


<b>Submittal Data: MULTI48HP230V1AO</b>		<b>48,000 BTUH Super +Multi-port Heat Pump System</b>	
<b>Job Name</b>		<b>Location</b>	<b>Date</b>
<b>Purchaser</b>		<b>Engineer</b>	
<b>Submitted To</b>		<b>For</b>	<input type="checkbox"/> Reference <input type="checkbox"/> Approval <input type="checkbox"/> Construction
<b>Unit Designation</b>		<b>Schedule No.</b>	
<b>GENERAL FEATURES</b> -Operates up to 8 Indoor Units -G10 DC Inverter Technology -2-Way & 3-Way Branch Units (Sold Sepatarely) -Acrylic Resin / Anti-Corrosion Coil Protection -Intelligent Defrost -Auto Restart on Power Outages -5 yr. Limited Parts Warranty -7 year Limited Compressor Warranty		 AHRI Certified Ref No: 7117354	
<b>System Ratings</b>		<b>Outdoor Unit Data</b>	
<b>Cooling</b> Rated Capacity 48,000 BTU/H Capacity Range 3,412-54,592 BTU/H Power Input (Max) 5,000 W SEER 16.0 EER 9.6		<b>Compressor</b> Type DC Inverter Driven Rotary RLA 23.0 A <b>Fan Motor</b> Output Power 2 x 1/6HP FLA 2 x 1.0 A Air Flow (Max) 3,766 CFM	
<b>Heating at 47° F</b> Rated Capacity 54,500 BTU/H Capacity Range 4,094-58,000 BTU/H Input Power (Max) 4,400 W HSPF 8.0 COP 3.6		<b>Sound Level</b> Cooling 57 db(A) Heating 57 db(A)	
<b>Heating at 17° F</b> Rated Capacity 36,400 BTU/H Capacity (Max) 45,358 BTU/H		<b>Refrigerant Piping Data</b>	
<b>Operating Range</b> Cooling (Max) 118°F (48°C) (Min) 5°F (-15°C) Heating (Max) 75°F (24°C) (Min) -4°F (-20°C)		Max. Number of Indoor Units 8 Connection Method Flared Refrigerant Type R410A Refrigerant Charge 174.6 oz Additional Charge Per Line Length 0.54-oz/ft Factory Charge for Total Line Length 98-ft Max. Number of BU Boxes 3	
<b>Power Supply</b> Normal Operational Voltage 208/230 V, 1 Phase, 60 Hz Voltage Range 187 - 253 V Main Power Wire Size 6 AWG Interconnecting Wire Size (Min.) 18 AWG MCA 30.0 A MOCP/Breaker Size 50 A		Total Refrigerant Pipe Length 443-ft Max Refrigerant Piping Length to any Indoor Unit 230-ft Min Refrigerant Piping Length to any Indoor Unit 10-ft Max Elevation between Indoor Units 50-ft Max Lift from Outdoor to Indoor Unit 98-ft Max Drop from Outdoor to Indoor Unit 98-ft	

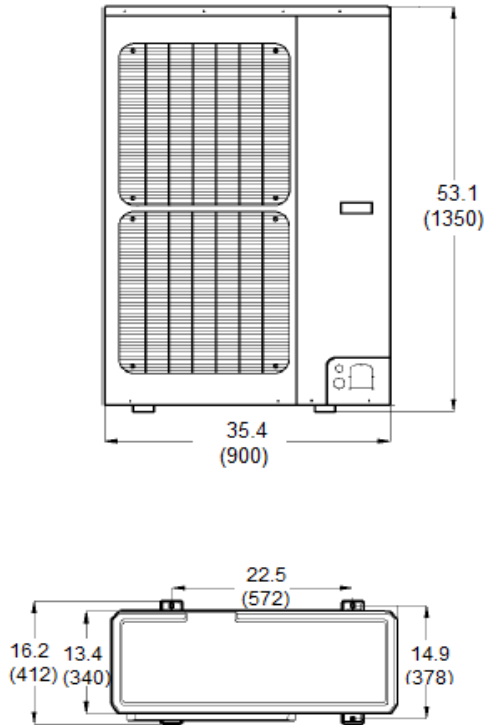


Units: inch (mm)



**48,000 BTUH MODEL**

Model # MULTI48HP230V1AO 48,000 BTUH 230V

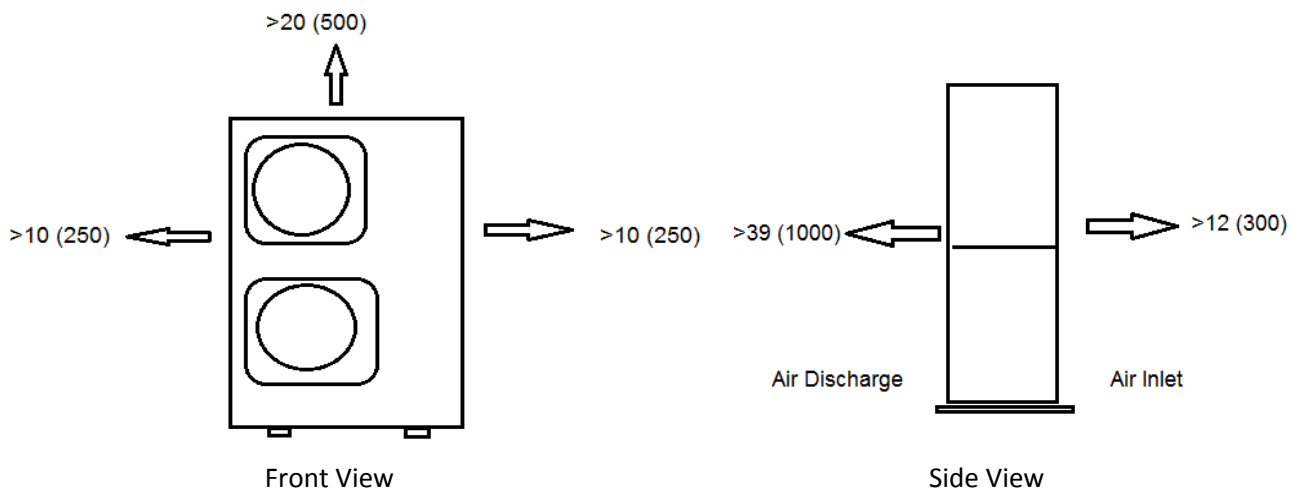


Net Weight	256 lbs
Shipping Weight	276 lbs

Liquid Line Port Size	3/8-in OD Flared
Suction/Gas Line Port Size	5/8-in OD Flared

**MINIMUM SPACING REQUIREMENTS**

Units: inch (mm)



**Notes:**

1. Communication Cable minimum 18 AWG Type Stranded Copper Conductors THHN 600V Unshielded Wire
2. Power wiring cable size must comply with applicable national and local codes.



**COOLING PERFORMANCE**

Outdoor Ambient Temperature (DB)	Indoor Entering Air Temperatures (DB) 50% RH					
	62 F		67 F		72 F	
	TC	SHC	TC	SHC	TC	SHC
25 F	51,830	41,059	54,215	42,740	56,352	44,780
35 F	50,990	41,010	53,535	41,780	55,648	43,020
45 F	49,859	39,843	52,555	40,834	54,523	42,279
55 F	47,930	38,995	51,892	41,919	52,965	41,219
65 F	48,150	38,555	52,730	42,710	53,160	40,819
75 F	47,520	37,540	50,620	40,265	53,150	43,520
85 F	46,330	39,000	49,255	40,390	52,760	42,200
95 F	45,620	35,665	47,800	37,162	49,196	38,234
105 F	39,900	33,295	42,250	35,716	43,020	37,895
115 F	35,220	30,253	36,320	32,235	36,960	33,825

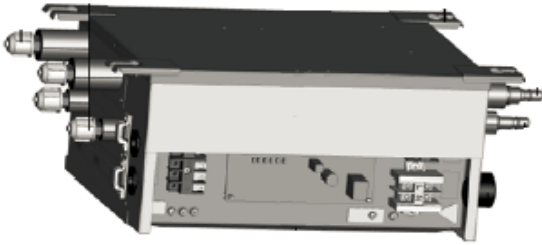
**HEATING PERFORMANCE**

Outdoor Ambient Temperature (DB) (80% RH)	Indoor Entering Air Temperatures (DB)					
	65 F		70 F		75 F	
	TC	SHC	TC	SHC	TC	SHC
5 F	31,628	31,628	31,131	31,131	30,715	30,715
15 F	36,463	36,463	35,970	35,970	35,111	35,111
25 F	41,200	41,200	40,664	40,664	39,633	39,633
35 F	46,886	46,886	45,513	45,513	44,875	44,875
45 F	53,552	53,552	52,886	52,886	51,950	51,950
55 F	54,197	54,197	53,400	53,400	52,698	52,698
65 F	54,938	54,938	54,249	54,249	53,834	53,834

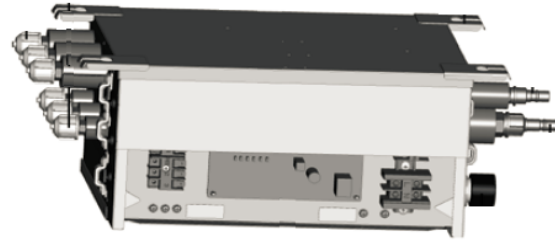
TC- Total Capacity ( BtuH)

SHC- Sensible Capacity (BtuH)

## BRANCH (BU) SPECIFICATIONS



1-Port In/2-Ports Out  
Model no: FXA2A-D (RFX12A)



1-Port In/3-Ports Out  
Model no: FXA3A-D (RFX13A)

### Electrical

		FXA2A-D	FXA3A-D
		RFX12A	RFX13A
No. of Indoor Units		2	3
Power Supply	volts	208/230v	208/230v
Rated Current	amps	3.15	3.15
MOCP	amps	15	15

### Piping

		FXA2A-D	FXA3A-D
		RFX12A	RFX13A
Max Equivalent Length (BU to last Indoor Unit)	ft	60	60

Notes:

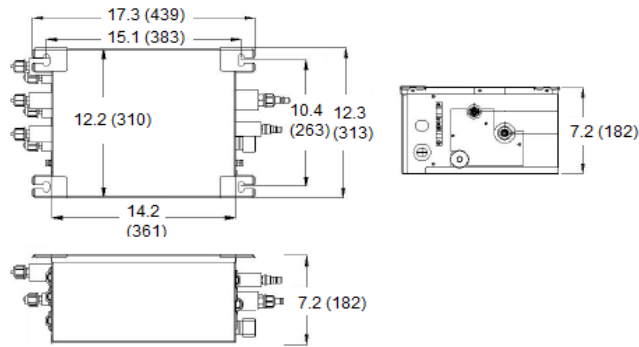
1. Communication Cable minimum 18 AWG Type Stranded Copper Conductors THHN 600V Unshielded Wire
2. Power wiring cable size must comply with applicable national and local codes.

# BRANCH (BU) BOX DIMENSIONAL SPECIFICATIONS

Units: inch (mm)



1-Port In/2-Ports Out  
Model no: FXA3A-D (RFX12A)

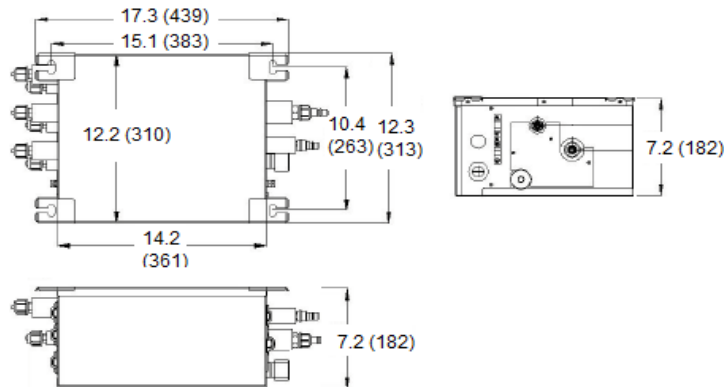


	Indoor Unit Side		Outdoor Unit
	Port A <sup>1</sup>	Port B <sup>1</sup>	Side <sup>1</sup>
Liquid Pipe	1/4	1/4	3/8
Gas Pipe	3/8	3/8	5/8

(1) Flare Fittings

Weight	
Net	Gross
12 lbs	16 lbs

1-Port In/3-Ports Out  
Model no: FXA3A-D (RFX13A)



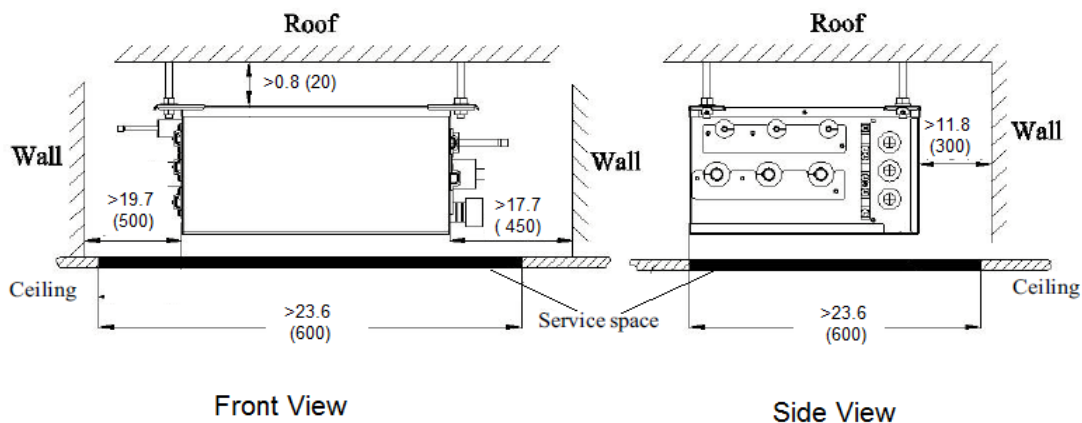
	Indoor Unit Side			Outdoor Unit
	Port A <sup>1</sup>	Port B <sup>1</sup>	Port C <sup>1</sup>	Side <sup>1</sup>
Liquid Pipe	1/4	1/4	1/4	3/8
Gas Pipe	3/8	3/8	3/8	5/8

(1) Flare Fittings

Weight	
Net	Gross
13 lbs	17 lbs

## MINIMUM SPACING REQUIREMENTS

Units: inch (mm)



Notes:

1. Recommended Interconnecting Cable Type Stranded Copper Conductors THHN 600V Unshielded Wire
2. Power wiring cable size must comply with applicable national and local codes.



Model Number & Description

Ceiling Cassette      CAS12HP230V1AC      12,000 BtuH  
                                  CAS18HP230V1AC      18,000 BtuH  
                                  CAS24HP230V1AC      24,000 BtuH



Universal Floor/Ceiling      FLR09HP230V1AF      9,000 BtuH  
                                  FLR12HP230V1AF      12,000 BtuH  
                                  FLR18HP230V1AF      18,000 BtuH  
                                  FLR24HP230V1AF      24,000 BtuH



Vireo High Wall\*      VIR09HP230VIBH      9,000 BtuH  
 \* A & B Revisions      VIR12HP230VIBH      12,000 BtuH  
 (Other High Wall Units available      VIR18HP230VIBH      18,000 BtuH  
   see sales literature)      VIR24HP230VIBH      24,000 BtuH



Slim Duct      DUCT09HP230V1AD      9,000 BtuH  
                                  DUCT12HP230V1AD      12,000 BtuH  
                                  DUCT18HP230V1AD      18,000 BtuH  
                                  DUCT24HP230V1AD      24,000 BtuH



Mini -Console      CONS09HP230V1AF      9,000 BtuH  
                                  CONS12HP230V1AF      12,000 BtuH  
                                  CONS18HP230V1AF      18,000 BtuH



Branch (BU) Boxes      FXA2A-D (RFX12A)      1-Port In/2-Ports Out  
                                  FXA3A-D (RFX13A)      1-Port In/3-Ports Out



Copper Y-Branch      LN01300110      Liquid & Gas  
 Connectors      (FQ01A/A)      Connectors



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