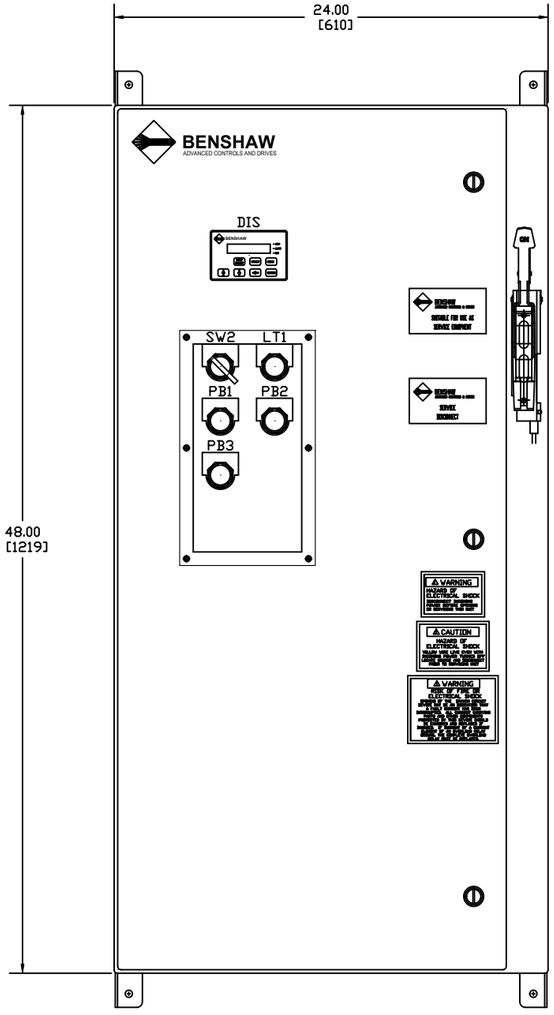
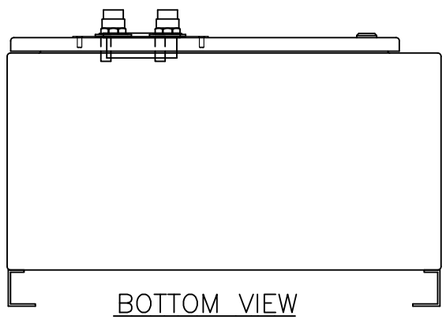
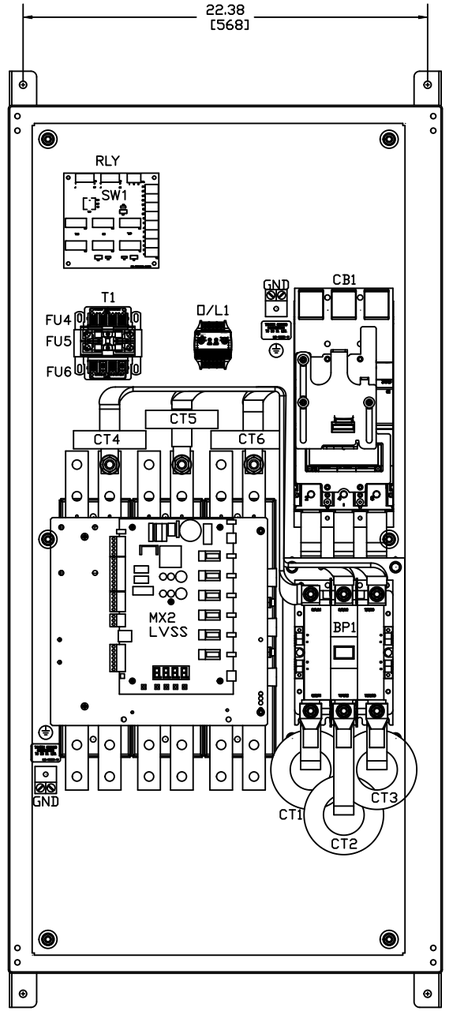
DWG NO. RX2E12548012KP



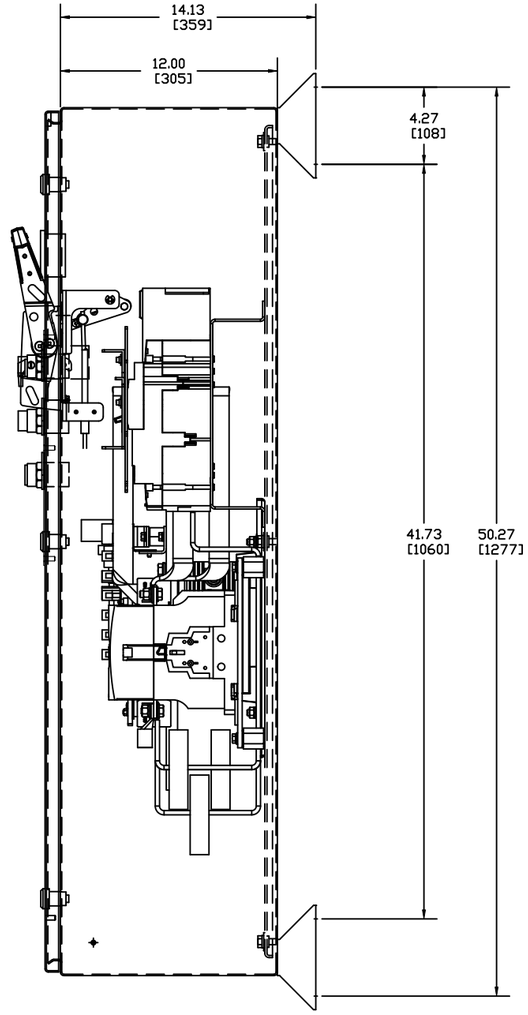
FRONT VIEW



BOTTOM VIEW



PANEL VIEW



SIDE VIEW

LEGEND

CB1:	CIRCUIT BREAKER	DIS:	DOOR MOUNTED KEYPAD
GND:	GROUND LUGS	PB1:	START PUSHBUTTON
LVSS:	RB2 POWER STACK	PB2:	STOP PUSHBUTTON
CT1-3:	CONTROL CARD CT'S	PB3:	RESET PUSHBUTTON
BP1:	ATL/BYPASS CONTACTOR	SW2:	LOCAL-OFF-REMOTE SEL. SWITCH
O/L1:	OVERLOAD RELAY	LT1:	RUNNING PILOT LIGHT
RLY:	SS-ATL RELAY CARD		
SW1:	SS-OFF-ATL SEL. SWITCH (RLY)		
PS1:	PINSTRIP (3 POINT)		
T1:	CONTROL POWER TRANSFORMER		
FU4-5:	PRIMARY FUSING (T1)		
FU6:	SECONDARY FUSE (T1)		

NOTES:

1. MINIMUM WIRE BENDING SPACE SHALL BE 10.00" FROM TOP OF CIRCUIT BREAKER POWER CONNECTION TO TOP OF ENCLOSURE.
2. ENSURE THAT ALL RIBBON CABLES ARE ROUTED AWAY FROM POWER CONDUCTORS.
3. MINIMUM WIRE BENDING SPACE SHALL BE 10.00" FROM BOTTOM OF POWERSTACK POWER CONNECTION TO BOTTOM OF ENCLOSURE.
4. ENCLOSURE LAYOUT IS DESIGNED FOR CABLE ENTRY/EXIT TO BE TOP/BOTTOM.

REVISIONS			
13	APPRD:BDA 7/17/18	CHG BY:BDA 7/17/18	CHANGE: CHANGED TO 3VA BREAKER
12	APPRD:AES 2/25/13	CHG BY:BDA 2/25/13	CHANGE: CHANGED CONNECTION DIAGRAM & RELAY CARD NUMBER SHEET 3
E4105			
11	APPRD:AES 11/12/12	CHG BY:BDA 11/12/12	CHANGE: CHANGED BREAKER TO SENTRON
E3930			
10	APPRD:JAF 8/14/12	CHG BY:BDA 8/14/12	CHANGE: REVISED PER VARIOUS ECO'S REV 10 INITIAL RELEASE
E3796			

DO NOT SCALE DWG

THIRD ANGLE PROJECTION

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UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS IN INCHES
INTERPRET DRAWING PER ASME Y14.5M-1994
TOLERANCES: .XX ± .03
.XXX ± .015
ANGLES ± 1°
MATERIAL:
FINISH:

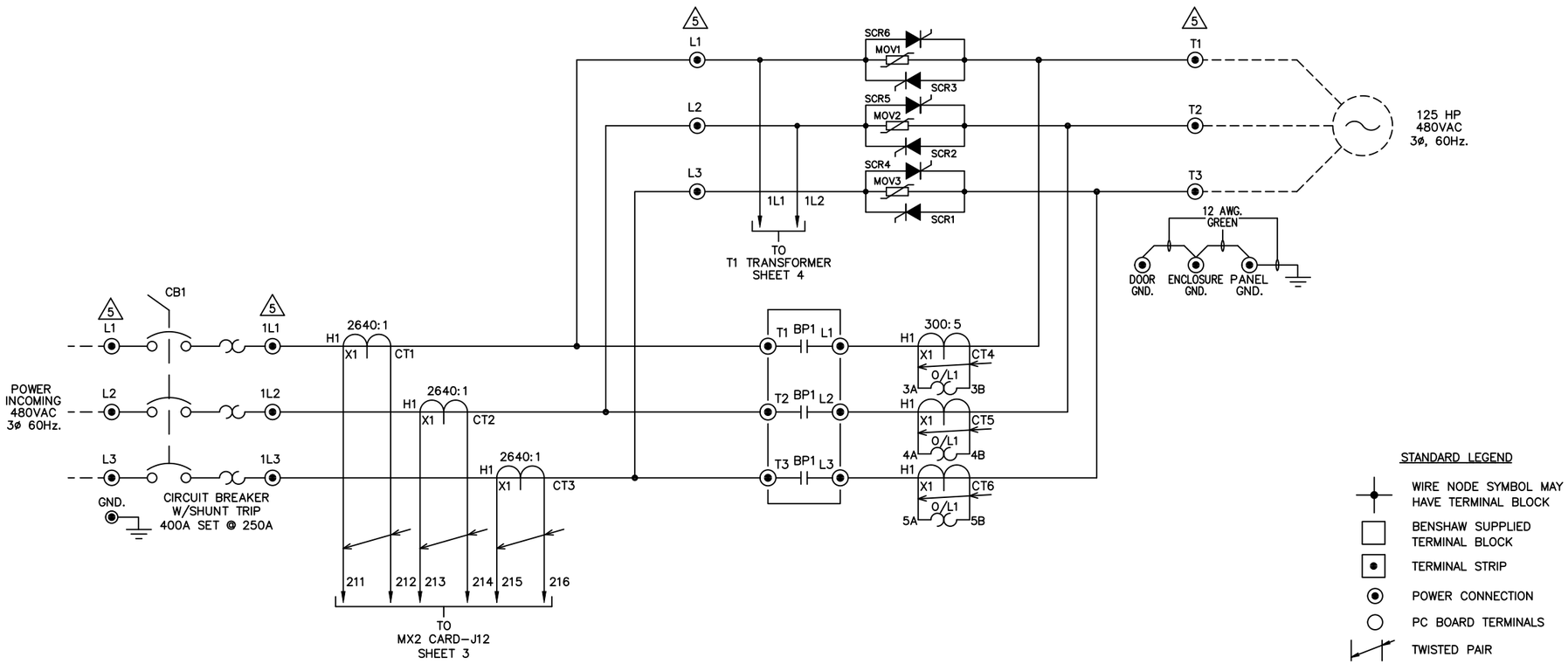
TITLE:
ENCLOSURE LAYOUT
RX2E-125-480-12KP
125HP (156 AMPS) @ 480V
(500% CURRENT FOR 30SECONDS, 125% CONTINUOUS DUTY RATED)

SIGNATURES		DATE
DRWN.	BDA	3/2/12
CHKD.		
ENG.	JAF	3/2/12
MFG.		

BENSHAW
615 ALPHA DRIVE
PITTSBURGH, PA. 15238
550 BRIGHT STREET
LISTOWEL ONTARIO
N4W 3W3

SIZE: D
DWG NO.: RX2E12548012KP
REV: 13
SCALE: 1:4
SHEET 1 OF 4

DWG NO. RX2E12548012KP



NOTES

1. FAILSAFE FAULT RELAY SHOWN IN DE–ENERGIZED STATE. RELAY WILL ENERGIZE WHEN CONTROL POWER IS APPLIED TO CONTROL CARD, AND WILL REMAIN ENERGIZED WHEN NO FAULTS ARE PRESENT. RELAY WILL DE–ENERGIZE WHEN A FAULT OCCURS, OR IF CONTROL POWER IS REMOVED FROM THE CARD
2. REFER TO INSTRUCTION MANUAL FOR STARTER CONFIGURATION.
3. CUSTOMER SHOULD MONITOR GENERAL FAULT CONTACTS OF RELAY (R3) FOR FAULT DETECTION, AND REMOVE 2 WIRE RUN COMMAND WHEN A FAULT IS DETECTED.
4. TIGHTEN CARD WIRING CONNECTIONS TO TO 2.7–3.5 in. lbs. (0.3–0.4 N–m).
5. TIGHTEN POWER LUG FIELD WIRING CONNECTIONS TO CHART 1. SPECIFICATIONS. IF BREAKER IS SUPPLIED ON LINE SIDE OF STACK USE TORQUE VALUES ON BREAKER.
6. REMOVE JUMPER WHEN INTERLOCKS ARE INSTALLED.
7. SELECT EITHER TWO OR THREE WIRE CONTROL.
8. STARTER SHIPPED SETUP FOR CUSTOMER SUPPLIED REMOTE 2 WIRE CONTROL. IF NO CONTROL IS TO BE USED THEN JUMPERS SHOULD REMAIN AS SHOWN.
9. IF CUSTOMER SUPPLIED REMOTE 3 WIRE CONTROL IS NEEDED MAKE CUSTOMER CONNECTIONS AS SHOWN.
10. CHANGE P49 (DI2) TO "FR" (FAULT RESET)
11. SW1–1: (ANALOG INPUT) UP = CURRENT, DOWN = VOLTAGE
    SW1–2: (ANALOG OUTPUT) UP = VOLTAGE, DOWN = CURRENT
12. PROGRAM (P78), FUN (03), CT RATIO = 2640:1

CHART 1

TIGHTENING TORQUE SPECIFICATIONS FOR HEX HEAD SCREWS		
BOLT SIZE SAE	BOLTS – GRADE 5 (IN. LB)	(FT. LB)
1/4	96–120	8–10
5/16	180–228	15–19
3/8	300–396	25–33
7/16	480–648	40–54
1/2	720–936	60–78

STANDARD LEGEND

- WIRE NODE SYMBOL MAY HAVE TERMINAL BLOCK
- BENSHAW SUPPLIED TERMINAL BLOCK
- TERMINAL STRIP
- POWER CONNECTION
- PC BOARD TERMINALS
- TWISTED PAIR
- TWISTED SHIELDED PAIR
- SHIELDED WIRE
- FIELD WIRING

REVISIONS | DO NOT SCALE DWG

THIRD ANGLE PROJECTION

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INTERPRET DRAWING PER ASME Y14.5M–1994
TOLERANCES: .XX ± .03
.XXX ± .015
ANGLES ± 1°
MATERIAL:
FINISH:

TITLE:
POWER SCHEMATIC
RX2E–125–480–12KP
125HP (156 AMPS) @ 480V
(500% CURRENT FOR 30SECONDS, 125% CONTINUOUS DUTY RATED)

SIGNATURES		DATE
DRWN.	BDA	3/2/12
CHKD.		
ENG.	JAF	3/2/12
MFG.		

BENSHAW
615 ALPHA DRIVE
PITTSBURGH, PA. 15238
550 BRIGHT STREET
LISTOWEL ONTARIO
N4W 3W3

SIZE D | DWG NO. RX2E12548012KP | REV 13

SCALE: 1:1 | SHEET 2 OF 4

DWG NO. RX2E12548012KP

7 9 CUSTOMER SUPPLIED 3 WIRE CONTROL

STOP 3 WIRE
START 3 WIRE
JMPR.
(OPTIONAL) INTERLOCK
6 JMPR.
BIPC-300021-00 RXE RELAY CARD

OR

7 8 CUSTOMER SUPPLIED 2 WIRE CONTROL

BIPC-300021-00 RXE RELAY CARD

3 RUN 2 WIRE
(OPTIONAL) INTERLOCK
6 JMPR.
JMPR.
TB1

8A 250VAC MAX.
RUN RELAY OUTPUTS

OFF
LOCAL REMOTE
SW2
SW2
PB1 START
PB2 STOP
LT1
PB3 RESET
J1

SW1
SS
OFF
ATL

TB2
L
N
G
120VAC FROM CPT SHEET 4
#16 AWG. GREEN

J2

BP1 AUX
43 44
ATL RUN FEED BACK
O/L1
95 96
OVERLOAD FEED BACK
TO 120VAC CIRCUIT SHEET 4

TO CT1-3 SHEET 2
211 CT1 212 213 CT2 214 215 CT3 216
1 2 3 4 5 6
J12

RED 1(L)
WHT 2(N)
TO J4
J1

J4
RED 1(L)
WHT 2(N)
TO J1

12 MX2 BIPC-300055-01 4 2

PWR LED
CPU LED
TX LED
RX LED
MODBUS SLAVE

TB1
G GROUND
N NEUTRAL
N NEUTRAL
L LINE
L LINE
120 VAC POWER INPUT

TO 120VAC CIRCUIT SHEET 4

STOP
ALARM
RUN
STOP RESET
START
MENU
ENTER
CAT5 CABLE
RJ45
J2

J5
1 201
2 202
3 203
4 204
5 205
6 206
TO DVDT 3-J3 SHEET 4

TB2
NO1 PROGRAMMABLE RELAY RELAY R1 DEFAULT = FLFS REPROGRAMMED AS SHUNT TRIP NTFS
RC1
NC1
NO2 PROGRAMMABLE RELAY RELAY R2 DEFAULT = OFF REPROGRAMMED AS FAULT FS
RC2
NC2
NO3 PROGRAMMABLE RELAY RELAY R3 DEFAULT = OFF REPROGRAMMED AS FAULT FS
RC3
NC3
RELAY OUTPUTS

CUSTOMER FAULT STATUS 1 3

TB3
1 START
2 DI1
3 DI2
4 DI3
5 COM
OPTO INTPUTS

DISP1
SW2 RESET
SW3 PARA.
SW4 DOWN
SW5 UP
SW6 ENTER

TB4
1 MB+
2 MA-
3 MCOM
RS485 SERIAL COMMUNICATION

±10V ANALOG INPUT
OUTPUT ANALOG
TB5
AIN POWER
AIN+
AIN-
COM
AOUT
COM
SHIELD

11 SW1 ON

J6 G1 K1 TO SCR1
J7 G4 K4 TO SCR4
J8 G2 K2 TO SCR2
J9 G5 K5 TO SCR5
J10 G3 K3 TO SCR3
J11 G6 K6 TO SCR6

REVISIONS	DO NOT SCALE DWG

THIRD ANGLE PROJECTION

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UNLESS OTHERWISE SPECIFIED
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TOLERANCES: .XX ± .03 .XXX ± .015 ANGLES ± 1°
MATERIAL:
FINISH:

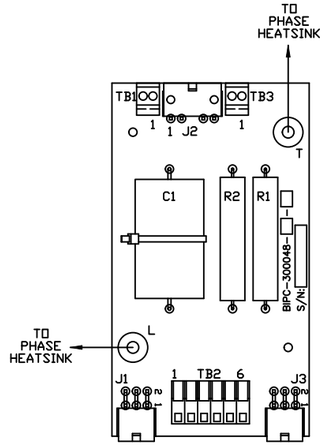
TITLE:
CONTROL SCHEMATIC
RX2E-125-480-12KP
125HP (156 AMPS) @ 480V
(500% CURRENT FOR 30SECONDS, 125% CONTINUOUS DUTY RATED)

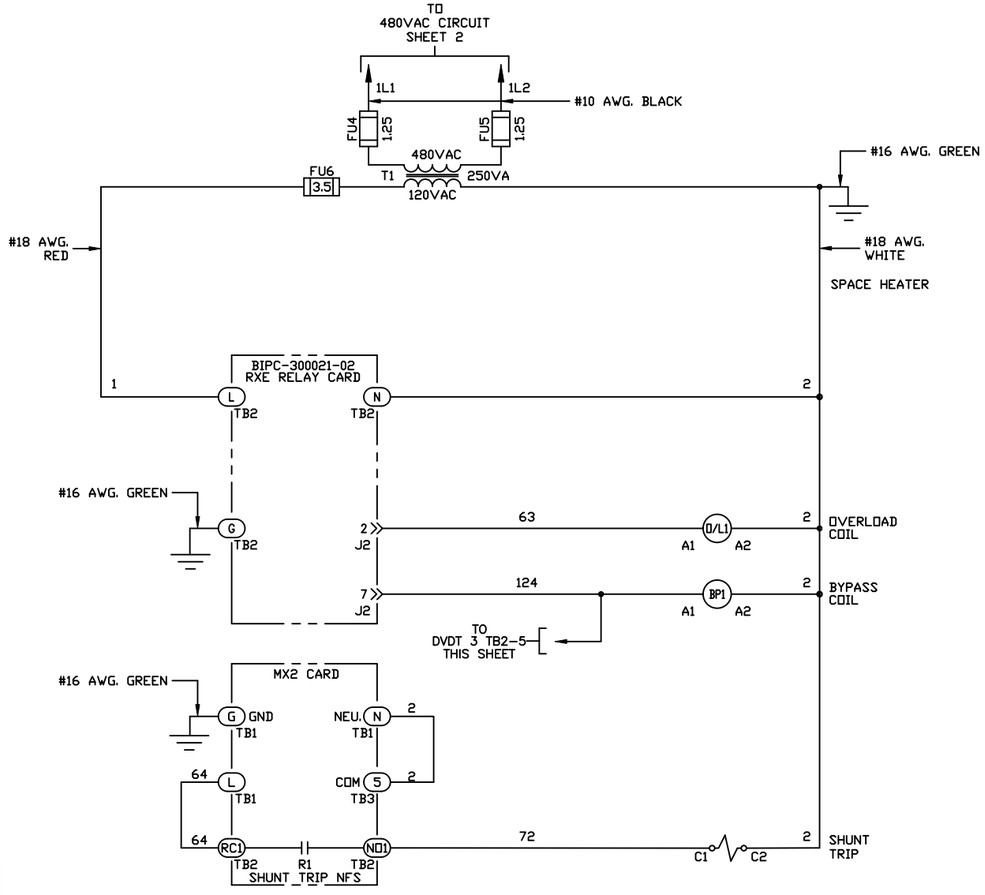
SIGNATURES		DATE
DRWN.	BDA	3/2/12
CHKD.		
ENG.	JAF	3/2/12
MFG.		

BENSHAW
615 ALPHA DRIVE PITTSBURGH, PA. 15238
550 BRIGHT STREET LISTOWEL ONTARIO N4W 3W3

SIZE D | DWG NO. RX2E12548012KP | REV 13
SCALE: 1:1 | SHEET 3 OF 4

DWG NO. RX2E12548012KP





REVISIONS / DO NOT SCALE DWG	THIRD ANGLE PROJECTION	UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS IN INCHES INTERPRET DRAWING PER ASME Y14.5M–1994 TOLERANCES: .XX ± .03 .XXX ± .015 ANGLES ± 1° MATERIAL: FINISH:	TITLE: CONTROL SCHEMATIC RX2E–125–480–12KP 125HP (156 AMPS) @ 480V (500% CURRENT FOR 30SECONDS, 125% CONTINUOUS DUTY RATED)	SIGNATURES / DATE DRWN. BDA 3/2/12 CHKD. ENG. JAF 3/2/12 MFG.	BENSHAW 615 ALPHA DRIVE PITTSBURGH, PA. 15238 559 BRIGHT STREET LISTOWEL ONTARIO N4W 3W3	
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				SIZE D / DWG NO. RX2E12548012KP		REV 13
				SCALE: 1:1	SHEET 4 OF 4	