"SG-100D1" HV SWBD 6,6kV (UNIT A3)

FUNCTIONAL DIAGRAM

BESS FEEDER A-85000

=							
+A3							
DWG n° : 231151/SD/17	3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)	
Item n° : PF1113279	2	26/06/2024	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 BESS FEEDER A-85000

Cover

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE : NTS	
A3	DRAWING NO. 1723002197-EL-DG-00017	SHEET 1	REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00017 Rev.03

INDEX

Sheet	Description	Revision 0	1	2	3	4	5	6	7	8
1	Cover									
2	Sheets Index									
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4	Door Layout									
5	Protection Display REX640									
6	Selector Switch Diagram									
7	Power Diagram									
8	Power Diagram									
9	Power Diagram									
10	Power Diagram									
11	110Vdc / 24Vdc Distribution Voltage									
12	Composition Relay REX640									
13	230Vac Distribution Voltage									
14	110V Protection/Measure Distribution Voltage									
15	110V Protection/Measure Distribution Voltage									
16	"REX640"' Protection Wiring									
17	"REX640"' Protection Wiring									
18	"REX640"' Protection Wiring									
19	Extherm Device									
20	Command Circuit									
21	Command Circuit									
22	Command Circuit									
23	"REX640" Protection Wiring - Digital Input									
24	"REX640" Protection Wiring - Digital Input									
25	"REX640" Protection Wiring - Digital Input									
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Sheet	Description	Revision 0	1	2	3	4	5	6	7	8
27	Availables Signals									
28	Terminal stripes									
29	Terminal stripes									
30	Terminal stripes									
31	Terminal stripes									
32	Bill of Materials									
33	Bill of Materials									
34	Bill of Materials									

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+A3

DWG n° : 231151/SD/17
Item n° : PF1113279

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IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE :
SG-100D1 - FUNCTIONAL BESS FEEDER A-85000
Sheets Index

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

A3 | DRAWING NO. 1723002197-EL-DG-00017 | SHEET 2 | REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00017 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
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 LOCKOUT RELAY
SLOT "D":
SP01 = TRIP ARC DETECTOR

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DWG n° : 231151/SD/17
Item n° : PF1113279

IMESA ELECTRICAL ENGINEERING
CROSSWIND
ROSETTI MARINO

TITLE :
SG-100D1 - FUNCTIONAL BESS FEEDER A-85000
Legend

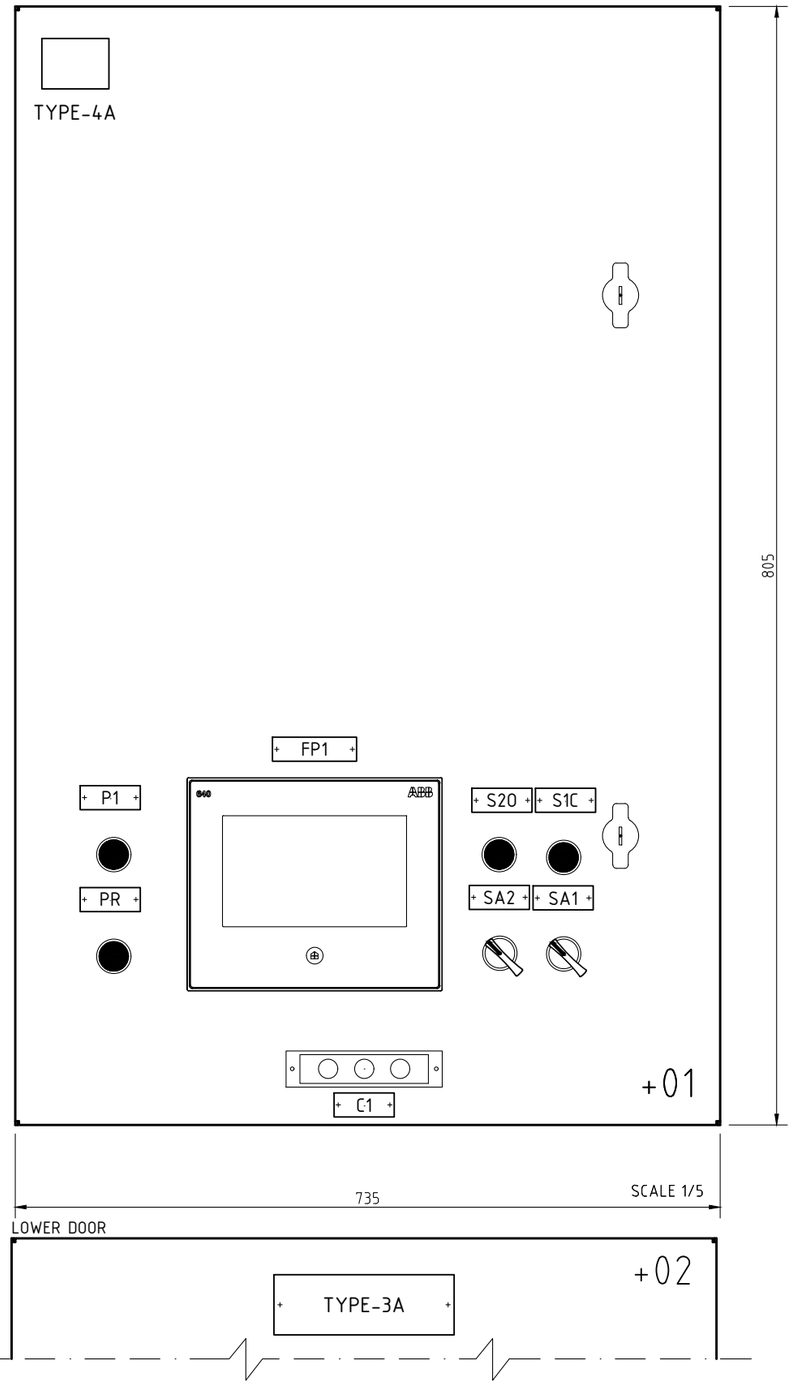
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK
SCALE : NTS

A3
DRAWING NO. 1723002197-EL-DG-00017
SHEET 3
REV. 03

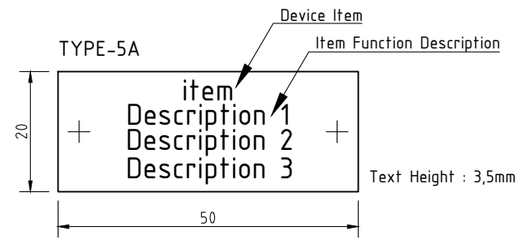
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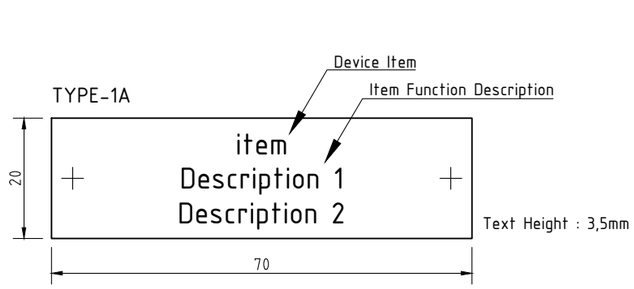
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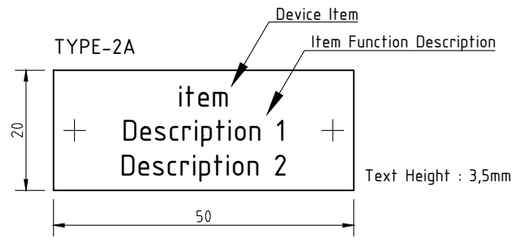
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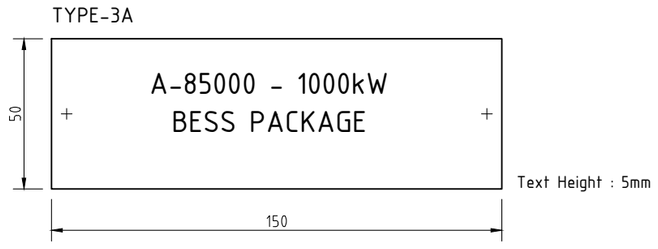


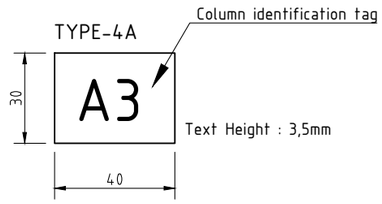
DEVICES name plate					
ITEM	COMPONENT	DESCRIPTION 1	DESCRIPTION 2	DESCRIPTION 3	NOTE
FP1	PROTECTION RELAY	PROTECTION RELAY			TYPE-1A
S2.O	PUSH BUTTON	OPEN	COMMAND	CONTACTOR	TYPE-5A
S1.C	PUSH BUTTON	CLOSE	COMMAND	CONTACTOR	TYPE-5A
SA1	SELECTOR SWITCH	LOCAL / REMOTE			TYPE-2A
SA2	SELECTOE SWITCH	OVERRIDE ESD	OFF - ON		
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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DWG n° : 231151/SD/17

Item n° : PF1113279

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE :

SG-100D1 – FUNCTIONAL BESS FEEDER A-85000

Door Layout

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00017

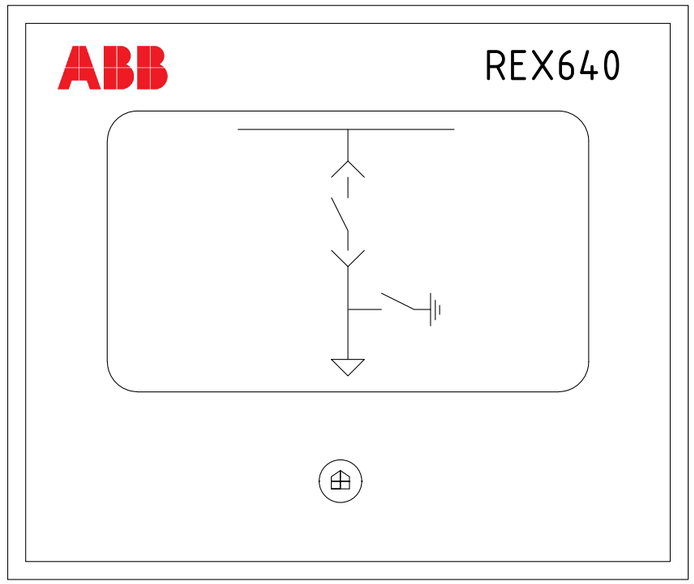
SHEET 4

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00017 Rev.03

PROTECTION DISPLAY



LHMI - TOUCH DISPLAY

- COMMANDS "CLOSE CONTACTOR " AND "OPEN CONTACTOR" 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 PAGE 2				
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	FUSES TRIP	RED		ALARM = FUSES TRIP
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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Item n° : PF1113279

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE :

SG-100D1 - FUNCTIONAL BESS FEEDER A-85000

Protection Display REX640

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00017

SHEET 5

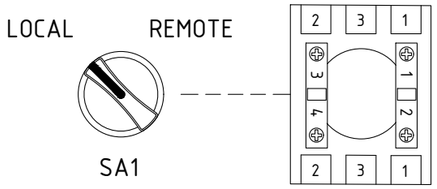
REV. 03

F.to UNI A3: 420mmx297mm

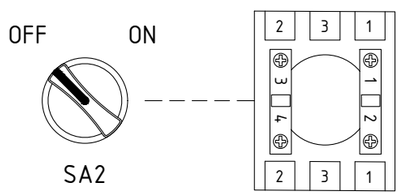
File Name : 1723002197-EL-DG-00017 Rev.03

SELECTORS SWITCH DIAGRAM

REAR VIEW



REAR VIEW



NOTES

THE DIAGRAM INDICATES THE FOLLOWING CONDITIONS:
-INSERTED CONTACTOR IN OPEN POSITION
-DE-ENERGIZED CIRCUITS
-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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CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

TITLE :
SG-100D1 - FUNCTIONAL BESS FEEDER A-85000
Selector Switch Diagram

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

SCALE : NTS

A3

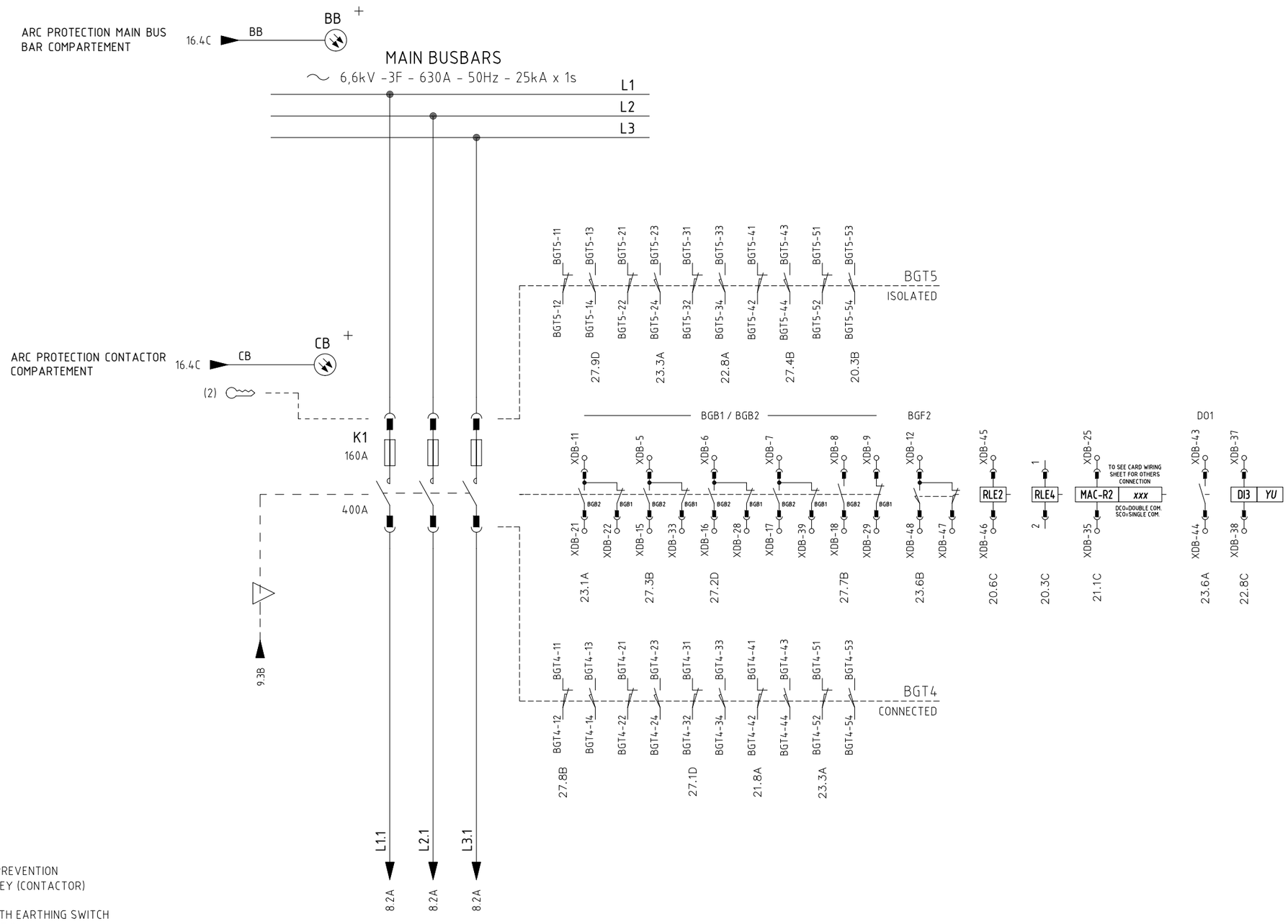
DRAWING NO. 1723002197-EL-DG-00017

SHEET 6

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00017 Rev.03



(2) RACKING IN PREVENTION LOCK WITH KEY (CONTACTOR)

(3) FREE KEY WITH EARTHING SWITCH IN OPEN POSITION

(4) FREE KEY WITH EARTHING SWITCH IN CLOSED POSITION

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DWG n° : 231151/SD/17

Item n° : PF1113279

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

TITLE :

SG-100D1 - FUNCTIONAL BESS FEEDER A-85000

Power Diagram

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

SCALE : NTS

A3

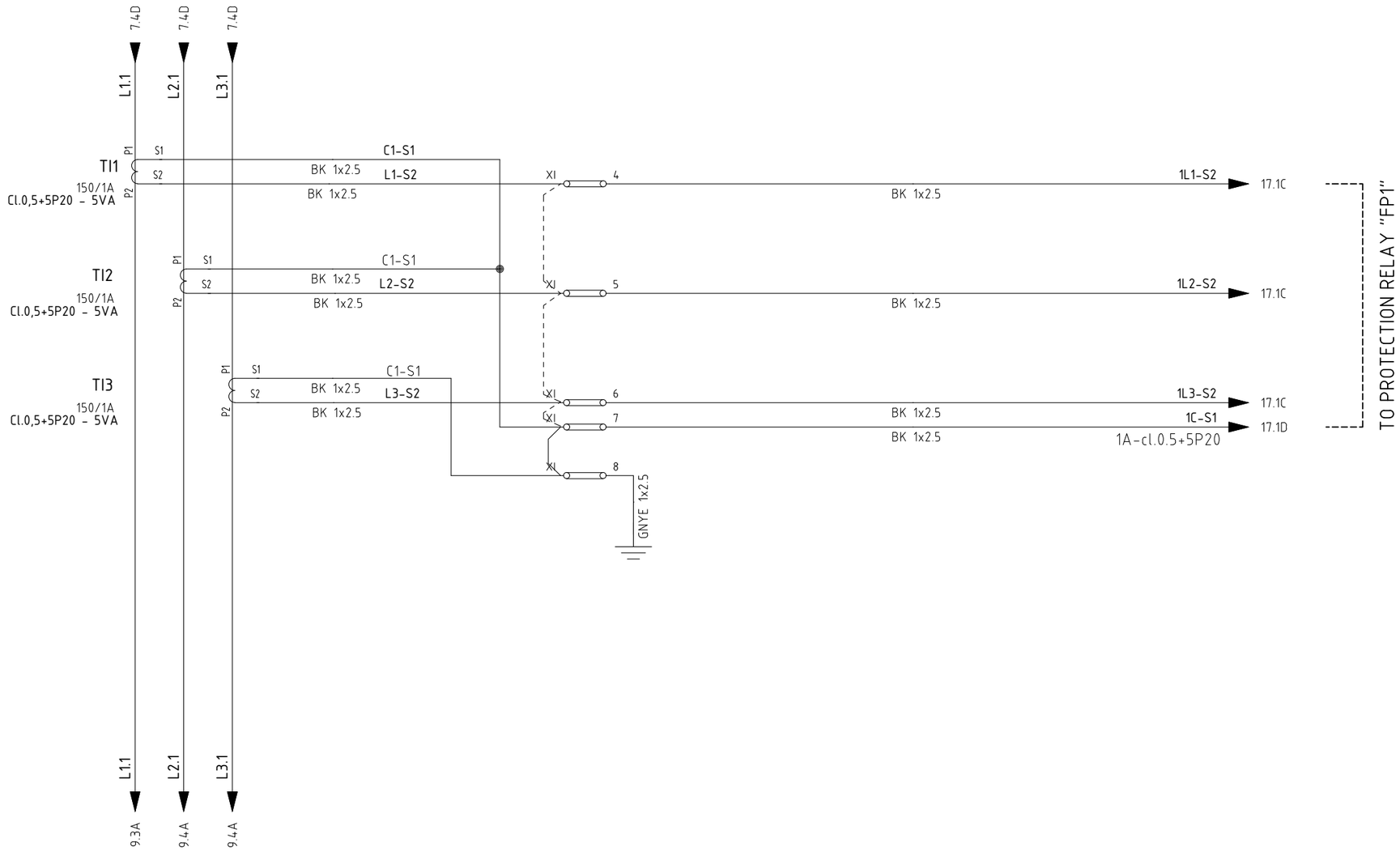
DRAWING NO. 1723002197-EL-DG-00017

SHEET 7

REV. 03

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IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

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SG-100D1 - FUNCTIONAL BESS FEEDER A-85000

Power Diagram

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SCALE : NTS

A3

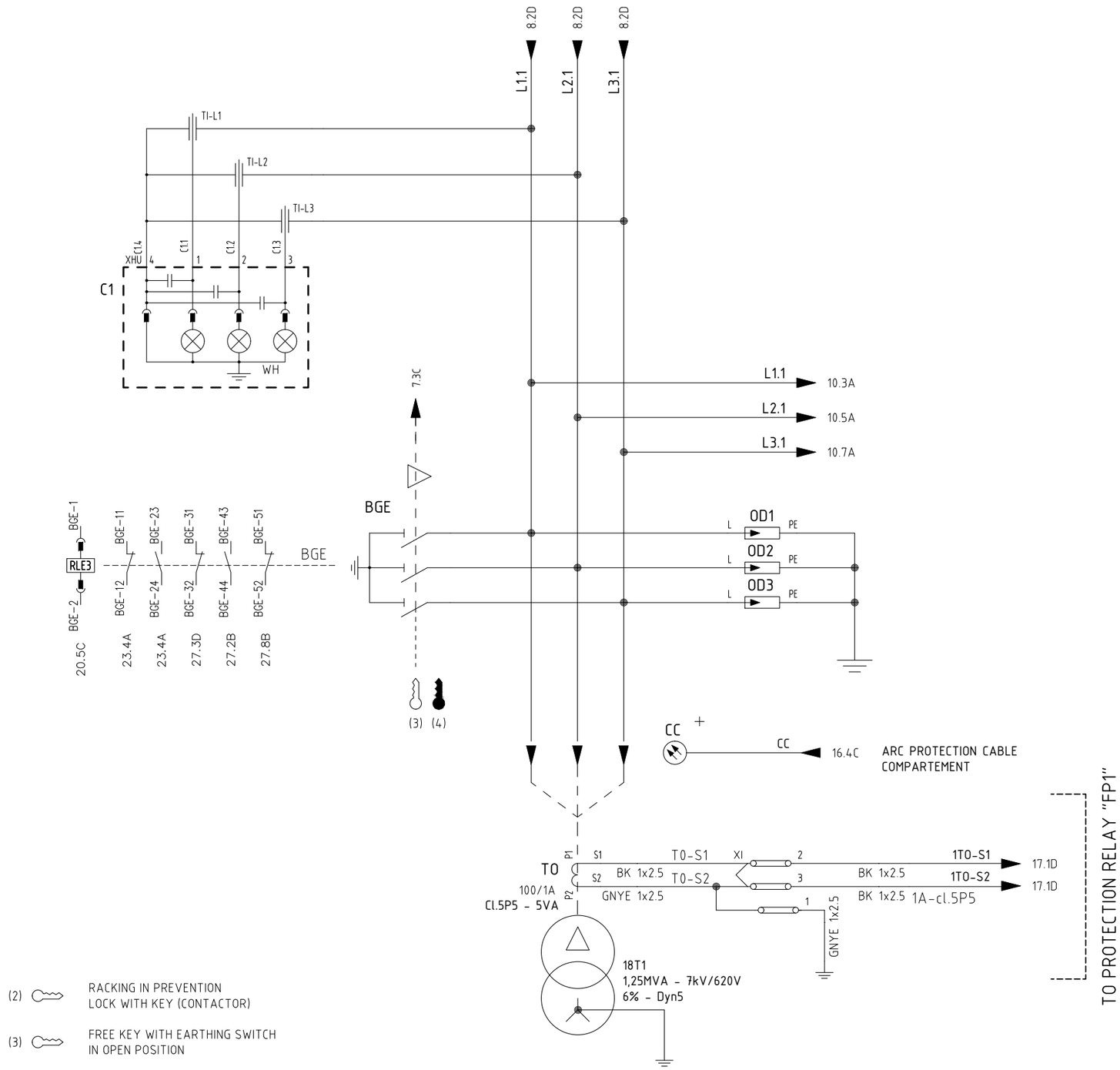
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SHEET 8

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00017 Rev.03



(2) RACKING IN PREVENTION LOCK WITH KEY (CONTACTOR)

(3) FREE KEY WITH EARTHING SWITCH IN OPEN POSITION

(4) FREE KEY WITH EARTHING SWITCH IN CLOSED POSITION

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IMESA ELECTRICAL ENGINEERING

CROSSWIND

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TITLE :

SG-100D1 - FUNCTIONAL BESS FEEDER A-85000

Power Diagram

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

SCALE : NTS

A3

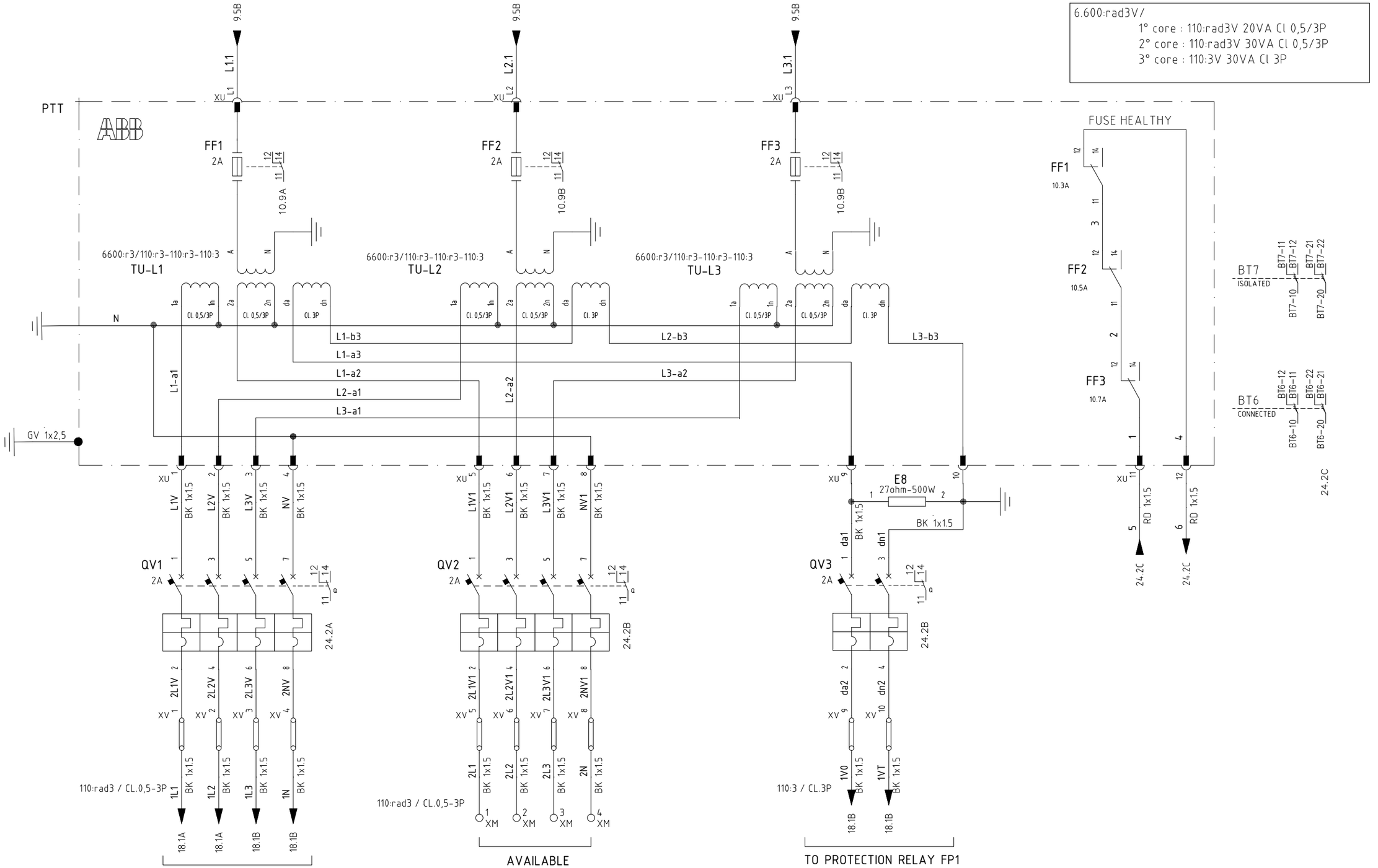
DRAWING NO. 1723002197-EL-DG-00017

SHEET 9

REV. 03

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IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

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SG-100D1 – FUNCTIONAL BESS FEEDER A-85000

Power Diagram

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00017

SHEET 1.0

REV. 03

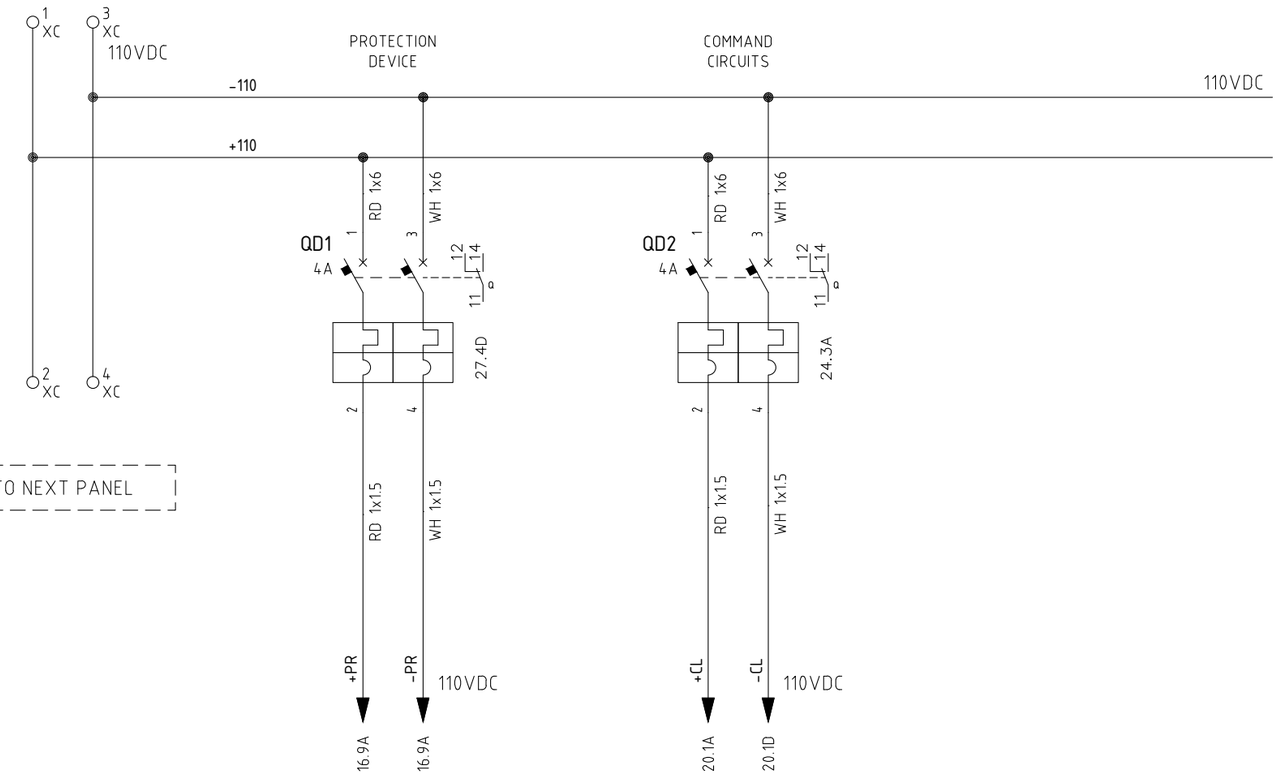
F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00017 Rev.03

110VDC DISTRIBUTION VOLTAGE

110Vdc Auxiliary Voltage
from Measuring Bus Bar Unit

FROM PREVIOUS PANEL

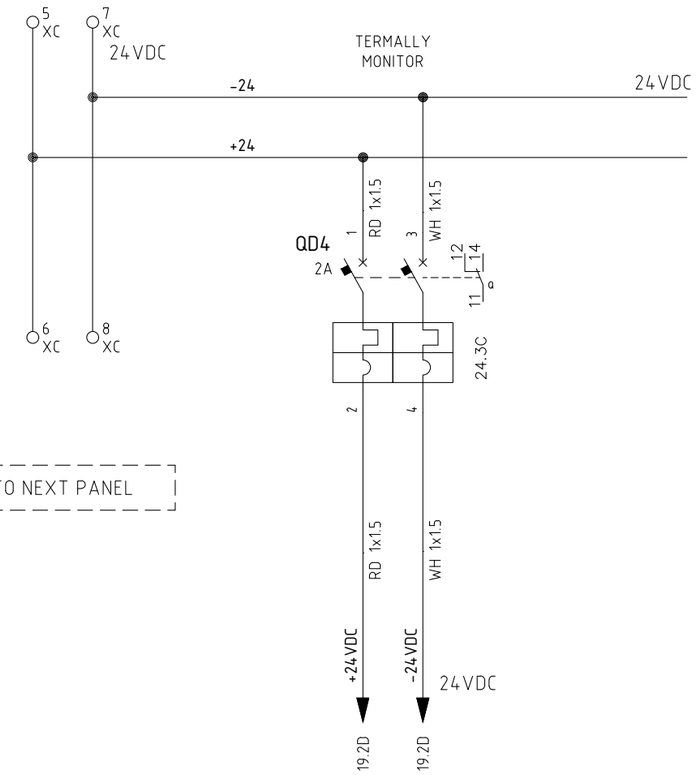


TO NEXT PANEL

24VDC DISTRIBUTION VOLTAGE

24Vdc Auxiliary Voltage
from Measuring Bus Bar Unit

FROM PREVIOUS PANEL



TO NEXT PANEL

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TITLE :

SG-100D1 - FUNCTIONAL BESS FEEDER A-85000

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-00017

SHEET 1.1

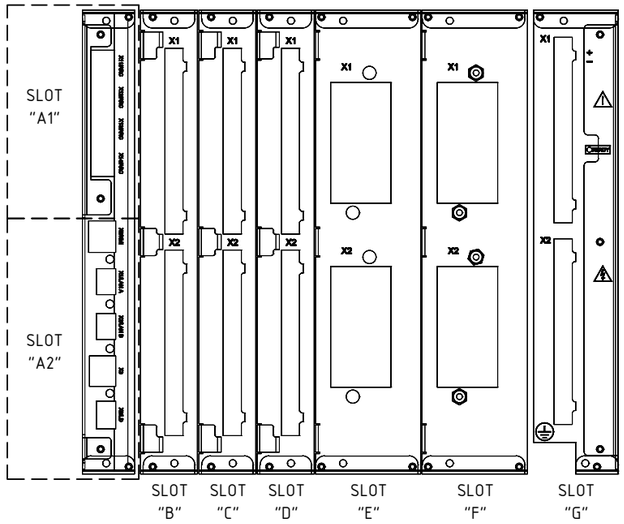
REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00017 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	

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
=					
+A3					
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	26/06/2024	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/17
Item n° : PF1113279

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

TITLE :
SG-100D1 - FUNCTIONAL BESS FEEDER A-85000
Composition Relay REX640

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

A3 | DRAWING NO. 1723002197-EL-DG-00017 | SHEET 12 | REV. 03

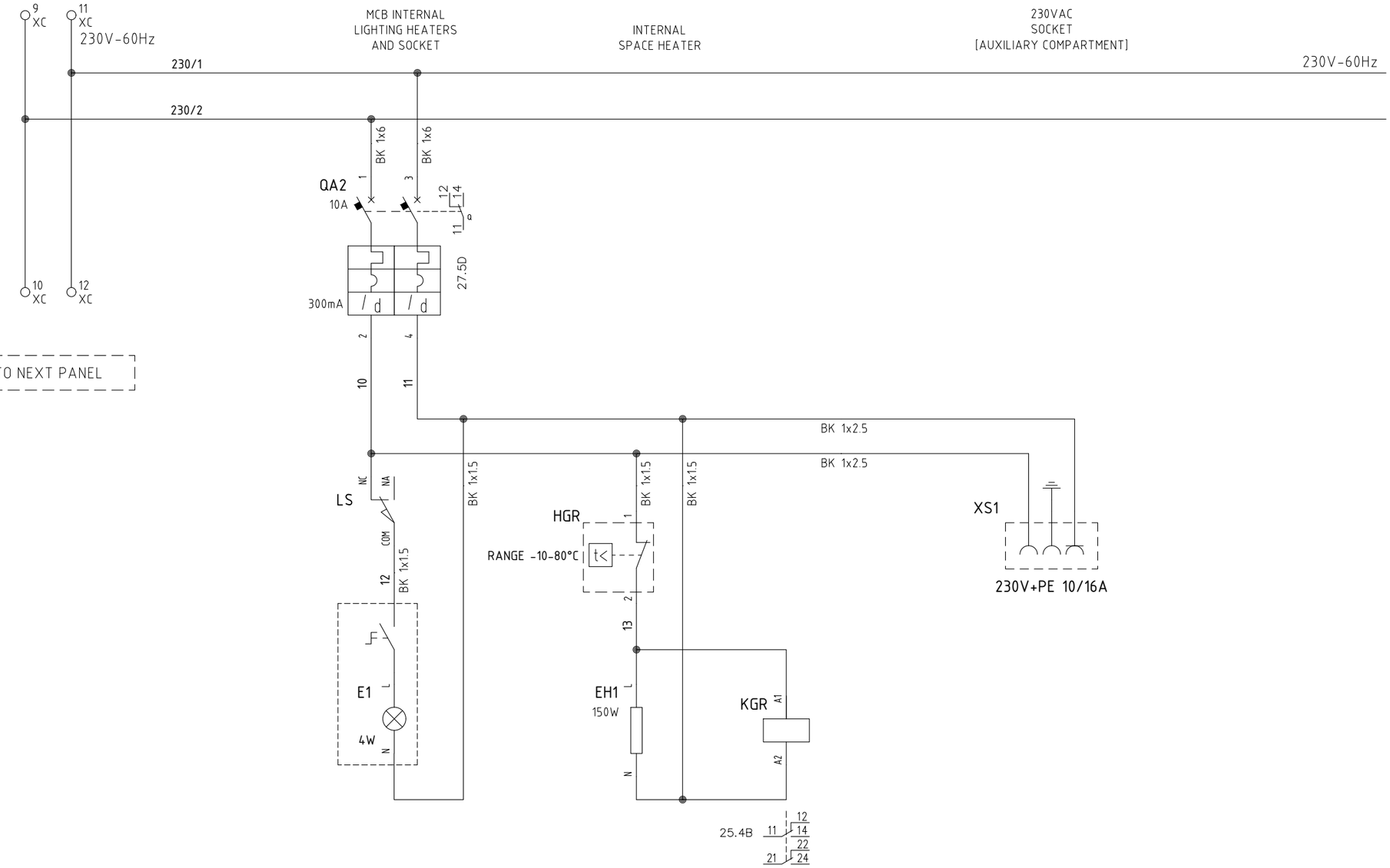
F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00017 Rev.03

230VAC DISTRIBUTION VOLTAGE

230Vac Auxiliary Voltage
from Measuring Bus Bar

FROM PREVIOUS PANEL



TO NEXT PANEL

	=						
	+A3						
	DWG n° : 231151/SD/17	3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
	Item n° : PF1113279	2	26/06/2024	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 BESS FEEDER A-85000

230Vac Distribution Voltage

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK	SCALE : NTS	
A3	DRAWING NO. 1723002197-EL-DG-00017	SHEET 1,3	REV. 03

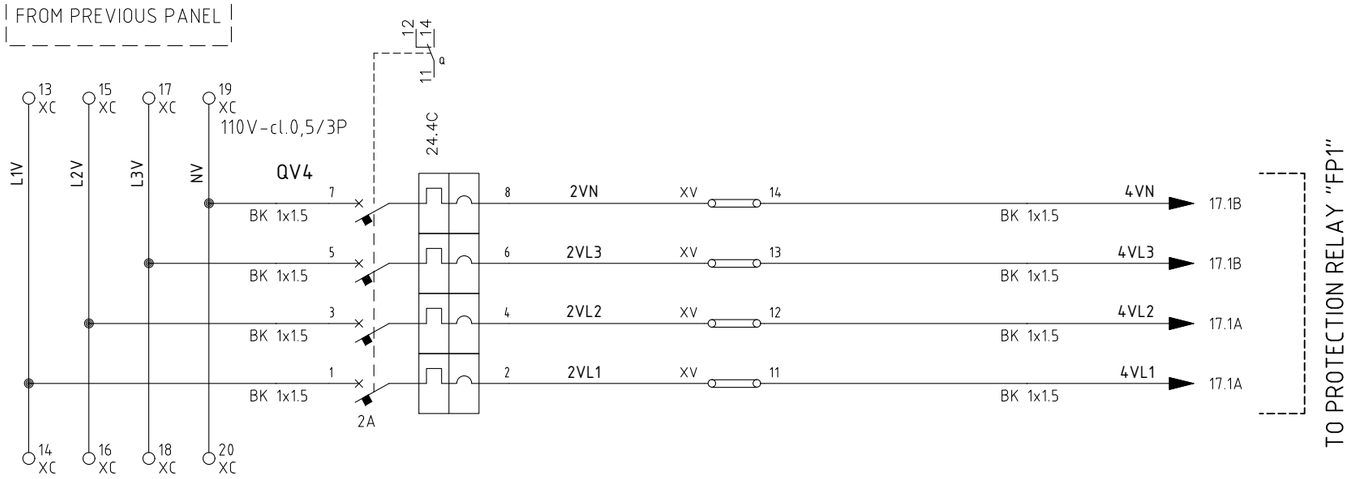
F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00017 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 PROTECTION RELAY "FP1"

TO NEXT PANEL

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	26/06/2024	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)

=
+A3
DWG n° : 231151/SD/17
Item n° : PF1113279

IMESA ELECTRICAL ENGINEERING
CROSSWIND
ROSETTI MARINO

TITLE :
SG-100D1 - FUNCTIONAL BESS FEEDER A-85000
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-00017
SHEET 14
REV. 03

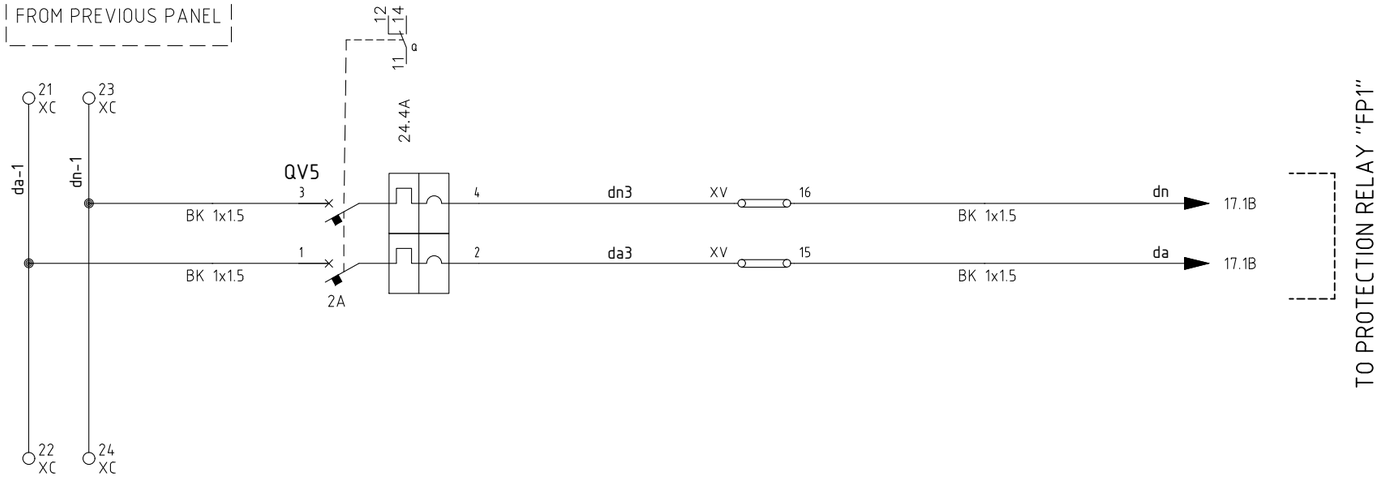
F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00017 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
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	26/06/2024	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)

=
+A3
DWG n° : 231151/SD/17
Item n° : PF1113279

IMESA ELECTRICAL ENGINEERING
CROSSWIND
ROSETTI MARINO

TITLE :
SG-100D1 - FUNCTIONAL BESS FEEDER A-85000
110V Protection/Measure Distribution Voltage

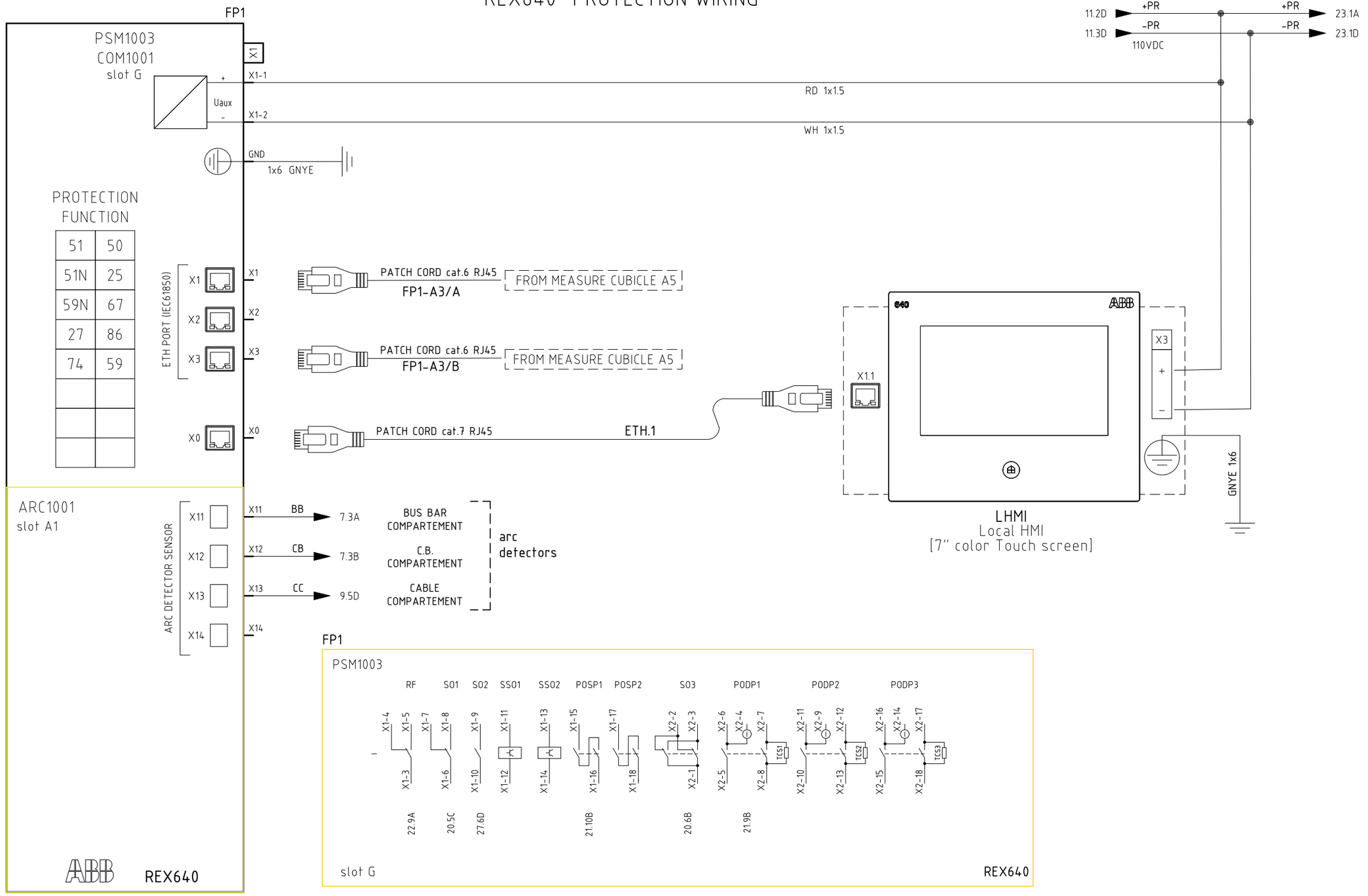
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK
SCALE : NTS

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DRAWING NO. 1723002197-EL-DG-00017
SHEET 15
REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00017 Rev.03

"REX640" PROTECTION WIRING



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
=					
+A3					
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	26/06/2024	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/17
Item n° : PF1113279

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE :

SG-100D1 - FUNCTIONAL BESS FEEDER A-85000

"REX640"' Protection Wiring

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00017

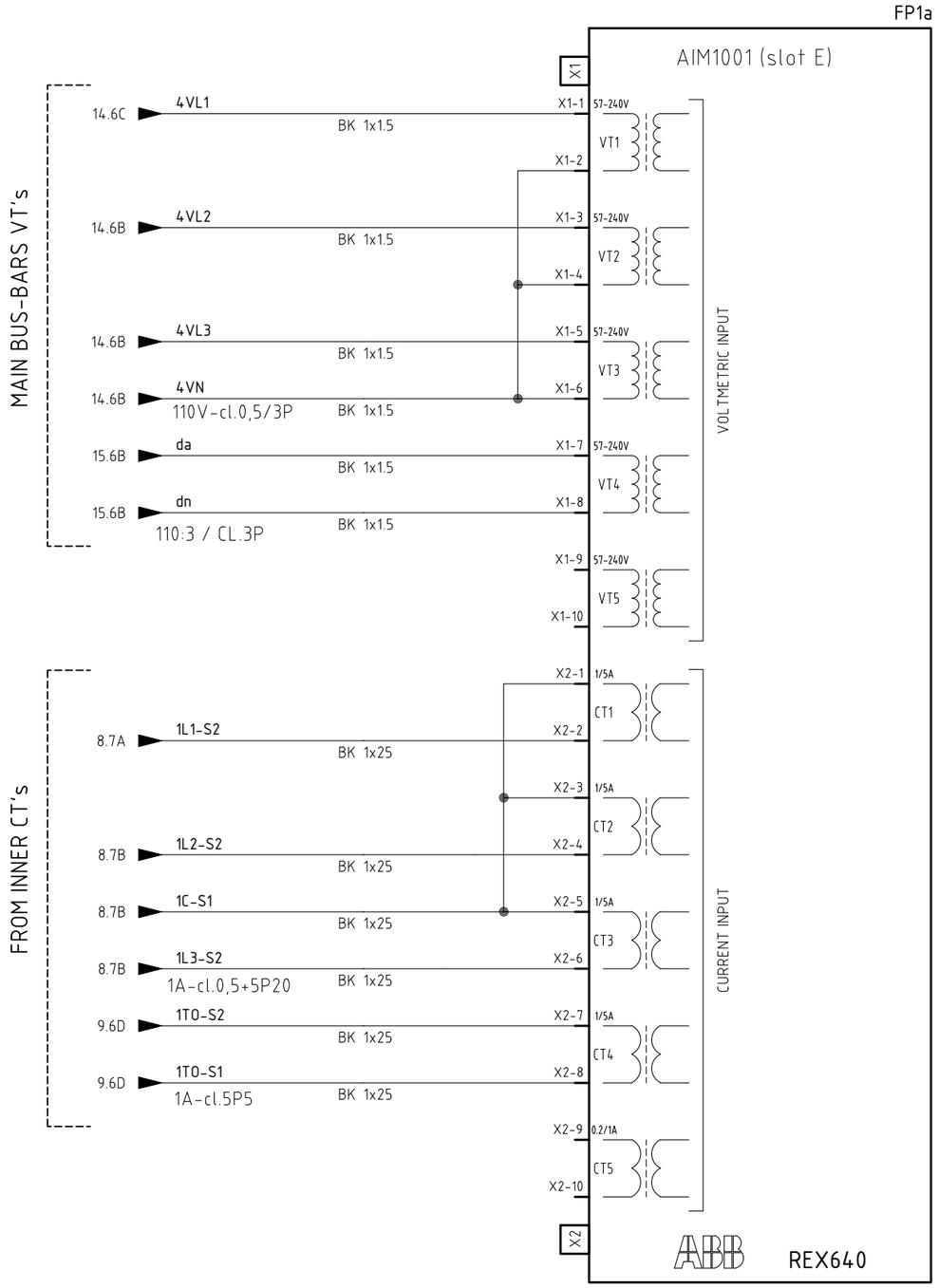
SHEET 16

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00017 Rev.03

"REX640" PROTECTION WIRING



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
=					
+A3					
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	26/06/2024	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/17
Item n° : PF1113279

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE :
SG-100D1 - FUNCTIONAL BESS FEEDER A-85000
"REX640"' Protection Wiring

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00017

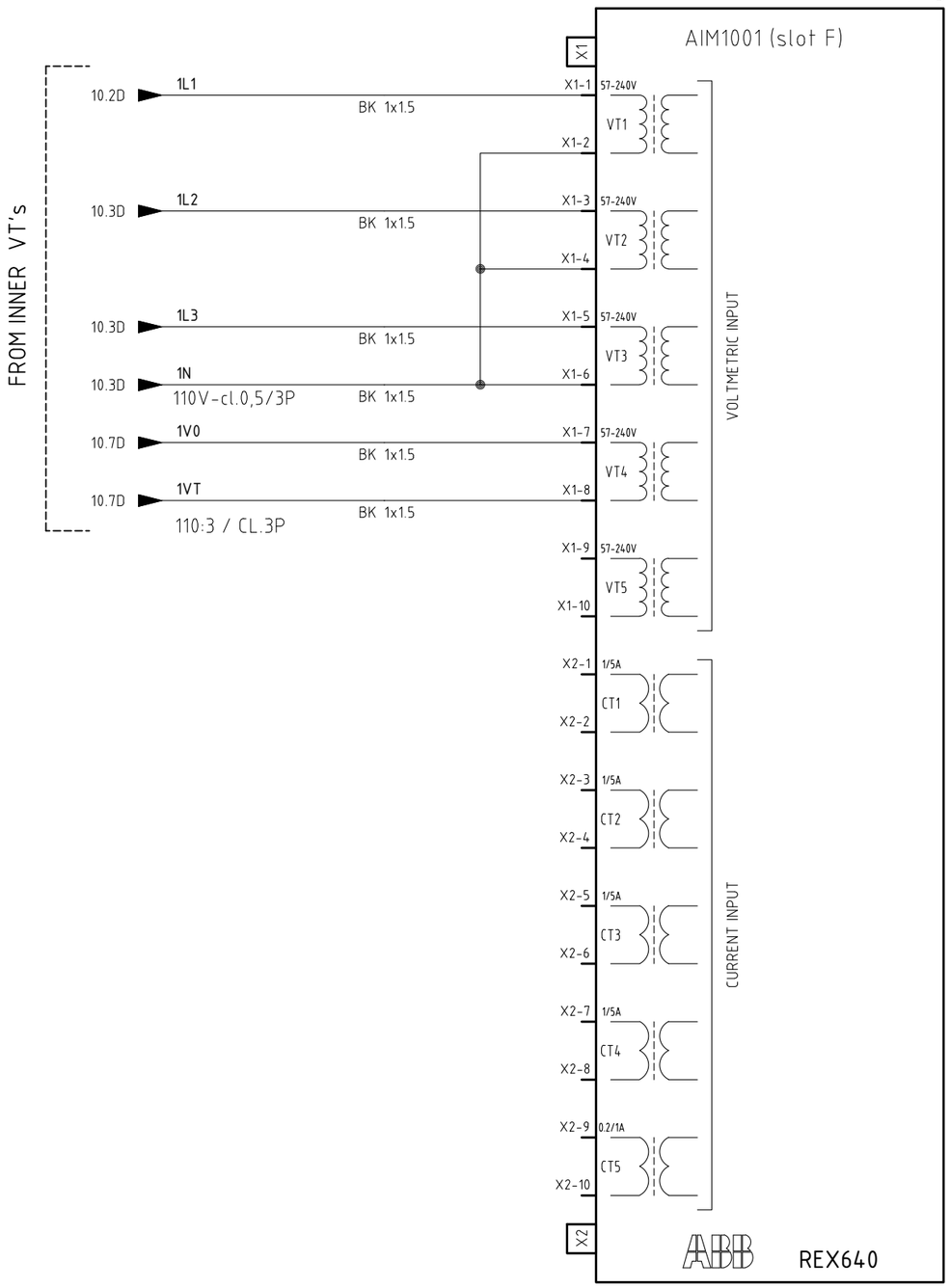
SHEET 17

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00017 Rev.03

"REX640" PROTECTION WIRING



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+A3							
DWG n° : 231151/SD/17	3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)	
Item n° : PF1113279	2	26/06/2024	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 BESS FEEDER A-85000

"REX640"' Protection Wiring

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

SCALE : NTS

A3

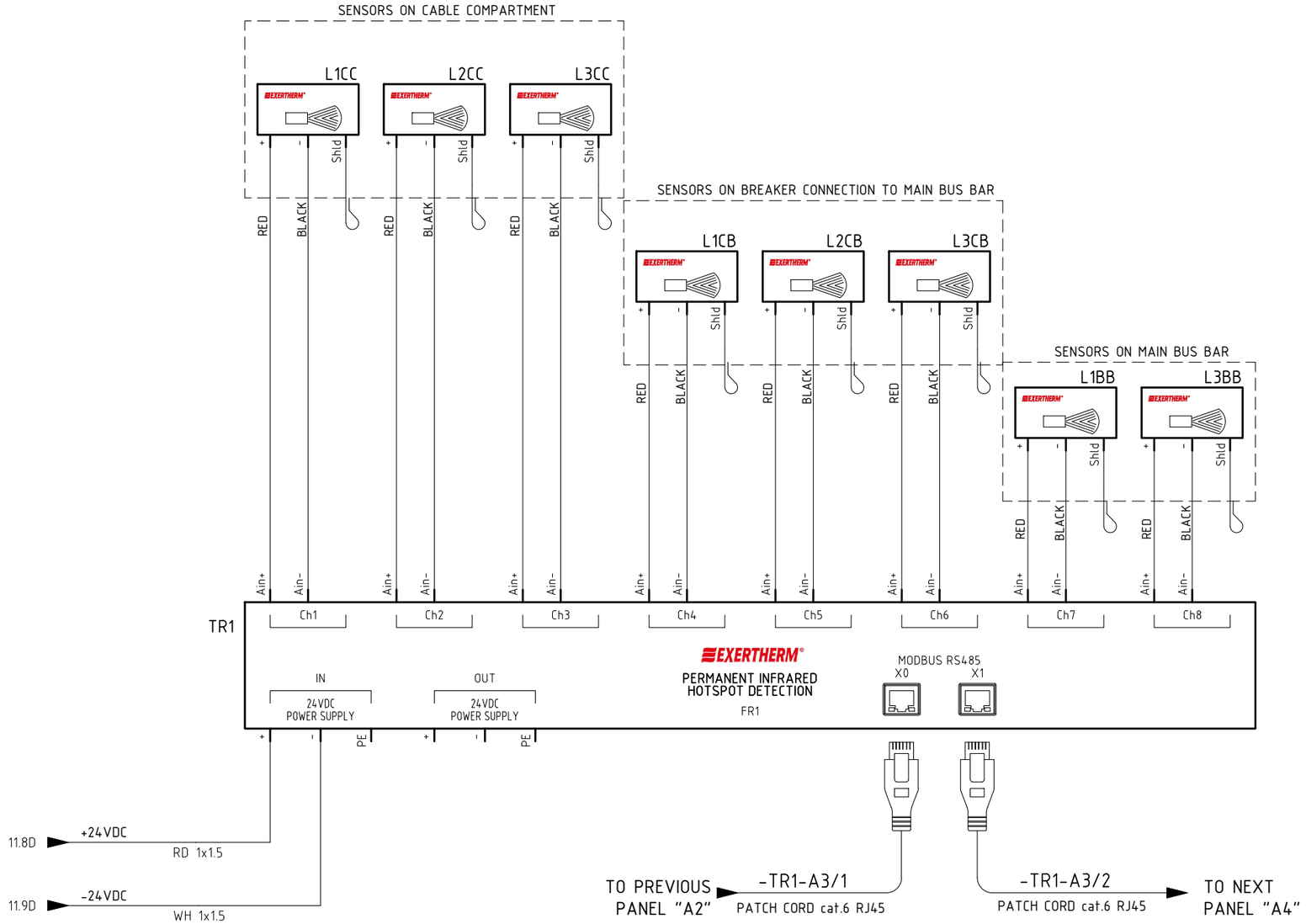
DRAWING NO. 1723002197-EL-DG-00017

SHEET 18

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00017 Rev.03



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	26/06/2024	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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+A3

DWG n° : 231151/SD/17

Item n° : PF1113279

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

TITLE :

SG-100D1 - FUNCTIONAL BESS FEEDER A-85000

Extherm Device

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00017

SHEET 19

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00017 Rev.03

COMMAND CIRCUITS

ENABLING CONTACTOR TRUCK ENCLOSURE DOOR AND EARTHING SWITCH

UNLOCKING CONTACTOR ENCLOSURE DOOR

ENABLING EARTHING SWITCH COMMAND

ENABLING RACK-IN AND RACK-OUT CONTACTOR [LOCKING MAGNET]

11.4D +CL 110VDC (CL)

+CL 21.1A

RD 1x1.5

P1 BK 13 14

KT1 20.2D 16 18 15 30"

21 RD 1x1.5

K1 ISOLATED BGT5 7.4B BGT5-53 BGT5-54

5 XM 6 XM

FP1 16.3A S01 REX640 X1 Slot G X1-7 X1-8 23 X1-6 24 RD 1x1.5

FP1 16.3A S03 REX640 X2 Slot G X2-2 X2-3 X2-1 25 RD 1x1.5

7 XM 8 XM

RD 1x1.5 20

RD 1x1.5 22

RD 1x1.5 26 XDB-45

K1 RLE4 7.4B 1 2

BGE RLE3 9.3C BGE-1 BGE-2

K1 RLE2 7.4B XDB-46

KT1 A1 B1 30" A2

11.4D -CL

-CL 21.1E

WH 1x1.5

20.3A 15 16 18

23.9A 25 26 28

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	26/06/2024	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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+A3

DWG n° : 231151/SD/17

Item n° : PF1113279

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE :

SG-100D1 - FUNCTIONAL BESS FEEDER A-85000

Command Circuit

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00017

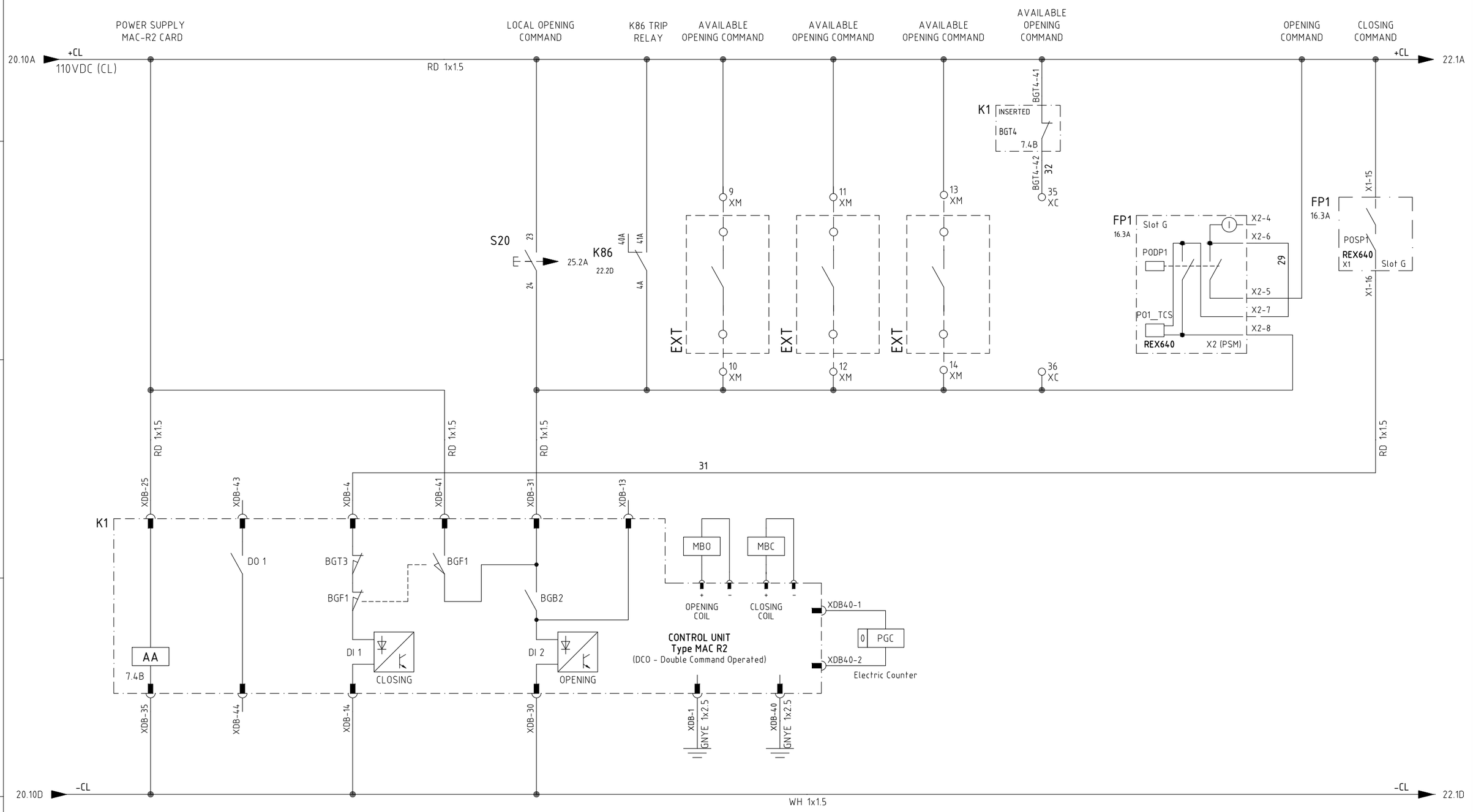
SHEET 20

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00017 Rev.03

CLOSING/OPENING COMMAND CIRCUITS



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
=					
+A3					
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	26/06/2024	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/17
Item n° : PF1113279

CROSSWIND

ROSETTI MARINO

TITLE :

SG-100D1 - FUNCTIONAL BESS FEEDER A-85000

Command Circuit

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00017

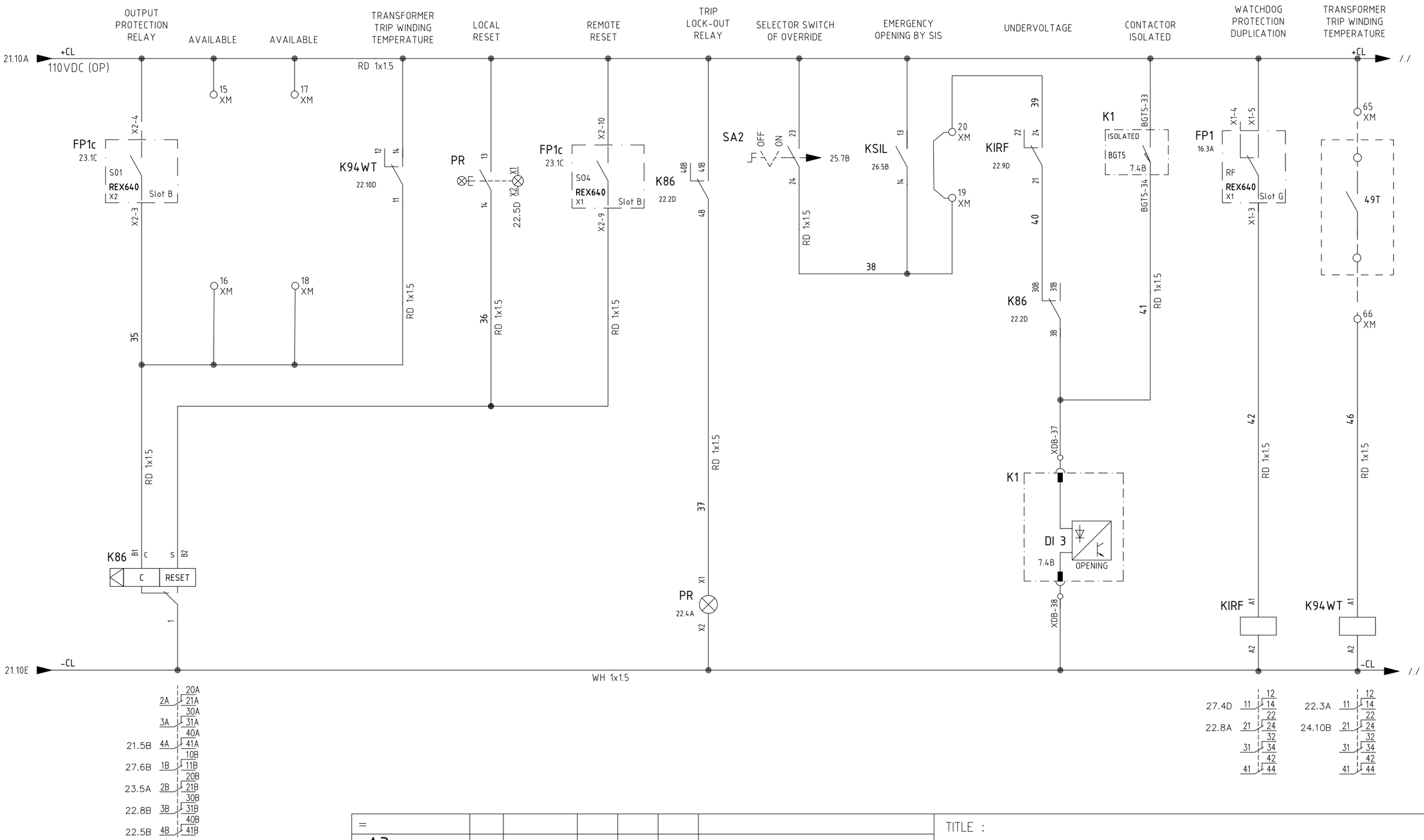
SHEET 21

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00017 Rev.03

COMMAND CIRCUITS



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
=					
+A3					
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	26/06/2024	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/17
Item n° : PF1113279

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

TITLE :

SG-100D1 – FUNCTIONAL BESS FEEDER A-85000

Command Circuit

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00017

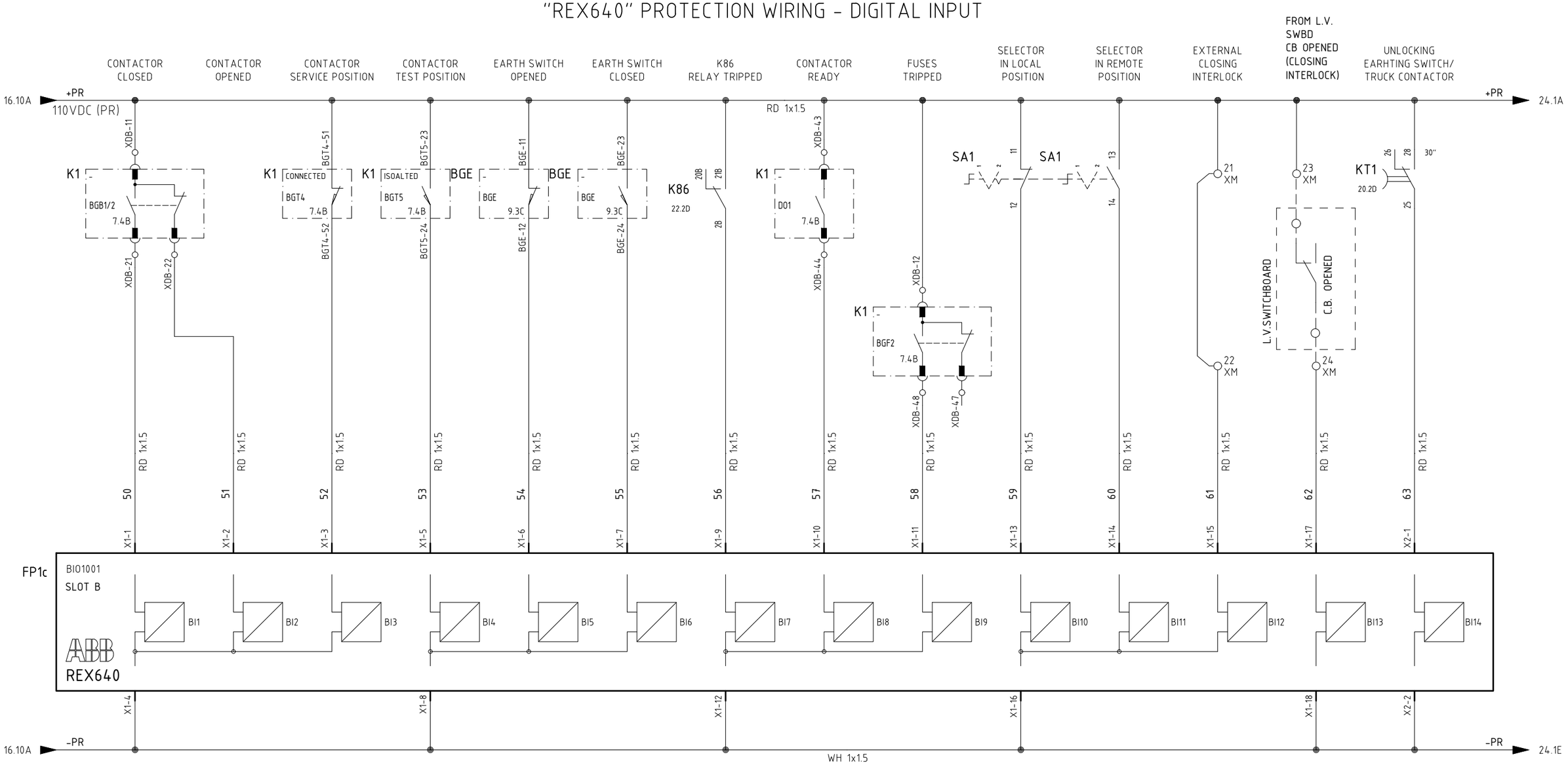
SHEET 22

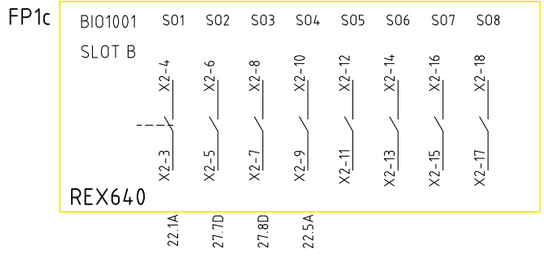
REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00017 Rev.03

"REX640" PROTECTION WIRING - DIGITAL INPUT





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+A3							
	3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
	2	26/06/2024	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

DWG n° : 231151/SD/17
Item n° : PF1113279

IMESA ELECTRICAL ENGINEERING
CROSSWIND
ROSETTI MARINO

TITLE :
SG-100D1 - FUNCTIONAL BESS FEEDER A-85000
"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-00017
SHEET 23
REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00017 Rev.03

"REX640" PROTECTION WIRING - DIGITAL INPUT

EMERGENCY OPENING BY SIS | VT HEALTY CIRCUIT | EARTING SWITCH OPEN (FROM MEASURING UNIT) | CLOSED AUXILIARY CIRCUIT MCB's | CLOSED AUXILIARY V.T. SECONDARY MCB's | MCB AND WATCHDOG PROTECTION RELAY (A4) | AVAILABLE | AVAILABLE | AVAILABLE | TRANSFORMER ALARM WINDING TEMPERATURE | TRANSFORMER TRIP WINDING TEMPERATURE

23.10A +PR 110VDC (PR) — RD 1x1.5 — +PR 25.1A

KSIL 26.5B — QV1 10.2C — QV2 10.4C — QV3 10.7C — PTT 10.2A (BT6-22, BT6-21) — QD2 11.4B — QD4 11.8B — QV5 15.2B — QV4 14.2C — KIRF — QD1 — FROM UNIT A4 — BGE — 49T — K94WT 22.10D

10.9C 5 — 10.9C 6

FP1d
BIO1001
SLOT C
ABB REX640
BI1 BI2 BI3 BI4 BI5 BI6 BI7 BI8 BI9 BI10 BI11 BI12 BI13 BI14

23.10D -PR — WH 1x1.5 — -PR 25.1D

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+A3						
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)	
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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	

DWG n° : 231151/SD/17
Item n° : PF1113279

IMESA ELECTRICAL ENGINEERING
CROSSWIND
ROSETTI MARINO

TITLE :
SG-100D1 - FUNCTIONAL BESS FEEDER A-85000
"REX640" Protection Wiring - Digital Input

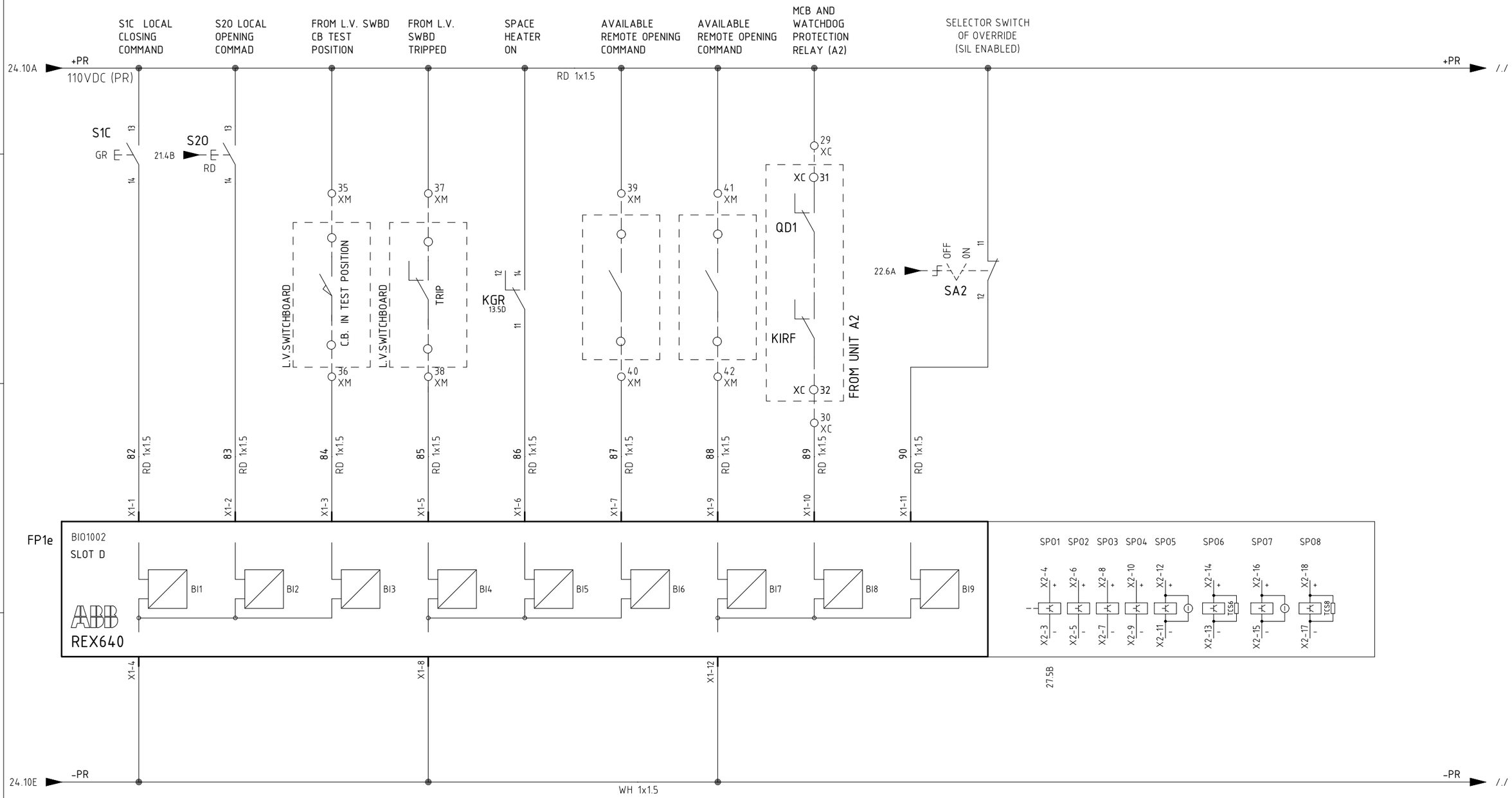
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 1723002197-EL-DG-00017 | SHEET 24 | REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00017 Rev.03

"REX640" PROTECTION WIRING - DIGITAL INPUT



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	26/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for Construction (AFC)
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0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)

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+A3

DWG n° : 231151/SD/17

Item n° : PF1113279

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

TITLE :

SG-100D1 - FUNCTIONAL BESS FEEDER A-85000

"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-00017

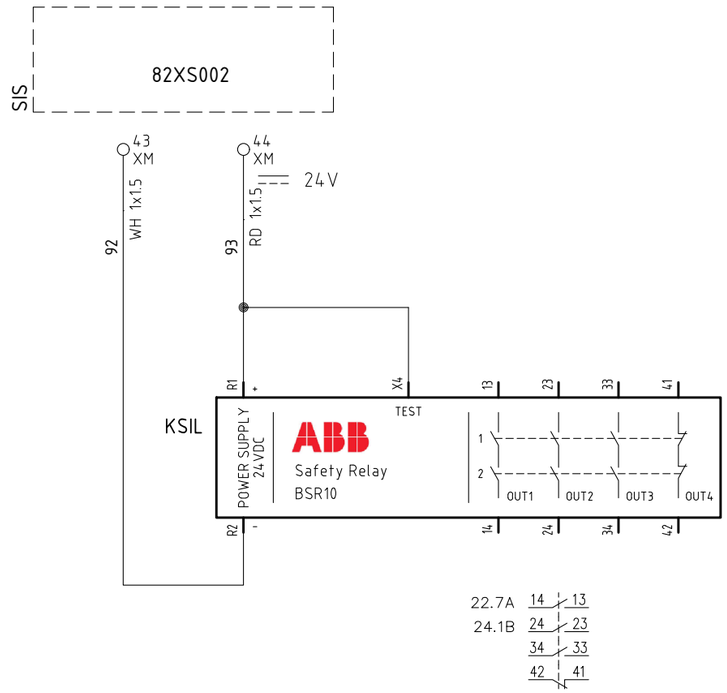
SHEET 25

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00017 Rev.03

EMERGENCY OPENING BY "SIS"



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	+A3						
		3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
		2	26/06/2024	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

DWG n° : 231151/SD/17
Item n° : PF1113279

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE :

SG-100D1 – FUNCTIONAL BESS FEEDER A-85000

Emergency Opening by "SIS"

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00017

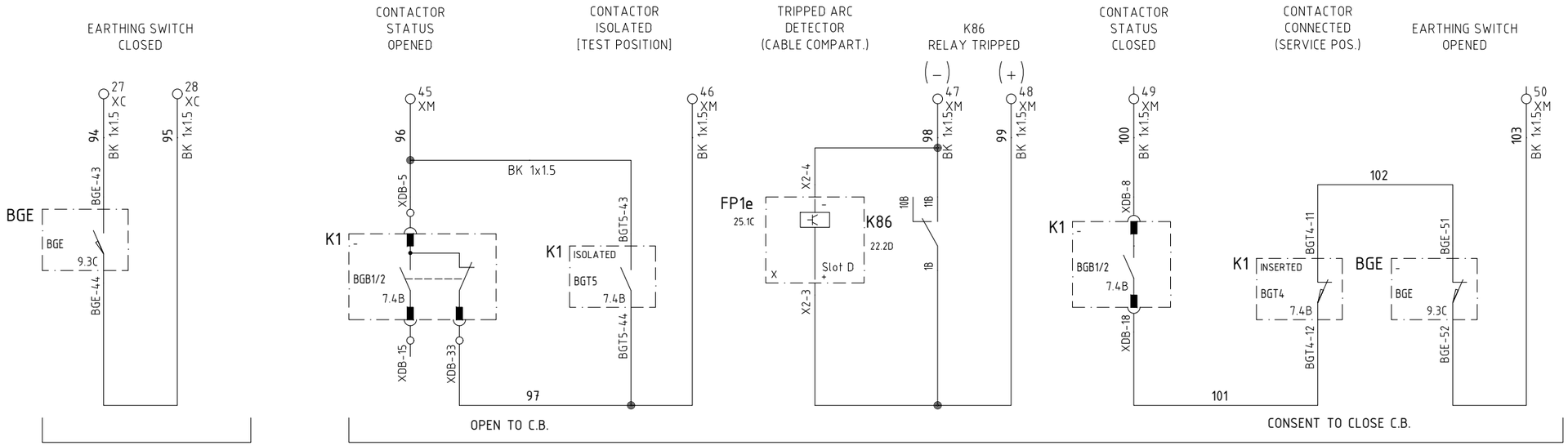
SHEET 26

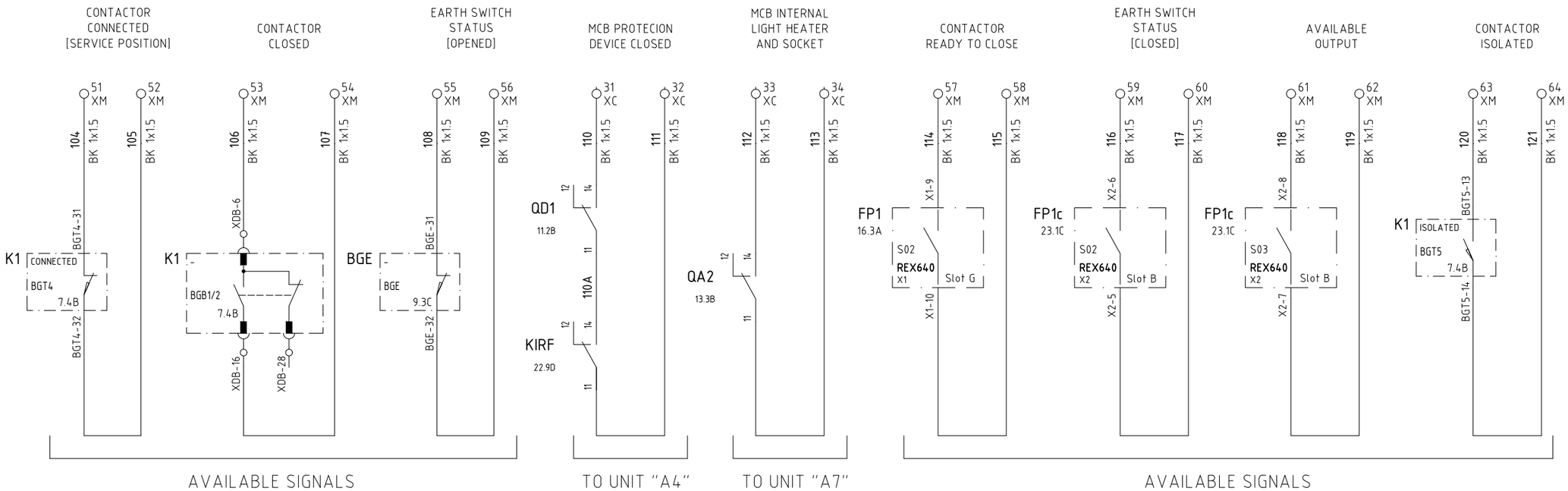
REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00017 Rev.03

AVAILABLE SIGNALS





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3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)		
2	26/06/2024	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		

DWG n° : 231151/SD/17
Item n° : PF1113279

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE :
SG-100D1 – FUNCTIONAL BESS FEEDER A-85000
Availables Signals

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00017

SHEET 27

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00017 Rev.03

TYP - BESS
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
			HL201GR	Cabur	HLD.2/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
			HL201GR	Cabur	HLD.2/PT/GR End section - Grey

TYP - BESS
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/17
Item n° : PF1113279

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	26/06/2024	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 BESS FEEDER A-85000
Terminal stripes

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

A3 | DRAWING NO. 1723002197-EL-DG-00017 | SHEET 28 | REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00017 Rev.03

TYP - BESS
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	24.3A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
26	24.3B	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	25.6A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
30	25.6C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
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	21.8B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
36	21.8C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type

TYP - BESS
XC
Interconnection Terminals

NumM	Fg.	Sez.	Tipo	Costruttore	Descrizione
37	24.5A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
38	24.5C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
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+A3					
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	26/06/2024	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/17
Item n° : PF1113279

IMESA ELECTRICAL ENGINEERING
CROSSWIND
ROSETTI MARINO

TITLE :
SG-100D1 - FUNCTIONAL BESS FEEDER A-85000
Terminal stripes

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

A3 | DRAWING NO. 1723002197-EL-DG-00017 | SHEET 29 | REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00017 Rev.03

TYP - BESS

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	21.5B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
10	21.5C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
11	21.6B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
12	21.6C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
13	21.7B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
14	21.7C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
15	22.2A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
16	22.2B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
17	22.3A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
18	22.3B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
19	22.7B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
20	22.7A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
21	23.8A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
22	23.8B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
23	23.9A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
24	23.9B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
25		4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
26		4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
27	24.6A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
28	24.6B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
29	24.7A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
30	24.7B	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	25.3B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
36	25.3B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
37	25.3B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
38	25.3B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
39	25.4B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
40	25.4B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type

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DWG n° : 231151/SD/17

Item n° : PF1113279

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	26/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for Construction (AFC)
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0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

SG-100D1 - FUNCTIONAL BESS FEEDER A-85000

Terminal stripes

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00017

SHEET 30

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00017 Rev.03

TYP - BESS
XM
Interface Terminals

NumM	Fg.	Sez.	Tipo	Costruttore	Descrizione
41	25.5B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
42	25.5B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
43	26.5B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
44	26.5B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
45	27.3A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
46	27.5A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
47	27.6A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
48	27.6A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
49	27.7A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
50	27.9A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
51	27.1C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
52	27.2C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
53	27.2C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
54	27.3C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
55	27.3C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
56	27.3C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
57	27.6C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
58	27.6C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
59	27.7C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
60	27.7C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
61	27.8C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
62	27.8C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
63	27.9C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
64	27.9C	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
65	22.10A	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
66	22.10B	4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
67		4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
68		4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
69		4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
70		4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
71		4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
72		4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
73		4	HM250GR	Cabur	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type
74		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
			HM251GR	Cabur	HMT.4/PT/GR End section - Grey

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+A3
DWG n° : 231151/SD/17
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	26/06/2024	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 BESS FEEDER A-85000
Terminal stripes

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

A3 | DRAWING NO. 1723002197-EL-DG-00017 | SHEET 31 | REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00017 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	A3	BESS FEEDER A-85000
BGE	9	1VCF599700R0131	1	EARTHING SWITCH ST-E 17.31 150	ABB	A3	BESS FEEDER A-85000
		1VCF599505R0001	1	5 AUX CONTACTS FOR EARTHING SWITCH	ABB	A3	BESS FEEDER A-85000
		1VCF599504R0063	1	KEY LOCKS ON EARTHING SWITCH	ABB	A3	BESS FEEDER A-85000
		1VCF599700R0290	1	EARTHING SWITCH OPERATING LEVER	ABB	A3	BESS FEEDER A-85000
C1	9	43911082	1	VPIS - DEVICE SIGNALLING VOLTAGE PRESENT KIT	ELECTRONSYSTEM	A3	BESS FEEDER A-85000
CB	7	1VCF698000R0012	1	OPTICAL FIBER CABLE PRE-MANUFACT. LENS L=5M	ABB	A3	BESS FEEDER A-85000
CC	9	1VCF698000R0012	1	OPTICAL FIBER CABLE PRE-MANUFACT. LENS L=5M	ABB	A3	BESS FEEDER A-85000
E1	13	74041	1	LED LAMP 4W 4000K 313x30x22	Beghelli	A3	BESS FEEDER A-85000
E8	10	1VCF501000R0001	1	RESISTOR TR318 27R/J 27ohm 500W L=2,5M	ABB	A3	BESS FEEDER A-85000
EH1	13	R1R150230	1	SPACE HEATER SKR 150W ALIM. 220VCA	Torresan	A3	BESS FEEDER A-85000
FF1	10	1YMB751209M1502	1	FUSE-LINKS FOR VOLTAGE TRANSFORMER PROTECTION 6/12kV 2A 192x53mm - CEF-VT	ABB	A3	BESS FEEDER A-85000
FF2	10	1YMB751209M1502	1	FUSE-LINKS FOR VOLTAGE TRANSFORMER PROTECTION 6/12kV 2A 192x53mm - CEF-VT	ABB	A3	BESS FEEDER A-85000
FF3	10	1YMB751209M1502	1	FUSE-LINKS FOR VOLTAGE TRANSFORMER PROTECTION 6/12kV 2A 192x53mm - CEF-VT	ABB	A3	BESS FEEDER A-85000
FP1	16	1VCF698331R0001	1	REX640B10NN+AIM1+AIM1+ARC1+BIO1+BIO1+BI+O2+CMP2+COM1+LNG1+MCT1+PCL4+PSM3+SCT1	ABB	A3	BESS FEEDER A-85000
HGR	13	TRT-10A230V-NC	1	Regolable Thermostat -10÷80°C 1NC IP20 DIN Mounting	Fandis	A3	BESS FEEDER A-85000
K1	7	1VCF305661R3200	1	VACUUM CONTACTOR VSC7/P 3P 7,2KV 400A DOUBLE COMMAND (DCO)	ABB	A3	BESS FEEDER A-85000
		1VCF309500R3881	1	VACUUM CONTACTOR FITTED FOR DIN E=442mm FUSES	ABB	A3	BESS FEEDER A-85000
		1VCF309500R0882	1	NAMEPLATE IN ENGLISH LANGUAGE	ABB	A3	BESS FEEDER A-85000
		1VCF309500R1881	1	VACUUM CONTACTOR FOR UNIGEAR/UNISEC	ABB	A3	BESS FEEDER A-85000
		1VCF309503R0881	1	MAC-R2 ELECTRONIC CONTROL MODULE TYPE STANDARD	ABB	A3	BESS FEEDER A-85000
		1VCF309503R1881	1	VACUUM CONTACTOR CONFORMS TO THE IRC 62271-106 STANDARDS	ABB	A3	BESS FEEDER A-85000
		1VCF309588R0909	1	POWER SUPPLY VOLTAGE OF MAC-R2 ELECTRONIC CONTROL MODULE 110VDC	ABB	A3	BESS FEEDER A-85000
		1VCF309500R0100	1	OPERATIONS COUNTER FOR VSC/P VERSIONE FOR SHIPPINGS REGISTER	ABB	A3	BESS FEEDER A-85000
		1VCF349700R0407	1	MECHANICAL INTERLOCK WITH DOOR	ABB	A3	BESS FEEDER A-85000
		1VCF339700R0291	1	POSITION CONTACTS FOR VD4	ABB	A3	BESS FEEDER A-85000
		1VCF339700R1909	1	LOCKING MAGNET ON THE TRUCK 110Vdc (RLE2)	ABB	A3	BESS FEEDER A-85000
		1VCF309503R0251	1	KIT FOR FUSES DIAMETER 87mm	ABB	A3	BESS FEEDER A-85000
		1VCF309500R0192	1	LIFTING TOOL FOR SHIPPINGS REGISTERS VERSION	ABB	A3	BESS FEEDER A-85000
		1VCF597111R0140	1	POWER CUBE PB1/E L600 12kV 400A 31.5KA 3S	ABB	A3	BESS FEEDER A-85000
		1VCF599700R0882	1	NAMEPLATE IN ENGLISH LANGUAGE FOR POWERCUBE	ABB	A3	BESS FEEDER A-85000
		1VCF599700R5886	1	PB FOR VSC	ABB	A3	BESS FEEDER A-85000
		1VCF599700R4882	1	PAINTED DOOR	ABB	A3	BESS FEEDER A-85000
		1VCF599504R0042	1	LOCK TO PREVENT RACKING-IN WITH EARTHING SWITCH	ABB	A3	BESS FEEDER A-85000
		1VCF599700R0162	1	58 POLES CONNECTOR + ATOXIC WIRING L=0.8mt	ABB	A3	BESS FEEDER A-85000
		1VCF599505R0111	1	FAIL-SAFE SHUTTER ELEMENTS	ABB	A3	BESS FEEDER A-85000
		1VCF579700R0909	1	ELECTROMECHANICAL ISOLATING INTERLOCK CIRCUIT-BREAKER/DOOR 110Vdc (RLE4)	ABB	A3	BESS FEEDER A-85000
		1VCF599700R0280	1	INTERLOCK FOR DOOR EARTHING SWITCH	ABB	A3	BESS FEEDER A-85000
		1YMB711238M4812	1	BACK UP CURRENT LIMINTING FUSE LINK 6/12kV 160A 442x65mm - CEF	ABB	A3	BESS FEEDER A-85000
K86	22	RMBE13-C110T	1	BISTABLE RELAY 110VDC 7SC-5A TROP.	Amra	A3	BESS FEEDER A-85000
		PAVM321	1	SOCKET WITH SCREW TO RELAY TYPE PAVM321	Amra	A3	BESS FEEDER A-85000
K94WT	22	ER 589 2	1	CR-M110DC4L SUPPLY 110VDC 4C/O 250V/6A LED	ABB	A3	BESS FEEDER A-85000
		ER 686 6	1	CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M)	ABB	A3	BESS FEEDER A-85000
		ER 728 6	1	CR-MH1 METAL RETAINING JUMPER	ABB	A3	BESS FEEDER A-85000

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+A3

DWG n° : 231151/SD/17
Item n° : PF1113279

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
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IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE :
SG-100D1 - FUNCTIONAL BESS FEEDER A-85000
Bill of Materials

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

A3 | DRAWING NO. 1723002197-EL-DG-00017 | SHEET 32 | REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00017 Rev.03

Nome/Item	Fg/Sh	Tipo/Type	Q.tà	Descrizione/Description	Costruttore/Manufacturer	Ubicazione (descrizione)	Quadro (descrizione)
KGR	13	ER 686 6	1	CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M)	ABB	A3	BESS FEEDER A-85000
		ER 728 6	1	CR-MH1 METAL RETAINING JUMPER	ABB	A3	BESS FEEDER A-85000
		ER 552 0	1	CR-M230AC2L SUPPLY 230VAC 2C/O 250V/6A LED	ABB	A3	BESS FEEDER A-85000
KIRF	22	ER 589 2	1	CR-M110DC4L SUPPLY 110VDC 4C/O 250V/6A LED	ABB	A3	BESS FEEDER A-85000
		ER 686 6	1	CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M)	ABB	A3	BESS FEEDER A-85000
		ER 728 6	1	CR-MH1 METAL RETAINING JUMPER	ABB	A3	BESS FEEDER A-85000
KSIL	26	2TLA010040R0000	1	BSR10 Vaux=24VDC SAFETY RELAY	ABB	A3	BESS FEEDER A-85000
KT1	20	H3DKM2ACDC24240	1	MULTIFUNCTION TIMER RELAY Vaux=24÷240Vac/dc - 2SC	Omron	A3	BESS FEEDER A-85000
L1C	19	801100	1	IR SENSOR 10m CABLE	EXERTHERM	A3	BESS FEEDER A-85000
L1I	19	801100	1	IR SENSOR 10m CABLE	EXERTHERM	A3	BESS FEEDER A-85000
L1MS	19	801100	1	IR SENSOR 10m CABLE	EXERTHERM	A3	BESS FEEDER A-85000
L2C	19	801100	1	IR SENSOR 10m CABLE	EXERTHERM	A3	BESS FEEDER A-85000
L2I	19	801100	1	IR SENSOR 10m CABLE	EXERTHERM	A3	BESS FEEDER A-85000
L3C	19	801100	1	IR SENSOR 10m CABLE	EXERTHERM	A3	BESS FEEDER A-85000
L3I	19	801100	1	IR SENSOR 10m CABLE	EXERTHERM	A3	BESS FEEDER A-85000
L3MS	19	801100	1	IR SENSOR 10m CABLE	EXERTHERM	A3	BESS FEEDER A-85000
LS	13	Z15GW2-1-1453270	1	MICROSWITCH 1sc	Omron	A3	BESS FEEDER A-85000
		APB-PG	1	COVER TO MICRO-SWITCH	Omron	A3	BESS FEEDER A-85000
OD1	9	990003	1	MEDIUM VOLTAGE DISCHARGE DMI-9-10-1-L Ur=9kV	DEHN	A3	BESS FEEDER A-85000
OD2	9	990003	1	MEDIUM VOLTAGE DISCHARGE DMI-9-10-1-L Ur=9kV	DEHN	A3	BESS FEEDER A-85000
OD3	9	990003	1	MEDIUM VOLTAGE DISCHARGE DMI-9-10-1-L Ur=9kV	DEHN	A3	BESS FEEDER A-85000
P1	20	KW 080 2	1	MP1-10B BLACK PUSH BUTTON UNSTABLE	ABB	A3	BESS FEEDER A-85000
		EO 569 7	1	MCBH-00 FIXING SUPPORT 3 CONTACTS	ABB	A3	BESS FEEDER A-85000
		EO 570 5	1	MCB-10 CONTACT NO FOR PUSHBUTTONS	ABB	A3	BESS FEEDER A-85000
PR	22	KW 101 6	1	YELLOW LIGHT PUSH BUTTON	ABB	A3	BESS FEEDER A-85000
		KV 022 5	1	MLBL-05W YELLOW LED BLOCK INTEGRATED 110÷130VAC	ABB	A3	BESS FEEDER A-85000
		EO 569 7	1	MCBH-00 FIXING SUPPORT 3 CONTACTS	ABB	A3	BESS FEEDER A-85000
		EO 570 5	1	MCB-10 CONTACT NO FOR PUSHBUTTONS	ABB	A3	BESS FEEDER A-85000
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	A3	BESS FEEDER A-85000
		1VCF499800R0302	1	NAMEPLATE IN ENGLISH LANGUAGE FOR TV/F	ABB	A3	BESS FEEDER A-85000
QA2	13	B427917	1	DDA202 AC 25A 300MA BLOCCO DIFFERENZIALE 2P	ABB	A3	BESS FEEDER A-85000
		A563819	1	S2-CS/H6R CONTATTO DI SEGNALAZIONE/AUX 1SC	ABB	A3	BESS FEEDER A-85000
		S550284	1	S202M C10 INTERRUTTORE AUTOMATICO 10KA 2P	ABB	A3	BESS FEEDER A-85000
QD1	11	A563819	1	S2-CS/H6R CONTATTO DI SEGNALAZIONE/AUX 1SC	ABB	A3	BESS FEEDER A-85000
		S550253	1	S202M C 4 INTERRUTTORE AUTOMATICO 10KA 2P	ABB	A3	BESS FEEDER A-85000
QD2	11	S550253	1	S202M C 4 AUTOMATIC CIRCUIT-BREAKER 10KA 2P	ABB	A3	BESS FEEDER A-85000
		a563819	1	S2-CS/H6R AUXILIARY STATE CONTACT	ABB	A3	BESS FEEDER A-85000
QD4	11	A563819	1	S2-CS/H6R AUXILIARY STATE CONTACT 1CO	ABB	A3	BESS FEEDER A-85000
		S550239	1	S202M C 2 AUTOMATIC CIRCUIT BREAKER 10KA 2P	ABB	A3	BESS FEEDER A-85000
QV1	10	S550680	1	S204M C 2 AUTOMATIC CIRCUIT-BREAKER 10KA 4P	ABB	A3	BESS FEEDER A-85000
		A563819	1	S2-CS/H6R AUXILIARY STATE CONTACT 1CO	ABB	A3	BESS FEEDER A-85000
QV2	10	S550680	1	S204M C 2 AUTOMATIC CIRCUIT-BREAKER 10KA 4P	ABB	A3	BESS FEEDER A-85000
		A563819	1	S2-CS/H6R AUXILIARY STATE CONTACT 1CO	ABB	A3	BESS FEEDER A-85000

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DWG n° : 231151/SD/17
Item n° : PF1113279

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
3	08/08/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
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IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE :
SG-100D1 - FUNCTIONAL BESS FEEDER A-85000
Bill of Materials

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

A3 | DRAWING NO. 1723002197-EL-DG-00017 | SHEET 33 | REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00017 Rev.03

Nome/Item	Fg/Sh	Tipo/Type	Q.tà	Descrizione/Description	Costruttore/Manufacturer	Ubicazione (descrizione)	Quadro (descrizione)
QV3	10	S550239	1	S202M C 2 AUTOMATIC CIRCUIT BREAKER 10KA 2P	ABB	A3	BESS FEEDER A-85000
		A563819	1	S2-CS/H6R AUXILIARY STATE CONTACT 1CO	ABB	A3	BESS FEEDER A-85000
QV4	14	S550680	1	S204M C 2 AUTOMATIC CIRCUIT-BREAKER 10KA 4P	ABB	A3	BESS FEEDER A-85000
		A563819	1	S2-CS/H6R AUXILIARY STATE CONTACT 1CO	ABB	A3	BESS FEEDER A-85000
QV5	15	S550239	1	S202M C 2 AUTOMATIC CIRCUIT BREAKER 10KA 2P	ABB	A3	BESS FEEDER A-85000
		A563819	1	S2-CS/H6R AUXILIARY STATE CONTACT 1CO	ABB	A3	BESS FEEDER A-85000
S1C	25	EO 569 7	1	MCBH-00 FIXING SUPPORT 3 CONTACTS	ABB	A3	BESS FEEDER A-85000
		EO 570 5	1	MCB-10 CONTACT NO FOR PUSHBUTTONS	ABB	A3	BESS FEEDER A-85000
		KW 076 0	1	MP1-10G PUSH BUTTON GREEN WITH BLACK RING	ABB	A3	BESS FEEDER A-85000
S2O	25	KW 075 2	1	MP1-10R PUSH BUTTON RED WITH BLACK RING	ABB	A3	BESS FEEDER A-85000
		EO 569 7	1	MCBH-00 FIXING SUPPORT 3 CONTACTS	ABB	A3	BESS FEEDER A-85000
		EO 570 5	1	MCB-10 CONTACT NO FOR PUSHBUTTONS	ABB	A3	BESS FEEDER A-85000
SA1	23	EO 569 7	1	MCBH-00 FIXING SUPPORT 3 CONTACTS	ABB	A3	BESS FEEDER A-85000
		EO 571 3	1	MCB-01 CONTACT NC FOR PUSHBUTTOM	ABB	A3	BESS FEEDER A-85000
		EO 570 5	1	MCB-10 CONTACT NO FOR PUSHBUTTONS	ABB	A3	BESS FEEDER A-85000
		KW 329 3	1	M2SS2-10B HANDLE SELECTOR 2P 90° BLACK RING BLACK	ABB	A3	BESS FEEDER A-85000
SA2	22	EO 569 7	1	MCBH-00 FIXING SUPPORT 3 CONTACTS	ABB	A3	BESS FEEDER A-85000
		EO 570 5	1	MCB-10 CONTACT NO FOR PUSHBUTTONS	ABB	A3	BESS FEEDER A-85000
		EO 571 3	1	MCB-01 CONTACT NC FOR PUSHBUTTOM	ABB	A3	BESS FEEDER A-85000
		KW 329 3	1	M2SS2-10B HANDLE SELECTOR 2P 90° BLACK RING BLACK	ABB	A3	BESS FEEDER A-85000
TI1	8	ATB-10-BS__014	1	CURRENT TRANSFORMER 7,2kV 50Hz 150/1A cl.0,5-5P20 (5VA)- 25kA	ESITAS	A3	BESS FEEDER A-85000
TI2	8	ATB-10-BS__014	1	CURRENT TRANSFORMER 7,2kV 50Hz 150/1A cl.0,5-5P20 (5VA)- 25kA	ESITAS	A3	BESS FEEDER A-85000
TI3	8	ATB-10-BS__014	1	CURRENT TRANSFORMER 7,2kV 50Hz 150/1A cl.0,5-5P20 (5VA)- 25kA	ESITAS	A3	BESS FEEDER A-85000
TO	9	KAP-150/250-55	1	CURRENT TRANSFORMER 0,72/3/-kV 100/1 50Hz	ESITAS	A3	BESS FEEDER A-85000
TR1	19	800208	1	MODBUS DATACARD 8 CHANNELS	Exertherm	A3	BESS FEEDER A-85000
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	A3	BESS FEEDER A-85000
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	A3	BESS FEEDER A-85000
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	A3	BESS FEEDER A-85000
XC		HM320GR	12	HMM.6/GR Feed-through Terminal Block - Grey (6 mmq)	Cabur	A3	BESS FEEDER A-85000
		HM250GR	26	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type	Cabur	A3	BESS FEEDER A-85000
		HM251GR	2	HMT.4/PT/GR End section - Grey	Cabur	A3	BESS FEEDER A-85000
		HM321GR	3	HMT.6/PT/GR End section - Grey	Cabur	A3	BESS FEEDER A-85000
XI		HB220GR	8	HSCB.6/GR Disconnect by slide link Terminal Block - Grey (6 mmq) - spring type	Cabur	A3	BESS FEEDER A-85000
		HL201GR	2	HLD.2/PT/GR End section - Grey	Cabur	A3	BESS FEEDER A-85000
XM		HM250GR	76	HMM.4/GR Feed-through Terminal Block - Grey (4 mmq) - spring type	Cabur	A3	BESS FEEDER A-85000
		HM251GR	2	HMT.4/PT/GR End section - Grey	Cabur	A3	BESS FEEDER A-85000
XS1	13	E 9447 7	1	SOCKET	ABB	A3	BESS FEEDER A-85000
XV		HB210GR	16	HSCB.6/GR Disconnect by slide link Terminal Block - Grey (6 mmq) - Spring type	Cabur	A3	BESS FEEDER A-85000
		HB201GR	5	HSCB.6/PT/GR End section - Grey	Cabur	A3	BESS FEEDER A-85000

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DWG n° : 231151/SD/17

Item n° : PF1113279

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IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE :

SG-100D1 - FUNCTIONAL BESS FEEDER A-85000

Bill of Materials

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00017

SHEET 34

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00017 Rev.03