

## SUBMITTAL DATA

Project: The Park Danforth

Mechanical Engineer: Allied Engineering

**Mechanical Contractor:** Titan Mechanical

Date: November 30, 2015

Product: Packaged Rooftop Units

**Specification Section:** 23 74 13

Revision: 0

Tag	Qty	Model / Description	Manufacturer
RTU-1	1	DPS-006 / Rebel Rooftop Unit	Daikin Applied
MUA-1	1	DPS-003 / Rebel Rooftop Unit	Daikin Applied

Note: Curbs are non-standard and will be submitted under a separate cover

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#### **Technical Data Sheet for RTU-1**

Job Information		Technical Data Sheet
Job Name	The Park Danforth	
Date	11/30/2015	
Submitted By	Briggs Equipment Sales	, Inc.
<b>Software Version</b>	04.00	
Unit Tag	RTU-1	



Unit Overview					
Model Number	Voltage	Design Cooling	AHRI360 Stand	dard Efficiency	ASHRAE 90.1
	V/Hz/Phase	<b>Capacity</b> Btu/hr	EER	IEER	
DPS006A	208/60/3	70545	11.3	19.3	ASHRAE 90.1-2013 compliant

Unit	
Model Number:	DPS006A
Model Type:	Cooling
Heat Type:	Gas
Hot Gas Reheat:	Modulating Hot Gas Reheat
Application:	Variable Air Volume, Single Zone
Outside Air:	0-100% Economizer with Comparative Enthalpy Control
Altitude:	0 ft
Approval	cETLus

Physical							
Dimensions and Weight							
Length	Height	Width	Weight				
67.0 in	40.8 in	87.0 in	1464 lb				
Corner Weights							
L1	L2	L2 L3 L4					
266 lb	263 lb	465 lb	470 lb				
	Constr	uction					
Exterior	Insulation and Liners	Air Openir	ng Location				
		Return	Supply				
Painted Galvanized Steel	1" Injected Foam, R-7, Galvanized Steel Liner	Bottom	Bottom				

Electrical		
MCA	MROPD	SCCR
31.0 A	45 A	5 kAIC

Return/Outside/Exhaust Air								
	Outside Air Option							
Туре	Damper Pressure Drop	Exhaust Air Type						
0-100% Econ with Comparative Enthalpy Control	0.09 inH₂O	Barometric Relief						

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#### **Technical Data Sheet for RTU-1**

Filter Section (1 Spare Set of Filters Provided - 2 Sets Total)							
	Physical						
Туре	Quantity / Size	Face Area	Face Velocity	Air Pressure Drop			
Combo 2"/4" rack with 2" MERV 8	4 / 16 in x 16 in x 2 in	7.1 ft²	380.3 ft/min	0.22			

DX Cooling Coil								
				Physical				
Coil Type	Fins per Inch	Rows	s F	ace Area	Face	e Velocity A	ir Pressure drop	<b>Drain Pan Material</b>
Cu Tube/ Al Fin	16	4	4 6.0 ft <sup>2</sup> 447.0 ft/min 0.62 inH <sub>2</sub> O				Stainless Steel	
			Coolin	g Performance				
Capa	icity	Refrigerant		Ind	oor Air T	emperature		Ambient Air
Total	Sensible	Туре		intering		Le	aving	Temperature
Btu/hr	Btu/hr		<b>Dry Bulb</b> °F	Wet B °F		<b>Dry Bulb</b> °F	Wet Bulb °F	°F
70545	70545	R410A	78.0	62.	0	54.1	52.9	95.0

Hot Gas Reheat Coil Section							
Туре	Face Area	Air Pressure Drop	Total Capacity	Leaving Air T	Temperature		
				Dry Bulb	Wet Bulb		
Aluminum Tube Micro-Channel	5.5 ft²	0.14 inH₂O	46561 Btu/hr	70.0 °F	58.9 °F		

Fan Section								
	Fan							
Туре		Fan Wheel Diameter			Fan Isolation			
SWSI AF		<b>16</b> in			None			
		Performance						
Airflow	Total Static Pressure	Fan Speed	Brake	Horsepower	Altitude			
2700 сғм	2.4 inH₂O	<sub>2</sub> O 2095 rpm 1.74 HP 0 ft			0 ft			
	M	otor			Drive			
Туре	Horsepower	Horsepower Efficiency FLA Type						
ECM Motor	4.0	Premium		8.8 A	Direct Drive			

Gas Heat Section							
Physical				Performance			
Size	Capacity	Air Tempera	ture Dry Bulb	Air Pressure	Gas Pr	essure	Modulation
(Input)	Btu/hr	Entering °F	<b>Leaving</b> °F	<b>Drop</b> inH₂O	<b>Minimum</b> inH₂O	<b>Maximum</b> inH₂O	
160 MBH	128000	60.0	103.7	0.60	7	14	Modulating 5:1 Turndown
Heat Exchang	ger Material: Stai	nless Steel					

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ndensing	Section									
nucrising	Section				Compressor					
Тур	ne .		Quantity	,	Total Power		Capa	city Control	Compi	essor Isolatio
	Inverter Scroll 1			4.5 kW	45 kW		Control with Compressors	Ruhl	per in Shear	
					Compressor Amp	os:				
	(	Compre	essor 1					15.0 A		
Compre	essor Options:	Suction	n and Dis	scharge Isolatio	n Valves					
					Condenser Coi					
	Туре				Fins per Inch				Fin Material	
	Copper Tub	e			16				Aluminum	
				C	Condenser Fan Mo	tors				
	N		f Motors					Full Load Cur	rent	
		1						2.0 A		
				AHRI 360 Certified	Data at AHRI 360		onditions			
	Net Capacity			EER		IEER		ASHRAE 90.1		
	70000 Btu/l	ır		11.3		19.3		ASHRAE 90.1-2013 compliant		
ernal Pres	sure Drop Ca	alculati	on							
	ternal Static Pre					0.75	inH₂O			
Filter:			0.22 inH₂O							
Outside Air:			0.09 inH₂O							
DX Coil:			0.62 inH₂O							
Hot Gas Reheat:			0.14 inH₂O							
	Gas	Heat:	0.60 inH₂O							
	Total Static Pre	ssure:	2.41 inH <sub>2</sub> O							
	Sound									
					Sound Po	wer (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	82		82	78	75	73		68	61	54
tions -										
tions										
					Unit					
	Ventilation Co	ntrols:	CO2 Sen	sor - Duct Mou						
			A1 -	10:	Electrical					
	Field Conne			ed Disconnect						
	<b>Powered Recep</b>	tacle.	Field no	wered 115V GF	Loutlet					

Warranty	
Standard:	One Year Entire Unit Parts Only Warranty
Compressor:	Additional Four Year, Five Year Total Compressor Parts Only Warranty
Gas Heat Exchanger:	Extended Nine Year, Ten Year Total Gas Heat Exchanger Parts Only Warranty

Communication Card: BACnet/MSTP card, Factory installed

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#### **Technical Data Sheet for RTU-1**

### AHRI Certification

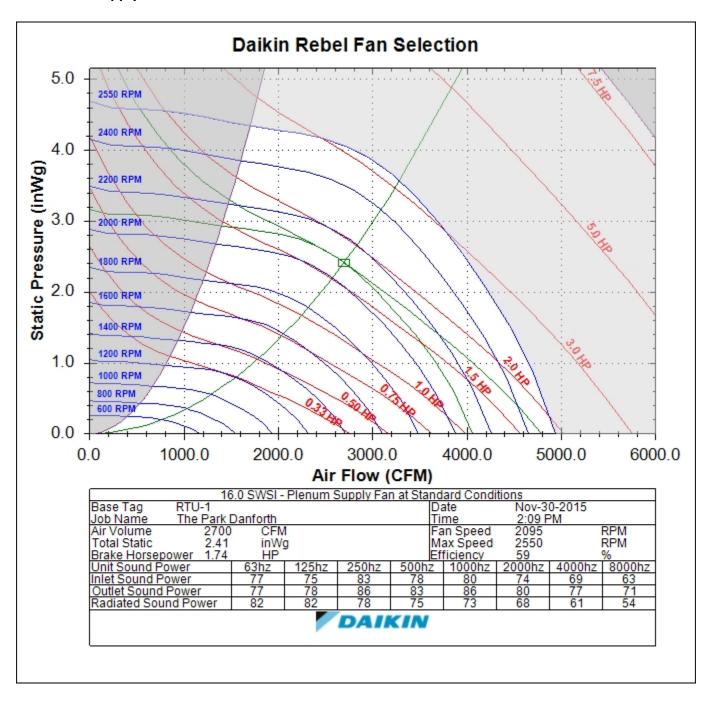


All equipment is rated and certified in accordance with AHRI 360.

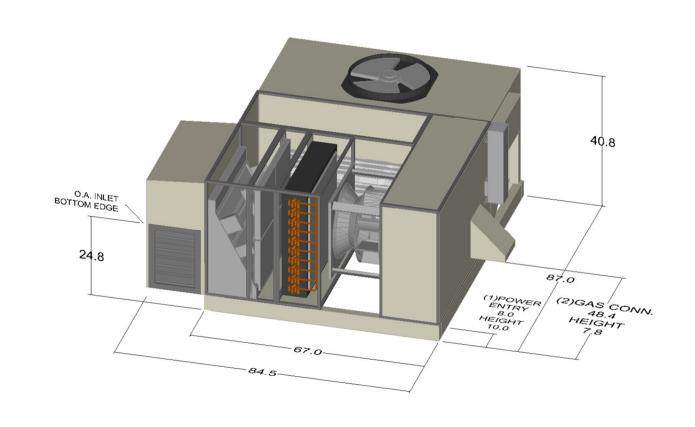
Accessories	
	Mandatory
Part Number	Description
910111672	CO2, Telaire, Duct Sensor
	Optional
Part Number	Description
910143408	DDC Space Sensor with Setpoint Adj and Tenant Over

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#### Fan Curve - Supply for RTU-1



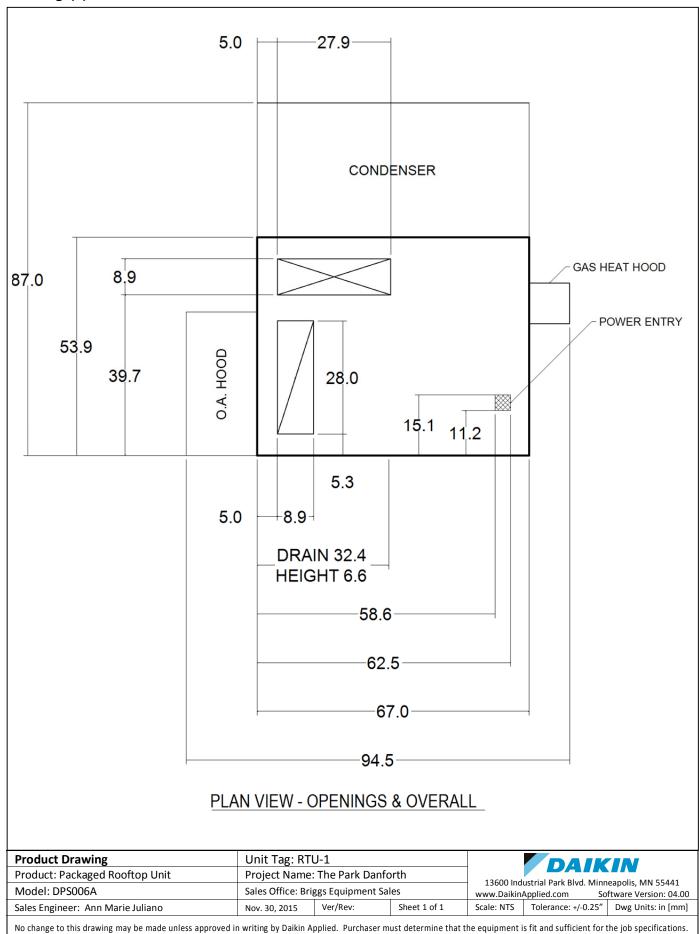
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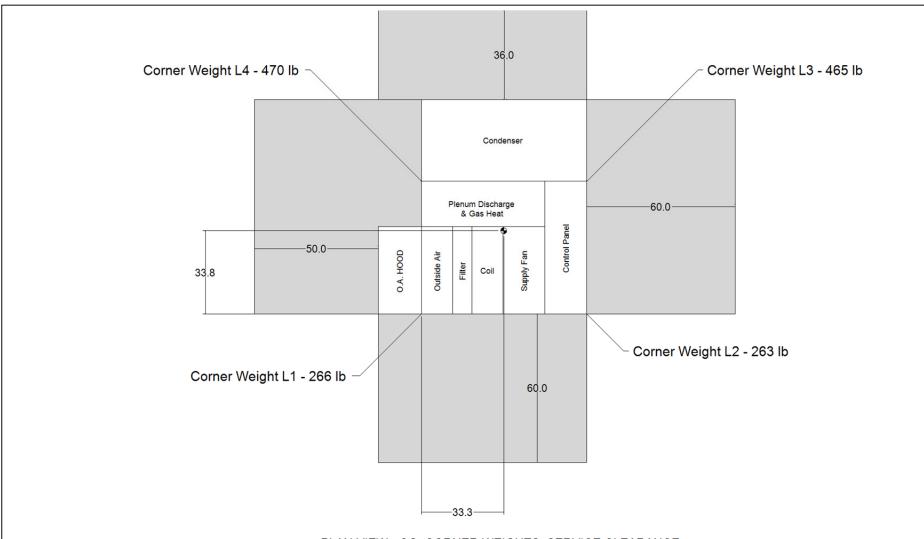
#### Notes:

- (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: Packaged Rooftop Unit Project Name: The Park Danforth Sales Engineer: Ann Marie Juliano  Madely DRS006A  13600 Industrial Park Blvd. Minneapolis, MN 55	Product Drawing	Unit Tag: RTU	J-1		Sales Office	e: Briggs Equipment Sa	ales	DA	IKIN
Model DDCOOCA	Product: Packaged Rooftop Unit	Project Name: The Park Danforth		Sales Engineer: Ann Marie Juliano					
www.baixinApplieu.com Software version.	Model: DPS006A	Nov. 30, 2015	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	www.DaikinApplied.com	Software Version: 04.0



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PLAN VIEW - CG, CORNER WEIGHTS, SERVICE CLEARANCE

Notes:

(1) Center of Gravity Height = 20.5 (2) Total Weight = 1464 lb

Product Drawing	Unit Tag: RTU-1			Sales Office: Briggs Equipment Sales			
Product: Packaged Rooftop Unit	Project Name: The Park Danforth			Sales Engineer: Ann Marie Juliano			13600 Industrial F
Model: DPS006A	Nov. 30, 2015	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	www.DaikinApplied

DAIKIN al Park Blvd. Minneapolis, MN 55441 Software Version: 04.00

#### **Technical Data Sheet for MUA-1**

Job Information		Technical Data Sheet
Job Name	The Park Danforth	
Date	11/30/2015	
Submitted By	Briggs Equipment Sales	, Inc.
<b>Software Version</b>	04.00	
Unit Tag	MUA-1	



Unit Overview						
Model Number	Voltage	Design Cooling	AHRI 210 Stan	ASHRAE 90.1		
	V/Hz/Phase	<b>Capacity</b> Btu/hr	EER	SEER		
DPS003A	208/60/3	35577	13.2	16.5	ASHRAE 90.1-2013 compliant	

Unit	
Model Number:	DPS003A
Model Type:	Cooling
Heat Type:	Gas
Hot Gas Reheat:	Modulating Hot Gas Reheat
Application:	Variable Air Volume, Single Zone
Outside Air:	100% Outside Air
Altitude:	0 ft
Approval	cETLus

Physical						
Dimensions and Weight						
Length	Height	Width	Weight			
67.0 in	40.8 in	87.0 in	1287 lb			
Corner Weights						
L1	L2	L3	L4			
199 ІЬ	223 lb	457 lb	408 lb			
Construction						
Exterior	Insulation and Liners	Air Openir	g Location			
		Return	Supply			
Painted Galvanized Steel	1" Injected Foam, R-7, Galvanized Steel Liner	None	Horizontal			

Electrical						
MCA	MROPD	SCCR				
15.0 A	20 A	5 kAIC				

Return/Outside/Exhaust Air					
	Outside Air Option				
Туре	Damper Pressure Drop	Exhaust Air Type			
100% OA Hood	0.08 inH₂O	None			

Filter Section (1 Sp	(1 Spare Set of Filters Provided - 2 Sets Total)										
Physical											
Туре	Quantity / Size	Face Area	Face Velocity	Air Pressure Drop							
Combo 2"/4" rack wi	h 4 / 16 in x 16 in x 2 in	7.1 ft²	194.4 ft/min	0.06							

#### **Technical Data Sheet for MUA-1**

<b>DX Cooling Coil</b>	DX Cooling Coil												
Physical													
Coil Type	Fins per Inch	Rows	; Fa	ce Area	Face	Velocity	Air Pressure drop	<b>Drain Pan Material</b>					
Cu Tube/ Al Fin	16	3		4.8 ft <sup>2</sup>	285	.7 ft/min	0.20 inH₂O	Stainless Steel					
	Cooling Performance												
Сарас	ity	Refrigerant		Ind	oor Air Te	emperature		Ambient Air					
Total	Sensible	Туре	E	ntering			Leaving	Temperature					
Btu/hr	Btu/hr		<b>Dry Bulb</b> °F	Wet B °F		<b>Dry Bulb</b> °F	Wet Bulb °F	°F					
35577	35577	R410A	78.0	62.	0	54.4	53.0	95.0					

Hot Gas Reheat Coil Section												
Туре	Face Area	Air Pressure Drop	Total Capacity	Leaving Air T	emperature							
				Dry Bulb	Wet Bulb							
Aluminum Tube Micro-Channel	4.5 ft <sup>2</sup>	0.10 inH <sub>2</sub> O	23323 Btu/hr	70.0 °F	58.9 °F							

Fan Section												
Fan												
Туре	Type Fan Wheel Diameter Fan Isolation											
SWSI AF	SWSI AF 12 in None											
	Performance											
Airflow	Total Static Pressure	Fan Speed	Bral	ke Horsepower	Altitude							
1380 сғм	<b>1.4</b> inH₂O	2062 rpm		0.52 нр	0 ft							
	Motor											
Туре	Horsepower	Efficiency		FLA	Туре							
ECM Motor	1.3	Premium		3.1 A	Direct Drive							

Gas Heat Section	on						
Physical				Performance			
Size	Capacity	Air Temperat	ture Dry Bulb	Air Pressure	Gas Pr	essure	Modulation
(Input)	Btu/hr	Entering °F	<b>Leaving</b> °F	<b>Drop</b> inH₂O	<b>Minimum</b> inH₂O	<b>Maximum</b> inH₂O	
160 MBH	128000	-10.0	75.5	0.16	7	14	Modulating 5:1 Turndown
Heat Exchang	ger Material: Stai	nless Steel					

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**Total Static Pressure:** 

echnical Data Sheet f	or MUA-1						
<b>Condensing Section</b>							
		Con	npressor				
Туре	Quantity	Tota	al Power	Capacity	/ Control	Compressor Isolation	
Inverter Scroll	1	2	.0 kW		ntrol with ompressors	Rubber in Shear	
		Compre	essor Amps:				
	Compressor 1				7.7 A		
Compressor Options:	Suction and Discharge	Isolation Valve	es				
		Cond	enser Coil				
Туре		Fins	per Inch		F	Fin Material	
Copper Tu	Copper Tube			16			
		Condense	er Fan Motors				
1	Number of Motors		Full Load Current				
	1		0.9 A				
	AHRI 21	.0 Certified Data at	: AHRI 210 Standar	d Conditions			
Net Capacit	:у	EER	SEER		A:	SHRAE 90.1	
35500 Btu/	hr hr	13.2	16.5	i	ASHRAE 90	0.1-2013 compliant	
Internal Pressure Drop C							
External Static Pr	essure:			.85 inH₂O			
Filter:			0.06 inH₂O				
Outside Air: 0.08 inH₂O							
	OX Coil:			.20 inH₂O			
Hot Gas F	Reheat:			.10 inH₂O			
Ga	s Heat:		0	.16 inH₂O			

	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						

 $1.44 \; \text{inH}_{\text{2}}\text{O}$ 

Options	
	Unit
Ventilation Controls:	CO2 Sensor - Duct Mounted
	Electrical
Field Connection:	Non-Fused Disconnect Switch
Powered Receptacle:	Field powered 115V GFI outlet
	Controls
Communication Card:	BACnet/MSTP card, Factory installed

Warranty	
Standard:	One Year Entire Unit Parts Only Warranty
Compressor:	Additional Four Year, Five Year Total Compressor Parts Only Warranty
Gas Heat Exchanger:	Extended Nine Year, Ten Year Total Gas Heat Exchanger Parts Only Warranty

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#### **Technical Data Sheet for MUA-1**

### AHRI Certification

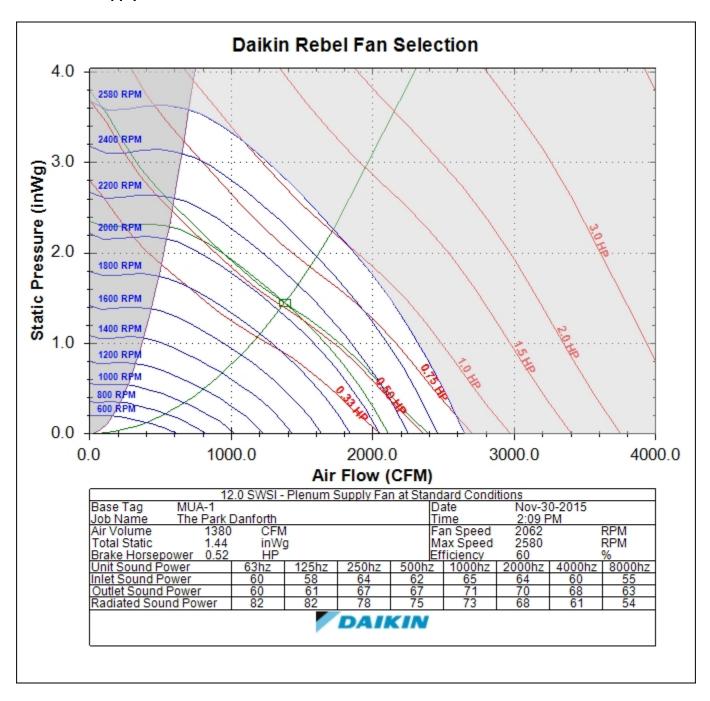


All equipment is rated and certified in accordance with AHRI 360.

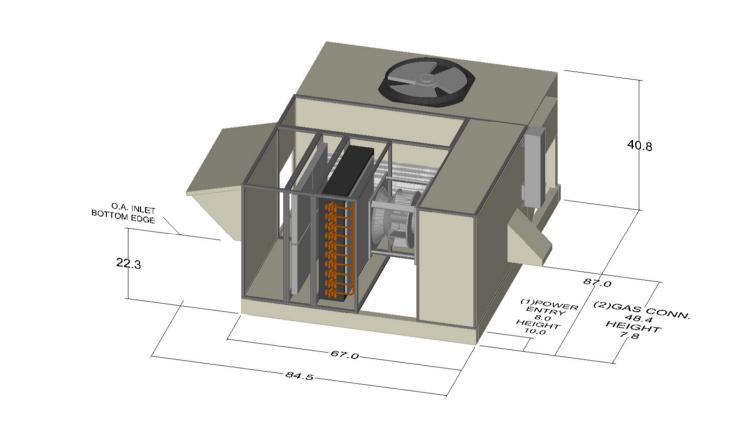
Accessories	
	Mandatory
Part Number	Description
910111672	CO2, Telaire, Duct Sensor
	Optional
Part Number	Description
910143408	DDC Space Sensor with Setpoint Adj and Tenant Over

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#### Fan Curve - Supply for MUA-1



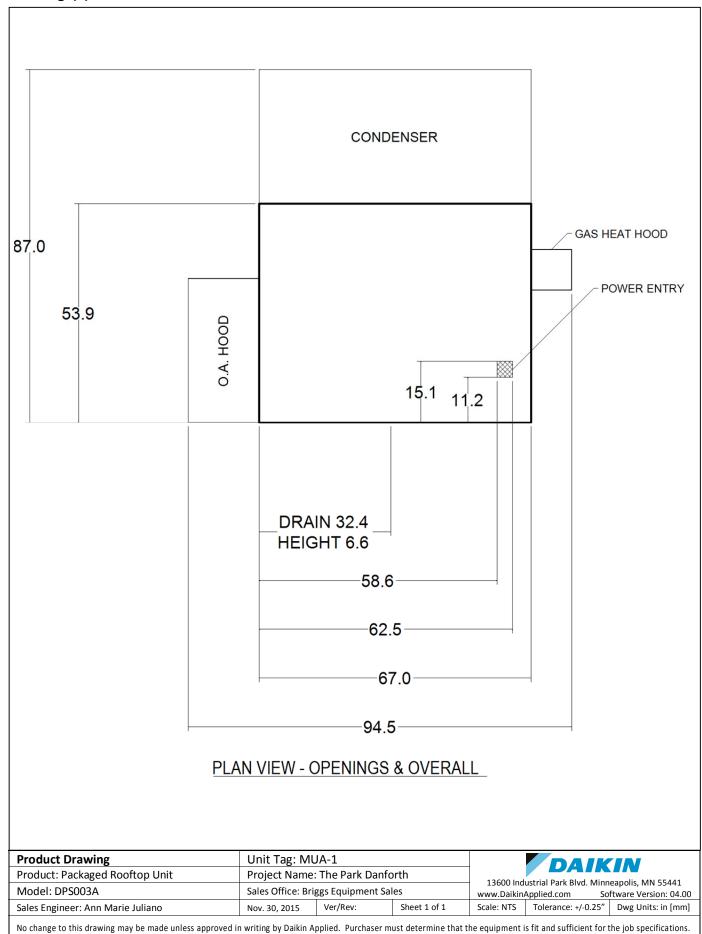
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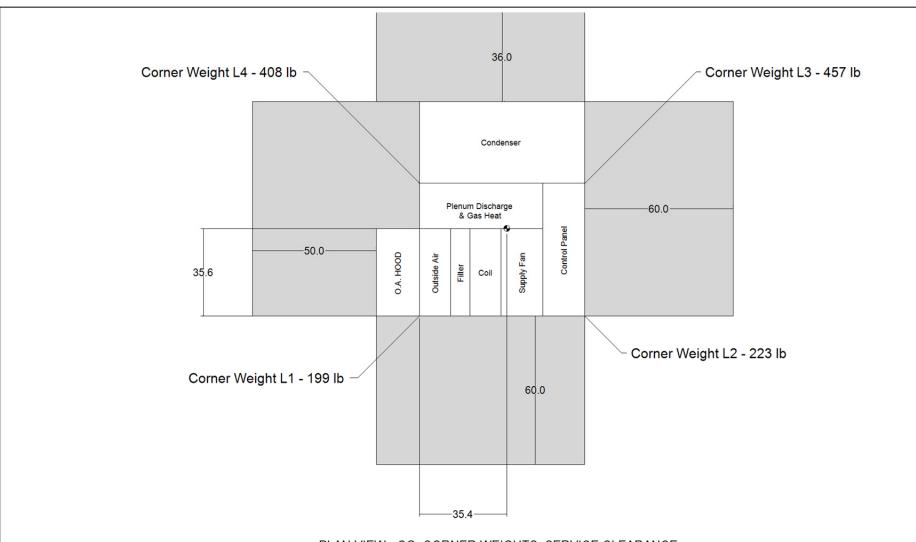
#### Notes:

- (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: MUA-1			Sales Office	e: Briggs Equipment Sa	ales	DAIKIN		
Product: Packaged Rooftop Unit	Project Name: The Park Danforth			Sales Engineer: Ann Marie Juliano				
Model: DPS003A	Nov. 30, 2015	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Scale: NTS Tolerance: +/- 0.25" Dwg Units: in [mm]		13600 Industrial Park Blvd. Minneapolis, MN 5 www.DaikinApplied.com Software Version	



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PLAN VIEW - CG, CORNER WEIGHTS, SERVICE CLEARANCE

#### Notes:

(1) Center of Gravity Height = 20.4 (2) Total Weight = 1287 lb

Product Drawing	Unit Tag: MUA-1			Sales Office	e: Briggs Equipment Sa	DA	
Product: Packaged Rooftop Unit	Project Name: The Park Danforth			Sales Engin	eer: Ann Marie Julian	13600 Industrial Park Blvd	
Model: DPS003A	Nov. 30, 2015 Ver/Rev: Sheet: 1 of 1			Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	www.DaikinApplied.com

AIKIN lvd. Minneapolis, MN 55441 Software Version: 04.00



Product Drawing	Unit Tag: MU	JA-1		Sales Office: Briggs Equipment Sales			DAIKIN			
Product: Packaged Rooftop Unit	Project Name:	The Park Danfor	rth	Sales Engin	eer: Ann Marie Julian	10	13600 Industrial Park Blvd. Minneapolis, MN 55441			
Model: DPS003A	Nov. 30, 2015	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	www.DaikinApplied.com	Software Version: 04.00		

PLAN VIEW - SIDE OPENING LOCATION

## CO<sub>2</sub> Sensor

#### Introduction

The  $\mathrm{CO}_2$  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  $\mathrm{CO}_2$  set point.

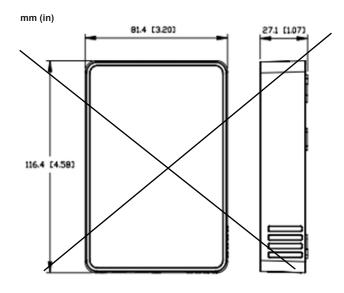
When the MicroTech III is performing Demand Control Ventilation (DCV) on a Constant Volume unit (CAV), the outside air damper modulates between the DCV limit and vent limit to maintain the CO<sub>2</sub> PPM set point.

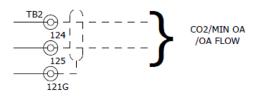
When the MicroTech III is performing DCV on a Variable Air Volume (VAV) unit, the outside air damper modulates between the DCV limit and vent limit corresponding to the supply fan airflow to maintain the  $\mathrm{CO_2}$  PPM setpoint.



## **Specifications**

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)			
Operating Conditions	0 to 95% RH, non-condensing			
CO Warmin Time	< 2 minutes (operational)			
CO <sub>2</sub> Warmup Time	10 minutes (maximum accuracy)			
Signal Update	Every 5 seconds			
Analog Output	0-10VDC			
CO <sub>2</sub> Range	0–2000 ppm			





$\geq$	Duct Mounted Sensor	P/N: 91011672			
	Wall Mounted Sensor	P/N: 107287012	2		



## **Zone Sensor with Set Point Adjustment and Tenant Override**

#### **Front Panel**

The display is standard for all sensors. The functional keys on the display include the setpoint adjustment buttons and the tenant override button, as well as a numerical display to view changes.

## **Setpoint Buttons**



When pressed, the setpoint will display for three to four seconds. When pressed again, the setpoint will change in one degree increments. It will only change within the setpoint range that was ordered.

#### **Tenant Override Button**



When the override button is pressed for 3-5 seconds the tenant override function will be initiated per the MicroTech III controller. The amount of time that the unit will come out of the unoccupied mode and operate in the tenant override mode is adjustable at the unit controller.

#### **Numerical Display**

The default display shows current temperature. When the up/down buttons are pushed, then the display will show and adjust the current setpoint and hold the display for 3 to 4 seconds. The unit can also be set up to display setpoint only or for setpoint lockout.

#### **Sensor Specs**

#### Power:

15 to 28 VAC 924 VAC nominal)

#### **Power Consumption:**

.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

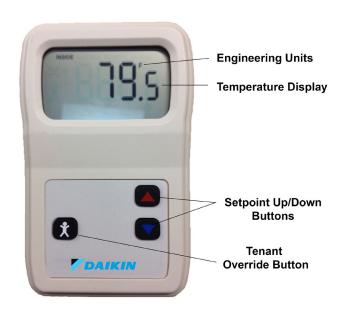
#### **Environmantal Ambient:**

Temperature - 32 to 122°F (0 to 50°C)

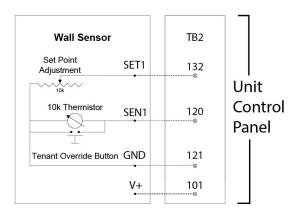
Humidity - 0 to 95% RH non-condensing

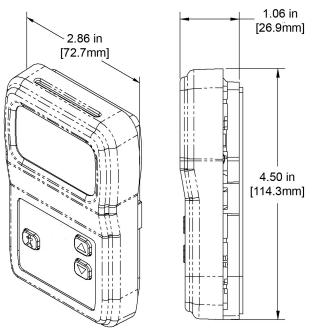
#### Material:

ABS plastic, UL94V-0



#### Wire Connections





# American Air Filter

## PerfectPleat® M8 - MERV 8

#### **Product Information Standard Sizes**

Nominal Sizes	<b>Actual Sizes</b>	Rated Airflow Capacity					Per Filter $oldsymbol{ee}$	
(Inches) (W x H x D)	(Inches) (W x H x D)	300 FPM	(SCFM) 500 FPM	625 FPM	PerfectPleat M8 1"	PerfectPleat 1"	PerfectPleat M8 2"	PerfectPlea 2"
10 x 10 x 1 10 x 20 x 1 12 x 12 x 1 12 x 20 x 1 12 x 24 x 1 14 x 20 x 1	9 <sup>1</sup> / <sub>2</sub> x 9 <sup>1</sup> / <sub>2</sub> x <sup>3</sup> / <sub>4</sub> 9 <sup>1</sup> / <sub>2</sub> x 19 <sup>1</sup> / <sub>2</sub> x <sup>3</sup> / <sub>4</sub> 11 <sup>1</sup> / <sub>2</sub> x 11 <sup>1</sup> / <sub>2</sub> x <sup>3</sup> / <sub>4</sub> 11 <sup>1</sup> / <sub>2</sub> x 19 <sup>1</sup> / <sub>2</sub> x <sup>3</sup> / <sub>4</sub> 11 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x <sup>3</sup> / <sub>4</sub> 13 <sup>1</sup> / <sub>2</sub> x 19 <sup>1</sup> / <sub>2</sub> x <sup>3</sup> / <sub>4</sub>	200 400 300 500 600	350 700 500 850 1000 1000	02011111	11 11 14 14 14 16	11 11 14 14 14		
14 x 25 x 1 15 x 20 x 1 16 x 16 x 1 16 x 20 x 1 16 x 25 x 1 18 x 20 x 1 18 x 24 x 1 18 x 25 x 1 20 x 20 x 1	13½ x 24½ x ¾ 14½ x 19½ x ¾ 15½ x 15½ x ¾ 15½ x 15½ x ¾ 15½ x 19½ x ¾ 15½ x 24½ x ¾ 17½ x 24½ x ¾	750 650 550 650 850 759 900 950 850	1200 1950 900 1100 1400 1250 1500 1550 1400		16 17 19 19 19 21 21 21 21 24	16 17 19 19 19 21 21 21 21 24		
20 x 25 x 1 24 x 24 x 1 25 x 25 x 1	19½ x 24½ x ¾ 23¾ x 23¾ x ¾ 24½ x 24½ x ¾	1050 1200 1300	1750 2000 2200		24 29 30	24 29 30	$\downarrow$	
10 x 20 x 2 12 x 20 x 2 12 x 24 x 2 14 x 25 x 2 15 x 20 x 2 15 x 25 x 2	9½ x 19½ x 1³¼ 11½ x 19½ x 1³¼ 11³/ <sub>8</sub> x 23³/ <sub>8</sub> x 1³¼ 13¾ x 23½ x 1³/ <sub>4</sub> 13½ x 24½ x 1³/ <sub>4</sub> 14½ x 19½ x 1³/ <sub>4</sub> 14½ x 24½ x 1³/ <sub>4</sub>	400 500 600 750 650 800	700 850 1000 1200 1050 1300	850 1050 1250 1500 1300 1650			11 14 14 16 17 17	8 10 10 11 12 12
16 x 16 x 2 16 x 20 x 2 16 x 24 x 2 16 x 25 x 2	15½ x 15½ x 1³¼ 15½ x 19½ x 1³¼ 15¾ x 23¾ x 1³¼ 15½ x 24½ x 1¾	550 650 800 850	900 1100 1350 1400	1100 1400 1650 1750			19 19 19 19	13 13 13 13
18 x 25 x 2 18 x 24 x 2 20 x 20 x 2 20 x 24 x 2 20 x 25 x 2	17 <sup>1</sup> / <sub>2</sub> x 24 <sup>1</sup> / <sub>2</sub> x 1 <sup>3</sup> / <sub>4</sub> 17 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 1 <sup>3</sup> / <sub>4</sub> 19 <sup>1</sup> / <sub>2</sub> x 19 <sup>1</sup> / <sub>2</sub> x 1 <sup>3</sup> / <sub>4</sub> 19 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 1 <sup>3</sup> / <sub>4</sub> 19 <sup>1</sup> / <sub>2</sub> x 24 <sup>1</sup> / <sub>2</sub> x 1 <sup>3</sup> / <sub>4</sub>	950 900 850 1000 1050	1550 1500 1400 1650 1750	1950 1900 1750 2100 2150			21 21 24 24 24 24	15 15 17 17 17
24 x 24 x 2 25 x 25 x 2	23 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 1 <sup>3</sup> / <sub>4</sub> 24 <sup>1</sup> / <sub>2</sub> x 24 <sup>1</sup> / <sub>2</sub> x 1 <sup>3</sup> / <sub>4</sub>	1200 1300	2000 2150	2500 2700			29 30	20 21

PerfectPleat and PerfectPleat M8 filters are classified UL Class 2. Testing was performed according to UL Standard 900 and CAN 4-S111.

#### Performance Data

Filter	Filter	Pleats Per	Rated Initial Resistance (in. w.g.)		Recommended Final Resistance	ASHRAE 52.2 MERV	Continuous Operating Temperature Limits			
		Lineal Foot	300 FPM	500 FPM	625 FPM	(in. w.g.)		°F	°C	
>	PerfectPleat M8 2	2" 15.0	.16	.33	.43	1.0	8	170°	77°	
	PerfectPleat 2"	10.0	.14	.30	.45	1.0	7	170°	77°	
	PerfectPleat M8 1	1" 15.0	.31	.62		1.0	8	170°	77°	
	PerfectPleat 1"	15.0	.20	.48		1.0	7	170°	77°	



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