Job Name/Location: Tag No: For: File Resubmit Date: Approval Other PO No.: GC: Architect:

Mech:

(Project Manager)

Engr: Rep:

# KUMXA481A R32 Multi F MAX with LGRED° Outdoor Unit Outdoor Unit (ODU) - KUMXA481A





#### Performance:

	Cooling Capacity (MinRated-Max., Btu/h)	10.800~48.000~58.000
		10,000~40,000~30,000
	Heating Capacity (MinRated-Max., Btu/h)	12,420~52,500~59,000
	Max. Heating Capacity at 17°F (Btu/h)	56,500
	Max. Heating Capacity at 5°F (Btu/h)	52,500
	Max. Heating Capacity at -4°F (Btu/h)	45,200
	Max. Heating Capacity at -13°F (Btu/h)	39,200
	Cooling COP @95°F (Rated)	3.84
	Heating COP @47°F (Rated)	3.62
- 1	Cooling Nominal Tost Conditions: Heating Nomin	al Tost Conditions:

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)	33.3
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 Piping4 (ft.)	32.8 / 229.6
Piping Length⁵ (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
ODIL = Outdoor Unit	

DDU = Outdoor Unit

IDU = Indoor Unit

#### Features:

- Scroll (Variable Speed) Compressor
- Auto operation / Auto restart
- Integrated central control connection Restart delay (three [3] minutes)
- Self diagnosis / Soft start
- Defrost / Deicing

#### Required Accessories:6

- □ 2-Port BD Unit PMBD3620ZR
- □ 3-Port BD Unit PMBD3630ZR
- **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 Cisco Systems, Inc.)

**Controller Options:** 

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

□ 4-Port BD Units -

PMBD3640ZR / PMBD3641ZR

• Low ambient cooling down to 14°F

• Factory installed Drain Pan Heater

(-4°F with Wind Baffle Kit)

- □ LG Monitoring View (LGMV) for Computers - PRCTILO
- □ Low Ambient Wind Baffle Kit -ZLABGP04A x 2
- □ ACP 5 BACnet® Gateway □ LonWorks® Gateway

BACnet® is a registered trademark of ASHRAE. Lon-Works is a registered trademark of Echelon Corp.

#### **Operating Range:**

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

#### **Unit Data:**

ome bata.	
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	8

#### Compressor:

Туре	Scroll
Quantity	1
Oil / Type	PVE

#### Fan:

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

#### Notes:

- Acceptable operating voltage: 187V 253V.
   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.
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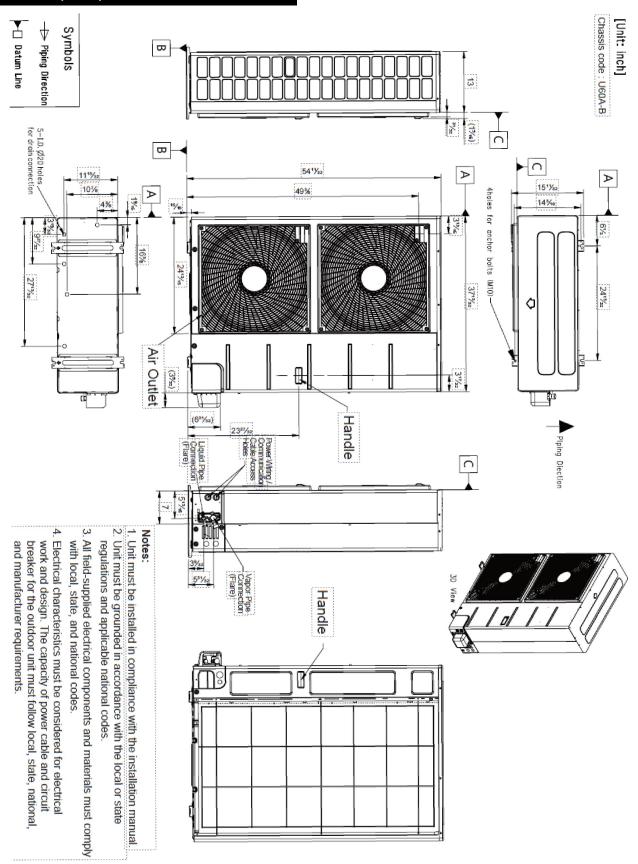


## KUMXA481A R32 Multi F MAX with LGRED° Outdoor Unit Outdoor Unit (ODU) - KUMXA481A



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Date: \_\_\_\_\_
PO No.: \_\_\_\_\_

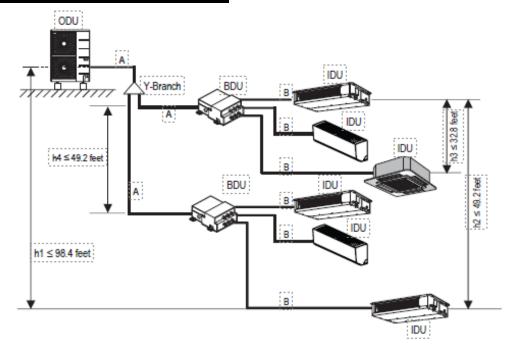


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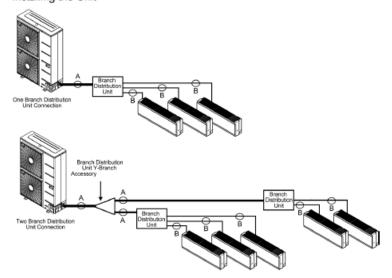
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### Multi F MAX with LGRED Outdoor Unit Refrigerant Piping System Limitations.

	Total piping length (ΣA + ΣB)		≤475.7 feet
Pipe Length (ELF = Equivalent Length of pipe in Feet)	Main pipe (Outdoor Unit to Branch Distribution	Minimum for Each (A) Piping Segment	16.4 feet
	Units: A)	Maximum (ΣA)	≤180.4 feet
	Total branch piping length (ΣΒ)		≤295.3 feet
	Branch pipe (Branch Distribution Units to Indoor	Minimum	16.4 feet
	Units: B)	Maximum	≤49.2 feet
<b>Elevation Differential</b>	If outdoor unit is above or below indoor unit (h1)		≤98.4 feet
(All Elevation	Between the farthest two indoor units (h2)		≤49.2 feet
Limitations are	Between branch distribution unit and farthest connected indoor unit(s) (h3)		≤32.8 feet
Measured in Actual Feet)	Between branch distribution units (h4)		≤49.2 feet

### Installing the Unit



### Multi F MAX with LGRED Piping Sizes.

Piping	Main Pipe A (inch)	Branch Pipe B
Liquid	Ø3/8	Depends on the size of
Vapor	Ø3/4	the indoor unit piping.