



NO EXCEPTIONS TAKEN

MAKE CORRECTIONS NOTED

AMEND & RE-SUBMIT

SUBMIT SPECIFIED ITEM

REJECTED-SEE REMARKS

SEE COMMENTS BELOW

CHECKING IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. ANY ACTION SHOWN IS SUBJECT TO THE REQUIREMENTS OF THE DRAWINGS 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 THE WORK WITH THAT OF OTHER TRADES AND THE SATISFACTORY PERFORMANCE OF THE WORK.

Stephen P. Doel
SIGNATURE

9/5/13
REVIEW DATE

Project: Marriott Hotel - Portland, Maine

Submittal: Daiken McQuay RTU

Comments: MAKE CORRECTIONS NOTED

1. HVAC5, 6, 7 need to be resubmitted. Others are OK.



SUBMITTAL DATA

Project: Marriott Hotel

Mechanical Engineer: Bennett Engineering

Mechanical Contractor: Warren Mechanical

Date: July 30, 2013

Product: Heating Ventilating and Air Conditioning Units

Specification Section: 230000-8

Revision: 00

Tag	Qty	Model / Description	Manufacturer
HV-1	1	MPS-005 Package RTU	Daikin McQuay
HV-2, 5, 6, 7	4	MPS-007 Package RTU	Daikin McQuay
HV-3, 8	2	MPS-005 Package RTU	Daikin McQuay
HV-9	1	MPS-010 Package RTU	Daikin McQuay
HV-C2-2	1	MPS003 Package RTU	Daikin McQuay

Comments / Notes



*An Authorized
Representative for
Northern New England*

Job Information		Technical Data Sheet
Job Name	Marriott Hotel	
Date	7/30/2013	
Submitted By	Briggs Equipment Sales, Inc.	
Software Version	03.61	
Unit Tag	HVAC-1	



Unit Overview					
Model Number	Voltage	Design Cooling Capacity	AHRI 360 Standard Efficiency		ASHRAE 90.1
			EER	SEER	
MPS005B	208/60/3	61607 Btu/hr	11.1	13.0	2010 Compliant

Unit					
Unit Dimensions and Weights					
Unit Length	Unit Height	Unit Width	Unit Weight		
75.5 in	35.0 in	46.5 in	737 lb		
Unit Construction					
Exterior:	Powder Coat Galvanized	Doors:	Fan, Filter, Coil, Control Panel, and Economizer section		
Insulation:	3/4" foil face with mechanical fasteners, R value of 3.6	Approval Listing:	cULus		
Liners:	Single wall construction	Drain Pan Material	Polymer		
Unit Electrical Data					
Voltage	SCCR	MCA	MROPD		
208/60/3 v	5 kAIC	26.0 A	40 A		
Field Connection:	Non-Fused Disc Sw, Field powered 115V GFI outlet				
Control Data					
Temperature Controls:	Electromechanical Controls			Application:	
				Constant volume	

Return/Outside/Exhaust Air					
Outside Air Option					
Type:	Field Installed Economizer, horizontal return				
Draw Through Filters					
Type	Face Area	Face Velocity	Air Pressure Drop		
1" Disposable	5.1 ft ²	392 ft/min	Included In Fan Performance		
Exhaust Fan Option					
Fan Airflow	Max Static Pressure	Fan Type	Fan Quantity	Fan Diameter	Capacity Control
1400 CFM	0.25 inH ₂ O	Prop	1	15"	1
Motor Power	Motor Type	Motor Quantity	Full Load Current	Drive Type	
0.33	Open Drip Proof	1	0.7 A	Direct Drive	

Cooling Coil						
Fins per Inch	Rows	Face Area	Face Velocity	Air Pressure drop		
15	3	5.1 ft ²	392 ft/min	Included In Fan Performance		
Cooling Performance						
Total Capacity Btu/hr	Sensible Capacity Btu/hr	Entering Air Temperature		Leaving Air Temperature		Ambient Air Temp °F
		Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	
61607	45520	80.0	67.0	58.9	57.2	95.0

Fan Section					
Type	Fan Wheel Diameter	Quantity	Vibration Isolation		
FC	10 in	1	Rigid		
Fan Performance					
Air Flow	External Static Pressure	Design Fan Speed	Drive Package Speed	Brake Horsepower	Altitude
2000 CFM	0.75 inH ₂ O	1218 RPM	1250	1.1 HP	0 ft
Motor					
Horsepower	Type	Efficiency	Full Load Current		
1.0 HP	Open drip proof, EPAct	80.0 %	3.8 A		
Drives					
Type	Service Factor				
Adjustable Sheave	120%				

Gas Heat Section					
Type	Material	Gas Type	Ignition	Combustion Blower	Heat Stages
Tubular Heat exchanger with in-shot burner manifold	Stainless steel	Natural Gas	Electric	Induced draft blower	1 Stage
Heating Performance					
Size	Total Capacity	Steady State Efficiency	Entering Air Dry Bulb	Leaving Air Dry Bulb	
100 MBH	81000 Btu/hr	0.81	60.0 °F	97.3 °F	

Condensing Section					
Compressor					
Type	Quantity	Total Power	Capacity Control	Refrigerant Type	
Scroll	1	4.7 kW	1 step	R410A	
Compressor Amps:					
Compressor 1			15.4 A		
Compressor Options:	LP, HP switch				
Condenser Coil					
Type	Fins Per Inch	Rows	Fin Material	Refrigerant Valves	
Copper tube	22	2	Aluminum	None	
Condenser Fan Motors					
Number of Motors			Full Load Current		
1			1.2 A		
AHRI 360 Certified Data at AHRI 360 Standard Conditions					
Net Capacity	Efficiency		ASHRAE 90.1		
59000 Btu/hr	11.1 EER	13.0 SEER	2010 Compliant		

Internal Static Pressure Drop Calculation

Component	Air Pressure Drop
External Static Pressure	0.75
Internal Static Pressure	0.22
Total Static Pressure:	0.97 inH₂O

Warranty

Parts Warranty:	Standard one year
Compressor Warranty:	Standard five year
Heat Exchanger Warranty:	Standard ten year

AHRI Certification



All equipment is rated and certified in accordance with AHRI 340/360.

Notes

As a standalone component, unit meets or exceeds the requirements of ASHRAE 90.1.2010. The approving authority is responsible for compliance of multi-component building systems.

Accessories

Part Number	Description
MXRD-TECM3	Economizer, 3-5 ton, Vert/Horiz R410A, Electmech
RRRX-AV02	Dual enthalpy kit
RXKG-CAD14	14" Roof curb, 3-6 T(R22)/3-5 T(410A)/6 T Ht Pump
MXRXBGF06C	Power exhaust, 3-5 ton, 208/230V 410A

MPS™ 003B – 005B w/Gas Heat Certified Drawing

1131111-01

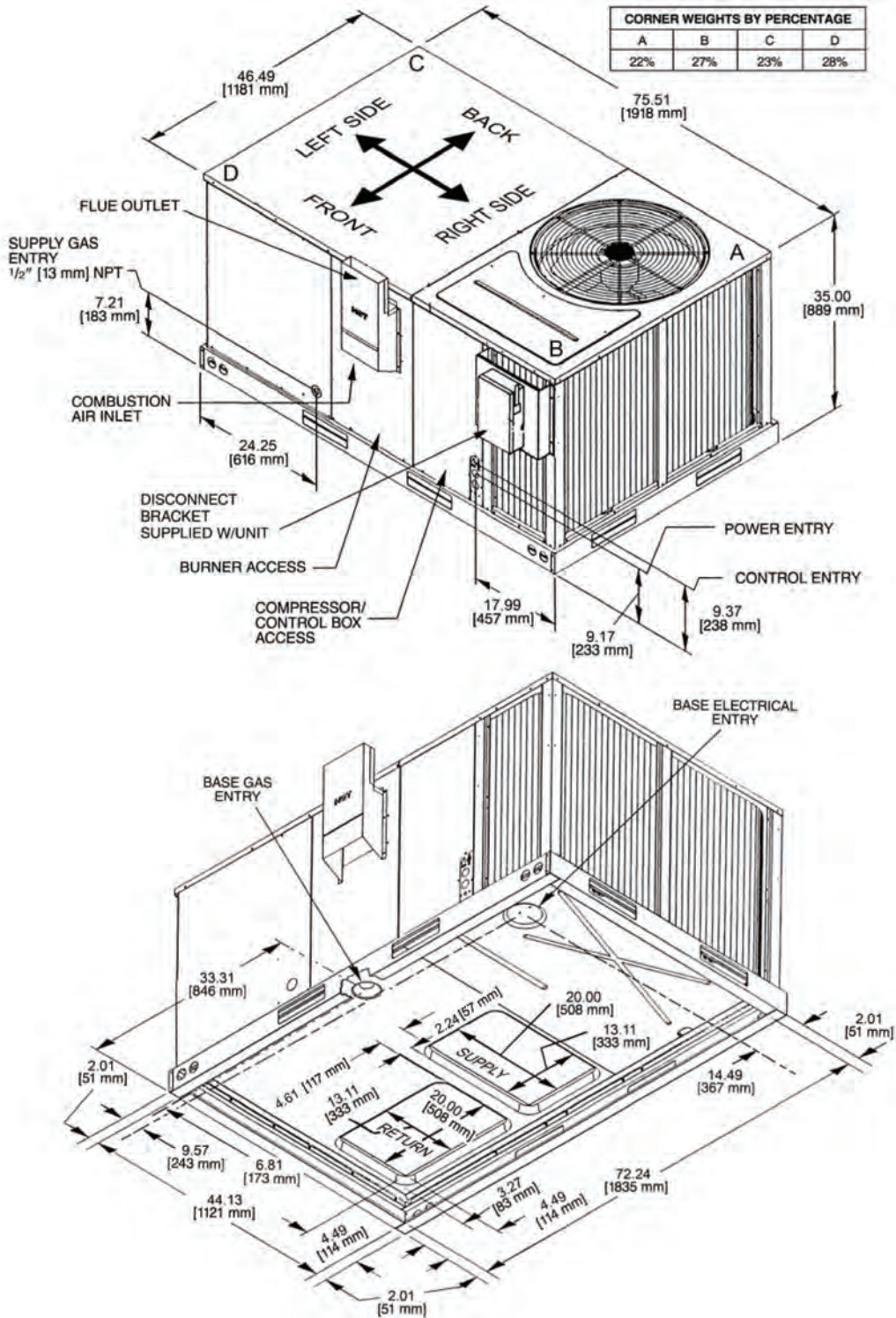
McQuay International certifies that its equipment will conform to this drawing and McQuay's published specifications, subject to its published warranty. Purchaser must determine that the equipment is fit and sufficient for the job specifications. No change to this drawing may be made unless approved in writing by McQuay. www.mcquay.com

View: Isometric

Model: 3 – 5 ton

Date: 7/29/2013

Unit Tag: HVAC-1



MPS™ 003 – 005 Roof Curb Certified Drawing

5001606-01

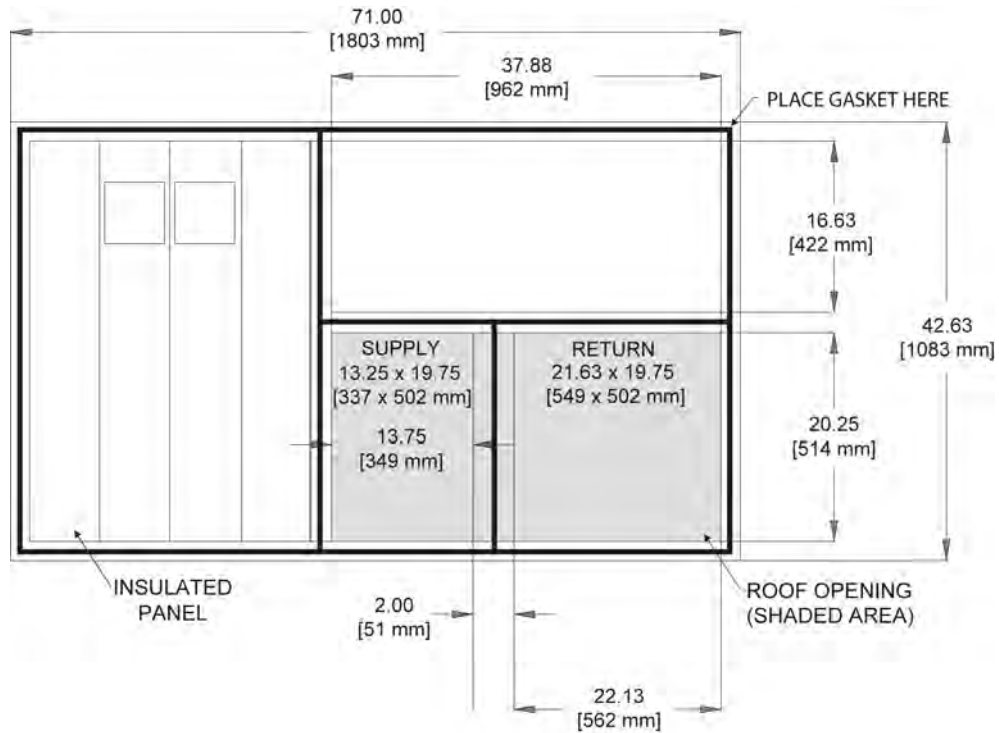
McQuay International certifies that its equipment will conform to this drawing and McQuay's published specifications, subject to its published warranty. Purchaser must determine that the equipment is fit and sufficient for the job specifications. No change to this drawing may be made unless approved in writing by McQuay. www.mcquay.com

View: Plan

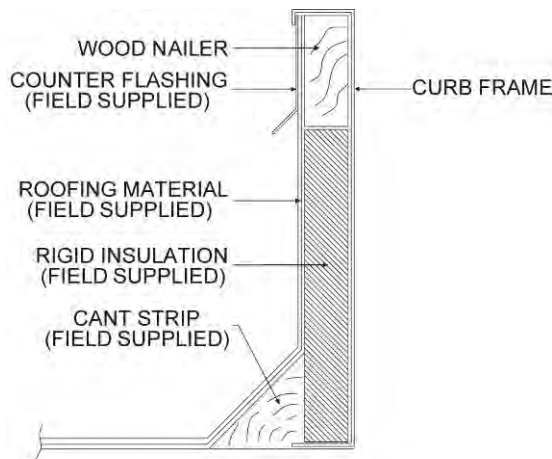
Model: 3 – 5 ton

Date: 7/29/2013

Unit Tag: HVAC-1



PLAN VIEW



CURB CROSS SECTION

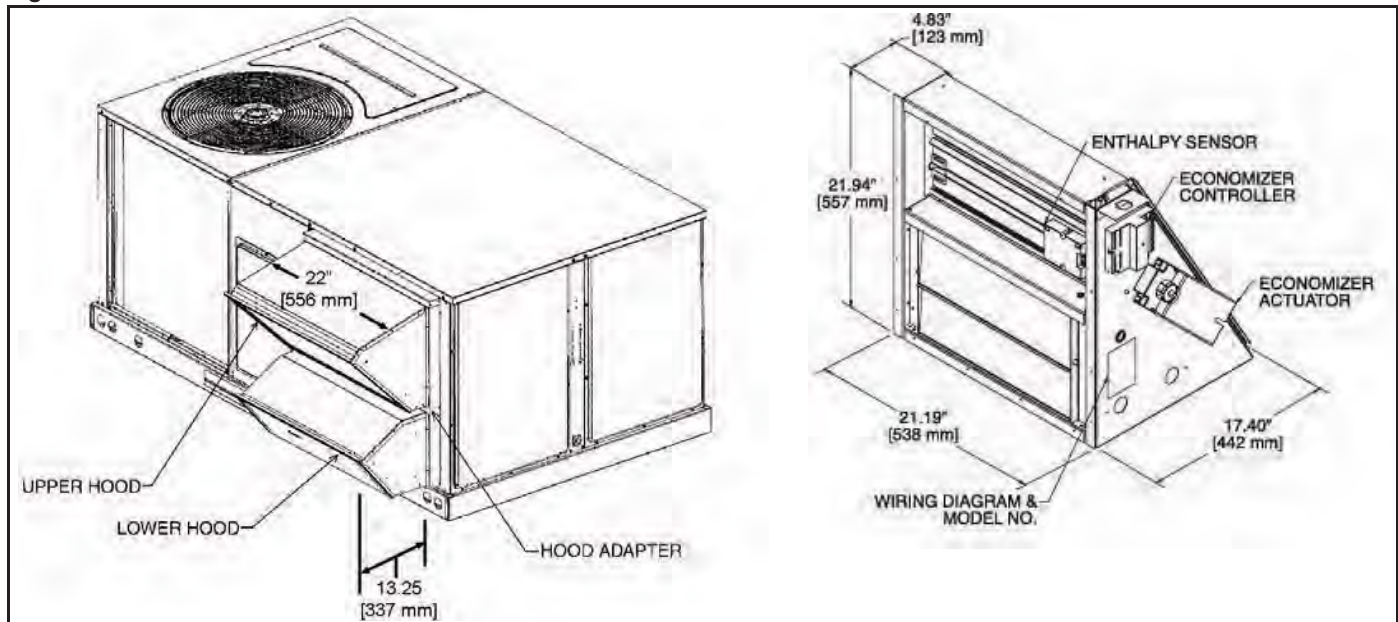
Accessories

Economizers

Economizers: 3–5 Tons [10.6–17.6 kW]

- Features economizer controller
- Available factory installed or field accessory
- Gear driven direct drive actuator
- Fully modulating (0-100%)
- Low leakage dampers
- Horizontal or downflow applications
- Slip-in design for easy installations
- Plug-in polarized electrical connections
- Pre-configured—no field adjustments necessary
- Standard barometric relief damper provided
- Single enthalpy with dual enthalpy upgrade kit
- CO₂ input sensor available (field installed)
- Economizer slips in complete for downflow or horizontal duct application
- Field assembled hood ships with economizer
- Field installed power exhaust available

Figure 44: Economizer: MPS 003B – 005B



Power Exhaust

Table 29: Air Damper and Exhaust Accessories

McQuay Model No.	Description
→ MXRX-BGF06C	Power exhaust for 208/230 volt MPS-003B through -005B
MXRX-BGF06D	Power exhaust for 460 volt MPS-003B through -005B
MXRX-BGF06Y	Power exhaust for 575 volt MPS-003B through -005B
RXXR-AW03	Motorized Kit for MXRF-KFA1
RXXR-BGF05C	Power exhaust for 208/230 volt MPS-015B through -025B
RXXR-BGF05D	Power exhaust for 460 volt MPS-015B through -025B
RXXR-BGF05Y	Power exhaust for 575 volt MPS-015B through -025B
RXXR-BFF02C	Power exhaust, 208/230 volt for MPS-006B through -012B
RXXR-BFF02D	Power exhaust, 460 volt for MPS-006B through -012B
RXXR-BFF02Y	Power exhaust, 575 volt for MPS-006B through -012B

Integral Power Exhaust For Economizer: 3–5 Tons [10.6–17.6 Kw] (Field Installed Only)

MXRX-CGF04 (C,D,Y Voltages) for MPS-003B-005B

- For economizer controller
- Downflow or horizontal applications
- Requires separate power supply with disconnect
- Adjustable switch on economizer, factory preset to energize power exhaust at 95% outside air position
- Polarized plug connects power exhaust relay to economizer

Figure 49: Integral Power Exhaust Economizer: MPS 003B – 005B

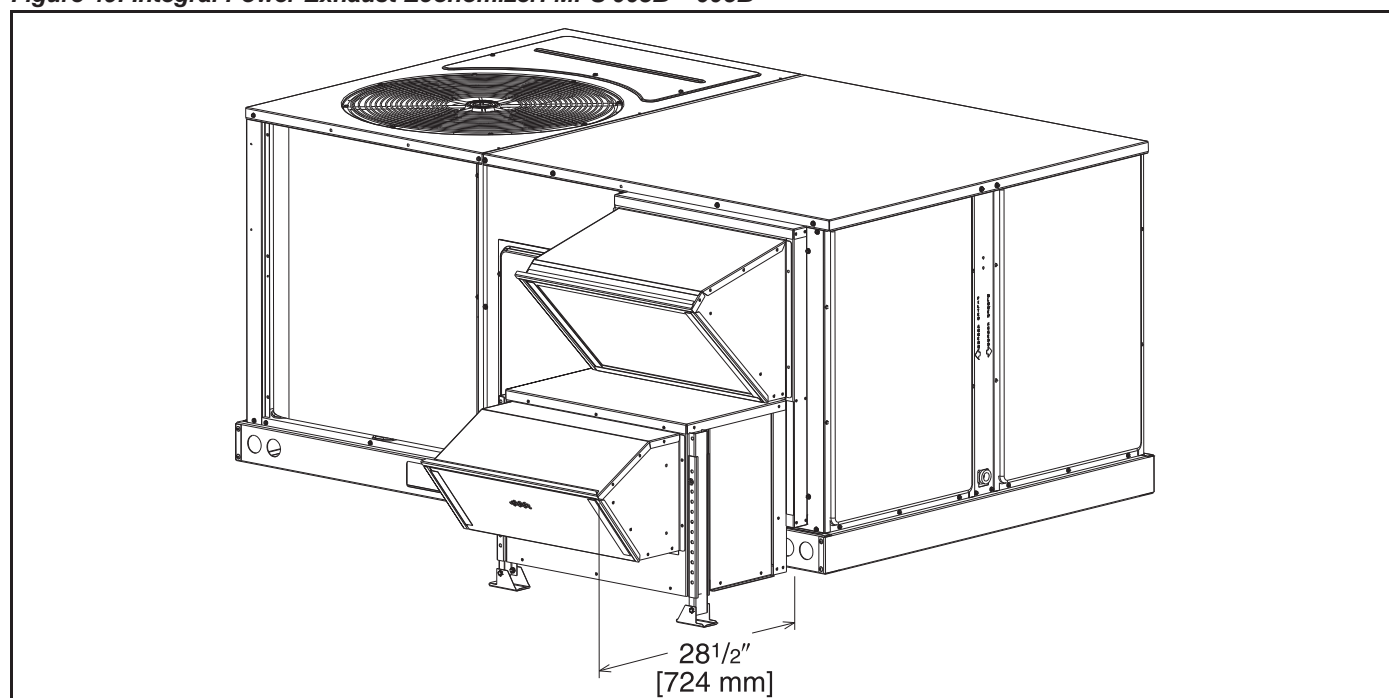


Table 30: Power Exhaust Kit for MXRD-NECM Economizers

Model No.	No. of Fans	Volts	Phase	Watts (ea.)	High Speed		FLA (ea.)	LRA (ea.)
					CFM [L/s] ¹	RPM		
→ MXRX-BGF06C	1	208-230	1	1000	2500 [1179]	1725	4.4	23.7
MXRX-BGF06D	1	460	1	800	2370 [1118]	1620	1.8	4.1
MXRX-BGF06Y ²	1	575	1	800	2370 [1118]	1620	1.5	3.3

Note: ¹ CFM is at 0" W.C. external static pressure.

² Unit includes 575 to 460 Volt step-down transformer.

Job Information		Technical Data Sheet
Job Name	Marriott Hotel	
Date	7/30/2013	
Submitted By	Briggs Equipment Sales, Inc.	
Software Version	03.61	
Unit Tag	HVAC-2	



Unit Overview					
Model Number	Voltage	Design Cooling Capacity	AHRI 360 Standard Efficiency		ASHRAE 90.1
			EER	IEER	
MPS007B	208/60/3	87116 Btu/hr	11.2	11.8	2010 Compliant

Unit			
Unit Dimensions and Weights			
Unit Length	Unit Height	Unit Width	Unit Weight
93.7 in	44.0 in	58.7 in	1197 lb
Unit Construction			
Exterior:	Powder Coat Galvanized	Doors:	Fan, Filter, Coil, Control Panel, and Economizer section
Insulation:	3/4" foil face with mechanical fasteners, R value of 3.6	Approval Listing:	cULus
Liners:	Single wall construction	Drain Pan Material	Polymer
Unit Electrical Data			
Voltage	SCCR	MCA	MROPD
208/60/3 v	5 kAIC	42.0 A	60 A
Field Connection:	Non-Fused Disc Sw, Field powered 115V GFI outlet		
Control Data			
Temperature Controls:	Electromechanical Controls		Application: Constant volume

Return/Outside/Exhaust Air			
Outside Air Option			
Type:	Field Installed Economizer, horizontal return		
Draw Through Filters			
Type	Face Area	Face Velocity	Air Pressure Drop
2" Disposable	13.5 ft ²	222 ft/min	Included In Fan Performance

Cooling Coil						
Fins per Inch	Rows	Face Area	Face Velocity	Air Pressure drop		
18	2	13.5 ft ²	222 ft/min	Included In Fan Performance		
Cooling Performance						
Total Capacity Btu/hr	Sensible Capacity Btu/hr	Entering Air Temperature		Leaving Air Temperature		Ambient Air Temp °F
		Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	
87116	68971	80.0	67.0	58.7	57.8	95.0

Fan Section					
Type	Fan Wheel Diameter	Quantity	Vibration Isolation		
FC	15 in	1	Rigid		
Fan Performance					
Air Flow	External Static Pressure	Design Fan Speed	Drive Package Speed	Brake Horsepower	Altitude
3000 CFM	0.75 inH ₂ O	820 RPM	806	1.5 HP	0 ft
Motor					
Horsepower	Type	Efficiency	Full Load Current		
2.0 HP	Open drip proof, EPAct	80.0 %	8.0 A		
Drives					
Type	Service Factor				
Adjustable Sheave	120%				

Gas Heat Section					
Type	Material	Gas Type	Ignition	Combustion Blower	Heat Stages
Tubular Heat exchanger with in-shot burner manifold	Stainless steel	Natural Gas	Electric	Induced draft blower	2 Stage
Heating Performance					
Size	Total Capacity	Steady State Efficiency	Entering Air Dry Bulb	Leaving Air Dry Bulb	
225 MBH	182250 Btu/hr	0.81	60.0 °F	116.0 °F	

Condensing Section					
Compressor					
Type	Quantity	Total Power	Capacity Control	Refrigerant Type	
Scroll	1	6.6 kW	1 step	R410A	
Compressor Amps:					
Compressor 1			23.2 A		
Compressor Options:	LP, HP switch				
Condenser Coil					
Type	Fins Per Inch	Rows	Fin Material	Refrigerant Valves	
Copper tube	22	1	Aluminum	None	
Condenser Fan Motors					
Number of Motors			Full Load Current		
2			1.2 A		
AHRI 360 Certified Data at AHRI 360 Standard Conditions					
Net Capacity		Efficiency		ASHRAE 90.1	
85000 Btu/hr		11.2 EER 11.8 IEER		2010 Compliant	

Internal Static Pressure Drop Calculation	
Component	Air Pressure Drop
External Static Pressure	0.75
Internal Static Pressure	0.14
Total Static Pressure:	0.89 inH₂O

Warranty	
Parts Warranty:	Standard one year
Compressor Warranty:	Standard five year
Heat Exchanger Warranty:	Standard ten year

AHRI Certification



All equipment is rated and certified in accordance with AHRI 340/360.

Notes

As a standalone component, unit meets or exceeds the requirements of ASHRAE 90.1.2010. The approving authority is responsible for compliance of multi-component building systems.

Accessories

Part Number	Description
RXKG-CAE14	14" Roof curb, 7-12 ton R22/6-12 ton R410
RXX-AX02	Dual enthalpy kit
MXRD-RDCM3	Economizer, 6-12 ton, Horizontal, R410

Job Information		Technical Data Sheet
Job Name	Marriott Hotel	
Date	7/30/2013	
Submitted By	Briggs Equipment Sales, Inc.	
Software Version	03.61	
Unit Tag	HVAC-5	



Unit Overview					
Model Number	Voltage	Design Cooling Capacity	AHRI 360 Standard Efficiency		ASHRAE 90.1
			EER	IEER	
MPS007B	208/60/3	87116 Btu/hr	11.2	11.8	2010 Compliant

Unit			
Unit Dimensions and Weights			
Unit Length	Unit Height	Unit Width	Unit Weight
93.7 in	44.0 in	58.7 in	1197 lb
Unit Construction			
Exterior:	Powder Coat Galvanized	Doors:	Fan, Filter, Coil, Control Panel, and Economizer section
Insulation:	3/4" foil face with mechanical fasteners, R value of 3.6	Approval Listing:	cULus
Liners:	Single wall construction	Drain Pan Material	Polymer
Unit Electrical Data			
Voltage	SCCR	MCA	MROPD
208/60/3 v	5 kAIC	42.0 A	60 A
Field Connection:	Non-Fused Disc Sw, Field powered 115V GFI outlet		
Control Data			
Temperature Controls:	Electromechanical Controls		Application: Constant volume

Return/Outside/Exhaust Air			
Outside Air Option			
Type:	Field Installed Economizer, horizontal return		
Draw Through Filters			
Type	Face Area	Face Velocity	Air Pressure Drop
2" Disposable	13.5 ft ²	222 ft/min	Included In Fan Performance

Cooling Coil						
Fins per Inch	Rows	Face Area	Face Velocity	Air Pressure drop		
18	2	13.5 ft ²	222 ft/min	Included In Fan Performance		
Cooling Performance						
Total Capacity Btu/hr	Sensible Capacity Btu/hr	Entering Air Temperature		Leaving Air Temperature		Ambient Air Temp °F
		Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	
87116	68971	80.0	67.0	58.7	57.8	95.0

Fan Section					
Type	Fan Wheel Diameter	Quantity	Vibration Isolation		
FC	15 in	1	Rigid		
Fan Performance					
Air Flow	External Static Pressure	Design Fan Speed	Drive Package Speed	Brake Horsepower	Altitude
3000 CFM	0.75 inH ₂ O	820 RPM	806	1.5 HP	0 ft
Motor					
Horsepower	Type	Efficiency	Full Load Current		
2.0 HP	Open drip proof, EPAct	80.0 %	8.0 A		
Drives					
Type	Service Factor				
Adjustable Sheave	120%				

Gas Heat Section					
Type	Material	Gas Type	Ignition	Combustion Blower	Heat Stages
Tubular Heat exchanger with in-shot burner manifold	Stainless steel	Natural Gas	Electric	Induced draft blower	2 Stage
Heating Performance					
Size	Total Capacity	Steady State Efficiency	Entering Air Dry Bulb	Leaving Air Dry Bulb	
225 MBH	182250 Btu/hr	0.81	60.0 °F	116.0 °F	

Condensing Section					
Compressor					
Type	Quantity	Total Power	Capacity Control	Refrigerant Type	
Scroll	1	6.6 kW	1 step	R410A	
Compressor Amps:					
Compressor 1			23.2 A		
Compressor Options:	LP, HP switch				
Condenser Coil					
Type	Fins Per Inch	Rows	Fin Material	Refrigerant Valves	
Copper tube	22	1	Aluminum	None	
Condenser Fan Motors					
Number of Motors			Full Load Current		
2			1.2 A		
AHRI 360 Certified Data at AHRI 360 Standard Conditions					
Net Capacity		Efficiency		ASHRAE 90.1	
85000 Btu/hr		11.2 EER 11.8 IEER		2010 Compliant	

Internal Static Pressure Drop Calculation	
Component	Air Pressure Drop
External Static Pressure	0.75
Internal Static Pressure	0.14
Total Static Pressure:	0.89 inH₂O

Warranty	
Parts Warranty:	Standard one year
Compressor Warranty:	Standard five year
Heat Exchanger Warranty:	Standard ten year

AHRI Certification



All equipment is rated and certified in accordance with AHRI 340/360.

Notes

As a standalone component, unit meets or exceeds the requirements of ASHRAE 90.1.2010. The approving authority is responsible for compliance of multi-component building systems.

Accessories

Part Number	Description
RXKG-CAE14	14" Roof curb, 7-12 ton R22/6-12 ton R410
RXX-AX02	Dual enthalpy kit
MXRD-RDCM3	Economizer, 6-12 ton, Horizontal, R410

Job Information		Technical Data Sheet
Job Name	Marriott Hotel	
Date	7/30/2013	
Submitted By	Briggs Equipment Sales, Inc.	
Software Version	03.61	
Unit Tag	HVAC-6	



Unit Overview					
Model Number	Voltage	Design Cooling Capacity	AHRI 360 Standard Efficiency		ASHRAE 90.1
			EER	IEER	
MPS007B	208/60/3	85796 Btu/hr	11.2	11.8	2010 Compliant

Unit			
Unit Dimensions and Weights			
Unit Length	Unit Height	Unit Width	Unit Weight
93.7 in	44.0 in	58.7 in	1197 lb
Unit Construction			
Exterior:	Powder Coat Galvanized	Doors:	Fan, Filter, Coil, Control Panel, and Economizer section
Insulation:	3/4" foil face with mechanical fasteners, R value of 3.6	Approval Listing:	cULus
Liners:	Single wall construction	Drain Pan Material	Polymer
Unit Electrical Data			
Voltage	SCCR	MCA	MROPD
208/60/3 v	5 kAIC	42.0 A	60 A
Field Connection:	Non-Fused Disc Sw, Field powered 115V GFI outlet		
Control Data			
Temperature Controls:	Electromechanical Controls		Application: Constant volume

Return/Outside/Exhaust Air			
Outside Air Option			
Type:	Field Installed Economizer, horizontal return		
Draw Through Filters			
Type	Face Area	Face Velocity	Air Pressure Drop
2" Disposable	13.5 ft ²	204 ft/min	Included In Fan Performance

Cooling Coil						
Fins per Inch	Rows	Face Area	Face Velocity	Air Pressure drop		
18	2	13.5 ft ²	204 ft/min	Included In Fan Performance		
Cooling Performance						
Total Capacity Btu/hr	Sensible Capacity Btu/hr	Entering Air Temperature		Leaving Air Temperature		Ambient Air Temp °F
		Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	
85796	66289	80.0	67.0	57.7	57.1	95.0

Fan Section					
Type	Fan Wheel Diameter	Quantity	Vibration Isolation		
FC	15 in	1	Rigid		
Fan Performance					
Air Flow	External Static Pressure	Design Fan Speed	Drive Package Speed	Brake Horsepower	Altitude
2750 CFM	0.75 inH ₂ O	797 RPM	806	1.3 HP	0 ft
Motor					
Horsepower	Type	Efficiency	Full Load Current		
2.0 HP	Open drip proof, EPAct	80.0 %	8.0 A		
Drives					
Type	Service Factor				
Adjustable Sheave	120%				

Gas Heat Section					
Type	Material	Gas Type	Ignition	Combustion Blower	Heat Stages
Tubular Heat exchanger with in-shot burner manifold	Stainless steel	Natural Gas	Electric	Induced draft blower	2 Stage
Heating Performance					
Size	Total Capacity	Steady State Efficiency	Entering Air Dry Bulb	Leaving Air Dry Bulb	
225 MBH	182250 Btu/hr	0.81	60.0 °F	121.1 °F	

Condensing Section					
Compressor					
Type	Quantity	Total Power	Capacity Control	Refrigerant Type	
Scroll	1	6.6 kW	1 step	R410A	
Compressor Amps:					
Compressor 1			23.2 A		
Compressor Options:	LP, HP switch				
Condenser Coil					
Type	Fins Per Inch	Rows	Fin Material	Refrigerant Valves	
Copper tube	22	1	Aluminum	None	
Condenser Fan Motors					
Number of Motors			Full Load Current		
2			1.2 A		
AHRI 360 Certified Data at AHRI 360 Standard Conditions					
Net Capacity		Efficiency		ASHRAE 90.1	
85000 Btu/hr		11.2 EER 11.8 IEER		2010 Compliant	

Internal Static Pressure Drop Calculation	
Component	Air Pressure Drop
External Static Pressure	0.75
Internal Static Pressure	0.12
Total Static Pressure:	0.87 inH₂O

Warranty	
Parts Warranty:	Standard one year
Compressor Warranty:	Standard five year
Heat Exchanger Warranty:	Standard ten year

AHRI Certification



All equipment is rated and certified in accordance with AHRI 340/360.

Notes

As a standalone component, unit meets or exceeds the requirements of ASHRAE 90.1.2010. The approving authority is responsible for compliance of multi-component building systems.

Accessories

Part Number	Description
RXKG-CAE14	14" Roof curb, 7-12 ton R22/6-12 ton R410
RXX-AX02	Dual enthalpy kit
MXRD-RDCM3	Economizer, 6-12 ton, Horizontal, R410

Job Information		Technical Data Sheet
Job Name	Marriott Hotel	
Date	7/30/2013	
Submitted By	Briggs Equipment Sales, Inc.	
Software Version	03.61	
Unit Tag	HVAC-7	



Unit Overview					
Model Number	Voltage	Design Cooling Capacity	AHRI 360 Standard Efficiency		ASHRAE 90.1
			EER	IEER	
MPS007B	208/60/3	92923 Btu/hr	11.2	11.8	2010 Compliant

Unit			
Unit Dimensions and Weights			
Unit Length	Unit Height	Unit Width	Unit Weight
93.7 in	44.0 in	58.7 in	1197 lb
Unit Construction			
Exterior:	Powder Coat Galvanized	Doors:	Fan, Filter, Coil, Control Panel, and Economizer section
Insulation:	3/4" foil face with mechanical fasteners, R value of 3.6	Approval Listing:	cULus
Liners:	Single wall construction	Drain Pan Material	Polymer
Unit Electrical Data			
Voltage	SCCR	MCA	MROPD
208/60/3 v	5 kAIC	47.0 A	70 A
Field Connection:	Non-Fused Disc Sw, Field powered 115V GFI outlet		
Control Data			
Temperature Controls:	Electromechanical Controls		Application: Constant volume

Return/Outside/Exhaust Air			
Outside Air Option			
Type:	Field Installed Economizer, horizontal return		
Draw Through Filters			
Type	Face Area	Face Velocity	Air Pressure Drop
2" Disposable	13.5 ft ²	304 ft/min	Included In Fan Performance

Cooling Coil						
Fins per Inch	Rows	Face Area	Face Velocity	Air Pressure drop		
18	2	13.5 ft ²	304 ft/min	Included In Fan Performance		
Cooling Performance						
Total Capacity Btu/hr	Sensible Capacity Btu/hr	Entering Air Temperature		Leaving Air Temperature		Ambient Air Temp °F
		Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	
92923	80774	80.0	67.0	61.8	59.9	95.0

Fan Section					
Type	Fan Wheel Diameter		Quantity	Vibration Isolation	
FC	15 in		1	Rigid	
Fan Performance					
Air Flow	External Static Pressure	Design Fan Speed	Drive Package Speed	Brake Horsepower	Altitude
4100 CFM	0.75 inH ₂ O	969 RPM	904	2.6 HP	0 ft
Motor					
Horsepower	Type		Efficiency	Full Load Current	
3.0 HP	Open drip proof, EPAct		80.0 %	13.0 A	
Drives					
Type			Service Factor		
Adjustable Sheave			120%		

Gas Heat Section					
Type	Material	Gas Type	Ignition	Combustion Blower	Heat Stages
Tubular Heat exchanger with in-shot burner manifold	Stainless steel	Natural Gas	Electric	Induced draft blower	2 Stage
Heating Performance					
Size	Total Capacity	Steady State Efficiency	Entering Air Dry Bulb	Leaving Air Dry Bulb	
225 MBH	182250 Btu/hr	0.81	60.0 °F	101.0 °F	

Condensing Section					
Compressor					
Type	Quantity	Total Power	Capacity Control	Refrigerant Type	
Scroll	1	6.9 kW	1 step	R410A	
Compressor 1			23.2 A		
Compressor Options:	LP, HP switch				
Condenser Coil					
Type	Fins Per Inch	Rows	Fin Material	Refrigerant Valves	
Copper tube	22	1	Aluminum	None	
Condenser Fan Motors					
Number of Motors			Full Load Current		
2			1.2 A		
AHRI 360 Certified Data at AHRI 360 Standard Conditions					
Net Capacity	Efficiency		ASHRAE 90.1		
85000 Btu/hr	11.2 EER	11.8 IEER	2010 Compliant		

Internal Static Pressure Drop Calculation	
Component	Air Pressure Drop
External Static Pressure	0.75
Internal Static Pressure	0.23
Total Static Pressure:	0.98 inH ₂ O

Warranty	
Parts Warranty:	Standard one year
Compressor Warranty:	Standard five year
Heat Exchanger Warranty:	Standard ten year

AHRI Certification



All equipment is rated and certified in accordance with AHRI 340/360.

Notes

As a standalone component, unit meets or exceeds the requirements of ASHRAE 90.1.2010. The approving authority is responsible for compliance of multi-component building systems.

Accessories

Part Number	Description
RXKG-CAE14	14" Roof curb, 7-12 ton R22/6-12 ton R410
RXX-AX02	Dual enthalpy kit
MXRD-RDCM3	Economizer, 6-12 ton, Horizontal, R410

MPS™ A06B – 012B w/Gas Heat Certified Drawing

1131115-01

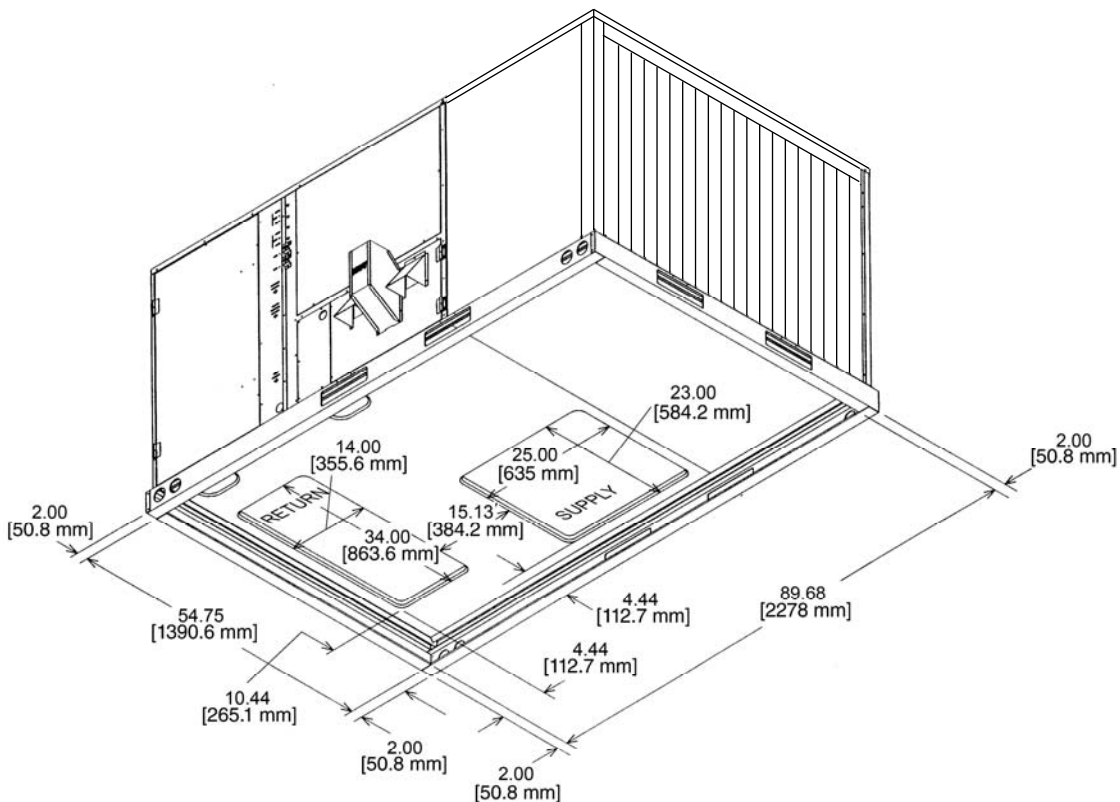
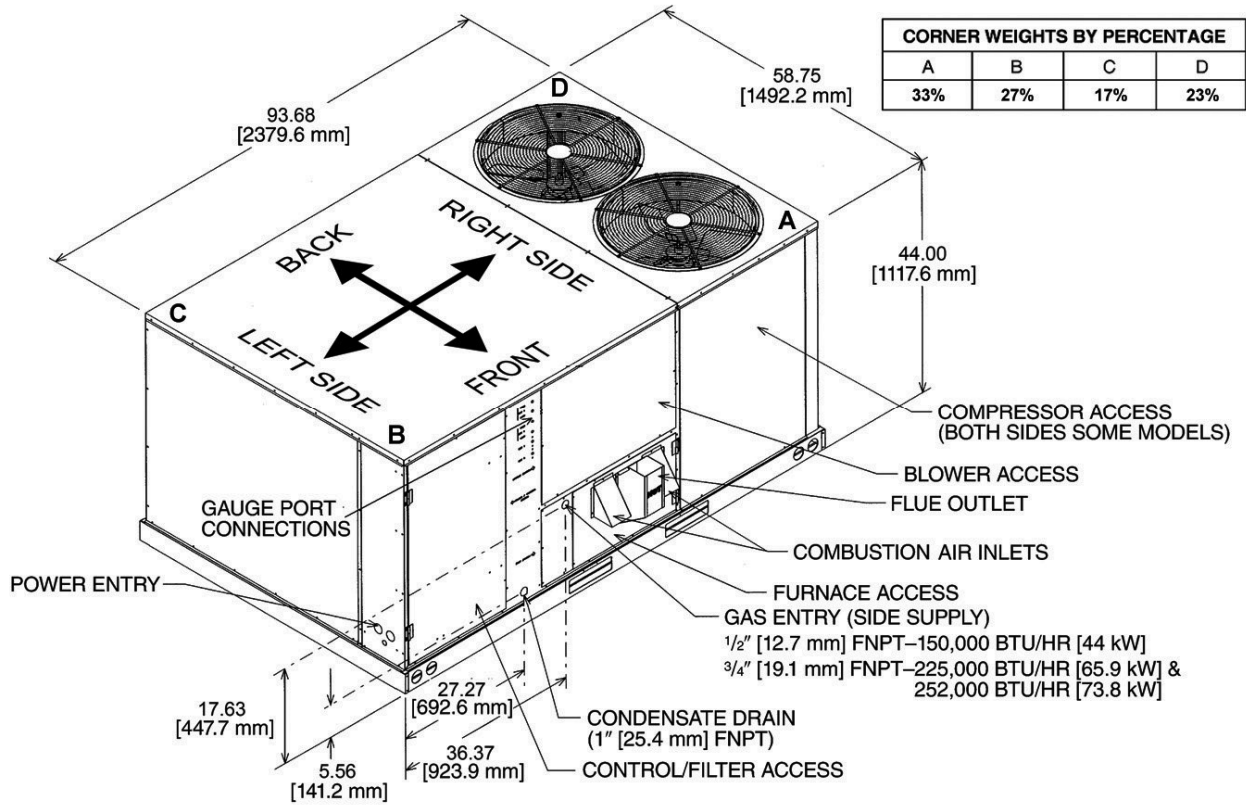
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View: Isometric

Model: 6 – 12 ton

Date: 7/29/2013

Unit Tag: HVAC-2, 5, 6, 7



MPS™ A06B – 012B Roof Curb Certified Drawing

5001607-01

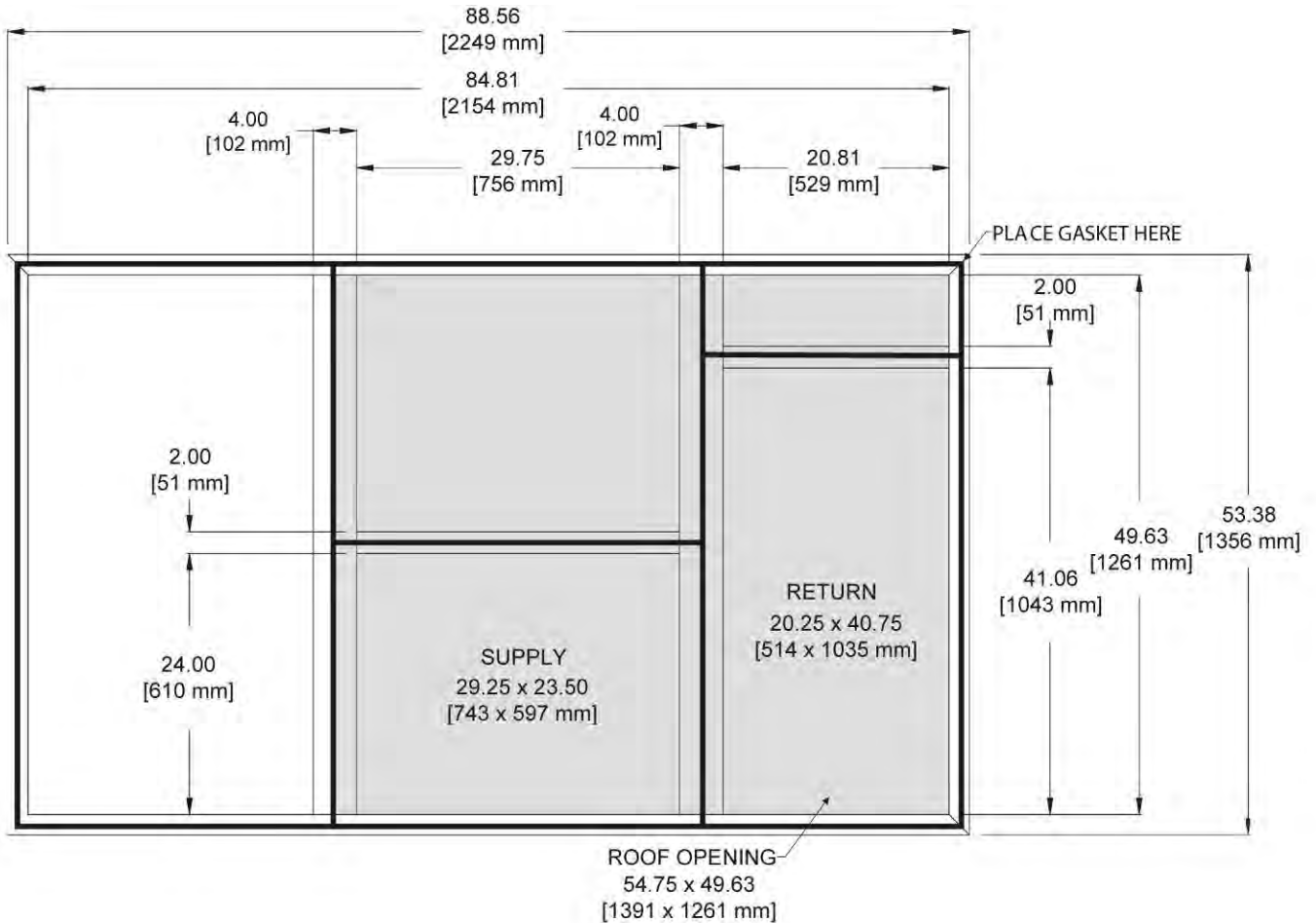
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View: Plan

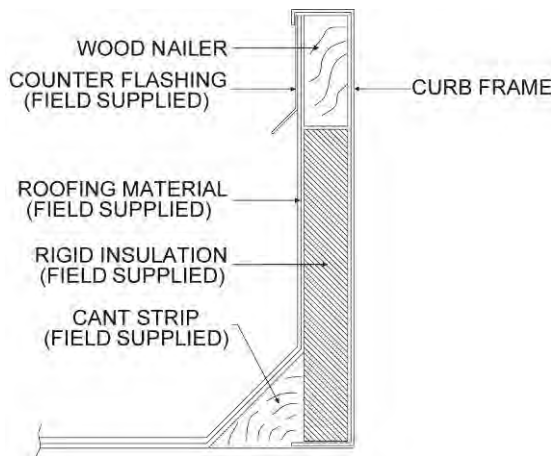
Model: 6 – 12 ton

Date: 7/29/2013

Unit Tag: HVAC-2, 5, 6, 7



PLAN VIEW

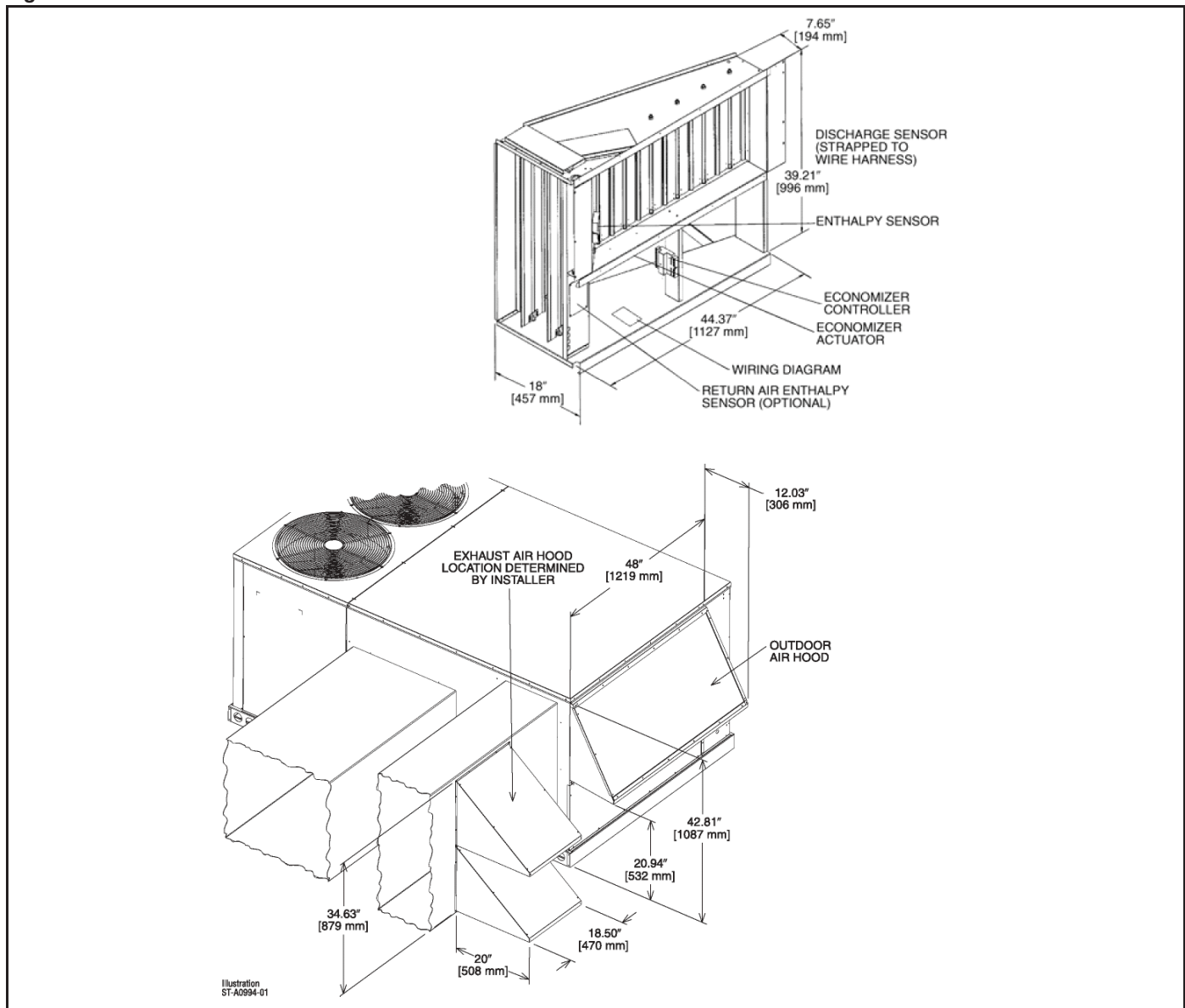


CURB CROSS SECTION

**Economizers: 6–12.5 Tons [21.1–44 kW]
Horizontal Duct Installation**

- Features economizer controller
- Available as a field installed accessory only
- Gear driven direct drive actuator
- Fully modulating (0-100%)
- Low leakage dampers
- Slip-in design for easy installation
- Plug-in polarized electrical connections
- Pre-configured—no field adjustments necessary
- Standard barometric relief damper
- Single enthalpy with dual enthalpy upgrade kit available
- CO₂ input sensor available
- Field assembled hood ships with economizer
- Economizer ships complete for horizontal duct application
- Field installed power exhaust available
- Optional remote minimum position (Honeywell #S963B112B) available

Figure 46: Economizer: MPS 006B – 012B



Job Information		Technical Data Sheet
Job Name	Marriott Hotel	
Date	7/30/2013	
Submitted By	Briggs Equipment Sales, Inc.	
Software Version	03.61	
Unit Tag	HVAC-3	



Unit Overview					
Model Number	Voltage	Design Cooling Capacity	AHRI 360 Standard Efficiency		ASHRAE 90.1
			EER	SEER	
MPS005B	208/60/3	61607 Btu/hr	11.1	13.0	2010 Compliant

Unit					
Unit Dimensions and Weights					
Unit Length	Unit Height	Unit Width	Unit Weight		
75.5 in	35.0 in	46.5 in	737 lb		
Unit Construction					
Exterior:	Powder Coat Galvanized	Doors:	Fan, Filter, Coil, Control Panel, and Economizer section		
Insulation:	3/4" foil face with mechanical fasteners, R value of 3.6	Approval Listing:	cULus		
Liners:	Single wall construction	Drain Pan Material	Polymer		
Unit Electrical Data					
Voltage	SCCR	MCA	MROPD		
208/60/3 v	5 kAIC	26.0 A	40 A		
Field Connection:	Non-Fused Disc Sw, Field powered 115V GFI outlet				
Control Data					
Temperature Controls:			Application:		
Electromechanical Controls			Constant volume		

Return/Outside/Exhaust Air					
Outside Air Option					
Type:	Field Installed Economizer, horizontal return				
Draw Through Filters					
Type	Face Area	Face Velocity	Air Pressure Drop		
1" Disposable	5.1 ft²	392 ft/min	Included In Fan Performance		
Exhaust Fan Option					
Fan Airflow	Max Static Pressure	Fan Type	Fan Quantity	Fan Diameter	Capacity Control
1400 CFM	0.25 inH ₂ O	Prop	1	15"	1
Motor Power	Motor Type	Motor Quantity	Full Load Current	Drive Type	
0.33	Open Drip Proof	1	0.7 A	Direct Drive	

Cooling Coil						
Fins per Inch	Rows	Face Area	Face Velocity	Air Pressure drop		
15	3	5.1 ft ²	392 ft/min	Included In Fan Performance		
Cooling Performance						
Total Capacity Btu/hr	Sensible Capacity Btu/hr	Entering Air Temperature		Leaving Air Temperature		Ambient Air Temp °F
		Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	
61607	45520	80.0	67.0	58.9	57.2	95.0

Fan Section					
Type	Fan Wheel Diameter	Quantity	Vibration Isolation		
FC	10 in	1	Rigid		
Fan Performance					
Air Flow	External Static Pressure	Design Fan Speed	Drive Package Speed	Brake Horsepower	Altitude
2000 CFM	0.50 inH ₂ O	1116 RPM	1250	1.0 HP	0 ft
Motor					
Horsepower	Type	Efficiency	Full Load Current		
1.0 HP	Open drip proof, EPAct	80.0 %	3.8 A		
Drives					
Type	Service Factor				
Adjustable Sheave	120%				

Gas Heat Section					
Type	Material	Gas Type	Ignition	Combustion Blower	Heat Stages
Tubular Heat exchanger with in-shot burner manifold	Stainless steel	Natural Gas	Electric	Induced draft blower	1 Stage
Heating Performance					
Size	Total Capacity	Steady State Efficiency	Entering Air Dry Bulb	Leaving Air Dry Bulb	
100 MBH	81000 Btu/hr	0.81	60.0 °F	97.3 °F	

Condensing Section				
Compressor				
Type	Quantity	Total Power	Capacity Control	Refrigerant Type
Scroll	1	4.7 kW	1 step	R410A
Compressor Amps:				
Compressor 1			15.4 A	
Compressor Options:	LP, HP switch			
Condenser Coil				
Type	Fins Per Inch	Rows	Fin Material	Refrigerant Valves
Copper tube	22	2	Aluminum	None
Condenser Fan Motors				
Number of Motors			Full Load Current	
1			1.2 A	
AHRI 360 Certified Data at AHRI 360 Standard Conditions				
Net Capacity	Efficiency		ASHRAE 90.1	
59000 Btu/hr	11.1 EER	13.0 SEER	2010 Compliant	

Internal Static Pressure Drop Calculation

Component	Air Pressure Drop
External Static Pressure	0.50
Internal Static Pressure	0.22
Total Static Pressure:	0.72 inH₂O

Warranty

Parts Warranty:	Standard one year
Compressor Warranty:	Standard five year
Heat Exchanger Warranty:	Standard ten year

AHRI Certification



All equipment is rated and certified in accordance with AHRI 340/360.

Notes

As a standalone component, unit meets or exceeds the requirements of ASHRAE 90.1.2010. The approving authority is responsible for compliance of multi-component building systems.

Accessories

Part Number	Description
MXRD-TECM3	Economizer, 3-5 ton, Vert/Horiz R410A, Electmech
RXXR-AV02	Dual enthalpy kit
RXKG-CAD14	14" Roof curb, 3-6 T(R22)/3-5 T(410A)/6 T Ht Pump
MXRXBGF06C	Power exhaust, 3-5 ton, 208/230V 410A

Job Information		Technical Data Sheet
Job Name	Marriott Hotel	
Date	7/30/2013	
Submitted By	Briggs Equipment Sales, Inc.	
Software Version	03.61	
Unit Tag	HVAC-8	



Unit Overview					
Model Number	Voltage	Design Cooling Capacity	AHRI 360 Standard Efficiency		ASHRAE 90.1
			EER	SEER	
MPS005B	208/60/3	61607 Btu/hr	11.1	13.0	2010 Compliant

Unit

Unit Dimensions and Weights			
Unit Length	Unit Height	Unit Width	Unit Weight
75.5 in	35.0 in	46.5 in	667 lb

Unit Construction			
Exterior:	Powder Coat Galvanized	Doors:	Fan, Filter, Coil, Control Panel, and Economizer section
Insulation:	3/4" foil face with mechanical fasteners, R value of 3.6	Approval Listing:	cULus
Liners:	Single wall construction	Drain Pan Material	Polymer

Unit Electrical Data			
Voltage	SCCR	MCA	MROPD
208/60/3 v	5 kAIC	26.0 A	40 A
Field Connection:	Non-Fused Disc Sw, Field powered 115V GFI outlet		

Control Data	
Temperature Controls:	Application:
Electromechanical Controls	Constant volume

Return/Outside/Exhaust Air

Outside Air Option	
Type:	Field Installed Economizer, vertical return

Draw Through Filters			
Type	Face Area	Face Velocity	Air Pressure Drop
1" Disposable	5.1 ft²	392 ft/min	Included In Fan Performance

Cooling Coil

Fins per Inch	Rows	Face Area	Face Velocity	Air Pressure drop
15	3	5.1 ft²	392 ft/min	Included In Fan Performance

Cooling Performance						
Total Capacity Btu/hr	Sensible Capacity Btu/hr	Entering Air Temperature		Leaving Air Temperature		Ambient Air Temp °F
		Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	
61607	45520	80.0	67.0	58.9	57.2	95.0

Fan Section					
Type	Fan Wheel Diameter	Quantity	Vibration Isolation		
FC	10 in	1	Rigid		
Fan Performance					
Air Flow	External Static Pressure	Design Fan Speed	Drive Package Speed	Brake Horsepower	Altitude
2000 CFM	0.50 inH ₂ O	1116 RPM	1250	1.0 HP	0 ft
Motor					
Horsepower	Type	Efficiency	Full Load Current		
1.0 HP	Open drip proof, EPAct	80.0 %	3.8 A		
Drives					
Type	Service Factor				
Adjustable Sheave	120%				

Gas Heat Section					
Type	Material	Gas Type	Ignition	Combustion Blower	Heat Stages
Tubular Heat exchanger with in-shot burner manifold	Stainless steel	Natural Gas	Electric	Induced draft blower	1 Stage
Heating Performance					
Size	Total Capacity	Steady State Efficiency	Entering Air Dry Bulb	Leaving Air Dry Bulb	
100 MBH	81000 Btu/hr	0.81	60.0 °F	97.3 °F	

Condensing Section					
Compressor					
Type	Quantity	Total Power	Capacity Control	Refrigerant Type	
Scroll	1	4.7 kW	1 step	R410A	
Compressor Amps:					
Compressor 1			15.4 A		
Compressor Options:	LP, HP switch				
Condenser Coil					
Type	Fins Per Inch	Rows	Fin Material	Refrigerant Valves	
Copper tube	22	2	Aluminum	None	
Condenser Fan Motors					
Number of Motors			Full Load Current		
1			1.2 A		
AHRI 360 Certified Data at AHRI 360 Standard Conditions					
Net Capacity		Efficiency		ASHRAE 90.1	
59000 Btu/hr		11.1 EER 13.0 SEER		2010 Compliant	

Internal Static Pressure Drop Calculation	
Component	Air Pressure Drop
External Static Pressure	0.50
Internal Static Pressure	0.22
Total Static Pressure:	0.72 inH₂O

Warranty	
Parts Warranty:	Standard one year
Compressor Warranty:	Standard five year
Heat Exchanger Warranty:	Standard ten year

AHRI Certification



All equipment is rated and certified in accordance with AHRI 340/360.

Notes

As a standalone component, unit meets or exceeds the requirements of ASHRAE 90.1.2010. The approving authority is responsible for compliance of multi-component building systems.

Accessories

Part Number	Description
MXRD-TECM3	Economizer, 3-5 ton, Vert/Horiz R410A, Electmechan
RXXR-AV02	Dual enthalpy kit
RXKG-CAD14	14" Roof curb, 3-6 T(R22)/3-5 T(410A)/6 T Ht Pump

MPS™ 003B – 005B w/Gas Heat Certified Drawing

1131111-01

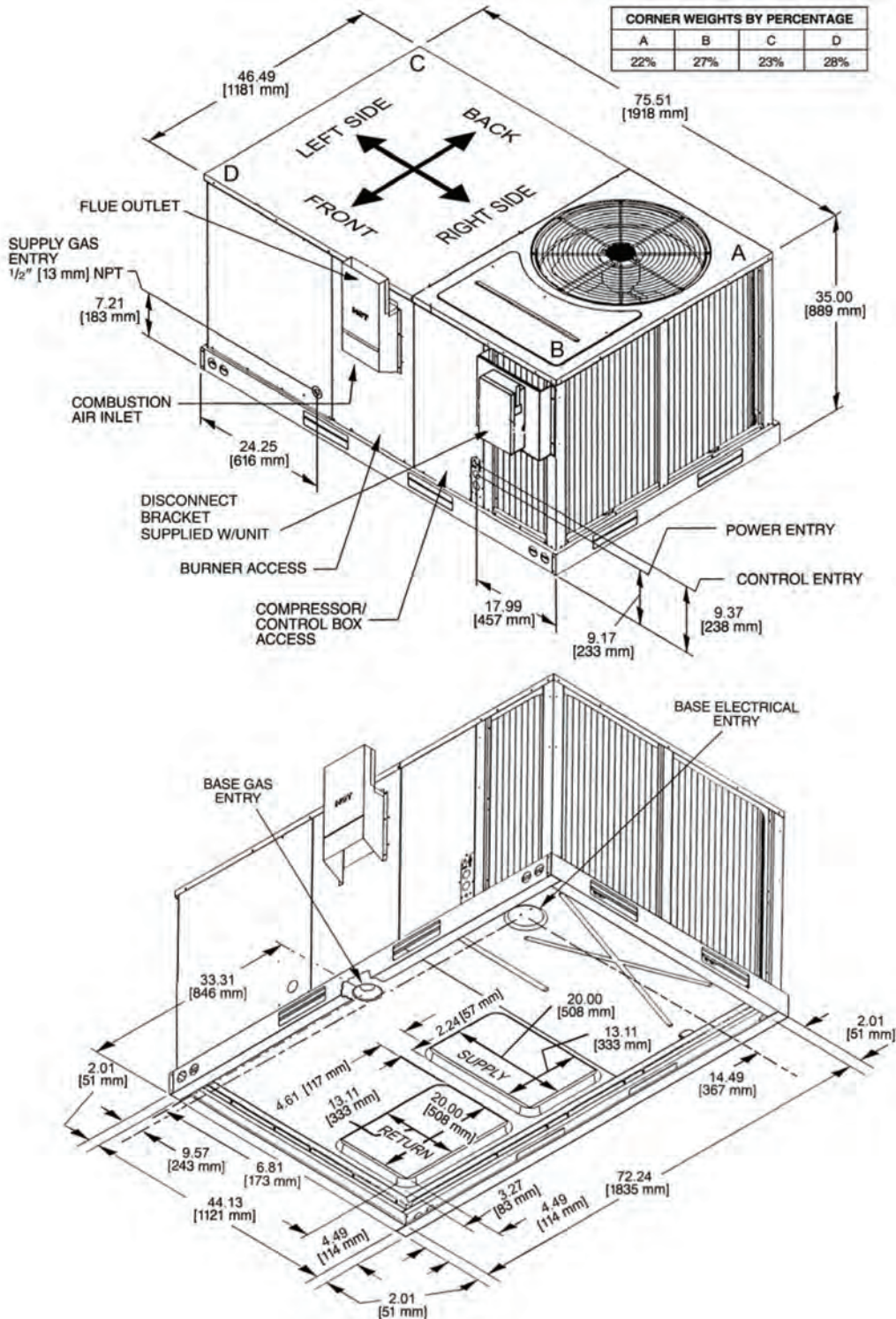
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View: Isometric

Model: 3 – 5 ton

Date: 7/29/2013

Unit Tag: HVAC-3, 8



MPS™ 003 – 005 Roof Curb Certified Drawing

5001606-01

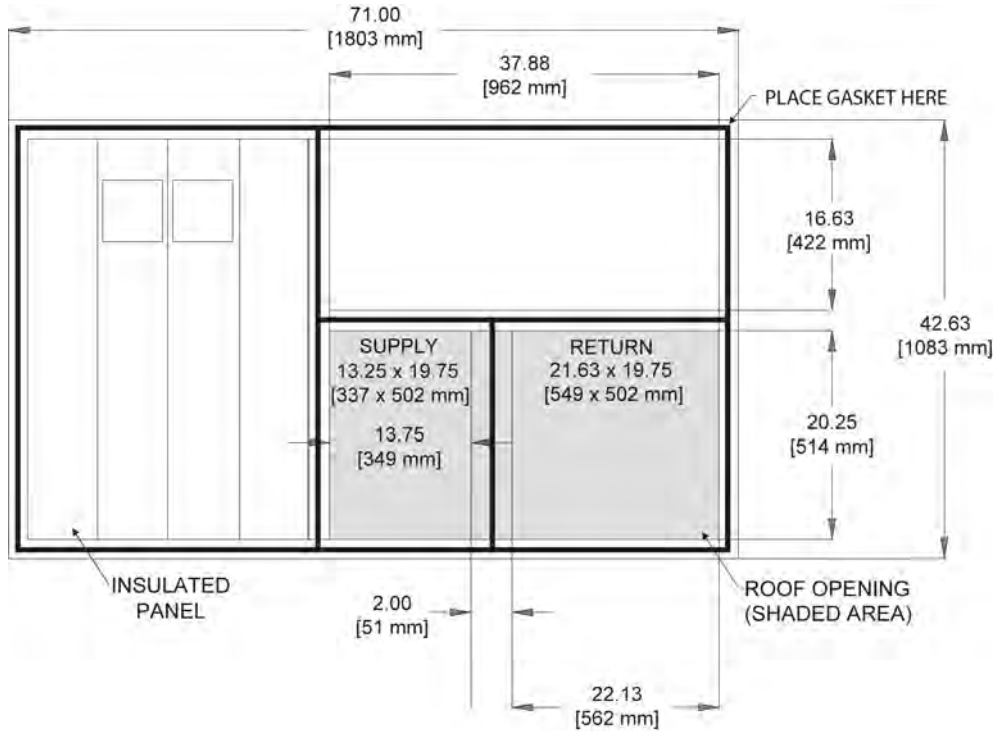
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View: Plan

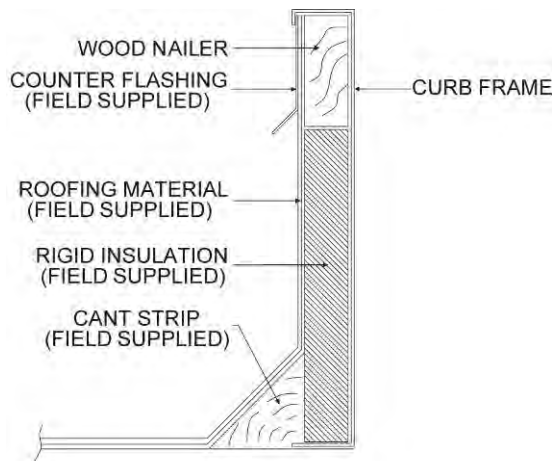
Model: 3 – 5 ton

Date: 7/29/2013

Unit Tag: HVAC-3, 8



PLAN VIEW



CURB CROSS SECTION

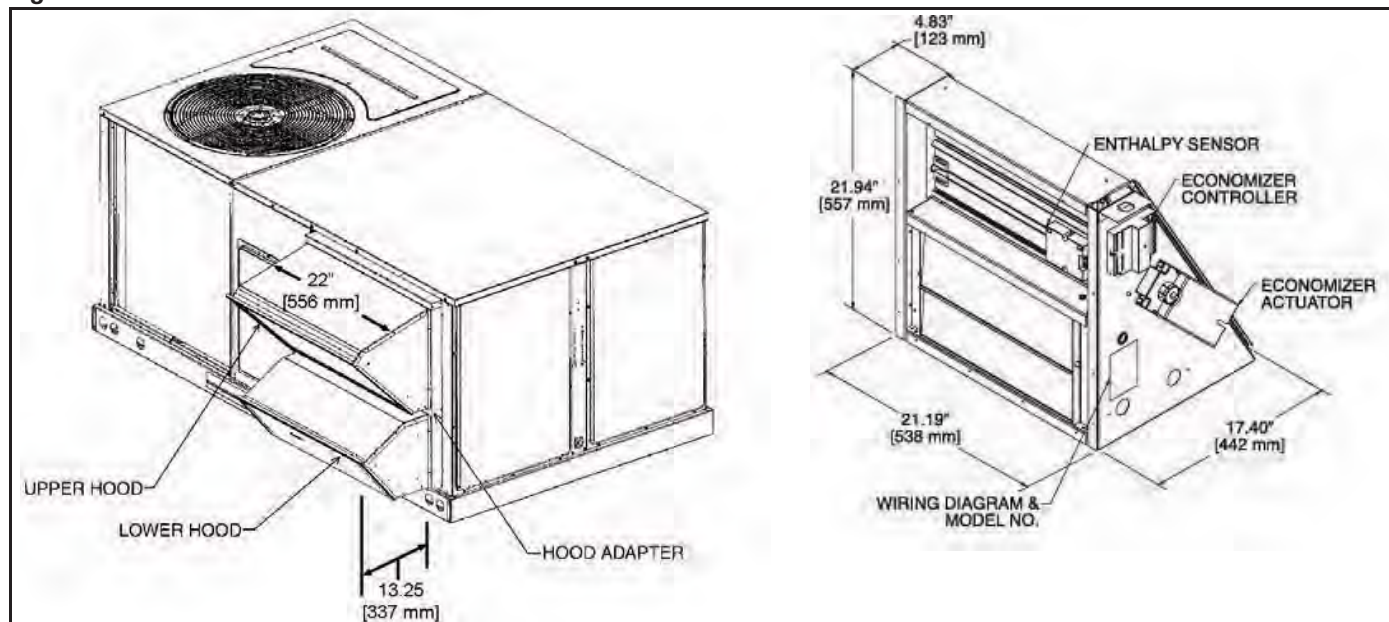
Accessories

Economizers

Economizers: 3–5 Tons [10.6–17.6 kW]

- Features economizer controller
- Available factory installed or field accessory
- Gear driven direct drive actuator
- Fully modulating (0-100%)
- Low leakage dampers
- Horizontal or downflow applications
- Slip-in design for easy installations
- Plug-in polarized electrical connections
- Pre-configured—no field adjustments necessary
- Standard barometric relief damper provided
- Single enthalpy with dual enthalpy upgrade kit
- CO₂ input sensor available (field installed)
- Economizer slips in complete for downflow or horizontal duct application
- Field assembled hood ships with economizer
- Field installed power exhaust available

Figure 44: Economizer: MPS 003B – 005B



Power Exhaust

Table 29: Air Damper and Exhaust Accessories

McQuay Model No.	Description
→ MXRX-BGF06C	Power exhaust for 208/230 volt MPS-003B through -005B
MXRX-BGF06D	Power exhaust for 460 volt MPS-003B through -005B
MXRX-BGF06Y	Power exhaust for 575 volt MPS-003B through -005B
RXXR-AW03	Motorized Kit for MXRF-KFA1
RXXR-BGF05C	Power exhaust for 208/230 volt MPS-015B through -025B
RXXR-BGF05D	Power exhaust for 460 volt MPS-015B through -025B
RXXR-BGF05Y	Power exhaust for 575 volt MPS-015B through -025B
RXXR-BFF02C	Power exhaust, 208/230 volt for MPS-006B through -012B
RXXR-BFF02D	Power exhaust, 460 volt for MPS-006B through -012B
RXXR-BFF02Y	Power exhaust, 575 volt for MPS-006B through -012B

Integral Power Exhaust For Economizer: 3–5 Tons [10.6–17.6 Kw] (Field Installed Only)

MXRX-CGF04 (C,D,Y Voltages) for MPS-003B-005B

- For economizer controller
- Downflow or horizontal applications
- Requires separate power supply with disconnect
- Adjustable switch on economizer, factory preset to energize power exhaust at 95% outside air position
- Polarized plug connects power exhaust relay to economizer

Figure 49: Integral Power Exhaust Economizer: MPS 003B – 005B

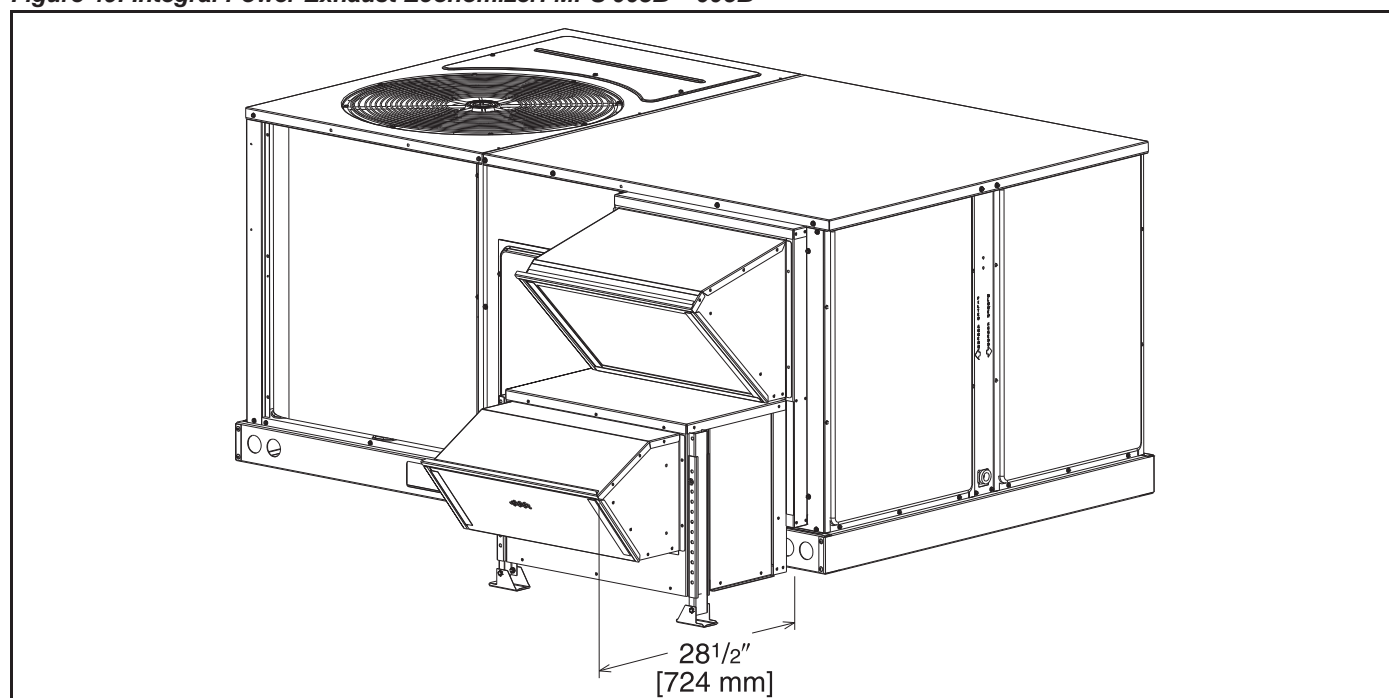


Table 30: Power Exhaust Kit for MXRD-NECM Economizers

Model No.	No. of Fans	Volts	Phase	Watts (ea.)	High Speed		FLA (ea.)	LRA (ea.)
					CFM [L/s] ¹	RPM		
MXRX-BGF06C	1	208-230	1	1000	2500 [1179]	1725	4.4	23.7
MXRX-BGF06D	1	460	1	800	2370 [1118]	1620	1.8	4.1
MXRX-BGF06Y ²	1	575	1	800	2370 [1118]	1620	1.5	3.3

Note: ¹ CFM is at 0" W.C. external static pressure.

² Unit includes 575 to 460 Volt step-down transformer.

Job Information		Technical Data Sheet
Job Name	Marriott Hotel	
Date	7/30/2013	
Submitted By	Briggs Equipment Sales, Inc.	
Software Version	03.61	
Unit Tag	HVAC-9	



Unit Overview					
Model Number	Voltage	Design Cooling Capacity	AHRI 360 Standard Efficiency		ASHRAE 90.1
			EER	IEER	
MPS010B	208/60/3	125738 Btu/hr	11.0	11.9	2010 Compliant

Unit					
Unit Dimensions and Weights					
Unit Length	Unit Height	Unit Width	Unit Weight		
93.7 in	44.0 in	58.7 in	1255 lb		
Unit Construction					
Exterior:	Powder Coat Galvanized	Doors:	Fan, Filter, Coil, Control Panel, and Economizer section		
Insulation:	3/4" foil face with mechanical fasteners, R value of 3.6	Approval Listing:	cULus		
Liners:	Single wall construction	Drain Pan Material	Polymer		
Unit Electrical Data					
Voltage	SCCR	MCA	MROPD		
208/60/3 v	5 kAIC	54.0 A	60 A		
Field Connection:	Non-Fused Disc Sw, Field powered 115V GFI outlet				
Control Data					
Temperature Controls:			Application:		
Electromechanical Controls			Constant volume		

Return/Outside/Exhaust Air					
Outside Air Option					
Type:	Field Installed Economizer, vertical return				
Draw Through Filters					
Type	Face Area	Face Velocity	Air Pressure Drop		
2" Disposable	13.5 ft²	296 ft/min	Included In Fan Performance		
Exhaust Fan Option					
Fan Airflow	Max Static Pressure	Fan Type	Fan Quantity	Fan Diameter	Capacity Control
2500 CFM	0.30 inH ₂ O	Prop	2	15"	1
Motor Power	Motor Type	Motor Quantity	Full Load Current	Drive Type	
0.33	Open Drip Proof	2	0.7 A	Direct Drive	

Cooling Coil						
Fins per Inch	Rows	Face Area		Face Velocity	Air Pressure drop	
18	3	13.5 ft ²		296 ft/min	Included In Fan Performance	
Cooling Performance						
Total Capacity Btu/hr	Sensible Capacity Btu/hr	Entering Air Temperature		Leaving Air Temperature		Ambient Air Temp °F
		Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	
125738	96908	80.0	67.0	57.6	57.0	95.0

Fan Section					
Type	Fan Wheel Diameter		Quantity	Vibration Isolation	
FC	15 in		1	Rigid	
Fan Performance					
Air Flow	External Static Pressure	Design Fan Speed	Drive Package Speed	Brake Horsepower	Altitude
4000 CFM	0.75 inH ₂ O	952 RPM	894	2.5 HP	0 ft
Motor					
Horsepower	Type		Efficiency	Full Load Current	
3.0 HP	Open drip proof, EPAct		80.0 %	13.0 A	
Drives					
Type			Service Factor		
Adjustable Sheave			120%		

Gas Heat Section					
Type	Material	Gas Type	Ignition	Combustion Blower	Heat Stages
Tubular Heat exchanger with in-shot burner manifold	Stainless steel	Natural Gas	Electric	Induced draft blower	2 Stage
Heating Performance					
Size	Total Capacity	Steady State Efficiency	Entering Air Dry Bulb	Leaving Air Dry Bulb	
225 MBH	182250 Btu/hr	0.81	60.0 °F	102.0 °F	

Condensing Section					
Compressor					
Type	Quantity	Total Power	Capacity Control	Refrigerant Type	
Scroll	2	9.1 kW	2 steps	R410A	
Compressor Amps:					
Compressor 1			17.8 A		
Compressor 2			17.8 A		
Compressor Options:	LP, HP switch				
Condenser Coil					
Type	Fins Per Inch	Rows	Fin Material	Refrigerant Valves	
Copper tube	22	2	Aluminum	None	
Condenser Fan Motors					
Number of Motors			Full Load Current		
2			1.2 A		
AHRI 360 Certified Data at AHRI 360 Standard Conditions					
Net Capacity		Efficiency		ASHRAE 90.1	
118000 Btu/hr		11.0 EER 11.9 IEER		2010 Compliant	

Internal Static Pressure Drop Calculation

Component	Air Pressure Drop
External Static Pressure	0.75
Internal Static Pressure	0.22
Total Static Pressure:	0.97 inH ₂ O

Warranty

Parts Warranty:	Standard one year
Compressor Warranty:	Standard five year
Heat Exchanger Warranty:	Standard ten year

AHRI Certification



All equipment is rated and certified in accordance with AHRI 340/360.

Notes

As a standalone component, unit meets or exceeds the requirements of ASHRAE 90.1.2010. The approving authority is responsible for compliance of multi-component building systems.

Accessories

Part Number	Description
RXR-AV02	Dual enthalpy kit
MXRD-PDCM3	Economizer, 6-12 ton, Vertical, R410
RXKG-CAE14	14" Roof curb, 7-12 ton R22/6-12 ton R410
RXRBF02C	Power exhaust, 6-12 ton, 208/230V

MPS™ A06B – 012B w/Gas Heat Certified Drawing

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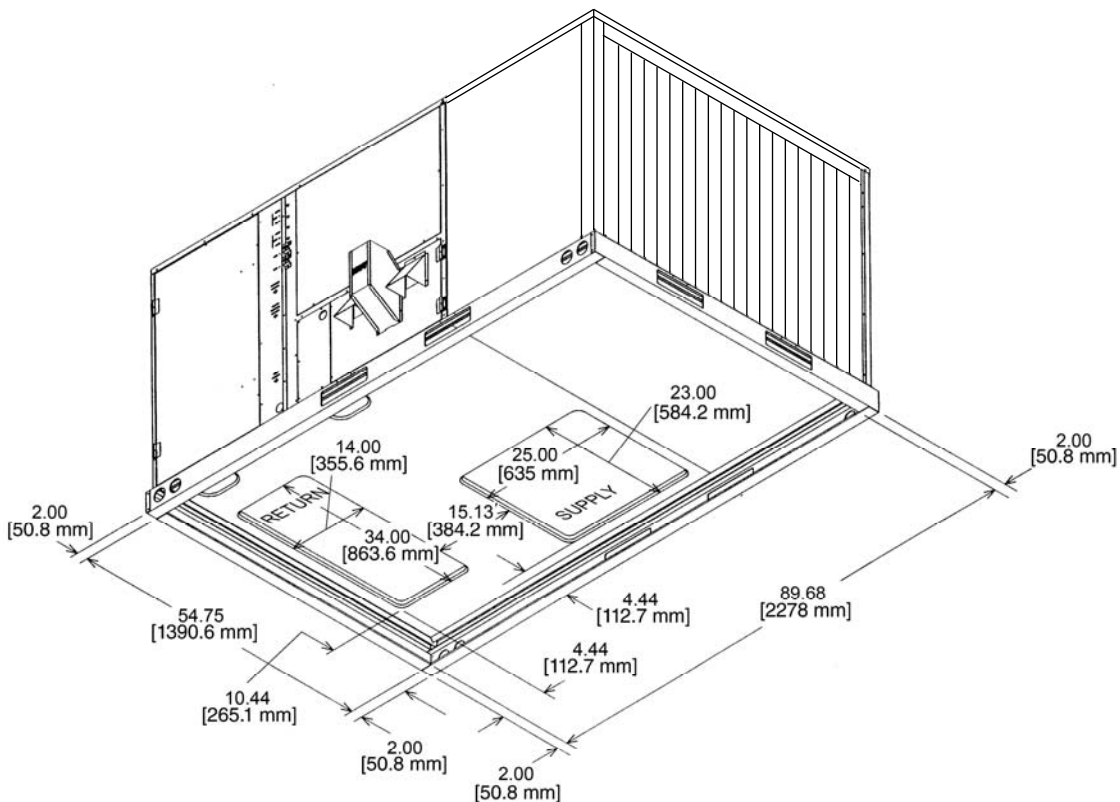
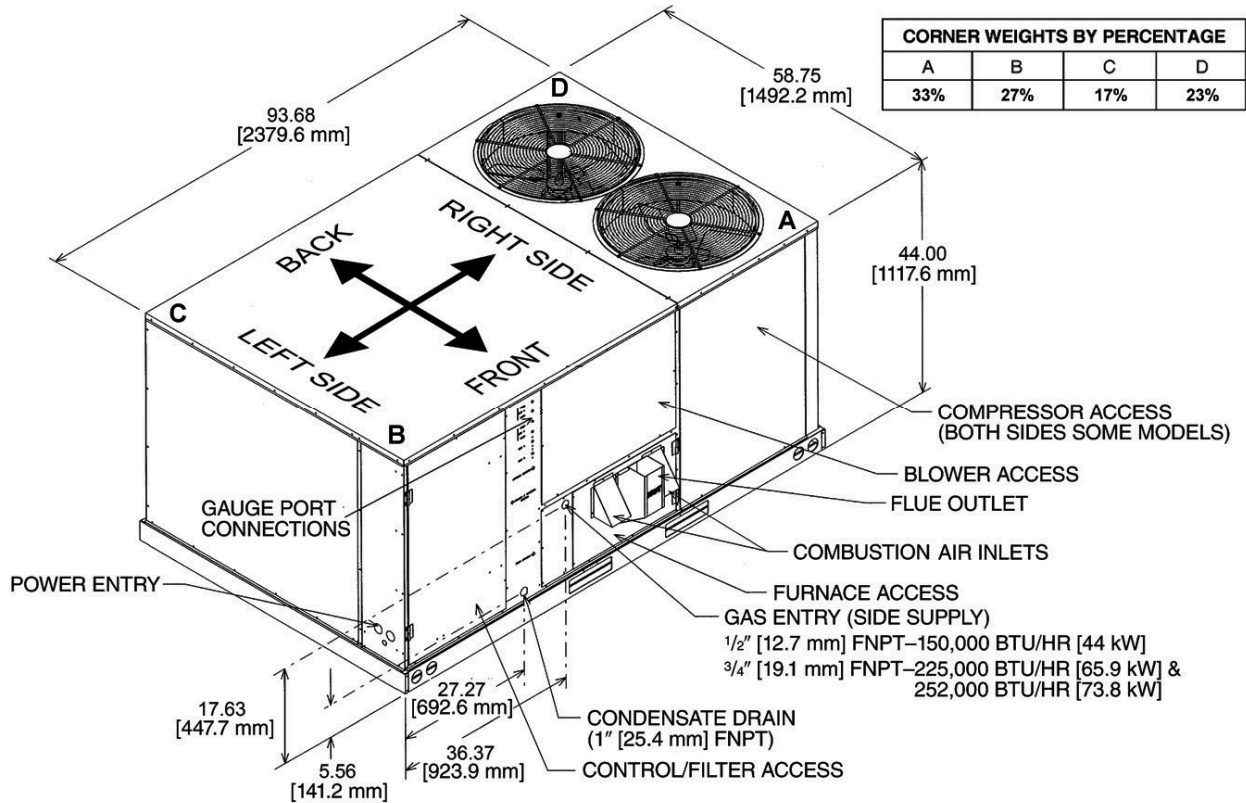
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View: Isometric

Model: 6 – 12 ton

Date: 7/29/2013

Unit Tag: HVAC-9



MPS™ A06B – 012B Roof Curb Certified Drawing

5001607-01

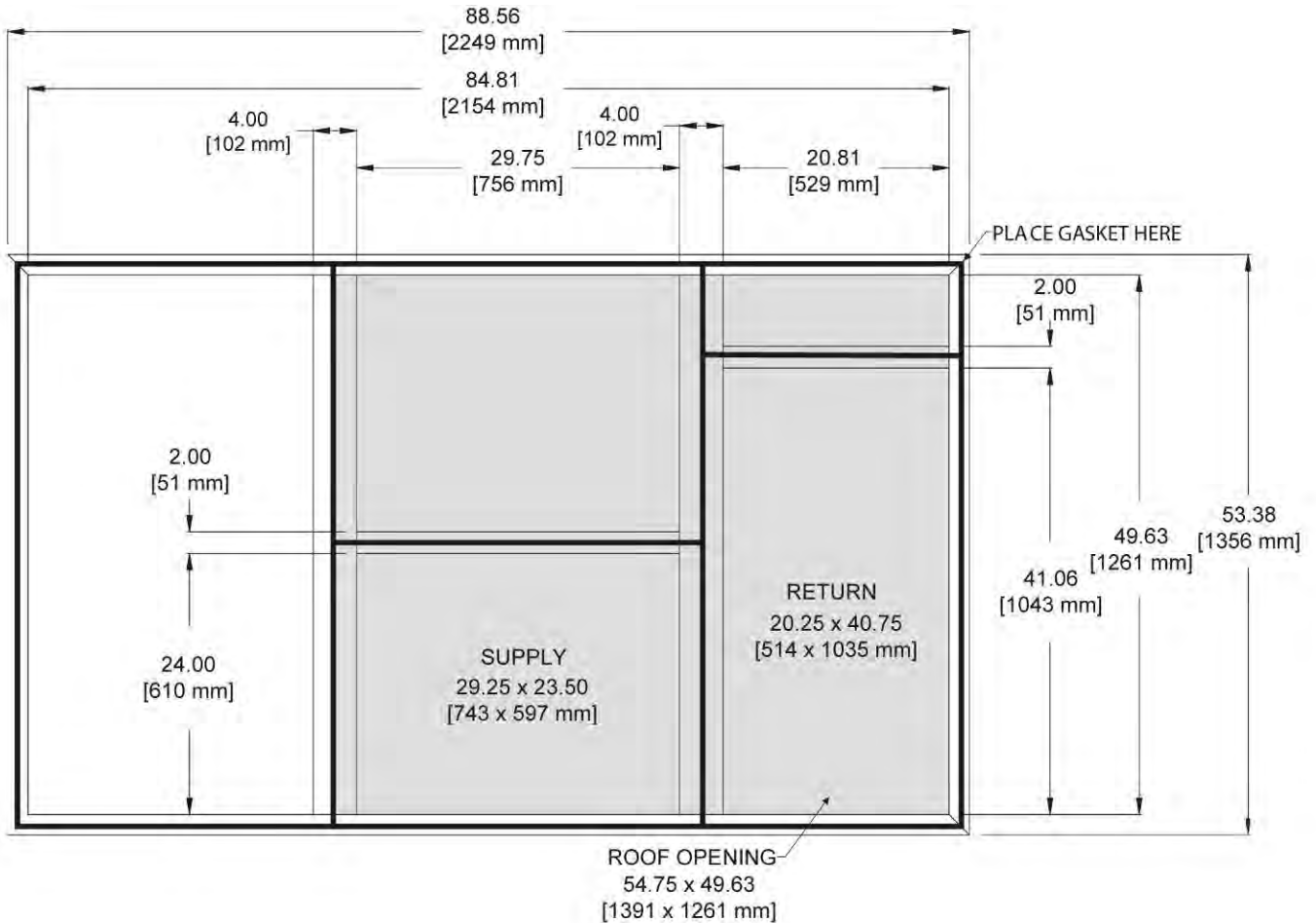
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View: Plan

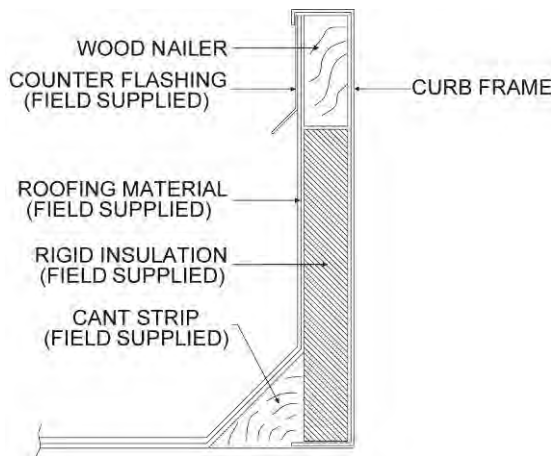
Model: 6 – 12 ton

Date: 7/29/2013

Unit Tag: HVAC-9



PLAN VIEW

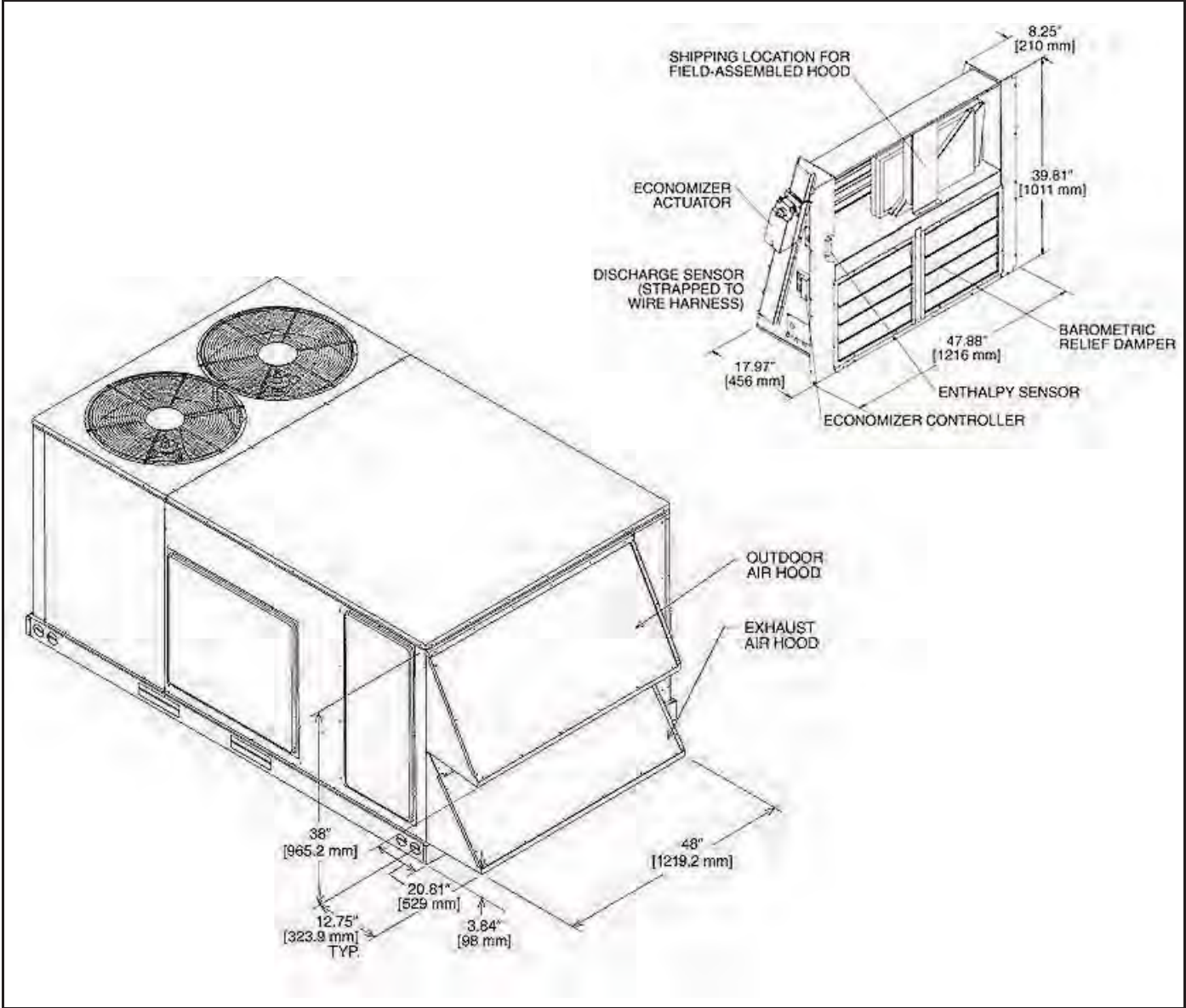


CURB CROSS SECTION

Economizers: 6–12.5 Tons [21.1–44 kW]

- Features economizer controller
- Available factory installed or field accessory
- Gear driven direct drive actuator
- Fully modulating (0-100%)
- Low leakage dampers
- Slip-in design for easy installation
- Plug-in polarized electrical connections
- Pre-configured—no field adjustments necessary
- Standard barometric relief damper
- Single enthalpy with dual enthalpy upgrade kit available
- CO₂ input sensor available
- Field assembled hood ships with economizer
- Economizer ships complete for downflow duct application
- Field installed power exhaust available

Figure 45: Economizer: MPS 006B – 012B



Power Exhaust

Table 29: Air Damper and Exhaust Accessories

McQuay Model No.	Description
MXRX-BGF06C	Power exhaust for 208/230 volt MPS-003B through -005B
MXRX-BGF06D	Power exhaust for 460 volt MPS-003B through -005B
MXRX-BGF06Y	Power exhaust for 575 volt MPS-003B through -005B
RXXR-AW03	Motorized Kit for MXRF-KFA1
RXXR-BGF05C	Power exhaust for 208/230 volt MPS-015B through -025B
RXXR-BGF05D	Power exhaust for 460 volt MPS-015B through -025B
RXXR-BGF05Y	Power exhaust for 575 volt MPS-015B through -025B
→ RXXR-BFF02C	Power exhaust, 208/230 volt for MPS-006B through -012B
RXXR-BFF02D	Power exhaust, 460 volt for MPS-006B through -012B
RXXR-BFF02Y	Power exhaust, 575 volt for MPS-006B through -012B

Integral Power Exhaust For Economizer: 3–5 Tons [10.6–17.6 Kw] (Field Installed Only)

MXRX-CGF04 (C,D,Y Voltages) for MPS-003B-005B

- For economizer controller
- Downflow or horizontal applications
- Requires separate power supply with disconnect
- Adjustable switch on economizer, factory preset to energize power exhaust at 95% outside air position
- Polarized plug connects power exhaust relay to economizer

Figure 49: Integral Power Exhaust Economizer: MPS 003B – 005B

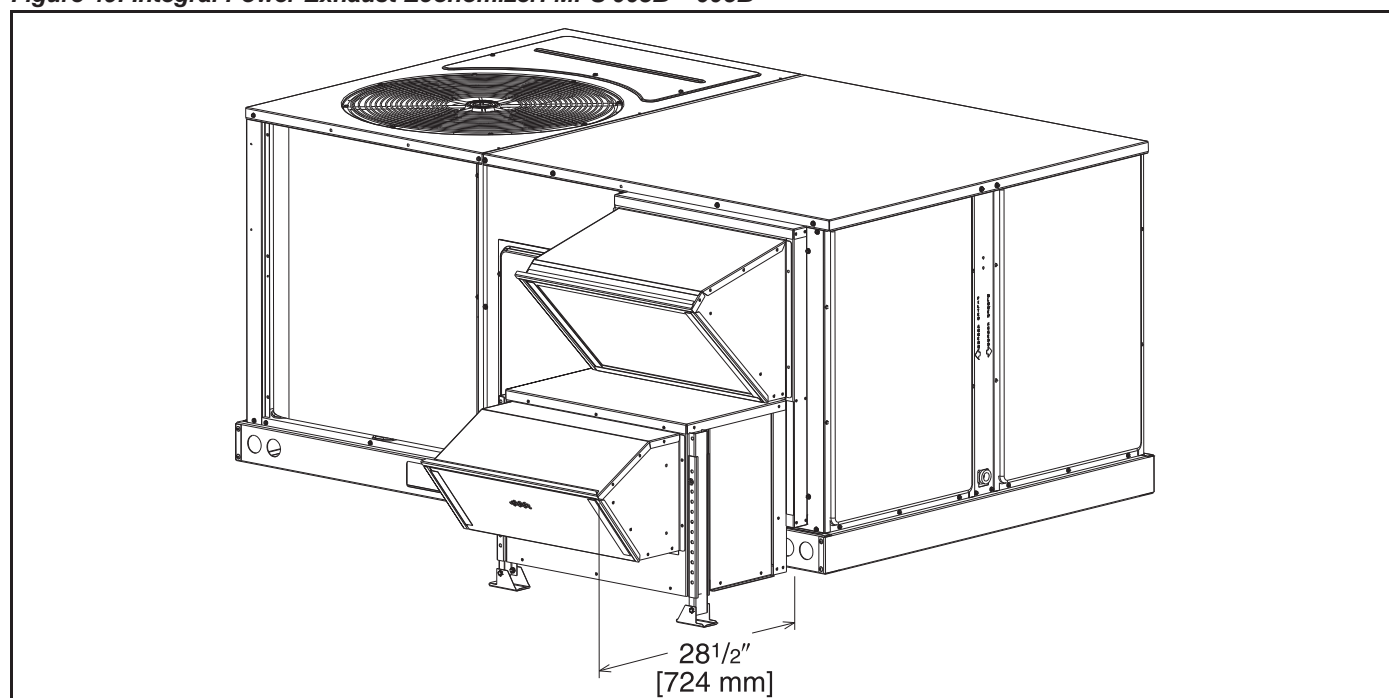


Table 30: Power Exhaust Kit for MXRD-NECM Economizers

Model No.	No. of Fans	Volts	Phase	Watts (ea.)	High Speed		FLA (ea.)	LRA (ea.)
					CFM [L/s] ¹	RPM		
MXRX-BGF06C	1	208-230	1	1000	2500 [1179]	1725	4.4	23.7
MXRX-BGF06D	1	460	1	800	2370 [1118]	1620	1.8	4.1
MXRX-BGF06Y ²	1	575	1	800	2370 [1118]	1620	1.5	3.3

Note: ¹ CFM is at 0" W.C. external static pressure.

² Unit includes 575 to 460 Volt step-down transformer.

Job Information		Technical Data Sheet
Job Name	Marriott Hotel	
Date	7/30/2013	
Submitted By	Briggs Equipment Sales, Inc.	
Software Version	03.61	
Unit Tag	HVAC-C-2	



Unit Overview					
Model Number	Voltage	Design Cooling Capacity	AHRI 360 Standard Efficiency		ASHRAE 90.1
			EER	SEER	
MPS003B	208/60/3	36437 Btu/hr	11.4	13.0	2010 Compliant

Unit			
Unit Dimensions and Weights			
Unit Length	Unit Height	Unit Width	Unit Weight
75.5 in	35.0 in	46.5 in	613 lb
Unit Construction			
Exterior:	Powder Coat Galvanized	Doors:	Fan, Filter, Coil, Control Panel, and Economizer section
Insulation:	3/4" foil face with mechanical fasteners, R value of 3.6	Approval Listing:	cULus
Liners:	Single wall construction	Drain Pan Material	Polymer
Unit Electrical Data			
Voltage	SCCR	MCA	MROPD
208/60/3 v	5 kAIC	19.0 A	25 A
Field Connection:	Non-Fused Disc Sw, Field powered 115V GFI outlet		
Control Data			
Temperature Controls:	Electromechanical Controls		Application: Constant volume

Return/Outside/Exhaust Air			
Outside Air Option			
Type:	Field Installed Economizer, vertical return		
Draw Through Filters			
Type	Face Area	Face Velocity	Air Pressure Drop
1" Disposable	5.1 ft²	216 ft/min	Included In Fan Performance

Cooling Coil						
Fins per Inch	Rows	Face Area	Face Velocity	Air Pressure drop		
17	2	5.1 ft²	216 ft/min	Included In Fan Performance		
Cooling Performance						
Total Capacity Btu/hr	Sensible Capacity Btu/hr	Entering Air Temperature		Leaving Air Temperature		Ambient Air Temp °F
		Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	
36437	27307	80.0	67.0	57.0	56.4	95.0

Fan Section					
Type	Fan Wheel Diameter		Quantity	Vibration Isolation	
FC	10 in		1	Rigid	
Fan Performance					
Air Flow	External Static Pressure	Design Fan Speed	Drive Package Speed	Brake Horsepower	Altitude
1100 CFM	0.75 inH ₂ O	997 RPM	1090	0.6 HP	0 ft
Motor					
Horsepower	Type		Efficiency	Full Load Current	
0.8 HP	Open drip proof, EPAct		80.0 %	2.2 A	
Drives					
Type			Service Factor		
Direct Drive			120%		

Gas Heat Section					
Type	Material	Gas Type	Ignition	Combustion Blower	Heat Stages
Tubular Heat exchanger with in-shot burner manifold	Stainless steel	Natural Gas	Electric	Induced draft blower	1 Stage
Heating Performance					
Size	Total Capacity	Steady State Efficiency	Entering Air Dry Bulb	Leaving Air Dry Bulb	
80 MBH	64800 Btu/hr	0.81	60.0 °F	114.3 °F	

Condensing Section					
Compressor					
Type	Quantity	Total Power	Capacity Control	Refrigerant Type	
Scroll	1	2.6 kW	1 step	R410A	
Compressor 1			9.6 A		
Compressor Options:	LP, HP switch				
Condenser Coil					
Type	Fins Per Inch	Rows	Fin Material	Refrigerant Valves	
Copper tube	22	1	Aluminum	None	
Condenser Fan Motors					
Number of Motors			Full Load Current		
1			1.2 A		
AHRI 360 Certified Data at AHRI 360 Standard Conditions					
Net Capacity		Efficiency		ASHRAE 90.1	
35400 Btu/hr		11.4 EER 13.0 SEER		2010 Compliant	

Internal Static Pressure Drop Calculation	
Component	Air Pressure Drop
External Static Pressure	0.75
Internal Static Pressure	0.09
Total Static Pressure:	0.84 inH₂O

Warranty	
Parts Warranty:	Standard one year
Compressor Warranty:	Standard five year
Heat Exchanger Warranty:	Standard ten year

AHRI Certification



All equipment is rated and certified in accordance with AHRI 340/360.

Notes

As a standalone component, unit meets or exceeds the requirements of ASHRAE 90.1.2010. The approving authority is responsible for compliance of multi-component building systems.

Accessories

Part Number	Description
MXRD-TECM3	Economizer, 3-5 ton, Vert/Horiz R410A, Electmechan
RXXR-AV02	Dual enthalpy kit
RXKG-CAD14	14" Roof curb, 3-6 T(R22)/3-5 T(410A)/6 T Ht Pump

MPS™ 003B – 005B w/Gas Heat Certified Drawing

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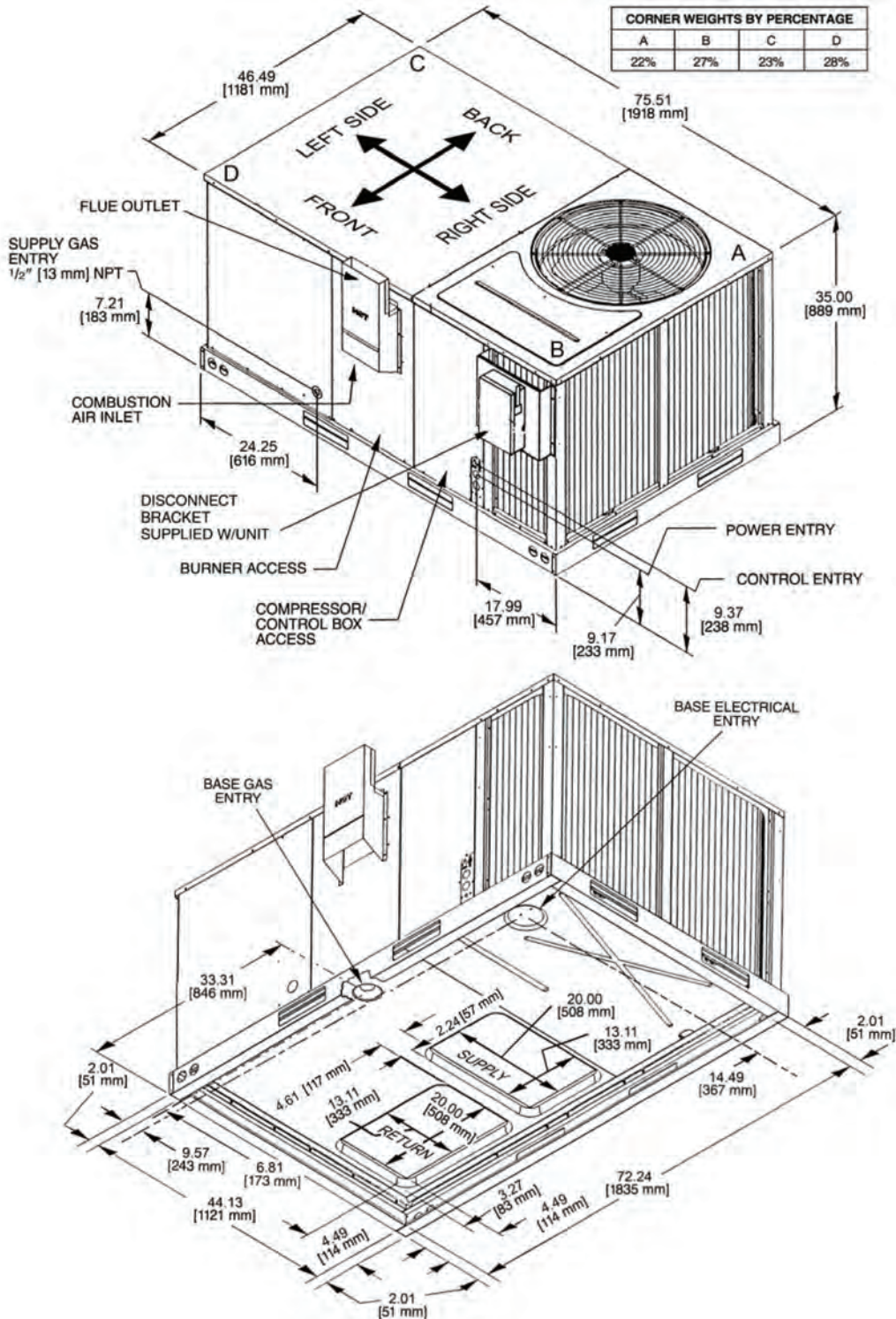
McQuay International certifies that its equipment will conform to this drawing and McQuay's published specifications, subject to its published warranty. Purchaser must determine that the equipment is fit and sufficient for the job specifications. No change to this drawing may be made unless approved in writing by McQuay. www.mcquay.com

View: Isometric

Model: 3 – 5 ton

Date: 7/29/2013

Unit Tag: HVAC-C-2



MPS™ 003 – 005 Roof Curb Certified Drawing

5001606-01

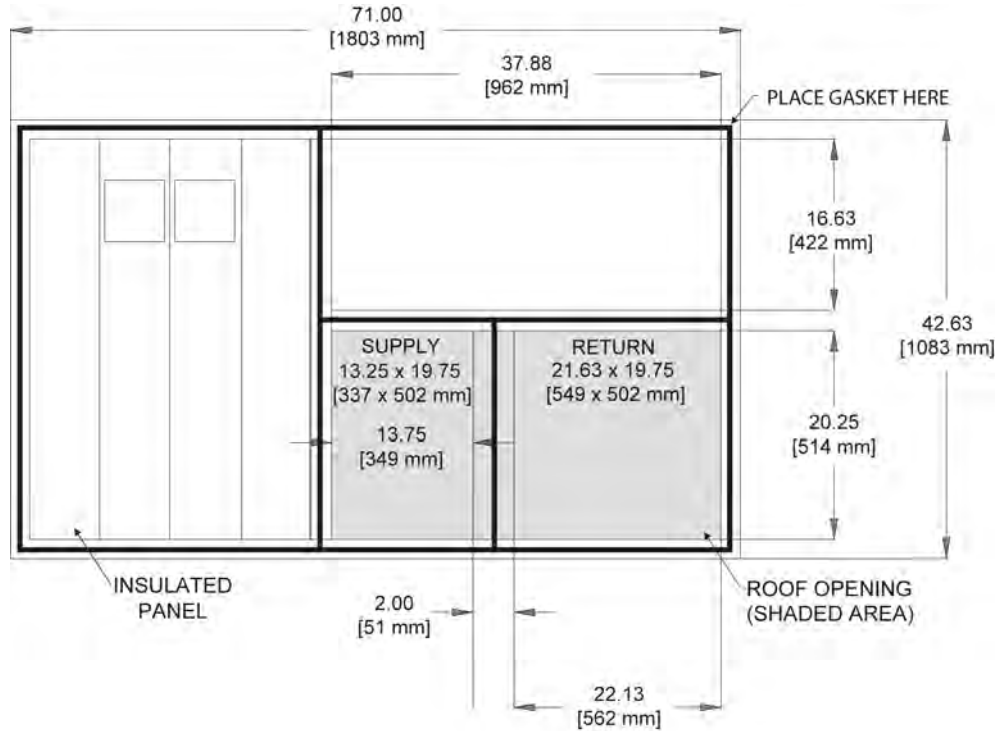
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View: Plan

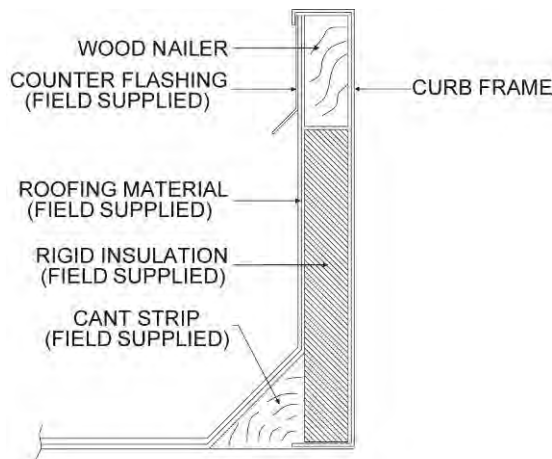
Model: 3 – 5 ton

Date: 7/29/2013

Unit Tag: HVAC-C-2



PLAN VIEW



CURB CROSS SECTION

Accessories

Economizers

Economizers: 3–5 Tons [10.6–17.6 kW]

- Features economizer controller
- Available factory installed or field accessory
- Gear driven direct drive actuator
- Fully modulating (0-100%)
- Low leakage dampers
- Horizontal or downflow applications
- Slip-in design for easy installations
- Plug-in polarized electrical connections
- Pre-configured—no field adjustments necessary
- Standard barometric relief damper provided
- Single enthalpy with dual enthalpy upgrade kit
- CO₂ input sensor available (field installed)
- Economizer slips in complete for downflow or horizontal duct application
- Field assembled hood ships with economizer
- Field installed power exhaust available

Figure 44: Economizer: MPS 003B – 005B

