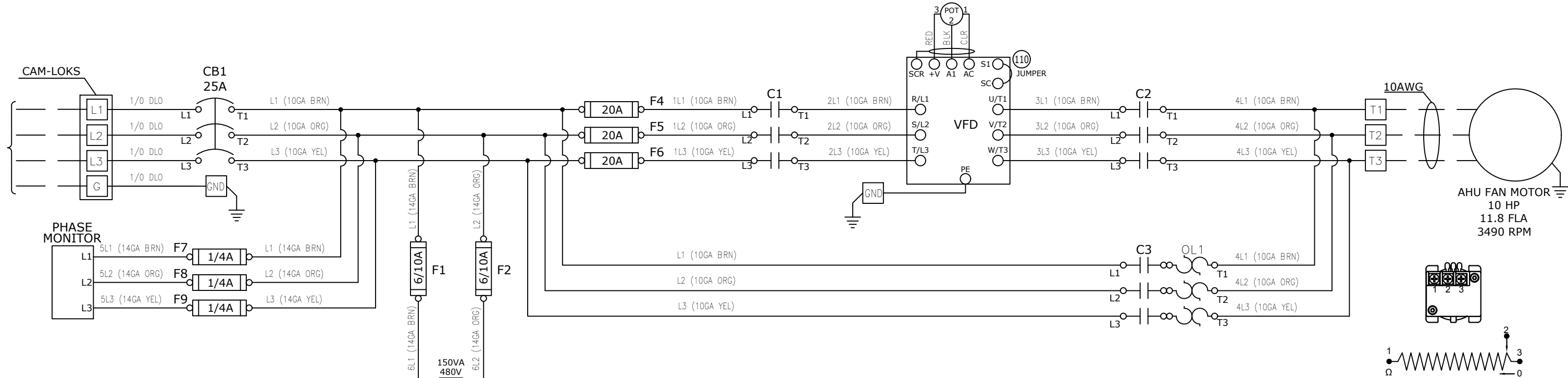


460/3/60  
19 MCA  
25 MOCP



### LEGEND

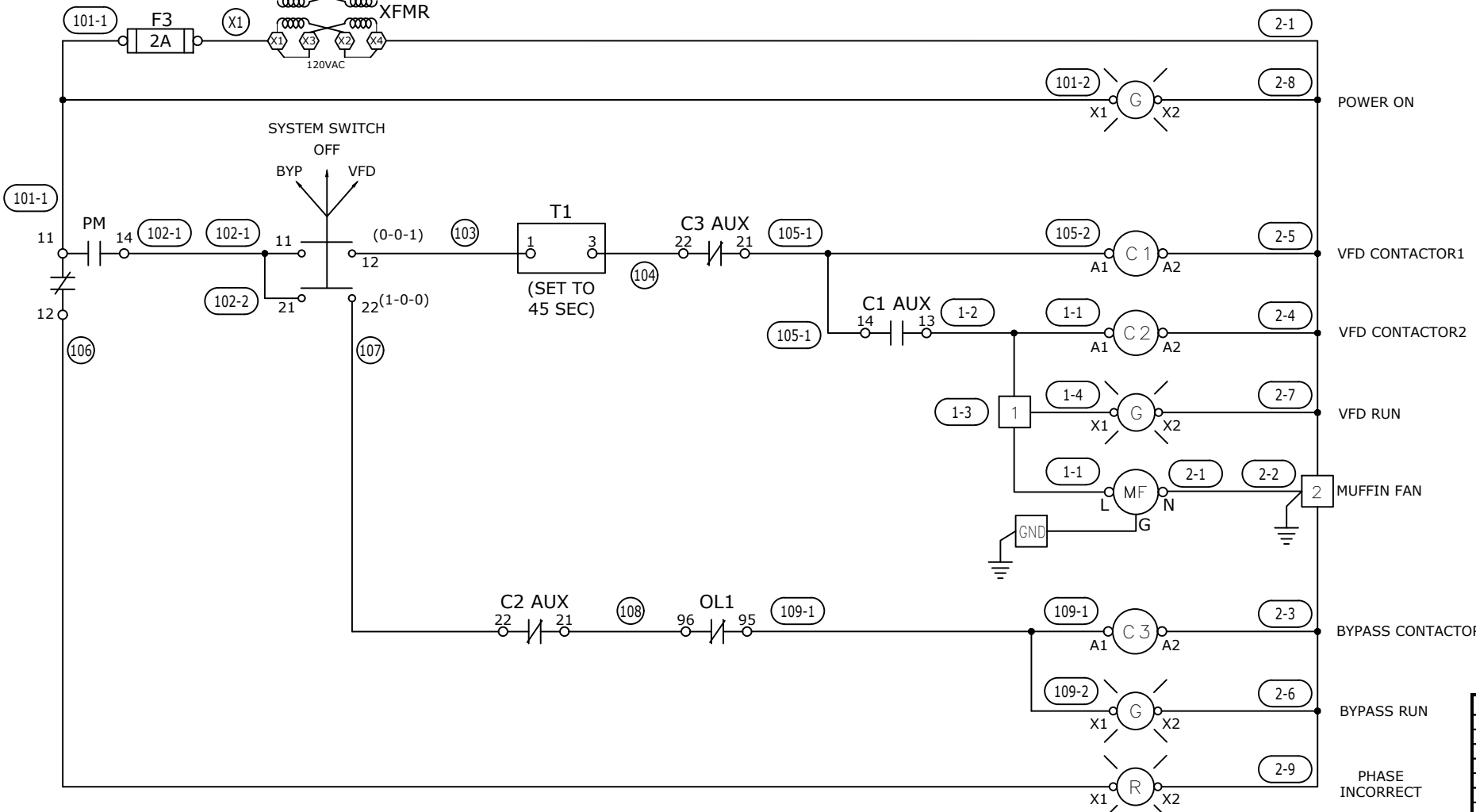
C1	- VFD CONTACTOR
C2	- VFD CONTACTOR 2
C3	- BYPASS CONTACTOR
CB	- CIRCUIT BREAKER
FU	- FUSE
MF	- MUFFIN FAN
OL	- OVERLOAD
PM	- PHASE MONITOR
T1	- TIMER
XFMR	- CONTROL CIRCUIT TRANSFORMER
VFD	- VARIABLE FREQUENCY DRIVE

### 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



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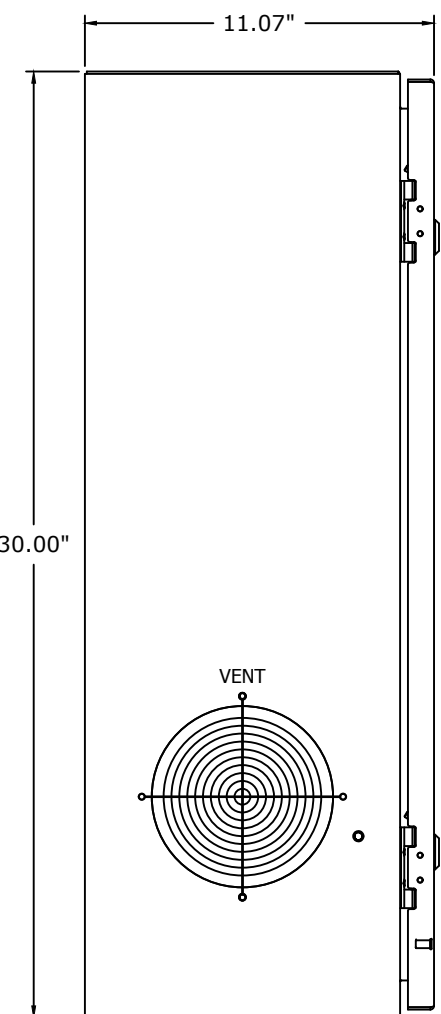
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APPROVER: \_\_\_\_\_ DATE: \_\_\_\_\_

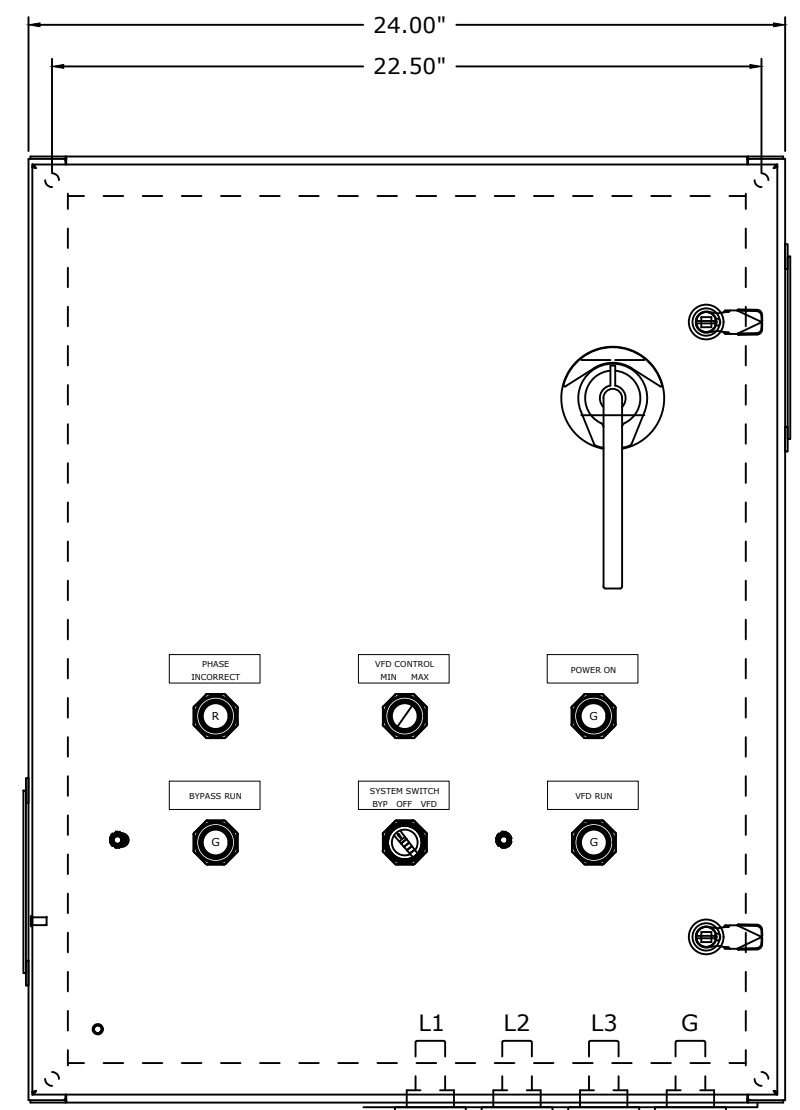
CAPS NO.: 17F-0862  
DRAWING: AE1  
DRAWN BY: TRUNG TRAN  
DATE: 12/12/2017  
CUST. PO#: \_\_\_\_\_  
SHEET: 1 OF 5  
CHECKED BY: DAVID NGUYEN  
DATE: 04/27/2018  
SIZE: B  
REV: 1  
APPROVED BY: LARRY NOVAK  
DATE: 04/27/2018

CUSTOMER: HERC RENTALS

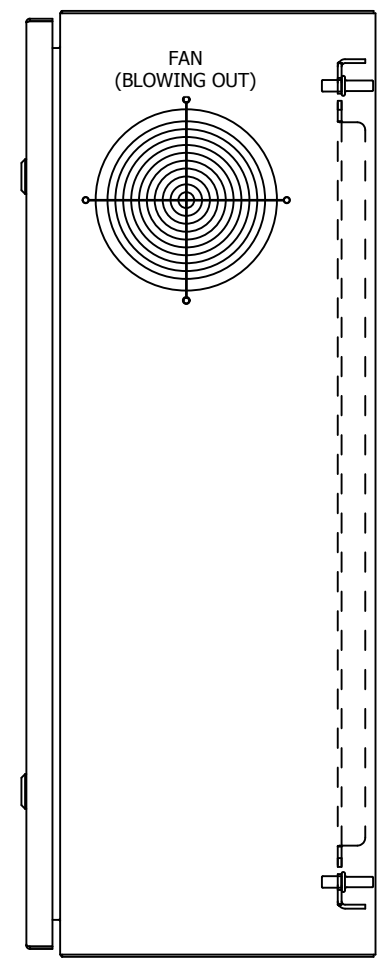
50 TON CHILLED WATER AIR HANDLING UNIT  
GALV SKID, GALV CAGE, COATED HOUSING  
DUCTED RETURN, 460V/3PH/60HZ, NEMA4 CONSTRUCTION  
ELECTRICAL DESIGN  
POWER & CONTROL WIRING



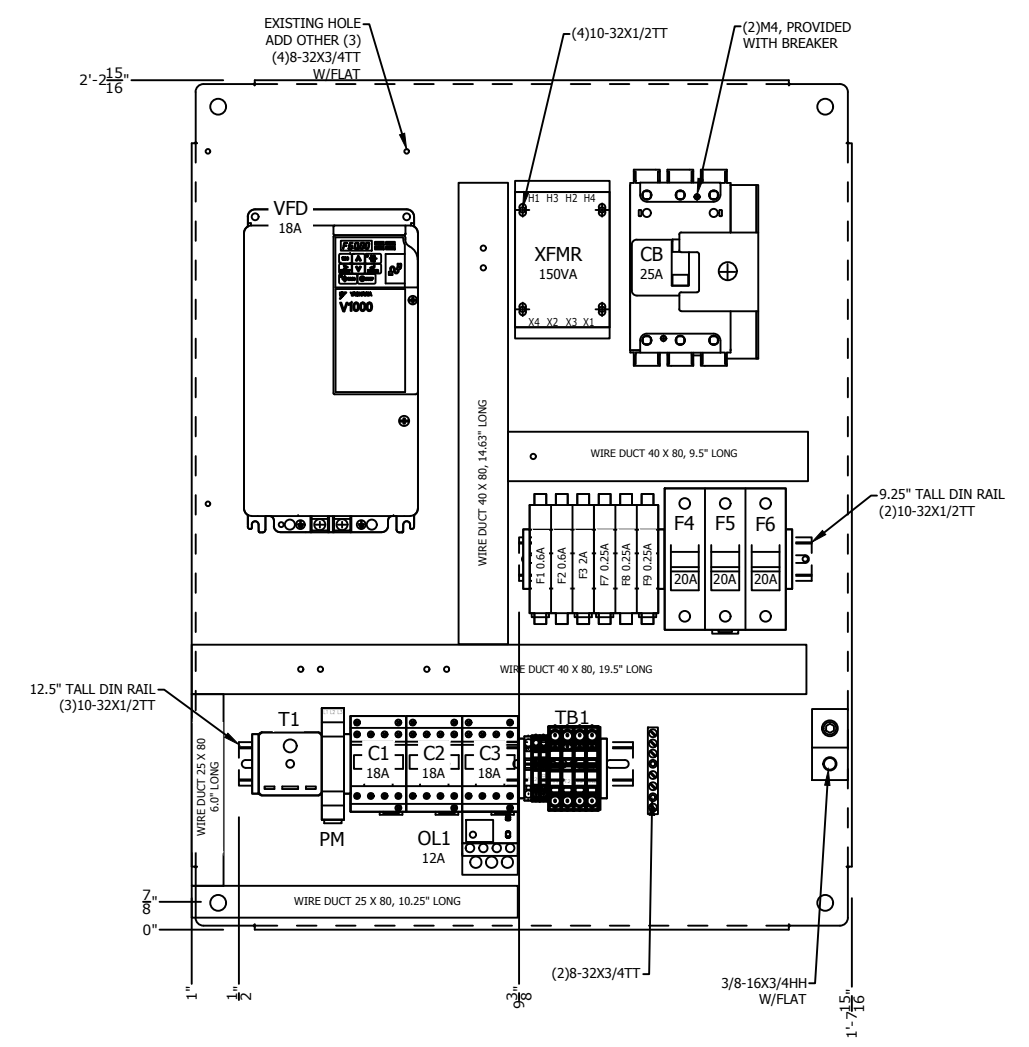
L.H. SIDE VIEW



FRONT VIEW



R.H. SIDE VIEW

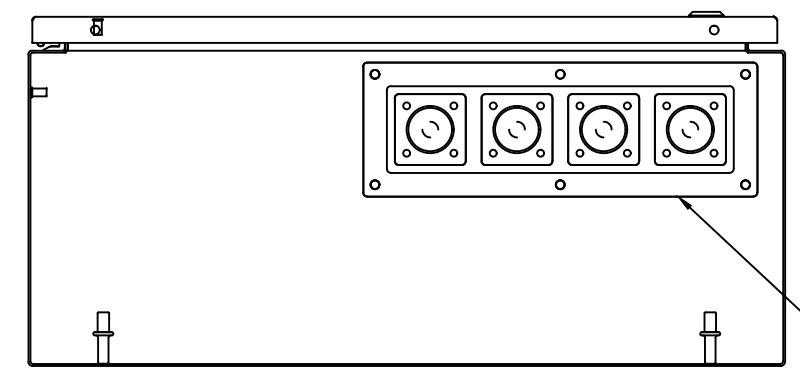


MOUNTING PLATE

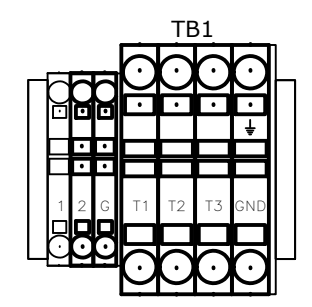
### LEGEND

C1	- VFD CONTACTOR
C2	- VFD CONTACTOR 2
C3	- BYPASS CONTACTOR
CB	- CIRCUIT BREAKER
FU	- FUSE
MF	- MUFFIN FAN
OL	- OVERLOAD
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VFD	- VARIABLE FREQUENCY DRIVE

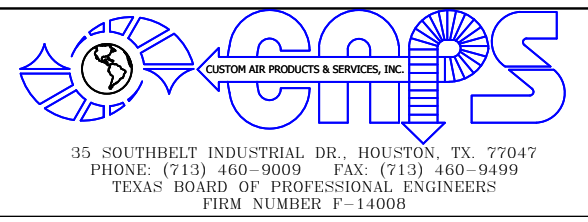
- NOTES:
- EACH DEVICE TO HAVE (2) LABELS. ONE ON DEVICE, ONE ON PANEL BEHIND DEVICE.
  - ALL DIN RAIL AND WIRE DUCT MOUNTED WITH 10-32X1/2 TT



BOTTOM VIEW



NC-EMC012-P005



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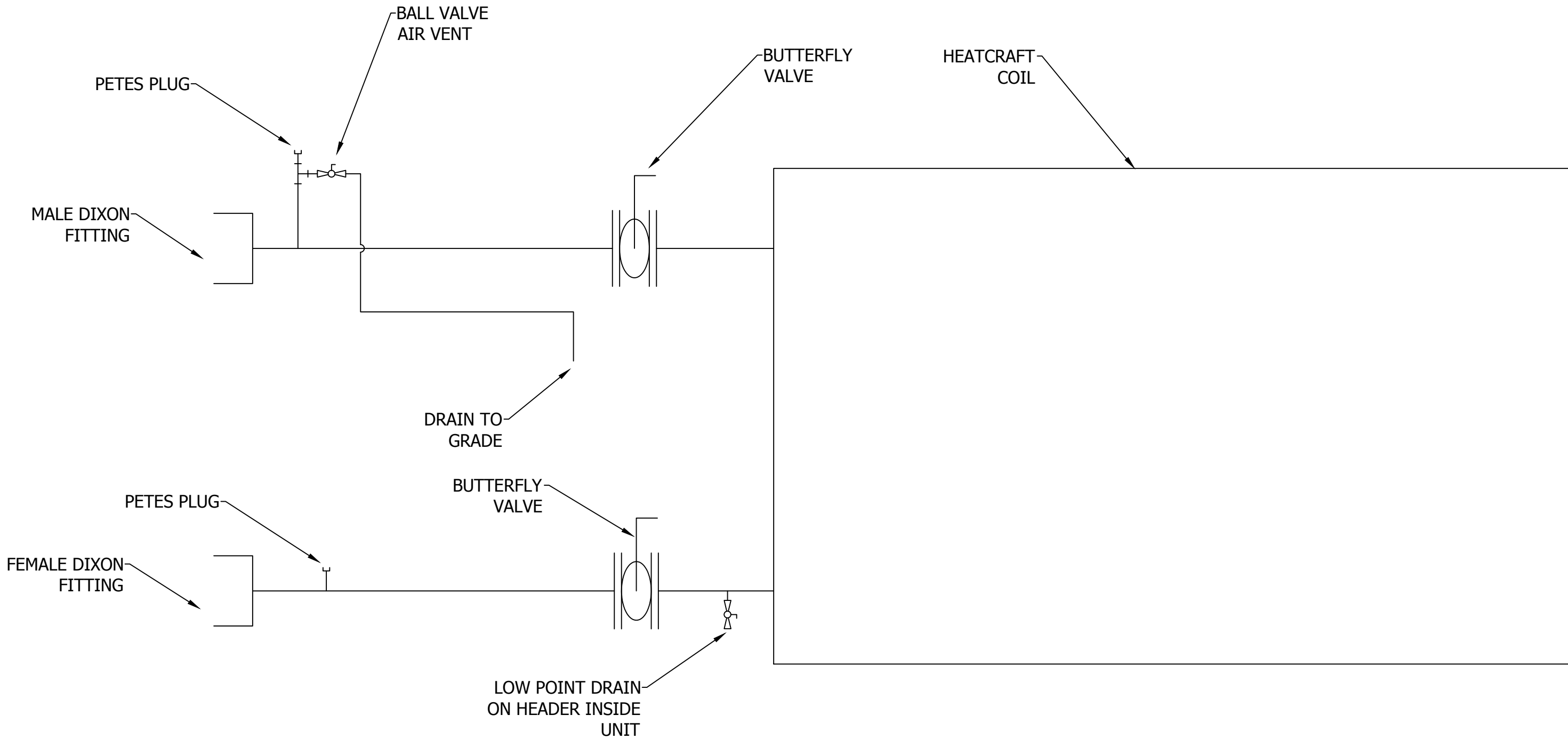
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CAPS NO.:	DRAWING:	DRAWN BY:	DATE:
17F-0862	AE2	TRUNG TRAN	12/12/2017
CUST. PO#:	SHEET:	CHECKED BY:	DATE:
	2 OF 5	DAVID NGUYEN	04/27/2018
SIZE:	REV:	APPROVED BY:	DATE:
B	1	LARRY NOVAK	04/27/2018

REV#	DATE	DESIGNER	DESCRIPTION
0	12/12/2017	TRUNG TRAN	ISSUE FOR CONSTRUCTION
1	04/27/2018	TRUNG TRAN	AS BUILT

CUSTOMER: **HERC RENTALS**

**50 TON CHILLED WATER AIR HANDLING UNIT  
GALV SKID, GALV CAGE, COATED HOUSING  
DUCTED RETURN, 460V/3PH/60HZ, NEMA4 CONSTRUCTION  
ELECTRICAL DESIGN  
CONTROL PANEL LAYOUT**



REV#	DATE	DESIGNER	DESCRIPTION
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35 SOUTHBELT INDUSTRIAL DR., HOUSTON, TX. 77047  
 PHONE: (713) 460-9009 FAX: (713) 460-9499  
 TEXAS BOARD OF PROFESSIONAL ENGINEERS  
 FIRM NUMBER P-14008

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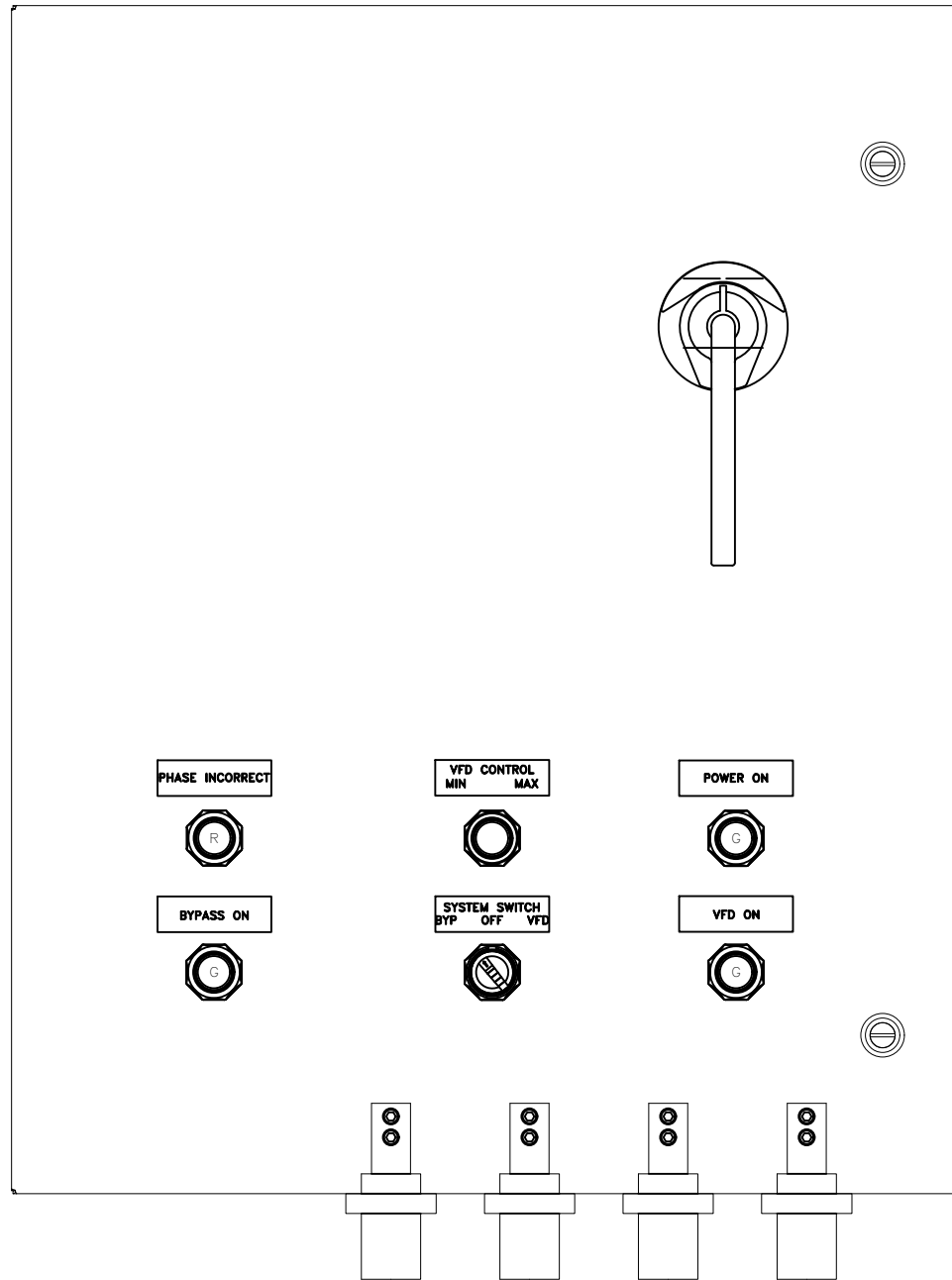
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CAPS NO.:	DRAWING:	DRAWN BY:	DATE:
17F-0862	AE3	TRUNG TRAN	12/12/2017
CUST. PO#:	SHEET:	CHECKED BY:	DATE:
	3 OF 5	DAVID NGUYEN	04/27/2018
SIZE:	REV:	APPROVED BY:	DATE:
B	1	LARRY NOVAK	04/27/2018

CUSTOMER:	HERC RENTALS
50 TON CHILLED WATER AIR HANDLING UNIT GALV SKID, GALV CAGE, COATED HOUSING DUCTED RETURN, 460V/3PH/60HZ, NEMA4 CONSTRUCTION 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 position that you desire
  - 1- Bypass: The evaporator fan will bypass the VFD and runs at full speed. The "Bypass Run" light will turn on
  - 2- VFD: "VFD run" light will turn on. The evaporator fan will be controlled by the VFD. Use the POT switch to adjust evaporator fan speed.
- Only use System Switch to turn off the unit

**NOTE: UNIT DOES NOT HAVE A THERMOSTAT**

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 PHONE: (713) 460-9009 FAX: (713) 460-9499  
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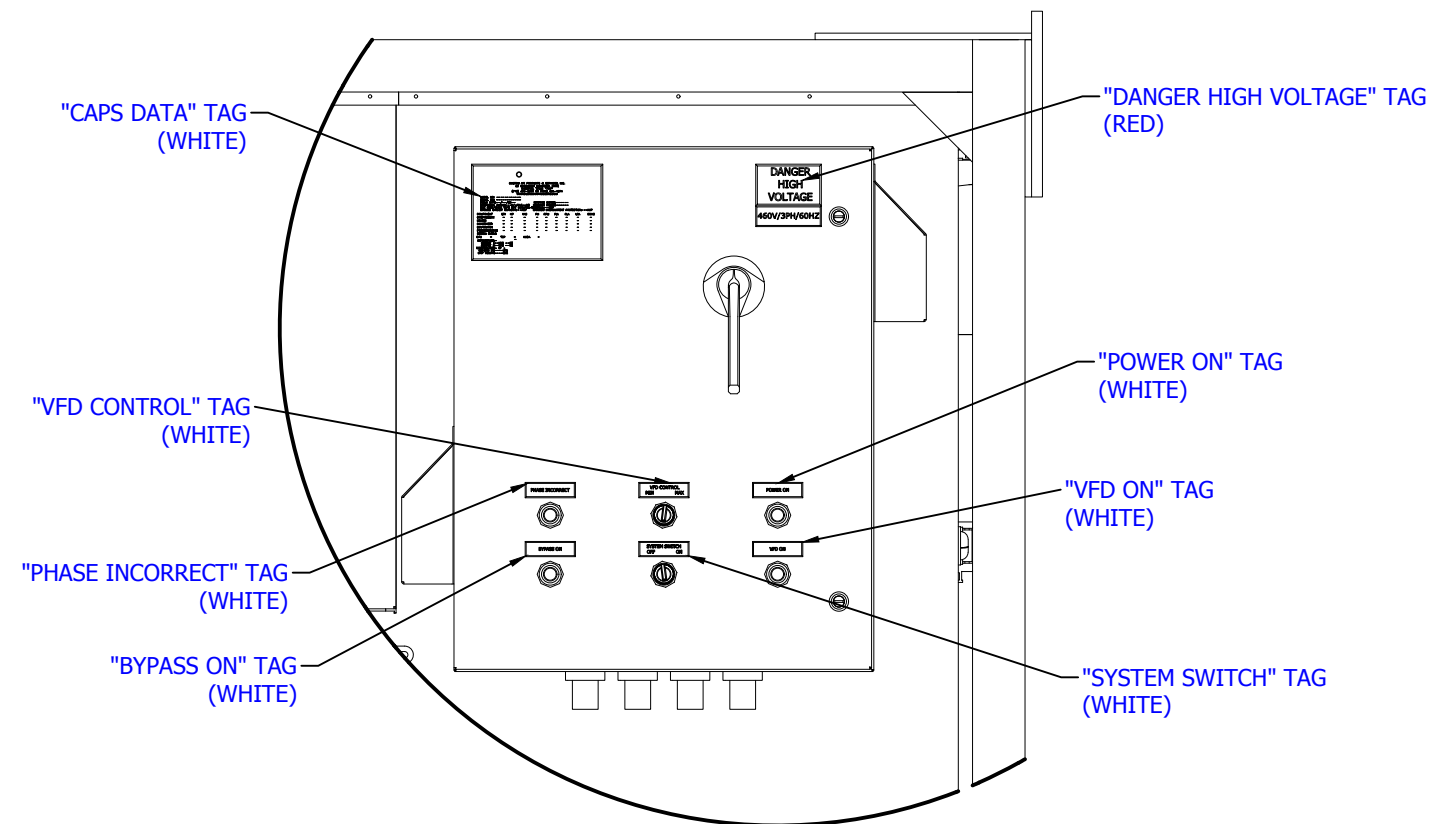
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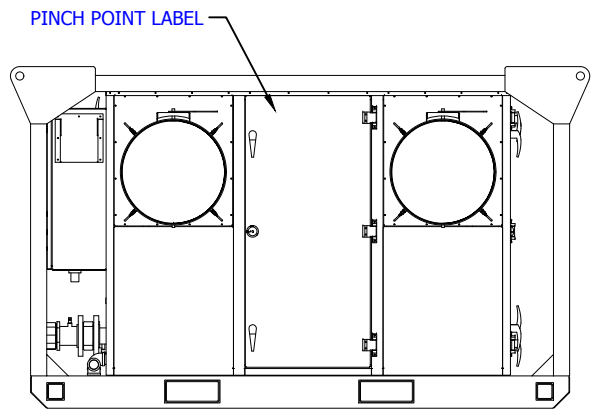
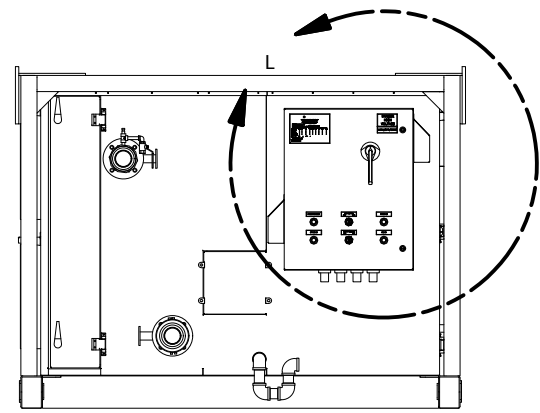
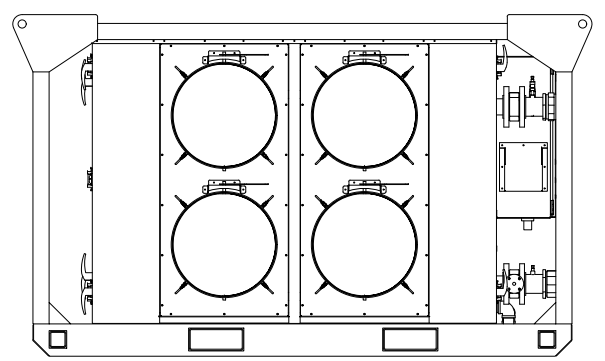
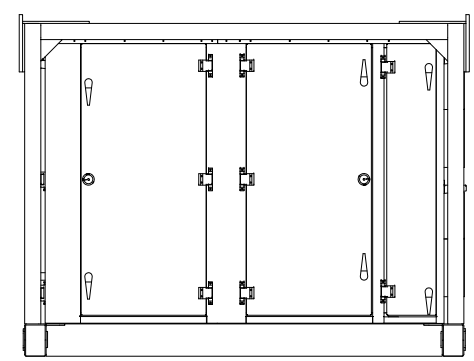
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CAPS NO.:	DRAWING:	DRAWN BY:	DATE:
17F-0862	AE4	TRUNG TRAN	12/12/2017
CUST. PO#:	SHEET:	CHECKED BY:	DATE:
	4 OF 5	DAVID NGUYEN	04/27/2018
SIZE:	REV:	APPROVED BY:	DATE:
B	1	LARRY NOVAK	04/27/2018

CUSTOMER:	HERC RENTALS
50 TON CHILLED WATER AIR HANDLING UNIT GALV SKID, GALV CAGE, COATED HOUSING DUCTED RETURN, 460V/3PH/60HZ, NEMA4 CONSTRUCTION ELECTRICAL DESIGN SEQUENCE OF OPERATION	



DETAIL L  
NTS



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CAPS NO.: 17F-0862	DRAWING: AE5	DRAWN BY: TRUNG TRAN	DATE: 12/12/2017
CUST. PO#:	SHEET: 5 OF 5	CHECKED BY: DAVID NGUYEN	DATE: 04/27/2018
SIZE: B	REV: 1	APPROVED BY: LARRY NOVAK	DATE: 04/27/2018

CUSTOMER: **HERC RENTALS**

**50 TON CHILLED WATER AIR HANDLING UNIT  
GALV SKID, GALV CAGE, COATED HOUSING  
DUCTED RETURN, 460V/3PH/60HZ, NEMA4 CONSTRUCTION  
ELECTRICAL DESIGN  
TAG LAYOUT**