

90-130 ton Packaged Industrial Rooftop

RTU-M1, PROPOSED

Job Information

Legacy Meridian Park Ipak Repl. J93A70059

Portland OR Main Office
(D77)David Strasser



Tag	ASU-14 (high)	Model number	SFHKC90
Nominal Capacity	90 Ton	Unit Type	SF: Natural Gas Heat

Model Description

Unit airflow	H: Single Zone	Development sequence	G
Power Supply	460/60/3	Heating Capacity	4:1 Mod. Gas Heat
Exhaust	100% - 20 Hp w/Statitrac	Exhaust fan drive selection	700 rpm
Filter	High-Efficiency Throwaway Filters	Supply Fan Hp	60 Hp (2-30 Hp Motors)
Supply fan RPM	1359 rpm	Outside Air Selection	0-100% Economizer
Max operating weight		Min operating weight	
		High cap evap / high eff cond coil	High cap evap coil & high eff cond coil

Cooling

Gross total capacity	1130.55 MBh	Gross sensible capacity	1000.37 MBh
Gross latent capacity	130.18 MBh	Net total capacity	1006.72 MBh
Net sensible capacity	876.54 MBh	Net sensible heat ratio	87.07 %
Leaving coil DB	53.85 F	Leaving coil WB	52.58 F
Leaving unit DB	57.41 F	Leaving unit WB	54.11 F

Power

Total static pressure	5.773 in H2O	Supply duct static pressure	2.250 in H2O
Return duct static pressure	1.500 in H2O	Roof curb (for static pressure add)	
Actual supply motor power	44.29 bhp	Supply fan RPM	1359 rpm
Actual exhaust motor power	17.97 bhp	Actual exhaust fan speed	695 rpm
System power	125.32 kW	Supply fan drive selection	1400 rpm

Electrical

Min circuit ampacity	273.40 A	Max overcurrent protection	300.00 A
Min disconnect switch size	303.00 A	Compressor 1 RLA	37.20 A
Compressor 1 count	4.00 Each	Compressor 2 RLA	0.00 A
Compressor 2 count	0.00 Each	Supply fan motor FLA	36.60 A
Supply fan count	2.00 Each	Condenser fan FLA	14.40 A
Exhaust fan motor FLA	24.70 A	Other FLA	2.00 A
IEER @ AHRI	15.1 EER	EER @ AHRI	10.8 EER

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

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Entering Conditions

Design airflow	34000 cfm	Exhaust fan airflow	28000 cfm
Ambient temp	95.00 F	Cooling EDB	80.00 F
Cooling EWB	64.00 F	Ent air relative humidity	41.56 %
Elevation		Heating EAT	60.00 F

Coil Specification

Evaporator face area	59.30 sq ft	Evaporator rows	6.00 Each
Evaporator fin spacing	148 Per Foot		

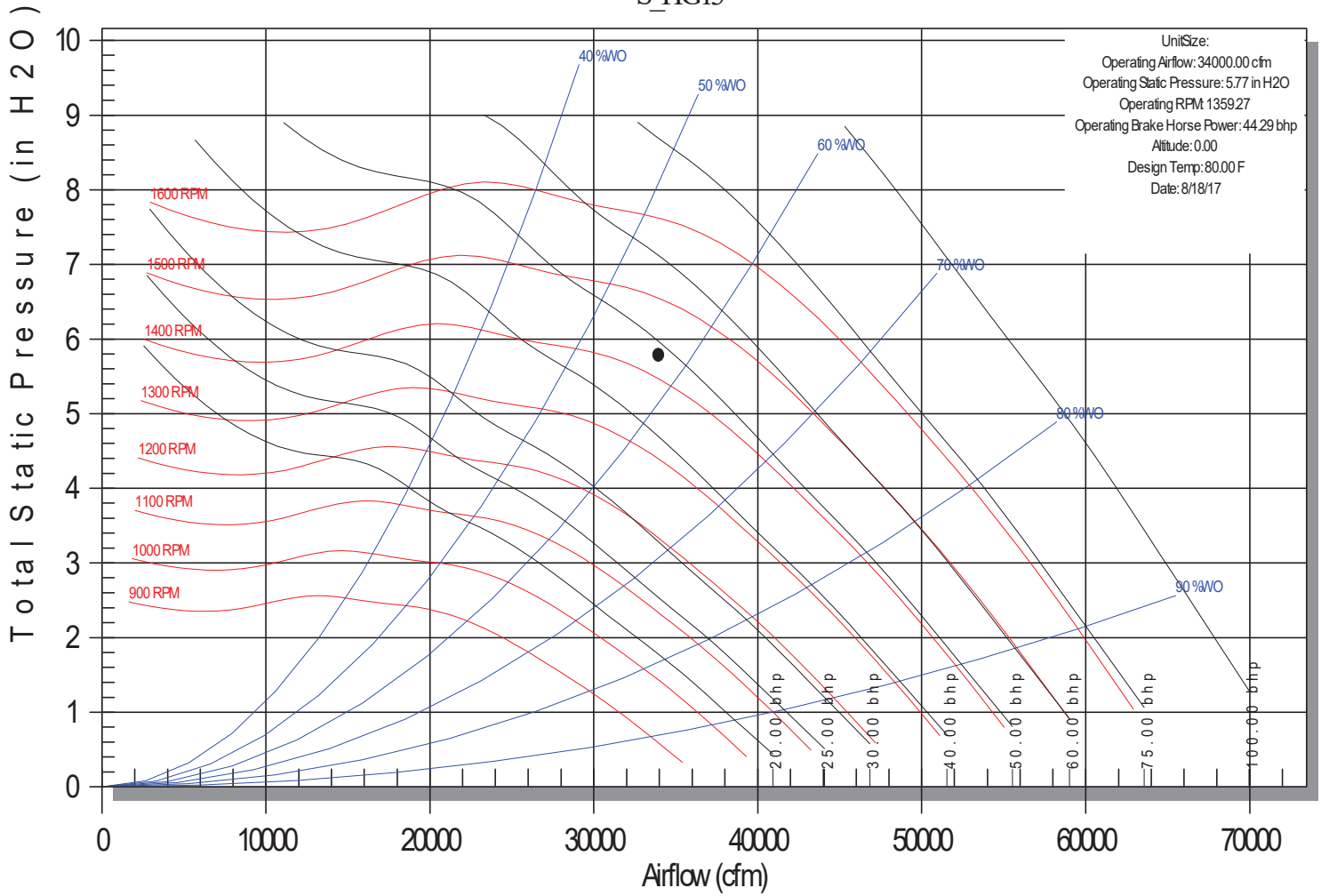
Heating

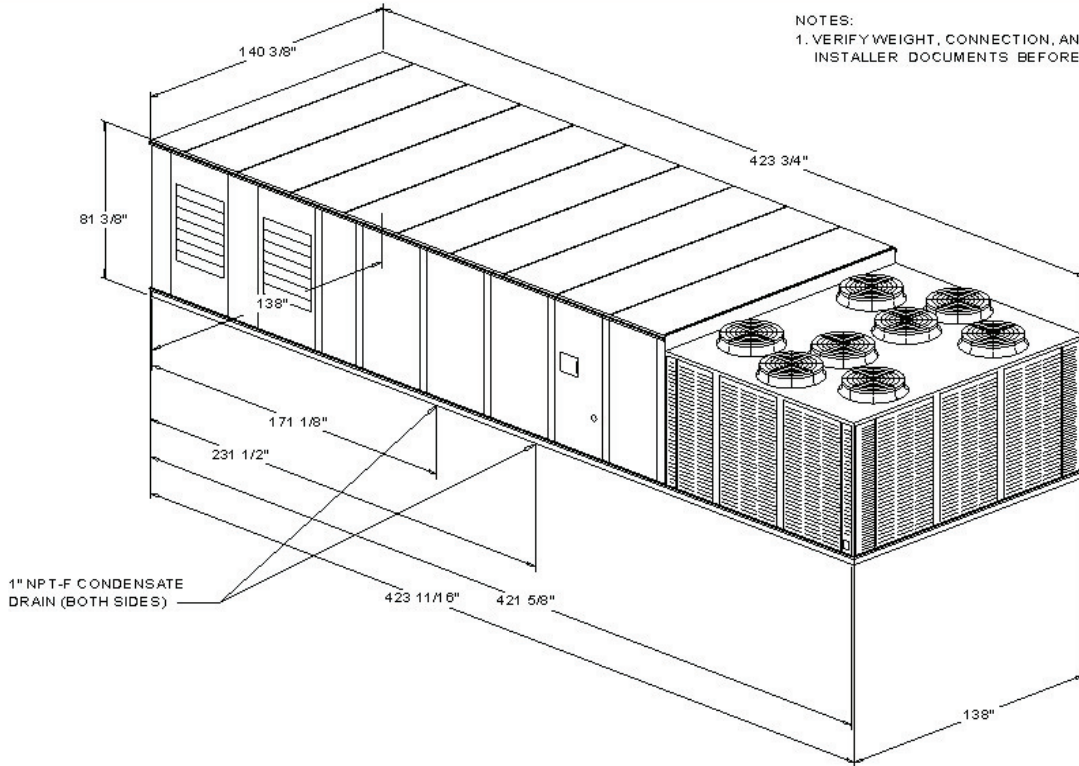
Input htg capacity	1000.00 MBh	Output htg capacity	800.00 MBh
Output htg capacity w/fan	912.81 MBh	Heating LAT	81.69 F
Heating delta T	21.69 F	Entering water temp	

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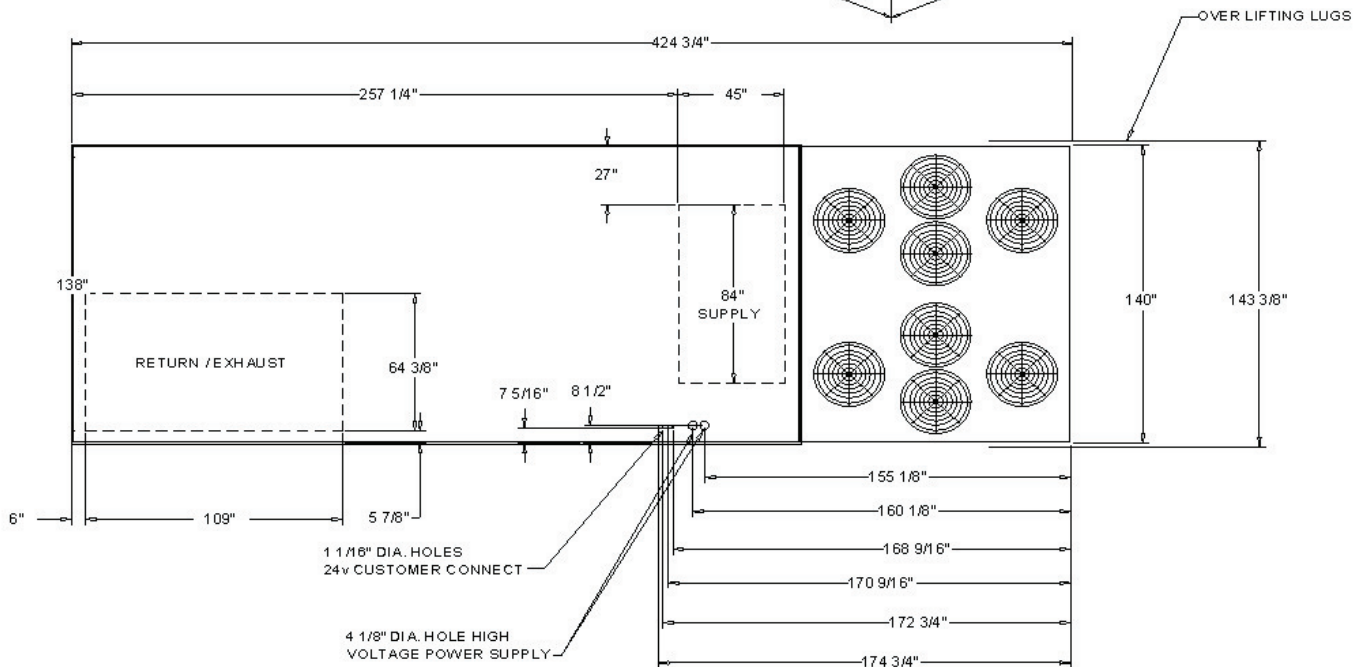
ASU-14 (high)

S_HG13

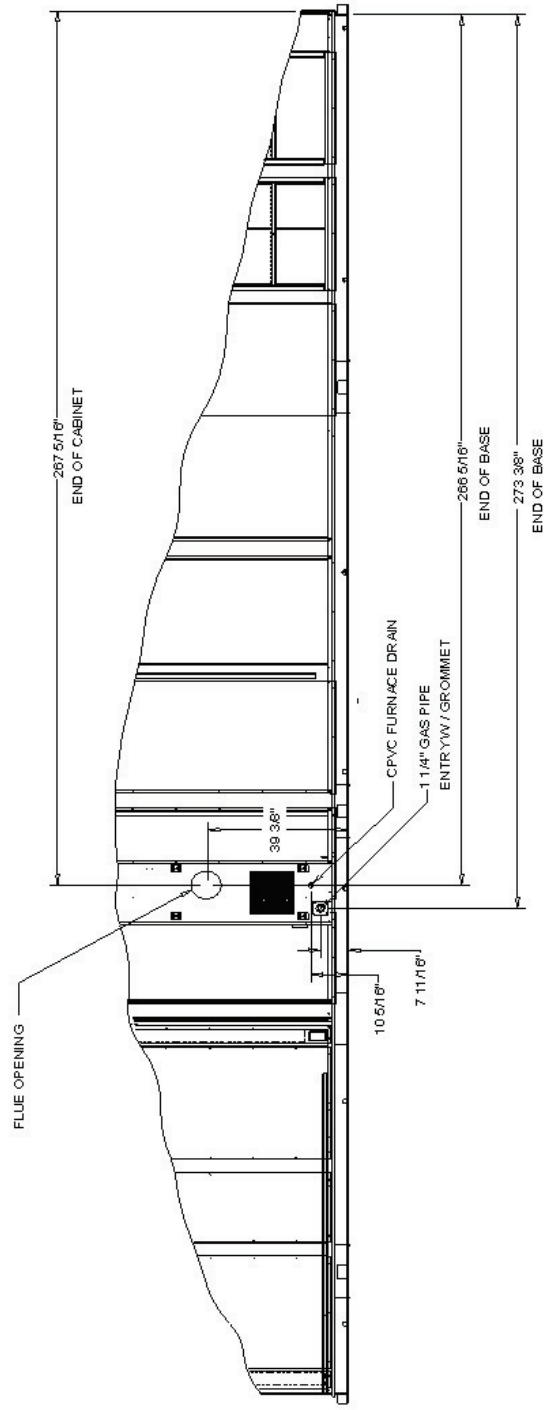




NOTES:
1. VERIFY WEIGHT, CONNECTION, AND ALL DIMENSION WITH
INSTALLER DOCUMENTS BEFORE INSTALLATION



90 - 130 TON SELF-CONTAINED
PLAN VIEW DRAWING



90-130 TON GAS HEAT
RIGHT SIDE OF UNIT



ELECTRICAL / GENERAL DATA

GENERAL DATA Tonnage: 90 Unit Operating Voltage Range: 414 -506 Unit Primary Voltage: 460 Unit Hertz: 60 Unit Phase: 3 EER: 10.8 EER		HEATING - PERFORMANCE Heat Input: 250-1000 Heat Output: 200-800 Capacity Steps: 4:1 HEATING - GENERAL DATA Gas Inlet Pressure (in w.c.): 14.0 w.c. / 7.0 w.c. Gas Pipe Connection Size: 1 1/4"	
ELECTRIC HEATER Electric Heater kw Electric Heater Full Load Amps			
COMPRESSOR Number: 2 Tons (Each) (5): 20/20 Compressor Rated Load Amps (Each): 37.20 A Locked Rotor Amps (Each): 215.0 / 215.0		Circuit #1 Circuit #2 Number: 2 Tons (Each) (5): 20/20 Compressor Rated Load Amps (Each): 0.00 A Locked Rotor Amps (Each): 215.0 / 215.0	
SUPPLY FAN MOTOR Number: 2 Horsepower (Each): 30.0 Supply Fan Motor Full Load Amps (Each): 36.60 A		EXHAUST FAN MOTOR Number: 1 Horsepower (Each): 20.0 Exhaust Fan Motor Full Load Amps (Each): 24.70 A	
CONDENSOR FAN MOTOR Number: 8 Horsepower (Each): 1.0 Condensator Fan Motor Full Load Amps (Each): 14.40 A		REFRIGERANT Refrigerant Type: R-410A Factory Charge (Circuit #1) (6): 64.8 lb Factory Charge (Circuit #2) (6): 64.8 lb	
FILTERS - TYPE Type: High Efficiency Rack-less Filter Yes Furnished: No Number: 25 Recommended Size: 24" x 24" x 2"			
FINAL FILTERS - TYPE Type: Furnished: Number: Recommended Size:			
Cooling MCA = (1.25 x LOAD 1) + LOAD 2 + LOAD 4 Cooling MOP = (2.25 x LOAD 1) + LOAD 2 + LOAD 4 Cooling RDE = (1.5 x LOAD 1) + LOAD 2 + LOAD 4			

Notes:

- LOAD 1= Current of the largest motor (Compressor or Fan Motor); LOAD 2=Sum of the currents of all remaining motors
 LOAD 3= FLA(Full Load Amps) of the electric heater; LOAD 4= Any other load rated at 1 amp or more.
- For Electric Heat MCA, MOP, RDE values, calculate for both cooling and heating modes.
- 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 AHR I rating conditions of 80/67 -95
- Refrigerant charge is an approx. value. For a more precise value, see unit nameplate and service instructions.