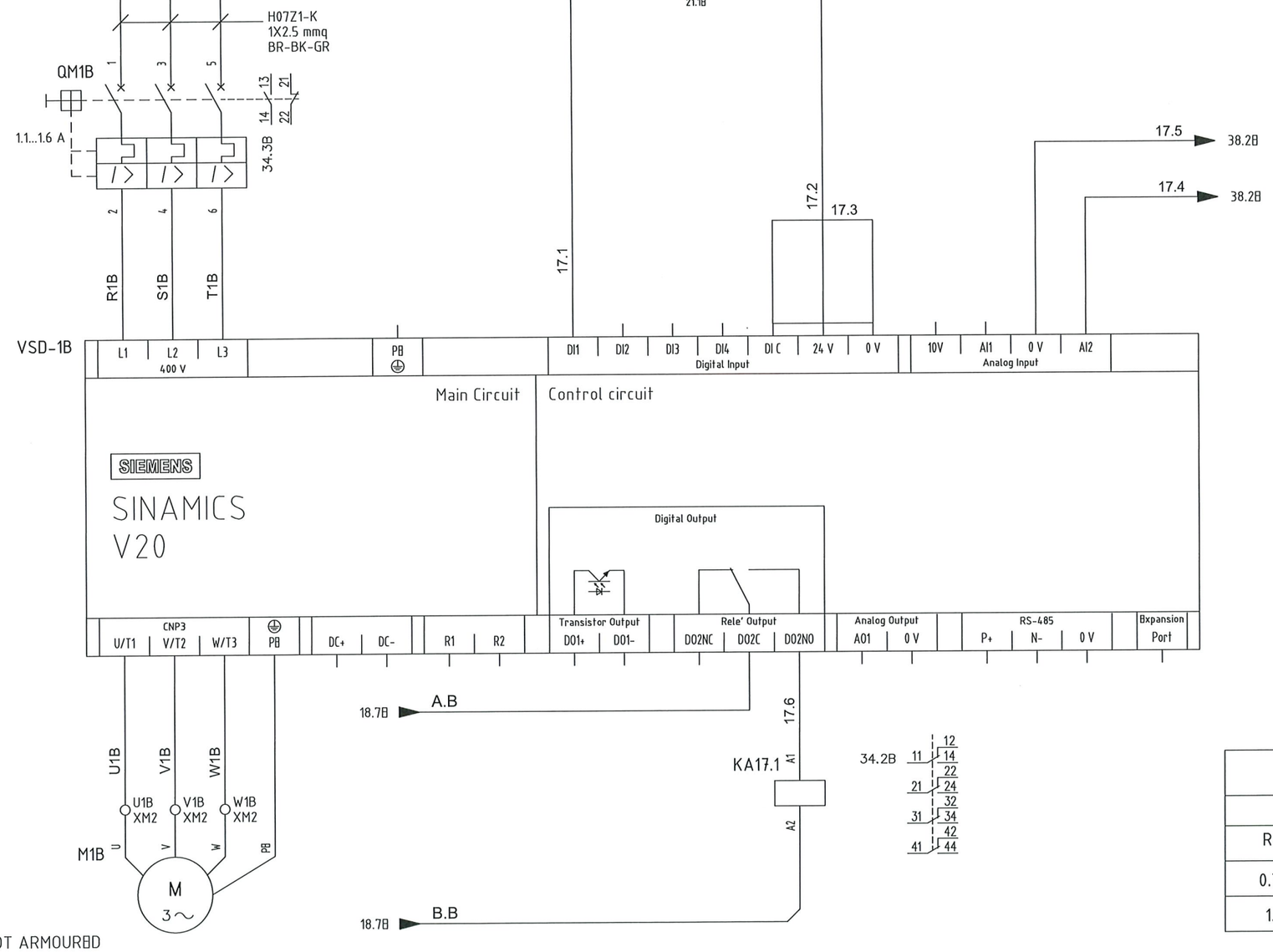
400V 3P + N
- ⟶ BROWN
- ⟶ BLACK
- ⟶ GRAY
- ⟶ BLU

230V 1P + N
- ⟶ BROWN
- ⟶ BLU

24Vdc
- ⟶ RED
- ⟶ BLACK

PANEL INTERNAL CABLES TYPE: H07Z1-K OR FG17
UNIT INTERNAL CABLES TYPE: FG16OM16 GREEN SHEATH NOT ARMOURED




AS COMMISSIONED
ZUCCOMELLI DAVIDE
17/06/2025
NO MARK UP

| HFM-77-303 | |
|---|---|
| PRESSURIZING FAN | |
| RATED | ABSORBED |
| 0.75 kW | 0.7 kW |
| 1.59 A | 0.6 A |

| 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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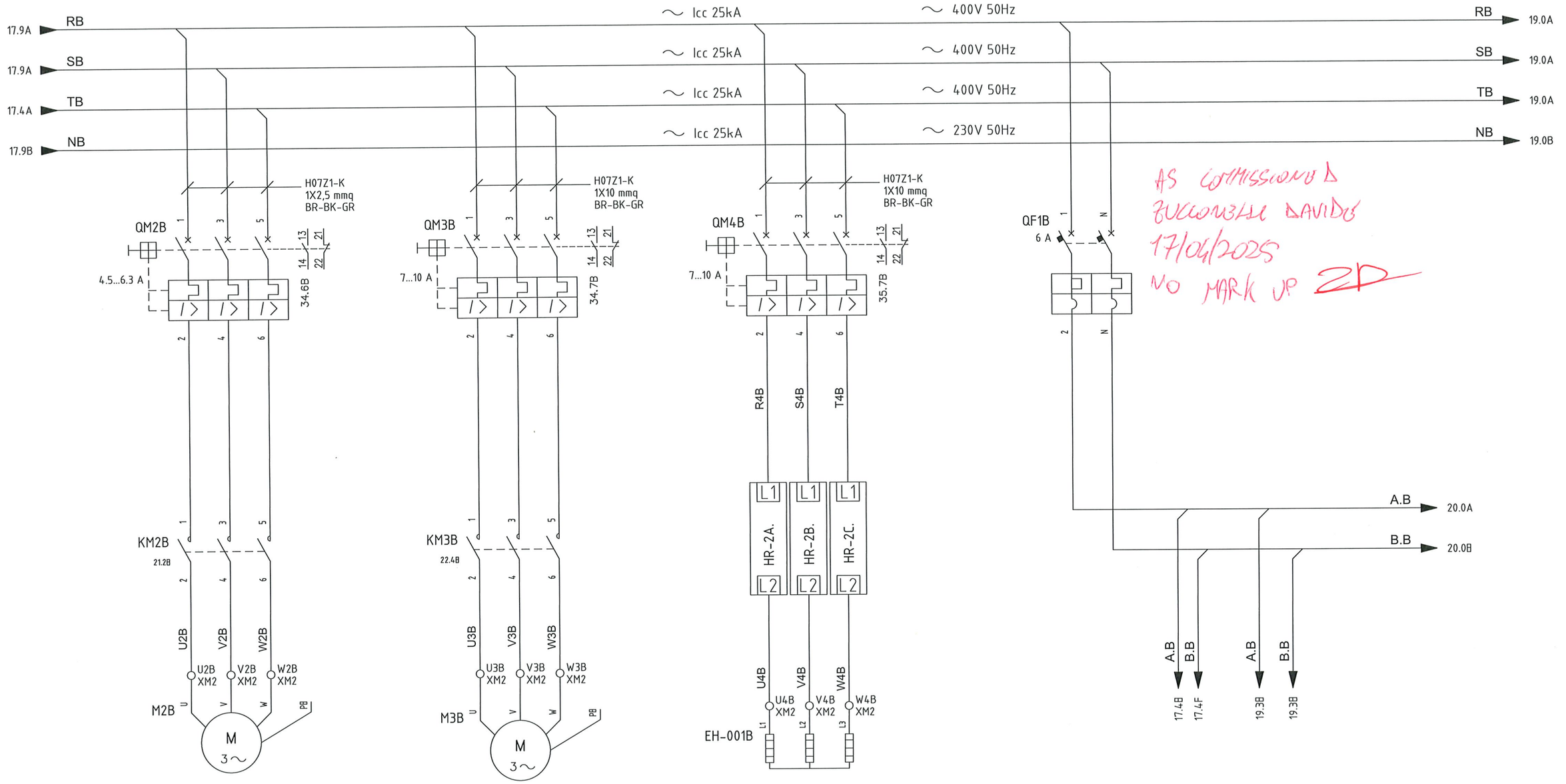

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
POWER SECTION B

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 17
F.S. 18




AS COMMISSIONED
ZUCCONELLI DAVIDE
17/04/2025
NO MARK UP 2D

| HFM-77-304 | |
|---|---|
| SUPPLY FAN | |
| RATED | ABSORBED |
| 3.00 kW | 2.48 kW |
| 5.10 A | 4.21 A |

| HCO-77-302 | |
|---|---|
| COMPRESSOR 1 A | |
| RATED | ABSORBED |
| 5.8 kW | 3.80 kW |
| 9.86 A | 7.30 A |

| HHS-77-305 | |
|---|---|
| ELECTRICAL HEATER | |
| RATED | ABSORBED |
| 6.00 kW | 6.00 kW |
| 8.67 A | 8.67 A |

| REV. | MODIFICA | DATA | FIRMA | APPR. | M.G. |
|---|---|---|---|---|---|
| 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-300AC UPS EQUIPMENT ROOM
POWER SECTION B

ROSETTI MARINO

1724000049-HV-DA-00028

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 43.4F

18.9B NB ~ Icc 25kA ~ 230V 50Hz → NB /./

QM5B 1 3 5 13 21 14 22

2.2...3.2 A

R5B 2 · S5B 4 · T5B 6

KA23.2 14 11 12 — 23.4D

19.3 → 318 XA2 · 319 XA2 → PTH-77-302

19.1 · 19.2 · 19.4

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

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

18.7B A.B

18.8B B.B

19.5 · KA19.1 A1 A2

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~

AS COMMISSIONED
ZUCCOMELLI DANIDE
17/04/2025
NO MARK UP

| HFM-77-307 | |
|---|---|
| CONDENSER FAN 1 | |
| RATED | ABSORBED |
| 0.37 kW | 0.35 kW |
| 1 A | 0.6 A |

| HFM-77-308 | |
|---|---|
| CONDENSER FAN 2 | |
| RATED | ABSORBED |
| 0.37 kW | 0.35 kW |
| 1 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. |
| 03 | ISSUED FOR CONSTRUCTION | 04/09/24 | F.M. | VISTO | S.S. |
| | | | | APPR. | M.G. |

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tel. 0039–0371–69076
frigotermica@frigotermica.com

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
POWER SECTION B

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 19
F.S. 20

START / STOP
HHU-77006

MOTORISED DAMPER
POWER SUPPLY

MOTORISED DAMPER
OPEN SIGNAL
HHU-77006

MOTORISED DAMPER
CLOSED SIGNA
HHU-77006

MOTORISED DAMPER
NOT OPEN
ALARM SIGNAL
HHU-77006

18.8D A.B

A.B 21.0A

KA30.6
35.7D
UNIT B
START FROM PLC

KA20.3
20.7B

KA20.1
20.5B

KT20.1
120"

20.1
20.3
20.4
20.5
20.6
20.7
20.8
20.9
20.10
20.11
20.12

200 XMD2
201 XMD2
202 XMD2
203 XMD2
204 XMD2
205 XMD2
206 XMD2
207 XMD2
208 XMD2
209 XMD2
210 XMD2
211 XMD2
212 XMD2
213 XMD2
214 XMD2
215 XMD2
216 XMD2
217 XMD2

HDZ-77-304
HDZ-77-305
HDZ-77-306

M 1~

KA20.1
KA20.2
KA20.3

Delay/Ritardo
KT20.1
20.1B

KA37.2
37.3D

On-D 20.7B

18.8D B.B

B.B 21.0B

20.1C 11 12 14
21.1B 21 22 24
33.7B 31 32 34
41 42 44

33.7B 11 12 14
21 22 24
31 32 34
41 42 44

20.1C 11 12 14
20.8B 21 22 24
33.6B 31 32 34
41 42 44

AS COMMISSIONED
ZULLO MICHELE DAVIDE
17/04/2025
NO MARK UP

| REV. | MODIFICA | DATA | FIRMA | APPR. | M.G. |
|---|---|---|---|---|---|
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BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
AUX SECTION B

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 20
F.S. 21

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|

PRESSURIZING FAN START / STOP
HHU-77006

SUPPLY AIR FAN START/STOP
HHU-77006

SUPPLY AIR FAN BROKEN BELT ALARM
HHU-77006

SUPPLY AIR FAN MOTOR HEATER
HHU-77006

PRESSURIZIN FAN OVERLOAD PROTECTION
HHU-77006

20.9A A.B

A.B 22.0A

KA20.1 20.5B 21.1 21.2

KA21.1 21.1B 21.3

KA37.2 37.3D 21.12

300 XA2
PDSL-77-302 p>
301 XA2
21.4

KA21.2 21.4B 21.6

KT21.1 21.3B Delay/Ritardo

KM2B 21.2B 21.5

KA21.3 21.8B

306 XA2
HSS-77-307
307 XA2

MTP-001B A1/11 SIEMENS
ϑ>
TRIPPED
T1 T2 A2 NC NO 12 14
21.6 21.7
302 XA2 303 XA2

TE-77-302

21.8

KA21.1 A1 A2
KM2B A1 A2
KT21.1 A1 A2
KA21.2 A1 A2
KA21.3 A1 A2

20.9B B.B

B.B 22.0B

21.2B 11 12 14 17.5B 21 22 24 31 32 34 41 42 44

18.1D 2 1
18.1D 4 3
18.1D 6 5
22.1B 14 13
34.4B 44 43
21.5B 22 21 32 31

21.4B On-D

34.4B 11 12 14
21.4C 21 22 24 31 32 34 41 42 44

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ZUCCONELLI DAVIDE
17/04/2025
NO MARK UP

21.1C 11 12 14
33.8B 21 22 24 31 32 34 41 42 44

| REV. | MODIFICA | DATA | FIRMA | | |
|---|---|---|---|---|---|
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BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
AUX SECTION B

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 21
F.S. 22

PRESSURIZING FAN MOTOR HEATER
HHU-77006

COMPRESSOR START/STOP
HHU-77006

LOW PRESSURE ALARM
HHU-77006

HIGH PRESSURE ALARM
HHU-77006

COMPRESSOR OIL HEATER
HHU-77006

21.9A A.B → A.B 23.0A

KA30.7 30.8D — 12 14 — 11 — 22.1

KA30.8 30.9D — 12 14 — 11 — 22.2 — 13 — KM2B 21.2B — 14 — 22.3 — 12 14 — KA22.1 22.5B — 11 — 22.4 — 12 14 — KA22.2 22.7B — 11

KA19.1 19.4B — 11 14 12 — 22.5 — 22.6

KT22.1 22.2B — Delay/Ritardo — 22.7

PSL-77-302 p< — 13 14 — ⌀324 XA2 — ⌀325 XA2 — 22.8 — Delay/Ritardo — KT22.2 22.4B — 22.9

KA22.1 22.5B — 22 24 — 21 — 22.10 — 31 — KA37.2 37.3D — 34 32

PSH-77-302 p> — 13 14 — ⌀326 XA2 — ⌀327 XA2 — 22.11

KA22.2 22.7B — 22 24 — 21 — 22.12 — 41 — KA37.2 37.3D — 44 42

KM3B 22.4B — 21 22 — 22.13

AS COMMISSIONED
17/04/2025
NO MARK UP
ZUCCOMELLI DAVIDE

⌀308 XA2 — HSS-77-306 — ⌀309 XA2

KT22.1 A1 — 120" — A2

KM3B A1 — A2

KT22.2 A1 — 10" — A2

KA22.1 A1 — A2

KA22.2 A1 — A2

⌀310 XA2 — HSS-77-308 — ⌀311 XA2

21.9B B.B → 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. | 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-300AC UPS EQUIPMENT ROOM
AUX SECTION B

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 22
F.S. 23

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|

SOLENOID VALVE
HHU-77006

FILTER CLOGGED
HHU-77006

CONDENSING PRESSURE SWITCH
HHU-77006

ELECTRICAL HEATER SECURITY THERMOSTATE
HHU-77006

PRESSURIZING FAN LOW PRESSURE SWITCH
PDSL-77-304
HHU-77006

22.9A A.B → A.B 24.0A

KM3B 22.4B
13
14
23.1

312 XA2
HSV-77-302 A1 A2
313 XA2

314 XA2
PDSH-77-303 p> 13 14
315 XA2
23.2

316 XA2
PC-77-302 p> 13 14
317 XA2
23.3

320 XA2
TSH-77-302 t> 11 12
321 XA2
23.4
322 XA2
TSHH-77-302 t> 11 12
323 XA2
23.5

328 XA2
PDSL-77-304 p> 11 12
329 XA2
23.6

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 14 21 22 24 31 32 34 41 42 44
19.3B 11 12 14 21 22 24 31 32 34 41 42 44
35.6B 11 12 14 21 22 24 31 32 34 41 42 44
34.7B 11 12 14 21 22 24 31 32 34 41 42 44

AS COMMISSIONED
17/06/2025
NO MARK UP
ZUCCONELLI DAVIDE
2D

| REV. | MODIFICA | DATA | FIRMA | APPR. | M.G. |
|---|---|---|---|---|---|
| 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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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
AUX SECTION B

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 23
F.S. 24

PANEL INTERNAL LIGHT
HHU-77006

PANEL FAN
HHU-77006

PANEL HEATER
HHU-77006

230V AUX VOLTAGE PRESENCE
HHU-77006

23.9A A.B

A.B /.1

PLS24.1 11 12

PFT24.1 13 14 t>

PHT24.1 13 14 t<

AS COMMISSIONED
ZUCCONELLI DAVIDE
17/04/2025
NO MARK UP

PF24.1
M
1 ~
A1

PL24.1 X1 X2

PH24.1

HL24.1 X1 X2 WH

23.9B B.B

B.B /.1

| 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-300AC UPS EQUIPMENT ROOM
AUX SECTION B

ROSETTI MARINO

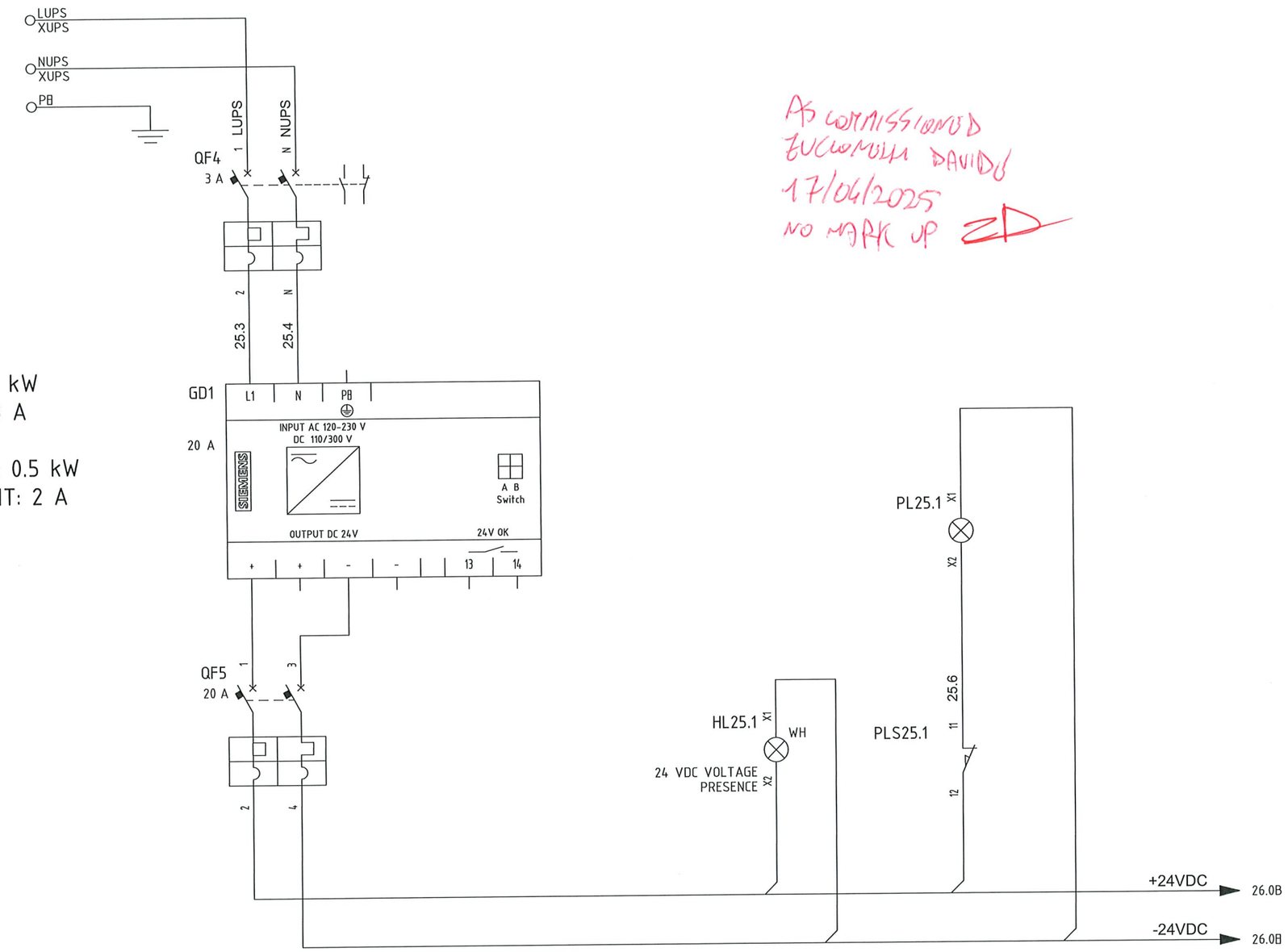
1724000049-HV-DA-00028

FG. 24
F.S. 25

POWER SUPPLY
FROM
AC UPS - PAS DB
1PH + N + PE
230V 50Hz
3G4
TAD DP200-F3

RATED POWER: 0.7 kW
RATED CURRENT: 3 A

ABSORBED POWER: 0.5 kW
ABSORBED CURRENT: 2 A




AS COMMISSIONED
ZUCCHELLI DAVIDE
17/04/2025
NO MARK UP ZD

| REV. | MODIFICA | DATA | FIRMA | | |
|---|---|---|---|---|---|
| 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-300AC UPS EQUIPMENT ROOM

UPS POWER SUPPLY

ROSETTI MARINO

1724000049-HV-DA-00028

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-77-007/8/9 SPACE HEATER START / STOP COMMAND | MODULE LIGHT | HPB-77-301 EMERGENCY POWER BUTTON HHU-77005 | HPB-77-302 EMERGENCY POWER BUTTON HHU-77006 | HPB-77-303 EMERGENCY POWER BUTTON B300-HSB-001 | |

25.7B +24VDC

+24VDC 26A.0A

24V DC
FROM SIS
B400-SIS-0901
1= OK
0= SHUT
DOWN

500 XC
501 XC
26.1
26.2
KA26.1 A1 A2
27.1B 11 12 14 21 22 24 31 32 34 41 42 44

HPB-77-303 33 34 26.8B
26.3

KA30.9 11 12 30.3D
26.4

504 XC 506 XC
LIGHT
PUSH BUTTON
505 XC 507 XC
26.5

HPB-77-301 104 XA1 13 14 105 XA1 31.1B
HPB-77-302 304 XA2 13 14 305 XA2 33.5B
26.6
26.7

HPB-77-303 13 14
RD X1 X2
26.8

AS COMMISSIONED
ZUCCOMELLI DAVIDE
17/04/2025
NO MARK UP 2D

EPB-002L X1 X2 RD

KM1 A1 A2

KA26.2 A1 A2

QFA C1 C2 6.6B U >
QFB C1 C2 6.8B U >
QS1 C1 C2 6.2B U >

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

8.6B 11 12 14 21 22 24 31 32 34 41 42 44

| REV. | MODIFICA | DATA | FIRMA | APPR. | M.G. |
|---|---|---|---|---|---|
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BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 26
F.S. 26A

HFD-77007 CLOSED FEEDBACK

HFD-77008 CLOSED FEEDBACK

HFD-77009 CLOSED FEEDBACK

HFD-77010 CLOSED FEEDBACK

HFD-77011 CLOSED FEEDBACK

HFD-77007 OPEN FEEDBACK

HFD-77008 OPEN FEEDBACK

HFD-77009 OPEN FEEDBACK

HFD-77010 OPEN FEEDBACK

HFD-77011 OPEN FEEDBACK

25.7B +24VDC

+24VDC 26A.0A

AS COMMISSIONED
ZUCCOMBELLI DAVIDE
17/04/2025
NO MARK UP 2D

700 XFD — 701 XFD — HFD-77007 (11, 12, 13, 14)
702 XFD — 703 XFD — HFD-77007 (11, 12, 13, 14)
704 XFD — 705 XFD — HFD-77008 (11, 12, 13, 14)
706 XFD — 707 XFD — HFD-77008 (11, 12, 13, 14)
708 XFD — 709 XFD — HFD-77009 (11, 12, 13, 14)
710 XFD — 711 XFD — HFD-77009 (11, 12, 13, 14)
712 XFD — 713 XFD — HFD-77010 (11, 12, 13, 14)
714 XFD — 715 XFD — HFD-77010 (11, 12, 13, 14)
716 XFD — 717 XFD — HFD-77011 (11, 12, 13, 14)
718 XFD — 719 XFD — HFD-77011 (11, 12, 13, 14)

KA26A.1 (A1, A2)
KA26A.2 (A1, A2)
KA26A.3 (A1, A2)
KA26A.4 (A1, A2)
KA26A.5 (A1, A2)
KA26A.6 (A1, A2)
KA26A.7 (A1, A2)
KA26A.8 (A1, A2)
KA26A.9 (A1, A2)
KA26A.10 (A1, A2)

25.7B -24VDC

-24VDC 26A.0B

34.2B 11 12 14 22 21 24 — 44.2B
34.3B 11 12 14 22 21 24 — 44.3B
34.4B 11 12 14 22 21 24 — 44.5B
34.4B 11 12 14 22 21 24 — 44.6B
34.5B 11 12 14 22 21 24 — 44.8B
34.6B 11 12 14 22 21 24 — 44.9B
39B.2B 11 12 14 22 21 24 — 44.2E
39B.3B 11 12 14 22 21 24 — 44.3E
39B.4B 11 12 14 22 21 24 — 44.5E
39B.4B 11 12 14 22 21 24 — 44.6E

| REV. | MODIFICA | DATA | FIRMA | APPR. | M.G. |
|---|---|---|---|---|---|
| 05 | ACCEPT FOR CONSTRUCTION | 27/01/25 | F.M. | DATA | 22/04/2024 |
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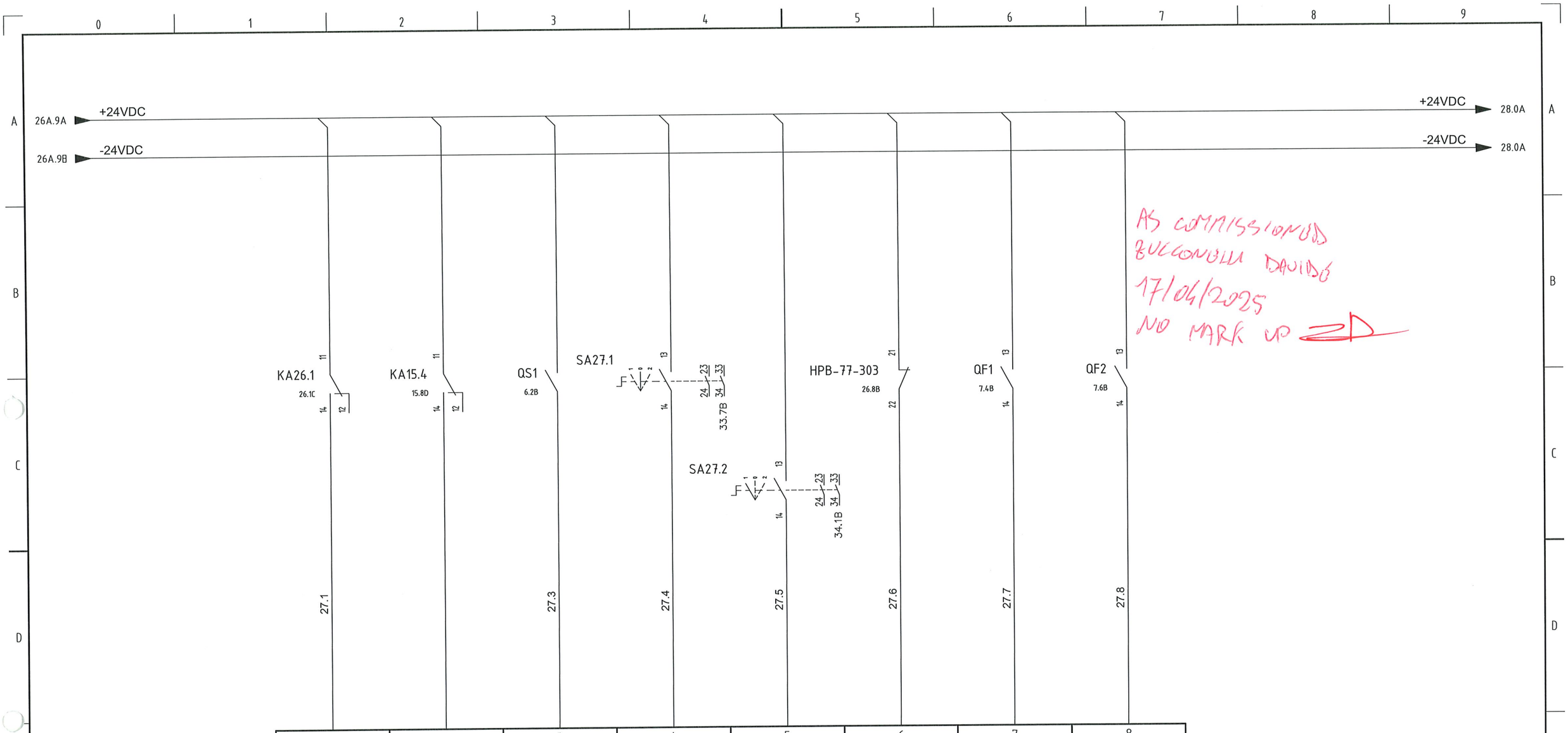
CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 26A
F.S. 27




AS COMMISSIONED
BUCCONULLI DAVIDE
17/04/2025
NO MARK UP

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| I0.0 | I0.1 | I0.2 | I0.3 | I0.4 | I0.5 | I0.6 | I0.7 |
| CPU: QUADRO GENERALE<br>MOD.: 4 | CPU: QUADRO GENERALE<br>MOD.: 4 | CPU: QUADRO GENERALE<br>MOD.: 4 | CPU: QUADRO GENERALE<br>MOD.: 4 | CPU: QUADRO GENERALE<br>MOD.: 4 | CPU: QUADRO GENERALE<br>MOD.: 4 | CPU: QUADRO GENERALE<br>MOD.: 4 | CPU: QUADRO GENERALE<br>MOD.: 4 |
| Name: / Sheet: | Name: / Sheet: | Name: / Sheet: | Name: / Sheet: | Name: / Sheet: | Name: / Sheet: | Name: / Sheet: | Name: / Sheet: |
| SHUT DOWN<br>FROM SIS<br>0=SHUT DOWN<br>1= NORMAL | HHU-77005<br>PDSL-77-303<br>0=STOP<br>1=RUN | MAIN BRAKER<br>TRIP | HHU-77005<br>AUTOMATIC MODE<br>1=AUTOMATIC<br>0= NOT AUTOMATIC | HHU-77006<br>AUTOMATIC MODE<br>1=AUTOMATIC<br>0=NOT AUTOMATIC | EPB-002<br>PANEL EMERGENCY<br>POWER BUTTON | MODULE LIGHT<br>TRIP | MODULE SOCKET<br>TRIP |

| REV. | MODIFICA | DATA | FIRMA | | |
|---|---|---|---|---|---|
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| | | | | APPR. | M.G. |

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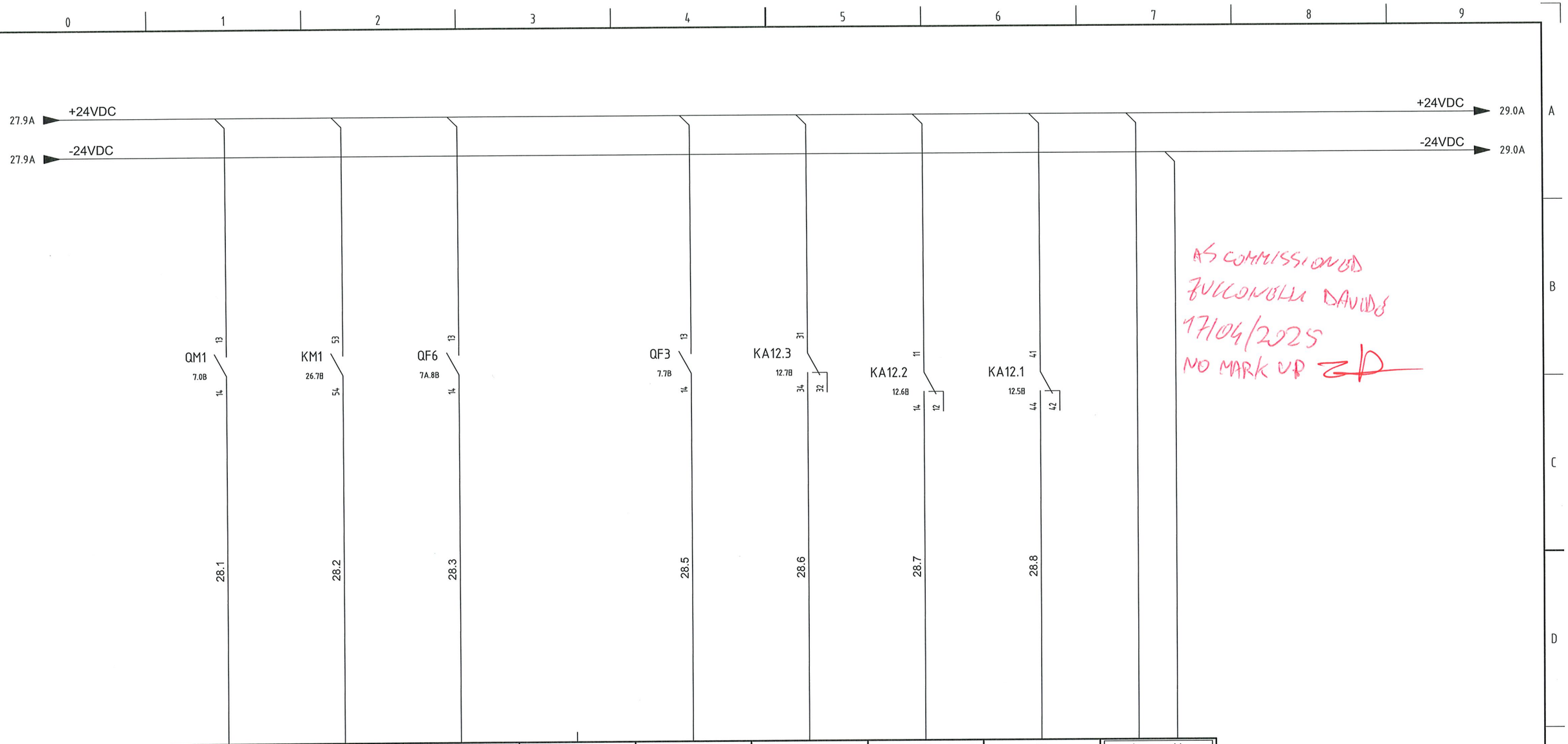
CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 27
F.S. 28




AS COMMISSIONED
ZUCCONELLI DAVIDE
17/04/2025
NO MARK UP

| 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<br>MOD.: 4 | CPU: QUADRO GENERALE<br>MOD.: 4 | CPU: QUADRO GENERALE<br>MOD.: 4 | CPU: QUADRO GENERALE<br>MOD.: 4 | CPU: QUADRO GENERALE<br>MOD.: 4 | CPU: QUADRO GENERALE<br>MOD.: 4 | CPU: QUADRO GENERALE<br>MOD.: 4 | CPU: QUADRO GENERALE<br>MOD.: 4 | CPU: QUADRO GENERALE<br>MOD.: 4 |
| Name: / Sheet: | Name: / Sheet: | Name: / Sheet: | Name: / Sheet: | Name: / Sheet: | Name: / Sheet: | Name: / Sheet: | Name: / Sheet: | Name: / Sheet: |
| HSS-77-007/8/9<br>SPACE HEATER<br>TRIP | HSS-77-007/8/9<br>SPACE HEATER<br>RUN SIGNAL | HEATING CABLE<br>TRIP | SPARE | AUX SECTION<br>TRIP | HHU-77005<br>MOTORISE DAMPER<br>NOT OPEN<br>FAULT | HHU-77005<br>MOTORISE DAMPER<br>CLOSED | HHU-77005<br>MOTORISE DAMPER<br>OPEN | |

| REV. | MODIFICA | DATA | FIRMA |
|---|---|---|---|
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| 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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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-300AC UPS EQUIPMENT ROOM
PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 28
F.S. 29

28.9A +24VDC → +24VDC 30.0A

28.9A -24VDC → -24VDC 30.0A

AS COMMISSIONED
ZUCCOMELLI DAVIDE
17/04/2025
NO MARK UP ZD

| | KA13.3 | KA9.1 | QM1A | KM2A | KA13.2 | QM2A | KM3A | QM3A |
|---|---|---|---|---|---|---|---|---|
| | 13.8B | 9.6B | 9.3B | 13.2B | 13.4B | 10.1B | 14.4B | 10.3B |
| | 31 | 11 | 13 | 43 | 21 | 13 | 43 | 13 |
| | 34 | 14 | 14 | 44 | 24 | 14 | 44 | 14 |
| | 32 | 12 | | | 22 | | | |
| | 29.1 | 29.2 | 29.3 | 29.4 | 29.5 | 29.6 | 29.7 | 29.8 |

| 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<br>MOD.: 5 | CPU: QUADRO GENERALE<br>MOD.: 5 | CPU: QUADRO GENERALE<br>MOD.: 5 | CPU: QUADRO GENERALE<br>MOD.: 5 | CPU: QUADRO GENERALE<br>MOD.: 5 | CPU: QUADRO GENERALE<br>MOD.: 5 | CPU: QUADRO GENERALE<br>MOD.: 5 | CPU: QUADRO GENERALE<br>MOD.: 5 |
| Name: A4 Sheet: | Name: A4 Sheet: | Name: A4 Sheet: | Name: A4 Sheet: | Name: A4 Sheet: | Name: A4 Sheet: | Name: A4 Sheet: | Name: A4 Sheet: |
| HHU-77005<br>TE-77-301<br>THERMIC PROT.<br>RELAY | HHU-77005<br>HFM-77-301<br>VSD-1A<br>MALFUNCTION | HHU-77005<br>HFM-77-301<br>TRIP | HHU-77005<br>HFM-77-302<br>RUN SIGNAL | HHU-77005<br>HFM-77-302<br>BROKEN BELT ALARM | HHU-77005<br>HFM-77-302<br>TRIP | HHU-77005<br>HCO-77-301<br>RUNNING SIGNAL | HHU-77005<br>HCO-77-301<br>TRIP |

| 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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frigotermica@frigotermica.com

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 29
F.S. 30

29.9A +24VDC

29.9A -24VDC

+24VDC 31.0A

-24VDC 31.0A

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| KA14.2 14.7B | KA14.1 14.5B | QM5A 11.1B | KA11.1 11.4B | KA15.1 15.3D | KA15.3 15.6D | QM4A 10.4B | KA42.1 42.8C | |
| 31 / 34 / 32 | 31 / 34 / 32 | 13 / 14 | 21 / 24 / 22 | 11 / 14 / 12 | 11 / 14 / 12 | 13 / 14 | 11 / 14 / 12 | |
| 30.1 | 30.2 | 30.3 | 30.4 | 30.5 | 30.6 | 30.7 | 30.8 | |

AS COMMISSIONED
ZUCCOMELLI DAVIDE
17/04/2025
NO MARK UP

| 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.: S | CPU: QUADRO GENERALE MOD.: S | CPU: QUADRO GENERALE MOD.: S | CPU: QUADRO GENERALE MOD.: S | CPU: QUADRO GENERALE MOD.: S | CPU: QUADRO GENERALE MOD.: S | CPU: QUADRO GENERALE MOD.: S | CPU: QUADRO GENERALE MOD.: S | CPU: QUADRO GENERALE MOD.: S |
| Name: A4 Sheet: | Name: A4 Sheet: | Name: A4 Sheet: | Name: A4 Sheet: | Name: A4 Sheet: | Name: A4 Sheet: | Name: A4 Sheet: | Name: A4 Sheet: | Name: A4 Sheet: |
| HHU-77005 HCO-77-301 HIGH PRESSURE ALARM | HHU-77005 HCO-77-301 LOW PRESSURE ALARM | HHU-77005 HFM-77-305/6 TRIP | HHU-77005 HFM-77-305/6 VSD-2A MALFUNCTION | HHU-77005 FILTER CLOGGED | HHU-77005 HSS-77-301 THERMOSTATE TRIP | HHU-77005 HSS-77-301 TRIP | HHU-77005 HSS-77-301 MODULATION FAULT | |

| REV. | MODIFICA | DATA | FIRMA | | |
|---|---|---|---|---|---|
| 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-300AC UPS EQUIPMENT ROOM
PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 30
F.S. 31

30.9A +24VDC

30.9A -24VDC

+24VDC 32.0A

-24VDC 32.0A

AS COMMISSIONED
FUCCOMELLI DAVIDE
17/09/2025
NO MARK UP

2D

| | HPB-77-301 | QFA | KA20.3 | KA20.2 | KA20.1 | KA21.3 | KA17.1 | QM1B |
|---|---|---|---|---|---|---|---|---|
| | 26.6B | 6.6B | 20.7B | 20.6B | 20.5B | 21.8B | 17.6B | 17.3B |
| | | | 31 | 11 | 31 | 21 | 11 | 13 |
| | | | 34 32 | 14 12 | 34 32 | 24 22 | 14 12 | 14 |
| | 31.1 | 31.2 | 31.3 | 31.4 | 31.5 | 31.6 | 31.7 | 31.8 |

| 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<br>MOD.: 6 | CPU: QUADRO GENERALE<br>MOD.: 6 | CPU: QUADRO GENERALE<br>MOD.: 6 | CPU: QUADRO GENERALE<br>MOD.: 6 | CPU: QUADRO GENERALE<br>MOD.: 6 | CPU: QUADRO GENERALE<br>MOD.: 6 | CPU: QUADRO GENERALE<br>MOD.: 6 | CPU: QUADRO GENERALE<br>MOD.: 6 |
| Name: / Sheet: | Name: / Sheet: | Name: / Sheet: | Name: / Sheet: | Name: / Sheet: | Name: / Sheet: | Name: / Sheet: | Name: / Sheet: |
| HHU-77005<br>HPB-77-301<br>EMERGENCY STOP<br>BUTTON | HHU-77005<br>MAIN SWITCH<br>OPEN | HHU-77006<br>HDZ-77-304/5/6<br>NOT OPEN<br>FAULT | HHU-77006<br>HDZ-77-304/5/6<br>CLOSED | HHU-77006<br>HDZ-77-304/5/6<br>OPEN | HHU-77006<br>PF-001B<br>THERMIC PROT.<br>RELAY | HHU-77006<br>PF-001B<br>VSD-1B<br>MALFUNCTION | HHU-77006<br>PF-001B<br>TRIP |

| 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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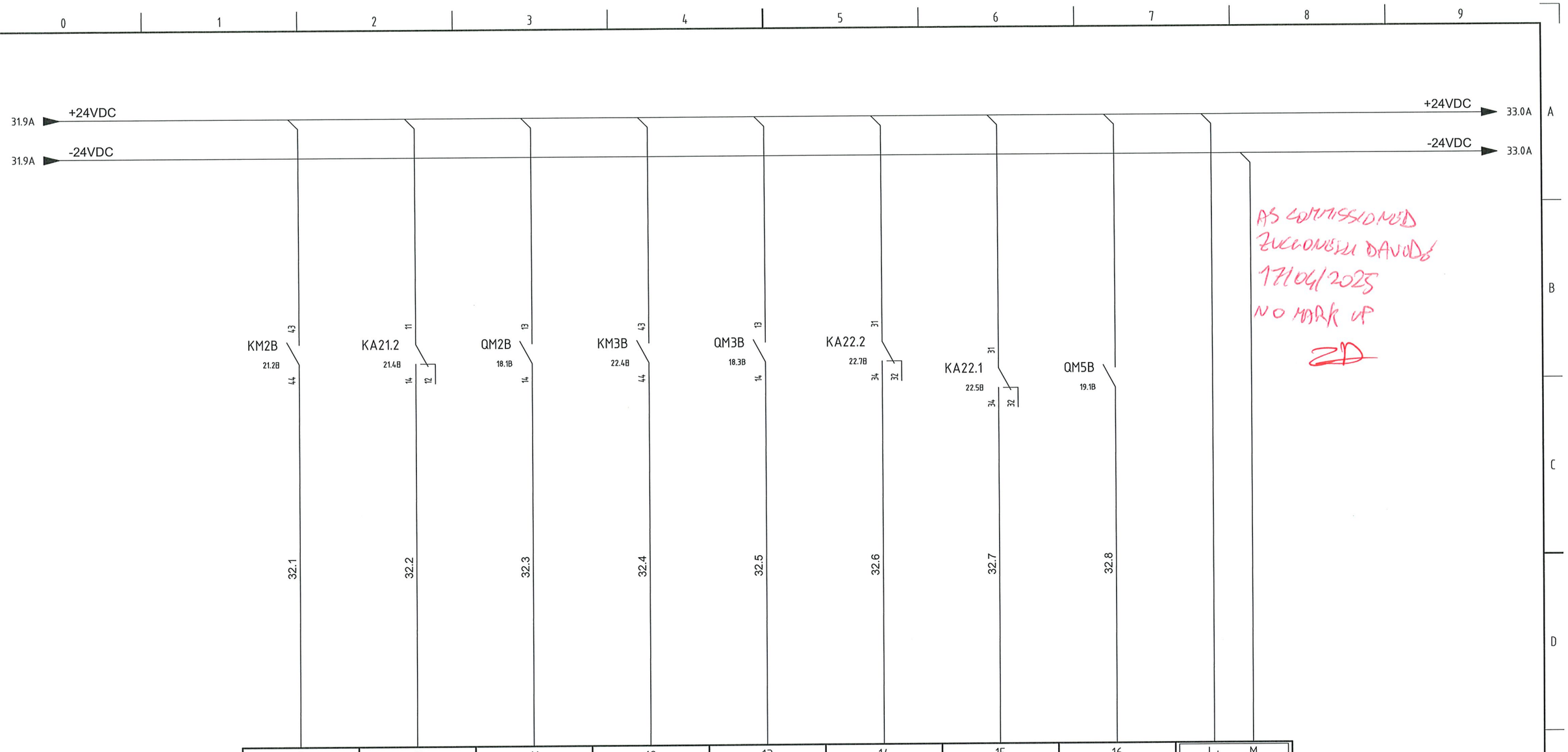
CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 31
F.S. 32




AS COMMISSIONED
ZUCCONELLI DAVIDE
17/04/2025
NO MARK UP

ZD

| 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: HHU-77006 Sheet: | Name: HHU-77006 Sheet: | Name: HHU-77006 Sheet: | Name: HHU-77006 Sheet: | Name: HHU-77006 Sheet: | Name: HHU-77006 Sheet: | Name: HHU-77006 Sheet: | Name: HHU-77006 Sheet: | Name: Sheet: |
| SUPPLY FAN RUN SIGNAL | SUPPLY FAN BROKEN BELT ALARM | SUPPLY FAN TRIP | COMPRESSOR RUNNING SIGNAL | COMPRESSOR TRIP | COMPRESSOR HIGH PRESSURE ALARM | COMPRESSOR LOW PRESSURE ALARM | CONDENSER FAN 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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frigotermica@frigotermica.com

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 32
F.S. 33

32.9A +24VDC

32.9A -24VDC

+24VDC 34.0A

-24VDC 34.0A

AS COMMISSIONED
FULCONERI DAVIDE
17/06/2025
NO MARK UP 2D

| KA19.1 | KA23.1 | KA23.3 | QM4B | KA43.1 | HPB-77-302 | QFB | SA27.1 |
|---|---|---|---|---|---|---|---|
| 19.4B | 23.3D | 23.6D | 18.4B | 43.8C | 26.7B | 6.8B | 27.4B |
| 21 | 11 | 11 | 13 | 11 | | | 33 |
| 24 22 | 14 12 | 14 12 | 14 | 14 12 | | | 34 |
| 33.1 | 33.2 | 33.3 | 33.4 | 33.5 | 33.6 | 33.7 | 33.8 |

| 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<br>MOD. : 7 | CPU: QUADRO GENERALE<br>MOD. : 7 | CPU: QUADRO GENERALE<br>MOD. : 7 | CPU: QUADRO GENERALE<br>MOD. : 7 | CPU: QUADRO GENERALE<br>MOD. : 7 | CPU: QUADRO GENERALE<br>MOD. : 7 | CPU: QUADRO GENERALE<br>MOD. : 7 | CPU: QUADRO GENERALE<br>MOD. : 7 |
| Name: A6 Sheet: | Name: A6 Sheet: | Name: A6 Sheet: | Name: A6 Sheet: | Name: A6 Sheet: | Name: A6 Sheet: | Name: A6 Sheet: | Name: A6 Sheet: |
| HHU-77006<br>CONDENSER FAN<br>VSD-2A<br>MALFUNCTION | HHU-77006<br>FILTER CLOGGED | HHU-77006<br>ELECTRICAL HEATER<br>THERMOSTATE TRIP | HHU-77006<br>ELECTRICAL HEATER<br>TRIP | HHU-77006<br>ELECTRICAL HEATER<br>MODULATION<br>FAULT | HHU-77006<br>EPB-001A<br>EMERGENCY STOP<br>BUTTON | HHU-77006<br>MAIN SWITCH<br>OPEN | HHU-77005<br>MANUAL MODE<br>0=NOT MANUAL<br>1= MANUAL |

| 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-300AC UPS EQUIPMENT ROOM

PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 33
F.S. 34

33.9A +24VDC → +24VDC 35.0C

33.9A -24VDC → -24VDC 35.0D

AS COMMISSIONED
ZUCCHELLI DAVIDE
17/04/2025
NO MARK UP

| | SA27.2 | KA26A.1 | KA26A.2 | KA26A.3 | KA26A.4 | KA26A.5 | KA26A.6 | KA23.4 |
|---|---|---|---|---|---|---|---|---|
| | 27.4C | 26A.1B | 26A.2B | 26A.2B | 26A.3B | 26A.4B | 26A.5B | 23.8D |
| 11 | | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| 12 | | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 14 | | 14 | 14 | 14 | 14 | 14 | 14 | 14 |
| 33 | | | | | | | | |
| 34 | | | | | | | | |
| | 34.1 | 34.2 | 34.3 | 34.4 | 34.5 | 34.6 | 34.7 | 34.8 |

| 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<br>MOD. : 7 | CPU: QUADRO GENERALE<br>MOD. : 7 | CPU: QUADRO GENERALE<br>MOD. : 7 | CPU: QUADRO GENERALE<br>MOD. : 7 | CPU: QUADRO GENERALE<br>MOD. : 7 | CPU: QUADRO GENERALE<br>MOD. : 7 | CPU: QUADRO GENERALE<br>MOD. : 7 | CPU: QUADRO GENERALE<br>MOD. : 7 | CPU: QUADRO GENERALE<br>MOD. : 7 |
| Name: A6 Sheet: | Name: A6 Sheet: | Name: A6 Sheet: | Name: A6 Sheet: | Name: A6 Sheet: | Name: A6 Sheet: | Name: A6 Sheet: | Name: A6 Sheet: | Name: A6 Sheet: |
| HHU-77006<br>MANUAL MODE<br>0= NOT MANUAL<br>1= MANUAL | HFD-77007<br>CLOSE CONTACT<br>0= NOT CLOSED<br>1= CLOSED | HFD-77007<br>OPEN CONTACT<br>0=NOT OPEN<br>1= OPEN | HFD-77008<br>CLOSE CONTACT<br>0= NOT CLOSE<br>1= CLOSE | HFD-77008<br>OPEN CONTACT<br>0=NOT OPEN<br>1= OPEN | HFD-77009<br>CLOSE CONTACT<br>0= NOT CLOSE<br>1= CLOSE | HFD-77009<br>OPEN CONTACT<br>0=NOT CLOSE<br>1= CLOSE | HHU-77006<br>PRESS FAN RUN<br>0= STOP<br>1=RUN | |

| 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-300AC UPS EQUIPMENT ROOM

PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 34
F.S. 35

| HVAC MALFUNCTION | | SPARE | | HSS-77007/8/9 SPACE HEATER START SIGNAL | | SPARE | | HHU-77005 HVAC UNIT A START SIGNAL | | HHU-77005 PF-001A MOTOR HEATER | | HHU-77005 COMPRESSOR START SIGNAL | | HHU-77006 HVAC UNIT B START SIGNAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Name: A7 | Sheet: | Name: A7 | Sheet: | Name: A7 | Sheet: | Name: A7 | Sheet: | Name: A7 | Sheet: | Name: A7 | Sheet: | Name: A7 | Sheet: | Name: A7 | Sheet: |
| CPU: QUADRO GENERALE MOD.: 8 | | CPU: QUADRO GENERALE MOD.: 8 | | CPU: QUADRO GENERALE MOD.: 8 | | CPU: QUADRO GENERALE MOD.: 8 | | CPU: QUADRO GENERALE MOD.: 8 | | CPU: QUADRO GENERALE MOD.: 8 | | CPU: QUADRO GENERALE MOD.: 8 | | CPU: QUADRO GENERALE MOD.: 8 | |
| Q0.0 | | Q0.1 | | Q0.2 | | Q0.3 | | Q0.4 | | Q0.5 | | Q0.6 | | Q0.7 | |
| 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | |

AS COMMISSIONED
BUCCOMBLA DAVIDE
17/04/2025
NO MARK UP 2D

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

| 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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BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 35
F.S. 36

| HHU-77006<br>PF-001B<br>MOTOR HEATER | | HHU-77006<br>COMPRESSOR<br>START SIGNAL | | HVAC UNIT A / B<br>ALARM RESET | | SPARE | | SPARE | | SPARE | | SPARE | | SPARE | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Name:<br>A7 | Sheet: | Name:<br>A7 | Sheet: | Name:<br>A7 | Sheet: | Name:<br>A7 | Sheet: | Name:<br>A7 | Sheet: | Name:<br>A7 | Sheet: | Name:<br>A7 | Sheet: | Name:<br>A7 | Sheet: | Name:<br>A7 | Sheet: |
| CPU: QUADRO GENERALE<br>MOD. : 8 | | CPU: QUADRO GENERALE<br>MOD. : 8 | | CPU: QUADRO GENERALE<br>MOD. : 8 | | CPU: QUADRO GENERALE<br>MOD. : 8 | | CPU: QUADRO GENERALE<br>MOD. : 8 | | CPU: QUADRO GENERALE<br>MOD. : 8 | | CPU: QUADRO GENERALE<br>MOD. : 8 | | CPU: QUADRO GENERALE<br>MOD. : 8 | | | |
| Q1.0 | | Q1.1 | | Q1.2 | | Q1.3 | | Q1.4 | | Q1.5 | | Q1.6 | | Q1.7 | | | |
| 9 | | 10 | | 11 | | 12 | | 13 | | 14 | | 15 | | 16 | | L+ | M |

36.1 36.2 36.3

35.9C +24VDC → 37.0A

35.9D -24VDC → 37.0A

KA30.7 A1 A2 — KA30.8 A1 A2 — KA37.1 A1 A2 ALARM RESET RELAY — KA37.2 A1 A2

AS COMMISSIONED
ZUCCOMELLI DAVIDE
17/04/2025
NO MARK UP ED

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

| 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 | CLIENT: | CROSSWIND |
| DISEGN. | F.M. | | |
| VISTO | S.S. | | |
| APPR. | M.G. | | |

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BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM

PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 36
F.S. 37

36.9C +24VDC

36.9D -24VDC

+24VDC 38.0A

-24VDC 38.0A

ROOM TEMPERATURE TRANSM. 4-20mA
77-TT-301
- + S
606 XT 607 XT 608 XT

ROOM TEMPERATURE TRANSM. 4-20 mA
77-TT-302
- + T
600 XT 601 XT 602 XT

DIFFERENTIAL PRESS. TRANSM. 4-20ma
77-TP-301
- + T
603 XT 604 XT 605 XT

TEMPERATURE TRANSM. 4-20 mA
77-TT-303
- + T
609 XT 610 XT

AS COMMISSIONED
ZUCCHINI DAVID
17/04/2025
NO MARK UP ZD

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<br>MOD. : 9 | CPU: QUADRO GENERALE<br>MOD. : 9 | CPU: QUADRO GENERALE<br>MOD. : 9 | CPU: QUADRO GENERALE<br>MOD. : 9 | CPU: QUADRO GENERALE<br>MOD. : 9 |
| Name: A8 / Sheet: | Name: A8 / Sheet: | Name: A8 / Sheet: | Name: A8 / Sheet: | Name: A8 / Sheet: |
| 77-TT-301<br>TEMPERATURE TRANSM<br>4-20mA | 77-TT-302<br>TEMPERATURE TRANSM<br>4-20mA | 77-PT-301<br>DIFFERENTIAL PRESS.<br>TRANSMITTER 4-20mA | 77-TT-303<br>TEMPERATURE TRANSM<br>4-20 mA | |

| 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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frigotermica@frigotermica.com

CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 37
F.S. 38

37.9A +24VDC → +24VDC 39.0A

37.9A -24VDC → -24VDC 39.0A

| HHU-77005<br>PF-001A<br>VSD<br>MODULATION | | HHU-77006<br>PF-001B<br>VSD<br>MODULATION | | HHU-77005<br>ELECTRICAL HEATER<br>MODULATION | | HHU-77006<br>ELECTRICAL HEATER<br>MODULATION | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name:<br>A9 | Sheet: | Name:<br>A9 | Sheet: | Name:<br>A9 | Sheet: | Name:<br>A9 | Sheet: | Name:<br>A9 | Sheet: |
| CPU: **QUADRO GENERALE**<br>MOD. : **10** | | CPU: **QUADRO GENERALE**<br>MOD. : **10** | | CPU: **QUADRO GENERALE**<br>MOD. : **10** | | CPU: **QUADRO GENERALE**<br>MOD. : **10** | | CPU: **QUADRO GENERALE**<br>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

AS COMMISSIONED
BUCCOMELLA DAVIDE
17/04/2025
NO MARK UP

| 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. |

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BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 38
F.S. 39

38.9A +24VDC → +24VDC 40.0B

38.9A -24VDC → -24VDC 40.0F

| SPARE | SPARE | SPARE | SPARE | |
|---|---|---|---|---|
| Name: A10 / Sheet: | Name: A10 / Sheet: | Name: A10 / Sheet: | Name: A10 / Sheet: | Name: A10 / Sheet: |
| CPU: QUADRO GENERALE MOD.: 11 | CPU: QUADRO GENERALE MOD.: 11 | CPU: QUADRO GENERALE MOD.: 11 | CPU: QUADRO GENERALE MOD.: 11 | CPU: QUADRO GENERALE MOD.: 11 |
| AQ1.0 | AQ1.1 | AQ1.2 | AQ1.3 | |
| 9 1 5 13 | 10 2 6 14 | 11 3 7 15 | 12 4 8 16 | L+ M |

AS COMMISSIONED
ZUCCOMBINI DAVIDE
17/04/2025
NO MARK UP 2D

| REV. | | | | | |
|---|---|---|---|---|---|
| 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. |
| REV. | MODIFICA | DATA | FIRMA | APPR. | M.G. |

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BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

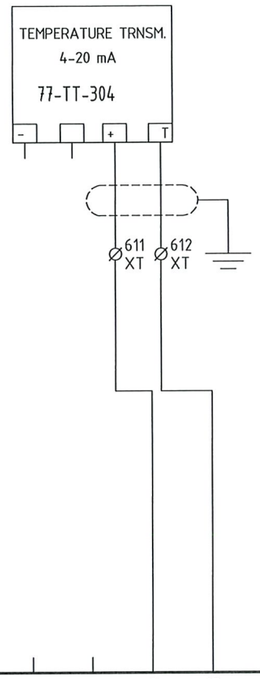
FG. 39
F.S. 39A

38.9A +24VDC

38.9A -24VDC

+24VDC 40.0B

-24VDC 40.0F




AS COMMISSIONED
BUONAMICI DAVIDE
17/04/2024
NO MARK UP

| 1 5 9 13 | 2 6 10 14 | 3 7 11 15 | 4 8 12 16 | L+ M |
|---|---|---|---|---|
| AI1.0 | AI1.1 | AI1.2 | AI1.3 | |
| CPU: QUADRO GENERALE<br>MOD.: 12 | CPU: QUADRO GENERALE<br>MOD.: 12 | CPU: QUADRO GENERALE<br>MOD.: 12 | CPU: QUADRO GENERALE<br>MOD.: 12 | CPU: QUADRO GENERALE<br>MOD.: 12 |
| Name: A11 / Sheet: | Name: A11 / Sheet: | Name: A11 / Sheet: | Name: A11 / Sheet: | Name: A11 / Sheet: |
| 77-TT-304<br>TEMPERATURE TRANSM<br>4-20mA | SPARE | SPARE | SPARE | |

| 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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BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 39A
F.S. 39B

38.9A +24VDC

38.9A -24VDC

+24VDC 40.0B

-24VDC 40.0F

AS COMMISSIONED
ZUCCOMELLI DAVIDE
17/04/2025
NO MARK UP
ZD

KA26A.7 — 11 / 14 / 12 — 26A.6B — 39B.1

KA26A.8 — 11 / 14 / 12 — 26A.7B — 39B.2

KA26A.9 — 11 / 14 / 12 — 26A.8B — 39B.3

KA26A.10 — 11 / 14 / 12 — 26A.8B — 39B.4

| 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<br>MOD. : 13 | CPU: QUADRO GENERALE<br>MOD. : 13 | CPU: QUADRO GENERALE<br>MOD. : 13 | CPU: QUADRO GENERALE<br>MOD. : 13 | CPU: QUADRO GENERALE<br>MOD. : 13 | CPU: QUADRO GENERALE<br>MOD. : 13 | CPU: QUADRO GENERALE<br>MOD. : 13 | CPU: QUADRO GENERALE<br>MOD. : 13 |
| Name: / Sheet: | Name: / Sheet: | Name: / Sheet: | Name: / Sheet: | Name: / Sheet: | Name: / Sheet: | Name: / Sheet: | Name: / Sheet: |
| HFD-77010<br>CLOSE CONTACT<br>0= NOT CLOSED<br>1= CLOSED | HFD-77010<br>OPEN CONTACT<br>0=NOT OPEN<br>1= OPEN | HFD-77011<br>CLOSE CONTACT<br>0= NOT CLOSED<br>1= CLOSED | HFD-77011<br>OPEN CONTACT<br>0=NOT OPEN<br>1= OPEN | 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. | DISEGN. | F.M. |
| 03 | ISSUED FOR CONSTRUCTION | 04/09/24 | F.M. | VISTO | S.S. |
| | | | | APPR. | M.G. |

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BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM

PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 39B
F.S. 39C

38.9A +24VDC → +24VDC 40.0B

38.9A -24VDC → -24VDC 40.0F

AS COMMISSIONED
BUCCOMBIA DAVIDE
17/04/2025
NO MARK UP

| 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<br>MOD. : 13 | CPU: QUADRO GENERALE<br>MOD. : 13 | CPU: QUADRO GENERALE<br>MOD. : 13 | CPU: QUADRO GENERALE<br>MOD. : 13 | CPU: QUADRO GENERALE<br>MOD. : 13 | CPU: QUADRO GENERALE<br>MOD. : 13 | CPU: QUADRO GENERALE<br>MOD. : 13 | CPU: QUADRO GENERALE<br>MOD. : 13 | CPU: QUADRO GENERALE<br>MOD. : 13 |
| Name: / Sheet: | Name: / Sheet: | Name: / Sheet: | Name: / Sheet: | Name: / Sheet: | Name: / Sheet: | Name: / Sheet: | Name: / Sheet: | Name: / Sheet: |
| SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | |

| REV. | MODIFICA | DATA | FIRMA |
|---|---|---|---|
| 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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BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 39C
F.S. 40

A1

SIEMENS

SIMATIC HMI

12"

TOUCH

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

AS COMMISSIONED
ZUCCHOSIM DAVID
17/06/2025
NO MARKUP

D1

D2

SIEMENS

RUN

SIMATIC S7-1500

ESC OK

L+ M L+ M DC 24V (X80)

DC 24V (X80)

L+ 1

M 2

FG

39.9A +24VDC

39.9A -24VDC

+24VDC 41.0B

-24VDC 41.0F

| | | | | | |
|---|---|---|---|---|---|
| 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. |
| REV. | MODIFICA | DATA | FIRMA | APPR. | M.G. |

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BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM

PLC SECTION

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 40

F.S. 41

FROM PAGE 40

CABLE 4

CABLE 5

CABLE 1

CABLE 2

MODBUS TCP/P TO CLIENT

RJ45 CONNECTION IN TERMINAL STRIP

X1 RJ45 — PROFINET IO - Port 1 RJ45

| | |
|---|---|
| 1 | TD |
| 2 | TD N |
| 3 | RD |
| 4 | GND |
| 5 | GND |
| 6 | RD N |
| 7 | GND |
| 8 | GND |

X2 RJ45 — PROFINET IO - Port 2 RJ45

| | |
|---|---|
| 1 | TD |
| 2 | TD N |
| 3 | RD |
| 4 | GND |
| 5 | GND |
| 6 | RD N |
| 7 | GND |
| 8 | GND |

DC 24V

| | |
|---|---|
| 1L+ | |
| 2L+ | |
| 1M | |
| 2M | |

A2 — SIEMENS SIMATIC ET 200SP IM 155-6 PN/2 HF

A3 DI 16x24VDC ST | A4 DI 16x24VDC ST | A5 DI 16x24VDC ST | A6 DI 16x24VDC ST | A7 DQ 16x24VDC/0,5A ST | A8 AI 4xU/I 2-wire ST | A9 AQ 4xU/I ST | A10 AQ 4xU/I ST | A11 AI 4xU/I 2-wire ST | A13 DI 16x24VDC ST

A12 — SIEMENS SCALANCE XC208

| | |
|---|---|
| P1 | LAN |
| P2 | LAN |
| P3 | LAN |
| P4 | LAN |
| P5 | LAN |
| P6 | LAN |
| P7 | LAN |
| P8 | LAN |

| | |
|---|---|
| 1 | F1 |
| 2 | F2 |

DC 24V

| | |
|---|---|
| 1 | L1+ |
| 2 | M1 |
| 3 | M2 |
| 4 | L2+ |

208-0BA00-2AC2

AS COMMISSIONED
INCLUDING DAVID
NO MARK UP
17/04/2025
2D

40.9B +24VDC → +24VDC 42.0A

40.9F -24VDC → -24VDC 42.0A

| REV. | MODIFICA | DATA | FIRMA | APPR. | |
|---|---|---|---|---|---|
| 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-300AC UPS EQUIPMENT ROOM
PLC ARCHITECTURE

ROSETTI MARINO

1724000049-HV-DA-00028

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

AS COMMISSIONED
ZUCCOMELLI DAVIDE
17/04/2025
NO MARK UP

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

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

TA.1 1

FU42.1 2

11.9A RA

| 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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BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
EH MODULATION A

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 42
F.S. 43

42.9A +24VDC

42.9A -24VDC

+24VDC /./

-24VDC /./

42.1

42.2

1/L1

HR-2A

9 AL
8 A2
7 A2
6 A1
5 D1
4 US
3 A2

GRP 3

2/T1

AS COMMISSIONED
ZUCCOMELLI DAVIDE
17/04/2025
NO MARK UP

1/L1

HR-2B

9 AL
8 A2
7 A2
6 A1
5 D1
4 US
3 A2

GRP 3

2/T1

1/L1

HR-2C

19 AL
18 AL
17 D17
16 A2
15 A-
14 A+
13 D13
12 US
11 A2

GRM 1

2/T1

3/L2

TB.1

FU43.1 1 2

19.9A RB

KA43.1 A1 A2

35.8B 11 12 14 21 22 24 31 32 34 41 42 44

40.3

40.4

38.4B

38.4B

| 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

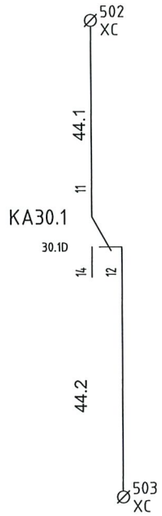
BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
EH MODULATION B

ROSETTI MARINO

1724000049-HV-DA-00028

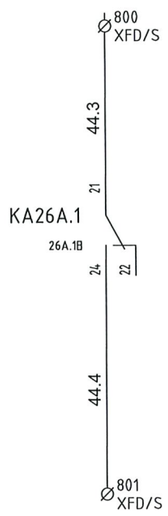
FG. 43
F.S. 44

AVAILABLE SIGNAL
GENERAL FAULT
TO SIS

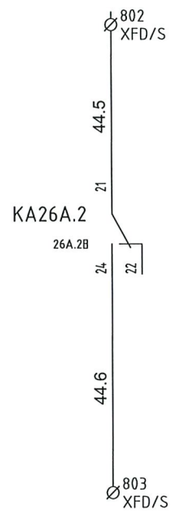



HVAC MALFUNCTION
0=MALF
1=NORMAL
TO SIS
B400-SIS-0901

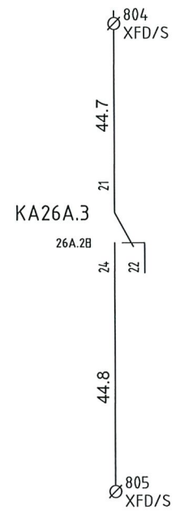
HFD-77007
CLOSED SIGNAL
TO F&G



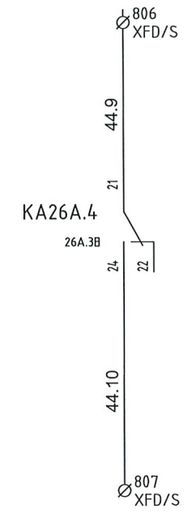

HFD-77007
OPEN SIGNAL
TO F&G



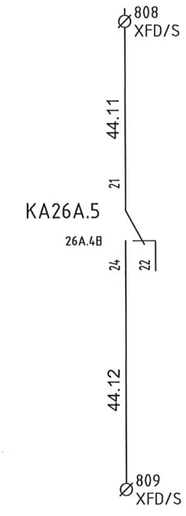

HFD-77008
CLOSED SIGNAL
TO F&G



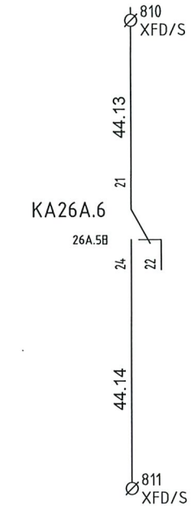

HFD-77008
OPEN SIGNAL
TO F&G



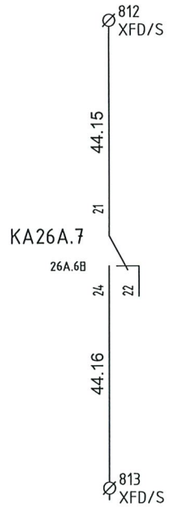

HFD-77009
CLOSED SIGNAL
TO F&G



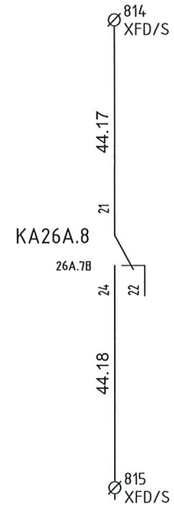

HFD-77009
OPEN SIGNAL
TO F&G



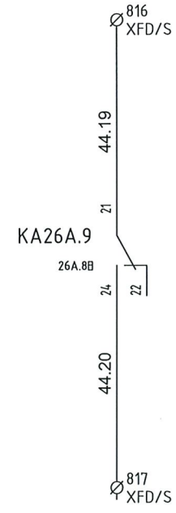

HFD-77010
CLOSED SIGNAL
TO F&G



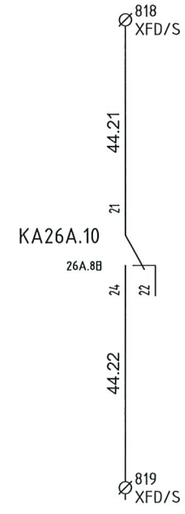

HFD-77010
OPEN SIGNAL
TO F&G




HFD-77011
CLOSED SIGNAL
TO F&G




HFD-77011
OPEN SIGNAL
TO F&G




AS COMMISSIONED
ZUCCOMELLI DAVIDE
17/04/2025
NO MARK UP

| 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

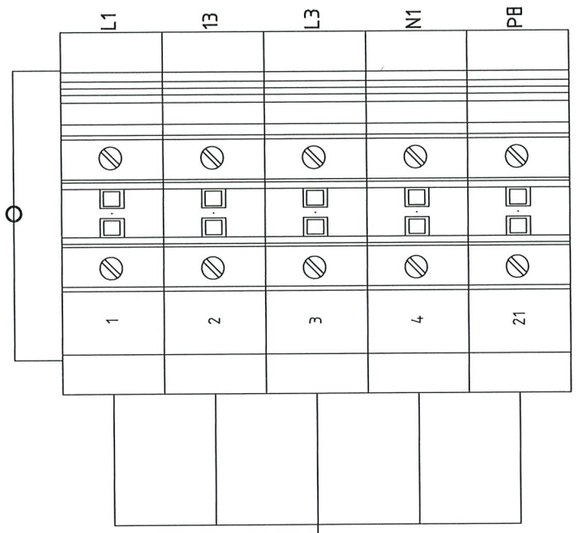
BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
AVAILABLE SIGNAL

ROSETTI MARINO

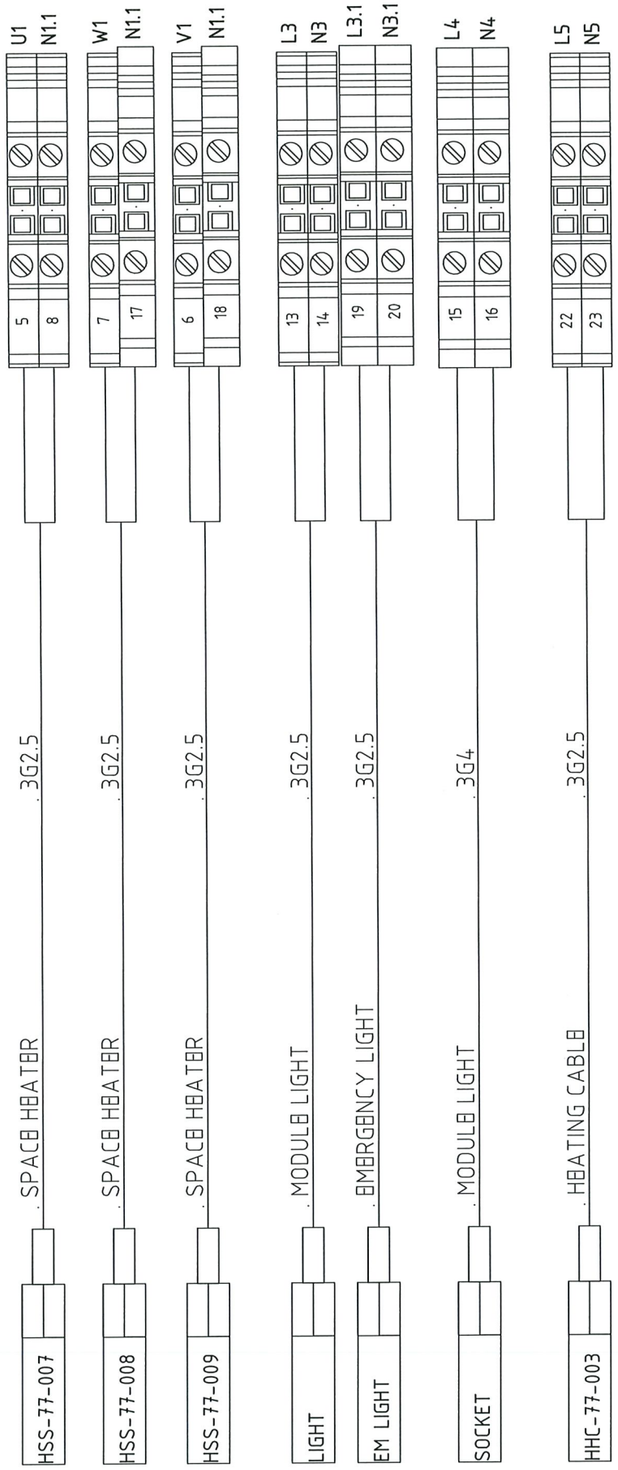
1724000049-HV-DA-00028

FG. 44
F.S. 45

## +QG - XP1
POWER SUPPLY 1

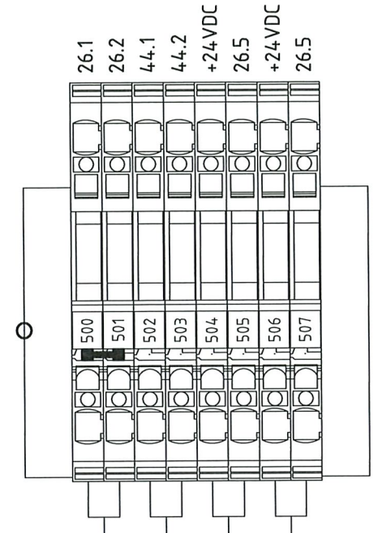



400V 3F + N + PE
50Hz
FROM LV SWITCHGEAR
SECTION 5G16
SG-200N1




AS COMMISSIONED
ZUCCOMELLI DAVIDE
17/04/2025
NO MARK UP

## +QG - XC
COMMAND



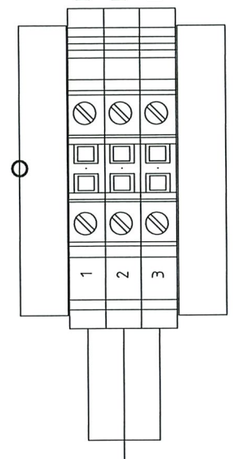

SHUT DOWN FROM SIS

LIGHT BUTTON

HVAC MALFUNCTION TO SIS

LIGHT BUTTON

## +QG - XUPS
UPS POWER SUPPLY




230V 1F + N + PE
50Hz
UPS POWER SUPPLY
FROM AC UPS-PAS DB
SECTION 3G4
DP200-F3

| 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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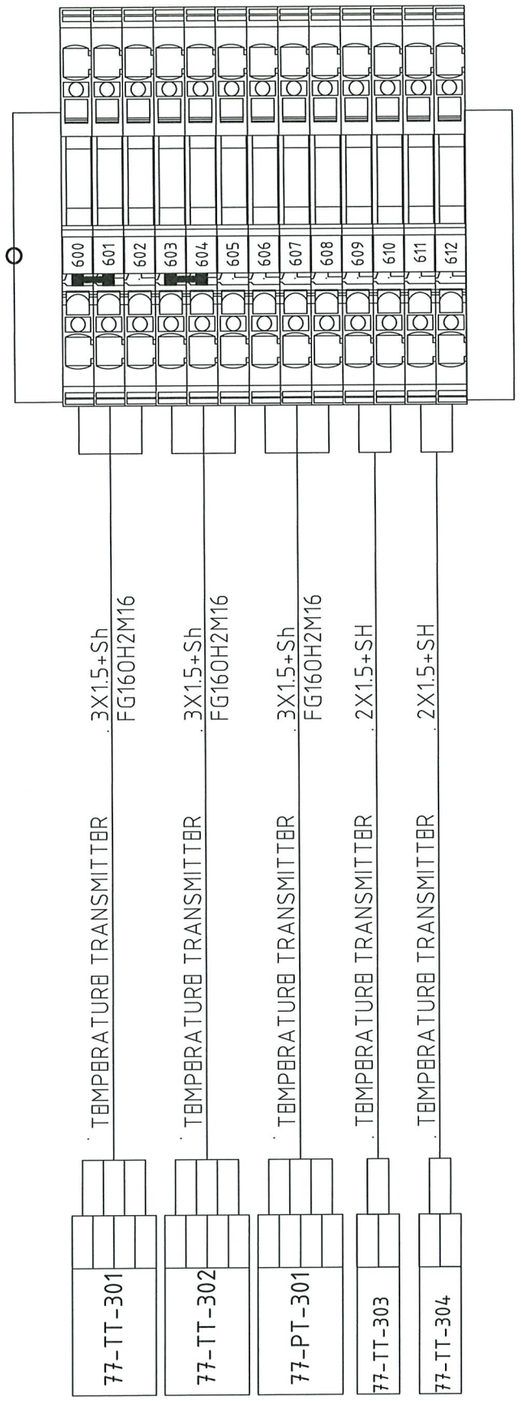
BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
TERMINAL STRIP

ROSETTI MARINO

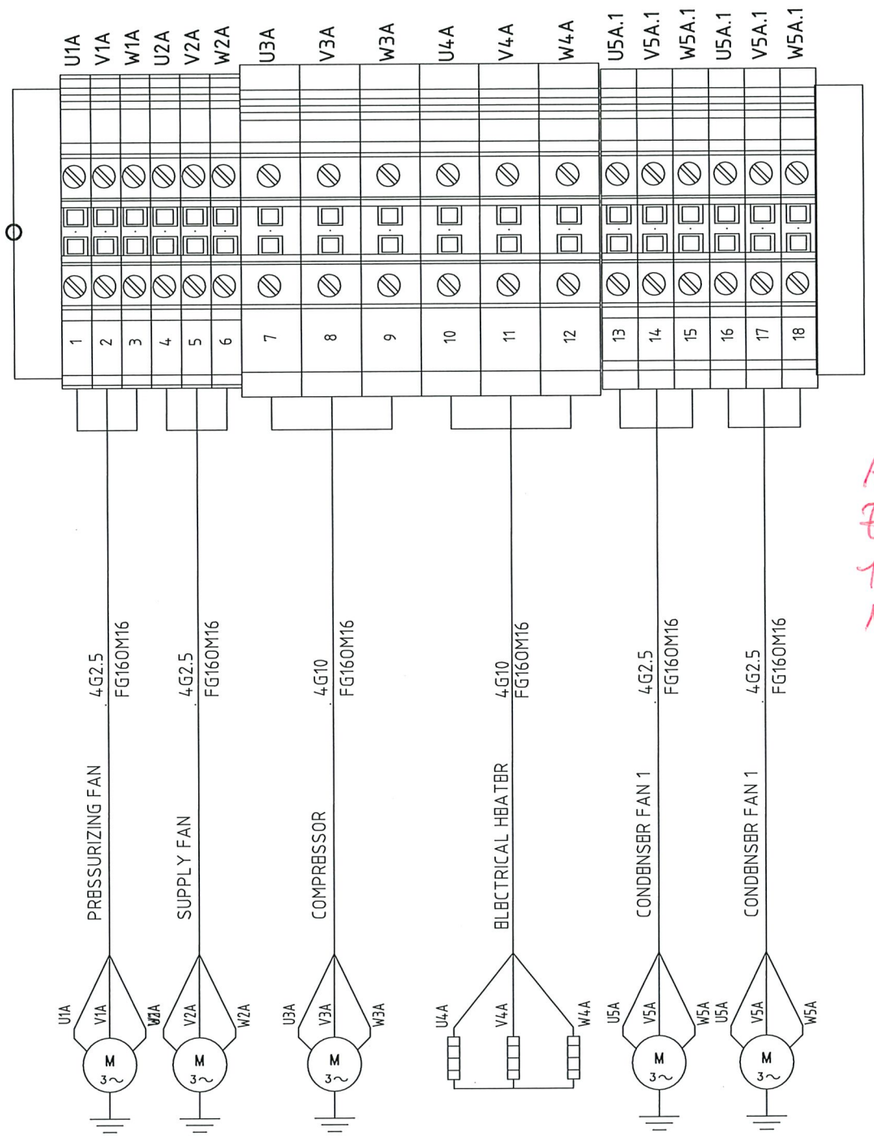
1724000049-HV-DA-00028

FG. 45
F.S. 46

## +QG - XT
TRASMITTER




## +QG - XM1
MOTOR 1




AS COMMISSIONED
TUCCIMELLI DAVIDE
17/09/2025
NO MARKUP 2D

| REV. | MODIFICA | DATA | FIRMA | | |
|---|---|---|---|---|---|
| 05 | ACCEPT FOR CONSTRUCTION | 27/01/25 | F.M. | DATA | 22/04/2024 |
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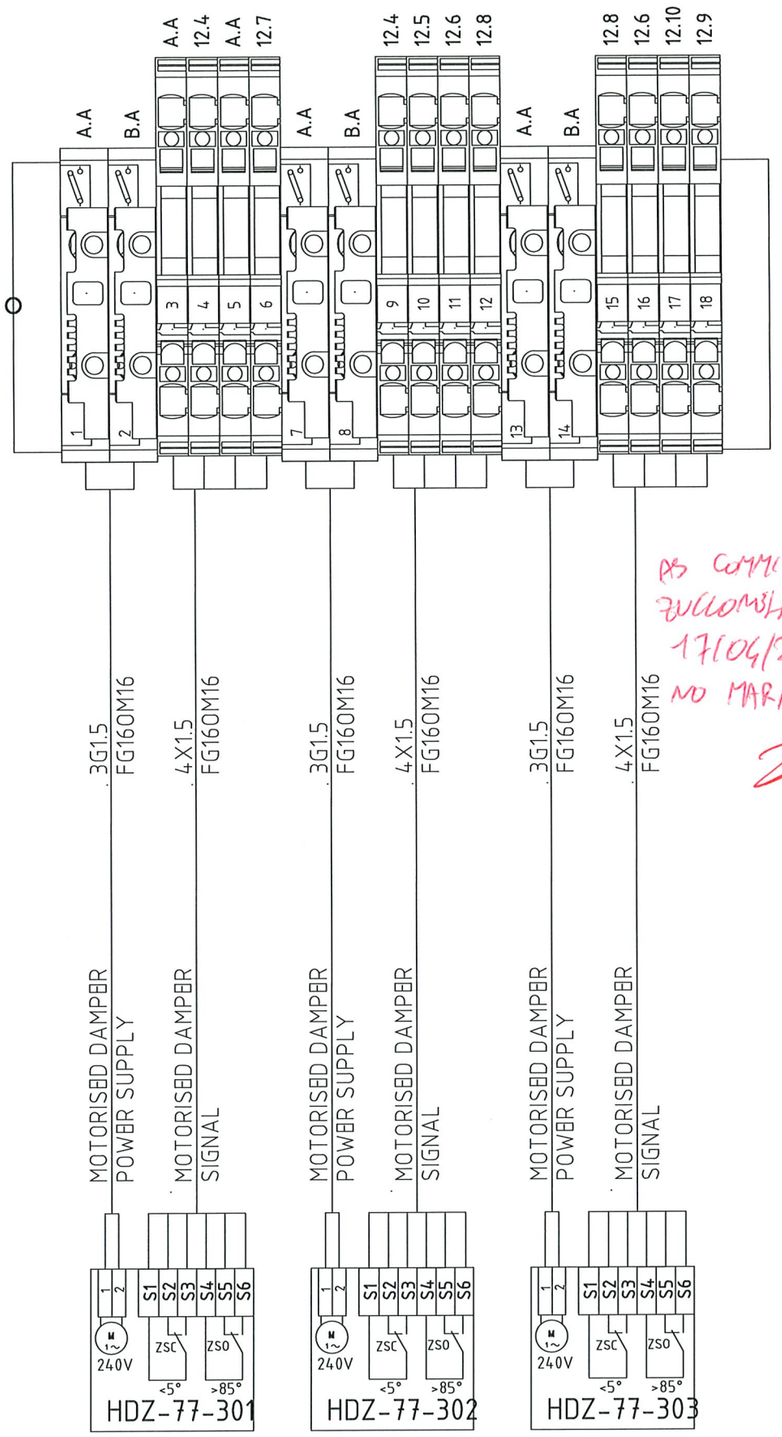
BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
TERMINAL STRIP

ROSETTI MARINO

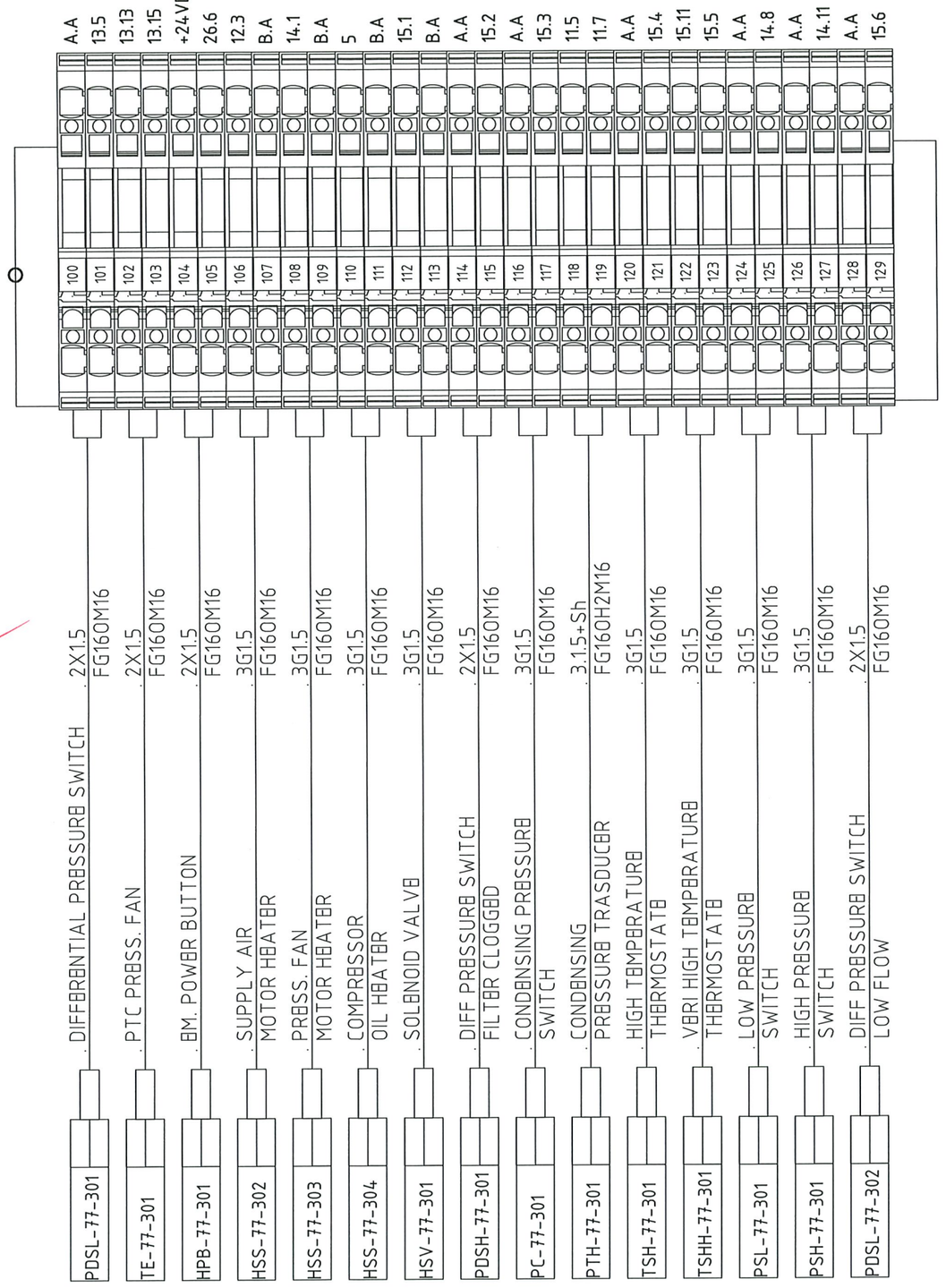
1724000049-HV-DA-00028

FG. 46
F.S. 47

## +QG - XMD1
MOTORISED DAMPER 1




## +QG - XA1
AUXILIARY 1




AS COMMISSIONED
ZULLO MATTIA DANIELE
17/04/2025
NO MARK UP

| REV. | MODIFICA | DATA | FIRMA | APPR. | |
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| 05 | ACCEPT FOR CONSTRUCTION | 27/01/25 | F.M. | DATA | 22/04/2024 |
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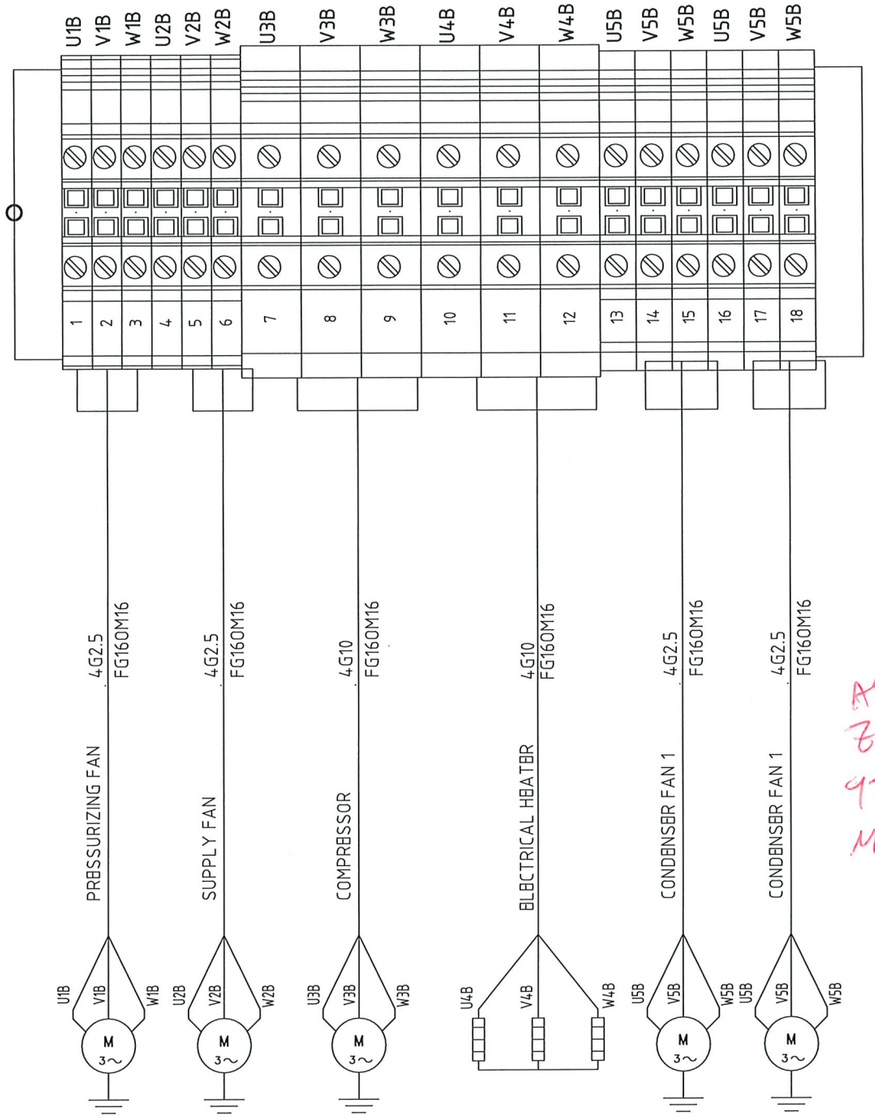
BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM
TERMINAL STRIP

ROSETTI MARINO

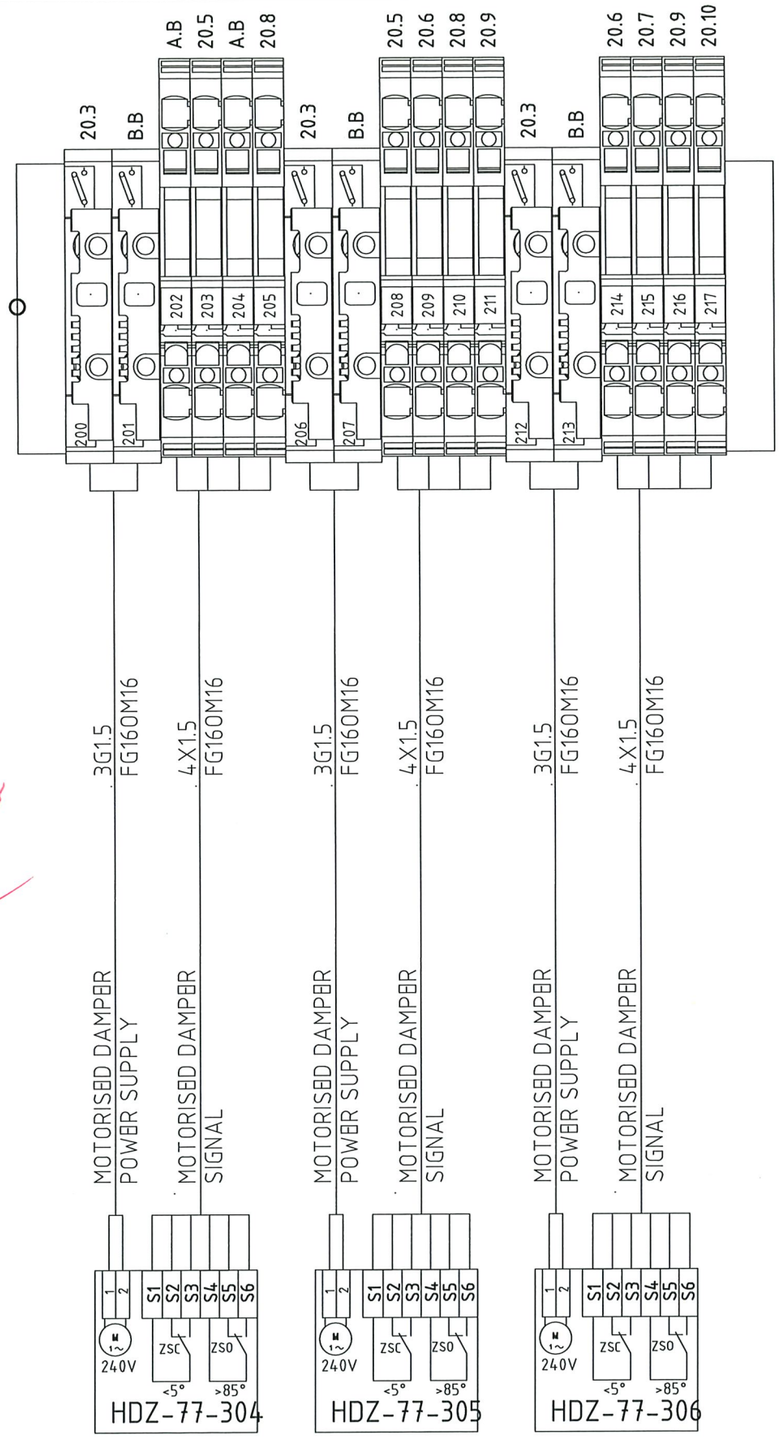
1724000049-HV-DA-00028

FG. 47
F.S. 48

## +QG - XM2
MOTOR 2




## +QG - XMD2
MOTORISED DAMPER 2




AS COMMISSIONED
ZUCCOMELLI DAVIDE
17/06/2025
NO MARK UP

| 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. |


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BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM

TERMINAL STRIP

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 48
F.S. 49

## +QG - XA2
AUXILIARY 2

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A.B | 21.4 | 13.12 | 13.14 | +24VDC | 26.7 | 12.3 | B.B | 14.1 | B.B | 5 | B.B | 15.1 | B.B | A.A | 23.2 | A.A | 23.3 | 11.5 | 11.6 | A.A | 23.4 | 15.9 | 23.5 | A.A | 22.8 | A.A | 22.11 | A.B | 23.6 |
| 300 | 301 | 302 | 303 | 304 | 305 | 306 | 307 | 308 | 309 | 310 | 311 | 312 | 313 | 314 | 315 | 316 | 317 | 318 | 319 | 320 | 321 | 322 | 323 | 324 | 325 | 326 | 327 | 328 | 329 |

| | | | |
|---|---|---|---|
| . DIFFERENTIAL PRESSURE SWITCH | . 2X1.5 | FG160M16 | PDSL-77-302 |
| . PTC PRESS. FAN | . 2X1.5 | FG160M16 | TE-77-302 |
| . EM. POWER BUTTON | . 2X1.5 | FG160M16 | HPB-77-302 |
| . SUPPLY AIR MOTOR HEATER | . 3G1.5 | FG160M16 | HSS-77-306 |
| . PRESS. FAN MOTOR HEATER | . 3G1.5 | FG160M16 | HSS-77-307 |
| . COMPRESSOR OIL HEATER | . 3G1.5 | FG160M16 | HSS-77-308 |
| . SOLENOID VALVE | . 3G1.5 | FG160M16 | HSV-77-302 |
| . DIFF PRESSURE SWITCH FILTER CLOGGED | . 3G1.5 | FG160M16 | PDSH-77-303 |
| . CONDENSING PRESSURE SWITCH | . 2X1.5 | FG160M16 | PC-77-302 |
| . CONDENSING PRESSURE TRASDUCER | . 3G1.5 | FG160M16 | PTH-77-302 |
| . HIGH TEMPERATURE THERMOSTATE | . 3.1.5+Sh | FG160H2M16 | TSH-77-302 |
| . VERI HIGH TEMPERATURE THERMOSTATE | . 3G1.5 | FG160M16 | TSHH-77-302 |
| . LOW PRESSURE SWITCH | . 3G1.5 | FG160M16 | PSL-77-302 |
| . HIGH PRESSURE SWITCH | . 3G1.5 | FG160M16 | PSH-77-302 |
| . DIFF PRESSURE SWITCH LOW FLOW | . 2X1.5 | FG160M16 | PDSL-77-304 |

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ZUCHOWSKI DAVIDE
17/04/2025
NO MARK UP

## +QG - XFD
FIRE DAMPER

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +24VDC | 34.2 | +24VDC | 34.3 | +24VDC | 34.4 | +24VDC | 34.5 | +24VDC | 34.6 | +24VDC | 34.7 | +24VDC | 39B.1 | +24VDC | 39B.2 | +24VDC | 39B.3 | +24VDC | 39B.4 |
| 700 | 701 | 702 | 703 | 704 | 705 | 706 | 707 | 708 | 709 | 710 | 711 | 712 | 713 | 714 | 715 | 716 | 717 | 718 | 719 |

| | | | |
|---|---|---|---|
| . SIGNAL FEEDBACK | . 4X1.5 | FG160M16 | HFD-77007 |
| . SIGNAL FEEDBACK | . 4X1.5 | FG160M16 | HFD-77008 |
| . SIGNAL FEEDBACK | . 4X1.5 | FG160M16 | HFD-77009 |
| . SIGNAL FEEDBACK | . 4X1.5 | FG160M16 | HFD-77010 |
| . SIGNAL FEEDBACK | . 4X1.5 | FG160M16 | HFD-77011 |

| 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-300AC UPS EQUIPMENT ROOM
TERMINAL STRIP

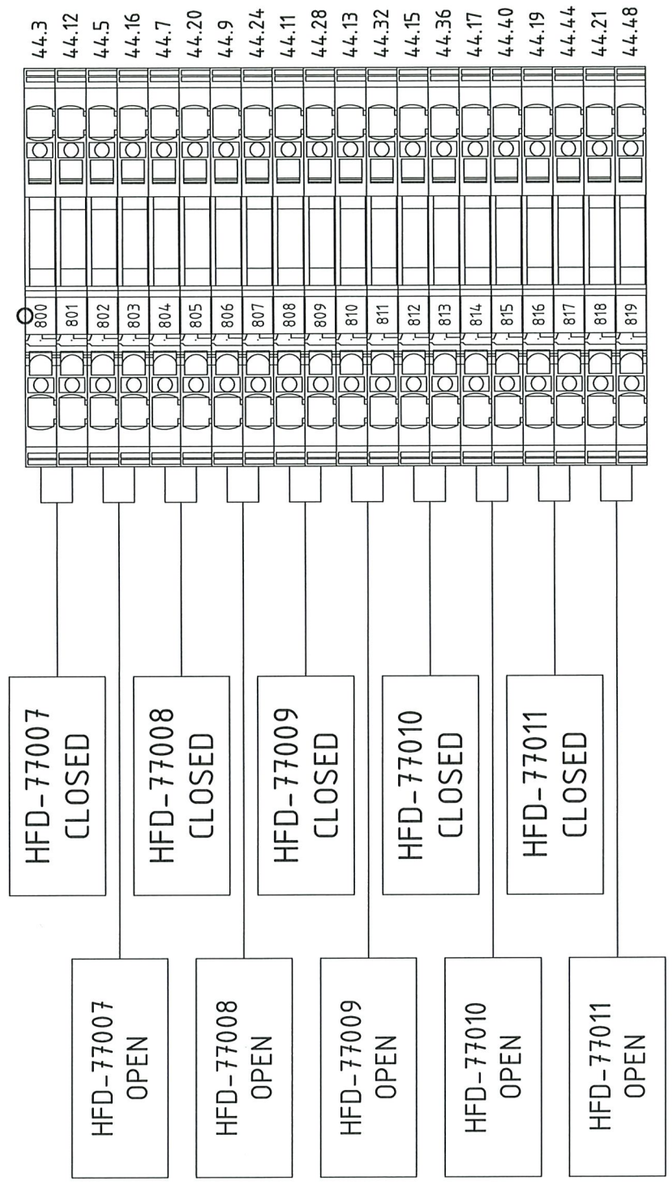
ROSETTI MARINO

1724000049-HV-DA-00028

FG. 49
F.S. 49A

## +QG - XFD/S

FIRE DAMPERS SIGNAL TO SIS







MODBUS TCP/IP
CONNECTION
FROM
B400-NET-001

AS COMMISSIONED
ZUCCOMELLI DAVIDE
17/04/2025
NO MARK UP

| REV. | MODIFICA | DATA | FIRMA | APPR. | |
|---|---|---|---|---|---|
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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM

TERMINAL STRIP

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 49A
F.S. 50

| Nome/Item | Tipo/Type | Descrizione/Description | Costruttore/Manufacturer | Quadro/Board | Fg/Sh | Q.ta/Q.ty |
|---|---|---|---|---|---|---|
| | | | | Hq | 4 | 9 |
| | R5CQE2286R | cabinet comp. 2200x800x600 back | dkc | Hq | 4 | 2 |
| | R5CPFE8100 | Modular cabinet compensation panel height 100 width 800 | dkc | | | 2 |
| | R5TOE80 | Rebate crossbar for modular doors, width 800 | dkc | | | 5 |
| | RZPCE8900 | Modular wiring panel L.800 H.900 | dkc | | | 2 |
| | RZPCE8600 | Modular wiring panel L.800 H.600 | dkc | | | 2 |
| | RZPCE8500 | Modular wiring panel L.800 H.500 | dkc | | | 2 |
| | R5CPME8900 | Solid modular cabinet door 800 width, 900 door height | dkc | | | 2 |
| | R5CPME8600 | Solid modular cabinet door width 800, door height 600 | dkc | | | 2 |
| | R5CPME8500 | Solid modular cabinet door 800 width, 500 door height | dkc | | | 2 |
| | RZSOE545 | Total horizontal support cabinet width 600 | dkc | | | 5 |
| | rzdoe8545 | PARTIAL HORIZONTAL PARTITION CABINET WIDTH 800 TOTAL DEPTH 545 MM | dkc | | | 5 |
| | RZA33 | Lifting Ring | dkc | | | 1 |
| | R5LE2262 | Side for cabinet depth 600mm height 2200mm2pcs | dkc | | | 1 |
| | R1ZPRO801 | Flangefrontal/side H100 Length 800 2pcs | dkc | | | 2 |
| | R1ZPRO601 | Front/side flange H100 length 600 | dkc | | | 2 |
| | R1ZCOR1 | Modular plinth corner H100 4pcs | dkc | | | 2 |
| | RZKE65 | CQE cabinet union kit | dkc | | | 1 |
| | rzkre65 | Flat Cooling Kit for CQE Cabinets | dkc | | | 1 |
| | rzksre65 | L-shaped union reinforcement kit for CQE cabinets | dkc | | | 1 |
| | RZDVE2260 | Vertical partition for QE 2200x600 | dkc | Hq | 4 | 1 |
| | rztse02 | Lifting brackets for CQE PZ2 | dkc | | | 1 |
| 32 x 15 | PD32Z | Sendzimir rail 32x15x9 closed | Canloplast | Hq | 5 | 6.63 |
| 40 x 100 | E354 | Can.cabl.40x100 SG S/4 | Canloplast | Hq | 5 | 9.33 |
| 60 x 100 | E184 | Can.Cabl.60x100 SG S/4 | Canloplast | Hq | 5 | 4.83 |
| 77-TT-303 | | | | Hq | | 1 |
| 77-TT-304 | | | | Hq | | 1 |
| A1 | 6AV2124-0MC01-0AX0 | SIMATIC HMI TP1200 Comfort. Touch control, 12" widescreen display | siemens | Hq | 40 | 1 |
| A2 | 6ES7155-6AU01-0CN0 | IM 155-6 PN HF/2 V4.2 Interface Module | siemens | Hq | 41 | 1 |
| | 6ES7193-6AR00-0AA0 | BA 2xRJ45 (PROFINET busadapter with standard Ethernet socket for IM-PN) | siemens | | | 1 |
| A3 | 6ES7131-6BH01-0BA0 | Digital Input Module: 16x24VDC ST | siemens | Hq | 41 | 1 |
| | 6ES7193-6BP00-0BA0 | Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A) | siemens | | | 1 |
| A4 | 6ES7131-6BH01-0BA0 | Digital Input Module: 16x24VDC ST | siemens | Hq | 41 | 1 |
| | 6ES7193-6BP00-0BA0 | Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A) | siemens | | | 1 |
| A5 | 6ES7131-6BH01-0BA0 | Digital Input Module: 16x24VDC ST | siemens | Hq | 41 | 1 |
| | 6ES7193-6BP00-0BA0 | Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A) | siemens | | | 1 |
| A6 | 6ES7131-6BH01-0BA0 | Digital Input Module: 16x24VDC ST | siemens | Hq | 41 | 1 |
| | 6ES7193-6BP00-0BA0 | Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A) | siemens | | | 1 |
| A7 | 6ES7132-6BH01-0BA0 | Digital Output Module: DQ 16x24VDC/0.5A ST | siemens | Hq | 41 | 1 |
| | 6ES7193-6BP00-0DA0 | Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A) | siemens | | | 1 |
| A8 | 6ES7134-6HD01-0BA1 | Analog Input Module: AI 4XU/I 2-Wire ST | siemens | Hq | 41 | 1 |
| | 6ES7193-6BP00-0DA0 | Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A) | siemens | | | 1 |
| A9 | 6ES7135-6HD00-0BA1 | Analog Output Module: AQ 4XU/I ST | siemens | Hq | 41 | 1 |
| | 6ES7193-6BP00-0DA0 | Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A) | siemens | | | 1 |
| A10 | 6ES7135-6HD00-0BA1 | Analog Output Module: AQ 4XU/I ST | siemens | Hq | 41 | 1 |

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FULLWOLLA PANION
17/04/2025
NO MARK UP
2D

| REV. | MODIFICA | DATA | FIRMA | APPR. | |
|---|---|---|---|---|---|
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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM

MATERIAL LIST
*LISTA METERIALI*

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 50
F.S. 51

| Nome/Item | Tipo/Type | Descrizione/Description | Costruttore/Manufacturer | Quadro/Board | Fg/Sh | Q.ta/Q.ty |
|---|---|---|---|---|---|---|
| A10 | 6ES7193-6BP00-0BA0 | Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A) | siemens | Hq | 41 | 1 |
| A11 | 6ES7134-6HD01-0BA1 | Analog Input Module: AI 4XU/I 2-Wire ST | siemens | Hq | 41 | 1 |
| | 6ES7193-6BP00-0DA0 | Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A) | siemens | | | 1 |
| A12 | 6GK5208-0BA00-2AC2 | XC208 Managed Switch with 8 RJ45 100Mbit/s Ports | siemens | Hq | 41 | 1 |
| A13 | 6ES7131-6BH01-0BA0 | Digital Input Module: 16x24VDC ST | siemens | Hq | 41 | 1 |
| | 6ES7193-6BP00-0DA0 | Type A0 BU, 16 push-in, 2 power terminals. Separate (digital/analogue, max. 24VDC/10A) | siemens | | | 1 |
| D1 | 6ES7513-1RM03-0AB0 | CPU 1513R-1PN | siemens | Hq | 40 | 1 |
| | 6ES7954-8LF02-0AA0 | Memory card, 24 MB | siemens | | | 1 |
| | 6ES7590-1AB60-0AA0 | Profile rail S7-1500, 160 mm | siemens | | | 1 |
| D2 | 6ES7513-1RM03-0AB0 | CPU 1513R-1PN | siemens | Hq | 40 | 1 |
| | 6ES7954-8LF02-0AA0 | Memory card, 24 MB | siemens | | | 1 |
| | 6ES7590-1AB60-0AA0 | Profile rail S7-1500, 160 mm | siemens | | | 1 |
| EM LIGHT | | | | Hq | | 1 |
| EPB-002L | 3SU1401-1BH20-1AA0 | Red LED module for mounting on front plate, 24 ... 240 V AC/DC. Screw terminals | siemens | Hq | 26 | 1 |
| F1 | | docker | | Hq | 7th | 1 |
| F2 | | docker | | Hq | 7th | 1 |
| F3 | | docker | | Hq | 7th | 1 |
| F4 | | docker | | Hq | 7th | 1 |
| FU42.1 | SF900GR | SFR.4/GR Sectionable clamp | Cabur | Hq | 42 | 1 |
| FU43.1 | SF900GR | SFR.4/GR Sectionable clamp | Cabur | Hq | 43 | 1 |
| GD1 | 6EP1336-3BA10 | Sitop PSU8200 Single Phase, DC 24 V/20 A. Stabilized Power Supply Input: AC 120...230 V/DC 110-220 V, Output: DC 24 V/20 A | siemens | Hq | 25 | 1 |
| HFD-77007 | | NC Limit Switch | | Hq | 26th | 1 |
| HFD-77007 | | Limit Switch: No | | Hq | 26th | 1 |
| HFD-77007 | | | | Hq | 49 | 1 |
| HFD-77008 | | NC Limit Switch | | Hq | 26th | 1 |
| HFD-77008 | | Limit Switch: No | | Hq | 26th | 1 |
| HFD-77008 | | | | Hq | 49 | 1 |
| HFD-77009 | | NC Limit Switch | | Hq | 26th | 1 |
| HFD-77009 | | Limit Switch: No | | Hq | 26th | 1 |
| HFD-77009 | | | | Hq | 49 | 1 |
| HFD-77010 | | NC Limit Switch | | Hq | 26th | 1 |
| HFD-77010 | | Limit Switch: No | | Hq | 26th | 1 |
| HFD-77010 | | | | Hq | 49 | 1 |
| HFD-77011 | | NC Limit Switch | | Hq | 26th | 1 |
| HFD-77011 | | Limit Switch: No | | Hq | 26th | 1 |
| HFD-77011 | | | | Hq | 49 | 1 |
| HL8.1 | 3SU1001-6AA60-0AA0 | Indicator light with smooth lens, white | siemens AS COMMISSIONED | Hq | 8 | 1 |
| | 3SU1401-1BH60-1AA0 | White LED module for mounting on front plate, 24 ... 240 V AC/DC. Screw terminals | siemens ZULIANELLI DAVIDE | | | 1 |
| | 3su1500-0aa10-0aa0 | Support without module. plastic | siemens 17/04/2025 | | | 1 |
| HL16.1 | 3SU1001-6AA60-0AA0 | Indicator light with smooth lens, white | siemens NO MARK UP | Hq | 16 | 1 |
| | 3SU1401-1BH60-1AA0 | White LED module for mounting on front plate, 24 ... 240 V AC/DC. Screw terminals | siemens 2D | | | 1 |
| | 3su1500-0aa10-0aa0 | Support without module. plastic | siemens | | | 1 |
| HL24.1 | 3SU1001-6AA60-0AA0 | Indicator light with smooth lens, white | siemens | Hq | 24 | 1 |
| | 3SU1401-1BH60-1AA0 | White LED module for mounting on front plate, 24 ... 240 V AC/DC. Screw terminals | siemens | | | 1 |

| 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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tel. 0039-0371-69076
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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM

MATERIAL LIST
*LISTA METERIALI*

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 51
F.S. 52

| Nome/Item | Tipo/Type | Descrizione/Description | Costruttore/Manufacturer | Quadro/Board | Fg/Sh | Q.ta/Q.ty |
|---|---|---|---|---|---|---|
| HL24.1 | *3su1500-0aa10-0aa0* | *Support without module. plastic* | *siemens* | *Hq* | 24 | 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-77-303 | *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-77-007 | | | | *Hq* | | 1 |
| HSS-77-008 | | | | *Hq* | | 1 |
| HSS-77-009 | | | | *Hq* | | 1 |
| KA8.1 | *EPN520* | *Stepper Relay 16A 230V 2NA 1M* | *Hager* | *Hq* | 8 | 1 |
| KA9.1 | *9404spa* | *Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20* | *Finder* | *Hq* | 9 | 1 |
| | | *Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC* | | | | |
| | 094913 | *Latching and unhooking jumper* | *Finder* | | | 1 |
| | 553482300054 | *industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI* | *Finder* | | | 1 |
| | | *Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable* | | | | |
| | | *Protection category: RT I. OPTIO* | | | | |
| KA11.1 | *9404spa* | *Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20* | *Finder* | *Hq* | 11 | 1 |
| | | *Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC* | | | | |
| | 094913 | *Latching and unhooking jumper* | *Finder* | | | 1 |
| | 553482300054 | *industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI* | *Finder* | | | 1 |
| | | *Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable* | | | | |
| | | *Protection category: RT I. OPTIO* | | | | |
| KA12.1 | *9404spa* | *Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20* | *Finder* | *Hq* | 12 | 1 |
| | | *Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC* | | | | |
| | 094913 | *Latching and unhooking jumper* | *Finder* | | | 1 |
| | 553482300054 | *industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI* | *Finder* | | | 1 |
| | | *Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable* | | | | |
| | | *Protection category: RT I. OPTIO* | | | | |
| KA12.2 | *9404spa* | *Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20* | *Finder* | *Hq* | 12 | 1 |
| | | *Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC* | | | | |
| | 094913 | *Latching and unhooking jumper* | *Finder* | | | 1 |
| | 553482300054 | *industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI* | *Finder* | | | 1 |
| | | *Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable* | | | | |
| | | *Protection category: RT I. OPTIO* | | | | |
| KA12.3 | *9404spa* | *Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20* | *Finder* | *Hq* | 12 | 1 |
| | | *Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC* | | | | |
| | 094913 | *Latching and unhooking jumper* | *Finder* | | | 1 |

AS COMMISSIONED
Zuccarelli Davide
4/04/2025
NO MARK UP

| 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. |

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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM

MATERIAL LIST
*LISTA METERIALI*

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 52
F.S. 53

| Nome/Item | Tipo/Type | Descrizione/Description | Costruttore/Manufacturer | Quadro/Board | Fg/Sh | Q.ta/Q.ty |
|---|---|---|---|---|---|---|
| KA12.3 | 553482300054 | *industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable Protection category: RT I. OPTIO* | *Finder* | *Hq* | 12 | 1 |
| KA13.1 | *9404spa*<br><br>094913<br>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*<br>*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*<br><br>*Finder*<br>*Finder* | *Hq* | 13 | 1<br><br>1<br>1 |
| KA13.2 | *9404spa*<br><br>094913<br>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*<br>*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*<br><br>*Finder*<br>*Finder* | *Hq* | 13 | 1<br><br>1<br>1 |
| KA13.3 | *9404spa*<br><br>094913<br>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*<br>*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*<br><br>*Finder*<br>*Finder* | *Hq* | 13 | 1<br><br>1<br>1 |
| KA14.1 | *9404spa*<br><br>094913<br>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*<br>*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* NS COMMISSIONED BY LUCIANO DAVIDE<br>*Finder* 17/04/2025<br>*Finder* NO MARK UP | *Hq* | 14 | 1<br><br>1<br>1 |
| KA14.2 | *9404spa*<br><br>094913<br>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*<br>*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*<br><br>*Finder*<br>*Finder* | *Hq* | 14 | 1<br><br>1<br>1 |
| KA15.1 | *9404spa*<br><br>094913<br>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*<br>*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*<br><br>*Finder*<br>*Finder* | *Hq* | 15 | 1<br><br>1<br>1 |
| KA15.2 | *9404spa*<br><br>094913<br>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*<br>*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*<br><br>*Finder*<br>*Finder* | *Hq* | 15 | 1<br><br>1<br>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. |

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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM

MATERIAL LIST
*LISTA METERIALI*

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 53
F.S. 54

| Nome/Item | Tipo/Type | Descrizione/Description | Costruttore/Manufacturer | Quadro/Board | Fg/Sh | Q.ta/Q.ty |
|---|---|---|---|---|---|---|
| KA15.3 | *9404spa*<br><br>094913<br>553482300054 | *Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*<br>*Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*<br>*Latching and unhooking jumper*<br>*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI*<br>*Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable*<br>*Protection category: RT I. OPTIO* | *Finder*<br><br>*Finder*<br>*Finder* | *Hq* | 15 | 1<br><br>1<br>1 |
| KA15.4 | *9404spa*<br><br>094913<br>553482300054 | *Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*<br>*Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*<br>*Latching and unhooking jumper*<br>*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI*<br>*Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable*<br>*Protection category: RT I. OPTIO* | *Finder* AS COMMISSIONED<br>BUCCOMBLE DAVIDE<br>*Finder* 17/04/2025<br>*Finder* NO MARK UP | *Hq* | 15 | 1<br><br>1<br>1 |
| KA17.1 | *9404spa*<br><br>094913<br>553482300054 | *Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*<br>*Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*<br>*Latching and unhooking jumper*<br>*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI*<br>*Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable*<br>*Protection category: RT I. OPTIO* | *Finder*<br><br>*Finder*<br>*Finder* | *Hq* | 17 | 1<br><br>1<br>1 |
| KA19.1 | *9404spa*<br><br>094913<br>553482300054 | *Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*<br>*Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*<br>*Latching and unhooking jumper*<br>*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI*<br>*Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable*<br>*Protection category: RT I. OPTIO* | *Finder*<br><br>*Finder*<br>*Finder* | *Hq* | 19 | 1<br><br>1<br>1 |
| KA20.1 | *9404spa*<br><br>094913<br>553482300054 | *Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*<br>*Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*<br>*Latching and unhooking jumper*<br>*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI*<br>*Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable*<br>*Protection category: RT I. OPTIO* | *Finder*<br><br>*Finder*<br>*Finder* | *Hq* | 20 | 1<br><br>1<br>1 |
| KA20.2 | *9404spa*<br><br>094913<br>553482300054 | *Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*<br>*Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*<br>*Latching and unhooking jumper*<br>*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI*<br>*Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable*<br>*Protection category: RT I. OPTIO* | *Finder*<br><br>*Finder*<br>*Finder* | *Hq* | 20 | 1<br><br>1<br>1 |
| KA20.3 | *9404spa*<br><br>094913<br>553482300054 | *Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*<br>*Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*<br>*Latching and unhooking jumper*<br>*industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI*<br>*Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable*<br>*Protection category: RT I. OPTIO* | *Finder*<br><br>*Finder*<br>*Finder* | *Hq* | 20 | 1<br><br>1<br>1 |
| KA21.1 | *9404spa*<br><br>094913 | *Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20*<br>*Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC*<br>*Latching and unhooking jumper* | *Finder*<br><br>*Finder* | *Hq* | 21 | 1<br><br>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. | DESIGN. | 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-300AC UPS EQUIPMENT ROOM

MATERIAL LIST
*LISTA METERIALI*

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 54
F.S. 55

| Nome/Item | Tipo/Type | Descrizione/Description | Costruttore/Manufacturer | Quadro/Board | Fg/Sh | Q.ta/Q.ty |
|---|---|---|---|---|---|---|
| KA21.1 | 553482300054 | *industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable Protection category: RT I. OPTIO* | *Finder* | *Hq* | 21 | 1 |
| KA21.2 | *9404spa*<br><br>094913<br>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*<br>*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*<br><br>*Finder*<br>*Finder* | *Hq* | 21 | 1<br><br>1<br>1 |
| KA21.3 | *9404spa*<br><br>094913<br>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*<br>*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* AS COMMISSIONED<br>ZUCCHESINI DAVIDE<br>*Finder* 17/04/2025<br>*Finder* NO MARK UP | *Hq* | 21 | 1<br><br>1<br>1 |
| KA22.1 | *9404spa*<br><br>094913<br>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*<br>*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*<br><br>*Finder*<br>*Finder* | *Hq* | 22 | 1<br><br>1<br>1 |
| KA22.2 | *9404spa*<br><br>094913<br>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*<br>*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*<br><br>*Finder*<br>*Finder* | *Hq* | 22 | 1<br><br>1<br>1 |
| KA23.1 | *9404spa*<br><br>094913<br>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*<br>*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*<br><br>*Finder*<br>*Finder* | *Hq* | 23 | 1<br><br>1<br>1 |
| KA23.2 | *9404spa*<br><br>094913<br>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*<br>*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*<br><br>*Finder*<br>*Finder* | *Hq* | 23 | 1<br><br>1<br>1 |
| KA23.3 | *9404spa*<br><br>094913<br>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*<br>*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*<br><br>*Finder*<br>*Finder* | *Hq* | 23 | 1<br><br>1<br>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. |

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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM

MATERIAL LIST
*LISTA METERIALI*

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 55
F.S. 56

| Nome/Item | Tipo/Type | Descrizione/Description | Costruttore/Manufacturer | Quadro/Board | Fg/Sh | Q.ta/Q.ty |
|---|---|---|---|---|---|---|
| KA23.4 | *9404spa* | *Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC* | *Finder* | *Hq* | 23 | 1 |
| | 094913 | *Latching and unhooking jumper* | *Finder* | | | 1 |
| | 553482300054 | *industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in fitting Power supply: AC volt AC: 230 V. Non-polarized monostable Protection category: RT I. OPTIO* | *Finder* | | | 1 |
| KA26.1 | *9404spa* | *Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC* | *Finder* AS COMMISSIONED ZUCCONELLI DAVIDE | *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* 17/04/2025 NO MARK UP | | | 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 | *minutelay. (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 | *minutelay. (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 | *minutelay. (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 | *minutelay. (A): 8 N° Contacts: 2 Contact configuration: CO Material Contacts: AGNI Electrical connection: plug-in fitting Power supply: DC Volt DC: 24 V. Non-polarized Monostable Protection category: RT II. Optional: PU* | *Finder* | *Hq* | *26th* | 1 |
| | *9702spa* | *Plinth with socket terminals Mounting: 35 mm blind bar (A): 8 Degree of protection: IP 20 Accessories: plastic or metal jumper, 8-pole comb, EMC signalling and protection modules, timer modules* | *Finder* | | | 1 |

| REV. | MODIFICA | DATA | FIRMA | APPR. | |
|---|---|---|---|---|---|
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BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM

MATERIAL LIST
*LISTA METERIALI*

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 56
F.S. 57

| Nome/Item | Tipo/Type | Descrizione/Description | Costruttore/Manufacturer | Quadro/Board | Fg/Sh | Q.ta/Q.ty |
|---|---|---|---|---|---|---|
| KA26A.6 | 465290240040 | *mini relay. (A): 8 N° Contacts: 2 Contact configuration: CO Material Contacts: AGNI Electrical connection: plug-in fitting Power supply: DC Volt DC: 24 V. Non-polarized Monostable Protection category: RT II. Optional: PU* | *Finder* | *Hq* | *26th* | 1 |
| | *9702spa* | *Plinth with socket terminals Mounting: 35 mm blind bar (A): 8 Degree of protection: IP 20 Accessories: plastic or metal jumper, 8-pole comb, EMC signalling and protection modules, timer* | *Finder* | | | 1 |
| KA26A.7 | 465290240040 | *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* AS COMMISSIONED ZUCHOWSKI DAVID 17/04/2025 NO MARK UP | *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. | |
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BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM

MATERIAL LIST
*LISTA METERIALI*

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 57
F.S. 58

| Nome/Item | Tipo/Type | Descrizione/Description | Costruttore/Manufacturer | Quadro/Board | Fg/Sh | Q.ta/Q.ty |
|---|---|---|---|---|---|---|
| KA30.5 | 553490240040 | *industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in connection Power supply: DC volts DC: 24 V. Non-polarized monostable Protection category: RT I. Option* | *Finder* | *Hq* | 35 | 1 |
| | *9404spa* | *Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC* | *Finder* | | | 1 |
| | 094913 | *Latching and unhooking jumper* | *Finder* | | | 1 |
| KA30.6 | 553490240040 | *industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI Electrical connection: Push-in connection Power supply: DC volts DC: 24 V. Non-polarized monostable Protection category: RT I. Option* | *Finder* AS COMMISSIONED ZUCCOMELLI DAVIDE 17/04/2025 NO MARK UP | *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. | |
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BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM

MATERIAL LIST
*LISTA METERIALI*

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 58
F.S. 59

| Nome/Item | Tipo/Type | Descrizione/Description | Costruttore/Manufacturer | Quadro/Board | Fg/Sh | Q.ta/Q.ty |
|---|---|---|---|---|---|---|
| KA42.1 | 9404spa | Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 | Finder | Hq | 42 | 1 |
| | | Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC | | | | |
| | 094913 | Latching and unhooking jumper | Finder | | | 1 |
| KA43.1 | 553490240040 | industrial relay. (A): 7 No. of contacts: 4 Contact configuration: CO Contact material: AGNI | Finder | Hq | 43 | 1 |
| | | Electrical connection: Push-in connection Power supply: DC volts DC: 24 V. Non-polarized | | | | |
| | | monostable Protection category: RT I. Option | | | | |
| | 9404spa | Socket with socket clamps Mounting: Blind bar 35 mm (H): 10 Degree of protection: IP 20 | Finder | | | 1 |
| | | Accessories: metal or plastic jumper, 6-pole comb, timer modules, signaling modules and EMC | | | | |
| | 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-77-303 | | pressure-controlled (pressure switch) NC | | Hq | 15 | 1 |
| PDSL-77-304 | | pressure-controlled (pressure switch) NC | | 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 AS COMMISSIONED INCOMING DAVID | Cosmotec | Hq | 24 | 1 |
| | GSF10 | air intake filter 100x100 17/04/2025 NO MARK | 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. | M.G. |
|---|---|---|---|---|---|
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BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM

MATERIAL LIST
*LISTA METERIALI*

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 59
F.S. 60

| Nome/Item | Tipo/Type | Descrizione/Description | Costruttore/Manufacturer | Quadro/Board | Fg/Sh | Q.ta/Q.ty |
|---|---|---|---|---|---|---|
| PHT8.1 | *007038.00001* | *Antcondensing Thermostat 230V* | *Fandis* | *Hq* | 8 | 1 |
| PHT16.1 | *007038.00001* | *Antcondensing Thermostat 230V* | *Fandis* | *Hq* | 16 | 1 |
| PHT24.1 | *007038.00001* | *Antcondensing Thermostat 230V* | *Fandis* | *Hq* | 24 | 1 |
| PL8.1 | *050PEL3C* | *230V lamp* | *New Elfin* | *Hq* | 8 | 1 |
| | *050kfm* | *Magnet kit* | *New Elfin* | | | 1 |
| PL16.1 | *050PEL3C* | *230V lamp* | *New Elfin* | *Hq* | 16 | 1 |
| | *050kfm* | *Magnet kit* | *New Elfin* | | | 1 |
| PL24.1 | *050PEL3C* | *230V lamp* | *New Elfin* | *Hq* | 24 | 1 |
| | *050kfm* | *Magnet kit* | *New Elfin* | | | 1 |
| PL25.1 | *050PEL3C-24V* | *LED Linear Ceiling Light 24V AC/DC, 600LM 368mm* | *New Elfin* | *Hq* | 25 | 1 |
| | *050kfm* | *Magnet kit* | *New Elfin* | | | 1 |
| PLS8.1 | *RAMC05* | *Micro Door Opening Switch 1 No & 1NC* | *dkc* | *Hq* | 8 | 1 |
| PLS16.1 | *RAMC05* | *Micro Door Opening Switch 1 No & 1NC* | *dkc* | *Hq* | 16 | 1 |
| PLS24.1 | *RAMC05* | *Micro Door Opening Switch 1 No & 1NC* | *dkc* | *Hq* | 24 | 2 |
| PLS25.1 | *RAMC05* | *Micro Door Opening Switch 1 No & 1NC* | *dkc* | *Hq* | 25 | 1 |
| QF1 | *5SU1354-1KK10* | *Residual current circuit breaker, 10 kA, 1P N, AC type, 30 mA, C, IN: 10 A, UN AC: 230 V* | *siemens* | *Hq* | *7th* | 1 |
| | *5ST3010* | *Auxiliary contact block, 1 NO 1 NC for 5SL, 5SY, 5SP circuit breaker* | *siemens* | | | 1 |
| QF1A | *5SY7506-7* | *Circuit breaker 230 V 15KA, 1P N, C, 6 A, D=70 mm* | *siemens* | *Hq* | 10 | 1 |
| | *5ST3010* | *Auxiliary contact block, 1 NO 1 NC for 5SL, 5SY, 5SP circuit breaker* | *siemens* | | | 1 |
| QF1B | *5SY7506-7* | *Circuit breaker 230 V 15KA, 1P N, C, 6 A, D=70 mm* | *siemens* | *Hq* | 18 | 1 |
| | *5ST3010* | *Auxiliary contact block, 1 NO 1 NC for 5SL, 5SY, 5SP circuit breaker* | *siemens* | | | 1 |
| QF2 | *5SU1354-1KK16* | *RCD, 10 kA, 1P N, AC type, 30 mA, C, IN: 16 A, UN AC: 230 V* | *siemens* | *Hq* | *7th* | 1 |
| | *5ST3010* | *Auxiliary contact block, 1 NO 1 NC for 5SL, 5SY, 5SP circuit breaker* | *siemens* | | | 1 |
| QF3 | *5SY7502-7* | *Circuit breaker 230 V 15KA, 1P N, C, 2 A, D=70 mm* | *siemens* | *Hq* | 7 | 1 |
| | *5ST3010* | *Auxiliary contact block, 1 NO 1 NC for 5SL, 5SY, 5SP circuit breaker* | *siemens* | | | 1 |
| QF4 | *5SY7503-7* | *Circuit breaker 230 V 15Ka, 1P N, C, 3 A, D=70 mm* | *siemens* | *Hq* | 25 | 1 |
| QF5 | *5SY5220-7* | *Universal current circuit breaker 440 V DC - 400 V AC 10Ka, 2P, C, 20 A* | *siemens* | *Hq* | 25 | 1 |
| QF6 | *5su1354-1kk06* | *RCD, 10 kA, 1P N, AC Type, 30 mA, C, In: 6 A, One AC: 230 V* | *siemens* | *Hq* | *7th* | 1 |
| | *5ST3010* | *Auxiliary contact block, 1 NO 1 NC for 5SL, 5SY, 5SP circuit breaker* | *siemens* | | | 1 |
| QF400 | *5SY74027* | *Int. MT 4P C2 ICN 15KA, ICU 50KA* | *siemens* | *Hq* | 6 | 1 |
| QFA | *3VA1125-4GF42-0AA0* | *Switch 3VA1 IEC Chassis 160 Switching Capacity Class S ICU=36 KA 415 V 4-pole, TM240 system protection, ATAM, IN=25 A overload protection IR=18 A... 25 A Short-Circuit Protection II=6.4...12.8 x in N-Conductor Protection 100% LU terminal* | *siemens* | *Hq* | 6 | 1 |
| | *3VA9157-0FK21* | *com. rinv. Door Lock x 3VA10/1 STD* | *siemens* | | | 1 |
| | *3VA9988-0BL30* | *bobsleigh. Launch SIN 24VAC 50/60 Hz/12-30 VDC* | *siemens* | | | 1 |
| | *3VA9988-0AA11* | *Cont. HP-type status* | *siemens* | | | 1 |
| | *3VA9111-0WD40* | *Cover x 3VA10/1 4P 1pcs.* | *siemens* | | | 2 |
| QFB | *3VA1125-4GF42-0AA0* | *Switch 3VA1 IEC Chassis 160 Switching Capacity Class S ICU=36 KA 415 V 4-pole, TM240 system protection, ATAM, IN=25 A overload protection IR=18 A... 25 A Short-Circuit Protection II=6.4...12.8 x in N-Conductor Protection 100% LU terminal* | *siemens* AS COMMISSIONED ZUCCOMELLI DAVIDE 17/04/2025 NO MARK UP | *Hq* | 6 | 1 |
| | *3VA9157-0FK21* | *com. rinv. Door Lock x 3VA10/1 STD* | *siemens* | | | 1 |
| | *3VA9988-0BL30* | *bobsleigh. Launch SIN 24VAC 50/60 Hz/12-30 VDC* | *siemens* | | | 1 |
| | *3VA9988-0AA11* | *Cont. HP-type status* | *siemens* | | | 1 |
| | *3VA9111-0WD40* | *Cover x 3VA10/1 4P 1pcs.* | *siemens* | | | 2 |
| QM1 | *5SY7410-7* | *Circuit breaker 400 V 15kA, 4P, C, 10 A, D=70 mm* | *siemens* | *Hq* | 7 | 1 |

| REV. | MODIFICA | DATA | FIRMA | 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. |

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CLIENT:
CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM

MATERIAL LIST
*LISTA METERIALI*

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 60
F.S. 61

| Nome/Item | Tipo/Type | Descrizione/Description | Costruttore/Manufacturer | Quadro/Board | Fg/Sh | Q.ta/Q.ty |
|---|---|---|---|---|---|---|
| QM1 | 5SM23420 | Block diff. 4P 40A 30mA Type AC x 5sy | siemens | Hq | 7 | 1 |
| | 5ST3010 | Auxiliary contact block, 1 NO 1 NC for 5SL, 5SY, 5SP circuit breaker | siemens | | | 1 |
| QM1A | 3RV2011-1AA10 | Circuit breaker size S00 for motor protection, class 10, trip A 1.1...1.6 A, trip N 21 A, screw terminal | siemens | Hq | 9 | 1 |
| | 3RV2901-1E | Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers | siemens | | | 1 |
| QM1B | 3RV2011-1AA10 | Circuit breaker size S00 for motor protection, class 10, trip A 1.1...1.6 A, trip N 21 A, screw terminal | siemens | Hq | 17 | 1 |
| | 3RV2901-1E | Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers | siemens | | | 1 |
| QM2A | 3RV2011-1GA10 | Circuit breaker size S00 for motor protection, class 10, trip A 4.5...6.3 A, trip N 82 A, screw terminal | siemens | Hq | 10 | 1 |
| | 3RV2901-1E | Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers | siemens | | | 1 |
| | 3RA19211DA00 | El.Col. Electr.Mech. (1pack=1pcs) | siemens | | | 1 |
| QM2B | 3RV2011-1GA10 | Circuit breaker size S00 for motor protection, class 10, trip A 4.5...6.3 A, trip N 82 A, screw terminal | siemens | Hq | 18 | 1 |
| | 3RV2901-1E | Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers | siemens | | | 1 |
| | 3RA19211DA00 | El.Col. Electr.Mech. (1pack=1pcs) | siemens | | | 1 |
| QM3A | 3RV2011-1JA10 | Circuit breaker size S00 for motor protection, class 10, trip A 7...10 A, trip N 130 A, screw terminal | siemens | Hq | 10 | 1 |
| | 3RV2901-1E | Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers | siemens | | | 1 |
| | 3RA29211AA00 | mod.coll.vt x 3rv2-3rt2 ac | siemens | | | 1 |
| QM3B | 3RV2011-1JA10 | Circuit breaker size S00 for motor protection, class 10, trip A 7...10 A, trip N 130 A, screw terminal | siemens | Hq | 18 | 1 |
| | 3RV2901-1E | Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers | siemens | | | 1 |
| | 3RA29211AA00 | mod.coll.vt x 3rv2-3rt2 ac | siemens | | | 1 |
| QM4A | 3RV2011-1JA10 | Circuit breaker size S00 for motor protection, class 10, trip A 7...10 A, trip N 130 A, screw terminal | siemens | Hq | 10 | 1 |
| | 3RV2901-1E | Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers | siemens | | | 1 |
| QM4B | 3RV2011-1JA10 | Circuit breaker size S00 for motor protection, class 10, trip A 7...10 A, trip N 130 A, screw terminal | siemens | Hq | 18 | 1 |
| | 3RV2901-1E | Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers | siemens | | | 1 |
| QM5A | 3RV2011-1DA10 | Circuit breaker size S00 for motor protection, class 10, trip A 2.2...3.2 A, trip N 42 A, screw terminal | siemens | Hq | 11 | 1 |
| | 3RV2901-1E | Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers | siemens | | | 1 |
| QM5B | 3RV2011-1DA10 | Circuit breaker size S00 for motor protection, class 10, trip A 2.2...3.2 A, trip N 42 A, screw terminal | siemens | Hq | 19 | 1 |
| | 3RV2901-1E | Cross Auxiliary Contact Block 1No 1NC Screw Terminals for 3RV2 Circuit Breakers | siemens | | | 1 |
| QS1 | 3VA1132-4GF42-0AA0 | Switch 3VA1 IEC Chassis 160 Switching Capacity Class S ICU=36 KA 415 V 4-Pole, TM240 System Protection, ATAM, IN=32 A Overload Protection IR=22 A... 32 A Short-Circuit Protection II=5...10 x in N-Conductor Protection 100% terminal LUG | siemens | Hq | 6 | 1 |
| | 3VA9988-0BL30 | bobsleigh. Launch SIN 24VAC 50/60 Hz/12-30 VDC | siemens | | | 1 |
| | 3VA9988-0AA11 | Cont. HP-type status | siemens | | | 1 |
| | 3VA9157-0FK21 | com. rinv. Door Lock x 3VA10/1 STD | siemens | | | 1 |
| | 3VA9111-0WD40 | Cover x 3VA10/1 4P 1pcs. | siemens | | | 2 |
| SA27.1 | | Three-position selector switch No rest 0 | | Hq | 27 | 1 |
| SA27.2 | | Three-position no-sleep selector switch 1 | | Hq | 27 | 1 |

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| 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-300AC UPS EQUIPMENT ROOM

ROSETTI MARINO

1724000049-HV-DA-00028

FG. 61
F.S. 62

| Nome/Item | Tipo/Type | Descrizione/Description | Costruttore/Manufacturer | Quadro/Board | Fg/Sh | Q.ta/Q.ty |
|---|---|---|---|---|---|---|
| TA1 | *TAC022150X05* | *Amperometric transformer hole 22, transformation ratio 150/5 A* | *Frer* | *Hq* | 6 | 1 |
| TA2 | *TAC022150X05* | *Amperometric transformer hole 22, transformation ratio 150/5 A* | *Frer* | *Hq* | 6 | 1 |
| TA3 | *TAC022150X05* | *Amperometric transformer hole 22, transformation ratio 150/5 A* | *Frer* | *Hq* | 6 | 1 |
| VSD-1A | *6SL3210-5BE15-5CV0* | *SinamiCs V20 3AC380-480V 0.55kw with C3 filter* | *siemens* | *Hq* | 9 | 1 |
| VSD-1B | *6SL3210-5BE15-5CV0* | *SinamiCs V20 3AC380-480V 0.55kw with C3 filter* | *siemens* | *Hq* | 17 | 1 |
| VSD-5A | *6SL3210-5BE21-1CV0* | *SinamiCs V20 3AC380-480V 1.1kw with C3 Filter* | *siemens* | *Hq* | 11 | 1 |
| VSD-5B | *6SL3210-5BE21-1CV0* | *SinamiCs V20 3AC380-480V 1.1kw with C3 Filter* | *siemens* | *Hq* | 19 | 1 |
| 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 |

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17/04/2025
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| RØV. | MODIFICA | DATA | FIRMA | APPR. | M.G. |
|---|---|---|---|---|---|
| 05 | ACCØPT FOR CONSTRUCTION | 27/01/25 | F.M. | DATA | 22/04/2024 |
| 04 | ACCØPT FOR CONSTRUCTION | 10/12/24 | F.M. | DISØGN. | F.M. |
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CLIENT: CROSSWIND

BASE LOAD POWER HUB (BLPH)
B-300AC UPS EQUIPMENT ROOM

Distinta Materiali
*Bill of Materials*

ROSETTI MARINO

1724000049-HV-DA-00028

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