

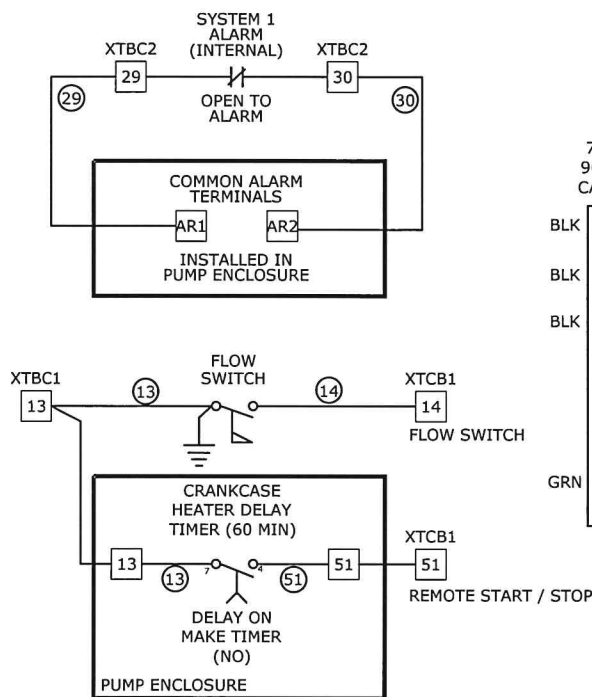
NOTE: REMOVE FACTORY INSTALLED JUMPER BETWEEN L AND 5 IN CHILLER PANEL ON XTBC2 TERMINAL BOARD TO BE USED AS EMERGENCY STOP.

WIRING NOTES

208/120VAC	480/277VAC	24VDC
PHASE A - BLACK	PHASE A - BROWN	POSITIVE - RED
PHASE B - RED	PHASE B - ORANGE	NEGATIVE - GRAY
PHASE C - BLUE	PHASE C - YELLOW	
NEUTRAL - WHITE	NEUTRAL - GRAY	24VAC
GROUND - GREEN	GROUND - GREEN	PHASE A - RED
		NEUTRAL - BROWN

INTRINSICALLY SAFE WIRING 18AWG LIGHT BLUE AND MUST BE SEPARATED FROM OTHER WIRING BY MINIMUM OF 2". IF CABLE USED IT MUST BE SHIELDED.

IF VAC WIRING GAUGE NOT SPECIFIED USE 18 AWG
IF VDC WIRING GAUGE NOT SPECIFIED USE 18 AWG



DANGER
HIGH VOLTAGE TURN OFF POWER BEFORE SERVICING

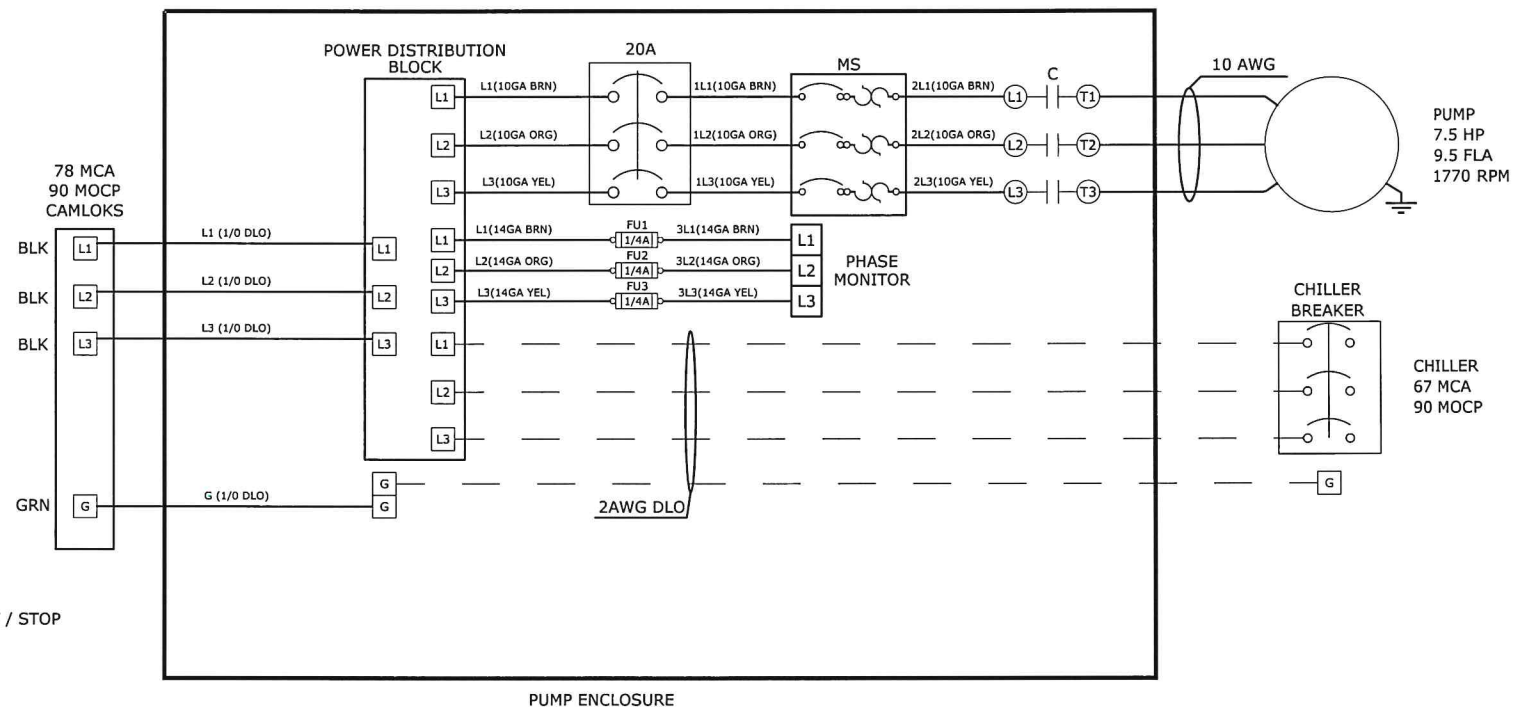
WHITE ON RED, TEX SIZE 0.2"/0.15"
LOCATION: RIGHT TOP OF OUTSIDE DOOR

WARNING:
FLOW SWITCH IS FACTORY SET AT 2.5 D.P. TO ADJUST, TURN CLOCKWISE TO INCREASE D.P. TURN COUNTER CLOCKWISE TO DECREASE D.P.

NOTE:
UNIT IS EQUIPPED WITH A LOCKOUT TIMER. 480 VOLT POWER SHOULD BE APPLIED ONE (1) HOUR BEFORE STARTING CHILLER COMPRESSOR OIL HEATERS UTILIZIE 480 VOLT POWER.

NOTES:

1. SEE NC-REF001-C001 FOR FIELD WIRING SPECIFICATION.
2. ALL DEVICES SHOWN DE-ENERGIZED.
3. WIRE POINT TO POINT PER WIRE CHART.
4. EACH END OF EACH CONTROL AND POWER WIRE TO BE MARKED WITH HEAT SHRINK MARKERS.
5. USE FERRULES FOR ALL CONNECTIONS.



REV#	DATE	DESIGNER	DESCRIPTION
0	12/09/2017	J.O.MALLEY	ISSUED FOR CONSTRUCTION



35 SOUTHHEAT INDUSTRIAL DR., HOUSTON, TX. 77017
PHONE: (713) 460 9009 FAX: (713) 460 9199
TEXAS BOARD OF PROFESSIONAL ENGINEERS
FIRM NUMBER F 14008

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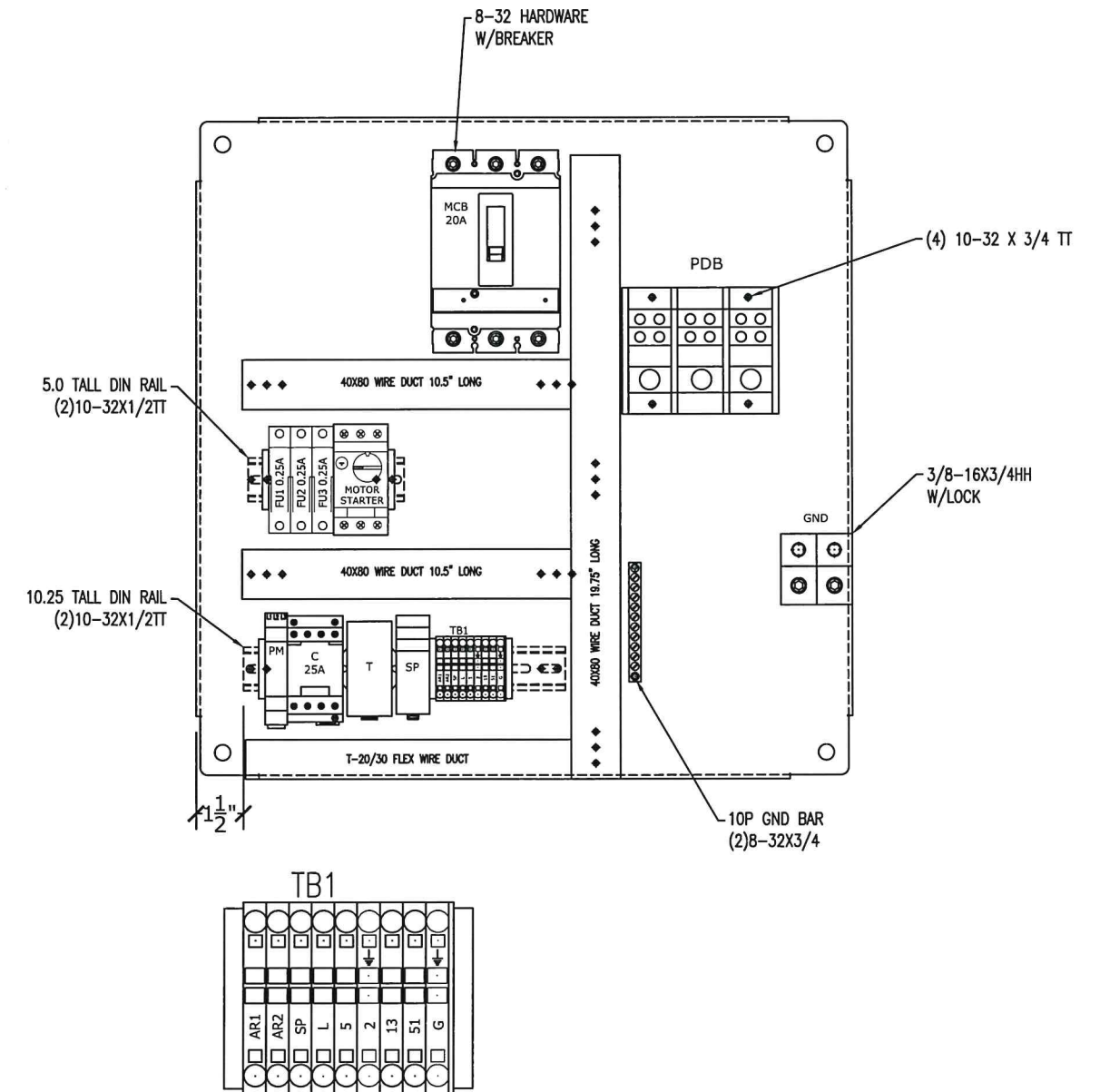
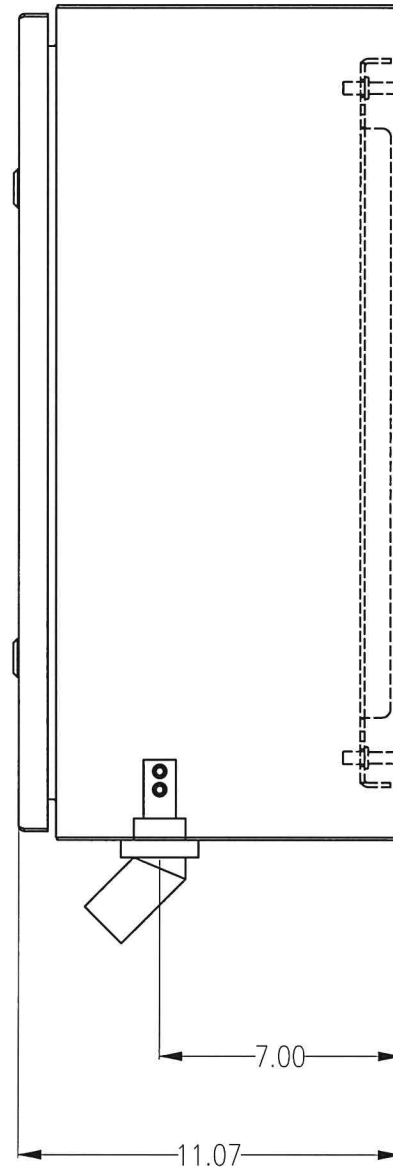
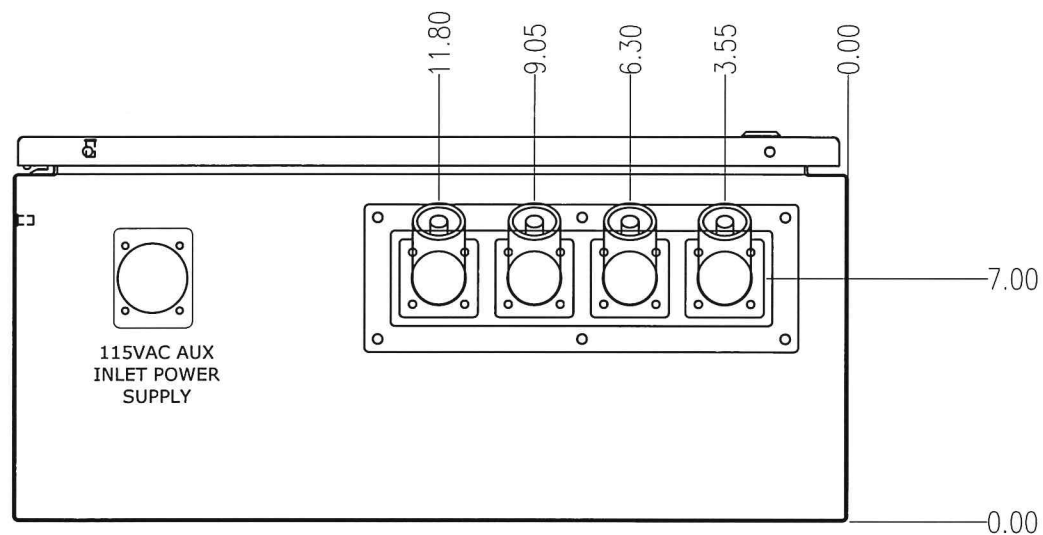
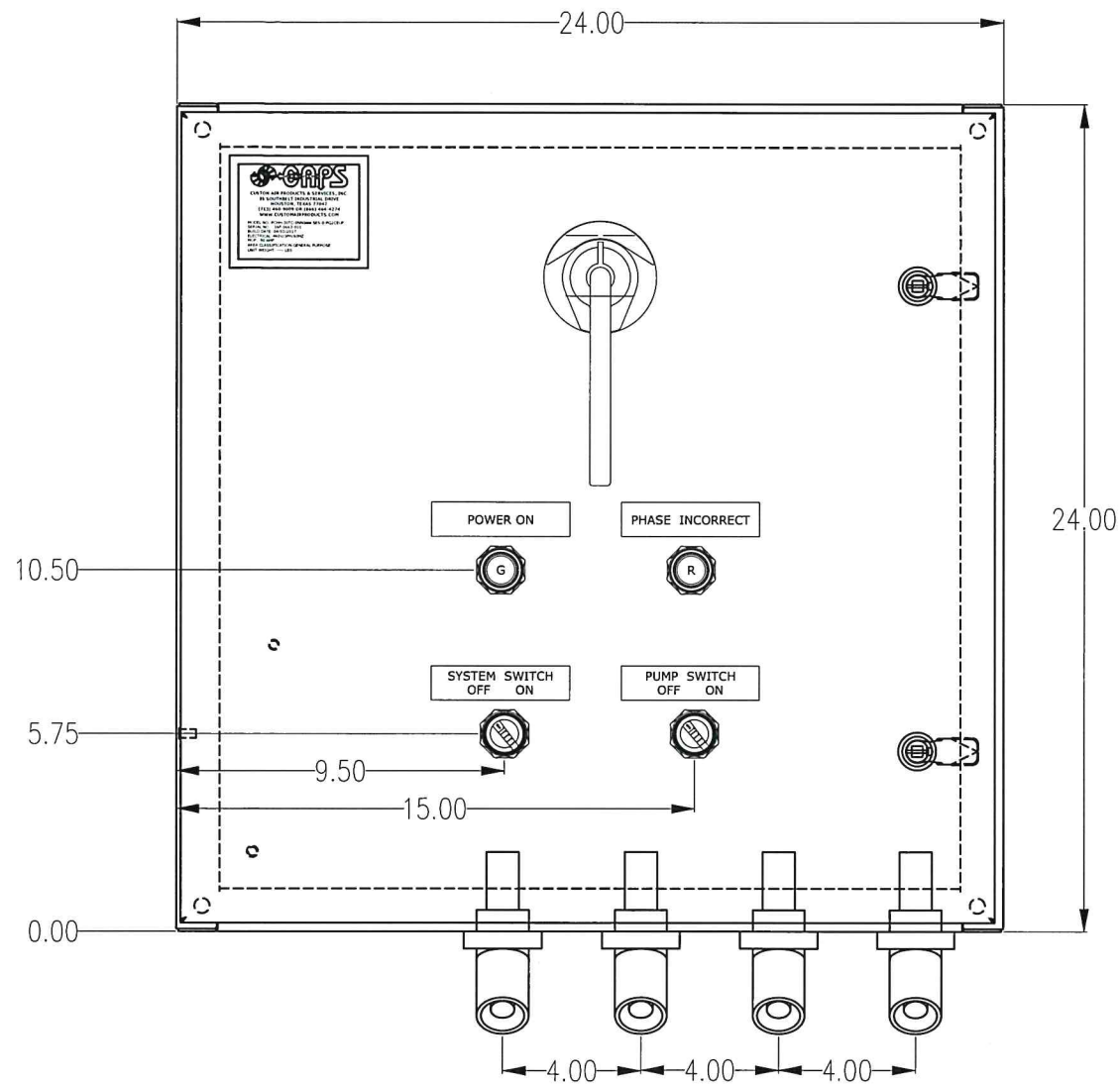
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APPROVER: *[Signature]*

DATE: 12/15/17

CAPS NO.: 17F-0877	DRAWING: E1	DRAWN BY: J.O.MALLEY	DATE: 12/09/2017
CUST. PO#:	SHEET: 1 OF 4	CHECKED BY: DAVID NGUYEN	DATE: 12/09/2017
SIZE: B	REV: 0	APPROVED BY: JOHN PHAN	DATE: 12/11/2017

CUSTOMER:
30 TON AIR COOLED INDUSTRIAL CHILLERS
460V/3PH/60HZ
ELECTRICAL DESIGN
POWER ON CONTROL



NOTES:

1. TERMINAL MARKER FOR TERMINALS MARKED "SP" WILL BE BLANK.
2. EACH DEVICE TO HAVE (2) LABELS. ONE ON DEVICE, ONE ON PANEL BEHIND DEVICE.

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 TEXAS BOARD OF PROFESSIONAL ENGINEERS
 FIRM NUMBER F-14008

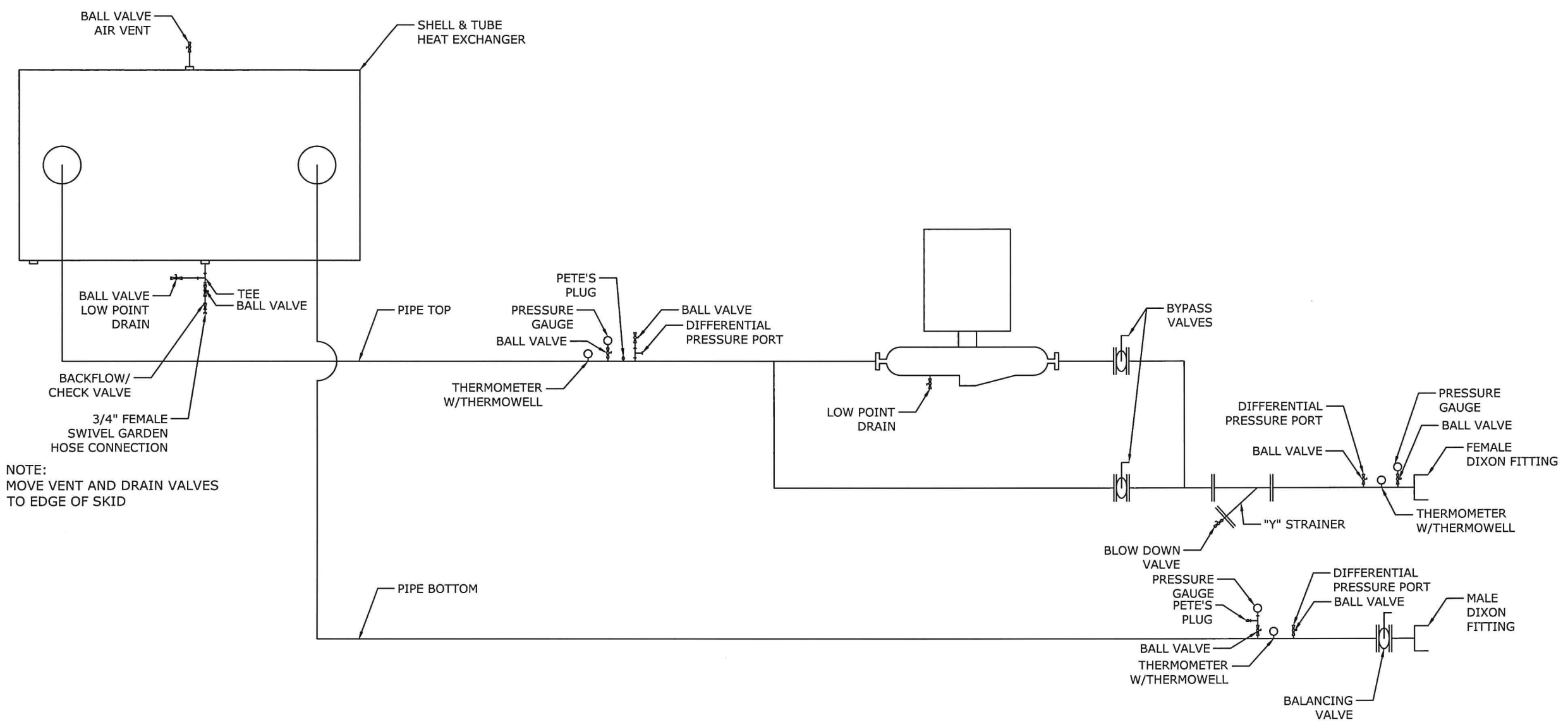
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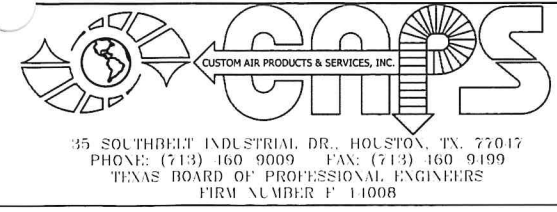
CAPS NO.: 17F-0877	DRAWING: E2	DRAWN BY: J.OMALLEY	DATE: 12/09/2017
CUST. PO#:	SHEET: 2 OF 4	CHECKED BY: DAVID NGUYEN	DATE: 12/09/2017
SIZE: B	REV: 0	APPROVED BY: JOHN PHAN	DATE: 12/11/2017

CUSTOMER:	30 TON AIR COOLED INDUSTRIAL CHILLERS 460V/3PH/60HZ
	ELECTRICAL DESIGN CONTROL ENCLOSURE



NOTE:
MOVE VENT AND DRAIN VALVES
TO EDGE OF SKID

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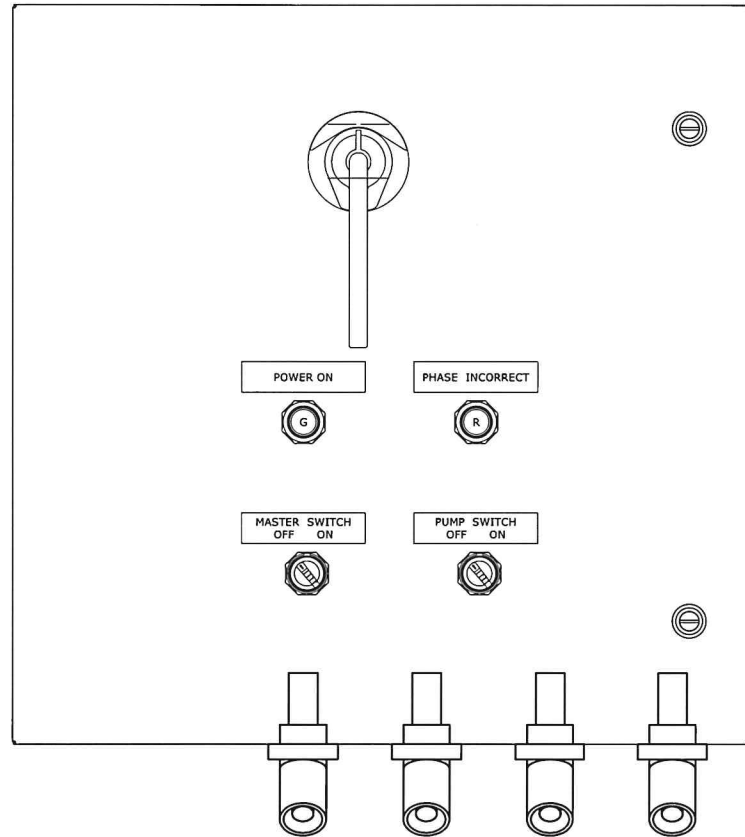
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CAPS NO.: 17F-0877	DRAWING: E3	DRAWN BY: J.OMALLEY	DATE: 12/09/2017
CUST. PO#:	SHEET: 3 OF 4	CHECKED BY: DAVID NGUYEN	DATE: 12/09/2017
SIZE: B	REV: 0	APPROVED BY: JOHN PHAN	DATE: 12/11/2017

CUSTOMER:
**30 TON AIR COOLED INDUSTRIAL CHILLERS
460V/3PH/60HZ**
**ELECTRICAL DESIGN
PIPING SCHEMATIC**

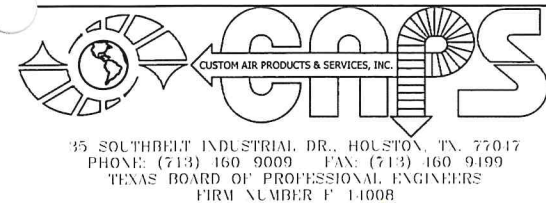


SEQUENCE OF OPERATION

The system is placed into initial operation as follows:

- Turn Master Switch and Pump Switch to "OFF"
- Turn Pump and Chiller Circuit Breakers "ON"
 - If the "Phase Incorrect" light is on, turn off the circuit breakers; reverse two (2) phases of incoming power for proper phase sequencing then check the incoming power source to be sure the unit has a good power source - 460V/3P/60HZ
 - If the "Main Power On" light is on and the "Phase Incorrect" light is off, turn Master Switch to "ON": Chiller will be ready for Crankcase Heater pre-heat and can be operated after 60 minute time delay
- Turn Pump Switch to "ON"
- Turn Chiller Switch to "ON" then set chilled leaving water setpoint
- To shut down Chiller and Pump:
 - 1- Raise setpoint to 70F
 - 2- Turn off Chiller Switch
 - 3- Turn off Pump Switch
 - 4- Turn off Master Switch

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 APPROVER: *John Phan* DATE: *12/15/17*

CAPS NO.: 17F-0877	DRAWING: E4	DRAWN BY: J.OMALLEY	DATE: 12/09/2017
CUST. PO#:	SHEET: 4 OF 4	CHECKED BY: DAVID NGUYEN	DATE: 12/09/2017
SIZE: B	REV: 0	APPROVED BY: JOHN PHAN	DATE: 12/11/2017

CUSTOMER:
 30 TON AIR COOLED INDUSTRIAL CHILLERS
 460V/3PH/60HZ
 ELECTRICAL DESIGN
 SEQUENCE OF OPERATION