



ENCLOSURES

POWER DISTRIBUTION

CLIMATE CONTROL

IT INFRASTRUCTURE

SOFTWARE & SERVICES

MODEL : SK3319.100/9-SK3320.200/9-SK3334.300/9
SK3334.400/9-SK3334.450/9

DRAWING NUMBER : EP16072 - REV.09

POWER SUPPLY : 380-415V 3 50Hz
440-480V 3 60Hz

AUXILIARY SUPPLY : 12/24/48VDC

CUSTOMER :

REFERENCE : cULus LISTED

CONTROL PANEL PART NR :

CREATED THE : 22/09/2016 BY MS1

CHANGED ON THE : 30/01/2025 BY MS1

NUMBER OF PAGES 14



CHANGE TRANSFORMER WIRING ACCORDING POWER SUPPLY VOLTAGE

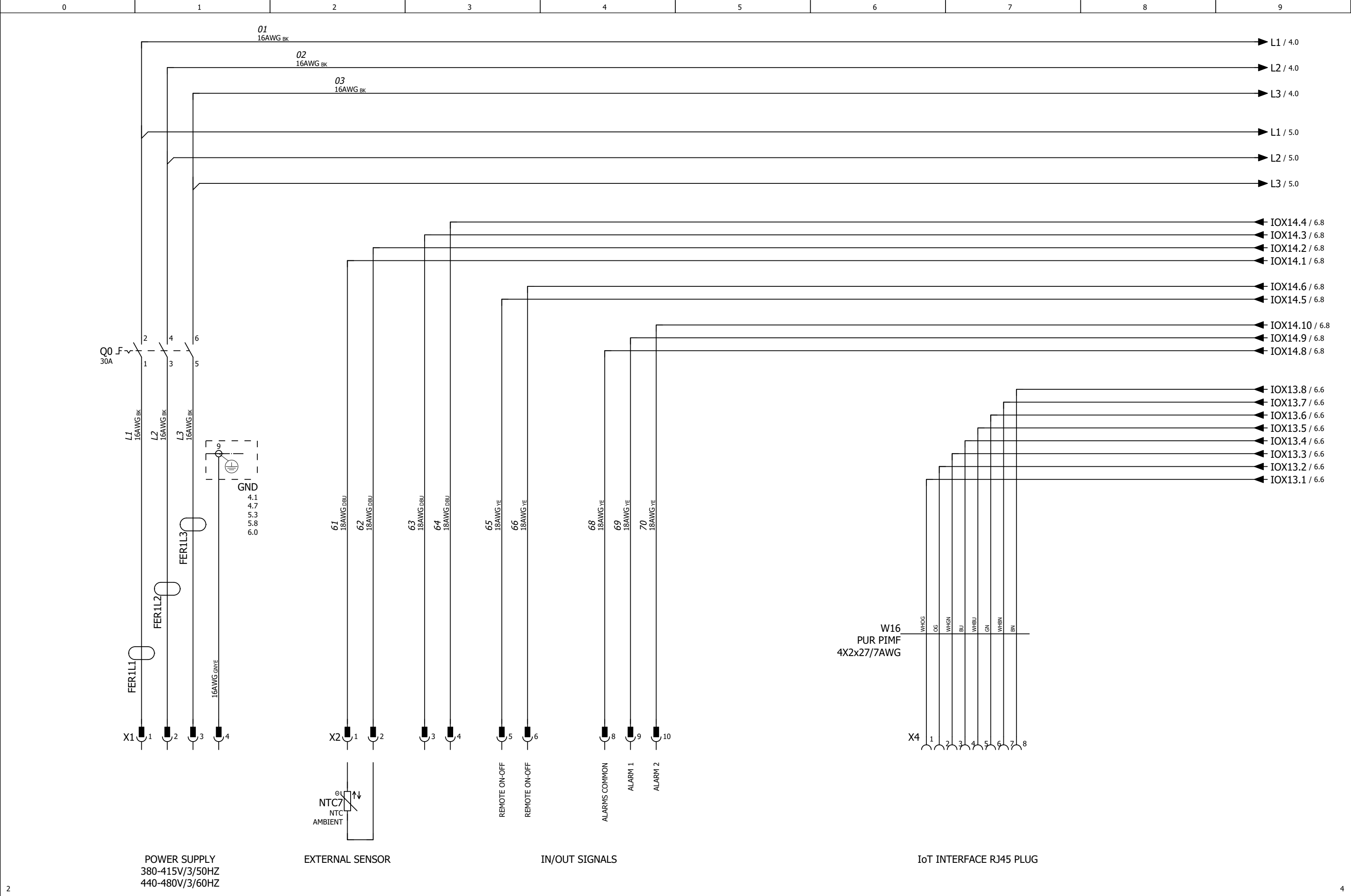


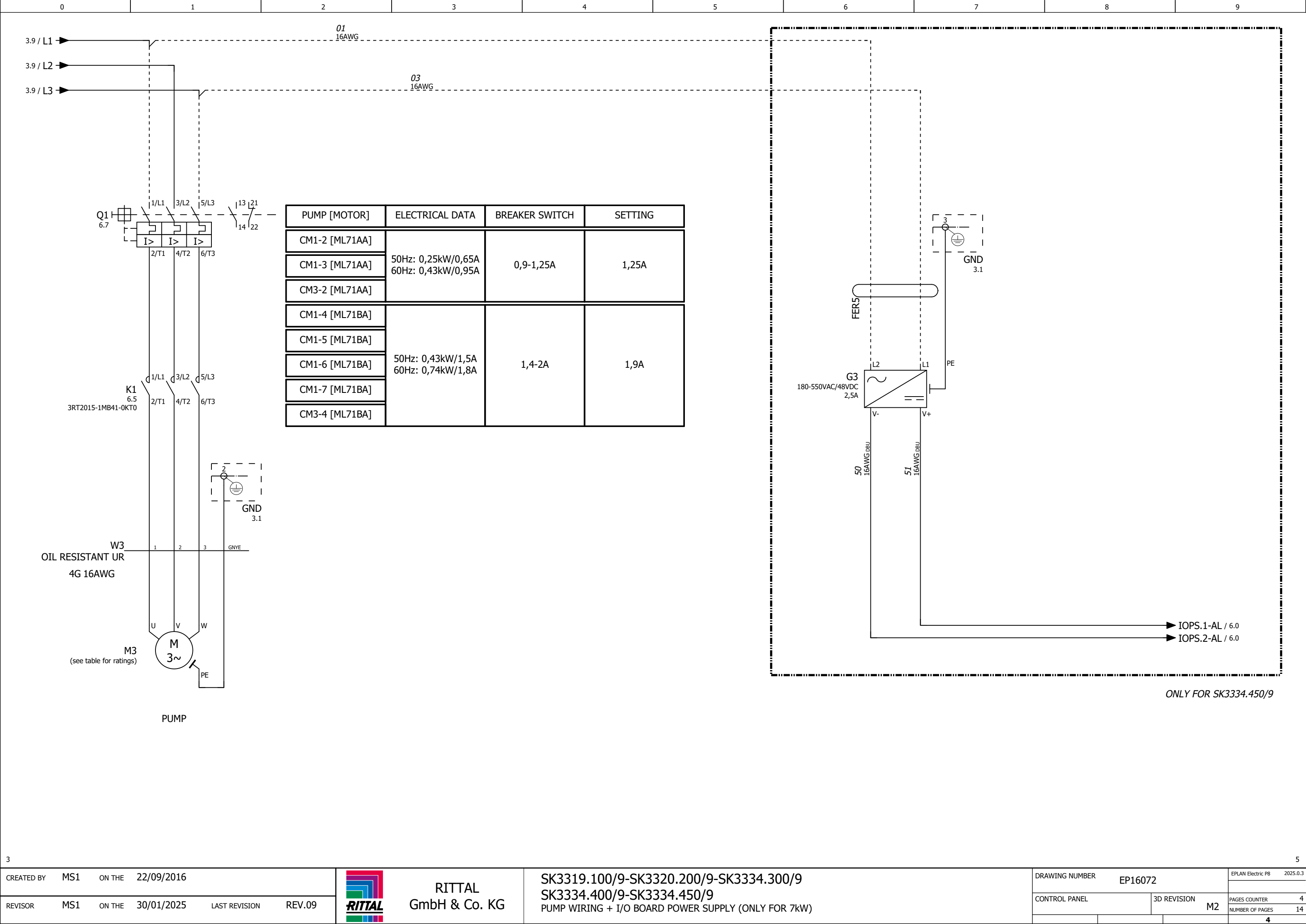


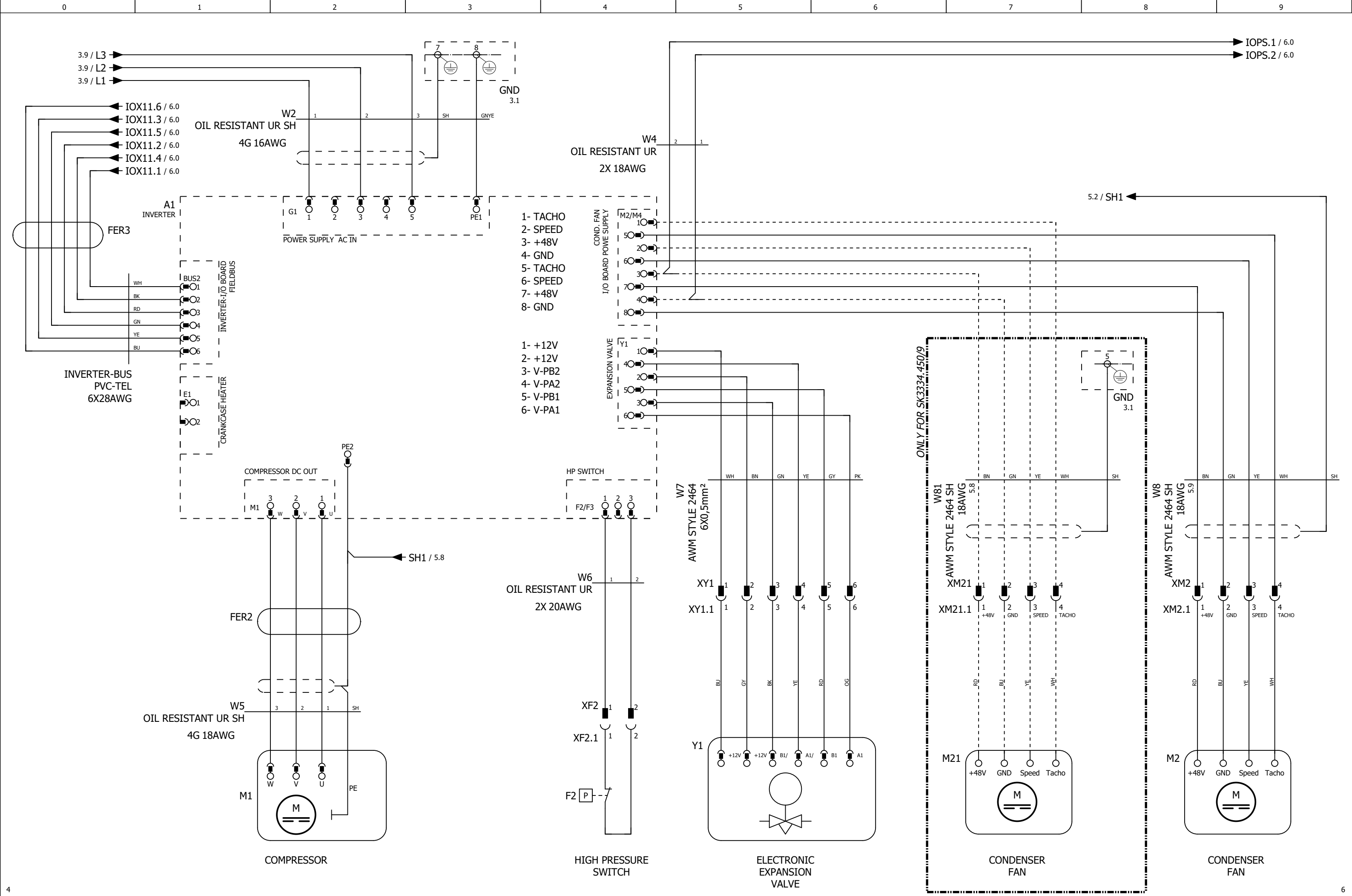
PAGE OVERVIEW

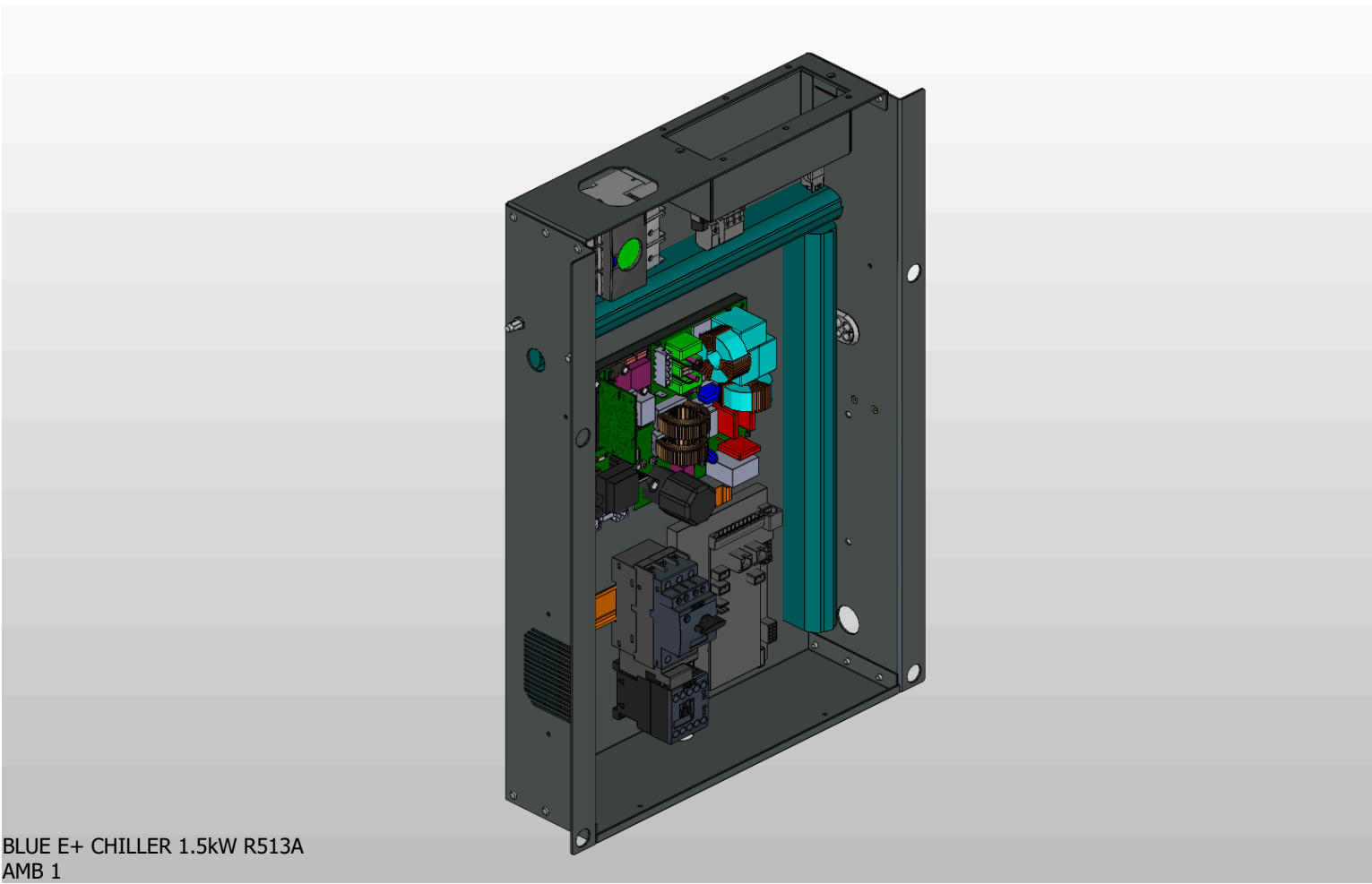
2LP8_PAGKEL_22

DOCUMENT TYPE	FUNCTION DEFINITION	LOCATION DESIGNATION	PAGE	PAGE DESCRIPTION	DATE REVISION	EDITED BY
			1	COVER	23/05/2024	MS1
			2	PAGE OVERVIEW	14/08/2024	MS1
			4	POWER SUPPLY + IN/OUT SIGNALS	23/05/2024	MS1
			5	PUMP WIRING + I/O BOARD POWER SUPPLY (ONLY FOR 7kW)	14/06/2024	MS1
			6	INVERTER WIRING	14/08/2024	MS1
			7	I/O BOARD WIRING	14/08/2024	MS1
			8	3D AMBIENTS	14/08/2024	MS1
			9	PLUGS SUMMARY	23/05/2024	MS1
			10	CABLE OVERVIEW INVERTER-BUS-W81	23/05/2024	MS1
			11	BILL OF PLUGS	23/05/2024	MS1
			12	BILL OF PLUGS	23/05/2024	MS1
			13	BILL OF PLUGS	23/05/2024	MS1
			14	BILL OF MATERIAL	23/05/2024	MS1
			15	BILL OF MATERIAL	23/05/2024	MS1

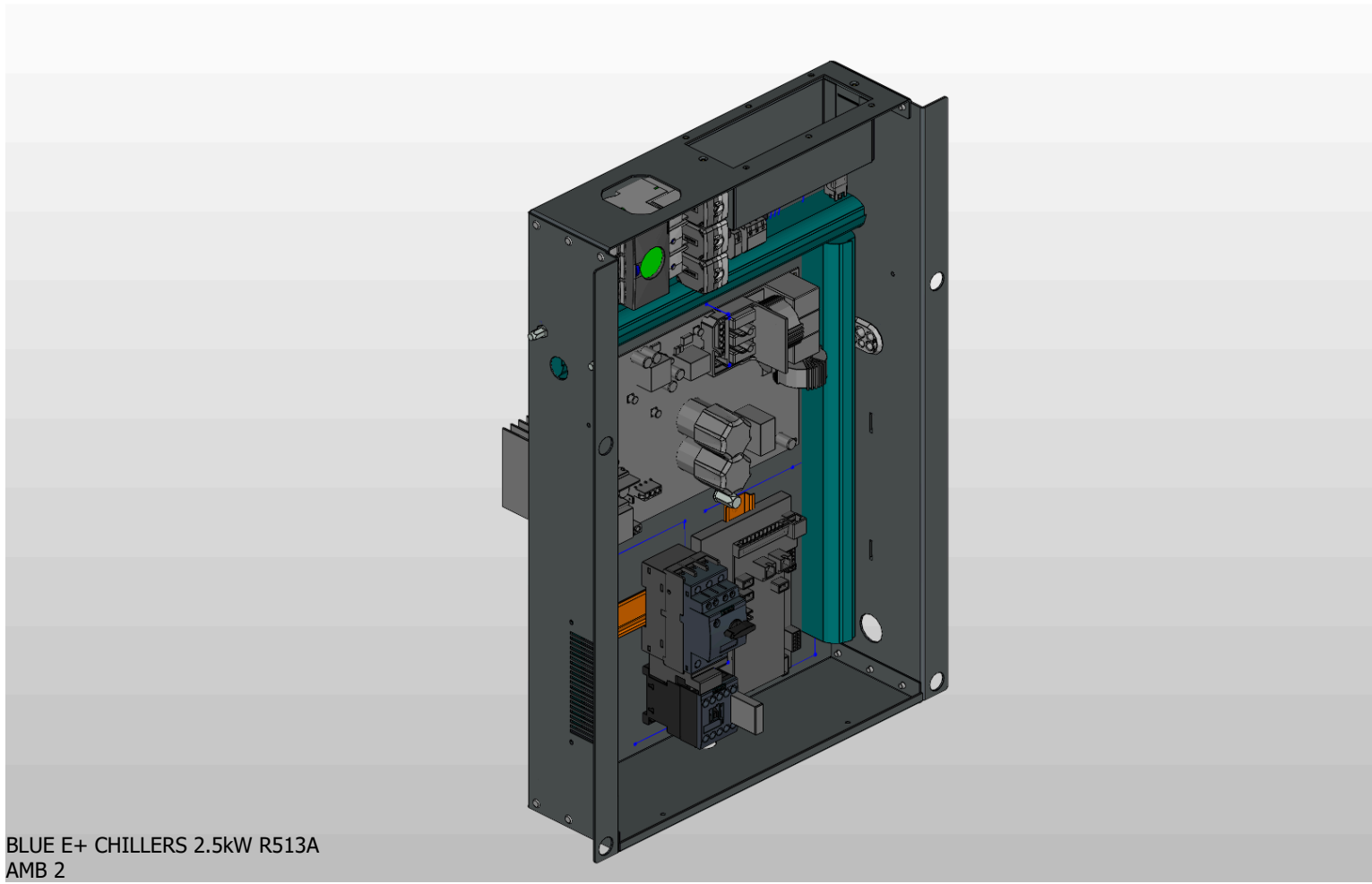




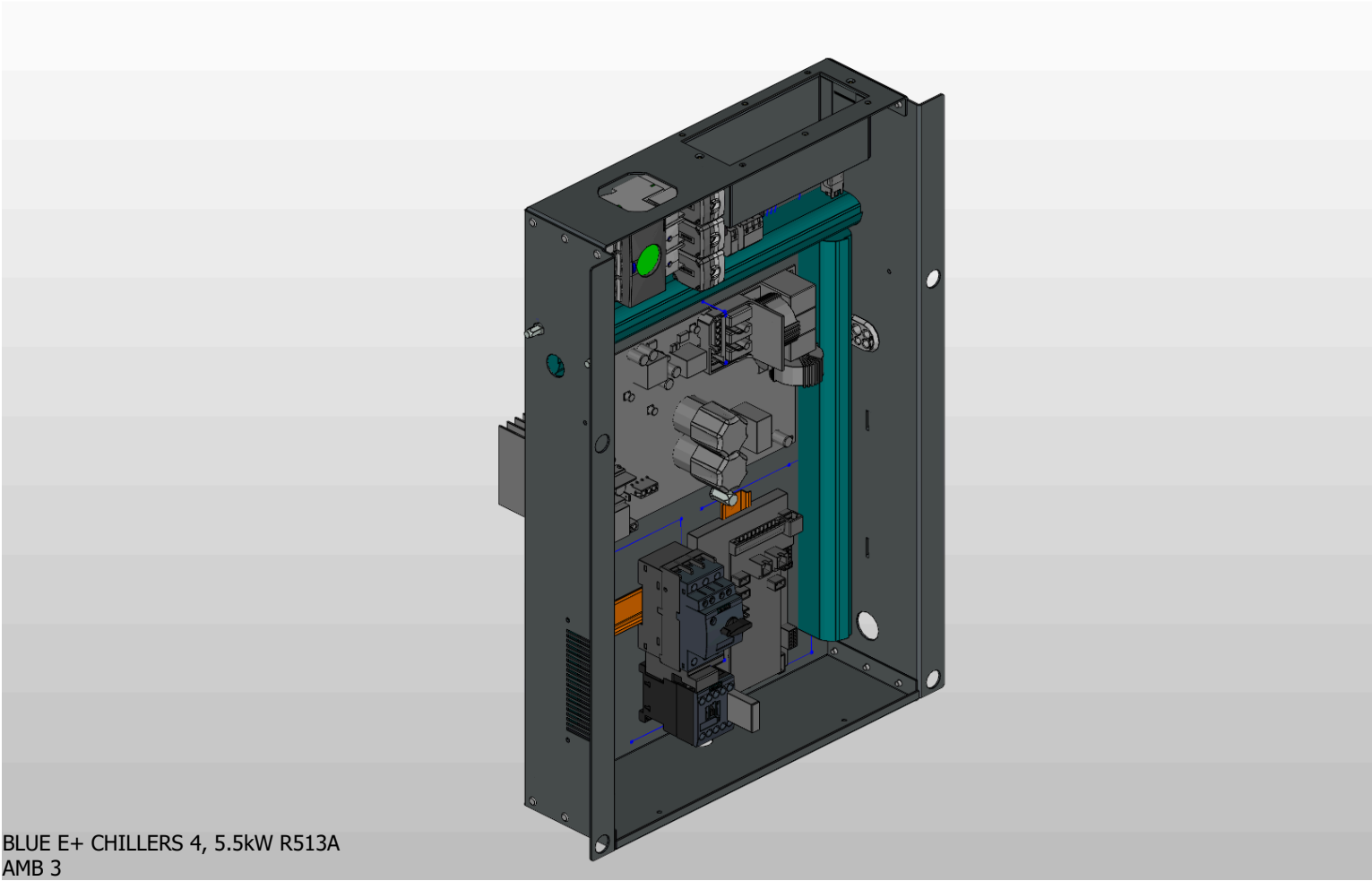




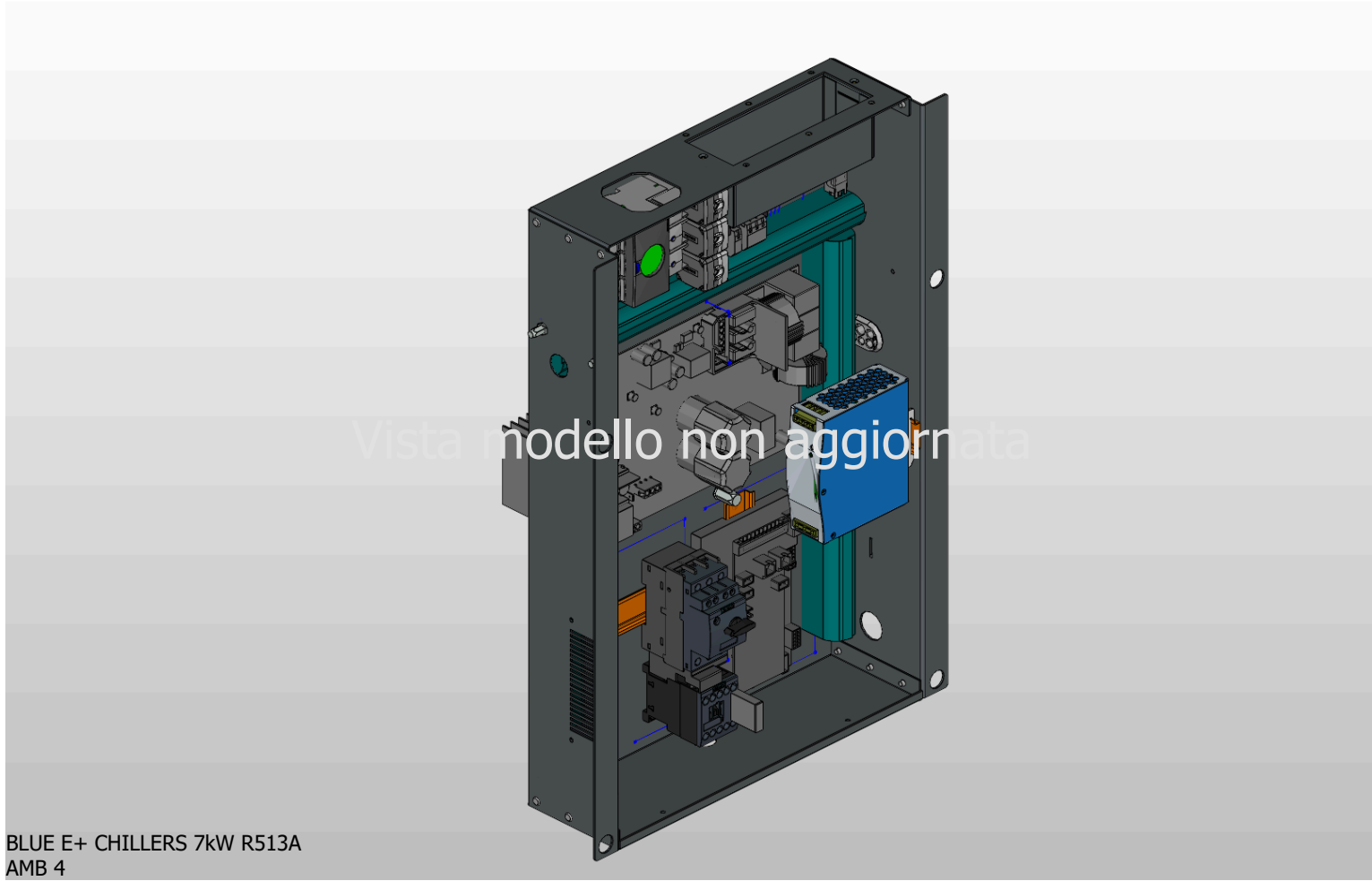
BLUE E+ CHILLER 1.5kW R513A
AMB 1



BLUE E+ CHILLERS 2.5kW R513A
AMB 2




BLUE E+ CHILLERS 4, 5.5kW R513A
AMB 3



BLUE E+ CHILLERS 7kW R513A
AMB 4

CREATED BY	MS1	ON THE	22/09/2016	
REVISOR	MS1	ON THE	30/01/2025	LAST REVISION REV.09



RITTAL
GmbH & Co. KG






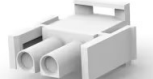








SK3319.100/9-SK3320.200/9-SK3334.300/9
SK3334.400/9-SK3334.450/9
3D AMBIENTS

DRAWING NUMBER	EP16072	EPLAN Electric P8	2025.0.3
CONTROL PANEL	3D REVISION M2	PAGES COUNTER	7
		NUMBER OF PAGES	14
			7



PLUG SUMMARY

2LP8_INCONKEL_22

PLUG DESIGNATION	FUNCTION TEXT	TOTAL NUMBER	SUM OF ALL PE	CURRENT [A]	CONNECTION	IMAGE	GRAPHICS PAGE OF THE PLUG
X1	POWER SUPPLY PLUG	16	4	45	0,5...10mm²		
X2	IN/OUT SIGNAL PLUG	40	0	12	0,08...2,5mm²		
X4	IoT INTERFACE RJ45 PLUG	32	0				
X5	FLOW METER PLUG	0	0	7,5	1,5mm²		
X127	HIGH PRESSURE SWITCH PLUG	2	0				
X127.1	HIGH PRESSURE SWITCH PLUG	2	0				
XF2	HIGH PRESSURE SWITCH PLUG	2	0				
XF2.1	HIGH PRESSURE SWITCH PLUG	2	0				
XM2	FAN PLUG	4	0				
XM2.1	FAN PLUG	4	0				
XM21	FAN PLUG	4	0				
XM21.1	FAN PLUG	4	0				
XY1	EXPANSION VALVE PLUG	6	0				
XY1.1	EXPANSION VALVE PLUG	6	0				



CABLE OVERVIEW








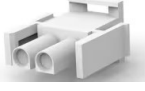


2LP8_CAVIKEL_22

CABLE NAME	FROM	TO	CABLE TYPE	CORES	CORES USED	CROSS SECTION		LENGHT(OUT CABINET)	LENGHT(TOTAL)	INTERNAL PART NUMBER	PAGE / PATH
INVERTER-BUS	A1	A2	PVC-TEL	6X	6	28AWG			0,831m		6.0
W2	A1	Q0	OIL RESISTANT UR SH	4G	4	1,5mm²	16AWG		0,555m	927971	6.2
		GND									
W3	K1	M3	OIL RESISTANT UR	4G	4	1,5mm²	16AWG			926163	5.0
	GND										
W4	A1	A2	OIL RESISTANT UR	2X	2	1mm²	18AWG		0,584m	926161	6.4
W5	A1	M1	OIL RESISTANT UR SH	4G	3	1mm²	18AWG			926383	6.1
	A1-PE2										
W6	XF2	A1	OIL RESISTANT UR	2X	2	0,5mm²	20AWG				6.4
W7	XY1	A1	AWM STYLE 2464	6X	6	0,5mm²	22AWG				6.5
W8	XM2	A1	AWM STYLE 2464 SH	4X	4	1mm²	18AWG				6.8
	A1-PE2										
W9	X127	A2	OIL RESISTANT UR	2X	2	0,5mm²	22AWG				7.6
W10	A2	NTC1	TPE	2	2	0,25mm²					7.1
W11	A2	NTC2	TPE	2	2	0,25mm²					7.1
W12	A2	NTC3	TPE	2	2	0,25mm²					7.2
W13	A2	NTC4	TPE	2	2	0,25mm²					7.3
W14	A2	NTC5	TPE	2	2	0,25mm²					7.4
W15	X5	A2	AWM STYLE 2464	4X	3	0,34mm²					7.5
W16	X4	A2	PUR PIMF	4X2	8	27/7AWG			0,637m	920810	4.6
W18	A2	NTC6	TPE	2	2	0,25mm²					7.4
W81	XM21	A1	AWM STYLE 2464 SH	4X	4	1mm²	18AWG				6.7
	GND										



BILL OF PLUGS

2LP8_RICKEL_CONN_22

DESIGNATION	AMOUNT	ARTICLE NUMBER	DESIGNATION	NUMBER OF WAYS	MANUFACTURER	INTERNAL NO	PICTURE
X1							
POWER SUPPLY PLUG	4 ST	1994590000	PLUG-INSERT MALE WEIDMULL 1994590000	4	Weidmueller	334776	
X1							
POWER SUPPLY PLUG	1 ST	2008980000	PLUG-INSERT FEMALE WEIDMULL BVF 7.62HP/04/180MSF4 SN BK BX SO		Weidmueller	335276	
X2							
IN/OUT SIGNAL PLUG	4 ST	231-640/129-000	PLUG-INSERT MALE WAGO 231-640/129-000	10	WAGO		
X2							
IN/OUT SIGNAL PLUG	1 ST	231-310/107-000	Female connector		WAGO	338310	
X5							
FLOW METER PLUG	1 ST	7000-13011-000-0000	PLUG-INSERT FEMALE MURR 7000-13011-000-0000	5	Murrelektronik		
X127							
HIGH PRESSURE SWITCH PLUG	1 ST	350778-1	PLUG-INSERT FEMALE AMP 350778-1		TE Connectivity	920461	
X127							
HIGH PRESSURE SWITCH PLUG	2 ST	350550-1	SINGLE FEMALE PIN		TE Connectivity	904718	
X127.1							
HIGH PRESSURE SWITCH PLUG	1 ST	350777-1	2 WAYS MALE PLUG		TE Connectivity	903944	
X127.1							
HIGH PRESSURE SWITCH PLUG	2 ST	350547-1	SINGLE MALE PIN		TE Connectivity	904717	
XF2							
HIGH PRESSURE SWITCH PLUG	1 ST	EH716-002-003-960	PLUG-INSERT MALE 4.20mm STOCKO EH716-002-003-960		STOCKO		



BILL OF PLUGS

2LP8_RICKEL_CONN_22

DESIGNATION	AMOUNT	ARTICLE NUMBER	DESIGNATION	NUMBER OF WAYS	MANUFACTURER	INTERNAL NO	PICTURE
XF2							
HIGH PRESSURE SWITCH PLUG	2 ST	RTB 8229.120	SINGLE MALE PIN 0.5-1mm²		STOCKO		
XF2.1							
HIGH PRESSURE SWITCH PLUG	1 ST	EH715-002-003-960	PLUG-INSERT FEMALE 4.20mm STOCKO EH715-002-003-960		STOCKO		
XF2.1							
HIGH PRESSURE SWITCH PLUG	2 ST	RBB 8230.120	SINGLE FEMALE PIN 0.5-1mm²		STOCKO		
XM2							
FAN PLUG	1 ST	EH716-004-003-960	PLUG-INSERT MALE 4.20mm STOCKO EH716-004-003-960		STOCKO		
XM2							
FAN PLUG	4 ST	RTB 8229.120	SINGLE MALE PIN 0.5-1mm²		STOCKO		
XM2.1							
FAN PLUG	1 ST	EH715-004-003-960	PLUG-INSERT FEMALE 4.20mm STOCKO EH715-004-003-960		STOCKO		
XM2.1							
FAN PLUG	4 ST	RBB 8230.120	SINGLE FEMALE PIN 0.5-1mm²		STOCKO		
XM21							
FAN PLUG	1 ST	EH716-004-003-960	PLUG-INSERT MALE 4.20mm STOCKO EH716-004-003-960		STOCKO		
XM21							
FAN PLUG	4 ST	RTB 8229.120	SINGLE MALE PIN 0.5-1mm²		STOCKO		
XM21.1							
FAN PLUG	1 ST	EH715-004-003-960	PLUG-INSERT FEMALE 4.20mm STOCKO EH715-004-003-960		STOCKO		



BILL OF PLUGS

2LP8_RICKEL_CONN_22

DESIGNATION	AMOUNT	ARTICLE NUMBER	DESIGNATION	NUMBER OF WAYS	MANUFACTURER	INTERNAL NO	PICTURE
XM21.1							
FAN PLUG	4 ST	RBB 8230.120	SINGLE FEMALE PIN 0.5-1mm²		STOCKO		
XY1							
EXPANSION VALVE PLUG	1 ST	EH716-006-003-960	PLUG-INSERT MALE 4.20mm STOCKO EH716-006-003-960		STOCKO		
XY1							
EXPANSION VALVE PLUG	6 ST	RTB 8229.120	SINGLE MALE PIN 0.5-1mm²		STOCKO		
XY1.1							
EXPANSION VALVE PLUG	1 ST	EH715-006-003-960	PLUG-INSERT FEMALE 4.20mm STOCKO EH715-006-003-960		STOCKO		
XY1.1							
EXPANSION VALVE PLUG	6 ST	RBB 8230.120	SINGLE FEMALE PIN 0.5-1mm²		STOCKO		



BILL OF MATERIALS

2LP8_RICKEL_22

DESIGNATION	AMOUNT	LENGTH	ARTICLE NUMBER	DESIGNATION 1	MANUFACTURER	INTERNAL NO	PAGE / PATH
A1	1		RITRI01C11211	INVERTER MOT BRUSH CAREL RITRI01C11211	CAREL	335621	6.1
A1	1		RITRI02F11311	INVERTER MOT BRUSH CAREL RITRI02F11311	CAREL	334348	6.1
A1	2		RITRI23F11411	INVERTER MOT BRUSH CAREL RITRI23F11411	CAREL	334349	6.1
A2	4		UP30RI011K	TEMP-CONTR CAREL UP30RI011K	CAREL	338234	7.0
FER1L1	4		74271221	FERRITE CABLE 13mm	WÜRTH ELEKTRONIK		4.0
FER1L2	4		74271221	FERRITE CABLE 13mm	WÜRTH ELEKTRONIK		4.1
FER1L3	4		74271221	FERRITE CABLE 13mm	WÜRTH ELEKTRONIK		4.1
FER2	1		2631102002	FERRITE CABLE 12.8mm	FAIR-RITE	926502	6.1
FER3	3		74272733	FERRITE CABLE 8mm	WÜRTH ELEKTRONIK		6.0;(AMB 2.S2);(AMB 4.S4)
FER4	1		0461164181	FERRITE CABLE 13mm	FAIR-RITE		7.5
FER5	4		T60006-L2040-W453	FERRITE CABLE VAC 43,1x18,5 D=22,5	VACUUMSCHMELZE	928694	5.6
G3	1		WDR-120-48	SWITCHING POWER SUPPLIER 2.5A 48VDC		928845	5.6
GND	3		2570500	Earthing plate	Rittal	2570500	4.1;(AMB 2.S2);(AMB 4.S4)
K1	4		3RT2015-1MB41-0KT0	COUPLING CONT.,AC3:3KW 1NO DC24V	Siemens	927308	7.5
NTC1	1		NTC030WP00	PROBE NTC, IP68, WIRE 3m, -50/+105°C	CAREL	903060	7.1
NTC2	1		NTC030WP00	PROBE NTC, IP68, WIRE 3m, -50/+105°C	CAREL	903060	7.2
NTC3	1		NTC016HPRR	Cr NTC_I INTERNAL (SENSORE 1600 RED)	CAREL	909426	7.2
NTC4	1		NTC016HPRR	Cr NTC_I INTERNAL (SENSORE 1600 RED)	CAREL	909426	7.3
NTC5	1		NTC016HPRR	Cr NTC_I INTERNAL (SENSORE 1600 RED)	CAREL	909426	7.4
NTC6	1		NTC016HPRR	Cr NTC_I INTERNAL (SENSORE 1600 RED)	CAREL	909426	7.5
Q0	4		2201 3003	ISOLATOR 3X30A BASE MOUNTING UL98	SOCOMEK	338247	4.1
Q0	4		148D 1111	BLACK KNOB TYPE S0 NEMA 4,4X	SOCOMEK	338246	4.1
Q0	4		1407 0515	OPERATING SHAFT 150mm	SOCOMEK	338248	4.1
Q0	4		2294 3016	3 POLE TERMINALS COVER 30...100	SOCOMEK		4.1
Q1	1		3RV2011-0KA15	CIRCUIT-BREAKER SCREW CONNECTION 1.25A	Siemens	919836	5.1
Q1	3		3RV2011-1BA15	CIRCUIT-BREAKER SCREW CONNECTION 2A	Siemens	919993	5.1
Q1	4		3RA1921-1D	LINK MODULE F.3RV S00/S0, 3RT S00	Siemens	920186	5.1
V1	4		3RT29161BB00	SURGE SUPPRESSOR, VARISTOR,	Siemens	919432	7.5



BILL OF MATERIALS

2LP8_RICKEL_22

DESIGNATION	AMOUNT	LENGTH	ARTICLE NUMBER	DESIGNATION 1	MANUFACTURER	INTERNAL NO	PAGE / PATH
W2	1	0,56 m		4G1.5 OIL RESISTANT UR SH	---	927971	6.2
W3	1			4G1,5mm² OIL RESISTANT UR	---	926163	5.0
W4	1	0,58 m		2X1mm² OIL RESISTANT UR	---	926161	6.4
W5	1			4G1 OIL RESISTANT UR SH	---	926383	6.1
W6	1			2X0.5mm² OIL RESISTANT UR	---		6.4
W9	1			2X0.5mm² OIL RESISTANT UR	---		7.6
W16	1	0,64 m	09454521509	CABLE PLUGS HARTING 09454521509 L=1m	Harting	920810	4.6