



ULTRA HEAT

ULTRA COOL

SUPER+
MULTI^ULTURA

Multi-Room Ductless heat-pump systems 48,000 BTU

Submittal Data: MULTIU48HP230V1BO 48,000 BTUH Super +Multi-port Heat Pump System

Job Name Location Date

Purchaser Engineer

Submitted To For Reference Approval Construction

Unit Designation Schedule No.

- GENERAL FEATURES**
- Up to Seven Indoor Units (7Port)
 - G10 DC Inverter Technology - 2 Stage / 3 Cylinder
 - 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 & Compressor Warranty



System Ratings

Outdoor Unit Data

Cooling	
Rated Capacity	48,000 BTU/H
Capacity Range	3,412-54,592 BTU/H
Power Input (Max)	5,430 W
SEER	18.0
EER	8.8

Compressor	Type	DC Inverter Driven Rotary
	RLA	29.0 A
Fan Motor	Output Power	2 x 1/6HP
	FLA	2 x 1.0 A
	Air Flow Ea.(Max)	3,531 CFM

Heating at 47° F	
Rated Capacity	54,000 BTU/H
Capacity Range	4,094-59,369 BTU/H
Input Power (Max)	4,950 W
HSPF	10.0
COP	3.2

Sound Pressure Level	
Cooling	56 dB(A)
Heating	56 dB(A)

Heating at 17° F	
Rated Capacity	36,400 BTU/H
Capacity (Max)	53,418 BTU/H

Refrigerant Piping Data

Operating Range		
Cooling	(Max)	129°F (54°C)
	(Min)	50°F (10°C)
Heating	(Max)	81°F (27°C)
	(Min)	-31°F (-35°C)

Max. Number of Indoor Units	7
Connection Method OD Unit (Flared)	3/8 x 5/8
Refrigerant Type	R410A
Refrigerant Charge	229.3 oz
Additional Charge Per Line Length	0.5-oz/ft
Factory Charge for Total Line Length	98-ft
Max. Number of BU Boxes	3

Power Supply	
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	39 A
MOCP/Breaker Size	60 A

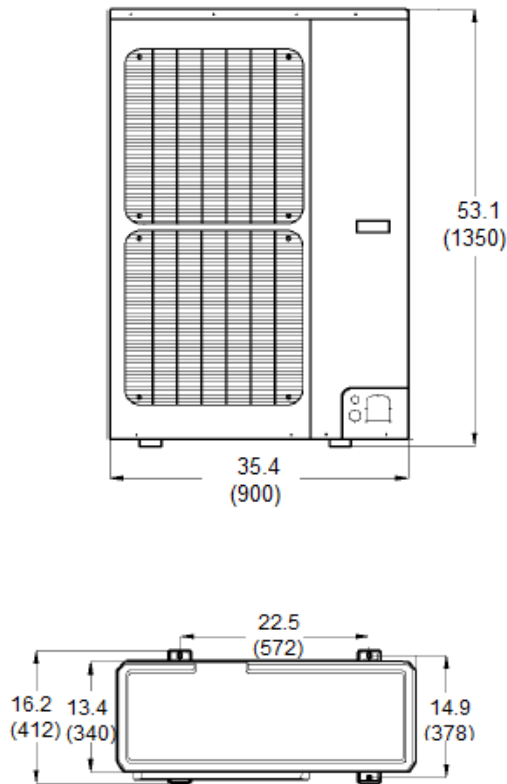
Total Refrigerant Pipe Length	443-ft
Max Refrigerant Piping Length to any Indoor Unit	230-ft
Min Refrigerant Piping Length to any Indoor Unit	10-ft
Max Elevation between Indoor Units	49-ft
Max Lift from Outdoor to Indoor Unit	98-ft
Max Drop from Outdoor to Indoor Unit	98-ft



Units: inch (mm)

48,000 BTUH MODEL

Model # MULTIU48HP230V1BO

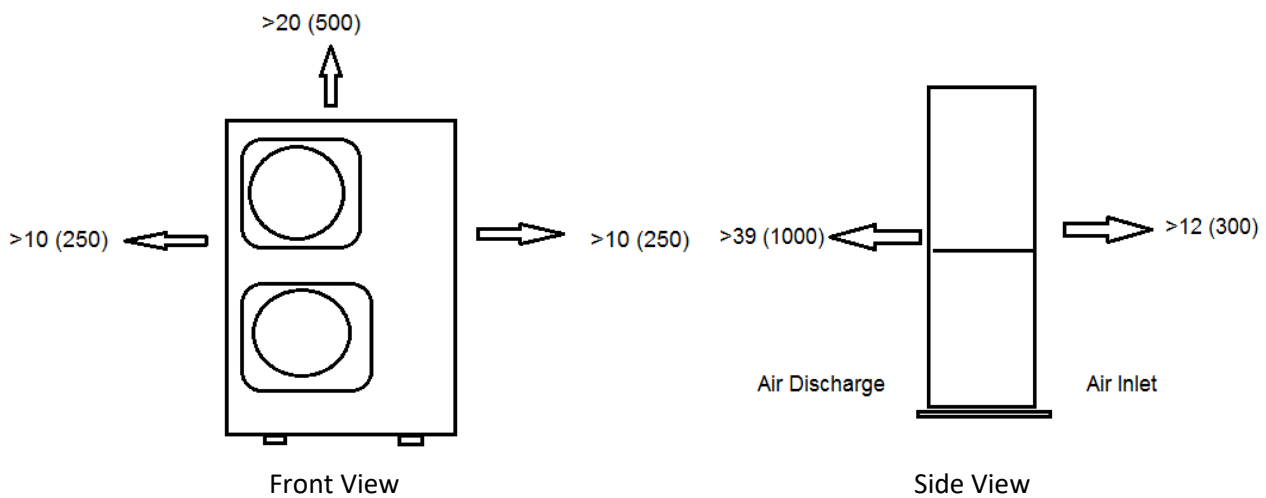


Net Weight	307 lbs
Shipping Weight	331 lbs

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 300V Unshielded Wire
2. Power wiring cable size must comply with applicable national and local codes.

EXTENDED RATINGS

MULTIU48HP230V1BO

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COOLING PERFORMANCE (BtuH)*

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Outdoor Ambient Temperature (DB)	Indoor Entering Air Temperatures					
	68°F DB		73°F DB		80°F DB	
	57°F WB		61°F WB		67°F WB	
	TC	SHC	TC	SHC	TC	SHC
50°F	56,201	47,771	60,482	48,386	62,130	49,704
59°F	55,105	46,839	58,303	46,642	59,516	47,613
68°F	55,420	47,107	56,742	45,394	57,952	46,362
77°F	53,521	45,493	54,783	43,826	56,180	44,944
86°F	51,145	43,473	52,541	42,033	53,791	43,033
95°F	49,548	42,116	50,726	40,581	52,183	41,746
104°F	48,030	40,826	48,203	38,562	49,782	39,826
113°F	45,208	38,427	46,503	37,202	47,982	38,386
122°F	38,901	33,066	40,112	32,090	41,650	33,320
129°F	29,651	25,203	31,583	25,266	33,742	26,994

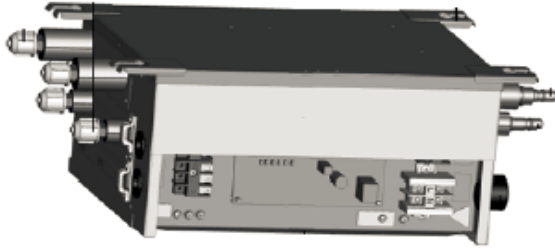
HEATING PERFORMANCE (BtuH)*

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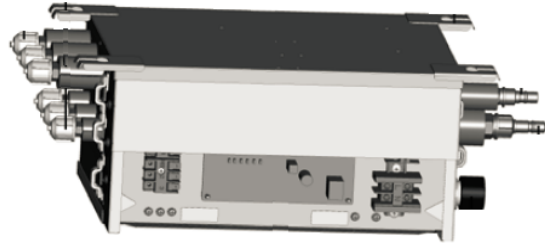
Outdoor Ambient Temperature (DB)	Indoor Entering Air Temperatures								
	68°F DB			73°F DB			80°F DB		
	57°F WB			61°F WB			67°F WB		
	TC	Power Input (KW)	COP	TC	Power Input (KW)	COP	TC	Power Input (KW)	COP
-31°F	29,651	6.30	1.38	31,802	6.12	1.52	31,802	6.01	1.55
-22°F	36,502	6.36	1.68	36,351	6.18	1.72	36,351	6.08	1.75
-13°F	42,102	6.53	1.89	41,725	6.35	1.93	41,725	6.24	1.96
-5°F	48,000	6.70	2.10	47,600	6.52	2.14	47,600	6.41	2.18
0°F	49,012	6.72	2.14	48,914	6.53	2.20	48,914	6.42	2.23
5°F	50,815	6.75	2.21	50,628	6.57	2.26	50,628	6.46	2.30
10°F	51,568	6.70	2.26	51,357	6.52	2.31	51,357	6.41	2.35
17°F	53,541	6.60	2.38	53,418	6.42	2.44	53,418	6.31	2.48
19°F	55,000	6.50	2.48	54,482	6.31	2.53	54,482	6.21	2.57
24°F	56,300	6.43	2.57	56,100	6.25	2.63	56,100	6.13	2.68
32°F	59,000	6.40	2.70	58,800	6.20	2.78	58,800	6.10	2.83
41°F	61,000	6.23	2.87	60,200	6.05	2.92	60,000	5.94	2.96
43°F	61,520	6.10	2.96	60,520	5.90	3.01	60,850	5.80	3.07
47°F	63,120	6.20	2.98	58,120	5.53	3.08	56,450	5.27	3.14
53°F	63,120	6.00	3.08	58,120	5.40	3.15	56,450	5.14	3.22
59°F	63,120	5.60	3.30	58,120	5.10	3.34	56,450	4.94	3.35
64°F	63,120	4.86	3.81	58,120	4.39	3.88	56,450	4.24	3.90
70°F	63,120	4.45	4.16	58,120	4.00	4.26	56,450	3.82	4.33
75°F	63,120	4.23	4.37	58,120	3.76	4.53	56,450	3.61	4.58
78°F	63,120	4.09	4.52	58,120	3.52	4.84	56,450	3.40	4.87

* Maximum system capacity
TC- Total Capacity (BtuH)
COP- Coefficient of Performance

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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	ft	60	60
(BU to last Indoor Unit)			

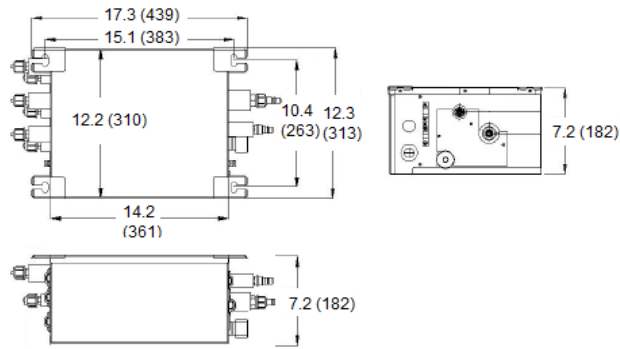
Notes:

1. Communication Cable minimum 18 AWG Type Stranded Copper Conductors THHN 300V 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)

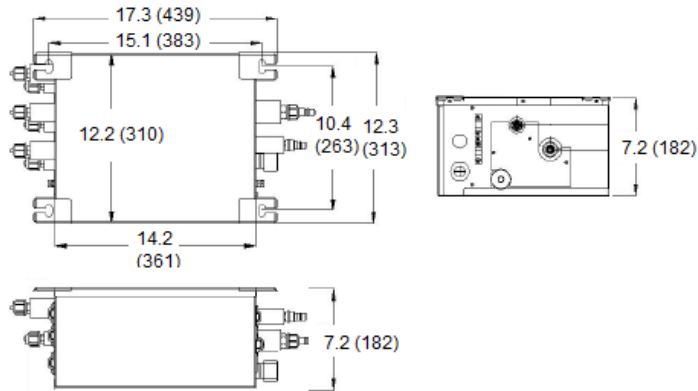


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	Indoor Unit Side		Outdoor Unit Side
	Port A ¹	Port B ¹	
Liquid Pipe (Flare)	1/4	1/4	3/8
Gas Pipe (Flare)	3/8	3/8	5/8

Weight	
Net	Gross
12 lbs	16 lbs

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

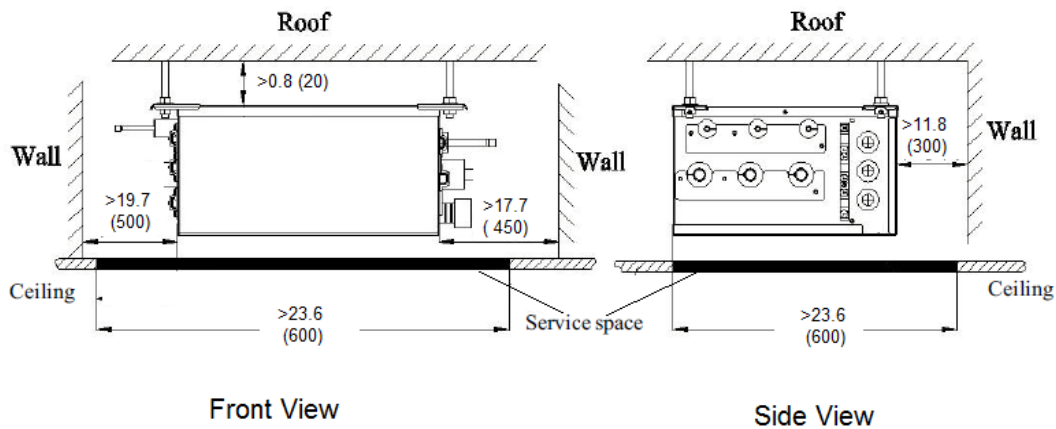


	Indoor Unit Side			Outdoor Unit Side
	Port A ¹	Port B ¹	Port C ¹	
Liquid Pipe (Flare)	1/4	1/4	1/4	3/8
Gas Pipe (Flare)	3/8	3/8	3/8	5/8

Weight	
Net	Gross
13 lbs	17 lbs

MINIMUM SPACING REQUIREMENTS

Units: inch (mm)



Notes:

1. Communication Cable minimum 18 AWG Type Stranded Copper Conductors THHN 300V 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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