MACH MACHINE TOOLS

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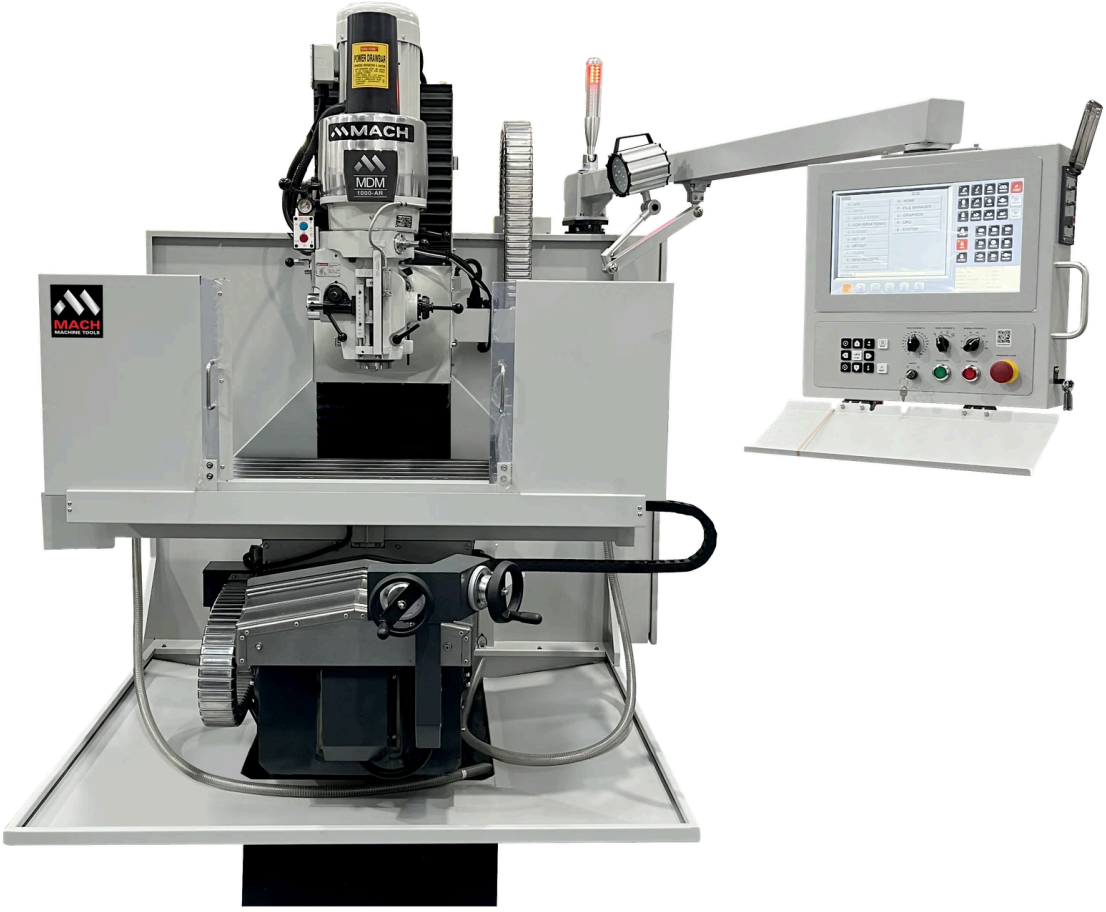
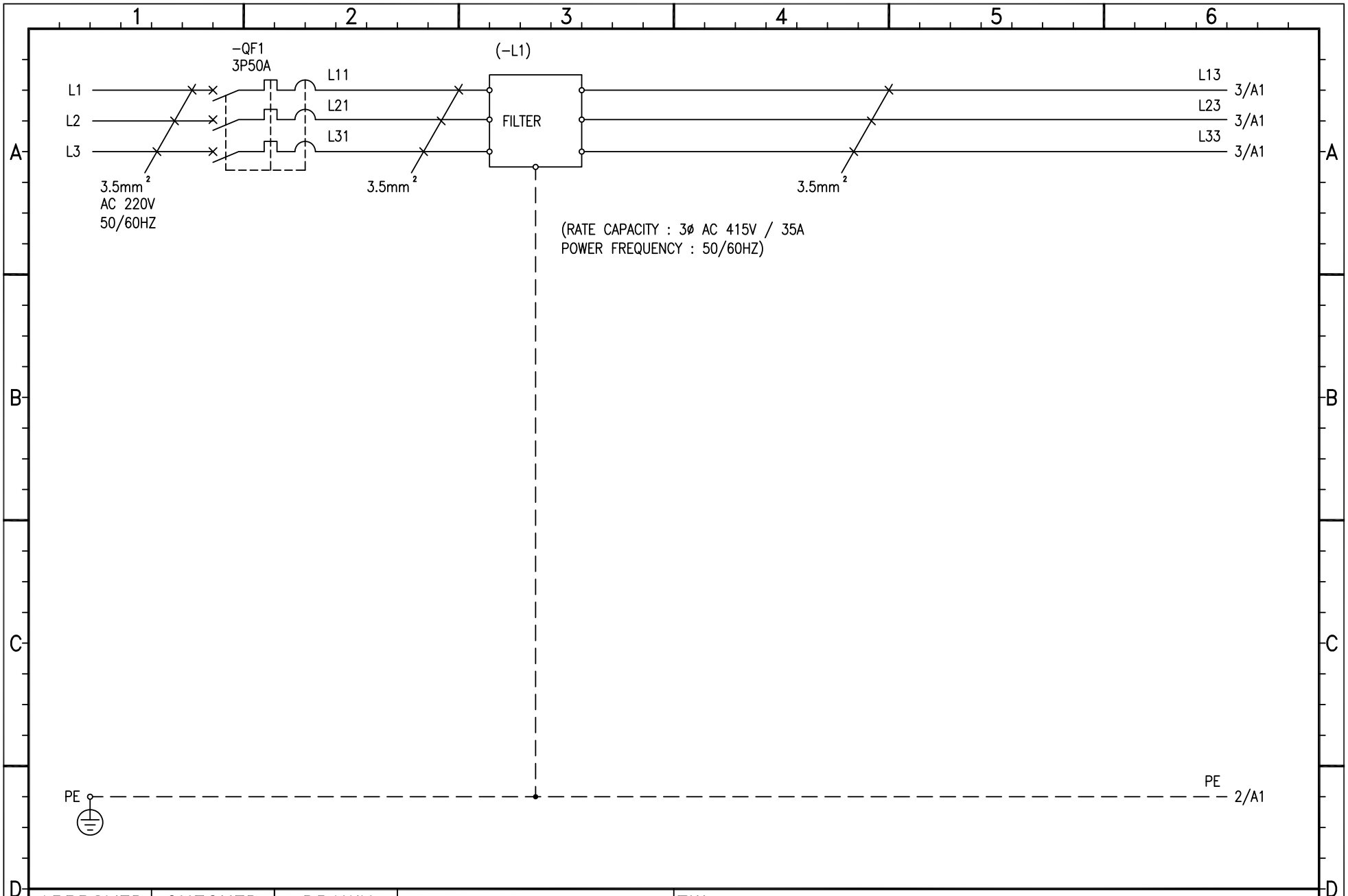
WIRING SCHEMATICS

MDM-700 / MDM-1000

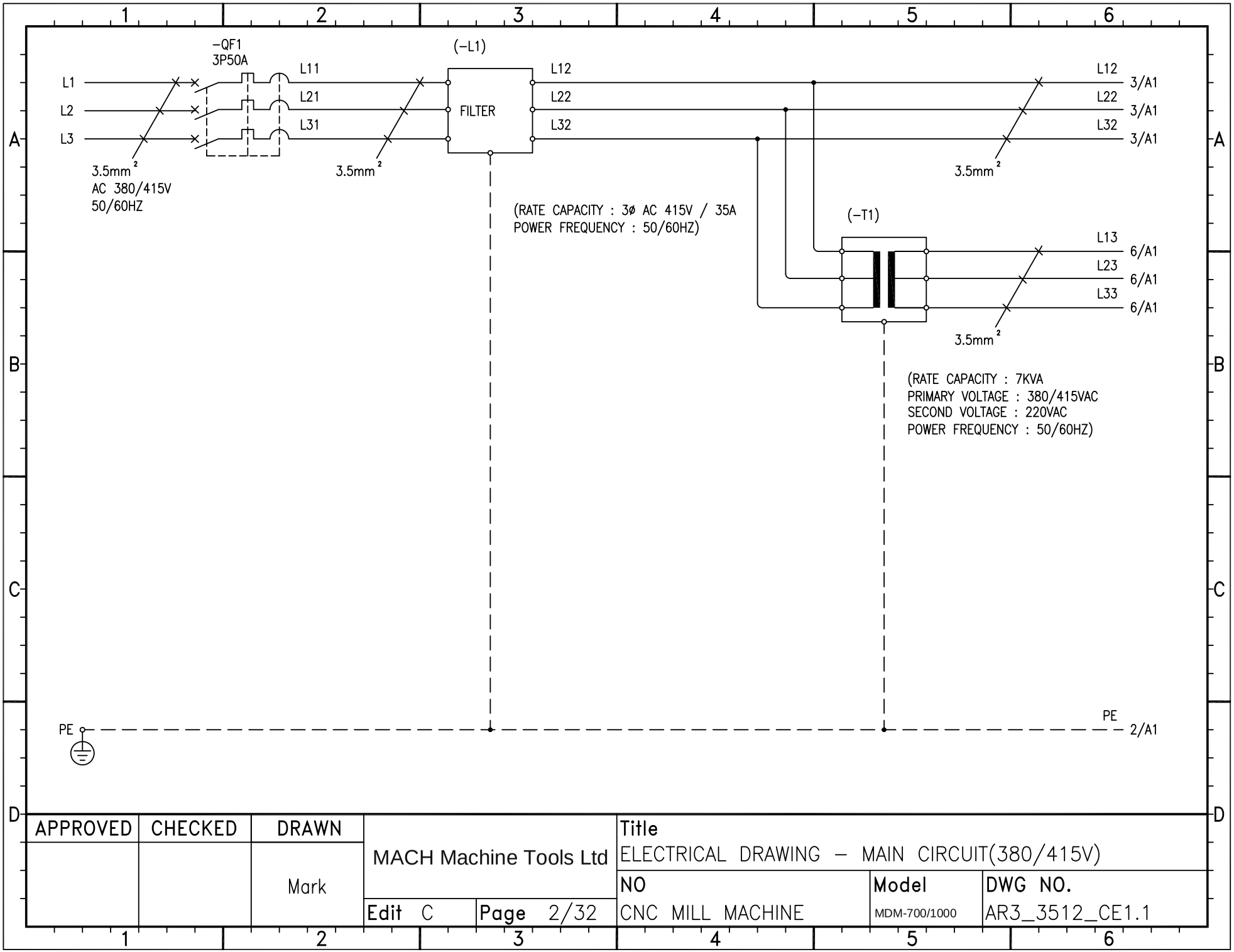
CNC Bed Mill



Wiring Schematics
3512 CE

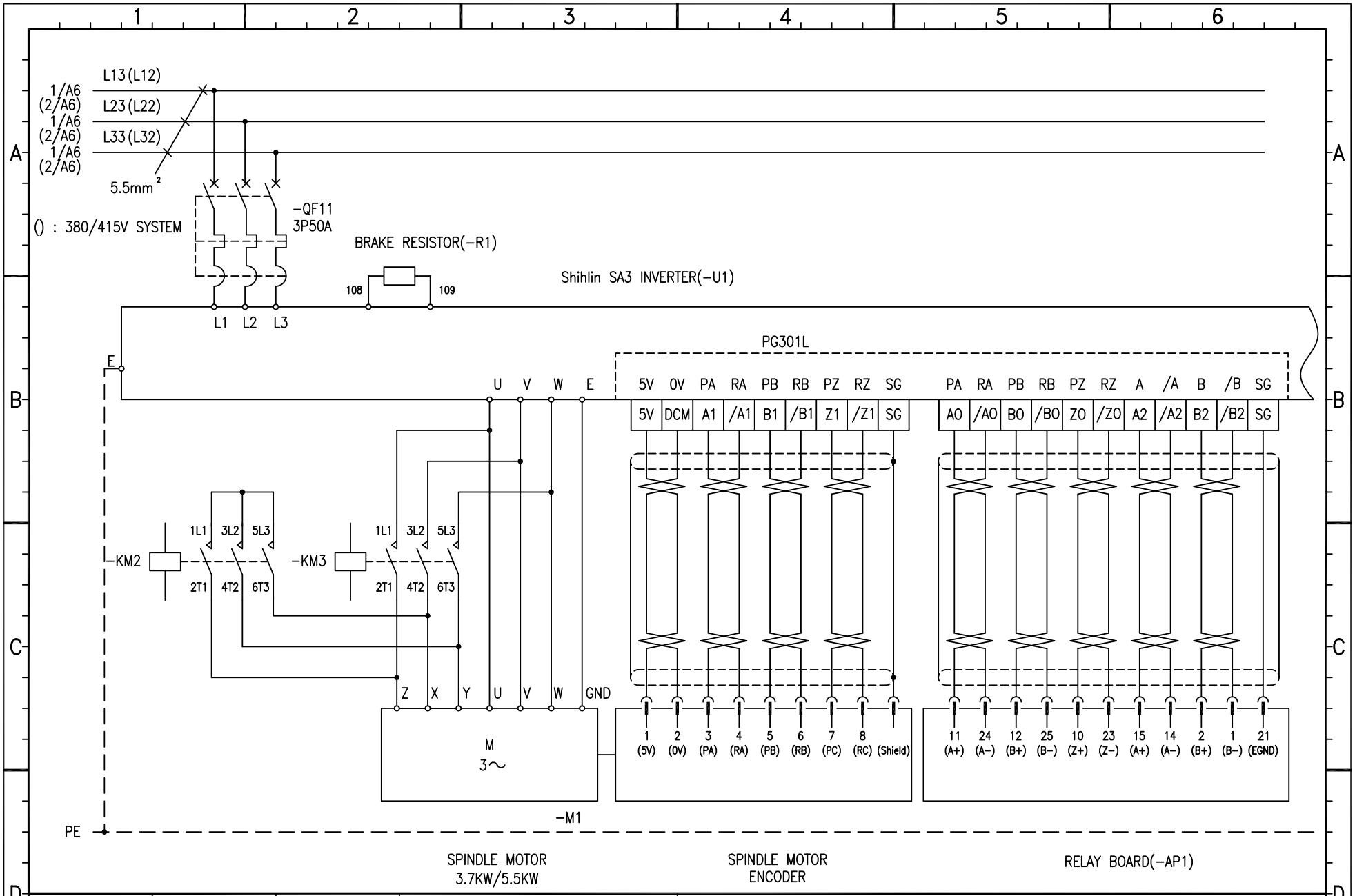


APPROVED	CHECKED	DRAWN		Title
		Mark	MACH Machine Tools Ltd	ELECTRICAL DRAWING – MAIN CIRCUI(220V)
			Edit C / Page 1/32	NO: CNC MILL MACHINE / Model: MDM-700/1000 / DWG NO.: AR3_3512_CE1

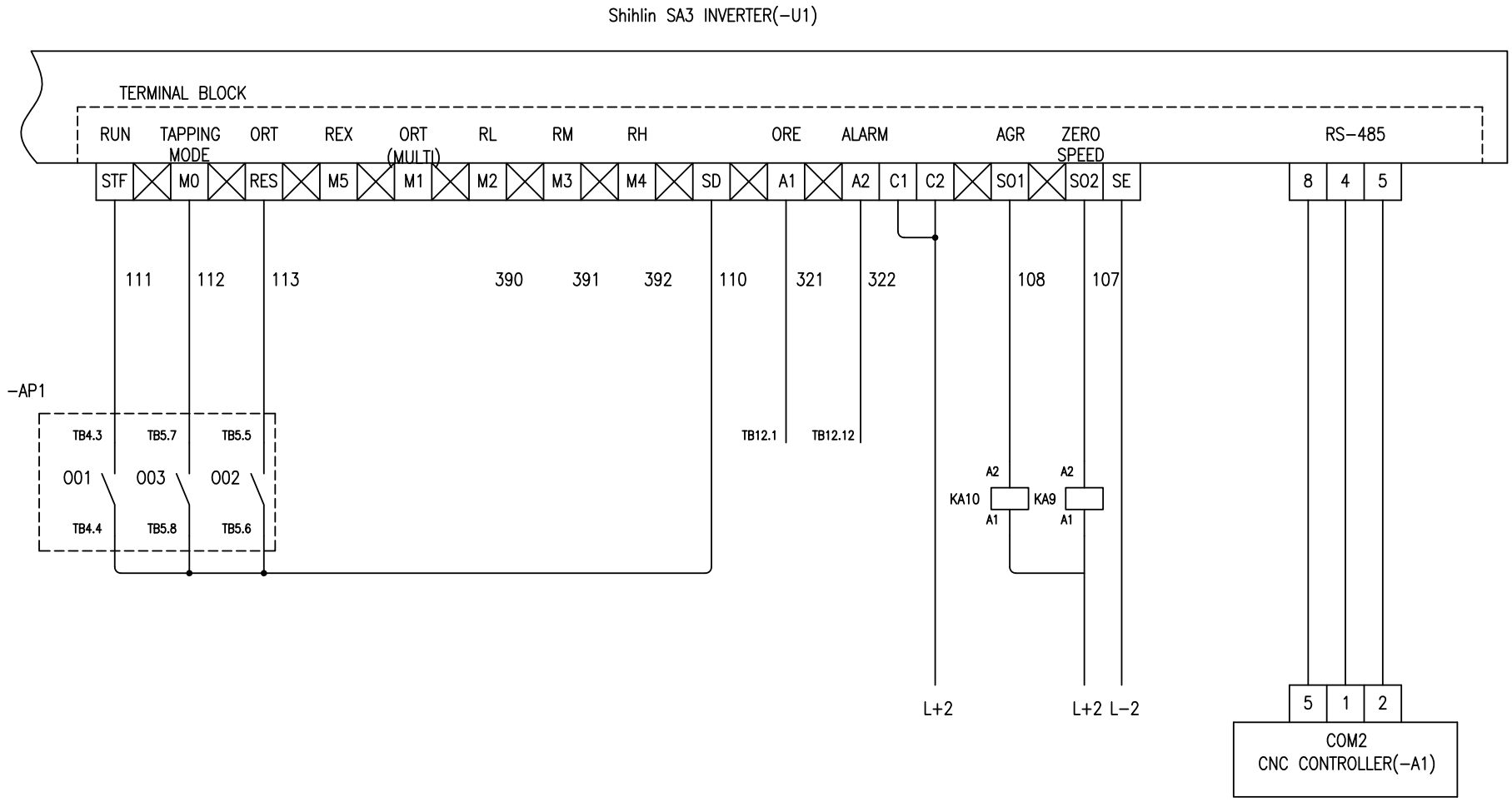


APPROVED	CHECKED	DRAWN		Title
		Mark	MACH Machine Tools Ltd	ELECTRICAL DRAWING – MAIN CIRCUIT(380/415V)
			Edit C / Page 2/32	NO: CNC MILL MACHINE / Model: MDM-700/1000 / DWG NO.: AR3_3512_CE1.1

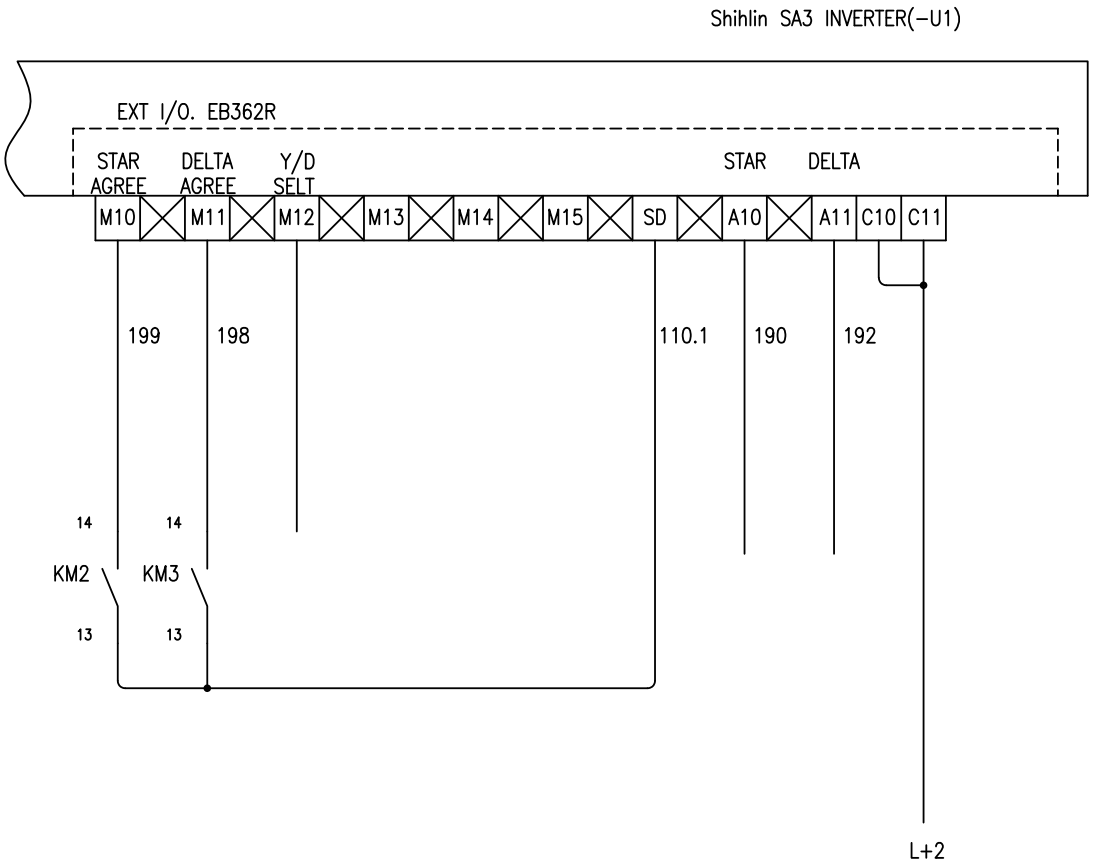
MACH MACHINE TOOLS



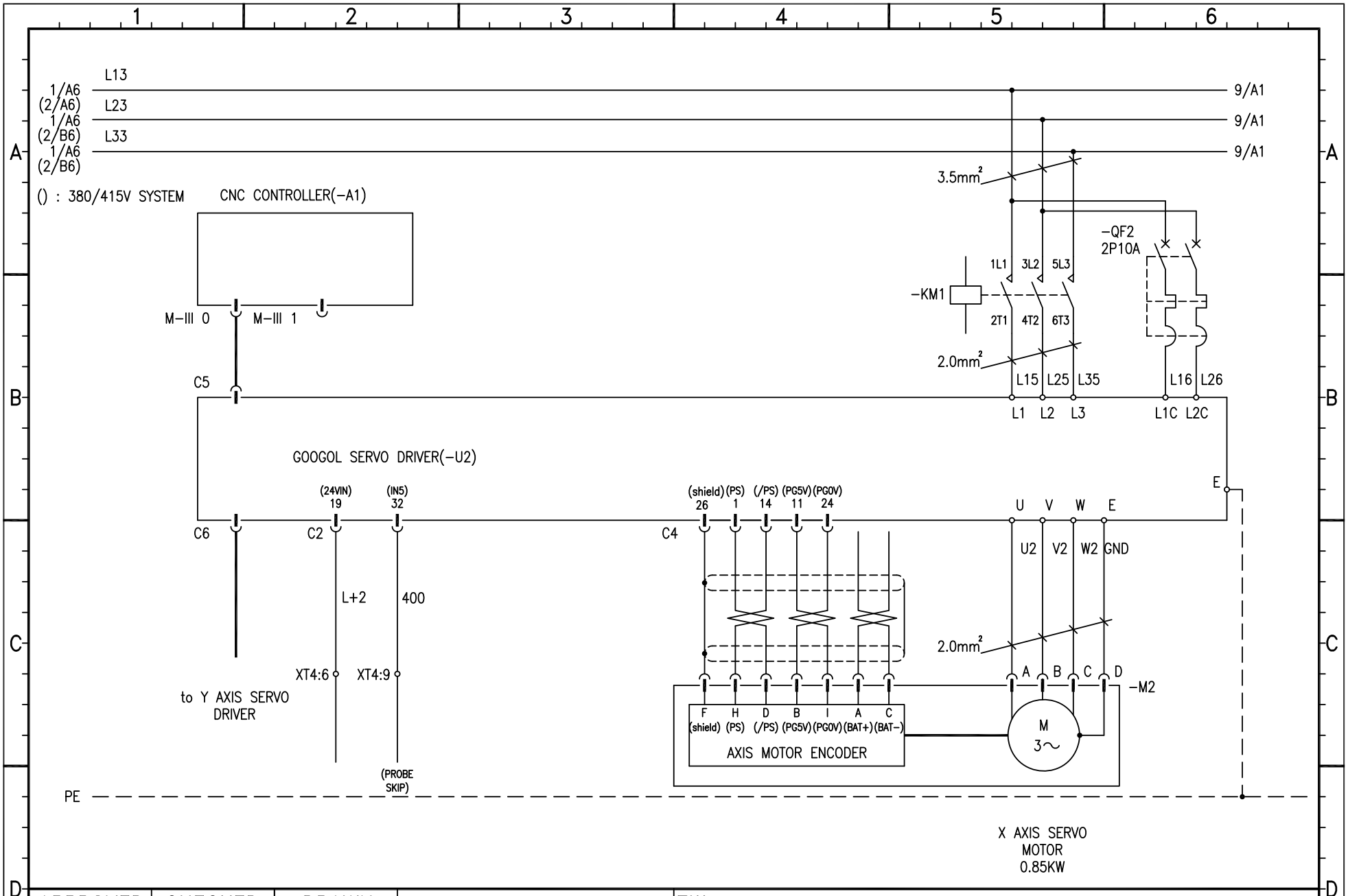
APPROVED	CHECKED	DRAWN		Title
		Mark	MACH Machine Tools Ltd	ELECTRICAL DRAWING – MAIN CIRCUIT
			Edit C / Page 3/32	NO: CNC MILL MACHINE / Model: MDM-700/1000 / DWG NO. AR3_3512_CE2



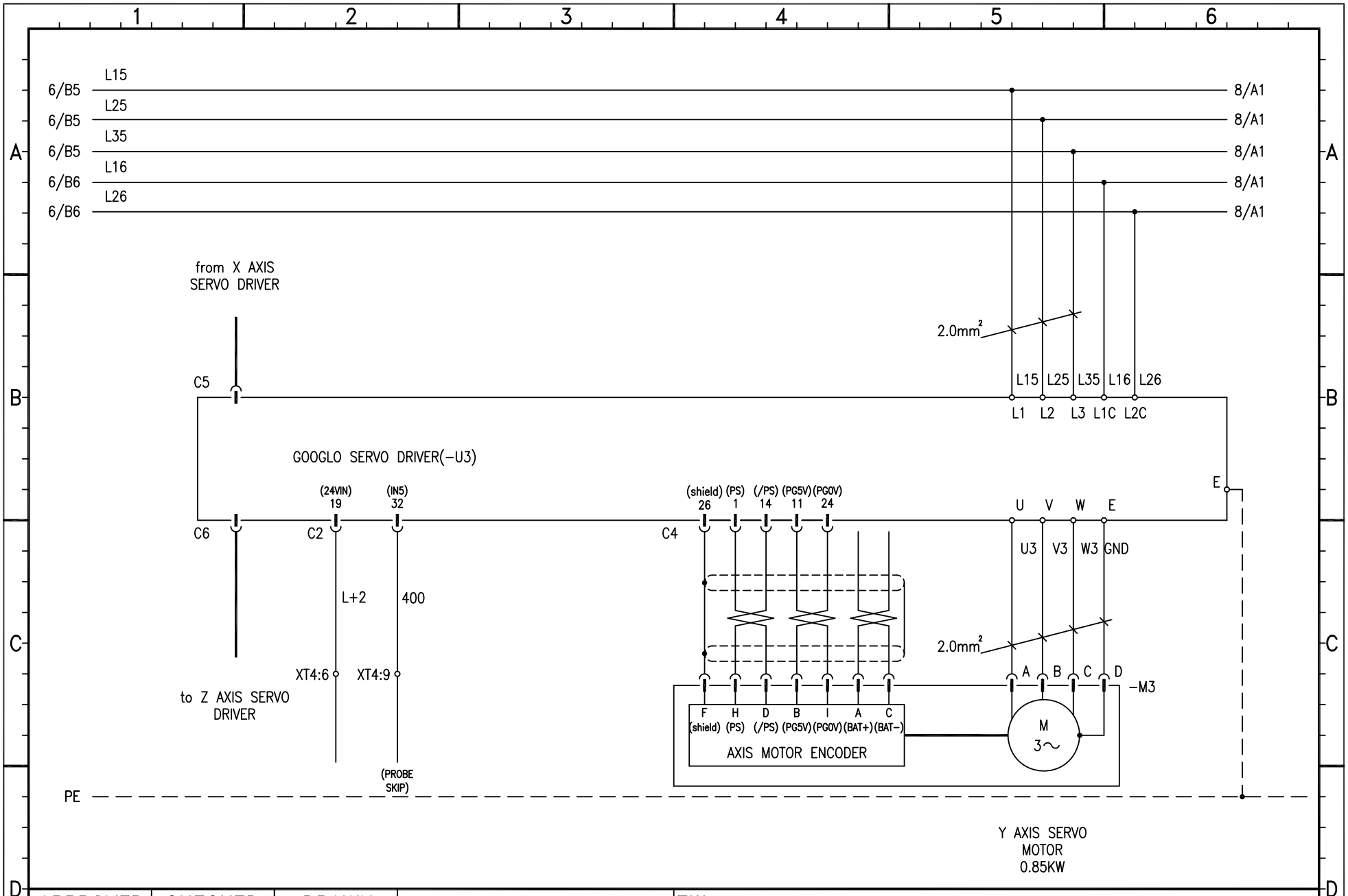
APPROVED	CHECKED	DRAWN		Title
		Mark	MACH Machine Tools Ltd	ELECTRICAL DRAWING – MAIN CIRCUIT
			Edit C / Page 4/32	NO: CNC MILL MACHINE / Model: MDM-700/1000 / DWG NO. AR3_3512_CE2.1



APPROVED	CHECKED	DRAWN		Title		
		Mark	MACH Machine Tools Ltd	ELECTRICAL DRAWING – MAIN CIRCUIT		
				NO	Model	DWG NO.
			Edit C / Page 5/32	CNC MILL MACHINE	MDM-700/1000	AR3_3512_CE2.2



APPROVED	CHECKED	DRAWN		Title
		Mark	MACH Machine Tools Ltd	ELECTRICAL DRAWING – MAIN CIRCUIT
			Edit C / Page 6/32	NO: CNC MILL MACHINE / Model: MDM-700/1000 / DWG NO. AR3_3512_CE3



APPROVED	CHECKED	DRAWN		Title
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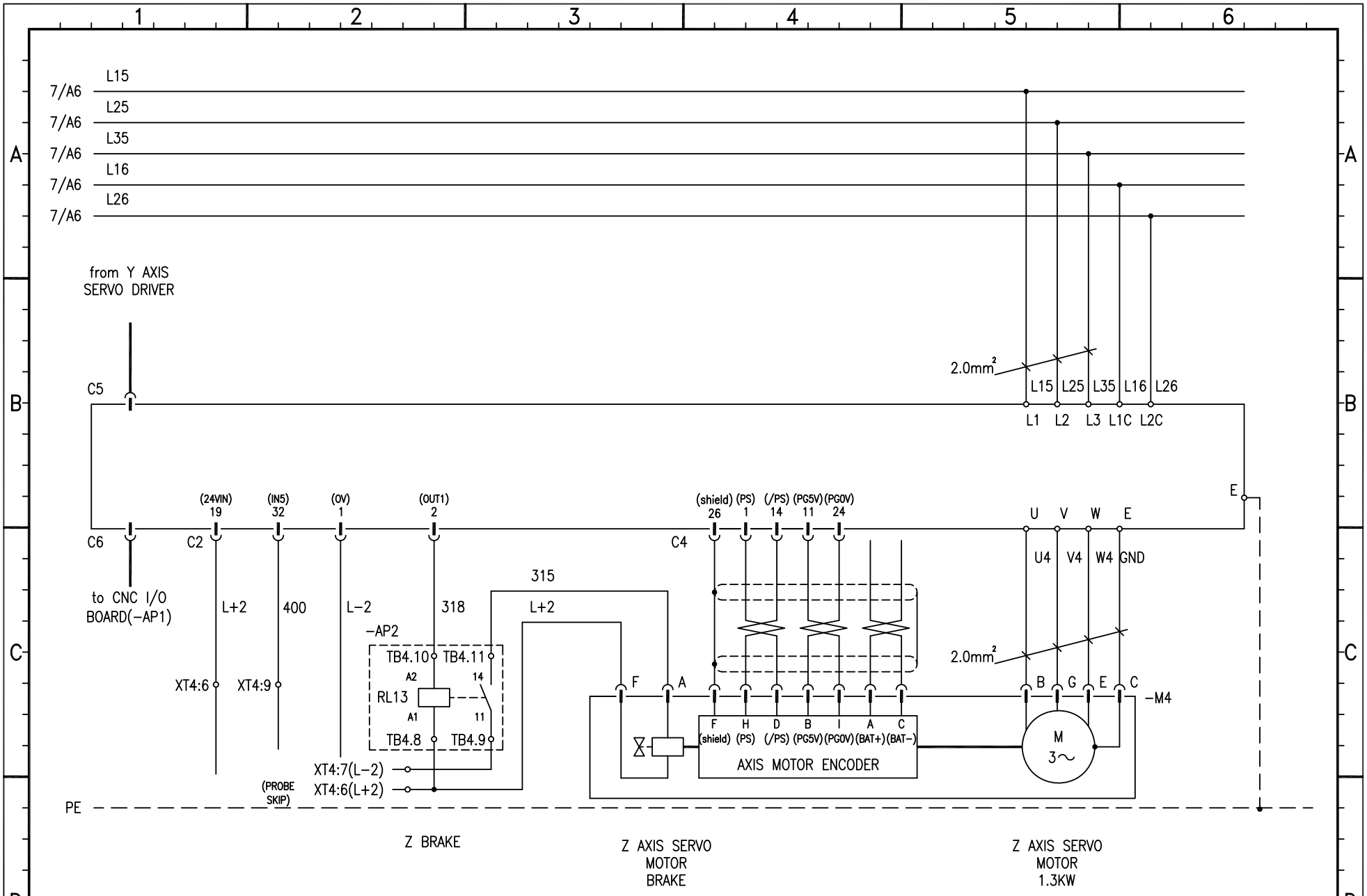

APPROVED	CHECKED	DRAWN		Title
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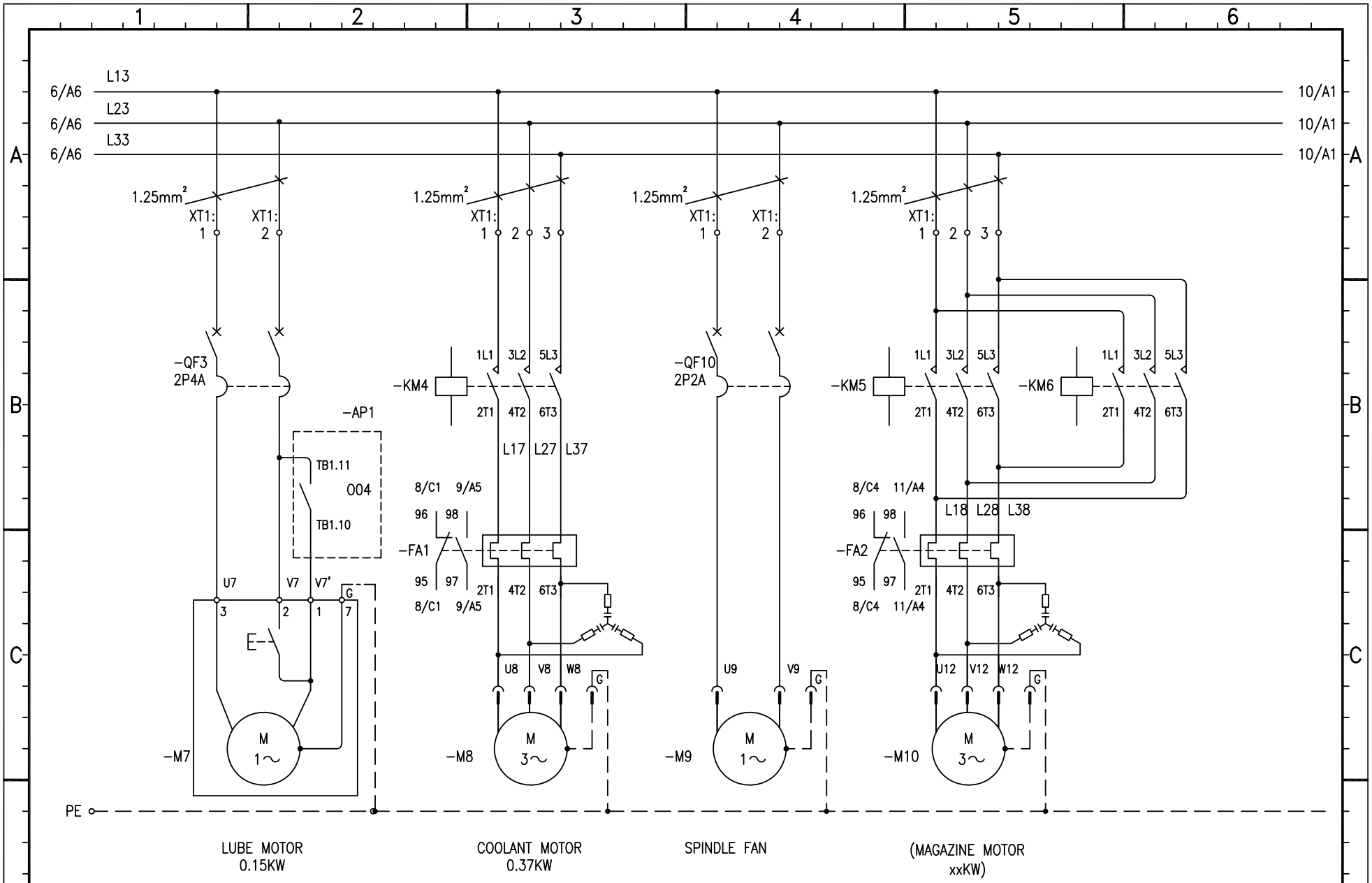
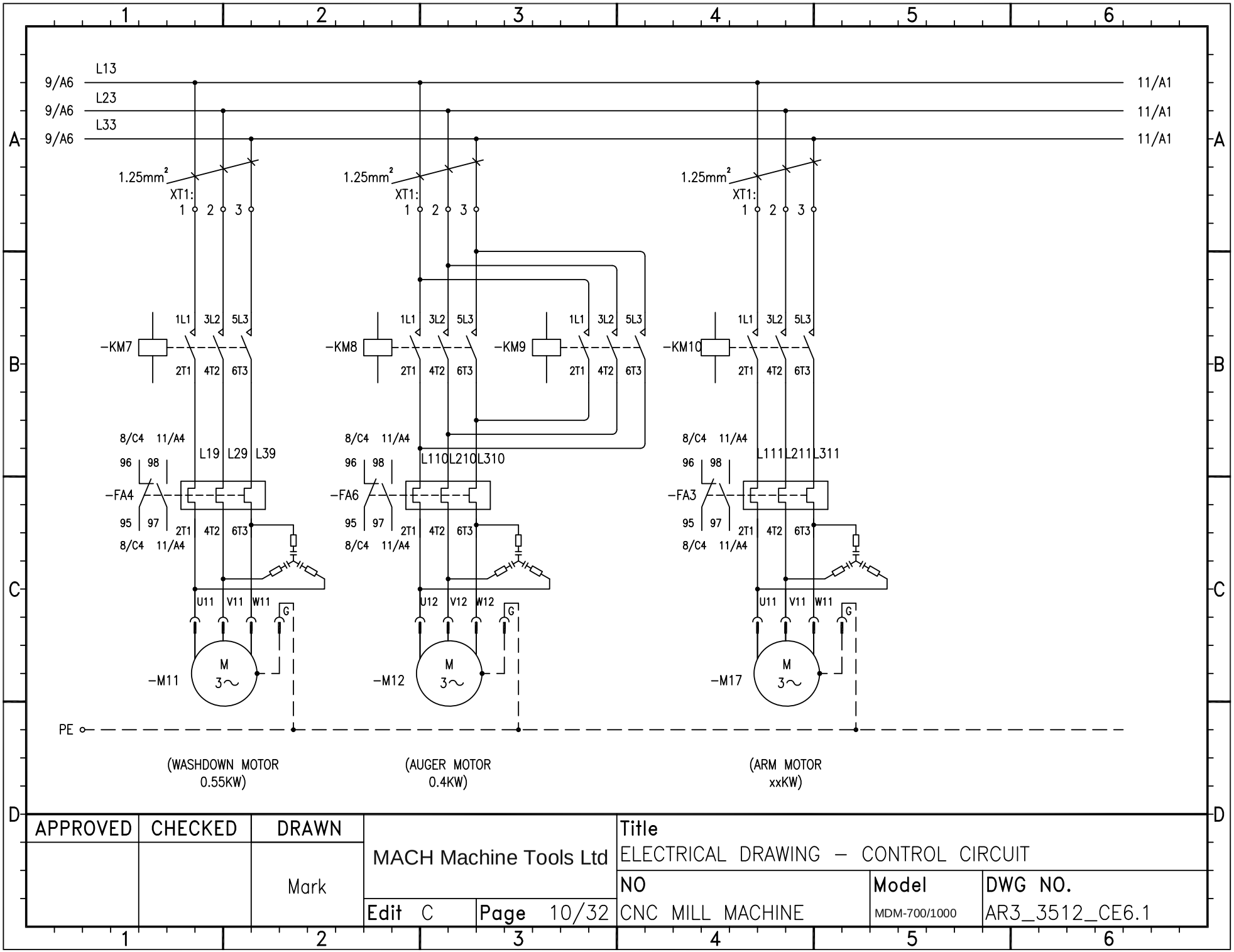
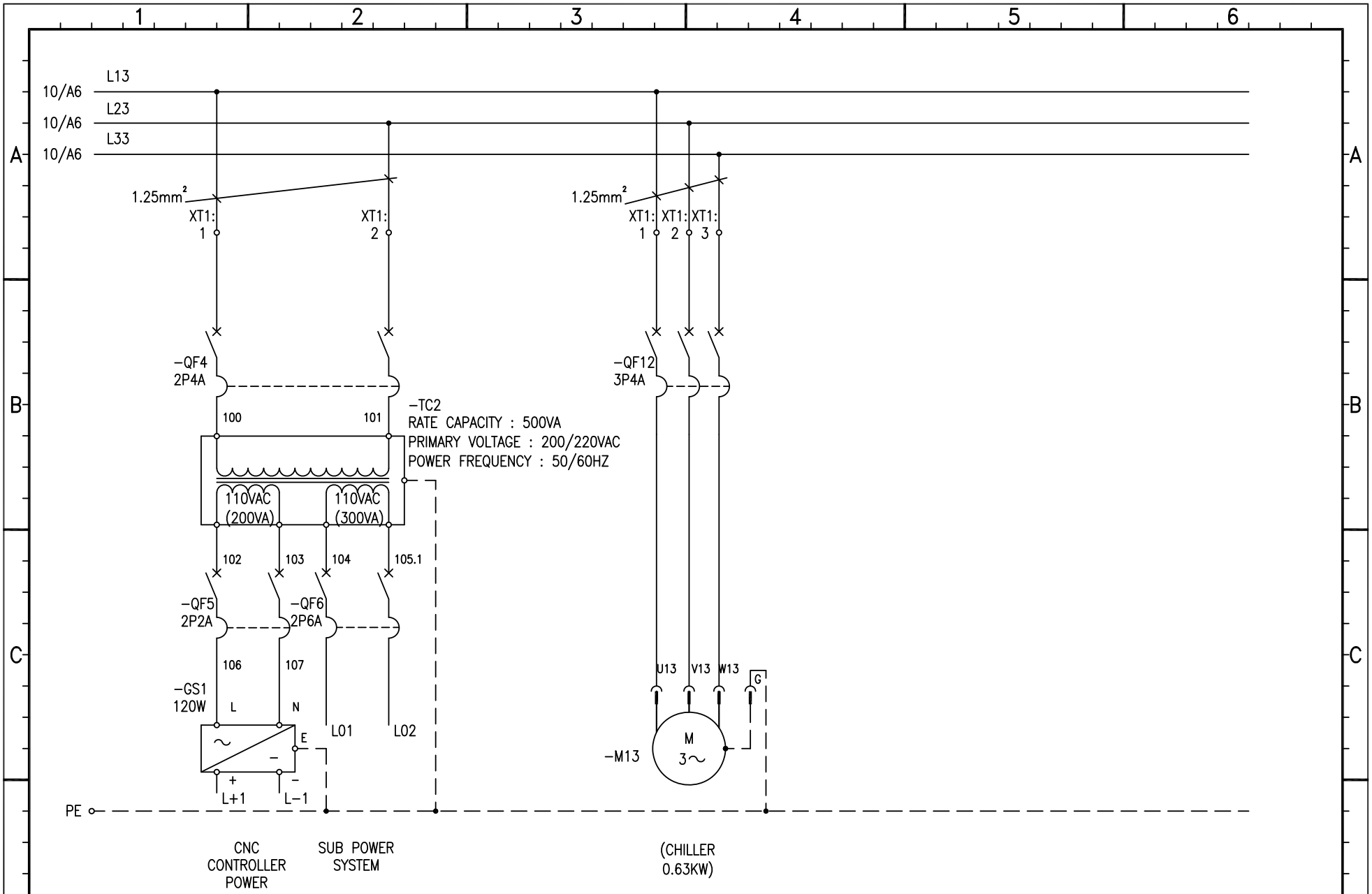


APPROVED	CHECKED	DRAWN		Title		
		Mark	MACH Machine Tools Ltd	ELECTRICAL DRAWING – CONTROL CIRCUIT		
			Edit C / Page 9/32	NO CNC MILL MACHINE	Model MDM-700/1000	DWG NO. AR3_3512_CE6



APPROVED	CHECKED	DRAWN		Title
		Mark	MACH Machine Tools Ltd	ELECTRICAL DRAWING – CONTROL CIRCUIT
			Edit C / Page 10/32	NO: CNC MILL MACHINE / Model: MDM-700/1000 / DWG NO. AR3_3512_CE6.1



APPROVED	CHECKED	DRAWN	MACH Machine Tools Ltd	Title ELECTRICAL DRAWING – CONTROL CIRCUIT		
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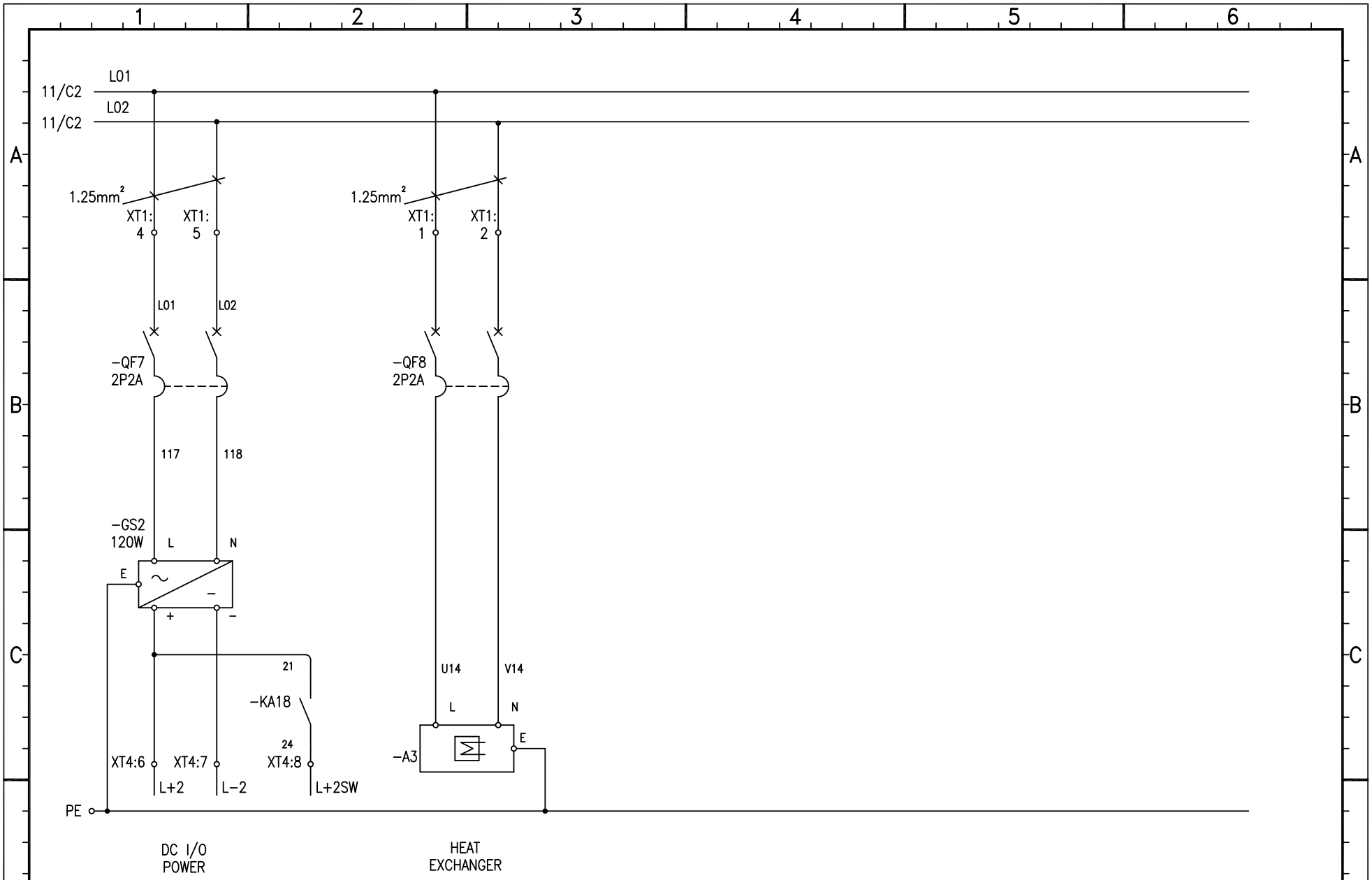
			Edit C / Page 11/32	CNC MILL MACHINE	MDM-700/1000	AR3_3512_CE6.2



APPROVED	CHECKED	DRAWN		Title		
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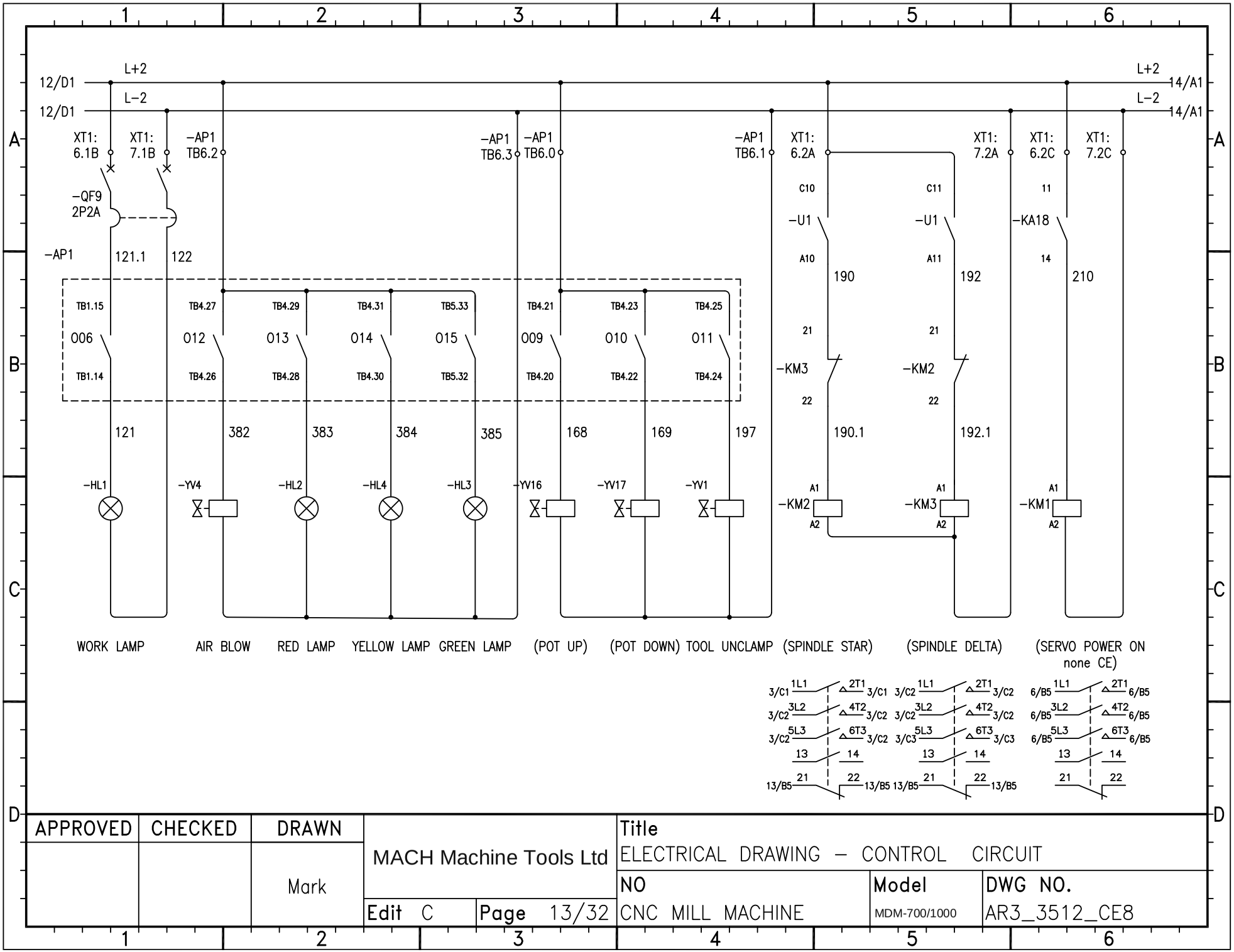
				NO	Model	DWG NO.
			Edit C / Page 12/32	CNC MILL MACHINE	MDM-700/1000	AR3_3512_CE7



APPROVED	CHECKED	DRAWN		Title
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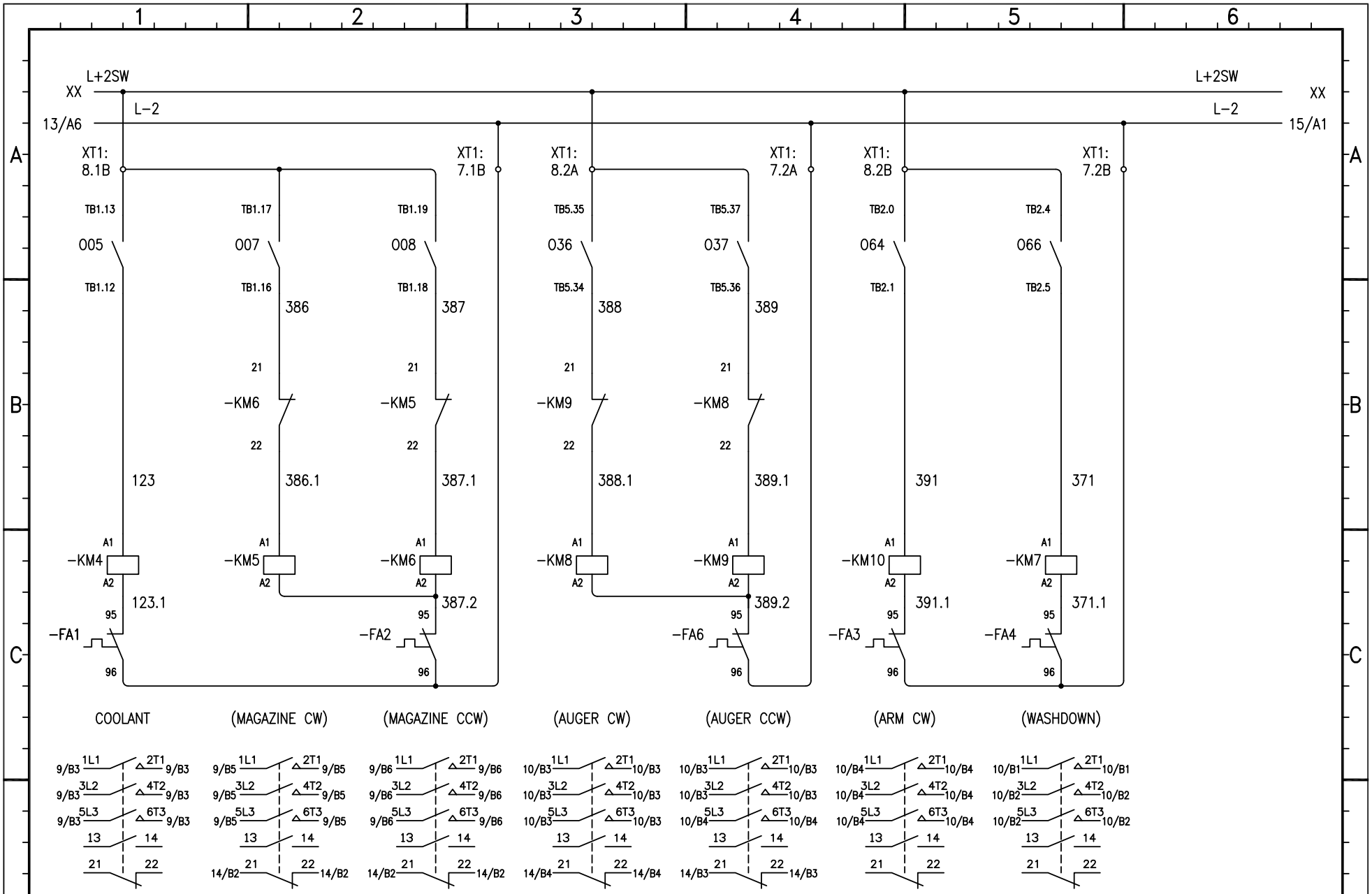
			Edit C / Page 13/32	NO: CNC MILL MACHINE / Model: MDM-700/1000 / DWG NO. AR3_3512_CE8



APPROVED	CHECKED	DRAWN		Title
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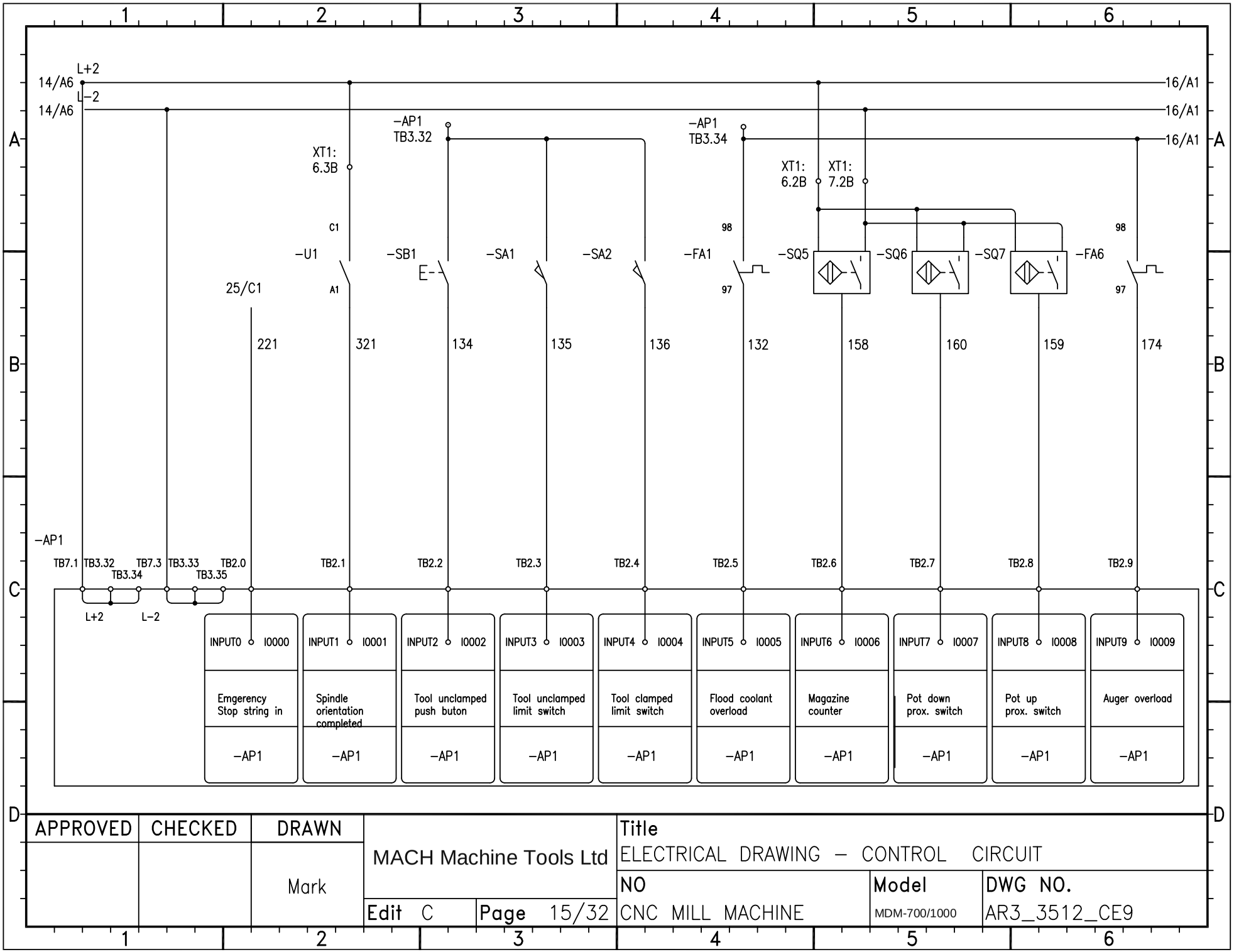
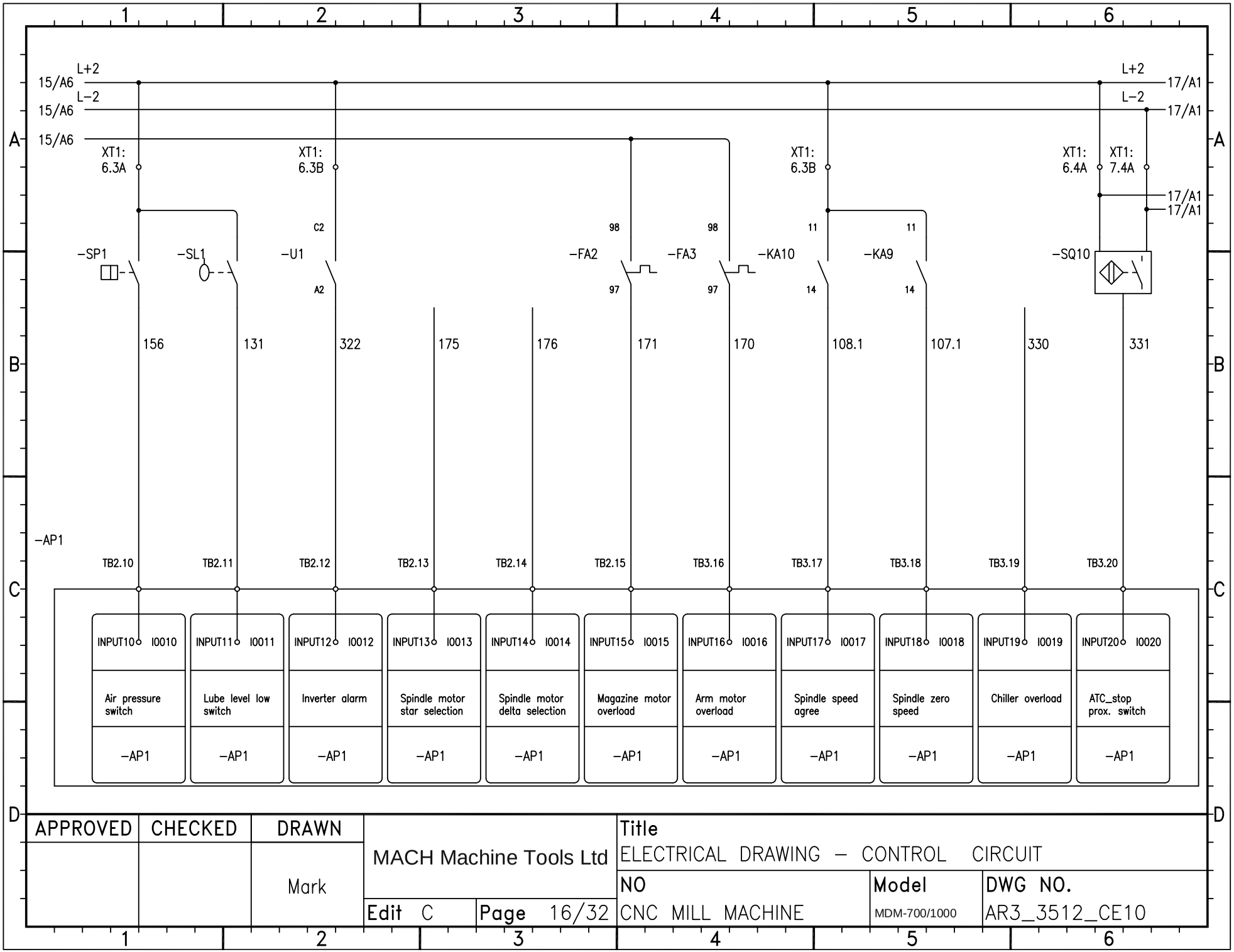
			Edit C / Page 14/32	NO: CNC MILL MACHINE / Model: MDM-700/1000 / DWG NO. AR3_3512_CE8.1



APPROVED	CHECKED	DRAWN		Title
		Mark	MACH Machine Tools Ltd	ELECTRICAL DRAWING – CONTROL CIRCUIT
			Edit C / Page 15/32	NO: CNC MILL MACHINE / Model: MDM-700/1000 / DWG NO. AR3_3512_CE9



APPROVED	CHECKED	DRAWN		Title
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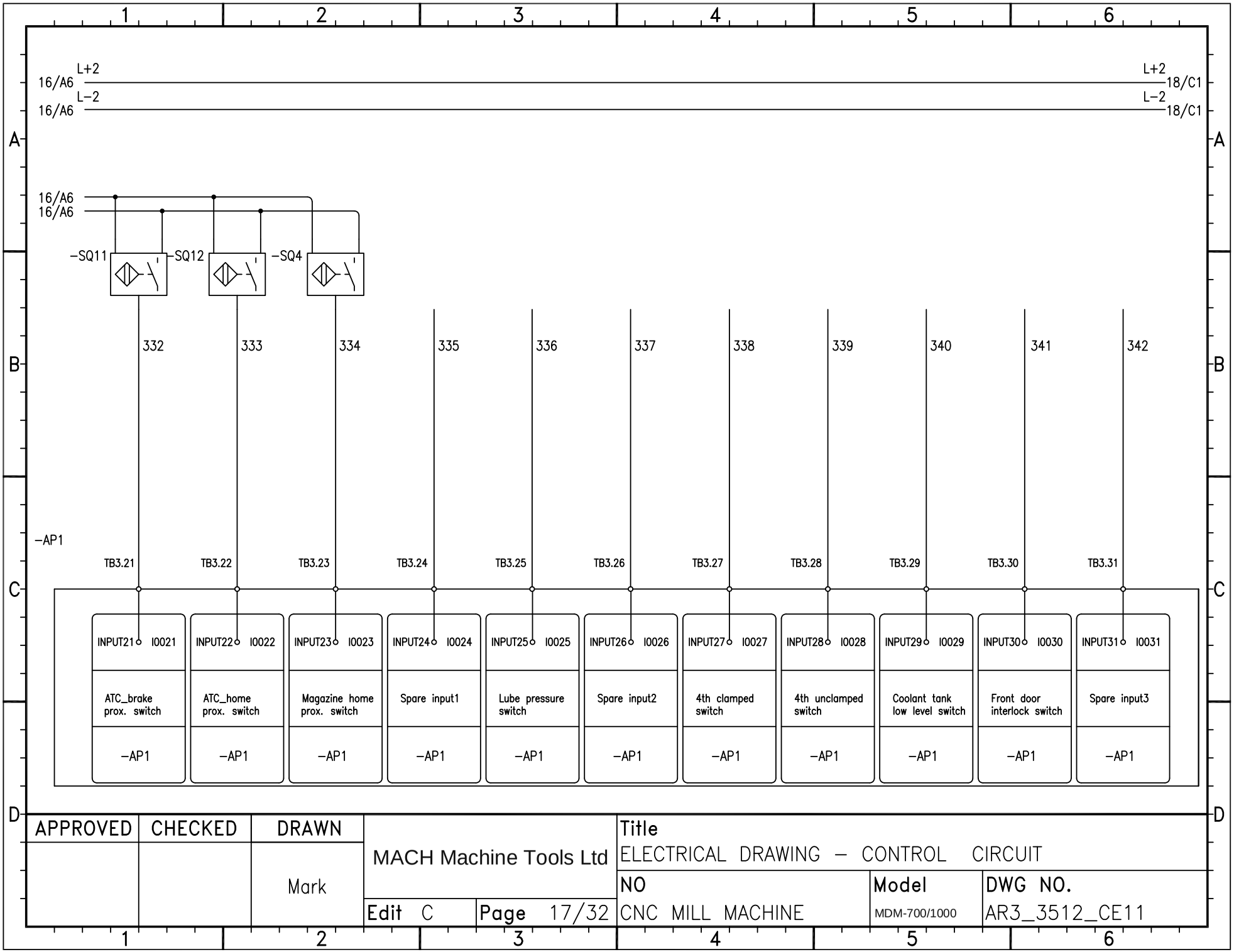
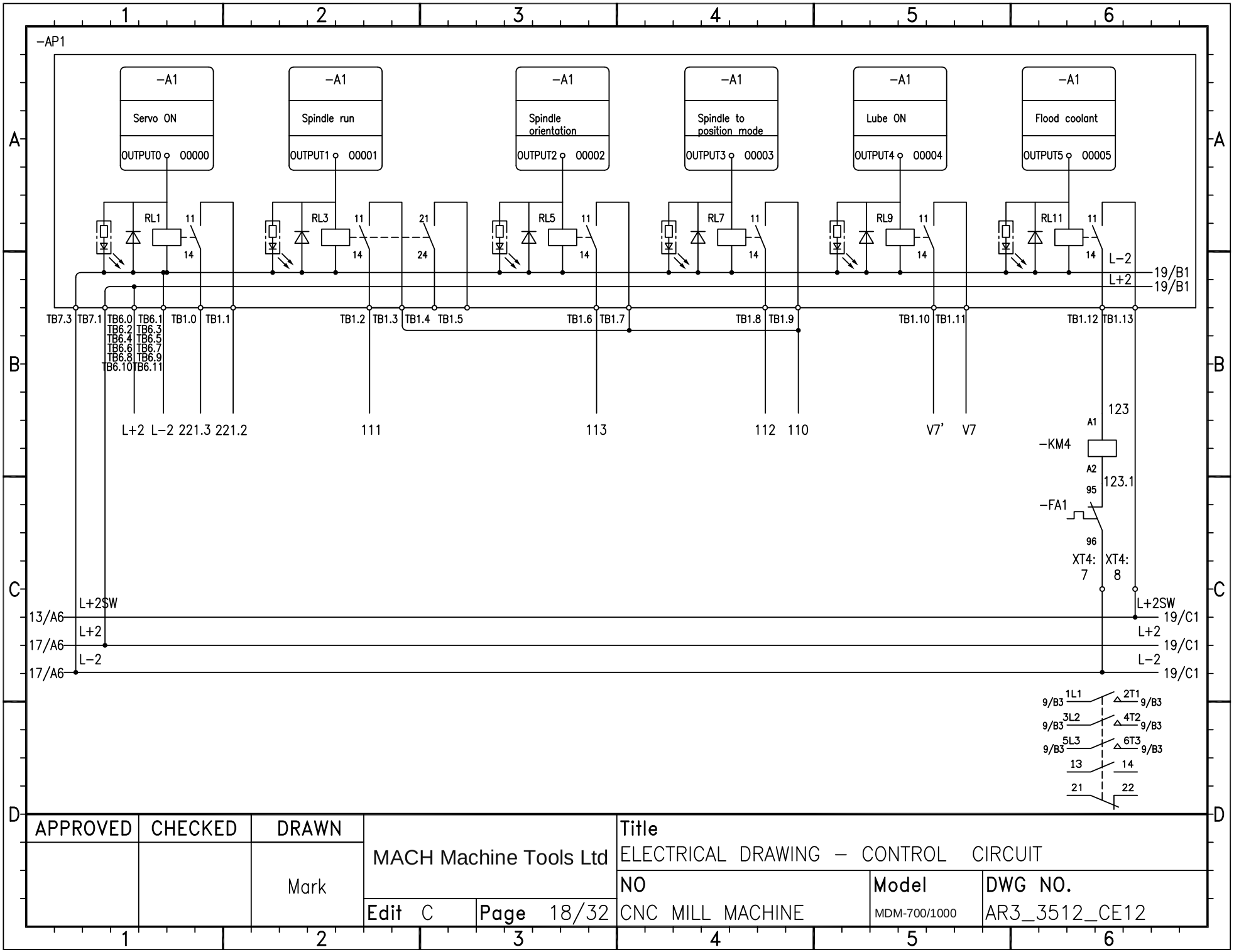
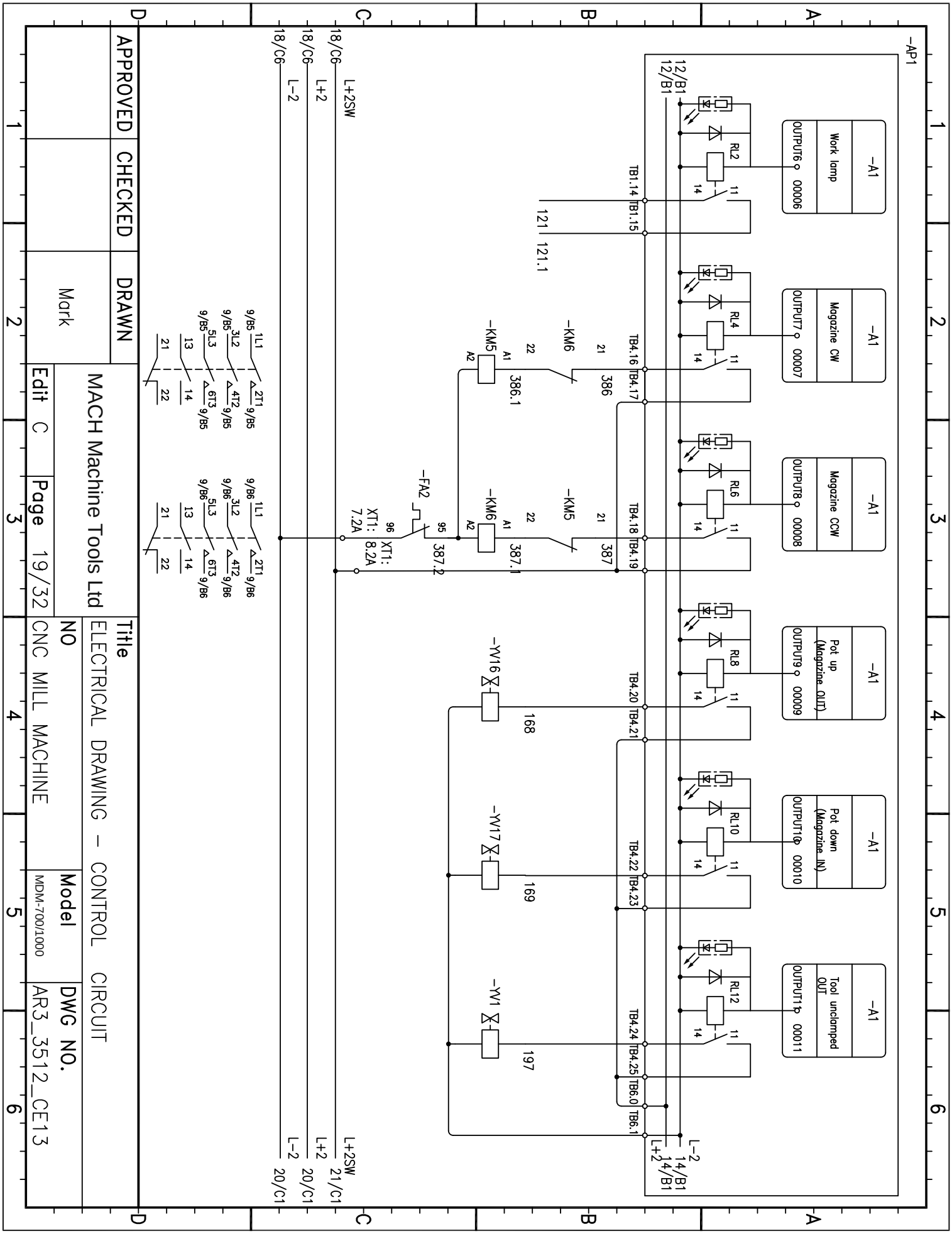
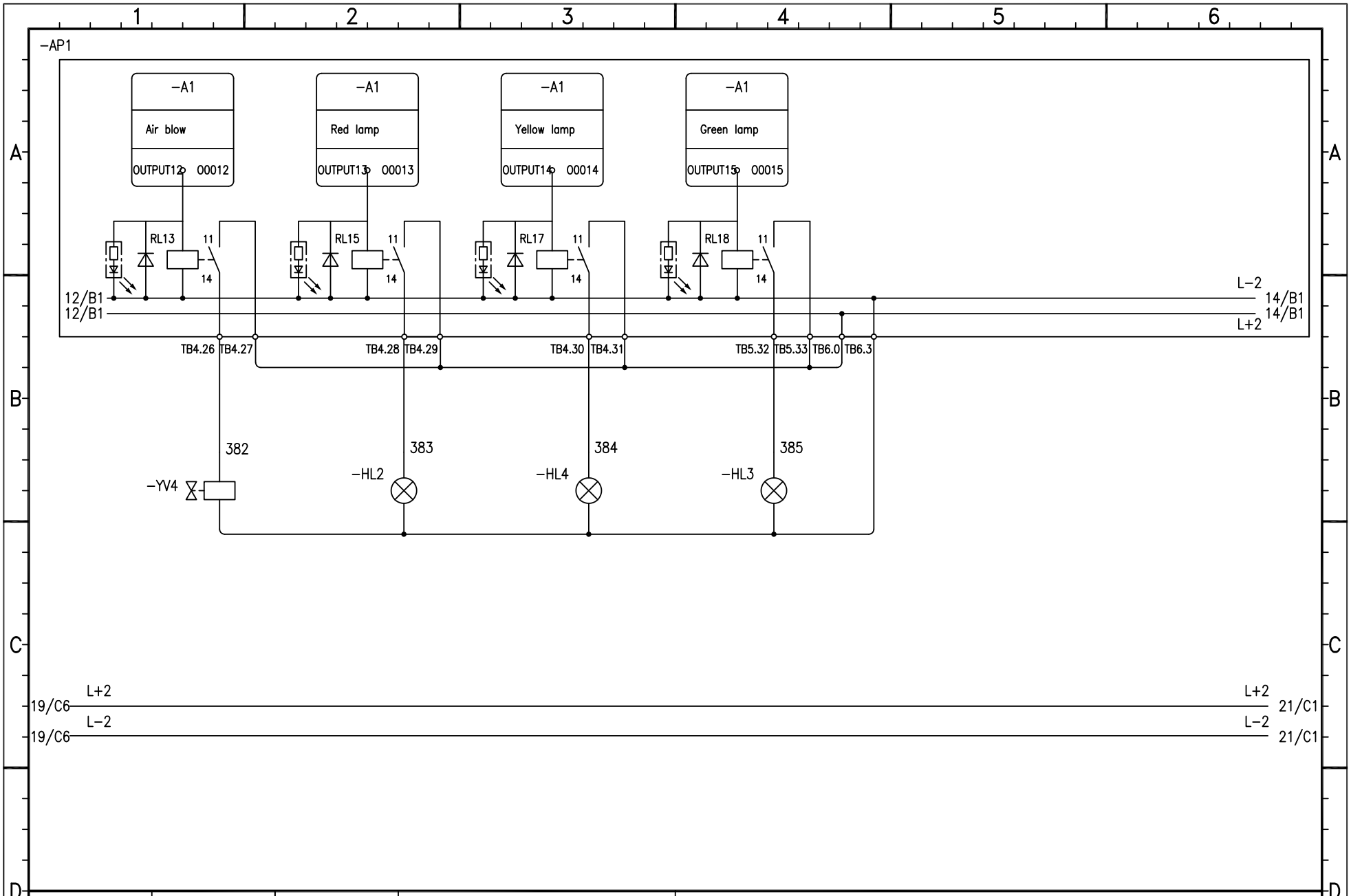
			Edit C / Page 16/32	NO: CNC MILL MACHINE / Model: MDM-700/1000 / DWG NO. AR3_3512_CE10


L+2
16/A6
L+2
18/C1
L−2
16/A6
L−2
18/C1
16/A6
16/A6
−SQ11
−SQ12
−SQ4
332
333
334
335
336
337
338
339
340
341
342
−AP1
TB3.21
TB3.22
TB3.23
TB3.24
TB3.25
TB3.26
TB3.27
TB3.28
TB3.29
TB3.30
TB3.31
INPUT21 I0021
INPUT22 I0022
INPUT23 I0023
INPUT24 I0024
INPUT25 I0025
INPUT26 I0026
INPUT27 I0027
INPUT28 I0028
INPUT29 I0029
INPUT30 I0030
INPUT31 I0031
ATC_brake prox. switch
ATC_home prox. switch
Magazine home prox. switch
Spare input1
Lube pressure switch
Spare input2
4th clamped switch
4th unclamped switch
Coolant tank low level switch
Front door interlock switch
Spare input3
−AP1
APPROVED
CHECKED
DRAWN
Mark
MACH Machine Tools Ltd
Edit C
Page 17/32
Title
ELECTRICAL DRAWING – CONTROL CIRCUIT
NO
CNC MILL MACHINE
Model
MDM-700/1000
DWG NO.
AR3_3512_CE11

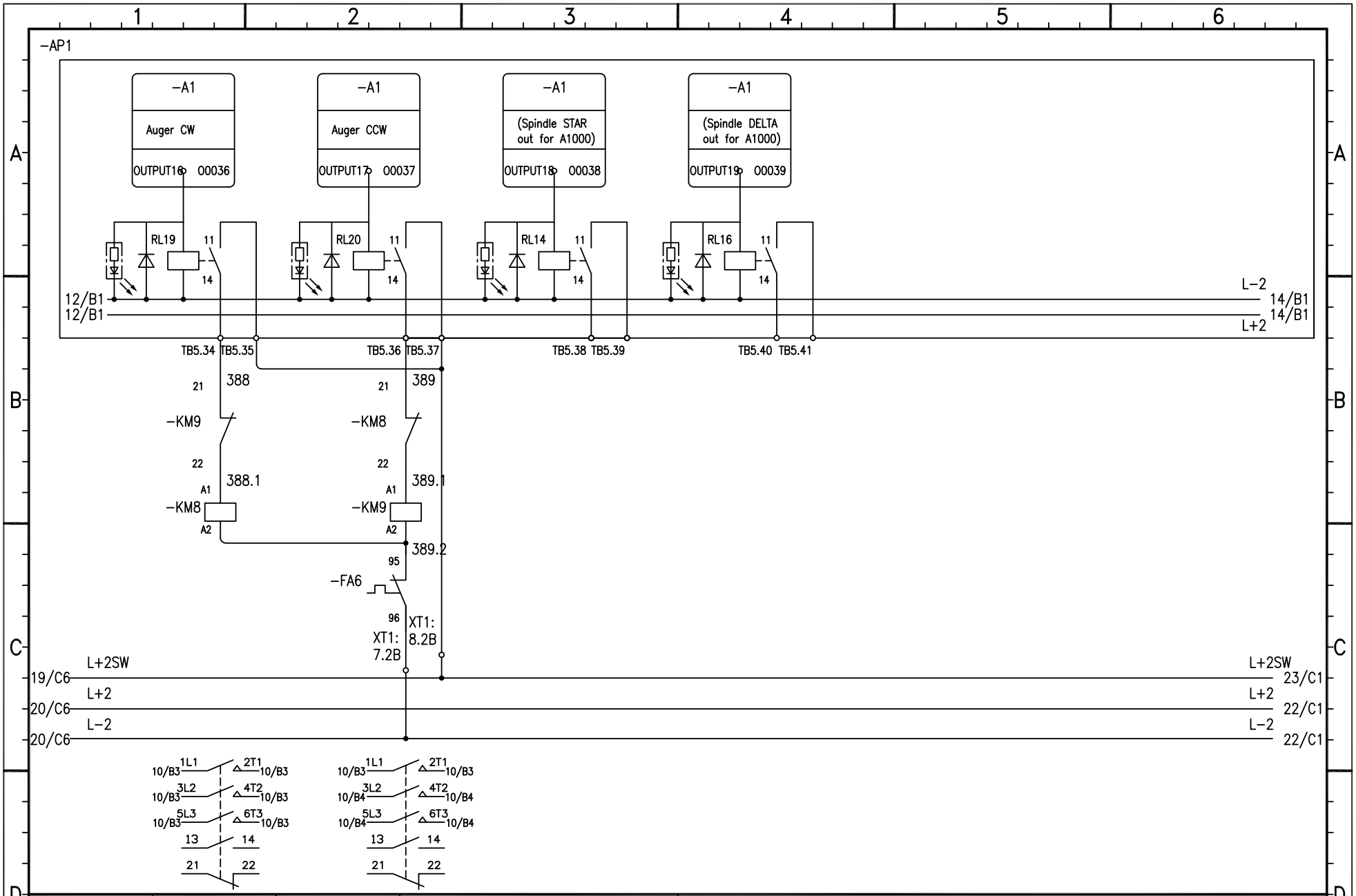


APPROVED	CHECKED	DRAWN	MACH Machine Tools Ltd	Title		
		Mark		ELECTRICAL DRAWING – CONTROL CIRCUIT		
				NO	Model	DWG NO.
			Edit C Page 18/32	CNC MILL MACHINE	MDM-700/1000	AR3_3512_CE12

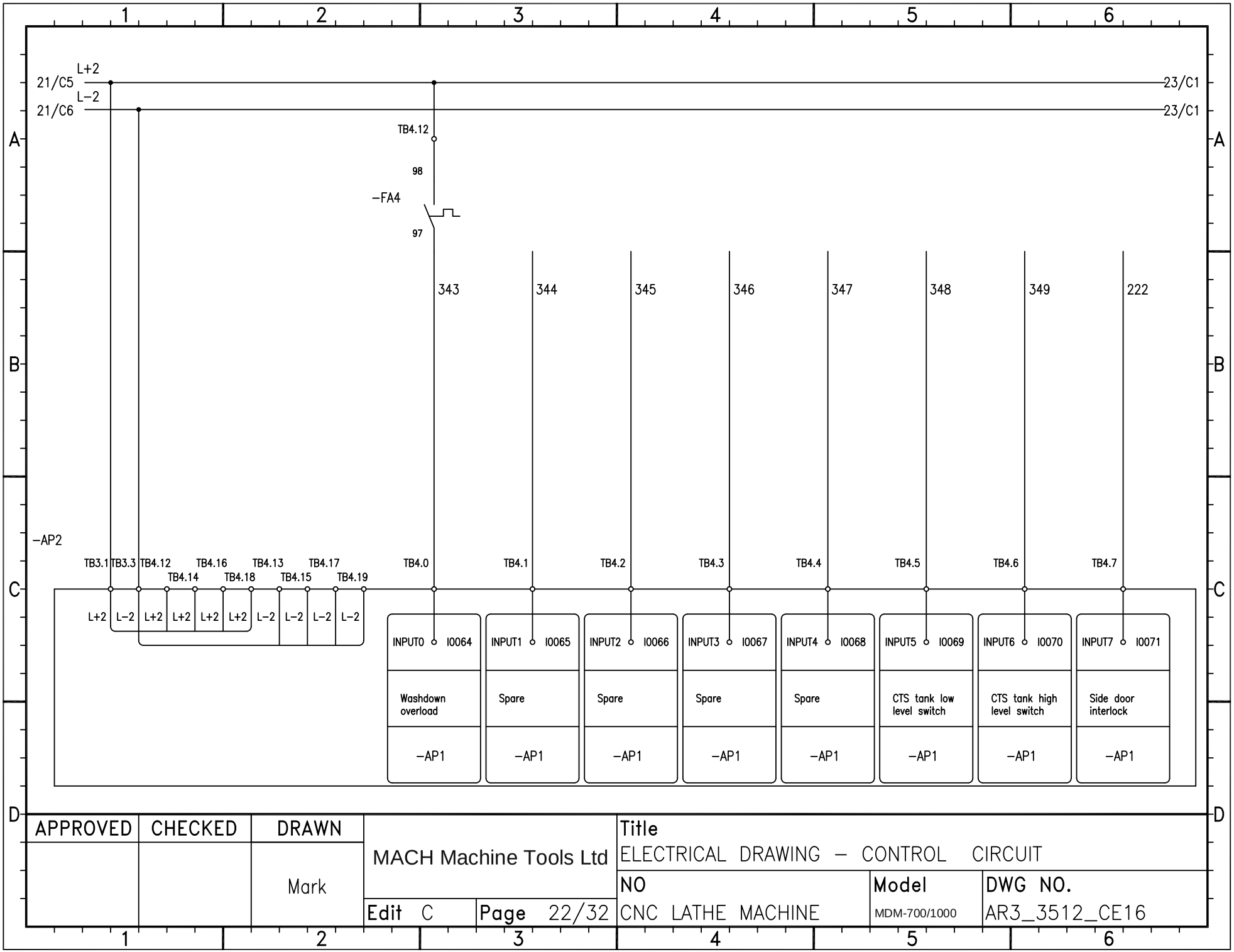

-AP1
-A1
Work lamp
OUTPUT6 00006
Magazine CW
OUTPUT7 00007
Magazine CCW
OUTPUT8 00008
Pot up (Magazine OUT)
OUTPUT9 00009
Pot down (Magazine IN)
OUTPUT10 00010
Tool unclamped OUT
OUTPUT11 00011
RL2
RL4
RL6
RL8
RL10
RL12
-KM5
-KM6
-FA2
XT1: 8.2A
-YV16
-YV17
-YV1
L+2SW
L+2
L-2
APPROVED
CHECKED
DRAWN
Mark
MACH Machine Tools Ltd
Edit C
Page 19/32
Title
ELECTRICAL DRAWING - CONTROL CIRCUIT
NO
CNC MILL MACHINE
Model
MDM-700/1000
DWG NO.
AR3_3512_CE13



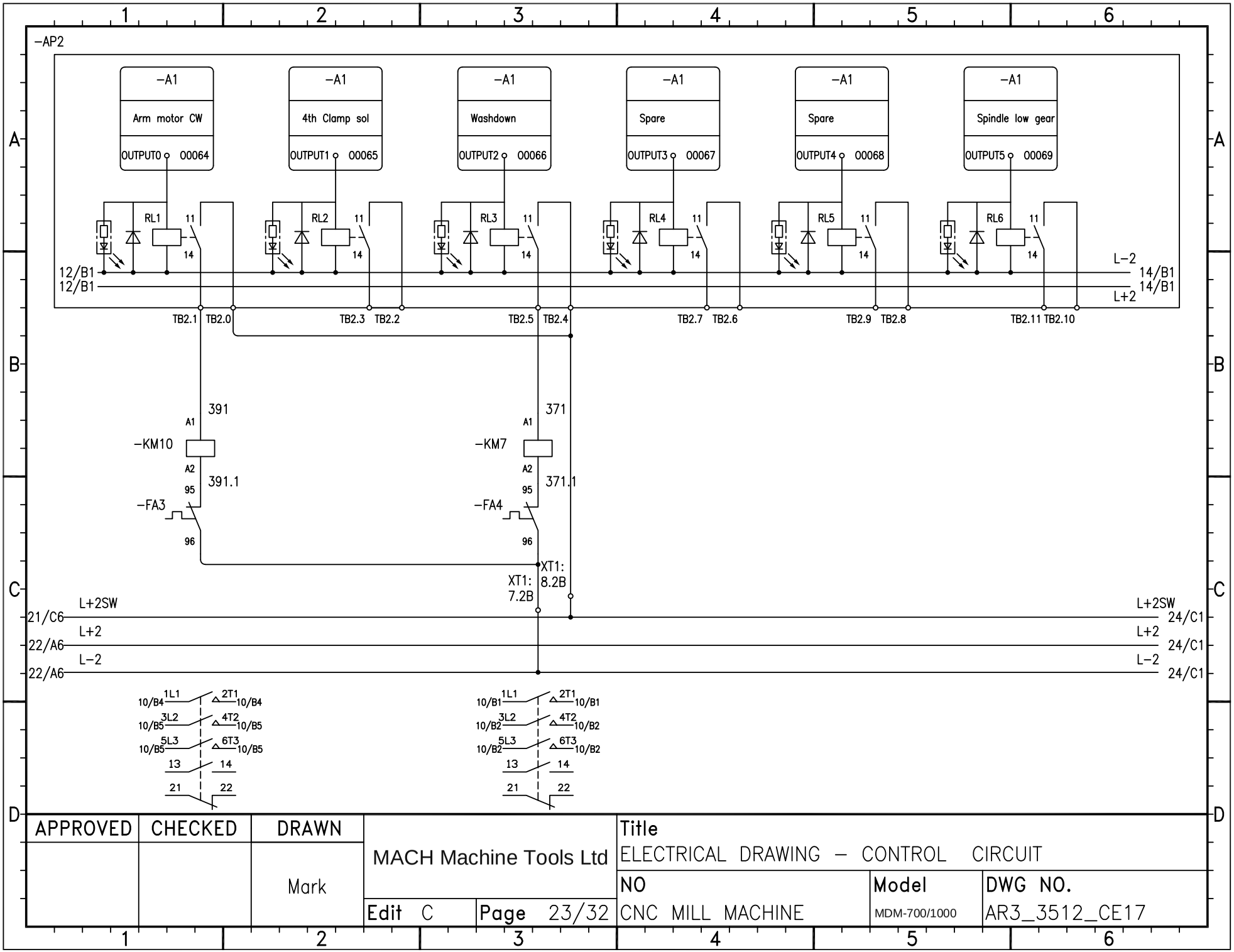
APPROVED	CHECKED	DRAWN	MACH Machine Tools Ltd	Title ELECTRICAL DRAWING – CONTROL CIRCUIT		
		Mark	Edit C / Page 20/32	NO CNC MILL MACHINE	Model MDM-700/1000	DWG NO. AR3_3512_CE14



APPROVED	CHECKED	DRAWN		Title
		Mark	MACH Machine Tools Ltd	ELECTRICAL DRAWING – CONTROL CIRCUIT
			Edit C / Page 21/32	NO: CNC MILL MACHINE / Model: MDM-700/1000 / DWG NO. AR3_3512_CE15

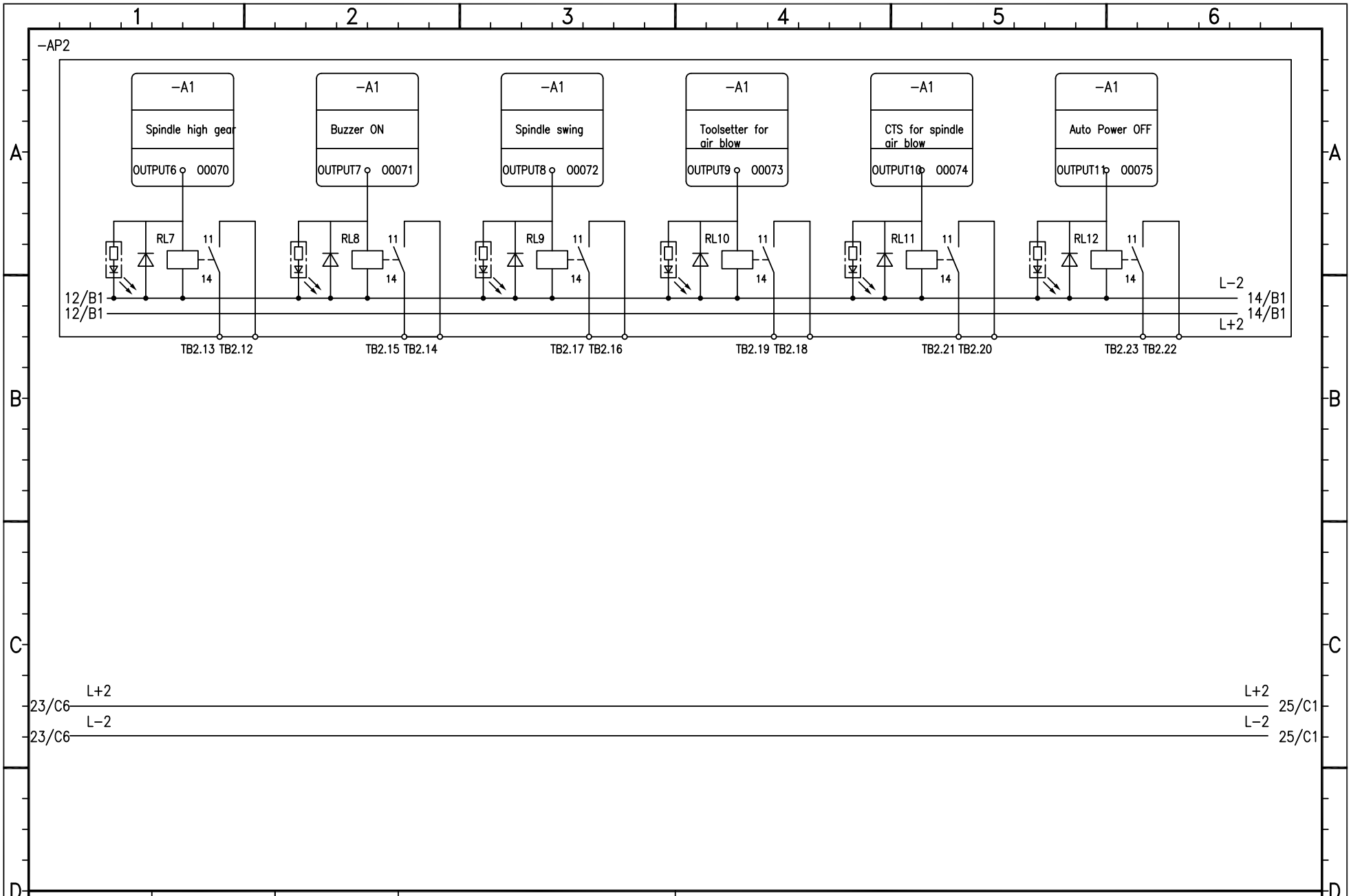


APPROVED	CHECKED	DRAWN		Title		
		Mark	MACH Machine Tools Ltd	ELECTRICAL DRAWING – CONTROL CIRCUIT		
			Edit C / Page 22/32	NO CNC LATHE MACHINE	Model MDM-700/1000	DWG NO. AR3_3512_CE16



APPROVED	CHECKED	DRAWN		Title
		Mark	MACH Machine Tools Ltd	ELECTRICAL DRAWING – CONTROL CIRCUIT
			Edit C / Page 23/32	NO: CNC MILL MACHINE / Model: MDM-700/1000 / DWG NO. AR3_3512_CE17

MACH MACHINE TOOLS



APPROVED	CHECKED	DRAWN		Title
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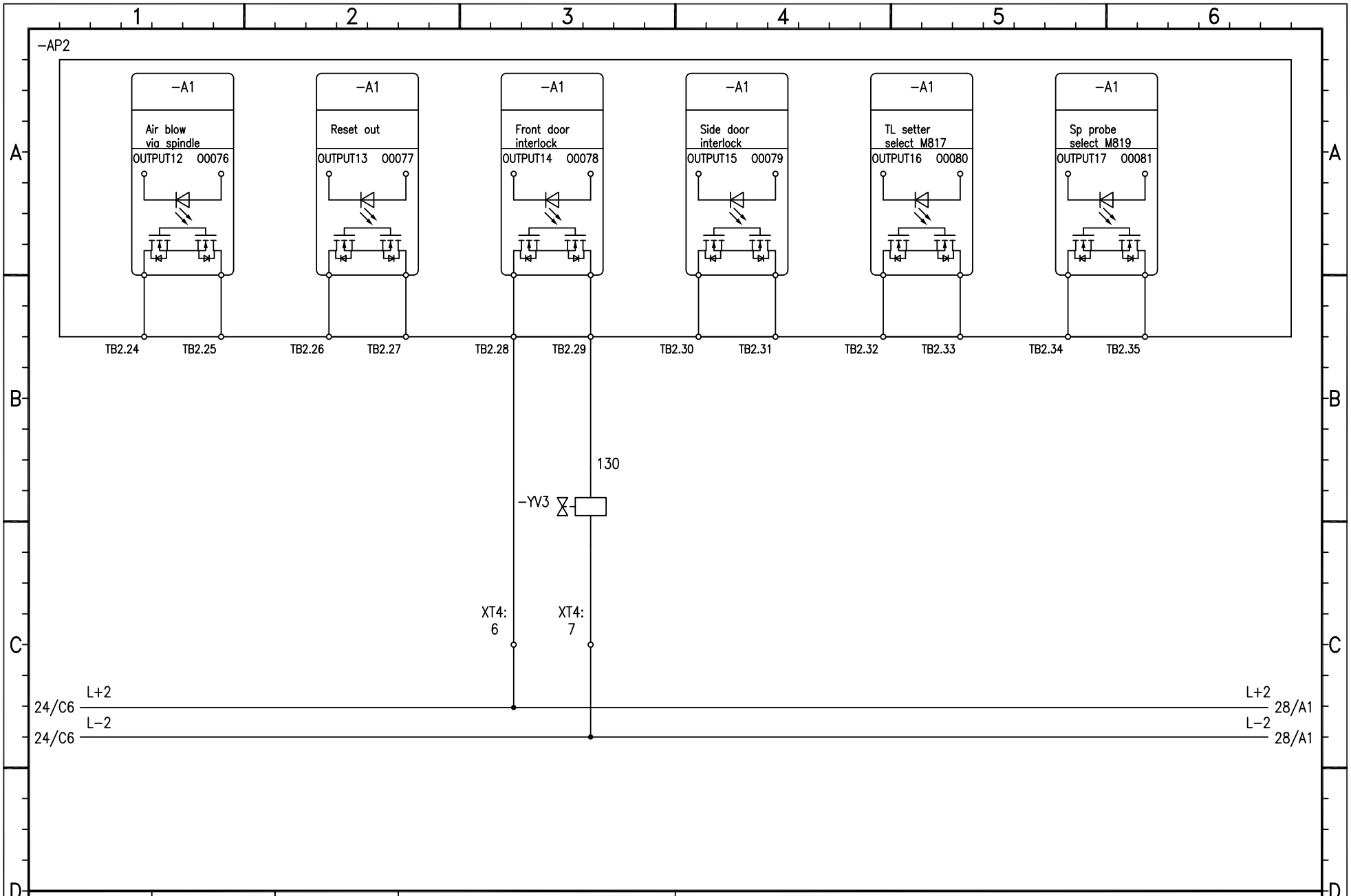
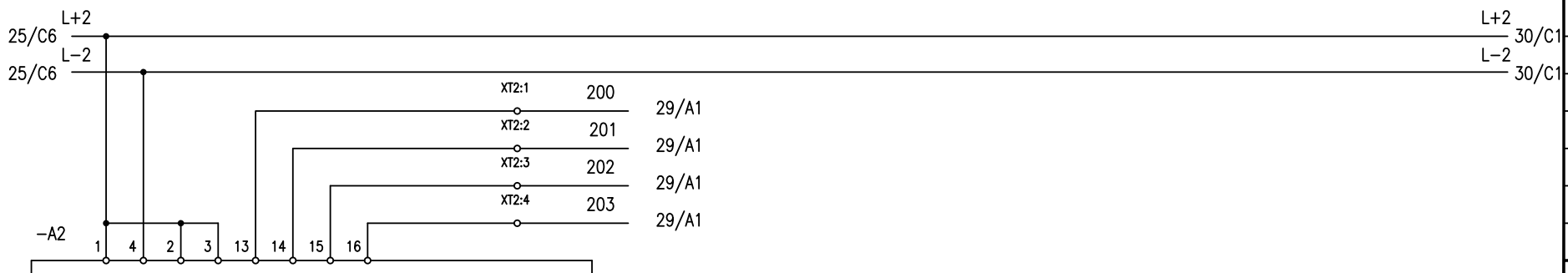
			Edit C / Page 24/32	NO: CNC MILL MACHINE / Model: MDM-700/1000 / DWG NO.: AR3_3512_CE18



APPROVED	CHECKED	DRAWN		Title
		Mark	MACH Machine Tools Ltd	ELECTRICAL DRAWING – CONTROL CIRCUIT
			Edit C / Page 25/32	NO: CNC MILL MACHINE / Model: MDM-700/1000 / DWG NO. AR3_3512_CE19

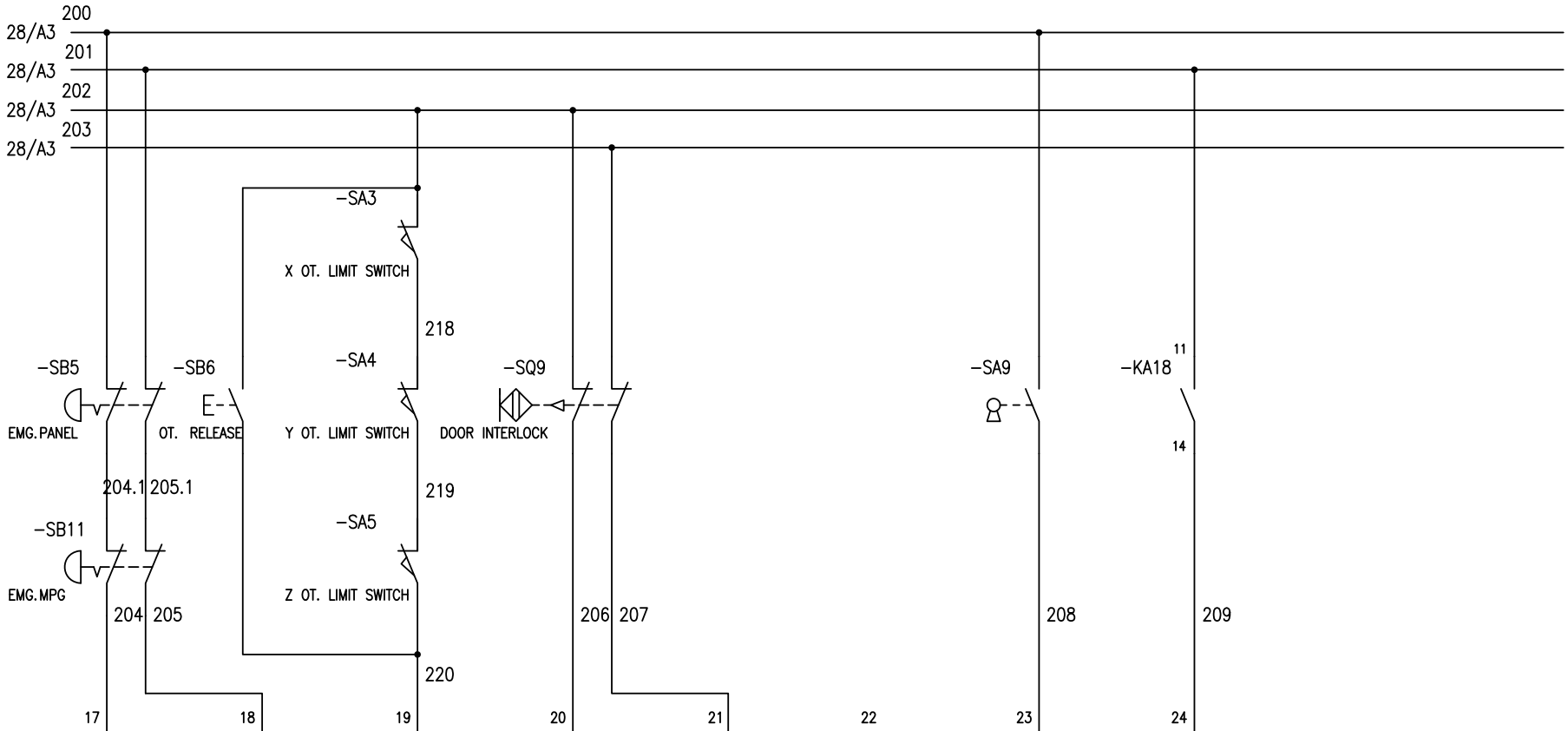
APPROVED	CHECKED	DRAWN		Title
		Mark	MACH Machine Tools Ltd	ELECTRICAL DRAWING – CONTROL CIRCUIT
			Edit C / Page 26/32	NO: CNC MILL MACHINE / Model: MDM-700/1000 / DWG NO.: AR3_3512_CE20

APPROVED	CHECKED	DRAWN		Title
		Mark	MACH Machine Tools Ltd	ELECTRICAL DRAWING – CONTROL CIRCUIT
			Edit C / Page 27/32	NO: CNC MILL MACHINE / Model: MDM-700/1000 / DWG NO.: AR3_3512_CE21

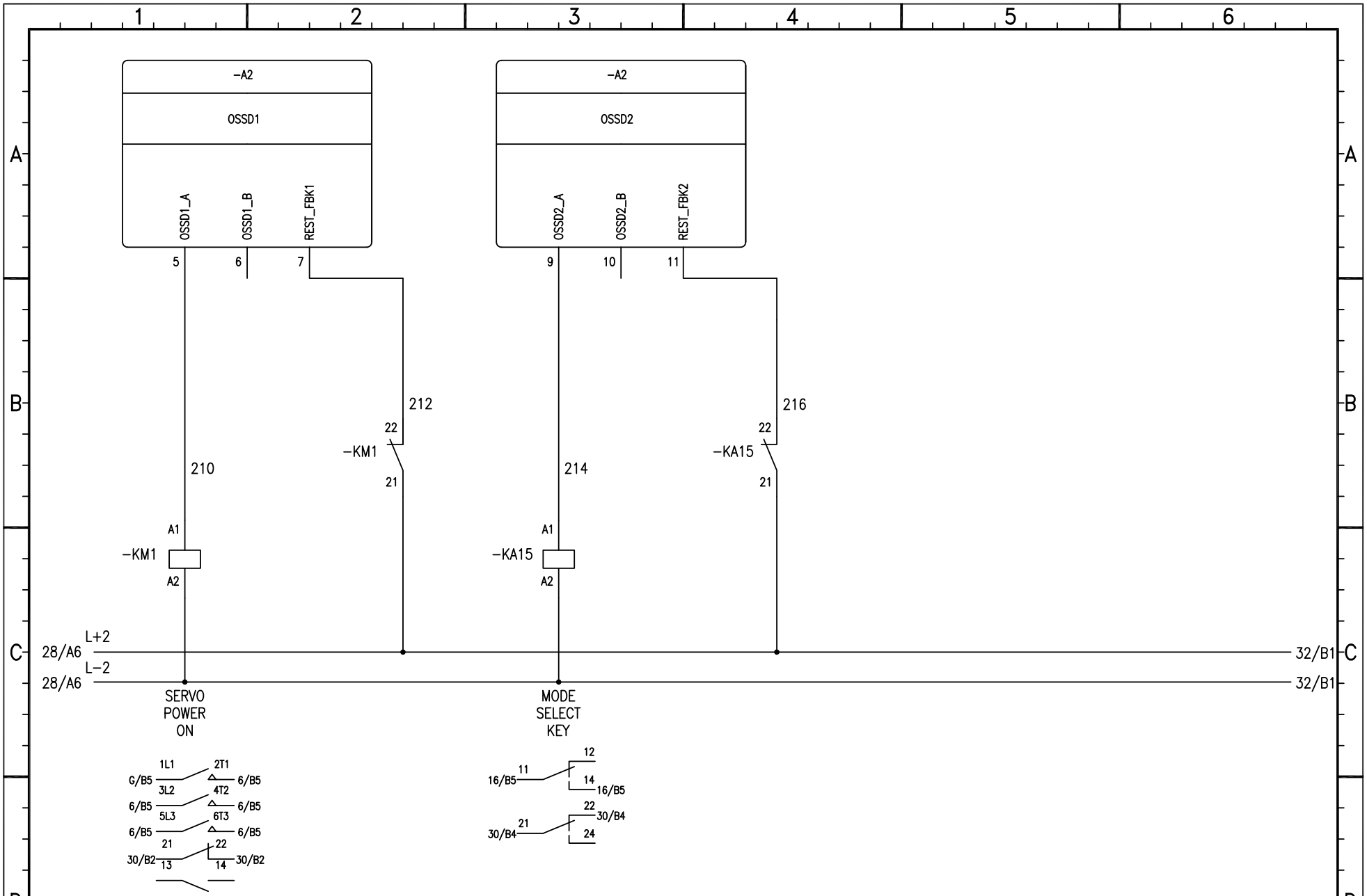


17	INPUT1	23/C1	Emergency stop button CH. 1
18	INPUT2	23/C1	Emergency stop button CH. 2
19	INPUT3	23/C2	OT_travel limit switch
20	INPUT4	23/C3	Door interlock locked limit
21	INPUT5	23/C3	Door interlock locked limit
22	INPUT6	23/C4	Machine ready signal
23	INPUT7	23/C4	Mode select key
24	INPUT8	23/C5	Power on signal
5	OSSD1_A	24/C1	Servo power on
6	OSSD1_B		
7	REST_FBK1	24/B2	OSSD1 Reset
9	OSSD2_A	24/C3	Mode select key status signal
10	OSSD2_B		
11	REST_FBK2	24/C4	OSSD2 Reset
8	OUT_STAT1	25/A1	Emergency stop button unlock
12	OUT_STAT2	25/A2	Door interlock locked

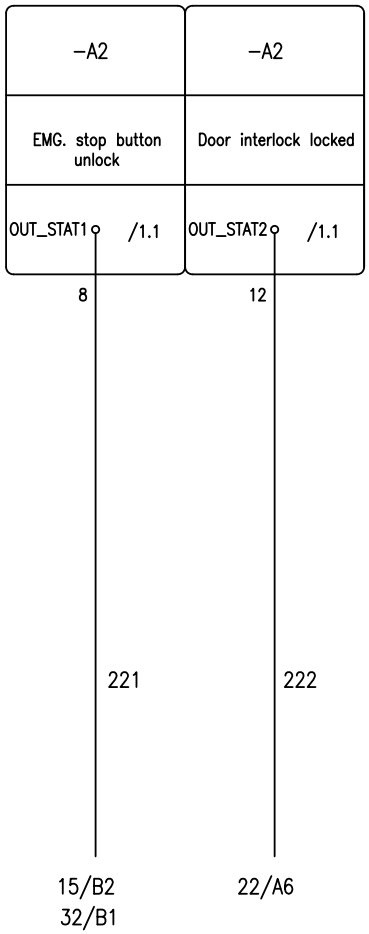
APPROVED	CHECKED	DRAWN			
		Mark	MACH Machine Tools Ltd	Title ELECTRICAL DRAWING – CONTROL CIRCUIT	
			Edit C / Page 28/32	NO CNC MILL MACHINE	Model MDM-700/1000 / DWG NO. AR3_3512_CE22



APPROVED	CHECKED	DRAWN	MACH Machine Tools Ltd	Title ELECTRICAL DRAWING – CONTROL CIRCUIT		
		Mark		NO	Model	DWG NO.
			Edit C / Page 29/32	CNC MILL MACHINE	MDM-700/1000	AR3_3512_CE23



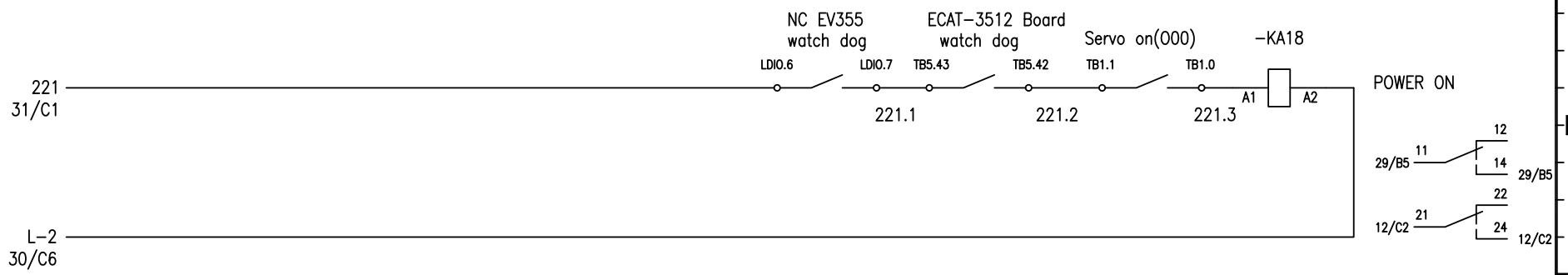
APPROVED	CHECKED	DRAWN		Title
		Mark	MACH Machine Tools Ltd	ELECTRICAL DRAWING – CONTROL CIRCUIT
			Edit C / Page 30/32	NO: CNC MILL MACHINE / Model: MDM-700/1000 / DWG NO.: AR3_3512_CE24



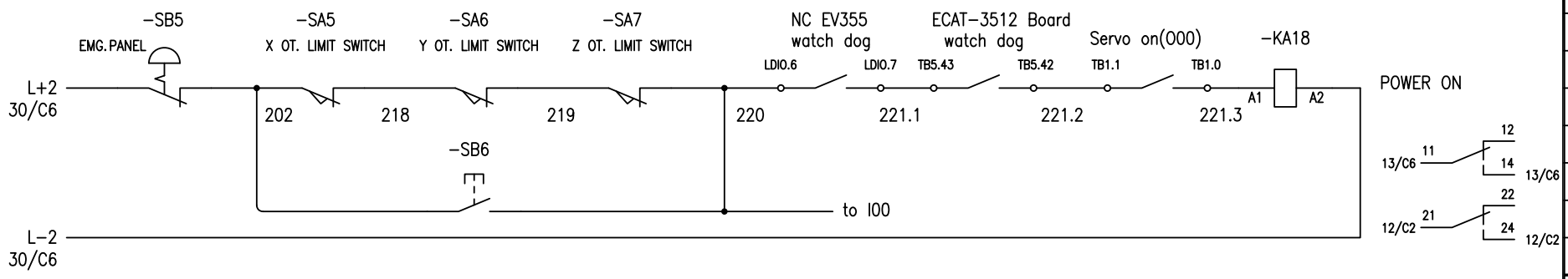
APPROVED	CHECKED	DRAWN		
		Mark	MACH Machine Tools Ltd	
			Edit C	Page 31/32

Title
ELECTRICAL DRAWING – CONTROL CIRCUIT

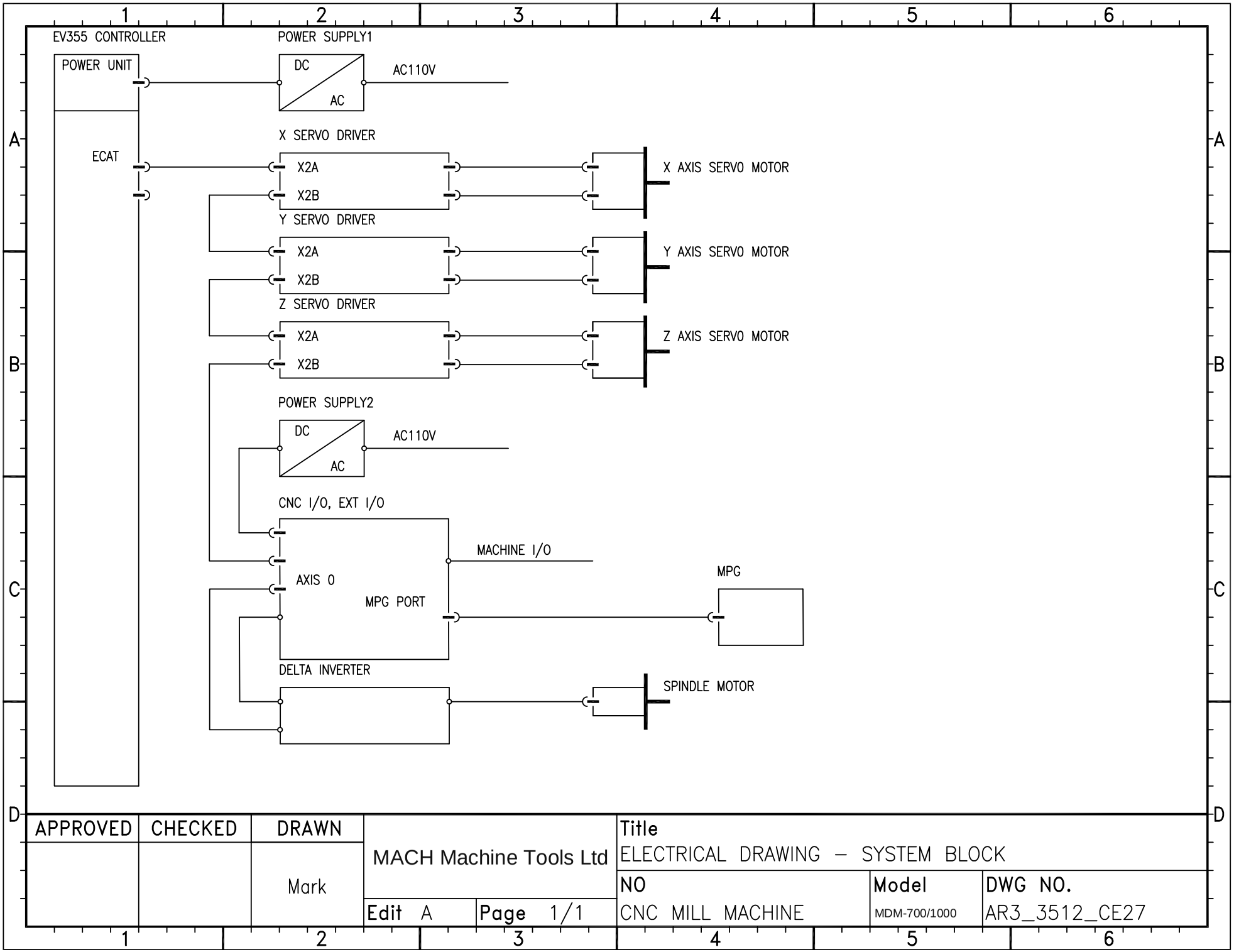
NO	Model	DWG NO.
CNC MILL MACHINE	MDM-700/1000	AR3_3512_CE25



APPROVED	CHECKED	DRAWN		Title		
		Mark	MACH Machine Tools Ltd	ELECTRICAL DRAWING – ESTOP STRING FOR CNC		
			Edit C / Page 32/32	NO CNC MILL MACHINE	Model MDM-700/1000	DWG NO. AR3_3512_CE26



APPROVED	CHECKED	DRAWN	MACH Machine Tools Ltd	Title ELECTRICAL DRAWING – ESTOP STRING FOR CNC(none CE)		
		Mark		NO	Model	DWG NO.
			Edit C / Page 32/32	CNC MILL MACHINE	MDM-700/1000	A3_3512_CE26.1


EV355 CONTROLLER
POWER UNIT
ECAT
POWER SUPPLY1
DC
AC
AC110V
X SERVO DRIVER
X2A
X2B
X AXIS SERVO MOTOR
Y SERVO DRIVER
X2A
X2B
Y AXIS SERVO MOTOR
Z SERVO DRIVER
X2A
X2B
Z AXIS SERVO MOTOR
POWER SUPPLY2
DC
AC
AC110V
CNC I/O, EXT I/O
AXIS 0
MPG PORT
MACHINE I/O
MPG
DELTA INVERTER
SPINDLE MOTOR
APPROVED
CHECKED
DRAWN
Mark
MACH Machine Tools Ltd
Edit A
Page 1/1
Title
ELECTRICAL DRAWING – SYSTEM BLOCK
NO
CNC MILL MACHINE
Model
MDM-700/1000
DWG NO.
AR3_3512_CE27

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