

# Technical Data Sheet for RTU-1 Heat Pump



Job Information		Technical Data Sheet
Job Name	U of O Kitchen	
Date	7/24/2014	
Submitted By	Kurt Schultheis	
Software Version	02.90	
Unit Tag	RTU-1 Heat Pump	

Unit Overview					
Model Number	Voltage V/Hz/Phase	Design Cooling Capacity Btu/hr	AHRI360 Standard Efficiency		ASHRAE 90.1
			EER	IEER	
DPS010A	460/60/3	118418	11.9	16.3	2010 Compliant

Unit	
Model Number:	DPS010A
Model Type:	Heat Pump
Heat Type:	Gas
Application:	Constant Volume
Outside Air:	0-100% Economizer with Drybulb Control
Altitude:	0 ft
Approval	cETLus

Physical				
Dimensions and Weight				
Length	Height	Width	Weight	
91.0 in	55.8 in	96.5 in	2507 lb	
Corner Weights				
L1	L2	L3	L4	
411 lb	358 lb	809 lb	929 lb	
Construction				
Exterior	Insulation and Liners	Air Opening Location		
		Return	Supply	
Painted Galvanized Steel	1" Injected Foam, R-7, Galvanized Steel Liner	Bottom	Bottom	

Electrical		
MCA	MROPD	SCCR
25.1 A	30 A	5 kAIC

Return/Outside/Exhaust Air		
Outside Air Option		
Type	Damper Pressure Drop	Exhaust Air Type
0-100% Econ with Dry Bulb Control	0.07 inH <sub>2</sub> O	Powered, Modulating with Building Pressure Control

# Technical Data Sheet for RTU-1 Heat Pump

Exhaust Fan			
Type	Drive Type		Wheel Diameter
SWSI AF	Direct Drive		16 in
Motor			
Horsepower	Type	Efficiency	Full Load Current
4.0 HP HP	ECM	Premium	4.0 A
Performance			
Air Flow CFM	External Static Pressure inH <sub>2</sub> O	Fan Speed RPM	Brake Horsepower HP
2870	1.00	1651	0.8

Filter Section				
Physical				
Type	Quantity / Size	Face Area	Face Velocity	Air Pressure Drop
Combo 2"/4" rack with 2" Merv 7	6 / 18 in x 24 in x 2 in	18.0 ft <sup>2</sup>	159.4 ft/min	0.05

DX Cooling Coil							
Physical							
Coil Type	Fins per Inch	Rows	Face Area	Face Velocity	Air Pressure drop	Drain Pan Material	
Cu Tube/ Al Fin	15	4	15.4 ft <sup>2</sup>	186.0 ft/min	0.16 inH <sub>2</sub> O	Stainless Steel	
Cooling Performance							
Capacity		Refrigerant Type	Indoor Air Temperature				Ambient Air Temperature °F
Total Btu/hr	Sensible Btu/hr		Entering		Leaving		
			Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	
118418	82505	R410A	80.0	67.0	53.7	53.5	95.0
Heating Performance							
Total Capacity Btu/hr	Refrigerant Type	Indoor Air Temperature Dry Bulb				Ambient Air Temperature °F	
		Entering °F		Leaving °F			
100332	R410A	70.0		102.3		47.0	

Fan Section				
Fan				
Type	Fan Wheel Diameter			
SWSI AF	22 in			
Performance				
Airflow	Total Static Pressure	Fan Speed	Brake Horsepower	Altitude
2870 CFM	1.7 inH <sub>2</sub> O	1069 rpm	1.25 HP	0 ft
Motor				Drive
Type	Horsepower	Efficiency	FLA	Type
ECM Motor	4.0	Premium	4.0 A	Direct Drive

Gas Heat Section							
Physical		Performance					
Size	Capacity Btu/hr	Air Temperature Dry Bulb		Air Pressure Drop inH <sub>2</sub> O	Gas Pressure		Modulation
		Entering °F	Leaving °F		Minimum inH <sub>2</sub> O	Maximum inH <sub>2</sub> O	
200 MBH	160000	60.0	111.4	0.12	7	14	2 Stage
Heat Exchanger Material:		Aluminized					

# Technical Data Sheet for RTU-1 Heat Pump

## Condensing Section

Compressor						
Type	Quantity	Total Power	Capacity Control	Compressor Isolation		
Inverter Scroll + Fixed Scroll	2	7.1 kW	Mod Control with Inverter Compressors	Rubber in Shear		
Compressor Amps:						
Compressor 1					4.5 A	
Compressor 2					7.9 A	
Condenser Coil						
Type	Fins per Inch			Fin Material		
Copper Tube	16			Aluminum		
Condenser Fan Motors						
Number of Motors			Full Load Current			
2			1.8 A			
AHRI 360 Certified Data at AHRI 360 Standard Conditions						
Net Capacity	EER	IEER	Heat Net Capacity at 47°F	COP at 47°F	Heat Net Capacity at 17°F	COP at 17°F
120000 Btu/hr	11.9	16.3	105000 Btu/hr	3.42	62000 Btu/hr	2.38

## Internal Pressure Drop Calculation

External Static Pressure:	1.30 inH <sub>2</sub> O
Filter:	0.05 inH <sub>2</sub> O
Outside Air:	0.07 inH <sub>2</sub> O
DX Coil:	0.13 inH <sub>2</sub> O
Gas Heat:	0.12 inH <sub>2</sub> O
<b>Total Static Pressure:</b>	<b>1.71 inH<sub>2</sub>O</b>

## Sound

Frequency	Sound Power (db)							
	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	76	77	73	74	69	66	60	55
Discharge	76	80	76	79	75	72	68	63
Radiated	85	85	81	78	76	71	64	57

## Options

Electrical	
Field Connection:	Non-Fused Disconnect Switch
Power Options:	Phase Failure Monitor
Controls	
Communication Card:	BACnet/IP Card, Field installed

## Warranty

Parts:	Standard One Year
Compressor:	Standard One Year
Gas Heat Exchanger:	Standard one Year

## AHRI Certification



All equipment is rated and certified in accordance with AHRI 360.

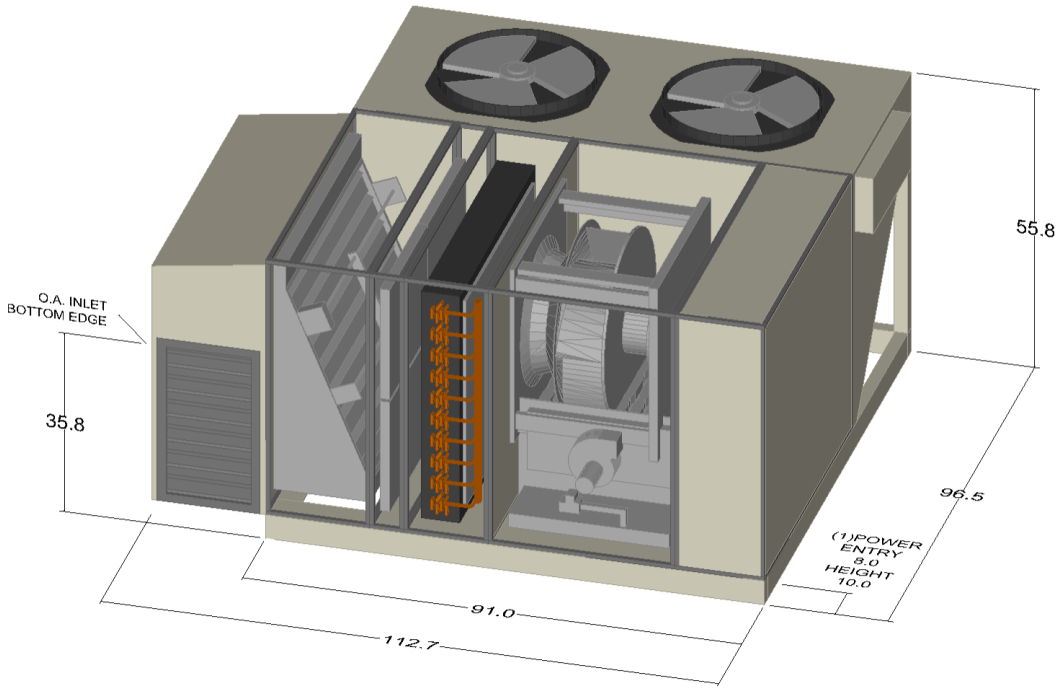
# Technical Data Sheet for RTU-1 Heat Pump

## Notes

## Accessories

### Mandatory

Part Number	Description
090016709	MT III Com Mod for Applied Rooftops, BACnet IP



**Notes:**


- (1) Recommended location for optional field cut side power connection.
- (2) Horizontal gas connection only. Gas pipe routing within the roofcurb is not available.

Job Number: NZBQXX  
 Job Name: U of O Kitchen

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Prepared Date:

7/24/2014  
 www.DaikinApplied.com

<b>Product Drawing</b>		Unit Tag: RTU-1 Heat Pump		Sales Office: Oregon Air Reps (Portland)			 13600 Industrial Park Blvd. Minneapolis, MN 55441 www.DaikinApplied.com Software Version: 02.90
Product:		Project Name: U of O Kitchen		Sales Engineer:			
Model: DPS010A	July 24, 2014	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	
No change to this drawing may be made unless approved in writing by Daikin Applied. Purchaser must determine that the equipment is fit and sufficient for the job specifications.							

# Technical Data Sheet for RTU-2 Heat Pump



Job Information		Technical Data Sheet
Job Name	U of O Kitchen	
Date	7/24/2014	
Submitted By	Kurt Schultheis	
Software Version	02.90	
Unit Tag	RTU-2 Heat Pump	

Unit Overview					
Model Number	Voltage V/Hz/Phase	Design Cooling Capacity Btu/hr	AHRI360 Standard Efficiency		ASHRAE 90.1
			EER	IEER	
DPS007A	460/60/3	87732	12.2	17.2	2010 Compliant

Unit	
Model Number:	DPS007A
Model Type:	Heat Pump
Heat Type:	Gas
Application:	Constant Volume
Outside Air:	0-100% Economizer with Drybulb Control
Altitude:	0 ft
Approval	cETLus

Physical				
Dimensions and Weight				
Length	Height	Width	Weight	
91.0 in	55.8 in	96.5 in	2357 lb	
Corner Weights				
L1	L2	L3	L4	
427 lb	371 lb	725 lb	835 lb	
Construction				
Exterior	Insulation and Liners	Air Opening Location		
		Return	Supply	
Painted Galvanized Steel	1" Injected Foam, R-7, Galvanized Steel Liner	Bottom	Bottom	

Electrical		
MCA	MROPD	SCCR
21.4 A	25 A	5 kAIC

Return/Outside/Exhaust Air		
Outside Air Option		
Type	Damper Pressure Drop	Exhaust Air Type
0-100% Econ with Dry Bulb Control	0.05 inH <sub>2</sub> O	Powered, Modulating with Building Pressure Control

# Technical Data Sheet for RTU-2 Heat Pump

Exhaust Fan			
Type	Drive Type		Wheel Diameter
SWSI AF	Direct Drive		16 in
Motor			
Horsepower	Type	Efficiency	Full Load Current
4.0 HP HP	ECM	Premium	4.0 A
Performance			
Air Flow CFM	External Static Pressure inH <sub>2</sub> O	Fan Speed RPM	Brake Horsepower HP
2350	1.00	1463	0.6

Filter Section				
Physical				
Type	Quantity / Size	Face Area	Face Velocity	Air Pressure Drop
Combo 2"/4" rack with 2" Merv 7	6 / 18 in x 24 in x 2 in	18.0 ft <sup>2</sup>	130.6 ft/min	0.03

DX Cooling Coil							
Physical							
Coil Type	Fins per Inch	Rows	Face Area	Face Velocity	Air Pressure drop	Drain Pan Material	
Cu Tube/ Al Fin	15	3	14.0 ft <sup>2</sup>	167.6 ft/min	0.11 inH <sub>2</sub> O	Stainless Steel	
Cooling Performance							
Capacity		Refrigerant Type	Indoor Air Temperature				Ambient Air Temperature °F
Total Btu/hr	Sensible Btu/hr		Entering		Leaving		
			Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	
87732	63844	R410A	80.0	67.0	55.2	55.0	95.0
Heating Performance							
Total Capacity Btu/hr	Refrigerant Type	Indoor Air Temperature Dry Bulb				Ambient Air Temperature °F	
		Entering °F		Leaving °F			
77058	R410A	70.0		100.0		47.0	

Fan Section				
Fan				
Type	Fan Wheel Diameter			
SWSI AF	22 in			
Performance				
Airflow	Total Static Pressure	Fan Speed	Brake Horsepower	Altitude
2350 CFM	1.6 inH <sub>2</sub> O	1002 rpm	0.98 HP	0 ft
Motor				Drive
Type	Horsepower	Efficiency	FLA	Type
ECM Motor	4.0	Premium	4.0 A	Direct Drive

Gas Heat Section							
Physical		Performance					
Size	Capacity Btu/hr	Air Temperature Dry Bulb		Air Pressure Drop inH <sub>2</sub> O	Gas Pressure		Modulation
		Entering °F	Leaving °F		Minimum inH <sub>2</sub> O	Maximum inH <sub>2</sub> O	
200 MBH	160000	60.0	122.8	0.09	7	14	2 Stage
Heat Exchanger Material:		Aluminized					

# Technical Data Sheet for RTU-2 Heat Pump

## Condensing Section

Compressor						
Type	Quantity	Total Power	Capacity Control	Compressor Isolation		
Inverter Scroll + Fixed Scroll	2	5.4 kW	Mod Control with Inverter Compressors	Rubber in Shear		
Compressor Amps:						
Compressor 1					5.4 A	
Compressor 2					3.9 A	
Condenser Coil						
Type	Fins per Inch			Fin Material		
Copper Tube	16			Aluminum		
Condenser Fan Motors						
Number of Motors			Full Load Current			
2			1.8 A			
AHRI 360 Certified Data at AHRI 360 Standard Conditions						
Net Capacity	EER	IEER	Heat Net Capacity at 47°F	COP at 47°F	Heat Net Capacity at 17°F	COP at 17°F
88000 Btu/hr	12.2	17.2	78000 Btu/hr	3.66	47000 Btu/hr	2.42

## Internal Pressure Drop Calculation

External Static Pressure:	1.30 inH <sub>2</sub> O
Filter:	0.03 inH <sub>2</sub> O
Outside Air:	0.05 inH <sub>2</sub> O
DX Coil:	0.08 inH <sub>2</sub> O
Gas Heat:	0.09 inH <sub>2</sub> O
<b>Total Static Pressure:</b>	<b>1.57 inH<sub>2</sub>O</b>

## Sound

Frequency	Sound Power (db)							
	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	75	76	72	73	68	65	59	54
Discharge	75	79	75	78	74	71	67	62
Radiated	85	85	81	78	76	71	64	57

## Options

Electrical	
Field Connection:	Non-Fused Disconnect Switch
Power Options:	Phase Failure Monitor
Controls	
Communication Card:	BACnet/IP Card, Field installed

## Warranty

Parts:	Standard One Year
Compressor:	Standard One Year
Gas Heat Exchanger:	Standard one Year

## AHRI Certification



All equipment is rated and certified in accordance with AHRI 360.



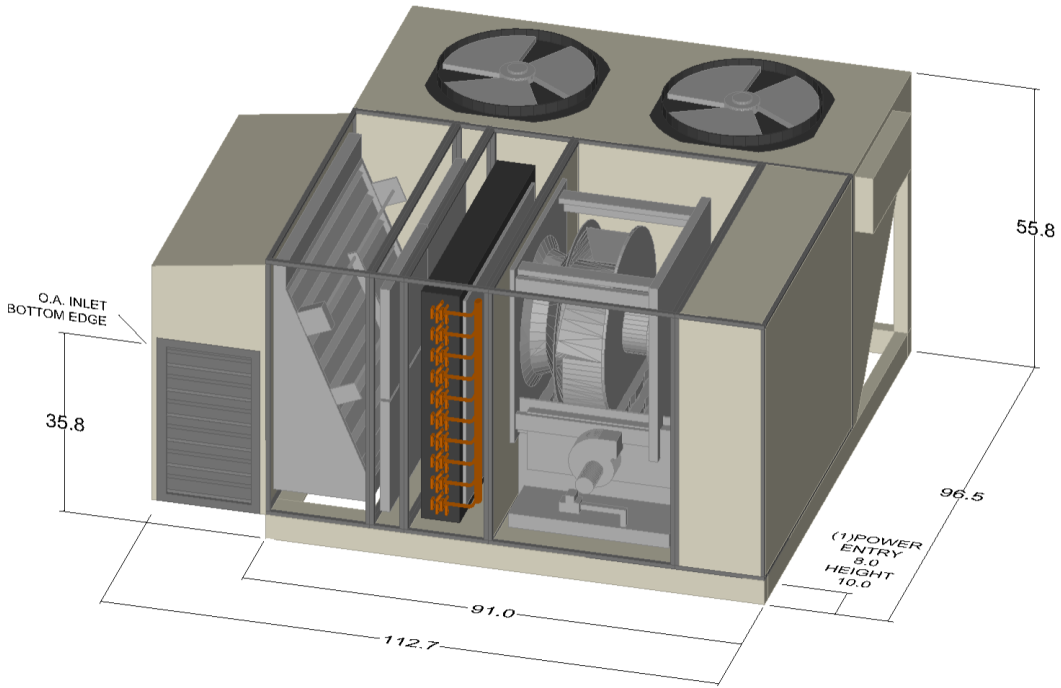
# Technical Data Sheet for RTU-2 Heat Pump

## Notes

## Accessories

### Mandatory

Part Number	Description
090016709	MT III Com Mod for Applied Rooftops, BACnet IP



**Notes:**

- (1) Recommended location for optional field cut side power connection.
- (2) Horizontal gas connection only. Gas pipe routing within the roofcurb is not available.

**Product Drawing**

Product:

Model: DPS007A

Unit Tag: RTU-2 Heat Pump

Project Name: U of O Kitchen

July 24, 2014

Ver/Rev:

Sheet: 1 of 1

Sales Office: Oregon Air Reps (Portland)

Sales Engineer:

Scale: NTS

Tolerance: +/- 0.25"

Dwg Units: in [mm]



13600 Industrial Park Blvd. Minneapolis, MN 55441  
 www.DaikinApplied.com Software Version: 02.90

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# Technical Data Sheet for RTU-3 Heat Pump



Job Information		Technical Data Sheet
Job Name	U of O Kitchen	
Date	7/24/2014	
Submitted By	Kurt Schultheis	
Software Version	02.90	
Unit Tag	RTU-3 Heat Pump	

Unit Overview					
Model Number	Voltage V/Hz/Phase	Design Cooling Capacity Btu/hr	AHRI360 Standard Efficiency		ASHRAE 90.1
			EER	IEER	
DPS006A	460/60/3	68782	11.1	17.5	2010 Compliant

Unit	
Model Number:	DPS006A
Model Type:	Heat Pump
Heat Type:	Gas
Application:	Constant Volume
Outside Air:	0-100% Economizer with Drybulb Control
Altitude:	0 ft
Approval	cETLus

Physical				
Dimensions and Weight				
Length	Height	Width	Weight	
67.0 in	40.8 in	87.0 in	1502 lb	
Corner Weights				
L1	L2	L3	L4	
289 lb	264 lb	453 lb	496 lb	
Construction				
Exterior	Insulation and Liners	Air Opening Location		
		Return	Supply	
Painted Galvanized Steel	1" Injected Foam, R-7, Galvanized Steel Liner	Bottom	Bottom	

Electrical		
MCA	MROPD	SCCR
16.6 A	20 A	5 kAIC

Return/Outside/Exhaust Air		
Outside Air Option		
Type	Damper Pressure Drop	Exhaust Air Type
0-100% Econ with Dry Bulb Control	0.03 inH <sub>2</sub> O	Powered, Modulating with Building Pressure Control

# Technical Data Sheet for RTU-3 Heat Pump

Exhaust Fan			
Type	Drive Type		Wheel Diameter
SWSI AF	Direct Drive		14 in
Motor			
Horsepower	Type	Efficiency	Full Load Current
2.3 HP HP	ECM	Premium	2.3 A
Performance			
Air Flow CFM	External Static Pressure inH <sub>2</sub> O	Fan Speed RPM	Brake Horsepower HP
1680	1.00	1634	0.5

Filter Section				
Physical				
Type	Quantity / Size	Face Area	Face Velocity	Air Pressure Drop
Combo 2"/4" rack with 2" Merv 7	4 / 16 in x 16 in x 2 in	7.1 ft <sup>2</sup>	236.6 ft/min	0.09

DX Cooling Coil							
Physical							
Coil Type	Fins per Inch	Rows	Face Area	Face Velocity	Air Pressure drop	Drain Pan Material	
Cu Tube/ Al Fin	16	4	6.0 ft <sup>2</sup>	278.1 ft/min	0.36 inH <sub>2</sub> O	Stainless Steel	
Cooling Performance							
Capacity		Refrigerant Type	Indoor Air Temperature				Ambient Air Temperature °F
Total Btu/hr	Sensible Btu/hr		Entering		Leaving		
			Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	
68782	48169	R410A	80.0	67.0	53.8	53.7	95.0
Heating Performance							
Total Capacity Btu/hr	Refrigerant Type	Indoor Air Temperature Dry Bulb				Ambient Air Temperature °F	
		Entering °F		Leaving °F			
62674	R410A	70.0		104.1		47.0	

Fan Section				
Fan				
Type	Fan Wheel Diameter			
SWSI AF	16 in			
Performance				
Airflow	Total Static Pressure	Fan Speed	Brake Horsepower	Altitude
1680 CFM	2.0 inH <sub>2</sub> O	1771 rpm	1.00 HP	0 ft
Motor				Drive
Type	Horsepower	Efficiency	FLA	Type
ECM Motor	4.0	Premium	4.0 A	Direct Drive

Gas Heat Section							
Physical		Performance					
Size	Capacity Btu/hr	Air Temperature Dry Bulb		Air Pressure Drop inH <sub>2</sub> O	Gas Pressure		Modulation
		Entering °F	Leaving °F		Minimum inH <sub>2</sub> O	Maximum inH <sub>2</sub> O	
80 MBH	64000	60.0	95.1	0.23	7	14	2 Stage
Heat Exchanger Material:		Aluminized					

# Technical Data Sheet for RTU-3 Heat Pump

Condensing Section						
Compressor						
Type	Quantity	Total Power	Capacity Control	Compressor Isolation		
Inverter Scroll	1	4.3 kW	Mod Control with Inverter Compressors	Rubber in Shear		
Compressor Amps:						
Compressor 1			6.8 A			
Condenser Coil						
Type	Fins per Inch		Fin Material			
Copper Tube	16		Aluminum			
Condenser Fan Motors						
Number of Motors			Full Load Current			
1			0.9 A			
AHRI 360 Certified Data at AHRI 360 Standard Conditions						
Net Capacity	EER	IEER	Heat Net Capacity at 47°F	COP at 47°F	Heat Net Capacity at 17°F	COP at 17°F
69000 Btu/hr	11.1	17.5	64000 Btu/hr	3.69	39000 Btu/hr	2.54

Internal Pressure Drop Calculation	
External Static Pressure:	1.30 inH <sub>2</sub> O
Filter:	0.09 inH <sub>2</sub> O
Outside Air:	0.03 inH <sub>2</sub> O
DX Coil:	0.21 inH <sub>2</sub> O
Gas Heat:	0.23 inH <sub>2</sub> O
<b>Total Static Pressure:</b>	<b>2.02 inH<sub>2</sub>O</b>

Sound								
Sound Power (db)								
Frequency	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	76	74	82	77	79	73	68	62
Discharge	76	77	85	82	85	79	76	70
Radiated	82	82	78	75	73	68	61	54

Options	
Electrical	
Field Connection:	Non-Fused Disconnect Switch
Power Options:	Phase Failure Monitor
Controls	
Communication Card:	BACnet/IP Card, Field installed

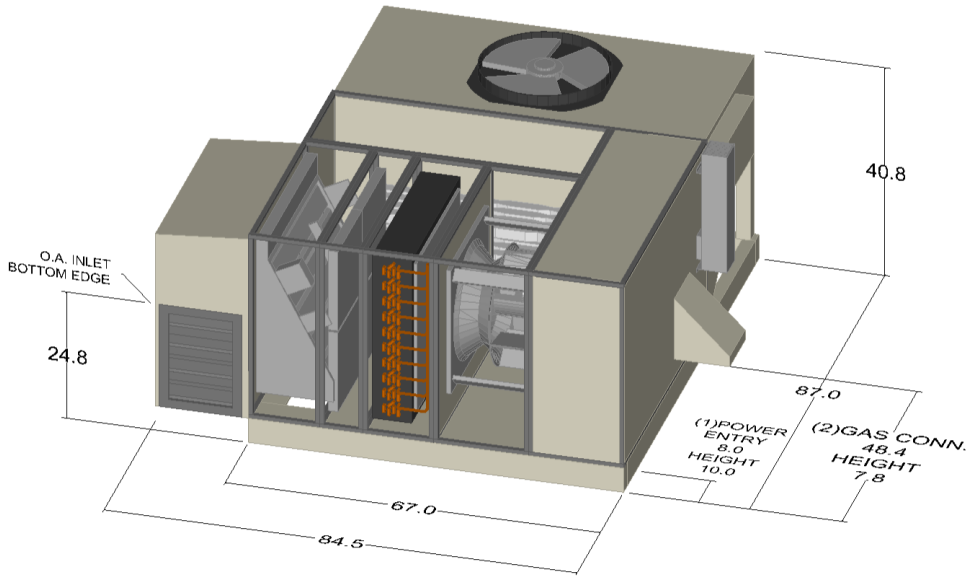
Warranty	
Parts:	Standard One Year
Compressor:	Standard One Year
Gas Heat Exchanger:	Standard one Year

AHRI Certification	
	All equipment is rated and certified in accordance with AHRI 360.

## Notes

# Technical Data Sheet for RTU-3 Heat Pump

Accessories	
Mandatory	
Part Number	Description
090016709	MT III Com Mod for Applied Rooftops, BACnet IP



**Notes:**


- (1) Recommended location for optional field cut side power connection.
- (2) Horizontal gas connection only. Gas pipe routing within the roofcurb is not available.

Job Number: NZBQXX  
 Job Name: U of O Kitchen

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Prepared Date:

7/24/2014  
 www.DaikinApplied.com

<b>Product Drawing</b>		Unit Tag: RTU-3 Heat Pump		Sales Office: Oregon Air Reps (Portland)			 13600 Industrial Park Blvd. Minneapolis, MN 55441 www.DaikinApplied.com      Software Version: 02.90
Product:		Project Name: U of O Kitchen		Sales Engineer:			
Model: DPS006A	July 24, 2014	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	
No change to this drawing may be made unless approved in writing by Daikin Applied. Purchaser must determine that the equipment is fit and sufficient for the job specifications.							

# Technical Data Sheet for RTU-4 Heat Pump



Job Information		Technical Data Sheet
Job Name	U of O Kitchen	
Date	7/24/2014	
Submitted By	Kurt Schultheis	
Software Version	02.90	
Unit Tag	RTU-4 Heat Pump	

Unit Overview					
Model Number	Voltage V/Hz/Phase	Design Cooling Capacity Btu/hr	AHRI360 Standard Efficiency		ASHRAE 90.1
			EER	IEER	
DPS012A	460/60/3	140675	11.7	17	2010 Compliant

Unit	
Model Number:	DPS012A
Model Type:	Heat Pump
Heat Type:	Gas
Application:	Constant Volume
Outside Air:	0-100% Economizer with Drybulb Control
Altitude:	0 ft
Approval	cETLus

Physical			
Dimensions and Weight			
Length	Height	Width	Weight
91.0 in	55.8 in	96.5 in	2507 lb
Corner Weights			
L1	L2	L3	L4
411 lb	358 lb	809 lb	929 lb
Construction			
Exterior	Insulation and Liners	Air Opening Location	
		Return	Supply
Painted Galvanized Steel	1" Injected Foam, R-7, Galvanized Steel Liner	Bottom	Bottom

Electrical		
MCA	MROPD	SCCR
27.4 A	35 A	5 kAIC

Return/Outside/Exhaust Air		
Outside Air Option		
Type	Damper Pressure Drop	Exhaust Air Type
0-100% Econ with Dry Bulb Control	0.09 inH <sub>2</sub> O	Powered, Modulating with Building Pressure Control



# Technical Data Sheet for RTU-4 Heat Pump

Exhaust Fan			
Type	Drive Type		Wheel Diameter
SWSI AF	Direct Drive		16 in
Motor			
Horsepower	Type	Efficiency	Full Load Current
4.0 HP HP	ECM	Premium	4.0 A
Performance			
Air Flow CFM	External Static Pressure inH <sub>2</sub> O	Fan Speed RPM	Brake Horsepower HP
3400	1.00	1860	1.1

Filter Section				
Physical				
Type	Quantity / Size	Face Area	Face Velocity	Air Pressure Drop
Combo 2"/4" rack with 2" Merv 7	6 / 18 in x 24 in x 2 in	18.0 ft <sup>2</sup>	188.9 ft/min	0.07

DX Cooling Coil							
Physical							
Coil Type	Fins per Inch	Rows	Face Area	Face Velocity	Air Pressure drop	Drain Pan Material	
Cu Tube/ Al Fin	15	4	15.4 ft <sup>2</sup>	220.3 ft/min	0.21 inH <sub>2</sub> O	Stainless Steel	
Cooling Performance							
Capacity		Refrigerant Type	Indoor Air Temperature				Ambient Air Temperature °F
Total Btu/hr	Sensible Btu/hr		Entering		Leaving		
			Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	
140675	97870	R410A	80.0	67.0	53.7	53.5	95.0
Heating Performance							
Total Capacity Btu/hr	Refrigerant Type	Indoor Air Temperature Dry Bulb				Ambient Air Temperature °F	
		Entering °F		Leaving °F			
126823	R410A	70.0		104.1		47.0	

Fan Section				
Fan				
Type	Fan Wheel Diameter			
SWSI AF	22 in			
Performance				
Airflow	Total Static Pressure	Fan Speed	Brake Horsepower	Altitude
3400 CFM	1.8 inH <sub>2</sub> O	1142 rpm	1.56 HP	0 ft
Motor				Drive
Type	Horsepower	Efficiency	FLA	Type
ECM Motor	4.0	Premium	4.0 A	Direct Drive

Gas Heat Section							
Physical		Performance					
Size	Capacity Btu/hr	Air Temperature Dry Bulb		Air Pressure Drop inH <sub>2</sub> O	Gas Pressure		Modulation
		Entering °F	Leaving °F		Minimum inH <sub>2</sub> O	Maximum inH <sub>2</sub> O	
300 MBH	240000	60.0	125.1	0.17	7	14	2 Stage
Heat Exchanger Material:		Aluminized					

# Technical Data Sheet for RTU-4 Heat Pump

## Condensing Section

Compressor						
Type	Quantity	Total Power	Capacity Control	Compressor Isolation		
Inverter Scroll + Fixed Scroll	2	9.6 kW	Mod Control with Inverter Compressors	Rubber in Shear		
Compressor Amps:						
Compressor 1					6.8 A	
Compressor 2					7.9 A	
Condenser Coil						
Type	Fins per Inch			Fin Material		
Copper Tube	16			Aluminum		
Condenser Fan Motors						
Number of Motors			Full Load Current			
2			1.8 A			
AHRI 360 Certified Data at AHRI 360 Standard Conditions						
Net Capacity	EER	IEER	Heat Net Capacity at 47°F	COP at 47°F	Heat Net Capacity at 17°F	COP at 17°F
144000 Btu/hr	11.7	17	138000 Btu/hr	3.55	77000 Btu/hr	2.32

## Internal Pressure Drop Calculation

External Static Pressure:	1.30 inH <sub>2</sub> O
Filter:	0.07 inH <sub>2</sub> O
Outside Air:	0.09 inH <sub>2</sub> O
DX Coil:	0.16 inH <sub>2</sub> O
Gas Heat:	0.17 inH <sub>2</sub> O
<b>Total Static Pressure:</b>	<b>1.84 inH<sub>2</sub>O</b>

## Sound

Frequency	Sound Power (db)							
	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	77	78	74	75	70	67	61	56
Discharge	77	81	77	80	76	73	69	64
Radiated	85	85	81	78	76	71	64	57

## Options

Electrical	
Field Connection:	Non-Fused Disconnect Switch
Power Options:	Phase Failure Monitor
Controls	
Communication Card:	BACnet/IP Card, Field installed

## Warranty

Parts:	Standard One Year
Compressor:	Standard One Year
Gas Heat Exchanger:	Standard one Year

## AHRI Certification



All equipment is rated and certified in accordance with AHRI 360.

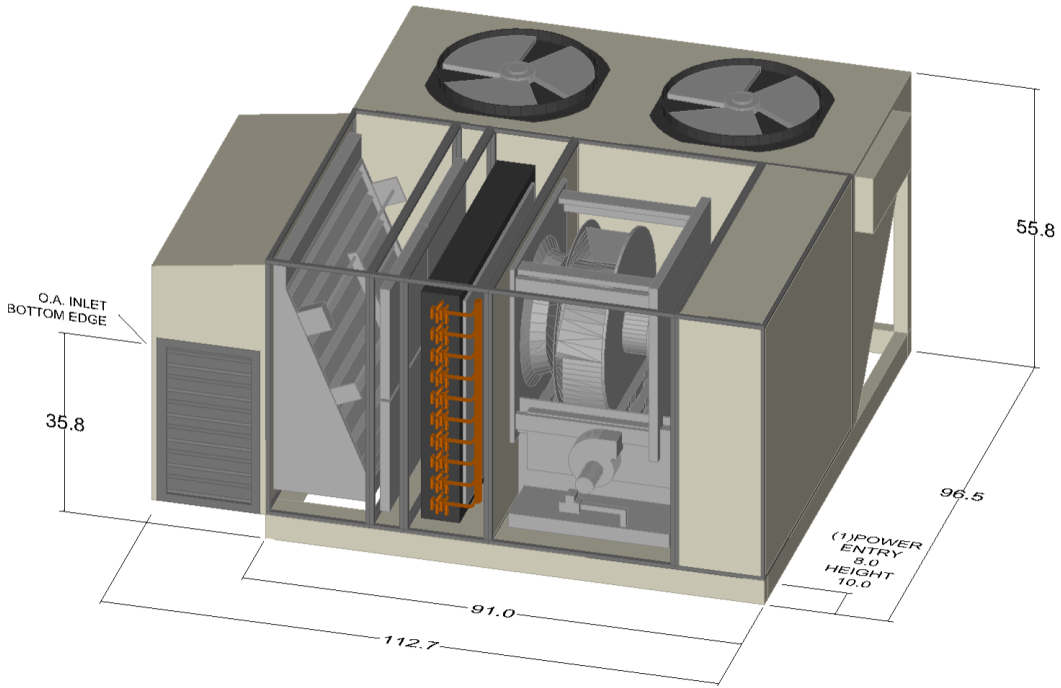
# Technical Data Sheet for RTU-4 Heat Pump

## Notes

## Accessories

### Mandatory

Part Number	Description
090016709	MT III Com Mod for Applied Rooftops, BACnet IP



**Notes:**

- (1) Recommended location for optional field cut side power connection.
- (2) Horizontal gas connection only. Gas pipe routing within the roofcurb is not available.

<b>Product Drawing</b>	Unit Tag: RTU-4 Heat Pump			Sales Office: Oregon Air Reps (Portland)		
Product:	Project Name: U of O Kitchen			Sales Engineer:		
Model: DPS012A	July 24, 2014	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]



13600 Industrial Park Blvd. Minneapolis, MN 55441  
 www.DaikinApplied.com Software Version: 02.90

No change to this drawing may be made unless approved in writing by Daikin Applied. Purchaser must determine that the equipment is fit and sufficient for the job specifications.

# Technical Data Sheet for RTU-5 Heat Pump



Job Information		Technical Data Sheet	
Job Name	U of O Kitchen		
Date	7/24/2014		
Submitted By	Kurt Schultheis		
Software Version	02.90		
Unit Tag	RTU-5 Heat Pump		

Unit Overview					
Model Number	Voltage V/Hz/Phase	Design Cooling Capacity Btu/hr	AHRI 210 Standard Efficiency		ASHRAE 90.1
			EER	SEER	
DPS003A	460/60/3	35089	12.8	14.5	2010 Compliant

Unit	
Model Number:	DPS003A
Model Type:	Heat Pump
Heat Type:	Gas
Application:	Constant Volume
Outside Air:	0-100% Economizer with Drybulb Control
Altitude:	0 ft
Approval	cETLus

Physical				
Dimensions and Weight				
Length	Height	Width	Weight	
67.0 in	40.8 in	87.0 in	1392 lb	
Corner Weights				
L1	L2	L3	L4	
254 lb	236 lb	434 lb	468 lb	
Construction				
Exterior	Insulation and Liners	Air Opening Location		
		Return	Supply	
Painted Galvanized Steel	1" Injected Foam, R-7, Galvanized Steel Liner	Bottom	Bottom	

Electrical		
MCA	MROPD	SCCR
8.5 A	15 A	5 kAIC

Return/Outside/Exhaust Air		
Outside Air Option		
Type	Damper Pressure Drop	Exhaust Air Type
0-100% Econ with Dry Bulb Control	0.01 inH <sub>2</sub> O	Powered, Modulating with Building Pressure Control

# Technical Data Sheet for RTU-5 Heat Pump

Exhaust Fan			
Type	Drive Type		Wheel Diameter
SWSI AF	Direct Drive		12 in
Motor			
Horsepower	Type	Efficiency	Full Load Current
1.3 HP HP	ECM	Premium	1.4 A
Performance			
Air Flow CFM	External Static Pressure inH <sub>2</sub> O	Fan Speed RPM	Brake Horsepower HP
970	1.00	1614	0.3

Filter Section				
Physical				
Type	Quantity / Size	Face Area	Face Velocity	Air Pressure Drop
Combo 2"/4" rack with 2" Merv 7	4 / 16 in x 16 in x 2 in	7.1 ft <sup>2</sup>	136.6 ft/min	0.03

DX Cooling Coil							
Physical							
Coil Type	Fins per Inch	Rows	Face Area	Face Velocity	Air Pressure drop	Drain Pan Material	
Cu Tube/ Al Fin	16	3	4.8 ft <sup>2</sup>	277.1 ft/min	0.15 inH <sub>2</sub> O	Stainless Steel	
Cooling Performance							
Capacity		Refrigerant Type	Indoor Air Temperature				Ambient Air Temperature °F
Total Btu/hr	Sensible Btu/hr		Entering		Leaving		
			Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	
35089	26035	R410A	80.0	67.0	55.5	55.4	95.0
Heating Performance							
Total Capacity Btu/hr	Refrigerant Type	Indoor Air Temperature Dry Bulb				Ambient Air Temperature °F	
		Entering °F		Leaving °F			
33946	R410A	70.0	102.0	47.0			

Fan Section				
Fan				
Type	Fan Wheel Diameter			
SWSI AF	12 in			
Performance				
Airflow	Total Static Pressure	Fan Speed	Brake Horsepower	Altitude
970 CFM	1.6 inH <sub>2</sub> O	1893 rpm	0.41 HP	0 ft
Motor				Drive
Type	Horsepower	Efficiency	FLA	Type
ECM Motor	1.3	Premium	1.4 A	Direct Drive

Gas Heat Section							
Physical		Performance					
Size	Capacity Btu/hr	Air Temperature Dry Bulb		Air Pressure Drop inH <sub>2</sub> O	Gas Pressure		Modulation
		Entering °F	Leaving °F		Minimum inH <sub>2</sub> O	Maximum inH <sub>2</sub> O	
80 MBH	64000	60.0	120.8	0.08	7	14	2 Stage
Heat Exchanger Material:		Aluminized					

# Technical Data Sheet for RTU-5 Heat Pump

Condensing Section						
Compressor						
Type	Quantity	Total Power	Capacity Control	Compressor Isolation		
Inverter Scroll	1	2.1 kW	Mod Control with Inverter Compressors	Rubber in Shear		
Compressor Amps:						
Compressor 1			3.5 A			
Condenser Coil						
Type	Fins per Inch		Fin Material			
Copper Tube	16		Aluminum			
Condenser Fan Motors						
Number of Motors			Full Load Current			
1			0.4 A			
AHRI 210 Certified Data at AHRI 210 Standard Conditions						
Net Capacity	EER	SEER	Heat Net Capacity at 47°F	COP at 47°F	Heat Net Capacity at 17°F	COP at 17°F
34500 Btu/hr	12.8	14.5	34000 Btu/hr	4.06	20400 Btu/hr	2.64

Internal Pressure Drop Calculation	
External Static Pressure:	1.30 inH <sub>2</sub> O
Filter:	0.03 inH <sub>2</sub> O
Outside Air:	0.01 inH <sub>2</sub> O
DX Coil:	0.12 inH <sub>2</sub> O
Gas Heat:	0.08 inH <sub>2</sub> O
<b>Total Static Pressure:</b>	<b>1.57 inH<sub>2</sub>O</b>

Sound								
Sound Power (db)								
Frequency	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	60	58	64	62	65	64	60	55
Discharge	60	61	67	67	71	70	68	63
Radiated	82	82	78	75	73	68	61	54

Options	
Electrical	
Field Connection:	Non-Fused Disconnect Switch
Power Options:	Phase Failure Monitor
Controls	
Communication Card:	BACnet/IP Card, Field installed

Warranty	
Parts:	Standard One Year
Compressor:	Standard One Year
Gas Heat Exchanger:	Standard one Year

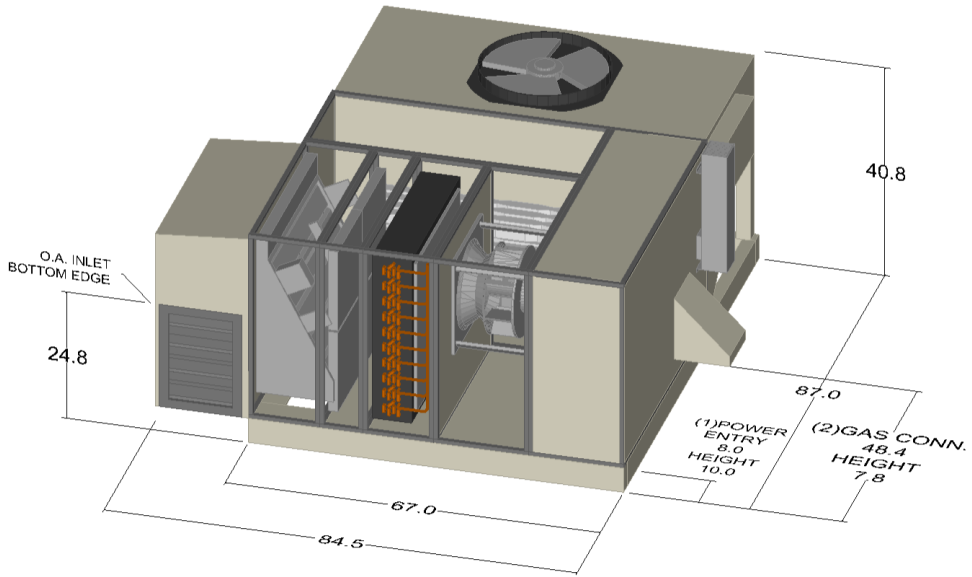
AHRI Certification	
	All equipment is rated and certified in accordance with AHRI 360.

## Notes

# Technical Data Sheet for RTU-5 Heat Pump

Accessories	
Mandatory	
Part Number	Description
090016709	MT III Com Mod for Applied Rooftops, BACnet IP





**Notes:**


- (1) Recommended location for optional field cut side power connection.
- (2) Horizontal gas connection only. Gas pipe routing within the roofcurb is not available.

Job Number: NZBQXX  
 Job Name: U of O Kitchen

Page 28 of 39

Prepared Date:

7/24/2014  
 www.DaikinApplied.com

<b>Product Drawing</b>		Unit Tag: RTU-5 Heat Pump		Sales Office: Oregon Air Reps (Portland)			 13600 Industrial Park Blvd. Minneapolis, MN 55441 www.DaikinApplied.com Software Version: 02.90
Product:		Project Name: U of O Kitchen		Sales Engineer:			
Model: DPS003A	July 24, 2014	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	
No change to this drawing may be made unless approved in writing by Daikin Applied. Purchaser must determine that the equipment is fit and sufficient for the job specifications.							

# Technical Data Sheet for RTU-6 Heat Pump



Job Information		Technical Data Sheet	
Job Name	U of O Kitchen		
Date	7/24/2014		
Submitted By	Kurt Schultheis		
Software Version	02.90		
Unit Tag	RTU-6 Heat Pump		

Unit Overview					
Model Number	Voltage V/Hz/Phase	Design Cooling Capacity Btu/hr	AHRI 210 Standard Efficiency		ASHRAE 90.1
			EER	SEER	
DPS004A	460/60/3	46548	11.8	14.6	2010 Compliant

Unit	
Model Number:	DPS004A
Model Type:	Heat Pump
Heat Type:	Gas
Application:	Constant Volume
Outside Air:	0-100% Economizer with Drybulb Control
Altitude:	0 ft
Approval	cETLus

Physical				
Dimensions and Weight				
Length	Height	Width	Weight	
67.0 in	40.8 in	87.0 in	1422 lb	
Corner Weights				
L1	L2	L3	L4	
265 lb	245 lb	439 lb	473 lb	
Construction				
Exterior	Insulation and Liners	Air Opening Location		
		Return	Supply	
Painted Galvanized Steel	1" Injected Foam, R-7, Galvanized Steel Liner	Bottom	Bottom	

Electrical		
MCA	MROPD	SCCR
10.6 A	15 A	5 kAIC

Return/Outside/Exhaust Air		
Outside Air Option		
Type	Damper Pressure Drop	Exhaust Air Type
0-100% Econ with Dry Bulb Control	0.01 inH <sub>2</sub> O	Powered, Modulating with Building Pressure Control

# Technical Data Sheet for RTU-6 Heat Pump

Exhaust Fan			
Type	Drive Type		Wheel Diameter
SWSI AF	Direct Drive		12 in
Motor			
Horsepower	Type	Efficiency	Full Load Current
1.3 HP HP	ECM	Premium	1.4 A
Performance			
Air Flow CFM	External Static Pressure inH <sub>2</sub> O	Fan Speed RPM	Brake Horsepower HP
1080	1.00	1676	0.3

Filter Section				
Physical				
Type	Quantity / Size	Face Area	Face Velocity	Air Pressure Drop
Combo 2"/4" rack with 2" Merv 7	4 / 16 in x 16 in x 2 in	7.1 ft <sup>2</sup>	152.1 ft/min	0.04

DX Cooling Coil							
Physical							
Coil Type	Fins per Inch	Rows	Face Area	Face Velocity	Air Pressure drop	Drain Pan Material	
Cu Tube/ Al Fin	16	4	4.8 ft <sup>2</sup>	308.6 ft/min	0.23 inH <sub>2</sub> O	Stainless Steel	
Cooling Performance							
Capacity		Refrigerant Type	Indoor Air Temperature				Ambient Air Temperature °F
Total Btu/hr	Sensible Btu/hr		Entering		Leaving		
			Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	
46548	32043	R410A	80.0	67.0	52.9	52.9	95.0
Heating Performance							
Total Capacity Btu/hr	Refrigerant Type	Indoor Air Temperature Dry Bulb				Ambient Air Temperature °F	
		Entering °F		Leaving °F			
39665	R410A	70.0		103.6		47.0	

Fan Section				
Fan				
Type	Fan Wheel Diameter			
SWSI AF	14 in			
Performance				
Airflow	Total Static Pressure	Fan Speed	Brake Horsepower	Altitude
1080 CFM	1.7 inH <sub>2</sub> O	1672 rpm	0.53 HP	0 ft
Motor				Drive
Type	Horsepower	Efficiency	FLA	Type
ECM Motor	2.3	Premium	2.3 A	Direct Drive

Gas Heat Section							
Physical		Performance					
Size	Capacity Btu/hr	Air Temperature Dry Bulb		Air Pressure Drop inH <sub>2</sub> O	Gas Pressure		Modulation
		Entering °F	Leaving °F		Minimum inH <sub>2</sub> O	Maximum inH <sub>2</sub> O	
80 MBH	64000	60.0	114.6	0.10	7	14	2 Stage
Heat Exchanger Material:		Aluminized					

# Technical Data Sheet for RTU-6 Heat Pump

Condensing Section						
Compressor						
Type	Quantity	Total Power	Capacity Control	Compressor Isolation		
Inverter Scroll	1	2.7 kW	Mod Control with Inverter Compressors	Rubber in Shear		
Compressor Amps:						
Compressor 1			4.5 A			
Condenser Coil						
Type	Fins per Inch		Fin Material			
Copper Tube	16		Aluminum			
Condenser Fan Motors						
Number of Motors			Full Load Current			
1			0.4 A			
AHRI 210 Certified Data at AHRI 210 Standard Conditions						
Net Capacity	EER	SEER	Heat Net Capacity at 47°F	COP at 47°F	Heat Net Capacity at 17°F	COP at 17°F
46000 Btu/hr	11.8	14.6	43000 Btu/hr	3.94	24200 Btu/hr	2.38

Internal Pressure Drop Calculation	
External Static Pressure:	1.30 inH <sub>2</sub> O
Filter:	0.04 inH <sub>2</sub> O
Outside Air:	0.01 inH <sub>2</sub> O
DX Coil:	0.18 inH <sub>2</sub> O
Gas Heat:	0.10 inH <sub>2</sub> O
<b>Total Static Pressure:</b>	<b>1.68 inH<sub>2</sub>O</b>

Sound								
Sound Power (db)								
Frequency	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	68	67	75	70	72	71	66	61
Discharge	68	70	78	75	78	77	74	69
Radiated	82	82	78	75	73	68	61	54

Options	
Electrical	
Field Connection:	Non-Fused Disconnect Switch
Power Options:	Phase Failure Monitor
Controls	
Communication Card:	BACnet/IP Card, Field installed

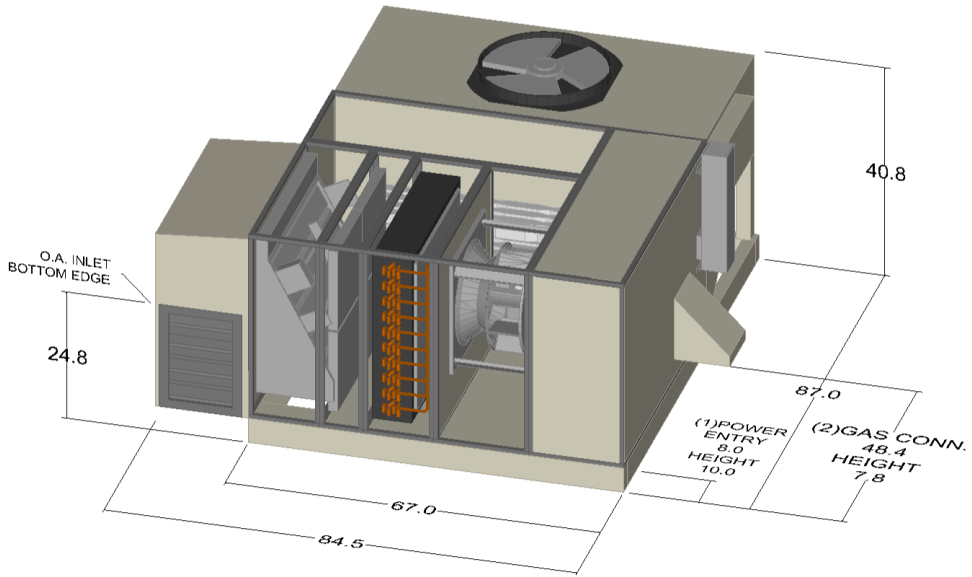
Warranty	
Parts:	Standard One Year
Compressor:	Standard One Year
Gas Heat Exchanger:	Standard one Year

AHRI Certification	
	All equipment is rated and certified in accordance with AHRI 360.

## Notes

# Technical Data Sheet for RTU-6 Heat Pump

Accessories	
Mandatory	
Part Number	Description
090016709	MT III Com Mod for Applied Rooftops, BACnet IP



**Notes:**


- (1) Recommended location for optional field cut side power connection.
- (2) Horizontal gas connection only. Gas pipe routing within the roofcurb is not available.

Job Number: NZBQXX  
 Job Name: U of O Kitchen

Page 33 of 39

Prepared Date:

7/24/2014  
 www.DaikinApplied.com

<b>Product Drawing</b>		Unit Tag: RTU-6 Heat Pump		Sales Office: Oregon Air Reps (Portland)			 13600 Industrial Park Blvd. Minneapolis, MN 55441 www.DaikinApplied.com Software Version: 02.90
Product:		Project Name: U of O Kitchen		Sales Engineer:			
Model: DPS004A	July 24, 2014	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	
No change to this drawing may be made unless approved in writing by Daikin Applied. Purchaser must determine that the equipment is fit and sufficient for the job specifications.							

# Technical Data Sheet for RTU-7 Heat Pump



Job Information		Technical Data Sheet	
Job Name	U of O Kitchen		
Date	7/24/2014		
Submitted By	Kurt Schultheis		
Software Version	02.90		
Unit Tag	RTU-7 Heat Pump		

Unit Overview					
Model Number	Voltage V/Hz/Phase	Design Cooling Capacity Btu/hr	AHRI 210 Standard Efficiency		ASHRAE 90.1
			EER	SEER	
DPS003A	460/60/3	34612	12.8	14.5	2010 Compliant

Unit	
Model Number:	DPS003A
Model Type:	Heat Pump
Heat Type:	Gas
Application:	Constant Volume
Outside Air:	0-100% Economizer with Drybulb Control
Altitude:	0 ft
Approval	cETLus

Physical				
Dimensions and Weight				
Length	Height	Width	Weight	
67.0 in	40.8 in	87.0 in	1392 lb	
Corner Weights				
L1	L2	L3	L4	
254 lb	236 lb	434 lb	468 lb	
Construction				
Exterior	Insulation and Liners	Air Opening Location		
		Return	Supply	
Painted Galvanized Steel	1" Injected Foam, R-7, Galvanized Steel Liner	Bottom	Bottom	

Electrical		
MCA	MROPD	SCCR
8.5 A	15 A	5 kAIC

Return/Outside/Exhaust Air		
Outside Air Option		
Type	Damper Pressure Drop	Exhaust Air Type
0-100% Econ with Dry Bulb Control	0.01 inH <sub>2</sub> O	Powered, Modulating with Building Pressure Control

# Technical Data Sheet for RTU-7 Heat Pump

Exhaust Fan			
Type	Drive Type		Wheel Diameter
SWSI AF	Direct Drive		12 in
Motor			
Horsepower	Type	Efficiency	Full Load Current
1.3 HP HP	ECM	Premium	1.4 A
Performance			
Air Flow CFM	External Static Pressure inH <sub>2</sub> O	Fan Speed RPM	Brake Horsepower HP
900	1.00	1576	0.2

Filter Section				
Physical				
Type	Quantity / Size	Face Area	Face Velocity	Air Pressure Drop
Combo 2"/4" rack with 2" Merv 7	4 / 16 in x 16 in x 2 in	7.1 ft <sup>2</sup>	126.8 ft/min	0.02

DX Cooling Coil							
Physical							
Coil Type	Fins per Inch	Rows	Face Area	Face Velocity	Air Pressure drop	Drain Pan Material	
Cu Tube/ Al Fin	16	3	4.8 ft <sup>2</sup>	257.1 ft/min	0.13 inH <sub>2</sub> O	Stainless Steel	
Cooling Performance							
Capacity		Refrigerant Type	Indoor Air Temperature				Ambient Air Temperature °F
Total Btu/hr	Sensible Btu/hr		Entering		Leaving		
			Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	
34612	24981	R410A	80.0	67.0	54.6	54.6	95.0
Heating Performance							
Total Capacity Btu/hr	Refrigerant Type	Indoor Air Temperature Dry Bulb				Ambient Air Temperature °F	
		Entering °F		Leaving °F			
33520	R410A	70.0		104.1		47.0	

Fan Section				
Fan				
Type	Fan Wheel Diameter			
SWSI AF	12 in			
Performance				
Airflow	Total Static Pressure	Fan Speed	Brake Horsepower	Altitude
900 CFM	1.5 inH <sub>2</sub> O	1845 rpm	0.38 HP	0 ft
Motor				Drive
Type	Horsepower	Efficiency	FLA	Type
ECM Motor	1.3	Premium	1.4 A	Direct Drive

Gas Heat Section							
Physical		Performance					
Size	Capacity Btu/hr	Air Temperature Dry Bulb		Air Pressure Drop inH <sub>2</sub> O	Gas Pressure		Modulation
		Entering °F	Leaving °F		Minimum inH <sub>2</sub> O	Maximum inH <sub>2</sub> O	
80 MBH	64000	60.0	125.5	0.07	7	14	2 Stage
Heat Exchanger Material:		Aluminized					



# Technical Data Sheet for RTU-7 Heat Pump

Condensing Section						
Compressor						
Type	Quantity	Total Power	Capacity Control	Compressor Isolation		
Inverter Scroll	1	2.1 kW	Mod Control with Inverter Compressors	Rubber in Shear		
Compressor Amps:						
Compressor 1			3.5 A			
Condenser Coil						
Type	Fins per Inch		Fin Material			
Copper Tube	16		Aluminum			
Condenser Fan Motors						
Number of Motors			Full Load Current			
1			0.4 A			
AHRI 210 Certified Data at AHRI 210 Standard Conditions						
Net Capacity	EER	SEER	Heat Net Capacity at 47°F	COP at 47°F	Heat Net Capacity at 17°F	COP at 17°F
34500 Btu/hr	12.8	14.5	34000 Btu/hr	4.06	20400 Btu/hr	2.64

Internal Pressure Drop Calculation	
External Static Pressure:	1.30 inH <sub>2</sub> O
Filter:	0.02 inH <sub>2</sub> O
Outside Air:	0.01 inH <sub>2</sub> O
DX Coil:	0.10 inH <sub>2</sub> O
Gas Heat:	0.07 inH <sub>2</sub> O
<b>Total Static Pressure:</b>	<b>1.54 inH<sub>2</sub>O</b>

Sound								
Sound Power (db)								
Frequency	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	60	58	64	62	65	64	60	55
Discharge	60	61	67	67	71	70	68	63
Radiated	82	82	78	75	73	68	61	54

Options	
Electrical	
Field Connection:	Non-Fused Disconnect Switch
Power Options:	Phase Failure Monitor
Controls	
Communication Card:	BACnet/IP Card, Field installed

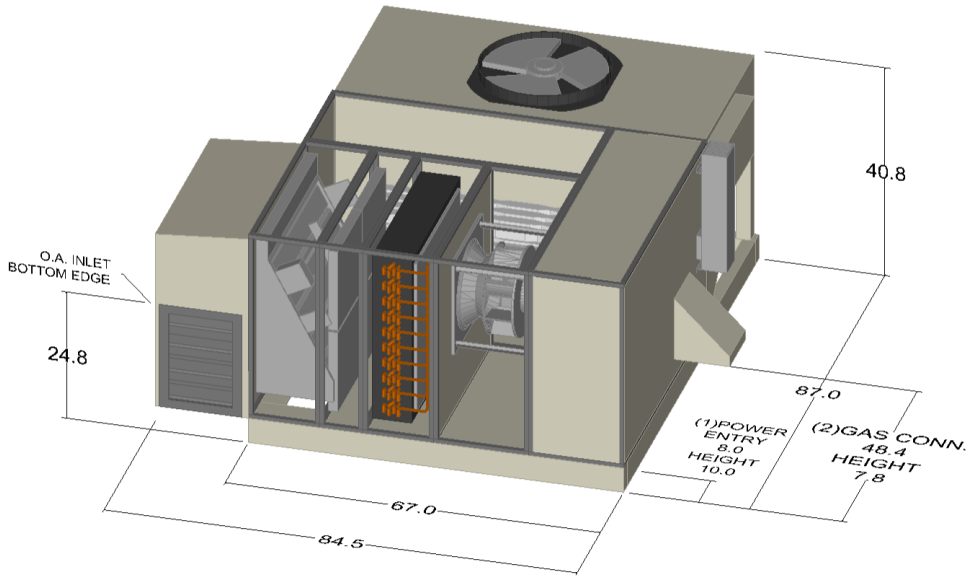
Warranty	
Parts:	Standard One Year
Compressor:	Standard One Year
Gas Heat Exchanger:	Standard one Year

AHRI Certification	
	All equipment is rated and certified in accordance with AHRI 360.

## Notes

# Technical Data Sheet for RTU-7 Heat Pump

Accessories	
Mandatory	
Part Number	Description
090016709	MT III Com Mod for Applied Rooftops, BACnet IP



**Notes:**

- (1) Recommended location for optional field cut side power connection.
- (2) Horizontal gas connection only. Gas pipe routing within the roofcurb is not available.

<b>Product Drawing</b>	Unit Tag: RTU-7 Heat Pump			Sales Office: Oregon Air Reps (Portland)		
Product:	Project Name: U of O Kitchen			Sales Engineer:		
Model: DPS003A	July 24, 2014	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]

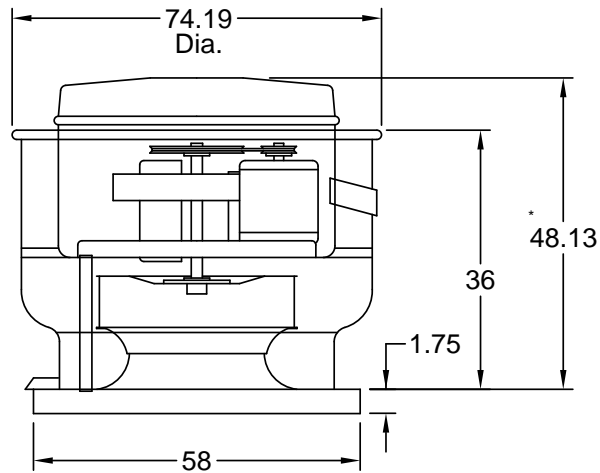
  
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[www.DaikinApplied.com](http://www.DaikinApplied.com)    Software Version: 02.90

No change to this drawing may be made unless approved in writing by Daikin Applied. Purchaser must determine that the equipment is fit and sufficient for the job specifications.

# Model: CUBE-480-100

Belt Drive Upblast Centrifugal Roof Exhaust Fan

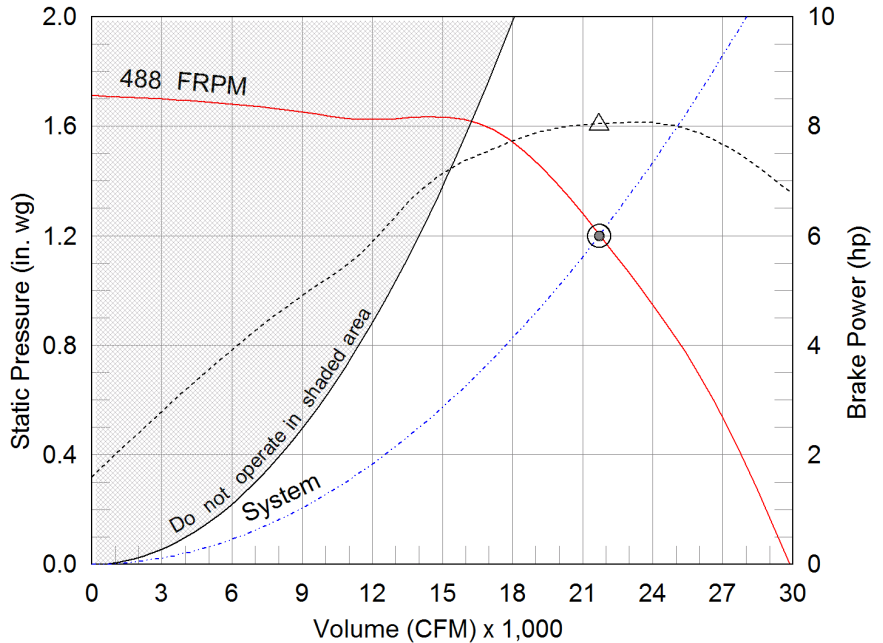
Dimensional	
Quantity	1
Weight w/o Acc's (lb)	490
Weight w/ Acc's (lb)	592
Max T Motor Frame Size	215
Roof Opening (in.)	50.5 x 50.5



Reference assembly view drawings for actual dimensions with mounted accessories

\*Overall height may be greater depending on motor

Performance	
Requested Volume (CFM)	21,700
Actual Volume (CFM)	21,700
External SP (in. wg)	1.2
Total SP (in. wg)	1.2
Fan RPM	488
Operating Power (hp)	8.02
Elevation (ft)	108
Airstream Temp.(F)	70
Air Density (ft3)	0.075
Drive Loss (%)	3.6
Tip Speed (ft/min)	6,165
Static Eff. (%)	53



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

Motor	
Motor Mounted	Yes
Size (hp)	10
V/C/P	460/60/3
Enclosure	ODP
Motor RPM	1725
Windings	1
NEC FLA* (Amps)	14

## Sound Power by Octave Band

Sound Data	62.5	125	250	500	1000	2000	4000	8000	LwA	dBA	Sones
Inlet	91	90	83	77	73	70	65	60	81	69	20

### Notes:

All dimensions shown are in units of in.  
\*FLA - based on tables 150 or 148 of National Electrical Code 2002. Actual motor FLA may vary, for sizing thermal overload, consult factory.  
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: CUBE-480-100

### Belt Drive Upblast Centrifugal Roof Exhaust Fan

#### Standard Construction Features:

- Aluminum housing - Backward inclined aluminum wheel - Curb cap with prepunched mounting holes - Motor and drives isolated on shock mounts - Drain trough - Ball bearing motors - Adjustable motor pulley - Adjustable motor plate - Fan shaft mounted in ball bearing pillow blocks - Bearings meet or exceed temperature rating of fan - Static resistant belts - Corrosion resistant fasteners - Internal lifting lugs

#### Options & Accessories:

NEMA Premium Efficient Motor - meets NEMA Table 12-12  
Motor VFD Rated with Shaft Grounding Protection  
Motor with Shaft Grounding  
UL/cUL 762 Listed - "Power Ventilators for Rest. Exh. Appliances"  
Switch, NEMA-1, Toggle, Junction Box Mounted & Wired  
Roof Curb-Galv., GPI-58-G12, Under Sized 1.5 in. Total  
Curb Extension-Galv., VCE-58-G10.5  
Grease Trap with Absorbent Material  
Heat Baffle (Attached)  
Bearings with Grease Fittings, L10 life of 100,000 hrs (L50 avg. life 500,000 hrs)  
Unit Warranty: 1 Yr (Standard)

## Roof Curb

Model: GPI

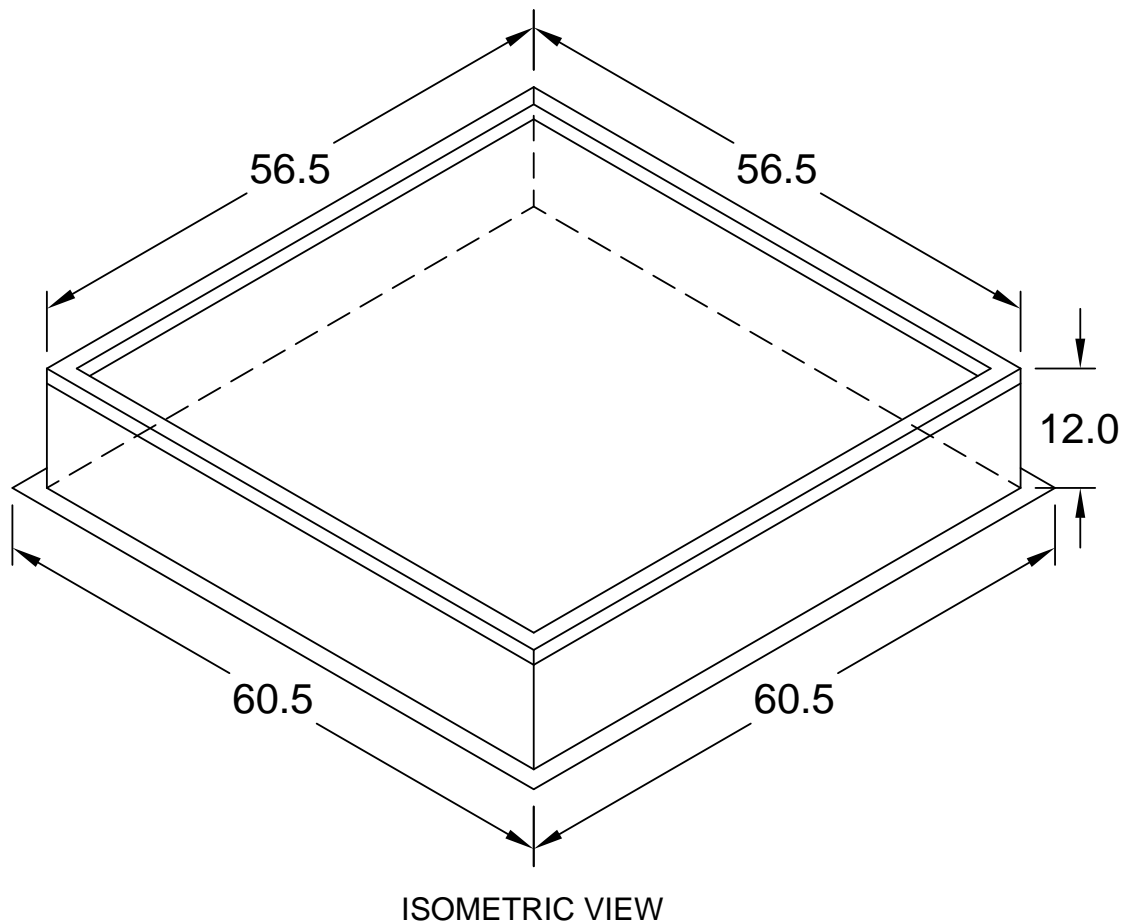
Material: Galvanized

### Standard Construction Features:

- Roof Curb fits between the building roof and the fan mounted directly to the roof support structure - Constructed of either 18 ga galvanized steel or 0.064 in. aluminum - Straight Sided without a cant - 2 in. mounting flange - 3 lb density insulation - Height
- Available from 8 in. to 42 in. as specified in 0.5 in. increments.

### Notes:

- The maximum roof opening dimension should not be greater than the "Actual" top outside dimension minus 2 in..
- The minimum roof opening dimension should be at least 2.5 in. more than the damper dimension or recommended duct size.
- The Roof Opening Dimension may NOT be the Structural Opening Dimension.
- Damper Tray is optional and must be specified. Tray size is same as damper size.
- Security bars are optional and must be specified. Frames and gridwork are all 10 ga steel. Gridwork is welded to the frame and the frame is welded to the curb. To prevent corrosion, they are coated with Greenheck's high performance Permatorc coating.



Notes: All dimensions shown are in units of in.

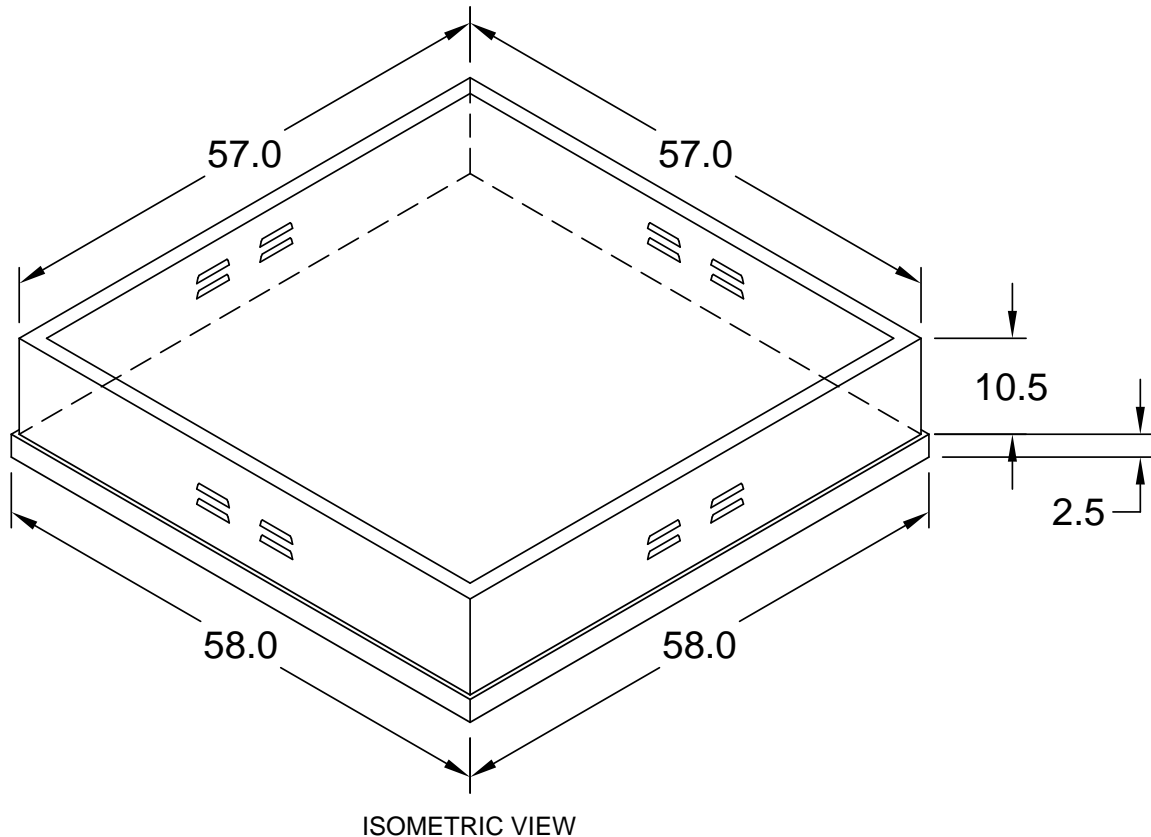
## Vented Curb Extension

Model: VCE

### Standard Construction Features:

- Curb Extension mounts between the fan and the roof curb - Constructed of either 18 ga galvanized or optional 0.064 in. aluminum - Louvered vents are designed to vent heat in restaurant exhaust applications - Designed to provide required 18 in. minimum discharge height above roof line when used with an 8 in. high roof curb and Greenheck model spun aluminum upblast exhaust fan per NFPA 96.

NOTE: Damper Trays are not available.



Notes: All dimensions shown are in units of in.

## DGX-125-H35-II

### CONSTRUCTION FEATURES AND ACCESSORIES

**Unit Overview**

Model	Airflow (CFM)	Heating	Cooling	Electrical V/C/P
DGX-125-H35-II	18,000	Direct Gas	Evaporative	460/60/3

**Features**

- Exterior housing constructed of galvanized steel
- Removable access panels
- Painted or galvanized steel blower and bearing supports
- Forward curved steel blower and motor
- Fan assembly is mounted on vibration isolators
- Motor pulleys are adjustable through 15 hp and fixed for 20 hp and greater
- Fan shaft is mounted in permanently lubricated ball bearings (up through size 118) or ball bearing pillow blocks (size 120 and greater)
- Static free belts
- Corrosion resistant fasteners are standard
- Disconnect mounted by factory

**Options and Accessories**

- Air Flow Arrangement: Variable Volume
- Damper: Inlet
- Outdoor Air Intake Position: End
- Discharge Position: Downblast
- Coating: Permatorator-Concrete Gray (RAL 7023)
- Insulation: Double Wall - Entire Unit
- Isolation: Spring
- Variable Kitchen VFD (by others)
- Hinged Access
- Access Side: Right-Hand
- Control Center
- Heat Inlet Air Sensor
- Cool Inlet Air Sensor
- Mounting: GKD-73.5/113.5-G12
- Unit Warranty: 1 Yr (Standard)



**NOTES:**

Evap Module will ship loose and require field installation.



## DGX-125-H35-II

### PERFORMANCE AND SPECIFICATIONS

#### Description/Arrangement

Model	Qty	Unit Weight (lb)	Discharge Position	Air Flow Arrangement	Unit Arrangement
DGX-125-H35-II	1	3,433	Downblast	Variable Volume	Horizontal

#### Design Conditions

Elevation (ft)	Summer DB (F)	Summer WB (F)	Winter DB (F)
108	91	69	21

#### Air Performance

Type	Volume (CFM)	Max Turndown (CFM)	External SP (in. wg)	Total SP (in. wg)	RPM	Operating Power (hp)	Motor Size (hp)
Supply	18,000	6,959	2	3.288	837	19.46	25

#### Electrical/Motor Specifications

V/C/P	Unit MCA (amps)	Unit MOP (amps)	Enclosure	Supply Motor RPM	Supply Efficiency
460/60/3	43.7	70	ODP	1725	Premium

#### Heating/Cooling Specifications

Heating Type	Gas Type	Input (MBH)	Output (MBH)	LAT (F)	Temp. Rise (F)
Direct Gas	Natural	1,035.4	952.6	70.0	49.0

Cooling Type	Evap Cooling Media	Evap Filters	Evap Cooling Control	Evap LDB (F)	Evap LWB (F)	Required Flow
Evaporative	CELdek	2 in. Alum. Mesh	Auto Drain	71.7	69.4	1.32

#### Sound Performance in Accordance with AMCA

Fan	Sound Power by Octave Band								Lwa	dBA	Sones
	62.5	125	250	500	1000	2000	4000	8000			
Supply	92	94	87	92	92	91	89	81	97	86	56

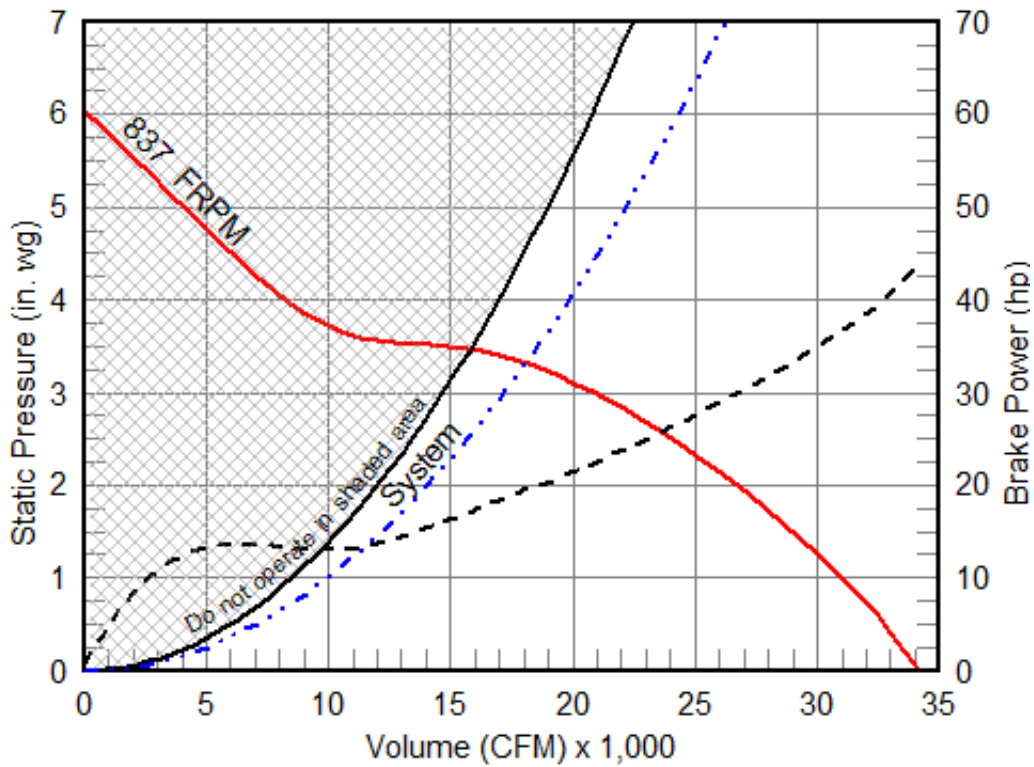
#### Unit Pressure Drop (in. wg)

Air Stream	Weatherhood	Damper Section	Filter Section	Cooling Section	Heating Section
Supply	0	0.154	0	0.509	0.625

## DGX-125-H35-II FAN CURVES

### Supply Fan Performance

Volume (CFM)	Supply SP (in wg)	Total SP (in wg)	RPM	Operating Power (hp)	Motor Size (hp)	Fan Quantity
18000	2	3.288	837	19.46	25	1



- Fan curve
- - - System curve
- - - Brake horsepower curve

## DGX-125-H35-II

### HEATING PERFORMANCE

#### Direct Gas Heating

Heating Type	Gas Type	Input (MBH)	Output (MBH)	LAT (F)	Temp. Rise (F)
Direct Gas	Natural	1,035.4	952.6	70.0	49.0

#### Direct Gas Unit Details

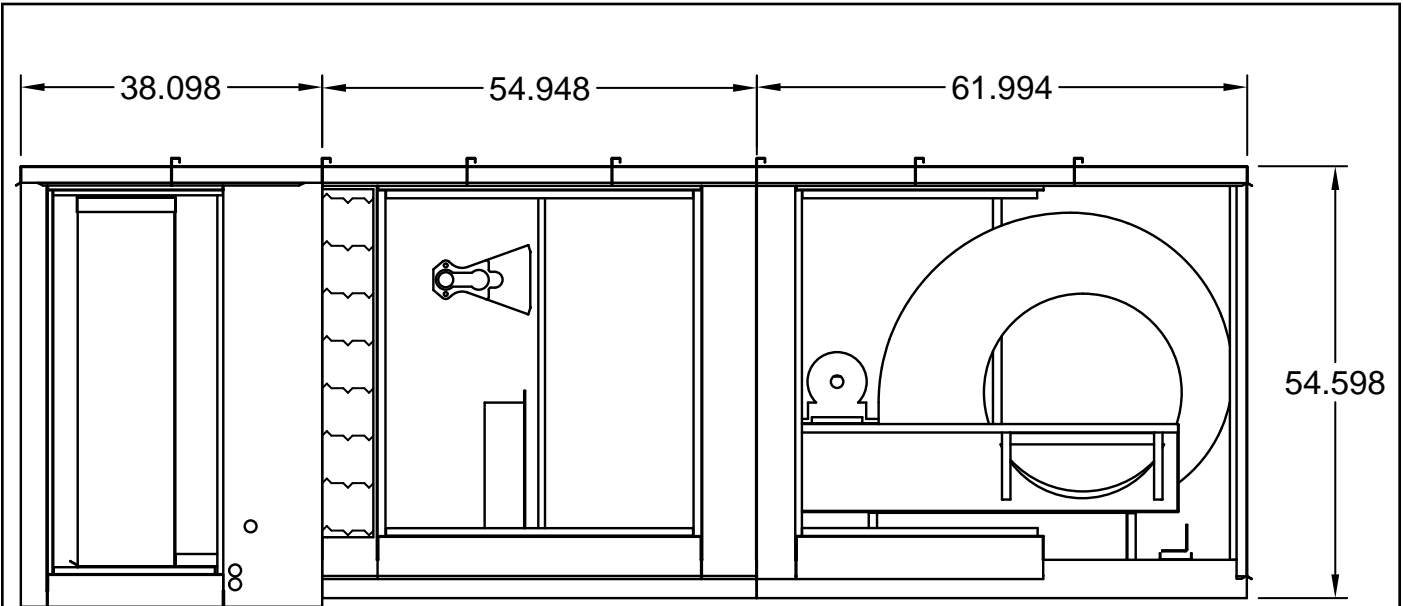
This unit will come equipped with the following:

- 92% Efficiency
- High quality cast aluminum burners with stainless steel mixing plates
- 25:1 Turndown Ratio
- Maxitrol electronic modulation burner control

#### Heating Details

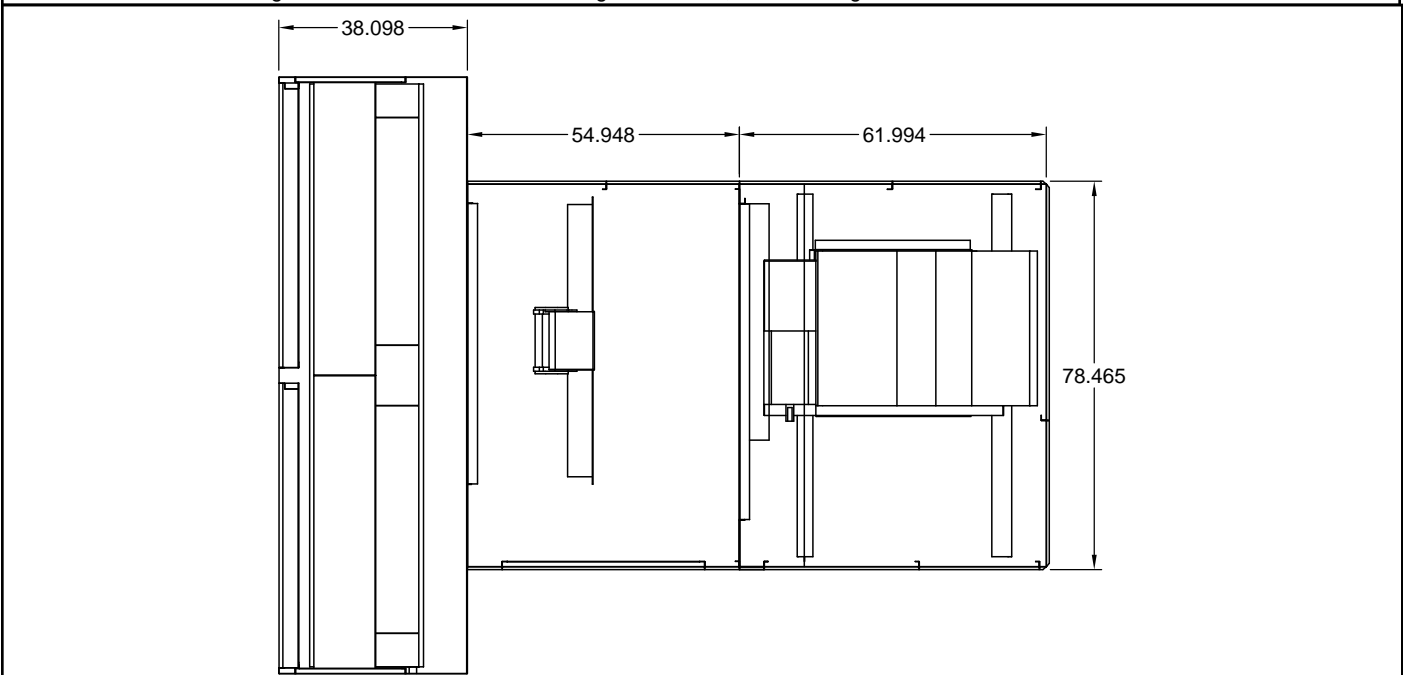
Agency Approval	ETL and IRI
Building Gas Pressure	1/2 PSI
Temperature Control	Discharge
Units Rated Gas Pressure	5 PSI
Ignition Control	Pilot
Flame Sensing	Flame Rod
High Gas Pressure Switch	Yes
Min Gas Pressure For Maximum Fire	14 (in. WC)

## DGX-125-H35-II



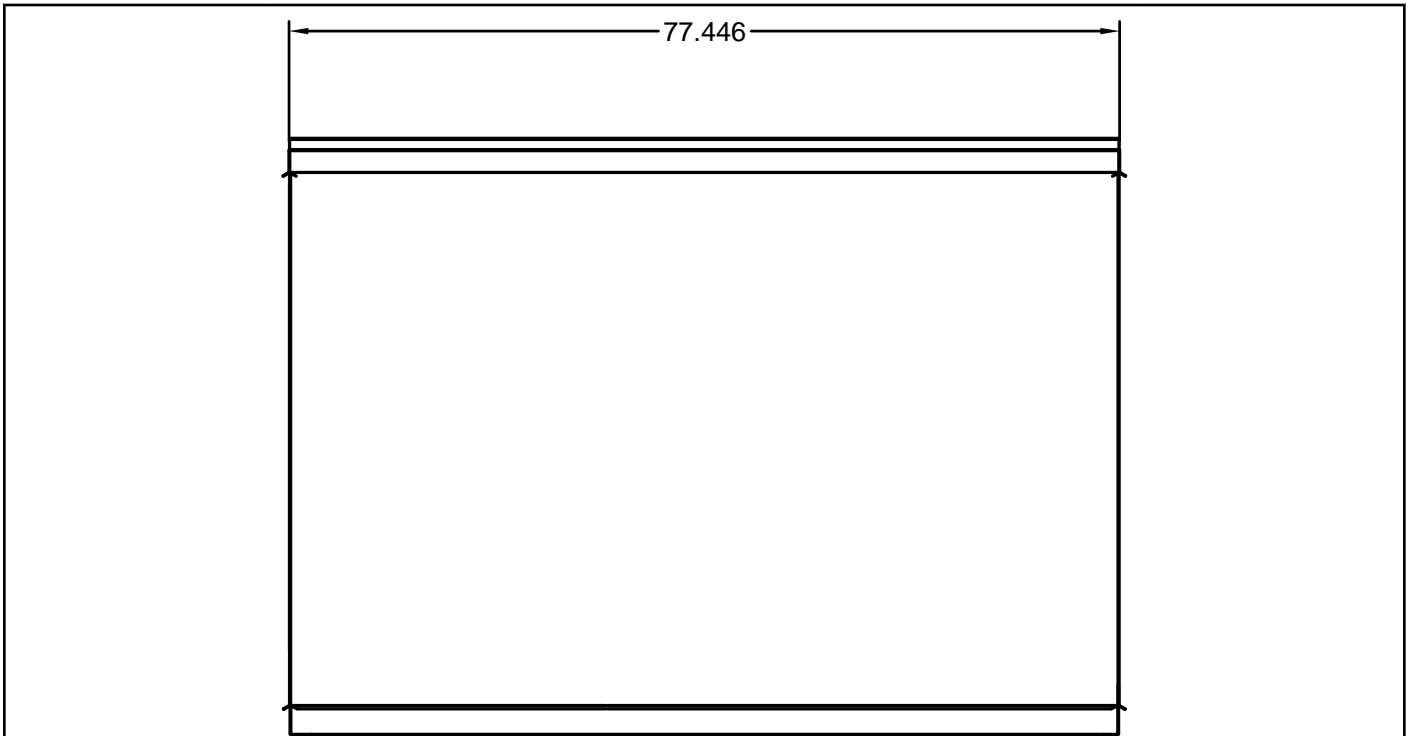
**ELEVATION VIEW**

\* Standard configuration for unit access is on the right-hand side, when looking into the unit intake in the direction of airflow.

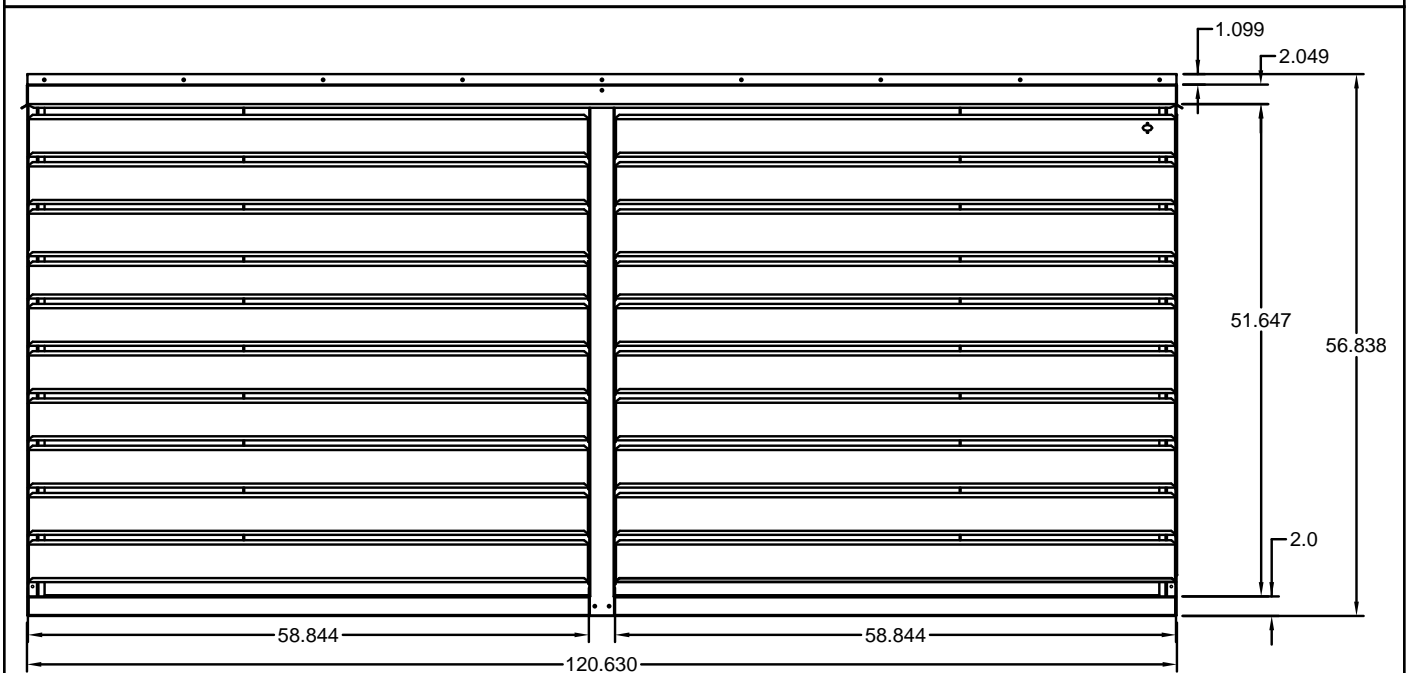


**PLAN VIEW**

\* Standard configuration for unit access is on the right-hand side, when looking into the unit intake in the direction of airflow.

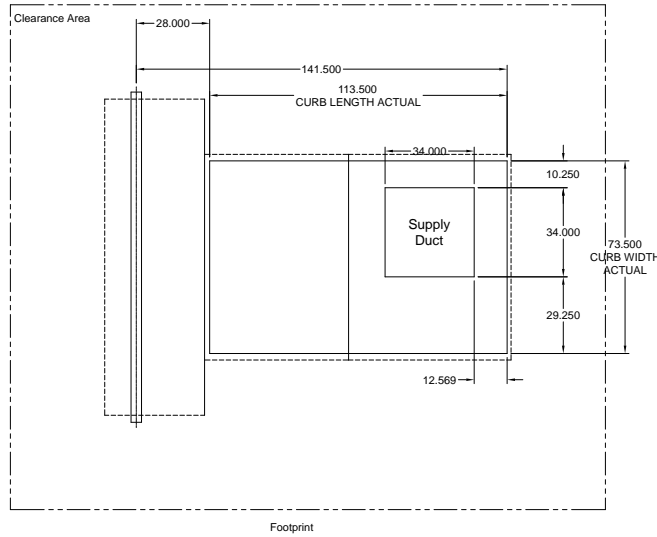


**END VIEW**

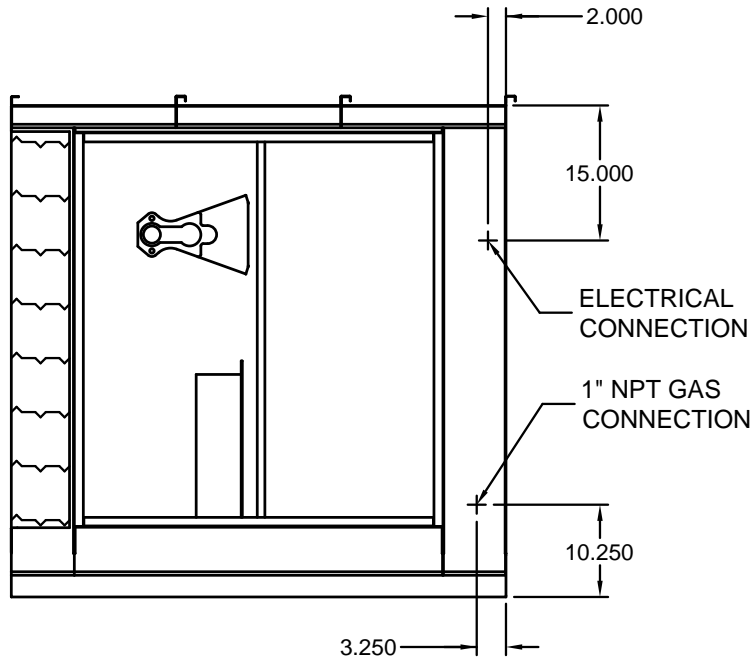


**INTAKE VIEW**

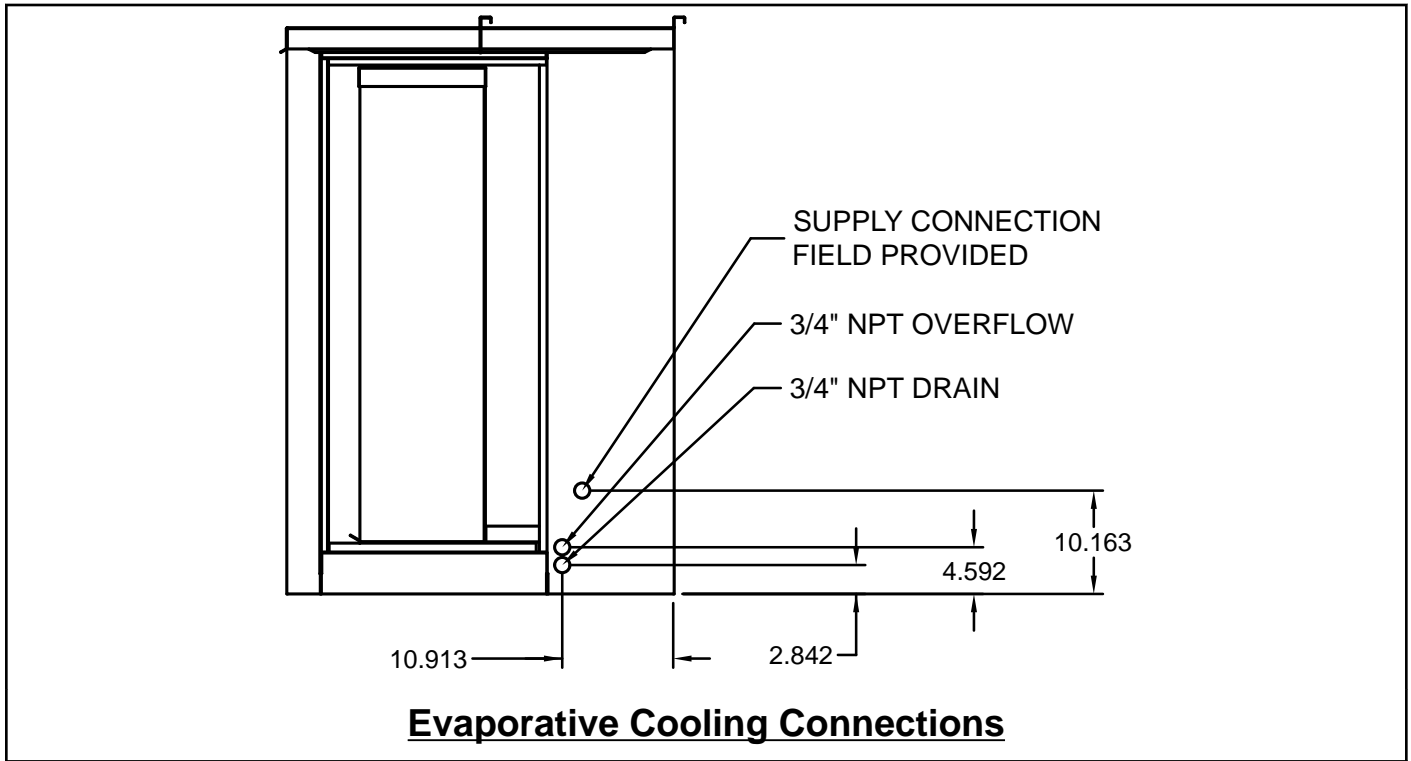
\*NOTE: Roof openings can be as large as the curb size -3.5 in. or as small as the duct size +.5 in.  
Solid lines indicate the actual curb perimeter.  
Dashed lines represent the unit position relative to curb. All dimensions shown are for the curb only.



**FOOTPRINT VIEW**

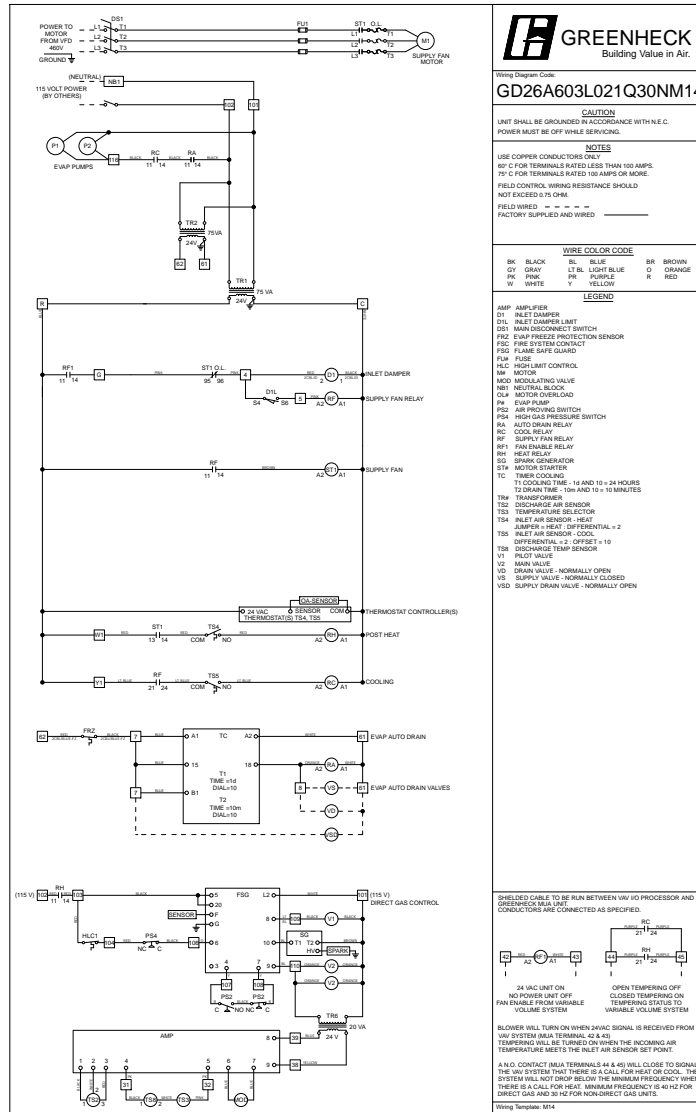


**Gas/Electrical Connections**



EQUIPMENT SCHEDULE													
Tempered Make-Up Air Unit							Mark: MAU-DIRECTFIRED-EVAP						
Qty	Greenheck Model	Volume	External SP		FRPM	Operating Power	Weight	Motor Information				MCA	
			Total SP					Size	V/C/P	Encl.	Motor RPM		Windings
1	DGX-125-H35-II	18,000 CFM	2 in. wg 3.288 in. wg		837 RPM	19.46 hp	3,433 lb	25 hp	460/60/3	ODP	1725	1	43.7
Heating													
Type	Gas Type	Temperature			Energy			Connection Gas	Building Gas Pressure	Control Access			
		Winter DB	Max Δ	Max LAT	Input	Output	Efficiency						
Direct Gas	Natural	21 F	49.0 F	70.0 F	1,035.4 MBH	952.6 MBH	92%	1"	1/2 PSI	Right-Hand			
Cooling													
Cooling Type	Cooling Media	Summer Bulb		Filters	Cooling Control	Required Flow**							
		Dry	Wet										
Evaporative	CELdek	91 F	69 F	2in. Aluminum Mesh	Automatic Drain Flush Valve-By Factory	NA							
**Required flow and inlet pressure are for supply line sizing only. They do not represent water usage during normal operation. Consult factory for actual water usage.													
Outlet Sound Power By Octave Band								LwA	dBA	Sones			
62.5	125	250	500	1000	2000	4000	8000						
92.3	93.9	87.4	92.1	91.8	90.9	89	81.2	97.1	86.1	56.2			
<ul style="list-style-type: none"> <li>• LwA - A weighted sound power level based on ANSI S1.4</li> <li>• dBA - A weighted sound pressure level base on 11.1 dB attenuation per octave band at 5.0 ft.</li> <li>• Noise Criteria (NC) based on an average attenuation of 11.5 dB per octave band at 5.0 ft.</li> </ul>													
OPTIONS AND ACCESSORIES													
Air Flow Arrangement: Variable Volume Damper: Inlet Outdoor Air Intake Position: End Discharge Position: Downblast Coating: Permatorcor-Concrete Gray (RAL 7023) Insulation: Double Wall - Entire Unit Isolation: Spring Variable Kitchen VFD (by others) Hinged Access Access Side: Right-Hand Control Center Heat Inlet Air Sensor Cool Inlet Air Sensor Direct Gas Options/Accessories Approvals: ETL and IRI Temperature Control: Discharge Flame Sensing: Flame Rod Ignition Control: Pilot High Gas Pressure Switch Unit Rated Gas Pressure: 5 PSI Evap Cooling Options/Accessories													





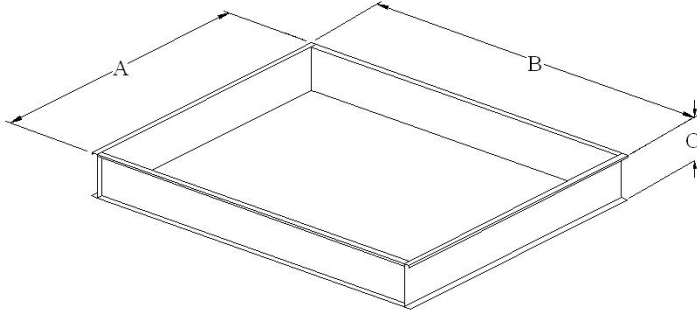
Manufacturer reserves the right to change, modify, or improve this product at anytime

# DGX-125-H35-II

# Roof Curb

## CONSTRUCTION FEATURES

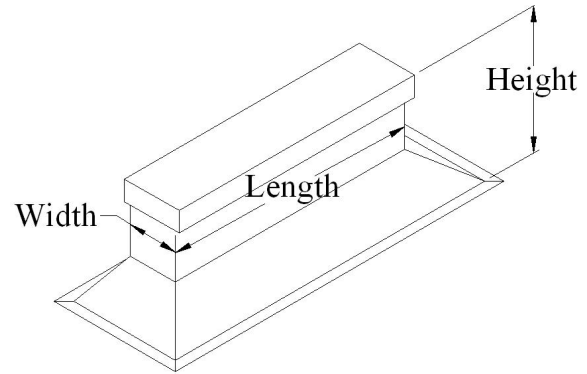
- 12 gauge galvanized steel (perimeter channels) • 14 gauge galvanized steel (interior channels) • Optional duct adapter



Dimension	Description	Value (in.)
A	Length	113.5
B	Width	73.5
C	Height	12

\* All dimensions are actual

Quantity	Support Type	Height (in.)	Length (in.)	Width (in.)
1	Evaporative	11	126	4

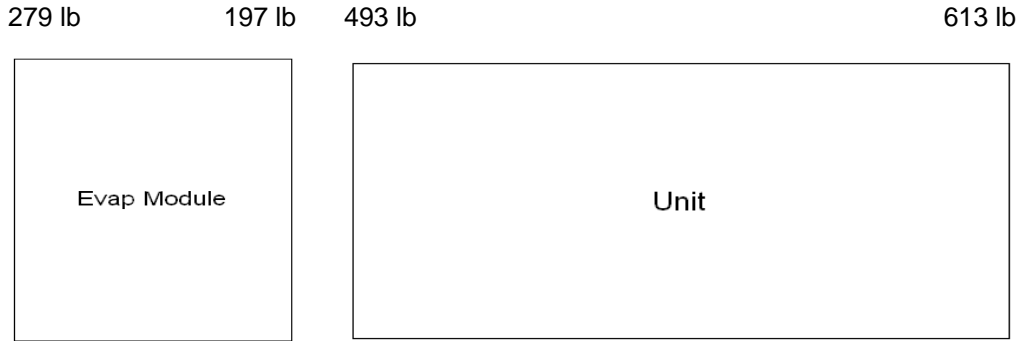


## ADDITIONAL NOTES

- 12 in. or 24 in. heights available
- Number of channels/cross supports vary by size
- Please reference the submittal footprint diagram for exact roof curb dimensions

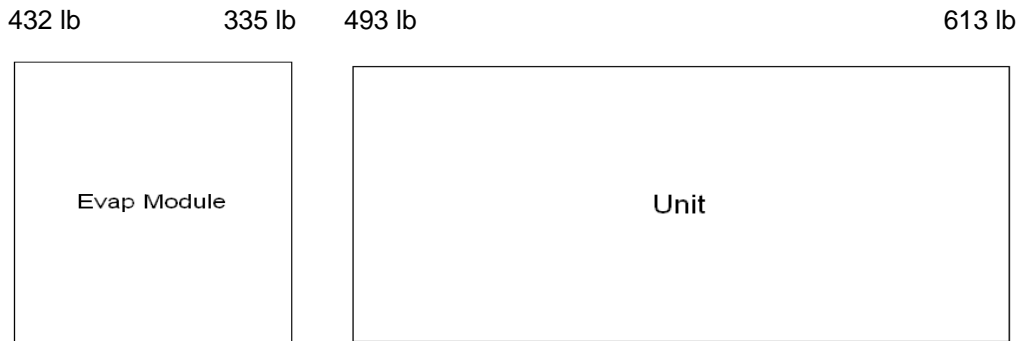
## DGX-125-H35-II

### Dry Corner Weights



279 lb      197 lb      612 lb      761 lb

### Wet Corner Weights



432 lb      335 lb      612 lb      761 lb

Note: Estimated corner weights are shown looking down on unit and airflow from left to right. Weights are applied at the base of the unit. Evaporative cooling section shown separately due to calculation of dry and wet corner weights. Images not drawn to scale.

## Warranty Information

### Limited Warranty - Unit

Greenheck warrants this equipment to be free from defects in material and workmanship for a period of 1 year(s) from the purchase date. Any component which proves defective during the warranty period will be repaired, or replaced, at Greenheck's sole option when returned to our factory, transportation prepaid.

The warranty does not include labor costs associated with troubleshooting, removal, or installation. Greenheck will not be liable for any consequential, punitive, or incidental damages resulting from use, repair, or operation of any Greenheck product.

This warranty is exclusive, and is in lieu of all other warranties, whether written, oral or implied, including the warranty of merchantability and the warranty of fitness for a particular purpose.