RLMU LIST

REV. 04A: Sheet 11

BASE LOAD POWER HUB (BLPH)

"SG-200N1" LV SWBD 400/230V

ELECTRICAL
SINGLE LINE DIAGRAM

ROSETTI MARINO	RED LINE AS BUILT STAMP
RLMU	✖ Yes ☐ No
Description	This document represents the final as-built version incorporating the latest approved information.
Reviewed & Confirmed by	Rosetti Marino S.P.A.
Signature /Date	Claudia Fanchi

Notes: Tick"Yes" only when the document reflects the final as-commissioned condition and the red-line mark-up (RLMU) has been incorporated without a new revision.
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REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
=					
+					
4	28/08/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
3	08/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
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CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

DWG n° : 231298/SD/11

Item n° : PF1002983/26

TITLE : "SG-200N1"
SINGLE LINE DIAGRAM
Cover

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00011

SHEET 001

REV. 04

F.to UNI A3: 420mmx297mm

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

INDEX SHEETS

Sheet	Description	Revision 0	1	2	3	4	5	6	7	8	9
001	Cover	X	X	X	X	X					
002	Index	X	X	X	X	X					
003	Graphical Symbols	X	X	X	X	X					
004	Graphical Symbols	X	X	X	X	X					
005	Single Line Drawing	X	X	X	X	X					
006	Single Line Drawing	X	X	X	X	X					
007	Single Line Drawing	X	X	X	X	X					
008	Single Line Drawing	X	X	X	X	X					
009	Single Line Drawing	X	X	X	X	X					
010	Single Line Drawing	X	X	X	X	X					
011	Single Line Drawing	X	X	X	X	X					
012	Single Line Drawing	X	X	X	X	X					
013	Single Line Drawing	X	X	X	X	X					

Sheet	Description	Revision 0	1	2	3	4	5	6	7	8	9

ROSETTI MARINO — RED LINE AS BUILT STAMP

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Signature /Date	Claudia Guardi

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Item n° : PF1002983/26

ROSETTI MARINO

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TITLE : "SG-200N1"
SINGLE LINE DIAGRAM
Index

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

SCALE : NTS

A3

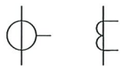
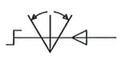
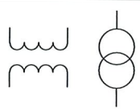
DRAWING NO. 1723002197-EL-DG-00011

SHEET 002

REV. 04

F.to UNI A3: 420mmx297mm

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

GRAPHICAL SYMBOLS	DESCRIPTION	GRAPHICAL SYMBOLS	DESCRIPTION	GRAPHICAL SYMBOLS	DESCRIPTION	GRAPHICAL SYMBOLS	DESCRIPTION
	CIRCUIT BREAKER WITH AUTOMATIC RELEASE		CAPACITOR (GENERAL SYMBOL)		BISTABLE RELAY		CHANGE-OVER BREAK BEFORE MAKE CONTACT
	CIRCUIT BREAKER WITH AUTOMATIC RELEASE AND BUILT-IN THERMOMAGNETIC RELEASE		CAPACITIVE VOLTAGE DIVIDER		COIL OF A MECHANICALLY LATCHED RELAY		DELAYED ACTION (IN THE DIRECTION OF MOVEMENT FROM THE ARC TOWARDS ITS CENTRE)
			CURRENT TRANSFORMER		INDICATOR, ELECTROMECHANICAL ELEMENT		POSITION SWITCH (LIMIT SWITCH), MAKE CONTACT
	SWITCH DISCONNECTOR		RING CURRENT TRANSFORMER		LAMP (GENERAL SYMBOL)		POSITION SWITCH (LIMIT SWITCH), MAKE CONTACT
	CONTACTOR		INDICATING INSTRUMENT GENERAL SYMBOL		SEMICONDUCTOR DIODE		POSITION SWITCH (LIMIT SWITCH), BREAK CONTACT
	LOCK WITH FREE KEY WHEN THE DEVICE IS IN OPEN POSITION		INTEGRATING INSTRUMENT (GENERAL SYMBOL)		LED		OPERATED BY TURNING
	LOCK WITH FREE KEY WHEN THE DEVICE IS IN CLOSE POSITION		DISCONNECTING FUSE, NOT WITH LIVE CIRCUIT AND WITH MECHANICAL LINKAGE (STRIKER FUSE))		TRANSDUCER OF ALTERNATING CURRENT MEASURE INTO DIRECT CURRENT SIGNAL		THREE HELD POSITIONS TURNING SWITCH
	PLUG AND SOCKET (MALE AND FEMALE)		OPERATING DEVICE (GENERAL SYMBOL)		EARTH, GROUND (GENERAL SYMBOL)		THREE POSITIONS TURNING SWITCH, WITH SPRING THROWBACK TO THE CENTRAL POSITION
	VOLTAGE TRANSFORMER WITH TWO WINDINGS		COIL OF A TIME DELAYED OPERATING RELAY		MAKE CONTACT		MECHANICAL INTERLOCK BETWEEN TWO DEVICES
	VOLTAGE TRANSFORMER WITH THREE WINDINGS		COIL OF A TIME DELAYED RELEASING RELAY		BREAK CONTACT		

ROSETTI MARINO **RED LINE AS BUILT STAMP**

RLMU	✖ Yes ☐ No
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Reviewed & Confirmed by	Rosetti Marino S.P.A.
Signature /Date	

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DWG n° : 231298/SD/11

Item n° : PF1002983/26

ROSETTI MARINO

TITLE : "SG-200N1"

SINGLE LINE DIAGRAM

Graphical Symbols

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00011

SHEET 003

REV. 04

F.to UNI A3: 420mmx297mm

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

GRAPHICAL SYMBOLS	DESCRIPTION	GRAPHICAL SYMBOLS	DESCRIPTION	GRAPHICAL SYMBOLS	DESCRIPTION	GRAPHICAL SYMBOLS	DESCRIPTION
	RESISTOR (GENERAL SYMBOL)		AMPEROMETRIC TEST SOCKET				
	THERMISTOR (GENERAL SYMBOL)		3 PHASES LINE				
	HEATING ELEMENT		3 PHASES + NEUTRAL				
	INTERCONNECTION TERMINAL		SINGLE PHASE + NEUTRAL				
	WITHDRAWABLE TERMINAL SHORT-CIRCUITABLE ON C.T. SECONDARY CIRCUITS		CIRCUIT BREAKER SWITCH-DISCONNECTOR				
	WITHDRAWABLE TERMINAL FOR V.T. SECONDARY CIRCUITS						
	SWITCHBOARD TERMINAL	M	MOTOR FOR LOADING SPRINGS				
	ON - OFF SWITCH	YC	CLOSING COIL				
	SURGE ARRESTER	YO	OPENING COIL				
	VOLTMETRIC TEST SOCKET	YU	UNDERVOLTAGE COIL				

RED LINE AS BUILT STAMP

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

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "SG-200N1"
SINGLE LINE DIAGRAM
Graphical Symbols

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

SCALE : NTS

A3

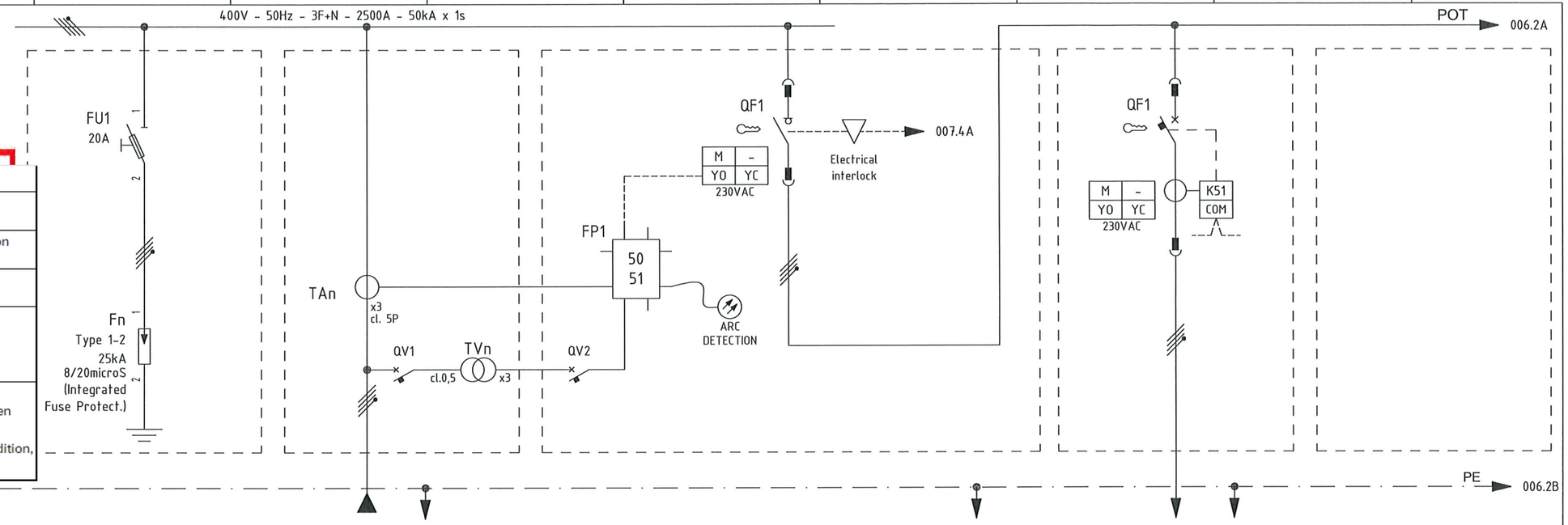
DRAWING NO. 1723002197-EL-DG-00011

SHEET 004

REV. 04

F.to UNI A3: 420mmx297mm

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



RED LINE AS BUILT STAMP

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ITEM		1	-	-	-	A-20000
UTILITY		2	SURGE ARRESTER	-	INCOMING TRASFORMER	ELECTROLYSER AUXILIARY LOAD
COLUMN/CUBICLE		3	-	A1 / +02	A1 / +05	A1 / +08
RATED POWER | RATED CURRENT		4/5	- | -	- | -	- | -	293 kW | 497 A
TYPICAL FUNCTIONAL		6	-	-	-	L3-630
CIRCUIT BREAKER (ABB)	TYPE	7	-	-	E4.2N/MS-3200 4P	E1.2C-1250 4P
	VERSION	8	-	-	WITHDRAWABLE	WITHDRAWABLE
	TRIP UNITS	9	-	-	-	EKIP HI TOUCH LSIG = 630
	Icu KA	10	-	-	66 kA (1s)	50 kA
OVERLOAD	L Range A	11	-	-	-	(0.4 ÷ 1) x In
	L Range t	12	-	-	-	t=k/I^2
SEL. SHORT-CIRCUIT	S Range A	13	-	-	-	(0.6 ÷ 10) x In (EXCLUDABLE)
	S Range t	14	-	-	-	t=k / t=k/I²
INST. SHORT-CIRCUIT	I Range A	15	-	-	-	(1.5 ÷ 15) x In
	I Range t	16	-	-	-	instantaneous
EARTH FAULT PROTECTION	G Range A	17	-	-	-	(0.1 ÷ 1) x In (EXCLUDABLE)
	G Range t	18	-	-	-	t=k / t=k/I^2
CONTACTOR (ABB)		19	-	-	-	-
THERMAL OVERLOAD RELAY (ABB)		20	-	-	-	-
SURGE ARRESTER (DEHN)		21	DVCI 1 255 FM (961205)	-	-	-
TOROIDAL CURRENT TRANSFORMER (FRER)		22	-	-	-	-
FUSE HOLDER (ITALWEBER)		23	Fuses 20A gG	-	-	-
INDIRECT PROTECTION (ABB)		24	-	-	REF615-(version F) HBFFAEFCNDCABBA11G	-
VOLTMETER		25	-	-	-	-
CURRENT TRANSFORMER FOR MEASURE (FRER)	TYPE	26	-	TAR1052K5N01V_18 - 2500/1A	-	-
	PERFORMANCE/CLASS	27	-	5VA / 5P20	-	-
VOLTAGE TRANSFORMER FOR MEASURE (FRER)	TYPE	28	-	TTV020400VC1 - 400r3/110r3V	-	-
	PERFORMANCE/CLASS	29	-	20VA / 0.5	-	-
LOCK-OUT RELAY (-)		30	-	-	-	-
POWER CONDUCTOR mmq		31	-	-	-	1 x 150 + [4 x (1 x 300)]

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

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

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

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

SCALE : NTS

A3

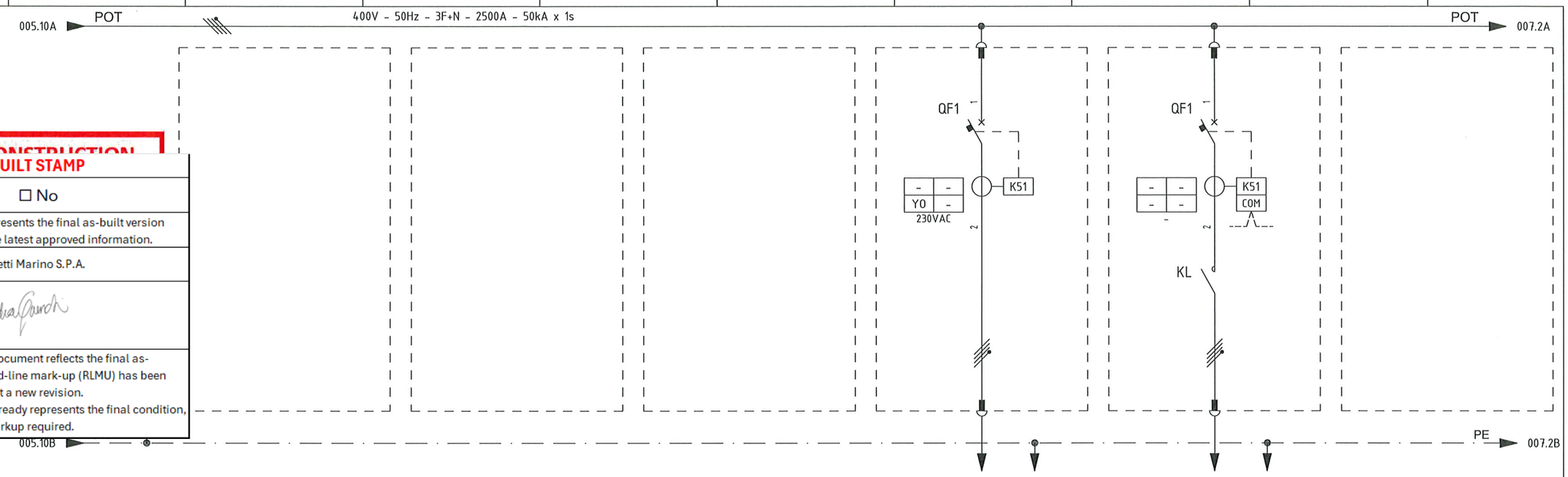
DRAWING NO. 1723002197-EL-DG-00011

SHEET 005

REV. 04

F.to UNI A3: 420mmx297mm

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



VALID FOR CONSTRUCTION

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ITEM			1			-	UP-200F4	SPARE	
UTILITY			2			FUTURE	AC UPS F&G - 8 H UP-200F4 - BYPASS	SPARE	
COLUMN/CUBICLE			3			A2 / +03	A2 / +04	A2 / +05	
RATED POWER | RATED CURRENT			4/5			- | -	18 kW | 28.9 A	- kW | - A	
TYPICAL FUNCTIONAL			6				L1-63	LK1-40	
CIRCUIT BREAKER (ABB)	TYPE		7				XT2S - 160	XT2S - 160	
	VERSION		8				4P - FIXED	4P - FIXED	
	TRIP UNITS		9				EKIP DIP LSIG (In = 63A)	EKIP HI TOUCH LSIG (In = 40A)	
	Icu	KA	10				50 kA	50 kA	
OVERLOAD	L	Range A	11				(0.4 - 1) x In	(0.4 - 1) x In	
		Range t	12				k/I²	k/I²	
SEL. SHORT-CIRCUIT	S	Range A	13				(1 - 10) x In	(0.6 - 10) x In	
		Range t	14				0.05 - 0.4 sec / k/I²	0.05 - 0,4 sec / k/I²	
INST. SHORT-CIRCUIT	I	Range A	15				(1 - 10) x In	(1.5 - 10) x In	
		Range t	16				<= 0.02 sec	instantaneous	
EARTH FAULT PROTECTION	G	Range A	17				(0.2 - 1) x In	(0.1 - 1) x In	
		Range t	18				0.1 - 0.8 sec	t=k / t=k/I^2	
CONTACTOR (ABB)			19				-	AF40-40-00-13 (70A-AC1); 100-250VAC/DC	
THERMAL OVERLOAD RELAY (ABB)			20				-	-	
SURGE ARRESTER (DEHN)			21				-	-	
TOROIDAL CURRENT TRANSFORMER (FRER)			22				-	-	
FUSE HOLDER (ITALWEBER)			23				-	-	
INDIRECT PROTECTION (ABB)			24				-	-	
VOLTMETER			25				-	-	
CURRENT TRANSFORMER FOR MEASURE (FRER)	TYPE		26				-	-	
	PERFORMANCE/CLASS		27				-	-	
VOLTAGE TRANSFORMER FOR MEASURE (FRER)	TYPE		28				-	-	
	PERFORMANCE/CLASS		29				-	-	
LOCK-OUT RELAY (-)			30				-	-	
POWER CONDUCTOR		mmq	31				4G35	5G4	

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Item n° : PF1002983/26

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "SG-200N1"

SINGLE LINE DIAGRAM

Single Line Drawing

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

SCALE : NTS

A3

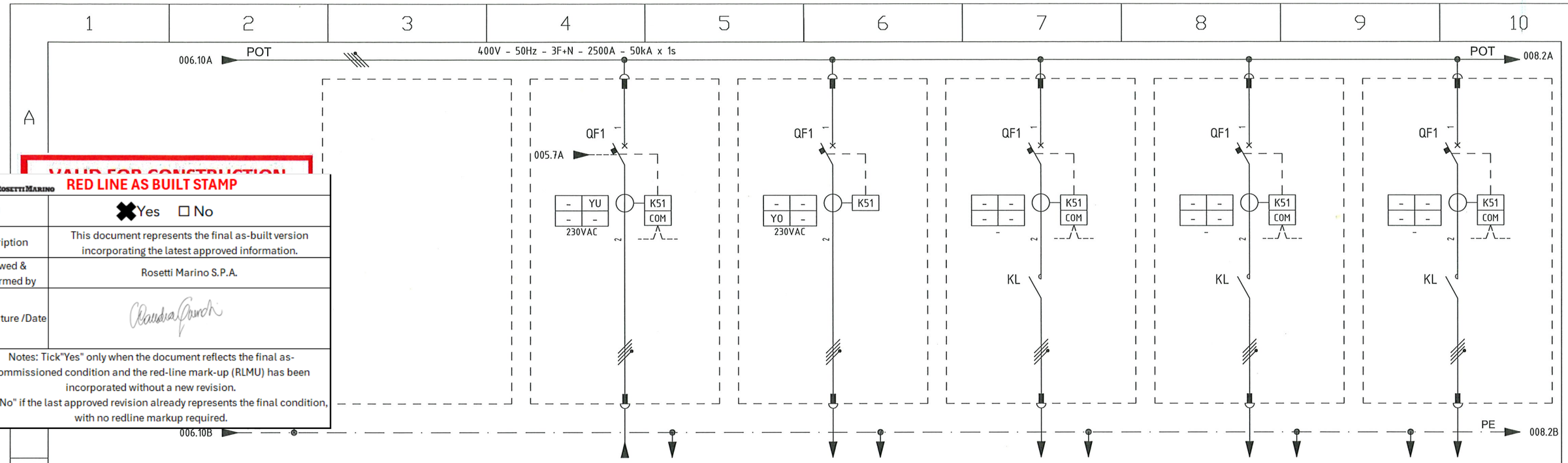
DRAWING NO. 1723002197-EL-DG-00011

SHEET 006

REV. 04

F.to UNI A3: 420mmx297mm

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



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ITEM			1	JB-200E2	UP-200F3	SPARE	DP-200N1	JB-200E3
UTILITY			2	TEMPORARY GENERATOR / MOBILE BATTERY PACK	AC UPS PAS - 30 MIN UP-200F3 - LINE A	SPARE	DB - LIGHTING & SMALL POWER - BoP	CRANE
COLUMN/CUBICLE			3	A2 / +08	A3 / +01	A3 / +02	A3 / +03	A3 / +04
RATED POWER | RATED CURRENT			4/5	138 kW | 210 A	36.0 kW | 57.8 A	- kW | - A	15.35 kW | 23.7 A	25 kW | 37.8 A
TYPICAL FUNCTIONAL			6	LE2-320	L1-100	LK1-40	LK1-100	LK1-63
CIRCUIT BREAKER (ABB)	TYPE		7	XT5S - 400	XT2S - 160	XT2S - 160	XT2S - 160	XT2S - 160
	VERSION		8	4P - FIXED	4P - FIXED	4P - FIXED	4P - FIXED	4P - FIXED
	TRIP UNITS		9	EKIP HI TOUCH LSIG (In = 320A)	EKIP DIP LSIG (In = 100A)	EKIP HI TOUCH LSIG (In = 40A)	EKIP HI TOUCH LSIG (In = 100A)	EKIP HI TOUCH LSIG (In = 63A)
	Icu KA		10	50 kA	50 kA	50 kA	50 kA	50 kA
OVERLOAD	L	Range A	11	(0.4 - 1) x In	(0.4 - 1) x In	(0.4 - 1) x In	(0.4 - 1) x In	(0.4 - 1) x In
		Range t	12	k/I^2	k/I^2	k/I^2	k/I^2	k/I^2
SEL. SHORT-CIRCUIT	S	Range A	13	(0.6 - 10) x In	(1 - 10) x In	(0.6 - 10) x In	(0.6 - 10) x In	(0.6 - 10) x In
		Range t	14	0.05 - 0.4 sec / k/I^2	0.05 - 0.4 sec / k/I^2	0.05 - 0,4 sec / k/I^2	0.05 - 0,4 sec / k/I^2	0.05 - 0,4 sec / k/I^2
INST. SHORT-CIRCUIT	I	Range A	15	(1.5 - 15) x In	(1 - 10) x In	(1.5 - 15) x In	(1.5 - 15) x In	(1.5 - 15) x In
		Range t	16	instantaneous	<= 0.02 sec	instantaneous	instantaneous	instantaneous
EARTH FAULT PROTECTION	G	Range A	17	(0.1 - 1) x In	(0.2 - 1) x In	(0.1 - 1) x In	(0.1 - 1) x In	(0.1 - 1) x In
		Range t	18	t=k / t=k/I^2	0.1 - 0.8 sec	t=k / t=k/I^2	t=k / t=k/I^2	t=k / t=k/I^2
CONTACTOR (ABB)			19	-	-	AF40-40-00-13 (70A-AC1); 100-250VAC/DC	AF80-40-00-13 (70A-AC1); 100-250VAC/DC	AF52-40-00-13 (100A-AC1); 100-250VAC/DC
THERMAL OVERLOAD RELAY (ABB)			20	-	-	-	-	-
SURGE ARRESTER (DEHN)			21	-	-	-	-	-
TOROIDAL CURRENT TRANSFORMER (FRER)			22	-	-	-	-	-
FUSE HOLDER (ITALWEBER)			23	-	-	-	-	-
INDIRECT PROTECTION (ABB)			24	-	-	-	-	-
VOLTMETER			25	-	-	-	-	-
CURRENT TRANSFORMER FOR MEASURE (FRER)	TYPE		26	-	-	-	-	-
	PERFORMANCE/CLASS		27	-	-	-	-	-
VOLTAGE TRANSFORMER FOR MEASURE (FRER)	TYPE		28	-	-	-	-	-
	PERFORMANCE/CLASS		29	-	-	-	-	-
LOCK-OUT RELAY (-)			30	-	-	-	-	-
POWER CONDUCTOR		mmq	31	5 x (1 x 95)	4G35	-	5G50	5G16

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
4	28/08/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
3	08/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
2	03/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
1	28/03/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
0	15/02/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

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

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

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

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00011

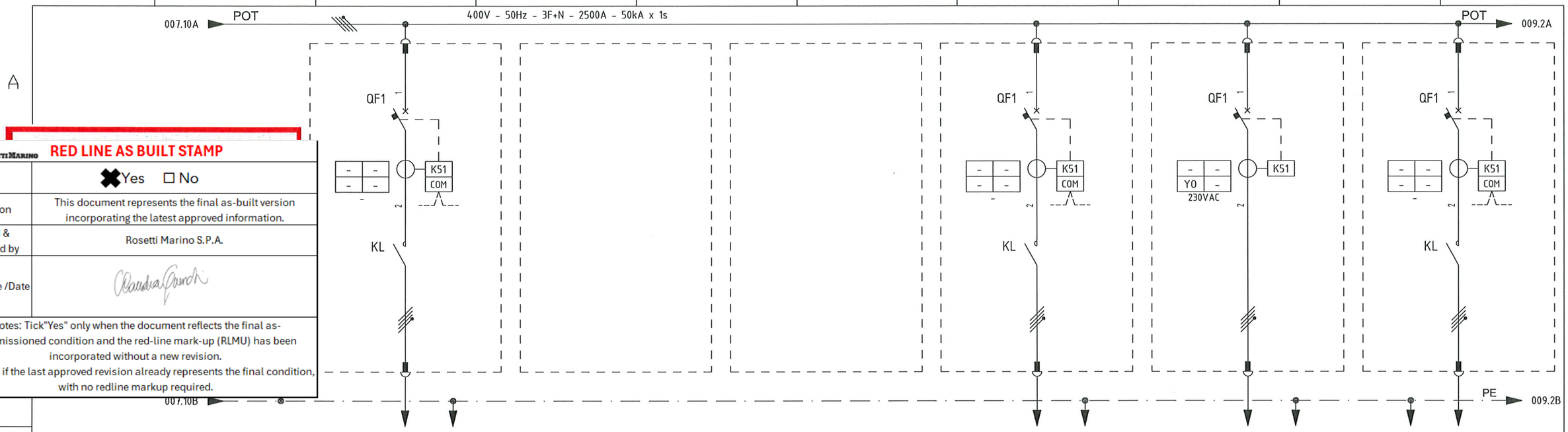
SHEET 007

REV. 04

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

F.to UNI A3: 420mmx297mm

1	2	3	4	5	6	7	8	9	10



ROSETTI MARINO — RED LINE AS BUILT STAMP

RLMU	✖ Yes ☐ No
Description	This document represents the final as-built version incorporating the latest approved information.
Reviewed & Confirmed by	Rosetti Marino S.P.A.
Signature /Date	

Notes: Tick"Yes" only when the document reflects the final as-commissioned condition and the red-line mark-up (RLMU) has been incorporated without a new revision.
Tick "No" if the last approved revision already represents the final condition, with no redline markup required.

ITEM			1	SPARE	-	JB-500E8	UP-200F3	B100-HSB-001
UTILITY			2	SPARE	FUTURE	WATER PACKAGE	AC UPS PAS - 30 MIN UP-200F3 - LINE B	HVAC PANELS HV ROOM
COLUMN/CUBICLE			3	A3 / +05	A3 / +06	A3 / +08	A4 / +01	A4 / +02
RATED POWER | RATED CURRENT			4/5	- kW | - A	- | -	67 kW | 107.00 A	36.0 kW | 57.8 A	18 kW | 34.1 A
TYPICAL FUNCTIONAL			6	LK1-40		LK2-160	L1-100	LK1-40
CIRCUIT BREAKER (ABB)	TYPE		7	XT2S - 160		XT4S - 250	XT2S - 160	XT2S - 160
	VERSION		8	4P - FIXED		4P - FIXED	4P - FIXED	4P - FIXED
	TRIP UNITS		9	EKIP HI TOUCH LSIG (In = 40A)		EKIP HI TOUCH LSIG (In = 160A)	EKIP DIP LSIG (In = 100A)	EKIP HI TOUCH LSIG (In = 40A)
	Icu	KA	10	50 kA		50 kA	50 kA	50 kA
OVERLOAD	L	Range A	11	(0.4 - 1) x In		(0.4 - 1) x In	(0.4 - 1) x In	(0.4 - 1) x In
		Range t	12	k/I^2		k/I^2	k/I^2	k/I^2
SEL. SHORT-CIRCUIT	S	Range A	13	(0.6 - 10) x In		(0.6 - 10) x In	(1 - 10) x In	(0.6 - 10) x In
		Range t	14	0.05 - 0,4 sec / k/I^2		0.05 - 0.4 sec / k/I^2	0.05 - 0.4 sec / k/I^2	0.05 - 0,4 sec / k/I^2
INST. SHORT-CIRCUIT	I	Range A	15	(1.5 - 15) x In		(1.5 - 15) x In	(1 - 10) x In	(1.5 - 15) x In
		Range t	16	instantaneous		instantaneous	<= 0.02 sec	instantaneous
EARTH FAULT PROTECTION	G	Range A	17	(0.1 - 1) x In		(0.1 - 1) x In	(0.2 - 1) x In	(0.1 - 1) x In
		Range t	18	t=k / t=k/I^2		t=k / t=k/I^2	0.1 - 0.8 sec	t=k / t=k/I^2
CONTACTOR (ABB)			19	AF40-40-00-13 (70A-AC1); 100-250VAC/DC		AF190-40-11-13 (275A-AC1); 100-250 VAC/DC	-	AF40-40-00-13 (70A-AC1); 100-250VAC/DC
THERMAL OVERLOAD RELAY (ABB)			20	-		-	-	-
SURGE ARRESTER (DEHN)			21	-		-	-	-
TOROIDAL CURRENT TRANSFORMER (FRER)			22	-		-	-	-
FUSE HOLDER (ITALWEBER)			23	-		-	-	-
INDIRECT PROTECTION (ABB)			24	-		-	-	-
VOLTMETER			25	-		-	-	-
CURRENT TRANSFORMER FOR MEASURE (FRER)	TYPE		26	-		-	-	-
	PERFORMANCE/CLASS		27	-		-	-	-
VOLTAGE TRANSFORMER FOR MEASURE (FRER)	TYPE		28	-		-	-	-
	PERFORMANCE/CLASS		29	-		-	-	-
LOCK-OUT RELAY (-)			30	-		-	-	-
POWER CONDUCTOR		mmq	31	-		5G70	4G35	5G16

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

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
4	28/08/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
3	08/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
2	03/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
1	28/03/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
0	15/02/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

TITLE : "SG-200N1"

SINGLE LINE DIAGRAM

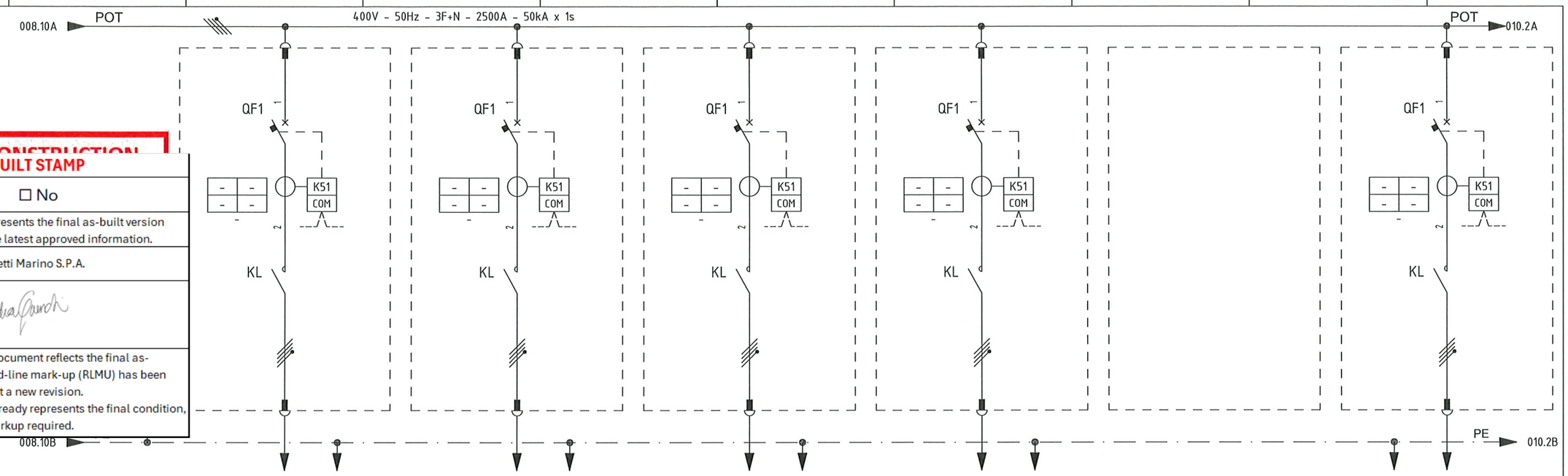
Single Line Drawing

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

A3 | DRAWING NO. 1723002197-EL-DG-00011 | SHEET 008 | REV. 04

F.to UNI A3: 420mmx297mm

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



VALID FOR CONSTRUCTION

RED LINE AS BUILT STAMP

RLMU	✖ Yes ☐ No
Description	This document represents the final as-built version incorporating the latest approved information.
Reviewed & Confirmed by	Rosetti Marino S.P.A.
Signature /Date	

Notes: Tick"Yes" only when the document reflects the final as-commissioned condition and the red-line mark-up (RLMU) has been incorporated without a new revision.
Tick "No" if the last approved revision already represents the final condition, with no redline markup required.

ITEM			1	A-80000	CP-850F03	SPARE	SPARE		K-63001-A
UTILITY			2	FUEL CELL AUXILIARY LOAD	BESS PCS CABINET	SPARE	SPARE		INSTRUMENTS AIR PACKAGE 01A
COLUMN/CUBICLE			3	A4 / +03	A4 / +04	A4 / +05	A4 / +06		A4 / +08
RATED POWER | RATED CURRENT			4/5	20 kW | 32.84 A	11,09 kW | 17.42 A	- kW | - A	- kW | - A		68.75 kW | 111.24 A
TYPICAL FUNCTIONAL			6	LK1-63	LK1-40	LK1-40	LK1-40		LK2-160
CIRCUIT BREAKER (ABB)	TYPE		7	XT2S - 160	XT2S - 160	XT2S - 160	XT2S - 160		XT4S - 250
	VERSION		8	4P - FIXED	4P - FIXED	4P - FIXED	4P - FIXED		4P - FIXED
	TRIP UNITS		9	EKIP HI TOUCH LSIG (In = 63A)	EKIP HI TOUCH LSIG (In = 40A)	EKIP HI TOUCH LSIG (In = 40A)	EKIP HI TOUCH LSIG (In = 40A)		EKIP HI TOUCH LSIG (In = 160A)
	Icu KA		10	50 kA	50 kA	50 kA	50 kA		50 kA
OVERLOAD	L	Range A	11	(0.4 - 1) x In	(0.4 - 1) x In	(0.4 - 1) x In	(0.4 - 1) x In		(0.4 - 1) x In
		Range t	12	k/I^2	k/I^2	k/I^2	k/I^2		k/I^2
SEL. SHORT-CIRCUIT	S	Range A	13	(0.6 - 10) x In	(0.6 - 10) x In	(0.6 - 10) x In	(0.6 - 10) x In		(0.6 - 10) x In
		Range t	14	0.05 - 0,4 sec / k/I^2	0.05 - 0,4 sec / k/I^2	0.05 - 0,4 sec / k/I^2	0.05 - 0,4 sec / k/I^2		0.05 - 0.4 sec / k/I^2
INST. SHORT-CIRCUIT	I	Range A	15	(1.5 - 15) x In	(1.5 - 15) x In	(1.5 - 15) x In	(1.5 - 15) x In		(1.5 - 15) x In
		Range t	16	instantaneous	instantaneous	instantaneous	instantaneous		instantaneous
EARTH FAULT PROTECTION	G	Range A	17	(0.1 - 1) x In	(0.1 - 1) x In	(0.1 - 1) x In	(0.1 - 1) x In		(0.1 - 1) x In
		Range t	18	t=k / t=k/I^2	t=k / t=k/I^2	t=k / t=k/I^2	t=k / t=k/I^2		t=k / t=k/I^2
CONTACTOR (ABB)			19	AF52-40-00-13 (100A-AC1); 100-250VAC/DC	AF40-40-00-13 (70A-AC1); 100-250VAC/DC	AF40-40-00-13 (70A-AC1); 100-250VAC/DC	AF40-40-00-13 (70A-AC1); 100-250VAC/DC		AF190-40-11-13 (275A-AC1); 100-250 VAC/DC
THERMAL OVERLOAD RELAY (ABB)			20	-	-	-	-		-
SURGE ARRESTER (DEHN)			21	-	-	-	-		-
TOROIDAL CURRENT TRANSFORMER (FRER)			22	-	-	-	-		-
FUSE HOLDER (ITALWEBER)			23	-	-	-	-		-
INDIRECT PROTECTION (ABB)			24	-	-	-	-		-
VOLTMETER			25	-	-	-	-		-
CURRENT TRANSFORMER FOR MEASURE (FRER)	TYPE		26	-	-	-	-		-
	PERFORMANCE/CLASS		27	-	-	-	-		-
VOLTAGE TRANSFORMER FOR MEASURE (FRER)	TYPE		28	-	-	-	-		-
	PERFORMANCE/CLASS		29	-	-	-	-		-
LOCK-OUT RELAY (-)			30	-	-	-	-		-
POWER CONDUCTOR mmq			31	5G16	4 x 10	-	-		5G70

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
4	28/08/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
3	08/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
2	03/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
1	28/03/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
0	15/02/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

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

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "SG-200N1"

SINGLE LINE DIAGRAM

Single Line Drawing

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00011

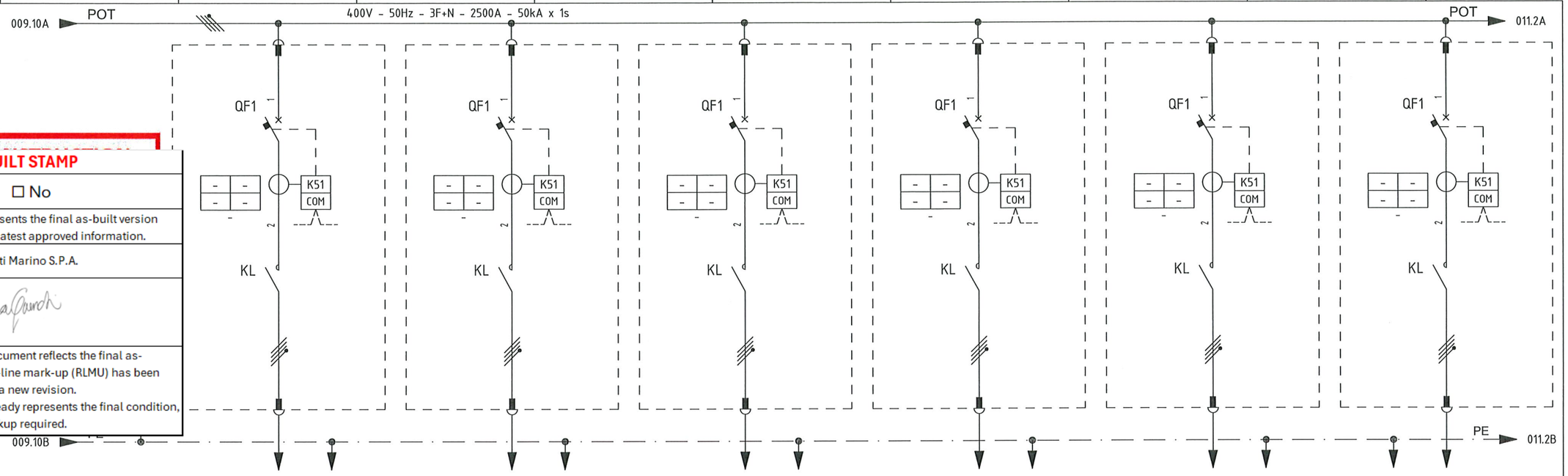
SHEET 009

REV. 04

F.to UNI A3: 420mmx297mm

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

1	2	3	4	5	6	7	8	9	10



RED LINE AS BUILT STAMP

RLMU	✖ Yes ☐ No
Description	This document represents the final as-built version incorporating the latest approved information.
Reviewed & Confirmed by	Rosetti Marino S.P.A.
Signature /Date	

Notes: Tick"Yes" only when the document reflects the final as-commissioned condition and the red-line mark-up (RLMU) has been incorporated without a new revision.
Tick "No" if the last approved revision already represents the final condition, with no redline markup required.

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

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
4	28/08/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
3	08/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
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1	28/03/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
0	15/02/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

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DWG n° : 231298/SD/11

Item n° : PF1002983/26

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "SG-200N1"

SINGLE LINE DIAGRAM

Single Line Drawing

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

SCALE : NTS

A3

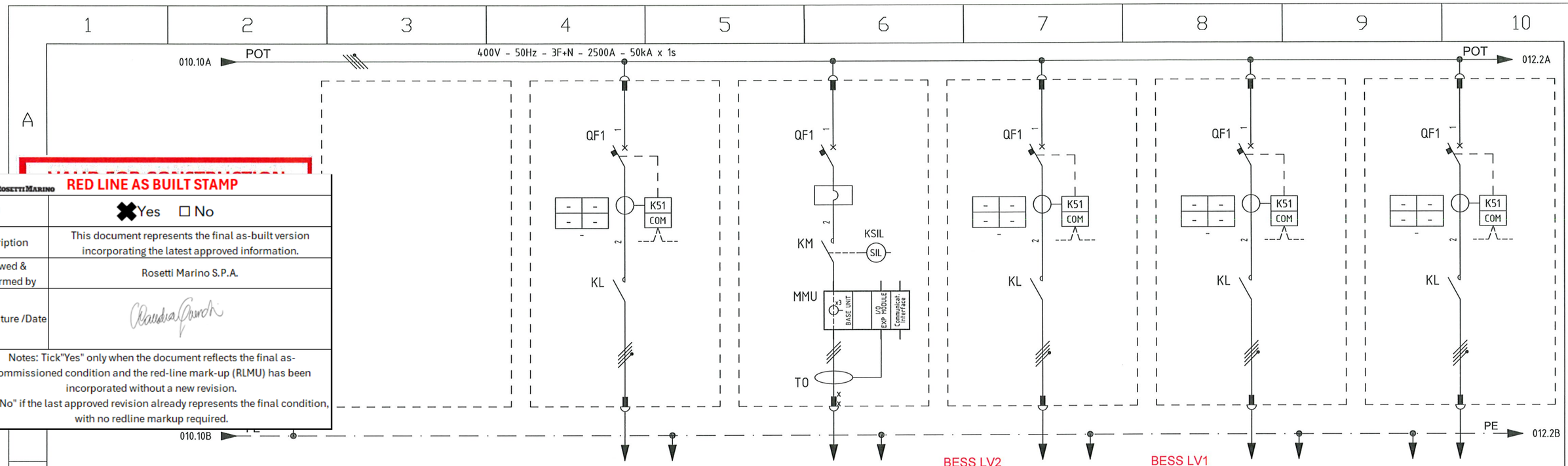
DRAWING NO. 1723002197-EL-DG-00011

SHEET 010

REV. 04

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

F.to UNI A3: 420mmx297mm



ROSETTI MARINO — RED LINE AS BUILT STAMP

RLMU	✖ Yes ☐ No
Description	This document represents the final as-built version incorporating the latest approved information.
Reviewed & Confirmed by	Rosetti Marino S.P.A.
Signature /Date	

Notes: Tick"Yes" only when the document reflects the final as-commissioned condition and the red-line mark-up (RLMU) has been incorporated without a new revision.
Tick "No" if the last approved revision already represents the final condition, with no redline markup required.

ITEM				1	K-63001-B	PM-50001 B	BESS LV2 CABINET (+DISTR 2) ~~CP-850E1~~ CP-850E2 ~~BESS LV1 CABINET (+DISTR 1)~~	BESS LV1 CABINET (+DISTR 1) ~~CP-850E2~~ CP-850E1 ~~BESS LV2 CABINET (+DISTR 2)~~	-
UTILITY				2	INSTRUMENTS AIR PACKAGE 01B	SEA WATER PUMP B			SPARE
COLUMN/CUBICLE				3	A5 / +08	A6 / +01	A6 / +02	A6 / +03	A6 / +04
RATED POWER | RATED CURRENT				4/5	68.75 kW | 111.24 A	6.1 kW | 11.0 A	11.28 kW | 18.09 A	11.28 kW | 18.09 A	- kW | - A
TYPICAL FUNCTIONAL				6	LK2-160	M1-6	LK1-40	LK1-40	LK1-40
CIRCUIT BREAKER (ABB)	TYPE			7	XT4S - 250	XT2S - 160	XT2S - 160	XT2S - 160	XT2S - 160
	VERSION			8	4P - FIXED	3P - FIXED	4P - FIXED	4P - FIXED	4P - FIXED
	TRIP UNITS			9	EKIP HI TOUCH LSIG (In = 160A)	MA (In = 20A)	EKIP HI TOUCH LSIG (In = 40A)	EKIP HI TOUCH LSIG (In = 40A)	EKIP HI TOUCH LSIG (In = 40A)
	Icu		KA	10	50 kA	-	50 kA	50 kA	50 kA
OVERLOAD	L	Range	A	11	(0.4 - 1) x In	-	(0.4 - 1) x In	(0.4 - 1) x In	(0.4 - 1) x In
		Range	t	12	k/I^2	-	k/I^2	k/I^2	k/I^2
SEL. SHORT-CIRCUIT	S	Range	A	13	(0.6 - 10) x In	-	(0.6 - 10) x In	(0.6 - 10) x In	(0.6 - 10) x In
		Range	t	14	0.05 - 0.4 sec / k/I^2	-	0.05 - 0,4 sec / k/I^2	0.05 - 0,4 sec / k/I^2	0.05 - 0,4 sec / k/I^2
INST. SHORT-CIRCUIT	I	Range	A	15	(1.5 - 15) x In	(6 - 14) x I	(1.5 - 15) x In	(1.5 - 15) x In	(1.5 - 15) x In
		Range	t	16	instantaneous	<= 0.02 sec	instantaneous	instantaneous	instantaneous
EARTH FAULT PROTECTION	G	Range	A	17	(0.1 - 1) x In	-	(0.1 - 1) x In	(0.1 - 1) x In	(0.1 - 1) x In
		Range	t	18	t=k / t=k/I^2	-	t=k / t=k/I^2	t=k / t=k/I^2	t=k / t=k/I^2
CONTACTOR (ABB)				19	AF190-40-11-13 (275A-AC1); 100-250 VAC/DC	AF38-30-00-13 (18.5 kW - AC3) - 100-250Vac/dc	AF40-40-00-13 (70A-AC1); 100-250VAC/DC	AF40-40-00-13 (70A-AC1); 100-250VAC/DC	AF40-40-00-13 (70A-AC1); 100-250VAC/DC
THERMAL OVERLOAD RELAY (ABB)				20	-	UMC100.3 UC (0.24 - 63A)	-	-	-
SURGE ARRESTER (DEHN)				21	-	-	-	-	-
TOROIDAL CURRENT TRANSFORMER (FRER)				22	-	-	-	-	-
FUSE HOLDER (ITALWEBER)				23	-	-	-	-	-
INDIRECT PROTECTION (ABB)				24	-	-	-	-	-
VOLTMETER				25	-	-	-	-	-
CURRENT TRANSFORMER FOR MEASURE (FRER)	TYPE			26	-	-	-	-	-
	PERFORMANCE/CLASS			27	-	-	-	-	-
VOLTAGE TRANSFORMER FOR MEASURE (FRER)	TYPE			28	-	-	-	-	-
	PERFORMANCE/CLASS			29	-	-	-	-	-
LOCK-OUT RELAY (-)				30	-	-	-	-	-
POWER CONDUCTOR			mmq	31	5G70	4G4	4 x (1 x 10)	4 x (1 x 10)	-

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
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4	28/08/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
3	08/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
2	03/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
1	28/03/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
0	15/02/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

DWG n° : 231298/SD/11

Item n° : PF1002983/26

TITLE : "SG-200N1"

SINGLE LINE DIAGRAM

Single Line Drawing

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

SCALE : NTS

A3

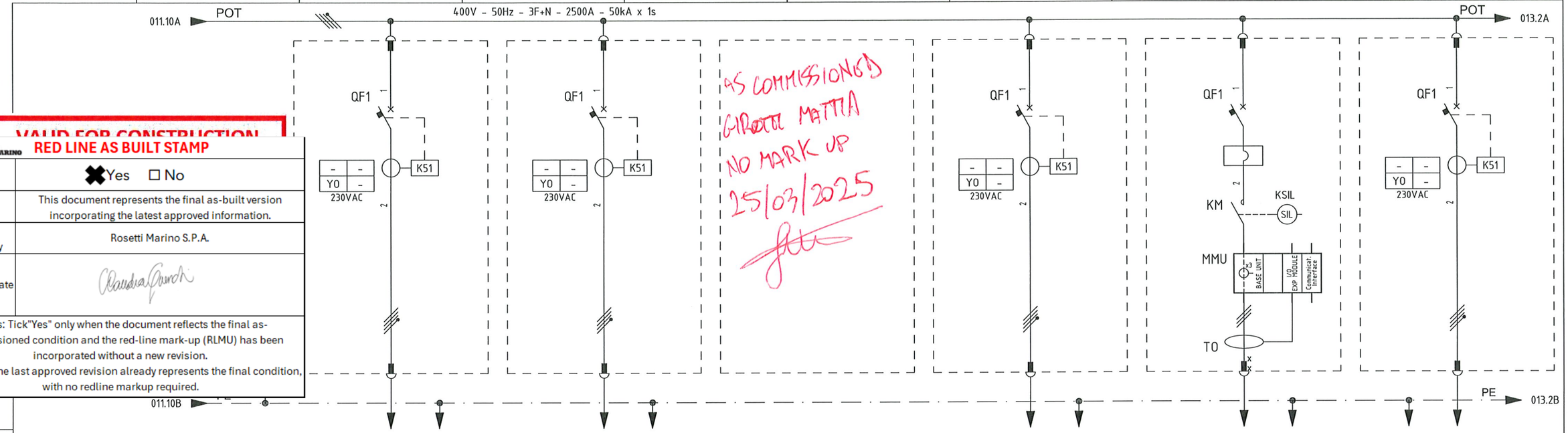
DRAWING NO. 1723002197-EL-DG-00011

SHEET 011

REV. 04

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

F.to UNI A3: 420mmx297mm



VALID FOR CONSTRUCTION

RED LINE AS BUILT STAMP

RLMU	✖ Yes ☐ No
Description	This document represents the final as-built version incorporating the latest approved information.
Reviewed & Confirmed by	Rosetti Marino S.P.A.
Signature /Date	

Notes: Tick"Yes" only when the document reflects the final as-commissioned condition and the red-line mark-up (RLMU) has been incorporated without a new revision.
Tick "No" if the last approved revision already represents the final condition, with no redline markup required.

ITEM			1	UP-200F4	UP-200F4		ESW-200N1	PM-50001 A	UP-200F3
UTILITY			2	AC UPS F&G - 8 H UP-200F4 - LINE A	AC UPS F&G - 8h UP-200F4 - LINE B		WELDING SOCKETS (TOP DECK)	SEA WATER PUMP A	AC UPS PAS - 30 min. UP-200F3 - BYPASS
COLUMN/CUBICLE			3	A6 / +05	A6 / +06		A6 / +08	A7 / +01	A7 / +02
RATED POWER | RATED CURRENT			4/5	18 kW | 28.9 A	18 kW | 28.9 A		69.84 kW | 126.15 A	6.1 kW | 11.0 A	36 kW | 57.8 A
TYPICAL FUNCTIONAL			6	L1-63	L1-63		L2-160	M1-6	L1-100
CIRCUIT BREAKER (ABB)	TYPE		7	XT2S - 160	XT2S - 160		XT4S - 250	XT2S - 160	XT2S - 160
	VERSION		8	4P - FIXED	4P - FIXED		4P - FIXED	3P - FIXED	4P - FIXED
	TRIP UNITS		9	EKIP DIP LSIG (In = 63A)	EKIP DIP LSIG (In = 63A)		EKIP DIP LSIG (In = 160A)	MA (In = 20A)	EKIP DIP LSIG (In = 100A)
	Icu	KA	10	50 kA	50kA		50kA	-	50 kA
OVERLOAD	L	Range A	11	(0.4 - 1) x In	(0.4 - 1) x In		(0.4 - 1) x In	-	(0.4 - 1) x In
		Range t	12	k/I^2	k/I^2		k/I^2	-	k/I^2
SEL. SHORT-CIRCUIT	S	Range A	13	(1 - 10) x In	(1 - 10) x In		(1 - 10) x In	-	(1 - 10) x In
		Range t	14	0.05 - 0.4 sec / k/I^2	0.05 - 0.4 sec / k/I^2		0.05 - 0.4 sec / k/I^2	-	0.05 - 0.4 sec / k/I^2
INST. SHORT-CIRCUIT	I	Range A	15	(1 - 10) x In	(1 - 10) x In		(1 - 10) x In	(6 - 14) x I	(1 - 10) x In
		Range t	16	<= 0.02 sec	<= 0.02 sec		<= 0.02 sec	<= 0.02 sec	<= 0.02 sec
EARTH FAULT PROTECTION	G	Range A	17	(0.2 - 1) x In	(0.2 - 1) x In		(0.2 - 1) x In	-	(0.2 - 1) x In
		Range t	18	0.1 - 0.8 sec	0.1 - 0.8 sec		0.1 - 0.8 sec	-	0.1 - 0.8 sec
CONTACTOR (ABB)			19	-	-		-	AF38-30-00-13 (18.5 kW - AC3) - 100-250Vac/dc	-
THERMAL OVERLOAD RELAY (ABB)			20	-	-		-	UMC100.3 UC (0.24 - 63A)	-
SURGE ARRESTER (DEHN)			21	-	-		-	-	-
TOROIDAL CURRENT TRANSFORMER (FRER)			22	-	-		-	-	-
FUSE HOLDER (ITALWEBER)			23	-	-		-	-	-
INDIRECT PROTECTION (ABB)			24	-	-		-	-	-
VOLTMETER			25	-	-		-	-	-
CURRENT TRANSFORMER FOR MEASURE (FRER)	TYPE		26	-	-		-	-	-
	PERFORMANCE/CLASS		27	-	-		-	-	-
VOLTAGE TRANSFORMER FOR MEASURE (FRER)	TYPE		28	-	-		-	-	-
	PERFORMANCE/CLASS		29	-	-		-	-	-
LOCK-OUT RELAY (-)			30	-	-		-	-	-
POWER CONDUCTOR		mmq	31	4G35	4G35		5G50	4G4	4G35

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
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0	15/02/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

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

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "SG-200N1"

SINGLE LINE DIAGRAM

Single Line Drawing

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

SCALE : NTS

A3

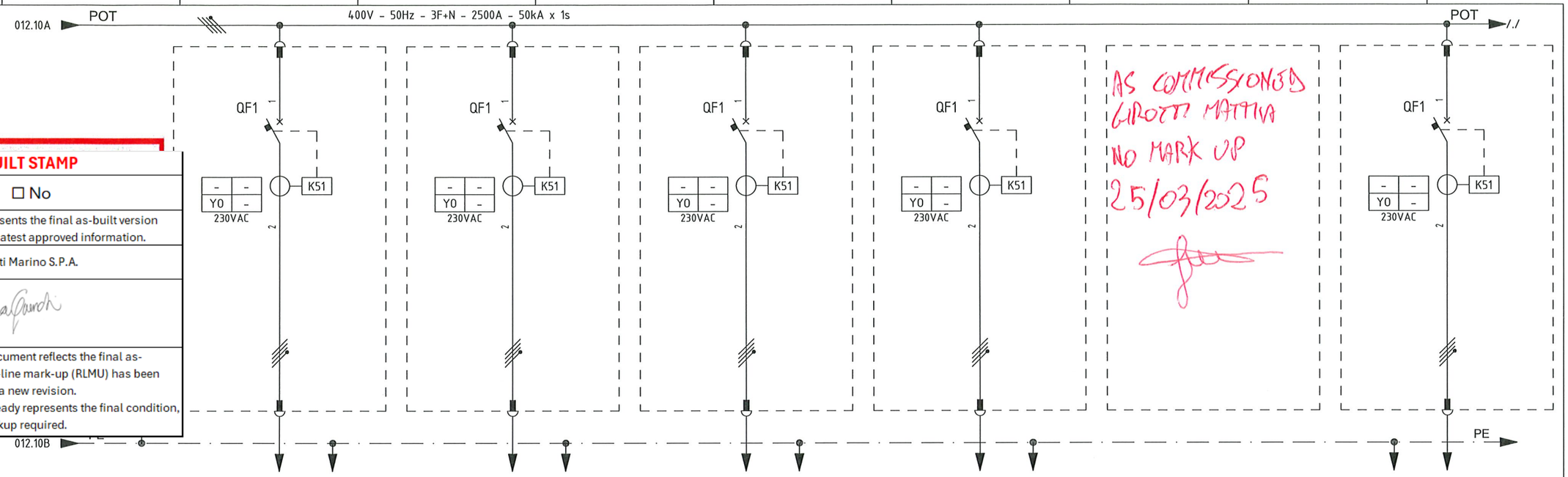
DRAWING NO. 1723002197-EL-DG-00011

SHEET 012

REV. 04

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

F.to UNI A3: 420mmx297mm



RED LINE AS BUILT STAMP

RLMU	✖ Yes ☐ No
Description	This document represents the final as-built version incorporating the latest approved information.
Reviewed & Confirmed by	Rosetti Marino S.P.A.
Signature /Date	

Notes: Tick"Yes" only when the document reflects the final as-commissioned condition and the red-line mark-up (RLMU) has been incorporated without a new revision.
Tick "No" if the last approved revision already represents the final condition, with no redline markup required.

ITEM			1	UP-200F1	UP-200F1	UP-200F2	UP-200F2		ESW-200N2
UTILITY			2	DC BATTERY SYSTEM SWTG CONTROL - FEEDER A	DC BATTERY SYSTEM SWTG CONTROL - FEEDER B	NAVAID SYSTEM FEEDER A	NAVAID SYSTEM FEEDER B		WELDING SOCKETS (LOWER DECK)
COLUMN/CUBICLE			3	A7 / +03	A7 / +04	A7 / +05	A7 / +06		A7 / +08
RATED POWER | RATED CURRENT			4/5	10 kW | 16 A	10 kW | 16 A	1.6 kVA | 7 A	1.6 kVA | 7 A		69.84 kW | 126.15 A
TYPICAL FUNCTIONAL			6	L1-63	L1-63	L1-63	L1-63		L2-160
CIRCUIT BREAKER (ABB)	TYPE		7	XT2S - 160	XT2S - 160	XT2S - 160	XT2S - 160		XT4S - 250
	VERSION		8	4P - FIXED	4P - FIXED	4P - FIXED	4P - FIXED		4P - FIXED
	TRIP UNITS		9	EKIP DIP LSIG (In = 63A)	EKIP DIP LSIG (In = 63A)	EKIP DIP LSIG (In = 63A)	EKIP DIP LSIG (In = 63A)		EKIP DIP LSIG (In = 160A)
	Icu KA		10	50kA	50kA	50kA	50kA		50kA
OVERLOAD	L	Range A	11	(0.4 - 1) x In	(0.4 - 1) x In	(0.4 - 1) x In	(0.4 - 1) x In		(0.4 - 1) x In
		Range t	12	k/I^2	k/I^2	k/I^2	k/I^2		k/I^2
SEL. SHORT-CIRCUIT	S	Range A	13	(1 - 10) x In	(1 - 10) x In	(1 - 10) x In	(1 - 10) x In		(1 - 10) x In
		Range t	14	0.05 - 0.4 sec / k/I^2	0.05 - 0.4 sec / k/I^2	0.05 - 0.4 sec / k/I^2	0.05 - 0.4 sec / k/I^2		0.05 - 0.4 sec / k/I^2
INST. SHORT-CIRCUIT	I	Range A	15	(1 - 10) x In	(1 - 10) x In	(1 - 10) x In	(1 - 10) x In		(1 - 10) x In
		Range t	16	<= 0.02 sec	<= 0.02 sec	<= 0.02 sec	<= 0.02 sec		<= 0.02 sec
EARTH FAULT PROTECTION	G	Range A	17	(0.2 - 1) x In	(0.2 - 1) x In	(0.2 - 1) x In	(0.2 - 1) x In		(0.2 - 1) x In
		Range t	18	0.1 - 0.8 sec	0.1 - 0.8 sec	0.1 - 0.8 sec	0.1 - 0.8 sec		0.1 - 0.8 sec
CONTACTOR (ABB)			19	-	-	-	-		-
THERMAL OVERLOAD RELAY (ABB)			20	-	-	-	-		-
SURGE ARRESTER (DEHN)			21	-	-	-	-		-
TOROIDAL CURRENT TRANSFORMER (FRER)			22	-	-	-	-		-
FUSE HOLDER (ITALWEBER)			23	-	-	-	-		-
INDIRECT PROTECTION (ABB)			24	-	-	-	-		-
VOLTMETER			25	-	-	-	-		-
CURRENT TRANSFORMER FOR MEASURE (FRER)	TYPE		26	-	-	-	-		-
	PERFORMANCE/CLASS		27	-	-	-	-		-
VOLTAGE TRANSFORMER FOR MEASURE (FRER)	TYPE		28	-	-	-	-		-
	PERFORMANCE/CLASS		29	-	-	-	-		-
LOCK-OUT RELAY (-)			30	-	-	-	-		-
POWER CONDUCTOR mmq			31	4G16	4G16	3G16	3G16		5G50

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
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DWG n° : 231298/SD/11
Item n° : PF1002983/26

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "SG-200N1"

SINGLE LINE DIAGRAM

Single Line Drawing

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00011

SHEET 013

REV. 04

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

F.to UNI A3: 420mmx297mm