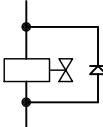
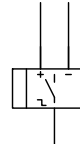
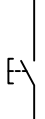
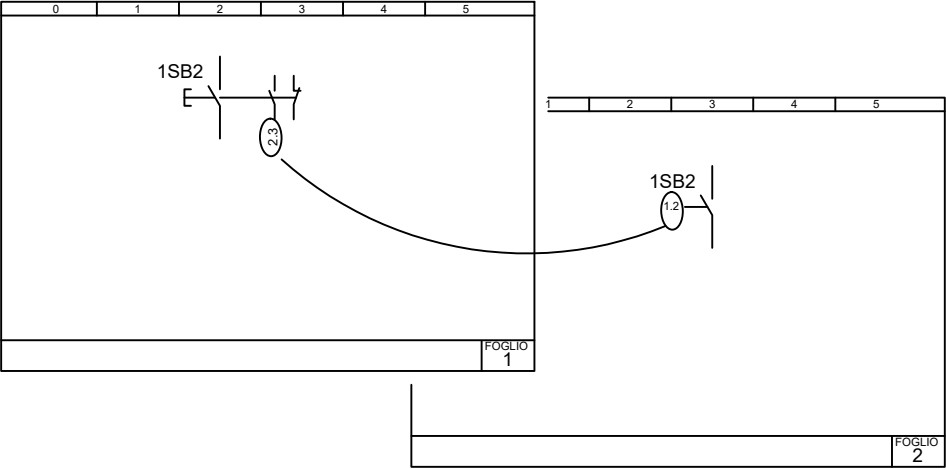


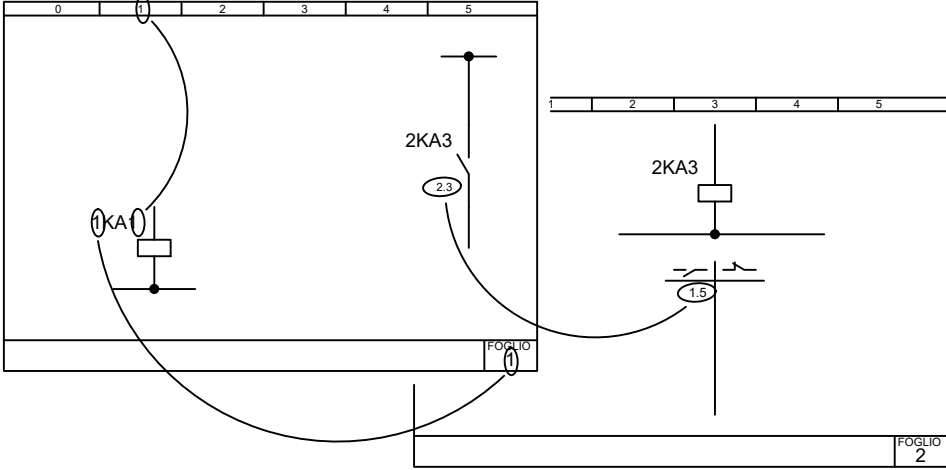
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19																						
AITALMAC										LOCATION SYMBOLS ☐ Components on the door ☐ Components inside the cubicle (usually omitted) ☒ Machine components (usually omitted)					COMPONENTS DESIGNATION C Condensers D CNC control model E Component not in this list F Protection Devices FU Fuses G Generators, feeders H Signalling devices KA Relays KM Contactors L Drives M Motors N Analog integrated circuits P Switching power supply Q Circuit breaker QS Highly versatile change over switch R Resistors SQ Sensor, Limit S Filter SB Buttons T Transformers U Modulators converters V Rectifiers, semiconductors EV Solenoid valves X Terminal wire clamps, connectors Y Electricity actuating devices																										
CLIENTE																																									
AITALMAC CO.,LTD																																									
MACHINE					MAIN POWER SUPPLY																																				
CNC ORBITA5					VOLT.380 FREQ.50-60					COLORS WHWhiteGYGray YELYellowBUBlue RDRRedBKBlack OGOrangeGNYEGreenYellow MAIN CIRCUIT BREAKER OPERATING TIME:_____ SYMMETRICAL SHORT-CIRCUIT CURRENT:_____																															
WIRING DIAGRAM					CUBICLE DIMENSION																																				
A5-240504					L (mm)1835 H (mm)560 P (mm)320																																				
CONDUCTORS DESIGNATION <table><thead><tr><th>COLOR</th><th>FUNCTION</th><th>MINIMUM SECTION</th></tr></thead><tbody><tr><td>BLACK</td><td>power circuit A.C./D.C.</td><td>1,0mm²</td></tr><tr><td>RED</td><td>A.C. auxiliary circuit</td><td>1,0mm²</td></tr><tr><td>WHITE</td><td>D.C. auxiliary circuit</td><td>1,0mm²</td></tr><tr><td>BLUE</td><td>N</td><td>1.5mm²</td></tr><tr><td>YELLOW GREEN</td><td>protection earth</td><td>1,5mm²</td></tr><tr><td>SCREEN CABLE</td><td>reference - signal</td><td>0.75 mm²</td></tr><tr><td>RED +/BLUE -</td><td>thermocouples</td><td>COMPENSATED CABLE</td></tr><tr><td></td><td>PLC circuit</td><td>0,25mm² (0,5mm² I<2A)</td></tr></tbody></table>										COLOR	FUNCTION	MINIMUM SECTION	BLACK	power circuit A.C./D.C.	1,0mm²	RED	A.C. auxiliary circuit	1,0mm²	WHITE	D.C. auxiliary circuit	1,0mm²	BLUE	N	1.5mm²	YELLOW GREEN	protection earth	1,5mm²	SCREEN CABLE	reference - signal	0.75 mm²	RED +/BLUE -	thermocouples	COMPENSATED CABLE		PLC circuit	0,25mm² (0,5mm² I<2A)	WARNING: THE PROTECTION OF THE MAIN POWER SUPPLY AND THE CONNECTION TO THE EARTH'S SYSTEM ARE DEPENDANT ON THE CUSTOMER. IN RESPECT TO THE EUROPEAN STANDARD EN60439-1 SPECIFICATIONS - CEI 17-13.1 DOSSIER 1433 - AND DPR 547 DD 27/04/1955, THE MAIN POWER SUPPLY MUST BE PROTECTED WITH A PROPER MAGNETIC-THERMAL SWITCH HAVING BREAKING CAPACITY NOT LOWER THAN 10 KILOAMPERE.				
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BLACK	power circuit A.C./D.C.	1,0mm²																																							
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THE WIRING DIAGRAM IS INDICATED WITHOUT TENSION, AIR, OIL AND WATER FLOW.																																									
AitalMac www.aitalmac.com			Designed By : ZLJ			Checked By :			Trimness By :		Description : MACHINE INFORMATION																														
Machine : Orbit A5						Date: 05.21.2024		Revision: A5-240504			Approved By :			Pag. 1	Next. 1.1																										

SYMBOL	MEANING	SYMBOL	MEANING
	NORMALLY OPEN CONTACT		SOLENOID VALVE
	NORMALLY CLOSED CONTACT		AC CONTACTOR
	SENSOR		RELAY
	BUTTON		
	LAMP		

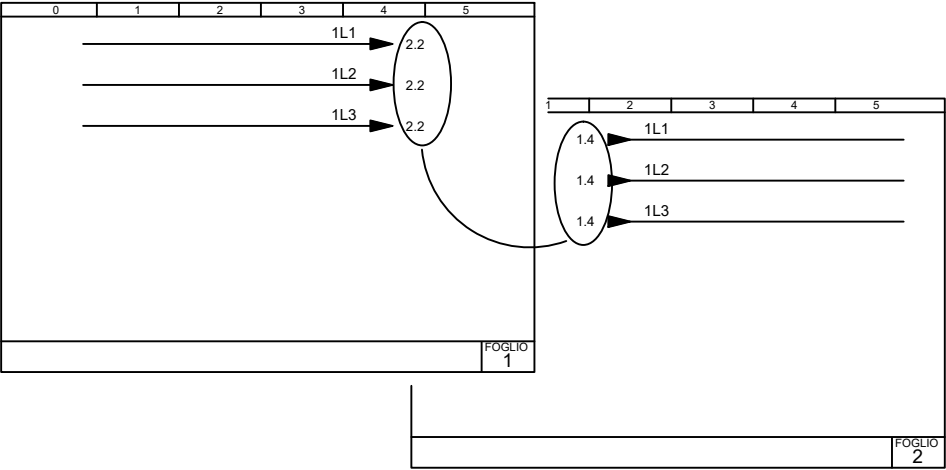
COMPONENT REFERENCE



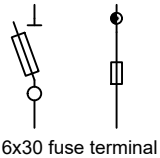
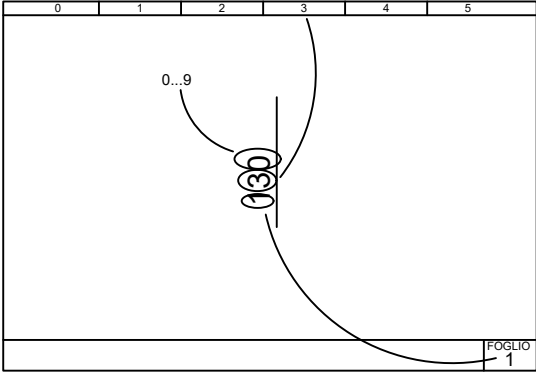
COMPONENT NAME/COIL-CONTACT POSITION

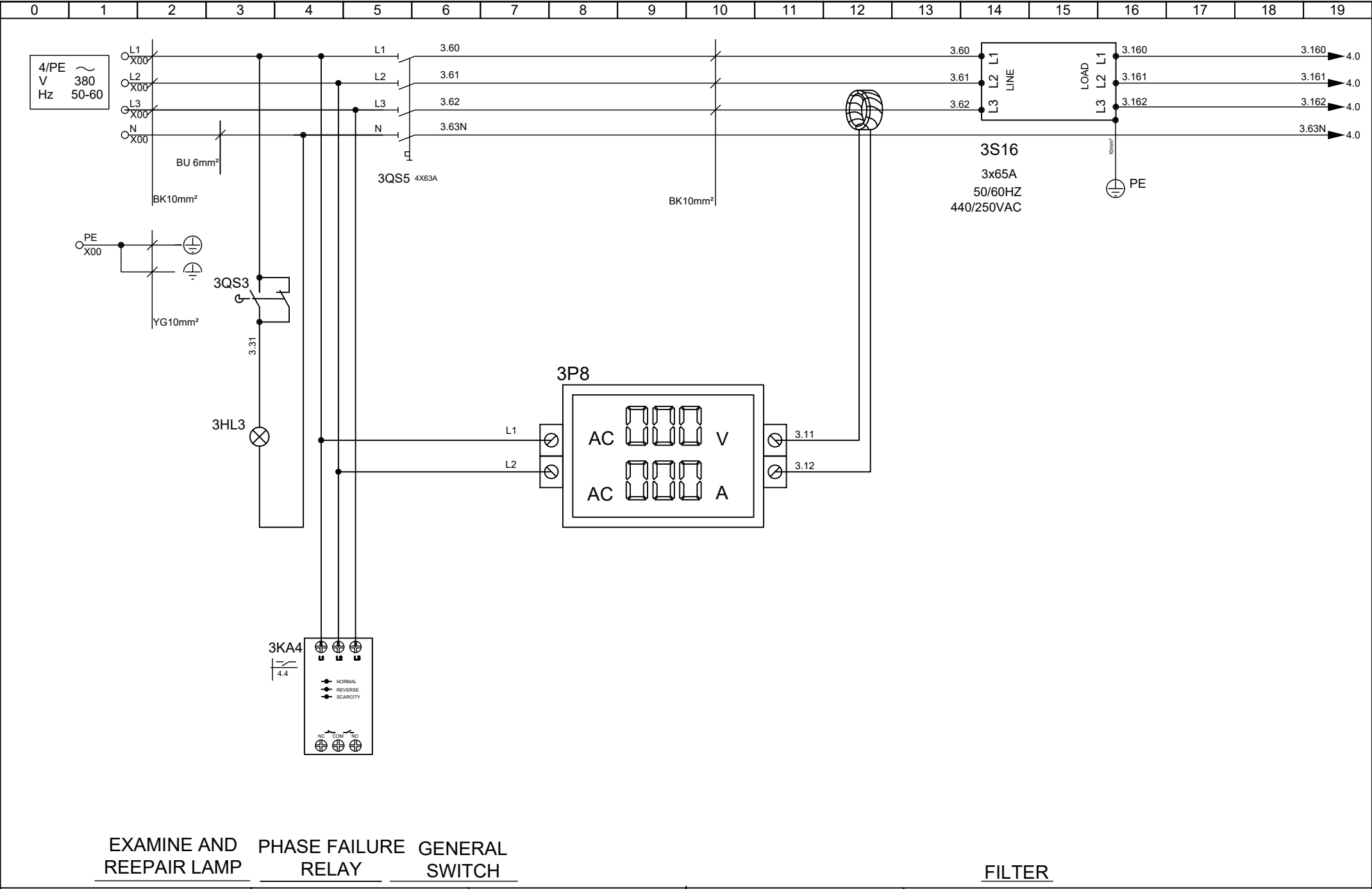


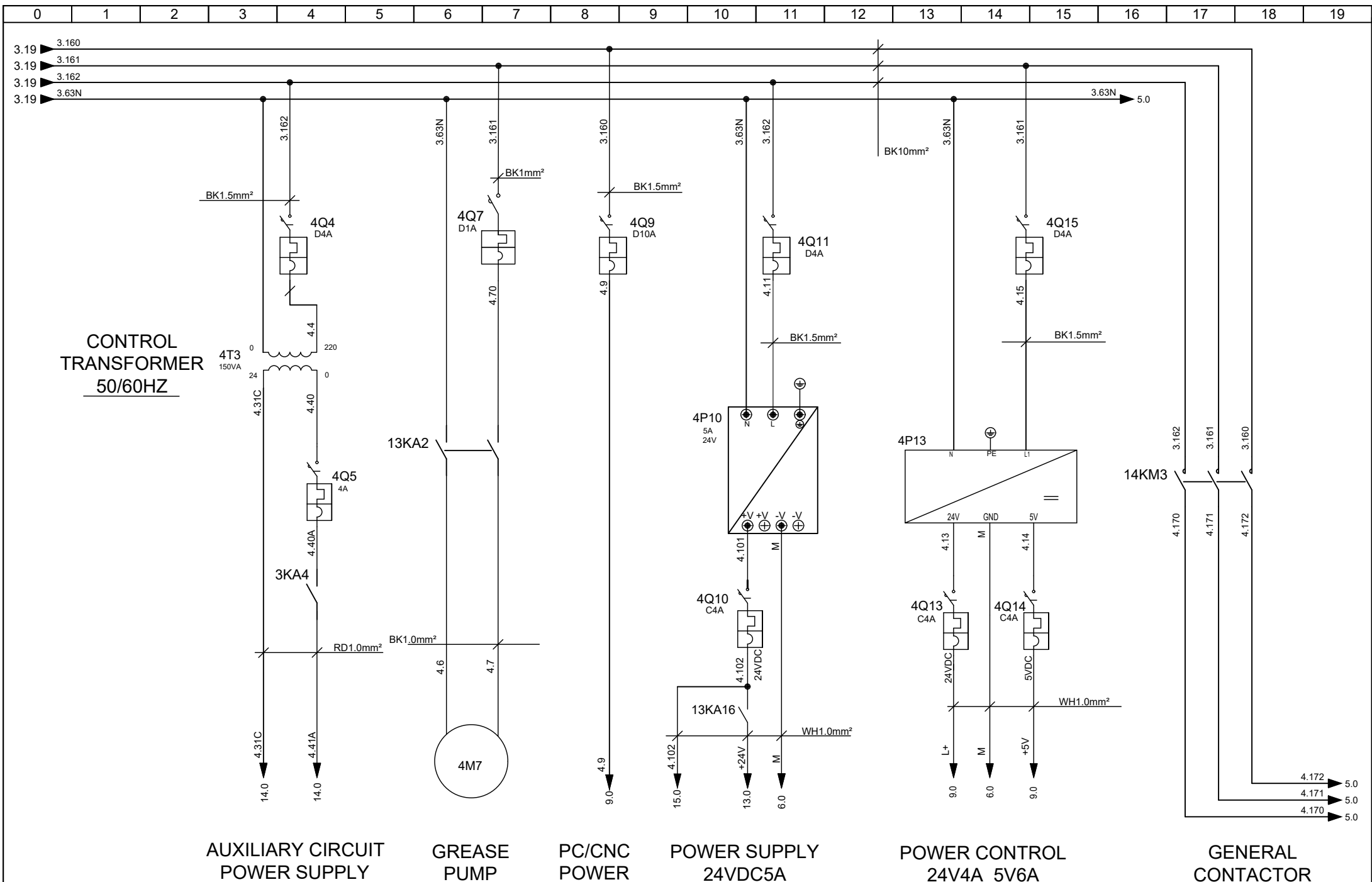
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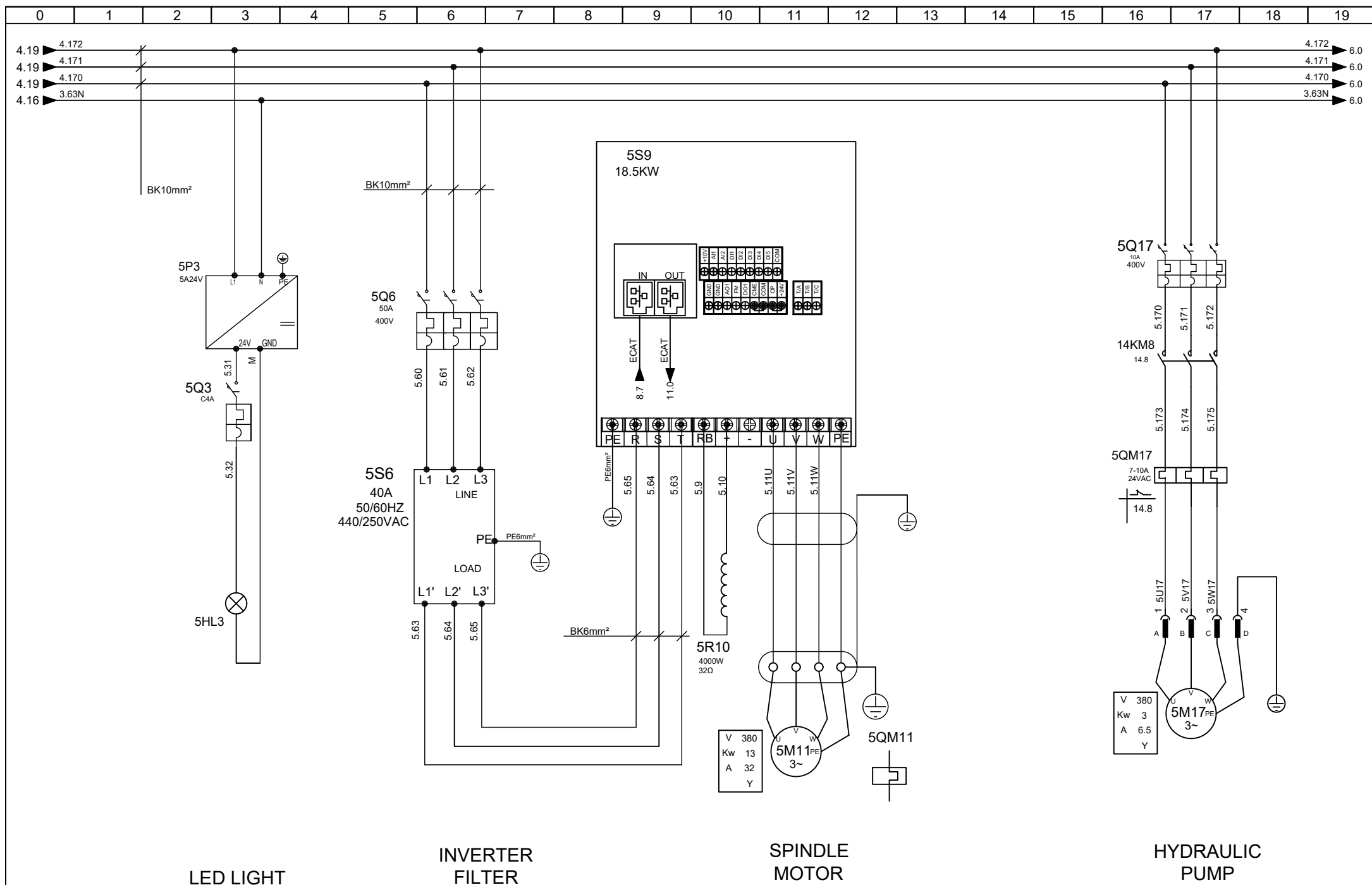


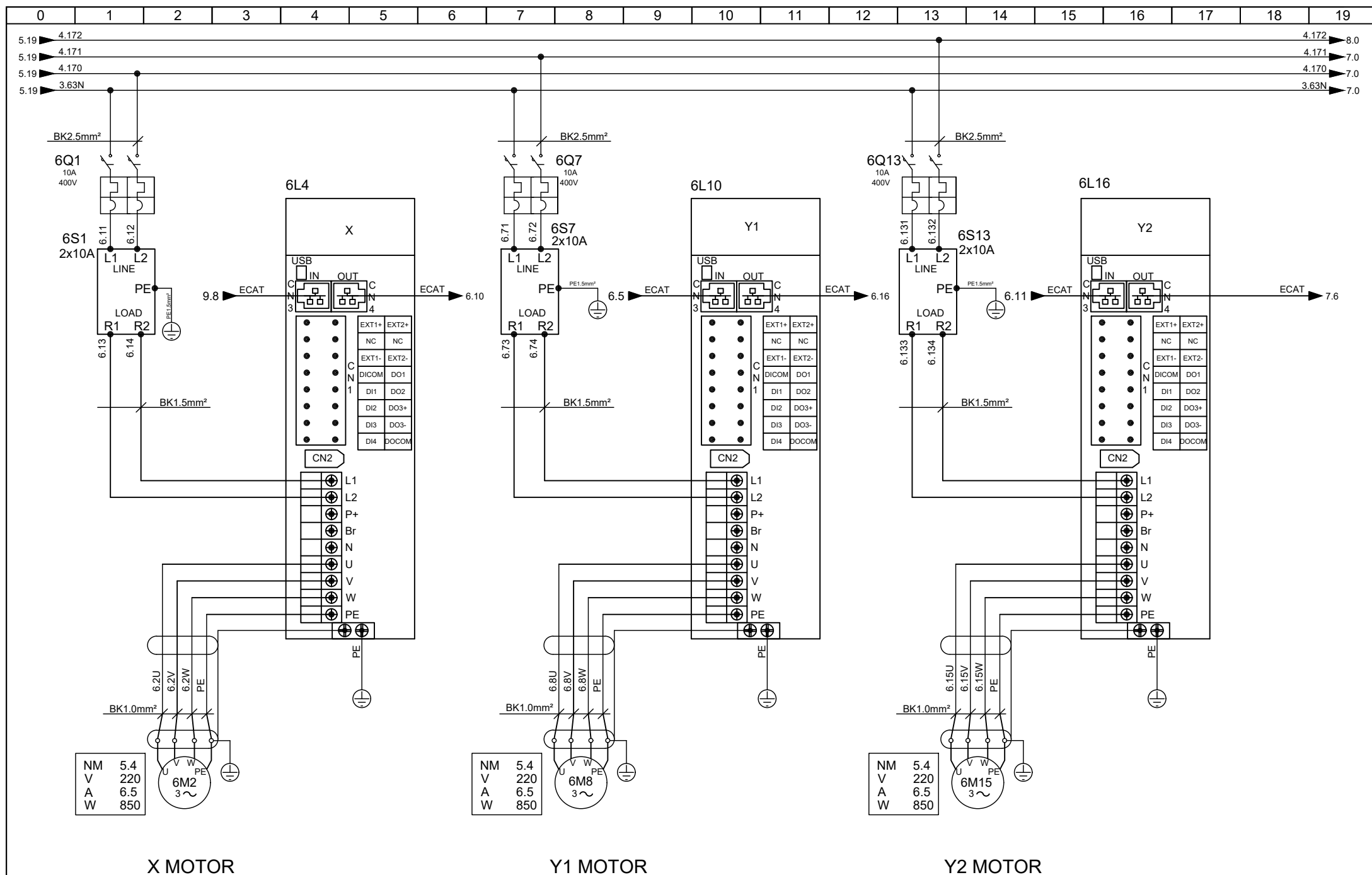
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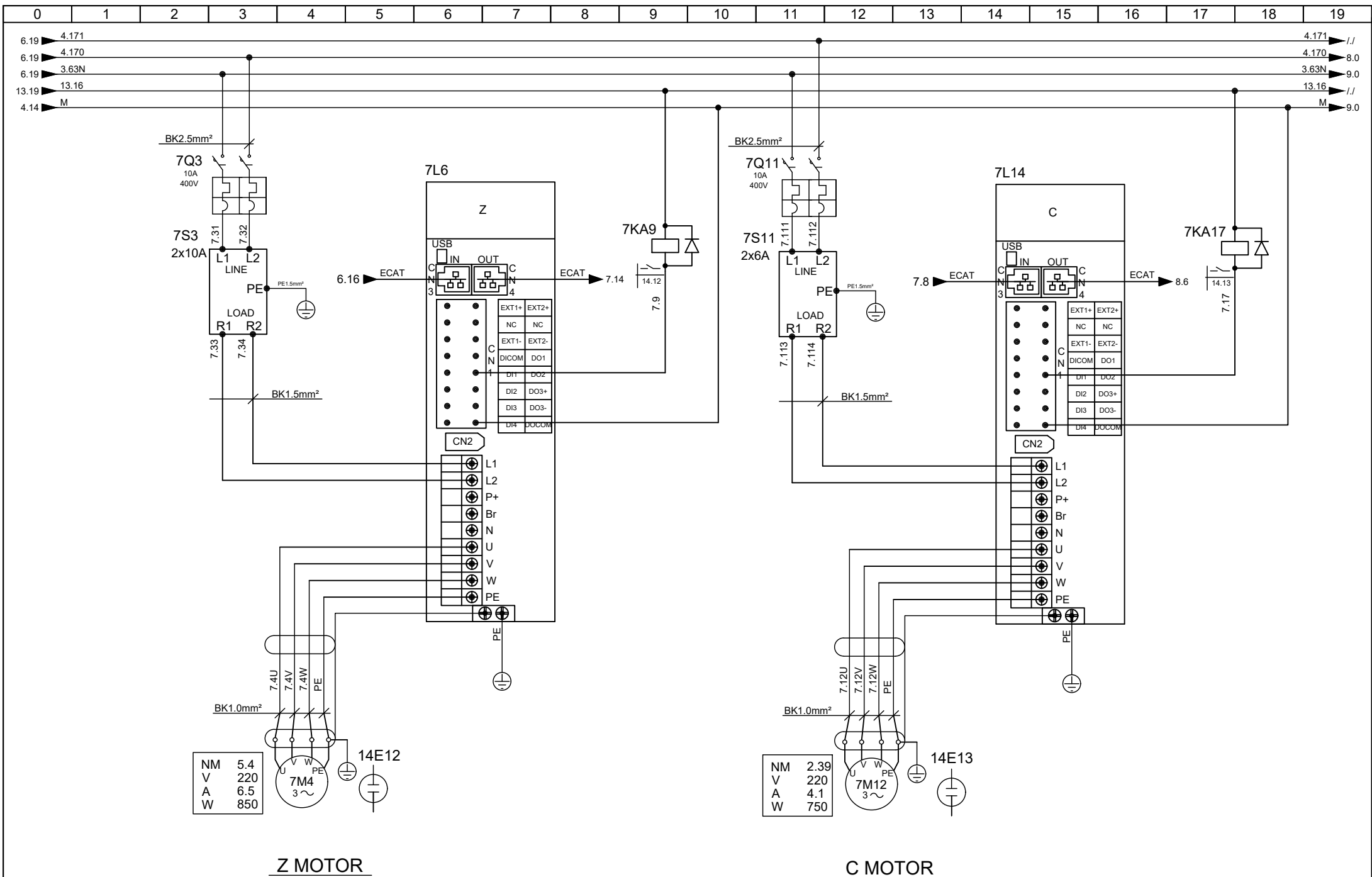


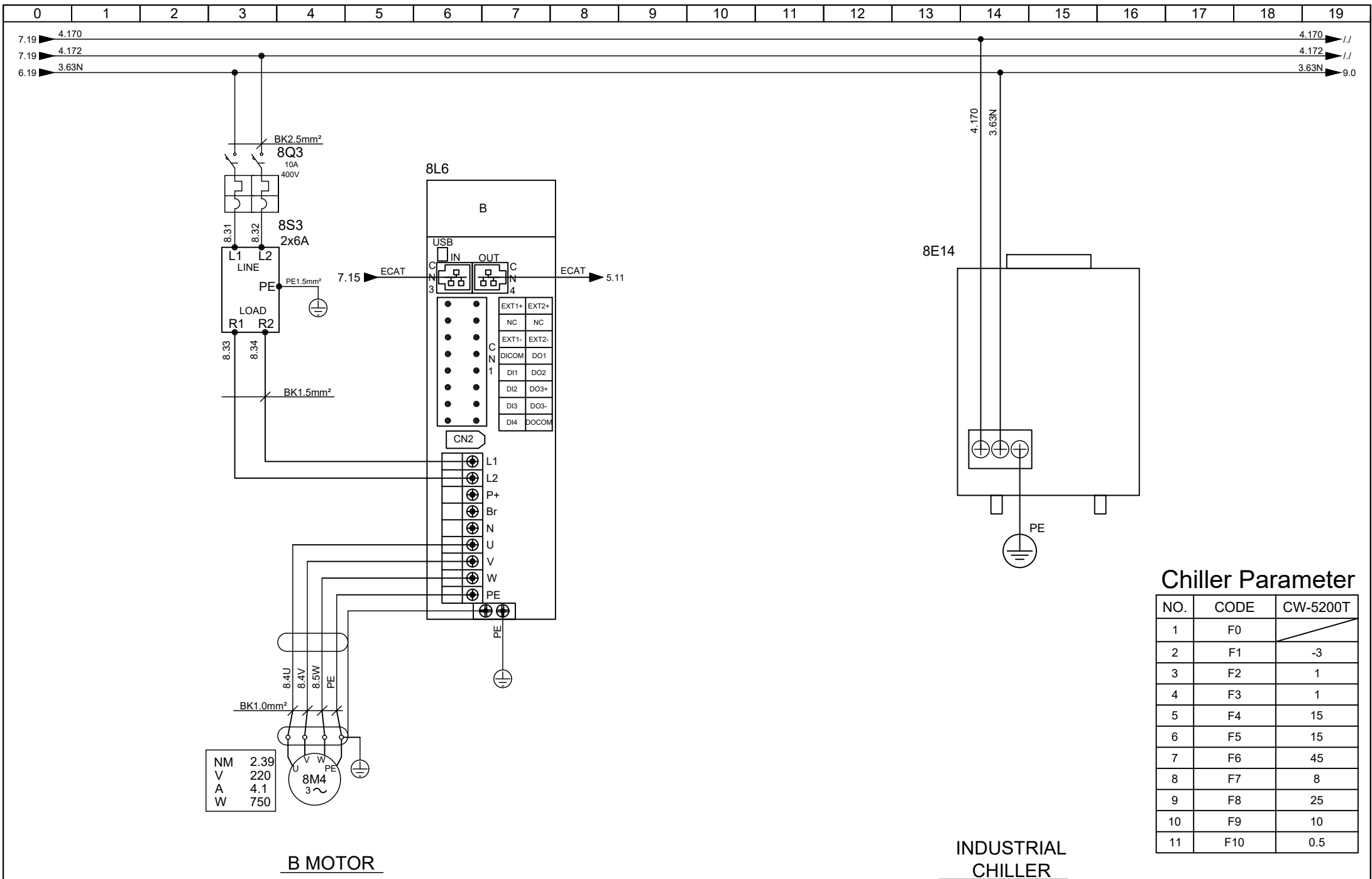


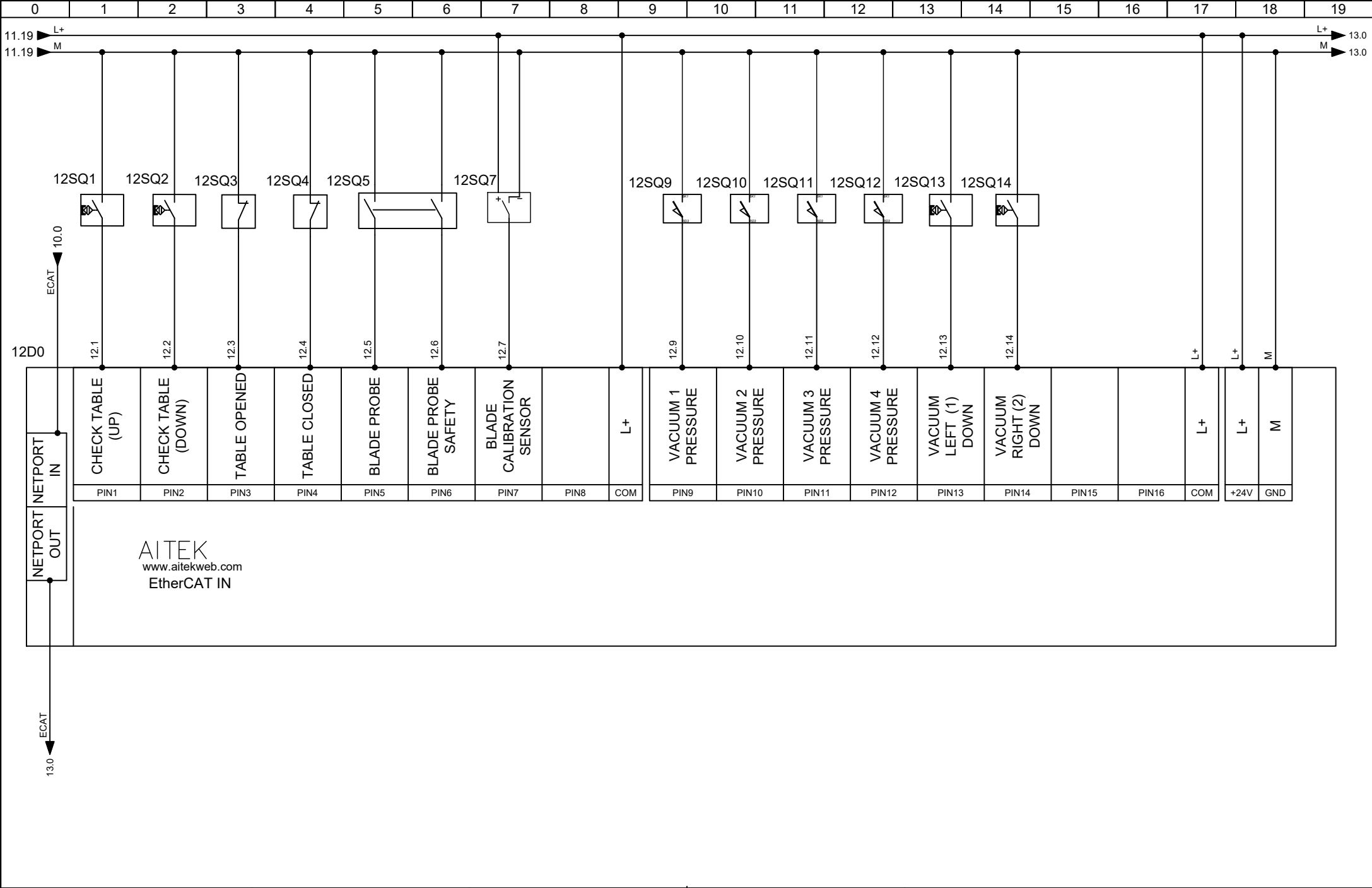


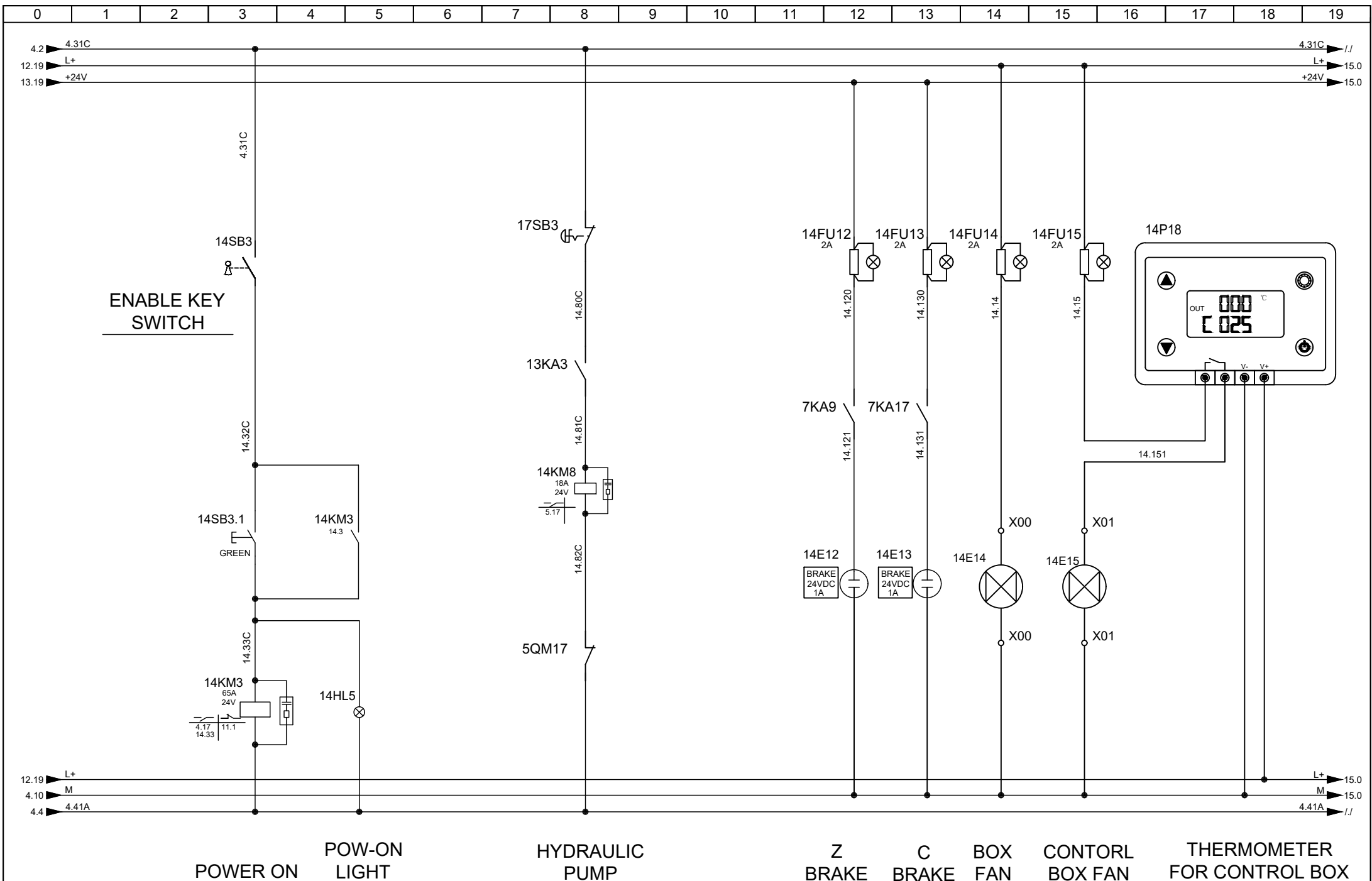












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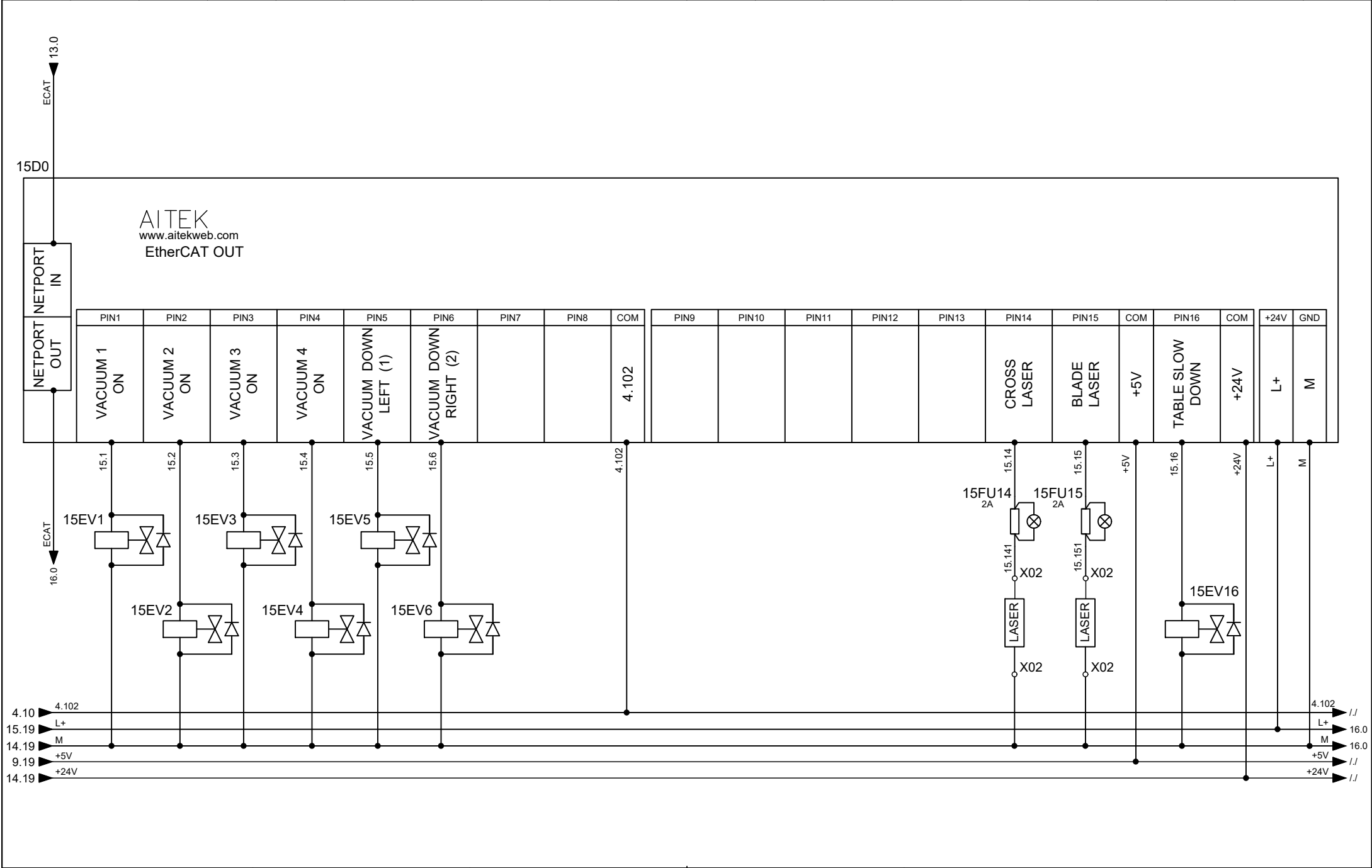
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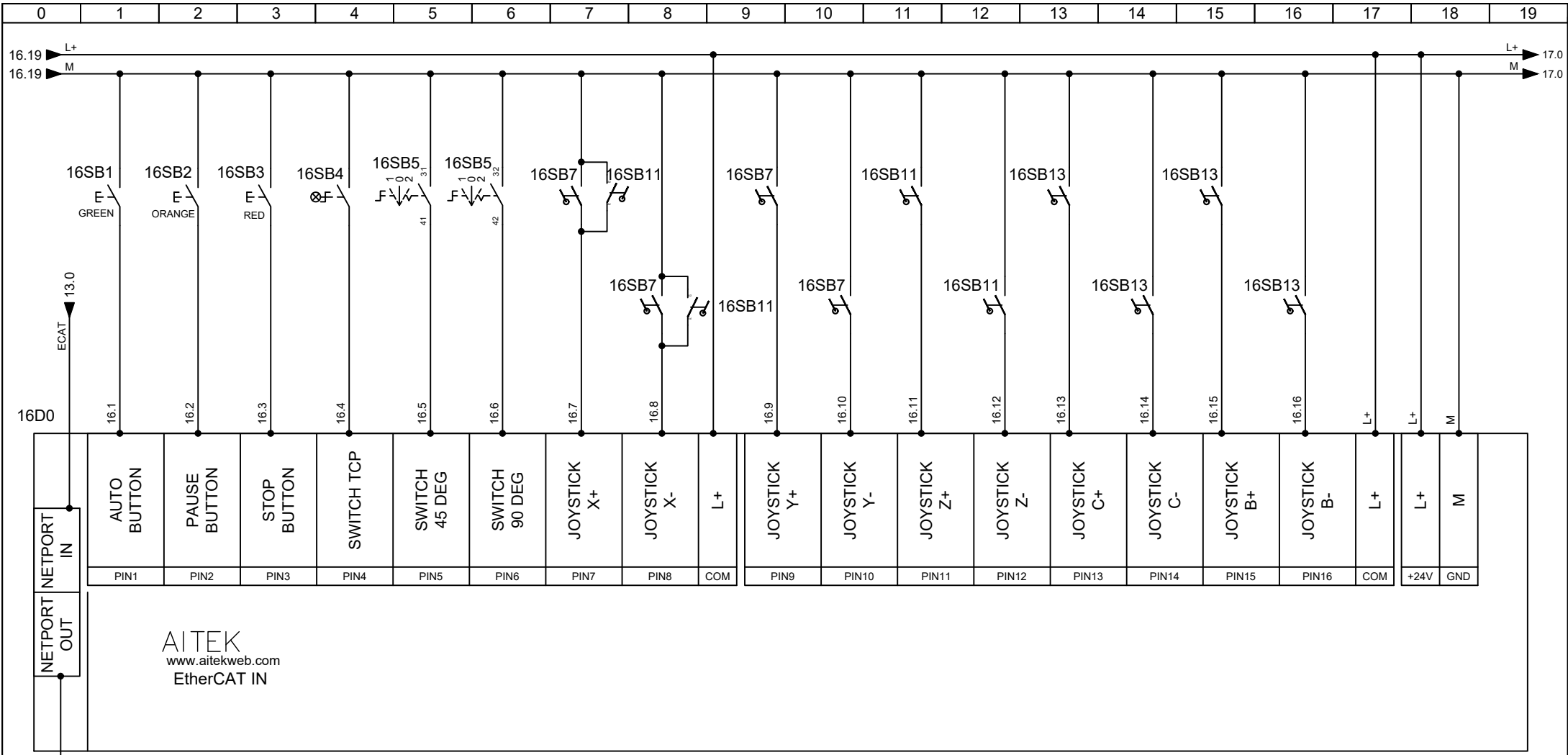
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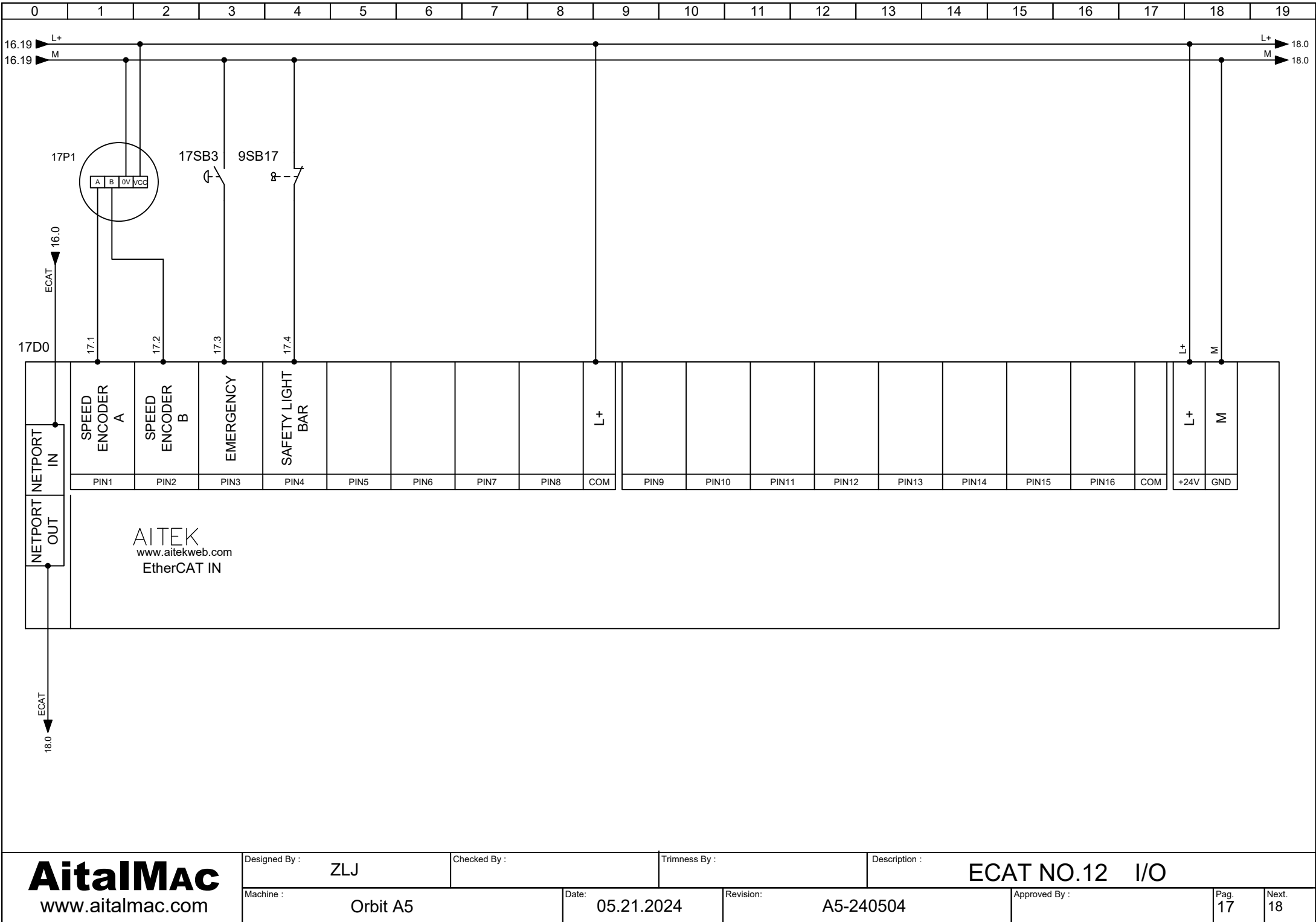
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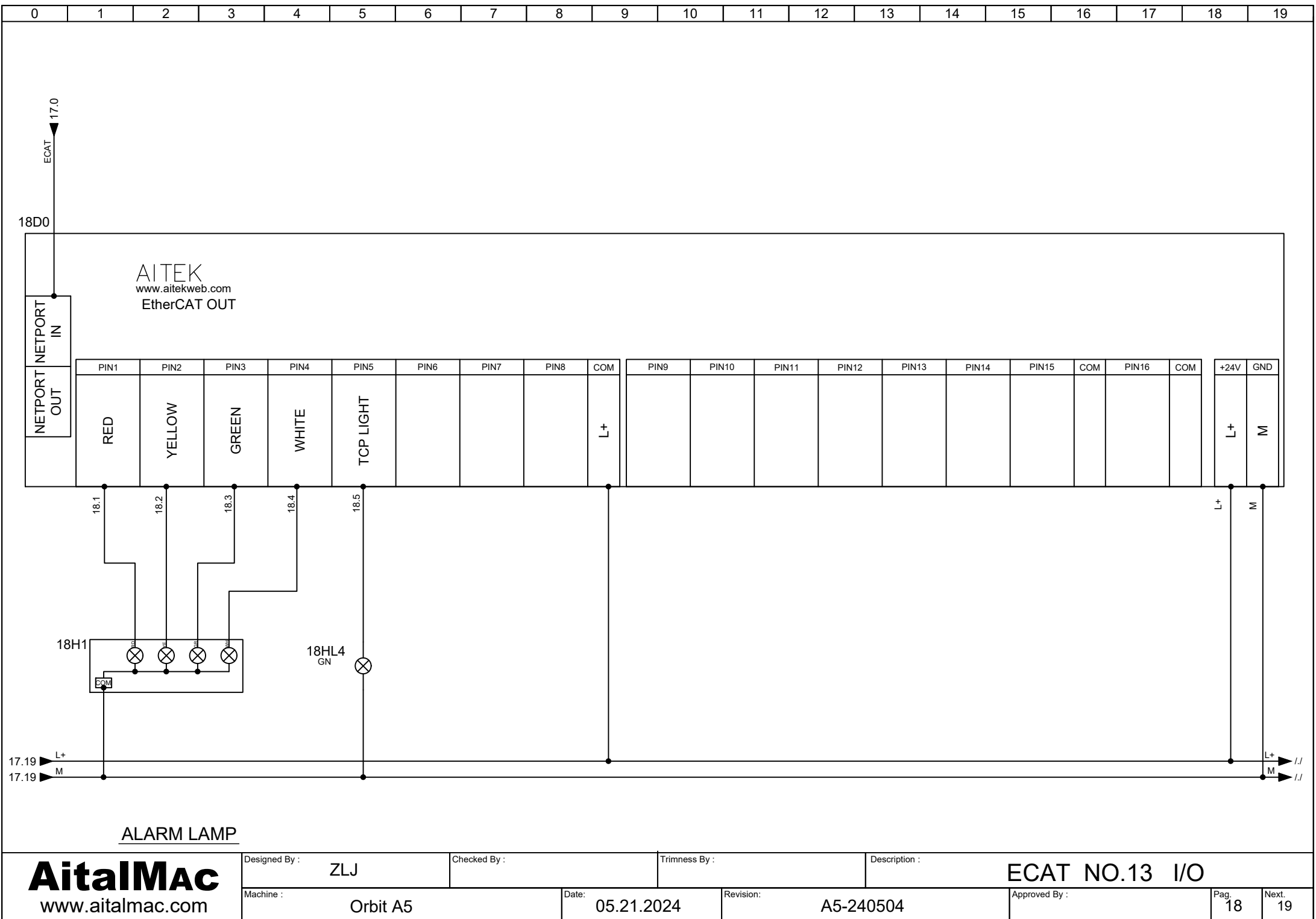
THERMOMETER
FOR CONTROL BOX

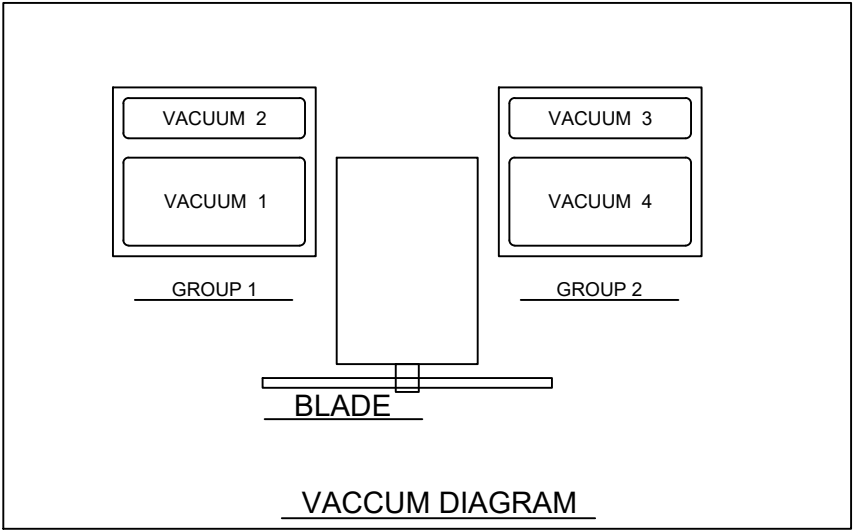
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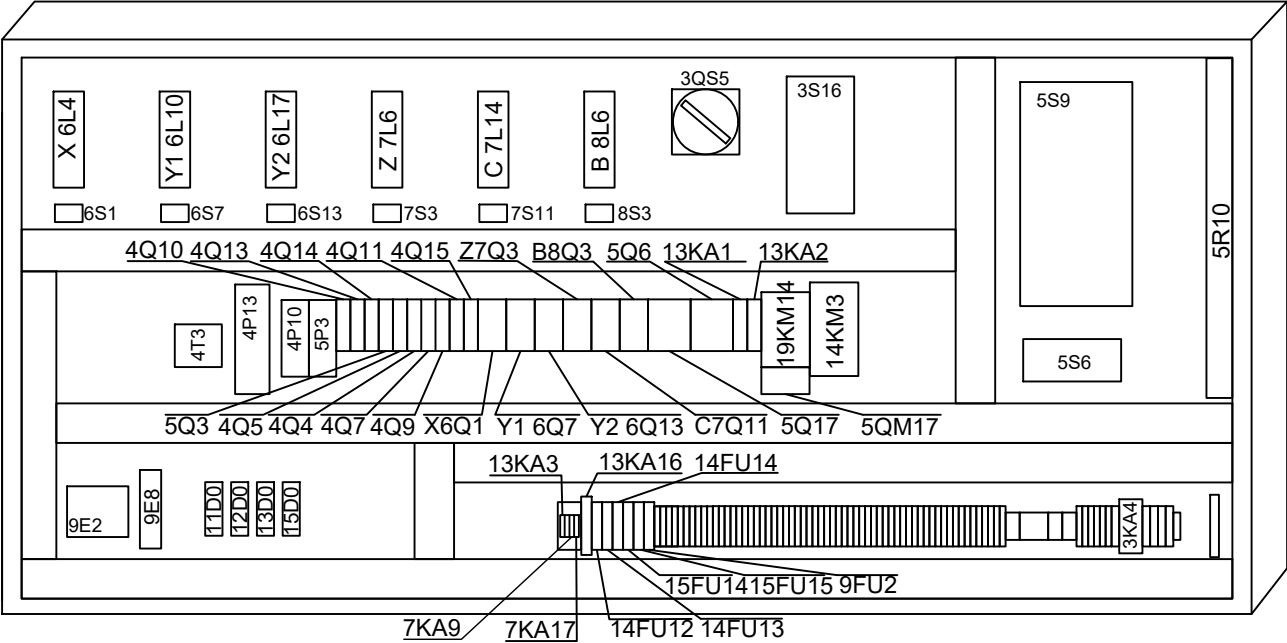




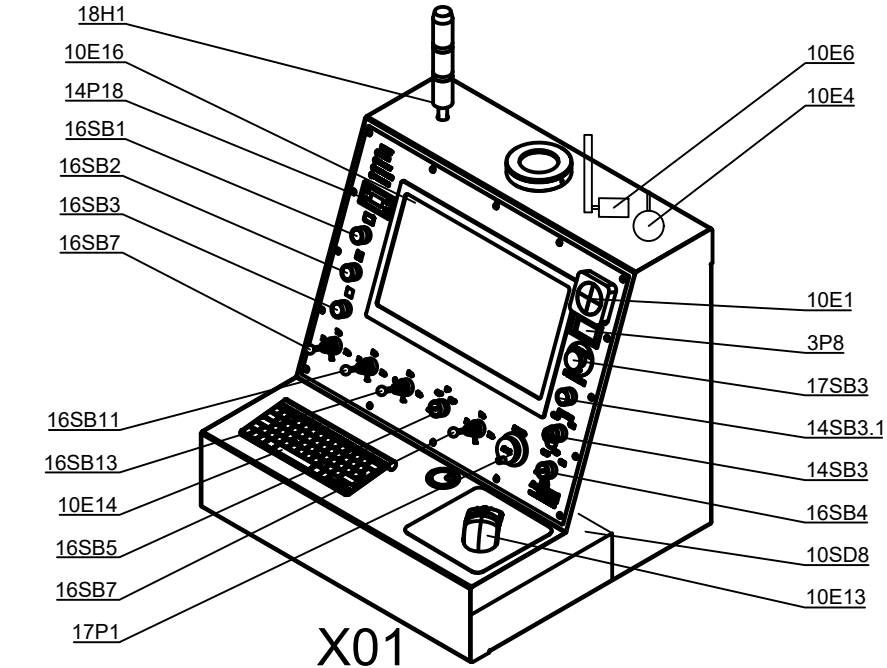
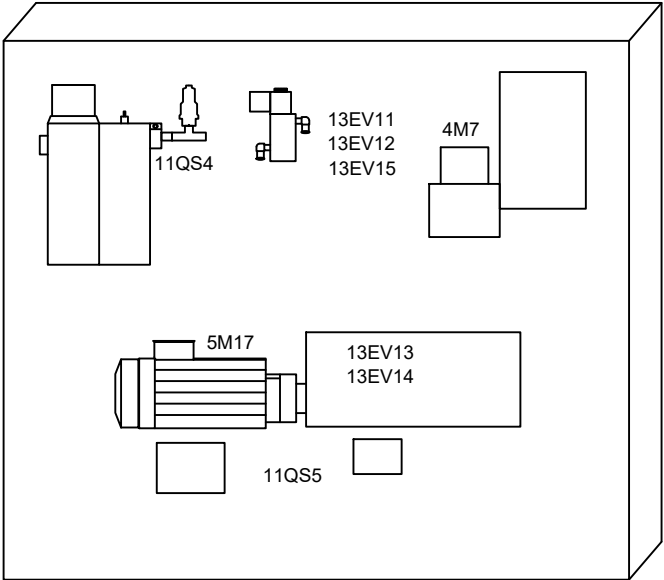




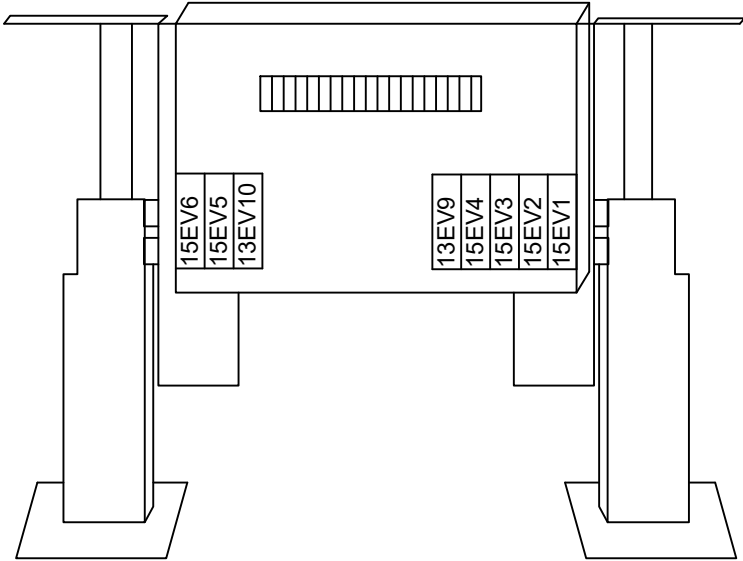




X00



X01



X02

Blade Motor Self-Study F1-37=2

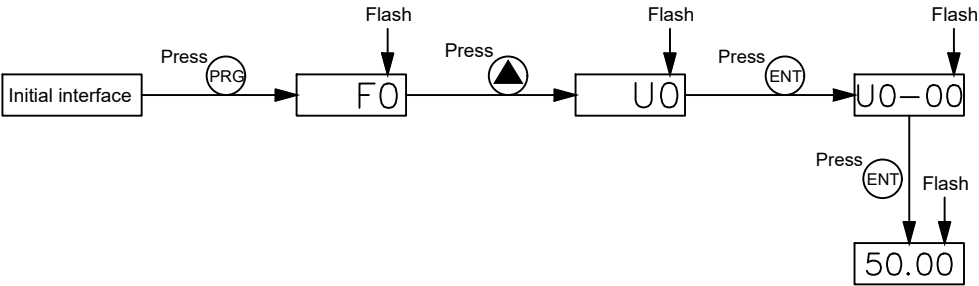
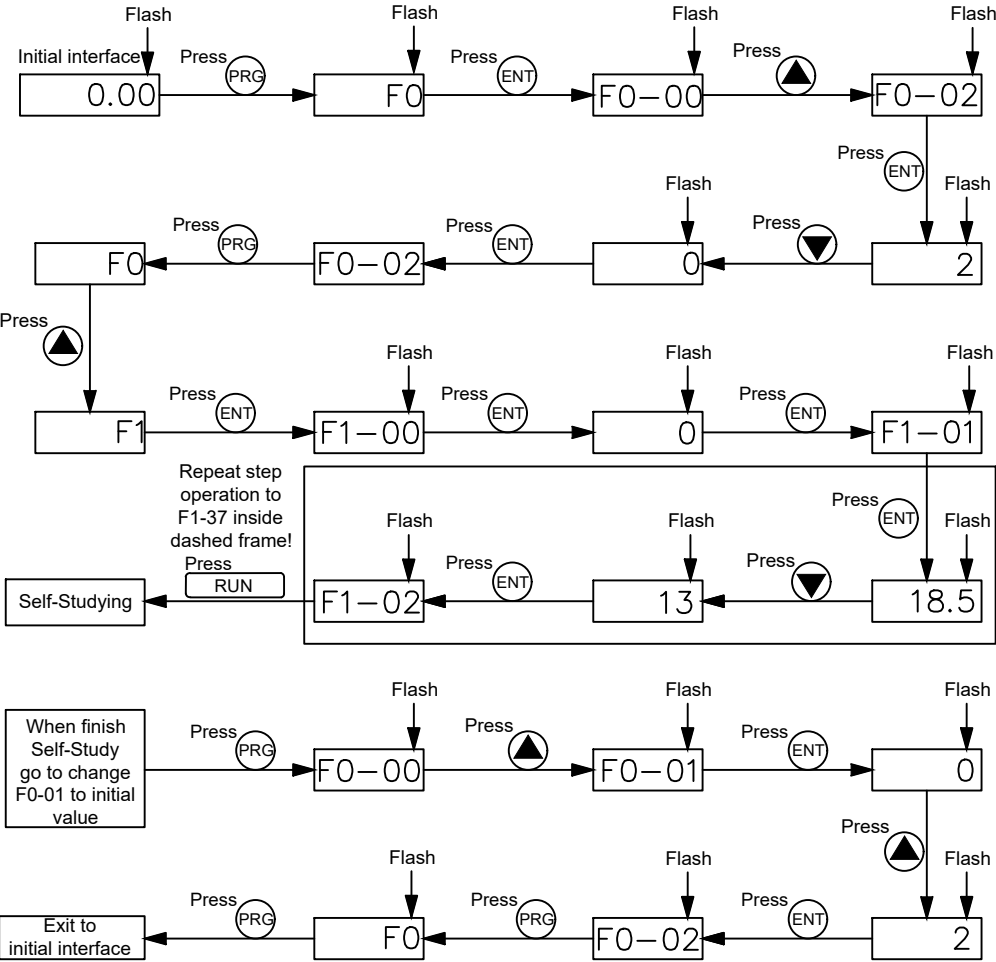
Monitoring Function

U0-00 Output Frequency

U0-01 Input Frequency

U0-06 Output Torque

U0-14 Motor Speed



Inverter Parameter

Name	Rang	Default	Units
F0-01	0,1,2	2	
F0-02	0,1,2	2	
F0-03	0-9	9	
F0-04	0-9	0	
F0-10	50.00Hz~500.00Hz	500	Hz
F0-12	0.00Hz~F0-10(MAX)	500	Hz
F0-17	0.0s~6500.0s	10	S
F0-18	0.0s~6500.0s	20	S
F0-28	0,1	1	
F1-00	0,1	0	
F1-01	0.1kW-1000.0kW	13	Kw
F1-02	1V-2000V	380	V
F1-03	0.01A-655.35A	32	A
F1-04	0.01Hz-MAX	60	Hz
F1-05	1RPM-65535RPM	1710	Rpm
F7-03	0000-FFFF	4051	
F7-04	0000-FFFF	0000	

Servo Driver Parameter

Name	RANGE	X	Y1	Y2	Z	C	B
PA000	0~5000	1	1	1	1	1	1
PA001	0~9	9	9	9	9	9	9
PA002	0x0~0xFFFF	1	1	1	1	1	1
PA003	0~31	16	16	16	13	16	16
PA004	0~20000	400	550	550	100	1200	200
PA015	0~32767	1	1	1	1	1	1

0	1	2	3	4	5	6	7	8	9	10	11	12	13
Pg.	Code	Name	Mfrs.	Model	Pg.	Code	Name	Mfrs.	Model				
3	3QS3	Travel Switch	--	LX19-001	7	Z 7Q3	Circuit Breaker	Schneider	IC65N D10A 2P				
3	3HL3	OPEN DOOR LIGHT ON	--	T5 12W/220V	7	7S3	Filter	Canny Well	CW1B-10A-L				
3	3QS5	General Switch	GLELE	GLD11-63/08 +4P	7	7M4	Z Motor	Leadshine	ACM13009H2E-40-L MS20 Brake				
3	3S16	Mains Filter	DOTHINK	DTT2121-65-S16-S77	7	7L6	Z Servo Drive	Leadshine	L7EC-1000S				
3	3KA4	PHASE PROTECTION RELAY	SHNTOER	TG30s	7	7KA9	Terminal Relay Unit	Panasonic	PA1A-24V + AY33002 RT3S-24V				
					7	C 7Q11	Circuit Breaker	Schneider	IC65N D6A 2P				
4	4T3	Transformers	CHNT	NDK(BK)-150	7	7S11	Filter	Canny Well	CW1B-6A-L				
4	4Q4	Circuit Breaker	Schneider	IC65N D4A 1P	7	7M12	C Motor	Leadshine	ACM2-08008H2 E1-E23 Brake				
4	4Q5	Circuit Breaker	Schneider	IC65N D4A 1P	7	7L14	C Servo Drive	Leadshine	L7EC-750S				
4	4Q7	Circuit Breaker	Schneider	IC65N D1A 1P	7	7KA17	Terminal Relay Unit	Panasonic	PA1A-24V + AY33002 RT3S-24V				
4	4M7	Grease Pump	ML	MYK-202-200-0 15W/220V 2L	8	8Q3	Circuit Breaker	Schneider	IC65N D10A 2P				
4	4Q9	Circuit Breaker	Schneider	IC65N D10A 1P	8	8S3	Filter	Canny Well	CW1B-6A-L				
4	4P10	Power Supply	MW	EDR-120-24 5A24V	8	8M4	B Motor	Leadshine	ACM2-08008H2F1-E23-65				
4	4Q10	Circuit Breaker	Schneider	C65N-DC 1P C4A	8	8L6	B Servo Drive	Leadshine	L7EC-750S				
4	4Q11	Circuit Breaker	Schneider	IC65N D4A 1P	8	8E14	Industrial Chiller	TEYU	CW5200T AC1P220V				
4	4P13	Switching Power Supply	MW	D-120B									
4	4Q13	Circuit Breaker	Schneider	C65N-DC 1P C4A									
4	4Q14	Circuit Breaker	Schneider	C65N-DC 1P C4A	9	9FU2	Fuse	CHE	FS-101 DC24V 2A				
4	4Q15	Circuit Breaker	Schneider	IC65N D4A 1P	9	9E2	Ethernet Switch	TP-LINK	TL-SG1005D				
					9	9E8	CNC Controler	AITEK	ETC-V2				
					9	9P12	Power Supply	MW	DR-60-5 5V 6.5A				
					9	9FU12	Fuse	CHE	FS-101 DC24V 5A				
					9	9A12	NanoPi For Camera	FriendlyElec	NanoPi M4-4GB+eMMC-16GB				
5	5P3	Power Supply	MW	EDR-120-24 5A24V	9	9E12	CAMERA	LOGITECH	C930E				
5	5Q3	Circuit Breaker	Schneider	C65N-DC 1P C4A	9	9E16	Safety Light Barrier/T	ANLIAN	ABI10-482 6L 10M				
5	5HL3	LED Light	--	--	9	9E18	Safety Light Barrier/R	ANLIAN	ABI10-482 6L 10M				
5	5Q6	Circuit Breaker	Schneider	IC65N D50A 3P	9	9SB17	Safety Light Switch	RENY	RBSNK-2				
5	5S6	Filter	DOTHINK	DTT1021-40-S6-S47	9	9P5	Thermometer	JIAQISHENG	XY-WT01				
5	5S9	Frequency Converter	INOVANCE	MD500T18.5GB	10	10E1	Computer Power On/Off	Aitalmac	--				
5	5R10	Braking Resistor	INOVANCE	4000W32Ω	10	10E4	Remote Wireless Receiver	AITEK	--				
5	5M11	Spindle Motor	AitalMac	380V 13KW	10	10E6	USB-WiFi	UGREEN	AC650M				
5	5Q17	Circuit Breaker	Schneider	IC65N D10A 3P	10	10S10	Filter	Canny Well	CW1B-6A-L				
5	5QM17	Thermal Relay	Schneider	LRD14C 7-10A	10	10SD8	Windows PC	AITEK	WIN-A5				
5	5M17	Hydraulic Pump Motor	WANERF	4WE6J-6X/ED24 380V3KW	10	10FU17	Fuse	CHE	FS-101 DC24V 5A				
					10	10E13	USB-Mouse	Lenovo	M300				
6	X 6Q1	Circuit Breaker	Schneider	IC65N D10A 2P	10	10E14	USB-Keyboard	Logitech	K310				
6	6S1	Filter	Canny Well	CW1B-10A-L	10	10E16	PC Monitor	Anmite	AN-195W01D				
6	6M2	X Motor	Leadshine	ACM13009H2F-40-L MS20	10	10P17	Power Supply	MW	EDR-75-12 6.3A12VDC				
6	6L4	X Servo Drive	Leadshine	L7EC-1000S									
6	Y 6Q7	Circuit Breaker	Schneider	IC65N D10A 2P									
6	6S7	Filter	Canny Well	CW1B-10A-L	11	11D0	ETHERCAT INPUT	AITEK					
6	6M8	Y Motor	Leadshine	ACM13009H2F-40-L MS20	11	11SQ9	X Limit Sensor	IBEST	IPLSI-12NO2B-L60mm(NPN NO 2mm 200mA)				
6	6L10	Y Servo Drive	Leadshine	L7EC-1000S	11	11SQ10	Y1 Limit Sensor	IBEST	IPLSI-12NO2B-L60mm(NPN NO 2mm 200mA)				
6	Y2 6Q13	Circuit Breaker	Schneider	IC65N D10A 2P	11	11SQ11	Y2 Limit Sensor	IBEST	IPLSI-12NO2B-L60mm(NPN NO 2mm 200mA)				
6	6S13	Filter	Canny Well	CW1B-10A-L	11	11SQ12	Z Limit Sensor	IBEST	IPLSI-12NO2B-L60mm(NPN NO 2mm 200mA)				
6	6M15	Y2 Motor	Leadshine	ACM13009H2F-40-L MS20	11	11SQ13	C Limit Sensor	IBEST	IPLSI-12NO2B-L60mm(NPN NO 2mm 200mA)				
6	6L16	Y2 Servo Drive	Leadshine	L7EC-1000S	11	11SQ14	B Limit Sensor	IBEST	IPLSI-12NO2B-L60mm(NPN NO 2mm 200mA)				
					11	11QS4	Air Pressure Switch	SQW	QPM11-NC				
					11	11QS5	Water Pressure Switch	SN	DN8 1.1-1.8kgf/m² (ON-OFF)				

0	1	2	3	4	5	6	7	8	9	10	11	12	13				
Pg.	Code	Name	Mfrs.	Model	Pg.	Code	Name	Mfrs.	Model								
12	12D0	ETHERCAT INPUT	AITEK		15	15D0	ETHERCAT OUTPUT	AITEK									
12	12SQ1	Check Table Sensor	CHVIRD	CS1-U	15	15EV1	Solenoid Valve	CNSY	4V210-08 G1/4 DC24V								
12	12SQ2	Check Table Sensor	CHVIRD	CS1-U	15	15EV2	Solenoid Valve	CNSY	4V210-08 G1/4 DC24V								
12	12SQ3	Table Open Limit Sensor	Moujen	ME-9101	15	15EV3	Solenoid Valve	CNSY	4V210-08 G1/4 DC24V								
12	12SQ4	Table Close Limit Sensor	Moujen	ME-9101	15	15EV4	Solenoid Valve	CNSY	4V210-08 G1/4 DC24V								
12	12SQ5	Blade Probe			15	15EV5	Solenoid Valve	CNSY	4V210-08 G1/4 DC24V								
12	12SQ7	BLADE CALIBRATION			15	15EV6	Solenoid Valve	CNSY	4V210-08 G1/4 DC24V								
12	12SQ9	Vacuum1 Generator	SNS	SCV-10CK 0.1-0.6MPa	15	15FU14	Fuse	CHE	FS-101 DC24V 2A								
12	12SQ10	Vacuum2 Generator	SNS	SCV-10CK 0.1-0.6MPa	15	15FU15	Fuse	CHE	FS-101 DC24V 2A								
12	12SQ11	Vacuum3 Generator	SNS	SCV-10CK 0.1-0.6MPa	15	15A14	Cross Laser	--	16mm								
12	12SQ12	Vacuum4 Generator	SNS	SCV-10CK 0.1-0.6MPa	15	15A15	Blade Laser	--	16mm								
12	12SQ13	Left Vacuum Sensor	CHVIRD	CS1-U													
12	12SQ14	Right Vacuum Sensor	CHVIRD	CS1-U													
					16	16D0	ETHERCAT INPUT	AITEK									
					16	16SB1	Control Box-Automatic Button	RENY	RAPNF-1A-G								
					16	16SB2	Control Box-Pause Button	RENY	RAPNF-1A-Y								
					16	16SB3	Control Box-Stop Button	RENY	RAPNF-1A-R								
					16	16SB4	TCP On/Off Switch	RENY	R2SNS-2FE-1D-G								
13	13D0	ETHERCAT OUTPUT	AITEK		16	16SB5	45°/90° Switch	RENY	R2SNS-3TB-2A-B								
13	13KA1	Terminal Relay	OMRON	G2R-2-SND(S) DC24V+P2RF-08-E	16	16SB7	X/Y Axis-Joystick Controller	Schneider	XD2-PA24CR φ22mm								
13	13KA2	Terminal Relay	OMRON	G2R-2-SND(S) DC24V+P2RF-08-E	16	16SB13	B/C Axis-Joystick Controller	Schneider	XD2-PA24CR φ22mm								
13	13KA3	Terminal Relay Unit	Panasonic	PA1A-24V + AY33002 RT3S-24V	16	16SB11	X/Z Axis-Joystick Controller	Schneider	XD2-PA24CR φ22mm								
13	13KA4	Terminal Relay Unit	Panasonic	PA1A-24V + AY33002 RT3S-24V													
13	13KA5	Terminal Relay Unit	Panasonic	PA1A-24V + AY33002 RT3S-24V	17	17D0	ETHERCAT INPUT	AITEK									
13	13EV9	Solenoid Valve	CNSY	4V210-08 G1/4 DC24V	17	17P1	Speed Control Wheel	AITEK	24VPLC								
13	13EV10	Solenoid Valve	CNSY	4V210-08 G1/4 DC24V	17	17SB3	X/Y Axis-Joystick Controller	Schneider	XD2-PA24CR φ22mm								
13	13EV11	Solenoid Valve	CNSY	4V210-08 G1/4 DC24V	17												
13	13EV12	Solenoid Valve	CNSY	4V210-08 G1/4 DC24V													
13	13EV13	Solenoid Valve	CNSY	4V210-08 G1/4 DC24V	18	18D0	ETHERCAT OUTPUT	AITEK									
13	13EV14	Solenoid Valve	CNSY	4V210-08 G1/4 DC24V	18	18H1	Alarm Indicator lamp	TAYB	TB50-4T-D 24V								
13	13KA16	Terminal Relay	OMRON	G2R-2-SND(S) DC24V+P2RF-08-E	18	18HL4	TCP Knob Light	RENY	R2PIF-1D-2GL								
14	14SB3	Enable Key Switch	RENY	RBSNK-2													
14	14SB3.1	Power On Button	RENY	R2PIF-1D-2GL													
14	14KM3	Contactor	Schneider	LC1D65AB7C													
14	14KM8	Contactor	Schneider	LC1-D18B7C 18A													
14	14FU12	Fuse	CHE	FS-101 DC24V 2A													
14	14FU13	Fuse	CHE	FS-101 DC24V 2A													
14	14E12	Z Brake	--	24VDC 1A													
14	14E13	C Brake	--	24VDC 1A													
14	14FU14	Fuse	CHE	FS-101 DC24V 2A													
14	14E14	BOX FAN	--	TYP4114N/12MR 24V 6W 12CM													
14	14FU15	Fuse	CHE	FS-101 DC24V 2A													
14	14E15	CONTORL BOX FAN	--	TYP4114N/12MR 24V 6W 12CM													
14	14P18	Thermometer	JIAQISHENG	XY-WT01													
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Aitalmac www.aitalmac.com					Designed By		Checked By		Approved By		Trimness By						
					Machine		Date		Revision		Note						
					Orbit A5		05.21.2024		A5-240504								