

- NOTES:
- CONNECTED TO THE CABINET. CUSTOMER TO CONNECT THE CABINET GROUND LUGS TO EARTH GROUND AND UTILITY GROUND.
 - INSULATED TWISTED SHIELDED WIRE IS REQUIRED. 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 THE AC CONTROL WIRES. KEEP ALL WIRING UNDER 50mm IN LENGTH.
 - WITH A CONTROL TRANSFORMER, T1, POWER RATING 350VA OR GREATER, SECONDARY FUSE F6 IS ADDED.
 - WITHOUT THE INPUT CIRCUIT BREAKER OPTION PC, OR WHEN NOTED ON THE CABINET NAMEPLATE, BRANCH CIRCUIT PROTECTION MUST BE SUPPLIED BY THE INSTALLER.
 - 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.
 - CONDUIT FITTINGS/HUBS SHALL COMPLY WITH THE 'STANDARD FOR CONDUIT, TUBING AND CABLE FITTINGS, UL 514B' OR CONDUIT FITTINGS HAVING THE SAME ENVIRONMENTAL RATING AS THE ENCLOSURE SHALL BE USED.
 - TERMINALS P1 AND n1 ARE FOR MOMENTARY POWER LOSS RECOVERY UNIT. DO NOT CONNECT TO AC POWER SUPPLY.
 - CUSTOMER TO REPLACE THE JUMPER WITH NORMALLY CLOSED SAFETY INTERLOCKS, IF APPLICABLE.

— - INDICATES COMPONENTS NOT SUPPLIED BY YASKAWA
 * - INDICATES CUSTOMER WIRING
 ⚡ - CONNECTED TO THE CABINET OR PANEL

SEE DRAWING UDE00538 FOR DRIVE PARAMETERS.
 SEE DRAWING UDE00539 FOR CUSTOMER CONNECTIONS.

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REV.	DESCRIPTION	ECO #	DRAWN BY	DATE
01	FIXED CB1 CONNECTIONS	9683	N. LAWS	06/24/19
00	INITIAL RELEASE		A. MEILAHN	02/15/17

REV.	DATE	BY	DESCRIPTION	DATE	BY	SIZE	REVISION #	PAGE
01	01/05/17	A. MEILAHN	SCHEMATIC DIAGRAM	01/05/17	A. MEILAHN	D	01	1 of 2
02	02/10/17	N. LAWS	U1000 IQPUMP CONFIGURED	02/10/17	N. LAWS	D	01	1 of 2
03	02/15/17	K. FLIERL	REVISION	02/15/17	K. FLIERL	D	01	1 of 2
04	01/05/17	A. MEILAHN	REVISION	01/05/17	A. MEILAHN	D	01	1 of 2

DRY CONTACTS FOR CUSTOMER USE.
 RATED:
 1A, 250VDC
 1A, 30VDC
 CUSTOMER MUST PROVIDE PROPER SHORT CIRCUIT PROTECTION AND MEANS OF DISCONNECT.

A1
U1000 IQPUMP DRIVE
 (Factory Defaults Shown)

DIP Switch S1
 Analog Input Selection
 1 0Z 03
 0 0V 01
 0 0V 01

DIP Switch S2
 Terminating Resistor
 (Off) 01 On

Jumper S5
 Terminal AMFM
 V 1
 0 0 0 AM FM

Terminal	Signal	Signal	Signal	Signal	Signal	Signal	Signal	Signal	Signal
S1	RUN	S2	STOP	S3	EXTERNAL PUMP FAULT (N.O.)	S4	FAULT RESET	S5	MULTI-STEP SPEED REF 1
S6	HAND MODE	S7	HAND MODE 2	S8	NOT USED	S9	NOT USED	S0	24VDC COMMON
S1	INPUT COMMON	S2	COMMON	S3	+24VDC	S4	MA	MB	MC
S5	MD	S6	ME	S7	MF	S8	M1	M2	M3
S9	M4	S10	EG	S11	EG	S12	EG	S13	EG

Terminal	Signal	Signal	Signal	Signal	Signal	Signal	Signal	Signal	Signal
V1	-10.5VDC 20mA MAX	A3	ANALOG INPUT 3 (RS-485 TO RS-485)	AC	ANALOG COMMON	A1	ANALOG INPUT 1 (RS-01 TO RS-04)	A2	ANALOG INPUT 2 (RS-01 TO RS-04)
V+	24VDC TRANSUCER POWER SUPPLY (150mA MAX)	BP	PULSE TRAIN INPUT (R6-01 TO R6-09)	FM	MULTIFUNCTION ANALOG OUTPUT 1 (0-10VDC, 20mA MAX)	AC	ANALOG COMMON	AM1	MULTIFUNCTION ANALOG OUTPUT 2 (0-10VDC, 20mA MAX)
IG	OPTION CABY SHIELD GND	R+	COMMUNICATIONS INPUT (+)	R-	COMMUNICATIONS INPUT (-)	S+	COMMUNICATIONS OUTPUT (+)	S-	COMMUNICATIONS OUTPUT (-)

OPTION TZ
 MANUAL SPEED POT ASSEMBLY
 PART NO. URSN0008
 MANUAL SPEED R1
 2.5K OHM

DOOR MOUNTED DIGITAL OPERATOR
 from 12A SH

SEE NOTE 2

ISOLATED AUTO MODE 4-20mA/DC 0-10VDC FEEDBACK DEVICE (2 WIRE)
 NOTE: WIRE FEEDBACK DEVICE SEE TECHNICAL MANUAL FOR WIRING.

OPTION PK
 LOAD REACTOR 5%

OPTION P8
 OUTPUT TERMINAL BLOCKS

A.C. MOTOR *

OPTION P7 OR P9
 SURGE SUPPRESSOR

OPTION SP
 OVER VOLTAGE PROTECTION

OPTION PC
 CIRCUIT BREAKER

OPTION TD
 A6
 ETHERNET OPTION CARD SHIELD

CONTROL BOARD

MAIN CIRCUIT

VOLTAGE MONITOR RELAY
 K8
 OPTION SP OVER VOLTAGE PROTECTION

OPTION VZ
 VOLTAGE MONITOR RELAY
 K8
 OPTION SP OVER VOLTAGE PROTECTION

OPTION PZ
 PHASE SEQUENCE PROTECTION

OPTION PZ
 PHASE SEQUENCE PROTECTION

OPTION PZ
 PHASE SEQUENCE PROTECTION

OPTION PZ
 PHASE SEQUENCE PROTECTION

OPTION PZ
 PHASE SEQUENCE PROTECTION

OPTION PZ
 PHASE SEQUENCE PROTECTION

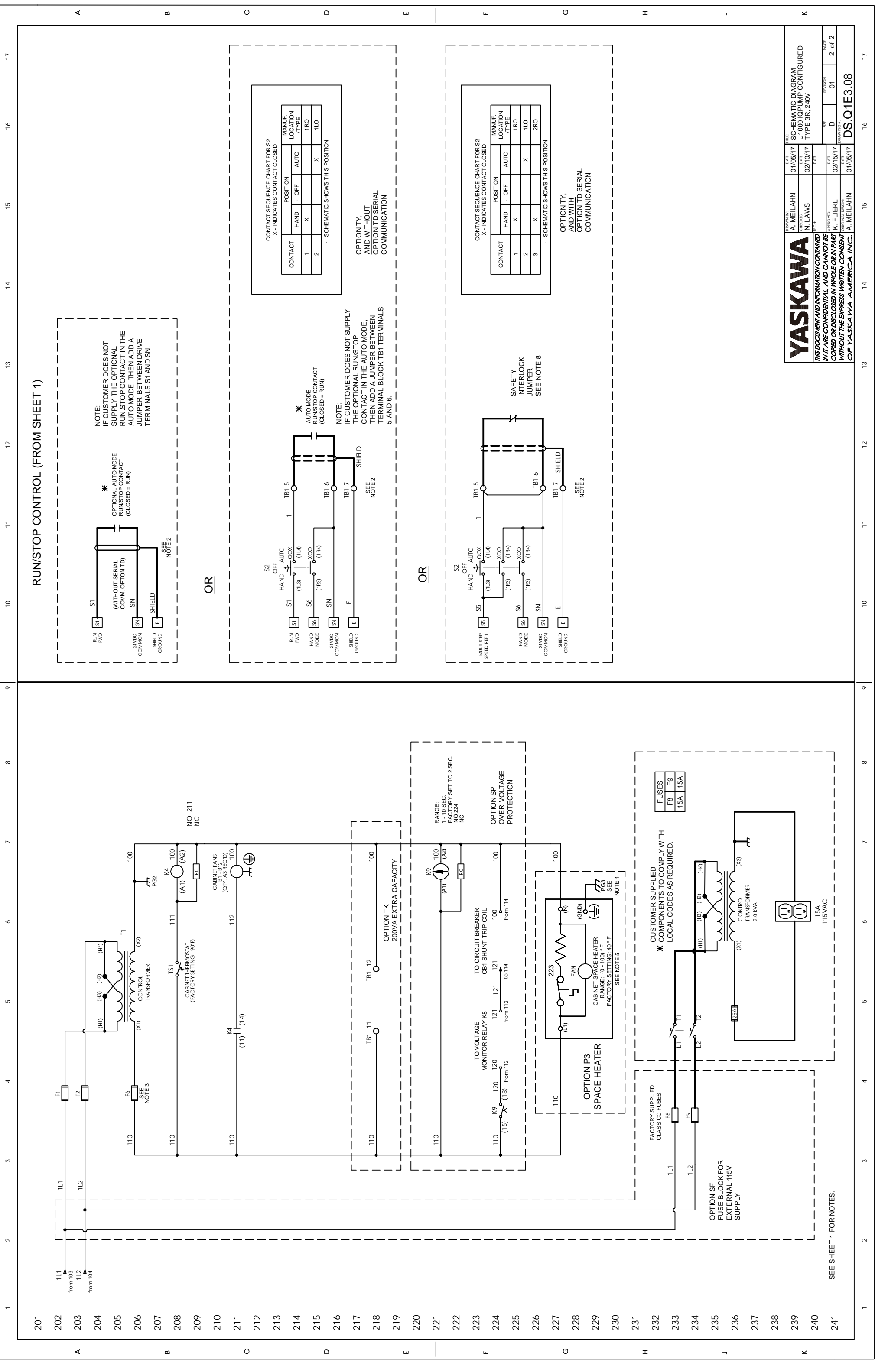
OPTION PZ
 PHASE SEQUENCE PROTECTION

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 PHASE SEQUENCE PROTECTION

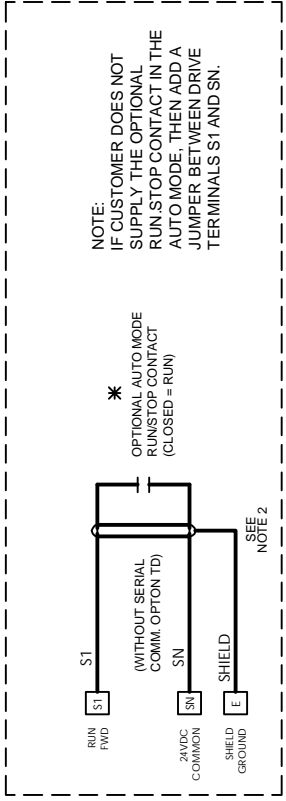
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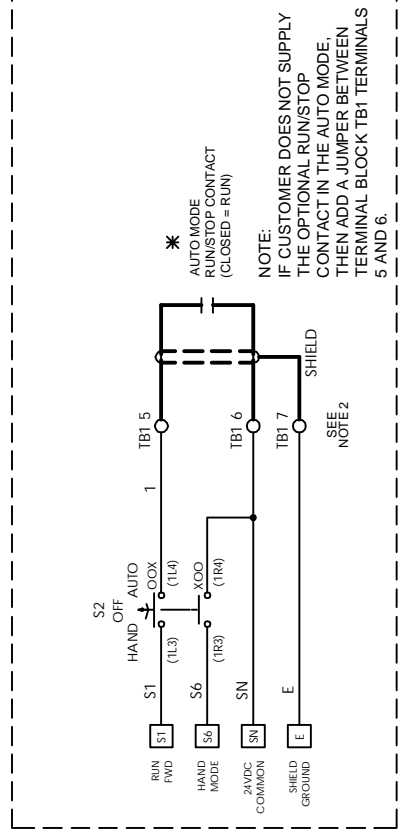
OPTION PZ
 PHASE SEQUENCE PROTECTION



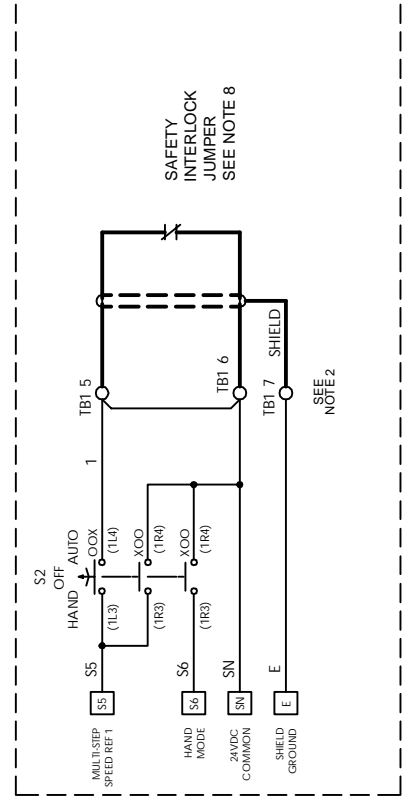
RUN/STOP CONTROL (FROM SHEET 1)



OR



OR



SEE SHEET 1 FOR NOTES.

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SCHEMATIC DIAGRAM FOR MOTOR PUMP CONFIGURED TYPE 3R, 240V		DATE	01/05/17	DATE	02/10/17	DATE	02/15/17
DRAWING #		SIZE	D	REV/ISSN	01	PAGE	2 OF 2
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