



Date: Apr 6, 2021

Job: E022254 - Good Samaritan Hospital w/ 100%
Redundancy

Customer: -

Customer Details: -

General Contractor: -

Submitted By: -



35Deg. Holding Cooler - Box Load Calculation**General Requirements**

Room Temperature: **35 °F** Ambient Temperature: **95 °F** Design Run-time: **18 Hrs** Required Capacity: **17,782 BTUH**

Area Load

Section	Material	Thickness	X - Factor	Surface Temp	Dim. 1	Dim. 2	Load
Wall 1	Polyurethane	4 in	0.1	75 °F	21.4 ft	8.4 ft	6,039.9 BTU
Wall 2	Polyurethane	4 in	0.1	75 °F	17 ft	8.4 ft	4,798.1 BTU
Wall 3	Polyurethane	4 in	0.1	75 °F	21.4 ft	8.4 ft	6,039.9 BTU
Wall 4	Polyurethane	4 in	0.1	75 °F	17 ft	8.4 ft	4,798.1 BTU
Ceiling	Polyurethane	4 in	0.1	75 °F	21.4 ft	17 ft	12,223.7 BTU
Floor	Concrete	6 in	1.3	65 °F	21.4 ft	17 ft	54,570 BTU
Total Area Load:							88,469.7 BTU

Product Load - Auto Usage Selected

Total Product Load: **45,227.6 BTU**

Air Change Load

Dry Bulb: 80 °F	Wet Bulb: 65 °F	
Door Type 1: Man	Number of Door Type 1: 2	Door Usage: Average
Door Type 1: Curtains: None	Door Type 1 Curtain Efficiency: 0%	Total Door Type 1 Load: 33,600 BTU
		Total Air Change Load: 105,857.6 BTU

Miscellaneous Load

People Load: 21,600 BTU	Lighting Load: 29,817 BTU	Motor Load: 0 BTU
Other Load: 0 BTU	Total Misc. Load: 51,417 BTU	

Load Calculation Summary

Total Design Load: **290,972 BTU** Safety Factor: **10%** Total Required Load: **320,069.2 BTU**

35Deg. Holding Cooler - System Design Summary

General Requirements

Room Temperature: **35 °F** Ambient Temperature: **95 °F** Design Run-time: **18 Hrs** Required Capacity: **17,782 BTUH**

Selected Equipment

Line Item	Quantity	Type	Tag	Description
1.0	1	System	35Deg. Holding Cooler	R-404A - Refrigeration Equipment Match 1
1.1	1	Condensing Unit	CDU-1	RFO200E4SDA
1.2	1	Unit Cooler	UC-1	RL6A195ADA

System Balance

Balanced Capacity: **19,273.6 BTUH** Evap. T.D.: **9.9 °F** Line Loss: **2 °F** Suction Temp: **23.1 °F** Calc. Run-Time: **16.6 Hrs**

35Deg. Holding Cooler - CDU-1 - Product Information**General Data**

Model Line: NEXT-GEN MINI-CON	Model Number: RFO200E4SDA	Flooded: Yes
Refrigerant: R-404A	Voltage: 208-230/1/60	Compressor Type: SCROLL

Performance Data

Ambient Temp: 95 °F	Suction Temp: 23 °F	Capacity: 18,478 BTUH
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Electrical Data

Compressor RLA: 14.1	Compressor LRA: 68	Total Condenser Fan FLA: 1
MCA: 29.6	MOPD: 40	

Physical Data

Number of Compressors: 1	Compressor Model: ZS15KAE	Compressor HP: 2
Number of Condenser Fans: 2	Approx. Ship Weight: 215 lbs	Sound Data: 71 dBA
Liquid Line: 1/2 in.	Suction Line: 7/8 in.	
Pump Down Capacity (%): 90	Pump Down Capacity: 13.6 lbs	

Option Data

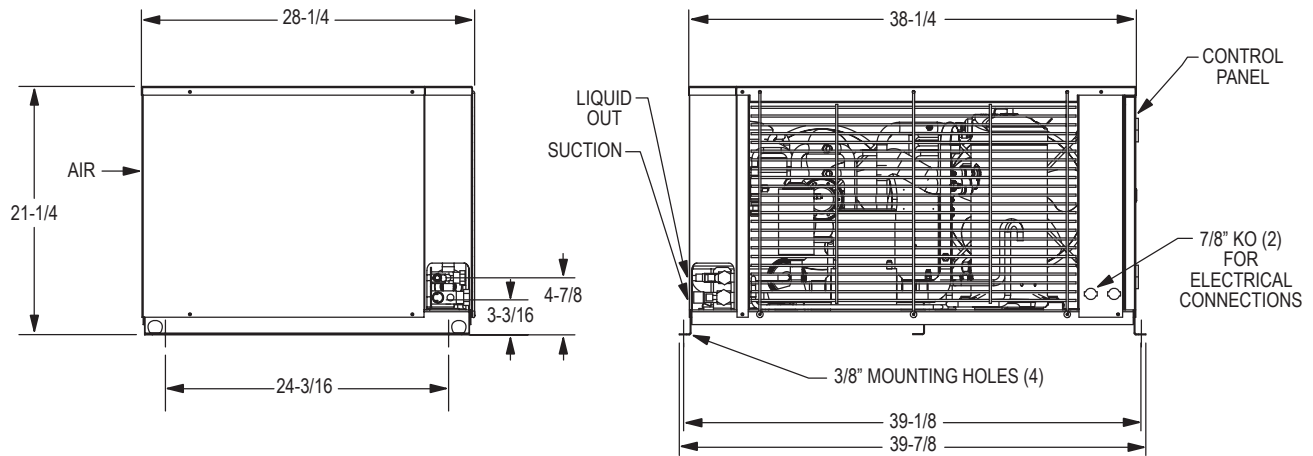
Mounted Option	FIXED HIGH/ADJUSTABLE LOW PRESSURE CONTROL
Mounted Option	LIQUID LINE WITH COMPONENTS: SEALED FILTER & SIGHT GLASS
Mounted Option	NO STANDARD AIR DEFROST TIMER
Mounted Option	STANDARD RECEIVER

Compliance Data

AWEF: **7.60**

Notes

Dimensional Drawing



Standard Features

- All-weather Galvanized steel painted housing
- Generously sized high efficiency condenser, enhanced copper tubes/aluminum fins
- Integral Liquid Subcooling Circuit provides subcooled liquid to the expansion device
- Crankcase heater
- Large electrical panel with hinged/removable door
- Color coded point-to-point wiring
- Quick access to shut off valves from exterior
- UL/cUL certified for use with multiple refrigerants
- UL/cUL listed for outdoor use
- Flooded models include flooded head pressure control
- Non flooded models include mild ambient fan cycle control

Certifications



35Deg. Holding Cooler - UC-1 - Product Information**General Data**

Model Line: NEXT-GEN ALL-TEMP	Model Number: RL6A195ADA	Motors: DUAL SPEED EC MOTOR
Unit Voltage: 115/1/60	Defrost Type: AIR DEFROST	Refrigerant: R-404A
Fins Per Inch: 6	Number of Fans: 4	

Performance Data

Suction Temp: 25 °F	T.D: 9.9 °F	Capacity: 19,273.6 BTUH	CFM: 3140
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Electrical Data

Motor Voltage: 115/1/60	Total Unit Fan Motor Amps: 3.2	
Heater Voltage: 115/1/60	Heater Amps: 0	Heater Watts: 0
MCA: 15	MOPD: 20	

Physical Data

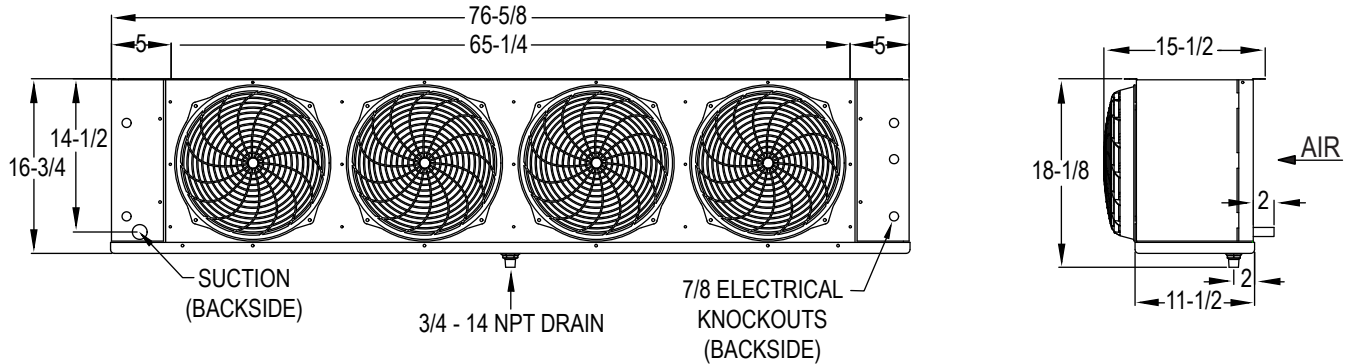
Liquid Line: 3/8 in.	Suction Line: 7/8 in.	Approx. Ship Weight: 115 lbs
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Option Data**Compliance Data**

AWEF: **9.00**

Notes

Dimensional Drawing



Standard Features

- Embossed aluminum housing
- Enhanced copper tube and aluminum fin coil construction
- Sweat connections
- Thermal overload protection
- High efficiency fan guard design and deep draw venturi
- Heavy-duty fans are balanced for vibration-free operation
- Fan sections are baffled to prevent short cycling of air
- Slide out end panels
- Removable drain pan
- Mounts flush to the ceiling
- Top pan includes 1/2" wide slotted mounting points
- UL/cUL certified for use with multiple refrigerants
- NSF approved for use in food preparation areas

Certifications

