



35 SOUTHBELT INDUSTRIAL DR., HOUSTON, TX. 77047
 PHONE: (713) 460-9009 FAX: (713) 460-9499
 TEXAS BOARD OF PROFESSIONAL ENGINEERS
 FIRM NUMBER F-14008

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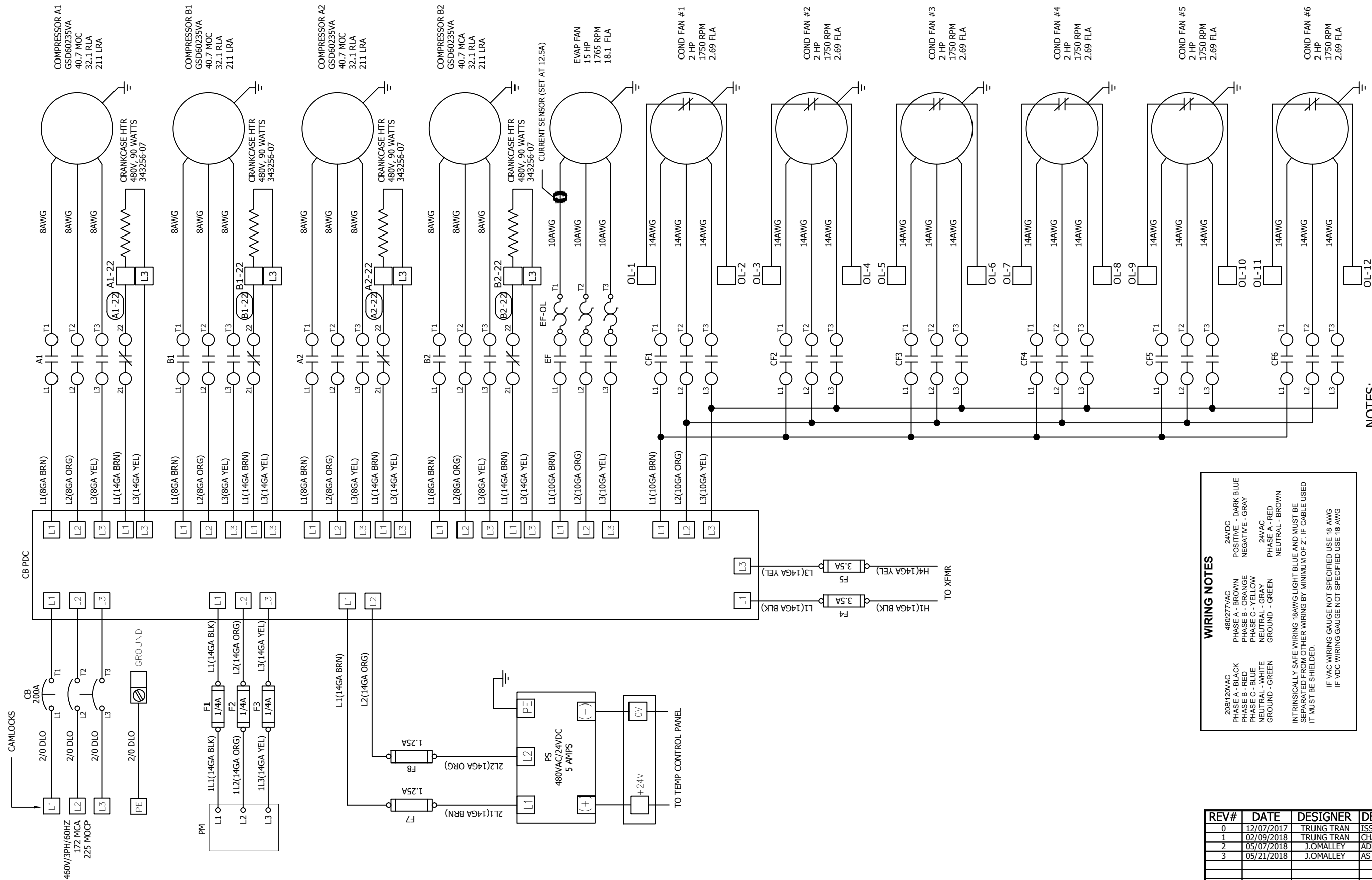
CERTIFIED AS-BUILT

CHECKER: _____ DATE: _____
 APPROVER: _____ DATE: _____

CAPS NO.:	DRAWING:	DRAWN BY:	DATE:
17F-0873	AE1	TRUNG TRAN	12/07/2017
CUST. PO#:	SHEET:	CHECKED BY:	DATE:
	1 OF 5	DAVID NGUYEN	02/09/2018
SIZE:	REV:	APPROVED BY:	DATE:
B	3	DAVID NGUYEN	05/21/2018

REV#	DATE	DESIGNER	DESCRIPTION
0	12/07/2017	TRUNG TRAN	ISSUE FOR CONSTRUCTION
1	02/09/2018	TRUNG TRAN	CHANGE MAIN BREAKER W/MCA & MOP PER ECR# 00352
2	05/07/2018	J.OMALLEY	ADDED NUCO DRAWINGS ECN#00458
3	05/21/2018	J.OMALLEY	AS BUILT

CUSTOMER:	HERC RENTAL
	80 TON INDUSTRIAL PACKAGE UNITS 100% OUTSIDE AIR; NEAM 4 480V/3P/60HZ ELECTRICAL DESIGN HVAC WIRING DIAGRAM - HIGH VOLTAGE



WIRING NOTES

208/120VAC
 PHASE A - BLACK
 PHASE B - RED
 PHASE C - BLUE
 NEUTRAL - WHITE
 GROUND - GREEN

480/277VAC
 PHASE A - BROWN
 PHASE B - ORANGE
 PHASE C - YELLOW
 NEUTRAL - GRAY
 GROUND - GREEN

24VDC
 POSITIVE - DARK BLUE
 NEGATIVE - GRAY

24VAC
 PHASE A - RED
 NEUTRAL - BROWN

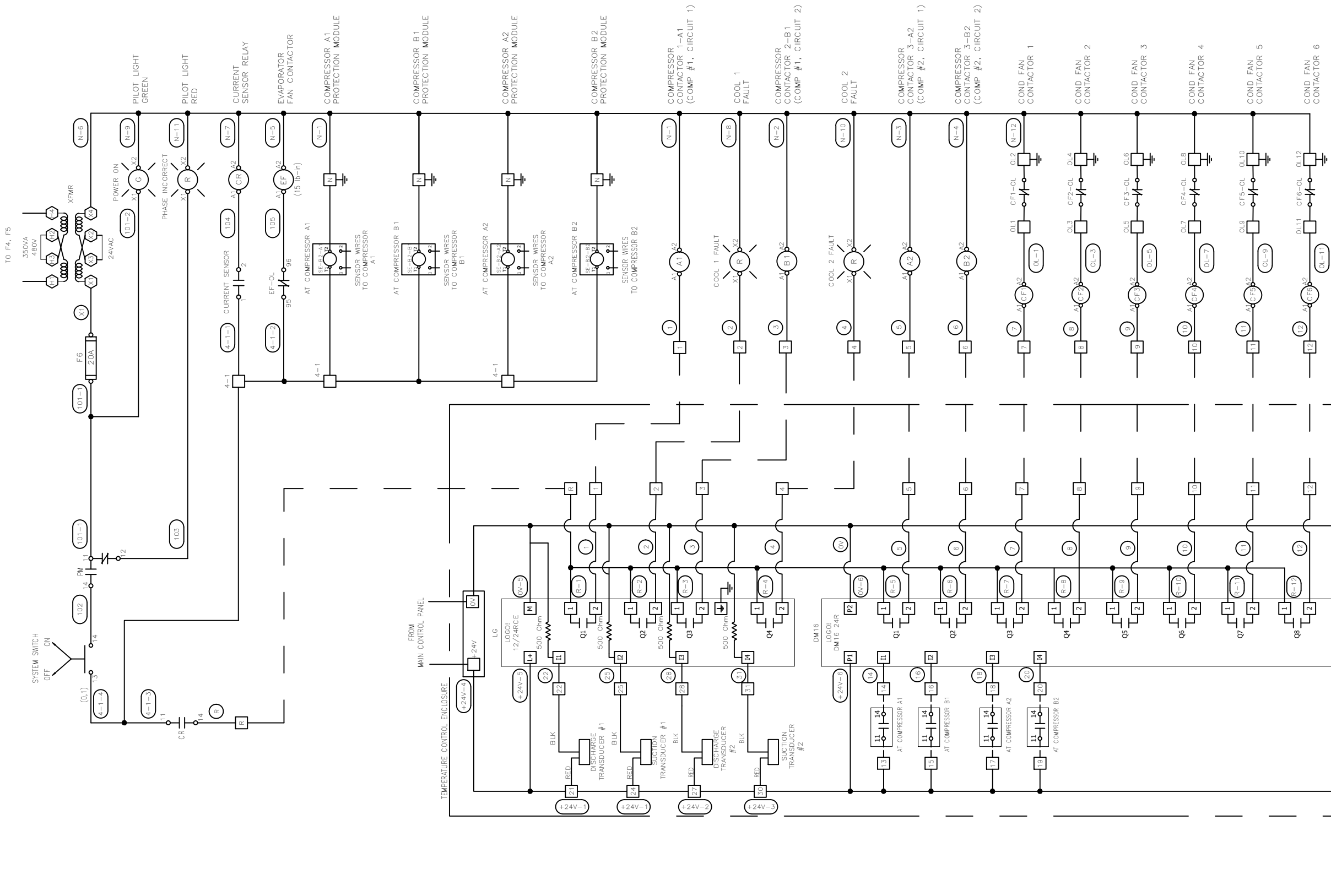
INTRINSICALLY SAFE WIRING 18AWG LIGHT BLUE AND MUST BE SEPARATED FROM OTHER WIRING BY MINIMUM OF 2". IF CABLE USED IT MUST BE SHIELDED.
 IF VAC WIRING GAUGE NOT SPECIFIED USE 18 AWG
 IF VDC WIRING GAUGE NOT SPECIFIED USE 18 AWG

LEGEND

- EF - EVAPORATOR FAN CONTACTOR
- CF - CONDENSOR FAN CONTACTOR
- CC - COMPRESSOR CONTACTOR
- pC03 - CAREL MODULE
- PM - PHASE MONITOR
- PDB - POWER DISTRIBUTION BLOCK

NOTES:

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



LEGEND

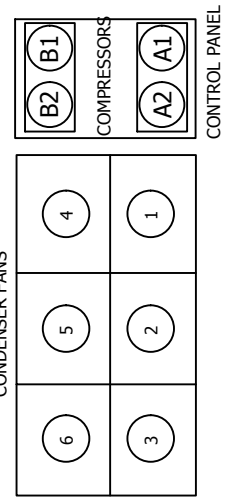
- EVAPORATOR FAN CONTACTOR
- CONDENSER FAN CONTACTOR
- COMPRESSOR PROTECTION MODULE
- PHASE MONITOR
- POWER DISTRIBUTION BLOCK

WIRING NOTES

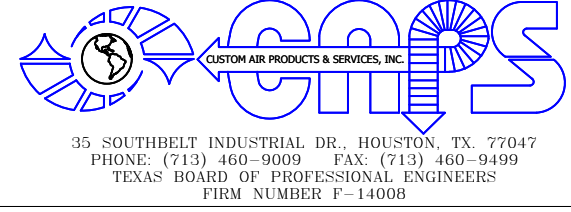
- 208V/230VAC
- 480/277VAC
- PHASE A - BROWN
- PHASE B - BLACK
- PHASE C - BLUE
- NEUTRAL - GRAY
- GROUND - GREEN
- 24VDC
- POSITIVE - DARK BLUE
- NEGATIVE - GRAY
- 24VAC
- NEUTRAL - BROWN
- GROUND - GREEN

INTRINSICALLY SAFE WIRING (ANSI LIGHT BLUE AND BROWN) 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



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2	05/07/2018	J.OMALLEY	ADDED NUCO DRAWINGS ECN#00458
3	05/21/2018	J.OMALLEY	AS BUILT



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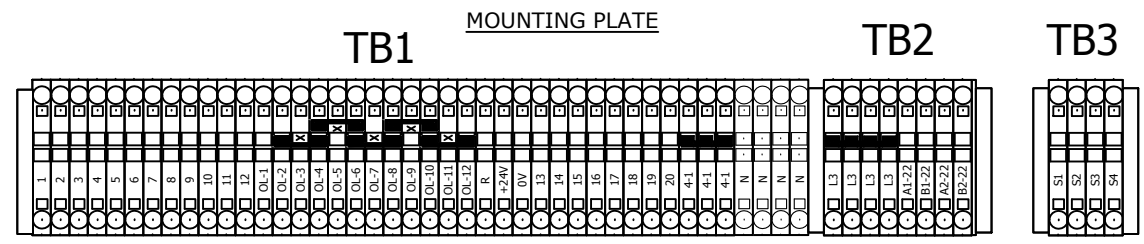
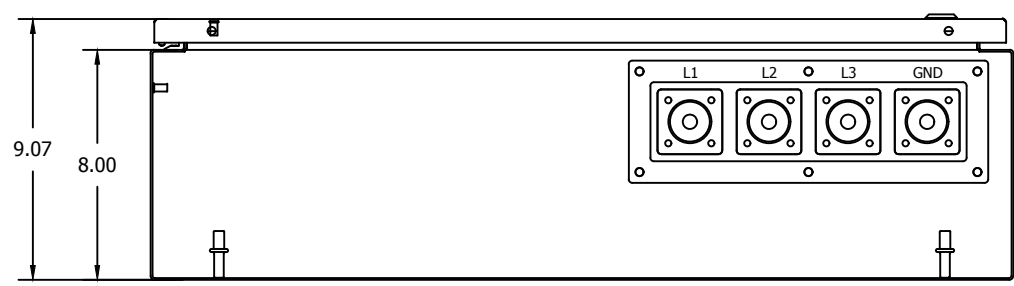
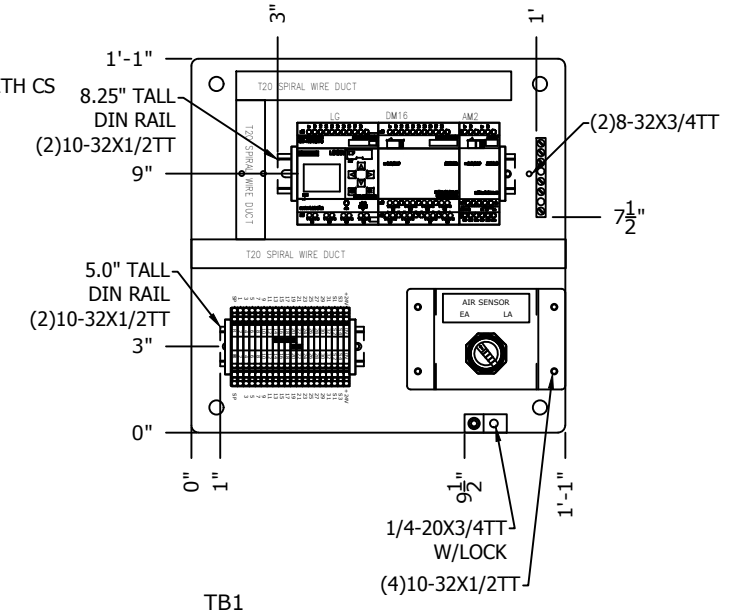
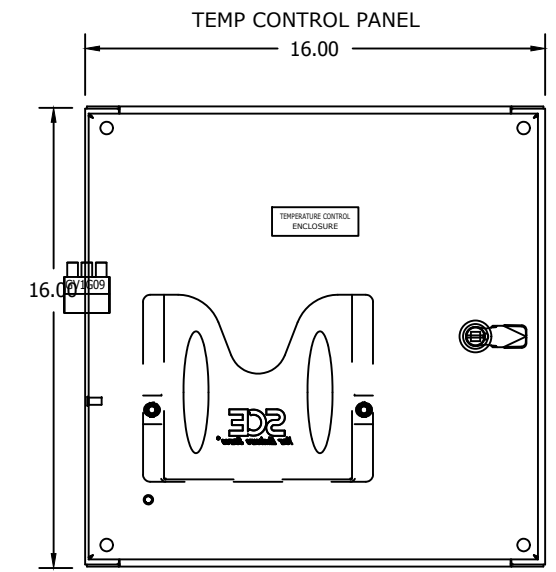
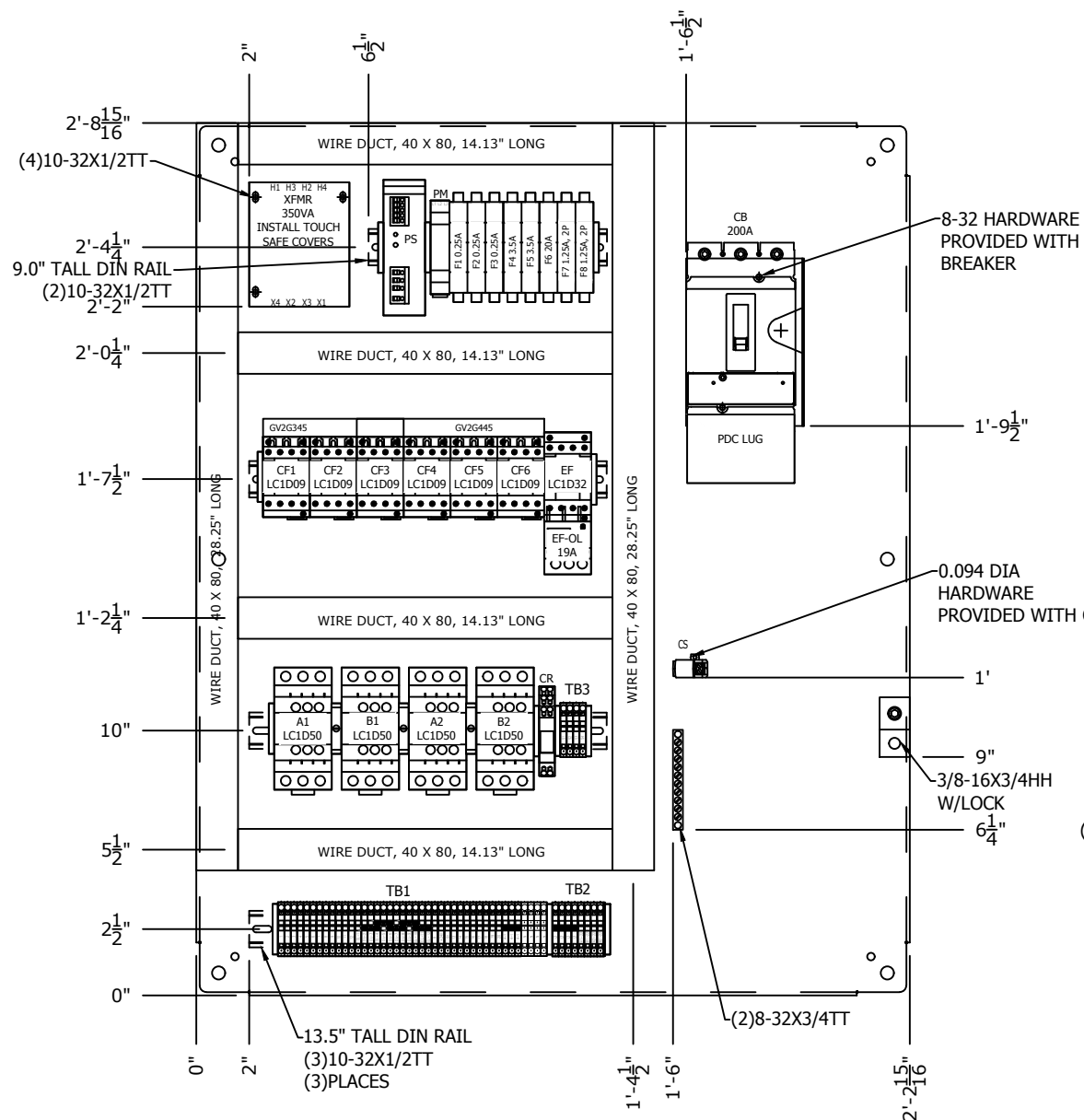
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CHECKER: _____ DATE: _____
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CAPS NO.:	DRAWING:	DRAWN BY:	DATE:
17F-0873	AE2	TRUNG TRAN	12/07/2017
CUST. PO#:	SHEET:	CHECKED BY:	DATE:
	2 OF 5	DAVID NGUYEN	02/09/2018
SIZE:	REV:	APPROVED BY:	DATE:
B	3	DAVID NGUYEN	05/21/2018

CUSTOMER: **HERC RENTAL**

**80 TON INDUSTRIAL PACKAGE UNITS
 100% OUTSIDE AIR; NEAM 4
 480V/3P/60HZ
 ELECTRICAL DESIGN
 HVAC WIRING DIAGRAM - LOW VOLTAGE**



- NOTES:
- EACH DEVICE TO HAVE (2) LABELS. ONE ON DEVICE, ONE ON PANEL BEHIND DEVICE.
 - ALL DIN RAIL AND WIRE DUCT MOUNTED WITH 10-32X1/2 TTT

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3	05/21/2018	J.OMALLEY	AS BUILT



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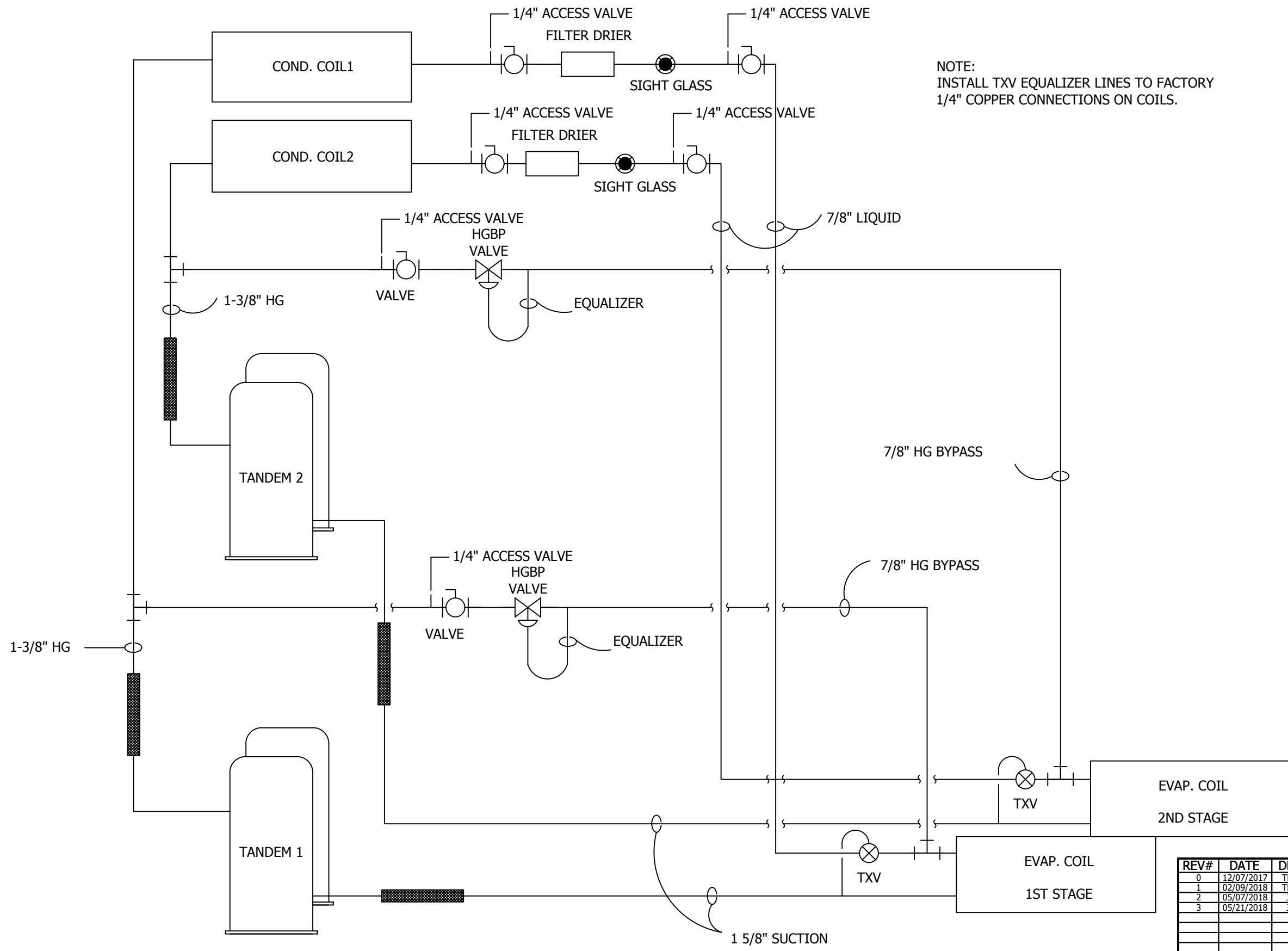
CAPS NO.: 17F-0873
 DRAWING: AE3
 DRAWN BY: TRUNG TRAN
 DATE: 12/07/2017

CUST. PO#: _____
 SHEET: 3 OF 5
 CHECKED BY: DAVID NGUYEN
 DATE: 02/09/2018

SIZE: B
 REV: 3
 APPROVED BY: DAVID NGUYEN
 DATE: 05/21/2018

CUSTOMER: HERC RENTAL

80 TON INDUSTRIAL PACKAGE UNITS
 100% OUTSIDE AIR; NEAM 4
 480V/3P/60HZ
 ELECTRICAL DESIGN
 HVAC CONTROL ENCLOSURE #1 LAYOUT



NOTE:
INSTALL TXV EQUALIZER LINES TO FACTORY
1/4" COPPER CONNECTIONS ON COILS.

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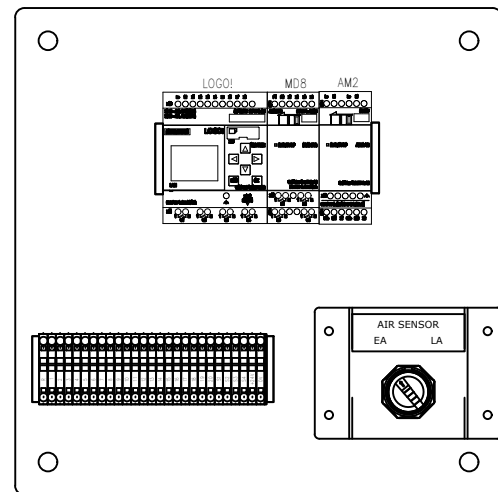
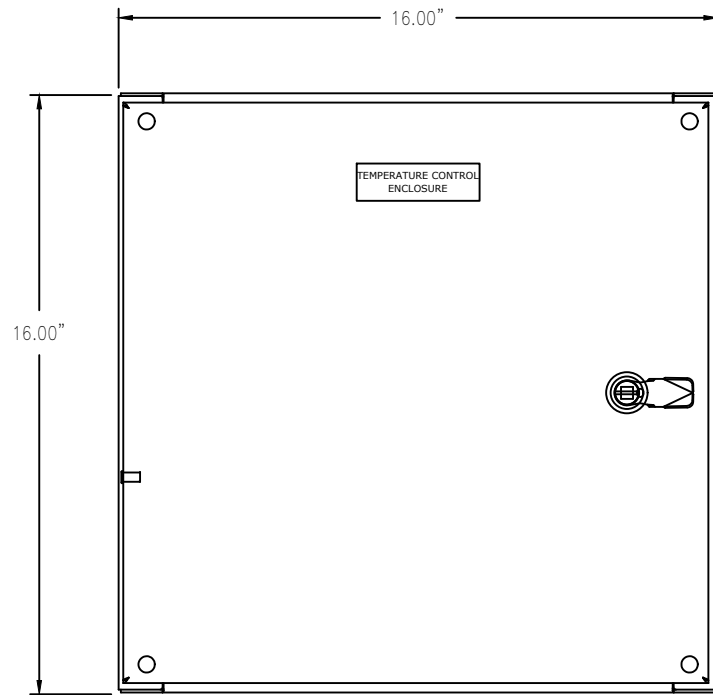
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CAPS NO.: 17F-0873	DRAWING: AE4	DRAWN BY: TRUNG TRAN	DATE: 12/07/2017
CUST. PO#:	SHEET: 4 OF 5	CHECKED BY: DAVID NGUYEN	DATE: 02/09/2018
SIZE: B	REV: 3	APPROVED BY: DAVID NGUYEN	DATE: 05/21/2018

CUSTOMER: **HERC RENTAL**

**80 TON INDUSTRIAL PACKAGE UNITS
100% OUTSIDE AIR; NEAM 4
480V/3P/60HZ
ELECTRICAL DESIGN
P&ID**



SEQUENCE OF OPERATION

The system is placed into initial operation as follows:

- Turn System Switch to "OFF"
- Turn Circuit Breaker "ON"
 - If the "Phase Incorrect" light is on, turn off the circuit breaker; 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 "Power On" light is on and the "Phase Incorrect" light is off, the unit is ready for operation
- Turn System Switch to "ON"
- Air Sensor Switch settings:
 - 1- Leaving: The HVAC is controlled by the leaving air temperature
 - 2- Entering: The HVAC is controlled by the return air temperature
- Thermostat field settings:
 - 1- Press PRG
 - 2- Press DOWN buttons to move down to next screen (temperature setpoint)
 - 3- Press ENTER to highlight temperature setting and use up and down arrows to change temperature.
 - 4 - Press Enter to accept the change
 - 5 - Press Escape to return to main screen.
- If a Compressor is failed, it will be turned off and locked out then its light alarm will be turned on.
- Only use System Switch to turn off the unit

NOTE: THIS UNIT IS "COOL" ONLY

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CUSTOMER:	HERC RENTAL
	80 TON INDUSTRIAL PACKAGE UNITS 100% OUTSIDE AIR; NEAM 4 480V/3P/60HZ ELECTRICAL DESIGN SEQUENCE OF OPERATION