Job Name/Location: Tag No:

For: File Resubmit Date: Approval Other PO No.:

GC: **Architect:** Mech: Engr:

Rep: (Project Manager)

# LMU541HV Multi F MAX Outdoor Unit 4.5 Ton Heat Pump





#### Performance:

| Cooling Capacity (MinRated-Max., Btu/h) | 10,800~50,500~63,200 |
|---|----------------------|
| Heating Capacity (MinRated-Max., Btu/h) | 12,420~58,000~64,000 |
| Max. Heating Capacity at 17°F (Btu/h)   | 49,530               |
| Max. Heating Capacity at 5°F (Btu/h)    | 41,140               |
| Max. Heating Capacity at -4°F (Btu/h)   | 35,790               |
| Cooling COP @95°F (Rated)               | 3.69                 |
| Heating COP @47°F (Rated)               | 3.35                 |

Cooling Nominal Test Conditions: Heating Nominal Test Conditions: Indoor: 80°F DB / 67°F WB Indoor: 70°F DB / 60°F WB Outdoor: 95°F DB / 75°F WB Outdoor: 47°F DB / 43°F WB

#### **Electrical:**

| Power Supply (V/Hz/Ø) <sup>1</sup> | 208-230V, 60, 1 |
|------------------------------------|-----------------|
| MOP (A)                            | 40              |
| MCA (A)                            | 32.7            |
| Cooling Rated Amps (A)             | 30.0            |
| Heating Rated Amps (A)             | 30.0            |
| Compressor (A)                     | 22.0            |
| Fan Motor (A)                      | 1.6 x 2         |
| Locked Rotor Amps (A)              | 22              |
| 1                                  |                 |

MOP - Maximum Overcurrent Protection MCA - Minimum Circuit Ampacity

#### Piping:

| Refrigerant Charge (lbs.)                              | 9.26         |
|--|--------------|
| Liquid Line Connection (in., O.D.)                     | Ø3/8 x 1     |
| Vapor Line Connection (in., O.D.)                      | Ø3/4 x 1     |
| Maximum Total Piping <sup>2</sup> (ft.)                | 475.7        |
| Min. / Max. ODU to IDU Piping <sup>3</sup> (ft.)       | 32.8 / 229.6 |
| Piping Length <sup>4</sup> (no add'l refrigerant, ft.) | 180.4        |
| 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:**

- R1 Scroll (Variable Speed) Compressor
- · Defrost / Deicing Low ambient cooling
- · Restart delay (three [3] minutes)

- Auto operation Auto restart
- down to 14°F Soft start
- · Self diagnosis

#### **Optional Accessories:**

- ☐ PI-485 PMNFP14A1 ☐ AC Smart 5 - PACS5A000 ☐ ACP 5 - PACP5A000
- ☐ MultiSITE™ Comm. Mgr. PBACNBTR0A
- ☐ Power Distribution Indicator (PDI)

Premium - PQNUD1S41

- ☐ Mobile LGMV PLGMVW100 ☐ Low Ambient Wind Baffle (Cooling
- Operation Down to -4°F) ZLABGP04A x2

☐ Drain Pan Heater - PQSH1200

#### 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) <sup>15</sup> | 14 to 118 |
|-------------------------------|-----------|
| Heating (°F WB)               | -4 to +64 |

#### **Unit Data:**

| Refrigerant Type                       | R410A     |
|--|-----------|
| Refrigerant Control                    | EEV       |
| Sound Pressure (Cool / Heat) ±1 dB(A)6 | 53 / 55   |
| Net / Shipping Weight (lbs.)           | 192 / 216 |
| Heat Exchanger Coating                 | Gold Fin™ |
| Minimum No. of Indoor Units            | 2         |
| Maximum No. of Indoor Units            | 8         |

#### Compressor:

| Туре       | R1 Scroll |
|------------|-----------|
| Quantity   | 1         |
| Oil / Type | FVC68D    |

#### Fan:

| I WIII                  |                                       |
|-------------------------|---------------------------------------|
| Туре                    | Propeller                             |
| Quantity                | 2                                     |
| Motor / Drive           | Brushless Digitally Controlled/Direct |
| Max. Airflow Rate (CFM) | 1,942 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. 49.2 ft. of Main Piping + 131.2 of Branch Piping.
- 5. At least one branch distribution (BD) unit is required for system operation; a maximum of two can be installed per ODU with the use of a Y-branch accessory (PMBL5620).
- 6. Sound pressure levels are tested in an anechoic chamber under ISO Standard 3745.
- 7. All power / communication cable to be minimum 14 AWG from the ODU to the BD unit, and 14 AWG from the BD unit to the IDU.

  8. All power / communication cable to be 4-conductor, stranded, shielded or un-
- shielded, and must comply with applicable local and national codes. If shielded, the wire must be grounded to the chassis at the ODU only.
- 9. Power wiring size must comply with the applicable local and national codes.
- 10. See the Engineering Manual Capacity Tables for ODU sensible and latent capacities.
- 11. 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.
- 12. This data is rated 0 ft. above sea level, with 115 ft. of refrigerant line, and 0 ft. level difference between ODU and IDUs. All capacities are net with a combination ratio between 95 - 105%
- 13. Must follow installation instructions in the applicable LG installation manual.
- 14. See the Engineering Manual Capacity Tables for ODU capacity at design conditions.
- 15. Installation of an optional Low Ambient Wind Baffle Kit will allow operation down to -4°F in cooling mode



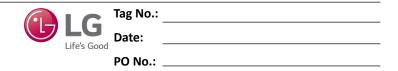


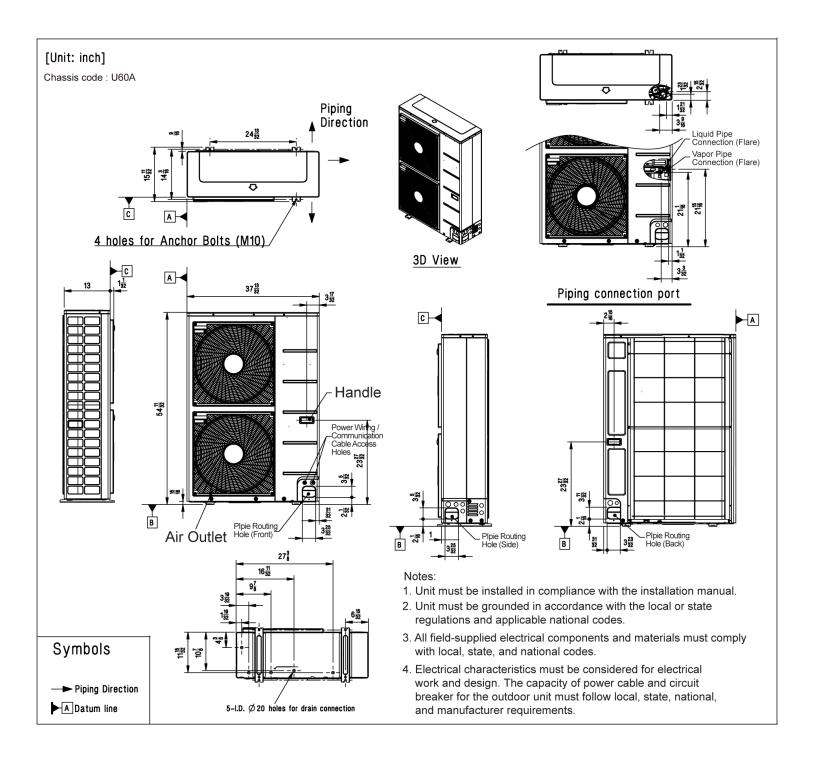




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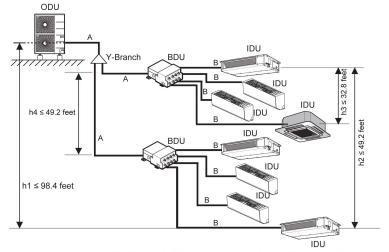
# LMU541HV Multi F MAX Outdoor Unit 4.5 Ton Heat Pump





# LMU541HV Multi F MAX Outdoor Unit 4.5 Ton Heat Pump





Example: outdoor unit with eight (8) indoor units and two (2) branch distri-

bution units connected. ODU: Outdoor Unit. IDU: Indoor Unit.

BDU: Branch Distribution Unit(s).

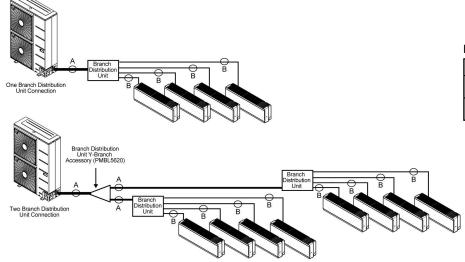
A: Main Pipe.

B: Branch Pipe (Branch Distribution Unit[s] to Indoor Unit[s]).

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

|   | Total piping length (ΣA + ΣB)   |                                     | ≤475.7 feet |
|---|---|-------------------------------------|-------------|
| a   | Main pipe (Outdoor Unit to Branch Distribution Units: A)                    | Minimum for Each (A) Piping Segment | 16.4 feet   |
| Pipe Length   |   | Maximum (ΣA)                        | ≤180.4 feet |
| (ELF = Equivalent<br>Length of pipe in Feet)              | Total branch piping length (ΣΒ)   |                                     | ≤295.3 feet |
| Length of pipe in rect,                                   | Branch pipe (Branch Distribution Units to Indoor Units: B)                  | Minimum                             | 16.4 feet   |
|   | Branch pipe (Branch Distribution Onlts to Indoor Onlts: 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<br>Feet)                               | Between branch distribution units (h4)                                      |                                     | ≤49.2 feet  |

#### Installing the Unit



### Multi F MAX 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. |

Job Name/Location: Date: For: File Resubmit PO No.: ■ Approval ■ Other \_ GC: Architect: Mech: Engr: Rep: (Company) (Project Manager)



## **PMBD3640**

4-Port Branch Distribution Unit (BD Unit)

#### Performance:

| Max Nominal Port Capacity Btu/h (each port)    | 24,000 |
|--|--------|
| Max Nominal Unit Capacity Btu/h (sum of ports) | 73,000 |
| Power Input (W)                                | 32     |

#### **Electrical:**

| Power Supply (V¹/Hz/Ø) | 208-230/60/1 |
|------------------------|--------------|
| Rated Amps (A)         | 0.16         |

#### Piping:

### Piping Connection to Outdoor Unit:

| Liquid Line (in, OD) | 3/8 |
|----------------------|-----|
| Vapor Line (in, OD)  | 3/4 |

#### Piping Connection to Indoor Unit:

| Liquid Line (in, OD) | 1/4 (Qty 4) |
|----------------------|-------------|
| Vapor Line (in, OD)  | 3/8 (Qty 4) |

#### **Standard Features:**

- •Distributes refrigerant to indoor units
- •Internal components are insulated
- •Flare joints provided for easy installation
- Compact design

#### **Operating Range:**

Tag #:

| Operating Range (°F DB) | 0-150 |
|-------------------------|-------|
| , , ,                   |       |

#### **Unit Data:**

| Net Weight (lbs)      | 16 |
|-----------------------|----|
| Shipping Weight (lbs) | 18 |

#### Notes:

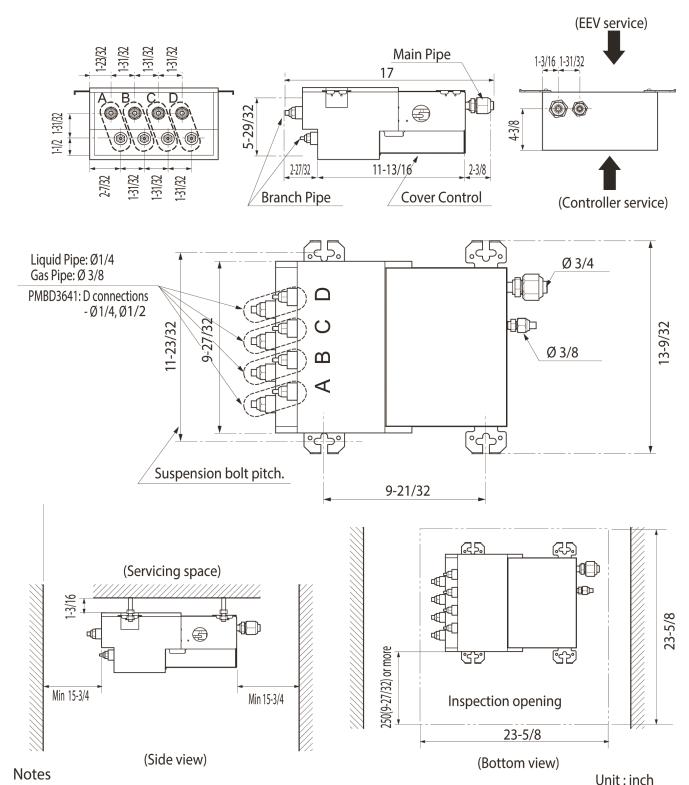
- $1. Acceptable \ operating \ voltage: 187V-253V. \\ 2. All \ power/communication \ cable \ to \ be \ minimum \ 16 \ AWG \ from \ the \ outdoor \ unit \ to \ the \ BD$ unit and 18 AWG from the BD unit to the indoor unit.
- 3.All power/communication cable to be 4-conductor, stranded, shielded and must comply with applicable local and national code.
- 4.Piping lengths:
- •Maximum height difference between BD unit and indoor units 32.8 ft
- •Maximum height difference between BD unit and BD unit 49.2 ft.
- •Maximum piping length between BD unit and indoor units 49.2 ft
- 5.The BD unit should be installed inside of a building.
- 6.Must follow installation instructions in the applicable LG installation manual.
- 7. Power wiring cable size must comply with the applicable local and national code.

# **PMBD3640**

4-Port Branch Distribution Unit (BD Unit)



Tag #:
Date:
PO No.:



- 1. For PMBD3620 unit, ports A and B are available.
- 2. For PMBD3630 unit, ports A, B and C are available.
- 3. For PMBD3640 and PMBD3641 units, ports A, B, C and D are available.

For: File Resubmit Date: Approval Other. PO No .: GC: Architect: Mech: Engr: Rep: (Project Manager) (Company)



Tag #:



## LAN090HSV5

Job Name/Location:

Multi F Wall Mounted Art Cool™ Mirror Indoor Unit 9,000 Btu/h



#### Performance:

| Nominal Cooling Capacity (Btu/h) | 9,000  |
|----------------------------------|--------|
| Nominal Heating Capacity (Btu/h) | 10,900 |

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 (V¹/Hz/Ø) | 208-230/60/1 |
|------------------------|--------------|
| Rated Amps (A)         | 0.4          |

#### Piping:

| Installed Liquid Pipe (in., O.D.) | ø1/4       |
|-----------------------------------|------------|
| Installed Vapor Pipe (in., O.D.)  | ø3/8       |
| Liquid Connection (in., O.D.)     | ø1/4       |
| Vapor Connection (in., O.D.)      | ø3/8       |
| Drain (in., O.D. / I.D.)          | 27/32,5/8  |
| Temperature Sensor                | Thermistor |

#### **Controls Features:**

- 4-Way auto swing
- 24-Hour on/off timer
- Auto operation
- Auto restart
- Chaos wind
- Inverter (variable speed fan)
- Jet cool/Jet heat
- 3M Micro Filter
- · Self-cleaning indoor coil
- Sleep mode
- Condensate sensor connection
- Built-in Wi-Fi via Smart ThinQ app
- Compatible with Single Zone
- **HSV5 Outdoor Units**

#### **Included Accessories:**

• Wireless Remote Controller — AKB74955602

#### **Optional Accessories:**

☐ MultiSITE™ CRC1 - PREMTBVC0 ☐ MultiSITE CRC1+ - PREMTBVC1 ☐ Dry Contact - PDRYCB300

#### **Entering Mixed Air:**

| Co | oling (°F DB) | 57 ~ 77 |
|----|---------------|---------|
| Не | ating (°F WB) | 59 ~ 81 |

#### **Unit Data:**

| Refrigerant Type                               | R410A               |
|--|---------------------|
| Refrigerant Control                            | EEV                 |
| Sound Pressure (H/M/L) (±3 dB[A]) <sup>2</sup> | 36 / 32 / 27        |
| Primary Filter                                 | Washable Pre-filter |
| Secondard Filter                               | 3M Micro Dust       |
| Net Weight (lbs.)                              | 20.5                |
| Shipping Weight (lbs.)                         | 25.6                |
| 1  |                     |

#### Fan:

| Туре                 | Cross Flow                            |
|----------------------|---------------------------------------|
| Quantity             | 1                                     |
| Motor/Drive          | Brushless Digitally Controlled/Direct |
| Air Flow H/M/L (CFM) | 268 / 218 / 169                       |
|                      |                                       |

- NOTES:

  1. Acceptable operating voltage: 187V-253V.
  2. Sound Pressure levels are tested in an anechoic chamber under ISO Standard 3745.
  3. See Engineering Manual for sensible and latent capacities.
  4. All communication / connection (power) cable from the outdoor unit to the indoor unit is field supplied and must be a minimum of four-conductor, 18 AWG, stranded, shielded or unshielded (if shielded, it must be grounded to the chassis of the outdoor unit only), and must comply with applicable local and national codes.
  5. Power wiring cable size must comply with the applicable local and national code.
  6. The indoor unit comes with a dry helium charge.
  7. Corresponding refrigerant piping length is in accordance with standard length of each outdoor unit and the level difference is 0 ft. All capacities are net with a combination ratio between 95 105%.
  8. Must follow installation instructions in the applicable LG installation manual.







| Inh | Mama     | /Location:   |
|-----|----------|--------------|
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# LAN090HSV5

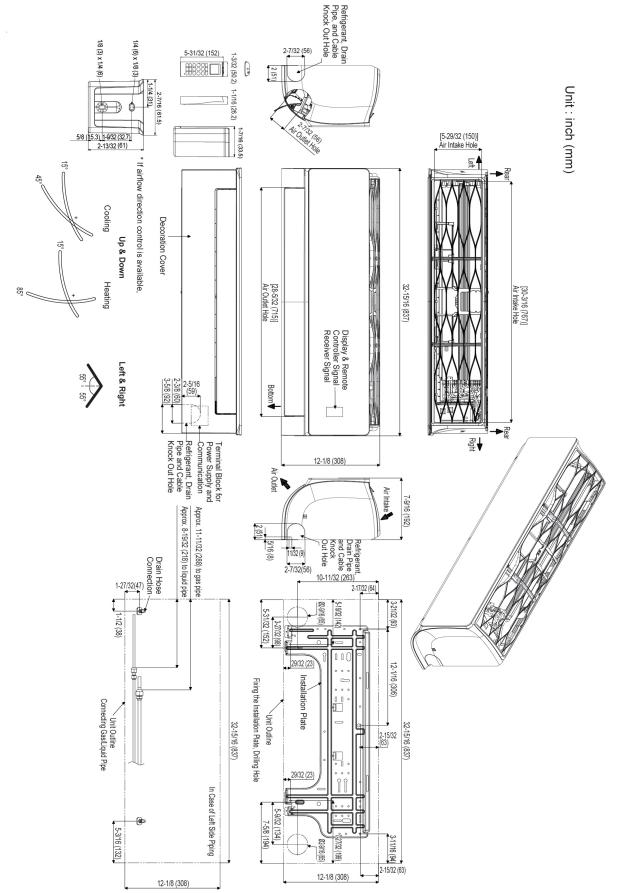
Multi F Wall Mounted Art Cool™ Mirror Indoor Unit 9,000 Btu/h



Tag No.:

Date:

PO No.:



Job Name/Location: Tag #: For: File Resubmit Date: Approval Other. PO No .: GC: Architect: Mech: Engr: Rep: (Project Manager) (Company)





# LAN120HSV5

Multi F Wall Mounted Art Cool™ Mirror Indoor Unit 12,000 Btu/h



#### Performance:

| Nominal Cooling Capacity (Btu/h) | 12,000 |
|----------------------------------|--------|
| Nominal Heating Capacity (Btu/h) | 13,600 |

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 (V¹/Hz/Ø) | 208-230/60/1 |
|------------------------|--------------|
| Rated Amps (A)         | 0.4          |

### Piping:

| Installed Liquid Pipe (in., O.D.) | ø1/4       |
|-----------------------------------|------------|
| Installed Vapor Pipe (in., O.D.)  | ø3/8       |
| Liquid Connection (in., O.D.)     | ø1/4       |
| Vapor Connection (in., O.D.)      | ø3/8       |
| Drain (in., O.D. / I.D.)          | 27/32,5/8  |
| Temperature Sensor                | Thermistor |

#### **Controls Features:**

- 4-Way auto swing
- 24-Hour on/off timer
- Auto operation
- Auto restart Chaos wind
- Inverter (variable speed fan)
- Jet cool/Jet heat
- 3M Micro Filter
- · Self-cleaning indoor coil
- Sleep mode
- Condensate sensor connection
- Built-in Wi-Fi via Smart ThinQ app
- Compatible with Single Zone
- **HSV5 Outdoor Units**

#### **Included Accessories:**

• Wireless Remote Controller — AKB74955602

#### **Optional Accessories:**

☐ MultiSITE™ CRC1 - PREMTBVC0 ☐ MultiSITE CRC1+ - PREMTBVC1 ☐ Dry Contact - PDRYCB300

# **Entering Mixed Air:**

| Cooling (°F DB) | 57 ~ 77 |
|-----------------|---------|
| Heating (°F WB) | 59 ~ 81 |

#### **Unit Data:**

| Refrigerant Type                               | R410A               |
|--|---------------------|
| Refrigerant Control                            | EEV                 |
| Sound Pressure (H/M/L) (±3 dB[A]) <sup>2</sup> | 38 / 34 / 29        |
| Primary Filter                                 | Washable Pre-filter |
| Secondard Filter                               | 3M Micro Dust       |
| Net Weight (lbs.)                              | 20.5                |
| Shipping Weight (lbs.)                         | 25.6                |

#### Fan:

| Туре                 | Cross Flow                            |
|----------------------|---------------------------------------|
| Quantity             | 1                                     |
| Motor/Drive          | Brushless Digitally Controlled/Direct |
| Air Flow H/M/L (CFM) | 282 / 233 / 177                       |
|                      |                                       |

- NOTES:

  1. Acceptable operating voltage: 187V-253V.
  2. Sound Pressure levels are tested in an anechoic chamber under ISO Standard 3745.
  3. See Engineering Manual for sensible and latent capacities.
  4. All communication / connection (power) cable from the outdoor unit to the indoor unit is field supplied and must be a minimum of four-conductor, 18 AWG, stranded, shielded or unshielded (if shielded, it must be grounded to the chassis of the outdoor unit only), and must comply with applicable local and national codes.
  5. Power wiring cable size must comply with the applicable local and national code.
  6. The indoor unit comes with a dry helium charge.
  7. Corresponding refrigerant piping length is in accordance with standard length of each outdoor unit and the level difference is 0 ft. All capacities are net with a combination ratio between 95 105%.
  8. Must follow installation instructions in the applicable LG installation manual.



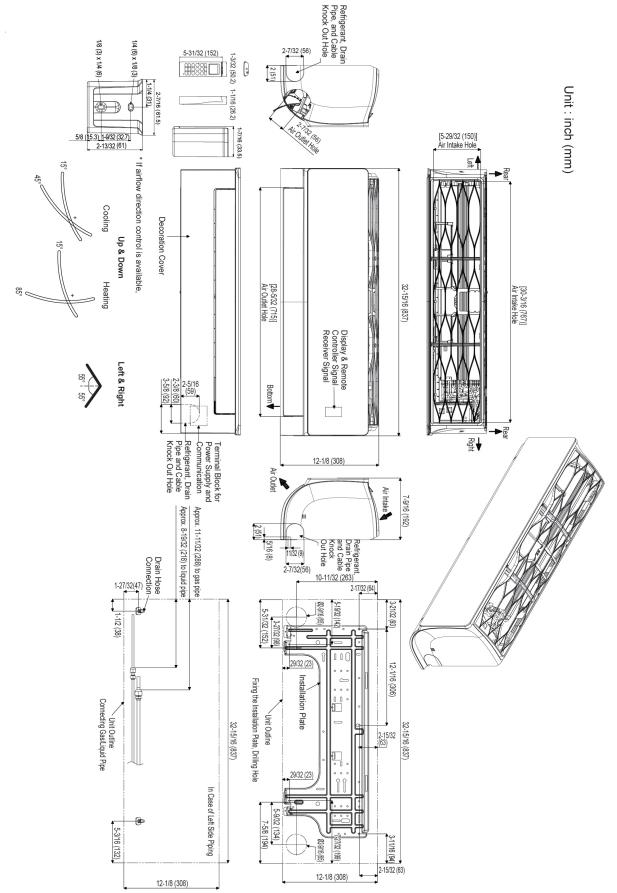




# LAN120HSV5

Multi F Wall Mounted Art Cool™ Mirror Indoor Unit 12,000 Btu/h





Job Name/Location: Tag #: For: File Resubmit Date: Approval Other. PO No .: GC: Architect: Mech: Engr: Rep: (Project Manager) (Company)





# LAN120HSV5

Multi F Wall Mounted Art Cool™ Mirror Indoor Unit 12,000 Btu/h



#### Performance:

| Nominal Cooling Capacity (Btu/h) | 12,000 |
|----------------------------------|--------|
| Nominal Heating Capacity (Btu/h) | 13,600 |

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 (V¹/Hz/Ø) | 208-230/60/1 |
|------------------------|--------------|
| Rated Amps (A)         | 0.4          |

### Piping:

| Installed Liquid Pipe (in., O.D.) | ø1/4       |
|-----------------------------------|------------|
| Installed Vapor Pipe (in., O.D.)  | ø3/8       |
| Liquid Connection (in., O.D.)     | ø1/4       |
| Vapor Connection (in., O.D.)      | ø3/8       |
| Drain (in., O.D. / I.D.)          | 27/32,5/8  |
| Temperature Sensor                | Thermistor |

#### **Controls Features:**

- 4-Way auto swing
- 24-Hour on/off timer
- Auto operation
- Auto restart Chaos wind
- Inverter (variable speed fan)
- Jet cool/Jet heat
- 3M Micro Filter
- · Self-cleaning indoor coil
- Sleep mode
- Condensate sensor connection
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#### **Optional Accessories:**

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| Shipping Weight (lbs.)                         | 25.6                |

#### Fan:

| Туре                 | Cross Flow                            |
|----------------------|---------------------------------------|
| Quantity             | 1                                     |
| Motor/Drive          | Brushless Digitally Controlled/Direct |
| Air Flow H/M/L (CFM) | 282 / 233 / 177                       |
|                      |                                       |

- NOTES:

  1. Acceptable operating voltage: 187V-253V.
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  4. All communication / connection (power) cable from the outdoor unit to the indoor unit is field supplied and must be a minimum of four-conductor, 18 AWG, stranded, shielded or unshielded (if shielded, it must be grounded to the chassis of the outdoor unit only), and must comply with applicable local and national codes.
  5. Power wiring cable size must comply with the applicable local and national code.
  6. The indoor unit comes with a dry helium charge.
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  8. Must follow installation instructions in the applicable LG installation manual.







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Multi F Wall Mounted Art Cool™ Mirror Indoor Unit 12,000 Btu/h



