"SG-100D1" HV SWBD 6,6kV (UNIT A4)

LOGICAL DIAGRAM

TRANSFORMER FEEDER TR-200DE1

=							
+A4							
DWG n° : 231151/SD/29	3	22/07/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)	
Item n° : PF1113279	2	**28/06/2024**	**Giulietti**	**Flamminio**	**Sigismondi**	**Accepted for construction (AFC)**	
	1	21/05/2024	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 - LOGICAL TRANSF FEEDER TR-200DE1
Cover

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00029

SHEET 1

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00029 Rev.03

INDEX

Sheet	Description	Revision 0	1	2	3	4	5	6	7	8
1	Cover									
2	Sheets index									
3	Input Protection Relay REX640									
4	Input Protection Relay REX640									
5	Output Protection Relay REX640									
6	Protections REX640									
7	Protections REX640									
8	Contactor Commands									
9	Contactor Commands									
10	Contactor Commands									
11	Contactor Commands									
12	Measures									

Sheet	Description	Revision 0	1	2	3	4	5	6	7	8

=
+A4

DWG n° : 231151/SD/29

Item n° : PF1113279

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
3	22/07/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	28/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for construction (AFC)
1	21/05/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)
0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE :

SG-100D1 - LOGICAL TRANSF FEEDER TR-200DE1

Sheets index

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

SCALE : NTS

A3

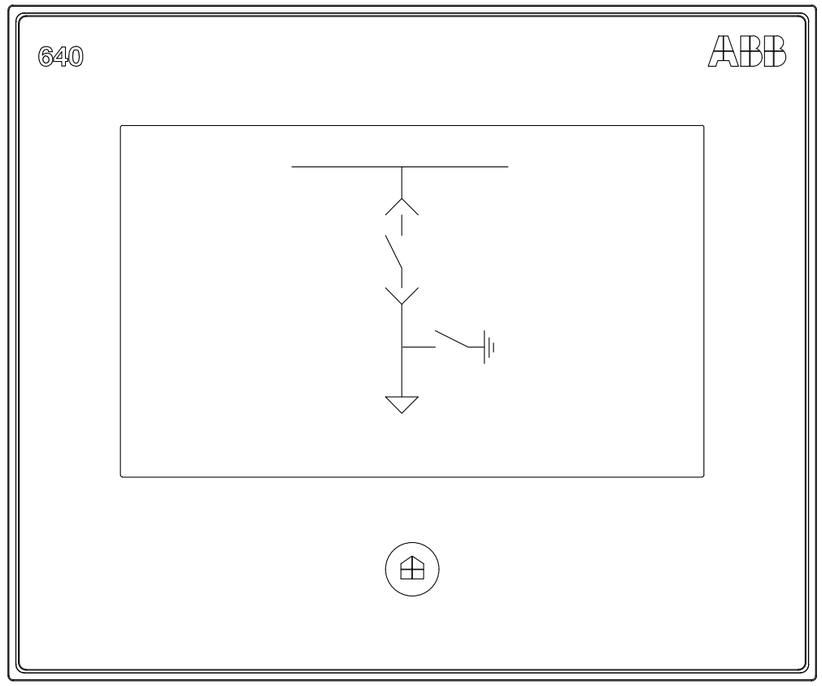
DRAWING NO. 1723002197-EL-DG-00029

SHEET 2

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00029 Rev.03



LHMI - TOUCH DISPLAY

- COMMANDS "CLOSE C.B." AND "OPEN C.B." NON ENABLED
- PUSH BUTTON "REMOTE / LOCAL" NOT ENABLED
- ONLY PUSH BUTTON "RESET" ARC PROTECTION WILL BE ENABLED

LEDs PAGE 1				
Item	NAME PLATE	COLOUR		Note
		ALARM	OK	
LED-1	27-1/59-1 - VOLTAGE PROTECTION	RED	-	ALARM = OVER/UNDER VOLTAGE PROTECTION
LED-2	CONTACTOR READY (TCS)	-	GREEN	OK = TCS OK (CONTACTOR READY)
LED-3				
LED-4	CONTACTOR READY TO CLOSE	-	GREEN	OK = CONTACTOR READY TO CLOSE
LED-5	50/50-1/50-2/51/51-1 - TRIPPED	RED	-	ALARM = OVERCURRENT PROTECTION TRIPPED
LED-6	51N/51G/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				

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
=					
+A4					
3	22/07/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	28/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for construction (AFC)
1	21/05/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)
0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)

DWG n° : 231151/SD/29
Item n° : PF1113279

IMESA ELECTRICAL ENGINEERING
CROSSWIND
ROSETTI MARINO

TITLE :
SG-100D1 - LOGICAL TRANSF FEEDER TR-200DE1
Input Protection Relay REX640

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

A3
DRAWING NO. 1723002197-EL-DG-00029
SHEET 3
REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00029 Rev.03

INPUTS

B–X1

1 / 4	BI1	CONTACTOR CLOSED
2 / 4	BI2	CONTACTOR OPENED
3 / 4	BI3	CONTACTOR SERVICE POSITION
5 / 8	BI4	CONTACTOR TEST POSITION
6 / 8	BI5	EARTH SWITCH OPENED
7 / 8	BI6	EARTH SWITCH CLOSED
9 / 12	BI7	RELAY TRIPPED
10 / 12	BI8	CONTACTOR READY
11 / 12	BI9	FUSES TRIPPED
13 / 16	BI10	SELECTOR IN LOCAL POSITION
14 / 16	BI11	SELECTOR IN REMOTE POSITION
15 / 16	BI12	EXTERNAL CLOSING INTERLOCK
17 / 18	BI13	CIRC.BREAKER OPENED (FROM L.V. SWITCHBOARD)

B–X2

1 / 2	BI14	UNLOCKING EARTHING SWITCH / TRUCK CONTACTOR

INPUTS

C–X1

1 / 4	BI1	
2 / 4	BI2	
3 / 4	BI3	EARTHING SWITCH OPEN (FROM MEASURING UNIT)
5 / 8	BI4	CLOSED AUXILIARY CIRCUIT MCB's
6 / 8	BI5	CLOSED AUXILIARY V.T. SECONDARY MCB's
7 / 8	BI6	TRANSF.ALAM BUCHHOLZ
9 / 12	BI7	TRANSF.TRIP BUCHHOLZ
10 / 12	BI8	TRANSF.ALARM OIL TEMPERATURE
11 / 12	BI9	TRANSF.TRIP OIL TEMPERATURE
13 / 16	BI10	TRANSF.ALARM OIL LEVEL
14 / 16	BI11	TRANSF. OIL LEVEL VERY LOW ALARM
15 / 16	BI12	TRANSF.TRIP OIL PRESSURE
17 / 18	BI13	TRANSF.ALARM WINDING TEMPERATURE

B–X2

1 / 2	BI14	TRANSF.TRIP WINDING TEMPERATURE

INPUTS

D–X1

1 / 4	BI1	LOCAL CLOSING COMMAND
2 / 4	BI2	LOCAL OPENING COMMAND
3 / 4	BI3	CIRC.BREAKER IN TEST POSITION (FROM L.V. SWITCHBOARD)
5 / 8	BI4	CIRC.BREAKER TRIPPED (FROM L.V. SWITCHBOARD)
6 / 8	BI5	SPACE HEATER "ON"
7 / 8	BI6	AVAILABLE REMOTE OPENING COMMNAD
9 / 12	BI7	TRANSF. GENERAL ALARM
10 / 12	BI8	MCB AND WATCHDOG PROTECTION. RELAY HEALTH (FROM UNIT A3)
11 / 12	BI9	

ARC MODULE

LIGHT SENSOR INPUT 1	Slot A1 X11	ARC "MAIN BUS BAR" "BB"
LIGHT SENSOR INPUT 2	Slot A1 X12	ARC "CONTACTOR COMPART." "CB"
LIGHT SENSOR INPUT 3	Slot A1 X13	ARC "CABLE COMPARTEMENT" "CC"
LIGHT SENSOR INPUT 4	Slot A1 X14	

=						
+A4						
DWG n° : 231151/SD/29	3	22/07/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
Item n° : PF1113279	2	28/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for construction (AFC)
	1	21/05/2024	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 – LOGICAL TRANSF FEEDER TR–200DE1

Input Protection Relay REX640

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

SCALE : NTS

A3

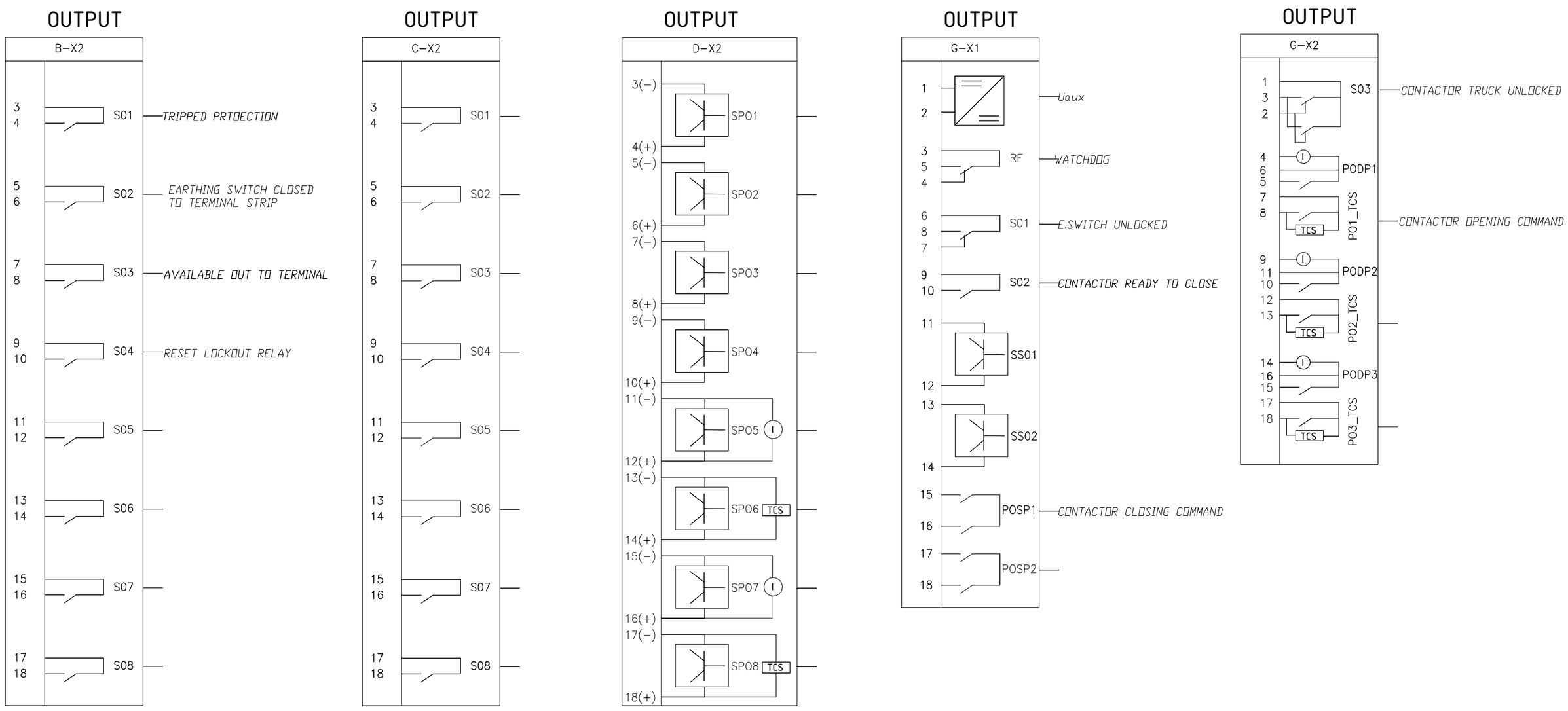
DRAWING NO. 1723002197–EL–DG–00029

SHEET 4

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197–EL–DG–00029 Rev.03



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
3	22/07/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	28/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for construction (AFC)
1	21/05/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)
0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)

=
+A4

DWG n° : 231151/SD/29

Item n° : PF1113279

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE :

SG–100D1 – LOGICAL TRANSF FEEDER TR–200DE1

Output Protection Relay REX640

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

SCALE : NTS

A3

DRAWING NO. 1723002197–EL–DG–00029

SHEET 5

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197–EL–DG–00029 Rev.03

INPUTS

PROTECTIONS REX640 (FP1)

OUTPUTS

7.6D → 67

50-1 / 3I>>> / PHHPTOC1 (0 / 1 / Start)

TO EMCS IEC 61850 — *50-1 -PROTECTION OPERATED*

51-1 / 3I> / PHLPTOC1 (0 / 1 / Start)

TO EMCS IEC 61850 — *51-1 -PROTECTION OPERATED*

TO EMCS IEC 61850 — *51G -PROTECTION OPERATED*

51G / Io>> / EFHPTOC1 (0 / 1 / Start)

TO EMCS IEC 61850 — *51N PROTECTION OPERATED*

51N / Io> / EFLPTOC1 (0 / 1 / Start)

59N-2 / Vo> / ROVPTOV2 (0 / 1 / Start)

TO EMCS IEC 61850 — *59N-2 PROTECTION OPERATED*

KA1 — TRIP PROTECTION FROM LOW VOLTAGE (0 / 1)

D-X1-5

LED-15 (RED)

t=0,5" &

RESET — K86 → 9.5A

K86 → 7.5B

59N → 7.8A

LED-5 (RED)

LED-6 (RED)

PROTECTION → 8.6B

TO EMCS IEC 61850 — *INTERTRIP SEND (TO L.V. SWITCHB.)*

B_X2-S01

K86 TRIPPED PROTECTION (0 / 1)

10.8B → TRIPPED TRASF.

9.4B → FUSE

ONLY "LIGHT"
50L/50NL ARC ARCSARC1 (0 / 1 / Start) → ARC "MAIN BUS BAR" "BB"

ONLY "LIGHT"
50L/50NL ARC ARCSARC2 (0 / 1 / Start) → ARC "CONTACTOR COMPART." "CB"

ONLY "LIGHT"
50L/50NL ARC ARCSARC3 (0 / 1 / Start) → ARC "CABLE COMPARTEMENT" "CC"

GOOSE FROM INCOMINGS: UNIT :A6

TRIPPED ARC PROTECTION FOR:
- ARC DETECTED ON MAIN BUS BAR (FROM ALL UNITS)
- ARC DETECTED ON C.B. / CONTACTOR COMPARTEMENT (FROM ALL UNITS)
- ARC DETECTED ON CABLE COMPARTEMENT (ONLY CONTACTOR UNIT)

t=0,5" (falling)

9.6A → K86 ARC → 8.6C

LED-9 (RED)

GOOSE TO INCOMINGS: UNIT :A6

0 / 1 — TRIPPED ARC PROTECTION

=						
+A4						
3	22/07/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)	
2	28/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for construction (AFC)	
1	21/05/2024	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/29

Item n° : PF1113279

CROSSWIND

ROSETTI MARINO

TITLE :

SG-100D1 - LOGICAL TRANSF FEEDER TR-200DE1

Protections REX640

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00029

SHEET 6

REV. 03

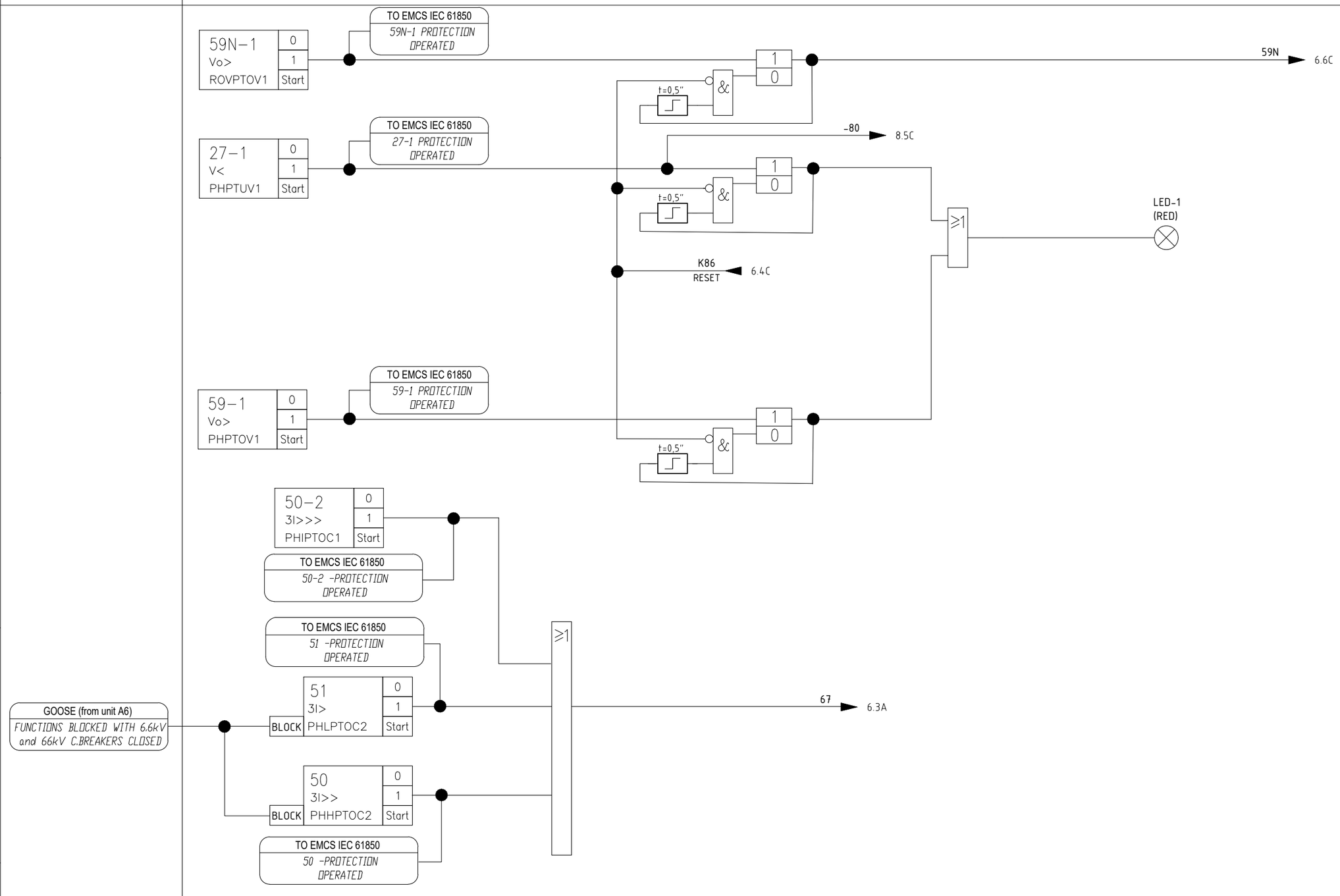
F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00029 Rev.03

INPUTS

PROTECTIONS REX640 (FP1)

OUTPUTS



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
3	22/07/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	28/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for construction (AFC)
1	21/05/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)
0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)

=
+A4

DWG n° : 231151/SD/29

Item n° : PF1113279

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

TITLE :

SG-100D1 - LOGICAL TRANSF FEEDER TR-200DE1

Protections REX640

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00029

SHEET 7

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00029 Rev.03

INPUTS

REX640 CONTACTOR COMMANDS

OUTPUTS

S20 LOCAL OPENING COMMAND 0/1 → D-X1-2

K1 – BGT4 CONTACTOR SERVICE 0/1 → B-X1-3

K1 – BGT5 CONTACTOR TEST 0/1 → B-X1-5

XM REMOTE AVAILABLE 0/1 → D-X1-7

SA1 SELECTOR IN REMOTE POSITION 0/1 → B-X1-14

SA1 SELECTOR IN LOCAL POSITION 0/1 → B-X1-13

S1C LOCAL CLOSING COMMAND 0/1 → D-X1-1

KGR SPACE HEATER "ON" 0/1 → D-X1-6

LED-12 (RED)

IEC 61850 – EMCS OPENING 0/1

IEC 61850 – EMCS CLOSING 0/1

TEST → 8.5D

INSERT. → 9.3D

INSERT. → 9.4C

INSERT.

INSERT.

INSERT.

7.6A → -80

REMOTE → 9.7B

LOCAL → 11.4B

TO EMCS IEC 61850 *SELECTOR IN REMOTE POSITION*

TO EMCS IEC 61850 *SELECTOR IN LOCAL POSITION*

8.3B → TEST

TEST → 11.3C

LOCAL OPENING

REMOTE OPENING

6.9B → PROTECTION

9.5A → K86

UNDERVOLTAGE

6.6E → ARC

REMOTE CLOSING

LOCAL CLOSING

9.6B → READY

TEST LOCAL CLOSING

LOCAL CLOSING

OPENING → 9.4C

G_PODP1-X2 → K1 CONTACTOR OPENING 0/1

TO EMCS IEC 61850 *RESET LOCKOUT RELAY* → B_S04-X2 → FP1c RESET LOCKOUT RELAY 0/1

G_POSP1-X1 → K1 CONTACTOR CLOSING 0/1

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
3	22/07/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	28/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for construction (AFC)
1	21/05/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)
0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)

= +A4

DWG n° : 231151/SD/29

Item n° : PF1113279

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : SG–100D1 – LOGICAL TRANSF FEEDER TR–200DE1

Contactor Commands

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

SCALE : NTS

A3

DRAWING NO. 1723002197–EL–DG–00029

SHEET 8

REV. 03

File Name : 1723002197–EL–DG–00029 Rev.03

F.to UNI A3: 420mmx297mm

INPUTS

REX640 CONTACTOR COMMANDS

OUTPUTS

K86 RELAY TRIPPED — 0 / 1 — B-X1-9

XM EXTERNAL CLOSING INTERLOCK — 0 / 1 — B-X1-15

XM FROM L.V.SWDB C.B.OPENED — 0 / 1 — B-X1-17

DO1 CONTACTOR READY (TCS) — 0 / 1 — B-X1-10

BGF2 FUSE TRIPPED — 0 / 1 — B-X1-11

BGE EARTHING SWITCH OPENED — 0 / 1 — B-X1-6

BGE EARTHING SWITCH CLOSED — 0 / 1 — B-X1-7

K1 CONTACTOR OPENED — 0 / 1 — B-X1-2

QD2 – QD4 CLOSED AUXILIARY CIRCUIT MCB's — 0 / 1 — C-X1-5

QV4 – QV5 CLOSED AUXILIARY V.T. SECONDARY MCB's — 0 / 1 — C-X1-6

K1 CONTACTOR CLOSED — 0 / 1 — B-X1-1

TO EMCS IEC 61850 — *K86 TRIPPED*

LED-2 (GREEN) — TO EMCS IEC 61850 — *CONTACTOR READY (TCS)*

LED-14 (RED) — FUSE → 6.6D

E.S. OPEN → 11.4B

E.S. CLOSED → 9.8C

8.5B INSERT.

8.7B OPENING

CONT.OPEN → 11.4B

8.5A INSERT.

TO EMCS IEC 61850 — *CONTACTOR CLOSED AND INSERTED*

TO EMCS IEC 61850 — *MCB's CLOSED*

K86 → 6.6D

K86 → 8.6B

K86 → 6.4C

E.S. OPENED

CONTACTOR OPENED

READY → 8.6C

LED-4 (GREEN)

8.4C REMOTE

TO EMCS IEC 61850 — *CONTACTOR READY TO CLOSE*

G_S02-X1 — **XM** 0 CONTACTOR READY TO CLOSE / 1

9.3C E.S. CLOSED — B_S02-X2 — **XM** 0 E.SWITCH CLOSED / 1

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
3	22/07/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	28/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for construction (AFC)
1	21/05/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)
0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)

= +A4

DWG n° : 231151/SD/29

Item n° : PF1113279

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE :

SG–100D1 – LOGICAL TRANSF FEEDER TR–200DE1

Contactor Commands

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

SCALE : NTS

A3

DRAWING NO. 1723002197–EL–DG–00029

SHEET 9

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197–EL–DG–00029 Rev.03

INPUTS

REX640 CONTACTOR COMMANDS

OUTPUTS

97T TRANSF.ALARM BUCHHOLZ	0 / 1	C-X1-7
K94B TRANSF.TRIPPED BUCHHOLZ	0 / 1	C-X1-9
26OT TRANSF.ALARM OIL TEMPERATURE	0 / 1	C-X1-10
K94OT TRANSF.TRIPPED OIL TEMPERATURE	0 / 1	C-X1-11
71OT TRANSF.ALARM OIL LEVEL	0 / 1	C-X1-13
71OT_1 TRANSF. OIL LEVEL VERY LOW ALARM	0 / 1	C-X1-14
K94P TRANSF.TRIPPED OIL PRESSURE	0 / 1	C-X1-15
49T TRANSF.ALARM WINDING TEMPERATURE	0 / 1	C-X1-17
K94WT TRANSF.TRIPPED WINDING TEMPERATURE	0 / 1	C-X2-1
XM TRANSFORMER GENERAL ALARM	0 / 1	D-X1-9

TO EMCS IEC 61850 *ALARM BUCHHOLZ*

TO EMCS IEC 61850 *TRIPPED BUCHHOLZ*

TO EMCS IEC 61850 *ALARM OIL TEMPERATURE*

TO EMCS IEC 61850 *TRIPPED OIL TEMPERATURE*

TO EMCS IEC 61850 *ALARM OIL LEVEL*

TO EMCS IEC 61850 *OIL LEVEL VERY LOW ALARM*

TO EMCS IEC 61850 *TRIPPED OIL PRESSURE*

TO EMCS IEC 61850 *ALARM WINDING TEMPERATURE*

TO EMCS IEC 61850 *TRIPPED WINDING TEMPERATURE*

TO EMCS IEC 61850 *TRANSFORMER GENERAL ALARM*

≥1

LED-13 (RED)

TRIPPED TRASF. → 6.6D

WATCHDOG	0 / 1	G_RF-X1

TO EMCS IEC 61850 *WATCHDOG PROTECTION RELAY*

KIRF 0 WATCHDOG / 1

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
3	22/07/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	28/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for construction (AFC)
1	21/05/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)
0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)

= +A4

DWG n° : 231151/SD/29

Item n° : PF1113279

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

TITLE :

SG-100D1 – LOGICAL TRANSF FEEDER TR-200DE1

Contactor Commands

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00029

SHEET 10

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00029 Rev.03

INPUTS

REX640 CONTACTOR COMMANDS

OUTPUTS

BGE
EART.SWITCH OPENED FROM MEASURING UNIT 0/1
C-X1-3

KT1
UNLOCKING E.SWITCH/CONT. TRUCK 0/1
B-X2-1

QB1
LOW VOLTAGE CIR.BREAK IN TEST POSITION 0/1
D-X1-3

QD1 – KIRF (UNIT A3)
MCB AND WATCHDOG PROTEC. RELAY HEALTHY 0/1
D-X1-10

≥1

&

&

9.3C CONT.OPEN

9.4B E.S. OPEN

8.4D LOCAL

8.6E TEST

TO EMCS IEC 61850
CONTACTOR OPENED OR ISOLATED

TO EMCS IEC 61850
PROTECTION RELAY UNIT 3 HEALTHY

LED-8 (GREEN)

LED-7 (GREEN)

LED-10 (RED)

GOOSE

G_S03-X2

G_S01-X1

RLE2
0 CONTACTOR TRUCK UNLOCKED
1

RLE3
0 EARTHING SWITCH UNLOCKED
1

=						
+A4						
3	22/07/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)	
2	28/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for construction (AFC)	
1	21/05/2024	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/29

Item n° : PF1113279

CROSSWIND

ROSETTI MARINO

TITLE :

SG-100D1 – LOGICAL TRANSF FEEDER TR-200DE1

Contactor Commands

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00029

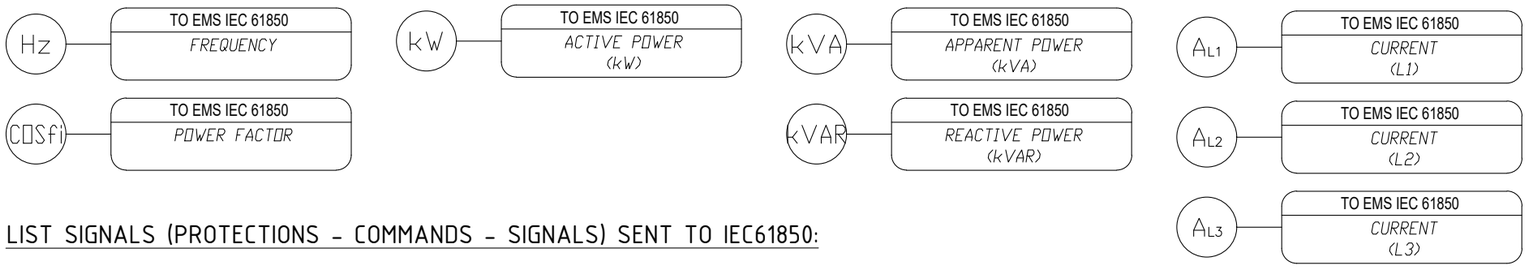
SHEET 1.1

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00029 Rev.03

INPUTS	REX640 SIGNALS MEASURES AND COMMAND AVAILABLE TO IEC61850	OUTPUTS



LIST SIGNALS (PROTECTIONS - COMMANDS - SIGNALS) SENT TO IEC61850:

- PROTECTION TRIPPED "50"
- PROTECTION TRIPPED "50-1"
- PROTECTION TRIPPED "50-2"
- PROTECTION TRIPPED "51"
- PROTECTION TRIPPED "51-1"
- PROTECTION TRIPPED "51N"
- PROTECTION TRIPPED "51G"
- PROTECTION TRIPPED "59N-1"
- PROTECTION TRIPPED "59N-2"
- PROTECTION TRIPPED "27-1"
- PROTECTION TRIPPED "59-1"
- SELECTOR SWITCH IN LOCAL POSITION
- SELECTOR SWITCH IN REMOTE POSITION
- TRANSFORMER PROTECTION TRIPPED "BUCHHOLZ"
- TRANSFORMER PROTECTION ALARM "BUCHHOLZ"
- TRANSFORMER PROTECTION TRIPPED "OIL TEMPERATURE"
- TRANSFORMER PROTECTION ALARM "OIL TEMPERATURE"
- TRASNFORMER PROTECTION ALARM "OIL LEVEL"
- TRANSFORMER PROTECTION TRIPPED "OIL PRESSURE"
- TRANSFORMER PROTECTION ALARM "OIL LEVEL VERY LOW"
- TRANSFORMER PROTECTION TRIPPED "WINDING TEMPERATURE"
- TRANSFORMER PROTECTION ALARM "WINDING TEMPERATURE"
- TRANSFORMER GENERAL ALARM
- WATCHDOG PROTECTION RELAY
- INTERTRIP SEND TO L.V.SWITCHB.
- K86 TRIPPED
- CONTACTOR CLOSED AND INSERTED
- CONTACTOR OPENED OR ISOLATED
- MCB'S CLOSED
- CONTACTOR READY (TCS)
- CONTACTOR READY TO CLOSE
- OPENING COMMAND
- CLOSING COMMAND
- PROTECTION RELAY UNIT 3 HEALTHY
- RESET LOCKOUT RELAY

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
=					
+A4					
3	22/07/2024	Giulietti	Flamminio	Sigismondi	As-Built (ASB)
2	28/06/2024	Giulietti	Flamminio	Sigismondi	Accepted for construction (AFC)
1	21/05/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)
0	04/04/2024	Giulietti	Flamminio	Sigismondi	Issued for review (IFR)

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

DWG n° : 231151/SD/29

Item n° : PF1113279

TITLE :
SG-100D1 - LOGICAL TRANSF FEEDER TR-200DE1
Measures

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00029

SHEET 12

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00029 Rev.03