

Job Name/Location:

Tag No.:

Date:

For:	File	Resubmit
	Approval	Other

PO No.:

Architect:

GC:

Engr:

Mech:

Rep:

(Company)

(Project Manager)

ARUM504DTE5

(a) ARUM121DTE5

Multi V™ 5 with LGRED° 460V ODU

(b) ARUM168DTE5

42 Ton Triple Frame Heat Pump and Heat Recovery

(c) ARUM216DTE5

**Performance:**

Cooling Mode:

Nominal Capacity (Btu/h)	504,000
Power Input <sup>1</sup> (kW)	35.32

Heating Mode:

Nominal Capacity (Btu/h)	567,000
Power Input <sup>1</sup> (kW)	40.93

Rated capacity is certified under AHRI Standard 1230. Ratings are subject to change without notice. Current certified ratings are available at [www.ahridirectory.org](http://www.ahridirectory.org).

**Electrical:**

Frame	(a) ARUM121DTE5	(b) ARUM168DTE5	(c) ARUM216DTE5
Power Supply (V/Hz/Ø) <sup>1</sup>	460/60/3	460/60/3	460/60/3
MOP (A)	25	35	50
MCA (A)	18.4	28.5	38.3
Rated Amps (A)	15.7	25.6	34.4
Compressor A (A)	10.7	11.4	15.5
Compressor B (A)	-	9.2	13.9
Fan (A)	5.0	5.0	5.0

**Piping:<sup>2</sup>**

Frame	(a) ARUM121DTE5	(b) ARUM168DTE5	(c) ARUM216DTE5
Refrigerant Charge (lbs.)	23.2	26.5	37.5
Liquid (in., O.D.)	1/2 Braze	5/8 Braze	5/8 Braze
High Pressure Vapor (Heat Recov only; in., O.D.)	3/4 Braze	7/8 Braze	1-1/8 Braze
Low Pressure Vapor (in., O.D.)	1-1/8 Braze	1-1/8 Braze	1-1/8 Braze

**Standard Features:**

- Advanced Smart Load Control
- Intelligent Heating
- HiPOR (High Pressure Oil Return)
- Smart Oil Control
- Night Quiet Operation
- Fault Detection and Diagnosis
- Active Refrigerant Control
- Variable Heat Path Exchanger
- Subcooling and Vapor Injection Control
- Liquid Cooled Inverter Controller
- Advanced Comfort Cooling

**Required Accessories:**

- ☐ ARCNB31 (Frame Connector Y-branch, 3 pipe heat recovery)
- ☐ ARCNB21 (Frame Connector Y-branch, 3 pipe heat recovery)
- ☐ ARCNN31 (Frame Connector Y-branch, 2 pipe heat pump)
- ☐ ARCNN21 (Frame Connector Y-branch, 2 pipe heat pump)

**Optional Accessories:**

- ☐ Air Guide - ZAGDKA52A (3 required)
- ☐ Hail Guard Kit - ZHGDKA52A (3 required)
- ☐ Low Ambient Baffle Kit - ZLABKA52A (3), Control Kit - PRVC2 (1 per system)
- ☐ Base Pan Heater - ZPLT2A52A

**\*\*Cooling operating range can be extended to -13°F if the optional low ambient baffle kit and low ambient control kit are installed.**

**This is the range in which the unit can operate as continuous operation.**

For continual product development, LG reserves the right to change specifications without notice.

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**Operating Range:**

Cooling (°F DB)**	5 - 122
Heating (°F WB)	-22 - 61
Synchronous	
Cooling Based (°F DB)	14 - 81
Heating Based (°F WB)	14 - 61

**Unit Data:**

Refrigerant Type	R410A
Refrigerant Control	EEV
Max. Number of Indoor Units <sup>3</sup>	64
Sound Pressure <sup>4</sup> dB(A)	67
Weight	
Frame	(a) ARUM121DTE5 (b) ARUM168DTE5 (c) ARUM216DTE5
Net (lbs.)	507 639 666
Shipping (lbs.)	534 666 694
Communication Cable (No x AWG) <sup>5</sup>	2 x 18
Heat Exchanger Coating	Black Coated Fin™

**Compressor:**

Type	HSS DC Scroll
Quantity	5
Oil / Type	PVE / FVC68D

**Fan:**

Type	Propeller
Quantity (a) + (b) + (c)	6
Motor Drive	Brushless Digitally Controlled Direct
Air Flow Rate (a) + (b) + (c) (CFM)	33,900

**Notes:**

- Power wiring cable size must comply with the applicable local and national codes. Cables terminate at each frame.
- For main pipe segment size, refer to the LATS Multi V tree diagram.
- The combination ratio must be between 50-130%.
- Sound pressure levels are tested in an anechoic chamber under ISO Standard 3745 for the combination of outdoor units.
- Communication cable between ODU and IDUs must be 2-conductor, 18 AWG, twisted, stranded, and shielded. Ensure the communication cable shield is properly grounded to the Main ODU chassis only. Do not ground the communication cable at any other point. Wiring must comply with all applicable local and national codes.
- Acceptable operating voltage: 414V - 528V
- The order of these units on the submittal (i.e., a+b+c) does not represent the installation order. Highest capacity unit is used as the Main, followed by the next smaller size as Sub 1, and so on.

**LGRED°**  
Powerful Heat Technology



*Inverter*



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# ARUM504DTE5

Multi V™ 5 with LGRED° 460V ODU

42 Ton Triple Frame Heat Pump and Heat Recovery

(a) ARUM121DTE5

(b) ARUM168DTE5

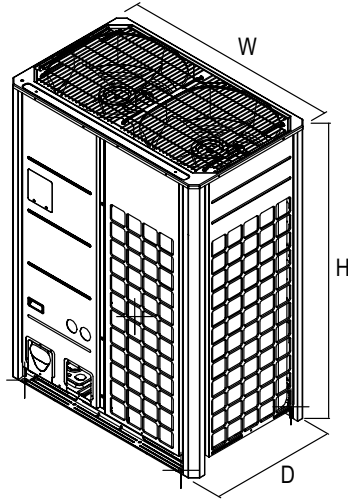
(c) ARUM216DTE5



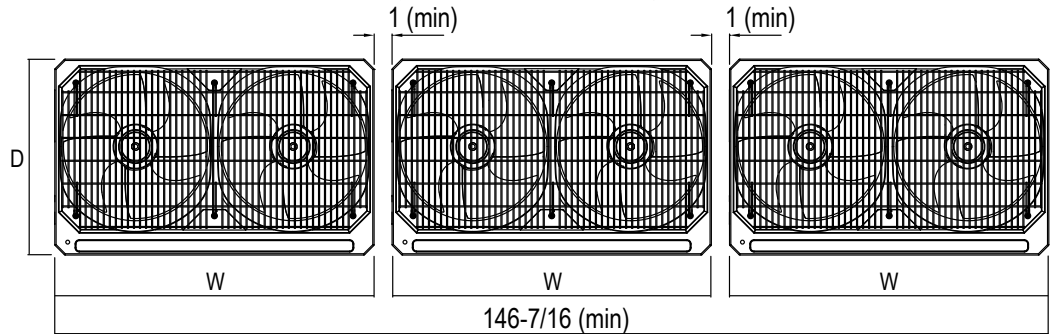
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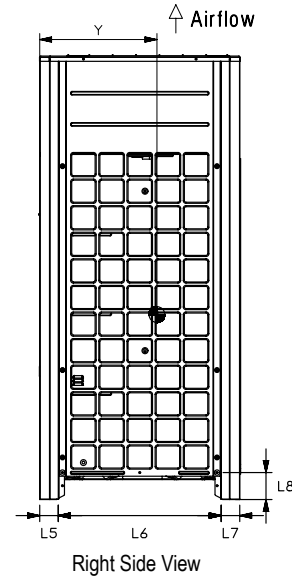
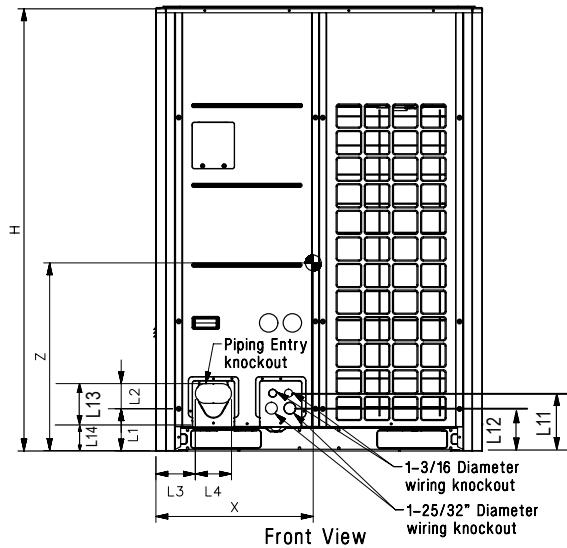
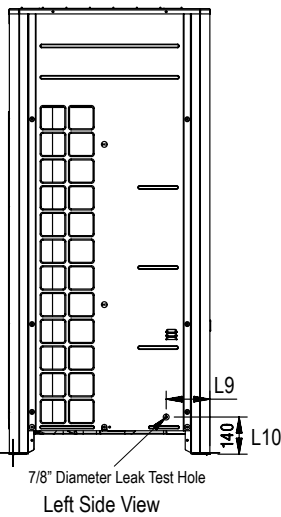
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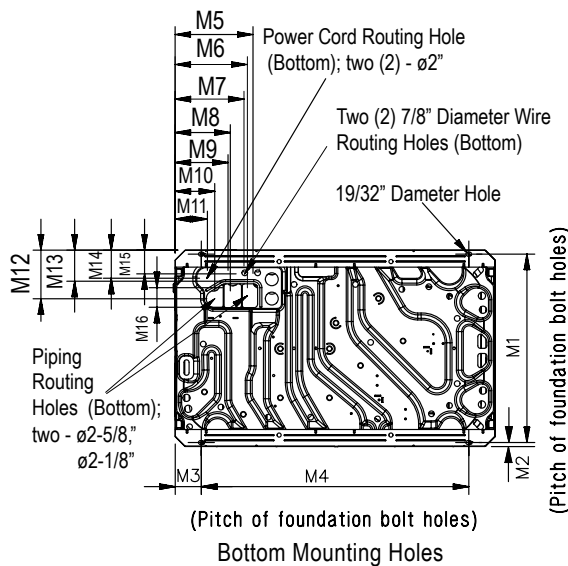
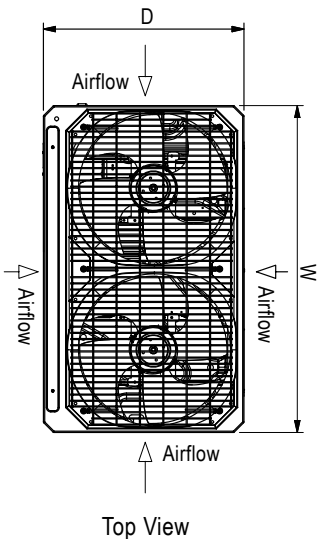
Typical Triple Frame Configuration



**Note:** Please refer to multi-frame placement information and piping rules in the Multi V 5 Engineering Manual and the Multi V 5 Installation Manual. Minimum spacing between frames is 1 inch.



W	48-13/16"
H	66-17/32"
D	29-29/32"
L1	6-5/16"
L2	3-3/4"
L3	5-29/32"
L4	5-13/32"
L5	2-25/32"
L6	24-9/32"
L7	2-25/32"
L8	4-1/32"
L9	6-1/2"
L10	5-9/16"
L11	8-5/8"
L12	6-7/16"
L13	9-15/16"
L14	3-5/8"



M1	28-25/32"
M2	5/8"
M3	3-15/16"
M4	40-15/16"
M5	11-15/16"
M6	11-1/16"
M7	10-1/2"
M8	8-7/16"
M9	8-1/8"
M10	6-1/16"
M11	4-15/16"
M12	7-1/2"
M13	4-13/16"
M14	4-5/16"
M15	3-5/8"
M16	3"

Center of Gravity

X	23-7/32"
Y	15-5/8"
Z	25-9/16"

All dimensions have a tolerance of  $\pm 0.25$  in.  
[Unit: inch]



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42 Ton Triple Frame Heat Pump and Heat Recovery



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**AHRI Data:**

Reference Number	Indoor Type	Cooling Capacity (95°F)	EER (95°F)	IEER	SCHE	High Heating Capacity (47°F)	High COP (47°F)	Low Heating Capacity (17°F)	Low COP (17°F)
202524576	Ducted Indoor Units	480,000	9.60	17.50	18.00	534,000	3.21	348,000	2.10
202524575	Non-Ducted Indoor Units	480,000	9.60	18.60	18.00	534,000	3.21	348,000	2.22