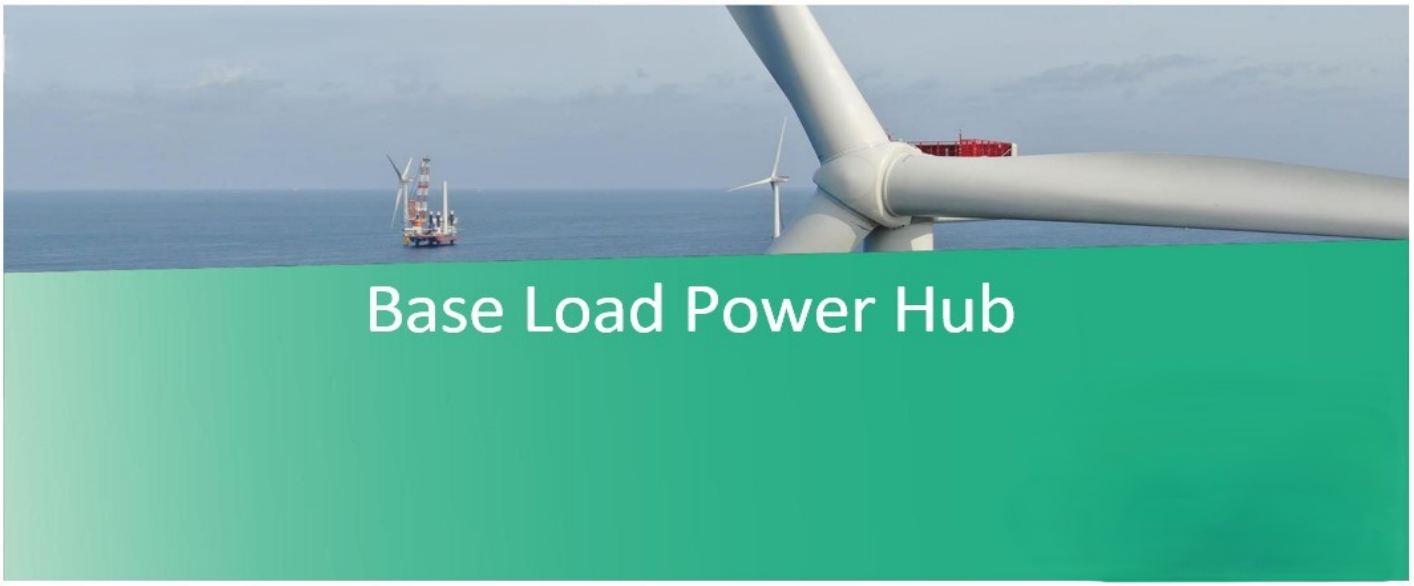
CROSSWIND

ROSETTI MARINO

PROVERUS

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



COMMISSIONING DOSSIER (ONSHORE)

SYSTEM	83 Main Power Distribution Low Voltage 440 V
SUBSYSTEM	83-20 400/230 V Switchboard (DP-200N1)

CROSSWIND

123A90 - HOLLANDSE KUST NOORD WIND PARK
BLPH Project

COMMISSIONING DOSSIER INDEX

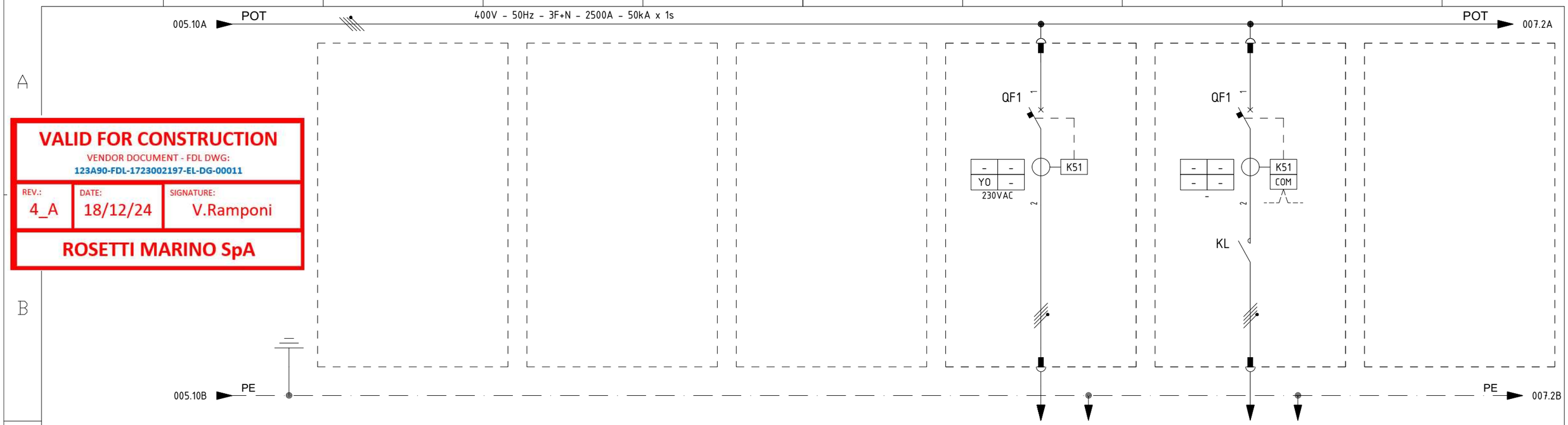
ROSETTI MARINO

Sub System N°:	83-20	**Tick as appropriate**	ONSHORE	OK
Description:	400/230 V Switchboard (DP-200N1)		OFFSHORE	

1. *SUB-SYSTEM DEFINITION*	OK
1.1 Sub-System Description / Boundary Limit Drawings	
2. *READY FOR OPERATION CERTIFICATE*	OK
2.1 Achievement Of Ready for Operation Certificate (RFO)	
2.2 Exception Punch Lists (per discipline)	
2.3 “As-Commissioned” P&ID’s / SLD’s / D&ID’s / C&E’s	
3. *CONSOLIDATED PUNCH LISTS*	OK
3.1 Cleared and Residual Items (sorted by discipline)	
4. *FUNCTIONAL TESTS SHEETS*	OK
4.1 Electrical functional test sheets index	
4.2 Electrical “As-Commissioned” interconnection diagrams	
4.3 Instrumentation Functional Test Sheets Index	
4.4 Instrumentation “As-Commissioned” interconnection diagrams	
4.5 Telecommunication Functional Test Sheets Index	
4.6 Telecommunication “As-Commissioned” I.C.D. / TSLD’s	
5. *SITE / OPERATIONAL:*	NA
5.1 Operational Test Procedure	
5.2 Operational Test Certificates	
6. *PIPING AND VESSEL PREPARATION*	NA
6.1 Final Mechanical / Vessel Inspection Checks Index	
6.2 Leak Test / Drying / Inerting Test Sheets Index	
6.3 Chemical Loading & First Fill records Index	
6.4 Chemical Cleaning Reports and Records Index	
6.5 Lubrication Schedule	
7. *VENDORS*	OK
7.1 Vendor Package Summary Index	
7.2 SAT Procedure with associated punch list and reference (Front Page)	
7.3 Vendor Spares & Special Tools lists references	
7.4 Vendor Data / Operations / Maintenance Manuals References	
8. *LIST OF MODIFICATIONS*	NA
8.1 List of changes initiated during the WORKSITE Commissioning phase pertaining to the relevant Sub-System will be incorporated in this section with relevant references (with location and position of blinds/spades, isolation LO & LC valves, list of electrical isolation status, and remaining inhibits and overrides)	
9. *SUPPORTING DOCUMENTS*	NA
9.1 Other supporting documents (as applicable)	

	Contractor Commissioning Site Leader	Company Commissioning Site Leader
Name	Anthony Iveson	Martin Taylor
Date	2025-06-19	2025-06-20
Signature	PROVERLIS Digitaly signed by Anthony Iveson 2025-06-19T06:49:01.205Z	PROVERLIS Digitaly signed by Martin Taylor 2025-06-20T09:12:29.724Z

Section 1 SUB-SYSTEM DEFINITION



VALID FOR CONSTRUCTION

VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1723002197-EL-DG-00011

REV.:	DATE:	SIGNATURE:
4_A	18/12/24	V.Ramponi

ROSETTI MARINO SpA

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		
CIRCUIT BREAKER (ABB) VERSION	8		4P - FIXED	4P - FIXED		
CIRCUIT BREAKER (ABB) TRIP UNITS	9		EKIP DIP LSIG (In = 63A)	EKIP HI TOUCH LSIG (In = 40A)		
CIRCUIT BREAKER (ABB) Icu KA	10		50 kA	50 kA		
OVERLOAD L Range A	11		(0.4 - 1) x In	(0.4 - 1) x In		
OVERLOAD L Range t	12		k/I^2	k/I^2		
SEL. SHORT-CIRCUIT S Range A	13		(1 - 10) x In	(0.6 - 10) x In		
SEL. SHORT-CIRCUIT S Range t	14		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	(1.5 - 10) x In		
INST. SHORT-CIRCUIT I Range t	16		<= 0.02 sec	instantaneous		
EARTH FAULT PROTECTION G Range A	17		(0.2 - 1) x In	(0.1 - 1) x In		
EARTH FAULT PROTECTION G 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		-	-		
CURRENT TRANSFORMER FOR MEASURE (FRER) PERFORMANCE/CLASS	27		-	-		
VOLTAGE TRANSFORMER FOR MEASURE (FRER) TYPE	28		-	-		
VOLTAGE TRANSFORMER FOR MEASURE (FRER) PERFORMANCE/CLASS	29		-	-		
LOCK-OUT RELAY (-)	30		-	-		
POWER CONDUCTOR mmq	31		4G35	5G4		

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

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)

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

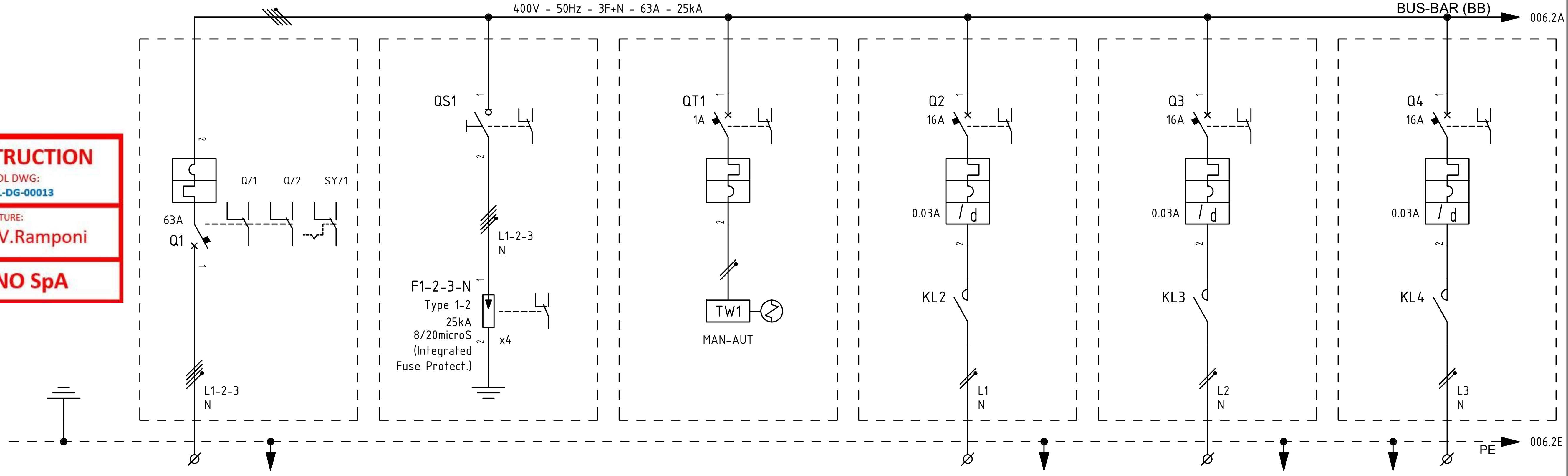
File Name : 1723002197-EL-DG-00011 Rev. 04

1	2	3	4	5	6	7	8	9	10

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1723002197-EL-DG-00013

REV.:	DATE:	SIGNATURE:
4_A	18/12/24	V.Ramponi

ROSETTI MARINO SpA



ITEM	1	-			EJB-200N1-02-L1-01	EJB-200N1-03-L2-01	EJB-200N1-04-L3-01
UTILITY	2	GENERAL INCOMING	SURGE ARRESTER	TWILIGHT SWICTH AND AUXILIARY	NORMAL LIGHTING UPPER DECK	NORMAL LIGHTING LOWER DECK	NORMAL LIGHTING STAIRS
CUBICLE	3	+01	+01	+01	+01	+02	+02
RATED POWER / RATED CURRENT	4/5	34.8 KW 63 A	/ /	/ /	1.5 KW 6.86 A	1 KW 4.58 A	0.2 KW 0.92 A
TYPICAL FUNCTIONAL	6	-	-	-	-	-	-
CIRCUIT BREAKER (ABB) – TYPE	7	XT2N-160 4P	E204/100R	S302P-C1	S302P-C16 + DDA202 AC-25/0.03	S302P-C16 + DDA202 AC-25/0.03	S302P-C16 + DDA202 AC-25/0.03
CIRCUIT BREAKER (ABB) – VERSION	8	FIXED	4P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIAUTURE
CIRCUIT BREAKER (ABB) – TRIP UNITS	9	Ekip Dip LSI = 63A	In=100A	In=1A - Curve C	In=16A - Curve C / Id=0.03A Class AC	In=16A - Curve C / Id=0.03A Class AC	In=16A - Curve C / Id=0.03A Class AC
CIRCUIT BREAKER (ABB) – Icu KA	10	36KA	-	25kA	25kA	25kA	25kA
OVERLOAD – L – Range A	11	0,4 ÷1 In	-	-	-	-	-
OVERLOAD – L – Range t	12	t=k/I^2	-	-	-	-	-
SEL. SHORT-CIRCUIT – S – Range A	13	1 ÷10 In	-	-	-	-	-
SEL. SHORT-CIRCUIT – S – Range t	14	t=k / t=k/I^2	-	-	-	-	-
INST. SHORT-CIRCUIT – I – Range A	15	1 ÷10 In	-	-	-	-	-
INST. SHORT-CIRCUIT – I – Range t	16	instantaneous	-	-	-	-	-
EARTH FAULT PROTECTION – G – Range A	17	-	-	-	-	-	-
EARTH FAULT PROTECTION – G – Range t	18	-	-	-	-	-	-
CONTACTOR (ABB)	19	-	-	-	ESB40-20N-06; 2x22A AC3; Vaux=230Vdc/ac	ESB40-20N-06; 2x22A AC3; Vaux=230Vdc/ac	ESB40-20N-06; 2x22A AC3; Vaux=230Vdc/ac
THERMAL OVERLOAD RELAY (ABB)	20	-	-	-	-	-	-
SURGE ARRESTERS (DHENN)	21	-	DVCI 1 255 FM (961 205)	-	-	-	-
TOROIDAL CURRENT TRANSFORMER (FRER)	22	-	-	-	-	-	-
FUSE HOLDER (ABB)	23	-	-	-	-	-	-
TWILIGHT SWITCH (ABB)	24	-	-	TL1 (2-200 LUX); Vaux=110-230Vac	-	-	-
VOLTMETER (FRER)	25	-	-	-	-	-	-
CURRENT TRANSFORMER FOR MEASURE (FRER) – TYPE	26	-	-	-	-	-	-
CURRENT TRANSFORMER FOR MEASURE (FRER) – PERFORMANCE/CLASS	27	-	-	-	-	-	-
VOLTAGE TRANSFORMER FOR MEASURE (FRER) – TYPE	28	-	-	-	-	-	-
VOLTAGE TRANSFORMER FOR MEASURE (FRER) – PERFORMANCE/CLASS	29	-	-	-	-	-	-
POWER TERM. BLOCK (CABUR) Type/mm^2	30	SCREW / ~~16~~ CBD-35	-	-	SCREW / 4	SCREW / 4	SCREW / 4
POWER CONDUCTOR mm^2	31	~~5G16~~ 5G50	-	-	3G4	3G4	3G4

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+	4	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
DWG n° : 231298/SD/13	3	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
Item n° : PF1002888/101	2	24/04/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
	1	15/03/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
	0	08/02/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
	REV.	DATE	DRN	CHKD	APPD	DESCRIPTION

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "DP-200N1"

SINGLE LINE DIAGRAM

Single Line Drawing

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

SCALE : NTS

A3

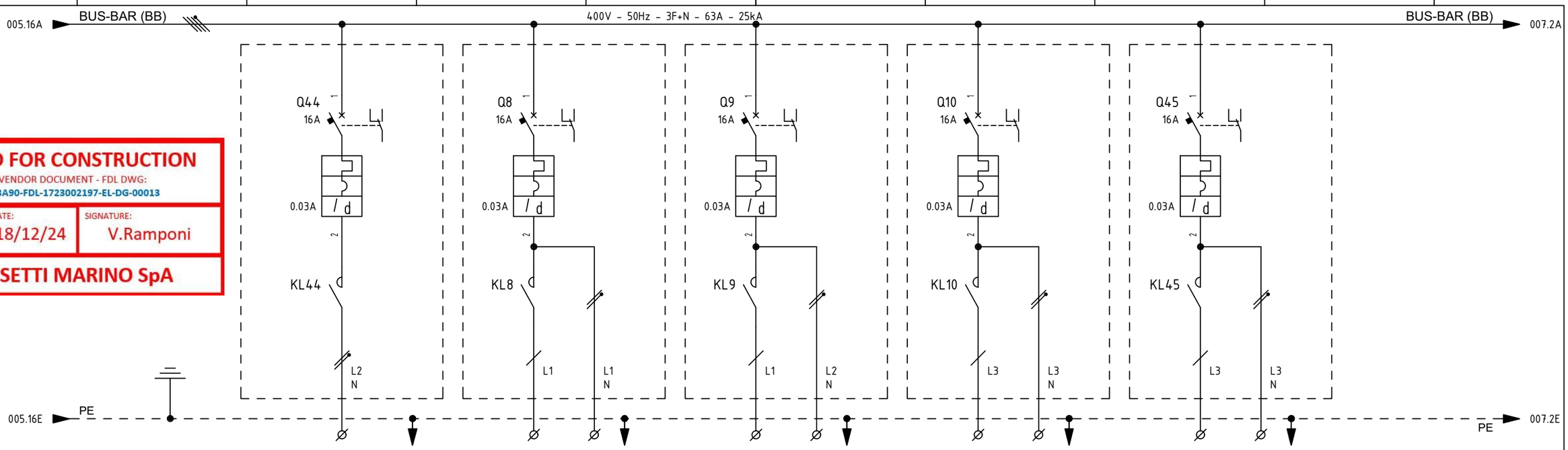
DRAWING NO. 1723002197-EL-DG-00013

SHEET 005

REV. 04

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00013 Rev. 04



VALID FOR CONSTRUCTION

VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1723002197-EL-DG-00013

REV.:	DATE:	SIGNATURE:
4_A	18/12/24	V.Ramponi

ROSETTI MARINO SpA

ITEM			1	-	EJB-200N1-08-L1-01	EJB-200N1-09-L2-01	EJB-200N1-10-L3-01	-	
UTILITY			2	NORMAL LIGHTING - SPARE	EMERGENCY LIGHTING UPPER DECK	EMERGENCY LIGHTING LOWER DECK	EMERGENCY LIGHTING STAIRS	EMERGENCY LIGHTING - SPARE	
CUBICLE			3	+02	+02	+02	+02	+02	
RATED POWER | RATED CURRENT			4/5	1 KW | 4.58 A	1.5 KW | 6.86 A	1.5 KW | 6.86 A	0.30 KW | 1.37 A	1.5 KW | 6.86 A	
TYPICAL FUNCTIONAL			6	-	-	-	-	-	
CIRCUIT BREAKER (ABB)	TYPE		7	S302P-C16 + DDA202 AC-25/0.03	S302P-D16 + DDA202 AC-25/0.03	S302P-D16 + DDA202 AC-25/0.03	S302P-D16 + DDA202 AC-25/0.03	S302P-D16 + DDA202 AC-25/0.03	
	VERSION		8	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	
	TRIP UNITS		9	In=16A - Curve C / Id=0.03A Class AC	In=16A - Curve D / Id=0.03A Class AC	In=16A - Curve D / Id=0.03A Class AC	In=16A - Curve D / Id=0.03A Class AC	In=16A - Curve D / Id=0.03A Class AC	
	Icu	KA	10	25KA	25KA	25KA	25KA	25KA	
OVERLOAD	L	Range A	11	-	-	-	-	-	
		Range t	12	-	-	-	-	-	
SEL. SHORT-CIRCUIT	S	Range A	13	-	-	-	-	-	
		Range t	14	-	-	-	-	-	
INST. SHORT-CIRCUIT	I	Range A	15	-	-	-	-	-	
		Range t	16	-	-	-	-	-	
EARTH FAULT PROTECTION	G	Range A	17	-	-	-	-	-	
		Range t	18	-	-	-	-	-	
CONTACTOR (ABB)			19	ESB40-20N-06; 2x22A AC3; Vaux=230Vdc/ac	ESB40-20N-06; 2x22A AC3; Vaux=230Vdc/ac	ESB40-20N-06; 2x22A AC3; Vaux=230Vdc/ac	ESB40-20N-06; 2x22A AC3; Vaux=230Vdc/ac	ESB40-20N-06; 2x22A AC3; Vaux=230Vdc/ac	
THERMAL OVERLOAD RELAY (ABB)			20	-	-	-	-	-	
SURGE ARRESTERS (DHENN)			21	-	-	-	-	-	
TOROIDAL CURRENT TRANSFORMER (FRER)			22	-	-	-	-	-	
FUSE HOLDER (ABB)			23	-	-	-	-	-	
TWILIGHT SWITCH (ABB)			24	-	-	-	-	-	
VOLTMETER (FRER)			25	-	-	-	-	-	
CURRENT TRANSFORMER FOR MEASURE (FRER)	TYPE		26	-	-	-	-	-	
	PERFORMANCE/CLASS		27	-	-	-	-	-	
VOLTAGE TRANSFORMER FOR MEASURE (FRER)	TYPE		28	-	-	-	-	-	
	PERFORMANCE/CLASS		29	-	-	-	-	-	
POWER TERM. BLOCK (CABUR)		Type/mm²	30	SCREW / 4	SCREW / 4	SCREW / 4	SCREW / 4	SCREW / 4	
POWER CONDUCTOR		mm²	31	-	4G4_E	4G4_E	-	-	

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DWG n° : 231298/SD/13
Item n° : PF1002888/101

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
4	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
3	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
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1	15/03/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
0	08/02/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "DP-200N1"

SINGLE LINE DIAGRAM

Single Line Drawing

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

SCALE : NTS

A3

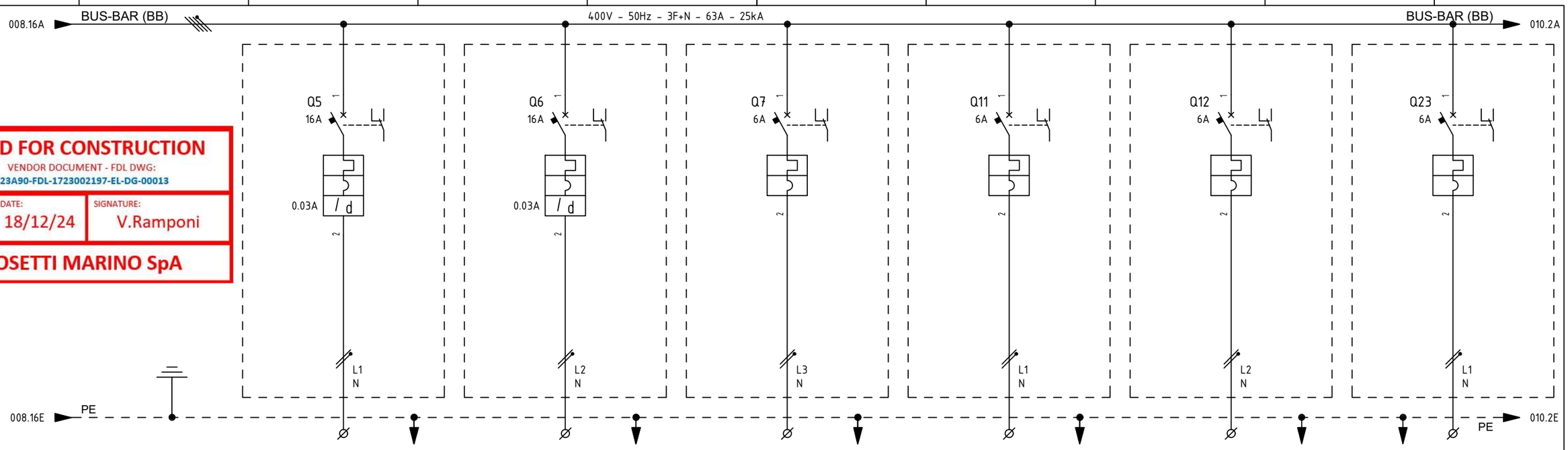
DRAWING NO. 1723002197-EL-DG-00013

SHEET 006

REV. 04

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00013 Rev. 04



VALID FOR CONSTRUCTION

VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1723002197-EL-DG-00013

REV.:	DATE:	SIGNATURE:
4_A	18/12/24	V.Ramponi

ROSETTI MARINO SpA

ITEM				1	ESO-200N1-05-L1-01	ESO-200N1-06-L2-01	-	ESH-200N1-11-L1-01	ESH-200N1-12-L2-01	B400-SIS-001
UTILITY				2	SMALL POWER SOCKET (UPPER DECK)	SMALL POWER SOCKET (LOWER DECK)	SPARE	~~SPACE HEATERS JB - WIND FARM SUBSEA CABLE~~ SPARE	~~SPACE HEATERS JB - SOLAR SUBSEA CABLE~~ SPARE	SIS-CONTROLLER AND I/O CABINET - AUXILIARY
CUBICLE				3	+03	+03	+03	+03	+03	+03
RATED POWER | RATED CURRENT				4/5	3 KW | 14.49 A	3 KW | 14.49 A	0.726 KW | 3.95 A	0.25 KW | 1.14 A	0.25 KW | 1.14 A	0.5 KW | 2.72 A
TYPICAL FUNCTIONAL				6	-	-	-	-	-	-
CIRCUIT BREAKER (ABB)	TYPE			7	S302P-C16 + DDA202 AC-25/0.03	S302P-C16 + DDA202 AC-25/0.03	S302P-C6	S302P-C6	S302P-C6	S302P-C6
	VERSION			8	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE
	TRIP UNITS			9	In=16A - Curve C / Id=0.03A Class AC	In=16A - Curve C / Id=0.03A Class AC	In=6A - Curve C	In=6A - Curve C	In=6A - Curve C	In=6A - Curve C
	Icu		KA	10	25kA	25kA	25kA	25kA	25kA	25kA
OVERLOAD	L	Range	A	11	-	-	-	-	-	-
		Range	t	12	-	-	-	-	-	-
SEL. SHORT-CIRCUIT	S	Range	A	13	-	-	-	-	-	-
		Range	t	14	-	-	-	-	-	-
INST. SHORT-CIRCUIT	I	Range	A	15	-	-	-	-	-	-
		Range	t	16	-	-	-	-	-	-
EARTH FAULT PROTECTION	G	Range	A	17	-	-	-	-	-	-
		Range	t	18	-	-	-	-	-	-
CONTACTOR (ABB)				19	-	-	-	-	-	-
THERMAL OVERLOAD RELAY (ABB)				20	-	-	-	-	-	-
SURGE ARRESTERS (DHENN)				21	-	-	-	-	-	-
TOROIDAL CURRENT TRANSFORMER (FRER)				22	-	-	-	-	-	-
FUSE HOLDER (ABB)				23	-	-	-	-	-	-
TWILIGHT SWITCH (ABB)				24	-	-	-	-	-	-
VOLTMETER (FRER)				25	-	-	-	-	-	-
CURRENT TRANSFORMER FOR MEASURE (FRER)	TYPE			26	-	-	-	-	-	-
	PERFORMANCE/CLASS			27	-	-	-	-	-	-
VOLTAGE TRANSFORMER FOR MEASURE (FRER)	TYPE			28	-	-	-	-	-	-
	PERFORMANCE/CLASS			29	-	-	-	-	-	-
POWER TERM. BLOCK (CABUR)			Type/mm²	30	SCREW / 10	SCREW / 10	SCREW / 4	SCREW / 4	SCREW / 4	SCREW / 4
POWER CONDUCTOR			mm²	31	3G10	3G10	3G2.5	3G2.5	3G2.5	3G2.5

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DWG n° : 231298/SD/13
Item n° : PF1002888/101

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
4	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
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0	08/02/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

TITLE : "DP-200N1"

SINGLE LINE DIAGRAM

Single Line Drawing

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

SCALE : NTS

A3

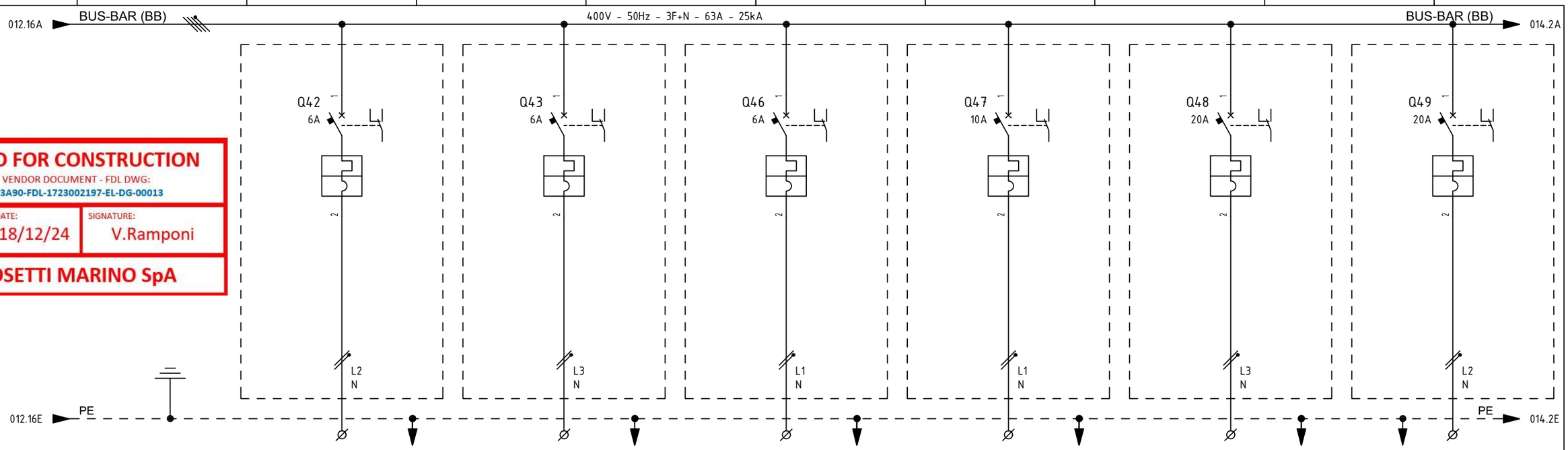
DRAWING NO. 1723002197-EL-DG-00013

SHEET 009

REV. 04

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00013 Rev. 04



VALID FOR CONSTRUCTION

VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1723002197-EL-DG-00013

REV.:	DATE:	SIGNATURE:
4_A	18/12/24	V.Ramponi

ROSETTI MARINO SpA

ITEM				1	UP-200F4	UP-200F1	-	-	-	-
UTILITY				2	AC UPS F&G AUXILIARY	DC BATTERY SYSTEM AUXILIARY	INS CABINET - SPARE AUXILIARY	SPARE	SPARE	SPARE
CUBICLE				3	+03	+03	+03	+03	+03	+03
RATED POWER	RATED CURRENT			4/5	0.2 KW / 0.82 A	0.2 KW / 0.82 A	0.5 KW / 2.72 A	1 KW / 5.43 A	3 KW / 16.3 A	3 KW / 16.3 A
TYPICAL FUNCTIONAL				6	-	-	-	-	-	-
CIRCUIT BREAKER (ABB)	TYPE			7	S302P-C6	S302P-C6	S302P-C6	S302P-C10	S302P-C20	S302P-C20
	VERSION			8	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE
	TRIP UNITS			9	In=6A - Curve C	In=6A - Curve C	In=6A - Curve C	In=10A - Curve C	In=20A - Curve C	In=20A - Curve C
	Icu		KA	10	25kA	25kA	25kA	25kA	25kA	25kA
OVERLOAD	L	Range	A	11	-	-	-	-	-	-
		Range	t	12	-	-	-	-	-	-
SEL. SHORT-CIRCUIT	S	Range	A	13	-	-	-	-	-	-
		Range	t	14	-	-	-	-	-	-
INST. SHORT-CIRCUIT	I	Range	A	15	-	-	-	-	-	-
		Range	t	16	-	-	-	-	-	-
EARTH FAULT PROTECTION	G	Range	A	17	-	-	-	-	-	-
		Range	t	18	-	-	-	-	-	-
CONTACTOR (ABB)				19	-	-	-	-	-	-
THERMAL OVERLOAD RELAY (ABB)				20	-	-	-	-	-	-
SURGE ARRESTERS (DHENN)				21	-	-	-	-	-	-
TOROIDAL CURRENT TRANSFORMER (FRER)				22	-	-	-	-	-	-
FUSE HOLDER (ABB)				23	-	-	-	-	-	-
TWILIGHT SWITCH (ABB)				24	-	-	-	-	-	-
VOLTMETER (FRER)				25	-	-	-	-	-	-
CURRENT TRANSFORMER FOR MEASURE (FRER)	TYPE			26	-	-	-	-	-	-
	PERFORMANCE/CLASS			27	-	-	-	-	-	-
VOLTAGE TRANSFORMER FOR MEASURE (FRER)	TYPE			28	-	-	-	-	-	-
	PERFORMANCE/CLASS			29	-	-	-	-	-	-
POWER TERM. BLOCK (CABUR)			Type/mm²	30	SCREW / 4	SCREW / 4	SCREW / 4	SCREW / 4	SCREW / 6	SCREW / 6
POWER CONDUCTOR			mm²	31	3G2.5	3G2.5	3G2.5	-	-	-

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DWG n° : 231298/SD/13
Item n° : PF1002888/101

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
4	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
3	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
2	24/04/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
1	15/03/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
0	08/02/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "DP-200N1"

SINGLE LINE DIAGRAM
Single Line Drawing

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

SCALE : NTS

A3

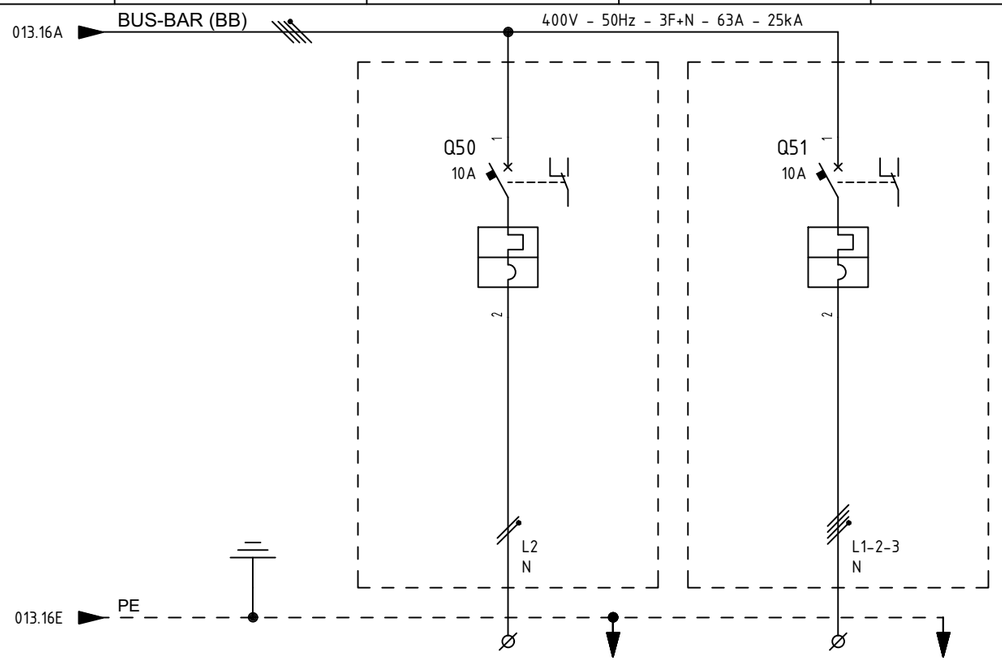
DRAWING NO. 1723002197-EL-DG-00013

SHEET 013

REV. 04

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00013 Rev. 04



VALID FOR CONSTRUCTION

VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1723002197-EL-DG-00013

REV.:	DATE:	SIGNATURE:
4_A	18/12/24	V.Ramponi

ROSETTI MARINO SpA

ITEM			1	-		-			
UTILITY			2	SPARE		SPARE			
CUBICLE			3	+03		+03			
RATED POWER	RATED CURRENT		4/5	1 KW	5.43 A	3 KW	5.42 A		
TYPICAL FUNCTIONAL			6	-		-			
CIRCUIT BREAKER (ABB)	TYPE		7	S302P-C10		S304P-C10			
	VERSION		8	2P / MINIATURE		4P / MINIATURE			
	TRIP UNITS		9	In=10A - Curve C		In=10A - Curve C			
	Icu	KA	10	25kA		25kA			
OVERLOAD	L	Range A	11	-		-			
		Range t	12	-		-			
SEL. SHORT-CIRCUIT	S	Range A	13	-		-			
		Range t	14	-		-			
INST. SHORT-CIRCUIT	I	Range A	15	-		-			
		Range t	16	-		-			
EARTH FAULT PROTECTION	G	Range A	17	-		-			
		Range t	18	-		-			
CONTACTOR (ABB)			19	-		-			
THERMAL OVERLOAD RELAY (ABB)			20	-		-			
SURGE ARRESTERS (DHENN)			21	-		-			
TOROIDAL CURRENT TRANSFORMER (FRER)			22	-		-			
FUSE HOLDER (ABB)			23	-		-			
TWILIGHT SWITCH (ABB)			24	-		-			
VOLTMETER (FRER)			25	-		-			
CURRENT TRANSFORMER FOR MEASURE (FRER)	TYPE		26	-		-			
	PERFORMANCE/CLASS		27	-		-			
VOLTAGE TRANSFORMER FOR MEASURE (FRER)	TYPE		28	-		-			
	PERFORMANCE/CLASS		29	-		-			
POWER TERM. BLOCK (CABUR)		Type/mm²	30	SCREW / 4		SCREW / 4			
POWER CONDUCTOR		mm²	31	-		-			

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DWG n° : 231298/SD/13
Item n° : PF1002888/101

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
4	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
3	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
2	24/04/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
1	15/03/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
0	08/02/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "DP-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-00013

SHEET 014

REV. 04

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00013 Rev. 04

Section 2 READY FOR OPERATION

Section 2.1 Achievement Of Ready for Operation Certificate (RFO)

ROSETTI MARINO

123A90 - HOLLANDSE KUST NOORD WIND PARK
BLPH Project

CROSSWIND

Ready For Operation (RFO) Certificate

COMPLETE	●	PARTIAL	

Revision:	1		Issued on:	2025-05-27	
System:	83	/	Main Power Distribution Low Voltage 440 V		
SubSystem:	83-20	/	400/230 V Switchboard (DP-200N1)		

We hereby confirm that all Mechanical Completion (MC) and Pre-Commissioning/Commissioning (Pre-Comm./Comm.) activities for the above-mentioned System/Sub-System have been successfully completed in accordance with project specifications, relevant standards and contractual requirements. The System/Sub-System has been tested and verified to ensure readiness for operation. Issuance of this Certificate shall not release CONTRACTOR from any of his obligations, responsibilities or liabilities under the CONTRACT.

Mechanical Completion: All required MC activities have been completed and approved
Pre-Commissioning & Commissioning: All required Pre-Comm. and Comm. activities and OTPs have been completed and approved (Status Index attached)
Punch List: All Punch items categorized as A and B have been cleared (PL report attached)
Documentation: As-built documentation and Commissioning dossier has been completed, reviewed and approved

PUNCH LIST	PENDING POINTS
Note: All Category "A" and "B" Items must be cleared prior to issuance of the Ready For Operation (RFO) Certificate	B '0

REMARKS:

	CONTRACTOR Commissioning Manager	**COMPANY** Commissioning Lead
Name	Anthony Iveson	Martin Taylor
Date	2025-05-28	2025-06-18
Signature	PROVERLIS Digitaly signed by Anthony Iveson 2025-05-28T06:40:13.328Z	PROVERLIS Digitaly signed by Martin Taylor 2025-06-18T15:26:07.763Z

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 83-20 & process: COMM

Electrical	83-20 400/230 V Switchboard (DP-200N1)						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
A3/+03-QF1	DRAWER DB - LIGHTING & SMALL POWER - A3/+03-QF1	ONSHORE	C10002886	FP00	100	2024-10-29	RFO 1
		ONSHORE	C10002887	FTR-2	100	2024-10-02	RFO 1
		ONSHORE	C10002888	FTR-6	100	2024-10-03	RFO 1
		ONSHORE	C10003018	FTR-5	100	2025-04-29	RFO 1
DP-200N1	LV 0,4/0,23 kV Distribution Board for Lighting & Small Power DB BoP	ONSHORE	C10002889	FP15	100	2024-10-28	RFO 1
DP-200N1-Q1	INCOMER - DP-200N1-Q1	ONSHORE	C10002890	FTR-2	100	2024-10-28	RFO 1
DP-200N1-Q11	SPACE HEATERS JB WIND FARM - DP-200N1-Q11	ONSHORE	C10004801	FTR-2	100	2025-01-02	RFO 1
DP-200N1-Q12	SPACE HEATERS JB WIND FARM - DP-200N1-Q12	ONSHORE	C10004800	FTR-2	100	2025-01-02	RFO 1
DP-200N1-Q44	NORMAL LIGHT SPARE - DP-200N1-Q44	ONSHORE	C10002891	FTR-2	100	2024-10-28	RFO 1
DP-200N1-Q45	EMERGENCY LIGHT SPARE - DP-200N1-Q45	ONSHORE	C10002892	FTR-2	100	2024-10-28	RFO 1
DP-200N1-Q46	AUX INS CABINET SPARE - DP-200N1-Q46	ONSHORE	C10002894	FTR-2	100	2024-10-28	RFO 1
DP-200N1-Q47	SPARE - DP-200N1-Q47	ONSHORE	C10002895	FTR-2	100	2024-10-28	RFO 1
DP-200N1-Q48	SPARE - DP-200N1-Q48	ONSHORE	C10002896	FTR-2	100	2024-10-28	RFO 1
DP-200N1-Q49	SPARE - DP-200N1-Q49	ONSHORE	C10002897	FTR-2	100	2024-10-28	RFO 1
DP-200N1-Q50	SPARE - DP-200N1-Q50	ONSHORE	C10002898	FTR-2	100	2024-10-28	RFO 1
DP-200N1-Q51	SPARE - DP-200N1-Q51	ONSHORE	C10002899	FTR-2	100	2024-10-28	RFO 1
DP-200N1-Q7	SPARE - DP-200N1-Q7	ONSHORE	C10002893	FTR-2	100	2024-10-28	RFO 1

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 83 Main Power Distribution Low Voltage 440 V

SUBSYSTEM 83-20 400/230 V Switchboard (DP-200N1)

Electrical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000120	B	A3/+03-QF1 C10002887	New and definitive protection setting to be implemented on SG-200N1 drawer A3/+03.	Update the protection study on the drawer.	The definitive setting has been updated.	MGirotti 2024-10-01	MGirotti 2024-11-21	MGirotti 2024-11-21	2024-11-21
C30000122	B	DP-200N1	Dusk Switch Missing		Installed (see attached pictures)	SLinari 2024-09-17	Vendor 2025-02-25	SLinari 2025-02-25	2025-02-25
C30000125	B	DP-200N1	1723002197-EL-DG-00013 / 1723002197-EL-DG-00033 shall be re issued including mark up after FAT		Issued Rv.04 as built / issued rev.02 as built	SLinari 2024-09-17	Vendor 2025-02-25	SLinari 2025-02-25	2025-02-25
C30000240	B	83043-CEL C10000564	Missing Identification numbers on the terminal strip X1 inside DP-200N1	.		Gtangianu 2024-10-22	2025-02-04	Gtangianu 2025-02-04	2025-02-04
C30000241	B	83043-CEL C10000564	Missing plastic cable tag on internal/external side of panel DP-200N1.	-		Gtangianu 2024-10-22	2025-02-26	Pschintu 2025-02-26	2025-02-26
C30000242	B	83127-CEC C10002119	Missing plastic cable tag on external panel DP-200N1 and SG-200N1.	-		Gtangianu 2024-10-22	2025-01-30	APolo 2025-01-30	2025-01-30
C30000243	B	83126-CEC C10002118	Missing plastic cable tag on external panel DP-200N1 and SG-200N1.	.		Gtangianu 2024-10-22	2025-01-30	APolo 2025-01-30	2025-01-30
C30000244	B	83125-CEC C10002117	Missing plastic cable tag on external panel DP-200N1 and SG-200N1.	-		Gtangianu 2024-10-22	2025-01-30	APolo 2025-01-30	2025-01-30
C30000245	B	83127-CEC C10002119	Missing identification cable tag on spares wire, SG-200N1 side.	.		Gtangianu 2024-10-22	2025-02-04	Gtangianu 2025-02-04	2025-02-04

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 83 Main Power Distribution Low Voltage 440 V
SUBSYSTEM 83-20 400/230 V Switchboard (DP-200N1)

Electrical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000246	B	83125-CEC C10002117	Missing identification cable tag on spares wire, SG-200N1 side.	-		Gtangianu 2024-10-22	2025-02-04	Gtangianu 2025-02-04	2025-02-04
C30000247	B	83126-CEC C10002118	Missing identification cable tag on spares wire, SG-200N1 side.	-		Gtangianu 2024-10-22	2025-02-04	Gtangianu 2025-02-04	2025-02-04

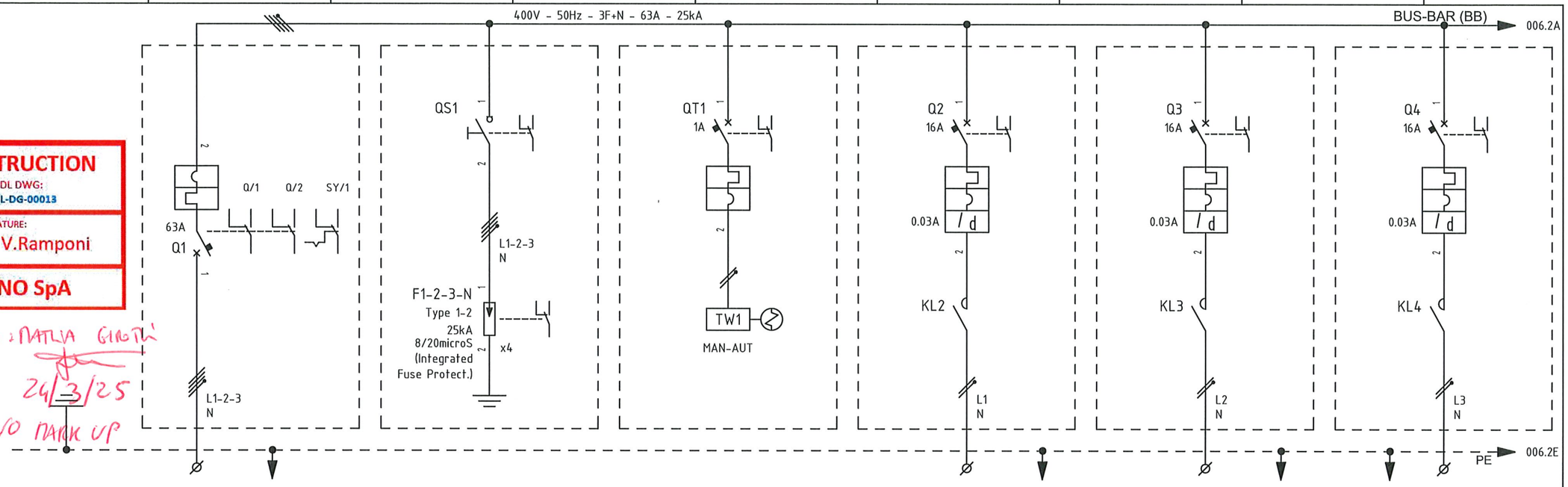
Section 2.2 Exception Punch Lists (per discipline)

Project CROSSWIND

PUNCH LIST REPORT

NO DATA AVAILABLE

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



VALID FOR CONSTRUCTION

VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1723002197-EL-DG-00013

REV.:	DATE:	SIGNATURE:
4_A	18/12/24	V.Ramponi

ROSETTI MARINO SpA

AS COMMISSIONED : NATLIA GIROTTI
24/3/25
NO MARK UP

ITEM			1	-		-		-		EJB-200N1-02-L1-01		EJB-200N1-03-L2-01		EJB-200N1-04-L3-01	
UTILITY			2	GENERAL INCOMING		SURGE ARRESTER		TWILIGHT SWICTH AND AUXILIARY		NORMAL LIGHTING UPPER DECK		NORMAL LIGHTING LOWER DECK		NORMAL LIGHTING STAIRS	
CUBICLE			3	+01		+01		+01		+01		+02		+02	
RATED POWER	RATED CURRENT		4/5	34.8 KW	63 A	/	/	/	/	1.5 KW	6.86 A	1 KW	4.58 A	0.2 KW	0.92 A
TYPICAL FUNCTIONAL			6	-		-		-		-		-		-	
CIRCUIT BREAKER (ABB)	TYPE		7	XT2N-160 4P		E204/100R		S302P-C1		S302P-C16 + DDA202 AC-25/0.03		S302P-C16 + DDA202 AC-25/0.03		S302P-C16 + DDA202 AC-25/0.03	
	VERSION		8	FIXED		4P / MINIATURE		2P / MINIATURE		2P / MINIATURE		2P / MINIATURE		2P / MINIAUTURE	
	TRIP UNITS		9	Ekip Dip LSI = 63A		In=100A		In=1A - Curve C		In=16A - Curve C / Id=0.03A Class AC		In=16A - Curve C / Id=0.03A Class AC		In=16A - Curve C / Id=0.03A Class AC	
	Icu	KA	10	36KA		-		25kA		25kA		25kA		25kA	
OVERLOAD	L	Range A	11	0,4 ÷1 In		-		-		-		-		-	
		Range t	12	t=k/I^2		-		-		-		-		-	
SEL. SHORT-CIRCUIT	S	Range A	13	1 ÷10 In		-		-		-		-		-	
		Range t	14	t=k / t=k/I^2		-		-		-		-		-	
INST. SHORT-CIRCUIT	I	Range A	15	1 ÷10 In		-		-		-		-		-	
		Range t	16	instantaneous		-		-		-		-		-	
EARTH FAULT PROTECTION	G	Range A	17	-		-		-		-		-		-	
		Range t	18	-		-		-		-		-		-	
CONTACTOR (ABB)			19	-		-		-		ESB40-20N-06; 2x22A AC3; Vaux=230Vdc/ac		ESB40-20N-06; 2x22A AC3; Vaux=230Vdc/ac		ESB40-20N-06; 2x22A AC3; Vaux=230Vdc/ac	
THERMAL OVERLOAD RELAY (ABB)			20	-		-		-		-		-		-	
SURGE ARRESTERS (DHENN)			21	-		DVCI 1 255 FM (961 205)		-		-		-		-	
TOROIDAL CURRENT TRANSFORMER (FRER)			22	-		-		-		-		-		-	
FUSE HOLDER (ABB)			23	-		-		-		-		-		-	
TWILIGHT SWITCH (ABB)			24	-		-		TL1 (2-200 LUX); Vaux=110-230Vac		-		-		-	
VOLTMETER (FRER)			25	-		-		-		-		-		-	
CURRENT TRANSFORMER FOR MEASURE (FRER)	TYPE		26	-		-		-		-		-		-	
	PERFORMANCE/CLASS		27	-		-		-		-		-		-	
VOLTAGE TRANSFORMER FOR MEASURE (FRER)	TYPE		28	-		-		-		-		-		-	
	PERFORMANCE/CLASS		29	-		-		-		-		-		-	
POWER TERM. BLOCK (CABUR)		Type/mm²	30	SCREW / ~~16~~ CBD-35		-		-		SCREW / 4		SCREW / 4		SCREW / 4	
POWER CONDUCTOR		mm²	31	~~5G16~~ 5G50		-		-		3G4		3G4		3G4	

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DWG n° : 231298/SD/13
Item n° : PF1002888/101

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
4	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
3	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
2	24/04/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
1	15/03/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
0	08/02/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

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

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

SCALE : NTS

A3

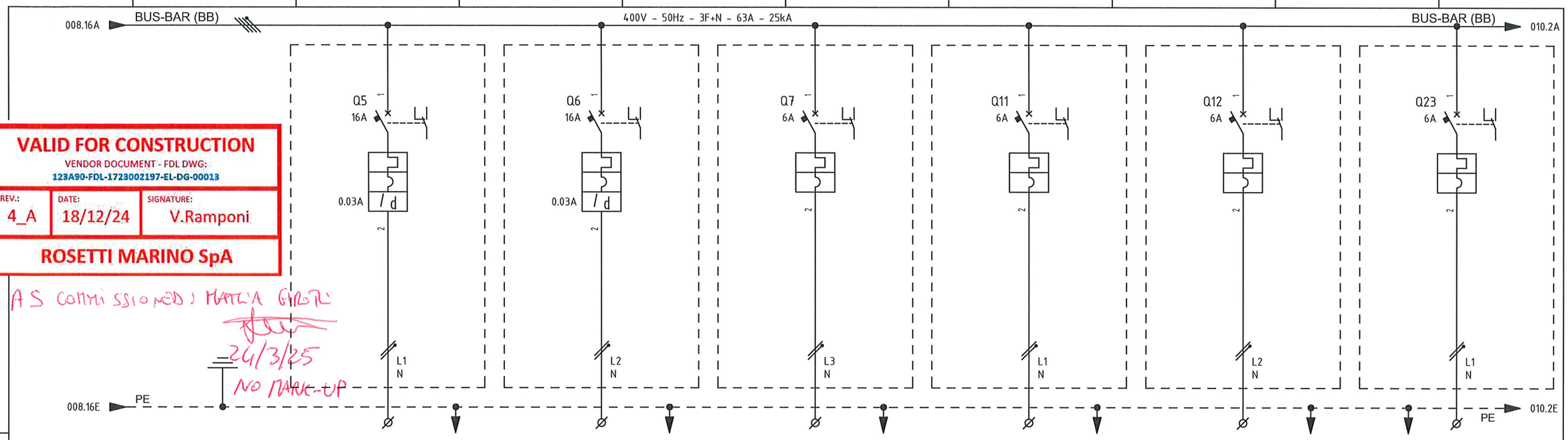
DRAWING NO. 1723002197-EL-DG-00013

SHEET 005

REV. 04

File Name : 1723002197-EL-DG-00013 Rev. 04

F.to UNI A3: 420mmx297mm



VALID FOR CONSTRUCTION

VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1723002197-EL-DG-00013

REV.:	DATE:	SIGNATURE:
4_A	18/12/24	V.Ramponi

ROSETTI MARINO SpA

AS COMMISSIONED MATCH GIROTE
24/3/25
NO TAKE-UP

ITEM				1	ESO-200N1-05-L1-01	ESO-200N1-06-L2-01	-	ESH-200N1-11-L1-01	ESH-200N1-12-L2-01	B400-SIS-001
UTILITY				2	SMALL POWER SOCKET (UPPER DECK)	SMALL POWER SOCKET (LOWER DECK)	SPARE	~~SPACE HEATERS JB - WIND FARM SUBSEA CABLE~~ SPARE	~~SPACE HEATERS JB - SOLAR SUBSEA CABLE~~ SPARE	SIS-CONTROLLER AND I/O CABINET - AUXILIARY
CUBICLE				3	+03	+03	+03	+03	+03	+03
RATED POWER | RATED CURRENT				4/5	3 KW | 14.49 A	3 KW | 14.49 A	0.726 KW | 3.95 A	0.25 KW | 1.14 A	0.25 KW | 1.14 A	0.5 KW | 2.72 A
TYPICAL FUNCTIONAL				6	-	-	-	-	-	-
CIRCUIT BREAKER (ABB)	TYPE			7	S302P-C16 + DDA202 AC-25/0.03	S302P-C16 + DDA202 AC-25/0.03	S302P-C6	S302P-C6	S302P-C6	S302P-C6
	VERSION			8	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE
	TRIP UNITS			9	In=16A - Curve C / Id=0.03A Class AC	In=16A - Curve C / Id=0.03A Class AC	In=6A - Curve C	In=6A - Curve C	In=6A - Curve C	In=6A - Curve C
	Icu		KA	10	25kA	25kA	25kA	25kA	25kA	25kA
OVERLOAD	L	Range	A	11	-	-	-	-	-	-
		Range	t	12	-	-	-	-	-	-
SEL. SHORT-CIRCUIT	S	Range	A	13	-	-	-	-	-	-
		Range	t	14	-	-	-	-	-	-
INST. SHORT-CIRCUIT	I	Range	A	15	-	-	-	-	-	-
		Range	t	16	-	-	-	-	-	-
EARTH FAULT PROTECTION	G	Range	A	17	-	-	-	-	-	-
		Range	t	18	-	-	-	-	-	-
CONTACTOR (ABB)				19	-	-	-	-	-	-
THERMAL OVERLOAD RELAY (ABB)				20	-	-	-	-	-	-
SURGE ARRESTERS (DHENN)				21	-	-	-	-	-	-
TOROIDAL CURRENT TRANSFORMER (FRER)				22	-	-	-	-	-	-
FUSE HOLDER (ABB)				23	-	-	-	-	-	-
TWILIGHT SWITCH (ABB)				24	-	-	-	-	-	-
VOLTMETER (FRER)				25	-	-	-	-	-	-
CURRENT TRANSFORMER FOR MEASURE (FRER)	TYPE			26	-	-	-	-	-	-
	PERFORMANCE/CLASS			27	-	-	-	-	-	-
VOLTAGE TRANSFORMER FOR MEASURE (FRER)	TYPE			28	-	-	-	-	-	-
	PERFORMANCE/CLASS			29	-	-	-	-	-	-
POWER TERM. BLOCK (CABUR)			Type/mm²	30	SCREW / 10	SCREW / 10	SCREW / 4	SCREW / 4	SCREW / 4	SCREW / 4
POWER CONDUCTOR			mm²	31	3G10	3G10	3G2.5	3G2.5	3G2.5	3G2.5

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
=					
+					
4	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
3	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
2	24/04/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
1	15/03/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
0	08/02/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

IMESA ELECTRICAL ENGINEERING

DWG n° : 231298/SD/13

Item n° : PF1002888/101

CROSSWIND

ROSETTI MARINO

TITLE : "DP-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-00013

SHEET 009

REV. 04

File Name : 1723002197-EL-DG-00013 Rev. 04

F.to UNI A3: 420mmx297mm

1 2 3 4 5 6 7 8 9 10

A

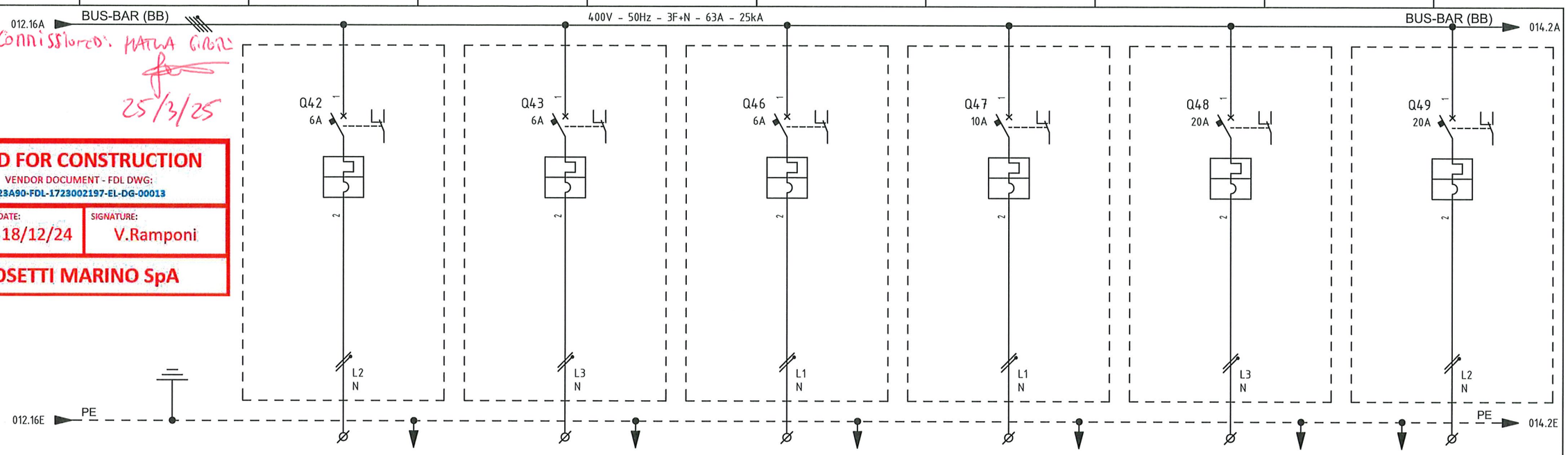
AS Commissioned. NATALIA GIBIL
25/3/25

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1723002197-EL-DG-00013

REV.:	DATE:	SIGNATURE:
4_A	18/12/24	V.Ramponi

ROSETTI MARINO SpA

B



C

ITEM			1	UP-200F4		UP-200F1		-		-		-		-	
UTILITY			2	AC UPS F&G AUXILIARY		DC BATTERY SYSTEM AUXILIARY		INS CABINET - SPARE AUXILIARY		SPARE		SPARE		SPARE	
CUBICLE			3	+03		+03		+03		+03		+03		+03	
RATED POWER	RATED CURRENT		4/5	0.2 KW	0.82 A	0.2 KW	0.82 A	0.5 KW	2.72 A	1 KW	5.43 A	3 KW	16.3 A	3 KW	16.3 A
TYPICAL FUNCTIONAL			6	-		-		-		-		-		-	
CIRCUIT BREAKER (ABB)	TYPE		7	S302P-C6		S302P-C6		S302P-C6		S302P-C10		S302P-C20		S302P-C20	
	VERSION		8	2P / MINIATURE		2P / MINIATURE		2P / MINIATURE		2P / MINIATURE		2P / MINIATURE		2P / MINIATURE	
	TRIP UNITS		9	In=6A - Curve C		In=6A - Curve C		In=6A - Curve C		In=10A - Curve C		In=20A - Curve C		In=20A - Curve C	
	Icu	KA	10	25kA		25kA		25kA		25kA		25kA		25kA	
OVERLOAD	L	Range A	11	-		-		-		-		-		-	
		Range t	12	-		-		-		-		-		-	
SEL. SHORT-CIRCUIT	S	Range A	13	-		-		-		-		-		-	
		Range t	14	-		-		-		-		-		-	
INST. SHORT-CIRCUIT	I	Range A	15	-		-		-		-		-		-	
		Range t	16	-		-		-		-		-		-	
EARTH FAULT PROTECTION	G	Range A	17	-		-		-		-		-		-	
		Range t	18	-		-		-		-		-		-	
CONTACTOR (ABB)			19	-		-		-		-		-		-	
THERMAL OVERLOAD RELAY (ABB)			20	-		-		-		-		-		-	
SURGE ARRESTERS (DHENN)			21	-		-		-		-		-		-	
TOROIDAL CURRENT TRANSFORMER (FRER)			22	-		-		-		-		-		-	
FUSE HOLDER (ABB)			23	-		-		-		-		-		-	
TWILIGHT SWITCH (ABB)			24	-		-		-		-		-		-	
VOLTMETER (FRER)			25	-		-		-		-		-		-	
CURRENT TRANSFORMER FOR MEASURE (FRER)	TYPE		26	-		-		-		-		-		-	
	PERFORMANCE/CLASS		27	-		-		-		-		-		-	
VOLTAGE TRANSFORMER FOR MEASURE (FRER)	TYPE		28	-		-		-		-		-		-	
	PERFORMANCE/CLASS		29	-		-		-		-		-		-	
POWER TERM. BLOCK (CABUR)		Type/mm²	30	SCREW / 4		SCREW / 4		SCREW / 4		SCREW / 4		SCREW / 6		SCREW / 6	
POWER CONDUCTOR		mm²	31	3G2.5		3G2.5		3G2.5		-		-		-	

D

E

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

DWG n° : 231298/SD/13
Item n° : PF1002888/101

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
=					
+					
4	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
3	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
2	24/04/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
1	15/03/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
0	08/02/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

TITLE : "DP-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-00013

SHEET 013

REV. 04

File Name : 1723002197-EL-DG-00013 Rev. 04

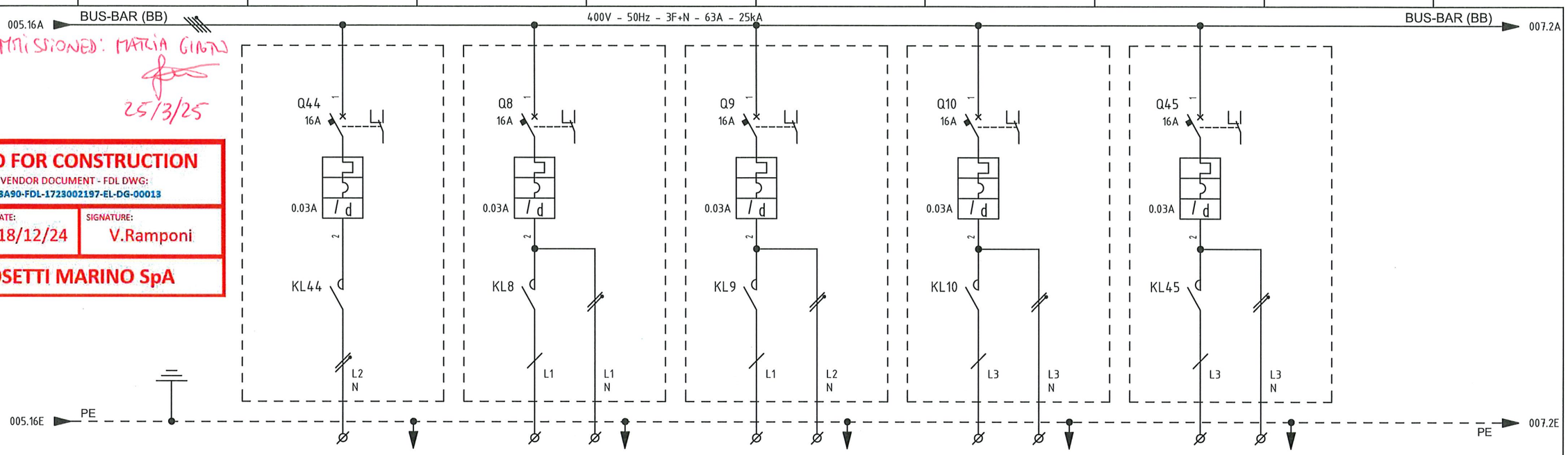
F.to UNI A3: 420mmx297mm

AS COMMISSIONED: MATTIA GIANTI
25/3/25

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1723002197-EL-DG-00013

REV.:	DATE:	SIGNATURE:
4_A	18/12/24	V.Ramponi

ROSETTI MARINO SpA



ITEM			1	-		EJB-200N1-08-L1-01		EJB-200N1-09-L2-01		EJB-200N1-10-L3-01		-		
UTILITY			2	NORMAL LIGHTING - SPARE		EMERGENCY LIGHTING UPPER DECK		EMERGENCY LIGHTING LOWER DECK		EMERGENCY LIGHTING STAIRS		EMERGENCY LIGHTING - SPARE		
CUBICLE			3	+02		+02		+02		+02		+02		
RATED POWER	RATED CURRENT		4/5	1 KW	4.58 A	1.5 KW	6.86 A	1.5 KW	6.86 A	0.30 KW	1.37 A	1.5 KW	6.86 A	
TYPICAL FUNCTIONAL			6	-		-		-		-		-		
CIRCUIT BREAKER (ABB)	TYPE		7	S302P-C16 + DDA202 AC-25/0.03		S302P-D16 + DDA202 AC-25/0.03		S302P-D16 + DDA202 AC-25/0.03		S302P-D16 + DDA202 AC-25/0.03		S302P-D16 + DDA202 AC-25/0.03		
	VERSION		8	2P / MINIATURE		2P / MINIATURE		2P / MINIATURE		2P / MINIATURE		2P / MINIATURE		
	TRIP UNITS		9	In=16A - Curve C / Id=0.03A Class AC		In=16A - Curve D / Id=0.03A Class AC		In=16A - Curve D / Id=0.03A Class AC		In=16A - Curve D / Id=0.03A Class AC		In=16A - Curve D / Id=0.03A Class AC		
	Icu	KA	10	25KA		25KA		25KA		25KA		25KA		
OVERLOAD	L	Range A	11	-		-		-		-		-		
		Range t	12	-		-		-		-		-		
SEL. SHORT-CIRCUIT	S	Range A	13	-		-		-		-		-		
		Range t	14	-		-		-		-		-		
INST. SHORT-CIRCUIT	I	Range A	15	-		-		-		-		-		
		Range t	16	-		-		-		-		-		
EARTH FAULT PROTECTION	G	Range A	17	-		-		-		-		-		
		Range t	18	-		-		-		-		-		
CONTACTOR (ABB)			19	ESB40-20N-06; 2x22A AC3; Vaux=230Vdc/ac		ESB40-20N-06; 2x22A AC3; Vaux=230Vdc/ac		ESB40-20N-06; 2x22A AC3; Vaux=230Vdc/ac		ESB40-20N-06; 2x22A AC3; Vaux=230Vdc/ac		ESB40-20N-06; 2x22A AC3; Vaux=230Vdc/ac		
THERMAL OVERLOAD RELAY (ABB)			20	-		-		-		-		-		
SURGE ARRESTERS (DHENN)			21	-		-		-		-		-		
TOROIDAL CURRENT TRANSFORMER (FRER)			22	-		-		-		-		-		
FUSE HOLDER (ABB)			23	-		-		-		-		-		
TWILIGHT SWITCH (ABB)			24	-		-		-		-		-		
VOLTMETER (FRER)			25	-		-		-		-		-		
CURRENT TRANSFORMER FOR MEASURE (FRER)	TYPE		26	-		-		-		-		-		
	PERFORMANCE/CLASS		27	-		-		-		-		-		
VOLTAGE TRANSFORMER FOR MEASURE (FRER)	TYPE		28	-		-		-		-		-		
	PERFORMANCE/CLASS		29	-		-		-		-		-		
POWER TERM. BLOCK (CABUR)		Type/mm²	30	SCREW / 4		SCREW / 4		SCREW / 4		SCREW / 4		SCREW / 4		
POWER CONDUCTOR		mm²	31	-		4G4_E		4G4_E		4G4_E		-		

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DWG n° : 231298/SD/13
Item n° : PF1002888/101

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
4	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
3	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
2	24/04/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
1	15/03/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
0	08/02/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

IMESA ELECTRICAL ENGINEERING
CROSSWIND
ROSETTI MARINO

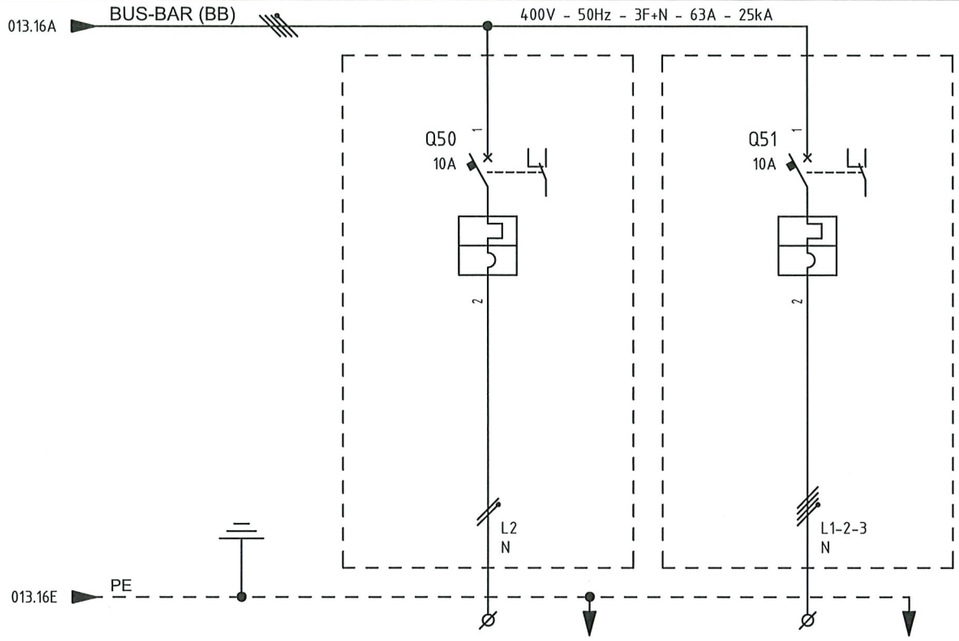
TITLE : "DP-200N1"
SINGLE LINE DIAGRAM
Single Line Drawing

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

A3 | DRAWING NO. 1723002197-EL-DG-00013 | SHEET 006 | REV. 04

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00013 Rev. 04



AS COMMISSIONED: MATRIA GIRON

25/3/25

VALID FOR CONSTRUCTION

VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1723002197-EL-DG-00013

REV.:	DATE:	SIGNATURE:
4_A	18/12/24	V.Ramponi

ROSETTI MARINO SpA

ITEM			1	-	-			
UTILITY			2	SPARE	SPARE			
CUBICLE			3	+03	+03			
RATED POWER | RATED CURRENT			4/5	1 KW | 5.43 A	3 KW | 5.42 A			
TYPICAL FUNCTIONAL			6	-	-			
CIRCUIT BREAKER (ABB)	TYPE		7	S302P-C10	S304P-C10			
	VERSION		8	2P / MINIATURE	4P / MINIATURE			
	TRIP UNITS		9	In=10A - Curve C	In=10A - Curve C			
	Icu	KA	10	25kA	25kA			
OVERLOAD	L	Range A	11	-	-			
		Range t	12	-	-			
SEL. SHORT-CIRCUIT	S	Range A	13	-	-			
		Range t	14	-	-			
INST. SHORT-CIRCUIT	I	Range A	15	-	-			
		Range t	16	-	-			
EARTH FAULT PROTECTION	G	Range A	17	-	-			
		Range t	18	-	-			
CONTACTOR (ABB)			19	-	-			
THERMAL OVERLOAD RELAY (ABB)			20	-	-			
SURGE ARRESTERS (DHENN)			21	-	-			
TOROIDAL CURRENT TRANSFORMER (FRER)			22	-	-			
FUSE HOLDER (ABB)			23	-	-			
TWILIGHT SWITCH (ABB)			24	-	-			
VOLTMETER (FRER)			25	-	-			
CURRENT TRANSFORMER FOR MEASURE (FRER)	TYPE		26	-	-			
	PERFORMANCE/CLASS		27	-	-			
VOLTAGE TRANSFORMER FOR MEASURE (FRER)	TYPE		28	-	-			
	PERFORMANCE/CLASS		29	-	-			
POWER TERM. BLOCK (CABUR)		Type/mm²	30	SCREW / 4	SCREW / 4			
POWER CONDUCTOR		mm²	31	-	-			

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DWG n° : 231298/SD/13
Item n° : PF1002888/101

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
4	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
3	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
2	24/04/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
1	15/03/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
0	08/02/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

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

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

SCALE : NTS

A3

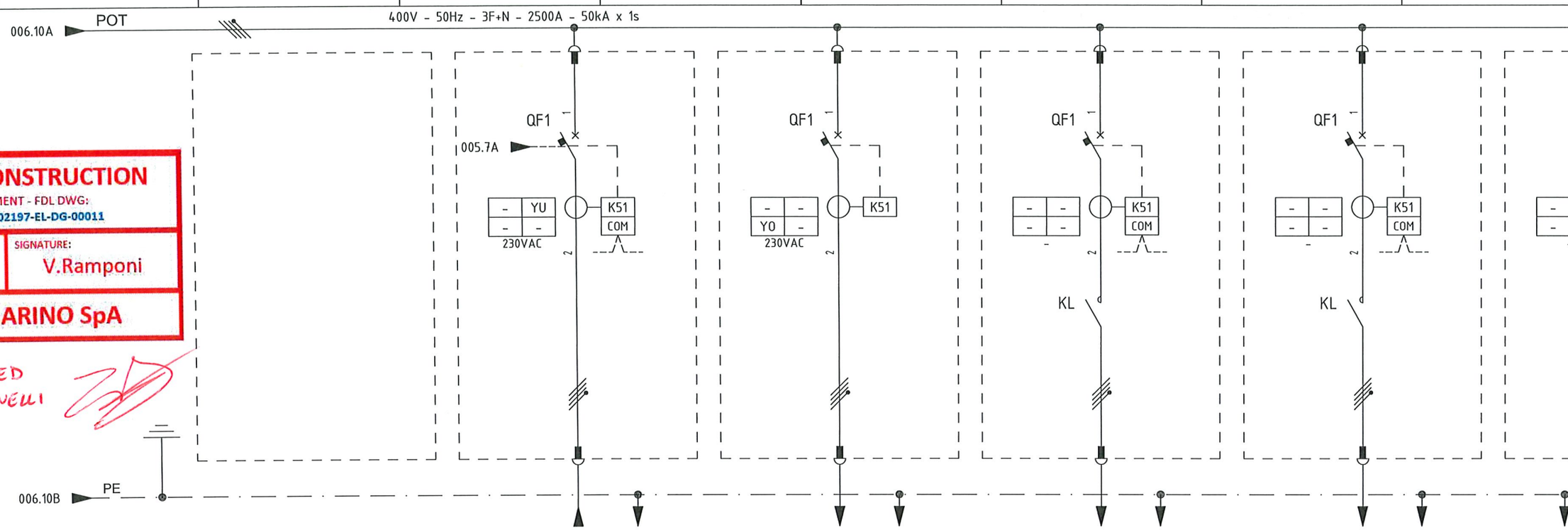
DRAWING NO. 1723002197-EL-DG-00013

SHEET 014

REV. 04

File Name : 1723002197-EL-DG-00013 Rev. 04

F.to UNI A3: 420mmx297mm



VALID FOR CONSTRUCTION

VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1723002197-EL-DG-00011

REV.:	DATE:	SIGNATURE:
4_A	18/12/24	V.Ramponi

ROSETTI MARINO SpA

AS-COMMISSIONED
DAVIDE ZUCCONELLI
20/03/2025
NO MARKUP

ITEM				1	JB-200E2	UP-200F3	SPARE	DP-200N1	
UTILITY				2	TEMPORARY GENERATOR / MOBILE BATTERY PACK	AC UPS PAS - 30 MIN UP-200F3 - LINE A	SPARE	DB - LIGHTING & SMALL POWER - BoP	
COLUMN/CUBICLE				3	A2 / +08	A3 / +01	A3 / +02	A3 / +03	
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
TYPICAL FUNCTIONAL				6	LE2-320	L1-100	LK1-40	LK1-100	
CIRCUIT BREAKER (ABB)	TYPE			7	XT5S - 400	XT2S - 160	XT2S - 160	XT2S - 160	
	VERSION			8	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
	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	(1 - 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	(1 - 10) x In	(1.5 - 15) x In	(1.5 - 15) x In	
		Range	t	16	instantaneous	<= 0.02 sec	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	
		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	
CONTACTOR (ABB)				19	-	-	AF40-40-00-13 (70A-AC1); 100-250VAC/DC	AF80-40-00-13 (70A-AC1); 100-250VAC/DC	AF52-40-0
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	

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+	4	28/08/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
DWG n° : 231298/SD/11	3	08/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)

TITLE :

"SG-200N1"

SINGLE LINE DIAGRAM

Single Line Drawing

Section 3 CONSOLIDATED PUNCH LISTS

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 83 Main Power Distribution Low Voltage 440 V

SUBSYSTEM 83-20 400/230 V Switchboard (DP-200N1)

Electrical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000120	B	A3/+03-QF1 C10002887	New and definitive protection setting to be implemented on SG-200N1 drawer A3/+03.	Update the protection study on the drawer.	The definitive setting has been updated.	MGirotti 2024-10-01	MGirotti 2024-11-21	MGirotti 2024-11-21	2024-11-21
C30000122	B	DP-200N1	Dusk Switch Missing		Installed (see attached pictures)	SLinari 2024-09-17	Vendor 2025-02-25	SLinari 2025-02-25	2025-02-25
C30000125	B	DP-200N1	1723002197-EL-DG-00013 / 1723002197-EL-DG-00033 shall be re issued including mark up after FAT		Issued Rv.04 as built / issued rev.02 as built	SLinari 2024-09-17	Vendor 2025-02-25	SLinari 2025-02-25	2025-02-25
C30000240	B	83043-CEL C10000564	Missing Identification numbers on the terminal strip X1 inside DP-200N1	.		Gtangianu 2024-10-22	2025-02-04	Gtangianu 2025-02-04	2025-02-04
C30000241	B	83043-CEL C10000564	Missing plastic cable tag on internal/external side of panel DP-200N1.	-		Gtangianu 2024-10-22	2025-02-26	Pschintu 2025-02-26	2025-02-26
C30000242	B	83127-CEC C10002119	Missing plastic cable tag on external panel DP-200N1 and SG-200N1.	-		Gtangianu 2024-10-22	2025-01-30	APolo 2025-01-30	2025-01-30
C30000243	B	83126-CEC C10002118	Missing plastic cable tag on external panel DP-200N1 and SG-200N1.	.		Gtangianu 2024-10-22	2025-01-30	APolo 2025-01-30	2025-01-30
C30000244	B	83125-CEC C10002117	Missing plastic cable tag on external panel DP-200N1 and SG-200N1.	-		Gtangianu 2024-10-22	2025-01-30	APolo 2025-01-30	2025-01-30
C30000245	B	83127-CEC C10002119	Missing identification cable tag on spares wire, SG-200N1 side.	.		Gtangianu 2024-10-22	2025-02-04	Gtangianu 2025-02-04	2025-02-04

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 83 Main Power Distribution Low Voltage 440 V
SUBSYSTEM 83-20 400/230 V Switchboard (DP-200N1)

Electrical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000246	B	83125-CEC C10002117	Missing identification cable tag on spares wire, SG-200N1 side.	-		Gtangianu 2024-10-22	2025-02-04	Gtangianu 2025-02-04	2025-02-04
C30000247	B	83126-CEC C10002118	Missing identification cable tag on spares wire, SG-200N1 side.	-		Gtangianu 2024-10-22	2025-02-04	Gtangianu 2025-02-04	2025-02-04

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000120

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002887	1.4 Discipline	Electrical
1.2 Item	A3/+03-QF1		DRAWER DB - LIGHTING & SMALL POWER - A3/+03-QF1
1.3 Subsystem	83-20		400/230 V Switchboard (DP-200N1)

2 - OBSERVATION

New and definitive protection setting to be implemented on SG-200N1 drawer A3/+03.

Name: Mattia Girotti
Date: 2024-10-01
Signature:

3 - DEFECT ASSESSMENT

Update the protection study on the drawer.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Mattia Girotti
3.4 Activity code	COMM Commissioning	Date	2024-10-01
3.5 Action by	PRE-COMM	Signature	

4 - PERFORMED ACTION

The definitive setting has been updated.

Name: Mattia Girotti
Date: 2024-11-21
Signature:

5 - CLEARANCE CHECK

Done.

Name: Mattia Girotti
Date: 2024-11-21
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:

Page Name	Group Name	Variable Name	Variable Value	Variable Unit
Settings A				
	Overload Protection (L - ANSI 49)			
		PU nominal current In	100	
		Status	Enabled	
		Function	t=k/i^2	
		Prealarm I1	90	% I1
		Threshold I1	0.650	In
		Time t1 std	60.00	s
		Thermal memory (TM)	Disabled	
		TM Algorithm	RMS-independent	
		TM Time	Automatic	
		TM custom time	830	s
	Time-delayed overcurrent protection (S - ANSI 50 TD/68/51)			
		Status	Enabled	
		Trip enable	Enabled	
		BlockOnStartUp	--------	
		BlockOnOutOfFrequency	--------	
		BlockOnProgStatusA	--------	
		BlockOnProgStatusB	--------	
		BlockOnProgStatusC	--------	
		BlockOnProgStatusD	--------	
		Function	t=k	
		Threshold I2 (t=k)	10.00	In
		Time t2 (t=k) IEC - UL489	0.10	s
		Startup enable	Disabled	
		Startup time	0.10	s
		Startup threshold	0.60	In
		Set Startup th. on ProgStatusD	--------	
		Thermal memory status	Disabled	
		Zone Selectivity status	Disabled	
		Zone Selectivity time	0.04	s
		Zone Selectivity Type	Logic and Hardware	
	Second time-delayed overcurrent protection (S2 - ANSI 50 TD)			
		Status	Disabled	
		Trip enable	Enabled	
		BlockOnStartUp	--------	
		BlockOnOutOfFrequency	--------	
		BlockOnProgStatusA	--------	
		BlockOnProgStatusB	--------	
		BlockOnProgStatusC	--------	
		BlockOnProgStatusD	--------	
		Threshold I5 (t=k)	2.00	In
		Time t5 (t=k)	0.05	s
		Startup enable	Disabled	
		Startup time	0.10	s
		Startup threshold	2.00	In
		Set Startup th. on ProgStatusD	--------	
		Zone Selectivity status	Disabled	
		Zone Selectivity time	0.04	s
		Zone Selectivity Type	Logic and Hardware	
	Instantaneous overcurrent protection (I - ANSI 50)			
		Status	Disabled	
		Threshold I3	7.00	In
		Startup enable	Disabled	
		Startup time	0.10	s
		Startup threshold	1.50	In
		Set Startup th. on ProgStatusD	--------	
		BlockOnStartUp	--------	
		BlockOnOutOfFrequency	--------	
		BlockOnProgStatusA	--------	
		BlockOnProgStatusB	--------	
		BlockOnProgStatusC	--------	
		BlockOnProgStatusD	--------	
		Zone Selectivity status	Disabled	
		Zone Selectivity Type	Logic and Hardware	
	Second I			
		Prot Second I	---	
		Status	Disabled	
		Threshold I31	1.50	In
		Zone Selectivity status	Disabled	
		Zone Selectivity Type	Logic and Hardware	
		Second I Mode	Function Dependent	
		Function	Disabled	
		Delay On	0.00	s
		Delay Off	15.00	s
	Earth fault protection (G - ANSI 50N TD/68/51N)			
		Status	Enabled	
		Trip enable	Enabled	
		BlockOnStartUp	--------	
		BlockOnOutOfFrequency	--------	
		BlockOnProgStatusA	--------	
		BlockOnProgStatusB	--------	
		BlockOnProgStatusC	--------	
		BlockOnProgStatusD	--------	
		Function	t=k	
		Prealarm I4	90	% I4
		Threshold I4 (t=k)	0.200	In
		Time t4 (t=k) IEC - UL489	0.10	s

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

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000122

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Electrical

1.2 Item DP-200N1

LV 0,4/0,23 kV Distribution Board for Lighting & Small Power DB BoP

1.3 Subsystem 83-20

400/230 V Switchboard (DP-200N1)

2 - OBSERVATION

Dusk Switch Missing

Name

Date

Signature

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

3.3 Priority B PL B

Name Stefano Linari

3.4 Activity code FAT factory acceptance test

Date 2024-09-17

3.5 Action by VND Vendor

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

4 - PERFORMED ACTION

Installed (see attached pictures)

Name Vendor Crosswind

Date 2025-02-25

Signature

5 - CLEARANCE CHECK

Installed.

Name Stefano Linari

Date 2025-02-25

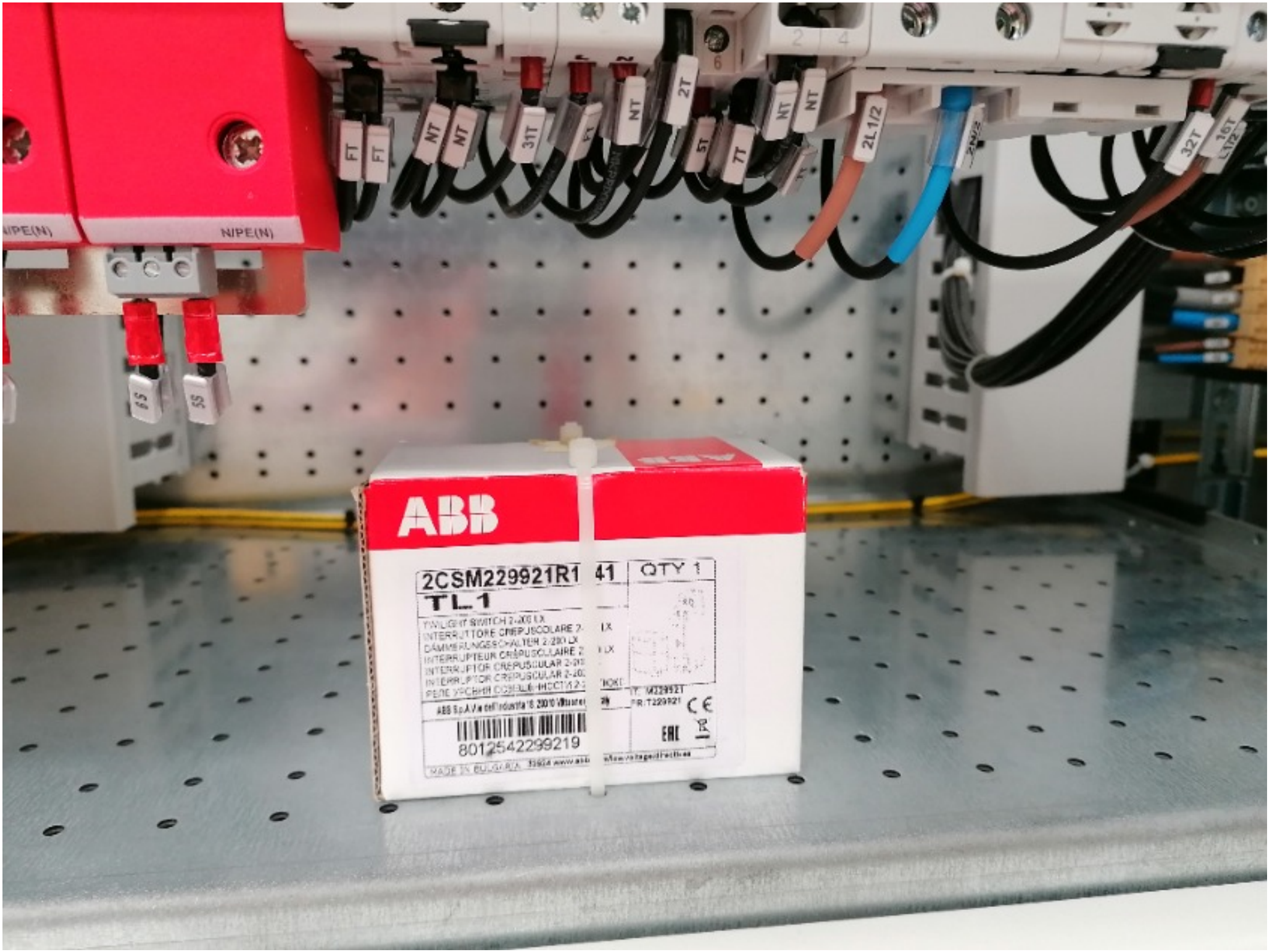
Signature

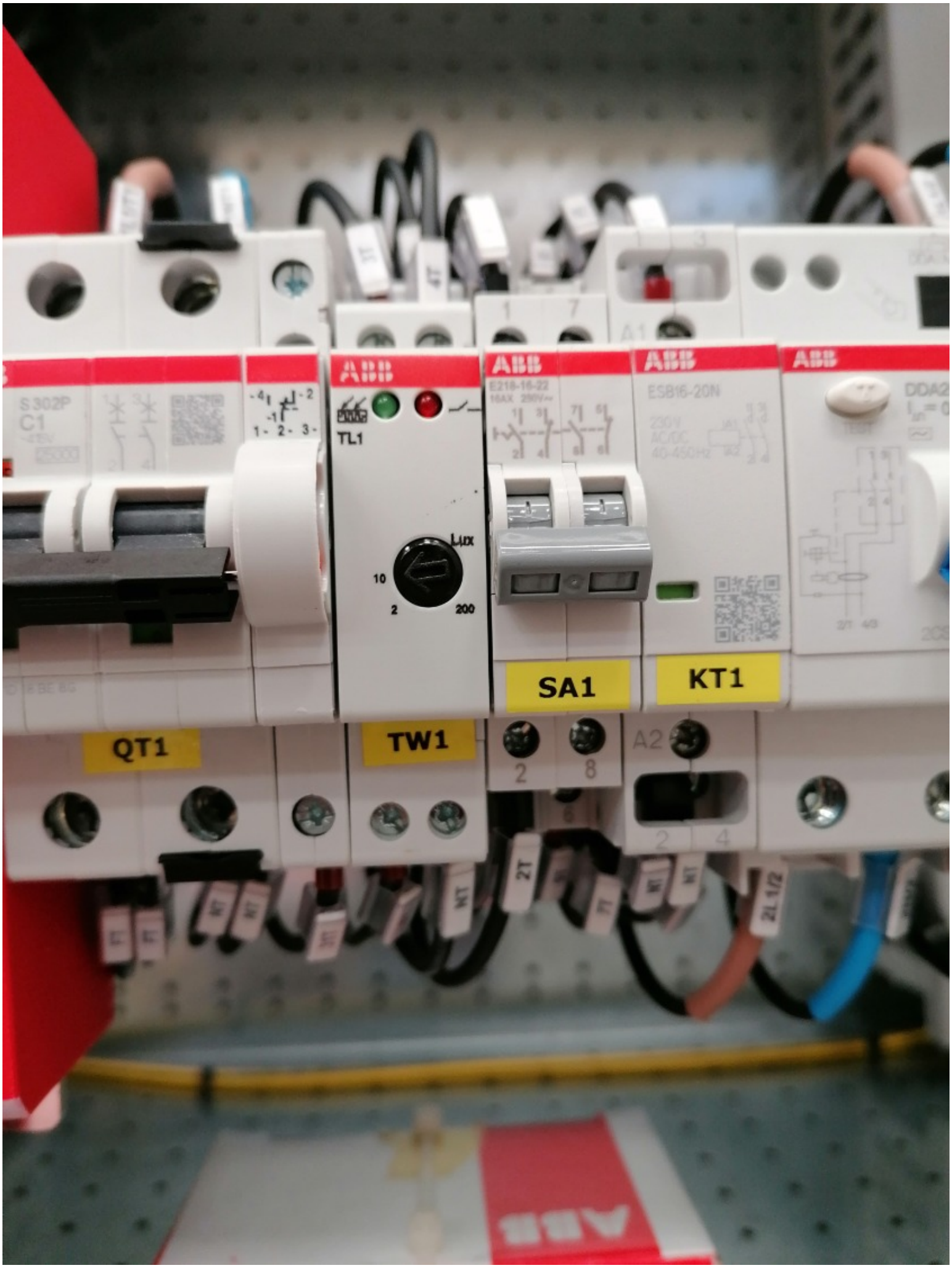
6- CLEARANCE APPROVAL

Name

Date 2025-02-25

Signature


N/PE(N)
N/PE(N)
FT
FT
NT
NT
31T
NT
2T
5T
7T
NT
NT
2L1/2
32T
16T
ABB
2CSM229921R1
41
QTY 1
TL 1
8012542299219


ABB
S 302P
C1
ABB
TL1
Lux
10
2
200
ABB
E218-16-22
16AX 250V~
ABB
ESB16-20N
230V
AC/DC
40-450Hz
QT1
TW1
SA1
KT1
A1
A2
2
8
2
4

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000125

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task

1.4 Discipline Electrical

1.2 Item DP-200N1

LV 0,4/0,23 kV Distribution Board for Lighting & Small Power DB BoP

1.3 Subsystem 83-20

400/230 V Switchboard (DP-200N1)

2 - OBSERVATION

1723002197-EL-DG-00013 / 1723002197-EL-DG-00033 shall be re issued including mark up after FAT

Name

Date

Signature

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

3.3 Priority B PL B

Name Stefano Linari

3.4 Activity code FAT factory acceptance test

Date 2024-09-17

3.5 Action by VND Vendor

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

4 - PERFORMED ACTION

Issued Rv.04 as built / issued rev.02 as built

Name Vendor Crosswind

Date 2025-02-25

Signature

5 - CLEARANCE CHECK

Installed.

Name Stefano Linari

Date 2025-02-25

Signature

6- CLEARANCE APPROVAL

Name

Date 2025-02-25

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000240

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000564	1.4 Discipline	Electrical
1.2 Item	83043-CEL		LV Switchgear / DB - Lighting & Small Power - BoP
1.3 Subsystem	83-20		400/230 V Switchboard (DP-200N1)

2 - OBSERVATION

Missing Identification numbers on the terminal strip X1 inside DP-200N1

Name: Giovanni Tangianu

Date: 2024-10-22

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-10-22
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Installed.

Name: Giovanni Tangianu

Date: 2025-02-04

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000241

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000564	1.4 Discipline	Electrical
1.2 Item	83043-CEL		LV Switchgear / DB - Lighting & Small Power - BoP
1.3 Subsystem	83-20		400/230 V Switchboard (DP-200N1)

2 - OBSERVATION

Missing plastic cable tag on internal/external side of panel DP-200N1.

Name: Giovanni Tangianu

Date: 2024-10-22

Signature:

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-10-22
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Paolo Schintu

Date: 2025-02-26

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000242

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002119	1.4 Discipline	Electrical
1.2 Item	83127-CEC		Lighting & Small Power DB BoP / LV Switchgear
1.3 Subsystem	83-20		400/230 V Switchboard (DP-200N1)

2 - OBSERVATION

Missing plastic cable tag on external panel DP-200N1 and SG-200N1.

Name: Giovanni Tangianu

Date: 2024-10-22

Signature:

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-10-22
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Alessio Polo

Date: 2025-01-30

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000243

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002118	1.4 Discipline	Electrical
1.2 Item	83126-CEC		Lighting & Small Power DB BoP / LV Switchgear
1.3 Subsystem	83-20		400/230 V Switchboard (DP-200N1)

2 - OBSERVATION

Missing plastic cable tag on external panel DP-200N1 and SG-200N1.

Name: Giovanni Tangianu

Date: 2024-10-22

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-10-22
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Alessio Polo

Date: 2025-01-30

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000244

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002117	1.4 Discipline	Electrical
1.2 Item	83125-CEC		Lighting & Small Power DB BoP / LV Switchgear
1.3 Subsystem	83-20		400/230 V Switchboard (DP-200N1)

2 - OBSERVATION

Missing plastic cable tag on external panel DP-200N1 and SG-200N1.

Name: Giovanni Tangianu

Date: 2024-10-22

Signature:

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-10-22
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Alessio Polo

Date: 2025-01-30

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000245

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002119	1.4 Discipline	Electrical
1.2 Item	83127-CEC		Lighting & Small Power DB BoP / LV Switchgear
1.3 Subsystem	83-20		400/230 V Switchboard (DP-200N1)

2 - OBSERVATION

Missing identification cable tag on spares wire, SG-200N1 side.

Name: Giovanni Tangianu

Date: 2024-10-22

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-10-22
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Installed.

Name: Giovanni Tangianu

Date: 2025-02-04

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000246

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002117	1.4 Discipline	Electrical
1.2 Item	83125-CEC		Lighting & Small Power DB BoP / LV Switchgear
1.3 Subsystem	83-20		400/230 V Switchboard (DP-200N1)

2 - OBSERVATION

Missing identification cable tag on spares wire, SG-200N1 side.

Name: Giovanni Tangianu

Date: 2024-10-22

Signature:

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-10-22
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Installed.

Name: Giovanni Tangianu

Date: 2025-02-04

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000247

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002118	1.4 Discipline	Electrical
1.2 Item	83126-CEC		Lighting & Small Power DB BoP / LV Switchgear
1.3 Subsystem	83-20		400/230 V Switchboard (DP-200N1)

2 - OBSERVATION

Missing identification cable tag on spares wire, SG-200N1 side.

Name: Giovanni Tangianu

Date: 2024-10-22

Signature:

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-10-22
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Installed.

Name: Giovanni Tangianu

Date: 2025-02-04

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

Section 4 FUNCTIONAL TESTS SHEETS

Section 4.1 Electrical functional test sheets index

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 83-20 & process: COMM & discipline : E

Electrical	83-20 400/230 V Switchboard (DP-200N1)						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
A3/+03-QF1	DRAWER DB - LIGHTING & SMALL POWER - A3/+03-QF1	ONSHORE	C10002886	FP00	100	2024-10-29	RFO 1
		ONSHORE	C10002887	FTR-2	100	2024-10-02	RFO 1
		ONSHORE	C10002888	FTR-6	100	2024-10-03	RFO 1
		ONSHORE	C10003018	FTR-5	100	2025-04-29	RFO 1
DP-200N1	LV 0,4/0,23 kV Distribution Board for Lighting & Small Power DB BoP	ONSHORE	C10002889	FP15	100	2024-10-28	RFO 1
DP-200N1-Q1	INCOMER - DP-200N1-Q1	ONSHORE	C10002890	FTR-2	100	2024-10-28	RFO 1
DP-200N1-Q11	SPACE HEATERS JB WIND FARM - DP-200N1-Q11	ONSHORE	C10004801	FTR-2	100	2025-01-02	RFO 1
DP-200N1-Q12	SPACE HEATERS JB WIND FARM - DP-200N1-Q12	ONSHORE	C10004800	FTR-2	100	2025-01-02	RFO 1
DP-200N1-Q44	NORMAL LIGHT SPARE - DP-200N1-Q44	ONSHORE	C10002891	FTR-2	100	2024-10-28	RFO 1
DP-200N1-Q45	EMERGENCY LIGHT SPARE - DP-200N1-Q45	ONSHORE	C10002892	FTR-2	100	2024-10-28	RFO 1
DP-200N1-Q46	AUX INS CABINET SPARE - DP-200N1-Q46	ONSHORE	C10002894	FTR-2	100	2024-10-28	RFO 1
DP-200N1-Q47	SPARE - DP-200N1-Q47	ONSHORE	C10002895	FTR-2	100	2024-10-28	RFO 1
DP-200N1-Q48	SPARE - DP-200N1-Q48	ONSHORE	C10002896	FTR-2	100	2024-10-28	RFO 1
DP-200N1-Q49	SPARE - DP-200N1-Q49	ONSHORE	C10002897	FTR-2	100	2024-10-28	RFO 1
DP-200N1-Q50	SPARE - DP-200N1-Q50	ONSHORE	C10002898	FTR-2	100	2024-10-28	RFO 1
DP-200N1-Q51	SPARE - DP-200N1-Q51	ONSHORE	C10002899	FTR-2	100	2024-10-28	RFO 1
DP-200N1-Q7	SPARE - DP-200N1-Q7	ONSHORE	C10002893	FTR-2	100	2024-10-28	RFO 1

ROSETTI MARINO | PROVERLIS | CROSSWIND

ITEM	Tag	A3/+03-QF1	: DRAWER DB - LIGHTING & SMALL POWER - A3/+03-QF1			Dwg	1723002197-EL-DG-00011
	S/Sys	83-20	: 400/230 V Switchboard (DP-200N1)			Module	
TASK	code	C10002886	Location	Onshore Activities		User	Rosetti Marino Quality Control
FORM	Process	PRE-COMM	Activity	FTS	Discipline	Electrical	Form	FP00		Miscellaneous electrical Consumer

DATA

Switchboard	SG-200N1	Circuit ref:	SG-200N1-QF1
Breaker rating (A)	100A	Nominal current (A)	23.7A

FUNCTION TEST REQUIREMENT

1	Check pre-commissioning activities have been carried out				OK
2	Check equipment for cleaness				OK
3	Measure I/R value of equipment and feeder cable at 1000V (Min value: 10 Mohm)	358	MΩ		OK
4	Energise control of equipment feeder				OK
5	Full test feeder breaker operation in test position				OK
6	Check protection setting				OK
7	Test interface trips and signals (remote alarms & status). Check the relevant ITR presence in the system				OK
8	Test control and safety functions according to manufacturer's procedure.				OK
9	Energize				OK
10	Measure Voltage and Current values at feeder breaker	401	V	0.3 A	OK
11	Attach test procedure, if any				NA

FUNCTION TEST REQUIREMENT	RESULT

Testing & measurement instruments used

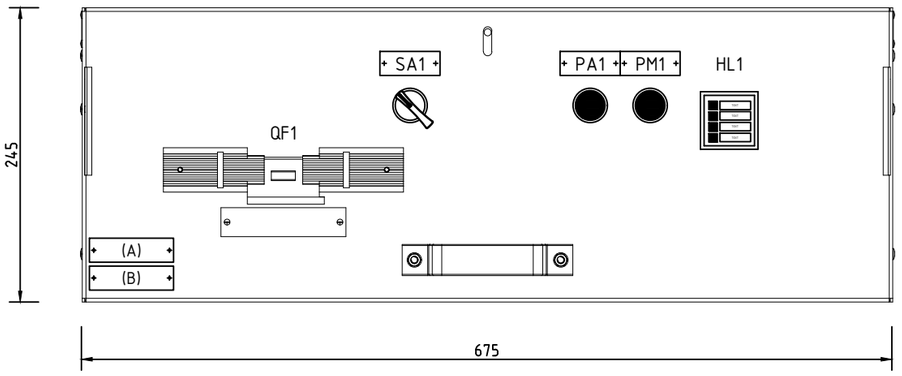
Type	Serial n°	Calibration certificate	Validity
FLUKE 1663	5380144	7727/24	10/07/2025
FLUKE 376	A1711003	7710/24	10/07/2025

Comments:

Page 1/1	Performed by	☐ WITNESS ☑ REVIEW	☐ WITNESS ☐ REVIEW
Company	RM COMM	RM COMM	CPY NOT PRESENT
Name	Mattia Girotti	Kristian Castellani	Witness waived
Date	2024-10-28	2024-10-29	2024-10-29
Signature	PROVERLIS Digitaly signed by Mattia Girotti 2024-10-28T13:04:39.303Z	PROVERLIS Digitaly signed by Kristian Castellani 2024-10-29T08:49:18.086Z	PROVERLIS Digitaly signed by Witness waived 2024-10-29T09:02:42.903Z

DOOR FRONT LAY-OUT

TYPICAL : LINE FEEDER "LK1-n"

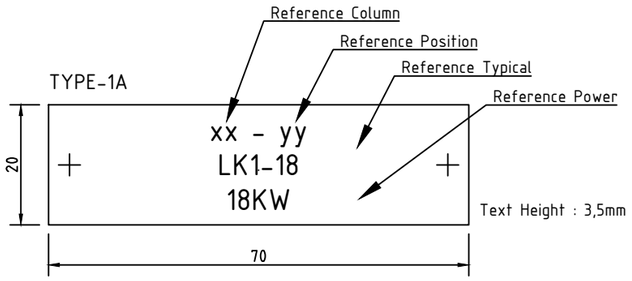


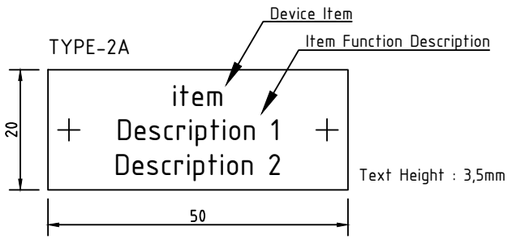
NOTE :

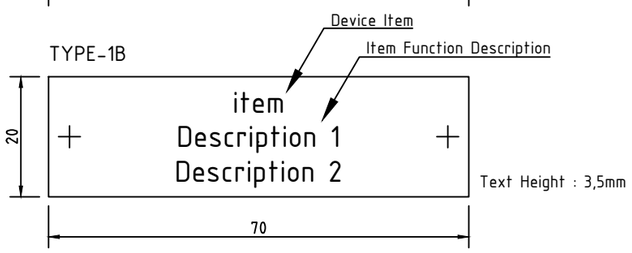
A) IDENTIFICATION name plate (type-1A) , with :
- Drawer position [Column / Position inside SWB]
- Typical name [reference applicability typical used]
- Power [reference applicability typical used]

B) USER name plate (type-1B), with :
- Item User [to see SLD diagrams]
- User Description [to see SLD diagrams]

DEVICES name plate			
ITEM	DESCRIPTION 1	DESCRIPTION 2	NOTE
QF1	Circuit Breaker		NO plate
SA1	LOC-REM	SELECTOR	Type-2A
PA1	STOP	MOTOR	Type-2A
PM1	RUN	MOTOR	Type-2A
HL1	Multiled	Signalling	NO plate







=	TYPICAL						
+	LK-x						
DWG n° :	231298/SD/31						
Item n° :	PF1002983/26						
		2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
		1	10/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
		0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
		REV.	DATE	DRN	CHKD	APPD	DESCRIPTION

CROSSWIND

ROSETTI MARINO

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

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

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

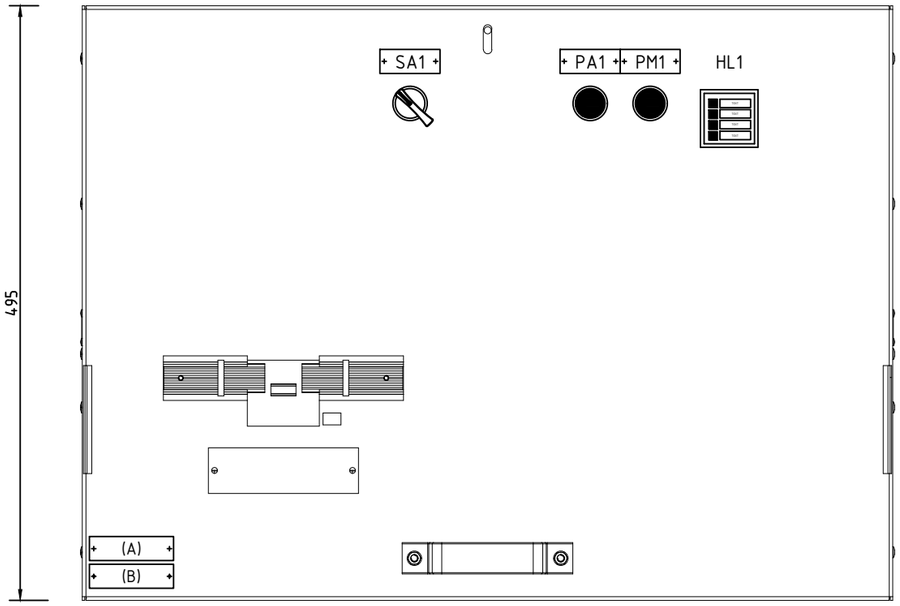
A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 034 | REV. 02

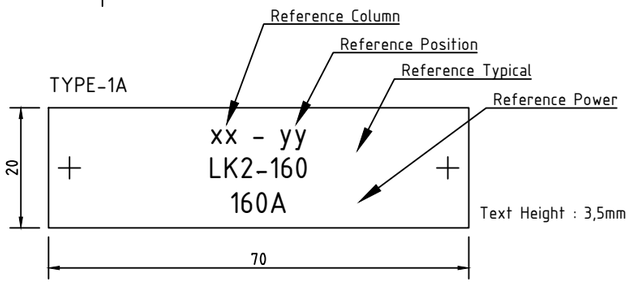
F.to UNI A3: 420mmx297mm

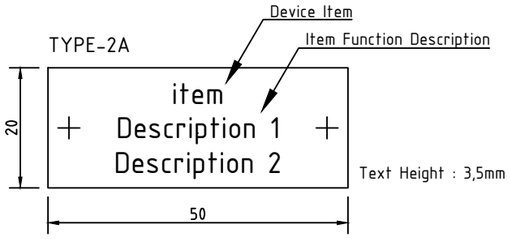
File Name : 1723002197-EL-DG-00031 Rev. 02

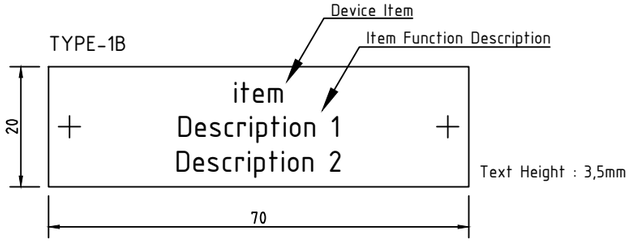
DOOR FRONT LAY-OUT

TYPICAL : LINE FEEDER "LK2-n"









NOTE :

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

B) USER name plate (type-1B), with :
- Item User [to see SLD diagrams]
- User Description [to see SLD diagrams]

DEVICES name plate			
ITEM	DESCRIPTION 1	DESCRIPTION 2	NOTE
QF1	Circuit Breaker		NO plate
SA1	LOC-REM	SELECTOR	Type-2A
PA1	STOP	MOTOR	Type-2A
PM1	RUN	MOTOR	Type-2A
HL1	Multiled	Signalling	NO plate

=	TYPICAL
+	LK-x

DWG n° : 231298/SD/31

Item n° : PF1002983/26

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	10/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

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

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

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 035 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

USERS LEGEND

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

TYPICAL APPLICABILITY					
ITEM	ITEM TAG	DESCRIPTION TAG	REFERENCE POSITION (written on name name plate "type-1A)	REFERENCE NOMINAL CURRENT C.B. TRIP UNIT (written on name name plate "type-1A)	REFERENCE TYPICAL (written on name name plate "type-1A)
1	SPARE	SPARE	A2 / +05	40A	LK1-40
2	SPARE	SPARE	A3 / +02	40A	LK1-40
3	DP-200N1	DB-LIGHTING & SMALL POWER BoP	A3 / +03	100A	LK1-100
4	JB-200E3	CRANE	A3 / +04	63A	LK1-63
5	SPARE	SPARE	A3 / +05	40A	LK1-40
6	JB-500E8	WATER PACKAGE	A3 / +08	160A	LK2-160
7	B100-HSB-001	HVAC PANELS HV ROOM	A4 / +02	40A	LK1-40
8	A-80000	FUELL CELL AUXIALIRY LOAD	A4 / +03	63A	LK1-63
9	CP-850F03	BESS PCS CABINET	A4 / +04	40A	LK1-40
10	SPARE	SPARE	A4 / +05	40A	LK1-40
11	SPARE	SPARE	A4 / +06	40A	LK1-40
12	K-63001-A	INSTRUMENTS AIR PACKAGE 01A	A4 / +08	160A	LK2-160
13	SPARE	SPARE	A5 / +01	40A	LK1-40
14	B200-HSB-001	HVAC PANELS - LV ROOM	A5 / +02	40A	LK1-40
15	B300-HSB-001	HVAC PANELS - UPS ROOM	A5 / +03	63A	LK1-63
16	B400-HSB-001	HVAC PANELS - ITER	A5 / +04	63A	LK1-63
17	CN-200N1	IMPRESSED CURR. CATHODIC PROTECTION (ICCP) SYSTEM	A5 / +05	40A	LK1-40
18	SPARE	SPARE	A5 / +06	40A	LK1-40
19	K-63001-B	INSTRUMENTS AIR PACKAGE 01B	A5 / +08	160A	LK2-160
20	CP-850E1	BESS LV1 CABINAT (+DISTR 1)	A6 / +02	40A	LK1-40
21	CP-850E2	BESS LV2 CABINAT (+DISTR 2)	A6 / +03	40A	LK1-40
22	SPARE	SPARE	A6 / +04	40A	LK1-40

= TYPICAL
+ LK-x

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

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	10/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

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

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

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 036 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

ITEMS ACRONYM

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

Composition of Typical :

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

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

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

	ACRONYM ITEMS [Comun parts]	ACRONYM ITEMS [Specific parts]					
	LK-x	LK1-40 [In=40A] [Current Trip Unit]	LK1-63 [In=63A] [Current Trip Unit]	LK1-100 [In=100A] [Current Trip Unit]	LK2-160 [In=160A] [Current Trip Unit]		
ASSOCIATED TYPICAL	This Item include all devices that are comun for both "Specific Parts" Items	This Items include only devices that are detail for "Specific Parts" Items					
LK1-40	X	X					
LK1-63	X		X				
LK1-100	X			X			
LK2-160	X				X		
-							

=	TYPICAL					
+	LK-x					
2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)	
1	10/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)	
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)	
REV.	DATE	DRN	CHKD	APPD	DESCRIPTION	

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

CROSSWIND

ROSETTI MARINO

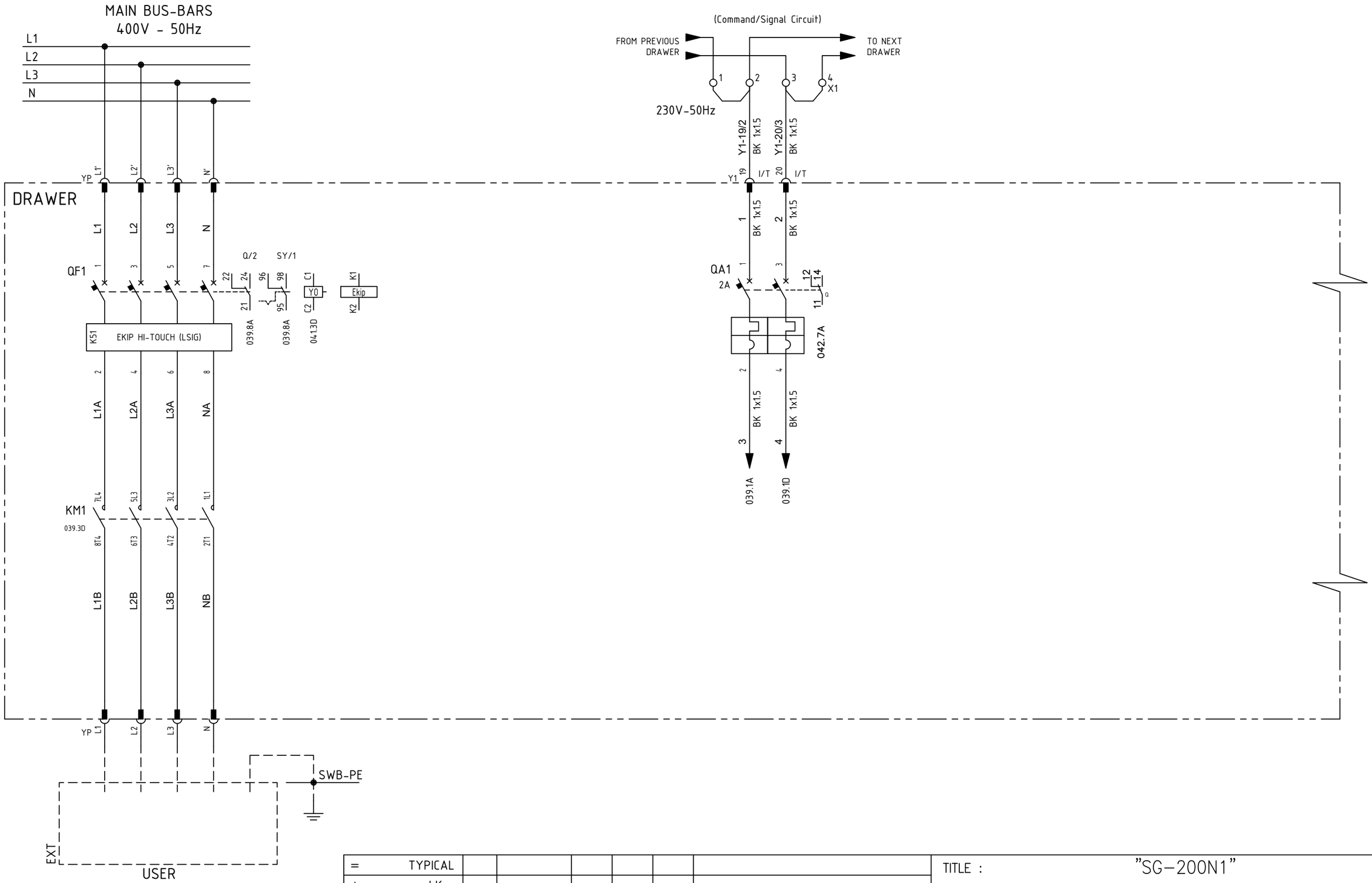
TITLE : "SG-200N1"
LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS
Items Acronym - Typical "LK1-n" & "LK2-n"

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

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 037 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02



=	TYPICAL
+	LK-x

DWG n° : 231298/SD/31

Item n° : PF1002983/26

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	10/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

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

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

SCALE : NTS

A3

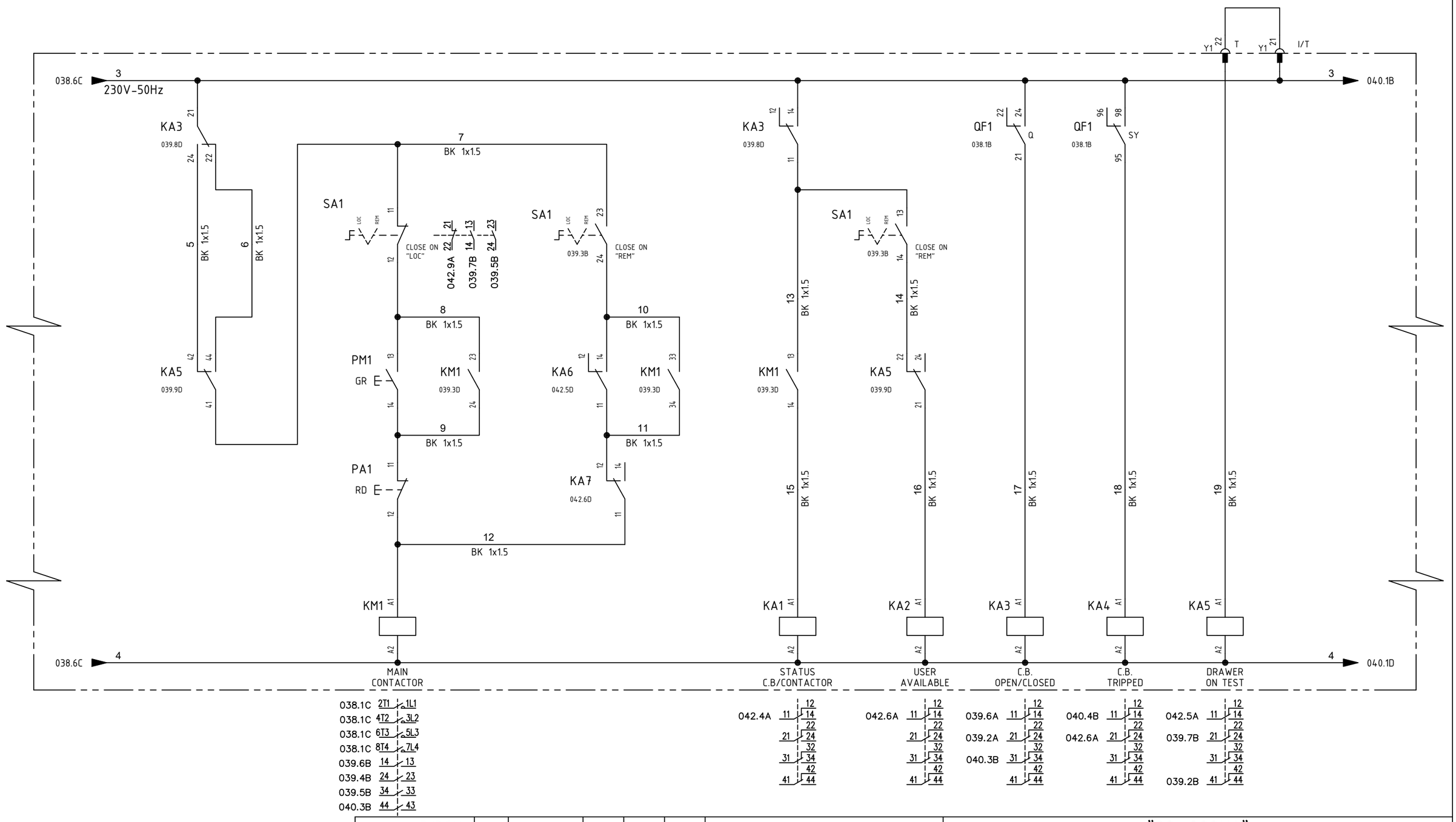
DRAWING NO. 1723002197-EL-DG-00031

SHEET 038

REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02



=	TYPICAL
+	LK-x

DWG n° : 231298/SD/31

Item n° : PF1002983/26

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	10/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

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

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

SCALE : NTS

A3

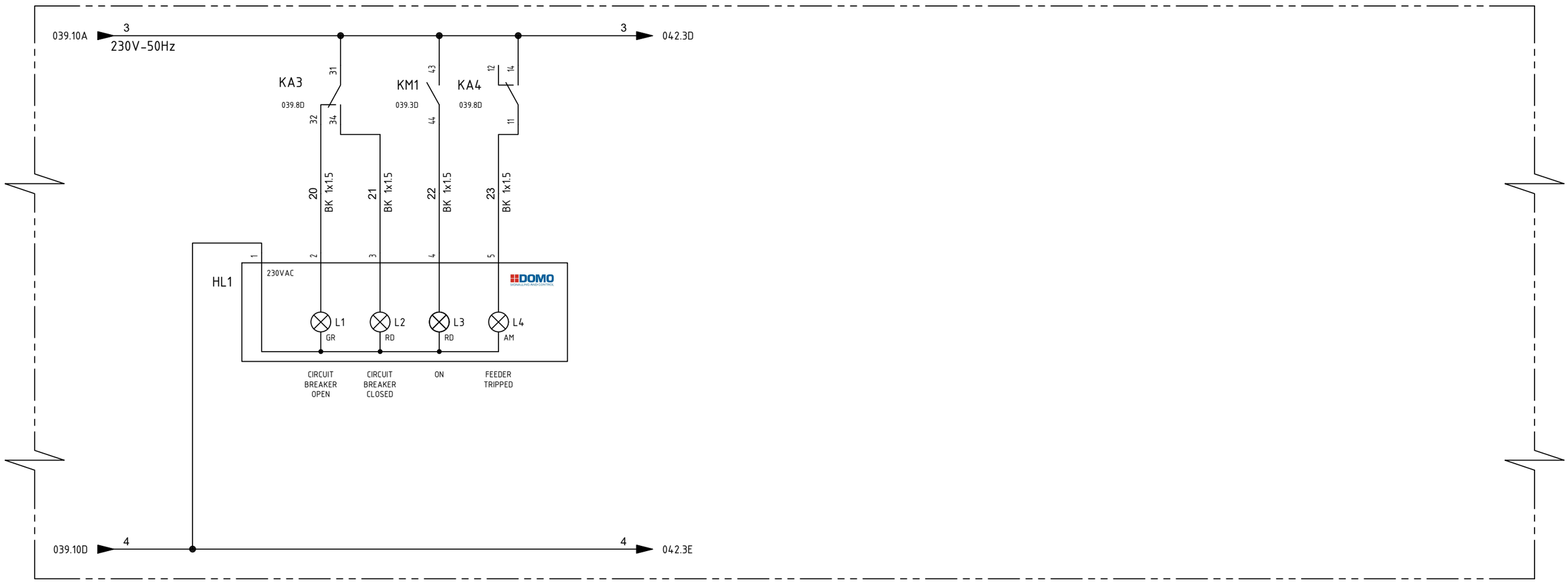
DRAWING NO. 1723002197-EL-DG-00031

SHEET 039

REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02



=	TYPICAL						
+	LK-x						
DWG n° : 231298/SD/31							
Item n° : PF1002983/26							
		2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
		1	10/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
		0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
		REV.	DATE	DRN	CHKD	APPD	DESCRIPTION

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

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

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

SCALE : NTS

A3

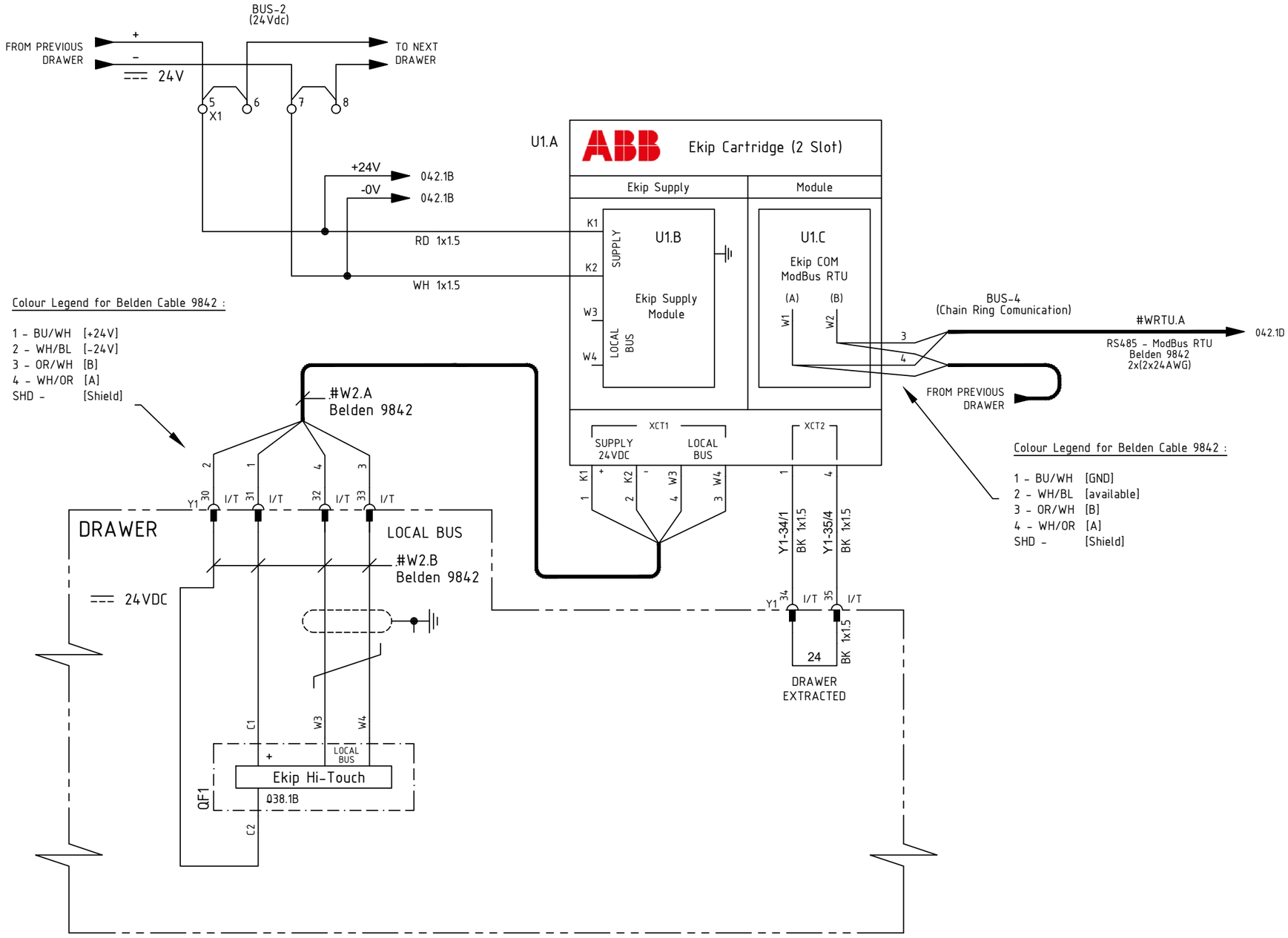
DRAWING NO. 1723002197-EL-DG-00031

SHEET 040

REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02



=	TYPICAL						
+	LK-x						
DWG n° : 231298/SD/31							
Item n° : PF1002983/26		2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
		1	10/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
		0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
		REV.	DATE	DRN	CHKD	APPD	DESCRIPTION

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

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

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

SCALE : NTS

A3

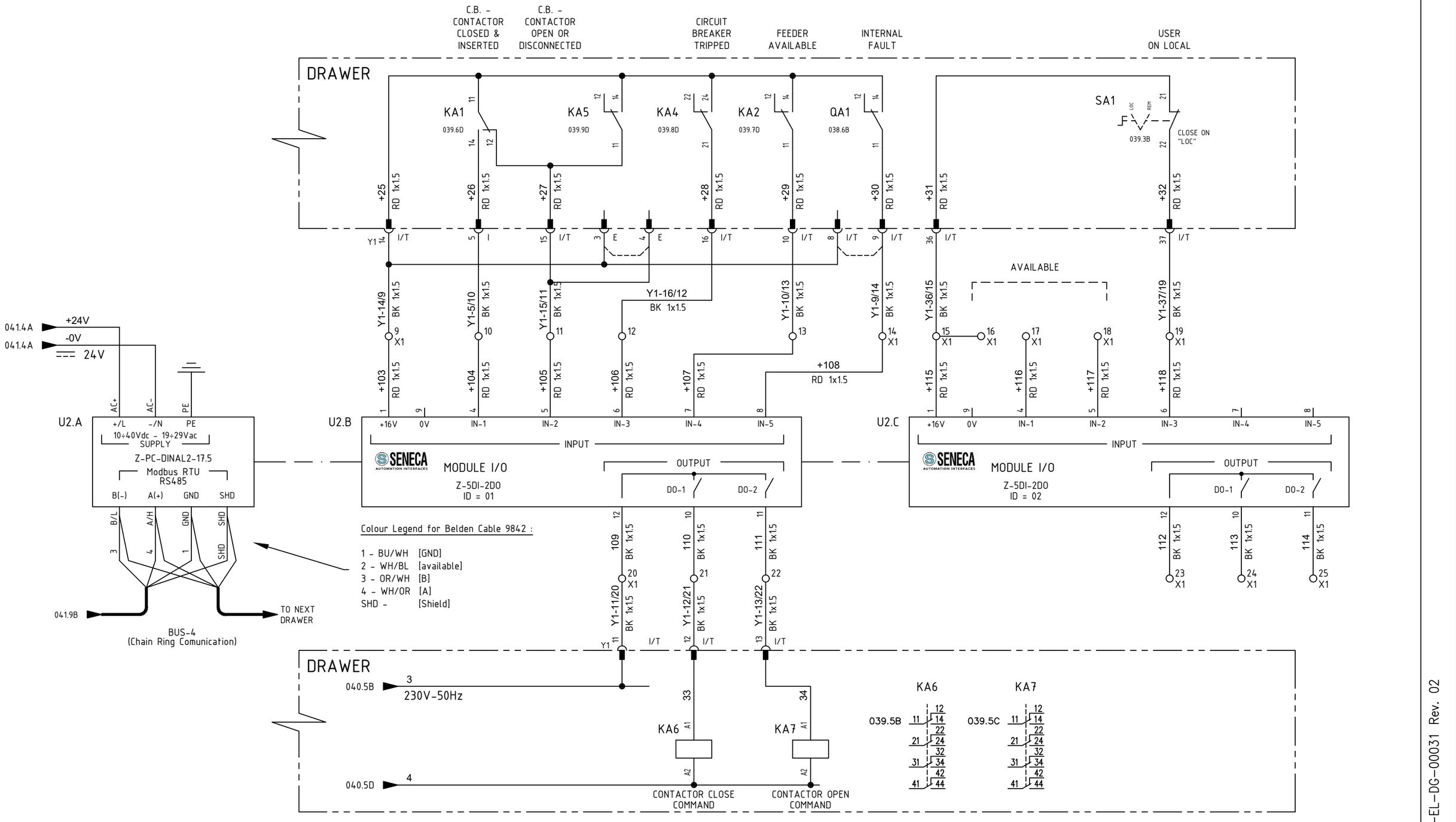
DRAWING NO. 1723002197-EL-DG-00031

SHEET 041

REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02



=	TYPICAL					
+	LK-x					
DWG n° : 231298/SD/31						
Item n° : PF1002983/26						
	2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
	1	10/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
	0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
	REV.	DATE	DRN	CHKD	APPD	DESCRIPTION

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

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

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00031

SHEET 042

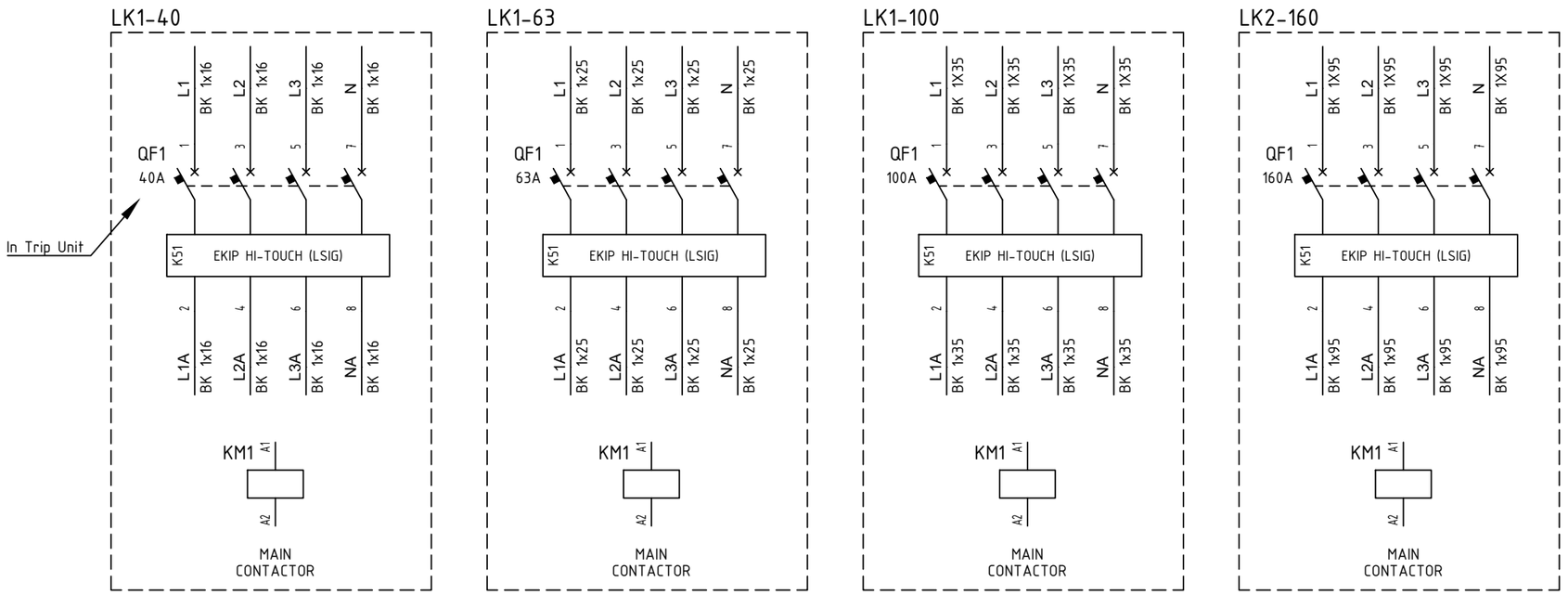
REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

SPECIFIC PARTS

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



=	TYPICAL						
+	LK-x						
DWG n° : 231298/SD/31							
Item n° : PF1002983/26		2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
		1	10/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
		0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
		REV.	DATE	DRN	CHKD	APPD	DESCRIPTION

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

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

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00031

SHEET 043

REV. 02

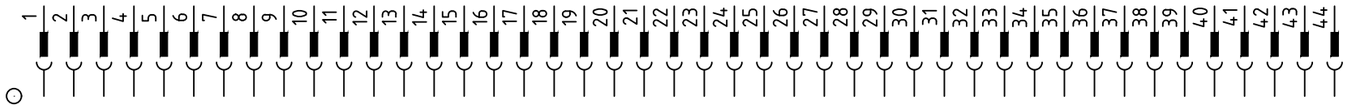
F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

TYPICAL - LK-x - Y1

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

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



← FIELD WHIT "X" - CONTACT CLOSE WHEN DRAWER IS IN RACKED-OUT POSITION
← FIELD WHIT "X" - CONTACT CLOSE WHEN DRAWER IS IN TEST POSITION
← FIELD WHIT "X" - CONTACT CLOSE WHEN DRAWER IS IN RACKED-IN POSITION

← CROS-REFERENCE USED PIN

=	TYPICAL
+	LK-x

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

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	10/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

CROSSWIND

ROSETTI MARINO

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

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

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 044 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

TYPICAL - LK-x

X1

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

= TYPICAL

\+ LK-x

DWG n° : 231298/SD/31

Item n° : PF1002983/26

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	10/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

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

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00031

SHEET 045

REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

Nome/Item	Fg/Sh	Tipo/Type	Q.ta/Q.ty	Descrizione/Description	Costruttore/Manufacturer	Quadro (descrizione)
HL1	040	ML22/484L230STLTTR	1	MULTILED 48x48 - 4 LED - Vaux=230Vac/dc + LAMP TEST + TROP	DOMO	TYPICAL LK-x
KA1	039	ER 592 6	1	CR-M230AC4L SUPPLY 230VAC 4C/O 250V/6A LED	ABB	TYPICAL LK-x
		ER 609 8	1	CR-MH HOLDER FOR CR-M RELAY	ABB	TYPICAL LK-x
		ER 686 6	1	CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M)	ABB	TYPICAL LK-x
KA2	039	ER 592 6	1	CR-M230AC4L SUPPLY 230VAC 4C/O 250V/6A LED	ABB	TYPICAL LK-x
		ER 609 8	1	CR-MH HOLDER FOR CR-M RELAY	ABB	TYPICAL LK-x
		ER 686 6	1	CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M)	ABB	TYPICAL LK-x
KA3	039	ER 592 6	1	CR-M230AC4L SUPPLY 230VAC 4C/O 250V/6A LED	ABB	TYPICAL LK-x
		ER 609 8	1	CR-MH HOLDER FOR CR-M RELAY	ABB	TYPICAL LK-x
		ER 686 6	1	CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M)	ABB	TYPICAL LK-x
KA4	039	ER 592 6	1	CR-M230AC4L SUPPLY 230VAC 4C/O 250V/6A LED	ABB	TYPICAL LK-x
		ER 609 8	1	CR-MH HOLDER FOR CR-M RELAY	ABB	TYPICAL LK-x
		ER 686 6	1	CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M)	ABB	TYPICAL LK-x
KA5	039	ER 592 6	1	CR-M230AC4L SUPPLY 230VAC 4C/O 250V/6A LED	ABB	TYPICAL LK-x
		ER 609 8	1	CR-MH HOLDER FOR CR-M RELAY	ABB	TYPICAL LK-x
		ER 686 6	1	CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M)	ABB	TYPICAL LK-x
KA6	042	ER 592 6	1	CR-M230AC4L SUPPLY 230VAC 4C/O 250V/6A LED	ABB	TYPICAL LK-x
		ER 609 8	1	CR-MH HOLDER FOR CR-M RELAY	ABB	TYPICAL LK-x
		ER 686 6	1	CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M)	ABB	TYPICAL LK-x
KA7	042	ER 592 6	1	CR-M230AC4L SUPPLY 230VAC 4C/O 250V/6A LED	ABB	TYPICAL LK-x
		ER 609 8	1	CR-MH HOLDER FOR CR-M RELAY	ABB	TYPICAL LK-x
		ER 686 6	1	CR-M4SS SOCKET STANDARD X 2/4 C/O(CR-M)	ABB	TYPICAL LK-x
PA1	039	KW 075 2	1	MP1-10R PUSH BUTTON RED WITH BLACK RING	ABB	TYPICAL LK-x
		EO 569 7	1	MCBH-00 FIXING SUPPORT 3 CONTACTS	ABB	TYPICAL LK-x
		EO 571 3	2	MCB-01 CONTACT NC FOR PUSHBUTTOM	ABB	TYPICAL LK-x
PM1	039	KW 076 0	1	MP1-10G PUSH BUTTON GREEN WITH BLACK RING	ABB	TYPICAL LK-x
		EO 569 7	1	MCBH-00 FIXING SUPPORT 3 CONTACTS	ABB	TYPICAL LK-x
		EO 570 5	2	MCB-10 CONTACT NO FOR PUSHBUTTONS	ABB	TYPICAL LK-x
QA1	038	S550239	1	S202M C 2 AUTOMATIC CIRCUIT BREAKER 10KA 2P	ABB	TYPICAL LK-x
		A563819	1	S2-CS/H6R AUXILIARY STATE CONTACT 1CO	ABB	TYPICAL LK-x
SA1	039	KW 329 3	1	M2SS2-10B HANDLE SELECTOR 2P 90° BLACK RING BLACK	ABB	TYPICAL LK-x
		EO 569 7	1	MCBH-00 FIXING SUPPORT 3 CONTACTS	ABB	TYPICAL LK-x
		EO 570 5	2	MCB-10 CONTACT NO FOR PUSHBUTTONS	ABB	TYPICAL LK-x
		EO 571 3	2	MCB-01 CONTACT NC FOR PUSHBUTTOM	ABB	TYPICAL LK-x
U1.2	041	1SDA074173R1	1	MODUL EKIP SUPPLY 24÷48VDC	ABB	TYPICAL LK-x
U1.3	041	1SDA105166R1	1	Module Ekip Com Modbus RS485 Tmax XT	ABB	TYPICAL LK-x
U1.A	041	1SDA105203R1	1	EKIP CARTRIDGE 2SLOT FOR XT2-XT4-XT5	ABB	TYPICAL LK-x
U2.A	042	Z-PC-DINAL2-17.5	1	DIN RAIL 2SLOT WITH HEAD FOR "Z-5DI-2DO"	SENECA	TYPICAL LK-x
U2.B	042	Z-5DI-2DO	1	I/O MODUL 5DI+2DO modbus RS485 Vaux=10÷40Vdc 19÷28Vac	SENECA	TYPICAL LK-x
U2.C	042	Z-5DI-2DO	1	I/O MODUL 5DI+2DO modbus RS485 Vaux=10÷40Vdc 19÷28Vac	SENECA	TYPICAL LK-x
X1		HD100GR__	8	HMD.2/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur	TYPICAL LK-x
		HD400GR__	17	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur	TYPICAL LK-x
		BT003	2	BT/3 End bracket	Cabur	TYPICAL LK-x
		HD101GR	1	HMD/PT/GR End section - Grey	Cabur	TYPICAL LK-x

= TYPICAL
\+ LK-x

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

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	10/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

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

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

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 046 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

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

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

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

Nome/Item	Fg/Sh	Tipo/Type	Q.ta/Q.ty	Descrizione/Description	Costruttore/Manufacturer	Quadro (descrizione)
KM1	043	AF80400013	1	AF80-30-00-13 CONTACTOR 4P 80A(AC3) 100-250VAC/DC	ABB	TYPICAL LK1-100
		CA440E	1	CA4-40E AUXILIARY FRONT CONTACT 4NO	ABB	TYPICAL LK1-100
QF1	043	1SDA068169R1	1	XT2S 160 BREAKING PART 4p F F	ABB	TYPICAL LK1-100
		1SDA100164R1	1	ELECTRONIC TRIP RELEASE Ekip Hi-Touch LSIG In=100A XT2 4p	ABB	TYPICAL LK1-100
		1SDA066431R1	1	AUX-C 1Q+1SY 250Vac/dc XT1..XT5 F/P	ABB	TYPICAL LK1-100

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

= TYPICAL
+ LK-x

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

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	10/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

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

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

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 047 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

ITEM	Tag	A3/+03-QF1	: DRAWER DB - LIGHTING & SMALL POWER - A3/+03-QF1			Dwg	1723002197-EL-DG-00011
	S/Sys	83-20	: 400/230 V Switchboard (DP-200N1)			Module	
TASK	code	C10002887	Location	Onshore Activities		User	Rosetti Marino Quality Control
FORM	Process	PRE-COMM	Activity	FTS	Discipline	Electrical	Form	FTR-2	Protection Relay

FTR2 - Protection relay
Record sheet

RELAY DATA

Manufacturer:	ABB	Serial N°:	EG1000153710N000	Relay type:	EKIP HI TOUCH LSIG
Auxiliary supply:	24Vdc	Location:	B200	Cubicle:	A3/+03
Switchboard:	SG-200N1				

Current transformers

Tag	Number of	Ratio	Location

Voltage transformers

Tag	Number of	Ratio	Location

Test result (refer to manufacturer's procedure)

ANSI function	Setting	Injection	Trip value	Time delay	
				Setting	Trip value
L	65A	250A		60s	37004ms
S	1000A	1200A		0.1s	103ms
I	OFF	OFF		.	.
G	20A			0.1s	

Testing & measurement instruments used

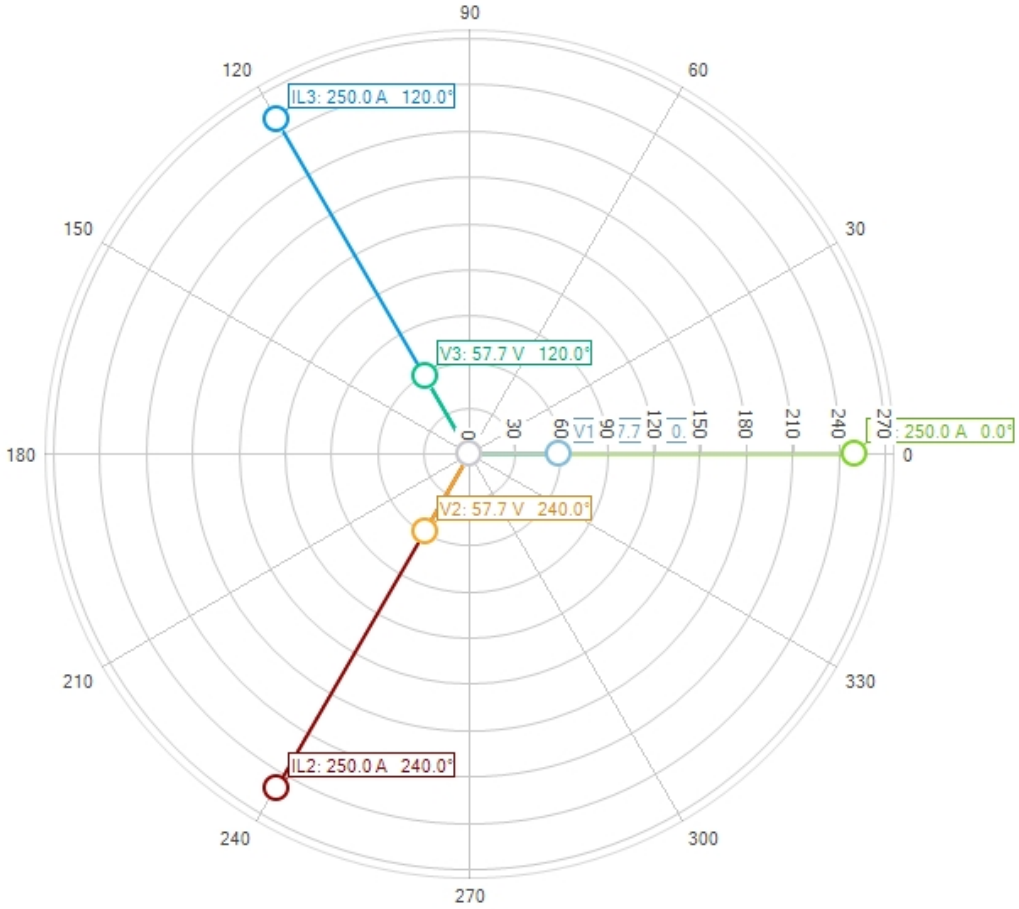
Type	Serial n°	Calibration certificate	Validity
ABB EKIP T&P	E34013804410W050		

Comments: The protection settings that have been implemented on drawer A3/+03 were defined by the Commissioning team to allow the internal testing. The definitive settings will be implemented asap, in the meantime a PUNCH B ref. C30000120 has been raised to ensure traceability of this outstanding task.

	Performed by	☐ WITNESS ☑ REVIEW	☐ WITNESS ☐ REVIEW
Company	RM COMM	rm comm	CPY NOT PRESENT
Name	Mattia Girotti	Kristian Castellani	Witness waived
Date	2024-10-01	2024-10-01	2024-10-02
Signature	PROVERLIS Digitaly signed by Mattia Girotti 2024-10-01T13:44:01.484Z	PROVERLIS Digitaly signed by Kristian Castellani 2024-10-01T14:35:50.570Z	PROVERLIS Digitaly signed by Witness waived 2024-10-02T06:34:03.809Z

Page Name	Group Name	Variable Name	Variable Value	Variable Unit
Settings A				
	Overload Protection (L - ANSI 49)			
		PU nominal current In	100	
		Status	Enabled	
		Function	t=k/i^2	
		Prealarm I1	90	% I1
		Threshold I1	0.650	In
		Time t1 std	60.00	s
		Thermal memory (TM)	Disabled	
		TM Algorithm	RMS-independent	
		TM Time	Automatic	
		TM custom time	830	s
	Time-delayed overcurrent protection (S - ANSI 50 TD/68/51)			
		Status	Enabled	
		Trip enable	Enabled	
		BlockOnStartUp	--------	
		BlockOnOutOfFrequency	--------	
		BlockOnProgStatusA	--------	
		BlockOnProgStatusB	--------	
		BlockOnProgStatusC	--------	
		BlockOnProgStatusD	--------	
		Function	t=k	
		Threshold I2 (t=k)	10.00	In
		Time t2 (t=k) IEC - UL489	0.10	s
		Startup enable	Disabled	
		Startup time	0.10	s
		Startup threshold	0.60	In
		Set Startup th. on ProgStatusD	--------	
		Thermal memory status	Disabled	
		Zone Selectivity status	Disabled	
		Zone Selectivity time	0.04	s
		Zone Selectivity Type	Logic and Hardware	
	Second time-delayed overcurrent protection (S2 - ANSI 50 TD)			
		Status	Disabled	
		Trip enable	Enabled	
		BlockOnStartUp	--------	
		BlockOnOutOfFrequency	--------	
		BlockOnProgStatusA	--------	
		BlockOnProgStatusB	--------	
		BlockOnProgStatusC	--------	
		BlockOnProgStatusD	--------	
		Threshold I5 (t=k)	2.00	In
		Time t5 (t=k)	0.05	s
		Startup enable	Disabled	
		Startup time	0.10	s
		Startup threshold	2.00	In
		Set Startup th. on ProgStatusD	--------	
		Zone Selectivity status	Disabled	
		Zone Selectivity time	0.04	s
		Zone Selectivity Type	Logic and Hardware	
	Instantaneous overcurrent protection (I - ANSI 50)			
		Status	Disabled	
		Threshold I3	7.00	In
		Startup enable	Disabled	
		Startup time	0.10	s
		Startup threshold	1.50	In
		Set Startup th. on ProgStatusD	--------	
		BlockOnStartUp	--------	
		BlockOnOutOfFrequency	--------	
		BlockOnProgStatusA	--------	
		BlockOnProgStatusB	--------	
		BlockOnProgStatusC	--------	
		BlockOnProgStatusD	--------	
		Zone Selectivity status	Disabled	
		Zone Selectivity Type	Logic and Hardware	
	Second I			
		Prot Second I	---	
		Status	Disabled	
		Threshold I31	1.50	In
		Zone Selectivity status	Disabled	
		Zone Selectivity Type	Logic and Hardware	
		Second I Mode	Function Dependent	
		Function	Disabled	
		Delay On	0.00	s
		Delay Off	15.00	s
	Earth fault protection (G - ANSI 50N TD/68/51N)			
		Status	Enabled	
		Trip enable	Enabled	
		BlockOnStartUp	--------	
		BlockOnOutOfFrequency	--------	
		BlockOnProgStatusA	--------	
		BlockOnProgStatusB	--------	
		BlockOnProgStatusC	--------	
		BlockOnProgStatusD	--------	

		Function	t=k	
		Prealarm I4	90	% I4
		Threshold I4 (t=k)	0.200	In
		Time t4 (t=k) IEC - UL489	0.10	s
		Startup enable	Disabled	
		Startup time	0.10	s
		Startup threshold	0.20	In
		Set Startup th. on ProgStatusD	--------	
		Zone selectivity status	Disabled	
		Zone selectivity time	0.04	s
		Zone Selectivity Type	Logic and Hardware	
	Directional overcurrent protection (D - ANSI 67/68)			
		Status	Disabled	
		Trip enable	Disabled	
		tripOnlyForward	--------	
		tripOnlyBackward	--------	
		BlockOnStartUp	--------	
		BlockOnOutOfFrequency	--------	
		BlockOnProgStatusA	--------	
		BlockOnProgStatusB	--------	
		BlockOnProgStatusC	--------	
		BlockOnProgStatusD	--------	
		Threshold I7 FWD	2.00	In
		Time t7 FWD	0.20	s
		Threshold I7 BWD	2.00	In
		Time t7 BWD	0.20	s
		Startup enable	Disabled	
		Startup time	0.10	s
		Startup threshold FWD	2.00	In
		Startup threshold BWD	2.00	In
		Set Startup th. on ProgStatusD	--------	
		Zone Selectivity status	Disabled	
		Zone Selectivity time FWD	0.13	s
		Zone Selectivity time BWD	0.13	s
		Zone Selectivity Type	Logic and Hardware	
		Direction minimum angle	3.6	°
	Closing on short-circuit protection (MCR)			
		Status	Disabled	
		BlockOnOutOfFrequency	--------	
		BlockOnProgStatusA	--------	
		BlockOnProgStatusB	--------	
		BlockOnProgStatusC	--------	
		BlockOnProgStatusD	--------	
		Threshold I3	6.00	In
		Time t3	0.04	s
		Zone Selectivity status	Disabled	
		Zone Selectivity Type	Logic and Hardware	
	Over Temperature (T)			
		Trip enable	Disabled	



Test

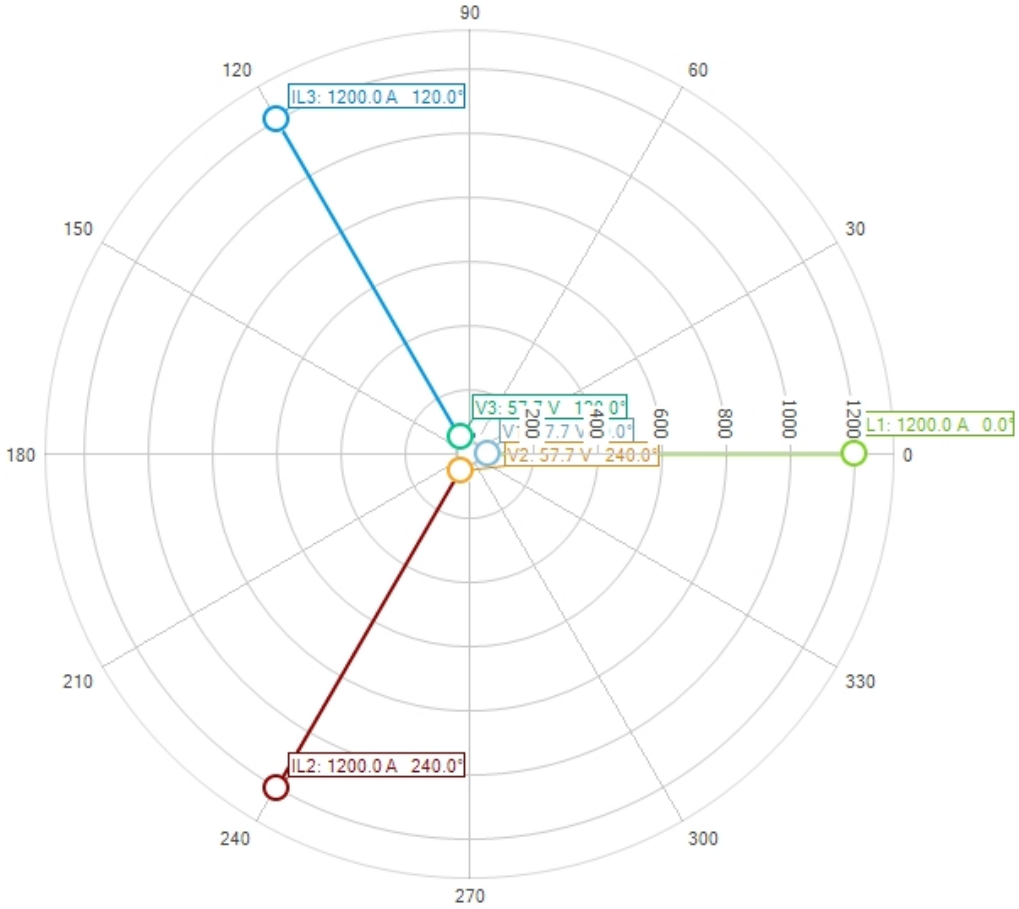
Name	Test 17
Session	Default session
Customer	
Location	
Operator	

Device

Tag name	A3/+03
Relay Serial Number	EG1000153710N000
Circuit Breaker Serial Number	CE61237680number
	XT2/4
Device settings	In = 100 A Un = 100 V fn = 50 Hz
Protection Settings	Protection = L Curve type = t=k/i^2 Threshold = 0.650 In Time = 60.00 s Protection = S Curve type = t=k Threshold = 10.00 In Time = 0.10 s Protection = G Curve type = t=k Threshold = 0.200 In Time = 0.10 s
Preconditions	All preconditions satisfied.

Test result

Test completed with trip. Protection L tripped in 37004 ms.



Test

Name	Test 18
Session	Default session
Customer	
Location	
Operator	

Device

Tag name	A3/+03
Relay Serial Number	EG1000153710N000
Circuit Breaker Serial Number	CE61237680number
	XT2/4
Device settings	In = 100 A Un = 100 V fn = 50 Hz
Protection Settings	Protection = L Curve type = t=k/i^2 Threshold = 0.650 In Time = 60.00 s Protection = S Curve type = t=k Threshold = 10.00 In Time = 0.10 s Protection = G Curve type = t=k Threshold = 0.200 In Time = 0.10 s
Preconditions	All preconditions satisfied.

Test result

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

ITEM	Tag	A3/+03-QF1	: DRAWER DB - LIGHTING & SMALL POWER - A3/+03-QF1		Dwg	1723002197-EL-DG-00011	
	S/Sys	83-20	: 400/230 V Switchboard (DP-200N1)		Module		
TASK	code	C10002888	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	PRE-COMM	Activity FTS	Discipline Electrical	Form	FTR-6	Electrical IO

FTR 6 - Electrical I/O check record sheet

Equipment Tag:	LIGHTING & SMALL POWER	Instrument Type / Serial N° :	FLUKE 175_17140796
Cubicle N°:	A3/+03	Calibration certificate date:	7715/24_10/07/2025

Link Type:	●	Hardwired	Communication	(strike through unapplicable type)
I/O Type:	●	Digital	Analogic	(strike through unapplicable type)

DIGITAL

Item	Signal description	Link Type (Hardwired/ Communication)	I/O Type (Digital/Analogic)	Point of Origin (From)	Point of Receival (to)	Text Labelling Display Satisfactory (Y/N)	Blinking/Static Display Satisfactory (Y/N)	Color Coding Satisfactory (Y/N)	Status Check			Time Stamping Satisfactory (Y/N)	Refresh Time (if >1s)	Appearing in all applicable display (Y/N)
									Event (Y/N)	Alarm (Y/N)	Fault (Y/N)			
1	CB CLOSED & INSERTED	HW	DI	A3/+03 - KA1/11-14	A3/+03 - X1/9-10	N/A	N/A	N/A	Y	N/A	N/A	N/A	N/A	N/A
2	CB OPEN OR DISCONNECTED	HW	DI	A3/+03 - KA1/11-12	A3/+03 - X1/9-11	N/A	N/A	N/A	Y	N/A	N/A	N/A	N/A	N/A
3	DRAWER ON TEST	HW	DI	A3/+03 - KA5/11-14	A3/+03 - X1/9-11	N/A	N/A	N/A	Y	N/A	N/A	N/A	N/A	N/A
4	CB TRIPPED	HW	DI	A3/+03 - KA4/21-22	A3/+03 - X1/9-12	N/A	N/A	N/A	N/A	N/A	Y	N/A	N/A	N/A
5	FEEDER AVAILABLE	HW	DI	A3/+03 - KA2/11-14	A3/+03 - X1/9-13	N/A	N/A	N/A	Y	N/A	N/A	N/A	N/A	N/A
6	INTERNAL FAULT	HW	DI	A3/+03 - QA1/11-14	A3/+03 - X1/9-14	N/A	N/A	N/A	N/A	N/A	Y	N/A	N/A	N/A
7	USER ON LOCAL	HW	DI	A3/+03 - SA1/21-22	A3/+03 - X1/15-19	N/A	N/A	N/A	Y	N/A	N/A	N/A	N/A	N/A
8														

ANALOGIC

Item	Signal description	Link Type (Hardwired/ Communication)	I/O Type (Digital/Analogic)	Point of Origin (From)	Point of Receival (to)	Min value sent	Min value received	Max value sent	Max value received	Intermediate value sent	Intermediate value received	Out of scale test (OK, Not OK)	Refresh time (if >2s)	Appearing in all applicable display (Y/N)
1														
2														
3														

Comments: The test of the cubicle was carried out on a test bench.

Page 1/1	Performed by	☐ WITNESS ☑ REVIEW	☐ WITNESS ☐ REVIEW
Company	RM COMM	RM COMM	CPY NOT PRESENT
Name	Davide Zucconelli	Kristian Castellani	Witness waived
Date	2024-10-03	2024-10-03	2024-10-03
Signature	Digitaly signed by Davide Zucconelli 2024-10-03T10:54:44.255Z	Digitaly signed by Kristian Castellani 2024-10-03T13:54:02.883Z	Digitaly signed by Witness waived 2024-10-03T14:29:35.707Z

ROSETTI MARINO | PROVERLIS | CROSSWIND

ITEM	Tag	DP-200N1	: LV 0,4/0,23 kV Distribution Board for Lighting & Small Power DB BoP	Dwg	123A90-DDL-EL-DS-20028		
	S/Sys	83-20	: 400/230 V Switchboard (DP-200N1)	Module	LD_B-200		
TASK	code	C10002889	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	PRE-COMM	Activity	FTS	Discipline	Electrical	Form	FP15		Distribution Board

DATA

Manufacturer	IMESA	Rated Voltage V	400V	Bus bar rating A	63A
Serial N°	231298/SD/080	Fault level kA/s	25	Protection Eex	NA
Type	MCC/F	IP rating	IP20/IP30		

FUNCTION TEST REQUIREMENT

1	Check pre-commissioning activities have been carried out			OK
2	Check equipment for cleaness			OK
3	Measure I/R value of bus bars including circuit breakers at 1000V (Min value: 50 Mohm)	>1000	MΩ	OK
4	Measure I/R value of distribution polarities buses at 1000V (Min value: 50 Mohm)	>1000	MΩ	OK
5	Check polarity of interconnectiong wiring			OK
6	Energise anti-condensation heater, confirm hygrostat working (On-Off) and system is heating correctly			NA
7	Verify that the secondary injection test on the protection relays and metering is present in the system			NA
8	Check protection devices rating and settings in accordance with relay protection study, if any			OK
9	Test earth leakage protection operation. Check the relevant ITRs presence in the system			OK
10	Test interface trips and signals (remote alarms & status). Check the relevant ITR presence in the system			OK
11	Energise switchboard incoming supply and phase out			OK
12	Check meters and indicators			OK
13	Check phase balancing			Note

Testing & measurement instruments used

Type	Serial n°	Calibration certificate	Validity
FLUKE 1663	5380144	7727/24	10/07/2025
FLUKE 376	A1711003	7710/24	10/07/2025

Comments: The phase balancing will be finished when all utilities are available.

Page 1/1	Performed by	☐ WITNESS ☉ REVIEW	☐ WITNESS ☐ REVIEW
Company	RM COMM	RM COMM	CPY NOT PRESENT
Name	Mattia Girotti	Kristian Castellani	Witness waived
Date	2024-10-28	2024-10-28	2024-10-28
Signature	PROVERLIS Digitaly signed by Mattia Girotti 2024-10-28T11:53:44.246Z	PROVERLIS Digitaly signed by Kristian Castellani 2024-10-28T12:59:29.652Z	PROVERLIS Digitaly signed by Witness waived 2024-10-28T13:32:03.931Z

ROSETTI MARINO | PROVERLIS | CROSSWIND

ITEM	Tag	DP-200N1-Q1	: INCOMER - DP-200N1-Q1		Dwg	1723002197-EL-DG-00013	
	S/Sys	83-20	: 400/230 V Switchboard (DP-200N1)		Module		
TASK	code	C10002890	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	PRE-COMM	Activity	FTS	Discipline	Electrical	Form	FTR-2	Protection Relay

FTR2 - Protection relay
Record sheet

RELAY DATA

Manufacturer:	ABB	Serial N°:	E237899002521070	Relay type:	EKIP LSI
Auxiliary supply:	NA	Location:	B200	Cubicle:	+01
Switchboard:	DP-200N1				

Current transformers

Tag	Number of	Ratio	Location

Voltage transformers

Tag	Number of	Ratio	Location

Test result (refer to manufacturer's procedure)

ANSI function	Setting	Injection	Trip value	Time delay	
				Setting	Trip value
L	63A	200A		36s	32704ms
S	623,7A			0.1s	107ms
I	630A	700A		INSTANT	7ms

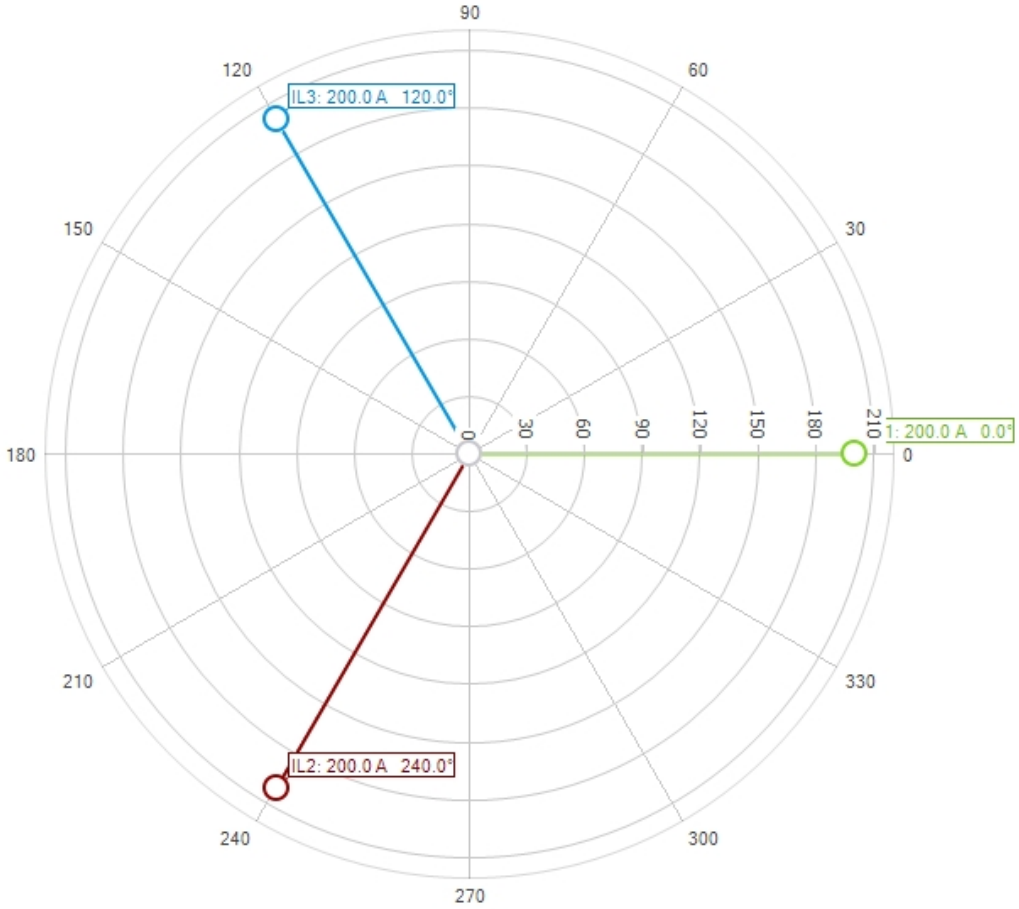
Testing & measurement instruments used

Type	Serial n°	Calibration certificate	Validity
EKIP T&P	E34013804410W050		

Comments:

Page 1/1	Performed by	☐ WITNESS ☉ REVIEW	☐ WITNESS ☐ REVIEW
Company	RM COMM	RM COMM	CPY NOT PRESENT
Name	Mattia Girotti	Kristian Castellani	Witness waived
Date	2024-10-28	2024-10-28	2024-10-28
Signature	PROVERLIS Digitaly signed by Mattia Girotti 2024-10-28T10:41:06.127Z	PROVERLIS Digitaly signed by Kristian Castellani 2024-10-28T13:00:01.142Z	PROVERLIS Digitaly signed by Witness waived 2024-10-28T13:33:50.702Z

Page Name	Group Name	Variable Name	Variable Value	Variable Unit
Electronic protection parameters				
	Electronic/Manual parameters selection			
		Electronic/Manual parameters selectio	ELECTRONIC	
	Electronic L protection			
		Trip unit nominal current In	63	
		L threshold	1.00	In
		L time	36.00	s
		Thermal memory	Disabled	
	Electronic S protection			
		S status	Enabled	
		Curve type	t=k/i^2	
		Threshold (t=k/i^2)	9.90	In
		Time (t=k/i^2)	0.10	s
	Electronic I protection			
		I status	Enabled	
		I threshold	10.00	In
	Electronic LC protection			
		Iw status	Disabled	
		Iw threshold	0.30	In
		LC1 status	Disabled	
		LC1 threshold	0.50	I1
		LC2 status	Disabled	
		LC2 threshold	0.50	I1



Test

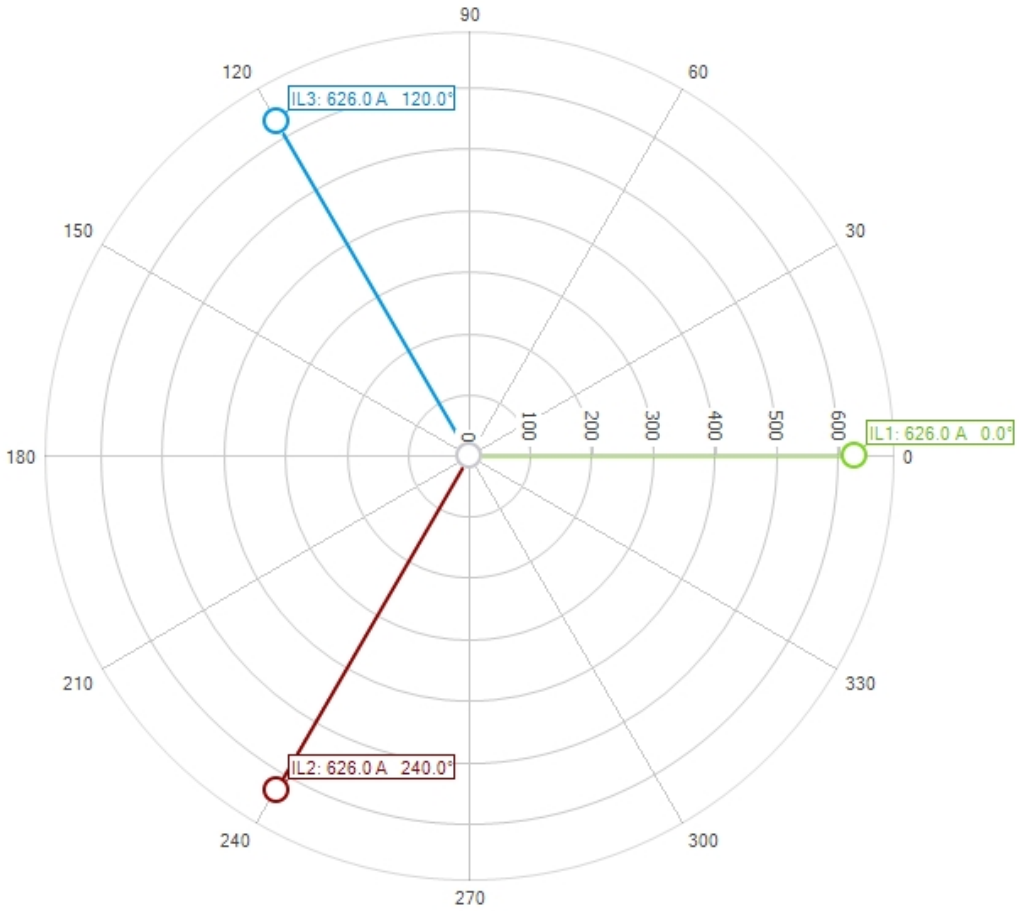
Name	Test 20
Session	Default session
Customer	
Location	
Operator	

Device

Tag name	DP-200N1
Relay Serial Number	E237899002521070
Circuit Breaker Serial Number	EFV0791061700000
	Ekip LSI
Device settings	In = 63 A
Protection Settings	Protection = L Threshold = 1.00 In Time = 36.00 s Protection = S Curve type = t=k/i^2 Threshold = 9.90 In Time = 0.10 s Protection = I Threshold = 10.00 In
Preconditions	All preconditions satisfied.

Test result

Test completed with trip. Protection L tripped in 32704 ms.



Test

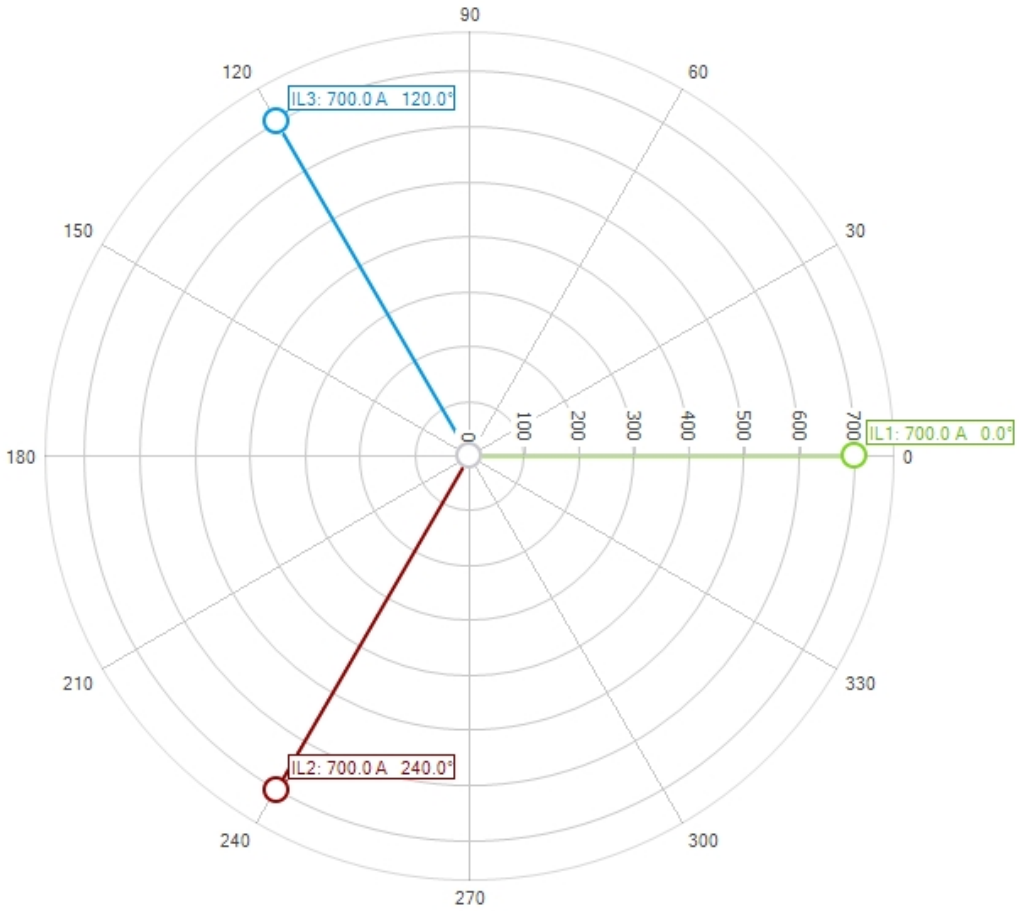
Name	Test 22
Session	Default session
Customer	
Location	
Operator	

Device

Tag name	DP-200N1
Relay Serial Number	E237899002521070
Circuit Breaker Serial Number	EFV0791061700000
	Ekip LSI
Device settings	In = 63 A
Protection Settings	Protection = L Threshold = 1.00 In Time = 36.00 s Protection = S Curve type = t=k/i^2 Threshold = 9.90 In Time = 0.10 s Protection = I Threshold = 10.00 In
Preconditions	All preconditions satisfied.

Test result

Test completed with trip. Protection S tripped in 107 ms.



Test

Name	Test 21
Session	Default session
Customer	
Location	
Operator	

Device

Tag name	DP-200N1
Relay Serial Number	E237899002521070
Circuit Breaker Serial Number	EFV0791061700000
	Ekip LSI
Device settings	In = 63 A
Protection Settings	Protection = L Threshold = 1.00 In Time = 36.00 s Protection = S Curve type = t=k/i^2 Threshold = 9.90 In Time = 0.10 s Protection = I Threshold = 10.00 In
Preconditions	All preconditions satisfied.

Test result

Test completed with trip. Protection Iinst tripped in 7 ms.

ROSETTI MARINO | PROVERLIS | CROSSWIND

ITEM	Tag	DP-200N1-Q44	: NORMAL LIGHT SPARE - DP-200N1-Q44	Dwg	1723002197-EL-DG-00013		
	S/Sys	83-20	: 400/230 V Switchboard (DP-200N1)	Module			
TASK	code	C10002891	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	PRE-COMM	Activity	FTS	Discipline	Electrical	Form	FTR-2	Protection Relay

FTR2 - Protection relay
Record sheet

RELAY DATA

Manufacturer:	ABB	Serial N°:	NA	Relay type:	DDA202
Auxiliary supply:	NA	Location:	B200	Cubicle:	+02
Switchboard:	DP-200N1				

Current transformers

Tag	Number of	Ratio	Location

Voltage transformers

Tag	Number of	Ratio	Location

Test result (refer to manufacturer's procedure)

ANSI function	Setting	Injection	Trip value	Time delay	
				Setting	Trip value
64	30mA	30mA	21mA	NA	47.9ms

Testing & measurement instruments used

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

Comments:

Page 1/1	Performed by	☐ WITNESS ☉ REVIEW	☐ WITNESS ☐ REVIEW
Company	RM COMM	RM COMM	CPY NOT PRESENT
Name	Mattia Girotti	Kristian Castellani	Witness waived
Date	2024-10-28	2024-10-28	2024-10-28
Signature	PROVERLIS Digitaly signed by Mattia Girotti 2024-10-28T10:25:55.223Z	PROVERLIS Digitaly signed by Kristian Castellani 2024-10-28T13:00:32.930Z	PROVERLIS Digitaly signed by Witness waived 2024-10-28T13:35:15.862Z

S300P
Data sheet



System pro *M* compact®
S300P miniature circuit breakers comply with IEC/EN 60947-2, IEC/EN 60898-1, UL 1077 and CSA 22.2 No. 235, protecting the installation in commercial and industrial applications by supporting a breaking capacity of 25 kA.

—
01

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01
S300P
Miniature Circuit Breaker

S300P MCB is designed to be used in installations where high breaking capacities are required to protect against short-circuits and overloads.

S300P is compliant to the product standards
IEC/EN 60947-2
IEC/EN 60898-1
UL 1077
CSA 22.2 No.235
and features the following main technical characteristics:

- Rated nominal current: 0.2 A ... 63 A
- Characteristic: B, C, D, K, Z
- Pole variant: 1, 2, 3, 4, 1+N, 3+N
- Rated breaking capacity I_{cu}: 25 kA; 100 kA (≤ 6 A)
- Rated operational voltage U_e: 240/415 V AC
- Rated impulse withstand voltage U_{imp}: 6 kV

Application benefits

- Integrated trip indicator for clear signalization of tripping events on site
- Dual DIN-Rail release for fast and easy installation
- Fully compatible with whole range of System pro *M* compact® accessories supporting lots of different functions
- Quick and easy product identification by QR-code along with direct access to the ABB product database
- Terminals equipped with fail safe feature to avoid improper installation
- Supply possible from top or bottom and in parallel with cables and busbars thanks to terminals composed by two different openings
- Excellent technical performance to ensure safety and protection of installation and personal
- Certified quality and compliance according to worldwide product standards

S300P
Technical data



S300P

		S300P
General Data	Standards	IEC/EN 60947-2, IEC/EN 60898-1, UL 1077, CSA 22.2 No. 235
	Poles	1P, 2P, 3P, 4P, 1+N, 3+N
	Tripping characteristics	B, C, D, K, Z
	Rated current I_n	6…63 A (B-curve), 0.5…63 A (C-, D-, Z-curve), 0.2…63 A (K-curve)
	Rated frequency f	50 / 60 Hz, DC
	Rated insulation voltage U_i acc. to IEC/EN 60664-1	500 V AC
	Overvoltage category	IV
	Pollution degree	3
Data acc. to IEC/EN 60947-2	Tripping Characteristics	B, C, D, K, Z
	Rated operational voltage U_e	1P, 1+N: 240 V AC, 72 V DC 2P: 415 V AC, 125 V DC 3P, 3+N, 4P: 415 V AC
	Max. power frequency recovery voltage U_{max}	1P, 1+N: 264 V AC, 72 V DC 2P, 3P, 3+N, 4P: 462 V AC, 125 V DC
	Min. operating voltage	12 V AC – 12 V DC
	Rated ultimate short-circuit breaking capacity I_{cu}	25 kA; 100 kA (≤ 6 A)
	Rated service short-circuit breaking capacity I_{cs}	12.5 kA (≤ 25 A); 10 kA (32-40 A); 7.5 kA (>40 A)
	Rated impulse withstand voltage U_{imp} (1.2/50 µs)	6 kV
	Reference temperature for tripping characteristics	55 °C (B-, C-, D-curve), 40 °C (K-, Z-curve)
	Electrical endurance	I_n < 32 A: 20,000 ops. (AC), I_n ≥ 32 A: 10,000 ops. (AC); 1,500 ops. (DC)
Data acc. to IEC/EN 60898-1	Tripping Characteristics	B, C, D
	Rated operational voltage U_n	1P: 240/415 V AC, 72 V DC 1+N: 240 V AC, 72 V DC 2P: 415 V AC, 125 V DC 3P, 3P+N, 4P: 415 V AC
	Max. power frequency recovery voltage U_{max}	1P, 1+N: 264 V AC, 72 V DC 2P, 3P, 3+N, 4P: 457 V AC, 125 V DC
	Min. operating voltage	12 V AC – 12 V DC
	Rated short-circuit capacity I_{cn}	25 kA (≤ 25 A), 20 kA (32 - 40 A), 15 kA (> 40 A)
	Dielectric test voltage	2.0 kV (50/60 Hz, 1 min)
	Reference temperature for tripping characteristics	30 °C
	Electrical endurance	I_n < 32 A: 20,000 ops. (AC), I_n ≥ 32 A: 10,000 ops. (AC); 1,000 ops. (DC)
Data acc. to UL1077 / CSA 22.2 No. 235	Tripping Characteristics	B, C, D, K, Z
	Rated voltage	1P: 277 V AC, 60 V DC 2...4P: 480Y/277 V AC, 125 V DC (2 poles in series)
	Rated interrupting capacity	10 kA
	Application Suppl. prot., for general use.	TC2, OL0, SC:U1
	Reference temperature for tripping characteristics	40 °C
	Electrical endurance	6,000 ops., 1 cycle (1s.-ON, 9s.-OFF)

S300P
Mechanical data

		S300P
Mechanical Data	Housing	Insulation group I, RAL 7035
	Toggle	Insulation group II, black, sealable
	Contact position indication	Real CPI (green OFF / red ON)
	Trip position indicator	TPI (grey NO TRIP / orange TRIP)
	Protection degree acc. to DIN EN 60529	IP20, IP40 in enclosure with cover
	Mechanical endurance	20,000 ops.
	Shock resistance acc. to IEC/EN 60068-2-27	25 g - 2 shocks - 13 ms
	Vibration resistance acc. to IEC/EN 60068-2-6	5 g - 20 cycles at 5 ... 150 ... 5 Hz at 0.8 I_n
	Environmental conditions (damp heat cyclic) acc. to IEC/EN 60068-2-30	28 cycles with 55 °C/90-96 % and 25 °C/95-100 %
	Ambient temperature	-40 ... +70 °C
	Storage temperature	-50 ... +70 °C
Installation	Terminal	Failsafe bi-directional cylinder-lift terminal
	Cross-section of conductors (top/bottom)	solid, stranded: 35 mm² / 35 mm² flexible: 25 mm² / 25 mm² 14 – 4 AWG
	Cross-section of busbars (top/bottom)	10 mm² / 10 mm² 14 – 8 AWG
	Torque	2.8 Nm; 18 in-lbs.
	Screw driver	No. 2 Pozidrive
	Mounting	on DIN rail 35 mm, acc. to EN 60715 by dual DIN-rail release
	Mounting position	any
	Supply	any
Dimensions and weight	Mounting dimensions acc. to DIN 43880	1
	Pole dimensions (H x D x W)	88 x 69 x 17.5 mm
	Pole weight approx.	124 g
Combination with auxiliary elements	Auxiliary contact	Yes
	Bottom fixed auiliary contact	Yes
	Signal contact	Yes
	Shunt trip	Yes
	Undervoltage release	Yes
	Motor operating device	Yes
Standards	IEC/EN 60947-2	
	IEC/EN 60898-1	
	UL 1077	
	CSA 22.2. No.235	
	GB/T 14048.2	
	GB/T 10963.1	

Approvals

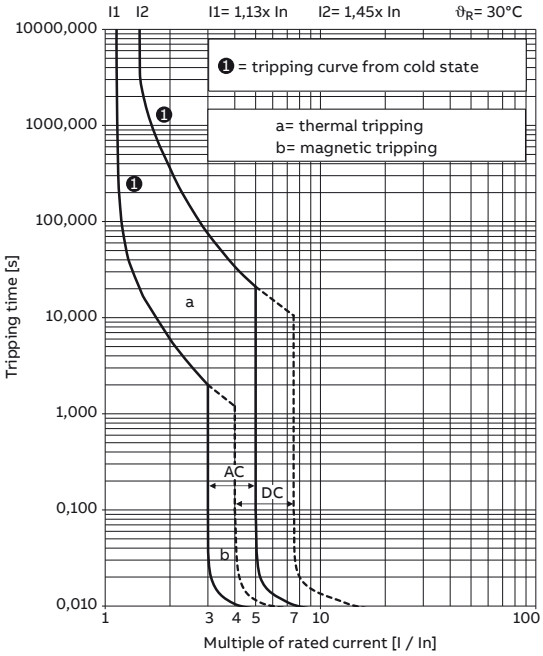
- VDE - DE
- UL 1077 - US
- CSA 22.2 No.235 - CA
- CCC - PRC
- EAC - RU
- KEMA - NL
- IMQ - IT
- SII - IL
- S+ - CH
- ÖVE - AT
- NF - FR
- EZU - CZ
- ANCE - MX
- KC - KR
- UKCA - UK
- DNV - NO
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- RINA - IT

Miniature Circuit breakers S300P

Tripping characteristics

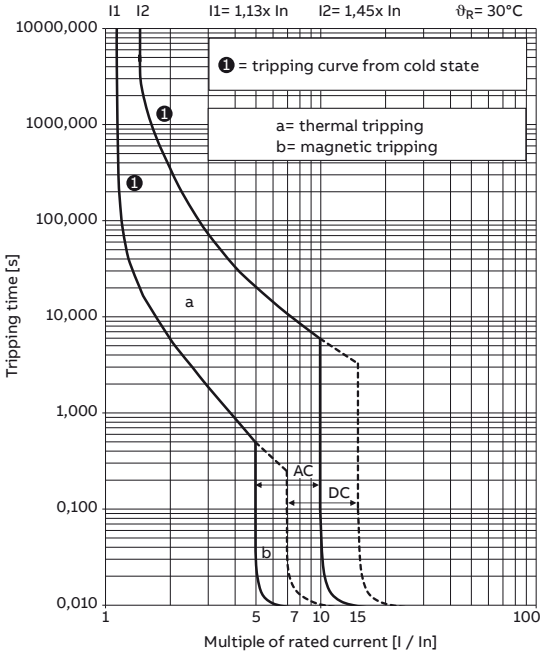
MCB Type S300P - B (3 ... 5 x I_n AC)

Tripping Characteristic IEC/EN 60898-1



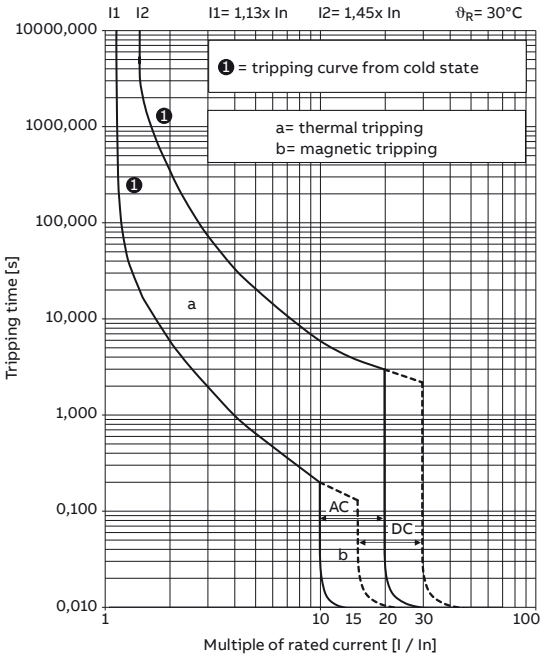
MCB Type S300P - C (5 ... 10 x I_n AC)

Tripping Characteristic IEC/EN 60898-1

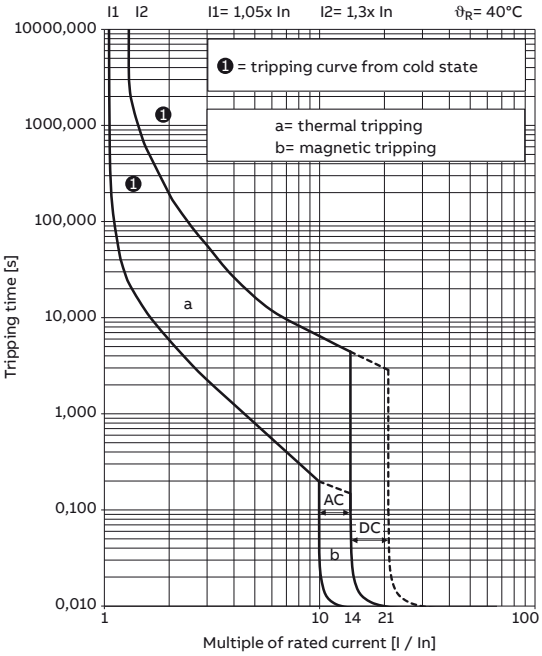


MCB Type S300P - D (10 ... 20 x I_n AC)

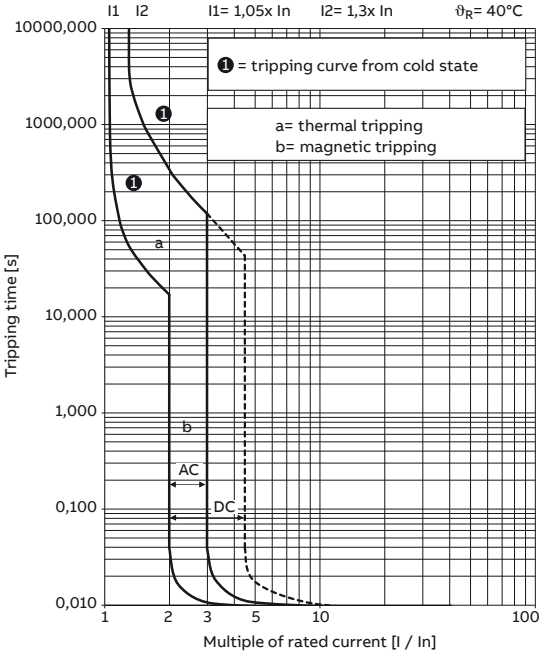
Tripping Characteristic IEC/EN 60898-1



MCB Type S300P - K (10 ... 14 x I_n AC)
Tripping Characteristic IEC/EN 60947-2



MCB Type S300P - Z (2 ... 3 x I_n AC)
Tripping Characteristic IEC/EN 60947-2



Tripping characteristics S300P

Acc. to	Tripping characteristics	Rated current	Thermal release [2]			Electromagnetic release [1]		
			Currents:		Tripping time	Currents:		Tripping time
			conventional non-tripping current	conventional tripping current		hold current surges	trip at least at	
IEC/EN 60898-1	B	06 to 63 A	1.13 · I_n		> 1 h	3 · I_n		> 0.1 s
				1.45 · I_n	< 1 h		5 · I_n	< 0.1 s
	C	0.5 to 63 A	1.13 · I_n		> 1 h	5 · I_n		> 0.1 s
				1.45 · I_n	< 1 h		10 · I_n	< 0.1 s
	D	0.5 to 63 A	1.13 · I_n		> 1 h	10 · I_n		> 0.1 s
				1.45 · I_n	< 1 h		20 · I_n	< 0.1 s
IEC/EN 60947-2	K	0.2 to 63 A	1.05 · I_n		> 1 h	10 · I_n		> 0.2 s
				1.3 · I_n	< 1 h [3]		14 · I_n	< 0.2 s
	Z	0.5 to 63 A	1.05 · I_n		> 1 h	2 · I_n		> 0.2 s
				1.3 · I_n	< 1 h [3]		3 · I_n	< 0.2 s

[1] The indicated electromagnetic tripping values apply to a frequency range of 16 2/3... 60 Hz. For different network frequencies or direct current the values change according to the multipler in the table below
[2] The thermal releases are calibrated to a nominal reference ambient temperature; for Z and K, the value is 40 °C, for B, C and D is 30 °C. In the case of higher ambient temperatures, the current values fall by ca. 6 % for each 10 K temperature rise.
[3] As from operating temperature (after I_1 > 1 h or, as applicable, 2 h).

	AC			DC
	100 Hz	200 Hz	400 Hz	
Multiplier	1.1	1.2	1.5	1.5

The thermal tripping performance is independent from the network frequency.

Miniature Circuit breakers S300P

Derating

For installations of miniature circuit breakers at other temperatures than the reference value and installations of several miniature circuit breakers directly side by side, derating factors have to be considered.

Deviating ambient temperature

The rated value of the current of a miniature circuit breaker refers to a temperature of 40 °C for circuit-breakers with characteristics K and Z and 30 °C for characteristics B, C and D. The following table contains the derating of load capability of S300P MCBs with temperature from -40 °C to 70 °C for the curves B, C, D, K, and Z.

Tripping characteristic	Rated Current I_n (A)	Max. Operating currents depending on the ambient temperature T (°C)											
		-40	-30	-20	-10	0	10	20	30	40	50	60	70
B. C and D	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4
	1	1.2	1.2	1.2	1.1	1.1	1.1	1.0	1.0	1.0	0.9	0.9	0.9
	1.6	1.9	1.9	1.8	1.8	1.7	1.7	1.6	1.6	1.6	1.5	1.5	1.4
	2	2.4	2.4	2.3	2.2	2.2	2.1	2.1	2.0	1.9	1.9	1.8	1.8
	3	3.6	3.5	3.5	3.4	3.3	3.2	3.1	3.0	2.9	2.8	2.7	2.6
	4	4.8	4.7	4.6	4.5	4.4	4.2	4.1	4.0	3.9	3.8	3.6	3.5
	6	7.3	7.1	6.9	6.7	6.5	6.4	6.2	6.0	5.8	5.6	5.5	5.3
	8	9.7	9.4	9.2	9.0	8.7	8.5	8.2	8.0	7.8	7.5	7.3	7.0
	10	12.1	11.8	11.5	11.2	10.9	10.6	10.3	10.0	9.7	9.4	9.1	8.8
	13	15.5	15.5	15.0	14.5	14.0	14.0	13.5	13.0	12.5	12.0	12.0	11.5
	16	19.5	19.0	18.5	18.0	17.5	17.0	16.5	16.0	15.5	15.0	14.5	14.0
	20	24.0	23.5	23.0	22.5	22.0	21.0	20.5	20.0	19.5	19.0	18.0	17.5
	25	30.5	29.5	29.0	28.0	27.5	26.5	26.0	25.0	24.5	23.5	23.0	22.0
	32	38.5	38.0	37.0	36.0	35.0	34.0	33.0	32.0	31.0	30.0	29.0	28.0
	40	48.5	47.0	46.0	45.0	43.5	42.5	41.0	40.0	39.0	37.5	36.5	35.0
	50	60.5	59.0	57.5	56.0	54.5	53.0	51.5	50.0	48.5	47.0	45.5	44.0
	63	76.0	74.5	72.5	70.5	68.5	67.0	65.0	63.0	61.0	59.0	57.5	55.5
K and Z	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	0.5	0.7	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.4
	0.75	1.0	1.0	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7
	1	1.3	1.3	1.2	1.2	1.2	1.1	1.1	1.0	1.0	1.0	0.9	0.9
	1.6	2.1	2.1	2.0	1.9	1.9	1.8	1.7	1.7	1.6	1.5	1.5	1.4
	2	2.7	2.6	2.5	2.4	2.3	2.2	2.2	2.1	2.0	1.9	1.9	1.8
	3	4.0	3.9	3.7	3.6	3.5	3.3	3.2	3.1	3.0	2.9	2.8	2.7
	4	5.3	5.2	5.0	4.8	4.6	4.5	4.3	4.1	4.0	3.9	3.7	3.6
	6	8.0	7.7	7.5	7.2	6.9	6.7	6.5	6.2	6.0	5.8	5.6	5.4
	8	10.7	10.3	9.9	9.6	9.3	8.9	8.6	8.3	8.0	7.7	7.4	7.1
	10	13.4	12.9	12.4	12.0	11.6	11.2	10.8	10.4	10.0	9.6	9.3	8.9
	13	17.5	17.0	16.0	15.5	15.0	14.5	14.0	13.5	13.0	12.5	12.0	11.5
	16	21.5	20.5	20.0	19.0	18.5	18.0	17.0	16.5	16.0	15.5	15.0	14.5
	20	26.5	26.0	25.0	24.0	23.0	22.5	21.5	20.5	20.0	19.5	18.5	18.0
	25	33.5	32.0	31.0	30.0	29.0	28.0	27.0	26.0	25.0	24.0	23.0	22.5
	32	43.0	41.5	40.0	38.5	37.0	35.5	34.5	33.0	32.0	31.0	29.5	28.5
	40	53.5	51.5	49.5	48.0	46.5	44.5	43.0	41.5	40.0	38.5	37.0	35.5
	50	67.0	64.5	62.0	60.0	58.0	56.0	54.0	52.0	50.0	48.0	46.5	44.5
	63	84.5	81.0	78.5	75.5	73.0	70.5	67.5	65.5	63.0	60.5	58.5	56.5

Influence of adjacent devices

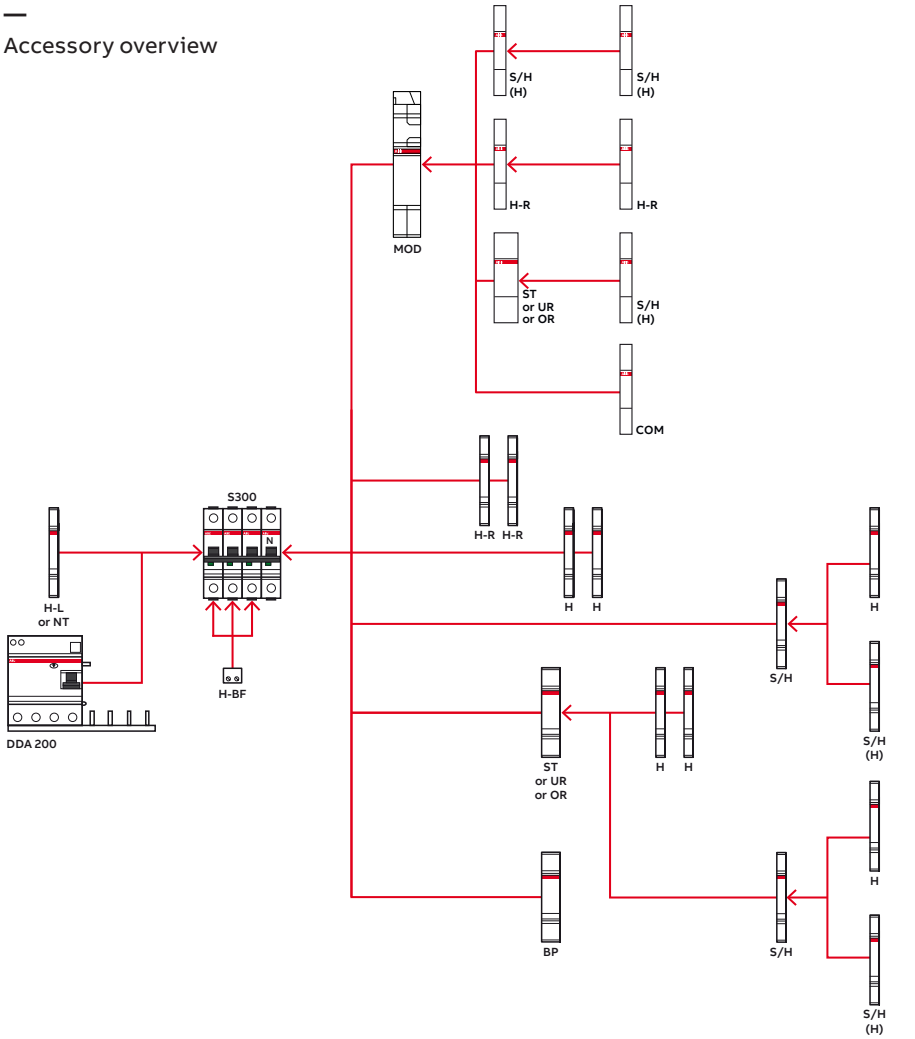
If several miniature circuit breakers are installed directly side by side with high load on all poles, a correction factor must be applied to the rated current (see table). If distance pieces are used, the factor is not to be considered.

No. of adjacent devices	Factor F
1	1
2.3	0.9
4.5	0.8
≥ 6	0.75

Miniature Circuit breakers S300P

Accessories and dimensional drawings

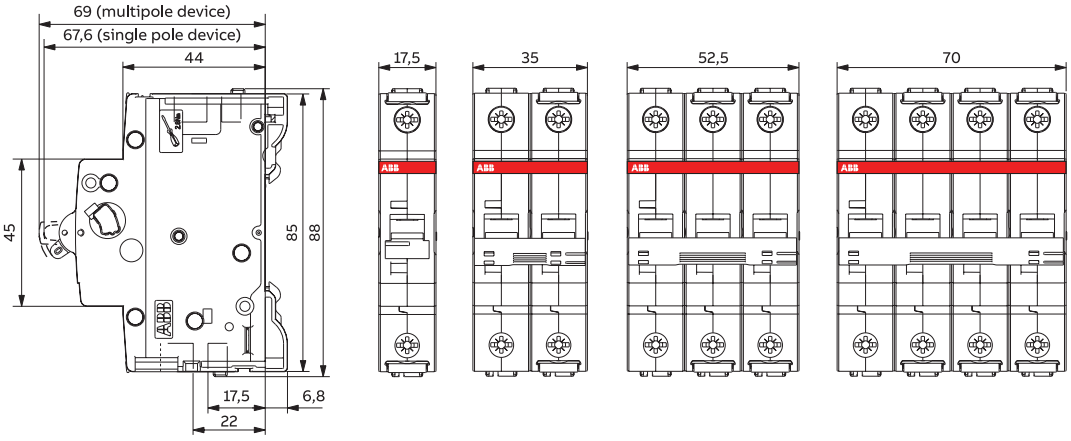
Accessory overview



H	Auxiliary contact (change-over contact)	S2C-H6R	H-L	Auxiliary contact	S2C-H..L
H-R	Auxiliary contact	S2C-H6-..R	H-BF	Auxiliary contact for bottom fitting (1 per pole)	S2C-H01 S2C-H10
S/H	Signal/Auxiliary contact used as auxiliary contact	S2C-S/H6R	BP	Mechanical tripping device	S2C-BP
			NT	Neutral disconnector	S2C-NT..
ST	Shunt trip	S3C-A..	MOD (1)	Motor operating device	S3C-MOD
UR	Undervoltage release	S2C-UA	COM	ModBus Interface	eMOD/AR ModBus
OR	Overvoltage release	S2C-OVP			
DDA 200	RCD-block	DDA 20..			

(1) In case of using S300 with DDA 200, MOD does not operate in case of earth-voltage fault

Dimensional drawing



Miniature Circuit breakers S300P

B characteristic



S 301



S 302



S 303

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
1	6	9080583	S301P-B6	2CDS381001R0065	0.124	10
	8	9086011	S301P-B8	2CDS381001R0085	0.124	10
	10	9080521	S301P-B10	2CDS381001R0105	0.124	10
	13	9080484	S301P-B13	2CDS381001R0135	0.124	10
	16	9080439	S301P-B16	2CDS381001R0165	0.124	10
	20	9080392	S301P-B20	2CDS381001R0205	0.124	10
	25	9080347	S301P-B25	2CDS381001R0255	0.124	10
	32	9080255	S301P-B32	2CDS381001R0325	0.124	10
	40	9080187	S301P-B40	2CDS381001R0405	0.124	10
	50	9080064	S301P-B50	2CDS381001R0505	0.124	10
	63	9079938	S301P-B63	2CDS381001R0635	0.124	10
2	6	9078993	S302P-B6	2CDS382001R0065	0.248	5
	8	9086059	S302P-B8	2CDS382001R0085	0.248	5
	10	9078931	S302P-B10	2CDS382001R0105	0.248	5
	13	9078894	S302P-B13	2CDS382001R0135	0.248	5
	16	9078849	S302P-B16	2CDS382001R0165	0.248	5
	20	9078801	S302P-B20	2CDS382001R0205	0.248	5
	25	9078757	S302P-B25	2CDS382001R0255	0.248	5
	32	9078665	S302P-B32	2CDS382001R0325	0.248	5
	40	9078597	S302P-B40	2CDS382001R0405	0.248	5
	50	9078474	S302P-B50	2CDS382001R0505	0.248	5
	63	9078344	S302P-B63	2CDS382001R0635	0.248	5
3	6	9078191	S303P-B6	2CDS383001R0065	0.372	1
	8	9086073	S303P-B8	2CDS383001R0085	0.372	1
	10	9078139	S303P-B10	2CDS383001R0105	0.372	1
	13	9078092	S303P-B13	2CDS383001R0135	0.372	1
	16	9078047	S303P-B16	2CDS383001R0165	0.372	1
	20	9078009	S303P-B20	2CDS383001R0205	0.372	1
	25	9077958	S303P-B25	2CDS383001R0255	0.372	1
	32	9077866	S303P-B32	2CDS383001R0325	0.372	1
	40	9077798	S303P-B40	2CDS383001R0405	0.372	1
	50	9077675	S303P-B50	2CDS383001R0505	0.372	1
	63	9077545	S303P-B63	2CDS383001R0635	0.372	1

Miniature Circuit breakers S300P

B characteristic



S 304



S 301 NA



S 303 NA

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
4	6	9076593	S304P-B6	2CDS384001R0065	0.496	1
	8	9086110	S304P-B8	2CDS384001R0085	0.496	1
	10	9076531	S304P-B10	2CDS384001R0105	0.496	1
	13	9076494	S304P-B13	2CDS384001R0135	0.496	1
	16	9076449	S304P-B16	2CDS384001R0165	0.496	1
	20	9135559	S304P-B20	2CDS384001R0205	0.496	1
	25	9076357	S304P-B25	2CDS384001R0255	0.496	1
	32	9076265	S304P-B32	2CDS384001R0325	0.496	1
	40	9076197	S304P-B40	2CDS384001R0405	0.496	1
	50	9076074	S304P-B50	2CDS384001R0505	0.496	1
	63	9075947	S304P-B63	2CDS384001R0635	0.496	1
1+N	6	9079785	S301P-B6NA	2CDS381103R0065	0.248	5
	8	9086035	S301P-B8NA	2CDS381103R0085	0.248	5
	10	9079730	S301P-B10NA	2CDS381103R0105	0.248	5
	13	9079693	S301P-B13NA	2CDS381103R0135	0.248	5
	16	9079648	S301P-B16NA	2CDS381103R0165	0.248	5
	20	9079600	S301P-B20NA	2CDS381103R0205	0.248	5
	25	9079556	S301P-B25NA	2CDS381103R0255	0.248	5
	32	9079464	S301P-B32NA	2CDS381103R0325	0.248	5
	40	9079396	S301P-B40NA	2CDS381103R0405	0.248	5
	50	9079273	S301P-B50NA	2CDS381103R0505	0.248	5
	63	9079143	S301P-B63NA	2CDS381103R0635	0.248	5
3+N	6	9077392	S303P-B6NA	2CDS383103R0065	0.496	1
	8	9086097	S303P-B8NA	2CDS383103R0085	0.496	1
	10	9077330	S303P-B10NA	2CDS383103R0105	0.496	1
	13	9077293	S303P-B13NA	2CDS383103R0135	0.496	1
	16	9077248	S303P-B16NA	2CDS383103R0165	0.496	1
	20	9135641	S303P-B20NA	2CDS383103R0205	0.496	1
	25	9077156	S303P-B25NA	2CDS383103R0255	0.496	1
	32	9077064	S303P-B32NA	2CDS383103R0325	0.496	1
	40	9076999	S303P-B40NA	2CDS383103R0405	0.496	1
	50	9076876	S303P-B50NA	2CDS383103R0505	0.496	1
	63	9076746	S303P-B63NA	2CDS383103R0635	0.496	1

Miniature Circuit breakers S300P

C characteristic



S 301



S 302



S 303

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
1	0.5	9079891	S301P-C0.5	2CDS381001R0984	0.124	10
	1	9080675	S301P-C1	2CDS381001R0014	0.124	10
	1.6	9079914	S301P-C1.6	2CDS381001R0974	0.124	10
	2	9080651	S301P-C2	2CDS381001R0024	0.124	10
	3	9080637	S301P-C3	2CDS381001R0034	0.124	10
	4	9080613	S301P-C4	2CDS381001R0044	0.124	10
	6	9080590	S301P-C6	2CDS381001R0064	0.124	10
	8	9080569	S301P-C8	2CDS381001R0084	0.124	10
	10	9080538	S301P-C10	2CDS381001R0104	0.124	10
	13	9080491	S301P-C13	2CDS381001R0134	0.124	10
	16	9080446	S301P-C16	2CDS381001R0164	0.124	10
	20	9080408	S301P-C20	2CDS381001R0204	0.124	10
	25	9080354	S301P-C25	2CDS381001R0254	0.124	10
	32	9080262	S301P-C32	2CDS381001R0324	0.124	10
	40	9080194	S301P-C40	2CDS381001R0404	0.124	10
	50	9080071	S301P-C50	2CDS381001R0504	0.124	10
	63	9079945	S301P-C63	2CDS381001R0634	0.124	10
2	0.5	9078306	S302P-C0.5	2CDS382001R0984	0.248	5
	1	9079082	S302P-C1	2CDS382001R0014	0.248	5
	1.6	9078320	S302P-C1.6	2CDS382001R0974	0.248	5
	2	9079068	S302P-C2	2CDS382001R0024	0.248	5
	3	9079044	S302P-C3	2CDS382001R0034	0.248	5
	4	9079020	S302P-C4	2CDS382001R0044	0.248	5
	6	9079006	S302P-C6	2CDS382001R0064	0.248	5
	8	9078979	S302P-C8	2CDS382001R0084	0.248	5
	10	9078948	S302P-C10	2CDS382001R0104	0.248	5
	13	9078900	S302P-C13	2CDS382001R0134	0.248	5
	16	9078856	S302P-C16	2CDS382001R0164	0.248	5
	20	9078818	S302P-C20	2CDS382001R0204	0.248	5
	25	9078764	S302P-C25	2CDS382001R0254	0.248	5
	32	9078672	S302P-C32	2CDS382001R0324	0.248	5
	40	9078603	S302P-C40	2CDS382001R0404	0.248	5
	50	9078481	S302P-C50	2CDS382001R0504	0.248	5
	63	9078351	S302P-C63	2CDS382001R0634	0.248	5
3	0.5	9077507	S303P-C0.5	2CDS383001R0984	0.372	1
	1	9078283	S303P-C1	2CDS383001R0014	0.372	1
	1.6	9077521	S303P-C1.6	2CDS383001R0974	0.372	1
	2	9078269	S303P-C2	2CDS383001R0024	0.372	1
	3	9078245	S303P-C3	2CDS383001R0034	0.372	1
	4	9078221	S303P-C4	2CDS383001R0044	0.372	1
	6	9078207	S303P-C6	2CDS383001R0064	0.372	1
	8	9078177	S303P-C8	2CDS383001R0084	0.372	1
	10	9078146	S303P-C10	2CDS383001R0104	0.372	1
	13	9078108	S303P-C13	2CDS383001R0134	0.372	1
	16	9078054	S303P-C16	2CDS383001R0164	0.372	1
	20	9078016	S303P-C20	2CDS383001R0204	0.372	1
	25	9077965	S303P-C25	2CDS383001R0254	0.372	1
	32	9077873	S303P-C32	2CDS383001R0324	0.372	1
	40	9077804	S303P-C40	2CDS383001R0404	0.372	1
	50	9077682	S303P-C50	2CDS383001R0504	0.372	1
	63	9077552	S303P-C63	2CDS383001R0634	0.372	1

Miniature Circuit breakers S300P

C characteristic



S 304



S 301 NA



S 303 NA

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
4	0.5	9135511	S304P-C0.5	2CDS384001R0984	0.496	1
	1	9076685	S304P-C1	2CDS384001R0014	0.496	1
	1.6	9075923	S304P-C1.6	2CDS384001R0974	0.496	1
	2	9076661	S304P-C2	2CDS384001R0024	0.496	1
	3	9076647	S304P-C3	2CDS384001R0034	0.496	1
	4	9076623	S304P-C4	2CDS384001R0044	0.496	1
	6	9135573	S304P-C6	2CDS384001R0064	0.496	1
	8	9076579	S304P-C8	2CDS384001R0084	0.496	1
	10	9076548	S304P-C10	2CDS384001R0104	0.496	1
	13	9135566	S304P-C13	2CDS384001R0134	0.496	1
	16	9076456	S304P-C16	2CDS384001R0164	0.496	1
	20	9076418	S304P-C20	2CDS384001R0204	0.496	1
	25	9076364	S304P-C25	2CDS384001R0254	0.496	1
	32	9076272	S304P-C32	2CDS384001R0324	0.496	1
	40	9135689	S304P-C40	2CDS384001R0404	0.496	1
	50	9076081	S304P-C50	2CDS384001R0504	0.496	1
	63	9075954	S304P-C63	2CDS384001R0634	0.496	1
1+N	0.5	9079105	S301P-C0.5NA	2CDS381103R0984	0.248	5
	1	9079877	S301P-C1NA	2CDS381103R0014	0.248	5
	1.6	9079129	S301P-C1.6NA	2CDS381103R0974	0.248	5
	2	9079853	S301P-C2NA	2CDS381103R0024	0.248	5
	3	9079839	S301P-C3NA	2CDS381103R0034	0.248	5
	4	9079815	S301P-C4NA	2CDS381103R0044	0.248	5
	6	9079792	S301P-C6NA	2CDS381103R0064	0.248	5
	8	9079778	S301P-C8NA	2CDS381103R0084	0.248	5
	10	9079747	S301P-C10NA	2CDS381103R0104	0.248	5
	13	9079709	S301P-C13NA	2CDS381103R0134	0.248	5
	16	9079655	S301P-C16NA	2CDS381103R0164	0.248	5
	20	9079617	S301P-C20NA	2CDS381103R0204	0.248	5
	25	9079563	S301P-C25NA	2CDS381103R0254	0.248	5
	32	9079471	S301P-C32NA	2CDS381103R0324	0.248	5
	40	9079402	S301P-C40NA	2CDS381103R0404	0.248	5
	50	9079280	S301P-C50NA	2CDS381103R0504	0.248	5
	63	9079150	S301P-C63NA	2CDS381103R0634	0.248	5
3+N	0.5	9135580	S303P-C0.5NA	2CDS383103R0984	0.496	1
	1	9077484	S303P-C1NA	2CDS383103R0014	0.496	1
	1.6	9076722	S303P-C1.6NA	2CDS383103R0974	0.496	1
	2	9077460	S303P-C2NA	2CDS383103R0024	0.496	1
	3	9077446	S303P-C3NA	2CDS383103R0034	0.496	1
	4	9077422	S303P-C4NA	2CDS383103R0044	0.496	1
	6	9077408	S303P-C6NA	2CDS383103R0064	0.496	1
	8	9077378	S303P-C8NA	2CDS383103R0084	0.496	1
	10	9077347	S303P-C10NA	2CDS383103R0104	0.496	1
	13	9135658	S303P-C13NA	2CDS383103R0134	0.496	1
	16	9077255	S303P-C16NA	2CDS383103R0164	0.496	1
	20	9077217	S303P-C20NA	2CDS383103R0204	0.496	1
	25	9077163	S303P-C25NA	2CDS383103R0254	0.496	1
	32	9077071	S303P-C32NA	2CDS383103R0324	0.496	1
	40	9135627	S303P-C40NA	2CDS383103R0404	0.496	1
	50	9076883	S303P-C50NA	2CDS383103R0504	0.496	1
	63	9076753	S303P-C63NA	2CDS383103R0634	0.496	1

Miniature Circuit breakers S300P

D characteristic



S 301



S 302



S 303

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
1	0.5	9079907	S301P-D0.5	2CDS381001R0981	0.124	10
	1	9080682	S301P-D1	2CDS381001R0011	0.124	10
	1.6	9079921	S301P-D1.6	2CDS381001R0971	0.124	10
	2	9080668	S301P-D2	2CDS381001R0021	0.124	10
	3	9080644	S301P-D3	2CDS381001R0031	0.124	10
	4	9080620	S301P-D4	2CDS381001R0041	0.124	10
	6	9080606	S301P-D6	2CDS381001R0061	0.124	10
	8	9080576	S301P-D8	2CDS381001R0081	0.124	10
	10	9080545	S301P-D10	2CDS381001R0101	0.124	10
	13	9080507	S301P-D13	2CDS381001R0131	0.124	10
	16	9080453	S301P-D16	2CDS381001R0161	0.124	10
	20	9080415	S301P-D20	2CDS381001R0201	0.124	10
	25	9080361	S301P-D25	2CDS381001R0251	0.124	10
	32	9080279	S301P-D32	2CDS381001R0321	0.124	10
	40	9080200	S301P-D40	2CDS381001R0401	0.124	10
	50	9080088	S301P-D50	2CDS381001R0501	0.124	10
	63	9079952	S301P-D63	2CDS381001R0631	0.124	10
2	0.5	9078313	S302P-D0.5	2CDS382001R0981	0.248	5
	1	9079099	S302P-D1	2CDS382001R0011	0.248	5
	1.6	9078337	S302P-D1.6	2CDS382001R0971	0.248	5
	2	9079075	S302P-D2	2CDS382001R0021	0.248	5
	3	9079051	S302P-D3	2CDS382001R0031	0.248	5
	4	9079037	S302P-D4	2CDS382001R0041	0.248	5
	6	9079013	S302P-D6	2CDS382001R0061	0.248	5
	8	9078986	S302P-D8	2CDS382001R0081	0.248	5
	10	9078955	S302P-D10	2CDS382001R0101	0.248	5
	13	9078917	S302P-D13	2CDS382001R0131	0.248	5
	16	9078863	S302P-D16	2CDS382001R0161	0.248	5
	20	9078825	S302P-D20	2CDS382001R0201	0.248	5
	25	9078771	S302P-D25	2CDS382001R0251	0.248	5
	32	9078689	S302P-D32	2CDS382001R0321	0.248	5
	40	9078610	S302P-D40	2CDS382001R0401	0.248	5
	50	9078498	S302P-D50	2CDS382001R0501	0.248	5
	63	9078368	S302P-D63	2CDS382001R0631	0.248	5
3	0.5	9077514	S303P-D0.5	2CDS383001R0981	0.372	1
	1	9078290	S303P-D1	2CDS383001R0011	0.372	1
	1.6	9077538	S303P-D1.6	2CDS383001R0971	0.372	1
	2	9078276	S303P-D2	2CDS383001R0021	0.372	1
	3	9078252	S303P-D3	2CDS383001R0031	0.372	1
	4	9078238	S303P-D4	2CDS383001R0041	0.372	1
	6	9078214	S303P-D6	2CDS383001R0061	0.372	1
	8	9078184	S303P-D8	2CDS383001R0081	0.372	1
	10	9078153	S303P-D10	2CDS383001R0101	0.372	1
	13	9078115	S303P-D13	2CDS383001R0131	0.372	1
	16	9078061	S303P-D16	2CDS383001R0161	0.372	1
	20	9078023	S303P-D20	2CDS383001R0201	0.372	1
	25	9077972	S303P-D25	2CDS383001R0251	0.372	1
	32	9077880	S303P-D32	2CDS383001R0321	0.372	1
	40	9077811	S303P-D40	2CDS383001R0401	0.372	1
	50	9077699	S303P-D50	2CDS383001R0501	0.372	1
	63	9077569	S303P-D63	2CDS383001R0631	0.372	1

Miniature Circuit breakers S300P

D characteristic



S 304



S 301 NA



S 303 NA

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
4	0.5	9075916	S304P-D0.5	2CDS384001R0981	0.496	1
	1	9076692	S304P-D1	2CDS384001R0011	0.496	1
	1.6	9075930	S304P-D1.6	2CDS384001R0971	0.496	1
	2	9076678	S304P-D2	2CDS384001R0021	0.496	1
	3	9076654	S304P-D3	2CDS384001R0031	0.496	1
	4	9076630	S304P-D4	2CDS384001R0041	0.496	1
	6	9076616	S304P-D6	2CDS384001R0061	0.496	1
	8	9076586	S304P-D8	2CDS384001R0081	0.496	1
	10	9076555	S304P-D10	2CDS384001R0101	0.496	1
	13	9076517	S304P-D13	2CDS384001R0131	0.496	1
	16	9076463	S304P-D16	2CDS384001R0161	0.496	1
	20	9076425	S304P-D20	2CDS384001R0201	0.496	1
	25	9076371	S304P-D25	2CDS384001R0251	0.496	1
	32	9076289	S304P-D32	2CDS384001R0321	0.496	1
	40	9076210	S304P-D40	2CDS384001R0401	0.496	1
	50	9076098	S304P-D50	2CDS384001R0501	0.496	1
	63	9075961	S304P-D63	2CDS384001R0631	0.496	1
1+N	0.5	9079112	S301P-D0.5NA	2CDS381103R0981	0.248	5
	1	9079884	S301P-D1NA	2CDS381103R0011	0.248	5
	1.6	9079136	S301P-D1.6NA	2CDS381103R0971	0.248	5
	2	9079860	S301P-D2NA	2CDS381103R0021	0.248	5
	3	9079846	S301P-D3NA	2CDS381103R0031	0.248	5
	4	9079822	S301P-D4NA	2CDS381103R0041	0.248	5
	6	9079808	S301P-D6NA	2CDS381103R0061	0.248	5
	8	9085717	S301P-D8NA	2CDS381103R0081	0.248	5
	10	9079754	S301P-D10NA	2CDS381103R0101	0.248	5
	13	9079716	S301P-D13NA	2CDS381103R0131	0.248	5
	16	9079662	S301P-D16NA	2CDS381103R0161	0.248	5
	20	9079624	S301P-D20NA	2CDS381103R0201	0.248	5
	25	9079570	S301P-D25NA	2CDS381103R0251	0.248	5
	32	9079488	S301P-D32NA	2CDS381103R0321	0.248	5
	40	9079419	S301P-D40NA	2CDS381103R0401	0.248	5
	50	9079297	S301P-D50NA	2CDS381103R0501	0.248	5
	63	9079167	S301P-D63NA	2CDS381103R0631	0.248	5
3+N	0.5	9076715	S303P-D0.5NA	2CDS383103R0981	0.496	1
	1	9077491	S303P-D1NA	2CDS383103R0011	0.496	1
	1.6	9076739	S303P-D1.6NA	2CDS383103R0971	0.496	1
	2	9077477	S303P-D2NA	2CDS383103R0021	0.496	1
	3	9077453	S303P-D3NA	2CDS383103R0031	0.496	1
	4	9077439	S303P-D4NA	2CDS383103R0041	0.496	1
	6	9077415	S303P-D6NA	2CDS383103R0061	0.496	1
	8	9077385	S303P-D8NA	2CDS383103R0081	0.496	1
	10	9077354	S303P-D10NA	2CDS383103R0101	0.496	1
	13	9077316	S303P-D13NA	2CDS383103R0131	0.496	1
	16	9077262	S303P-D16NA	2CDS383103R0161	0.496	1
	20	9077224	S303P-D20NA	2CDS383103R0201	0.496	1
	25	9077170	S303P-D25NA	2CDS383103R0251	0.496	1
	32	9077088	S303P-D32NA	2CDS383103R0321	0.496	1
	40	9077019	S303P-D40NA	2CDS383103R0401	0.496	1
	50	9076890	S303P-D50NA	2CDS383103R0501	0.496	1
	63	9076760	S303P-D63NA	2CDS383103R0631	0.496	1

Miniature Circuit breakers S300P

K characteristic



S 301



S 302

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
1	0.2	9080552	S301P-K0.2	2CDS381001R0087	0.124	10
	0.3	9080514	S301P-K0.3	2CDS381001R0117	0.124	10
	0.5	9080477	S301P-K0.5	2CDS381001R0157	0.124	10
	0.75	9080422	S301P-K0.75	2CDS381001R0187	0.124	10
	1	9080385	S301P-K1	2CDS381001R0217	0.124	10
	1.6	9080330	S301P-K1.6	2CDS381001R0257	0.124	10
	2	9080316	S301P-K2	2CDS381001R0277	0.124	10
	3	9080293	S301P-K3	2CDS381001R0317	0.124	10
	4	9080248	S301P-K4	2CDS381001R0337	0.124	10
	6	9080224	S301P-K6	2CDS381001R0377	0.124	10
	8	9080170	S301P-K8	2CDS381001R0407	0.124	10
	10	9080156	S301P-K10	2CDS381001R0427	0.124	10
	13	9080132	S301P-K13	2CDS381001R0447	0.124	10
	16	9080125	S301P-K16	2CDS381001R0467	0.124	10
	20	9080101	S301P-K20	2CDS381001R0487	0.124	10
	25	9080057	S301P-K25	2CDS381001R0517	0.124	10
	32	9080033	S301P-K32	2CDS381001R0537	0.124	10
	40	9080019	S301P-K40	2CDS381001R0557	0.124	10
	50	9079990	S301P-K50	2CDS381001R0577	0.124	10
	63	9079976	S301P-K63	2CDS381001R0607	0.124	10
2	0.2	9078962	S302P-K0.2	2CDS382001R0087	0.248	5
	0.3	9078924	S302P-K0.3	2CDS382001R0117	0.248	5
	0.5	9078887	S302P-K0.5	2CDS382001R0157	0.248	5
	0.75	9078832	S302P-K0.75	2CDS382001R0187	0.248	5
	1	9078795	S302P-K1	2CDS382001R0217	0.248	5
	1.6	9078740	S302P-K1.6	2CDS382001R0257	0.248	5
	2	9078726	S302P-K2	2CDS382001R0277	0.248	5
	3	9078702	S302P-K3	2CDS382001R0317	0.248	5
	4	9078658	S302P-K4	2CDS382001R0337	0.248	5
	6	9078634	S302P-K6	2CDS382001R0377	0.248	5
	8	9078580	S302P-K8	2CDS382001R0407	0.248	5
	10	9078566	S302P-K10	2CDS382001R0427	0.248	5
	13	9078542	S302P-K13	2CDS382001R0447	0.248	5
	16	9078535	S302P-K16	2CDS382001R0467	0.248	5
	20	9078511	S302P-K20	2CDS382001R0487	0.248	5
	25	9078467	S302P-K25	2CDS382001R0517	0.248	5
	32	9078443	S302P-K32	2CDS382001R0537	0.248	5
	40	9078429	S302P-K40	2CDS382001R0557	0.248	5
	50	9078405	S302P-K50	2CDS382001R0577	0.248	5
	63	9078382	S302P-K63	2CDS382001R0607	0.248	5

Miniature Circuit breakers S300P

K characteristic



S 303



S 304

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
3	0.2	9078160	S303P-K0.2	2CDS383001R0087	0.372	1
	0.3	9078122	S303P-K0.3	2CDS383001R0117	0.372	1
	0.5	9078085	S303P-K0.5	2CDS383001R0157	0.372	1
	0.75	9078030	S303P-K0.75	2CDS383001R0187	0.372	1
	1	9077996	S303P-K1	2CDS383001R0217	0.372	1
	1.6	9077941	S303P-K1.6	2CDS383001R0257	0.372	1
	2	9077927	S303P-K2	2CDS383001R0277	0.372	1
	3	9077903	S303P-K3	2CDS383001R0317	0.372	1
	4	9077859	S303P-K4	2CDS383001R0337	0.372	1
	6	9077835	S303P-K6	2CDS383001R0377	0.372	1
	8	9077781	S303P-K8	2CDS383001R0407	0.372	1
	10	9077767	S303P-K10	2CDS383001R0427	0.372	1
	13	9077743	S303P-K13	2CDS383001R0447	0.372	1
	16	9077736	S303P-K16	2CDS383001R0467	0.372	1
	20	9077712	S303P-K20	2CDS383001R0487	0.372	1
	25	9077668	S303P-K25	2CDS383001R0517	0.372	1
	32	9077644	S303P-K32	2CDS383001R0537	0.372	1
	40	9077620	S303P-K40	2CDS383001R0557	0.372	1
	50	9077606	S303P-K50	2CDS383001R0577	0.372	1
	63	9077583	S303P-K63	2CDS383001R0607	0.372	1
4	0.2	9076562	S304P-K0.2	2CDS384001R0087	0.496	1
	0.3	9076524	S304P-K0.3	2CDS384001R0117	0.496	1
	0.5	9076487	S304P-K0.5	2CDS384001R0157	0.496	1
	0.75	9076432	S304P-K0.75	2CDS384001R0187	0.496	1
	1	9076395	S304P-K1	2CDS384001R0217	0.496	1
	1.6	9076340	S304P-K1.6	2CDS384001R0257	0.496	1
	2	9076326	S304P-K2	2CDS384001R0277	0.496	1
	3	9135542	S304P-K3	2CDS384001R0317	0.496	1
	4	9076258	S304P-K4	2CDS384001R0337	0.496	1
	6	9076234	S304P-K6	2CDS384001R0377	0.496	1
	8	9076180	S304P-K8	2CDS384001R0407	0.496	1
	10	9076166	S304P-K10	2CDS384001R0427	0.496	1
	13	9076142	S304P-K13	2CDS384001R0447	0.496	1
	16	9076135	S304P-K16	2CDS384001R0467	0.496	1
	20	9076111	S304P-K20	2CDS384001R0487	0.496	1
	25	9076067	S304P-K25	2CDS384001R0517	0.496	1
	32	9076043	S304P-K32	2CDS384001R0537	0.496	1
	40	9076029	S304P-K40	2CDS384001R0557	0.496	1
	50	9135528	S304P-K50	2CDS384001R0577	0.496	1
	63	9075985	S304P-K63	2CDS384001R0607	0.496	1

Miniature Circuit breakers S300P

K characteristic



S 301 NA



S 303 NA

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
1+N	0.2	9079761	S301P-K0.2NA	2CDS381103R0087	0.248	5
	0.3	9079723	S301P-K0.3NA	2CDS381103R0117	0.248	5
	0.5	9079686	S301P-K0.5NA	2CDS381103R0157	0.248	5
	0.75	9079631	S301P-K0.75NA	2CDS381103R0187	0.248	5
	1	9079594	S301P-K1NA	2CDS381103R0217	0.248	5
	1.6	9079549	S301P-K1.6NA	2CDS381103R0257	0.248	5
	2	9079525	S301P-K2NA	2CDS381103R0277	0.248	5
	3	9079501	S301P-K3NA	2CDS381103R0317	0.248	5
	4	9079457	S301P-K4NA	2CDS381103R0337	0.248	5
	6	9079433	S301P-K6NA	2CDS381103R0377	0.248	5
	8	9079389	S301P-K8NA	2CDS381103R0407	0.248	5
	10	9079365	S301P-K10NA	2CDS381103R0427	0.248	5
	13	9079341	S301P-K13NA	2CDS381103R0447	0.248	5
	16	9079334	S301P-K16NA	2CDS381103R0467	0.248	5
	20	9079310	S301P-K20NA	2CDS381103R0487	0.248	5
	25	9079266	S301P-K25NA	2CDS381103R0517	0.248	5
	32	9079242	S301P-K32NA	2CDS381103R0537	0.248	5
	40	9079228	S301P-K40NA	2CDS381103R0557	0.248	5
	50	9135665	S301P-K50NA	2CDS381103R0577	0.248	5
	63	9079181	S301P-K63NA	2CDS381103R0607	0.248	5
3+N	0.2	9077361	S303P-K0.2NA	2CDS383103R0087	0.496	1
	0.3	9077323	S303P-K0.3NA	2CDS383103R0117	0.496	1
	0.5	9077286	S303P-K0.5NA	2CDS383103R0157	0.496	1
	0.75	9077231	S303P-K0.75NA	2CDS383103R0187	0.496	1
	1	9077194	S303P-K1NA	2CDS383103R0217	0.496	1
	1.6	9077149	S303P-K1.6NA	2CDS383103R0257	0.496	1
	2	9077125	S303P-K2NA	2CDS383103R0277	0.496	1
	3	9135634	S303P-K3NA	2CDS383103R0317	0.496	1
	4	9077057	S303P-K4NA	2CDS383103R0337	0.496	1
	6	9077033	S303P-K6NA	2CDS383103R0377	0.496	1
	8	9076982	S303P-K8NA	2CDS383103R0407	0.496	1
	10	9076968	S303P-K10NA	2CDS383103R0427	0.496	1
	13	9076944	S303P-K13NA	2CDS383103R0447	0.496	1
	16	9076937	S303P-K16NA	2CDS383103R0467	0.496	1
	20	9076913	S303P-K20NA	2CDS383103R0487	0.496	1
	25	9076869	S303P-K25NA	2CDS383103R0517	0.496	1
	32	9076845	S303P-K32NA	2CDS383103R0537	0.496	1
	40	9076821	S303P-K40NA	2CDS383103R0557	0.496	1
	50	9135597	S303P-K50NA	2CDS383103R0577	0.496	1
	63	9076784	S303P-K63NA	2CDS383103R0607	0.496	1

Miniature Circuit breakers S300P

Z characteristic



S 301



S 302



S 303

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
1	0.5	9080460	S301P-Z0.5	2CDS381001R0158	0.124	10
	1	9080378	S301P-Z1	2CDS381001R0218	0.124	10
	1.6	9080323	S301P-Z1.6	2CDS381001R0258	0.124	10
	2	9080309	S301P-Z2	2CDS381001R0278	0.124	10
	3	9080286	S301P-Z3	2CDS381001R0318	0.124	10
	4	9080231	S301P-Z4	2CDS381001R0338	0.124	10
	6	9080217	S301P-Z6	2CDS381001R0378	0.124	10
	8	9080163	S301P-Z8	2CDS381001R0408	0.124	10
	10	9080149	S301P-Z10	2CDS381001R0428	0.124	10
	16	9080118	S301P-Z16	2CDS381001R0468	0.124	10
	20	9080095	S301P-Z20	2CDS381001R0488	0.124	10
	25	9080040	S301P-Z25	2CDS381001R0518	0.124	10
	32	9080026	S301P-Z32	2CDS381001R0538	0.124	10
	40	9080002	S301P-Z40	2CDS381001R0558	0.124	10
	50	9079983	S301P-Z50	2CDS381001R0578	0.124	10
	63	9079969	S301P-Z63	2CDS381001R0608	0.124	10
2	0.5	9078870	S302P-Z0.5	2CDS382001R0158	0.248	5
	1	9078788	S302P-Z1	2CDS382001R0218	0.248	5
	1.6	9078733	S302P-Z1.6	2CDS382001R0258	0.248	5
	2	9078719	S302P-Z2	2CDS382001R0278	0.248	5
	3	9078696	S302P-Z3	2CDS382001R0318	0.248	5
	4	9078641	S302P-Z4	2CDS382001R0338	0.248	5
	6	9078627	S302P-Z6	2CDS382001R0378	0.248	5
	8	9078573	S302P-Z8	2CDS382001R0408	0.248	5
	10	9078559	S302P-Z10	2CDS382001R0428	0.248	5
	16	9078528	S302P-Z16	2CDS382001R0468	0.248	5
	20	9078504	S302P-Z20	2CDS382001R0488	0.248	5
	25	9078450	S302P-Z25	2CDS382001R0518	0.248	5
	32	9078436	S302P-Z32	2CDS382001R0538	0.248	5
	40	9078412	S302P-Z40	2CDS382001R0558	0.248	5
	50	9078399	S302P-Z50	2CDS382001R0578	0.248	5
	63	9078375	S302P-Z63	2CDS382001R0608	0.248	5
3	0.5	9078078	S303P-Z0.5	2CDS383001R0158	0.372	1
	1	9077989	S303P-Z1	2CDS383001R0218	0.372	1
	1.6	9077934	S303P-Z1.6	2CDS383001R0258	0.372	1
	2	9077910	S303P-Z2	2CDS383001R0278	0.372	1
	3	9077897	S303P-Z3	2CDS383001R0318	0.372	1
	4	9077842	S303P-Z4	2CDS383001R0338	0.372	1
	6	9077828	S303P-Z6	2CDS383001R0378	0.372	1
	8	9077774	S303P-Z8	2CDS383001R0408	0.372	1
	10	9077750	S303P-Z10	2CDS383001R0428	0.372	1
	16	9077729	S303P-Z16	2CDS383001R0468	0.372	1
	20	9077705	S303P-Z20	2CDS383001R0488	0.372	1
	25	9077651	S303P-Z25	2CDS383001R0518	0.372	1
	32	9077637	S303P-Z32	2CDS383001R0538	0.372	1
	40	9077613	S303P-Z40	2CDS383001R0558	0.372	1
	50	9077590	S303P-Z50	2CDS383001R0578	0.372	1
	63	9077576	S303P-Z63	2CDS383001R0608	0.372	1

Miniature Circuit breakers S300P

Z characteristic



S 304



S 301 NA



S 303 NA

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
4	0.5	9076470	S304P-Z0.5	2CDS384001R0158	0.496	1
	1	9076388	S304P-Z1	2CDS384001R0218	0.496	1
	1.6	9076333	S304P-Z1.6	2CDS384001R0258	0.496	1
	2	9076319	S304P-Z2	2CDS384001R0278	0.496	1
	3	9076296	S304P-Z3	2CDS384001R0318	0.496	1
	4	9076241	S304P-Z4	2CDS384001R0338	0.496	1
	6	9076227	S304P-Z6	2CDS384001R0378	0.496	1
	8	9076173	S304P-Z8	2CDS384001R0408	0.496	1
	10	9076159	S304P-Z10	2CDS384001R0428	0.496	1
	16	9076128	S304P-Z16	2CDS384001R0468	0.496	1
	20	9135535	S304P-Z20	2CDS384001R0488	0.496	1
	25	9076050	S304P-Z25	2CDS384001R0518	0.496	1
	32	9076036	S304P-Z32	2CDS384001R0538	0.496	1
	40	9076012	S304P-Z40	2CDS384001R0558	0.496	1
	50	9075992	S304P-Z50	2CDS384001R0578	0.496	1
	63	9075978	S304P-Z63	2CDS384001R0608	0.496	1
1+N	0.5	9079679	S301P-Z0.5NA	2CDS381103R0158	0.248	5
	1	9079587	S301P-Z1NA	2CDS381103R0218	0.248	5
	1.6	9079532	S301P-Z1.6NA	2CDS381103R0258	0.248	5
	2	9079518	S301P-Z2NA	2CDS381103R0278	0.248	5
	3	9079495	S301P-Z3NA	2CDS381103R0318	0.248	5
	4	9079440	S301P-Z4NA	2CDS381103R0338	0.248	5
	6	9079426	S301P-Z6NA	2CDS381103R0378	0.248	5
	8	9079372	S301P-Z8NA	2CDS381103R0408	0.248	5
	10	9079358	S301P-Z10NA	2CDS381103R0428	0.248	5
	16	9079327	S301P-Z16NA	2CDS381103R0468	0.248	5
	20	9135672	S301P-Z20NA	2CDS381103R0488	0.248	5
	25	9079259	S301P-Z25NA	2CDS381103R0518	0.248	5
	32	9079235	S301P-Z32NA	2CDS381103R0538	0.248	5
	40	9079211	S301P-Z40NA	2CDS381103R0558	0.248	5
	50	9079198	S301P-Z50NA	2CDS381103R0578	0.248	5
	63	9079174	S301P-Z63NA	2CDS381103R0608	0.248	5
3+N	0.5	9077279	S303P-Z0.5NA	2CDS383103R0158	0.496	1
	1	9077187	S303P-Z1NA	2CDS383103R0218	0.496	1
	1.6	9077132	S303P-Z1.6NA	2CDS383103R0258	0.496	1
	2	9077118	S303P-Z2NA	2CDS383103R0278	0.496	1
	3	9077095	S303P-Z3NA	2CDS383103R0318	0.496	1
	4	9077040	S303P-Z4NA	2CDS383103R0338	0.496	1
	6	9077026	S303P-Z6NA	2CDS383103R0378	0.496	1
	8	9076975	S303P-Z8NA	2CDS383103R0408	0.496	1
	10	9076951	S303P-Z10NA	2CDS383103R0428	0.496	1
	16	9076920	S303P-Z16NA	2CDS383103R0468	0.496	1
	20	9135610	S303P-Z20NA	2CDS383103R0488	0.496	1
	25	9076852	S303P-Z25NA	2CDS383103R0518	0.496	1
	32	9076838	S303P-Z32NA	2CDS383103R0538	0.496	1
	40	9076814	S303P-Z40NA	2CDS383103R0558	0.496	1
	50	9076791	S303P-Z50NA	2CDS383103R0578	0.496	1
	63	9076777	S303P-Z63NA	2CDS383103R0608	0.496	1

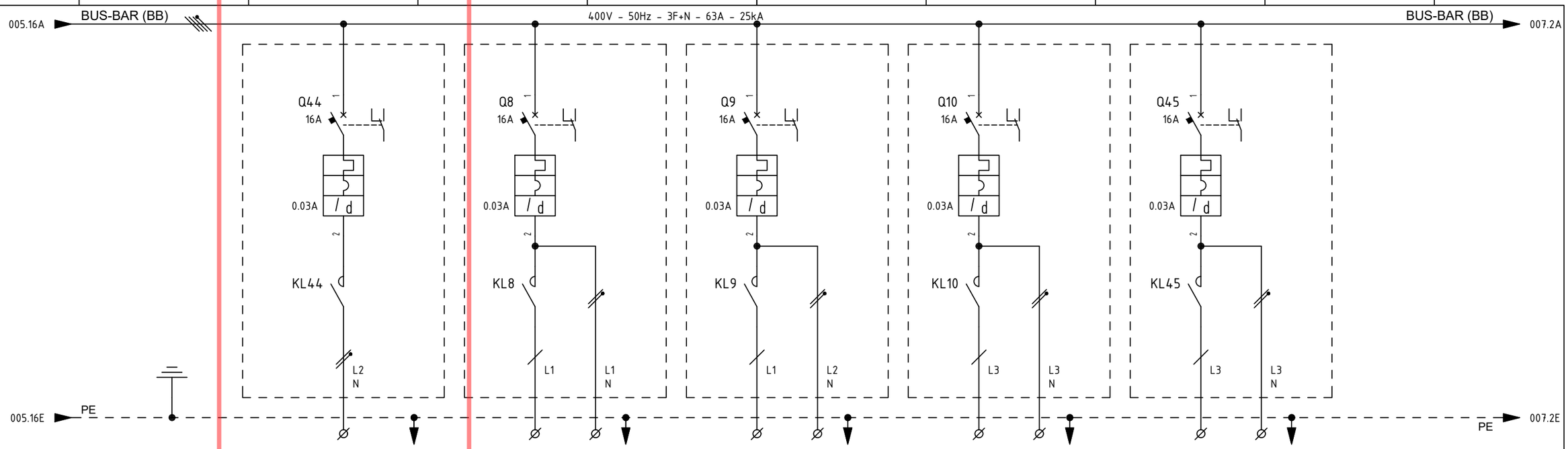
ABB S.p.A.
Electrification
Smart Building

www.abb.com/lowvoltage

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9AKK107992A4964 Rev. F - 04.2024



ITEM			1	-	EJB-200N1-08-L1-01	EJB-200N1-09-L2-01	EJB-200N1-10-L3-01	-
UTILITY			2	NORMAL LIGHTING - SPARE	EMERGENCY LIGHTING UPPER DECK	EMERGENCY LIGHTING LOWER DECK	EMERGENCY LIGHTING STAIRS	EMERGENCY LIGHTING - SPARE
CUBICLE			3	+02	+02	+02	+02	+02
RATED POWER / RATED CURRENT			4/5	1 KW / 4.58 A	1.5 KW / 6.86 A	1.5 KW / 6.86 A	0.30 KW / 1.37 A	1.5 KW / 6.86 A
TYPICAL FUNCTIONAL			6	-	-	-	-	-
CIRCUIT BREAKER (ABB)	TYPE		7	S302P-C16 + DDA202 AC-25/0.03	S302P-D16 + DDA202 AC-25/0.03	S302P-D16 + DDA202 AC-25/0.03	S302P-D16 + DDA202 AC-25/0.03	S302P-D16 + DDA202 AC-25/0.03
	VERSION		8	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE
	TRIP UNITS		9	In=16A - Curve C / Id=0.03A Class AC	In=16A - Curve D / Id=0.03A Class AC	In=16A - Curve D / Id=0.03A Class AC	In=16A - Curve D / Id=0.03A Class AC	In=16A - Curve D / Id=0.03A Class AC
	Icu	KA	10	25KA	25KA	25KA	25KA	25KA
OVERLOAD	L	Range A	11	-	-	-	-	-
		Range t	12	-	-	-	-	-
SEL. SHORT-CIRCUIT	S	Range A	13	-	-	-	-	-
		Range t	14	-	-	-	-	-
INST. SHORT-CIRCUIT	I	Range A	15	-	-	-	-	-
		Range t	16	-	-	-	-	-
EARTH FAULT PROTECTION	G	Range A	17	-	-	-	-	-
		Range t	18	-	-	-	-	-
CONTACTOR (ABB)			19	ESB40-20N-06; 2x22A AC3; Vaux=230Vdc/ac	ESB40-20N-06; 2x22A AC3; Vaux=230Vdc/ac	ESB40-20N-06; 2x22A AC3; Vaux=230Vdc/ac	ESB40-20N-06; 2x22A AC3; Vaux=230Vdc/ac	ESB40-20N-06; 2x22A AC3; Vaux=230Vdc/ac
THERMAL OVERLOAD RELAY (ABB)			20	-	-	-	-	-
SURGE ARRESTERS (DHENN)			21	-	-	-	-	-
TOROIDAL CURRENT TRANSFORMER (FRER)			22	-	-	-	-	-
FUSE HOLDER (ABB)			23	-	-	-	-	-
TWILIGHT SWITCH (ABB)			24	-	-	-	-	-
VOLTMETER (FRER)			25	-	-	-	-	-
CURRENT TRANSFORMER FOR MEASURE (FRER)	TYPE		26	-	-	-	-	-
	PERFORMANCE/CLASS		27	-	-	-	-	-
VOLTAGE TRANSFORMER FOR MEASURE (FRER)	TYPE		28	-	-	-	-	-
	PERFORMANCE/CLASS		29	-	-	-	-	-
POWER TERM. BLOCK (CABUR)		Type/mm²	30	SCREW / 4	SCREW / 4	SCREW / 4	SCREW / 4	SCREW / 4
POWER CONDUCTOR		mm²	31	-	4G4_E	4G4_E	-	

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DWG n° : 231298/SD/13

Item n° : PF1002888/101

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
4	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
3	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
2	24/04/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
1	15/03/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
0	08/02/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "DP-200N1"

SINGLE LINE DIAGRAM

Single Line Drawing

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

SCALE : NTS

A3

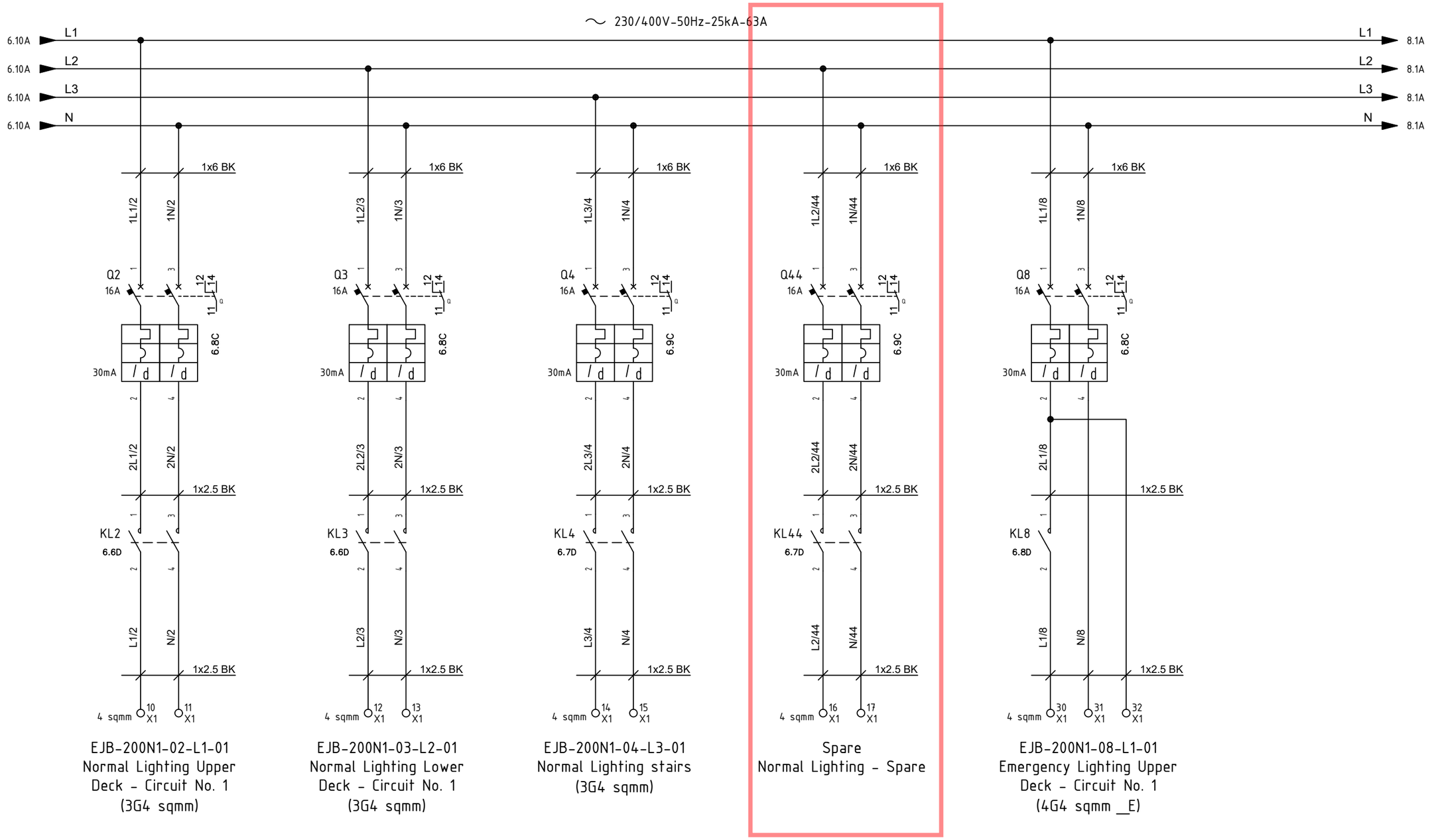
DRAWING NO. 1723002197-EL-DG-00013

SHEET 006

REV. 04

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00013 Rev. 04



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
2	19/08/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
0	29/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

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DWG n° : 231298/SD/33

Item n° : PF1002888/101

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "DP-200N1"

LV SWBD FUNCTIONAL DIAGRAMS

Functional Drawing

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00033

SHEET 7

REV. 02

File Name : 1723002197-EL-DG-00033 Rev. 02

F.to UNI A3: 420mmx297mm

ITEM	Tag	DP-200N1-Q45	: EMERGENCY LIGHT SPARE - DP-200N1-Q45		Dwg	1723002197-EL-DG-00013	
	S/Sys	83-20	: 400/230 V Switchboard (DP-200N1)		Module		
TASK	code	C10002892	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	PRE-COMM	Activity FTS	Discipline Electrical	Form	FTR-2	Protection Relay

FTR2 - Protection relay
Record sheet

RELAY DATA

Manufacturer:	ABB	Serial N°:	NA	Relay type:	DDA202
Auxiliary supply:	NA	Location:	B200	Cubicle:	+02
Switchboard:	DP-200N1				

Current transformers

Tag	Number of	Ratio	Location

Voltage transformers

Tag	Number of	Ratio	Location

Test result (refer to manufacturer's procedure)

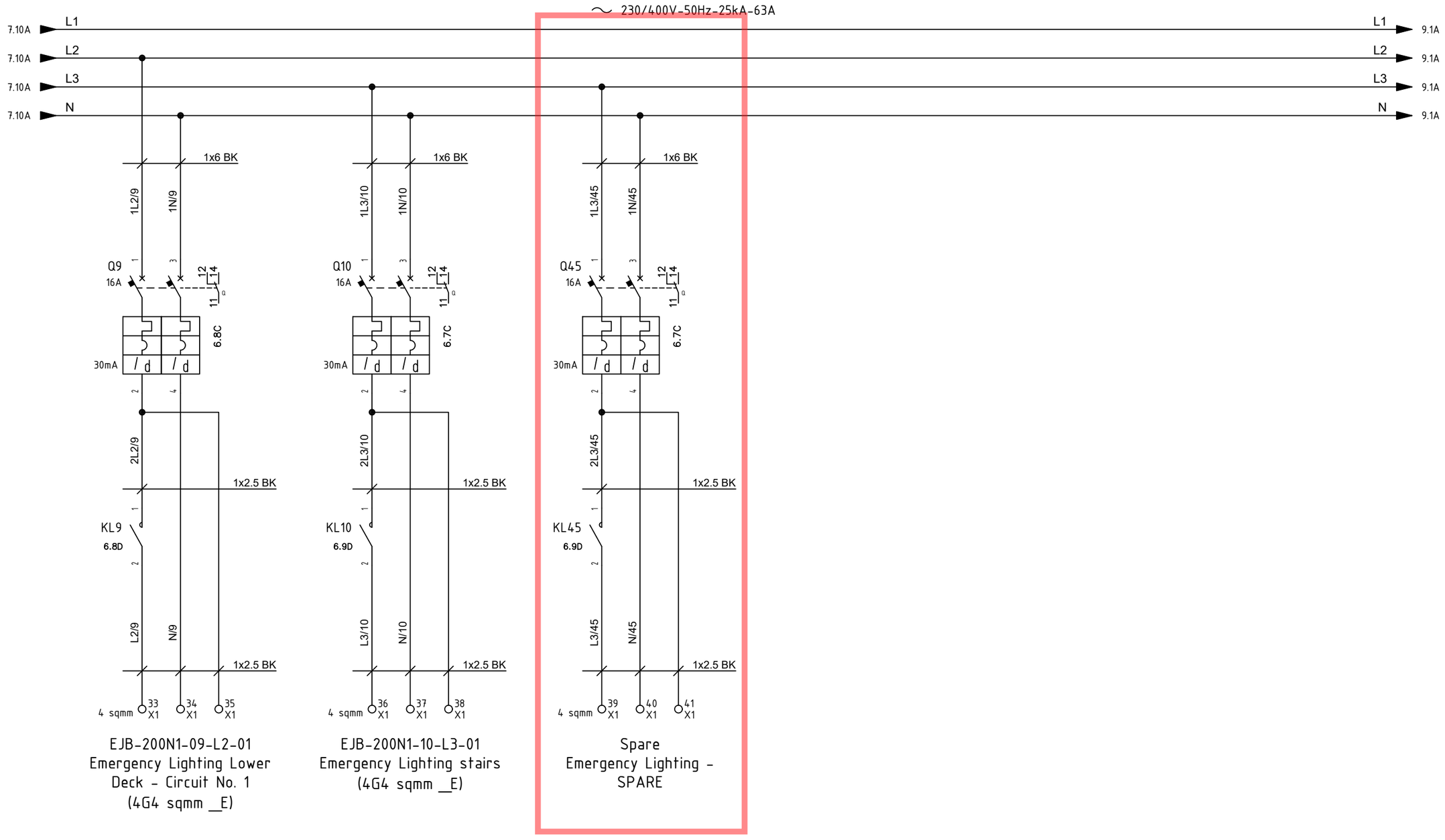
ANSI function	Setting	Injection	Trip value	Time delay Setting	Time delay Trip value
64	30mA	30mA	18mA	NA	59.1ms

Testing & measurement instruments used

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

Comments:

Page 1/1	Performed by	☐ WITNESS ☉ REVIEW	☐ WITNESS ☐ REVIEW
Company	RM COMM	RM COMM	CPY NOT PRESENT
Name	Mattia Girotti	Kristian Castellani	Witness waived
Date	2024-10-28	2024-10-28	2024-10-28
Signature	Digitaly signed by Mattia Girotti 2024-10-28T10:01:24.931Z	Digitaly signed by Kristian Castellani 2024-10-28T13:01:05.120Z	Digitaly signed by Witness waived 2024-10-28T13:36:12.408Z



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
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+					
2	19/08/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
0	29/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

CROSSWIND

ROSETTI MARINO

IMESA ELECTRICAL ENGINEERING

DWG n° : 231298/SD/33

Item n° : PF1002888/101

TITLE : "DP-200N1"

LV SWBD FUNCTIONAL DIAGRAMS

Functional Drawing

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

SCALE : NTS

A3

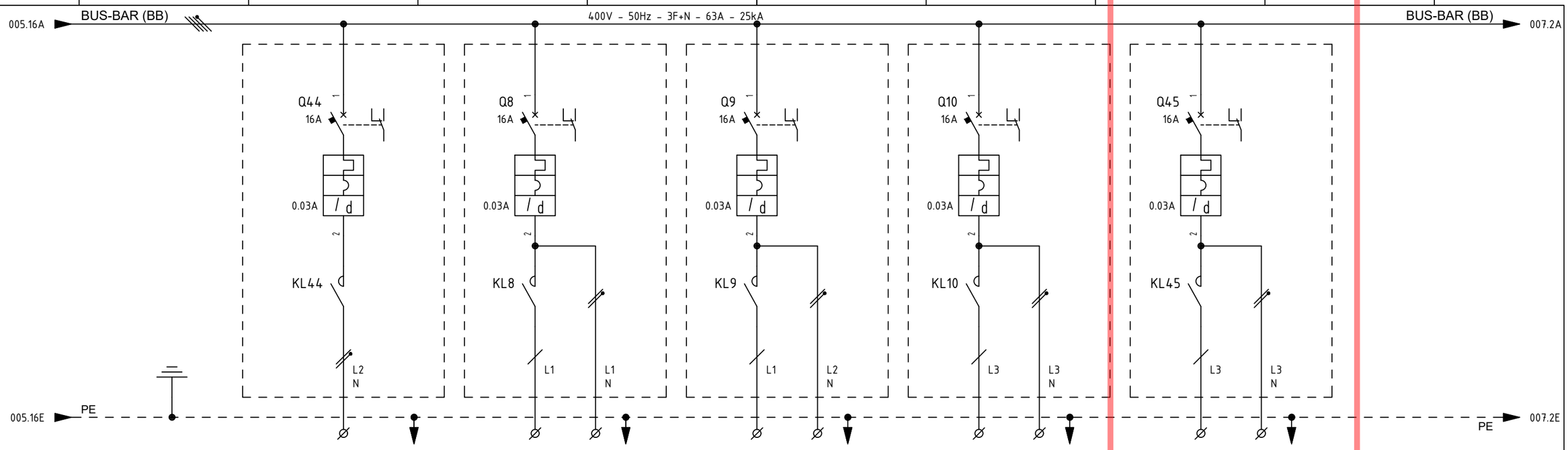
DRAWING NO. 1723002197-EL-DG-00033

SHEET 8

REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00033 Rev. 02



ITEM			1	-		EJB-200N1-08-L1-01		EJB-200N1-09-L2-01		EJB-200N1-10-L3-01		-	
UTILITY			2	NORMAL LIGHTING - SPARE		EMERGENCY LIGHTING UPPER DECK		EMERGENCY LIGHTING LOWER DECK		EMERGENCY LIGHTING STAIRS		EMERGENCY LIGHTING - SPARE	
CUBICLE			3	+02		+02		+02		+02		+02	
RATED POWER	RATED CURRENT		4/5	1 KW	4.58 A	1.5 KW	6.86 A	1.5 KW	6.86 A	0.30 KW	1.37 A	1.5 KW	6.86 A
TYPICAL FUNCTIONAL			6	-		-		-		-		-	
CIRCUIT BREAKER (ABB)	TYPE		7	S302P-C16 + DDA202 AC-25/0.03		S302P-D16 + DDA202 AC-25/0.03		S302P-D16 + DDA202 AC-25/0.03		S302P-D16 + DDA202 AC-25/0.03		S302P-D16 + DDA202 AC-25/0.03	
	VERSION		8	2P / MINIATURE		2P / MINIATURE		2P / MINIATURE		2P / MINIATURE		2P / MINIATURE	
	TRIP UNITS		9	In=16A - Curve C / Id=0.03A Class AC		In=16A - Curve D / Id=0.03A Class AC		In=16A - Curve D / Id=0.03A Class AC		In=16A - Curve D / Id=0.03A Class AC		In=16A - Curve D / Id=0.03A Class AC	
	Icu	KA	10	25KA		25KA		25KA		25KA		25KA	
OVERLOAD	L	Range A	11	-		-		-		-		-	
		Range t	12	-		-		-		-		-	
SEL. SHORT-CIRCUIT	S	Range A	13	-		-		-		-		-	
		Range t	14	-		-		-		-		-	
INST. SHORT-CIRCUIT	I	Range A	15	-		-		-		-		-	
		Range t	16	-		-		-		-		-	
EARTH FAULT PROTECTION	G	Range A	17	-		-		-		-		-	
		Range t	18	-		-		-		-		-	
CONTACTOR (ABB)			19	ESB40-20N-06; 2x22A AC3; Vaux=230Vdc/ac		ESB40-20N-06; 2x22A AC3; Vaux=230Vdc/ac		ESB40-20N-06; 2x22A AC3; Vaux=230Vdc/ac		ESB40-20N-06; 2x22A AC3; Vaux=230Vdc/ac		ESB40-20N-06; 2x22A AC3; Vaux=230Vdc/ac	
THERMAL OVERLOAD RELAY (ABB)			20	-		-		-		-		-	
SURGE ARRESTERS (DHENN)			21	-		-		-		-		-	
TOROIDAL CURRENT TRANSFORMER (FRER)			22	-		-		-		-		-	
FUSE HOLDER (ABB)			23	-		-		-		-		-	
TWILIGHT SWITCH (ABB)			24	-		-		-		-		-	
VOLTMETER (FRER)			25	-		-		-		-		-	
CURRENT TRANSFORMER FOR MEASURE (FRER)	TYPE		26	-		-		-		-		-	
	PERFORMANCE/CLASS		27	-		-		-		-		-	
VOLTAGE TRANSFORMER FOR MEASURE (FRER)	TYPE		28	-		-		-		-		-	
	PERFORMANCE/CLASS		29	-		-		-		-		-	
POWER TERM. BLOCK (CABUR)		Type/mm²	30	SCREW / 4		SCREW / 4		SCREW / 4		SCREW / 4		SCREW / 4	
POWER CONDUCTOR		mm²	31	-		4G4_E		4G4_E		4G4_E		-	

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DWG n° : 231298/SD/13

Item n° : PF1002888/101

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
4	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
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0	08/02/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "DP-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-00013

SHEET 006

REV. 04

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00013 Rev. 04

S300P
Data sheet



System pro *M* compact®
S300P miniature circuit breakers comply with IEC/EN 60947-2, IEC/EN 60898-1, UL 1077 and CSA 22.2 No. 235, protecting the installation in commercial and industrial applications by supporting a breaking capacity of 25 kA.

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01
S300P
Miniature Circuit Breaker

S300P MCB is designed to be used in installations where high breaking capacities are required to protect against short-circuits and overloads.

S300P is compliant to the product standards
IEC/EN 60947-2
IEC/EN 60898-1
UL 1077
CSA 22.2 No.235
and features the following main technical characteristics:

- Rated nominal current: 0.2 A ... 63 A
- Characteristic: B, C, D, K, Z
- Pole variant: 1, 2, 3, 4, 1+N, 3+N
- Rated breaking capacity I_{cu}: 25 kA; 100 kA (≤ 6 A)
- Rated operational voltage U_e: 240/415 V AC
- Rated impulse withstand voltage U_{imp}: 6 kV

Application benefits

- Integrated trip indicator for clear signalization of tripping events on site
- Dual DIN-Rail release for fast and easy installation
- Fully compatible with whole range of System pro *M* compact® accessories supporting lots of different functions
- Quick and easy product identification by QR-code along with direct access to the ABB product database
- Terminals equipped with fail safe feature to avoid improper installation
- Supply possible from top or bottom and in parallel with cables and busbars thanks to terminals composed by two different openings
- Excellent technical performance to ensure safety and protection of installation and personal
- Certified quality and compliance according to worldwide product standards

S300P
Technical data



S300P

		S300P
General Data	Standards	IEC/EN 60947-2, IEC/EN 60898-1, UL 1077, CSA 22.2 No. 235
	Poles	1P, 2P, 3P, 4P, 1+N, 3+N
	Tripping characteristics	B, C, D, K, Z
	Rated current I_n	6…63 A (B-curve), 0.5…63 A (C-, D-, Z-curve), 0.2…63 A (K-curve)
	Rated frequency f	50 / 60 Hz, DC
	Rated insulation voltage U_i acc. to IEC/EN 60664-1	500 V AC
	Overvoltage category	IV
	Pollution degree	3
Data acc. to IEC/EN 60947-2	Tripping Characteristics	B, C, D, K, Z
	Rated operational voltage U_e	1P, 1+N: 240 V AC, 72 V DC 2P: 415 V AC, 125 V DC 3P, 3+N, 4P: 415 V AC
	Max. power frequency recovery voltage U_{max}	1P, 1+N: 264 V AC, 72 V DC 2P, 3P, 3+N, 4P: 462 V AC, 125 V DC
	Min. operating voltage	12 V AC – 12 V DC
	Rated ultimate short-circuit breaking capacity I_{cu}	25 kA; 100 kA (≤ 6 A)
	Rated service short-circuit breaking capacity I_{cs}	12.5 kA (≤ 25 A); 10 kA (32-40 A); 7.5 kA (>40 A)
	Rated impulse withstand voltage U_{imp} (1.2/50 µs)	6 kV
	Reference temperature for tripping characteristics	55 °C (B-, C-, D-curve), 40 °C (K-, Z-curve)
	Electrical endurance	I_n < 32 A: 20,000 ops. (AC), I_n ≥ 32 A: 10,000 ops. (AC); 1,500 ops. (DC)
Data acc. to IEC/EN 60898-1	Tripping Characteristics	B, C, D
	Rated operational voltage U_n	1P: 240/415 V AC, 72 V DC 1+N: 240 V AC, 72 V DC 2P: 415 V AC, 125 V DC 3P, 3P+N, 4P: 415 V AC
	Max. power frequency recovery voltage U_{max}	1P, 1+N: 264 V AC, 72 V DC 2P, 3P, 3+N, 4P: 457 V AC, 125 V DC
	Min. operating voltage	12 V AC – 12 V DC
	Rated short-circuit capacity I_{cn}	25 kA (≤ 25 A), 20 kA (32 - 40 A), 15 kA (> 40 A)
	Dielectric test voltage	2.0 kV (50/60 Hz, 1 min)
	Reference temperature for tripping characteristics	30 °C
	Electrical endurance	I_n < 32 A: 20,000 ops. (AC), I_n ≥ 32 A: 10,000 ops. (AC); 1,000 ops. (DC)
Data acc. to UL1077 / CSA 22.2 No. 235	Tripping Characteristics	B, C, D, K, Z
	Rated voltage	1P: 277 V AC, 60 V DC 2...4P: 480Y/277 V AC, 125 V DC (2 poles in series)
	Rated interrupting capacity	10 kA
	Application Suppl. prot., for general use.	TC2, OL0, SC:U1
	Reference temperature for tripping characteristics	40 °C
	Electrical endurance	6,000 ops., 1 cycle (1s.-ON, 9s.-OFF)

S300P
Mechanical data

		S300P
Mechanical Data	Housing	Insulation group I, RAL 7035
	Toggle	Insulation group II, black, sealable
	Contact position indication	Real CPI (green OFF / red ON)
	Trip position indicator	TPI (grey NO TRIP / orange TRIP)
	Protection degree acc. to DIN EN 60529	IP20, IP40 in enclosure with cover
	Mechanical endurance	20,000 ops.
	Shock resistance acc. to IEC/EN 60068-2-27	25 g - 2 shocks - 13 ms
	Vibration resistance acc. to IEC/EN 60068-2-6	5 g - 20 cycles at 5 ... 150 ... 5 Hz at 0.8 I_n
	Environmental conditions (damp heat cyclic) acc. to IEC/EN 60068-2-30	28 cycles with 55 °C/90-96 % and 25 °C/95-100 %
	Ambient temperature	-40 ... +70 °C
	Storage temperature	-50 ... +70 °C
Installation	Terminal	Failsafe bi-directional cylinder-lift terminal
	Cross-section of conductors (top/bottom)	solid, stranded: 35 mm² / 35 mm² flexible: 25 mm² / 25 mm² 14 – 4 AWG
	Cross-section of busbars (top/bottom)	10 mm² / 10 mm² 14 – 8 AWG
	Torque	2.8 Nm; 18 in-lbs.
	Screw driver	No. 2 Pozidrive
	Mounting	on DIN rail 35 mm, acc. to EN 60715 by dual DIN-rail release
	Mounting position	any
	Supply	any
Dimensions and weight	Mounting dimensions acc. to DIN 43880	1
	Pole dimensions (H x D x W)	88 x 69 x 17.5 mm
	Pole weight approx.	124 g
Combination with auxiliary elements	Auxiliary contact	Yes
	Bottom fixed auiliary contact	Yes
	Signal contact	Yes
	Shunt trip	Yes
	Undervoltage release	Yes
	Motor operating device	Yes
Standards	IEC/EN 60947-2	
	IEC/EN 60898-1	
	UL 1077	
	CSA 22.2. No.235	
	GB/T 14048.2	
	GB/T 10963.1	

Approvals

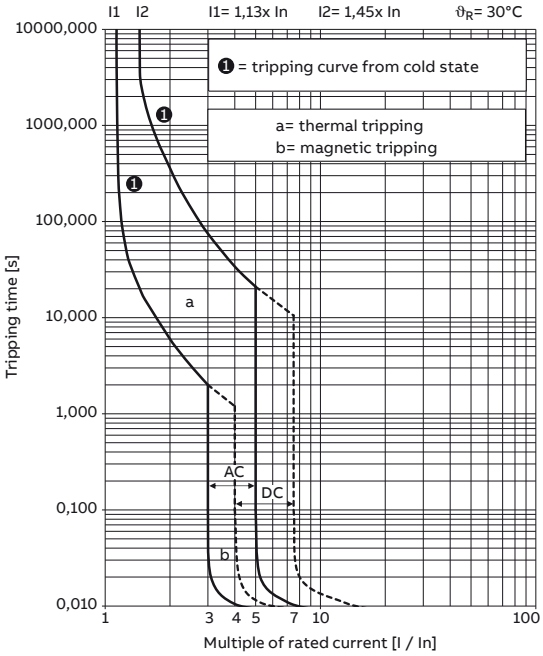
- VDE - DE
- UL 1077 - US
- CSA 22.2 No.235 - CA
- CCC - PRC
- EAC - RU
- KEMA - NL
- IMQ - IT
- SII - IL
- S+ - CH
- ÖVE - AT
- NF - FR
- EZU - CZ
- ANCE - MX
- KC - KR
- UKCA - UK
- DNV - NO
- GL - DE
- LRS - UK
- RINA - IT

Miniature Circuit breakers S300P

Tripping characteristics

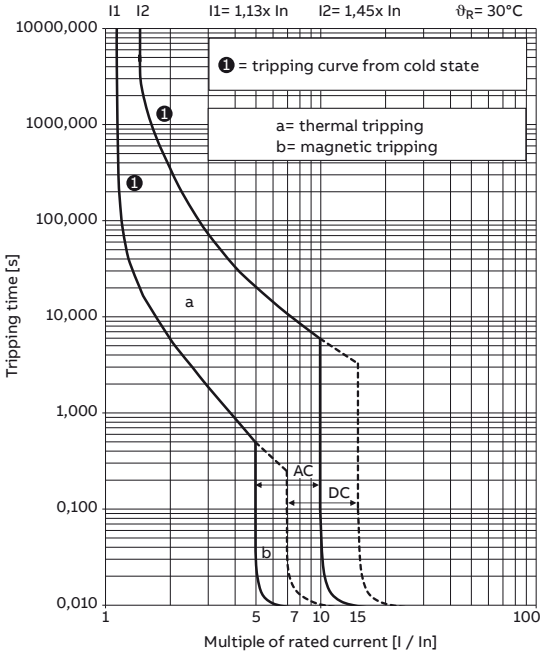
MCB Type S300P - B (3 ... 5 x I_n AC)

Tripping Characteristic IEC/EN 60898-1



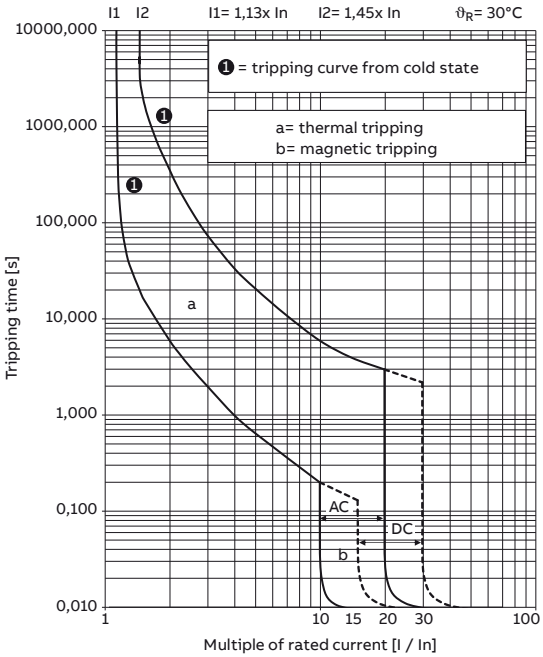
MCB Type S300P - C (5 ... 10 x I_n AC)

Tripping Characteristic IEC/EN 60898-1

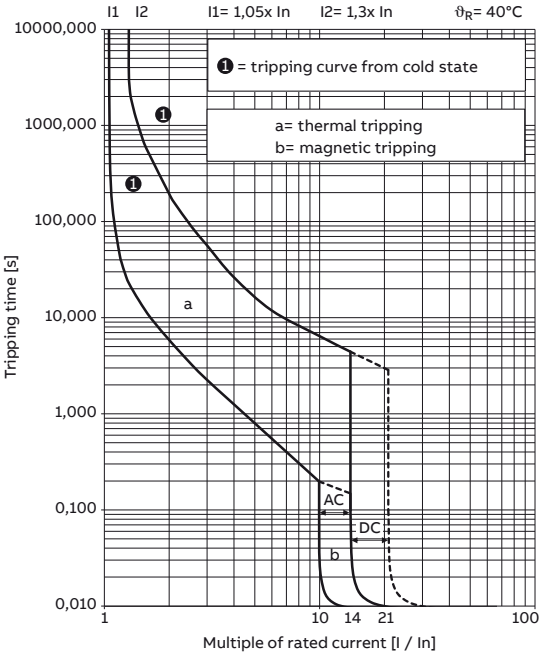


MCB Type S300P - D (10 ... 20 x I_n AC)

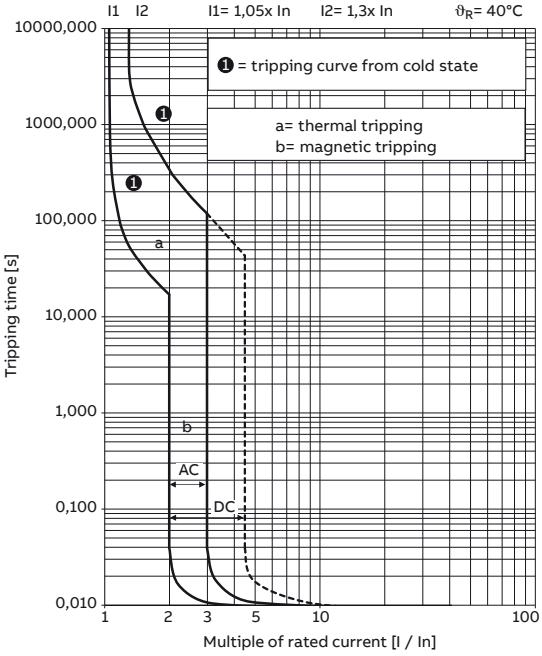
Tripping Characteristic IEC/EN 60898-1



MCB Type S300P - K (10 ... 14 x I_n AC)
Tripping Characteristic IEC/EN 60947-2



MCB Type S300P - Z (2 ... 3 x I_n AC)
Tripping Characteristic IEC/EN 60947-2



Tripping characteristics S300P

Acc. to	Tripping characteristics	Rated current	Thermal release [2]			Electromagnetic release [1]		
			Currents:		Tripping time	Currents:		Tripping time
			conventional non-tripping current	conventional tripping current		hold current surges	trip at least at	
IEC/EN 60898-1	B	06 to 63 A	1.13 · I_n		> 1 h	3 · I_n		> 0.1 s
				1.45 · I_n	< 1 h		5 · I_n	< 0.1 s
	C	0.5 to 63 A	1.13 · I_n		> 1 h	5 · I_n		> 0.1 s
				1.45 · I_n	< 1 h		10 · I_n	< 0.1 s
	D	0.5 to 63 A	1.13 · I_n		> 1 h	10 · I_n		> 0.1 s
				1.45 · I_n	< 1 h		20 · I_n	< 0.1 s
IEC/EN 60947-2	K	0.2 to 63 A	1.05 · I_n		> 1 h	10 · I_n		> 0.2 s
				1.3 · I_n	< 1 h [3]		14 · I_n	< 0.2 s
	Z	0.5 to 63 A	1.05 · I_n		> 1 h	2 · I_n		> 0.2 s
				1.3 · I_n	< 1 h [3]		3 · I_n	< 0.2 s

[1] The indicated electromagnetic tripping values apply to a frequency range of 16 2/3... 60 Hz. For different network frequencies or direct current the values change according to the multipler in the table below
[2] The thermal releases are calibrated to a nominal reference ambient temperature; for Z and K, the value is 40 °C, for B, C and D is 30 °C. In the case of higher ambient temperatures, the current values fall by ca. 6 % for each 10 K temperature rise.
[3] As from operating temperature (after I_1 > 1 h or, as applicable, 2 h).

	AC			DC
	100 Hz	200 Hz	400 Hz	
Multiplier	1.1	1.2	1.5	1.5

The thermal tripping performance is independent from the network frequency.

Miniature Circuit breakers S300P

Derating

For installations of miniature circuit breakers at other temperatures than the reference value and installations of several miniature circuit breakers directly side by side, derating factors have to be considered.

Deviating ambient temperature

The rated value of the current of a miniature circuit breaker refers to a temperature of 40 °C for circuit-breakers with characteristics K and Z and 30 °C for characteristics B, C and D. The following table contains the derating of load capability of S300P MCBs with temperature from -40 °C to 70 °C for the curves B, C, D, K, and Z.

Tripping characteristic	Rated Current I_n (A)	Max. Operating currents depending on the ambient temperature T (°C)											
		-40	-30	-20	-10	0	10	20	30	40	50	60	70
B. C and D	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4
	1	1.2	1.2	1.2	1.1	1.1	1.1	1.0	1.0	1.0	0.9	0.9	0.9
	1.6	1.9	1.9	1.8	1.8	1.7	1.7	1.6	1.6	1.6	1.5	1.5	1.4
	2	2.4	2.4	2.3	2.2	2.2	2.1	2.1	2.0	1.9	1.9	1.8	1.8
	3	3.6	3.5	3.5	3.4	3.3	3.2	3.1	3.0	2.9	2.8	2.7	2.6
	4	4.8	4.7	4.6	4.5	4.4	4.2	4.1	4.0	3.9	3.8	3.6	3.5
	6	7.3	7.1	6.9	6.7	6.5	6.4	6.2	6.0	5.8	5.6	5.5	5.3
	8	9.7	9.4	9.2	9.0	8.7	8.5	8.2	8.0	7.8	7.5	7.3	7.0
	10	12.1	11.8	11.5	11.2	10.9	10.6	10.3	10.0	9.7	9.4	9.1	8.8
	13	15.5	15.5	15.0	14.5	14.0	14.0	13.5	13.0	12.5	12.0	12.0	11.5
	16	19.5	19.0	18.5	18.0	17.5	17.0	16.5	16.0	15.5	15.0	14.5	14.0
	20	24.0	23.5	23.0	22.5	22.0	21.0	20.5	20.0	19.5	19.0	18.0	17.5
	25	30.5	29.5	29.0	28.0	27.5	26.5	26.0	25.0	24.5	23.5	23.0	22.0
	32	38.5	38.0	37.0	36.0	35.0	34.0	33.0	32.0	31.0	30.0	29.0	28.0
	40	48.5	47.0	46.0	45.0	43.5	42.5	41.0	40.0	39.0	37.5	36.5	35.0
	50	60.5	59.0	57.5	56.0	54.5	53.0	51.5	50.0	48.5	47.0	45.5	44.0
	63	76.0	74.5	72.5	70.5	68.5	67.0	65.0	63.0	61.0	59.0	57.5	55.5
K and Z	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	0.5	0.7	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.4
	0.75	1.0	1.0	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7
	1	1.3	1.3	1.2	1.2	1.2	1.1	1.1	1.0	1.0	1.0	0.9	0.9
	1.6	2.1	2.1	2.0	1.9	1.9	1.8	1.7	1.7	1.6	1.5	1.5	1.4
	2	2.7	2.6	2.5	2.4	2.3	2.2	2.2	2.1	2.0	1.9	1.9	1.8
	3	4.0	3.9	3.7	3.6	3.5	3.3	3.2	3.1	3.0	2.9	2.8	2.7
	4	5.3	5.2	5.0	4.8	4.6	4.5	4.3	4.1	4.0	3.9	3.7	3.6
	6	8.0	7.7	7.5	7.2	6.9	6.7	6.5	6.2	6.0	5.8	5.6	5.4
	8	10.7	10.3	9.9	9.6	9.3	8.9	8.6	8.3	8.0	7.7	7.4	7.1
	10	13.4	12.9	12.4	12.0	11.6	11.2	10.8	10.4	10.0	9.6	9.3	8.9
	13	17.5	17.0	16.0	15.5	15.0	14.5	14.0	13.5	13.0	12.5	12.0	11.5
	16	21.5	20.5	20.0	19.0	18.5	18.0	17.0	16.5	16.0	15.5	15.0	14.5
	20	26.5	26.0	25.0	24.0	23.0	22.5	21.5	20.5	20.0	19.5	18.5	18.0
	25	33.5	32.0	31.0	30.0	29.0	28.0	27.0	26.0	25.0	24.0	23.0	22.5
	32	43.0	41.5	40.0	38.5	37.0	35.5	34.5	33.0	32.0	31.0	29.5	28.5
	40	53.5	51.5	49.5	48.0	46.5	44.5	43.0	41.5	40.0	38.5	37.0	35.5
	50	67.0	64.5	62.0	60.0	58.0	56.0	54.0	52.0	50.0	48.0	46.5	44.5
	63	84.5	81.0	78.5	75.5	73.0	70.5	67.5	65.5	63.0	60.5	58.5	56.5

Influence of adjacent devices

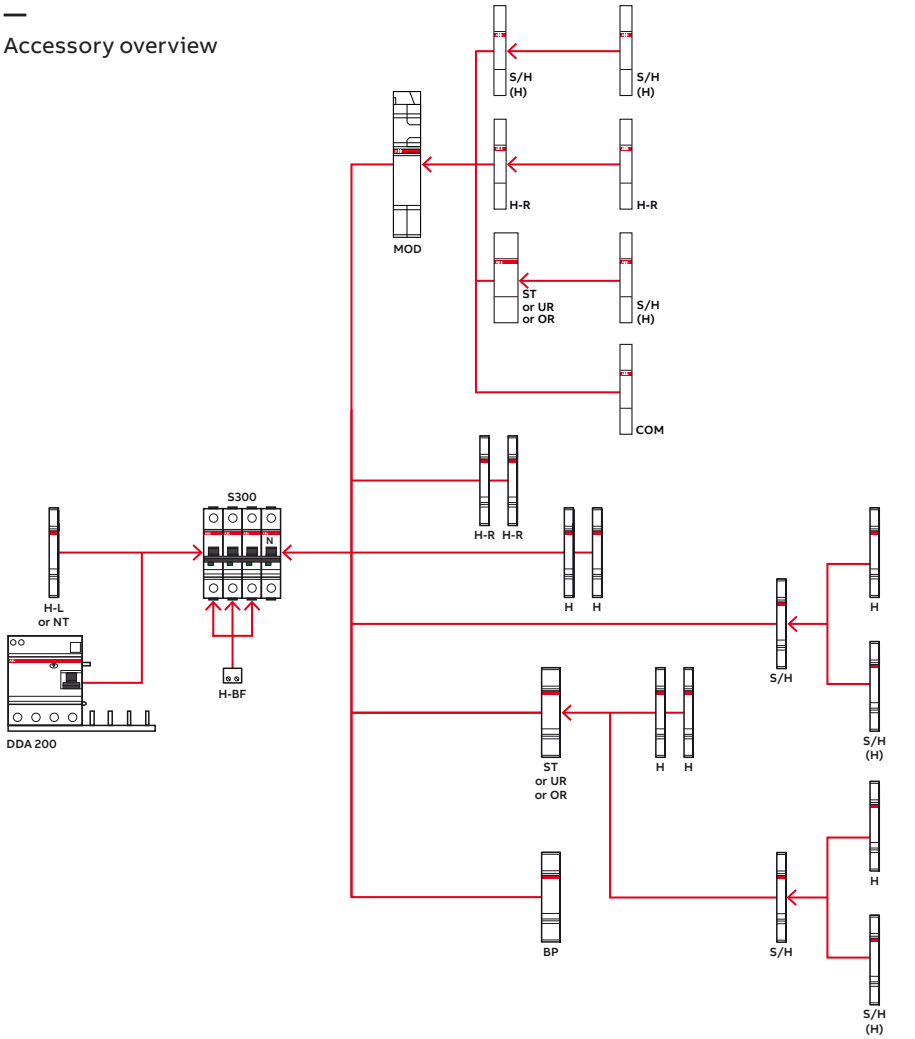
If several miniature circuit breakers are installed directly side by side with high load on all poles, a correction factor must be applied to the rated current (see table). If distance pieces are used, the factor is not to be considered.

No. of adjacent devices	Factor F
1	1
2.3	0.9
4.5	0.8
≥ 6	0.75

Miniature Circuit breakers S300P

Accessories and dimensional drawings

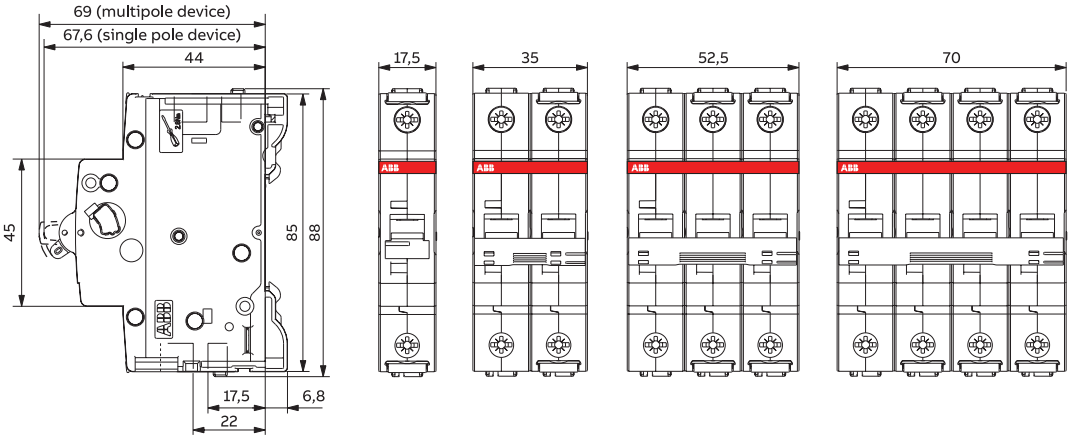
Accessory overview



H	Auxiliary contact (change-over contact)	S2C-H6R	H-L	Auxiliary contact	S2C-H..L
H-R	Auxiliary contact	S2C-H6-..R	H-BF	Auxiliary contact for bottom fitting (1 per pole)	S2C-H01 S2C-H10
S/H	Signal/Auxiliary contact used as auxiliary contact	S2C-S/H6R	BP	Mechanical tripping device	S2C-BP
			NT	Neutral disconnector	S2C-NT..
ST	Shunt trip	S3C-A..	MOD (1)	Motor operating device	S3C-MOD
UR	Undervoltage release	S2C-UA	COM	ModBus Interface	eMOD/AR ModBus
OR	Overvoltage release	S2C-OVP			
DDA 200	RCD-block	DDA 20..			

(1) In case of using S300 with DDA 200, MOD does not operate in case of earth-voltage fault

Dimensional drawing



Miniature Circuit breakers S300P

B characteristic



S 301



S 302



S 303

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
1	6	9080583	S301P-B6	2CDS381001R0065	0.124	10
	8	9086011	S301P-B8	2CDS381001R0085	0.124	10
	10	9080521	S301P-B10	2CDS381001R0105	0.124	10
	13	9080484	S301P-B13	2CDS381001R0135	0.124	10
	16	9080439	S301P-B16	2CDS381001R0165	0.124	10
	20	9080392	S301P-B20	2CDS381001R0205	0.124	10
	25	9080347	S301P-B25	2CDS381001R0255	0.124	10
	32	9080255	S301P-B32	2CDS381001R0325	0.124	10
	40	9080187	S301P-B40	2CDS381001R0405	0.124	10
	50	9080064	S301P-B50	2CDS381001R0505	0.124	10
	63	9079938	S301P-B63	2CDS381001R0635	0.124	10
2	6	9078993	S302P-B6	2CDS382001R0065	0.248	5
	8	9086059	S302P-B8	2CDS382001R0085	0.248	5
	10	9078931	S302P-B10	2CDS382001R0105	0.248	5
	13	9078894	S302P-B13	2CDS382001R0135	0.248	5
	16	9078849	S302P-B16	2CDS382001R0165	0.248	5
	20	9078801	S302P-B20	2CDS382001R0205	0.248	5
	25	9078757	S302P-B25	2CDS382001R0255	0.248	5
	32	9078665	S302P-B32	2CDS382001R0325	0.248	5
	40	9078597	S302P-B40	2CDS382001R0405	0.248	5
	50	9078474	S302P-B50	2CDS382001R0505	0.248	5
	63	9078344	S302P-B63	2CDS382001R0635	0.248	5
3	6	9078191	S303P-B6	2CDS383001R0065	0.372	1
	8	9086073	S303P-B8	2CDS383001R0085	0.372	1
	10	9078139	S303P-B10	2CDS383001R0105	0.372	1
	13	9078092	S303P-B13	2CDS383001R0135	0.372	1
	16	9078047	S303P-B16	2CDS383001R0165	0.372	1
	20	9078009	S303P-B20	2CDS383001R0205	0.372	1
	25	9077958	S303P-B25	2CDS383001R0255	0.372	1
	32	9077866	S303P-B32	2CDS383001R0325	0.372	1
	40	9077798	S303P-B40	2CDS383001R0405	0.372	1
	50	9077675	S303P-B50	2CDS383001R0505	0.372	1
	63	9077545	S303P-B63	2CDS383001R0635	0.372	1

Miniature Circuit breakers S300P

B characteristic



S 304



S 301 NA



S 303 NA

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
4	6	9076593	S304P-B6	2CDS384001R0065	0.496	1
	8	9086110	S304P-B8	2CDS384001R0085	0.496	1
	10	9076531	S304P-B10	2CDS384001R0105	0.496	1
	13	9076494	S304P-B13	2CDS384001R0135	0.496	1
	16	9076449	S304P-B16	2CDS384001R0165	0.496	1
	20	9135559	S304P-B20	2CDS384001R0205	0.496	1
	25	9076357	S304P-B25	2CDS384001R0255	0.496	1
	32	9076265	S304P-B32	2CDS384001R0325	0.496	1
	40	9076197	S304P-B40	2CDS384001R0405	0.496	1
	50	9076074	S304P-B50	2CDS384001R0505	0.496	1
	63	9075947	S304P-B63	2CDS384001R0635	0.496	1
1+N	6	9079785	S301P-B6NA	2CDS381103R0065	0.248	5
	8	9086035	S301P-B8NA	2CDS381103R0085	0.248	5
	10	9079730	S301P-B10NA	2CDS381103R0105	0.248	5
	13	9079693	S301P-B13NA	2CDS381103R0135	0.248	5
	16	9079648	S301P-B16NA	2CDS381103R0165	0.248	5
	20	9079600	S301P-B20NA	2CDS381103R0205	0.248	5
	25	9079556	S301P-B25NA	2CDS381103R0255	0.248	5
	32	9079464	S301P-B32NA	2CDS381103R0325	0.248	5
	40	9079396	S301P-B40NA	2CDS381103R0405	0.248	5
	50	9079273	S301P-B50NA	2CDS381103R0505	0.248	5
	63	9079143	S301P-B63NA	2CDS381103R0635	0.248	5
3+N	6	9077392	S303P-B6NA	2CDS383103R0065	0.496	1
	8	9086097	S303P-B8NA	2CDS383103R0085	0.496	1
	10	9077330	S303P-B10NA	2CDS383103R0105	0.496	1
	13	9077293	S303P-B13NA	2CDS383103R0135	0.496	1
	16	9077248	S303P-B16NA	2CDS383103R0165	0.496	1
	20	9135641	S303P-B20NA	2CDS383103R0205	0.496	1
	25	9077156	S303P-B25NA	2CDS383103R0255	0.496	1
	32	9077064	S303P-B32NA	2CDS383103R0325	0.496	1
	40	9076999	S303P-B40NA	2CDS383103R0405	0.496	1
	50	9076876	S303P-B50NA	2CDS383103R0505	0.496	1
	63	9076746	S303P-B63NA	2CDS383103R0635	0.496	1

Miniature Circuit breakers S300P

C characteristic



S 301



S 302



S 303

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
1	0.5	9079891	S301P-C0.5	2CDS381001R0984	0.124	10
	1	9080675	S301P-C1	2CDS381001R0014	0.124	10
	1.6	9079914	S301P-C1.6	2CDS381001R0974	0.124	10
	2	9080651	S301P-C2	2CDS381001R0024	0.124	10
	3	9080637	S301P-C3	2CDS381001R0034	0.124	10
	4	9080613	S301P-C4	2CDS381001R0044	0.124	10
	6	9080590	S301P-C6	2CDS381001R0064	0.124	10
	8	9080569	S301P-C8	2CDS381001R0084	0.124	10
	10	9080538	S301P-C10	2CDS381001R0104	0.124	10
	13	9080491	S301P-C13	2CDS381001R0134	0.124	10
	16	9080446	S301P-C16	2CDS381001R0164	0.124	10
	20	9080408	S301P-C20	2CDS381001R0204	0.124	10
	25	9080354	S301P-C25	2CDS381001R0254	0.124	10
	32	9080262	S301P-C32	2CDS381001R0324	0.124	10
	40	9080194	S301P-C40	2CDS381001R0404	0.124	10
	50	9080071	S301P-C50	2CDS381001R0504	0.124	10
	63	9079945	S301P-C63	2CDS381001R0634	0.124	10
2	0.5	9078306	S302P-C0.5	2CDS382001R0984	0.248	5
	1	9079082	S302P-C1	2CDS382001R0014	0.248	5
	1.6	9078320	S302P-C1.6	2CDS382001R0974	0.248	5
	2	9079068	S302P-C2	2CDS382001R0024	0.248	5
	3	9079044	S302P-C3	2CDS382001R0034	0.248	5
	4	9079020	S302P-C4	2CDS382001R0044	0.248	5
	6	9079006	S302P-C6	2CDS382001R0064	0.248	5
	8	9078979	S302P-C8	2CDS382001R0084	0.248	5
	10	9078948	S302P-C10	2CDS382001R0104	0.248	5
	13	9078900	S302P-C13	2CDS382001R0134	0.248	5
	16	9078856	S302P-C16	2CDS382001R0164	0.248	5
	20	9078818	S302P-C20	2CDS382001R0204	0.248	5
	25	9078764	S302P-C25	2CDS382001R0254	0.248	5
	32	9078672	S302P-C32	2CDS382001R0324	0.248	5
	40	9078603	S302P-C40	2CDS382001R0404	0.248	5
	50	9078481	S302P-C50	2CDS382001R0504	0.248	5
	63	9078351	S302P-C63	2CDS382001R0634	0.248	5
3	0.5	9077507	S303P-C0.5	2CDS383001R0984	0.372	1
	1	9078283	S303P-C1	2CDS383001R0014	0.372	1
	1.6	9077521	S303P-C1.6	2CDS383001R0974	0.372	1
	2	9078269	S303P-C2	2CDS383001R0024	0.372	1
	3	9078245	S303P-C3	2CDS383001R0034	0.372	1
	4	9078221	S303P-C4	2CDS383001R0044	0.372	1
	6	9078207	S303P-C6	2CDS383001R0064	0.372	1
	8	9078177	S303P-C8	2CDS383001R0084	0.372	1
	10	9078146	S303P-C10	2CDS383001R0104	0.372	1
	13	9078108	S303P-C13	2CDS383001R0134	0.372	1
	16	9078054	S303P-C16	2CDS383001R0164	0.372	1
	20	9078016	S303P-C20	2CDS383001R0204	0.372	1
	25	9077965	S303P-C25	2CDS383001R0254	0.372	1
	32	9077873	S303P-C32	2CDS383001R0324	0.372	1
	40	9077804	S303P-C40	2CDS383001R0404	0.372	1
	50	9077682	S303P-C50	2CDS383001R0504	0.372	1
	63	9077552	S303P-C63	2CDS383001R0634	0.372	1

Miniature Circuit breakers S300P

C characteristic



S 304



S 301 NA



S 303 NA

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
4	0.5	9135511	S304P-C0.5	2CDS384001R0984	0.496	1
	1	9076685	S304P-C1	2CDS384001R0014	0.496	1
	1.6	9075923	S304P-C1.6	2CDS384001R0974	0.496	1
	2	9076661	S304P-C2	2CDS384001R0024	0.496	1
	3	9076647	S304P-C3	2CDS384001R0034	0.496	1
	4	9076623	S304P-C4	2CDS384001R0044	0.496	1
	6	9135573	S304P-C6	2CDS384001R0064	0.496	1
	8	9076579	S304P-C8	2CDS384001R0084	0.496	1
	10	9076548	S304P-C10	2CDS384001R0104	0.496	1
	13	9135566	S304P-C13	2CDS384001R0134	0.496	1
	16	9076456	S304P-C16	2CDS384001R0164	0.496	1
	20	9076418	S304P-C20	2CDS384001R0204	0.496	1
	25	9076364	S304P-C25	2CDS384001R0254	0.496	1
	32	9076272	S304P-C32	2CDS384001R0324	0.496	1
	40	9135689	S304P-C40	2CDS384001R0404	0.496	1
	50	9076081	S304P-C50	2CDS384001R0504	0.496	1
	63	9075954	S304P-C63	2CDS384001R0634	0.496	1
1+N	0.5	9079105	S301P-C0.5NA	2CDS381103R0984	0.248	5
	1	9079877	S301P-C1NA	2CDS381103R0014	0.248	5
	1.6	9079129	S301P-C1.6NA	2CDS381103R0974	0.248	5
	2	9079853	S301P-C2NA	2CDS381103R0024	0.248	5
	3	9079839	S301P-C3NA	2CDS381103R0034	0.248	5
	4	9079815	S301P-C4NA	2CDS381103R0044	0.248	5
	6	9079792	S301P-C6NA	2CDS381103R0064	0.248	5
	8	9079778	S301P-C8NA	2CDS381103R0084	0.248	5
	10	9079747	S301P-C10NA	2CDS381103R0104	0.248	5
	13	9079709	S301P-C13NA	2CDS381103R0134	0.248	5
	16	9079655	S301P-C16NA	2CDS381103R0164	0.248	5
	20	9079617	S301P-C20NA	2CDS381103R0204	0.248	5
	25	9079563	S301P-C25NA	2CDS381103R0254	0.248	5
	32	9079471	S301P-C32NA	2CDS381103R0324	0.248	5
	40	9079402	S301P-C40NA	2CDS381103R0404	0.248	5
	50	9079280	S301P-C50NA	2CDS381103R0504	0.248	5
	63	9079150	S301P-C63NA	2CDS381103R0634	0.248	5
3+N	0.5	9135580	S303P-C0.5NA	2CDS383103R0984	0.496	1
	1	9077484	S303P-C1NA	2CDS383103R0014	0.496	1
	1.6	9076722	S303P-C1.6NA	2CDS383103R0974	0.496	1
	2	9077460	S303P-C2NA	2CDS383103R0024	0.496	1
	3	9077446	S303P-C3NA	2CDS383103R0034	0.496	1
	4	9077422	S303P-C4NA	2CDS383103R0044	0.496	1
	6	9077408	S303P-C6NA	2CDS383103R0064	0.496	1
	8	9077378	S303P-C8NA	2CDS383103R0084	0.496	1
	10	9077347	S303P-C10NA	2CDS383103R0104	0.496	1
	13	9135658	S303P-C13NA	2CDS383103R0134	0.496	1
	16	9077255	S303P-C16NA	2CDS383103R0164	0.496	1
	20	9077217	S303P-C20NA	2CDS383103R0204	0.496	1
	25	9077163	S303P-C25NA	2CDS383103R0254	0.496	1
	32	9077071	S303P-C32NA	2CDS383103R0324	0.496	1
	40	9135627	S303P-C40NA	2CDS383103R0404	0.496	1
	50	9076883	S303P-C50NA	2CDS383103R0504	0.496	1
	63	9076753	S303P-C63NA	2CDS383103R0634	0.496	1

Miniature Circuit breakers S300P

D characteristic



S 301



S 302



S 303

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
1	0.5	9079907	S301P-D0.5	2CDS381001R0981	0.124	10
	1	9080682	S301P-D1	2CDS381001R0011	0.124	10
	1.6	9079921	S301P-D1.6	2CDS381001R0971	0.124	10
	2	9080668	S301P-D2	2CDS381001R0021	0.124	10
	3	9080644	S301P-D3	2CDS381001R0031	0.124	10
	4	9080620	S301P-D4	2CDS381001R0041	0.124	10
	6	9080606	S301P-D6	2CDS381001R0061	0.124	10
	8	9080576	S301P-D8	2CDS381001R0081	0.124	10
	10	9080545	S301P-D10	2CDS381001R0101	0.124	10
	13	9080507	S301P-D13	2CDS381001R0131	0.124	10
	16	9080453	S301P-D16	2CDS381001R0161	0.124	10
	20	9080415	S301P-D20	2CDS381001R0201	0.124	10
	25	9080361	S301P-D25	2CDS381001R0251	0.124	10
	32	9080279	S301P-D32	2CDS381001R0321	0.124	10
	40	9080200	S301P-D40	2CDS381001R0401	0.124	10
	50	9080088	S301P-D50	2CDS381001R0501	0.124	10
	63	9079952	S301P-D63	2CDS381001R0631	0.124	10
2	0.5	9078313	S302P-D0.5	2CDS382001R0981	0.248	5
	1	9079099	S302P-D1	2CDS382001R0011	0.248	5
	1.6	9078337	S302P-D1.6	2CDS382001R0971	0.248	5
	2	9079075	S302P-D2	2CDS382001R0021	0.248	5
	3	9079051	S302P-D3	2CDS382001R0031	0.248	5
	4	9079037	S302P-D4	2CDS382001R0041	0.248	5
	6	9079013	S302P-D6	2CDS382001R0061	0.248	5
	8	9078986	S302P-D8	2CDS382001R0081	0.248	5
	10	9078955	S302P-D10	2CDS382001R0101	0.248	5
	13	9078917	S302P-D13	2CDS382001R0131	0.248	5
	16	9078863	S302P-D16	2CDS382001R0161	0.248	5
	20	9078825	S302P-D20	2CDS382001R0201	0.248	5
	25	9078771	S302P-D25	2CDS382001R0251	0.248	5
	32	9078689	S302P-D32	2CDS382001R0321	0.248	5
	40	9078610	S302P-D40	2CDS382001R0401	0.248	5
	50	9078498	S302P-D50	2CDS382001R0501	0.248	5
	63	9078368	S302P-D63	2CDS382001R0631	0.248	5
3	0.5	9077514	S303P-D0.5	2CDS383001R0981	0.372	1
	1	9078290	S303P-D1	2CDS383001R0011	0.372	1
	1.6	9077538	S303P-D1.6	2CDS383001R0971	0.372	1
	2	9078276	S303P-D2	2CDS383001R0021	0.372	1
	3	9078252	S303P-D3	2CDS383001R0031	0.372	1
	4	9078238	S303P-D4	2CDS383001R0041	0.372	1
	6	9078214	S303P-D6	2CDS383001R0061	0.372	1
	8	9078184	S303P-D8	2CDS383001R0081	0.372	1
	10	9078153	S303P-D10	2CDS383001R0101	0.372	1
	13	9078115	S303P-D13	2CDS383001R0131	0.372	1
	16	9078061	S303P-D16	2CDS383001R0161	0.372	1
	20	9078023	S303P-D20	2CDS383001R0201	0.372	1
	25	9077972	S303P-D25	2CDS383001R0251	0.372	1
	32	9077880	S303P-D32	2CDS383001R0321	0.372	1
	40	9077811	S303P-D40	2CDS383001R0401	0.372	1
	50	9077699	S303P-D50	2CDS383001R0501	0.372	1
	63	9077569	S303P-D63	2CDS383001R0631	0.372	1

Miniature Circuit breakers S300P

D characteristic



S 304



S 301 NA



S 303 NA

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
4	0.5	9075916	S304P-D0.5	2CDS384001R0981	0.496	1
	1	9076692	S304P-D1	2CDS384001R0011	0.496	1
	1.6	9075930	S304P-D1.6	2CDS384001R0971	0.496	1
	2	9076678	S304P-D2	2CDS384001R0021	0.496	1
	3	9076654	S304P-D3	2CDS384001R0031	0.496	1
	4	9076630	S304P-D4	2CDS384001R0041	0.496	1
	6	9076616	S304P-D6	2CDS384001R0061	0.496	1
	8	9076586	S304P-D8	2CDS384001R0081	0.496	1
	10	9076555	S304P-D10	2CDS384001R0101	0.496	1
	13	9076517	S304P-D13	2CDS384001R0131	0.496	1
	16	9076463	S304P-D16	2CDS384001R0161	0.496	1
	20	9076425	S304P-D20	2CDS384001R0201	0.496	1
	25	9076371	S304P-D25	2CDS384001R0251	0.496	1
	32	9076289	S304P-D32	2CDS384001R0321	0.496	1
	40	9076210	S304P-D40	2CDS384001R0401	0.496	1
	50	9076098	S304P-D50	2CDS384001R0501	0.496	1
	63	9075961	S304P-D63	2CDS384001R0631	0.496	1
1+N	0.5	9079112	S301P-D0.5NA	2CDS381103R0981	0.248	5
	1	9079884	S301P-D1NA	2CDS381103R0011	0.248	5
	1.6	9079136	S301P-D1.6NA	2CDS381103R0971	0.248	5
	2	9079860	S301P-D2NA	2CDS381103R0021	0.248	5
	3	9079846	S301P-D3NA	2CDS381103R0031	0.248	5
	4	9079822	S301P-D4NA	2CDS381103R0041	0.248	5
	6	9079808	S301P-D6NA	2CDS381103R0061	0.248	5
	8	9085717	S301P-D8NA	2CDS381103R0081	0.248	5
	10	9079754	S301P-D10NA	2CDS381103R0101	0.248	5
	13	9079716	S301P-D13NA	2CDS381103R0131	0.248	5
	16	9079662	S301P-D16NA	2CDS381103R0161	0.248	5
	20	9079624	S301P-D20NA	2CDS381103R0201	0.248	5
	25	9079570	S301P-D25NA	2CDS381103R0251	0.248	5
	32	9079488	S301P-D32NA	2CDS381103R0321	0.248	5
	40	9079419	S301P-D40NA	2CDS381103R0401	0.248	5
	50	9079297	S301P-D50NA	2CDS381103R0501	0.248	5
	63	9079167	S301P-D63NA	2CDS381103R0631	0.248	5
3+N	0.5	9076715	S303P-D0.5NA	2CDS383103R0981	0.496	1
	1	9077491	S303P-D1NA	2CDS383103R0011	0.496	1
	1.6	9076739	S303P-D1.6NA	2CDS383103R0971	0.496	1
	2	9077477	S303P-D2NA	2CDS383103R0021	0.496	1
	3	9077453	S303P-D3NA	2CDS383103R0031	0.496	1
	4	9077439	S303P-D4NA	2CDS383103R0041	0.496	1
	6	9077415	S303P-D6NA	2CDS383103R0061	0.496	1
	8	9077385	S303P-D8NA	2CDS383103R0081	0.496	1
	10	9077354	S303P-D10NA	2CDS383103R0101	0.496	1
	13	9077316	S303P-D13NA	2CDS383103R0131	0.496	1
	16	9077262	S303P-D16NA	2CDS383103R0161	0.496	1
	20	9077224	S303P-D20NA	2CDS383103R0201	0.496	1
	25	9077170	S303P-D25NA	2CDS383103R0251	0.496	1
	32	9077088	S303P-D32NA	2CDS383103R0321	0.496	1
	40	9077019	S303P-D40NA	2CDS383103R0401	0.496	1
	50	9076890	S303P-D50NA	2CDS383103R0501	0.496	1
	63	9076760	S303P-D63NA	2CDS383103R0631	0.496	1

Miniature Circuit breakers S300P

K characteristic



S 301



S 302

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
1	0.2	9080552	S301P-K0.2	2CDS381001R0087	0.124	10
	0.3	9080514	S301P-K0.3	2CDS381001R0117	0.124	10
	0.5	9080477	S301P-K0.5	2CDS381001R0157	0.124	10
	0.75	9080422	S301P-K0.75	2CDS381001R0187	0.124	10
	1	9080385	S301P-K1	2CDS381001R0217	0.124	10
	1.6	9080330	S301P-K1.6	2CDS381001R0257	0.124	10
	2	9080316	S301P-K2	2CDS381001R0277	0.124	10
	3	9080293	S301P-K3	2CDS381001R0317	0.124	10
	4	9080248	S301P-K4	2CDS381001R0337	0.124	10
	6	9080224	S301P-K6	2CDS381001R0377	0.124	10
	8	9080170	S301P-K8	2CDS381001R0407	0.124	10
	10	9080156	S301P-K10	2CDS381001R0427	0.124	10
	13	9080132	S301P-K13	2CDS381001R0447	0.124	10
	16	9080125	S301P-K16	2CDS381001R0467	0.124	10
	20	9080101	S301P-K20	2CDS381001R0487	0.124	10
	25	9080057	S301P-K25	2CDS381001R0517	0.124	10
	32	9080033	S301P-K32	2CDS381001R0537	0.124	10
	40	9080019	S301P-K40	2CDS381001R0557	0.124	10
	50	9079990	S301P-K50	2CDS381001R0577	0.124	10
	63	9079976	S301P-K63	2CDS381001R0607	0.124	10
2	0.2	9078962	S302P-K0.2	2CDS382001R0087	0.248	5
	0.3	9078924	S302P-K0.3	2CDS382001R0117	0.248	5
	0.5	9078887	S302P-K0.5	2CDS382001R0157	0.248	5
	0.75	9078832	S302P-K0.75	2CDS382001R0187	0.248	5
	1	9078795	S302P-K1	2CDS382001R0217	0.248	5
	1.6	9078740	S302P-K1.6	2CDS382001R0257	0.248	5
	2	9078726	S302P-K2	2CDS382001R0277	0.248	5
	3	9078702	S302P-K3	2CDS382001R0317	0.248	5
	4	9078658	S302P-K4	2CDS382001R0337	0.248	5
	6	9078634	S302P-K6	2CDS382001R0377	0.248	5
	8	9078580	S302P-K8	2CDS382001R0407	0.248	5
	10	9078566	S302P-K10	2CDS382001R0427	0.248	5
	13	9078542	S302P-K13	2CDS382001R0447	0.248	5
	16	9078535	S302P-K16	2CDS382001R0467	0.248	5
	20	9078511	S302P-K20	2CDS382001R0487	0.248	5
	25	9078467	S302P-K25	2CDS382001R0517	0.248	5
	32	9078443	S302P-K32	2CDS382001R0537	0.248	5
	40	9078429	S302P-K40	2CDS382001R0557	0.248	5
	50	9078405	S302P-K50	2CDS382001R0577	0.248	5
	63	9078382	S302P-K63	2CDS382001R0607	0.248	5

Miniature Circuit breakers S300P

K characteristic



S 303



S 304

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
3	0.2	9078160	S303P-K0.2	2CDS383001R0087	0.372	1
	0.3	9078122	S303P-K0.3	2CDS383001R0117	0.372	1
	0.5	9078085	S303P-K0.5	2CDS383001R0157	0.372	1
	0.75	9078030	S303P-K0.75	2CDS383001R0187	0.372	1
	1	9077996	S303P-K1	2CDS383001R0217	0.372	1
	1.6	9077941	S303P-K1.6	2CDS383001R0257	0.372	1
	2	9077927	S303P-K2	2CDS383001R0277	0.372	1
	3	9077903	S303P-K3	2CDS383001R0317	0.372	1
	4	9077859	S303P-K4	2CDS383001R0337	0.372	1
	6	9077835	S303P-K6	2CDS383001R0377	0.372	1
	8	9077781	S303P-K8	2CDS383001R0407	0.372	1
	10	9077767	S303P-K10	2CDS383001R0427	0.372	1
	13	9077743	S303P-K13	2CDS383001R0447	0.372	1
	16	9077736	S303P-K16	2CDS383001R0467	0.372	1
	20	9077712	S303P-K20	2CDS383001R0487	0.372	1
	25	9077668	S303P-K25	2CDS383001R0517	0.372	1
	32	9077644	S303P-K32	2CDS383001R0537	0.372	1
	40	9077620	S303P-K40	2CDS383001R0557	0.372	1
	50	9077606	S303P-K50	2CDS383001R0577	0.372	1
	63	9077583	S303P-K63	2CDS383001R0607	0.372	1
4	0.2	9076562	S304P-K0.2	2CDS384001R0087	0.496	1
	0.3	9076524	S304P-K0.3	2CDS384001R0117	0.496	1
	0.5	9076487	S304P-K0.5	2CDS384001R0157	0.496	1
	0.75	9076432	S304P-K0.75	2CDS384001R0187	0.496	1
	1	9076395	S304P-K1	2CDS384001R0217	0.496	1
	1.6	9076340	S304P-K1.6	2CDS384001R0257	0.496	1
	2	9076326	S304P-K2	2CDS384001R0277	0.496	1
	3	9135542	S304P-K3	2CDS384001R0317	0.496	1
	4	9076258	S304P-K4	2CDS384001R0337	0.496	1
	6	9076234	S304P-K6	2CDS384001R0377	0.496	1
	8	9076180	S304P-K8	2CDS384001R0407	0.496	1
	10	9076166	S304P-K10	2CDS384001R0427	0.496	1
	13	9076142	S304P-K13	2CDS384001R0447	0.496	1
	16	9076135	S304P-K16	2CDS384001R0467	0.496	1
	20	9076111	S304P-K20	2CDS384001R0487	0.496	1
	25	9076067	S304P-K25	2CDS384001R0517	0.496	1
	32	9076043	S304P-K32	2CDS384001R0537	0.496	1
	40	9076029	S304P-K40	2CDS384001R0557	0.496	1
	50	9135528	S304P-K50	2CDS384001R0577	0.496	1
	63	9075985	S304P-K63	2CDS384001R0607	0.496	1

Miniature Circuit breakers S300P

K characteristic



S 301 NA



S 303 NA

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
1+N	0.2	9079761	S301P-K0.2NA	2CDS381103R0087	0.248	5
	0.3	9079723	S301P-K0.3NA	2CDS381103R0117	0.248	5
	0.5	9079686	S301P-K0.5NA	2CDS381103R0157	0.248	5
	0.75	9079631	S301P-K0.75NA	2CDS381103R0187	0.248	5
	1	9079594	S301P-K1NA	2CDS381103R0217	0.248	5
	1.6	9079549	S301P-K1.6NA	2CDS381103R0257	0.248	5
	2	9079525	S301P-K2NA	2CDS381103R0277	0.248	5
	3	9079501	S301P-K3NA	2CDS381103R0317	0.248	5
	4	9079457	S301P-K4NA	2CDS381103R0337	0.248	5
	6	9079433	S301P-K6NA	2CDS381103R0377	0.248	5
	8	9079389	S301P-K8NA	2CDS381103R0407	0.248	5
	10	9079365	S301P-K10NA	2CDS381103R0427	0.248	5
	13	9079341	S301P-K13NA	2CDS381103R0447	0.248	5
	16	9079334	S301P-K16NA	2CDS381103R0467	0.248	5
	20	9079310	S301P-K20NA	2CDS381103R0487	0.248	5
	25	9079266	S301P-K25NA	2CDS381103R0517	0.248	5
	32	9079242	S301P-K32NA	2CDS381103R0537	0.248	5
	40	9079228	S301P-K40NA	2CDS381103R0557	0.248	5
	50	9135665	S301P-K50NA	2CDS381103R0577	0.248	5
	63	9079181	S301P-K63NA	2CDS381103R0607	0.248	5
3+N	0.2	9077361	S303P-K0.2NA	2CDS383103R0087	0.496	1
	0.3	9077323	S303P-K0.3NA	2CDS383103R0117	0.496	1
	0.5	9077286	S303P-K0.5NA	2CDS383103R0157	0.496	1
	0.75	9077231	S303P-K0.75NA	2CDS383103R0187	0.496	1
	1	9077194	S303P-K1NA	2CDS383103R0217	0.496	1
	1.6	9077149	S303P-K1.6NA	2CDS383103R0257	0.496	1
	2	9077125	S303P-K2NA	2CDS383103R0277	0.496	1
	3	9135634	S303P-K3NA	2CDS383103R0317	0.496	1
	4	9077057	S303P-K4NA	2CDS383103R0337	0.496	1
	6	9077033	S303P-K6NA	2CDS383103R0377	0.496	1
	8	9076982	S303P-K8NA	2CDS383103R0407	0.496	1
	10	9076968	S303P-K10NA	2CDS383103R0427	0.496	1
	13	9076944	S303P-K13NA	2CDS383103R0447	0.496	1
	16	9076937	S303P-K16NA	2CDS383103R0467	0.496	1
	20	9076913	S303P-K20NA	2CDS383103R0487	0.496	1
	25	9076869	S303P-K25NA	2CDS383103R0517	0.496	1
	32	9076845	S303P-K32NA	2CDS383103R0537	0.496	1
	40	9076821	S303P-K40NA	2CDS383103R0557	0.496	1
	50	9135597	S303P-K50NA	2CDS383103R0577	0.496	1
	63	9076784	S303P-K63NA	2CDS383103R0607	0.496	1

Miniature Circuit breakers S300P

Z characteristic



S 301



S 302



S 303

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
1	0.5	9080460	S301P-Z0.5	2CDS381001R0158	0.124	10
	1	9080378	S301P-Z1	2CDS381001R0218	0.124	10
	1.6	9080323	S301P-Z1.6	2CDS381001R0258	0.124	10
	2	9080309	S301P-Z2	2CDS381001R0278	0.124	10
	3	9080286	S301P-Z3	2CDS381001R0318	0.124	10
	4	9080231	S301P-Z4	2CDS381001R0338	0.124	10
	6	9080217	S301P-Z6	2CDS381001R0378	0.124	10
	8	9080163	S301P-Z8	2CDS381001R0408	0.124	10
	10	9080149	S301P-Z10	2CDS381001R0428	0.124	10
	16	9080118	S301P-Z16	2CDS381001R0468	0.124	10
	20	9080095	S301P-Z20	2CDS381001R0488	0.124	10
	25	9080040	S301P-Z25	2CDS381001R0518	0.124	10
	32	9080026	S301P-Z32	2CDS381001R0538	0.124	10
	40	9080002	S301P-Z40	2CDS381001R0558	0.124	10
	50	9079983	S301P-Z50	2CDS381001R0578	0.124	10
	63	9079969	S301P-Z63	2CDS381001R0608	0.124	10
2	0.5	9078870	S302P-Z0.5	2CDS382001R0158	0.248	5
	1	9078788	S302P-Z1	2CDS382001R0218	0.248	5
	1.6	9078733	S302P-Z1.6	2CDS382001R0258	0.248	5
	2	9078719	S302P-Z2	2CDS382001R0278	0.248	5
	3	9078696	S302P-Z3	2CDS382001R0318	0.248	5
	4	9078641	S302P-Z4	2CDS382001R0338	0.248	5
	6	9078627	S302P-Z6	2CDS382001R0378	0.248	5
	8	9078573	S302P-Z8	2CDS382001R0408	0.248	5
	10	9078559	S302P-Z10	2CDS382001R0428	0.248	5
	16	9078528	S302P-Z16	2CDS382001R0468	0.248	5
	20	9078504	S302P-Z20	2CDS382001R0488	0.248	5
	25	9078450	S302P-Z25	2CDS382001R0518	0.248	5
	32	9078436	S302P-Z32	2CDS382001R0538	0.248	5
	40	9078412	S302P-Z40	2CDS382001R0558	0.248	5
	50	9078399	S302P-Z50	2CDS382001R0578	0.248	5
	63	9078375	S302P-Z63	2CDS382001R0608	0.248	5
3	0.5	9078078	S303P-Z0.5	2CDS383001R0158	0.372	1
	1	9077989	S303P-Z1	2CDS383001R0218	0.372	1
	1.6	9077934	S303P-Z1.6	2CDS383001R0258	0.372	1
	2	9077910	S303P-Z2	2CDS383001R0278	0.372	1
	3	9077897	S303P-Z3	2CDS383001R0318	0.372	1
	4	9077842	S303P-Z4	2CDS383001R0338	0.372	1
	6	9077828	S303P-Z6	2CDS383001R0378	0.372	1
	8	9077774	S303P-Z8	2CDS383001R0408	0.372	1
	10	9077750	S303P-Z10	2CDS383001R0428	0.372	1
	16	9077729	S303P-Z16	2CDS383001R0468	0.372	1
	20	9077705	S303P-Z20	2CDS383001R0488	0.372	1
	25	9077651	S303P-Z25	2CDS383001R0518	0.372	1
	32	9077637	S303P-Z32	2CDS383001R0538	0.372	1
	40	9077613	S303P-Z40	2CDS383001R0558	0.372	1
	50	9077590	S303P-Z50	2CDS383001R0578	0.372	1
	63	9077576	S303P-Z63	2CDS383001R0608	0.372	1

Miniature Circuit breakers S300P

Z characteristic



S 304



S 301 NA



S 303 NA

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
4	0.5	9076470	S304P-Z0.5	2CDS384001R0158	0.496	1
	1	9076388	S304P-Z1	2CDS384001R0218	0.496	1
	1.6	9076333	S304P-Z1.6	2CDS384001R0258	0.496	1
	2	9076319	S304P-Z2	2CDS384001R0278	0.496	1
	3	9076296	S304P-Z3	2CDS384001R0318	0.496	1
	4	9076241	S304P-Z4	2CDS384001R0338	0.496	1
	6	9076227	S304P-Z6	2CDS384001R0378	0.496	1
	8	9076173	S304P-Z8	2CDS384001R0408	0.496	1
	10	9076159	S304P-Z10	2CDS384001R0428	0.496	1
	16	9076128	S304P-Z16	2CDS384001R0468	0.496	1
	20	9135535	S304P-Z20	2CDS384001R0488	0.496	1
	25	9076050	S304P-Z25	2CDS384001R0518	0.496	1
	32	9076036	S304P-Z32	2CDS384001R0538	0.496	1
	40	9076012	S304P-Z40	2CDS384001R0558	0.496	1
	50	9075992	S304P-Z50	2CDS384001R0578	0.496	1
	63	9075978	S304P-Z63	2CDS384001R0608	0.496	1
1+N	0.5	9079679	S301P-Z0.5NA	2CDS381103R0158	0.248	5
	1	9079587	S301P-Z1NA	2CDS381103R0218	0.248	5
	1.6	9079532	S301P-Z1.6NA	2CDS381103R0258	0.248	5
	2	9079518	S301P-Z2NA	2CDS381103R0278	0.248	5
	3	9079495	S301P-Z3NA	2CDS381103R0318	0.248	5
	4	9079440	S301P-Z4NA	2CDS381103R0338	0.248	5
	6	9079426	S301P-Z6NA	2CDS381103R0378	0.248	5
	8	9079372	S301P-Z8NA	2CDS381103R0408	0.248	5
	10	9079358	S301P-Z10NA	2CDS381103R0428	0.248	5
	16	9079327	S301P-Z16NA	2CDS381103R0468	0.248	5
	20	9135672	S301P-Z20NA	2CDS381103R0488	0.248	5
	25	9079259	S301P-Z25NA	2CDS381103R0518	0.248	5
	32	9079235	S301P-Z32NA	2CDS381103R0538	0.248	5
	40	9079211	S301P-Z40NA	2CDS381103R0558	0.248	5
	50	9079198	S301P-Z50NA	2CDS381103R0578	0.248	5
	63	9079174	S301P-Z63NA	2CDS381103R0608	0.248	5
3+N	0.5	9077279	S303P-Z0.5NA	2CDS383103R0158	0.496	1
	1	9077187	S303P-Z1NA	2CDS383103R0218	0.496	1
	1.6	9077132	S303P-Z1.6NA	2CDS383103R0258	0.496	1
	2	9077118	S303P-Z2NA	2CDS383103R0278	0.496	1
	3	9077095	S303P-Z3NA	2CDS383103R0318	0.496	1
	4	9077040	S303P-Z4NA	2CDS383103R0338	0.496	1
	6	9077026	S303P-Z6NA	2CDS383103R0378	0.496	1
	8	9076975	S303P-Z8NA	2CDS383103R0408	0.496	1
	10	9076951	S303P-Z10NA	2CDS383103R0428	0.496	1
	16	9076920	S303P-Z16NA	2CDS383103R0468	0.496	1
	20	9135610	S303P-Z20NA	2CDS383103R0488	0.496	1
	25	9076852	S303P-Z25NA	2CDS383103R0518	0.496	1
	32	9076838	S303P-Z32NA	2CDS383103R0538	0.496	1
	40	9076814	S303P-Z40NA	2CDS383103R0558	0.496	1
	50	9076791	S303P-Z50NA	2CDS383103R0578	0.496	1
	63	9076777	S303P-Z63NA	2CDS383103R0608	0.496	1

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9AKK107992A4964 Rev. F - 04.2024

ITEM	Tag	DP-200N1-Q7	: SPARE - DP-200N1-Q7		Dwg	1723002197-EL-DG-00013	
	S/Sys	83-20	: 400/230 V Switchboard (DP-200N1)		Module		
TASK	code	C10002893	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	PRE-COMM	Activity FTS	Discipline Electrical	Form	FTR-2	Protection Relay

FTR2 - Protection relay
Record sheet

RELAY DATA

Manufacturer:	ABB	Serial N°:	NA	Relay type:	NA
Auxiliary supply:	NA	Location:	B200	Cubicle:	+03
Switchboard:	DP-200N1				

Current transformers

Tag	Number of	Ratio	Location

Voltage transformers

Tag	Number of	Ratio	Location

Test result (refer to manufacturer's procedure)

ANSI function	Setting	Injection	Trip value	Time delay Setting	Time delay Trip value
I	6A	NA	NA	FIXED	NA

Testing & measurement instruments used

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

Comments:

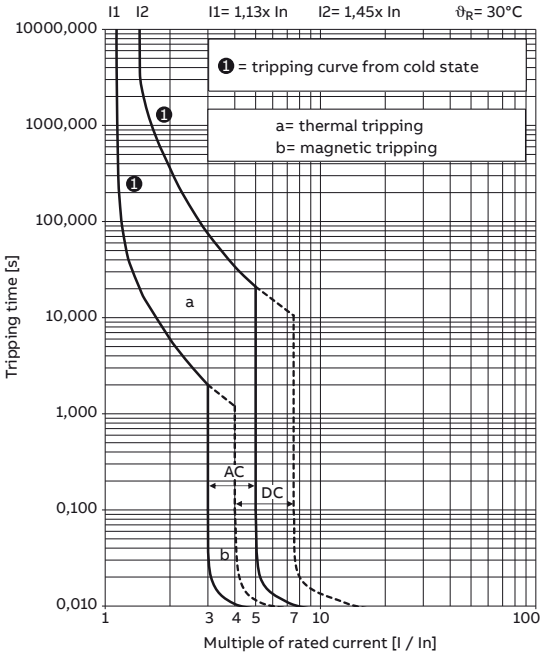
Page 1/1	Performed by	☐ WITNESS ☉ REVIEW	☐ WITNESS ☐ REVIEW
Company	RM COMM	RM COMM	CPY NOT PRESENT
Name	Mattia Girotti	Kristian Castellani	Witness waived
Date	2024-10-28	2024-10-28	2024-10-28
Signature	PROVERLIS Digitaly signed by Mattia Girotti 2024-10-28T09:41:09.000Z	PROVERLIS Digitaly signed by Kristian Castellani 2024-10-28T13:01:38.877Z	PROVERLIS Digitaly signed by Witness waived 2024-10-28T13:38:53.449Z

Miniature Circuit breakers S300P

Tripping characteristics

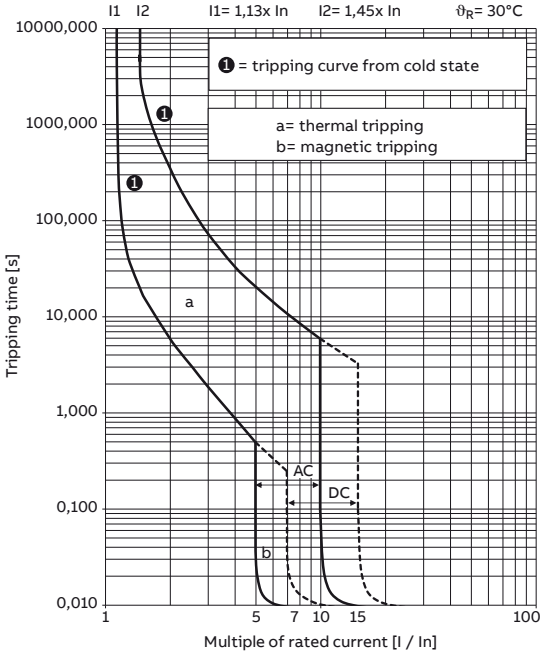
MCB Type S300P - B (3 ... 5 x I_n AC)

Tripping Characteristic IEC/EN 60898-1



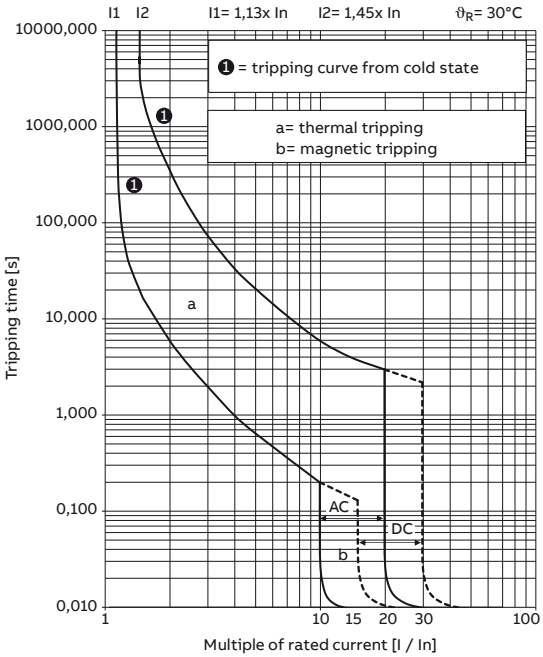
MCB Type S300P - C (5 ... 10 x I_n AC)

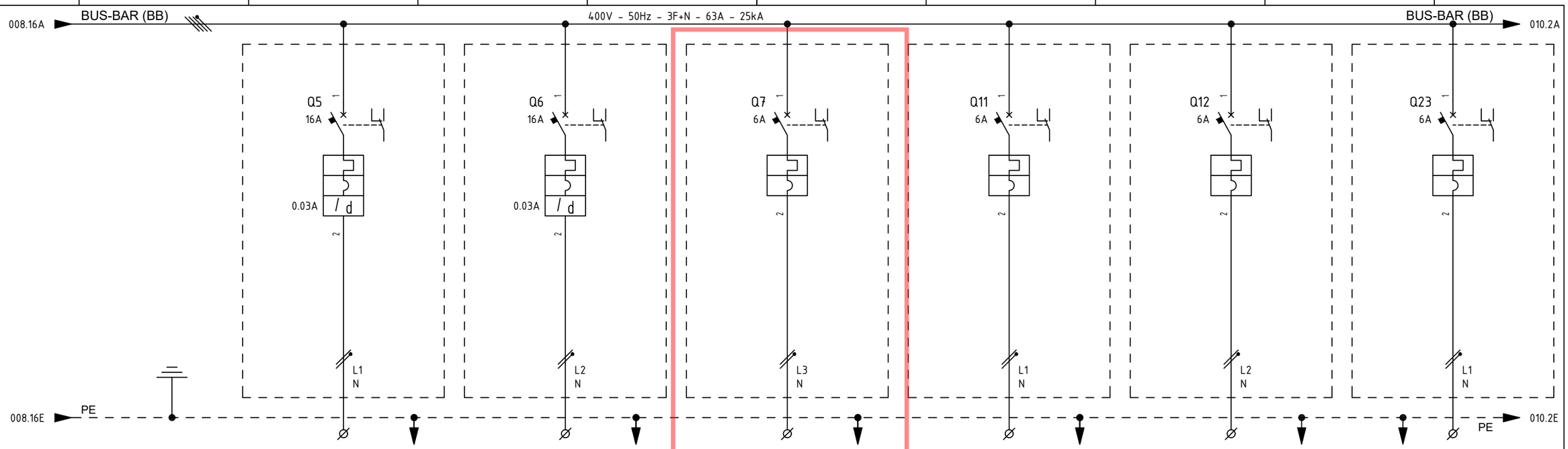
Tripping Characteristic IEC/EN 60898-1



MCB Type S300P - D (10 ... 20 x I_n AC)

Tripping Characteristic IEC/EN 60898-1





ITEM			1	ESO-200N1-05-L1-01	ESO-200N1-06-L2-01	-	ESH-200N1-11-L1-01	ESH-200N1-12-L2-01	B400-SIS-001
UTILITY			2	SMALL POWER SOCKET (UPPER DECK)	SMALL POWER SOCKET (LOWER DECK)	SPARE	SPACE HEATERS JB - WIND FARM SUBSEA CABLE	SPACE HEATERS JB - SOLAR SUBSEA CABLE	SIS-CONTROLLER AND I/O CABINET - AUXILIARY
CUBICLE			3	+03	+03	+03	+03	+03	+03
RATED POWER | RATED CURRENT			4/5	3 KW | 14.49 A	3 KW | 14.49 A	0.726 KW | 3.95 A	0.25 KW | 1.14 A	0.25 KW | 1.14 A	0.5 KW | 2.72 A
TYPICAL FUNCTIONAL			6	-	-	-	-	-	-
CIRCUIT BREAKER (ABB)	TYPE		7	S302P-C16 + DDA202 AC-25/0.03	S302P-C16 + DDA202 AC-25/0.03	S302P-C6	S302P-C6	S302P-C6	S302P-C6
	VERSION		8	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE
	TRIP UNITS		9	In=16A - Curve C / Id=0.03A Class AC	In=16A - Curve C / Id=0.03A Class AC	In=6A - Curve C	In=6A - Curve C	In=6A - Curve C	In=6A - Curve C
	Icu	KA	10	25kA	25kA	25kA	25kA	25kA	25kA
OVERLOAD	L	Range A	11	-	-	-	-	-	-
		Range t	12	-	-	-	-	-	-
SEL. SHORT-CIRCUIT	S	Range A	13	-	-	-	-	-	-
		Range t	14	-	-	-	-	-	-
INST. SHORT-CIRCUIT	I	Range A	15	-	-	-	-	-	-
		Range t	16	-	-	-	-	-	-
EARTH FAULT PROTECTION	G	Range A	17	-	-	-	-	-	-
		Range t	18	-	-	-	-	-	-
CONTACTOR (ABB)			19	-	-	-	-	-	-
THERMAL OVERLOAD RELAY (ABB)			20	-	-	-	-	-	-
SURGE ARRESTERS (DHENN)			21	-	-	-	-	-	-
TOROIDAL CURRENT TRANSFORMER (FRER)			22	-	-	-	-	-	-
FUSE HOLDER (ABB)			23	-	-	-	-	-	-
TWILIGHT SWITCH (ABB)			24	-	-	-	-	-	-
VOLTMETER (FRER)			25	-	-	-	-	-	-
CURRENT TRANSFORMER FOR MEASURE (FRER)	TYPE		26	-	-	-	-	-	-
	PERFORMANCE/CLASS		27	-	-	-	-	-	-
VOLTAGE TRANSFORMER FOR MEASURE (FRER)	TYPE		28	-	-	-	-	-	-
	PERFORMANCE/CLASS		29	-	-	-	-	-	-
POWER TERM. BLOCK (CABUR)		Type/mm²	30	SCREW / 10	SCREW / 10	SCREW / 4	SCREW / 4	SCREW / 4	SCREW / 4
POWER CONDUCTOR		mm²	31	3G10	3G10	3G2.5	3G2.5	3G2.5	3G2.5

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DWG n° : 231298/SD/13
Item n° : PF1002888/101

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
4	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
3	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
2	24/04/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
1	15/03/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
0	08/02/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "DP-200N1"

SINGLE LINE DIAGRAM

Single Line Drawing

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

SCALE : NTS

A3

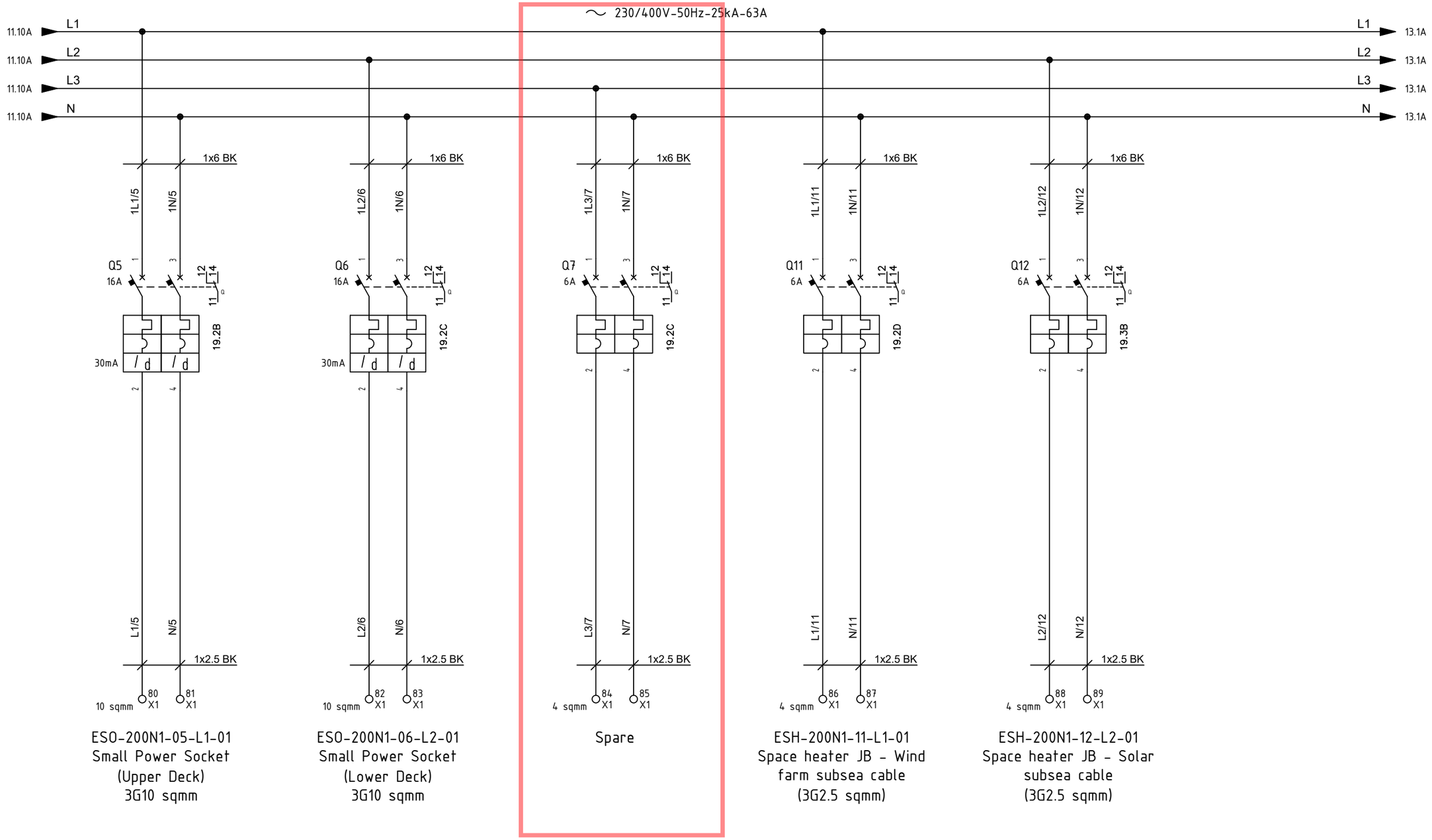
DRAWING NO. 1723002197-EL-DG-00013

SHEET 009

REV. 04

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00013 Rev. 04



ESO-200N1-05-L1-01
Small Power Socket
(Upper Deck)
3G10 sqmm

ESO-200N1-06-L2-01
Small Power Socket
(Lower Deck)
3G10 sqmm

Spare

ESH-200N1-11-L1-01
Space heater JB - Wind
farm subsea cable
(3G2.5 sqmm)

ESH-200N1-12-L2-01
Space heater JB - Solar
subsea cable
(3G2.5 sqmm)

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
=					
+					
2	19/08/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
0	29/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

DWG n° : 231298/SD/33

Item n° : PF1002888/101

TITLE : "DP-200N1"
LV SWBD FUNCTIONAL DIAGRAMS
Functional Drawing

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00033

SHEET 12

REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00033 Rev. 02

ITEM	Tag	DP-200N1-Q46	: AUX INS CABINET SPARE - DP-200N1-Q46	Dwg	1723002197-EL-DG-00013		
	S/Sys	83-20	: 400/230 V Switchboard (DP-200N1)	Module			
TASK	code	C10002894	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	PRE-COMM	Activity	FTS	Discipline	Electrical	Form	FTR-2	Protection Relay

FTR2 - Protection relay
Record sheet

RELAY DATA

Manufacturer:	ABB	Serial N°:	NA	Relay type:	NA
Auxiliary supply:	NA	Location:	B200	Cubicle:	+03
Switchboard:	DP-200N1				

Current transformers

Tag	Number of	Ratio	Location

Voltage transformers

Tag	Number of	Ratio	Location

Test result (refer to manufacturer's procedure)

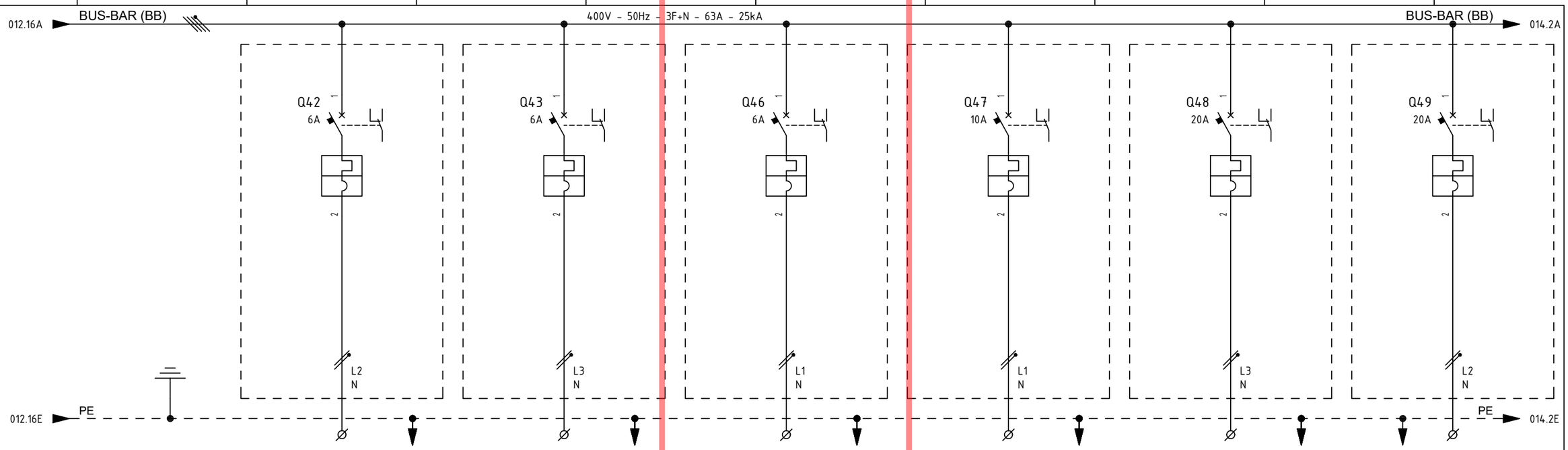
ANSI function	Setting	Injection	Trip value	Time delay	
				Setting	Trip value
I	6A	NA	NA	FIXED	NA

Testing & measurement instruments used

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

Comments:

Page 1/1	Performed by	☐ WITNESS ☉ REVIEW	☐ WITNESS ☐ REVIEW
Company	RM COMM	RM COMM	CPY NOT PRESENT
Name	Mattia Girotti	Kristian Castellani	Witness waived
Date	2024-10-28	2024-10-28	2024-10-28
Signature	PROVERLIS Digitaly signed by Mattia Girotti 2024-10-28T09:29:11.341Z	PROVERLIS Digitaly signed by Kristian Castellani 2024-10-28T13:03:55.762Z	PROVERLIS Digitaly signed by Witness waived 2024-10-28T13:39:13.114Z



ITEM			1	UP-200F4	UP-200F1	-	-	-	-
UTILITY			2	AC UPS F&G AUXILIARY	DC BATTERY SYSTEM AUXILIARY	INS CABINET - SPARE AUXILIARY	SPARE	SPARE	SPARE
CUBICLE			3	+03	+03	+03	+03	+03	+03
RATED POWER	RATED CURRENT		4/5	0.2 KW / 0.82 A	0.2 KW / 0.82 A	0.5 KW / 2.72 A	1 KW / 5.43 A	3 KW / 16.3 A	3 KW / 16.3 A
TYPICAL FUNCTIONAL			6	-	-	-	-	-	-
CIRCUIT BREAKER (ABB)	TYPE		7	S302P-C6	S302P-C6	S302P-C6	S302P-C10	S302P-C20	S302P-C20
	VERSION		8	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE
	TRIP UNITS		9	In=6A - Curve C	In=6A - Curve C	In=6A - Curve C	In=10A - Curve C	In=20A - Curve C	In=20A - Curve C
	Icu	KA	10	25kA	25kA	25kA	25kA	25kA	25kA
OVERLOAD	L	Range A	11	-	-	-	-	-	-
		Range t	12	-	-	-	-	-	-
SEL. SHORT-CIRCUIT	S	Range A	13	-	-	-	-	-	-
		Range t	14	-	-	-	-	-	-
INST. SHORT-CIRCUIT	I	Range A	15	-	-	-	-	-	-
		Range t	16	-	-	-	-	-	-
EARTH FAULT PROTECTION	G	Range A	17	-	-	-	-	-	-
		Range t	18	-	-	-	-	-	-
CONTACTOR (ABB)			19	-	-	-	-	-	-
THERMAL OVERLOAD RELAY (ABB)			20	-	-	-	-	-	-
SURGE ARRESTERS (DHENN)			21	-	-	-	-	-	-
TOROIDAL CURRENT TRANSFORMER (FRER)			22	-	-	-	-	-	-
FUSE HOLDER (ABB)			23	-	-	-	-	-	-
TWILIGHT SWITCH (ABB)			24	-	-	-	-	-	-
VOLTMETER (FRER)			25	-	-	-	-	-	-
CURRENT TRANSFORMER FOR MEASURE (FRER)	TYPE		26	-	-	-	-	-	-
	PERFORMANCE/CLASS		27	-	-	-	-	-	-
VOLTAGE TRANSFORMER FOR MEASURE (FRER)	TYPE		28	-	-	-	-	-	-
	PERFORMANCE/CLASS		29	-	-	-	-	-	-
POWER TERM. BLOCK (CABUR)		Type/mm²	30	SCREW / 4	SCREW / 4	SCREW / 4	SCREW / 4	SCREW / 6	SCREW / 6
POWER CONDUCTOR		mm²	31	3G2.5	3G2.5	3G2.5	-	-	-

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DWG n° : 231298/SD/13

Item n° : PF1002888/101

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
4	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
3	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
2	24/04/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
1	15/03/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
0	08/02/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "DP-200N1"

SINGLE LINE DIAGRAM

Single Line Drawing

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

SCALE : NTS

A3

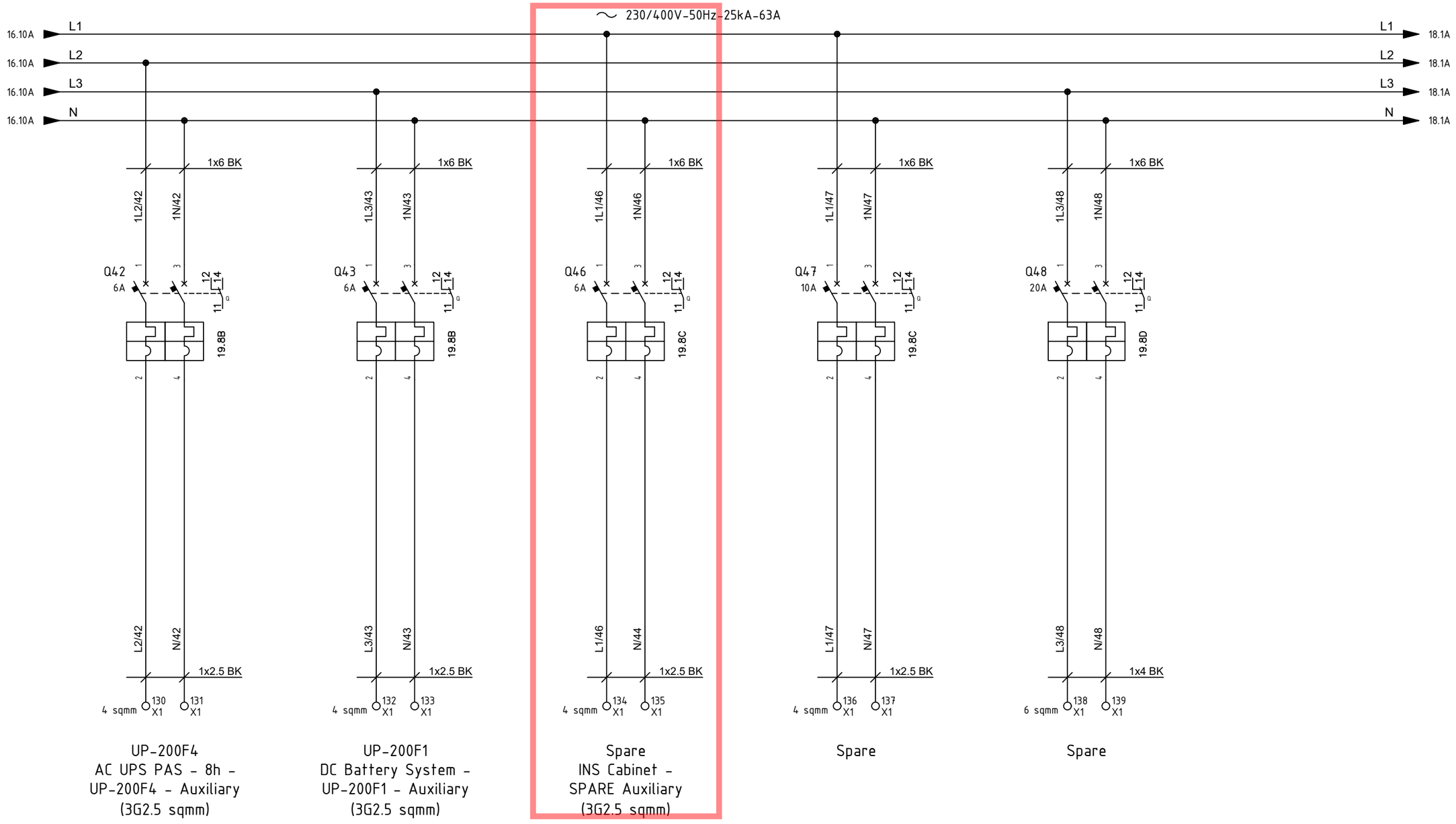
DRAWING NO. 1723002197-EL-DG-00013

SHEET 013

REV. 04

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00013 Rev. 04



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
=					
+					
2	19/08/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
0	29/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

DWG n° : 231298/SD/33

Item n° : PF1002888/101

TITLE : "DP-200N1"

LV SWBD FUNCTIONAL DIAGRAMS

Functional Drawing

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00033

SHEET 1.7

REV. 02

File Name : 1723002197-EL-DG-00033 Rev. 02

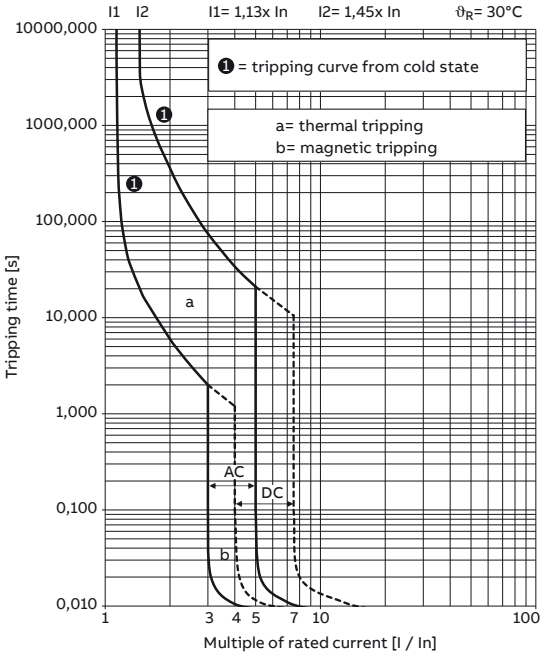
F.to UNI A3: 420mmx297mm

Miniature Circuit breakers S300P

Tripping characteristics

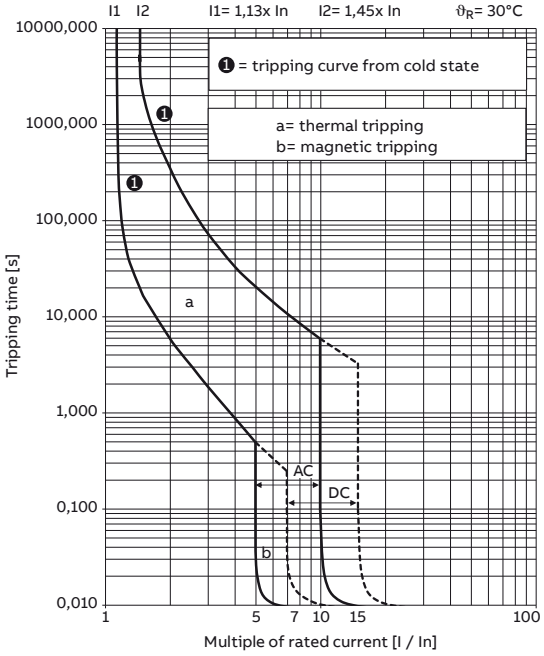
MCB Type S300P - B (3 ... 5 x I_n AC)

Tripping Characteristic IEC/EN 60898-1



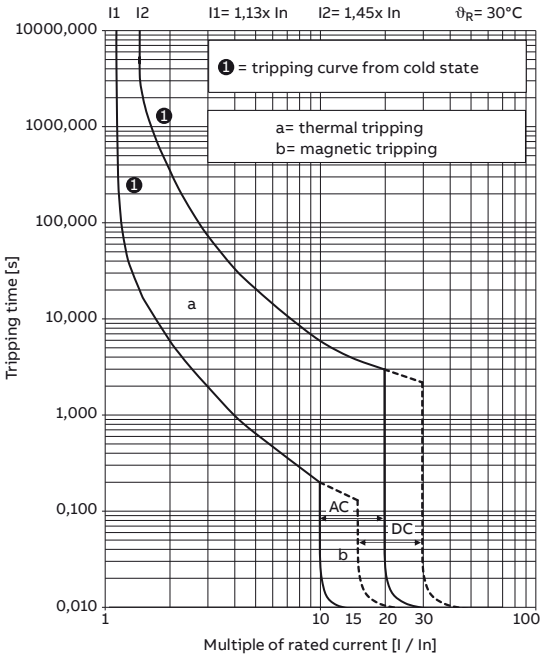
MCB Type S300P - C (5 ... 10 x I_n AC)

Tripping Characteristic IEC/EN 60898-1



MCB Type S300P - D (10 ... 20 x I_n AC)

Tripping Characteristic IEC/EN 60898-1



ITEM	Tag	DP-200N1-Q47	: SPARE - DP-200N1-Q47		Dwg	1723002197-EL-DG-00013	
	S/Sys	83-20	: 400/230 V Switchboard (DP-200N1)		Module		
TASK	code	C10002895	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	PRE-COMM	Activity FTS	Discipline Electrical	Form	FTR-2	Protection Relay

FTR2 - Protection relay
Record sheet

RELAY DATA

Manufacturer:	ABB	Serial N°:	NA	Relay type:	NA
Auxiliary supply:	NA	Location:	B200	Cubicle:	+03
Switchboard:	DP-200N1				

Current transformers

Tag	Number of	Ratio	Location

Voltage transformers

Tag	Number of	Ratio	Location

Test result (refer to manufacturer's procedure)

ANSI function	Setting	Injection	Trip value	Time delay Setting	Time delay Trip value
I	10A	NA	NA	FIXED	NA

Testing & measurement instruments used

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

Comments:

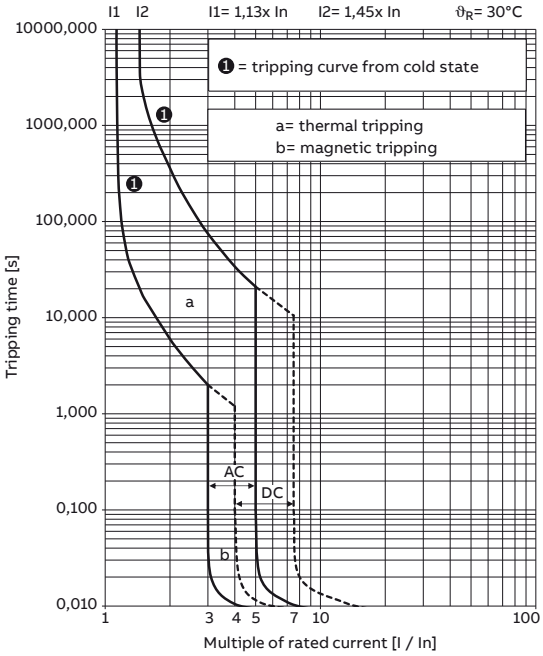
Page 1/1	Performed by	☐ WITNESS ☑ REVIEW	☐ WITNESS ☐ REVIEW
Company	RM COMM	RM COMM	CPY NOT PRESENT
Name	Mattia Girotti	Kristian Castellani	Witness waived
Date	2024-10-28	2024-10-28	2024-10-28
Signature	PROVERLIS Digitaly signed by Mattia Girotti 2024-10-28T09:18:49.941Z	PROVERLIS Digitaly signed by Kristian Castellani 2024-10-28T13:11:32.720Z	PROVERLIS Digitaly signed by Witness waived 2024-10-28T13:39:48.804Z

Miniature Circuit breakers S300P

Tripping characteristics

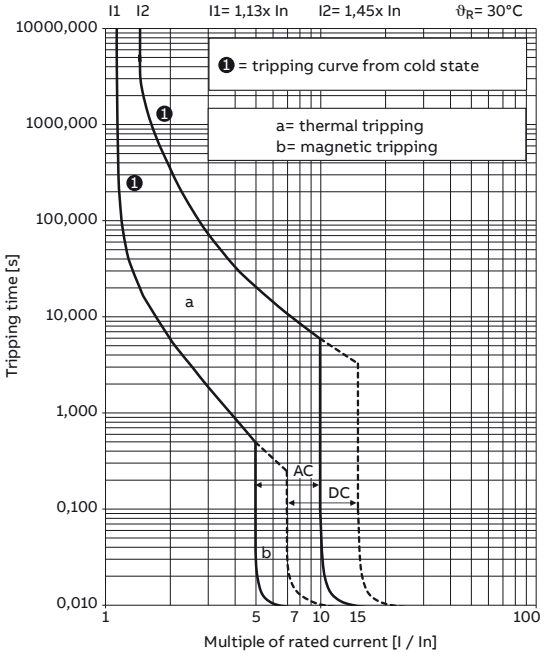
MCB Type S300P - B (3 ... 5 x I_n AC)

Tripping Characteristic IEC/EN 60898-1



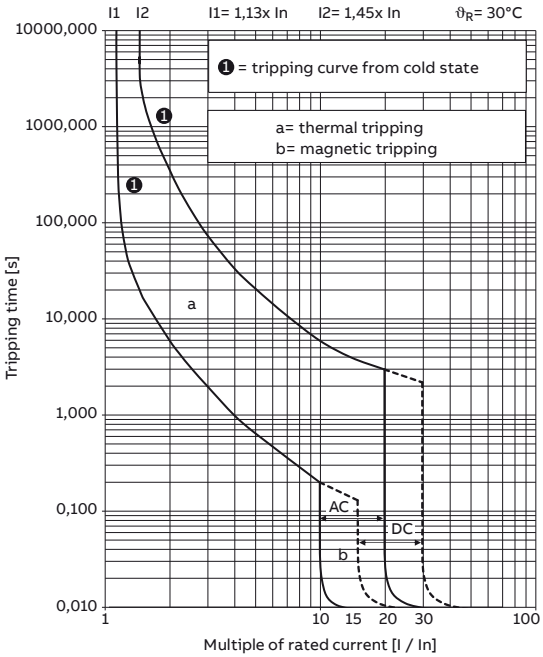
MCB Type S300P - C (5 ... 10 x I_n AC)

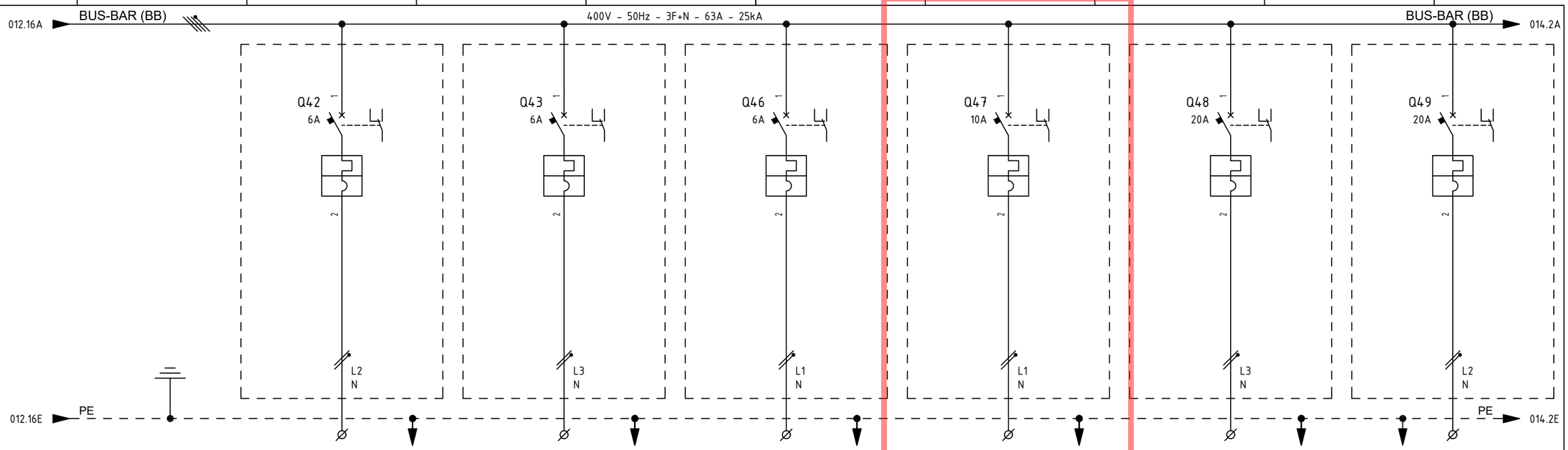
Tripping Characteristic IEC/EN 60898-1



MCB Type S300P - D (10 ... 20 x I_n AC)

Tripping Characteristic IEC/EN 60898-1





ITEM			1	UP-200F4		UP-200F1		-		-		-		-	
UTILITY			2	AC UPS F&G AUXILIARY		DC BATTERY SYSTEM AUXILIARY		INS CABINET - SPARE AUXILIARY		SPARE		SPARE		SPARE	
CUBICLE			3	+03		+03		+03		+03		+03		+03	
RATED POWER	RATED CURRENT		4/5	0.2 KW	0.82 A	0.2 KW	0.82 A	0.5 KW	2.72 A	1 KW	5.43 A	3 KW	16.3 A	3 KW	16.3 A
TYPICAL FUNCTIONAL			6	-		-		-		-		-		-	
CIRCUIT BREAKER (ABB)	TYPE		7	S302P-C6		S302P-C6		S302P-C6		S302P-C10		S302P-C20		S302P-C20	
	VERSION		8	2P / MINIATURE		2P / MINIATURE		2P / MINIATURE		2P / MINIATURE		2P / MINIATURE		2P / MINIATURE	
	TRIP UNITS		9	In=6A - Curve C		In=6A - Curve C		In=6A - Curve C		In=10A - Curve C		In=20A - Curve C		In=20A - Curve C	
	Icu	KA	10	25kA		25kA		25kA		25kA		25kA		25kA	
OVERLOAD	L	Range A	11	-		-		-		-		-		-	
		Range t	12	-		-		-		-		-		-	
SEL. SHORT-CIRCUIT	S	Range A	13	-		-		-		-		-		-	
		Range t	14	-		-		-		-		-		-	
INST. SHORT-CIRCUIT	I	Range A	15	-		-		-		-		-		-	
		Range t	16	-		-		-		-		-		-	
EARTH FAULT PROTECTION	G	Range A	17	-		-		-		-		-		-	
		Range t	18	-		-		-		-		-		-	
CONTACTOR (ABB)			19	-		-		-		-		-		-	
THERMAL OVERLOAD RELAY (ABB)			20	-		-		-		-		-		-	
SURGE ARRESTERS (DHENN)			21	-		-		-		-		-		-	
TOROIDAL CURRENT TRANSFORMER (FRER)			22	-		-		-		-		-		-	
FUSE HOLDER (ABB)			23	-		-		-		-		-		-	
TWILIGHT SWITCH (ABB)			24	-		-		-		-		-		-	
VOLTMETER (FRER)			25	-		-		-		-		-		-	
CURRENT TRANSFORMER FOR MEASURE (FRER)	TYPE		26	-		-		-		-		-		-	
	PERFORMANCE/CLASS		27	-		-		-		-		-		-	
VOLTAGE TRANSFORMER FOR MEASURE (FRER)	TYPE		28	-		-		-		-		-		-	
	PERFORMANCE/CLASS		29	-		-		-		-		-		-	
POWER TERM. BLOCK (CABUR)		Type/mm²	30	SCREW / 4		SCREW / 4		SCREW / 4		SCREW / 4		SCREW / 6		SCREW / 6	
POWER CONDUCTOR		mm²	31	3G2.5		3G2.5		3G2.5		-		-		-	

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DWG n° : 231298/SD/13
Item n° : PF1002888/101

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
4	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
3	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
2	24/04/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
1	15/03/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
0	08/02/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

TITLE : "DP-200N1"

SINGLE LINE DIAGRAM

Single Line Drawing

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

SCALE : NTS

A3

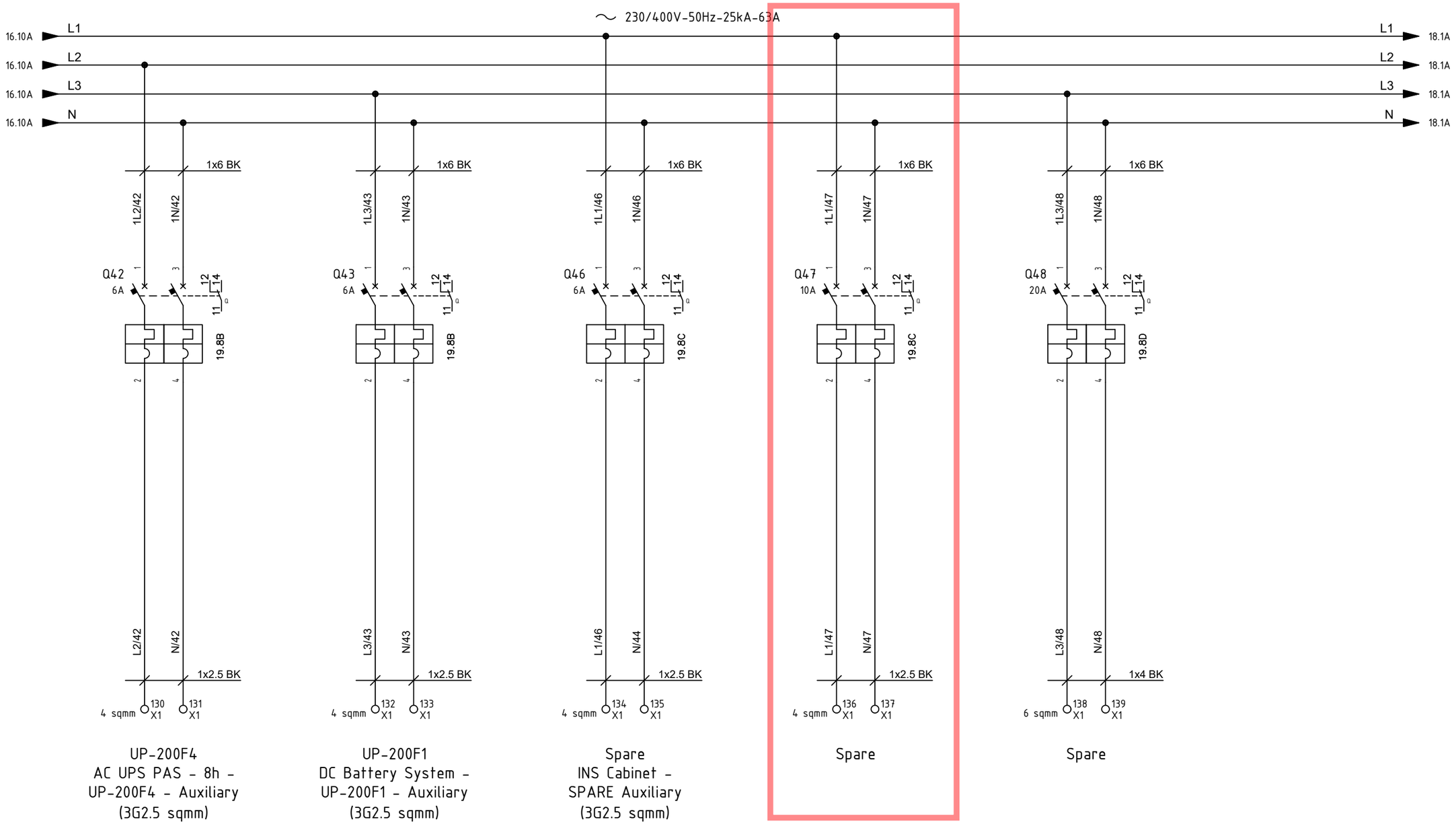
DRAWING NO. 1723002197-EL-DG-00013

SHEET 013

REV. 04

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00013 Rev. 04



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
=					
+					
2	19/08/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
0	29/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

DWG n° : 231298/SD/33

Item n° : PF1002888/101

TITLE : "DP-200N1"

LV SWBD FUNCTIONAL DIAGRAMS

Functional Drawing

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00033

SHEET 1.7

REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00033 Rev. 02

ITEM	Tag	DP-200N1-Q48	: SPARE - DP-200N1-Q48		Dwg	1723002197-EL-DG-00013	
	S/Sys	83-20	: 400/230 V Switchboard (DP-200N1)		Module		
TASK	code	C10002896	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	PRE-COMM	Activity FTS	Discipline Electrical	Form	FTR-2	Protection Relay

FTR2 - Protection relay
Record sheet

RELAY DATA

Manufacturer: ABB	Serial N°: NA	Relay type: NA
Auxiliary supply: NA	Location: B200	Cubicle: +03
Switchboard: DP-200N1		

Current transformers

Tag	Number of	Ratio	Location

Voltage transformers

Tag	Number of	Ratio	Location

Test result (refer to manufacturer's procedure)

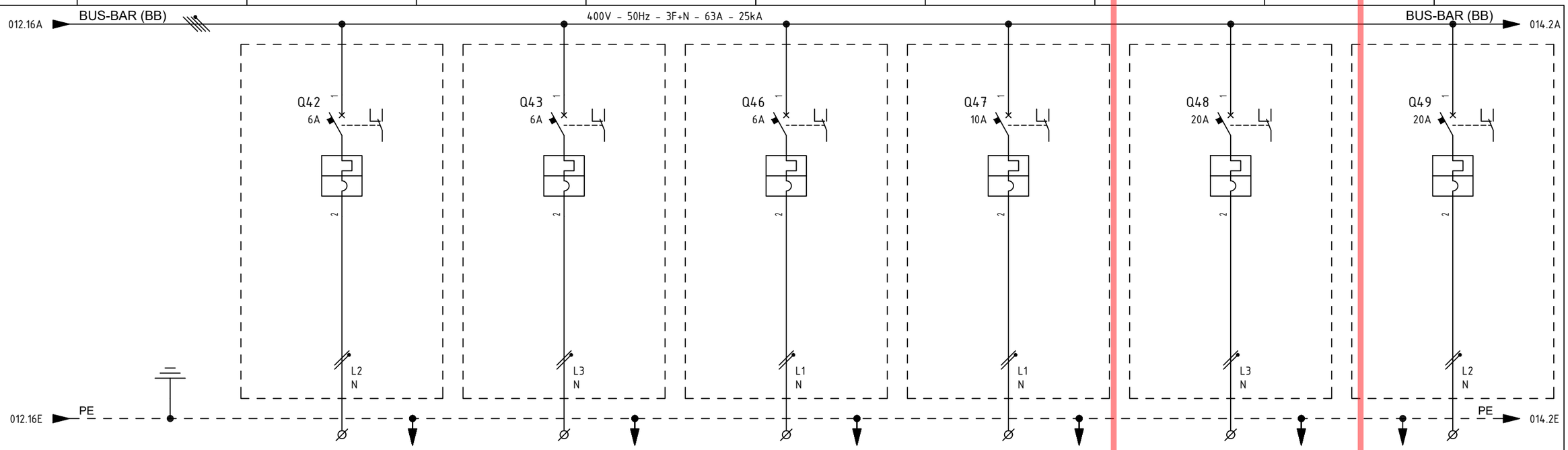
ANSI function	Setting	Injection	Trip value	Time delay Setting	Time delay Trip value
I	20A	NA	NA	FIXED	NA

Testing & measurement instruments used

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

Comments:

Page 1/1	Performed by	☐ WITNESS ☉ REVIEW	☐ WITNESS ☐ REVIEW
Company	RM COMM	RM COMM	CPY NOT PRESENT
Name	Mattia Girotti	Kristian Castellani	Witness waived
Date	2024-10-28	2024-10-28	2024-10-28
Signature	Digitaly signed by Mattia Girotti 2024-10-28T09:14:47.135Z	Digitaly signed by Kristian Castellani 2024-10-28T13:12:03.999Z	Digitaly signed by Witness waived 2024-10-28T13:41:12.843Z



ITEM			1	UP-200F4	UP-200F1	-	-	-	-
UTILITY			2	AC UPS F&G AUXILIARY	DC BATTERY SYSTEM AUXILIARY	INS CABINET - SPARE AUXILIARY	SPARE	SPARE	SPARE
CUBICLE			3	+03	+03	+03	+03	+03	+03
RATED POWER | RATED CURRENT			4/5	0.2 KW | 0.82 A	0.2 KW | 0.82 A	0.5 KW | 2.72 A	1 KW | 5.43 A	3 KW | 16.3 A	3 KW | 16.3 A
TYPICAL FUNCTIONAL			6	-	-	-	-	-	-
CIRCUIT BREAKER (ABB)	TYPE		7	S302P-C6	S302P-C6	S302P-C6	S302P-C10	S302P-C20	S302P-C20
	VERSION		8	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE
	TRIP UNITS		9	In=6A - Curve C	In=6A - Curve C	In=6A - Curve C	In=10A - Curve C	In=20A - Curve C	In=20A - Curve C
	Icu	KA	10	25kA	25kA	25kA	25kA	25kA	25kA
OVERLOAD	L	Range A	11	-	-	-	-	-	-
		Range t	12	-	-	-	-	-	-
SEL. SHORT-CIRCUIT	S	Range A	13	-	-	-	-	-	-
		Range t	14	-	-	-	-	-	-
INST. SHORT-CIRCUIT	I	Range A	15	-	-	-	-	-	-
		Range t	16	-	-	-	-	-	-
EARTH FAULT PROTECTION	G	Range A	17	-	-	-	-	-	-
		Range t	18	-	-	-	-	-	-
CONTACTOR (ABB)			19	-	-	-	-	-	-
THERMAL OVERLOAD RELAY (ABB)			20	-	-	-	-	-	-
SURGE ARRESTERS (DHENN)			21	-	-	-	-	-	-
TOROIDAL CURRENT TRANSFORMER (FRER)			22	-	-	-	-	-	-
FUSE HOLDER (ABB)			23	-	-	-	-	-	-
TWILIGHT SWITCH (ABB)			24	-	-	-	-	-	-
VOLTMETER (FRER)			25	-	-	-	-	-	-
CURRENT TRANSFORMER FOR MEASURE (FRER)	TYPE		26	-	-	-	-	-	-
	PERFORMANCE/CLASS		27	-	-	-	-	-	-
VOLTAGE TRANSFORMER FOR MEASURE (FRER)	TYPE		28	-	-	-	-	-	-
	PERFORMANCE/CLASS		29	-	-	-	-	-	-
POWER TERM. BLOCK (CABUR)		Type/mm²	30	SCREW / 4	SCREW / 4	SCREW / 4	SCREW / 4	SCREW / 6	SCREW / 6
POWER CONDUCTOR		mm²	31	3G2.5	3G2.5	3G2.5	-	-	-

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DWG n° : 231298/SD/13

Item n° : PF1002888/101

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
4	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
3	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
2	24/04/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
1	15/03/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
0	08/02/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

TITLE : "DP-200N1"

SINGLE LINE DIAGRAM

Single Line Drawing

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

SCALE : NTS

A3

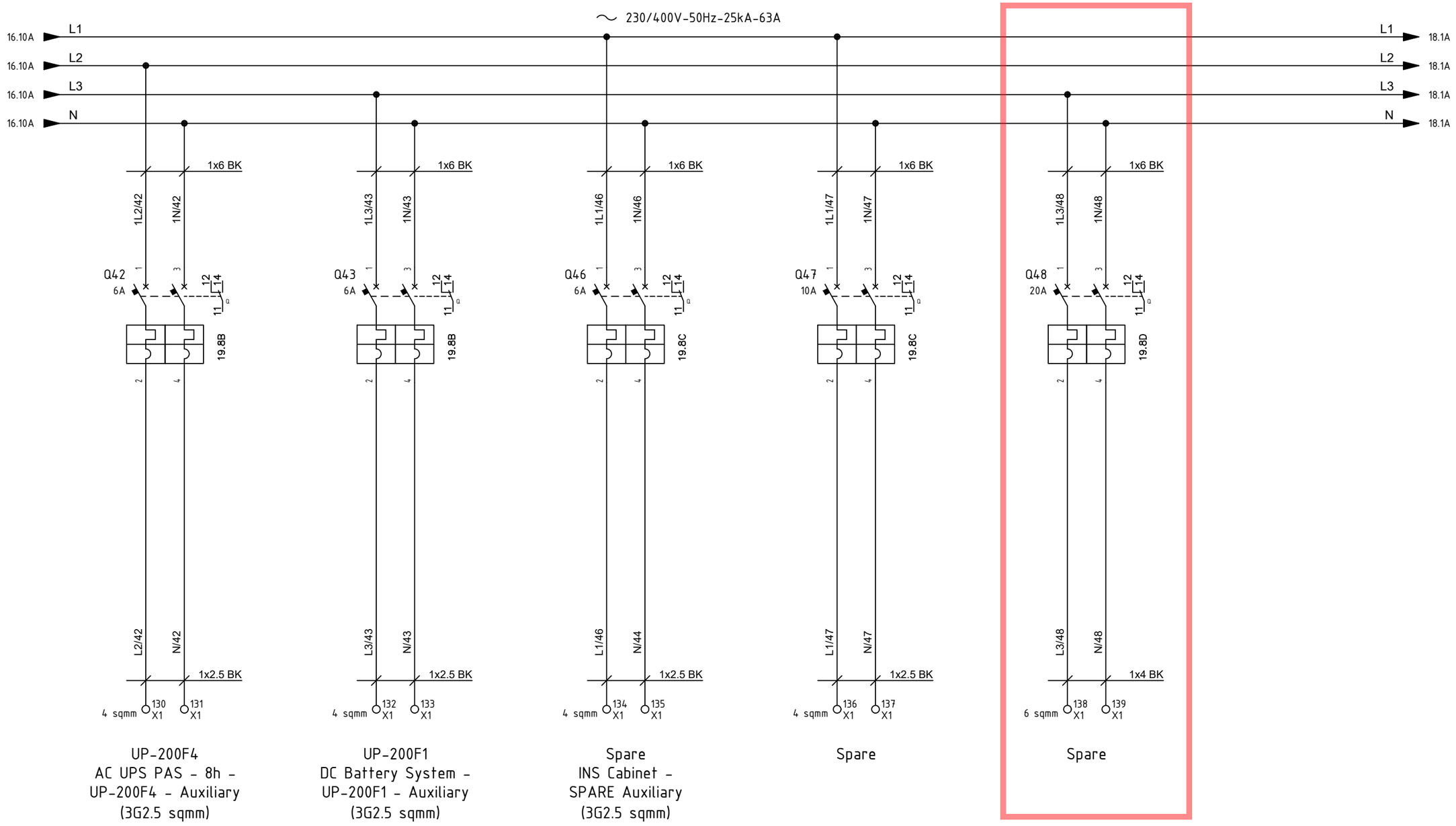
DRAWING NO. 1723002197-EL-DG-00013

SHEET 013

REV. 04

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00013 Rev. 04



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
=					
+					
2	19/08/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
0	29/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

DWG n° : 231298/SD/33

Item n° : PF1002888/101

TITLE : "DP-200N1"

LV SWBD FUNCTIONAL DIAGRAMS

Functional Drawing

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00033

SHEET 1.7

REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00033 Rev. 02

S300P
Data sheet



System pro *M* compact®
S300P miniature circuit breakers comply with IEC/EN 60947-2, IEC/EN 60898-1, UL 1077 and CSA 22.2 No. 235, protecting the installation in commercial and industrial applications by supporting a breaking capacity of 25 kA.

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S300P
Miniature Circuit Breaker

S300P MCB is designed to be used in installations where high breaking capacities are required to protect against short-circuits and overloads.

S300P is compliant to the product standards
IEC/EN 60947-2
IEC/EN 60898-1
UL 1077
CSA 22.2 No.235
and features the following main technical characteristics:

- Rated nominal current: 0.2 A ... 63 A
- Characteristic: B, C, D, K, Z
- Pole variant: 1, 2, 3, 4, 1+N, 3+N
- Rated breaking capacity I_{cu}: 25 kA; 100 kA (≤ 6 A)
- Rated operational voltage U_e: 240/415 V AC
- Rated impulse withstand voltage U_{imp}: 6 kV

Application benefits

- Integrated trip indicator for clear signalization of tripping events on site
- Dual DIN-Rail release for fast and easy installation
- Fully compatible with whole range of System pro *M* compact® accessories supporting lots of different functions
- Quick and easy product identification by QR-code along with direct access to the ABB product database
- Terminals equipped with fail safe feature to avoid improper installation
- Supply possible from top or bottom and in parallel with cables and busbars thanks to terminals composed by two different openings
- Excellent technical performance to ensure safety and protection of installation and personal
- Certified quality and compliance according to worldwide product standards

S300P
Technical data



S300P

		S300P
General Data	Standards	IEC/EN 60947-2, IEC/EN 60898-1, UL 1077, CSA 22.2 No. 235
	Poles	1P, 2P, 3P, 4P, 1+N, 3+N
	Tripping characteristics	B, C, D, K, Z
	Rated current I_n	6…63 A (B-curve), 0.5…63 A (C-, D-, Z-curve), 0.2…63 A (K-curve)
	Rated frequency f	50 / 60 Hz, DC
	Rated insulation voltage U_i acc. to IEC/EN 60664-1	500 V AC
	Overvoltage category	IV
	Pollution degree	3
Data acc. to IEC/EN 60947-2	Tripping Characteristics	B, C, D, K, Z
	Rated operational voltage U_e	1P, 1+N: 240 V AC, 72 V DC 2P: 415 V AC, 125 V DC 3P, 3+N, 4P: 415 V AC
	Max. power frequency recovery voltage U_{max}	1P, 1+N: 264 V AC, 72 V DC 2P, 3P, 3+N, 4P: 462 V AC, 125 V DC
	Min. operating voltage	12 V AC – 12 V DC
	Rated ultimate short-circuit breaking capacity I_{cu}	25 kA; 100 kA (≤ 6 A)
	Rated service short-circuit breaking capacity I_{cs}	12.5 kA (≤ 25 A); 10 kA (32-40 A); 7.5 kA (>40 A)
	Rated impulse withstand voltage U_{imp} (1.2/50 µs)	6 kV
	Reference temperature for tripping characteristics	55 °C (B-, C-, D-curve), 40 °C (K-, Z-curve)
	Electrical endurance	I_n < 32 A: 20,000 ops. (AC), I_n ≥ 32 A: 10,000 ops. (AC); 1,500 ops. (DC)
Data acc. to IEC/EN 60898-1	Tripping Characteristics	B, C, D
	Rated operational voltage U_n	1P: 240/415 V AC, 72 V DC 1+N: 240 V AC, 72 V DC 2P: 415 V AC, 125 V DC 3P, 3P+N, 4P: 415 V AC
	Max. power frequency recovery voltage U_{max}	1P, 1+N: 264 V AC, 72 V DC 2P, 3P, 3+N, 4P: 457 V AC, 125 V DC
	Min. operating voltage	12 V AC – 12 V DC
	Rated short-circuit capacity I_{cn}	25 kA (≤ 25 A), 20 kA (32 - 40 A), 15 kA (> 40 A)
	Dielectric test voltage	2.0 kV (50/60 Hz, 1 min)
	Reference temperature for tripping characteristics	30 °C
	Electrical endurance	I_n < 32 A: 20,000 ops. (AC), I_n ≥ 32 A: 10,000 ops. (AC); 1,000 ops. (DC)
Data acc. to UL1077 / CSA 22.2 No. 235	Tripping Characteristics	B, C, D, K, Z
	Rated voltage	1P: 277 V AC, 60 V DC 2...4P: 480Y/277 V AC, 125 V DC (2 poles in series)
	Rated interrupting capacity	10 kA
	Application Suppl. prot., for general use.	TC2, OL0, SC:U1
	Reference temperature for tripping characteristics	40 °C
	Electrical endurance	6,000 ops., 1 cycle (1s.-ON, 9s.-OFF)

S300P
Mechanical data

		S300P
Mechanical Data	Housing	Insulation group I, RAL 7035
	Toggle	Insulation group II, black, sealable
	Contact position indication	Real CPI (green OFF / red ON)
	Trip position indicator	TPI (grey NO TRIP / orange TRIP)
	Protection degree acc. to DIN EN 60529	IP20, IP40 in enclosure with cover
	Mechanical endurance	20,000 ops.
	Shock resistance acc. to IEC/EN 60068-2-27	25 g - 2 shocks - 13 ms
	Vibration resistance acc. to IEC/EN 60068-2-6	5 g - 20 cycles at 5 ... 150 ... 5 Hz at 0.8 I_n
	Environmental conditions (damp heat cyclic) acc. to IEC/EN 60068-2-30	28 cycles with 55 °C/90-96 % and 25 °C/95-100 %
	Ambient temperature	-40 ... +70 °C
	Storage temperature	-50 ... +70 °C
Installation	Terminal	Failsafe bi-directional cylinder-lift terminal
	Cross-section of conductors (top/bottom)	solid, stranded: 35 mm² / 35 mm² flexible: 25 mm² / 25 mm² 14 – 4 AWG
	Cross-section of busbars (top/bottom)	10 mm² / 10 mm² 14 – 8 AWG
	Torque	2.8 Nm; 18 in-lbs.
	Screw driver	No. 2 Pozidrive
	Mounting	on DIN rail 35 mm, acc. to EN 60715 by dual DIN-rail release
	Mounting position	any
	Supply	any
Dimensions and weight	Mounting dimensions acc. to DIN 43880	1
	Pole dimensions (H x D x W)	88 x 69 x 17.5 mm
	Pole weight approx.	124 g
Combination with auxiliary elements	Auxiliary contact	Yes
	Bottom fixed auiliary contact	Yes
	Signal contact	Yes
	Shunt trip	Yes
	Undervoltage release	Yes
	Motor operating device	Yes
Standards	IEC/EN 60947-2	
	IEC/EN 60898-1	
	UL 1077	
	CSA 22.2. No.235	
	GB/T 14048.2	
	GB/T 10963.1	

Approvals

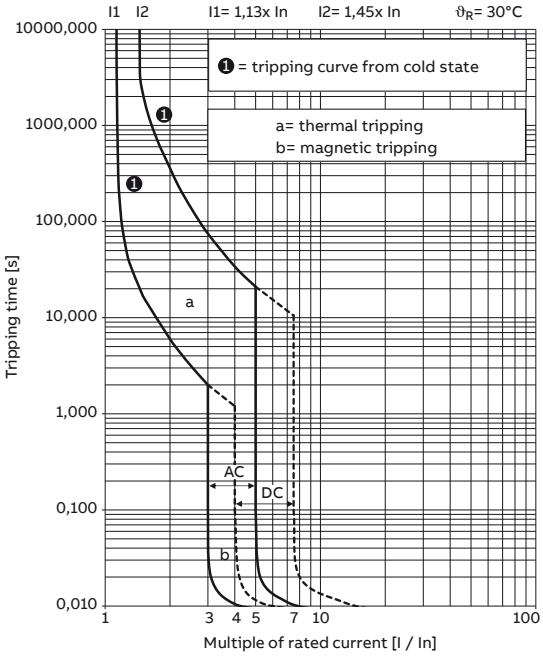
- VDE - DE
- UL 1077 - US
- CSA 22.2 No.235 - CA
- CCC - PRC
- EAC - RU
- KEMA - NL
- IMQ - IT
- SII - IL
- S+ - CH
- ÖVE - AT
- NF - FR
- EZU - CZ
- ANCE - MX
- KC - KR
- UKCA - UK
- DNV - NO
- GL - DE
- LRS - UK
- RINA - IT

Miniature Circuit breakers S300P

Tripping characteristics

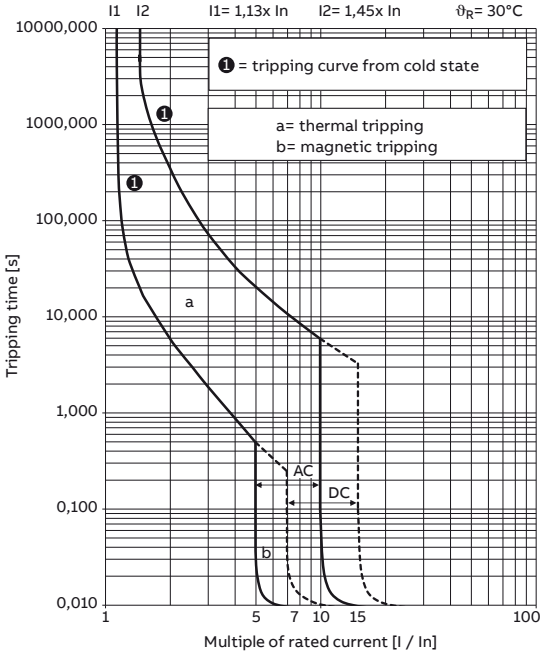
MCB Type S300P - B (3 ... 5 x I_n AC)

Tripping Characteristic IEC/EN 60898-1



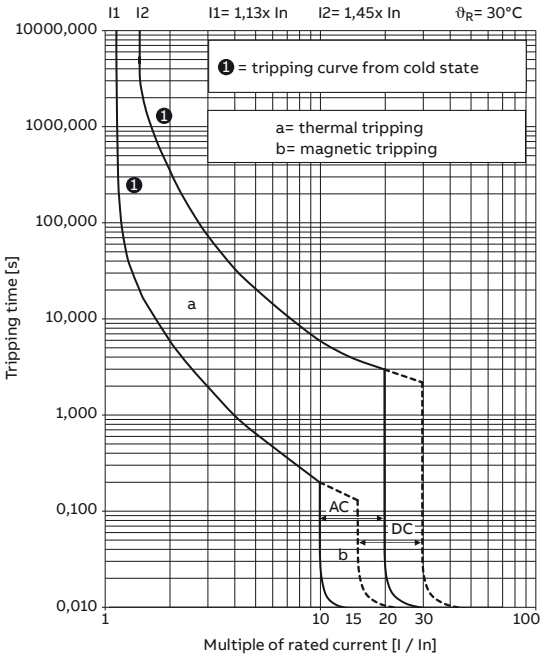
MCB Type S300P - C (5 ... 10 x I_n AC)

Tripping Characteristic IEC/EN 60898-1

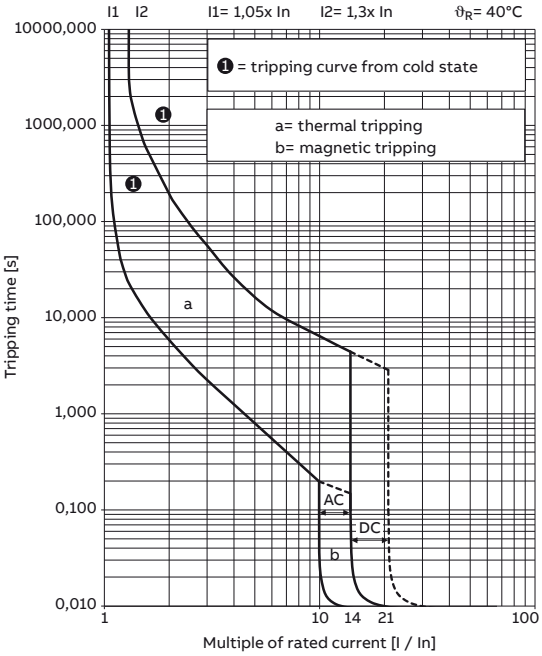


MCB Type S300P - D (10 ... 20 x I_n AC)

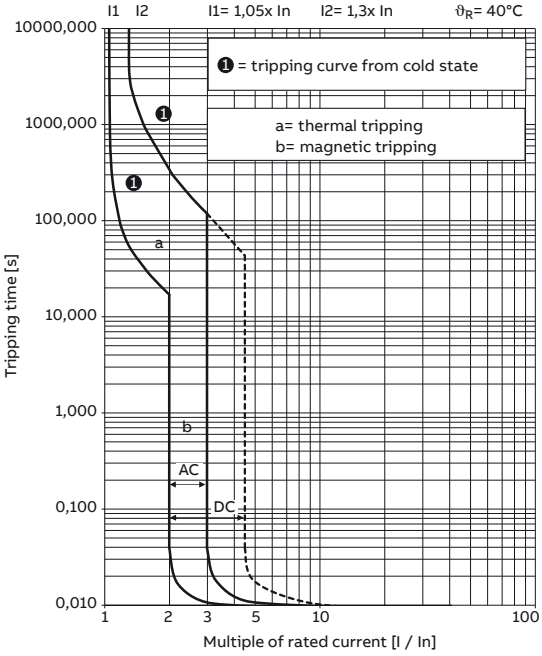
Tripping Characteristic IEC/EN 60898-1



MCB Type S300P - K (10 ... 14 x I_n AC)
Tripping Characteristic IEC/EN 60947-2



MCB Type S300P - Z (2 ... 3 x I_n AC)
Tripping Characteristic IEC/EN 60947-2



Tripping characteristics S300P

Acc. to	Tripping characteristics	Rated current	Thermal release [2]			Electromagnetic release [1]		
			Currents:		Tripping time	Currents:		Tripping time
			conventional non-tripping current	conventional tripping current		hold current surges	trip at least at	
IEC/EN 60898-1	B	06 to 63 A	1.13 · I_n		> 1 h	3 · I_n		> 0.1 s
				1.45 · I_n	< 1 h		5 · I_n	< 0.1 s
	C	0.5 to 63 A	1.13 · I_n		> 1 h	5 · I_n		> 0.1 s
				1.45 · I_n	< 1 h		10 · I_n	< 0.1 s
	D	0.5 to 63 A	1.13 · I_n		> 1 h	10 · I_n		> 0.1 s
				1.45 · I_n	< 1 h		20 · I_n	< 0.1 s
IEC/EN 60947-2	K	0.2 to 63 A	1.05 · I_n		> 1 h	10 · I_n		> 0.2 s
				1.3 · I_n	< 1 h [3]		14 · I_n	< 0.2 s
	Z	0.5 to 63 A	1.05 · I_n		> 1 h	2 · I_n		> 0.2 s
				1.3 · I_n	< 1 h [3]		3 · I_n	< 0.2 s

[1] The indicated electromagnetic tripping values apply to a frequency range of 16 2/3... 60 Hz. For different network frequencies or direct current the values change according to the multipler in the table below
[2] The thermal releases are calibrated to a nominal reference ambient temperature; for Z and K, the value is 40 °C, for B, C and D is 30 °C. In the case of higher ambient temperatures, the current values fall by ca. 6 % for each 10 K temperature rise.
[3] As from operating temperature (after I_1 > 1 h or, as applicable, 2 h).

	AC			DC
	100 Hz	200 Hz	400 Hz	
Multiplier	1.1	1.2	1.5	1.5

The thermal tripping performance is independent from the network frequency.

Miniature Circuit breakers S300P

Derating

For installations of miniature circuit breakers at other temperatures than the reference value and installations of several miniature circuit breakers directly side by side, derating factors have to be considered.

Deviating ambient temperature

The rated value of the current of a miniature circuit breaker refers to a temperature of 40 °C for circuit-breakers with characteristics K and Z and 30 °C for characteristics B, C and D. The following table contains the derating of load capability of S300P MCBs with temperature from -40 °C to 70 °C for the curves B, C, D, K, and Z.

Tripping characteristic	Rated Current I_n (A)	Max. Operating currents depending on the ambient temperature T (°C)											
		-40	-30	-20	-10	0	10	20	30	40	50	60	70
B. C and D	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4
	1	1.2	1.2	1.2	1.1	1.1	1.1	1.0	1.0	1.0	0.9	0.9	0.9
	1.6	1.9	1.9	1.8	1.8	1.7	1.7	1.6	1.6	1.6	1.5	1.5	1.4
	2	2.4	2.4	2.3	2.2	2.2	2.1	2.1	2.0	1.9	1.9	1.8	1.8
	3	3.6	3.5	3.5	3.4	3.3	3.2	3.1	3.0	2.9	2.8	2.7	2.6
	4	4.8	4.7	4.6	4.5	4.4	4.2	4.1	4.0	3.9	3.8	3.6	3.5
	6	7.3	7.1	6.9	6.7	6.5	6.4	6.2	6.0	5.8	5.6	5.5	5.3
	8	9.7	9.4	9.2	9.0	8.7	8.5	8.2	8.0	7.8	7.5	7.3	7.0
	10	12.1	11.8	11.5	11.2	10.9	10.6	10.3	10.0	9.7	9.4	9.1	8.8
	13	15.5	15.5	15.0	14.5	14.0	14.0	13.5	13.0	12.5	12.0	12.0	11.5
	16	19.5	19.0	18.5	18.0	17.5	17.0	16.5	16.0	15.5	15.0	14.5	14.0
	20	24.0	23.5	23.0	22.5	22.0	21.0	20.5	20.0	19.5	19.0	18.0	17.5
	25	30.5	29.5	29.0	28.0	27.5	26.5	26.0	25.0	24.5	23.5	23.0	22.0
	32	38.5	38.0	37.0	36.0	35.0	34.0	33.0	32.0	31.0	30.0	29.0	28.0
	40	48.5	47.0	46.0	45.0	43.5	42.5	41.0	40.0	39.0	37.5	36.5	35.0
	50	60.5	59.0	57.5	56.0	54.5	53.0	51.5	50.0	48.5	47.0	45.5	44.0
	63	76.0	74.5	72.5	70.5	68.5	67.0	65.0	63.0	61.0	59.0	57.5	55.5
K and Z	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	0.5	0.7	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.4
	0.75	1.0	1.0	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7
	1	1.3	1.3	1.2	1.2	1.2	1.1	1.1	1.0	1.0	1.0	0.9	0.9
	1.6	2.1	2.1	2.0	1.9	1.9	1.8	1.7	1.7	1.6	1.5	1.5	1.4
	2	2.7	2.6	2.5	2.4	2.3	2.2	2.2	2.1	2.0	1.9	1.9	1.8
	3	4.0	3.9	3.7	3.6	3.5	3.3	3.2	3.1	3.0	2.9	2.8	2.7
	4	5.3	5.2	5.0	4.8	4.6	4.5	4.3	4.1	4.0	3.9	3.7	3.6
	6	8.0	7.7	7.5	7.2	6.9	6.7	6.5	6.2	6.0	5.8	5.6	5.4
	8	10.7	10.3	9.9	9.6	9.3	8.9	8.6	8.3	8.0	7.7	7.4	7.1
	10	13.4	12.9	12.4	12.0	11.6	11.2	10.8	10.4	10.0	9.6	9.3	8.9
	13	17.5	17.0	16.0	15.5	15.0	14.5	14.0	13.5	13.0	12.5	12.0	11.5
	16	21.5	20.5	20.0	19.0	18.5	18.0	17.0	16.5	16.0	15.5	15.0	14.5
	20	26.5	26.0	25.0	24.0	23.0	22.5	21.5	20.5	20.0	19.5	18.5	18.0
	25	33.5	32.0	31.0	30.0	29.0	28.0	27.0	26.0	25.0	24.0	23.0	22.5
	32	43.0	41.5	40.0	38.5	37.0	35.5	34.5	33.0	32.0	31.0	29.5	28.5
	40	53.5	51.5	49.5	48.0	46.5	44.5	43.0	41.5	40.0	38.5	37.0	35.5
	50	67.0	64.5	62.0	60.0	58.0	56.0	54.0	52.0	50.0	48.0	46.5	44.5
	63	84.5	81.0	78.5	75.5	73.0	70.5	67.5	65.5	63.0	60.5	58.5	56.5

Influence of adjacent devices

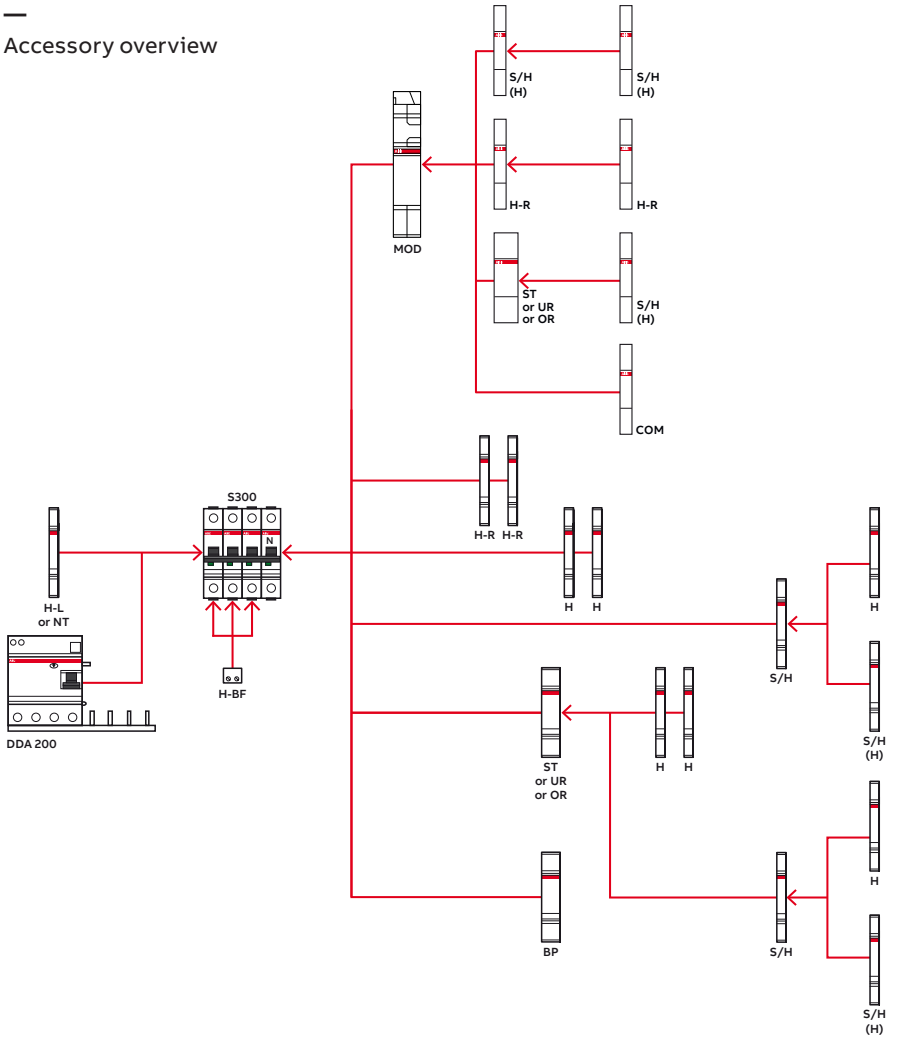
If several miniature circuit breakers are installed directly side by side with high load on all poles, a correction factor must be applied to the rated current (see table). If distance pieces are used, the factor is not to be considered.

No. of adjacent devices	Factor F
1	1
2.3	0.9
4.5	0.8
≥ 6	0.75

Miniature Circuit breakers S300P

Accessories and dimensional drawings

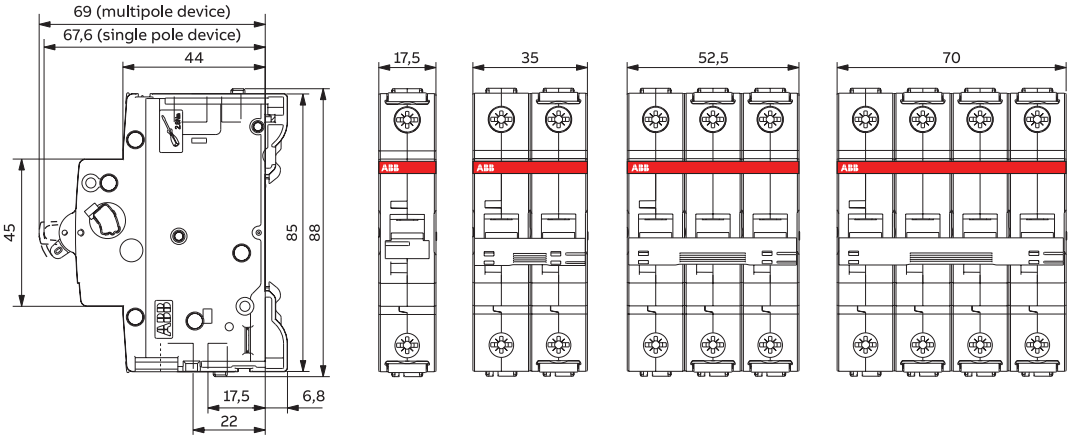
Accessory overview



H	Auxiliary contact (change-over contact)	S2C-H6R	H-L	Auxiliary contact	S2C-H..L
H-R	Auxiliary contact	S2C-H6-..R	H-BF	Auxiliary contact for bottom fitting (1 per pole)	S2C-H01 S2C-H10
S/H	Signal/Auxiliary contact used as auxiliary contact	S2C-S/H6R	BP	Mechanical tripping device	S2C-BP
			NT	Neutral disconnector	S2C-NT..
ST	Shunt trip	S3C-A..	MOD (1)	Motor operating device	S3C-MOD
UR	Undervoltage release	S2C-UA	COM	ModBus Interface	eMOD/AR ModBus
OR	Overvoltage release	S2C-OVP			
DDA 200	RCD-block	DDA 20..			

(1) In case of using S300 with DDA 200, MOD does not operate in case of earth-voltage fault

Dimensional drawing



Miniature Circuit breakers S300P

B characteristic



S 301



S 302



S 303

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
1	6	9080583	S301P-B6	2CDS381001R0065	0.124	10
	8	9086011	S301P-B8	2CDS381001R0085	0.124	10
	10	9080521	S301P-B10	2CDS381001R0105	0.124	10
	13	9080484	S301P-B13	2CDS381001R0135	0.124	10
	16	9080439	S301P-B16	2CDS381001R0165	0.124	10
	20	9080392	S301P-B20	2CDS381001R0205	0.124	10
	25	9080347	S301P-B25	2CDS381001R0255	0.124	10
	32	9080255	S301P-B32	2CDS381001R0325	0.124	10
	40	9080187	S301P-B40	2CDS381001R0405	0.124	10
	50	9080064	S301P-B50	2CDS381001R0505	0.124	10
	63	9079938	S301P-B63	2CDS381001R0635	0.124	10
2	6	9078993	S302P-B6	2CDS382001R0065	0.248	5
	8	9086059	S302P-B8	2CDS382001R0085	0.248	5
	10	9078931	S302P-B10	2CDS382001R0105	0.248	5
	13	9078894	S302P-B13	2CDS382001R0135	0.248	5
	16	9078849	S302P-B16	2CDS382001R0165	0.248	5
	20	9078801	S302P-B20	2CDS382001R0205	0.248	5
	25	9078757	S302P-B25	2CDS382001R0255	0.248	5
	32	9078665	S302P-B32	2CDS382001R0325	0.248	5
	40	9078597	S302P-B40	2CDS382001R0405	0.248	5
	50	9078474	S302P-B50	2CDS382001R0505	0.248	5
	63	9078344	S302P-B63	2CDS382001R0635	0.248	5
3	6	9078191	S303P-B6	2CDS383001R0065	0.372	1
	8	9086073	S303P-B8	2CDS383001R0085	0.372	1
	10	9078139	S303P-B10	2CDS383001R0105	0.372	1
	13	9078092	S303P-B13	2CDS383001R0135	0.372	1
	16	9078047	S303P-B16	2CDS383001R0165	0.372	1
	20	9078009	S303P-B20	2CDS383001R0205	0.372	1
	25	9077958	S303P-B25	2CDS383001R0255	0.372	1
	32	9077866	S303P-B32	2CDS383001R0325	0.372	1
	40	9077798	S303P-B40	2CDS383001R0405	0.372	1
	50	9077675	S303P-B50	2CDS383001R0505	0.372	1
	63	9077545	S303P-B63	2CDS383001R0635	0.372	1

Miniature Circuit breakers S300P

B characteristic



S 304



S 301 NA



S 303 NA

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
4	6	9076593	S304P-B6	2CDS384001R0065	0.496	1
	8	9086110	S304P-B8	2CDS384001R0085	0.496	1
	10	9076531	S304P-B10	2CDS384001R0105	0.496	1
	13	9076494	S304P-B13	2CDS384001R0135	0.496	1
	16	9076449	S304P-B16	2CDS384001R0165	0.496	1
	20	9135559	S304P-B20	2CDS384001R0205	0.496	1
	25	9076357	S304P-B25	2CDS384001R0255	0.496	1
	32	9076265	S304P-B32	2CDS384001R0325	0.496	1
	40	9076197	S304P-B40	2CDS384001R0405	0.496	1
	50	9076074	S304P-B50	2CDS384001R0505	0.496	1
	63	9075947	S304P-B63	2CDS384001R0635	0.496	1
1+N	6	9079785	S301P-B6NA	2CDS381103R0065	0.248	5
	8	9086035	S301P-B8NA	2CDS381103R0085	0.248	5
	10	9079730	S301P-B10NA	2CDS381103R0105	0.248	5
	13	9079693	S301P-B13NA	2CDS381103R0135	0.248	5
	16	9079648	S301P-B16NA	2CDS381103R0165	0.248	5
	20	9079600	S301P-B20NA	2CDS381103R0205	0.248	5
	25	9079556	S301P-B25NA	2CDS381103R0255	0.248	5
	32	9079464	S301P-B32NA	2CDS381103R0325	0.248	5
	40	9079396	S301P-B40NA	2CDS381103R0405	0.248	5
	50	9079273	S301P-B50NA	2CDS381103R0505	0.248	5
	63	9079143	S301P-B63NA	2CDS381103R0635	0.248	5
3+N	6	9077392	S303P-B6NA	2CDS383103R0065	0.496	1
	8	9086097	S303P-B8NA	2CDS383103R0085	0.496	1
	10	9077330	S303P-B10NA	2CDS383103R0105	0.496	1
	13	9077293	S303P-B13NA	2CDS383103R0135	0.496	1
	16	9077248	S303P-B16NA	2CDS383103R0165	0.496	1
	20	9135641	S303P-B20NA	2CDS383103R0205	0.496	1
	25	9077156	S303P-B25NA	2CDS383103R0255	0.496	1
	32	9077064	S303P-B32NA	2CDS383103R0325	0.496	1
	40	9076999	S303P-B40NA	2CDS383103R0405	0.496	1
	50	9076876	S303P-B50NA	2CDS383103R0505	0.496	1
	63	9076746	S303P-B63NA	2CDS383103R0635	0.496	1

Miniature Circuit breakers S300P

C characteristic



S 301



S 302



S 303

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
1	0.5	9079891	S301P-C0.5	2CDS381001R0984	0.124	10
	1	9080675	S301P-C1	2CDS381001R0014	0.124	10
	1.6	9079914	S301P-C1.6	2CDS381001R0974	0.124	10
	2	9080651	S301P-C2	2CDS381001R0024	0.124	10
	3	9080637	S301P-C3	2CDS381001R0034	0.124	10
	4	9080613	S301P-C4	2CDS381001R0044	0.124	10
	6	9080590	S301P-C6	2CDS381001R0064	0.124	10
	8	9080569	S301P-C8	2CDS381001R0084	0.124	10
	10	9080538	S301P-C10	2CDS381001R0104	0.124	10
	13	9080491	S301P-C13	2CDS381001R0134	0.124	10
	16	9080446	S301P-C16	2CDS381001R0164	0.124	10
	20	9080408	S301P-C20	2CDS381001R0204	0.124	10
	25	9080354	S301P-C25	2CDS381001R0254	0.124	10
	32	9080262	S301P-C32	2CDS381001R0324	0.124	10
	40	9080194	S301P-C40	2CDS381001R0404	0.124	10
	50	9080071	S301P-C50	2CDS381001R0504	0.124	10
	63	9079945	S301P-C63	2CDS381001R0634	0.124	10
2	0.5	9078306	S302P-C0.5	2CDS382001R0984	0.248	5
	1	9079082	S302P-C1	2CDS382001R0014	0.248	5
	1.6	9078320	S302P-C1.6	2CDS382001R0974	0.248	5
	2	9079068	S302P-C2	2CDS382001R0024	0.248	5
	3	9079044	S302P-C3	2CDS382001R0034	0.248	5
	4	9079020	S302P-C4	2CDS382001R0044	0.248	5
	6	9079006	S302P-C6	2CDS382001R0064	0.248	5
	8	9078979	S302P-C8	2CDS382001R0084	0.248	5
	10	9078948	S302P-C10	2CDS382001R0104	0.248	5
	13	9078900	S302P-C13	2CDS382001R0134	0.248	5
	16	9078856	S302P-C16	2CDS382001R0164	0.248	5
	20	9078818	S302P-C20	2CDS382001R0204	0.248	5
	25	9078764	S302P-C25	2CDS382001R0254	0.248	5
	32	9078672	S302P-C32	2CDS382001R0324	0.248	5
	40	9078603	S302P-C40	2CDS382001R0404	0.248	5
	50	9078481	S302P-C50	2CDS382001R0504	0.248	5
	63	9078351	S302P-C63	2CDS382001R0634	0.248	5
3	0.5	9077507	S303P-C0.5	2CDS383001R0984	0.372	1
	1	9078283	S303P-C1	2CDS383001R0014	0.372	1
	1.6	9077521	S303P-C1.6	2CDS383001R0974	0.372	1
	2	9078269	S303P-C2	2CDS383001R0024	0.372	1
	3	9078245	S303P-C3	2CDS383001R0034	0.372	1
	4	9078221	S303P-C4	2CDS383001R0044	0.372	1
	6	9078207	S303P-C6	2CDS383001R0064	0.372	1
	8	9078177	S303P-C8	2CDS383001R0084	0.372	1
	10	9078146	S303P-C10	2CDS383001R0104	0.372	1
	13	9078108	S303P-C13	2CDS383001R0134	0.372	1
	16	9078054	S303P-C16	2CDS383001R0164	0.372	1
	20	9078016	S303P-C20	2CDS383001R0204	0.372	1
	25	9077965	S303P-C25	2CDS383001R0254	0.372	1
	32	9077873	S303P-C32	2CDS383001R0324	0.372	1
	40	9077804	S303P-C40	2CDS383001R0404	0.372	1
	50	9077682	S303P-C50	2CDS383001R0504	0.372	1
	63	9077552	S303P-C63	2CDS383001R0634	0.372	1

Miniature Circuit breakers S300P

C characteristic



S 304



S 301 NA



S 303 NA

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
4	0.5	9135511	S304P-C0.5	2CDS384001R0984	0.496	1
	1	9076685	S304P-C1	2CDS384001R0014	0.496	1
	1.6	9075923	S304P-C1.6	2CDS384001R0974	0.496	1
	2	9076661	S304P-C2	2CDS384001R0024	0.496	1
	3	9076647	S304P-C3	2CDS384001R0034	0.496	1
	4	9076623	S304P-C4	2CDS384001R0044	0.496	1
	6	9135573	S304P-C6	2CDS384001R0064	0.496	1
	8	9076579	S304P-C8	2CDS384001R0084	0.496	1
	10	9076548	S304P-C10	2CDS384001R0104	0.496	1
	13	9135566	S304P-C13	2CDS384001R0134	0.496	1
	16	9076456	S304P-C16	2CDS384001R0164	0.496	1
	20	9076418	S304P-C20	2CDS384001R0204	0.496	1
	25	9076364	S304P-C25	2CDS384001R0254	0.496	1
	32	9076272	S304P-C32	2CDS384001R0324	0.496	1
	40	9135689	S304P-C40	2CDS384001R0404	0.496	1
	50	9076081	S304P-C50	2CDS384001R0504	0.496	1
	63	9075954	S304P-C63	2CDS384001R0634	0.496	1
1+N	0.5	9079105	S301P-C0.5NA	2CDS381103R0984	0.248	5
	1	9079877	S301P-C1NA	2CDS381103R0014	0.248	5
	1.6	9079129	S301P-C1.6NA	2CDS381103R0974	0.248	5
	2	9079853	S301P-C2NA	2CDS381103R0024	0.248	5
	3	9079839	S301P-C3NA	2CDS381103R0034	0.248	5
	4	9079815	S301P-C4NA	2CDS381103R0044	0.248	5
	6	9079792	S301P-C6NA	2CDS381103R0064	0.248	5
	8	9079778	S301P-C8NA	2CDS381103R0084	0.248	5
	10	9079747	S301P-C10NA	2CDS381103R0104	0.248	5
	13	9079709	S301P-C13NA	2CDS381103R0134	0.248	5
	16	9079655	S301P-C16NA	2CDS381103R0164	0.248	5
	20	9079617	S301P-C20NA	2CDS381103R0204	0.248	5
	25	9079563	S301P-C25NA	2CDS381103R0254	0.248	5
	32	9079471	S301P-C32NA	2CDS381103R0324	0.248	5
	40	9079402	S301P-C40NA	2CDS381103R0404	0.248	5
	50	9079280	S301P-C50NA	2CDS381103R0504	0.248	5
	63	9079150	S301P-C63NA	2CDS381103R0634	0.248	5
3+N	0.5	9135580	S303P-C0.5NA	2CDS383103R0984	0.496	1
	1	9077484	S303P-C1NA	2CDS383103R0014	0.496	1
	1.6	9076722	S303P-C1.6NA	2CDS383103R0974	0.496	1
	2	9077460	S303P-C2NA	2CDS383103R0024	0.496	1
	3	9077446	S303P-C3NA	2CDS383103R0034	0.496	1
	4	9077422	S303P-C4NA	2CDS383103R0044	0.496	1
	6	9077408	S303P-C6NA	2CDS383103R0064	0.496	1
	8	9077378	S303P-C8NA	2CDS383103R0084	0.496	1
	10	9077347	S303P-C10NA	2CDS383103R0104	0.496	1
	13	9135658	S303P-C13NA	2CDS383103R0134	0.496	1
	16	9077255	S303P-C16NA	2CDS383103R0164	0.496	1
	20	9077217	S303P-C20NA	2CDS383103R0204	0.496	1
	25	9077163	S303P-C25NA	2CDS383103R0254	0.496	1
	32	9077071	S303P-C32NA	2CDS383103R0324	0.496	1
	40	9135627	S303P-C40NA	2CDS383103R0404	0.496	1
	50	9076883	S303P-C50NA	2CDS383103R0504	0.496	1
	63	9076753	S303P-C63NA	2CDS383103R0634	0.496	1

Miniature Circuit breakers S300P

D characteristic



S 301



S 302



S 303

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
1	0.5	9079907	S301P-D0.5	2CDS381001R0981	0.124	10
	1	9080682	S301P-D1	2CDS381001R0011	0.124	10
	1.6	9079921	S301P-D1.6	2CDS381001R0971	0.124	10
	2	9080668	S301P-D2	2CDS381001R0021	0.124	10
	3	9080644	S301P-D3	2CDS381001R0031	0.124	10
	4	9080620	S301P-D4	2CDS381001R0041	0.124	10
	6	9080606	S301P-D6	2CDS381001R0061	0.124	10
	8	9080576	S301P-D8	2CDS381001R0081	0.124	10
	10	9080545	S301P-D10	2CDS381001R0101	0.124	10
	13	9080507	S301P-D13	2CDS381001R0131	0.124	10
	16	9080453	S301P-D16	2CDS381001R0161	0.124	10
	20	9080415	S301P-D20	2CDS381001R0201	0.124	10
	25	9080361	S301P-D25	2CDS381001R0251	0.124	10
	32	9080279	S301P-D32	2CDS381001R0321	0.124	10
	40	9080200	S301P-D40	2CDS381001R0401	0.124	10
	50	9080088	S301P-D50	2CDS381001R0501	0.124	10
	63	9079952	S301P-D63	2CDS381001R0631	0.124	10
2	0.5	9078313	S302P-D0.5	2CDS382001R0981	0.248	5
	1	9079099	S302P-D1	2CDS382001R0011	0.248	5
	1.6	9078337	S302P-D1.6	2CDS382001R0971	0.248	5
	2	9079075	S302P-D2	2CDS382001R0021	0.248	5
	3	9079051	S302P-D3	2CDS382001R0031	0.248	5
	4	9079037	S302P-D4	2CDS382001R0041	0.248	5
	6	9079013	S302P-D6	2CDS382001R0061	0.248	5
	8	9078986	S302P-D8	2CDS382001R0081	0.248	5
	10	9078955	S302P-D10	2CDS382001R0101	0.248	5
	13	9078917	S302P-D13	2CDS382001R0131	0.248	5
	16	9078863	S302P-D16	2CDS382001R0161	0.248	5
	20	9078825	S302P-D20	2CDS382001R0201	0.248	5
	25	9078771	S302P-D25	2CDS382001R0251	0.248	5
	32	9078689	S302P-D32	2CDS382001R0321	0.248	5
	40	9078610	S302P-D40	2CDS382001R0401	0.248	5
	50	9078498	S302P-D50	2CDS382001R0501	0.248	5
	63	9078368	S302P-D63	2CDS382001R0631	0.248	5
3	0.5	9077514	S303P-D0.5	2CDS383001R0981	0.372	1
	1	9078290	S303P-D1	2CDS383001R0011	0.372	1
	1.6	9077538	S303P-D1.6	2CDS383001R0971	0.372	1
	2	9078276	S303P-D2	2CDS383001R0021	0.372	1
	3	9078252	S303P-D3	2CDS383001R0031	0.372	1
	4	9078238	S303P-D4	2CDS383001R0041	0.372	1
	6	9078214	S303P-D6	2CDS383001R0061	0.372	1
	8	9078184	S303P-D8	2CDS383001R0081	0.372	1
	10	9078153	S303P-D10	2CDS383001R0101	0.372	1
	13	9078115	S303P-D13	2CDS383001R0131	0.372	1
	16	9078061	S303P-D16	2CDS383001R0161	0.372	1
	20	9078023	S303P-D20	2CDS383001R0201	0.372	1
	25	9077972	S303P-D25	2CDS383001R0251	0.372	1
	32	9077880	S303P-D32	2CDS383001R0321	0.372	1
	40	9077811	S303P-D40	2CDS383001R0401	0.372	1
	50	9077699	S303P-D50	2CDS383001R0501	0.372	1
	63	9077569	S303P-D63	2CDS383001R0631	0.372	1

Miniature Circuit breakers S300P

D characteristic



S 304



S 301 NA



S 303 NA

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
4	0.5	9075916	S304P-D0.5	2CDS384001R0981	0.496	1
	1	9076692	S304P-D1	2CDS384001R0011	0.496	1
	1.6	9075930	S304P-D1.6	2CDS384001R0971	0.496	1
	2	9076678	S304P-D2	2CDS384001R0021	0.496	1
	3	9076654	S304P-D3	2CDS384001R0031	0.496	1
	4	9076630	S304P-D4	2CDS384001R0041	0.496	1
	6	9076616	S304P-D6	2CDS384001R0061	0.496	1
	8	9076586	S304P-D8	2CDS384001R0081	0.496	1
	10	9076555	S304P-D10	2CDS384001R0101	0.496	1
	13	9076517	S304P-D13	2CDS384001R0131	0.496	1
	16	9076463	S304P-D16	2CDS384001R0161	0.496	1
	20	9076425	S304P-D20	2CDS384001R0201	0.496	1
	25	9076371	S304P-D25	2CDS384001R0251	0.496	1
	32	9076289	S304P-D32	2CDS384001R0321	0.496	1
	40	9076210	S304P-D40	2CDS384001R0401	0.496	1
	50	9076098	S304P-D50	2CDS384001R0501	0.496	1
	63	9075961	S304P-D63	2CDS384001R0631	0.496	1
1+N	0.5	9079112	S301P-D0.5NA	2CDS381103R0981	0.248	5
	1	9079884	S301P-D1NA	2CDS381103R0011	0.248	5
	1.6	9079136	S301P-D1.6NA	2CDS381103R0971	0.248	5
	2	9079860	S301P-D2NA	2CDS381103R0021	0.248	5
	3	9079846	S301P-D3NA	2CDS381103R0031	0.248	5
	4	9079822	S301P-D4NA	2CDS381103R0041	0.248	5
	6	9079808	S301P-D6NA	2CDS381103R0061	0.248	5
	8	9085717	S301P-D8NA	2CDS381103R0081	0.248	5
	10	9079754	S301P-D10NA	2CDS381103R0101	0.248	5
	13	9079716	S301P-D13NA	2CDS381103R0131	0.248	5
	16	9079662	S301P-D16NA	2CDS381103R0161	0.248	5
	20	9079624	S301P-D20NA	2CDS381103R0201	0.248	5
	25	9079570	S301P-D25NA	2CDS381103R0251	0.248	5
	32	9079488	S301P-D32NA	2CDS381103R0321	0.248	5
	40	9079419	S301P-D40NA	2CDS381103R0401	0.248	5
	50	9079297	S301P-D50NA	2CDS381103R0501	0.248	5
	63	9079167	S301P-D63NA	2CDS381103R0631	0.248	5
3+N	0.5	9076715	S303P-D0.5NA	2CDS383103R0981	0.496	1
	1	9077491	S303P-D1NA	2CDS383103R0011	0.496	1
	1.6	9076739	S303P-D1.6NA	2CDS383103R0971	0.496	1
	2	9077477	S303P-D2NA	2CDS383103R0021	0.496	1
	3	9077453	S303P-D3NA	2CDS383103R0031	0.496	1
	4	9077439	S303P-D4NA	2CDS383103R0041	0.496	1
	6	9077415	S303P-D6NA	2CDS383103R0061	0.496	1
	8	9077385	S303P-D8NA	2CDS383103R0081	0.496	1
	10	9077354	S303P-D10NA	2CDS383103R0101	0.496	1
	13	9077316	S303P-D13NA	2CDS383103R0131	0.496	1
	16	9077262	S303P-D16NA	2CDS383103R0161	0.496	1
	20	9077224	S303P-D20NA	2CDS383103R0201	0.496	1
	25	9077170	S303P-D25NA	2CDS383103R0251	0.496	1
	32	9077088	S303P-D32NA	2CDS383103R0321	0.496	1
	40	9077019	S303P-D40NA	2CDS383103R0401	0.496	1
	50	9076890	S303P-D50NA	2CDS383103R0501	0.496	1
	63	9076760	S303P-D63NA	2CDS383103R0631	0.496	1

Miniature Circuit breakers S300P

K characteristic



S 301



S 302

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
1	0.2	9080552	S301P-K0.2	2CDS381001R0087	0.124	10
	0.3	9080514	S301P-K0.3	2CDS381001R0117	0.124	10
	0.5	9080477	S301P-K0.5	2CDS381001R0157	0.124	10
	0.75	9080422	S301P-K0.75	2CDS381001R0187	0.124	10
	1	9080385	S301P-K1	2CDS381001R0217	0.124	10
	1.6	9080330	S301P-K1.6	2CDS381001R0257	0.124	10
	2	9080316	S301P-K2	2CDS381001R0277	0.124	10
	3	9080293	S301P-K3	2CDS381001R0317	0.124	10
	4	9080248	S301P-K4	2CDS381001R0337	0.124	10
	6	9080224	S301P-K6	2CDS381001R0377	0.124	10
	8	9080170	S301P-K8	2CDS381001R0407	0.124	10
	10	9080156	S301P-K10	2CDS381001R0427	0.124	10
	13	9080132	S301P-K13	2CDS381001R0447	0.124	10
	16	9080125	S301P-K16	2CDS381001R0467	0.124	10
	20	9080101	S301P-K20	2CDS381001R0487	0.124	10
	25	9080057	S301P-K25	2CDS381001R0517	0.124	10
	32	9080033	S301P-K32	2CDS381001R0537	0.124	10
	40	9080019	S301P-K40	2CDS381001R0557	0.124	10
	50	9079990	S301P-K50	2CDS381001R0577	0.124	10
	63	9079976	S301P-K63	2CDS381001R0607	0.124	10
2	0.2	9078962	S302P-K0.2	2CDS382001R0087	0.248	5
	0.3	9078924	S302P-K0.3	2CDS382001R0117	0.248	5
	0.5	9078887	S302P-K0.5	2CDS382001R0157	0.248	5
	0.75	9078832	S302P-K0.75	2CDS382001R0187	0.248	5
	1	9078795	S302P-K1	2CDS382001R0217	0.248	5
	1.6	9078740	S302P-K1.6	2CDS382001R0257	0.248	5
	2	9078726	S302P-K2	2CDS382001R0277	0.248	5
	3	9078702	S302P-K3	2CDS382001R0317	0.248	5
	4	9078658	S302P-K4	2CDS382001R0337	0.248	5
	6	9078634	S302P-K6	2CDS382001R0377	0.248	5
	8	9078580	S302P-K8	2CDS382001R0407	0.248	5
	10	9078566	S302P-K10	2CDS382001R0427	0.248	5
	13	9078542	S302P-K13	2CDS382001R0447	0.248	5
	16	9078535	S302P-K16	2CDS382001R0467	0.248	5
	20	9078511	S302P-K20	2CDS382001R0487	0.248	5
	25	9078467	S302P-K25	2CDS382001R0517	0.248	5
	32	9078443	S302P-K32	2CDS382001R0537	0.248	5
	40	9078429	S302P-K40	2CDS382001R0557	0.248	5
	50	9078405	S302P-K50	2CDS382001R0577	0.248	5
	63	9078382	S302P-K63	2CDS382001R0607	0.248	5

Miniature Circuit breakers S300P

K characteristic



S 303



S 304

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
3	0.2	9078160	S303P-K0.2	2CDS383001R0087	0.372	1
	0.3	9078122	S303P-K0.3	2CDS383001R0117	0.372	1
	0.5	9078085	S303P-K0.5	2CDS383001R0157	0.372	1
	0.75	9078030	S303P-K0.75	2CDS383001R0187	0.372	1
	1	9077996	S303P-K1	2CDS383001R0217	0.372	1
	1.6	9077941	S303P-K1.6	2CDS383001R0257	0.372	1
	2	9077927	S303P-K2	2CDS383001R0277	0.372	1
	3	9077903	S303P-K3	2CDS383001R0317	0.372	1
	4	9077859	S303P-K4	2CDS383001R0337	0.372	1
	6	9077835	S303P-K6	2CDS383001R0377	0.372	1
	8	9077781	S303P-K8	2CDS383001R0407	0.372	1
	10	9077767	S303P-K10	2CDS383001R0427	0.372	1
	13	9077743	S303P-K13	2CDS383001R0447	0.372	1
	16	9077736	S303P-K16	2CDS383001R0467	0.372	1
	20	9077712	S303P-K20	2CDS383001R0487	0.372	1
	25	9077668	S303P-K25	2CDS383001R0517	0.372	1
	32	9077644	S303P-K32	2CDS383001R0537	0.372	1
	40	9077620	S303P-K40	2CDS383001R0557	0.372	1
	50	9077606	S303P-K50	2CDS383001R0577	0.372	1
	63	9077583	S303P-K63	2CDS383001R0607	0.372	1
4	0.2	9076562	S304P-K0.2	2CDS384001R0087	0.496	1
	0.3	9076524	S304P-K0.3	2CDS384001R0117	0.496	1
	0.5	9076487	S304P-K0.5	2CDS384001R0157	0.496	1
	0.75	9076432	S304P-K0.75	2CDS384001R0187	0.496	1
	1	9076395	S304P-K1	2CDS384001R0217	0.496	1
	1.6	9076340	S304P-K1.6	2CDS384001R0257	0.496	1
	2	9076326	S304P-K2	2CDS384001R0277	0.496	1
	3	9135542	S304P-K3	2CDS384001R0317	0.496	1
	4	9076258	S304P-K4	2CDS384001R0337	0.496	1
	6	9076234	S304P-K6	2CDS384001R0377	0.496	1
	8	9076180	S304P-K8	2CDS384001R0407	0.496	1
	10	9076166	S304P-K10	2CDS384001R0427	0.496	1
	13	9076142	S304P-K13	2CDS384001R0447	0.496	1
	16	9076135	S304P-K16	2CDS384001R0467	0.496	1
	20	9076111	S304P-K20	2CDS384001R0487	0.496	1
	25	9076067	S304P-K25	2CDS384001R0517	0.496	1
	32	9076043	S304P-K32	2CDS384001R0537	0.496	1
	40	9076029	S304P-K40	2CDS384001R0557	0.496	1
	50	9135528	S304P-K50	2CDS384001R0577	0.496	1
	63	9075985	S304P-K63	2CDS384001R0607	0.496	1

Miniature Circuit breakers S300P

K characteristic



S 301 NA



S 303 NA

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
1+N	0.2	9079761	S301P-K0.2NA	2CDS381103R0087	0.248	5
	0.3	9079723	S301P-K0.3NA	2CDS381103R0117	0.248	5
	0.5	9079686	S301P-K0.5NA	2CDS381103R0157	0.248	5
	0.75	9079631	S301P-K0.75NA	2CDS381103R0187	0.248	5
	1	9079594	S301P-K1NA	2CDS381103R0217	0.248	5
	1.6	9079549	S301P-K1.6NA	2CDS381103R0257	0.248	5
	2	9079525	S301P-K2NA	2CDS381103R0277	0.248	5
	3	9079501	S301P-K3NA	2CDS381103R0317	0.248	5
	4	9079457	S301P-K4NA	2CDS381103R0337	0.248	5
	6	9079433	S301P-K6NA	2CDS381103R0377	0.248	5
	8	9079389	S301P-K8NA	2CDS381103R0407	0.248	5
	10	9079365	S301P-K10NA	2CDS381103R0427	0.248	5
	13	9079341	S301P-K13NA	2CDS381103R0447	0.248	5
	16	9079334	S301P-K16NA	2CDS381103R0467	0.248	5
	20	9079310	S301P-K20NA	2CDS381103R0487	0.248	5
	25	9079266	S301P-K25NA	2CDS381103R0517	0.248	5
	32	9079242	S301P-K32NA	2CDS381103R0537	0.248	5
	40	9079228	S301P-K40NA	2CDS381103R0557	0.248	5
	50	9135665	S301P-K50NA	2CDS381103R0577	0.248	5
	63	9079181	S301P-K63NA	2CDS381103R0607	0.248	5
3+N	0.2	9077361	S303P-K0.2NA	2CDS383103R0087	0.496	1
	0.3	9077323	S303P-K0.3NA	2CDS383103R0117	0.496	1
	0.5	9077286	S303P-K0.5NA	2CDS383103R0157	0.496	1
	0.75	9077231	S303P-K0.75NA	2CDS383103R0187	0.496	1
	1	9077194	S303P-K1NA	2CDS383103R0217	0.496	1
	1.6	9077149	S303P-K1.6NA	2CDS383103R0257	0.496	1
	2	9077125	S303P-K2NA	2CDS383103R0277	0.496	1
	3	9135634	S303P-K3NA	2CDS383103R0317	0.496	1
	4	9077057	S303P-K4NA	2CDS383103R0337	0.496	1
	6	9077033	S303P-K6NA	2CDS383103R0377	0.496	1
	8	9076982	S303P-K8NA	2CDS383103R0407	0.496	1
	10	9076968	S303P-K10NA	2CDS383103R0427	0.496	1
	13	9076944	S303P-K13NA	2CDS383103R0447	0.496	1
	16	9076937	S303P-K16NA	2CDS383103R0467	0.496	1
	20	9076913	S303P-K20NA	2CDS383103R0487	0.496	1
	25	9076869	S303P-K25NA	2CDS383103R0517	0.496	1
	32	9076845	S303P-K32NA	2CDS383103R0537	0.496	1
	40	9076821	S303P-K40NA	2CDS383103R0557	0.496	1
	50	9135597	S303P-K50NA	2CDS383103R0577	0.496	1
	63	9076784	S303P-K63NA	2CDS383103R0607	0.496	1

Miniature Circuit breakers S300P

Z characteristic



S 301



S 302



S 303

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
1	0.5	9080460	S301P-Z0.5	2CDS381001R0158	0.124	10
	1	9080378	S301P-Z1	2CDS381001R0218	0.124	10
	1.6	9080323	S301P-Z1.6	2CDS381001R0258	0.124	10
	2	9080309	S301P-Z2	2CDS381001R0278	0.124	10
	3	9080286	S301P-Z3	2CDS381001R0318	0.124	10
	4	9080231	S301P-Z4	2CDS381001R0338	0.124	10
	6	9080217	S301P-Z6	2CDS381001R0378	0.124	10
	8	9080163	S301P-Z8	2CDS381001R0408	0.124	10
	10	9080149	S301P-Z10	2CDS381001R0428	0.124	10
	16	9080118	S301P-Z16	2CDS381001R0468	0.124	10
	20	9080095	S301P-Z20	2CDS381001R0488	0.124	10
	25	9080040	S301P-Z25	2CDS381001R0518	0.124	10
	32	9080026	S301P-Z32	2CDS381001R0538	0.124	10
	40	9080002	S301P-Z40	2CDS381001R0558	0.124	10
	50	9079983	S301P-Z50	2CDS381001R0578	0.124	10
	63	9079969	S301P-Z63	2CDS381001R0608	0.124	10
2	0.5	9078870	S302P-Z0.5	2CDS382001R0158	0.248	5
	1	9078788	S302P-Z1	2CDS382001R0218	0.248	5
	1.6	9078733	S302P-Z1.6	2CDS382001R0258	0.248	5
	2	9078719	S302P-Z2	2CDS382001R0278	0.248	5
	3	9078696	S302P-Z3	2CDS382001R0318	0.248	5
	4	9078641	S302P-Z4	2CDS382001R0338	0.248	5
	6	9078627	S302P-Z6	2CDS382001R0378	0.248	5
	8	9078573	S302P-Z8	2CDS382001R0408	0.248	5
	10	9078559	S302P-Z10	2CDS382001R0428	0.248	5
	16	9078528	S302P-Z16	2CDS382001R0468	0.248	5
	20	9078504	S302P-Z20	2CDS382001R0488	0.248	5
	25	9078450	S302P-Z25	2CDS382001R0518	0.248	5
	32	9078436	S302P-Z32	2CDS382001R0538	0.248	5
	40	9078412	S302P-Z40	2CDS382001R0558	0.248	5
	50	9078399	S302P-Z50	2CDS382001R0578	0.248	5
	63	9078375	S302P-Z63	2CDS382001R0608	0.248	5
3	0.5	9078078	S303P-Z0.5	2CDS383001R0158	0.372	1
	1	9077989	S303P-Z1	2CDS383001R0218	0.372	1
	1.6	9077934	S303P-Z1.6	2CDS383001R0258	0.372	1
	2	9077910	S303P-Z2	2CDS383001R0278	0.372	1
	3	9077897	S303P-Z3	2CDS383001R0318	0.372	1
	4	9077842	S303P-Z4	2CDS383001R0338	0.372	1
	6	9077828	S303P-Z6	2CDS383001R0378	0.372	1
	8	9077774	S303P-Z8	2CDS383001R0408	0.372	1
	10	9077750	S303P-Z10	2CDS383001R0428	0.372	1
	16	9077729	S303P-Z16	2CDS383001R0468	0.372	1
	20	9077705	S303P-Z20	2CDS383001R0488	0.372	1
	25	9077651	S303P-Z25	2CDS383001R0518	0.372	1
	32	9077637	S303P-Z32	2CDS383001R0538	0.372	1
	40	9077613	S303P-Z40	2CDS383001R0558	0.372	1
	50	9077590	S303P-Z50	2CDS383001R0578	0.372	1
	63	9077576	S303P-Z63	2CDS383001R0608	0.372	1

Miniature Circuit breakers S300P

Z characteristic



S 304



S 301 NA



S 303 NA

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
4	0.5	9076470	S304P-Z0.5	2CDS384001R0158	0.496	1
	1	9076388	S304P-Z1	2CDS384001R0218	0.496	1
	1.6	9076333	S304P-Z1.6	2CDS384001R0258	0.496	1
	2	9076319	S304P-Z2	2CDS384001R0278	0.496	1
	3	9076296	S304P-Z3	2CDS384001R0318	0.496	1
	4	9076241	S304P-Z4	2CDS384001R0338	0.496	1
	6	9076227	S304P-Z6	2CDS384001R0378	0.496	1
	8	9076173	S304P-Z8	2CDS384001R0408	0.496	1
	10	9076159	S304P-Z10	2CDS384001R0428	0.496	1
	16	9076128	S304P-Z16	2CDS384001R0468	0.496	1
	20	9135535	S304P-Z20	2CDS384001R0488	0.496	1
	25	9076050	S304P-Z25	2CDS384001R0518	0.496	1
	32	9076036	S304P-Z32	2CDS384001R0538	0.496	1
	40	9076012	S304P-Z40	2CDS384001R0558	0.496	1
	50	9075992	S304P-Z50	2CDS384001R0578	0.496	1
	63	9075978	S304P-Z63	2CDS384001R0608	0.496	1
1+N	0.5	9079679	S301P-Z0.5NA	2CDS381103R0158	0.248	5
	1	9079587	S301P-Z1NA	2CDS381103R0218	0.248	5
	1.6	9079532	S301P-Z1.6NA	2CDS381103R0258	0.248	5
	2	9079518	S301P-Z2NA	2CDS381103R0278	0.248	5
	3	9079495	S301P-Z3NA	2CDS381103R0318	0.248	5
	4	9079440	S301P-Z4NA	2CDS381103R0338	0.248	5
	6	9079426	S301P-Z6NA	2CDS381103R0378	0.248	5
	8	9079372	S301P-Z8NA	2CDS381103R0408	0.248	5
	10	9079358	S301P-Z10NA	2CDS381103R0428	0.248	5
	16	9079327	S301P-Z16NA	2CDS381103R0468	0.248	5
	20	9135672	S301P-Z20NA	2CDS381103R0488	0.248	5
	25	9079259	S301P-Z25NA	2CDS381103R0518	0.248	5
	32	9079235	S301P-Z32NA	2CDS381103R0538	0.248	5
	40	9079211	S301P-Z40NA	2CDS381103R0558	0.248	5
	50	9079198	S301P-Z50NA	2CDS381103R0578	0.248	5
	63	9079174	S301P-Z63NA	2CDS381103R0608	0.248	5
3+N	0.5	9077279	S303P-Z0.5NA	2CDS383103R0158	0.496	1
	1	9077187	S303P-Z1NA	2CDS383103R0218	0.496	1
	1.6	9077132	S303P-Z1.6NA	2CDS383103R0258	0.496	1
	2	9077118	S303P-Z2NA	2CDS383103R0278	0.496	1
	3	9077095	S303P-Z3NA	2CDS383103R0318	0.496	1
	4	9077040	S303P-Z4NA	2CDS383103R0338	0.496	1
	6	9077026	S303P-Z6NA	2CDS383103R0378	0.496	1
	8	9076975	S303P-Z8NA	2CDS383103R0408	0.496	1
	10	9076951	S303P-Z10NA	2CDS383103R0428	0.496	1
	16	9076920	S303P-Z16NA	2CDS383103R0468	0.496	1
	20	9135610	S303P-Z20NA	2CDS383103R0488	0.496	1
	25	9076852	S303P-Z25NA	2CDS383103R0518	0.496	1
	32	9076838	S303P-Z32NA	2CDS383103R0538	0.496	1
	40	9076814	S303P-Z40NA	2CDS383103R0558	0.496	1
	50	9076791	S303P-Z50NA	2CDS383103R0578	0.496	1
	63	9076777	S303P-Z63NA	2CDS383103R0608	0.496	1

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Electrification
Smart Building

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9AKK107992A4964 Rev. F - 04.2024

ROSETTI MARINO — CROSSWIND

ITEM	Tag	DP-200N1-Q49	: SPARE - DP-200N1-Q49		Dwg	1723002197-EL-DG-00013	
	S/Sys	83-20	: 400/230 V Switchboard (DP-200N1)		Module		
TASK	code	C10002897	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	PRE-COMM	Activity FTS	Discipline Electrical	Form	FTR-2	Protection Relay

FTR2 - Protection relay
Record sheet

RELAY DATA

Manufacturer:	ABB	Serial N°:	NA	Relay type:	NA
Auxiliary supply:	NA	Location:	B200	Cubicle:	+03
Switchboard:	DP-200N1				

Current transformers

Tag	Number of	Ratio	Location

Voltage transformers

Tag	Number of	Ratio	Location

Test result (refer to manufacturer's procedure)

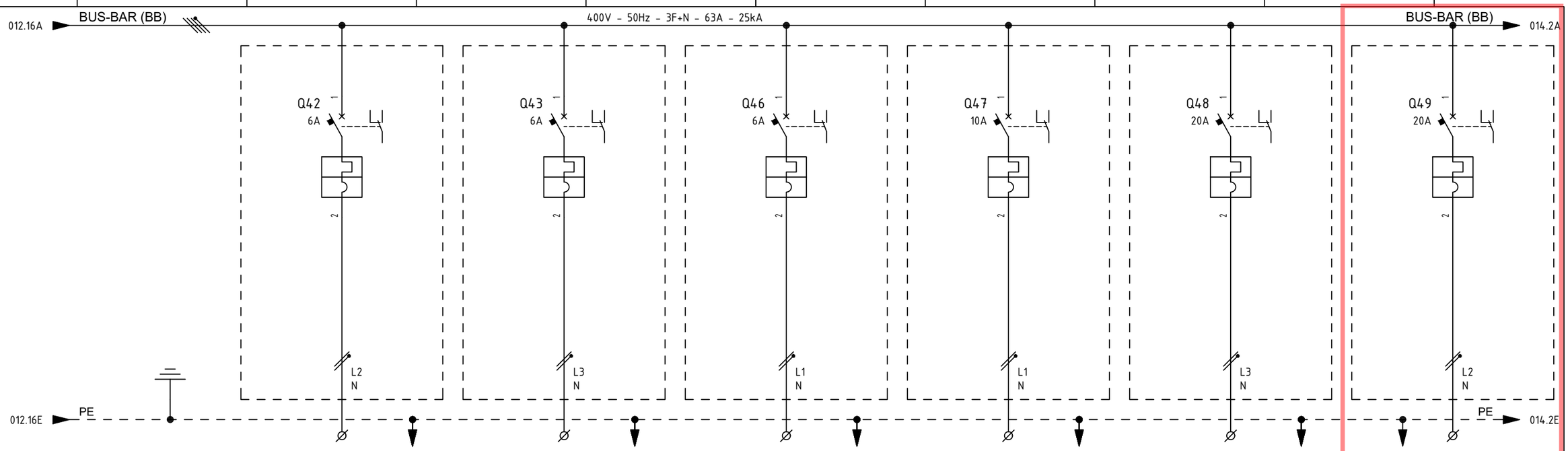
ANSI function	Setting	Injection	Trip value	Time delay Setting	Time delay Trip value
I	20A	NA	NA	FIXED	

Testing & measurement instruments used

Type	Serial n°	Calibration certificate	Validity
FLUKE 1663	5380144	7727/24	10/05/2025

Comments:

Page 1/1	Performed by	☐ WITNESS ☉ REVIEW	☐ WITNESS ☐ REVIEW
Company	RM COMM	RM COMM	CPY NOT PRESENT
Name	Mattia Girotti	Kristian Castellani	Witness waived
Date	2024-10-25	2024-10-28	2024-10-28
Signature	PROVERLIS Digitaly signed by Mattia Girotti 2024-10-25T14:37:05.893Z	PROVERLIS Digitaly signed by Kristian Castellani 2024-10-28T13:04:36.317Z	PROVERLIS Digitaly signed by Witness waived 2024-10-28T13:41:54.359Z



ITEM			1	UP-200F4	UP-200F1	-	-	-	-
UTILITY			2	AC UPS F&G AUXILIARY	DC BATTERY SYSTEM AUXILIARY	INS CABINET - SPARE AUXILIARY	SPARE	SPARE	SPARE
CUBICLE			3	+03	+03	+03	+03	+03	+03
RATED POWER | RATED CURRENT			4/5	0.2 KW | 0.82 A	0.2 KW | 0.82 A	0.5 KW | 2.72 A	1 KW | 5.43 A	3 KW | 16.3 A	3 KW | 16.3 A
TYPICAL FUNCTIONAL			6	-	-	-	-	-	-
CIRCUIT BREAKER (ABB)	TYPE		7	S302P-C6	S302P-C6	S302P-C6	S302P-C10	S302P-C20	S302P-C20
	VERSION		8	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE
	TRIP UNITS		9	In=6A - Curve C	In=6A - Curve C	In=6A - Curve C	In=10A - Curve C	In=20A - Curve C	In=20A - Curve C
	Icu	KA	10	25kA	25kA	25kA	25kA	25kA	25kA
OVERLOAD	L	Range A	11	-	-	-	-	-	-
		Range t	12	-	-	-	-	-	-
SEL. SHORT-CIRCUIT	S	Range A	13	-	-	-	-	-	-
		Range t	14	-	-	-	-	-	-
INST. SHORT-CIRCUIT	I	Range A	15	-	-	-	-	-	-
		Range t	16	-	-	-	-	-	-
EARTH FAULT PROTECTION	G	Range A	17	-	-	-	-	-	-
		Range t	18	-	-	-	-	-	-
CONTACTOR (ABB)			19	-	-	-	-	-	-
THERMAL OVERLOAD RELAY (ABB)			20	-	-	-	-	-	-
SURGE ARRESTERS (DHENN)			21	-	-	-	-	-	-
TOROIDAL CURRENT TRANSFORMER (FRER)			22	-	-	-	-	-	-
FUSE HOLDER (ABB)			23	-	-	-	-	-	-
TWILIGHT SWITCH (ABB)			24	-	-	-	-	-	-
VOLTMETER (FRER)			25	-	-	-	-	-	-
CURRENT TRANSFORMER FOR MEASURE (FRER)	TYPE		26	-	-	-	-	-	-
	PERFORMANCE/CLASS		27	-	-	-	-	-	-
VOLTAGE TRANSFORMER FOR MEASURE (FRER)	TYPE		28	-	-	-	-	-	-
	PERFORMANCE/CLASS		29	-	-	-	-	-	-
POWER TERM. BLOCK (CABUR)		Type/mm²	30	SCREW / 4	SCREW / 4	SCREW / 4	SCREW / 4	SCREW / 6	SCREW / 6
POWER CONDUCTOR		mm²	31	3G2.5	3G2.5	3G2.5	-	-	-

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DWG n° : 231298/SD/13
Item n° : PF1002888/101

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
4	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
3	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
2	24/04/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
1	15/03/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
0	08/02/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

TITLE : "DP-200N1"

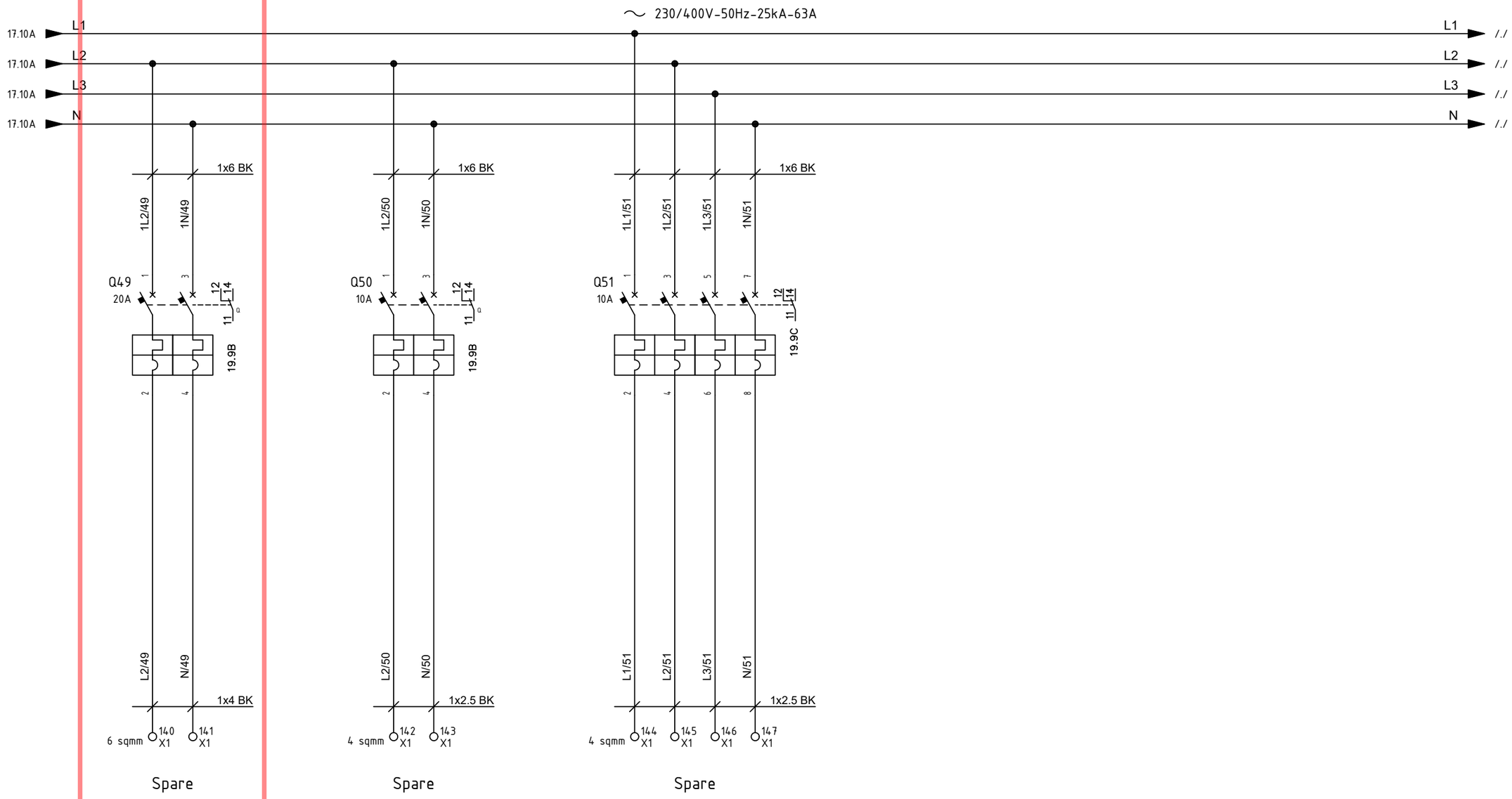
SINGLE LINE DIAGRAM
Single Line Drawing

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

A3 | DRAWING NO. 1723002197-EL-DG-00013 | SHEET 013 | REV. 04

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00013 Rev. 04



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
=					
+					
2	19/08/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
0	29/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

CROSSWIND

ROSETTI MARINO

IMESA ELECTRICAL ENGINEERING

DWG n° : 231298/SD/33

Item n° : PF1002888/101

TITLE : "DP-200N1"

LV SWBD FUNCTIONAL DIAGRAMS

Functional Drawing

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00033

SHEET 1.8

REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00033 Rev. 02

S300P
Data sheet



System pro *M* compact®
S300P miniature circuit breakers comply with IEC/EN 60947-2, IEC/EN 60898-1, UL 1077 and CSA 22.2 No. 235, protecting the installation in commercial and industrial applications by supporting a breaking capacity of 25 kA.

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S300P
Miniature Circuit Breaker

S300P MCB is designed to be used in installations where high breaking capacities are required to protect against short-circuits and overloads.

S300P is compliant to the product standards
IEC/EN 60947-2
IEC/EN 60898-1
UL 1077
CSA 22.2 No.235
and features the following main technical characteristics:

- Rated nominal current: 0.2 A ... 63 A
- Characteristic: B, C, D, K, Z
- Pole variant: 1, 2, 3, 4, 1+N, 3+N
- Rated breaking capacity I_{cu}: 25 kA; 100 kA (≤ 6 A)
- Rated operational voltage U_e: 240/415 V AC
- Rated impulse withstand voltage U_{imp}: 6 kV

Application benefits

- Integrated trip indicator for clear signalization of tripping events on site
- Dual DIN-Rail release for fast and easy installation
- Fully compatible with whole range of System pro *M* compact® accessories supporting lots of different functions
- Quick and easy product identification by QR-code along with direct access to the ABB product database
- Terminals equipped with fail safe feature to avoid improper installation
- Supply possible from top or bottom and in parallel with cables and busbars thanks to terminals composed by two different openings
- Excellent technical performance to ensure safety and protection of installation and personal
- Certified quality and compliance according to worldwide product standards

S300P
Technical data



S300P

		S300P
General Data	Standards	IEC/EN 60947-2, IEC/EN 60898-1, UL 1077, CSA 22.2 No. 235
	Poles	1P, 2P, 3P, 4P, 1+N, 3+N
	Tripping characteristics	B, C, D, K, Z
	Rated current I_n	6…63 A (B-curve), 0.5…63 A (C-, D-, Z-curve), 0.2…63 A (K-curve)
	Rated frequency f	50 / 60 Hz, DC
	Rated insulation voltage U_i acc. to IEC/EN 60664-1	500 V AC
	Overvoltage category	IV
	Pollution degree	3
Data acc. to IEC/EN 60947-2	Tripping Characteristics	B, C, D, K, Z
	Rated operational voltage U_e	1P, 1+N: 240 V AC, 72 V DC 2P: 415 V AC, 125 V DC 3P, 3+N, 4P: 415 V AC
	Max. power frequency recovery voltage U_{max}	1P, 1+N: 264 V AC, 72 V DC 2P, 3P, 3+N, 4P: 462 V AC, 125 V DC
	Min. operating voltage	12 V AC – 12 V DC
	Rated ultimate short-circuit breaking capacity I_{cu}	25 kA; 100 kA (≤ 6 A)
	Rated service short-circuit breaking capacity I_{cs}	12.5 kA (≤ 25 A); 10 kA (32-40 A); 7.5 kA (>40 A)
	Rated impulse withstand voltage U_{imp} (1.2/50 µs)	6 kV
	Reference temperature for tripping characteristics	55 °C (B-, C-, D-curve), 40 °C (K-, Z-curve)
	Electrical endurance	I_n < 32 A: 20,000 ops. (AC), I_n ≥ 32 A: 10,000 ops. (AC); 1,500 ops. (DC)
Data acc. to IEC/EN 60898-1	Tripping Characteristics	B, C, D
	Rated operational voltage U_n	1P: 240/415 V AC, 72 V DC 1+N: 240 V AC, 72 V DC 2P: 415 V AC, 125 V DC 3P, 3P+N, 4P: 415 V AC
	Max. power frequency recovery voltage U_{max}	1P, 1+N: 264 V AC, 72 V DC 2P, 3P, 3+N, 4P: 457 V AC, 125 V DC
	Min. operating voltage	12 V AC – 12 V DC
	Rated short-circuit capacity I_{cn}	25 kA (≤ 25 A), 20 kA (32 - 40 A), 15 kA (> 40 A)
	Dielectric test voltage	2.0 kV (50/60 Hz, 1 min)
	Reference temperature for tripping characteristics	30 °C
	Electrical endurance	I_n < 32 A: 20,000 ops. (AC), I_n ≥ 32 A: 10,000 ops. (AC); 1,000 ops. (DC)
Data acc. to UL1077 / CSA 22.2 No. 235	Tripping Characteristics	B, C, D, K, Z
	Rated voltage	1P: 277 V AC, 60 V DC 2...4P: 480Y/277 V AC, 125 V DC (2 poles in series)
	Rated interrupting capacity	10 kA
	Application Suppl. prot., for general use.	TC2, OL0, SC:U1
	Reference temperature for tripping characteristics	40 °C
	Electrical endurance	6,000 ops., 1 cycle (1s.-ON, 9s.-OFF)

S300P
Mechanical data

		S300P
Mechanical Data	Housing	Insulation group I, RAL 7035
	Toggle	Insulation group II, black, sealable
	Contact position indication	Real CPI (green OFF / red ON)
	Trip position indicator	TPI (grey NO TRIP / orange TRIP)
	Protection degree acc. to DIN EN 60529	IP20, IP40 in enclosure with cover
	Mechanical endurance	20,000 ops.
	Shock resistance acc. to IEC/EN 60068-2-27	25 g - 2 shocks - 13 ms
	Vibration resistance acc. to IEC/EN 60068-2-6	5 g - 20 cycles at 5 ... 150 ... 5 Hz at 0.8 I_n
	Environmental conditions (damp heat cyclic) acc. to IEC/EN 60068-2-30	28 cycles with 55 °C/90-96 % and 25 °C/95-100 %
	Ambient temperature	-40 ... +70 °C
	Storage temperature	-50 ... +70 °C
Installation	Terminal	Failsafe bi-directional cylinder-lift terminal
	Cross-section of conductors (top/bottom)	solid, stranded: 35 mm² / 35 mm² flexible: 25 mm² / 25 mm² 14 – 4 AWG
	Cross-section of busbars (top/bottom)	10 mm² / 10 mm² 14 – 8 AWG
	Torque	2.8 Nm; 18 in-lbs.
	Screw driver	No. 2 Pozidrive
	Mounting	on DIN rail 35 mm, acc. to EN 60715 by dual DIN-rail release
	Mounting position	any
	Supply	any
Dimensions and weight	Mounting dimensions acc. to DIN 43880	1
	Pole dimensions (H x D x W)	88 x 69 x 17.5 mm
	Pole weight approx.	124 g
Combination with auxiliary elements	Auxiliary contact	Yes
	Bottom fixed auiliary contact	Yes
	Signal contact	Yes
	Shunt trip	Yes
	Undervoltage release	Yes
	Motor operating device	Yes
Standards	IEC/EN 60947-2	
	IEC/EN 60898-1	
	UL 1077	
	CSA 22.2. No.235	
	GB/T 14048.2	
	GB/T 10963.1	

Approvals

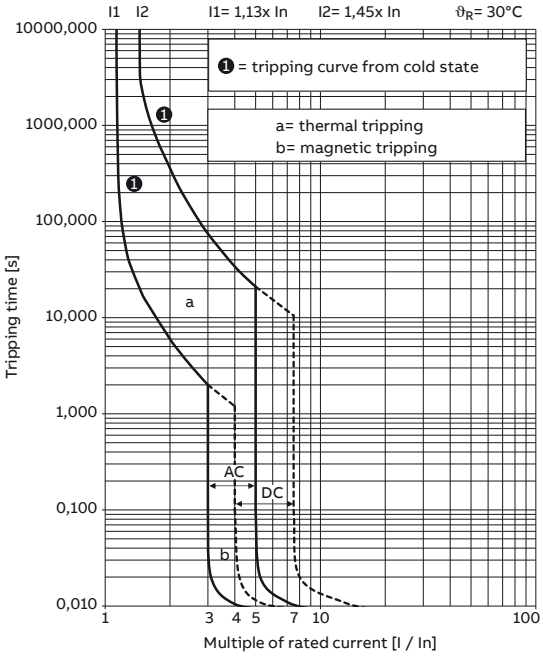
- VDE - DE
- UL 1077 - US
- CSA 22.2 No.235 - CA
- CCC - PRC
- EAC - RU
- KEMA - NL
- IMQ - IT
- SII - IL
- S+ - CH
- ÖVE - AT
- NF - FR
- EZU - CZ
- ANCE - MX
- KC - KR
- UKCA - UK
- DNV - NO
- GL - DE
- LRS - UK
- RINA - IT

Miniature Circuit breakers S300P

Tripping characteristics

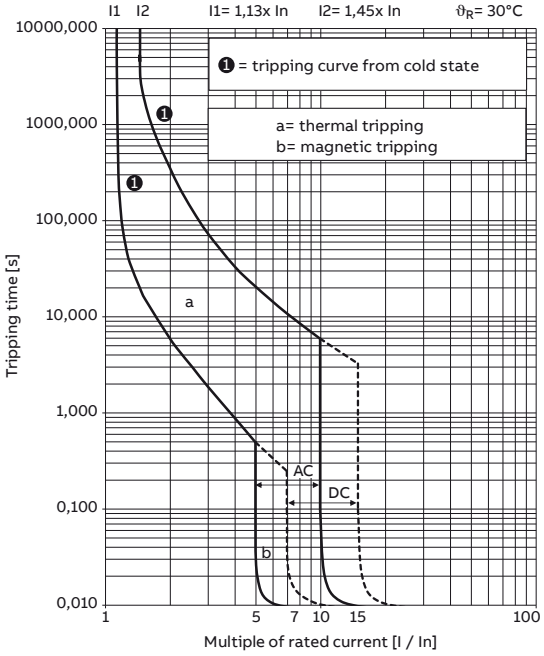
MCB Type S300P - B (3 ... 5 x I_n AC)

Tripping Characteristic IEC/EN 60898-1



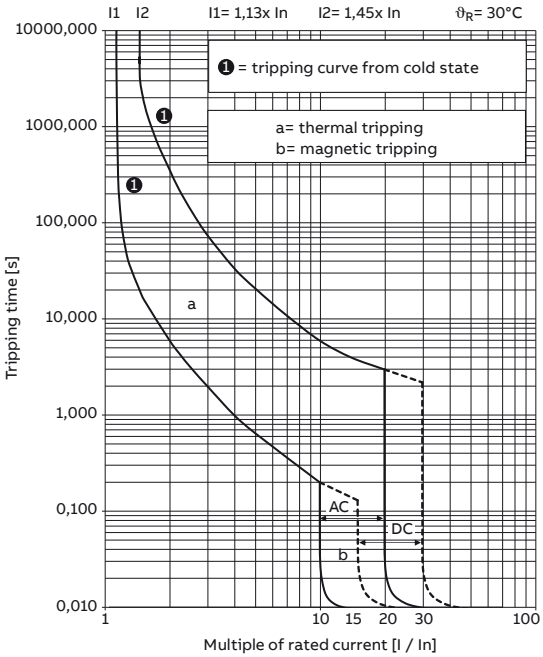
MCB Type S300P - C (5 ... 10 x I_n AC)

Tripping Characteristic IEC/EN 60898-1

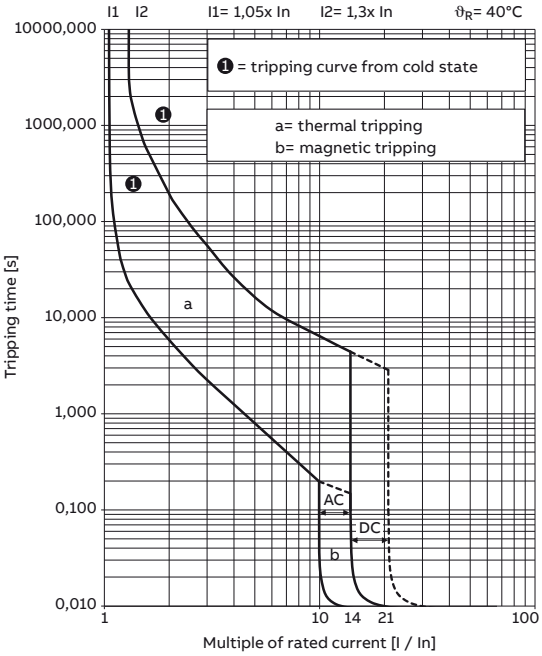


MCB Type S300P - D (10 ... 20 x I_n AC)

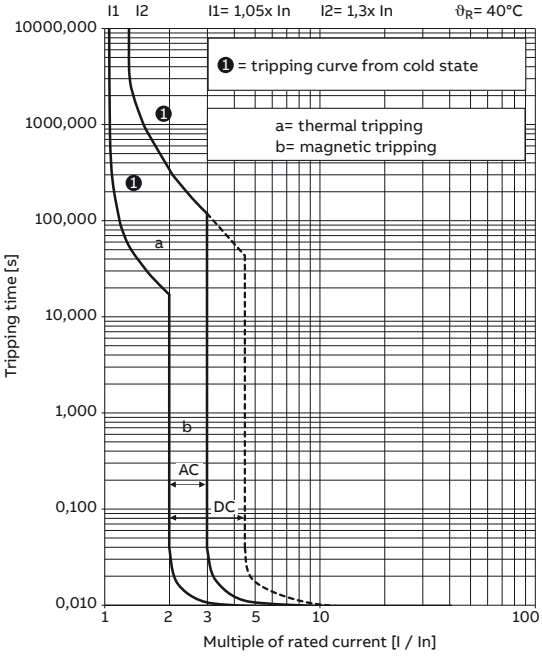
Tripping Characteristic IEC/EN 60898-1



MCB Type S300P - K (10 ... 14 x I_n AC)
Tripping Characteristic IEC/EN 60947-2



MCB Type S300P - Z (2 ... 3 x I_n AC)
Tripping Characteristic IEC/EN 60947-2



Tripping characteristics S300P

Acc. to	Tripping characteristics	Rated current	Thermal release [2]			Electromagnetic release [1]		
			Currents:		Tripping time	Currents:		Tripping time
			conventional non-tripping current	conventional tripping current		hold current surges	trip at least at	
IEC/EN 60898-1	B	06 to 63 A	1.13 · I_n		> 1 h	3 · I_n		> 0.1 s
				1.45 · I_n	< 1 h		5 · I_n	< 0.1 s
	C	0.5 to 63 A	1.13 · I_n		> 1 h	5 · I_n		> 0.1 s
				1.45 · I_n	< 1 h		10 · I_n	< 0.1 s
	D	0.5 to 63 A	1.13 · I_n		> 1 h	10 · I_n		> 0.1 s
				1.45 · I_n	< 1 h		20 · I_n	< 0.1 s
IEC/EN 60947-2	K	0.2 to 63 A	1.05 · I_n		> 1 h	10 · I_n		> 0.2 s
				1.3 · I_n	< 1 h [3]		14 · I_n	< 0.2 s
	Z	0.5 to 63 A	1.05 · I_n		> 1 h	2 · I_n		> 0.2 s
				1.3 · I_n	< 1 h [3]		3 · I_n	< 0.2 s

[1] The indicated electromagnetic tripping values apply to a frequency range of 16 2/3... 60 Hz. For different network frequencies or direct current the values change according to the multipler in the table below
[2] The thermal releases are calibrated to a nominal reference ambient temperature; for Z and K, the value is 40 °C, for B, C and D is 30 °C. In the case of higher ambient temperatures, the current values fall by ca. 6 % for each 10 K temperature rise.
[3] As from operating temperature (after I_1 > 1 h or, as applicable, 2 h).

	AC			DC
	100 Hz	200 Hz	400 Hz	
Multiplier	1.1	1.2	1.5	1.5

The thermal tripping performance is independent from the network frequency.

Miniature Circuit breakers S300P

Derating

For installations of miniature circuit breakers at other temperatures than the reference value and installations of several miniature circuit breakers directly side by side, derating factors have to be considered.

Deviating ambient temperature

The rated value of the current of a miniature circuit breaker refers to a temperature of 40 °C for circuit-breakers with characteristics K and Z and 30 °C for characteristics B, C and D. The following table contains the derating of load capability of S300P MCBs with temperature from -40 °C to 70 °C for the curves B, C, D, K, and Z.

Tripping characteristic	Rated Current I_n (A)	Max. Operating currents depending on the ambient temperature T (°C)											
		-40	-30	-20	-10	0	10	20	30	40	50	60	70
B. C and D	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4
	1	1.2	1.2	1.2	1.1	1.1	1.1	1.0	1.0	1.0	0.9	0.9	0.9
	1.6	1.9	1.9	1.8	1.8	1.7	1.7	1.6	1.6	1.6	1.5	1.5	1.4
	2	2.4	2.4	2.3	2.2	2.2	2.1	2.1	2.0	1.9	1.9	1.8	1.8
	3	3.6	3.5	3.5	3.4	3.3	3.2	3.1	3.0	2.9	2.8	2.7	2.6
	4	4.8	4.7	4.6	4.5	4.4	4.2	4.1	4.0	3.9	3.8	3.6	3.5
	6	7.3	7.1	6.9	6.7	6.5	6.4	6.2	6.0	5.8	5.6	5.5	5.3
	8	9.7	9.4	9.2	9.0	8.7	8.5	8.2	8.0	7.8	7.5	7.3	7.0
	10	12.1	11.8	11.5	11.2	10.9	10.6	10.3	10.0	9.7	9.4	9.1	8.8
	13	15.5	15.5	15.0	14.5	14.0	14.0	13.5	13.0	12.5	12.0	12.0	11.5
	16	19.5	19.0	18.5	18.0	17.5	17.0	16.5	16.0	15.5	15.0	14.5	14.0
	20	24.0	23.5	23.0	22.5	22.0	21.0	20.5	20.0	19.5	19.0	18.0	17.5
	25	30.5	29.5	29.0	28.0	27.5	26.5	26.0	25.0	24.5	23.5	23.0	22.0
	32	38.5	38.0	37.0	36.0	35.0	34.0	33.0	32.0	31.0	30.0	29.0	28.0
	40	48.5	47.0	46.0	45.0	43.5	42.5	41.0	40.0	39.0	37.5	36.5	35.0
	50	60.5	59.0	57.5	56.0	54.5	53.0	51.5	50.0	48.5	47.0	45.5	44.0
	63	76.0	74.5	72.5	70.5	68.5	67.0	65.0	63.0	61.0	59.0	57.5	55.5
K and Z	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	0.5	0.7	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.4
	0.75	1.0	1.0	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7
	1	1.3	1.3	1.2	1.2	1.2	1.1	1.1	1.0	1.0	1.0	0.9	0.9
	1.6	2.1	2.1	2.0	1.9	1.9	1.8	1.7	1.7	1.6	1.5	1.5	1.4
	2	2.7	2.6	2.5	2.4	2.3	2.2	2.2	2.1	2.0	1.9	1.9	1.8
	3	4.0	3.9	3.7	3.6	3.5	3.3	3.2	3.1	3.0	2.9	2.8	2.7
	4	5.3	5.2	5.0	4.8	4.6	4.5	4.3	4.1	4.0	3.9	3.7	3.6
	6	8.0	7.7	7.5	7.2	6.9	6.7	6.5	6.2	6.0	5.8	5.6	5.4
	8	10.7	10.3	9.9	9.6	9.3	8.9	8.6	8.3	8.0	7.7	7.4	7.1
	10	13.4	12.9	12.4	12.0	11.6	11.2	10.8	10.4	10.0	9.6	9.3	8.9
	13	17.5	17.0	16.0	15.5	15.0	14.5	14.0	13.5	13.0	12.5	12.0	11.5
	16	21.5	20.5	20.0	19.0	18.5	18.0	17.0	16.5	16.0	15.5	15.0	14.5
	20	26.5	26.0	25.0	24.0	23.0	22.5	21.5	20.5	20.0	19.5	18.5	18.0
	25	33.5	32.0	31.0	30.0	29.0	28.0	27.0	26.0	25.0	24.0	23.0	22.5
	32	43.0	41.5	40.0	38.5	37.0	35.5	34.5	33.0	32.0	31.0	29.5	28.5
	40	53.5	51.5	49.5	48.0	46.5	44.5	43.0	41.5	40.0	38.5	37.0	35.5
	50	67.0	64.5	62.0	60.0	58.0	56.0	54.0	52.0	50.0	48.0	46.5	44.5
	63	84.5	81.0	78.5	75.5	73.0	70.5	67.5	65.5	63.0	60.5	58.5	56.5

Influence of adjacent devices

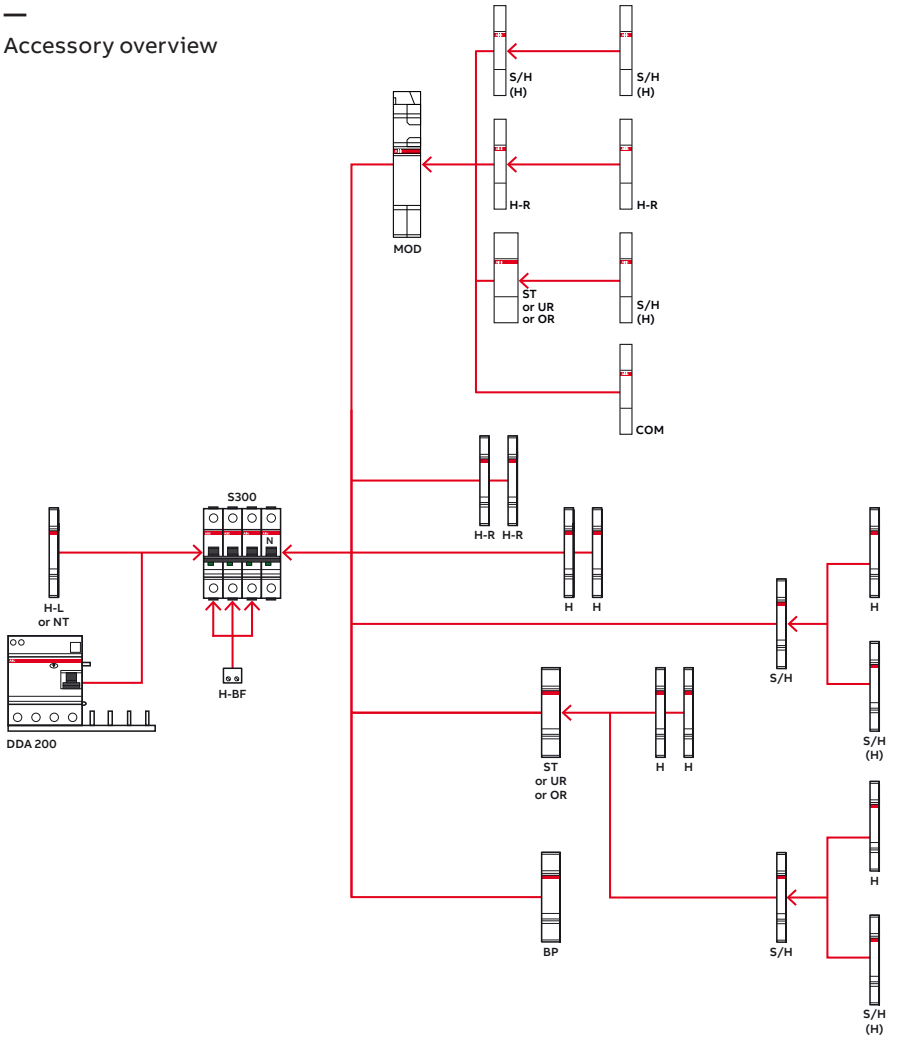
If several miniature circuit breakers are installed directly side by side with high load on all poles, a correction factor must be applied to the rated current (see table). If distance pieces are used, the factor is not to be considered.

No. of adjacent devices	Factor F
1	1
2.3	0.9
4.5	0.8
≥ 6	0.75

Miniature Circuit breakers S300P

Accessories and dimensional drawings

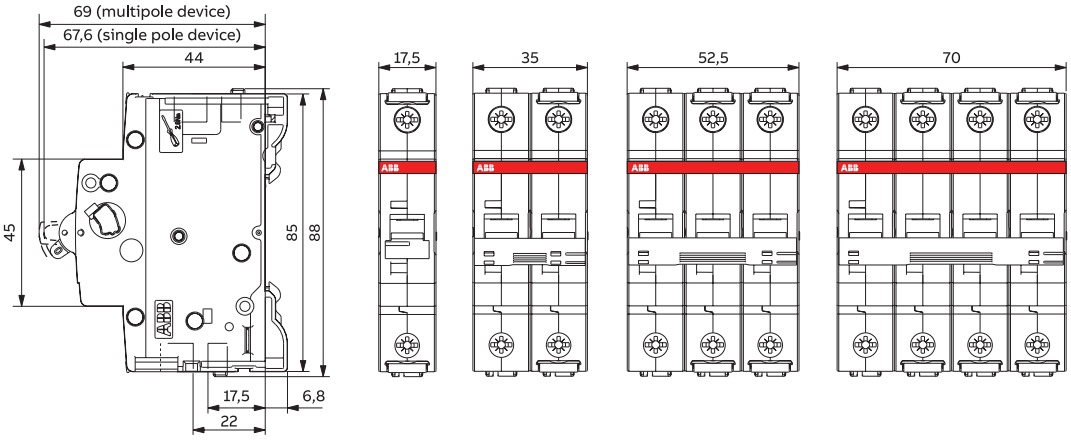
Accessory overview



H	Auxiliary contact (change-over contact)	S2C-H6R	H-L	Auxiliary contact	S2C-H..L
H-R	Auxiliary contact	S2C-H6-..R	H-BF	Auxiliary contact for bottom fitting (1 per pole)	S2C-H01 S2C-H10
S/H	Signal/Auxiliary contact used as auxiliary contact	S2C-S/H6R	BP	Mechanical tripping device	S2C-BP
			NT	Neutral disconnector	S2C-NT..
ST	Shunt trip	S3C-A..	MOD (1)	Motor operating device	S3C-MOD
UR	Undervoltage release	S2C-UA	COM	ModBus Interface	eMOD/AR ModBus
OR	Overvoltage release	S2C-OVP			
DDA 200	RCD-block	DDA 20..			

(1) In case of using S300 with DDA 200, MOD does not operate in case of earth-voltage fault

Dimensional drawing



Miniature Circuit breakers S300P

B characteristic



S 301



S 302



S 303

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
1	6	9080583	S301P-B6	2CDS381001R0065	0.124	10
	8	9086011	S301P-B8	2CDS381001R0085	0.124	10
	10	9080521	S301P-B10	2CDS381001R0105	0.124	10
	13	9080484	S301P-B13	2CDS381001R0135	0.124	10
	16	9080439	S301P-B16	2CDS381001R0165	0.124	10
	20	9080392	S301P-B20	2CDS381001R0205	0.124	10
	25	9080347	S301P-B25	2CDS381001R0255	0.124	10
	32	9080255	S301P-B32	2CDS381001R0325	0.124	10
	40	9080187	S301P-B40	2CDS381001R0405	0.124	10
	50	9080064	S301P-B50	2CDS381001R0505	0.124	10
	63	9079938	S301P-B63	2CDS381001R0635	0.124	10
2	6	9078993	S302P-B6	2CDS382001R0065	0.248	5
	8	9086059	S302P-B8	2CDS382001R0085	0.248	5
	10	9078931	S302P-B10	2CDS382001R0105	0.248	5
	13	9078894	S302P-B13	2CDS382001R0135	0.248	5
	16	9078849	S302P-B16	2CDS382001R0165	0.248	5
	20	9078801	S302P-B20	2CDS382001R0205	0.248	5
	25	9078757	S302P-B25	2CDS382001R0255	0.248	5
	32	9078665	S302P-B32	2CDS382001R0325	0.248	5
	40	9078597	S302P-B40	2CDS382001R0405	0.248	5
	50	9078474	S302P-B50	2CDS382001R0505	0.248	5
	63	9078344	S302P-B63	2CDS382001R0635	0.248	5
3	6	9078191	S303P-B6	2CDS383001R0065	0.372	1
	8	9086073	S303P-B8	2CDS383001R0085	0.372	1
	10	9078139	S303P-B10	2CDS383001R0105	0.372	1
	13	9078092	S303P-B13	2CDS383001R0135	0.372	1
	16	9078047	S303P-B16	2CDS383001R0165	0.372	1
	20	9078009	S303P-B20	2CDS383001R0205	0.372	1
	25	9077958	S303P-B25	2CDS383001R0255	0.372	1
	32	9077866	S303P-B32	2CDS383001R0325	0.372	1
	40	9077798	S303P-B40	2CDS383001R0405	0.372	1
	50	9077675	S303P-B50	2CDS383001R0505	0.372	1
	63	9077545	S303P-B63	2CDS383001R0635	0.372	1

Miniature Circuit breakers S300P

B characteristic



S 304



S 301 NA



S 303 NA

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
4	6	9076593	S304P-B6	2CDS384001R0065	0.496	1
	8	9086110	S304P-B8	2CDS384001R0085	0.496	1
	10	9076531	S304P-B10	2CDS384001R0105	0.496	1
	13	9076494	S304P-B13	2CDS384001R0135	0.496	1
	16	9076449	S304P-B16	2CDS384001R0165	0.496	1
	20	9135559	S304P-B20	2CDS384001R0205	0.496	1
	25	9076357	S304P-B25	2CDS384001R0255	0.496	1
	32	9076265	S304P-B32	2CDS384001R0325	0.496	1
	40	9076197	S304P-B40	2CDS384001R0405	0.496	1
	50	9076074	S304P-B50	2CDS384001R0505	0.496	1
	63	9075947	S304P-B63	2CDS384001R0635	0.496	1
1+N	6	9079785	S301P-B6NA	2CDS381103R0065	0.248	5
	8	9086035	S301P-B8NA	2CDS381103R0085	0.248	5
	10	9079730	S301P-B10NA	2CDS381103R0105	0.248	5
	13	9079693	S301P-B13NA	2CDS381103R0135	0.248	5
	16	9079648	S301P-B16NA	2CDS381103R0165	0.248	5
	20	9079600	S301P-B20NA	2CDS381103R0205	0.248	5
	25	9079556	S301P-B25NA	2CDS381103R0255	0.248	5
	32	9079464	S301P-B32NA	2CDS381103R0325	0.248	5
	40	9079396	S301P-B40NA	2CDS381103R0405	0.248	5
	50	9079273	S301P-B50NA	2CDS381103R0505	0.248	5
	63	9079143	S301P-B63NA	2CDS381103R0635	0.248	5
3+N	6	9077392	S303P-B6NA	2CDS383103R0065	0.496	1
	8	9086097	S303P-B8NA	2CDS383103R0085	0.496	1
	10	9077330	S303P-B10NA	2CDS383103R0105	0.496	1
	13	9077293	S303P-B13NA	2CDS383103R0135	0.496	1
	16	9077248	S303P-B16NA	2CDS383103R0165	0.496	1
	20	9135641	S303P-B20NA	2CDS383103R0205	0.496	1
	25	9077156	S303P-B25NA	2CDS383103R0255	0.496	1
	32	9077064	S303P-B32NA	2CDS383103R0325	0.496	1
	40	9076999	S303P-B40NA	2CDS383103R0405	0.496	1
	50	9076876	S303P-B50NA	2CDS383103R0505	0.496	1
	63	9076746	S303P-B63NA	2CDS383103R0635	0.496	1

Miniature Circuit breakers S300P

C characteristic



S 301



S 302



S 303

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
1	0.5	9079891	S301P-C0.5	2CDS381001R0984	0.124	10
	1	9080675	S301P-C1	2CDS381001R0014	0.124	10
	1.6	9079914	S301P-C1.6	2CDS381001R0974	0.124	10
	2	9080651	S301P-C2	2CDS381001R0024	0.124	10
	3	9080637	S301P-C3	2CDS381001R0034	0.124	10
	4	9080613	S301P-C4	2CDS381001R0044	0.124	10
	6	9080590	S301P-C6	2CDS381001R0064	0.124	10
	8	9080569	S301P-C8	2CDS381001R0084	0.124	10
	10	9080538	S301P-C10	2CDS381001R0104	0.124	10
	13	9080491	S301P-C13	2CDS381001R0134	0.124	10
	16	9080446	S301P-C16	2CDS381001R0164	0.124	10
	20	9080408	S301P-C20	2CDS381001R0204	0.124	10
	25	9080354	S301P-C25	2CDS381001R0254	0.124	10
	32	9080262	S301P-C32	2CDS381001R0324	0.124	10
	40	9080194	S301P-C40	2CDS381001R0404	0.124	10
	50	9080071	S301P-C50	2CDS381001R0504	0.124	10
	63	9079945	S301P-C63	2CDS381001R0634	0.124	10
2	0.5	9078306	S302P-C0.5	2CDS382001R0984	0.248	5
	1	9079082	S302P-C1	2CDS382001R0014	0.248	5
	1.6	9078320	S302P-C1.6	2CDS382001R0974	0.248	5
	2	9079068	S302P-C2	2CDS382001R0024	0.248	5
	3	9079044	S302P-C3	2CDS382001R0034	0.248	5
	4	9079020	S302P-C4	2CDS382001R0044	0.248	5
	6	9079006	S302P-C6	2CDS382001R0064	0.248	5
	8	9078979	S302P-C8	2CDS382001R0084	0.248	5
	10	9078948	S302P-C10	2CDS382001R0104	0.248	5
	13	9078900	S302P-C13	2CDS382001R0134	0.248	5
	16	9078856	S302P-C16	2CDS382001R0164	0.248	5
	20	9078818	S302P-C20	2CDS382001R0204	0.248	5
	25	9078764	S302P-C25	2CDS382001R0254	0.248	5
	32	9078672	S302P-C32	2CDS382001R0324	0.248	5
	40	9078603	S302P-C40	2CDS382001R0404	0.248	5
	50	9078481	S302P-C50	2CDS382001R0504	0.248	5
	63	9078351	S302P-C63	2CDS382001R0634	0.248	5
3	0.5	9077507	S303P-C0.5	2CDS383001R0984	0.372	1
	1	9078283	S303P-C1	2CDS383001R0014	0.372	1
	1.6	9077521	S303P-C1.6	2CDS383001R0974	0.372	1
	2	9078269	S303P-C2	2CDS383001R0024	0.372	1
	3	9078245	S303P-C3	2CDS383001R0034	0.372	1
	4	9078221	S303P-C4	2CDS383001R0044	0.372	1
	6	9078207	S303P-C6	2CDS383001R0064	0.372	1
	8	9078177	S303P-C8	2CDS383001R0084	0.372	1
	10	9078146	S303P-C10	2CDS383001R0104	0.372	1
	13	9078108	S303P-C13	2CDS383001R0134	0.372	1
	16	9078054	S303P-C16	2CDS383001R0164	0.372	1
	20	9078016	S303P-C20	2CDS383001R0204	0.372	1
	25	9077965	S303P-C25	2CDS383001R0254	0.372	1
	32	9077873	S303P-C32	2CDS383001R0324	0.372	1
	40	9077804	S303P-C40	2CDS383001R0404	0.372	1
	50	9077682	S303P-C50	2CDS383001R0504	0.372	1
	63	9077552	S303P-C63	2CDS383001R0634	0.372	1

Miniature Circuit breakers S300P

C characteristic



S 304



S 301 NA



S 303 NA

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
4	0.5	9135511	S304P-C0.5	2CDS384001R0984	0.496	1
	1	9076685	S304P-C1	2CDS384001R0014	0.496	1
	1.6	9075923	S304P-C1.6	2CDS384001R0974	0.496	1
	2	9076661	S304P-C2	2CDS384001R0024	0.496	1
	3	9076647	S304P-C3	2CDS384001R0034	0.496	1
	4	9076623	S304P-C4	2CDS384001R0044	0.496	1
	6	9135573	S304P-C6	2CDS384001R0064	0.496	1
	8	9076579	S304P-C8	2CDS384001R0084	0.496	1
	10	9076548	S304P-C10	2CDS384001R0104	0.496	1
	13	9135566	S304P-C13	2CDS384001R0134	0.496	1
	16	9076456	S304P-C16	2CDS384001R0164	0.496	1
	20	9076418	S304P-C20	2CDS384001R0204	0.496	1
	25	9076364	S304P-C25	2CDS384001R0254	0.496	1
	32	9076272	S304P-C32	2CDS384001R0324	0.496	1
	40	9135689	S304P-C40	2CDS384001R0404	0.496	1
	50	9076081	S304P-C50	2CDS384001R0504	0.496	1
	63	9075954	S304P-C63	2CDS384001R0634	0.496	1
1+N	0.5	9079105	S301P-C0.5NA	2CDS381103R0984	0.248	5
	1	9079877	S301P-C1NA	2CDS381103R0014	0.248	5
	1.6	9079129	S301P-C1.6NA	2CDS381103R0974	0.248	5
	2	9079853	S301P-C2NA	2CDS381103R0024	0.248	5
	3	9079839	S301P-C3NA	2CDS381103R0034	0.248	5
	4	9079815	S301P-C4NA	2CDS381103R0044	0.248	5
	6	9079792	S301P-C6NA	2CDS381103R0064	0.248	5
	8	9079778	S301P-C8NA	2CDS381103R0084	0.248	5
	10	9079747	S301P-C10NA	2CDS381103R0104	0.248	5
	13	9079709	S301P-C13NA	2CDS381103R0134	0.248	5
	16	9079655	S301P-C16NA	2CDS381103R0164	0.248	5
	20	9079617	S301P-C20NA	2CDS381103R0204	0.248	5
	25	9079563	S301P-C25NA	2CDS381103R0254	0.248	5
	32	9079471	S301P-C32NA	2CDS381103R0324	0.248	5
	40	9079402	S301P-C40NA	2CDS381103R0404	0.248	5
	50	9079280	S301P-C50NA	2CDS381103R0504	0.248	5
	63	9079150	S301P-C63NA	2CDS381103R0634	0.248	5
3+N	0.5	9135580	S303P-C0.5NA	2CDS383103R0984	0.496	1
	1	9077484	S303P-C1NA	2CDS383103R0014	0.496	1
	1.6	9076722	S303P-C1.6NA	2CDS383103R0974	0.496	1
	2	9077460	S303P-C2NA	2CDS383103R0024	0.496	1
	3	9077446	S303P-C3NA	2CDS383103R0034	0.496	1
	4	9077422	S303P-C4NA	2CDS383103R0044	0.496	1
	6	9077408	S303P-C6NA	2CDS383103R0064	0.496	1
	8	9077378	S303P-C8NA	2CDS383103R0084	0.496	1
	10	9077347	S303P-C10NA	2CDS383103R0104	0.496	1
	13	9135658	S303P-C13NA	2CDS383103R0134	0.496	1
	16	9077255	S303P-C16NA	2CDS383103R0164	0.496	1
	20	9077217	S303P-C20NA	2CDS383103R0204	0.496	1
	25	9077163	S303P-C25NA	2CDS383103R0254	0.496	1
	32	9077071	S303P-C32NA	2CDS383103R0324	0.496	1
	40	9135627	S303P-C40NA	2CDS383103R0404	0.496	1
	50	9076883	S303P-C50NA	2CDS383103R0504	0.496	1
	63	9076753	S303P-C63NA	2CDS383103R0634	0.496	1

Miniature Circuit breakers S300P

D characteristic



S 301



S 302



S 303

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
1	0.5	9079907	S301P-D0.5	2CDS381001R0981	0.124	10
	1	9080682	S301P-D1	2CDS381001R0011	0.124	10
	1.6	9079921	S301P-D1.6	2CDS381001R0971	0.124	10
	2	9080668	S301P-D2	2CDS381001R0021	0.124	10
	3	9080644	S301P-D3	2CDS381001R0031	0.124	10
	4	9080620	S301P-D4	2CDS381001R0041	0.124	10
	6	9080606	S301P-D6	2CDS381001R0061	0.124	10
	8	9080576	S301P-D8	2CDS381001R0081	0.124	10
	10	9080545	S301P-D10	2CDS381001R0101	0.124	10
	13	9080507	S301P-D13	2CDS381001R0131	0.124	10
	16	9080453	S301P-D16	2CDS381001R0161	0.124	10
	20	9080415	S301P-D20	2CDS381001R0201	0.124	10
	25	9080361	S301P-D25	2CDS381001R0251	0.124	10
	32	9080279	S301P-D32	2CDS381001R0321	0.124	10
	40	9080200	S301P-D40	2CDS381001R0401	0.124	10
	50	9080088	S301P-D50	2CDS381001R0501	0.124	10
	63	9079952	S301P-D63	2CDS381001R0631	0.124	10
2	0.5	9078313	S302P-D0.5	2CDS382001R0981	0.248	5
	1	9079099	S302P-D1	2CDS382001R0011	0.248	5
	1.6	9078337	S302P-D1.6	2CDS382001R0971	0.248	5
	2	9079075	S302P-D2	2CDS382001R0021	0.248	5
	3	9079051	S302P-D3	2CDS382001R0031	0.248	5
	4	9079037	S302P-D4	2CDS382001R0041	0.248	5
	6	9079013	S302P-D6	2CDS382001R0061	0.248	5
	8	9078986	S302P-D8	2CDS382001R0081	0.248	5
	10	9078955	S302P-D10	2CDS382001R0101	0.248	5
	13	9078917	S302P-D13	2CDS382001R0131	0.248	5
	16	9078863	S302P-D16	2CDS382001R0161	0.248	5
	20	9078825	S302P-D20	2CDS382001R0201	0.248	5
	25	9078771	S302P-D25	2CDS382001R0251	0.248	5
	32	9078689	S302P-D32	2CDS382001R0321	0.248	5
	40	9078610	S302P-D40	2CDS382001R0401	0.248	5
	50	9078498	S302P-D50	2CDS382001R0501	0.248	5
	63	9078368	S302P-D63	2CDS382001R0631	0.248	5
3	0.5	9077514	S303P-D0.5	2CDS383001R0981	0.372	1
	1	9078290	S303P-D1	2CDS383001R0011	0.372	1
	1.6	9077538	S303P-D1.6	2CDS383001R0971	0.372	1
	2	9078276	S303P-D2	2CDS383001R0021	0.372	1
	3	9078252	S303P-D3	2CDS383001R0031	0.372	1
	4	9078238	S303P-D4	2CDS383001R0041	0.372	1
	6	9078214	S303P-D6	2CDS383001R0061	0.372	1
	8	9078184	S303P-D8	2CDS383001R0081	0.372	1
	10	9078153	S303P-D10	2CDS383001R0101	0.372	1
	13	9078115	S303P-D13	2CDS383001R0131	0.372	1
	16	9078061	S303P-D16	2CDS383001R0161	0.372	1
	20	9078023	S303P-D20	2CDS383001R0201	0.372	1
	25	9077972	S303P-D25	2CDS383001R0251	0.372	1
	32	9077880	S303P-D32	2CDS383001R0321	0.372	1
	40	9077811	S303P-D40	2CDS383001R0401	0.372	1
	50	9077699	S303P-D50	2CDS383001R0501	0.372	1
	63	9077569	S303P-D63	2CDS383001R0631	0.372	1

Miniature Circuit breakers S300P

D characteristic



S 304



S 301 NA



S 303 NA

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
4	0.5	9075916	S304P-D0.5	2CDS384001R0981	0.496	1
	1	9076692	S304P-D1	2CDS384001R0011	0.496	1
	1.6	9075930	S304P-D1.6	2CDS384001R0971	0.496	1
	2	9076678	S304P-D2	2CDS384001R0021	0.496	1
	3	9076654	S304P-D3	2CDS384001R0031	0.496	1
	4	9076630	S304P-D4	2CDS384001R0041	0.496	1
	6	9076616	S304P-D6	2CDS384001R0061	0.496	1
	8	9076586	S304P-D8	2CDS384001R0081	0.496	1
	10	9076555	S304P-D10	2CDS384001R0101	0.496	1
	13	9076517	S304P-D13	2CDS384001R0131	0.496	1
	16	9076463	S304P-D16	2CDS384001R0161	0.496	1
	20	9076425	S304P-D20	2CDS384001R0201	0.496	1
	25	9076371	S304P-D25	2CDS384001R0251	0.496	1
	32	9076289	S304P-D32	2CDS384001R0321	0.496	1
	40	9076210	S304P-D40	2CDS384001R0401	0.496	1
	50	9076098	S304P-D50	2CDS384001R0501	0.496	1
	63	9075961	S304P-D63	2CDS384001R0631	0.496	1
1+N	0.5	9079112	S301P-D0.5NA	2CDS381103R0981	0.248	5
	1	9079884	S301P-D1NA	2CDS381103R0011	0.248	5
	1.6	9079136	S301P-D1.6NA	2CDS381103R0971	0.248	5
	2	9079860	S301P-D2NA	2CDS381103R0021	0.248	5
	3	9079846	S301P-D3NA	2CDS381103R0031	0.248	5
	4	9079822	S301P-D4NA	2CDS381103R0041	0.248	5
	6	9079808	S301P-D6NA	2CDS381103R0061	0.248	5
	8	9085717	S301P-D8NA	2CDS381103R0081	0.248	5
	10	9079754	S301P-D10NA	2CDS381103R0101	0.248	5
	13	9079716	S301P-D13NA	2CDS381103R0131	0.248	5
	16	9079662	S301P-D16NA	2CDS381103R0161	0.248	5
	20	9079624	S301P-D20NA	2CDS381103R0201	0.248	5
	25	9079570	S301P-D25NA	2CDS381103R0251	0.248	5
	32	9079488	S301P-D32NA	2CDS381103R0321	0.248	5
	40	9079419	S301P-D40NA	2CDS381103R0401	0.248	5
	50	9079297	S301P-D50NA	2CDS381103R0501	0.248	5
	63	9079167	S301P-D63NA	2CDS381103R0631	0.248	5
3+N	0.5	9076715	S303P-D0.5NA	2CDS383103R0981	0.496	1
	1	9077491	S303P-D1NA	2CDS383103R0011	0.496	1
	1.6	9076739	S303P-D1.6NA	2CDS383103R0971	0.496	1
	2	9077477	S303P-D2NA	2CDS383103R0021	0.496	1
	3	9077453	S303P-D3NA	2CDS383103R0031	0.496	1
	4	9077439	S303P-D4NA	2CDS383103R0041	0.496	1
	6	9077415	S303P-D6NA	2CDS383103R0061	0.496	1
	8	9077385	S303P-D8NA	2CDS383103R0081	0.496	1
	10	9077354	S303P-D10NA	2CDS383103R0101	0.496	1
	13	9077316	S303P-D13NA	2CDS383103R0131	0.496	1
	16	9077262	S303P-D16NA	2CDS383103R0161	0.496	1
	20	9077224	S303P-D20NA	2CDS383103R0201	0.496	1
	25	9077170	S303P-D25NA	2CDS383103R0251	0.496	1
	32	9077088	S303P-D32NA	2CDS383103R0321	0.496	1
	40	9077019	S303P-D40NA	2CDS383103R0401	0.496	1
	50	9076890	S303P-D50NA	2CDS383103R0501	0.496	1
	63	9076760	S303P-D63NA	2CDS383103R0631	0.496	1

Miniature Circuit breakers S300P

K characteristic



S 301



S 302

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
1	0.2	9080552	S301P-K0.2	2CDS381001R0087	0.124	10
	0.3	9080514	S301P-K0.3	2CDS381001R0117	0.124	10
	0.5	9080477	S301P-K0.5	2CDS381001R0157	0.124	10
	0.75	9080422	S301P-K0.75	2CDS381001R0187	0.124	10
	1	9080385	S301P-K1	2CDS381001R0217	0.124	10
	1.6	9080330	S301P-K1.6	2CDS381001R0257	0.124	10
	2	9080316	S301P-K2	2CDS381001R0277	0.124	10
	3	9080293	S301P-K3	2CDS381001R0317	0.124	10
	4	9080248	S301P-K4	2CDS381001R0337	0.124	10
	6	9080224	S301P-K6	2CDS381001R0377	0.124	10
	8	9080170	S301P-K8	2CDS381001R0407	0.124	10
	10	9080156	S301P-K10	2CDS381001R0427	0.124	10
	13	9080132	S301P-K13	2CDS381001R0447	0.124	10
	16	9080125	S301P-K16	2CDS381001R0467	0.124	10
	20	9080101	S301P-K20	2CDS381001R0487	0.124	10
	25	9080057	S301P-K25	2CDS381001R0517	0.124	10
	32	9080033	S301P-K32	2CDS381001R0537	0.124	10
	40	9080019	S301P-K40	2CDS381001R0557	0.124	10
	50	9079990	S301P-K50	2CDS381001R0577	0.124	10
	63	9079976	S301P-K63	2CDS381001R0607	0.124	10
2	0.2	9078962	S302P-K0.2	2CDS382001R0087	0.248	5
	0.3	9078924	S302P-K0.3	2CDS382001R0117	0.248	5
	0.5	9078887	S302P-K0.5	2CDS382001R0157	0.248	5
	0.75	9078832	S302P-K0.75	2CDS382001R0187	0.248	5
	1	9078795	S302P-K1	2CDS382001R0217	0.248	5
	1.6	9078740	S302P-K1.6	2CDS382001R0257	0.248	5
	2	9078726	S302P-K2	2CDS382001R0277	0.248	5
	3	9078702	S302P-K3	2CDS382001R0317	0.248	5
	4	9078658	S302P-K4	2CDS382001R0337	0.248	5
	6	9078634	S302P-K6	2CDS382001R0377	0.248	5
	8	9078580	S302P-K8	2CDS382001R0407	0.248	5
	10	9078566	S302P-K10	2CDS382001R0427	0.248	5
	13	9078542	S302P-K13	2CDS382001R0447	0.248	5
	16	9078535	S302P-K16	2CDS382001R0467	0.248	5
	20	9078511	S302P-K20	2CDS382001R0487	0.248	5
	25	9078467	S302P-K25	2CDS382001R0517	0.248	5
	32	9078443	S302P-K32	2CDS382001R0537	0.248	5
	40	9078429	S302P-K40	2CDS382001R0557	0.248	5
	50	9078405	S302P-K50	2CDS382001R0577	0.248	5
	63	9078382	S302P-K63	2CDS382001R0607	0.248	5

Miniature Circuit breakers S300P

K characteristic



S 303



S 304

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
3	0.2	9078160	S303P-K0.2	2CDS383001R0087	0.372	1
	0.3	9078122	S303P-K0.3	2CDS383001R0117	0.372	1
	0.5	9078085	S303P-K0.5	2CDS383001R0157	0.372	1
	0.75	9078030	S303P-K0.75	2CDS383001R0187	0.372	1
	1	9077996	S303P-K1	2CDS383001R0217	0.372	1
	1.6	9077941	S303P-K1.6	2CDS383001R0257	0.372	1
	2	9077927	S303P-K2	2CDS383001R0277	0.372	1
	3	9077903	S303P-K3	2CDS383001R0317	0.372	1
	4	9077859	S303P-K4	2CDS383001R0337	0.372	1
	6	9077835	S303P-K6	2CDS383001R0377	0.372	1
	8	9077781	S303P-K8	2CDS383001R0407	0.372	1
	10	9077767	S303P-K10	2CDS383001R0427	0.372	1
	13	9077743	S303P-K13	2CDS383001R0447	0.372	1
	16	9077736	S303P-K16	2CDS383001R0467	0.372	1
	20	9077712	S303P-K20	2CDS383001R0487	0.372	1
	25	9077668	S303P-K25	2CDS383001R0517	0.372	1
	32	9077644	S303P-K32	2CDS383001R0537	0.372	1
	40	9077620	S303P-K40	2CDS383001R0557	0.372	1
	50	9077606	S303P-K50	2CDS383001R0577	0.372	1
	63	9077583	S303P-K63	2CDS383001R0607	0.372	1
4	0.2	9076562	S304P-K0.2	2CDS384001R0087	0.496	1
	0.3	9076524	S304P-K0.3	2CDS384001R0117	0.496	1
	0.5	9076487	S304P-K0.5	2CDS384001R0157	0.496	1
	0.75	9076432	S304P-K0.75	2CDS384001R0187	0.496	1
	1	9076395	S304P-K1	2CDS384001R0217	0.496	1
	1.6	9076340	S304P-K1.6	2CDS384001R0257	0.496	1
	2	9076326	S304P-K2	2CDS384001R0277	0.496	1
	3	9135542	S304P-K3	2CDS384001R0317	0.496	1
	4	9076258	S304P-K4	2CDS384001R0337	0.496	1
	6	9076234	S304P-K6	2CDS384001R0377	0.496	1
	8	9076180	S304P-K8	2CDS384001R0407	0.496	1
	10	9076166	S304P-K10	2CDS384001R0427	0.496	1
	13	9076142	S304P-K13	2CDS384001R0447	0.496	1
	16	9076135	S304P-K16	2CDS384001R0467	0.496	1
	20	9076111	S304P-K20	2CDS384001R0487	0.496	1
	25	9076067	S304P-K25	2CDS384001R0517	0.496	1
	32	9076043	S304P-K32	2CDS384001R0537	0.496	1
	40	9076029	S304P-K40	2CDS384001R0557	0.496	1
	50	9135528	S304P-K50	2CDS384001R0577	0.496	1
	63	9075985	S304P-K63	2CDS384001R0607	0.496	1

Miniature Circuit breakers S300P

K characteristic



S 301 NA



S 303 NA

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
1+N	0.2	9079761	S301P-K0.2NA	2CDS381103R0087	0.248	5
	0.3	9079723	S301P-K0.3NA	2CDS381103R0117	0.248	5
	0.5	9079686	S301P-K0.5NA	2CDS381103R0157	0.248	5
	0.75	9079631	S301P-K0.75NA	2CDS381103R0187	0.248	5
	1	9079594	S301P-K1NA	2CDS381103R0217	0.248	5
	1.6	9079549	S301P-K1.6NA	2CDS381103R0257	0.248	5
	2	9079525	S301P-K2NA	2CDS381103R0277	0.248	5
	3	9079501	S301P-K3NA	2CDS381103R0317	0.248	5
	4	9079457	S301P-K4NA	2CDS381103R0337	0.248	5
	6	9079433	S301P-K6NA	2CDS381103R0377	0.248	5
	8	9079389	S301P-K8NA	2CDS381103R0407	0.248	5
	10	9079365	S301P-K10NA	2CDS381103R0427	0.248	5
	13	9079341	S301P-K13NA	2CDS381103R0447	0.248	5
	16	9079334	S301P-K16NA	2CDS381103R0467	0.248	5
	20	9079310	S301P-K20NA	2CDS381103R0487	0.248	5
	25	9079266	S301P-K25NA	2CDS381103R0517	0.248	5
	32	9079242	S301P-K32NA	2CDS381103R0537	0.248	5
	40	9079228	S301P-K40NA	2CDS381103R0557	0.248	5
	50	9135665	S301P-K50NA	2CDS381103R0577	0.248	5
	63	9079181	S301P-K63NA	2CDS381103R0607	0.248	5
3+N	0.2	9077361	S303P-K0.2NA	2CDS383103R0087	0.496	1
	0.3	9077323	S303P-K0.3NA	2CDS383103R0117	0.496	1
	0.5	9077286	S303P-K0.5NA	2CDS383103R0157	0.496	1
	0.75	9077231	S303P-K0.75NA	2CDS383103R0187	0.496	1
	1	9077194	S303P-K1NA	2CDS383103R0217	0.496	1
	1.6	9077149	S303P-K1.6NA	2CDS383103R0257	0.496	1
	2	9077125	S303P-K2NA	2CDS383103R0277	0.496	1
	3	9135634	S303P-K3NA	2CDS383103R0317	0.496	1
	4	9077057	S303P-K4NA	2CDS383103R0337	0.496	1
	6	9077033	S303P-K6NA	2CDS383103R0377	0.496	1
	8	9076982	S303P-K8NA	2CDS383103R0407	0.496	1
	10	9076968	S303P-K10NA	2CDS383103R0427	0.496	1
	13	9076944	S303P-K13NA	2CDS383103R0447	0.496	1
	16	9076937	S303P-K16NA	2CDS383103R0467	0.496	1
	20	9076913	S303P-K20NA	2CDS383103R0487	0.496	1
	25	9076869	S303P-K25NA	2CDS383103R0517	0.496	1
	32	9076845	S303P-K32NA	2CDS383103R0537	0.496	1
	40	9076821	S303P-K40NA	2CDS383103R0557	0.496	1
	50	9135597	S303P-K50NA	2CDS383103R0577	0.496	1
	63	9076784	S303P-K63NA	2CDS383103R0607	0.496	1

Miniature Circuit breakers S300P

Z characteristic



S 301



S 302



S 303

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
1	0.5	9080460	S301P-Z0.5	2CDS381001R0158	0.124	10
	1	9080378	S301P-Z1	2CDS381001R0218	0.124	10
	1.6	9080323	S301P-Z1.6	2CDS381001R0258	0.124	10
	2	9080309	S301P-Z2	2CDS381001R0278	0.124	10
	3	9080286	S301P-Z3	2CDS381001R0318	0.124	10
	4	9080231	S301P-Z4	2CDS381001R0338	0.124	10
	6	9080217	S301P-Z6	2CDS381001R0378	0.124	10
	8	9080163	S301P-Z8	2CDS381001R0408	0.124	10
	10	9080149	S301P-Z10	2CDS381001R0428	0.124	10
	16	9080118	S301P-Z16	2CDS381001R0468	0.124	10
	20	9080095	S301P-Z20	2CDS381001R0488	0.124	10
	25	9080040	S301P-Z25	2CDS381001R0518	0.124	10
	32	9080026	S301P-Z32	2CDS381001R0538	0.124	10
	40	9080002	S301P-Z40	2CDS381001R0558	0.124	10
	50	9079983	S301P-Z50	2CDS381001R0578	0.124	10
	63	9079969	S301P-Z63	2CDS381001R0608	0.124	10
2	0.5	9078870	S302P-Z0.5	2CDS382001R0158	0.248	5
	1	9078788	S302P-Z1	2CDS382001R0218	0.248	5
	1.6	9078733	S302P-Z1.6	2CDS382001R0258	0.248	5
	2	9078719	S302P-Z2	2CDS382001R0278	0.248	5
	3	9078696	S302P-Z3	2CDS382001R0318	0.248	5
	4	9078641	S302P-Z4	2CDS382001R0338	0.248	5
	6	9078627	S302P-Z6	2CDS382001R0378	0.248	5
	8	9078573	S302P-Z8	2CDS382001R0408	0.248	5
	10	9078559	S302P-Z10	2CDS382001R0428	0.248	5
	16	9078528	S302P-Z16	2CDS382001R0468	0.248	5
	20	9078504	S302P-Z20	2CDS382001R0488	0.248	5
	25	9078450	S302P-Z25	2CDS382001R0518	0.248	5
	32	9078436	S302P-Z32	2CDS382001R0538	0.248	5
	40	9078412	S302P-Z40	2CDS382001R0558	0.248	5
	50	9078399	S302P-Z50	2CDS382001R0578	0.248	5
	63	9078375	S302P-Z63	2CDS382001R0608	0.248	5
3	0.5	9078078	S303P-Z0.5	2CDS383001R0158	0.372	1
	1	9077989	S303P-Z1	2CDS383001R0218	0.372	1
	1.6	9077934	S303P-Z1.6	2CDS383001R0258	0.372	1
	2	9077910	S303P-Z2	2CDS383001R0278	0.372	1
	3	9077897	S303P-Z3	2CDS383001R0318	0.372	1
	4	9077842	S303P-Z4	2CDS383001R0338	0.372	1
	6	9077828	S303P-Z6	2CDS383001R0378	0.372	1
	8	9077774	S303P-Z8	2CDS383001R0408	0.372	1
	10	9077750	S303P-Z10	2CDS383001R0428	0.372	1
	16	9077729	S303P-Z16	2CDS383001R0468	0.372	1
	20	9077705	S303P-Z20	2CDS383001R0488	0.372	1
	25	9077651	S303P-Z25	2CDS383001R0518	0.372	1
	32	9077637	S303P-Z32	2CDS383001R0538	0.372	1
	40	9077613	S303P-Z40	2CDS383001R0558	0.372	1
	50	9077590	S303P-Z50	2CDS383001R0578	0.372	1
	63	9077576	S303P-Z63	2CDS383001R0608	0.372	1

Miniature Circuit breakers S300P

Z characteristic



S 304



S 301 NA



S 303 NA

Number of poles	Rated current [A]	Order details Bbn 401677 EAN	Type code	Ordercode	Weight 1 piece kg	Pack unit pc.
4	0.5	9076470	S304P-Z0.5	2CDS384001R0158	0.496	1
	1	9076388	S304P-Z1	2CDS384001R0218	0.496	1
	1.6	9076333	S304P-Z1.6	2CDS384001R0258	0.496	1
	2	9076319	S304P-Z2	2CDS384001R0278	0.496	1
	3	9076296	S304P-Z3	2CDS384001R0318	0.496	1
	4	9076241	S304P-Z4	2CDS384001R0338	0.496	1
	6	9076227	S304P-Z6	2CDS384001R0378	0.496	1
	8	9076173	S304P-Z8	2CDS384001R0408	0.496	1
	10	9076159	S304P-Z10	2CDS384001R0428	0.496	1
	16	9076128	S304P-Z16	2CDS384001R0468	0.496	1
	20	9135535	S304P-Z20	2CDS384001R0488	0.496	1
	25	9076050	S304P-Z25	2CDS384001R0518	0.496	1
	32	9076036	S304P-Z32	2CDS384001R0538	0.496	1
	40	9076012	S304P-Z40	2CDS384001R0558	0.496	1
	50	9075992	S304P-Z50	2CDS384001R0578	0.496	1
	63	9075978	S304P-Z63	2CDS384001R0608	0.496	1
1+N	0.5	9079679	S301P-Z0.5NA	2CDS381103R0158	0.248	5
	1	9079587	S301P-Z1NA	2CDS381103R0218	0.248	5
	1.6	9079532	S301P-Z1.6NA	2CDS381103R0258	0.248	5
	2	9079518	S301P-Z2NA	2CDS381103R0278	0.248	5
	3	9079495	S301P-Z3NA	2CDS381103R0318	0.248	5
	4	9079440	S301P-Z4NA	2CDS381103R0338	0.248	5
	6	9079426	S301P-Z6NA	2CDS381103R0378	0.248	5
	8	9079372	S301P-Z8NA	2CDS381103R0408	0.248	5
	10	9079358	S301P-Z10NA	2CDS381103R0428	0.248	5
	16	9079327	S301P-Z16NA	2CDS381103R0468	0.248	5
	20	9135672	S301P-Z20NA	2CDS381103R0488	0.248	5
	25	9079259	S301P-Z25NA	2CDS381103R0518	0.248	5
	32	9079235	S301P-Z32NA	2CDS381103R0538	0.248	5
	40	9079211	S301P-Z40NA	2CDS381103R0558	0.248	5
	50	9079198	S301P-Z50NA	2CDS381103R0578	0.248	5
	63	9079174	S301P-Z63NA	2CDS381103R0608	0.248	5
3+N	0.5	9077279	S303P-Z0.5NA	2CDS383103R0158	0.496	1
	1	9077187	S303P-Z1NA	2CDS383103R0218	0.496	1
	1.6	9077132	S303P-Z1.6NA	2CDS383103R0258	0.496	1
	2	9077118	S303P-Z2NA	2CDS383103R0278	0.496	1
	3	9077095	S303P-Z3NA	2CDS383103R0318	0.496	1
	4	9077040	S303P-Z4NA	2CDS383103R0338	0.496	1
	6	9077026	S303P-Z6NA	2CDS383103R0378	0.496	1
	8	9076975	S303P-Z8NA	2CDS383103R0408	0.496	1
	10	9076951	S303P-Z10NA	2CDS383103R0428	0.496	1
	16	9076920	S303P-Z16NA	2CDS383103R0468	0.496	1
	20	9135610	S303P-Z20NA	2CDS383103R0488	0.496	1
	25	9076852	S303P-Z25NA	2CDS383103R0518	0.496	1
	32	9076838	S303P-Z32NA	2CDS383103R0538	0.496	1
	40	9076814	S303P-Z40NA	2CDS383103R0558	0.496	1
	50	9076791	S303P-Z50NA	2CDS383103R0578	0.496	1
	63	9076777	S303P-Z63NA	2CDS383103R0608	0.496	1

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9AKK107992A4964 Rev. F - 04.2024

ITEM	Tag	DP-200N1-Q50	: SPARE - DP-200N1-Q50		Dwg	1723002197-EL-DG-00013	
	S/Sys	83-20	: 400/230 V Switchboard (DP-200N1)		Module		
TASK	code	C10002898	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	PRE-COMM	Activity FTS	Discipline Electrical	Form	FTR-2	Protection Relay

FTR2 - Protection relay
Record sheet

RELAY DATA

Manufacturer: ABB	Serial N°: NA	Relay type: NA
Auxiliary supply: NA	Location: B200	Cubicle: +03
Switchboard: DP-200N1		

Current transformers

Tag	Number of	Ratio	Location

Voltage transformers

Tag	Number of	Ratio	Location

Test result (refer to manufacturer's procedure)

ANSI function	Setting	Injection	Trip value	Time delay Setting	Time delay Trip value
I	10A	NA	NA	FIXED	NA

Testing & measurement instruments used

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

Comments:

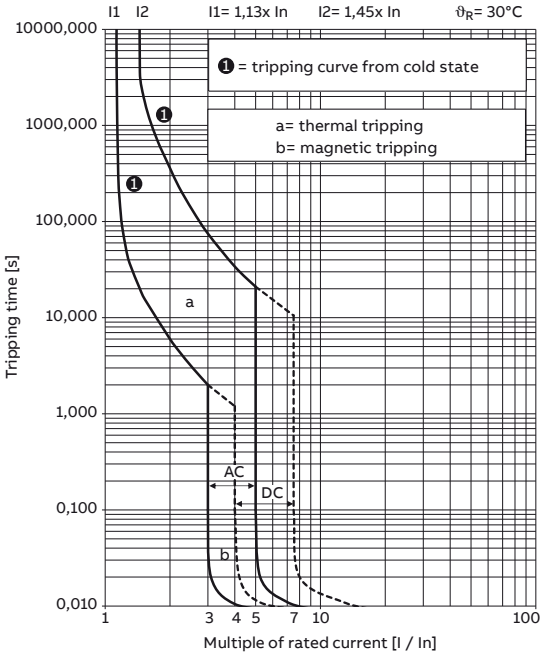
Page 1/1	Performed by	☐ WITNESS ☉ REVIEW	☐ WITNESS ☐ REVIEW
Company	RM COMM	RM COMM	CPY NOT PRESENT
Name	Mattia Girotti	Kristian Castellani	Witness waived
Date	2024-10-25	2024-10-28	2024-10-28
Signature	PROVERLIS Digitaly signed by Mattia Girotti 2024-10-25T11:28:46.282Z	PROVERLIS Digitaly signed by Kristian Castellani 2024-10-28T13:05:18.565Z	PROVERLIS Digitaly signed by Witness waived 2024-10-28T13:42:15.857Z

Miniature Circuit breakers S300P

Tripping characteristics

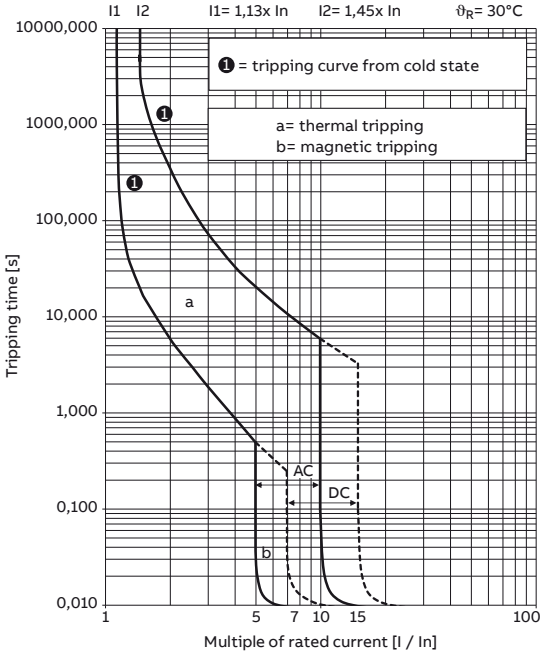
MCB Type S300P - B (3 ... 5 x I_n AC)

Tripping Characteristic IEC/EN 60898-1



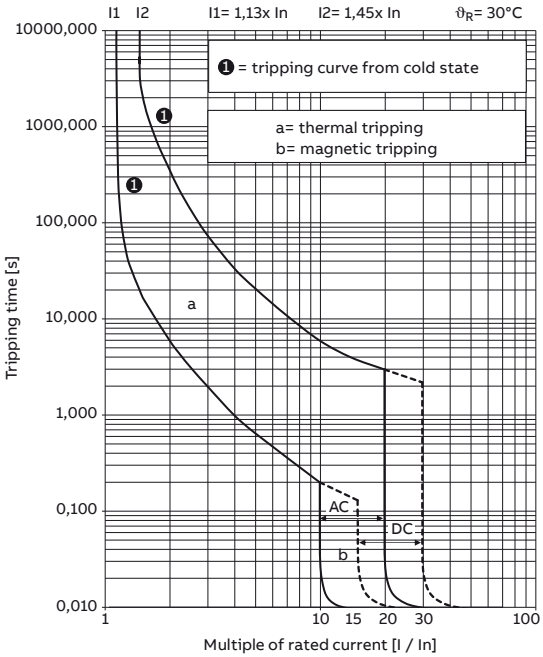
MCB Type S300P - C (5 ... 10 x I_n AC)

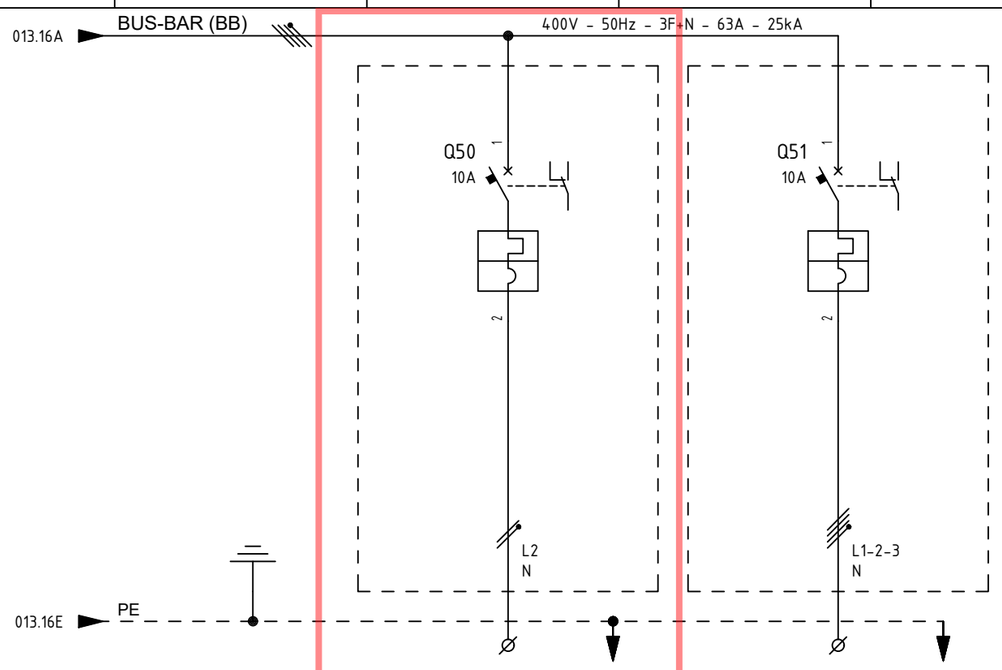
Tripping Characteristic IEC/EN 60898-1



MCB Type S300P - D (10 ... 20 x I_n AC)

Tripping Characteristic IEC/EN 60898-1





ITEM			1	-		-															
UTILITY			2	SPARE		SPARE															
CUBICLE			3	+03		+03															
RATED POWER	RATED CURRENT		4/5	1 KW	5.43 A	3 KW	5.42 A														
TYPICAL FUNCTIONAL			6	-		-															
CIRCUIT BREAKER (ABB)	TYPE		7	S302P-C10		S304P-C10															
	VERSION		8	2P / MINIATURE		4P / MINIATURE															
	TRIP UNITS		9	In=10A - Curve C		In=10A - Curve C															
	Icu	KA	10	25kA		25kA															
OVERLOAD	L	Range A	11	-		-															
		Range t	12	-		-															
SEL. SHORT-CIRCUIT	S	Range A	13	-		-															
		Range t	14	-		-															
INST. SHORT-CIRCUIT	I	Range A	15	-		-															
		Range t	16	-		-															
EARTH FAULT PROTECTION	G	Range A	17	-		-															
		Range t	18	-		-															
CONTACTOR (ABB)			19	-		-															
THERMAL OVERLOAD RELAY (ABB)			20	-		-															
SURGE ARRESTERS (DHENN)			21	-		-															
TOROIDAL CURRENT TRANSFORMER (FRER)			22	-		-															
FUSE HOLDER (ABB)			23	-		-															
TWILIGHT SWITCH (ABB)			24	-		-															
VOLTMETER (FRER)			25	-		-															
CURRENT TRANSFORMER FOR MEASURE (FRER)	TYPE		26	-		-															
	PERFORMANCE/CLASS		27	-		-															
VOLTAGE TRANSFORMER FOR MEASURE (FRER)	TYPE		28	-		-															
	PERFORMANCE/CLASS		29	-		-															
POWER TERM. BLOCK (CABUR)		Type/mm²	30	SCREW / 4		SCREW / 4															
POWER CONDUCTOR		mm²	31	-		-															

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
4	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
3	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
2	24/04/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
1	15/03/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
0	08/02/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

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DWG n° : 231298/SD/13
Item n° : PF1002888/101

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "DP-200N1"

SINGLE LINE DIAGRAM

Single Line Drawing

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

SCALE : NTS

A3

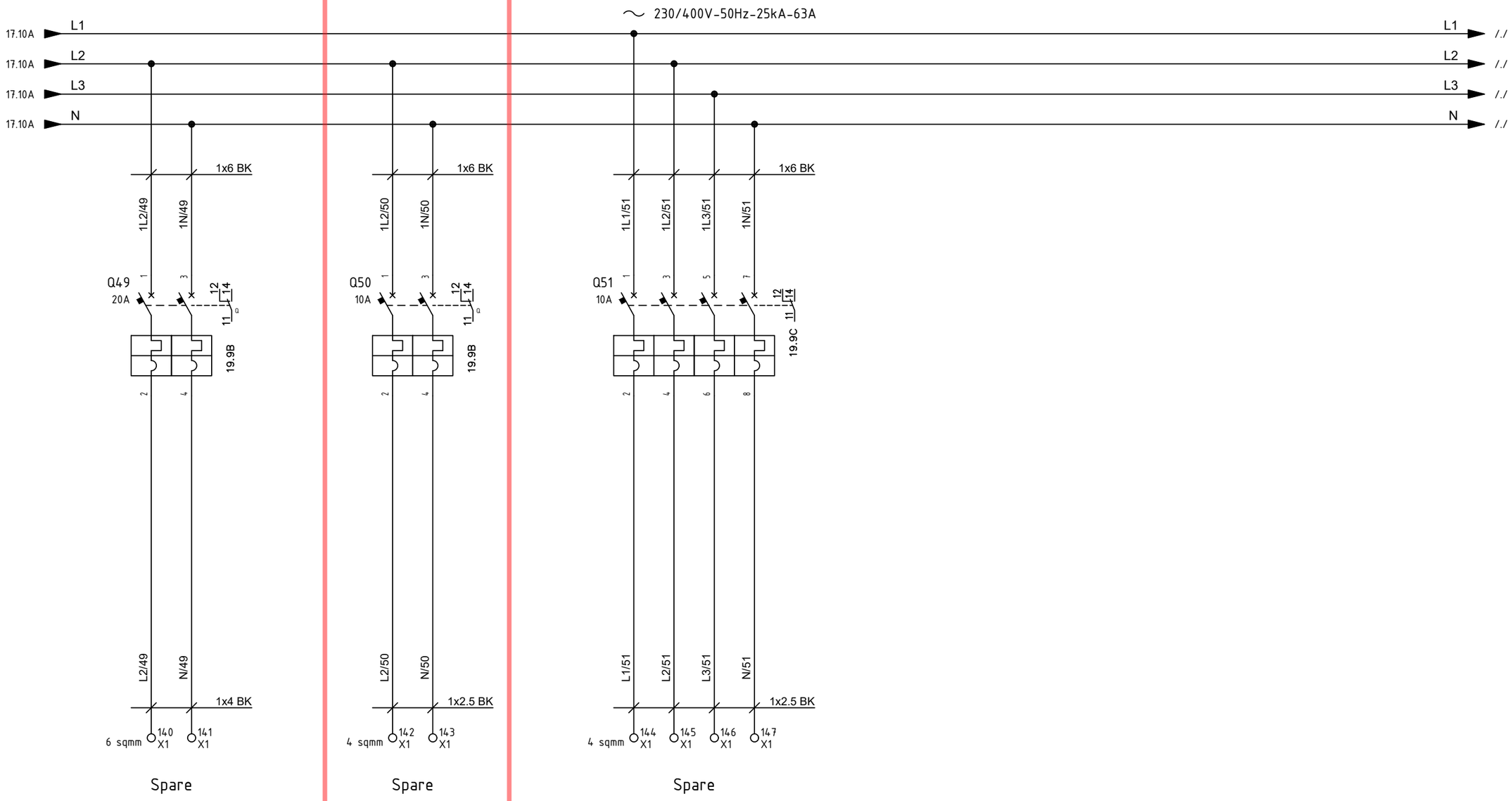
DRAWING NO. 1723002197-EL-DG-00013

SHEET 014

REV. 04

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00013 Rev. 04



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
=					
+					
2	19/08/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
0	29/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

DWG n° : 231298/SD/33

Item n° : PF1002888/101

TITLE : "DP-200N1"

LV SWBD FUNCTIONAL DIAGRAMS

Functional Drawing

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00033

SHEET 18

REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00033 Rev. 02

ITEM	Tag	DP-200N1-Q51	: SPARE - DP-200N1-Q51		Dwg	1723002197-EL-DG-00013	
	S/Sys	83-20	: 400/230 V Switchboard (DP-200N1)		Module		
TASK	code	C10002899	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	PRE-COMM	Activity	FTS	Discipline	Electrical	Form	FTR-2	Protection Relay

FTR2 - Protection relay
Record sheet

RELAY DATA

Manufacturer:	ABB	Serial N°:	NA	Relay type:	NA
Auxiliary supply:	NA	Location:	B200	Cubicle:	+03
Switchboard:	DP-200N1				

Current transformers

Tag	Number of	Ratio	Location

Voltage transformers

Tag	Number of	Ratio	Location

Test result (refer to manufacturer's procedure)

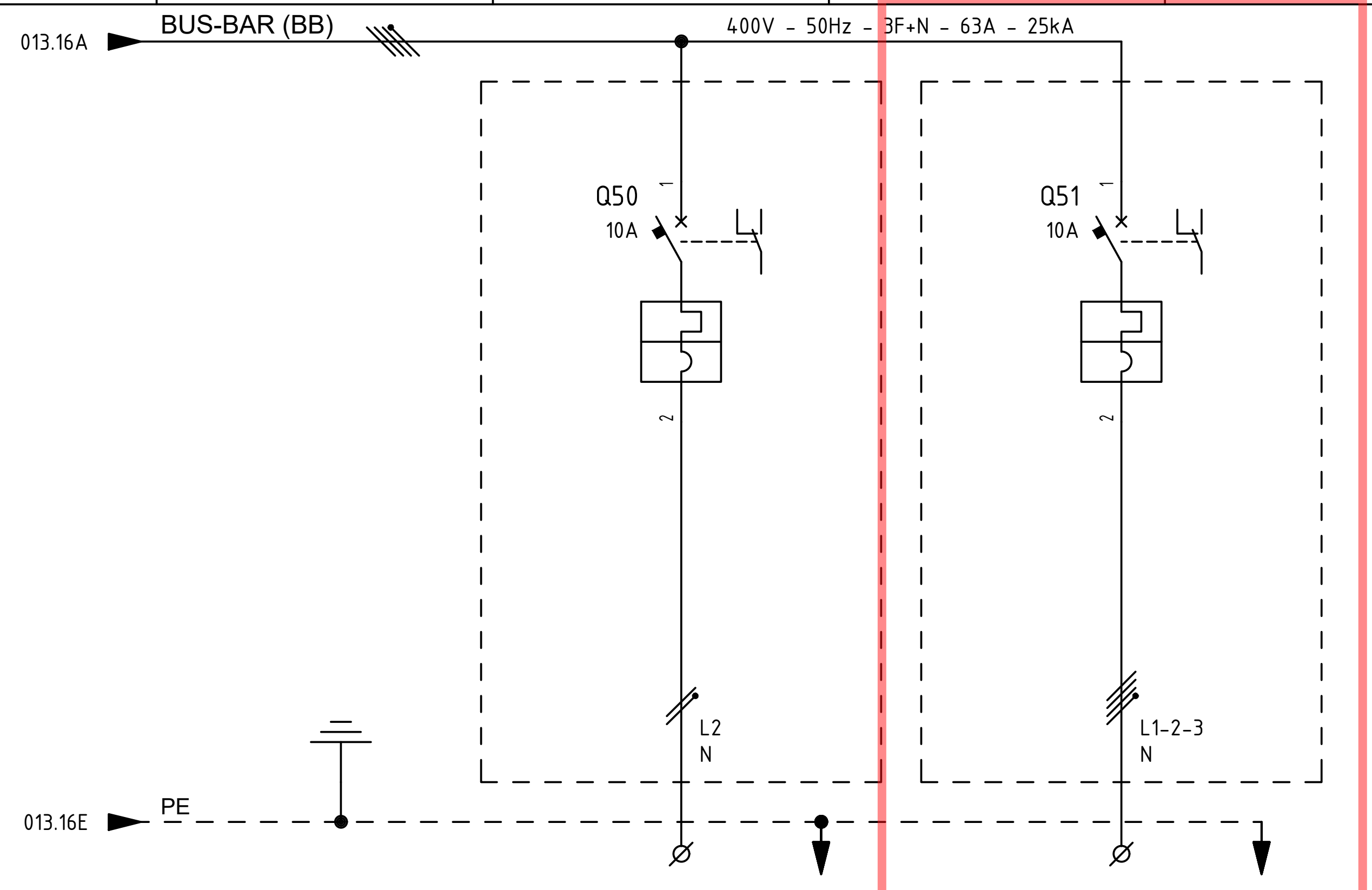
ANSI function	Setting	Injection	Trip value	Time delay	
				Setting	Trip value
I	10A	NA	NA	FIXED	NA

Testing & measurement instruments used

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

Comments:

Page 1/1	Performed by	☐ WITNESS ☉ REVIEW	☐ WITNESS ☐ REVIEW
Company	RM COMM	RM COMM	CPY NOT PRESENT
Name	Mattia Girotti	Kristian Castellani	Witness waived
Date	2024-10-25	2024-10-28	2024-10-28
Signature	PROVERLIS Digitaly signed by Mattia Girotti 2024-10-25T11:18:18.947Z	PROVERLIS Digitaly signed by Kristian Castellani 2024-10-28T13:06:00.787Z	PROVERLIS Digitaly signed by Witness waived 2024-10-28T13:42:51.070Z



			Nr.	Q50	Q51
ITEM			1	-	-
UTILITY			2	SPARE	SPARE
CUBICLE			3	+03	+03
RATED POWER	RATED CURRENT		4/5	1 KW / 5.43 A	3 KW / 5.42 A
TYPICAL FUNCTIONAL			6	-	-
CIRCUIT BREAKER (ABB)	TYPE		7	S302P-C10	S304P-C10
	VERSION		8	2P / MINIATURE	4P / MINIATURE
	TRIP UNITS		9	In=10A - Curve C	In=10A - Curve C
	Icu	KA	10	25kA	25kA
OVERLOAD	L	Range A	11	-	-
		Range t	12	-	-
SEL. SHORT-CIRCUIT	S	Range A	13	-	-
		Range t	14	-	-
INST. SHORT-CIRCUIT	I	Range A	15	-	-
		Range t	16	-	-
EARTH FAULT PROTECTION	G	Range A	17	-	-
		Range t	18	-	-
CONTACTOR (ABB)			19	-	-
THERMAL OVERLOAD RELAY (ABB)			20	-	-
SURGE ARRESTERS (DHENN)			21	-	-
TOROIDAL CURRENT TRANSFORMER (FRER)			22	-	-
FUSE HOLDER (ABB)			23	-	-
TWILIGHT SWITCH (ABB)			24	-	-
VOLTMETER (FRER)			25	-	-
CURRENT TRANSFORMER FOR MEASURE (FRER)	TYPE		26	-	-
	PERFORMANCE/CLASS		27	-	-
VOLTAGE TRANSFORMER FOR MEASURE (FRER)	TYPE		28	-	-
	PERFORMANCE/CLASS		29	-	-
POWER TERM. BLOCK (CABUR)		Type/mm²	30	SCREW / 4	SCREW / 4
POWER CONDUCTOR		mm²	31	-	-

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DWG n° : 231298/SD/13

Item n° : PF1002888/101

CROSSWIND — ROSETTI MARINO

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
4	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
3	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
2	24/04/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
1	15/03/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
0	08/02/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

TITLE : "DP-200N1"

SINGLE LINE DIAGRAM

Single Line Drawing

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

SCALE : NTS

A3

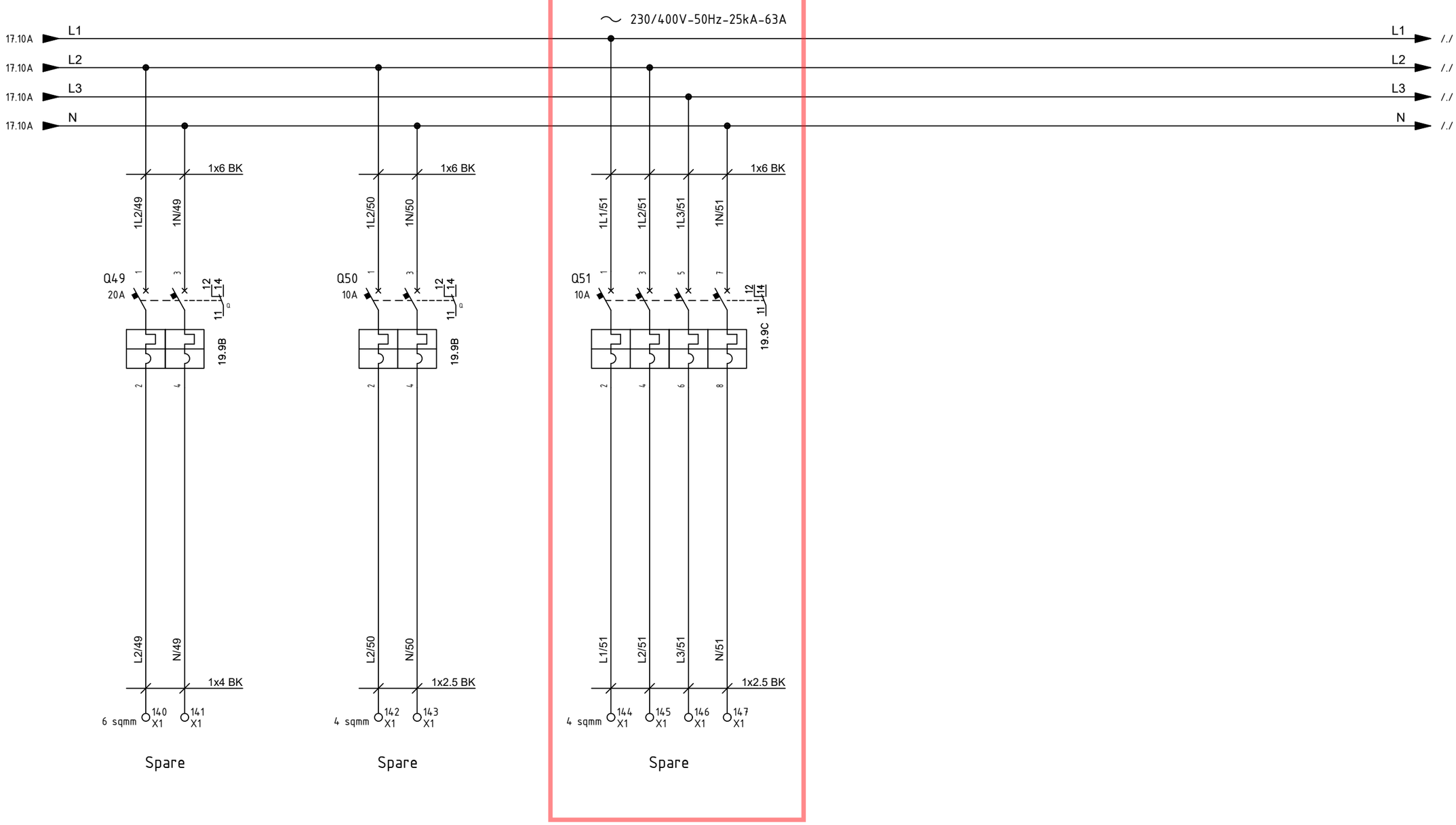
DRAWING NO. 1723002197-EL-DG-00013

SHEET 014

REV. 04

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00013 Rev. 04



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
=					
+					
2	19/08/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
0	29/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

DWG n° : 231298/SD/33

Item n° : PF1002888/101

TITLE : "DP-200N1"

LV SWBD FUNCTIONAL DIAGRAMS

Functional Drawing

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

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00033

SHEET 18

REV. 02

F.to UNI A3: 420mmx297mm

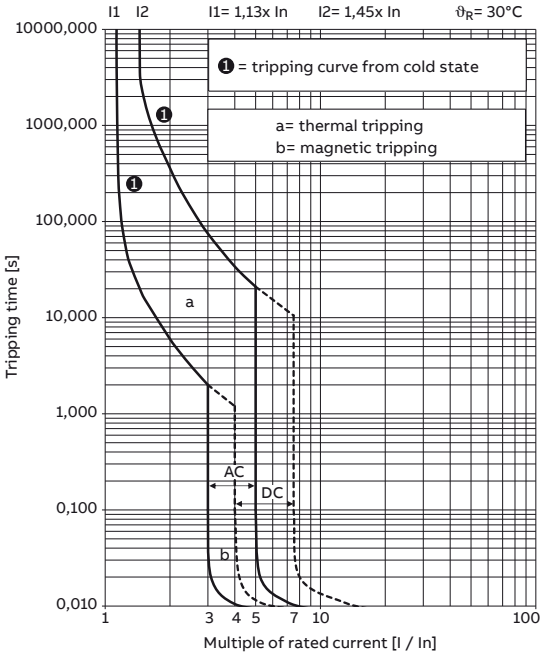
File Name : 1723002197-EL-DG-00033 Rev. 02

Miniature Circuit breakers S300P

Tripping characteristics

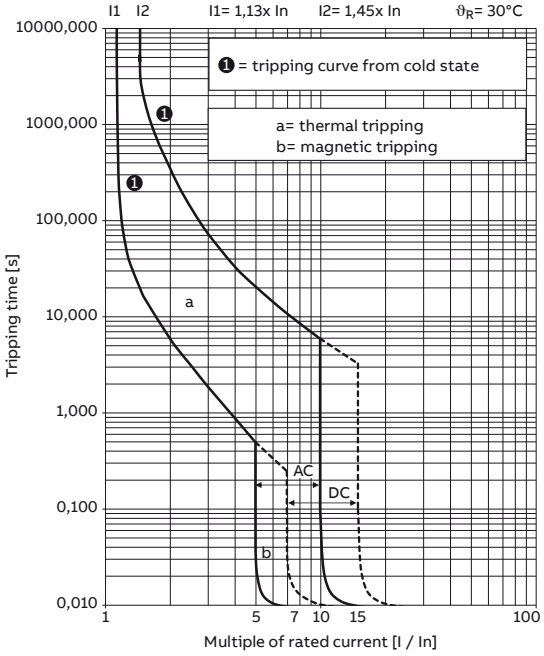
MCB Type S300P - B (3 ... 5 x I_n AC)

Tripping Characteristic IEC/EN 60898-1



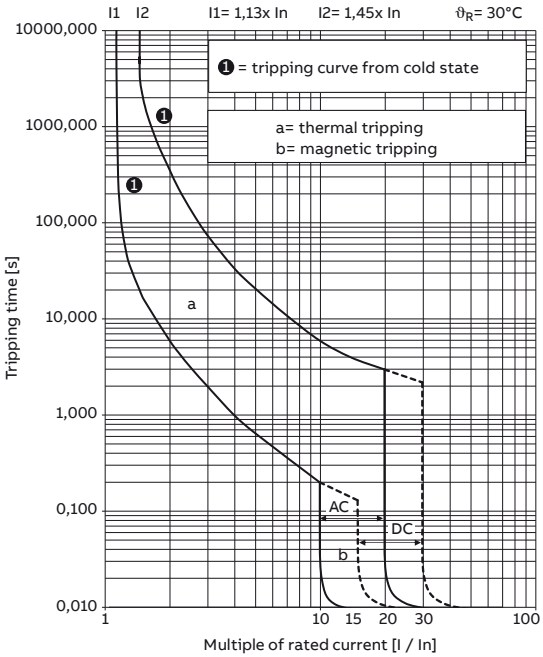
MCB Type S300P - C (5 ... 10 x I_n AC)

Tripping Characteristic IEC/EN 60898-1



MCB Type S300P - D (10 ... 20 x I_n AC)

Tripping Characteristic IEC/EN 60898-1



ITEM	Tag	A3/+03-QF1	: DRAWER DB - LIGHTING & SMALL POWER - A3/+03-QF1			Dwg	1723002197-EL-DG-00011
	S/Sys	83-20	: 400/230 V Switchboard (DP-200N1)			Module	
TASK	code	C10003018		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	COMM	Activity FTS	Discipline	Electrical	Form	FTR-5 Remote Signalling

FTR5 - Remote signalling
Record sheet

DATA

Switchboard:	SG-200N1	Cubicle N°:	A3/+03

FUNCTION TEST

	Order/Inputs				Status/Output											
	Start order		Stop order		Run		Fault		Stop Signalisation		Available/Ready to start		TRIP		CB OPEN/CLOSED	
UCP																
ECS																
SSS																
PSS	●	●	●	●	●	●	●	●			●	●	●	●	●	●
PCS																
Control Station																
Control Panel																
HVAC Panel																
MCC	●	●	●	●	●	●							●	●	●	●

Column 1 (To check) to be filled during commissioning preparation stage - black if the check is asked
Column 2 (Checked) to be filled black if check is Ok

Comments: During the test, we tested all the Analog Input with success: Current "L1",Current "L2",Current "L3", Voltage "L1-L2", Voltage "L2-L3", Voltage "L1-L3", Frequency, Apparent Power, Real Power, Reactive Power and Power Factor.

	Performed by	☐ WITNESS ☒ REVIEW	☒ WITNESS ☐ REVIEW
Company	RM COMM	RM COMM	CW
Name	Davide Zucconelli	Kristian Castellani	David Musgrove
Date	2025-04-29	2025-04-29	2025-04-29
Signature	PROVERLIS Digitaly signed by Davide Zucconelli 2025-04-29T07:52:59.092Z	PROVERLIS Digitaly signed by Kristian Castellani 2025-04-29T14:08:42.357Z	PROVERLIS Digitaly signed by David Musgrove 2025-04-29T15:31:44.514Z

ITEM	Tag	DP-200N1-Q12	: SPACE HEATERS JB WIND FARM - DP-200N1-Q12			Dwg	1723002197-EL-DG-00013
	S/Sys	83-20	: 400/230 V Switchboard (DP-200N1)			Module	
TASK	code	C10004800		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	PRE-COMM	Activity FTS	Discipline	Electrical	Form	FTR-2 Protection Relay

FTR2 - Protection relay
Record sheet

RELAY DATA

Manufacturer:	ABB	Serial N°:	NA	Relay type:	TYPE A
Auxiliary supply:	NA	Location:	B200	Cubicle:	+03
Switchboard:	DP-200N1				

Current transformers

Tag	Number of	Ratio	Location

Voltage transformers

Tag	Number of	Ratio	Location

Test result (refer to manufacturer's procedure)

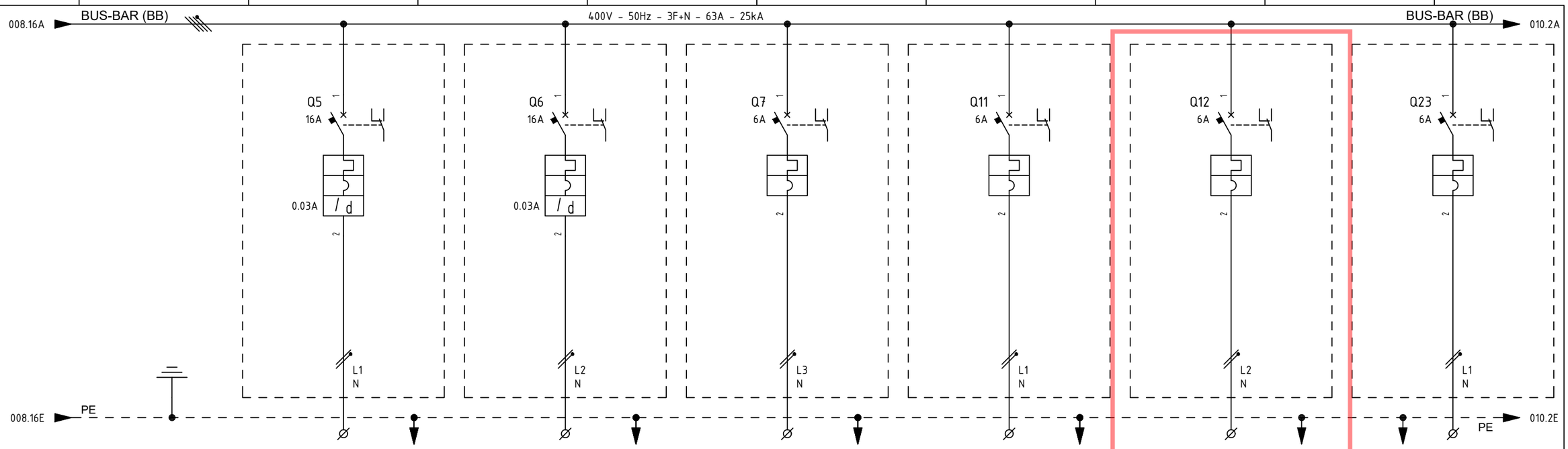
ANSI function	Setting	Injection	Trip value	Time delay Setting	Time delay Trip value
I	6A	NA	NA	FIXED	NA

Testing & measurement instruments used

Type	Serial n°	Calibration certificate	Validity
FLUKE 175	17140769	7715-24	10/07/2025

Comments:

Page 1/1	Performed by	☐ WITNESS ☉ REVIEW	☐ WITNESS ☐ REVIEW
Company	RM COMM	RM COMM	CPY NOT PRESENT
Name	Mattia Girotti	Kristian Castellani	Witness waived
Date	2024-12-19	2025-01-02	2025-01-02
Signature	PROVERLIS Digitaly signed by Mattia Girotti 2024-12-19T15:20:02.526Z	PROVERLIS Digitaly signed by Kristian Castellani 2025-01-02T08:17:45.505Z	PROVERLIS Digitaly signed by Witness waived 2025-01-02T09:12:54.587Z



ITEM			1	ESO-200N1-05-L1-01	ESO-200N1-06-L2-01	-	ESH-200N1-11-L1-01	ESH-200N1-12-L2-01	B400-SIS-001
UTILITY			2	SMALL POWER SOCKET (UPPER DECK)	SMALL POWER SOCKET (LOWER DECK)	SPARE	~~SPACE HEATERS JB - WIND FARM SUBSEA CABLE~~ SPARE	~~SPACE HEATERS JB - SOLAR SUBSEA CABLE~~ SPARE	SIS-CONTROLLER AND I/O CABINET - AUXILIARY
CUBICLE			3	+03	+03	+03	+03	+03	+03
RATED POWER | RATED CURRENT			4/5	3 KW / 14.49 A	3 KW / 14.49 A	0.726 KW / 3.95 A	0.25 KW / 1.14 A	0.25 KW / 1.14 A	0.5 KW / 2.72 A
TYPICAL FUNCTIONAL			6	-	-	-	-	-	-
CIRCUIT BREAKER (ABB)	TYPE		7	S302P-C16 + DDA202 AC-25/0.03	S302P-C16 + DDA202 AC-25/0.03	S302P-C6	S302P-C6	S302P-C6	S302P-C6
	VERSION		8	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE
	TRIP UNITS		9	In=16A - Curve C / Id=0.03A Class AC	In=16A - Curve C / Id=0.03A Class AC	In=6A - Curve C	In=6A - Curve C	In=6A - Curve C	In=6A - Curve C
	Icu	KA	10	25kA	25kA	25kA	25kA	25kA	25kA
OVERLOAD	L	Range A	11	-	-	-	-	-	-
		Range t	12	-	-	-	-	-	-
SEL. SHORT-CIRCUIT	S	Range A	13	-	-	-	-	-	-
		Range t	14	-	-	-	-	-	-
INST. SHORT-CIRCUIT	I	Range A	15	-	-	-	-	-	-
		Range t	16	-	-	-	-	-	-
EARTH FAULT PROTECTION	G	Range A	17	-	-	-	-	-	-
		Range t	18	-	-	-	-	-	-
CONTACTOR (ABB)			19	-	-	-	-	-	-
THERMAL OVERLOAD RELAY (ABB)			20	-	-	-	-	-	-
SURGE ARRESTERS (DHENN)			21	-	-	-	-	-	-
TOROIDAL CURRENT TRANSFORMER (FRER)			22	-	-	-	-	-	-
FUSE HOLDER (ABB)			23	-	-	-	-	-	-
TWILIGHT SWITCH (ABB)			24	-	-	-	-	-	-
VOLTMETER (FRER)			25	-	-	-	-	-	-
CURRENT TRANSFORMER FOR MEASURE (FRER)	TYPE		26	-	-	-	-	-	-
	PERFORMANCE/CLASS		27	-	-	-	-	-	-
VOLTAGE TRANSFORMER FOR MEASURE (FRER)	TYPE		28	-	-	-	-	-	-
	PERFORMANCE/CLASS		29	-	-	-	-	-	-
POWER TERM. BLOCK (CABUR)		Type/mm²	30	SCREW / 10	SCREW / 10	SCREW / 4	SCREW / 4	SCREW / 4	SCREW / 4
POWER CONDUCTOR		mm²	31	3G10	3G10	3G2.5	3G2.5	3G2.5	3G2.5

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DWG n° : 231298/SD/13
Item n° : PF1002888/101

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
4	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
3	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
2	24/04/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
1	15/03/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
0	08/02/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "DP-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-00013

SHEET 009

REV. 04

F.to UNI A3: 420mmx297mm

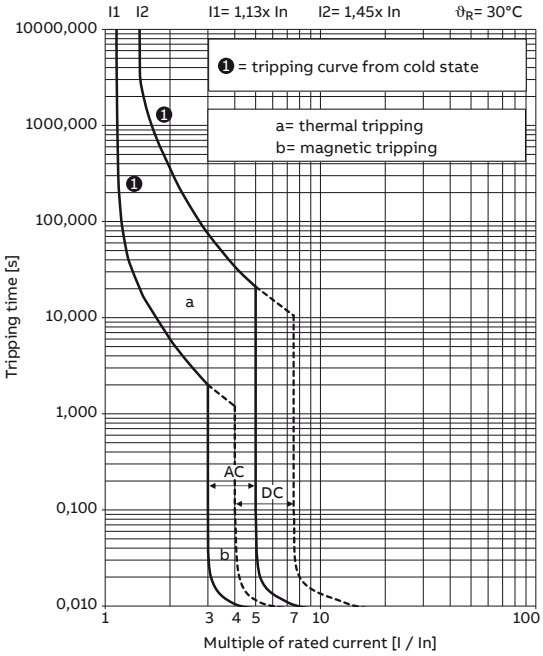
File Name : 1723002197-EL-DG-00013 Rev. 04

Miniature Circuit breakers S300P

Tripping characteristics

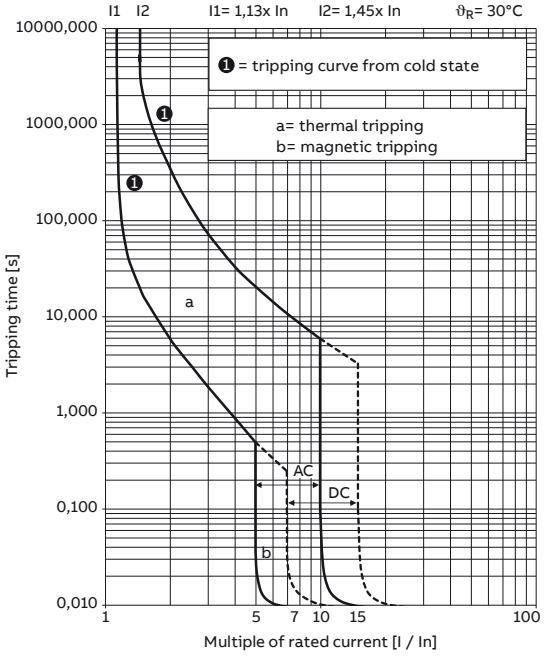
MCB Type S300P - B (3 ... 5 x I_n AC)

Tripping Characteristic IEC/EN 60898-1



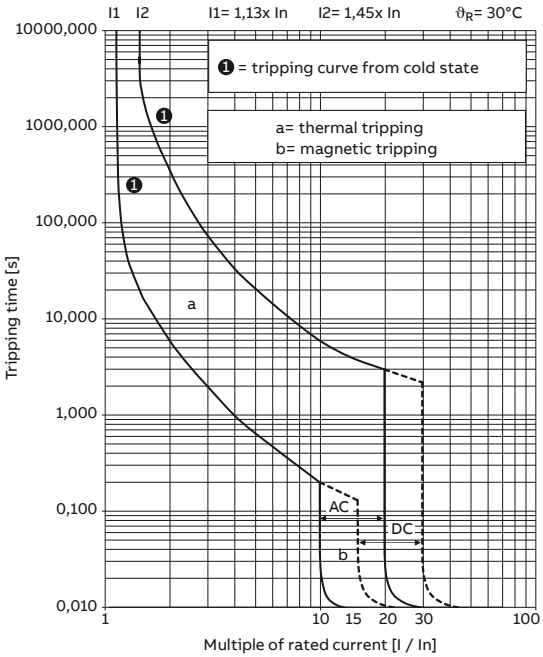
MCB Type S300P - C (5 ... 10 x I_n AC)

Tripping Characteristic IEC/EN 60898-1



MCB Type S300P - D (10 ... 20 x I_n AC)

Tripping Characteristic IEC/EN 60898-1



ITEM	Tag	DP-200N1-Q11	: SPACE HEATERS JB WIND FARM - DP-200N1-Q11			Dwg	1723002197-EL-DG-00013
	S/Sys	83-20	: 400/230 V Switchboard (DP-200N1)			Module	
TASK	code	C10004801		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	PRE-COMM	Activity FTS	Discipline	Electrical	Form	FTR-2 Protection Relay

FTR2 - Protection relay
Record sheet

RELAY DATA

Manufacturer: ABB	Serial N°: NA	Relay type: TYPE-A
Auxiliary supply: NA	Location: B200	Cubicle: +03
Switchboard: DP-200N1		

Current transformers

Tag	Number of	Ratio	Location

Voltage transformers

Tag	Number of	Ratio	Location

Test result (refer to manufacturer's procedure)

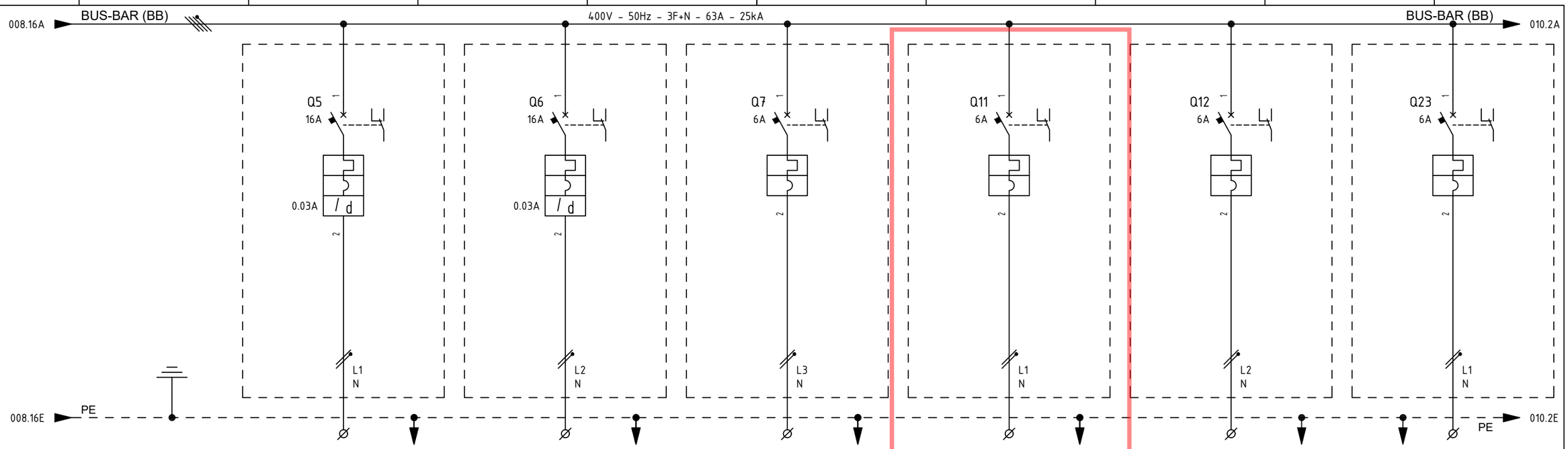
ANSI function	Setting	Injection	Trip value	Time delay Setting	Time delay Trip value
I	6A	NA	NA	FIXED	NA

Testing & measurement instruments used

Type	Serial n°	Calibration certificate	Validity
FLUKE 175	17140769	7715-24	10/07/2025

Comments:

	Performed by	☐ WITNESS ☉ REVIEW	☐ WITNESS ☐ REVIEW
Company	RM COMM	RM COMM	CPY NOT PRESENT
Name	Mattia Girotti	Kristian Castellani	Witness waived
Date	2024-12-19	2025-01-02	2025-01-02
Signature	PROVERLIS Digitaly signed by Mattia Girotti 2024-12-19T15:17:51.022Z	PROVERLIS Digitaly signed by Kristian Castellani 2025-01-02T08:20:40.338Z	PROVERLIS Digitaly signed by Witness waived 2025-01-02T09:13:55.356Z



ITEM			1	ESO-200N1-05-L1-01	ESO-200N1-06-L2-01	-	ESH-200N1-11-L1-01	ESH-200N1-12-L2-01	B400-SIS-001
UTILITY			2	SMALL POWER SOCKET (UPPER DECK)	SMALL POWER SOCKET (LOWER DECK)	SPARE	~~SPACE HEATERS JB - WIND FARM SUBSEA CABLE~~ SPARE	~~SPACE HEATERS JB - SOLAR SUBSEA CABLE~~ SPARE	SIS-CONTROLLER AND I/O CABINET - AUXILIARY
CUBICLE			3	+03	+03	+03	+03	+03	+03
RATED POWER | RATED CURRENT			4/5	3 KW | 14.49 A	3 KW | 14.49 A	0.726 KW | 3.95 A	0.25 KW | 1.14 A	0.25 KW | 1.14 A	0.5 KW | 2.72 A
TYPICAL FUNCTIONAL			6	-	-	-	-	-	-
CIRCUIT BREAKER (ABB)	TYPE		7	S302P-C16 + DDA202 AC-25/0.03	S302P-C16 + DDA202 AC-25/0.03	S302P-C6	S302P-C6	S302P-C6	S302P-C6
	VERSION		8	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE
	TRIP UNITS		9	In=16A - Curve C / Id=0.03A Class AC	In=16A - Curve C / Id=0.03A Class AC	In=6A - Curve C	In=6A - Curve C	In=6A - Curve C	In=6A - Curve C
	Icu	KA	10	25kA	25kA	25kA	25kA	25kA	25kA
OVERLOAD	L	Range A	11	-	-	-	-	-	-
		Range t	12	-	-	-	-	-	-
SEL. SHORT-CIRCUIT	S	Range A	13	-	-	-	-	-	-
		Range t	14	-	-	-	-	-	-
INST. SHORT-CIRCUIT	I	Range A	15	-	-	-	-	-	-
		Range t	16	-	-	-	-	-	-
EARTH FAULT PROTECTION	G	Range A	17	-	-	-	-	-	-
		Range t	18	-	-	-	-	-	-
CONTACTOR (ABB)			19	-	-	-	-	-	-
THERMAL OVERLOAD RELAY (ABB)			20	-	-	-	-	-	-
SURGE ARRESTERS (DHENN)			21	-	-	-	-	-	-
TOROIDAL CURRENT TRANSFORMER (FRER)			22	-	-	-	-	-	-
FUSE HOLDER (ABB)			23	-	-	-	-	-	-
TWILIGHT SWITCH (ABB)			24	-	-	-	-	-	-
VOLTMETER (FRER)			25	-	-	-	-	-	-
CURRENT TRANSFORMER FOR MEASURE (FRER)	TYPE		26	-	-	-	-	-	-
	PERFORMANCE/CLASS		27	-	-	-	-	-	-
VOLTAGE TRANSFORMER FOR MEASURE (FRER)	TYPE		28	-	-	-	-	-	-
	PERFORMANCE/CLASS		29	-	-	-	-	-	-
POWER TERM. BLOCK (CABUR)		Type/mm²	30	SCREW / 10	SCREW / 10	SCREW / 4	SCREW / 4	SCREW / 4	SCREW / 4
POWER CONDUCTOR		mm²	31	3G10	3G10	3G2.5	3G2.5	3G2.5	3G2.5

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
4	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
3	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
2	24/04/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
1	15/03/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
0	08/02/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

=
+

DWG n° : 231298/SD/13
Item n° : PF1002888/101

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "DP-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-00013

SHEET 009

REV. 04

F.to UNI A3: 420mmx297mm

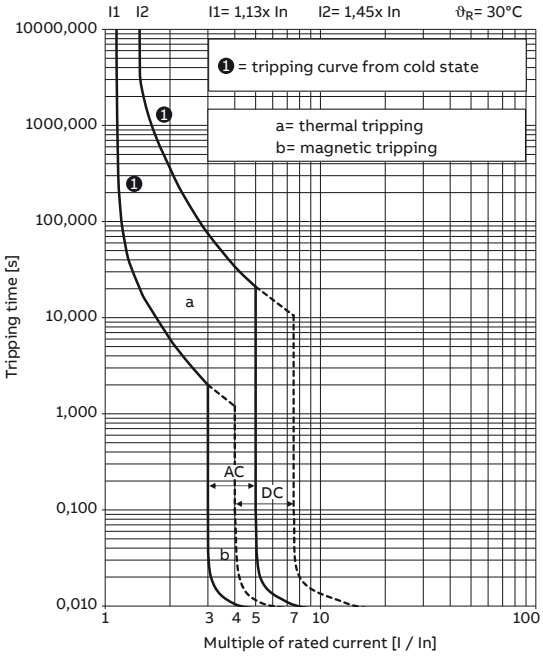
File Name : 1723002197-EL-DG-00013 Rev. 04

Miniature Circuit breakers S300P

Tripping characteristics

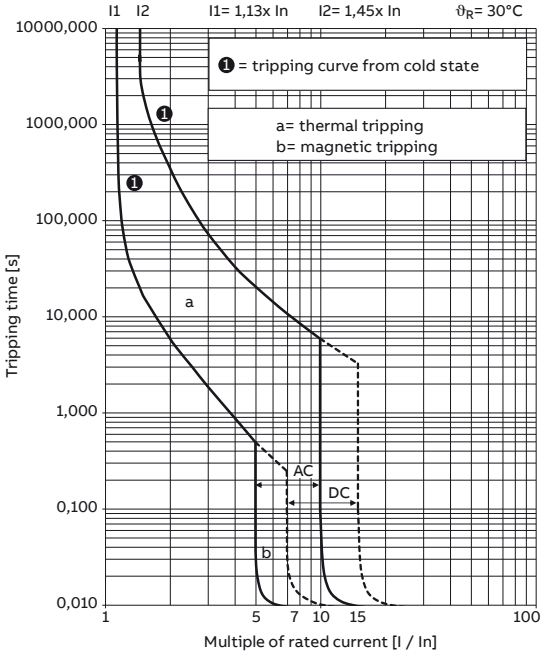
MCB Type S300P - B (3 ... 5 x I_n AC)

Tripping Characteristic IEC/EN 60898-1



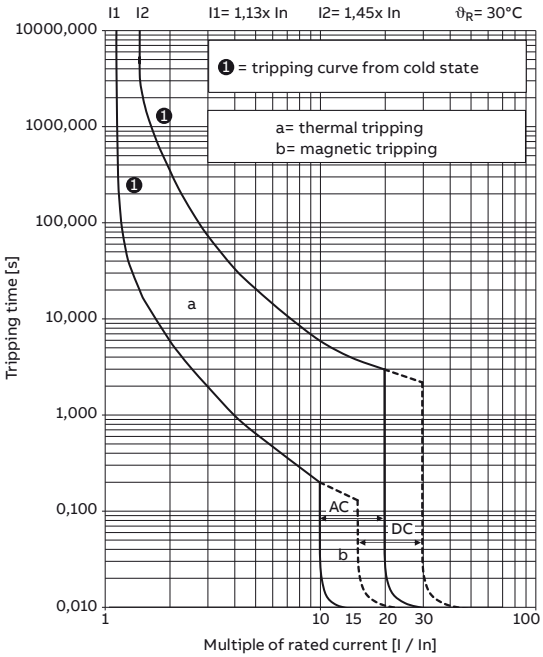
MCB Type S300P - C (5 ... 10 x I_n AC)

Tripping Characteristic IEC/EN 60898-1



MCB Type S300P - D (10 ... 20 x I_n AC)

Tripping Characteristic IEC/EN 60898-1



Section 4.2 Electrical
“As-Commissioned” interconnection diagrams

FROM	TO

DESCRIPTION: LIGHTING & SMALL POWER DB BOP
TAG NUMBER: DP-200N1

COLON./CUBIC.:-

-XS

SURGE ARRESTERS
FAULT ON DP-200N1

XS / 1 — 1
XS / 2 — 2
3
4
5
6
7

BK — 83125-CEC — 7C X 1.5 mm² — BK

-XT

NORMAL AND EMERGENCY LIGHT IN AUTO.
XT / 3 — 1
XT / 4 — 2

LIGHT ACTIVATED
XT / 5 — 3
XT / 6 — 4

NORMAL AND EMERGENCY LIGHT MCBs CLOSED
XT / 7 — 5
XT / 8 — 6
7

BK — 83126-CEC — 7C X 1.5 mm² — BK

AS COMMISSIONED. MATÀ GIROLI

DESCRIPTION: AUXILIARY LV
TAG NUMBER: SG-200N1

COLUMN: +A2/02

-X2

1 — X2 / 70
2 — X2 / 71
3
4
5
6
7

NO MARK UP
19/3/25
MARCO MORETTO

COLUMN: +A2/02

-X2

1 — X2 / 72
2 — X2 / 73
3 — X2 / 74
4 — X2 / 75
5 — X2 / 76
6 — X2 / 77
7

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DG-20149**

REV.:	DATE:	SIGNATURE:
2_F	09/01/25	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	19/11/24	SAI	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	16/10/24	SAI	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	08/07/24	SAI	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL INTERCONNECTING WIRING DIAGRAM
SIGNALS FOR CONTROL SYSTEM

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

A3	DRAWING NO.	SHEET	REV.
	123A90-DDL-EL-DG-20149	087	02

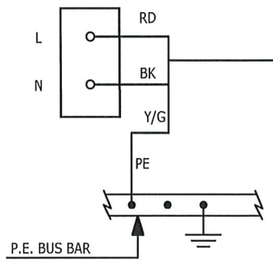
F.to UNI A3: 420mmx297mm

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

FROM	TO

DESCRIPTION: LV Switchgear
TAG NUMBER: SG-200N1

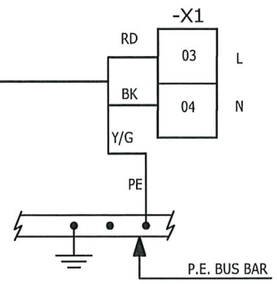
COLUMN/CUBIC.:A7/+05



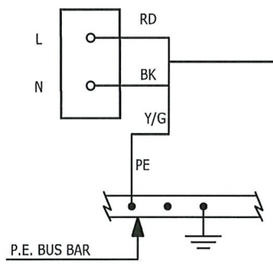
83036-CEL ~~NOTE 3~~
3G16 mm²

DESCRIPTION: DC UPS NAVAID SYSTEM - FEEDER A
TAG NUMBER: UP-200F2

PANEL:.CHARGER-1



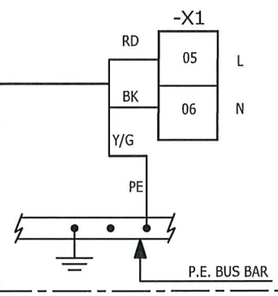
COLUMN/CUBIC.:A7/+06



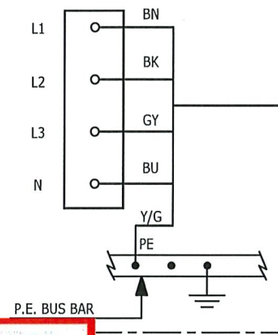
83037-CEL ~~NOTE 3~~
3G16 mm²

DESCRIPTION: DC UPS - NAVAID SYSTEM - FEEDER B
TAG NUMBER: UP-200F2

PANEL:.CHARGER-2

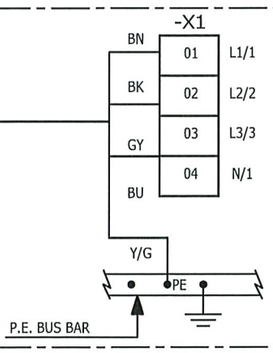


COLUMN/CUBIC.:A3/+03



83043-CEL ~~NOTE 4~~
5G50 mm²

DESCRIPTION: DB - LIGHTING & SMALL POWER - BOP
TAG NUMBER: DP-200N1



NO MARK UP
19/3/25
MARCO MORETTO

AS COMMISSIONED: MATTIA GIROTTO

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DG-20149**

REV.:	DATE:	SIGNATURE:
2_F	09/01/25	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	19/11/24	SAI	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	16/10/24	SAI	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	08/07/24	SAI	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL INTERCONNECTING WIRING DIAGRAM
LV SWITCHGEAR SG-200N1

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

A3	DRAWING NO.	SHEET	REV.
	123A90-DDL-EL-DG-20149	030	02

F.to UNI A3: 420mmx297mm

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

FROM	TO

DESCRIPTION: SIGNALS FOR CONTROL SYSTEM
TAG NUMBER: DP-200N1

COLUMN: -

-XH/XP

HEAT TRACING ACTIVATED	-XH / 5	1
	-XH / 6	2
	-XH / 7	3
HEAT TRACING MCBs CLOSED	-XH / 8	4
	-XP / 1	5
DP-200N1 MCBs CLOSED	-XP / 2	6
		7

BK — 83127-CEC, 7C X 1.5 mm² — BK

NO MARK UP
19/3/25
MARCO MORETTO
Marco Moretto

DESCRIPTION: AUXILIARY LV
TAG NUMBER: SG-200N1

COLUMN: +A2/02

-X2

1	X2 / 78
2	X2 / 79
3	X2 / 80
4	X2 / 81
5	X2 / 82
6	X2 / 83
7	

DESCRIPTION: DC UPS - CHARGER
TAG NUMBER: BC-200F1B (UP-200F1B)

COLUMN: -

-X32

BATTERY BREAKER STATUS	X32 / 3	1
	X32 / 4	2
		3
		4
		5
		6
		7

BK — 84110-CEC, 7C X 1.5 mm² — BK

AS COMMISSIONED: MARIA GIRTZ

DESCRIPTION: DC UPS - CHARGER
TAG NUMBER: BC-200F1A

COLUMN: -

-X32

	X32 / 1	1
BATTERY BREAKER STATUS	X32 / 2	2
		3
		4
		5
		6
		7

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-EL-DG-20149

REV.:	DATE:	SIGNATURE:
2_F	09/01/25	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	19/11/24	SAI	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	16/10/24	SAI	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	08/07/24	SAI	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL INTERCONNECTING WIRING DIAGRAM
SIGNALS FOR CONTROL SYSTEM

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

A3	DRAWING NO.	SHEET	REV.
	123A90-DDL-EL-DG-20149	088	02

F.to UNI A3: 420mmx297mm

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

Section 4.3 Instrumentation functional test sheets index

NOT APPLICABLE

Section 4.4 Instrumentation “As-Commissioned” interconnection diagrams

NOT APPLICABLE

Section 4.5 Telecommunication functional test sheets index

NOT APPLICABLE

Section 4.6 Telecommunication
“As-Commissioned” I.C.D. / TSLD's

NOT APPLICABLE

Section 5 SITE / OPERATIONAL

Section 5.1 Operational Test Procedure

Section 5.2 Operational Test Certificates

NOT APPLICABLE

Section 6 PIPING AND VESSEL PREPARATION

Section 6.1 Final Mechanical / Vessel Inspection Checks Index

NOT APPLICABLE

Section 6.2 Leak Test / Drying / Inerting Test Sheets Index

NOT APPLICABLE

Section 6.3 Chemical Loading & First Fill records Index

NOT APPLICABLE

Section 6.4 Chemical Cleaning Reports and Records Index

NOT APPLICABLE

Section 6.5 Lubrication Schedule

NOT APPLICABLE

Section 7 VENDOR

Section 7.1 Vendor Package Summary Index

NOT APPLICABLE

Section 7.2 SAT Procedure with associated punch list and reference (Front Page)

NOT APPLICABLE

Section 7.3 Vendor Spares & Special Tools lists references

ROSETTI MARINO

SPARE PARTS LIST

CROSSWIND

Document Title	SPARE PART INDEX REGISTER (COMMISSIONING AND OPERATION)			
The document relates to	HOLLANDSE KUST NOORD WIND PARK Project - Base Load Power Hub (BLPH)			Contract: CW-I-WP4-2023-05
Project ID: 123A90	Doc. n°: 1723002197-COM-LIS-00052	Rev.: Issued for review	Rev. Date: 08-Aug-24	Status: IFR / Class: 3

The equipment consists of the following units/components

1	Tag no.	5G 10001	5G 200N1	5G 200I2	DP 200 N1	
2	Tag description	HV SWBD 6,6kV	LV SWBD 400/230V	LV SWBD 800V	LV SWBD 400/230V	
3	Manufacturer model/type no.	Minker/C	PC/MCC	PC	MCC/F	
4	Manufacturer serial no.	231151/53/010/2024	231298/53/040/2024	231298/53/070/2024	231298/53/080/2024	
5	No. of units	1	1	1	1	

Supplier: IMESA S.p.A
Address: via G. di Vittorio, 14, JESI - (AN), ITALY
PO Number: 1723002197_123A90
PO description: HV and LV Switchgears
Supplier telephone no: +39 0731 211034
E-mail: spareparts@imesaspa.com; damiano.santinelli@imesaspa.com
Contact name: Mr. Damiano Santinelli
Contact mobile no: +39 0731 649242
WEBSITE:
General Information:

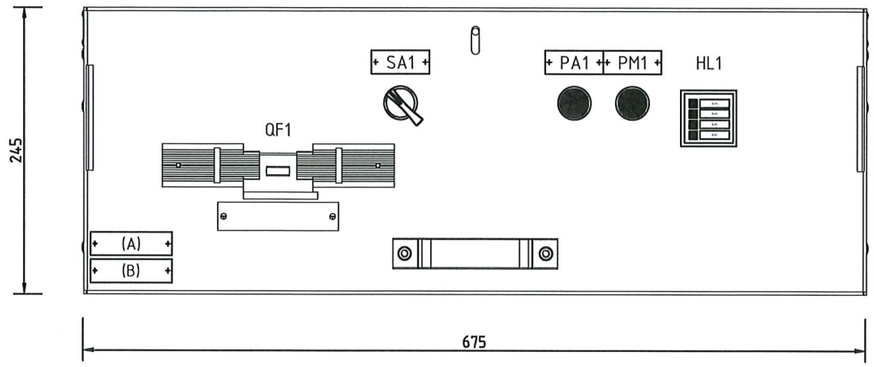
Item Number	Total number of identical spares installed	MATERIALS DATA: Description of recommended spare parts	Parts/drawing ref.: Project Datasheet no.	Project Detail dwg. no.	Item ref.	Material	Certificate Type (if applicable)	Certificate Reference (if applicable)	Shelf life (years)	Weight (net)	Weight (gross)	Volume	HS Code	ECCN Code	% US Content	Country of origin	Supplier part no.	Manufacturer part no.	Manufacturername	Commissioning spares: Quantity ordered	2 Years spares: Quantity ordered	Remarks
7	8		9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
1	6,00	REX640 GENERAL PURPOSE CODE															MP02000001VCF698331R0001	1VCF698331R0001	ABB PT			
2	6,00	ACCESSORY FOR REX640 - 2RCA033008A0001 - SCHERMO A COLORI TOUCH															MP02000001VCF698331R0002	1VCF698331R0002	ABB PT			
3	6,00	ACCESSORY FOR REX640 - 1MRS120549-3 - LHMI CABLE 3mt															MP02000001VCF698331R0012	1VCF698331R0012	ABB PT			
4	3,00	UMK-RJ45/S/8PTDA VARIOFACE MODULE															MP02000002900682	2900682	PHOENIX CONTACT spa			
5	5,00	BSR1D SENTRY RELAY SIL3 24Vcc 3NA+1NC COD. A1004000															MP02000002TLA010040R0000	A1004000	ABB SACE SPA			
6	6,00	VOLTAGE PRESENCE SIGNALING DEVICE VPIS 3LED dis.43911082															MP02000004391 1082	VPIS1082	ELECTRONSYSTEM MD srl			
7	1,00	VOLTAGE PRESENCE SIGNALING DEVICE VPIS1118 3,3-36KV dis.43931118															MP02000004393 1118	VPIS1118	ELECTRONSYSTEM MD srl			
8	2,00	PATCH CORD CAT.6 UTP WHITE L=1mt ART. 6U-010WH															MP02000006U010WH	6U010WH	SECURNET srl			
9	6,00	PATCH CORD CAT.6 UTP YELLOW L=5mt ART. 6U-050-YE															MP02000006U050YE	6U050YE	SECURNET srl			
10	1,00	PATCH CORD CAT.6 UTP YELLOW L=7,5mt															MP02000006U075YE	6U075YE	SECURNET srl			
11	7,00	MODBUS DATACARD_8-CHANNEL, EM SENSOR INPUT, RS485 MODBUS RTU OUTPUT															MP02000000800208	800208	QHI Group Ltd			
12	1,00	CONFIGURATION & COMMISSIONING KIT 800447															MP02000000800447	800447	QHI Group Ltd			
13	53,00	IR SENSOR EM-10 SC 801100 CABLE L=10MT															MP02000000801100	801100	QHI Group Ltd			
14	1,00	ARM-XL PANEL - 10X8 CH 4.3" TOUCHSCREEN DISPLAY															MP02000000900451	900451	QHI Group Ltd			
15	1,00	M-FAST SFP-TX/RJ45 OPTICAL FIBER TRANSCEIVER 100MBIT/S															MP02000009420980 01	942098001	ABB PT			
16	21,00	SURGE DISCHARGE 9KV 10KA CL.1 DMI-9-10-1-L															MP02000009900 03	990003	DEHN ITALIA spa		2	
17	122,00	S2C-S/H 6R SING.NALINC CONTACT/AUX															MP02000000A563819	A563819	ABB SACE SPA		7	
18	7,00	RCD MOULE AC TYPE 2P 25A DDA202-25-300mA/AC															MP02000008427917	B427917	ABB SACE SPA		1	
19	15,00	REGLETTE LED 4W 220-240V 50-60HZ COD.74041 - RGL P LED 4W 313mm 4000K I															MP02000000BEG74041	74041	BEGHELLI srl	1		
20	1,00	VOLMETRICAL SWITCH 3Ten-FF CA10-A004-600-FT2 + 50 F776 + S0C G251															MP02000000CA10A004600FT2	CA10A004600FT2	KRAUS & NAIMER			
21	18,00	MICROSWITCH D2VW-5L2-1 WITH LONG LEVER/ROT. OMRON															MP02000002VW5L21	D2VW-5L2-1	OMRON ELECTRONICS spA		1	
22	144,00	FEED THROUGH TERMINAL BLOCK DAS.4 DOUBLE LEVEL 4mmq GREY															MP02000005D100GR	DS100GR	CABUR spa		8	
23	6,00	TERMINAL PLATE GREY DAS/PT/GR															MP02000005D101GR	DS101GR	CABUR spa		1	
24	7,00	M1173 SCOKET ITALIAN STANDARD 2P+T WITH PROTECTION 250V															MP02000000EA9447	EA9447	ABB SACE SPA			
25	40,00	CONTACT BLOCK HOLDER MCBH-00 3 SLOT															MP02000000EO5697	EO5697	ABB SACE SPA	6		
26	146,00	MCB-10 1NO CONTACT BLOCK															MP02000005EO5705	EO5705	ABB SACE SPA	6		
27	106,00	MCB-01 1NC CONTACT BLOCK															MP02000000EO5713	EO5713	ABB SACE SPA		6	
28	1,00	CR-M024DC2L RELAY. CR-M 24VCC 2SC +LED															MP02000000ER5454	1SVR405611R1100	ABB SACE SPA			
29	8,00	CR-M230AC2L RELAY230V AC 2C/O CONTACTS NA/NC 250V/12A															MP02000000ER5520	ER5520	ABB SACE SPA			
30	29,00	CR-M110DC4L RELAY CR-M 110VCC 4C/O CONTACTS +LED															MP02000000ER5892	ER5892	ABB SACE SPA	3		
31	233,00	STANDARD SOCKET CR-M4SS FOR RELAY WITH 2/4 C/O CONTACTS															MP02000005R6866	1SVR405651R3000	ABB SACE SPA			
32	75,00	RETAIN METAL SPRING CR-MH1 ER7286															MP02000000ER7286	ER7286	ABB SACE SPA			
33	7,00	H3DK-M2 MULTIFUNC. RELAY WITH TIMER . aux:24-230VCA/CC 2SC.T															MP02000000H3DKM2	H3DKM2ACDC242	OMRON ELECTRONICS spA			
34	47,00	END PLATE GREY HSCB/6/PT/GR															MP02000000HB201GR	HB201GR	CABUR spa			
35	7,00	SHORT CIRCUIT PLATE 2 POLES. RED. HSCB/6/PO/2															MP02000000HB203	HB203	CABUR spa			
36	7,00	SHORT CIRCUIT PLASTE 4 POLES. RED. HSCB/6/PO/4															MP02000000HB204	HB204	CABUR spa			
37	99,00	TERMINAL BLOCK - VOLTMETRIC- HSCB.6/DD/GR SPRING CLAMP															MP02000000HB210GR	HB210GR	CABUR spa			
38	60,00	TERMINAL BLOCK - AMMETRICAL- HSCB.6/CD/GR SPRING CLAMP															MP02000000HB220GR	HB220GR	CABUR spa			
39	735,00	FEED THROUGH TERMINAL BLOCK HMM.4/GR SPRING CLAMP															MP02000000HM250GR	HM250GR	CABUR spa	40		
40	56,00	END PLATE GRAY HMT.4/PT/GR															MP02000000HM251GR	HM251GR	CABUR spa			
41	84,00	FEED THROUGH TERMINAL BLOCK HMM.6 SPRING CLAMP															MP02000000HM320GR	HM320GR	CABUR spa			
42	21,00	END PLATE HMT.6/PT GRIGIA															MP02000000HM321GR	HM321GR	CABUR spa			
43	6,00	FEED THROUGH TERMINAL BLOCK HMM.10 SPRING CLAMP															MP02000000HM330GR	HM330GR	CABUR spa			
44	2,00	END PLATE GRAY HMM.10PT															MP02000000HM331GR	HM331GR	CABUR spa			
45	6,00	TO 0,72/3/-KV 50HZ 100/1A 5P5-5VA DWG:5089-00-44 Ø150MM															MP02000000KAP150250S5	KAP150250S5	ESITAS ELEKTRIK SANAYI			
46	3,00	RECTIFIER BRIDGE KBPC 50A 600V KBPC5006															MP02000000KBPC5006	KBPC5006	GENERIC			
47	6,00	MLBL-04Y LED BLOCK WITH YELLOW LED 110-130VAC															MP02000000KV0225	KV0225	ABB SACE SPA			
48	6,00	MLBL-05Y LED BLOCK WITH YELLOW LED 110÷130VDC															MP02000000KV0274	KV0274	ABB SACE SPA			
49	33,00	MP1-10R RED PUSH BUTTON WITH PLASTIC RING. D22															MP02000000KW0752	KW0752	ABB SACE SPA	2		
50	33,00	MP1-10G GREEN PUSH BUTTON WITH PLASTIC RING D22															MP02000000KW0760	KW0760	ABB SACE SPA	2		
51	7,00	MP1-10B BLACK PUSH BUTTON WITH PLASTIC RING.D22															MP02000000KW0802	KW0802	ABB SACE SPA			
52	7,00	MP1-11Y YELLOW PUSH BUTTON WITH PLASTIC RING - ILLUMINATED D22															MP02000000KW1016	KW1016	ABB SACE SPA			
53	34,00	M2SS2-10B 90 DEG. 2P POS. SELECTOR BLACK WITH LEVER AND BLACK RING. D22															MP02000000KW3293	1SFA611201R1006	ABB SACE SPA	2		
54	7,00	PAVM321 DIN SOCKET FOR SCREW TERMINAL BLOCK															MP02000005PAVM321	PAVM321	A.M.R.A. spA			
55	42,00	PLUG-IN CROSS CONNECTION PTC/5/02 2 POLES															MP02000005PTC0502	PTC0502	CABUR spa			
56	42,00	PLUG-IN CROSS CONNECTION PTC/8/02 3 POLES															MP02000005PTC0802	PTC0802	CABUR spa			
57	8,00	ANTICONDENSATE RESISTOR SKR 150W SUPPLY 220-240VCA															MP02000000R1R150230	R1R150230	TORRESAN P. srl COSTRUZIONI EL			
58	6,00	RMBE13-C110T BISTABILE 110VCC 7SC LIN.-M TROPICALIZED															MP02000000RMBE13C110T	RMBE13C110T	A.M.R.A. spA		1	
59	2,00	RSPS2S-060022GYT-SK9Z9HHE2SSXX.X RSPS RAIL SWITCH POWER SMART CONFIG.															MP02000008RSPS2S060022GYT	RSPS2S060022GYT	HIRSCHMANN			
60	27,00	MCB 2P 2A-C S202M-C2															MP02000005S50239	S550239	ABB SACE SPA		2	
61	22,00	MCB 2P 4A-C S202M-C4															MP02000005S50253	S550253	ABB SACE SPA		2	
62	8,00	MCB 2P 10A-C S202M-C10															MP02000005S50284	S550284	ABB SACE SPA		1	
63	2,00	MCB 3P 2A-C S203M-C2															MP02000005S50383	S550383	ABB SACE SPA		1	
64	18,00	MCB 4P 2A-C S204M-C2															MP02000005S50680	S550680	ABB SACE SPA		1	
65	1,00	MCB 2P 4A-D S202M-D4															MP02000005S00422	S600422	ABB SACE SPA		1	
66	1,00	MCB 2P 6A-D S202M-D6															MP02000005S00446	S600446	ABB SACE SPA		1	
67	2,00	MCB 2P 25A-D S202M-D25															MP02000005S00545	S600545	ABB SACE SPA		1	
68	1,00	MCB 2P 32A-D S202M-D32															MP02000005S00613	S600613	ABB SACE SPA		1	
69	1,00	DC/DC CONVERTER IN=110VDC OUT=24VDC 150W 6A MOD. SPS151DX-110C-24-6															MP02000005PS151DX110C246	SPS151DX110C246	ADVEL SRL			
70	15,00	TRT-10A ADJUSTABLE THERMOSTAT -10° A +80° 1NC IP20 EN50022/35															MP02000000TRT10A230VNC	TRT10A230VNC	FANDIS			
71	3,00	CMF 7.2KV 250A 442/87MM STRIKER 80N 1YMB760741M4811 59014360 23289															MP02000021VCF501000R0002	0000 21VCF501000R0002	ABB PT		3	
72	2,00	RSP2S-110032GTT-SK9V9HHE2SXX SWITCH HIRSCHMANN															MP02000021VCF698390R0397	2-1VCF698390R0397	HIRSCHMANN			
73	1,00	VOLTAGE INDICATOR 96X96 90° CA 0÷8KV ON TV 6600/110V TROP. SHIP VERSION															MP02000027P96EVXYYXC1	2-P96EVXYYXC1	FRER Srl			
74	6,00	FUSIBLE CEF 6/12KV 160A 442/87MM S 1YMB711238M4812															MP02000081VCF501000R0002	8-1VCF501000R0002	ABB PT		3	
75	3,00	FUSIBLE CEF 6/12KV 63A 442/65MM S 1YMB711229M4612															MP02000091VCF501000R0002	9-1VCF501000R0002	ABB PT		3	
76	3,00	FUSIBLE CEF 6/12KV 200A 442/87MM S 1YMB711239M4812															MP02000101VCF501000R0002	10-1VCF501000R0002	ABB PT			
77	6,00	OPTICAL FIBER CABLE PRE-MANUFACT. LENS L=7M 1MRS120534-7															MP02000171VCF698000R0012	000171VCF698000R0012	ABB PT			
78	12,00	OPTICAL FIBER CABLE PRE-MANUFACT. LENS L=5M 1MRS120534-5															MP02000201VCF698000R0012	000201VCF698000R0012	ABB PT			
79	3,00	TA ATB10-BS 7,2/20/60KV 60HZ 600/1-1 5VA-0,5/5P20 10VA-5P20 SEC.P1 SIDE															MP02000035ATB10BS	35-ATB10BS	ESITAS ELEKTRIK SANAYI			
80	3,00	TA ATB10-BS 7,2/20/60KV 60HZ 400/1 0,5/5P20-5VA SEC.P2 SIDE															MP02000036ATB10BS	36-ATB10BS	ESITAS ELEKTRIK SANAYI			

3,00				**81**	3,00	TA ATB10-BS 7,2/20/60KV 50HZ 50/1 0,5/5P15-2,5VA SEC.P1 SIDE														MP0200037ATB10BS	37-ATB10BS	ESITAS ELEKTRIK SANAYI							
6,00				**82**	6,00	TA ATB10-BS 7,2/20/60KV 50HZ 150/1 0,5/5P20 5VA DWG:5150-00 SEC.P2 SIDE														MP0200038ATB10BS	38-ATB10BS	ESITAS ELEKTRIK SANAYI							
3,00				**83**	3,00	TA ATB10-BS 7,2/20/60KV 50HZ 200/1 0,5/5P20 5VA DWG:5150-00 SEC.P2 SIDE														MP0200039ATB10BS	39-ATB10BS	ESITAS ELEKTRIK SANAYI							
6,00				**84**	6,00	ANTIFERRORESONANCE RESISTOR TR318 27 OHM 500W L=2.5M														MP2001041VCF501000R0001	104-1VCF501000R0001	ABB PT							
18,00				**85**	18,00	TJP 4.3 TV 7,2KV 50/60HZ 6600:r3/110:r3/110:r3/110:3V E404008164														MP2001091VCF501000R0001	109-1VCF501000R0001	ABB PT							
	2,00			**86**	2,00	DX122 IO-MODULE FOR UMC100. 8 DI 110-230 V AC. 4DO. 1AO. SUPPLY 24 V DC														MP2000001SAJ622000R0102	1SAJ622000R0102	ABB SACE SPA							
	2,00			**87**	2,00	SMK3.0 ADAPTOR AND COMUNICATION INTERFACE														MP2000001SAJ929600R0001	1SAJ929600R0001	ABB SACE SPA							
	2,00			**88**	2,00	XT2S-160 INTERR MA 20 - 120-280 3p F F														MP2000001SDA0677S5R1-**5**	1SDA067765R1	ABB SACE SPA							
	2,00			**89**	2,00	XT2S-160 INT. EKIP LSIG In=10A 4P F F														MP2000001SDA0678S1R1-**1**	1SDA067851R1	ABB SACE SPA							
	7,00			**90**	7,00	XT2S-160 INT. EKIP LSIG In=63A 4P F F														MP2000001SDA0678S3R1-**1**	1SDA067853R1	ABB SACE SPA							
	3,00			**91**	3,00	XT2S-160 INT. EKIP LSIG In=100A 4P F F														MP2000001SDA0678S4R1-**1**	1SDA067854R1	ABB SACE SPA							
	14,00			**92**	14,00	XT2S 160 BREAKING PART 4P FF														MP2000001SDA068169R1-**1**	**1SDA068169R1**	ABB SACE SPA							
	4,00			**93**	4,00	XT2S 160 BREAKING PART 4P FF														MP2000001SDA068169R1-**2**	**1SDA068169R1**	ABB SACE SPA							
	1,00			**94**	1,00	XT2S 160 BREAKING PART 4P FF														MP2000001SDA068169R1-**3**	**1SDA068169R1**	ABB SACE SPA							
	3,00			**95**	3,00	XT4S-250 BREAKING PART 4p F F														MP2000001SDA068179R1-**4**	**1SDA068179R1**	ABB SACE SPA							
	2,00			**96**	2,00	XT4S-250 BREAKING PART 4p F F														MP2000001SDA068179R1-**5**	**1SDA068179R1**	ABB SACE SPA							
	1,00			**97**	1,00	MOBILE PART E1.2C 1250 4P EKIP Hi-TOUCH LSIG WMP														MP2000001SDA072819R1-**1**	1SDA072819R1	ABB SACE SPA							
	1,00			**98**	1,00	E4.2N/MS 3200 4P W MP														MP2000001SDA073541R1-**5**	1SDA073541R1	ABB SACE SPA							
	1,00			**99**	1,00	XT5S-400 BREAKING PART 4P F F														MP2000001SDA100556R1-**3**	**1SDA100556R1**	ABB SACE SPA							
	1,00			**100**	1,00	XT5S-400 BREAKING PART 4P F F														MP2000001SDA100556R1-4	**1SDA100556R1**	ABB SACE SPA							
	3,00			**101**	3,00	FUSIBLE NH-000 In=16A 690VAC <sen.combinata gL/gG 3NA6805-6														MP2000003NA68056	3NA68056	SIEMENS spa							
	1,00			**102**	1,00	COUPLER MODULE FIELDBUS MODBUS RS485COD.750-315/300-000														MP2000007503153300000	750315300000	WAGO ELETTRONICA srl							
	2,00	2,00		**103**	4,00	MODULE WITH 8 DIGITAL CHANNELS INPUTS 24V DC 3MS cod.750-430														MP2000007504301	750430	WAGO ELETTRONICA srl							
	1,00	1,00		**104**	2,00	END CAP MODULE cod.750-600														MP2000007506001	750600	WAGO ELETTRONICA srl							
	1,00	1,00		**105**	2,00	POWER SUPPLY DISTRIBUTION MODULE 750-602														MP2000007506021	750602	WAGO ELETTRONICA srl							
	1,00			**106**	1,00	CONFIGURABLE INTERFACE MODULE RS485/RS232 COD: 750-652														MP2000007506521	750652	WAGO ELETTRONICA srl							
	4,00		4,00	**107**	8,00	SURGE DISCHARGE 255V 25KA CL.1 TIPO DVCI 1 255 FM														MP2000009612051	961205	DEHN ITALIA spa							
	1,00			**108**	1,00	RCND F.LAG RELAY TO ALIM.A4RCND230VCA230VCA														MP2000000A4RCND230VCA	A4RCND230VCA230VCA	TORRESAN P. srl COSTRUZIONI EL							
	3,00			**109**	3,00	AF190-40-11-13 CONTACTOR 4P 27SA 100-250VC/DC														MP2000000AF190401113	AF190401113	ABB SACE SPA							
	1,00			**110**	1,00	AF265-40-11-13 CONTACTOR 4P 132KW100-250VCA/CC														MP2000000AF265401113	AF265401113	ABB SACE SPA							
	2,00			**111**	2,00	AF38-30-00-13 CONTACTOR 3P 18,5KW 100...250VAC/CC														MP2000000AF38300013	AF38300013	ABB SACE SPA							
	14,00			**112**	14,00	AF40-40-00-13 CONTACTOR 4P 70A AC1 100-250VAC/DC														MP2000000AF40400013	AF40400013	ABB SACE SPA							
	4,00			**113**	4,00	AF52-40-00-13 CONTACTOR 4P 52A 100-250VAC/DC														MP2000000AF52400013	AF52400013	ABB SACE SPA							
	1,00			**114**	1,00	AF80-40-00-13 CONTACTOR 4P 125A 100-250VAC/CC														MP2000000AF80400013	AF80400013	ABB SACE SPA							
	1,00	2,00		**115**	3,00	ML1-100R RED LAMP - ROUND D22														MP2000000EO5622	EO5622	ABB SACE SPA							
	1,00	2,00		**116**	3,00	ML1-100G GREEN LAMP - ROUND D22														MP2000000EO5630	EO5630	ABB SACE SPA							
	1,00	1,00		**117**	2,00	ML1-100Y YELLOW LAMP - ROUND D22														MP2000000EO5648	EO5648	ABB SACE SPA							
	191,00		4,00	**118**	195,00	CR-M230AC4L REALY 230VAC 4C/O +LED														MP2000000ER5926	1SVR405613R3100	ABB SACE SPA	3	10					
	186,00		4,00	**119**	190,00	CR-MH RETAIN DEVICE PL FOR SOCKET CR-M														MP2000000ER6098	1SVR405659R1000	ABB SACE SPA		10					
	210,00			**120**	210,00	TERMINAL BLOCK - DOUBLE LAYER HMD.2/GR														MP2000000HD100GR	HD100GR	CABUR spa		20					
	410,00			**121**	410,00	TERMINAL BLOCK - DOUBLE LAYER HMD.2N/GR														MP2000000HD400GR	HD400GR	CABUR spa		20					
	1,00		2,00	**122**	3,00	MLBL-07R MODULE WITH INTEGRATED LED - RED 230VCA														MP2000000KV0357	KV0357	ABB SACE SPA							
	1,00		2,00	**123**	3,00	MLBL-07G MODULE WITH INTEGRATED LED - GREEN 230VCA														MP2000000KV0365	KV0365	ABB SACE SPA							
	2,00		1,00	**124**	3,00	MLBL-07Y MODULE WITH INTEGRATED LED - YELLOW 220VAC														MP2000000KV0373	KV0373	ABB SACE SPA							
	1,00			**125**	1,00	M2SSK2-101 ROUND SELECTOR WITH KEY 2P 0-1 EXT CLOSED IN "0"														MP2000000KW4168	KW4168	ABB SACE SPA							
	3,00			**126**	3,00	FUSIBLE 10.3X38 20A eG E 9F10 GG20 500VCA														MP2000000M277323	M277323	ABB SACE SPA		1					
	4,00			**127**	4,00	FUSIBLE 10.3X38 16A eG E 9F10 GG16 500VCA														MP2000000M277543	M277543	ABB SACE SPA		1					
	15,00			**128**	15,00	MULTILED INDICATOR 22/48 3LED (GR-RD+AM)230VAC/DC PR. LAMP+FASTON+TROP														MP2000000ML224831230STLTT	ML224831230STLTTR	DOMO SRL							
	25,00			**129**	25,00	MULTILED INDICATOR 22/48 4LED (GR+RD+RD+AM) 230VAC/DC PR. LAP+FAST+TROP														MP2000000ML224841230STLTT	ML224841230STLTT	DOMO SRL							
	1,00			**130**	1,00	MO132-Q.16A C.B. MOTOR PROTECTION (ONLY MAGNETIC) MO132														MP2000000MO1320V16	MO1320V16	ABB SACE SPA							
	2,00			**131**	2,00	MRP31.0 MODBUS INTERFACE RTU FOR UMC100.3														MP2000000MRP310	MRP310R0001	ABB SACE SPA							
	3,00			**132**	3,00	AMPEROMETRIC TRASF. 2500/1A 5VA-5P20 TROP														MP2000000TAR1052KSN01V18	TAR1052KSN01V18	FRER Srl							
	2,00			**133**	2,00	VOLTAGE TRASF. 10VA CL.0,5 400/110V 1TTV010400110 TROPICALIZZATI														MP2000000TTV010400XC1XT	TTV010400XC1XT	FRER Srl							
	2,00			**134**	2,00	UMC100-PAN OPERATING PANEL FBP PER UMC100.3UC														MP2000000UMC1003PAN	1SAJ930000R0103	ABB SACE SPA							
	2,00			**135**	2,00	UMC100.3 UC UNIVERSAL MOTOR CONTROLLER 0,24-63A 110...240Vac/dc														MP2000000UMC1003UC	1SAJ530000R1100	ABB SACE SPA							
	1,00	1,00		**136**	2,00	SWITCHING POWER SUPPLY 90-264VCA/24VCC 5A - CSF120CP														MP2000000XCSF120CP	XCSF120CP	CABUR spa							
	59,00			**137**	59,00	I/O MODULE 5DI+2DO MODBUS RS485 V=10÷40Vdc 19÷28Vac														MP2000002SDI2DO	Z5DI2DO	SENECA		3					
	1,00			**138**	1,00	REF615 (versione F) HBFFAEFCNDCABBA11G														MP2000491VCF698395R1001	0004911VCF698395R1001	ABB PT							
		2,00		**139**	2,00	FUSIBLE NH-00 6A 800V														MP2000001634906	1634906	ITALWEBER spa		1					
		3,00		**140**	3,00	FUSIBLE NH-00 35A 800V														MP2000001634935	1634935	ITALWEBER spa		1					
		2,00		**141**	2,00	EKIP COMUNICATION MODULE MODBUS TCP FOR E1.2...E6.2														MP2000001SDA074151R1	1SDA074151R1	ABB SACE SPA							
		2,00		**142**	2,00	EKIP COM ACTUATOR COMUNICATION MODULE E1.2..E6.2														MP2000001SDA074166R1	1SDA074166R1	ABB SACE SPA							
		1,00		**143**	1,00	E1.2N/E9 1250 Ekip Touch LSIG 3p WMP														MP2000001SDA104296R1-3	1SDA104296R1	ABB SACE SPA							
		1,00		**144**	1,00	E1.2N/E9 1250 Ekip Hi-Touch LSIG 3p WMP														MP2000001SDA104297R1-1	1SDA104297R1	ABB SACE SPA							
		1,00		**145**	1,00	FIELDBUS COUPLER MODBUS TCP/UDP ETHERNET 10/100 MBIT/S COD.750-362														MP2000000750362	750362	ABB SACE SPA							
		4,00		**146**	4,00	DEHNbloc Maxi DBM-1-CI-440-FM 1-POLE with integrated backup fuse														MP2000009611 46	961146	DEHN ITALIA spa		2					
		1,00		**147**	1,00	RCD MODULE. TYPE.A 2P 25A DDA202-25-300mA/A														MP2000000B427960	B427960	ABB SACE SPA							
		1,00		**148**	1,00	SWITCH WITH LEVER R16 2/S COD.R601-205002-W002														MP2000000R601205002W002	R601205002W002	COMELETRIC snc di RIZZITEL							
		1,00		**149**	1,00	MCB-2P 6A-C S202M-C6														MP2000000S550260	S550260	ABB SACE SPA							
		1,00		**150**	1,00	ISOLATING TRANSFORMER SINGLE PHASE 50HZ 800/230V P=1000VA - TROPICALIZ														MP2000001F14XXX	00001_F14XXX	L.E.F. srl							
			1,00	**151**	1,00	XT2N 160 EKIP LSI (63A) 4 POLES FIXE FRONTAL CONNECTION														MP2000001SDA067104R1-3	1SDA067104R1	ABB SACE SPA							
			1,00	**152**	1,00	S800-AUX AUX CONTATCS 2NA+2NC														MP2000000A120680	A120680	ABB SACE SPA							
			51,00	**153**	51,00	S2C-H6R AUX CONTACT														MP2000000A563826	A563826	ABB SACE SPA		3					
			18,00	**154**	18,00	RCD MODULE TYPE.AC 2P 25A DDA202-25-30mA/AC														MP2000000B427911	B427911	ABB SACE SPA		1					
			96,00	**155**	96,00	FEED THROUGH TERMINAL BLOCK WITH SCREW CBD.4 4mmq														MP2000000CB240	CB240	CABUR spa		5					
			10,00	**156**	10,00	EH04-11N AUX CONTACTS 1NA+1NC														MP2000000EH0411N	EH0411N	ABB SACE SPA		1					
			1,00	**157**	1,00	ESB16-20N-06 230V C.C./C.A. MODULAR CONTACTOR 2NA														MP2000000ESB1620N06	ESB1620N06	ABB SACE SPA		1					
			8,00	**158**	8,00	ESB40-20 230V AC/DC MODULAR CONTACTOR														MP2000000ESB4020N06	ESB4020N06	ABB SACE SPA		1					
			1,00	**159**	1,00	ESB63-40N-06 230V AC/DC MODULAR CONTACTOR														MP2000000ESB6340N06	ESB6340N06	ABB SACE SPA		1					
			1,00	**160**	1,00	TL1 DUSK SENSOR , 1 MODULE COD M229921														MP2000000M229921	M229921	ABB SACE SPA							
			1,00	**161**	1,00	E204/100e SWITCH DISCONNECTOR 4P 100A M645291														MP2000000M646291	M646291	ABB SACE SPA		1					
			1,00	**162**	1,00	MCB-4P 50A-C S804S-C50														MP2000000S120091	S120091	ABB SACE SPA		1					
			2,00	**163**	2,00	MCB S302P C 1 25KA 2P														MP2000000S302PC1	S302PC1	ABB SACE SPA		1					
			4,00	**164**	4,00	MCB S302P C10 25KA 2P														MP2000000S302PC10	S302PC10	ABB SACE SPA		1					
			6,00	**165**	6,00	MCB S302P C16 25KA 2P														MP2000000S302PC16	S302PC16	ABB SACE SPA		1					
			11,00	**166**	11,00	MCB S302P C20 25KA 2P														MP2000000S302PC20	S302PC20	ABB SACE SPA		1					
			21,00	**167**	21,00	MCB S302P C 6 25KA 2P														MP2000000S302PC6	S302PC6	ABB SACE SPA		2					
			4,00	**168**	4,00	MCB S302P D16 25KA 2P														MP2000000S302PD16	S302PD16	ABB SACE SPA		1					
			2,00	**169**	2,00	MCB S304P C10 25KA 4P														MP2000000S304PC10	S304PC10	ABB SACE SPA		1					
1				**170**	1,00	SWICOM (DISPLAY)														MP2000001VCF681000R0101	1VCF681000R0101	ABB SACE SPA							
1				**171**	1,00	PDCOM (PARTIAL DISCHARGE MONITORING)														MP2000001VCF681000R0103	1VCF681000R0103	ABB SACE SPA							
1				**172**	1,00	INTERFACE PDCOM VIS/INSULATOR														MP2000001VCF681000R0104	1VCF681000R0104	ABB SACE SPA							
4				**173**	4,00	**VSC7/P 7,2KV CONTATTORE V-Contact 400A DCO FOR UNIGEAR - IEC 62271-106 - FOR FUSE E=442mm** OPERATION COUNTER (1VCF309500R0097) NAMEPLATE IN ENGLISH (1VCF309500R0882) ELECTRONIC CONTROL MODULE MAC R2 (1VCF309503R0881) UNDERVOLTAGE SHUNT RELEASE (1VCF309503R3881) POWER SUPPLY MODULE FOR MAC R2 110VDC (1VCF309588R0909) LOCK SOLENOID 110-127Vac/dc (1VCF329700R0913)														MP2000001VCF305581R3200-3	1VCF305581R3200	ABB SACE SPA							
2				**174**	2,00	**C.B. 3P 12KV 630A 25KA WITHDRAWABLE VD4/P 12.06.25 P150 FOR POWERCUBE** KEY LOCK OPEN POS. WITH DIFFERENT KEY (1VCF339700R0271) POSITION CONTACT (1VCF339700R0291) SPRING CHARGE/DISCHARGE SIGNALING (1VCF339700R0395) NAMEPLATE IN ENGLISH (1VCF339700R0882) TROLLEY LOCKING MAGNET (1VCF339700R1909) 16 AUX CONTACTS (1VCF339701R0194) OPENING INSTANTANEOUS SHUNT RELEASE 110Vcc(1VCF339701R2909) SPRING CHARGE MOTOR 110Vcc (1VCF339701R8909) UNDERVOLTAGE SHUNT RELEASE 110-127v AC/DC (1VCF339800R4913) MECHANICAL INTERLOCK WITH DOOR (1VCF349700R0407) CABLING WITH AFUMEX CABLE N07G9-K (1VCF349700R4881)														MP02000001VCF337121R1141-4	1VCF337121R1141	ABB SACE SPA							
6				**175**	6,00	**TV/F 12/17,5kV WITH AUX CONTACTS FOR NEW VD4 <=40kA** NAME PLATE IN ENGLISH FOR TV/F (1VCF499800R0302) TV/FELECTROMECHANICAL LOCK FOR CELL DOOR 110Vcc (1VCF579700R0909) ELCTROMECHANICAL LOCK 110Vcc FOR EARTHING SWITCH (1VCF599500R0909) KEY LOCK WITH EARTHING SWITCH C.B. INSERTION (1VCF599504R0042) KEY LOCK FOR SWITCH OPEN/CLOSED POSITION (1VCF599504R0063) N.5 AUX CONACTS FOR EARTHING SWITCH (1VCF599505R0001) N.10 AUX CONTACTS FOR EARTHING SWITCH (1VCF599505R0002) SHUTTER FAIL SAFE (1VCF599505R0111) EARTHING SWITCH ST-E 17.31 150 (1VCF599700R0131) 58 PIN WITH AFUMEX CABLE (1VCF599700R0161) SNA+SNC C.AUX C.B. INSERTED AND SNA+SNC C.AUX C.B. OPENED (1VCF599700R0171) EARTHING SWITCH DOOR INTERLOCK MECHANISM (1VCF599700R0280) LEVER FOR EARTHING SWITCH(1VCF599700R0290) PAINTED DOOR (1VCF599700R4882) SUPPORT FOR PUSH BUTTON ON PAINTED DOOR (1VCF599700R4884)														MP02000001VCF498412R0100-20	1VCF498412R0100	ABB SACE SPA							

Section 7.4 Vendor Data / Operations / Maintenance Manuals References

DOOR FRONT LAY-OUT

TYPICAL : LINE FEEDER "LK1-n"

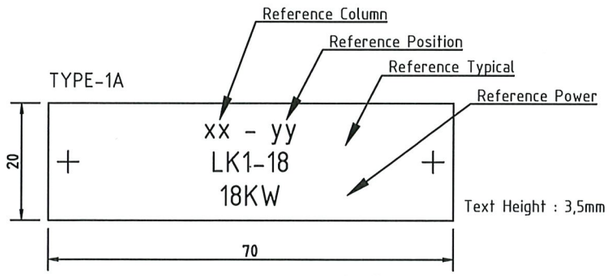


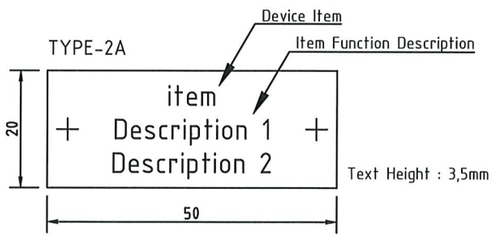
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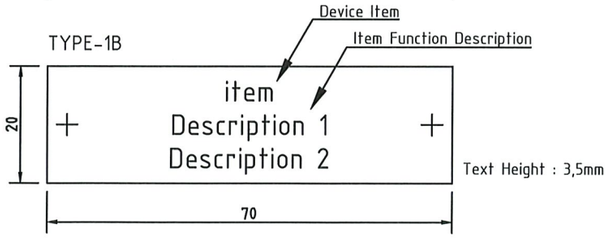
A) IDENTIFICATION name plate (type-1A) , with :
- Drawer position [Column / Position inside SWB]
- Typical name [reference applicability typical used]
- Power [reference applicability typical used]

B) USER name plate (type-1B), with :
- Item User [to see SLD diagrams]
- User Description [to see SLD diagrams]

DEVICES name plate			
ITEM	DESCRIPTION 1	DESCRIPTION 2	NOTE
QF1	Circuit Breaker		NO plate
SA1	LOC-REM	SELECTOR	Type-2A
PA1	STOP	MOTOR	Type-2A
PM1	RUN	MOTOR	Type-2A
HL1	Multiled	Signalling	NO plate







AS COMMISSIONED : NAOWA GIROW
26/3/25
NO MARK UP

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031
REV.: 2_A | DATE: 18/03/25 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

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

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	10/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

TITLE : "SG-200N1"
LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS
Door Front Lay-Out - Typical "LK1-n" & "LK2-n"

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

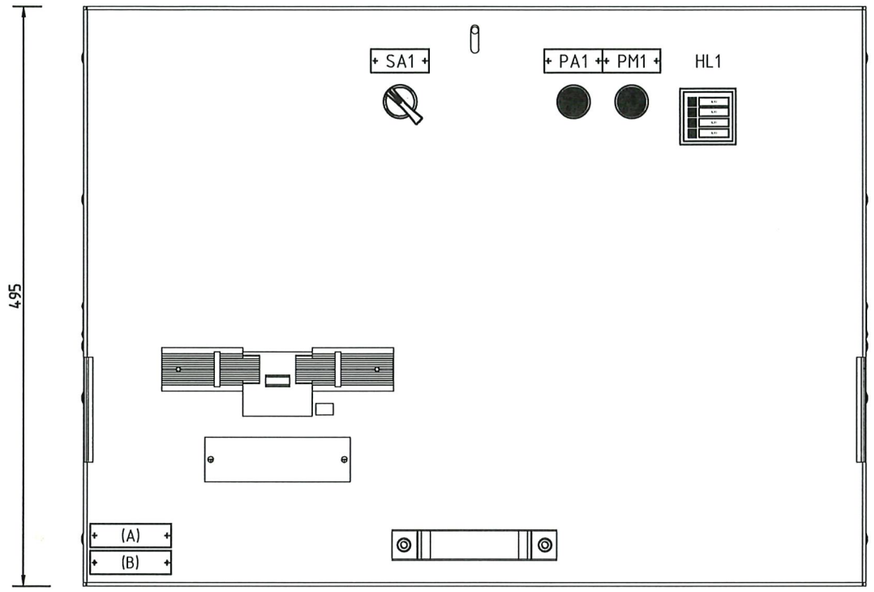
A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 034 | REV. 02

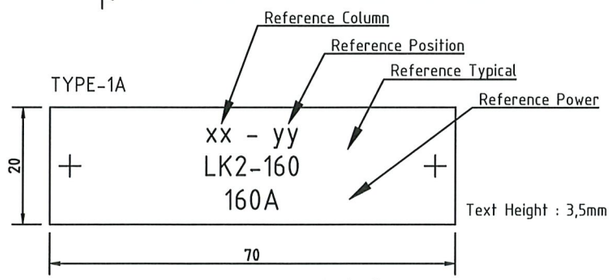
F.to UNI A3: 420mmx297mm

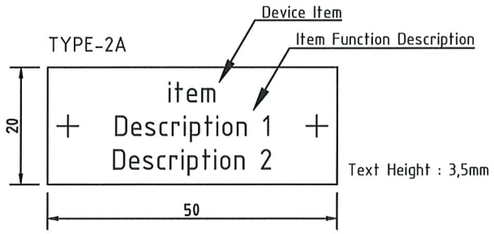
File Name : 1723002197-EL-DG-00031 Rev. 02

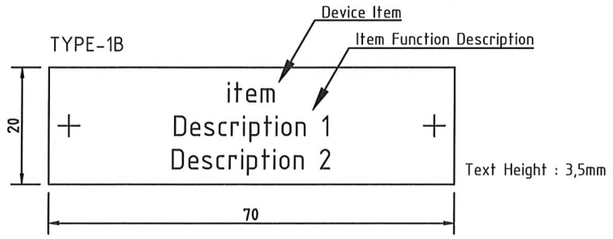
DOOR FRONT LAY-OUT

TYPICAL : LINE FEEDER "LK2-n"









NOTE :

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

B) USER name plate (type-1B), with :
- Item User [to see SLD diagrams]
- User Description [to see SLD diagrams]

DEVICES name plate			
ITEM	DESCRIPTION 1	DESCRIPTION 2	NOTE
QF1	Circuit Breaker		NO plate
SA1	LOC-REM	SELECTOR	Type-2A
PA1	STOP	MOTOR	Type-2A
PM1	RUN	MOTOR	Type-2A
HL1	Multiled	Signalling	NO plate

AS COMMISSIONED: MARCIA GIROTTI
24/3/25
NO MARK UP

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031
REV.: 2_A | DATE: 18/03/25 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

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

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	10/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

TITLE : "SG-200N1"
LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS
Door Front Lay-Out - Typical "LK1-n" & "LK2-n"

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

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 035 | REV. 02

File Name : 1723002197-EL-DG-00031 Rev. 02

F.to UNI A3: 420mmx297mm

USERS LEGEND

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

TYPICAL APPLICABILITY					
ITEM	ITEM TAG	DESCRIPTION TAG	REFERENCE POSITION (written on name name plate "type-1A)	REFERENCE NOMINAL CURRENT C.B. TRIP UNIT (written on name name plate "type-1A)	REFERENCE TYPICAL (written on name name plate "type-1A)
1	SPARE	SPARE	A2 / +05	40A	LK1-40
2	SPARE	SPARE	A3 / +02	40A	LK1-40
3	DP-200N1	DB-LIGHTING & SMALL POWER BoP	A3 / +03	100A	LK1-100
4	JB-200E3	CRANE	A3 / +04	63A	LK1-63
5	SPARE	SPARE	A3 / +05	40A	LK1-40
6	JB-500E8	WATER PACKAGE	A3 / +08	160A	LK2-160
7	B100-HSB-001	HVAC PANELS HV ROOM	A4 / +02	40A	LK1-40
8	A-80000	FUELL CELL AUXIALIRY LOAD	A4 / +03	63A	LK1-63
9	CP-850F03	BESS PCS CABINET	A4 / +04	40A	LK1-40
10	SPARE	SPARE	A4 / +05	40A	LK1-40
11	SPARE	SPARE	A4 / +06	40A	LK1-40
12	K-63001-A	INSTRUMENTS AIR PACKAGE 01A	A4 / +08	160A	LK2-160
13	SPARE	SPARE	A5 / +01	40A	LK1-40
14	B200-HSB-001	HVAC PANELS - LV ROOM	A5 / +02	40A	LK1-40
15	B300-HSB-001	HVAC PANELS - UPS ROOM	A5 / +03	63A	LK1-63
16	B400-HSB-001	HVAC PANELS - ITER	A5 / +04	63A	LK1-63
17	CN-200N1	IMPRESSED CURR. CATHODIC PROTECTION (ICCP) SYSTEM	A5 / +05	40A	LK1-40
18	SPARE	SPARE	A5 / +06	40A	LK1-40
19	K-63001-B	INSTRUMENTS AIR PACKAGE 01B	A5 / +08	160A	LK2-160
20	CP-850E1	BESS LV1 CABINAT (+DISTR 1)	A6 / +02	40A	LK1-40
21	CP-850E2	BESS LV2 CABINAT (+DISTR 2)	A6 / +03	40A	LK1-40
22	SPARE	SPARE	A6 / +04	40A	LK1-40

AS COMMISSIONED: NATALIA GINOLI
24/3/25
NO MARK UP

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031
REV.: 2_A | DATE: 18/03/25 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

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

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	10/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

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

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

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 036 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

ITEMS ACRONYM

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

Composition of Typical :

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

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

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

	ACRONYM ITEMS (Comun parts)	ACRONYM ITEMS (Specific parts)					
	LK-x	LK1-40 (In=40A) (Current Trip Unit)	LK1-63 (In=63A) (Current Trip Unit)	LK1-100 (In=100A) (Current Trip Unit)	LK2-160 (In=160A) (Current Trip Unit)		
ASSOCIATED TYPICAL	This Item include all devices that are comun for both "Specific Parts" Items	This Items include only devices that are detail for "Specific Parts" Items					
LK1-40	X	X					
LK1-63	X		X				
LK1-100	X			X			
LK2-160	X				X		
-							

AS COMMISSIONED: NATWA GIRGIN
24/3/25
NO MARK UP

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031

REV.:	DATE:	SIGNATURE:
2_A	18/03/25	G.Randi

ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

= TYPICAL
+ LK-x

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

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	10/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

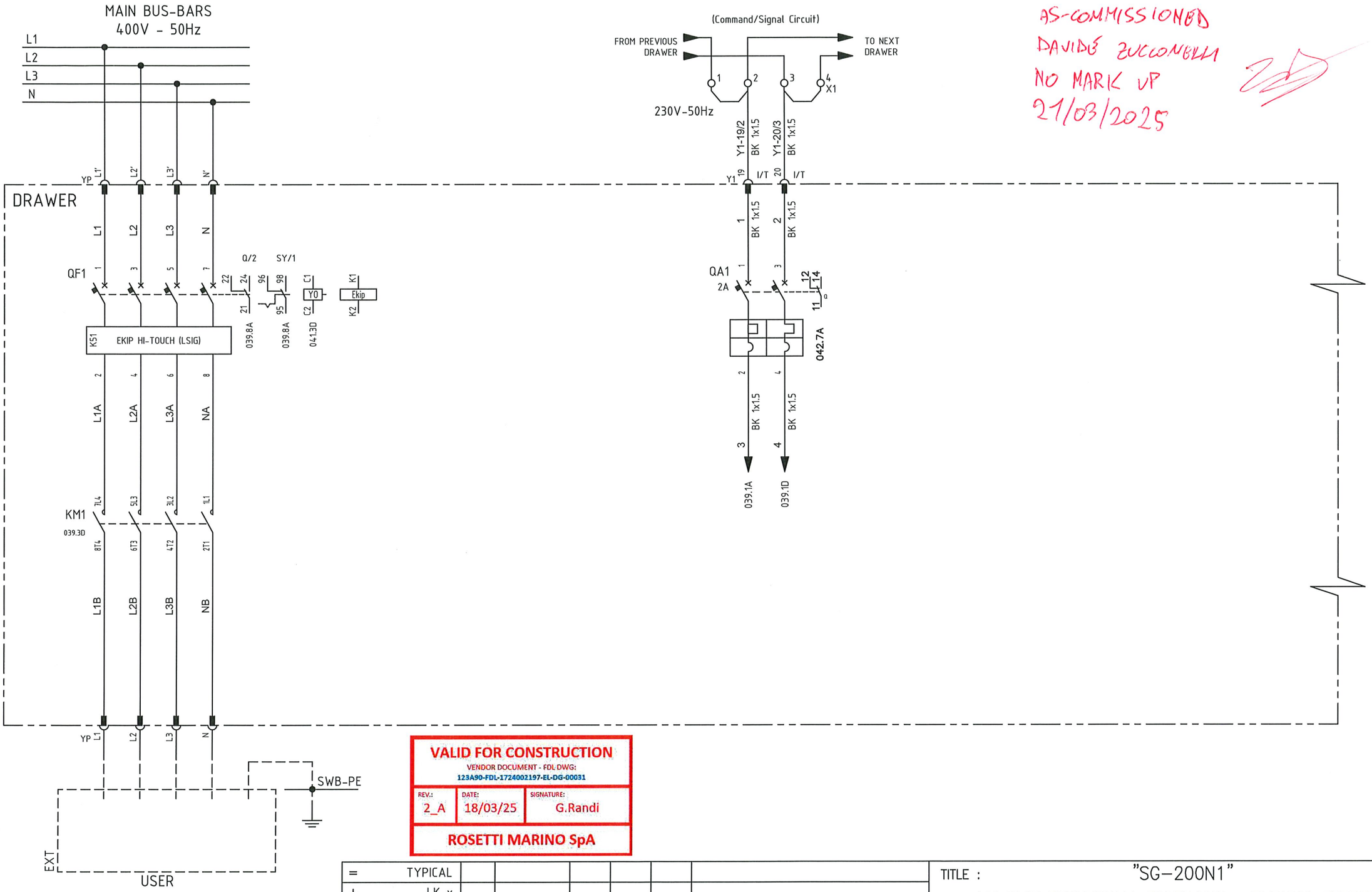
TITLE : "SG-200N1"
LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS
Items Acronym - Typical "LK1-n" & "LK2-n"

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

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 037 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02



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21/03/2025

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031

REV.:	DATE:	SIGNATURE:
2_A	18/03/25	G.Randi

ROSETTI MARINO SpA

=	TYPICAL
+	LK-x

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

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	10/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

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

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

SCALE : NTS

A3

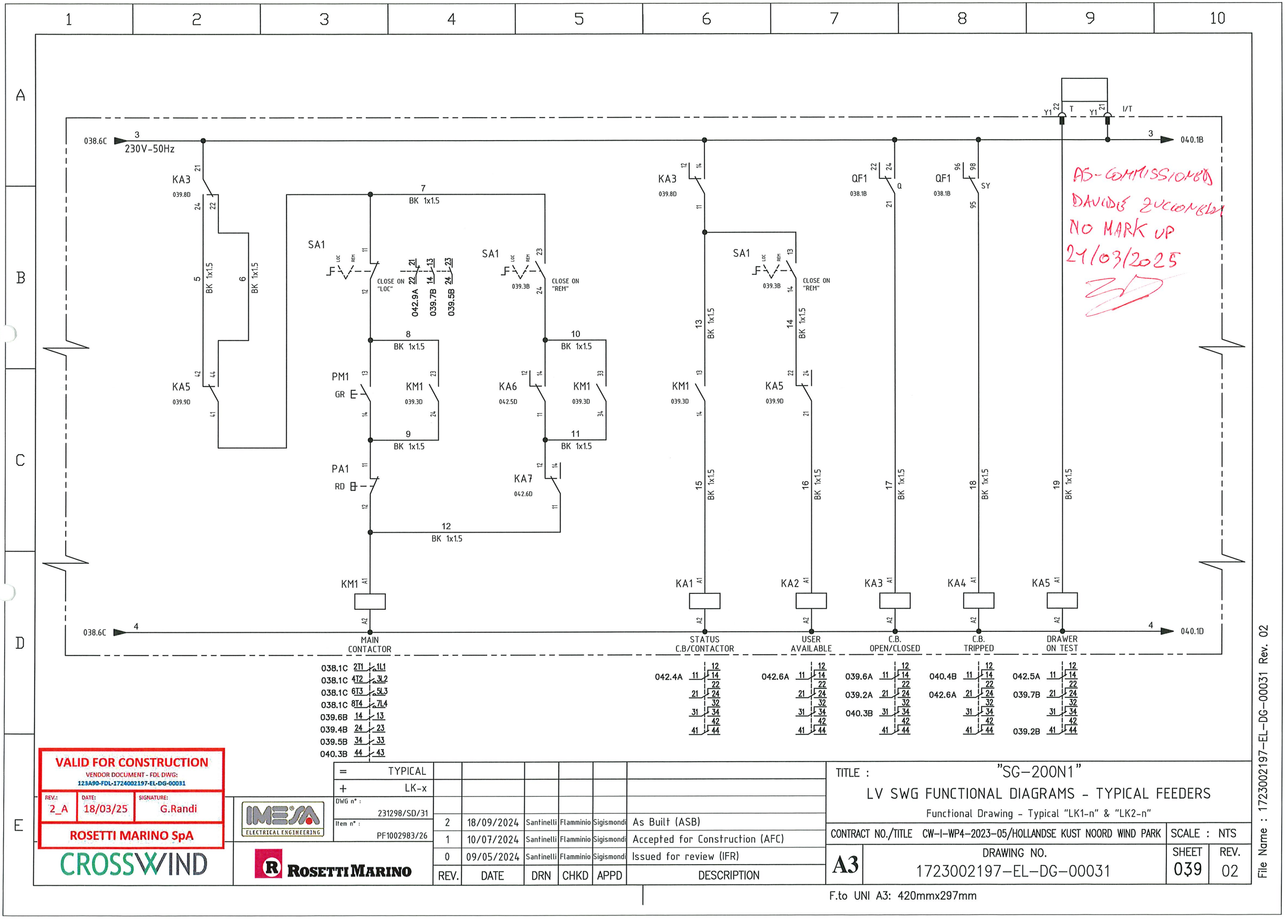
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SHEET 038

REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02



VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031

REV.:	DATE:	SIGNATURE:
2_A	18/03/25	G.Randi

ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

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

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	10/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

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

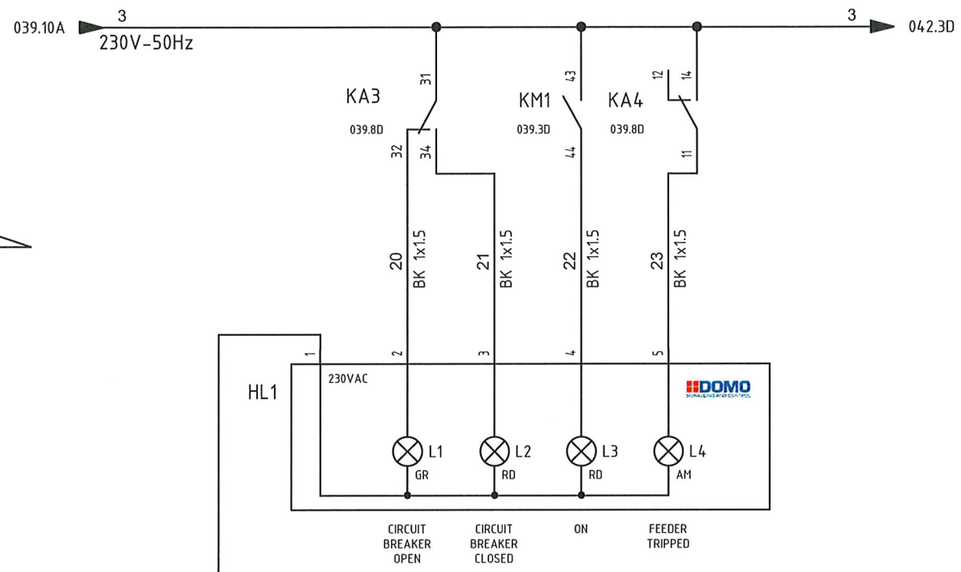
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A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 039 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

AS-COMMISSIONED
DAVIDE ZUCCONELLI
NO MARK UP
27/03/2025



VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031

REV.:	DATE:	SIGNATURE:
2_A	18/03/25	G.Randi

ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

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

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	10/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

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

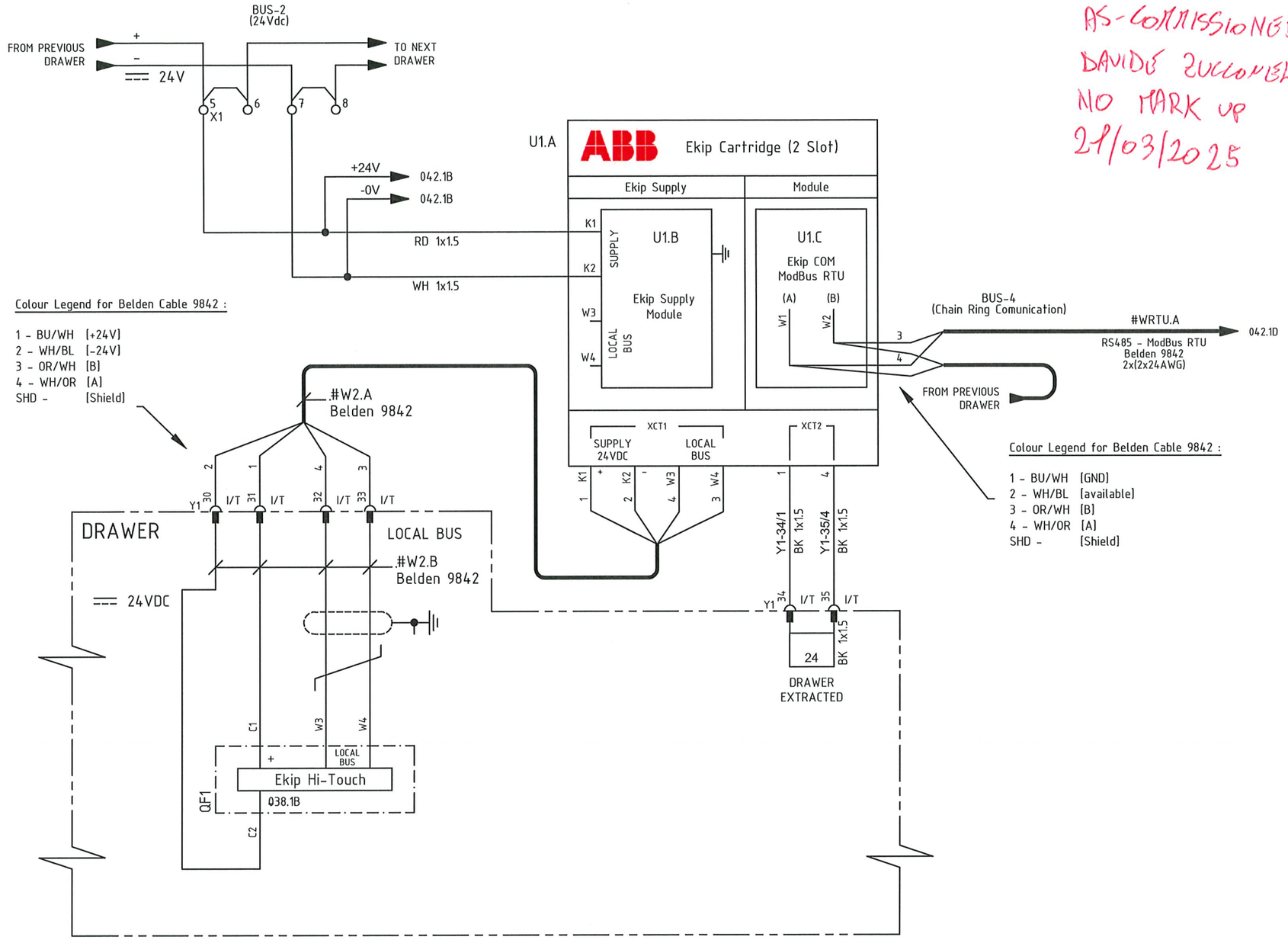
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F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

AS-COMMISSIONED
DAVIDE ZUCCONELLI
NO MARK UP
21/03/2025



VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031
REV.: 2_A | DATE: 18/03/25 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

=	TYPICAL						
+	LK-x						
DWG n° :	231298/SD/31						
Item n° :	PF1002983/26						
2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)		
1	10/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)		
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)		
REV.	DATE	DRN	CHKD	APPD	DESCRIPTION		

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

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

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 041 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

AS-COMMISSIONED
DAVIDE ZUCCOMELLI
NO MARK UP
21/03/2025

DRAWER

C.B. - CONTACTOR CLOSED & INSERTED
C.B. - CONTACTOR OPEN OR DISCONNECTED
CIRCUIT BREAKER TRIPPED
FEEDER AVAILABLE
INTERNAL FAULT
USER ON LOCAL

KA1 039.6D
KA5 039.9D
KA4 039.8D
KA2 039.7D
QA1 038.6B
SA1 039.3B
CLOSE ON "LOC"

+25 RD 1x1.5 · +26 RD 1x1.5 · +27 RD 1x1.5 · +28 RD 1x1.5 · +29 RD 1x1.5 · +30 RD 1x1.5 · +31 RD 1x1.5 · +32 RD 1x1.5

Y1 14 I/T · 5 I · 15 I/T · 3 E · 4 E · 16 I/T · 10 I/T · 8 I/T · 9 I/T · 36 I/T · 37 I/T

Y1-14/9 BK 1x1.5 · Y1-5/10 BK 1x1.5 · Y1-15/11 BK 1x1.5 · Y1-16/12 BK 1x1.5 · Y1-10/13 BK 1x1.5 · Y1-9/14 BK 1x1.5 · Y1-36/15 BK 1x1.5 · Y1-37/19 BK 1x1.5

AVAILABLE

+103 RD 1x1.5 · +104 RD 1x1.5 · +105 RD 1x1.5 · +106 RD 1x1.5 · +107 RD 1x1.5 · +108 RD 1x1.5 · +115 RD 1x1.5 · +116 RD 1x1.5 · +117 RD 1x1.5 · +118 RD 1x1.5

041.4A +24V
041.4A -0V
=== 24V

U2.A
AC+ AC- PE
+/L -/N PE
10÷40Vdc - 19÷29Vac SUPPLY
Z-PC-DINAL2-17.5
Modbus RTU RS485
B(-) A(+) GND SHD
B/L A/H GND SHD
3 4 1 SHD
041.9B
TO NEXT DRAWER
BUS-4 (Chain Ring Comunication)

U2.B
+16V 0V IN-1 IN-2 IN-3 IN-4 IN-5
INPUT
SENECA AUTOMATION INTERFACES
MODULE I/O
Z-5DI-2DO
ID = 01
OUTPUT
DO-1 DO-2

U2.C
+16V 0V IN-1 IN-2 IN-3 IN-4 IN-5
INPUT
SENECA AUTOMATION INTERFACES
MODULE I/O
Z-5DI-2DO
ID = 02
OUTPUT
DO-1 DO-2

Colour Legend for Belden Cable 9842 :

1 - BU/WH [GND]
2 - WH/BL [available]
3 - OR/WH [B]
4 - WH/OR [A]
SHD - [Shield]

109 BK 1x1.5 · 110 BK 1x1.5 · 111 BK 1x1.5 · 112 BK 1x1.5 · 113 BK 1x1.5 · 114 BK 1x1.5

Y1-11/20 BK 1x1.5 · Y1-12/21 BK 1x1.5 · Y1-13/22 BK 1x1.5

Y1 11 I/T · 12 I/T · 13 I/T

DRAWER

040.5B 3 230V-50Hz

KA6 A1 33 · KA7 A1 34

040.5D 4

KA6 A2 CONTACTOR CLOSE COMMAND
KA7 A2 CONTACTOR OPEN COMMAND

KA6 039.5B · KA7 039.5C

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031
REV.: 2_A | DATE: 18/03/25 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

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

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	10/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

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

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK
SCALE : NTS
A3
DRAWING NO. 1723002197-EL-DG-00031
SHEET 042
REV. 02

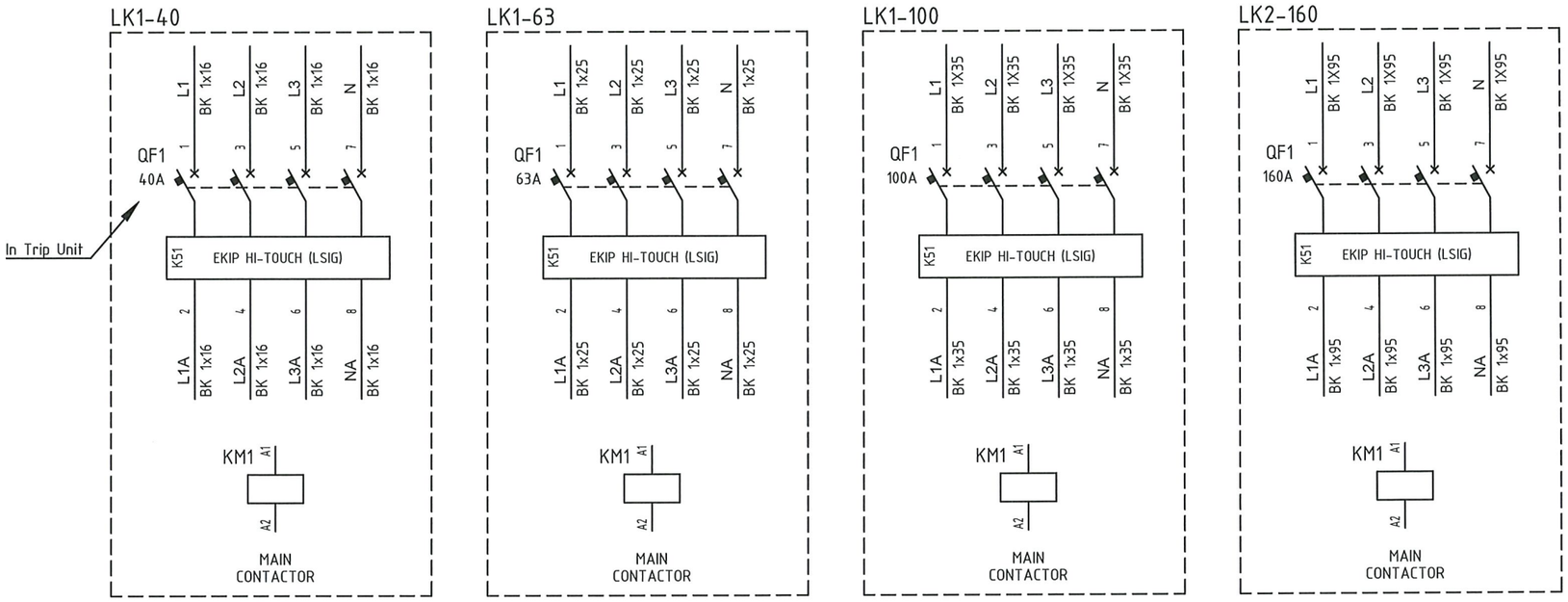
F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

SPECIFIC PARTS

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

AS-COMMISSIONED
DAVIDE ZUCCONELLI
NO MARK UP
21/03/2025



VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031
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CROSSWIND

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

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
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TITLE : "SG-200N1"
LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS
Functional Drawing - Typical "LK1-n" & "LK2-n"

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

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 043 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

TYPICAL - LK-x - Y1

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

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

← FIELD WHIT "X" - CONTACT CLOSE WHEN DRAWER IS IN RACKED-OUT POSITION
← FIELD WHIT "X" - CONTACT CLOSE WHEN DRAWER IS IN TEST POSITION
← FIELD WHIT "X" - CONTACT CLOSE WHEN DRAWER IS IN RACKED-IN POSITION

← CROS-REFERENCE USED PIN

AS COMMISSIONED
DAVIDE ZUCCONELLI
NO MARK UP
21/03/2025

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031
REV.: 2_A | DATE: 18/03/25 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

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

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
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TITLE : "SG-200N1"
LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS
Functional Drawing - Typical "LK1-n" & "LK2-n"

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

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 044 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

TYPICAL - LK-x X1					
NumM	Fg.	Sez.	Tipo	Descrizione	Costruttore
			BT003	BT/3 End bracket	Cabur
1	038.5A	2.5	HD100GR_	HMD.2/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
2	038.6A	2.5	HD100GR_	HMD.2/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
3	038.6A	2.5	HD100GR_	HMD.2/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
4	038.6A	2.5	HD100GR_	HMD.2/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
5	041.3A	2.5	HD100GR_	HMD.2/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
6	041.3A	2.5	HD100GR_	HMD.2/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
7	041.4A	2.5	HD100GR_	HMD.2/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
8	041.4A	2.5	HD100GR_	HMD.2/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
			HD101GR	HMD/PT/GR End section - Grey	Cabur
9	042.3B	2.5	HD400GR_	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
10	042.4B	2.5	HD400GR_	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
11	042.4B	2.5	HD400GR_	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
12	042.5B	2.5	HD400GR_	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
13	042.6B	2.5	HD400GR_	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
14	042.7B	2.5	HD400GR_	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
15	042.7B	2.5	HD400GR_	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
16	042.7B	2.5	HD400GR_	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
17	042.8B	2.5	HD400GR_	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
18	042.8B	2.5	HD400GR_	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
19	042.9B	2.5	HD400GR_	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
20	042.5C	2.5	HD400GR_	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
21	042.5C	2.5	HD400GR_	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
22	042.6C	2.5	HD400GR_	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
23	042.9C	2.5	HD400GR_	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
24	042.9C	2.5	HD400GR_	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
25	042.10C	2.5	HD400GR_	HMD.2N/GR Two-level feed-through Terminal Block - Grey (2.5 mmq) - Spring type	Cabur
			HD201GR	HMD.1/PT/GR End section - Grey	Cabur
			BT003	BT/3 End bracket	Cabur

AS-COMMISSIONED
DAVIDE ZUCCHINELLI
NO MARK UP
21/03/2025

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031
REV.: 2_A | DATE: 18/03/25 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

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

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	10/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

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

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

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 045 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02

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

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031
REV.: 2_A | DATE: 18/03/25 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

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

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
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TITLE : "SG-200N1"
LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS
Functional Drawing - Typical "LK1-n" & "LK2-n"

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

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 046 | REV. 02

File Name : 1723002197-EL-DG-00031 Rev. 02

AS-COMMISSIONED DAVIDE ZUCCONELLI NO MARK UP 21/03/2025

Fito UNI A3: 420mmx297mm

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

AS-COMMISSIONED
DAVIDE ZUCCOMELLI

NO MARK UP
21/03/2025

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

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

Nome/Item	Fg/Sh	Tipo/Type	Q.ta/Q.ty	Descrizione/Description	Costruttore/Manufacturer	Quadro (descrizione)
KM1	043	AF80400013	1	AF80-30-00-13 CONTACTOR 4P 80A(AC3) 100-250VAC/DC	ABB	TYPICAL LK1-100
		CA440E	1	CA4-40E AUXILIARY FRONT CONTACT 4NO	ABB	TYPICAL LK1-100
QF1	043	1SDA068169R1	1	XT2S 160 BREAKING PART 4p F F	ABB	TYPICAL LK1-100
		1SDA100164R1	1	ELECTRONIC TRIP RELEASE Ekip Hi-Touch LSIG In=100A XT2 4p	ABB	TYPICAL LK1-100
		1SDA066431R1	1	AUX-C 1Q+1SY 250Vac/dc XT1..XT5 F/P	ABB	TYPICAL LK1-100

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

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00031

REV.:	DATE:	SIGNATURE:
2_A	18/03/25	G.Randi

ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

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

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2	18/09/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	10/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
0	09/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

TITLE : "SG-200N1"

LV SWG FUNCTIONAL DIAGRAMS - TYPICAL FEEDERS

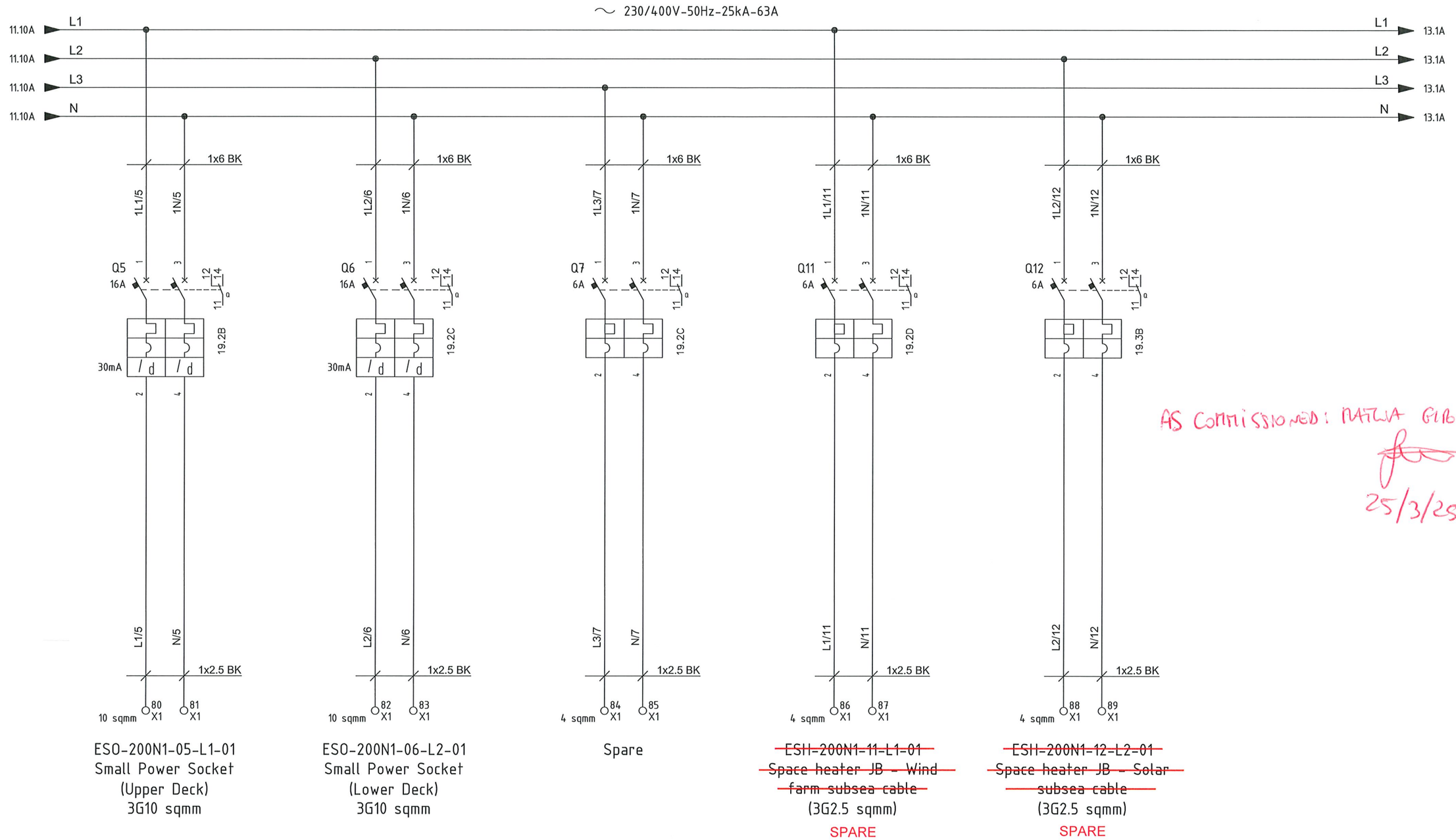
Functional Drawing - Typical "LK1-n" & "LK2-n"

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

A3 | DRAWING NO. 1723002197-EL-DG-00031 | SHEET 047 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00031 Rev. 02



ESO-200N1-05-L1-01
Small Power Socket
(Upper Deck)
3G10 sqmm

ESO-200N1-06-L2-01
Small Power Socket
(Lower Deck)
3G10 sqmm

Spare

~~ESH-200N1-11-L1-01~~
~~Space heater JB - Wind farm subsea cable~~
(3G2.5 sqmm)
SPARE

~~ESH-200N1-12-L2-01~~
~~Space heater JB - Solar subsea cable~~
(3G2.5 sqmm)
SPARE

AS COMMISSIONED: MATTIA GIBZN
25/3/25

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00033

REV.:	DATE:	SIGNATURE:
3_A	18/03/25	G.Randi

ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

DWG n° : 231298/SD/33
Item n° : PF1002888/101

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
=					
+					
3	12/03/2025	Santinelli	Flamminio	Sigismondi	Replaced Twiligh Switch TW1
2	19/08/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
0	29/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

TITLE : "DP-200N1"
LV SWBD FUNCTIONAL DIAGRAMS
Functional Drawing

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

SCALE : NTS

A3

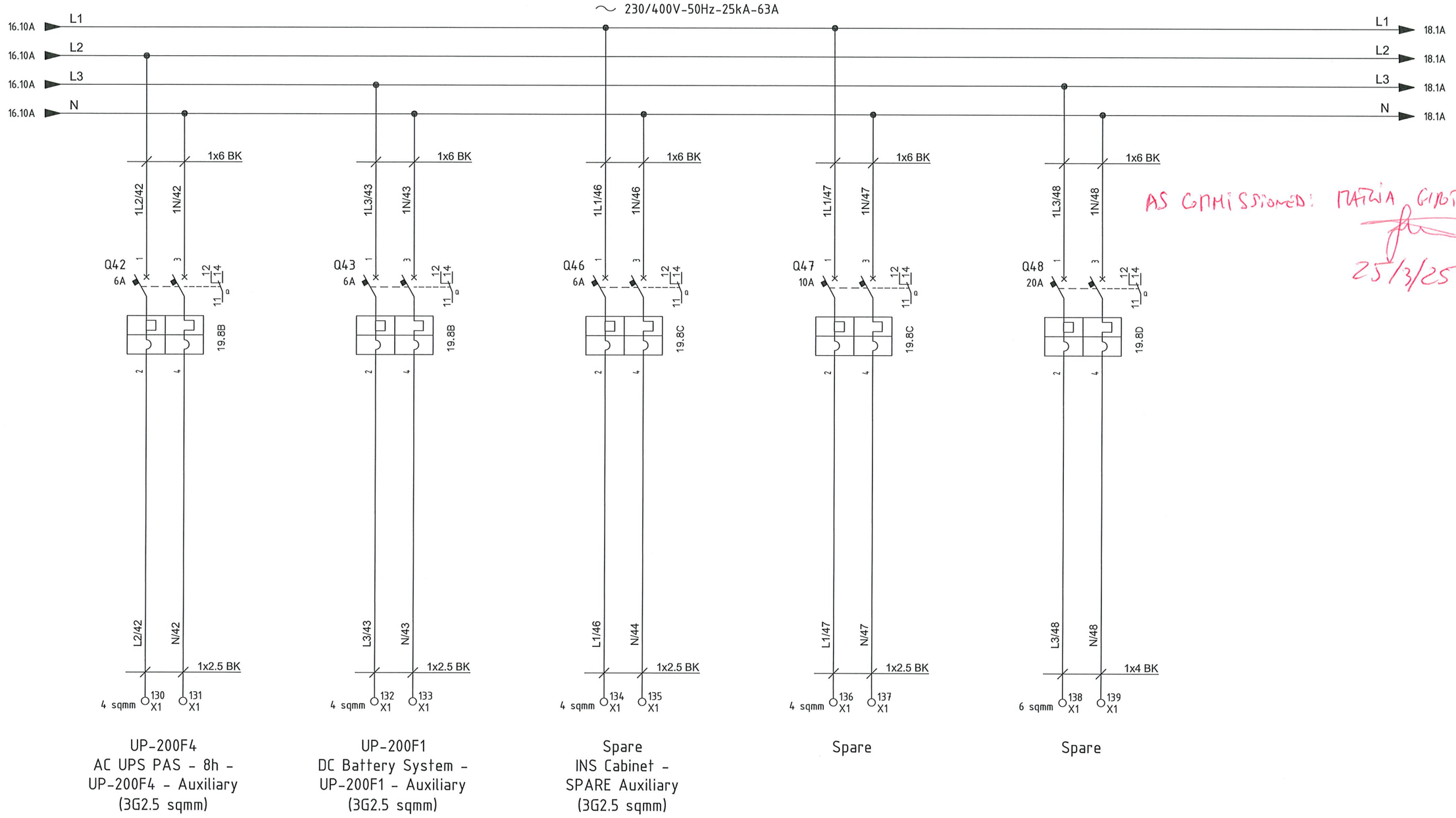
DRAWING NO. 1723002197-EL-DG-00033

SHEET 12

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00033 Rev. 03



AS COMMISSIONED: MATTIA GIBOLI 25/3/25

UP-200F4
AC UPS PAS - 8h -
UP-200F4 - Auxiliary
(3G2.5 sqmm)

UP-200F1
DC Battery System -
UP-200F1 - Auxiliary
(3G2.5 sqmm)

Spare
INS Cabinet -
SPARE Auxiliary
(3G2.5 sqmm)

Spare

Spare

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00033
REV.: 3_A | DATE: 18/03/25 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

=
+
DWG n° : 231298/SD/33
Item n° : PF1002888/101

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
3	12/03/2025	Santinelli	Flamminio	Sigismondi	Replaced Twiligh Switch TW1
2	19/08/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
0	29/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

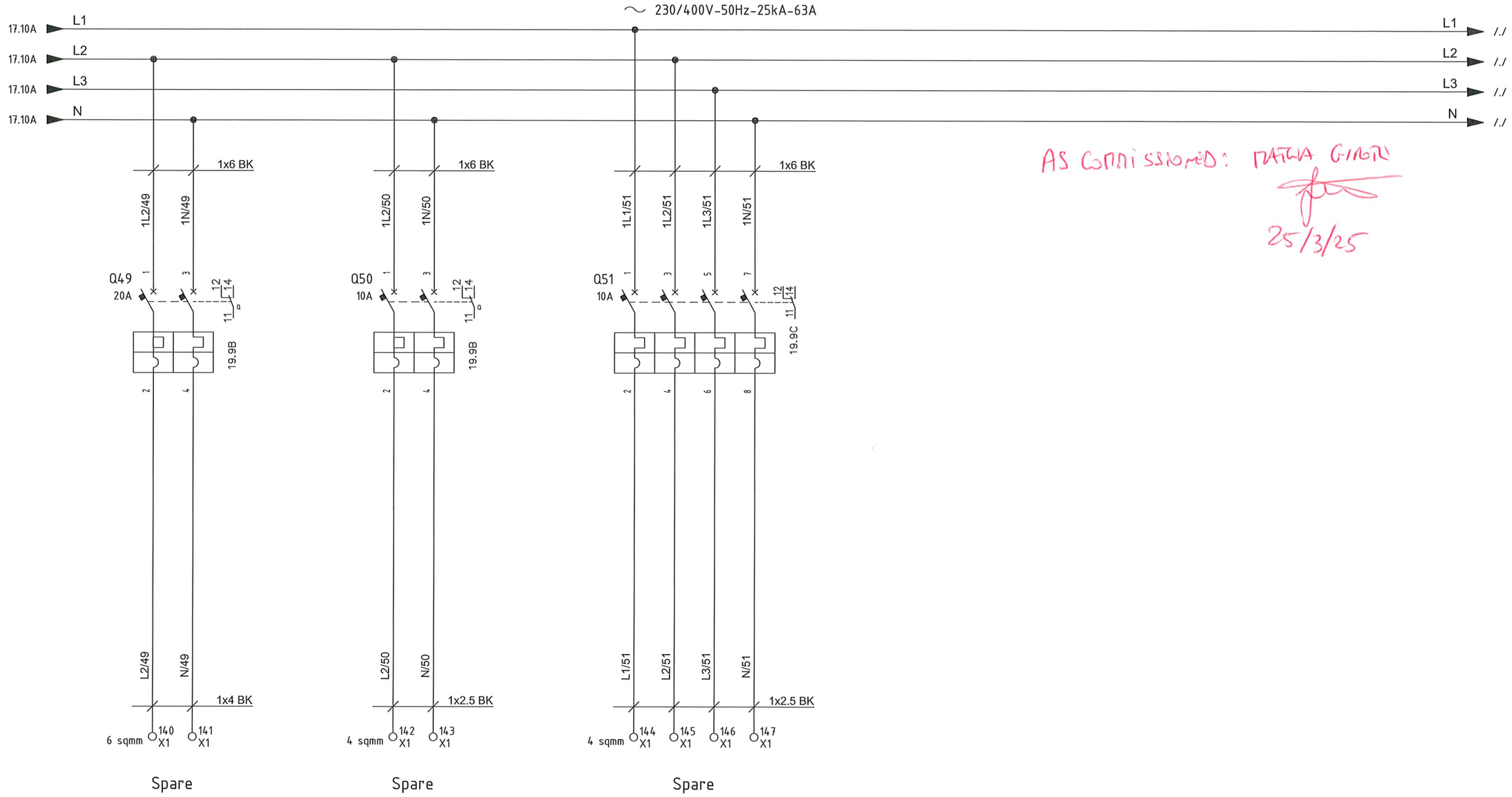
TITLE : "DP-200N1"
LV SWBD FUNCTIONAL DIAGRAMS
Functional Drawing

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

A3 | DRAWING NO. 1723002197-EL-DG-00033 | SHEET 1.7 | REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00033 Rev. 03



AS COMMISSIONED: NATALIA GINGRI

25/3/25

VALID FOR CONSTRUCTION

VENDOR DOCUMENT - FDL DWG:

123A90-FDL-1724002197-EL-DG-00033

REV.:	DATE:	SIGNATURE:
3_A	18/03/25	G.Randi

ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

DWG n° : 231298/SD/33

Item n° : PF1002888/101

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
=					
+					
3	12/03/2025	Santinelli	Flamminio	Sigismondi	Replaced Twiligh Switch TW1
2	19/08/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
0	29/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

TITLE : "DP-200N1"

LV SWBD FUNCTIONAL DIAGRAMS

Functional Drawing

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

SCALE : NTS

A3

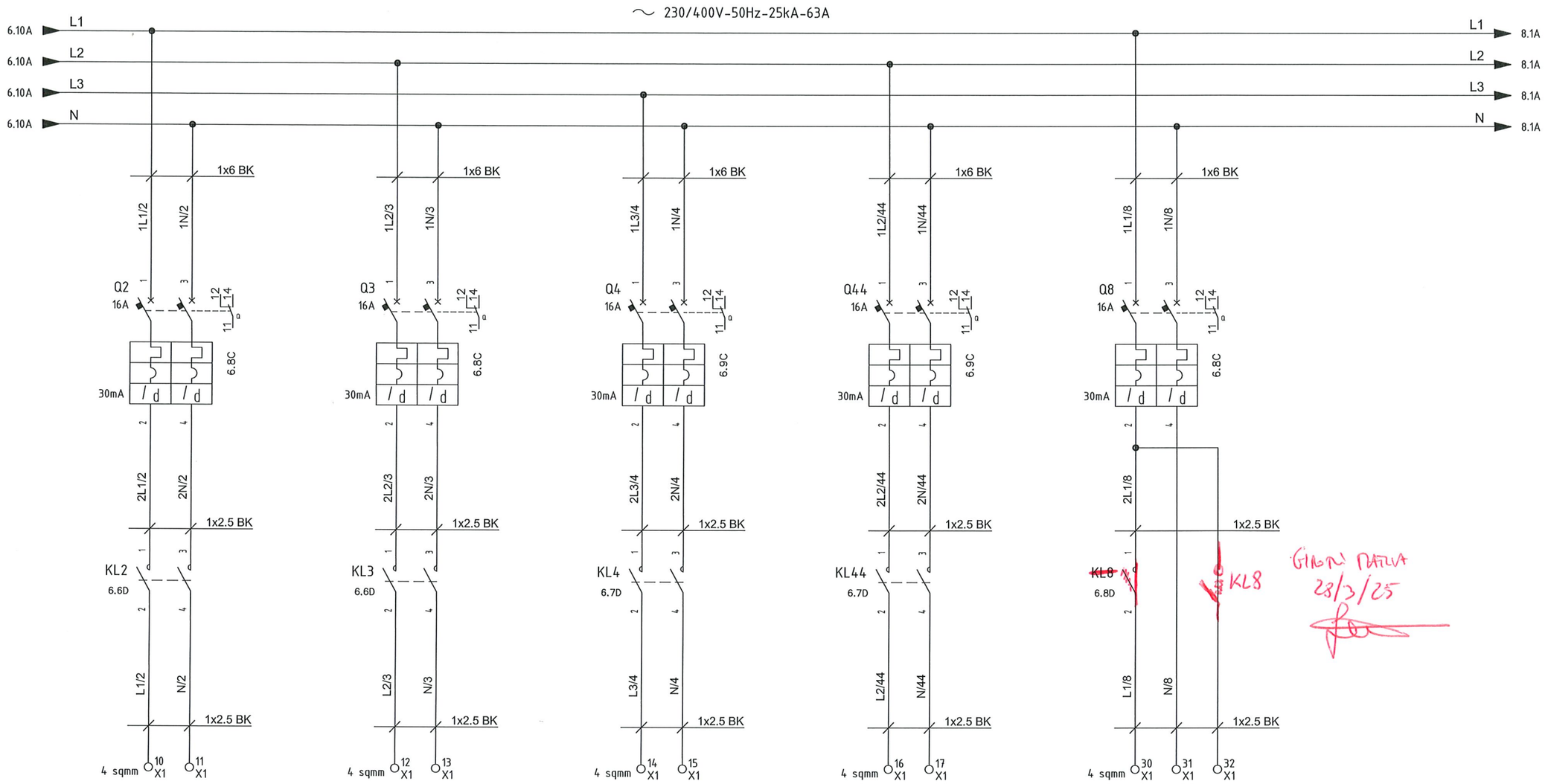
DRAWING NO. 1723002197-EL-DG-00033

SHEET 18

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00033 Rev. 03



EJB-200N1-02-L1-01
Normal Lighting Upper Deck - Circuit No. 1 (3G4 sqmm)

EJB-200N1-03-L2-01
Normal Lighting Lower Deck - Circuit No. 1 (3G4 sqmm)

EJB-200N1-04-L3-01
Normal Lighting stairs (3G4 sqmm)

Spare
Normal Lighting - Spare

EJB-200N1-08-L1-01
Emergency Lighting Upper Deck - Circuit No. 1 (4G4 sqmm _E)

GIANLUCA DATOLA 28/3/25

AS Commissioned: GIANLUCA DATOLA 28/3/25

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00033
REV.: 3_A | DATE: 18/03/25 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

DWG n° : 231298/SD/33
Item n° : PF1002888/101

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
=					
+					
3	12/03/2025	Santinelli	Flamminio	Sigismondi	Replaced Twiligh Switch TW1
2	19/08/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
0	29/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

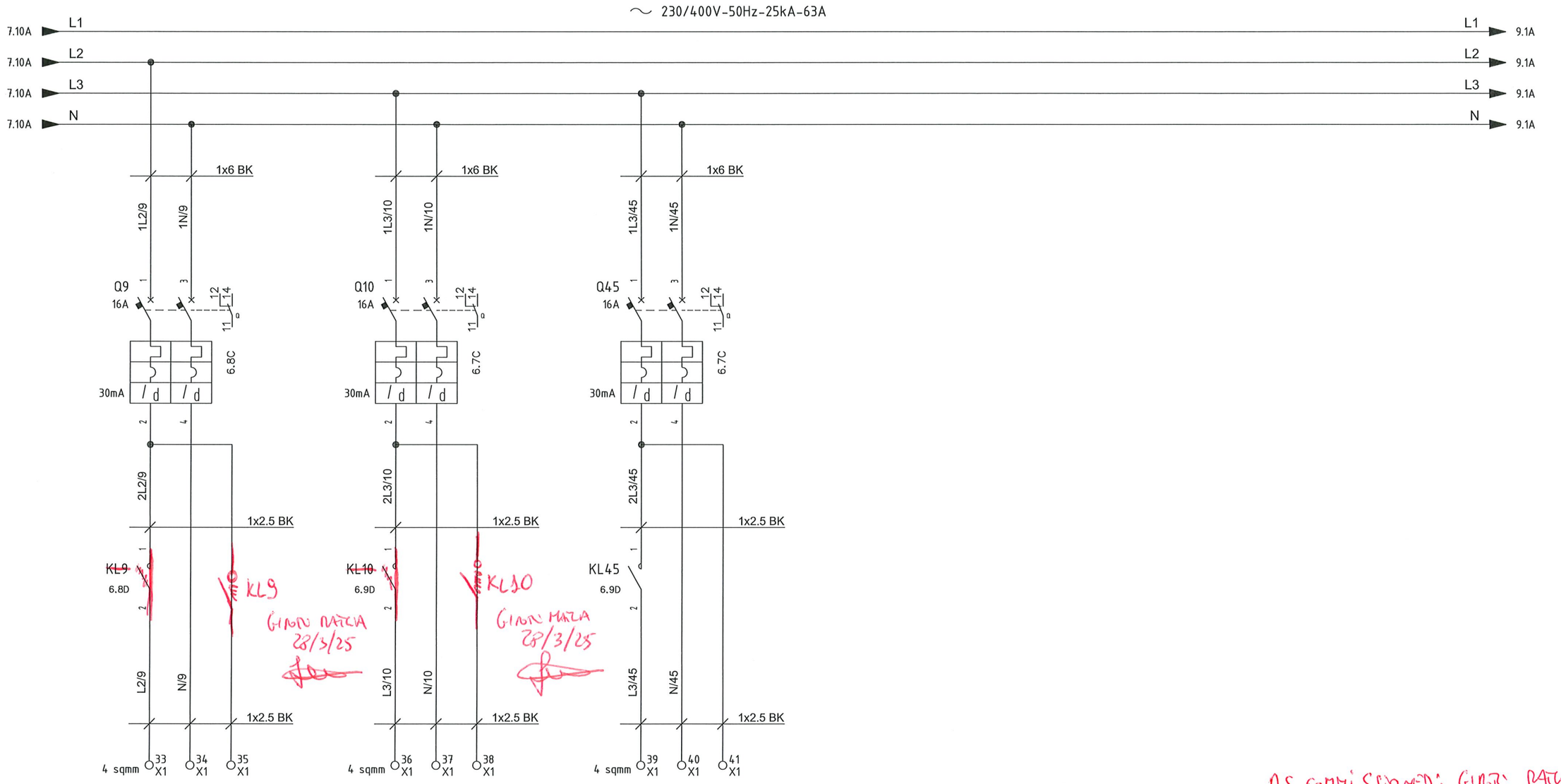
TITLE : "DP-200N1"
LV SWBD FUNCTIONAL DIAGRAMS
Functional Drawing

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

A3 | DRAWING NO. 1723002197-EL-DG-00033 | SHEET 7 | REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00033 REV. 03



EJB-200N1-09-L2-01
Emergency Lighting Lower Deck - Circuit No. 1
(4G4 sqmm _E)

EJB-200N1-10-L3-01
Emergency Lighting stairs
(4G4 sqmm _E)

Spare
Emergency Lighting - SPARE

AS COMMISSIONED: GIORGI MARCA 28/3/25

VALID FOR CONSTRUCTION
VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724002197-EL-DG-00033
REV.: 3_A | DATE: 18/03/25 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

CROSSWIND

IMESA ELECTRICAL ENGINEERING

ROSETTI MARINO

DWG n° : 231298/SD/33
Item n° : PF1002888/101

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
3	12/03/2025	Santinelli	Flamminio	Sigismondi	Replaced Twiligh Switch TW1
2	19/08/2024	Santinelli	Flamminio	Sigismondi	As Built (ASB)
1	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
0	29/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

TITLE : "DP-200N1"
LV SWBD FUNCTIONAL DIAGRAMS
Functional Drawing

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

A3 | DRAWING NO. 1723002197-EL-DG-00033 | SHEET 8 | REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00033 Rev. 03

Section 8 LIST OF MODIFICATIONS

NOT APPLICABLE

Section 8.1 List of changes

NOT APPLICABLE

Section 9 SUPPORTING DOCUMENTS

NOT APPLICABLE