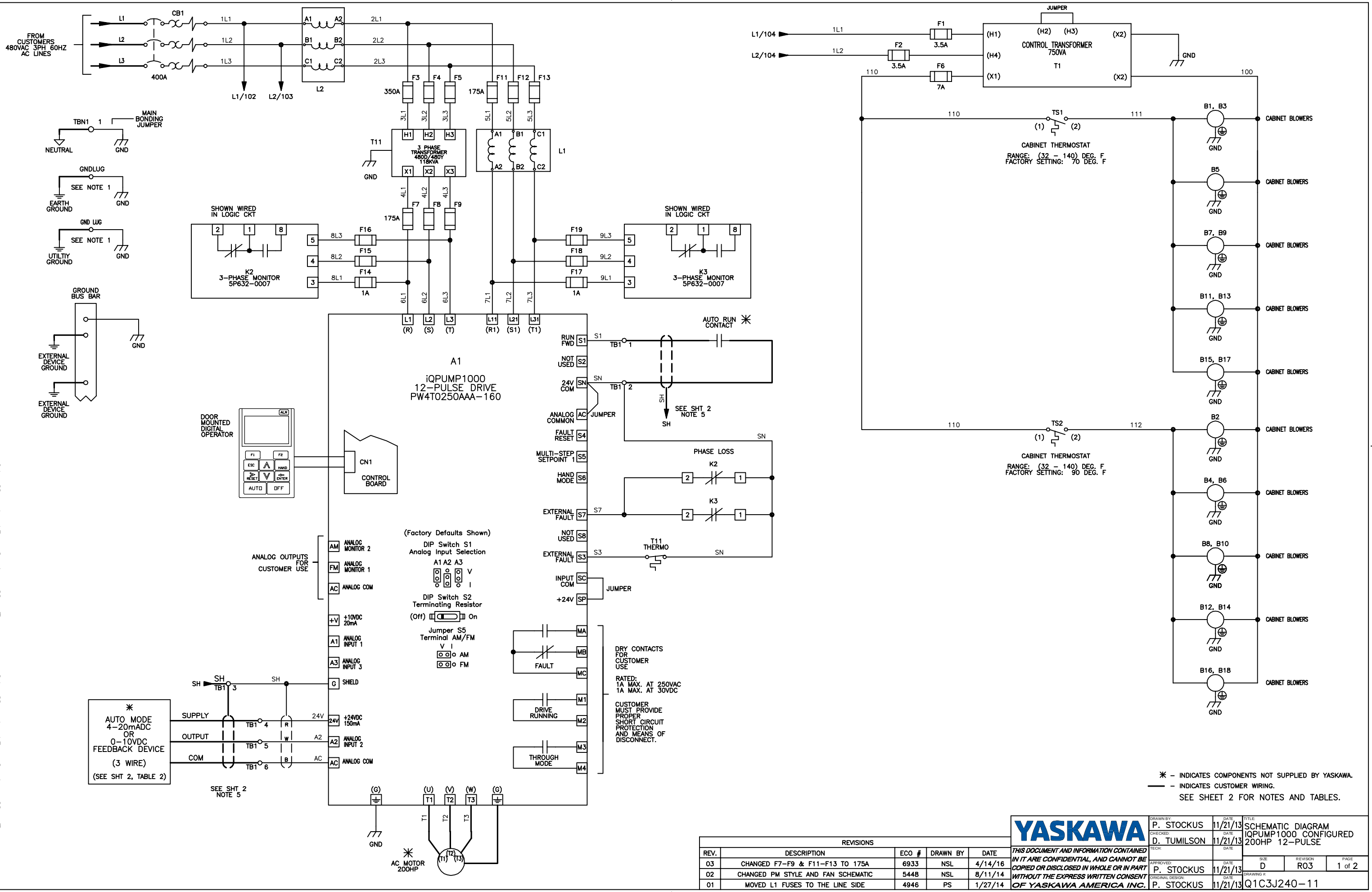

✳ – INDICATES COMPONENTS NOT SUPPLIED BY YASKAWA.
—— – INDICATES CUSTOMER WIRING.
SEE SHEET 2 FOR NOTES AND TABLES.

REVISIONS				
REV.	DESCRIPTION	ECO #	DRAWN BY	DATE
03	CHANGED F7-F9 & F11-F13 TO 175A	6933	NSL	4/14/16
02	CHANGED PM STYLE AND FAN SCHEMATIC	5448	NSL	8/11/14
01	MOVED L1 FUSES TO THE LINE SIDE	4946	PS	1/27/14

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TABLE 1 FACTORY SET IQPUMP1000 CONFIGURED DRIVE PARAMETERS

PARAMETER	DATA	UNIT	DESCRIPTION/REMARKS
b1–01	SEE TABLE 2	N/A	AUTO SET–POINT SELECTION
b1–02	SEE TABLE 2	N/A	RUN COMMAND SELECTION
E1–01	480	VOLTS	STANDARD INPUT VOLTAGE SETTING
E1–05	460	VOLTS	STANDARD MAXIMUM OUTPUT VOLTAGE SETTING
E2–01	---	AMPS	MOTOR FULL LOAD CURRENT (TO BE SET BY USER)
H1–03	25	N/A	TERMINAL S3 = EXTERNAL FAULT (NORMALLY CLOSED)
H1–05	SEE TABLE 2	N/A	TERMINAL S5 FUNCTION SELECTION
H1–07	24	N/A	TERMINAL S7 = EXTERNAL FAULT (NORMALLY OPEN)
H1–27	5.00	SEC	TERMINAL S7 EXTERNAL FAULT (EF7) DELAY TIME
H3–02	SEE TABLE 2	N/A	TERMINAL A1 FUNCTION SELECTION
H3–06	SEE TABLE 2	N/A	TERMINAL A3 FUNCTION SELECTION
H3–09	SEE TABLE 2	N/A	TERMINAL A2 FEEDBACK SIGNAL LEVEL SELECTION
o2–03	1	N/A	USER INITIALIZATION FACTORY SET PARAMETER DEFAULT VALUES (FOUND IN A1–03="1110")
o3–02	1	N/A	COPY ALLOWED SELECTION ENABLED
P1–02	1 ▪	N/A	SYSTEM UNITS (WHERE 1 = POUNDS PER SQUARE INCH (PSI))
P1–03	00145 ▪	SYSTEM UNITS	FEEDBACK DEVICE SCALING (TO BE SET BY USER)
P5–01	SEE TABLE 2	N/A	HAND MODE FREQUENCY REFERENCE SELECTION
P5–02	---	HZ	HAND MODE FREQUENCY REFERENCE (TO BE SET BY USER) – SEE TABLE 2
P5–04	SEE TABLE 2	N/A	DRIVE KEYPAD HAND KEY ENABLE/DISABLE
Q1–01	---	SYSTEM UNITS	AUTO MODE SET–POINT REFERENCE (TO BE SET BY USER)

▪ = FACTORY 2–WIRE INITIALIZATION/DEFAULT SETTING

NOTES:

1. CONNECTED TO THE CABINET. CUSTOMER TO CONNECT THE CABINET GROUND LUGS TO EARTH GROUND AND UTILITY GROUND.
2. THE CUSTOMER MUST USE TYPE 3R RATED HUBS OR FITTINGS (OR EQUIVALENT) TO MAINTAIN THE ENCLOSURE RATING.
3. N/A
4. N/A
5. INSULATED TWISTED SHIELDED WIRE IS REQUIRED. 2 OR 3 CONDUCTOR #18GA. (BELDEN NO. 8760 OR 8770, OR EQUIVALENT). SHIELD TO CONNECT TO PROPER TERMINAL AS SHOWN. CONNECT THE SHIELD ONLY AT THIS END. STUB AND ISOLATE THE OTHER END. DO NOT RUN THESE WIRES IN THE SAME CONDUIT AS THE AC POWER AND AC CONTROL WIRES.
6. CUSTOMER TO ADJUST THE THERMOSTAT ON THE SPACE HEATER HR1 FOR THE MINIMUM DESIRED TEMPERATURE INSIDE THE DRIVE CABINET. THIS SET TEMPERATURE IS NORMALLY SELECTED TO BE SLIGHTLY HIGHER THAN THE MINIMUM AMBIENT TEMPERATURE OF THE AIR SURROUNDING THE CABINET, AND IS THE TEMPERATURE AT WHICH THE SPACE HEATER HR1 WILL SHUT OFF.
7. SERIAL COMMUNICATIONS OPTIONS T2, TG, TH, TL, TQ, OR TV (SEE TABLE 2):
   OPTION T2 = ETHERNET/IP, OPTION TG = DEVICENET, OPTION TH = PROFIBUS, OPTION TL = LONWORKS,
   OPTION TQ = ETHERNET MODBUS TCP/IP AND OPTION TV = DRIVE EMBEDDED MODBUS PROTOCOL.
   THE DRIVE KEYPAD MUST BE IN "AUTO" MODE, IF SERIAL COMMUNICATIONS IS TO BE USED TO CONTROL THE DRIVE.
8. WHEN OPTION TL IS ORDERED, A JUMPER IS REQUIRED FROM DRIVE TERMINALS (S1) TO (SN), SO THAT THE LONWORKS SERIAL COMMUNICATIONS CAN BE USED TO CONTROL THE DRIVE.
   CUSTOMER TO REPLACE THE JUMPER WITH NORMALLY CLOSED SAFETY INTERLOCKS, IF APPLICABLE.

FIELD WIRING PRESSURE WIRE CONNECTOR WIRE TYPE RANGE AND TIGHTENING TORQUE SPECIFICATIONS

FOR 0 TO 100 AMPS, USE 60–75°C COPPER WIRE
AND ABOVE 100 AMPS, USE 75°C COPPER WIRE.

	WIRE SIZE RANGE (AWG)	TIGHTENING TORQUE (LB.–IN.)
CIRCUIT BREAKER (CB1)	(1–2) x (2/0–500MCM)	(1–2) x 442
AC MOTOR (A1–T1,T2,T3)	CUSTOMER TO SUPPLY A UL LISTED CLOSED LOOP CONNECTOR PER AC DRIVE TECHNICAL MANUAL	
GROUND LUGS	6 – 250MCM	275
NEUTRAL (TBN1)	6 – 350MCM	275
CONTROL (TB1)	22 – 10	16 – 20

TABLE 2 FACTORY SET IQPUMP1000 CONFIGURED DRIVE PARAMETERS

	CONTROL OPTION PRESENT	PARAMETER								DRIVE CONTROL BOARD SWITCH S1(A2)	AUTO MODE					HAND MODE		
											SET–POINT		FEEDBACK			SPEED COMMAND		
													TERMINAL BLOCK TB1(4–6) SIGNAL					
		b1–01	b1–02	H1–05	H3–02	H3–06	H3–09	P5–01	P5–04		DRIVE KEYPAD Q1–01	SERIAL COMM.	4–20 MADC	0–10 VDC	DRIVE RUN COMMAND	DRIVE KEYPAD P5–02	SPEED POT	DRIVE RUN COMMAND
	NONE	0 ▪	0 ▪	8D ▪	0 ▪	20 ▪	2 ▪	1 ▪	1 ▪	I ▪	YES		YES		DRIVE KEYPAD IN THE "AUTO" MODE	YES		DRIVE KEYPAD IN THE "HAND" MODE
	NONE	0 ▪	0 ▪	8D ▪	0 ▪	20 ▪	0	1 ▪	1 ▪	V	YES			YES		YES		
FACTORY SETTING																		
	NONE	0 ▪	1	8D ▪	0 ▪	20 ▪	2 ▪	1 ▪	1 ▪	I ▪	YES		YES		DRIVE KEYPAD IN THE "AUTO" MODE AND AUTO MODE RUN/STOP CONTACT	YES		
	NONE	0 ▪	1	8D ▪	0 ▪	20 ▪	0	1 ▪	1 ▪	V	YES			YES		YES		

▪ = FACTORY 2–WIRE INITIALIZATION/DEFAULT SETTING

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