

Date: \_\_\_\_\_

For:  File  Resubmit  
 Approval  Other \_\_\_\_\_

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

Architect: \_\_\_\_\_

GC: \_\_\_\_\_

Engr: \_\_\_\_\_

Mech: \_\_\_\_\_

Rep: \_\_\_\_\_

(Company) \_\_\_\_\_

(Project Manager) \_\_\_\_\_

**LMU420HHV**  
**Multi F MAX with LGRED Heat Pump Outdoor Unit**



**Performance:**

Cooling (Min-Rated-Max, Btu/h)	11,700~42,000~53,897
Heating (Min-Rated-Max, Btu/h)	13,455~45,000~55,256
Cooling Power Input (Min-Rated-Max, kW)	0.72 ~ 3.00 ~ 4.34
Heating Power Input (Min-Rated-Max, kW)	0.96 ~ 3.30 ~ 4.48

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 <sup>1</sup> /Hz/Ø)	208-230/60/1
MOP (A)	45
MCA (A)	30.2
Cooling Rated Amps (A)	25.06
Heating Rated Amps (A)	25.06
Compressor (A)	20.4
Fan Motor (A)	0.73 x 2

MOP - Maximum Overcurrent Protection MCA - Minimum Circuit Ampacity

**Piping:**

Refrigerant Charge (lbs.)	12.34
Liquid Line (in, OD)	Ø3/8 x 1
Vapor Line (in, OD)	Ø3/4 x 1
Max Total Piping <sup>2</sup> (ft)	475.7
Max ODU to IDU Piping <sup>3</sup> (ft)	229.6
Piping Length <sup>4</sup> (no add'l refrigerant, ft)	147.6
Max Elevation between ODU and IDU (ft)	98.4
Max Elevation between IDU and IDU (ft)	49.2

ODU - Outdoor Unit IDU - Indoor Unit

**Controls Features:**

- Auto operation
- Auto restart opera. on
- Defrost/Deicing
- Inverter (variable speed compressor)
- Low ambient operation to 14F (cooling mode)
- Restart delay (3-minutes)
- Self diagnosis
- Soft start
- Factory installed Drain Pan Heater

**Optional Accessories:**

- PI-485 Integration Board - PMNFP14A1
- AC Smart V - PACS5A000
- ACP IV - PACP5A000
- Power Distribution Indicator - PQNUD1S41
- LonWorks® Gateway - PLNWKB100
- Y-Branch - PMBL5620
- Low Ambient Wind Baffle (Cooling operation to -4°F) - PAG-HS4/PAG-HS5

**Required<sup>5</sup> Accessories:**

- 2 Port BD Unit - PMBD3620
- 3 Port BD Unit - PMBD3630
- 4 Port BD Unit - PMBD3640
- 4 Port BD Unit - PMBD3641

**Operating Range:**

Cooling (°F DB)	14 to +118
Heating (°F WB)	-13 to +75

**Unit Data:**

Refrigerant Type	R410A
Refrigerant Control	EEV
Sound Pressure <sup>3</sup> (Cool/Heat) ±3 dB(A)	54 / 57
Net Unit Weight (lbs)	222.7
Shipping Weight (lbs)	249.1
Heat Exchanger Coating	GoldFin™
Min Number of Indoor Units	2
Max Number of Indoor Units	6

**Compressor:**

Quantity	1
Type	Twin Rotary
Oil/Type	FVC68D

**Fan:**

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

**Notes:**

1. Acceptable operating voltage: 187V-253V.
2. Piping lengths are equivalent.
3. 180.4 ft of Main Piping + 49.2 ft of Branch Piping.
4. 16 ft of Main Piping + 131 ft of Branch Piping.
5. At least one BD Unit is required for system operation; a maximum of two can be installed per ODU with use of Y-branch accessory (PMBL5620).
6. Sound Pressure levels are tested in an anechoic chamber under ISO Standard 1996.
7. All power/communication cable to be minimum 16 AWG from the outdoor unit to the BD unit and 18 AWG from the BD unit to the indoor unit.
8. All power/communication cable to be 4-conductor, stranded, shielded and must comply with applicable local and national code.
9. Power wiring cable size must comply with the applicable local and national code.
10. See Engineering Manual Capacity Tables for ODU sensible and latent capacities.
11. See 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.
12. This data is rated 0 ft above sea level, with 115 ft of refrigerant line and a 0 ft level difference between outdoor and indoor units. All capacities are net with a combination ratio between 95 – 105%.
13. Must follow installation instructions in the applicable LG installation manual.
14. See Engineering Manual Capacity Tables for ODU capacity at design condition.



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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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**LMU420HHV**

Multi F MAX with LGRED Heat Pump Outdoor Unit

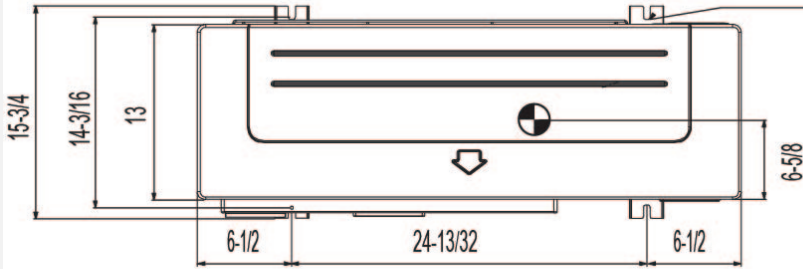


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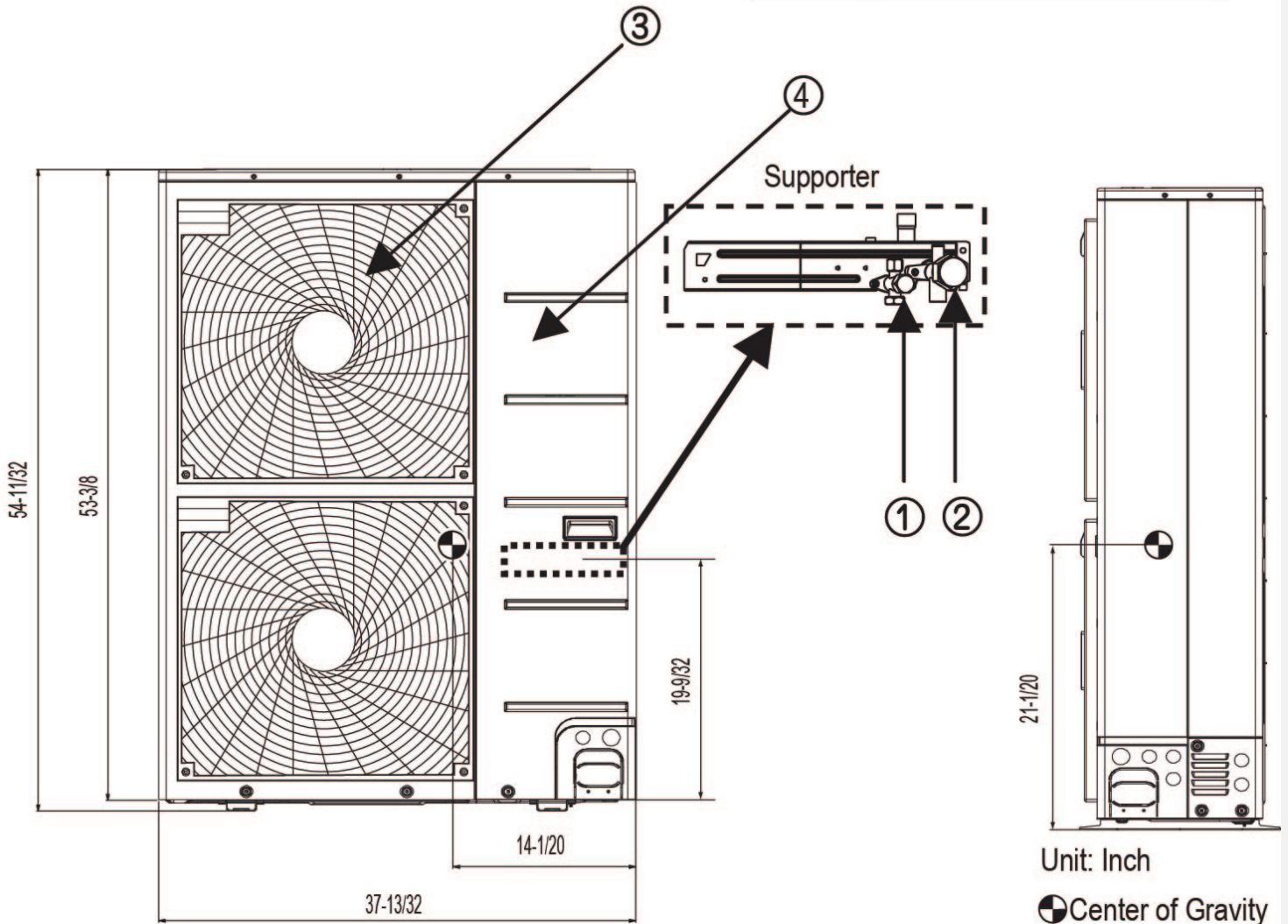
Date:

PO No.:

4-holes for anchor bolts



No.	Part Name
1	Liquid pipe connection
2	Gas pipe connection
3	Air discharge grille
4	Power & transmission connection



Unit: Inch

Center of Gravity

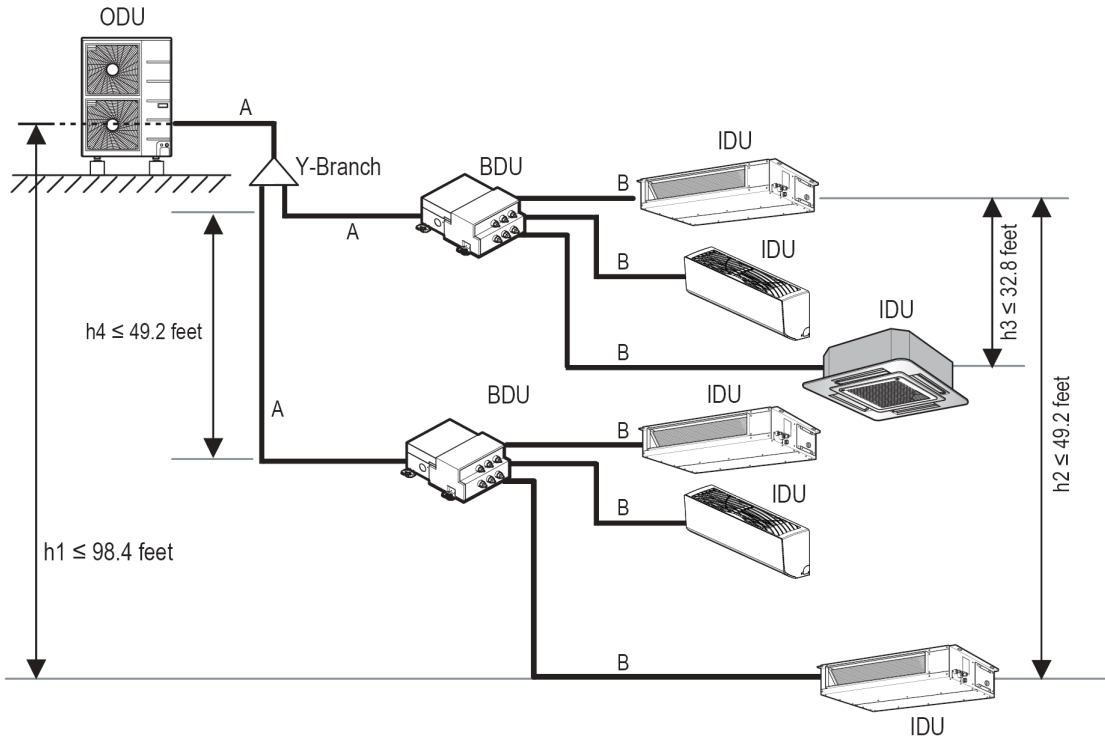
**LMU420HHV**  
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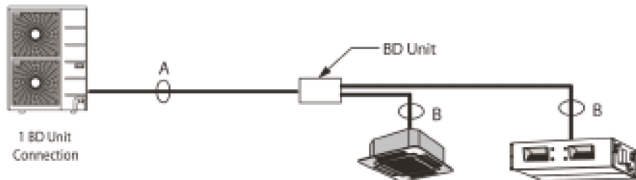
Multi F MAX with LGRED Outdoor Unit Refrigerant Piping System Limitations.

Pipe Length (ELF = Equivalent Length of pipe in Feet)	Total piping length ( $\Sigma A + \Sigma B$ )		≤475.7 feet
	Main pipe (Outdoor Unit to Branch Distribution Units: $\Sigma A$ )	Minimum	10 feet
		Maximum	≤180.4 feet
	Total branch piping length ( $\Sigma B$ )		≤295.3 feet
Elevation Differential (All Elevation Limitations are Measured in Actual Feet)	Branch pipe (Branch Distribution Units to Indoor Units: B)	Minimum	10 feet
		Maximum	≤49.2 feet
	If outdoor unit is above or below indoor unit (h1)		≤98.4 feet
	Between the farthest two indoor units (h2)		≤49.2 feet
Between branch distribution unit and farthest connected indoor unit(s) (h3)		≤32.8 feet	
Between branch distribution units (h4)		≤49.2 feet	

**Example: Multi F MAX with LGRED LMU420HHV outdoor unit with six (6) indoor units and two (2) branch distribution units connected.**

ODU: Outdoor Unit.  
IDU: Indoor Unit.  
BD: Branch Distribution Unit(s).  
 $\Sigma A$ : Main Pipe.  
 $\Sigma B$ : Branch Pipe (Branch Distribution Unit[s] to Indoor Unit[s]).

Installing the Unit



Piping Sizes

	A (inch)	B
Liquid	Ø 3/8	Adjust to indoor unit piping size
Gas	Ø 3/4	unit piping size

