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Project Description: Silica Services

Job No: J3979

Panel Serial No: IP195

Drawing No: 0525-21581

**Control Panel Specifications**

**Control Panel Internal Wiring Schedule**

			Cable Size	Colour	Colour Abrev.	Description
Electrical Supply:	480V AC	60 Hz	≥ 19AWG	Red	RD	110VAC Control Circuit
Incomer Rating:	1000A		≥ 19AWG	White	WH	0VAC Control Circuit
Maximum SCCR:	10kA		≥ 19AWG	Dark Blue	DBU	24VDC Control Circuit
Busbar Rating:	1000A		≥ 19AWG	Dark Blue/White	DBU/WH	0VDC Control Circuit
Main Control Voltages:	110VAC/24VDC		≥ 19AWG	Orange	OG	Volt Free / External Source
Full Load Current	790 A		≥ 14AWG	White	WH	CT Signals
Largest Motor kW	75kW		≥ 20AWG	Screened		Analogue Signals
UL Enclosure Type:	Type 1		≥ 16AWG	Black	BLK	L1
Enclosure Material & RAL Colour:	Mild Steel - RAL7035		≥ 16AWG	Black	BLK	L2
			≥ 16AWG	Black	BLK	L3
			≥ 16AWG	Grey	GY	Neutral N
			≥ 19AWG	Green / Yellow	GN/YE	Ground / PE

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0	24.07.2025	BT	As Designed	JQ	30.07.2025	3	09.09.2025	BT	As Per Comments		
1	30.07.2025	BT	For Customer Review			4	03.09.2025	BT	As Manufactured		
2	27.08.2025	BT	As Per Comments								



Project Description : Silica Services	= +
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	5	Table of Contents	23.07.2025	
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	8	Blank	21.07.2025	
	9	Blank	21.07.2025	
	10	Panel Door Layout	23.07.2025	
	12	Blank	21.07.2025	
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	14	Panel Internal Layout	23.07.2025	
	15	Door Components	23.07.2025	
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	18	Door Components	23.07.2025	
	19	Door Components	23.07.2025	
	20	Door Components	23.07.2025	
	22	Blank	21.07.2025	
	23	Blank	21.07.2025	
	24	Symbols	21.07.2025	
	=MCH +MIS	25	Mains Isolator Incoming	23.07.2025
		26	Blank	23.07.2025
27		Section Incomers	23.07.2025	
28		Blank	21.07.2025	
=MCH +MSS1	29	FSC-01	23.07.2025	
	30	FSC-02	23.07.2025	
	31	FSC-03	23.07.2025	

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=MCH +MSS1	32	FSC-04	23.07.2025
	33	FSC-05	23.07.2025
	34	FSC-06	23.07.2025
	35	Blank	23.07.2025
	36	Blank	23.07.2025
=MCH +MSS2	37	M-HOP-HPU-01	23.07.2025
	38	M-FCC-01	23.07.2025
	39	M-RSC-01	23.07.2025
	40	CSTCC-01	23.07.2025
	41	EVO-1-DWSC	23.07.2025
	42	EVO-2-DWSC	23.07.2025
	43	FSTCC-01	23.07.2025
	44	EVO-3-DWSC	23.07.2025
	45	FSCC-01	23.07.2025
	46	Blank	21.07.2025
	47	Blank	21.07.2025
	48	FSC-SPU-01	23.07.2025
	49	FSC-SPU-02	23.07.2025
	50	Blank	23.07.2025
	51	Blank	23.07.2025
=MCH +MSS3	52	M-CSPU-01	23.07.2025
	53	Blank	21.07.2025
	54	Blank	21.07.2025
	55	WTK-WPU-1	23.07.2025
	56	WTK-WPU-2	23.07.2025
	57	Blank	21.07.2025
	58	Blank	21.07.2025
	59	M-HOP-01	23.07.2025

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=MCH +MSS4	60	M-OCC-01	23.07.2025
	61	EVO-1-SPU	23.07.2025
	62	Blank	21.07.2025
	63	Blank	23.07.2025
	64	Power Distribution	23.07.2025
=MCH +CCS	65	110VAC Control Distribution	23.07.2025
	66	110VAC Control Distribution	23.07.2025
	67	24VDC Control Distribution	23.07.2025
	68	Blank	21.07.2025
	69	Fuse Terminals	23.07.2025
	70	Blank	21.07.2025
	71	E-Stop Control Circuit Zone 1	23.07.2025
	72	E-Stop Control Circuit Zone 2	23.07.2025
	73	E-Stop Control Circuit Zone 3	23.07.2025
	74	M-FCC-01 Beltweigher	23.07.2025
	75	CSTCC-01 Beltweigher	23.07.2025
	76	FSTCC-01 Beltweigher	23.07.2025
	77	Blank	21.07.2025
	78	Water Pump Valve Box (THK-VB)	23.07.2025
	79	Water Pump Valve Box (THK-VB)	23.07.2025
	80	Water Pump Valve Box (THK-VB)	21.07.2025
	81	Blank	21.07.2025
	82	Sounder & Beacon	23.07.2025
	83	Door Indication & Control	23.07.2025
	84	Common Fault Reset	23.07.2025
	85	Common Fault Reset	23.07.2025
86	Blank	21.07.2025	
87	Control Inputs (Internal)	23.07.2025	
88	Hydraulic Unit	23.07.2025	
89	Blank	21.07.2025	

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1	30.07.2025	BT	For Customer Review			4	03.09.2025	BT	As Manufactured						Table of Contents	Rev: 1
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=MCH +CCS	90	PLC Rack Overview	23.07.2025
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	92	PLC I/O Slot 0 - DI	23.07.2025
	93	PLC I/O Slot 1 - DI	23.07.2025
	94	PLC I/O Slot 1 - DI	23.07.2025
	95	PLC I/O Slot 2 - DI	21.07.2025
	96	PLC I/O Slot 2 - DI	23.07.2025
	97	PLC I/O Slot 3 - DI	23.07.2025
	98	PLC I/O Slot 3 - DI	23.07.2025
	99	PLC I/O Slot 4 - DI	23.07.2025
	100	PLC I/O Slot 4 - DI	23.07.2025
	101	Blank	21.07.2025
	102	Blank	21.07.2025
	103	PLC I/O Slot 0 - DO	23.07.2025
	104	PLC I/O Slot 0 - DO	23.07.2025
	105	PLC I/O Slot 1 - DO	23.07.2025
	106	PLC I/O Slot 1 - DO	23.07.2025
	107	PLC I/O Slot 2 - DO	23.07.2025
	108	PLC I/O Slot 2 - DO	23.07.2025
	109	PLC I/O Slot 3 - DO	23.07.2025
	110	PLC I/O Slot 3 - DO	23.07.2025
111	Blank	21.07.2025	
112	Blank	21.07.2025	
113	PLC I/O Slot 5 - AI	23.07.2025	
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118	PLC I/O Slot 6 - AI	23.07.2025	
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120	PLC I/O Slot 7 - AI	23.07.2025	
121	PLC I/O Slot 7 - AI	23.07.2025	

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=MCH +CCS	122	PLC I/O Slot 7 - AI	23.07.2025
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	125	PLC & HMI Connections	23.07.2025
	126	Blank	23.07.2025
	127	PLC Cards	21.07.2025
	128	PLC Cards	21.07.2025
	129	PLC Cards	21.07.2025
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	135	Voltfree Signals	23.07.2025
=MCH +REPORTS	137	Labels	23.07.2025
	138	Labels	23.07.2025
	139	Terminal Diagram	23.07.2025
	140	Terminal Diagram	23.07.2025
	141	Terminal Diagram	23.07.2025
	142	Terminal Diagram	23.07.2025
	143	Terminal Diagram	23.07.2025
	144	Terminal Diagram	23.07.2025
	145	Terminal Diagram	23.07.2025
	146	Terminal Diagram	23.07.2025
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=MCH +REPORTS			
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	154	Terminal Diagram	23.07.2025
	155	Terminal Diagram	23.07.2025

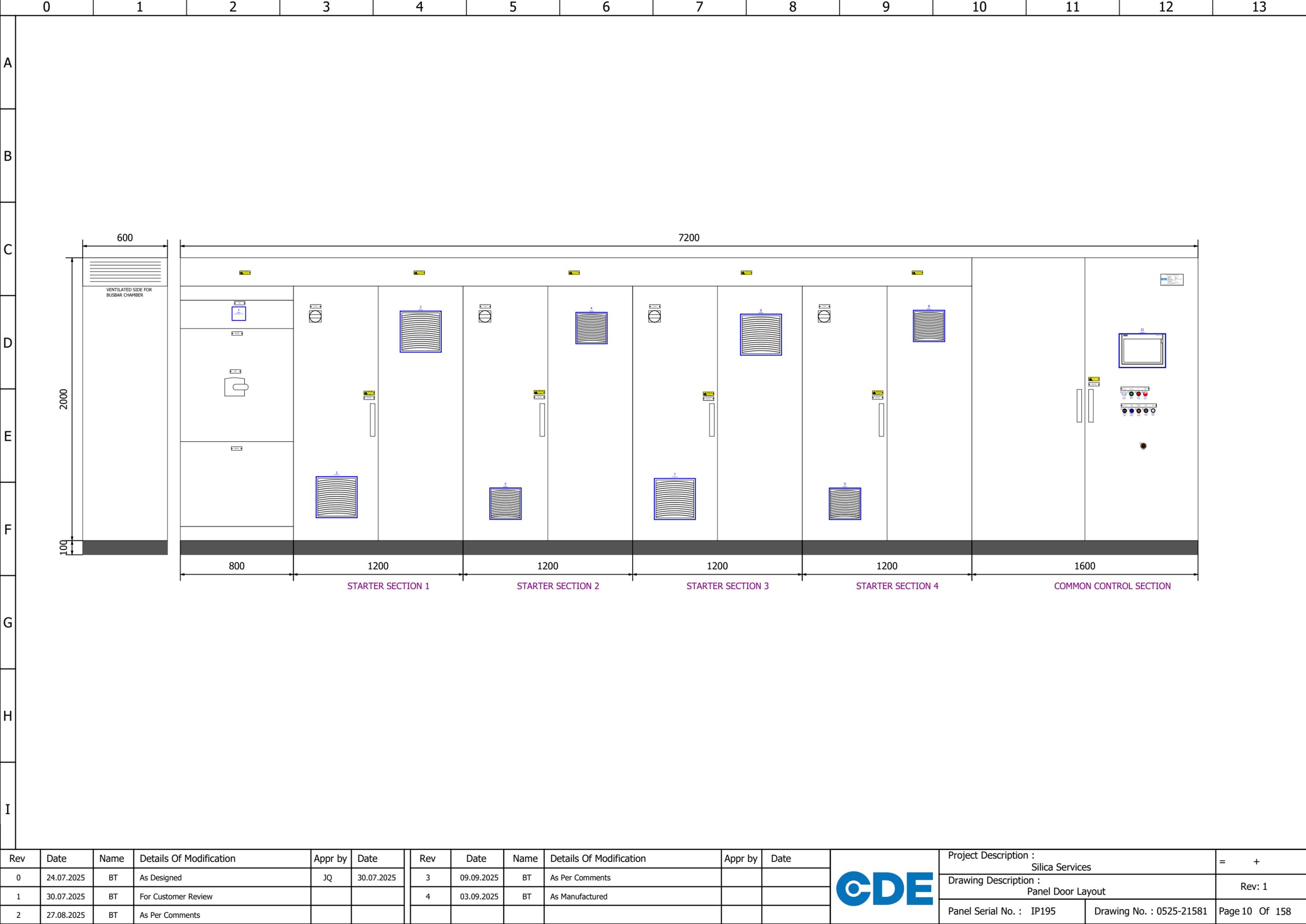
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Drawing Description : Panel Door Layout		Rev: 1
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# Panel Door Component Layout

Item No.	Device tag	Part Code	Manufacturer	Description	Function
1	64PM1	7KM3220-0BA01-1DA0	SIE	SETRON PAC3220 LCD 96X96 mm Power Monitoring Device Controll panel instrument for electrical values protocol: Modbus TCP with graphics display U rated input: 690/400V 45-65Hz IE rated input: X/1A oder X/5A AC Power supply: 100 ... 250 V +-10 % AC/DC screw connections	Power Meter
2	65FAN1	NSYCVF560M115PF	SCHNEIDER	Fan 560M3/H 110V	Cooling Fan
3		NSYCAG291LPF	SCHNEIDER	Fan Grill 291 X291	
4	65FAN1	NSYCVF300M115PF	SCHNEIDER	Cooling Fan 300M3/H 115V	Cooling Fan
5	65FAN1	NSYCAG223LPF	SCHNEIDER	Fan Grill 223 x 223	=
6	65FAN1	NSYCVF560M115PF	SCHNEIDER	Fan 560M3/H 110V	=
7		NSYCAG291LPF	SCHNEIDER	Fan Grill 291 X291	
8	65FAN1	NSYCVF300M115PF	SCHNEIDER	Cooling Fan 300M3/H 115V	Cooling Fan
9	65FAN1	NSYCAG223LPF	SCHNEIDER	Fan Grill 223 x 223	=
10	83H1	XB7EV04BP	Schneider	Red Indicator	E.Stop Activated Indicator
11	83H2	XB7EV07BP	Schneider	Clear Indicator	Mains Healthy
12	73S1	ZB4BS844	Schneider	Twist To Release E.stop Push Button	Panel E-Stop Push Button
13	83S1	ZB4BA1	Schneider	White Push Button	Lamp Test Push Button
14	85S1	ZB4BA6	Schneider	Blue Push Button	E-Stop Fault Reset Push Button
15	91S1	XB4BG3	Schneider	3 Position Key Switch (Stay Put), Centre Release	Auto Off Hand Key Switch
17	91S2	XB4BW33B5	Schneider	Green Illuminated Push Button 24VAC/DC	Start Push Button
18	91S3	ZB4BA4	Schneider	Red Push Button	Stop Push Button
19	91S4	XB4BW35B5	Schneider	Orange flush complete illum pushbutton	Common Fault Reset
20	91S5	ZB4BA2	Schneider	Black Push Button	Alarm Mute
21	125HMI1	6AV2124-0MC01-0AX0	Siemens	SIMATIC HMI TP1200 Comfort, Comfort Panel, Touch operation, 12" Widescreen TFT display, 16 million colors, PROFINET interface, MPI/PROFIBUS DP interface, 12 MB configuration memory, Windows CE 6.0, configurable from WinCC Comfort V11	

Item No.	Device tag	Part Code	Manufacturer	Description	Function
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0	24.07.2025	BT	As Designed	JQ	30.07.2025	3	09.09.2025	BT	As Per Comments		
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Drawing Description : Door Components Rev: 1

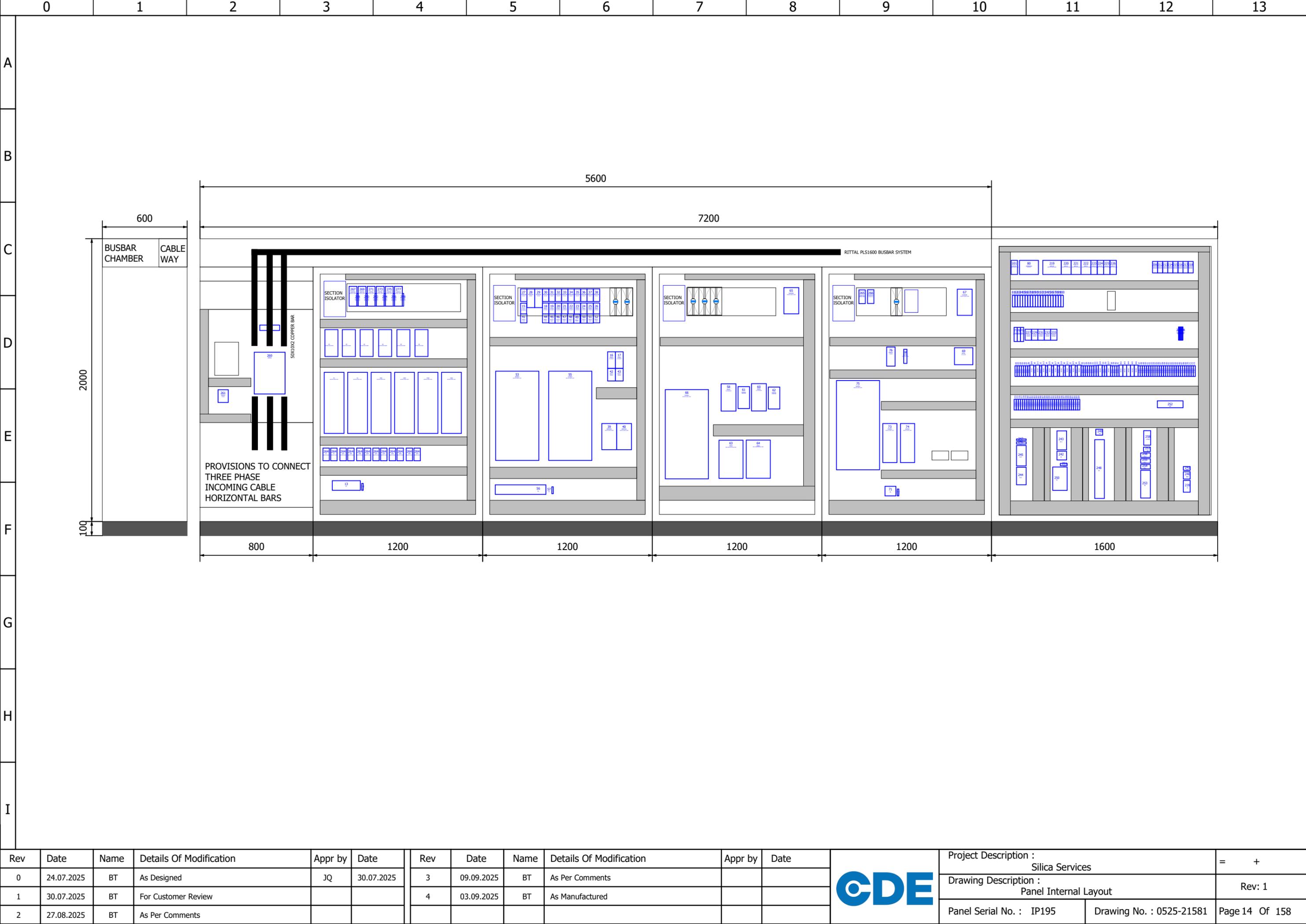
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Drawing Description : Panel Internal Layout Rev: 1

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# Backplate Component Description

Item No.	Device tag	Part Code	Manufacturer	Description
1	29VSD1	6SL3210-1KE22-6AF1	Siemens	SINAMICS G120C RATED POWER 11,0KW WITH 150% OVERLOAD FOR 3 SEC 3AC380-480V +10/-20% 47-63HZ INTEGRATED FILTER CLASS A I/O-INTERFACE: 6DI, 2DO,1AI,1AO SAFE TORQUE OFF INTEGRATED FIELDBUS: PROFINET-PN PROTECTION: IP20/ UL OPEN TYPE SI ZE: FSC 295X140X225,5(HXWXD) EXTERNAL 24V
2	29VSD1	6SL3255-0AA00-4CA1	Siemens	SINAMICS G120 BASIC OPERATOR PANEL (BOP-2)
3	30VSD1	6SL3210-1KE22-6AF1	Siemens	SINAMICS G120C RATED POWER 11,0KW WITH 150% OVERLOAD FOR 3 SEC 3AC380-480V +10/-20% 47-63HZ INTEGRATED FILTER CLASS A I/O-INTERFACE: 6DI, 2DO,1AI,1AO SAFE TORQUE OFF INTEGRATED FIELDBUS: PROFINET-PN PROTECTION: IP20/ UL OPEN TYPE SI ZE: FSC 295X140X225,5(HXWXD) EXTERNAL 24V
4	30VSD1	6SL3255-0AA00-4CA1	Siemens	SINAMICS G120 BASIC OPERATOR PANEL (BOP-2)
5	31VSD1	6SL3210-1KE22-6AF1	Siemens	SINAMICS G120C RATED POWER 11,0KW WITH 150% OVERLOAD FOR 3 SEC 3AC380-480V +10/-20% 47-63HZ INTEGRATED FILTER CLASS A I/O-INTERFACE: 6DI, 2DO,1AI,1AO SAFE TORQUE OFF INTEGRATED FIELDBUS: PROFINET-PN PROTECTION: IP20/ UL OPEN TYPE SI ZE: FSC 295X140X225,5(HXWXD) EXTERNAL 24V
6	31VSD1	6SL3255-0AA00-4CA1	Siemens	SINAMICS G120 BASIC OPERATOR PANEL (BOP-2)
7	32VSD1	6SL3210-1KE22-6AF1	Siemens	SINAMICS G120C RATED POWER 11,0KW WITH 150% OVERLOAD FOR 3 SEC 3AC380-480V +10/-20% 47-63HZ INTEGRATED FILTER CLASS A I/O-INTERFACE: 6DI, 2DO,1AI,1AO SAFE TORQUE OFF INTEGRATED FIELDBUS: PROFINET-PN PROTECTION: IP20/ UL OPEN TYPE SI ZE: FSC 295X140X225,5(HXWXD) EXTERNAL 24V
8	32VSD1	6SL3255-0AA00-4CA1	Siemens	SINAMICS G120 BASIC OPERATOR PANEL (BOP-2)
9	33VSD1	6SL3210-1KE22-6AF1	Siemens	SINAMICS G120C RATED POWER 11,0KW WITH 150% OVERLOAD FOR 3 SEC 3AC380-480V +10/-20% 47-63HZ INTEGRATED FILTER CLASS A I/O-INTERFACE: 6DI, 2DO,1AI,1AO SAFE TORQUE OFF INTEGRATED FIELDBUS: PROFINET-PN PROTECTION: IP20/ UL OPEN TYPE SI ZE: FSC 295X140X225,5(HXWXD) EXTERNAL 24V
10	33VSD1	6SL3255-0AA00-4CA1	Siemens	SINAMICS G120 BASIC OPERATOR PANEL (BOP-2)
11	34VSD1	6SL3210-1KE22-6AF1	Siemens	SINAMICS G120C RATED POWER 11,0KW WITH 150% OVERLOAD FOR 3 SEC 3AC380-480V +10/-20% 47-63HZ INTEGRATED FILTER CLASS A I/O-INTERFACE: 6DI, 2DO,1AI,1AO SAFE TORQUE OFF INTEGRATED FIELDBUS: PROFINET-PN PROTECTION: IP20/ UL OPEN TYPE SI ZE: FSC 295X140X225,5(HXWXD) EXTERNAL 24V
12	34VSD1	6SL3255-0AA00-4CA1	Siemens	SINAMICS G120 BASIC OPERATOR PANEL (BOP-2)
13	X1			
14	X2			
15	37KM1	LC1D40AF7	Schneider	Contactora 40A 110VAC
16	38KM1	LC1D50AF7	SCHNEIDER	Contactora 50A 110VAC
17	39KM1	LC1D65AF7	SCHNEIDER	Contactora 65A 110VAC
18	40KM1	LC1D18F7	SCHNEIDER	Contactora 18A 110VAC
19	41KM1	LC1D18F7	SCHNEIDER	Contactora TeSys LC1-D - 3P - AC-3 440V 18 A, Coil 110 V AC
20	41KM2	LC1D18F7	SCHNEIDER	Contactora TeSys LC1-D - 3P - AC-3 440V 18 A, Coil 110 V AC

Item No.	Device tag	Part Code	Manufacturer	Description
21	42KM1	LC1D18F7	SCHNEIDER	Contactora TeSys LC1-D - 3P - AC-3 440V 18 A, Coil 110 V AC
22	42KM2	LC1D18F7	SCHNEIDER	Contactora TeSys LC1-D - 3P - AC-3 440V 18 A, Coil 110 V AC
23	43KM1	LC1D18F7	SCHNEIDER	Contactora 18A 110VAC
24	44KM1	LC1D18F7	SCHNEIDER	Contactora TeSys LC1-D - 3P - AC-3 440V 18 A, Coil 110 V AC
25	44KM2	LC1D18F7	SCHNEIDER	Contactora TeSys LC1-D - 3P - AC-3 440V 18 A, Coil 110 V AC
26	45KM1	LC1D18F7	SCHNEIDER	Contactora 18A 110VAC
27	37MPCB1	GV2L20	SCHNEIDER	Magnetic Motor Circuit Breaker TeSys GV2L - 3P - 18 A
28	38MPCB1	GV3P32	SCHNEIDER	Thermal Magnetic Motor Circuit Breaker TeSys GV3P - 3P - 23...32A - EverLink BTR connector s
29	39MPCB1	GV3P40	SCHNEIDER	Motor circuit breaker, TeSys Deca, 3P, 30-40 A, thermal magnetic, EverLink terminals
30	40MPCB1	GV2L20	SCHNEIDER	Magnetic Motor Circuit Breaker TeSys GV2L - 3P - 18 A
31	41MPCB1	GV2L20	SCHNEIDER	Magnetic Motor Circuit Breaker TeSys GV2L - 3P - 18 A
32	41MPCB2	GV2L20	SCHNEIDER	Magnetic Motor Circuit Breaker TeSys GV2L - 3P - 18 A
33	42MPCB1	GV2L20	SCHNEIDER	Magnetic Motor Circuit Breaker TeSys GV2L - 3P - 18 A
34	42MPCB2	GV2L20	SCHNEIDER	Magnetic Motor Circuit Breaker TeSys GV2L - 3P - 18 A
35	43MPCB1	GV2L20	SCHNEIDER	Magnetic Motor Circuit Breaker TeSys GV2L - 3P - 18 A
36	44MPCB1	GV2L20	SCHNEIDER	Magnetic Motor Circuit Breaker TeSys GV2L - 3P - 18 A
37	44MPCB2	GV2L20	SCHNEIDER	Magnetic Motor Circuit Breaker TeSys GV2L - 3P - 18 A
38	45MPCB1	GV2L14	SCHNEIDER	Magnetic Motor Circuit Breaker TeSys GV2L - 3P - 10 A
39	48MPCB1	3VA5215-6ED31-0AA0	SIE	CIRCUIT BREAKER 3VA5 UL FRAME 250 BREAKING CAPACITY CLASS H 65KA 480 V 3-POLE, LINE PROTECTION TM210, FTFM, IN=150A OVERLOAD PROTECTION IR=150A FIXED SHOR T CIRCUIT PROTECTION II=10 X IN W/O CONNECTION
40	49MPCB1	3VA5215-6ED31-0AA0	SIE	CIRCUIT BREAKER 3VA5 UL FRAME 250 BREAKING CAPACITY CLASS H 65KA 480 V 3-POLE, LINE PROTECTION TM210, FTFM, IN=150A OVERLOAD PROTECTION IR=150A FIXED SHOR T CIRCUIT PROTECTION II=10 X IN W/O CONNECTION
41	37OL1	LRD16	SCHNEIDER	thermal overload relay for motor TeSys, 9..13 A
42	38OL1	LRD332	SCHNEIDER	Differential thermal overload relay - 23...32 A - class 10A Power circuit : Everlink BTR screw c onnector
43	39OL1	LRD340	SCHNEIDER	Differential thermal overload relay - 30...40 A - class 10A Power circuit : Everlink BTR screw c onnector
44	40OL1	LRD16	SCHNEIDER	thermal overload relay for motor TeSys, 9..13 A
45	41OL2	LRD21	SCHNEIDER	Thermal overload relay for motor TeSys, 12..18 A

# Backplate Component Description

Item No.	Device tag	Part Code	Manufacturer	Description
46	410L3	LRD21	SCHNEIDER	Thermal overload relay for motor TeSys, 12..18 A
47	420L2	LRD21	SCHNEIDER	Thermal overload relay for motor TeSys, 12..18 A
48	420L3	LRD21	SCHNEIDER	Thermal overload relay for motor TeSys, 12..18 A
49	430L2	LRD16	SCHNEIDER	thermal overload relay for motor TeSys, 9..13 A
50	440L2	LRD21	SCHNEIDER	Thermal overload relay for motor TeSys, 12..18 A
51	440L3	LRD21	SCHNEIDER	Thermal overload relay for motor TeSys, 12..18 A
52	450L2	LRD14	SCHNEIDER	thermal overload 7..10A
53	40VSD1	6SL3210-1KE31-4AF1	Siemens	SINAMICS G120C RATED POWER 75.0KW WITH 150% OVERLOAD FOR 3 SEC 3AC380-480V +10/-20% 47-63HZ INTEGRATED FILTER CLASS A I/O-INTERFACE: 6DI, 2DO, 1AI, 1AO SAFE TORQUE OFF INTEGRATED FIELDBUS: PROFINET-PN PROTECTION: IP20/ UL OPEN TYPE SIZE: FSF 708x 305x 357(HXWXD) EXTERNAL 24V
55	41VSD1	6SL3210-1KE31-4AF1	Siemens	SINAMICS G120C RATED POWER 75.0KW WITH 150% OVERLOAD FOR 3 SEC 3AC380-480V +10/-20% 47-63HZ INTEGRATED FILTER CLASS A I/O-INTERFACE: 6DI, 2DO, 1AI, 1AO SAFE TORQUE OFF INTEGRATED FIELDBUS: PROFINET-PN PROTECTION: IP20/ UL OPEN TYPE SIZE: FSF 708x 305x 357(HXWXD) EXTERNAL 24V
56	X1			
57	X2			
58	55KM1	LC1G225KUEN	SCHNEIDER	High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 225A, standard version, 100..250V wide band AC/DC coil
60	56KM1	LC1G225KUEN	SCHNEIDER	High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 225A, standard version, 100..250V wide band AC/DC coil
61	55MCB1	GV4P115B	Schneider	Thermal Magnetic Motor Circuit Breaker TeSys GV4 - 115A 3P - with EverLink connector.Breaking capacity 25kA at 380..415V AC 50/60 Hz.
62	56MCB1	GV4P115B	Schneider	Thermal Magnetic Motor Circuit Breaker TeSys GV4 - 115A 3P - with EverLink connector.Breaking capacity 25kA at 380..415V AC 50/60 Hz.
63	55SS2	WEG 45KW Soft Start 400V	WEG	WEG 45KW Soft Start 400V
64	56SS2	WEG 45KW Soft Start 400V	WEG	WEG 45KW Soft Start 400V
65	52MPCB1	3VA5220-6ED31-0AA0	SIE	CIRCUIT BREAKER 3VA5 UL FRAME 250 BREAKING CAPACITY CLASS H 65KA 480 V 3-POLE, LINE PROTECTION TM210, FTFM, IN=200A OVERLOAD PROTECTION IR=200A FIXED SHORT CIRCUIT PROTECTION II=10 X IN W/O CONNECTION
66	44VSD1	6SL3210-1KE31-4AF1	Siemens	SINAMICS G120C RATED POWER 75.0KW WITH 150% OVERLOAD FOR 3 SEC 3AC380-480V +10/-20% 47-63HZ INTEGRATED FILTER CLASS A I/O-INTERFACE: 6DI, 2DO, 1AI, 1AO SAFE TORQUE OFF INTEGRATED FIELDBUS: PROFINET-PN PROTECTION: IP20/ UL OPEN TYPE SIZE: FSF 708x 305x 357(HXWXD) EXTERNAL 24V
67	61MPCB1	3VA5215-6ED31-0AA0	SIE	CIRCUIT BREAKER 3VA5 UL FRAME 250 BREAKING CAPACITY CLASS H 65KA 480 V 3-POLE, LINE PROTECTION TM210, FTFM, IN=150A OVERLOAD PROTECTION IR=150A FIXED SHORT CIRCUIT PROTECTION II=10 X IN W/O CONNECTION
68	64PFR1	3UG5618-2CR20	SIE	digitally adjustable monitoring relay phase failure, phase sequence, asymmetry, frequency, over- and under-voltage monitoring with phase sequence correction 3x 90-690 V AC, 15-70 Hz 2 changeover contacts spring-loaded terminal

Item No.	Device tag	Part Code	Manufacturer	Description
69	64TX1	SF-UL1000	ETE	Voltage Transformer - IN 20/0/380/440/480/575V OUTPUT 0/0/110V
71	X1			
72	X2			
73	59VSD1	6SL3210-1KE21-7AF1	Siemens	SINAMICS G120C RATED POWER 7,5KW WITH 150% OVERLOAD FOR 3 SEC 3AC380-480V +10/-20% 47-63HZ INTEGRATED FILTER CLASS A I/O-INTERFACE: 6DI, 2DO,1AI,1AO SAFE TORQUE OFF INTEGRATED FIELDBUS: PROFINET-PN PROTECTION: IP20/ UL OPEN TYPE SIZE: FSB 196X100X225,5(HXWXD) EXTERNAL 24V
74	60VSD1	6SL3210-1KE21-7AF1	Siemens	SINAMICS G120C RATED POWER 7,5KW WITH 150% OVERLOAD FOR 3 SEC 3AC380-480V +10/-20% 47-63HZ INTEGRATED FILTER CLASS A I/O-INTERFACE: 6DI, 2DO,1AI,1AO SAFE TORQUE OFF INTEGRATED FIELDBUS: PROFINET-PN PROTECTION: IP20/ UL OPEN TYPE SIZE: FSB 196X100X225,5(HXWXD) EXTERNAL 24V
75	61VSD1	6SL3210-1KE31-4AF1	Siemens	SINAMICS G120C RATED POWER 75.0KW WITH 150% OVERLOAD FOR 3 SEC 3AC380-480V +10/-20% 47-63HZ INTEGRATED FILTER CLASS A I/O-INTERFACE: 6DI, 2DO, 1AI, 1AO SAFE TORQUE OFF INTEGRATED FIELDBUS: PROFINET-PN PROTECTION: IP20/ UL OPEN TYPE SIZE: FSF 708x 305x 357(HXWXD) EXTERNAL 24V
76	64PSU1	1159044	PXC	Primary-switched power supply unit, TRIO POWER, Push-in connection, DIN rail mounting, input: 3-phase, output: 24 V DC / 20 A, adjustable from 24 V DC ... 28 V DC
80	125EWON1	FLEXY202	HMS	Ewon Flexy 202 VPN
81	67F1	31273	Wohner	Single Pole Fuse holder + N Disconnect
82	67F2	31273	Wohner	Single Pole Fuse holder + N Disconnect
83	67F3	31273	Wohner	Single Pole Fuse holder + N Disconnect
84	67F4	31273	Wohner	Single Pole Fuse holder + N Disconnect
85	67F5	31273	Wohner	Single Pole Fuse holder + N Disconnect
86	67F6	31273	Wohner	Single Pole Fuse holder + N Disconnect
87	67F7	31273	Wohner	Single Pole Fuse holder + N Disconnect
88	67F8	31273	Wohner	Single Pole Fuse holder + N Disconnect
89	67F9	31273	Wohner	Single Pole Fuse holder + N Disconnect
90	67F10	31273	Wohner	Single Pole Fuse holder + N Disconnect
91	67F11	31273	Wohner	Single Pole Fuse holder + N Disconnect
92	67F12	31273	Wohner	Single Pole Fuse holder + N Disconnect
93	67F13	31273	Wohner	Single Pole Fuse holder + N Disconnect
94	67F14	31273	Wohner	Single Pole Fuse holder + N Disconnect
95	67F15	31273	Wohner	Single Pole Fuse holder + N Disconnect

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## Backplate Component Description

Item No.	Device tag	Part Code	Manufacturer	Description
96	67F16	31273	Wohner	Single Pole Fuse holder + N Disconnect
97	67F17	31273	Wohner	Single Pole Fuse holder + N Disconnect
98	67F18	31273	Wohner	Single Pole Fuse holder + N Disconnect
99	67F19	31273	Wohner	Single Pole Fuse holder + N Disconnect
100	67F20	31273	Wohner	Single Pole Fuse holder + N Disconnect
101	125ETH1	6GK5008-0BA00-1AB2	Siemens	SCALANCE XB008 UNMANAGED INDUSTRIAL ETHERNET SWITCH FOR 10/100MBIT/S; WITH 8 X 10/100MBIT/S TWISTED PAIR- PORTS WITH RJ45-SOCKETS; FOR CONFIGURING SMALL STAR- AND LINE TOPOGRAPHIES; LED-DIAGNOSIS, IP20, 24 V DC POWER SUPPLY, INCL. M ANUAL
102	29KDC1	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
103	30KDC1	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
104	31KDC1	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
105	32KDC1	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
106	33KDC1	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
107	34KDC1	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
108	37KDC1	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
109	37KDC2	RXM4AB2BD	Schneider	24VDC 6A 4 Pole Relay
110	38KDC1	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
111	38KDC2	RXM4AB2BD	Schneider	24VDC 6A 4 Pole Relay
112	39KDC1	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
113	39KDC2	RXM4AB2BD	Schneider	24VDC 6A 4 Pole Relay
114	40KDC1	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
115	40KDC2	RXM4AB2BD	Schneider	24VDC 6A 4 Pole Relay
116	41KDC1	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
117	41KDC2	RXM4AB2BD	Schneider	24VDC 6A 4 Pole Relay
118	42KDC1	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
119	42KDC2	RXM4AB2BD	Schneider	24VDC 6A 4 Pole Relay
120	43KDC1	RXG22BD	Schneider	24VDC 5A 2 Pole Relay

Item No.	Device tag	Part Code	Manufacturer	Description
121	43KDC2	RXM4AB2BD	Schneider	24VDC 6A 4 Pole Relay
122	44KDC1	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
123	44KDC2	RXM4AB2BD	Schneider	24VDC 6A 4 Pole Relay
124	45KDC1	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
125	45KDC2	RXM4AB2BD	Schneider	24VDC 6A 4 Pole Relay
126	48KDC1	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
127	48KDC2	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
128	49KDC1	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
129	49KDC2	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
130	52KDC1	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
131	52KDC2	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
132	55KDC1	RXG22BD + Base	Schneider	Miniture Relay , 2 Pole Change Over Contact, 24Vdc Coil Inc 8 Pin Base
133	55KDC2	RXG22BD + Base	Schneider	Miniture Relay , 2 Pole Change Over Contact, 24Vdc Coil Inc 8 Pin Base
134	55KDC3	RXM4AB2BD	Schneider	24VDC 6A 4 Pole Relay
135	56KDC1	RXG22BD + Base	Schneider	Miniture Relay , 2 Pole Change Over Contact, 24Vdc Coil Inc 8 Pin Base
136	56KDC2	RXG22BD + Base	Schneider	Miniture Relay , 2 Pole Change Over Contact, 24Vdc Coil Inc 8 Pin Base
137	56KDC3	RXM4AB2BD	Schneider	24VDC 6A 4 Pole Relay
138	59KDC1	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
139	60KDC1	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
140	61KDC1	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
141	61KDC2	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
142	83KDC1	RXM4AB2BD	Schneider	24VDC 6A 4 Pole Relay
143	84KDC1	RXM4AB2BD	Schneider	24VDC 6A 4 Pole Relay
144	84KDC2	RXM4AB2BD	Schneider	24VDC 6A 4 Pole Relay
145	84KDC3	RXM4AB2BD	Schneider	24VDC 6A 4 Pole Relay
146	84KDC4	RXM4AB2BD	Schneider	24VDC 6A 4 Pole Relay

Rev	Date	Name	Details Of Modification	Appr by	Date	Rev	Date	Name	Details Of Modification	Appr by	Date		Project Description :	=	+	
0	24.07.2025	BT	As Designed	JQ	30.07.2025	3	09.09.2025	BT	As Per Comments					Silica Services		
1	30.07.2025	BT	For Customer Review			4	03.09.2025	BT	As Manufactured					Backplate Components		Rev: 1
2	27.08.2025	BT	As Per Comments										Panel Serial No. : IP195	Drawing No. : 0525-21581	Page 17 Of 158	

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## Backplate Component Description

Item No.	Device tag	Part Code	Manufacturer	Description
147	103KDC1	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
148	103KDC2	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
149	103KDC3	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
150	103KDC4	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
151	103KDC5	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
152	104KDC1	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
153	104KDC2	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
154	104KDC3	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
155	104KDC4	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
156	104KDC5	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
157	105KDC1	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
158	105KDC2	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
159	105KDC3	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
160	105KDC4	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
161	105KDC5	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
162	105KDC6	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
163	105KDC7	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
164	105KDC8	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
165	106KDC1	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
166	106KDC2	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
167	106KDC3	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
168	106KDC4	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
169	106KDC5	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
170	106KDC6	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
171	106KDC7	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
172	106KDC8	RXG22BD	Schneider	24VDC 5A 2 Pole Relay

Item No.	Device tag	Part Code	Manufacturer	Description
173	107KDC1	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
174	107KDC2	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
175	107KDC3	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
176	107KDC4	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
177	107KDC5	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
178	107KDC6	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
179	107KDC7	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
180	107KDC8	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
181	108KDC1	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
182	108KDC2	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
183	108KDC3	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
184	108KDC4	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
185	108KDC5	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
186	108KDC6	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
187	108KDC7	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
188	108KDC8	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
189	109KDC1	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
190	109KDC2	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
191	109KDC3	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
192	109KDC4	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
193	109KDC5	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
194	109KDC6	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
195	109KDC7	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
196	109KDC8	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
197	110KDC1	RXG22BD	Schneider	24VDC 5A 2 Pole Relay
198	110KDC2	RXG22BD	Schneider	24VDC 5A 2 Pole Relay

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0	24.07.2025	BT	As Designed	JQ	30.07.2025	3	09.09.2025	BT	As Per Comments					Drawing Description : Backplate Components			Rev: 1
1	30.07.2025	BT	For Customer Review			4	03.09.2025	BT	As Manufactured					Panel Serial No. : IP195	Drawing No. : 0525-21581	Page 18	Of 158



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### Backplate Component Description

Item No.	Device tag	Part Code	Manufacturer	Description
258	113XS1			
259	25CT1	TAS248/630A	Rayleigh	TAS248 - Three Phase Current Transformer - 630 / 5A
260	25ISO1			
261	25SPU1	954405	DEHN	Multipole, spark-gap-based, modular DEHNventil combined arrester type 1 + type 2 + type 3 according to EN 61643-11, consisting of a base part and a plug-in protection module. Maximum system availability due to rapid arc control (RAC) spark gaps. Capable of protecting terminal equipment. For protecting low-voltage consumer installations against surges and even direct lightning strikes. For installation in conformity with the lightning protection zone concept at the boundaries from 0A – 2.

Item No.	Device tag	Part Code	Manufacturer	Description
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0	24.07.2025	BT	As Designed	JQ	30.07.2025	3	09.09.2025	BT	As Per Comments		
1	30.07.2025	BT	For Customer Review			4	03.09.2025	BT	As Manufactured		
2	27.08.2025	BT	As Per Comments								



Project Description : Silica Services		= +
Drawing Description : Backplate Components		Rev: 1
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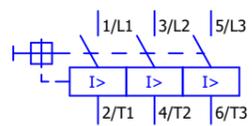
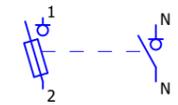
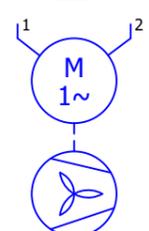
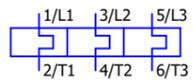
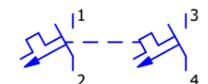
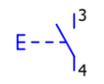
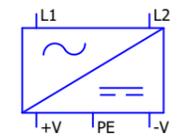
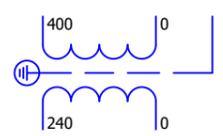
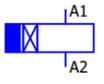
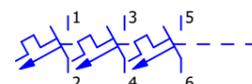
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0	24.07.2025	BT	As Designed	JQ	30.07.2025	3	09.09.2025	BT	As Per Comments					Silica Services		= +
1	30.07.2025	BT	For Customer Review			4	03.09.2025	BT	As Manufactured					Blank		Rev: 1
2	27.08.2025	BT	As Per Comments											Panel Serial No. : IP195	Drawing No. : 0525-21581	Page 22 Of 158

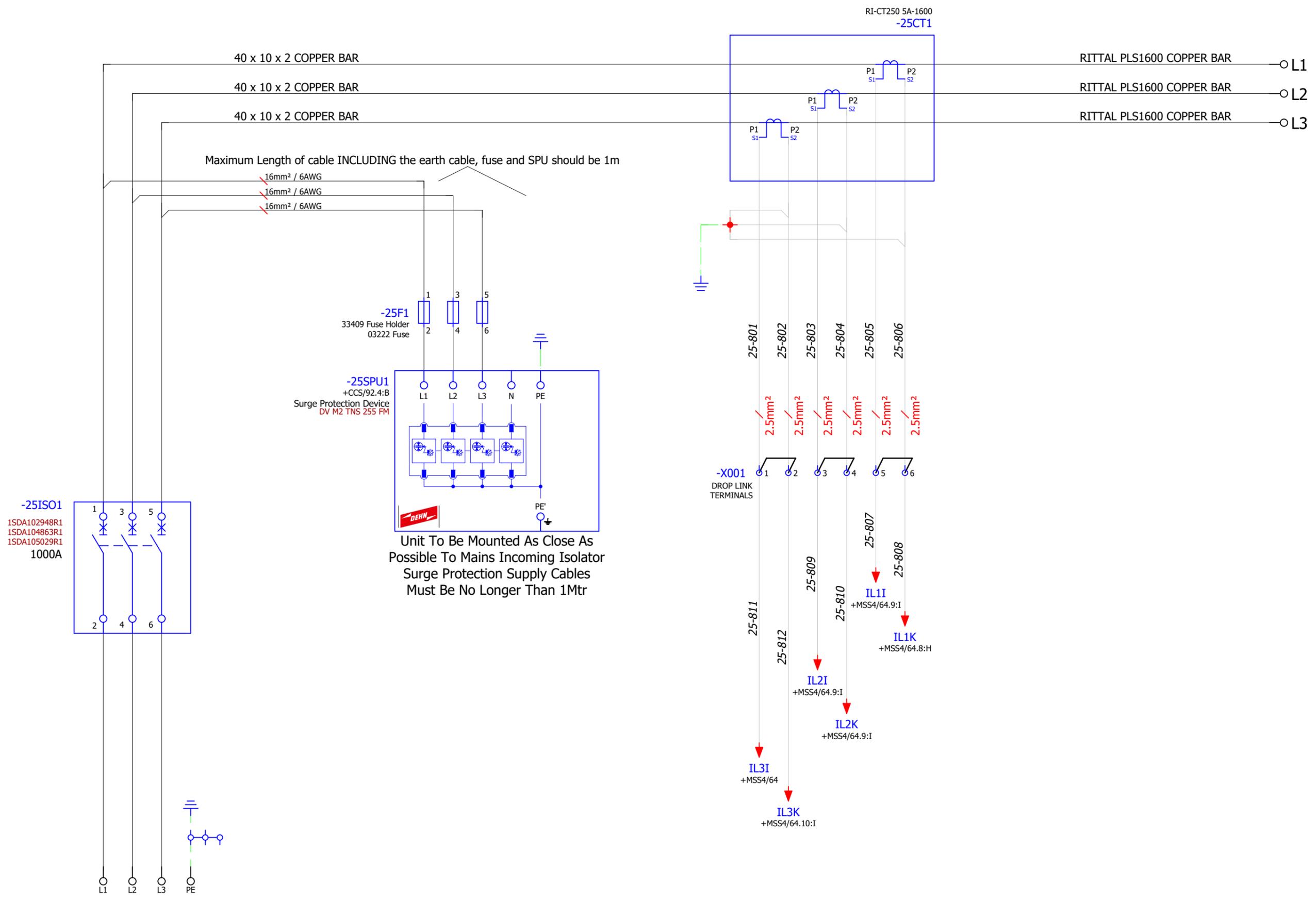
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0	24.07.2025	BT	As Designed	JQ	30.07.2025	3	09.09.2025	BT	As Per Comments					Silica Services = +	
1	30.07.2025	BT	For Customer Review			4	03.09.2025	BT	As Manufactured					Drawing Description : Blank Rev: 1	
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# SYMBOLS

<p><u>Magnetic Motor Circuit Breaker</u></p>  <p style="text-align: right;">DT - MPCB</p>	<p><u>Single Pole + Neutral Fuse Holder</u></p>  <p style="text-align: right;">DT - F</p>	<p><u>Fan</u></p>  <p style="text-align: right;">DT - FAN</p>	<p><u>Earth Connection</u></p> 
<p><u>Overload Relay</u></p>  <p style="text-align: right;">DT - OL</p>	<p><u>Double Pole MCB</u></p>  <p style="text-align: right;">DT - MCB</p>	<p><u>Push Button</u></p>  <p style="text-align: right;">DT - PB</p>	<p><u>Power Supply Unit</u></p>  <p style="text-align: right;">DT - PSU</p>
<p><u>Relay/Contactor Coil</u></p>  <p style="text-align: right;">DT - KM</p>	<p><u>Transformer</u></p>  <p style="text-align: right;">DT - TX</p>	<p><u>Lamp</u></p>  <p style="text-align: right;">DT - H</p>	
<p><u>Timer</u></p>  <p style="text-align: right;">DT - KMT</p>	<p><u>Thermostat</u></p>  <p style="text-align: right;">DT - TS</p>	<p><u>Relay Contact</u></p>  <p style="text-align: right;">DT - K, KDC</p>	
<p><u>Three Pole MCB</u></p>  <p style="text-align: right;">DT - MCB</p>	<p><u>Terminal</u></p>  <p style="text-align: right;">DT - X</p>	<p><u>Fuse Terminal</u></p>  <p style="text-align: right;">DT - X,F</p>	

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Maximum Length of cable INCLUDING the earth cable, fuse and SPU should be 1m

Unit To Be Mounted As Close As Possible To Mains Incoming Isolator  
Surge Protection Supply Cables Must Be No Longer Than 1Mtr

480V MAINS SUPPLY

\*\*\*WARNING\*\*\*

THIS CABLE WILL BE LIVE WHEN PANEL ISOLATOR IS SWITCHED OFF

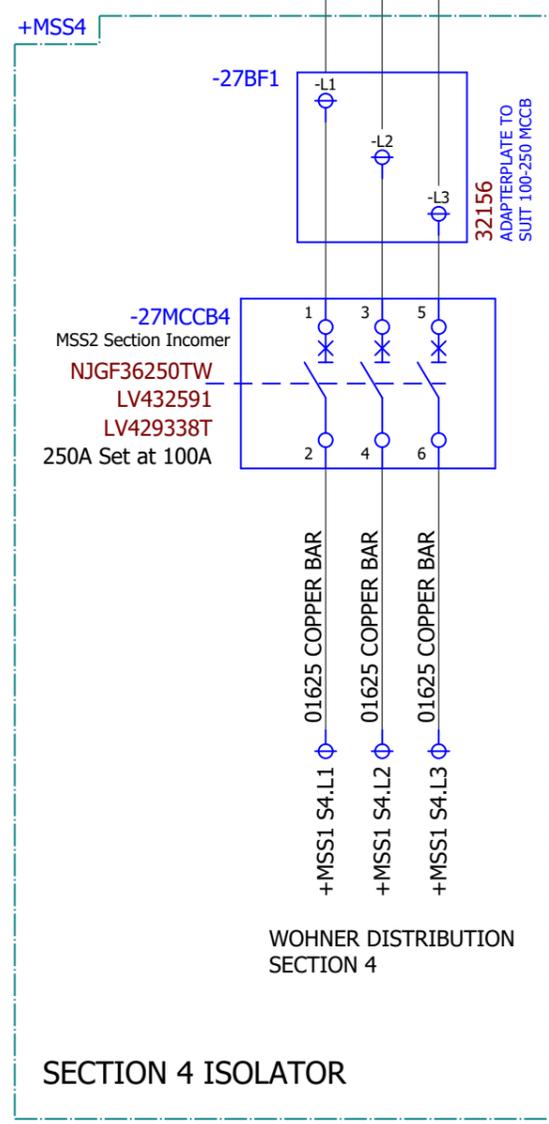
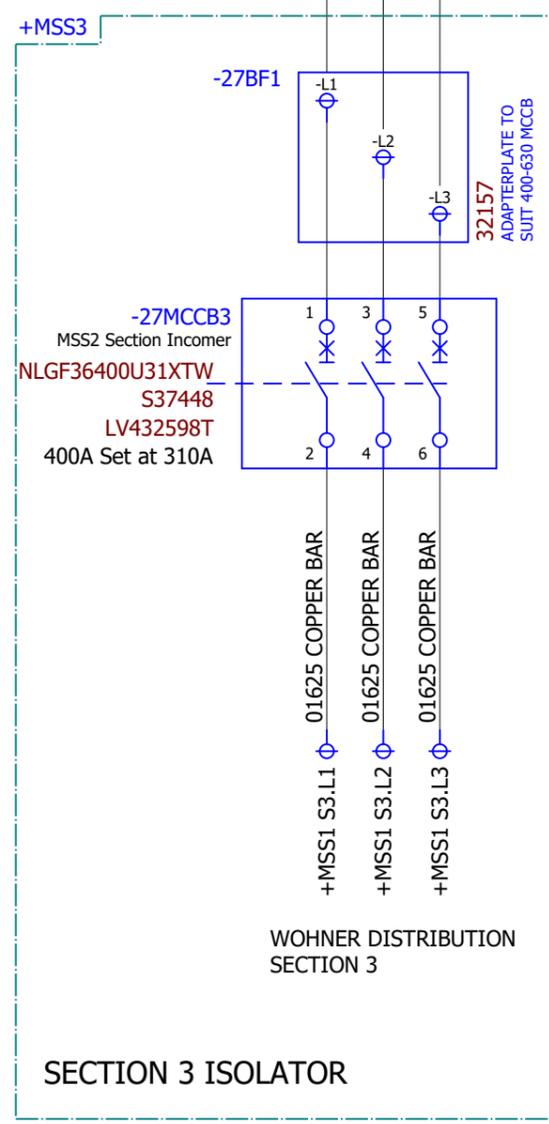
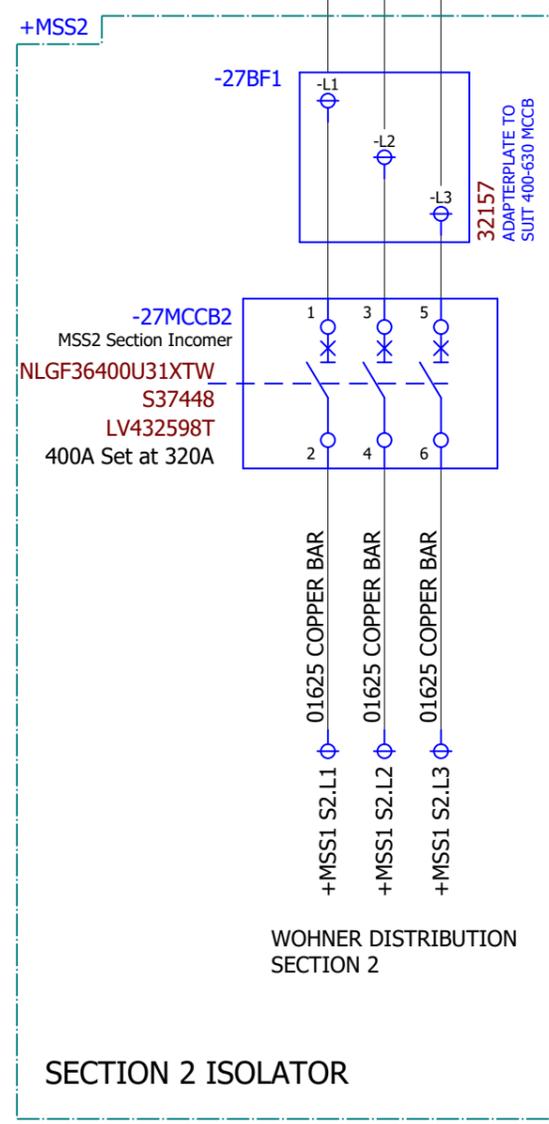
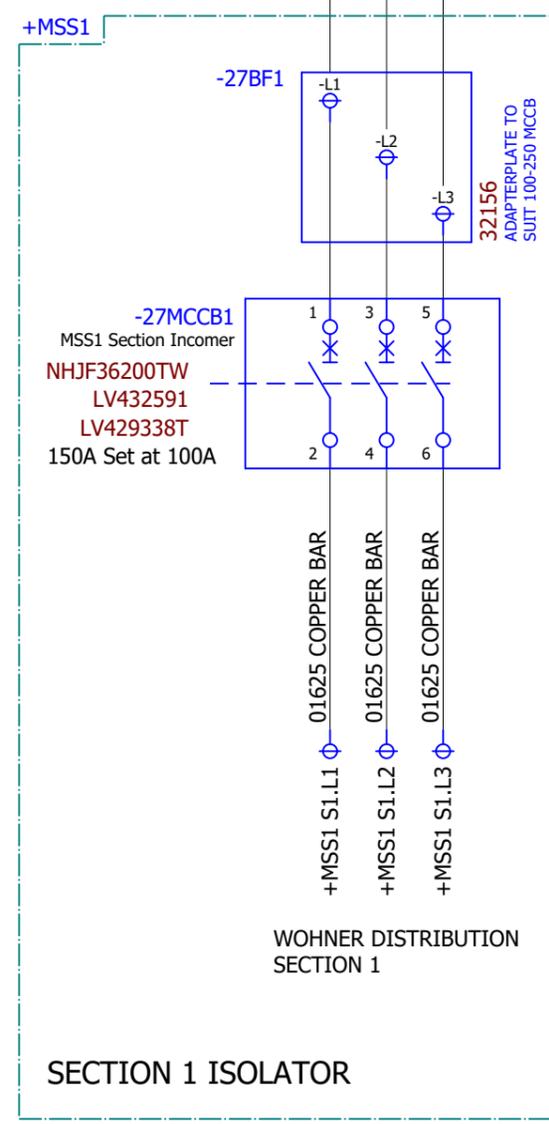
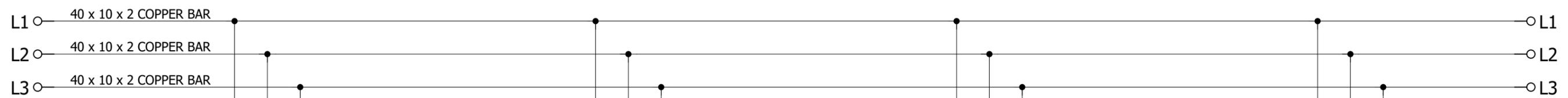
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	Drawing Description : Mains Isolator Incoming	Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581

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	Project Description : Silica Services		= MCH + MIS
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	Panel Serial No. : IP195	Drawing No. : 0525-21581	Page 26 Of 158

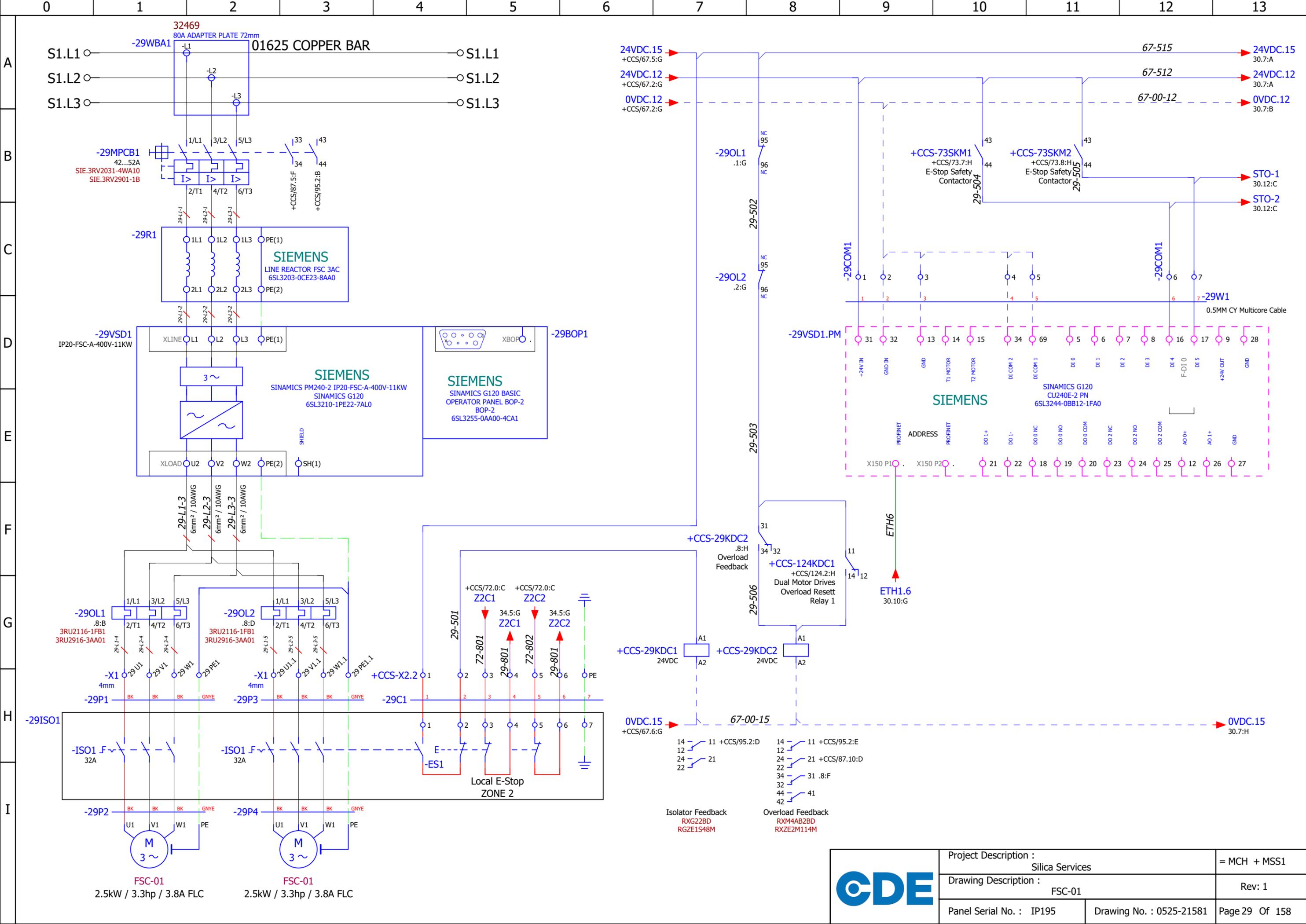
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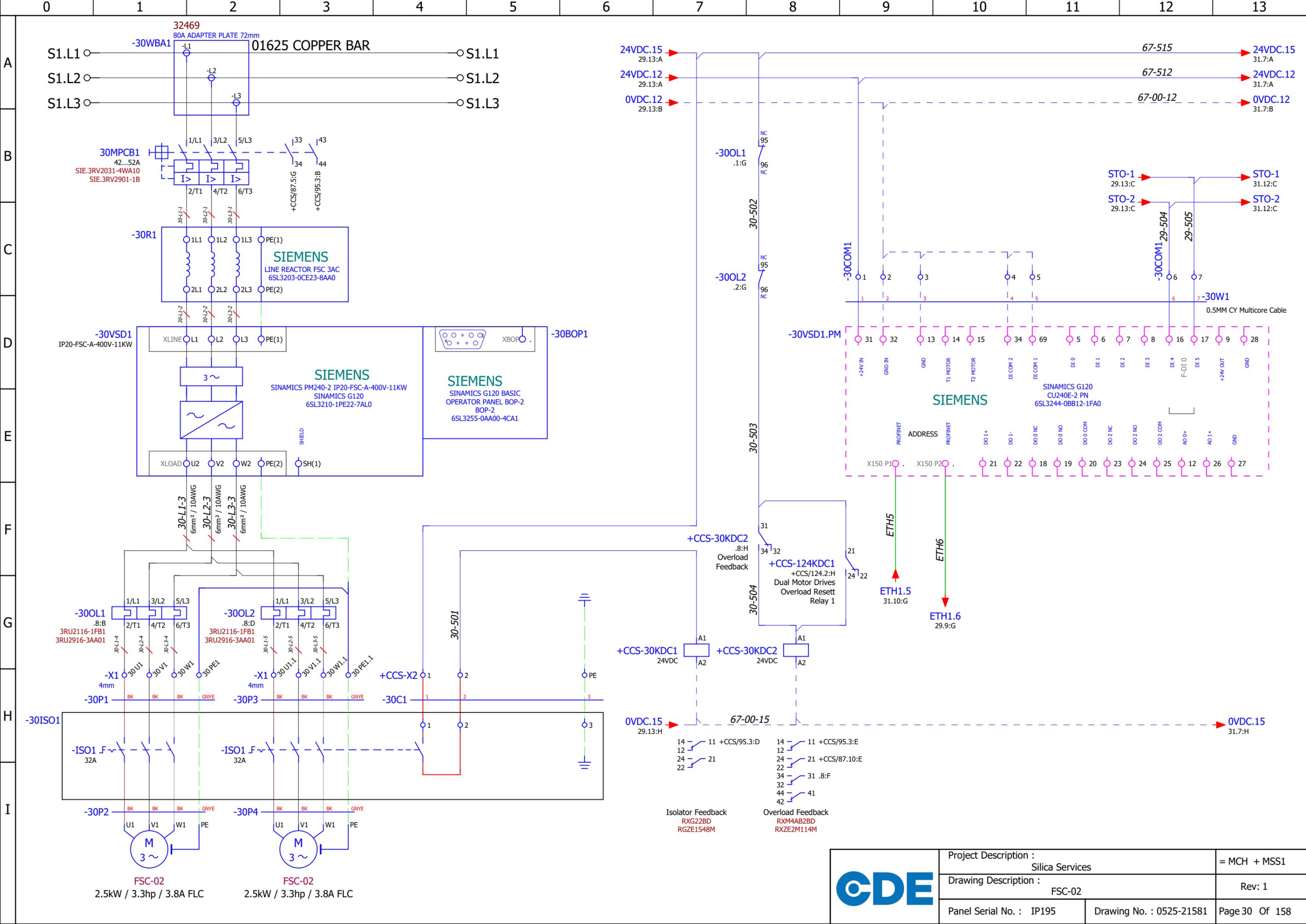
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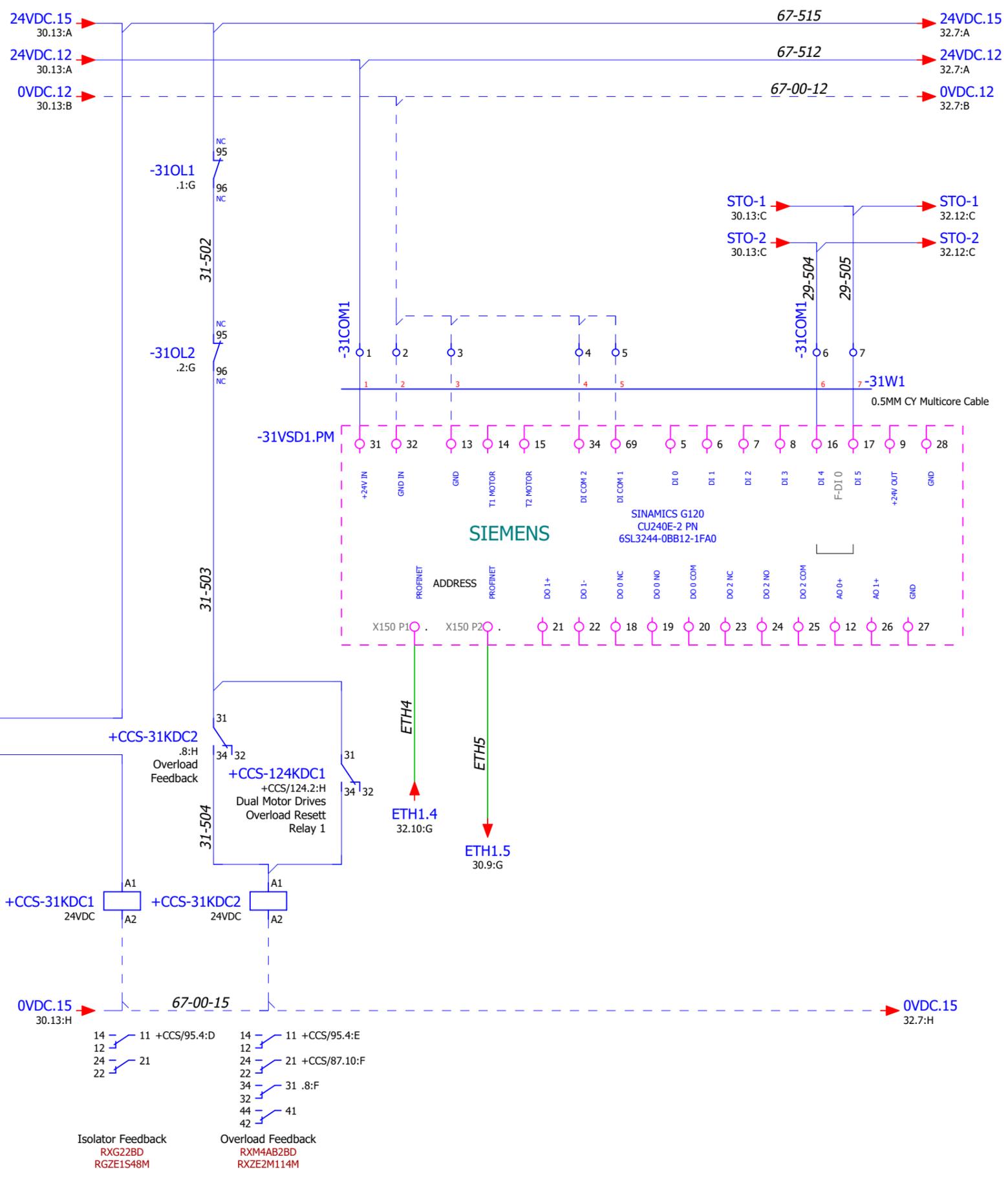
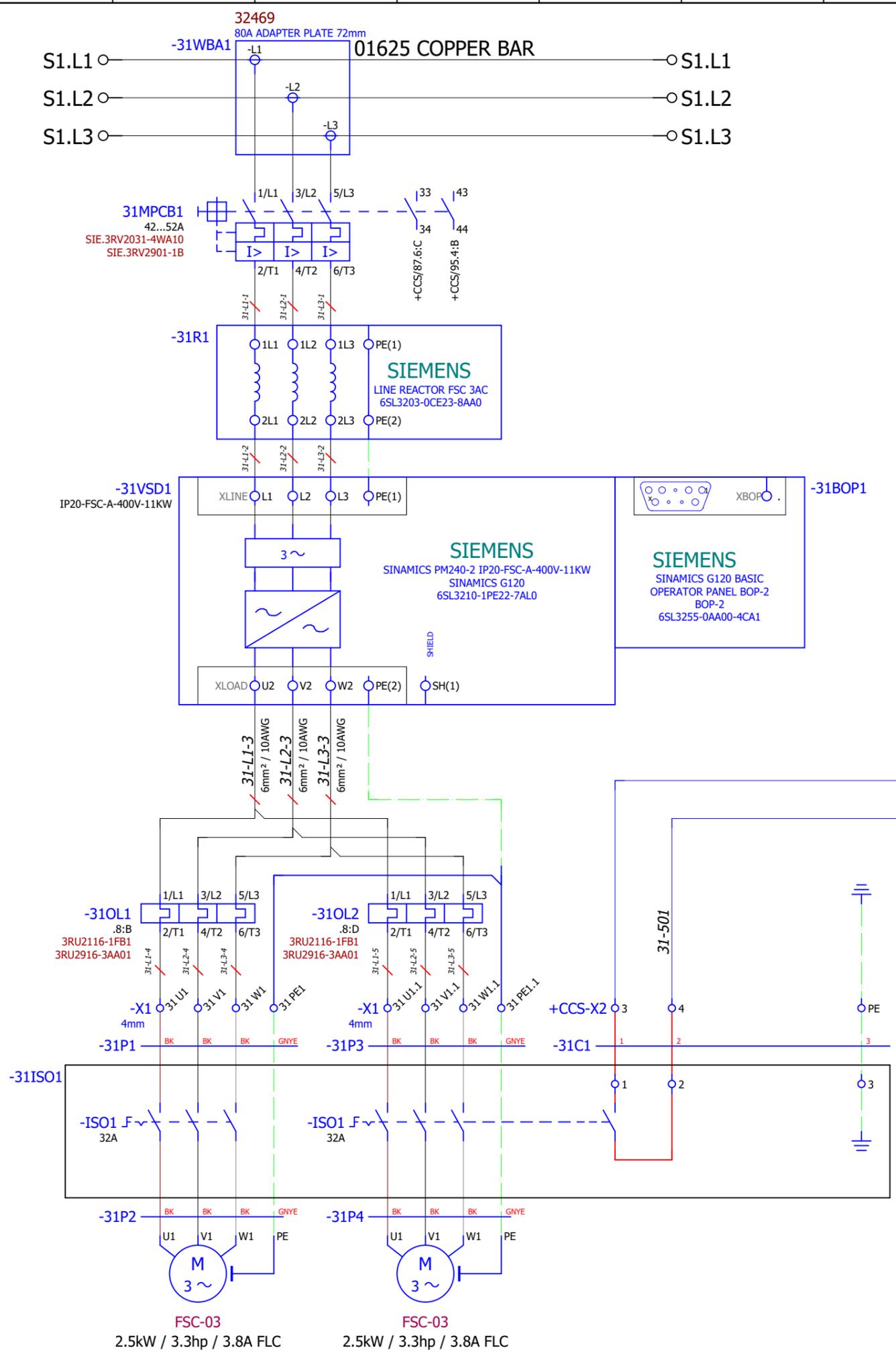


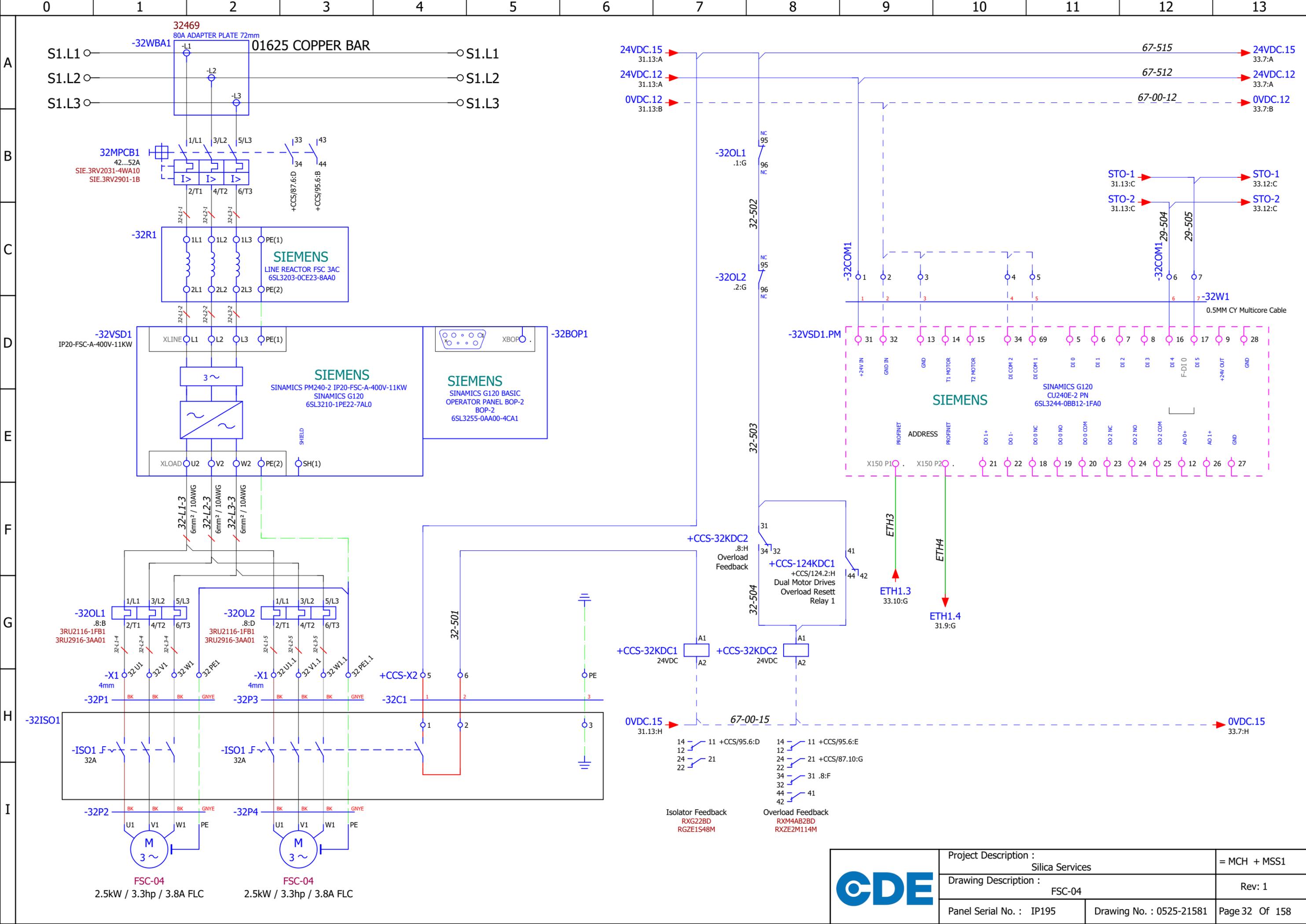
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Drawing Description : FSC-01		Rev: 1
Panel Serial No. : IP195	Drawing No. : 0525-21581	Page 29 Of 158



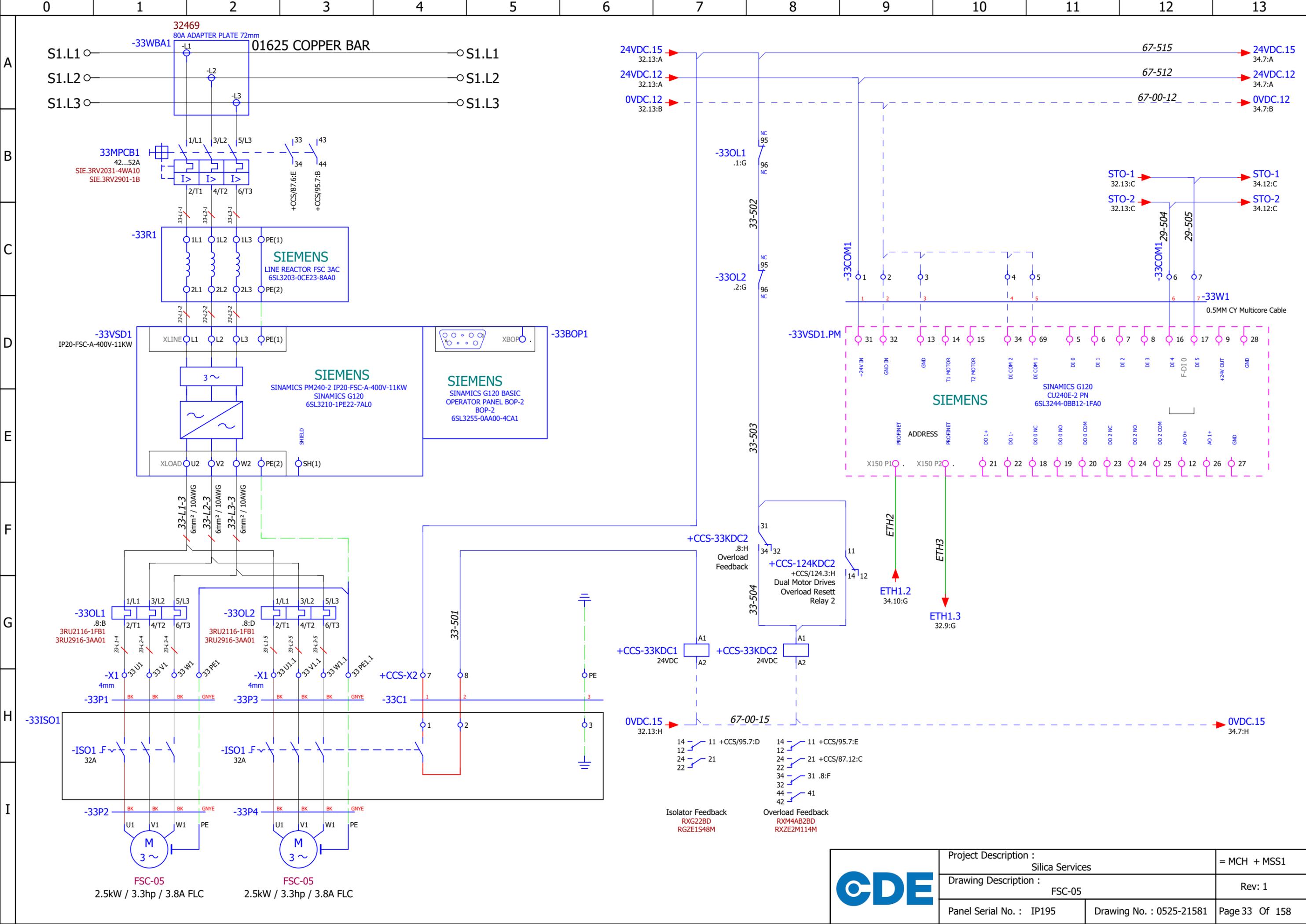
Project Description : Silica Services		= MCH + MSS1
Drawing Description : FSC-02		Rev: 1
Panel Serial No. : IP195	Drawing No. : 0525-21581	Page 30 Of 158

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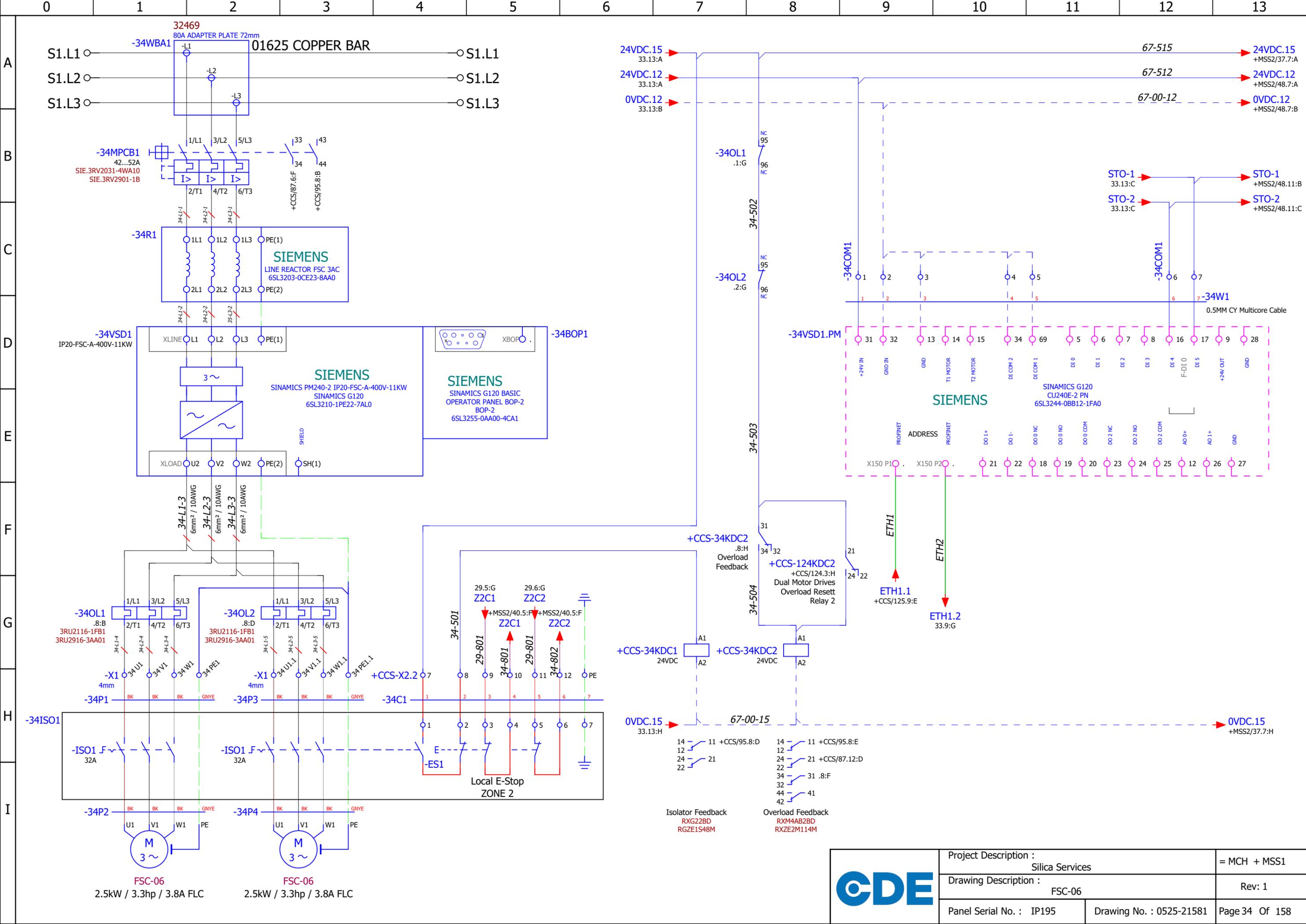




Project Description : Silica Services		= MCH + MSS1
Drawing Description : FSC-04		Rev: 1
Panel Serial No. : IP195	Drawing No. : 0525-21581	Page 32 Of 158



Project Description : Silica Services		= MCH + MSS1
Drawing Description : FSC-05		Rev: 1
Panel Serial No. : IP195	Drawing No. : 0525-21581	Page 33 Of 158



Project Description : Silica Services		= MCH + MSS1
Drawing Description : FSC-06		Rev: 1
Panel Serial No. : IP195	Drawing No. : 0525-21581	Page 34 Of 158

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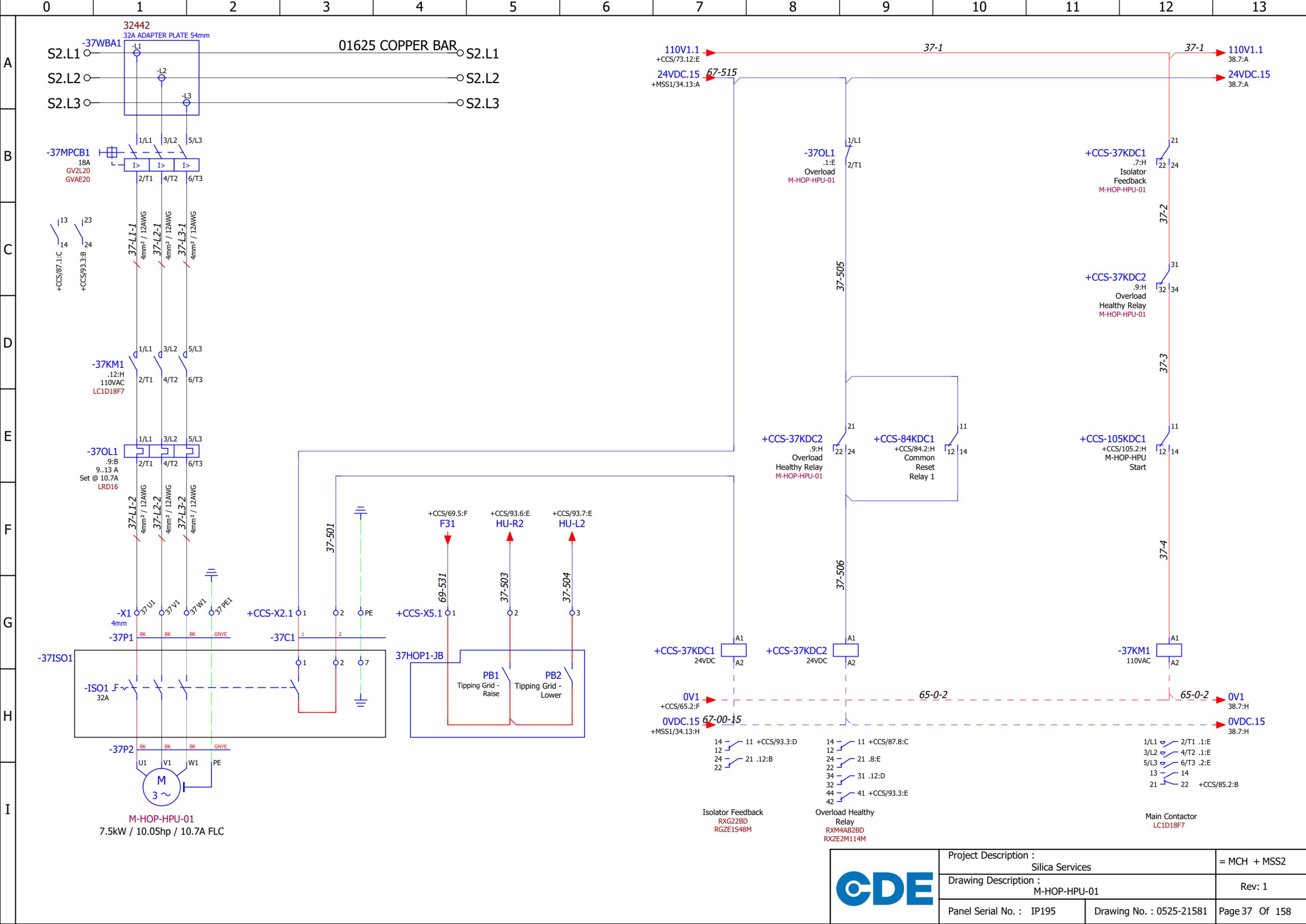
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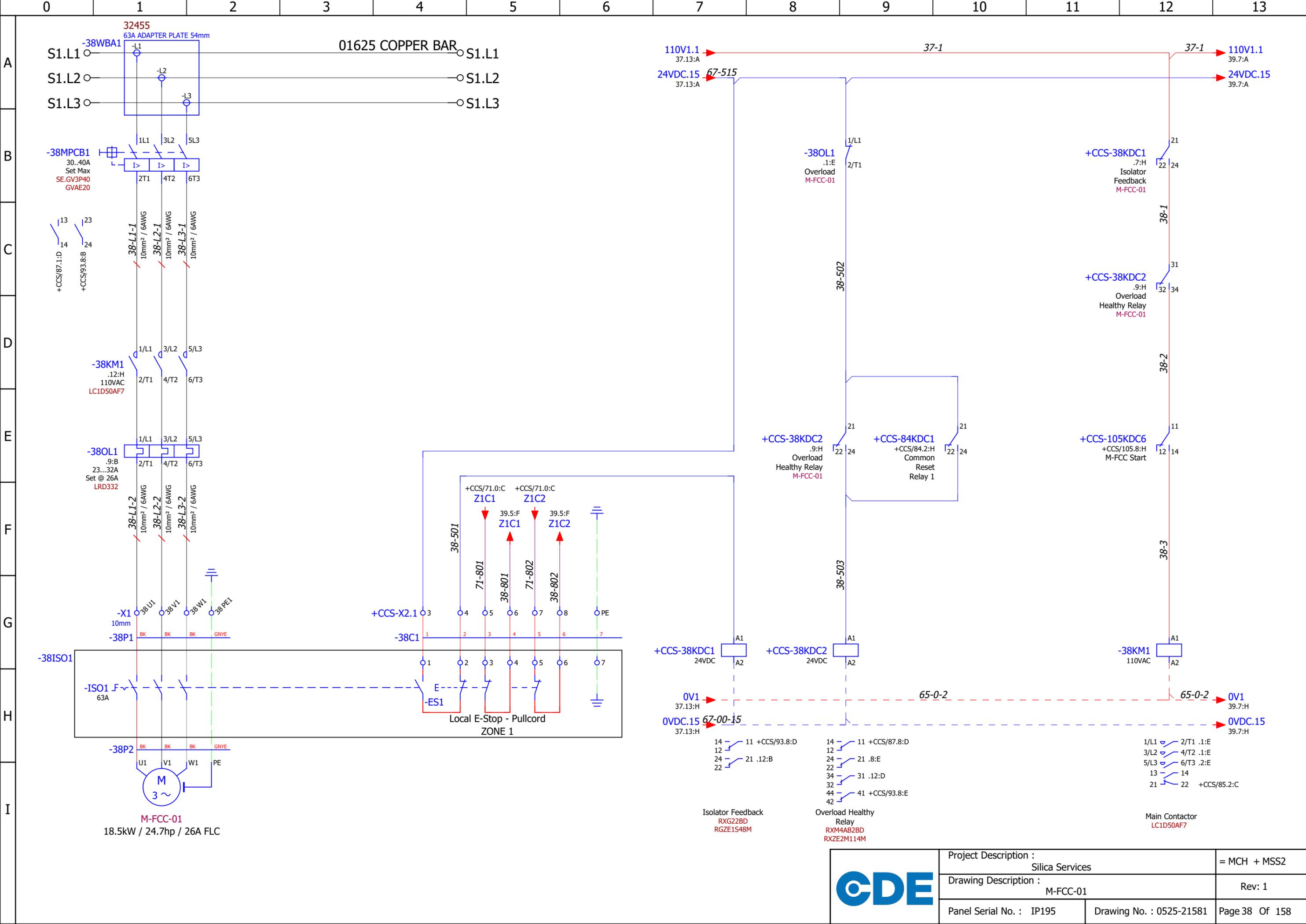
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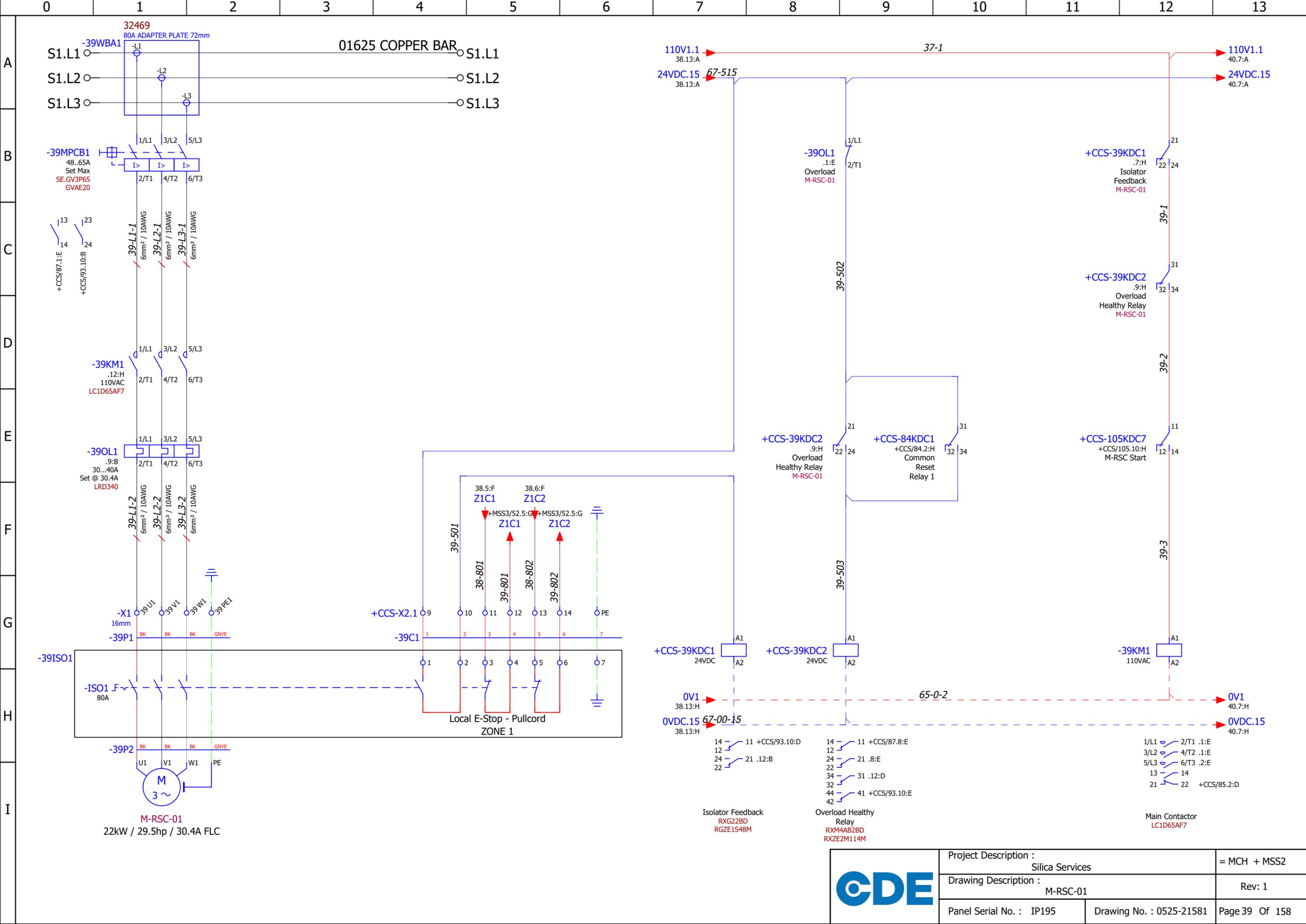
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Drawing Description : M-HOP-HPU-01		Rev: 1
Panel Serial No. : IP195	Drawing No. : 0525-21581	Page 37 Of 158



Project Description : Silica Services = MCH + MSS2

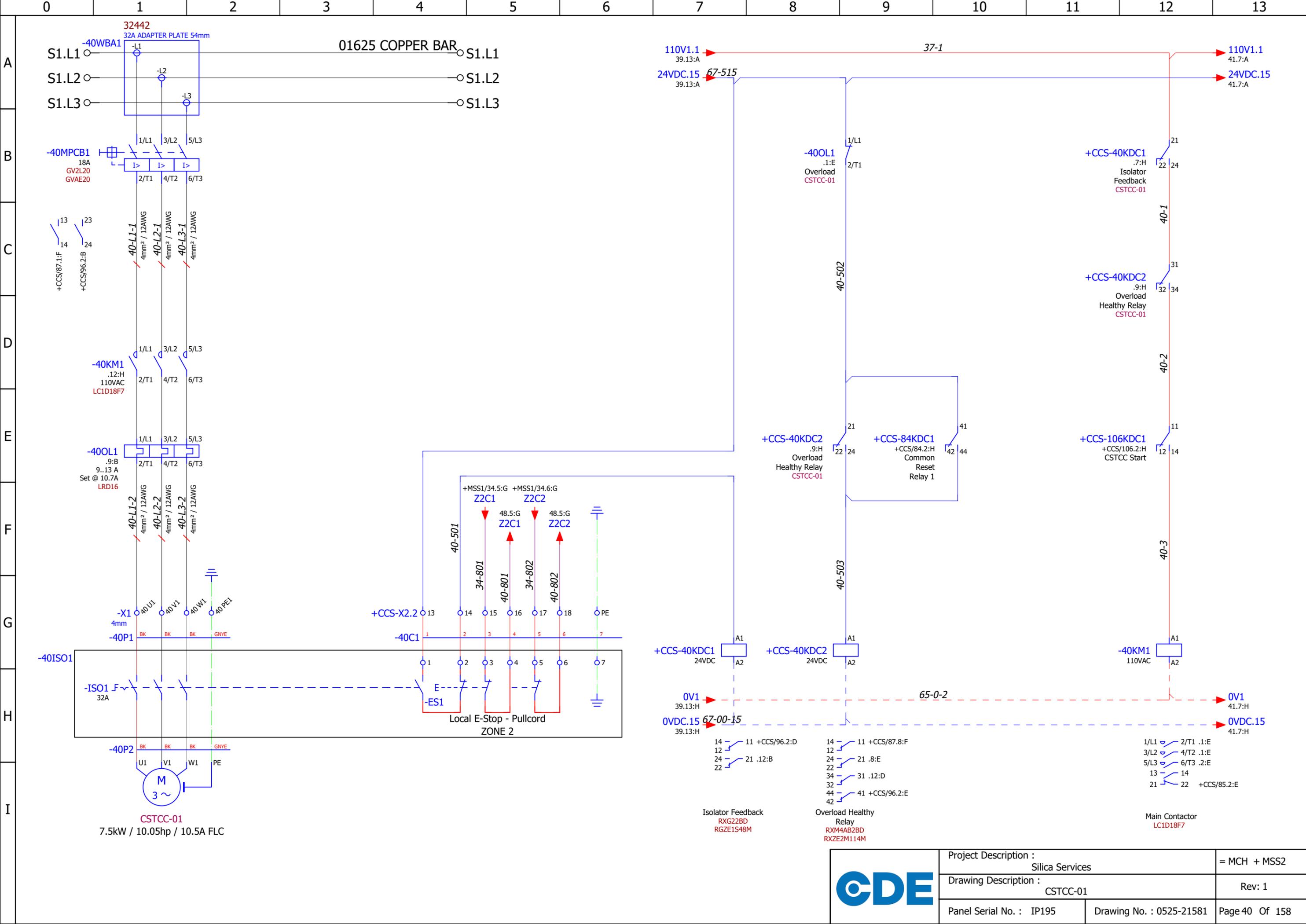
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Panel Serial No. : IP195 Drawing No. : 0525-21581 Page 38 Of 158



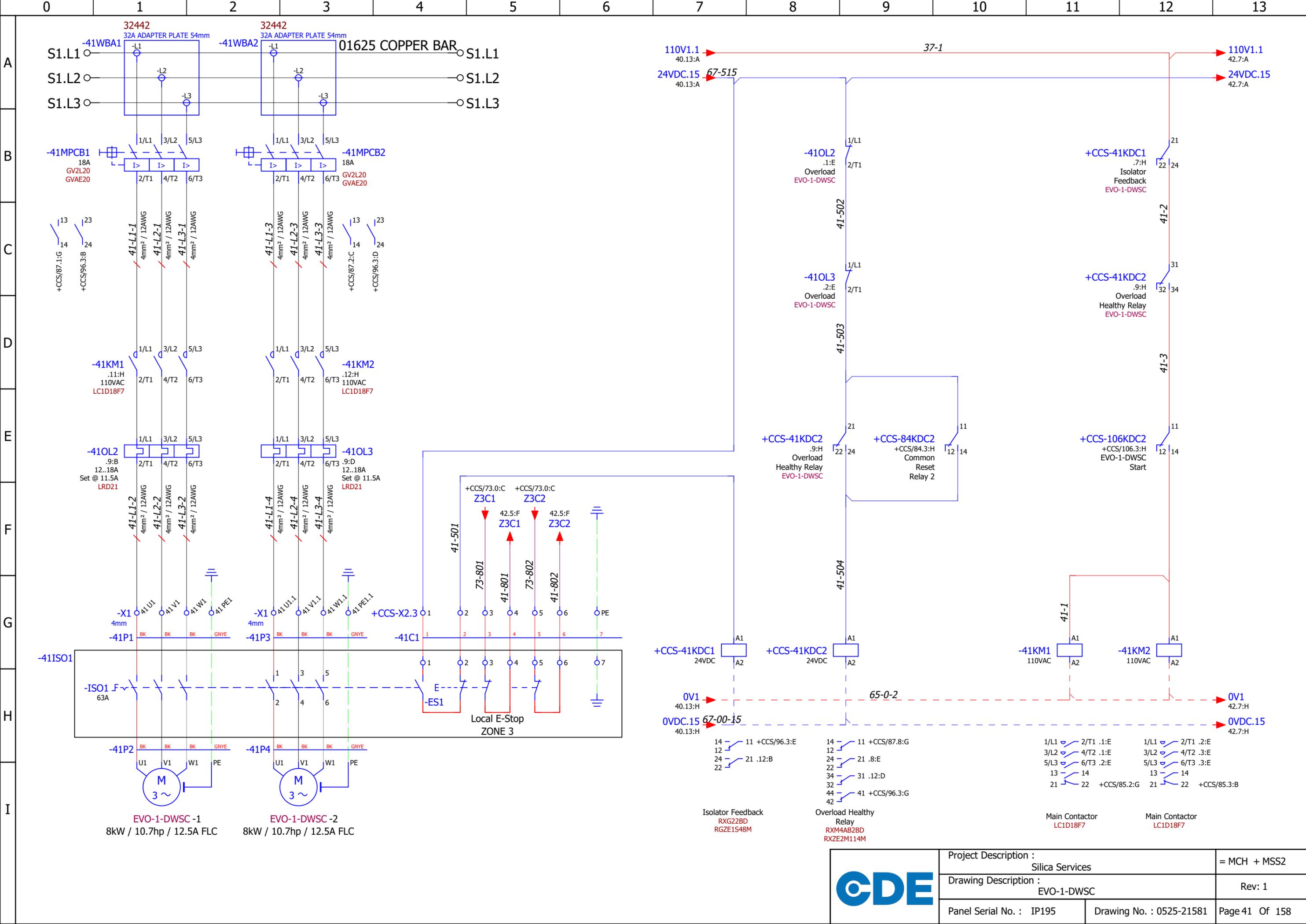
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Drawing Description : M-RSC-01		Rev: 1
Panel Serial No. : IP195	Drawing No. : 0525-21581	Page 39 Of 158



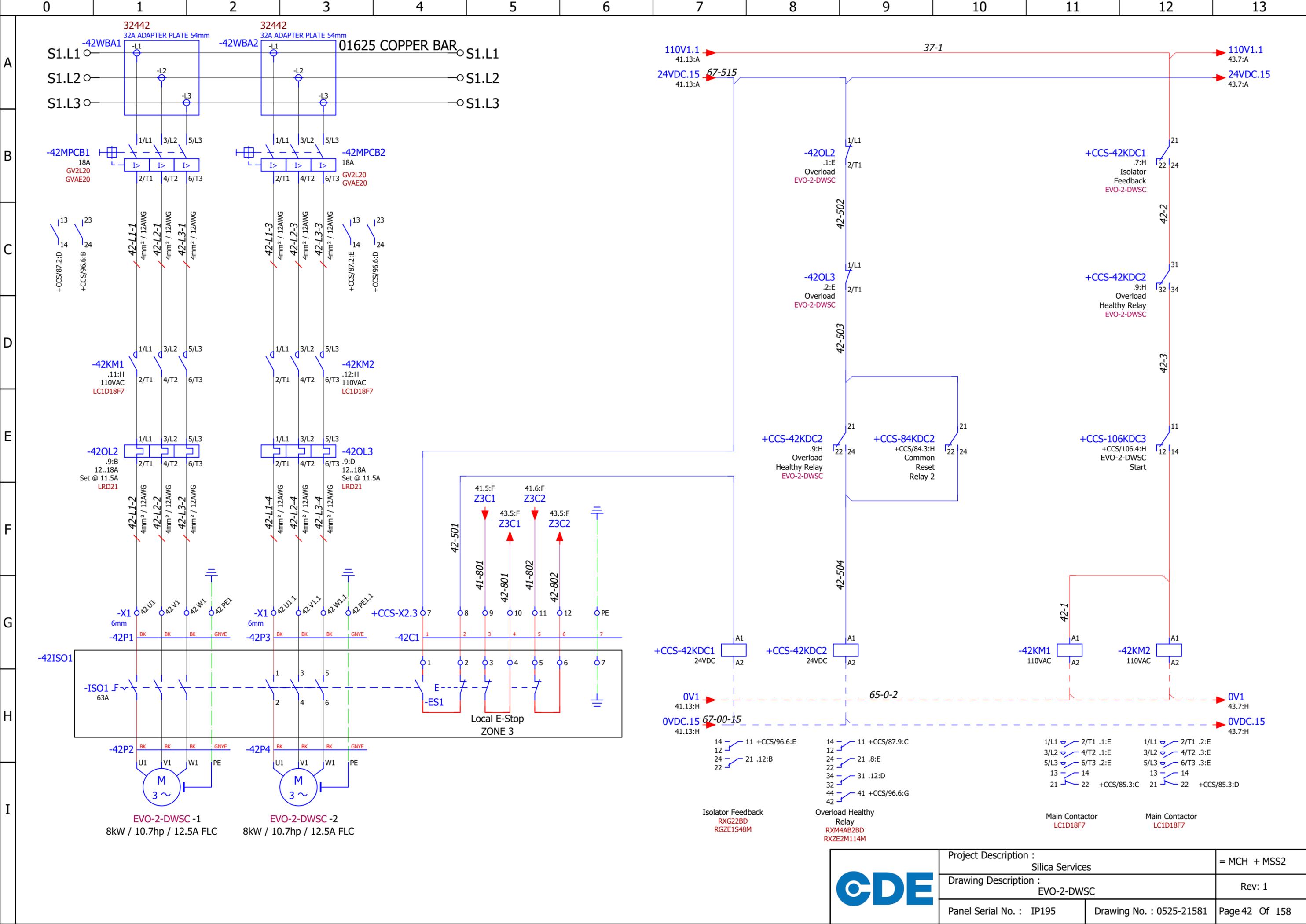


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Drawing Description : CSTCC-01		Rev: 1
Panel Serial No. : IP195	Drawing No. : 0525-21581	Page 40 Of 158



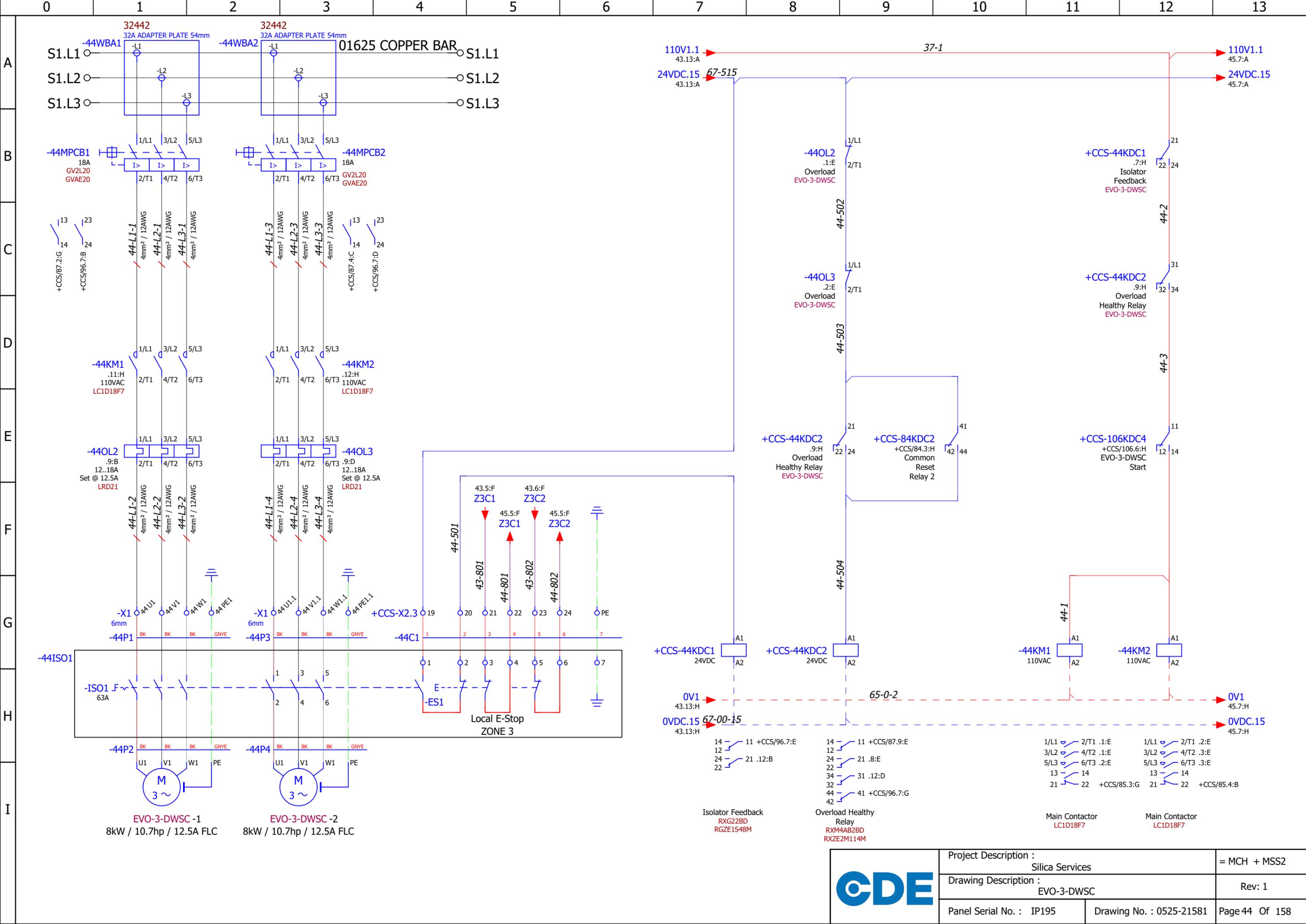


Project Description : Silica Services		= MCH + MSS2
Drawing Description : EVO-1-DWSC		Rev: 1
Panel Serial No. : IP195	Drawing No. : 0525-21581	Page 41 Of 158



Project Description : Silica Services		= MCH + MSS2
Drawing Description : EVO-2-DWSC		Rev: 1
Panel Serial No. : IP195	Drawing No. : 0525-21581	Page 42 Of 158





Project Description : Silica Services		= MCH + MSS2
Drawing Description : EVO-3-DWSC		Rev: 1
Panel Serial No. : IP195	Drawing No. : 0525-21581	Page 44 Of 158



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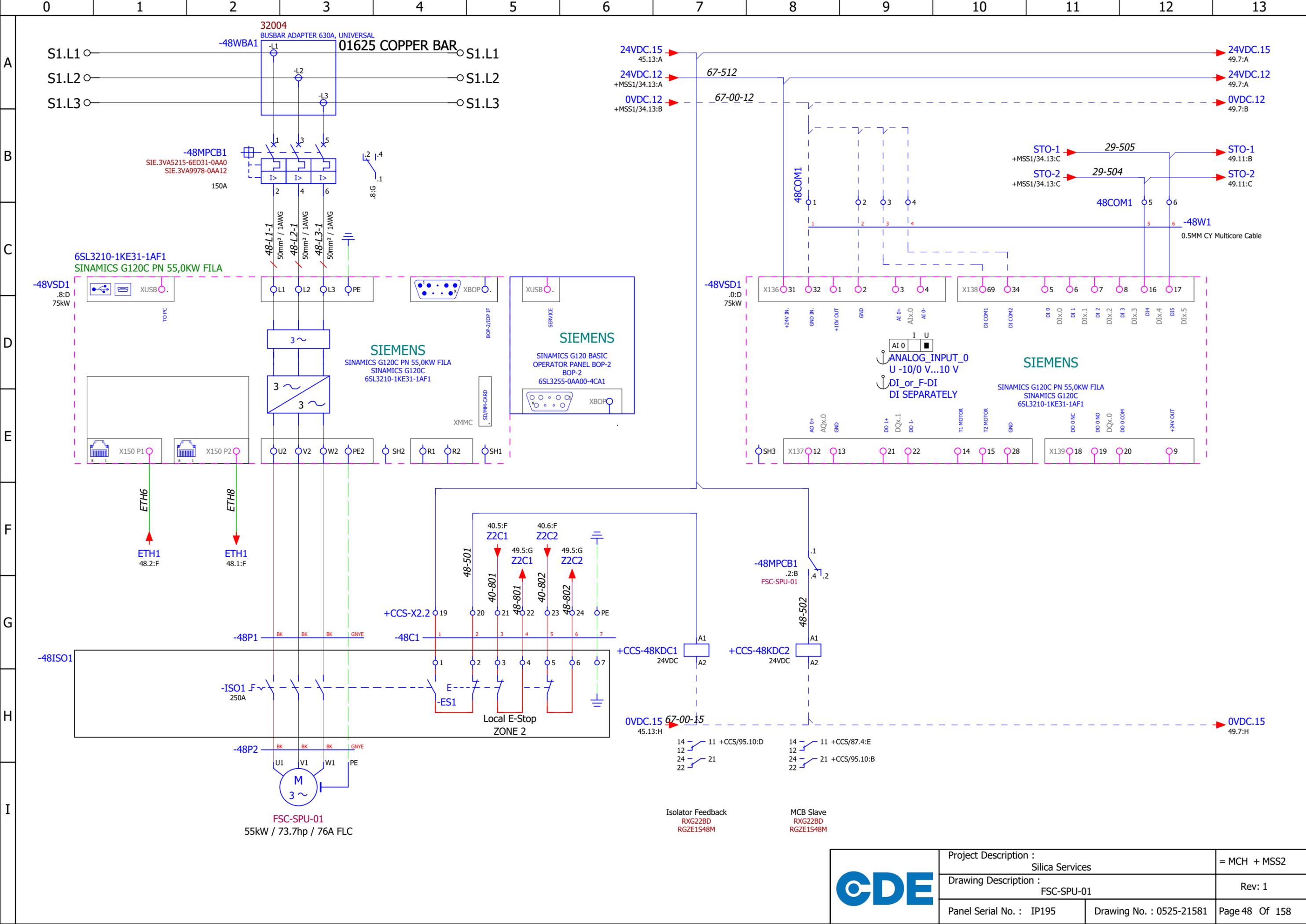
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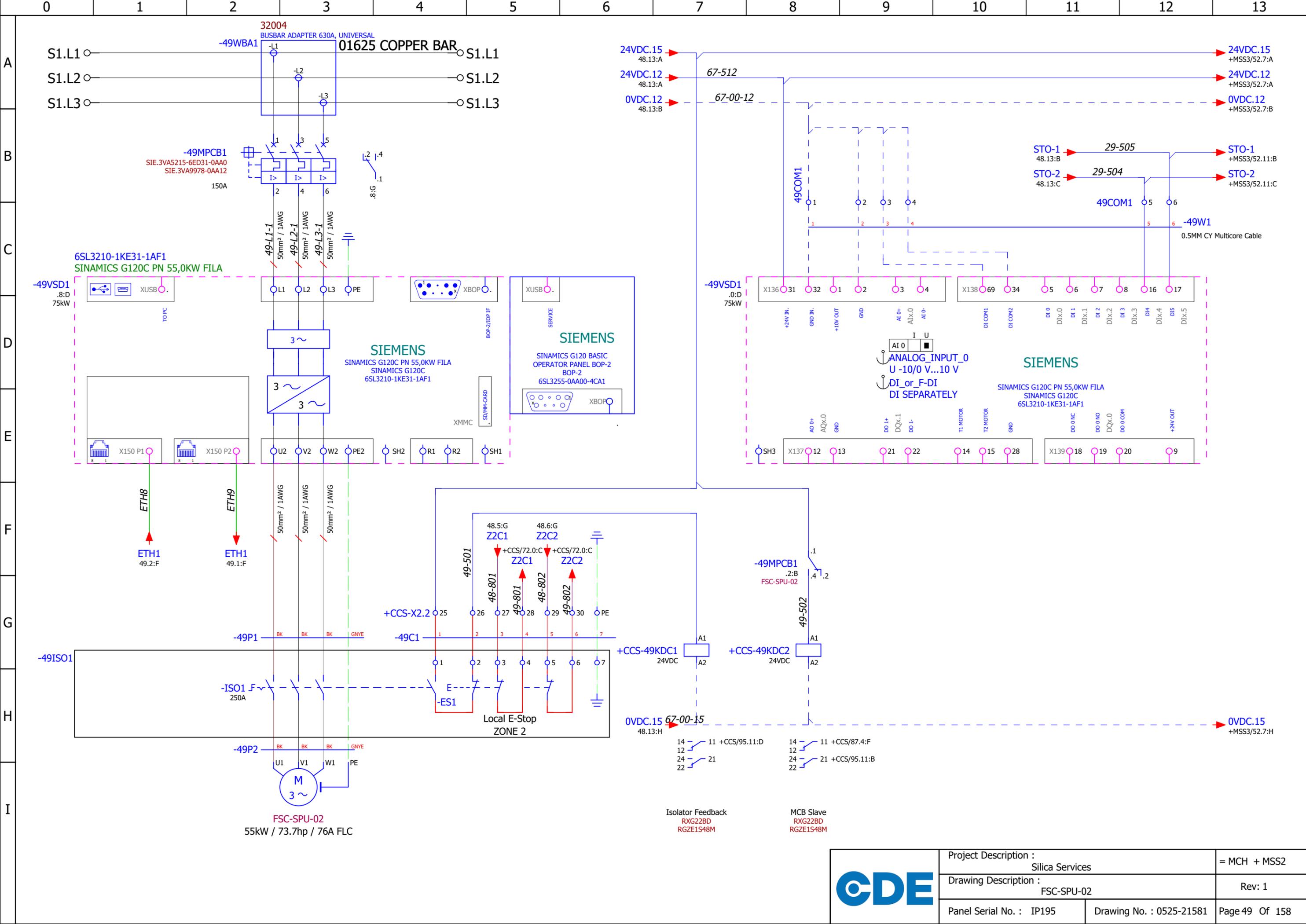
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	Panel Serial No. : IP195	Drawing No. : 0525-21581	Page 47 Of 158



Project Description : Silica Services		= MCH + MSS2
Drawing Description : FSC-SPU-01		Rev: 1
Panel Serial No. : IP195	Drawing No. : 0525-21581	Page 48 Of 158



Project Description : Silica Services		= MCH + MSS2
Drawing Description : FSC-SPU-02		Rev: 1
Panel Serial No. : IP195	Drawing No. : 0525-21581	Page 49 Of 158

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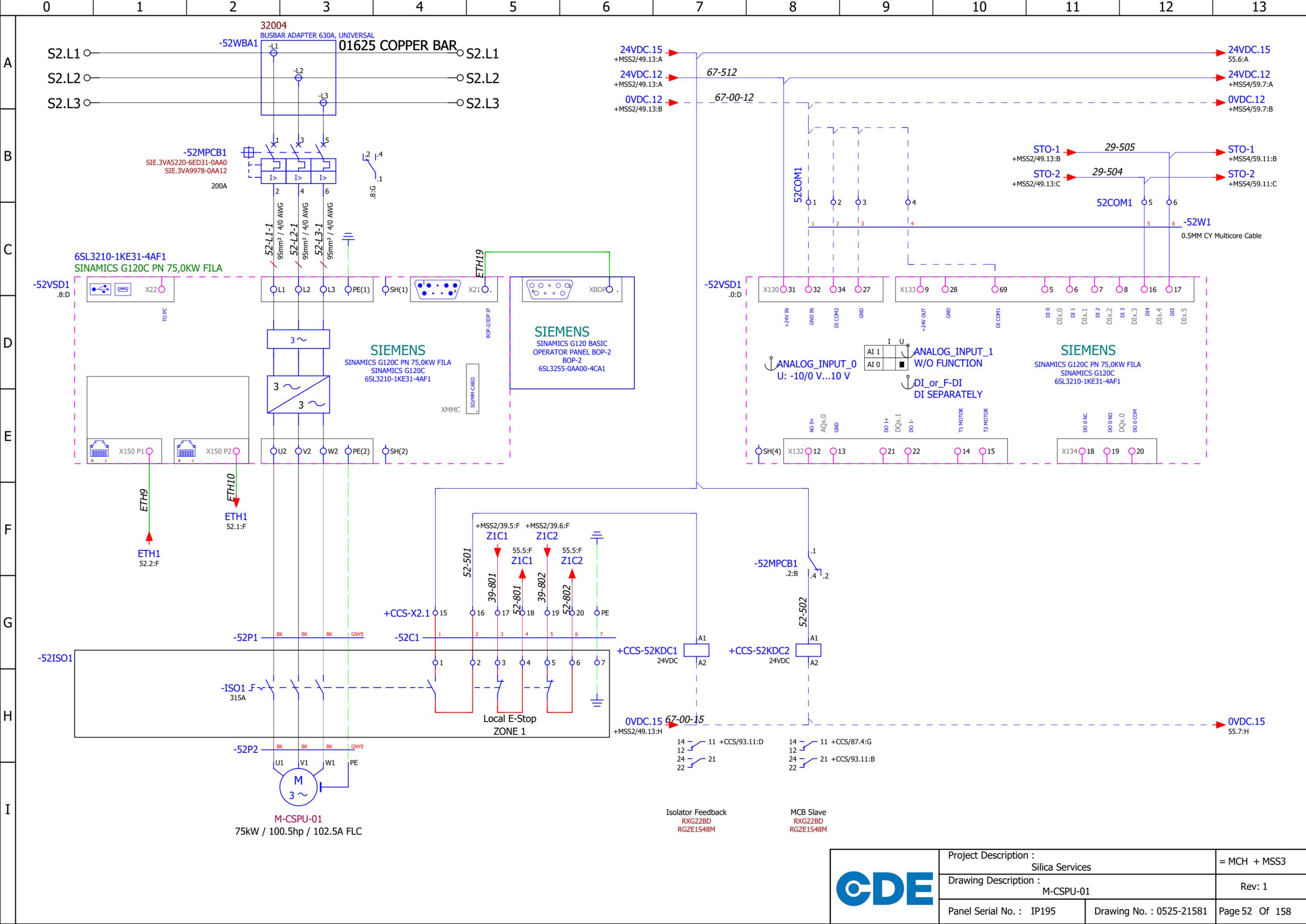
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	Drawing Description : Blank		Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581	Page 50 Of 158

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Project Description : Silica Services		= MCH + MSS3
Drawing Description : M-CSPU-01		Rev: 1
Panel Serial No. : IP195	Drawing No. : 0525-21581	Page 52 Of 158

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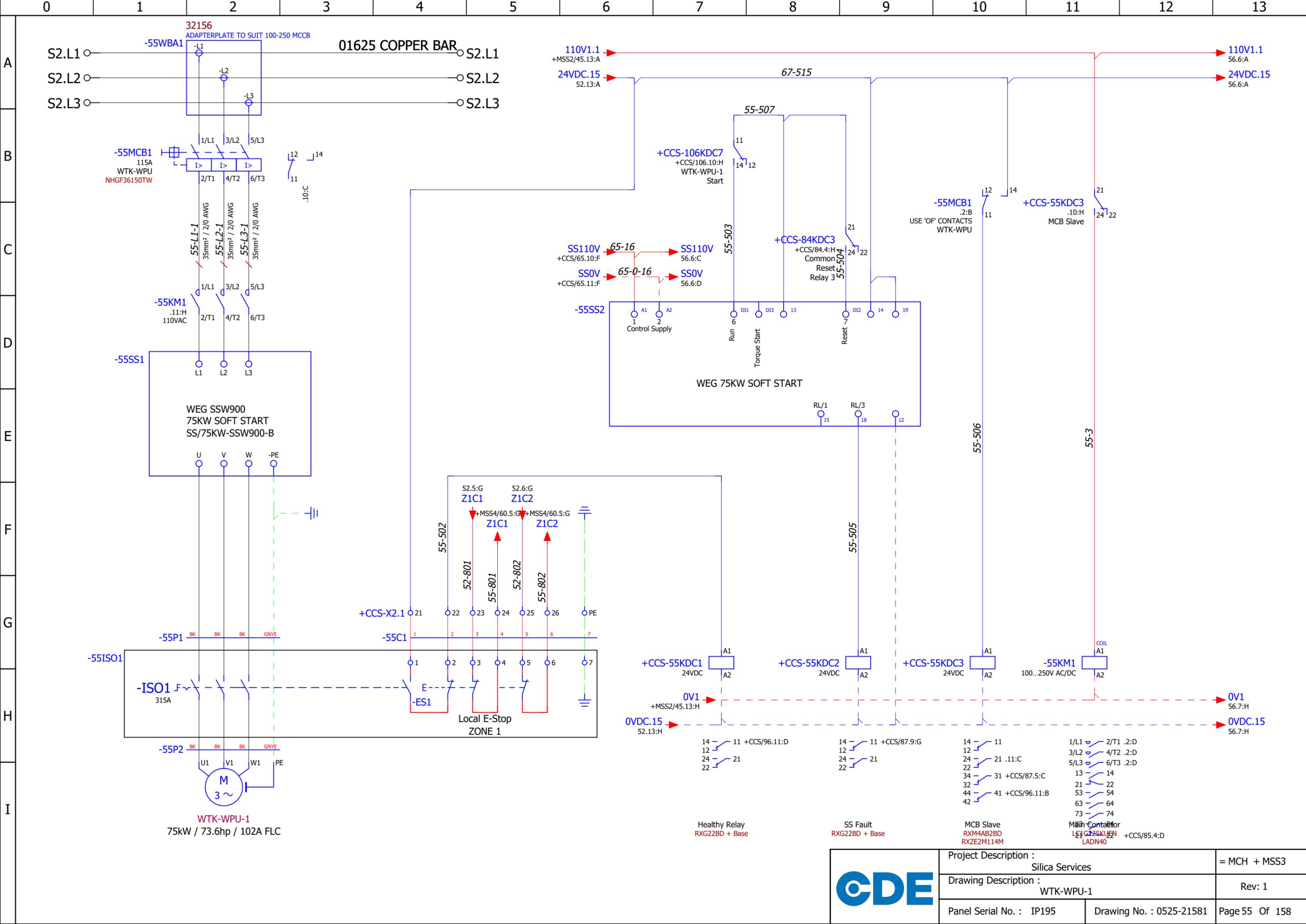
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		Page 53 Of 158

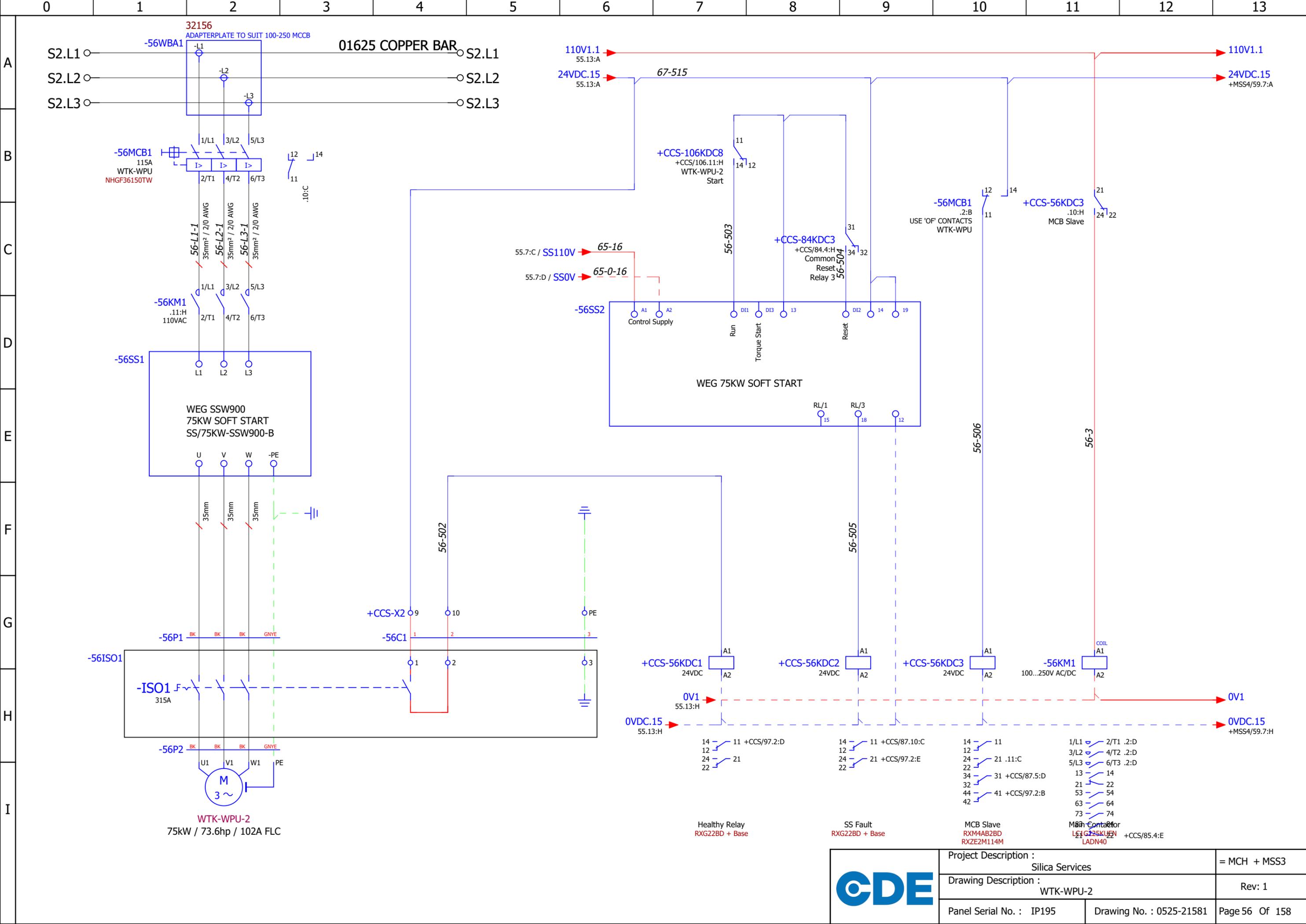
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	Panel Serial No. : IP195	Drawing No. : 0525-21581	Page 54 Of 158



Project Description : Silica Services		= MCH + MSS3
Drawing Description : WTK-WPU-1		Rev: 1
Panel Serial No. : IP195	Drawing No. : 0525-21581	Page 55 Of 158



Project Description : Silica Services		= MCH + MSS3
Drawing Description : WTK-WPU-2		Rev: 1
Panel Serial No. : IP195	Drawing No. : 0525-21581	Page 56 Of 158

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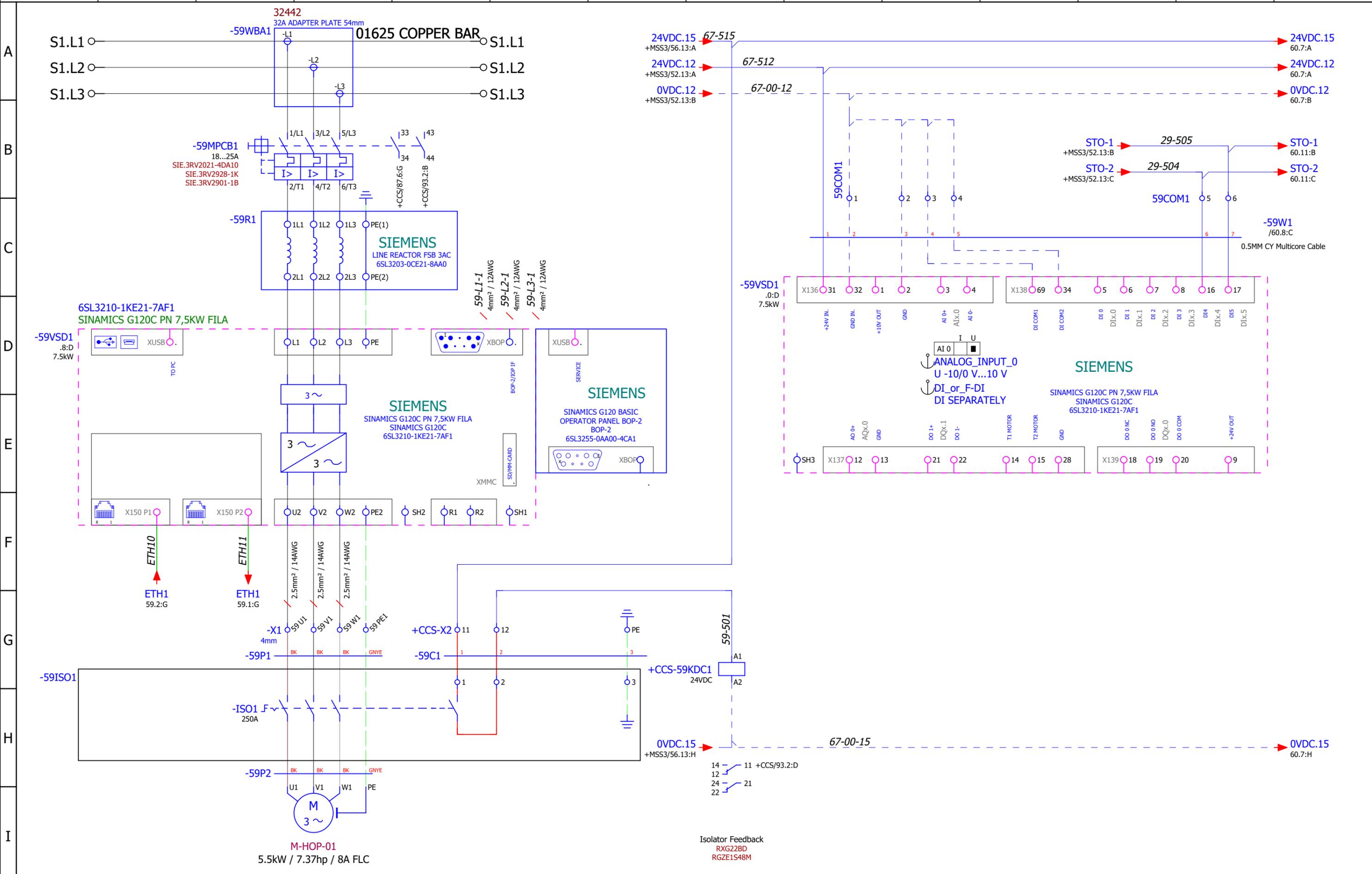
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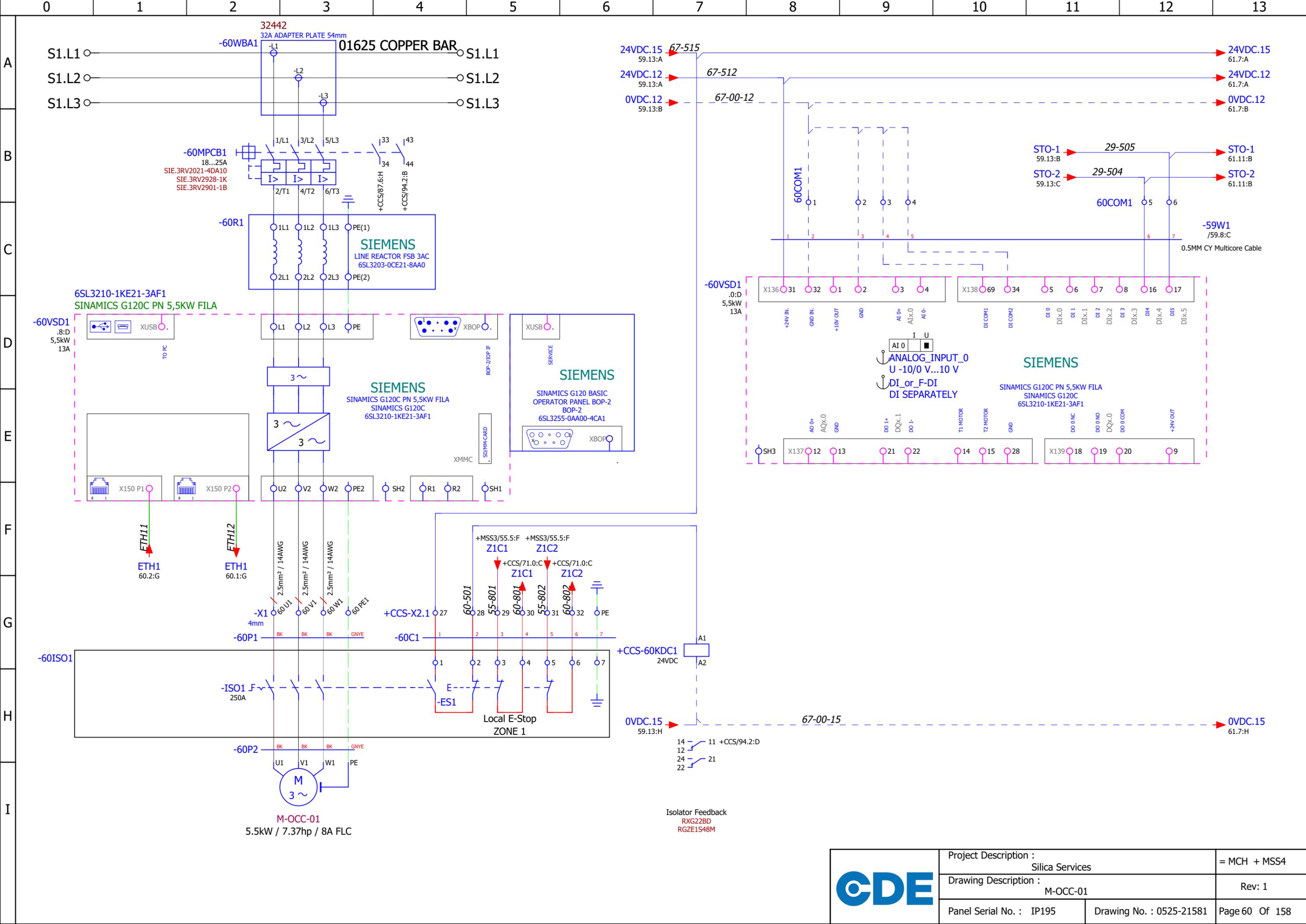
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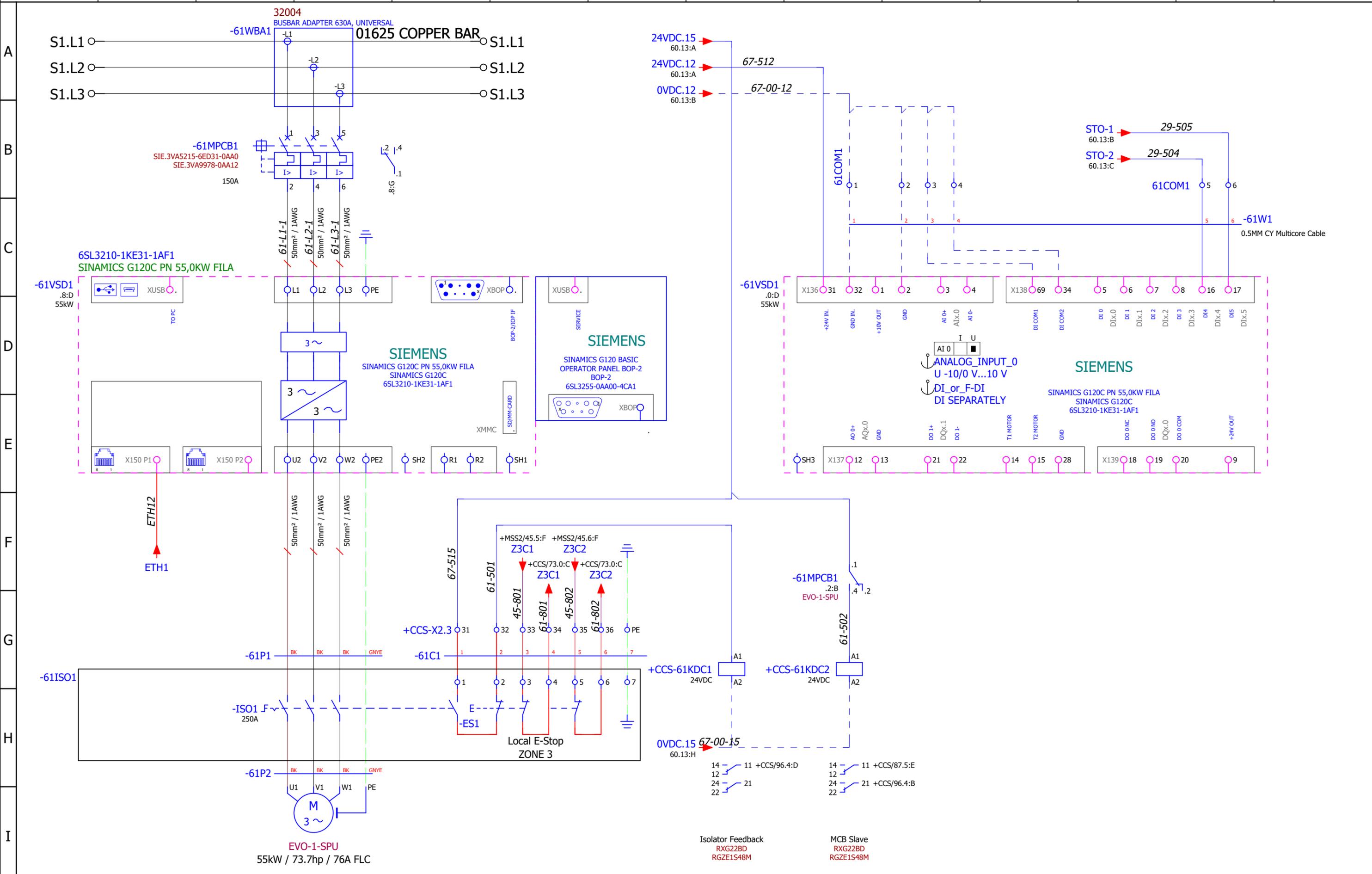
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	Drawing Description : Blank		Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581	Page 58 Of 158



Project Description : Silica Services		= MCH + MSS4
Drawing Description : M-HOP-01		Rev: 1
Panel Serial No. : IP195	Drawing No. : 0525-21581	Page 59 Of 158



Project Description : Silica Services		= MCH + MSS4
Drawing Description : M-OCC-01		Rev: 1
Panel Serial No. : IP195	Drawing No. : 0525-21581	Page 60 Of 158



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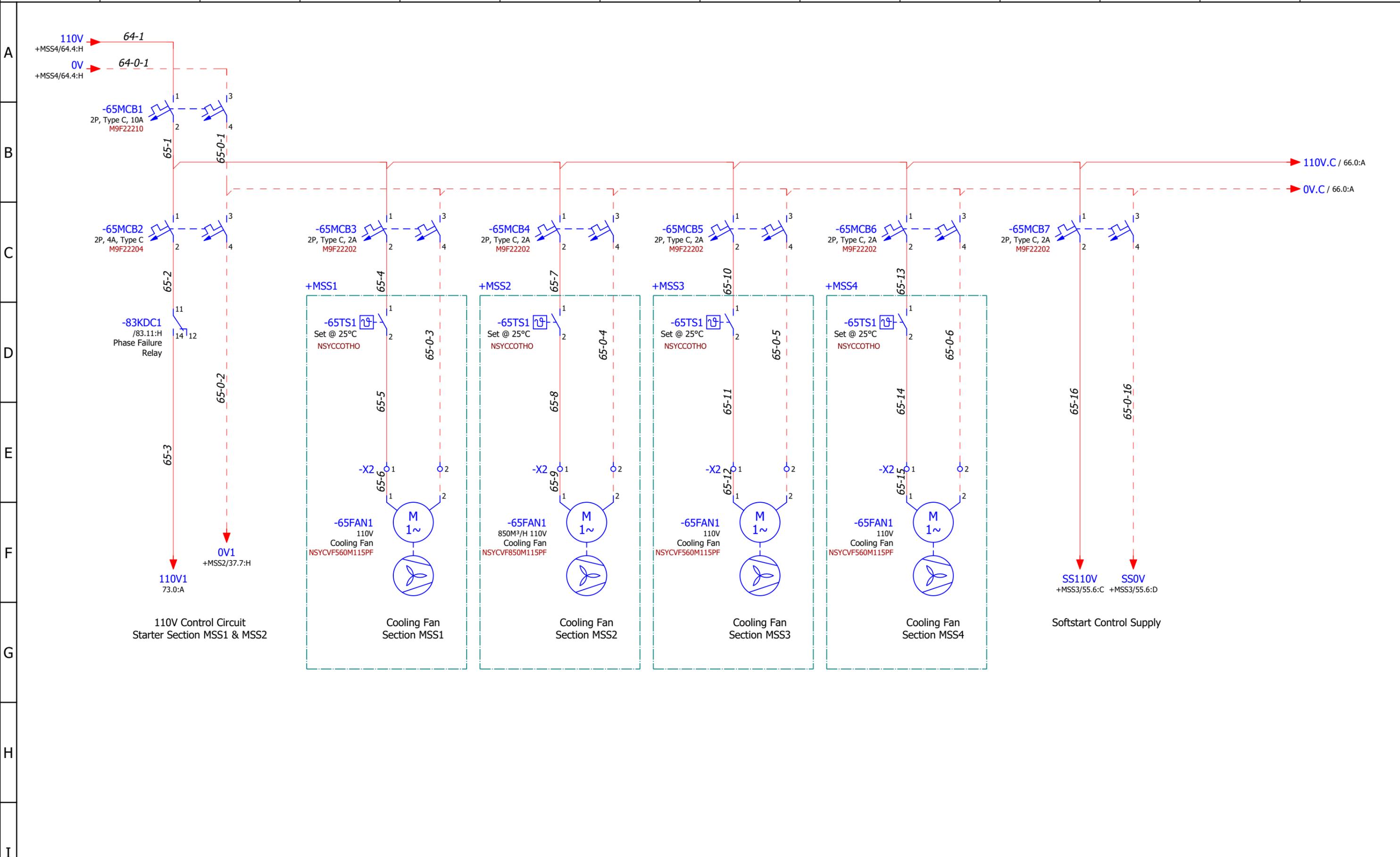
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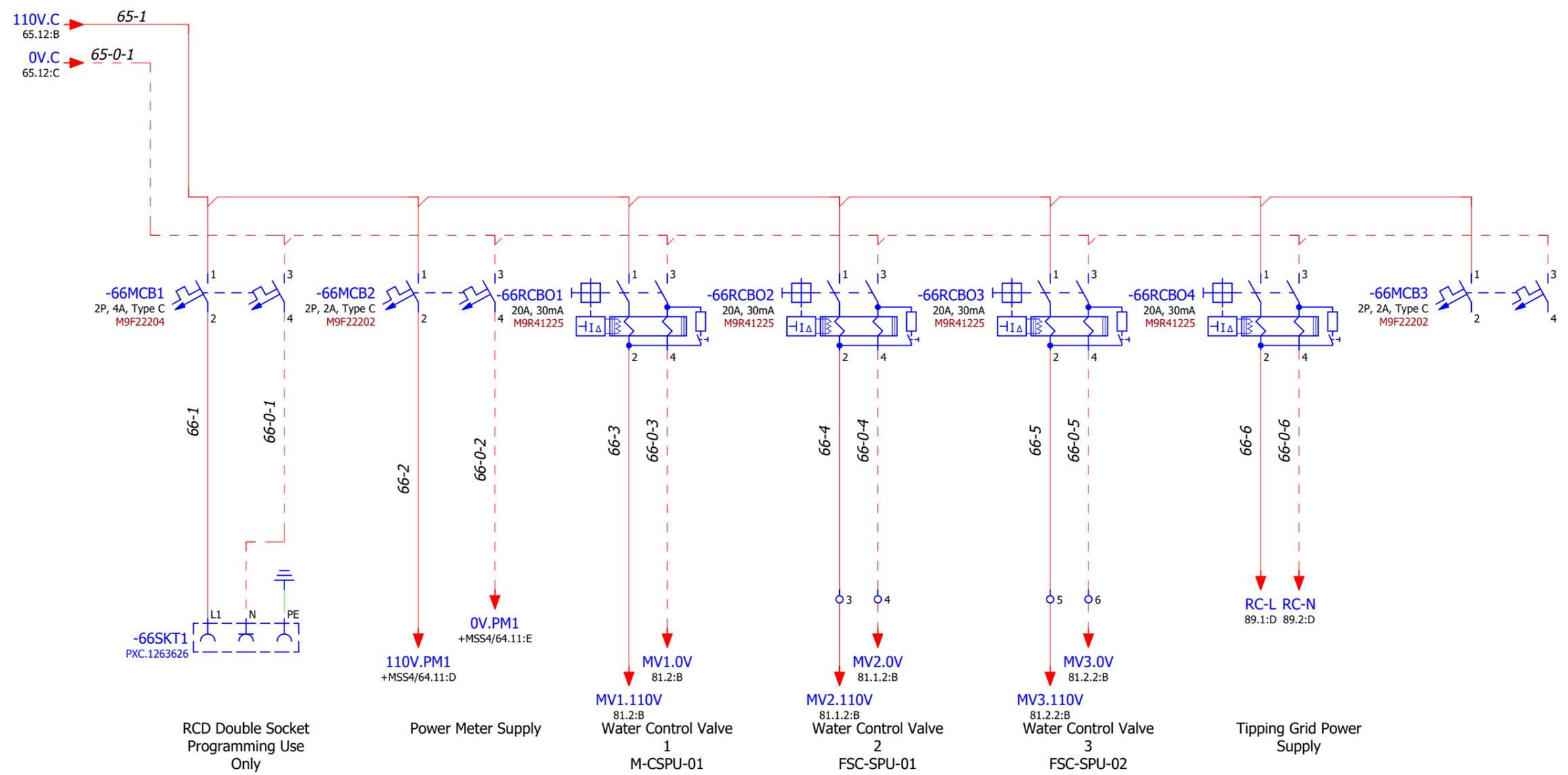
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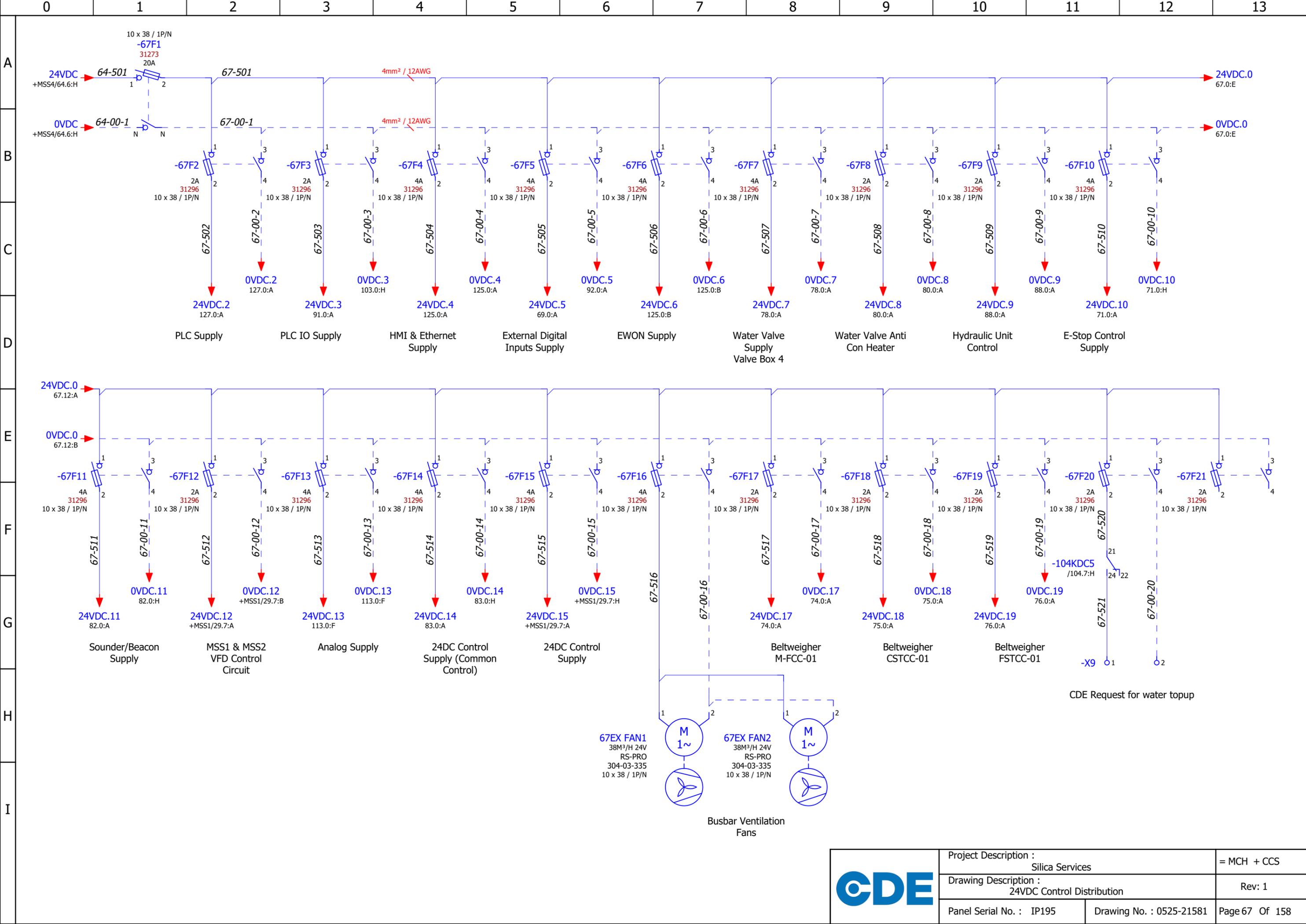


	Project Description : Silica Services	= MCH + CCS
	Drawing Description : 110VAC Control Distribution	Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581

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	Project Description : Silica Services	= MCH + CCS
	Drawing Description : 110VAC Control Distribution	Rev: 1
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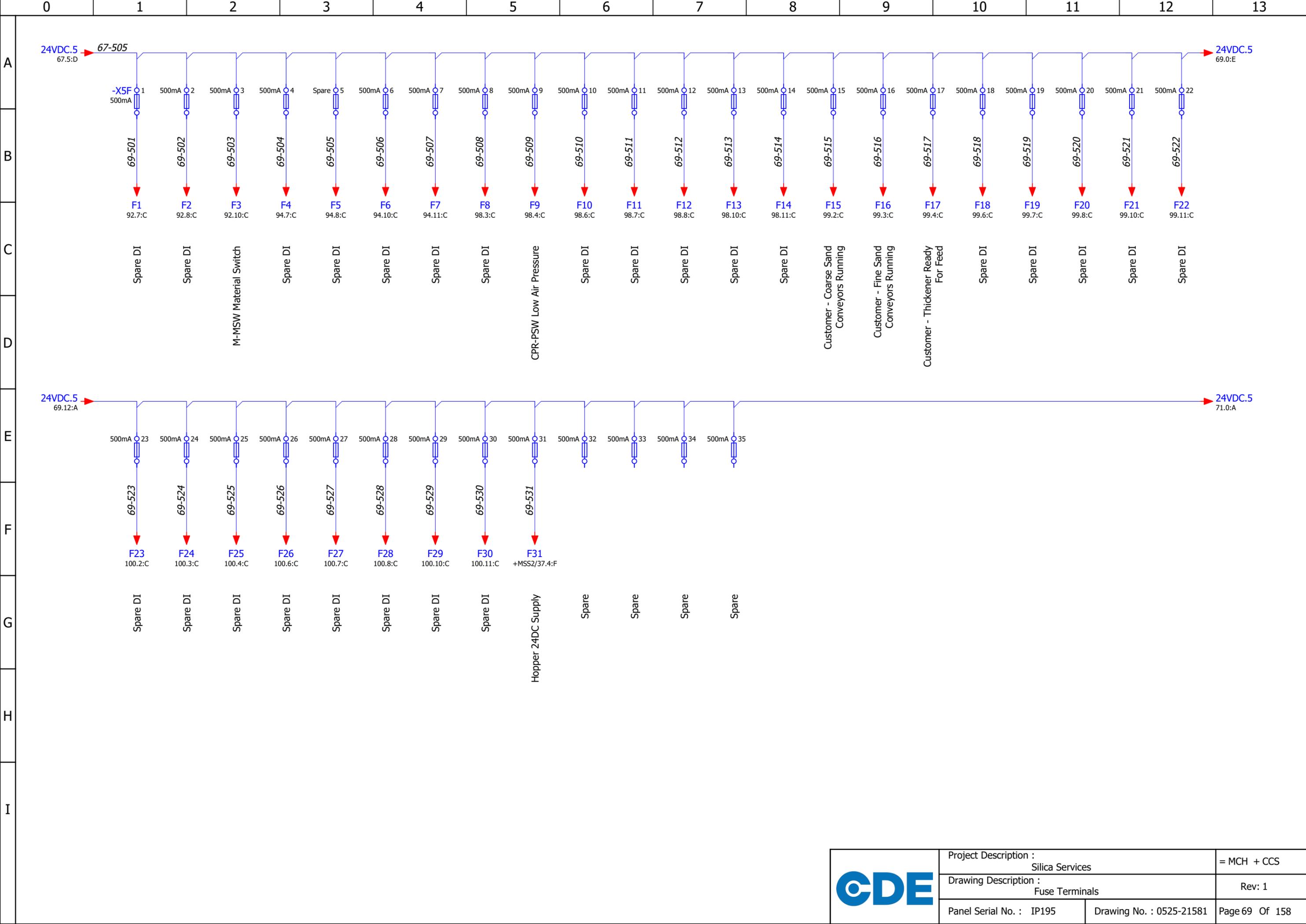


Project Description : Silica Services		= MCH + CCS
Drawing Description : 24VDC Control Distribution		Rev: 1
Panel Serial No. : IP195	Drawing No. : 0525-21581	Page 67 Of 158

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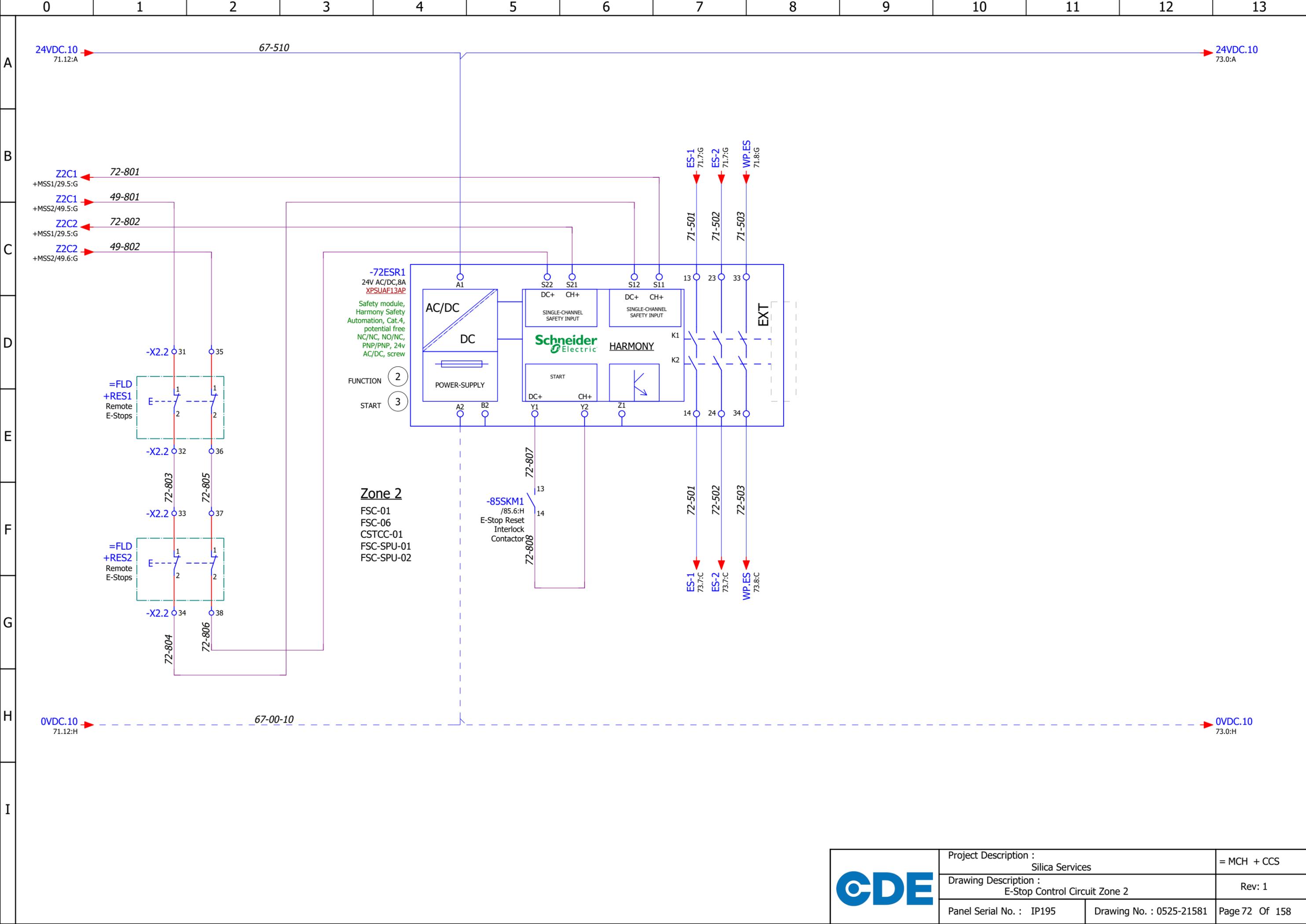


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	Drawing Description : Fuse Terminals	Rev: 1
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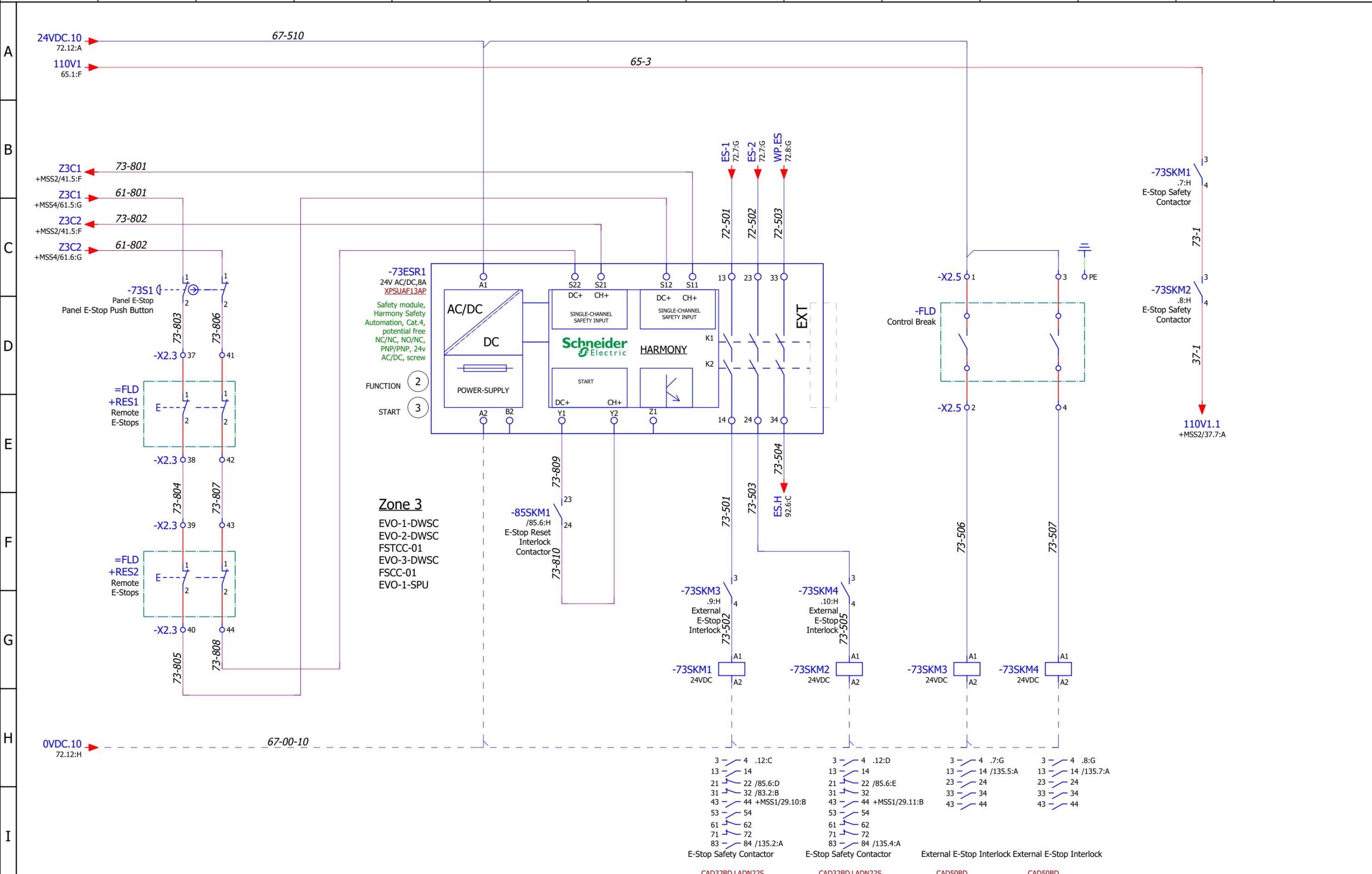
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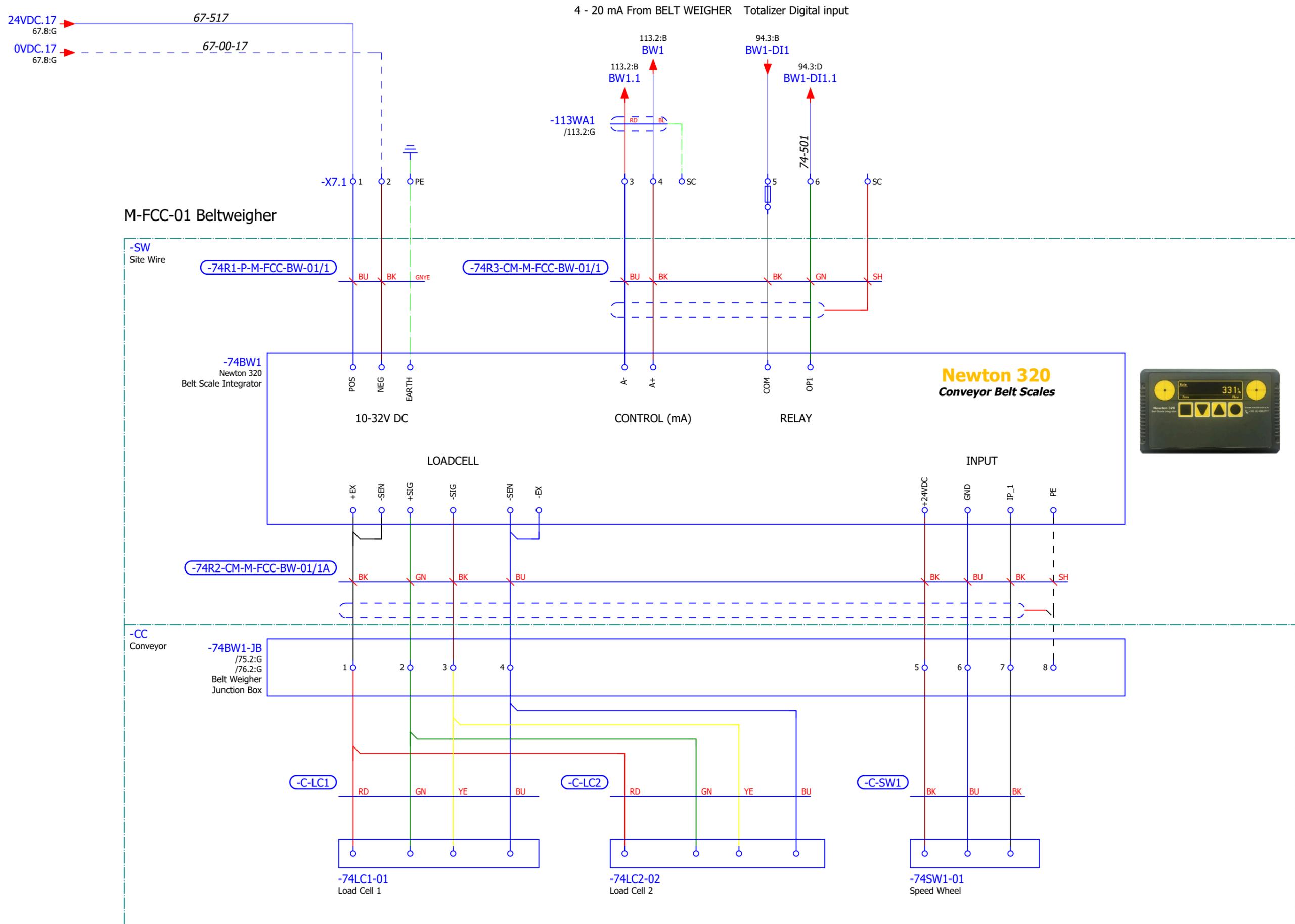




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	Drawing Description : E-Stop Control Circuit Zone 2	Rev: 1
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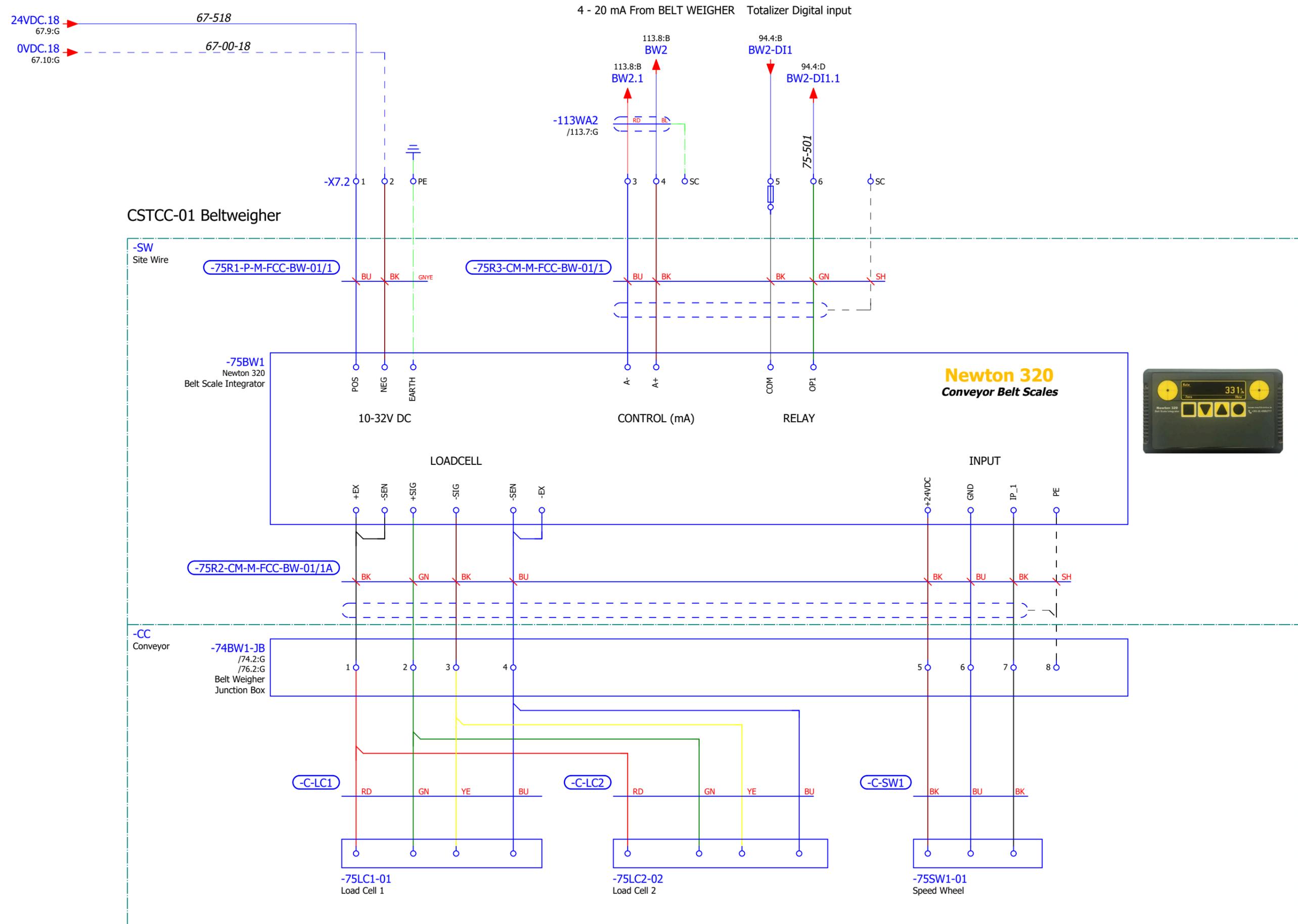


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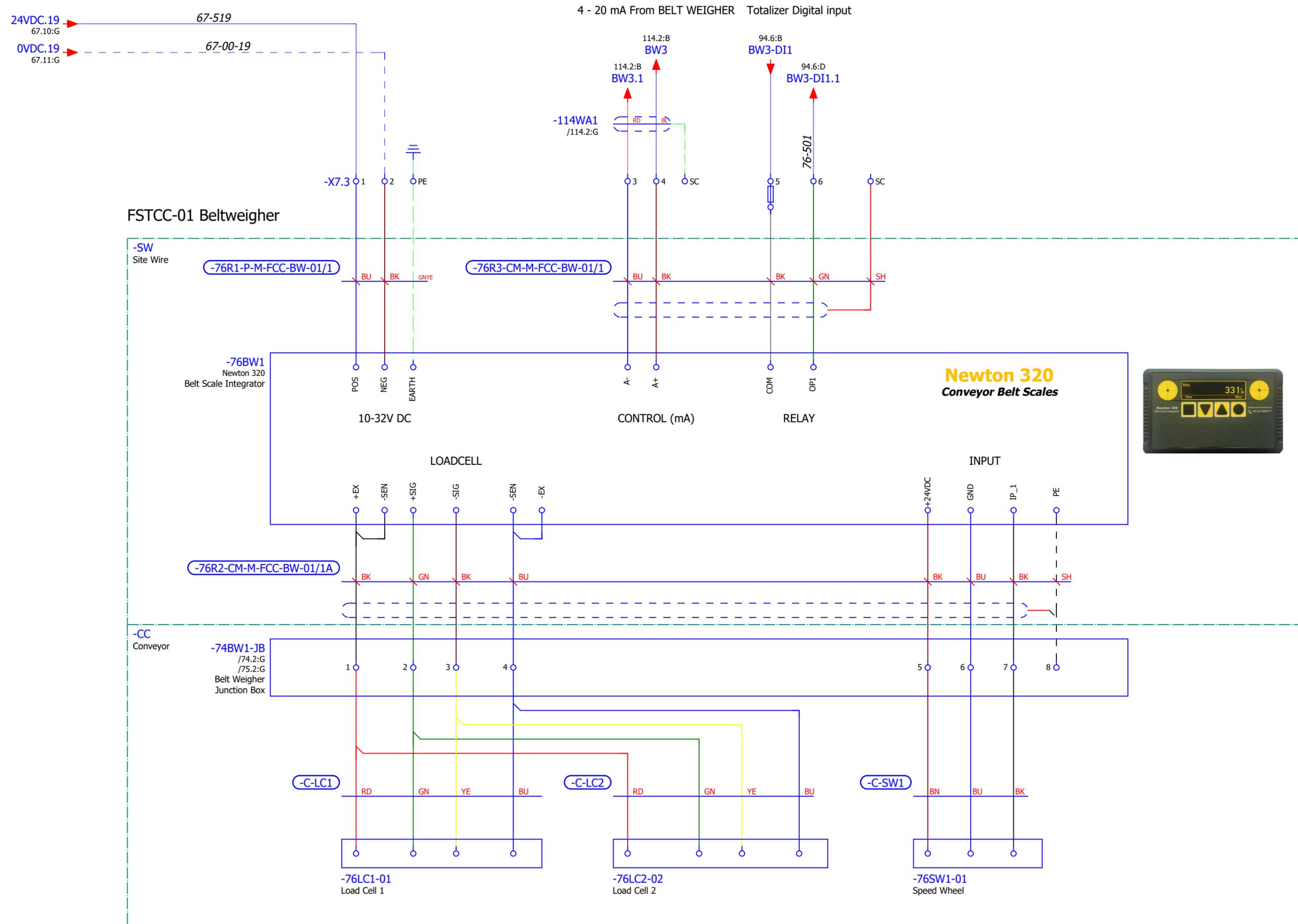
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	Drawing Description : M-FCC-01 Beltweigher	Rev: 1
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	Project Description : Silica Services	= MCH + CCS
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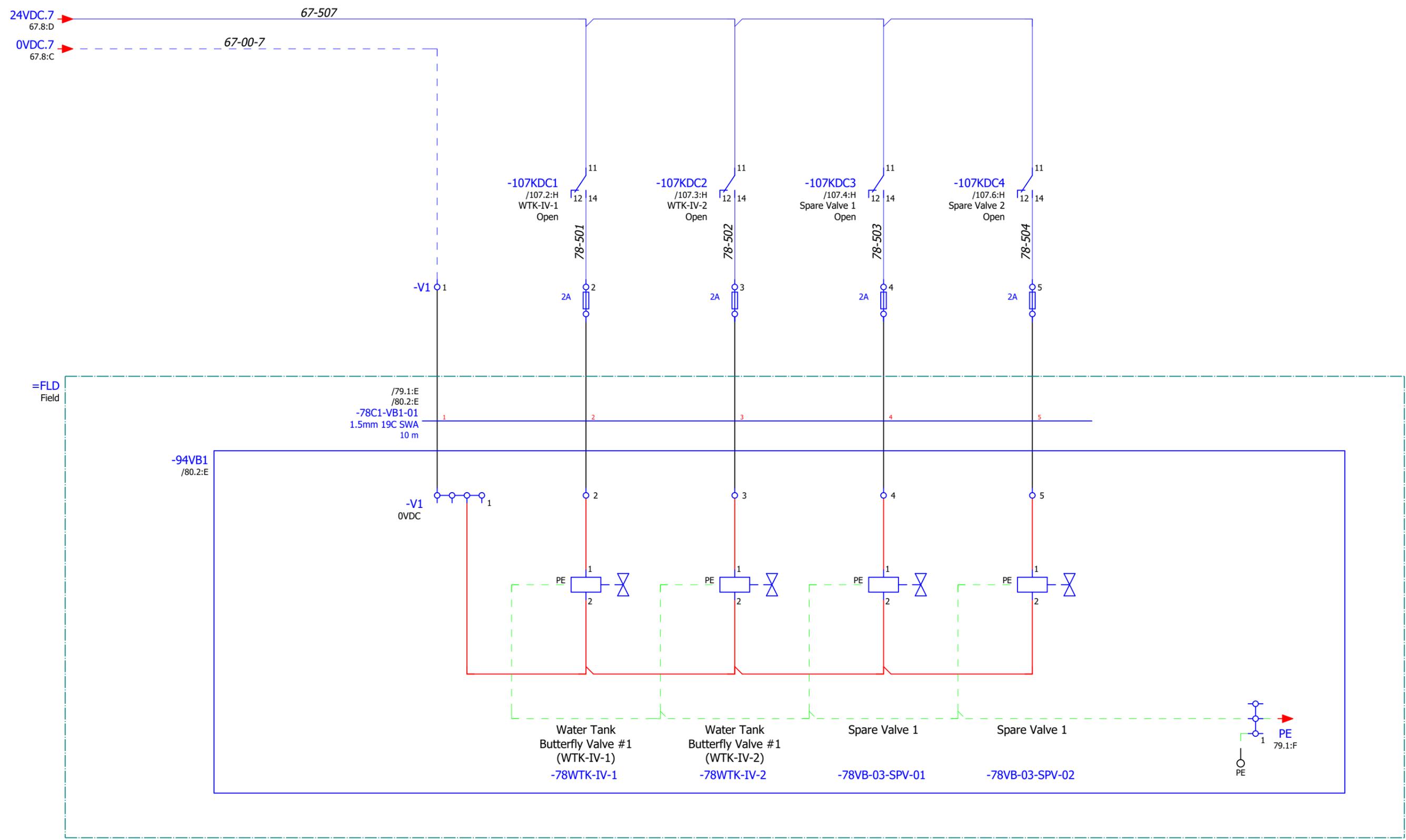


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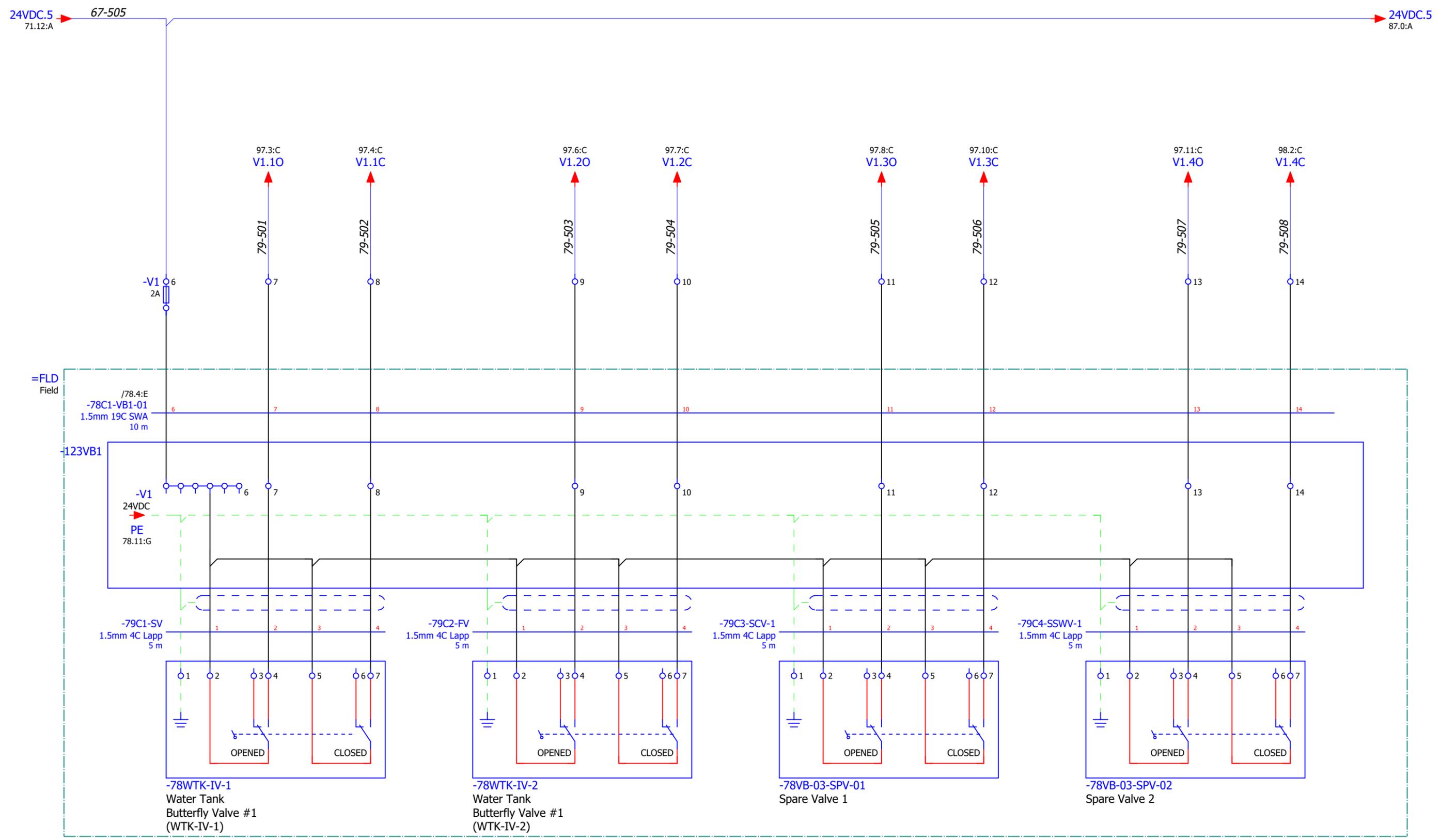
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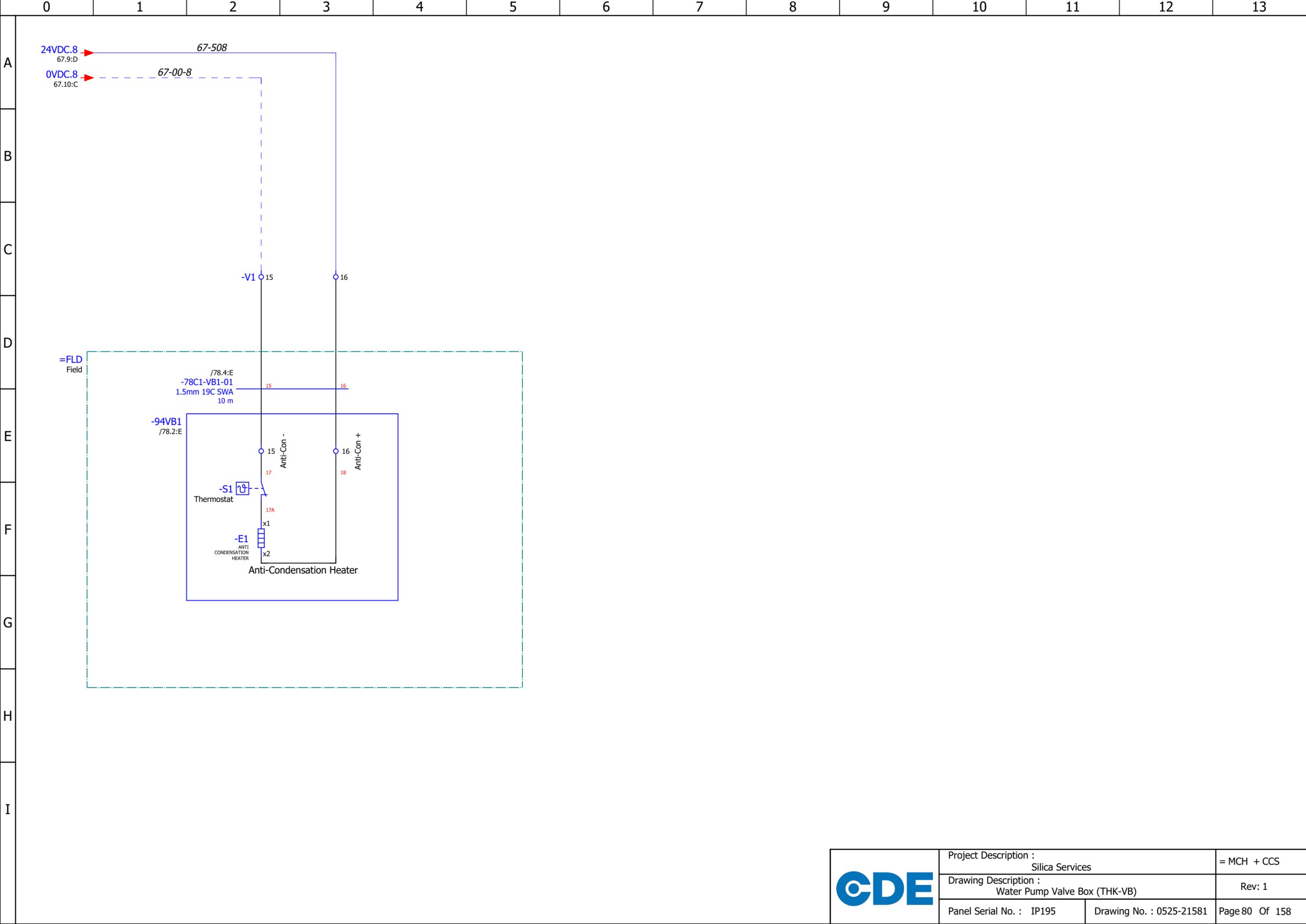
Project Description : Silica Services		= MCH + CCS
Drawing Description : Blank		Rev: 1
Panel Serial No. : IP195	Drawing No. : 0525-21581	Page 77 Of 158



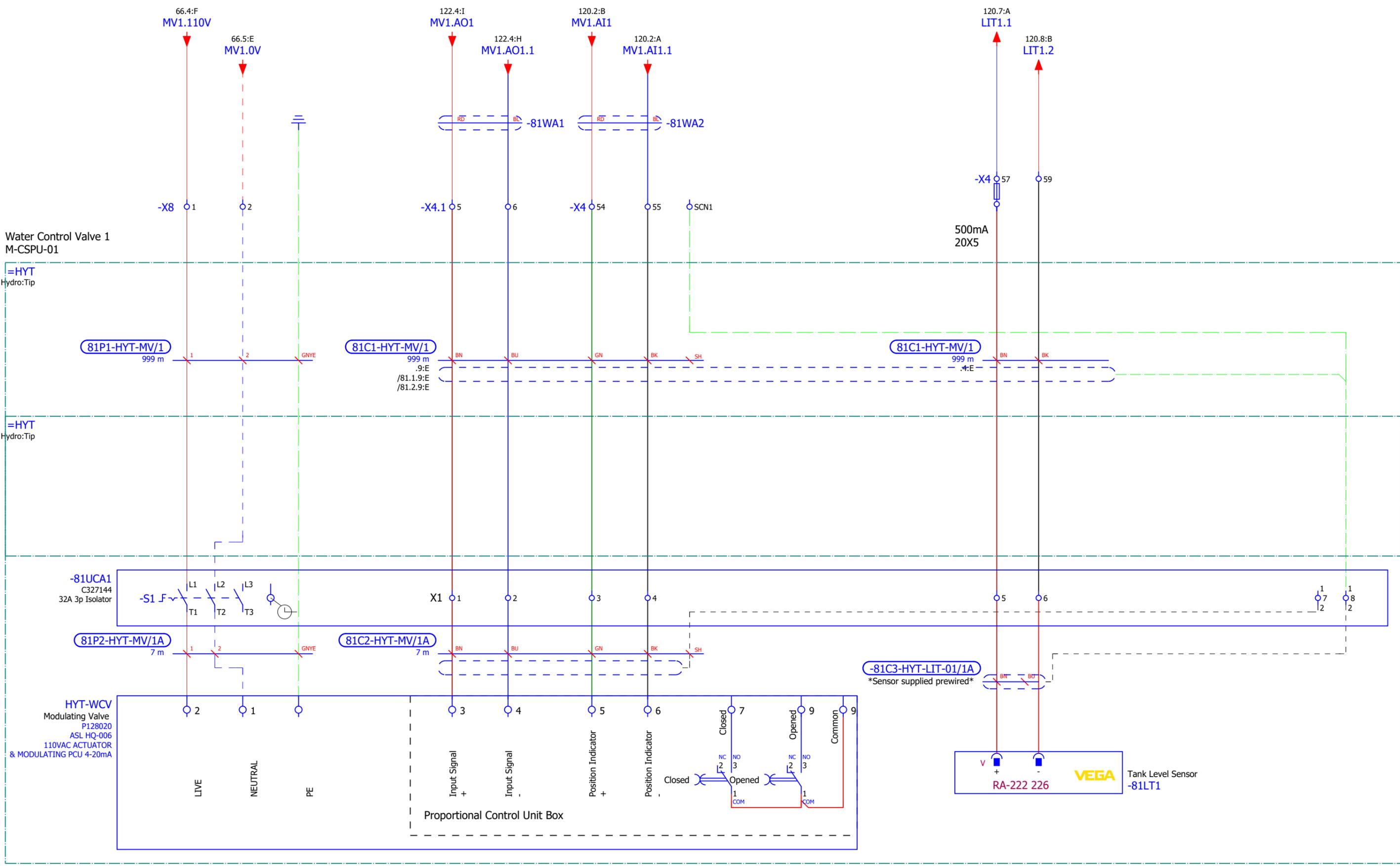
	Project Description : Silica Services	= MCH + CCS
	Drawing Description : Water Pump Valve Box (THK-VB)	Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581



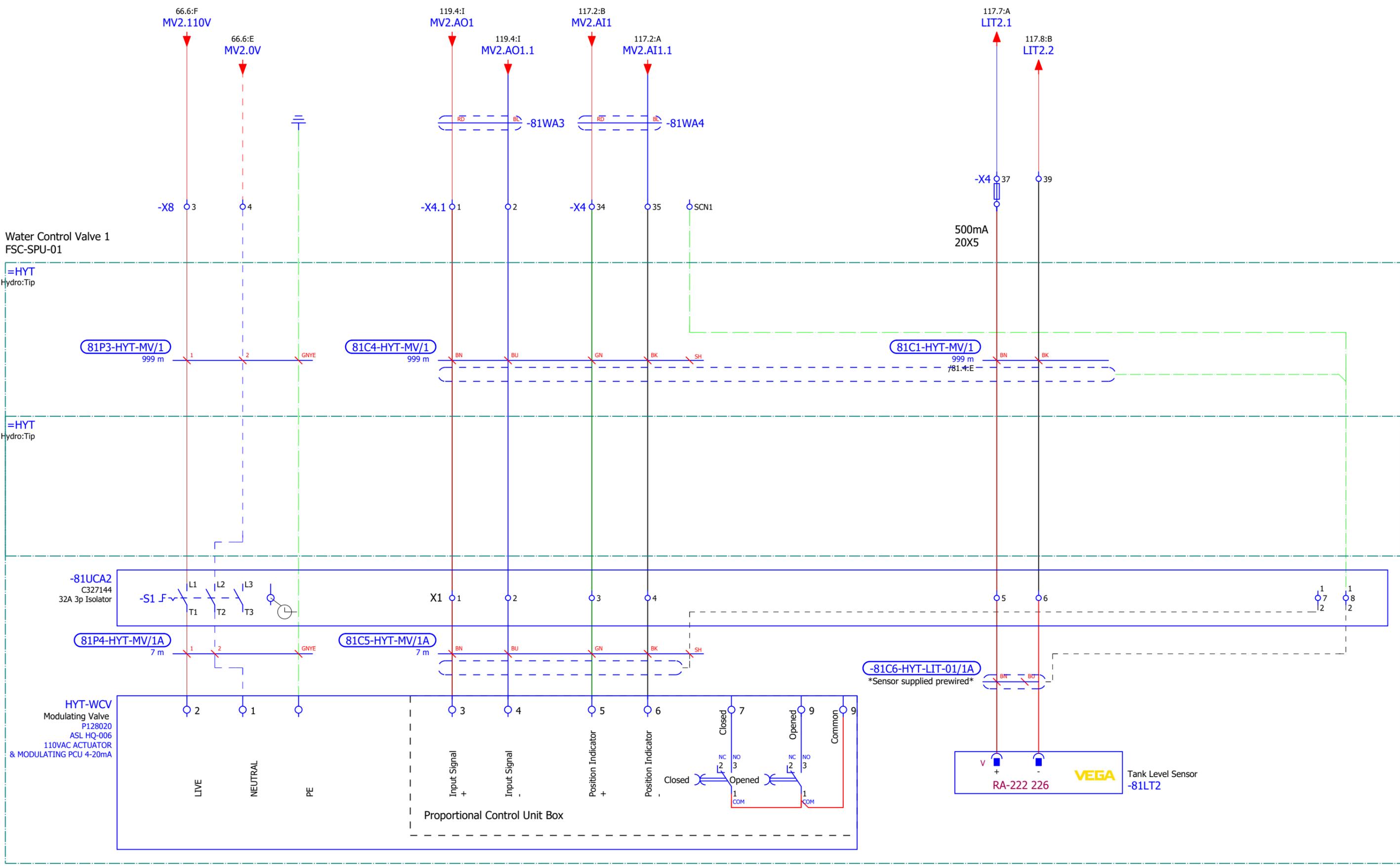
	Project Description : Silica Services	= MCH + CCS
	Drawing Description : Water Pump Valve Box (THK-VB)	Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581



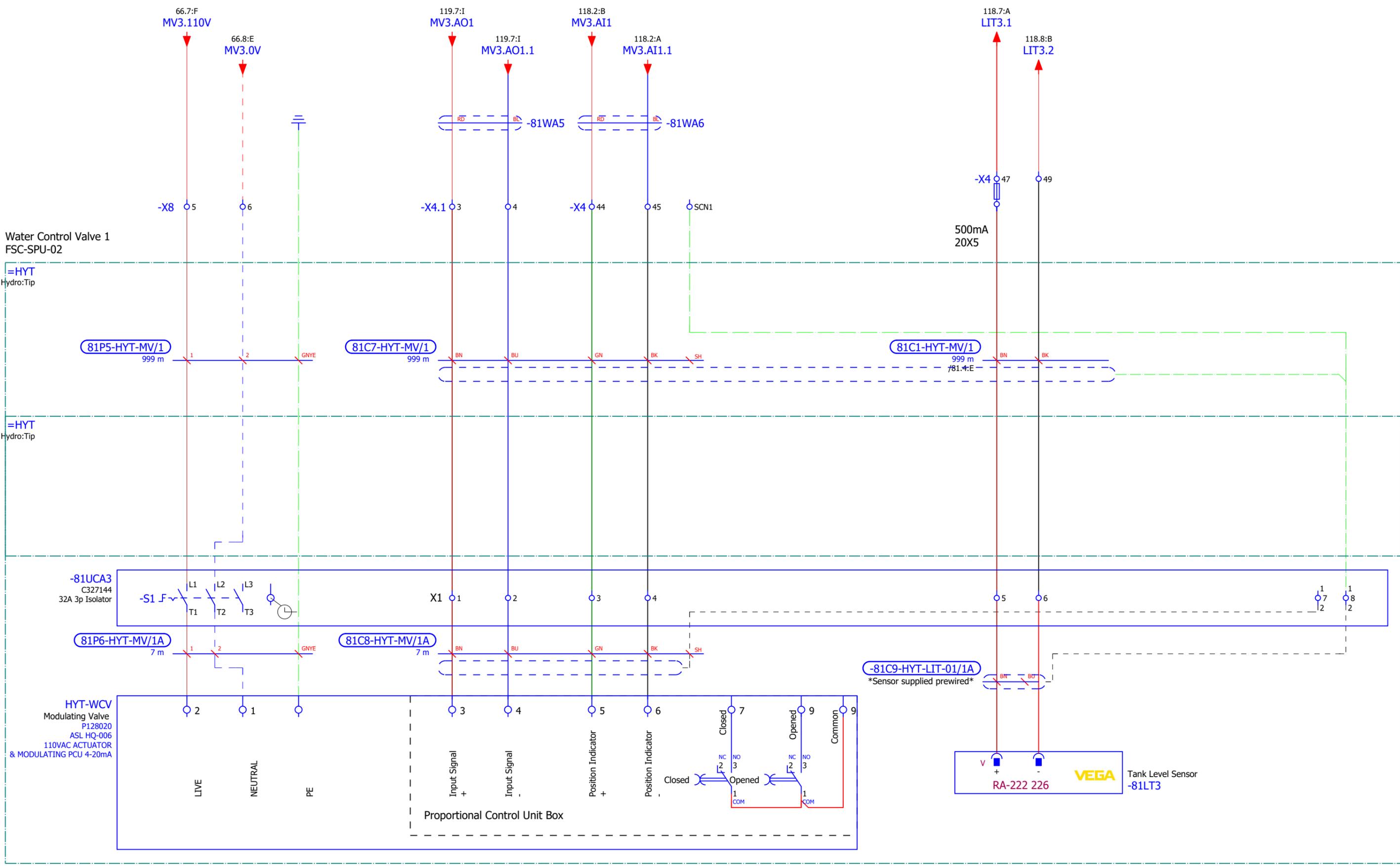
	Project Description : Silica Services	= MCH + CCS
	Drawing Description : Water Pump Valve Box (THK-VB)	Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581



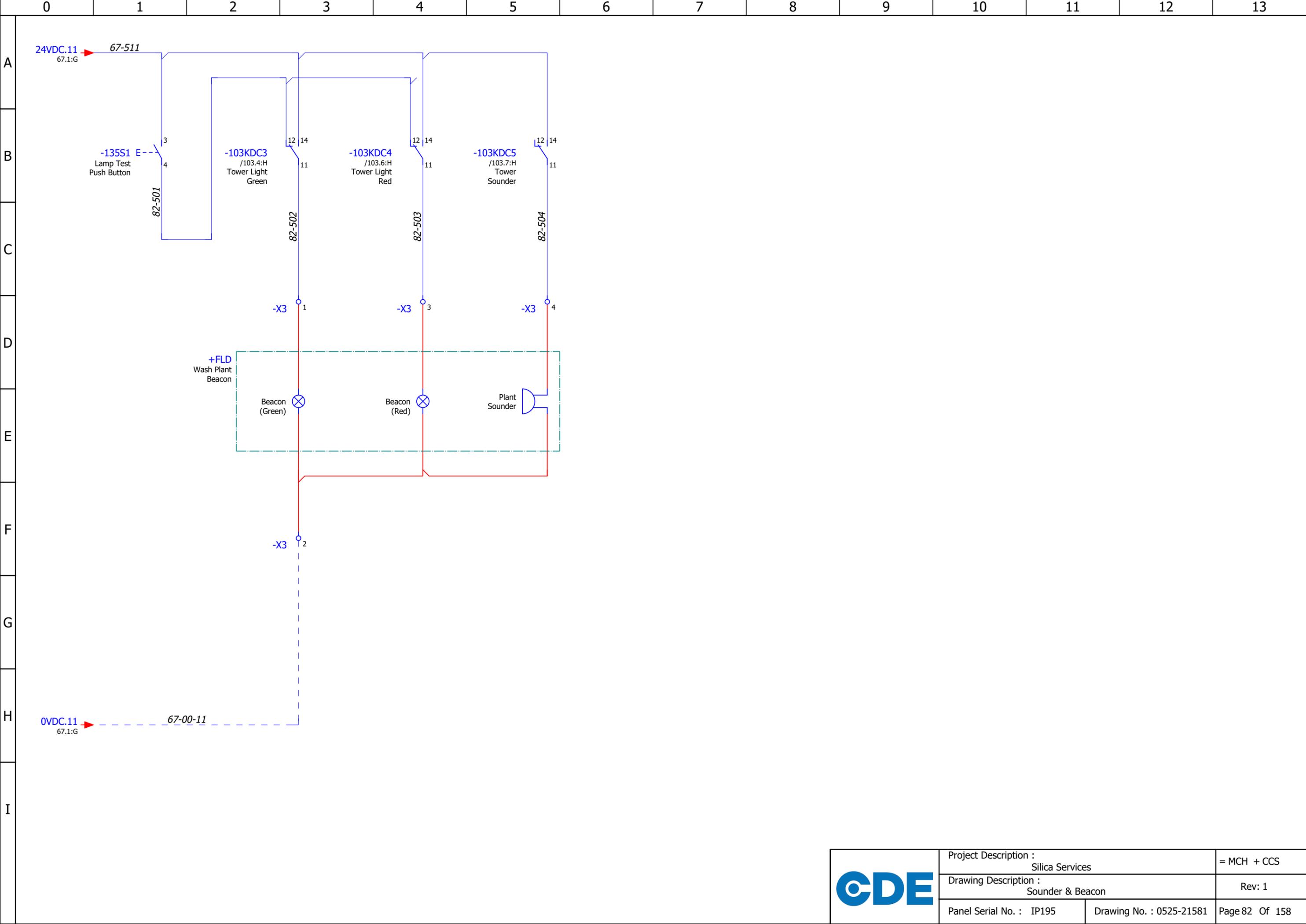
	Project Description : Silica Services	= MCH + CCS
	Drawing Description : Modulating Valves	Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581



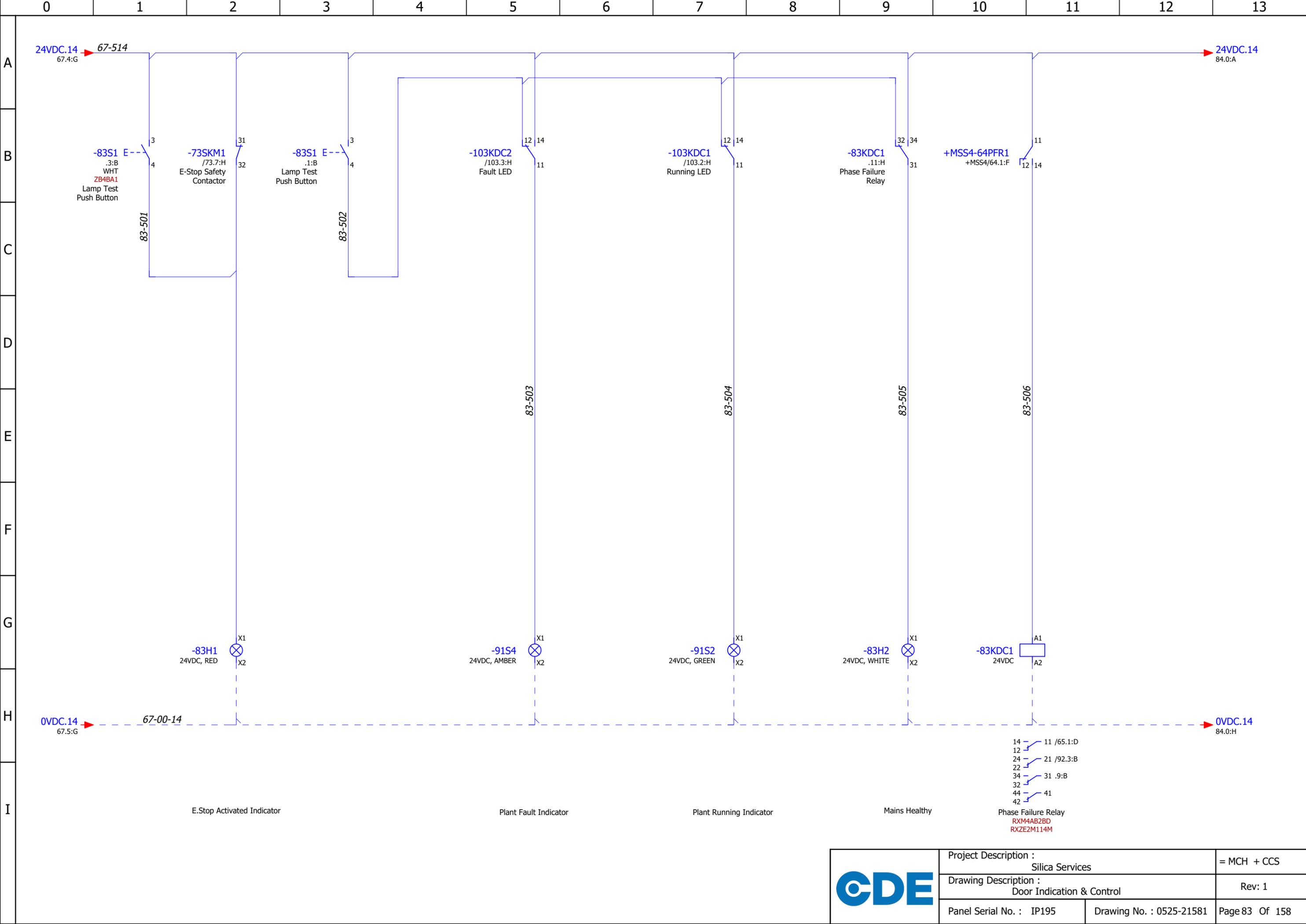
	Project Description : Silica Services	= MCH + CCS
	Drawing Description : Modulating Valves	Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581



	Project Description : Silica Services	= MCH + CCS
	Drawing Description : Modulating Valves	Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581



Project Description : Silica Services		= MCH + CCS
Drawing Description : Sounder & Beacon		Rev: 1
Panel Serial No. : IP195	Drawing No. : 0525-21581	Page 82 Of 158



- 14 --- 11 /65.1:D
- 12 --- 21 /92.3:B
- 24 --- 31 .9:B
- 22 --- 41
- 34 --- 41
- 32 --- 41
- 44 --- 41
- 42 --- 41

E.Stop Activated Indicator

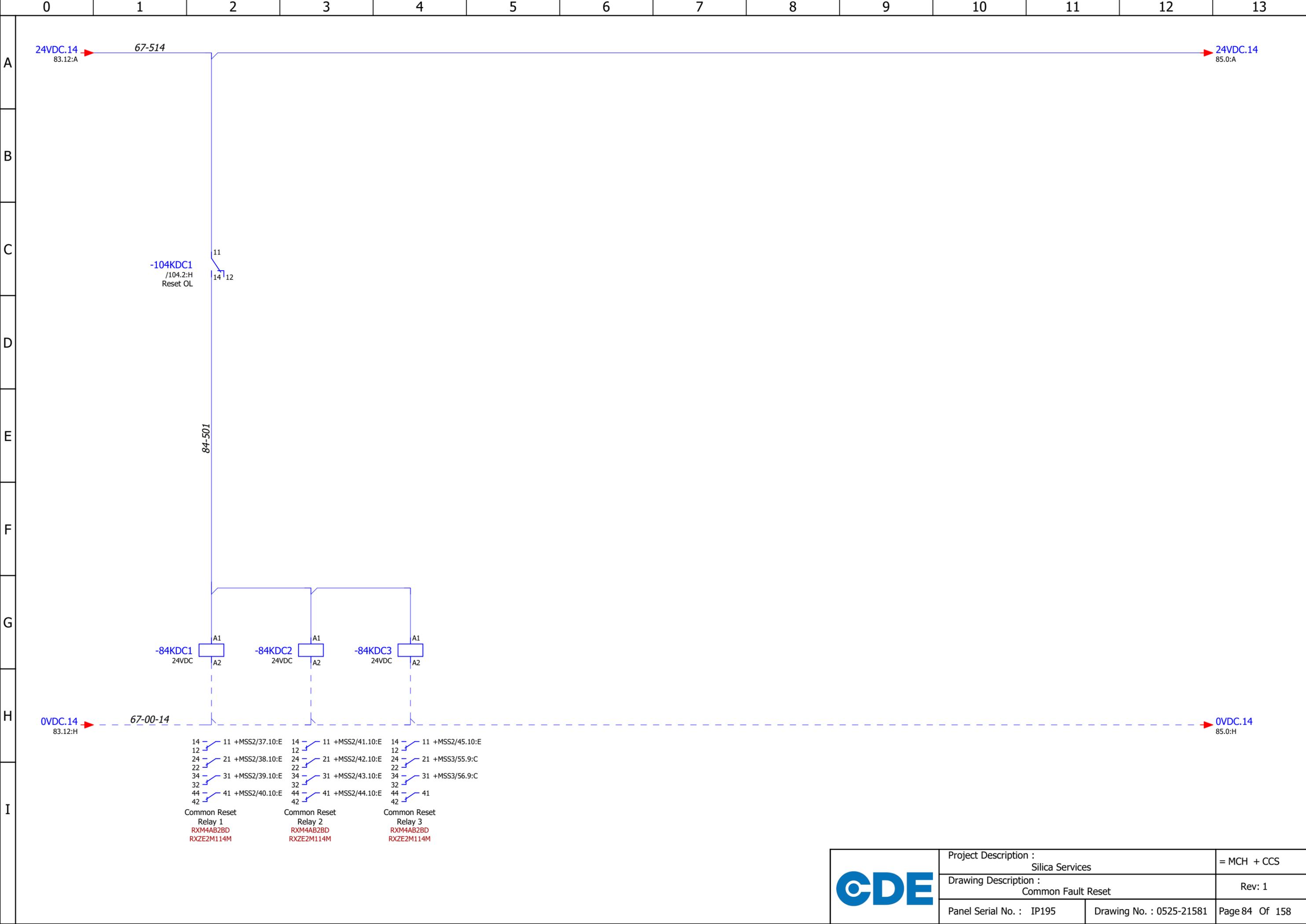
Plant Fault Indicator

Plant Running Indicator

Mains Healthy

Phase Failure Relay  
RXM4AB2BD  
RXZE2M114M

	Project Description : Silica Services	= MCH + CCS
	Drawing Description : Door Indication & Control	Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581



-104KDC1  
/104.2:H  
Reset OL

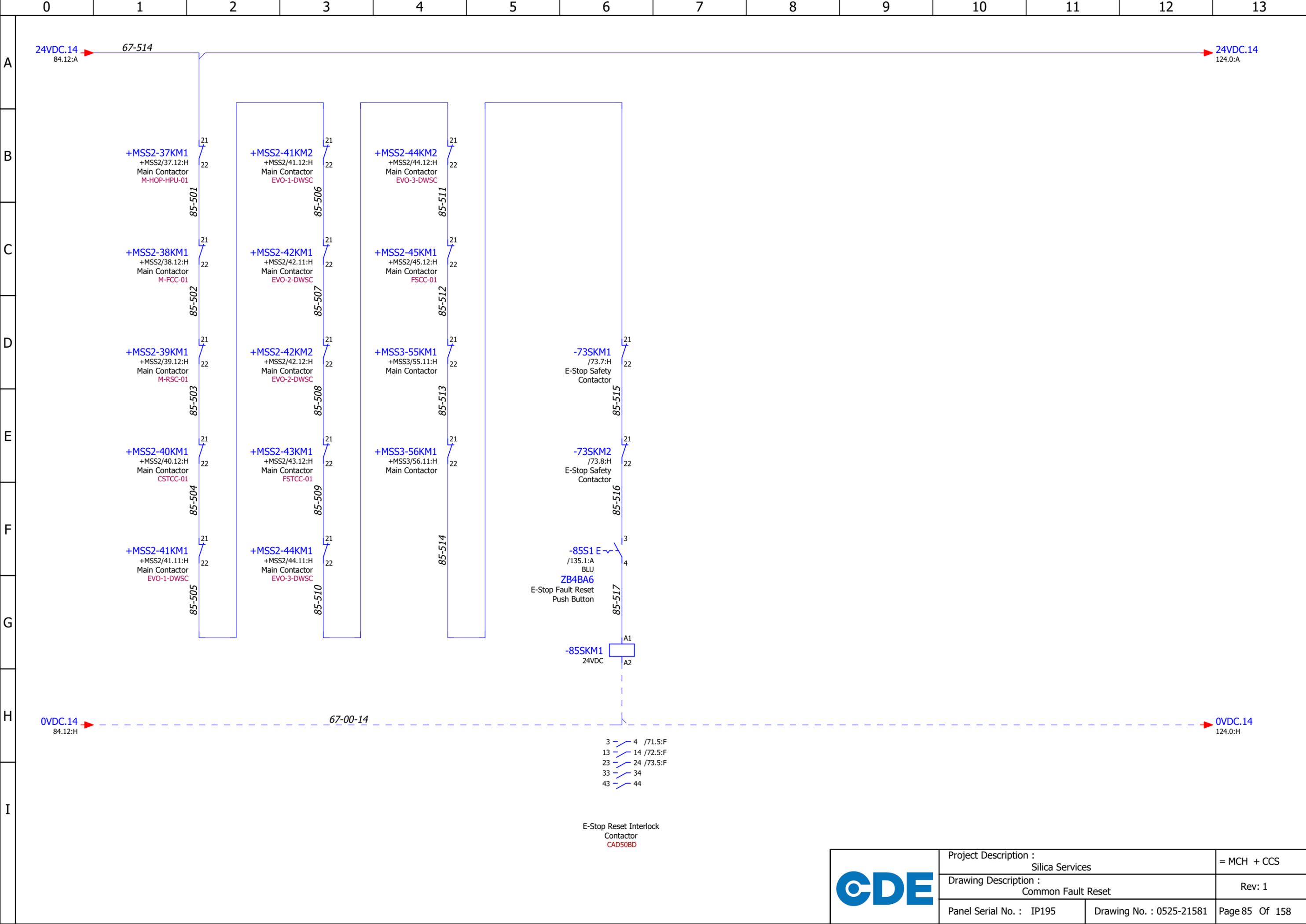
-84KDC1  
24VDC

-84KDC2  
24VDC

-84KDC3  
24VDC

14	11	+MSS2/37.10:E	14	11	+MSS2/41.10:E	14	11	+MSS2/45.10:E
12	12		12	12		12	12	
24	21	+MSS2/38.10:E	24	21	+MSS2/42.10:E	24	21	+MSS3/55.9:C
22	22		22	22		22	22	
34	31	+MSS2/39.10:E	34	31	+MSS2/43.10:E	34	31	+MSS3/56.9:C
32	32		32	32		32	32	
44	41	+MSS2/40.10:E	44	41	+MSS2/44.10:E	44	41	
42	42		42	42		42	42	
Common Reset Relay 1 RXM4AB2BD RXZE2M114M			Common Reset Relay 2 RXM4AB2BD RXZE2M114M			Common Reset Relay 3 RXM4AB2BD RXZE2M114M		

	Project Description : Silica Services		= MCH + CCS
	Drawing Description : Common Fault Reset		Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581	Page 84 Of 158



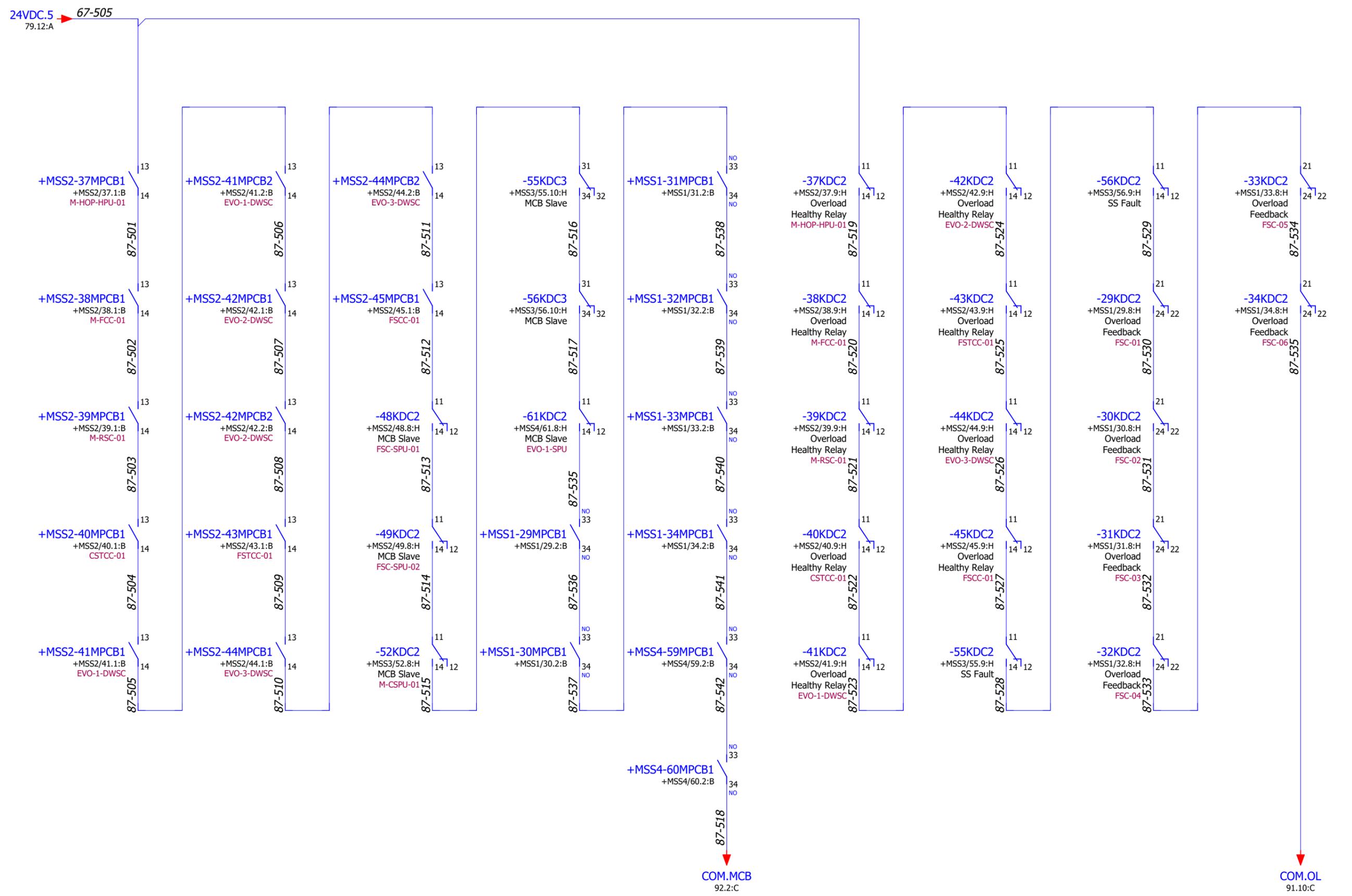
	Project Description : Silica Services	= MCH + CCS
	Drawing Description : Common Fault Reset	Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581
		Page 85 Of 158

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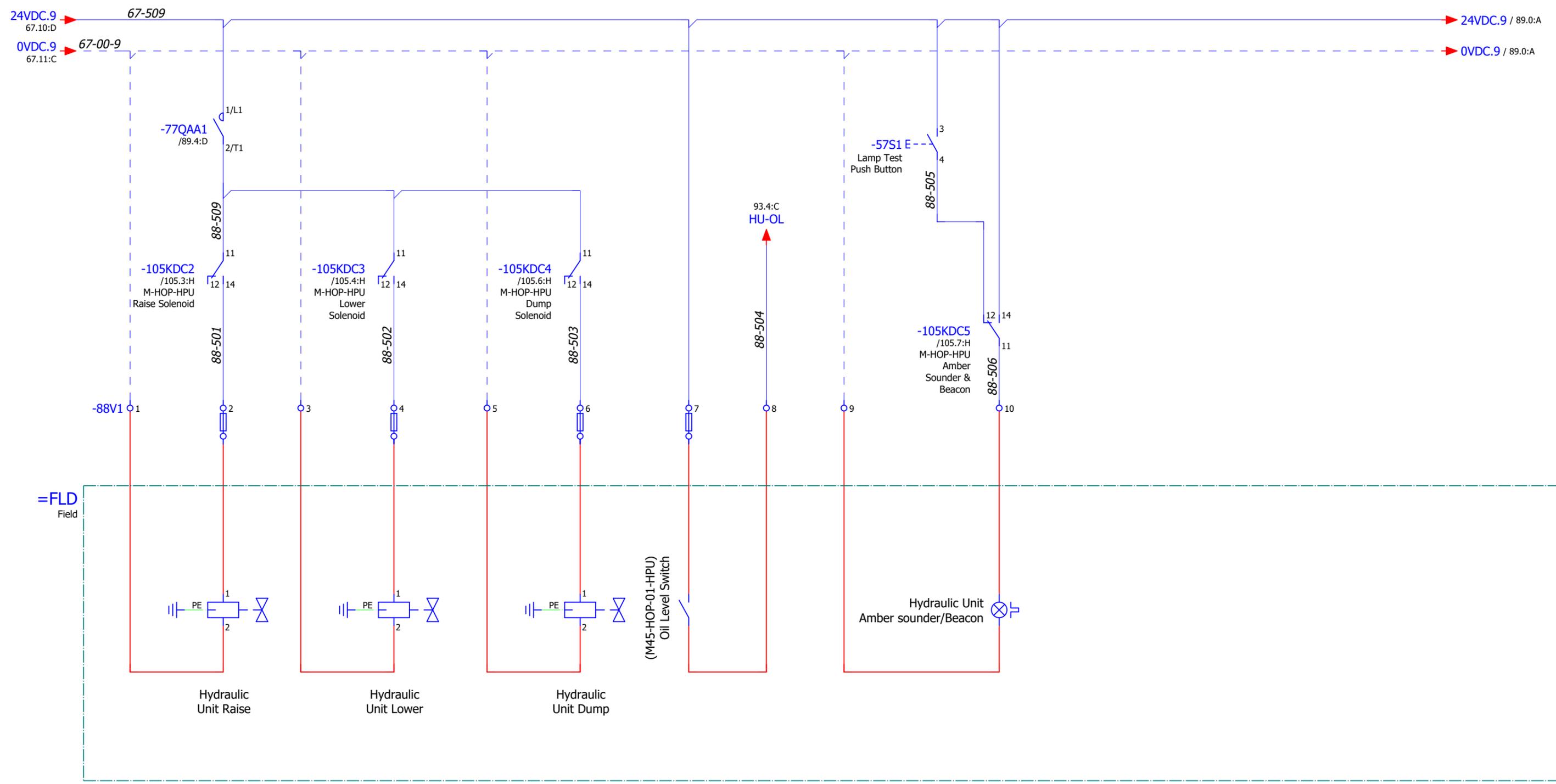
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	Project Description : Silica Services		= MCH + CCS
	Drawing Description : Blank		Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581	Page 86 Of 158

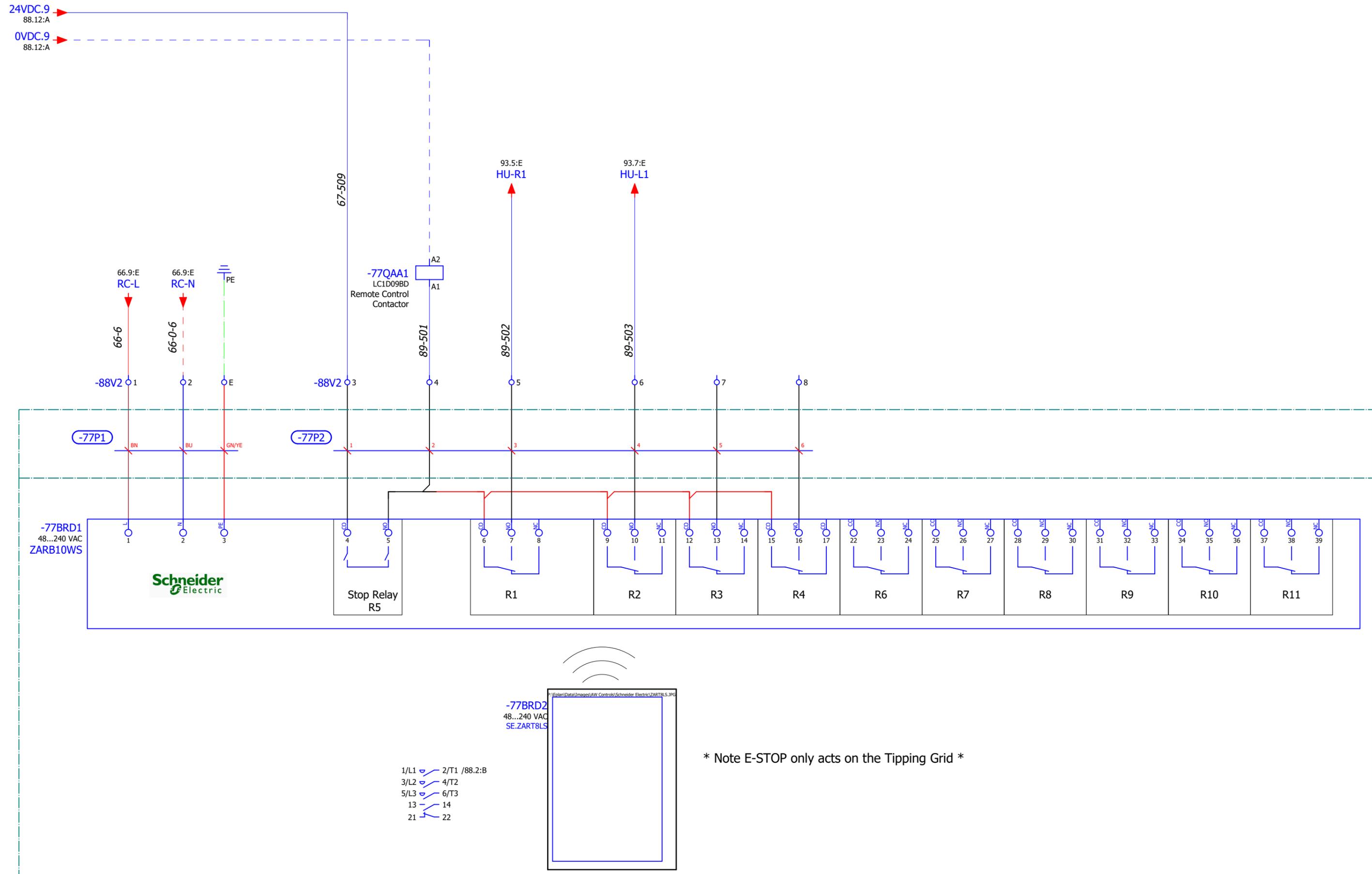
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	Project Description : Silica Services	= MCH + CCS
	Drawing Description : Control Inputs (Internal)	Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581

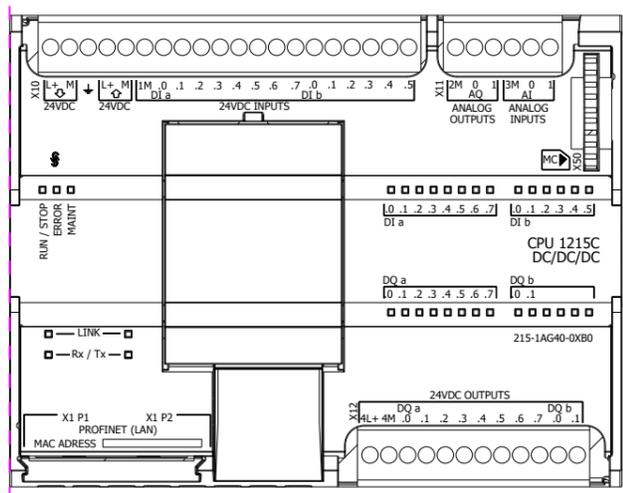


	Project Description : Silica Services	= MCH + CCS
	Drawing Description : Hydraulic Unit	Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581



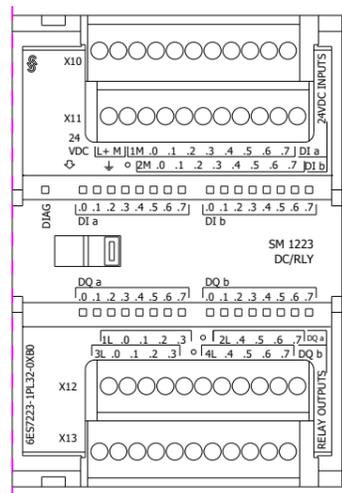
	Project Description : Silica Services	= MCH + CCS
	Drawing Description : Hydraulic Unit	Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581

-90PLC0



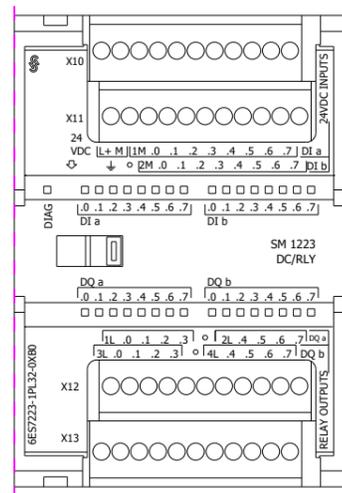
**6ES7215-1AG40-0XB0**  
 CPU 1215C, DC/DC/DC,  
 14DI/10DO/2AI/2AO

-90PLC1



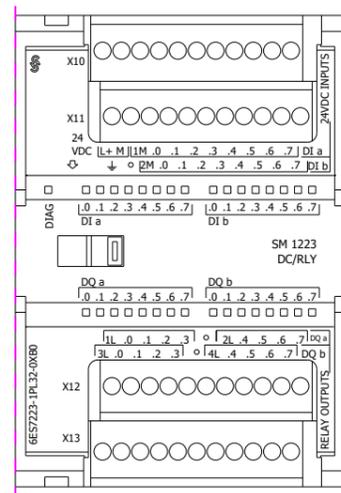
**6ES7223-1PL32-0XB0**  
 DIGITAL I/O SM 1223,  
 16DI/16DO

-90PLC2



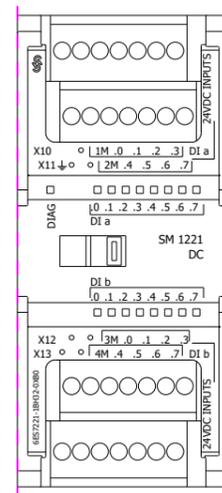
**6ES7223-1PL32-0XB0**  
 DIGITAL I/O SM 1223,  
 16DI/16DO

-90PLC3



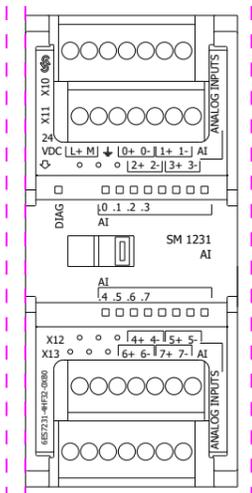
**6ES7223-1PL32-0XB0**  
 DIGITAL I/O SM 1223,  
 16DI/16DO

-90PLC4



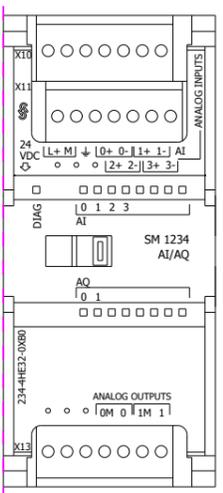
**6ES7221-1BH32-0XB0**  
 DIGITAL INPUT SM 1221, 16DI,  
 24V DC

-90PLC5



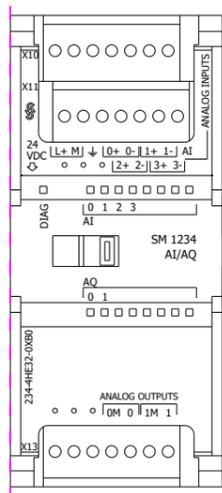
**6ES7231-4HE32-0XB0**  
 ANALOG INPUT SM 1231, 8AI

-90PLC6



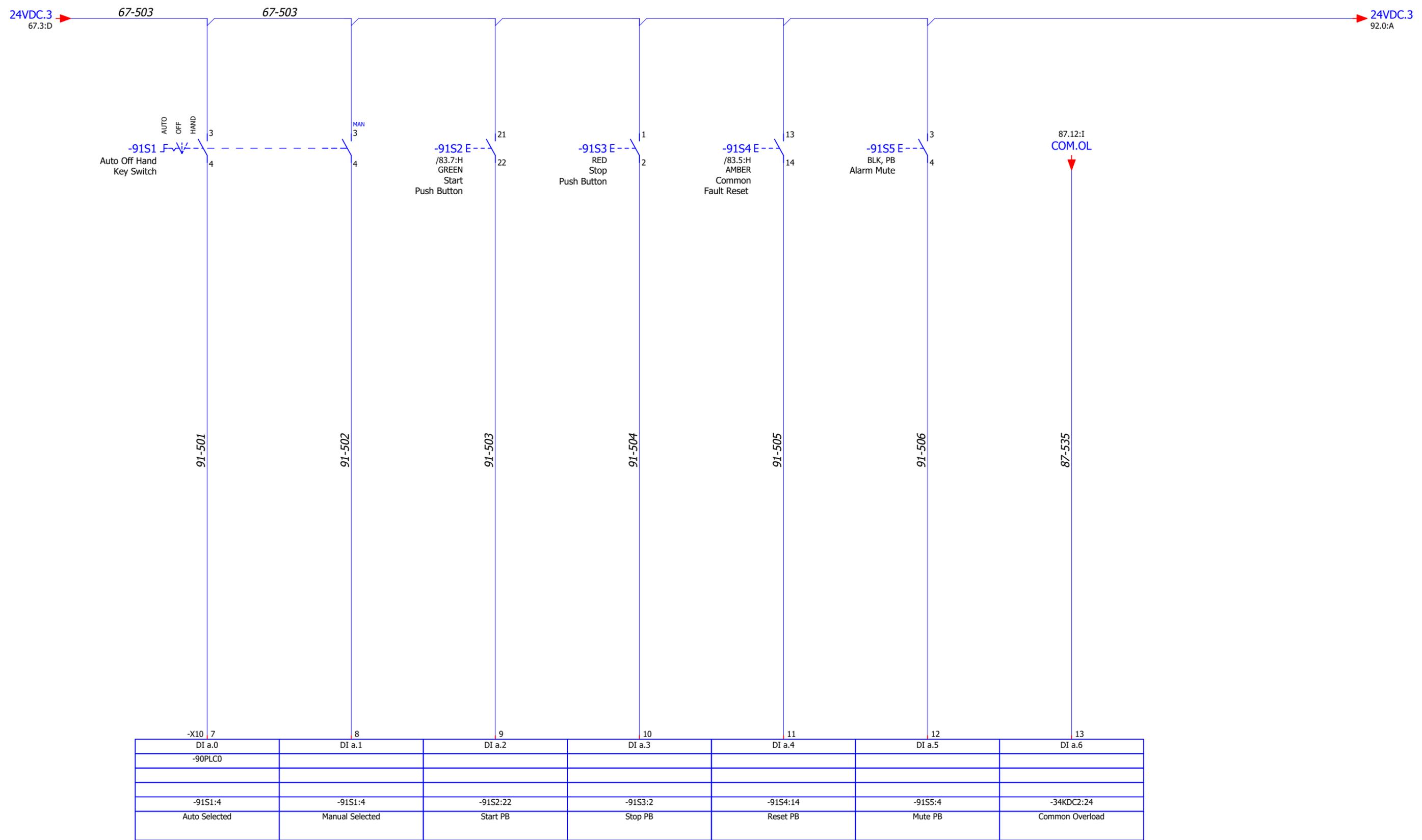
**6ES7234-4HE32-0XB0**  
 ANALOG I/O SM 1234, 4AI/2AO

-90PLC7

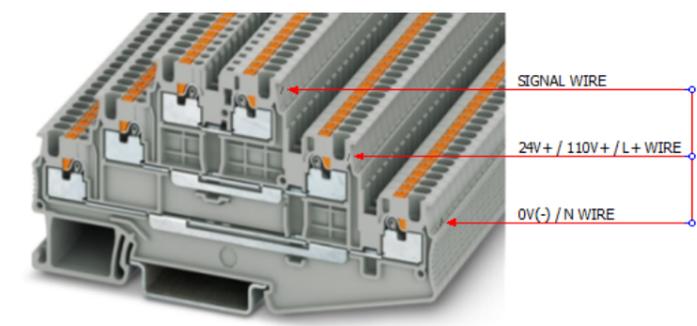
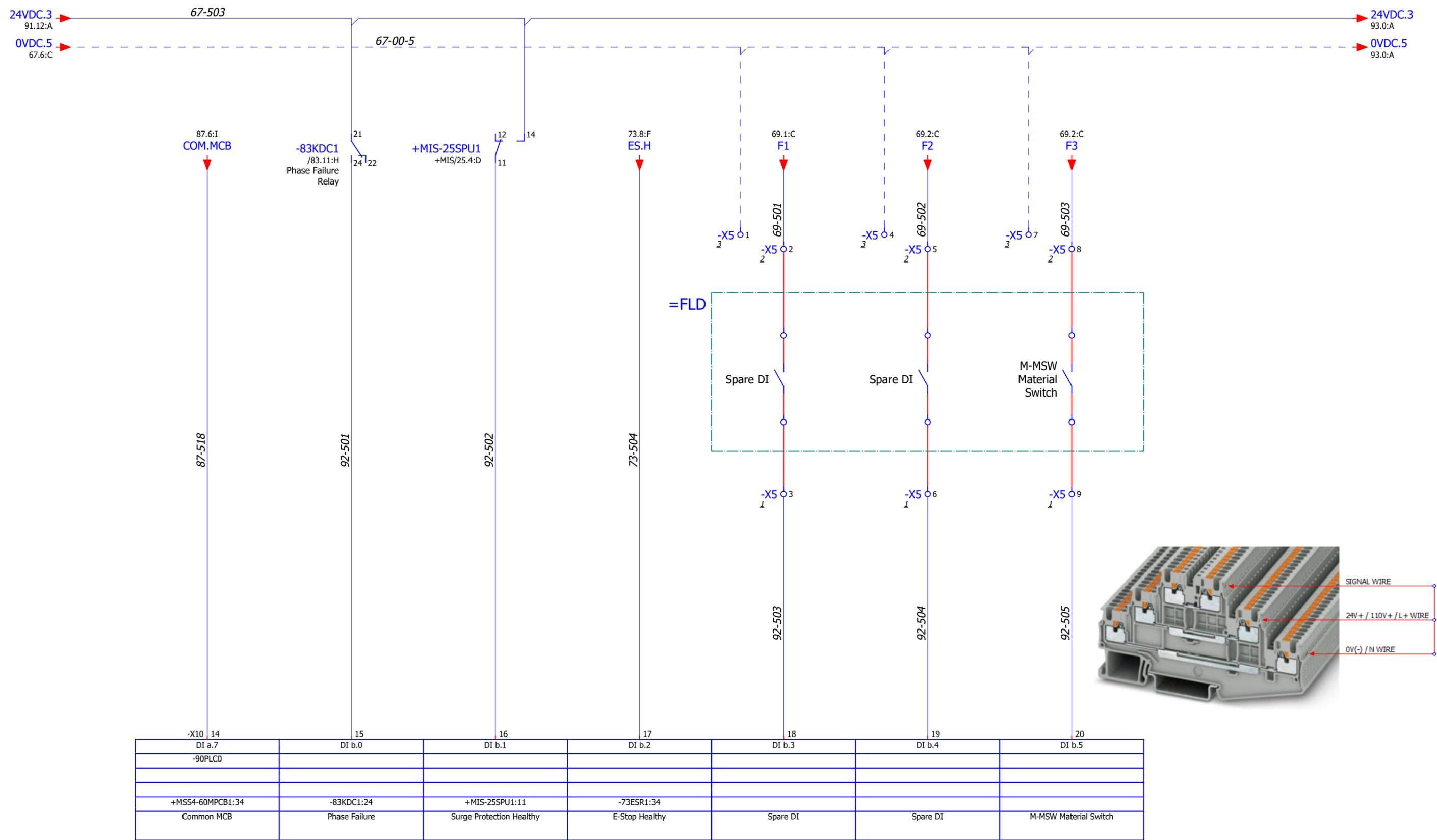


**6ES7234-4HE32-0XB0**  
 ANALOG I/O SM 1234, 4AI/2AO

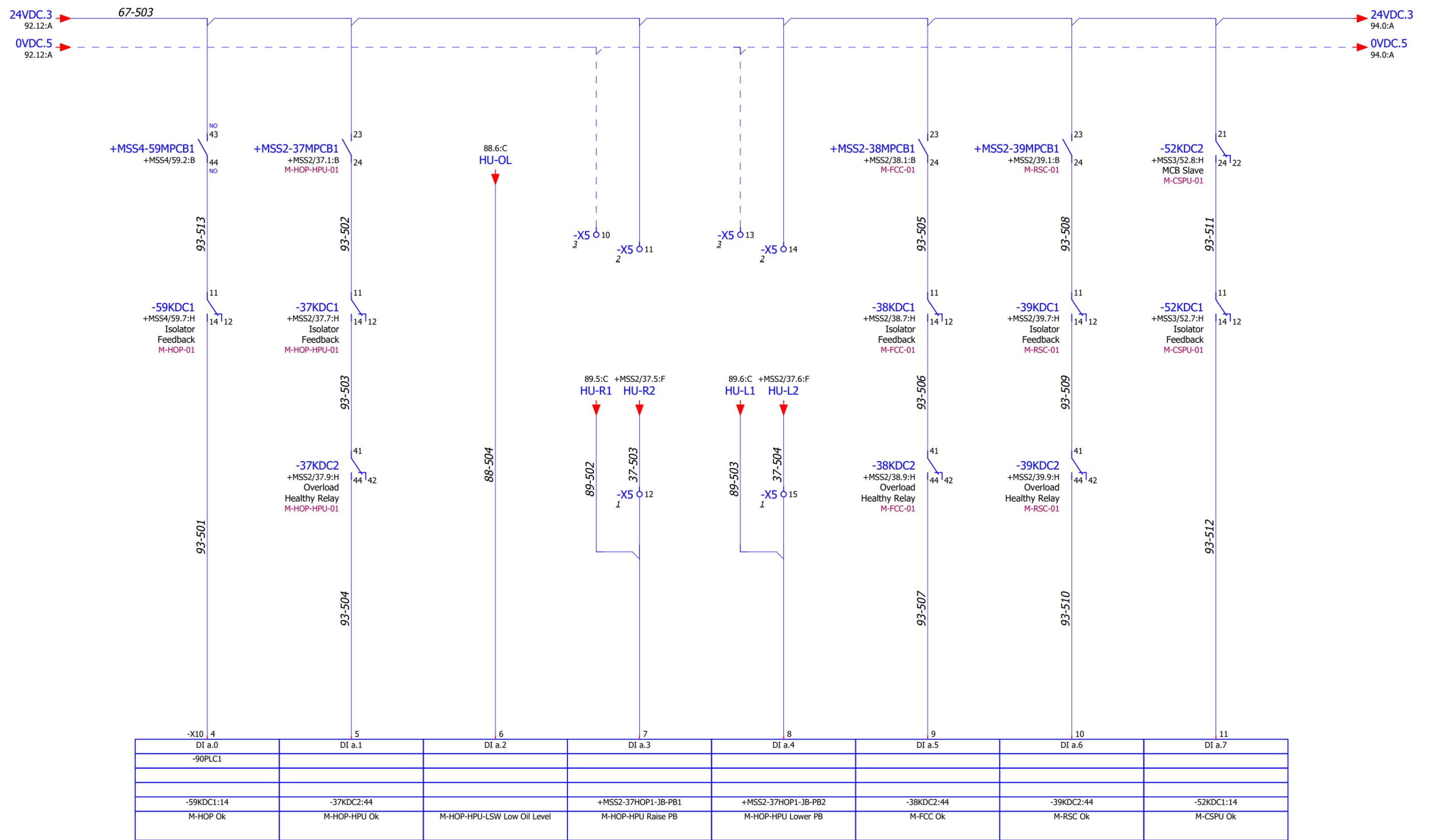
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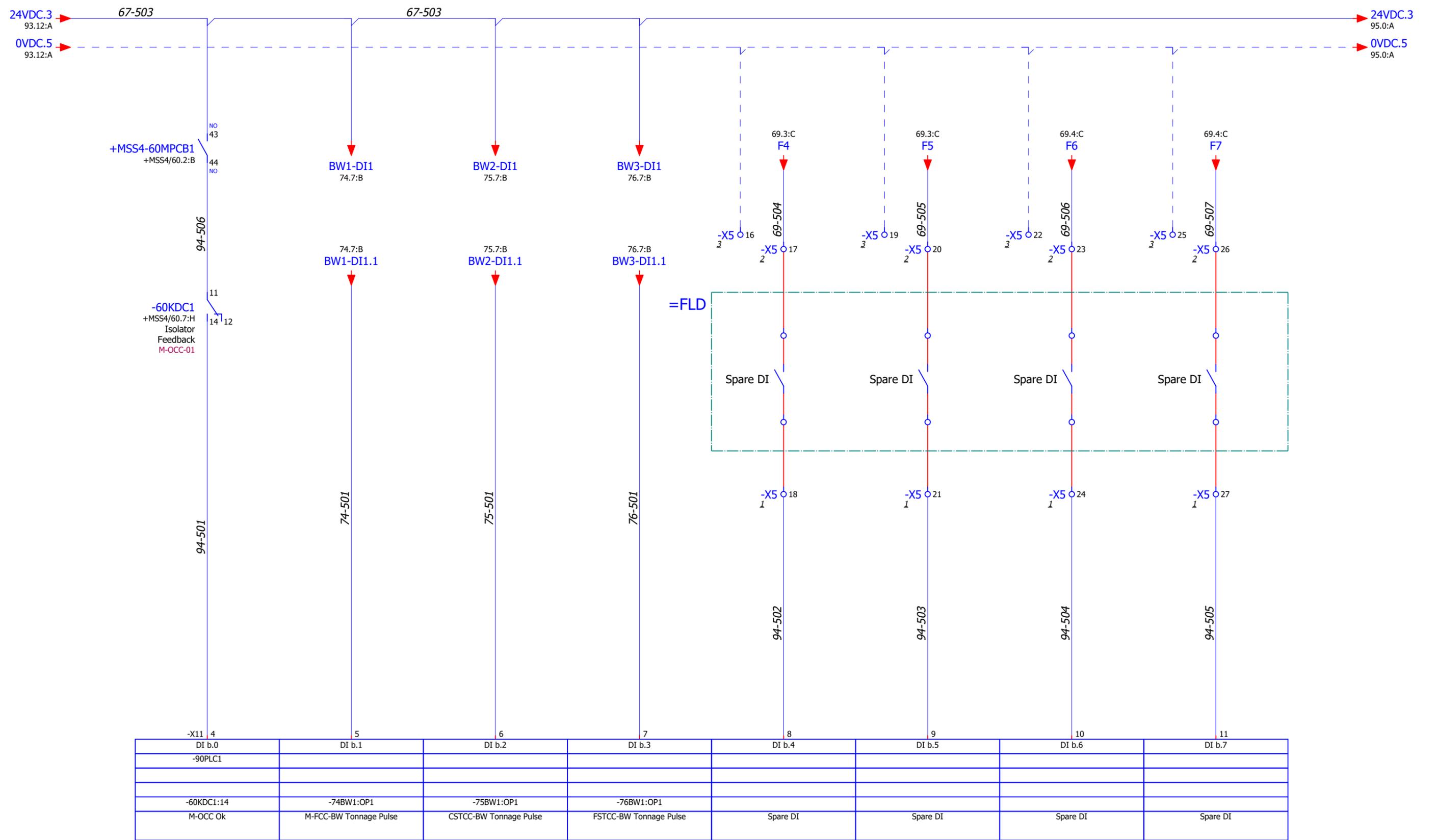


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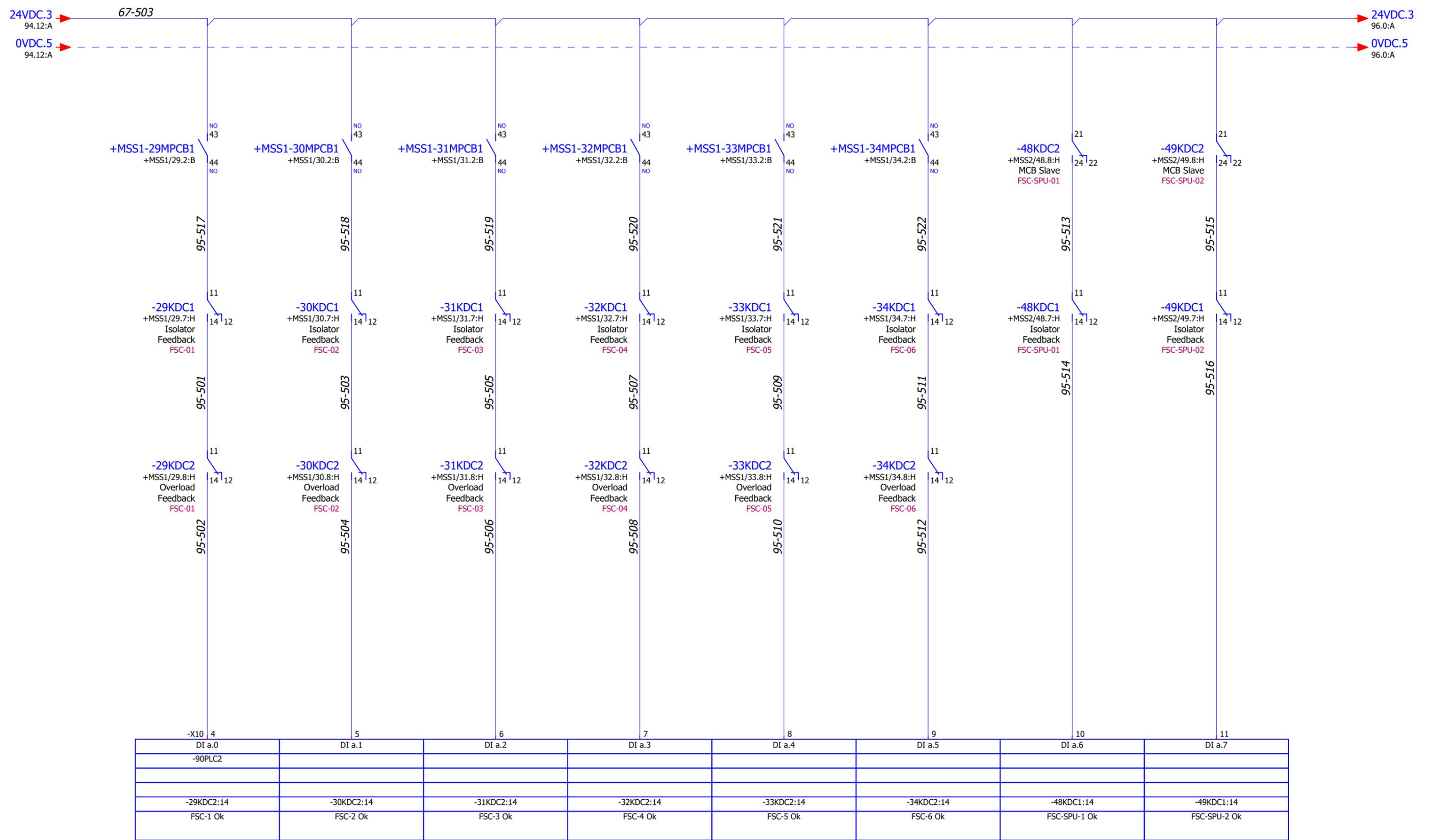
-X10 4	5	6	7	8	9	10	11
DI a.0	DI a.1	DI a.2	DI a.3	DI a.4	DI a.5	DI a.6	DI a.7
-90PLC1							
-59KDC1:14	-37KDC2:44		+MSS2-37HOP1-JB-PB1	+MSS2-37HOP1-JB-PB2	-38KDC2:44	-39KDC2:44	-52KDC1:14
M-HOP Ok	M-HOP-HPU Ok	M-HOP-HPU-LSW Low Oil Level	M-HOP-HPU Raise PB	M-HOP-HPU Lower PB	M-FCC Ok	M-RSC Ok	M-CSPU Ok

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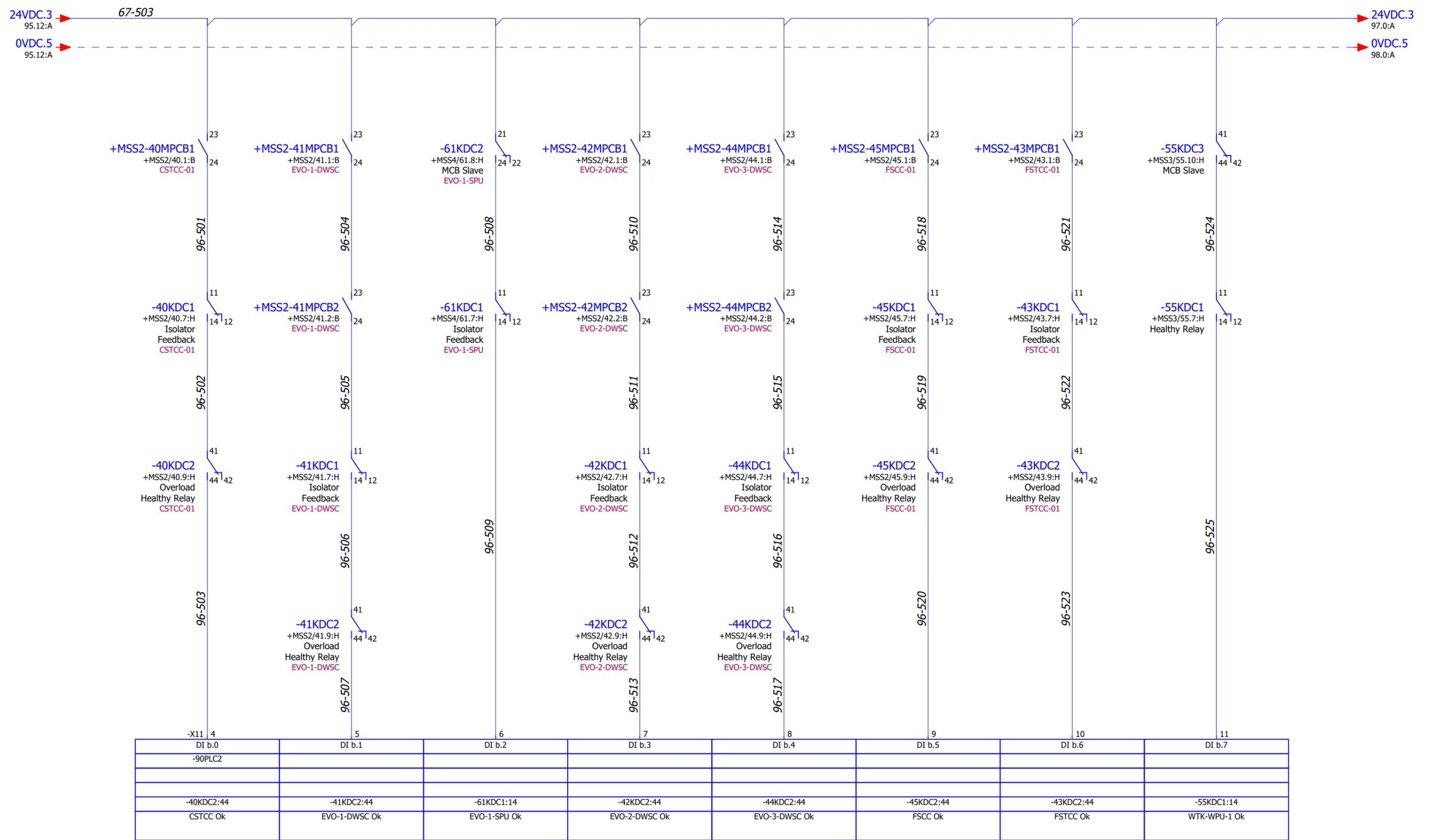


-X11 4	5	6	7	8	9	10	11
DI b.0	DI b.1	DI b.2	DI b.3	DI b.4	DI b.5	DI b.6	DI b.7
-90PLC1							
-60KDC1:14	-74BW1:OP1	-75BW1:OP1	-76BW1:OP1				
M-OCC Ok	M-FCC-BW Tonnage Pulse	CSTCC-BW Tonnage Pulse	FSTCC-BW Tonnage Pulse	Spare DI	Spare DI	Spare DI	Spare DI

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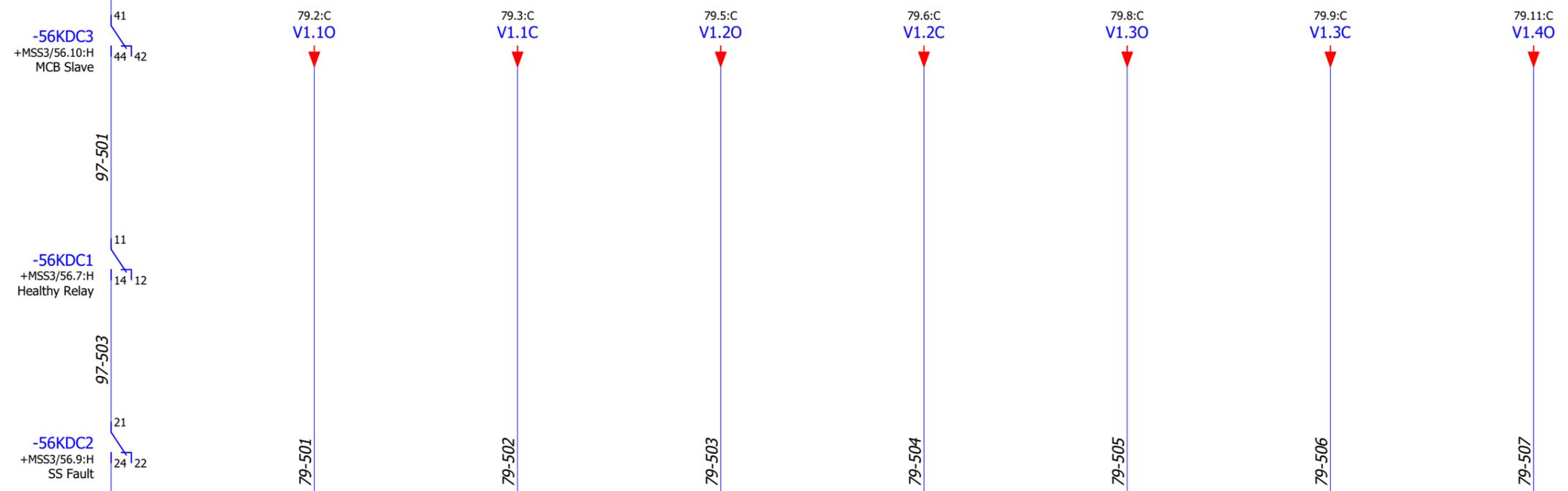


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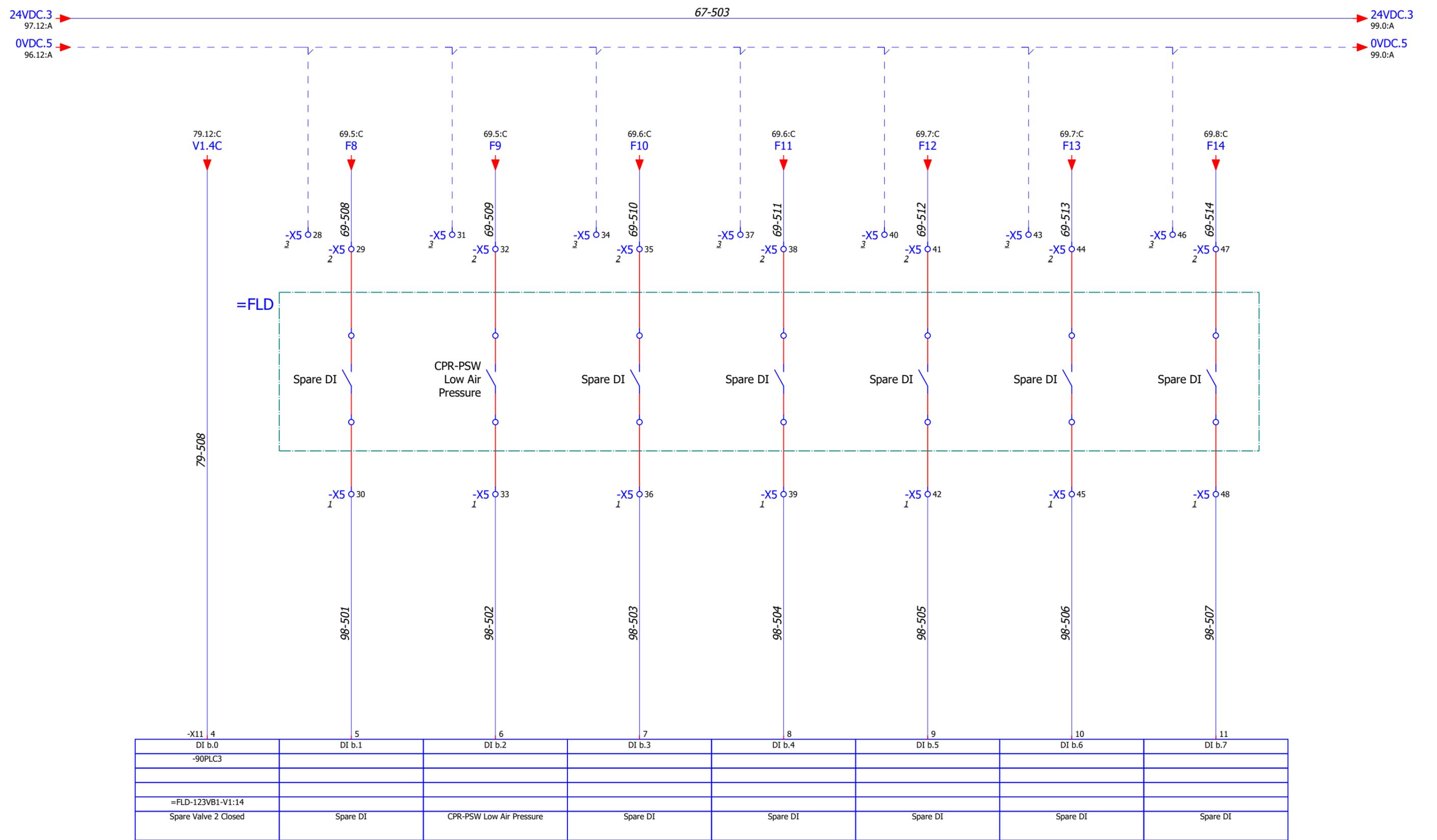
-X11 4	DI b.1	DI b.2	DI b.3	DI b.4	DI b.5	DI b.6	DI b.7
-90PLC2							
-40KDC2:44	-41KDC2:44	-61KDC1:14	-42KDC2:44	-44KDC2:44	-45KDC2:44	-43KDC2:44	-55KDC1:14
CSTCC Ok	EVO-1-DWSC Ok	EVO-1-SPU Ok	EVO-2-DWSC Ok	EVO-3-DWSC Ok	FSCC Ok	FSTCC Ok	WTK-WPU-1 Ok

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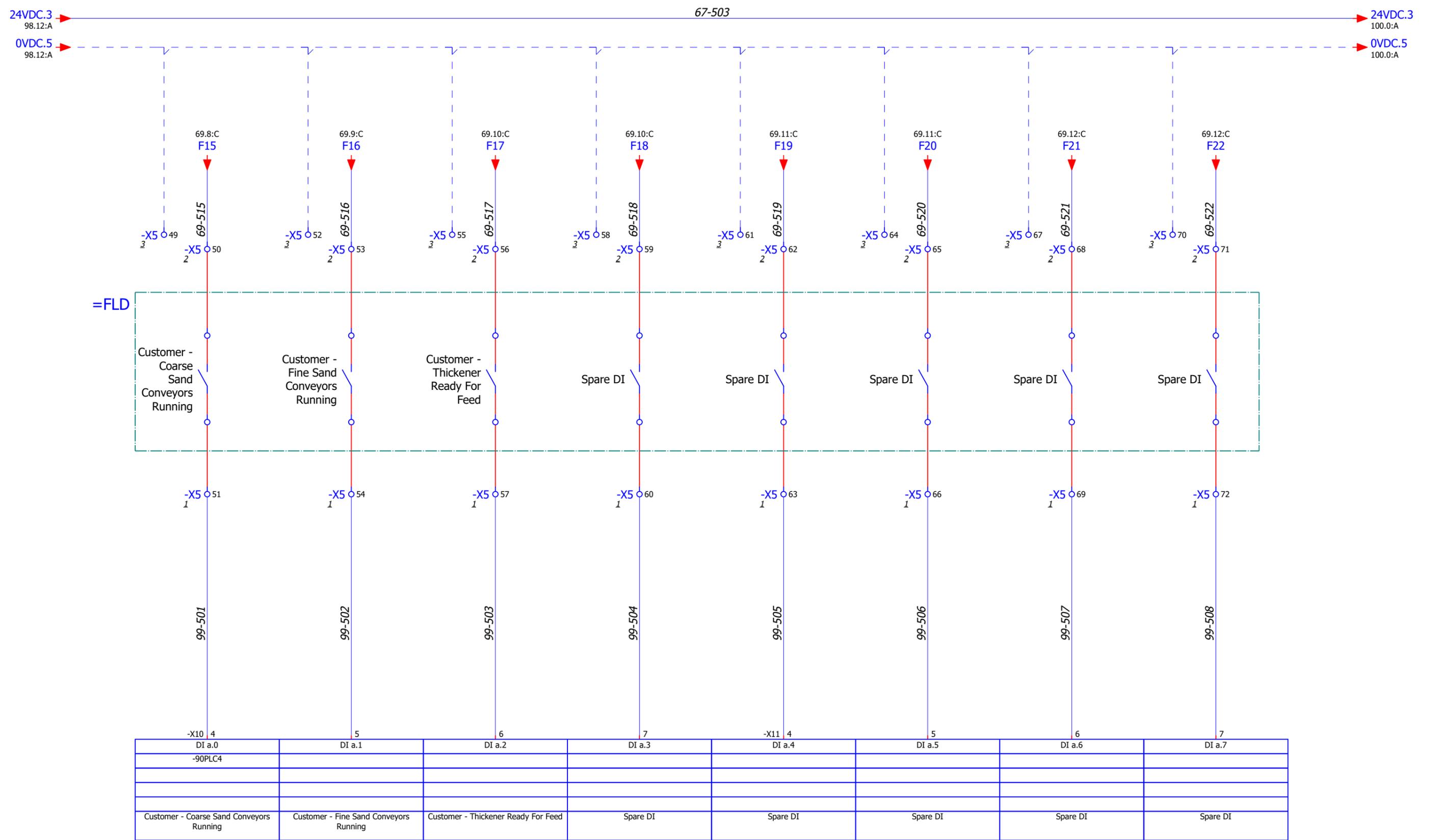


-X10 4	5	6	7	8	9	10	11
DI a.0	DI a.1	DI a.2	DI a.3	DI a.4	DI a.5	DI a.6	DI a.7
-90PLC3							
-56KDC2:24	=FLD-123VB1-V1:7	=FLD-123VB1-V1:8	=FLD-123VB1-V1:9	=FLD-123VB1-V1:10	=FLD-123VB1-V1:11	=FLD-123VB1-V1:12	=FLD-123VB1-V1:13
WTK-WPU-2 Ok	WTK-IV-1 Opened	WTK-IV-1 Closed	WTK-IV-2 Opened	WTK-IV-2 Closed	Spare Valve 1 Opened	Spare Valve 1 Closed	Spare Valve 2 Opened

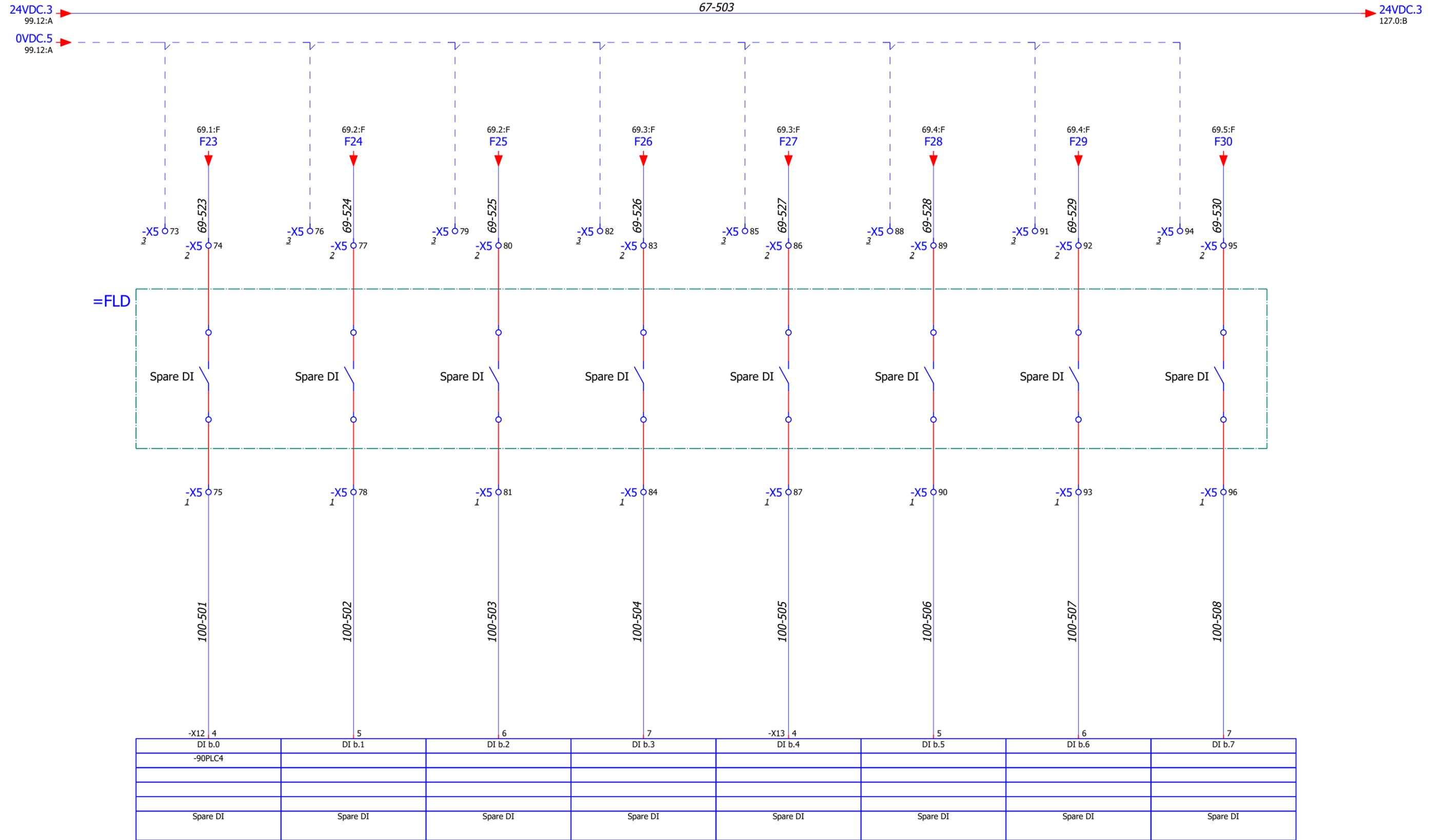
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	Project Description : Silica Services		= MCH + CCS
	Drawing Description : Blank		Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581	Page101 Of 158

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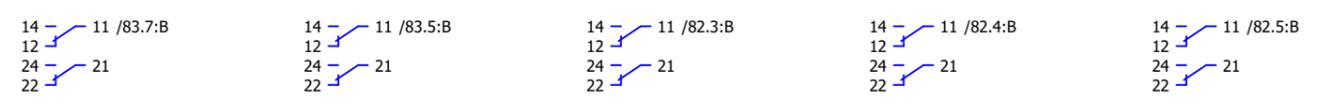
	Project Description : Silica Services		= MCH + CCS
	Drawing Description : Blank		Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581	Page102 Of 158

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Running LED -103KDC1:A1	Fault LED -103KDC2:A1	Tower Light Green -103KDC3:A1	Tower Light Red -103KDC4:A1	Tower Sounder -103KDC5:A1
-90PLC0				
DQ a.0	DQ a.1	DQ a.2	DQ a.3	DQ a.4

-X12 3 4 5 6 7

103-501 103-502 103-503 103-504 103-505



Running LED  
RXG22BD  
RGZE1S48M

Fault LED  
RXG22BD  
RGZE1S48M

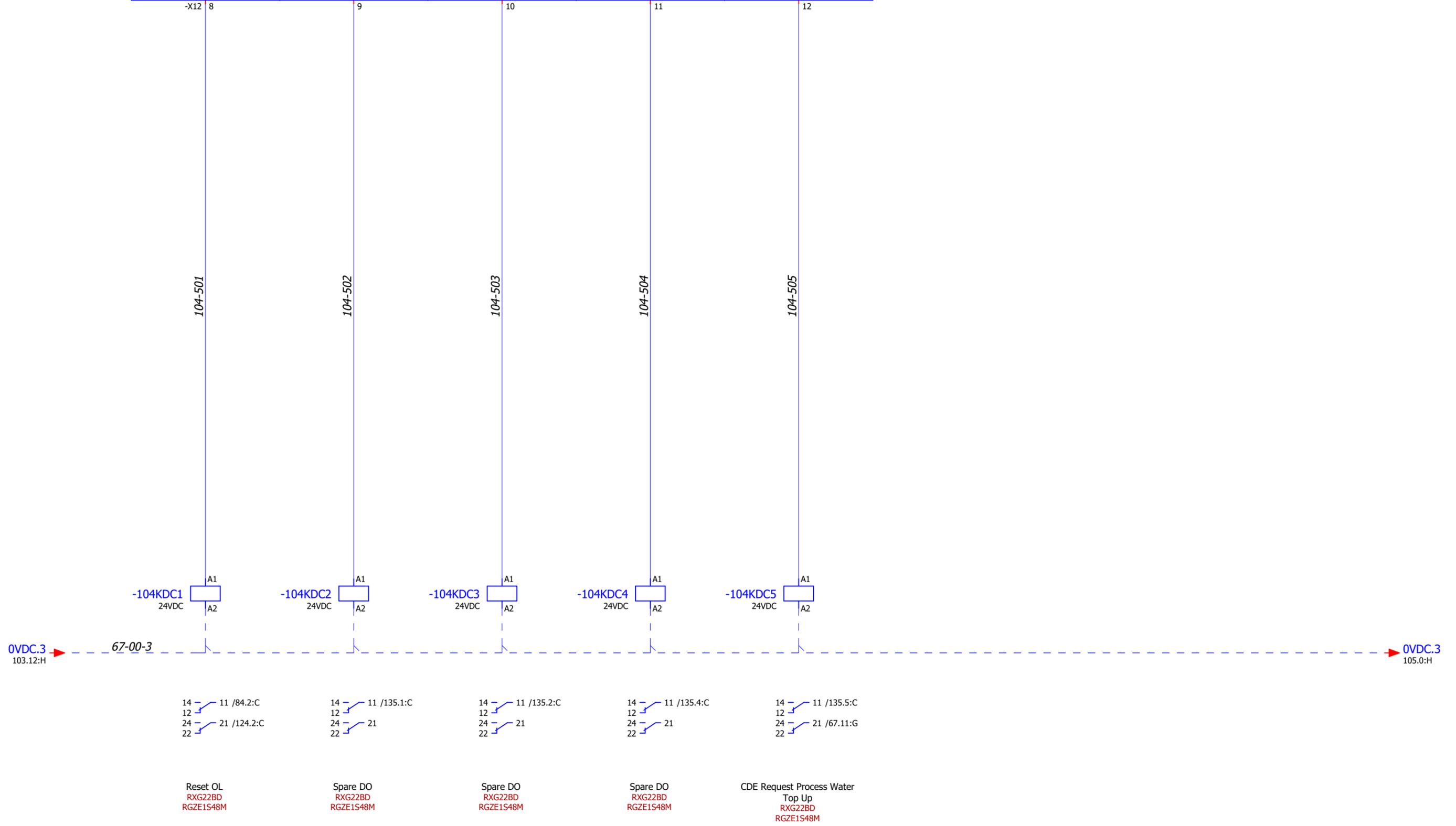
Tower Light Green  
RXG22BD  
RGZE1S48M

Tower Light Red  
RXG22BD  
RGZE1S48M

Tower Sounder  
RXG22BD  
RGZE1S48M

	Project Description : Silica Services	= MCH + CCS
	Drawing Description : PLC I/O Slot 0 - DO	Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581

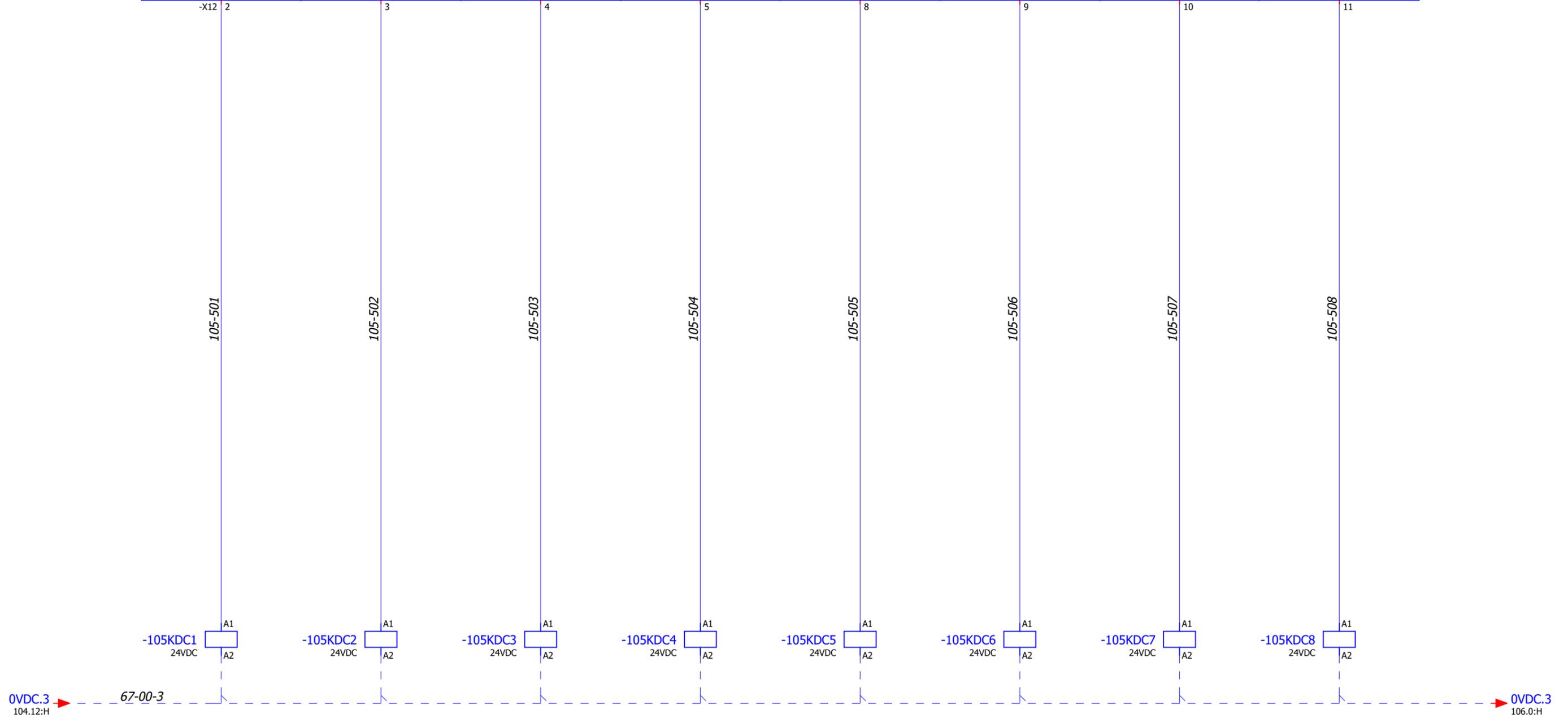
Reset OL -104KDC1:A1	Spare DO -104KDC2:A1	Spare DO -104KDC3:A1	Spare DO -104KDC4:A1	CDE Request Process Water Top Up -104KDC5:A1
-90PLC0				
DQ a.5 -X12 8	DQ a.6 9	DQ a.7 10	DQ b.0 11	DQ b.1 12



	Project Description : Silica Services	= MCH + CCS
	Drawing Description : PLC I/O Slot 0 - DO	Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581

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M-HOP-HPU Start -105KDC1:A1	M-HOP-HPU Raise Solenoid -105KDC2:A1	M-HOP-HPU Lower Solenoid -105KDC3:A1	M-HOP-HPU Dump Solenoid -105KDC4:A1	M-HOP-HPU Amber Sounder & Beacon -105KDC5:A1	M-FCC Start -105KDC6:A1	M-RSC Start -105KDC7:A1	Spare DO -105KDC8:A1
-90PLC1							
DQ a.0	DQ a.1	DQ a.2	DQ a.3	DQ a.4	DQ a.5	DQ a.6	DQ a.7



0VDC.3 104.12:H → 67-00-3 → 106.0:H 0VDC.3

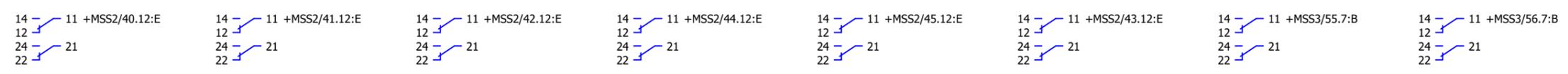
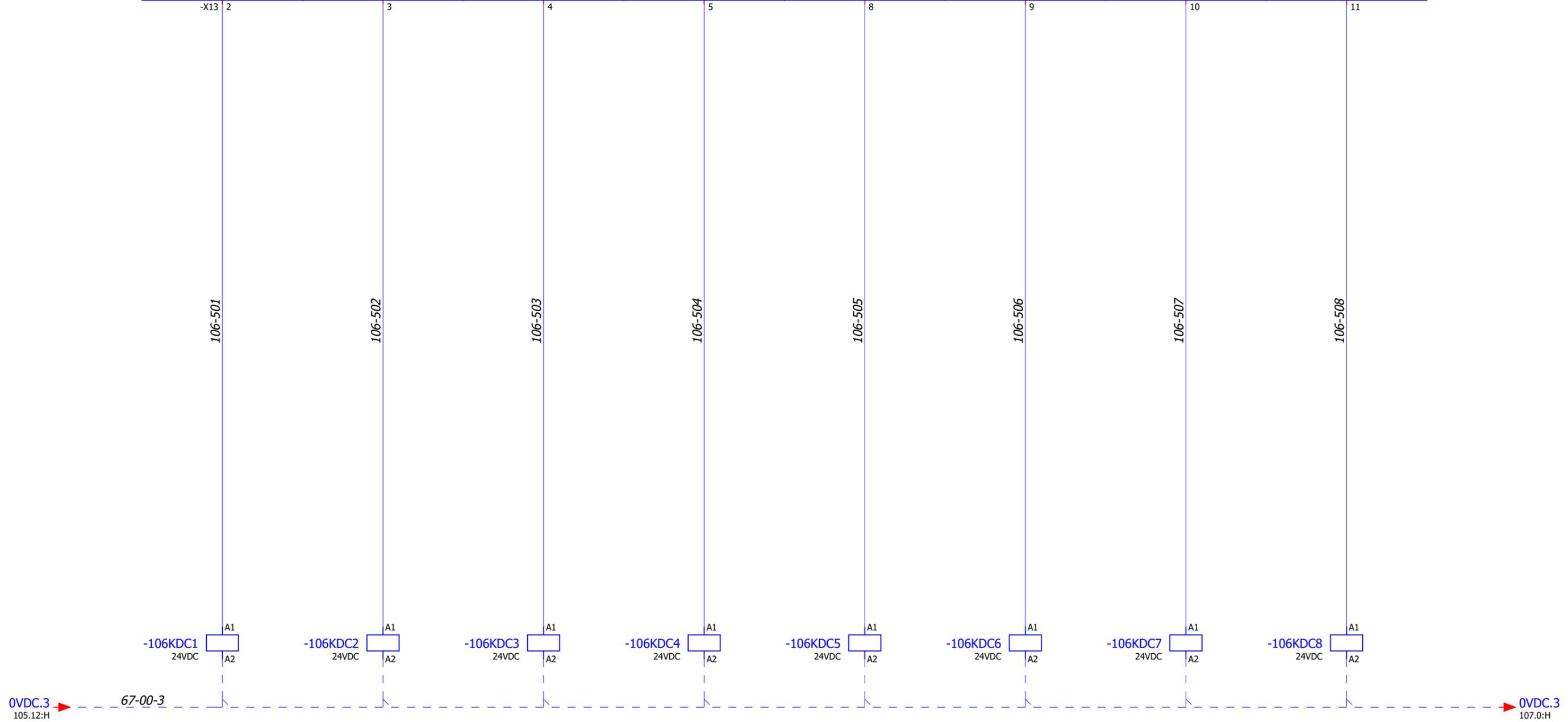


M-HOP-HPU Start RXG22BD RGZE1S48M  
 M-HOP-HPU Raise Solenoid RXG22BD RGZE1S48M  
 M-HOP-HPU Lower Solenoid RXG22BD RGZE1S48M  
 M-HOP-HPU Dump Solenoid RXG22BD RGZE1S48M  
 M-HOP-HPU Amber Sounder & Beacon RXG22BD RGZE1S48M  
 M-FCC Start RXG22BD RGZE1S48M  
 M-RSC Start RXG22BD RGZE1S48M  
 Spare DO RXG22BD RGZE1S48M

	Project Description : Silica Services	= MCH + CCS
	Drawing Description : PLC I/O Slot 1 - DO	Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581

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CSTCC Start -106KDC1:A1	EVO-1-DWSC Start -106KDC2:A1	EVO-2-DWSC Start -106KDC3:A1	EVO-3-DWSC Start -106KDC4:A1	FSCC Start -106KDC5:A1	FSTCC Start -106KDC6:A1	WTK-WPU-1 Start -106KDC7:A1	WTK-WPU-2 Start -106KDC8:A1
-90PLC1							
DQ b.0	DQ b.1	DQ b.2	DQ b.3	DQ b.4	DQ b.5	DQ b.6	DQ b.7



CSTCC Start  
RXG22BD  
RGZE1S48M

EVO-1-DWSC Start  
RXG22BD  
RGZE1S48M

EVO-2-DWSC Start  
RXG22BD  
RGZE1S48M

EVO-3-DWSC Start  
RXG22BD  
RGZE1S48M

FSCC Start  
RXG22BD  
RGZE1S48M

FSTCC Start  
RXG22BD  
RGZE1S48M

WTK-WPU-1 Start  
RXG22BD  
RGZE1S48M

WTK-WPU-2 Start  
RXG22BD  
RGZE1S48M

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WTK-IV-1 Open -107KDC1:A1	WTK-IV-2 Open -107KDC2:A1	Spare Valve 1 Open -107KDC3:A1	Spare Valve 2 Open -107KDC4:A1	Spare DO -107KDC5:A1	Spare DO -107KDC6:A1	Customer - CDE Plant Processing Material -107KDC7:A1	Customer - Coarse Sand Conveyor Start -107KDC8:A1
-90PLC2							
DQ a.0	DQ a.1	DQ a.2	DQ a.3	DQ a.4	DQ a.5	DQ a.6	DQ a.7

-X12 2 3 4 5 8 9 10 11

107-501 107-502 107-503 107-504 107-505 107-506 107-507 107-508



WTK-IV-1 Open RXG22BD RGZE1S48M  
 WTK-IV-2 Open RXG22BD RGZE1S48M  
 Spare Valve 1 Open RXG22BD RGZE1S48M  
 Spare Valve 2 Open RXG22BD RGZE1S48M  
 Spare DO RXG22BD RGZE1S48M  
 Spare DO RXG22BD RGZE1S48M  
 Customer - CDE Plant Processing Material RXG22BD RGZE1S48M  
 Customer - Coarse Sand Conveyor Start RXG22BD RGZE1S48M

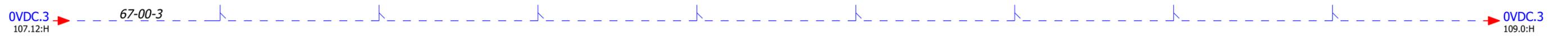
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	Drawing Description : PLC I/O Slot 2 - DO	Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581

A  
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D  
E  
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I

Customer - Fine Sand Conveyor Start -108KDC1:A1	Spare DO -108KDC2:A1	Spare DO -108KDC3:A1	Spare DO -108KDC4:A1	Spare DO -108KDC5:A1	Spare DO -108KDC6:A1	Spare DO -108KDC7:A1	Spare DO -108KDC8:A1
-90PLC2							
DQ b.0	DQ b.1	DQ b.2	DQ b.3	DQ b.4	DQ b.5	DQ b.6	DQ b.7

-X13 2 3 4 5 8 9 10 11

108-501 108-502 108-503 108-504 108-505 108-506 108-507 108-508



Customer - Fine Sand Conveyor Start  
RXG22BD  
RGZE1S48M

Spare DO  
RXG22BD  
RGZE1S48M

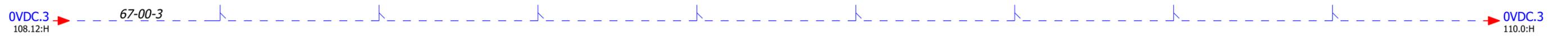
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	Drawing Description : PLC I/O Slot 2 - DO	Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581

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Spare DO -109KDC1:A1	Spare DO -109KDC2:A1	Spare DO -109KDC3:A1	Spare DO -109KDC4:A1	Spare DO -109KDC5:A1	Spare DO -109KDC6:A1	Spare DO -109KDC7:A1	Spare DO -109KDC8:A1
-90PLC3							
DQ a.0	DQ a.1	DQ a.2	DQ a.3	DQ a.4	DQ a.5	DQ a.6	DQ a.7

-X12 2 3 4 5 8 9 10 11

109-501 109-502 109-503 109-504 109-505 109-506 109-507 109-508

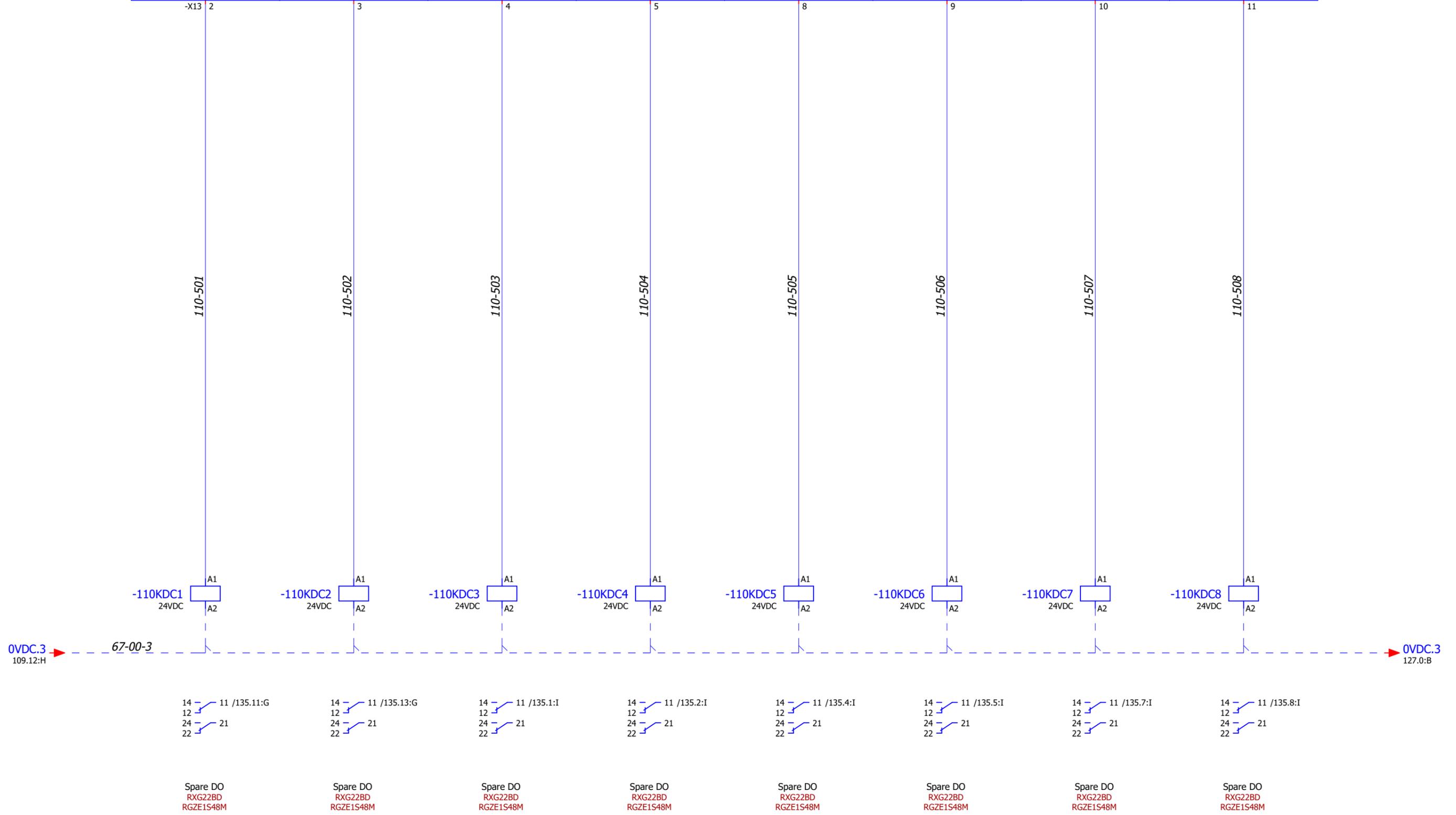


Spare DO RXG22BD RGZE1S48M Spare DO RXG22BD RGZE1S48M

	Project Description : Silica Services	= MCH + CCS
	Drawing Description : PLC I/O Slot 3 - DO	Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581

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Spare DO -110KDC1:A1	Spare DO -110KDC2:A1	Spare DO -110KDC3:A1	Spare DO -110KDC4:A1	Spare DO -110KDC5:A1	Spare DO -110KDC6:A1	Spare DO -110KDC7:A1	Spare DO -110KDC8:A1
-90PLC3							
DQ b.0	DQ b.1	DQ b.2	DQ b.3	DQ b.4	DQ b.5	DQ b.6	DQ b.7
-X13 2	3	4	5	8	9	10	11



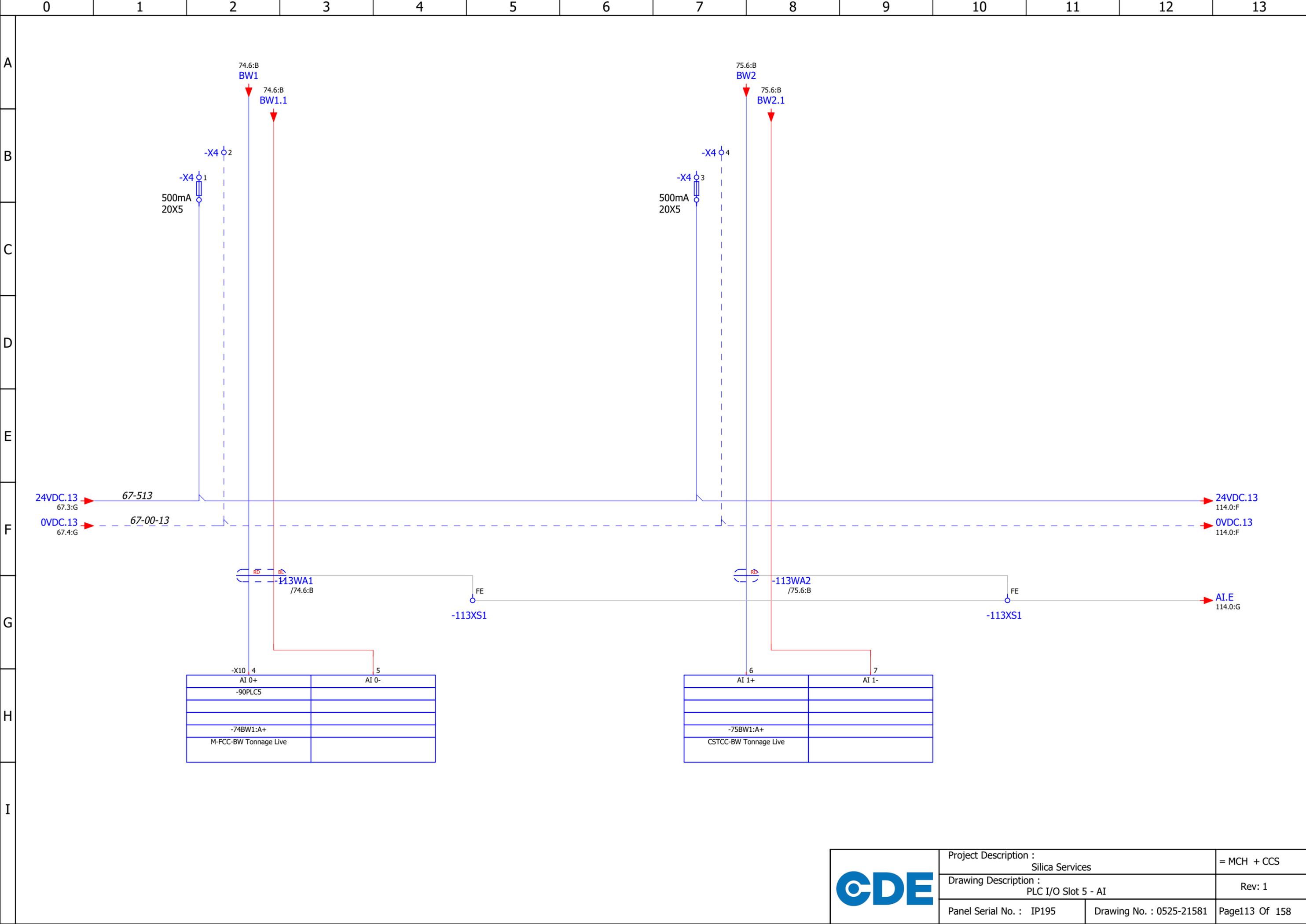
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	Project Description : Silica Services		= MCH + CCS
	Drawing Description : Blank		Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581	Page111 Of 158

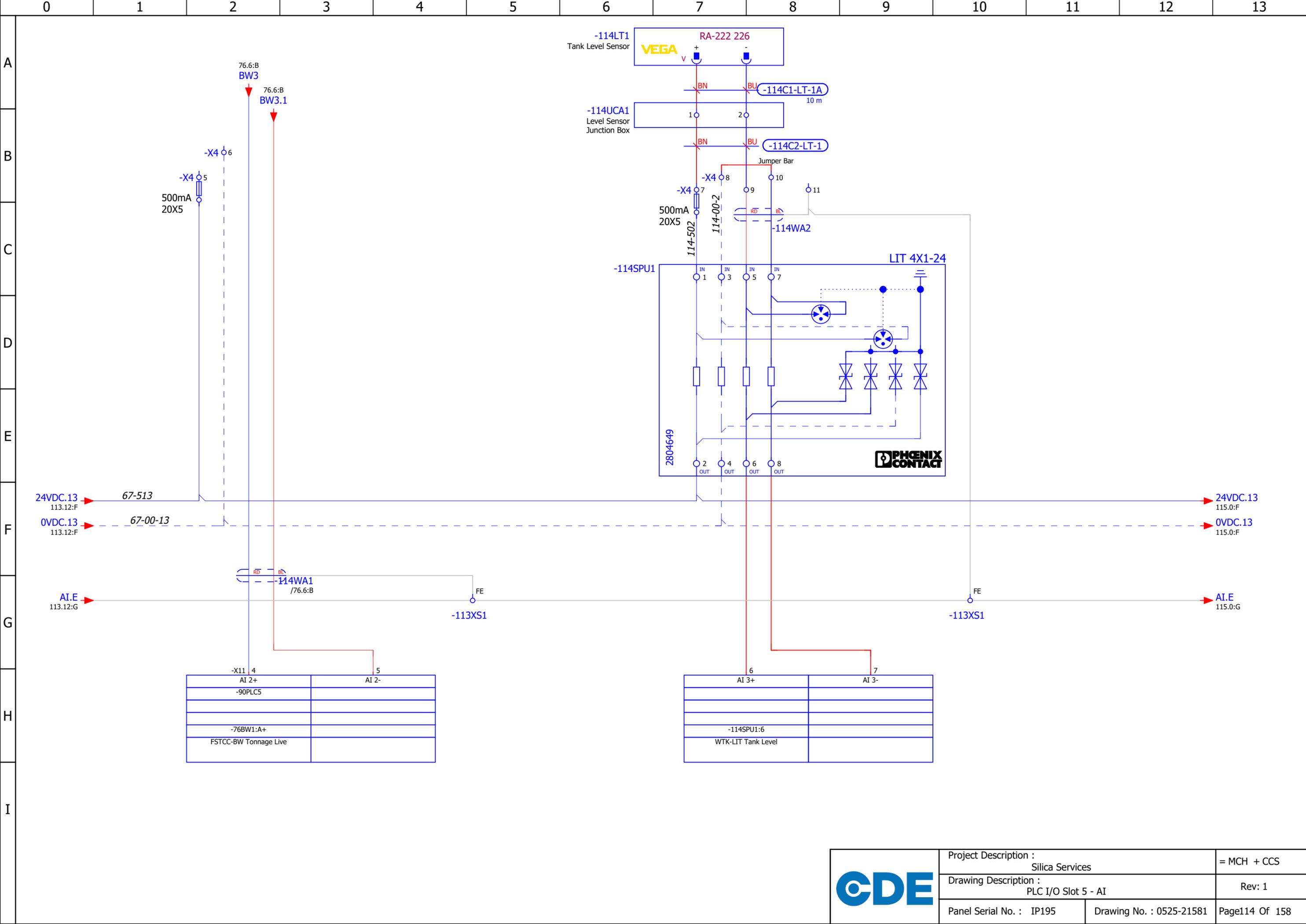
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	Project Description : Silica Services		= MCH + CCS
	Drawing Description : Blank		Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581	Page112 Of 158

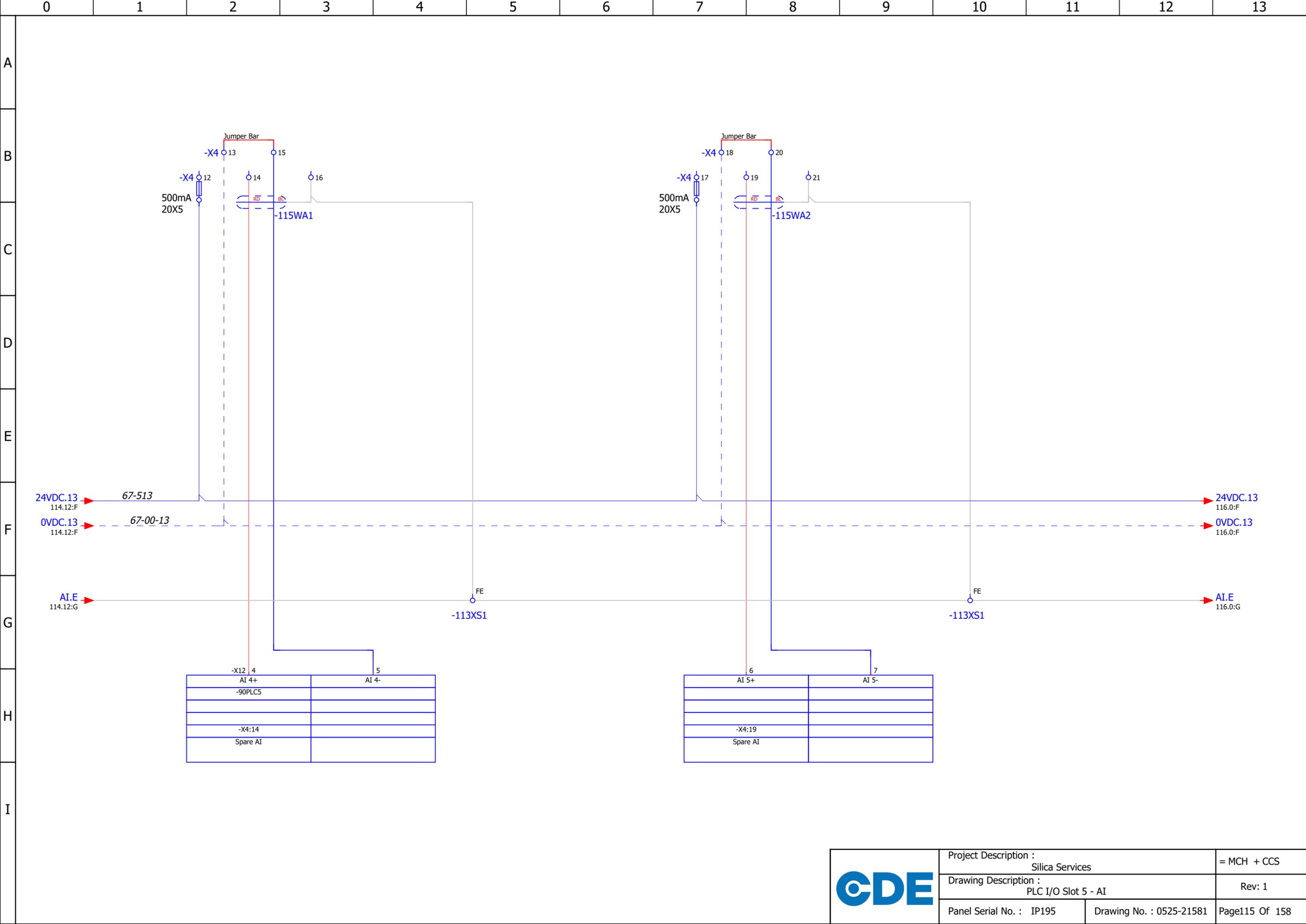


	Project Description : Silica Services	= MCH + CCS
	Drawing Description : PLC I/O Slot 5 - AI	Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581
		Page113 Of 158



-X11 4	AI 2+	AI 2-
	-90PLC5	
	-76BW1:A+	
	FSTCC-BW Tonnage Live	

6	AI 3+	AI 3-
	-114SPU1:6	
	WTK-LIT Tank Level	



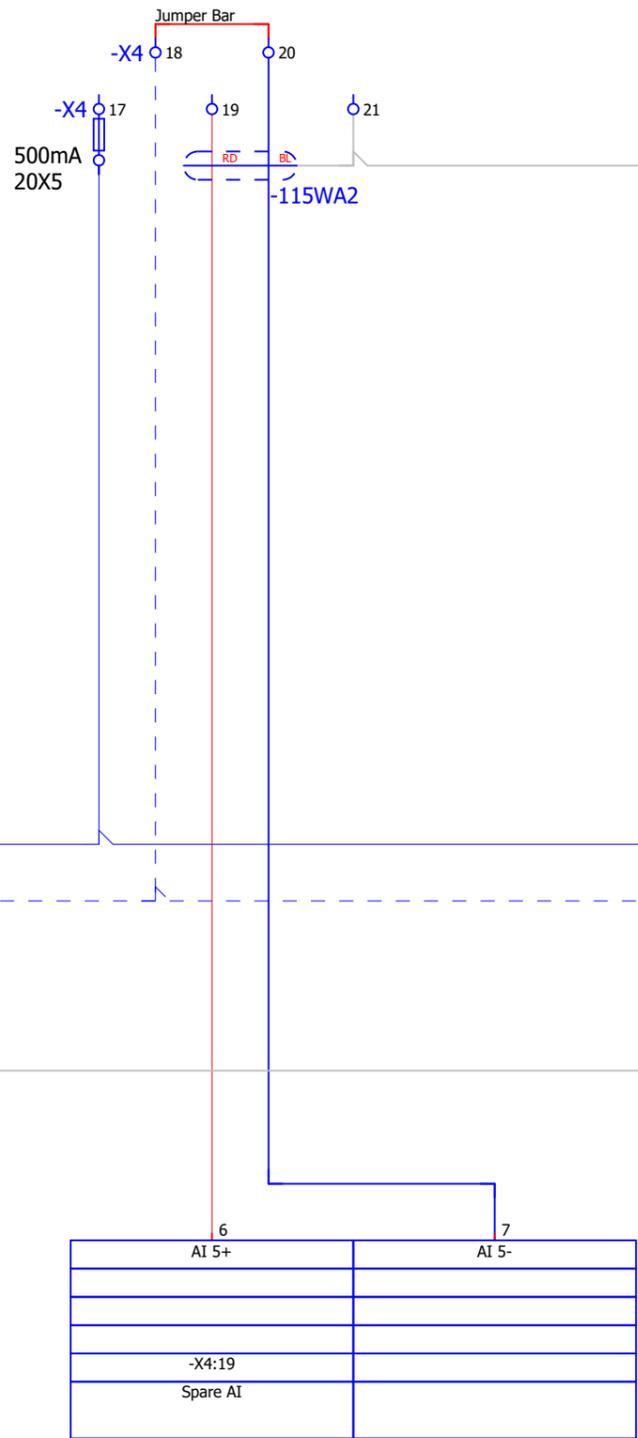
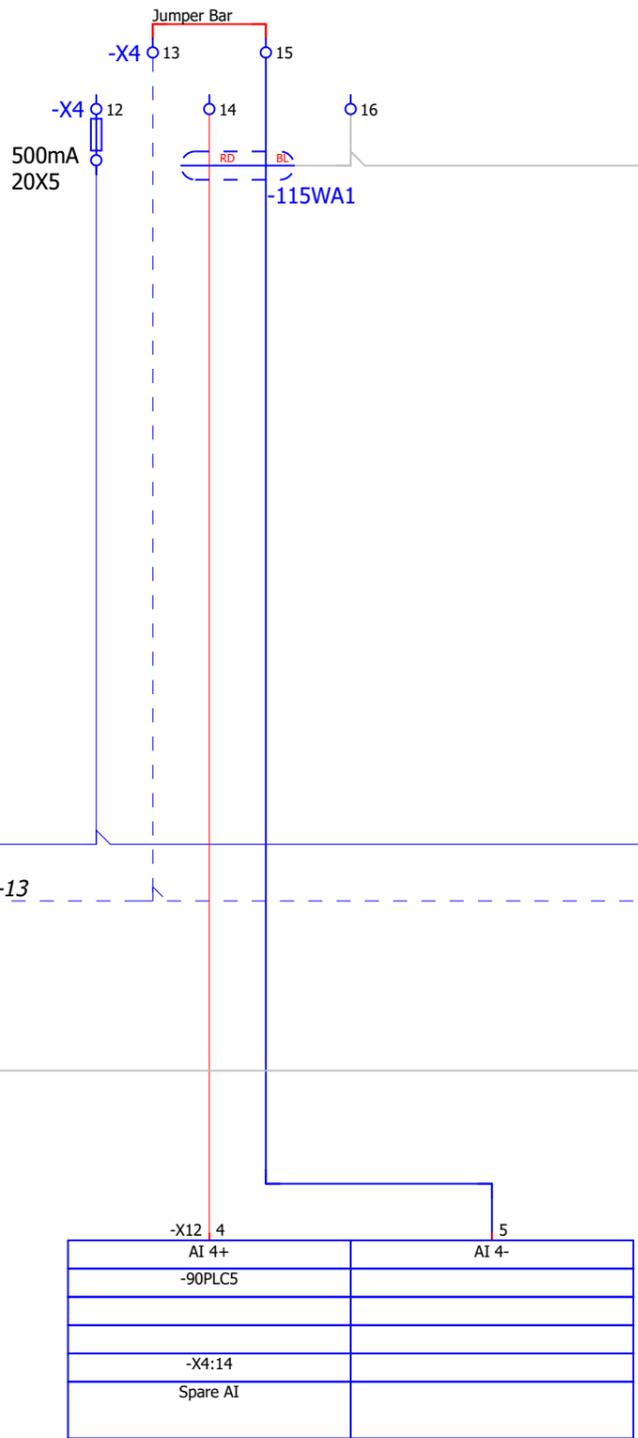
24VDC.13  
114.12:F

0VDC.13  
114.12:F

AI.E  
114.12:G

67-513

67-00-13

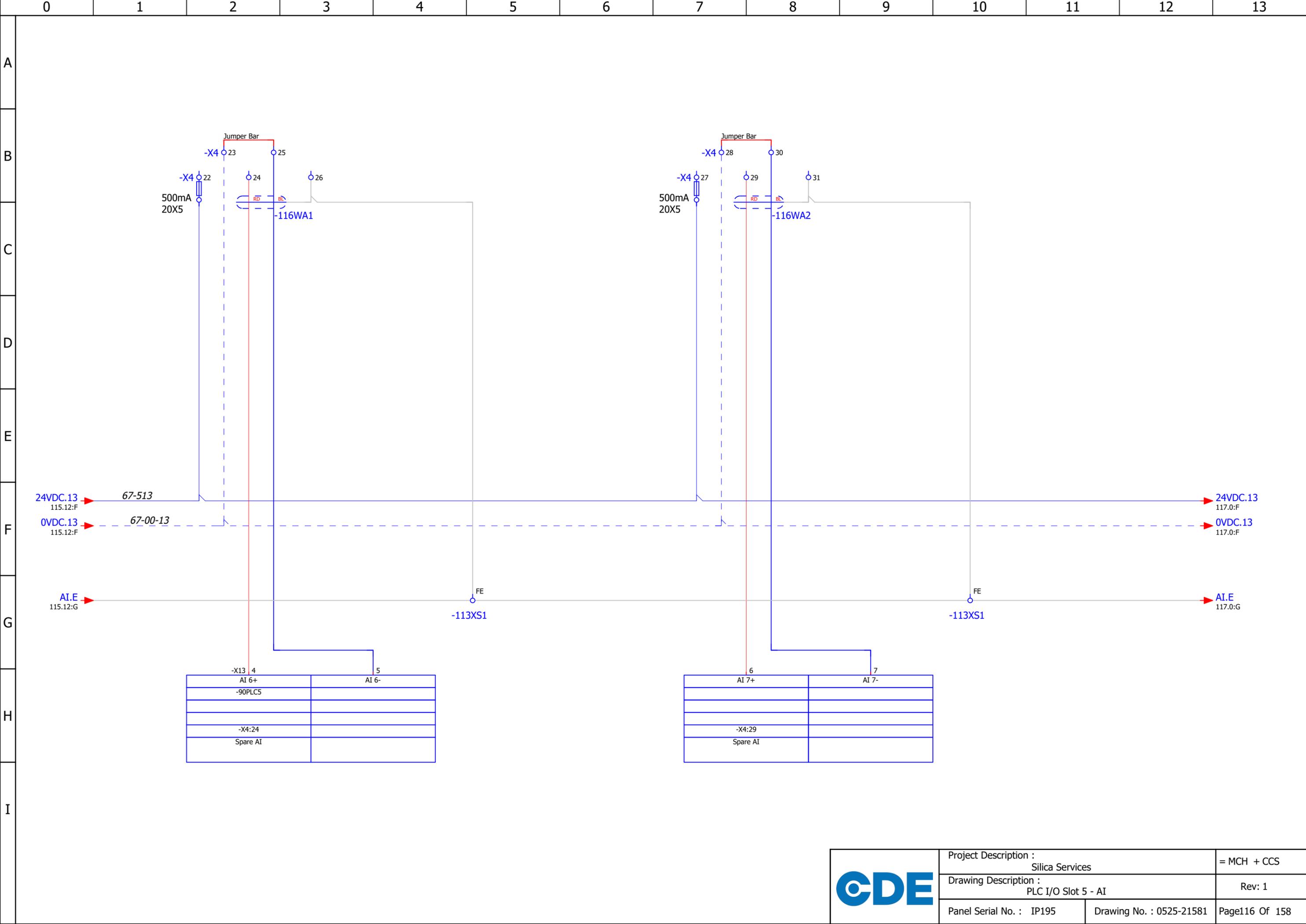


24VDC.13  
116.0:F

0VDC.13  
116.0:F

AI.E  
116.0:G

	Project Description : Silica Services	= MCH + CCS
	Drawing Description : PLC I/O Slot 5 - AI	Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581



24VDC.13  
115.12:F

24VDC.13  
117.0:F

0VDC.13  
115.12:F

0VDC.13  
117.0:F

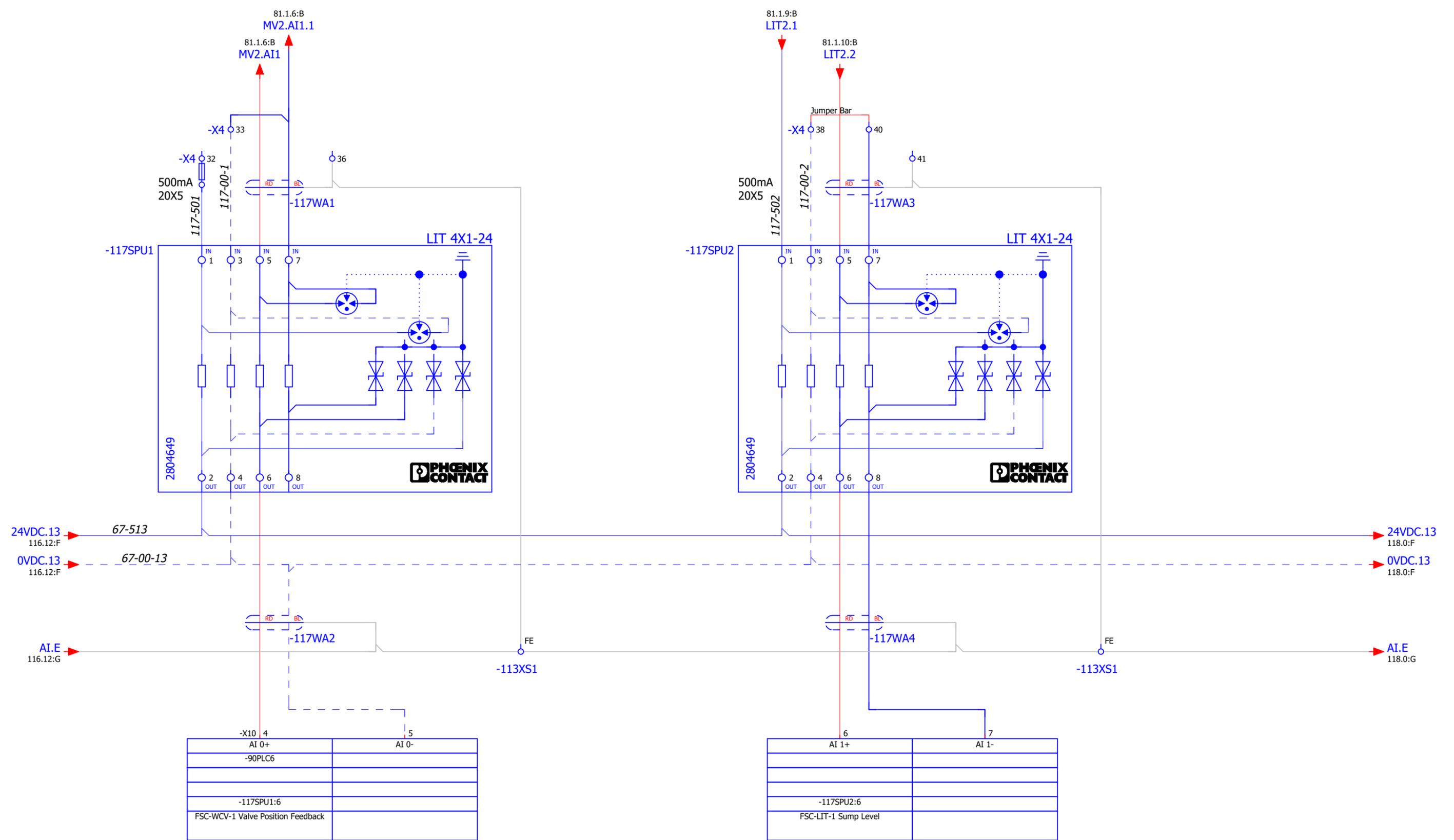
AI.E  
115.12:G

AI.E  
117.0:G

-X13 4	5
AI 6+	AI 6-
-90PLC5	
-X4:24	
Spare AI	

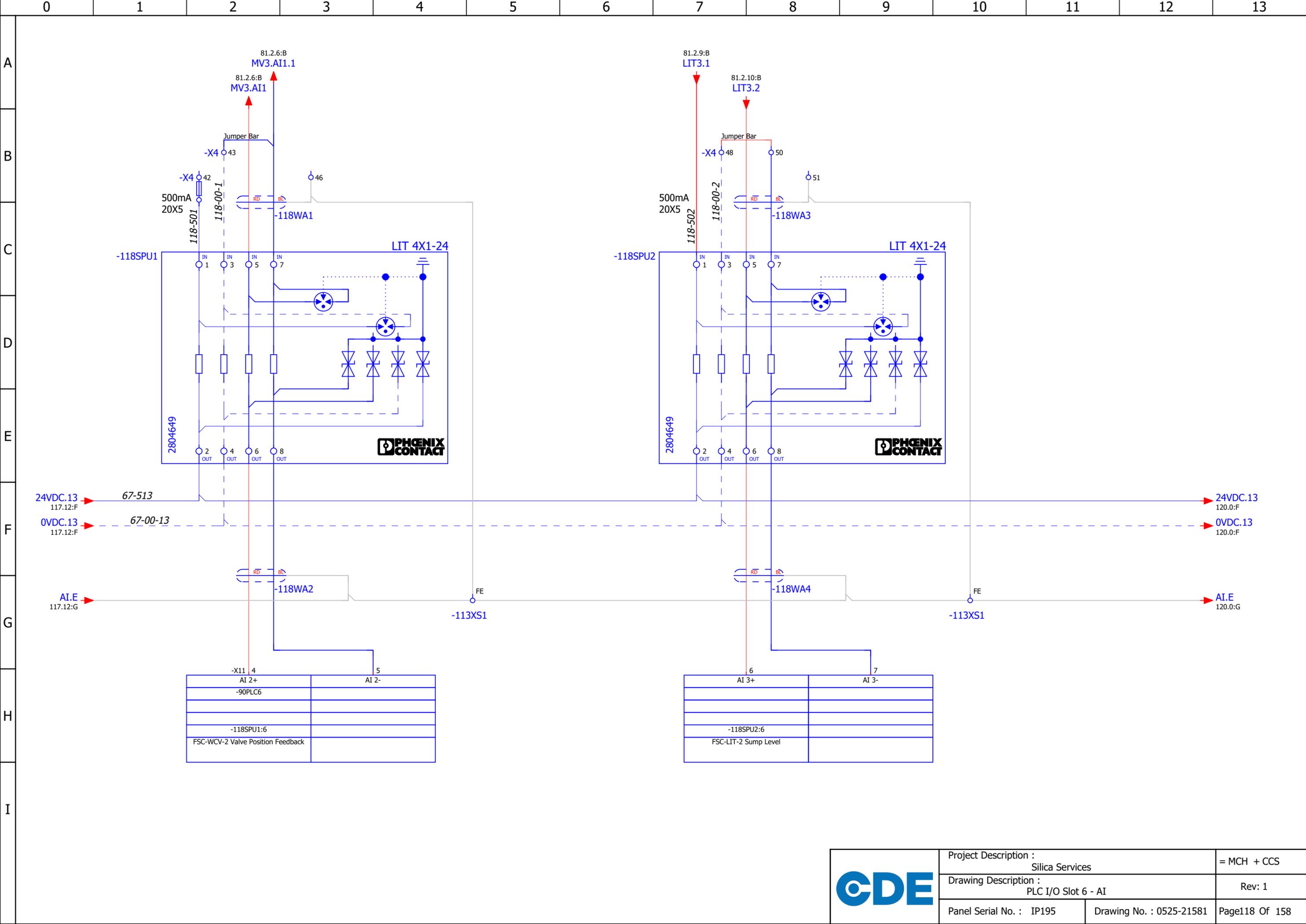
6	7
AI 7+	AI 7-
-X4:29	
Spare AI	

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-X10 4	AI 0+
-90PLC6	AI 0-
-117SPU1:6	
FSC-WCV-1 Valve Position Feedback	

6	AI 1+
7	AI 1-
-117SPU2:6	
FSC-LIT-1 Sump Level	

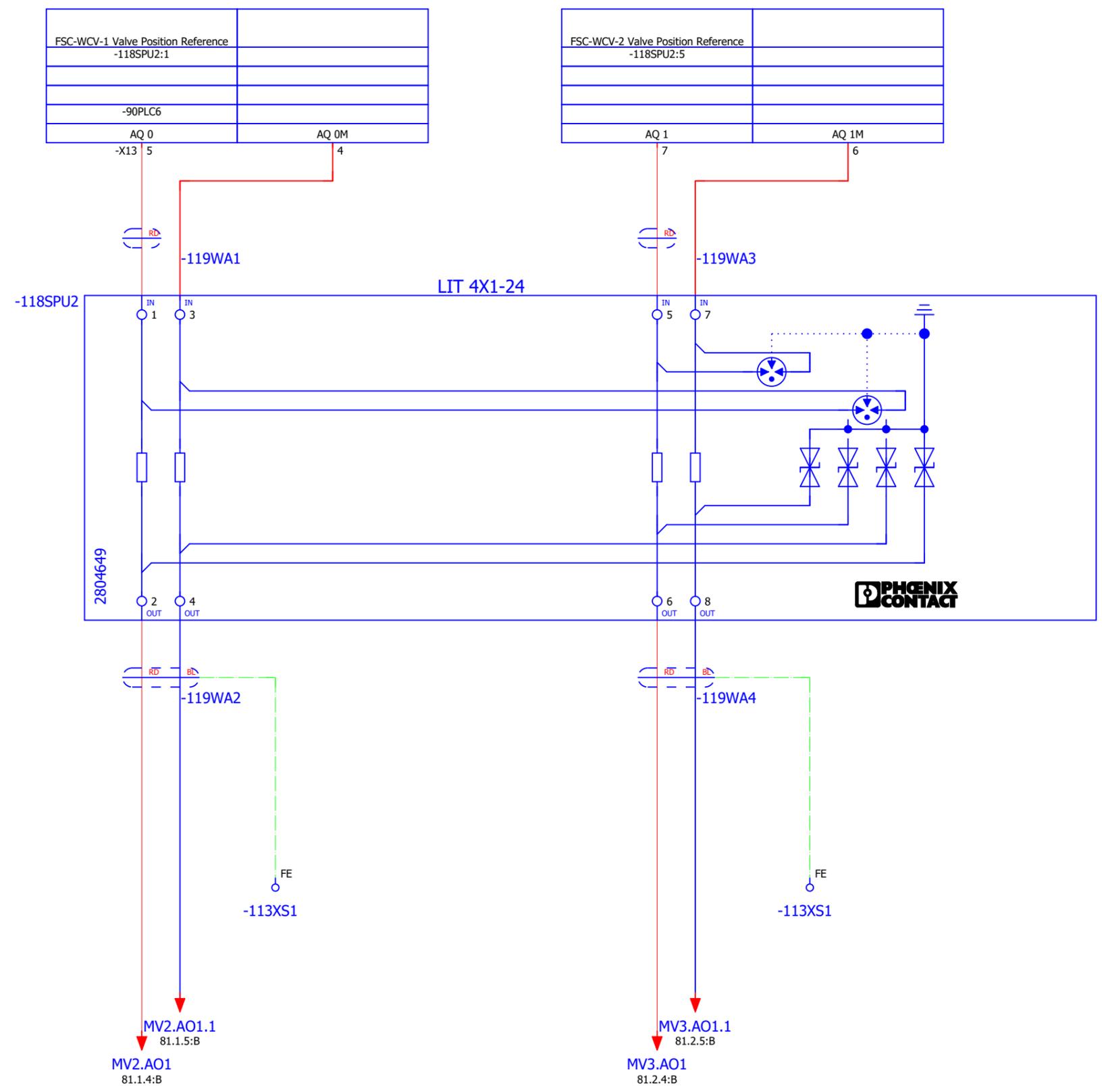


24VDC.13 117.12:F 67-513 → 24VDC.13 120.0:F  
 0VDC.13 117.12:F 67-00-13 → 0VDC.13 120.0:F

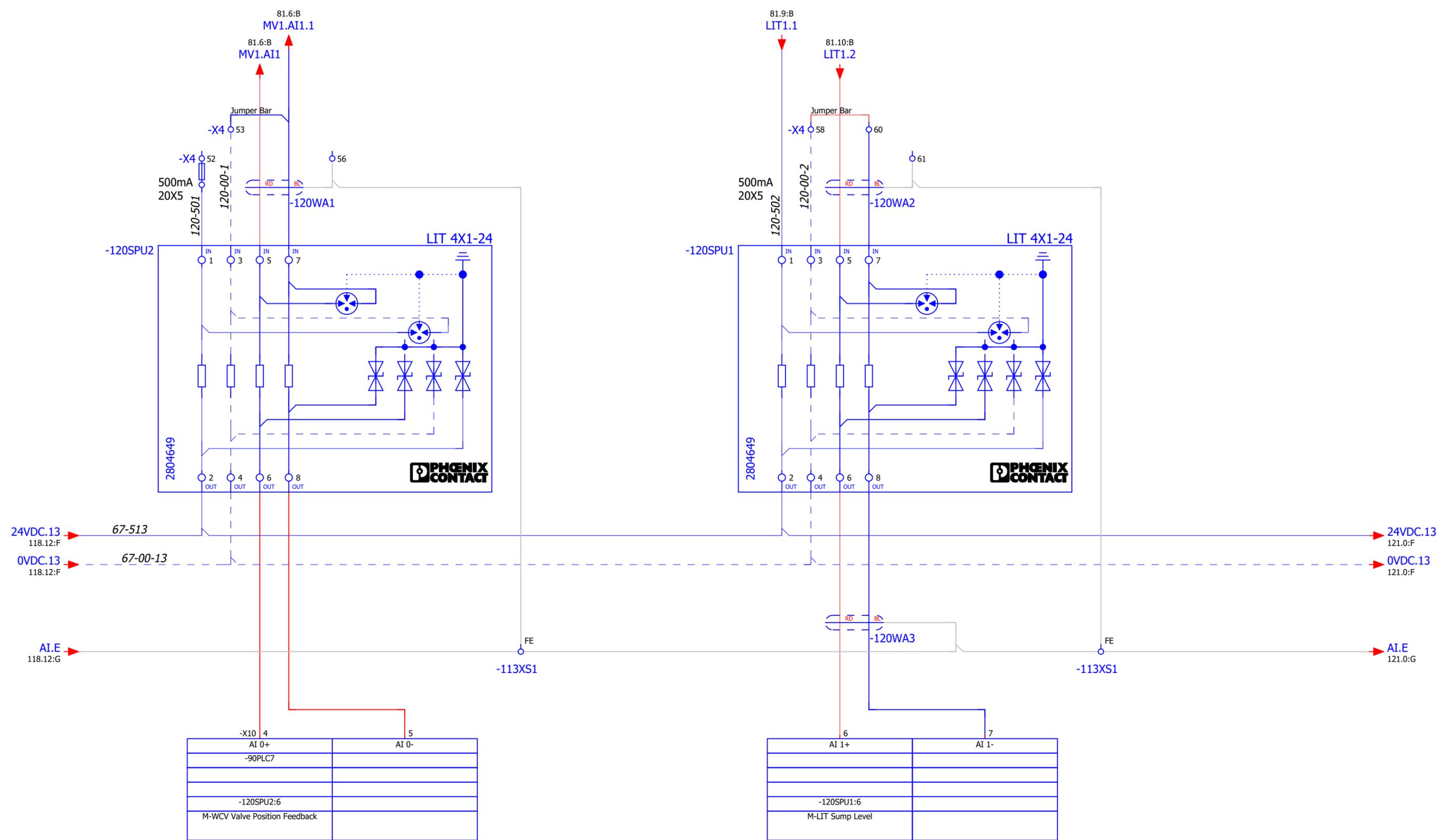
AI.E 117.12:G → AI.E 120.0:G

-X11 4	AI 2+
	AI 2-
-118SPU1:6	
FSC-WCV-2 Valve Position Feedback	

6	AI 3+
7	AI 3-
-118SPU2:6	
FSC-LIT-2 Sump Level	

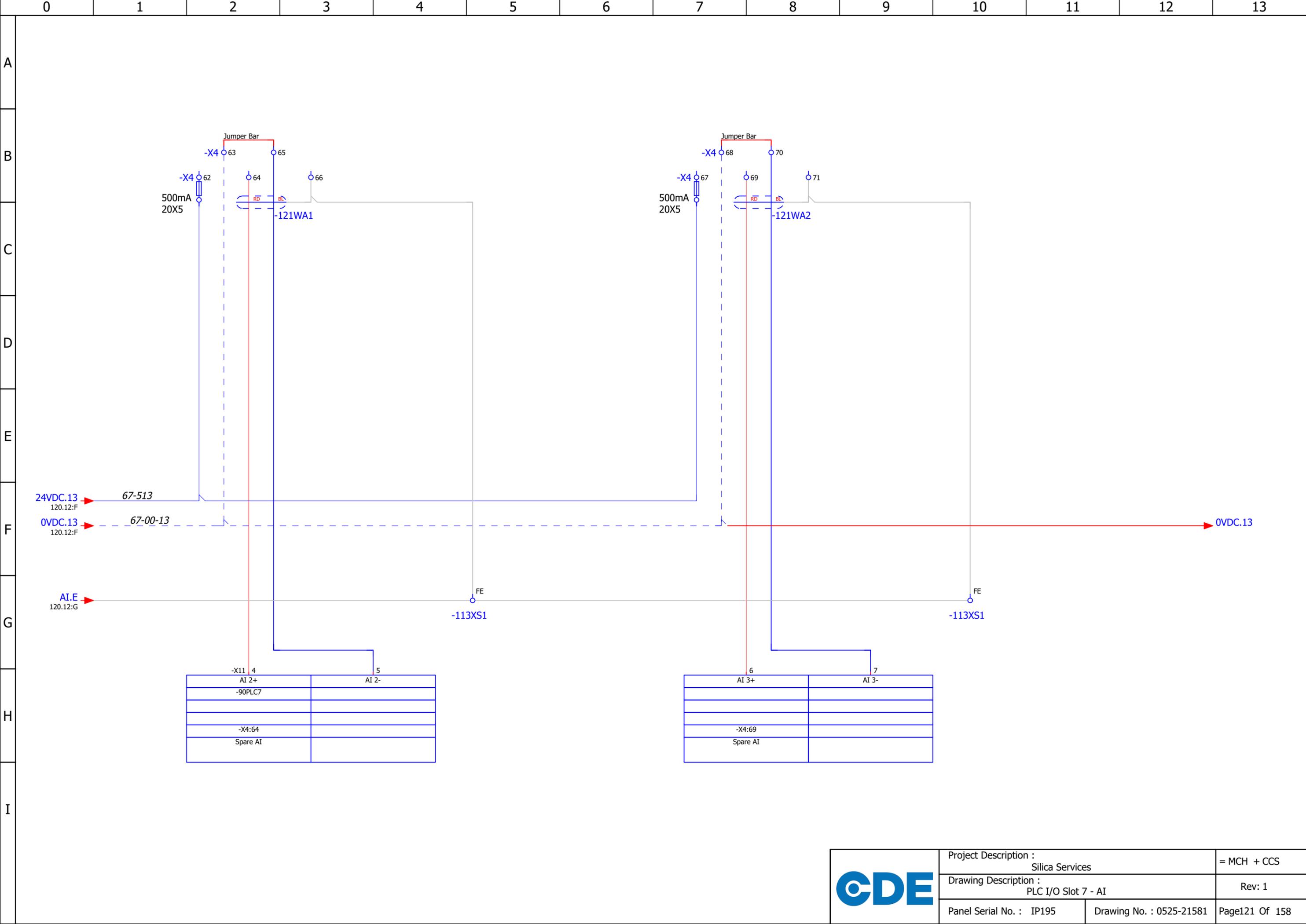


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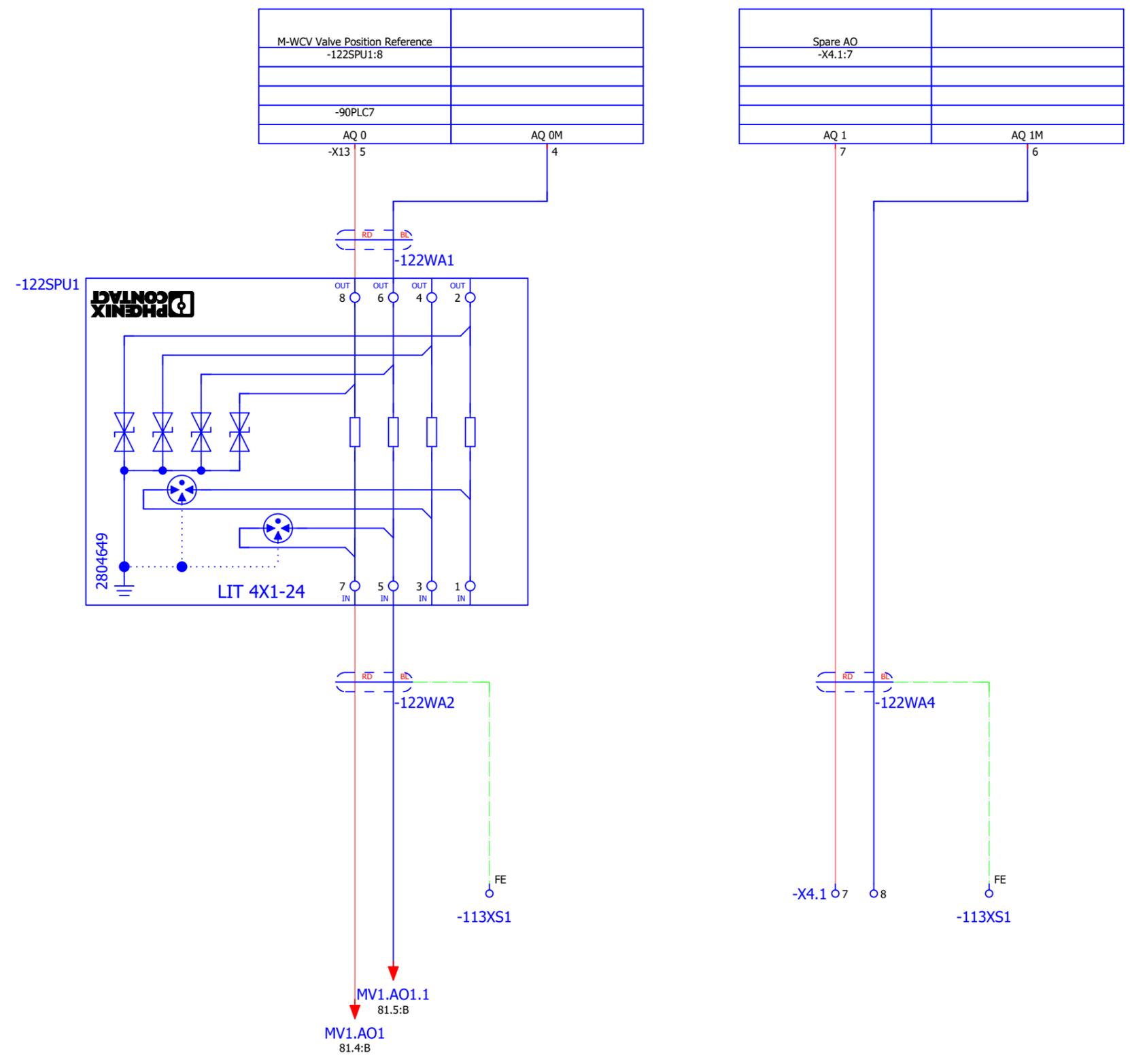


-X10 4	-X10 5
AI 0+	AI 0-
-90PLC7	
-120SPU2:6	
M-WCV Valve Position Feedback	

6	7
AI 1+	AI 1-
-120SPU1:6	
M-LIT Sump Level	

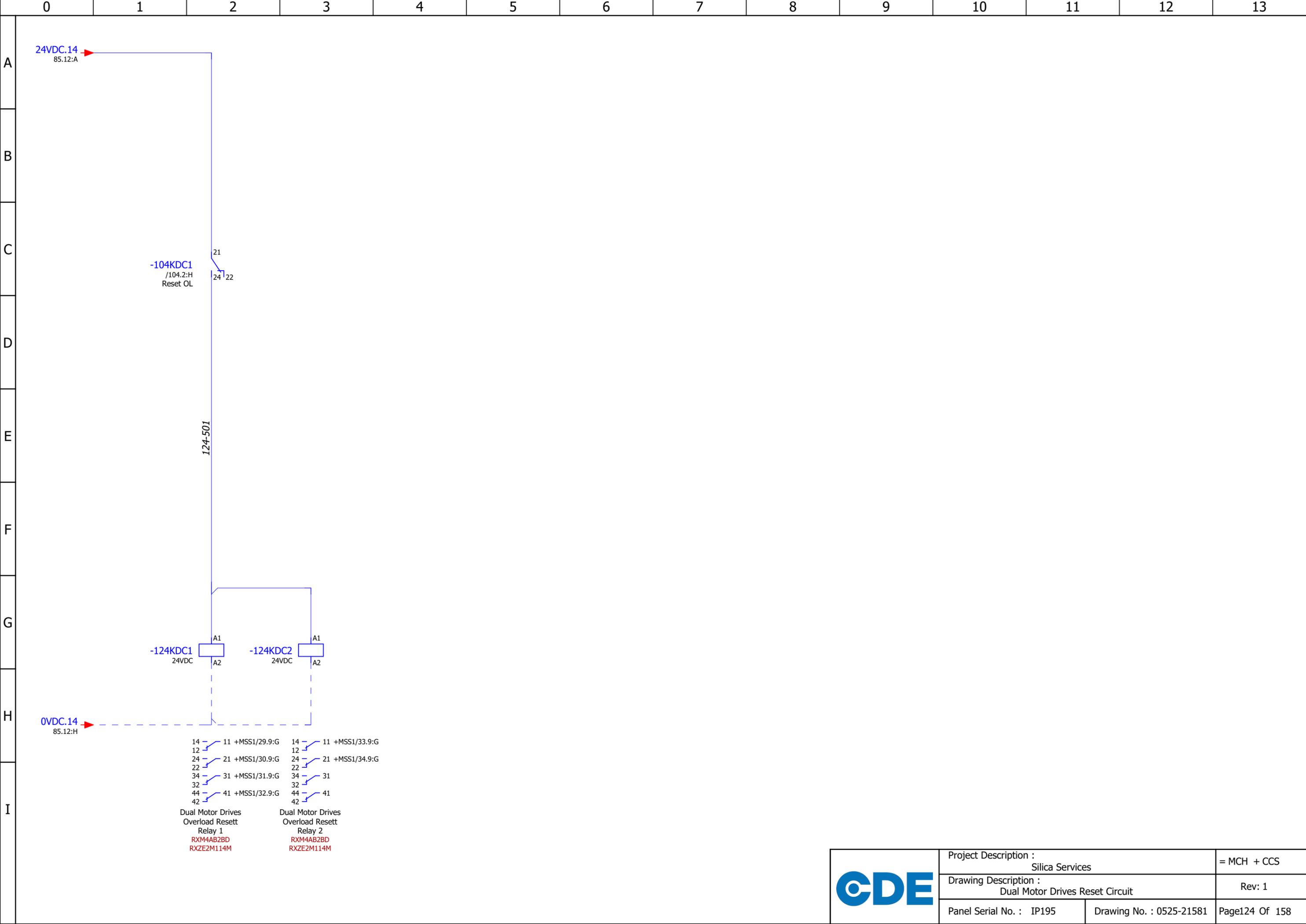


Project Description : Silica Services		= MCH + CCS
Drawing Description : PLC I/O Slot 7 - AI		Rev: 1
Panel Serial No. : IP195	Drawing No. : 0525-21581	Page121 Of 158

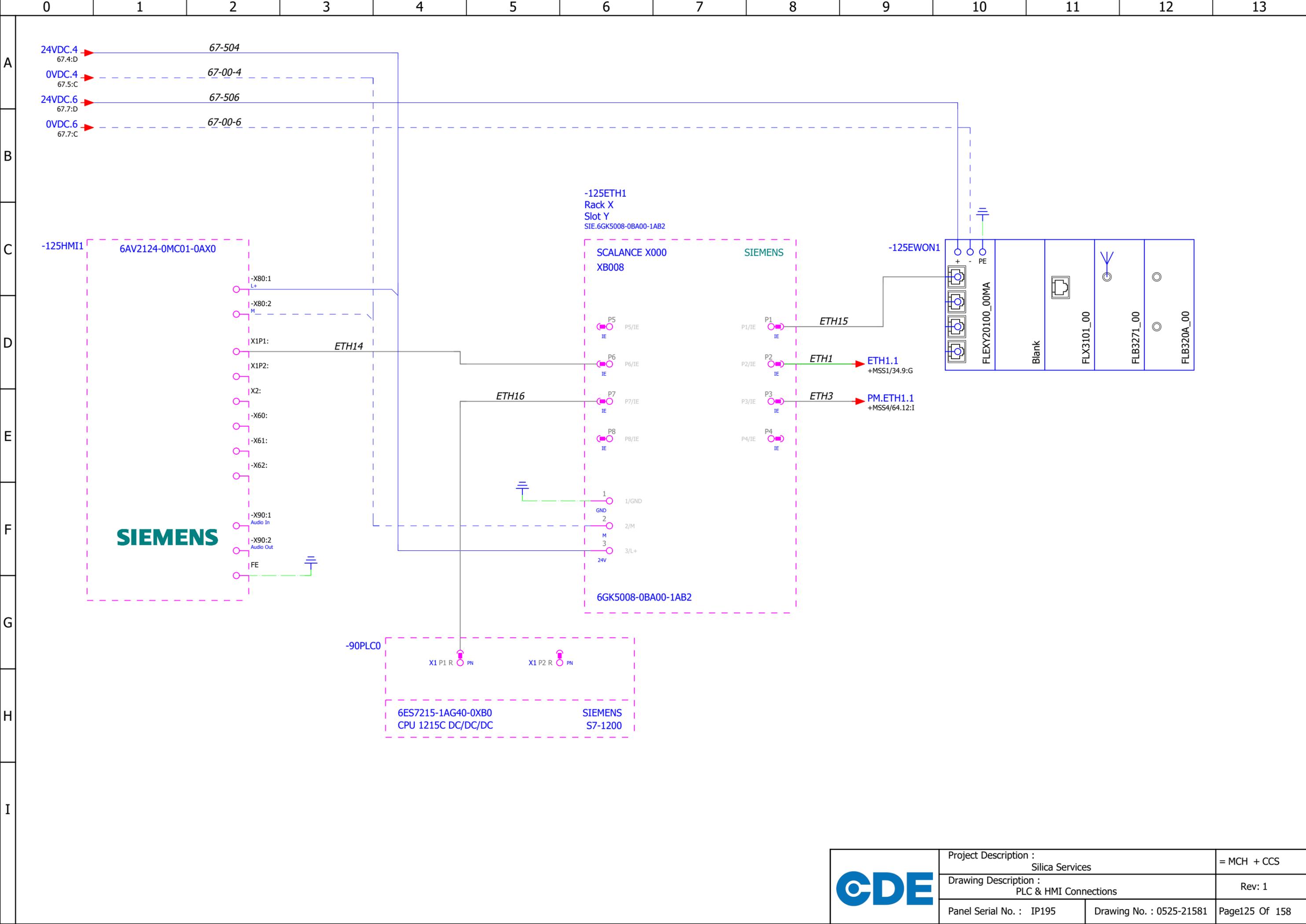


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	Project Description : Silica Services		= MCH + CCS
	Drawing Description : Blank		Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581	Page123 Of 158



	Project Description : Silica Services	= MCH + CCS
	Drawing Description : Dual Motor Drives Reset Circuit	Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581



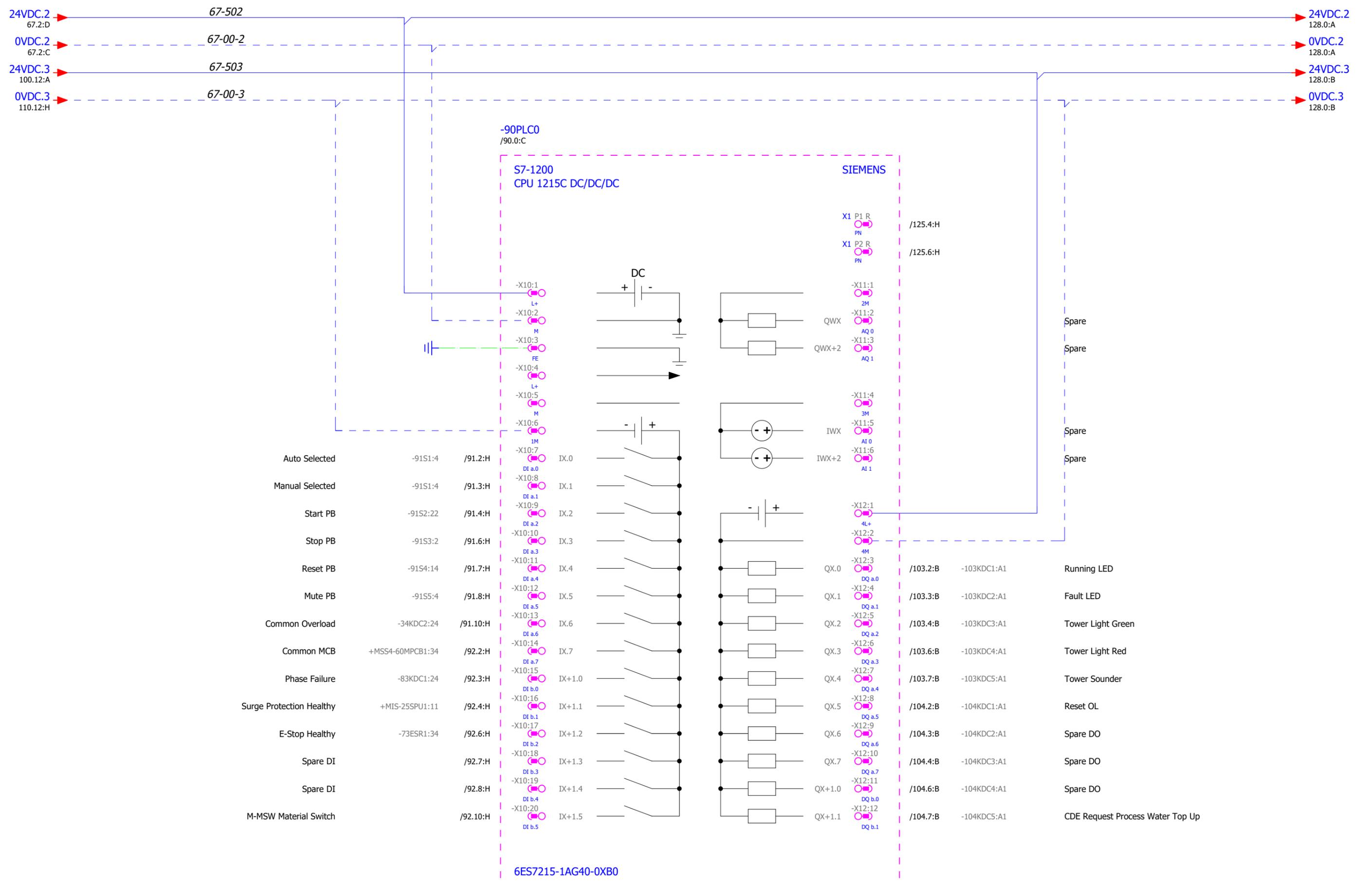
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	Drawing Description : PLC & HMI Connections	Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581

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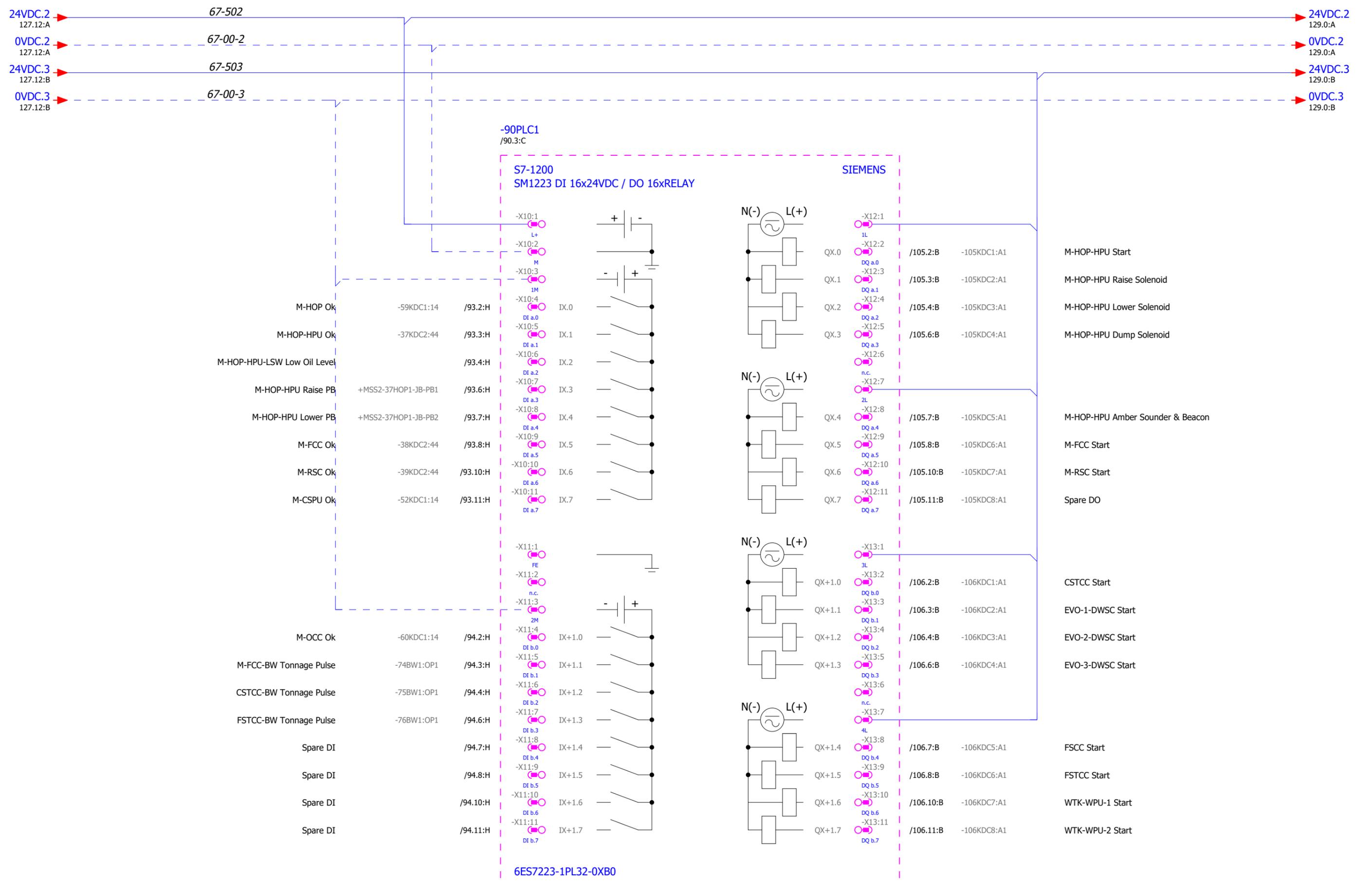
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	Drawing Description : Blank		Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581	Page126 Of 158

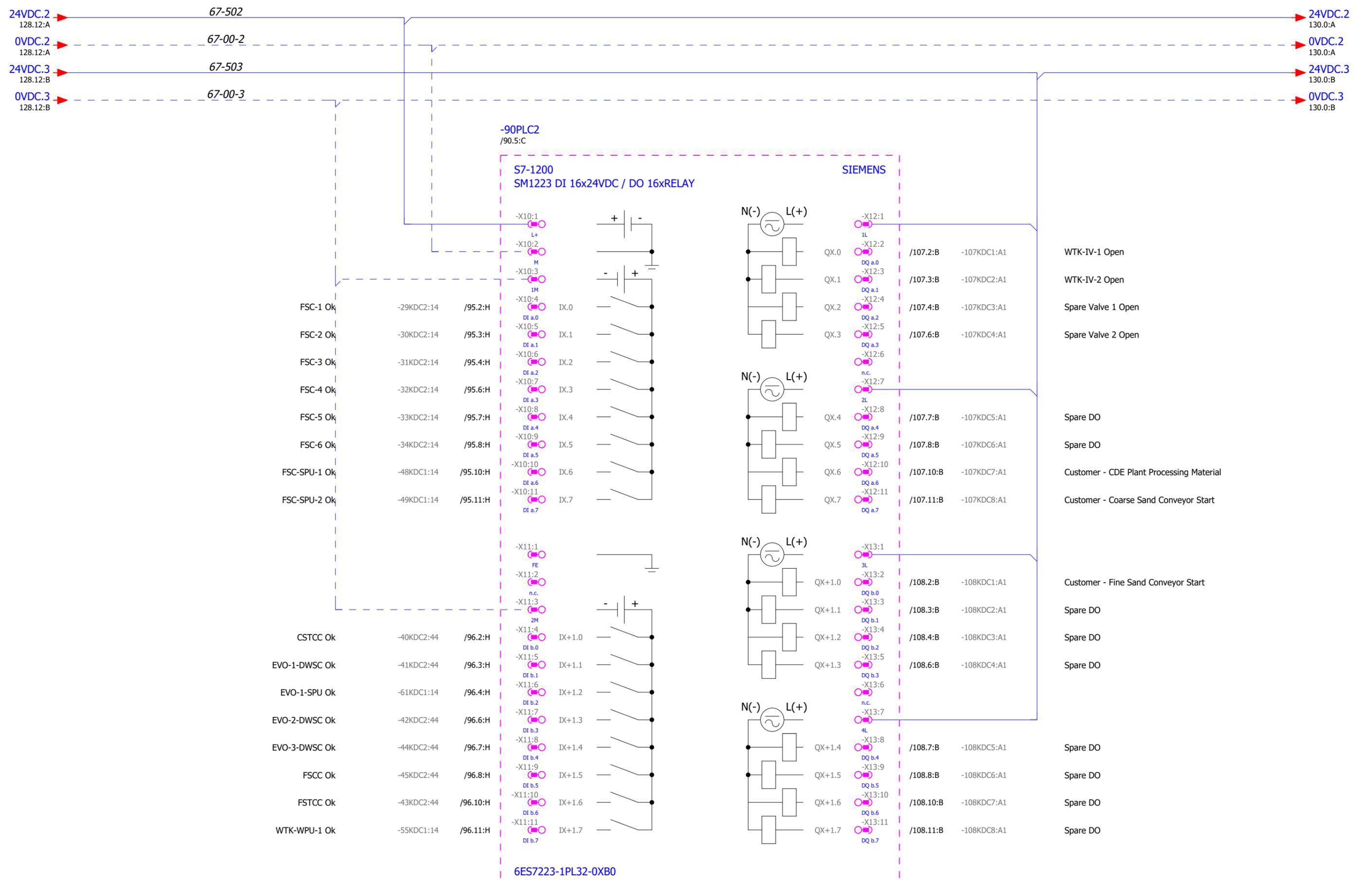
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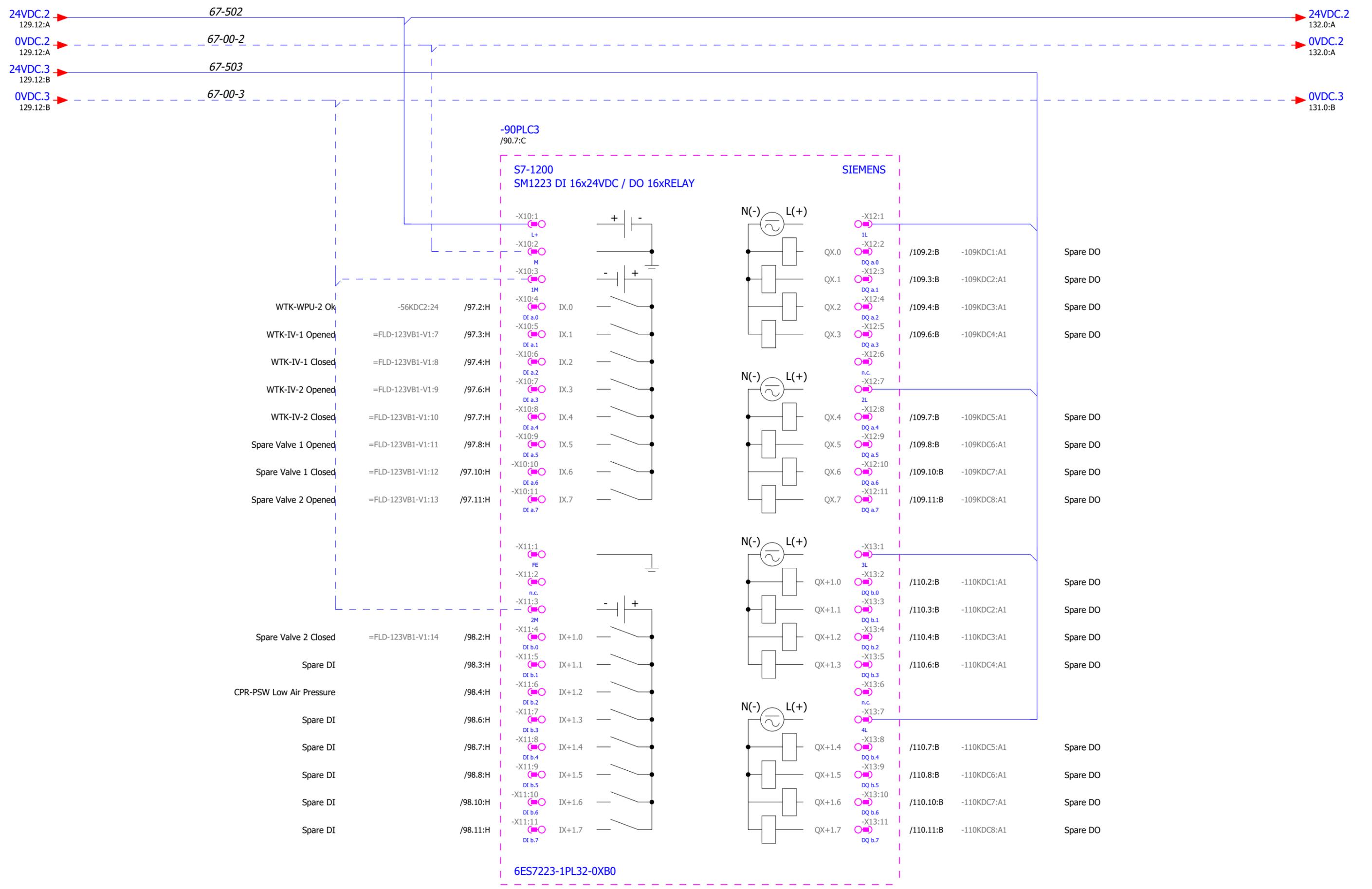
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0VDC.3  
130.12:B

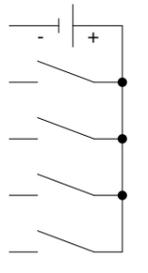
67-00-3

-90PLC4  
/90.8:C

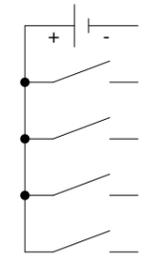
S7-1200  
SM1221 DI 16 x 24 VDC

SIEMENS

-X10:1  
n.c.  
-X10:2  
n.c.  
-X10:3  
n.c.  
-X10:4  
1M  
DI a.0  
-X10:5  
DI a.1  
-X10:6  
DI a.2  
-X10:7  
DI a.3



-X12:1  
n.c.  
-X12:2  
n.c.  
-X12:3  
3M  
-X12:4  
DI b.0  
-X12:5  
DI b.1  
-X12:6  
DI b.2  
-X12:7  
DI b.3



Customer - Coarse Sand Conveyors Running

/99.2:H

IX.0

IX+1.0

/100.2:H

Spare DI

Customer - Fine Sand Conveyors Running

/99.3:H

IX.1

IX+1.1

/100.3:H

Spare DI

Customer - Thickener Ready For Feed

/99.4:H

IX.2

IX+1.2

/100.4:H

Spare DI

Spare DI

/99.6:H

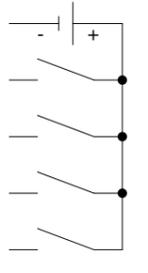
IX.3

IX+1.3

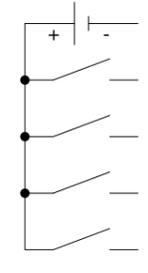
/100.6:H

Spare DI

-X11:1  
FE  
-X11:2  
n.c.  
-X11:3  
2M  
-X11:4  
DI a.4  
-X11:5  
DI a.5  
-X11:6  
DI a.6  
-X11:7  
DI a.7



-X13:1  
n.c.  
-X13:2  
n.c.  
-X13:3  
4M  
-X13:4  
DI b.4  
-X13:5  
DI b.5  
-X13:6  
DI b.6  
-X13:7  
DI b.7



Spare DI

/99.7:H

IX.4

IX+1.4

/100.7:H

Spare DI

Spare DI

/99.8:H

IX.5

IX+1.5

/100.8:H

Spare DI

Spare DI

/99.10:H

IX.6

IX+1.6

/100.10:H

Spare DI

Spare DI

/99.11:H

IX.7

IX+1.7

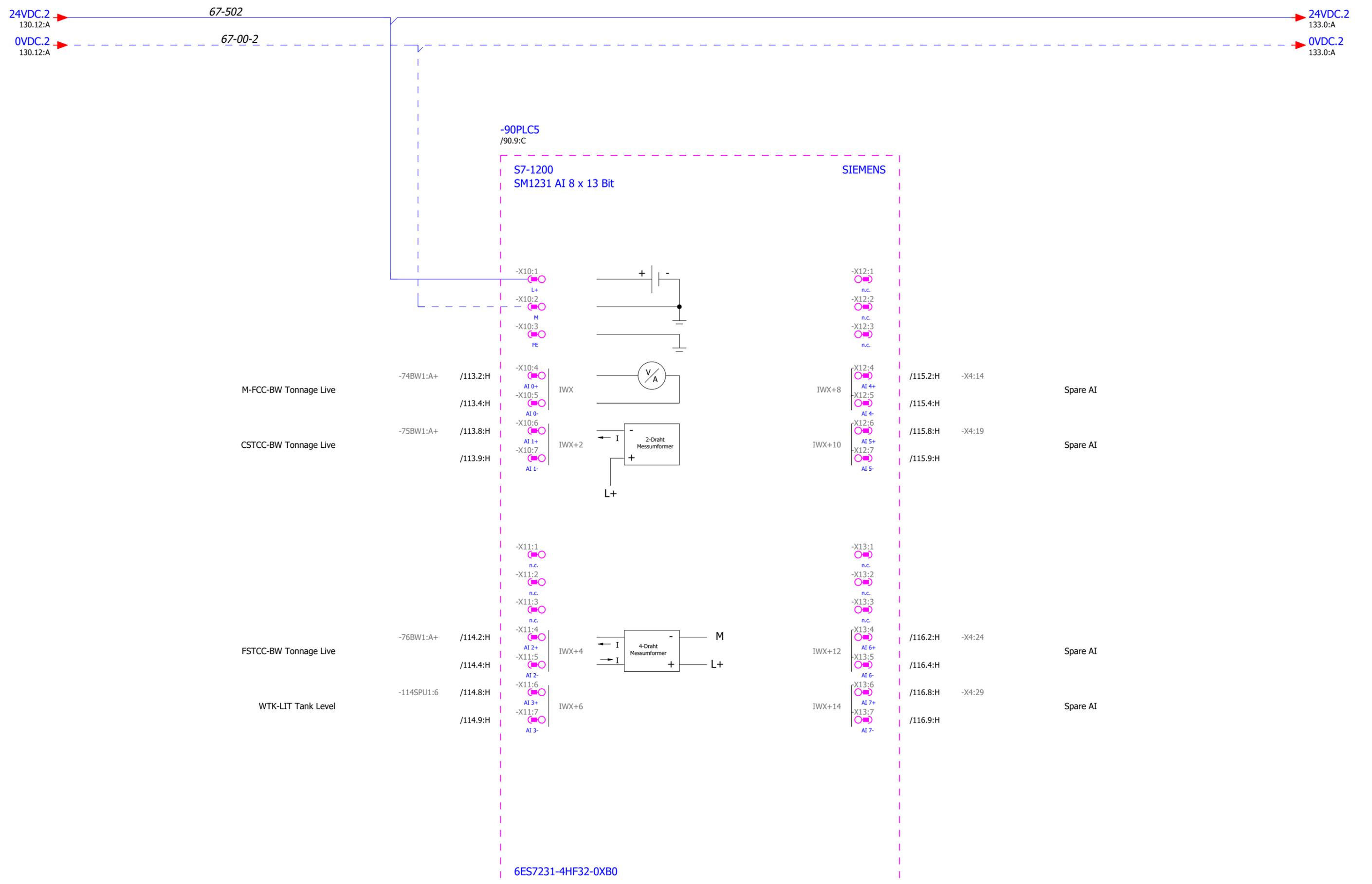
/100.11:H

Spare DI

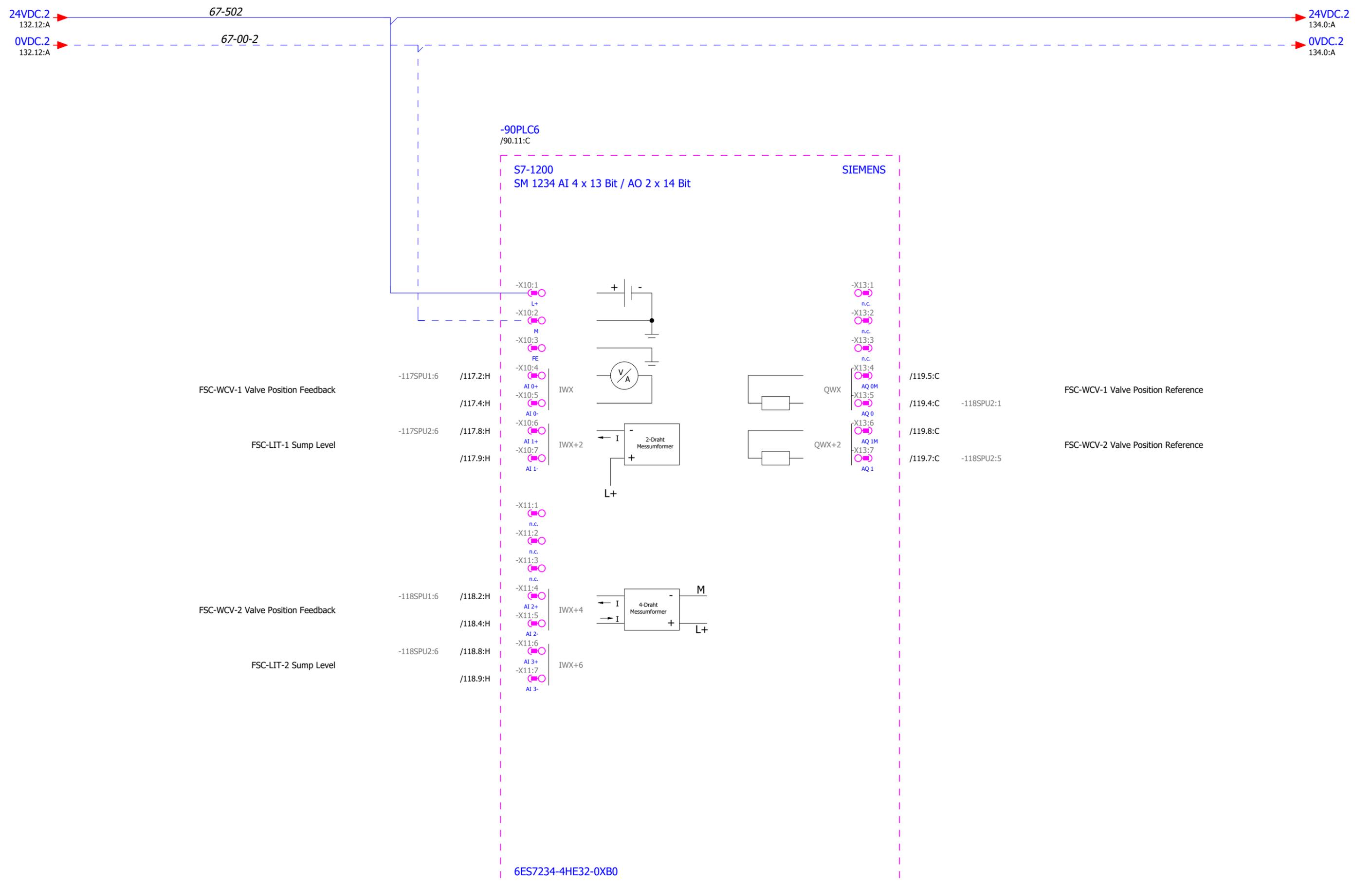
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	Panel Serial No. : IP195	Drawing No. : 0525-21581

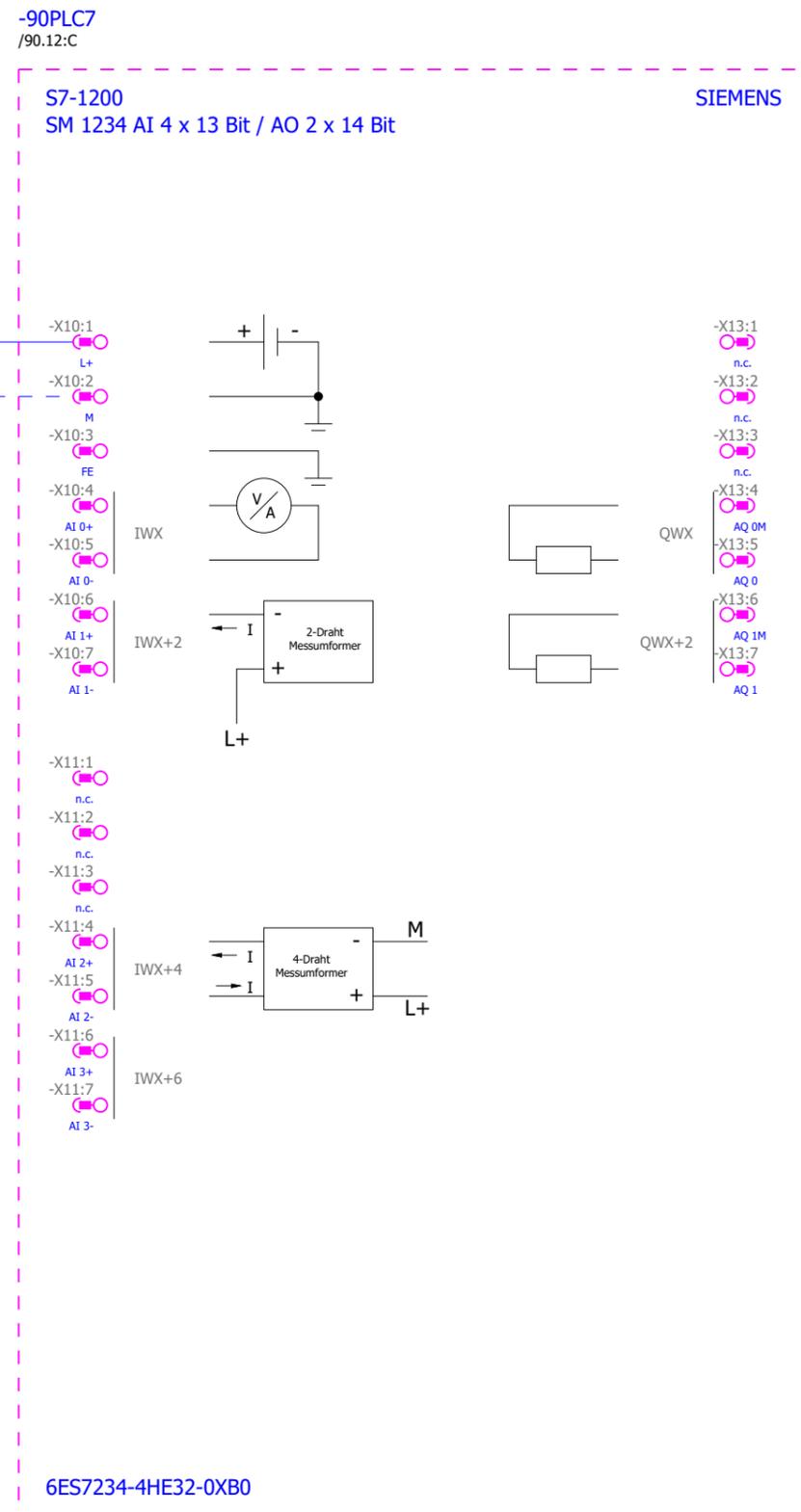
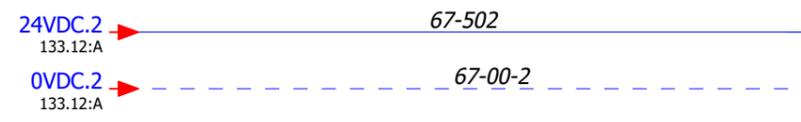
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M-WCV Valve Position Feedback

-120SPU2:6 /120.2:H  
/120.4:H

M-LIT Sump Level

-120SPU1:6 /120.8:H  
/120.9:H

Spare AI

-X4:64 /121.2:H  
/121.4:H

Spare AI

-X4:69 /121.8:H  
/121.9:H

/122.5:C  
/122.4:C

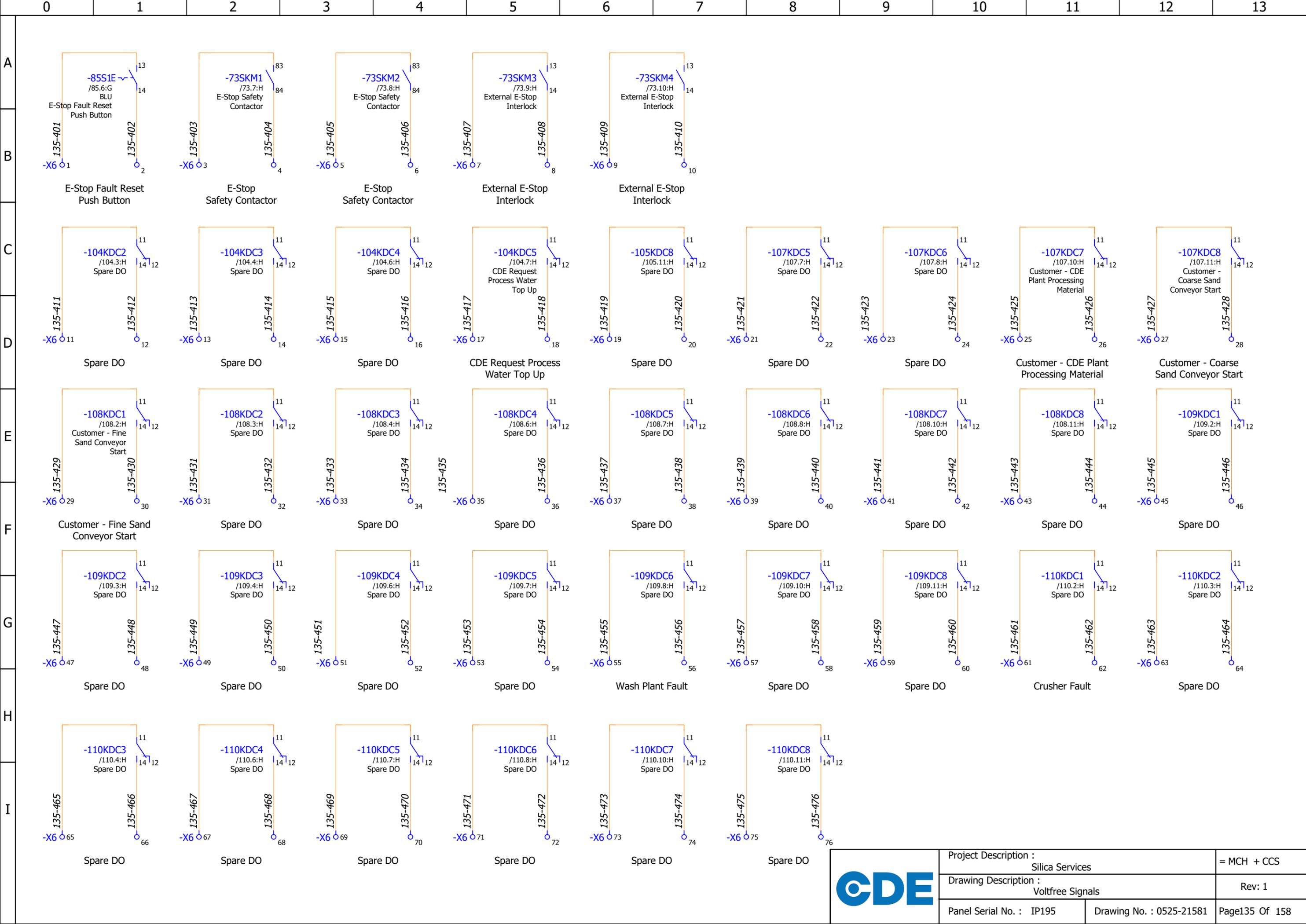
M-WCV Valve Position Reference

/122.8:C  
/122.7:C

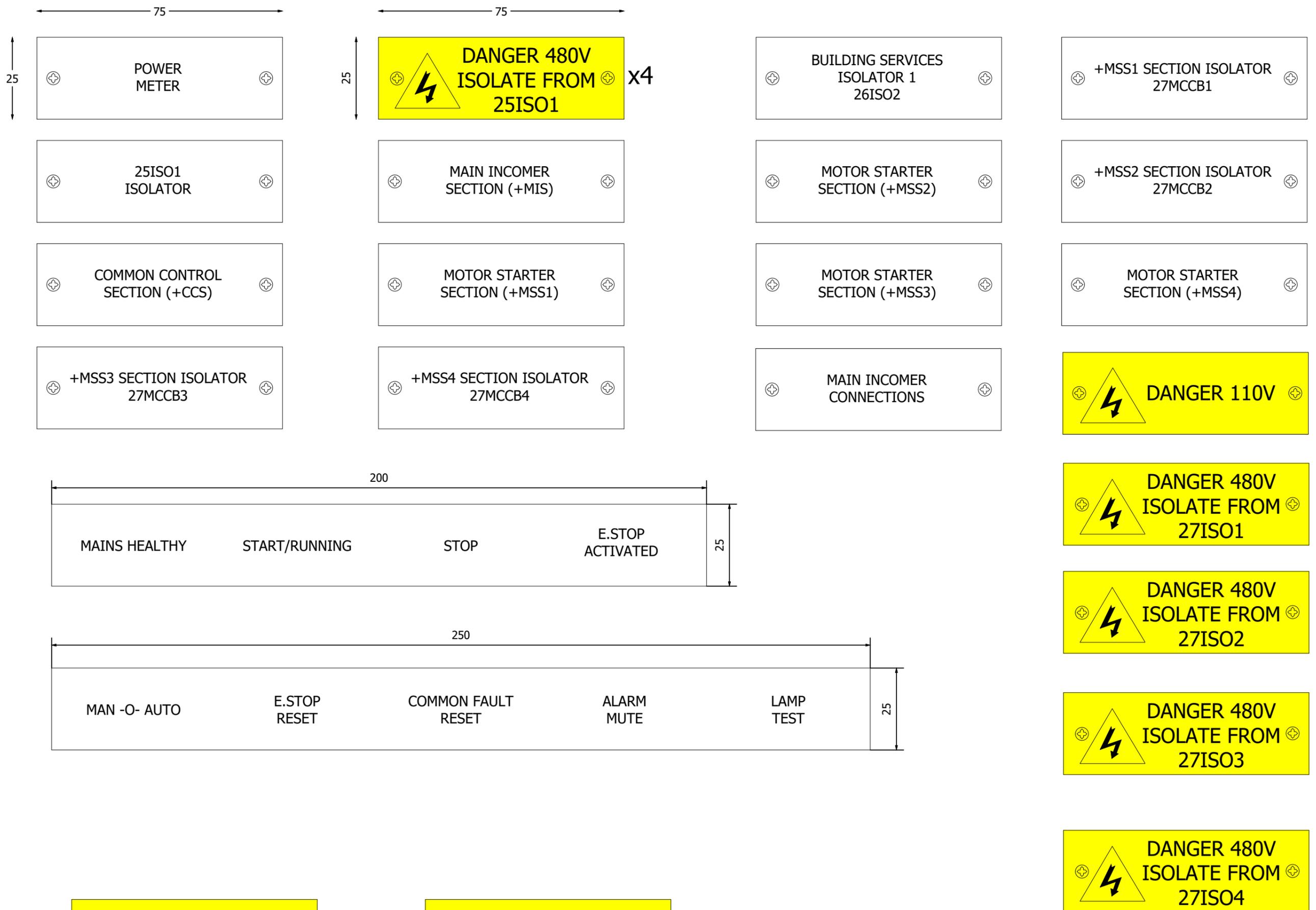
Spare AO

-122SPU1:8  
-X4.1:7

	Project Description : Silica Services	= MCH + CCS
	Drawing Description : PLC Cards	Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581

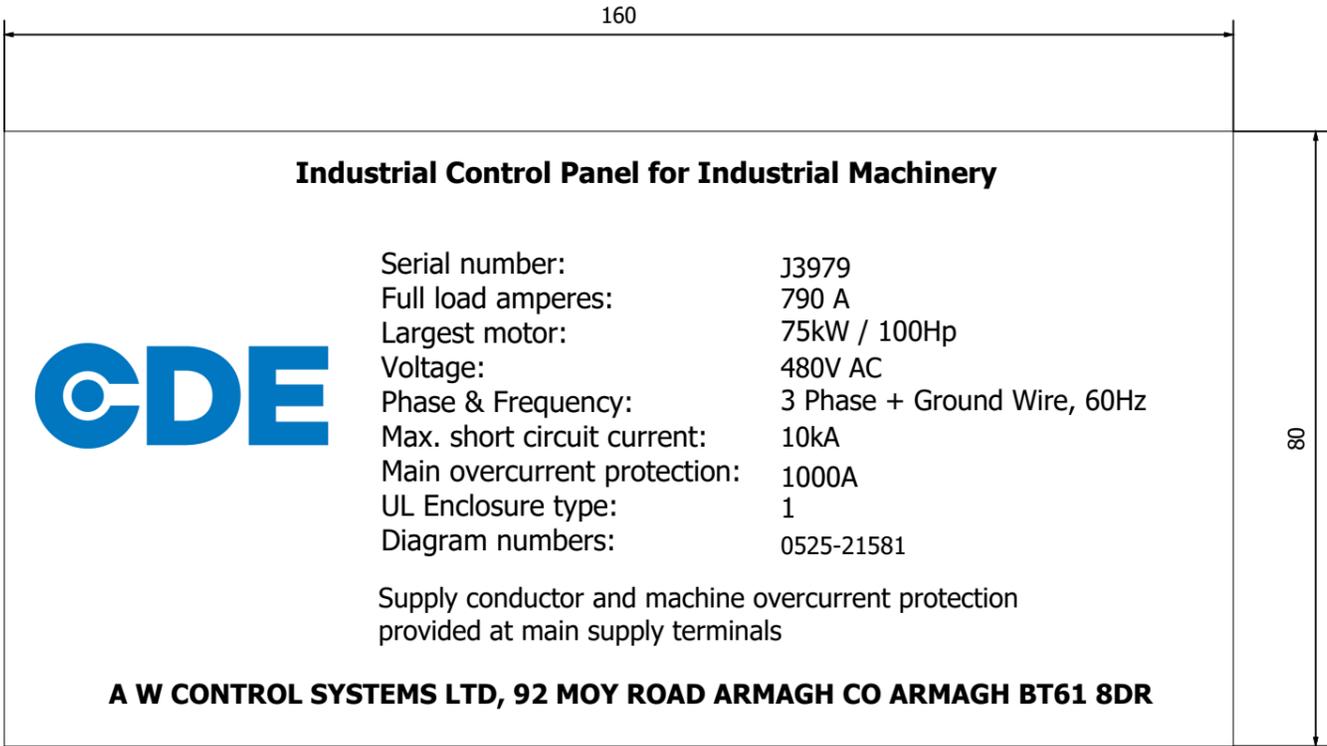


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Project Description : Silica Services		= MCH + REPORTS
Drawing Description : Labels		Rev: 1
Panel Serial No. : IP195	Drawing No. : 0525-21581	Page136 Of 158

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	Project Description : Silica Services	= MCH + REPORTS
	Drawing Description : Labels	Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581
		Page137 Of 158

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80

**Industrial Control Panel for Industrial Machinery**

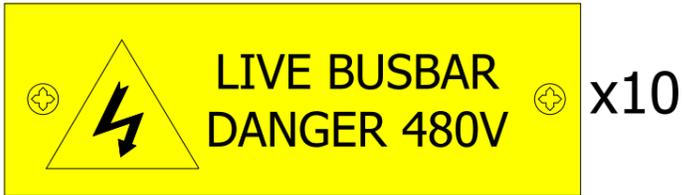
Serial number:	J3979
Full load amperes:	790 A
Largest motor:	18.5kW / 24Hp
Voltage:	480V AC
Phase & Frequency:	3 Phase + Ground Wire, 60Hz
Max. short circuit current:	10kA
Main overcurrent protection:	1000A
UL Enclosure type:	1
Diagram numbers:	0525-21581

Supply conductor and machine overcurrent protection provided at main supply terminals

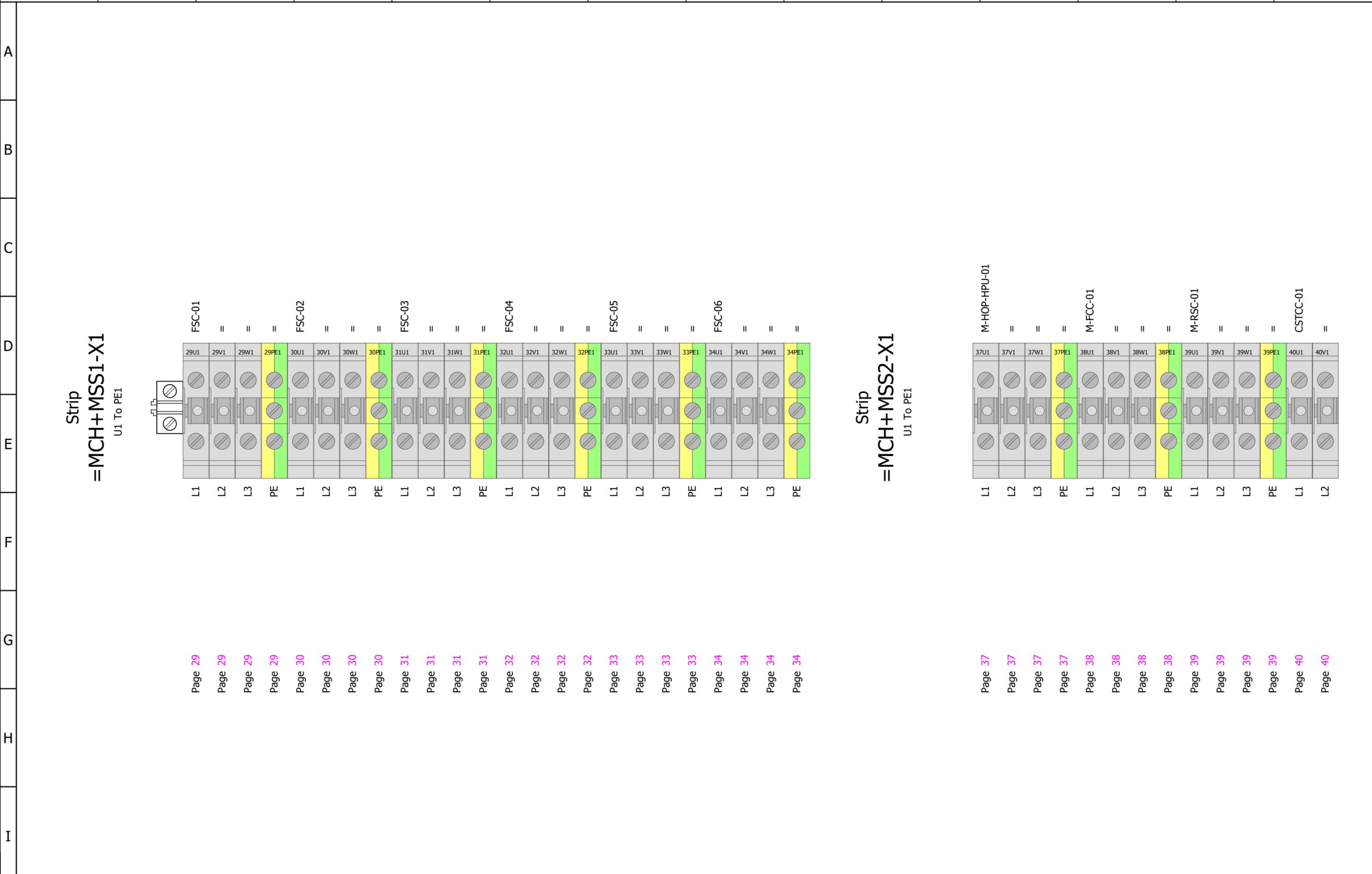
**Designed & Manufactured by  
A W CONTROL SYSTEMS LTD, 92 MOY ROAD ARMAGH CO ARMAGH BT61 8DR**

	Project Description : Silica Services		= MCH + REPORTS
	Drawing Description : Labels		Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581	Pag#37.1Of 158

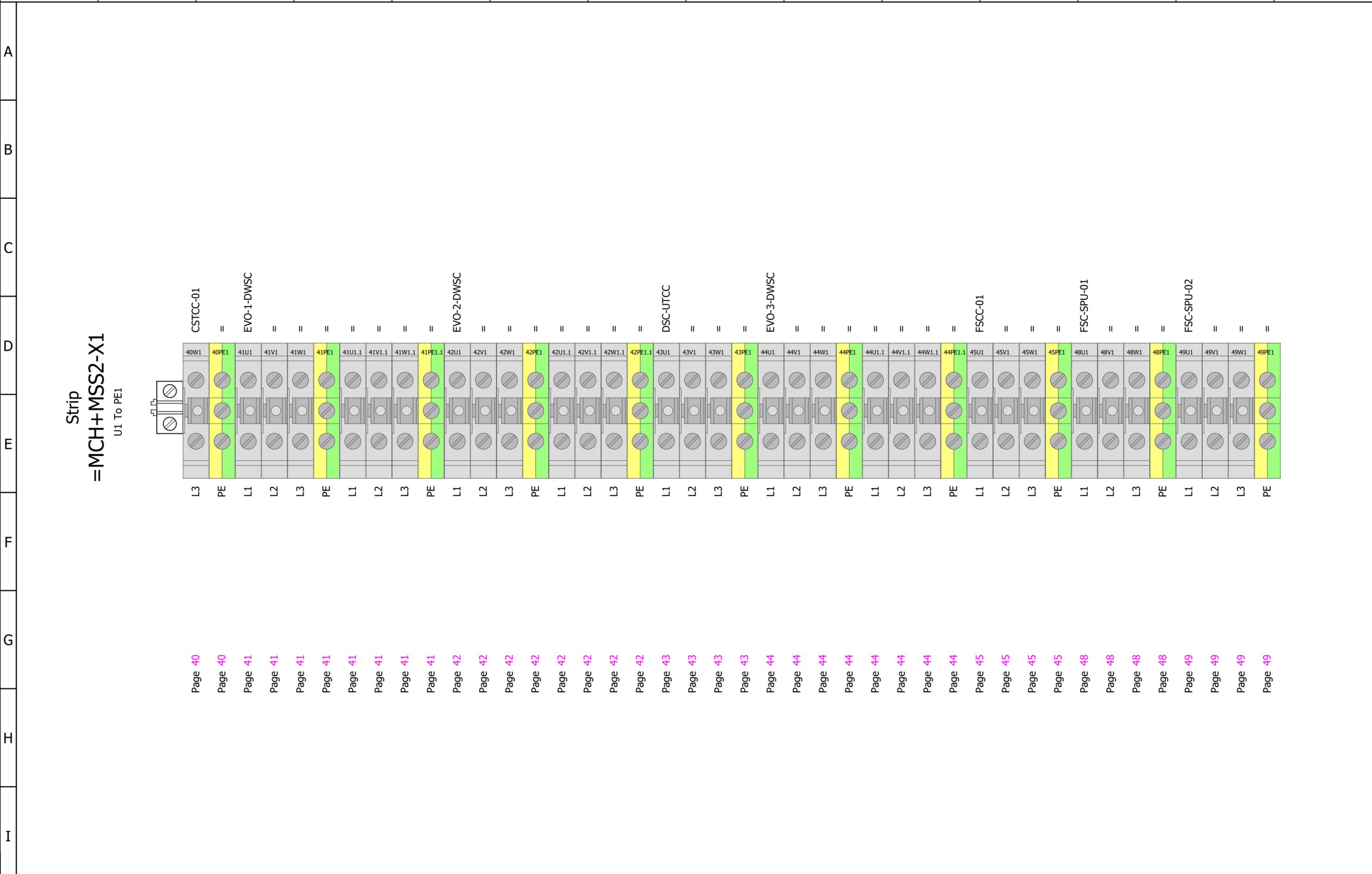
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	Project Description : Silica Services	= MCH + REPORTS
	Drawing Description : Labels	Rev: 1
	Panel Serial No. : IP195	Drawing No. : 0525-21581

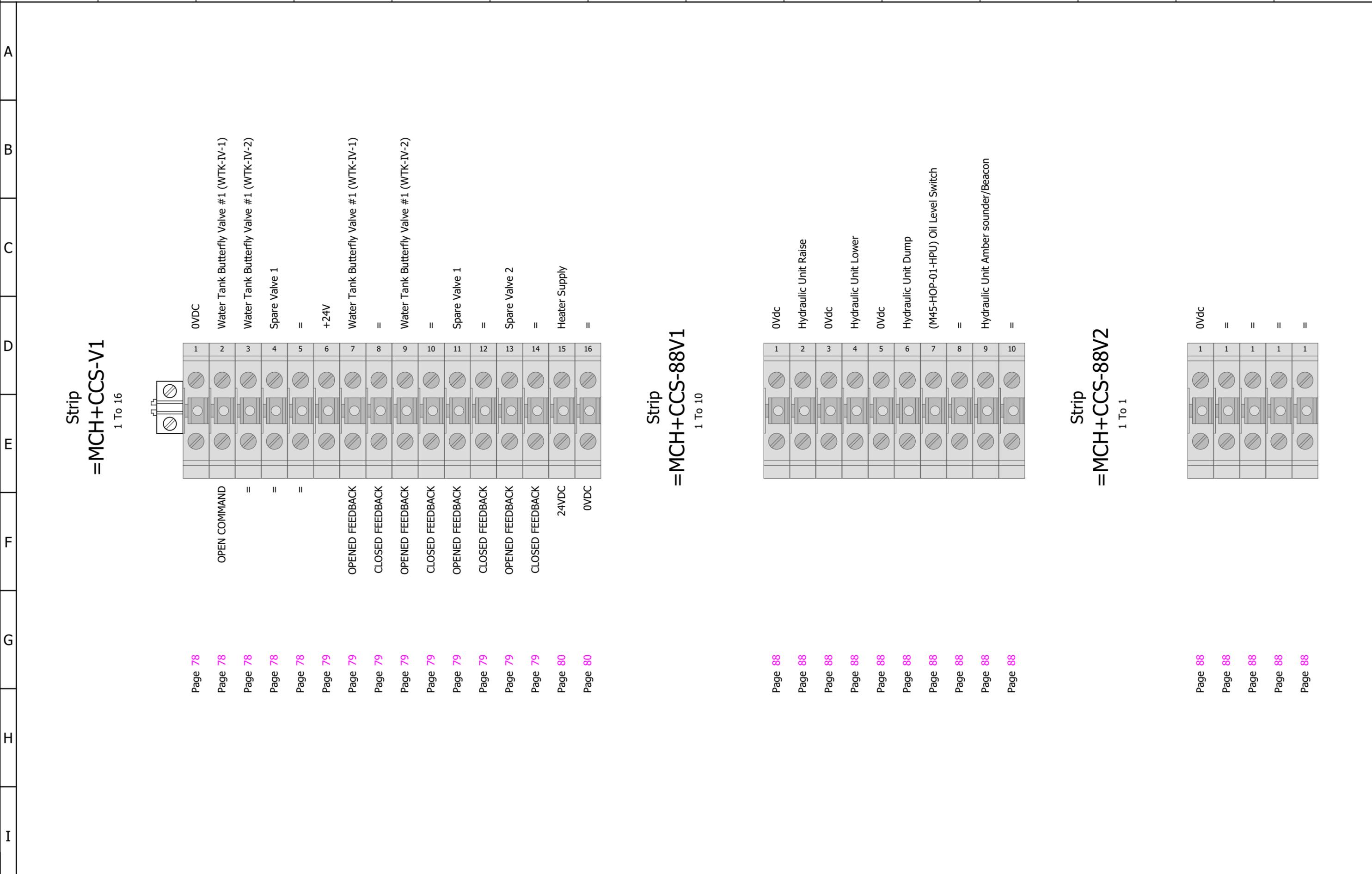


Rev	Date	Name	Details Of Modification	Appr by	Date	Rev	Date	Name	Details Of Modification	Appr by	Date		Project Description :	= MCH + REPORTS	
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1	30.07.2025	BT	For Customer Review			4	03.09.2025	BT	As Manufactured				Drawing Description :		Terminal Diagram
2	27.08.2025	BT	As Per Comments										Panel Serial No. :		IP195
												Drawing No. :	0525-21581	Page138 Of 158	



Rev	Date	Name	Details Of Modification	Appr by	Date	Rev	Date	Name	Details Of Modification	Appr by	Date		Project Description :	= MCH + REPORTS	
0	24.07.2025	BT	As Designed	JQ	30.07.2025	3	09.09.2025	BT	As Per Comments				Project Description :		Silica Services
1	30.07.2025	BT	For Customer Review			4	03.09.2025	BT	As Manufactured				Drawing Description :		Terminal Diagram
2	27.08.2025	BT	As Per Comments										Panel Serial No. :		IP195
												Drawing No. :	0525-21581	Page139 Of 158	





Rev	Date	Name	Details Of Modification	Appr by	Date	Rev	Date	Name	Details Of Modification	Appr by	Date
0	24.07.2025	BT	As Designed	JQ	30.07.2025	3	09.09.2025	BT	As Per Comments		
1	30.07.2025	BT	For Customer Review			4	03.09.2025	BT	As Manufactured		
2	27.08.2025	BT	As Per Comments								



Project Description : Silica Services = MCH + REPORTS

Drawing Description : Terminal Diagram Rev: 1

Panel Serial No. : IP195 Drawing No. : 0525-21581 Page141 Of 158







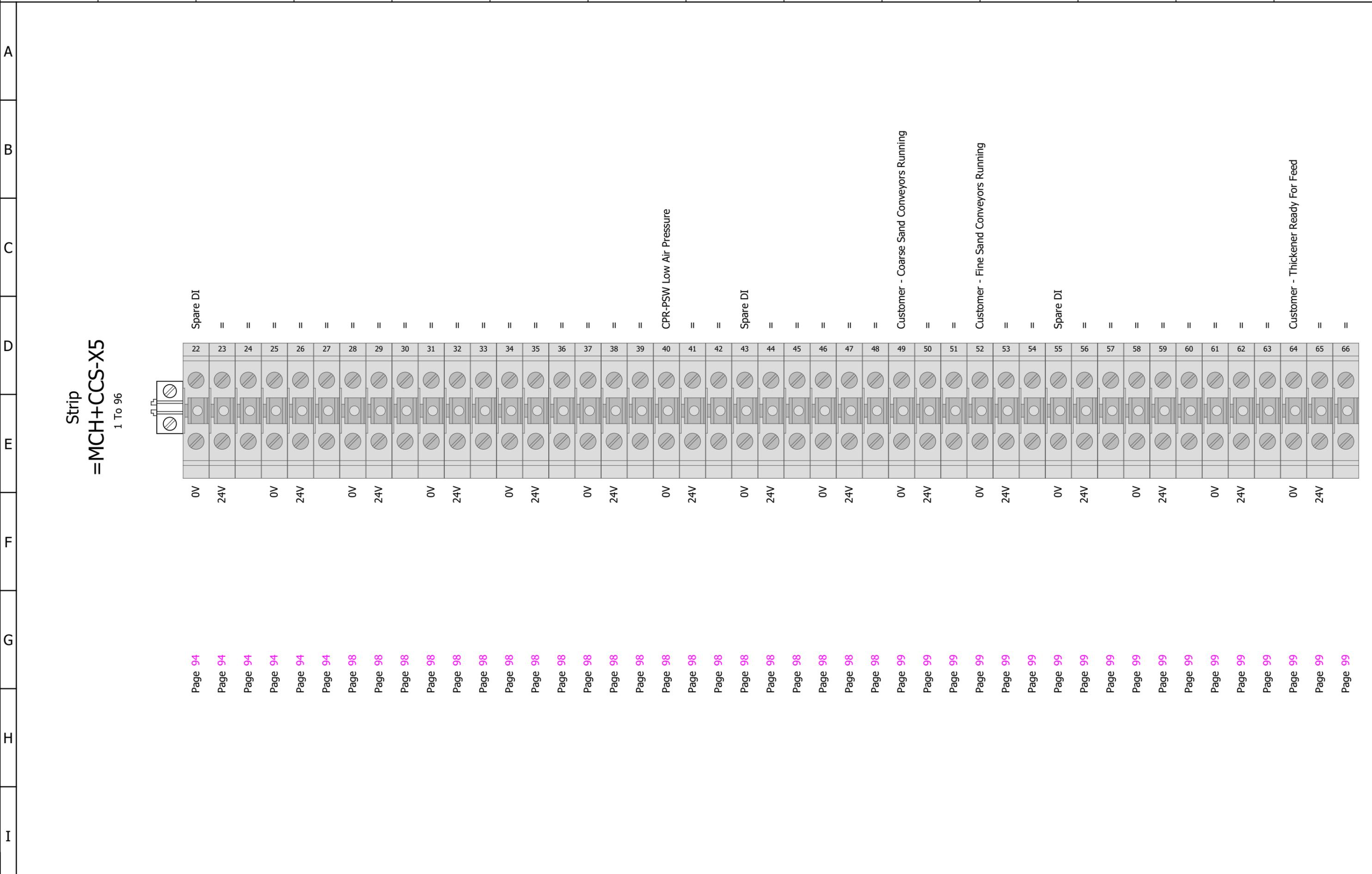






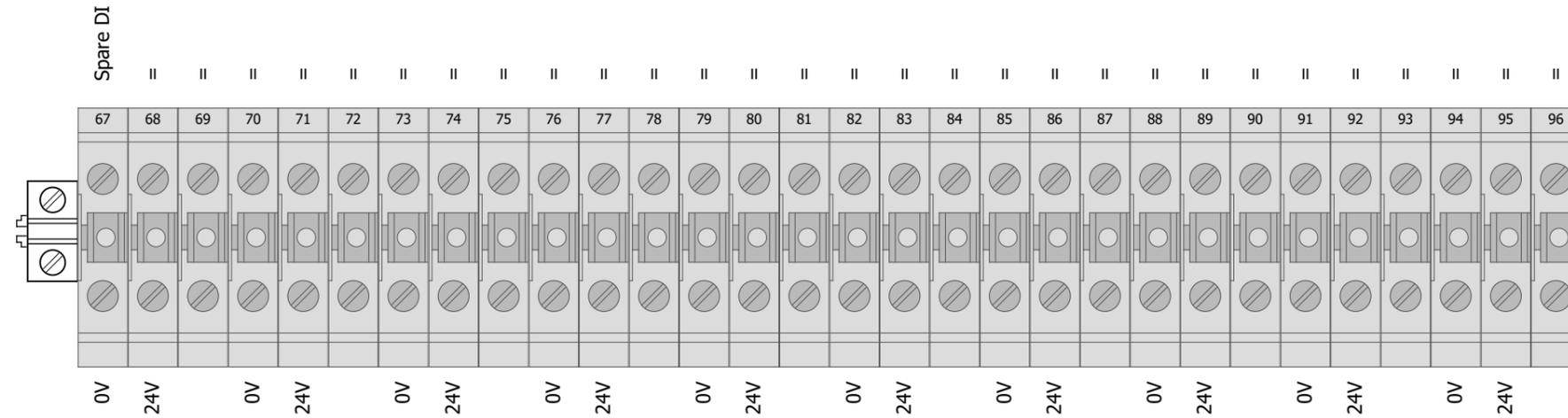


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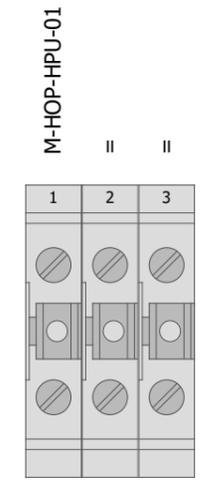
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2	27.08.2025	BT	As Per Comments										Panel Serial No. : IP195		Drawing No. : 0525-21581

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1 To 96



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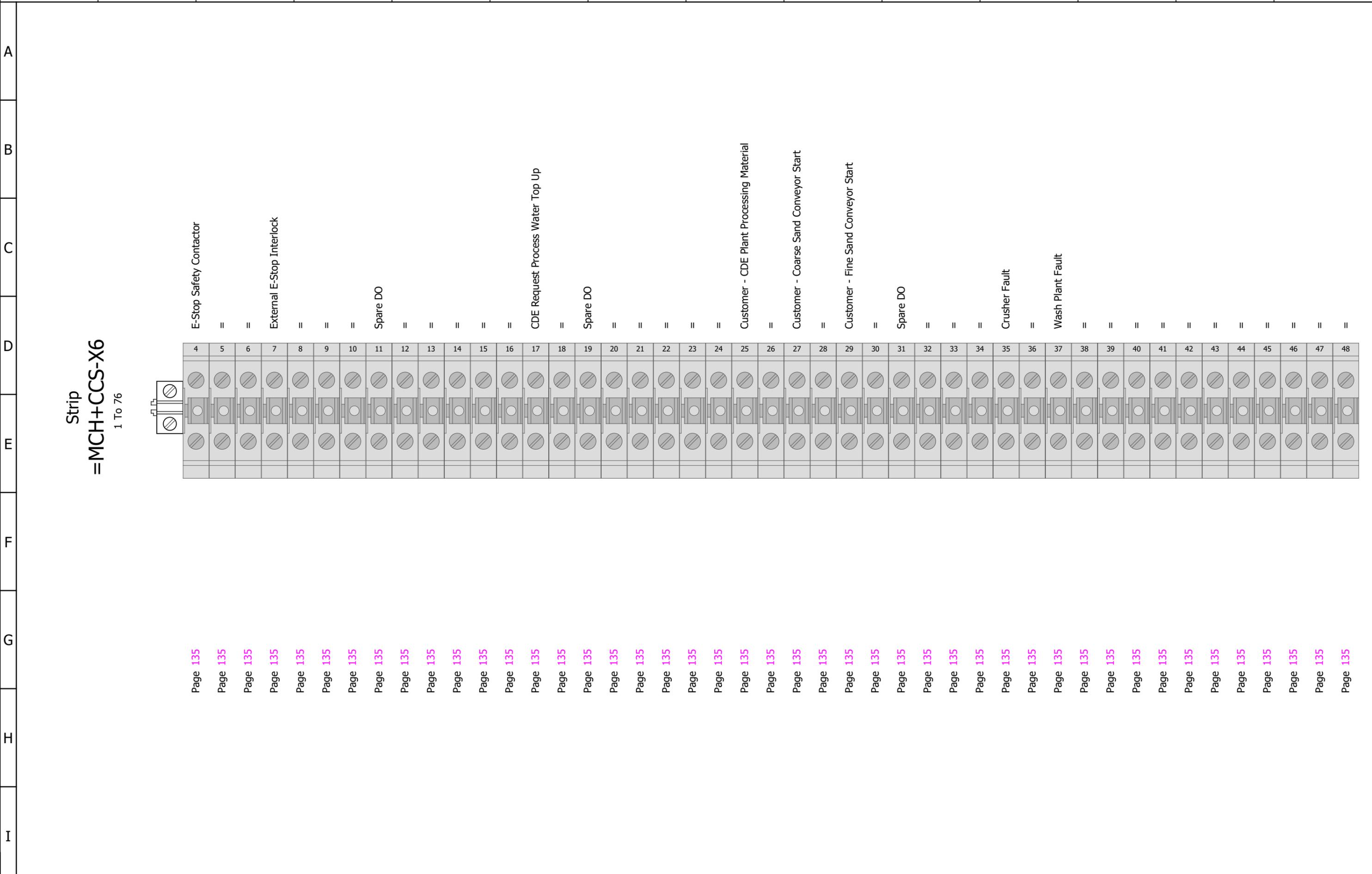
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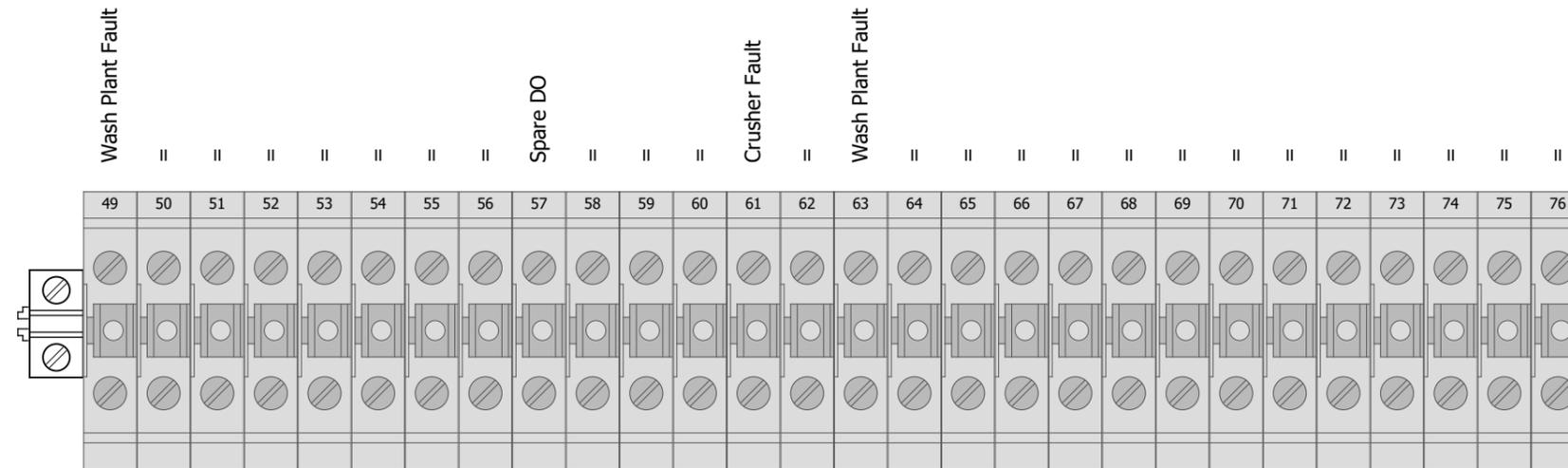
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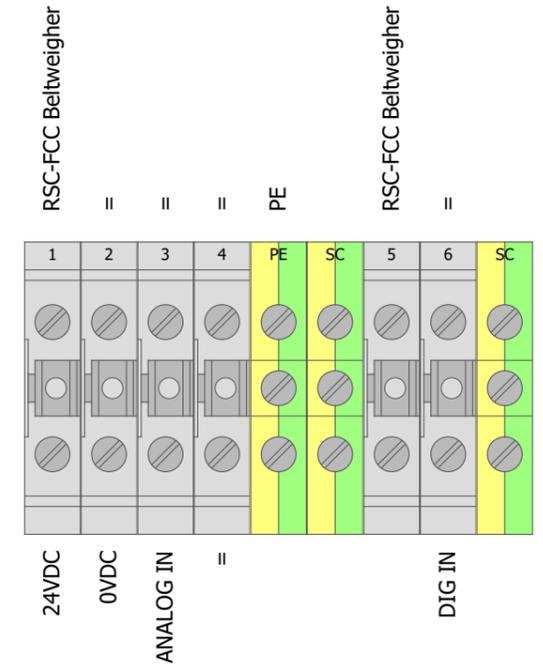
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2	27.08.2025	BT	As Per Comments										Panel Serial No. :		IP195
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1 To 76



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Strip  
=MCH+CCS-X7.1  
1 To SC



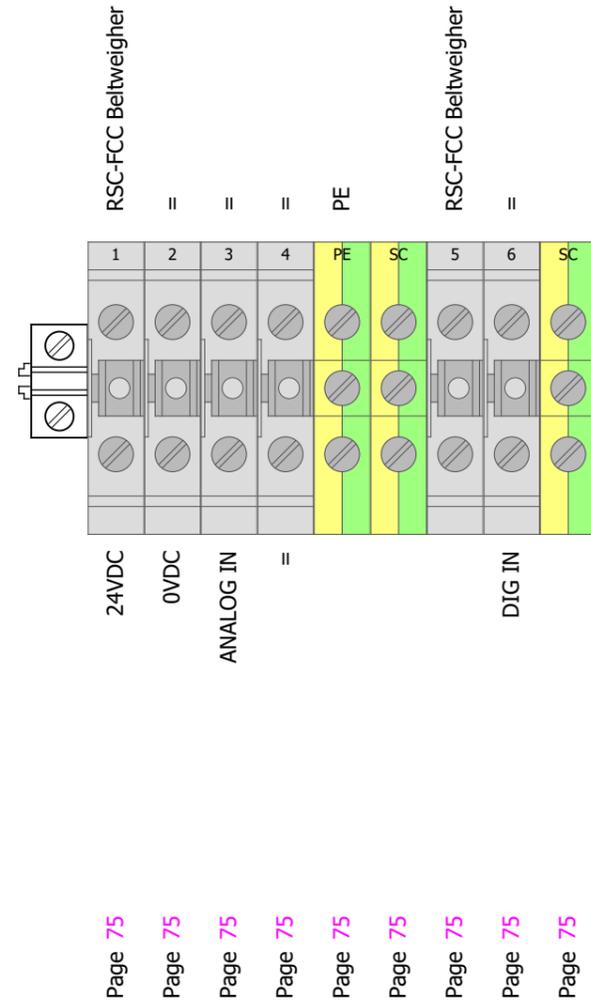
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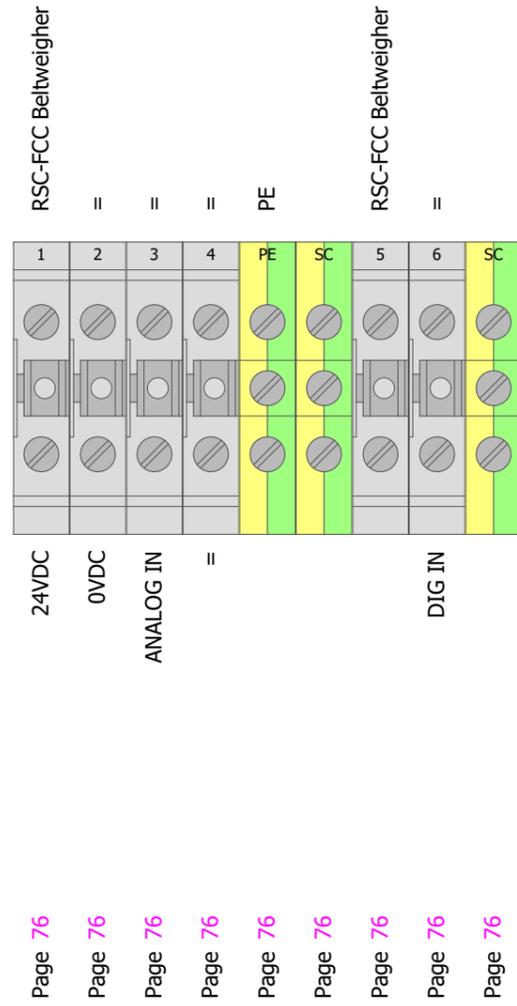


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Drawing Description : Terminal Diagram	Rev: 1
Panel Serial No. : IP195	Drawing No. : 0525-21581
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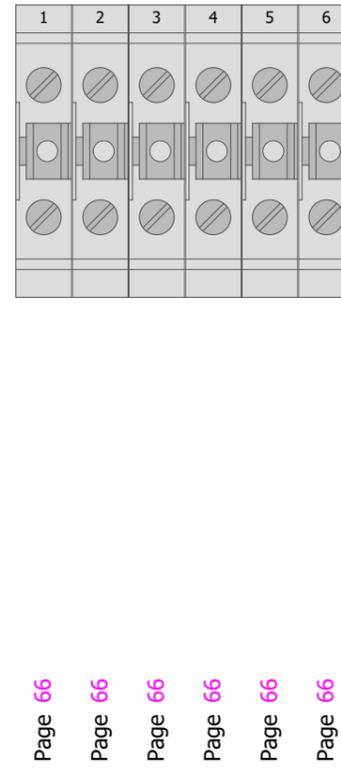
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1 To SC



Strip  
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1 To 6



Rev	Date	Name	Details Of Modification	Appr by	Date
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1	30.07.2025	BT	For Customer Review		
2	27.08.2025	BT	As Per Comments		

Rev	Date	Name	Details Of Modification	Appr by	Date
3	09.09.2025	BT	As Per Comments		
4	03.09.2025	BT	As Manufactured		



Project Description : Silica Services	= MCH + REPORTS
Drawing Description : Terminal Diagram	Rev: 1
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