"SG-100D1" HV SWBD 6,6kV (UNIT A1)

FUNCTIONAL DIAGRAM

ELECTROLYSER FEEDER A-20000

=							
+A1							
DWG n° : 231151/SD/18	3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)	
Item n° : PF1113279	2	21/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for Construction (AFC)	
	1	14/05/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)	
	0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)	
	REV.	DATE	DRN	CHKD	APPD	DESCRIPTION	

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE :
SG-100D1 - FUNCTIONAL ELECTROLYSER FEEDER A-2000
Cover

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00018

SHEET 1

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00018 Rev.03

INDEX

Sheet	Description	Revision 0	1	2	3	4	5	6	7	8
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2	Sheets Index									
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4	Door Layout									
5	Protection Display REX640									
6	Selector Switch Diagram									
7	Power Diagram									
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13	230Vac Distribution Voltage									
14	110V Protection/Measure Distribution Voltage									
15	110V Protection/Measure Distribution Voltage									
16	"REX640"' Protection Wiring									
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18	"REX640"' Protection Wiring									
19	Extherm Device									
20	Command Circuit									
21	Command Circuit									
22	Command Circuit									
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24	"REX640" Protection Wiring - Digital Input									
25	"REX640" Protection Wiring - Digital Input									
26	"REX640" Protection Wiring - Digital Input									
27	Availables Signals									
28	Terminal strips									
29	Terminal strips									
30	Terminal strips									
31	Terminal strips									
32	Bill of Materials									
33	Bill of Materials									
34	Bill of Materials									

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+A1

DWG n° : 231151/SD/18

Item n° : PF1113279

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IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE :

SG-100D1 - FUNCTIONAL ELECTROLYSER FEEDER A-2000

Sheets Index

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00018

SHEET 2

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00018 Rev.03

ACRONIMUS LEGEND

ITEM	DESCRIPTION
BB	ARC SENSOR PROTECTION ON MAIN BUS BARS
BGE	EARTHING SWITCH
C1	VOLTAGE PRESENCE
CB	ARC SENSOR PROTECTION ON C.B. / CONTACTOR COMPARTMENT
CC	ARC SENSOR PROTECTION ON CABLE COMPARTMENT
DCO	DOUBLE COMMAND OPERATED CONTACTOR
DI3	UNDERVOLTAGE CONTACTOR
DP1	ALARM RELAY MODULE TEMPERATURE
E1	INTERNAL LIGHT
E8	RESISTOR FERRO-RESONANCE
EH1	INTERNAL SPACE HEATER
Fn	MV FUSE
FP1	PROTECTION RELAY
GS1	DC/DC CONVERTER
HGR	THERMOSTAT
Kn	AUXILIARY RELAY
K1	MV CONTACTOR
K86	BLOCK RELAY
KT1	DE-ENERGIZATION TIMER
LS	MICRO SWITCH ON AUXILIARY DOOR
MAS	MOTOR SPRING CHARGER
MBC	CLOSING COIL
MBO1	OPENING COIL
MBU	UNDERVOLTAGE
ODn	VOLTAGE DISCHARGER
PU1	MEASURING VOLTAGE INSTRUMENT

ITEM	DESCRIPTION
PTT	V.T. TRUCK
QM	MV CIRCUIT-BREAKER
QDn	M.C.B. CIRCUITS PROTECTION
QVn	M.C.B FOR V.T. PROTECTION
RLE1	COIL FOR CONSET CLOSING CIRCUIT-BREAKER
RLE2	COIL FOR UNLOCKING RACK-IN/OUT OPERATION
RLE3	COIL FOR UNLOCKING OPERATION EARTHING
RLE4	COIL FOR UNLOCKING ENCLOSURE DOOR OPERATION
SU1	VOLTAGE SELECTOR
SWH...	ETHERNET SWITCH
TI-Ln	CURRENT TRANSFORMER
TO	OMOPOLAR RING CURRENT TRANSFORMER
TR1	TEMPERATURE CONTROL DEVICE

FUNCTIONAL OF THE PROTECTION RELAY OUTPUT CONTACTS:

SLOT "G":
RF = WATCHDOG RELAY
S01 = EARTHING SWITCH UNLOCKING
S02 = C.B. or CONTACTOR READY TO CLOSE
SS01 = BREAKER FAILURE
POSP1 = CLOSING COMMAND
S03 = C.B. or CONTACTOR TRUCK UNLOCKED
PODP1 = OPENING COMMAND
SLOT "B"
S01 = TRIP PROTECTION TO LOCKOUT RELAY
S02 = EARTHING SWITCH CLOSED
S03 = AVAILABLE OUTPUT (ON TERMINAL STRIP)
S04 = RESET LOKOUT RELAY
SLOT "D":
SP01 = TRIP ARC DETECTOR ON OPENING COMMAND
SP03 = TRIP ARC DETECTOR ON LOCKOUT RELAY

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+A1
DWG n° : 231151/SD/18
Item n° : PF1113279

IMESA ELECTRICAL ENGINEERING
CROSSWIND
ROSETTI MARINO

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
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TITLE :
SG-100D1 - FUNCTIONAL ELECTROLYSER FEEDER A-2000
Legend

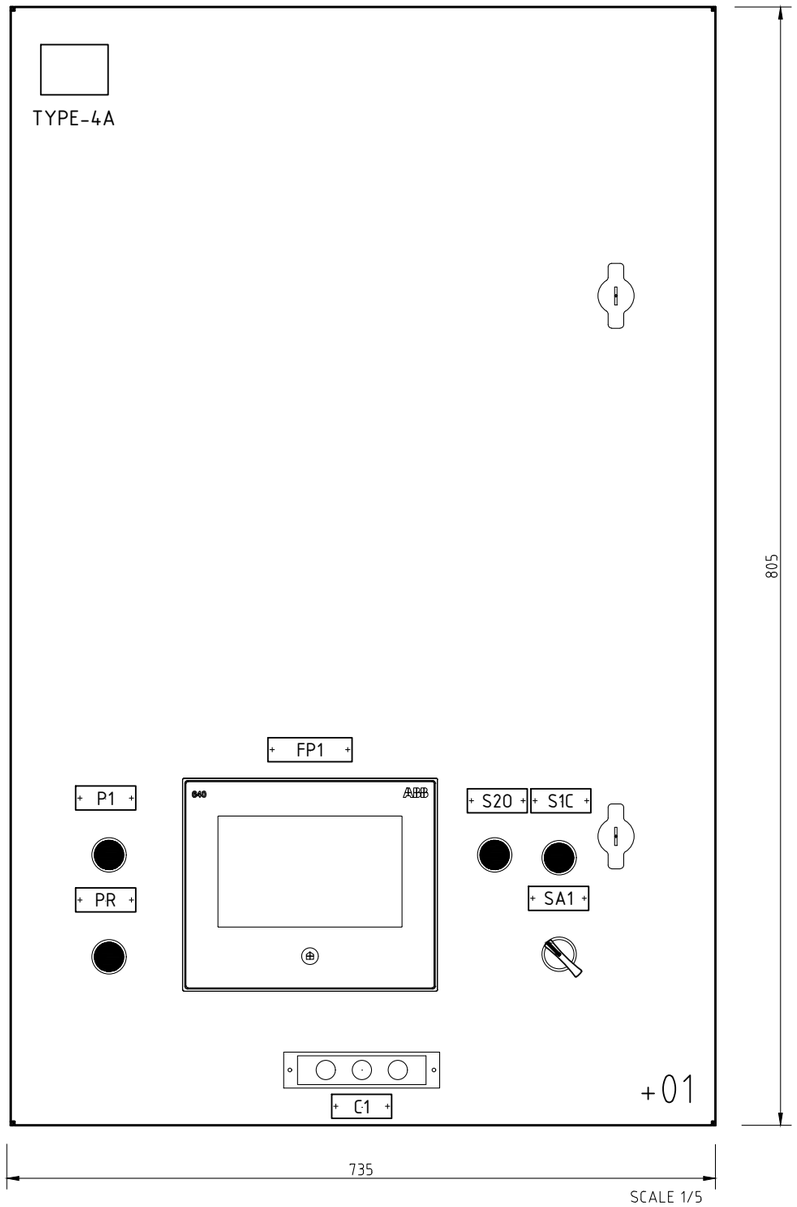
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 1723002197-EL-DG-00018 | SHEET 3 | REV. 03

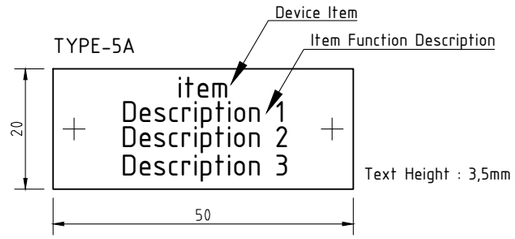
F.to UNI A3: 420mmx297mm

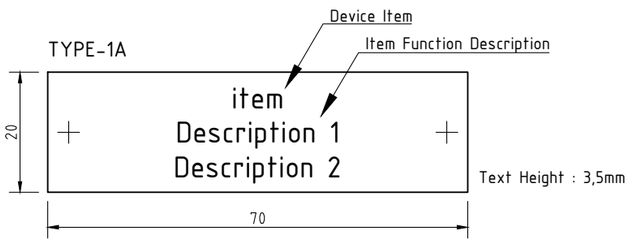
File Name : 1723002197-EL-DG-00018 Rev.03

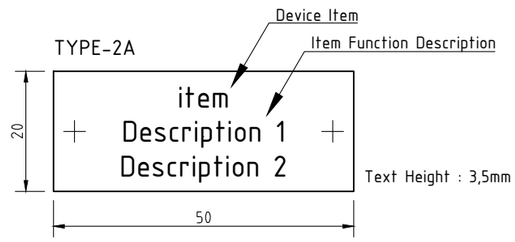
DOOR LAY-OUT

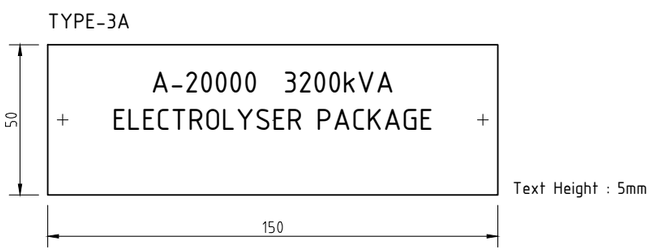


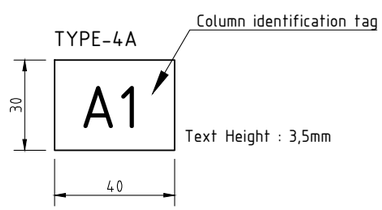
DEVICES name plate					
ITEM	COMPONENT	DESCRIPTION 1	DESCRIPTION 2	DESCRIPTION 3	NOTE
FP1	PROTECTION RELAY	PROTECTION RELAY			TYPE-1A
S2.0	PUSH BUTTON	OPEN	COMMAND	C.B.	TYPE-5A
S1.C	PUSH BUTTON	CLOSE	COMMAND	C.B.	TYPE-5A
SA1	SELECTOR SWITCH	LOCAL / REMOTE			TYPE-2A
PR	LIGHT PUSH BUTTON	RESET	LOCK-OUT	TRIP LOCK-OUT	TYPE-5A
C1	PILOT LIGHT	VOLTAGE	PRESENCE		TYPE-2A
P1	PUSH BUTTON	TRUCK-DOOR	ENABLING	ENABLING	TYPE-5A











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+A1							
DWG n° : 231151/SD/18	3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)	
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IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE :

SG-100D1 – FUNCTIONAL ELECTROLYSER FEEDER A-2000

Door Layout

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00018

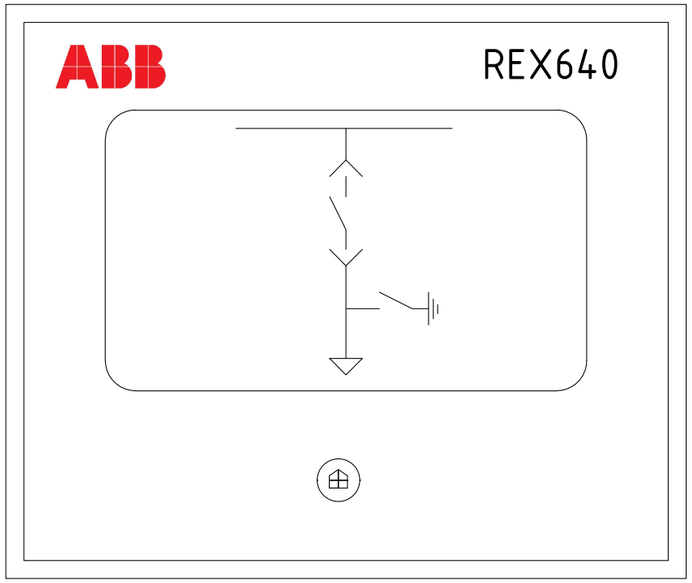
SHEET 4

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00018 Rev.03

PROTECTION DISPLAY



LHMI - TOUCH DISPLAY

- COMMANDS "CLOSE C.B." AND "OPEN C.B." NOT ENABLED
- PUSH BUTTON "REMOTE / LOCAL" NOT ENABLED

LEDs PAGE 1				
Item	NAME PLATE	COLOUR		Note
		ALARM	OK	
LED-1	27-1/27-2/59-1/59-2 - VOLTAGE PROTECTION	RED	-	ALARM = OVER/UNDER VOLTAGE PROTECTION
LED-2	CONTACTOR READY (TCS)	-	GREEN	OK = TCS OK (CONTACTOR READY)
LED-3	SYNCHRO CHECK		GREEN	OK = SYNCHRONISM
LED-4	CONTACTOR READY TO CLOSE	-	GREEN	OK = CONTACTOR READY TO CLOSE
LED-5	50-1/51-1/67-1/67-2 - TRIPPED	RED	-	ALARM = OVERCURRENT PROTECTION TRIPPED
LED-6	51N/59N-1/59N-2 - TRIPPED	RED	-	ALARM = EARTH PROTECTION TRIPPED
LED-7	EARTHING SWITCH UNLOCKED	-	GREEN	OK = EARTHING SWITCH UNLOCKED
LED-8	RACK-IN/OUT ENABLED	-	GREEN	OK = CONTACTOR TRUCK UNLOCKED
LED-9	ARC PROTECTION TRIPPED	RED	-	ALARM = TRIP ARC PROTECTION
LED-10	GOOSE ALARM	RED	-	ALARM = GOOSE FAULT
LED-11	EMERGENCY OPENING BY SIS (ESD)	RED	-	ALARM = ESD TRIPPED

LEDs PAGE2				
Item	NAME PLATE	COLOUR		Note
		ALARM	OK	
LED-12	SPACE HEATER "ON"	RED		ALARM = SPACE HEATER "ON"
LED-13	TRANSF. PROTECTIONS	RED		ALARM = PROTECTIONS TRIP
LED-14				
LED-15	TRIP FROM L.V.	RED		ALARM = L.V. TRIP
LED-16				
LED-17				
LED-18				
LED-19				
LED-20				
LED-21				
LED-22				

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
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+A1					
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Item n° : PF1113279

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

TITLE :
SG-100D1 - FUNCTIONAL ELECTROLYSER FEEDER A-2000
Protection Display REX640

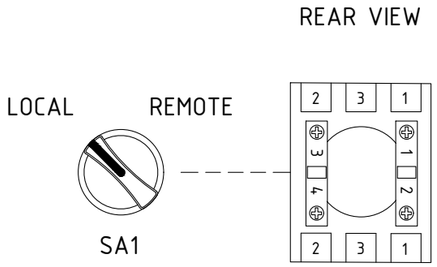
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 1723002197-EL-DG-00018 | SHEET 5 | REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00018 Rev.03

SELECTORS SWITCH DIAGRAM



NOTES

THE DIAGRAM INDICATES THE FOLLOWING CONDITIONS:
-INSERTED CIRCUIT BREAKER IN OPEN POSITION
-DE-ENERGIZED CIRCUITS
-DSCHARGED CLOSING SPRINGS
-EARTHING SWITCH OPEN

THE AUXILIARY CIRCUITS WILL HAVE THE FOLLOWING CHARACTERISTICS:
-110+ / 24+ 1,5mmq RED TYPE CABLE SH-W
-110- / 24- 1,5mmq WHITE TYPE CABLE SH-W
-AUXILIARY CONTACTS TO TERMINAL STRIP 1,5mmq BLACK TYPE CABLE SH-W
-230Vac 1,5mmq BLACK TYPE SH-W
-VOLTMETRICAL CIRCUITS 1,5mmq BLACK TYPE CABLE SH-W
-AMMETRICAL CIRCUIT 2,5mmq BLACK TYPE CABLE SH-W

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+A1
DWG n° : 231151/SD/18
Item n° : PF1113279

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE :
SG-100D1 - FUNCTIONAL ELECTROLYSER FEEDER A-2000
Selector Switch Diagram

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

SCALE : NTS

A3

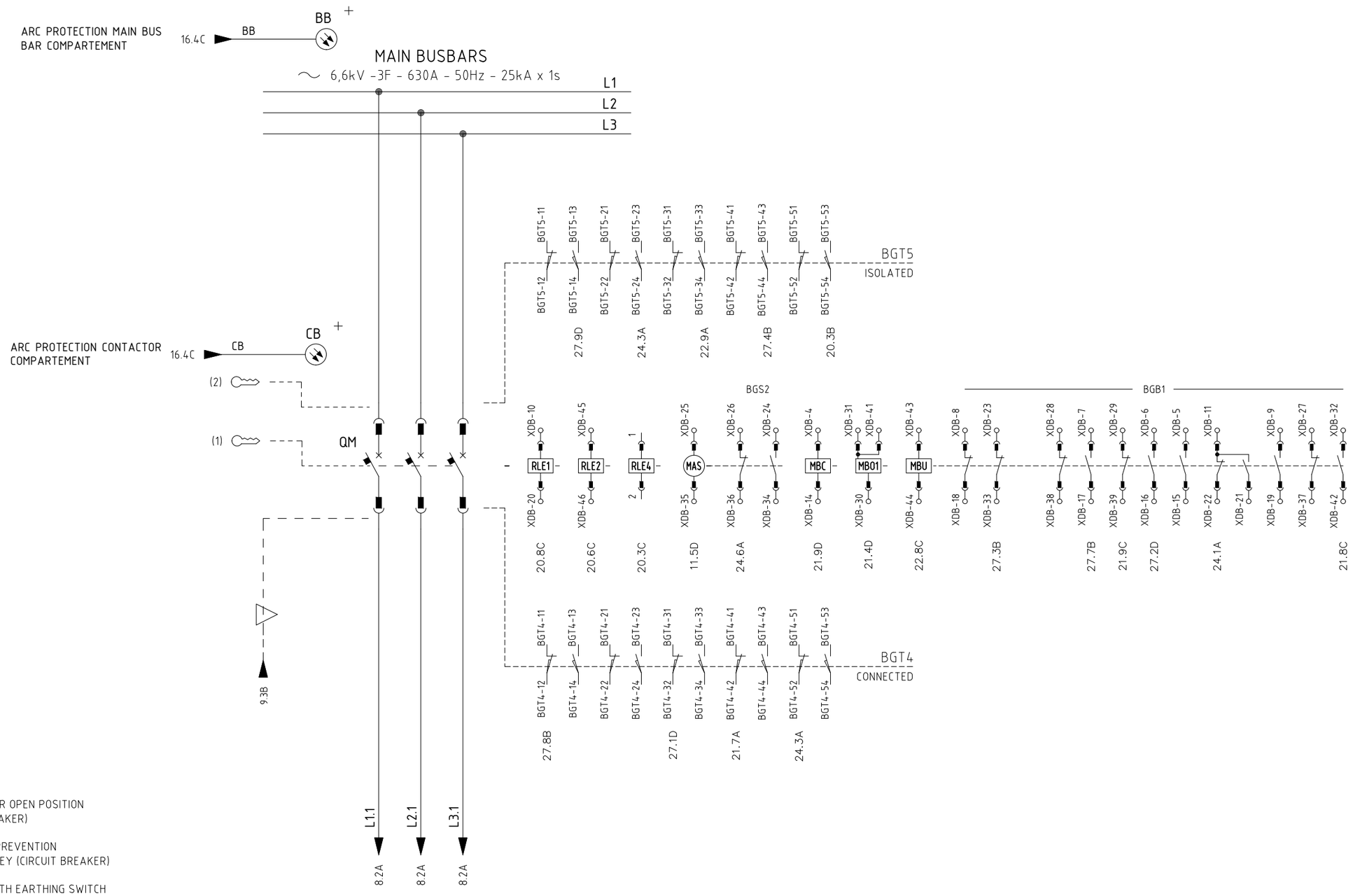
DRAWING NO. 1723002197-EL-DG-00018

SHEET 6

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00018 Rev.03



(1) KEY LOCK FOR OPEN POSITION (CIRCUIT BREAKER)

(2) RACKING IN PREVENTION LOCK WITH KEY (CIRCUIT BREAKER)

(3) FREE KEY WITH EARTHING SWITCH IN OPEN POSITION

(4) FREE KEY WITH EARTHING SWITCH IN CLOSED POSITION

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
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DWG n° : 231151/SD/18

Item n° : PF1113279

EH-QMG-x

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

TITLE :

SG-100D1 - FUNCTIONAL ELECTROLYSER FEEDER A-2000

Power Diagram

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

SCALE : NTS

A3

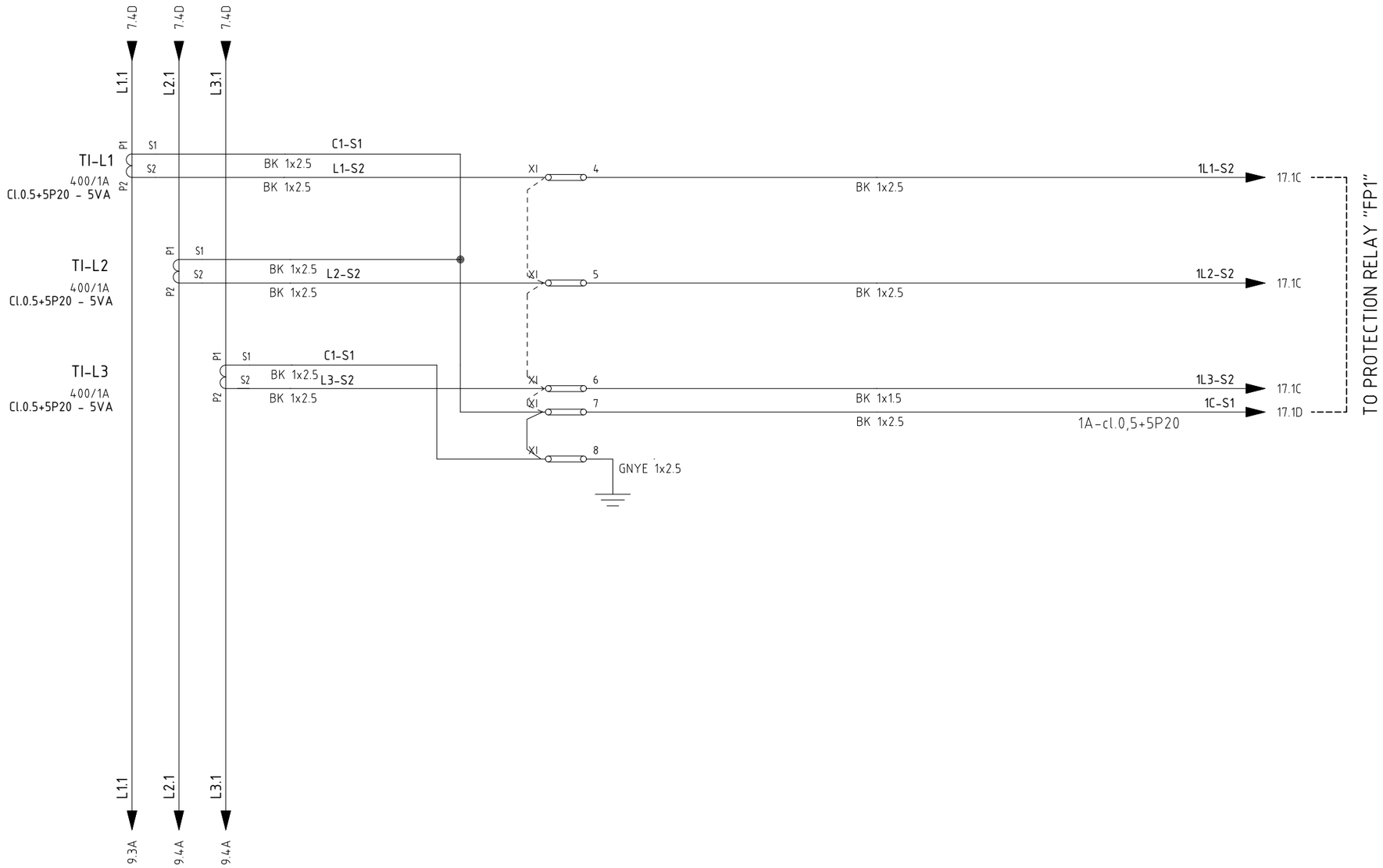
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SHEET 7

REV. 03

F.to UNI A3: 420mmx297mm

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+A1							
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IMESA ELECTRICAL ENGINEERING

CROSSWIND

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Power Diagram

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

SCALE : NTS

A3

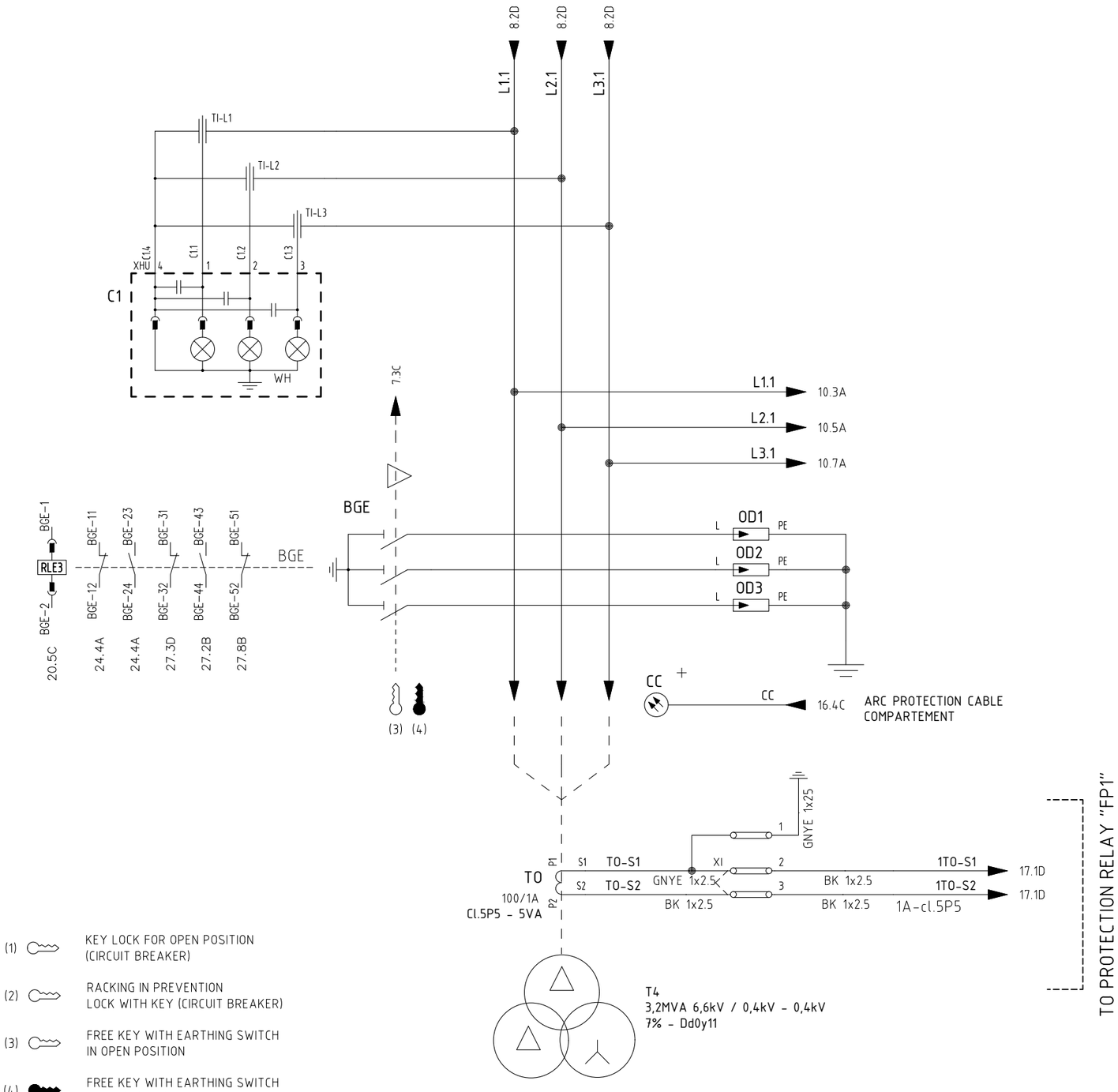
DRAWING NO. 1723002197-EL-DG-00018

SHEET 8

REV. 03

F.to UNI A3: 420mmx297mm

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(1) KEY LOCK FOR OPEN POSITION (CIRCUIT BREAKER)

(2) RACKING IN PREVENTION LOCK WITH KEY (CIRCUIT BREAKER)

(3) FREE KEY WITH EARTHING SWITCH IN OPEN POSITION

(4) FREE KEY WITH EARTHING SWITCH IN CLOSED POSITION

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+A1

DWG n° : 231151/SD/18

Item n° : PF1113279

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

TITLE :

SG-100D1 - FUNCTIONAL ELECTROLYSER FEEDER A-2000

Power Diagram

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00018

SHEET 9

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00018 Rev.03

6.600:rad3V/
1° core : 110:rad3V 20VA Cl 0,5/3P
2° core : 110:rad3V 30VA Cl 0,5/3P
3° core : 110:3V 30VA Cl 3P

PTT

L1.1 9.5B XU L1
L2.1 9.5B XU L2
L3.1 9.5B XU L3

FF1 2A 12 14 11 10.9A
FF2 2A 12 14 11 10.9B
FF3 2A 12 14 11 10.9B

6600:r3/110:r3-110:r3-110:3
TU-L1 A N 1a 1n Cl. 0,5/3P 2a 2n Cl. 0,5/3P da dn Cl. 3P
6600:r3/110:r3-110:r3-110:3
TU-L2 A N 1a 1n Cl. 0,5/3P 2a 2n Cl. 0,5/3P da dn Cl. 3P
6600:r3/110:r3-110:r3-110:3
TU-L3 A N 1a 1n Cl. 0,5/3P 2a 2n Cl. 0,5/3P da dn Cl. 3P

N
GV 1x2,5

L1-b3
L1-a3
L1-a2
L2-a1
L3-a1
L1-a1
L2-a2
L2-b3
L3-a2
L3-b3

XU 1 L1V BK 1X1,5
XU 2 L2V BK 1X1,5
XU 3 L3V BK 1X1,5
XU 4 NV BK 1X1,5
XU 5 L1V1 BK 1x1.5
XU 6 L2V1 BK 1x1.5
XU 7 L3V1 BK 1x1.5
XU 8 NV1 BK 1x1.5
XU 9 da1 BK 1x1.5
XU 10 dn1 BK 1x1.5

E8 27ohm-500W 1 2 BK 1x1.5

FUSE HEALTHY
FF1 10.3A 12 14 3 11
FF2 10.5A 12 14 2 11
FF3 10.7A 12 14 1
XU 11 RD 1x1.5 5 25.2C
XU 12 RD 1x1.5 6 25.2C

BT7 ISOLATED BT7-11 BT7-12 BT7-21 BT7-22
BT6 CONNECTED BT6-12 BT6-11 BT6-22 BT6-21
BT7-10 BT7-20 BT6-10 BT6-20
25.2C

QV1 2A 1 3 5 7 12 14 11 a 25.2A
XV 1 2L1V 2 BK 1x1.5 1L1 18.1A
XV 2 2L2V 4 BK 1x1.5 1L2 18.1A
XV 3 2L3V 6 BK 1x1.5 1L3 18.1B
XV 4 2NV 8 BK 1x1.5 1N 18.1B
110:rad3 / CL.0,5-3P
TO PROTECTION RELAY "FP1"

QV2 2A 1 3 5 7 12 14 11 a 25.2B
XV 5 2L1V1 2 BK 1x1.5 2L1 1 XM
XV 6 2L2V1 4 BK 1x1.5 2L2 2 XM
XV 7 2L3V1 6 BK 1x1.5 2L3 3 XM
XV 8 2NV1 8 BK 1x1.5 2N 4 XM
110:rad3 / CL.0,5-3P
AVAILABLE

QV3 2A 1 3 12 14 11 a 25.2B
XV 9 da2 2 BK 1x1.5 1V0 18.1B
XV 10 dn2 4 BK 1x1.5 1VT 18.1B
110:3 / CL.3P
TO PROTECTION RELAY FP1

	=						
	+A1						
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)		
2	21/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for Construction (AFC)		
1	14/05/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)		
0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)		
REV.	DATE	DRN	CHKD	APPD	DESCRIPTION		

IMESA ELECTRICAL ENGINEERING
DWG n° : 231151/SD/18
Item n° : PF1113279

CROSSWIND
ROSETTI MARINO

TITLE :
SG-100D1 - FUNCTIONAL ELECTROLYSER FEEDER A-2000
Power Diagram

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK
SCALE : NTS
A3
DRAWING NO. 1723002197-EL-DG-00018
SHEET 1.0
REV. 03

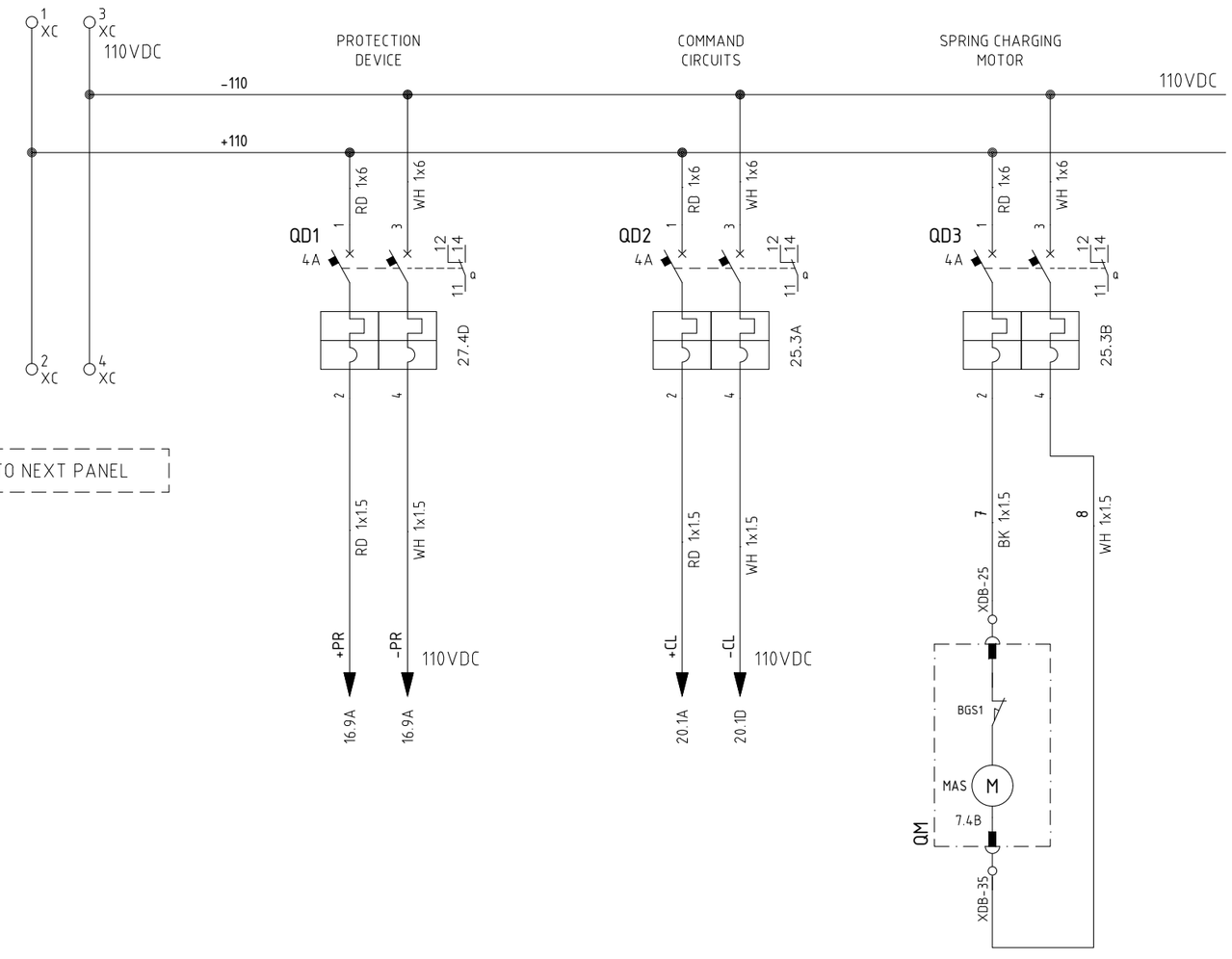
F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00018 Rev.03

110VDC DISTRIBUTION VOLTAGE

110Vdc Auxiliary Voltage
from Measuring Bus Bar Unit

FROM PREVIOUS PANEL

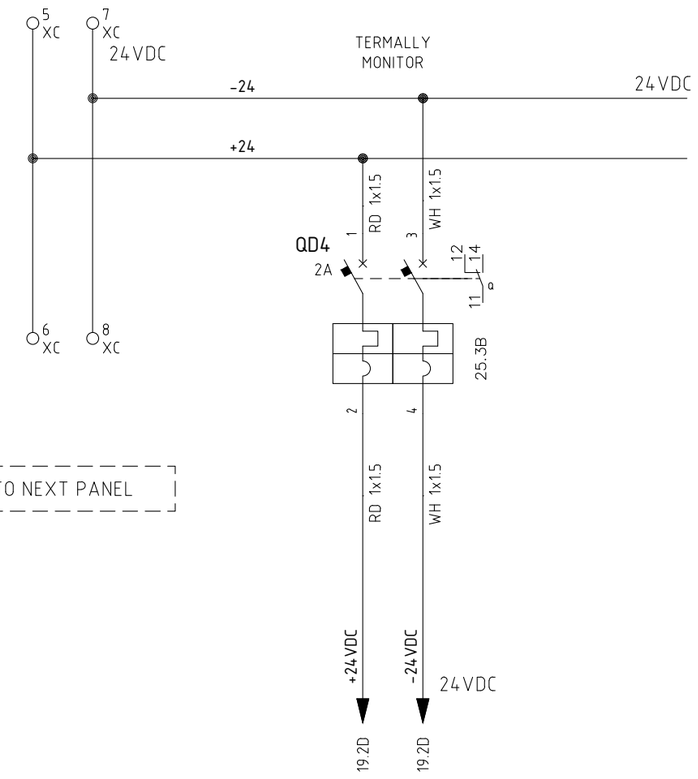


TO NEXT PANEL

24VDC DISTRIBUTION VOLTAGE

24Vdc Auxiliary Voltage
from Measuring Bus Bar Unit

FROM PREVIOUS PANEL



TO NEXT PANEL

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
=					
+A1					
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	21/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for Construction (AFC)
1	14/05/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)
0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)

DWG n° : 231151/SD/18
Item n° : PF1113279

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE :
SG-100D1 - FUNCTIONAL ELECTROLYSER FEEDER A-2000
110Vdc / 24Vdc Distribution Voltage

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00018

SHEET 1.1

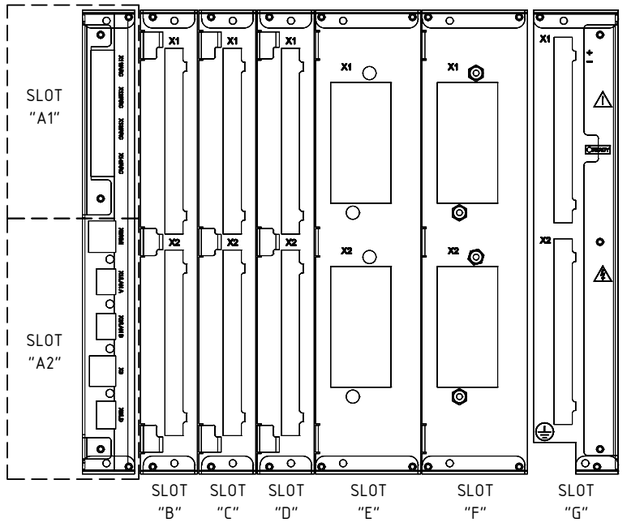
REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00018 Rev.03

COMPOSITION RELAY REX640

RACK VIEW



REX640B10NN+COM1+ARC1+BIO1+BIO1+BIO2+AIM1+AIM1+PSM3+MCT1+SCT1+CMP2+LNG1+PCL4

LEGEND

SLOT	Module Type	Description Module
A1	ARC1001	n° 4 x ARC sensor inputs
A2	COM1001	n° 1 x RJ-45 (LHMI port) + n° 3 x RJ-45 + n° 1 x SFP100M LC
B	BIO1001	n° 14 Binary Input + n° 8 x SO
C	BIO1001	n° 14 Binary Input + n° 8 x SO
D	BIO1002	n° 9 Binary Input + n° 6 x SPO + n° 2 x SPO(TCS)
E	AIM1001	n° 4 x CT + n° 1 x CT (sensitive, for residual current only) + n° 5 x VT
F	AIM1001	n° 4 x CT + n° 1 x CT (sensitive, for residual current only) + n° 5 x VT
G	PSM1003	77...150 VDC, n° 3 x PO (TCS) + n° 2 x PO + n° 3 x SO + n° 2 x SSO
	PO = Power Output SO = Signal Output SPO = Static Power Output SSO = Static Signal Output	

=
+A1

DWG n° : 231151/SD/18
Item n° : PF1113279

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	21/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for Construction (AFC)
1	14/05/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)
0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)

TITLE :
SG-100D1 - FUNCTIONAL ELECTROLYSER FEEDER A-2000
Composition Relay REX640

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

A3 | DRAWING NO. 1723002197-EL-DG-00018 | SHEET 12 | REV. 03

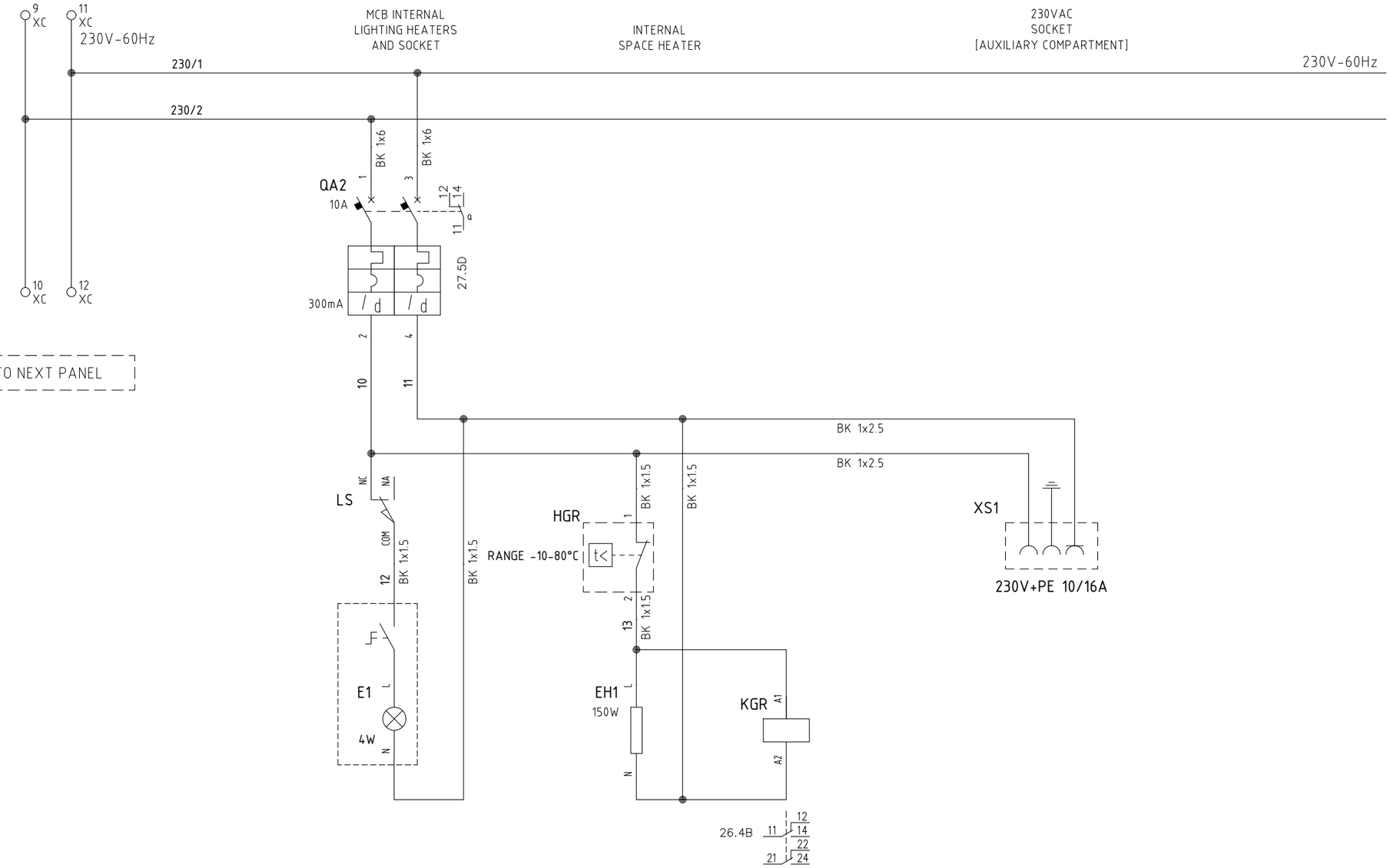
F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00018 Rev.03

230VAC DISTRIBUTION VOLTAGE

230Vac Auxiliary Voltage
from Measuring Bus Bar

FROM PREVIOUS PANEL



TO NEXT PANEL

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
=					
+A1					
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	21/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for Construction (AFC)
1	14/05/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)
0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)

DWG n° : 231151/SD/18
Item n° : PF1113279

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

TITLE :
SG-100D1 - FUNCTIONAL ELECTROLYSER FEEDER A-2000
230Vac Distribution Voltage

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00018

SHEET 1,3

REV. 03

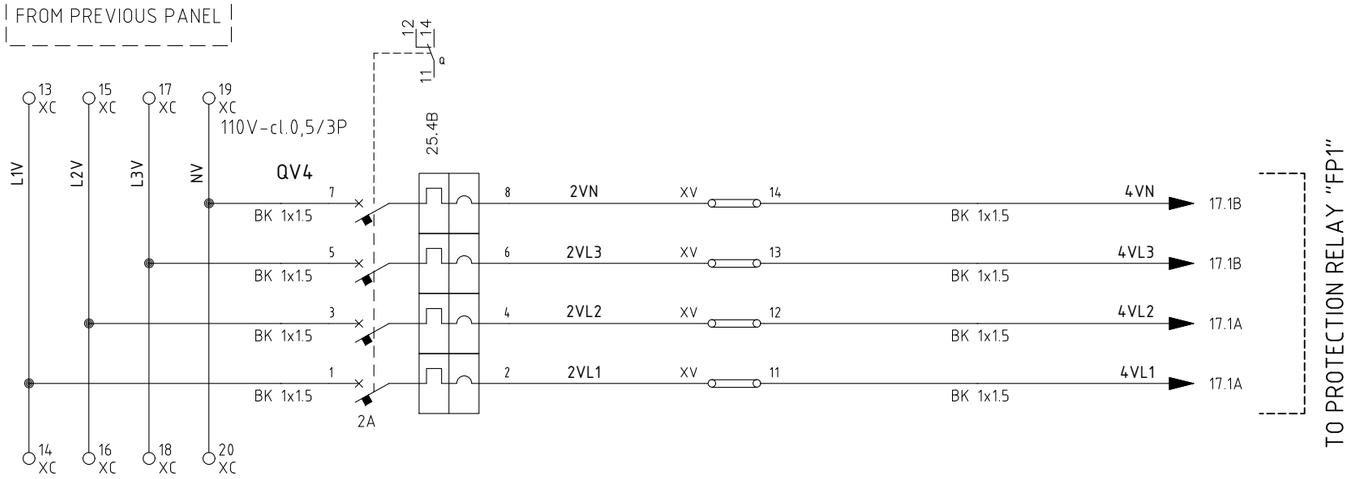
F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00018 Rev.03

110V: 1,73 DISTRIBUTION VOLTAGE VT'S FROM MAIN BUS BAR

MAIN BUS BAR
110:√3V VOLTMETRIC LINE - STAR
(FOR PROTECTION/MEASURE)

FROM PREVIOUS PANEL



TO NEXT PANEL

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
=					
+A1					
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	21/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for Construction (AFC)
1	14/05/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)
0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)

DWG n° : 231151/SD/18
Item n° : PF1113279

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

TITLE :
SG-100D1 - FUNCTIONAL ELECTROLYSER FEEDER A-2000
110V Protection/Measure Distribution Voltage

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00018

SHEET 1.4

REV. 03

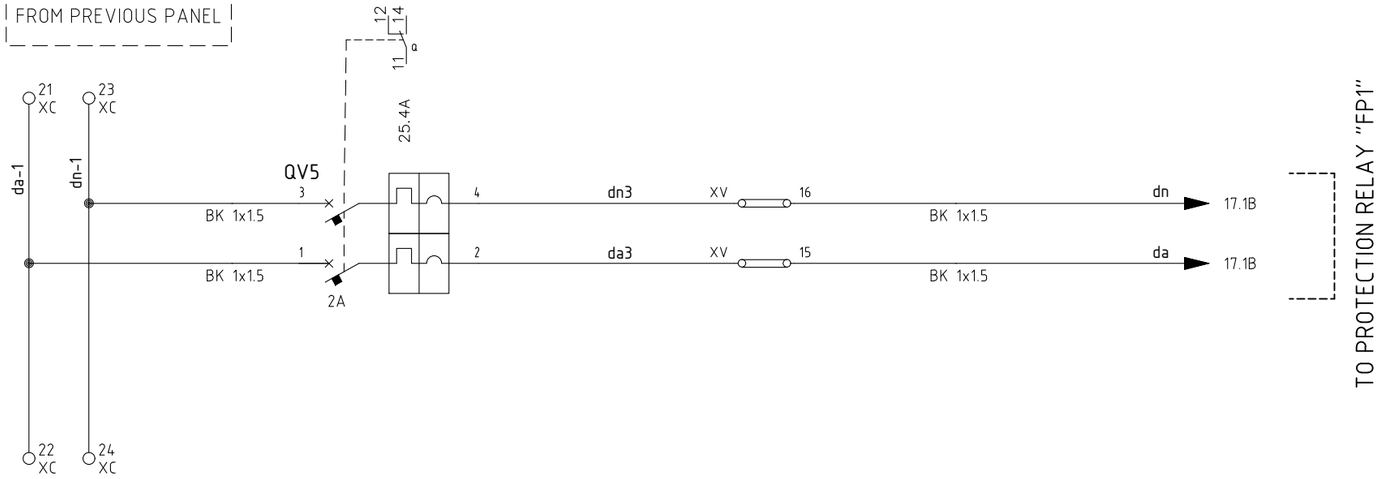
F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00018 Rev.03

110V:3 DISTRIBUTION VOLTAGE VT'S FROM MAIN BUS BAR

MAIN BUS BAR
110:3V VOLTMETRIC LINE -
DELTA OPEN
(FOR PROTECTION/MEASURE)

FROM PREVIOUS PANEL



TO PROTECTION RELAY "FP1"

TO NEXT PANEL

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
=					
+A1					
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	21/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for Construction (AFC)
1	14/05/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)
0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)

DWG n° : 231151/SD/18
Item n° : PF1113279

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE :
SG-100D1 - FUNCTIONAL ELECTROLYSER FEEDER A-2000
110V Protection/Measure Distribution Voltage

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00018

SHEET 15

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00018 Rev.03

"REX640" PROTECTION WIRING

FP1

PSM1003
COM1001
slot G

X1

X1-1 (+) Uaux (-) X1-2

GND — 1x6 GNYE

11.2D +PR → +PR → 24.1A
11.3D -PR → -PR → 24.1D
110VDC

RD 1x1.5
WH 1x1.5

PROTECTION FUNCTION

50	59N
51	
51N	86
74	
27	59

ETH PORT (IEC61850)

X1 — FP1-A1/A PATCH CORD CAT 6 RJ45 — FROM MEASURE CUBICLE A5
X2
X3 — FP1-A1/B PATCH CORD CAT 6 RJ45 — FROM MEASURE CUBICLE A5
X0 — ETH.1 PATCH CORD CAT 7 RJ45

X1.1

640 ABB

X3 (+ / -)

GNYE 1x6

LHMI
Local HMI
[7" color Touch screen]

ARC1001
slot A1

ARC DETECTOR SENSOR

X11	BB	7.3A	BUS BAR COMPARTEMENT
X12	CB	7.3B	C.B. COMPARTEMENT
X13	CC	9.5C	CABLE COMPARTEMENT
X14			

arc detectors

REX640

FP1

PSM1003

RF	SO1	SO2	SS01	SS02	POSP1	POSP2	SO3	PODP1	PODP2	PODP3
X1-4 / X1-3	X1-5 / X1-7 / X1-8 / X1-6	X1-9 / X1-10	X1-11 / X1-12	X1-13 / X1-14	X1-15 / X1-16	X1-17 / X1-18	X2-2 / X2-3 / X2-1	X2-6 / X2-4 / X2-7 / X2-5 / X2-8 / TCS1	X2-11 / X2-9 / X2-12 / X2-10 / X2-13 / TCS2	X2-16 / X2-14 / X2-17 / X2-15 / X2-18 / TCS3
23.4B	20.5C	27.6D			21.9B		20.6B	21.8B		

slot G

REX640

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	21/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for Construction (AFC)
1	14/05/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)
0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)

=
+A1

DWG n° : 231151/SD/18
Item n° : PF1113279

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE :
SG-100D1 - FUNCTIONAL ELECTROLYSER FEEDER A-2000
"REX640"' Protection Wiring

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00018

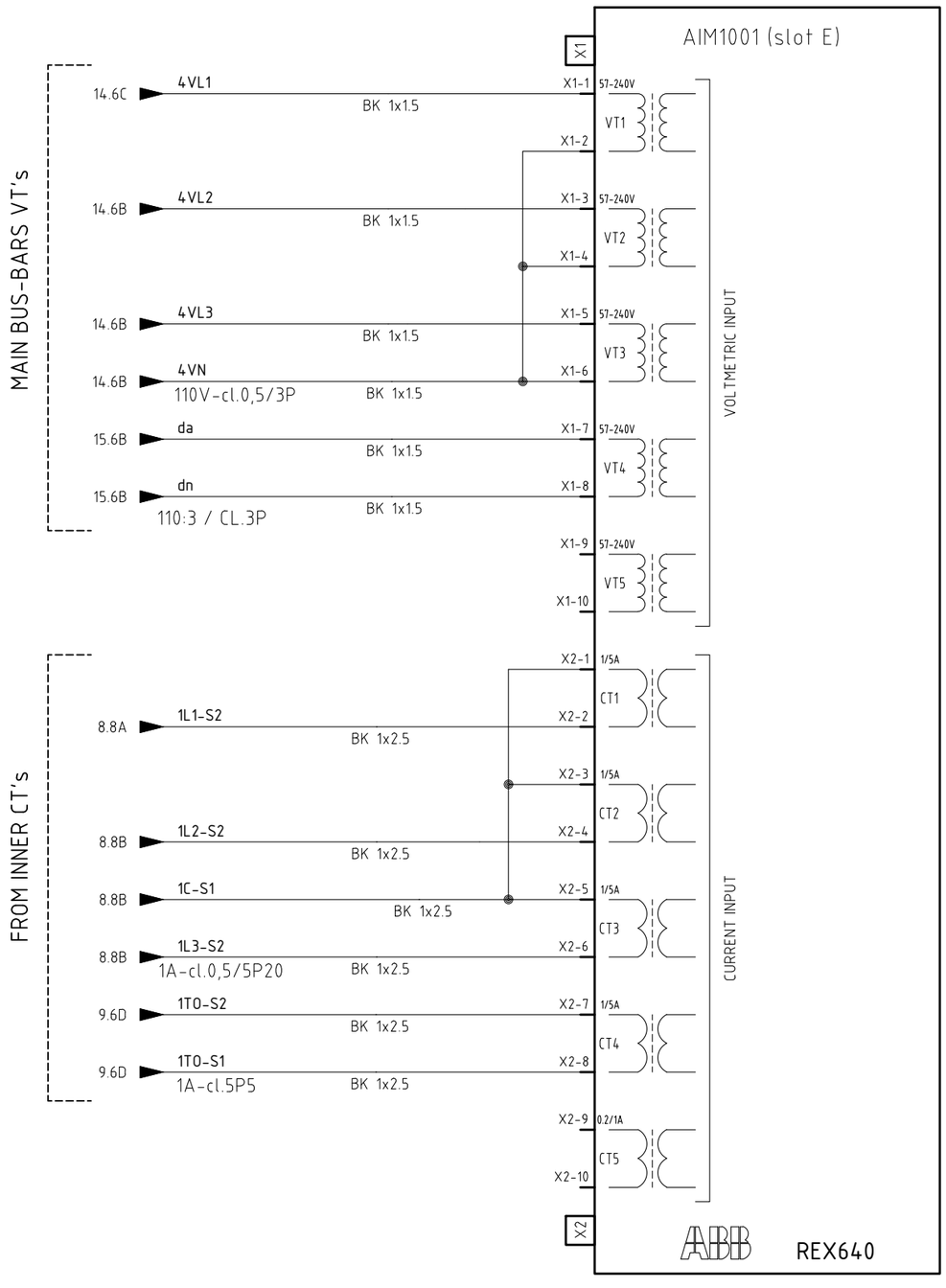
SHEET 16

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00018 Rev.03

"REX640" PROTECTION WIRING



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	21/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for Construction (AFC)
1	14/05/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)
0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)

=
+A1

DWG n° : 231151/SD/18

Item n° : PF1113279

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE :

SG-100D1 - FUNCTIONAL ELECTROLYSER FEEDER A-2000

"REX640"' Protection Wiring

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00018

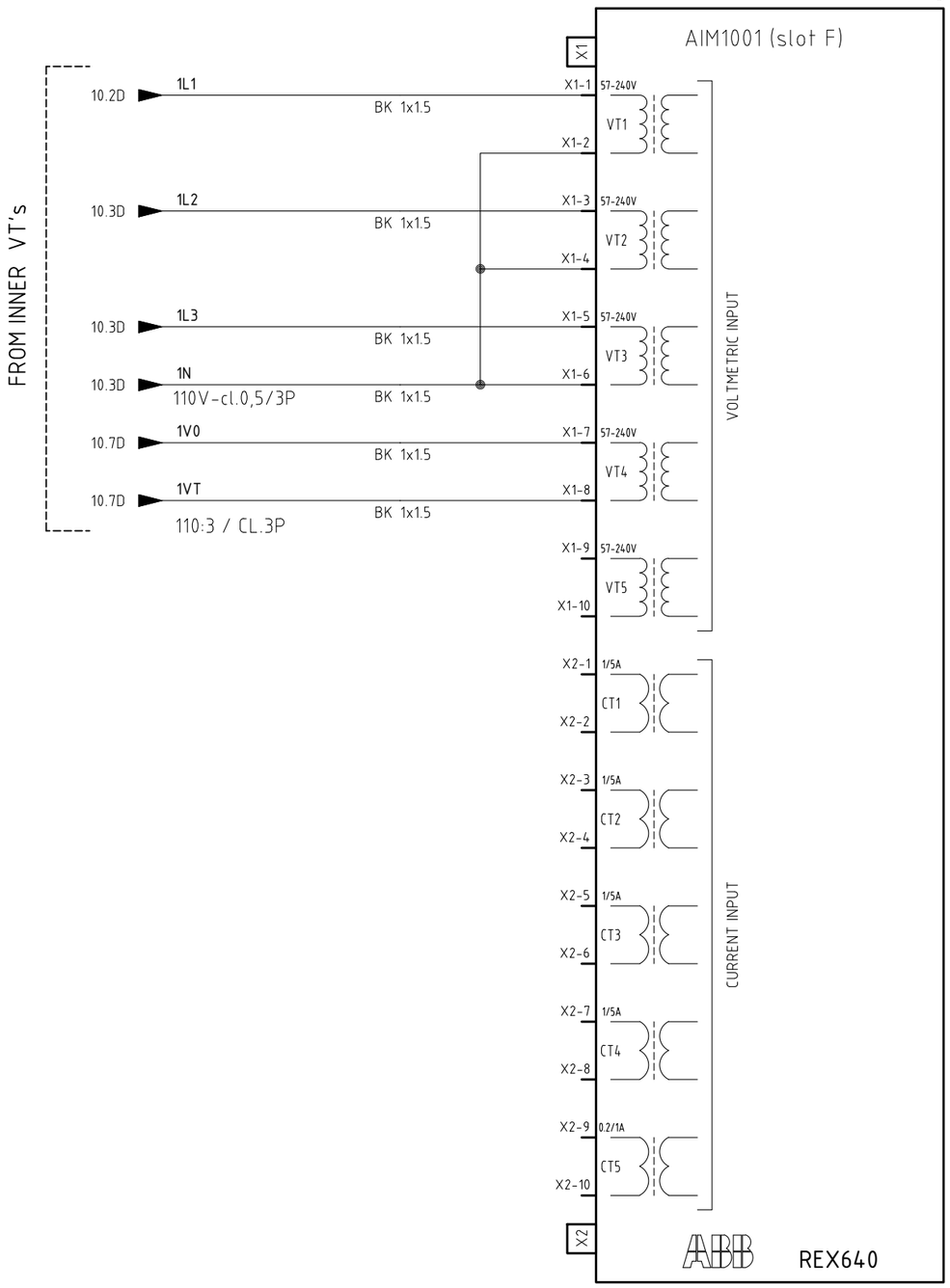
SHEET 17

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00018 Rev.03

"REX640" PROTECTION WIRING



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
=					
+A1					
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	21/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for Construction (AFC)
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DWG n° : 231151/SD/18
Item n° : PF1113279

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE :
SG-100D1 - FUNCTIONAL ELECTROLYSER FEEDER A-2000
"REX640"' Protection Wiring

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

SCALE : NTS

A3

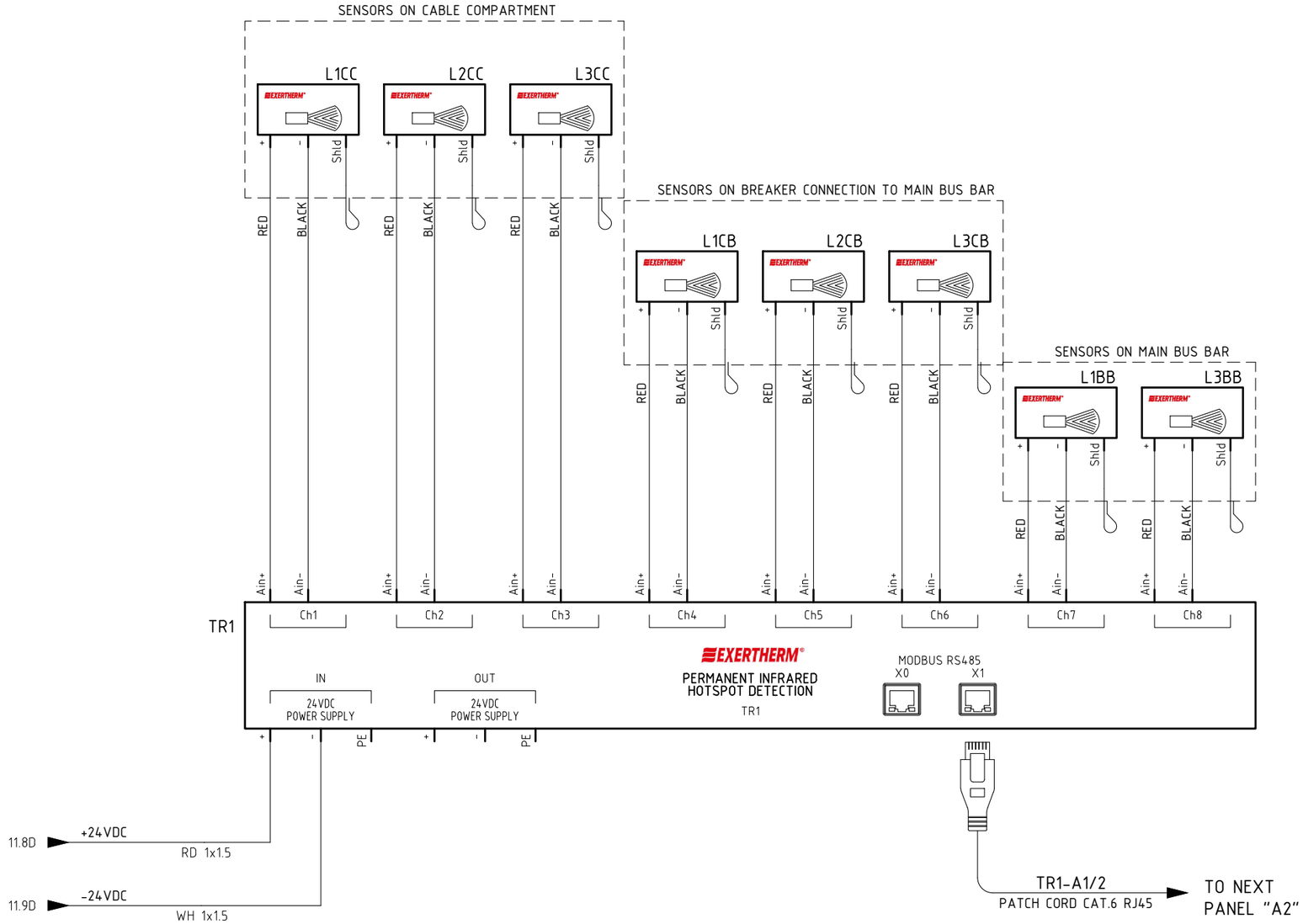
DRAWING NO. 1723002197-EL-DG-00018

SHEET 18

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00018 Rev.03



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
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2	21/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for Construction (AFC)
1	14/05/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)
0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)

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+A1

DWG n° : 231151/SD/18

Item n° : PF1113279

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE :

SG-100D1 - FUNCTIONAL ELECTROLYSER FEEDER A-2000

Extherm Device

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00018

SHEET 1.9

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00018 Rev.03

COMMAND CIRCUITS

ENABLING C.B. TRUCK ENCLOSURE DOOR AND EARTHING SWITCH

UNLOCKING CIRCUIT BRAKER ENCLOSURE DOOR

ENABLING EARTHING SWITCH COMMAND

ENABLING RACK-IN AND RACK-OUT CIRCUIT BRAKER [LOCKING MAGNET]

ENABLING CIRCUIT BREAKER [LOCKING MAGNET]

11.4D +CL 110VDC (CL)

RD 1x1.5

+CL 21.1A

P1 BK 13 14

KT1 20.2D 16 18 30" 15

21 RD 1x1.5

QM ISOLATED BGT5 7.4B BGT5-53 BGT5-54

5 XM 6 XM

FP1 16.3A X2-2 X2-3 S03 REX640 X2 Slot G X2-1

25 RD 1x1.5 7 XM 8 XM

FP1 16.3A X1-7 X1-8 23 S01 REX640 X1 Slot G X1-6

24 RD 1x1.5 BGE-1 BGE-2

22 RD 1x1.5 1 2

QM RLE4 7.4B

BGE RLE3 9.3C

QM RLE2 7.4B XDB-45 XDB-46

26 RD 1x1.5

KIRF 23.4D 22 24 21

27 RD 1x1.5 9 XM 10 XM

28 XDB-10 XDB-20

QM BGT3 RLE1 7.4B

RD 1x1.5 A1 B1 KT1 30" A2

20 RD 1x1.5

11.4D -CL

WH 1x1.5

-CL 21.1E

20.3A 15 16 18

24.9A 25 26 28

=							
+A1							
DWG n° : 231151/SD/18	3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)	
Item n° : PF1113279	2	21/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for Construction (AFC)	
	1	14/05/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)	
	0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)	
	REV.	DATE	DRN	CHKD	APPD	DESCRIPTION	

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE :

SG-100D1 - FUNCTIONAL ELECTROLYSER FEEDER A-2000

Command Circuit

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00018

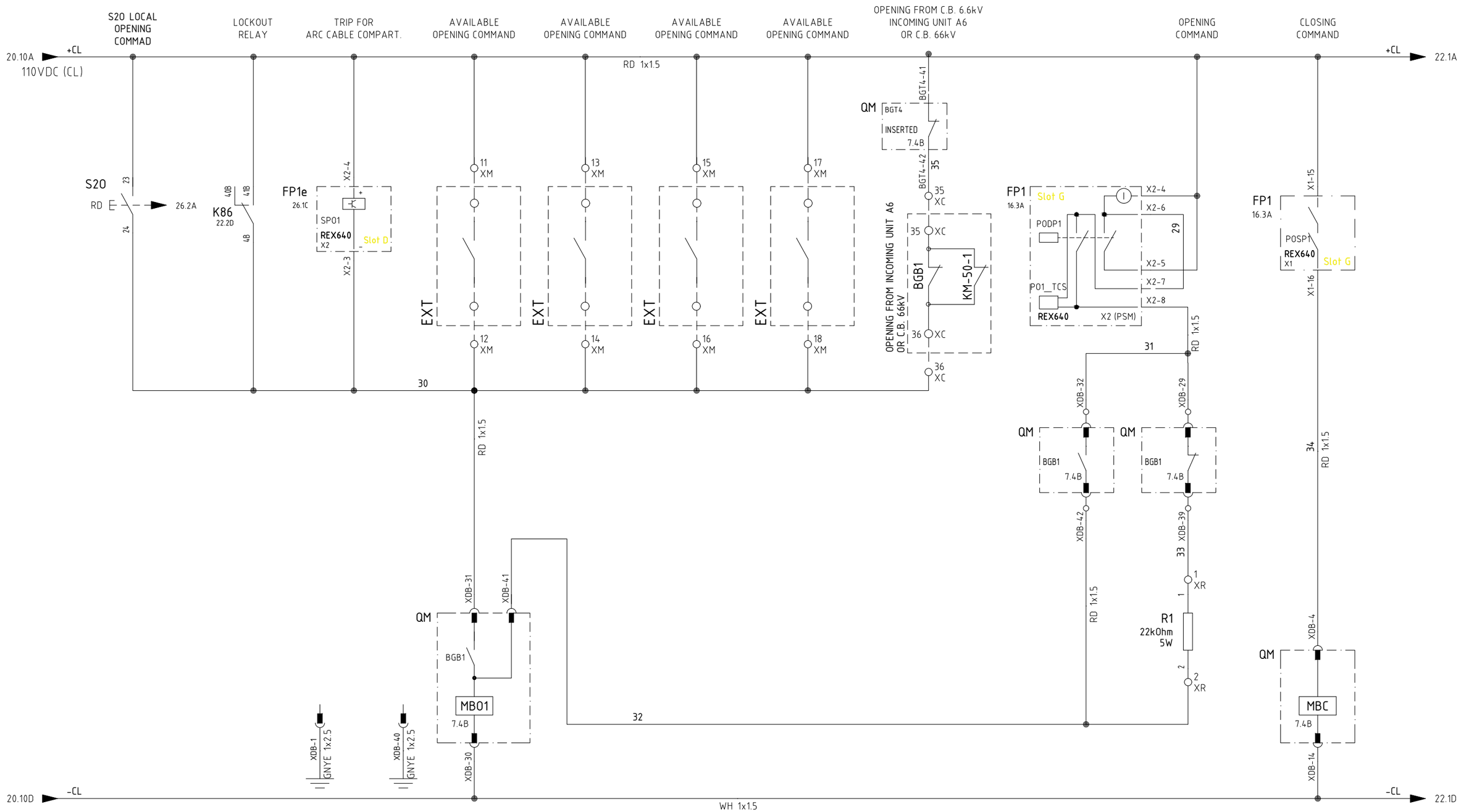
SHEET 20

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00018 Rev.03

CLOSING/OPENING COMMAND CIRCUITS



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
=					
+A1					
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	21/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for Construction (AFC)
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0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)

DWG n° : 231151/SD/18
Item n° : PF1113279

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

TITLE :
SG-100D1 – FUNCTIONAL ELECTROLYSER FEEDER A-2000
Command Circuit

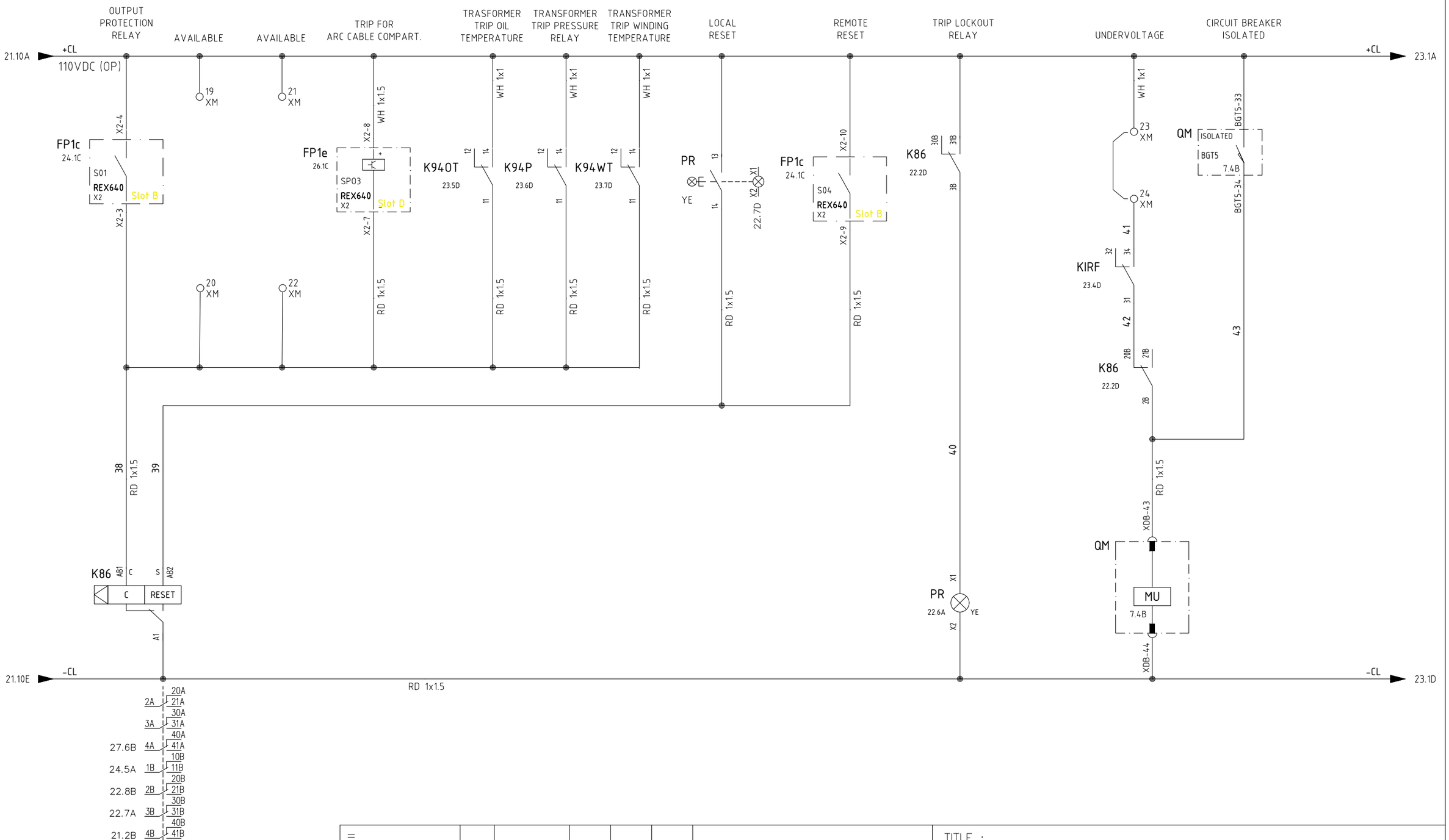
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 1723002197-EL-DG-00018 | SHEET 21 | REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00018 Rev.03

COMMAND CIRCUITS



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+A1							
DWG n° : 231151/SD/18	3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
Item n° : PF1113279	2	21/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for Construction (AFC)
	1	14/05/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)
	0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)
	REV.	DATE	DRN	CHKD	APPD	DESCRIPTION

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE :

SG-100D1 – FUNCTIONAL ELECTROLYSER FEEDER A-2000

Command Circuit

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

SCALE : NTS

A3

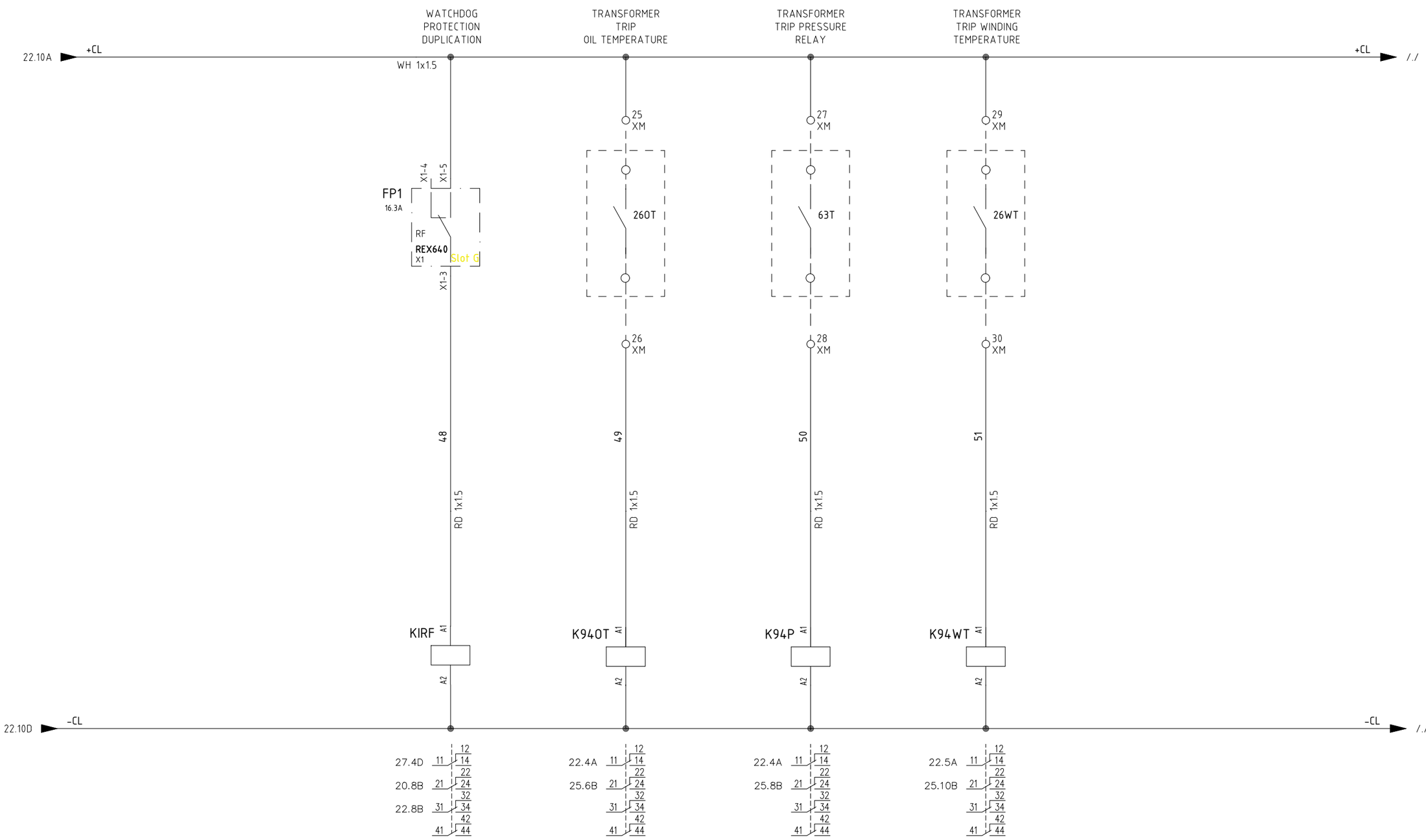
DRAWING NO. 1723002197-EL-DG-00018

SHEET 22

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00018 Rev.03



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	21/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for Construction (AFC)
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0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)

=
+A1

DWG n° : 231151/SD/18

Item n° : PF1113279

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE :

SG-100D1 – FUNCTIONAL ELECTROLYSER FEEDER A-2000

Command Circuit

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00018

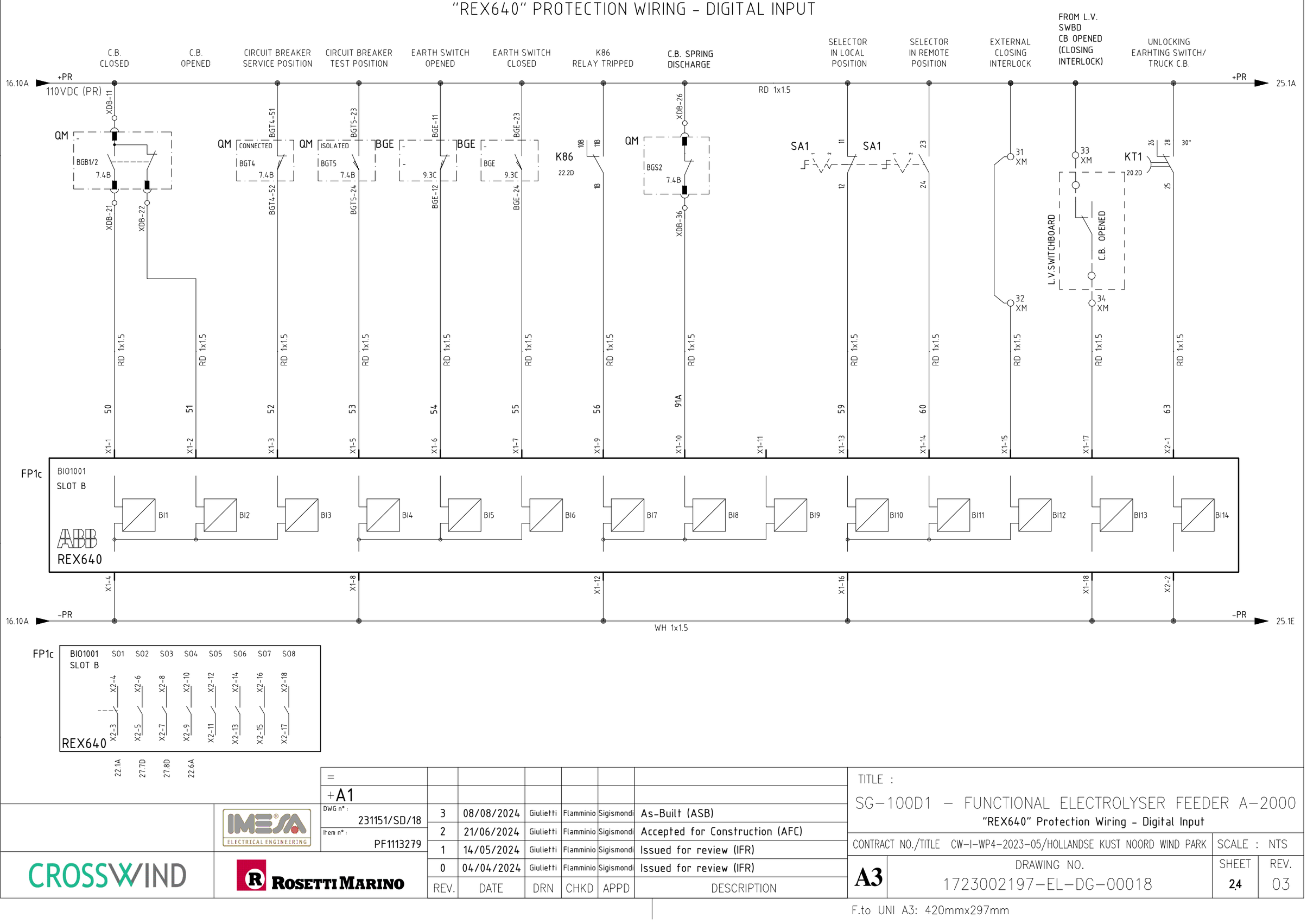
SHEET 23

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00018 Rev.03

"REX640" PROTECTION WIRING - DIGITAL INPUT



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DWG n° : 231151/SD/18	3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
Item n° : PF1113279	2	21/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for Construction (AFC)
	1	14/05/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)
	0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)
	REV.	DATE	DRN	CHKD	APPD	DESCRIPTION

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE :

SG-100D1 - FUNCTIONAL ELECTROLYSER FEEDER A-2000

"REX640" Protection Wiring - Digital Input

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00018

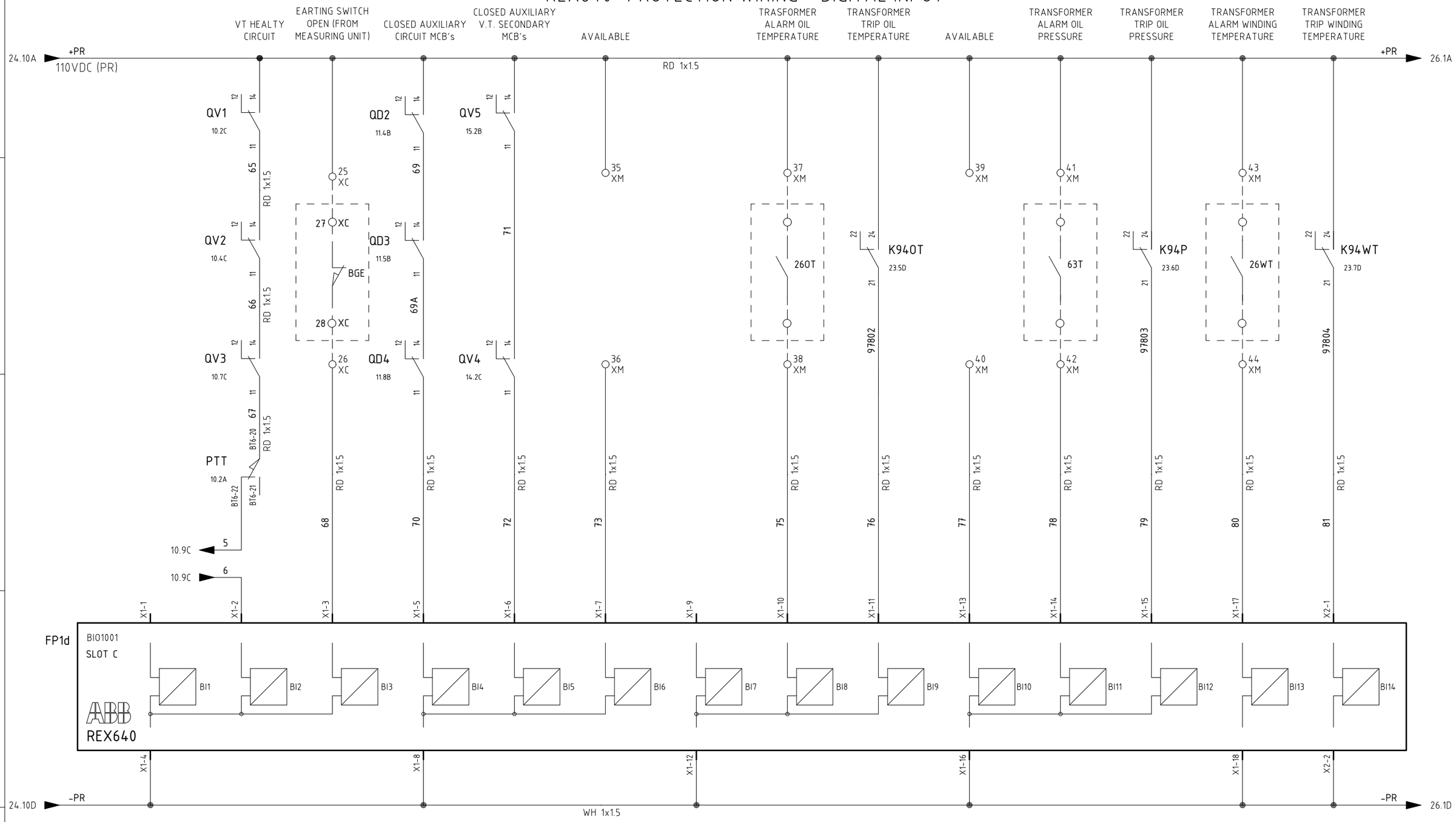
SHEET 24

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00018 Rev.03

"REX640" PROTECTION WIRING - DIGITAL INPUT



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	21/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for Construction (AFC)
1	14/05/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)
0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)

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DWG n° : 231151/SD/18

Item n° : PF1113279

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE :

SG-100D1 - FUNCTIONAL ELECTROLYSER FEEDER A-2000

"REX640" Protection Wiring - Digital Input

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00018

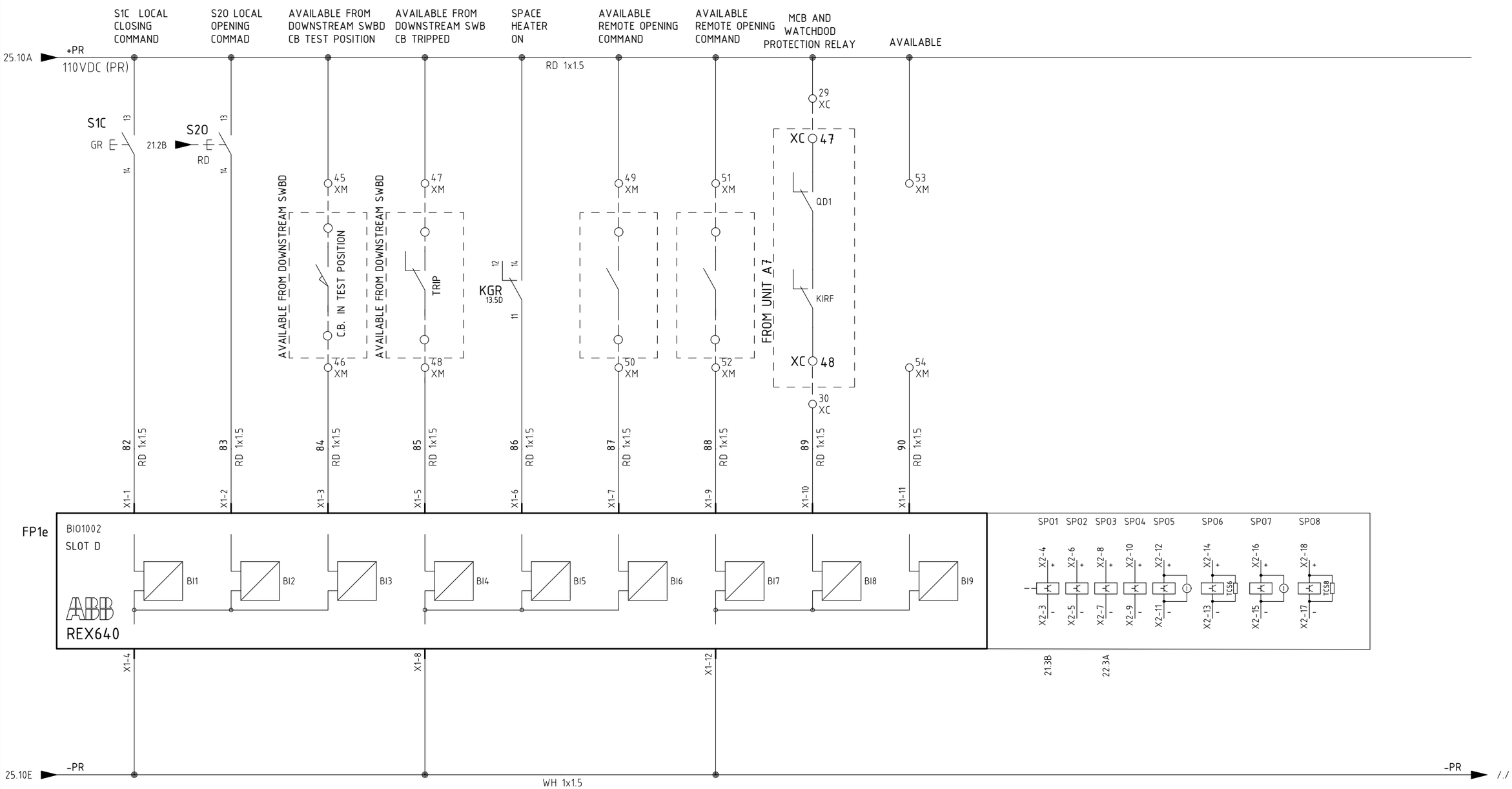
SHEET 25

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00018 Rev.03

"REX640" PROTECTION WIRING - DIGITAL INPUT



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
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+A1					
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	21/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for Construction (AFC)
1	14/05/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)
0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)

DWG n° : 231151/SD/18
Item n° : PF1113279

CROSSWIND

ROSETTI MARINO

TITLE :
SG-100D1 - FUNCTIONAL ELECTROLYSER FEEDER A-2000
"REX640" Protection Wiring - Digital Input

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00018

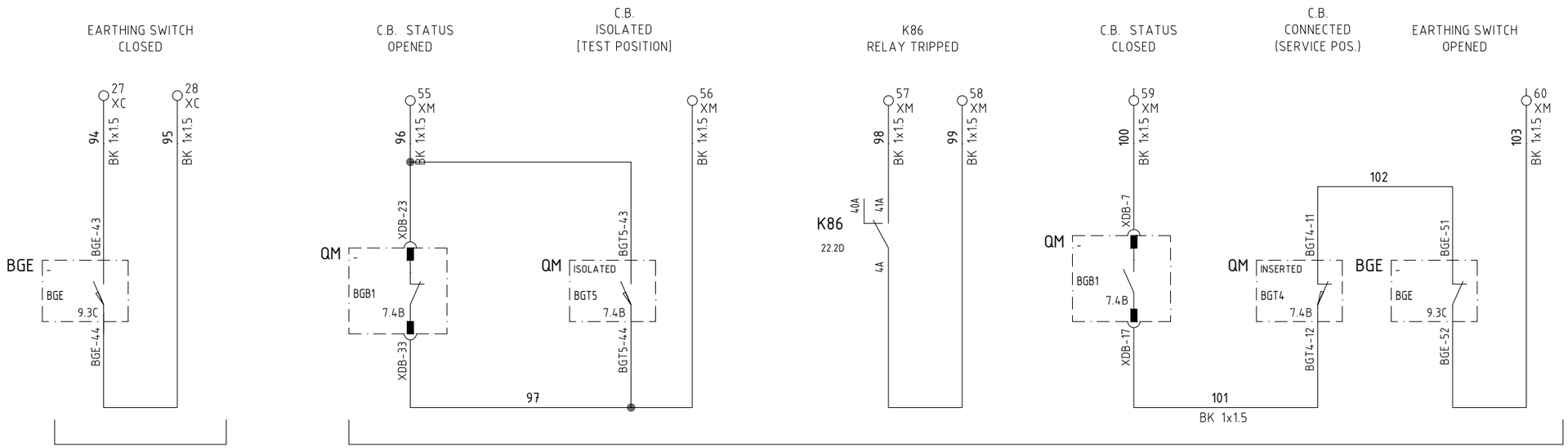
SHEET 26

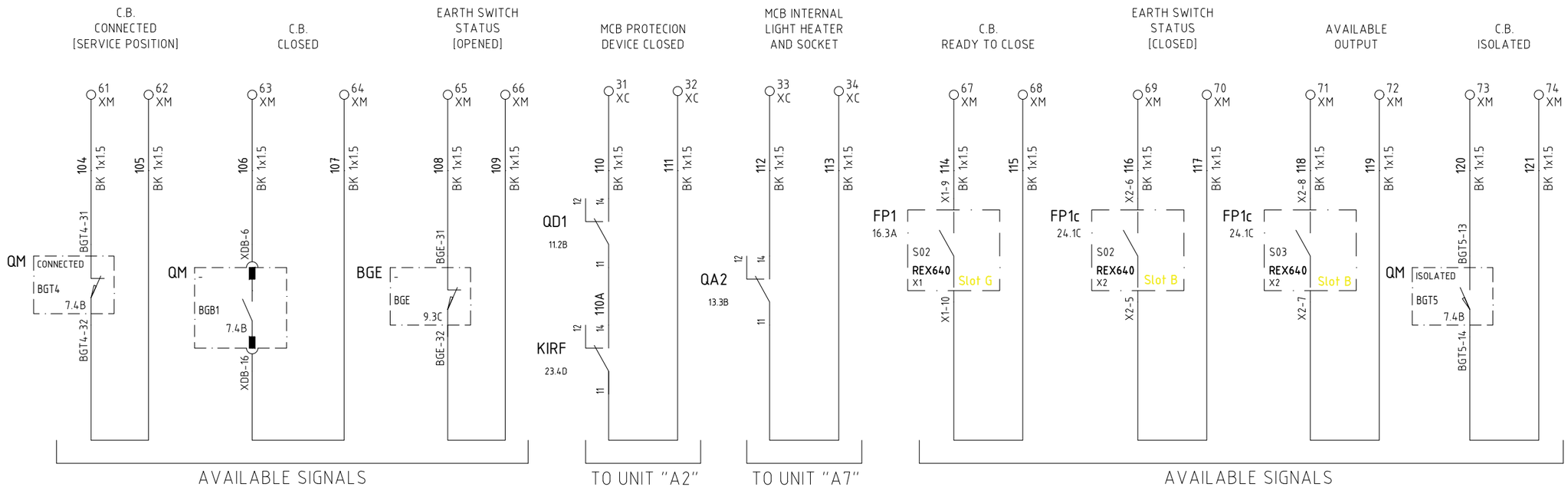
REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00018 Rev.03

AVAILABLE SIGNALS





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DWG n° : 231151/SD/18	3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)	
Item n° : PF1113279	2	21/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for Construction (AFC)	
	1	14/05/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)	
	0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)	
	REV.	DATE	DRN	CHKD	APPD	DESCRIPTION	

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE :

SG-100D1 - FUNCTIONAL ELECTROLYSER FEEDER A-2000

Availables Signals

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00018

SHEET 2,7

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00018 Rev.03

TYP - ELECTROLYSER
XI
Ammeter Terminals

NumM	Fg.	Sez.	Tipo	Costruttore	Descrizione
1	9.5D	6	HB220GR	Cabur	HSCB.6/GR Disconnect by slide link Terminal Block - Grey (6 mmq) - spring type
2	9.5D	6	HB220GR	Cabur	HSCB.6/GR Disconnect by slide link Terminal Block - Grey (6 mmq) - spring type
3	9.5D	6	HB220GR	Cabur	HSCB.6/GR Disconnect by slide link Terminal Block - Grey (6 mmq) - spring type
			HB201GR	Cabur	HSCB.6/PT/GR End section - Grey
4	8.4A	6	HB220GR	Cabur	HSCB.6/GR Disconnect by slide link Terminal Block - Grey (6 mmq) - spring type
5	8.4B	6	HB220GR	Cabur	HSCB.6/GR Disconnect by slide link Terminal Block - Grey (6 mmq) - spring type
6	8.4B	6	HB220GR	Cabur	HSCB.6/GR Disconnect by slide link Terminal Block - Grey (6 mmq) - spring type
7	8.4B	6	HB220GR	Cabur	HSCB.6/GR Disconnect by slide link Terminal Block - Grey (6 mmq) - spring type
8	8.4B	6	HB220GR	Cabur	HSCB.6/GR Disconnect by slide link Terminal Block - Grey (6 mmq) - spring type
			HB201GR	Cabur	HSCB.6/PT/GR End section - Grey

TYP - ELECTROLYSER
XR

NumM	Fg.	Sez.	Tipo	Costruttore	Descrizione
1	21.9D	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
2	21.9D	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
			HM251GR	Cabur	HMT.4/PT/GR End section - Grey

TYP - ELECTROLYSER
XV
Voltmetric Terminals

NumM	Fg.	Sez.	Tipo	Costruttore	Descrizione
1	10.2D	6	HB210GR	Cabur	HSCB.6/GR Disconnect by slide link Terminal Block - Grey (6 mmq) - Spring type
2	10.3D	6	HB210GR	Cabur	HSCB.6/GR Disconnect by slide link Terminal Block - Grey (6 mmq) - Spring type
3	10.3D	6	HB210GR	Cabur	HSCB.6/GR Disconnect by slide link Terminal Block - Grey (6 mmq) - Spring type
4	10.3D	6	HB210GR	Cabur	HSCB.6/GR Disconnect by slide link Terminal Block - Grey (6 mmq) - Spring type
			HB201GR	Cabur	HSCB.6/PT/GR End section - Grey
5	10.4D	6	HB210GR	Cabur	HSCB.6/GR Disconnect by slide link Terminal Block - Grey (6 mmq) - Spring type
6	10.5D	6	HB210GR	Cabur	HSCB.6/GR Disconnect by slide link Terminal Block - Grey (6 mmq) - Spring type
7	10.5D	6	HB210GR	Cabur	HSCB.6/GR Disconnect by slide link Terminal Block - Grey (6 mmq) - Spring type
8	10.5D	6	HB210GR	Cabur	HSCB.6/GR Disconnect by slide link Terminal Block - Grey (6 mmq) - Spring type
			HB201GR	Cabur	HSCB.6/PT/GR End section - Grey
9	10.7D	6	HB210GR	Cabur	HSCB.6/GR Disconnect by slide link Terminal Block - Grey (6 mmq) - Spring type
10	10.7D	6	HB210GR	Cabur	HSCB.6/GR Disconnect by slide link Terminal Block - Grey (6 mmq) - Spring type
			HB201GR	Cabur	HSCB.6/PT/GR End section - Grey
11	14.4C	6	HB210GR	Cabur	HSCB.6/GR Disconnect by slide link Terminal Block - Grey (6 mmq) - Spring type
12	14.4B	6	HB210GR	Cabur	HSCB.6/GR Disconnect by slide link Terminal Block - Grey (6 mmq) - Spring type
13	14.4B	6	HB210GR	Cabur	HSCB.6/GR Disconnect by slide link Terminal Block - Grey (6 mmq) - Spring type
14	14.4B	6	HB210GR	Cabur	HSCB.6/GR Disconnect by slide link Terminal Block - Grey (6 mmq) - Spring type
			HB201GR	Cabur	HSCB.6/PT/GR End section - Grey
15	15.4B	6	HB210GR	Cabur	HSCB.6/GR Disconnect by slide link Terminal Block - Grey (6 mmq) - Spring type
16	15.4B	6	HB210GR	Cabur	HSCB.6/GR Disconnect by slide link Terminal Block - Grey (6 mmq) - Spring type
			HB201GR	Cabur	HSCB.6/PT/GR End section - Grey

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DWG n° : 231151/SD/18
Item n° : PF1113279

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	21/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for Construction (AFC)
1	14/05/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)
0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)

CROSSWIND
ROSETTI MARINO

TITLE :
SG-100D1 - FUNCTIONAL ELECTROLYSER FEEDER A-2000
Terminal strips

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

A3
DRAWING NO. 1723002197-EL-DG-00018
SHEET 28
REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00018 Rev.03

TYP - ELECTROLYSER
XC
Interconnection Terminals

NumM	Fg.	Sez.	Tipo	Costruttore	Descrizione
1	11.1B	6	HM320GR	Cabur	HMM.6/GR Feed-through Terminal Block - Grey (6 mmq)
2	11.1C	6	HM320GR	Cabur	HMM.6/GR Feed-through Terminal Block - Grey (6 mmq)
3	11.1B	6	HM320GR	Cabur	HMM.6/GR Feed-through Terminal Block - Grey (6 mmq)
4	11.1C	6	HM320GR	Cabur	HMM.6/GR Feed-through Terminal Block - Grey (6 mmq)
			HM321GR	Cabur	HMT.6/PT/GR End section - Grey
5	11.7B	6	HM320GR	Cabur	HMM.6/GR Feed-through Terminal Block - Grey (6 mmq)
6	11.7C	6	HM320GR	Cabur	HMM.6/GR Feed-through Terminal Block - Grey (6 mmq)
7	11.7B	6	HM320GR	Cabur	HMM.6/GR Feed-through Terminal Block - Grey (6 mmq)
8	11.7C	6	HM320GR	Cabur	HMM.6/GR Feed-through Terminal Block - Grey (6 mmq)
			HM321GR	Cabur	HMT.6/PT/GR End section - Grey
9	13.1A	6	HM320GR	Cabur	HMM.6/GR Feed-through Terminal Block - Grey (6 mmq)
10	13.1B	6	HM320GR	Cabur	HMM.6/GR Feed-through Terminal Block - Grey (6 mmq)
11	13.2A	6	HM320GR	Cabur	HMM.6/GR Feed-through Terminal Block - Grey (6 mmq)
12	13.2B	6	HM320GR	Cabur	HMM.6/GR Feed-through Terminal Block - Grey (6 mmq)
			HM321GR	Cabur	HMT.6/PT/GR End section - Grey
13	14.1B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
14	14.1C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
15	14.1B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
16	14.1C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
17	14.1B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
18	14.1C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
19	14.2B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
20	14.2C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
			HM251GR	Cabur	HMT.4/PT/GR End section - Grey
21	15.1B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
22	15.1C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
23	15.1B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
24	15.1C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
			HM251GR	Cabur	HMT.4/PT/GR End section - Grey
25	25.3A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
26	25.3B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
27	27.2A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
28	27.2A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
29	26.6A	4	CBI04	Cabur	CBC.4(EX)I Feed-through terminal
30	26.6C	4	CBI04	Cabur	CBC.4(EX)I Feed-through terminal
31	27.4C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
32	27.4C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
33	27.5C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
34	27.5C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
35	21.7B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
36	21.7C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
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0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)

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DWG n° : 231151/SD/18
Item n° : PF1113279

IMESA ELECTRICAL ENGINEERING
CROSSWIND
ROSETTI MARINO

TITLE :
SG-100D1 - FUNCTIONAL ELECTROLYSER FEEDER A-2000
Terminal strips

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

A3 | DRAWING NO. 1723002197-EL-DG-00018 | SHEET 29 | REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00018 Rev.03

TYP - ELECTROLYSER

XM

Interface Terminals

NumM	Fg.	Sez.	Tipo	Costruttore	Descrizione
1	10.4E	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
2	10.5E	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
3	10.5E	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
4	10.5E	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
			HM251GR	Cabur	HMT.4/PT/GR End section - Grey
5	20.4B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
6	20.4B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
7	20.6C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
8	20.6C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
9	20.8C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
10	20.8C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
11	21.4B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
12	21.4B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
13	21.5B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
14	21.5B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
15	21.5B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
16	21.5B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
17	21.6B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
18	21.6B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
19	22.2A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
20	22.2B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
21	22.3A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
22	22.3B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
23	22.8A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
24	22.8B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
25	23.5A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
26	23.5B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
27	23.6A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
28	23.6B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
29	23.7A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
30	23.7B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
31	24.8A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
32	24.8B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
33	24.9A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
34	24.9B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
35	25.5A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
36	25.5B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
37	25.6A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
38	25.6B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
39	25.7A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
40	25.7B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type

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DWG n° : 231151/SD/18

Item n° : PF1113279

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	21/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for Construction (AFC)
1	14/05/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)
0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)

TITLE :

SG-100D1 - FUNCTIONAL ELECTROLYSER FEEDER A-2000

Terminal strips

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00018

SHEET 3.0

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00018 Rev.03

TYP - ELECTROLYSER
XM
Interface Terminals

NumM	Fg.	Sez.	Tipo	Costruttore	Descrizione
41	25.8A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
42	25.8B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
43	25.9A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
44	25.9B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
45	26.3B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
46	26.3B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
47	26.3B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
48	26.3B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
49	26.4B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
50	26.4B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
51	26.5B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
52	26.5B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
53	26.6B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
54	26.6B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
55	27.3A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
56	27.5A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
57	27.6A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
58	27.6A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
59	27.7A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
60	27.9A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
61	27.1C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
62	27.2C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
63	27.2C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
64	27.3C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
65	27.3C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
66	27.3C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
67	27.6C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
68	27.6C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
69	27.7C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
70	27.7C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
71	27.8C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
72	27.8C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
73	27.9C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
74	27.9C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
75		4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
76		4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
77		4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
78		4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
79		4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
80		4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
81		4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type

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DWG n° : 231151/SD/18
Item n° : PF1113279

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	21/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for Construction (AFC)
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0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)

TITLE :
SG-100D1 - FUNCTIONAL ELECTROLYSER FEEDER A-2000
Terminal strips

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

A3 | DRAWING NO. 1723002197-EL-DG-00018 | SHEET 31 | REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00018 Rev.03

Nome/Item	Fg/Sh	Tipo/Type	Q.tà	Descrizione/Description	Costruttore/Manufacturer	Ubicazione (descrizione)	Quadro (descrizione)
BB	7	1VCF698000R0012	1	OPTICAL FIBER CABLE PRE-MANUFACT. LENS L=5M	ABB	A1	ELECTROLYSER PACKAGE
BGE	9	1VCF599700R0131	1	EARTHING SWITCH ST-E 17.31 150	ABB	A1	ELECTROLYSER PACKAGE
		1VCF599505R0001	1	5 AUX CONTACTS FOR EARTHING SWITCH	ABB	A1	ELECTROLYSER PACKAGE
		1VCF599504R0063	1	KEY LOCKS ON EARTHING SWITCH	ABB	A1	ELECTROLYSER PACKAGE
		1VCF599700R0290	1	EARTHING SWITCH OPERATING LEVER	ABB	A1	ELECTROLYSER PACKAGE
C1	9	43931118	1	VPIS 3,3÷36KV - DEVICE SIGNALLING VOLTAGE PRESENT KIT	ELECTRONSYSTEM	A1	ELECTROLYSER PACKAGE
CB	7	1VCF698000R0012	1	OPTICAL FIBER CABLE PRE-MANUFACT. LENS L=5M	ABB	A1	ELECTROLYSER PACKAGE
CC	9	1VCF698000R0012	1	OPTICAL FIBER CABLE PRE-MANUFACT. LENS L=5M	ABB	A1	ELECTROLYSER PACKAGE
E1	13	74041	1	LED LAMP 4W 4000K 313x30x22	Beghelli	A1	ELECTROLYSER PACKAGE
E8	10	1VCF501000R0001	1	RESISTOR TR318 27R/J 27ohm 500W L=2,5M	ABB	A1	ELECTROLYSER PACKAGE
EH1	13	R1R150230	1	SPACE HEATER SKR 150W ALIM. 220VCA	Torresan	A1	ELECTROLYSER PACKAGE
FF1	10	1YMB751209M1502	1	FUSE-LINKS FOR VOLTAGE TRANSFORMER PROTECTION 6/12kV 2A 192x53mm - CEF-VT	ABB	A1	ELECTROLYSER PACKAGE
FF2	10	1YMB751209M1502	1	FUSE-LINKS FOR VOLTAGE TRANSFORMER PROTECTION 6/12kV 2A 192x53mm - CEF-VT	ABB	A1	ELECTROLYSER PACKAGE
FF3	10	1YMB751209M1502	1	FUSE-LINKS FOR VOLTAGE TRANSFORMER PROTECTION 6/12kV 2A 192x53mm - CEF-VT	ABB	A1	ELECTROLYSER PACKAGE
FP1	16	1VCF698331R0001	1	REX640B10NN+AIM1+AIM1+ARC1+BIO1+BIO1+BI+O2+CMP2+COM1+LNG1+MCT1+PCL4+PSM3+SCT	ABB	A1	ELECTROLYSER PACKAGE
HGR	13	TRT-10A230V-NC	1	Regolable Thermostat -10÷80°C 1NC IP20 DIN Mounting	Fandis	A1	ELECTROLYSER PACKAGE
K940T	23	ER 589 2	1	CR-M110DC4L SUPPLY 110VDC 4C/O 250V/6A LED	ABB	A1	ELECTROLYSER PACKAGE
		ER 686 6	1	CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M)	ABB	A1	ELECTROLYSER PACKAGE
		ER 728 6	1	CR-MH1 METAL RETAINING JUMPER	ABB	A1	ELECTROLYSER PACKAGE
K94P	23	ER 589 2	1	CR-M110DC4L SUPPLY 110VDC 4C/O 250V/6A LED	ABB	A1	ELECTROLYSER PACKAGE
		ER 686 6	1	CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M)	ABB	A1	ELECTROLYSER PACKAGE
		ER 728 6	1	CR-MH1 METAL RETAINING JUMPER	ABB	A1	ELECTROLYSER PACKAGE
K94WT	23	ER 589 2	1	CR-M110DC4L SUPPLY 110VDC 4C/O 250V/6A LED	ABB	A1	ELECTROLYSER PACKAGE
		ER 686 6	1	CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M)	ABB	A1	ELECTROLYSER PACKAGE
		ER 728 6	1	CR-MH1 METAL RETAINING JUMPER	ABB	A1	ELECTROLYSER PACKAGE
KGR	13	ER 686 6	1	CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M)	ABB	A1	ELECTROLYSER PACKAGE
		ER 728 6	1	CR-MH1 METAL RETAINING JUMPER	ABB	A1	ELECTROLYSER PACKAGE
		Copia di ER 552 0	1	CR-M230AC2L SUPPLY 230VAC 2C/O 250V/6A LED	ABB	A1	ELECTROLYSER PACKAGE
KIRF	23	ER 589 2	1	CR-M110DC4L SUPPLY 110VDC 4C/O 250V/6A LED	ABB	A1	ELECTROLYSER PACKAGE
		ER 686 6	1	CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M)	ABB	A1	ELECTROLYSER PACKAGE
		ER 728 6	1	CR-MH1 METAL RETAINING JUMPER	ABB	A1	ELECTROLYSER PACKAGE
KT1	20	H3DKM2ACDC24240	1	MULTIFUNCTION TIMER RELAY Vaux=24÷240Vac/dc - 2SC	Omron	A1	ELECTROLYSER PACKAGE
L1C	19	801100	1	IR SENSOR 10m CABLE	EXERTHERM	A1	ELECTROLYSER PACKAGE
L1I	19	801100	1	IR SENSOR 10m CABLE	EXERTHERM	A1	ELECTROLYSER PACKAGE
L1MS	19	801100	1	IR SENSOR 10m CABLE	EXERTHERM	A1	ELECTROLYSER PACKAGE
L2C	19	801100	1	IR SENSOR 10m CABLE	EXERTHERM	A1	ELECTROLYSER PACKAGE
L2I	19	801100	1	IR SENSOR 10m CABLE	EXERTHERM	A1	ELECTROLYSER PACKAGE
L3C	19	801100	1	IR SENSOR 10m CABLE	EXERTHERM	A1	ELECTROLYSER PACKAGE
L3I	19	801100	1	IR SENSOR 10m CABLE	EXERTHERM	A1	ELECTROLYSER PACKAGE
L3MS	19	801100	1	IR SENSOR 10m CABLE	EXERTHERM	A1	ELECTROLYSER PACKAGE
LS	13	Z15GW2-1-1453270	1	MICROSWITCH 1sc	Omron	A1	ELECTROLYSER PACKAGE
		APB-PG	1	COVER TO MICRO-SWITCH	Omron	A1	ELECTROLYSER PACKAGE
OD1	9	990003	1	MEDIUM VOLTAGE DISCHARGE DMI-9-10-1-L Ur=9kV	DEHN	A1	ELECTROLYSER PACKAGE
OD2	9	990003	1	MEDIUM VOLTAGE DISCHARGE DMI-9-10-1-L Ur=9kV	DEHN	A1	ELECTROLYSER PACKAGE

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DWG n° : 231151/SD/18
Item n° : PF1113279

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	21/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for Construction (AFC)
1	14/05/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)
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IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE :
SG-100D1 - FUNCTIONAL ELECTROLYSER FEEDER A-2000
Bill of Materials

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00018

SHEET 32

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00018 Rev.03

Nome/Item	Fg/Sh	Tipo/Type	Q.tà	Descrizione/Description	Costruttore/Manufacturer	Ubicazione (descrizione)	Quadro (descrizione)
OD3	9	990003	1	MEDIUM VOLTAGE DISCHARGE DMI-9-10-1-L Ur=9kV	DEHN	A1	ELECTROLYSER PACKAGE
P1	20	KW 080 2	1	MP1-10B BLACK PUSH BUTTON UNSTABLE	ABB	A1	ELECTROLYSER PACKAGE
		EO 569 7	1	MCBH-00 FIXING SUPPORT 3 CONTACTS	ABB	A1	ELECTROLYSER PACKAGE
		EO 570 5	1	MCB-10 CONTACT NO FOR PUSHBUTTONS	ABB	A1	ELECTROLYSER PACKAGE
PTT	10	1VCF498412R0100	1	TV/F COMPARTMENT 12/17kV IP4X L=590mm OUTLET ON THE BACK WITH N°3 VT + N°14 MAIN CONTACTS + N°2+2 SERVICE/ISOLATED POSITION CONTACTS	ABB	A1	ELECTROLYSER PACKAGE
		1VCF499800R0302	1	NAMEPLATE IN ENGLISH LANGUAGE FOR TV/F	ABB	A1	ELECTROLYSER PACKAGE
QA2	13	B427917	1	DDA202 AC 25A 300MA RCD BLOCK 2P	ABB	A1	ELECTROLYSER PACKAGE
		A563819	1	S2-CS/H6R AUXILIARY STATE CONTACT 1CO	ABB	A1	ELECTROLYSER PACKAGE
		S550284	1	S202M C10 AUTOMATIC CIRCUIT-BREAKER 10KA 2P	ABB	A1	ELECTROLYSER PACKAGE
QD1	11	A563819	1	S2-CS/H6R AUXILIARY STATE CONTACT 1CO	ABB	A1	ELECTROLYSER PACKAGE
		S550253	1	S202M C 4 AUTOMATIC CIRCUIT-BREAKER 10KA 2P	ABB	A1	ELECTROLYSER PACKAGE
QD2	11	S550253	1	S202M C 4 AUTOMATIC CIRCUIT-BREAKER 10KA 2P	ABB	A1	ELECTROLYSER PACKAGE
		a563819	1	S2-CS/H6R AUXILIARY STATE CONTACT 1CO	ABB	A1	ELECTROLYSER PACKAGE
QD3	11	S550253	1	S202M C 4 AUTOMATIC CIRCUIT-BREAKER 10KA 2P	ABB	A1	ELECTROLYSER PACKAGE
		A563819	1	S2-CS/H6R AUXILIARY STATE CONTACT 1CO	ABB	A1	ELECTROLYSER PACKAGE
QD4	11	A563819	1	S2-CS/H6R AUXILIARY STATE CONTACT 1CO	ABB	A1	ELECTROLYSER PACKAGE
		S550239	1	S202M C 2 AUTOMATIC CIRCUIT BREAKER 10KA 2P	ABB	A1	ELECTROLYSER PACKAGE
QM	7	1VCF337121R1141	1	VACUUM CIRCUIT BREAKER VD4/P 3P 12KV 630A 25KA WITHDRAWABLE 12.06.25 P150	ABB	A1	ELECTROLYSER PACKAGE
		1VCF339700R0882	1	NAMEPLATE IN ENGLISH LANGUAGE FOR CIRCUIT-BREAKER	ABB	A1	ELECTROLYSER PACKAGE
		1VCF339700R1885	1	VD4 FOR POWERCUBE	ABB	A1	ELECTROLYSER PACKAGE
		1VCF349700R4881	1	WIRING WITH AFUMEX N07G9-K CABLE	ABB	A1	ELECTROLYSER PACKAGE
		1VCF339701R2909	1	FIRST OPENING COIL IST. 110Vdc (MB01)	ABB	A1	ELECTROLYSER PACKAGE
		1VCF339800R6913	1	CLOSING COIL 110..127 Vac/dc (MBC)	ABB	A1	ELECTROLYSER PACKAGE
QV1	10	S550680	1	S204M C 2 AUTOMATIC CIRCUIT-BREAKER 10KA 4P	ABB	A1	ELECTROLYSER PACKAGE
		A563819	1	S2-CS/H6R AUXILIARY STATE CONTACT 1CO	ABB	A1	ELECTROLYSER PACKAGE
QV2	10	S550680	1	S204M C 2 AUTOMATIC CIRCUIT-BREAKER 10KA 4P	ABB	A1	ELECTROLYSER PACKAGE
		A563819	1	S2-CS/H6R AUXILIARY STATE CONTACT 1CO	ABB	A1	ELECTROLYSER PACKAGE
QV3	10	A563819	1	S2-CS/H6R AUXILIARY STATE CONTACT 1CO	ABB	A1	ELECTROLYSER PACKAGE
		S550239	1	S202M C 2 AUTOMATIC CIRCUIT BREAKER 10KA 2P	ABB	A1	ELECTROLYSER PACKAGE
QV4	14	S550680	1	S204M C 2 AUTOMATIC CIRCUIT-BREAKER 10KA 4P	ABB	A1	ELECTROLYSER PACKAGE
		A563819	1	S2-CS/H6R AUXILIARY STATE CONTACT 1CO	ABB	A1	ELECTROLYSER PACKAGE
QV5	15	S550239	1	S202M C 2 AUTOMATIC CIRCUIT BREAKER 10KA 2P	ABB	A1	ELECTROLYSER PACKAGE
		A563819	1	S2-CS/H6R AUXILIARY STATE CONTACT 1CO	ABB	A1	ELECTROLYSER PACKAGE
R1	21	01062220	1	RESISTANCE 22kOhm 5W		A1	ELECTROLYSER PACKAGE
S1C	26	EO 569 7	1	MCBH-00 FIXING SUPPORT 3 CONTACTS	ABB	A1	ELECTROLYSER PACKAGE
		EO 570 5	1	MCB-10 CONTACT NO FOR PUSHBUTTONS	ABB	A1	ELECTROLYSER PACKAGE
		KW 076 0	1	MP1-10G PUSH BUTTON GREEN WITH BLACK RING	ABB	A1	ELECTROLYSER PACKAGE
S2O	26	EO 569 7	1	MCBH-00 FIXING SUPPORT 3 CONTACTS	ABB	A1	ELECTROLYSER PACKAGE
		EO 570 5	1	MCB-10 CONTACT NO FOR PUSHBUTTONS	ABB	A1	ELECTROLYSER PACKAGE
		KW 075 2	1	MP1-10R PUSH BUTTON RED WITH BLACK RING	ABB	A1	ELECTROLYSER PACKAGE
SA1	24	EO 569 7	1	MCBH-00 FIXING SUPPORT 3 CONTACTS	ABB	A1	ELECTROLYSER PACKAGE
		EO 571 3	1	MCB-01 CONTACT NC FOR PUSHBUTTOM	ABB	A1	ELECTROLYSER PACKAGE
		EO 570 5	1	MCB-10 CONTACT NO FOR PUSHBUTTONS	ABB	A1	ELECTROLYSER PACKAGE

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DWG n° : 231151/SD/18

Item n° : PF1113279

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
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TITLE :

SG-100D1 – FUNCTIONAL ELECTROLYSER FEEDER A-2000

Bill of Materials

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00018

SHEET 3.3

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00018 Rev.03

Nome/Item	Fg/Sh	Tipo/Type	Q.tà	Descrizione/Description	Costruttore/Manufacturer	Ubicazione (descrizione)	Quadro (descrizione)
SA1	24	KW 329 3	1	M2SS2-10B HANDLE SELECTOR 2P 90° BLACK RING BLACK	ABB	A1	ELECTROLYSER PACKAGE
TI-L1	8	ATB-10-BS__012	1	CURRENT TRANSFORMER 7,2kV 50Hz 400/1A cl.0,5-5P20 (5VA)- 25kA	ESITAS	A1	ELECTROLYSER PACKAGE
TI-L2	8	ATB-10-BS__012	1	CURRENT TRANSFORMER 7,2kV 50Hz 400/1A cl.0,5-5P20 (5VA)- 25kA	ESITAS	A1	ELECTROLYSER PACKAGE
TI-L3	8	ATB-10-BS__012	1	CURRENT TRANSFORMER 7,2kV 50Hz 400/1A cl.0,5-5P20 (5VA)- 25kA	ESITAS	A1	ELECTROLYSER PACKAGE
TO	9	KAP-150/250-95	1	CURRENT TRANSFORMER 0,72/3/-kV 100/1 50Hz	ESITAS	A1	ELECTROLYSER PACKAGE
TR1	19	800208	1	MODBUS DATACARD 8 CHANNELS	Exertherm	A1	ELECTROLYSER PACKAGE
TU-L1	10	TJP4.3__002	1	VT ON RESIN 7,2KV 50-60Hz 6600:r3/110:r3-110:r3-110:3 Cl.0,5-3P Pr.20VA, Cl.0,5-3P Pr.30VA, Cl.3P Pr.30VA	ABB	A1	ELECTROLYSER PACKAGE
TU-L2	10	TJP4.3__002	1	VT ON RESIN 7,2KV 50-60Hz 6600:r3/110:r3-110:r3-110:3 Cl.0,5-3P Pr.20VA, Cl.0,5-3P Pr.30VA, Cl.3P Pr.30VA	ABB	A1	ELECTROLYSER PACKAGE
TU-L3	10	TJP4.3__002	1	VT ON RESIN 7,2KV 50-60Hz 6600:r3/110:r3-110:r3-110:3 Cl.0,5-3P Pr.20VA, Cl.0,5-3P Pr.30VA, Cl.3P Pr.30VA	ABB	A1	ELECTROLYSER PACKAGE
XC		HM320GR	12	HMM.6/GR Feed-through Terminal Block - Grey (6 mmq)	Cabur	A1	ELECTROLYSER PACKAGE
		HM250GR	22	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type	Cabur	A1	ELECTROLYSER PACKAGE
		CBI04	2	CBC.4(EX)I Feed-through terminal	Cabur	A1	ELECTROLYSER PACKAGE
		HM251GR	3	HMT.4/PT/GR End section - Grey	Cabur	A1	ELECTROLYSER PACKAGE
		HM321GR	3	HMT.6/PT/GR End section - Grey	Cabur	A1	ELECTROLYSER PACKAGE
XI		HB220GR	8	HSCB.6/GR Disconnect by slide link Terminal Block - Grey (6 mmq) - spring type	Cabur	A1	ELECTROLYSER PACKAGE
		HB201GR	2	HSCB.6/PT/GR End section - Grey	Cabur	A1	ELECTROLYSER PACKAGE
XM		HM250GR	81	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type	Cabur	A1	ELECTROLYSER PACKAGE
		HM251GR	1	HMT.4/PT/GR End section - Grey	Cabur	A1	ELECTROLYSER PACKAGE
XR		HM250GR	2	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type	Cabur	A1	ELECTROLYSER PACKAGE
		HM251GR	1	HMT.4/PT/GR End section - Grey	Cabur	A1	ELECTROLYSER PACKAGE
XS1	13	E 9447 7	1	SOCKET	ABB	A1	ELECTROLYSER PACKAGE
XV		HB210GR	16	HSCB.6/GR Disconnect by slide link Terminal Block - Grey (6 mmq) - Spring type	Cabur	A1	ELECTROLYSER PACKAGE
		HB201GR	5	HSCB.6/PT/GR End section - Grey	Cabur	A1	ELECTROLYSER PACKAGE

=
+A1

DWG n° : 231151/SD/18

Item n° : PF1113279

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	21/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for Construction (AFC)
1	14/05/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)
0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)

TITLE :

SG-100D1 - FUNCTIONAL ELECTROLYSER FEEDER A-2000

Bill of Materials

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00018

SHEET 3.4

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00018 Rev.03