



CUSTOM AIR PRODUCTS & SERVICES, INC.

35 Southbelt Industrial Drive • Houston, Texas 77047

(713) 460-9009 • Fax (713) 460-9499

www.customairproducts.com

HERC

2018 RENTAL FLEET

17F-0863

(1) 75 TON INDUSTRIAL AHU

-

GALVANIZED SKID & CAGE

-

460V/3PH/60HZ

GENERAL PURPOSE

8/7/2018

INSTALLATION & OPERATION MANUAL

BOOK ASSEMBLED BY: JONATHAN O'MALLEY

DATE: 8/7/2018

**Table
Of
Contents
17F-0863**

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SECTION

01

JOB SCOPE



Quote No:	DW17-11-08-21
Quote Date:	11-08-2017
Project Type:	(1) 75 Ton Industrial Air Handling Unit
Drawing Delivery:	2 weeks after receipt of order
Equipment Delivery:	12-14 weeks After Receipt of Approved Drawings (ARAD)
Freight Terms:	FOB HERC
Payment Terms:	<i>Net 45 100% upon completion</i>

Item	Qty	Description
1.	1	<p>CAPS Model # PAHH-75TC-0NN0NN-5E5-P2-VG2CEUP Unit shall consist of the following components:</p> <ul style="list-style-type: none"> The certified skid shall be fabricated from 3/16" thick, 6" X 4" rectangular steel tube. The skid size is length and width plus piping headers so that no part of the unit is outside of the rack. The fork truck lifting slots are 4" X 10" X 3/16" and made of the same material and are incorporated into the design on 48" centers apart. The skid components are continuously welded at all joints. All tubing ends are capped and continuously welded. The skid incorporates 4" X 4" tie-down holes in each corner of the tubing and is welded solid. All unit serial numbers and weight tags shall be cutout on a steel plate and attached to the skid at diagonal corner locations. Center of gravity will be clearly marked on the upper and lower portion of the skid / frame assembly. The lifting frame material shall be 3" X 3" square steel tubing. This frame is designed for certified overhead lifting and stacking of the units. All tubing ends are capped and continuously welded. The tubing is cut and fit to the height, width, and length of the unit. All corners have a 45 degree, 3/8" steel plate gusset. The top of the frame has a 3/8" steel plate superman gusset welded to the horizontal tubing and incorporates a 1½ inch hole that aligns with the drag eye to secure stacking of units. The entire certified skid and lifting / stacking frame shall be provided with a hot dipped galvanized coating for increased corrosion protection. The exterior skin of the unit shall be formed from 16 gauge galvanealed steel. The double wall interior liner shall be formed from 20 gauge galvanized steel. The units shall be insulated with 1" Thermax foam board insulation.

Item	Qty	Description		
		<ul style="list-style-type: none"> • Unit doors to be double-wall construction using 16 gauge, galvanealed steel on the outer wall and 20 gauge, galvanized steel on the inner wall. All corners shall be continuously welded. • The hardware shall be non-corrosive material to include: Tek-screws, door hinges, and positive acting door latches • The drain pan shall be formed and continuously welded using T-304 stainless steel. The coil hat sections shall be formed and welded using T-304 stainless steel and designed to allow for easy coil removal. All coil drain lines and pee traps shall be fitted from 1 ½" galvanized steel fittings. Drain connection is provided. • Filters shall be mounted in a 2" track installed on the inlet airside of the unit. The filters shall be slip in, 2" - 30% pleats. Blank-offs shall be sealed and caulked. • Each unit shall have (2) discharge collars, sized 19.75" round and are welded to the exterior wall. Each collar shall have a damper fabricated from ½" stainless steel rod welded to a 14 stainless steel damper. A seven (7)-position steel quadrant is welded in place for CFM adjustment. Each duct collar will be provided with friction type duct clamps. • Each unit shall have (4) return collars, sized 19.75" round and are welded to the exterior wall. Each collar shall have a damper fabricated from ½" stainless steel rod welded to a 14 gauge stainless steel damper. A seven (7)-position steel quadrant is welded in place for CFM adjustment. Each duct collar will be provided with friction type duct clamps. • The fan shall be an ACF Class II, Arrangement 3, belt-drive, plenum fan. The fan wheel shall be aluminum and the shaft shall be all steel. The fan bearings are warranted under original manufacturer's warranty. The drive shall be a belt system rated for a 1.3 service factor. • The fan motor shall be T.E.F.C. 460/3/60 and rated for VFD operation. • All coils shall be provided to meet the scheduled performance. All coil performance shall be certified in accordance with ARI Standard 410. All coils shall be tested at 315 psig air pressure. • All coils shall have 5/8" OD seamless copper tubes mechanically expanded into fins to ensure high thermal performance with lower total flow and pumping requirements. Minimum tube wall thickness shall be 0.020 inches. • Aluminum plate fins with belled collars are standard. • Aluminum-finned coils shall be supplied with die formed casing and tube sheets of mill galvanized steel. 		

Item	Qty	Description																									
		<ul style="list-style-type: none"> The evaporator coil shall have corrosion resistant coating "EnergyGuard" applied the exterior surfaces. The evaporator coil shall have a low water level drain vale installed with exterior access for winterization purposes. The coil connections shall have flanged butterfly isolation valves and 4" Dixon brass quick connects. Provided chilled water temperature and pressure taps at coil connections The evaporator coil piping header shall have a tubing connected to the vent and drain for draining and venting air. The electrical controls shall include a NEMA 4 disconnect box equipped with a circuit breaker, magnetic starter, pilot lights for phase incorrect and power, and a unit OFF/AUTO two position switch. Provide and install VFD for variable airflow operation using a potentiometer. 4/0 cam-lock terminals will be provided for power hookup. The unit shall be manufactured in accordance with NEC codes, ETL requirements and labeled with the appropriate 3rd party NRTL. All painting of these components to be Herc specified color. CAPS will provide and install the Herc decal package as per provided layout drawing by Herc. Unit to be tested and verified for proper operation at Custom Air Products & Services prior to shipment. Herc Representatives will also have full access to schedules and production progress as units are being manufactured. 																									
<table border="1"> <thead> <tr> <th>AHU</th> <th>CFM</th> <th>TSP</th> <th>MOTOR HP</th> </tr> </thead> <tbody> <tr> <td>AHU-1</td> <td>9,500</td> <td>6.50</td> <td>15</td> </tr> </tbody> </table>			AHU	CFM	TSP	MOTOR HP	AHU-1	9,500	6.50	15																	
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435.8	8 / 12	44.0	54.0	179.3																							
		<ul style="list-style-type: none"> Unit Dimensions: 83" L x 107 ¼" W x 57 ½" H Unit Weight: Est. 3,800 LBS 																									



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SECTION

02

COIL SELECTION

Customer: Date: 12/8/2017
 Contact: From:
 Telephone: Company:
 Cell: Return Tel:
 Fax: Return Fax:
 Job:
 Quote #:

Construction

Item: Default #1
 Coils Per Bank: 1
 Allow Opp. End: No
 Tube OD IN: 5/8
 Coil Duty: Cool-Standard
 Fins Per Inch: 12
 Rows: 8
 Fin Surface: B
 Fin Height (IN): 37.50
 Finned Length (IN): 62.00
 Tubing Mat. (IN): 0.020 Copper
 TurboSpirals: No
 Fin Mat. (IN): 0.0075 Aluminum
 Conn Qty/Size (IN): 1 / Optimize
 Circuiting: Optimize
 Face Area (SQ FT): 16.15

Air Side

Air Flow (Sft^3/min) 9500.0
 Altitude FT: 0.00
 Ent. Air DB/WB °F: 95.00 / 80.00
 Lvg. Air DB/WB °F: 0.00 / 54.00
 Total / Sensible MBH: 900.0 / 0.00
 Max Air PD "H2O: 0.00
 Fin Fouling Factor ft^2-°F-hr/BTU: 0

Fluid Side

Fluid Type: Water
 Ent. Fluid : 44.00
 Lvg. Fluid : 54.00
 Fluid Flow gal/min: 0.00
 Max FPD FT H2O: 15.00
 Fouling Factor ft^2-°F-hr/BTU: 0

OUTPUT DATA		Most Economical			Specified Coil		
		Coil 1	Coil 2	Coil 3	Coil 4 ✓	Coil 5	Coil 6
Model Number:					5WP1208B		
Air Velocity:	(Sft/min)				588.4		
Total Capacity:	MBH				920.8		
Sens. Capacity:	MBH				435.8		
Lvg. Air DB:	°F				53.05		
Lvg. Air WB:	°F				52.96		
Standard APD	"H2O				1.40		
Lvg. Fluid:	°F				54.23		
Fluid Flow:	gal/min				179.3		
Fluid PD:	FT H2O				13.62		
Fluid Vel.:	ft/s				5.80		
Conn Size:	IN				(1) 4.000		
Internal Volume:	in^3				4875.5		
Weight (Dry):	lbm				434.1		
Weight (w/Fluid):	lbm				613.4		
Notes:					AIL		
Price Each:	\$				0		
Total Cost (1):	\$				0		

Notes:

- A) Certified in accordance with the AHRI Forced-Circulation Air-Cooling and Air-Heating Coils Certification Program which is based on AHRI Standard 410 within the Range of Standard Rating Conditions listed in Table 1 of the Standard. Certified units may be found in the AHRI Directory at www.ahridirectory.org.
- L) Coil rating valid for Heatcraft coils only.
- I) Larger Connection Size may help decrease the Fluid Pressure Drop.



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SECTION

03

FAN & MOTOR SELECTION

Performance	
Quantity	1
Volume (CFM)	9,400
External SP (in. wg)	5
Total SP (in. wg)	5
Operating Power (hp)	11.95
Start-Up Power (hp)	11.95
Fan RPM	2520
Max Fan RPM	2,706
Oper. Frequency (Hz)	60
Elevation (ft)	46
Start-up Temp.(F)	70
Operating Temp.(F)	70

Fan Configuration	
Size	20
Class	II
Arrangement	3
Rotation	CW
Orientation	Horizontal

Equipment Weights	
Fan (LMD)(lb)	172
Motor/Drive (lb)	265
Accessories (lb)	0

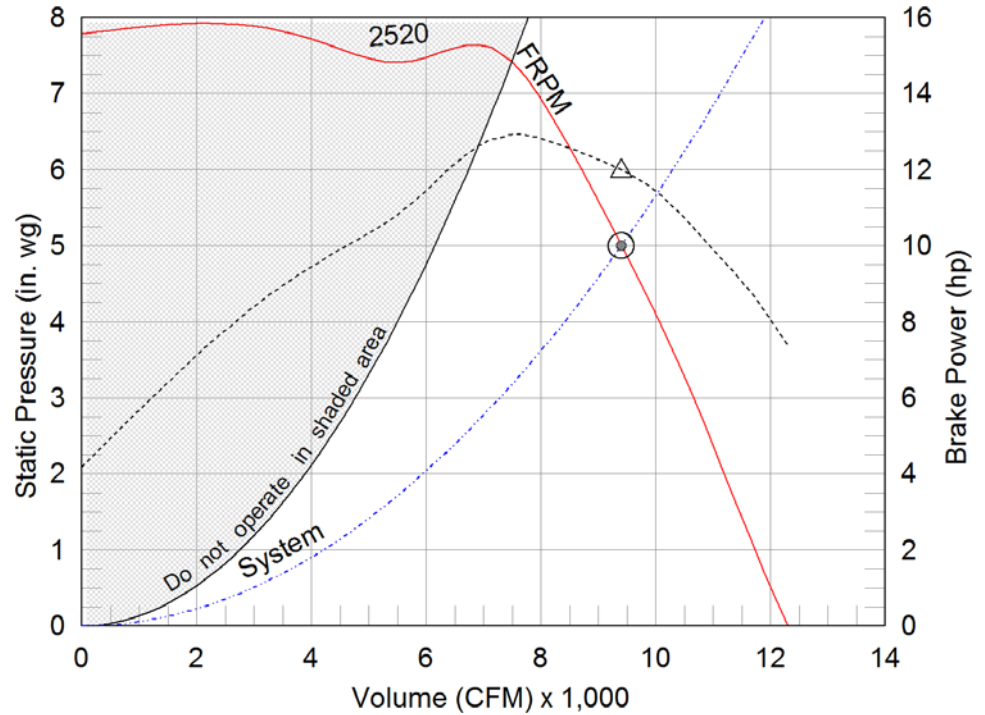
Misc Fan Data	
Outlet Velocity (ft/min)	3,082
Static Efficiency (%)	64
Tip Speed (ft/min)	13,196
Corner Weight A (lb)	45
Corner Weight B (lb)	146
Corner Weight C (lb)	58
Corner Weight D (lb)	188

Motor and Drives	
Motor Supplier	Customer Supplied
Size (hp)	15
RPM	3600
Enclosure	TEFC
Voltage	460
Cycle	60
Phase	3
Frame Size	215T
Max Frame Size	215
Location	Right Side
Pulley Type	Constant
Drive Loss (%)	3.5
Drives	Multiple
Drive Service Factor	



Model: 20-APM-3-II-150
Plenum Fan

Operating Performance



- △ Operating Bhp point
- Operating point at Total SP
- Operating point at External SP
- Fan curve
- - - System curve
- - - Brake horsepower curve

Sound Power by Octave Band

Sound Data	62.5	125	250	500	1000	2000	4000	8000	LwA	dBA	Sones
Inlet	82	84	87	91	85	84	80	76	92	80	32
Outlet	92	91	91	95	94	91	86	82	99	87	49

LwA - A weighted sound power level, based on ANSI S1.4

dBA - A weighted sound pressure level, based on 11.5 dB attenuation per octave band at 5 ft. dBA levels are not licensed by AMCA International
Sones - calculated using AMCA 301 at 5 ft

Model: 20-APM-3-II-150

Plenum Fan

Standard Construction Features:

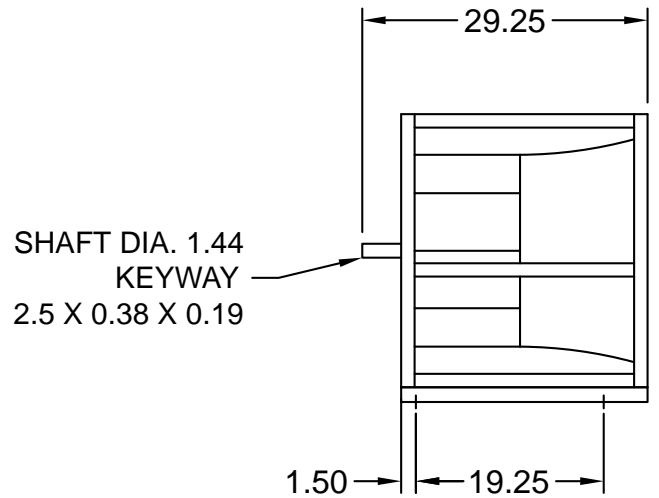
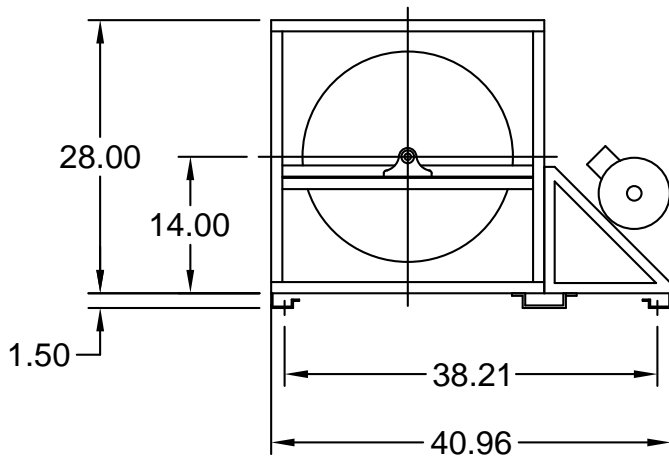
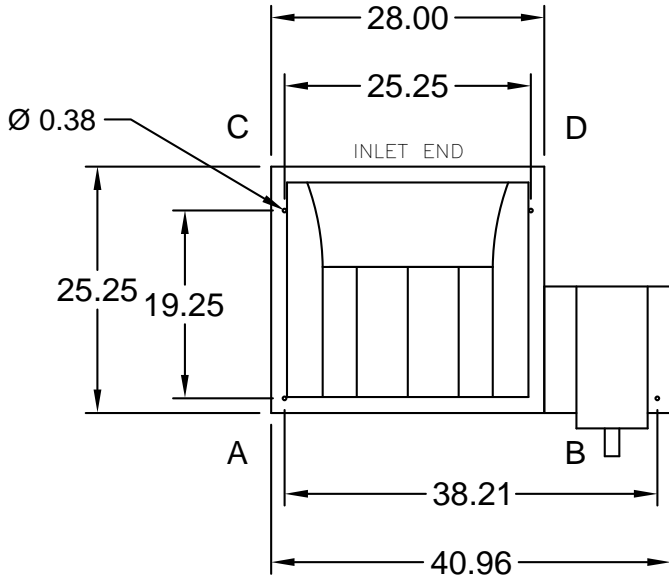
HOUSING: Heavy gauge laser cut and die formed galvanized steel – BEARINGS: self-aligning ball or roller pillow block bearings – SHAFT: precision turned ground and polished solid steel shaft. WHEEL: Welded, aluminum centrifugal wheel, airfoil blade profile, 12 blade construction.

Selected Options & Accessories:

NEMA Premium Efficient Motor - meets NEMA Table 12-12
Motor with Minimum 40 Degree C Ambient Temperature
Motor with Class F Insulation
Bearing Design - Set Screw Bearing
Bearings - L(10) Life of 40,000 Hours, L(50) avg. life 200,000 Hours
Direct Mount Isolators, Isolator-Spring, Free Standing, 1 Inch

Model: 20-APM-3-II-150

Plenum Fan



Notes: All dimensions shown are in units of in.
Drawings are not to scale. Drawings are of standard unit and do not include dimensions for accessories or design modifications.



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Product Information Packet

EM3713T

15HP, 3500RPM, 3PH, 60HZ, 215T, 3752M, TEFC, F1

Part Detail									
Revision:	E	Status:	PRD/A	Change #:		Proprietary:	No		
Type:	AC	Prod. Type:	3752M	Elec. Spec:	37WGR228	CD Diagram:	CD0180		
Enclosure:	TEFC	Mfg Plant:		Mech. Spec:	37H244	Layout:	37LYH244		
Frame:	215T	Mounting:	F1	Poles:	02	Created Date:	01-16-2012		
Base:	RG	Rotation:	R	Insulation:	F	Eff. Date:	02-05-2013		
Leads:	9#14								
Literature:		Elec. Diagram:							

Nameplate NP1259L									
CAT.NO.	EM3713T								
SPEC.	37H244R228G1								
HP	15								
VOLTS	208-230/460								
AMP	36.8-34/17								
RPM	3500								
FRAME	215T	HZ	60	PH	3				
SER.F.	1.15	CODE	J	DES	A	CL	F		
NEMA-NOM-EFF	91	PF	89						
RATING	40C AMB-CONT								
CC	010A	USABLE AT 208V							
DE	6307	ODE							
ENCL	TEFC	SN							

Parts List		
Part Number	Description	Quantity
SA237196	SA 37H244R228G1	1,000 EA
RA224129	RA 37H244R228G1	1,000 EA
37FN3002B01	EXFN, PLASTIC, 7.50 OD, 1.155 ID	1,000 EA
S/P107-000-001	SUPER E PROC'S-FS, WS & CK PLTS	1,000 EA
HW3200A01	3/8-16X3/4 I-BLT WELDED F/S	1,000 EA
37CB3006	37 CB CASTING W/1.38 LEAD HOLE @ 6:00	1,000 EA
37GS1000SP	GASKET, CONDUIT BOX STD.,.06 THICK LEXI	1,000 EA
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	2,000 EA
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1,000 EA
37EP3101A01SP	FR ENDPLATE,TEFC, 37 L&M, W/GREASER	1,000 EA
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1,000 EA
HW5100A06	W2420-025 WVY WSHR (WB)	1,000 EA
37EP3100A01SP	STD PU ENDPLATE, ENCL,37 "T"-307 BRG, W/	1,000 EA
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1,000 EA
XY3118A12	5/16-18 HEX NUT DIRECTIONAL-SERRATION	4,000 EA
07FH4007SP	IEC FH W/GRSR, NOTCH @ 6:00 & 3 FAN CVR	1,000 EA
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3,000 EA
37CB4516	LIPPED LID FOR 37 FRAME NEC KOBX	1,000 EA
37GS1008SP	37 GS FOR CB LID - LEXIDE	1,000 EA
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	4,000 EA
HW2501F21	KEY, 5/16 SQ X 2.375	1,000 EA
HA7000A02	KEY RETAINER RING, 1 1/8 DIA, 1 3/8 DIA	1,000 EA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2,000 EA
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	1,000 EA

Parts List (continued)		
Part Number	Description	Quantity
MJ1000A75	GREASE, POLYREX EM EXXON (Use 4824-15A)	0.050 LB
51XB1214A20	12-14X1.25 HXWSSLD SERTYB	1,000 EA
MG1000Y03	MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,	0.028 GA
HA3104A25	THRUBOLT .31-18 X 14.75	4,000 EA
LB1119N	WARNING LABEL	1,000 EA
LB1125C02	SUPER-E (STOCK CTN LABEL SUPER-E WITH FL	1,000 EA
LC0181	CONNECTION LABEL	1,000 EA
NP1259L	ALUM SUPER-E UL CSA-EEV CC NEMA PREMIUM	1,000 EA
37PA1052	PALLET PACK GRP, 150 LB MTR 2 X 4 RUNNER	1,000 EA
MN416A01	TAG-INSTAL-MAINT no wire (1200/bx) 10/13	1,000 EA

AC Induction Motor Performance Data

Record # 37398 - Typical performance - not guaranteed values

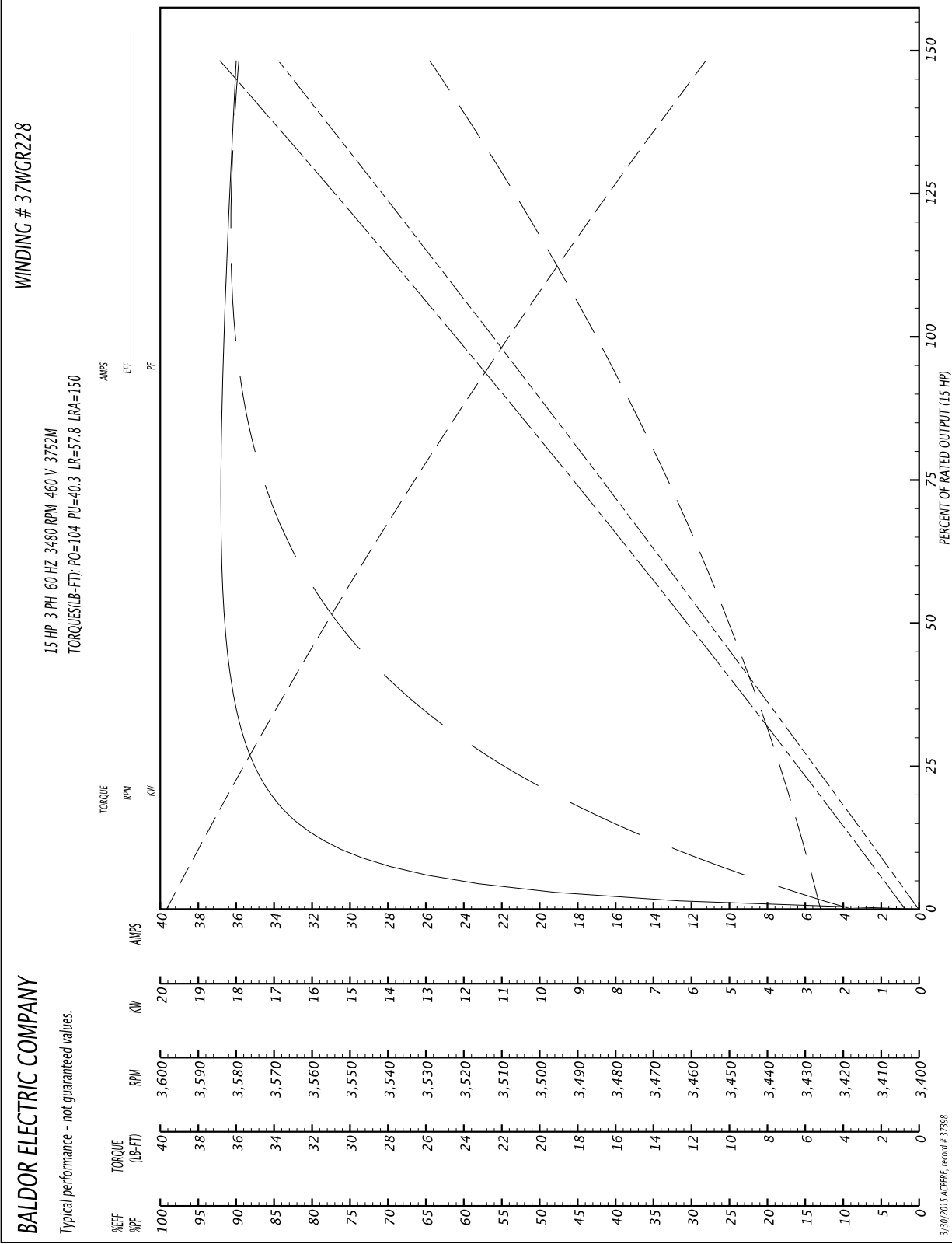
Winding: 37WGR228-R001	Type: 3752M	Enclosure: TEFC
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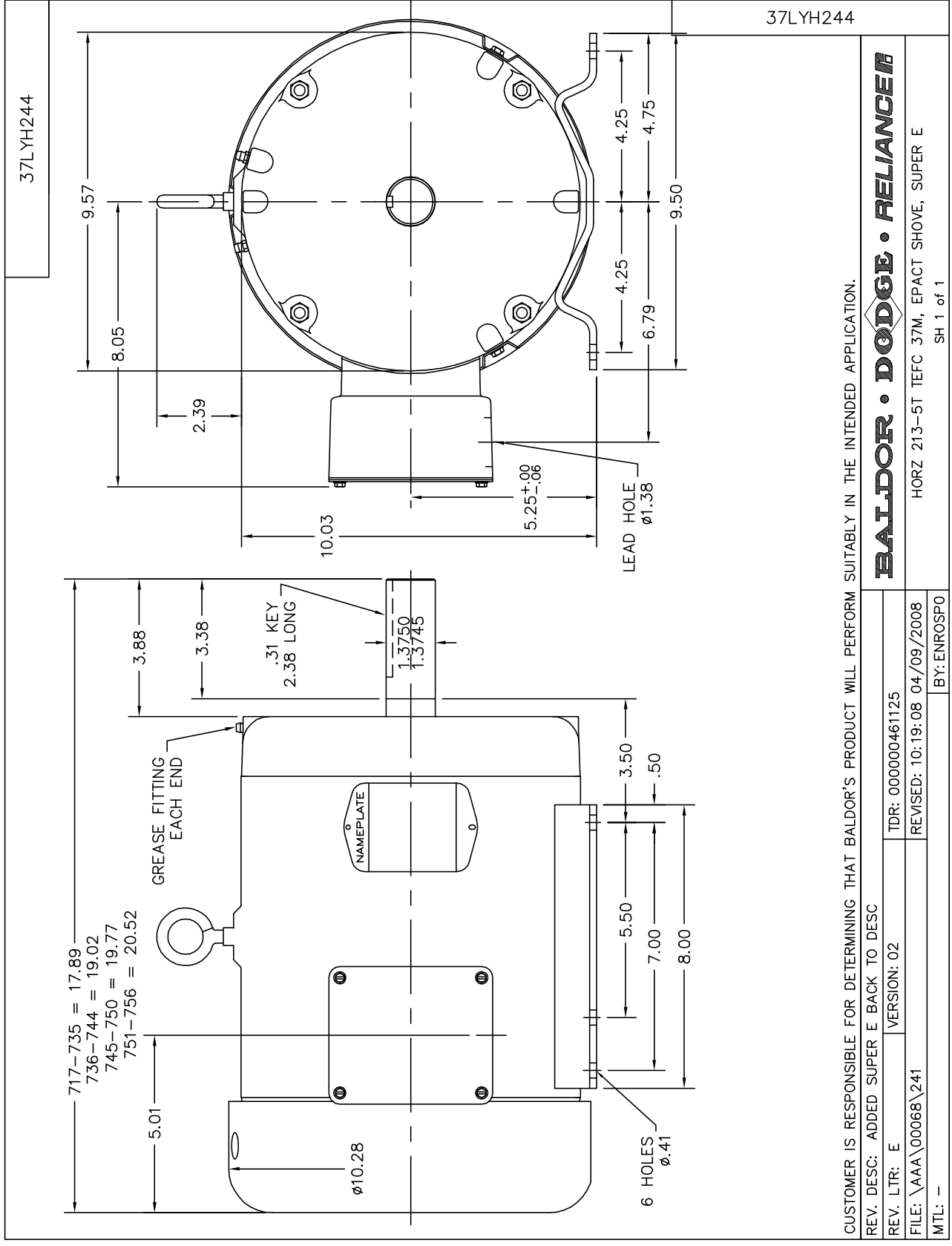
Nameplate Data		460 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	15	Full Load Torque	22.1 LB-FT
Volts	208-230/460	Start Configuration	direct on line
Full Load Amps	34/17	Breakdown Torque	104 LB-FT
R.P.M.	3480	Pull-up Torque	40.3 LB-FT
Hz	60	Locked-rotor Torque	57.8 LB-FT
NEMA Design Code	A	Starting Current	150 A
Service Factor (S.F.)	1.15	No-load Current	5.55 A
NEMA Nom. Eff.	91	Line-line Res. @ 25°C	0.46531 Ω
Rating - Duty	40C AMB-CONT	Temp. Rise @ Rated Load	67°C
S.F. Amps		Temp. Rise @ S.F. Load	82°C

Load Characteristics 460 V, 60 Hz, 15 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	55	77	85	88	90	91	89
Efficiency	86.8	91.5	92.2	91.8	91	89.9	91.3
Speed	3579.2	3557.5	3534.4	3510.2	3484.5	3455.7	3495
Line amperes	6.7	9.54	13.2	17	21.1	25.6	19.5

Performance Graph at 460V, 60Hz, 15.0HP Typical performance - Not guaranteed values





CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

REV. DESC: ADDED SUPER E BACK TO DESC

REV. LTR: E VERSION: 02

FILE: \AAA\00068\241

MTL: - BY: ENROSP0

BALDOR • DODGE • RELIANCE

HORZ 213-5T TEFC 37M, EPACT SHOVE, SUPER E

SH 1 of 1



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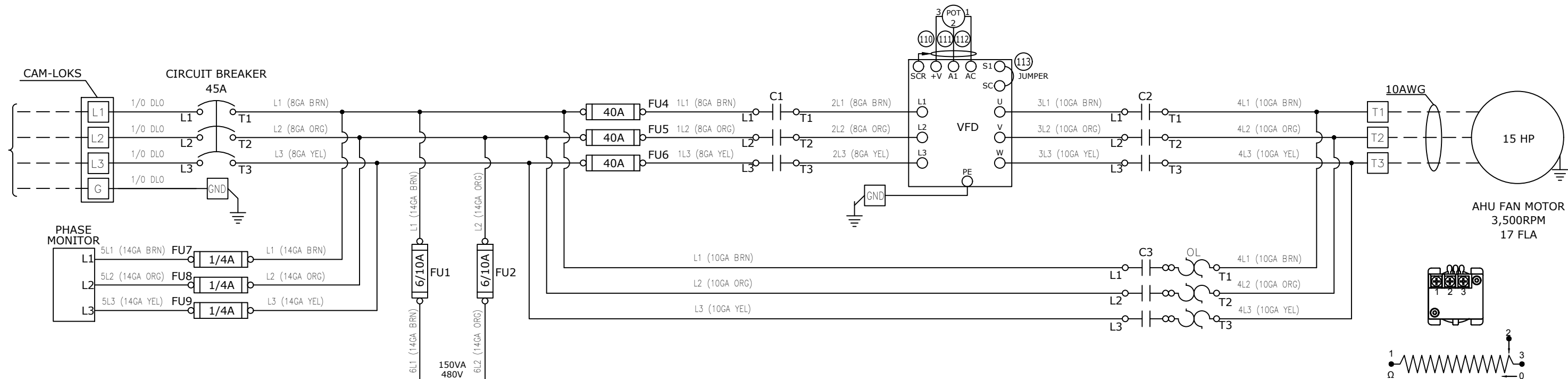
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SECTION

04

ELECTRICAL DRAWINGS

460/3/60
26 MCA
45 MOCP



LEGEND

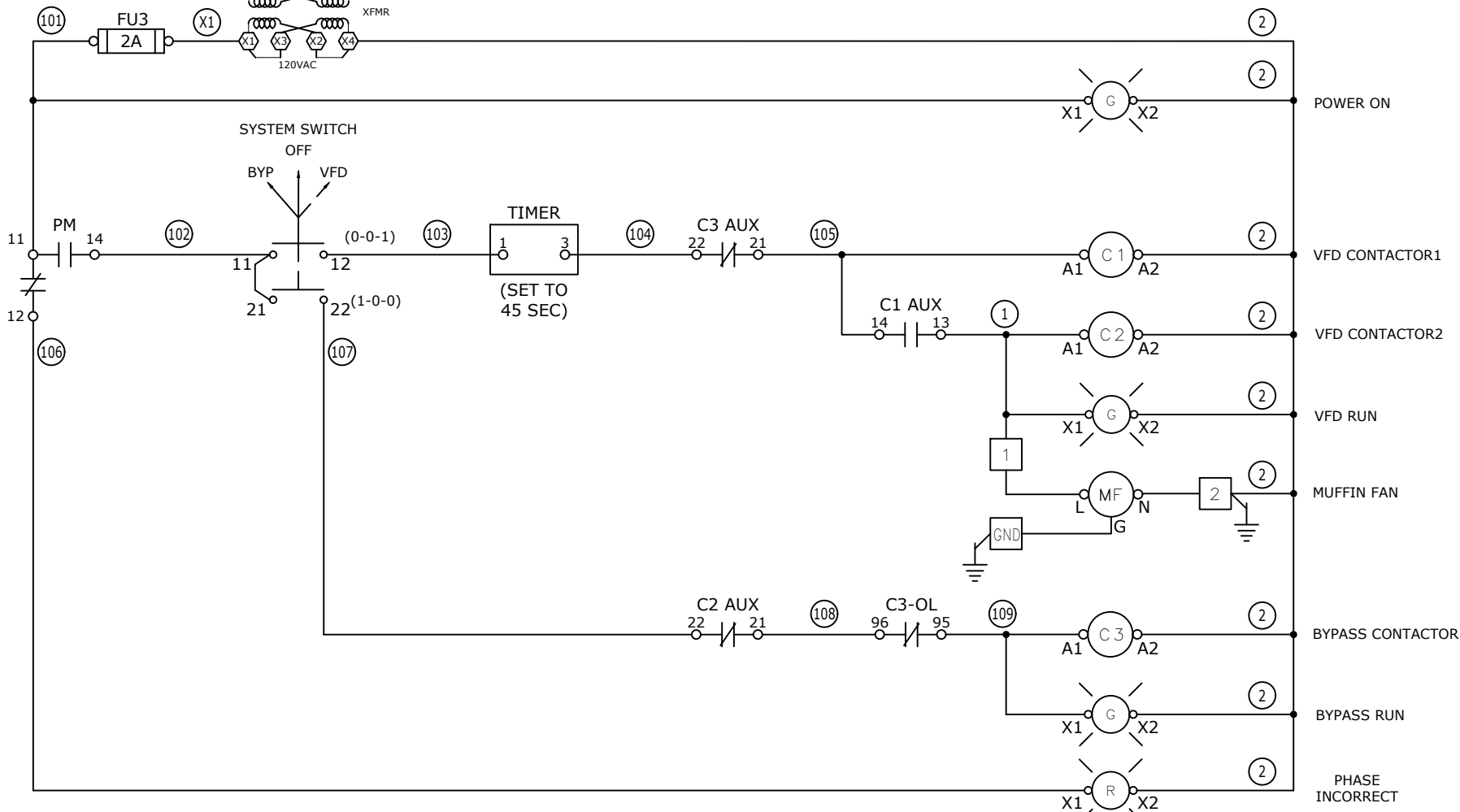
- C1 - VFD CONTACTOR
- C2 - VFD CONTACTOR 2
- C3 - BYPASS CONTACTOR
- CB - CIRCUIT BREAKER
- FU - FUSE
- MF - MUFFIN FAN
- OL - OVERLOAD
- PM - PHASE MONITOR
- T1 - TIMER
- XFMR - CONTROL CIRCUIT TRANSFORMER
- VFD - VARIABLE FREQUENCY DRIVE

WIRING NOTES

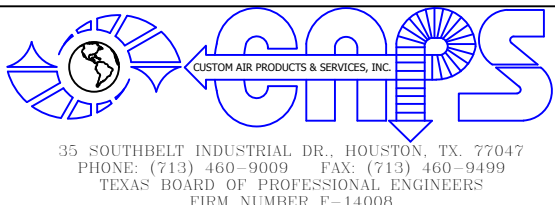
208/120VAC	480/277VAC	24VDC
PHASE A - BLACK	PHASE A - BROWN	POSITIVE - DARK BLUE
PHASE B - RED	PHASE B - ORANGE	NEGATIVE - GRAY
PHASE C - BLUE	PHASE C - YELLOW	
NEUTRAL - WHITE	NEUTRAL - GRAY	24VAC
GROUND - GREEN	GROUND - GREEN	PHASE A - RED
		NEUTRAL - BROWN

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



REV#	DATE	DESIGNER	DESCRIPTION
0	12/07/2017	J.OMALLEY	ISSUED FOR CONSTRUCTION
1	05/01/2018	B. LANDRY	AS-BUILT



THIS DRAWING AND THE INFORMATION HEREIN CONTAINED ARE THE PROPERTY OF CUSTOM AIR PRODUCTS, WHICH HAS FURNISHED THEM IN CONFIDENCE UPON THE UNDERSTANDING AND CONDITION THAT ALL PERSONS, FIRMS OR CORPORATIONS RECEIVING SUCH DRAWINGS AND INFORMATION SHALL BY THE ACT OF RECEIVING THEM BE DEEMED TO HAVE AGREED: TO MAKE NO COPY, DUPLICATION, DISCLOSURE OR USE WHATSOEVER OF ALL OR ANY PART THEREOF EXCEPT AS EXPRESSLY AUTHORIZED IN WRITING BY CUSTOM AIR PRODUCTS; NOT TO GIVE, LEND OR OTHERWISE DISPOSE OF THIS DRAWING; AND TO RETURN THIS DRAWING PROMPTLY UPON REQUEST.

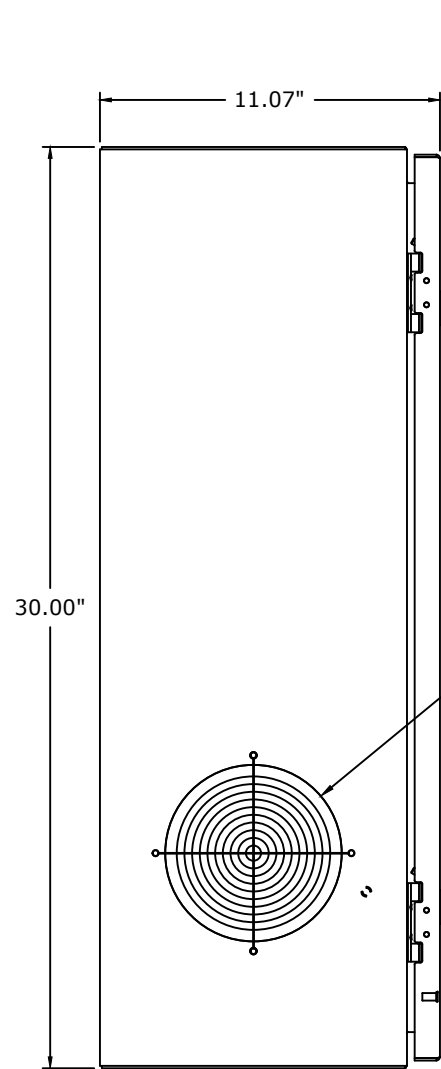
CERTIFIED AS-BUILT

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

CAPS NO.: 17F-0863	DRAWING: E1	DRAWN BY: J.OMALLEY	DATE: 12//07/2017
CUST. PO#:	SHEET: 1 OF 4	CHECKED BY: DAVID NGUYEN	DATE: 05/01/2018
SIZE: B	REV: 1	APPROVED BY: LARRY NOVAK	DATE: 05/01/2018

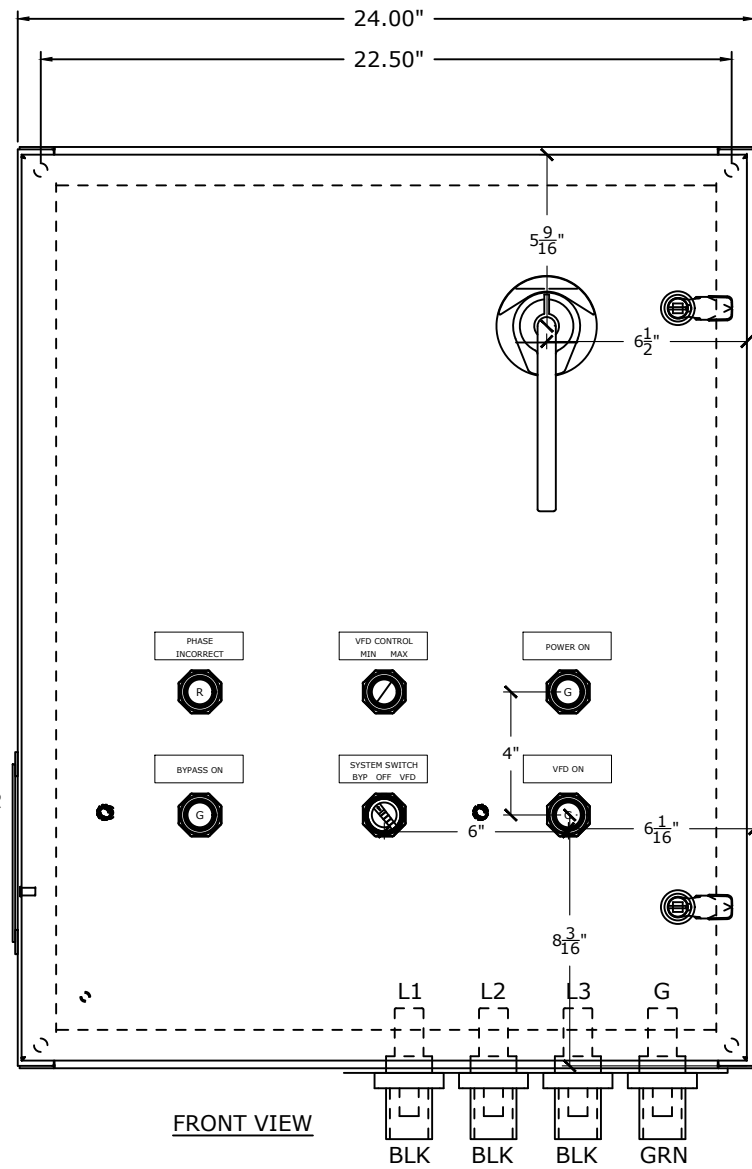
CUSTOMER: **HERC EQUIPMENT RENTALS**

**(2) 75 TON INDUSTRIAL AIR HANDLING UNITS
GALV. SKID, GALV. CAGE, COATED HOUSING
460V/3PH/60HZ, GENERAL PURPOSE
ELECTRICAL DESIGN
WIRING DIAGRAM**

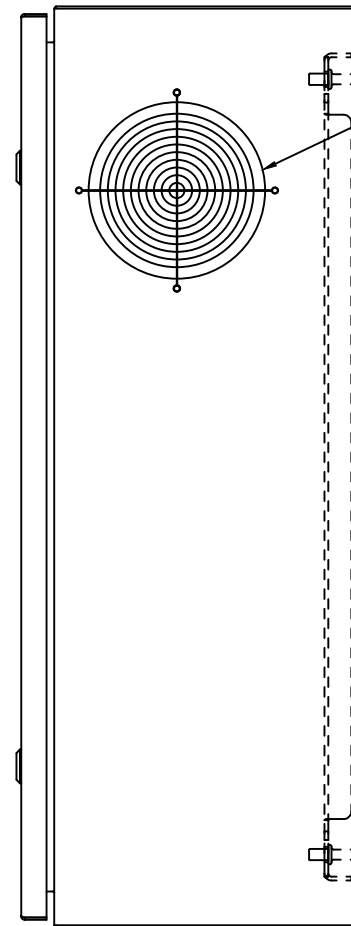


L.H. SIDE VIEW

INSTALL:
MESH GUARD WMG172-45
& RETAINER WMG172M
W/ FILTER GRM172-45
INSTALLED
(2) 8-32X1.00 THRU HDWR

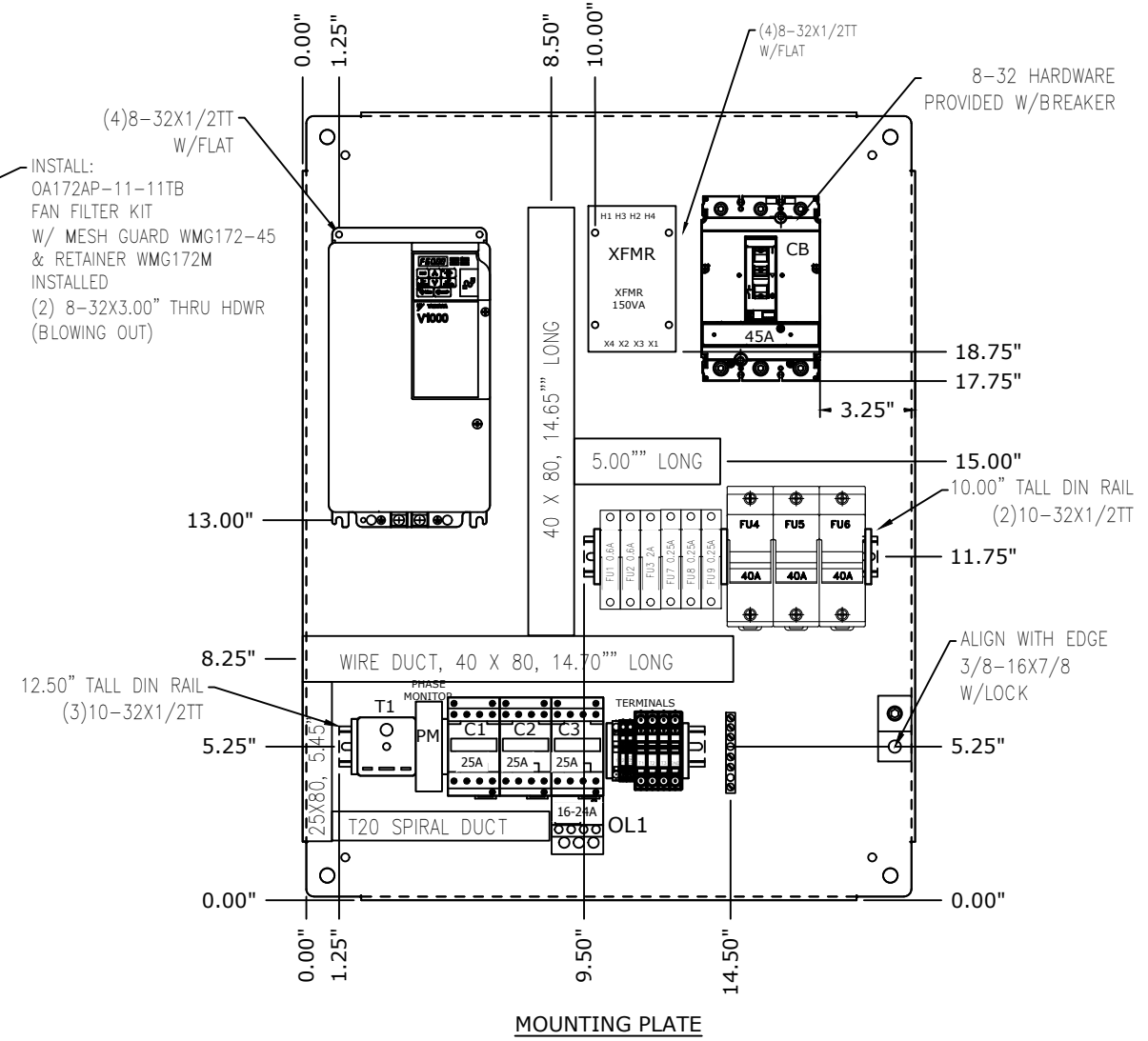


FRONT VIEW



R.H. SIDE VIEW

INSTALL:
OA172AP-11-11TB
FAN FILTER KIT
W/ MESH GUARD WMG172-45
& RETAINER WMG172M
INSTALLED
(2) 8-32X3.00" THRU HDWR
(BLOWING OUT)



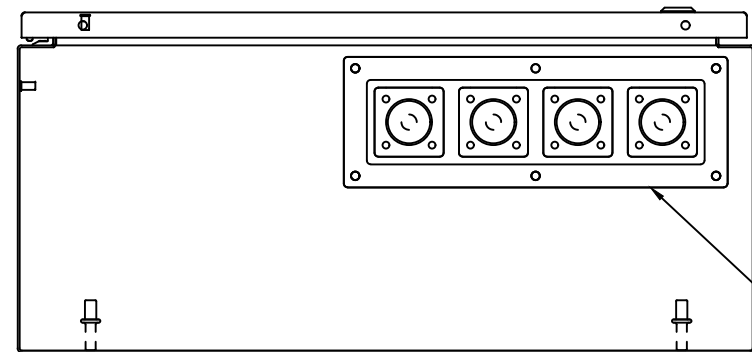
MOUNTING PLATE

LEGEND

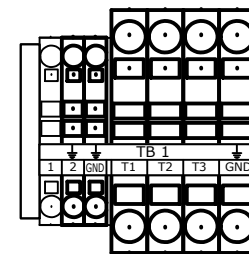
C1	- VFD CONTACTOR
C2	- VFD CONTACTOR 2
C3	- BYPASS CONTACTOR
CB	- CIRCUIT BREAKER
FU	- FUSE
MF	- MUFFIN FAN
OL	- OVERLOAD
PM	- PHASE MONITOR
T1	- TIMER
XFMR	- CONTROL CIRCUIT TRANSFORMER
VFD	- VARIABLE FREQUENCY DRIVE

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.
3. ALL DIN RAIL AND WIRE DUCT MOUNTED WITH 10-32X1/2 TT



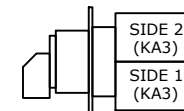
BOTTOM VIEW



TERMINAL DETAIL

TERMINAL	P/N
END STOP	3022276
1	2004-1201
2	2004-1207
GND	2004-1207
END SECTION	2004-1291
T1-T3	2010-1201
GND	2010-1207
END SECTION	2010-1291
END STOP	3022276

SYSTEM SWITCH



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-0863	E2	J.OMALLEY	12//07/2017
CUST. PO#:	SHEET:	CHECKED BY:	DATE:
	2 OF 4	DAVID NGUYEN	05/01/2018
SIZE:	REV:	APPROVED BY:	DATE:
B	1	LARRY NOVAK	05/01/2018

REV#	DATE	DESIGNER	DESCRIPTION
0	12/07/2017	J.OMALLEY	ISSUED FOR CONSTRUCTION
1	05/01/2018	B. LANDRY	AS-BUILT

CUSTOMER: **HERC EQUIPMENT RENTALS**
**(2) 75 TON INDUSTRIAL AIR HANDLING UNITS
GALV. SKID, GALV. CAGE, COATED HOUSING
460V/3PH/60HZ, GENERAL PURPOSE
ELECTRICAL DESIGN
WIRING DIAGRAM**

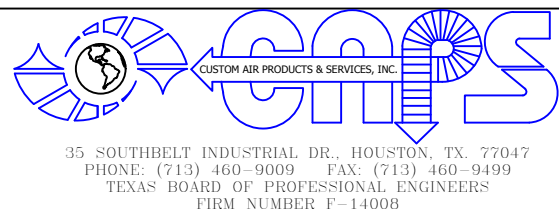
SEQUENCE OF OPERATION

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

REV#	DATE	DESIGNER	DESCRIPTION
0	12/07/2017	J.OMALLEY	ISSUED FOR CONSTRUCTION
1	05/01/2018	B. LANDRY	AS-BUILT



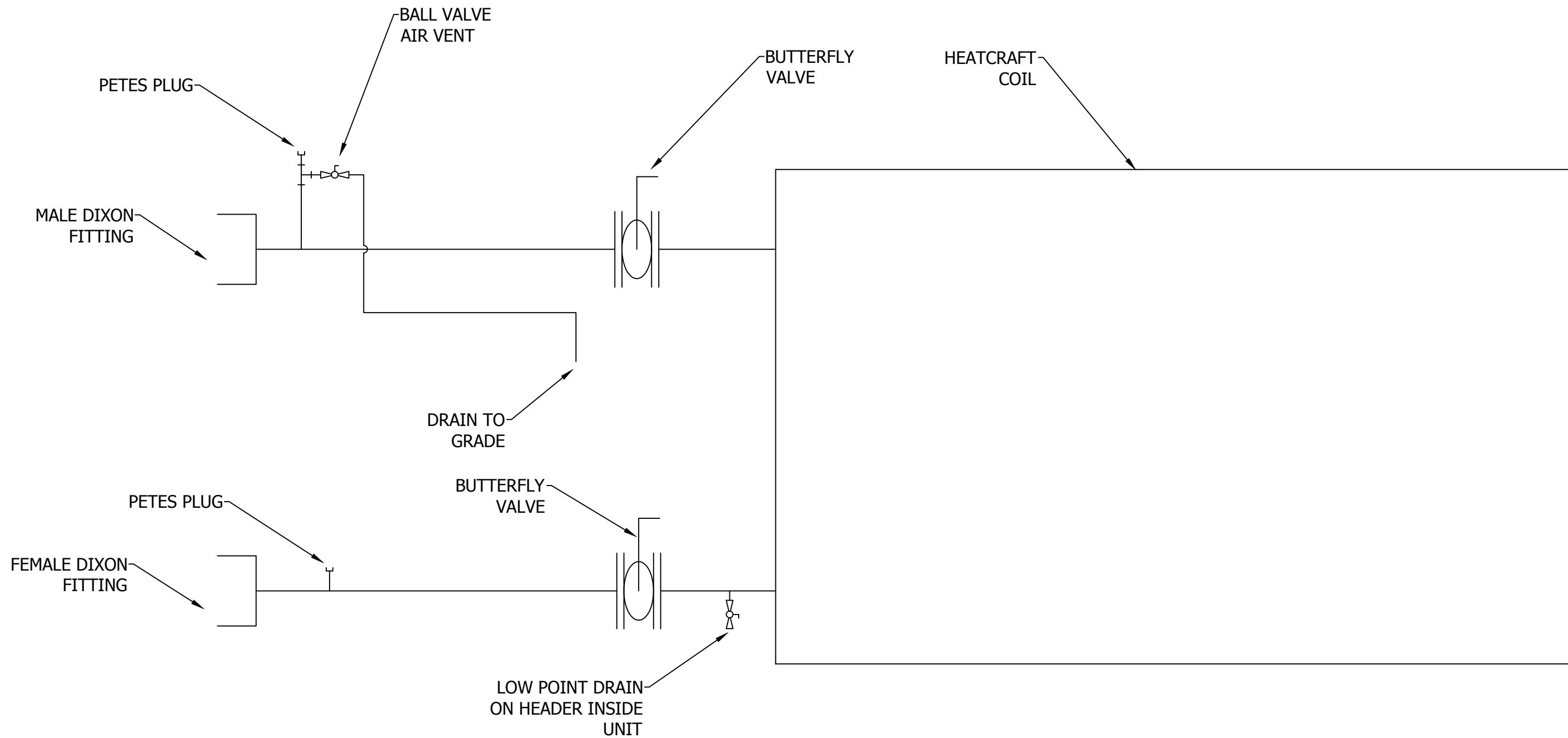
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CERTIFIED AS-BUILT

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

CAPS NO.: 17F-0863 DRAWING: E3 DRAWN BY: J.OMALLEY DATE: 12//07/2017
 CUST. PO#: _____ SHEET: 3 OF 4 CHECKED BY: DAVID NGUYEN DATE: 05/01/2018
 SIZE: B REV: 1 APPROVED BY: LARRY NOVAK DATE: 05/01/2018

CUSTOMER: **HERC EQUIPMENT RENTALS**
**(2) 75 TON INDUSTRIAL AIR HANDLING UNITS
 GALV. SKID, GALV. CAGE, COATED HOUSING
 460V/3PH/60HZ, GENERAL PURPOSE
 ELECTRICAL DESIGN
 WIRING DIAGRAM**



REV#	DATE	DESIGNER	DESCRIPTION
0	12/07/2017	J.OMALLEY	ISSUED FOR CONSTRUCTION
1	05/01/2018	B. LANDRY	AS-BUILT



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CERTIFIED AS-BUILT

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

CAPS NO.: 17F-0863	DRAWING: E4	DRAWN BY: J.OMALLEY	DATE: 12//07/2017
CUST. PO#:	SHEET: 4 OF 4	CHECKED BY: DAVID NGUYEN	DATE: 05/01/2018
SIZE: B	REV: 1	APPROVED BY: LARRY NOVAK	DATE: 05/01/2018

CUSTOMER: **HERC EQUIPMENT RENTALS**

**(2) 75 TON INDUSTRIAL AIR HANDLING UNITS
 GALV. SKID, GALV. CAGE, COATED HOUSING
 460V/3PH/60HZ, GENERAL PURPOSE
 ELECTRICAL DESIGN
 WIRING DIAGRAM**



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SECTION

05

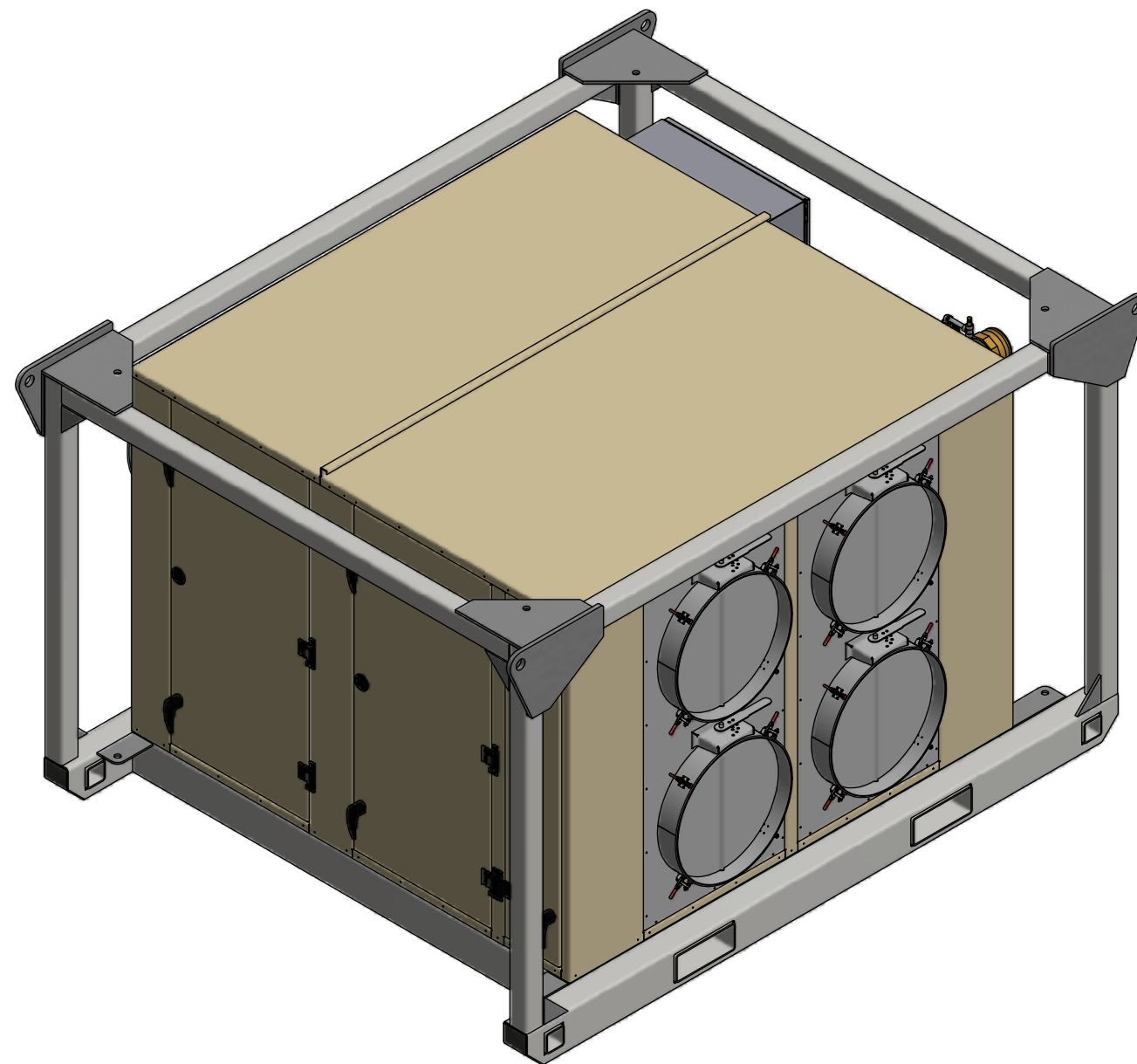
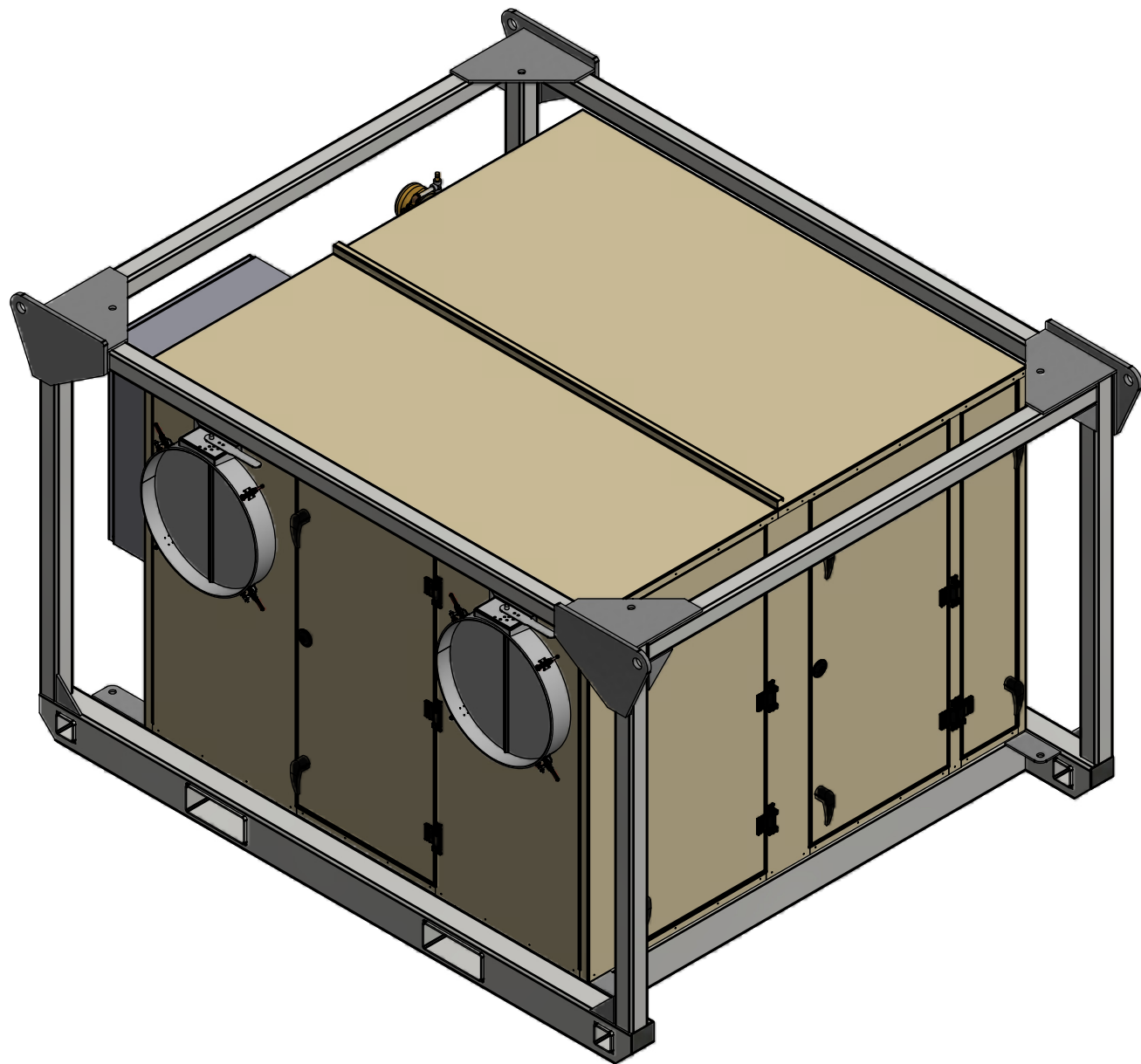
MECHANICAL DRAWINGS

REVISION HISTORY

REV	DATE	DESIGNER	DESCRIPTION
1	12/7/2017	J.REYNOLDS	
2	2/19/2018	J.REYNOLDS	REVISED PER ECR# 00370

HERC EQUIPMENT RENTALS
75 TON INDUSTRIAL AIR HANDLING UNIT
GALV. SKID,GALV. CAGE,GALVANNEALED HOUSING
460V/3PH/60HZ, GENERAL PURPOSE
17F-0863

PAHH-75TC-0NN0NN-5E5-P2-VCEUP



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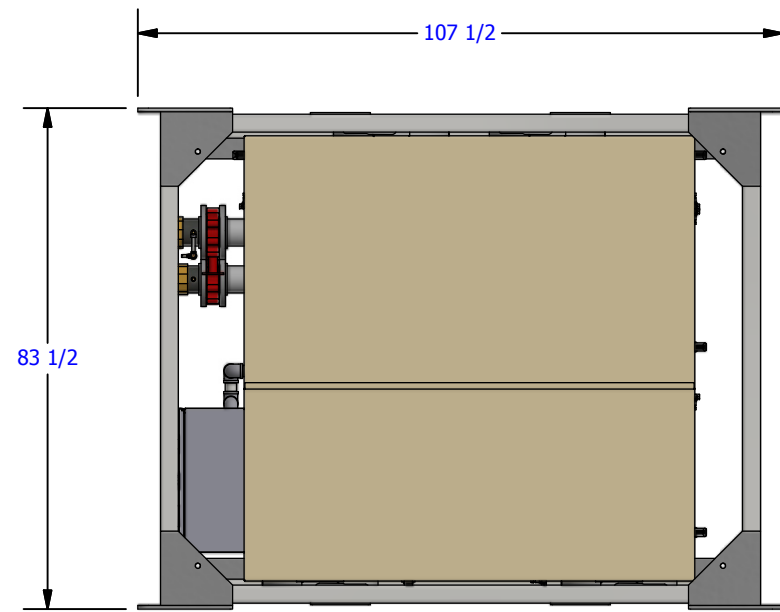
CERTIFIED AS BUILT

CHECKER: _____ DATE: _____
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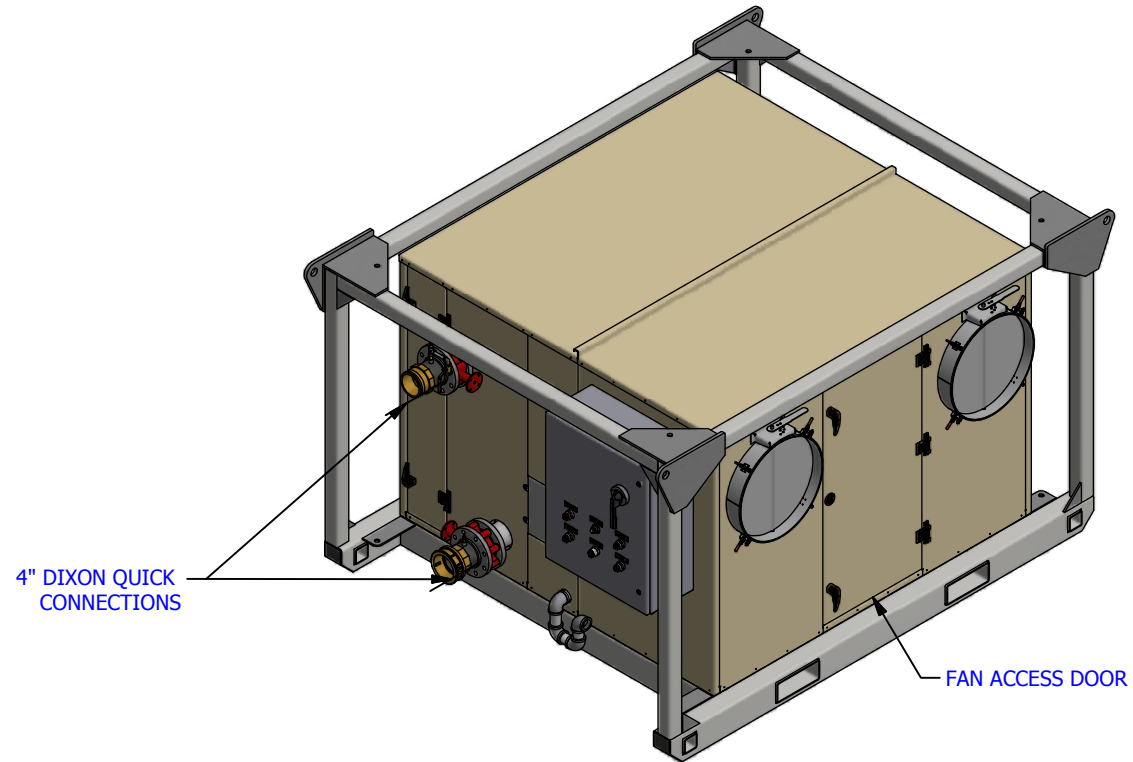
CAPS NO.:	DRAWING:	DESIGNER:	DATE:
17F-0863	75 Ton AHU-M1	J.REYNOLDS	12/7/2017
CUST. PO#:	SHEET:	CHECKER:	DATE:
	1 OF 4	D.POTTS	12/7/2017
SIZE:	REV:	APPROVER:	DATE:
B	2	J.PHAN	12/7/2017

CUSTOMER:	HERC EQUIPMENT RENTALS
	75 TON INDUSTRIAL AIR HANDLING UNIT GALV. SKID,GALV. CAGE,GALVANNEALED HOUSING 460V/3PH/60HZ, GENERAL PURPOSE MECHANICAL DESIGN UNIT OVERVIEW

REVISION HISTORY			
REV	DATE	DESIGNER	DESCRIPTION
1	12/7/2017	J.REYNOLDS	
2	2/19/2018	J.REYNOLDS	REVISED PER ECR# 00370



PLAN VIEW
SCALE 1 / 32

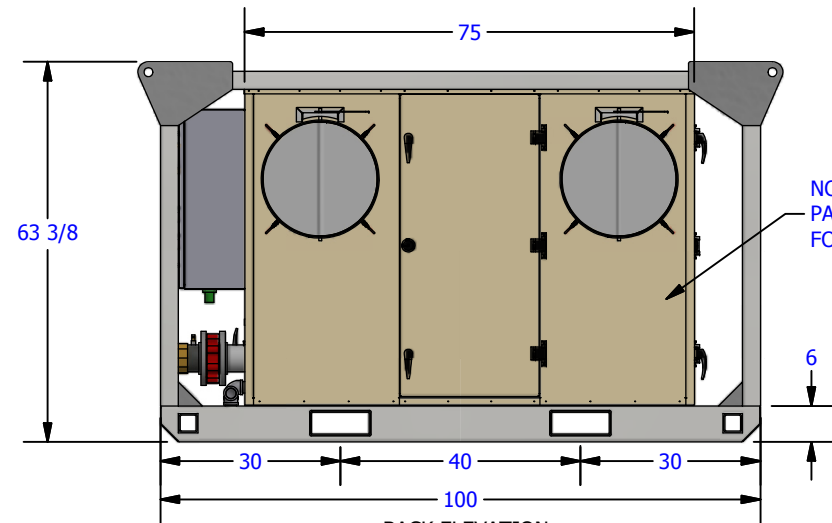


4" DIXON QUICK CONNECTIONS

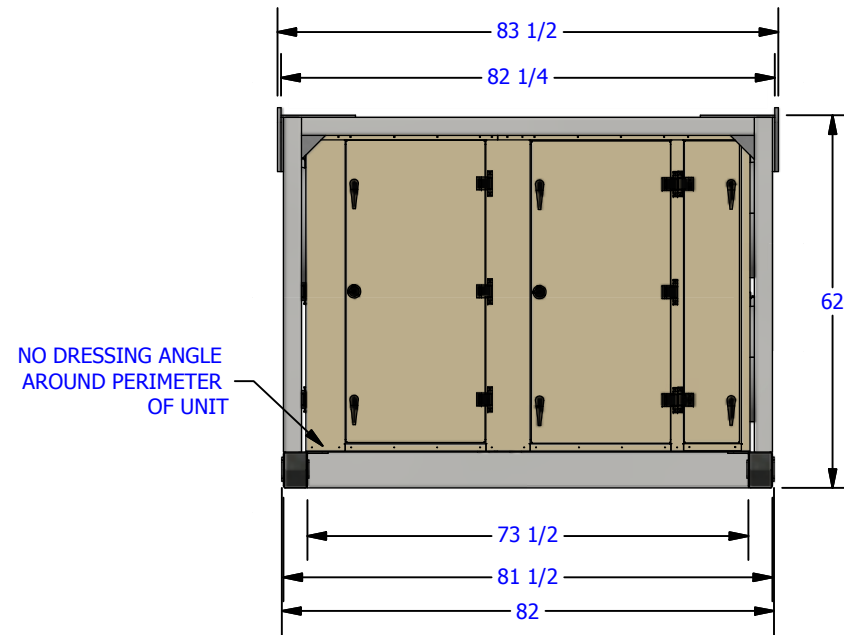
FAN ACCESS DOOR

NOTES:

1. UNIT WEIGHT TO BE TAG ALL FOUR (4) SIDES TO THE SKID. (PER CUSTOMER)
2. CENTER GRAVITY SYMBOL LOCATE FOUR (4) SIDES TO THE SKID. (PER CUSTOMER)



BACK ELEVATION
SCALE 1 / 32



LEFT ELEVATION
SCALE 1 / 32

UNIT WEIGHT: 3,200 LBS.



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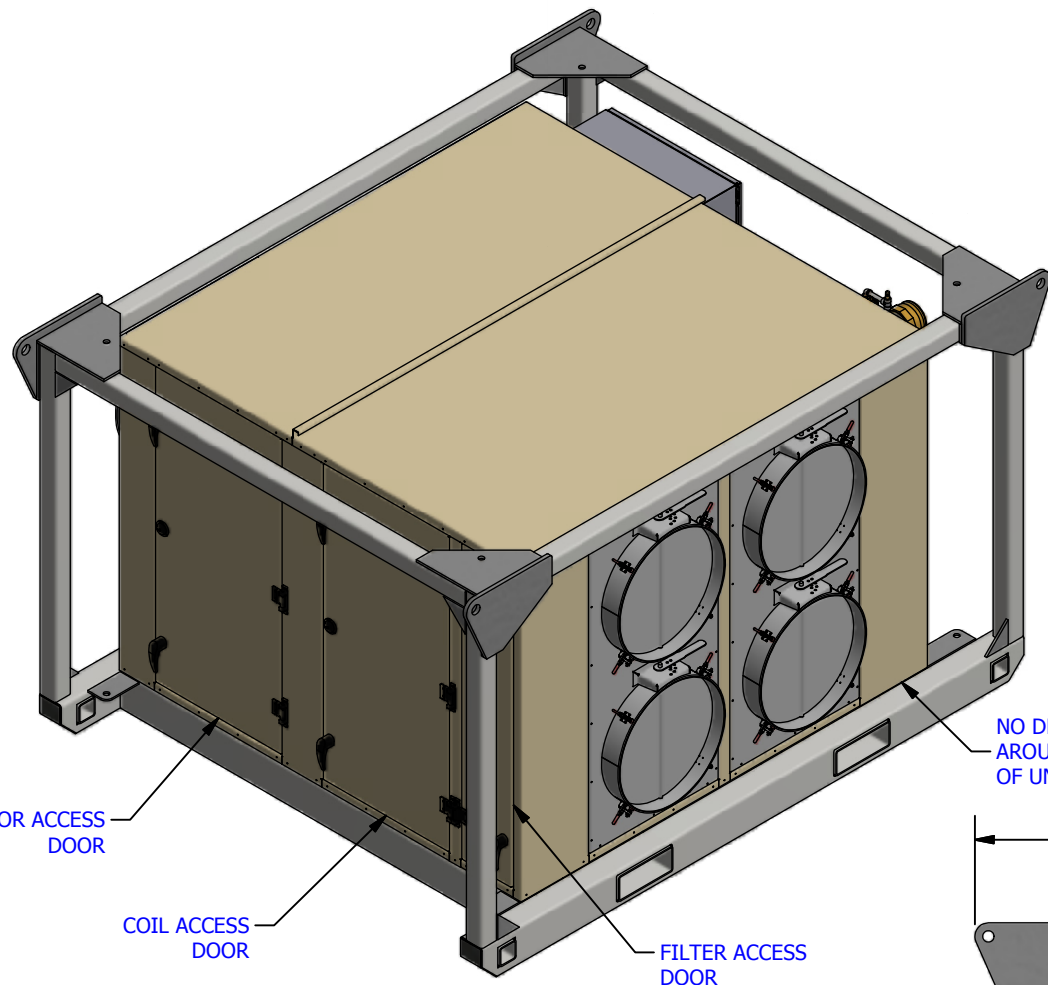
CERTIFIED AS BUILT	
CHECKER: _____	DATE: _____
APPROVER: _____	DATE: _____

CAPS NO.: 17F-0863	DRAWING: 75 Ton AHU-M1	DESIGNER: J.REYNOLDS	DATE: 12/7/2017
CUST. PO#:	SHEET: 2 OF 4	CHECKER: D.POTTS	DATE: 12/7/2017
SIZE: B	REV: 2	APPROVER: J.PHAN	DATE: 12/7/2017

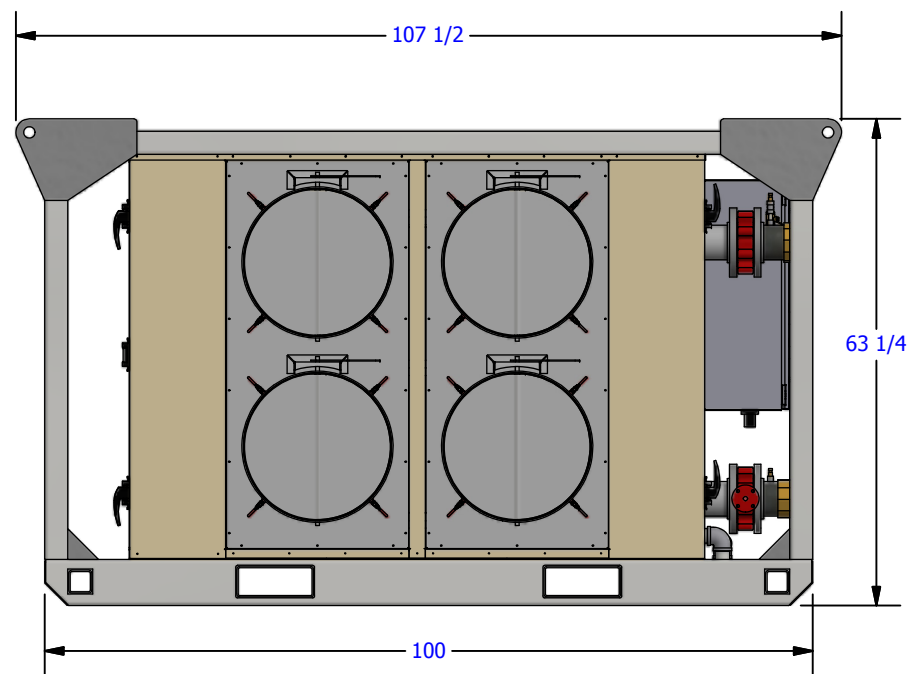
CUSTOMER: HERC EQUIPMENT RENTALS
75 TON INDUSTRIAL AIR HANDLING UNIT GALV. SKID,GALV. CAGE,GALVANNEALED HOUSING 460V/3PH/60HZ, GENERAL PURPOSE MECHANICAL DESIGN GENERAL DIMENSION

REVISION HISTORY

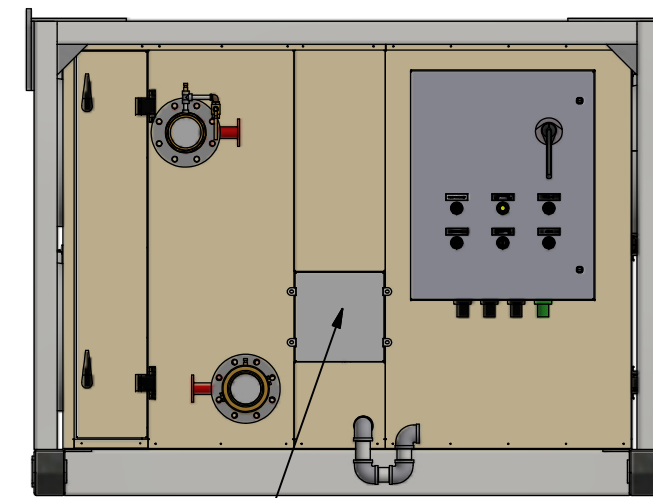
REV	DATE	DESIGNER	DESCRIPTION
1	12/7/2017	J.REYNOLDS	
2	2/19/2018	J.REYNOLDS	REVISED PER ECR# 00370



NO DRESSING ANGLE
AROUND PERIMETER
OF UNIT



FRONT ELEVATION
SCALE 1/25



WINTERIZATION VALVE
ACCESS DOOR



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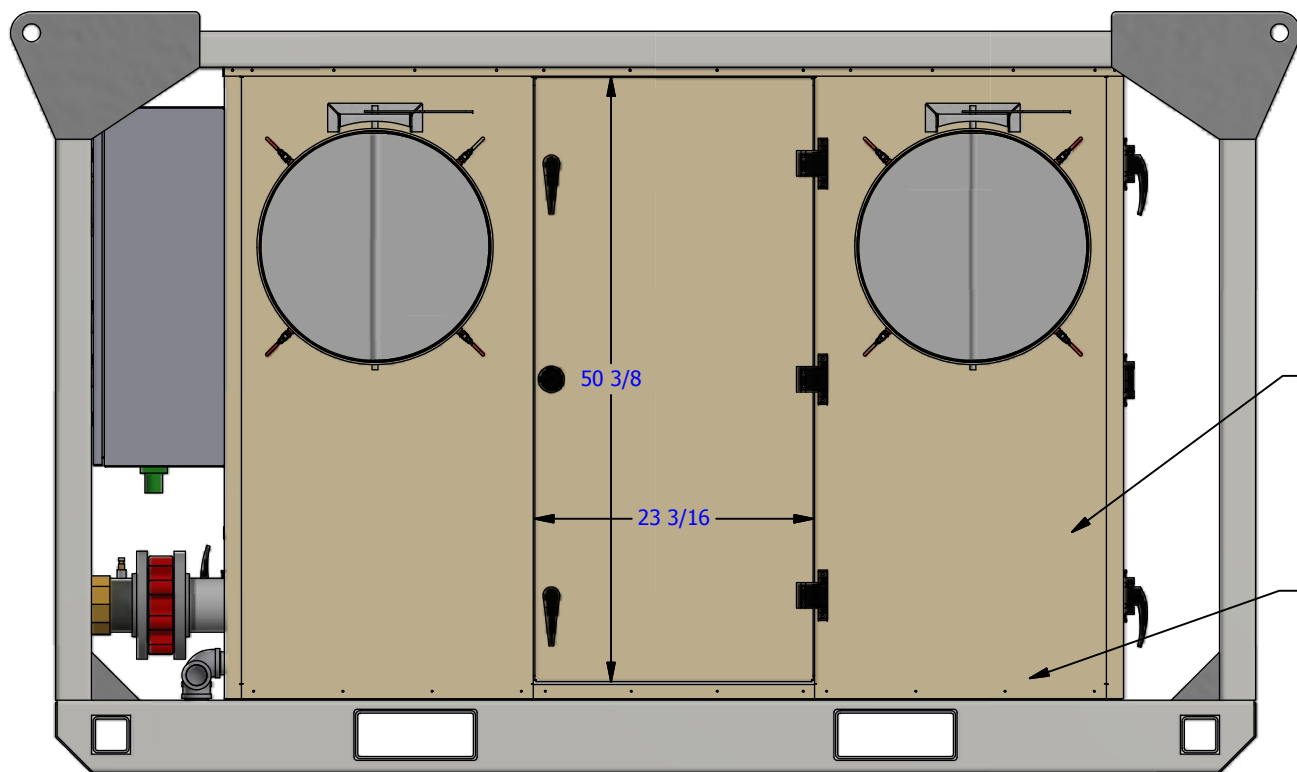
CERTIFIED AS BUILT

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

CAPS NO.:	DRAWING:	DESIGNER:	DATE:	CUSTOMER:
17F-0863	75 Ton AHU-M1	J.REYNOLDS	12/7/2017	HERC EQUIPMENT RENTALS
CUST. PO#:	SHEET:	CHECKER:	DATE:	75 TON INDUSTRIAL AIR HANDLING UNIT GALV. SKID,GALV. CAGE,GALVANNEALED HOUSING 460V/3PH/60HZ, GENERAL PURPOSE MECHANICAL DESIGN GENERAL DIMENSION
	3 OF 4	D.POTTS	12/7/2017	
SIZE:	REV:	APPROVER:	DATE:	
B	2	J.PHAN	12/7/2017	

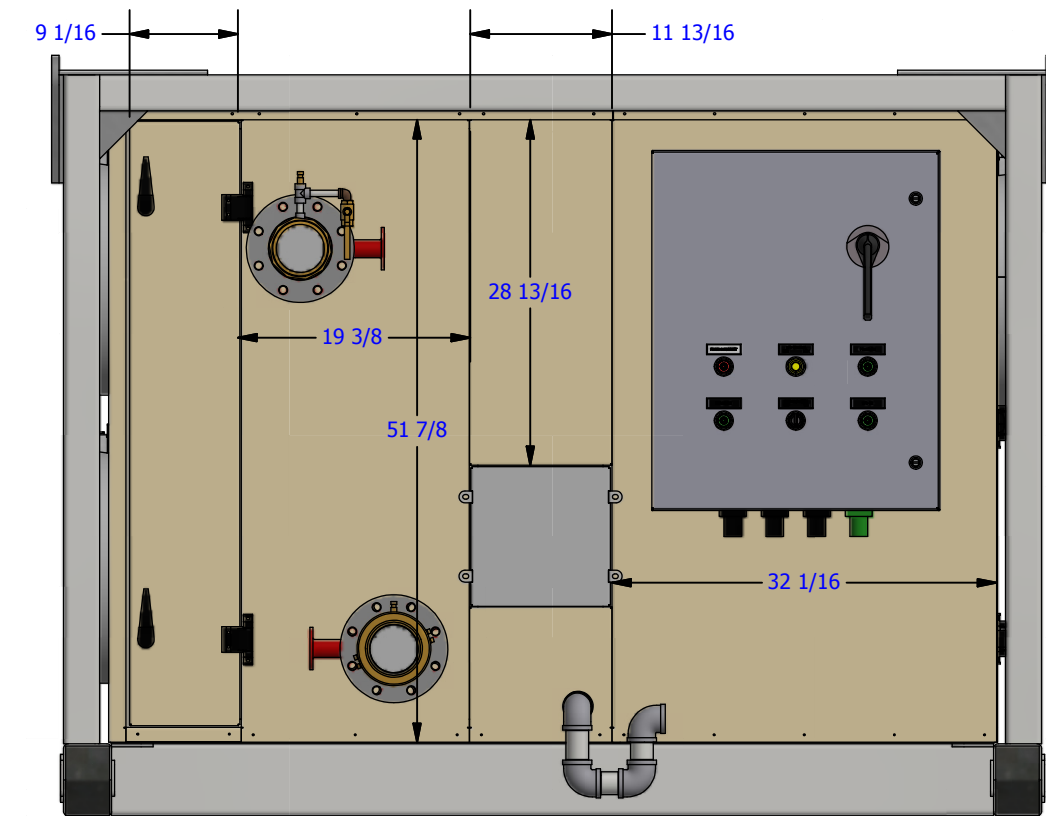
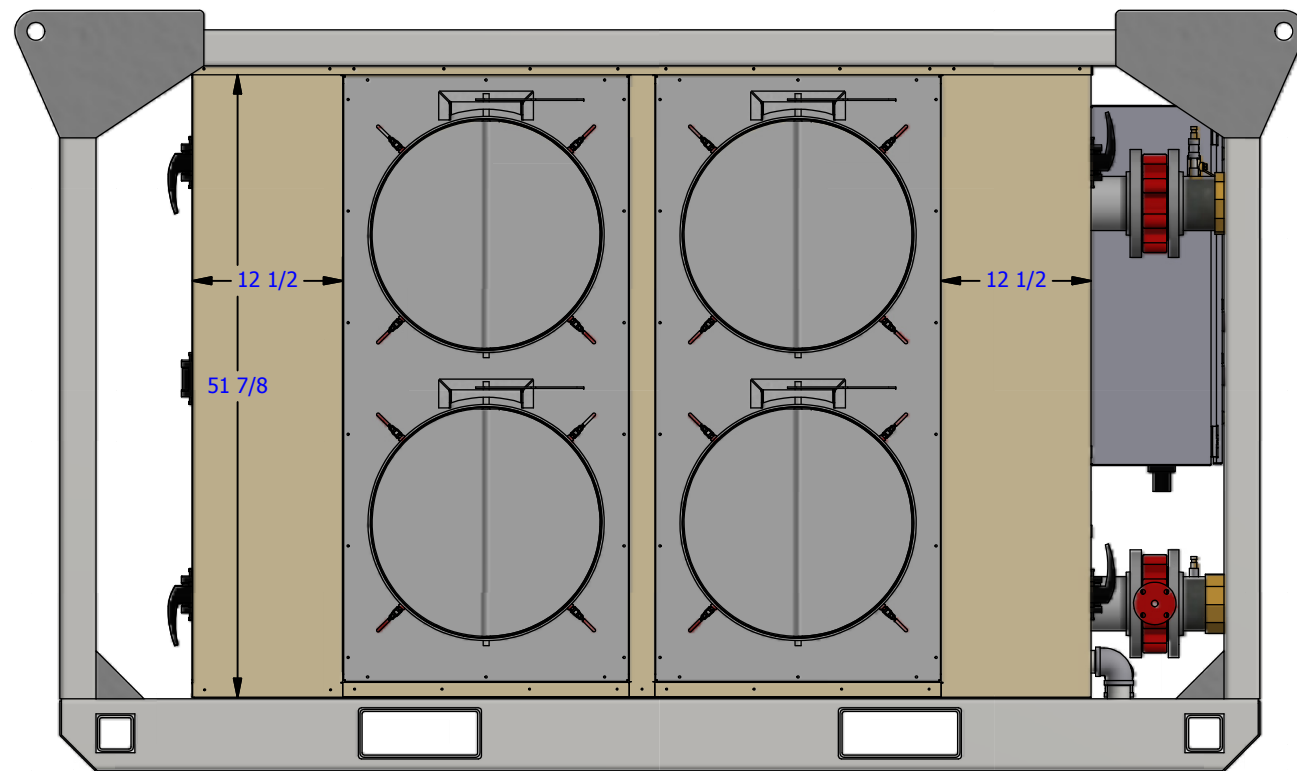
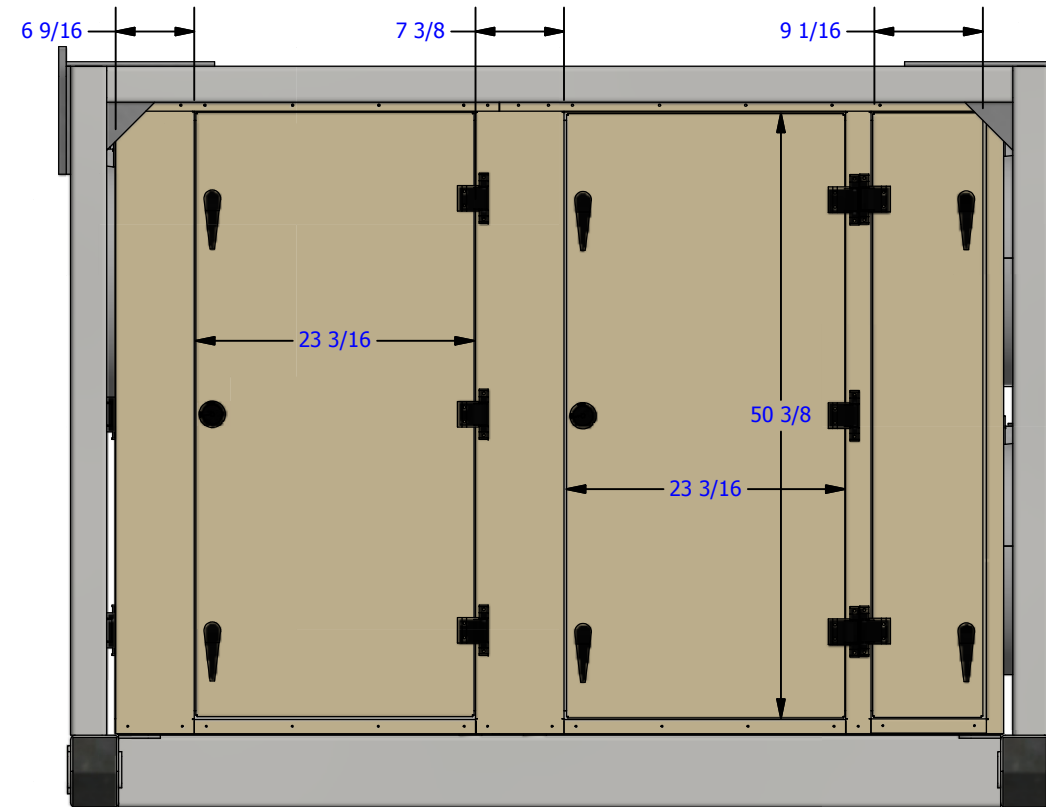
REVISION HISTORY

REV	DATE	DESIGNER	DESCRIPTION
1	12/7/2017	J.REYNOLDS	
2	2/19/2018	J.REYNOLDS	REVISED PER ECR# 00370



NO WELDS ON THIS PANEL.
PANEL MUST BE REMOVEABLE
FOR FAN REPLACEMENT.

NO DRESSING ANGLE
AROUND PERIMETER
OF UNIT.



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CAPS NO.:	DRAWING:	DESIGNER:	DATE:
17F-0863	75 Ton AHU-M1	J.REYNOLDS	12/7/2017
CUST. PO#:	SHEET:	CHECKER:	DATE:
	4 OF 4	D.POTTS	12/7/2017
SIZE:	REV:	APPROVER:	DATE:
B	2	J.PHAN	12/7/2017

CUSTOMER:	HERC EQUIPMENT RENTALS
75 TON INDUSTRIAL AIR HANDLING UNIT GALV. SKID,GALV. CAGE,GALVANNEALED HOUSING 460V/3PH/60HZ, GENERAL PURPOSE MECHANICAL DESIGN GENERAL DIMENSION	



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SECTION

06

SPARE PARTS LIST

SUGGESTED SPARE PARTS

JOB #: 17F-0863		REVISION #: 0				
CUSTOMER		HERC				
PROJECT		2018 RENTAL FLEET				
ITEM #	DESIGNATION	BRAND	MODEL/PART #	DESCRIPTION	QTY	CAPS#
1	EVAPORATOR FAN	GREENHECK	20-APM-3-II-150	PLEUM FAN, 9,400CFM AT 5" W.C., 15HP @3,600RPM, 215T	1	
2	VFD	YASKAWA	CIMR-VU4A0023FAA	15 HP FREQUENCY INVERTER 460-3-60	1	
3	POTENTIOMETER	C3 CONTROLS	POTO5k-TBW	5,000 OHM POTENTIOMETER, NEMA 4X	1	
4	FU1,2	MERSEN	ATQR6/10	6/10A TIME DELAY CLASS CC FUSE	1	
5	FU3	MERSEN	ATQR2	2A TIME DELAY CLASS CC FUSE	1	
6	FU4,5,6	MERSEN	AJT40	40A TIME DELAY CLASS J FUSES	1	
7	FU7,8,9	MERSEN	ATQR1/4	1/4A TIME DELAY CLASS CC FUSES	1	
8	TIMER	ICM	ICM102	DELAY ON MAKE TIMER	1	
9	FAN	ORION	OA172AP-11-1TB	ENCLOSURE MUFFIN FAN	1	
10	FILTER	ORION	GRM172-45	ENCLOSURE FILTER	1	
11	C1,2,3	SCHNEIDER ELECTRIC	LC1D25G7	25A CONTACTOR 120VAC COIL	1	
12	CIRCUIT BREAKER	SCHNEIDER ELECTRIC	BDL36045	CIRCUIT BREAKER, 600V, 45A	1	
13	CONTACT	SCHNEIDER ELECTRIC	9001KA3	NC STANDARD CONTACT BLOCK	1	
14	LIGHT	SCHNEIDER ELECTRIC	9001KP1G31	GREEN HEAVY DUTY PILOT LIGHT 120VAC	1	
15	LIGHT	SCHNEIDER ELECTRIC	9001KP1R31	RED HEAVY DUTY PILOT LIGHT 120VAC	1	
16	OVERLOAD	SCHNEIDER ELECTRIC	LRD22	OVERLOAD RELAY 16-24A	1	
17	SYSTEM SWITCH	SCHNEIDER ELECTRIC	9001KS42B	3 POSITION SELECTOR SWITCH	1	
18	TRANSFORMER	HPS	SP150MQMJ	CCT, 150VA, 240/480 X 120/240V	1	
19	PHASE MONITOR	SQ D	RM17TU00	RELAY 5AMP 3P 208-480VAC	1	
20	FILTER		20X24X2	20" X 24" X 2 MERV8 FILTER	1	