

Submittal Form

ARCHITECT

ENGINEER

AHSC

(Project)

Submittal No. 001

Description: Packaged HVAC Units

Date: 07/17/17 **Return By:** 07/31/17

Division: 23

Section: 23 74 00

Andersen

Subcontract/Supplier:

The review by O'Neill Walsh Community Builders ("OWCB") of the above Submittal shall not relieve Subcontractor/Supplier from any of its obligations under the agreement with OWCB nor give rise to any claim in favor of the Subcontractor/Supplier or third parties against OWCB or Owner.

By: Logan Bright

O'Neill Walsh Community Builders

Notes:

REVISION AND RESUBMIT.

Checking is only for general conformance with the design concept of the project and general compliance with the information given in the contact documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for: Dimensions, which shall be confirmed and correlated at the job site; fabrication processes and techniques of construction; coordination of his work with that of all other trades; and the satisfactory performance of his work.

MFIA, Inc. Consulting Engineers

By: Takako Baker, Date: 7/24/17

Notes:

See attached for submittal review letter.



**"Your Green Heating & Cooling Professionals
Dedicated to Serving Your and Your Community"**

HVAC Submittals

**Asian Health & Service Center
9005 SE Foster Rd.
Portland, OR 97266**

**General Contractor
O'Neill / Walsh Community Builders
2905 SW First Avenue
Portland, OR 97201**

**Submitted By
Andersen Mechanical
16285 SW 85th Ave, Suite 410
Tigard, OR 97224**



23_74_00

Packaged HVAC Units

May 11, 2017

SUBMITTAL

Project: Asian Health & Service Center

Contractor: Andersen Mechanical
16285 SW 85th Ave
Tigard, Oregon 97224

Engineer: MFIA
2007 S.E Ash St.
Portland Oregon 97214



Section: Packaged Heat Pump Rooftop Units

Manufacturer: Daikin AC

<u>QTY</u>	<u>Tag</u>	<u>Model</u>	<u>Voltage</u>
1	DOAS-1	DPS-007A	208/3
3	RTU-1,2,3	DPS-007a	208/3

- Double wall foam injection cabinet with hinged access doors throughout
- Constant Volume unit with space pressure control
- 100% OSA & Energy Recovery wheel – Tag: DOAS-1 only
- Direct drive supply fan
- Power exhaust
- DX cooling/Heating - Heat Pump
- Condenser coil w/ ECM condenser fan
- Natural Gas Heat, Stainless steel burner with 5:1 capacity modulation , 200 MBH
- Single point power block
- Factory installed non-fused disconnect
- phase voltage monitor
- Factory mounted 115V GFI (separate power connection by div 26 for GFI)
- Microtech 3 microprocessor controls for VAV discharge air control w/ DII comm card to allow integration with Daikin VRV ITM controller
- 14" rigid roof curb with seismic attachment calcs & clips
- Factory Start-up Service
- Smoke detector (return air)

NOTES:

1. Contractor to mount and wire all sensors, stats, comm/power wiring, controllers, & integration panels.
2. Static pressure sensor, space sensor, discharge temperature sensor shipped loose for field installation.

Submitted Steve Patnode

Cover Page



SUBMITTAL DATA

for

Asian Health & Service Center

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Technical Data Sheet for DOAS-1

Job Information		Technical Data Sheet
Job Name	MFIA - Asian Health & Service Center	
Date	5/11/2017	
Submitted By	Steve Patnode	
Software Version	05.50	
Unit Tag	DOAS-1	



Unit Overview					
Model Number	Voltage V/Hz/Phase	Design Cooling Capacity Btu/hr	AHRI360 Standard Efficiency		ASHRAE 90.1
			EER	IEER	
DPS007A	208/60/3	89114	12.8	Not Applicable	ASHRAE 90.1-2016 compliant

Unit	
Model Number:	DPS007A
Model Type:	Heat Pump
Heat Type:	Gas
Energy Recovery:	Med Cab-Econ: 2835 cfm max, 100% OA: 5145 cfm max
Application:	Variable Air Volume, Single Zone
Controls:	Microtech III
Outside Air:	100% Outside Air
Altitude:	0 ft
Approval	cETLus

Physical			
Dimensions and Weight			
Length	Height	Width	Weight
111.0 in	56.8 in	96.5 in	2454 lb
Corner Weights			
L1	L2	L3	L4
435 lb	430 lb	790 lb	799 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			
Unit FLA	MCA	MROPD	SCCR
43.5 A	46.5 A	50 A	5 kAIC
Note:	Use only copper supply wires with ampacity based on 75° C conductor rating. Connections to terminals must be made with copper lugs and copper wire.		

Return/Outside/Exhaust Air		
Outside Air Option		
Type	Damper Pressure Drop	Exhaust Air Type
None	0.11 inH ₂ O	Powered, Modulating with Building Pressure Control

Technical Data Sheet for DOAS-1

Exhaust Fan			
Type	Drive Type		Wheel Diameter
SWSI AF	Direct Drive		16 in
Motor			
(Qty) Horsepower	Type	Efficiency	Full Load Current (Each)
(1) 4.0 HP	ECM	Premium	8.8 A
Performance			
Air Flow CFM	External Static Pressure inH ₂ O	Fan Speed RPM	Brake Horsepower HP
3000	1.25	1972	1.5

Energy Recovery

Design OA Volume	Design Exhaust Volume	Wheel Pressure Drop	Motor HP	Motor FLA
3000 CFM	3000 CFM	0.67 inH ₂ O	0.17 HP	0.7 A

Summer Conditions

Temperature								Recovered Capacity Btu/hr	Effectiveness	
Outside Air		Return Air		Wheel Leaving		Mixed Air			Total	Sensible
Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F			
95.0	70.0	75.0	62.0	81.0	64.7	81.0	64.7	53394	0.67	0.68

Winter Conditions

Temperature								Recovered Capacity Btu/hr	Effectiveness	
Outside Air		Return Air		Wheel Leaving		Mixed Air			Total	Sensible
Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F			
22.0	20.0	70.0	59.0	54.5	48.4	54.5	48.4	163662	0.65	0.68

Bypass Damper: No

Energy Recovery Filters

Efficiency	Quantity/Size	Face Area		Face Velocity		Air Pressure Drop	
		Outdoor ft ²	Exhaust ft ²	Outdoor ft/min	Exhaust ft/min	Outdoor inH ₂ O	Exhaust inH ₂ O
2 in. MERV 8	(6) 18 in. X 24 in.	9.0	9.0	333.3	333.3	0.13	0.13

Combined Efficiency Factor

Unit CEF: 26.6

Note: CEF determined using AHRI guideline V, conditions of 80/67 return & 95/75 ambient

Filter Section

Physical				
Type	Quantity / Size	Face Area	Face Velocity	Air Pressure Drop
Combo 2"/4" rack with 2" MERV 8	6 / 18 in x 24 in x 2 in	18.0 ft ²	166.7 ft/min	0.05

Technical Data Sheet for DOAS-1

DX Cooling Coil

Physical								
Coil Type	Refrigerant Type	Fins per Inch	Rows	Face Area	Face Velocity	Air Pressure drop	Drain Pan Material	
Cu Tube/ Al Fin	R410A	15	3	14.0 ft²	214.0 ft/min	0.13 inH₂O	Stainless Steel	
Cooling Performance								
Capacity			Indoor Air Temperature					Ambient air Temperature °F
Total Btu/hr	Sensible Btu/hr	Moisture Removal lb/h	Entering		Leaving			
			Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	Dewpoint °F	
89114	85222	2.9	81.0	64.7	55.0	54.8	54.7	95.0
Condensate Connection Size:		3/4 in. Male NPT						
Heating Performance								
Total Capacity Btu/hr		Refrigerant Type	Indoor Air Temperature Dry Bulb				Ambient Air Temperature °F	
			Entering °F		Leaving °F			
98660		R410A	54.5		84.6		49.0	

Fan Section

Fan				
Type	Fan Wheel Diameter		Fan Isolation	
SWSI AF	16 in		None	
Performance				
Airflow	Total Static Pressure	Fan Speed	Brake Horsepower	Altitude
3000 CFM	4.1 inH ₂ O	2441 rpm	2.98 HP	0 ft
Motor				Drive
Type	Horsepower	Efficiency	FLA	Type
ECM Motor	4.0	Premium	8.8 A	Direct Drive

Gas Heat Section

Physical						
Airflow		Size		Connection (Qty) Size		Heat Exchanger Material
3000 CFM		200 MBH		(1) 0.75 in. Female NPT		Stainless Steel
Performance						
Capacity Btu/hr	Air Temperature Dry Bulb		Air Pressure Drop inH ₂ O	Gas Pressure		Modulation
	Entering °F	Leaving °F		Minimum inH ₂ O	Maximum inH ₂ O	
160000	54.5	103.7	0.02	7	14	Modulating 5:1 Turndown

Unit Discharge Conditions

Air Temperature				
Motor Heat Btu/hr	Moisture Removal lb/h	Unit Leaving Dry Bulb °F	Unit Leaving Wet Bulb °F	Unit Leaving Dewpoint °F
8616	2.9	57.7	55.7	54.4

Technical Data Sheet for DOAS-1

Condensing Section						
Compressor						
Type	Quantity	Total Power		Capacity Control	Compressor Isolation	
Inverter Scroll	2	5.8 kW		Mod Control with Inverter Compressors	Rubber in Shear	
Compressor Amps:						
Compressor 1				11.9 A		
Compressor 2				8.6 A		
Condenser Coil						
Type		Fins per Inch			Fin Material	
Copper Tube		16			Aluminum	
Condenser Fan Motors						
Number of Motors				Full Load Current (Total)		
2				4.0 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
90000 Btu/hr	12.8	Not Applicable	78000 Btu/hr	3.66	47000 Btu/hr	2.42

Internal Pressure Drop Calculation	
External Static Pressure:	2.25 inH ₂ O
Filter:	0.05 inH ₂ O
Dirty Filter:	0.75 inH ₂ O
Outside Air:	0.11 inH ₂ O
Energy Recovery:	0.80 inH ₂ O
DX Coil:	0.13 inH ₂ O
Gas Heat:	0.02 inH ₂ O
Total Static Pressure:	4.12 inH ₂ O

Sound								
Sound Power (db)								
Frequency	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	79	77	85	80	82	76	71	65
Discharge	79	80	88	85	88	82	79	73
Radiated	85	85	81	78	76	71	64	57

Options	
Unit	
Smoke Detectors:	Return Air Smoke Detector
Electrical	
Field Connection:	Non-Fused Disconnect Switch
Powered Receptacle:	Field powered 115V GFI outlet
Power Options:	Phase Failure Monitor
Controls	
Communication Card:	Daikin DIII Gateway card, Factory installed

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

Technical Data Sheet for DOAS-1

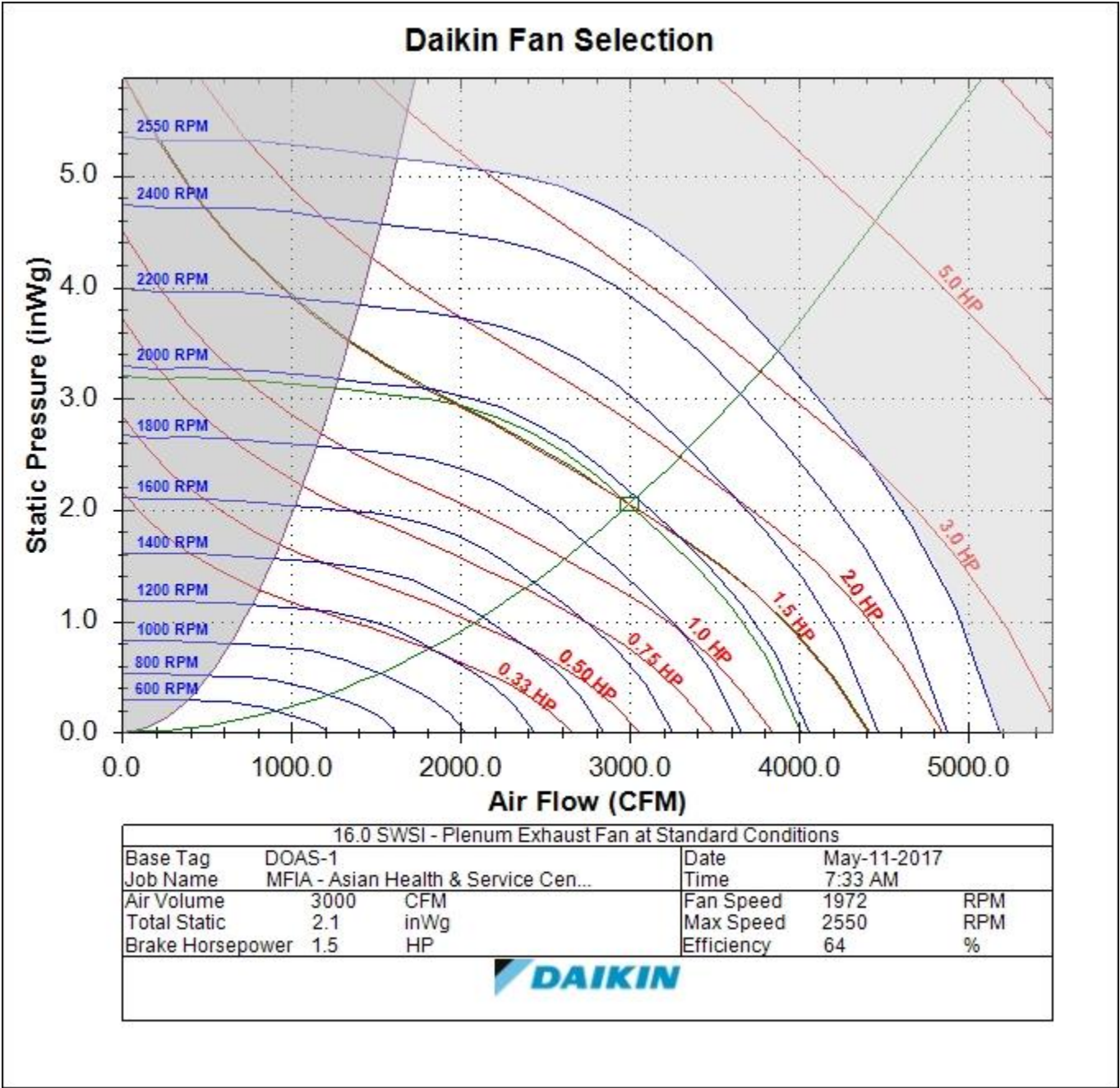
AHRI Certification



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

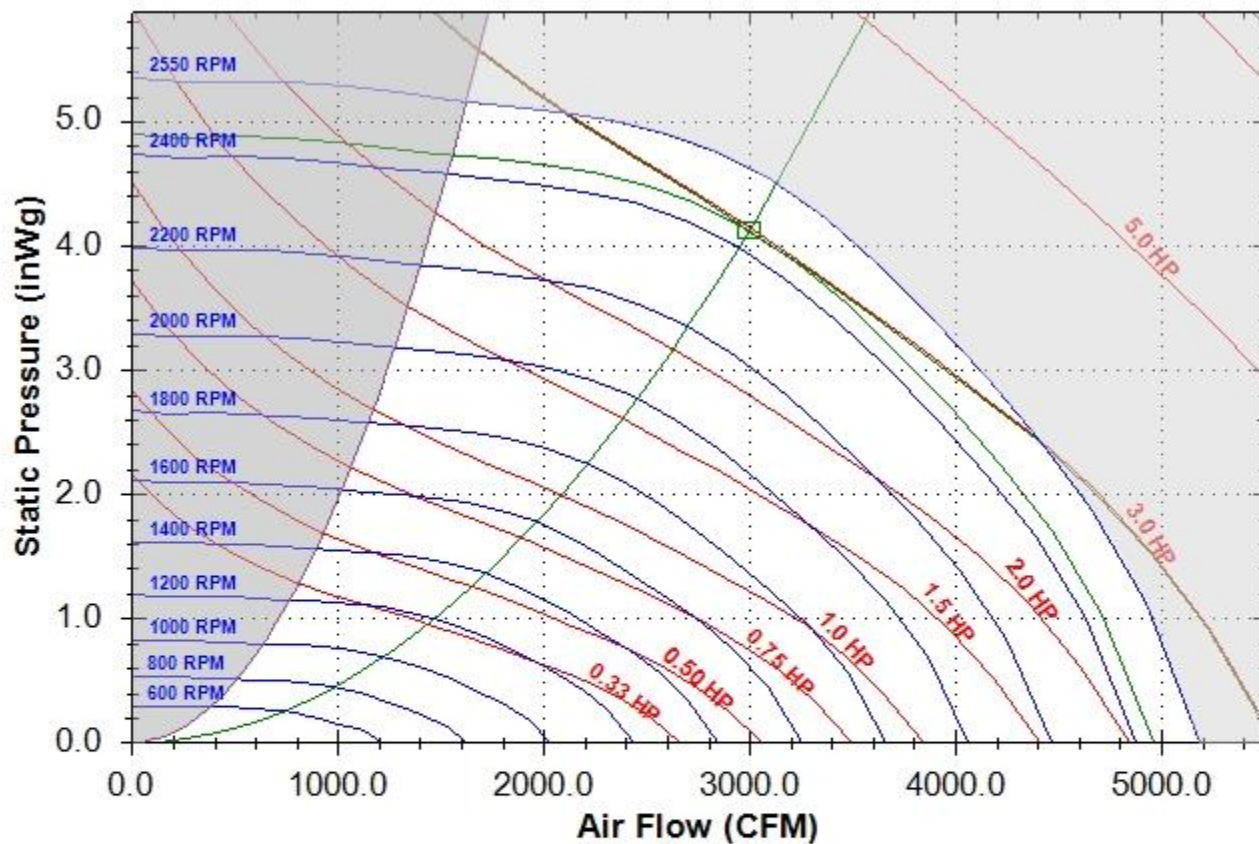
Notes

Fan Curve - Exhaust for DOAS-1



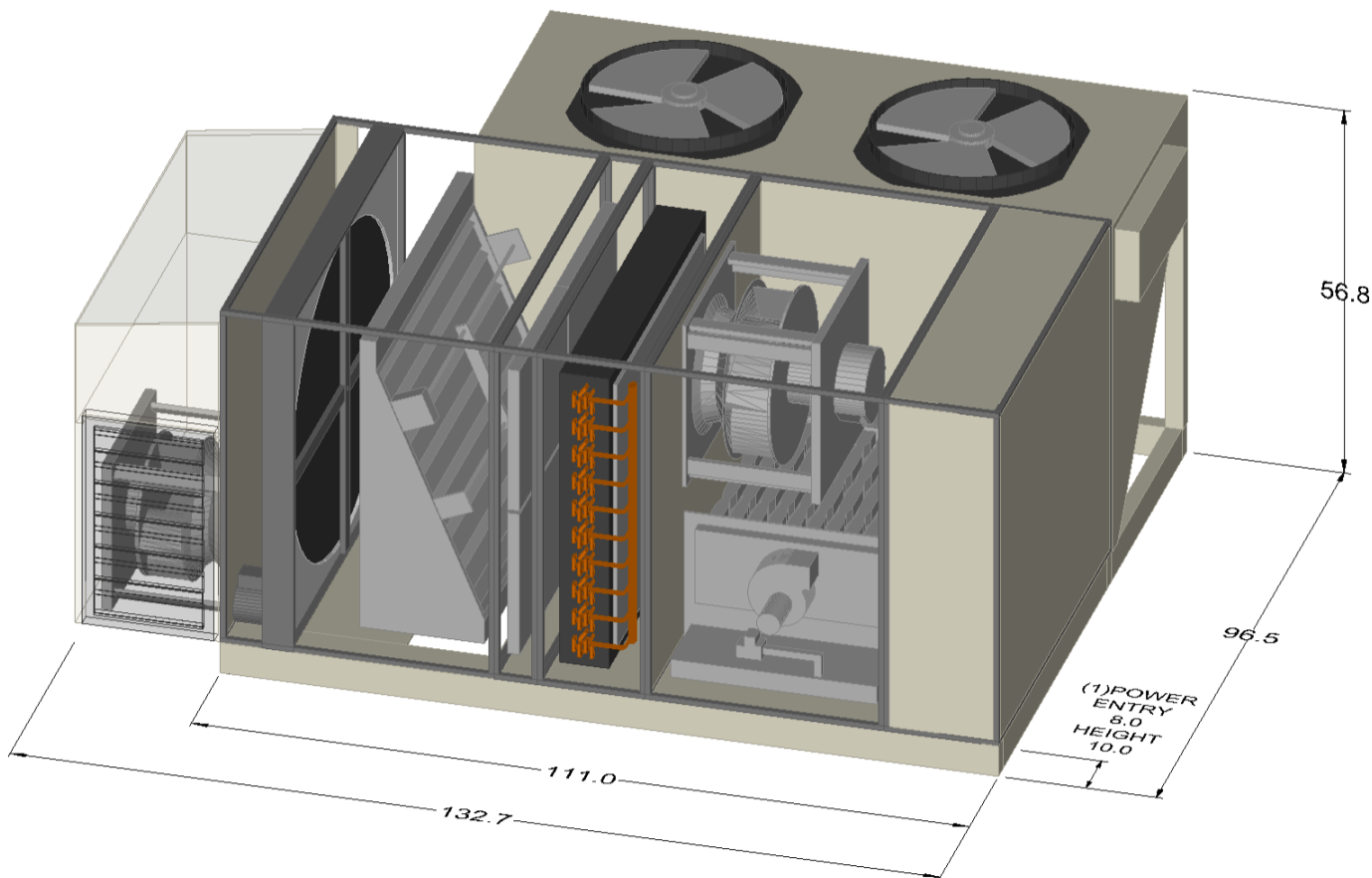
Fan Curve - Supply for DOAS-1

Daikin Fan Selection




16.0 SWSI - Plenum Supply Fan at Standard Conditions								
Base Tag	DOAS-1				Date	May-11-2017		
Job Name	MFIA - Asian Health & Service Cen...				Time	7:33 AM		
Air Volume	3000	CFM			Fan Speed	2441	RPM	
Total Static	4.12	inWg			Max Speed	2550	RPM	
Brake Horsepower	2.98	HP			Efficiency	65	%	
Unit Sound Power	63hz	125hz	250hz	500hz	1000hz	2000hz	4000hz	8000hz
Inlet Sound Power	79	77	85	80	82	76	71	65
Outlet Sound Power	79	80	88	85	88	82	79	73
Radiated Sound Power	85	85	81	78	76	71	64	57



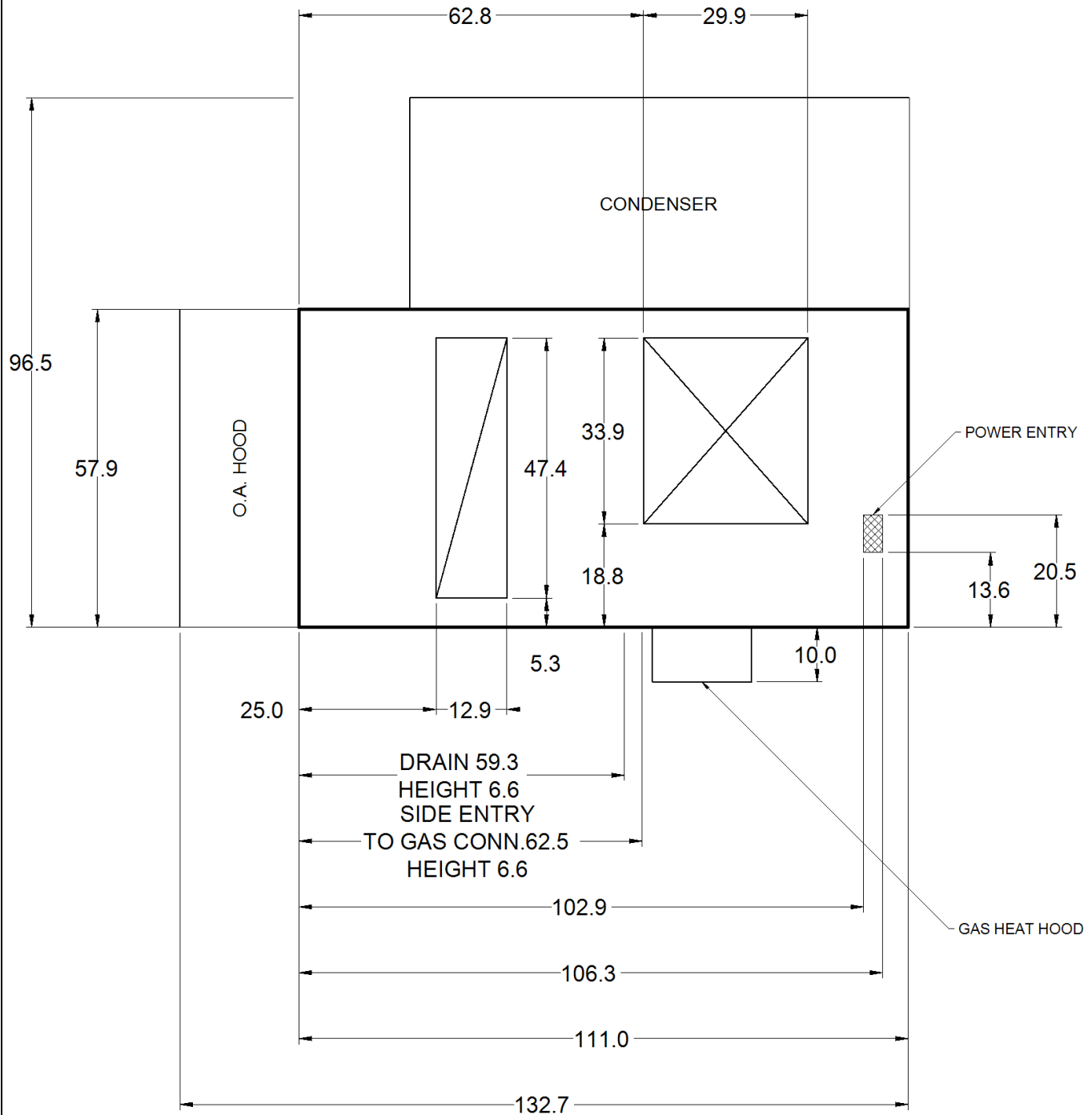


Notes:


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

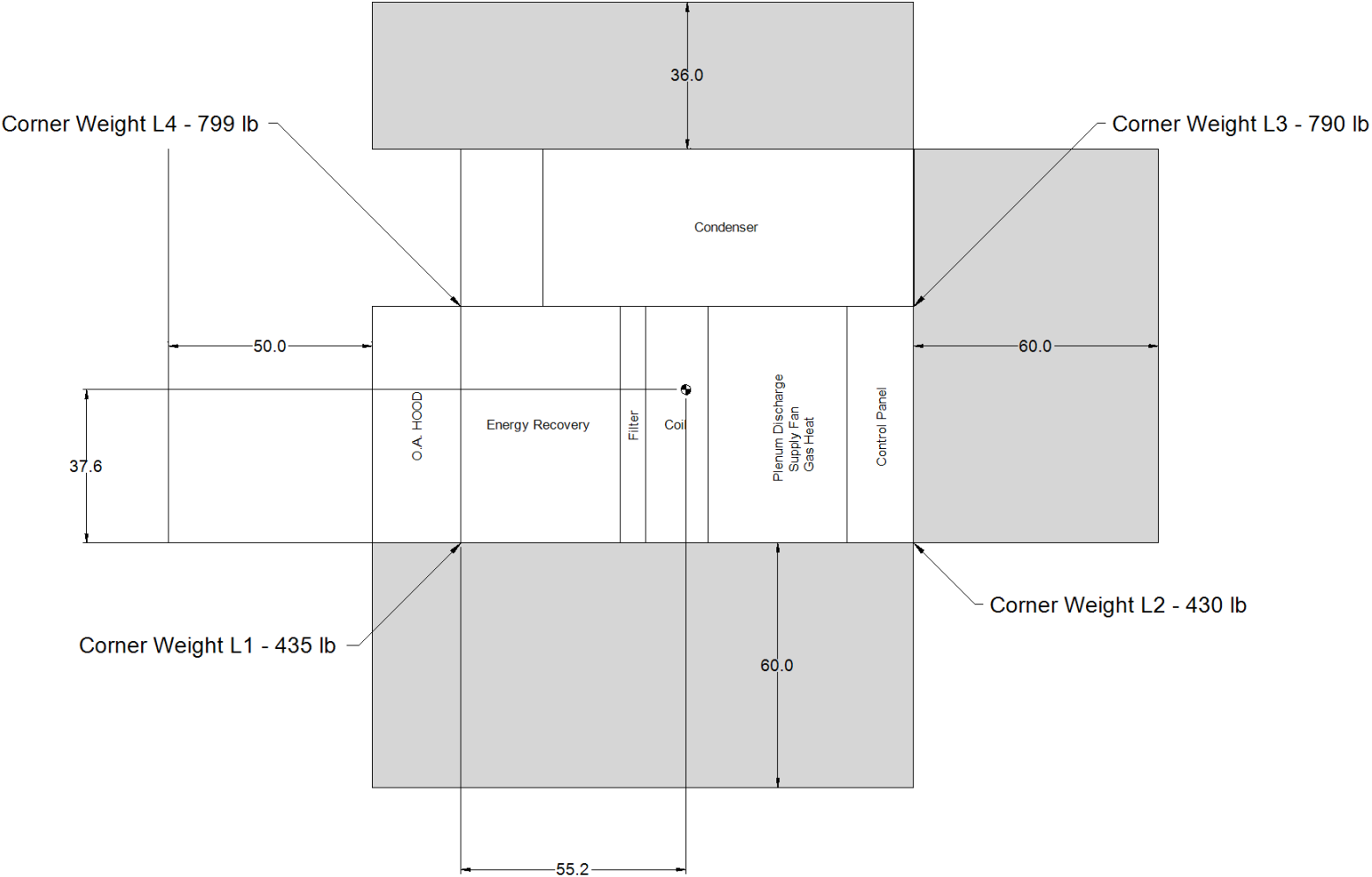
Product Drawing		Unit Tag: DOAS-1			Sales Office: Air Reps, LLC (Oregon)			 13600 Industrial Park Blvd. Minneapolis, MN 55441 www.DaikinApplied.com Software Version: 05.50
Product:		Project Name: MFIA - Asian Health & Service			Sales Engineer:			
Model: DPS007A		May 11, 2017	Ver/Rev:	Sheet: 1 of 1	Scale: 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.								

Drawings(2) for DOAS-1




PLAN VIEW - OPENINGS & OVERALL

Product Drawing		Unit Tag: DOAS-1			 13600 Industrial Park Blvd. Minneapolis, MN 55441 www.DaikinApplied.com Software Version: 05.50		
Product:		Project Name: MFIA - Asian Health &					
Model: DPS007A		Sales Office: Air Reps, LLC (Oregon)					
Sales Engineer:		May 11, 2017	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.							

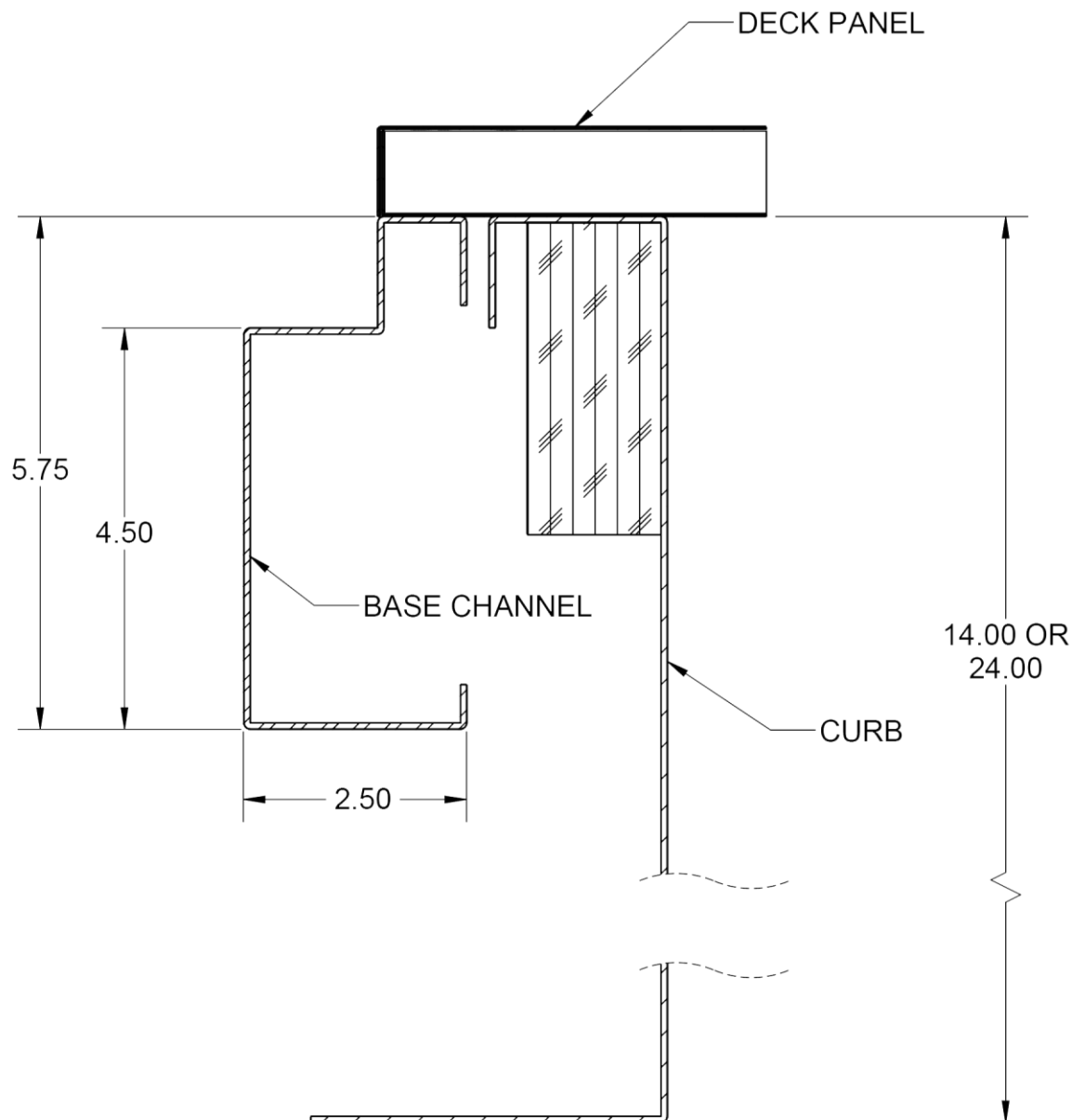



PLAN VIEW - CG, CORNER WEIGHTS, SERVICE CLEARANCE

- Notes:
- (1) Center of Gravity Height = 25.5
 - (2) Total Weight = 2454 lb

Product Drawing	Unit Tag: DOAS-1			Sales Office: Air Reps, LLC (Oregon)			 13600 Industrial Park Blvd. Minneapolis, MN 55441 www.DaikinApplied.com Software Version: 05.50
Product:	Project Name: MFIA - Asian Health & Service			Sales Engineer:			
Model: DPS007A	May 11, 2017	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.							

Base Channel Cross Section 3 to 15_Drawing for DOAS-1



Product Drawing		Unit Tag: DOAS-1			 13600 Industrial Park Blvd. Minneapolis, MN 55441 www.DaikinApplied.com Software Version: 05.50		
Product:		Project Name: MFIA - Asian Health &					
Model: DPS007A		Sales Office: Air Reps, LLC (Oregon)					
Sales Engineer:		May 11, 2017	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.							

Rebel 113126601_Drawing for DOAS-1

Overview

Smoke detectors are used to detect smoke in the return air stream, supply air stream, or both. A set of normally closed contact will open in the presence of smoke. This can be used to shut down the RTU by either cutting power across the terminal of a thermostat controlled RTU or as a signal to DDC controlled RTU.



Features

- Universal voltage: 24 VAC, 24 VDC, 115 VAC, or 230 VAC
- Visual indication of power and alarm status
- Two alarm contacts and one trouble contact
- Interchangeable "plug-in" photoelectric or ionization heads
- Compatible with building automation and fire alarm systems
- Dust filtering included in detector head
- Interconnect up to 30 detectors for common function

Specifications

Daikin Part Number	113126601
Supply Voltage	24 VAC: @ 35 mA standby, 74 mA alarm; 24 VDC: @ 15 mA standby, 56 mA alarm; 115 VAC: @ 25 mA standby, 32 mA alarm; 230 VAC @ 12 mA standby, 16 mA alarm
Frequency	50/60 Hz
Air Velocity	0–2000 fpm (0–10.2 mps)
Radioactive Element	For HS-100-N only Americium 241, 0.9 µCi
Relay Output Alarm	1-SPDT, 10A, 115 VAC, resistive; 1-SPST-NO, 2A Trouble 1-SPST-NC, 10A, 115 VAC, resistive
Wiring Terminations	Solid or stranded, 12 to 22 AWG terminals
Operating Humidity	0% to 85% RH non-condensing
Operating Temperature	HS-100-N 32° to 158°F (0° to 70°C)
Enclosure Rating	White plastic, NEMA 1
Dimensions	6" (Dia.) × 4.0"(H) (15.2 × 10.2 cm)

Product Drawing

Unit Tag: DOAS-1

Product:

Project Name: MFIA - Asian Health &

Model: DPS007A

Sales Office: Air Reps, LLC (Oregon)

Sales Engineer:

May 11, 2017

Ver/Rev:

Sheet 1 of 1



13600 Industrial Park Blvd. Minneapolis, MN 55441
www.DaikinApplied.com Software Version: 05.50

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

Job Information		Technical Data Sheet
Job Name	MFIA - Asian Health & Service Center	
Date	5/11/2017	
Submitted By	Steve Patnode	
Software Version	05.50	
Unit Tag	RTU -1, RTU -2, RTU -3	



Unit Overview					
Model Number	Voltage V/Hz/Phase	Design Cooling Capacity Btu/hr	AHRI360 Standard Efficiency		ASHRAE 90.1
			EER	IEER	
DPS007A	208/60/3	89279	12.8	19.6	ASHRAE 90.1-2016 compliant

Unit	
Model Number:	DPS007A
Model Type:	Heat Pump
Heat Type:	Gas
Energy Recovery:	None
Application:	Variable Volume, Duct SP Control
Controls:	Microtech III
Outside Air:	0-100% Economizer with Drybulb Control
Altitude:	0 ft
Approval	cETLus

Physical					
Dimensions and Weight					
Length		Height		Width	
91.0 in		56.8 in		96.5 in	
Corner Weights					
L1		L2		L3	
412 lb		349 lb		698 lb	
Construction					
Exterior		Insulation and Liners		Air Opening Location	
				Return	
Painted Galvanized Steel		1" Injected Foam, R-7, Galvanized Steel Liner		Bottom	

Electrical			
Unit FLA	MCA	MROPD	SCCR
43.5 A	46.5 A	50 A	5 kAIC
Note:	Use only copper supply wires with ampacity based on 75° C conductor rating. Connections to terminals must be made with copper lugs and copper wire.		

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

Technical Data Sheet for RTU

Exhaust Fan			
Type	Drive Type		Wheel Diameter
SWSI AF	Direct Drive		16 in
Motor			
(Qty) Horsepower	Type	Efficiency	Full Load Current (Each)
(1) 4.0 HP	ECM	Premium	8.8 A
Performance			
Air Flow CFM	External Static Pressure inH ₂ O	Fan Speed RPM	Brake Horsepower HP
3000	1.25	1768	1.0

Filter Section

Physical				
Type	Quantity / Size	Face Area	Face Velocity	Air Pressure Drop
Combo 2"/4" rack with 2" MERV 8	6 / 18 in x 24 in x 2 in	18.0 ft ²	166.7 ft/min	0.05

DX Cooling Coil

Physical									
Coil Type	Refrigerant Type	Fins per Inch	Rows	Face Area	Face Velocity	Air Pressure drop	Drain Pan Material		
Cu Tube/ Al Fin	R410A	15	3	14.0 ft²	214.0 ft/min	0.12 inH₂O	Stainless Steel		
Cooling Performance									
Capacity			Indoor Air Temperature					Ambient air Temperature °F	
Total Btu/hr	Sensible Btu/hr	Moisture Removal lb/h	Entering		Leaving				
			Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	Dewpoint °F		
89279	89279	0.0	82.1	63.1	54.9	52.8	51.2	95.0	
Condensate Connection Size:		3/4 in. Male NPT							
Heating Performance									
Total Capacity Btu/hr		Refrigerant Type	Indoor Air Temperature Dry Bulb				Ambient Air Temperature °F		
			Entering °F		Leaving °F				
55299		R410A	57.9		74.8		22.0		

Fan Section

Fan				
Type	Fan Wheel Diameter		Fan Isolation	
SWSI AF	16 in		None	
Performance				
Airflow	Total Static Pressure	Fan Speed	Brake Horsepower	Altitude
3000 CFM	3.3 inH ₂ O	2254 rpm	2.34 HP	0 ft
Motor				Drive
Type	Horsepower	Efficiency	FLA	Type
ECM Motor	4.0	Premium	8.8 A	Direct Drive

Technical Data Sheet for RTU

Gas Heat Section

Physical						
Airflow		Size		Connection (Qty) Size		Heat Exchanger Material
3000 CFM		200 MBH		(1) 0.75 in. Female NPT		Stainless Steel
Performance						
Capacity Btu/hr	Air Temperature Dry Bulb		Air Pressure Drop inH ₂ O	Gas Pressure		Modulation
	Entering °F	Leaving °F		Minimum inH ₂ O	Maximum inH ₂ O	
160000	60.0	109.2	0.02	7	14	Modulating 5:1 Turndown

Unit Discharge Conditions

AirTemperature				
Motor Heat Btu/hr	Moisture Removal lb/h	Unit Leaving Dry Bulb °F	Unit Leaving Wet Bulb °F	Unit Leaving Dewpoint °F
6986	0.0	57.0	53.5	50.9

Condensing Section

Compressor						
Type	Quantity		Total Power	Capacity Control		Compressor Isolation
Inverter Scroll	2		5.8 kW	Mod Control with Inverter Compressors		Rubber in Shear
Compressor Amps:						
Compressor 1			11.9 A			
Compressor 2			8.6 A			
Condenser Coil						
Type		Fins per Inch			Fin Material	
Copper Tube		16			Aluminum	
Condenser Fan Motors						
Number of Motors			Full Load Current (Total)			
2			4.0 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
90000 Btu/hr	12.8	19.6	78000 Btu/hr	3.66	47000 Btu/hr	2.42

Internal Pressure Drop Calculation

External Static Pressure:	2.25 inH ₂ O
Filter:	0.05 inH ₂ O
Dirty Filter:	0.75 inH ₂ O
Outside Air:	0.07 inH ₂ O
DX Coil:	0.12 inH ₂ O
Gas Heat:	0.02 inH ₂ O
Total Static Pressure:	3.27 inH ₂ O

Sound								
Sound Power (db)								
Frequency	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	77	75	83	78	80	74	69	63
Discharge	77	78	86	83	86	80	77	71
Radiated	85	85	81	78	76	71	64	57

Technical Data Sheet for RTU

Options

Unit	
Smoke Detectors:	Return Air Smoke Detector
Ventilation Controls:	CO2 Sensor - Duct Mounted
Electrical	
Field Connection:	Non-Fused Disconnect Switch
Powered Receptacle:	Field powered 115V GFI outlet
Power Options:	Phase Failure Monitor
Controls	
Communication Card:	Daikin DIII Gateway card, Factory installed

Warranty

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

AHRI Certification



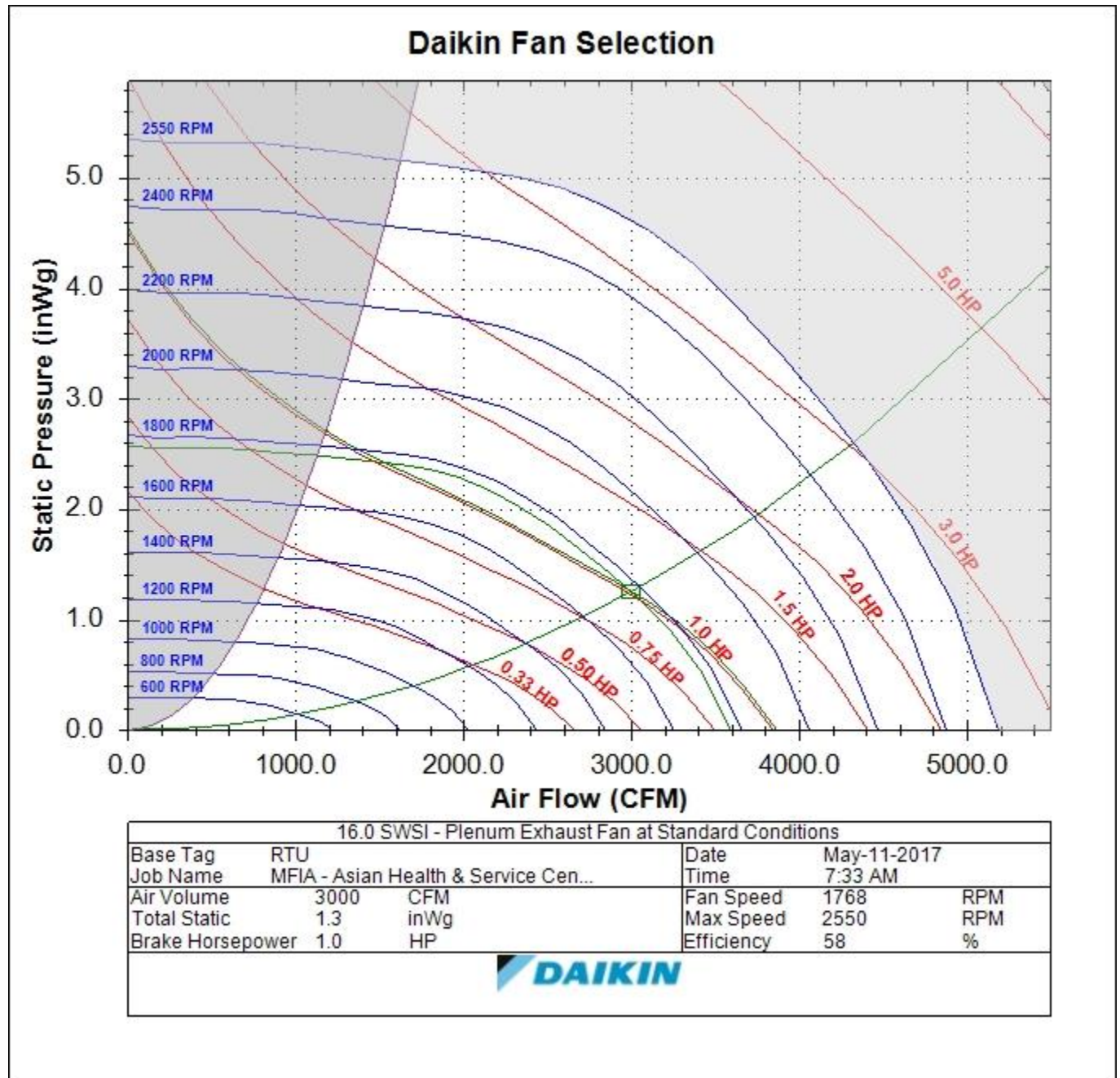
All equipment is rated and certified in accordance with AHRI 360.

Notes

Accessories

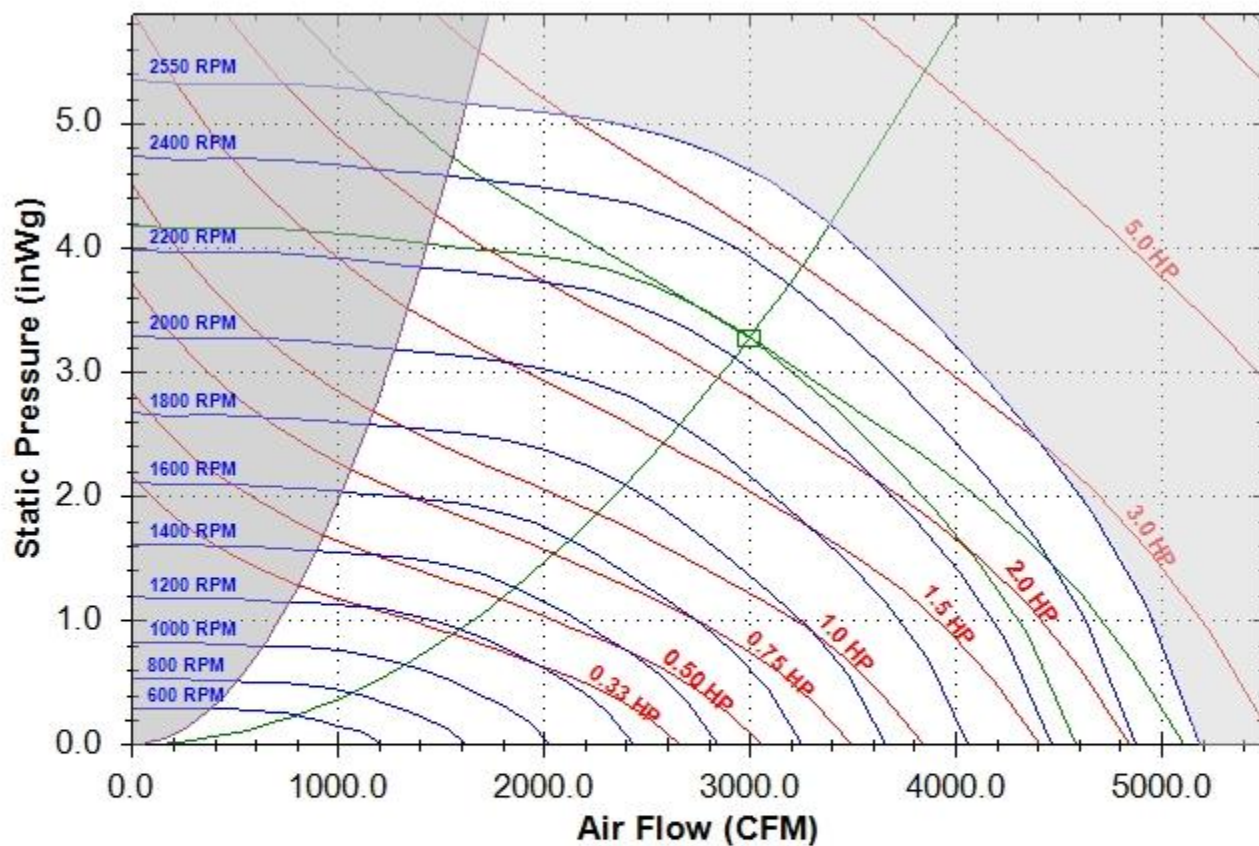
Mandatory	
Part Number	Description
910111672	CO2, Telaire, Duct Sensor
Optional	
Part Number	Description
910143408	DDC Space Sensor with Setpoint Adj and Tenant Over

Fan Curve - Exhaust for RTU



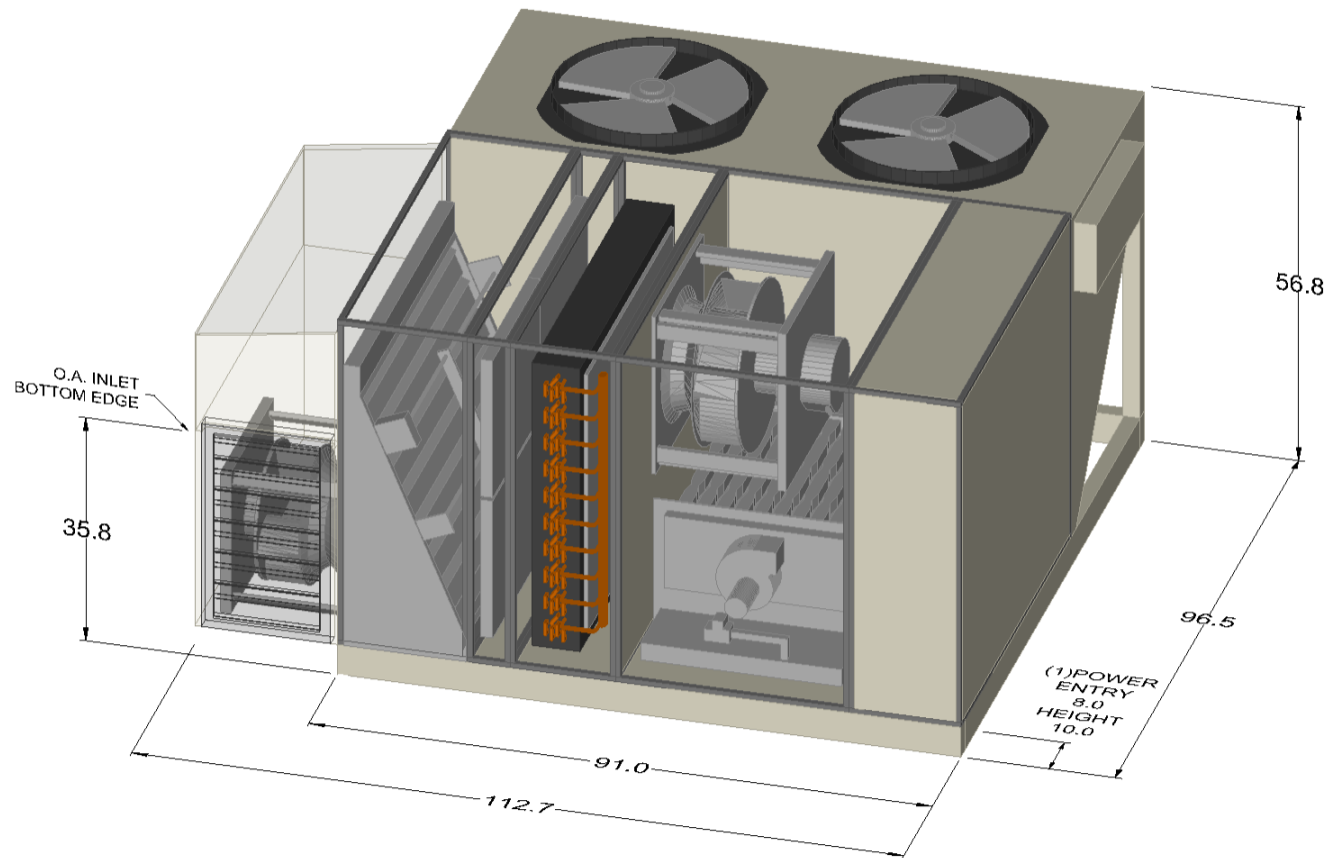
Fan Curve - Supply for RTU

Daikin Fan Selection




16.0 SWSI - Plenum Supply Fan at Standard Conditions								
Base Tag	RTU				Date	May-11-2017		
Job Name	MFA - Asian Health & Service Cen...				Time	7:33 AM		
Air Volume	3000	CFM			Fan Speed	2254	RPM	
Total Static	3.27	inWg			Max Speed	2550	RPM	
Brake Horsepower	2.34	HP			Efficiency	66	%	
Unit Sound Power	63hz	125hz	250hz	500hz	1000hz	2000hz	4000hz	8000hz
Inlet Sound Power	77	75	83	78	80	74	69	63
Outlet Sound Power	77	78	86	83	86	80	77	71
Radiated Sound Power	85	85	81	78	76	71	64	57



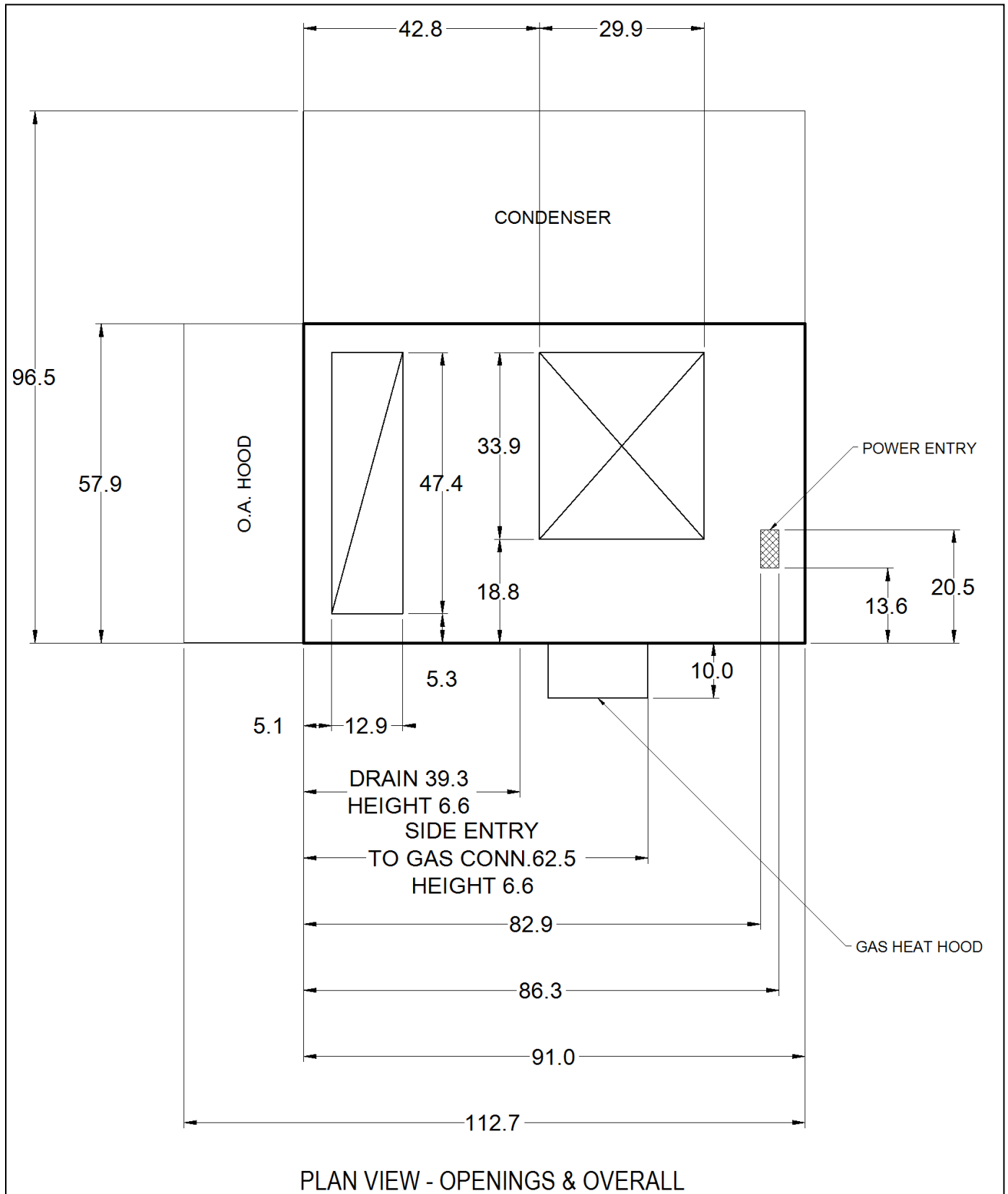



Notes:

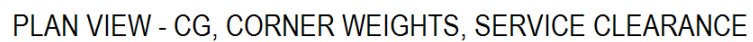
- (1) Recommended location for optional field cut side power connection.
- (2) Horizontal gas connection only. Gas pipe routing within the roofcurb is not available.

Product Drawing		Unit Tag: RTU			Sales Office: Air Reps, LLC (Oregon)			 13600 Industrial Park Blvd. Minneapolis, MN 55441 www.DaikinApplied.com Software Version: 05.50
Product:		Project Name: MFIA - Asian Health & Service			Sales Engineer:			
Model: DPS007A		May 11, 2017	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.								


Drawings(2) for RTU



Product Drawing	Unit Tag: RTU			 13600 Industrial Park Blvd. Minneapolis, MN 55441 www.DaikinApplied.com Software Version: 05.50		
Product:	Project Name: MFIA - Asian Health &					
Model: DPS007A	Sales Office: Air Reps, LLC (Oregon)					
Sales Engineer:	May 11, 2017	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.						

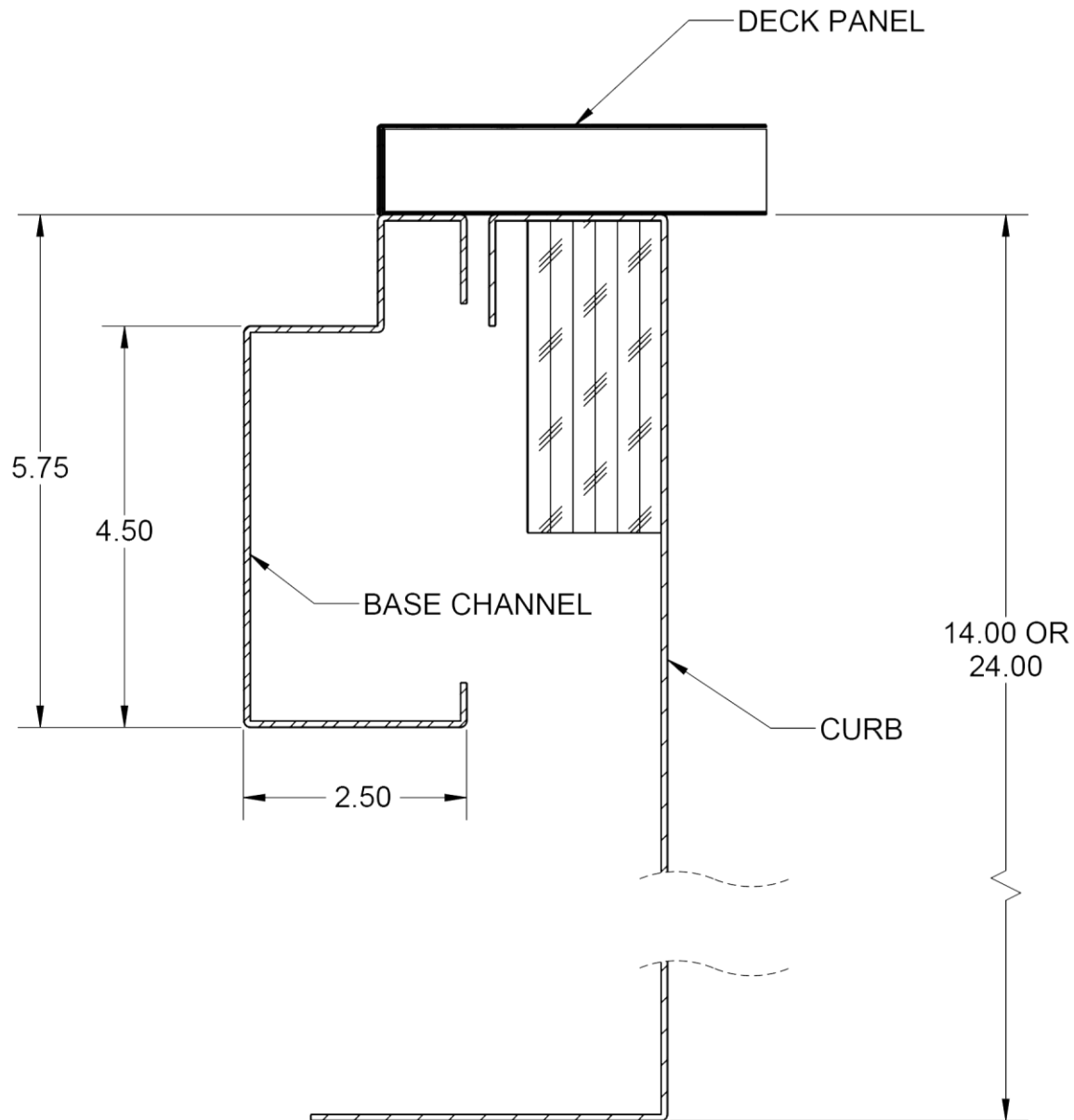



(1) Center of Gravity Height = 27
(2) Total Weight = 2282 lb

Product Drawing		Unit Tag: RTU		Sales Office: Air Reps, LLC (Oregon)			 13600 Industrial Park Blvd. Minneapolis, MN 55441 www.DaikinApplied.com Software Version: 05.50
Product:		Project Name: MFIA - Asian Health & Service		Sales Engineer:			
Model: DPS007A		May 11, 2017	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.

Base Channel Cross Section 3 to 15_Drawing for RTU



Product Drawing		Unit Tag: RTU			 13600 Industrial Park Blvd. Minneapolis, MN 55441 www.DaikinApplied.com Software Version: 05.50		
Product:		Project Name: MFIA - Asian Health &					
Model: DPS007A		Sales Office: Air Reps, LLC (Oregon)			Scale: NTS	Tolerance: +/-0.25"	Dwg Units: in [mm]
Sales Engineer:		May 11, 2017	Ver/Rev:	Sheet 1 of 1			
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.							

Rebel 113126601_Drawing for RTU

Overview

Smoke detectors are used to detect smoke in the return air stream, supply air stream, or both. A set of normally closed contact will open in the presence of smoke. This can be used to shut down the RTU by either cutting power across the terminal of a thermostat controlled RTU or as a signal to DDC controlled RTU.




Features

- Universal voltage: 24 VAC, 24 VDC, 115 VAC, or 230 VAC
- Visual indication of power and alarm status
- Two alarm contacts and one trouble contact
- Interchangeable "plug-in" photoelectric or ionization heads
- Compatible with building automation and fire alarm systems
- Dust filtering included in detector head
- Interconnect up to 30 detectors for common function

Specifications

Daikin Part Number	113126601
Supply Voltage	24 VAC: @ 35 mA standby, 74 mA alarm; 24 VDC: @ 15 mA standby, 56 mA alarm; 115 VAC: @ 25 mA standby, 32 mA alarm; 230 VAC @ 12 mA standby, 16 mA alarm
Frequency	50/60 Hz
Air Velocity	0–2000 fpm (0–10.2 mps)
Radioactive Element	For HS-100-N only Americium 241, 0.9 µCi
Relay Output Alarm	1-SPDT, 10A, 115 VAC, resistive; 1-SPST-NO, 2A Trouble 1-SPST-NC, 10A, 115 VAC, resistive
Wiring Terminations	Solid or stranded, 12 to 22 AWG terminals
Operating Humidity	0% to 85% RH non-condensing
Operating Temperature	HS-100-N 32° to 158°F (0° to 70°C)
Enclosure Rating	White plastic, NEMA 1
Dimensions	6" (Dia.) × 4.0"(H) (15.2 × 10.2 cm)

Product Drawing	Unit Tag: RTU			 13600 Industrial Park Blvd. Minneapolis, MN 55441 www.DaikinApplied.com Software Version: 05.50		
Product:	Project Name: MFIA - Asian Health &					
Model: DPS007A	Sales Office: Air Reps, LLC (Oregon)					
Sales Engineer:	May 11, 2017	Ver/Rev:	Sheet 1 of 1			
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.						

Introduction

The CO₂ sensor will communicate a signal to the MicroTech® III unit controller for applications that require demand control ventilation damper positioning. This device allows the Microtech III unit controller to modulate the outdoor air damper to maintain a PPM CO₂ set point.

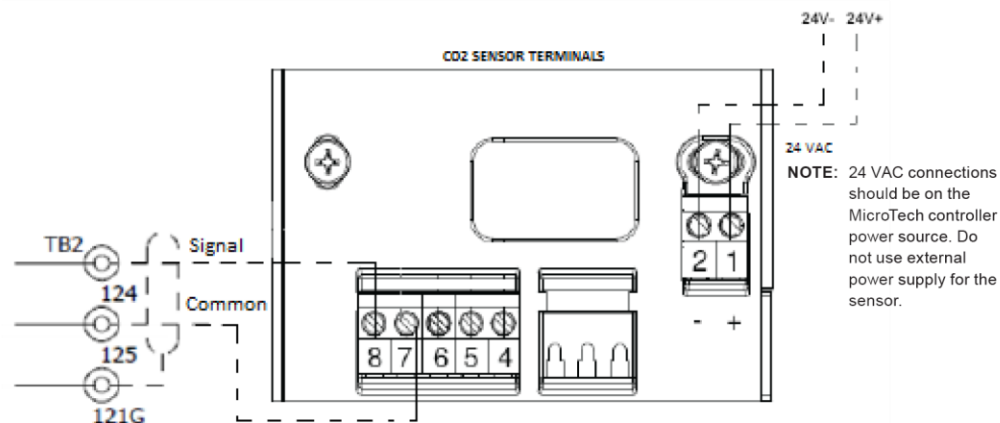
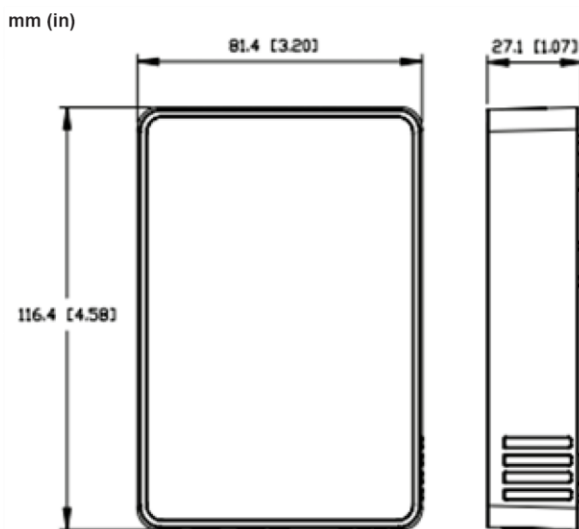
When the MicroTech III is performing Demand Control Ventilation (DCV) on a Constant Volume unit (CAV), the outside air damper modulates between the DCV limit and vent limit to maintain the CO₂ PPM set point.

When the MicroTech III is performing DCV on a Variable Air Volume (VAV) unit, the outside air damper modulates between the DCV limit and vent limit corresponding to the supply fan airflow to maintain the CO₂ PPM setpoint.



Specifications

Daikin Part Number	910111672
Power Consumption	Typical 0.7 W at nominal voltage of 24V AC RMS
Temperature Dependence	0.2% FS per °C (±0.11% per °F)
Operating Conditions	32°F to 122°F (0°C to 50°C) 0 to 95% RH, non-condensing
CO ₂ Warmup Time	< 2 minutes (operational) 10 minutes (maximum accuracy)
Signal Update	Every 5 seconds
Analog Output	0–10VDC
CO ₂ Range	0–2000 ppm



Product Drawing

Product:

Model: DPS007A

Unit Tag: RTU

Project Name: MFIA - Asian Health & Service

May 11, 2017

Ver/Rev:

Sheet: 1 of 1

Sales Office: Air Reps, LLC (Oregon)

Sales Engineer:

Scale: NTS

Tolerance: +/- 0.25"

Dwg Units: in [mm]

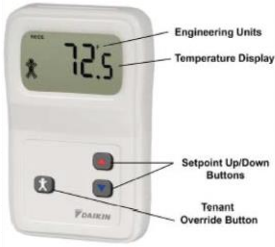
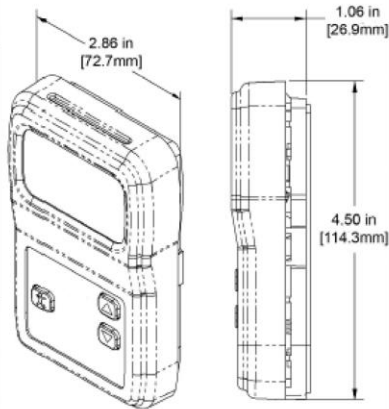


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www.DaikinApplied.com Software Version: 05.50

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Specifications

Daikin Part Number	910143408
Power	15 to 28 VAC (924 VAC nominal)
Power Consumption	0.17 VA maximum AC
Wiring	See Terminal section, page 3
Display	LCD – 3.5 digits @ 0.6 inch H Temperature display units — 0.1°(F/C) increments Setpoints in 0.5° steps
Button Options	Setpoint Up/Down buttons Tenant Override button
Environmental Ambient	Temperature – 32 to 122°F (0–50°C) Humidity – 0 95% RH non-condensing
Material	ABS plastic, UL94V-0



Introduction

The space temperature sensor is designed to work with the MicroTech® III unit controller and is a 10k thermistor used to measure the space conditions.

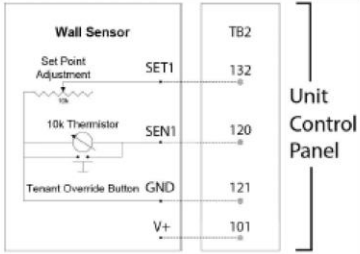
This device is not a traditional 7-day programmable thermostat. The sensor can be used on either constant air volume (CAV) or variable air volume (VAV) applications.


On CAV systems, it acts as the control device for the heating and cooling operations for occupied and unoccupied time periods.

On VAV systems, it is not traditionally used as the control device but used for the unoccupied heating and cooling space sensor.

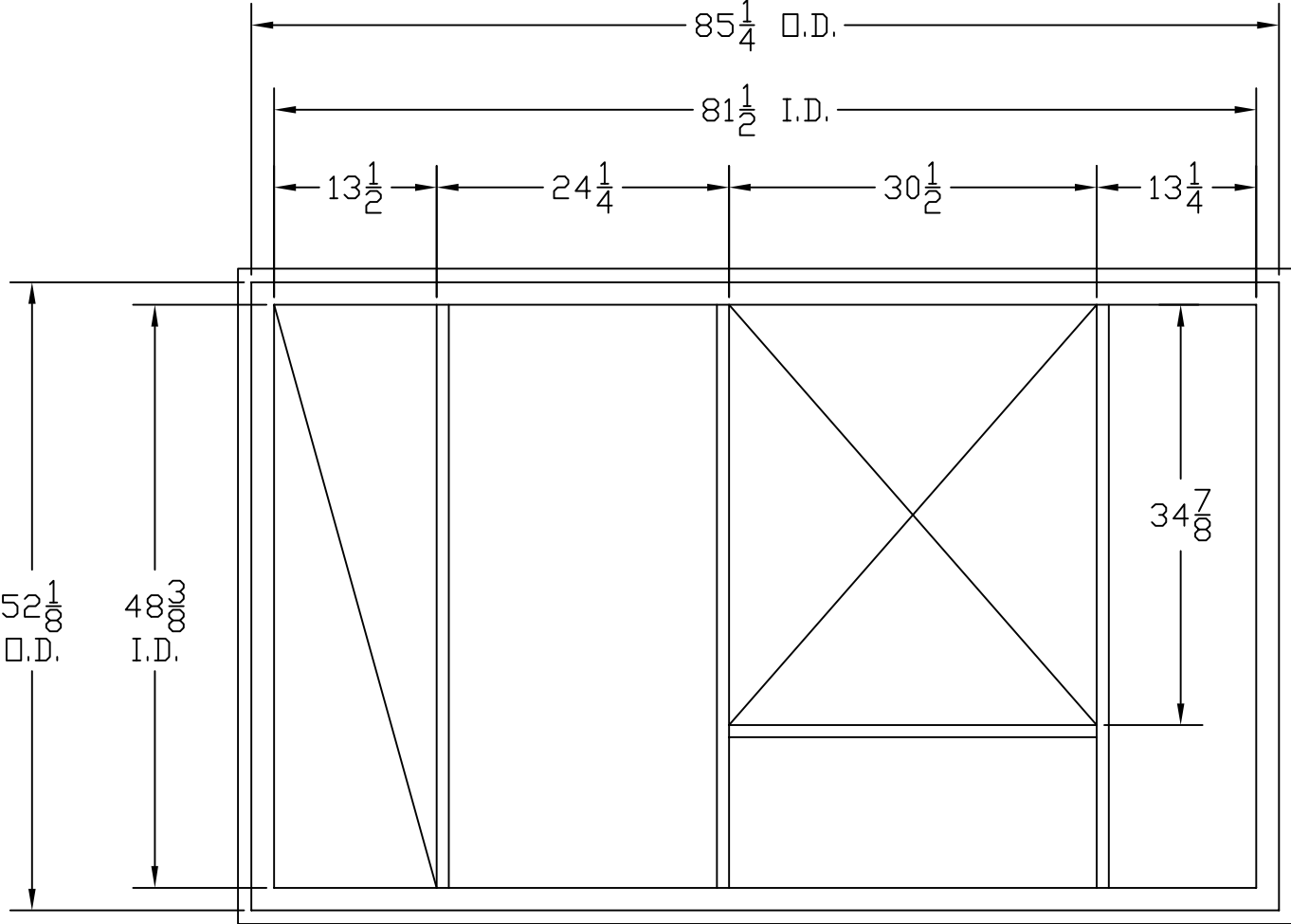
The sensor features a large format LCD display that senses the space temperature and displays the space temperature. It also has the setpoint adjustment keys to increase or decrease the setpoint. When the adjustment keys are first pressed, the display will show the current reading for the setpoint. Further pressing of these keys will change the setpoint value.

The sensor also has a tenant override button. Pressing this will initiate the tenant override sequence at the MicroTech III controller.

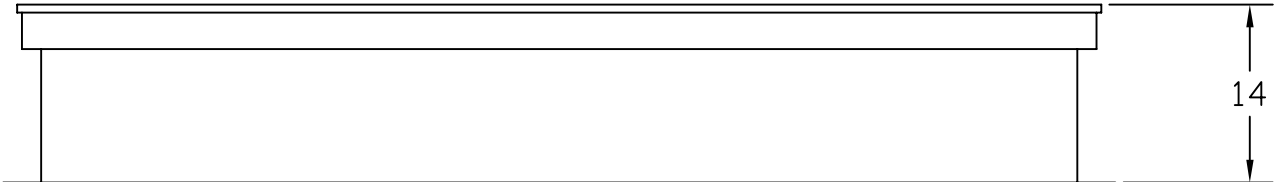


Product Drawing		Unit Tag: RTU			Sales Office: Air Reps, LLC (Oregon)			 13600 Industrial Park Blvd. Minneapolis, MN 55441 www.DaikinApplied.com Software Version: 05.50
Product:		Project Name: MFIA - Asian Health & Service			Sales Engineer:			
Model: DPS007A		May 11, 2017	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	
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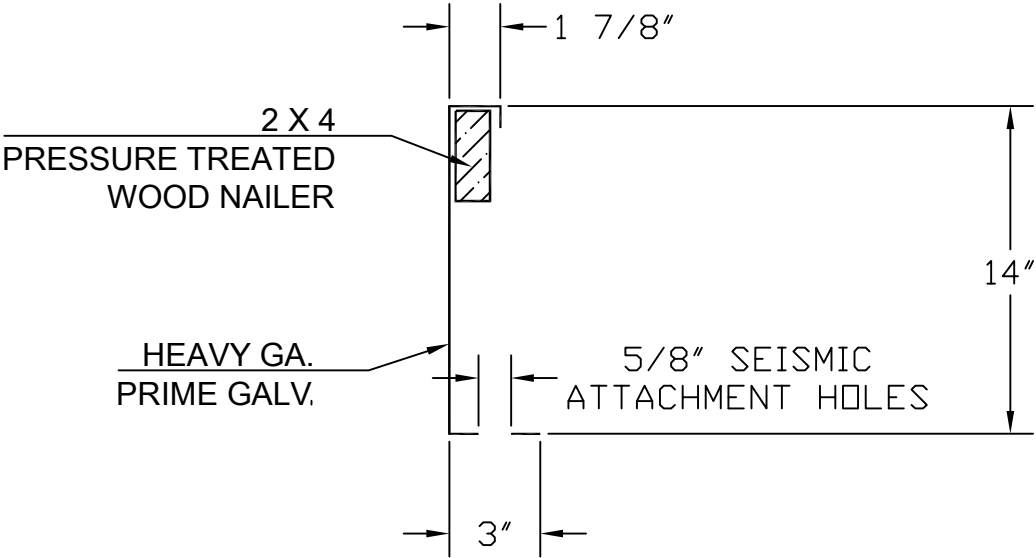
Roof Curb Info Follows



PLAN VIEW



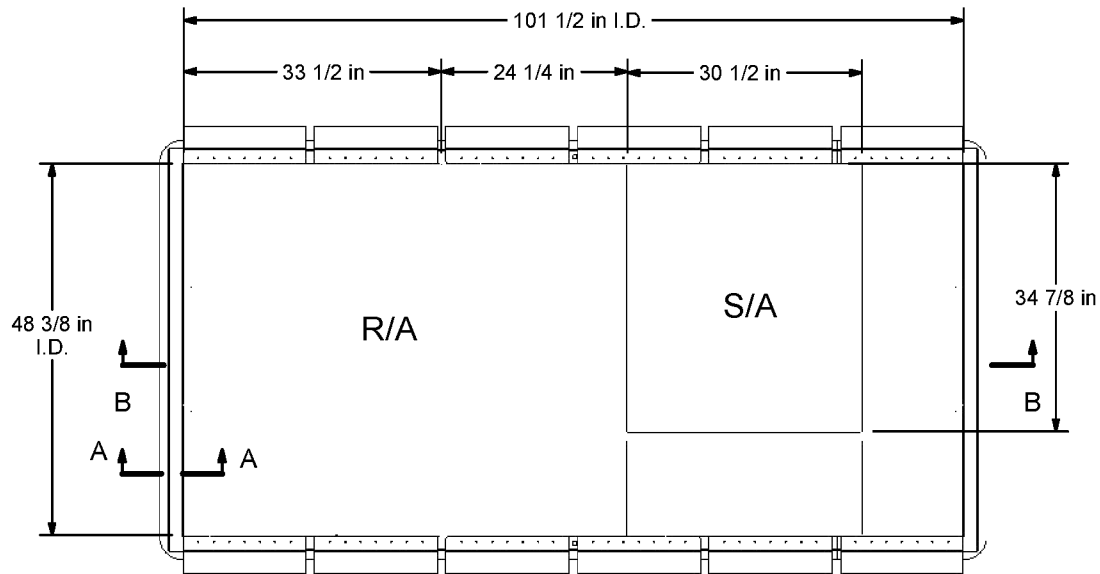
ELEVATION VIEW



TYP. SECTION VIEW

SUBMITTAL ONLY

CURB WALL THICKNESS AND RESTRAINT REQUIREMENTS TO BE DETERMINED BY SEISMIC/WINDLOAD CALCULATIONS.

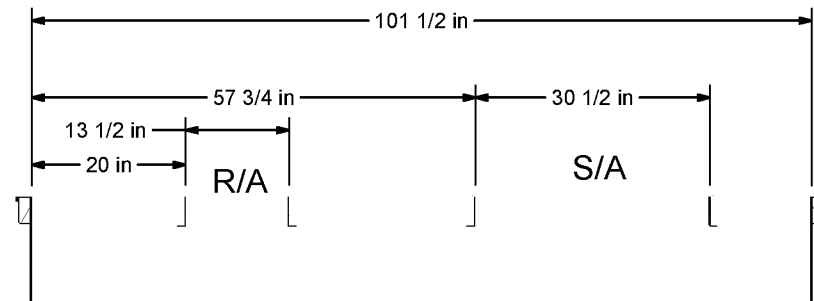


Tag: DOAS-1 Roof Curb
DPS-007 w/ ERW

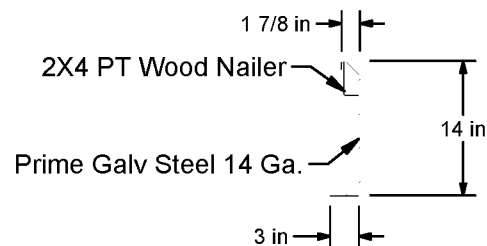
SUBMITTAL

Curb wall thickness and restraint requirements to be determined by seismic/windload calculations if required.

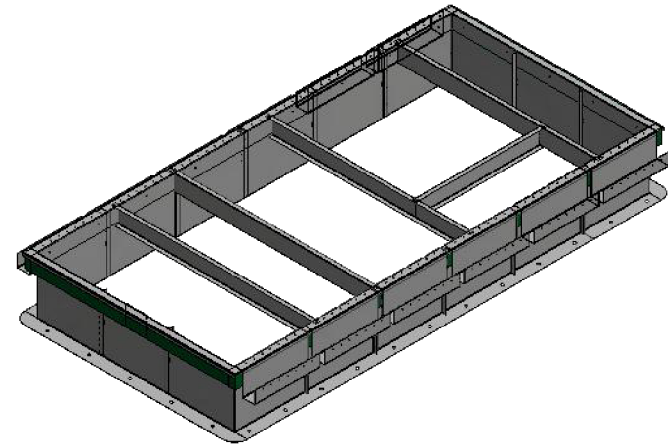
Verify roof pitch and direction



SECTION B-B



SECTION A-A



Seismic Calcs: DK_P4_200_TC5
Seismic Brackets: ACSWRDKB0012RC-01
Meets Wind Load/ Seismic requirements for IBC 2012 10psf Snow/Seismic/160mph Wind Load

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(DO NOT SCALE DRAWING)
Unless otherwise specified dimensions are in inches
tolerances are
± 1/16 ± 0.0625 ± 1°

Date: 1/5/2017

TC5 Roof Curbs Top Duct Supports
Daikin DPS007-015 ERW

Qty.: Job #:

Tag:

Drawn:
Knull

File: R5DSNDK0445914FL000F0

Rev:
D

Curb Weight
243 lbs.
Total Weight
244 lbs.

