

Job Name/Location:

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Architect:

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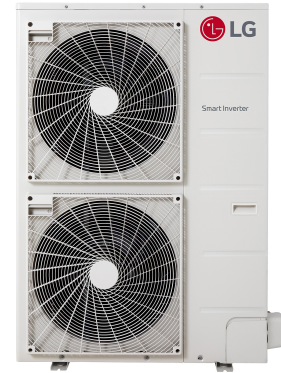
Mech:

Rep:

(Company)

(Project Manager)

KUMXA421A

R32 Multi F MAX with LGRED° Outdoor Unit  
Outdoor Unit (ODU) - KUMXA421A**Performance:**

Cooling Capacity (Min.-Rated-Max., Btu/h)	10,800-42,000-53,000
Heating Capacity (Min.-Rated-Max., Btu/h)	12,420-48,000-54,500
Max. Heating Capacity at 17°F (Btu/h)	53,200
Max. Heating Capacity at 5°F (Btu/h)	48,000
Max. Heating Capacity at -4°F (Btu/h)	42,000
Max. Heating Capacity at -13°F (Btu/h)	37,100
Cooling COP @95°F (Rated)	4.05
Heating COP @47°F (Rated)	3.80

Cooling Nominal Test Conditions:

Indoor: 80°F DB / 67°F WB

Outdoor: 95°F DB / 75°F WB

Heating Nominal Test Conditions:

Indoor: 70°F DB / 60°F WB

Outdoor: 47°F DB / 43°F WB

**Electrical:**

Power Supply (V/Hz/Ø) <sup>1,2</sup>	208-230V, 60, 1
MOP (A)	40
MCA (A)	32.5
Cooling Rated Amps (A)	24.30
Heating Rated Amps (A)	24.30
Compressor (A)	23.0
Fan Motor (A)	1.30
Locked Rotor Amps (A)	22

MOP - Maximum Overcurrent Protection

MCA - Minimum Circuit Ampacity

**Piping:**

Refrigerant Charge (lbs.)	9.262
Liquid Line Connection (in., O.D.)	Ø3/8 x 1
Vapor Line Connection (in., O.D.)	Ø3/4 x 1
Maximum Total Piping <sup>3</sup> (ft.)	475.7
Min. / Max. ODU to IDU Piping <sup>4</sup> (ft.)	32.8 / 229.6
Piping Length <sup>5</sup> (no add'l refrigerant, ft.)	180.4
Additional Refrigerant Charge Main Pipe (oz. / ft.)	0.54
Additional Refrigerant Charge Branch Pipe (oz. / ft.)	0.22
Maximum Elevation between ODU and IDU (ft.)	98.4
Maximum Elevation between IDU and IDU (ft.)	49.2

ODU = Outdoor Unit

IDU = Indoor Unit

**Features:**

- Scroll (Variable Speed) Compressor
- Auto operation / Auto restart
- Integrated central control connection
- Self diagnosis / Soft start
- Defrost / Deicing
- Low ambient cooling down to 14°F (-4°F with Wind Baffle Kit)
- Restart delay (three [3] minutes)
- Factory installed Drain Pan Heater

**Required Accessories:<sup>6</sup>**

- 2-Port BD Unit - PMBD3620ZR
- 3-Port BD Unit - PMBD3630ZR

- 4-Port BD Units - PMBD3640ZR / PMBD3641ZR

**Optional Accessories:**

- Power Distribution Indicator (PDI) Premium - PQNUD1S41
- Mobile LGMV for Android® Smartphones / Tablets or for iOS® Tablets - PLGMVW100

(Android is a registered trademark of Google LLC. iOS is a registered trademark of Apple Systems, Inc.)

- LG Monitoring View (LGMV) for Computers - PRCTILO
- Low Ambient Wind Baffle Kit - ZLABGP04A x 2

**Controller Options:**

- MultiSITE Communication Mgr.
- AC Smart 5
- ACP 5

- ACP 5 BACnet® Gateway
- LonWorks® Gateway

BACnet® is a registered trademark of ASHRAE. LonWorks is a registered trademark of Echelon Corp.

**Operating Range:**

Cooling (°F DB)	14 to 118
Heating (°F WB)	-13 to +64

**Unit Data:**

Refrigerant Type	R32
Refrigerant Control	EEV
Sound Pressure (Cool / Heat) ±1 dB(A) <sup>7</sup>	54 / 56
Net / Shipping Weight (lbs.)	218.3 / 239.2
Power Wiring: ODU→BDU, BDU→IDU (No x AWG) <sup>2</sup>	3 x 14, 3 x 14
Comm. Wiring: ODU→BDU, BDU→IDU (No x AWG) <sup>2</sup>	2 x 18, 2 x 18
Heat Exchanger Coating	Gold Fin™
Minimum No. of Indoor Units	2
Maximum No. of Indoor Units	6

**Compressor:**

Type	Scroll
Quantity	1
Oil / Type	PVE

**Fan:**

Type	Propeller
Quantity	2
Motor / Drive	Brushless Digitally Controlled/Direct
Max. Airflow Rate (CFM)	2,119 x 2

**Notes:**

1. Acceptable operating voltage: 187V - 253V.
2. All power supply wiring to the ODU is field supplied, solid or stranded. The power wiring and the communication wiring from the ODU to the BDU, and from the BDU to the IDU is field supplied and must be stranded, shielded or unshielded (if shielded, it must be grounded to the chassis of the ODU only). All wiring must comply with applicable local and national codes.
  - a. Power Supply Wiring to Outdoor Unit (No. x AWG): 3 x 8 for 48k, 54k, and 60k.
  - b. Power Wiring and Communication Wiring from ODU to BD Unit (No. x AWG) 3 x 14 / 2 x 18.
  - c. Power Wiring and Communication Wiring from BD Unit to IDU (No. x AWG) 3 x 14 / 2 x 18.
3. Piping lengths are equivalent.
4. 180.4 ft. of Main Piping + 49.2 ft. of Branch Piping.
5. 49.2 ft. of Main Piping + 131.2 of Branch Piping.
6. At least one branch distribution (BD) unit is required for system operation; a maximum of two can be installed per outdoor unit with the use of a Y-branch accessory (ARBLN03321).
7. Sound pressure levels are tested in an anechoic chamber under ISO Standard 3745.
8. See the Engineering Manual Capacity Tables for ODU sensible and latent capacities.
9. See the Engineering Manual Combination Tables for allocation of ODU rated capacity to each connected IDU when all are calling for full capacity. Allocation percentages should be applied to ODU capacity at design conditions.
10. Capacity is rated 0 ft. above sea level, with a 0 ft. level difference between ODU and IDUs, and the following refrigerant pipe lengths:
  - KUMXA361A: 16.4 ft. Main + (16.4 ft. Branch x 5) = 98.4 ft.
  - KUMXA421A: 16.4 ft. Main + (16.4 ft. Branch x 6) = 114.8 ft.
  - KUMXA481A: 16.4 ft. Main + (16.4 ft. Branch x 8) = 147.6 ft.
11. Must follow installation instructions in the applicable LG installation manual.
12. See the Engineering Manual Capacity Tables for ODU capacity at design conditions.



Proper sizing and installation of equipment is critical to achieve optimal performance. Split system air conditioners and heat pumps (excluding ductless systems) must be matched with appropriate coil components to meet ENERGY STAR® criteria. Ask your contractor for details or visit [www.energystar.gov](http://www.energystar.gov). (ENERGY STAR and the ENERGY STAR mark are registered trade-marks owned by the U.S. Environmental Protection Agency.)

**LGRED°**

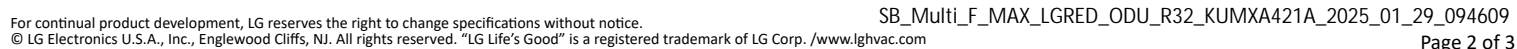
For a complete list of available accessories, contact your LG representative.

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

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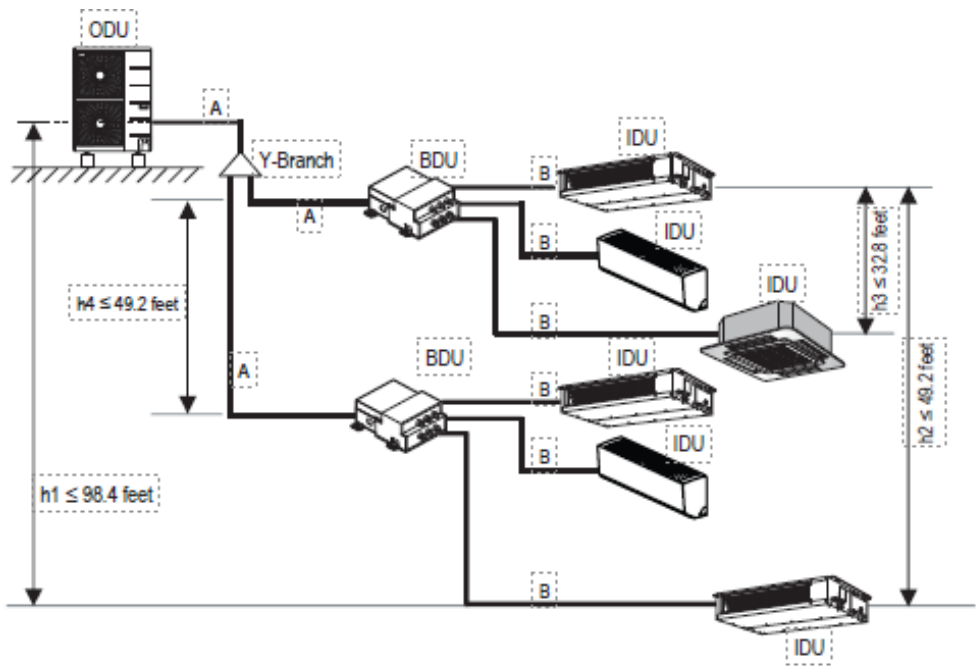
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**R32 Multi F MAX with LGRED° Outdoor Unit**  
**Outdoor Unit (ODU) - KUMXA421A**



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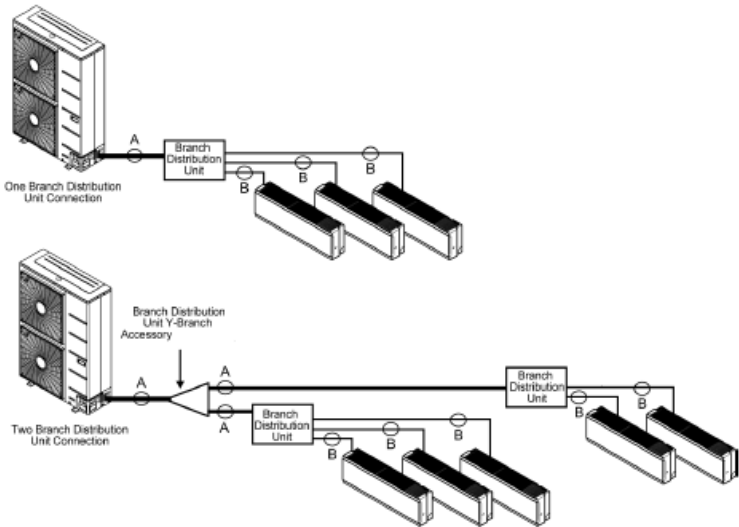
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**Multi F MAX with LGRED Outdoor Unit Refrigerant Piping System Limitations.**

<b>Pipe Length</b> (ELF = Equivalent Length of pipe in Feet)	<b>Total piping length (<math>\Sigma A + \Sigma B</math>)</b>		$\leq 475.7$ feet
	<b>Main pipe (Outdoor Unit to Branch Distribution Units: A)</b>	<b>Minimum for Each (A) Piping Segment</b>	16.4 feet
		<b>Maximum (<math>\Sigma A</math>)</b>	$\leq 180.4$ feet
	<b>Total branch piping length (<math>\Sigma B</math>)</b>		$\leq 295.3$ feet
<b>Elevation Differential</b> (All Elevation Limitations are Measured in Actual Feet)	<b>Branch pipe (Branch Distribution Units to Indoor Units: B)</b>	<b>Minimum</b>	16.4 feet
		<b>Maximum</b>	$\leq 49.2$ feet
	<b>If outdoor unit is above or below indoor unit (<math>h_1</math>)</b>		$\leq 98.4$ feet
	<b>Between the farthest two indoor units (<math>h_2</math>)</b>		$\leq 49.2$ feet
	<b>Between branch distribution unit and farthest connected indoor unit(s) (<math>h_3</math>)</b>		$\leq 32.8$ feet
	<b>Between branch distribution units (<math>h_4</math>)</b>		$\leq 49.2$ feet

**Installing the Unit**



**Multi F MAX with LGRED Piping Sizes.**

Piping	Main Pipe A (inch)	Branch Pipe B
Liquid	$\varnothing 3/8$	Depends on the size of the indoor unit piping.
Vapor	$\varnothing 3/4$	