



Newburg, Missouri, USA
 573-368-7399
 machmotion.com

SALES ORDER No.: xxxxx

DRAWING No.: A3SY00-003

SUPPLY VOLTAGE: 240 VOLTS 60 Hz

PHASE:	-	3 PH (240V)
--------	---	-------------

FULL LOAD AMPS:	-	24.6 AMPS
-----------------	---	-----------

LARGEST LOAD:	-	9.7 AMPS
---------------	---	----------

MAX SPINDLE MOTOR SIZE:	-	2.2 KW
-------------------------	---	--------

MIN SUPPLY CIRCUIT CONDUCTOR:	-	25 AMPS
-------------------------------	---	---------

MAX SUPPLY CIRCUIT OCPD:	-	35 AMPS
--------------------------	---	---------

SHORT CIRCUIT CURRENT RATING: 5 kA @ 240 VOLTS MAX

AMBIENT TEMPERATURE RATING: 41° TO 104° F (5° TO 40° C)

THIS EQUIPMENT DOES PROVIDE SUPPLY CIRCUIT OVERCURRENT PROTECTION.

NUMBER OF PAGES 32

COMPANY: MACHMOTION NEWBURG, MISSOURI, USA	DATE: 10/28/2020 REVISION: -	ALL RIGHTS RESERVED					DRAWING NO: A3SY00-003 SUPPLIER NO: XXXXX	NAME: -	=	+
DESIGNER: JUSTIN R. WALZ	APPROVER: -	LOC: -	FACTORY: -	DEPT: -	OP. NO: -	STA. NO: -	MACH. NAME: -	DRAWING NO:	TITLE PAGE / COVER SHEET	PREV PAGE: <<->> PAGE:
									&	NEXT PAGE: ->>->
									#	02

TABLE OF CONTENTS

PAGE	PAGE DESCRIPTION	LAST EDIT DATE	EDITED BY
01	TITLE PAGE / COVER SHEET	10/28/2020	JUSTIN R. WALZ
02	TABLE OF CONTENTS : /01 - /99	10/28/2020	JUSTIN R. WALZ
04	CHANGE SHEET INFORMATION	10/28/2020	JUSTIN R. WALZ
05	SYMBOL INFORMATION	10/28/2020	JUSTIN R. WALZ
06	WIRE INFORMATION	10/28/2020	JUSTIN R. WALZ
07	DEVICE/WIRE LABELING SCHEME	10/28/2020	JUSTIN R. WALZ
10	MAIN DISCONNECT	9/15/2020	JUSTIN R. WALZ
11	3 PHASE POWER - CONTROL POWER	9/15/2020	JUSTIN R. WALZ
13	FAN - TRANSFORMER	9/15/2020	JUSTIN R. WALZ
14	24 VDC POWER SUPPLY	9/15/2020	JUSTIN R. WALZ
20	24 VDC POWER DISTRIBUTION	9/17/2020	JUSTIN R. WALZ
21	24 VDC POWER DISTRIBUTION	9/17/2020	JUSTIN R. WALZ
23	RELAY BOARD	10/17/2020	JUSTIN R. WALZ
30	3000 SR - SAFETY RELAY	10/28/2020	JUSTIN R. WALZ
50	5000 DRV - X-AXIS DRIVE	9/17/2020	JUSTIN R. WALZ
51	5100 DRV - Y-AXIS DRIVE	9/17/2020	JUSTIN R. WALZ
52	5200 DRV - Z-AXIS DRIVE	9/17/2020	JUSTIN R. WALZ
53	5300 DRV - A-AXIS DRIVE	9/17/2020	JUSTIN R. WALZ
54	5400 DRV - B-AXIS DRIVE	9/17/2020	JUSTIN R. WALZ
55	5500 DRV - C-AXIS DRIVE	9/17/2020	JUSTIN R. WALZ
56	5600 DRV - STEPPER DRIVE 1	9/11/2020	JUSTIN R. WALZ
57	5700 DRV - STEPPER DRIVE 2	9/11/2020	JUSTIN R. WALZ
60	6000 DRV- SPINDLE DRIVE 1	9/17/2020	JUSTIN R. WALZ
61	6000 DRV- SPINDLE DRIVE 1	10/13/2020	JUSTIN R. WALZ
62	6200 DRV- SPINDLE DRIVE 2	9/17/2020	JUSTIN R. WALZ
63	6200 DRV- SPINDLE DRIVE 2	10/13/2020	JUSTIN R. WALZ
65	6500 MDL- APOLLO III CONTROLLER ETHERNET CONNECTIONS	9/15/2020	JUSTIN R. WALZ
66	6500 MDL- APOLLO III CONTROLLER TERMINALS TB1	10/13/2020	JUSTIN R. WALZ
67	6500 MDL- APOLLO III CONTROLLER TERMINALS TB2	10/28/2020	JUSTIN R. WALZ
80	8000 DRV - 90/180 VDC DRIVE	9/15/2020	JUSTIN R. WALZ
90	9000 MDL - ETHERNET SWITCH	9/15/2020	JUSTIN R. WALZ
99	9900 HMI - MAIN OPERATOR INTERFACE	10/13/2020	JUSTIN R. WALZ

CHANGE HISTORY

NR.	DATE (MM/DD/YYYY)	EDITOR	CHANGE SPECIFICATION	ID	PAGES
000	10/28/2020	JUSTIN WALZ	INITIAL RELEASE		ALL
001					
002					
003					
004					
005					
006					
007					
008					
009					
010					
011					
012					
013					
014					
015					
016					
017					
018					

COMPANY: MACHMOTION NEWBURG, MISSOURI, USA	DATE: 10/28/2020 REVISION:	ALL RIGHTS RESERVED	DRAWING NO: A3SY00-003 SUPPLIER NO: XXXXXX	NAME: -	=	+					
DESIGNER: JUSTIN R. WALZ	APPROVER: -	LOC: -	FACTORY: -	DEPT: -	OP. NO: -	STA. NO: -	MACH. NAME: -	DRAWING NO:	CHANGE SHEET INFORMATION	PREV PAGE: <<< PAGE: 02	NEXT PAGE: >>>
									#	05	04

DESCRIPTION	NEMA SYMBOLS	IEC SYMBOLS	LETTER CODE TO IEC 617
NORMALLY OPEN CONTACTOR CONTACT	M	KM	KM - CONTACTOR
NORMALLY CLOSED CONTACTOR CONTACT	M	KM	KM - CONTACTOR
NORMALLY CLOSED AUXILIARY CONTACT	M	KM	KM - CONTACTOR
NORMALLY OPEN RELAY CONTACT	CR	KA	KA - RELAY
NORMALLY CLOSED RELAY CONTACT	CR	KA	KA - RELAY
NORMALLY OPEN DELAYED CLOSING CONTACT	T	KT	KT - TIME DELAY
NORMALLY CLOSED DELAYED OPENING CONTACT	T	KT	KT - TIME DELAY
NORMALLY OPEN DELAYED OPENING CONTACT	T	KT	KT - TIME DELAY
NORMALLY CLOSED DELAYED CLOSING CONTACT	T	KT	KT - TIME DELAY
NORMALLY OPEN PUSH BUTTON	PB	SB	SB - PUSH BUTTON
NORMALLY CLOSED PUSH BUTTON	PB	SB	SB - PUSH BUTTON
EMERGENCY STOP PUSH BUTTON	PB	SB	SB - PUSH BUTTON
NORMALLY OPEN LEVEL SWITCH	LVS	SL	SL - LEVEL SWITCH
NORMALLY OPEN PRESSURE SWITCH	PS	SP	SP - PRESSURE SWITCH
NORMALLY OPEN FLOW SWITCH	FS	SF	SF - FLOW SWITCH
NORMALLY OPEN TEMPERATURE SWITCH	TS	ST	ST - TEMPERATURE SWITCH
NORMALLY OPEN LIMIT SWITCH	LS	SQ	SQ - LIMIT SWITCH
NORMALLY CLOSED LIMIT SWITCH	LS	SQ	SQ - LIMIT SWITCH
PLUG	PLG	XP	XP - PLUG
SOCKET	PLG	XS	XS - SOCKET
PLUG AND SOCKET	PLG	XS	XS - PLUG AND SOCKET
CONTACTOR COIL	M	KM	KM - CONTACTOR
CONTROL RELAY COIL	CR	KA	KA - RELAY
SLOW OPERATING (ON DELAY) RELAY COIL	TR	KT	KT - TIMED RELAY
SLOW RELEASING (OFF DELAY) RELAY COIL	TR	KT	KT - TIMED RELAY
SOLENOID COIL	SOL	YV	YV - ELECTROMAGNETIC OPERATED VALVE
PROXIMITY SENSOR	PRX	SQ	SQ - PROXIMITY SWITCH

DESCRIPTION	NEMA SYMBOLS	IEC SYMBOLS	LETTER CODE TO IEC 617
PROXIMITY SENSOR	PRX	SQ	SQ - PHOTOEYE SWITCH
ISOLATOR/DISCONNECT SWITCH	KS	QS	QS - ISOLATOR/DISCONNECT DEVICE
FUSE	FU	FU	FU - FUSE
CIRCUIT BREAKER	CB	QF	QF - CIRCUIT BREAKER
WARNING HORN	HN	HA	HA - WARNING HORN
INDICATOR LAMP (PILOT LIGHT)	LT	HL	HL - INDICATOR LAMP
PUSH TO TEST INDICATOR LAMP (PILOT LIGHT)	LT	HL	HL - INDICATOR LAMP
FLUORESCENT LIGHT	LT	EL	EL - CABINET LIGHTING
SELECTOR SWITCH	SS	SA	SA - SELECTOR SWITCH
4 POSITION SELECTOR SWITCH	SS	SA	SA - SELECTOR SWITCH
MOTOR	MTR	M	M - MOTOR
ELECTROMAGNETIC BRAKE	BRK	YB	YB - ELECTROMAGNETIC BRAKE

- BQ - POSITION TRANSDUCER
- E - MISCELLANEOUS COMPONENTS
- EH - HEATING DEVICE
- FR - CURRENT PROTECTIVE DEVICE
- GS - SUPPLY DEVICE (POWER SUPPLY)
- HV - VENTILATOR
- XB - LINK
- XT - FUSED TERMINAL
- X1 - TERMINAL
- TA - CURRENT TRANSFORMER
- TC - CONTROL CIRCUIT TRANSFORMER
- TM - POWER TRANSFORMER
- TS - MAGNETIC STABILISER
- TV - VOLTAVE TRANSFORMER

WIRE COLOR CHART						
VOLTAGE	LINE SIDE OF MAIN DISCONNECT (ABOVE DISCONNECTING MEANS)		LOAD SIDE OF MAIN DISCONNECT (BELOW DISCONNECTING MEANS)		WIRES TO EXTERNAL ELECTRICAL ENCLOSURES (INTERLOCKING)	
	HOT CONDUCTOR	GROUNDING CURRENT CARRYING CONDUCTOR	HOT CONDUCTOR	GROUNDING CURRENT CARRYING CONDUCTOR	HOT CONDUCTOR	GROUNDING CURRENT CARRYING CONDUCTOR
241 - 575 VAC	BLACK / ORANGE TRACER/SLEEVE/TUBE		BLACK			
151 - 575 VDC			BLACK			
151 - 240 VAC			RED	WHITE		
0 - 150 VAC	ORANGE	WHITE/ ORANGE TRACER/SLEEVE/TUBE	RED	WHITE		
24 VDC (0 - 50)	BLUE / ORANGE TRACER/SLEEVE/TUBE	WHITE WITH BLUE TRACER & ORANGE TAPE	BLUE	WHITE/BLUE TRACER/SLEEVE/TUBE	ORANGE	ORANGE
GROUND	GREEN/ YELLOW TRACER					

WIRE COLOR CODE CHART	
WIRE COLOR	ABBREVIATION
BLACK	BK
BROWN	BN
RED	RD
ORANGE	OG
YELLOW	YE
GREEN	GN
BLUE	BU
VIOLET	VT
GRAY	GY
WHITE	WH
PINK	PK
GOLD	GD
TURQUOISE	TQ
SILVER	SR
GREEN WITH YELLOW TRACER	GNYE
BLACK WITH ORANGE TRACER	BKOG
BLUE WITH ORANGE TRACER	BUOG
WHITE WITH RED TRACER	WHRD
WHITE WITH ORANGE TRACER	WHOG
WHITE WITH BLUE TRACER	WHBU
WHITE WITH BLUE TRACER AND ORANGE TAPE (OR SHRINK TUBE)	WHBU+OG

CABLE SIZE CONVERSION TABLE		
METRIC	TO	AWG
0.5		20
0.75		18
1.0		16
1.5		14
2.5		12
4.0		10
6.0		8
10.0		6
16.0		4
25.0		2
35.0		1
50.0		0

NFPA 79 - 2015 EDITION	
Table 8.2.2.3 Minimum Size of Equipment Grounding Conductors and Bonding Jumpers	
Rating or Setting of Automatic Overcurrent Device in Circuit Ahead of the Equipment (Not Exceeding Amperes)	Copper Conductor Size (AWG or kcmil)
10	16
15	14
20	12
30	10
40	10
60	10
100	8
200	6
300	4
400	3
500	2
600	1
800	1/0
1000	2/0
1200	3/0
1600	4/0
2000	250
2500	350
3000	400
4000	500
5000	700
6000	800

NFPA 79 - 2015 EDITION				
Table 12.5.1 Conductor Ampacity Based on Copper Conductors with 60°C (140°F), 75°C (167°F), 90°C (194°F) Insulation in an Ambient Temperature of 30°C (86°F)				
Conductor Size (AWG)	Ampacity			
	60°C (140°F)	75°C (167°F)	90°C (194°F)	
30	-	0.5	0.5	
28	-	0.8	0.8	
26	-	1	1	
24	2	2	2	
22	3	3	3	
20	5	5	5	
18	7	7	14	
16	10	10	18	
14	20	20	25	
12	25	25	30	
10	30	35	40	
8	40	50	55	
6	55	65	75	
4	70	85	95	
3	85	100	110	
2	95	115	130	
1	110	130	150	
1/0	125	150	170	
2/0	145	175	195	
3/0	165	200	225	
4/0	195	230	260	
250	215	255	290	
300	240	285	320	
350	260	310	350	
400	280	335	380	
500	320	380	430	
600	355	420	475	
700	385	460	520	
750	400	475	535	
800	410	490	555	
900	435	520	585	
1000	455	545	615	

NFPA 79 - 2015 EDITION				
Table 12.5.5(a) Ambient Correction Factors				
For ambient temperatures other than 30°C (86°F), multiply the allowable ampacity by the appropriate factor shown below.				
Ambient Temperature (°C)	Correction Factor 60°C	Correction Factor 75°C	Correction Factor 90°C	
21-25	1.08	1.05	1.04	
26-30	1.00	1.00	1.00	
31-35	0.91	0.94	0.96	
36-40	0.82	0.88	0.91	
40-45	0.71	0.82	0.87	
46-50	0.58	0.75	0.82	
51-55	0.41	0.67	0.76	
56-60	-	0.58	0.71	
61-70	-	0.33	0.58	
71-80	-	-	0.41	

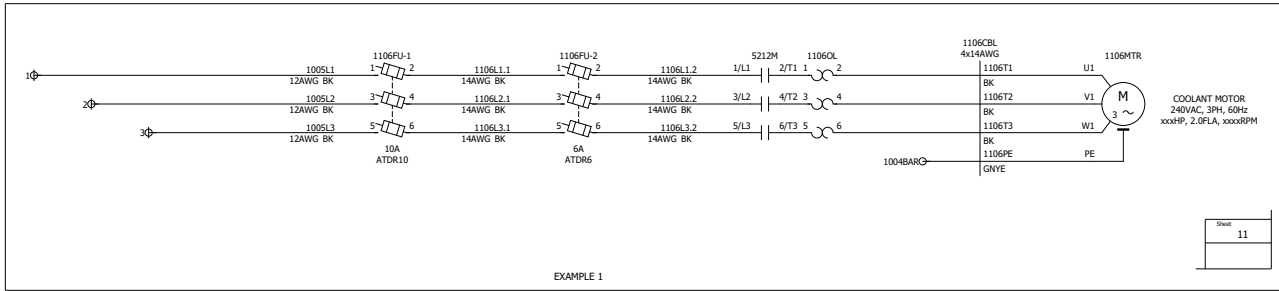
Notes:
(1) Wire types listed in 12.3.1 shall be permitted to be used at the ampacities listed in this table.
(2) The sources for the ampacities in this table are Table 310.15(B)(16) of NFPA 70.

COMPANY: MACHMOTION NEWBURG, MISSOURI, USA	DATE: 10/28/2020	ALL RIGHTS RESERVED					DRAWING NO: A3SY00-003	NAME: -	=	+	
DESIGNER: JUSTIN R. WALZ	REVISION: -	LOC: -	FACTORY: -	DEPT: -	OP. NO: -	STA. NO: -	SUPPLIER NO: XXXXX	WIRE INFORMATION		PREV PAGE: <<--- PAGE: 05	
APPROVER: -						MACH. NAME: -	DRAWING NO: -	#	NEXT PAGE: --->>	PAGE: 07	

EXAMPLE 1

IF DEVICES / WIRES ARE CONNECTED TO 3 PHASE LINES

1. DEVICES ARE IDENTIFIED BY THE ALPHA SUFFIX ACCORDING TO NEMA/NFPA COMBINED WITH THE SHEET NUMBER AND LINE REFERENCE AT WHICH THE DEVICE IS POSITIONED.
2. IF TWO OR MORE DEVICES WITH THE SAME PREFIX EXIST ON THE SAME LINE REFERENCE, THEN DEVICES ARE SUFFIXED -1, -2, -3...
3. WIRE NUMBERS ARE CONSTRUCTED FROM THE SHEET AND LINE NUMBER ON WHICH THEY OCCUR, WITH THE THREE PHASE IDENTIFIER L1, L2, L3 (OR T1, T2, T3) DEPENDING ON TERMINATION TO END DEVICE.

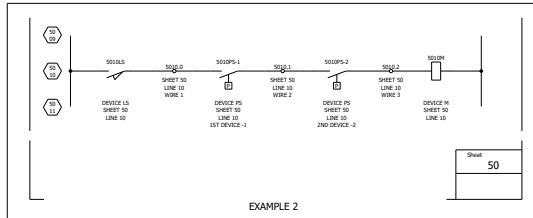


EXAMPLE 1

EXAMPLE 2

IF DEVICES / WIRES ARE NOT CONNECTED TO A PLC INPUT OR OUTPUT THEN:

1. DEVICES ARE IDENTIFIED BY THE ALPHA SUFFIX ACCORDING TO NEMA/NFPA COMBINED WITH THE SHEET NUMBER AND LINE REFERENCE AT WHICH THE DEVICE IS POSITIONED.
2. IF TWO OR MORE DEVICES WITH THE SAME PREFIX EXIST ON THE SAME LINE REFERENCE, THEN DEVICES ARE SUFFIXED -1, -2, -3...
3. WIRE NUMBERS ARE CONSTRUCTED FROM THE SHEET AND LINE NUMBER ON WHICH THEY OCCUR, WITH AN EXTRA DIGIT AFTER THIS RANGING FROM 1 TO 9 GOING FROM LEFT TO RIGHT.

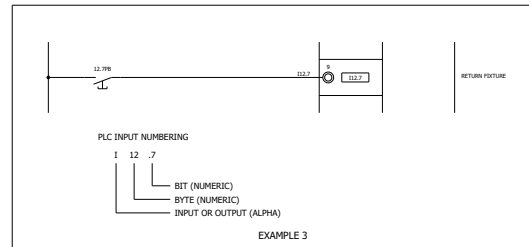


EXAMPLE 2

EXAMPLE 3

IF DEVICES / WIRES ARE CONNECTED TO A PLC INPUT OR OUTPUT THEN:

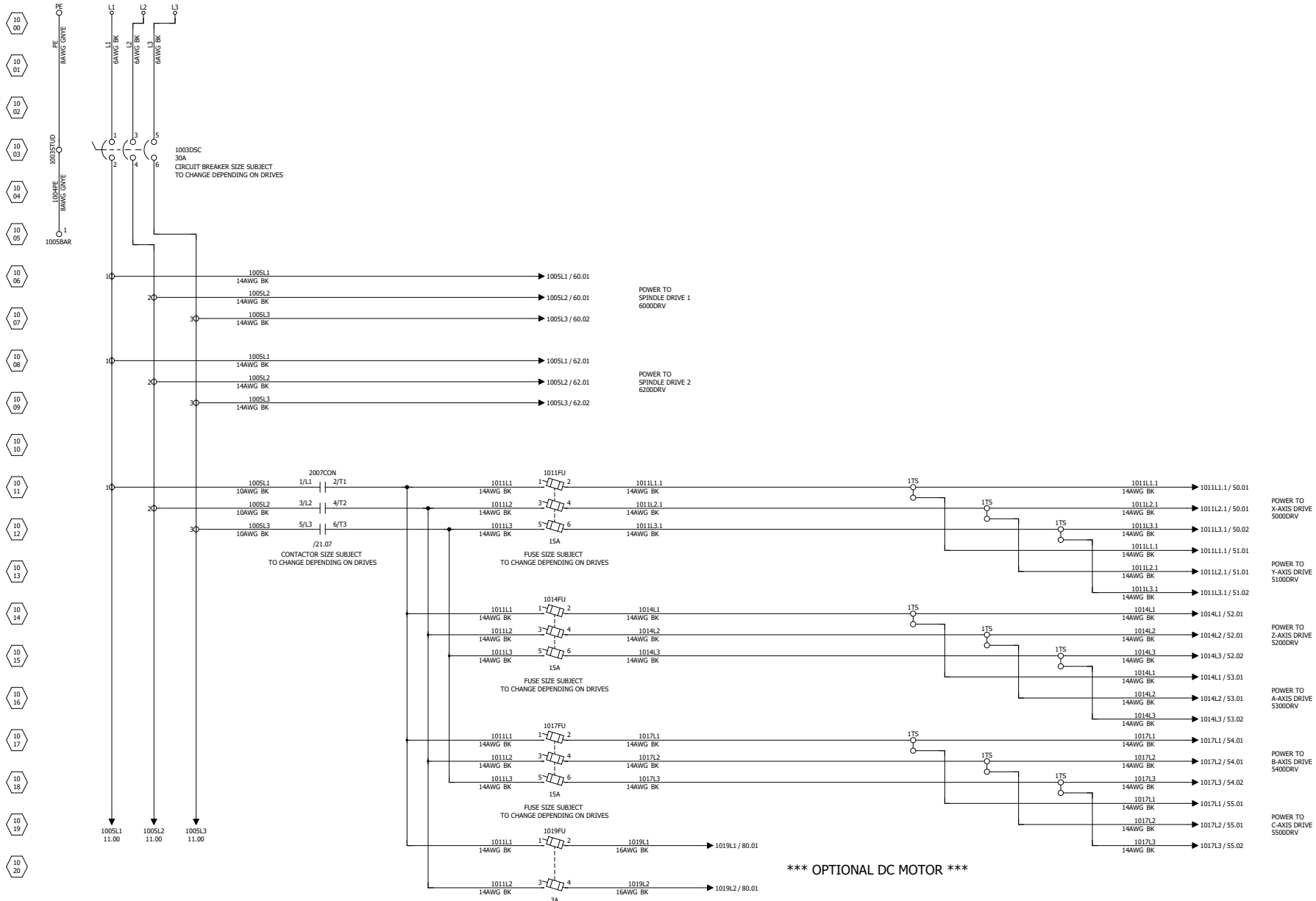
1. DEVICES ARE IDENTIFIED BY THE ALPHA SUFFIX ACCORDING TO NEMA/NFPA COMBINED WITH THE PLC ADDRESS TO WHICH IT IS CONNECTED. CONTACTS, AUX. CONTACTS FROM HARDWARE DEVICES ARE IDENTIFIED BY THE DEVICE DESIGNATION WHERE THE DEVICE IS WIRED.
2. WIRES ARE NUMBERED USING THE FULL PLC I/O ADDRESS OF THE INPUT OR OUTPUT TO WHICH THEY ARE CONNECTED.



EXAMPLE 3

COMPANY: MACHMOTION NEWBURG, MISSOURI, USA		DATE: 10/28/2020		ALL RIGHTS RESERVED		DRAWING NO: A3SY00-003		NAME: -		=		+											
DESIGNER: JUSTIN R. WALZ		APPROVER: -		LOC: -		FACTORY: -		DEPT: -		OP. NO: -		STA. NO: -		SUPPLIER NO: XXXXX		DRAWING NO:		MACH. NAME:		DEVICE/WIRE LABELING SCHEME		PREV PAGE: <<-->> PAGE: 06	
																				NEXT PAGE: -->> PAGE: 10		07	

CUSTOMER SUPPLIED 3 PHASE POWER
INCOMING: 3 PHASE + GROUND / 240 VAC / 60 Hz / 60 AMP



COMPANY:
MACHMOTION
NEWBURG, MISSOURI, USA

DATE:
10/28/2020
REVISION:

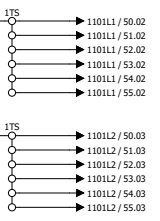
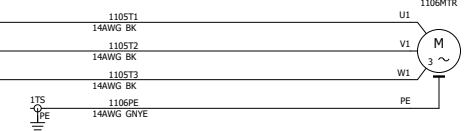
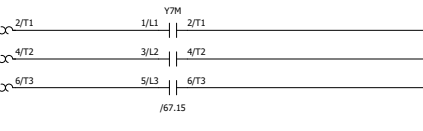
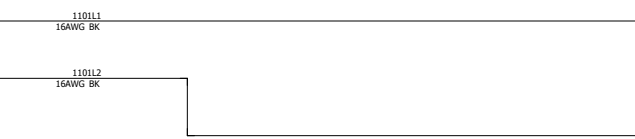
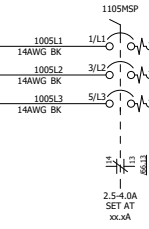
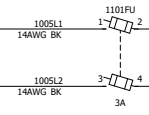
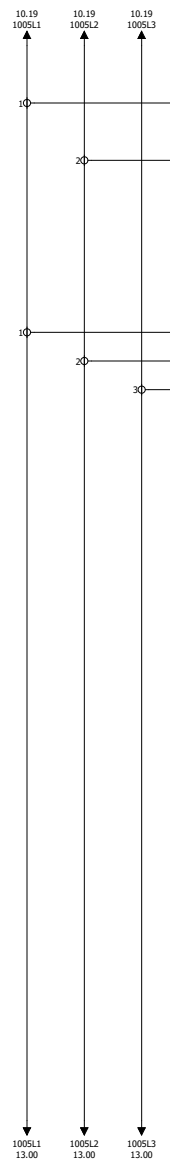
ALL RIGHTS RESERVED

DRAWING NO:
A3SY00-003
SUPPLIER NO:
XXXXXX
MACH. NAME:
DRAWING NO:

NAME:
MAIN DISCONNECT

PREV PAGE: <<--- PAGE:
07
NEXT PAGE: --->>
11

11 00
11 01
11 02
11 03
11 04
11 05
11 06
11 07
11 08
11 09
11 10
11 11
11 12
11 13
11 14
11 15
11 16
11 17
11 18
11 19
11 20

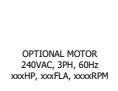


CONTROL POWER TO X-AXIS DRIVE 5000DRV
CONTROL POWER TO Y-AXIS DRIVE 51000DRV
CONTROL POWER TO Z-AXIS DRIVE 52000DRV

CONTROL POWER TO A-AXIS DRIVE 53000DRV
CONTROL POWER TO B-AXIS DRIVE 54000DRV
CONTROL POWER TO C-AXIS DRIVE 55000DRV

*** OPTIONAL AXIS ***

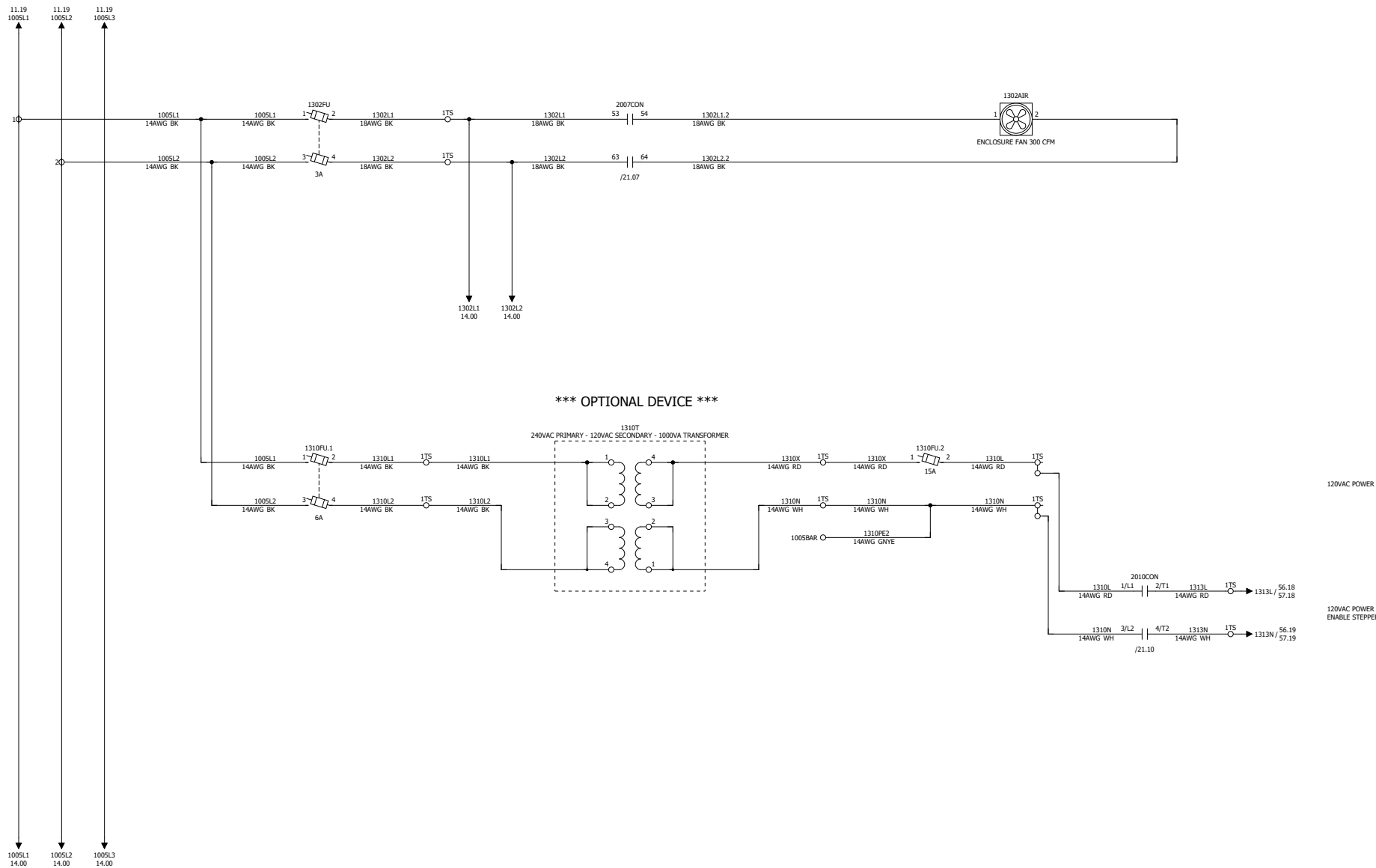
*** OPTIONAL MOTOR ***



OPTIONAL MOTOR
240VAC, 3PH, 60Hz
xxxHP, xxxFLA, xxxRPM

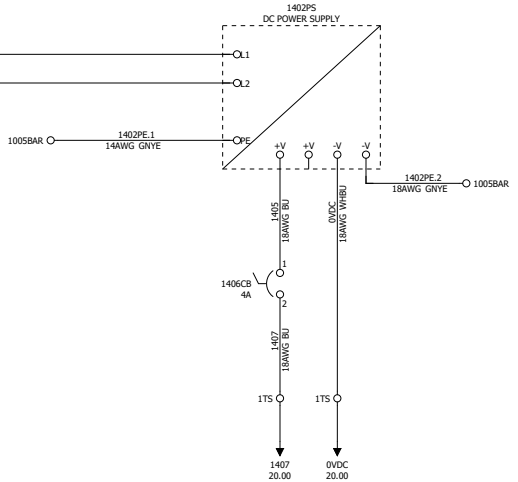
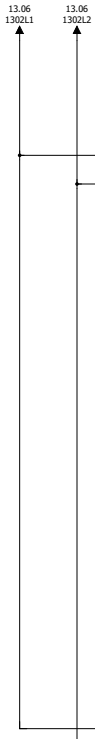
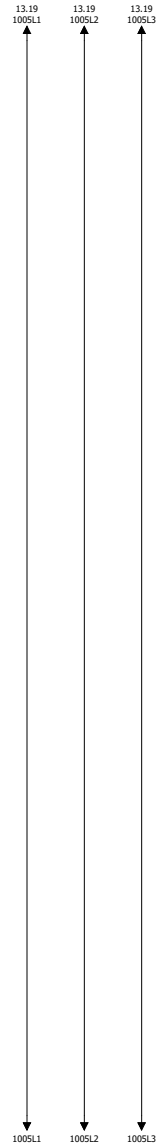
COMPANY: MACHMOTION NEWBURG, MISSOURI, USA	DATE: 10/28/2020	ALL RIGHTS RESERVED					DRAWING NO: A3SY00-003	NAME: -	=	+
DESIGNER: JUSTIN R. WALZ	REVISION:	LOC:	FACTORY:	DEPT:	OP. NO:	STA. NO:	SUPPLIER NO: XXXXXX	3 PHASE POWER - CONTROL POWER		
APPROVER:						MACH. NAME:	DRAWING NO:	&	PREV PAGE: <<< PAGE: 10	
								#	NEXT PAGE: >>> PAGE: 13	

- 13 00
- 13 01
- 13 02
- 13 03
- 13 04
- 13 05
- 13 06
- 13 07
- 13 08
- 13 09
- 13 10
- 13 11
- 13 12
- 13 13
- 13 14
- 13 15
- 13 16
- 13 17
- 13 18
- 13 19
- 13 20

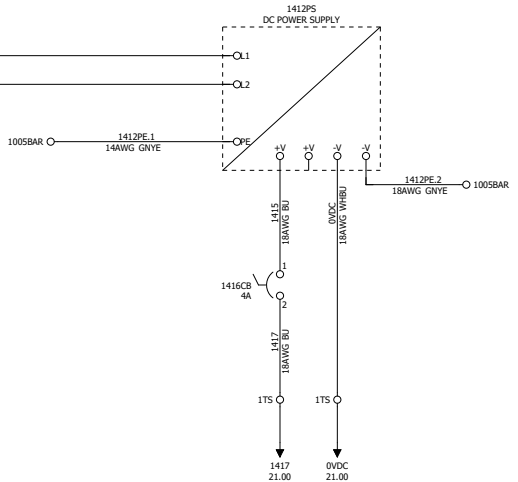


COMPANY: MACHMOTION NEWBURG, MISSOURI, USA	DATE: 10/28/2020	ALL RIGHTS RESERVED					DRAWING NO: A3SY00-003	NAME: -	= +	
DESIGNER: JUSTIN R. WALZ	REVISION:	LOC:	FACTORY:	DEPT:	OP. NO.:	STA. NO.:	SUPPLIER NO: XXXXX	PREV PAGE: <<< PAGE: 11		
APPROVER:						MACH. NAME:	DRAWING NO:	NEXT PAGE: >>> PAGE: 14		

- 14 00
- 14 01
- 14 02
- 14 03
- 14 04
- 14 05
- 14 06
- 14 07
- 14 08
- 14 09
- 14 10
- 14 11
- 14 12
- 14 13
- 14 14
- 14 15
- 14 16
- 14 17
- 14 18
- 14 19
- 14 20

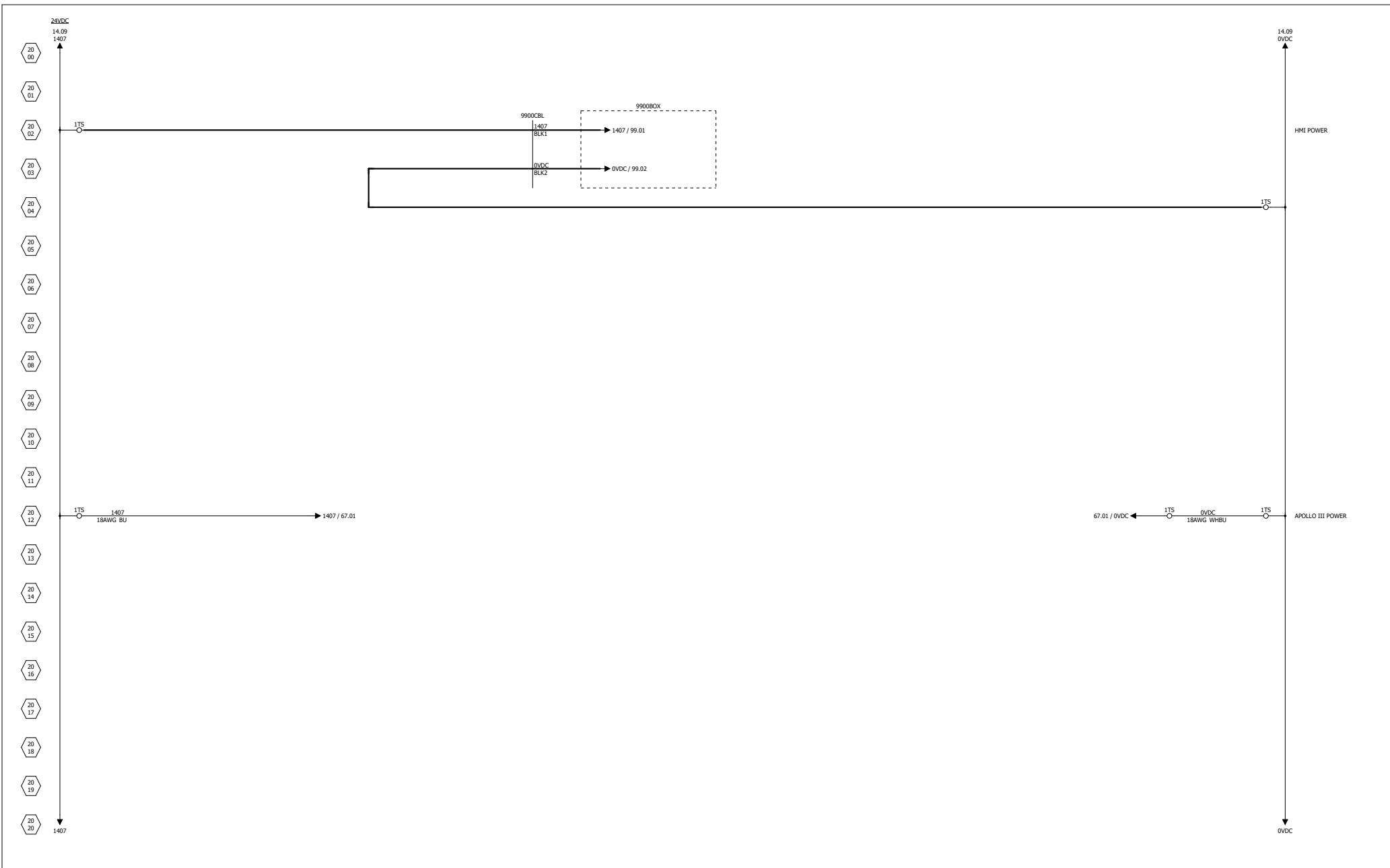


**24VDC - HMI POWER
APOLLO III POWER**

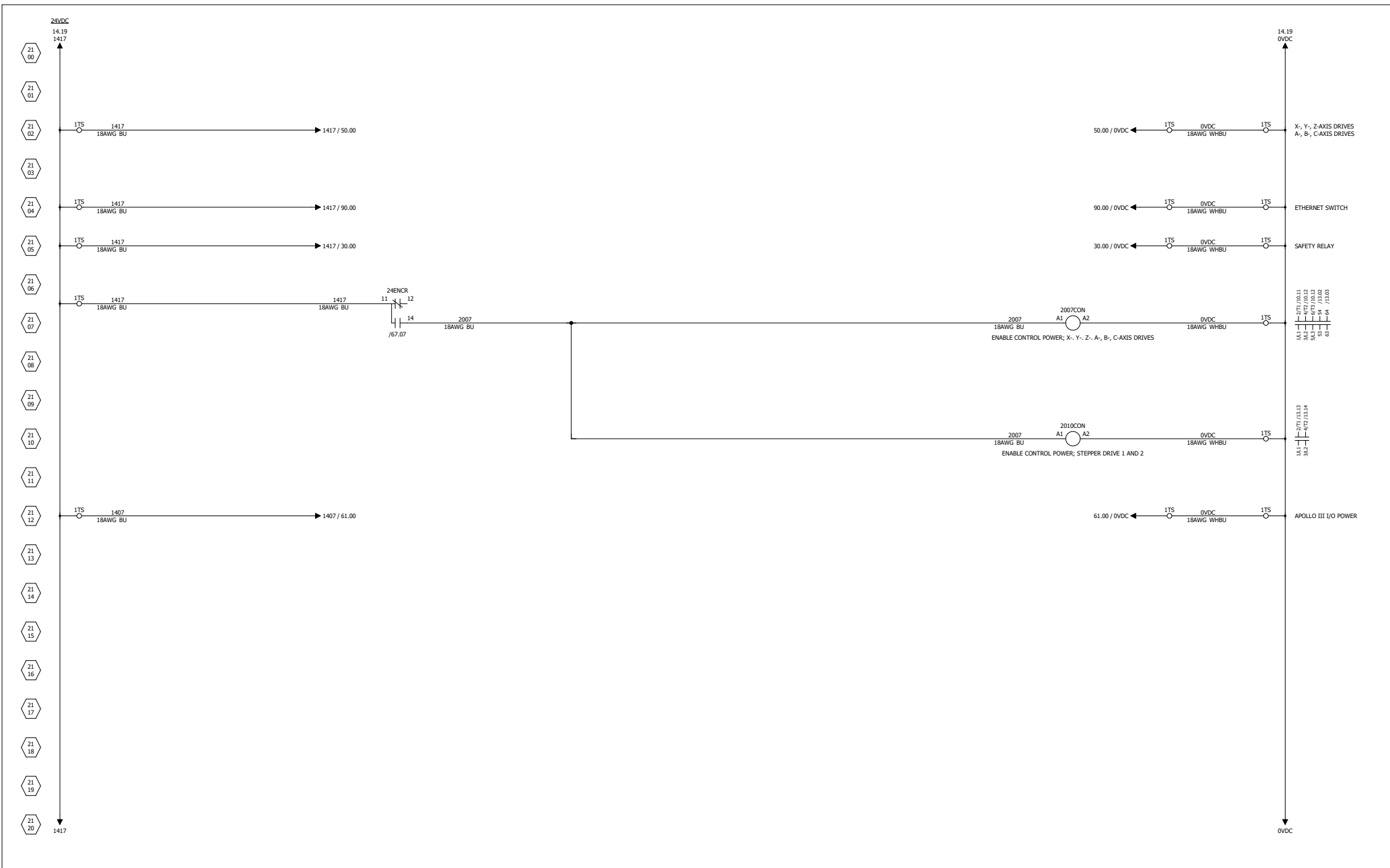


24VDC - MACHINE POWER

COMPANY: MACHMOTION NEWBURG, MISSOURI, USA	DATE: 10/28/2020 REVISION:	ALL RIGHTS RESERVED	DRAWING NO: A3SY00-003 SUPPLIER NO: XXXXXX	NAME: -	
DESIGNER: JUSTIN R. WALZ	APPROVER: -	LOC: -	FACTORY: -	DEPT: -	OP. NO: -
		STA. NO: -	MACH. NAME: -	DRAWING NO: -	
				24 VDC POWER SUPPLY	
				=	+
				&	PREV PAGE: <<< PAGE: 13
				#	NEXT PAGE: >>> PAGE: 20



COMPANY: MACHMOTION NEWBURG, MISSOURI, USA	DATE: 10/28/2020	ALL RIGHTS RESERVED						DRAWING NO: A3SY00-003	NAME: -	= +	
DESIGNER: JUSTIN R. WALZ	REVISION: -	LOC: -	FACTORY: -	DEPT: -	OP. NO: -	STA. NO: -	SUPPLIER NO: XXXXX	24 VDC POWER DISTRIBUTION		PREV PAGE: <<->	
	APPROVER: -						DRAWING NO:			PAGE: 14	
										NEXT PAGE: ->>->	
										21	



COMPANY: MACHMOTION NEWBURG, MISSOURI, USA	DATE: 10/28/2020	ALL RIGHTS RESERVED		DRAWING NO: A3SY00-003	NAME: -	=		+	
DESIGNER: JUSTIN R. WALZ	REVISION: -	LOC: -	FACTORY: -	SUPPLIER NO: XXXXX	24 VDC POWER DISTRIBUTION	PREV PAGE: <<---		PAGE: 20	
APPROVER: -	OP. NO: -	STA. NO: -	MACH. NAME: -	DRAWING NO: -		NEXT PAGE: --->>		23	
								21	

23
00

23
01

23
02

23
03

23
04

23
05

23
06

23
07

23
08

23
09

23
10

23
11

23
12

23
13

23
14

23
15

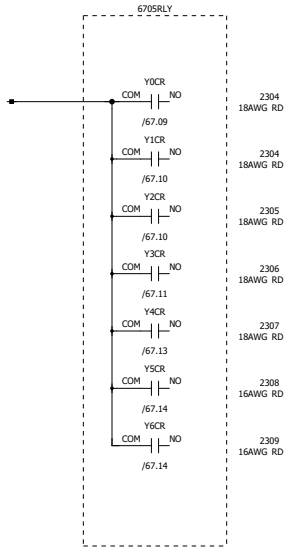
23
16

23
17

23
18

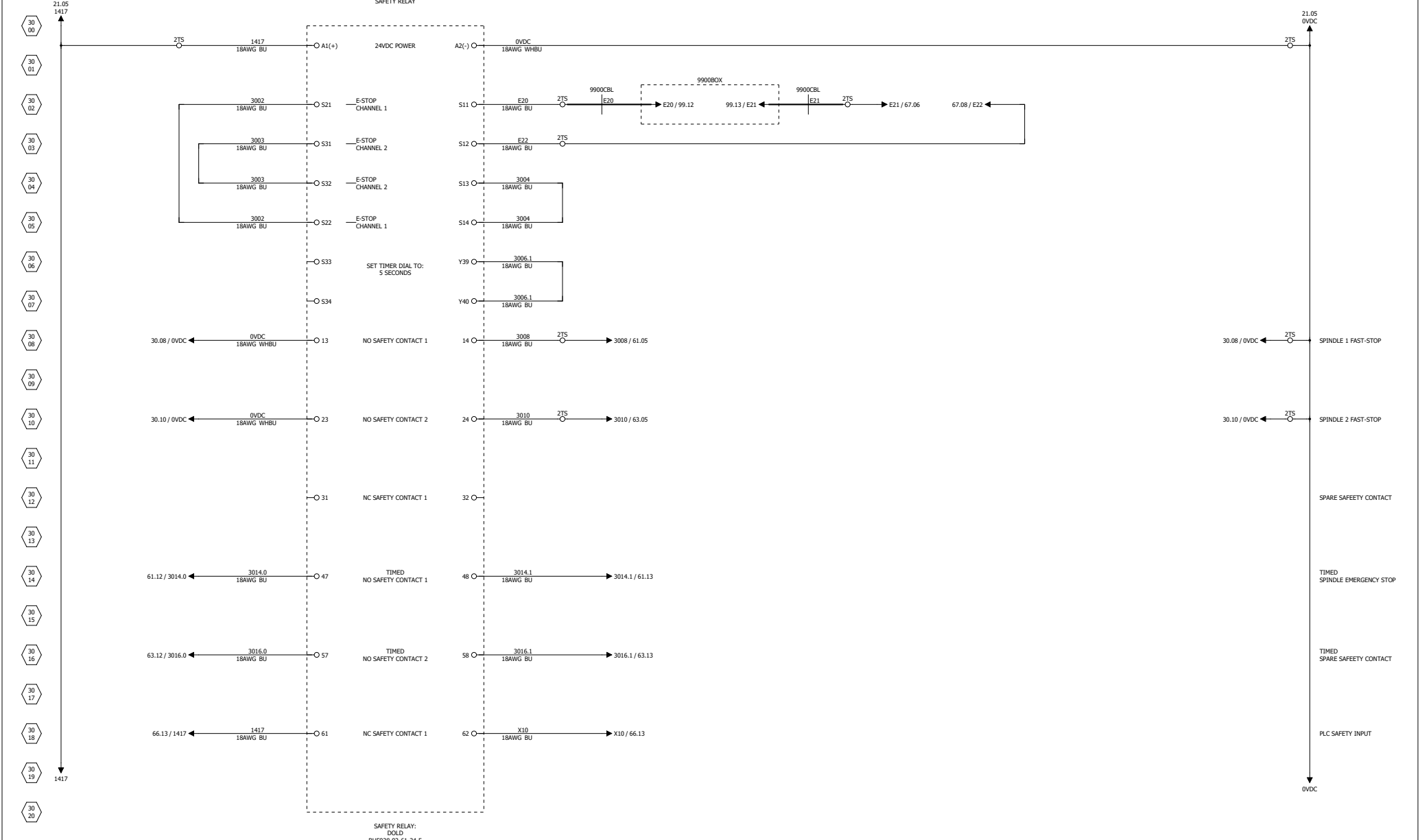
23
19

23
20



COMPANY: MACHMOTION NEWBURG, MISSOURI, USA		DATE: 10/28/2020		ALL RIGHTS RESERVED		DRAWING NO: A3SY00-003		NAME: -		=		+	
DESIGNER: JUSTIN R. WALZ		APPROVER: -		LOC: -	FACTORY: -	DEPT: -	OP. NO: -	STA. NO: -	SUPPLIER NO: XXXXX		PREV PAGE: <<->		PAGE: 21
						MACH. NAME: -		DRAWING NO:		RELAY BOARD		NEXT PAGE: ->>	
										#		30	

3000SR
SAFETY RELAY



SAFETY RELAY:
DOLD
BH5928-92-61-24-5

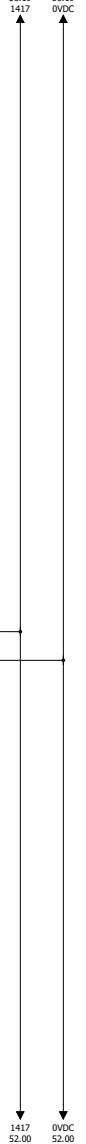
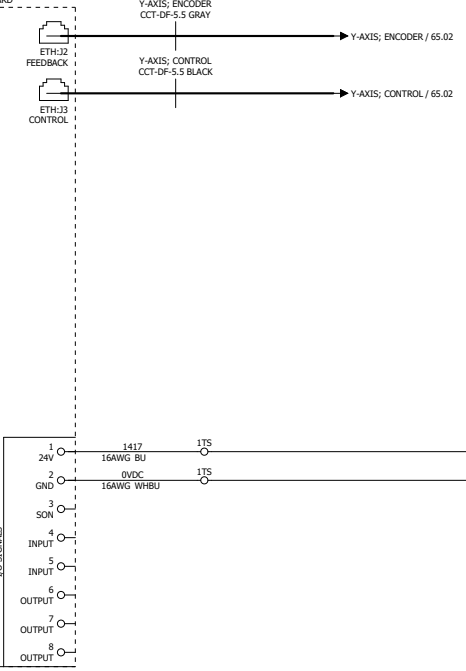
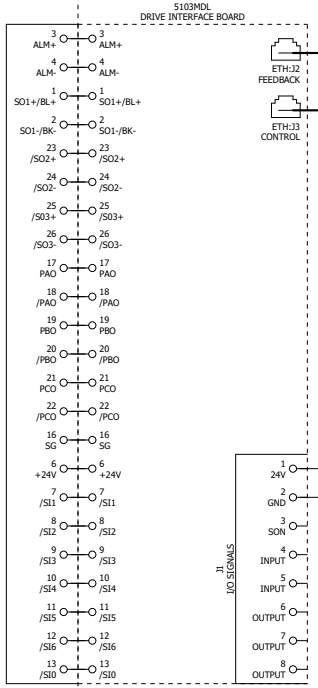
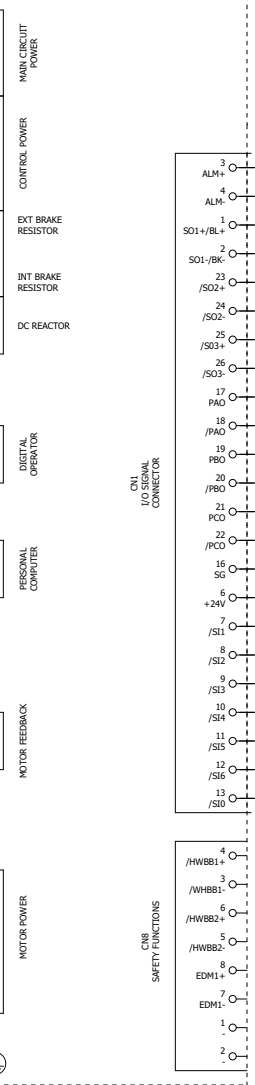
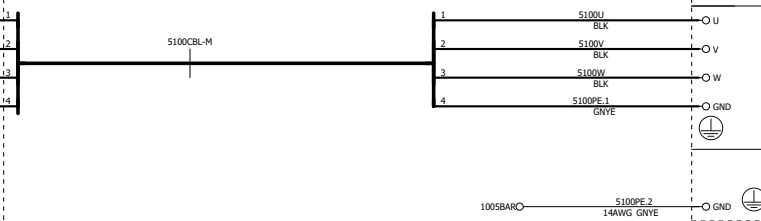
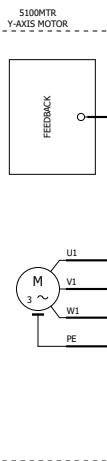
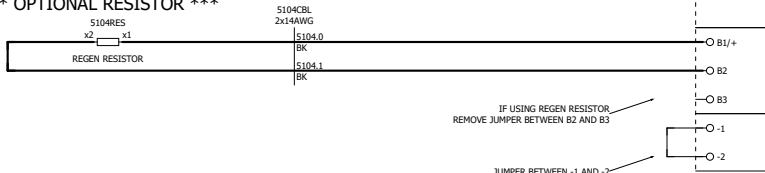
COMPANY: MACHMOTION NEWBURG, MISSOURI, USA		DATE: 10/28/2020		ALL RIGHTS RESERVED		DRAWING NO: A3SY00-003		NAME: -		=		+							
DESIGNER: JUSTIN R. WALZ		APPROVER: -		LOC: -		FACTORY: -		OP. NO: -		STA. NO: -		MACH. NAME: XXXXXX		DRAWING NO: -		3000 SR - SAFETY RELAY		PREV PAGE: <<--- PAGE: 23	
																NEXT PAGE: --->>		50	

5100DRV
Y-AXIS DRIVE

*** OPTIONAL AXIS ***

- S1 00
- S1 01
- S1 02
- S1 03
- S1 04
- S1 05
- S1 06
- S1 07
- S1 08
- S1 09
- S1 10
- S1 11
- S1 12
- S1 13
- S1 14
- S1 15
- S1 16
- S1 17
- S1 18
- S1 19
- S1 20

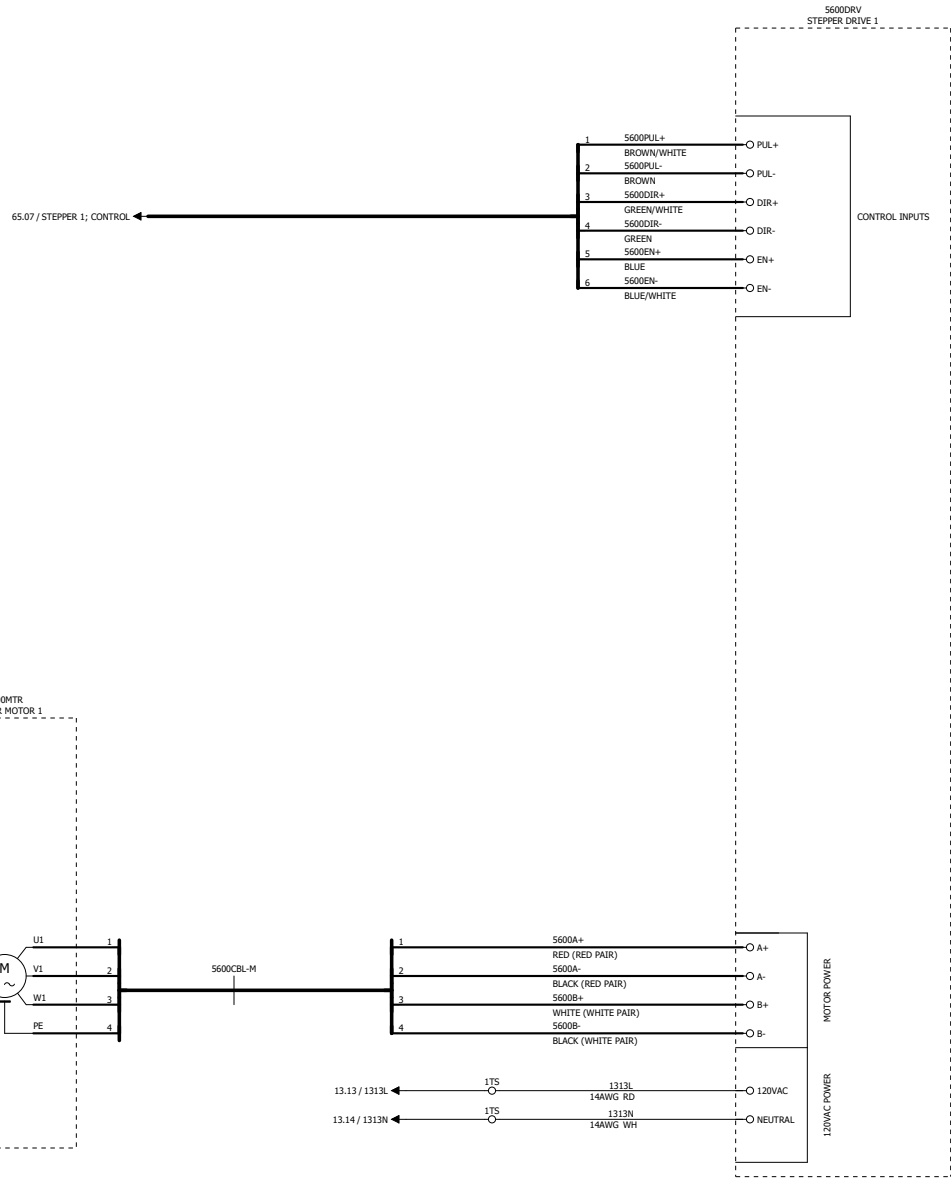
*** OPTIONAL RESISTOR ***



COMPANY: MACHMOTION NEWBURG, MISSOURI, USA	DATE: 10/28/2020	ALL RIGHTS RESERVED	DRAWING NO: A3SY00-003	NAME: -	= + PREV PAGE: <<-<< PAGE: & 50 NEXT PAGE: ->>->> 51
DESIGNER: JUSTIN R. WALZ	APPROVER: -	LOC: -	SUPPLIER NO: XXXXX	5100 DRV - Y-AXIS DRIVE	
		OP. NO: -	MACH. NAME: -	DRAWING NO: -	# 52

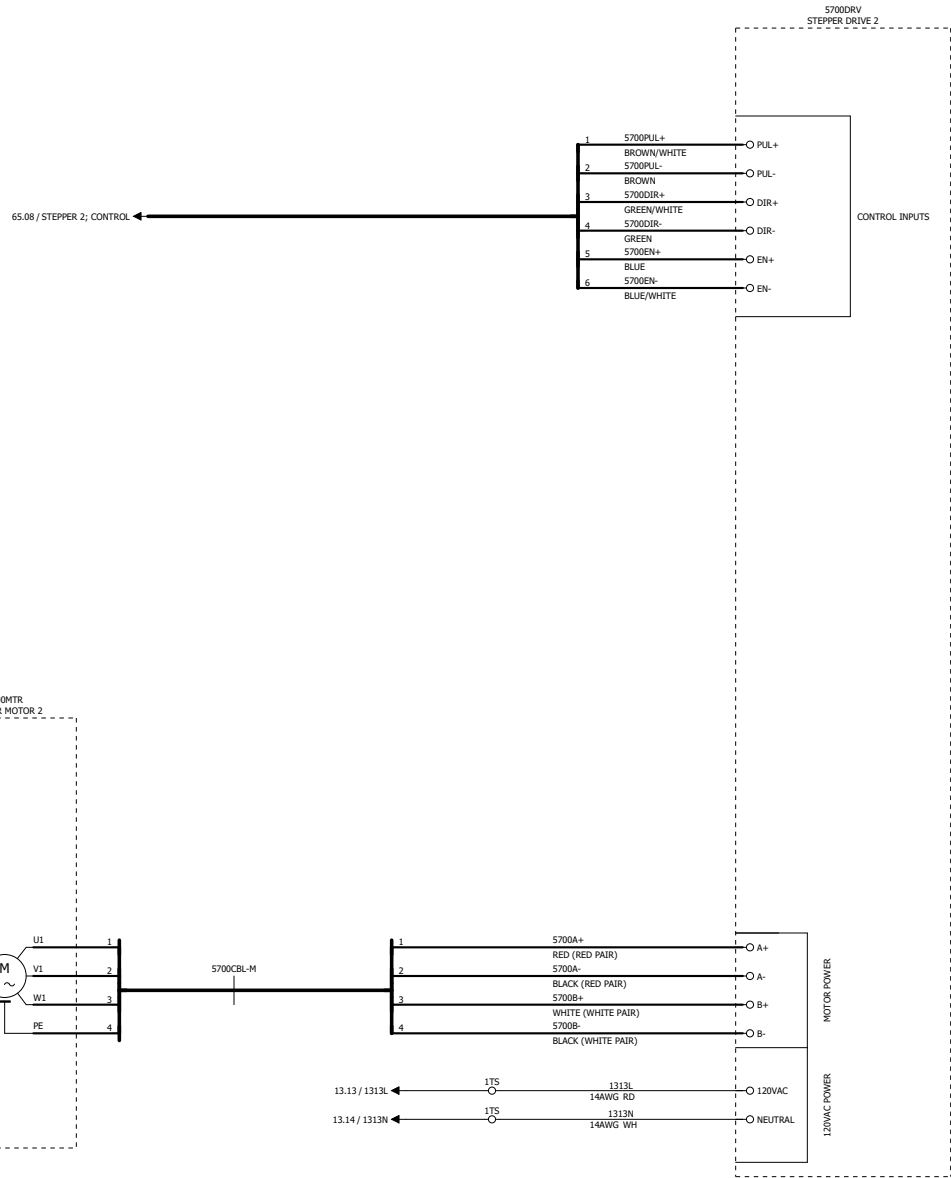
*** OPTIONAL AXIS ***

- 56 00
- 56 01
- 56 02
- 56 03
- 56 04
- 56 05
- 56 06
- 56 07
- 56 08
- 56 09
- 56 10
- 56 11
- 56 12
- 56 13
- 56 14
- 56 15
- 56 16
- 56 17
- 56 18
- 56 19
- 56 20



COMPANY: MACHMOTION NEWBURG, MISSOURI, USA	DATE: 10/28/2020 REVISION:	ALL RIGHTS RESERVED	DRAWING NO: A3SY00-003 SUPPLIER NO: XXXXX	NAME: -	=	+				
DESIGNER: JUSTIN R. WALZ	APPROVER: -	LOC: -	FACTORY: -	DEPT: -	OP. NO: -	STA. NO: -	MACH. NAME: -	DRAWING NO: -	5600 DRV - STEPPER DRIVE 1	PREV PAGE: <<<< PAGE: 55
										NEXT PAGE: >>>> PAGE: 57

*** OPTIONAL AXIS ***



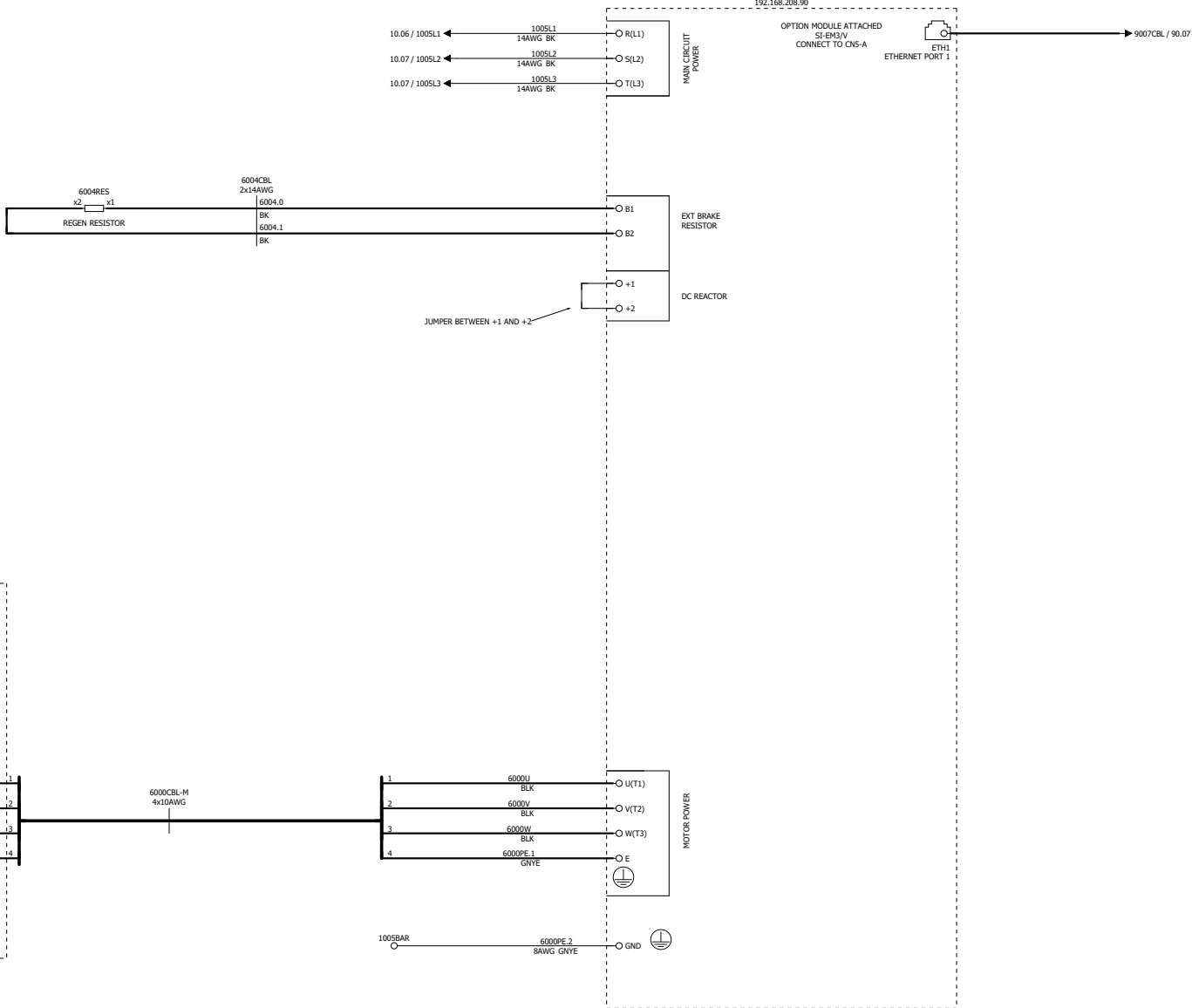
- 57 00
- 57 01
- 57 02
- 57 03
- 57 04
- 57 05
- 57 06
- 57 07
- 57 08
- 57 09
- 57 10
- 57 11
- 57 12
- 57 13
- 57 14
- 57 15
- 57 16
- 57 17
- 57 18
- 57 19
- 57 20

COMPANY: MACHMOTION NEWBURG, MISSOURI, USA	DATE: 10/28/2020 REVISION:	ALL RIGHTS RESERVED						DRAWING NO: A3SY00-003 SUPPLIER NO: XXXXX	NAME: -	=	+
DESIGNER: JUSTIN R. WALZ	APPROVER: -	LOC: -	FACTORY: -	DEPT: -	OP. NO: -	STA. NO: -	MACH. NAME: -	DRAWING NO:	5700 DRV - STEPPER DRIVE 2		
									&	PREV PAGE: <<<< PAGE: 56	
									#	NEXT PAGE: >>>> PAGE: 60	

6000DRV
SPINDLE DRIVE 1

*** OPTIONAL SPINDLE ***

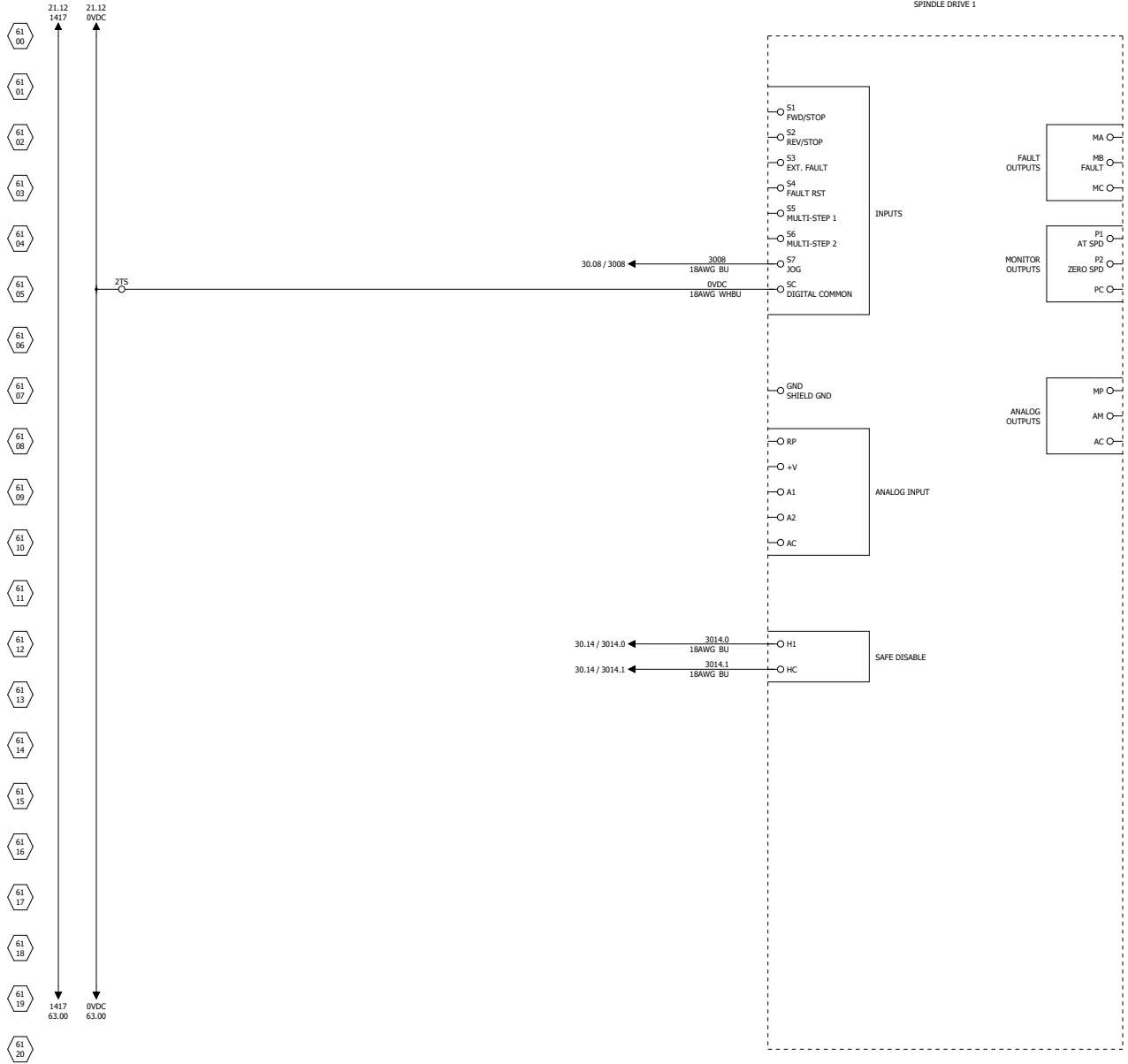
- 60 00
- 60 01
- 60 02
- 60 03
- 60 04
- 60 05
- 60 06
- 60 07
- 60 08
- 60 09
- 60 10
- 60 11
- 60 12
- 60 13
- 60 14
- 60 15
- 60 16
- 60 17
- 60 18
- 60 19
- 60 20



COMPANY: MACHMOTION NEWBURG, MISSOURI, USA	DATE: 10/28/2020	ALL RIGHTS RESERVED	DRAWING NO: A3SY00-003	NAME: 6000 DRV- SPINDLE DRIVE 1	= +
DESIGNER: JUSTIN R. WALZ	REVISION: -	LOC: -	SUPPLIER NO: XXXXX		PREV PAGE: <<--- PAGE: 57
APPROVER: -	OP. NO: -	FACTORY: -	MACH. NAME: -	DRAWING NO: -	NEXT PAGE: --->> PAGE: 61

6000DRV
SPINDLE DRIVE 1

*** OPTIONAL SPINDLE ***

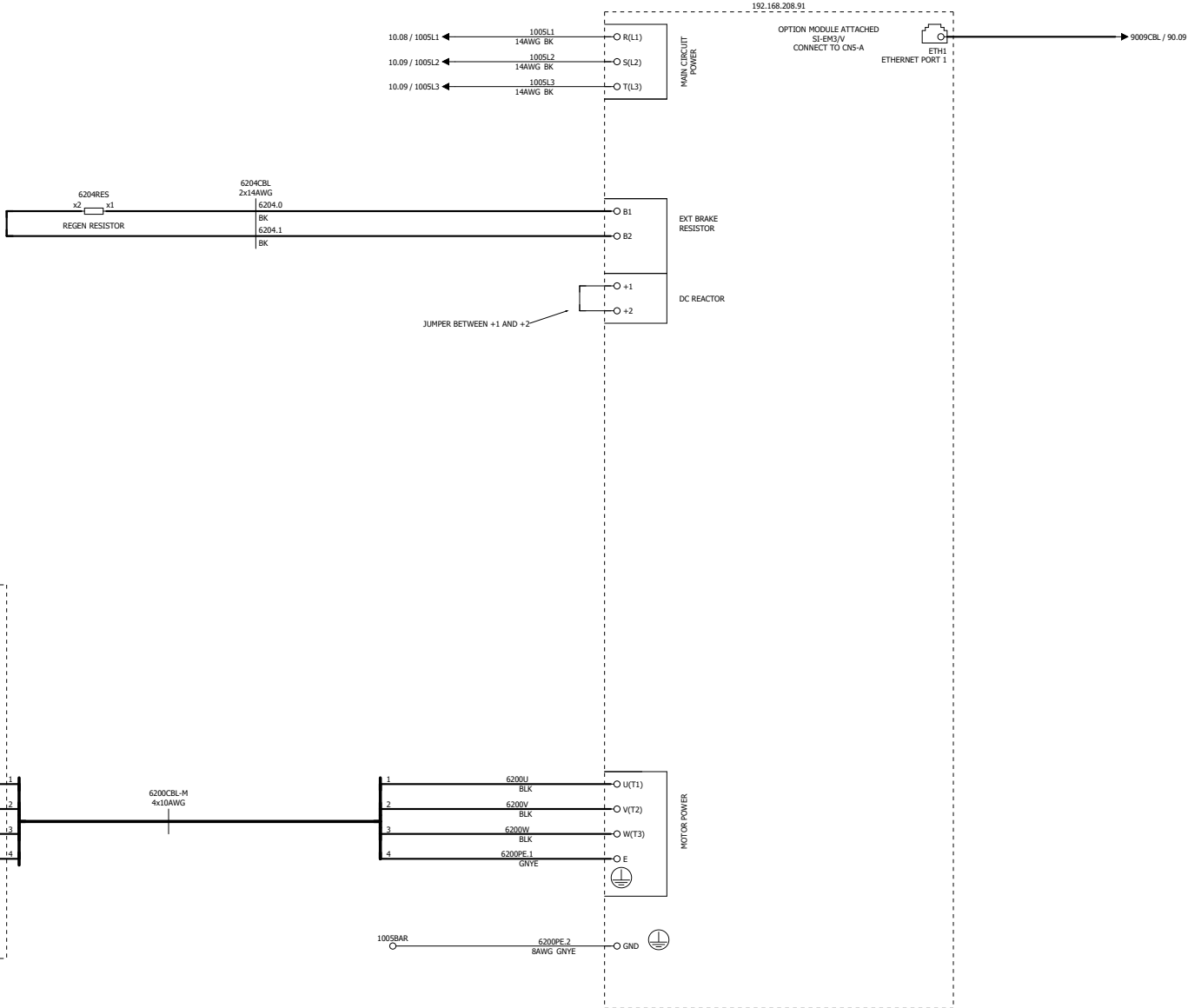


COMPANY: MACHMOTION NEWBURG, MISSOURI, USA		DATE: 10/28/2020		ALL RIGHTS RESERVED		DRAWING NO: A3SY00-003		NAME: -	
DESIGNER: JUSTIN R. WALZ		APPROVER: -		LOC: -	FACTORY: -	DEPT: -	OP. NO: -	STA. NO: -	6000 DRV- SPINDLE DRIVE 1
		REVISION: -		SUPPLIER NO: XXXXX		MACH. NAME: -		DRAWING NO: -	
								= +	
								PREV PAGE: <<< PAGE: 60	
								NEXT PAGE: >>> PAGE: 62	
								#	

6200DRV
SPINDLE DRIVE 2

*** OPTIONAL SPINDLE ***

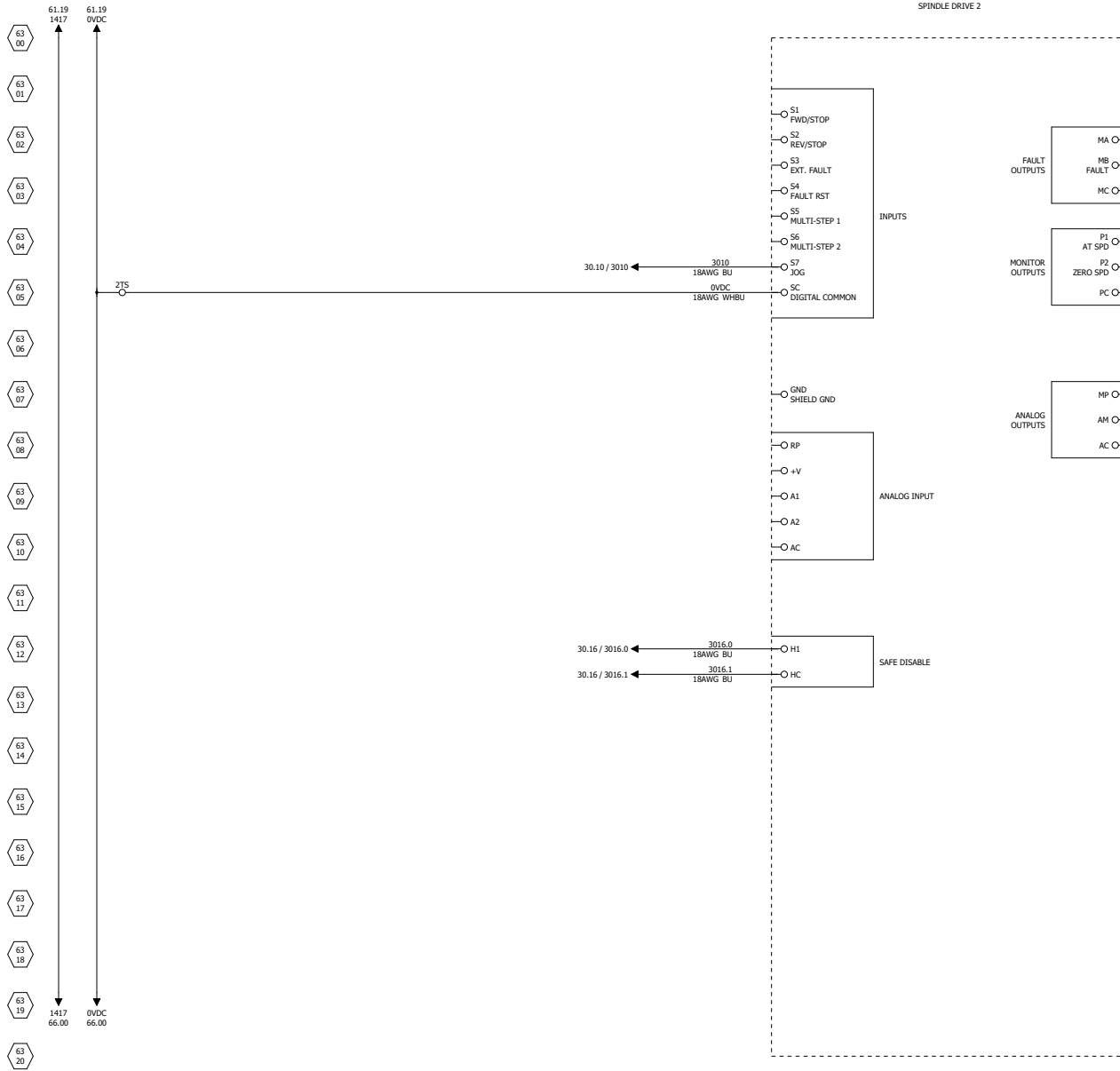
- 62 00
- 62 01
- 62 02
- 62 03
- 62 04
- 62 05
- 62 06
- 62 07
- 62 08
- 62 09
- 62 10
- 62 11
- 62 12
- 62 13
- 62 14
- 62 15
- 62 16
- 62 17
- 62 18
- 62 19
- 62 20



COMPANY: MACHMOTION NEWBURG, MISSOURI, USA	DATE: 10/28/2020 REVISION:	ALL RIGHTS RESERVED	DRAWING NO: A3SY00-003 SUPPLIER NO: XXXXX	NAME: -	= +
DESIGNER: JUSTIN R. WALZ	APPROVER: -	LOC: -	OP. NO: -	STA. NO: -	PREV PAGE: <<->> PAGE: 61
			MACH. NAME: -	DRAWING NO:	NEXT PAGE: ->>->> 63

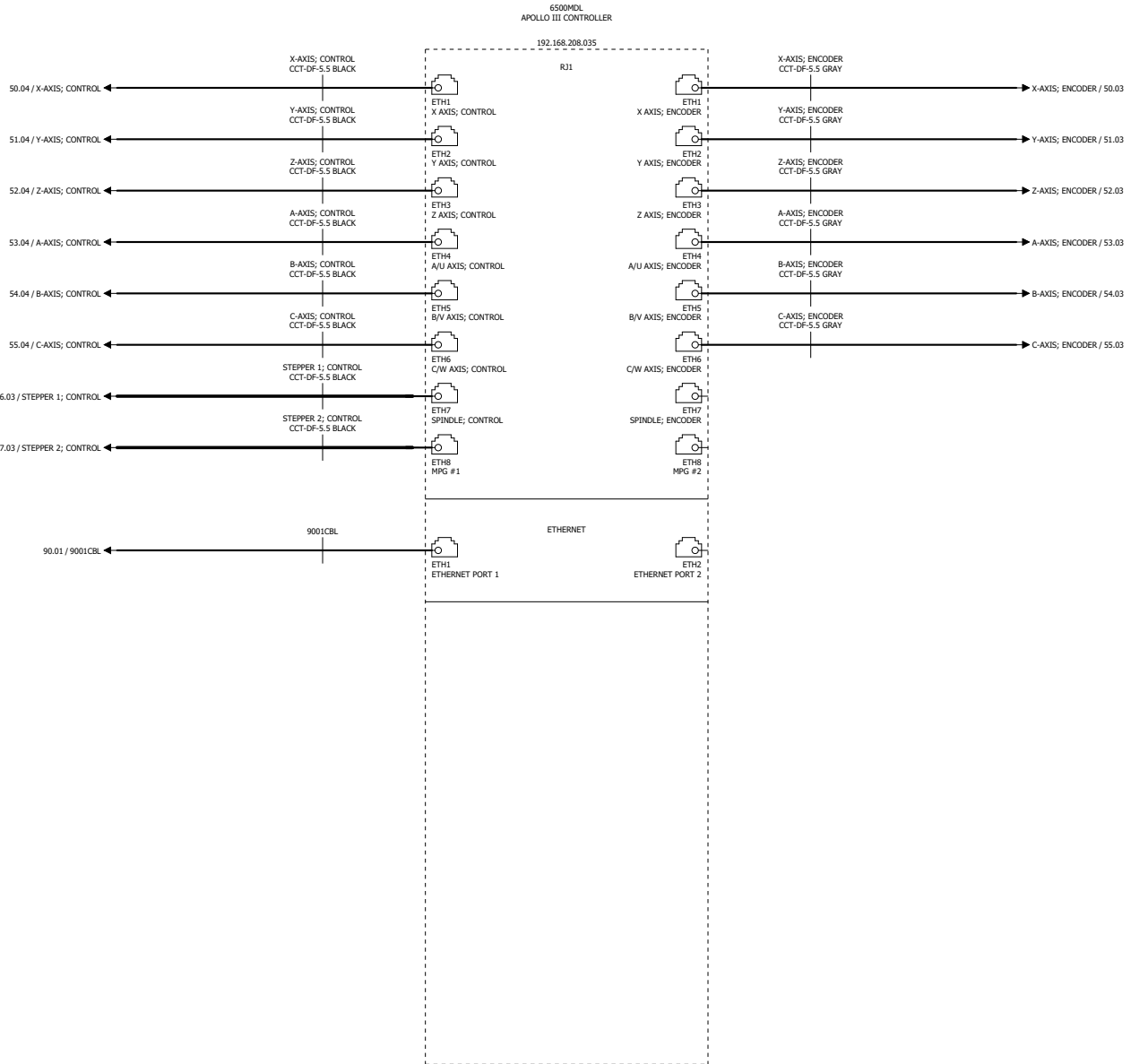
6200DRV
SPINDLE DRIVE 2

*** OPTIONAL SPINDLE ***

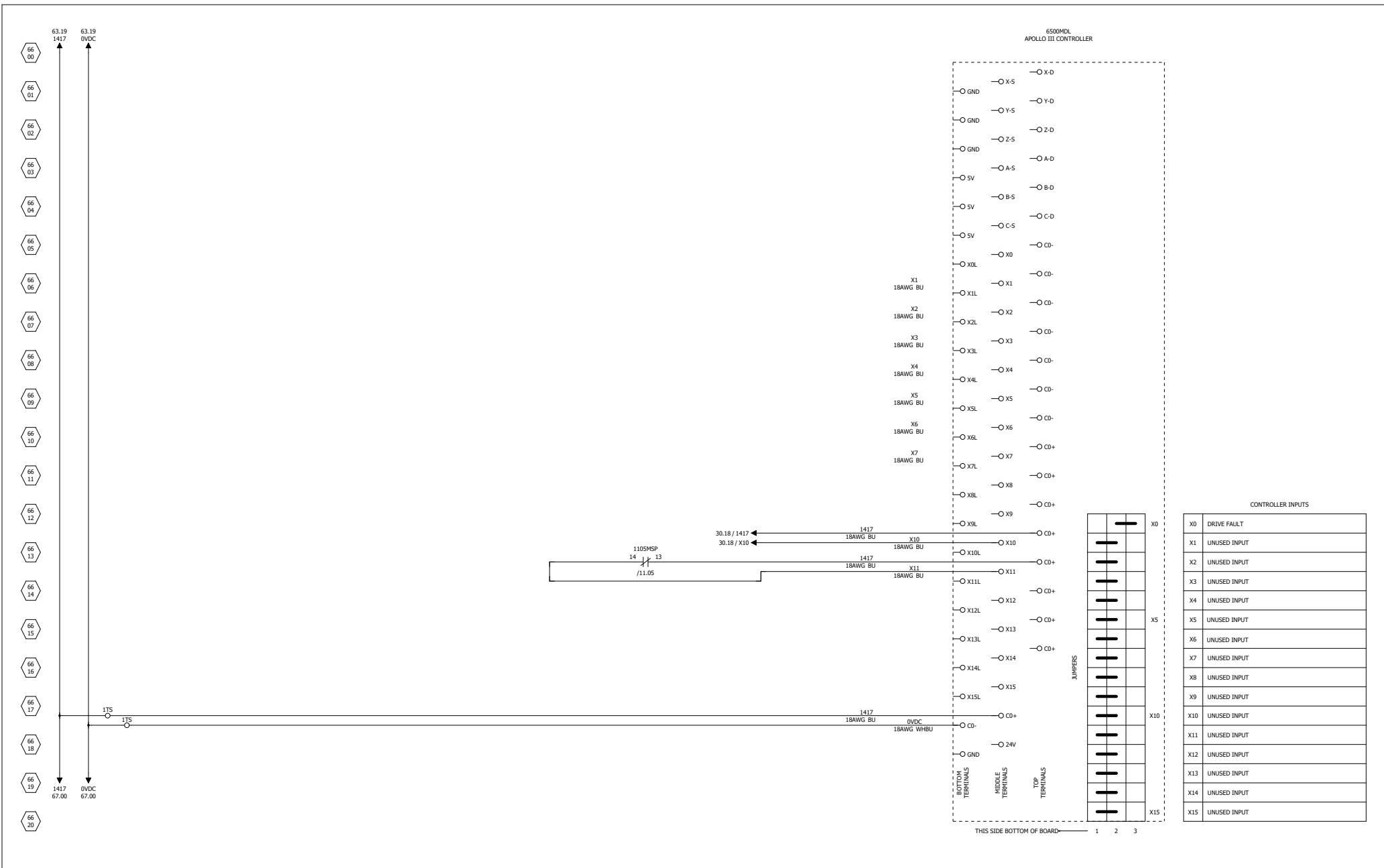


COMPANY: MACHMOTION NEWBURG, MISSOURI, USA		DATE: 10/28/2020		ALL RIGHTS RESERVED		DRAWING NO: A3SY00-003		NAME: -	
DESIGNER: JUSTIN R. WALZ		APPROVER: -		LOC: -	FACTORY: -	DEPT: -	OP. NO: -	STA. NO: -	6200 DRV- SPINDLE DRIVE 2
									PREV PAGE: <<< PAGE: 62
									NEXT PAGE: >>> PAGE: 65

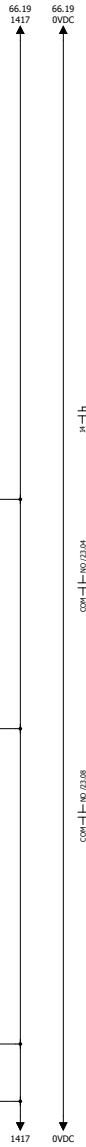
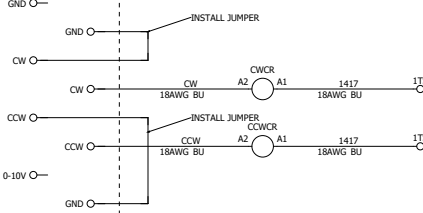
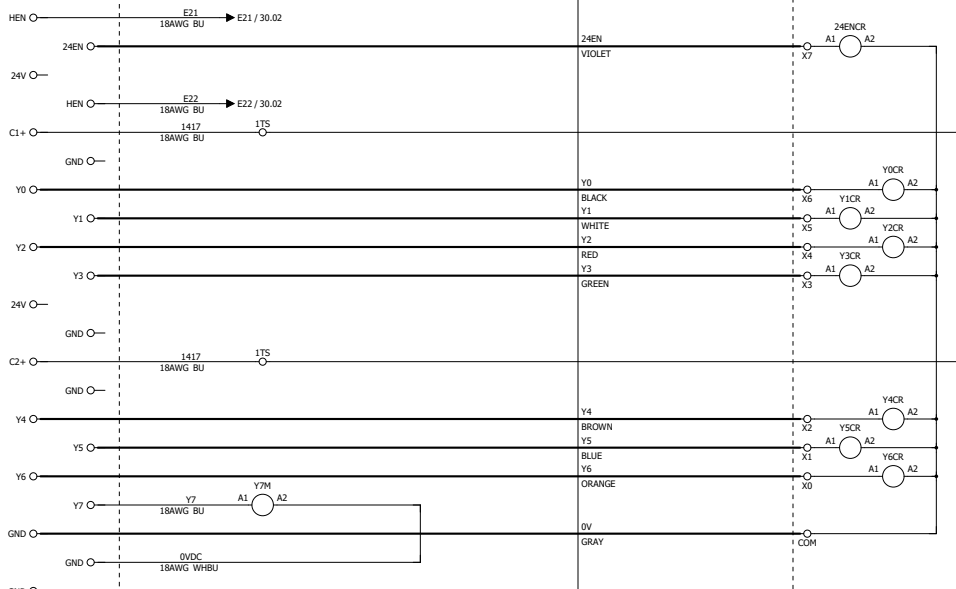
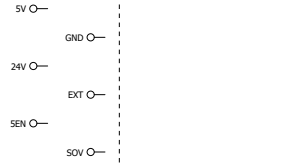
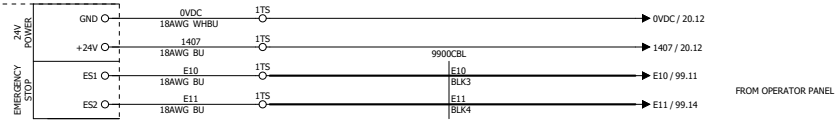
- 65 00
- 65 01
- 65 02
- 65 03
- 65 04
- 65 05
- 65 06
- 65 07
- 65 08
- 65 09
- 65 10
- 65 11
- 65 12
- 65 13
- 65 14
- 65 15
- 65 16
- 65 17
- 65 18
- 65 19
- 65 20



COMPANY: MACHMOTION NEWBURG, MISSOURI, USA	DATE: 10/28/2020 REVISION:	ALL RIGHTS RESERVED	DRAWING NO: A3SY00-003 SUPPLIER NO: XXXXXX	NAME: -	6500 MDL- APOLLO III CONTROLLER ETHERNET CONNECTIONS	=	+			
DESIGNER: JUSTIN R. WALZ	APPROVER: -	LOC: -	FACTORY: -	DEPT: -	OP. NO: -	STA. NO: -	MACH. NAME: -	DRAWING NO:	PREV PAGE: <<-<< PAGE: 63 NEXT PAGE: >>->> PAGE: 66	65



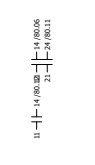
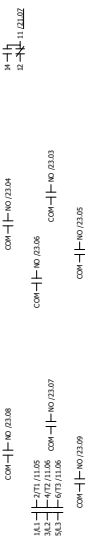
6500MDL
APOLLO III CONTROLLER



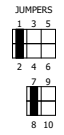
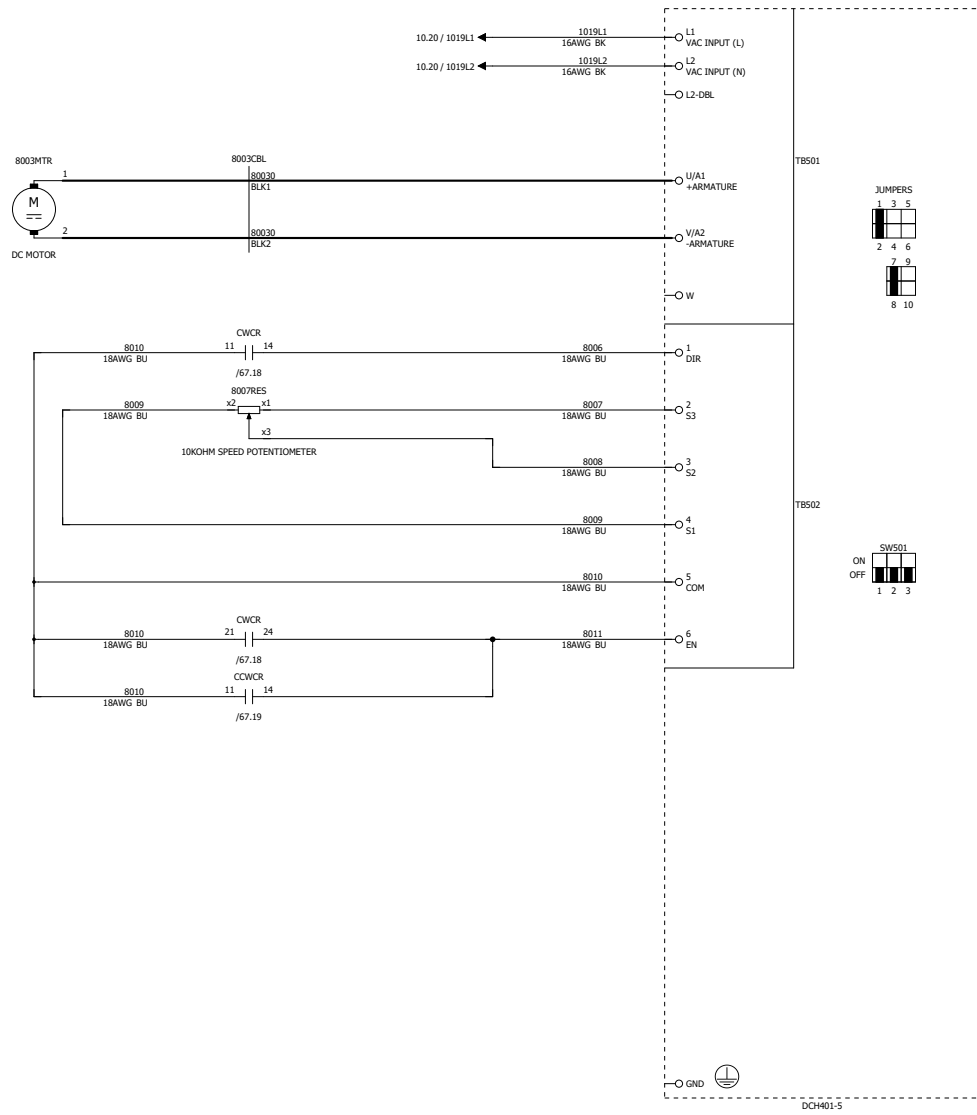
- 67 00
- 67 01
- 67 02
- 67 03
- 67 04
- 67 05
- 67 06
- 67 07
- 67 08
- 67 09
- 67 10
- 67 11
- 67 12
- 67 13
- 67 14
- 67 15
- 67 16
- 67 17
- 67 18
- 67 19
- 67 20

CONTROLLER OUTPUTS

24EN	ENABLE OKAY
Y0	UNUSED OUTPUT
Y1	UNUSED OUTPUT
Y2	UNUSED OUTPUT
Y3	UNUSED OUTPUT
Y4	UNUSED OUTPUT
Y5	UNUSED OUTPUT
Y6	UNUSED OUTPUT
Y7	OPTIONAL MOTOR



8000DRV
90/180 VDC DRIVE

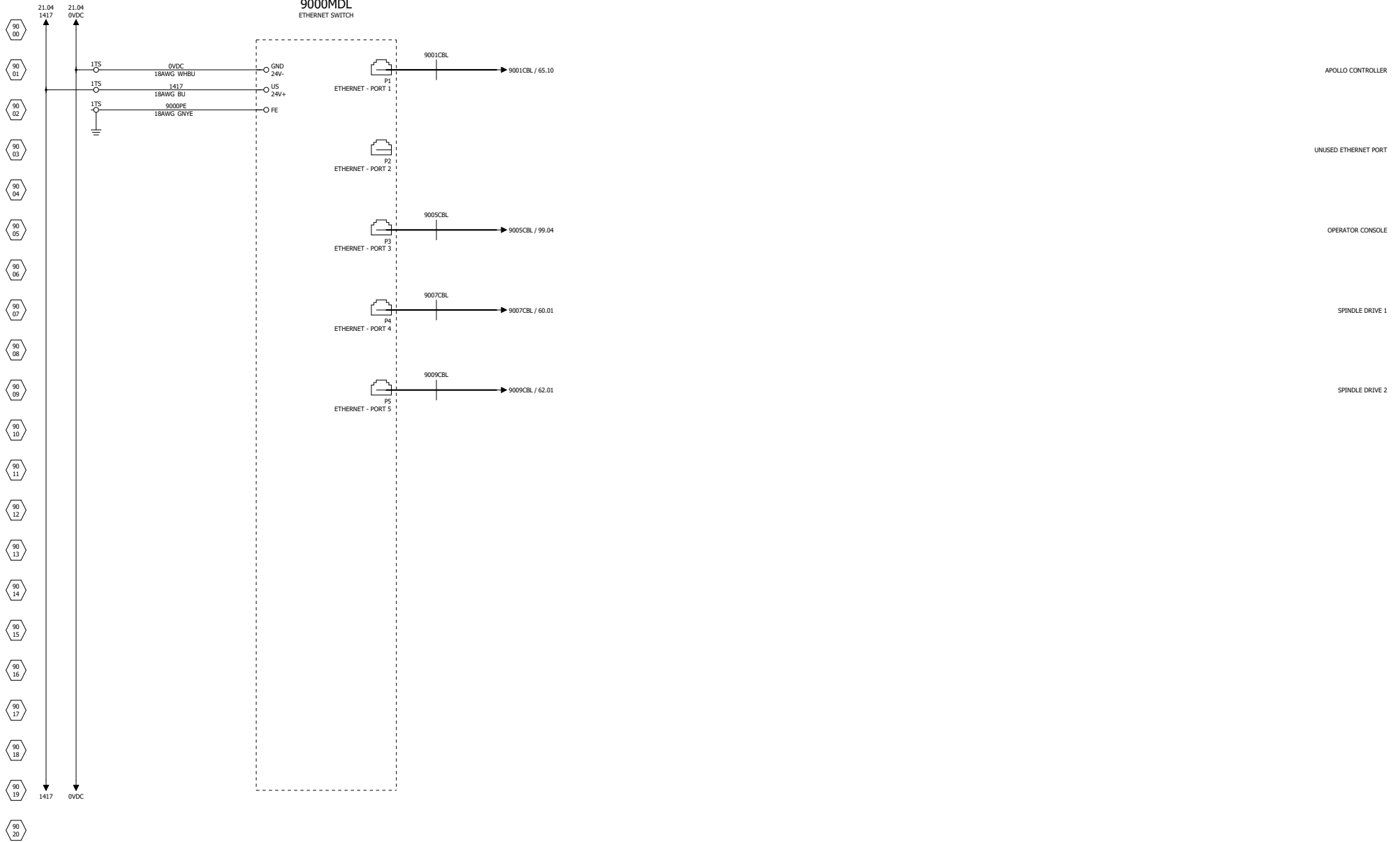


DCH401-5

- 80 00
- 80 01
- 80 02
- 80 03
- 80 04
- 80 05
- 80 06
- 80 07
- 80 08
- 80 09
- 80 10
- 80 11
- 80 12
- 80 13
- 80 14
- 80 15
- 80 16
- 80 17
- 80 18
- 80 19
- 80 20

COMPANY: MACHMOTION NEWBURG, MISSOURI, USA	DATE: 10/28/2020	ALL RIGHTS RESERVED						DRAWING NO: A3SY00-003	NAME: -	=	+
DESIGNER: JUSTIN R. WALZ	REVISION:	LOC:	FACTORY:	DEPT:	OP. NO:	STA. NO:	SUPPLIER NO: XXXXX	8000 DRV - 90/180 VDC DRIVE	&	PREV PAGE: <<< PAGE: 67	
APPROVER:							DRAWING NO:	#		NEXT PAGE: >>> PAGE: 90	

9000MDL
ETHERNET SWITCH



APOLLO CONTROLLER

UNUSED ETHERNET PORT

OPERATOR CONSOLE

SPINDLE DRIVE 1

SPINDLE DRIVE 2

COMPANY: MACHMOTION NEWBURG, MISSOURI, USA		DATE: 10/28/2020		ALL RIGHTS RESERVED		DRAWING NO: A3SY00-003		NAME: -		=		+	
DESIGNER: JUSTIN R. WALZ		APPROVER: -		LOC: -	FACTORY: -	DEPT: -	OP. NO: -	STA. NO: -	MACH. NAME: 9000 MDL - ETHERNET SWITCH		PREV PAGE: <<->		PAGE: 80
											NEXT PAGE: >>->		99
											#		90

