

## Cabinet air conditioner

## Technical manual

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### Machine Model No.:

AP242ACAAA/AU242AHAAA (HPU-24H03)

AP42NACAAA/AU42NAIAAA (HPU-42H03)

AP44NACAAA/AU44NAIAAA (HPU-44H03)

AP42NACABA/AU42NAIABA (HPU-42HB03)

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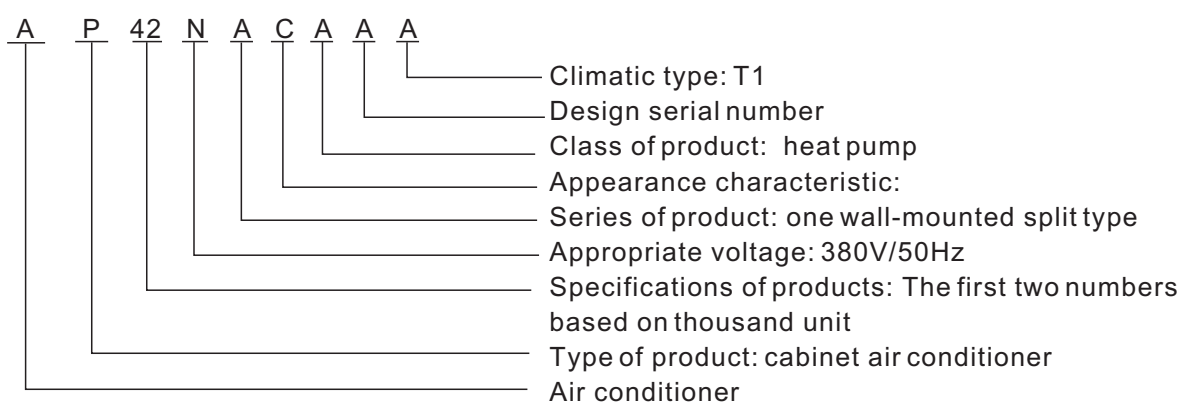
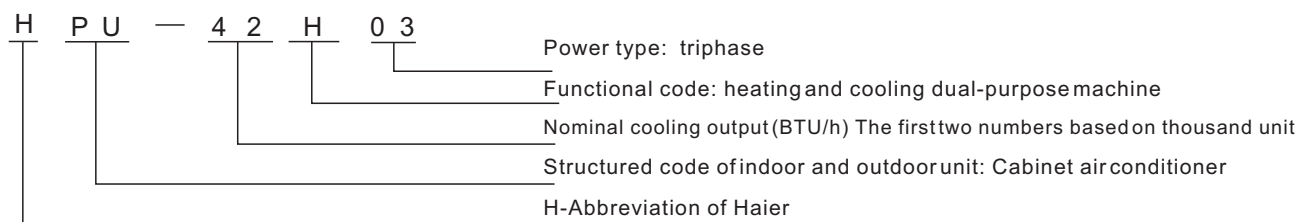
**Большая библиотека технической документации**

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**каталоги, инструкции, сервисные мануалы, схемы.**

## 1. Product coding explanation and product series instruction

### a. Model coding rule explanation



b. Table 1

| Serial number | Running condition | Indoor condition |          | Outdoor condition |          |
|---------------|-------------------|------------------|----------|-------------------|----------|
|               |                   | Temperature (°C) | Humidity | Temperature (°C)  | Humidity |
| 1             | Nominal cooling   | DB:27            | WB:19    | DB:35             | WB:24    |
| 2             | Nominal heating   | DB:20            | WB:15    | DB:7              | WB:6     |

### C. Brief instruction of series

#### Serialization of product:

Now our company has the following cabinet air conditioner:

HPU-24H03(AP242ACAAA+AU242AIAAA) HPU-42H03(AP42NACAAA+AU42NAIAAA)

HPU-44H03(AP44NACAAA+AU44NAIAAA) HPU-42HB03(AP42NACABA+AU42NAIABA)

#### Product characteristics:

Heat and cool rapidly and sharply

With powerful motion function, forceful and high cyclical air volume, heating and cooling of product is rapid and sharp. Temperature control is homogeneous, rapid, correct and soft, which can rapidly satisfy client and make them more comfortable.

Muting function and low noise

Adopting large diameter centrifugal fan unit and optimum turbine air duct design, air supply is stronger and farther; internationally advanced and reliable compressor reduces the vibration and noise of outdoor unit.

## 2. Technical parameter of product

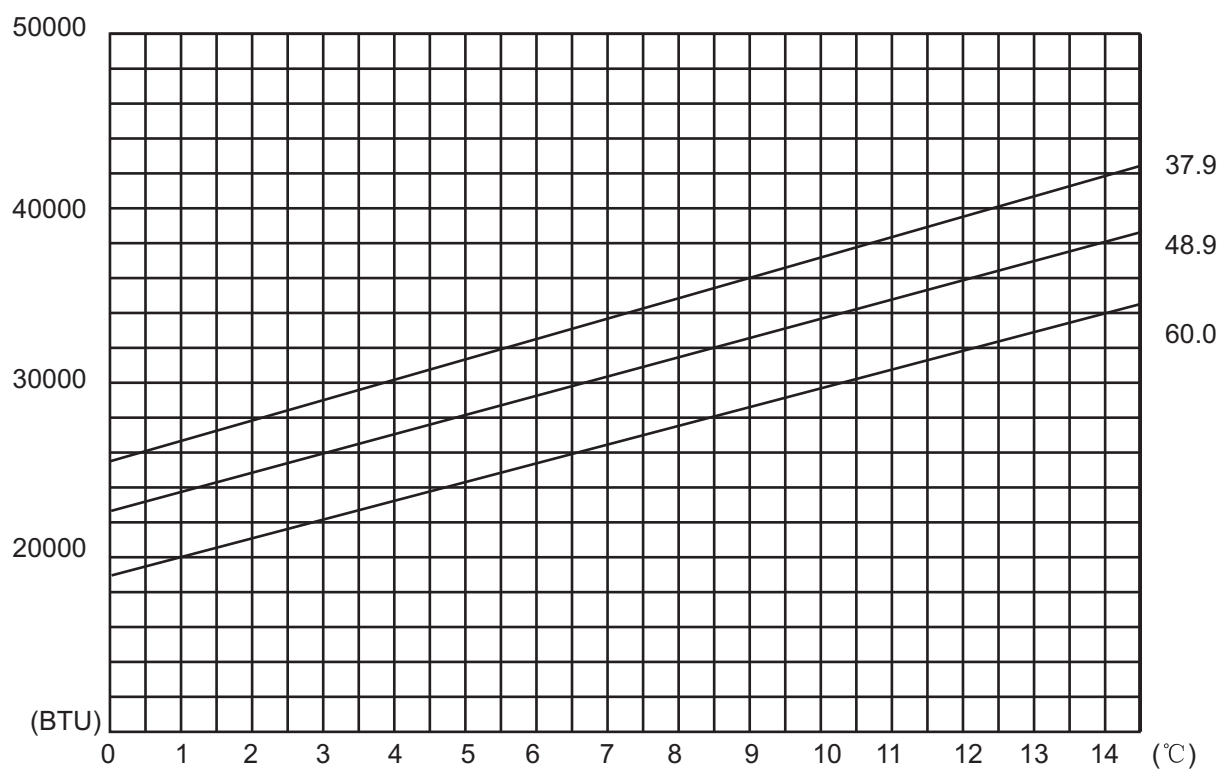
|                                                                              |                                                                 |                                                               |                                      |
|------------------------------------------------------------------------------|-----------------------------------------------------------------|---------------------------------------------------------------|--------------------------------------|
| Model:                                                                       | HPU-24H03                                                       | Appearance color (internal/external):                         | WHITE                                |
| Outline dimension of indoor unit:                                            | 1820x530x300mm                                                  | Outline dimension of outer unit:                              | 948x340x1225mm                       |
| Packing dimension of indoor unit:                                            | 1952x660x417mm                                                  | Packing dimension of outer unit:                              | 1050x440x1375mm                      |
| Noise of indoor unit (cooling):                                              | upper/lower 50/38dB(A)                                          | Noise of outer unit (cooling):                                | upper/lower 58/50 dB(A)              |
| Noise of indoor unit (heating):                                              | upper/lower 50/38dB(A)                                          | Noise of outer unit (heating):                                | upper/lower 58/50dB(A)               |
| Net/gross weight of indoor unit:                                             | 45/47kg                                                         | Net/gross weight of outer unit:                               | 74kg                                 |
| Working voltage range                                                        | 187-242                                                         | Working current range                                         |                                      |
| Working temperature range                                                    | -7-43℃                                                          | Workable frequency:                                           | 50Hz                                 |
| Temperature regulating difference:                                           |                                                                 | Type of refrigerant                                           | R22                                  |
| Maximum mounting drop height:                                                | 15                                                              | Refrigerant charge:                                           | 3520g                                |
| Maximum length of connecting pipe:                                           | 30                                                              | Type of filter:                                               |                                      |
| Filtering efficiency:                                                        |                                                                 | Dimension of filter:                                          |                                      |
| Model of compressor:                                                         | ZR34K4-PFJ-552                                                  | Manufacturer of compressor:                                   | Copeland compressor plant            |
| Performance curve of compressor                                              | enclosed hereafter                                              | Performance variation curve of fan motor                      | enclosed hereafter                   |
| Flow figure of two units :                                                   | 10/8                                                            | Type/diameter of pipe of two units:                           | Φ9.52; Φ15.88                        |
| Type of stop valve:                                                          | Φ9.52; Φ15.88                                                   | Type of 4-way valve:                                          |                                      |
| Cooling coefficient                                                          | 2.73                                                            | Heating coefficient:                                          | 3.14                                 |
| Cooling power :                                                              | 2600                                                            | Heating power:                                                | 2700                                 |
| Outdoor temperature-dependent performance curve of cooling /heating capacity |                                                                 |                                                               | enclosed hereafter                   |
| Louver size of inlet grill                                                   |                                                                 | Anion quantity of anionic unit                                |                                      |
| Quantity/spacing of grill louver                                             |                                                                 | Variety of fin material                                       | Light foil                           |
| Total area of evaporator:                                                    |                                                                 | Coefficient of fin                                            |                                      |
| Total area of condenser:                                                     |                                                                 | Total length of cooling pipeline (liquid/vapor):              |                                      |
| Total /row number of fin:                                                    |                                                                 | Thickness/pitch of fins                                       | 0.35/1.9                             |
| Evaporating temperature range:                                               |                                                                 | Condensing temperature range:                                 | 43-60℃                               |
| Type of drain pipe:                                                          | PVC                                                             | Protector model of control panel:                             | 3.15A                                |
| Length/diameter of drain pipe:                                               | Φ25(internal);<br>Φ25(interanl)                                 | Protector model of compressor:                                |                                      |
| Size of mounting bottom plate:                                               | -                                                               | Temperature transducer model:                                 | R25                                  |
| Air supplying angle/distance                                                 | 15m                                                             | Sheathing material :                                          | Power sprayed<br>Electric zinc plate |
| New air capacity:                                                            |                                                                 | Cleaning frequency of filter:                                 | 1/month                              |
| Real-time regulating range:                                                  |                                                                 | Type of quieter material:                                     | XPE                                  |
| All attachments type of computer plate                                       | enclosed hereafter                                              | Model of gas-liquid separator:                                |                                      |
| Fan speed :                                                                  |                                                                 | Model of dryer:                                               |                                      |
| Type /quantity of fan                                                        | Indoor :centrifugal;<br>outdoor : tubeaxial                     | Power consumption:                                            |                                      |
| Type of capillary tube:                                                      | TP2Y                                                            | Model of quieter:                                             |                                      |
| Diameter/length of capillary tube:                                           |                                                                 | Type of vibrating material:                                   | Daub                                 |
| Swinging frequency of outlet grill louver                                    |                                                                 | Type/dimension of sterilizing net                             | Resin net                            |
| Maximum working pressure of heat side:                                       | 2.8MPa                                                          | Class of electrostatic prevention:                            | I                                    |
| Indoor wet and dry bulb temperature:                                         |                                                                 | Maximum working pressure of cold side:                        | 2.8MPa                               |
| Dynamic ratio:                                                               | 2.73                                                            | Outdoor wet and dry bulb temperature:                         |                                      |
| Certificate                                                                  | CE                                                              | Piling layer of inner and outer units:                        | 4/2                                  |
| Function of product:                                                         | Enclosed hereafter                                              | Filling capacity of compressor:                               |                                      |
| Popularity of product:                                                       | 1. Low noise;<br>2. Easy of mounting and simplicity of operator | Appearance characteristics of product's inner and outer unit: | Beautiful and natural                |

|                                                                              |                                                             |                                                               |                               |
|------------------------------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------|-------------------------------|
| Model:                                                                       | HPU-42H03                                                   | Appearance color (internal/external):                         | WHITE                         |
| Outline dimension of indoor unit:                                            | 1820x530x300mm                                              | Outline dimension of outer unit:                              | 948x340x1225mm                |
| Packing dimension of indoor unit:                                            | 1952x660x417mm                                              | Packing dimension of outer unit:                              | 1050x440x1375mm               |
| Noise of indoor unit (cooling):                                              | upper/lower 50/38dB(A)                                      | Noise of outer unit (cooling):                                | upper/lower 58/50 dB(A)       |
| Noise of indoor unit (heating):                                              | upper/lower 50/38dB(A)                                      | Noise of outer unit (heating):                                | 64/-/-                        |
| Net/gross weight of indoor unit:                                             | 45/47kg                                                     | Net/gross weight of outer unit:                               | 85kg                          |
| Working voltage range                                                        | 187-242                                                     | Working current range                                         |                               |
| Working temperature range                                                    | -7-43℃                                                      | Workable frequency:                                           | 50Hz                          |
| Temperature regulating difference:                                           |                                                             | Type of refrigerant                                           | R22                           |
| Maximum mounting drop height:                                                | 30                                                          | Refrigerant charge:                                           | 3520g                         |
| Maximum length of connecting pipe:                                           | 50                                                          | Type of filter:                                               |                               |
| Filtering efficiency:                                                        |                                                             | Dimension of filter:                                          |                               |
| Model of compressor:                                                         | CRNQ-0500-TFD-522                                           | Manufacturer of compressor:                                   |                               |
| Performance curve of compressor                                              | enclosed hereafter                                          | Performance variation curve of fan motor                      | enclosed hereafter            |
| Flow figure of two units :                                                   | 10/8                                                        | Type/diameter of pipe of two units:                           | Φ9.52; Φ19.05                 |
| Type of stop valve:                                                          | Φ9.52; Φ19.05                                               | Type of 4-way valve:                                          |                               |
| Cooling coefficient                                                          | 2.73                                                        | Heating coefficient:                                          | 3.14                          |
| Cooling power :                                                              | 2600                                                        | Heating power:                                                | 2700                          |
| Outdoor temperature-dependent performance curve of cooling /heating capacity |                                                             |                                                               | enclosed hereafter            |
| Louver size of inlet grill                                                   |                                                             | Anion quantity of anionic unit                                |                               |
| Quantity/spacing of grill louver                                             |                                                             | Variety of fin material                                       | Light foil                    |
| Total area of evaporator:                                                    |                                                             | Coefficient of fin                                            |                               |
| Total area of condenser:                                                     |                                                             | Total length of cooling pipeline (liquid/vapor):              |                               |
| Total /row number of fin:                                                    |                                                             | Thickness/pitch of fins                                       | 0.35/1.9                      |
| Evaporating temperature range:                                               |                                                             | Condensing temperature range:                                 | 43-60℃                        |
| Type of drain pipe:                                                          | PVC                                                         | Protector model of control panel:                             | 3.15A                         |
| Length/diameter of drain pipe:                                               | Φ25(internal);<br>Φ25(internal)                             | Protector model of compressor:                                |                               |
| Size of mounting bottom plate:                                               | -                                                           | Temperature transducer model:                                 | R25                           |
| Air supplying angle/distance                                                 | 15m                                                         | Refrigerant charge:                                           |                               |
| New air capacity:                                                            |                                                             | Cleaning frequency of filter:                                 | 1/month                       |
| Real-time regulating range:                                                  |                                                             | Type of quieter material:                                     | XPE                           |
| All attachments type of computer plate                                       | enclosed hereafter                                          | Model of gas-liquid separator:                                | 2.0L                          |
| Fan speed :                                                                  |                                                             | Model of dryer:                                               | -                             |
| Type /quantity of fan                                                        | Indoor :centrifugal;<br>outdoor : tubeaxial                 | Power consumption:                                            | Indoor :130W<br>Outdoor:60X20 |
| Type of capillary tube:                                                      | TP2Y                                                        | Model of quieter:                                             | Φ40X2                         |
| Diameter/length of capillary tube:                                           |                                                             | Type of vibrating material:                                   | Plaster                       |
| Swinging frequency of outlet grill louver                                    |                                                             | Type/dimension of sterilizing net                             | Resin net                     |
| Maximum working pressure of heat side:                                       | 2.8MPa                                                      | Class of electrostatic prevention:                            | I                             |
| Indoor wet and dry bulb temperature:                                         |                                                             | Maximum working pressure of cold side:                        | 2.94MP                        |
| Dynamic ratio:                                                               | 2.73                                                        | Outdoor wet and dry bulb temperature:                         | see table 1                   |
| Certificate                                                                  | CE                                                          | Piling layer of inner and outer units:                        | 4/2                           |
| Function of product:                                                         | Enclosed hereafter                                          | Filling capacity of compressor:                               | 2070cc                        |
| Popularity of product:                                                       | 1. Low noise;<br>2. Easy of mounting and simple of operator | Appearance characteristics of product's inner and outer unit: | Beautiful and natural         |

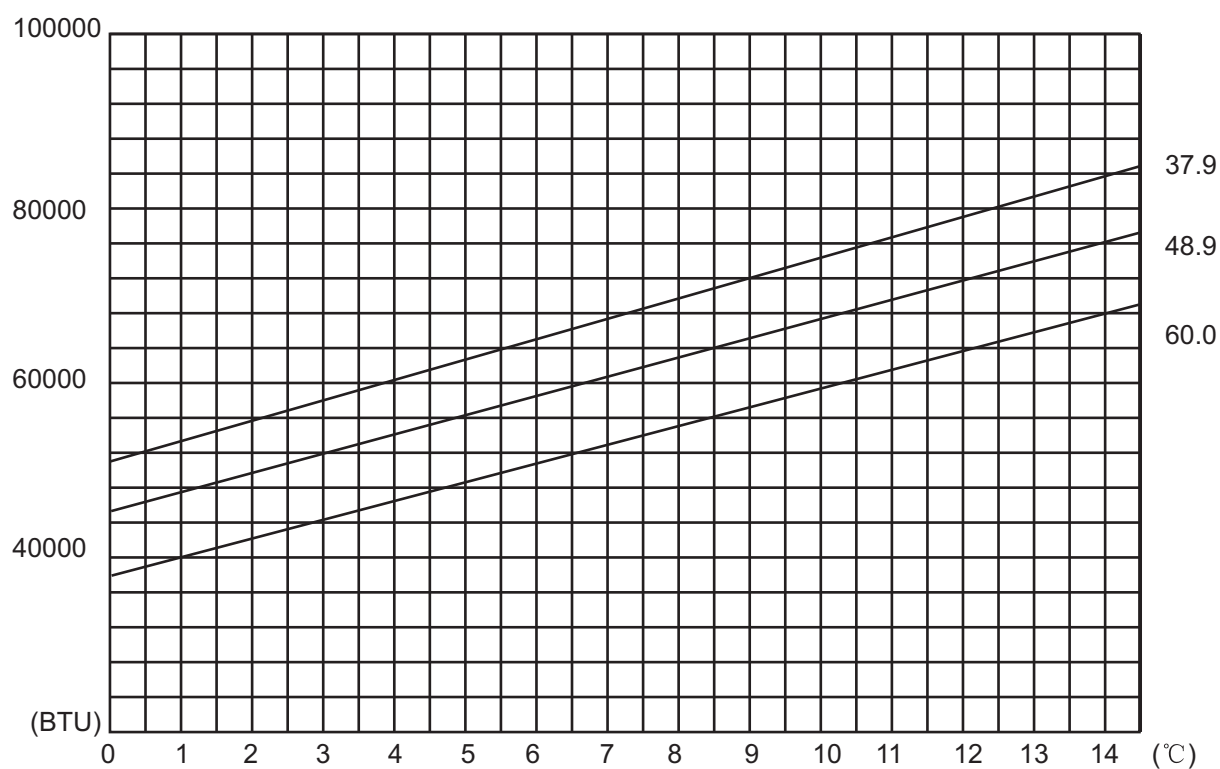
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|------------------------------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------|-------------------------------|
| Model:                                                                       | HPU-42HB03                                                  | Appearance color (internal/external):                         | WHITE                         |
| Outline dimension of indoor unit:                                            | 1820x530x300mm                                              | Outline dimension of outer unit:                              | 948x340x1225mm                |
| Packing dimension of indoor unit:                                            | 1952x660x417mm                                              | Packing dimension of outer unit:                              | 1050x440x1375mm               |
| Noise of indoor unit (cooling):                                              | 52/46/40dB(A)                                               | Noise of outer unit (cooling):                                | upper/lower 58/50 dB(A)       |
| Noise of indoor unit (heating):                                              | 50/44/38dB(A)                                               | Noise of outer unit (heating):                                | 64/-/-                        |
| Net/gross weight of indoor unit:                                             | 60/64kg                                                     | Net/gross weight of outdoor unit:                             | 91/116kg                      |
| Working voltage range                                                        | 380-400                                                     | Working current range                                         |                               |
| Working temperature range                                                    | -7-43℃                                                      | Workable frequency:                                           | 50Hz                          |
| Temperature regulating difference:                                           |                                                             | Type of refrigerant                                           | R22                           |
| Maximum mounting drop height:                                                | 30                                                          | Refrigerant charge:                                           | 4000g                         |
| Maximum length of connecting pipe:                                           | 50                                                          | Type of filter:                                               |                               |
| Filtering efficiency:                                                        |                                                             | Dimension of filter:                                          |                               |
| Model of compressor:                                                         | C-SB373H8F                                                  | Manufacturer of compressor:                                   | SANYO                         |
| Performance curve of compressor                                              |                                                             | Performance variation curve of fan motor                      |                               |
| Flow figure of two units :                                                   | 10/8                                                        | Type/diameter of pipe of two units:                           | Φ9.52; Φ19.05                 |
| Type of stop valve:                                                          | Φ9.52; Φ19.05                                               | Type of 4-way valve:                                          |                               |
| Cooling coefficient                                                          | 2.06                                                        | Heating coefficient:                                          | 2.5                           |
| Cooling power :                                                              | 4800                                                        | Heating power:                                                | 5100                          |
| Outdoor temperature-dependent performance curve of cooling /heating capacity |                                                             |                                                               |                               |
| Louver size of inlet grill                                                   |                                                             | Anion quantity of anionic unit                                |                               |
| Quantity/spacing of grill louver                                             |                                                             | Variety of fin material                                       | Light foil                    |
| Total area of evaporator:                                                    |                                                             | Coefficient of fin                                            |                               |
| Total area of condenser:                                                     |                                                             | Total length of cooling pipeline (liquid/vapor):              |                               |
| Total /row number of fin:                                                    |                                                             | Thickness/pitch of fins                                       | 0.35/1.9                      |
| Evaporating temperature range:                                               |                                                             | Condensing temperature range:                                 | 43-60℃                        |
| Type of drain pipe:                                                          | PVC                                                         | Protector model of control panel:                             | 3.15A                         |
| Length/diameter of drain pipe:                                               | Φ25(internal);<br>Φ25(internal)                             | Protector model of compressor:                                |                               |
| Size of mounting bottom plate:                                               | -                                                           | Temperature transducer model:                                 | R25                           |
| Air supplying angle/distance                                                 | 15m                                                         | Refrigerant charge:                                           |                               |
| New air capacity:                                                            |                                                             | Cleaning frequency of filter:                                 | 1/month                       |
| Real-time regulating range:                                                  |                                                             | Type of quieter material:                                     | XPE                           |
| All attachments type of computer plate                                       | enclosed hereafter                                          | Model of gas-liquid separator:                                | 2.0L                          |
| Fan speed :                                                                  |                                                             | Model of dryer:                                               | -                             |
| Type /quantity of fan                                                        | Indoor :centrifugal;<br>outdoor : tubeaxial                 | Power consumption:                                            | Indoor :130W<br>Outdoor:60X20 |
| Type of capillary tube:                                                      | TP2Y                                                        | Model of quieter:                                             | Φ40X2                         |
| Diameter/length of capillary tube:                                           |                                                             | Type of vibrating material:                                   | Plaster                       |
| Swinging frequency of outlet grill louver                                    |                                                             | Type/dimension of sterilizing net                             | Resin net                     |
| Maximum working pressure of heat side:                                       | 2.8MPa                                                      | Class of electrostatic prevention:                            | I                             |
| Indoor wet and dry bulb temperature:                                         |                                                             | Maximum working pressure of cold side:                        | 2.94MP                        |
| Dynamic ratio:                                                               | 2.73                                                        | Outdoor wet and dry bulb temperature:                         | see table 1                   |
| Certificate                                                                  | CE                                                          | Piling layer of inner and outer units:                        | 4/2                           |
| Function of product:                                                         | Enclosed hereafter                                          | Filling capacity of compressor:                               | 2070cc                        |
| Popularity of product:                                                       | 1. Low noise;<br>2. Easy of mounting and simple of operator | Appearance characteristics of product's inner and outer unit: | Beautiful and natural         |

|                                                                              |                                                             |                                                               |                               |
|------------------------------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------|-------------------------------|
| Model:                                                                       | HPU-44H03                                                   | Appearance color (internal/external):                         | WHITE                         |
| Outline dimension of indoor unit:                                            | 1820x530x310mm                                              | Outline dimension of outer unit:                              | 1225x960x380mm                |
| Packing dimension of indoor unit:                                            | 1952x660x455mm                                              | Packing dimension of outer unit:                              | 1370x1080x440mm               |
| Noise of indoor unit (cooling):                                              | 52/46/40dB(A)                                               | Noise of outer unit (cooling):                                | upper/lower 58/50 dB(A)       |
| Noise of indoor unit (heating):                                              | 50/44/38dB(A)                                               | Noise of outer unit (heating):                                | 64/-/-                        |
| Net/gross weight of indoor unit:                                             | 60/64kg                                                     | Net/gross weight of outdoor unit:                             | 91/116kg                      |
| Working voltage range                                                        | 380-400                                                     | Working current range                                         |                               |
| Working temperature range                                                    | -7-43℃                                                      | Workable frequency:                                           | 50Hz                          |
| Temperature regulating difference:                                           |                                                             | Type of refrigerant                                           | R22                           |
| Maximum mounting drop height:                                                | 30                                                          | Refrigerant charge:                                           | 4000g                         |
| Maximum length of connecting pipe:                                           | 50                                                          | Type of filter:                                               |                               |
| Filtering efficiency:                                                        |                                                             | Dimension of filter:                                          |                               |
| Model of compressor:                                                         | C-SB373H8F                                                  | Manufacturer of compressor:                                   | SANYO                         |
| Performance curve of compressor                                              |                                                             | Performance variation curve of fan motor                      |                               |
| Flow figure of two units :                                                   | 10/8                                                        | Type/diameter of pipe of two units:                           | Φ9.52; Φ19.05                 |
| Type of stop valve:                                                          | Φ9.52; Φ19.05                                               | Type of 4-way valve:                                          |                               |
| Cooling coefficient                                                          | 2.06                                                        | Heating coefficient:                                          | 2.5                           |
| Cooling power :                                                              | 4800                                                        | Heating power:                                                | 4000                          |
| Outdoor temperature-dependent performance curve of cooling /heating capacity |                                                             |                                                               |                               |
| Louver size of inlet grill                                                   |                                                             | Anion quantity of anionic unit                                |                               |
| Quantity/spacing of grill louver                                             |                                                             | Variety of fin material                                       | Light foil                    |
| Total area of evaporator:                                                    |                                                             | Coefficient of fin                                            |                               |
| Total area of condenser:                                                     |                                                             | Total length of cooling pipeline (liquid/vapor):              |                               |
| Total /row number of fin:                                                    |                                                             | Thickness/pitch of fins                                       | 0.35/1.9                      |
| Evaporating temperature range:                                               |                                                             | Condensing temperature range:                                 | 43-60℃                        |
| Type of drain pipe:                                                          | PVC                                                         | Protector model of control panel:                             | 3.15A                         |
| Length/diameter of drain pipe:                                               | Φ25(internal);<br>Φ25(internal)                             | Protector model of compressor:                                |                               |
| Size of mounting bottom plate:                                               | -                                                           | Temperature transducer model:                                 | R25                           |
| Air supplying angle/distance                                                 | 15m                                                         | Refrigerant charge:                                           |                               |
| New air capacity:                                                            |                                                             | Cleaning frequency of filter:                                 | 1/month                       |
| Real-time regulating range:                                                  |                                                             | Type of quieter material:                                     | XPE                           |
| All attachments type of computer plate                                       | enclosed hereafter                                          | Model of gas-liquid separator:                                | 2.0L                          |
| Fan speed :                                                                  |                                                             | Model of dryer:                                               | -                             |
| Type /quantity of fan                                                        | Indoor :centrifugal;<br>outdoor : tubeaxial                 | Power consumption:                                            | Indoor :130W<br>Outdoor:60X20 |
| Type of capillary tube:                                                      | TP2Y                                                        | Model of quieter:                                             | Φ40X2                         |
| Diameter/length of capillary tube:                                           |                                                             | Type of vibrating material:                                   | Plaster                       |
| Swinging frequency of outlet grill louver                                    |                                                             | Type/dimension of sterilizing net                             | Resin net                     |
| Maximum working pressure of heat side:                                       | 2.8MPa                                                      | Class of electrostatic prevention:                            | I                             |
| Indoor wet and dry bulb temperature:                                         |                                                             | Maximum working pressure of cold side:                        | 2.94MP                        |
| Dynamic ratio:                                                               | 2.73                                                        | Outdoor wet and dry bulb temperature:                         | see table 1                   |
| Certificate                                                                  | CE                                                          | Piling layer of inner and outer units:                        | 4/2                           |
| Function of product:                                                         | Enclosed hereafter                                          | Filling capacity of compressor:                               | 2070cc                        |
| Popularity of product:                                                       | 1. Low noise;<br>2. Easy of mounting and simple of operator | Appearance characteristics of product's inner and outer unit: | Beautiful and natural         |

(ZR3K4-PFJ-552)



(CRNQ-0500-TFD)

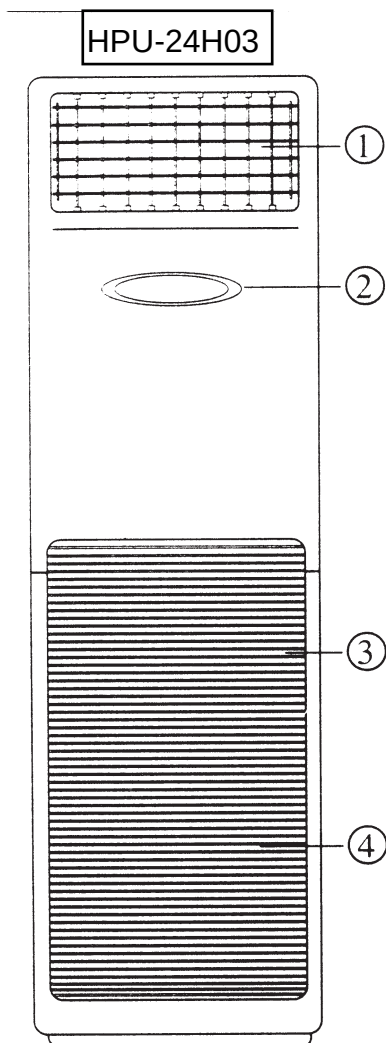


### 3. Product specification

#### Specification form of split air conditioner:

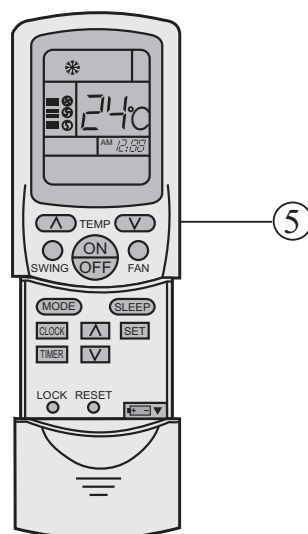
|                                   | Picture of product 1                                     | Picture of product 2                                     |
|-----------------------------------|----------------------------------------------------------|----------------------------------------------------------|
| Model of product                  | AP242ACAAA/AU242AHAAA                                    | AP42NACAAA/AC42NAIAAA                                    |
| Structural characteristic         | Split type                                               | Split type                                               |
| Cooling capacity                  | 24000BTU/h                                               | 42000BTU/h                                               |
| Voltage                           | 220V                                                     | 380V                                                     |
| Series of product                 | Cabinet type                                             | Cabinet type                                             |
| Appearance characteristics        | Circular are panel, telephone push key and control panel | Circular are panel, telephone push key and control panel |
| Certificate                       | CE                                                       | CE                                                       |
| Remote controller                 | Imitation Sharpen                                        | Imitation Sharpen                                        |
| Refrigerant                       | R22                                                      | R22                                                      |
| Climatic type                     | T1                                                       | T1                                                       |
| Dimension of indoor unit          | 1820x530x300                                             | 1820x530x340                                             |
| Dimension of outdoor unit         |                                                          | 1225X948X340                                             |
| Packing dimension of indoor unit  | 1952x660x417                                             | 1952X660X455                                             |
| Packing dimension of outdoor unit |                                                          | 1375X1110X445                                            |
| Packing list                      |                                                          |                                                          |

## Parts



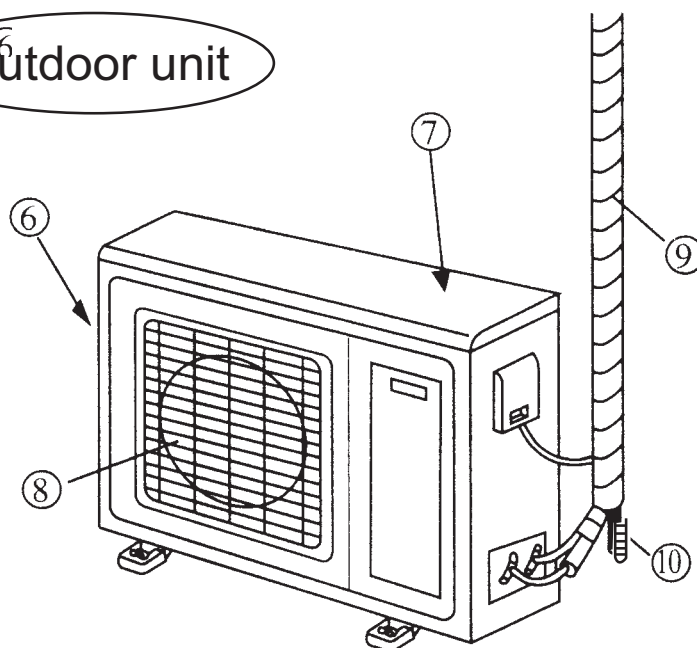
### Indoor unit

- ① Outlet grill
- ② Operation panel
- ③ Inlet grill
- ④ Air filter
- ⑤ Remote-controller



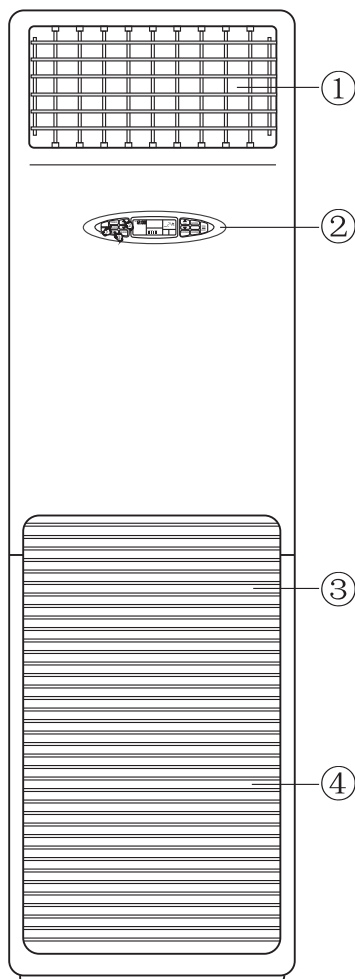
### Outdoor unit

- ⑥ Air inlet  
[ At side and rear ]
- ⑦ Compressor  
[ Inside the unit ]
- ⑧ Air outlet
- ⑨ Piping and electric wire
- ⑩ Drain pipe

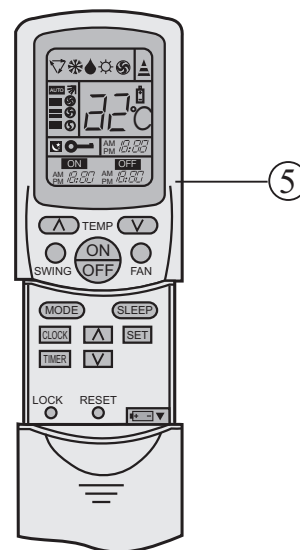


HPU-42H03 HPU-44H03 HPU-42HB03

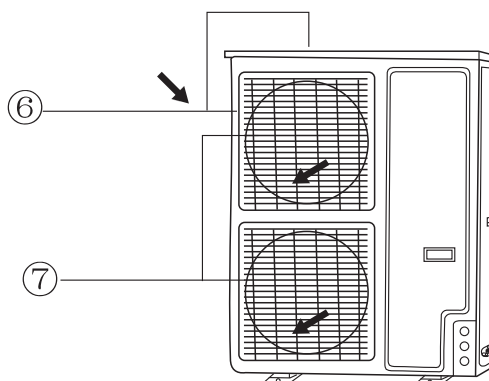
## Indoor unit



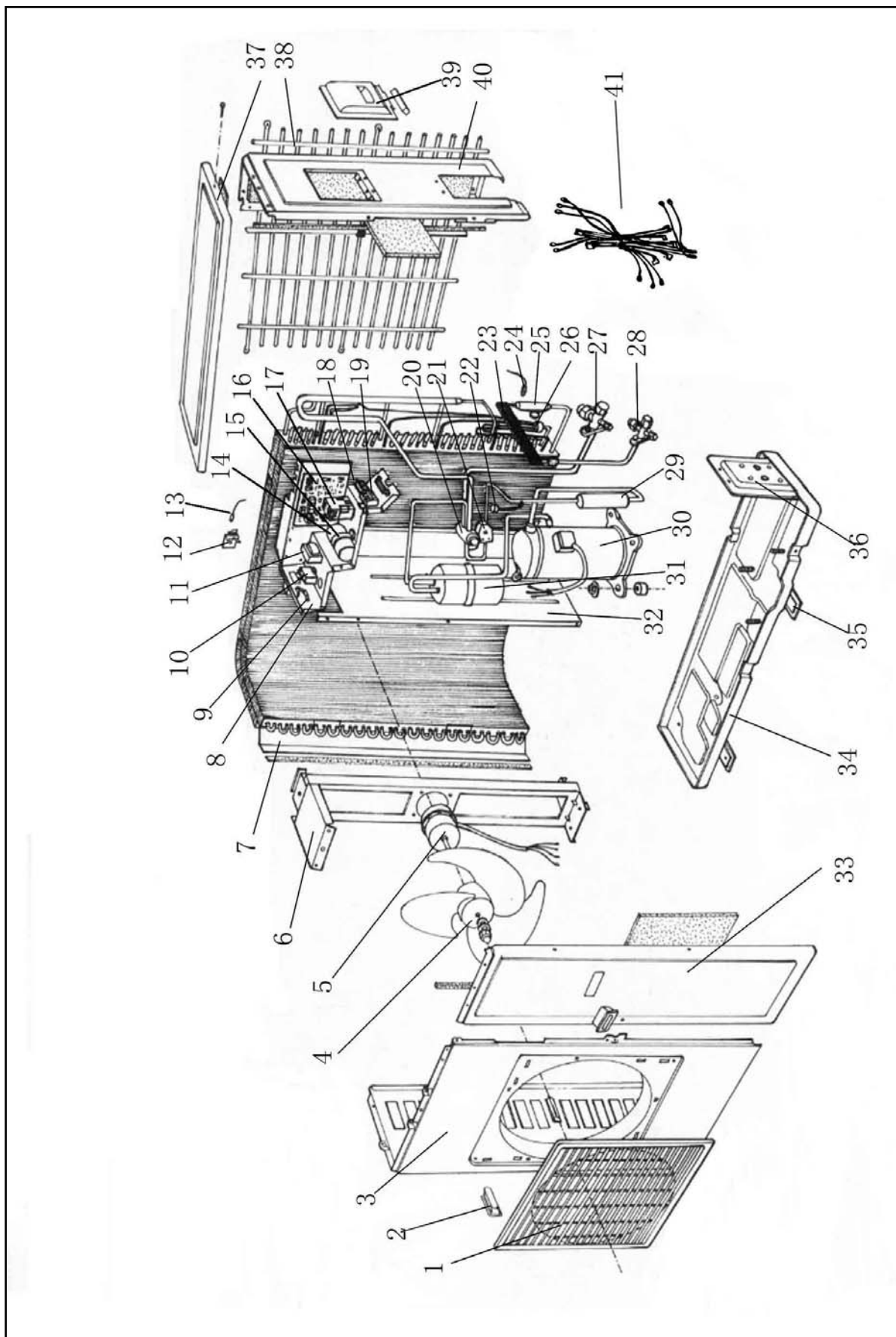
- ① Outlet grill
- ② Operation panel
- ③ Inlet grill
- ④ Air filter[Inside the unit]



## Outdoor unit



- ⑤ Remote-controller
- ⑥ Air inlet  
[At side and rear]
- ⑦ Air outlet



## Parts list

| No. | Spare parts number | Spare parts description in english | Qty. | Model     | Price list | Failure rate | the proportion of the spare-part stock | Remark |
|-----|--------------------|------------------------------------|------|-----------|------------|--------------|----------------------------------------|--------|
| 1   | 001A1236028        | Front grille                       | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 2   | 001A1436160        | handle                             | 2    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 3   | 001A0100261        | Front panel                        | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 4   | 001A5402022        | Axial fan                          | 1    | HPU-24H03 |            | 0.02%        | 0.024%                                 | *      |
| 5   | 0010450280         | Fan motor                          | 1    | HPU-24H03 |            | 0.02%        | 0.024%                                 | *      |
| 6   | 001A0100266        | Bracket for fan motor              | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 7   | 001A0400119        | Condenser assy.                    | 1    | HPU-24H03 |            | 0.01%        | 0.012%                                 |        |
| 8   | 001A1301453        | Electric box                       | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 9   | 001A5745009        | cable clamp                        | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 10  | 001A3600018        | Capacitor for fan motor            | 1    | HPU-24H03 |            | 0.04%        | 0.048%                                 | *      |
| 11  | 001A3800141        | Resumable transformer              | 1    | HPU-24H03 |            | 0.01%        | 0.012%                                 |        |
| 12  | 001A5736055        | clip for sensor                    | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 13  | 001A3900153        | temp. Sensor (Pipe & environment)  | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 14  | 001A3600030        | Capacitor for compressor           | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 15  | 0010100001         | Capacitor clamp                    | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 16  | 001A3300270        | outdoor PCB                        | 1    | HPU-24H03 |            | 0.02%        | 0.024%                                 | *      |
| 17  | 001A3900161        | AC contactor                       | 1    | HPU-24H03 |            | 0.03%        | 0.036%                                 | *      |
| 18  | 001A4000151        | Terminal block                     | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 19  | 001A4000110        | electrical source connection block | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 20  | 001A2500081        | 4-way valve                        | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 21  | 001A2500076        | coil of 4-way valve                | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 22  | 001A3400138        | High pressure switch               | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 23  | 001A2611223        | capillary                          | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 24  | 001A3900153        | temp. Sensor (Pipe & environment)  | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 25  | 001A2411024        | filter                             | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 26  | 001A0500461        | Tube assy.                         | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 27  | 001A2500083        | 3-way stop valve                   | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 28  | 001A2500082        | 2-way stop valve                   | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 29  | 001A2111912        | muffle                             | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 30  | 0010700774         | Compressor                         | 1    | HPU-24H03 |            | 0.06%        | 0.072%                                 | *      |
| 31  | 001A2101857        | Accumulator                        | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 32  | 001A0100350        | Partition plate                    | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 33  | 001A0100524        | Front panel                        | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 34  | 001A0100351        | Bottom cover assy.                 | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 35  | 001A1301117        | branch triby                       | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 36  | 001A1301506        | Valve pedestal                     | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 37  | 001A0100264        | Top cover assy.                    | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 38  | 001A0100109        | Back grille                        | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 39  | 001A0100394        | Junction box                       | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 40  | 001A0100390        | Slide plate(right)                 | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |

|    |             |            |   |           |  |       |        |   |
|----|-------------|------------|---|-----------|--|-------|--------|---|
| 41 | 001A4400511 | wire assy. | 1 | HPU-24H03 |  | 0.00% | 0.000% | × |
|----|-------------|------------|---|-----------|--|-------|--------|---|

1,The failer rate and the proportion of the spare-part stock are regarded as the reference of the stock for spare-parts;The first time should be stocked accroded with the proportion of the spare-parts,and it should be adjusted with the actual quantity 3 months later.

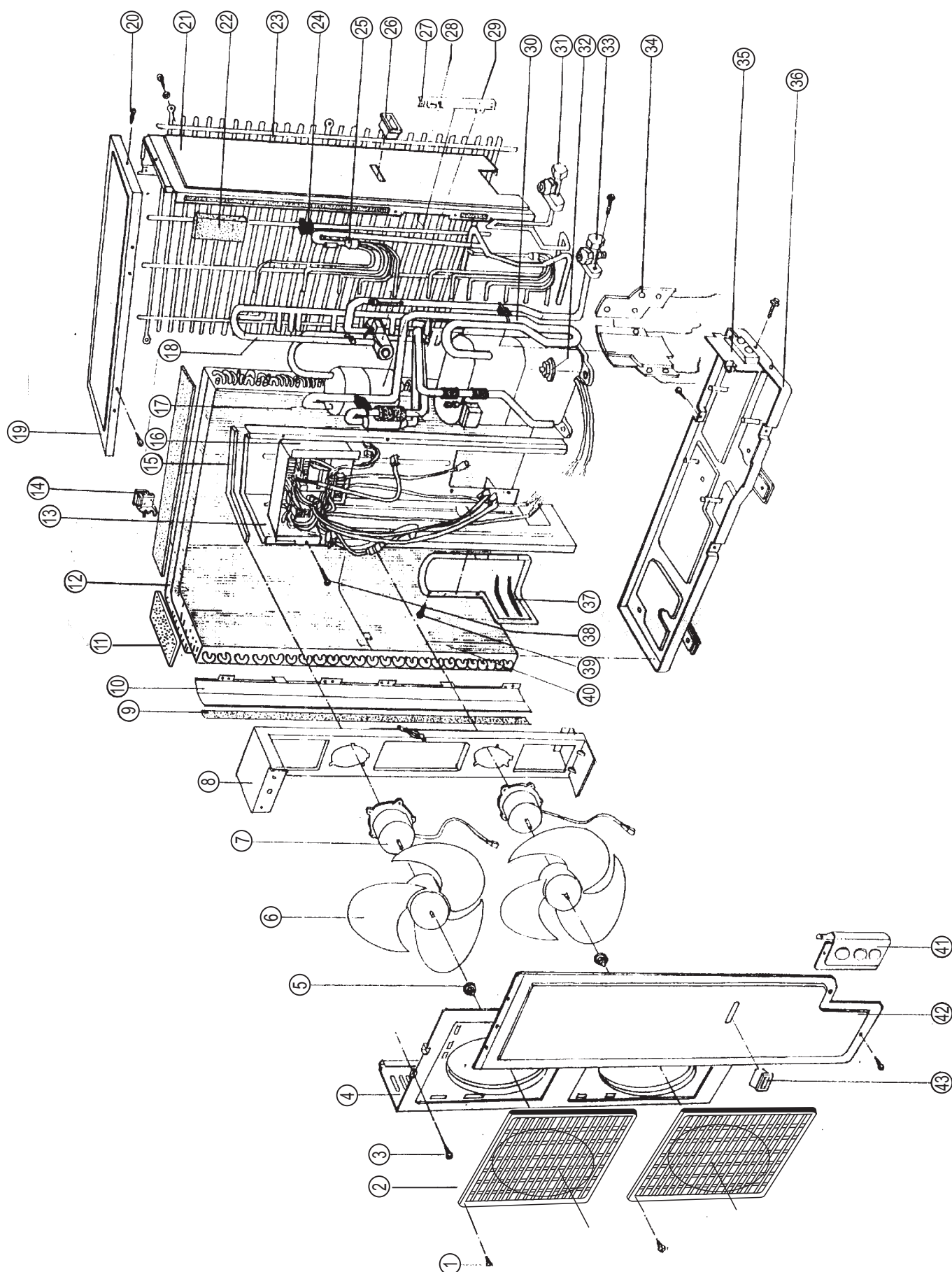
2,easy-damaged;The spare-part which is often damaged and the customer must stock in the spare-parts warehouse,and should be marked with"\*"

3,possible damaged:The spare-part which is not often damaged like the easy damaged one and the customer may stock in the spare-part warehouse accord with the actual case,should be marked with " "

4,not need provided :The spare-part which is seldom damaged or the maintenance man could not maitmains.The spare parts may be air freighted by the factory if they were damaged.The customer nees not stock in the spare-part warehouse,should be marked with " x ".

5,Above should be improved accord with the reply of the market half a year per time.

6.The spare parts price on net is FOB Qingdao term.



## Bristol Compressor

| Detailed statement of explosion figure |                 |                                      |                    |                                     |                    |
|----------------------------------------|-----------------|--------------------------------------|--------------------|-------------------------------------|--------------------|
| Model No. AP42NACAAA/AU42NAIAAA        |                 |                                      | outdoor unit       |                                     |                    |
| No.                                    | Specific number | Name                                 | Single consumption | Type of material                    | Weight of material |
| 1                                      | 5002108         | Screw                                | 4                  | Stainless steel                     |                    |
| 2                                      | 1236028         | Front guard web                      | 2                  | Weather resisting PP                | 580                |
| 3                                      | 5002005         | Screw                                | 5                  | Nick treatment                      |                    |
| 4                                      | 1301640         | Left front panel                     | 1                  | Electro-zincd plate                 | 6040               |
| 5                                      | 5102027         | Cap nut                              | 2                  | M10                                 |                    |
| 6                                      | 5402022         | Tubeaxial fan                        | 2                  | ABS-fiber glass                     | 1245               |
| 7                                      | 3000244         | Motor                                | 2                  |                                     |                    |
| 8                                      | 1001645         | Motor bracket                        | 1                  | 1.5 Heating zinc plate              | 2550               |
| 9                                      | 17421215        | Vertical strip foam                  | 1                  | PU                                  |                    |
| 10                                     | 1301469         | Vertical strip                       | 1                  | 0.8 Heating zinc plate              | 255                |
| 11                                     | 17341207        | Damping cushion                      | 1                  | PE                                  |                    |
| 12                                     | 0400164         | Upper heat exchanger assembly        | 1                  |                                     |                    |
| 13                                     | 1301468         | Partition plate                      | 1                  | 0.8 Heating zinc plate              | 1810               |
| 14                                     | 5736055         | Ambient temperature thermistor clamp | 1                  | Weather resisting PP                |                    |
| 15                                     | 17561212        | Partition pad                        | 1                  | Rubber                              |                    |
| 16                                     | 0600566         | Electrical box assembly              | 1                  |                                     |                    |
| 17                                     | 0500528         | Discharge piping assembly            | 1                  |                                     |                    |
| 18                                     | 0500521         | Upper discharge piping assembly      | 1                  |                                     |                    |
| 19                                     | 1101034         | Cover                                | 1                  | 0.8 electro zinc plate              | 2330               |
| 20                                     | 5002152         | Specific screw                       | 6                  | Stainless steel                     |                    |
| 21                                     | 1101197         | Right side plate                     | 1                  | 0.8 electro zinc plate              | 3740               |
| 22                                     | 17621214        | Right side liner                     | 2                  | Glass wool                          |                    |
| 23                                     | 1303642         | Heat exchanger guard web             | 1                  | Steel wire                          | 1610               |
| 24                                     | 1752285         | Rubber block                         | 2                  | Chloroprene rubber RE610            | 6                  |
| 25                                     | 0500522         | Upper feed pipe assembly             | 1                  |                                     |                    |
| 26                                     | 1436160         | Handle                               | 1                  | Weather resisting PP                | 19                 |
| 27                                     | 1301465         | Dead plate                           | 1                  | 1.0 Heating zinc plate              | 7.5                |
| 28                                     | 2500117         | 4-way valve                          | 1                  |                                     |                    |
| 29                                     | 2000175         | Accumulator                          | 1                  |                                     |                    |
| 30                                     | 0500520         | Suction piping assembly              | 1                  |                                     |                    |
| 31                                     | 2500115         | 2-way stop valve                     | 1                  |                                     |                    |
| 32                                     | 5102050         | Flaring nut                          | 4                  |                                     |                    |
| 33                                     | 2500116         | 3-way stop valve                     | 1                  |                                     |                    |
| 34                                     | 17621208        | Damping cushion sleeve               | 1                  | Composite thermal insulation cotton | 250                |
| 35                                     | 1301762         | Valve base                           | 1                  | 1.5 electric zinc plate             | 400                |
| 36                                     | 0100735         | Bottom plate assembly                | 1                  |                                     |                    |
| 37                                     | 1431952         | Bracket                              | 1                  | Heat-resisting ABS                  |                    |
| 38                                     | 5002103         | Screw                                | 1                  | Stainless steel                     |                    |
| 39                                     | 5002103         | Screw                                | 3                  | Stainless steel                     |                    |
| 40                                     | 0400164         | Lower heat exchanger group           | 1                  |                                     |                    |
| 41                                     | 1301464         | Little cover                         | 1                  | Electric zinc plate                 |                    |
| 42                                     | 1301707         | Servicing plate                      | 1                  | Electric zinc plate 0.8             | 1920               |
| 43                                     | 1436160         | Handle                               | 1                  | Weather resisting PP                | 19                 |

## Parts list

| No. | Spare parts number | Spare parts description in english   | Qty. | Model      | Price list | Failure rate | the proportion of the spare-part stock | Remark |
|-----|--------------------|--------------------------------------|------|------------|------------|--------------|----------------------------------------|--------|
| 1   | 001A5002108        | Screw                                | 4    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 2   | 001A1236028        | Front guard web                      | 2    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 3   | 001A5002005        | Screw                                | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 4   | 001A1301640        | Left front panel                     | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 5   | 001A5102027        | Cap nut                              | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 6   | 001A5402022        | Axial fan                            | 1    | HPU-42HB03 |            | 0.02%        | 0.024%                                 | *      |
| 7   | 001A3000244        | Motor                                | 1    | HPU-42HB03 |            | 0.02%        | 0.024%                                 | *      |
| 8   | 001A1301645        | Motor bracket                        | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 9   | 001A17421215       | Vertical strip foam                  | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 10  | 001A1301469        | Vertical strip                       | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 11  | 001A17341207       | Damping cushion                      | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 12  | 0010400164         | sensor                               | 1    | HPU-42HB03 |            | 0.01%        | 0.012%                                 |        |
| 13  | 001A1301468        | Partition plate                      | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 14  | 001A5736055        | Ambient temperature thermistor clamp | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 15  | 001A17561212       | Partition pad                        | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 16  | 001A0600566        | Electrical box assembly              | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | *      |
| 17  | 001A0500528        | assembly                             | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | *      |
| 18  | 001A0500521        | Upper discharge piping assembly      | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 19  | 001A1101034        | Cover                                | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 20  | 001A5002152        | Specific screw                       | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 21  | 001A1101197        | Right side plate                     | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 22  | 001A17621214       | Right side liner                     | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 23  | 001A0100767        | web                                  | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 24  | 001A1752289        | Rubber block                         | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 25  | 001A0500522        | assembly                             | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 26  | 001A1436160        | Handle                               | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 27  | 001A1301465        | Dead plate                           | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 28  | 001A2500117        | 4-way valve                          | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 29  | 001A2000175        | Accumulator                          | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 30  | 0010750042         | assembly                             | 1    | HPU-42HB03 |            | 0.06%        | 0.072%                                 | *      |
| 31  | 001A2500115        | 2-way stop valve                     | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 32  | 001A5102050        | Flaring nut                          | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 33  | 001A2500116        | 3-way stop valve                     | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 34  | 001A17621208       | sleeve                               | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 35  | 001A1301762        | Valve base                           | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 36  | 001A0100735        | Bottom plate assembly                | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 37  | 001A1431952        | Bracket                              | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 38  | 001A5002103        | Screw                                | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 39  | 001A5002103        | Screw                                | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 40  | 0010751095         | Heat exchanger group                 | 1    | HPU-42HB03 |            | 0.01%        | 0.012%                                 |        |
| 41  | 001A1301464        | Little cover                         | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |
| 42  | 001A1301707        | Servicing plate                      | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                                 | ×      |

|    |             |        |   |            |  |       |        |   |
|----|-------------|--------|---|------------|--|-------|--------|---|
| 43 | 001A1436160 | Handle | 1 | HPU-42HB03 |  | 0.00% | 0.000% | × |
|----|-------------|--------|---|------------|--|-------|--------|---|

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## Parts list

| No. | Spare parts number | Spare parts description in english   | Qty. | Model     | Price list | Failure rate | the proportion of the spare-part stock | Remark |
|-----|--------------------|--------------------------------------|------|-----------|------------|--------------|----------------------------------------|--------|
| 1   | 001A5002108        | Screw                                | 4    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 2   | 001A1236028        | Front guard web                      | 2    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 3   | 001A5002005        | Screw                                | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 4   | 001A1301640        | Left front panel                     | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 5   | 001A5102027        | Cap nut                              | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 6   | 001A5402022        | Axial fan                            | 1    | HPU-44H03 |            | 0.02%        | 0.024%                                 | *      |
| 7   | 001A3000244        | Motor                                | 1    | HPU-44H03 |            | 0.02%        | 0.024%                                 | *      |
| 8   | 001A1301645        | Motor bracket                        | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 9   | 001A17421215       | Vertical strip foam                  | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 10  | 001A1301469        | Vertical strip                       | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 11  | 001A17341207       | Damping cushion                      | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 12  | 0010400164         | assembly                             | 1    | HPU-44H03 |            | 0.01%        | 0.012%                                 |        |
| 13  | 001A1301468        | Partition plate                      | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 14  | 001A5736055        | Ambient temperature thermistor clamp | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 15  | 001A17561212       | Partition pad                        | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 16  | 001A0600566        | assembly                             | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | *      |
| 17  | 001A0500528        | assembly                             | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | *      |
| 18  | 001A0500521        | Upper discharge piping assembly      | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 19  | 001A1101034        | Cover                                | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 20  | 001A5002152        | Specific screw                       | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 21  | 001A1101197        | Right side plate                     | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 22  | 001A17621214       | Right side liner                     | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 23  | 001A0100767        | web                                  | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 24  | 001A1752289        | Rubber block                         | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 25  | 001A0500522        | assembly                             | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 26  | 001A1436160        | Handle                               | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 27  | 001A1301465        | Dead plate                           | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 28  | 001A2500117        | 4-way valve                          | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 29  | 001A2000175        | Accumulator                          | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 30  | 0010750042         | assembly                             | 1    | HPU-44H03 |            | 0.06%        | 0.072%                                 | *      |
| 31  | 001A2500115        | 2-way stop valve                     | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 32  | 001A5102050        | Flaring nut                          | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 33  | 001A2500116        | 3-way stop valve                     | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 34  | 001A17621208       | sleeve                               | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 35  | 001A1301762        | Valve base                           | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 36  | 001A0100735        | Bottom plate assembly                | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 37  | 001A1431952        | Bracket                              | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 38  | 001A5002103        | Screw                                | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 39  | 001A5002103        | Screw                                | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 40  | 0010751095         | group                                | 1    | HPU-44H03 |            | 0.01%        | 0.012%                                 |        |
| 41  | 001A1301464        | Little cover                         | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |
| 42  | 001A1301707        | Servicing plate                      | 1    | HPU-44H03 |            | 0.00%        | 0.000%                                 | ×      |

|    |             |        |   |           |  |       |        |   |
|----|-------------|--------|---|-----------|--|-------|--------|---|
| 43 | 001A1436160 | Handle | 1 | HPU-44H03 |  | 0.00% | 0.000% | × |
|----|-------------|--------|---|-----------|--|-------|--------|---|

1,The failer rate and the proportion of the spare-part stock are regarded as the reference of the stock for spare-parts;The first time should be stocked accroded with the proportion of the spare-parts,and it should be adjusted with the actual quantity 3 months later.

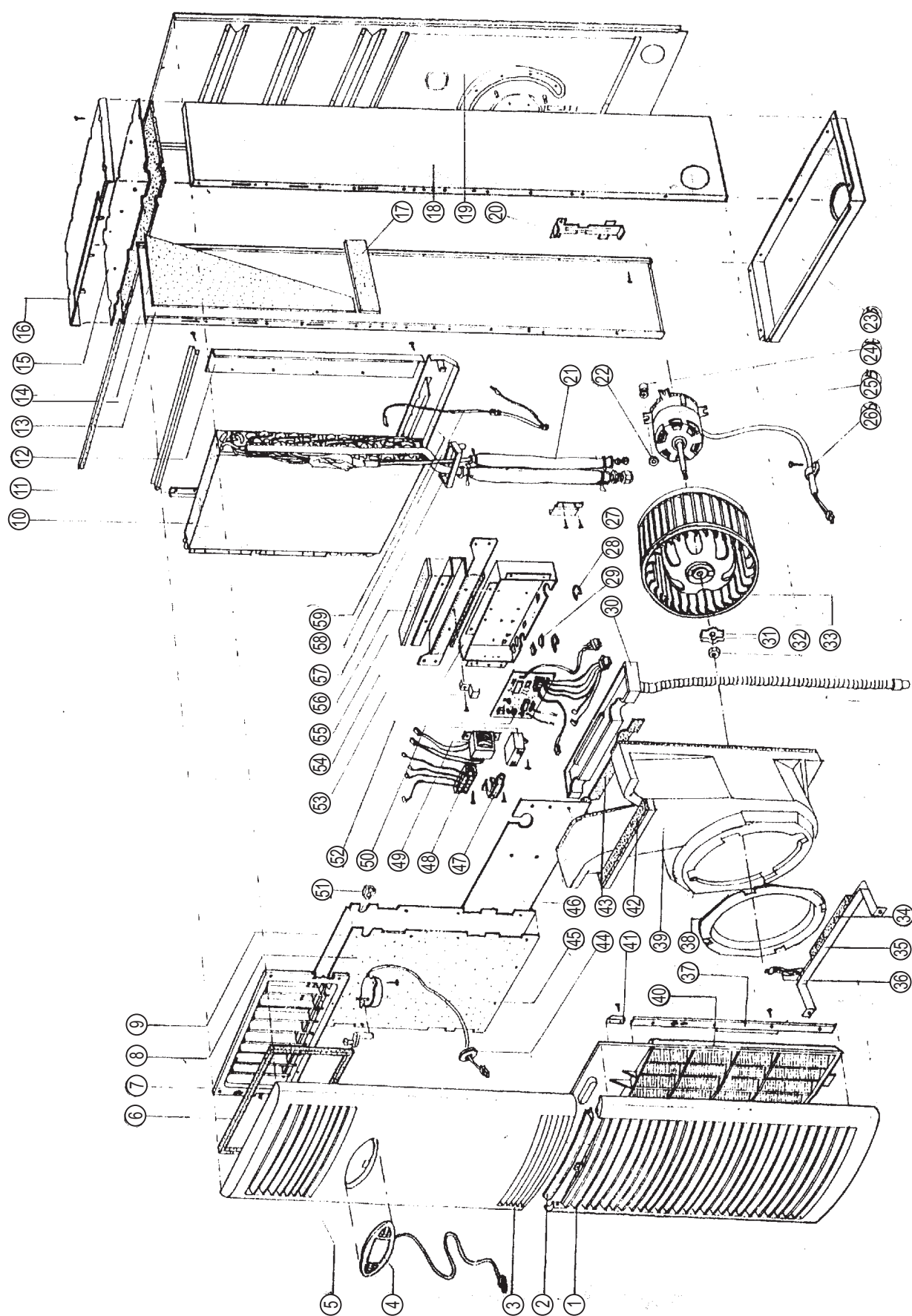
2,easy-damaged;The spare-part which is often damaged and the customer must stock in the spare-parts warehouse,and should be marked with""

3,possible damaged:The spare-part which is not often damaged like the easy damaged one and the customer may stock in the spare-part warehouse accord with the actual case,should be marked with " ".

4,not need provided :The spare-part which is seldom damaged or the maintenance man could not maitmains.The spare parts may be air freighted by the factory if they were damaged.The customer nees not stock in the spare-part warehouse,should be marked with " x ".

5,Above should be improved accord with the reply of the market half a year per time.

6.The spare parts price on net is FOB Qingdao term.



## Parts list

| No. | Spare parts number | Spare parts description in english | Qty. | Model     | Price list | Failure rate | the proportion of the spare-part stock | Remark |
|-----|--------------------|------------------------------------|------|-----------|------------|--------------|----------------------------------------|--------|
| 1   | 001A1231233        | Inlet grill                        | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 2   | 001A1301502        | Inlet grill insert                 | 2    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 3   | 001A0100384        | Front panel                        | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 4   | 001A0600657        | Operation panel                    | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 5   | 001A1432687        | Horizontal blade                   | 6    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 6   | 001A1734970        | pad                                | 2    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 7   | 001A1431689        | Vertical blade                     | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 8   | 001A1734832        | Air damper pad                     | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 9   | 001A1301508        | Air damper                         | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 10  | 001A0400118        | assembly                           | 1    | HPU-24H03 |            | 0.01%        | 0.012%                                 |        |
| 11  | 001A1301440        | Evaporator left mounting plate     | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 12  | 001A1301441        | Evaporator right mounting plate    | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 13  | 0010150192         | Left board                         | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 14  | 001A17341250       | Left board pad                     | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 15  | 001A1301439        | Top cover plate                    | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 16  | 001A1742836        | Cover                              | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 17  | 001A1734023        | horizontal pad                     | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 18  | 0010150193         | Right board                        | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 19  | 001A0100787        | Back guard                         | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 20  | 001A1101145        | Wiring plate                       | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 21  | 001A1734842        | pipe                               | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 22  | 001A5002078        | Special nut                        | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 23  | 001A0100575        | Bottom plate                       | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 24  | 001A1745106        | Plastic cushion                    | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 25  | 0010402372         | Motor                              | 1    | HPU-24H03 |            | 0.02%        | 0.024%                                 | *      |
| 26  | 001A5739020        | clamp                              | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 27  | 001A1101146        | Pipe press plate                   | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 28  | 001A1752911        | Cushion rubber                     | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 29  | 001A1452695        | Cushion rubber                     | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 30  | 0010250163         | Drain pan                          | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 31  | 001A1452695        | Fan pad                            | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 32  | 001A5102050        | Nut                                | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 33  | 001A2300062        | Centrifugal fan                    | 1    | HPU-24H03 |            | 0.02%        | 0.024%                                 | *      |
| 34  | 001A1742931        | Down shell press plate cushion     | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 35  | 001A1301445        | plate                              | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 36  | 001A1431647        | (plasticizing)                     | 1    | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |
| 37  | 001A1301437        | Filter guide                       |      | HPU-24H03 |            | 0.00%        | 0.000%                                 | ×      |

|    |              |                   |   |           |  |       |        |   |
|----|--------------|-------------------|---|-----------|--|-------|--------|---|
| 38 | 0010200026   | Air ring          | 1 | HPU-24H03 |  | 0.00% | 0.000% | × |
| 39 | 001A0100385  | Down shell        | 1 | HPU-24H03 |  | 0.00% | 0.000% | × |
| 40 | 001A2400102  | Filter            | 1 | HPU-24H03 |  | 0.00% | 0.000% | × |
| 41 | 001A0100075  | Door lock         | 1 | HPU-24H03 |  | 0.00% | 0.000% | × |
| 42 | 001A1734967  | Sealing plate     | 1 | HPU-24H03 |  | 0.00% | 0.000% | × |
| 43 | 001A17621241 | Sealing plate     | 1 | HPU-24H03 |  | 0.00% | 0.000% | × |
| 44 | 001A1757833  | Cushion rubber    | 1 | HPU-24H03 |  | 0.00% | 0.000% | × |
| 45 | 001A3000016A | Synchro-motor     | 1 | HPU-24H03 |  | 0.02% | 0.024% | * |
| 46 | 001A1301448  | Wring cover       | 1 | HPU-24H03 |  | 0.00% | 0.000% | × |
| 47 | 001A1431647  | Wire clamp        | 1 | HPU-24H03 |  | 0.00% | 0.000% | × |
| 48 | 001A4000151  | column)           | 1 | HPU-24H03 |  | 0.00% | 0.000% | × |
| 49 | 001A3800141  | Transformer       | 1 | HPU-24H03 |  | 0.01% | 0.012% |   |
| 50 | 001A3600018  | Fan capacitor     | 1 | HPU-24H03 |  | 0.04% | 0.048% | * |
| 51 | 001A1452695  | Cushion rubber    | 1 | HPU-24H03 |  | 0.00% | 0.000% | × |
| 52 | 001A0600303  | Indoor PCB        | 1 | HPU-24H03 |  | 0.02% | 0.024% | * |
| 53 | /            | /                 |   | HPU-24H03 |  |       |        |   |
| 54 | 001A13011074 | Electric box      | 1 | HPU-24H03 |  | 0.00% | 0.000% | × |
| 55 | 001A1301444  | Mounting beam     | 1 | HPU-24H03 |  | 0.00% | 0.000% | × |
| 56 | 001A1734967  | Sealing plate     | 1 | HPU-24H03 |  | 0.00% | 0.000% | × |
| 57 | 001A1752840  | Supporting plate  | 1 | HPU-24H03 |  | 0.00% | 0.000% | × |
| 58 | 001A3900006  | Pipe temp. sensor | 1 | HPU-24H03 |  | 0.00% | 0.000% | × |
| 59 | 001A0100407  | Splint            | 1 | HPU-24H03 |  | 0.00% | 0.000% | × |

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2, easy-damaged; The spare-part which is often damaged and the customer must stock in the spare-parts warehouse, and should be marked with "\*" "

3, possible damaged: The spare-part which is not often damaged like the easy damaged one and the customer may stock in the spare-part warehouse accord with the actual case, should be marked with " " .

4, not need provided : The spare-part which is seldom damaged or the maintenance man could not maitmains. The spare parts may be air freighted by the factory if they were damaged. The customer nees not stock in the spare-part warehouse, should be marked with " x " .

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6. The spare parts price on net is FOB Qingdao term.

## Parts list

| No. | Spare parts number | Spare parts description in english | Qty. | Model      | Price list | Failure rate | proportion of the spare-part stock | Remark |
|-----|--------------------|------------------------------------|------|------------|------------|--------------|------------------------------------|--------|
| 1   | 001A1231233        | Inlet grill                        | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 2   | 001A1301502        | Inlet grill insert                 | 2    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 3   | 001A0100384        | Front panel                        | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 4   | 001A0600657        | Operation panel                    | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 5   | 001A1432687        | Horizontal blade                   | 6    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 6   | 001A1734970        | Vertical air outlet pad            | 2    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 7   | 001A1431689        | Vertical blade                     | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 8   | 001A1734832        | Air damper pad                     | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 9   | 001A1301508        | Air damper                         | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 10  | 001A0400178        | assembly                           | 1    | HPU-42HB03 |            | 0.01%        | 0.012%                             |        |
| 11  | 001A1301847        | Evaporator left mounting plate     | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 12  | 001A1301848        | Evaporator right mounting plate    | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 13  | 0010150194         | Left board                         | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 14  | 001A17341222       | Left board pad                     | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 15  | 001A1301846        | Top cover plate                    | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 16  | 001A1431994        | Cover                              | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 17  | 001A17561372       | pad                                | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 18  | 0010150195         | Right board                        | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 19  | 001A0100787        | Back guard                         | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 20  | 001A1101145        | Wiring plate                       | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 21  | 001A1734842        | Thermal insulation pipe            | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 22  | 001A5002078        | Special nut                        | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 23  | 001A0100575        | Bottom plate                       | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 24  | 001A1745106        | Plastic cushion                    | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 25  | 001A3000249        | Motor                              | 1    | HPU-42HB03 |            | 0.02%        | 0.024%                             | *      |
| 26  | 001A5739020        | Mounting wiring clamp              | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 27  | 001A1101146        | Pipe press plate                   | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 28  | 001A1752911        | Cushion rubber                     | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 29  | 001A1452695        | Cushion rubber                     | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 30  | 0010250163         | Drain pan                          | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 31  | 001A1452695        | Fan pad                            | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 32  | 001A5102050        | Nut                                | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 33  | 001A2300095        | Centrifugal fan                    | 1    | HPU-42HB03 |            | 0.02%        | 0.024%                             | *      |
| 34  | 001A1742931        | Down shell press plate cushion     | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 35  | 001A1301445        | Down shell press plate             | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 36  | 001A1431647        | (plasticizing)                     | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 37  | 001A1301437        | Filter guide                       |      | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 38  | 0010200026         | Air ring                           | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |
| 39  | 001A0100385        | Down shell                         | 1    | HPU-42HB03 |            | 0.00%        | 0.000%                             | ×      |

|    |              |                   |   |            |  |       |        |   |
|----|--------------|-------------------|---|------------|--|-------|--------|---|
| 40 | 001A2400102  | Filter            | 1 | HPU-42HB03 |  | 0.00% | 0.000% | × |
| 41 | 001A0100075  | Door lock         | 1 | HPU-42HB03 |  | 0.00% | 0.000% | × |
| 42 | 001A1734967  | Sealing plate     | 1 | HPU-42HB03 |  | 0.00% | 0.000% | × |
| 43 | 001A17621241 | Sealing plate     | 1 | HPU-42HB03 |  | 0.00% | 0.000% | × |
| 44 | 001A1757833  | Cushion rubber    | 1 | HPU-42HB03 |  | 0.00% | 0.000% | × |
| 45 | 001A3000016A | Synchro-motor     | 1 | HPU-42HB03 |  | 0.02% | 0.024% | * |
| 46 | 001A1301448  | Wring cover       | 1 | HPU-42HB03 |  | 0.00% | 0.000% | × |
| 47 | 001A1431647  | Wire clamp        | 1 | HPU-42HB03 |  | 0.00% | 0.000% | × |
| 48 | 001A4000151  | column)           | 1 | HPU-42HB03 |  | 0.00% | 0.000% | × |
| 49 | 001A3800141  | Transformer       | 1 | HPU-42HB03 |  | 0.01% | 0.012% |   |
| 50 | 001A3600134  | Fan capacitor     | 1 | HPU-42HB03 |  | 0.04% | 0.048% | * |
| 51 | 001A1452695  | Cushion rubber    | 1 | HPU-42HB03 |  | 0.00% | 0.000% | × |
| 52 | 0010450412   | Indoor PCB        | 1 | HPU-42HB03 |  | 0.02% | 0.024% | * |
| 53 | /            | /                 |   | HPU-42HB03 |  |       |        |   |
| 54 | 001A13011074 | Electric box      | 1 | HPU-42HB03 |  | 0.00% | 0.000% | × |
| 55 | 001A1301444  | Mounting beam     | 1 | HPU-42HB03 |  | 0.00% | 0.000% | × |
| 56 | 001A1734967  | Sealing plate     | 1 | HPU-42HB03 |  | 0.00% | 0.000% | × |
| 57 | 001A1752840  | Supporting plate  | 1 | HPU-42HB03 |  | 0.00% | 0.000% | × |
| 58 | 001A3900006  | Pipe temp. sensor | 1 | HPU-42HB03 |  | 0.00% | 0.000% | × |
| 59 | 001A0100407  | Splint            | 1 | HPU-42HB03 |  | 0.00% | 0.000% | × |

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## Parts list

| No. | Spare parts number | Spare parts description in english | Qty | Model     | Price list | Failure rate | proportion of the spare-part stock | Remark |
|-----|--------------------|------------------------------------|-----|-----------|------------|--------------|------------------------------------|--------|
| 1   | 001A1231233        | Inlet grill                        | 1   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 2   | 001A1301502        | Inlet grill insert                 | 2   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 3   | 001A0100384        | Front panel                        | 1   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 4   | 001A0600657        | Operation panel                    | 1   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 5   | 001A1432687        | Horizontal blade                   | 6   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 6   | 001A1734970        | Vertical air outlet pad            | 2   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 7   | 001A1431689        | Vertical blade                     | 1   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 8   | 001A1734832        | Air damper pad                     | 1   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 9   | 001A1301508        | Air damper                         | 1   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 10  | 001A0400178        | assembly                           | 1   | HPU-44H03 |            | 0.01%        | 0.012%                             |        |
| 11  | 001A1301847        | Evaporator left mounting plate     | 1   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 12  | 001A1301848        | Evaporator right mounting plate    | 1   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 13  | 0010150194         | Left board                         | 1   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 14  | 001A17341222       | Left board pad                     | 1   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 15  | 001A1301846        | Top cover plate                    | 1   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 16  | 001A1431994        | Cover                              | 1   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 17  | 001A17561372       | pad                                | 1   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 18  | 0010150195         | Right board                        | 1   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 19  | 001A0100787        | Back guard                         | 1   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 20  | 001A1101145        | Wiring plate                       | 1   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 21  | 001A1734842        | pipe                               | 1   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 22  | 001A5002078        | Special nut                        | 1   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 23  | 001A0100575        | Bottom plate                       | 1   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 24  | 001A1745106        | Plastic cushion                    | 1   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 25  | 001A3000249        | Motor                              | 1   | HPU-44H03 |            | 0.02%        | 0.024%                             | *      |
| 26  | 001A5739020        | clamp                              | 1   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 27  | 001A1101146        | Pipe press plate                   | 1   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 28  | 001A1752911        | Cushion rubber                     | 1   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 29  | 001A1452695        | Cushion rubber                     | 1   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 30  | 0010250163         | Drain pan                          | 1   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 31  | 001A1452695        | Fan pad                            | 1   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 32  | 001A5102050        | Nut                                | 1   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 33  | 001A2300095        | Centrifugal fan                    | 1   | HPU-44H03 |            | 0.02%        | 0.024%                             | *      |
| 34  | 001A1742931        | Down shell press plate cushion     | 1   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 35  | 001A1301445        | plate                              | 1   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 36  | 001A1431647        | (plasticizing)                     | 1   | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |
| 37  | 001A1301437        | Filter guide                       |     | HPU-44H03 |            | 0.00%        | 0.000%                             | ×      |

|    |              |                   |   |           |  |       |        |   |
|----|--------------|-------------------|---|-----------|--|-------|--------|---|
| 38 | 0010200026   | Air ring          | 1 | HPU-44H03 |  | 0.00% | 0.000% | × |
| 39 | 001A0100385  | Down shell        | 1 | HPU-44H03 |  | 0.00% | 0.000% | × |
| 40 | 001A2400102  | Filter            | 1 | HPU-44H03 |  | 0.00% | 0.000% | × |
| 41 | 001A0100075  | Door lock         | 1 | HPU-44H03 |  | 0.00% | 0.000% | × |
| 42 | 001A1734967  | Sealing plate     | 1 | HPU-44H03 |  | 0.00% | 0.000% | × |
| 43 | 001A17621241 | Sealing plate     | 1 | HPU-44H03 |  | 0.00% | 0.000% | × |
| 44 | 001A1757833  | Cushion rubber    | 1 | HPU-44H03 |  | 0.00% | 0.000% | × |
| 45 | 001A3000016A | Synchro-motor     | 1 | HPU-44H03 |  | 0.02% | 0.024% | * |
| 46 | 001A1301448  | Wring cover       | 1 | HPU-44H03 |  | 0.00% | 0.000% | × |
| 47 | 001A1431647  | Wire clamp        | 1 | HPU-44H03 |  | 0.00% | 0.000% | × |
| 48 | 001A4000151  | column)           | 1 | HPU-44H03 |  | 0.00% | 0.000% | × |
| 49 | 001A3800141  | Transformer       | 1 | HPU-44H03 |  | 0.01% | 0.012% |   |
| 50 | 001A3600134  | Fan capacitor     | 1 | HPU-44H03 |  | 0.04% | 0.048% | * |
| 51 | 001A1452695  | Cushion rubber    | 1 | HPU-44H03 |  | 0.00% | 0.000% | × |
| 52 | 001A0600303  | Indoor PCB        | 1 | HPU-44H03 |  | 0.02% | 0.024% | * |
| 53 | /            | /                 |   | HPU-44H03 |  |       |        |   |
| 54 | 001A13011074 | Electric box      | 1 | HPU-44H03 |  | 0.00% | 0.000% | × |
| 55 | 001A1301444  | Mounting beam     | 1 | HPU-44H03 |  | 0.00% | 0.000% | × |
| 56 | 001A1734967  | Sealing plate     | 1 | HPU-44H03 |  | 0.00% | 0.000% | × |
| 57 | 001A1752840  | Supporting plate  | 1 | HPU-44H03 |  | 0.00% | 0.000% | × |
| 58 | 001A3900006  | Pipe temp. sensor | 1 | HPU-44H03 |  | 0.00% | 0.000% | × |
| 59 | 001A0100407  | Splint            | 1 | HPU-44H03 |  | 0.00% | 0.000% | × |

1, The failer rate and the proportion of the spare-part stock are regarded as the reference of the stock for spare-parts; The first time should be stocked accorded with the proportion of the spare-parts, and it should be adjusted with the actual quantity 3 months later.

2, easy-damaged; The spare-part which is often damaged and the customer must stock in the spare-parts warehouse, and should be marked with "\*\*\*"

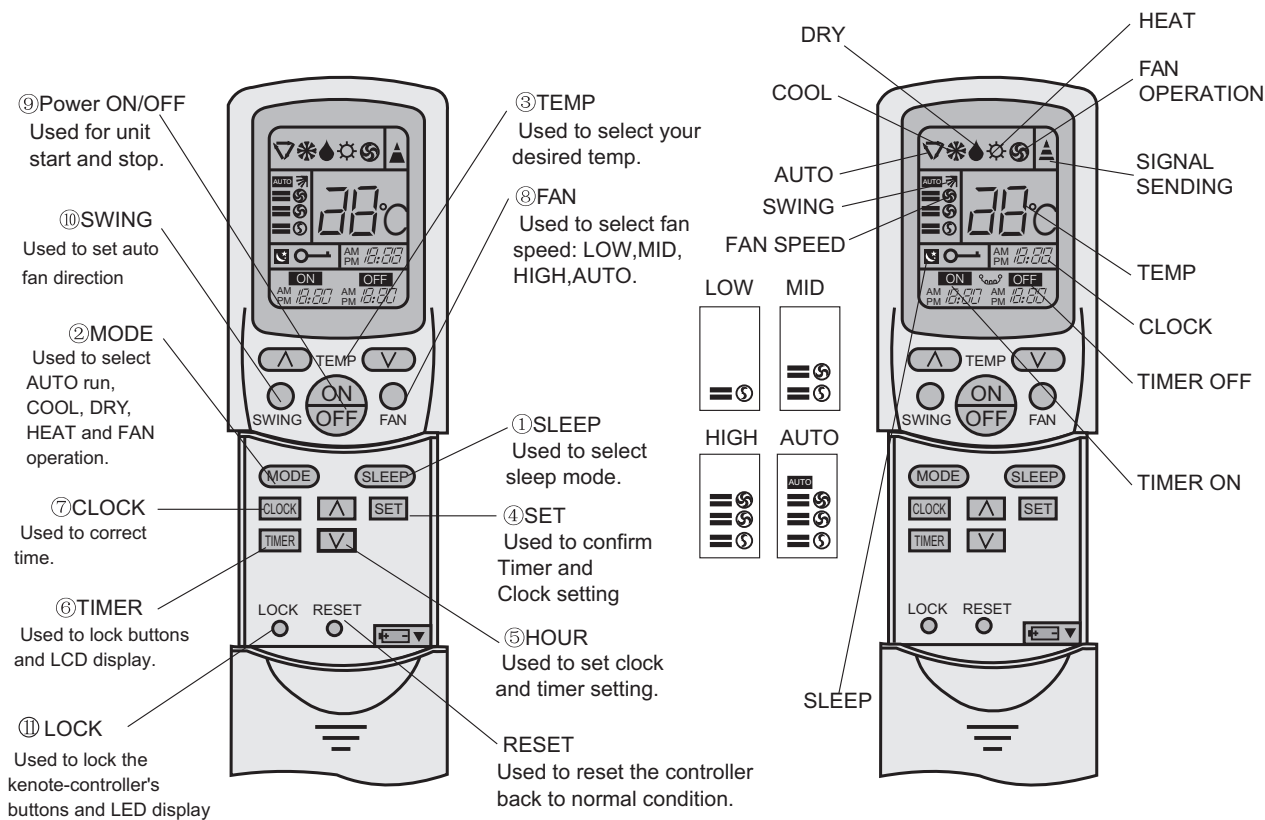
3, possible damaged: The spare-part which is not often damaged like the easy damaged one and the customer may stock in the spare-part warehouse accord with the actual case, should be marked with " ".

4, not need provided : The spare-part which is seldom damaged or the maintenance man could not maintain. The spare parts may be air freighted by the factory if they were damaged. The customer need not stock in the spare-part warehouse, should be marked with " x ".

5, Above should be improved accord with the reply of the market half a year per time.

6. The spare parts price on net is FOB Qingdao term.

## Remote controlled operation



# Operation

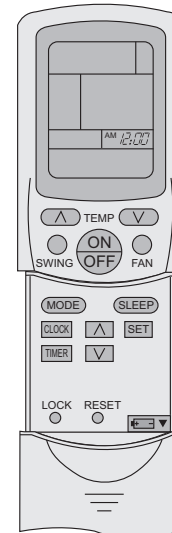
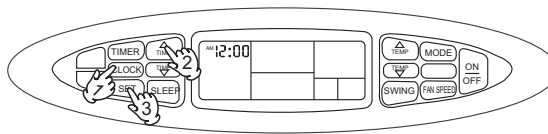
## Clock set

When unit is started for the first time and after replacing batteries in remote controller, clock should be adjusted as follows:

Press CLOCK button, "AM" or "PM" flashes.

Press  $\Delta$  or  $\nabla$  to set correct time. Each press will increase or decrease 1min. If the button is kept depressed, time will change quickly.

After time setting is confirmed, press SET, "AM" and "PM" stop flashing, while clock starts working.



## Remote contronller's operation

- When in use, put the signal transmission head directly to the receiver hole on the indoor unit.
- The distance between the signal transmission head and the receiver hole should be within 7m without any obstacles as well.
- Don't throw the controller, prevent it from being damaged.
- When electronic-started type fluorescent lamp or change-over type fluorescent lamp or wireless telephone is installed in the room, the receiver is apt to be disturbed in receiving the signal so the distance to the indoor unit should be shorter.

## Loading of the battery

Slightly press " $\blacktriangledown$ " and push down the cover.

Load the batteries as illustrated.

2 R-03 dry batteries.(cylinder)

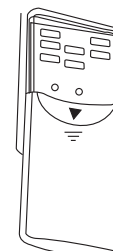
Be sure that the loading is in line with the "+" / "-" pole request as illustrated.

Put on the cover again

Confirmation indicator:

In disorderation, reload the batteries or load the new batteries after 5 mins.

reset key



## THE MACHINE IS ADAPTIVE IN FOLLOWING SITUATION

Applicable ambient temperature range:

|         |         |                  |           |
|---------|---------|------------------|-----------|
| Cooling | Indoor  | Maximum: D.B/W.B | 32°C/23°C |
|         |         | Minimum: D.B/W.B | 18°C/14°C |
|         | Outdoor | Maximum: D.B/W.B | 43°C/26°C |
|         |         | Minimum: D.B     | 18°C      |
| Heating | Indoor  | Maximum: D.B     | 27°C      |
|         |         | Minimum: D.B     | 15°C      |
|         | Outdoor | Maximum: D.B/W.B | 24°C/18°C |
|         |         | Minimum: D.B/W.B | -7°C/-8°C |

- 1.If the supply cord is damaged it must be replaced by the manufacturer or its service agent or a similar qualified person.
2. If the fuse on PC board is broken please change it with the type of 50F.3.15A/250V.
- 3.The waster batteries should be disposed properly.

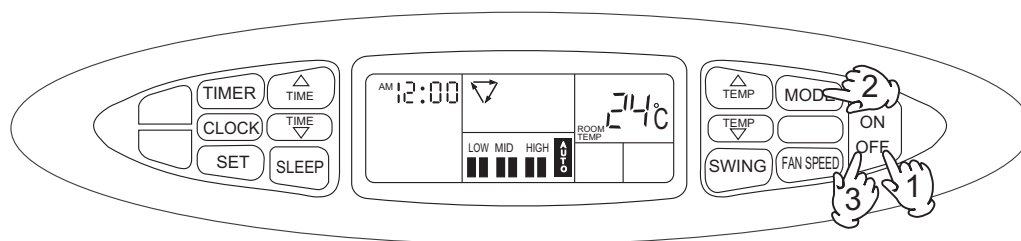
**Note:**Use two new same-typed batteries when loading.

If the remote controller can't function normally or doesn't work at all, use a sharp-pointed item to pres the reset key.

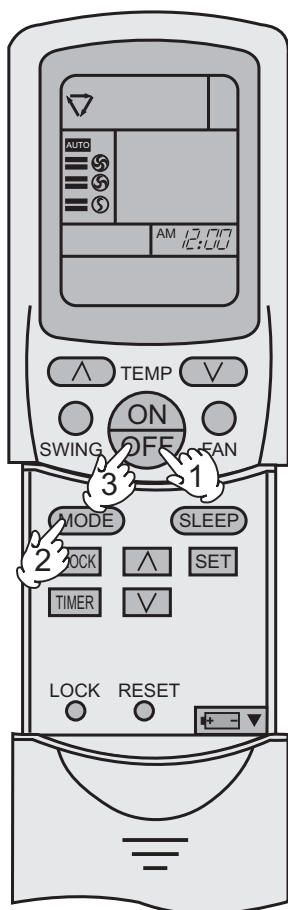
**Hint:**Remove the batteries in case unit won't be in usage for a long period.

If there are any displays after taking-out just need to press reset key. The waste batteries should be disposed properly.

## Manual Operation



## Remote-controlled Operation



- ① Press ON/OFF button

Unit starts running.

The previous status appears on the display

(except. TIMER, SLEEP and SWING mode)

- ② Press MODE button. For each press, operation mode changes as follows:



Select Auto run,

" ▽ " appears and auto run starts.

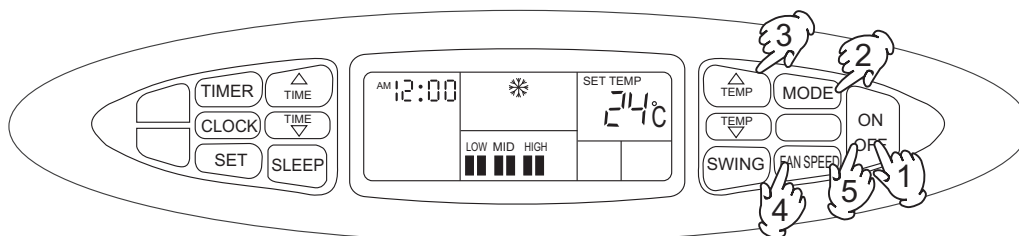
- ③ Press ON/OFF button

Unit stops running.

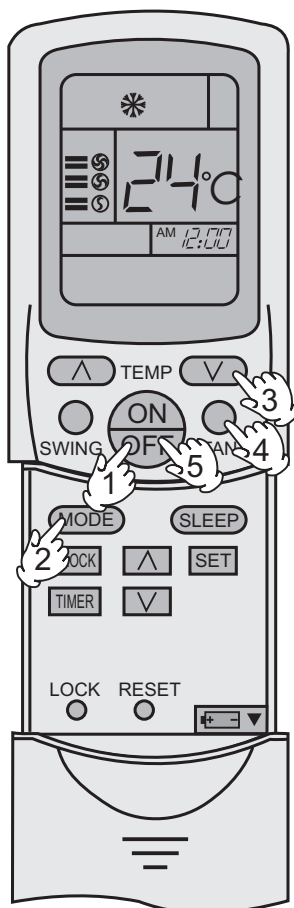
Note:

During Auto run operation, temp. Setting will not be shown in LCD display, unit will select heating, cooling or fan operation according to the room temp.

## Manual Operation

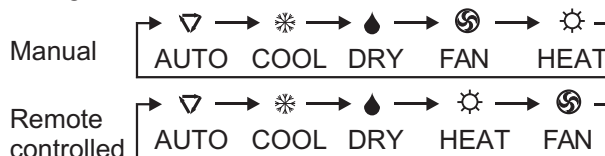


## Remote-controlled Operation



- ① Press ON/OFF button  
Unit starts running.  
The previous status appears on the display (except. TIMER, SLEEP and SWING mode)

- ② Press MODE button. For each press, operation mode changes as follows:

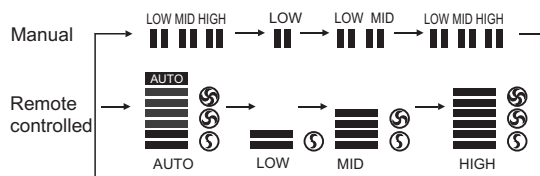


Select cooling operation shows " \* "

Cooling operation starts.

- ③ Select temp. button  
Press TEMP button  
▽ Every time the button is pressed, temp. setting increases 1°C  
△ Every time the button is pressed, temp. setting decreases 1°C  
If the button is kept pressed, setting will increase or decrease quickly.

- ④ Press FAN button. For each press, fan speed changes as follows:

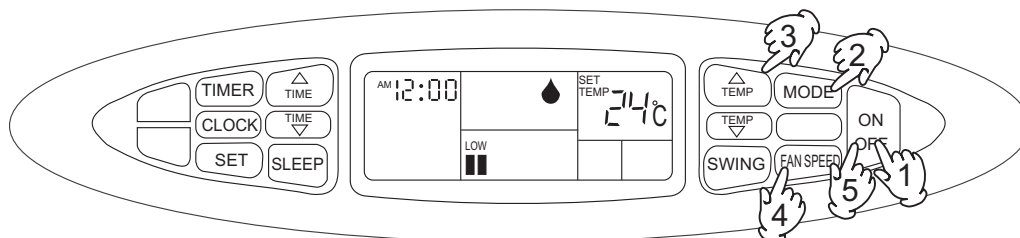


Unit runs at the speed displayed on LCD.

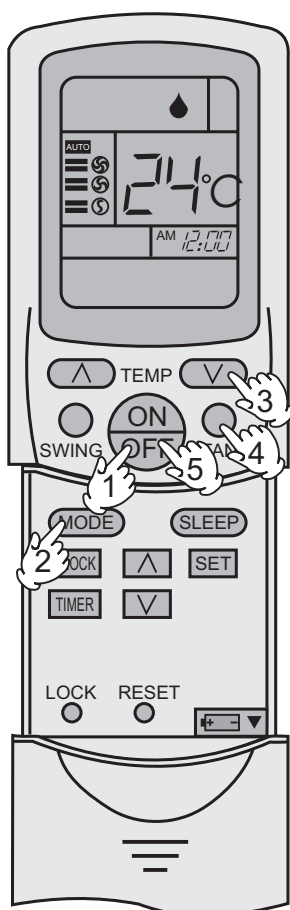
- ⑤ Press ON/OFF button  
Unit stops running, and when entering this mode for the next time, it will show the previous setting.

# Operation

## Manual Operation



## Remote-controlled Operation

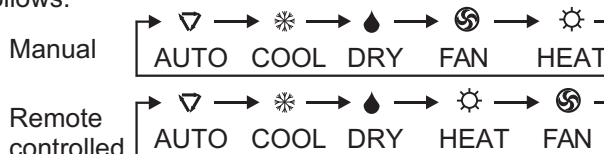


- ① Press ON/OFF button

Unit starts running.

The previous status appears on the display (except. TIMER, SLEEP and SWING mode)

- ② Press MODE button. For each press, operation mode changes as follows:



Select Drying operation shows " "

Dry operation starts

- ③ Select temp. button

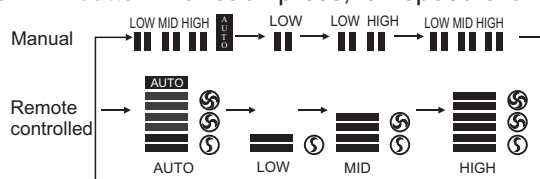
Press TEMP button

△ Every time the button is pressed, temp. setting increases 1°C

▽ Every time the button is pressed, temp. setting decreases 1°C

If the button is kept pressed, setting will increase or decrease quickly.

- ④ Press FAN button. For each press, fan speed changes as follows:

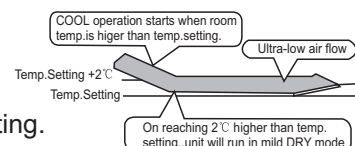


Unit runs at the speed displayed on LCD.

In DRY mode, when room temp. becomes 2°C higher than temp. setting, unit will run intermittently at LOW speed regardless of FAN setting.

- ⑤ Press ON/OFF button

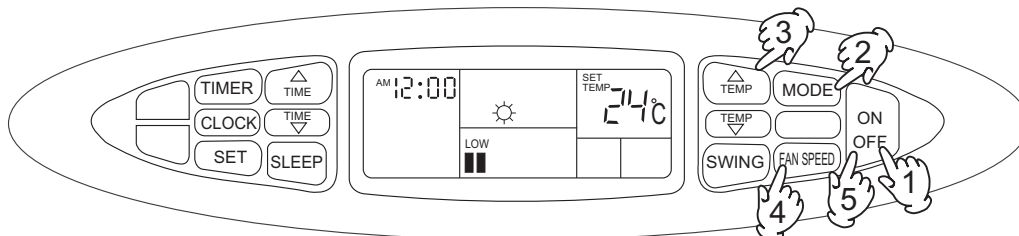
Unit stops running, and when entering this mode for the next time, it will show the previous setting.



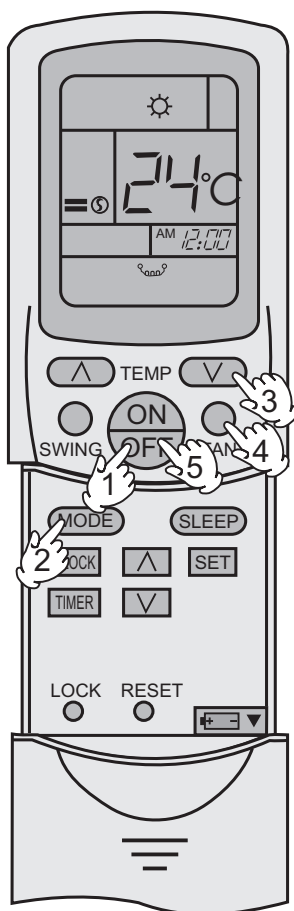
## ■ Operation

**Note:**For cooling only type, this function is invalid.

### Manual Operation



### Remote-controlled Operation

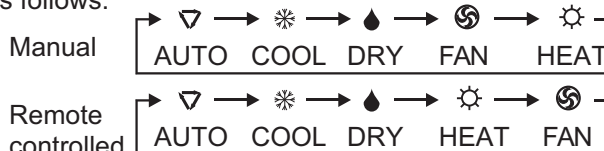


- ① Press ON/OFF button

Unit starts running.

The previous status appears on the display (except. TIMER, SLEEP and SWING mode)

- ② Press MODE button. For each press, operation mode changes as follows:



Select Heating operation " " appssare and Heating operation starts.

- ③ Select temp. Button

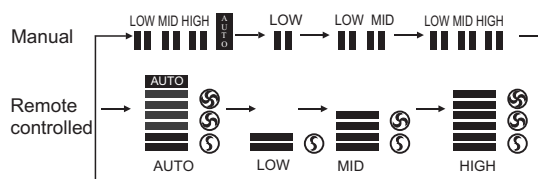
Press TEMP button

△ Every time the button is pressed, temp. setting increases 1°C

▽ Every time the button is pressed, temp. setting decreases 1°C

If the button is kept pressed, setting will increase or decrease quickly.

- ④ Press FAN button. For each press, fan speed changes as follows:



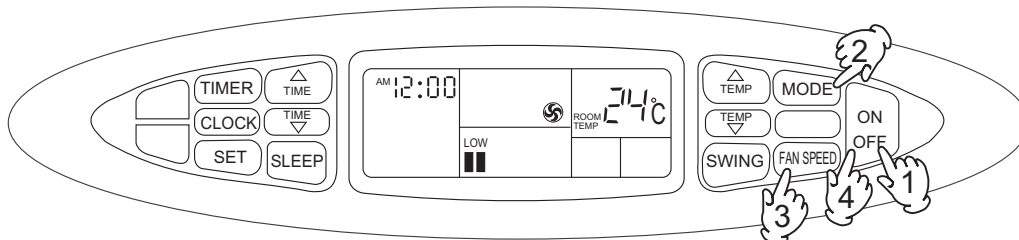
In heat mode, warm air will blow out after a short period of time due to cold-drafe prevention function.

In auxiliary heat function, the air condition can not operate in low fan speed.

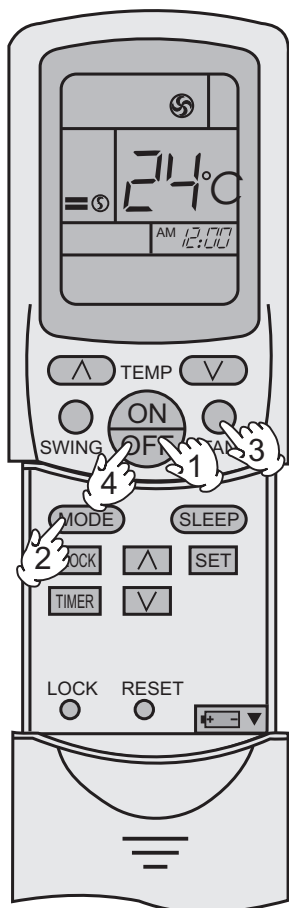
- ⑤ Press ON/OFF button

Unit stops setting when entering this mode next time.

## Manual Operation



## Remote-controlled Operation

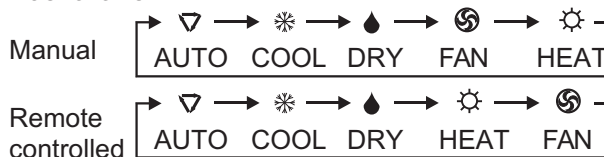


- ① Press ON/OFF button

Unit starts running.

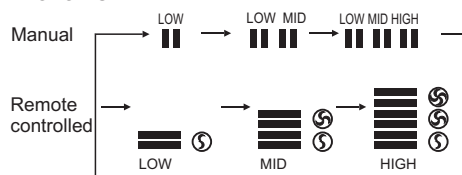
The previous status appears on the display (except. TIMER, SLEEP and SWING mode)

- ② Press MODE button. For each press, operation mode changes as follows:



Select Fan operation shows " ", Fan operation starts

- ③ Press FAN button. For each press, fan speed changes as follows:



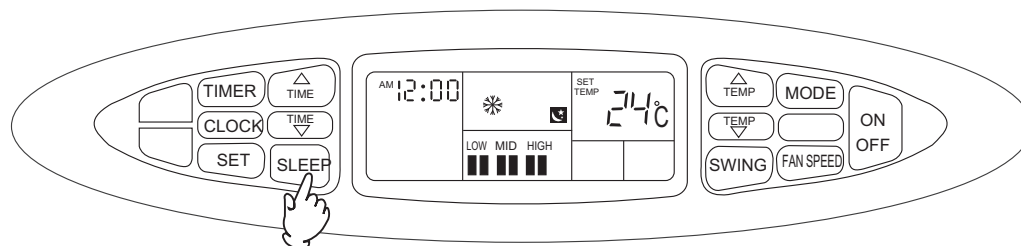
- ④ Press ON/OFF button

Unit stops running, and when entering this mode for the next time, it will show the previous setting.

Note:

In this mode, temp. can't be selected. temp. setting will not be shown in LCD display. In Fan operation mode "AUTO" fan speed is not available. Operation cycles are as follows:





## Remote-controlled operation

Before sleeping you can press the Sleep button. The conditioner will run under comfort sleep mode, and give you a comfort sleep.

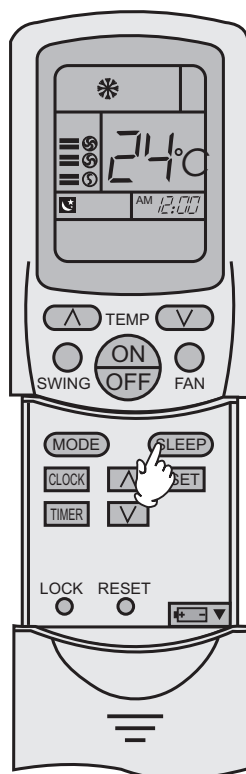
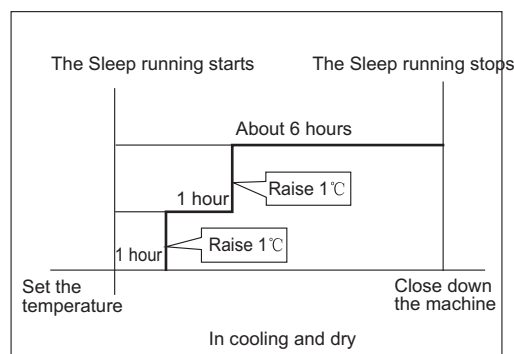
## Usage of the sleep function

After starting, set the Run mode and press the Sleep button.

### Run mode

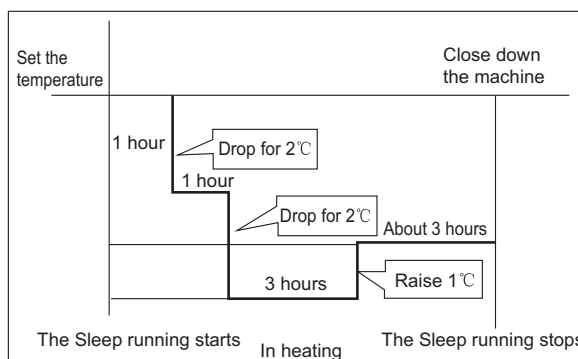
#### 1. In cooling and dry

After starting of the Sleep operation, the temperature will be raised for 1°C higher than the set temperature 1 hour later, and be raised for 1°C after another hour. It continues under that condition for 6 hours, then the machine will be switched off. The temperature is higher than the set temperature so as to avoid catching cold in sleeping.



#### 2. In heating (the single-cooling conditioners do not have the function)

After the Sleep running starts, the temperature will drop for 2°C after another one hour. The temperature will raise for 1 after 3 hours running under the above temperature, and the conditioner will be closed down after running for 3 hours. The temperature is lower than the set temperature so as to avoid uneasiness in sleeping.



#### 3. In automatic running

The conditioner will run under automatically selected working mode of sleeping.

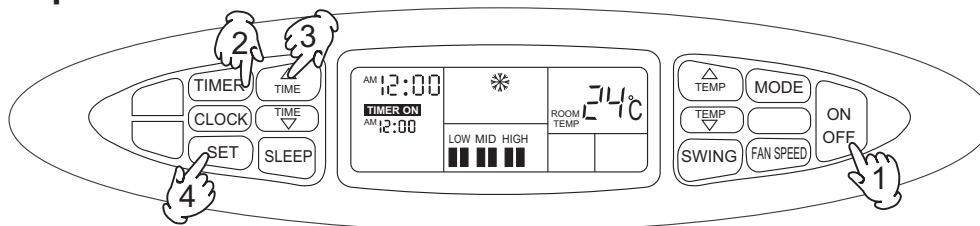
#### 4. In Fan running

The Sleep function is invalid.

## ■ Operation

## Timer on/off operation

### Manual Operation



### Remote controlled operation

#### TIMER operation

Set Clock correctly before starting Timer operation(refer to page 3)

You can let unit start or stop automatically at following times: Before you wake up in the morning, or get back from outside or after you fall asleep at night.

#### TIMER ON/OFF

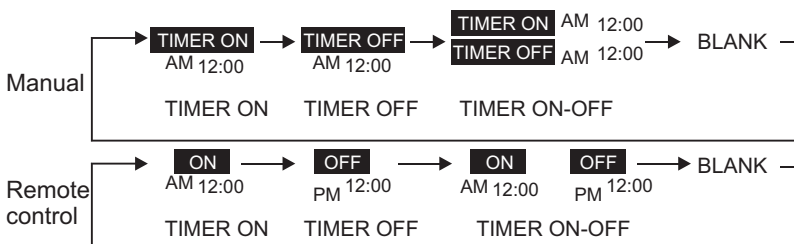
(1) After unit start,select your desired operation mode.

Operation mode will be displayed on LCD.

(2)TIMER mode selection

Press TIMER button to change TIMER mode.

Every time the button is pressed, display changes as follows:



Select your desired TIMER mode (TIMER ON or TIMER OFF) ON or OFF will flash.

(3)Timer setting

Press HOUR $\Delta$ / $\nabla$  button.

$\Delta$  Every time the button is pressed, time increases 10 min. If button is kept pressed, time will change quickly.

$\nabla$  Every time the button is pressed, time decreases 10 min. If button is kept pressed, time will change quickly. Time will be shown on LCD.It can be adjusted within 24 hours.

(4)Confirming your setting

After setting correct time,press SET button to confirm," ON " or " OFF " stops flashing.

Time displayed: Unit starts or stops at    hour    min(TIMER ON or TIMER OFF)

Timer mode indicator on indoor unit lights up.

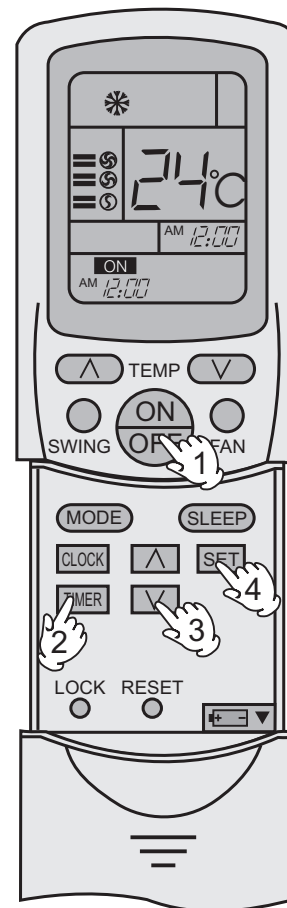
To cancel TIMER mode

Just press TIMER button several times until TIMER mode disappears.

#### Hints

After replacing batteries or a power failure happens, Time setting should be reset.

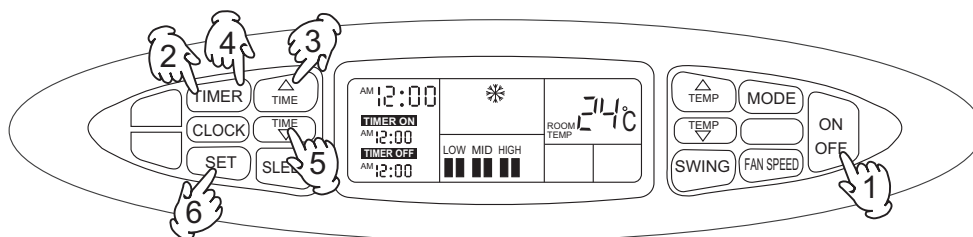
Remote controller possesses memory function when use TIMER mode next time,just press SET button after mode selecting if timer setting is the same as previous one.



## Operation

## Timer on-off operation

### Manual Operation



### Remote controlled operation

#### TIMER ON-OFF

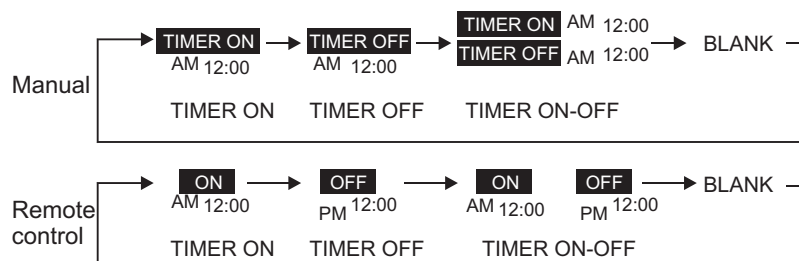
(1) After unit start, select your desired operation mode.

Operation mode will be displayed on LCD.

(2) **TIMER mode selection**

Press TIMER button to change TIMER mode.

Every time the button is pressed, display changes as follows:



(3) **Timer setting for TIMER ON**

Press HOUR button.

△ Every time the button is pressed, time increases 10 min. If button is kept pressed, time will change quickly.

▽ Every time the button is pressed, time decreases 10 min. If button is kept pressed, time will change quickly.

Time will be shown on LCD.

It can be adjusted within 24 hours.

AM refers to morning and PM to afternoon.

(4) **Time confirming for TIMER ON**

After time setting, press TIMER button to confirm,

"ON" stops blinking, while "OFF" starts blinking.

Time displayed: Unit starts or stops at × hour × min

(5) **Time confirming for TIMER OFF**

Follow the same procedure in "Time setting for TIMER ON".

(6) **Time setting for TIMER OFF**

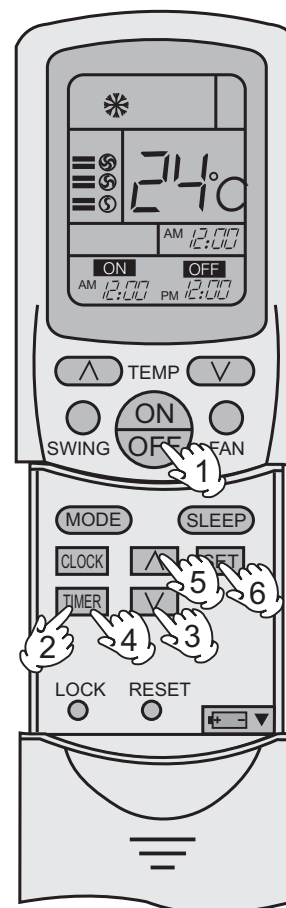
After time setting, press SET button to confirm, "OFF" stops flashing.

Time displayed: Unit stops at × hour × min

**TO cancel TIMER mode**

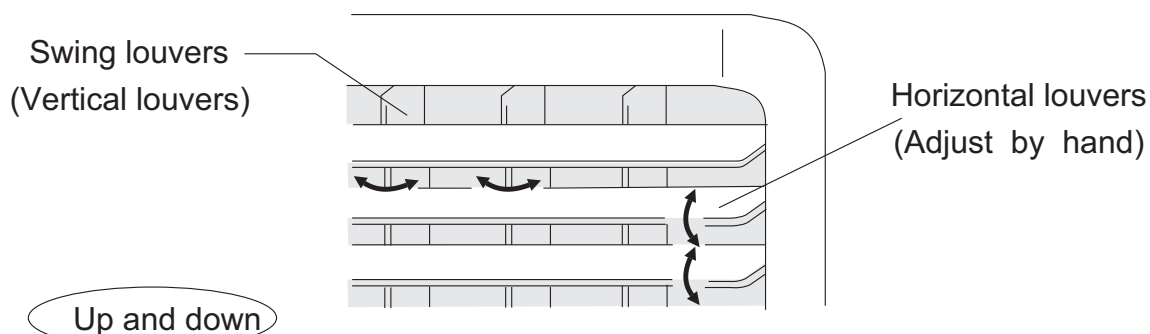
Just press TIMER button several times until TIMER mode disappears.

According to the Time setting sequence of TIMER ON or TIMER OFF, either ON-OFF or OFF-ON can be achieved.



## Operation

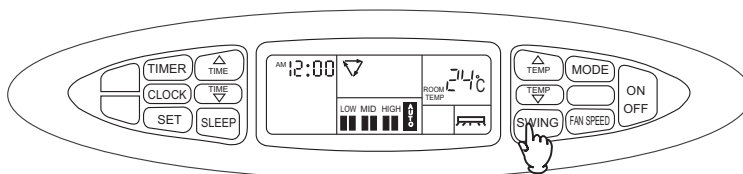
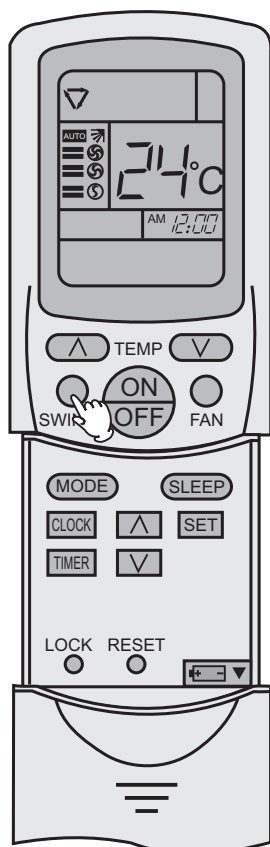
## Air flow adjustment



- Adjust the louvers by hand to proper position.

Note: Put louvers at up position in cooling and down position in heating mode. This will be helpful to keep an even room temp.

Notice: In cooling or dry operation, don't put horizontal louvers at downward position for a long time, or outlet grill might get frosted. Don't expose your skin to cool or warm air for a long time.



### Side from side

#### Swing

- Press SWING "  " or "  " appears on the display, the vertical louvers move from side to side.

#### Fixed position

- Press the SWING again to fix the vertical louvers at your desired position.

## 7. Electric controllable function instruction

Describe serial air conditioner model and electric controllable function.

(Note: Outdoor fan motor of cabinet air conditioner 5P is single speed)

### 7.1 Brief instruction of electric controllable function

#### (1) Automatic running (Applies to cooling and heating model)

After starting the machine, system changes over automatic mode. Before running, system will determine firstly operation mode according to present room temperature.  $T_r$  is room temperature in the following selectable conditions:

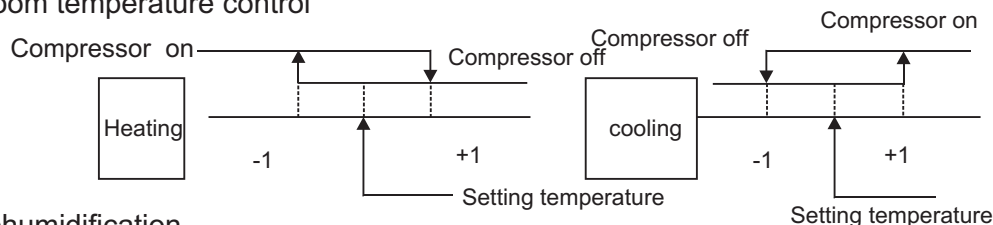
$T_r \geq 24^\circ\text{C}$ , start cooling operation mode, equivalent to cooling mode at setting temperature  $26^\circ\text{C}$ .

$20^\circ\text{C} < T_r < 24^\circ\text{C}$ , start air supply condition, run in air supply mode.

$T_r \leq 20^\circ\text{C}$ , start heating condition, operation mode is equivalent to heating mode at setting temperature  $18^\circ\text{C}$ .

Operation mode will switch over from cooling, air supply to heating as the room temperature changes.

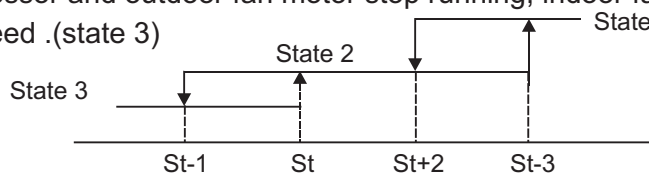
#### (2) Room temperature control



#### (3) Dehumidification

According to the following operational rules, compressor, indoor and outdoor fan motor realize dehumidified cooling function ( $T_r$  is room temperature,  $St$  is setting temperature in the following selectable conditions):

- ①  $T_r > St + 2^\circ\text{C}$ , compressor, outdoor fan motor run continuously and indoor fan motor run at setting speed. (state 1)
- ②  $St + 2^\circ\text{C} \geq T_r \geq St$ , compressor, outdoor fan motor run interruptedly, 10 minutes on and 6 minutes off, (compressor and outdoor fan motor run synchronously) indoor fan motor run at setting low fan speed. (State 2)
- ③  $T_r < St$ , compressor and outdoor fan motor stop running, indoor fan motor run at low fan speed. (state 3)



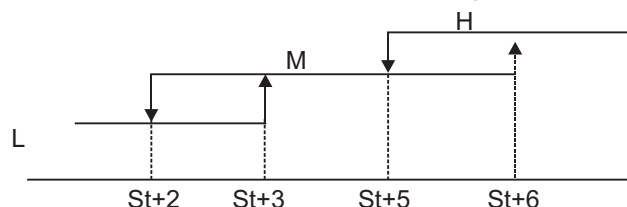
When dehumidification function is on, running rules of indoor fan motor at automatic fan speed are as follows:

$T_r > St + 5^\circ\text{C}$ , fan motor is at high speed;

$St + 5^\circ\text{C} \geq T_r > St + 2^\circ\text{C}$ , fan motor is at medium speed;

$T_r \leq St + 2^\circ\text{C}$ , fan motor is at low speed

Note: At automatic state, the fan speed shall not switch over frequently, change from low to high shall spend three minutes and from high to low without time lapse.



(4) Warm start (avoid of cool air at the beginning of heating , applies to cooling and heating model )

At the just beginning of heating, indoor fan motor will delivery air as follows:

- ① if indoor coiled temperature  $28^{\circ}\text{C}$ , start low fan speed;
- ② if indoor coiled temperature  $\geq 38^{\circ}\text{C}$  or operation of compressor  $\geq 4$  minutes, change to setting fan speed.

(5) Indoor fan motor control at heating stopped state (applies to cooling and heating model)

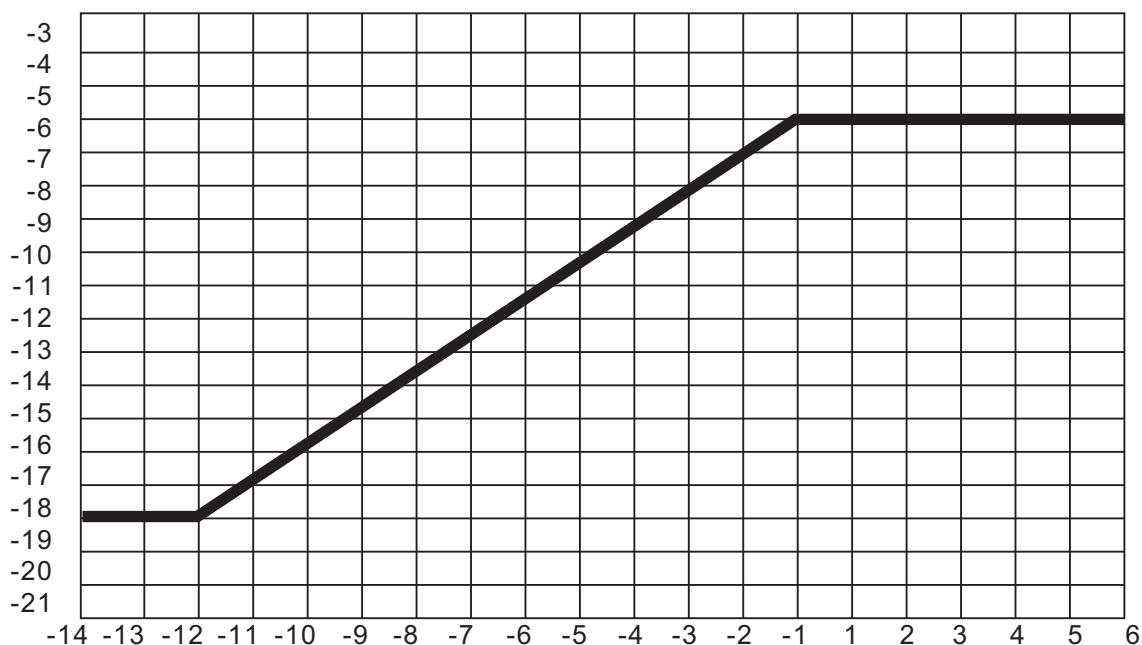
At heating state, if only compressor stops, fan motor will stop after a run of 30S at low speed.

(6) Defrost control (applies to cooling and heating model )

① Defrost starting condition:

- a. When machine starts heating and after 35 minutes continuous operation of compressor;
- b. Accumulated heating time of compressor is 45 minutes and compressor run continuously more than 5 minutes;

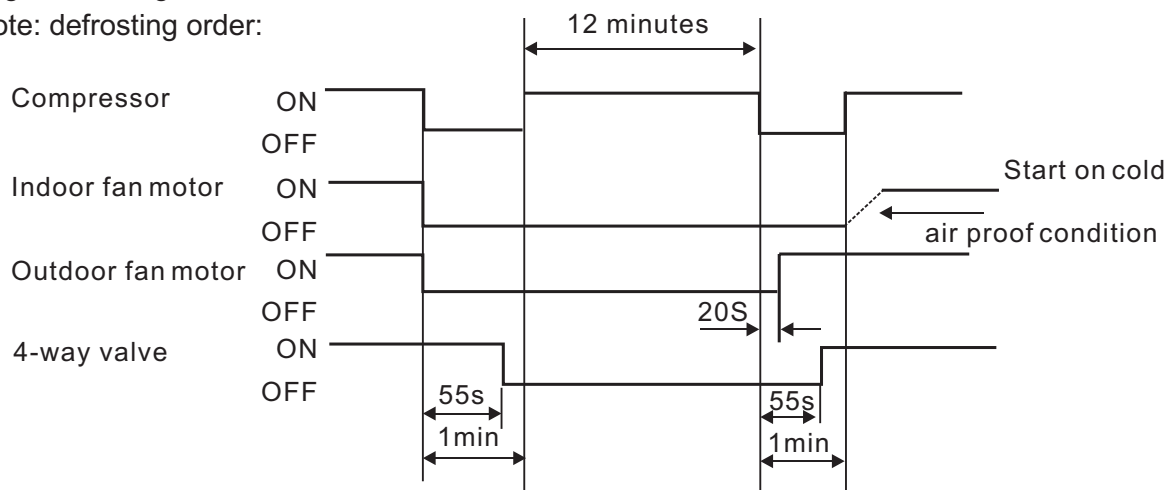
If one of the above conditions is meet and maintain 2 minutes below curve in the following figure, defrost will start .



② Termination condition of defrost:

When outdoor coiled temperature is equal to or more than  $14^{\circ}\text{C}$  or defrosting time exceeds 12 minutes, original heating state will be returned.

Note: defrosting order:



### (7) Auxiliary electric heater control

Auxiliary electric heater starts work on condition that the following conditions are met simultaneously (Tr is room temperature, St is setting temperature in the following selectable conditions):

- a.  $Tr \leq 23^{\circ}\text{C}$
- b.  $Tr \leq St - 2^{\circ}\text{C}$

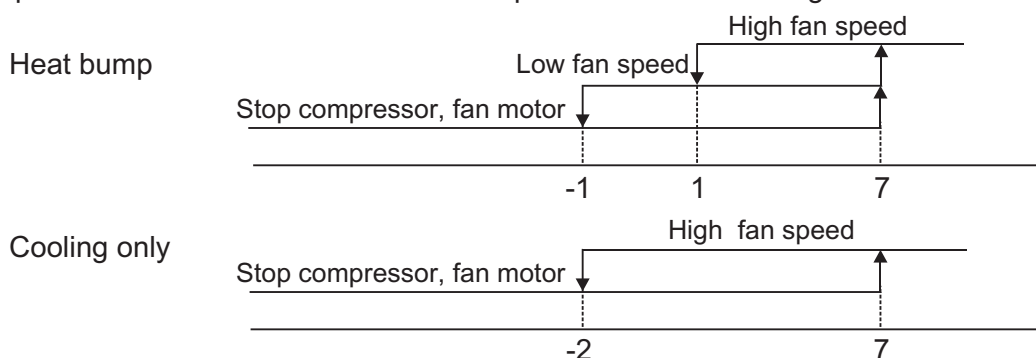
Note: after starting electric heater, fan motor won't run at low speed.

In case that one of the following conditions is met ,close auxiliary electric heater:

- a.  $Tr > 23^{\circ}\text{C}$
- b. Receive closing signal of electric heater
- c. Compressor or indoor fan motor stop working
- d.  $Tr \geq St - 1^{\circ}\text{C}$

### (8) Anti-freezing function

At cooling state, according to indoor coiled temperature, air conditioner control the operation of outdoor fan motor and compressor on the following conditions:



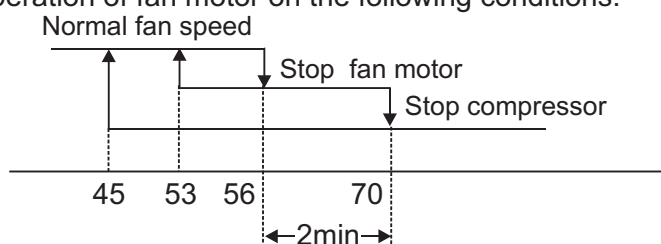
### (9) Stand by for three minutes

When compressor stops running caused by sensor off, open and shut machine or breakdown, compressor will maintain at stop position for three minutes. If power fail is no more than 3 minutes, compressor will maintain also at stop position for three minutes after remaking current.

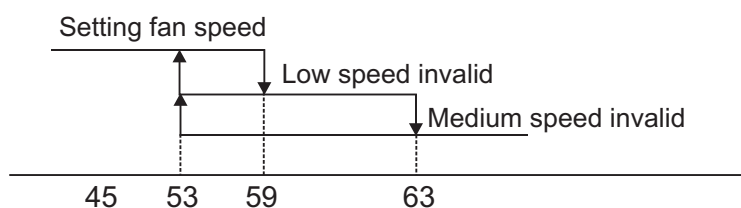
### (10) Overload protection for heating running

Anti-overloading protection: at heating state, according to indoor coiled temperature, air conditioner control the operation of fan motor on the following conditions.

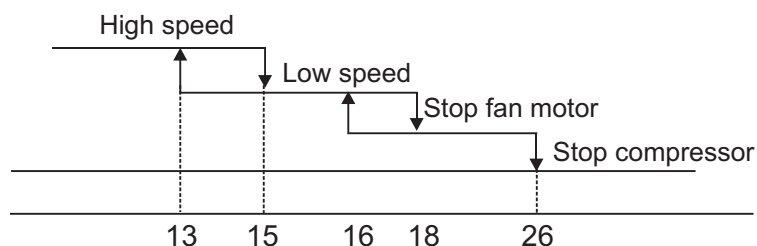
Outdoor fan motor:



Indoor fan motor



Over-current protection: at heating state, according to system working current measured by current transformer, air conditioner control outdoor fan motor and compressor on the following conditions:



#### (11) Power failure compensating function

In the case that power failure, down maintenance or troubleshooting occurs during operating of machine, if only the current is remade, machine will restart on the original condition.

Note: 1. Function setting: push 10 times sleeping button with remote controller, panel buzzer shall give 4 buzzes.

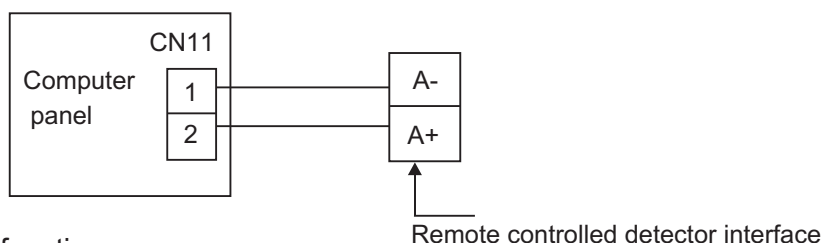
2. Memory: operational mode, setting fan speed, setting temperature, sleeping state, swing state, electric heating state, health state, locking signal, filter cleaning time.

3. Cancellation of function: push 10 times sleeping button with remote controller, panel buzzer shall give 2 buzzes.

#### (12) Remote network monitoring function (only for which model No. includes E)

Through the medium of prepared interface on main panel, air conditioner is connected with remote controlled detector (made by Haier) by a two-core line and through the medium of remote controlled detector air conditioner executes command issued by computer or centralized-control unit, at the same time transmit it's current running state and failure information to remote controlled detector.

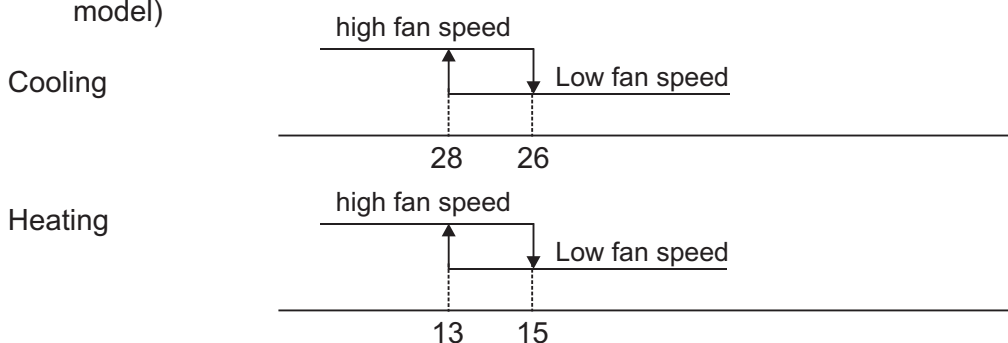
Connecting method between air conditioner and remote controlled detector:



#### (13) Running-in function

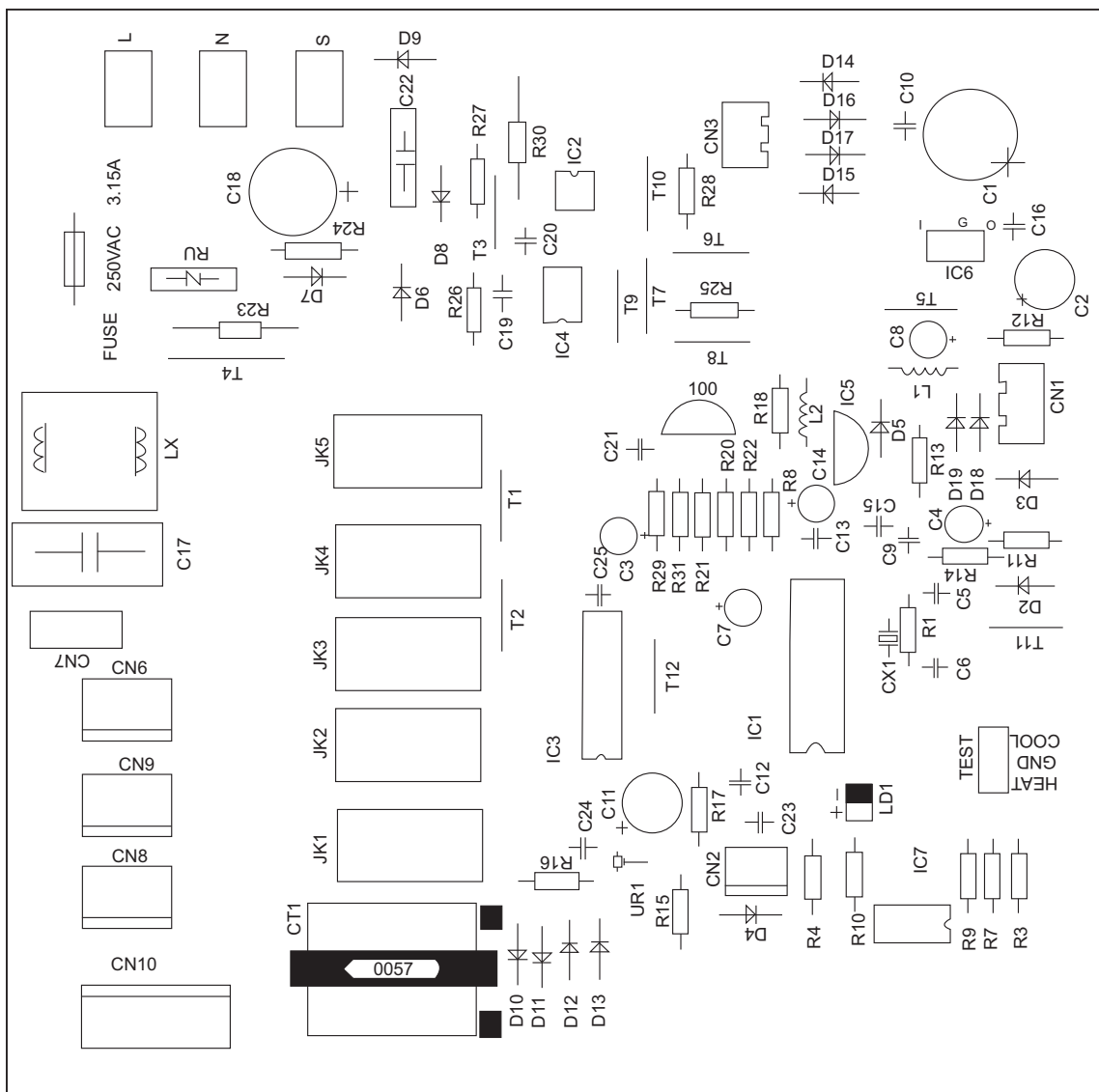
At cut-off state, push control panel for a period of 5S, running-in function starts after two "beep", main engine cools and indoor and outdoor fan motor run at high speed for a period of 5 minutes. During the 5 minutes, main engine is free from all protection and environmental temperature limitation, but compressor is under timing protection for a period of 3 minutes.

#### (14) Outdoor temperature control outdoor fan motor (applies to cooling and heating model)





## Element layout of outdoor printed-wiring board

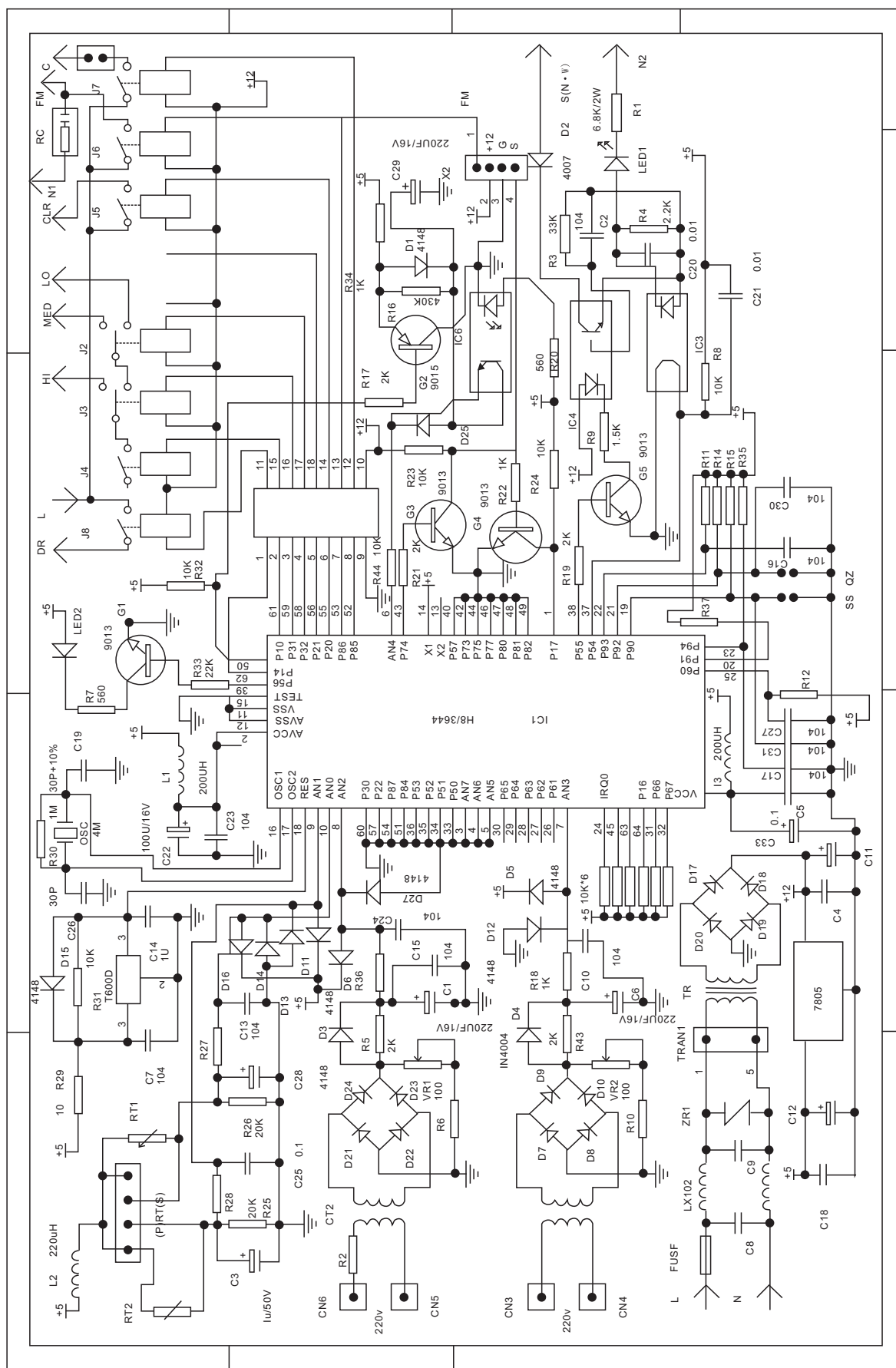


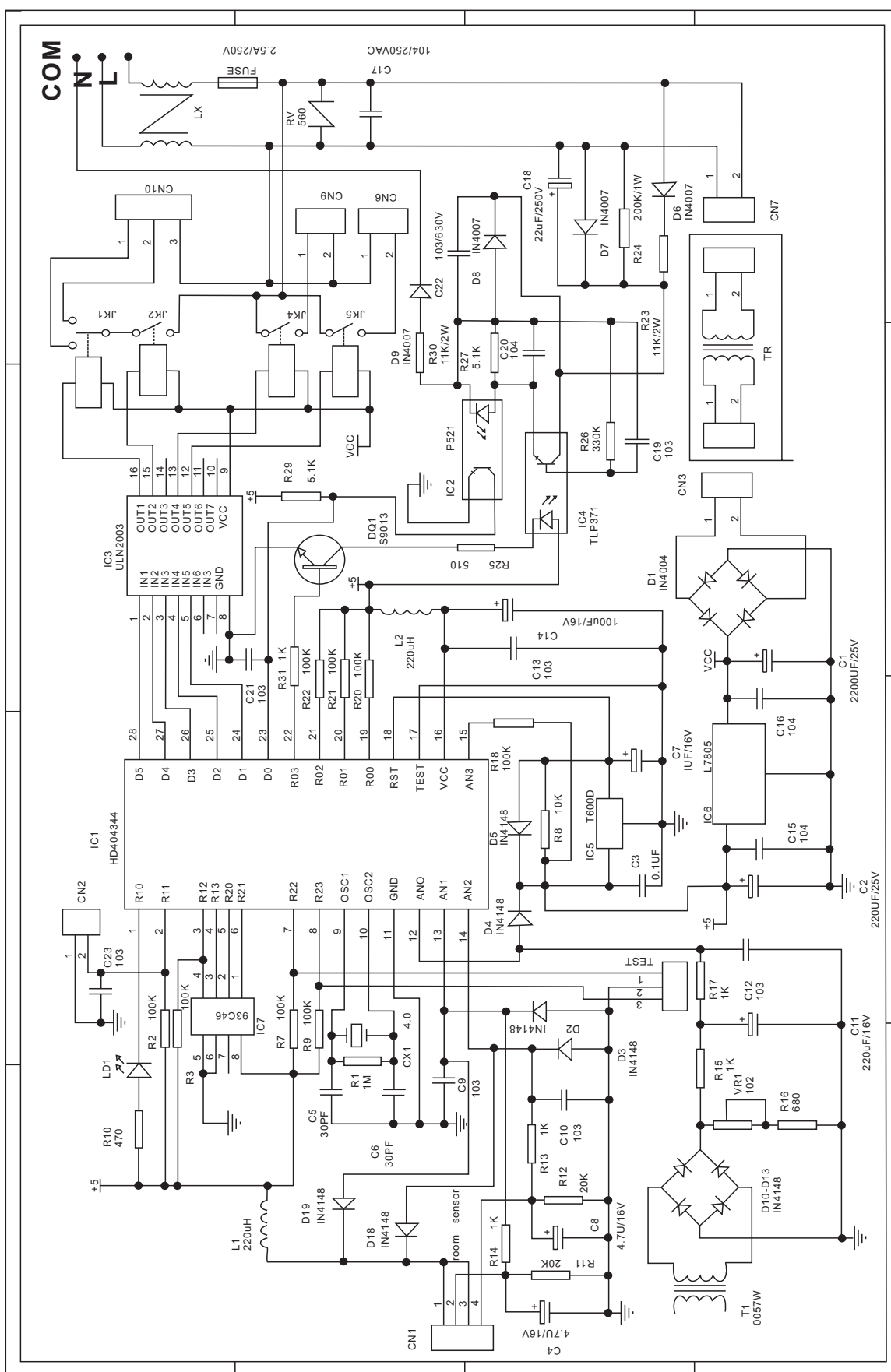
## Main element parameter list of indoor printed-wiring board

| No. | Name              | Element model No.      | Unit | Quantity | Label    | Remarks     |
|-----|-------------------|------------------------|------|----------|----------|-------------|
| 1   | Power resistor    | RJ17-6.8K- $\pm 5\%$   |      | 1        | R1       | Philipe     |
| 2   | Power resistor    | RJ17-100K- $\pm 5\%$   |      | 1        | R2       | Philipe     |
| 3   | Capacity          | Cis-0.1K-250V          |      | 2        | C8,C9    |             |
| 4   | Ceramic resonator | 4MHZ                   |      | 1        | OSC      | Mulata      |
| 5   | Optical coupler   | TLP521-1               |      | 2        | IC3, IC6 | Toshiba     |
| 6   | Optical coupler   | TLP371                 |      | 1        | IC4      | Toshiba     |
| 7   | Stabilizing block | 7805                   |      | 1        | 7805     | American ST |
| 8   | Piezoresistor     | 550NR-10D(jacket)      |      | 1        | ZR1      | Northland   |
| 9   | Fuse              | RF1-20-5*20-3.15A      |      | 1        | FUSE     |             |
| 10  | Relay             | JQ1P-12V               |      | 2        | J2,J3    | Machushiba  |
| 11  | Relay             | JQ1aP-12V,OJE-SS-112LM |      | 3        | J4~J6    | Machushiba  |
| 12  | Relay             | G4A-1A                 |      | 1        | J8       | OMRON       |

## Main element parameter list of indoor printed-wiring board

| No. | Name                | Element model No.      | Unit | Quantity | Label         | Remarks     |
|-----|---------------------|------------------------|------|----------|---------------|-------------|
| 1   | Power resistor      | RJ17-6.8K- $\pm 5\%$   |      | 1        | R23           | Philipe     |
| 2   | Power resistor      | RJ16-200K- $\pm 5\%$   |      | 1        | R24           | Philipe     |
| 3   | Power resistor      | RJ17-11K- $\pm 5\%$    |      | 1        | R30           | Philipe     |
| 4   | Piezoresistor       | 550NR-10D(jacket)      |      | 1        | RV            | Northland   |
| 5   | Capacity            | 250VAC100nJ            |      | 1        | C17           |             |
| 6   | Ceramic resonator   | 4MHz                   |      | 1        | CX1           | Mulata      |
| 7   | Optical coupler     | TLP 371                |      | 1        | IC4           | Toshiba     |
| 8   | Optical coupler     | TLP 521-1              |      | 1        | IC2           | Toshiba     |
| 9   | Stabilizing block   | 7805                   |      | 1        | IC6           | American ST |
| 10  | Current transformer | 0057W                  |      | 1        | CT1           |             |
| 11  | Wave filter         | LX102                  |      | 1        | LX            |             |
| 12  | Cartridge fuse      | RF1-20-5*20-3.15A      |      | 1        | FUSE          |             |
| 13  | Relay               | JQ1P-12V               |      | 1        | JK1           | Machushiba  |
| 14  | Relay               | JQ1aP-12V,OJE-SS-112LM |      | 3        | JK2, JK4, JK5 | Machushiba  |





## 9. Fault diagnosis

In the case of abnormal conditions, fault analysis shall be conducted referencing to the following table:

| Fault coding | Fault cause                                                                                                                                                                                                                                                                                | Resolution                                                                                 | Remarks |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------|
| E1           | 1. Indoor ambient temperature sensor get out of order, short circuit or shutdown<br>2. Indoor computer plate L1 get out of order                                                                                                                                                           | Replace indoor ambient temperature sensor of computer plate                                |         |
| E2           | 1. Indoor coiled temperature sensor get out of order, short circuit or shutdown<br>2. Indoor computer plate L1 get out of order                                                                                                                                                            | Replace indoor coiled temperature sensor of computer plate                                 |         |
| E3           | 1. outdoor ambient temperature sensor get out of order, short circuit or shutdown<br>2. outdoor computer plate L1 get out of order                                                                                                                                                         | Replace outdoor ambient temperature sensor of computer plate                               |         |
| E4           | 1. outdoor coiled temperature sensor get out of order, short circuit or shutdown<br>2. outdoor computer plate L1 get out of order                                                                                                                                                          | Replace outdoor coiled temperature sensor of computer plate                                |         |
| E5           | 1. Compressor current exceed protection point<br>2. Current transformer of outdoor computer plate get out of order<br>3. Outdoor computer plate C11 get out of order                                                                                                                       | 1. Remake current after power fail<br>2. Replace outdoor computer plate                    |         |
| E6           | 1. Pressure switch of outdoor unit trip<br>2. Pressure switch pin isn't well inserted                                                                                                                                                                                                      | Remake current after power-fail                                                            |         |
| E7           | 1. Voltage is too low<br>2. Indoor computer plate R2 get out of order<br>3. Indoor computer plate TV-01 get out of order                                                                                                                                                                   | 1. Remake current after power-fail<br>2. Replace indoor computer plate                     |         |
| E8           | 1. Connection between panel and main plate isn't firm<br>2. Triode for communication between panel and main plate get out of order                                                                                                                                                         | 1. Remake current after power-fail<br>2. Replace indoor computer plate<br>3. Replace panel |         |
| E9           | 1. Current of indoor and outdoor plate L, N isn't correspondent.<br>2. Triode for communication of indoor plate get out of order<br>3. Outdoor plate C18 is at fault<br>4. Outdoor plate optical coupler P521 get out of order<br>5. Outdoor plate optical coupler TLP371 get out of order | 1. Remake current after power-fail<br>4. Replace outdoor computer plate                    |         |

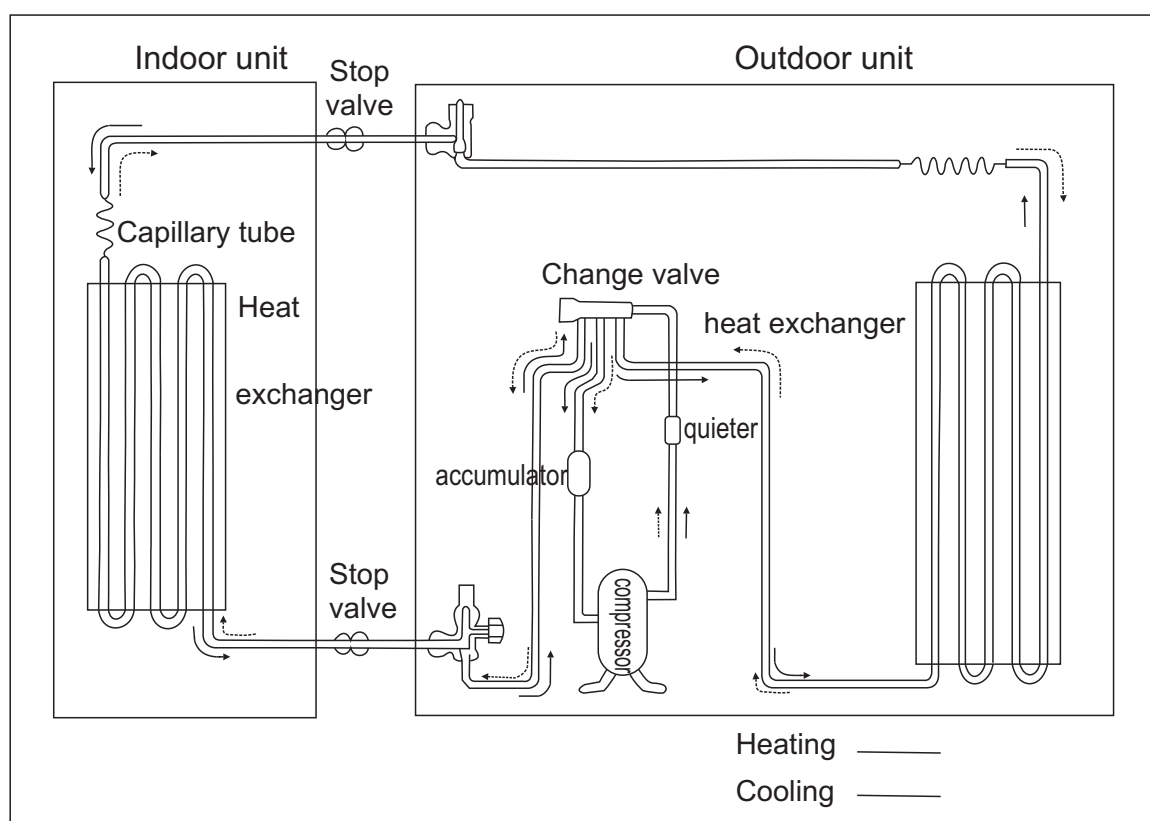
#### (1) Usage of refrigerant

Take fleon R22 as refrigerant, factory filling quantity is 3520g. If the length of connecting line is less than or equal to 5m, additional refrigerant is unnecessary. If the length of connecting line is more than 5m, 50g refrigerant shall be added for every 1 m more.

#### (2) System vacuum pumping

After connecting indoor and outdoor units, pump air and moisture from indoor unit and connecting line with vacuum pump, vacuum degree of system shall be below 200Pa.

#### (3) Piping system diagram:



#### (4) Form and characteristics of compressor

Copeland CRNQ-1500-TFD-522

Piston compressor

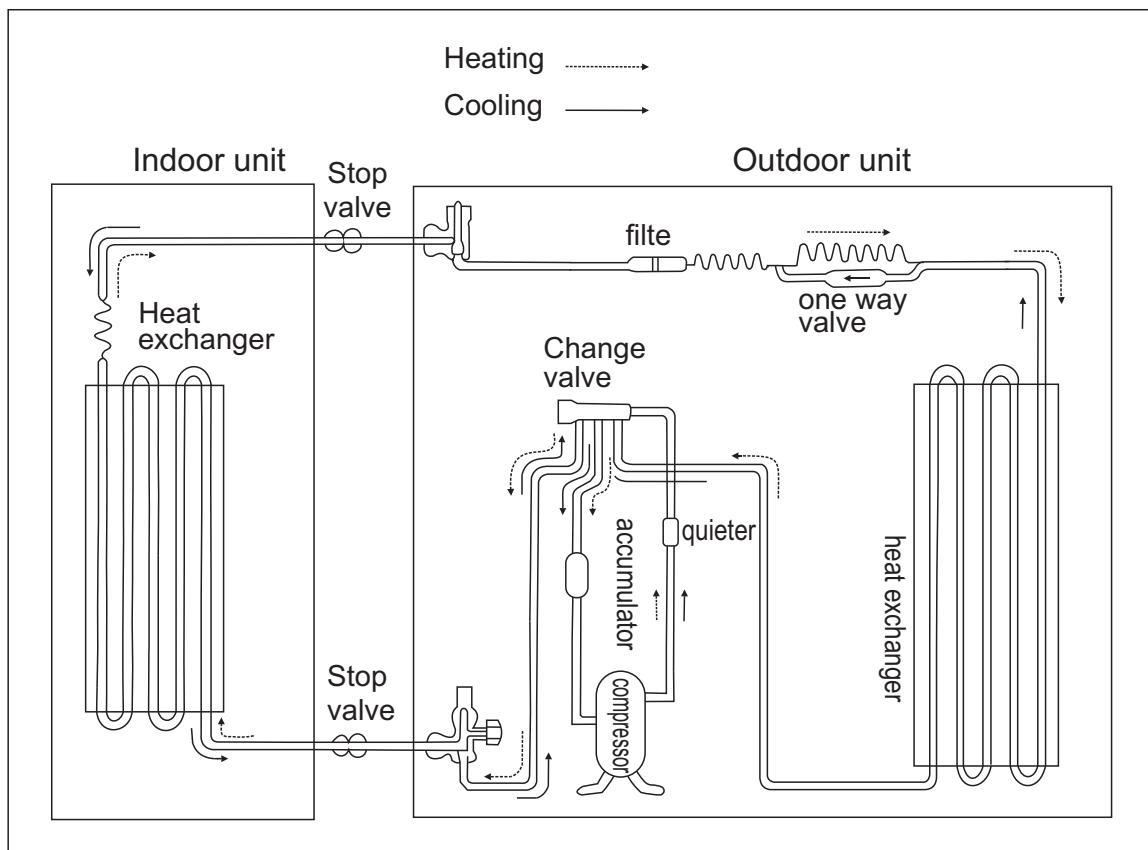
#### (1) Usage of refrigerant

Take fleon R22 as refrigerant, factory filling quantity is 2380g. If the length of connecting line is less than or equal to 5m, additional refrigerant is unnecessary. If the length of connecting line is more than 5m, 50g refrigerant shall be added for every 1 m more.

#### (2) System vacuum pumping

After connecting indoor and outdoor units, pump air and moisture from indoor unit and connecting line with vacuum pump, vacuum degree of system shall be below 200Pa.

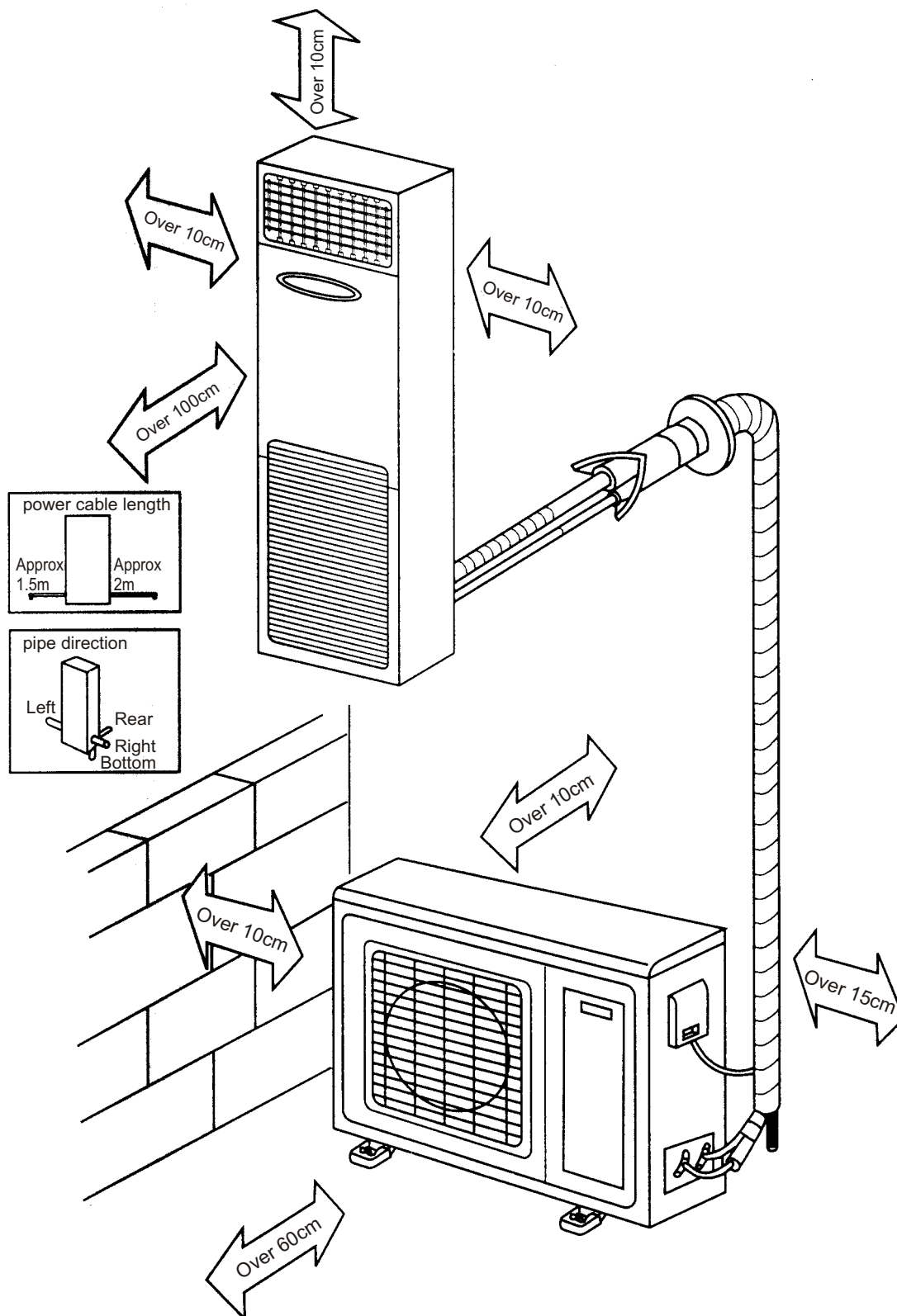
#### (3) Piping system diagram:



#### (4) Form and characteristics of compressor

Copeland ZR34K3-PFJ-522 Eddy compressor

## Indoor & outdoor unit connection

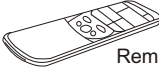


## Tools necessary

### Tools necessary

1. Screw driver
2. Hacksaw
3. 70mm dia. hole core drill
4. Spanner (dia.17,27mm)
5. Spanner (14,17,27mm)
6. Pipe cutter
7. Flaring tool
8. Knife
9. Nipper
10. Gas leakage detector  
or soap water
11. Measuring tape
12. Reamer
13. Refrigerant oil

Parts in the following list are accessories for the unit installation which can be used if necessary.

| NO. | Shape and description                                                                                            | QTY |
|-----|------------------------------------------------------------------------------------------------------------------|-----|
| ①   |  Remote controller             | 1   |
| ②   |  Cement nail                   | 3   |
| ③   |  Drain hose                    | 1   |
| ④   |  Heat-insulation pipe         | 2   |
| ⑤   |  L-shaped metal               | 2   |
| ⑥   |  Fall-prevention fitting metal | 1   |
| ⑦   |  Wire clip                  | 4   |
| ⑧   |  Drain elbow                | 1   |
| ⑨   |  Self-tapping screw          | 3   |
| ⑩   |  Rubber pad                  | 4   |
| ⑪   |  Hexagon wrench             | 1   |
| ⑫   |  Wall hole cover             | 1   |
| ⑬   |  Piping hole cover           | 1   |
| ⑭   | Dry battery 7#                                                                                                   | 2   |
| ⑮   |  Putty                      | 1   |
| ⑯   |  Plastic clamp               | 6   |
| ⑰   |  Refrigerant oil             | 1   |

### Standard accessories

Following parts shall be field supplied

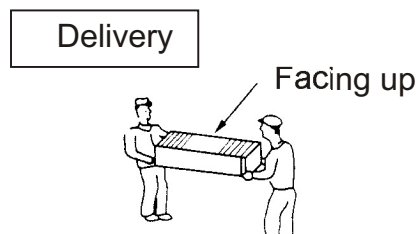
| Mark | Parts name          |
|------|---------------------|
| Ⓐ    | Adhesive tape       |
| Ⓑ    | Pipe clip           |
| Ⓒ    | Connecting hose     |
| Ⓓ    | Insulation material |
| Ⓔ    | Putty               |
| Ⓕ    | Drain hose          |

For cooling only type, the ⑧ Drain elbow is not available.

# Installation procedures

## Display of whole unit

- Try to bring the packed unit to the installation place.
- When it is inevitable to unpack the unit, be careful not to damage the unit. Wrap it with nylon etc.
- After unpacking, be sure to put it with the front side of the unit facing up.



- Note: When delivering, don't hold plastic parts like inlet and outlet grill etc.

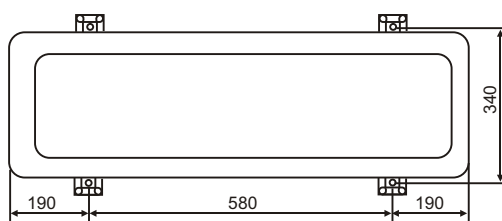
## Installation of outdoor unit

### Selection of installation place

- Place strong enough to support the unit and will not cause vibration and noise.
- Place where discharged wind and noise doesn't cause a nuisance to the neighbors.
- Place where is less affected by rain or direct sunlight and is sufficiently ventilated, or to install a shield.
- Place with enough space for smooth air flow.

### Fixing of the unit

- Fix outdoor unit using M10 bolt to concrete floor horizontally.
- If installed on the wall or on top of a roof, bracket should be fixed securely to resist earthquake or storms.
- Use rubber pad during installation against unit vibration.



Installation dimension of outdoor unit

# Installation procedures

## Installation of indoor unit

### Selection of installation place

Place where it is easy to route drainage pipe and outdoor piping.

Place away from heat source and with less direct sunlight.

Place where cool and warm air could be delivered evenly to every corner of the room.

Place near power supply socket. Leave enough space around the unit (refer to installation drawings).

### Fixing of the unit

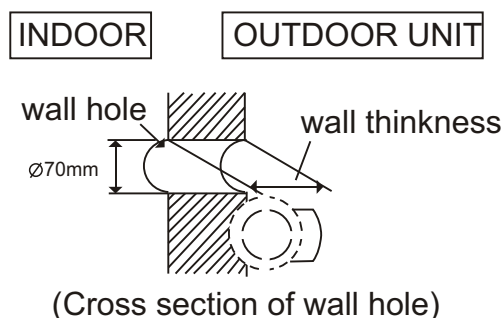
#### 1. Position of the wall hole

Wall hole should be decided according to installation place and piping direction. (refer to installation drawings)

#### 2. Making a wall hole

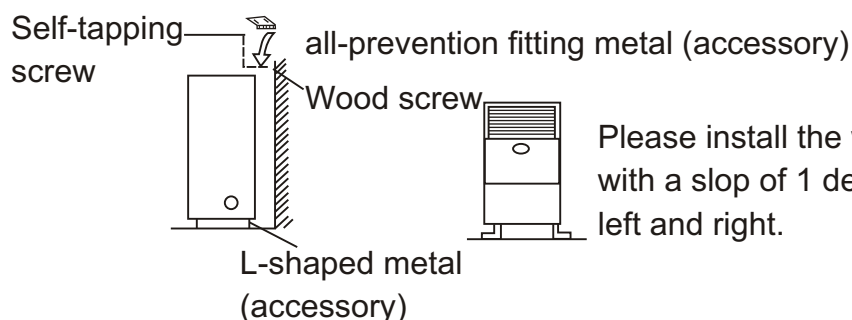
Drill a hole of 70mm dia. with a little slope towards outside.

Install piping hole cover and seal it with putty after installation.



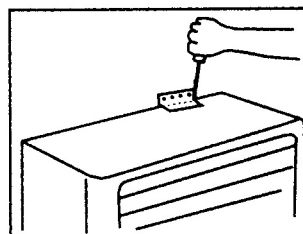
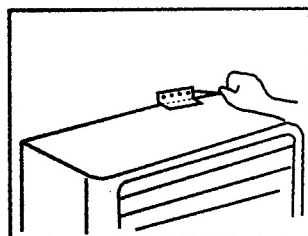
### Fixing of indoor unit

To prevent it from fall off, please fix the unit with fall-prevention fitting at wall and L-shaped metal at floor.



## Installation of fall-prevention fitting metal:

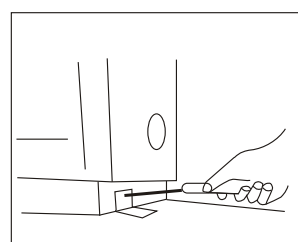
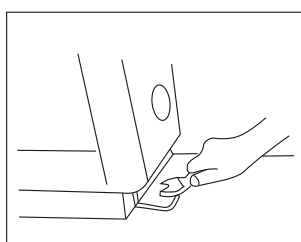
Fix the fitting metal to the wall by screws so that there is no clearance between them. With the unit set up vertically, fix the fitting metal to the unit with screws while making an adjustment at the long portion of the hole so that there is no clearance between the upper surface and the fitting metal.



## Installation of L-shaped metal

Fix to the unit by screws so that there is no clearance between the fitting metal and the unit.

After confirming that the unit has been set up vertically to the floor, fix it to the floor by bolt.



## Piping connection

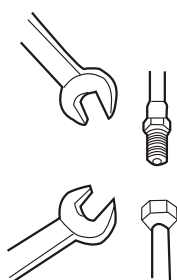
### 1. Connecting method

Apply refrigerant oil at half union and flare nut.

To bend a pipe, give the roundness as large as possible not to crash the pipe.

When connecting pipe, hold the pipe centre to centre then screw nut on by hand, refer to Fig.

Be careful not to let foreign matters, such as sands enter the pipe.

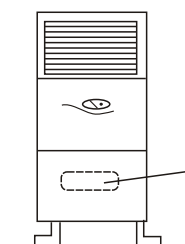


Forced fastening without centering may damage the threads and cause a gas leakage.

| Pipe dia                 | Fastening torque |
|--------------------------|------------------|
| Liquid pipe 9.52mm(3/8") | 42N.m            |
| Gas pipe 15.88mm(5/8")   | 60N.m            |

## 2. Piping connection of indoor unit

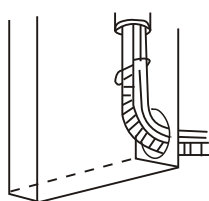
### Arrangement of piping and drainage pipe



After opening inlet grill, you will see a control box as shown in the Fig.

Remove the cover before working.

Cut away, with a hammer or a saw, the lid for piping according to piping direction.

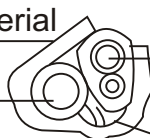


Insulation material

Copper tube

Drain hose

Connecting electric cable  
for indoor and outdoor unit



According to the piping method, connect the piping on indoor unit with union of connecting pipe.

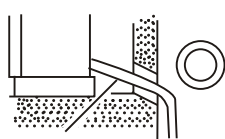
Arrange the piping as per the wall hole and bind drain hose connecting electric cable and piping together with polyethylene tape.

Insert the bound piping connecting electric cable and drain hose through wall hole to connect with outdoor unit.

### Arrangement of drain hose

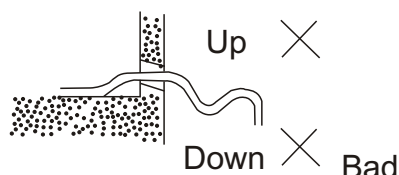
- Drain hose shall be placed in under place.
- There should be a slope when arrange drain hose. Avoid up and down waves in drain hose.

Indoor unit



Slope

Good



If humidity is high, drain pipe (especially in room and indoor unit) must be covered with insulation material.

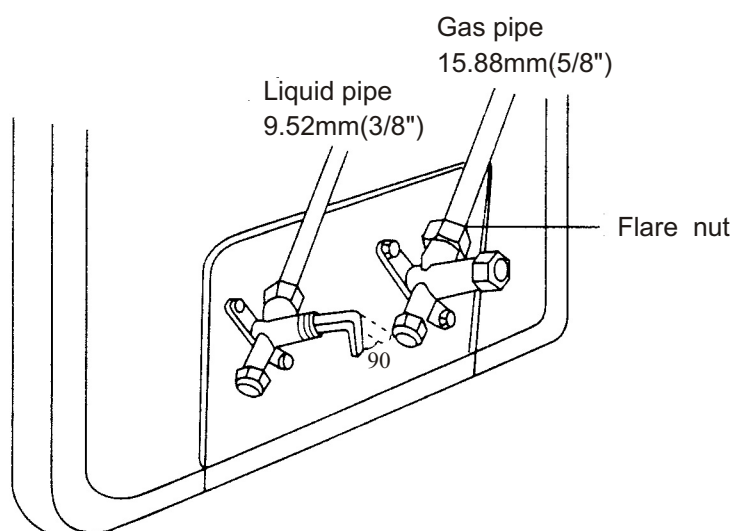
### 3. Piping connection of outdoor unit.

Connect the connecting pipe and inlet and outlet liquid pipe according to the piping method.

#### Purging method

Purge air out of indoor unit and piping as shown in the Fig.

- (1) Remove the valve cap on 2-way valve in outdoor unit.
- (2) Loosen by 1-1.5 turn the flare nut of gas pipe, which is connected to 3-way valve.
- (3) Loosen the valve rod of 2-way valve by 90 degrees (use a hexagon wrench) for about 15 seconds, air will be pushed out from flare nut on gas pipe.
- (4) Open 2-way and 3-way valves using specified torque.
- (5) Tighten the caps on the valves with specified torque.
- (6) Conduct gas leakage using gas leakage detector or soap water.



**Note:** When additional refrigerant piping is necessary, first purge air out of connecting pipe by external gas, then drive out the excessive refrigerant by purging method.

Brand new unit is charged 80g more refrigerant than spec. This is only for first installation to purge air in the indoor unit and connecting pipe.

When piping is longer than 5 m, charge additional refrigerant specified in this list.

| Pipe length           | 5m | 10m | 15m | 20m |
|-----------------------|----|-----|-----|-----|
| Refrigerant charge(g) | —  | 250 | 500 | 750 |

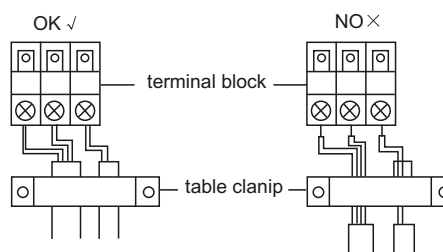
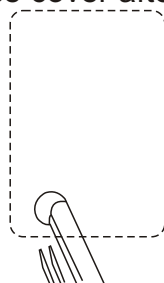
## Electric wiring

Note:

- Electric wiring must be done by qualified person.
- Use copper wire only, the parameter of connecting cable is H07RN-F4×0.75mm<sup>2</sup>.

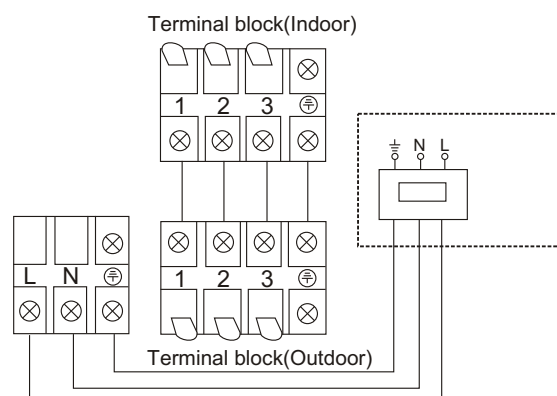
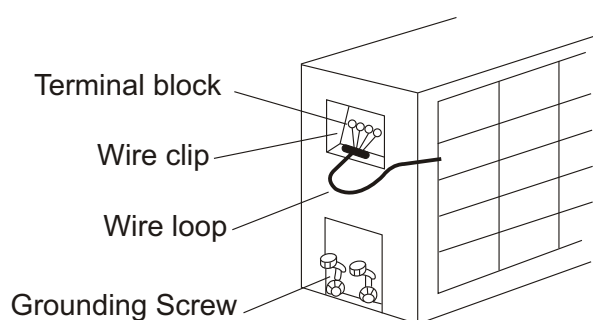
### Wiring of indoor unit

- Insert the cable from outside the wall hole where piping already exist.
- Pull it out from front.
- Loosen terminal screws and insert cable end fully into terminal block, then tighten it.
- Pull the cable gently to make sure it is tight.
- Replace cover after wiring.



### Wiring of outdoor unit

- Insert the cable from inside the wall hole where piping already exists.
- Pull it out from front.
- Loose terminal screw and insert cable end fully into terminal block, then tighten it.
- Pull the cable gently to make sure it is tight.
- Replace cover after wiring.



Note:

- When connecting indoor and outdoor wire, check the number on indoor and outdoor terminal blocks. Terminals of same number and same color shall be connected by the same wire.
- Incorrect wiring may damage air conditioner's controller or cause operation failure.

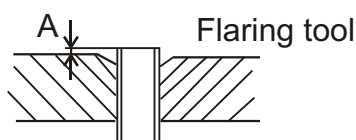
## Others

### 1. Power supply

- Air conditioner must use an exclusive line (over 30A)
- When installation air conditioner in a wet place, try to use a circuit breaker against Current leakage.
- For installation in other places, use circuit breaker as far as possible.

### 2. Pipe cutting and flaring

- Be sure to carry out deburring after pipe cutting with a pipe cutter.
- Insert flaring tool to make a flare.



|             | Pipe dia.       | Dimension A(mm) |
|-------------|-----------------|-----------------|
| Liquid pipe | ∅ 9.52mm(3/8")  | 1.0~1.2         |
| Gas pipe    | ∅ 15.88mm(5/8") | 1.4~2.2         |

| Correct | Incorrect. |               |       |         |             |  |
|---------|------------|---------------|-------|---------|-------------|--|
|         |            |               |       |         |             |  |
|         | Lean       | Damaged flare | Crack | Partial | Too outside |  |

Installation inspection and test run:

Please operate unit according to this Manual.

Items to be checked during test run. Please made a "√" in "□"

- ☐ Are there any gas leakage?
- ☐ How is insulation at piping connection carried out?
- ☐ Are electric wires of indoor and outdoor unit firmly inserted into terminal block?
- ☐ Is electric wiring of indoor and outdoor securely fixed?
- ☐ Is drainage securely carried out ?
- ☐ Is earth line (grounding ) securely connected?
- ☐ Is power supply voltage abided by the code?
- ☐ Is there any noise?
- ☐ Is control display normal?
- ☐ Is cooling operation normal?
- ☐ Is room temp. regulator normal?

### 3.Piping connection of outdoor unit.

Connect the connecting pipe and inlet and outlet liquid pipe according to the piping Method.

#### Purging method

Discharge the air out of the indoor unit and the refrigerant pipe by vacuumizing.

- (1) Fasten all the nuts of the indoor and outdoor pipes to make these parts out of leakage.
- (2) Under the condition of the complete close of the indoor and outdoor valve center(both liquid and gas side), dismount the repair valve cap. Vacuumizing through the charge mouth of the repair valve.
- (3) After vacuumizing fasten the repair valve, and dismount the cap of the big and small stop valve,then loosen the stop valve center completely and fasten the big and small stop valve.

#### Extra charging amount of the refrigerant

When piping is longer than 5 m, charge additional refrigerant specified in this list.

| Pipe length           | 5 m | 10 m | 15 m | 20 m | 25 m | 30 m |
|-----------------------|-----|------|------|------|------|------|
| Refrigerant charge(g) | ——  | 250  | 500  | 750  | 1000 | 1250 |

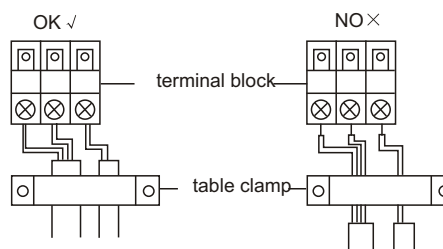
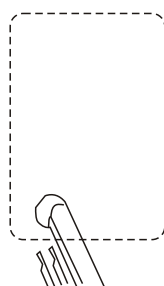
## Electric wiring

Note:

- Electric wiring must be done by qualified person.
- Use copper wire only, the parameter of connecting cable is H07RN-F 4×0.75 mm.
- Power supply:380-400V.3N~.50Hz. The power supply connects from the outdoor side.

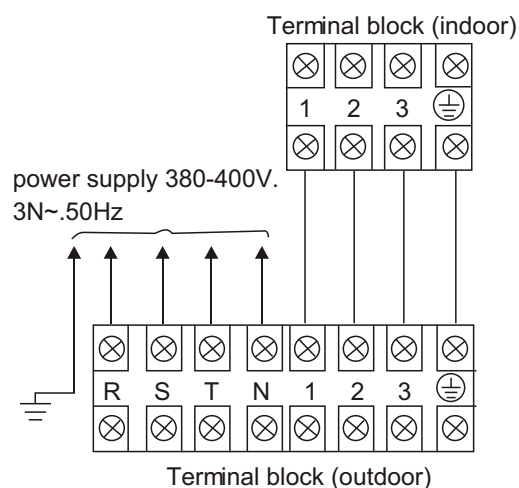
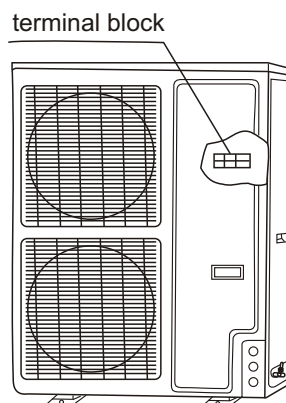
### Wiring of indoor unit

- Insert the cable from outside the wall hole where piping already exist.
- Pull it out from front.
- Loosen terminal screws and insert cable end fully into terminal block, then tighten it.
- Pull the cable gently to make sure it is tight.
- Replace cover after wiring.



### Wiring of outdoor unit

- Insert the cable from inside the wall hole where piping already exists.
- Pull it out from front.
- Loose terminal screw and insert cable end fully into terminal block, then tighten it.
- Pull the cable gently to make sure it is tight.
- Replace cover after wiring.



### Note:

- When connecting indoor and outdoor wire, check the number on indoor and outdoor terminal blocks. Terminals of same number and same color shall be connected by the same wire.
- Incorrect wiring may damage air conditioner's controller or cause operation failure.

| Failure                                    | Inspection result                                       | Possible failure cause                                        | Corresponding resolution                    |
|--------------------------------------------|---------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------|
| Failure of sensor                          | Display E1                                              | Indoor ambient temperature sensor short out or shutdown       | Check if sensor is well connected or broken |
|                                            | Display E2                                              | Indoor coiled temperature sensor short out or shutdown        | Check if sensor is well connected or broken |
|                                            | Display E3                                              | Outdoor ambient temperature sensor short out or shutdown      | Check if sensor is well connected or broken |
|                                            | Display E4                                              | Outdoor coiled temperature sensor shout out or shutdown       | Check if sensor is well connected or broken |
| Display E7, but current is normal          | Resisting value of electric resistance R2 isn't 100     | R2 is broken                                                  | Change for qualified R2                     |
| Indoor fan motor don't run                 | CT2 didn't output                                       | CT2 is broken                                                 | Change for qualified CT2                    |
|                                            | 2803 on indoor plate didn't output                      | 2803 is broken                                                | Change for qualified 2803                   |
| Indoor fan motor is absent of low speed    | Output of relay J2, J3, J4 is normal                    | Connecting line isn't well connected with CN1 on indoor plate | Insert connector                            |
|                                            | Foot 17 of 2803 on indoor plate didn't output           | 2803 is broken                                                | Change for qualified 2803                   |
|                                            | COM terminal of relay J2 on indoor plate has no voltage | Relay J2 is broken                                            | Change for qualified relay                  |
|                                            | Relay J2 on indoor plate didn't output                  | Relay J2 is broken                                            | Change for qualified relay                  |
| Indoor fan motor is absent of medium speed | Foot 16 of 2803 on indoor plate didn't output           | 2803 is broken                                                | Change for qualified 2803                   |
|                                            | COM terminal of relay J3 on indoor plate has no voltage | Relay J3 is broken                                            | Change for qualified relay                  |
|                                            | Relay J3 on indoor plate didn't output                  | Relay J3 is broken                                            | Change for qualified relay                  |
|                                            | Foot 15 of 2803 on indoor plate didn't output           | 2803 is broken                                                | Change for qualified 2803                   |
| Indoor fan motor is absent of high speed   | Relay J4 on indoor plate didn't output                  | Relay J4 is broken                                            | Change for qualified relay                  |

| Failure                                                           | Inspection result                                            | Possible failure cause                                                  | corresponding resolution                                    |
|-------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------|
| Without response after making current                             | Power input on breadboard has no voltage                     | Power circuit isn't well inserted                                       | Insert power line                                           |
|                                                                   | Without voltage behind fuse                                  | Filter circuit device is broken                                         |                                                             |
|                                                                   | Without input on transformer-secondary                       | Fuse is broken                                                          | Change for qualified fuse                                   |
|                                                                   | Output of 7805 is abnormal                                   | Transformer isn't well inserted or broke                                | Insert transformer of replace it                            |
| Without response after making current                             | Without voltage on current inlet of panel                    | Power device on indoor plate is broken                                  | Return to collector manufacturer for repair                 |
|                                                                   | Output of +5V is abnormal                                    | Connecting piece between panel and indoor plate isn't well inserted     | Insert connecting piece                                     |
|                                                                   | Reset level is low level                                     | 7805 and input-output filter capacitor broke or other circuit short out | Return to collector manufacturer for repair                 |
|                                                                   | Two ends of buzzer has no square-wave signal                 | Reset slug T600D broke                                                  | Change for qualified reset slug T600D                       |
| Buzzer doesn't buzz on pushing button                             | Two ends of buzzer has square-wave signal                    | Triode Q1 broke                                                         | Change for qualified triode                                 |
|                                                                   |                                                              | Main slug broke                                                         | Return to collector manufacturer for repair                 |
|                                                                   |                                                              | Buzzer broke                                                            | Change for qualified buzzer                                 |
|                                                                   |                                                              |                                                                         |                                                             |
| Air door doesn't swing                                            | Outlet terminal of panel air door has no signal              | Triode Q4 broke                                                         | Change for qualified triode                                 |
|                                                                   | Without air door controlling signal on indoor plate          | Main slug broke                                                         | Return to collector manufacturer for repair                 |
|                                                                   | Foot 13 of 2903 didn't output                                | Panel and indoor plate isn't well connected                             | Insert properly connecting piece or replace connecting line |
|                                                                   | Socket SWING on indoor plate didn't output                   | 2803 broke                                                              | Change for qualified 2803                                   |
|                                                                   |                                                              | Relay J6 broke                                                          | Change for qualified relay                                  |
| Individual key block                                              |                                                              | Mounting of panel is improper                                           | Remount panel                                               |
| Failure of communication between panel and main plate, display E8 | Communication line between panel and indoor plate isn't good | Butt joint of connecting lines is improper                              | Connect properly butt joint                                 |
|                                                                   |                                                              | Connecting line is at fault                                             | Replace connecting line                                     |
|                                                                   |                                                              | Plug-in card S on indoor plate isn't well inserted                      | Insert S                                                    |
|                                                                   |                                                              | It's possible that 3 triodes in communication circuit broke             | Return to collector manufacturer for repair                 |

| Failure                                                                 | Inspection result                                    | Possible failure cause                                             | Corresponding resolution                                |
|-------------------------------------------------------------------------|------------------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------|
| Communication failure between indoor and outdoor plate, display E9      | Signal S of indoor and outdoor fault                 | Indoor and outdoor connector isn't properly inserted               | Insert connector                                        |
|                                                                         | Current of outdoor plate is abnormal                 | Power cord isn't properly inserted                                 | Insert power cord                                       |
|                                                                         |                                                      | Fuse on outdoor plate broke                                        | Change it for qualified fuse                            |
|                                                                         |                                                      | Transformer isn't properly inserted                                | Change it for qualified transformer                     |
|                                                                         |                                                      | Power circuit on outdoor plate is at fault                         | Return to controller manufacturer for repair            |
| In heating, 4-way valve don't output                                    | Communication indicator of outdoor plate don't flash | Communication circuit is at fault                                  | Return to controller manufacturer for repair            |
|                                                                         |                                                      | 2003 is broken                                                     | Change it for qualified 2003                            |
|                                                                         |                                                      | Relay JK4 is broken                                                | Change it for qualified relay                           |
|                                                                         |                                                      | Connecting line isn't well inserted in socket CN9 on outdoor plate | Insert connecting line                                  |
|                                                                         |                                                      | Compressor is under protection for 3 minutes                       | Restore after a wait of 3 minutes                       |
| In cooling, compressor don't start at appropriate temperature condition |                                                      | Indoor coiled temperature is too low, over-cooling protection      | Restore automatically when coiled temperature attain 8℃ |
|                                                                         | Foot 12 of 2003 on outdoor plate don't output        | 2003 is broken                                                     | Change it for qualified 2003                            |
|                                                                         | Relay JK5 on outdoor plate don't output              | Relay JK5 is broken                                                | Change it for qualified relay                           |
|                                                                         | Relay JK5 on outdoor plate output                    | Connecting line isn't well inserted in socket CN7 on outdoor plate | Insert connecting line                                  |
|                                                                         |                                                      |                                                                    |                                                         |

| Failure                                                                  | Inspection result                                     | Possible failure cause                                              | Corresponding resolution                                   |
|--------------------------------------------------------------------------|-------------------------------------------------------|---------------------------------------------------------------------|------------------------------------------------------------|
| In heating compressor doesn't start on appropriate temperature condition |                                                       | 3 minutes protection for compressor                                 | Restore after a wait of 3 minutes                          |
|                                                                          |                                                       | Indoor coiled temperature is too high, overheating protection       | Restore automatically when coiled temperature drop to 48°C |
|                                                                          | Foot 12 of 2003 on outdoor plate has no output        | 2003 is broken                                                      | Change it for qualified 2003                               |
|                                                                          | Relay JK5 on outdoor plate has no output              | Relay JK5 is broken                                                 | Change it for qualified relay                              |
| In cooling, compressor run but outdoor fan motor doesn't run             | Relay JK5 on outdoor plate has output                 | Connecting line isn't well inserted in socket CN6 on outdoor plate  | Insert connecting line                                     |
|                                                                          |                                                       | Indoor coiled temperature is too low, over-cooling protection       | Restore automatically when coiled temperature rise to 8°C  |
|                                                                          | Foot 15 or 16 of 2003 on outdoor plate has no output  | 2003 is broken                                                      | Change it for qualified 2003                               |
|                                                                          | Relay JK1 or JK2 on outdoor plate has no output       | Relay JK1 or JK2 is broken                                          | Change it for qualified relay                              |
|                                                                          | Relay on outdoor plate has output                     | Connecting line isn't well inserted in socket CN10 on outdoor plate | Insert connecting line                                     |
|                                                                          |                                                       | Indoor coiled temperature is too high, overheating protection       | Restore automatically when coiled temperature drop to 48°C |
| In heating, compressor run but outdoor fan motor doesn't run             | Foot 15 or 16 of 2003 on outdoor plate has no output  | 2003 is broken                                                      | Change it for qualified 2003                               |
|                                                                          | Relay JK1 or JK2 on outdoor plate has no output       | Relay JK1 or JK2 is broken                                          | Change it for qualified relay                              |
|                                                                          | Relay on outdoor plate has output                     | Connecting line isn't well inserted in socket CN10 on outdoor plate | Insert connecting line                                     |
|                                                                          |                                                       | Indoor coiled temperature is too high, overheating protection       | Restore automatically when coiled temperature drop to 48°C |
| Pipeline pressure is normal but display E6                               | Foot 15 or 16 of 2003 on outdoor plate has no output  | 2003 is broken                                                      | Change it for qualified 2003                               |
|                                                                          | Relay JK1 or JK2 on outdoor plate has no output       | Relay JK1 or JK2 is broken                                          | Change it for qualified relay                              |
|                                                                          | Relay on outdoor plate has output                     | Connecting line isn't well inserted in socket CN10 on outdoor plate | Insert connecting line                                     |
|                                                                          |                                                       | Connecting line isn't well inserted in socket CN10 on outdoor plate | Insert connecting line                                     |
|                                                                          | Two pins of socket CN2 on outdoor plate are low level | Pressure inspecting circuit is at fault                             | Return to controller manufacturer for repair               |

