

ABP–2000 BLOWER PURGE
HEATED DESICCANT AIR DRYER
ELECTRICAL SCHEMATICS

WIRING METHODS
POWER 460V = BLACK THHN
120VAC = RED 16AWG
NEUTRAL = WHITE 16AWG
24VDC = BLUE 18AWG
24V COMMON = WHITE/BLUE 18AWG
GROUND = GREEN

SCHEMATIC TYPICAL INDEX
POWER DISTRIBUTION/BRANCH CIRCUITS
PLC BASE UNIT INPUT/OUTPUTS
PLC OUTPUT CARD
PLC THERMOCOUPLE CARD
TERMINAL LAYOUTS
ENCLOSURE

MAX VOLTAGE_____460_____

TOTAL MCA_____89.5 AMP_____

LARGEST MOTOR FLA____14_____

NUMBER OF PHASES_____3_____

FREQUENCY_____60HZ_____

CUSTOMER SERIAL
NO._____

UNDERWRITERS LAB SERIAL
NO._____



Test Wire Size Installed In Connector AWG or MCM (mm ²)		Tightening Torque, Pound-Inches (N.m)			
		Slotted Head No. 10 and Larger ¹		Hexagonal Head - External Drive Socket Wrench	
		Slot Width - 0.047 Inch (1.2 mm) or Less and Slot Length - 1/4 Inch (6.4 mm) or Less	Slot Width - Over 0.047 Inch (1.2 mm) or Slot Length - Over 1/4 Inch (6.4 mm)	Split-Bolt Connectors	Other Connectors
18-10	(.082-5.3)	20 (2.3)	35 (4.0)	80 (9.0)	75 (8.5)
8	(8.4)	25 (2.8)	40 (4.5)	80 (9.0)	75 (8.5)
6-4	(13.3-21.2)	35 (4.0)	45 (5.1)	165 (18.6)	110 (12.4)
3	(26.7)	35 (4.0)	50 (5.6)	275 (31.1)	150 (16.9)
2	(33.6)	40 (4.5)	50 (5.6)	275 (31.1)	150 (16.9)
1	(42.4)	-	50 (5.6)	275 (31.1)	150 (16.9)
1/0-2/0	(53.5-67.4)	-	50 (5.6)	385 (43.5)	180 (20.3)
3/0-4/0	(85.0-107.2)	-	50 (5.6)	500 (56.5)	250 (28.2)
250-350	(127-177)	-	50 (5.6)	650 (73.4)	325 (36.7)
400	(203)	-	50 (5.6)	825 (93.2)	325 (36.7)
500	(253)	-	50 (5.6)	825 (93.2)	375 (42.4)
600-750	(304-380)	-	50 (5.6)	1000 (113.0)	375 (42.4)
800-1000	(406-508)	-	50 (5.6)	1000 (124.3)	500 (56.5)
1250-2000	(635-1010)	-	-	1100 (124.3)	600 (67.8)

TABLE 7.4:

¹ For values of slot width or length not corresponding to those specified, select the largest torque value associated with the

conductor size. Slot width is the nominal design value. Slot length is measured at the bottom of the slot.

NOTES:

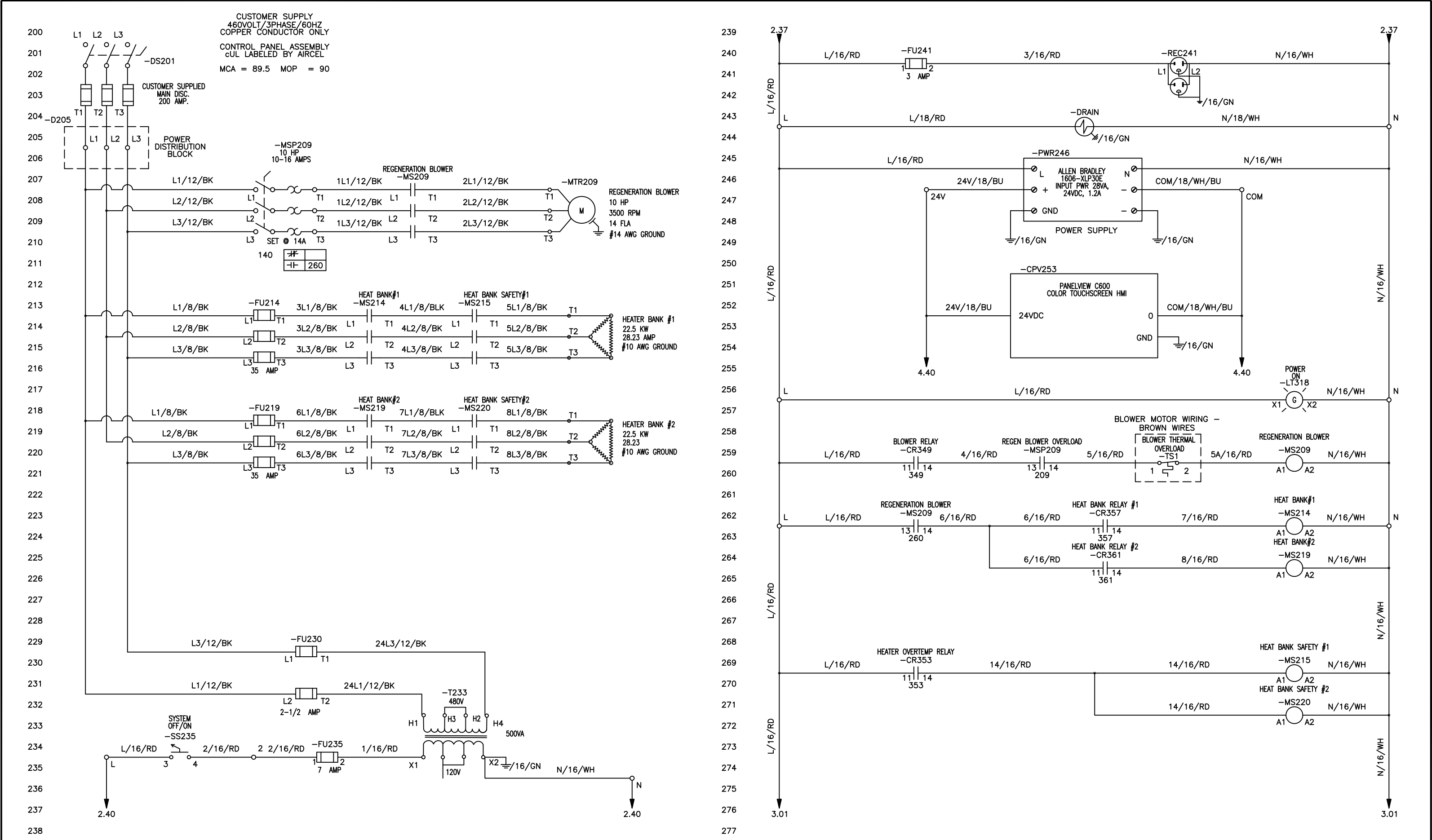
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TITLE DESCRIPTION	CHK'D BY MICHAEL.SCWEER	DATE 02/14/13
PAGE DESCRIPTION TORQUE TABLE	JOB No. ABP–E6	DRAWING No. AG3935965 - 1 of 8
PAGE DESCRIPTION		



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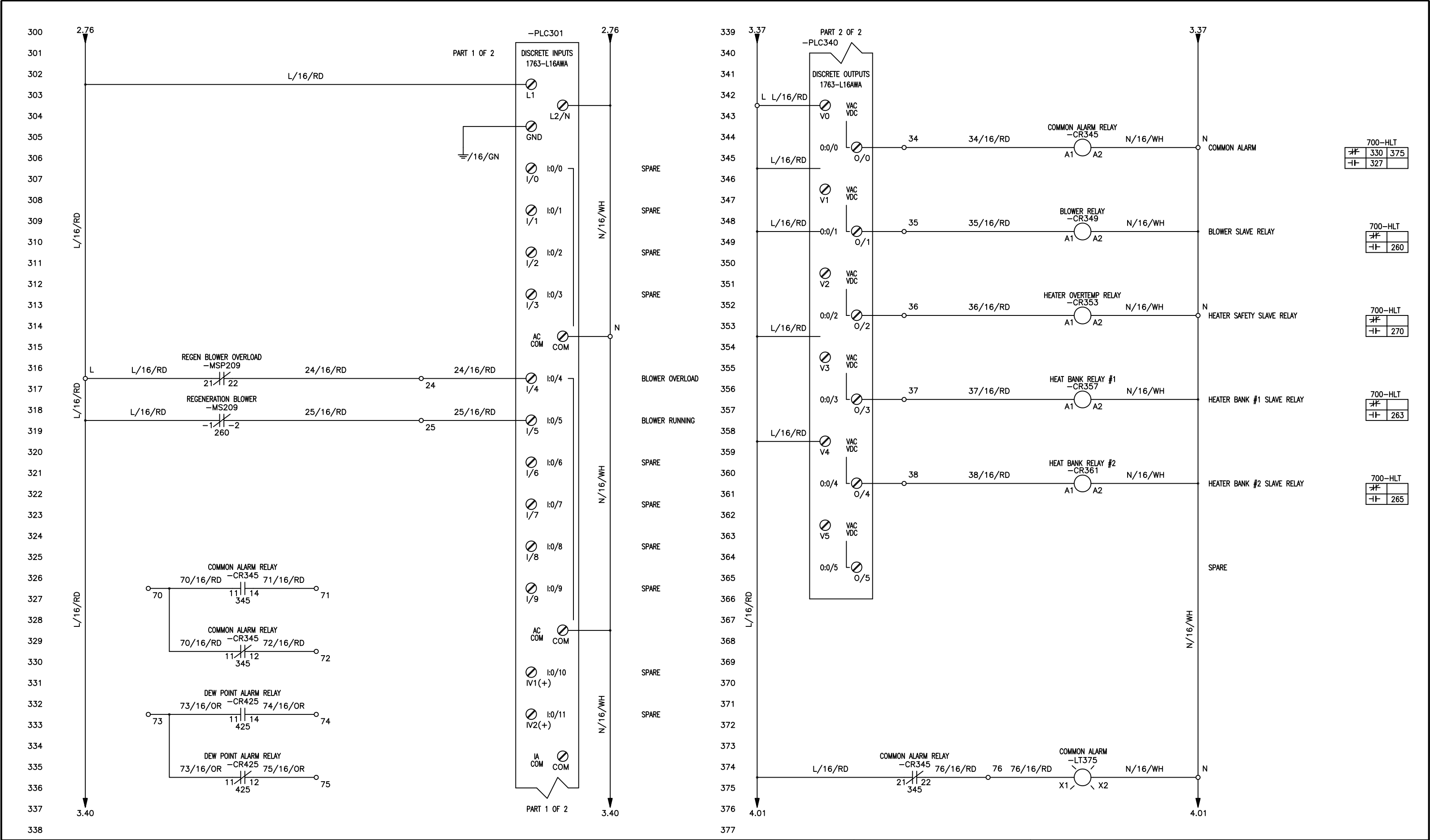
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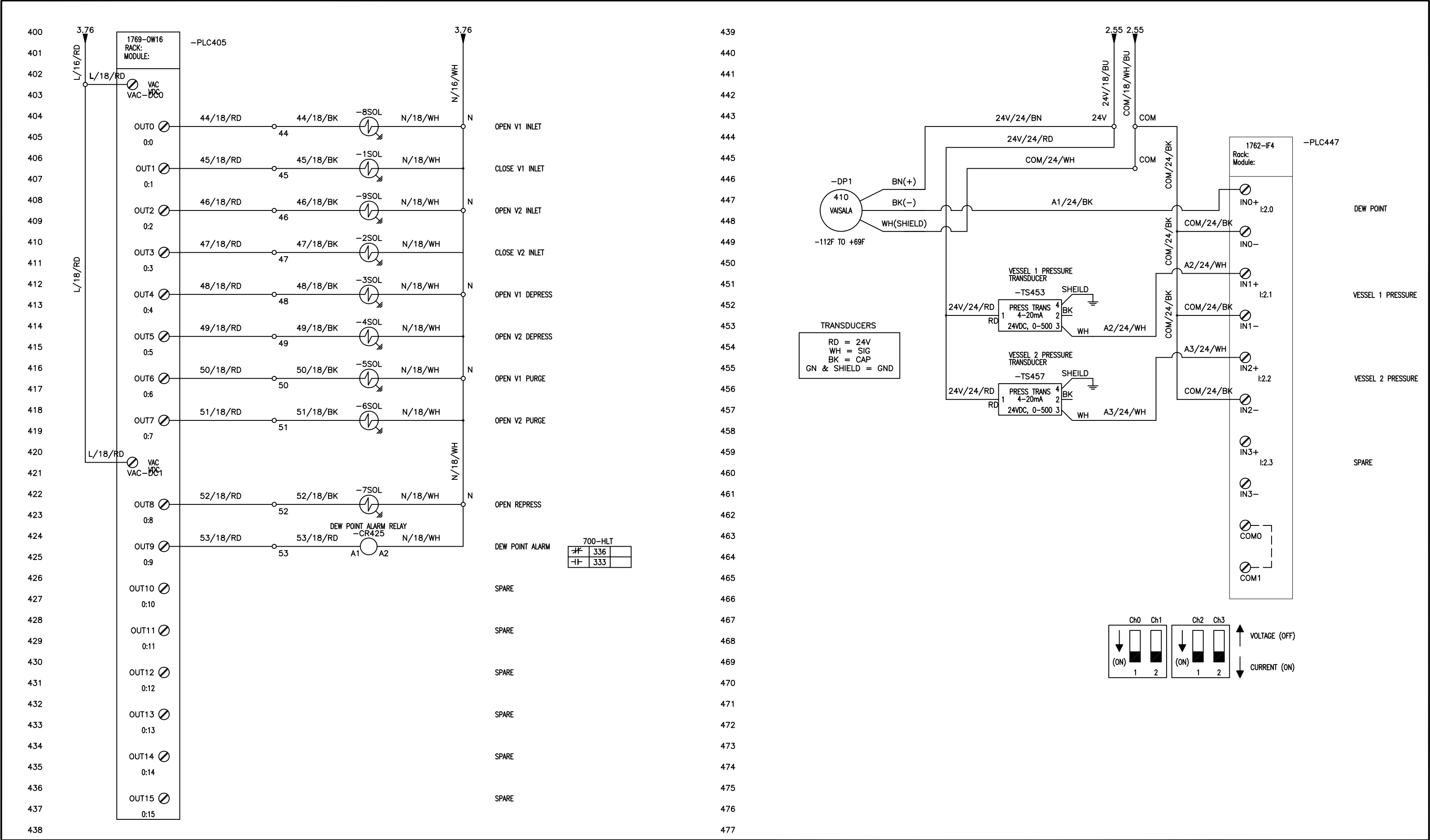


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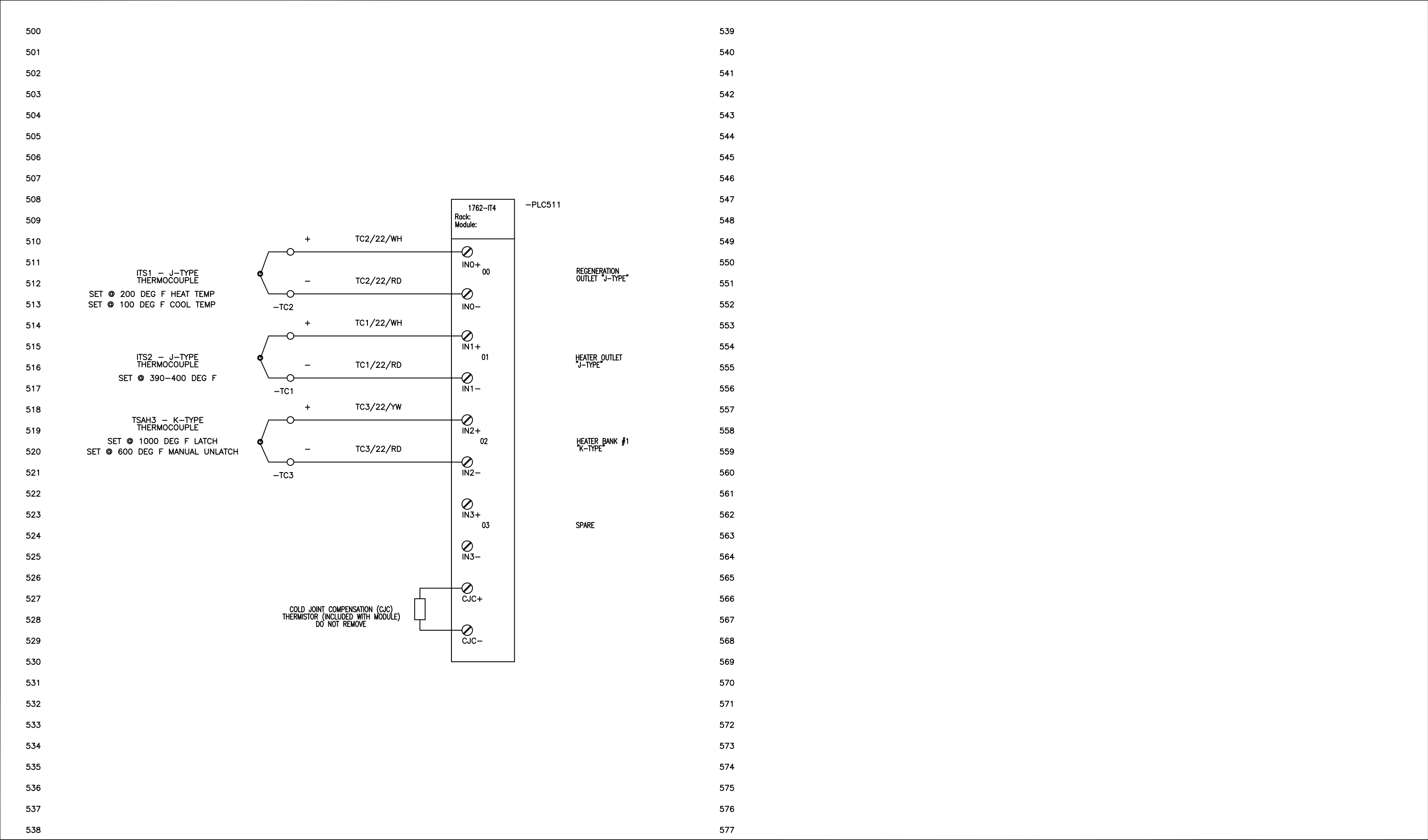
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			/		PAGE DESCRIPTION PLC BASE OUTPUTS	ABP-E6	AG3935965 - 4 of 8



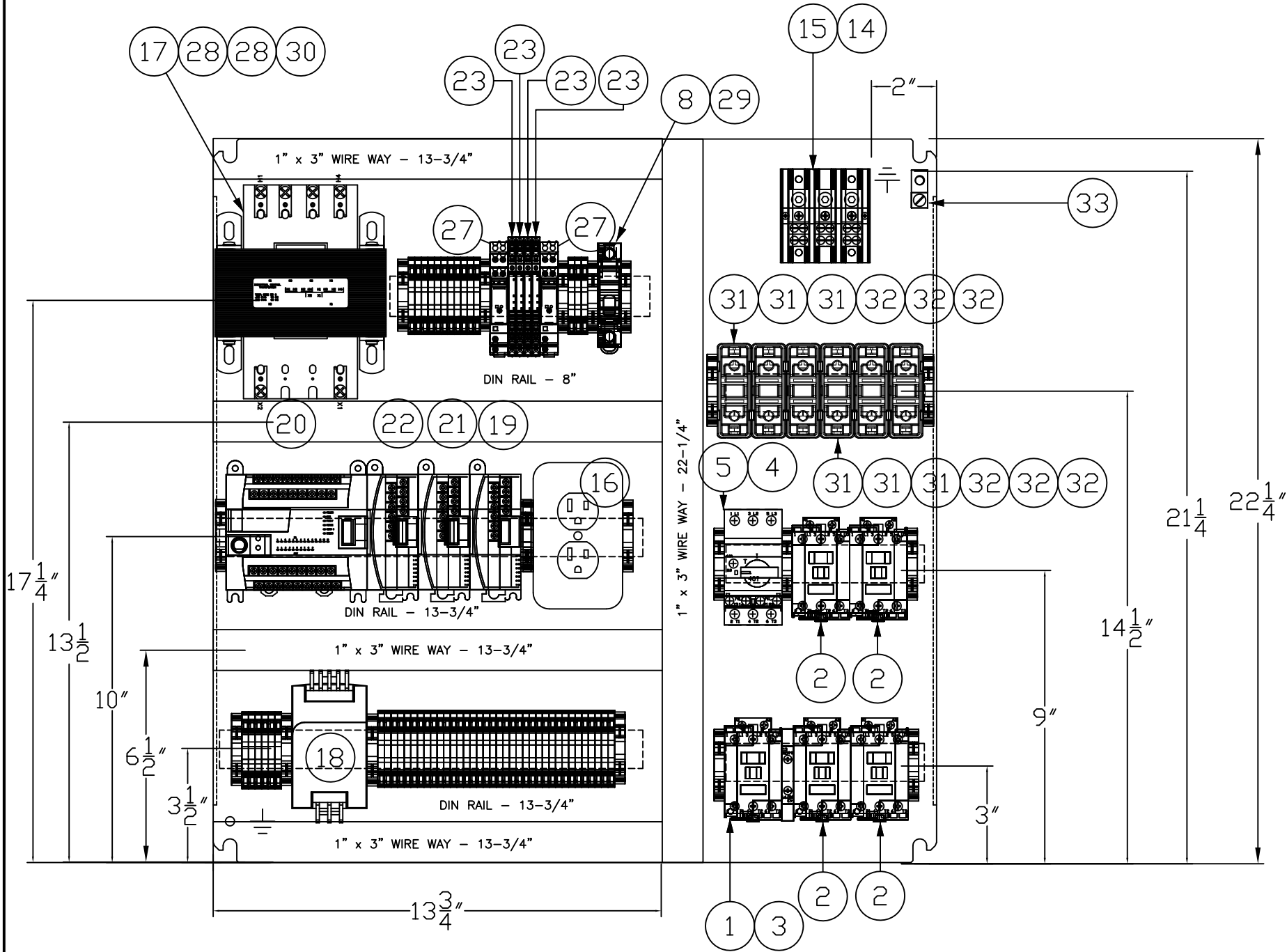
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			/		PAGE DESCRIPTION	PLC THERM INPUTS		JOB No. ABP-E6	DRAWING No.	AG3935965 - 5 of 8

TOP ROW TERMINALS

BOTTOM ROW TERMINALS

END ANCHOR	24V	24V	24V	COM	COM	COM	END ANCHOR	N	N	N	N	L	L	L	L	2	34	35	36	37	44	45	46	47	48	49	50	51	52	53	70	71	72	73	74	75	76	GND - J3	GND - J3	GND - J3	GND - J3	GND - J10	END ANCHOR
END ANCHOR	N	N	N	N	L	L	L	24	25	END ANCHOR	RELAY DPDT	RELAY SPDT	RELAY SPDT	RELAY SPDT	RELAY DPDT	RELAY DPDT	GND - J3	GND - J3	GND - J3	END ANCHOR	FUSE HOLDER	END ANCHOR	BOND L's AND N's																				

BOND L's AND N's



ITEM#	AIRCEL PART NUMBER	DESCRIPTION	QTY
1	AG3948888	CONTACTOR, 10HP @460V	1
2	AG3948862	CONTACTOR, 25HP @460V	4
3	AG3948852	CONTACTOR, SIDE MOUNT, AUXILLARY	1
4	AG3948844	SWITCH, AUXILLARY, FRONT MOUNT	1
5	AG3948893	MOTOR STARTER PROTECTOR, 10-16 AMPS	1
7	AG3251901	ANCHOR, SCREW END, GRAY	19
8	AG3948853	FUSE HOLDER, 1-POLE, CLASS CC	1
9	AG3933345	TERMINAL BLOCK, GRAY, J3	38
10	AG3933672	TERMINAL BLOCK, BLUE, J3	8
11	AG3480613	TERMINAL BLOCK, GREEN/YELLOW, JG10	1
12	AG3933346	TERMINAL BLOCK, GREEN/YELLOW, JG3	7
14	AG3933257	POWER BLOCK COVER	1
15	AG3933256	POWER BLOCK, 600VAC, 335A	1
16	AG3939627	RECEPTACLE, GFCI, STRAIGHT, 20 AMP	1
17	AG3939554	TRANSFORMER, 500 VA WITH PRI & SEC	1
18	AG3934654	POWER SUPPLY, 24VDC	1
19	AG3480143	PLC, THERMOCOUPLE CARD, IT4	1
20	AG3480020	PLC, MICROLOGIX-1100	1
21	AG3480021	PLC, ANALOG CARD, IF4	1
22	AG3954507	PLC, OUTPUT CARD, OW16	1
23	AG3948856	RELAY, SPDT, SCREW TYPE TERMINAL	4
24	AG3934442	BACKPLATE, FITS 24x24 ENCLOSURE	1
25	AG3480590	COVER, WHITE DUCT, 1"	7
26	AG3480591	DUCT, WHITE, NARROW SLOT, 1"X 3"	7
27	AG3948855	RELAY, DPDT, SCREW TYPE TERMINAL	2
28	AG3443601	FUSE, 2-1/2 AMPS	2
29	AG3329701	FUSE, 3 AMPS	1
30	AG3443701	FUSE, 7 AMPS	1
31	AG3478101	FUSE, CUBE, 600VAC, 35 AMP	6
32	AG3205401	FUSE HOLDER, CUBE, 60 AMP	6
33	AG3482390	GROUND LUG, 8 GAUGE TO 1/0	1

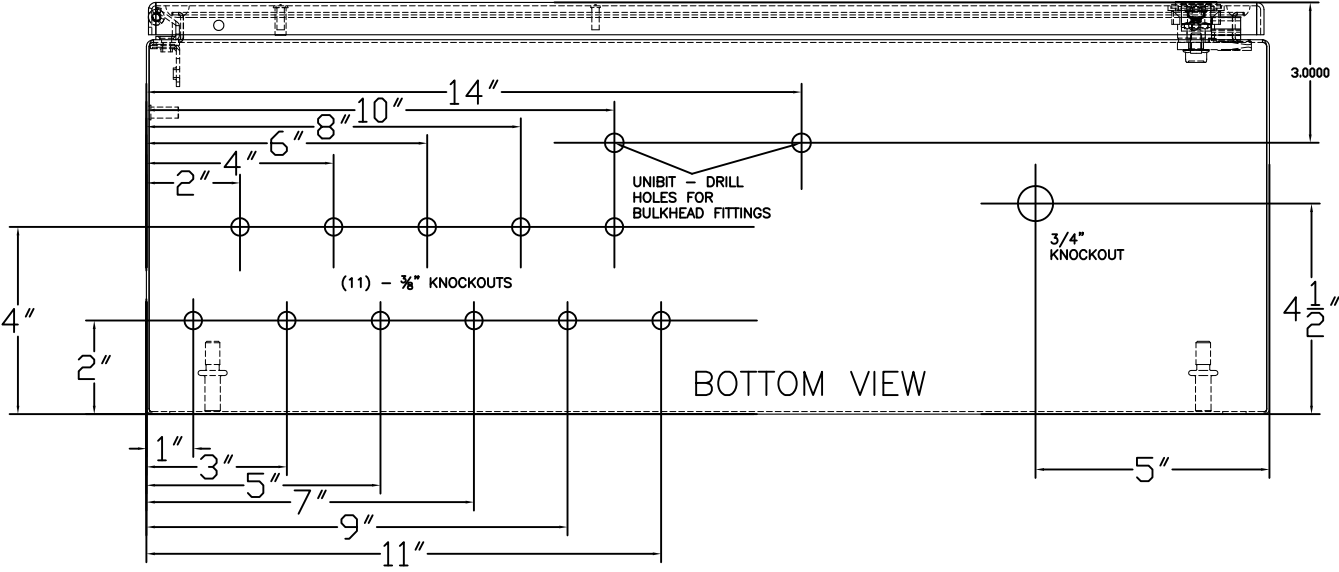
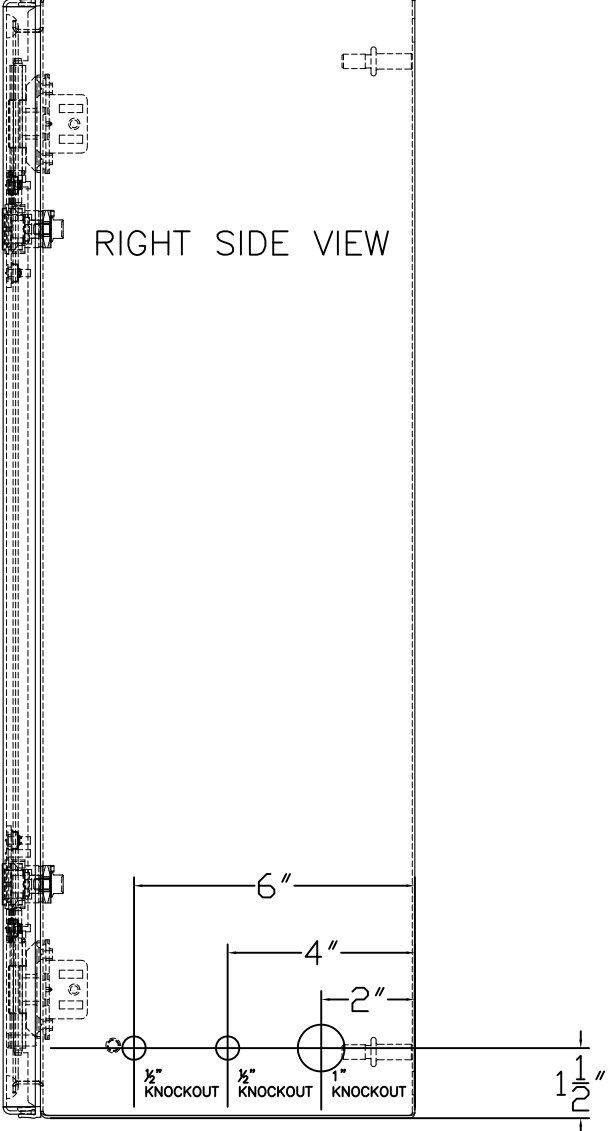
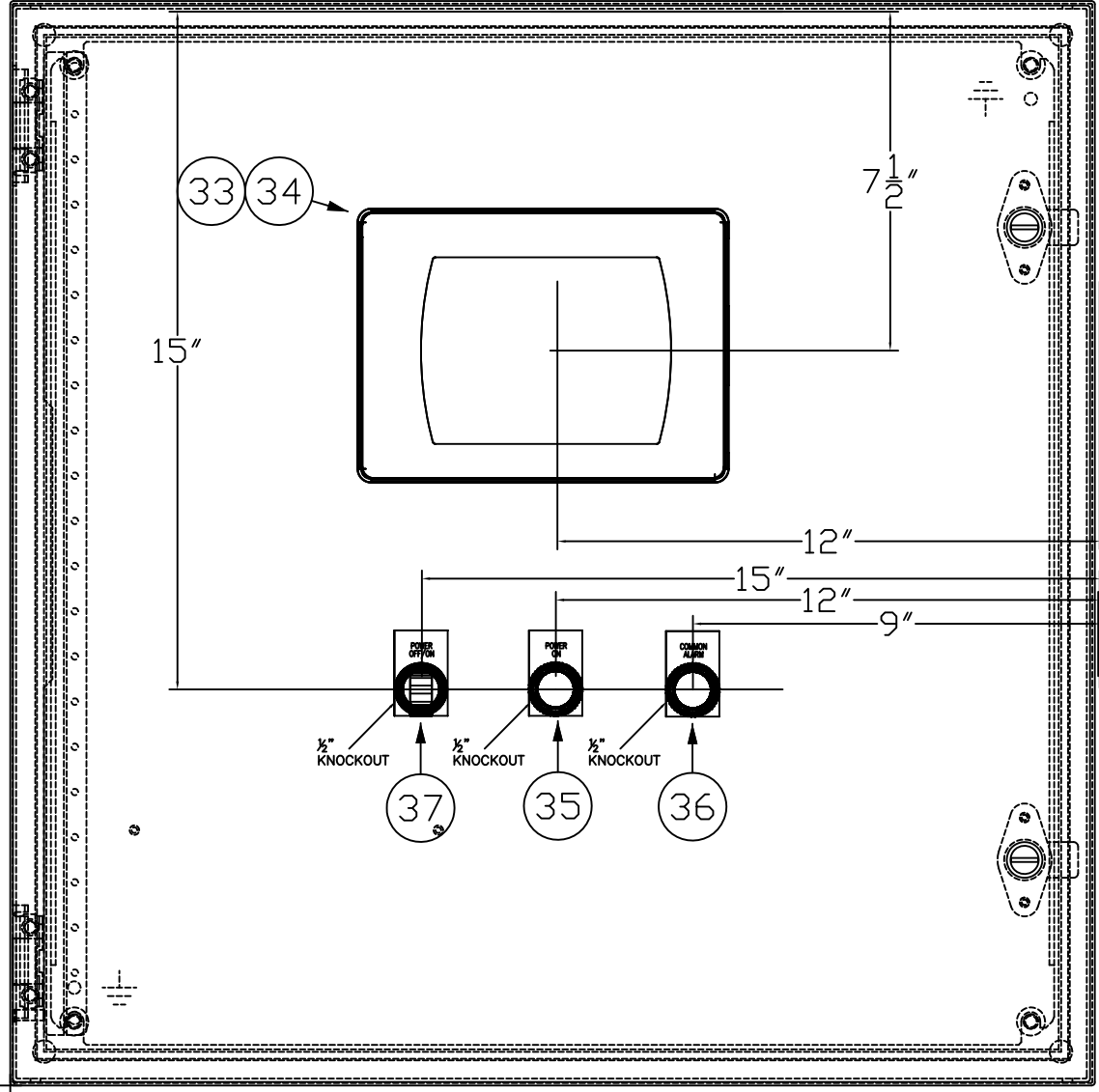
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PAGE DESCRIPTION	ELECTRICAL SCHEMATICS	JOB No.	ABP-E6	DRAWING No.	AG3935965 - 6 of 8
PAGE DESCRIPTION	PANEL LAYOUT				



ITEM#	AIRCEL PART NUMBER	DESCRIPTION	QTY
33	1C932208-US	CABLE, RS-232, 8-PIN MINI DIN	1
34	AG3992110	HMI, AB PANELVIEW C800, TOUCH SCREEN	1
35	AG3939623	LIGHT, GREEN, PLASTIC, 120VAC	1
36	AG3939624	LIGHT, RED, PLASTIC, 120VAC	1
37	AG3939622	SWITCH, 2-POS, PLASTIC	1
38	AG3934441	ENCLOSURE, CONCEPT, 24x24x8	1

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PAGE DESCRIPTION	ENCLOSURE LAYOUT				

AIRCEL PART NUMBER	DESCRIPTION	QTY
AG3948888	CONTACTOR 10HP @ 460V	1.0
AG3948862	CONTACTOR 25HP @ 460V	4.0
AG3948852	CONTACTOR SIDE MOUNT AUXILLARY	1.0
AG3948844	SWITCH AUXILLARY FRONT MOUNT	1.0
AG3948893	MOTOR STARTER PROTECTOR, 10-16 AMPS	1.0
AG3251901	ANCHOR SCREW IN GRAY	19.0
AG3948853	FUSE HOLDER SINGLE-POLE	1.0
AG3933345	TERMINAL BLOCK, GRAY, J3	38.0
AG3933672	TERMINAL BLOCK, BLUE, J3	8.0
AG3480613	TERMINAL BLOCK, GREEN/YELLOW, J10	1.0
AG3933346	TERMINAL BLOCK, GREEN/YELLOW, J3	7.0
AG3933257	POWER BLOCK COVER	1.0
AG3933256	POWER DIST BLOCK, 600VAC 335A	1.0
AG3939627	RECEPTACLE, GFCI	1.0
AG3939554	TRANSFORMER, 500VA	1.0
AG3934654	POWER SUPPLY, 24V	1.0
1C932208-US	CABLE, RS-232, 8 PIN MINI DIN	1.0
AG3480143	PLC, THERMOCOUPLE CARD, IT4	1.0
AG3480020	PLC, MICROLOGIX-1100	1.0
AG3480021	PLC, ANALOG CARD, IF4	1.0
AG3954507	PLC, OUTPUT CARD, OW16	1.0
1C932146-US	SOLENOID 1/8" 4/2 115/120V 50	9.0
AG3992110	HMI, AB PANEVIEW C800, TOUCH SCREEN	1.0
AG3948855	RELAY, SCREW TYPE TERMINAL, DPDT	2.0
AG3948856	RELAY, SCREW TYPE TERMINAL, SPDT	4.0
AG3939623	LIGHT, GREEN, NEMA-4X, 120VAC	1.0
AG3939624	LIGHT, RED, NEMA-4X, 120VAC	1.0
AG3939622	SWITCH, 2-POS, PLASTIC	1.0
AG3934441	ELECTRICAL ENCLOSURE, 24"x 24"	1.0
AG3934442	PANEL, BACKPLATE, FITS 24x24 ENCLOSURE	1.0
AG3480590	COVER, WHITE DUCT, 1"	7.0
AG3480591	DUCT, WHITE, NARROW, SLOT, 1"X 3"	7.0
AG3443601	FUSE, MIDGET, 2-1/2 AMPS	2.0
AG3329701	FUSE, FNQ-R-3 ,600VAC ,CLASS C	1.0
AG3443701	FUSE, CLASS CC, FNQR, 7AMPS, 1	1.0
AG3478101	FUSE, CUBE, 35 AMPS	6.0
AG3205401	FUSE HOLDER, CUBE, 60 AMP	6.0
AG3936238	TRANSDUCER,PRESS,0-500PSI,	2.0
AG3353401	STRAP, CONDUIT MOUNT, 3/4" HW	1.0
AG3936819	STRAP, CONDUIT MOUNT, 1" HW	1.0

AIRCEL PART NUMBER	DESCRIPTION	QTY
AG3481092	CONDUIT, RIGID, 1/2"	10.0
AG3324101	ELBOW, PULLING, 1/2"	2.0
AG3481089	UNION, 1/2" FEMALE, CONDUIT,	3.0
AG3163401	CONDUIT RED DOT BODY "T", 1/2"	1.0
AG3480859	CONDUIT, SEALTITE, FLEXIBLE, 3/4"	5.0
AG3313701	CONNECTOR 90 LIQUID TIGHT 3/4"	1.0
AG3314001	CONNECTOR STRAIGHT LIQUID, 3/4"	1.0
AG3342801	NIPPLE, CONDUIT, 1/2 x CLOSE	3.0
AG3481252	TERMINAL LUG, ALUMINIUM	1.0
AG3482390	GROUND LUG, 8 GAUGE TO 1/0	1.0
AG3301501	BOLT, HEX, 5/16" -18 X 1/2"	1.0
AG3481168	STRAIN RELIEF, 3/8"	11.0
AG3481159	SEAL RING, 3/8", FOR NYLON	11.0
AG3481158	LOCK NUT, 3/8", FOR NYLON	11.0
AG3296601	BUSHING, CONDUIT, 3/4" x 1/2"	2.0
AG3480862	CONDUIT, SEALTITE, FLEXIBLE, 1"	2.0
AG3480953	CONNECTOR 90 LIQUID TIGHT 1"	2.0
AG3163001	CONNECTOR, CONDUIT, LT 3/8"	1.0
AG3480861	CONDUIT, SEAL TITE, 3/8"	12.0
AG3287701	CONNECTOR, ELBOW, 90 DEGREE, 3/8"	3.0
0900804	BOLT, HEX, 3/8"-16 X 1"	4.0
AG3344601	NUT, KEP, 3/8" -16	4.0
AG3284101	WASHER, FLAT, 3/8"	4.0
AG3480947	WIRE, #18 RED	20.0
AG3480463	WIRE #18 BLUE	8.0
AG3480991	WIRE #18 WHITE W/BUE STRIPE	8.0
AG3374201	WIRE #16 RED	110.0
AG3374901	WIRE #16 WHITE	28.0
AG3372301	WIRE #16 MTW GREEN	16.0
AG3373901	WIRE #16 ORANGE	10.0
AG3275601	WIRE #14 GREEN	7.0
AG3275201	WIRE #12 BLACK	13.0
AG3372201	WIRE #10 GREEN	10.0
AG3371501	WIRE, #6 BLACK, THHN	5.0
AG3465601	WIRE, 3 CONDUCTOR, 24 AWG	9.0
AG3481460	CORD, SJEEOW, 18/3	65.0
AG3374301	WIRE, J-TYPE THERMOCOUPLE	33.0
AG3462801	WIRE, K-TYPE THERMOCOUPLE	20.0

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			/			PAGE DESCRIPTION			ABP-E6		AG3935965 - 8 of 8