



*America's Premier Climate Comfort Brand since 1895*

# Submittal:

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Models: LM012HI-100V432-1 LM012HO-100V432-1  
LM012HI-100P432-1 LM012HO-100P432-1  
LM018HI-100P432-1 LM018HO-100P432-1  
LM024HI-100P432-1 LM024HO-100P432-1  
(Refrigerant:R410A)

Thank you for selecting LENNOX air conditioners.

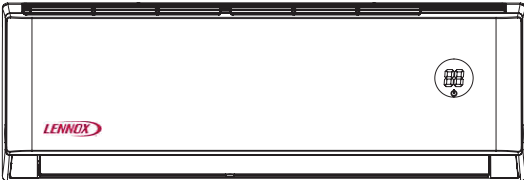


# Submittal R410A 60Hz On-Off Heat Pump

## 1. Summary

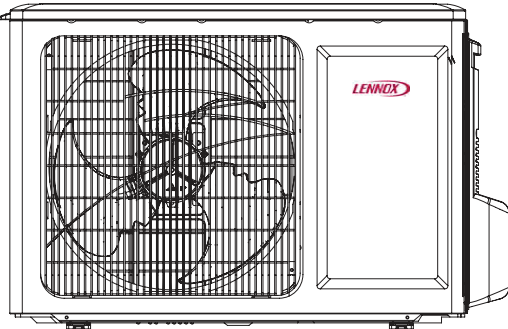
**Indoor Unit:**

- LM012HI-100V432-1
- LM012HI-100P432-1
- LM018HI-100P432-1
- LM024HI-100P432-1

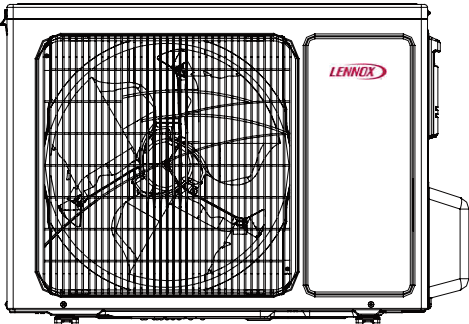


**Outdoor Unit:**

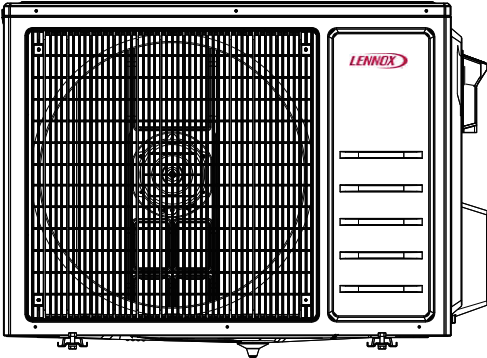
LM018HO-100P432-1



LM012HO-100V432-1  
LM012HO-100P432-1



LM024HO-100P432-1



**Remote Controller:**

Y6185



## 2. Specifications

### 2.1 Specification Sheet

|                              |                                      |                   |  |  |
|------------------------------|--------------------------------------|-------------------|--|--|
| Model                        |                                      |                   | LM012HI-100V432-1<br>LM012HO-100V432-1 | LM012HI-100P432-1<br>LM012HO-100P432-1 |
| Product Code                 |                                      |                   | CA432014100_L72264                     | CA432014000_L72264                     |
| Power Supply                 | Rated Voltage                        | V~                | 115                                    | 230                                    |
|                              | Rated Frequency                      | Hz                | 60                                     | 60                                     |
|                              | Phases                               |                   | 1                                      | 1                                      |
| Power Supply Mode            |                                      |                   | Indoor                                 | Indoor                                 |
| Cooling Capacity             |                                      | Btu/h             | 12000                                  | 12000                                  |
| Heating Capacity             |                                      | Btu/h             | 12000                                  | 12000                                  |
| Cooling Power Input          |                                      | W                 | 1160                                   | 1150                                   |
| Heating Power Input          |                                      | W                 | 1060                                   | 1080                                   |
| Cooling Power Current        |                                      | A                 | 10                                     | 5.01                                   |
| Heating Power Current        |                                      | A                 | 10                                     | 4.72                                   |
| Rated Input                  |                                      | W                 | 1500                                   | 1500                                   |
| Rated Current                |                                      | A                 | 15                                     | 7.04                                   |
| Air Flow Volume(SH/H/M/L/SL) |                                      | m <sup>3</sup> /h | 600/470/380/320/-                      | 600/470/380/320/-                      |
| Dehumidifying Volume         |                                      | L/h               | 1                                      | 1.20                                   |
| EER                          |                                      | (Btu/h)/W         | 10.34                                  | 10.43                                  |
| COP                          |                                      | (Btu/h)/W         | 11.32                                  | 11.11                                  |
| SEER                         |                                      | W/W               | /                                      | /                                      |
| HSPF                         |                                      | W/W               | /                                      | /                                      |
| Application Area             |                                      | m <sup>2</sup>    | 16-24                                  | 16-24                                  |
| Indoor Unit                  | Model of indoor unit                 |                   | LM012HI-100V432-1                      | LM012HI-100P432-1                      |
|                              | Indoor Unit Product Code             |                   | CA432N14100_L72264                     | CA432N14000_L72264                     |
|                              | Fan Type                             |                   | Cross-flow                             | Cross-flow                             |
|                              | Diameter Length(DXL)                 |                   | mm                                     | Φ98X580                                |
|                              | Fan Motor Cooling Speed(SH/H/M/L/SL) |                   | r/min                                  | 1450/1200/1050/800/-                   |
|                              | Fan Motor Heating Speed(SH/H/M/L/SL) |                   | r/min                                  | 1350/1200/1050/900/-                   |
|                              | Output of Fan Motor                  |                   | W                                      | 20                                     |
|                              | Fan Motor RLA                        |                   | A                                      | 0.4                                    |
|                              | Fan Motor Capacitor                  |                   | μF                                     | 4                                      |
|                              | Input of Heater                      |                   | W                                      | /                                      |
|                              | Evaporator Form                      |                   |  | Aluminum Fin-copper Tube               |
|                              | Pipe Diameter                        |                   | mm                                     | Φ5                                     |
|                              | Row-fin Gap                          |                   | mm                                     | 2-1.4                                  |
|                              | Coil Length (LXDXW)                  |                   | mm                                     | 584X22.8X266.7                         |
|                              | Swing Motor Model                    |                   |  | MP24AA                                 |
|                              | Output of Swing Motor                |                   | W                                      | 1.5                                    |
|                              | Fuse                                 |                   | A                                      | 3.15                                   |
|                              | Sound Pressure Level (SH/H/M/L/SL)   |                   | dB (A)                                 | 43/38/34/30/-                          |
|                              | Sound Power Level (SH/H/M/L/SL)      |                   | dB (A)                                 | 53/48/44/40/-                          |
|                              | Dimension (WXHXD)                    |                   | mm                                     | 790X200X275                            |
|                              | Dimension of Carton Box (LXWXH)      |                   | mm                                     | 850X339X262                            |
| Dimension of Package (LXWXH) |                                      | mm                | 852X355X273                            |  |
| Net Weight                   |                                      | kg                | 9.5                                    |  |
| Gross Weight                 |                                      | kg                | 11.5                                   |  |

|  |   |                   |                                   |                                   |
|--|---|-------------------|-----------------------------------|-----------------------------------|
| Outdoor Unit                                       | Model of Outdoor Unit   |                   | LM012HO-100V432-1                 | LM012HO-100P432-1                 |
|  | Outdoor Unit Product Code                                       |                   | CA434W09800_L72264                | CA434W09900_L72264                |
|  | Compressor Manufacturer/Trademark                               |                   | ZHUHAI LANDA COMPRESSOR CO., LTD. | ZHUHAI LANDA COMPRESSOR CO., LTD. |
|  | Compressor Model  |                   | QXA-B106xC130                     | QXA-B221rC130                     |
|  | Compressor Oil  |                   | RB68EP/FVC68D                     | RB68EP/FVC68D                     |
|  | Compressor Type   |                   | Rotary                            | Rotary                            |
|  | L.R.A.  | A                 | 54                                | 29                                |
|  | Compressor RLA  | A                 | 10                                | 5.0                               |
|  | Compressor Power Input  | W                 | 1090                              | 1124                              |
|  | Overload Protector  |                   | UP3-49                            | UP3-02                            |
|  | Throttling Method   |                   | Capillary                         | Capillary                         |
|  | Operation Temp  | °C                | 16~30                             | 16~30                             |
|  | Ambient Temp (Cooling)  | °C                | 18~48                             | 18~48                             |
|  | Ambient Temp (Heating)  | °C                | -7~24                             | -7~24                             |
|  | Condenser Form  |                   | Aluminum Fin-copper Tube          | Aluminum Fin-copper Tube          |
|  | Pipe Diameter   | mm                | Φ7.94                             | Φ7.94                             |
|  | Rows-fin Gap  | mm                | 1-1.4                             | 1-1.4                             |
|  | Coil Length (LXDXW)   | mm                | 696X19.05X506                     | 696X19.05X506                     |
|  | Fan Motor Speed   | rpm               | 850                               | 850                               |
|  | Output of Fan Motor   | W                 | 30                                | 35                                |
|  | Fan Motor RLA   | A                 | 0.53                              | 0.34                              |
|  | Fan Motor Capacitor   | μF                | 7                                 | 2.5                               |
|  | Air Flow Volume of Outdoor Unit                                 | m <sup>3</sup> /h | 1600                              | 1600                              |
|  | Fan Type  |                   | Axial-flow                        | Axial-flow                        |
|  | Fan Diameter  | mm                | Φ400                              | Φ394.5                            |
|  | Defrosting Method   |                   | /                                 | /                                 |
|  | Climate Type  |                   | T1                                | T1                                |
|  | Isolation   |                   | I                                 | I                                 |
|  | Moisture Protection   |                   | IPX4                              | IPX4                              |
|  | Permissible Excessive Operating Pressure for the Discharge Side | MPa               | 4.3                               | 4.3                               |
|  | Permissible Excessive Operating Pressure for the Suction Side   | MPa               | 2.5                               | 2.5                               |
| Sound Pressure Level (H/M/L)                       | dB (A)  | 51/-/-            | 51/-/-                            |                                   |
| Sound Power Level (H/M/L)                          | dB (A)  | 61/-/-            | 61/-/-                            |                                   |
| Dimension (WXHXD)                                  | mm  | 782X540X320       | 782X540X320                       |                                   |
| Dimension of Carton Box (LXWXH)                    | mm  | 820X355X580       | 820X355X580                       |                                   |
| Dimension of Package (LXWXH)                       | mm  | 823X358X595       | 823X358X595                       |                                   |
| Net Weight   | kg  | 28.5              | 28                                |                                   |
| Gross Weight                                       | kg  | 31                | 30.5                              |                                   |
| Refrigerant  |   | R410A             | R410A                             |                                   |
| Refrigerant Charge                                 | kg  | 0.70              | 0.74                              |                                   |
| Connection Pipe                                    | Length  | m                 | 5                                 | 5                                 |
|  | Gas Additional Charge   | g/m               | 8.0                               | 15                                |
|  | Outer Diameter Liquid Pipe                                      | mm                | Φ6                                | Φ6                                |
|  | Outer Diameter Gas Pipe   | mm                | Φ12                               | Φ12                               |
|  | Max Distance Height   | m                 | 10                                | 10                                |
|  | Max Distance Length   | m                 | 20                                | 20                                |
| Note: The connection pipe applies metric diameter. |   |                   |                                   |                                   |

The above data is subject to change without notice; please refer to the nameplate of the unit.

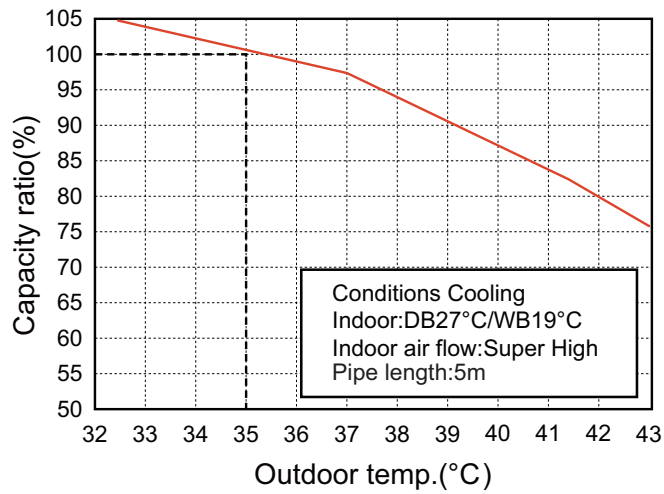
|                              |                                      |                   |  |  |                          |
|------------------------------|--------------------------------------|-------------------|--|--|--------------------------|
| Model                        |                                      |                   | LM018HI-100P432-1<br>LM018HO-100P432-1 | LM024HI-100P432-1<br>LM024HO-100P432-1 |                          |
| Product Code                 |                                      |                   | CA432009500_L72264                     | CA432010100_L72264                     |                          |
| Power Supply                 | Rated Voltage                        | V~                | 220                                    | 220                                    |                          |
|                              | Rated Frequency                      | Hz                | 60                                     | 60                                     |                          |
|                              | Phases                               |                   | 1                                      | 1                                      |                          |
| Power Supply Mode            |                                      |                   | Indoor                                 | Indoor                                 |                          |
| Cooling Capacity             |                                      | Btu/h             | 18000                                  | 24000                                  |                          |
| Heating Capacity             |                                      | Btu/h             | 18000                                  | 24000                                  |                          |
| Cooling Power Input          |                                      | W                 | 1870                                   | 2300                                   |                          |
| Heating Power Input          |                                      | W                 | 1770                                   | 2100                                   |                          |
| Cooling Power Current        |                                      | A                 | 8.67                                   | 11                                     |                          |
| Heating Power Current        |                                      | A                 | 8.21                                   | 10                                     |                          |
| Rated Input                  |                                      | W                 | 2400                                   | 2700                                   |                          |
| Rated Current                |                                      | A                 | 12.1                                   | 13.96                                  |                          |
| Air Flow Volume(SH/H/M/L/SL) |                                      | m <sup>3</sup> /h | 900/850/750/600/-                      | 1300/1150/1000/850/-                   |                          |
| Dehumidifying Volume         |                                      | L/h               | 2                                      | 2                                      |                          |
| EER                          |                                      | (Btu/h)/W         | 9.63                                   | 10.43                                  |                          |
| COP                          |                                      | (Btu/h)/W         | 10.17                                  | 11.43                                  |                          |
| SEER                         |                                      | W/W               | /                                      | /                                      |                          |
| HSPF                         |                                      | W/W               | /                                      | /                                      |                          |
| Application Area             |                                      | m <sup>2</sup>    | 23-34                                  | 27-42                                  |                          |
| Indoor Unit                  | Model of indoor unit                 |                   | LM018HI-100P432-1                      | LM024HI-100P432-1                      |                          |
|                              | Indoor Unit Product Code             |                   | CA432N09500_L72264                     | CA432N10100_L72264                     |                          |
|                              | Fan Type                             |                   | Cross-flow                             | Cross-flow                             |                          |
|                              | Diameter Length(DXL)                 |                   | mm                                     | Φ106X706                               | Φ108X830                 |
|                              | Fan Motor Cooling Speed(SH/H/M/L/SL) |                   | r/min                                  | 1350/1200/1050/900/-                   | 1300/1150/1000/850/-     |
|                              | Fan Motor Heating Speed(SH/H/M/L/SL) |                   | r/min                                  | 1350/1200/1100/900/-                   | 1300/1150/1000/850/-     |
|                              | Output of Fan Motor                  |                   | W                                      | 35                                     | 30                       |
|                              | Fan Motor RLA                        |                   | A                                      | 0.35                                   | 0.32A                    |
|                              | Fan Motor Capacitor                  |                   | μF                                     | 2.5                                    | 3                        |
|                              | Input of Heater                      |                   | W                                      | /                                      | /                        |
|                              | Evaporator Form                      |                   |  | Aluminum Fin-copper Tube               | Aluminum Fin-copper Tube |
|                              | Pipe Diameter                        |                   | mm                                     | Φ7                                     | Φ7                       |
|                              | Row-fin Gap                          |                   | mm                                     | 2-1.4                                  | 2-1.4                    |
|                              | Coil Length (LXDXW)                  |                   | mm                                     | 715X25.4X304.8                         | 845X25.4X342.9           |
|                              | Swing Motor Model                    |                   |  | MP35CJ                                 | MP35CJ                   |
|                              | Output of Swing Motor                |                   | W                                      | 2.5                                    | 2.5                      |
|                              | Fuse                                 |                   | A                                      | 3.15                                   | 3.15                     |
|                              | Sound Pressure Level (SH/H/M/L/SL)   |                   | dB (A)                                 | 47/44/41/37/-                          | 49/46/41/37/-            |
|                              | Sound Power Level (SH/H/M/L/SL)      |                   | dB (A)                                 | 57/54/51/47/-                          | 59/56/51/47/-            |
|                              | Dimension (WXHXD)                    |                   | mm                                     | 970X300X224                            | 1078X325X246             |
|                              | Dimension of Carton Box (LXWXH)      |                   | mm                                     | 1038X380X305                           | 1145X410X335             |
|                              | Dimension of Package (LXWXH)         |                   | mm                                     | 1041X383X320                           | 1148X413X350             |
|                              | Net Weight                           |                   | kg                                     | 13.5                                   | 16.5                     |
| Gross Weight                 |                                      | kg                | 16.5                                   | 20                                     |                          |

|                                 |   |                   |                                  |   |
|---------------------------------|---|-------------------|----------------------------------|---|
| Outdoor Unit                    | Model of Outdoor Unit   |                   | LM018HO-100P432-1/O              | LM024HO-100P432-1                       |
|                                 | Outdoor Unit Product Code                                       |                   | CA432W09500_L72264               | CA432W10100_L72264                      |
|                                 | Compressor Manufacturer/Trademark                               |                   | ZHUHAI LANDA COMPRESSOR CO. LTD. | ZHUHAI LANDA COMPRESSOR CO., LTD.       |
|                                 | Compressor Model  |                   | QXA-C165rE030                    | QXA-F21rF050                            |
|                                 | Compressor Oil  |                   | RB68EP                           | RB68EP or FVC68D or FV50S or equivalent |
|                                 | Compressor Type   |                   | Rotary                           | Rotary                                  |
|                                 | L.R.A.  | A                 | 39                               | 53                                      |
|                                 | Compressor RLA  | A                 | 4.3                              | 4.3                                     |
|                                 | Compressor Power Input  | W                 | 1680                             | 2120                                    |
|                                 | Overload Protector  |                   | UP3-A6                           | UP3-09                                  |
|                                 | Throttling Method   |                   | Capillary                        | Capillary                               |
|                                 | Operation Temp  | °C                | 16~30                            | 16~30                                   |
|                                 | Ambient Temp (Cooling)  | °C                | 18~43                            | 18~43                                   |
|                                 | Ambient Temp (Heating)  | °C                | -7~24                            | -7~24                                   |
|                                 | Condenser Form  |                   | Aluminum Fin-copper Tube         | Aluminum Fin-copper Tube                |
|                                 | Pipe Diameter   | mm                | Φ7.94                            | Φ7                                      |
|                                 | Rows-fin Gap  | mm                | 2-1.4                            | 2-1.4                                   |
|                                 | Coil Length (LXDXW)   | mm                | 735X38.1X508                     | 804X38.1X616                            |
|                                 | Fan Motor Speed   | rpm               | 920                              | 780                                     |
|                                 | Output of Fan Motor   | W                 | 40                               | 50                                      |
|                                 | Fan Motor RLA   | A                 | 0.48                             | 0.45A                                   |
|                                 | Fan Motor Capacitor   | μF                | 2.5                              | 3                                       |
|                                 | Air Flow Volume of Outdoor Unit                                 | m <sup>3</sup> /h | 1800                             | 3000                                    |
|                                 | Fan Type  |                   | Axial-flow                       | Axial-flow                              |
|                                 | Fan Diameter  | mm                | Φ400                             | Φ480                                    |
|                                 | Defrosting Method   |                   | Automatic Defrosting             | Automatic Defrosting                    |
|                                 | Climate Type  |                   | T1                               | T1                                      |
|                                 | Isolation   |                   | I                                | I                                       |
|                                 | Moisture Protection   |                   | IPX4                             | IPX4                                    |
|                                 | Permissible Excessive Operating Pressure for the Discharge Side | MPa               | 4.3                              | 4.3                                     |
|                                 | Permissible Excessive Operating Pressure for the Suction Side   | MPa               | 2.5                              | 2.5                                     |
|                                 | Sound Pressure Level (H/M/L)                                    | dB (A)            | 55/-/-                           | 54/-/-                                  |
|                                 | Sound Power Level (H/M/L)                                       | dB (A)            | 65/-/-                           | 64/-/-                                  |
| Dimension (WXHXD)               | mm  | 848X540X320       | 904X646X373                      |   |
| Dimension of Carton Box (LXWXH) | mm  | 878X360X580       | 960X408X680                      |   |
| Dimension of Package (LXWXH)    | mm  | 881X363X595       | 963X411X695                      |   |
| Net Weight                      | kg  | 37                | 50                               |   |
| Gross Weight                    | kg  | 39.5              | 53                               |   |
| Refrigerant                     |   | R410A             | R410A                            |   |
| Refrigerant Charge              | kg  | 1.35              | 1.60                             |   |
| Connection Pipe                 | Length  | m                 | 5                                | 5                                       |
|                                 | Gas Additional Charge   | g/m               | 15                               | 50                                      |
|                                 | Outer Diameter Liquid Pipe                                      | mm                | Φ6                               | Φ6                                      |
|                                 | Outer Diameter Gas Pipe   | mm                | Φ12                              | Φ16                                     |
|                                 | Max Distance Height   | m                 | 10                               | 10                                      |
|                                 | Max Distance Length   | m                 | 25                               | 25                                      |
|                                 | Note: The connection pipe applies metric diameter.              |                   |                                  |   |

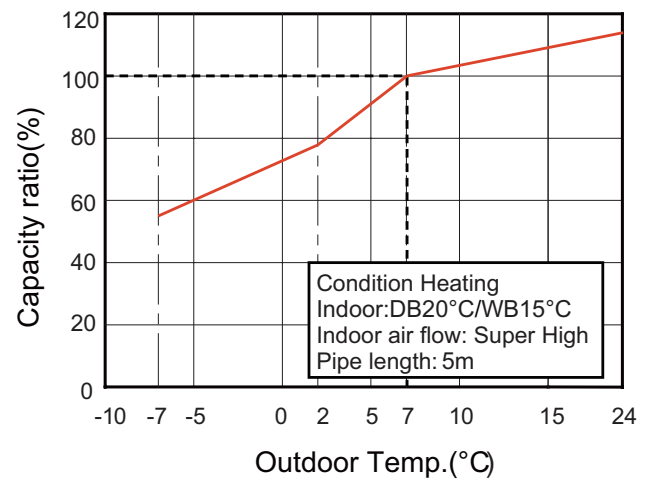
The above data is subject to change without notice; please refer to the nameplate of the unit.

## 2.2 Capacity Curve in Different Outdoor Temperature

Cooling:



Heating:



## 2.3 Cooling Data Sheet in Rated Frequency

Cooling:

| Rated cooling condition(°C)<br>(DB/WB) |         | Model     | Pressure of gas pipe<br>connecting indoor and<br>outdoor unit | Inlet and outlet pipe temperature<br>of heat exchanger |                       | Fan speed of<br>indoor unit | Fan speed of<br>outdoor unit |
|--|---------|-----------|---|--|-----------------------|-----------------------------|------------------------------|
| Indoor                                 | Outdoor |           |   | T1 (°C)  | T2 (°C)               |                             |                              |
| 27/19                                  | 35/24   | All model | 0.8~1.1   | in:9~11<br>out:11~13                                   | in:75~87<br>out:37~43 | Super High                  | High                         |

Heating:

| Rated cooling condition(°C)<br>(DB/WB) |         | Model     | Pressure of gas pipe<br>connecting indoor and<br>outdoor unit | Inlet and outlet pipe temperature<br>of heat exchanger |                   | Fan speed of<br>indoor unit | Fan speed of<br>outdoor unit |
|--|---------|-----------|---|--|-------------------|-----------------------------|------------------------------|
| Indoor                                 | Outdoor |           |   | T1 (°C)  | T2 (°C)           |                             |                              |
| 20/-                                   | 7/6     | All model | 2.2~2.4   | in:59~63<br>out:30~33                                  | in:0~2<br>out:3~5 | Super High                  | High                         |

### Instruction:

T1: Inlet and outlet pipe temperature of evaporator

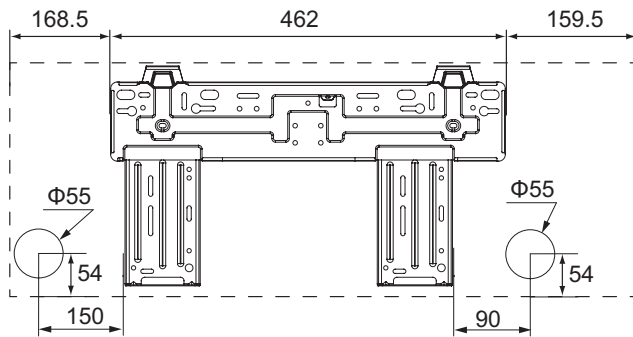
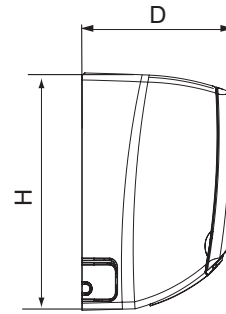
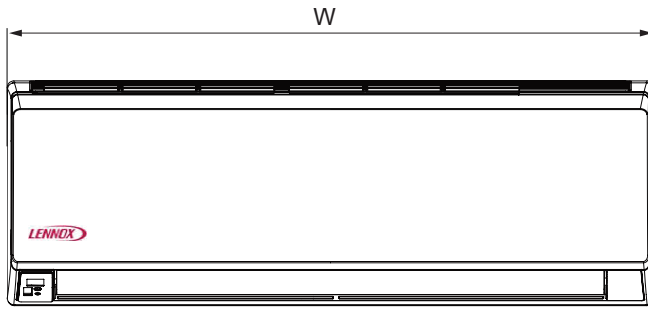
T2: Inlet and outlet pipe temperature of condenser

P: Pressure at the side of big valve

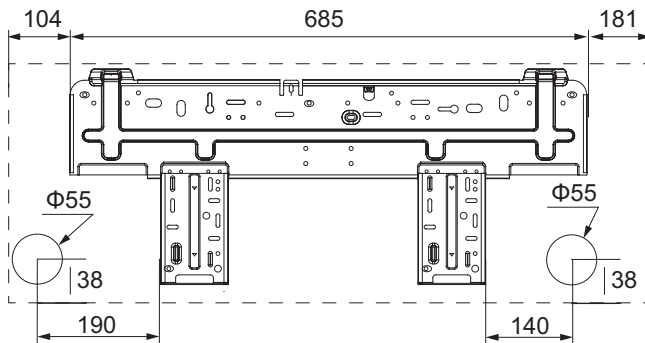
Connection pipe length: 5 m.

# 3. Dimensions

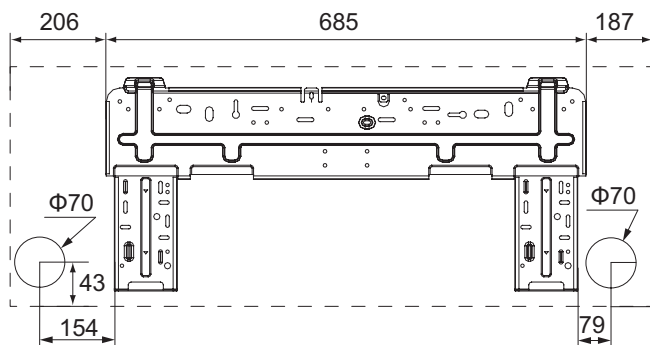
## 3.1 Indoor Unit



LM012HI-100V432-1  
LM012HI-100P432-1



LM018HI-100P432-1



LM024HI-100P432-1

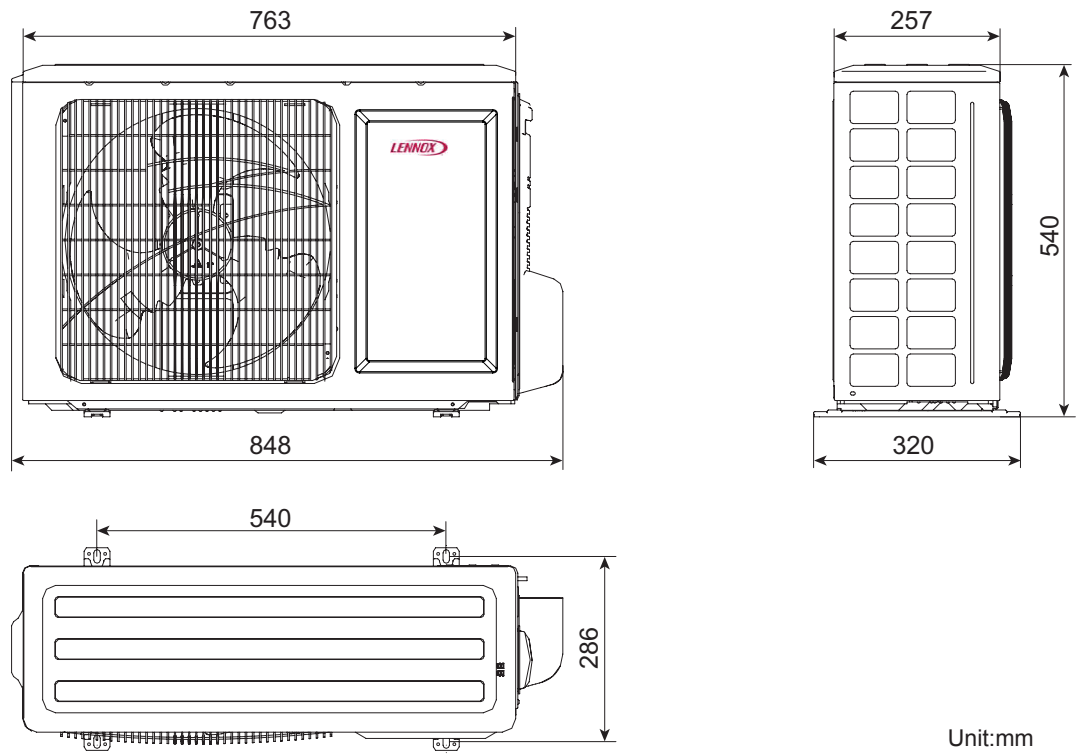
Unit:mm

| Model             | W    | H   | D   |
|-------------------|------|-----|-----|
| LM012HI-100V432-1 | 790  | 275 | 200 |
| LM012HI-100P432-1 | 790  | 275 | 200 |
| LM018HI-100P432-1 | 970  | 300 | 224 |
| LM024HI-100P432-1 | 1078 | 325 | 246 |



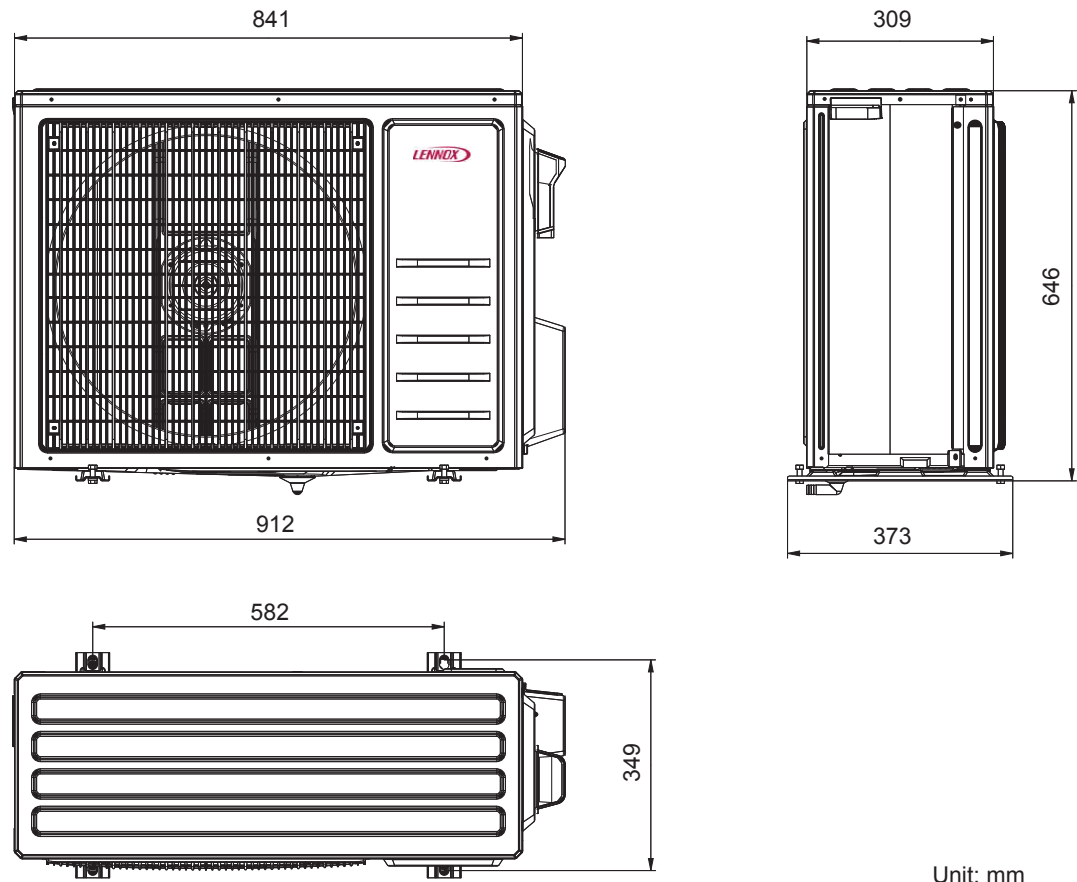
### 3.2 Outdoor Unit

LM018HO-100P432-1



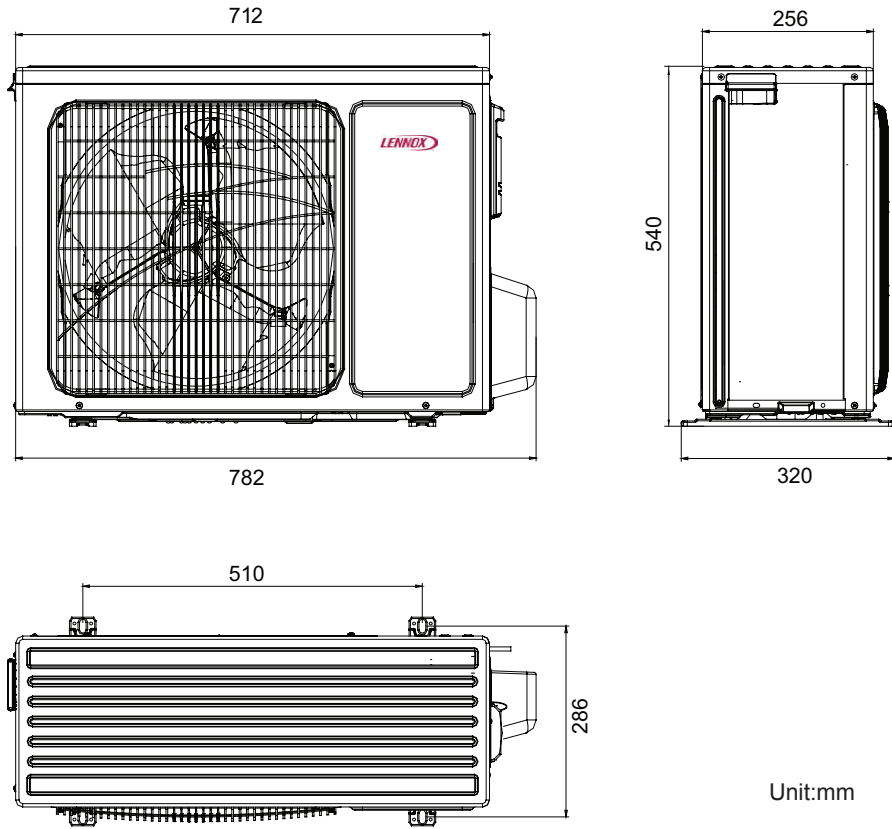
Unit:mm

LM024HO-100P432-1



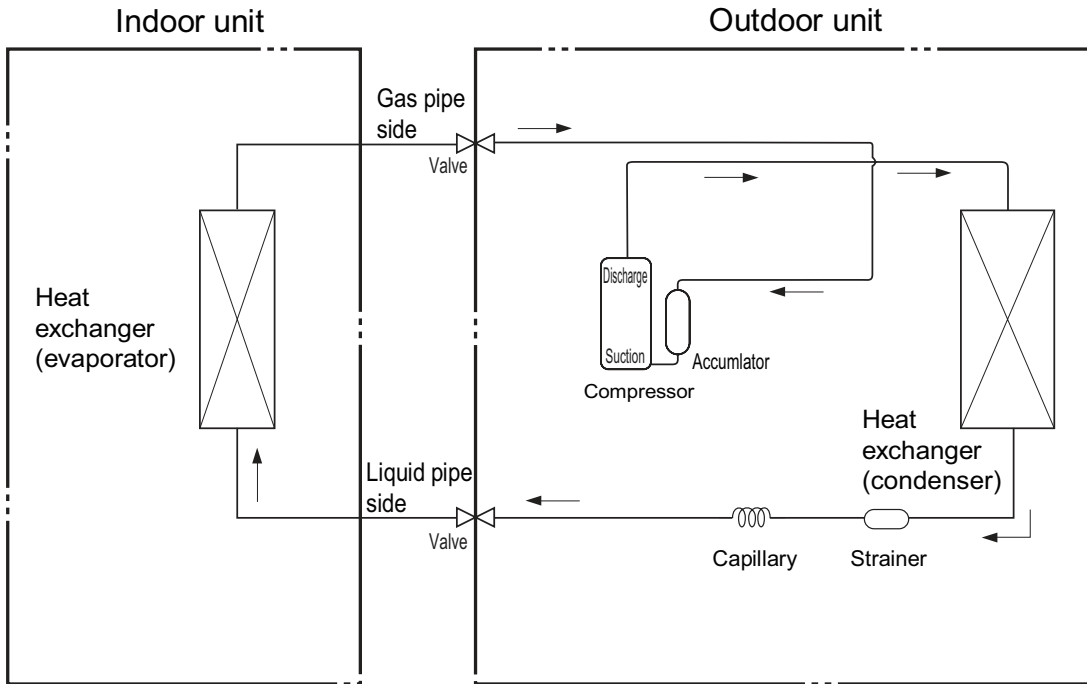
Unit: mm

LM012HO-100V432-1  
LM012HO-100P432-1

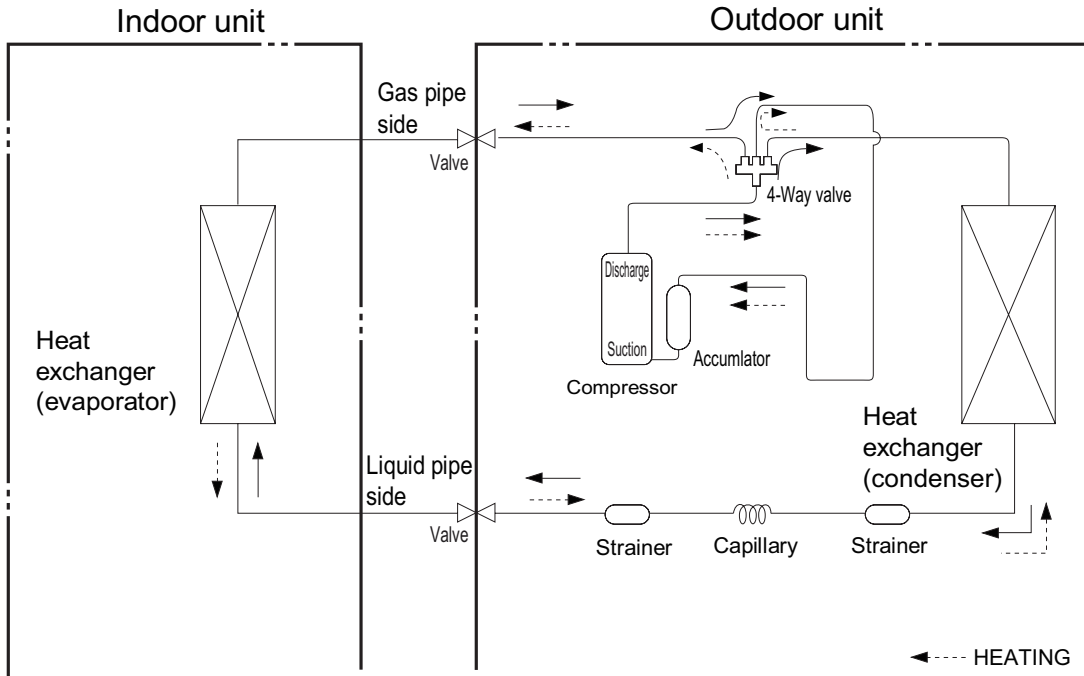


# 4. Refrigerant System Diagram

## Cooling model



## Cooling and heating unit



Connection pipe specification:

Liquid pipe: 1/4" (6mm)

Gas pipe: 1/2" (12mm) LM018HI-100P432-1 LM018HO-100P432-1 LM012HI-100V432-1 LM012HO-100V432-1

LM012HI-100P432-1 LM012HO-100P432-1

Gas pipe: 5/8" (16mm) LM024HI-100P432-1 LM024HO-100P432-1

# 5. Electrical Part

## 5.1 Wiring Diagram

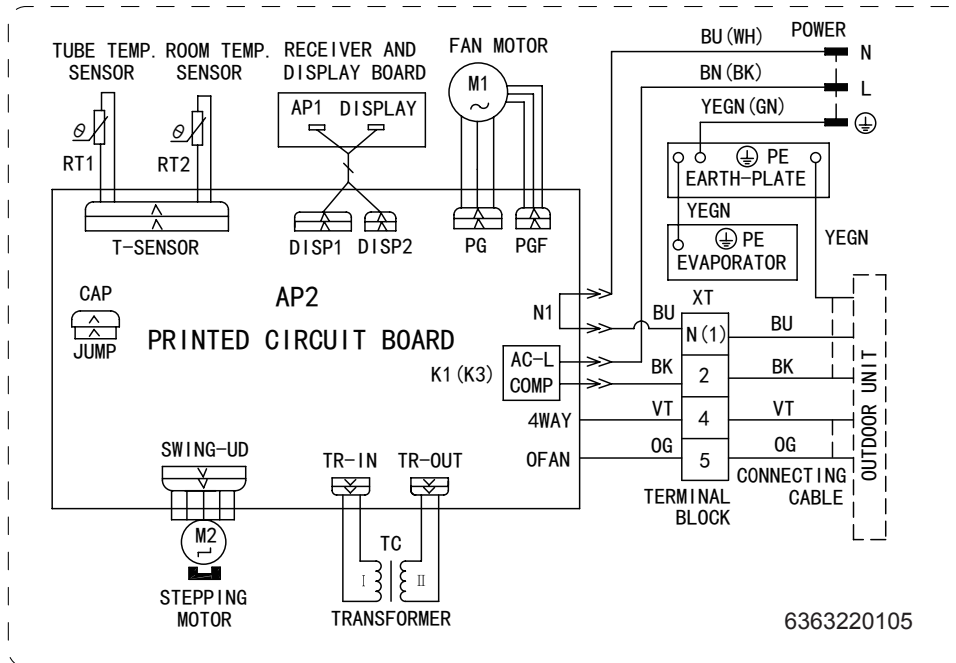
- Instruction

| Symbol | Symbol Color | Symbol | Symbol Color | Symbol | Name           |
|--------|--------------|--------|--------------|--------|----------------|
| WH     | White        | GN     | Green        | CAP    | Jumper cap     |
| YE     | Yellow       | BN     | Brown        | COMP   | Compressor     |
| RD     | Red          | BU     | Blue         |        | Grounding wire |
| YEGN   | Yellow/Green | BK     | Black        | /      | /              |
| VT     | Violet       | OG     | Orange       | /      | /              |

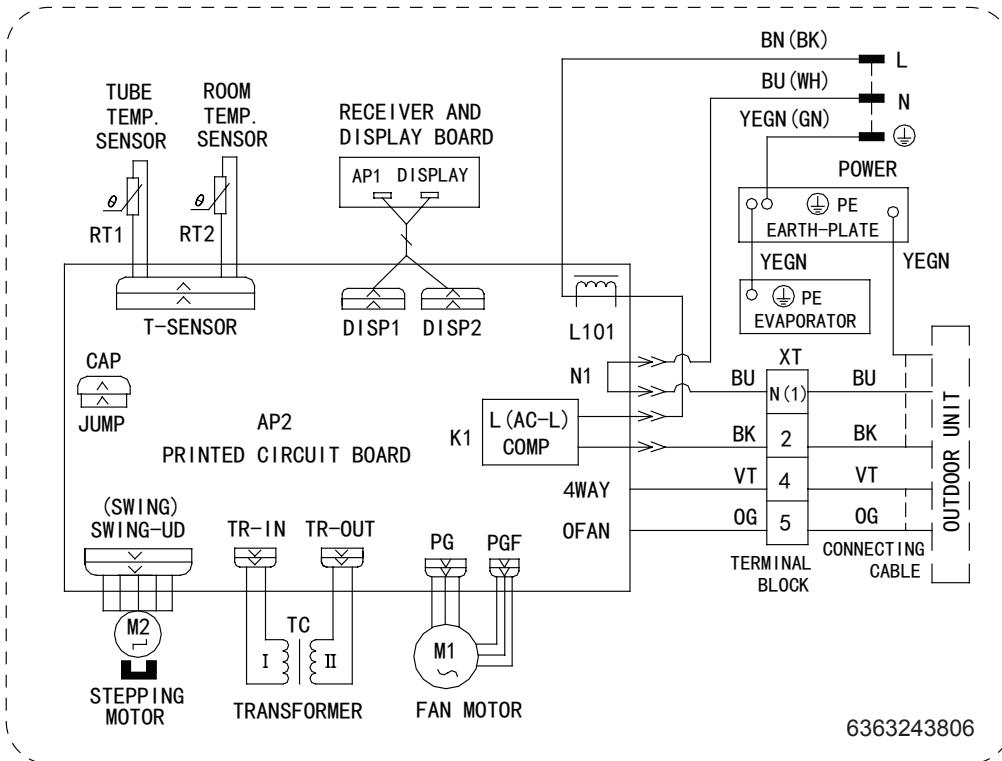
Note: Jumper cap is used to determine fan speed and the swing angle of horizontal lover for this model.

- Indoor Unit

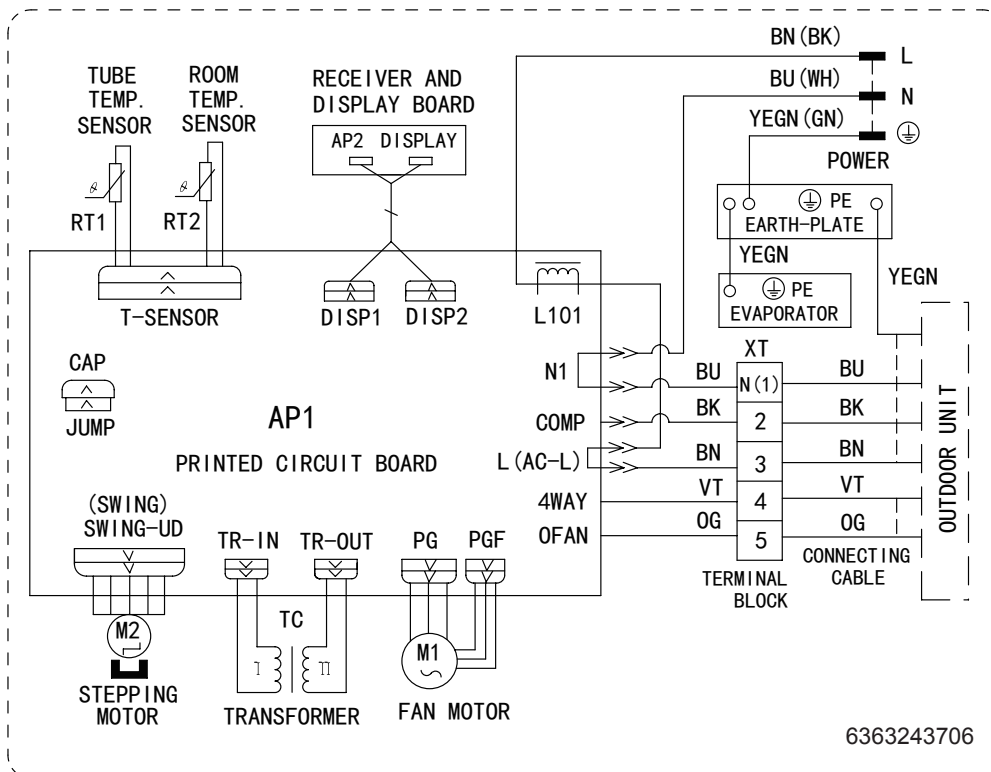
LM012HI-100V432-1 LM012HI-100P432-1



LM018HI-100P432-1

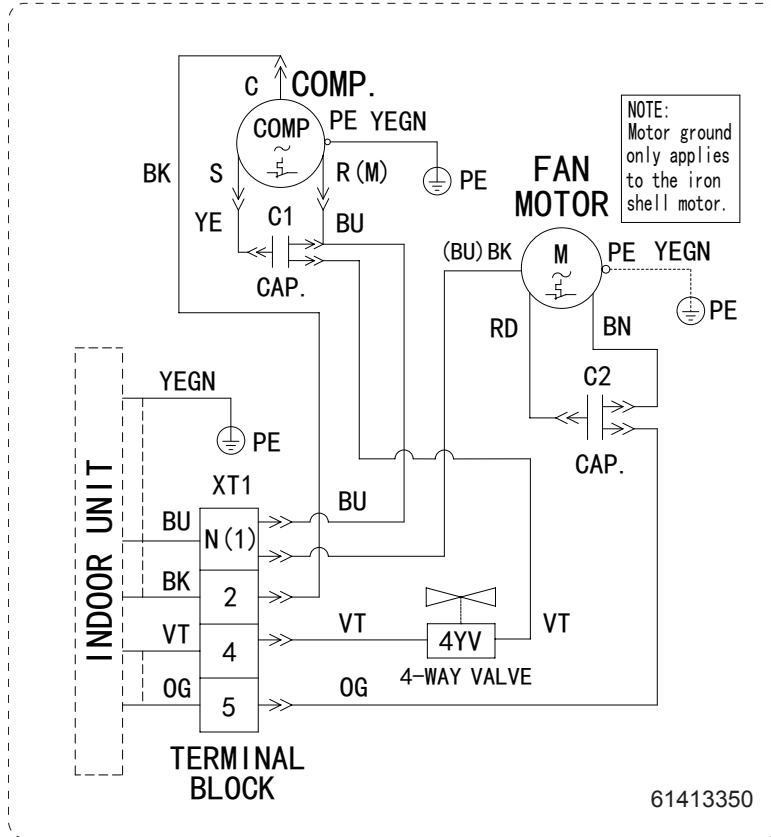


LM024HI-100P432-1



• Outdoor Unit

LM018HO-100P432-1



LM024HO-100P432-1

