


20-75 Ton Packaged Industrial Rooftop

ALTERNATE - RTU-M2

Job Information

		Legacy Meridian Park Ipak Repl. J93A70059	
		Portland OR Main Office (D77)David Strasser	
Tag	60 T High 50	Model number	SFHLF60
Nominal Capacity	60 ton Air cooled	Unit Function	Natural Gas Heat
Development Sequence	R410A Development sequence		

Model Description

Unit airflow	H: Single Zone		
Unit Function	Natural Gas Heat	System Control	VAV (DTC) SF & EF/RF VFD w/ Bypass
Nominal Capacity	60 ton Air cooled	Outside Air Selection	0-100% Economizer
Power Supply	460/60/3	Capacity/Efficiency Options	eFlex- Variable Speed Compressors
Heating Capacity	4:1 Mod. Low Gas Heat	Filter	High-Efficiency Throwaway Filters
Exhaust/Return fan options	100% -Exhaust 20 Hp w/Statitrac	Exhaust/Return fan drive selection	800 rpm

Cooling

Gross total capacity	721.45 MBh	Gross latent capacity	95.88 MBh
Gross sensible capacity	625.57 MBh	Net total capacity	635.69 MBh
Net sensible capacity	539.80 MBh	Net sensible heat ratio	84.92 %
Leaving coil DB	53.46 F	Leaving coil WB	52.35 F
Leaving unit DB	57.15 F	Leaving unit WB	53.87 F

Entering Conditions

Design airflow	21000 cfm	Exhaust/Return Airflow	21000 cfm
Ambient DB	95.00 F	Cooling EDB	80.00 F
Ent air relative humidity		Cooling EWB	64.00 F
		Heating EAT	60.00 F

Heating

Input htg capacity	500.00 MBh	Output htg capacity	400.00 MBh
Heating delta T	17.56 F	Heating LAT	77.56 F
Output htg capacity w/fan	400.00 MBh		

Power

Supply Total Static Pressure	4.190 in H2O	Supply duct static pressure	1.500 in H2O
Roof curb (for static pressure add)		Return duct static pressure	1.250 in H2O
Supply Fan Hp	50 Hp FC	Exhaust/Return fan options	100% -Exhaust 20 Hp w/Statitrac

Electrical values provided are estimated only and are subject to change without notice and may differ from nameplate values.

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Actual supply motor power	31.35 bhp	Actual exhaust/return motor power	9.75 bhp
Supply Fan Drive Selection	1000 rpm	Exhaust/Return fan drive selection	800 rpm
Actual supply fan speed	967 rpm	Actual exhaust/return fan speed	679 rpm
System power	84.05 kW	EER @ AHRI	10.4 EER
IEER @ AHRI	16.5 EER		

Electrical

Max overcurrent protection	250.00 A	Min circuit ampacity	199.73 A
Min disconnect switch size	212.00 A	Recommended dual element	225.00 A
Compressor 1 count	1.00 Each	Compressor 1 RLA	22.20 A
Compressor 2 count	1.00 Each	Compressor 2 RLA	25.50 A
Compressor 3 count	1.00 Each	Compressor 3 RLA	38.90 A
Supply motor count	1	Supply fan motor FLA	60.50 A
Condenser fan FLA	10.80 A	Exhaust/return fan motor FLA	24.70 A
Electric heater FLA		Other FLA	2.00 A
Crankcase heater FLA		Supply fan count	2.00 Each

Weights

Installed point load 1	1004.6 lb	Installed point load 2	952.0 lb
Installed point load 3	1105.3 lb	Installed point load 4	1052.6 lb
Installed point load 5	1194.6 lb	Installed point load 6	1141.9 lb
Installed point load 7	1284.9 lb	Installed point load 8	1232.2 lb
Installed point load 9	1384.5 lb	Installed point load 10	1331.8 lb
COG - X dimension	16.82 ft	COG - Y dimension	4.73 ft
Total installed weight	11684.4 lb		

Coil Specification

Evaporator rows	Evaporator face area	43.00 sq ft
Evaporator fin spacing		

Acoustical Performance

Octave Band	<u>63 Hz</u>	<u>125 Hz</u>	<u>250 Hz</u>	<u>500 Hz</u>	<u>1 kHz</u>	<u>2 kHz</u>	<u>4 kHz</u>	<u>8 kHz</u>
Outdoor Noise	101 dB	96 dB	93 dB	92 dB	89 dB	86 dB	83 dB	79 dB

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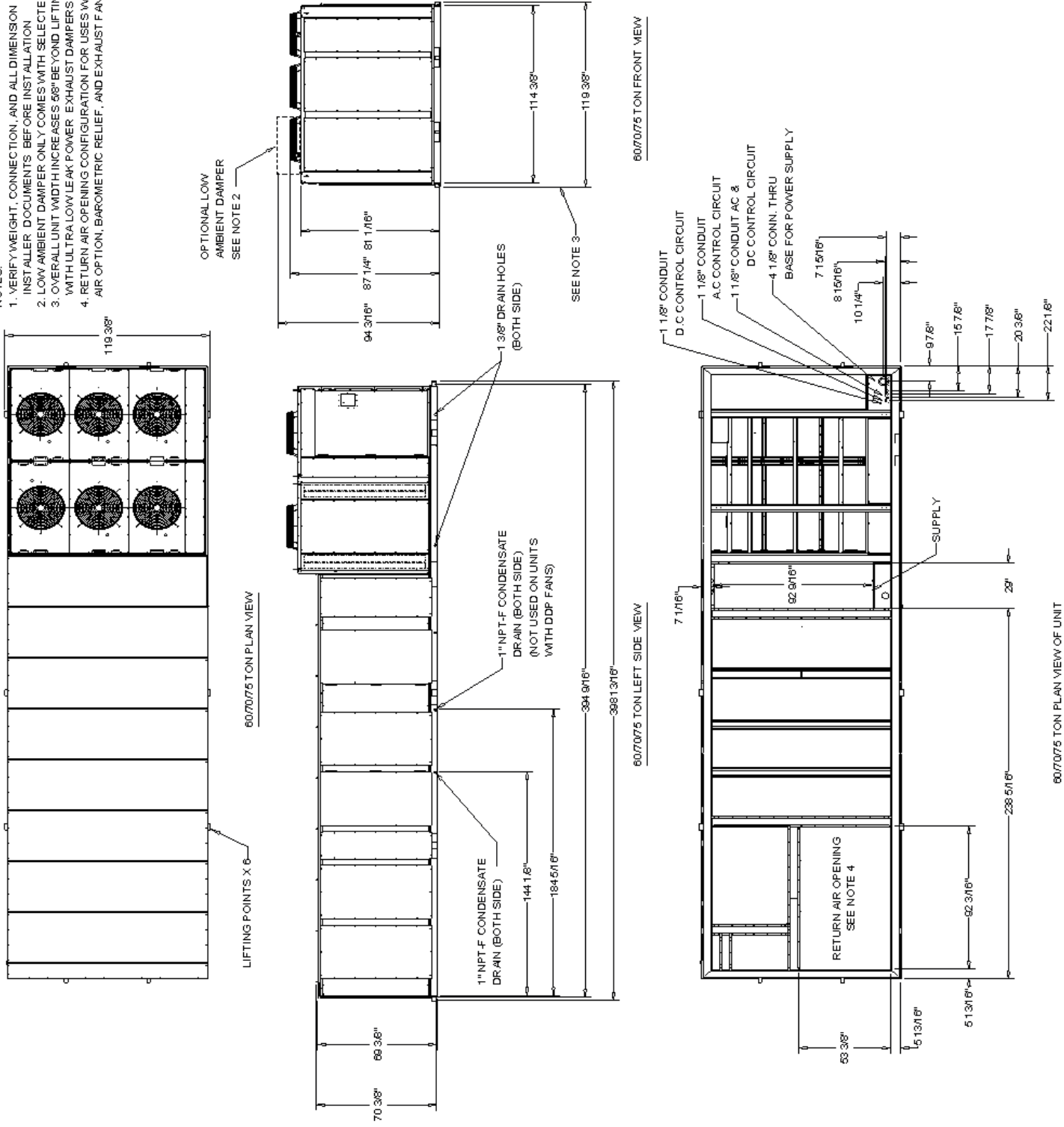
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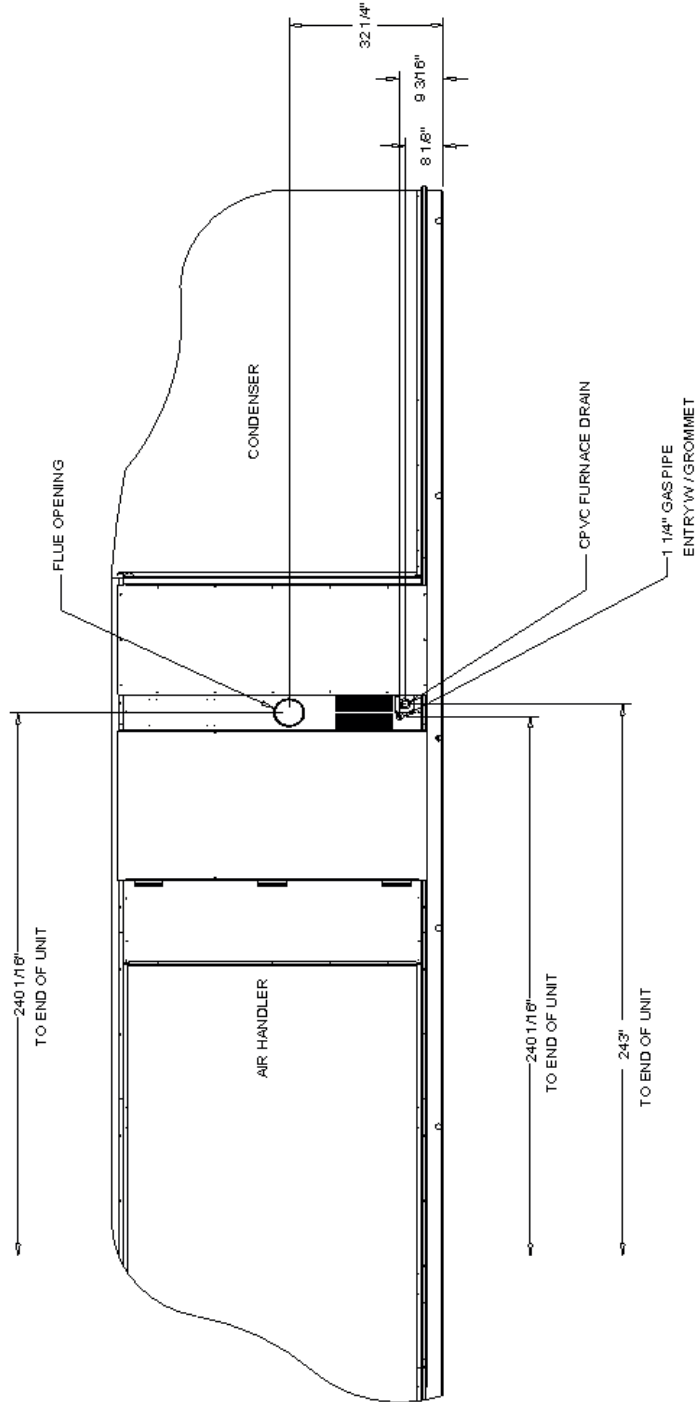
Return Duct	93 dB	85 dB	79 dB	77 dB	74 dB	71 dB	68 dB	69 dB
Supply Duct	93 dB	89 dB	89 dB	87 dB	84 dB	81 dB	76 dB	71 dB

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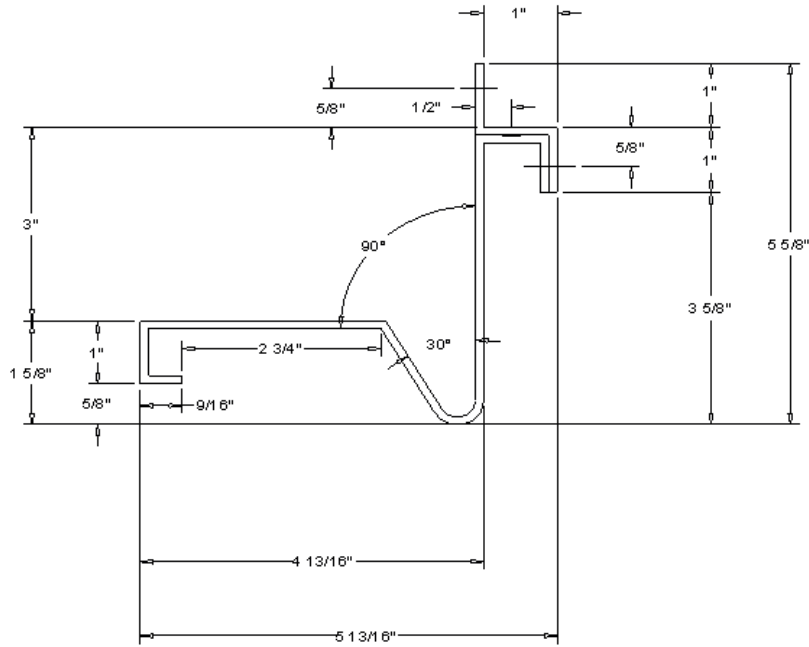
- NOTES:
1. VERIFY WEIGHT, CONNECTION, AND ALL DIMENSION WITH INSTALLER DOCUMENTS BEFORE INSTALLATION
 2. LOW AMBIENT DAMPER ONLY COMES WITH SELECTED UNIT
 3. OVERALL UNIT WIDTH INCREASES 58" BEYOND LIFTING LUG WITH ULTRA LOW LEAK POWER EXHAUST DAMPERS
 4. RETURN AIR OPENING CONFIGURATION FOR USES WITH NO AIR OPTION, BAROMETRIC RELIEF, AND EXHAUST FAN.



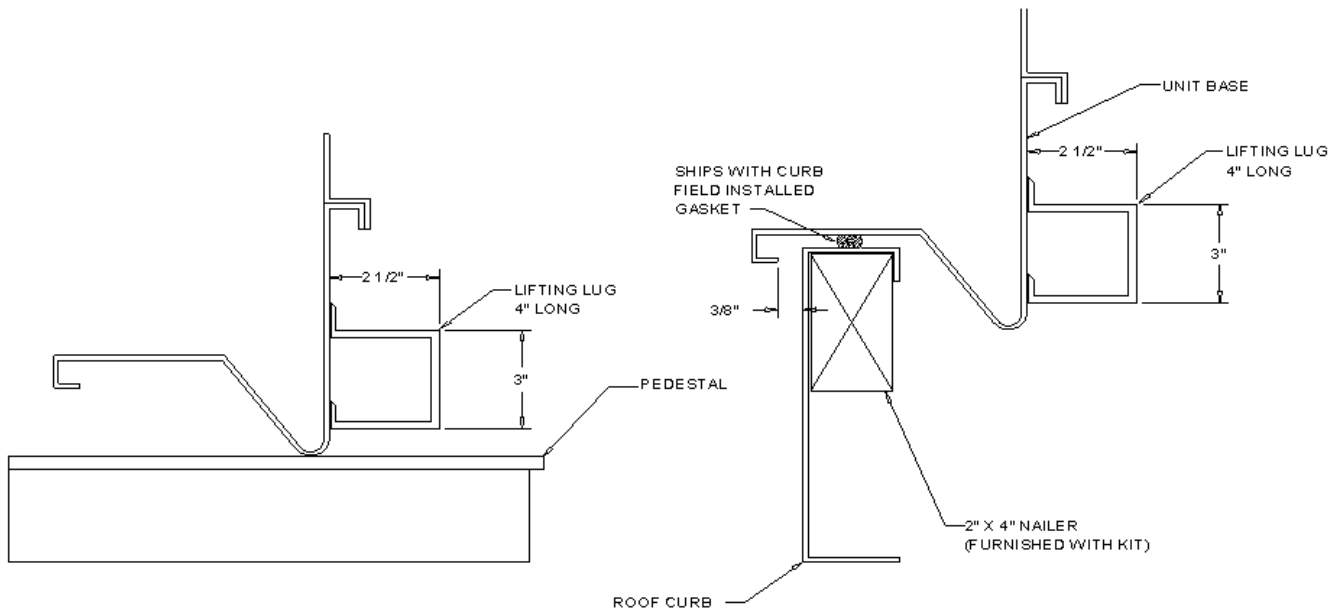
TOPSS Dimension Drawing
 ALL WEIGHTS AND DIMENSIONS ARE APPROXIMATE.



60 - 75 600MBH TON GAS HEAT
LEFT SIDE OF UNIT



TYPICAL PEDESTAL AND BASE
 DIMENSION DRAWING



TYPICAL PEDESTAL AND BASE PAN DETAIL
 DETAIL

TYPICAL ROOF CURB AND BASE PAN DETAIL
 DETAIL

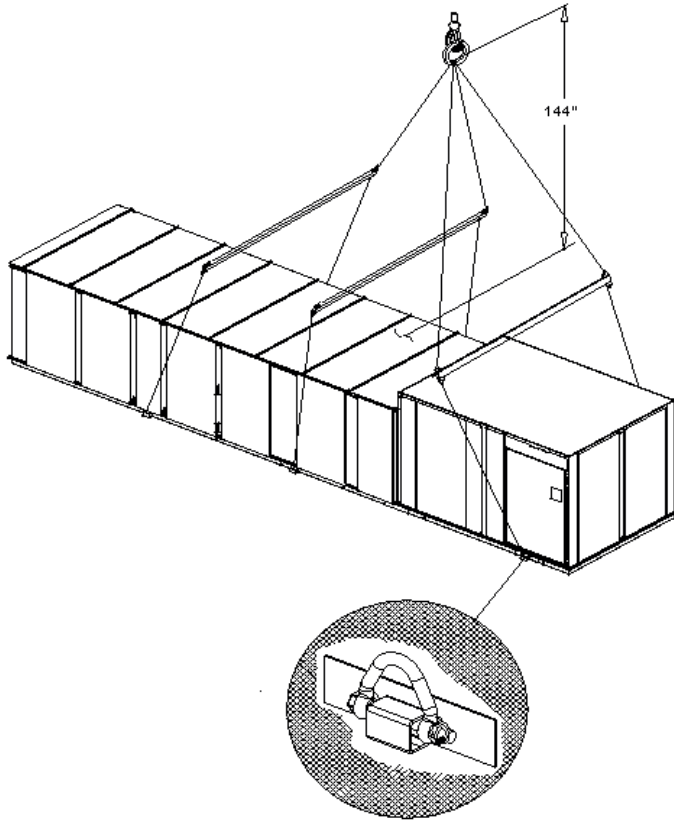


ELECTRICAL / GENERAL DATA

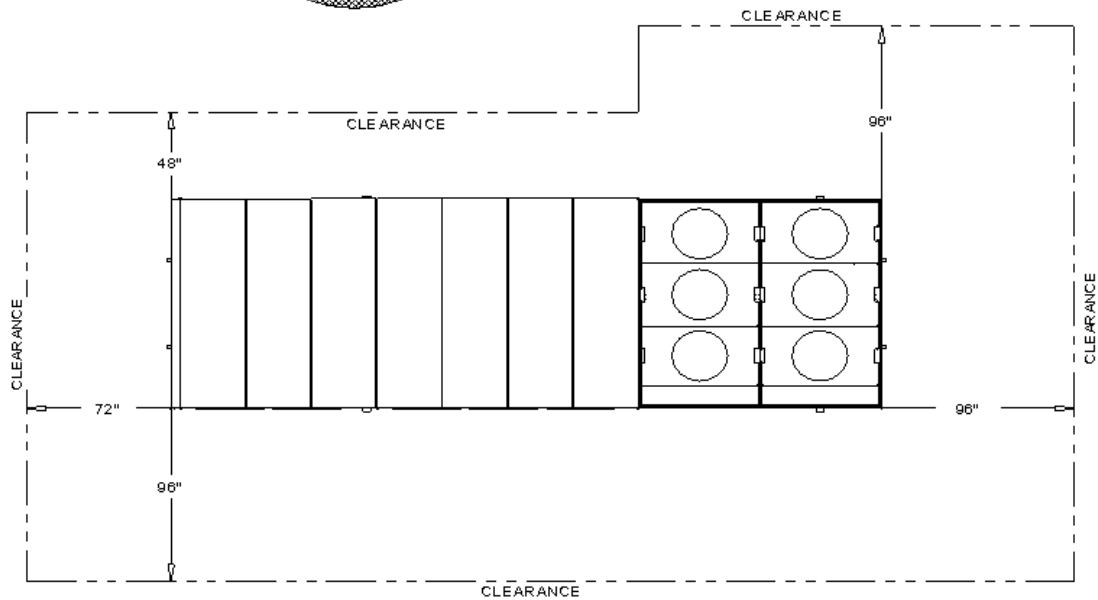
<p>TONS</p> <p>Model (Tonnage): SFHLF 60 (60Ton) Unit Operating Voltage Range: 414-506 Unit Primary Voltage: 480 Unit Hertz: 60 Unit Phase: 3</p> <p>EER: 10.4 EER IEER: 16.5 EER</p>	<p>GAS HEATING - PERFORMANCE</p> <p>Heating Input: 125-500 Heating Output: 100-400 Capacity Steps: 4:1</p> <p>HEATING - GENERAL DATA</p> <p>Gas inlet pressure: (in w.c.) 1 1/4" Gas Pipe Connection Size: 7" w.c - 14" w.c</p>
<p>COMPRESSOR</p> <p>Compressor 1 Count: 1.00 Each Compressor 1 RLA: 22.20 A Compressor 2 Count: 1.00 Each Compressor 2 RLA: 25.50 A Compressor 3 Count: 1.00 Each Compressor 3 RLA: 38.90 A</p>	<p>ELECTRIC HEATER</p> <p>Electric Heater Kw: Electric Heater Full Load Amps:</p>
<p>SUPPLY FAN MOTOR</p> <p>Number of Fans: 2.00 Each Number of Motors: 1 Total Horsepower: Supply Fan Motor Full Load Amps: 60.50 A Supply Fan Efficiency: 44.17 %</p>	<p>EXHAUST / RETURN FAN MOTOR</p> <p>Number: 1 Horsepower (Each): 20.0 Exhaust Fan Motor Full Load Amps: 24.7</p>
<p>CONDENSER FAN MOTOR</p> <p>Number: 6 Horsepower (each): 1.0 Condenser Fan Motor Full Load Amps (Total): 10.8</p>	<p>FILTERS - TYPE</p> <p>Type: High-Efficiency Throwaway Furnished: YES Number: 35 Recommended Size: 16" x20" x2"</p>
<p>EVAPORATIVE CONDENSER (7)</p> <p>Pump Horsepower: N/A Pump Full Load Amps: N/A Sump Heater Full Load Amps: N/A Sump Heater kW: N/A</p>	<p>PREFILTERS</p> <p>Furnished: Number: Recommended Size:</p>
<p>REFRIGERANT TYPE (6)</p> <p>Charge Type: R-410A Factory Charge (Circuit #1): 42.0 lb Factory Charge (Circuit #2): 40.0 lb</p>	<p>FINAL FILTERS - TYPE</p> <p>Type: Furnished: Number: Recommended Size:</p> <p>PREFILTERS</p> <p>Furnished: Number: Recommended Size:</p>
<p> </p>	

Notes:

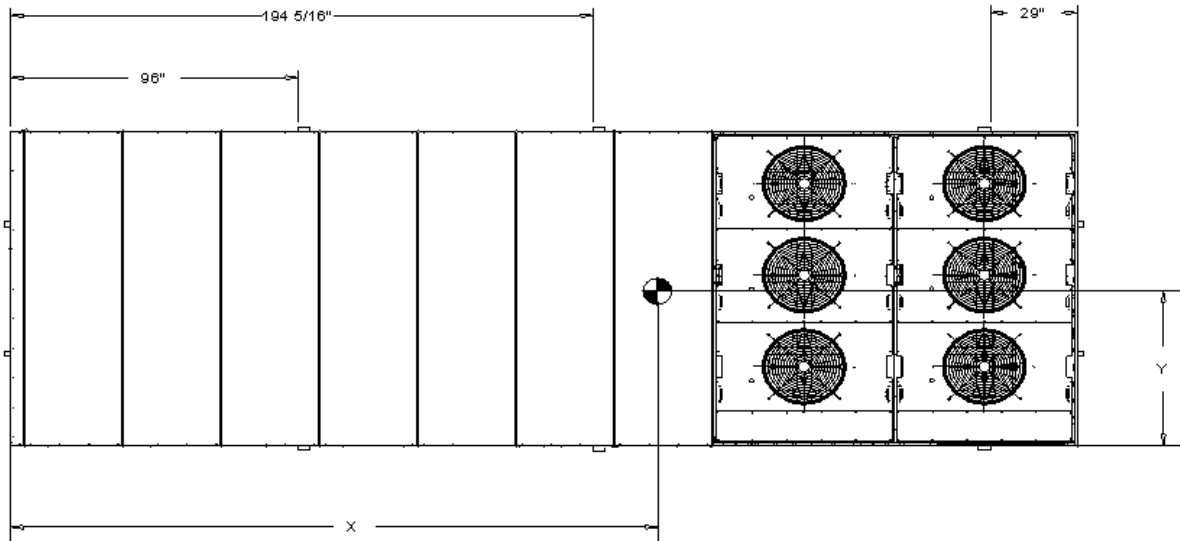
- LOAD 1=Current of the largest motor (compressor or fan motor); LOAD 2=Sum of the currents of all remaining motors; LOAD 3 =Current of electric heaters
 LOAD 4 =Control Power Transformer (20-40 and 24-48 ton units add 3 FL amps for wire sizing formula, 50-75 and 59 - 89 ton units add 6 FL amps)
- For Electric Heat MCA, MOP, RDE values, calculate for both cooling and heating modes. (When determining LOADS, the compressors do not operate when the unit is in heating mode) (On 70-89 ton single source units, heating Load 4 = 12 amps on 200,230 volt units and 9 amps on 460,575 volt units)
- If selected Max Over Cur is less than the Min Cir Amp, then select the lowest maximum fuse size which is equal to or larger than the Min Cir Amp, provided the selected fuse size does not exceed 800 amps.
- If the selected Recommended Dual Element fuse size is greater than the selected Max Over Cur Protection value, then select the Recommended Dual Element fuse size value to equal the Max Over Protection value.
- Compressor KW at AHRI rating conditions of 80/67 -95
- Refrigerant charge is an approx. value. For a more precise value, see unit nameplate and service instructions.
- Sump Heater is an optional feature.



Note:
 When 2 or more units are to be placed side by side, the distance between the units should be increased to 150% of the recommended single unit clearance. The units should also be staggered to reduce span deflection & assure proper diffusion of exhaust air.



RIGGING AND CLEARANCE
 AIR COOLED DRAWING



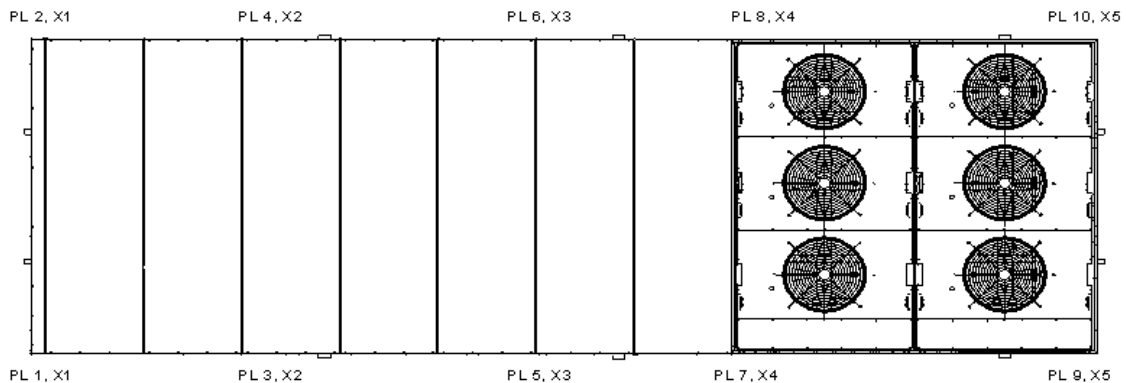
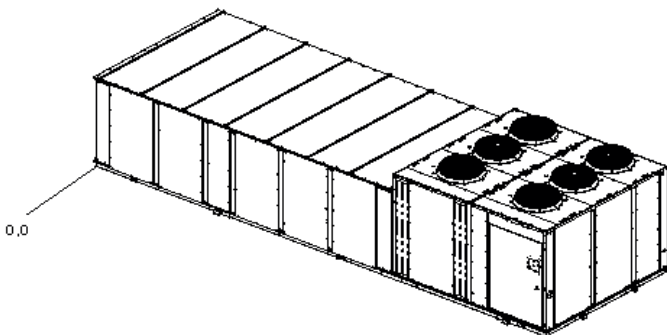
Center of Gravity X:	16.82 ft	Point load X location 1:	4.000 in
Center of Gravity Y:	4.73 ft	Point load X location 2:	101.000 in
Point Load 1:	1004.6 lb	Point load X location 3:	187.000 in
Point Load 2:	952.0 lb	Point load X location 4:	274.000 in
Point Load 3:	1105.3 lb	Point load X location 5:	370.000 in
Point Load 4:	1052.6 lb	Point load X location 6:	N/A
Point Load 5:	1194.6 lb	Point load X location 7:	N/A
Point Load 6:	1141.9 lb	Point load X location 8:	N/A
Point Load 7:	1284.9 lb	Point load X location 9:	N/A
Point Load 8:	1232.2 lb	Point load X location 10:	N/A
Point Load 9:	1384.5 lb	Point load Y location 1:	4.000 in
Point Load 10:	1331.8 lb	Point load Y location 2:	112.000 in

Total Weight: 11684.4 lb

Added Weight
 1. Double well : N/A

Notes:

1. The actual weight is stamped on the unit nameplate.
2. The weight shown represents the typical unit operating weight for the configuration selected. Estimated at +/- 10% of the nameplate weight.
3. Add weight to the total unit weight.
4. Design Special weights are not displayed. Any weight added through COD (Custom Order Design) will not be accounted in the +/- 10% estimate.
5. When 2 or more units are to be placed side by side, the distance between the units should be increased to 150% of the recommended single unit clearance. The units should also be staggered to reduce span deflection & assure proper diffusion of exhaust air.



CENTER OF GRAVITY AND INSTALL WEIGHT X-Y POINTS
 AIR COOLED DRAWING

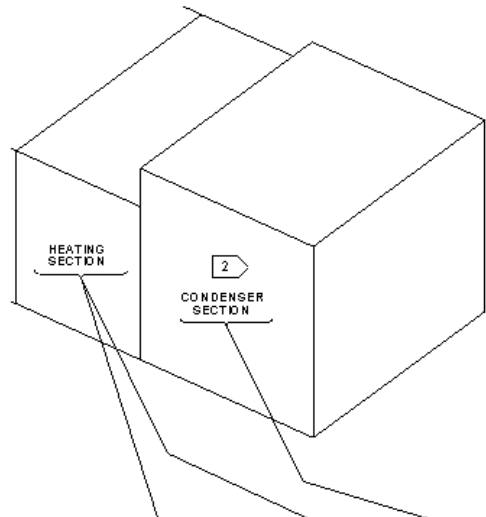
<p>⚠ WARNING HAZARDOUS VOLTAGE! DISCONNECT ALL ELECTRIC POWER INCLUDING REMOTE DISCONNECTS AND FOLLOW LOCK OUT AND TAG PROCEDURES BEFORE SERVICING. INSURE THAT ALL MOTOR CAPACITORS HAVE DISCHARGED STORED VOLTAGE. UNITS WITH VARIABLE SPEED DRIVE, REFER TO DRIVE INSTRUCTIONS FOR CAPACITOR DISCHARGE. FAILURE TO DO THE ABOVE BEFORE SERVICING COULD RESULT IN DEATH OR SERIOUS INJURY.</p>	<p>⚠ AVERTISSEMENT TENSION DANGEREUSE! COUPER TOUTES LES TENSIONS ET OUVRIR LES SECTIONNEURS A DISTANCE, PUIS SUIVRE LES PROCEDURES DE VERROUILLAGE ET DES ETIQUETTES AVANT TOUTE INTERVENTION. VERIFIER QUE TOUS LES CONDENSATEURS DES MOTEURS SONT DECHARGES. DANS LE CAS D'UNITES COMPORTANT DES ENTRAINEMENTS A VITESSE VARIABLE, SE REPORTER AUX INSTRUCTIONS DE L'ENTRAINEMENT POUR DECHARGER LES CONDENSATEURS. NE PAS RESPECTER CES MESURES DE PRECAUTION PEUT ENTRAINER DES BLESSURES GRAVES POUVANT ETRE MORTELLES.</p>	<p>⚠ ADVERTENCIA VOLTAJE PELIGROSO! DESCONECTE TODA LA ENERGIA ELECTRICA, INCLUSO LAS DESCONEXIONES REMOTAS Y SIGA LOS PROCEDIMIENTOS DE CIERRE Y ETIQUETADO ANTES DE PROCEDER AL SERVICIO. ASEGURESE DE QUE TODOS LOS CAPACITORES DEL MOTOR HAYAN DESCARGADO EL VOLTAJE ALMACENADO. PARA LAS UNIDADES CON EJE DE DIRECCION DE VELOCIDAD VARIABLE, CONSULTE LAS INSTRUCCIONES PARA LA DESCARGA DEL CONDENSADOR. EL NO REALIZAR LO ANTERIORMENTE INDICADO, PODRIA OCASIONAR LA MUERTE O SERIAS LESIONES PERSONALES.</p>
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CAUTION
 USE COPPER CONDUCTORS ONLY!
 UNIT TERMINALS ARE NOT DESIGNED TO ACCEPT OTHER TYPES OF CONDUCTORS.
 FAILURE TO DO SO MAY CAUSE DAMAGE TO THE EQUIPMENT.

ATTENTION
 N'UTILISER QUE DES CONDUCTEURS EN CUIVRE!
 LES BORNES DE L'UNITE NE SONT PAS CONÇUES POUR RECEVOIR D'AUTRES TIPIOS DE CONDUCTEURS.
 L'UTILISATION DE TOUT AUTRE CONDUCTEUR PEUT ENDOMMAGER L'EQUIPEMENT.

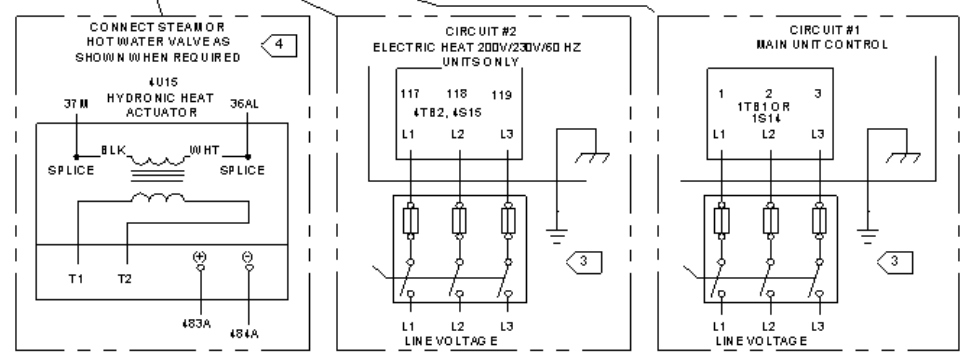
PRECAUCION
 UTILICE UNICAMENTE CONDUCTORES DE COBRE!
 LAS TERMINALES DE LA UNIDAD NO ESTAN DISEÑADAS PARA ACEPTAR OTROS TIPOS DE CONDUCTORES.
 SI NO LO HACE, PUEDE OCASIONAR DANO AL EQUIPO.

IMPORTANT!
 DO NOT ENERGIZE UNIT UNTIL CHECK-OUT AND START-UP PROCEDURE HAS BEEN COMPLETED.



DEVICE PREFIX LOCATION CODE	
AREA	LOCATION
1	INSIDE UNIT CONTROL BOX
2	CONDENSER SECTION
3	AIR HANDLER SECTION
4	HEATING SECTION
5	EXTERNAL FIELD MOUNTED DEVICE

Note:
 All wiring and components shown dashed to be supplied and installed by the customer in accordance with local electrical codes.





NOTES:

- 1 ALL WIRING AND COMPONENTS SHOWN DASHED TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER IN ACCORDANCE WITH LOCAL ELECTRICAL CODES.
- 2 CUSTOMER CONNECTIONS - MAIN UNIT CONTROL (CIRCUIT #1) - ARE LOCATED IN THE CONDENSER SECTION FOR 20 THRU 75 TON UNITS.
- 3 SEE CUSTOMER CONNECTION WIRE RANGE TABLE FOR ACCEPTABLE WIRE SIZES FOR CONNECTION TO MAIN UNIT TERMINAL BLOCK (1TB14/TB2) OR DISCONNECT SWITCH (1S14/4S15).
- 4 WIRES TO THE OPTIONAL STEAM AND/OR HOT WATER HEAT VALVE ARE SUPPLIED WITH THE UNIT. WIRE CONNECTIONS TO THE VALVE TO BE MADE BY THE CUSTOMER.
- 6 OPTIONAL 5U57 REMOTE ZONE TEMP SENSOR IS USED FOR UNOCCUPIED HEAT/COOL TEMP CONTROL SENSING.
- 7 WHEN 5U69 REMOTE ZONE TEMP SENSOR IS USED, REMOVE 5U58 INTEGRAL ZONE TEMP SENSOR ATTACHED TO TERMINALS S1 AND S2.
- 8 WIRES USE SHIELDED TWISTED PAIR WIRE.
- 9 USE SHIELDED TWISTED PAIR WIRE. WRAP SHIELDS WITH TAPE TO PREVENT CONTACT WITH GROUND.
- 10 REMOVE JUMPER (1TB4-15 & 1TB4-16) AND INSTALL HIGH DUCT TEMP T-STAT FOR FIELD SUPPLIED DEVICE.
- 11 REMOVE JUMPER (1TB4-17 & 1TB4-18) WHEN FIELD SUPPLIED EXTERNAL AUTO/STOP SWITCH (5S87) IS INSTALLED.
- 12 CHANGE OVER (5K87) AVAILABLE ONLY ON HYDRONIC HEAT UNITS OR MODULATING GAS HEAT UNITS.
- 13 ALARM OUTPUT SWITCHES ON ANY MANUAL RESET DIAGNOSTIC.
- 14 OPTIONAL HEAT MODULE AUX. TEMP (5RT16) IS USED FOR MORNING WARM-UP CONTROL ON UNITS WITH HEATING OPTION.
- 15 TERMINAL BLOCK 1TB17 AND ASSOCIATED WIRING REQUIRED WITH GBAS (1U51) OPTION. DEMAND LIMIT RELAY (5K89) TO BE PROVIDED BY CUSTOMER.
- 16 VENTILATION OVERRIDE MODE CONTACTS RATED 12MA @ 24VDC MINIMUM (5K90 - 5K91 - 5K92 - 5K93 - 5K94) TO BE PROVIDED BY CUSTOMER.
- 17 WIRE NODES 533 & 534 REQUIRED WITH BASNETWORK COMM MODULE (1U54) OPTION. USE SHIELDED TWISTED PAIR WIRE.
- 18 FIELD CONNECTIONS TO DRIVE VAV BOXES FULL OPEN DURING NIGHT SETBACK MODE.
- 19 15A FUSE REPLACEMENT IS REQUIRED FOR 50 THRU 60 TON - 0.50 KVA TRANSFORMER WITH 200V - 230V - 480V OR 575V UNIT VOLTAGE.
20A FUSE REPLACEMENT IS REQUIRED FOR 50 THRU 60 TON - 0.50 KVA TRANSFORMER WITH 380V OR 415V UNIT VOLTAGE.
- 21 CONTACTS RATED 12 MA @ 24VDC MINIMUM.
- 22 CONNECT TO 24VAC CLASS 2 CIRCUITS ONLY.
- 23 REMOVE JUMPER WHEN OPTIONAL FIELD SUPPLIED OUTSIDE AIR SENSOR (3RT3) IS INSTALLED AND THE UNIT DOES NOT HAVE ECONOMIZER.
- 24 FIELD SUPPLIED AND INSTALLED OCCUPIED/UNOCCUPIED CONTACTS (5K86) FOR USE ON UNITS WITHOUT REMOTE PANEL WITH NIGHT SETBACK (5U58).
- 25 GBAS 0-5V OPTION CONNECTIONS.
- 26 GBAS 0-10V OPTION CONNECTIONS.
- 27 FOR GBAS INPUTS AI1-AI4, "GBAS 0-5V" REQUIRES 0-5V VDC AND "GBAS 0-10V" REQUIRES 0-10VDC.
- 28 "ACTIVE DIAGNOSTICS (BO5)" APPEARS WITH BOTH "GBAS 0-5V" AND "GBAS 0-10V".
- 29 SEE FUSE REPLACEMENT TABLE ON VFD PANEL FOR VFD POWER FUSES (F40, F41, F42).
- 30 SWITCH A53, LOCATED ON THE VFD, MUST BE SET TO "U" (OFF).



FUSE REPLACEMENT TABLE												
CONDENSER FAN FUSE 1F1 THRU 1F6 CLASS RK5	UNIT VOLTAGE	200	230	380	415	460	575					
	TIME DELAY	25A	25A	15A	15A	15A	15A					
CONTROL POWER FUSE												
CONTROL (1T1) TRANSFORMER RATING		0.25 KVA	0.30 KVA	0.50 KVA	0.75 KVA	1.00 KVA	1.50 KVA					
1F7 CLASS CC - TYPE FNQ-R	20-30 TON	6.25A	6.25A	--	10A	--	--					
	40 TON	15A	20A	--	20A	--	--					
	50-60 TON	--	--	15A	--	20A	--					
	70-75 TON	--	--	--	--	15A	20A					
ELECTRIC HEAT FUSE		4F19 THRU 4F36, 4F46, 47, 48			CLASS K5		60A					
COMPRESSOR PROTECTION FUSE		1F44 & 1F45			TYPE MTH		6A					
TRANSFORMER CIRCUIT FUSE		1F72 THRU 1F74			TYPE FNQ-R		15A					
VFD PROTECTION FUSES (CLASS "T" FUSES) OPTIONAL SUPPLY VFD 1F57 - 1F62, OPTIONAL EXHAUST / RETURN VFD 1F63-1F65												
BELT DRIVE MOTOR 20-130 UNITS	UNIT VOLTAGE	FUSE RATING	3 HP	5 HP	7.5 HP	10 HP	15 HP	20 HP	25 HP	30 HP	40 HP	50 HP
	200V/60/3	600V	40A	60A	80A	100A	150A	200A	225A	300A	350A	N/A
	230V/60/3	600V	30A	45A	70A	90A	125A	175A	200A	250A	300A	N/A
	380V/50/3	600V	15A	30A	45A	50A	90A	100A	125A	150A	200A	N/A
	415V/50/3	600V	15A	30A	45A	50A	90A	100A	125A	150A	200A	N/A
	460V/60/3	600V	15A	25A	35A	45A	60A	90A	100A	125A	150A	200A
575V/60/3	600V	15A	15A	25A	35A	50A	70A	60A	100A	125A	175A	
OPTIONAL DIRECT DRIVE MOTOR 20-59 UNITS	UNIT VOLTAGE	FUSE RATING	3 HP	5 HP	7.5 HP	10 HP	15 HP 1K-1.6K RPM	15 HP 1.7K-2.4K RPM	20 HP	25 HP	30 HP	
	200V/60/3	600V	40A	60A	80A	100A	150A	150A	200A	225A	300A	
	230V/60/3	600V	25A	45A	70A	90A	125A	125A	175A	200A	250A	
	460V/60/3	600V	15A	25A	35A	45A	70A	60A	90A	100A	125A	
	575V/60/3	600V	15A	15A	25A	35A	50A	50A	70A	80A	100A	
OPTIONAL DIRECTMIDIVE MOTOR 60-89 TON	UNIT VOLTAGE	FUSE RATING	10HP	15 HP 1K-1.6K RPM	15 HP 1.7K-2.4K RPM	20HP	30 HP 1K-1.6K RPM	30 HP 1.7-2.4K RPM	40HP	50HP		
	200V/60/3	600V	125A	175A	150A	200A	300A	150A	350A	N/A		
	230V/60/3	600V	95A	150A	125A	175A	250A	250A	300A	N/A		
	460V/60/3	600V	45A	70A	60A	90A	125A	125A	150A	200A		
	575V/60/3	600V	40A	60A	50A	70A	125A	100A	125A	175A		
CUSTOMER CONNECTION WIRE RANGE												
NOTES: A. BLOCK SIZE & DISCONNECT SIZE ARE CALCULATED BY SELECTING THE SIZE GREATER THAN OR EQUAL TO 1.15 X (SUM OF UNIT LOADS). SEE UNIT LITERATURE FOR UNIT LOAD VALUES.	UNITS WITH MAIN POWER TERMINAL BLOCK (ALL VOLTAGES)						UNITS WITH MAIN POWER DISCONNECT SWITCH (ALL VOLTAGES)					
	BLOCK SIZE	WIRE QTY	CONNECTOR WIRE RANGE			DISCONNECT SIZE	WIRE QTY	CONNECTOR WIRE RANGE				
	335 AMP	(1)	#6 - 350 MCM			100 AMP	(1)	#14 - 1/0				
	760 AMP	(2)	#4 - 500 MCM			250 AMP	(1)	#4 - 350 kcmil				
	840 AMP	(2)	#2 - 600 MCM			400 AMP	(1) OR	#1 - 600 kcmil OR				
							(2)	#1 - 250 kcmil				
					600 AMP	(2)	250 - 500 MCM					
					1000 AMP	(3)	3/0 - 500 kcmil					
OPTIONAL CONVENIENCE OUTLET FUSE 1F55 AND 1F56 (TIME DELAY TYPE FNQ-R FUSE)		200V/60/3	230V/60/3	380V/50/3	415V/50/3	460V/60/3	575V/60/3					
		12A	10A	N/A	N/A	5A	4A					

WARNING

HAZARDOUS VOLTAGE!

DISCONNECT ALL ELECTRIC POWER INCLUDING REMOTE DISCONNECTS AND FOLLOW LOCK-OUT AND TAG PROCEDURES BEFORE SERVICING. INSURE THAT ALL MOTOR CAPACITORS HAVE DISCHARGED STORED VOLTAGE. UNITS WITH VARIABLE SPEED DRIVE, REFER TO DRIVE INSTRUCTIONS FOR CAPACITOR DISCHARGE.

FAILURE TO DO THE ABOVE BEFORE SERVICING COULD RESULT IN DEATH OR SERIOUS INJURY.

AVERTISSEMENT

TENSION DANGEREUSE!

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CAUTION

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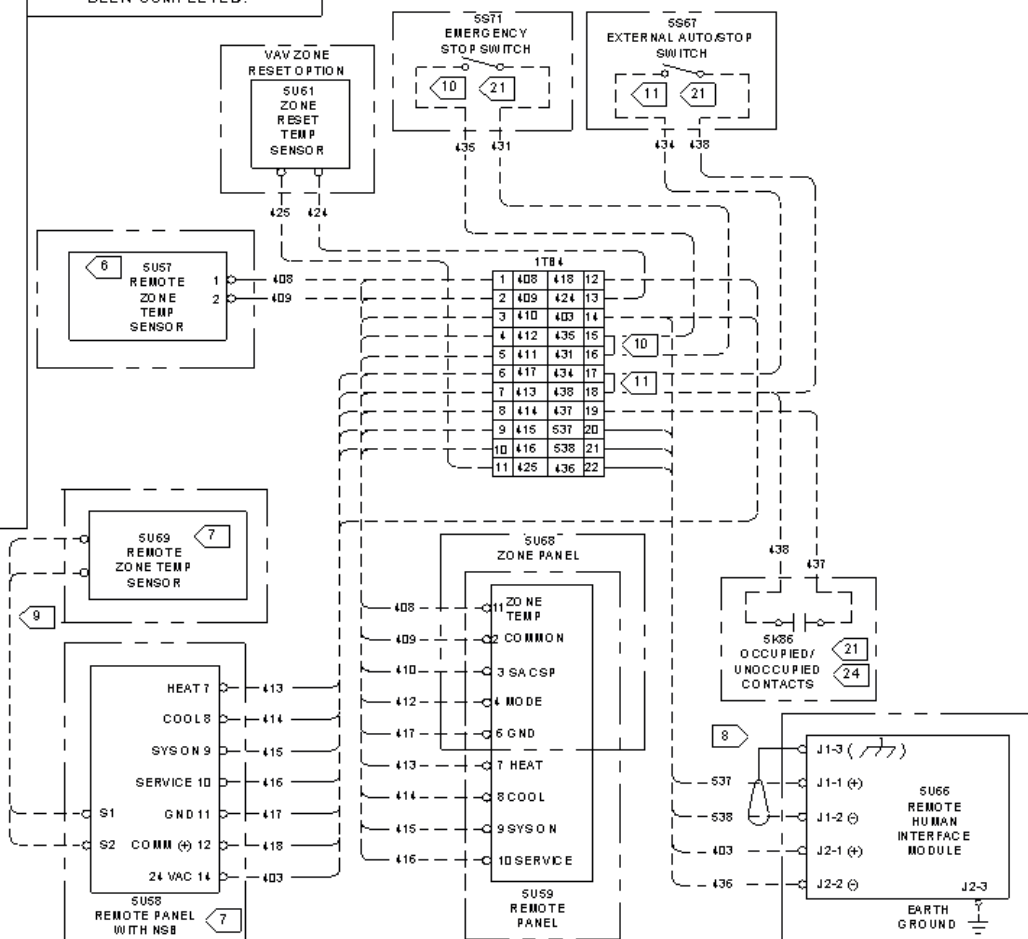
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DEVICE PREFIX LOCATION CODE	
AREA	LOCATION
1	INSIDE UNIT CONTROL BOX
2	CONDENSER SECTION
3	AIR HANDLER SECTION
4	HEATING SECTION
5	EXTERNAL FIELD MOUNTED DEVICE

Note:
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WARNING

HAZARDOUS VOLTAGE!
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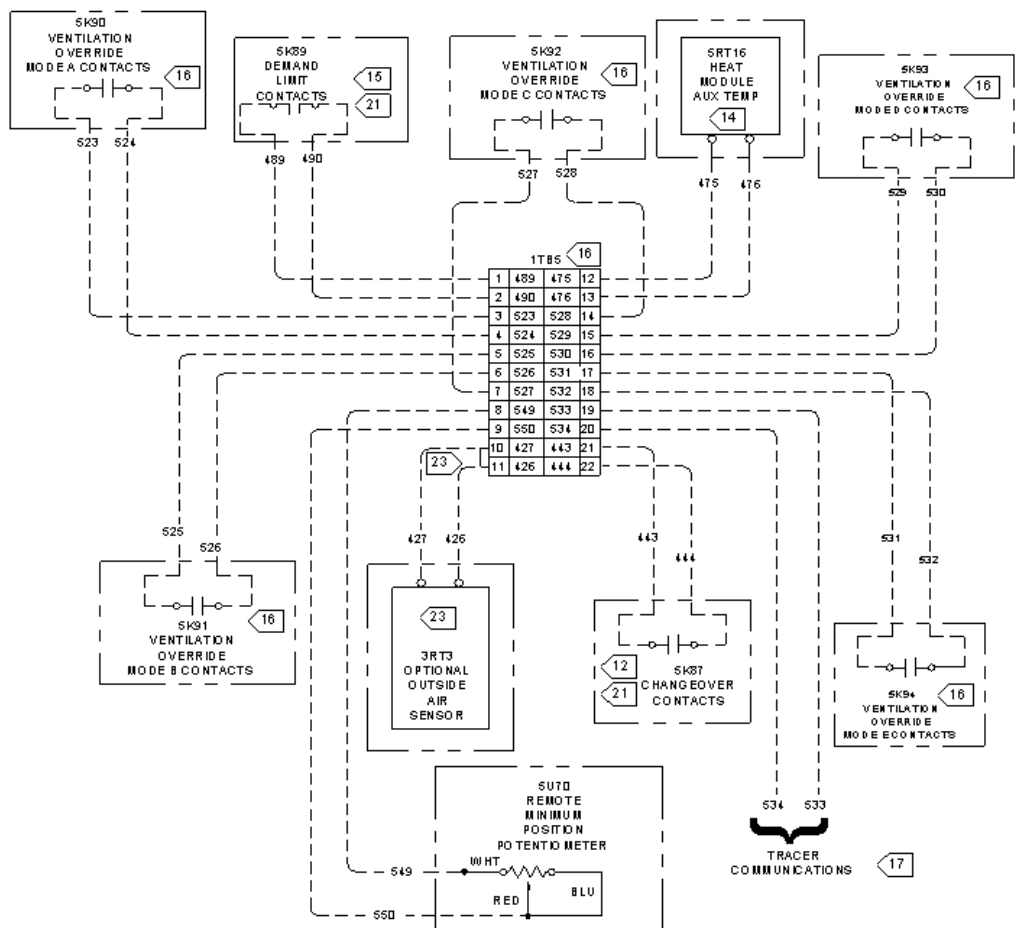
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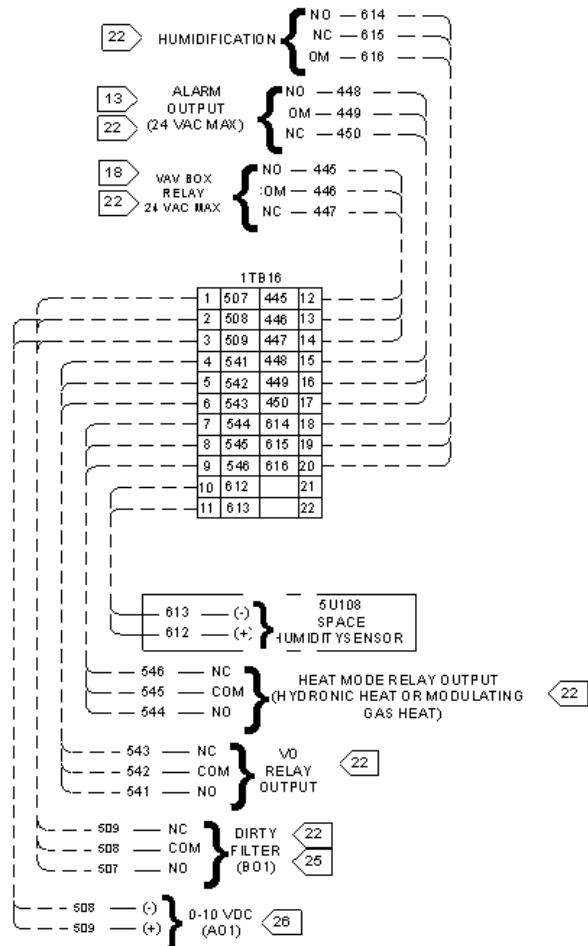
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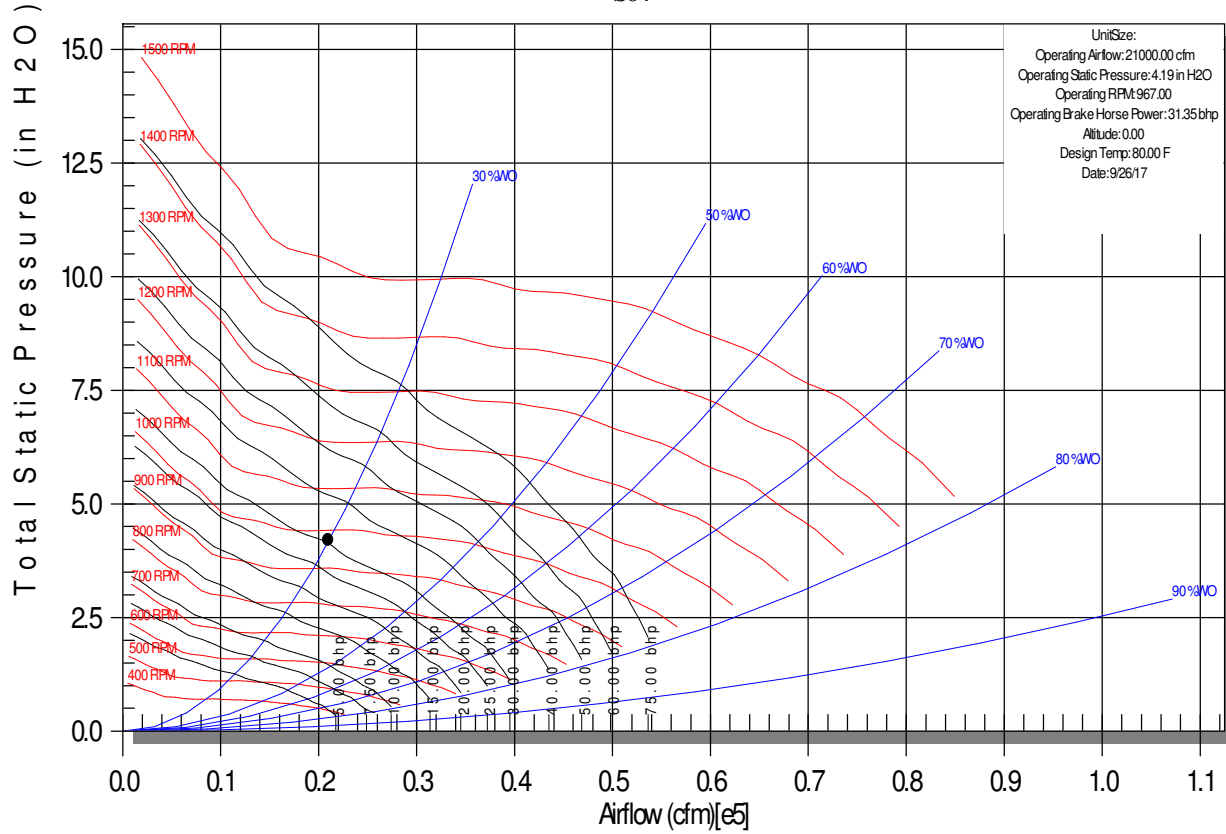
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DANFOSS VARIABLE FREQUENCY DRIVE PROGRAMMING PARAMETERS			
MENU	PARAMETER	DESCRIPTION	SETTING
LOAD MOTOR	1-21	MOTOR POWER	SET ONLY FOR APPLICATIONS USING 3HP HIGH EFFICIENCY MOTORS
	1-22	MOTOR VOLT AGE	SET ONLY FOR 200/230V 60HZ 380/415V 50HZ APPLICATIONS
	1-24	MOTOR CURRENT	SET BASED ON MOTOR NAMEPLATE
	1-25	MOTOR NOMINAL SPEED	1800 RPM
	1-73	FLYING START	ENABLED
BRAKES	2-01	DC BRAKE CURRENT	0%
REFERENCE/ RAMPS	3-15	REFERENCE 1 SOURCE	ANALOG INPUT 53 <input type="text" value="30"/>
	3-41	RAMP 1 RAMP UP TIME	30 SECONDS
	3-42	RAMP 1 RAMP DOWN TIME	30 SECONDS
LIMITS/ WARNINGS	4-12	MOTOR SPEED LOW LIMIT	22HZ
	4-18	CURRENT LIMIT	100% RATED CURRENT
DIGITAL IN/OUT	5-40[0]	FUNCTION RELAY 1	NO ALARM
	5-40[1]	FUNCTION RELAY 2	RUNNING
SPECIAL FUNCTIONS	14-01	SWITCHING FREQUENCY	4.5KHZ
	14-12	FUNCTION AT MAINS IMBALANCE	DERATE
	14-20	RESET MODE	AUTOMATIC RESET X 3
	14-60	FUNCTION AT OVER TEMPERATURE	DERATE

60 T High 50 S04



60 T High 50

	63Hz	125Hz	250Hz	500Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply duct:	93	89	89	87	84	81	76	71
Return duct:	93	85	79	77	74	71	68	69
Outdoor Noise:	101	96	93	92	89	86	83	79