

Appendix A: Interconnect Diagrams

1. SEE CHART FOR VALUES.
2. SEE CHART FOR VALUES.
3. MOTOR FIELD - BAMPS MAX NOTE: CONNECTION SHOWN IS FOR 300VDC FIELD. FOR 150VDC - REMOVE JUMPER FROM F2 TO F3 AND CONNECT F2 TO F4
4. SHIELDING: USE BELDEN CABLE #83394 OR EQUIVALENT FOR TWO CONDUCTOR OR BELDEN CABLE #83395 OR EQUIVALENT FOR THREE CONDUCTOR. CONNECT SHIELD AT CONTROL END ONLY. TAPE BRAID AT EACH END TO PREVENT CONTACT WITH MACHINE OR OTHER WIRES. DO NOT GROUND SHIELD.
5. OPTIONAL SPEED POT CONNECTION FOR REGEN DRIVES ONLY.
6. COOLING FANS ON MODELS 9500-8306/8606 ONLY.
7. DESIGNATIONS IN BRACKETS [] REFER TO REGENERATIVE MODELS ONLY 9500-8602 THRU 9500-8606.
8. SEE CHART FOR VALUES.
9. OPTIONAL MOTOR THERMAL INPUT IF USED SET PARAMETER 10.32 = 0 WHEN FAULT OCCURS, DRIVE DISPLAY WILL SHOW THE FAULT.

MODEL	CONTINUOUS CURRENT		HORSEPOWER		KV RATING		FUSE		BURDEN (OHMS)	XFMR FUSES 500V, FNG			LUGS
	AC	DC	240V	300V	240	300	LINE	ARM		5FU	6FU	7FU	
9500-8302	B4	10.2	2.5	5	2.44	3.1			-				
	10	12.3	3	7.5	3.0	6.2	55A		127	.4A	.4A	.6A	(6) MODIFIED LA-2 9510-103
	16.7	20.4	5	10	4.9	10.2	300V	-	26.1				
	24.0	29.26	7.5	15	7.0	14.6			14.0				
9500-8303	31.3	38.2	10	20	9.1	1.9			9.53				
	35.5	43.3	-	25	-	21.7	80A	-	8.06	.4A	.4A	.6A	(6) MODIFIED LA-2 9510-103
9500-8305	45.4	53.4	15	30	13.3	27.7	500V		3.90				
	59	72	20	40	17.3	36.0	225A		4.32	.8A	.8A	1.25A	(6) MODIFIED LA-2 9510-103
	72.7	88.6	25	50	21.3	44.3	500V	-	3.40				
	86.5	105.5	30	60	25.4	53.0			2.80				
9500-8306	103	125	-	75	30.0	62.5	250A		2.32	.8A	.8A	1.25A	(6) MODIFIED LA-2 9510-103
	118	143	40	-	34.3	71.5	300V		2.0				
	141	172	50	100	41.3	86.0			1.65				
9500-8602	B4	10.2	2.5	5	2.44	5.1			-				
	10	12.3	3	7.5	3.0	6.2	55A	70A	127	.4A	.4A	.6A	(6) MODIFIED LA-2 9510-103
	16.7	20.4	5	10	4.9	10.2	300V	300V	26.1				
	24.0	29.26	7.5	15	7.0	14.6			14.0				
9500-8603	31.3	38.2	10	20	9.1	1.9			9.53				
	35.5	43.3	-	25	-	21.7	80A	100A	8.06	.4A	.4A	.6A	(6) MODIFIED LA-2 9510-103
9500-8605	45.4	53.4	15	30	13.3	27.7	500V		5.90				
	59	72	20	40	17.3	36.0	225A	200A	4.32	.8A	.8A	1.25A	(6) MODIFIED LA-2 9510-103
	72.7	88.6	25	50	21.3	44.3	500V	300V	3.40				
	86.5	105.5	30	60	25.4	53.0			2.80				
9500-8606	103	125	-	75	30.0	62.5	250A	300A	2.32	.8A	.8A	1.25A	(6) MODIFIED LA-2 9510-103
	118	143	40	-	34.3	71.5	300V	300V	2.0				
	141	172	50	100	41.3	86.0			1.65				

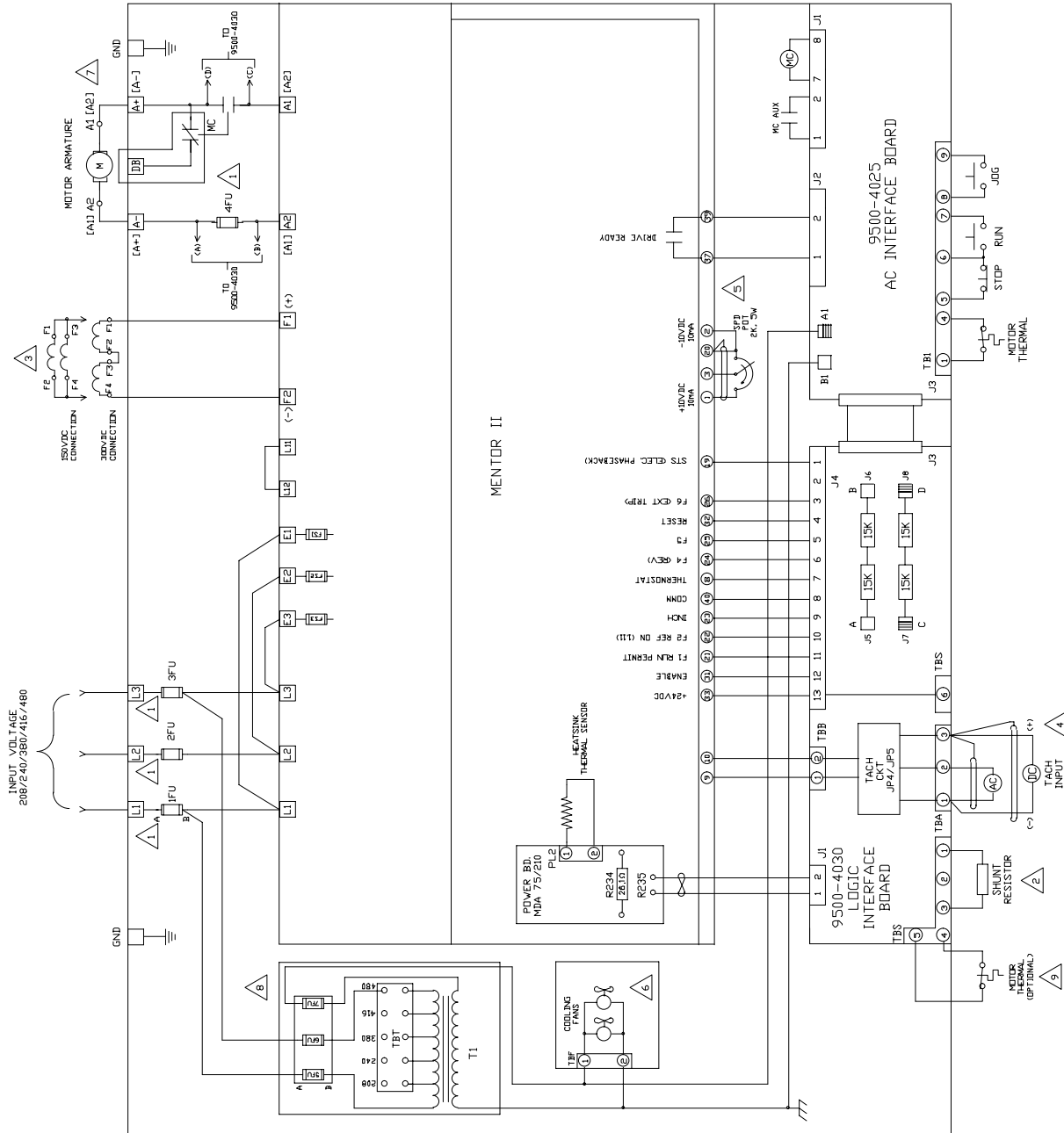


Figure A-1.
Interconnect Diagram, 5-100 HP
Quantum III Controls, (9500-1300-I), Sheet 1

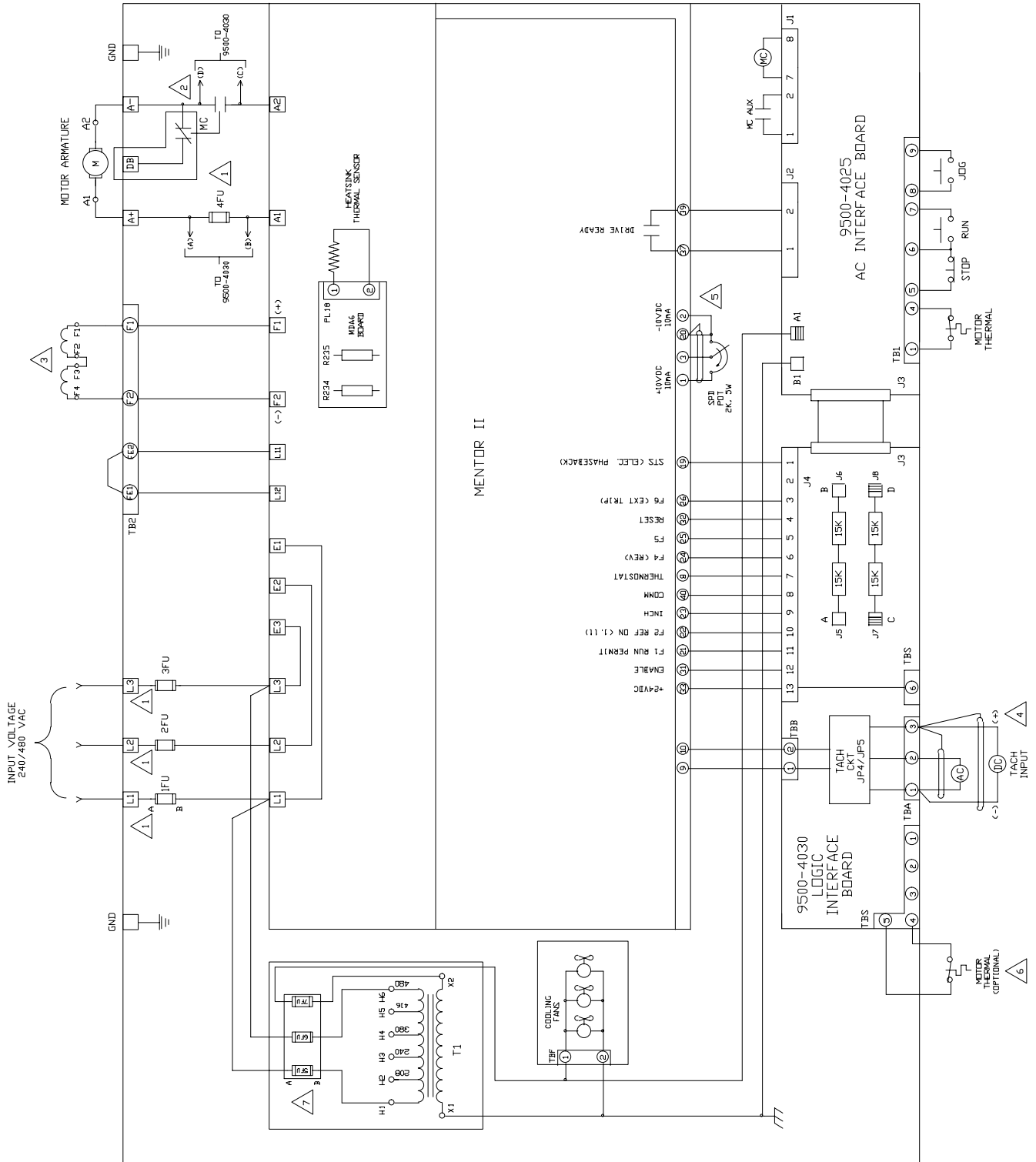
Appendix A: Interconnect Diagrams

- 1 SEE CHART FOR VALUES
- 2 DB POLE NOT AVAILABLE ON MODELS 9500-8310/9500-8610, 9500-8311/9500-8611
- 3 MOTOR FIELD - 10AMPS MAX
NOTE: CONNECTION SHOWN IS FOR 300VDC FIELD.
FOR 150VDC - REMOVE JUMPER FROM F2 TO F3 AND CONNECT F1 TO F3 AND F2 TO F4
REFER TO MOTOR NAMEPLATE FOR PROPER FIELD CONNECTION.
QUANTUM III HAS A FIXED FIELD VOLTAGE OUTPUT. THE AVERAGE DC VOLTAGE IS EQUAL TO .675 TIMES THE LINE TO LINE VOLTAGE
- 4 SHIELDING: USE BELDEN CABLE #83394 OR EQUIVALENT FOR TWO CONDUCTOR OR BELDEN CABLE #83395 OR EQUIVALENT FOR THREE CONDUCTOR. CONNECT SHIELD AT CONTROL END ONLY. TAPE BRAID AT EACH END TO PREVENT CONTACT WITH MACHINE OR OTHER WIRES. DO NOT GROUND SHIELD.
- 5 OPTIONAL SPEED POT CONNECTION FOR REGEN DRIVES ONLY.
- 6 OPTIONAL MOTOR THERMAL INPUT IF USED
SET PARAMETER 10.32 = 0 WHEN FAULT OCCURS.
DRIVE DISPLAY WILL SHOW THE FAULT.
- 7 FOR THE 125 TO 200HP RANGE USE A 150VA TRANSFORMER WITH THE FOLLOWING FUSES:
PRIMARY SIDE (5FU & 6FU) FNQ-R-1 (1A REJECTION TYPE) FUSE.
SECONDARY (7FU) USE A 2A FUSE.

MODEL	CONTINUOUS CURRENT		HORSEPOWER		KV RATING		FUSE		BURDEN	
	AC	DC	240V	500V	240	500	LINE	ARM	RE34	RE35
9500-8307	209	255	75	150	61.2	127.5	350A 500V	-	5.11Ω 3W	23.3Ω 3W
-8308	277	338	100	200	81.1	169	450A 500V	-	3.16Ω 3W	-
-8309	351	428	125	250	102.7	214	600A 500V	-	2.49Ω 3W	-
-8310	417	508	150	300	121.9	254	700A 500V	-	2.15Ω 3W	64.9Ω 3W
-8311	554	675	200	400	162	338	900A 500V	-	1.58Ω 3W	-
9500-8607	209	255	75	150	61.2	127.5	350A 500V	470A 700V	5.11Ω 3W	23.3Ω 3W
-8608	277	338	100	200	81.1	169	450A 500V	600A 700V	3.16Ω 3W	-
-8609	351	428	125	250	102.7	214	600A 500V	700A 700V	2.49Ω 3W	-
-8610	417	508	150	300	121.9	254	700A 500V	900A 700V	2.15Ω 3W	64.9Ω 3W
-8611	554	675	200	400	162	338	900A 500V	1000A 700V	1.58Ω 3W	-

Appendix A: Interconnect Diagrams

Figure A-2.
Interconnect
Diagram,
75-400 HP,
Quantum III
Controls,
(9500-1300-I),
Sheet 2



Appendix A: Interconnect Diagrams

1. SEE CHART FOR VALUES
2. DB POLE NOT AVAILABLE ON MODELS 9500-8310/9500-8610, 9500-8311/9500-8611
3. MOTOR FIELD - 10AMPS MAX
NOTE: CONNECTION SHOWN IS FOR 300VDC FIELD.
FOR 150VDC - REMOVE JUMPER FROM F2 TO F3 AND CONNECT F1 TO F3 AND F2 TO F4
REFER TO MOTOR NAMEPLATE FOR PROPER FIELD CONNECTION.
QUANTUM III HAS A FIXED FIELD VOLTAGE OUTPUT. THE AVERAGE DC VOLTAGE IS EQUAL TO .675 TIMES THE LINE TO LINE VOLTAGE
4. SHIELDING: USE BELDEN CABLE #83394 OR EQUIVALENT FOR TWO CONDUCTOR OR BELDEN CABLE #83395 OR EQUIVALENT FOR THREE CONDUCTOR. CONNECT SHIELD AT CONTROL END ONLY. TAPE BRAID AT EACH END TO PREVENT CONTACT WITH MACHINE OR OTHER WIRES. DO NOT GROUND SHIELD.
5. OPTIONAL SPEED POT CONNECTION FOR REGEN DRIVES ONLY.
6. OPTIONAL MOTOR THERMAL INPUT IF USED SET PARAMETER 10.32 = 0 WHEN FAULT OCCURS, DRIVE DISPLAY WILL SHOW THE FAULT.
7. FOR THE 125 TO 200HP RANGE USE A 150VA TRANSFORMER WITH THE FOLLOWING FUSES:

MODEL	CONTINUOUS CURRENT		HORSEPOWER	KV RATING	FUSE	BURDEN	
	AC	DC				AR1	RE36
9500-8315	672	820	240	500	LINE	RE34	RE36
	808	965	300	410	1000A 300V	1.330 3V	64.90 3V
-8316	943	1150	350	493	1200A 500V	1.580 3V	3.40 3V
	1025	1250	400	575	1400A 500V	1.650 3V	2.150 3V
-8317	1205	1470	450	625	1600A 500V	1.330 3V	2.490 3V
	1328	1620	500	735	1800A 500V	1.330 3V	1.650 3V
-8318	1328	1620	500	750	2000A 500V	1.330 3V	6.490 3V
	672	820	250	389	1000A 300V	1.330 3V	6.490 3V
-8319	808	965	300	410	1200A 700V	1.330 3V	6.490 3V
	943	1150	350	493	1400A 700V	1.580 3V	3.40 3V
-8320	1025	1250	400	575	1600A 500V	1.650 3V	2.150 3V
	1205	1470	450	625	1800A 500V	1.330 3V	2.490 3V
9500-8615	1328	1620	500	735	2000A 500V	1.330 3V	6.490 3V
	672	820	250	389	1000A 300V	1.330 3V	6.490 3V
-8616	808	965	300	410	1200A 700V	1.330 3V	6.490 3V
	943	1150	350	493	1400A 700V	1.580 3V	3.40 3V
-8617	1025	1250	400	575	1600A 500V	1.650 3V	2.150 3V
	1205	1470	450	625	1800A 500V	1.330 3V	2.490 3V
-8618	1328	1620	500	735	2000A 500V	1.330 3V	6.490 3V
	672	820	250	389	1000A 300V	1.330 3V	6.490 3V
-8619	808	965	300	410	1200A 700V	1.330 3V	6.490 3V
	943	1150	350	493	1400A 700V	1.580 3V	3.40 3V
-8620	1025	1250	400	575	1600A 500V	1.650 3V	2.150 3V
	1205	1470	450	625	1800A 500V	1.330 3V	2.490 3V

Appendix A: Interconnect Diagrams

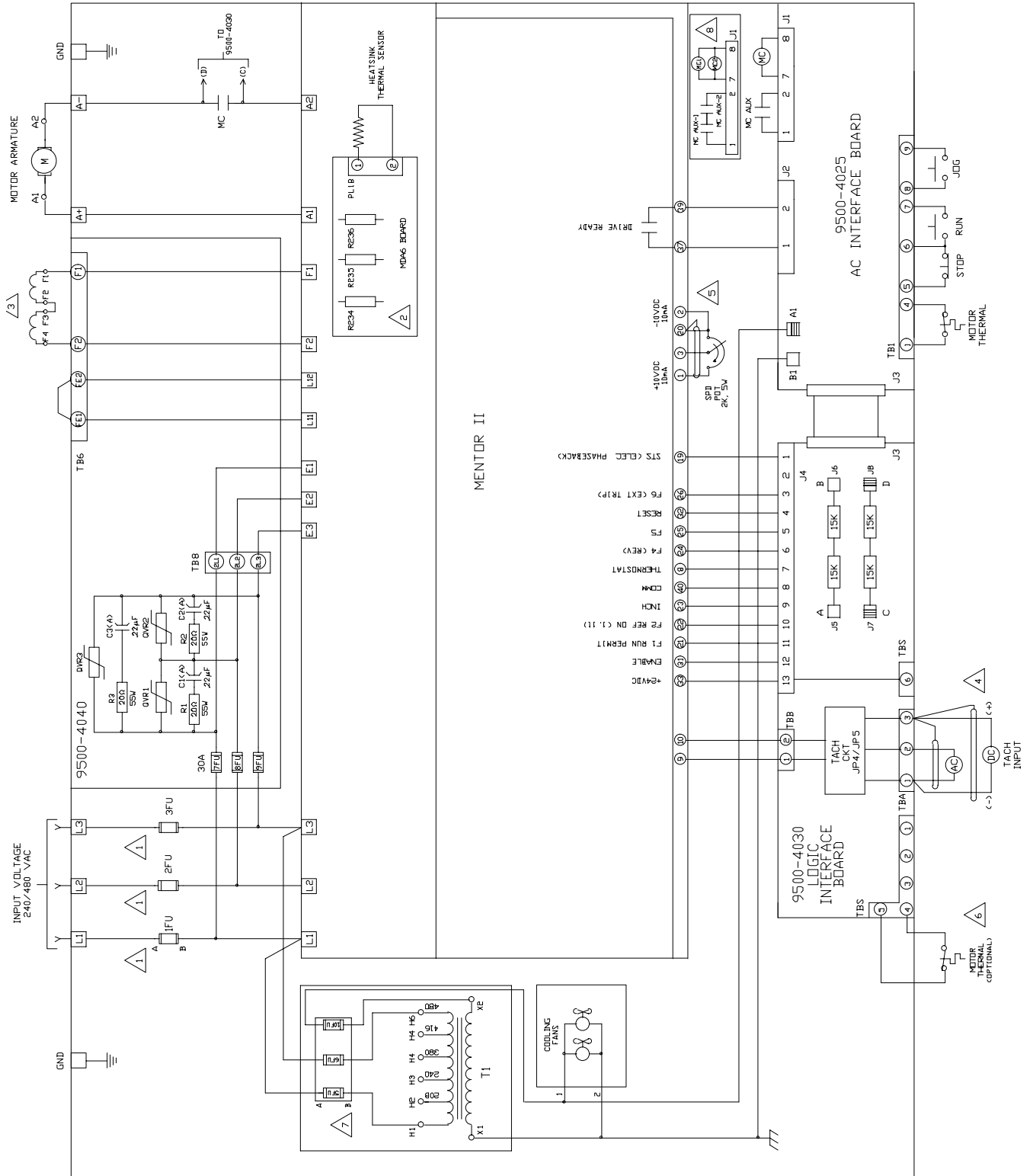


Figure A-3.
Interconnect Diagram, 500-1000 HP Non-Regenerative Quantum III Controls, (9500-1300-I), Sheet 3

Appendix A: Interconnect Diagrams

Appendix A: Interconnect Diagrams

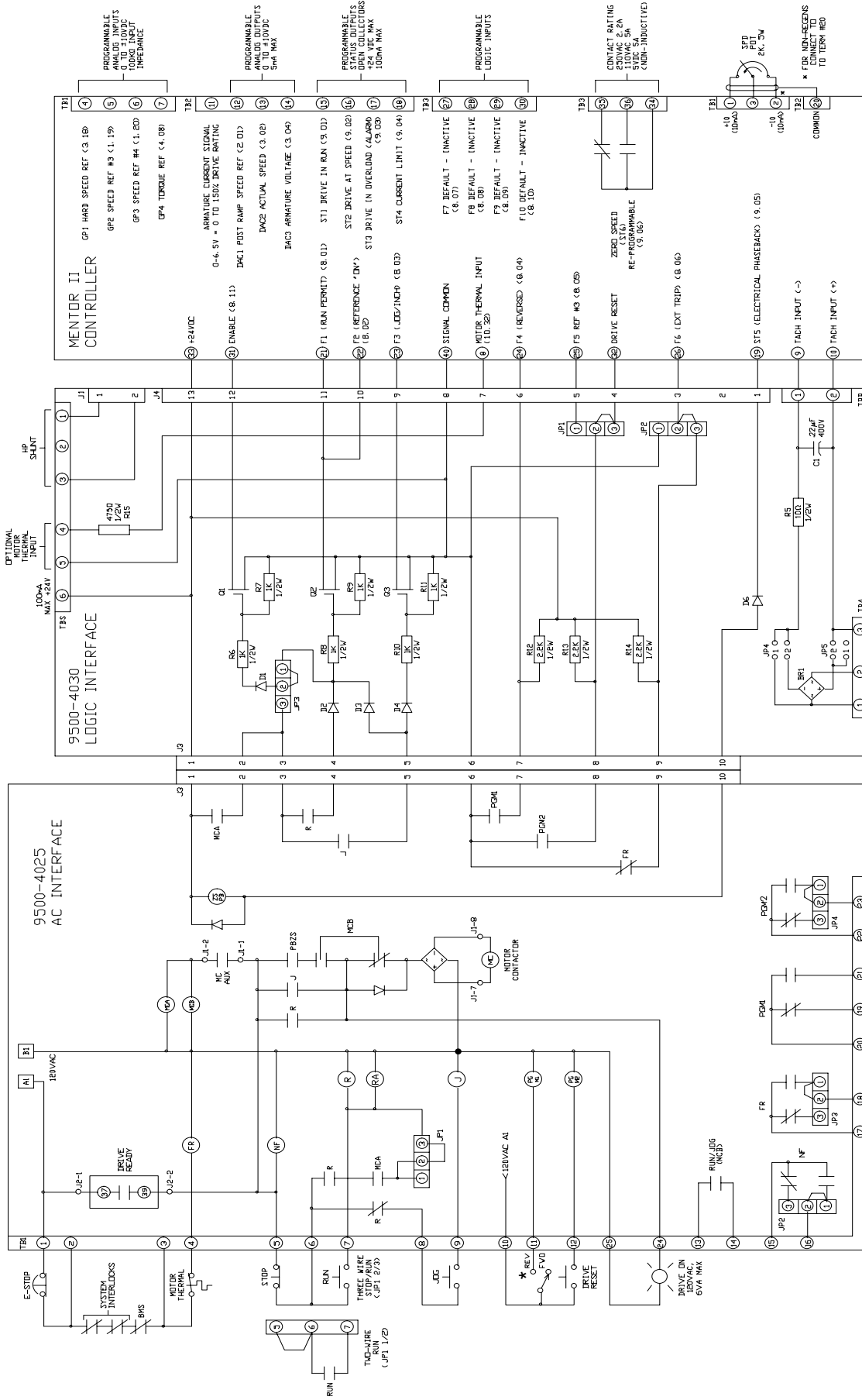


Figure A-4.
Interconnect Diagram, 5-1000 HP
Quantum III Controls, (9500-1300-I),
Sheet 4

0) J1/J5 AC/DC TACH SELECT
 NC TACH #4 PLS2/J15 DIS 2
 NC TACH #4 PLS2/J15 DIS 2
 DEFAULT AC TACH FOR NON-REGENS
 DEFAULT DC TACH FOR REGENS

ALSO SEE SWITCH S1 AND
 SET TACH POTENTIOMETER (VR1)
 ON MDC-2 BOARD

II. JUMPER PROGRAMMING

1. 9000-4025 PC BOARD
- A) J1 - FUNCTION SELECT FOR PGN 42
 PLS 2/3 DRIVE RESET
 PLS 1/2 PROGRAMMABLE VIA INPUT FS
- B) J2 - FUNCTION SELECT FOR FAULT RELAY
 PLS 1/2 FALL RELAY INACTIVE
 PLS 1/2 TRIP RELAY INACTIVE
- C) J3 - COAST STOP / RAMP STOP SELECT
 PLS 1/2 COAST STOP
 PLS 2/3 RAMP STOP

PROGRAMMING NOTES

1. CHANGES TO DEFAULT VALUES
2. 13 = 1 (V/F FEEDBACK)
3. 15 = 500 (MAX. ARM VOLT)
4. 2 = 1 (STOP RUN ON LEAD)
5. 6 = 1 (ENABLE FIELD ECONOMY)
6. 6 = 1 (ENABLE FIELD ECONOMY)
7. 7 = 1 (FIELD FIRING ANGLE END STOP)
8. 7 = 8 (119)
9. 7 = 13 (120)
10. 8 = 12 (133) (F2) 422 = RUN PERMITD
11. 8 = 13 (113) (F3) 423 = INCH/JOB
12. 8 = 13 (113) (F3) 423 = INCH/JOB
13. 8 = 15 = 115 (F4) 425 = REF 423
14. 8 = 15 = 115 (F4) 425 = REF 423

