



Manufactured by
URK FEI
Ilkovicova 3
841 01 Bratislava / Slovakia
Phone. +421 910 688 301



Customer

Supplier URK FEI

Device description

Project name 001_TSI_LI_development_DP
Project descriptiion Diploma thesis: Tire surface inspection - lettering inspection
Project category/number 001

Created on 23-Oct-17 by PATRIK HERCUT
Edit date 18-Dec-20 by PATRIK HERCUT

Number of pages 41

Table of contents

Page	Page description	supplementary page field	Date	Edited by	X
/1	Title page / cover sheet		12-Nov-20	MATUS KOLAROVIC	
/2	Table of contents		18-Dec-20	MATUS KOLAROVIC	
/2.a	Table of contents		18-Dec-20	MATUS KOLAROVIC	
/3	Cable overview		18-Dec-20	MATUS KOLAROVIC	
/3.a	Cable overview		18-Dec-20	MATUS KOLAROVIC	
/4	Parts list		18-Dec-20	MATUS KOLAROVIC	
/4.a	Parts list		18-Dec-20	MATUS KOLAROVIC	
/4.b	Parts list		18-Dec-20	MATUS KOLAROVIC	
/5	Summarized parts list		18-Dec-20	MATUS KOLAROVIC	
/5.a	Summarized parts list		16-Dec-20	MATUS KOLAROVIC	
/5.b	Summarized parts list		16-Dec-20	MATUS KOLAROVIC	
/5.c	Summarized parts list		16-Dec-20	MATUS KOLAROVIC	
/10	Profinet Topology		18-Dec-20	MATUS KOLAROVIC	
/11	Ethernet Topology		18-Dec-20	MATUS KOLAROVIC	
=TSI_LI+RM1/100	Panel layout RM1		23-Oct-20	MATUS KOLAROVIC	
=TSI_LI+RM1/101	Mains		18-Dec-20	MATUS KOLAROVIC	
=TSI_LI+RM1/102	Power part		18-Dec-20	MATUS KOLAROVIC	
=TSI_LI+RM1/104	Power part - 24VDC supply - aircon		16-Dec-20	MATUS KOLAROVIC	
=TSI_LI+RM1/106	S120 -power infeed		15-Sep-20	MATUS KOLAROVIC	
=TSI_LI+RM1/107	S120 -control unit		16-Sep-20	MATUS KOLAROVIC	
=TSI_LI+RM1/110	S120 -motor module		15-Sep-20	MATUS KOLAROVIC	
=TSI_LI+RM1/115	HW PLC		18-Dec-20	MATUS KOLAROVIC	
=TSI_LI+RM1/120	PLC		16-Sep-20	MATUS KOLAROVIC	
=TSI_LI+RM1/121	PLC		16-Sep-20	MATUS KOLAROVIC	
=TSI_LI+RM1/123	PLC		16-Dec-20	MATUS KOLAROVIC	
=TSI_LI+RM1/124	PLC		17-Nov-20	MATUS KOLAROVIC	
=TSI_LI+RM1/125	PLC -thermometer		15-Sep-20	MATUS KOLAROVIC	
=TSI_LI+RM1/150	PC		18-Dec-20	MATUS KOLAROVIC	
=TSI_LI+RM1/151	Networks		18-Dec-20	MATUS KOLAROVIC	
=TSI_LI+MS2/200	Panel layout		23-Oct-20	MATUS KOLAROVIC	
=TSI_LI+MS2/201	PLC		18-Dec-20	MATUS KOLAROVIC	
=TSI_LI+MS2/202	PLC		16-Dec-20	MATUS KOLAROVIC	
=TSI_LI+MS2/204	PLC		23-Oct-20	MATUS KOLAROVIC	

Cable overview

F10_001

Cable name	Source (from)	Target (to)	cable type	all conductors	Conductors used	Cross-section [mm]	Length [m]	function text	Graphical page of cable diagram
=TSI_LI+RM1-101W7	=TSI_LI+RM1-151HUB3-P7	=TSI_LI+MC-101U2	6XV1840-2AH10		1				
=TSI_LI+RM1-102W0	=TSI_LI+RM1-102X0	=TSI_LI+Customer-L1		5G	5	6			
		=TSI_LI+Customer-L2							
		=TSI_LI+Customer-L3							
		=TSI_LI+Customer-N1							
		=TSI_LI+Customer-PE1							
=TSI_LI+RM1-102W1	=TSI_LI+KAWASAKI Robot controller	=TSI_LI+RM1-102X1		5G	5	4			
=TSI_LI+RM1-102W6	=TSI_LI+RM1-102Q6	=TSI_LI+RM1-102XS6-PWR	Olflex Classic 100	4G	3	1.5			
	PE								
=TSI_LI+RM1-102W7	=TSI_LI+RM1-151HUB5-P5	=TSI_LI+RM1-102XS6-ETH1	CAT5E		1				
=TSI_LI+RM1-102W7.1		=TSI_LI+RM1-102XS6-ETH2	6XV1840-2AH10		1				
=TSI_LI+RM1-102W8.1	=TSI_LI+RM1-102X0	=TSI_LI+RM1-102HL8	Rittal 2500.400		3				
	=TSI_LI+RM1-102F8								
=TSI_LI+RM1-107W5	=TSI_LI+RM1-106T2.1-X200	=TSI_LI+RM1-107T1-X100	6SL3060-4AK00-0AA0		1				
=TSI_LI+RM1-110W2.1			6FX5002-5DN06-1CA0		0				
=TSI_LI+RM1-110W4	=TSI_LI+RM1-110T2-X201	=TSI_LI+MEASURING_STAND-106W50	6FX5002-2DC10-1CA0		1				
=TSI_LI+RM1-110W6	=TSI_LI+RM1-106T2.1-X201	=TSI_LI+RM1-110T2-X200	6SL3060-4AK00-0AA0		1				
=TSI_LI+RM1-115W5	=TSI_LI+RM1-115PLC3	=TSI_LI+RM1-120ET3	6XV1840-2AH10		1				
=TSI_LI+RM1-115W5.1		=TSI_LI+RM1-115PLC3	6XV1840-2AH10		1				
=TSI_LI+RM1-121W0	=TSI_LI+RM1-121DI0	=TSI_LI+RM1-121S0		5G	4	0.5			
=TSI_LI+RM1-125W0	=TSI_LI+RM1-125AI0	=TSI_LI+RM1-125B0			2				
=TSI_LI+RM1-150W4	=TSI_LI+RM1-150U3	=TSI_LI+RM1-150U4-DPP			1				
=TSI_LI+RM1-150W4.1	=TSI_LI+RM1-150U4-USB	=TSI_LI+PANEL-150D0-USB	USB A-A M/M		1				
=TSI_LI+RM1-150W6		=TSI_LI+RM1-150U4-X1	CAT5E		1				
=TSI_LI+RM1-150W7	=TSI_LI+RM1-151HUB3-P5	=TSI_LI+RM1-150U4-X2	6XV1840-2AH10		1				
=TSI_LI+RM1-150W8	=TSI_LI+RM1-150U4-USB	=TSI_LI+RM1-150U7-X3	USB A / USB B		1				
=TSI_LI+RM1-151W6					0				
=TSI_LI+PANEL-150W2	=TSI_LI+PANEL-150D0-USB	=TSI_LI+PANEL-150U1	USB A-A M/F		1				
=TSI_LI+PANEL-150W3	=TSI_LI+RM1-150U3	=TSI_LI+PANEL-150D0-DVI			1				
=TSI_LI+MS2-201W3			ÖLFLEX® CLASSIC 110	5G	3	0.75			
	=TSI_LI+RM1-201X3	=TSI_LI+MS2-201X3							
=TSI_LI+MS2-202W0	=TSI_LI+MS2-202DI0	=TSI_LI+MS2-202S0		5G	4	0.5			
=TSI_LI+MS2-207W0	=TSI_LI-207Y0	=TSI_LI+MS2-207DO0		3G	2	0.5			
=TSI_LI+MS2-207W1	=TSI_LI-207Y1	=TSI_LI+MS2-207DO0		3G	2	0.5			
=TSI_LI+MS2-207W2	=TSI_LI-207Y2	=TSI_LI+MS2-207DO0		3G	2	0.5			
=TSI_LI+MS2-209W1		=TSI_LI+MS2-204DI0		21G	14	0.5			
		=TSI_LI+MS2-205DI0							
=TSI_LI+MS2-210W4	=TSI_LI+MS2-210U3	=TSI_LI+MS2-210X4	SX0A-B0905G		9				
=TSI_LI+MS2-211W0	=TSI_LI-211X0-1				4				
=TSI_LI+MS2-211W0.1		=TSI_LI-211X0-0		21G	14	0.5			
=TSI_LI+MS2-211W1	=TSI_LI-211X0-2				4				
=TSI_LI+MS2-211W3	=TSI_LI-211X0-3				4				
=TSI_LI+MS2-211W4	=TSI_LI-211X0-4				4				
=TSI_LI+MS2-211W5	=TSI_LI-211X0-5				4				
=TSI_LI+MS2-211W6	=TSI_LI-211X0-6				4				
=TSI_LI+MS2-212W3	=TSI_LI+MS2-212X3.2	=TSI_LI+MS2-212LLT3	PC2700-4.5	6x2	12	0.14	4.5		

Parts list

F01_MEI

Device tag	Quantity	Designation	Part number	Supplier	Function text	User notes
	6	Y connector 2xM8 3-pin to 1xM12 4-pin	NEDY-L2R1-V1-M8G3-N-M12G4	FESTO		
+RM1-151HUB3-P1	0					
+RM1-151HUB3-P2	0					
+RM1-151HUB3-P3	0					
+RM1-151HUB3-P5	0					
+RM1-151HUB3-P6	0					
+RM1-151HUB3-P7	0					
+RM1-151HUB5-P1	0					
+RM1-151HUB5-P5	0					
+RM1-151HUB5-P8	0					
=TSI_LI-211SM0	1	Proximity Sensor NO	SME-8M-DS-24V-K-0,3-M8D	FESTO	Griper Open1	
=TSI_LI-211SM0.1	1	Proximity Sensor NO	SME-8M-DS-24V-K-0,3-M8D	FESTO	Griper Closed1	
=TSI_LI-211SM1	1	Proximity Sensor NO	SME-8M-DS-24V-K-0,3-M8D	FESTO	Griper Open2	
=TSI_LI-211SM2	1	Proximity Sensor NO	SME-8M-DS-24V-K-0,3-M8D	FESTO	Griper Closed2	
=TSI_LI-211SM2.1	1	Proximity Sensor NO	SME-8M-DS-24V-K-0,3-M8D	FESTO	Griper Open3	
=TSI_LI-211SM3	1	Proximity Sensor NO	SME-8M-DS-24V-K-0,3-M8D	FESTO	Griper Closed3	
=TSI_LI-211SM4	1	Proximity Sensor NO	SME-8M-DS-24V-K-0,3-M8D	FESTO	Griper Up1	
=TSI_LI-211SM4.1	1	Proximity Sensor NO	SME-8M-DS-24V-K-0,3-M8D	FESTO	Griper Down1	
=TSI_LI-211SM5	1	Proximity Sensor NO	SME-8M-DS-24V-K-0,3-M8D	FESTO	Griper Up2	
=TSI_LI-211SM5.1	1	Proximity Sensor NO	SME-8M-DS-24V-K-0,3-M8D	FESTO	Griper Down2	
=TSI_LI-211SM6	1	Proximity Sensor NO	SME-8M-DS-24V-K-0,3-M8D	FESTO	Griper Up3	
=TSI_LI-211SM7	1	Proximity Sensor NO	SME-8M-DS-24V-K-0,3-M8D	FESTO	Griper Down3	
=TSI_LI-211X0	1	Sensor-actuator passive distributor, M12, Hood version	SAI-8-M 5P M12 ZF III	Weidmüller		
=TSI_LI-211X0	1	Round plug-in connector M12, Screw connection, Straight	SAIS-4/7	Weidmüller		
=TSI_LI-207Y0	0				Gripper up	
=TSI_LI-207Y1	0				Gripper down	
=TSI_LI-207Y2	0				Gripper close	
=TSI_LI+RM1-104A1	1	Electronic Current Monitoring	9000-41034-0401000	Murr		
=TSI_LI+RM1-104A3	1	Electronic Current Monitoring	9000-41034-0401000	Murr		
=TSI_LI+RM1-125AI0	1	BASEUNIT TYPE A0, BU15-P16+A10+2B	6ES7193-6BP20-0BA0	Siemens AG		
=TSI_LI+RM1-125AI0	1	ET 200SP, AI 4XRTD/TC 2-/3-/4-WIRE HF	6ES7134-6JD00-0CA1	Siemens AG		
=TSI_LI+RM1-125AI0	1	SIMATIC ET 200SP, shield terminal and shield support	6ES7193-6SC00-1AM0	Siemens AG		
=TSI_LI+RM1-125B0	1	Temperature sensors	Pt100-3	ELKO EP	Temperature sensor	
=TSI_LI+RM1-121DI0	1	BASEUNIT TYPE A0, BU15-P16+A10+2D	6ES7193-6BP20-0DA0	Siemens AG		
=TSI_LI+RM1-121DI0	1	ET 200SP, EL-MOD., F-DI 8X24VDC HF	6ES7136-6BA00-0CA0	Siemens AG		
=TSI_LI+RM1-123DI0	1	BASEUNIT TYPE A0, BU15-P16+A10+2B	6ES7193-6BP20-0BA0	Siemens AG		
=TSI_LI+RM1-123DI0	1	ET 200SP, DI 8X24VDC ST	6ES7131-6BF00-0BA0	Siemens AG		
=TSI_LI+RM1-124DI0	1	BASEUNIT TYPE A0, BU15-P16+A10+2B	6ES7193-6BP20-0BA0	Siemens AG		
=TSI_LI+RM1-124DI0	1	ET 200SP, DI 8X24VDC ST	6ES7131-6BF00-0BA0	Siemens AG		
=TSI_LI+RM1-120ET2	1	ET 200SP, IM155-6PN HF	6ES7155-6AU00-0CN0	Siemens AG		
=TSI_LI+RM1-120ET2	1	ET 200SP, Bus Adapter 2XRJ45	6ES7193-6AR00-0AA0	Siemens AG		
=TSI_LI+RM1-120ET3	1	ET 200SP, IM155-6PN HF	6ES7155-6AU00-0CN0	Siemens AG		
=TSI_LI+RM1-120ET3	1	ET 200SP, Bus Adapter 2XRJ45	6ES7193-6AR00-0AA0	Siemens AG		
=TSI_LI+RM1-120ET3	2	Industrial Ethernet FastConnect RJ45 plug 180 2x 2	6GK1901-1BB10-2AB0	Siemens AG		
=TSI_LI+RM1-101F5	1	CIRCUIT BREAKER 400V 6KA, 3-POLE, C, 1A, D=70MM	5SY6301-7	Siemens AG		
=TSI_LI+RM1-101F5	1	AUXILIARY SWITCH MOUNT. 1NC+1NO	5ST3010	Siemens AG		
=TSI_LI+RM1-101F5	1	Pin busbar, 10 mm2 connection: 2x (3-phase+AUX/FS) touch-safe	5ST3616	Siemens AG		
=TSI_LI+RM1-102F0	1	CIRCUIT BREAKER 400V 6KA, 3-POLE, B,32A, D=70MM	5SY6332-6	Siemens AG	Main circuit breaker	
=TSI_LI+RM1-102F0	1	AUXILIARY SWITCH MOUNT. 1NC+1NO	5ST3010	Siemens AG	=	
=TSI_LI+RM1-102F0	1	Pin busbar, 10 mm2 connection: 2x (3-phase+AUX/FS) touch-safe	5ST3616	Siemens AG	=	
=TSI_LI+RM1-102F2	1	CIRCUIT BREAKER, SCREW-TYPE, 25 A	3RV2031-4UA10	Siemens AG		
=TSI_LI+RM1-102F2	1	LATERAL AUXILIARY SWITCH 1NO+1NC, SCREW CONNECTION,	3RV2901-1A	Siemens AG		
=TSI_LI+RM1-102F3	1	CIRCUIT BREAKER 230/400V 6KA, 1-POLE, C, 1A, D=70MM	5SY6101-7	Siemens AG		
=TSI_LI+RM1-102F3	1	AUXILIARY SWITCH MOUNT. 1NC+1NO	5ST3010	Siemens AG		
=TSI_LI+RM1-102F3	1	Pin busbar, 10 mm2 connection: 2x (1-phase+AUX/FS) touch-safe	5ST3603	Siemens AG		
=TSI_LI+RM1-102F6	1	CIRCUIT BREAKER 230/400V 6KA, 1-POLE, C, 10A, D=70MM	5SY6110-7	Siemens AG		

Parts list

F01_MEI

Device tag	Quantity	Designation	Part number	Supplier	Function text	User notes
=TSI_LI+RM1-102F6	1	AUXILIARY SWITCH MOUNT. 1NC+1NO	5ST3010	Siemens AG		
=TSI_LI+RM1-102F6	1	Pin busbar, 10 mm2 connection: 2x (1-phase+AUX/FS) touch-safe	5ST3603	Siemens AG		
=TSI_LI+RM1-102F8	1	CIRCUIT BREAKER 230/400V 6KA, 1-POLE, C, 4A, D=70MM	5SY6104-7	Siemens AG		
=TSI_LI+RM1-102F8	1	AUXILIARY SWITCH MOUNT. 1NC+1NO	5ST3010	Siemens AG		
=TSI_LI+RM1-102F8	1	Pin busbar, 10 mm2 connection: 2x (1-phase+AUX/FS) touch-safe	5ST3603	Siemens AG		
=TSI_LI+RM1-104F1	1	CIRCUIT BREAKER 230/400V 6KA, 1-POLE, C, 10A, D=70MM	5SY6110-7	Siemens AG		
=TSI_LI+RM1-104F1	1	AUXILIARY SWITCH MOUNT. 1NC+1NO	5ST3010	Siemens AG		
=TSI_LI+RM1-104F1	1	Pin busbar, 10 mm2 connection: 2x (1-phase+AUX/FS) touch-safe	5ST3603	Siemens AG		
=TSI_LI+RM1-104F7	1	CIRCUIT BREAKER 400V 6KA, 3-POLE, C, 10A, D=70MM	5SY6310-7	Siemens AG		
=TSI_LI+RM1-104F7	1	AUXILIARY SWITCH MOUNT. 1NC+1NO	5ST3010	Siemens AG		
=TSI_LI+RM1-106F3	1	CIRCUIT BREAKER, SCREW-TYPE, 25 A	3RV2031-4UA10	Siemens AG		
=TSI_LI+RM1-106F3	1	LATERAL AUXILIARY SWITCH 1NO+1NC, SCREW CONNECTION,	3RV2901-1A	Siemens AG		
=TSI_LI+RM1-104G1	1	SITOP PSU300M 20 A STABILIZED POWER SUPPLY	6EP1436-3BA10	Siemens AG		
=TSI_LI+RM1-104G1	1	SITOP PSU200M 10 A STABILIZED POWER SUPPLY	6EP1334-3BA10	Siemens AG		
=TSI_LI+RM1-102HL3	1	INDICATOR LIGHT, WHITE	3SU1156-6AA60-1AA0	Siemens AG	Cabinet under voltage	
=TSI_LI+RM1-102HL3	1	LABEL HOLDER 27x27mm	3SU1900-0AT10-0AA0	Siemens AG	=	
=TSI_LI+RM1-102HL8	1	Universal light with integral motion detector	SZ 2500.300	Rittal	Cabinet light	
=TSI_LI+RM1-151HUB3	1	SCALANCE X208, MANAGED IE SWITCH, 8 X 10/100MBIT/S RJ45 PORTS	6GK5208-0BA10-2AA3	Siemens AG		
=TSI_LI+RM1-151HUB5	1	SCALANCE X208, MANAGED IE SWITCH, 8 X 10/100MBIT/S RJ45 PORTS	6GK5208-0BA10-2AA3	Siemens AG		
=TSI_LI+RM1-101L2	1	Current measuring transformer 75/5A; 3,75VA	ASR 21.5	Rotex		
=TSI_LI+RM1-101L3	1	Current measuring transformer 75/5A; 3,75VA	ASR 21.5	Rotex		
=TSI_LI+RM1-101L4	1	Current measuring transformer 75/5A; 3,75VA	ASR 21.5	Rotex		
=TSI_LI+RM1-100M1	1	Electrical cabinet / Mounting panel	8805.500	Rittal		
=TSI_LI+RM1-104M7	1	Cooling unit 2500 W, 400/460V, 50/60Hz	DTS6501	Elektris		
=TSI_LI+RM1-115PLC3	1	CPU 1516F-3 PN/DP, 1.5 MB PROG, 5 MB DATA	6ES7516-3FN02-0AB0(1)	Siemens AG		
=TSI_LI+RM1-102Q0	1	EM.STOP SWITCH 63A/690V 400V/22KW	3LD2504-0TK53	Siemens AG	Main switch	
=TSI_LI+RM1-102Q4	1	RCCB TYPE A 16/2 30MA 2MW	5SV3311-6	Siemens AG		
=TSI_LI+RM1-102Q5	1	RCCB TYPE A 16/2 30MA 2MW	5SV3311-6	Siemens AG		
=TSI_LI+RM1-102Q6	1	RCCB TYPE A 16/2 30MA 2MW	5SV3311-6	Siemens AG		
=TSI_LI+RM1-102Q7	1	RCCB TYPE A 16/2 30MA 2MW	5SV3311-6	Siemens AG		
=TSI_LI+RM1-104S8	1	Door-operated switch with 0.6m cable	SZ 4315.520	Rittal	Main cabinet door switch	
=TSI_LI+RM1-121S0	1	EM. STOP MUSHROOM PUSHBUTTON, 40MM, RED	3SU1050-1HB20-0AA0	Siemens AG	Emergency stop1 (Main cabinet)	
=TSI_LI+RM1-121S0	1	CONTACT MODULE	3SU1400-1AA10-1EA0	Siemens AG	=	
=TSI_LI+RM1-121S0	1	HOLDER	3SU1550-0AA10-0AA0	Siemens AG	=	
=TSI_LI+RM1-121S0	1	BACKING PLATE FOR EMERGEN.-STOP	3SU1900-0BC31-0NB0	Siemens AG	=	
=TSI_LI+RM1-121S0	1	PROTECTIVE COLLAR FOR PADLOCKS	3SU1950-0DX30-0AA0	Siemens AG	=	
=TSI_LI+RM1-106T2	1	SINAMICS S120 AIM 400V 36KW	6SL3100-0BE23-6AB0	Siemens AG		
=TSI_LI+RM1-106T2.1	1	SINAMICS S120 ACTIVE LINE MODULE 60A, 36KW	6SL3130-7TE23-6AA3	Siemens AG		
=TSI_LI+RM1-107T1	1	SINAMICS S120 CONTROL UNIT CU320-2 PN	6SL3040-1MA01-0AA0	Siemens AG		S120 Control unit
=TSI_LI+RM1-107T1	1	SINAMICS S120 COMPACTFLASH CARD V5.1	6SL3054-0FB01-1BA0	Siemens AG		S120 Control unit
=TSI_LI+RM1-107T1	1	SINAMICS S120 BASIC OPERATOR PANEL (BOP20)	6SL3055-0AA00-4BA0	Siemens AG		S120 Control unit
=TSI_LI+RM1-110T2	1	SINAMICS S120 SINGLE MOMO 3A D-TYPE	6SL3120-1TE13-0AD0	Siemens AG	Rotary table	
=TSI_LI+RM1-101U2	1	SENTRON PAC3200 POWER MONITORING DEVICE	7KM2111-1BA00-3AA0	Siemens AG		
=TSI_LI+RM1-101U2	1	PLUG-IN COMMUNICATIONS MODULE SWITCHED ETHERNET PROFINET	7KM9300-0AE00-0AA0	Siemens AG		
=TSI_LI+RM1-150U3	1	DP to DVI-D Adapter	6ES7648-3AF00-0XA0	Siemens AG		
=TSI_LI+RM1-150U4	1	SIMATIC IPC427E (Microbox PC)	6AG4141-5BG44-0FA0	Siemens AG		
=TSI_LI+RM1-150U4	1	Gigabit dual port network adapter (PCIe)	Intel I350T2v2 Server Adapter	Intel		
=TSI_LI+RM1-150U4	1	Vertical mounting kit	6ES7648-1AA20-0YP0	Siemens AG		
=TSI_LI+RM1-150U7	1	SITOP UPS500S SERVICE-FREE UNINTERRUPTIBLE POWER SUPPLY	6EP1933-2EC51	Siemens AG		
=TSI_LI+RM1-102X0	0					
=TSI_LI+RM1-102X0	1	End clamp with label	BS/35	WIELAND		
=TSI_LI+RM1-102X1	0					
=TSI_LI+RM1-102X1	1	End clamp with label	BS/35	WIELAND		
=TSI_LI+RM1-104X1	1	End clamp with label	BS/35	WIELAND		
=TSI_LI+RM1-104X4	1	End clamp with label	BS/35	WIELAND		
=TSI_LI+RM1-102XS4	1	SCHUKO SOCKET 16A 3-POLE	5TE6803	Siemens AG	Service socket	

Summarized parts list

F02_001

Order number	Quantity	Description Designation	Type number Part number	Manufacturer Supplier	Unit price	Total price	Pos
8005311	6	Y connector 2xM8 3-pin to 1xM12 4-pin	NEDY-L2R1-V1-M8G3-N-M12G4 NEDY-L2R1-V1-M8G3-N-M12G4	FESTO FESTO	0.00	0.00	
	0					0.00	
543861	12	Proximity Sensor NO	SME-8M-DS-24V-K-0,3-M8D SME-8M-DS-24V-K-0,3-M8D	FESTO FESTO	0.00	0.00	
1767880000	1	Sensor-actuator passive distributor, M12, Hood version	SAI-8-M 5P M12 ZF III SAI-8-M 5P M12 ZF III	Weidmüller Weidmüller	0.00	0.00	
9457550000	1	Round plug-in connector M12, Screw connection, Straight	SAIS-4/7 SAIS-4/7	Weidmüller Weidmüller	0.00	0.00	
9000-41034-0401000	2	Electronic Current Monitoring	Mico+ 4.10 9000-41034-0401000	Murr Murr	0.00	0.00	
6ES7193-6BP20-0BA0	6	BASEUNIT TYPE A0, BU15-P16+A10+2B	6ES7193-6BP20-0BA0 6ES7193-6BP20-0BA0	SIE SIE	0.00	0.00	
6ES7134-6JD00-0CA1	1	ET 200SP, AI 4XRTD/TC 2-/3-/4-WIRE HF	6ES7134-6JD00-0CA1 6ES7134-6JD00-0CA1	SIE SIE	0.00	0.00	
6ES7193-6SC00-1AM0	pcs 1	SIMATIC ET 200SP, shield terminal and shield support	6ES7193-6SC00-1AM0 6ES7193-6SC00-1AM0	SIE SIE	0.00	0.00	
Pt100-3	1	Temperature sensors	Pt100-3 Pt100-3	ELKO EP ELKO EP	0.00	0.00	
6ES7193-6BP20-0DA0	2	BASEUNIT TYPE A0, BU15-P16+A10+2D	6ES7193-6BP20-0DA0 6ES7193-6BP20-0DA0	SIE SIE	0.00	0.00	
6ES7136-6BA00-0CA0	2	ET 200SP, EL-MOD., F-DI 8X24VDC HF	6ES7136-6BA00-0CA0 6ES7136-6BA00-0CA0	SIE SIE	0.00	0.00	
6ES7131-6BF00-0BA0	4	ET 200SP, DI 8X24VDC ST	6ES7131-6BF00-0BA0 6ES7131-6BF00-0BA0	SIE SIE	0.00	0.00	
6ES7155-6AU00-0CN0	4	ET 200SP, IM155-6PN HF	6ES7155-6AU00-0CN0 6ES7155-6AU00-0CN0	SIE SIE	0.00	0.00	
6ES7193-6AR00-0AA0	3	ET 200SP, Bus Adapter 2XRJ45	6ES7193-6AR00-0AA0 6ES7193-6AR00-0AA0	SIE SIE	0.00	0.00	
6GK1901-1BB10-2AB0	pcs 5	Industrial Ethernet FastConnect RJ45 plug 180 2x 2	6GK1901-1BB10-2AB0 6GK1901-1BB10-2AB0	SIE SIE	9.52	95.20	
5SY6301-7	1	CIRCUIT BREAKER 400V 6KA, 3-POLE, C, 1A, D=70MM	5SY6301-7 5SY6301-7	Siemens AG Siemens AG	0.00	0.00	
5ST3010	7	AUXILIARY SWITCH MOUNT. 1NC+1NO	5ST3010 5ST3010	Siemens AG Siemens AG	0.00	0.00	
5ST3616	2	Pin busbar, 10 mm2 connection: 2x (3-phase+AUX/FS) touch-safe	5ST3616 5ST3616	Siemens AG Siemens AG	0.00	0.00	

Summarized parts list

F02_001

Order number	Quantity	Description Designation	Type number Part number	Manufacturer Supplier	Unit price	Total price	Pos
5SY6332-6	1	CIRCUIT BREAKER 400V 6KA, 3-POLE, B,32A, D=70MM	5SY6332-6 5SY6332-6	Siemens AG Siemens AG	0.00	0.00	
3RV2031-4UA10	2	CIRCUIT BREAKER, SCREW-TYPE, 25 A	3RV2031-4UA10 3RV2031-4UA10	SIE SIE	0.00	0.00	
3RV29011A	pcs 2	LATERAL AUXILIARY SWITCH 1NO+1NC, SCREW CONNECTION,	3RV2901-1A 3RV2901-1A	Siemens AG Siemens AG	0.00	0.00	
5SY6101-7	1	CIRCUIT BREAKER 230/400V 6KA, 1-POLE, C, 1A, D=70MM	5SY6101-7 5SY6101-7	Siemens AG Siemens AG	0.00	0.00	
5ST3603	4	Pin busbar, 10 mm2 connection: 2x (1-phase+AUX/FS) touch-safe	5ST3603 5ST3603	Siemens AG Siemens AG	0.00	0.00	
5SY6110-7	2	CIRCUIT BREAKER 230/400V 6KA, 1-POLE, C, 10A, D=70MM	5SY6110-7 5SY6110-7	Siemens AG Siemens AG	0.00	0.00	
5SY6104-7	1	CIRCUIT BREAKER 230/400V 6KA, 1-POLE, C, 4A, D=70MM	5SY6104-7 5SY6104-7	Siemens AG Siemens AG	0.00	0.00	
5SY6310-7	1	CIRCUIT BREAKER 400V 6KA, 3-POLE, C, 10A, D=70MM	5SY6310-7 5SY6310-7	Siemens AG Siemens AG	0.00	0.00	
6EP14363BA10	1	SITOP PSU300M 20 A STABILIZED POWER SUPPLY	6EP1436-3BA10 6EP1436-3BA10	Siemens AG Siemens AG	0.00	0.00	
6EP13343BA10	1	SITOP PSU200M 10 A STABILIZED POWER SUPPLY	6EP1334-3BA10 6EP1334-3BA10	Siemens AG Siemens AG	0.00	0.00	
3SU1156-6AA60-1AA0	1	INDICATOR LIGHT, WHITE	3SU1156-6AA60-1AA0 3SU1156-6AA60-1AA0	Siemens AG Siemens AG	0.00	0.00	
3SU1900-0AT10-0AA0	1	LABEL HOLDER 27x27mm	3SU1900-0AT10-0AA0 3SU1900-0AT10-0AA0	Siemens AG Siemens AG	0.00	0.00	
SZ 2500.300	1	Universal light with integral motion detector	SZ 2500.300 SZ 2500.300	Rittal Rittal	0.00	0.00	
6GK52080BA102AA3	2	SCALANCE X208, MANAGED IE SWITCH, 8 X 10/100MBIT/S RJ45 PORTS	6GK5208-0BA10-2AA3 6GK5208-0BA10-2AA3	Siemens AG Siemens AG	0.00	0.00	
93057	3	Current measuring transformer 75/5A; 3,75VA	ASR 21.5 ASR 21.5	MBS Rotex	0.00	0.00	
8805.500	1	Electrical cabinet / Mounting panel	8805.500 8805.500	Rittal Rittal	0.00	0.00	
13886522055	1	Cooling unit 2500 W, 400/460V, 50/60Hz	DTS6501 DTS6501	Pfannenber Elektris	0.00	0.00	
6ES7518-4FP00-4AB0	1	CPU 1516F-3 PN/DP, 1.5 MB PROG, 5 MB DATA	6ES7516-3FN02-0AB0 6ES7516-3FN02-0AB0(1)	Siemens AG Siemens AG	0.00	0.00	
3LD2504-0TK53	1	EM.STOP SWITCH 63A/690V 400V/22KW	3LD2504-0TK53 3LD2504-0TK53	Siemens AG Siemens AG	0.00	0.00	

Summarized parts list

F02_001

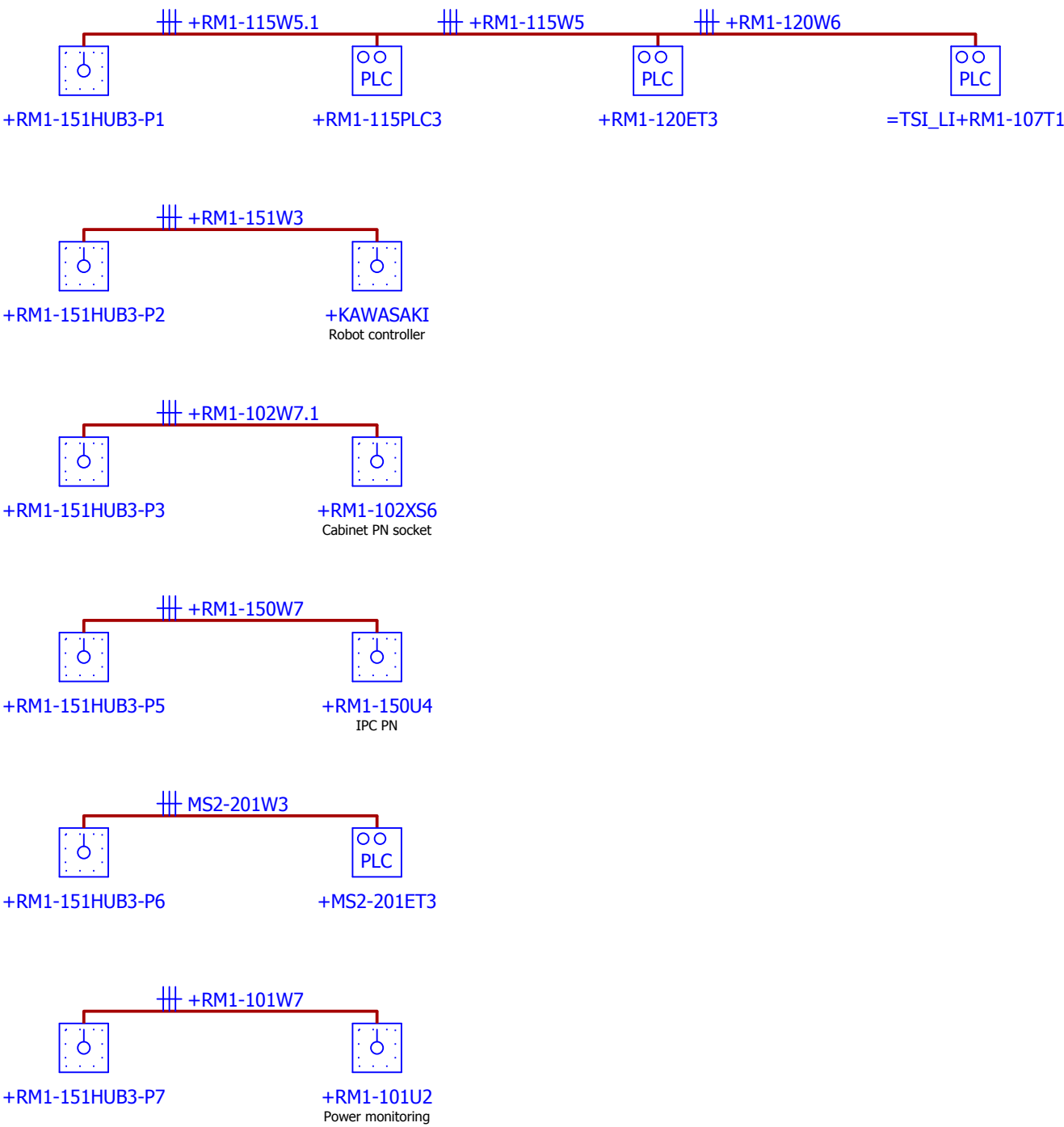
Order number	Quantity	Description Designation	Type number Part number	Manufacturer Supplier	Unit price	Total price	Pos
5SV3311-6	4	RCCB TYPE A 16/2 30MA 2MW	5SV3311-6 5SV3311-6	Siemens AG Siemens AG	0.00	0.00	
SZ 4315.520	1	Door-operated switch with 0.6m cable	SZ 4315.520 SZ 4315.520	Rittal Rittal	0.00	0.00	
3SU1050-1HB20-0AA0	2	EM. STOP MUSHROOM PUSHBUTTON, 40MM, RED	3SU1050-1HB20-0AA0 3SU1050-1HB20-0AA0	Siemens AG Siemens AG	0.00	0.00	
3SU1400-1AA10-1EA0	2	CONTACT MODULE	3SU1400-1AA10-1EA0 3SU1400-1AA10-1EA0	Siemens AG Siemens AG	0.00	0.00	
3SU1550-0AA10-0AA0	2	HOLDER	3SU1550-0AA10-0AA0 3SU1550-0AA10-0AA0	Siemens AG Siemens AG	0.00	0.00	
3SU1900-0BC31-0NB0	2	BACKING PLATE FOR EMERGEN.-STOP	3SU1900-0BC31-0NB0 3SU1900-0BC31-0NB0	Siemens AG Siemens AG	0.00	0.00	
3SU1950-0DX30-0AA0	2	PROTECTIVE COLLAR FOR PADLOCKS	3SU1950-0DX30-0AA0 3SU1950-0DX30-0AA0	SIE SIE	0.00	0.00	
6SL3100-0BE23-6AB0	ST 1	SINAMICS S120 AIM 400V 36KW	6SL3100-0BE23-6AB0 6SL3100-0BE23-6AB0	SIE SIE	0.00	0.00	
6SL3130-7TE23-6AA3	ST 1	SINAMICS S120 ACTIVE LINE MODULE 60A, 36KW	6SL3130-7TE23-6AA3 6SL3130-7TE23-6AA3	SIE SIE	0.00	0.00	
6SL3040-1MA01-0AA0	ST 1	SINAMICS S120 CONTROL UNIT CU320-2 PN	6SL3040-1MA01-0AA0 6SL3040-1MA01-0AA0	Siemens AG Siemens AG	0.00	0.00	
6SL3054-0FB01-1BA0	1	SINAMICS S120 COMPACTFLASH CARD V5.1	6SL3054-0FB01-1BA0 6SL3054-0FB01-1BA0	Siemens AG Siemens AG	0.00	0.00	
6SL3055-0AA00-4BA0	1	SINAMICS S120 BASIC OPERATOR PANEL (BOP20)	6SL3055-0AA00-4BA0 6SL3055-0AA00-4BA0	Siemens AG Siemens AG	0.00	0.00	
6SL3120-1TE13-0AD0	ST 1	SINAMICS S120 SINGLE MOMO 3A D-TYPE	6SL3120-1TE13-0AD0 6SL3120-1TE13-0AD0	SIE SIE	0.00	0.00	
7KM2111-1BA00-3AA0	1	SETRON PAC3200 POWER MONITORING DEVICE	7KM2111-1BA00-3AA0 7KM2111-1BA00-3AA0	Siemens AG Siemens AG	0.00	0.00	
7KM9300-0AE00-0AA0	1	PLUG-IN COMMUNICATIONS MODULE SWITCHED ETHERNET PROFINET	7KM9300-0AE00-0AA0 7KM9300-0AE00-0AA0	Siemens AG Siemens AG	0.00	0.00	
6ES7648-3AF00-0XA0	1	DP to DVI-D Adapter	6ES7648-3AF00-0XA0 6ES7648-3AF00-0XA0	Siemens AG Siemens AG	0.00	0.00	
6AG4141-5BG44-0FA0	1	SIMATIC IPC427E (Microbox PC)	6AG4141-5BG44-0FA0 6AG4141-5BG44-0FA0	Siemens AG Siemens AG	0.00	0.00	
I350T2V2	1	Gigabit dual port network adapter (PCIe)	Intel I350T2v2 Intel I350T2v2 Server Adapter	Intel Intel	0.00	0.00	
6ES7648-1AA20-0YP0	1	Vertical mounting kit	6ES7648-1AA20-0YP0 6ES7648-1AA20-0YP0	Siemens AG Siemens AG	0.00	0.00	

Summarized parts list

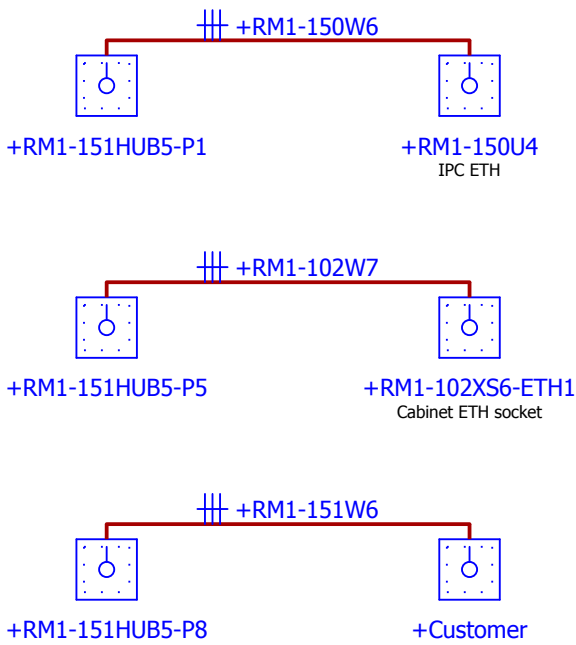
F02_001

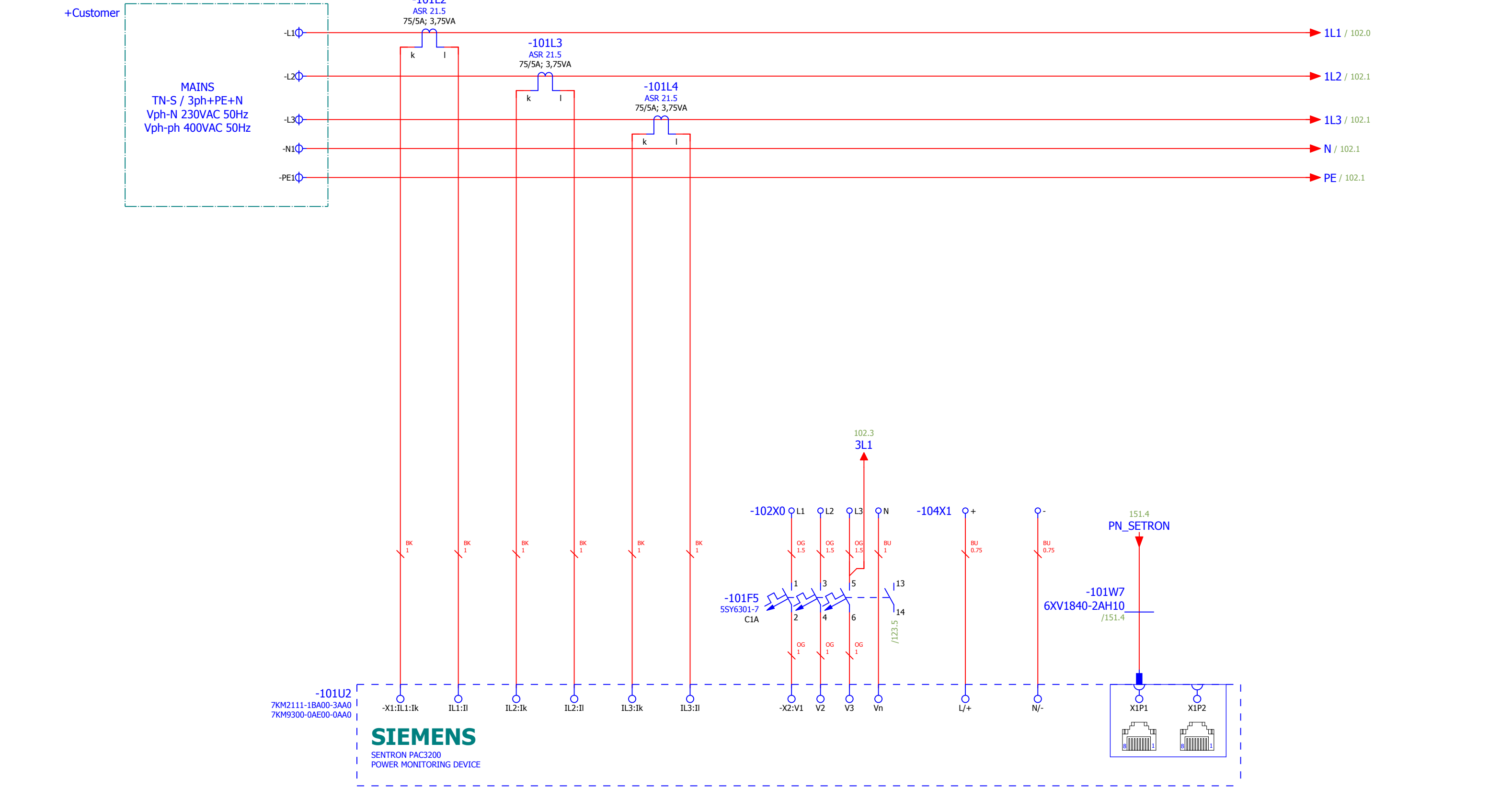
Order number	Quantity	Description Designation	Type number Part number	Manufacturer Supplier	Unit price	Total price	Pos
6EP19332EC51	1	SITOP UPS500S SERVICE-FREE UNINTERRUPTIBLE POWER SUPPLY	6EP1933-2EC51 6EP1933-2EC51	Siemens AG Siemens AG	0.00	0.00	
69.920.0553.0	pcs 8	End clamp with label	BS/35 BS/35	Wieland Wieland	0.00	0.00	
5TE6803	1	SCHUKO SOCKET 16A 3-POLE	5TE6803 5TE6803	Siemens AG Siemens AG	0.00	0.00	
1450530000	1	FrontCom, Single frame, Metal cover	IE-FC-SFM-KNOB IE-FC-SFM-KNOB	Weidmüller Weidmüller	0.00	0.00	
1450550000	1	FrontCom, Insert plate, shielded, 1x Power, 2x data	IE-FC-SP-PWB/2ST IE-FC-SP-PWB/2ST	Weidmüller Weidmüller	0.00	0.00	
1450730000	1	FrontCom, Insert Power large, Type F, Socket connector, DE	IE-FCI-PWB-DE IE-FCI-PWB-DE	Weidmüller Weidmüller	0.00	0.00	
1450820000	1	FrontCom, Touch-safe protection (e.g. for socket inserts)	IE-FC-PWPC IE-FC-PWPC	Weidmüller Weidmüller	0.00	0.00	
1962840000	2	RJ45 plug-in connector, Bulkhead inserts coupler	IE-BI-RJ45-C IE-BI-RJ45-C	Weidmüller Weidmüller	0.00	0.00	
6AV7466-6MA02-0CS0	1	SIMATIC IFP1900 PRO HD LR Flat Panel 19"	6AV7466-6MA02-0CS0 6AV7466-6MA02-0CS0	Siemens AG Siemens AG	0.00	0.00	
6AV7674-0KH00-0AA0	pcs 1	EXTENSION UNIT 19"	6AV7674-0KH00-0AA0 6AV7674-0KH00-0AA0	SIE SIE	0.00	0.00	
PERIBOARD-514H PLUS	1	Keyboard with optical trackball	PERIBOARD-514H PLUS PERIBOARD-514H PLUS	Perixx Elvac	0.00	0.00	
6ES7132-6BF00-0BA0	1	ET 200SP, DQ 8X24VDC/0,5A ST	6ES7132-6BF00-0BA0 6ES7132-6BF00-0BA0	SIE SIE	0.00	0.00	
6ES7193-6BP20-0DC0	1	BASEUNIT TYP C0, BU20-P6+A2+4D	6ES7193-6BP20-0DC0 6ES7193-6BP20-0DC0	Siemens AG Siemens AG	0.00	0.00	
6ES7136-6PA00-0BC0	1	F-PM-E 24V DC/8A PPM ST	6ES7136-6PA00-0BC0 6ES7136-6PA00-0BC0	Siemens AG Siemens AG	0.00	0.00	
3RT2015-1BB42	4	CONTACTOR, AC-3, 3KW/400V, 1NC, DC 24V,	3RT2015-1BB42 3RT2015-1BB42	SIE SIE	0.00	0.00	
3RT29161BB00	pcs 2	SURGE SUPPRESSOR, VARISTOR,	3RT2916-1BB00 3RT2916-1BB00	Siemens AG Siemens AG	0.00	0.00	
scanControl 2950-100	1	Laser line sensor scanControl 2950-100	LLT 2950-100 LLT 2950-100	Micro-Epsilon Micro-Epsilon	0.00	0.00	
1578.500	1	Enclosure with hinged door W/H/D: 300/600/155 mm	1578.500 1578.500	RITTAL RITTAL	0.00	0.00	
1028934	1	Safety laser scanner	S30A-4011BA S30A-4011BA	SICK SICK	0.00	0.00	

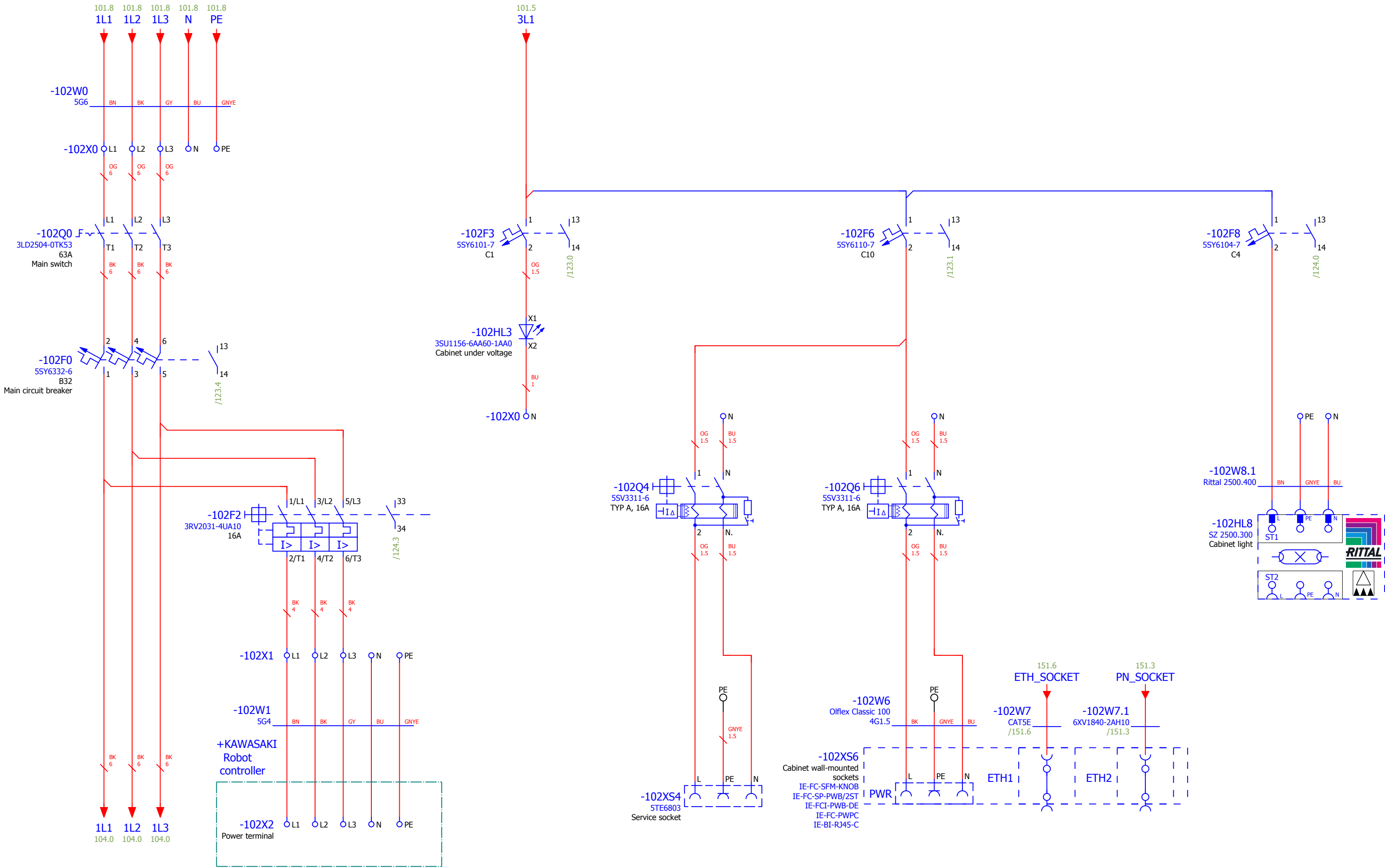
Profinet Topology

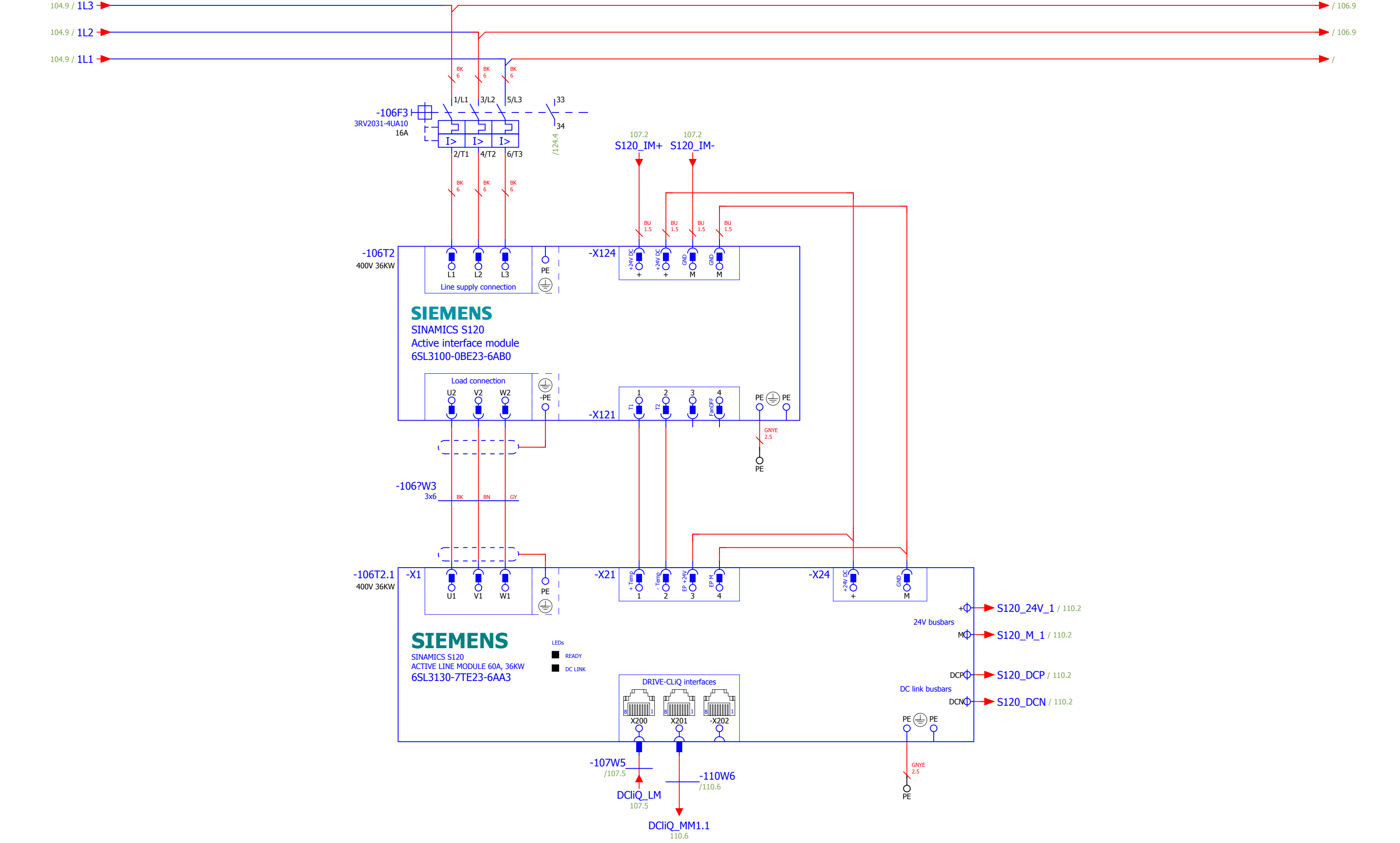


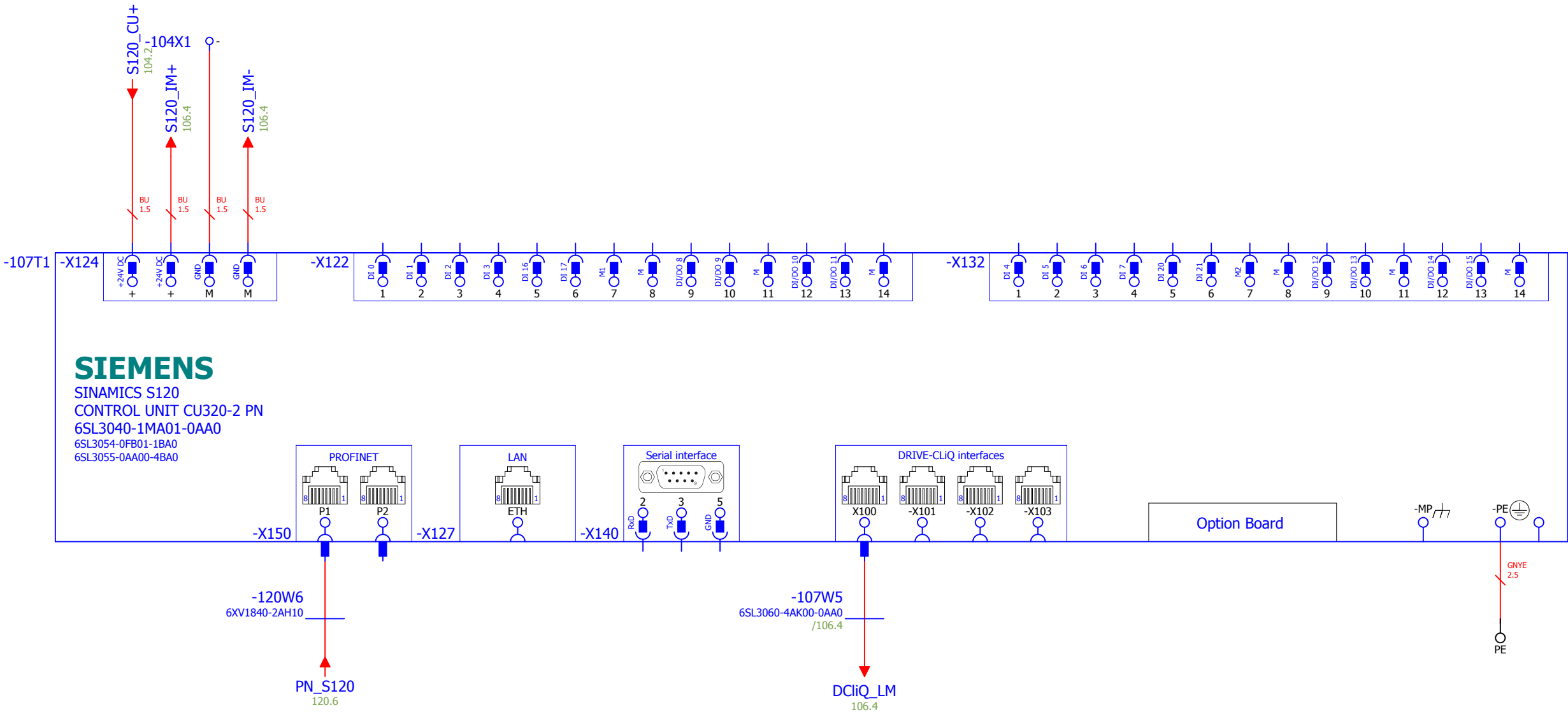
Ethernet Topology

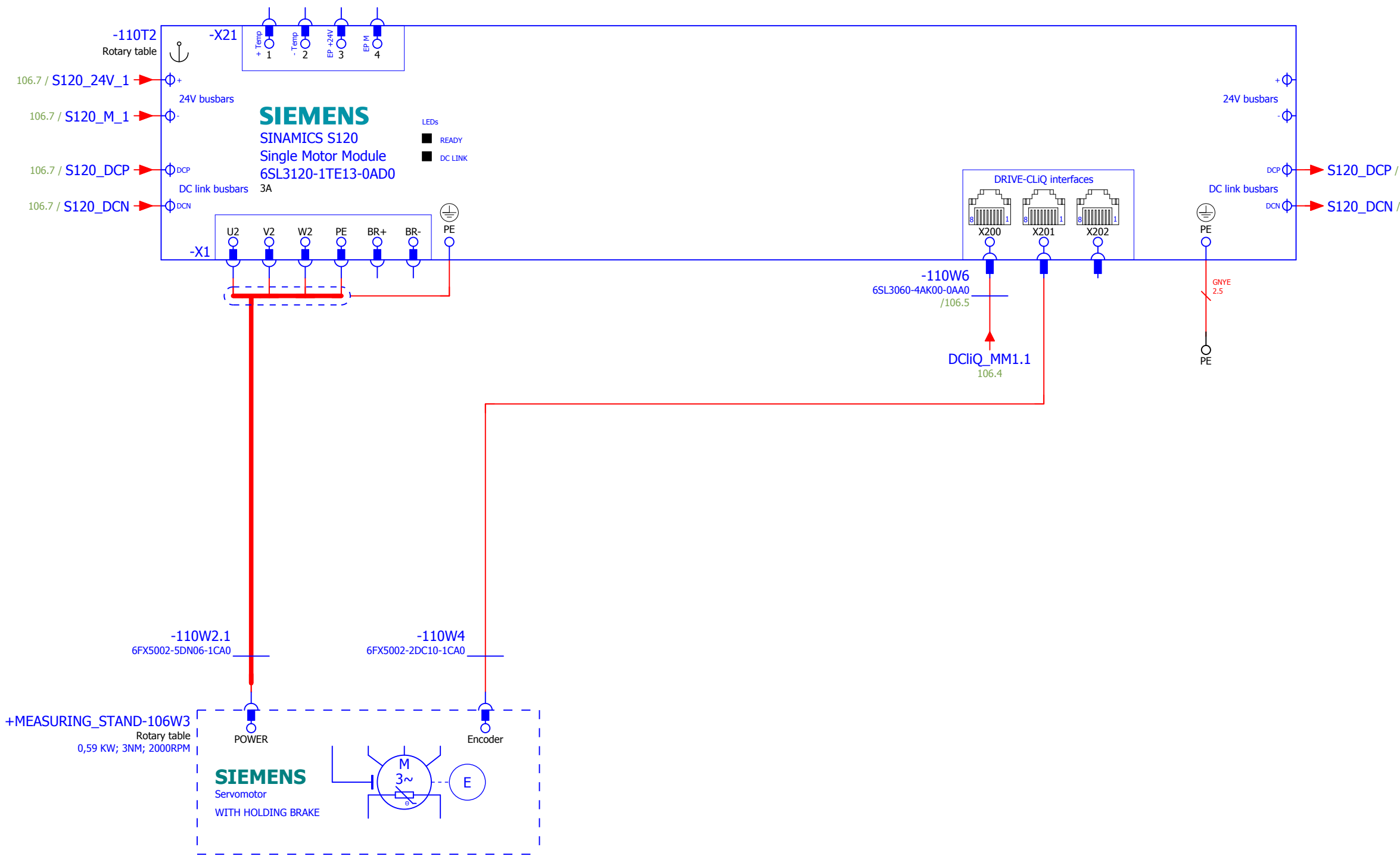


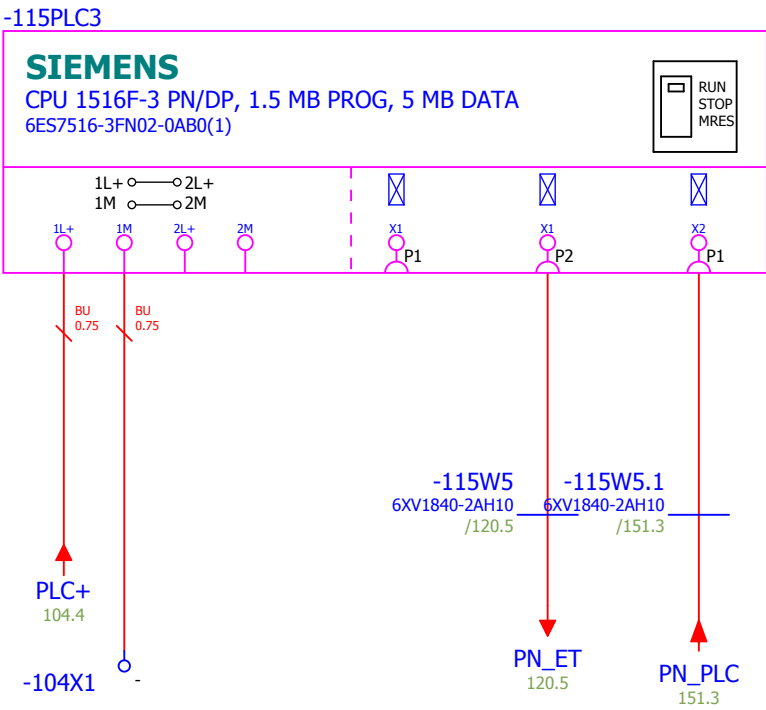


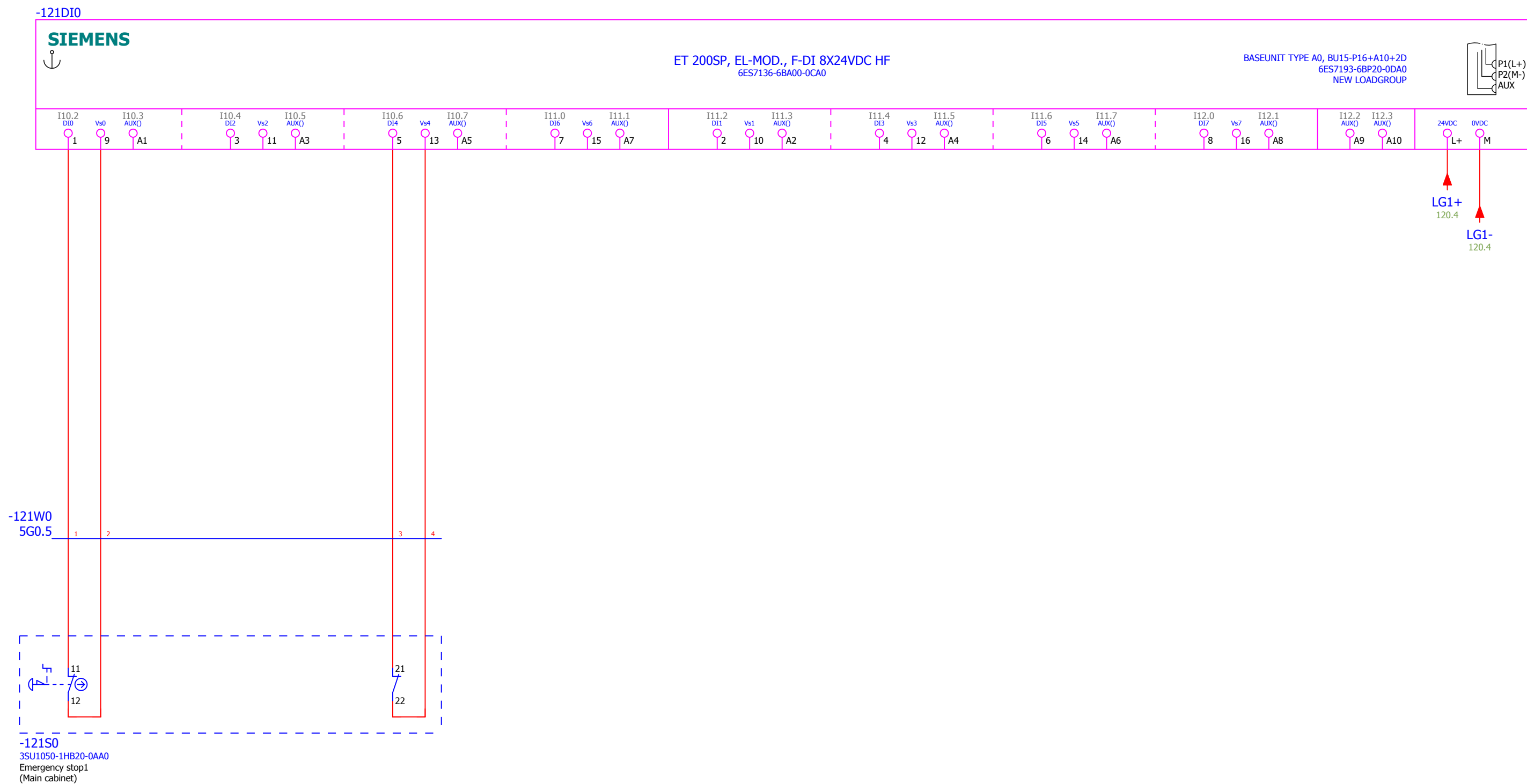


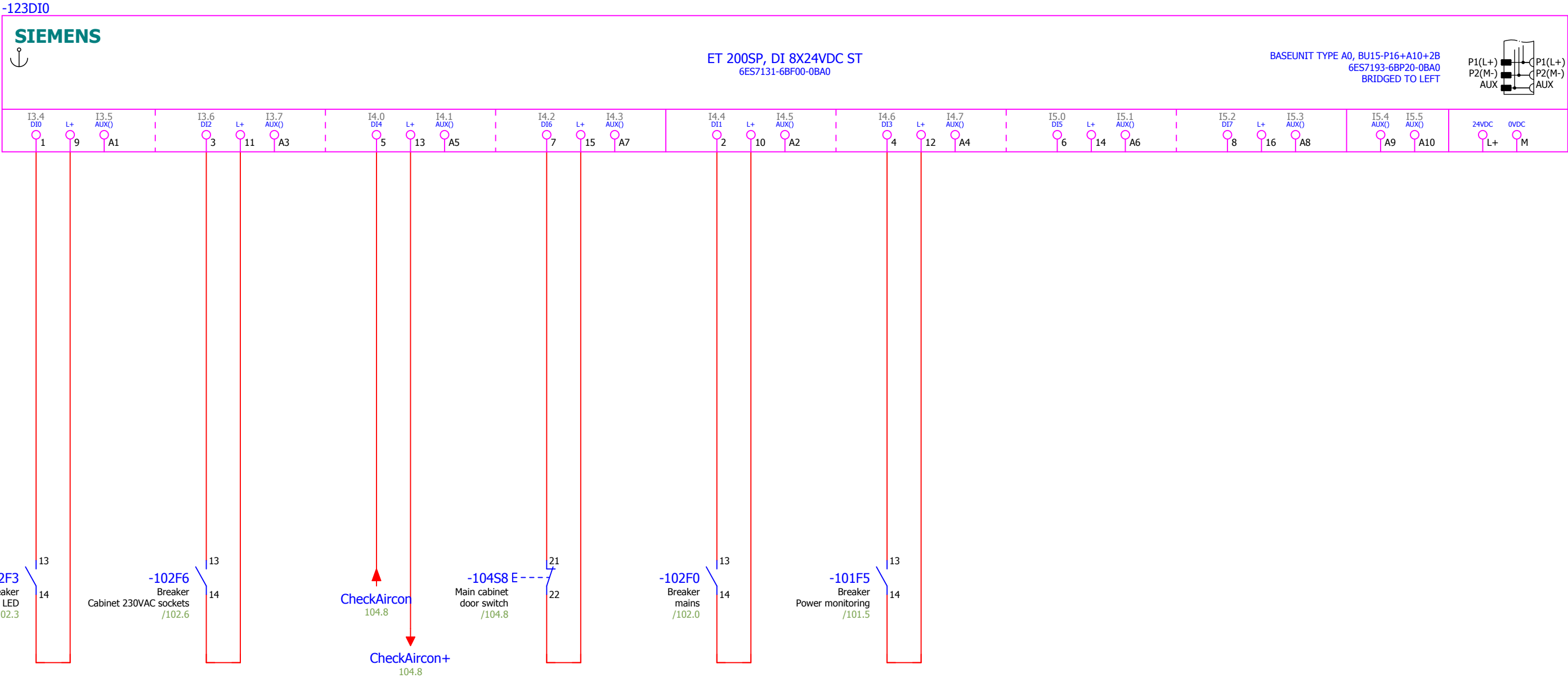












-102F8
Breaker
Cabinet lights
/102.8

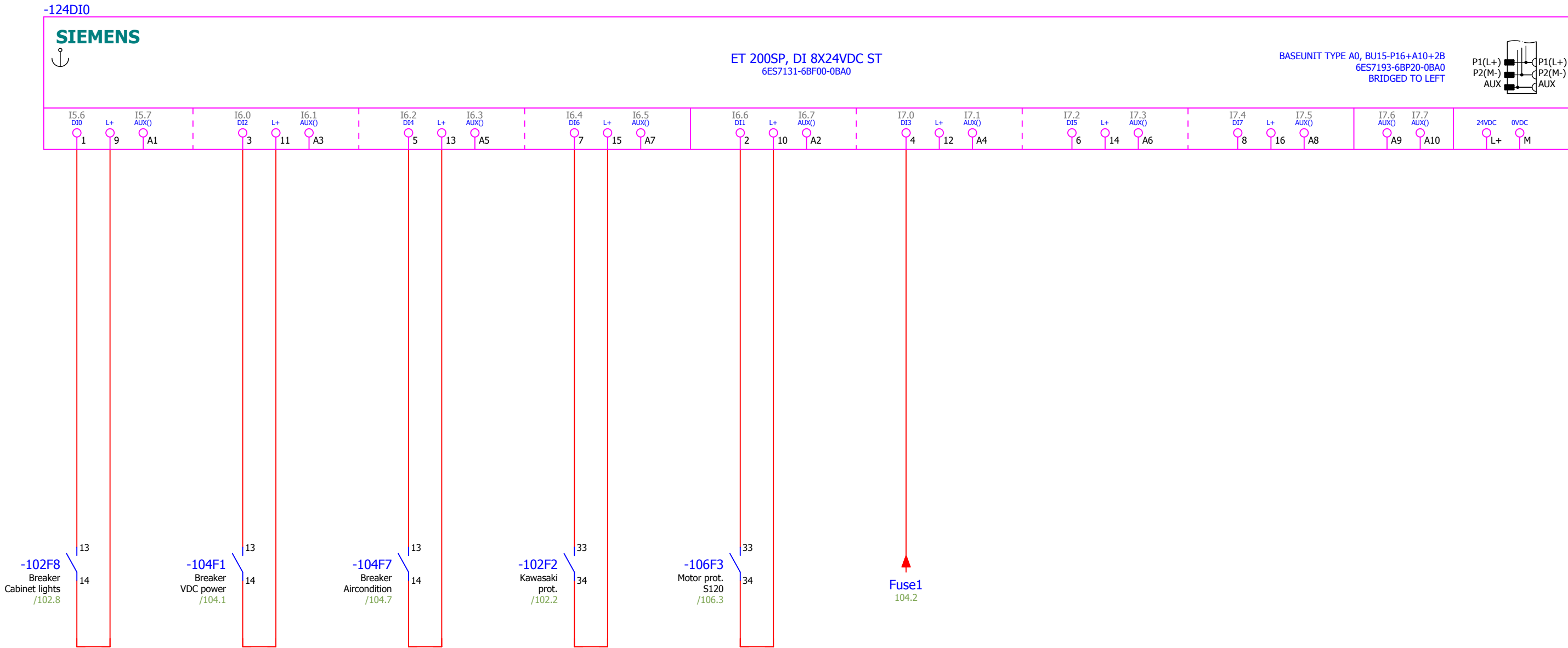
-104F1
Breaker
VDC power
/104.1

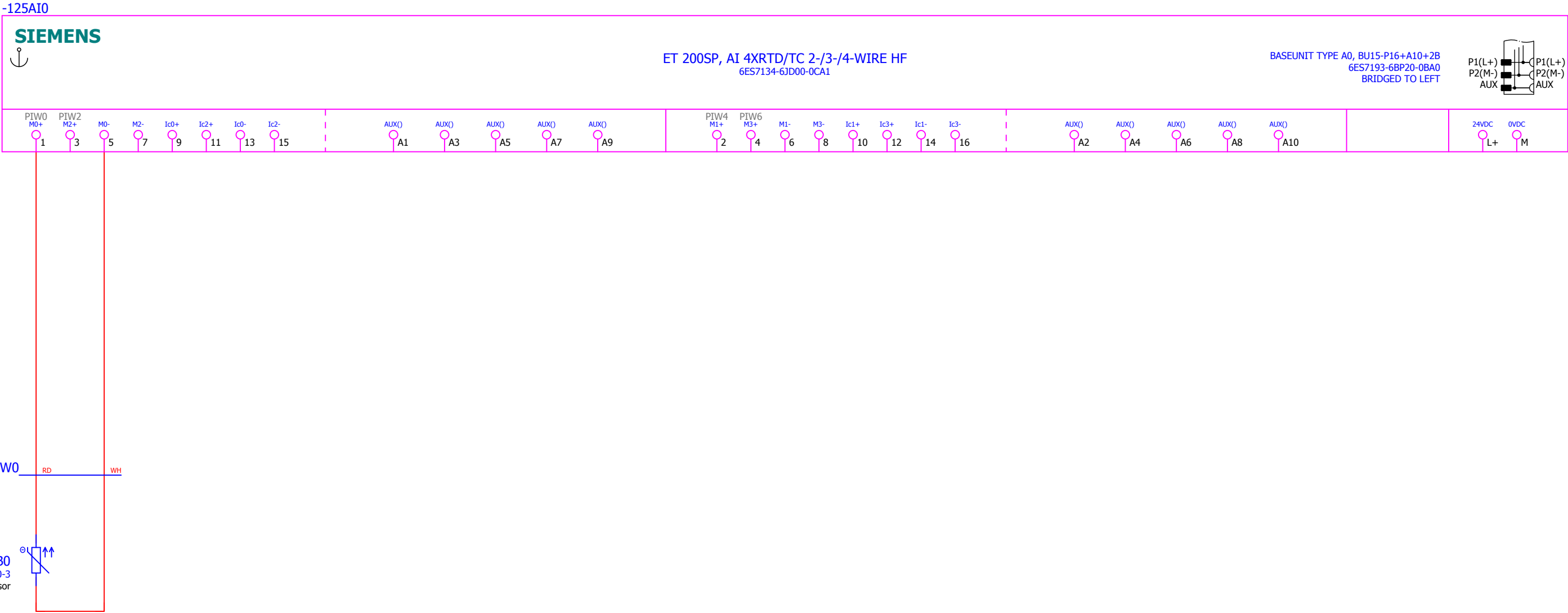
-104F7
Breaker
Aircondition
/104.7

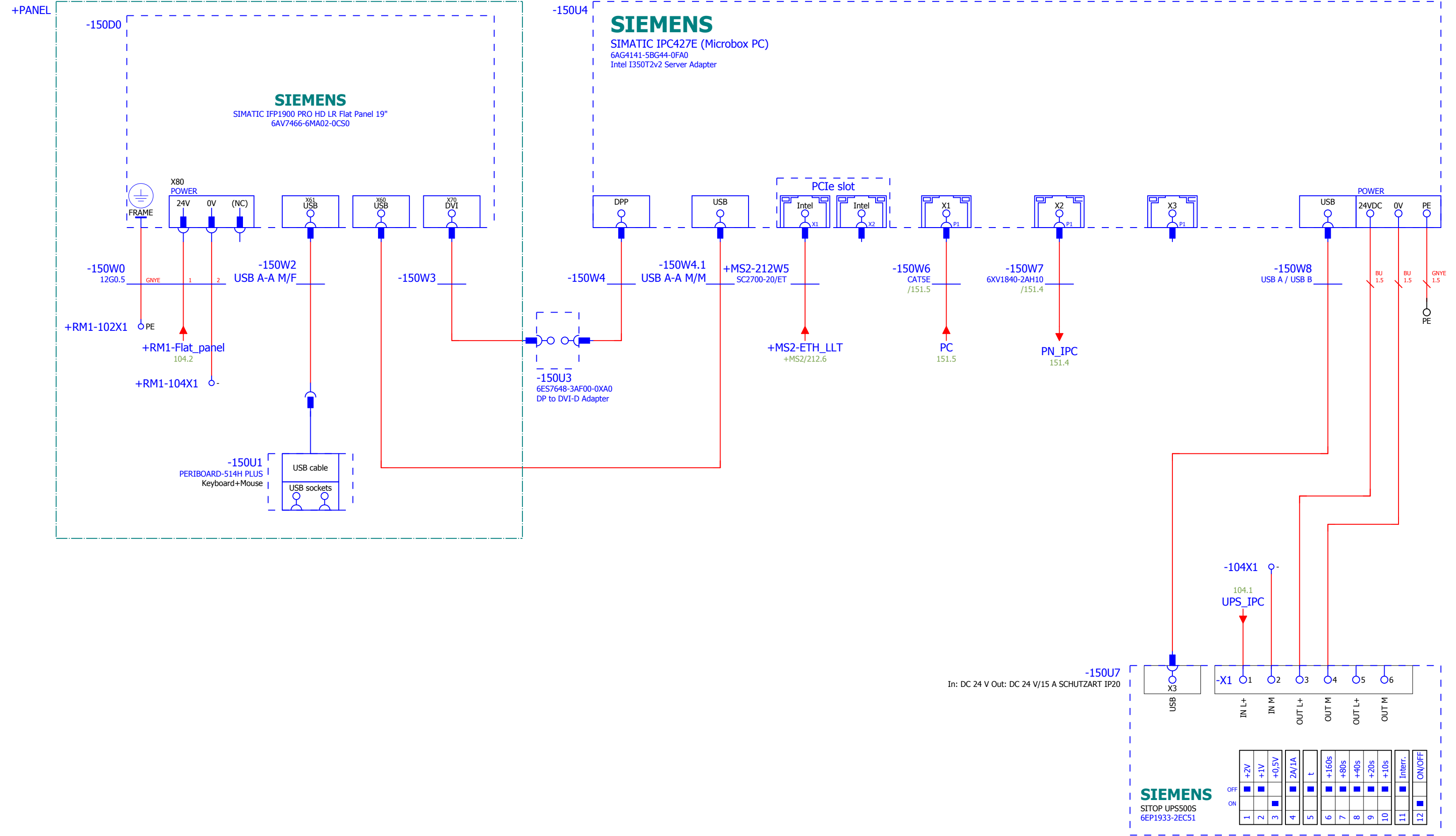
-102F2
Kawasaki
prot.
/102.2

-106F3
Motor prot.
S120
/106.3

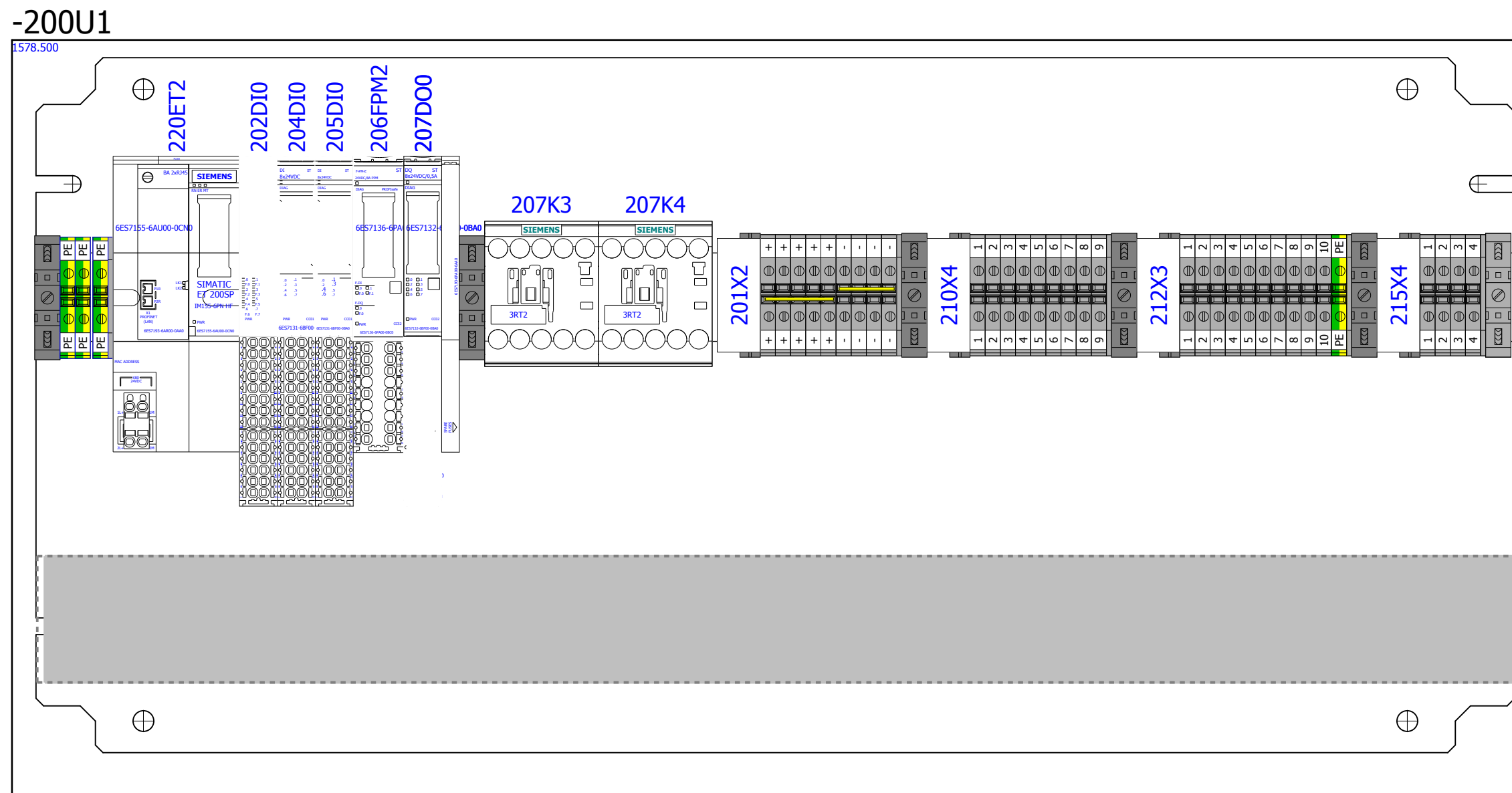
Fuse1
104.2

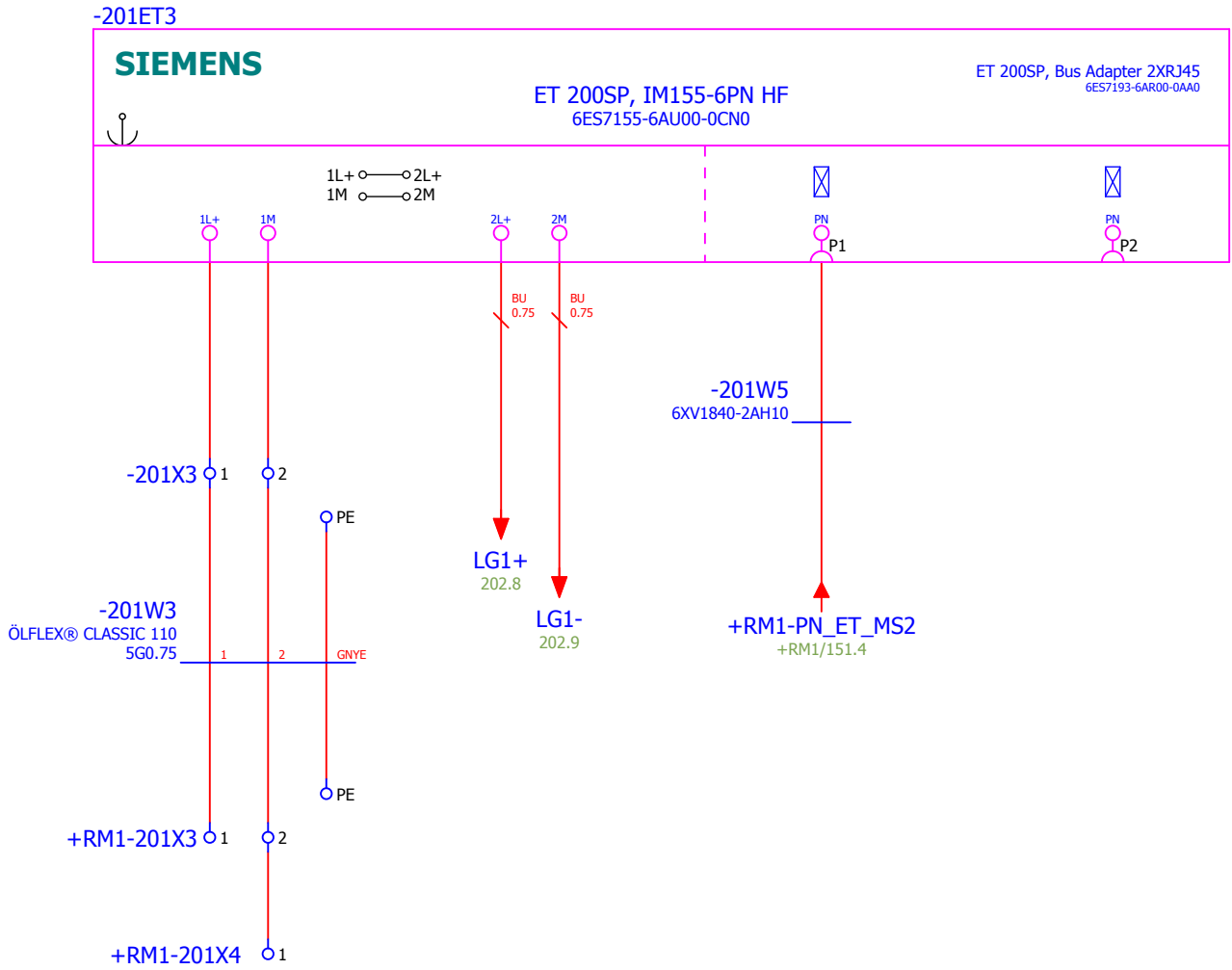


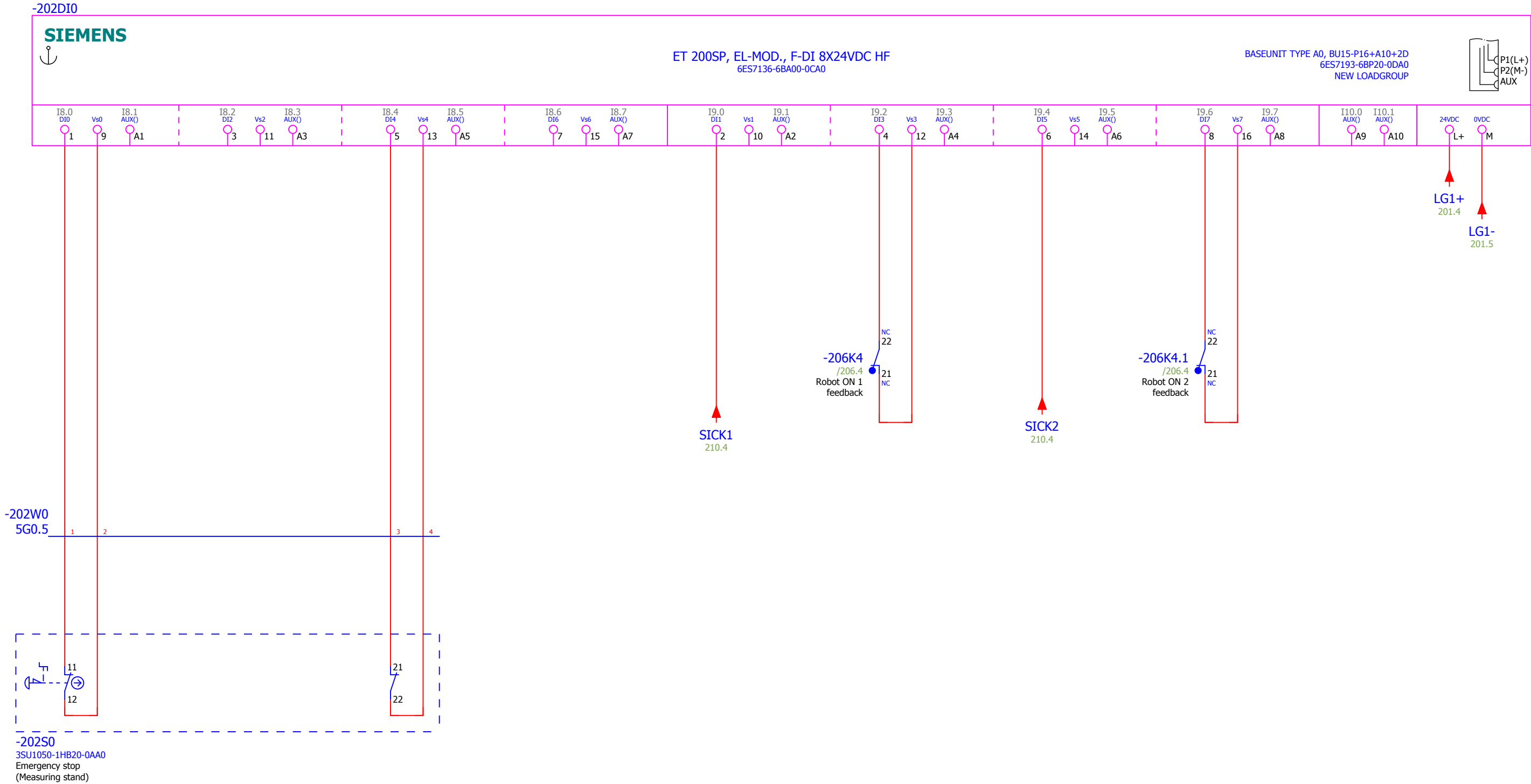




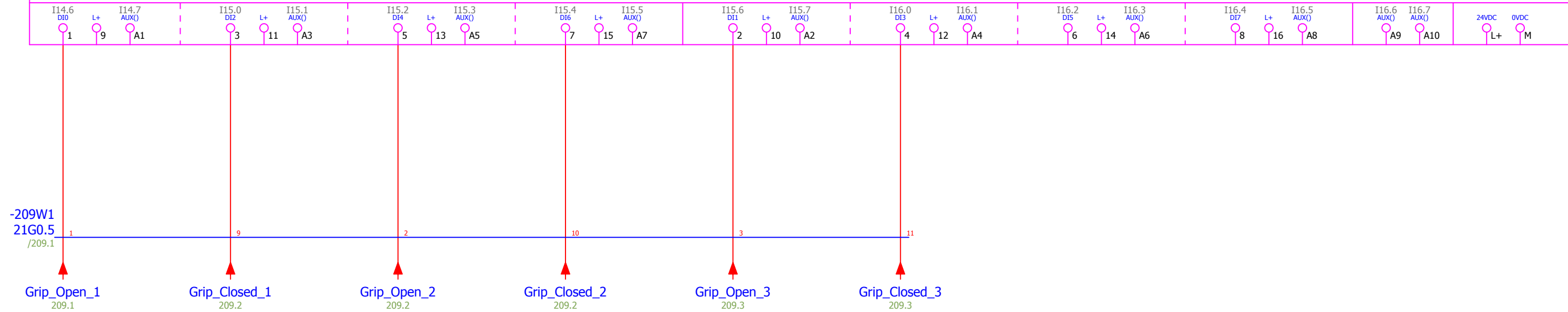
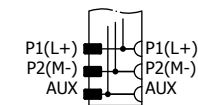
MS2 Electrobox on TSI stand





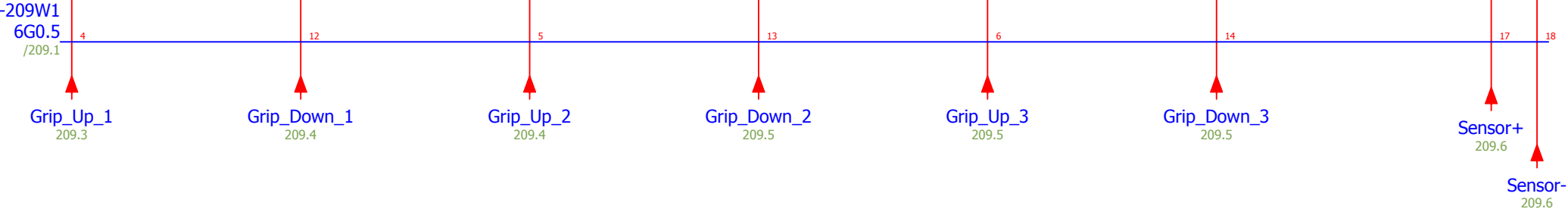
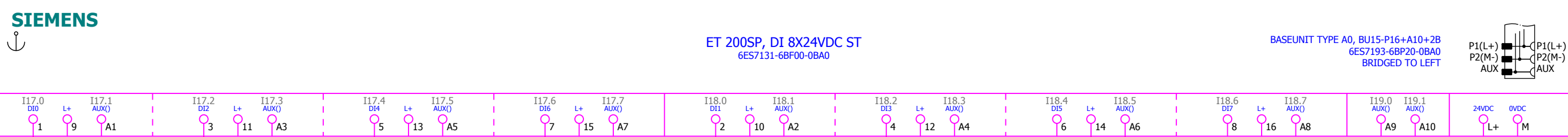


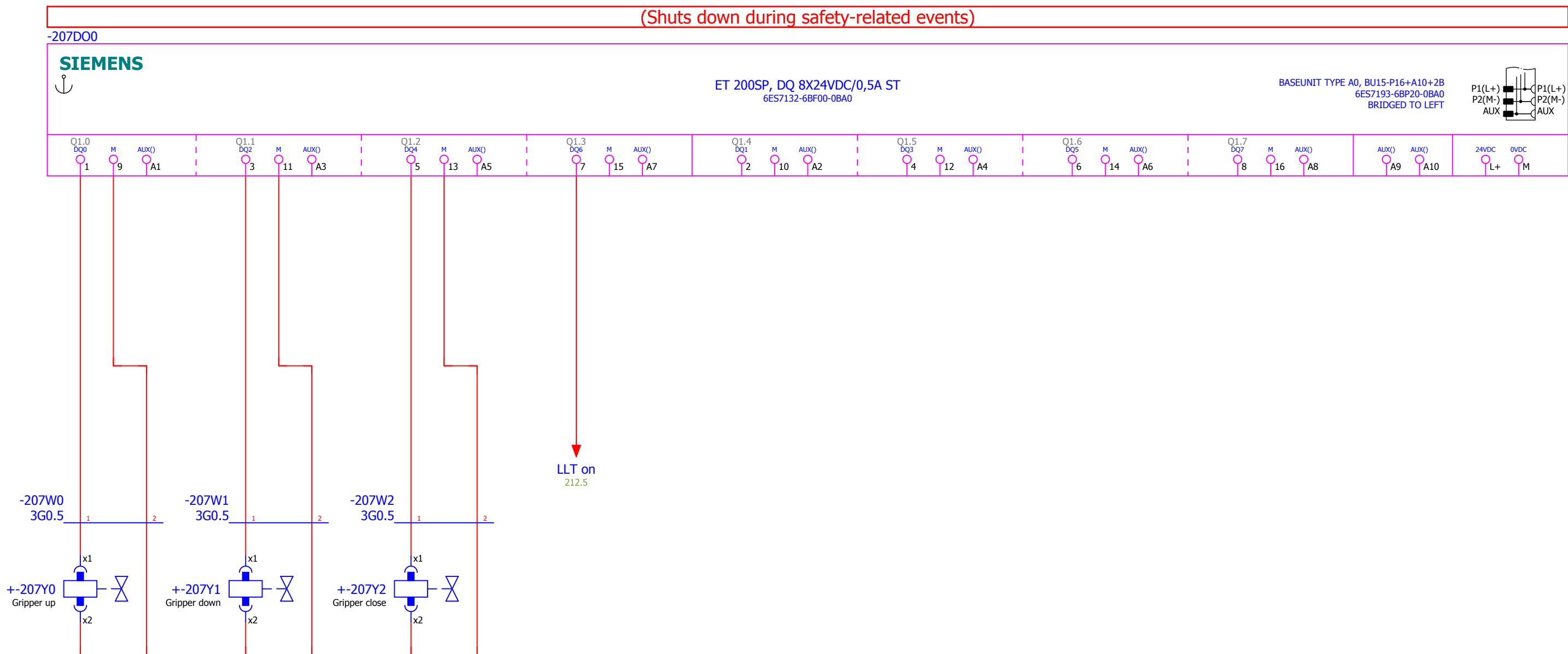
BASEUNIT TYPE A0, BU15-P16+A10+2B
6ES7193-6BP20-0BA0
BRIDGED TO LEFT

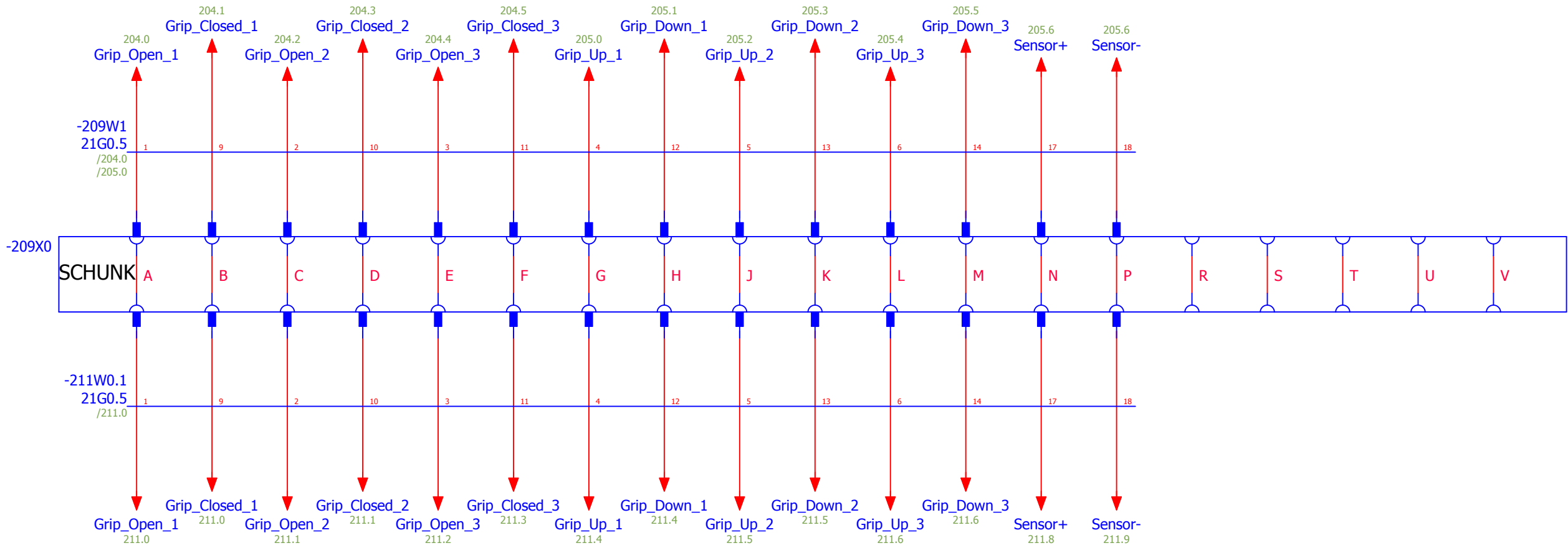


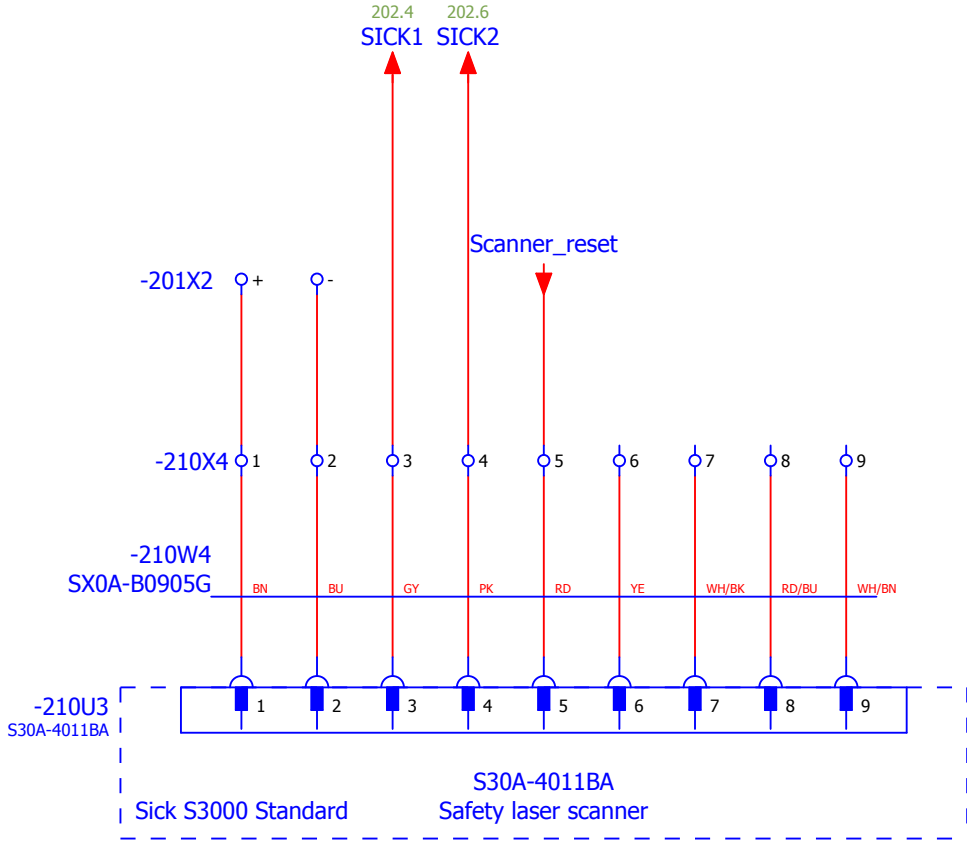
0VDC (M-) at AUX terminals !

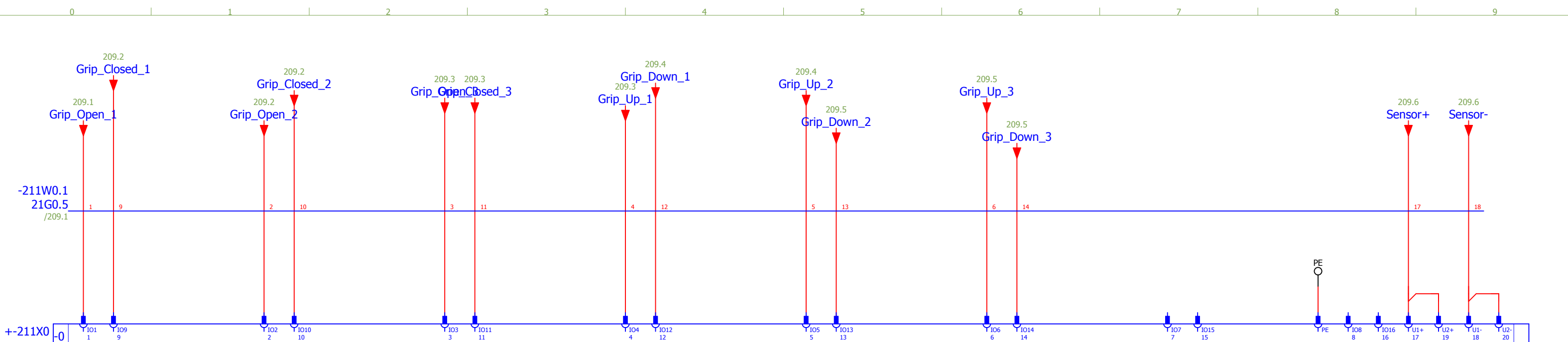
-205DI0











Weidmüller

SAI-8-M 5P M12 ZF III
Sensor-actuator passive distributor, M12, Hood version

Jumpers -

U2-
U1-
X-

Jumpers +

X+
U2+
U1+

