

HSU-07H03(B)    HSU-07HB03(B)    HSU-10HB03(B)    HSU-10HB03(B)  
 HSU-10HC03(B)    HSU-10HE03(B)    HSU-10HY03(B)    HSU-14H03(B)  
 H2SM-18HA03(B)    H2SM-18HB03(B)    H2SM-18HD03(B)    H2SM-18HY03(B)  
 H2SM-21H03(B)    H2SM-21HA03(B)    H2SM-21HB03(B)

## Inverter Split type air conditioner Service Manual

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### ● Features

- High efficiency for saving energy
- Quickly cooling and heating
- Lower noise

## Haier Group



Большая библиотека технической документации

<https://splitsystema48.ru/instrukcii-po-ekspluatacii-kondicionerov.html>

каталоги, инструкции, сервисные мануалы, схемы.



## Split Type Air Conditioner

# ENGINEERING DATA

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### MODELS:

AS072AZAHA/AU072ACAHA (HSU-07H03 (B)) (10102858900/10102859000)  
AS072ATAHA/AU072ACAHA (HSU-07HB03 (B)) (10102861900/10102859000)  
AS102AMAIA/AU102ACAHA (HSU-10HB03 (B)) (10102806400/10102836900)  
AS102ALATA/AU102ACAHA (HSU-10HC03 (B)) (10102836100/10102836900)  
AS102AKAHA/AU102ACAHA (HSU-10HE03 (B)) (10102851600/10102836900)  
AS102AMAJA/AU102ACAHA (HSU-10HY03 (B)) (10102855800/10102836900)  
AS142AHAHA/AU142AEAHA (HSU-14H03 (B)) (10102858700/10102858800)  
AS122BQAHA/AU212BGAHA (H2SM-21H03 (B)) (10102859400/10102859500)  
AS112BMAIA/AU182BFAHA (H2SM-18HA03 (B)) (10102101900/10102836700)  
AS112BLAIA/AU182BFAHA (H2SM-18HB03 (B)) (10102836200/10102836700)  
AS112BKAHA/AU182BFAHA (H2SM-18HD03 (B)) (10102104100/10102836700)  
AS112BMAHA/AU182BFAHA (H2SM-18HY03 (B)) (10102855700/10102836700)  
AS112BMAJA+AS142BYAHA/AU212BGATA (H2SM-21HA03 (B)) (10102859100+10102859200/10102859300)  
AS112BLAKA+AS142BVAHA/AU212BGATA (H2SM-21HB03 (B)) (10102862300+10102862400/10102859300)

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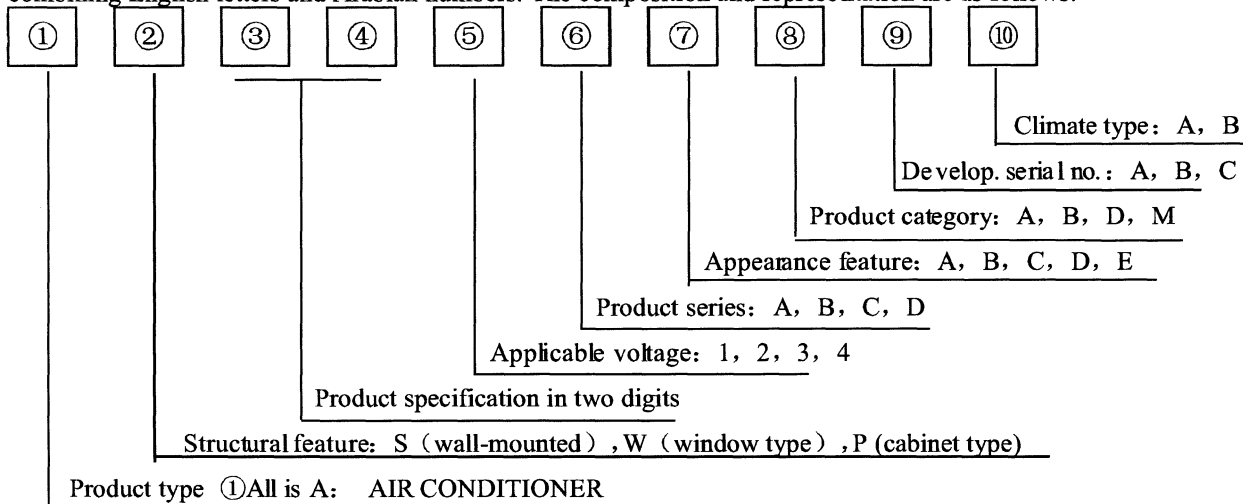
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# **DESCRIPTION OF PRODUCT MODEL CODING & SERIES INTRODUCTION**

**A. Description of coding rules of unit model**

**New coding rules and descriptions of models are as follows:**

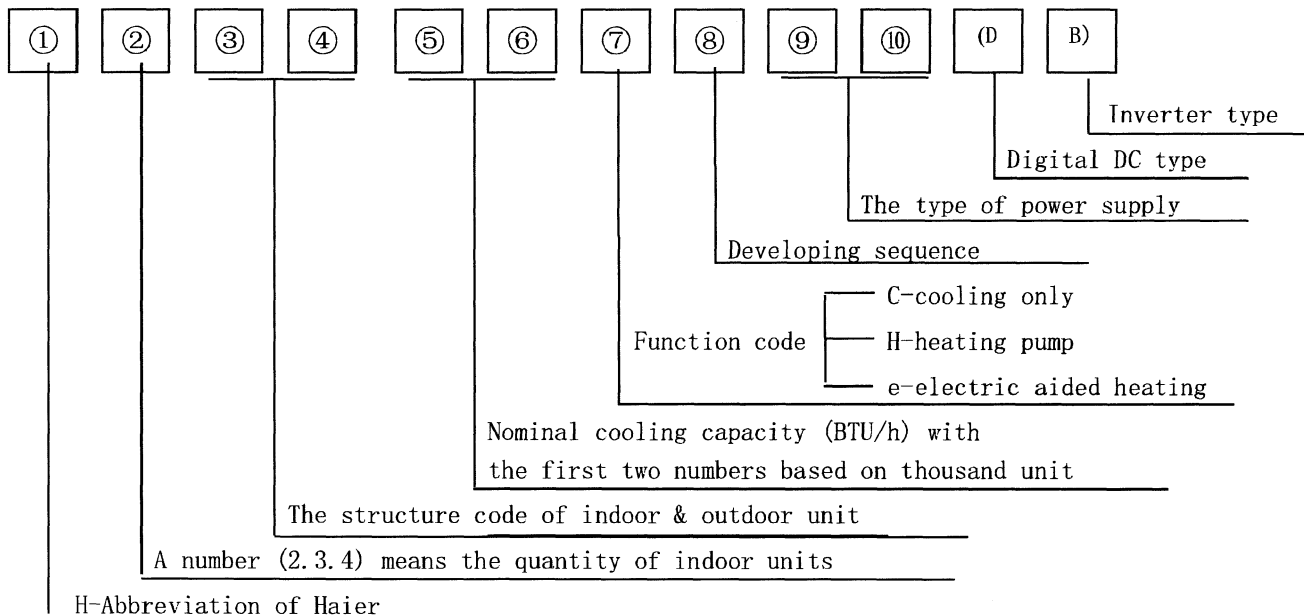
Indoor unit model and outdoor unit model of exported air conditioners shall be separately worked out in 10 digits combining English letters and Arabian numbers. The composition and representation are as follows:



E.g.: in AS072AZAHA, “A” represents air conditioner; “S” means wall mounted indoor unit; “07” indicates heating capacity of 7200BTU/h; “2” means applicable voltage of 220-240V/50Hz; “A” represents single split system; “Z” is for appearance characteristics; “A” means heat pump type and refrigerant of R22; “H” is development serial number; “A” represents climate type.

In AU072ACAHA, “A” represents air conditioner; “U” means wall mounted outdoor unit; “07” indicates heating capacity of 7200BTU/h; “2” means applicable voltage of 220-240V/50Hz; “A” represents single split system; “C” is for appearance characteristics; “A” means heat pump type and refrigerant of R22; “H” is development serial number; “A” represents climate type.

**Old coding rules and descriptions of models are as follows:**



Examples:

H2SM-21HA03 (B)

It represents inverter wall-mounted multi-type room air conditioner(heat only). The total cooling capacity is 21000BTU/h and the power supply is 220V/50Hz. “A” means the first improvement. The number “2” means “2 by 1” .

**B、Standard operating conditions**

| Serial no. | Operating conditions       | Indoor operating conditions |           | Outdoor operating conditions |           |
|------------|----------------------------|-----------------------------|-----------|------------------------------|-----------|
|            |                            | Temperature                 | Humidity  | Temperature                  | Humidity  |
| 1          | Nominal cooling            | 27.0 DB°C                   | 19.0 WB°C | 35.0 DB°C                    | 24.0 WB°C |
| 2          | Nominal heating            | 20 DB°C                     | -         | 7.0 DB°C                     | 6.0 WB°C  |
| 3          | Nominal electrical heating | -                           | -         | -                            | -         |

**C、Series introduction****Features****1.High efficiency for saving energy**

Applying for high efficient digital inverter compressor, the air-conditioner starts smoothly and changes its cooling or heating capacity automatically according to your room's demand, so that the air conditioner will always run in high efficiency for saving energy.

**2.Quickly cooling and heating**

Applying for the "SUPER" cooling and heating function ,the compressor will run in a higher frequency and the air-conditioner will generate more cooling or heating, so the room temperature will fall or rise quickly.

**3.Lower noise**

When the room temperature is near to what you have set by the remote controller, the compressor will run in a lower frequency, the electric power consumption reduces and the noise gets lower.

**4.Healthy and comfortable**

An air purifying filter with deodorizing and disinfecting functions keeps the air clean. For some models of the series, there is a negative ion generator in the indoor unit, when you set the "HEALTH" function , it will generate negative ions .Negative ions can refresh the air in your room .All this will make you healthy.

**5. Convenience**

Washable panel: the front grille of the indoor unit can be removed easily and washed when necessary.

**6. Anti-Corrosive case**

The case of the outdoor unit is made of plastic materials, it will not corrupt for ever even in a high temperature and high humidity zone.

**7. Power failure resume function**

When the power resumes after power failure, the unit will run automatically, the power indicator lights up, and 3 minutes later the compressor starts running with the indicator lighting up.

**8. Wide variety of functions**

12-Hour Timer (for any models of the series except for AS142AHAHA/AU142AEAHA (HSU-14H03(B))):

12-hour Timer allows users to select the exact time they would like the air conditioner to turn on and to turn off. Timers on previous models operation based on the number of hours of desired operation.

When the air conditioner is operating on the timer-off circuit. The preset room temperature gradually rises (going down in heating) before the unit stops. Users can sleep comfortably without sudden change in temperature.

For model AS142AHAHA/AU142AEAHA (HSU-14H03(B)), it has 24-Hour Timer, which make it possible to select the time more exact. And, both the horizontal and vertical louvers can be controlled automatically.

**Program "dry"**

This function automatically reduces the level of humidity while maintaining the preset indoor temperature.

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# SPECIFICATIONS

## Specifications

|                                       |   |   |  |
|---------------------------------------|---|---|--|
| <b>Models:</b>                        | <b>AS072AZARA/AU072ACAHA<br/>(HSU-07H03(B))<br/>AS072ALARA/AU072ACAHA<br/>(HSU-07HB03(B))</b> | Appearance color<br>(indoor/outdoor):   | White/white  |
| <b>Cooling capacity:</b>              | <b>7000(2500-9900) BTU/h</b>  | <b>Heating capacity:</b>                | <b>10000(3500-14100) BTU/h</b>                       |
| <b>Cooling coefficient:</b>           | <b>9.1 BTU/(h·w)</b>  | <b>Heating coefficient:</b>             | <b>10.0 BTU/(h·w)</b>                                |
| Cooling power:                        | <b>770(270-1100) W</b>  | Heating power:                          | <b>1000(360-1500) W</b>                              |
| Moisture removal:                     | <b>1.3*10<sup>3</sup> m<sup>3</sup>/h</b>   | Refrigerant type:                       | <b>R22</b>   |
| Operating voltage range:              | <b>220~230±10% V</b>  | Class of electric shock protection:     | <b>Class I</b>                                       |
| Operating temp. range:                | <b>-7~43°C</b>  | Noise of outdoor unit:                  | <b>54 dB(A)</b>                                      |
| Variation of temp. adjust:            | <b>± 1 °C</b>   | Piling layers for indoor/outdoor units: | <b>8/4</b>   |
| Climate type:                         | <b>T1</b>   | Current entering side (indoor/outdoor): | <b>Indoor</b>  |
| Indoor unit noise:                    | <b>39 dB(A)</b>   | Length/diameter of drain hose:          | <b>2000*φ15.6 mm</b>                                 |
| Net dimensions of indoor unit:        | <b>795×182×265 mm</b>   | Net dimensions of outdoor unit:         | <b>710×540×255 mm</b>                                |
| Packaged dimensions of indoor unit:   | <b>865×272×330 mm</b>   | Packaged dimensions of outdoor unit:    | <b>817×620×358 mm</b>                                |
| Indoor unit net/gross weights:        | <b>7.2/10.2 kg</b>  | Outdoor unit net/gross weights:         | <b>32/37 kg</b>                                      |
| Max. mounting height difference:      | <b>5m</b>   | Size of stop valve:                     | <b>1/4" 3/8"</b>                                     |
| Refrigerant charge:                   | <b>880g</b>   | Max. refrigerant charge:                | <b>960g</b>  |
| Frequency of filter cleaning:         | Once/2 weeks  | Type/size of evaporator and condenser:  | Internal treaded pipe<br>φ7/φ9.52 mm                 |
| Compressor model:                     | <b>KHV104FCKC</b>   | Compressor manufacturer:                | <b>Guangzhou MITSUBISHI</b>                          |
| Oil charge in compressor:             | <b>DIAMOND MS-56: 270±20ml</b>  | Model of 4-way valve                    | <b>Hualu STF-0201</b>                                |
| Maxi. length of connecting pipe:      | <b>10m</b>  | Air sending angle/distance:             | <b>60° / 7m</b>                                      |
| Max. operating pressure at warm side: | <b>2.65Mpa</b>  | Max. operating pressure at cool side:   | <b>2.65MPa</b>                                       |
| Fan speed:                            | <b>1150 r/min indoor<br/>680 r/min outdoor</b>  | Fan type/quantity:                      | <b>Indoor: Cross flow fan<br/>Outdoor: Axial fan</b> |
| Cap. tube type:                       | TP <sub>2</sub> Y copper tube   | Case material:                          | Indoor unit: PS<br>Outdoor unit: <b>durable PP</b>   |
| Product advantage:                    | Inverter for energy saving  |   |  |

## Specifications

|                                       |   |  |  |
|---------------------------------------|---|--|--|
| <b>Models:</b>                        | <b>AS142AHARA/AU142AEARA<br/>(HSU-14H03(B))</b> | Appearance color<br>(indoor/outdoor):    | White/white  |
| <b>Cooling capacity:</b>              | <b>13600(1200-15300) BTU/h</b>                  | <b>Heating capacity:</b>                 | <b>20500(1000-25600) BTU/h</b>                       |
| <b>Cooling coefficient:</b>           | <b>9.4 BTU/(h · w)</b>                          | <b>Heating coefficient:</b>              | <b>10.5 BTU/(h · w)</b>                              |
| Cooling power:                        | <b>1450(200-1630) W</b>                         | Heating power:                           | <b>1950(180-2450) W</b>                              |
| Moisture removal:                     | <b>1.7*10<sup>3</sup> m<sup>3</sup>/h</b>       | Refrigerant type:                        | <b>R22</b>   |
| Operating voltage range:              | <b>220~230±10% V</b>                            | Operating temp. range:                   | <b>-7~43°C</b>                                       |
| Variation of temp. adjust:            | <b>± 1 °C</b>                                   | Class of electric shock protection:      | <b>Class I</b>                                       |
| Climate type:                         | <b>T1</b>                                       | Noise of outdoor unit:                   | <b>dB(A)</b>   |
| Indoor unit noise:                    | <b>39 dB(A)</b>                                 | Piling layers for indoor/outdoor units:  | <b>8/4</b>   |
| Net dimensions of indoor unit:        | <b>804×189×285 mm</b>                           | Net dimensions of outdoor unit:          | <b>780×239×645 mm</b>                                |
| Packaged dimensions of indoor unit:   | <b>855×255×360 mm</b>                           | Packaged dimensions of outdoor unit:     | <b>920×340×713 mm</b>                                |
| Indoor unit net/gross weights:        | <b>9 / 11 kg</b>                                | Outdoor unit net/gross weights:          | <b>42/47 kg</b>                                      |
| Max. mounting height difference:      | <b>5m</b>                                       | Current entering side (indoor/outdoor) : | <b>Indoor</b>  |
| Refrigerant charge:                   | <b>1200g</b>                                    | Max. refrigerant charge:                 | <b>1360 g</b>  |
| Frequency of filter cleaning:         | Once/2 weeks                                    | Cap. tube type:                          | TP <sub>2</sub> Y copper tube                        |
| Compressor model:                     | <b>C-6RV73HOW</b>                               | Compressor manufacturer:                 | <b>Japan SANYO</b>                                   |
| Oil charge in compressor:             | <b>SUNISO 4GSD-T: 320±20ml</b>                  | Model of 4-way valve                     | <b>Hualu STF-0201</b>                                |
| Size of stop valve:                   | <b>1/4" 1/2"</b>                                | Length/diameter of drain hose:           | <b>2000*φ 15.6 mm</b>                                |
| Maxi. length of connecting pipe:      | <b>15m</b>                                      | Type/size of evaporator and condenser:   | Internal treaded pipe<br>φ 7/ φ 9.52 mm              |
| Max. operating pressure at warm side: | <b>2.65Mpa</b>                                  | Max. operating pressure at cool side:    | <b>2.65MPa</b>                                       |
| Fan speed:                            | <b>1430 r/min indoor<br/>800 r/min outdoor</b>  | Fan type/quantity:                       | <b>Indoor: Cross flow fan<br/>Outdoor: Axial fan</b> |
| Air sending angle/distance:           | <b>60° / 7m</b>                                 | Case material:                           | Indoor unit: PS<br>Outdoor unit: <b>iron</b>         |
| Product advantage:                    | Inverter for energy saving                      |  |  |



## Specifications

|                                       |                        |   |  |  |                         |
|---------------------------------------|------------------------|---|--|--|-------------------------|
| Model:                                |                        | AS122BQAHA/AL212BGAHA<br>(H2SM-21H03(B))  | Appearance color (indoor/outdoor) :                          | White/white  |                         |
| Cooling capacity:                     | Single unit operation: | <b>12300(2700-13600) BTU/h</b>  | Heating capacity:  | Single unit operation:                                 | 17100(3100~18100) BTU/h |
|                                       | Double unit operation: | <b>20500(3400-21800) BTU/h</b>  |  | Double unit operation:                                 | 23900(4100~27300) BTU/h |
| Cooling coefficient:                  | Single unit operation: | <b>8.48 BTU/(h·w)</b>   | Heating coefficient:   | Single unit operation:                                 | 9.0 BTU/(h·w)           |
|                                       | Double unit operation: | <b>8.91 BTU/(h·w)</b>   |  | Double unit operation:                                 | 9.56 BTU/(h·w)          |
| Cooling power:                        | Single unit operation: | <b>1450(350~1700) W</b>   | Heating power:   | Single unit operation:                                 | 1900(360~2100) W        |
|                                       | Double unit operation: | <b>2300(400~2600) W</b>   |  | Double unit operation:                                 | 2500(450~3000) W        |
| Moisture removal:                     |                        | <b>1.6 / 2.8 *10<sup>3</sup> m<sup>3</sup>/h</b>                                      | Refrigerant type:  | R22  |                         |
| Operating voltage range:              |                        | <b>220~230±10% V</b>  | Class of electric shock protection:                          | Class I  |                         |
| Operating temp. range:                |                        | <b>-7~43°C</b>  | Climate type:  | <b>T1</b>  |                         |
| Variation of temp. adjust:            |                        | <b>± 1 °C</b>   | Piling layers for indoor/outdoor units:                      | 8/4  |                         |
| Indoor unit noise:                    |                        | <b>40/36/30 dB(A)</b>   | Noise of outdoor unit:                                       | 54 dB(A)   |                         |
| Net dimensions of indoor unit:        |                        | <b>804×186×285 mm</b>   | Net dimensions of outdoor unit:                              | 934×373×736 mm   |                         |
| Package dimensions of indoor unit:    |                        | <b>855×255×360 mm</b>   | Packaged dimensions of outdoor unit:                         | 1010×426×810 mm  |                         |
| Indoor unit net/gross weights:        |                        | <b>11 / 13 kg<br/>9.5 / 12.5 kg</b>   | Outdoor unit net/gross weights:                              | 65/73 kg   |                         |
| Max. mounting height difference:      |                        | <b>5m</b>   | Current entering side (indoor/outdoor) :                     | outdoor  |                         |
| Refrigerant charge:                   |                        | <b>1700 g</b>   | Max. refrigerant charge:                                     | 2020 g   |                         |
| Frequency of filter cleaning:         |                        | Once/2 weeks  | Air sending angle/distance:                                  | 60° / 7m   |                         |
| Compressor model:                     |                        | <b>C-7RV113HOW</b>  | Compressor manufacturer:                                     | Japan SANYO  |                         |
| Oil charge in compressor:             |                        | <b>SUNISO 4GSD-T: 600±20ml</b>  | Length/diameter of drain hose:                               | 2000*φ15.6 mm  |                         |
| Size of stop valve:                   |                        | <b>1/4" 1/2"</b>  | Type/size of evaporator and condenser, model of 4-way valve: | Internal treaded pipe<br>φ7/φ9.52 mm                   |                         |
| Fan speed:                            |                        | 1150/1050/920 r/min indoor<br>1250/1100/920 r/min indoor<br>860/780/550 r/min outdoor | Fan type/quantity:   | Indoor unit: Cross flow fan<br>Outdoor unit: Axial fan |                         |
| Maxi. length of connecting pipe:      |                        | Single unit 15m;<br>double unit 20m   | Cap. tube type:  | TP <sub>2</sub> Y copper tube                          |                         |
| Max. operating pressure at warm side: |                        | <b>2.65Mpa</b>  | Max. operating pressure at cool side:                        | 2.65Mpa  |                         |
| Product advantage:                    |                        | Inverter for energy saving  | Case material:   | Indoor unit: PS<br>Outdoor unit: iron                  |                         |

## Specifications

|                                       |                        |   |  |                        |  |
|---------------------------------------|------------------------|---|--|------------------------|--|
| Model:                                |                        | <b>AS112BMAJA+AS142BYAHA<br/>/AU212BGAIA<br/>(H2SM-21HA03(B))</b>                     | Appearance color (indoor/outdoor) :      | White/white            |  |
| Cooling capacity:                     | Single unit operation: | <b>10900(3400-12300) BTU/h<br/>13600(3400-15300) BTU/h</b>                            | Heating capacity:                        | Single unit operation: | <b>14700(1400-16400) BTU/h<br/>17100(4100-18800) BTU/h</b> |
|                                       | Double unit operation: | <b>8500(2000-10200)+<br/>11900(2000-13000) BTU/h</b>                                  |  | Double unit operation: | <b>10200(2000-13000)<br/>+13600(2700-15700) BTU/h</b>      |
| Cooling coefficient:                  | Single unit operation: | <b>8.38 / 9.06 BTU/(h · w)</b>  | Heating coefficient:                     | Single unit operation: | <b>8.65 / 8.76 BTU/(h · w)</b>                             |
|                                       | Double unit operation: | <b>8.16 BTU/(h · w)</b>   |  | Double unit operation: | <b>9.36 BTU/(h · w)</b>                                    |
| Cooling power:                        | Single unit operation: | <b>1300(500-1630) W<br/>1500(500-1700) W</b>  | Heating power:                           | Single unit operation: | <b>1700(500-1900) W<br/>1950(500-2200) W</b>               |
|                                       | Double unit operation: | <b>2500(500-2700) W</b>   |  | Double unit operation: | <b>2500(500-3000) W</b>                                    |
| Moisture removal:                     |                        | <b>1.6 / 2.8 *10<sup>-3</sup> m<sup>3</sup>/h</b>                                     | Refrigerant type:                        |                        | R22  |
| Operating voltage range:              |                        | <b>220~230±10% V</b>  | Class of electric shock protection:      |                        | Class I  |
| Operating temp. range:                |                        | <b>-7~43℃</b>   | Climate type:                            |                        | <b>T1</b>  |
| Variation of temp. adjust:            |                        | <b>± 1 ℃</b>  | Piling layers for indoor/outdoor units:  |                        | 8/4  |
| Indoor unit noise:                    |                        | <b>39/34/30 dB(A)<br/>40/36/30 dB(A)</b>  | Noise of outdoor unit:                   |                        | 54 dB(A)   |
| Net dimensions of indoor unit:        |                        | <b>795×182×265 mm<br/>938×182×265 mm</b>  | Net dimensions of outdoor unit:          |                        | 934×373×736 mm   |
| Overall dimensions of indoor unit:    |                        | <b>865×272×330 mm<br/>1015×280×330 mm</b>   | Packaged dimensions of outdoor unit:     |                        | 1010×426×810 mm  |
| Indoor unit net/gross weights:        |                        | <b>7.6 / 10.6 kg<br/>9.5 / 12.5 kg</b>  | Outdoor unit net/gross weights:          |                        | 65/73 kg   |
| Max. mounting height difference:      |                        | <b>5m</b>   | Current entering side (indoor/outdoor) : |                        | outdoor  |
| Refrigerant charge:                   |                        | <b>1700 g</b>   | Max. refrigerant charge:                 |                        | 2020 g   |
| Frequency of filter cleaning:         |                        | Once/2 weeks  | Length/diameter of drain hose:           |                        | 2000*φ15.6 mm  |
| Compressor model:                     |                        | <b>C-7RV113HOW</b>  | Compressor manufacturer:                 |                        | Japan SANYO  |
| Oil charge in compressor:             |                        | <b>SUNISO 4GSD-T: 600±20ml</b>  | Maxi. length of connecting pipe:         |                        | Single unit 15m;<br>double unit 20m                        |
| Size of stop valve:                   |                        | <b>1/4" 1/2"</b>  | Type/size of evaporator and condenser:   |                        | Internal treaded pipe<br>φ7/φ9.52 mm                       |
| Cap. tube type:                       |                        | TP <sub>2</sub> Y copper tube   | Air sending angle/distance:              |                        | 60° / 7m   |
| Fan speed:                            |                        | 1150/1050/920 r/min indoor<br>1250/1100/920 r/min indoor<br>860/780/550 r/min outdoor | Fan type/quantity:                       |                        | Indoor unit: Cross flow fan<br>Outdoor unit: Axial fan     |
| Max. operating pressure at warm side: |                        | <b>2.65Mpa</b>  | Max. operating pressure at cool side:    |                        | 2.65Mpa  |
| Product advantage:                    |                        | Inverter for energy saving  | Case material:                           |                        | Indoor unit: PS<br>Outdoor unit: iron                      |

## Specifications

|                                       |                        |   |  |                        |  |
|---------------------------------------|------------------------|---|--|------------------------|--|
| Model:                                |                        | <b>AS112BLAKA+AS142BVAIA<br/>/AU212BGAIA<br/>(II2SM-21IB03(B))</b>                    | Appearance color (indoor/outdoor) :      | White/white            |  |
| Cooling capacity:                     | Single unit operation: | <b>10900(3400-12300) BTU/h<br/>13600(3400-15300) BTU/h</b>                            | Heating capacity:                        | Single unit operation: | <b>14700(1400-16400) BTU/h<br/>17100(4100-18800) BTU/h</b> |
|                                       | Double unit operation: | <b>8500(2000-10200)+<br/>11900(2000-13000) BTU/h</b>                                  |  | Double unit operation: | <b>10200(2000-13000)<br/>+13600(2700-15700) BTU/h</b>      |
| Cooling coefficient:                  | Single unit operation: | <b>8.38 / 9.06 BTU/(h · w)</b>  | Heating coefficient:                     | Single unit operation: | <b>8.65 / 8.76 BTU/(h · w)</b>                             |
|                                       | Double unit operation: | <b>8.16 BTU/(h · w)</b>   |  | Double unit operation: | <b>9.36 BTU/(h · w)</b>                                    |
| Cooling power:                        | Single unit operation: | <b>1300(500-1630) W<br/>1500(500-1700) W</b>  | Heating power:                           | Single unit operation: | <b>1700(500-1900) W<br/>1950(500-2200) W</b>               |
|                                       | Double unit operation: | <b>2500(500-2700) W</b>   |  | Double unit operation: | <b>2500(500-3000) W</b>                                    |
| Moisture removal:                     |                        | <b>1.6 / 2.8 *10<sup>3</sup> m<sup>3</sup>/h</b>                                      | Refrigerant type:                        |                        | R22  |
| Operating voltage range:              |                        | <b>220~230±10% V</b>  | Class of electric shock protection:      |                        | Class I  |
| Operating temp. range:                |                        | <b>-7~43°C</b>  | Climate type:                            |                        | <b>T1</b>  |
| Variation of temp. adjust:            |                        | <b>± 1 °C</b>   | Piling layers for indoor/outdoor units:  |                        | 8/4  |
| Indoor unit noise:                    |                        | <b>39/34/30 dB(A)<br/>40/36/30 dB(A)</b>  | Noise of outdoor unit:                   |                        | 54 dB(A)   |
| Net dimensions of indoor unit:        |                        | <b>795×182×265 mm<br/>938×182×265 mm</b>  | Packaged dimensions of outdoor unit:     |                        | 934×373×736 mm   |
| Overall dimensions of indoor unit:    |                        | <b>865×272×330 mm<br/>1015×280×330 mm</b>   | Packaged dimensions of outdoor unit:     |                        | 1010×426×810 mm  |
| Indoor unit net/gross weights:        |                        | <b>7.6 / 10.6 kg<br/>9.5 / 12.5 kg</b>  | Outdoor unit net/gross weights:          |                        | 65/73 kg   |
| Max. mounting height difference:      |                        | <b>5m</b>   | Current entering side (indoor/outdoor) : |                        | outdoor  |
| Refrigerant charge:                   |                        | <b>1700 g</b>   | Max. refrigerant charge:                 |                        | 2020 g   |
| Frequency of filter cleaning:         |                        | Once/2 weeks  | Length/diameter of drain hose:           |                        | 2000*φ15.6 mm  |
| Compressor model:                     |                        | <b>C-7RV113HOW</b>  | Compressor manufacturer:                 |                        | Japan SANYO  |
| Oil charge in compressor:             |                        | <b>SUNISO 4GSD-T: 600±20ml</b>  | Air sending angle/distance:              |                        | 60° / 7m   |
| Size of stop valve:                   |                        | <b>1/4" 1/2"</b>  | Type/size of evaporator and condenser:   |                        | Internal treaded pipe<br>φ7/φ9.52 mm                       |
| Maxi. length of connecting pipe:      |                        | Single unit 15m;<br>double unit 20m   | Cap. tube type:                          |                        | TP <sub>2</sub> Y copper tube                              |
| Max. operating pressure at warm side: |                        | <b>2.65Mpa</b>  | Max. operating pressure at cool side:    |                        | 2.65Mpa  |
| Fan speed:                            |                        | 1150/1050/920 r/min indoor<br>1250/1100/920 r/min indoor<br>860/780/550 r/min outdoor | Fan type/quantity:                       |                        | Indoor unit: Cross flow fan<br>Outdoor unit: Axial fan     |
| Product advantage:                    |                        | Inverter for energy saving  | Case material:                           |                        | Indoor unit: PS<br>Outdoor unit: iron                      |

## Specifications

|                                       |   |   |  |
|---------------------------------------|---|---|--|
| <b>Models:</b>                        | AS102AMAIA/AU102ACAHA<br>(HSU-10HB03(B))<br>AS102ALAI/AU102ACAHA<br>(HSU-10HC03(B))<br>AS102AKAIA/AU102ACAHA<br>(HSU-10HE03(B))<br>AS102AMAJA/AU102ACAHA<br>(HSU-10HY03(B)) | Appearance color<br>(indoor/outdoor):   | White/white  |
| <b>Cooling capacity:</b>              | <b>10000(5200-11000) BTU/h</b>  | <b>Heating capacity:</b>                | <b>14000(5200-17000) BTU/h</b>                       |
| <b>Cooling coefficient:</b>           | <b>9.2(9.2-11.7) BTU/(h·w)</b>  | <b>Heating coefficient:</b>             | <b>10.6 (8.5-10.6) BTU/(h·w)</b>                     |
| Cooling power:                        | <b>1090(540-1450) W</b>   | Heating power:                          | <b>1320(610-1600) W</b>                              |
| Moisture removal:                     | <b>1.3*10<sup>-3</sup> m<sup>3</sup>/h</b>  | Refrigerant type:                       | <b>R22</b>   |
| Operating voltage range:              | <b>220~230±10% V</b>  | Class of electric shock protection:     | <b>Class I</b>                                       |
| Operating temp. range:                | <b>-7~43°C</b>  | Climate type:                           | <b>T1</b>  |
| Variation of temp. adjust:            | <b>± 1 °C</b>   | Piling layers for indoor/outdoor units: | <b>8/4</b>   |
| Indoor unit noise:                    | <b>38 dB(A)</b>   | Noise of outdoor unit:                  | <b>43 dB(A)</b>                                      |
| Net dimensions of indoor unit:        | <b>795×182×265 mm</b>   | Net dimensions of outdoor unit:         | <b>710×540×255 mm</b>                                |
| Packaged dimensions of indoor unit:   | <b>865×272×330 mm</b>   | Packaged dimensions of outdoor unit:    | <b>817×620×358 mm</b>                                |
| Indoor unit net/gross weights:        | <b>7.6/10.6 kg</b>  | Outdoor unit net/gross weights:         | <b>32/37 kg</b>                                      |
| Max. mounting height difference:      | <b>5m</b>   | Current entering side (indoor/outdoor): | <b>Indoor</b>  |
| Refrigerant charge:                   | <b>880g</b>   | Max. refrigerant charge:                | <b>960g</b>  |
| Frequency of filter cleaning:         | Once/2 weeks  | Air sending angle/distance:             | <b>60° / 7m</b>                                      |
| Compressor model:                     | <b>KHV104FCKC</b>   | Compressor manufacturer:                | <b>MITSUBISHI</b>                                    |
| Oil charge in compressor:             | <b>DIAMOND MS-56: 270±20ml</b>  | Length/diameter of drain hose:          | <b>2000*φ15.6 mm</b>                                 |
| Size of stop valve:                   | <b>1/4" 3/8"</b>  | Type/size of evaporator and condenser:  | Internal treaded pipe<br>φ7/φ9.52 mm                 |
| Maxi. length of connecting pipe:      | <b>10m</b>  | Cap. tube type:                         | TP <sub>2</sub> Y copper tube                        |
| Max. operating pressure at warm side: | <b>2.65Mpa</b>  | Max. operating pressure at cool side:   | <b>2.65MPa</b>                                       |
| Fan speed:                            | <b>1150/1050/900r/min indoor<br/>680r/min outdoor</b>   | Fan type/quantity:                      | <b>Indoor: Cross flow fan<br/>Outdoor: Axial fan</b> |
| Product advantage:                    | Inverter for energy saving  | Case material:                          | Indoor unit: PS<br>Outdoor unit: <b>durable PP</b>   |

# Specifications

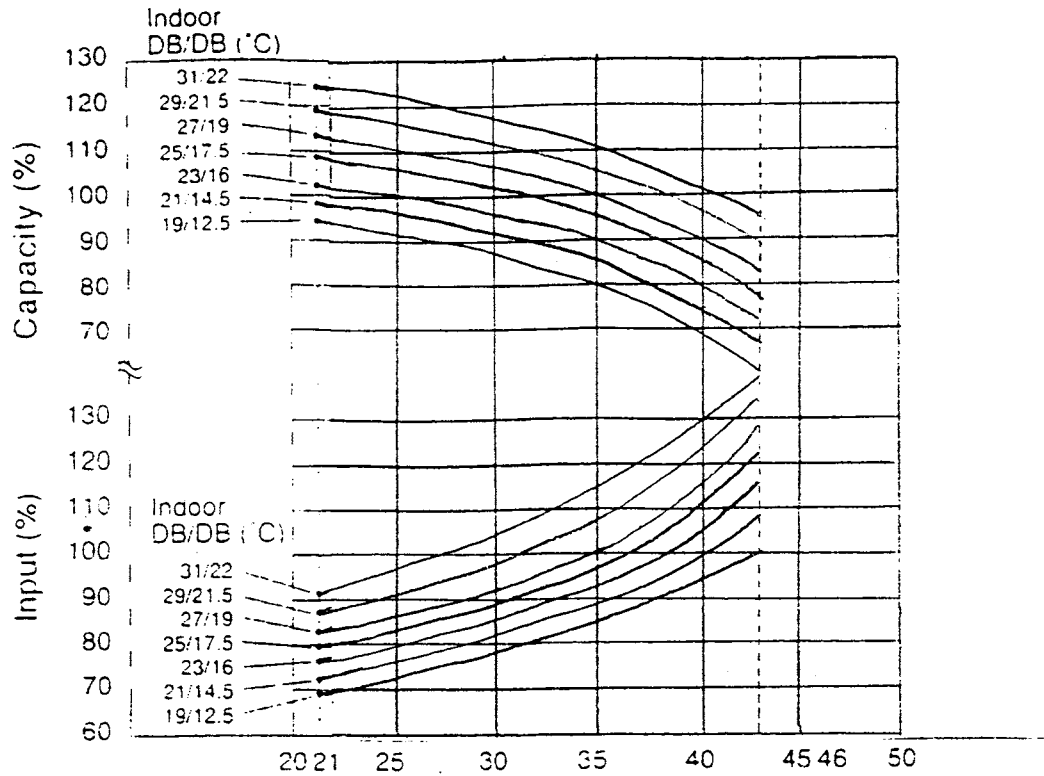
|                                       |                        |  |  |                        |  |
|---------------------------------------|------------------------|--|--|------------------------|--|
| Model:                                |                        | <b>AS112BMAIA/AU182BFAHA<br/>(H2SM-18HA03(B))</b><br><b>AS112BLAIA/AU182BFAHA<br/>(H2SM-18HB03(B))</b><br><b>AS112BKAHA/AU182BFAHA<br/>(H2SM-18HD03(B))</b><br><b>AS112BMAHA/AU182BFAHA<br/>(H2SM-18HY03(B))</b> | Appearance color (indoor/outdoor) :      | White/white            |  |
| Cooling capacity:                     | Single unit operation: | <b>11000(3000-13000) BTU/h</b>   | Heating capacity:                        | Single unit operation: | <b>16000(2000-18000) BTU/h</b>                         |
|                                       | Double unit operation: | <b>18000(3000-21000) BTU/h</b>   |  | Double unit operation: | <b>24000(3000-28000) BTU/h</b>                         |
| Cooling coefficient:                  | Single unit operation: | <b>8.46 BTU/(h · w)</b>  | Heating coefficient:                     | Single unit operation: | <b>9.14 BTU/(h · w)</b>                                |
|                                       | Double unit operation: | <b>857 BTU/(h · w)</b>   |  | Double unit operation: | 10.9 BTU/(h · w)                                       |
| Cooling power:                        | Single unit operation: | <b>1300(300-1600) W</b>  | Heating power:                           | Single unit operation: | <b>1750(300-1900) W</b>                                |
|                                       | Double unit operation: | <b>2100(320-2500) W</b>  |  | Double unit operation: | <b>2200(320-3000) W</b>                                |
| Moisture removal:                     |                        | <b>1.6 / 2.8 *10<sup>-3</sup> m<sup>3</sup>/h</b>  | Refrigerant type:                        |                        | R22  |
| Operating voltage range:              |                        | <b>220~230±10% V</b>   | Class of electric shock protection:      |                        | Class I  |
| Operating temp. range:                |                        | <b>-7~43°C</b>   | Climate type:                            |                        | <b>T1</b>  |
| Variation of temp. adjust:            |                        | <b>± 1 °C</b>  | Piling layers for indoor/outdoor units:  |                        | 8/4  |
| Indoor unit noise:                    |                        | <b>39 dB(A)</b>  | Noise of outdoor unit:                   |                        | 54 dB(A)   |
| Net dimensions of indoor unit:        |                        | <b>795×182×265 mm</b>  | Net dimensions of outdoor unit:          |                        | <b>815×680×295 mm</b>                                  |
| Overall dimensions of indoor unit:    |                        | <b>865×272×335 mm</b>  | Packaged dimensions of outdoor unit:     |                        | <b>960×750×406 mm</b>                                  |
| Indoor unit net/gross weights:        |                        | <b>7.6/10.6 kg</b>   | Outdoor unit net/gross weights:          |                        | <b>56/61 kg</b>  |
| Max. mounting height difference:      |                        | <b>5m</b>  | Current entering side (indoor/outdoor) : |                        | Indoor   |
| Refrigerant charge:                   |                        | <b>1600 g</b>  | Max. refrigerant charge:                 |                        | <b>1760g</b>   |
| Frequency of filter cleaning:         |                        | Once/2 weeks   | Air sending angle/distance:              |                        | 60° / 7m   |
| Compressor model:                     |                        | <b>C-7RV113HOW</b>   | Compressor manufacturer:                 |                        | Japan SANYO  |
| Oil charge in compressor:             |                        | <b>SUNISO 4GSD-T: 600±20ml</b>   | Length/diameter of drain hose:           |                        | 2000*φ15.6 mm  |
| Size of stop valve:                   |                        | <b>1/4" 1/2"</b>   | Type/size of evaporator and condenser:   |                        | Internal treaded pipe<br>φ7/φ9.52 mm                   |
| Maxi. length of connecting pipe:      |                        | Single unit 15m;<br>double unit 20m  | Cap. tube type:                          |                        | TP <sub>2</sub> Y copper tube                          |
| Max. operating pressure at warm side: |                        | <b>2.65Mpa</b>   | Max. operating pressure at cool side:    |                        | 2.65Mpa  |
| Fan speed:                            |                        | 1150/1050/900 r/min indoor<br>680 r/min outdoor  | Fan type/quantity:                       |                        | Indoor unit: Cross flow fan<br>Outdoor unit: Axial fan |
| Product advantage:                    |                        | Inverter for energy saving   | Case material:                           |                        | Indoor unit: PS<br>Outdoor unit: iron                  |

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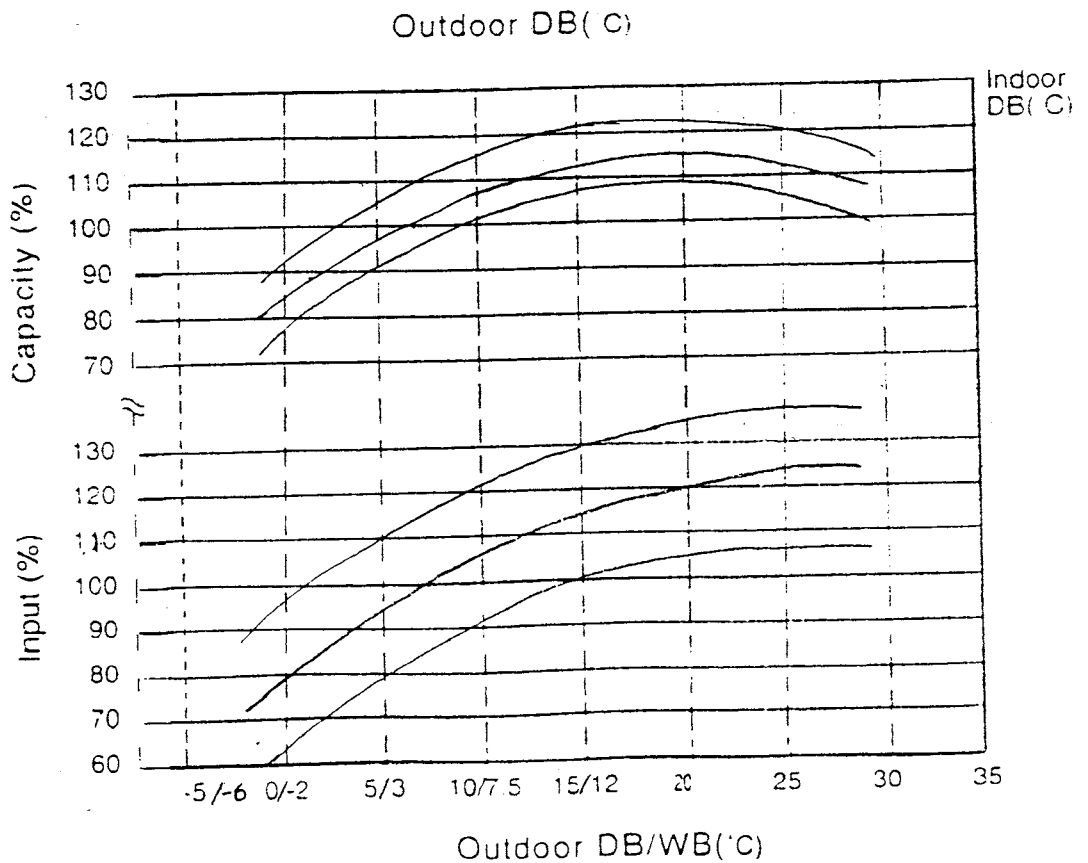
# **CURVES OF PERFORMANCE**

a. Curves of cooling capacity and heating capacity as a function of outdoor temperature (-7°C~+52°C):

Cooling

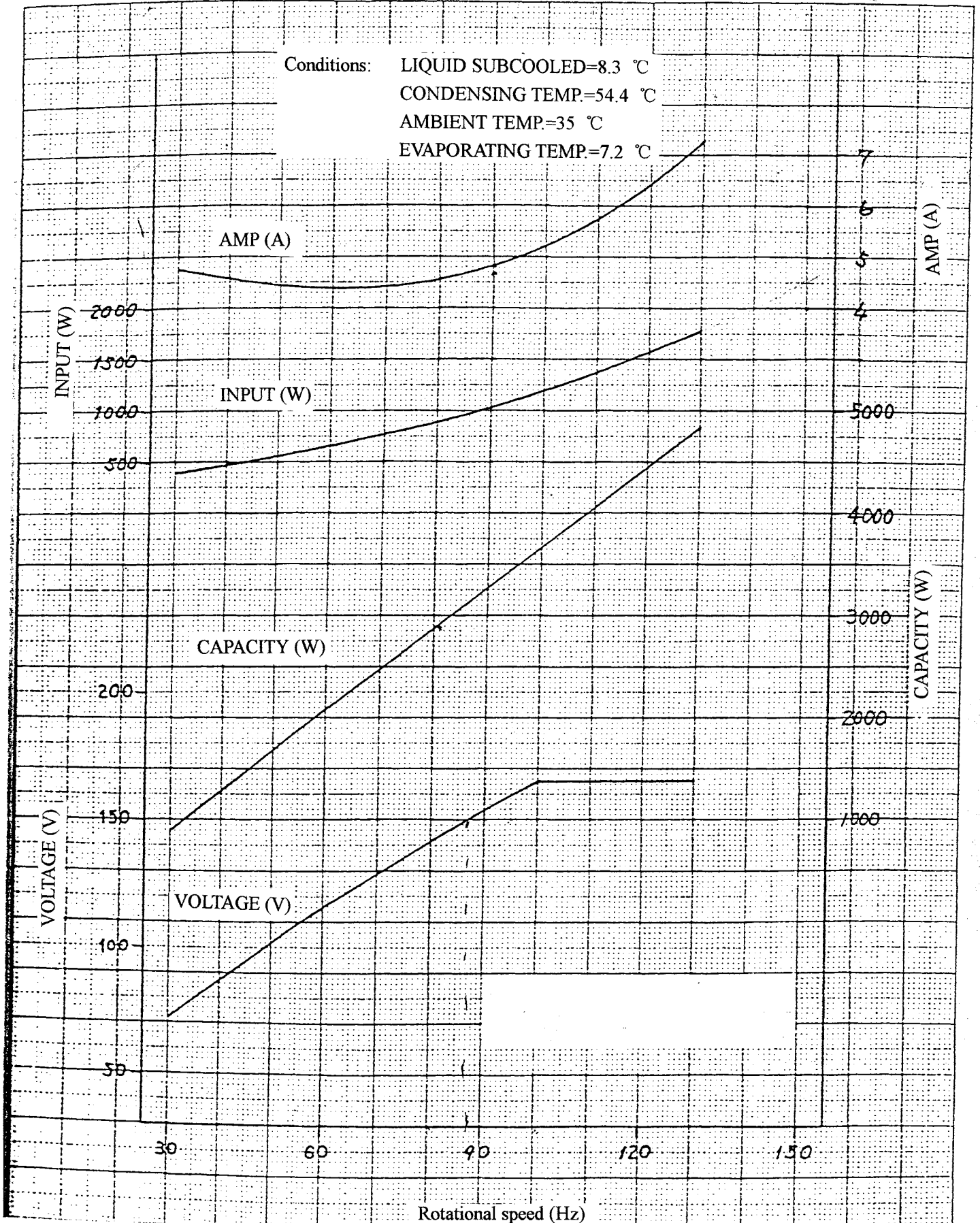


Heating



**B. Compressor curves of performance  
MODELS**

AS072AZAHA/AU072ACAHA (HSU-07H03 (B)) AS072AIAHA/AU072ACAHA (HSU-07HB03 (B)) AS102AMATA/AU102ACAHA (HSU-10HB03 (B))  
AS102ALATA/AU102ACAHA (HSU-10HC03 (B)) AS102AKAHA/AU102ACAHA (HSU-10HE03 (B)) AS102AMAJA/AU102ACAHA (HSU-10HY03 (B))

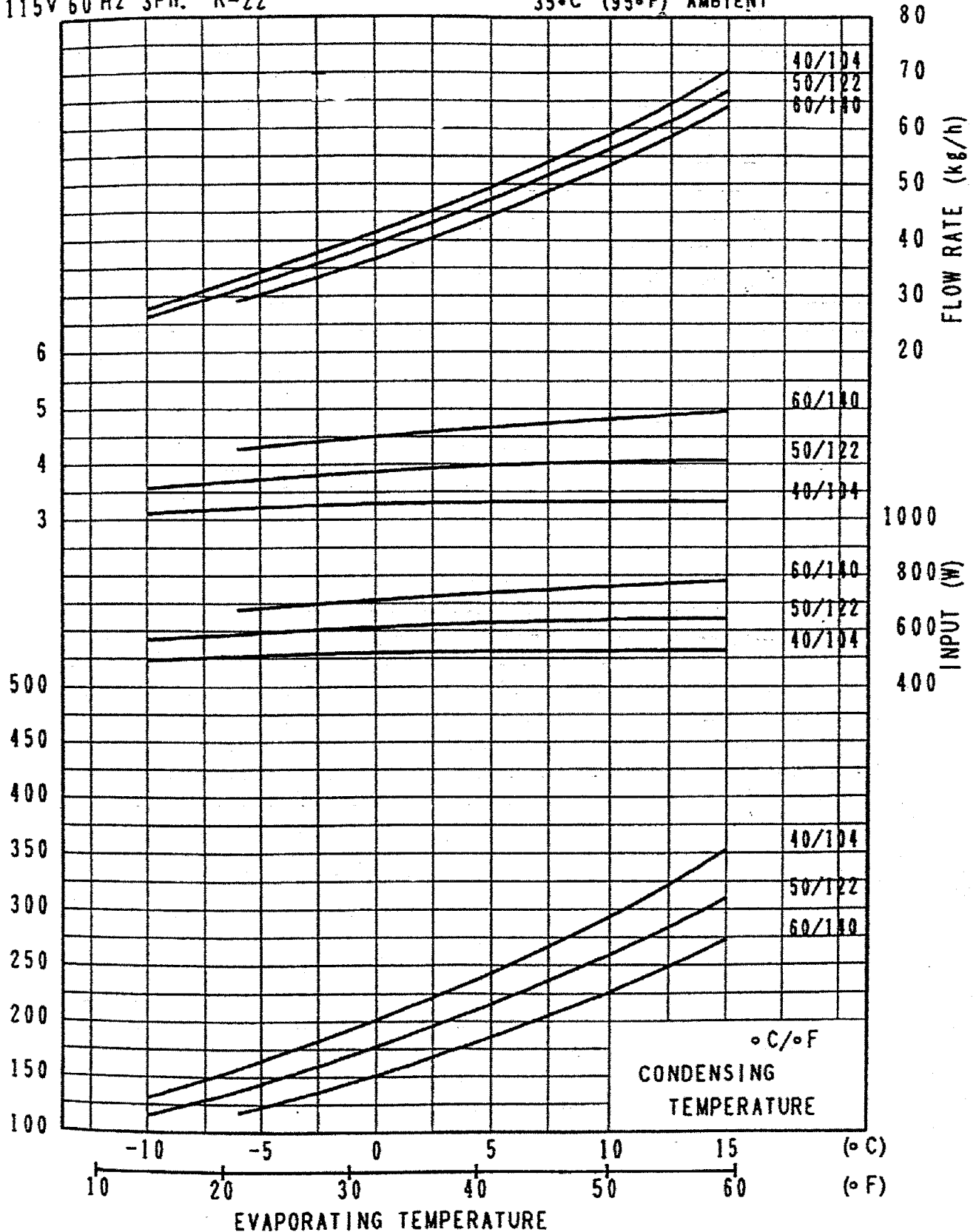




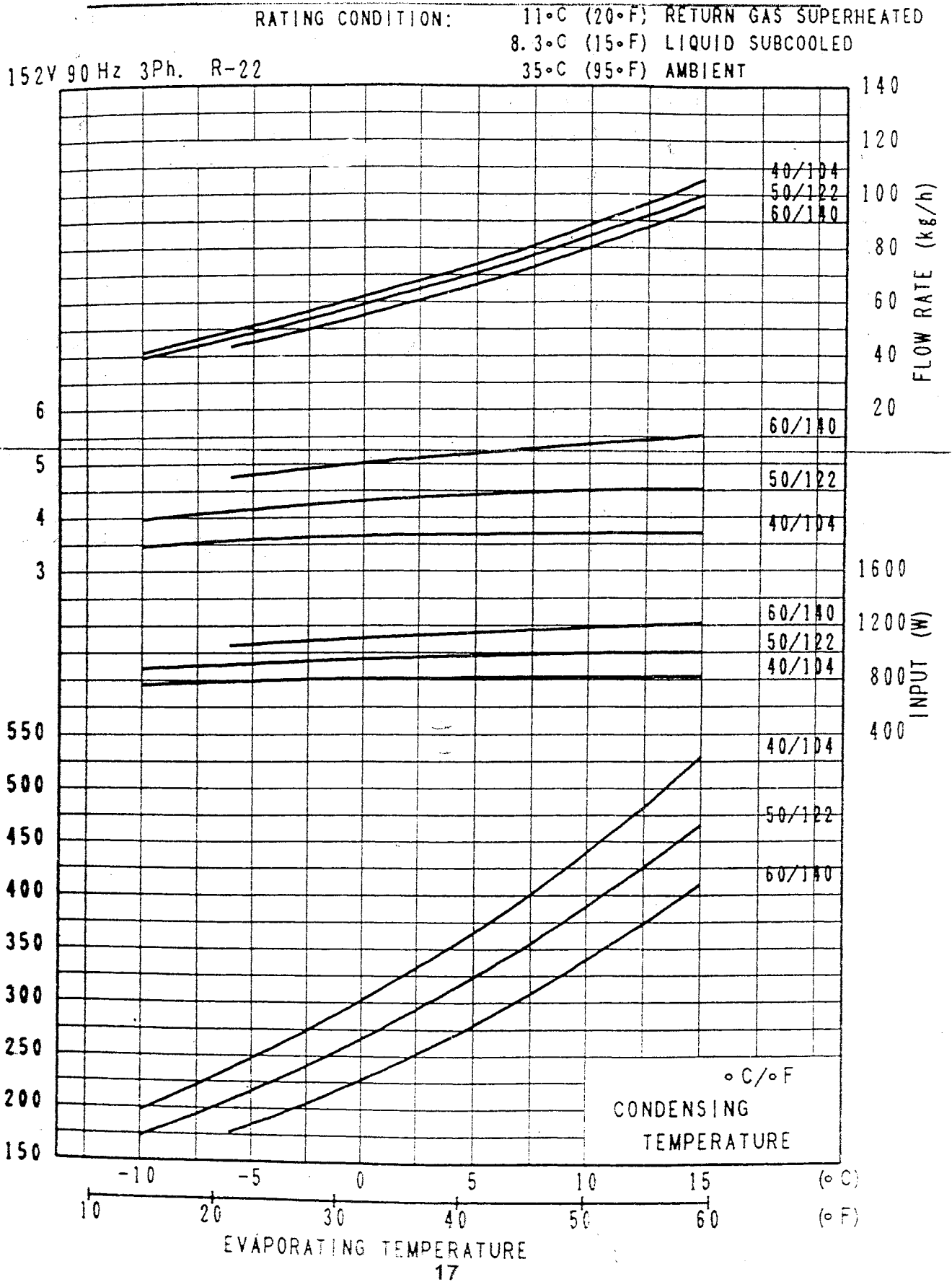
B. Compressor curves of performance:

RATING CONDITION: 11°C (20°F) RETURN GAS SUPERHEATED  
 8.3°C (15°F) LIQUID SUBCOOLED  
 35°C (95°F) AMBIENT

115V 60 Hz 3Ph. R-22



B. Compressor curves of performance

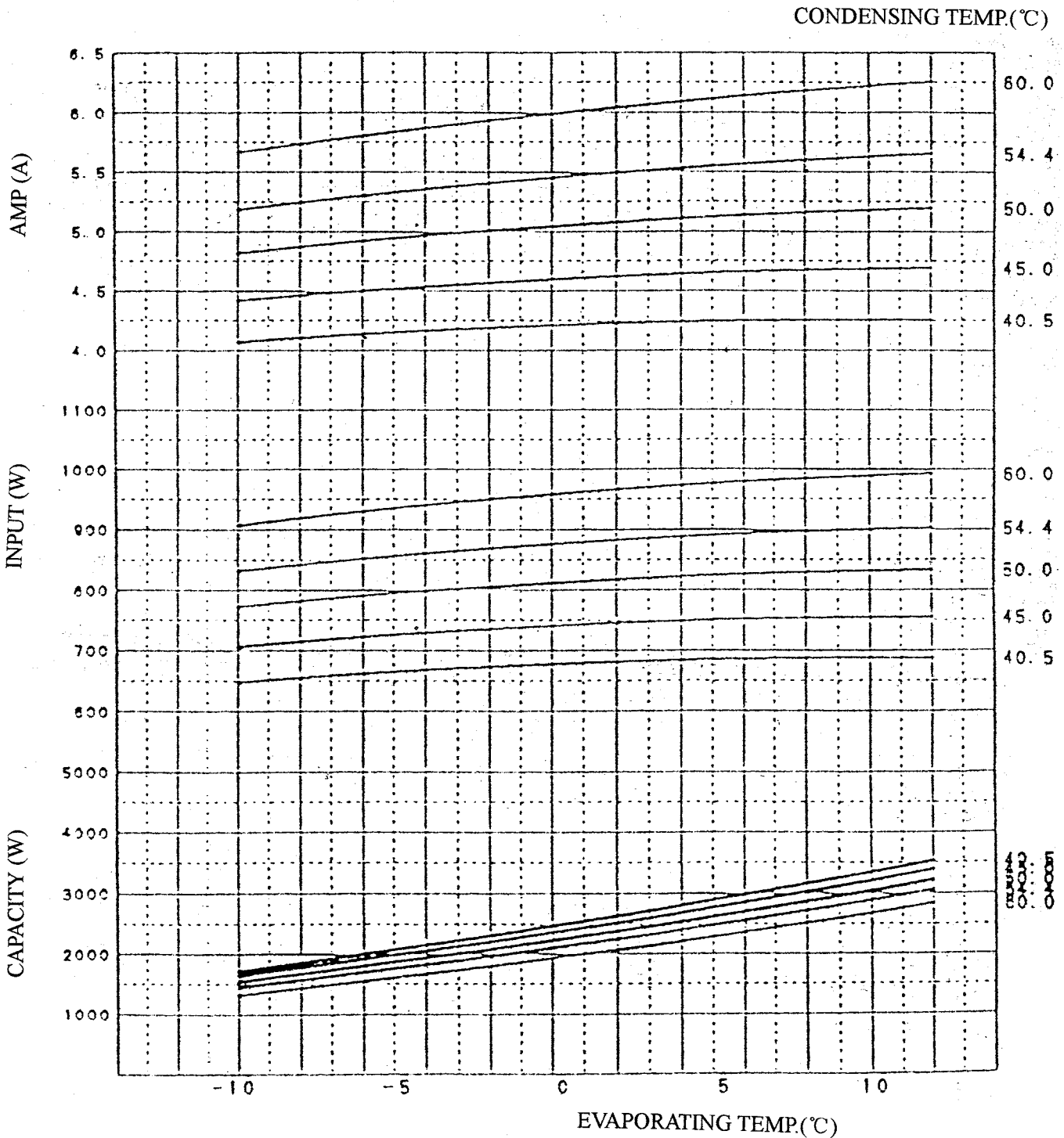


**B. Compressor curves of performance  
MODELS**

AS142AHAHA/AU142AEAHA (HSU-14H03 (B))

3-PH 60Hz 138V.

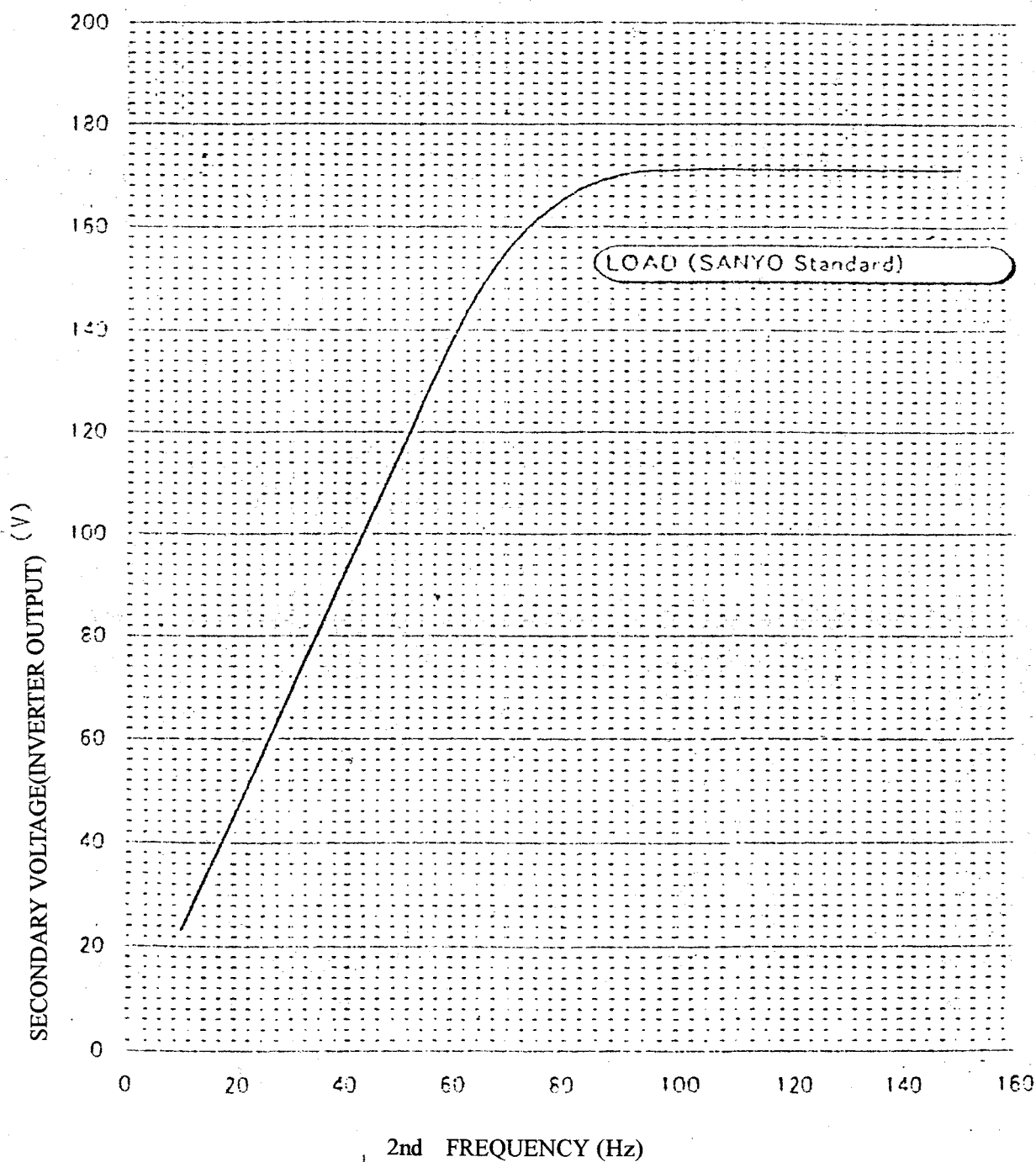
|                       |                     |      |      |      |      |
|-----------------------|---------------------|------|------|------|------|
| POWER                 | 40.5                | 45.0 | 50.0 | 51.4 | 60.0 |
| CONDENSING TEMP. °C   | 35.0                | 35.0 | 35.0 | 35.0 | 35.0 |
| SUCTION GAS TEMP. °C  | 32.2                | 36.7 | 41.7 | 46.1 | 51.7 |
| BEFORE CAPT. TEMP. °C | 35.0                | 35.0 | 35.0 | 35.0 | 35.0 |
| AMBIENT TEMP. °C      | 35.0                | 35.0 | 35.0 | 35.0 | 35.0 |
| CONDENSOR COOLING     | FAN COOLING(3m/sec) |      |      |      |      |
| REFRIGERANT TYPE      | R22                 |      |      |      |      |



**B、 Compressor curves of performance  
MODELS**

AS142AHAHA/AU142AEAHA (HSU-14H03 (B))

V/F CHARACTERISTICS



B. Compressor curves of performance

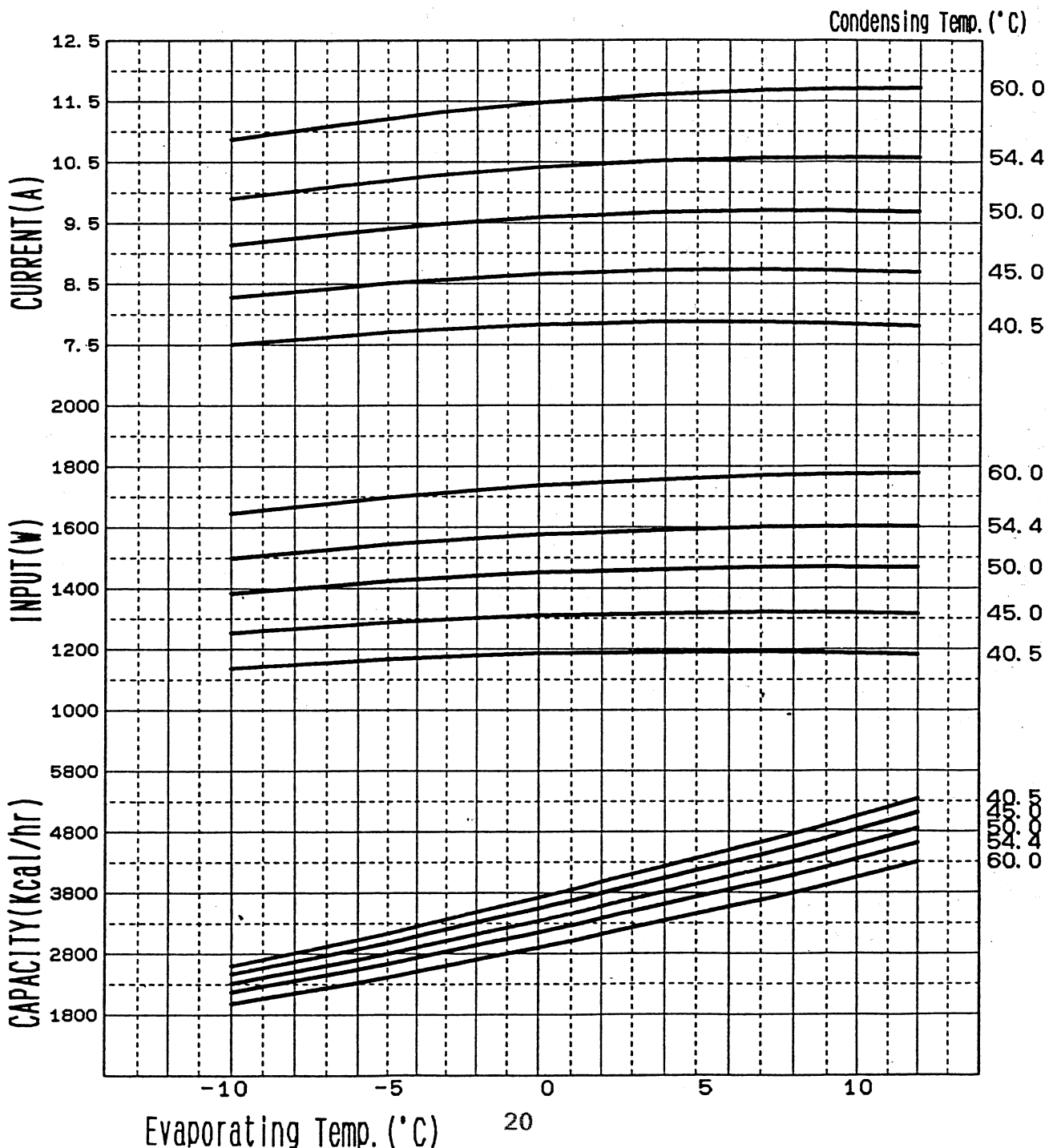
**MODELS** AS112BMA1A/AU182BFAHA (H2SM-18HA03 (B)) AS112BLA1A/AU182BFAHA (H2SM-18HB03 (B))

AS112BKAAH/AU182BFAHA (H2SM-18HD03 (B)) AS112BMAHA/AU182BFAHA (H2SM-18HY03 (B)) AS122BQAHA/AU212BGAHA (H2SM-21H03 (B))

AS112BMAJA+AS142BYAHA/AU212BGA1A (H2SM-21HA03 (B)) AS112BLAKA+AS142BVAHA/AU212BGA1A (H2SM-21HB03 (B))

|                        |                      |      |      |      |      |
|------------------------|----------------------|------|------|------|------|
| * POWER SOURCE         | 3 - PH 60 Hz 138 V   |      |      |      |      |
| CONDENSING TEMP. (°C)  | 40.5                 | 45.0 | 50.0 | 54.4 | 60.0 |
| SUCTION GAS TEMP. (°C) | 35.0                 | 35.0 | 35.0 | 35.0 | 35.0 |
| BEFORE CAPI TEMP. (°C) | 32.2                 | 36.7 | 41.7 | 46.1 | 51.7 |
| AMBIENT TEMP. (°C)     | 35.0                 | 35.0 | 35.0 | 35.0 | 35.0 |
| COMPRESSOR COOLING     | Fan Cooling(3m/sec.) |      |      |      |      |
| REFRIGERANT            | R22                  |      |      |      |      |

\* TESTED WITH COMMERCIAL POWER SUPPLY

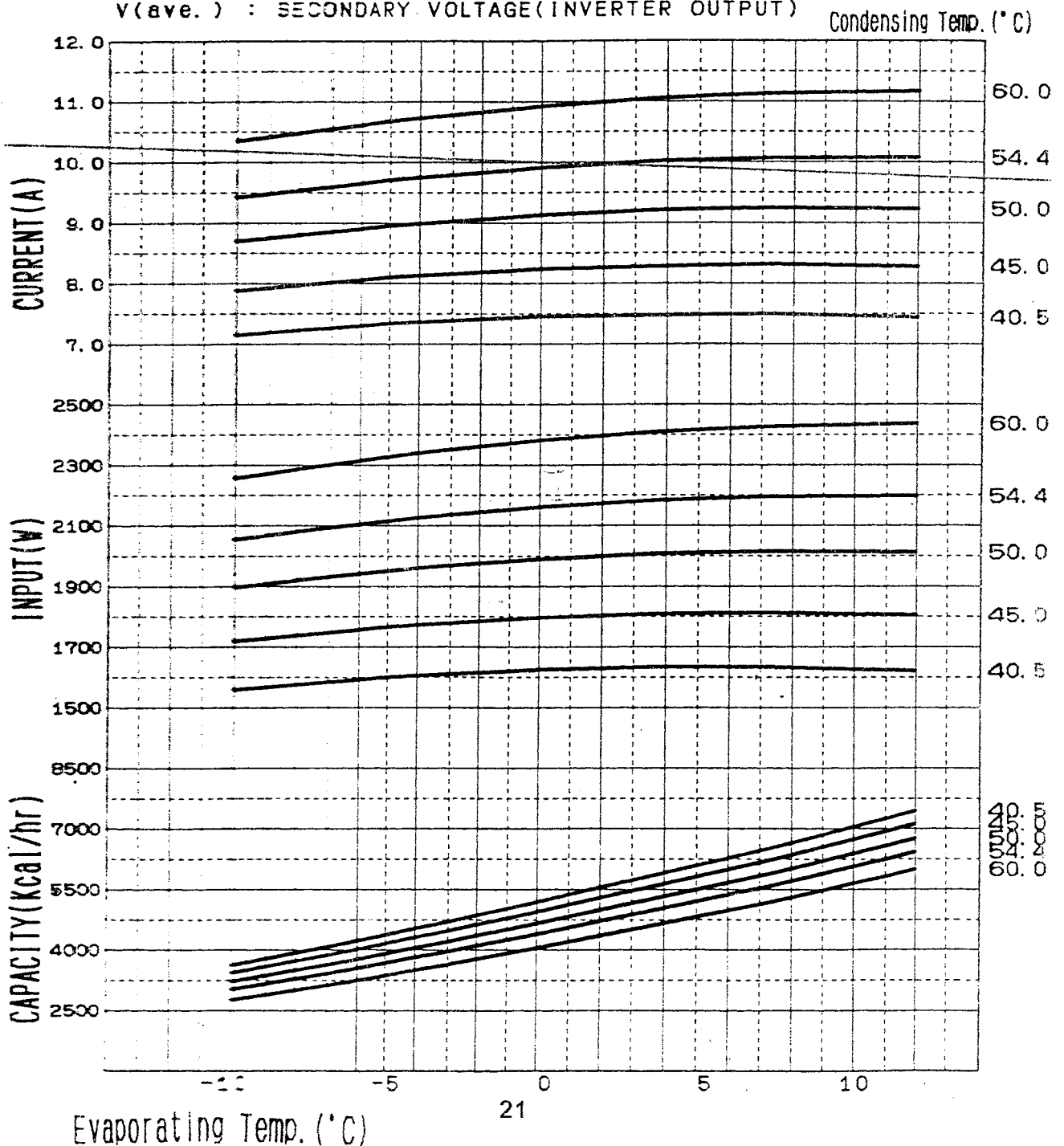


B. Compressor curves of performance

**MODELS** AS112BMA1A/AU182BFAHA (H2SM-18HA03 (B)) AS112BLA1A/AU182BFAHA (H2SM-18HB03 (B))  
 AS112BKAAH/AU182BFAHA (H2SM-18HD03 (B)) AS112BMAHA/AU182BFAHA (H2SM-18HY03 (B)) AS122BQAHA/AU212BGAAH (H2SM-21HO3 (B))  
 AS112BMAJA+AS142BYAHA/AU212BGATA (H2SM-21HA03 (B)) AS112BLAKA+AS142BVAHA/AU212BGATA (H2SM-21HB03 (B))

|                        |                          |      |      |      |      |
|------------------------|--------------------------|------|------|------|------|
| * POWER SOURCE         | 3 - PH 80Hz 173 V(ave. ) |      |      |      |      |
| CONDENSING TEMP. (°C)  | 40.5                     | 45.0 | 50.0 | 54.4 | 60.0 |
| SUCTION GAS TEMP. (°C) | 35.0                     | 35.0 | 35.0 | 35.0 | 35.0 |
| BEFORE CAP1 TEMP. (°C) | 32.2                     | 36.7 | 41.7 | 46.1 | 51.7 |
| AMBIENT TEMP. (°C)     | 35.0                     | 35.0 | 35.0 | 35.0 | 35.0 |
| COMPRESSOR COOLING     | Fan Cooling(3m/sec. )    |      |      |      |      |
| REFRIGERANT            | R22                      |      |      |      |      |

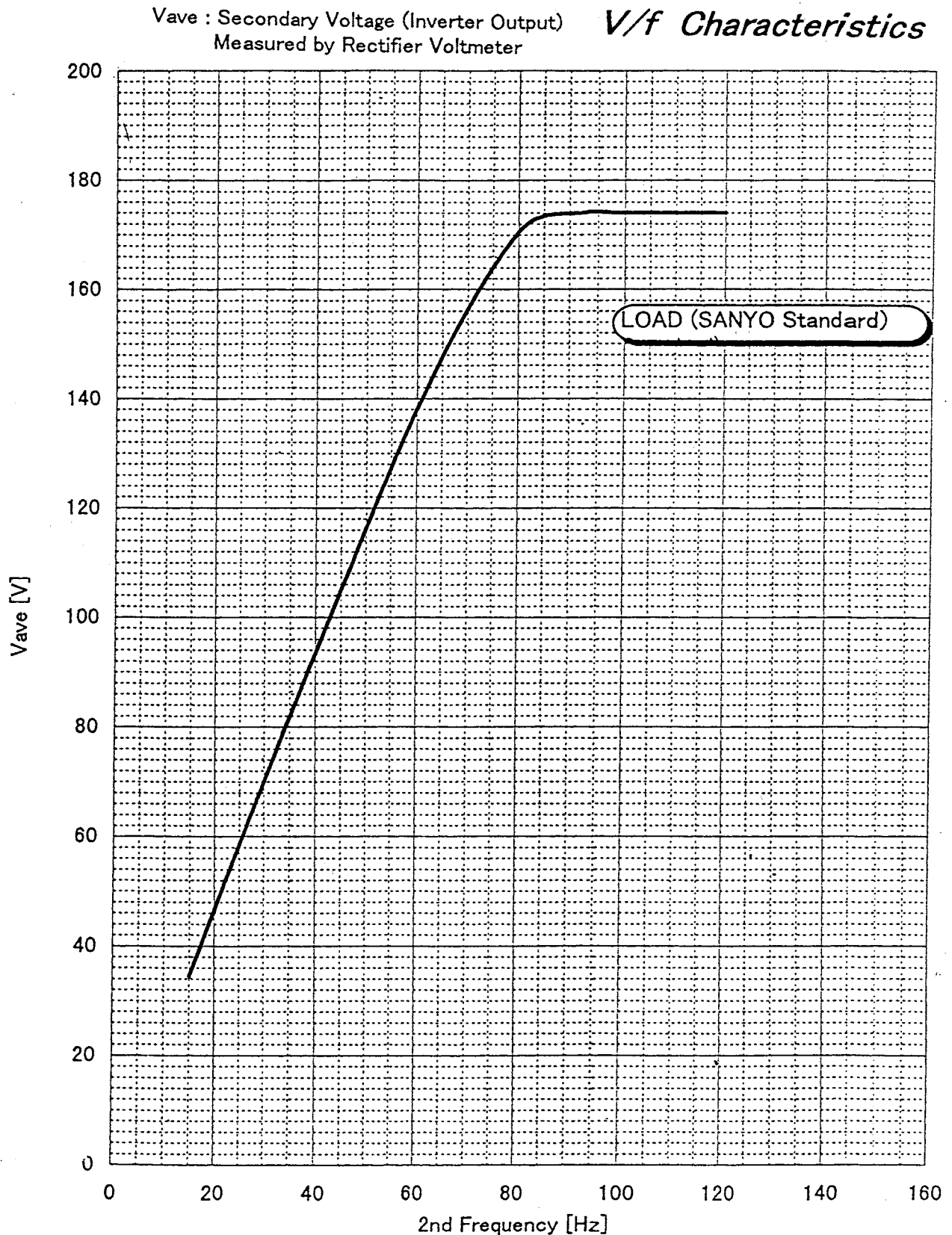
\* TESTED WITH SANYO INVERTER CIRCUIT  
 V(ave. ) : SECONDARY VOLTAGE(INVERTER OUTPUT)



## B. Compressor curves of performance

### MODELS

AS112BMAIA/AU182BFAHA (H2SM-18HA03 (B)) AS112BLAIA/AU182BFAHA (H2SM-18HB03 (B))  
 AS112BKAHA/AU182BFAHA (H2SM-18HD03 (B)) AS112BMAHA/AU182BFAHA (H2SM-18HY03 (B)) AS122BQAHA/AU212BGAHA (H2SM-21H03 (B))  
 AS112BMAJA+AS142BYAHA/AU212BGAIA (H2SM-21HA03 (B)) AS112BLAKA+AS142BVAHA/AU212BGAIA (H2SM-21HB03 (B))



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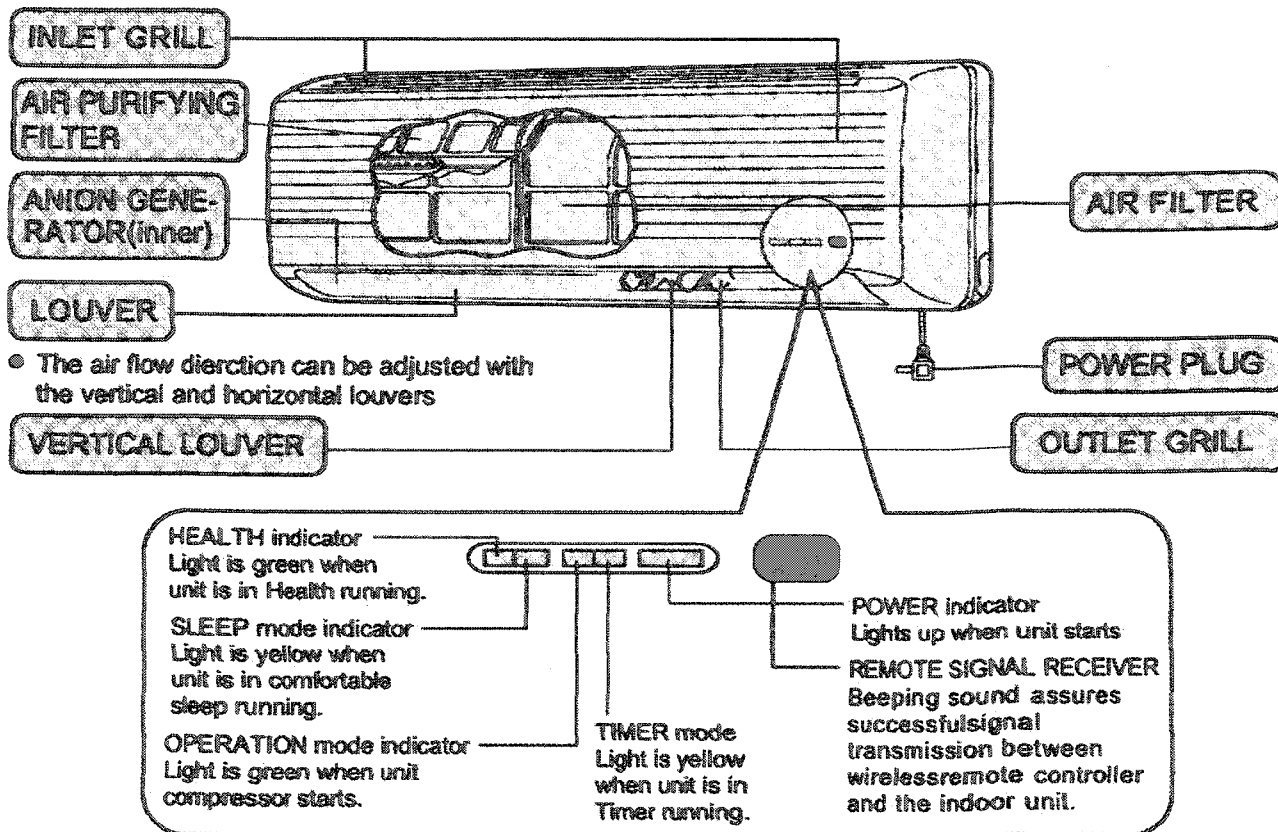
**DESCRIPTION, DIMENSION  
& FUNCTION OF MAIN  
COMPONENTS AND ACCESSORIES**



Description and function of main components and accessories

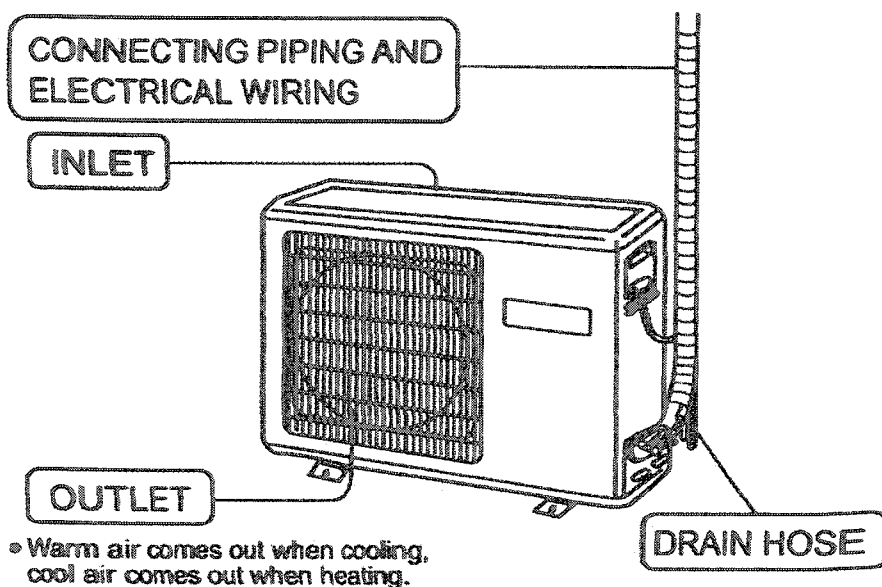
## Indoor Unit

For model: AS142AHAHA (HSU-14H03(B))

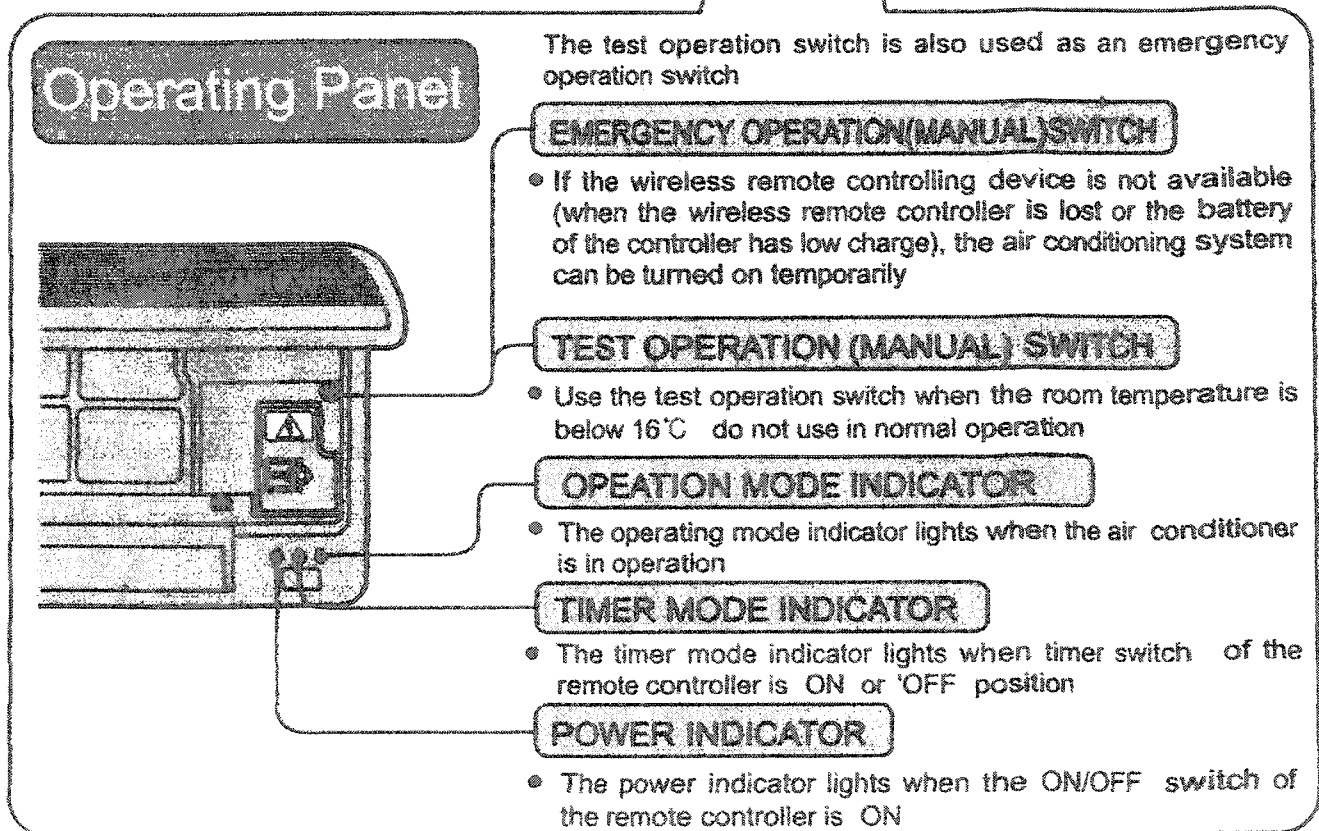
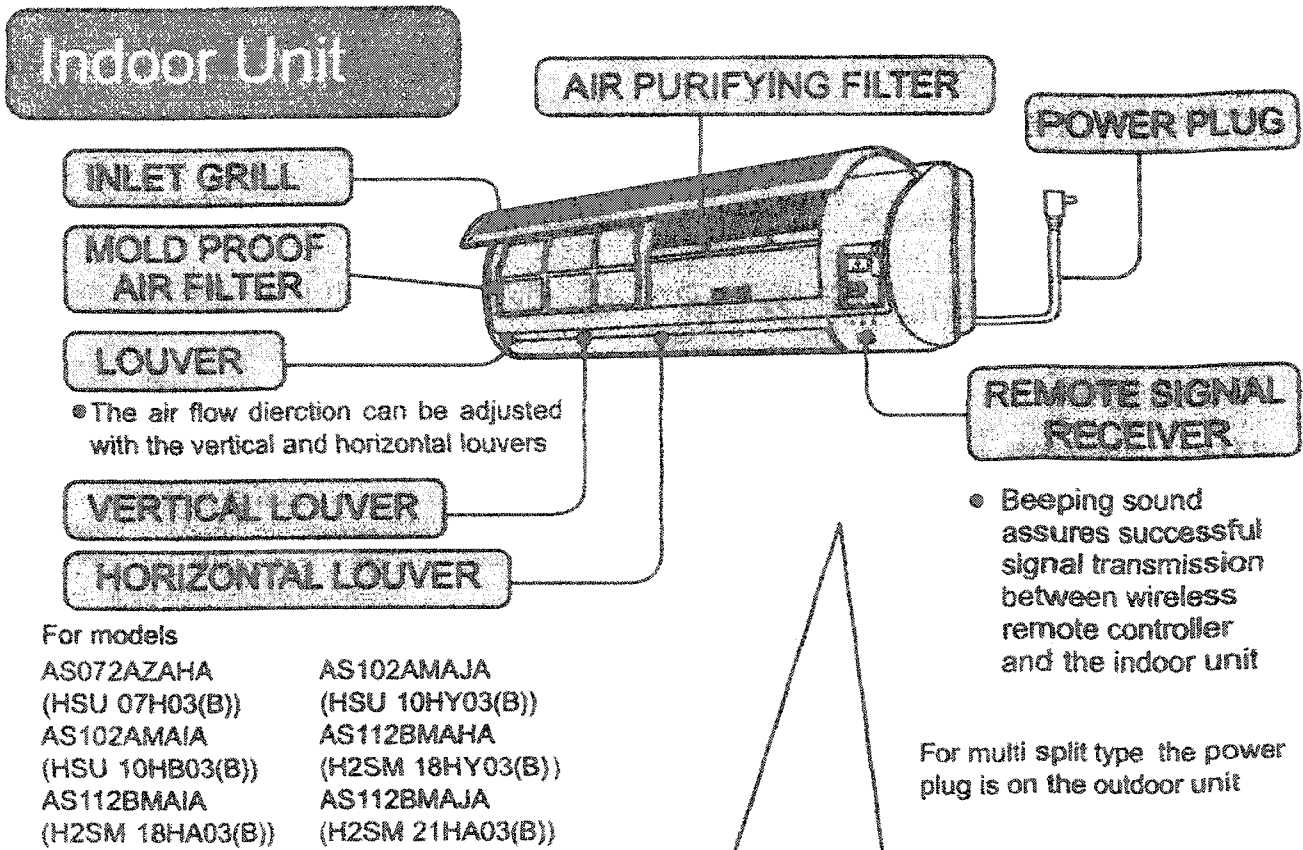


## Outdoor Unit

For model: AU142AEAHA (HSU-14H03(B))

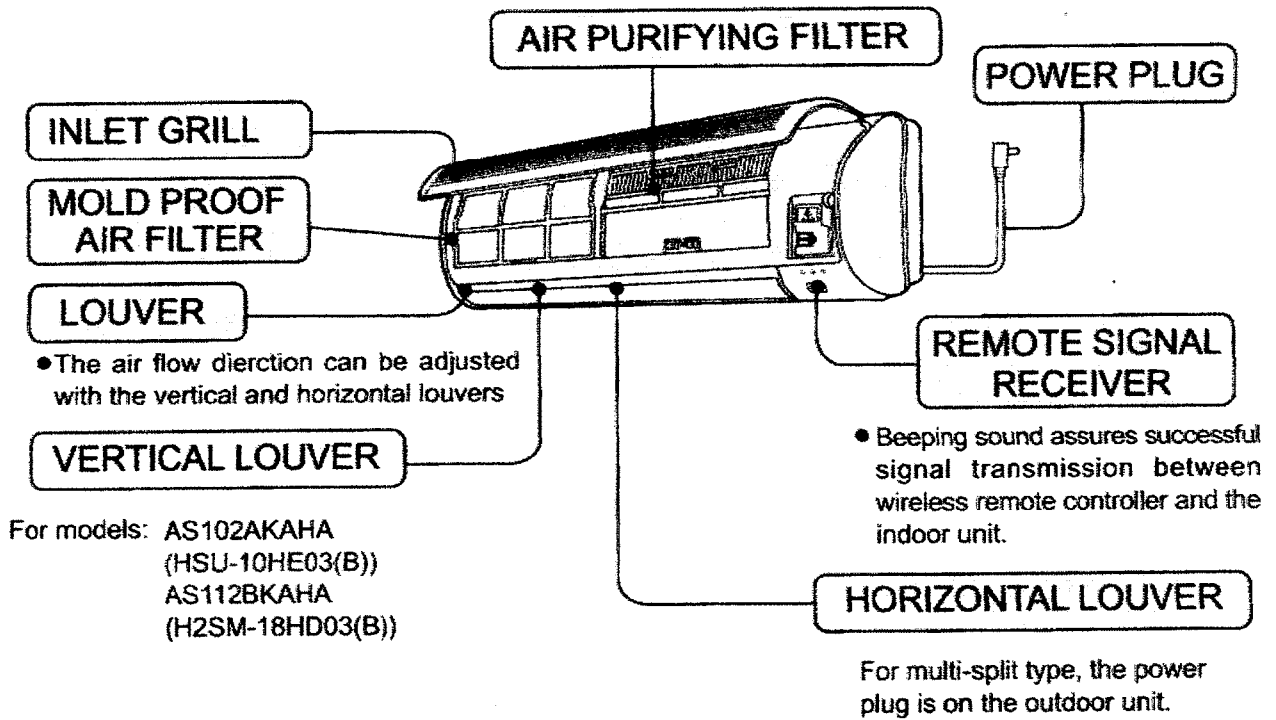
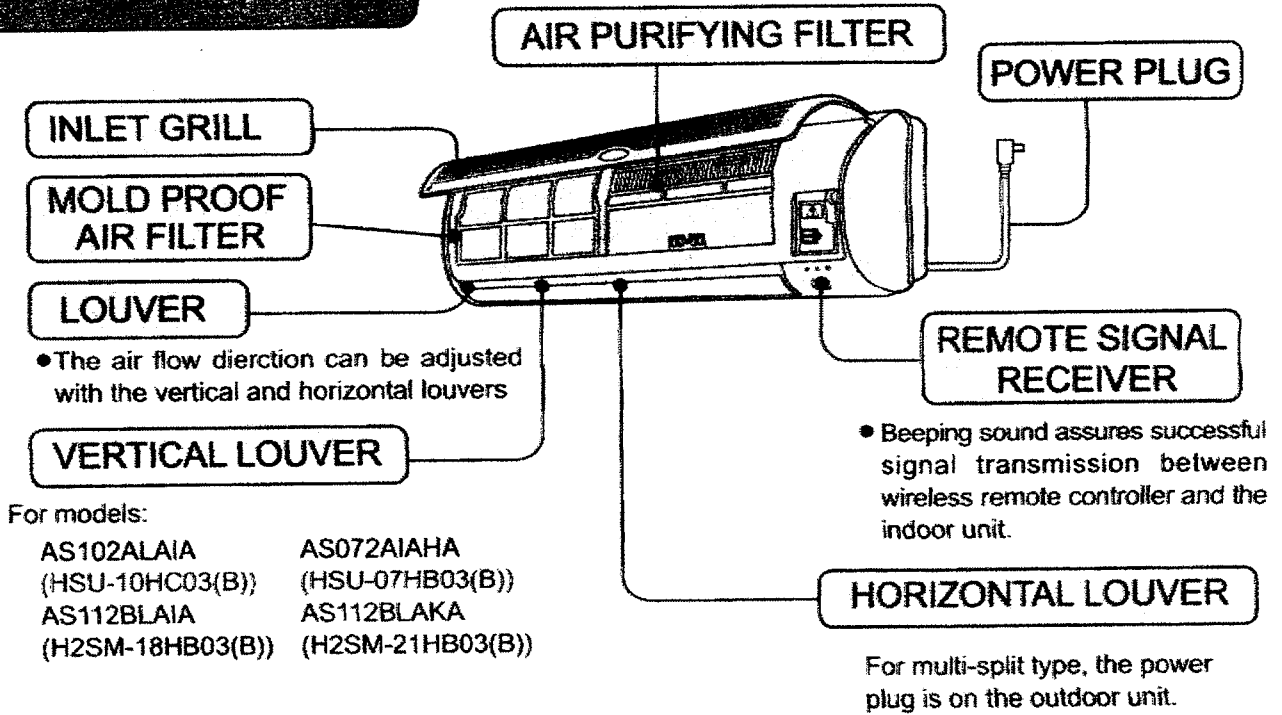


Description and function of main components and accessories

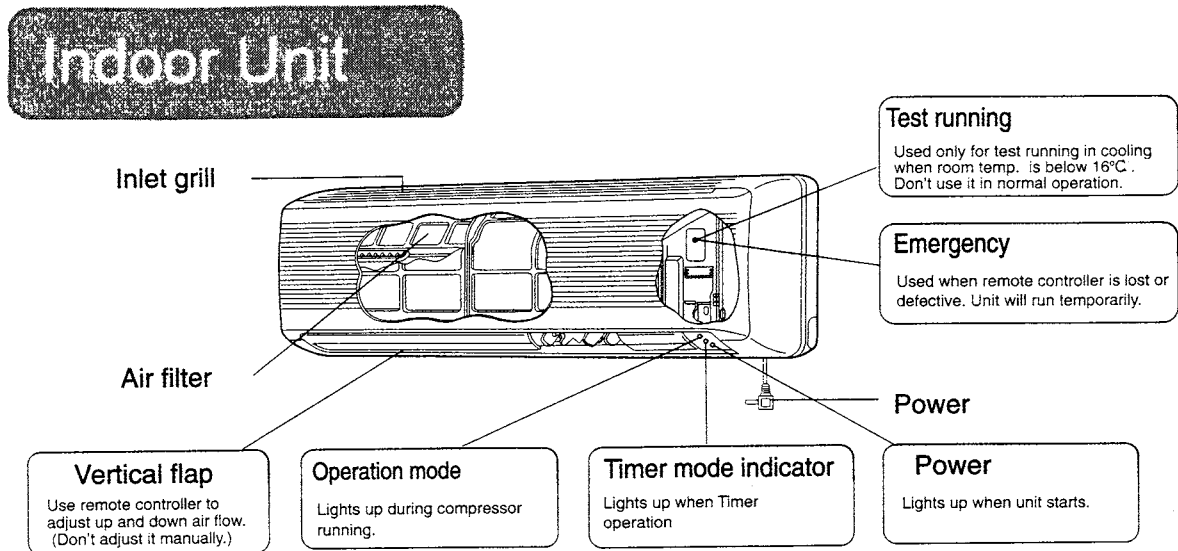


Description and function of main components and accessories

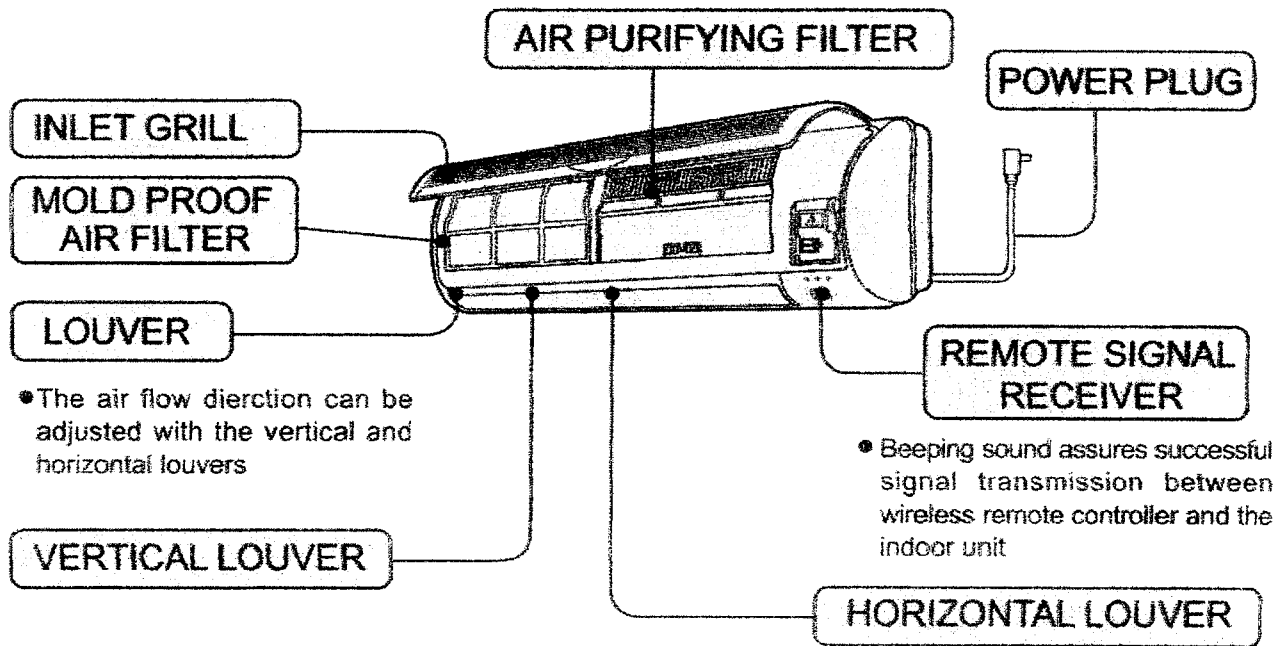
# Indoor Unit



Description and function of main components and accessories



For models AS122BQAHA  
(H2SM 21H03(B))



For models AS142BYAHA  
(H2SM 21HA03(B))

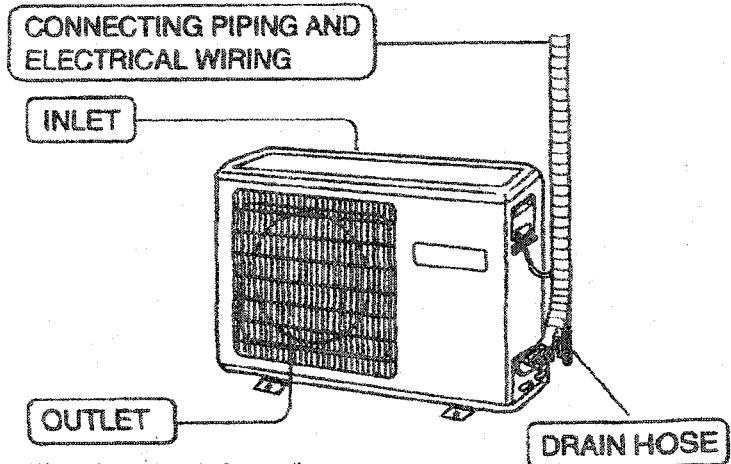
For multi split type the power plug is on the outdoor unit

Description and function of main components and accessories

# Outdoor Unit

For models:

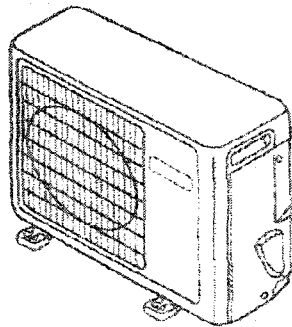
AU122AEAIA  
AU122AEAHA  
(HSU-12HC03(B))  
(HSU-12HA03(B))  
(HSU-12HE03(B))  
(HSU-12HB03(B))  
(HSU-12HY03(B))  
(HSU-12HD03(B))



\* Warm air comes out when cooling,  
cool air comes out when heating.

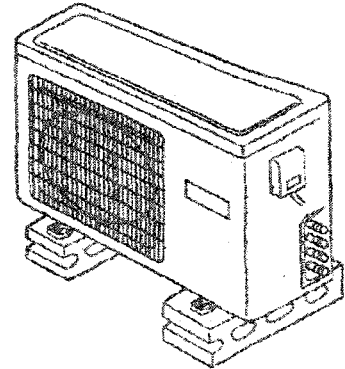
For models:

AU102ACAHA  
(HSU-10HE03(B))  
(HSU-10HC03(B))  
(HSU-10HB03(B))  
(HSU-10HY03(B))  
AU072ACAHA  
(HSU-07H03(B))  
AU072ACAHA  
(HSU-07HB03(B))



For models:

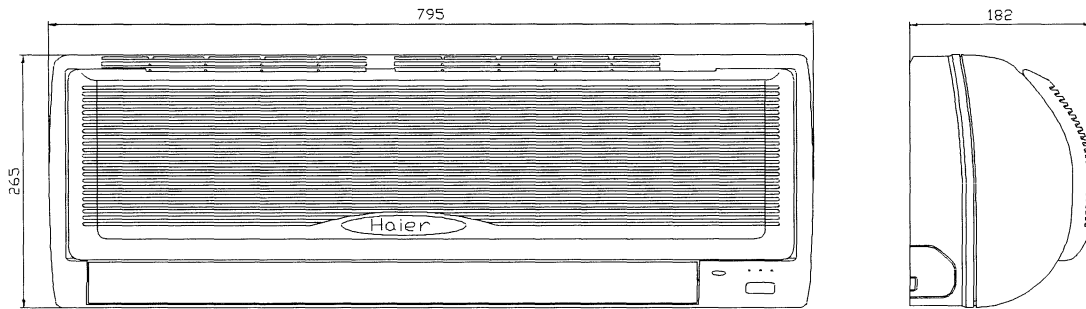
AU182BFAHA  
(H2SM-18HD03(B))  
(H2SM-18HA03(B))  
(H2SM-18HB03(B))  
(H2SM-18HY03(B))  
AU212BGAHA  
(H2SM-21H03(B))  
AU212BGAIA  
(H2SM-21HA03(B))  
AU212BGAIA  
(H2SM-21HB03(B))



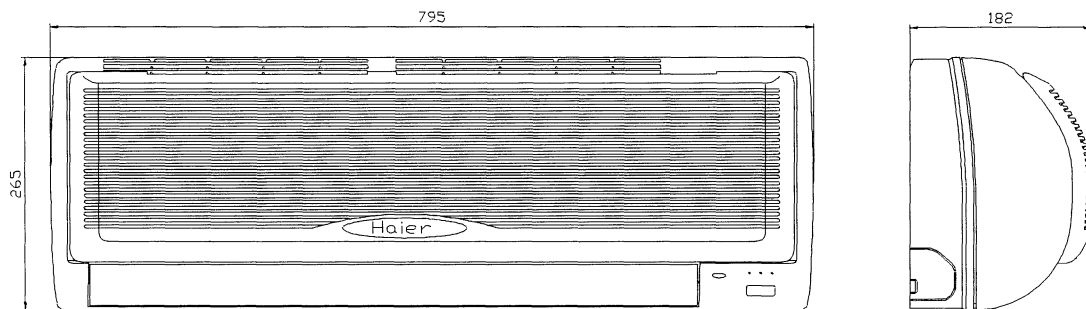
## Description, dimension and function of main components and accessories

### NET DIMENSIONS FOR INDOOR UNIT

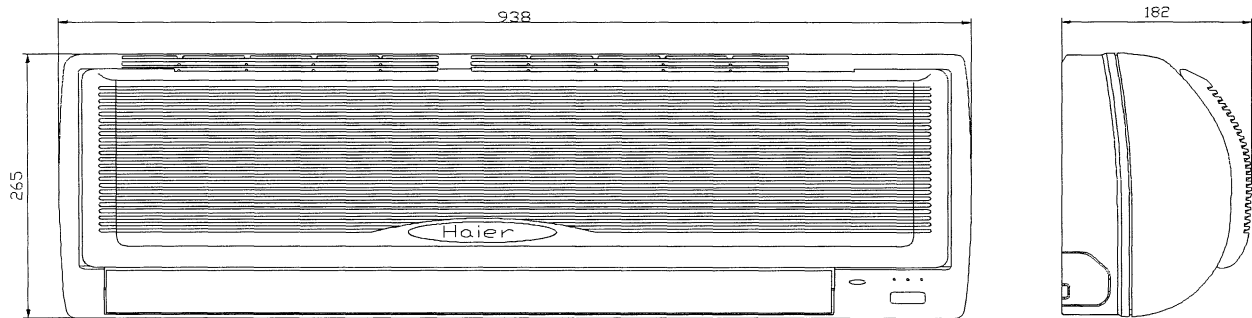
**Models:** AS072AIAHA(HSU-07HB03(B)) AS112BLAKA(H2SM-21HB03(B))  
AS102ALAIA(HSU-10HC03(B)) AS102AMAJA(HSU-10HY03(B))  
AS112BLAIA(H2SM-18HB03(B)) AS112BMAHA(H2SM-18HY03(B))



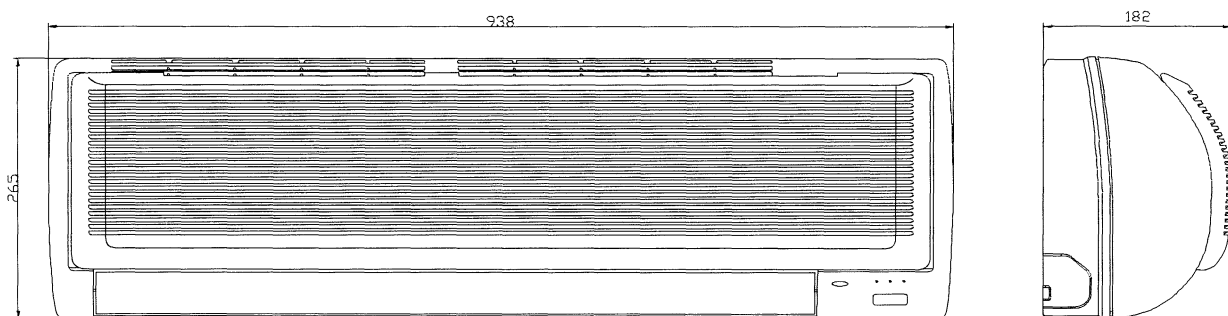
**Models:** AS072AZAHA(HSU-07H03(B)) AS112BMAJA(H2SM-21HA03(B))  
AS102AMAIA(HSU-10HB03(B)) AS102AKAHA(HSU-10HE03(B))  
AS112BMAIA(H2SM-18HA03(B)) AS112BKAHA(H2SM-18HD03(B))



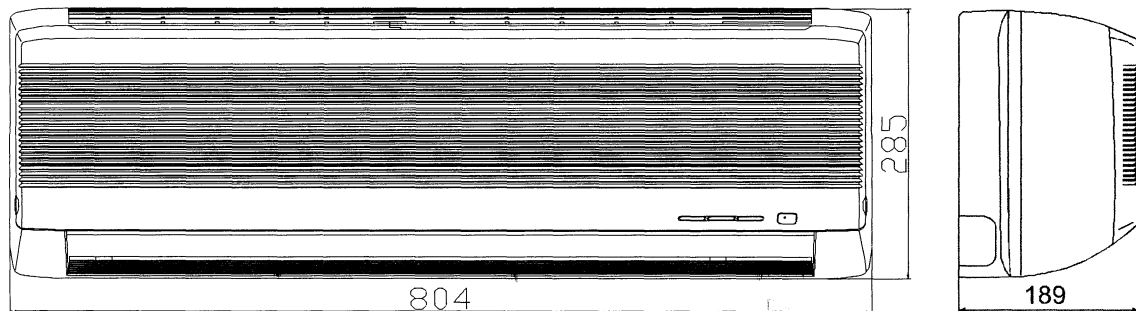
**MODELS:** AS142BVAHA(H2SM-21HB03(B))



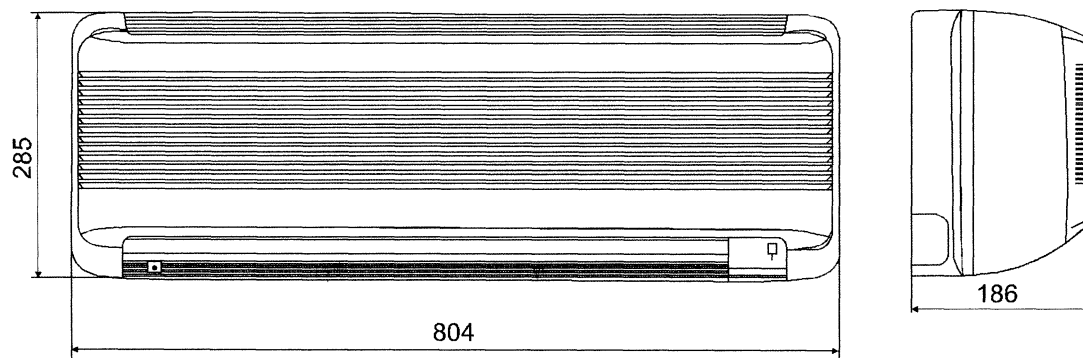
**Models:** AS142BYAHA(H2SM-21HA03(B))



**NET DIMENSIONS FOR INDOOR UNITS:  
MODELS: AS142AHAHA(HSU-14H03(B))**



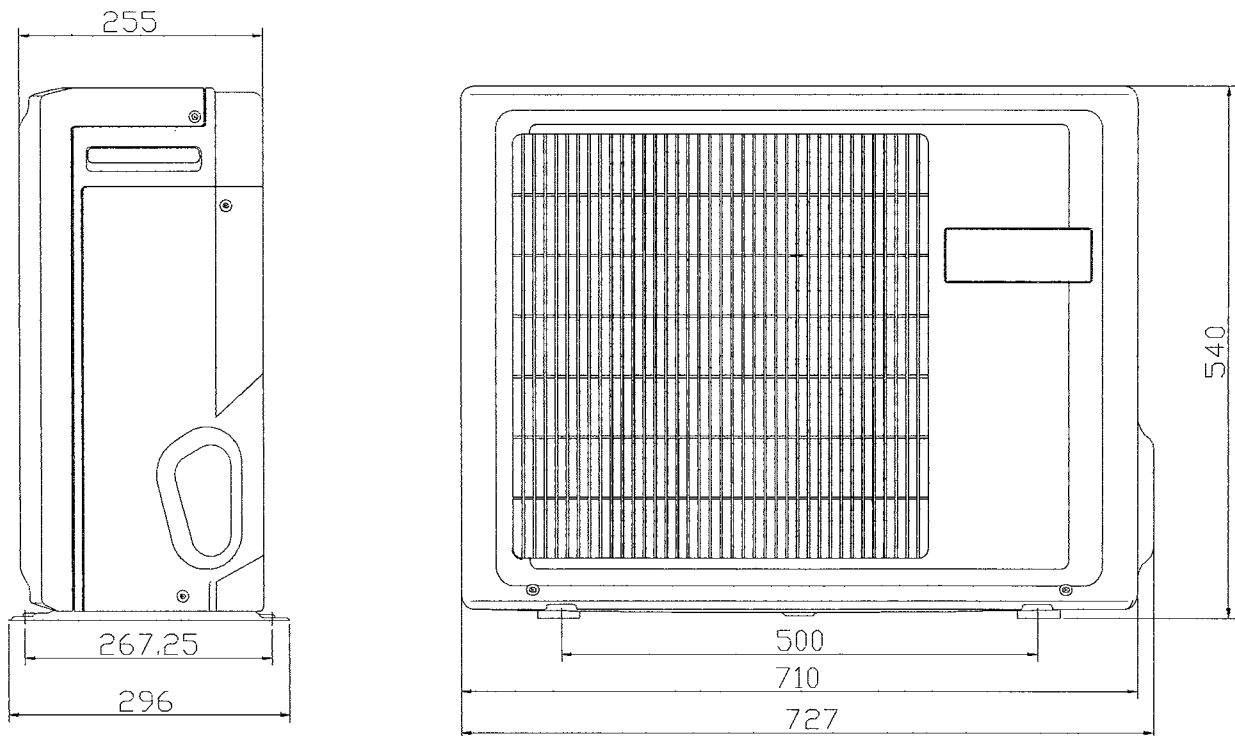
**MODELS: AS122BQAHA(H2SM-21H03(B))**



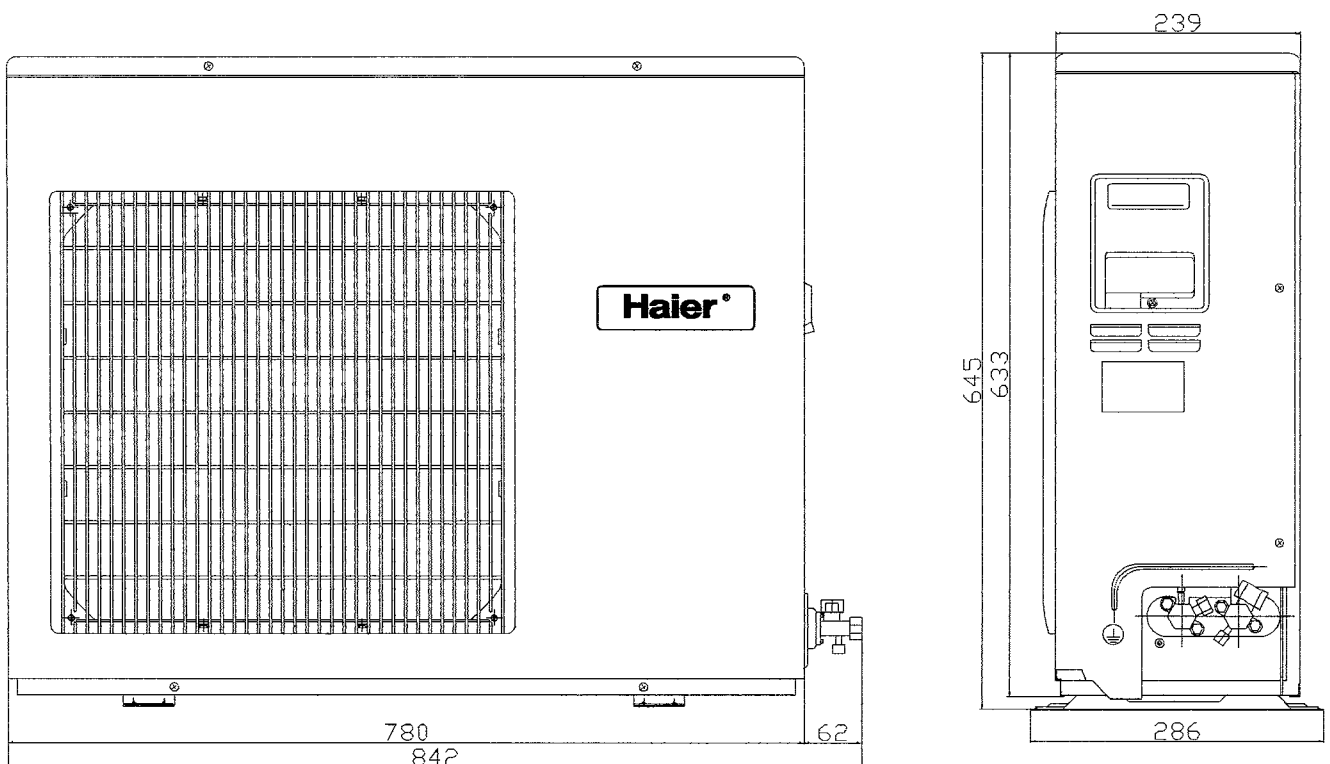
**NET DIMENSIONS FOR OUTDOOR UNITS:**

**Models: AU072ACAHA (HSU-07H03(B) HSU-07HA03(B))**

**AU102ACAHA(HSU-10HB03(B)、HSU-10HC03(B)、HSU-10HE03(B)、HSU-10HY03(B))**



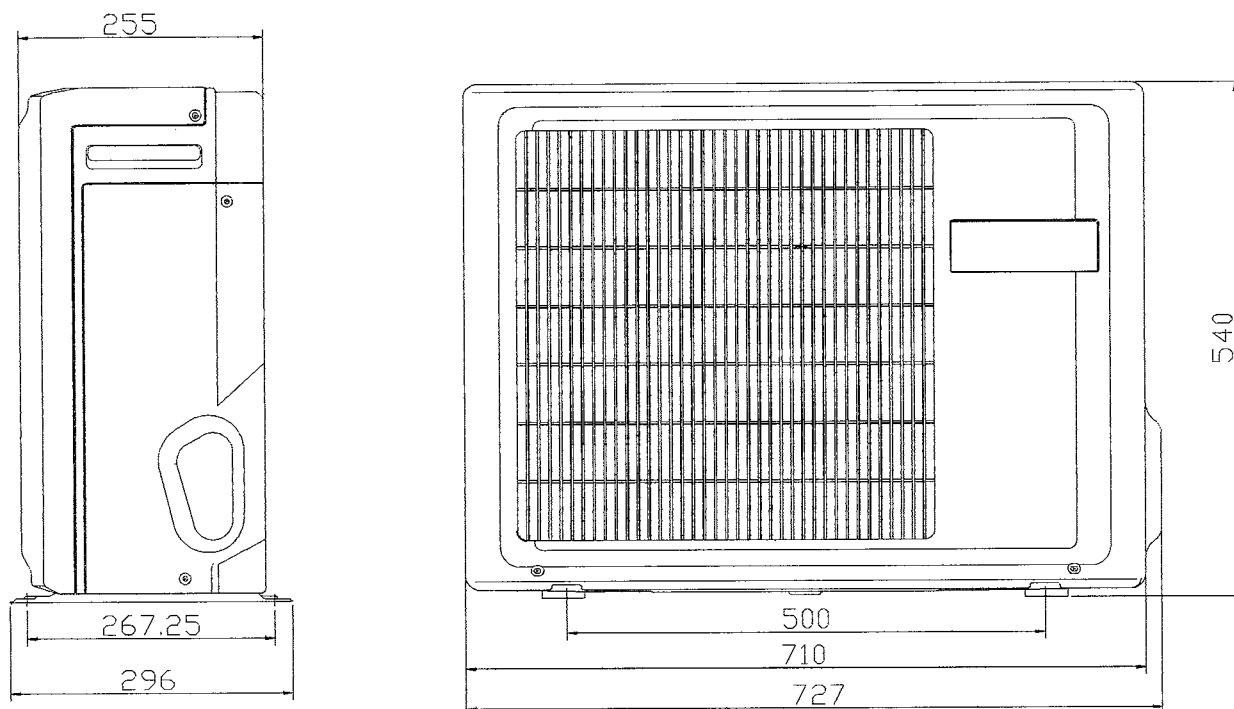
**Models: AU142AEAHA (HSU-14H03(B))**



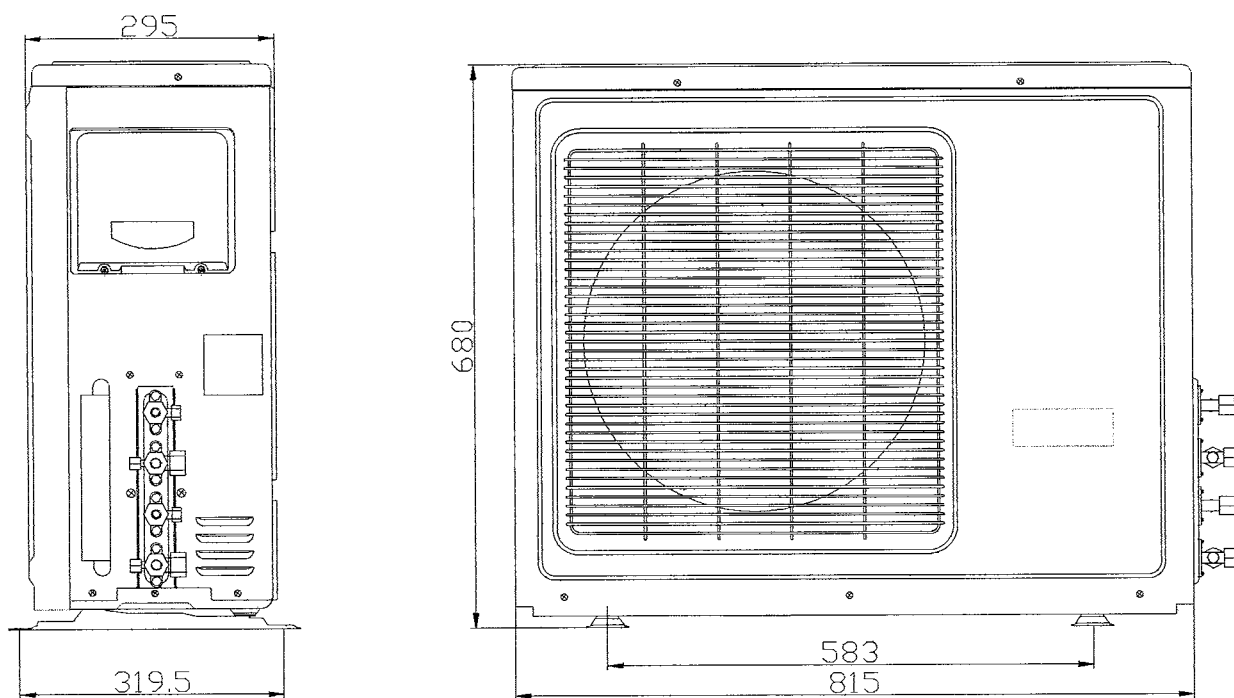


**NET DIMENSIONS FOR OUTDOOR UNITS:**

**Models:** AU102ACARA(HSU-10H03(DB)、HSU-10HA03(DB))  
AU122ACARA(HSU-12H03(DB)、HSU-12HA03(DB))

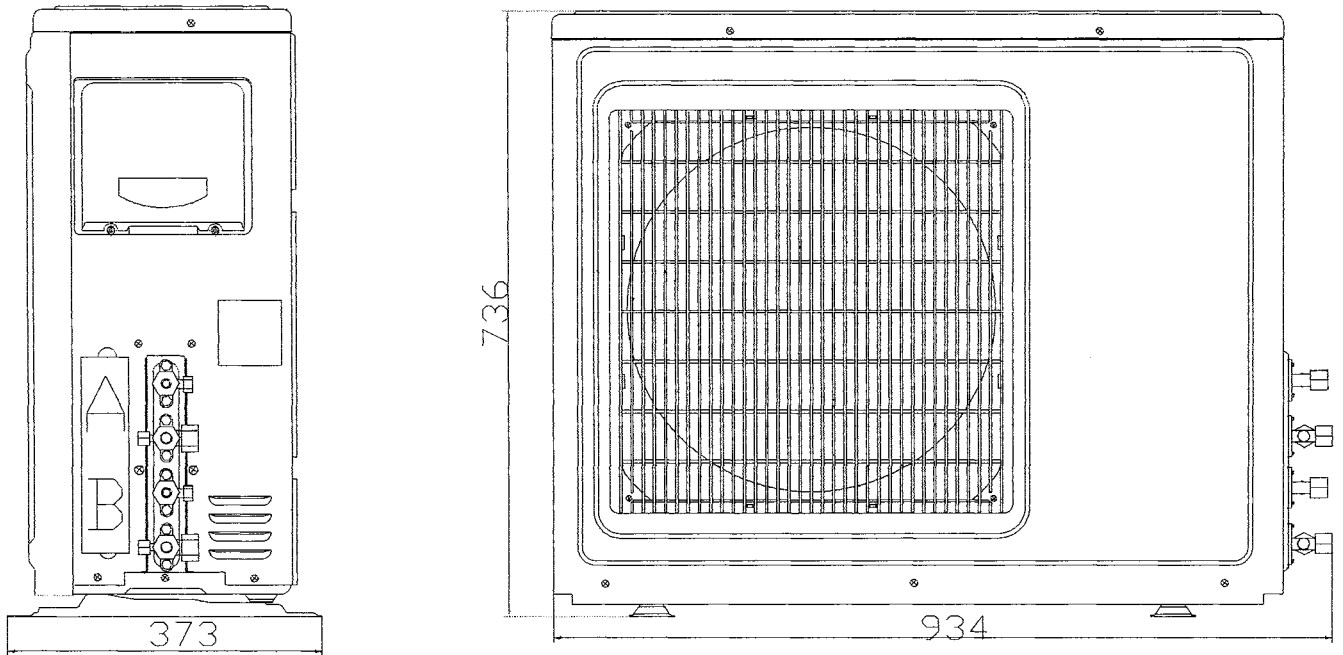


**Models:** AU182BFAHA(H2SM-18HA03(B)、H2SM-18HB03(B)、H2SM-18HD03(B)、H2SM-18HY03(B))



**NET DIMENSIONS FOR OUTDOOR UNITS:**

MODELS: AU212BGAHA (H2SM-21H03 (B))  
AU212BGAIA (H2SM-21HA03 (B)、H2SM-21HB03 (B))

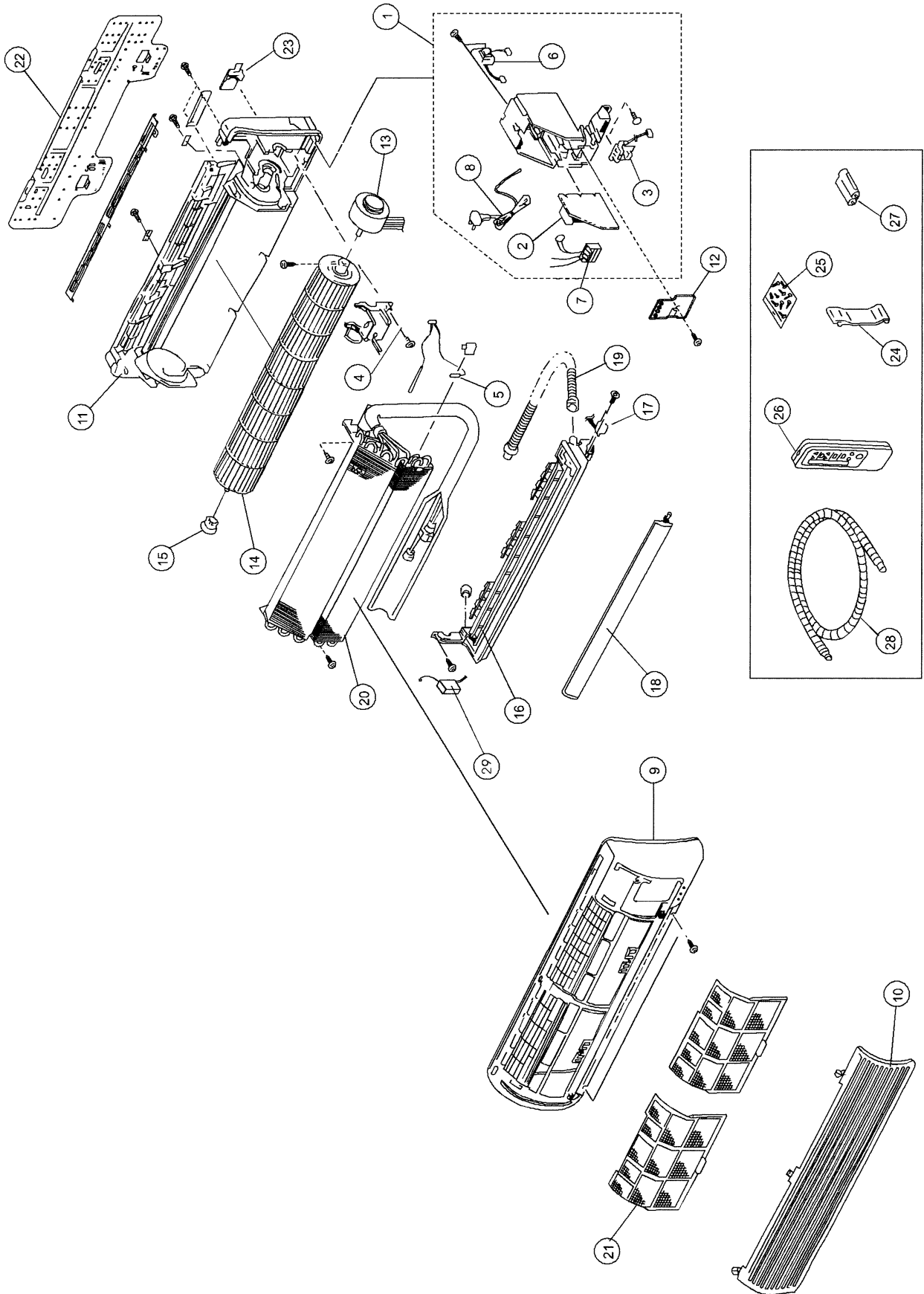


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# **KNOCK-DOWN DRAWINGS**

**Knock-down drawings for indoor unit:**

**MODELS:** AS072AZAHA(HSU-07H03(B)) AS112BMAJA(H2SM-21HA03(B)) AS102AMAIA(HSU-10HB03(B))  
 AS102AKAHA(HSU-10HE03(B)) AS112BMAIA(H2SM-18HA03(B)) AS112BKAHA(H2SM-18HD03(B))

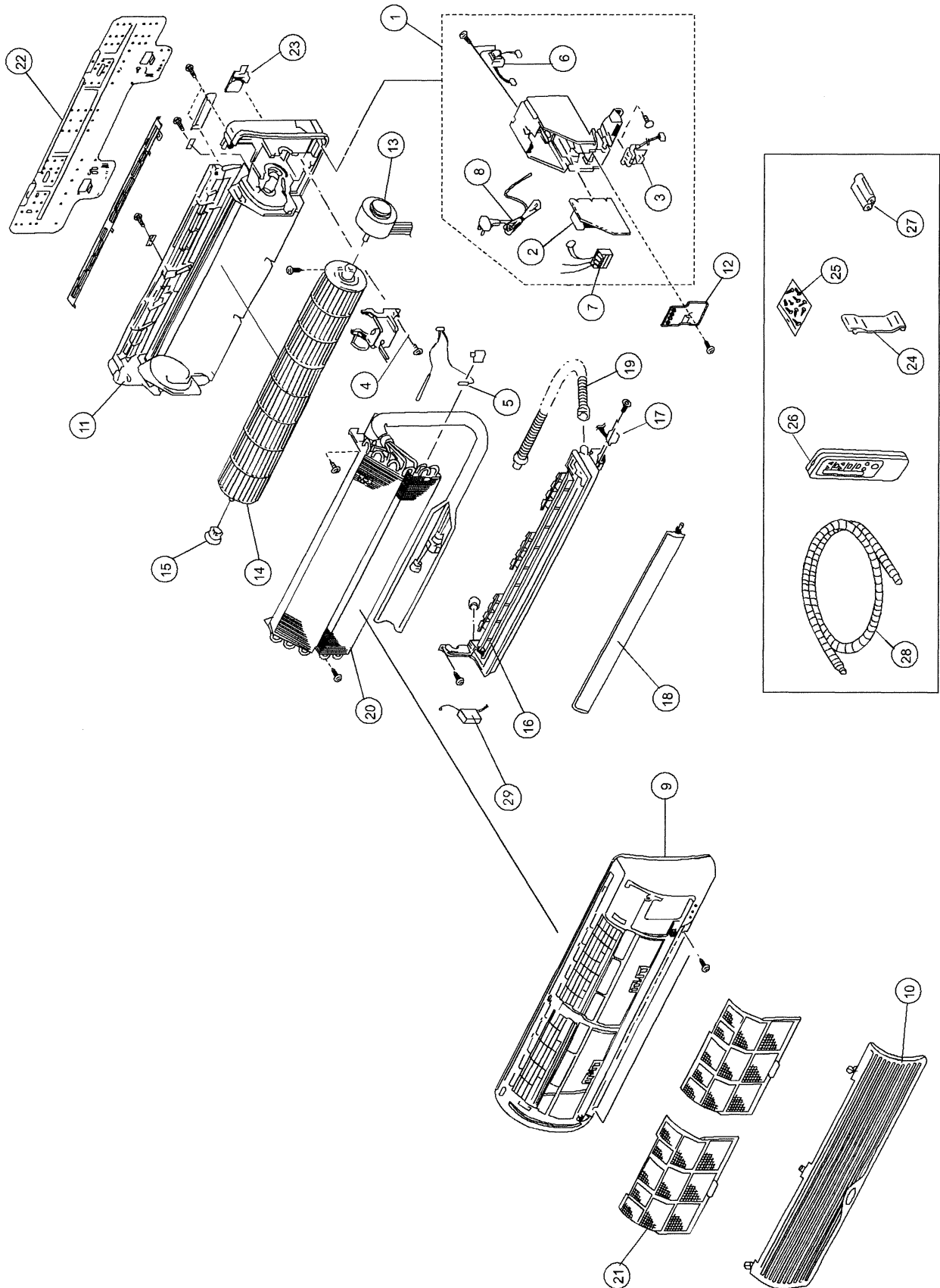


**Knock-down drawings for indoor unit:**

**MODELS:** AS072AIAHA(HSU-07HB03(B))  
AS112BLAIA(H2SM-18HB03(B))

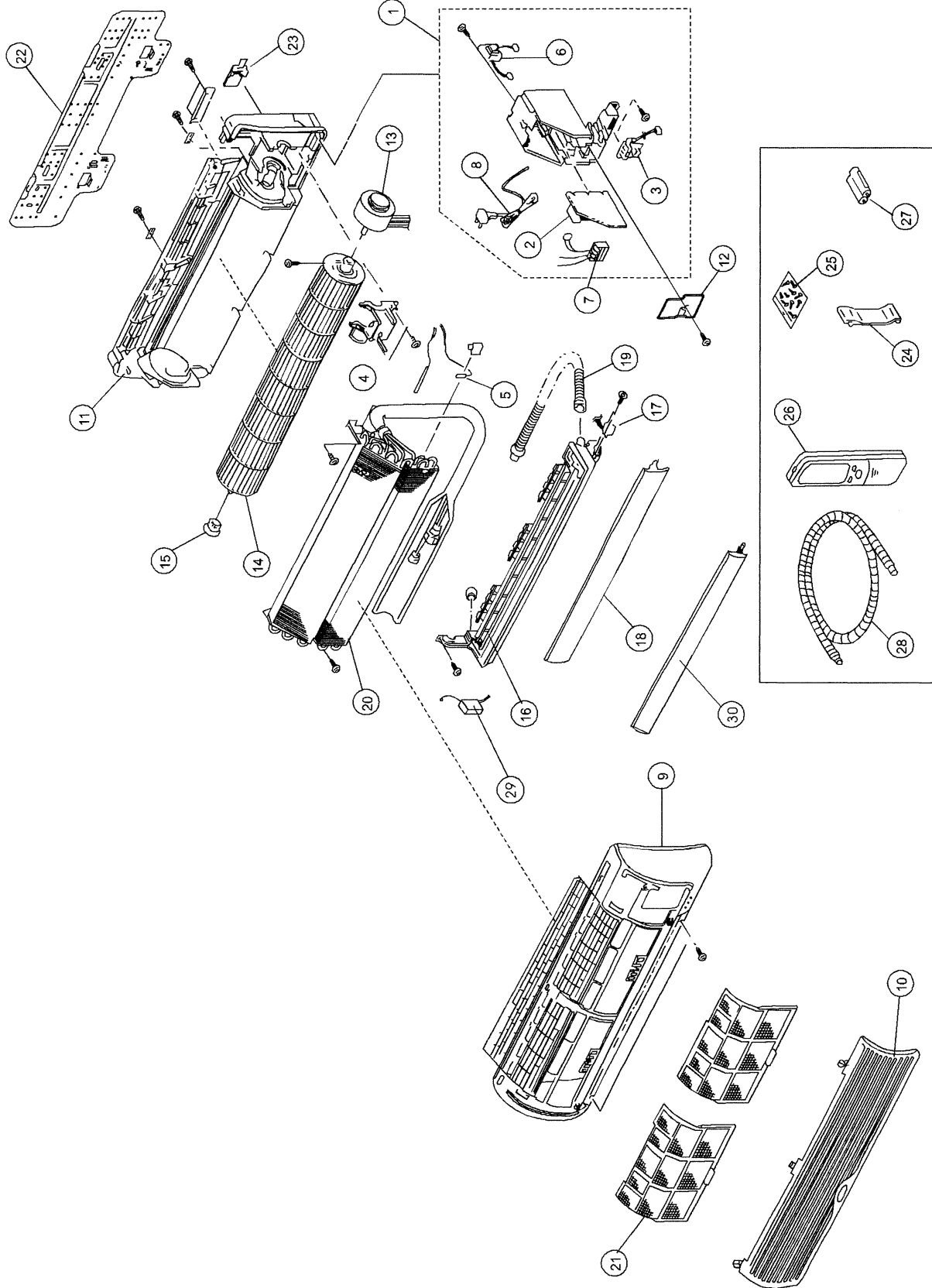
AS102ALAIA(HSU-10HC03(B))  
AS112BMAHA(H2SM-18HY03(B))

AS102AMAJA(HSU-10HY03(B))  
AS112BLAKA(H2SM-21HB03(B))

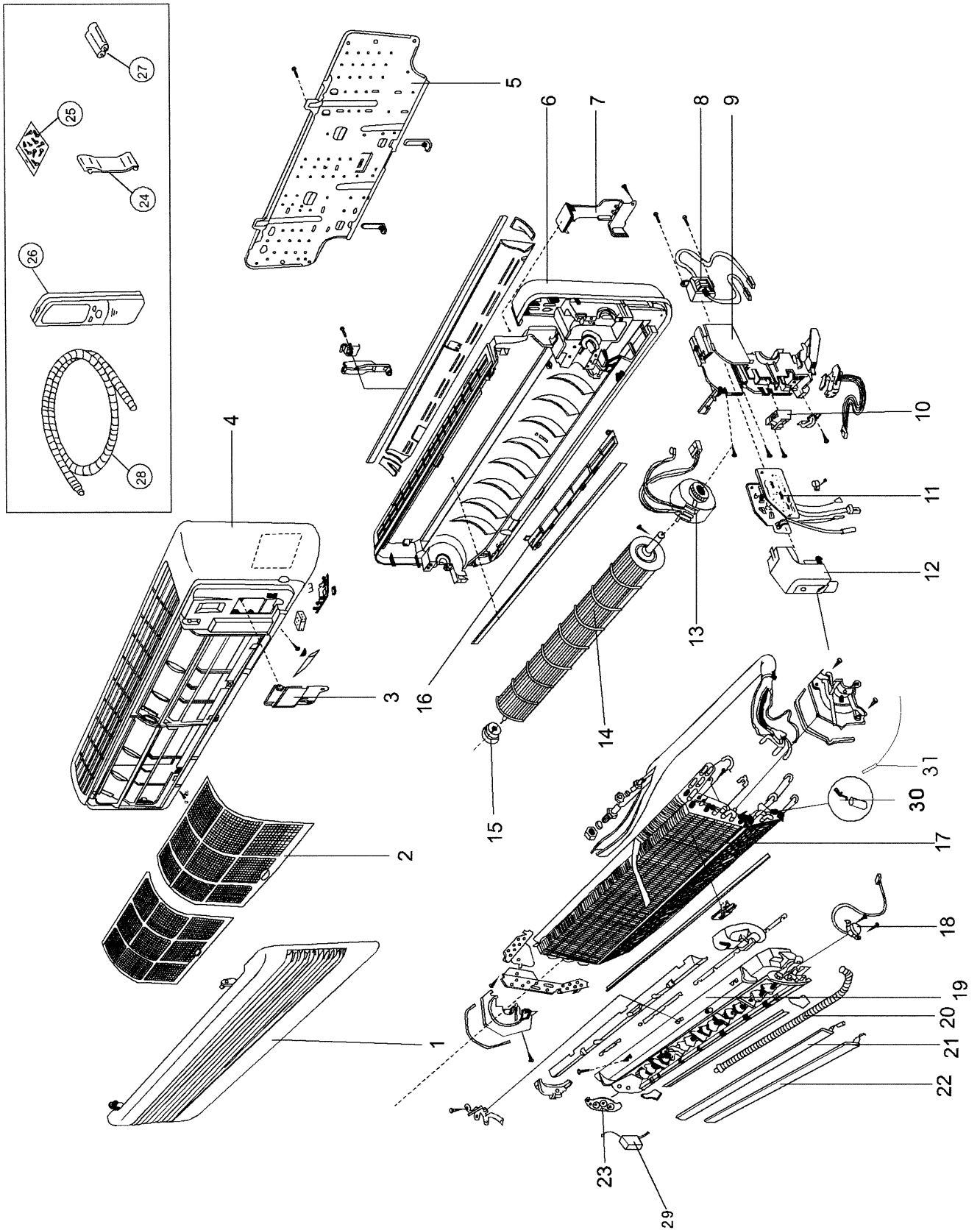


**Knock-down drawings for indoor unit:**

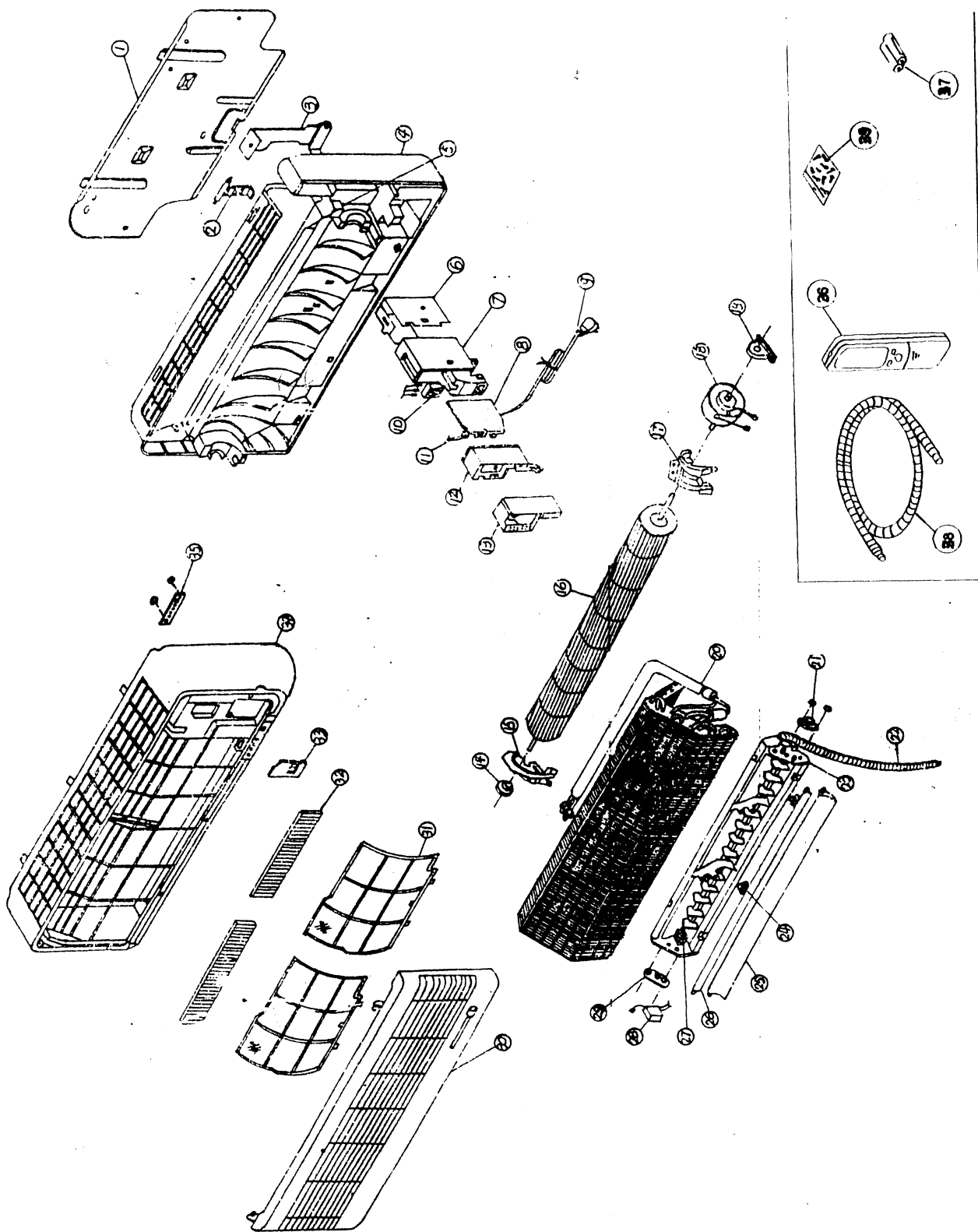
**MODELS:** AS142BYAHA(H2SM-21HA03(B)) AS142BVAHA(H2SM-21HB03(B))



**Knock-down drawings for indoor unit:**  
**MODEL:** AS122BQAHA(H2SM-21H03(B))



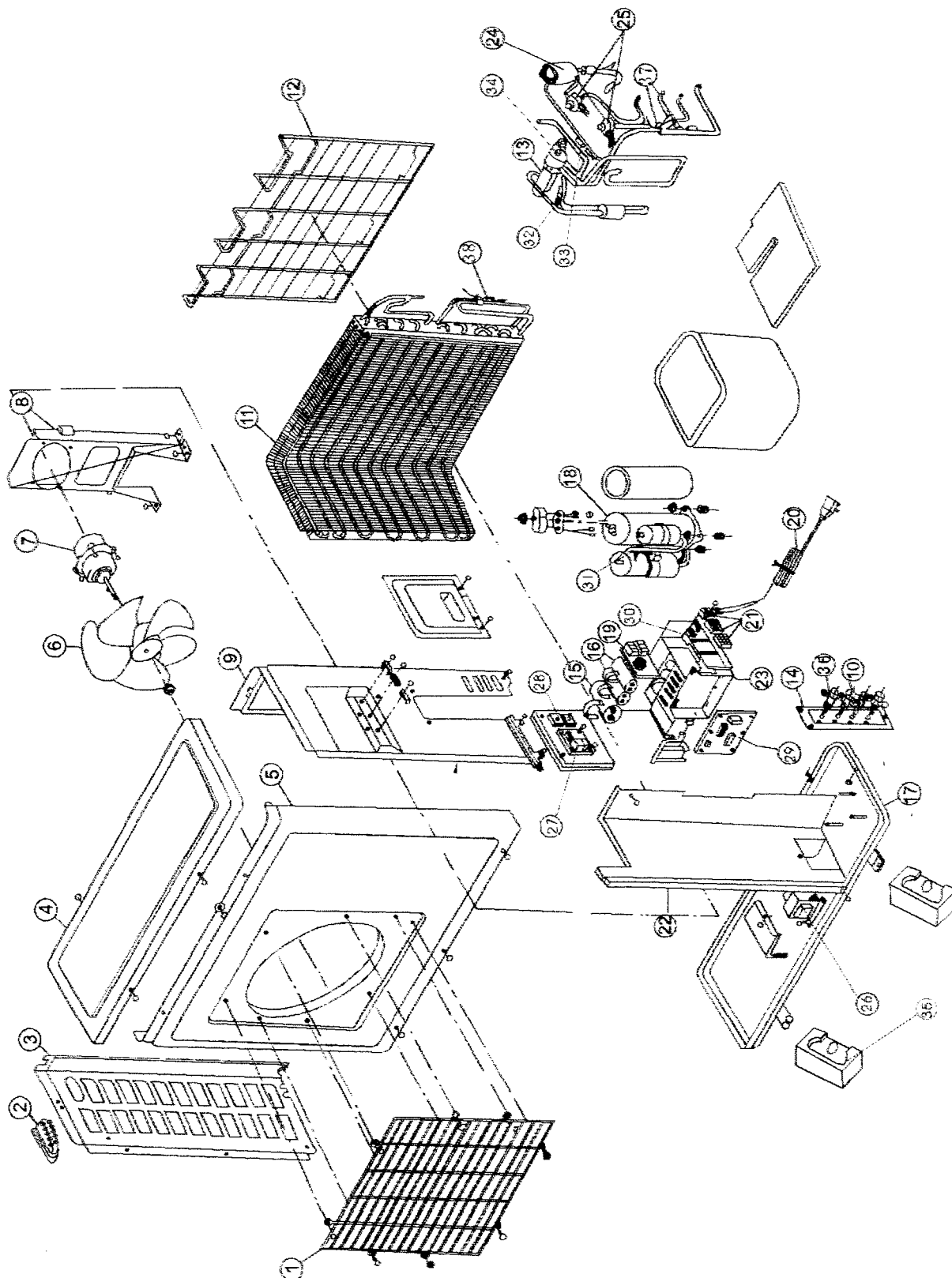
Knock-down drawings for indoor unit:  
MODEL: AS142AHAHA(HSU-14H03(B))





**Knock-down drawings for outdoor unit:**

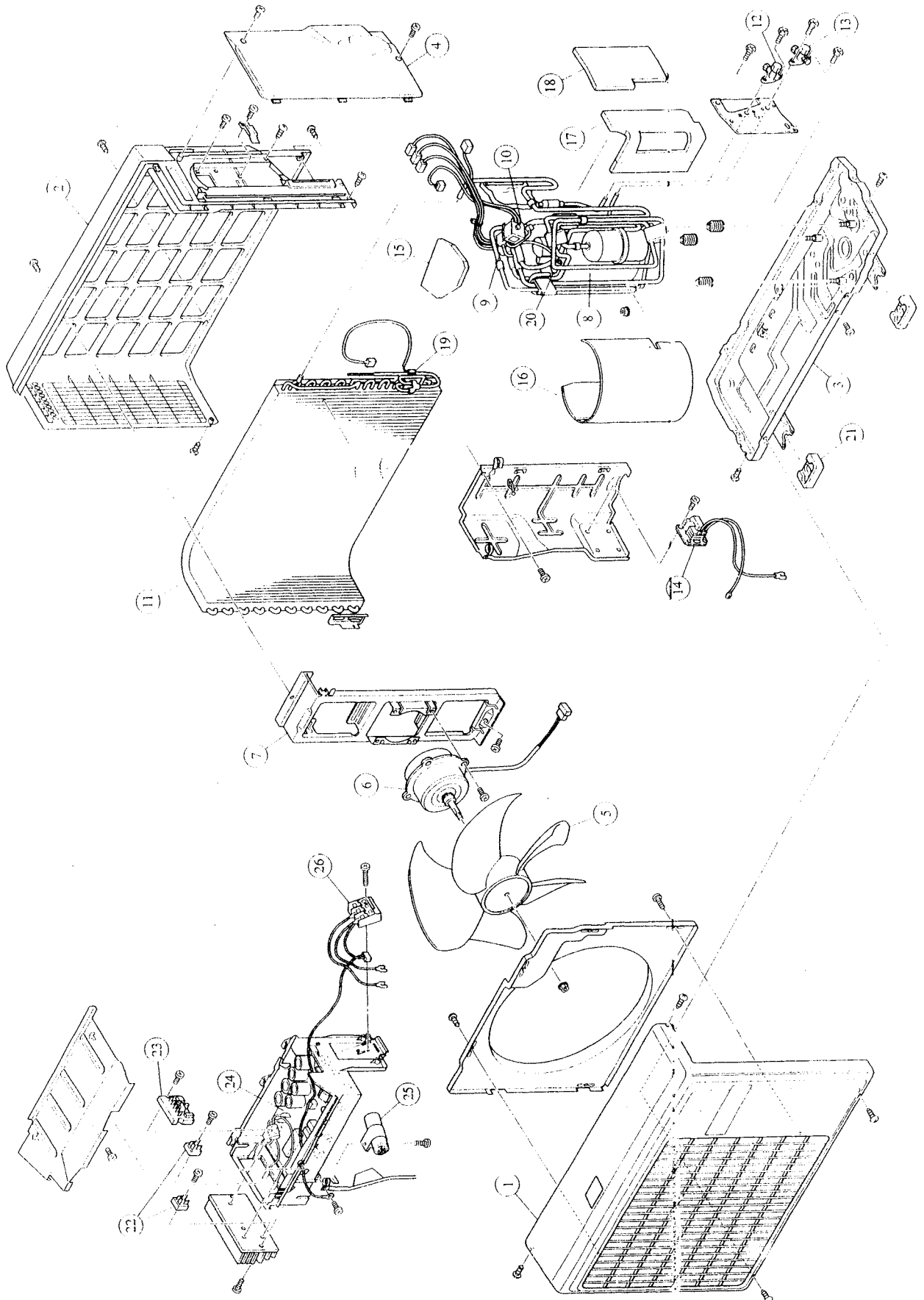
**MODELS:** AU212BGAHA(H2SM-21H03(B)) AU212BGAIA(H2SM-21HA03(B), H2SM-21HB03(B))  
 AU182BFAHA(H2SM-18HA03(B), H2SM-18HB03(B), H2SM-18HD03(B), H2SM-18HY03(B))



## Knock-down drawings for outdoor unit:

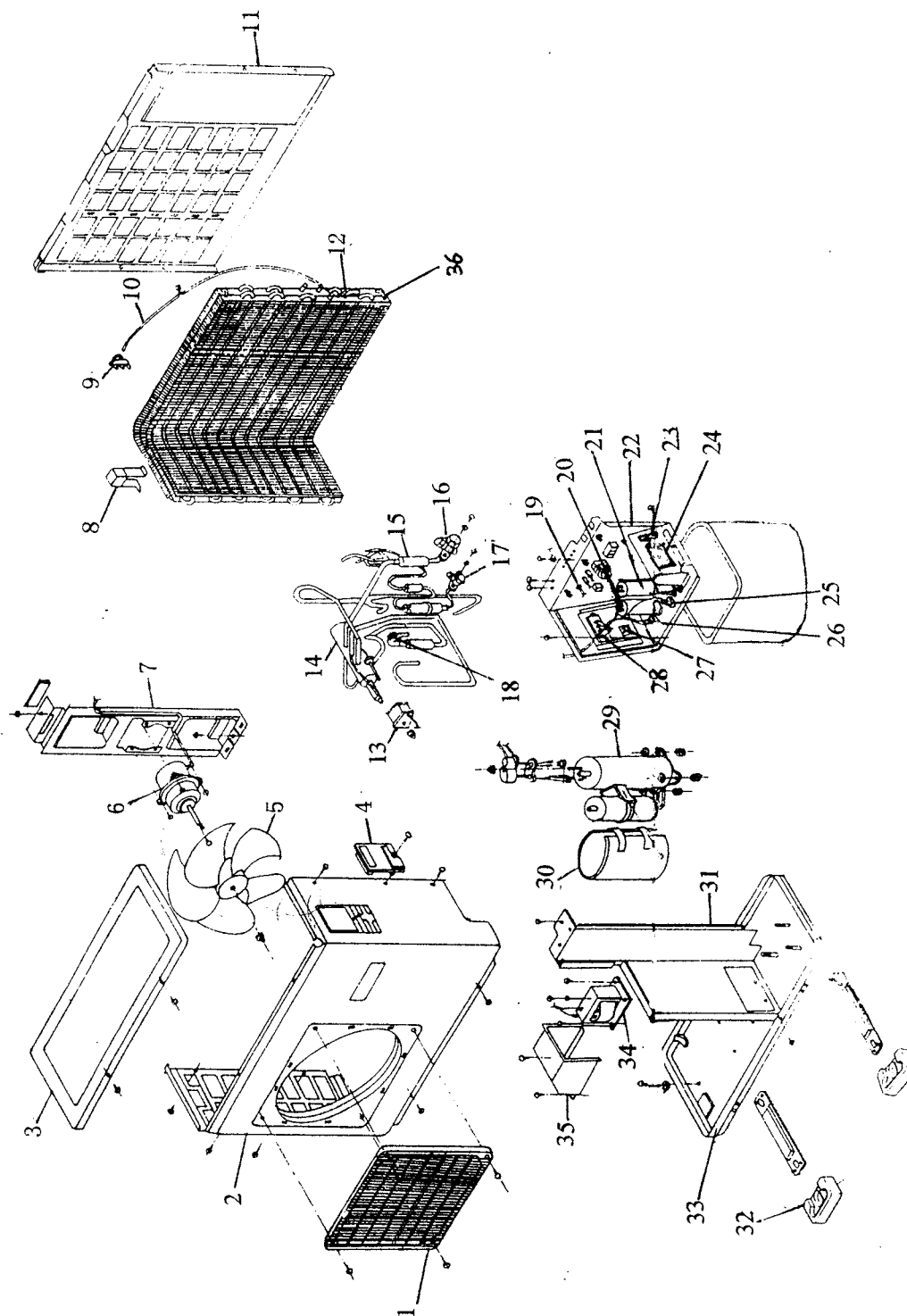
MODELS: AU072ACAHA(HSU-07H03(B)), HSU-07HB03(B)

AU102ACAHA(HSU-10HB03(B)), HSU-10HC03(B), HSU-10HE03(B), HSU-10HY03(B)



## Knock-down drawings for outdoor unit:

MODEL: AU142AEAHA(HSU-14H03(B))



**Knock-down drawings for indoor unit**

**Models:**

AS072AZAHA(HSU-07H03(B))

| NO. | Specialized No.          | Name of the component  | Qty. /unit | Description | Easily damaged components (Y/N) |
|-----|--------------------------|------------------------|------------|-------------|---------------------------------|
|     | AS072AZAHA(HSU-07H03(B)) |                        |            |             |                                 |
| 1   | 0010400625               | Controller assy.       | 1          |             |                                 |
| 2   | 0010400626               | PCB(main controller)   | 1          |             | Y                               |
| 3   | 0010400476               | PCB(receiver)          | 1          |             | Y                               |
| 4   | 1431366                  | Motor cover            | 1          |             |                                 |
| 5   | 3900059                  | Sensor                 | 1          | PXM-D43A-H3 | Y                               |
| 6   | 3800002                  | Transformer            | 1          |             | Y                               |
| 7   | 4000091                  | Terminal block         | 1          |             |                                 |
| 8   | 4200089                  | Electricity power cord | 1          |             |                                 |
| 9   | 0100944                  | Front panel assy.      | 1          |             |                                 |
| 10  | 0100945                  | Front grille assy.     | 1          |             |                                 |
| 11  | 0100199                  | Rear case assy.        | 1          |             |                                 |
| 12  | 1431371                  | Service cover          | 1          |             |                                 |
| 13  | 3000051                  | Motor                  | 1          |             | Y                               |
| 14  | 2335028                  | Fan                    | 1          |             |                                 |
| 15  | 0300005                  | Bearing                | 1          |             |                                 |
| 16  | 0900107                  | Drain pan assy.        | 1          |             |                                 |
| 17  | 3000072                  | Swing motor            | 1          |             |                                 |
| 18  | 1232077                  | Flap                   | 1          |             |                                 |
| 19  | 0900011                  | Drain hose             | 1          |             |                                 |
| 20  | 0400053                  | Evaporator             | 1          |             |                                 |
| 21  | 2400058                  | Air filter             | 2          |             |                                 |
| 22  | 1301216                  | Mounting plate         | 1          |             |                                 |
| 23  | 1431368                  | Piping support         | 1          |             |                                 |
| 24  | 1431038                  | Tube nip               | 1          |             |                                 |
| 25  | 0900060                  | Bolt assy.             | 1          |             |                                 |
| 26  | 3400129                  | Remote controller      | 1          | YR-C03      |                                 |
| 27  | 4600001                  | Battery                | 2          |             |                                 |
| 28  | 1434039                  | Drain tube             | 1          |             |                                 |
| 29  | 3100083                  | Negative ion generator | 1          |             |                                 |

**Knock-down drawings for indoor unit**

**Models:**

AS112BKAHA(H2SM-18HD03(B))

| No. | Specialized No.            | Name of the component  | Qty./unit | Description | Easily damaged components (Y/N) |
|-----|----------------------------|------------------------|-----------|-------------|---------------------------------|
|     | AS112BKAHA(H2SM-18HD03(B)) |                        |           |             |                                 |
| 1   | 0600202                    | Controller assy.       | 1         |             |                                 |
| 2   | 0600141                    | PCB(main controller)   | 1         |             | Y                               |
| 3   | 010400329                  | PCB(receiver)          | 1         |             | Y                               |
| 4   | 1431372                    | Motor cover            | 1         |             |                                 |
| 5   | 3900059                    | Sensor                 | 1         | PXM-D43A-H3 | Y                               |
| 6   | 3800032                    | Transformer            | 1         |             | Y                               |
| 7   | 4000095                    | Terminal block         | 1         |             |                                 |
| 8   | /                          | Electricity power cord | 1         |             |                                 |
| 9   | 0100944                    | Front panel assy.      | 1         |             |                                 |
| 10  | 0100946                    | Front grille assy.     | 1         |             |                                 |
| 11  | 0100206                    | Rear case assy.        | 1         |             |                                 |
| 12  | 1431371                    | Service cover          | 1         |             |                                 |
| 13  | 3000052                    | Motor                  | 1         |             | Y                               |
| 14  | 2335028                    | Fan                    | 1         |             |                                 |
| 15  | 0300005                    | Bearing                | 1         |             |                                 |
| 16  | 0900107                    | Drain pan assy.        | 1         |             |                                 |
| 17  | 3000040                    | Swing motor            | 1         |             |                                 |
| 18  | 1232077                    | Flap                   | 1         |             |                                 |
| 19  | 0900011                    | Drain hose             | 1         |             |                                 |
| 20  | 0400044                    | Evaporator             | 1         |             |                                 |
| 21  | 2400060/2400061            | Air filter             | 1         |             |                                 |
| 22  | 1301216                    | Mounting plate         | 1         |             |                                 |
| 23  | 1431368                    | Piping support         | 1         |             |                                 |
| 24  | 1431038                    | Tube nip               | 1         |             |                                 |
| 25  | 0900060                    | Bolt assy.             | 1         |             |                                 |
| 26  | 0010400025                 | Remote controller      | 1         | YR-C02      |                                 |
| 27  | 4600001                    | Battery                | 2         |             |                                 |
| 28  | 1434039                    | Drain tube             | 1         |             |                                 |
| 29  | None                       |                        |           |             |                                 |

**Knock-down drawings for indoor unit****Models:**

AS072AIAHA(HSU-07HB03(B))

| No. | Specialized No.           | Name of the component  | Qty./unit | Description | Easily damaged components (Y/N) |
|-----|---------------------------|------------------------|-----------|-------------|---------------------------------|
|     | AS072AIAHA(HSU-07HB03(B)) |                        |           |             |                                 |
| 1   | 0010400625                | Controller assy.       | 1         |             |                                 |
| 2   | 0010400626                | PCB(main controller)   | 1         |             | Y                               |
| 3   | 0010400476                | PCB(receiver)          | 1         |             | Y                               |
| 4   | 1431366                   | Motor cover            | 1         |             |                                 |
| 5   | 3900059                   | Sensor                 | 1         | PXM-D43A-H3 | Y                               |
| 6   | 3800002                   | Transformer            | 1         |             | Y                               |
| 7   | 4000091                   | Terminal block         | 1         |             |                                 |
| 8   | 4200089                   | Electricity power cord | 1         |             |                                 |
| 9   | 0100944                   | Front panel assy.      | 1         |             |                                 |
| 10  | 0100947                   | Front grille assy.     | 1         |             |                                 |
| 11  | 0100199                   | Rear case assy.        | 1         |             |                                 |
| 12  | 1431371                   | Service cover          | 1         |             |                                 |
| 13  | 3000051                   | Motor                  | 1         |             | Y                               |
| 14  | 2335028                   | Fan                    | 1         |             |                                 |
| 15  | 0300005                   | Bearing                | 1         |             |                                 |
| 16  | 0900107                   | Drain pan assy.        | 1         |             |                                 |
| 17  | 3000072                   | Swing motor            | 1         |             |                                 |
| 18  | 1232077                   | Flap                   | 1         |             |                                 |
| 19  | 0900011                   | Drain hose             | 1         |             |                                 |
| 20  | 0400053                   | Evaporator             | 1         |             |                                 |
| 21  | 2400058                   | Air filter             | 2         |             |                                 |
| 22  | 1301216                   | Mounting plate         | 1         |             |                                 |
| 23  | 1431368                   | Piping support         | 1         |             |                                 |
| 24  | 1431038                   | Tube nip               | 1         |             |                                 |
| 25  | 0900060                   | Bolt assy.             | 1         |             |                                 |
| 26  | 3400129                   | Remote controller      | 1         | YR-C03      |                                 |
| 27  | 4600001                   | Battery                | 2         |             |                                 |
| 28  | 1434039                   | Drain tube             | 1         |             |                                 |
| 29  | 3100083                   | Negative ion generator | 1         |             |                                 |

**Knock-down drawings for indoor unit**

**Models:**

AS102ALAIA(HSU-10HC03(B))

| No. | Specialized No.           | Name of the component  | Qty./unit | Description | Easily damaged components (Y/N) |
|-----|---------------------------|------------------------|-----------|-------------|---------------------------------|
|     | AS102ALAIA(HSU-10HC03(B)) |                        |           |             |                                 |
| 1   | 0600133                   | Controller assy.       | 1         |             |                                 |
| 2   | 0600203                   | PCB(main controller)   | 1         |             | Y                               |
| 3   | 0010400329                | PCB(receiver)          | 1         |             | Y                               |
| 4   | 1431372                   | Motor cover            | 1         |             |                                 |
| 5   | 3900059                   | Sensor                 | 1         | PXM-D43A-H3 | Y                               |
| 6   | 3800032                   | Transformer            | 1         |             | Y                               |
| 7   | 4000095                   | Terminal block         | 1         |             |                                 |
| 8   | 4200089                   | Electricity power cord | 1         |             |                                 |
| 9   | 0100944                   | Front panel assy.      | 1         |             |                                 |
| 10  | 0100947                   | Front grille assy.     | 1         |             |                                 |
| 11  | 0100206                   | Rear case assy.        | 1         |             |                                 |
| 12  | 1431371                   | Service cover          | 1         |             |                                 |
| 13  | 3000052                   | Motor                  | 1         |             | Y                               |
| 14  | 2335028                   | Fan                    | 1         |             |                                 |
| 15  | 0300005                   | Bearing                | 1         |             |                                 |
| 16  | 0900107                   | Drain pan assy.        | 1         |             |                                 |
| 17  | 3000040                   | Swing motor            | 1         |             |                                 |
| 18  | 1232077                   | Flap                   | 1         |             |                                 |
| 19  | 0900011                   | Drain hose             | 1         |             |                                 |
| 20  | 0400055                   | Evaporator             | 1         |             |                                 |
| 21  | 2400060/2400061           | Air filter             | 1         |             |                                 |
| 22  | 1301216                   | Mounting plate         | 1         |             |                                 |
| 23  | 1431368                   | Piping support         | 1         |             |                                 |
| 24  | 1431038                   | Tube nip               | 1         |             |                                 |
| 25  | 0900060                   | Bolt assy.             | 1         |             |                                 |
| 26  | 0010400024                | Remote controller      | 1         | YR-C01      |                                 |
| 27  | 4600001                   | Battery                | 2         |             |                                 |
| 28  | 1434039                   | Drain tube             | 1         |             |                                 |
| 29  | None                      |                        |           |             |                                 |

**Knock-down drawings for indoor unit****Models:**

AS102AMAJA(HSU-10HY03(B))

| No. | Specialized No.           | Name of the component  | Qty./unit | Description | Easily damaged components (Y/N) |
|-----|---------------------------|------------------------|-----------|-------------|---------------------------------|
|     | AS102AMAJA(HSU-10HY03(B)) |                        |           |             |                                 |
| 1   | 0600133                   | Controller assy.       | 1         |             |                                 |
| 2   | 0600203                   | PCB(main controller)   | 1         |             | Y                               |
| 3   | 0010400329                | PCB(receiver)          | 1         |             | Y                               |
| 4   | 1431372                   | Motor cover            | 1         |             |                                 |
| 5   | 3900059                   | Sensor                 | 1         | PXM-D43A-H3 | Y                               |
| 6   | 3800032                   | Transformer            | 1         |             | Y                               |
| 7   | 4000095                   | Terminal block         | 1         |             |                                 |
| 8   | 4200089                   | Electricity power cord | 1         |             |                                 |
| 9   | 0100944                   | Front panel assy.      | 1         |             |                                 |
| 10  | 0010800354                | Front grille assy.     | 1         |             |                                 |
| 11  | 0100206                   | Rear case assy.        | 1         |             |                                 |
| 12  | 1431371                   | Service cover          | 1         |             |                                 |
| 13  | 3000052                   | Motor                  | 1         |             | Y                               |
| 14  | 2335028                   | Fan                    | 1         |             |                                 |
| 15  | 0300005                   | Bearing                | 1         |             |                                 |
| 16  | 0900107                   | Drain pan assy.        | 1         |             |                                 |
| 17  | 3000040                   | Swing motor            | 1         |             |                                 |
| 18  | 1232077                   | Flap                   | 1         |             |                                 |
| 19  | 0900011                   | Drain hose             | 1         |             |                                 |
| 20  | 0400055                   | Evaporator             | 1         |             |                                 |
| 21  | 2400060/2400061           | Air filter             | 1         |             |                                 |
| 22  | 1301216                   | Mounting plate         | 1         |             |                                 |
| 23  | 1431368                   | Piping support         | 1         |             |                                 |
| 24  | 1431038                   | Tube nip               | 1         |             |                                 |
| 25  | 0900060                   | Bolt assy.             | 1         |             |                                 |
| 26  | 0010400024                | Remote controller      | 1         | YR-C01      |                                 |
| 27  | 4600001                   | Battery                | 2         |             |                                 |
| 28  | 1434039                   | Drain tube             | 1         |             |                                 |
| 29  | None                      |                        |           |             |                                 |



**Knock-down drawings for indoor unit**

**Models:**

AS112BLAIA(H2SM-18HB03(B))

| No. | Specialized No.            | Name of the component  | Qty./unit | Description | Easily damaged components (Y/N) |
|-----|----------------------------|------------------------|-----------|-------------|---------------------------------|
|     | AS112BLAIA(H2SM-18HB03(B)) |                        |           |             |                                 |
| 1   | 0600202                    | Controller assy.       | 1         |             |                                 |
| 2   | 0600141                    | PCB(main controller)   | 1         |             | Y                               |
| 3   | 010400329                  | PCB(receiver)          | 1         |             | Y                               |
| 4   | 1431372                    | Motor cover            | 1         |             |                                 |
| 5   | 3900059                    | Sensor                 | 1         | PXM-D43A-H3 | Y                               |
| 6   | 3800032                    | Transformer            | 1         |             | Y                               |
| 7   | 4000095                    | Terminal block         | 1         |             |                                 |
| 8   | /                          | Electricity power cord | 1         |             |                                 |
| 9   | 0100944                    | Front panel assy.      | 1         |             |                                 |
| 10  | 0100947                    | Front grille assy.     | 1         |             |                                 |
| 11  | 0100206                    | Rear case assy.        | 1         |             |                                 |
| 12  | 1431371                    | Service cover          | 1         |             |                                 |
| 13  | 3000052                    | Motor                  | 1         |             | Y                               |
| 14  | 2335028                    | Fan                    | 1         |             |                                 |
| 15  | 0300005                    | Bearing                | 1         |             |                                 |
| 16  | 0900107                    | Drain pan assy.        | 1         |             |                                 |
| 17  | 3000040                    | Swing motor            | 1         |             |                                 |
| 18  | 1232077                    | Flap                   | 1         |             |                                 |
| 19  | 0900011                    | Drain hose             | 1         |             |                                 |
| 20  | 0400044                    | Evaporator             | 1         |             |                                 |
| 21  | 2400060/2400061            | Air filter             | 1         |             |                                 |
| 22  | 1301216                    | Mounting plate         | 1         |             |                                 |
| 23  | 1431368                    | Piping support         | 1         |             |                                 |
| 24  | 1431038                    | Tube nip               | 1         |             |                                 |
| 25  | 0900060                    | Bolt assy.             | 1         |             |                                 |
| 26  | 0010400025                 | Remote controller      | 1         | YR-C02      |                                 |
| 27  | 4600001                    | Battery                | 2         |             |                                 |
| 28  | 1434039                    | Drain tube             | 1         |             |                                 |
| 29  |                            | None                   |           |             |                                 |

**Knock-down drawings for indoor unit**

**Models:**

AS112BMAHA(H2SM-18HY03(B))

| No. | Specialized No.            | Name of the component  | Qty./unit | Description | Easily damaged components (Y/N) |
|-----|----------------------------|------------------------|-----------|-------------|---------------------------------|
|     | AS112BMAHA(H2SM-18HY03(B)) |                        |           |             |                                 |
| 1   | 0600202                    | Controller assy.       | 1         |             |                                 |
| 2   | 0600141                    | PCB(main controller)   | 1         |             | Y                               |
| 3   | 010400329                  | PCB(receiver)          | 1         |             | Y                               |
| 4   | 1431372                    | Motor cover            | 1         |             |                                 |
| 5   | 3900059                    | Sensor                 | 1         | PXM-D43A-H3 | Y                               |
| 6   | 3800032                    | Transformer            | 1         |             | Y                               |
| 7   | 4000095                    | Terminal block         | 1         |             |                                 |
| 8   | /                          | Electricity power cord | 1         |             |                                 |
| 9   | 0100944                    | Front panel assy.      | 1         |             |                                 |
| 10  | 0010800354                 | Front grille assy.     | 1         |             |                                 |
| 11  | 0100206                    | Rear case assy.        | 1         |             |                                 |
| 12  | 1431371                    | Service cover          | 1         |             |                                 |
| 13  | 3000052                    | Motor                  | 1         |             | Y                               |
| 14  | 2335028                    | Fan                    | 1         |             |                                 |
| 15  | 0300005                    | Bearing                | 1         |             |                                 |
| 16  | 0900107                    | Drain pan assy.        | 1         |             |                                 |
| 17  | 3000040                    | Swing motor            | 1         |             |                                 |
| 18  | 1232077                    | Flap                   | 1         |             |                                 |
| 19  | 0900011                    | Drain hose             | 1         |             |                                 |
| 20  | 0400044                    | Evaporator             | 1         |             |                                 |
| 21  | 2400060/2400061            | Air filter             | 1         |             |                                 |
| 22  | 1301216                    | Mounting plate         | 1         |             |                                 |
| 23  | 1431368                    | Piping support         | 1         |             |                                 |
| 24  | 1431038                    | Tube nip               | 1         |             |                                 |
| 25  | 0900060                    | Bolt assy.             | 1         |             |                                 |
| 26  | 0010400025                 | Remote controller      | 1         | YR-C02      |                                 |
| 27  | 4600001                    | Battery                | 2         |             |                                 |
| 28  | 1434039                    | Drain tube             | 1         |             |                                 |
| 29  | None                       |                        |           |             |                                 |

**Knock-down drawings for indoor unit**

**Models:**

AS112BLAKA(H2SM-21HB03(B))

| No. | Specialized No.            | Name of the component  | Qty./unit | Description | Easily damaged components (Y/N) |
|-----|----------------------------|------------------------|-----------|-------------|---------------------------------|
|     | AS112BLAKA(H2SM-21HB03(B)) |                        |           |             |                                 |
| 1   | 0010400627                 | Controller assy.       | 1         |             |                                 |
| 2   | 3300228                    | PCB(main controller)   | 1         |             | Y                               |
| 3   | 0010400476                 | PCB(receiver)          | 1         |             | Y                               |
| 4   | 1431372                    | Motor cover            | 1         |             |                                 |
| 5   | 3900059                    | Sensor                 | 1         | PXM-D43A-H3 | Y                               |
| 6   | 3800032                    | Transformer            | 1         |             | Y                               |
| 7   | 4000096                    | Terminal block         | 1         |             |                                 |
| 8   | /                          | Electricity power cord | 1         |             |                                 |
| 9   | 0100944                    | Front panel assy.      | 1         |             |                                 |
| 10  | 0100947                    | Front grille assy.     | 1         |             |                                 |
| 11  | 0100206                    | Rear case assy.        | 1         |             |                                 |
| 12  | 1431371                    | Service cover          | 1         |             |                                 |
| 13  | 3000052                    | Motor                  | 1         |             | Y                               |
| 14  | 2335028                    | Fan                    | 1         |             |                                 |
| 15  | 0300005                    | Bearing                | 1         |             |                                 |
| 16  | 0900107                    | Drain pan assy.        | 1         |             |                                 |
| 17  | 3000040                    | Swing motor            | 1         |             |                                 |
| 18  | 1232077                    | Flap                   | 1         |             |                                 |
| 19  | 0900011                    | Drain hose             | 1         |             |                                 |
| 20  | 0400044                    | Evaporator             | 1         |             |                                 |
| 21  | 2400060/2400061            | Air filter             | 1         |             |                                 |
| 22  | 1301216                    | Mounting plate         | 1         |             |                                 |
| 23  | 1431368                    | Piping support         | 1         |             |                                 |
| 24  | 1431038                    | Tube nip               | 1         |             |                                 |
| 25  | 0900060                    | Bolt assy.             | 1         |             |                                 |
| 26  | 3400130                    | Remote controller      | 1         | YR-C04      |                                 |
| 27  | 4600001                    | Battery                | 2         |             |                                 |
| 28  | 1434039                    | Drain tube             | 1         |             |                                 |
| 29  | 3100083                    | Negative ion generator | 1         |             |                                 |

Knock-down drawings for indoor unit

Models:

AS122BQAH A(H2SM-21H03(B))

| No. | Specialized N o.           | Name of the component  | Qty. /unit | Description | Easily damaged components (Y/N) |
|-----|----------------------------|------------------------|------------|-------------|---------------------------------|
|     | AS122BQAH A(H2SM-21H03(B)) |                        |            |             |                                 |
| 1   | 1233267                    | Front grille           | 1          |             |                                 |
| 2   | 1431248A                   | Air filter             | 2          |             |                                 |
| 3   | 1433227                    | Service cover          | 1          |             |                                 |
| 4   | 0010800911                 | Front panel assy.      | 1          |             |                                 |
| 5   | 1301161                    | Mounting plate         | 1          |             |                                 |
| 6   | 0010800912                 | Rear case assy.        | 1          |             |                                 |
| 7   | 1433242                    | Pipe plate             |            |             |                                 |
| 8   | 3800064                    | Transformer            | 1          |             | Y                               |
| 9   | 1431709                    | Electrical box         | 1          |             |                                 |
| 10  | 4000096                    | Terminal block         | 1          |             |                                 |
| 11  | 0010400401                 | PCB(main controller)   | 1          |             | Y                               |
| 12  | 1433234                    | Electrical box cover   | 1          |             |                                 |
| 13  | 3000049                    | Motor                  | 1          |             | Y                               |
| 14  | 0300028                    | Fan                    | 1          |             |                                 |
| 15  | 0300029                    | Bearing                | 1          |             |                                 |
| 16  | 1431710                    | Lower buckle           | 1          |             |                                 |
| 17  | 0400038                    | Evaporator             | 1          |             |                                 |
| 18  | 3000031                    | Swing motor            | 1          |             |                                 |
| 19  | 0010800913                 | Drain pan assy.        | 1          |             |                                 |
| 20  | 0990036                    | Drain hose             | 1          |             |                                 |
| 21  | 1231268                    | Little Flap            | 1          |             |                                 |
| 22  | 1231266                    | Big Flap               | 1          |             |                                 |
| 23  | 0100157                    | Gear                   | 1          |             |                                 |
| 24  | 1431038                    | Tube nip               | 1          |             |                                 |
| 25  | 0900060                    | Bolt assy.             | 1          |             |                                 |
| 26  | 3400130                    | Remote controller      | 1          | YR-C04      |                                 |
| 27  | 4600001                    | Battery                | 2          |             |                                 |
| 28  | 1434039                    | Drain tube             | 1          |             |                                 |
| 29  | 0013100082                 | Negative ion generator | 1          |             |                                 |
| 30  | 3900003                    | thermistor (env.)      | 1          | ktec-42c-h1 | Y                               |
| 31  | 3900004                    | thermistor (coil)      | 1          | pxm-43a-h1  | Y                               |

**Knock-down drawings for indoor unit****Models:**

AS142BYAHA(H2SM-21HA03(B))

| No. | Specialized No.            | Name of the component  | Qty./unit | Description | Easily damaged components (Y/N) |
|-----|----------------------------|------------------------|-----------|-------------|---------------------------------|
|     | AS142BYAHA(H2SM-21HA03(B)) |                        |           |             |                                 |
| 1   | 0010400628                 | Controller assy.       | 1         |             |                                 |
| 2   | 3300229                    | PCB(main controller)   | 1         |             | Y                               |
| 3   | 0010400476                 | PCB(receiver)          | 1         |             | Y                               |
| 4   | 1431717                    | Motor cover            | 1         |             |                                 |
| 5   | 3900059                    | Sensor                 | 1         | PXM-D43A-H3 | Y                               |
| 6   | 3800032                    | Transformer            | 1         |             | Y                               |
| 7   | 4000125                    | Terminal block         | 1         |             |                                 |
| 8   | 4200089                    | Electricity power cord | 1         |             |                                 |
| 9   | 0100943                    | Front panel assy.      | 1         |             |                                 |
| 10  | 0100971                    | Front grille assy.     | 1         |             |                                 |
| 11  | 0100276                    | Rear case assy.        | 1         |             |                                 |
| 12  | 1431494                    | Service cover          | 1         |             |                                 |
| 13  | 3000088                    | Motor                  | 1         |             | Y                               |
| 14  | 0300038A                   | Fan                    | 1         |             |                                 |
| 15  | 0300005                    | Bearing                | 1         |             |                                 |
| 16  | 0900104                    | Drain pan assy.        | 1         |             |                                 |
| 17  | 3000040                    | Swing motor            | 1         |             |                                 |
| 18  | 1231140                    | Upper Flap             | 1         |             |                                 |
| 19  | 0900011                    | Drain hose             | 1         |             |                                 |
| 20  | 0400128                    | Evaporator             | 1         |             |                                 |
| 21  | 2400080                    | Air filter             | 2         |             |                                 |
| 22  | 1301216                    | Mounting plate         | 1         |             |                                 |
| 23  | 1431368                    | Pipingsupport          | 1         |             |                                 |
| 24  | 1431038                    | Tube nip               | 1         |             |                                 |
| 25  | 0900060                    | Bolt assy.             | 1         |             |                                 |
| 26  | 3400130                    | Remote controller      | 1         | YR-C04      |                                 |
| 27  | 4600001                    | Battery                | 2         |             |                                 |
| 28  | 1434039                    | Drain tube             | 1         |             |                                 |
| 29  | 3100083                    | Negative ion generator | 1         |             |                                 |
| 30  | 1231139                    | Down Flap              | 1         |             |                                 |

**Knock-down drawings for indoor unit**

**Models:**

AS142BVAHA(H2SM-21HB03(B))

| No. | Specialized No.            | Name of the component  | Qty./unit | Description | Easily damaged components (Y/N) |
|-----|----------------------------|------------------------|-----------|-------------|---------------------------------|
|     | AS142BVAHA(H2SM-21HB03(B)) |                        |           |             |                                 |
| 1   | 0010400628                 | Controller assy.       | 1         |             |                                 |
| 2   | 3300229                    | PCB(main controller)   | 1         |             | Y                               |
| 3   | 0010400476                 | PCB(receiver)          | 1         |             | Y                               |
| 4   | 1431717                    | Motor cover            | 1         |             |                                 |
| 5   | 3900059                    | Sensor                 | 1         | PXM-D43A-H3 | Y                               |
| 6   | 3800032                    | Transformer            | 1         |             | Y                               |
| 7   | 4000125                    | Terminal block         | 1         |             |                                 |
| 8   | 4200089                    | Electricity power cord | 1         |             |                                 |
| 9   | 0100943                    | Front panel assy.      | 1         |             |                                 |
| 10  | 0100970                    | Front grille assy.     | 1         |             |                                 |
| 11  | 0100276                    | Rear case assy.        | 1         |             |                                 |
| 12  | 1431494                    | Service cover          | 1         |             |                                 |
| 13  | 3000088                    | Motor                  | 1         |             | Y                               |
| 14  | 0300038A                   | Fan                    | 1         |             |                                 |
| 15  | 0300005                    | Bearing                | 1         |             |                                 |
| 16  | 0900104                    | Drain pan assy.        | 1         |             |                                 |
| 17  | 3000040                    | Swing motor            | 1         |             |                                 |
| 18  | 1231140                    | Upper Flap             | 1         |             |                                 |
| 19  | 0900011                    | Drain hose             | 1         |             |                                 |
| 20  | 0400128                    | Evaporator             | 1         |             |                                 |
| 21  | 2400080                    | Air filter             | 2         |             |                                 |
| 22  | 1301216                    | Mounting plate         | 1         |             |                                 |
| 23  | 1431368                    | Piping support         | 1         |             |                                 |
| 24  | 1431038                    | Tube nip               | 1         |             |                                 |
| 25  | 0900060                    | Bolt assy.             | 1         |             |                                 |
| 26  | 3400130                    | Remote controller      | 1         | YR-C04      |                                 |
| 27  | 4600001                    | Battery                | 2         |             |                                 |
| 28  | 1434039                    | Drain tube             | 1         |             |                                 |
| 29  | 3100083                    | Negative ion generator | 1         |             |                                 |
| 30  | 1231139                    | Down Flap              | 1         |             |                                 |

## Knock-down drawings for indoor unit

## Models:

## AS142AHAHA(HSU-14H03(B))

| No. | Specialized No.          | Name of the component              | Qty. /unit | Description | Easily damaged components (Y/N) |
|-----|--------------------------|------------------------------------|------------|-------------|---------------------------------|
|     | AS142AHAHA(HSU-14H03(B)) |                                    |            |             |                                 |
| 1   | 1101101                  | Mounting plate                     | 1          |             |                                 |
| 2   | 1431767                  | Pipe presser                       | 1          |             |                                 |
| 3   | 1231172                  | Piping support                     | 1          |             |                                 |
| 4   | 1431366                  | Rear case assy.                    | 1          |             |                                 |
| 5   | 0100315                  | Drain hose frame                   |            |             |                                 |
| 6   | 1301535                  | Shielding plate for electrical box |            |             |                                 |
| 7   | 1431583                  | Electrical box                     |            |             |                                 |
| 8   | 3300355                  | PCB(main controller)               | 1          |             | Y                               |
| 9   | /                        | Electricity power cord             | 1          |             |                                 |
| 10  | 4000161                  | Terminal block                     | 1          |             |                                 |
| 11  | 3900059                  | Sensor                             | 1          | PXM-D43A-H3 | Y                               |
| 12  | 1301536                  | Shielding plate for electrical box |            |             |                                 |
| 13  | 1431582                  | Electrical box cover               |            |             |                                 |
| 14  | 0300029                  | Bearing                            | 1          |             |                                 |
| 15  | 1431780                  | Left supporting plate              | 1          |             |                                 |
| 16  | 0300039                  | Fan                                | 1          |             |                                 |
| 17  | 1431922                  | Right supporting plate             |            |             |                                 |
| 18  | 0010400680               | Motor                              | 1          |             |                                 |
| 19  | 1433691                  | Motor support                      | 1          |             |                                 |
| 20  | 0400231                  | Evaporator                         | 1          |             |                                 |
| 21  | 0010400681               | Swing motor                        | 1          |             | Y                               |
| 22  | 0900061                  | Drain hose                         | 1          |             | Y                               |
| 23  | 0900122                  | Drain pan assy.                    | 1          |             |                                 |
| 24  | 0010400682               | Swing motor                        | 2          |             |                                 |
| 25  | 1231173                  | Big Flap                           | 1          |             |                                 |
| 26  | 1231174                  | Little Flap                        | 1          |             |                                 |
| 27  | 1431789                  | Negative ion cover                 |            |             |                                 |
| 28  | 0013100081               | Negative ion generator             | 1          |             |                                 |
| 29  | 0700010                  | Gear                               | 1          |             |                                 |
| 30  | 0100312                  | Front panel assy.                  | 1          |             |                                 |
| 31  | 2400106                  | Air filter                         | 2          |             |                                 |
| 32  | 2400107                  | Air filter                         | 2          |             |                                 |
| 33  | 1431584                  | Service cover                      | 1          |             |                                 |
| 34  | 0100313                  | Front grille assy.                 | 1          |             |                                 |
| 35  | 0600358                  | PCB (receiver)                     | 1          |             |                                 |
| 36  | 0010400624               | Remote controller                  | 1          | YR-D05      |                                 |
| 37  | 4600001                  | Battery                            | 2          |             |                                 |
| 38  | 1434039                  | Drain tube                         | 1          |             |                                 |
| 39  | 0900068                  | Bolt assy.                         | 1          |             |                                 |

**Knock-down drawings for indoor unit**

**Models:**

AS112BMAIA(H2SM-18HA03(B))

| No. | Specialized No.            | Name of the component  | Qty./unit | Description | Easily damaged components (Y/N) |
|-----|----------------------------|------------------------|-----------|-------------|---------------------------------|
|     | AS112BMAIA(H2SM-18HA03(B)) |                        |           |             |                                 |
| 1   | 0600202                    | Controller assy.       | 1         |             |                                 |
| 2   | 0600141                    | PCB(main controller)   | 1         |             | Y                               |
| 3   | 010400329                  | PCB(receiver)          | 1         |             | Y                               |
| 4   | 1431372                    | Motor cover            | 1         |             |                                 |
| 5   | 3900059                    | Sensor                 | 1         | PXM-D43A-H3 | Y                               |
| 6   | 3800032                    | Transformer            | 1         |             | Y                               |
| 7   | 4000095                    | Terminal block         | 1         |             |                                 |
| 8   | /                          | Electricity power cord | 1         |             |                                 |
| 9   | 0100944                    | Front panel assy.      | 1         |             |                                 |
| 10  | 0100945                    | Front grille assy.     | 1         |             |                                 |
| 11  | 0100206                    | Rear case assy.        | 1         |             |                                 |
| 12  | 1431371                    | Service cover          | 1         |             |                                 |
| 13  | 3000052                    | Motor                  | 1         |             | Y                               |
| 14  | 2335028                    | Fan                    | 1         |             |                                 |
| 15  | 0300005                    | Bearing                | 1         |             |                                 |
| 16  | 0900107                    | Drain pan assy.        | 1         |             |                                 |
| 17  | 3000040                    | Swing motor            | 1         |             |                                 |
| 18  | 1232077                    | Flap                   | 1         |             |                                 |
| 19  | 0900011                    | Drain hose             | 1         |             |                                 |
| 20  | 0400044                    | Evaporator             | 1         |             |                                 |
| 21  | 2400060/2400061            | Air filter             | 1         |             |                                 |
| 22  | 1301216                    | Mounting plate         | 1         |             |                                 |
| 23  | 1431368                    | Piping support         | 1         |             |                                 |
| 24  | 1431038                    | Tube nip               | 1         |             |                                 |
| 25  | 0900060                    | Bolt assy.             | 1         |             |                                 |
| 26  | 0010400025                 | Remote controller      | 1         | YR-C02      |                                 |
| 27  | 4600001                    | Battery                | 2         |             |                                 |
| 28  | 1434039                    | Drain tube             | 1         |             |                                 |
| 29  | None                       |                        |           |             |                                 |



**Knock-down drawings for indoor unit**

**Models:**

AS112BMAJA(H2SM-21HA03(B))

| No. | Specialized No.            | Name of the component  | Qty./unit | Description | Easily damaged components (Y/N) |
|-----|----------------------------|------------------------|-----------|-------------|---------------------------------|
|     | AS112BMAJA(H2SM-21HA03(B)) |                        |           |             |                                 |
| 1   | 0010400627                 | Controller assy.       | 1         |             |                                 |
| 2   | 3300228                    | PCB(main controller)   | 1         |             | Y                               |
| 3   | 0010400476                 | PCB(receiver)          | 1         |             | Y                               |
| 4   | 1431372                    | Motor cover            | 1         |             |                                 |
| 5   | 3900059                    | Sensor                 | 1         | PXM-D43A-H3 | Y                               |
| 6   | 3800032                    | Transformer            | 1         |             | Y                               |
| 7   | 4000096                    | Terminal block         | 1         |             |                                 |
| 8   | /                          | Electricity power cord | 1         |             |                                 |
| 9   | 0100944                    | Front panel assy.      | 1         |             |                                 |
| 10  | 0100945                    | Front grille assy.     | 1         |             |                                 |
| 11  | 0100206                    | Rear case assy.        | 1         |             |                                 |
| 12  | 1431371                    | Service cover          | 1         |             |                                 |
| 13  | 3000052                    | Motor                  | 1         |             | Y                               |
| 14  | 2335028                    | Fan                    | 1         |             |                                 |
| 15  | 0300005                    | Bearing                | 1         |             |                                 |
| 16  | 0900107                    | Drain pan assy.        | 1         |             |                                 |
| 17  | 3000040                    | Swing motor            | 1         |             |                                 |
| 18  | 1232077                    | Flap                   | 1         |             |                                 |
| 19  | 0900011                    | Drain hose             | 1         |             |                                 |
| 20  | 0400044                    | Evaporator             | 1         |             |                                 |
| 21  | 2400060/2400061            | Air filter             | 1         |             |                                 |
| 22  | 1301216                    | Mounting plate         | 1         |             |                                 |
| 23  | 1431368                    | Piping support         | 1         |             |                                 |
| 24  | 1431038                    | Tube nip               | 1         |             |                                 |
| 25  | 0900060                    | Bolt assy.             | 1         |             |                                 |
| 26  | 3400130                    | Remote controller      | 1         | YR-C04      |                                 |
| 27  | 4600001                    | Battery                | 2         |             |                                 |
| 28  | 1434039                    | Drain tube             | 1         |             |                                 |
| 29  | 3100083                    | Negative ion generator | 1         |             |                                 |

**Knock-down drawings for indoor unit**

**Models:**

AS102AMAIA(HSU-10HB03(B))

| No. | Specialized No.           | Name of the component  | Qty./unit | Description | Easily damaged components (Y/N) |
|-----|---------------------------|------------------------|-----------|-------------|---------------------------------|
|     | AS102AMAIA(HSU-10HB03(B)) |                        |           |             |                                 |
| 1   | 0600133                   | Controller assy.       | 1         |             |                                 |
| 2   | 0600203                   | PCB(main controller)   | 1         |             | Y                               |
| 3   | 0010400329                | PCB(receiver)          | 1         |             | Y                               |
| 4   | 1431372                   | Motor cover            | 1         |             |                                 |
| 5   | 3900059                   | Sensor                 | 1         | PXM-D43A-H3 | Y                               |
| 6   | 3800032                   | Transformer            | 1         |             | Y                               |
| 7   | 4000095                   | Terminal block         | 1         |             |                                 |
| 8   | 4200089                   | Electricity power cord | 1         |             |                                 |
| 9   | 0100944                   | Front panel assy.      | 1         |             |                                 |
| 10  | 0100945                   | Front grille assy.     | 1         |             |                                 |
| 11  | 0100206                   | Rear case assy.        | 1         |             |                                 |
| 12  | 1431371                   | Service cover          | 1         |             |                                 |
| 13  | 3000052                   | Motor                  | 1         |             | Y                               |
| 14  | 2335028                   | Fan                    | 1         |             |                                 |
| 15  | 0300005                   | Bearing                | 1         |             |                                 |
| 16  | 0900107                   | Drain pan assy.        | 1         |             |                                 |
| 17  | 3000040                   | Swing motor            | 1         |             |                                 |
| 18  | 1232077                   | Flap                   | 1         |             |                                 |
| 19  | 0900011                   | Drain hose             | 1         |             |                                 |
| 20  | 0400055                   | Evaporator             | 1         |             |                                 |
| 21  | 2400060/2400061           | Air filter             | 1         |             |                                 |
| 22  | 1301216                   | Mounting plate         | 1         |             |                                 |
| 23  | 1431368                   | Piping support         | 1         |             |                                 |
| 24  | 1431038                   | Tube nip               | 1         |             |                                 |
| 25  | 0900060                   | Bolt assy.             | 1         |             |                                 |
| 26  | 0010400024                | Remote controller      | 1         | YR-C01      |                                 |
| 27  | 4600001                   | Battery                | 2         |             |                                 |
| 28  | 1434039                   | Drain tube             | 1         |             |                                 |
| 29  | None                      |                        |           |             |                                 |

**Knock-down drawings for indoor unit****Models:**

AS102AKAHA(HSU-10HE03(B))

| No. | Specialized No.           | Name of the component  | Qty./unit | Description | Easily damaged components (Y/N) |
|-----|---------------------------|------------------------|-----------|-------------|---------------------------------|
|     | AS102AKAHA(HSU-10HE03(B)) |                        |           |             |                                 |
| 1   | 0600133                   | Controller assy.       | 1         |             |                                 |
| 2   | 0600203                   | PCB(main controller)   | 1         |             | Y                               |
| 3   | 0010400329                | PCB(receiver)          | 1         |             | Y                               |
| 4   | 1431372                   | Motor cover            | 1         |             |                                 |
| 5   | 3900059                   | Sensor                 | 1         | PXM-D43A-H3 | Y                               |
| 6   | 3800032                   | Transformer            | 1         |             | Y                               |
| 7   | 4000095                   | Terminal block         | 1         |             |                                 |
| 8   | 4200089                   | Electricity power cord | 1         |             |                                 |
| 9   | 0100944                   | Front panel assy.      | 1         |             |                                 |
| 10  | 0100946                   | Front grille assy.     | 1         |             |                                 |
| 11  | 0100206                   | Rear case assy.        | 1         |             |                                 |
| 12  | 1431371                   | Service cover          | 1         |             |                                 |
| 13  | 3000052                   | Motor                  | 1         |             | Y                               |
| 14  | 2335028                   | Fan                    | 1         |             |                                 |
| 15  | 0300005                   | Bearing                | 1         |             |                                 |
| 16  | 0900107                   | Drain pan assy.        | 1         |             |                                 |
| 17  | 3000040                   | Swing motor            | 1         |             |                                 |
| 18  | 1232077                   | Flap                   | 1         |             |                                 |
| 19  | 0900011                   | Drain hose             | 1         |             |                                 |
| 20  | 0400055                   | Evaporator             | 1         |             |                                 |
| 21  | 2400060/2400061           | Air filter             | 1         |             |                                 |
| 22  | 1301216                   | Mounting plate         | 1         |             |                                 |
| 23  | 1431368                   | Piping support         | 1         |             |                                 |
| 24  | 1431038                   | Tube nip               | 1         |             |                                 |
| 25  | 0900060                   | Bolt assy.             | 1         |             |                                 |
| 26  | 0010400024                | Remote controller      | 1         | YR-C01      |                                 |
| 27  | 4600001                   | Battery                | 2         |             |                                 |
| 28  | 1434039                   | Drain tube             | 1         |             |                                 |
| 29  |                           | None                   |           |             |                                 |

Knock-down drawings for outdoor unit

Models:

AU212BGAHA(H2SM-21 H03)/ AU212BGAIA(H2SM-21HA03、 H2SM-21HA03)

| No. | Specialized No.         |            | Name of the component               | Qty. /unit | Description              | Easily damaged components (Y/N) |
|-----|-------------------------|------------|-------------------------------------|------------|--------------------------|---------------------------------|
|     | AU212BGAHA              | AU212BGAIA |                                     |            |                          |                                 |
| 1   | 1236199                 |            | Outlet grill                        | 1          |                          |                                 |
| 2   | 1436182                 |            | Handle                              | 1          |                          |                                 |
| 3   | 1101107                 |            | Left Side panel                     | 1          |                          |                                 |
| 4   | 1101108                 |            | Upper panel                         | 1          |                          |                                 |
| 5   | 1101106                 |            | Front panel                         | 1          |                          |                                 |
| 6   | 2331043                 |            | Axial fan                           | 1          |                          |                                 |
| 7   | 3000218                 |            | Motor                               | 1          |                          | Y                               |
| 8   | 1301427                 |            | Motor support                       | 1          |                          |                                 |
| 9   | 1301757                 |            | Right Side panel                    | 1          |                          |                                 |
| 10  | 2500028                 |            | Stop valve                          | 1          |                          |                                 |
| 11  | 0400158                 |            | Heat exchanger                      | 1          |                          |                                 |
| 12  | 1301415                 |            | Rear guard                          | 1          |                          |                                 |
| 13  | 2500015                 |            | 4-way valve                         | 1          |                          | Y                               |
| 14  | 1301127A                |            | Stop valve support                  | 1          |                          |                                 |
| 15  | 1431404                 |            | Capacitor clamp 2                   | 1          |                          |                                 |
| 16  | 1431403                 |            | Capacitor clamp 1                   | 2          |                          |                                 |
| 17  | 0100717                 |            | Bottom panel assy.                  | 1          |                          |                                 |
| 18  | 2000054                 |            | Compressor                          | 1          | C-7RV113HOW              | Y                               |
| 19  | 0600170                 |            | PCB                                 | 1          |                          |                                 |
| 20  | /                       |            | Electricity power cord              | 1          |                          |                                 |
| 21  | 4000112/4000113/4000114 |            | Terminal block                      | 1          |                          |                                 |
| 22  | 0100726                 |            | Separator plate assy.               | 1          |                          |                                 |
| 23  | 1431400                 |            | Electrical box                      | 1          |                          |                                 |
| 24  | 0500508                 |            | Subcooling pipe group               | 1          |                          |                                 |
| 25  | 2500057/2500058/2500059 |            | Coil for electronic expansion valve | 1          |                          |                                 |
| 26  | 3800116                 |            | Reactor                             | 1          |                          |                                 |
| 27  | 3700024                 |            | Power module                        | 1          |                          |                                 |
| 28  | 3700015                 |            | BRIDGEDIODE                         | 2          | S25VB60                  | Y                               |
| 29  | 3300187                 | 3300227    | PCB(main controller)                | 1          |                          | Y                               |
| 30  | 4100013                 |            | fuse250v                            | 1          | t1nc 30a                 |                                 |
| 31  | 3900062                 |            | Return gas sensor                   | 1          | pxm-43a-h5/158-103-96079 | Y                               |
| 32  | 3900074                 |            | Temperature sensor of compressor    | 1          | PMM-62A-H1               |                                 |
| 33  | 3900063                 |            | Evaporator sensor                   | 1          |                          | Y                               |
| 34  | 2500053                 |            | 4-way valve winding                 | 1          |                          |                                 |
| 35  | 17521220                |            | Rubber mat                          | 4          |                          |                                 |
| 36  | 2500027                 |            | Stop valve                          | 1          |                          |                                 |
| 37  | 3900060                 |            | AB temp. sensor                     | 1          | pxm-d43a-h 1             |                                 |
| 38  | 3900061                 |            | Defrost. temp. Sensor               | 1          | pxm-43a-h4/158-103-96078 |                                 |

**Knock-down drawings for outdoor unit**

**Models:**

AU182BFAHA(H2SM-18HA03(B)、H2SM-18HB03(B)、H2SM-18HD03(B)、H2SM-18HY03(B))

| No. | Specialized No.                | Name of the component               | Qty./unit | Description               | Easily damaged components (Y/N) |
|-----|--------------------------------|-------------------------------------|-----------|---------------------------|---------------------------------|
|     | AU182BFAHA                     |                                     |           |                           |                                 |
| 1   | 1303126A                       | Front guard                         | 1         |                           |                                 |
| 2   | 1436182                        | <b>Handle</b>                       | 1         |                           |                                 |
| 3   | 1101039                        | <b>Left Side panel</b>              | 1         |                           |                                 |
| 4   | 0010100471                     | <b>Upper panel</b>                  | 1         |                           |                                 |
| 5   | 1101038                        | <b>Front panel</b>                  | 1         |                           |                                 |
| 6   | 2331024                        | <b>Axial fan</b>                    | 1         |                           |                                 |
| 7   | 3000076                        | <b>Motor</b>                        | 1         |                           | Y                               |
| 8   | 1301133                        | <b>Motor support</b>                | 1         |                           |                                 |
| 9   | 1101041A                       | <b>Right Side panel</b>             | 1         |                           |                                 |
| 10  | 2500028                        | <b>Stop valve</b>                   | 1         |                           |                                 |
| 11  | 0400039                        | <b>Heat exchanger</b>               | 1         |                           |                                 |
| 12  | 1303128                        | Rear guard                          | 1         |                           |                                 |
| 13  | 2500015                        | <b>4-way valve</b>                  | 1         |                           | Y                               |
| 14  | 1301127A                       | <b>Stop valve support</b>           | 1         |                           |                                 |
| 15  | 1431404                        | Capacitor clamp 2                   | 1         |                           |                                 |
| 16  | 1431403                        | Capacitor clamp 1                   | 2         |                           |                                 |
| 17  | 0100237                        | <b>Bottom panel assy.</b>           | 1         |                           |                                 |
| 18  | 2000054                        | <b>Compressor</b>                   | 1         | C-7RV113HOW               | Y                               |
| 19  | 0600170                        | <b>PCB</b>                          | 1         |                           |                                 |
| 20  | /                              | <b>Electricity power cord</b>       | 1         |                           |                                 |
| 21  | 4000112/4000113/4000114        | <b>Terminal block</b>               | 1         |                           |                                 |
| 22  | 0010800009                     | Separator plate assy.               | 1         |                           |                                 |
| 23  | 1431400                        | Electrical box                      | 1         |                           |                                 |
| 24  | <b>0500220</b>                 | <b>Subcooling pipe group</b>        | 1         |                           |                                 |
| 25  | <b>2500057/2500058/2500059</b> | Coil for electronic expansion valve | 1         |                           |                                 |
| 26  | 3800042                        | <b>Reactor</b>                      | 1         |                           |                                 |
| 27  | 3100061                        | <b>Power module</b>                 | 1         | TL105B                    |                                 |
| 28  | 3700015                        | <b>BRIDGE DIODE</b>                 | 2         | S25VB60                   | Y                               |
| 29  | 0600169                        | <b>PCB(main controller)</b>         | 1         |                           | Y                               |
| 30  | 4100013                        | <b>fuse250v</b>                     | 1         | t1nc 30a                  |                                 |
| 31  | 3900062                        | Return gas sensor                   | 1         | pxm-43a-h 5/158-103-96079 | Y                               |
| 32  | 3900074                        | Temperature sensor of compressor    | 1         | PMM-62A-H1                |                                 |
| 33  | 3900063                        | Evaporator sensor                   | 1         |                           | Y                               |
| 34  | 2500053                        | <b>4-way valve winding</b>          | 1         |                           |                                 |
| 35  | 1752769                        | <b>Rubber mat</b>                   | 4         |                           |                                 |
| 36  | 2500027                        | <b>Stop valve</b>                   | 1         |                           |                                 |
| 37  | 3900060                        | <b>AB temp. sensor</b>              | 1         | pxm-d43a-h1               |                                 |
| 38  | 3900061                        | <b>Defrost. temp. Sensor</b>        | 1         | pxm-43a-h 4/158-103-96078 |                                 |

**Knock-down drawings for outdoor unit**

**Models:**

AU072ACAH(AHSU-07H03(B)、HSU-07HB03(B))

| No. | Specialized No. | Name of the component    | Qty./unit | Description              | Easily damaged components (Y/N) |
|-----|-----------------|--------------------------|-----------|--------------------------|---------------------------------|
|     | AU072ACAH       |                          |           |                          |                                 |
| 1   | 0100934         | Front panel assy.        | 1         |                          |                                 |
| 2   | 0100209         | Back frame group         | 1         |                          |                                 |
| 3   | 1301225         | Bottom panel             | 1         |                          |                                 |
| 4   | 1436314         | Right Side panel         | 1         |                          |                                 |
| 5   | 2336029         | Axial fan                | 1         |                          |                                 |
| 6   | 3000053         | Motor                    | 1         |                          | Y                               |
| 7   | 1301227         | Motor support            | 1         |                          |                                 |
| 8   | 2000052         | Compressor               | 1         | KHV104FCR                |                                 |
| 9   | 2500015         | 4-way valve              | 1         |                          | Y                               |
| 10  | 3800044         | 4-way valve winding      | 1         |                          |                                 |
| 11  | 0400057         | Heat exchanger           | 1         |                          |                                 |
| 12  | 2500041         | Stop valve               | 1         |                          |                                 |
| 13  | 2500042         | Stop valve               | 1         |                          |                                 |
| 14  | 3800039         | Reactor                  | 1         |                          |                                 |
| 15  | 1762574 A       | Sound insulating cushion | 1         |                          |                                 |
| 16  | 1762575 A       | Sound insulating cushion | 1         |                          |                                 |
| 17  | 1762577 A       | Sound insulating cushion | 1         |                          |                                 |
| 18  | 1762576 A       | Sound insulating cushion | 1         |                          |                                 |
| 19  | 3900055         | thermistor (def.)        | 1         | pxm-43a-h2/158-103-96076 |                                 |
| 20  | 3900056         | thermistor (comp.)       | 1         | pmm-62a-h1               |                                 |
| 21  | 1752769         | Rubber mat               | 1         |                          |                                 |
| 22  | 3700010         | BRIDGEDIODE              | 2         | S15VB60                  | Y                               |
| 23  | 3700009         | Power module             | 1         | TM-03                    | Y                               |
| 24  | 0600136         | PCB(main controller)     | 1         |                          | Y                               |
| 25  | 3600092         | electrolyte capacitance  | 1         |                          |                                 |
| 26  | 4000096         | Terminal block           | 1         |                          |                                 |

**Knock-down drawings for outdoor unit**

**Models:**

AU102ACAHA(HSU-10HB03(B)、HSU-10HC03(B)、HSU-10HE03(B)、HSU-10HY03(B))

| No. | Specialized No. | Name of the component    | Qty./unit | Description              | Easily damaged components (Y/N) |
|-----|-----------------|--------------------------|-----------|--------------------------|---------------------------------|
|     | AU102ACAHA      |                          |           |                          |                                 |
| 1   | 0100934         | Front panel assy.        | 1         |                          |                                 |
| 2   | 0100209         | Back frame group         | 1         |                          |                                 |
| 3   | 1301225         | Bottom panel             | 1         |                          |                                 |
| 4   | 1436314         | Right Side panel         | 1         |                          |                                 |
| 5   | 2336029         | Axial fan                | 1         |                          |                                 |
| 6   | 3000053         | Motor                    | 1         |                          | Y                               |
| 7   | 1301227         | Motor support            | 1         |                          |                                 |
| 8   | 2000052         | Compressor               | 1         | KHV104FCR                |                                 |
| 9   | 2500015         | 4-way valve              | 1         |                          | Y                               |
| 10  | 3800044         | 4-way valve winding      | 1         |                          |                                 |
| 11  | 0400057         | Heat exchanger           | 1         |                          |                                 |
| 12  | 2500041         | Stop valve               | 1         |                          |                                 |
| 13  | 2500042         | Stop valve               | 1         |                          |                                 |
| 14  | 3800039         | Reactor                  | 1         |                          |                                 |
| 15  | 1762574 A       | Sound insulating cushion | 1         |                          |                                 |
| 16  | 1762575 A       | Sound insulating cushion | 1         |                          |                                 |
| 17  | 1762577 A       | Sound insulating cushion | 1         |                          |                                 |
| 18  | 1762576 A       | Sound insulating cushion | 1         |                          |                                 |
| 19  | 3900055         | thermistor (def.)        | 1         | pxm-43a-h2/158-103-96076 |                                 |
| 20  | 3900056         | thermistor (comp.)       | 1         | pmm-62a-h1               |                                 |
| 21  | 1752769         | Rubber mat               | 1         |                          |                                 |
| 22  | 3700010         | BRIDGEDIODE              | 2         | S15VB60                  | Y                               |
| 23  | 3700009         | Power module             | 1         | TM-03                    | Y                               |
| 24  | 0600136         | PCB(main controller)     | 1         |                          | Y                               |
| 25  | 3600092         | electrolyte capacitance  | 1         |                          |                                 |
| 26  | 4000096         | Terminal block           | 1         |                          |                                 |

**Knock-down drawings for outdoor unit**

**Models:**

AU142AEAHA(HSU-14H03(B))

| No. | Specialized No. | Name of the component     | Qty. /unit | Description                 | Easily damaged components (Y/N) |
|-----|-----------------|---------------------------|------------|-----------------------------|---------------------------------|
|     | AU142AEAHA      |                           |            |                             |                                 |
| 1   | 1436043 A       | Square fan hood           | 1          |                             |                                 |
| 2   | 1101066         | Front panel               | 1          |                             |                                 |
| 3   | 1101010         | Upper panel               | 1          |                             |                                 |
| 4   | 1436042         | Electric wiring box cover | 1          |                             |                                 |
| 5   | 2331030 A       | Axial fan                 | 1          |                             |                                 |
| 6   | 3000029         | Motor                     | 1          |                             | Y                               |
| 7   | 1101068         | Motor support             | 1          |                             |                                 |
| 8   | 1301033         | Condenser mounting plate  | 1          |                             |                                 |
| 9   | 1436173         | Sensor nip                | 1          |                             |                                 |
| 10  | 3800082         | Ambient temp. sensor      | 1          | pxec-43a-h1-2               | Y                               |
| 11  | 1101067         | Rear protecting plate     | 1          |                             |                                 |
| 12  | 3900055         | thermistor (def.)         | 1          | pxm-43a-h2/158-103-96076    |                                 |
| 13  | 2500053         | 4-way valve winding       | 1          |                             |                                 |
| 14  | 2500015         | 4-way valve               | 1          |                             | Y                               |
| 15  | 0500438         | Subcooling pipe set       | 1          |                             | Y                               |
| 16  | 001250001 3     | Stop valve                | 1          |                             |                                 |
| 17  | 2500049         | Stop valve                | 1          |                             |                                 |
| 18  | 3900056         | thermistor (dis.)         | 1          | pmm-62a-h1                  | Y                               |
| 19  | 3300354         | PCB(main controler)       | 1          |                             | Y                               |
| 20  | 3600231         | capacitor                 | 1          | 45uf/175v                   |                                 |
| 21  | 3600129         | capacitor                 | 1          | 2500UF/400V                 |                                 |
| 22  | 1301252         | Electrical box            | 1          |                             |                                 |
| 23  | 4100012         | fuse                      | 1          | tinc 25A                    |                                 |
| 24  | 4000105         | Terminal block            | 1          |                             |                                 |
| 25  | 3600007 A       | Motor capacitor           | 1          | 2.5UF/450 V                 |                                 |
| 26  | 4500024         | PTC                       | 1          | H491B06 AR400H300           | Y                               |
| 27  | 3700015         | BRIDGEDIODE               | 2          | S25VB60                     | Y                               |
| 28  | 3100063         | Power module              | 1          | pm30ctj060-3<br>/mig30j106l |                                 |
| 29  | 2000055         | Compressor                | 1          | C-6RV73HOW                  | Y                               |
| 30  | 1762607 A       | Inner sound insulator     | 1          |                             |                                 |
| 31  | 0100240         | Separator set             | 1          |                             |                                 |
| 32  | 1752769         | Rubber mat                | 4          |                             |                                 |
| 33  | 1101014         | Bottom panel              | 1          |                             |                                 |
| 34  | 3800114         | Reactor                   | 1          |                             |                                 |
| 35  | 0100427         | Reactor assy.             | 1          |                             |                                 |
| 36  | 0400150         | Heat exchanger            | 1          |                             |                                 |



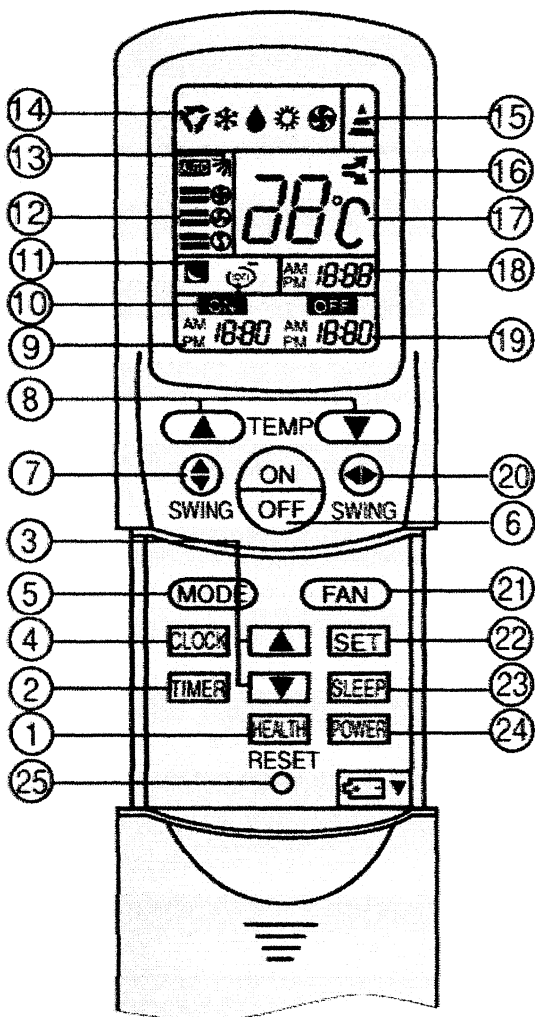
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# **REMOTE CONTROLLER FUNCTIONS CONVERSION**

**A. Parts & Functions**

Model : AS142AHAHA/AU142AEAHA (HSU-14H03 (B))

# Wireless Remote Controller



1. HEALTH

2. TIMER  
Used to select TIMER ON, TIMER OFF, TIMER ON/OFF

3. HOUR  
Used to set clock and timer setting.

4. CLOCK  
Used to set correct time

5. MODE  
Used to select AUTO run, COOL, DRY, HEAT and FAN operation.

6. ON/OFF

Used for unit start and stop.

7. SWING

Used to set auto fan direction(up and down)

8. TEMP.

Used to select your desired temp.

9. TIMER ON

10. HEALTH display

11. SLEEP

12. FAN SPEED



13. SWING display

14. MODE display

- AUTO
- COOL
- DRY
- HEAT
- FAN

15. SIGNAL SENDING

16. POWER display

17. TEMP.

18. CLOCK display

19. TIMER OFF

20. SWING

Used for unit start and stop (left and right)

21. FAN

Used to select fan speed LO, MED, HI, AUTO

22. SET

Used to confirm timer and clock settings

23. SLEEP

Used to select sleep mode.

24. POWER

Used to set soft or super mode operation

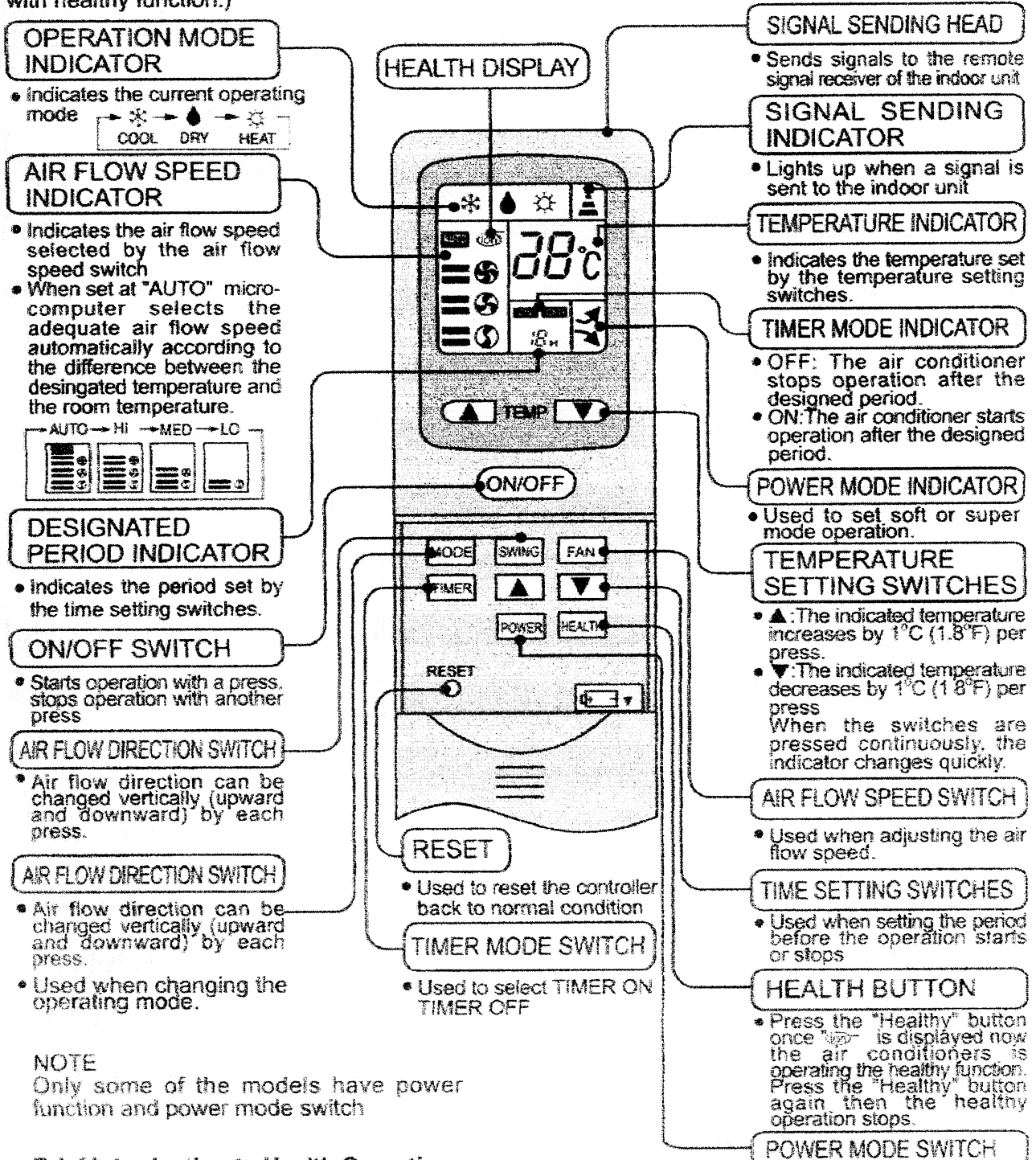
25. RESET

Used to reset the controller back to normal condition.

**A. Parts & Functions**

MODELS: All the other 13 models except AS142AHAHA/AU142AEAHA (HSU-14H03 (B)).

If the unit which you purchased has healthy function. Remote controller should like the following figure: (The introduction in this book about the remmote controller has no an example for the once with healthy function.)



**NOTE**  
Only some of the models have power function and power mode switch

**Brief Introduction to Health Operation**

The anion generator in the air conditioner can generate a lot of anion to effectively balance the quantity of posion and anion in the air and also to kill bacteria and speed up the dust sediment in the room and finally clean the air in the room

**NOTE:**  
When the fan in the indoor unit does not work, the health lamp lights up, but the anion generator does not release anion

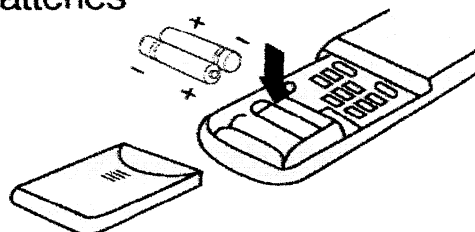
## Inserting Dry Batteries

### 1. Loading of the battery

Load the batteries as illustrated.

2 R-03 batteries, resetting key (cylinder)

TWO R-03  
dry batteries



### 2. Remove the battery cover:

Slightly press "▼" and push down the cover.

### 3. Load the battery:

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

### 4. Put on the cover again

### 5. Confirmation indicator:

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

#### Note:

Use two new same-typed batteries when loading.

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

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

If there are any display after taking-out just need to press reset key.

## Handling the Wireless Remote Controller

- When operating, point the signal sending head toward the remote signal receiver of the indoor unit.
- Do not allow any obstacles between the signal sending head and the signal receiver.
- The signal receiver may not receive the signal in a room which has an electro-lighting (rapid-start) type fluorescent lamp, an inverter-type fluorescent lamp or a cordless phone.
- When attaching the wireless remote controller to a wall or post, make sure that the indoor unit receives the signals.
- Handle the wireless remote controller with care.  
Do not drop, throw or wet the remote controller.  
Do not attach the remote controller to a place where it is exposed to direct sunlight or heat.

B. Operation

Models: AS142AHAHA/AU142AEAHA (HSU-14H03 (B))

## Auto run, Fan operation

### (1) Unit start

Enjoy yourself by just a gentle press.

Press ON/OFF button, unit starts.  
Previous operation status appears on display.  
(Not Timer, Sleep, Fan)

### (2) Select operation mode

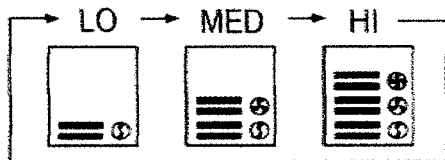
Press MODE button. For each press, operation mode changes as follows:



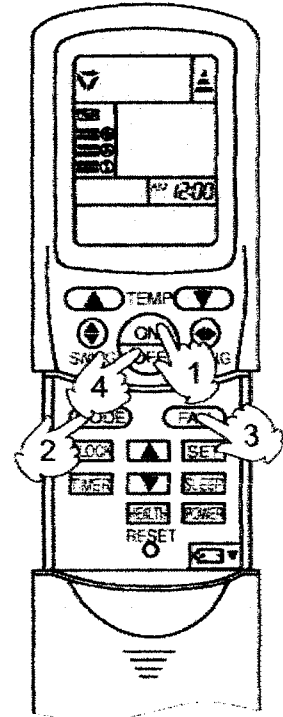
Unit will run in selected mode.  
Stop display at "AUTO" or "FAN".

### (3) FAN

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



- Note:
- In FAN mode, unit only operate FAN running, and at the same time, AUTO is not available, and TEMP. is not on LCD.
  - Unit will run at selected fan speed.
  - Adjust air flow direction if necessary, referring to page12.



### (4) Unit stop

Press ON/OFF button. Only time remains on LCD. All indicators on indoor unit go out. Vertical flap closed automatically.

### Hints

Remote controller can memorize settings in each operation mode. To run it next time just select the operation mode and it will start with the previous setting.

No reselecting is needed.(TIMER ON/OFF needs reselecting)

Cautions: On cooling only unit, heating mode is not available.

After replacing batteries, press ON/OFF, and display becomes as follows:

Operation mode: AUTO, Temp: No

Timer mode: No, Fan speed: AUTO

**Note:** The above information is the explanation of the displayed information therefore varies with those displayed in actual operation.

## HEALTH operation

### (1) Unit start

Press ON/OFF button, unit starts.

Previous operation status appears on display.

(Not Timer setting)

Power indicator on indoor unit lights up.

Enjoy yourself by just a gentle press.

### (2)

Press the "Health" button once "HEALTH" is displayed now the air conditioner is operating the healthy function.

### (3)

Press the "Health" button again then the healthy operation stops.

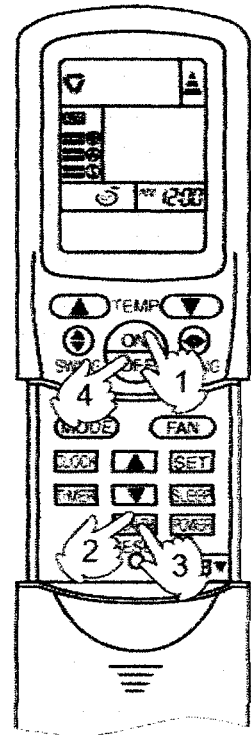
### (4) Unit stop

Press ON/OFF button.

Only time remains on LCD.

All indicators on indoor unit go out.

Vertical flap closed automatically.



### Brief Introduction to Health Operation

The anion generator in the air conditioner can generate a lot of anion to effectively balance the quantity of positive and negative ions in the air and also to kill bacteria and speed up the dust sediment in the room and finally clean the air in the room.

**Note:** When the fan in the indoor unit does not work, the health lamp lights up, but the anion generator does not release anion.

# COOL, HEAT and DRY operation

- Recommendations:**
- Use COOL in summer.
  - Use HEAT in winter.
  - Use DRY in spring, autumn and in damp climate.

## (1) Unit start

Press ON/OFF button, unit starts.  
 Previous operation status appears on display. (Not Timer setting)  
 Power indicator on indoor unit lights up.

## (2) Select operation mode

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



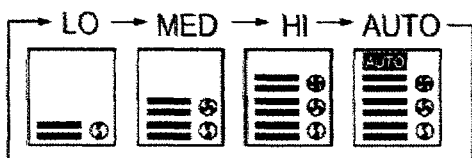
Unit will run in operation mode displayed on LCD.  
 Stop display at your desired mode.

## (3) Select temp.setting

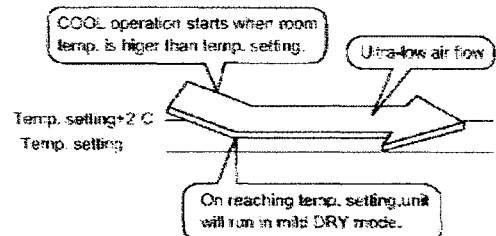
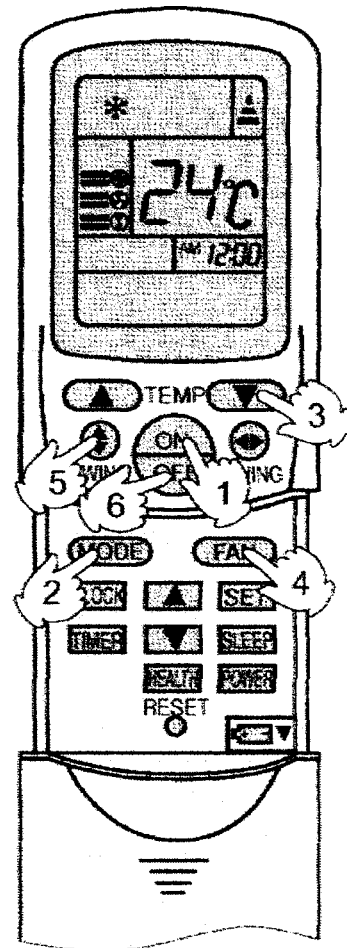
Press TEMP. button  
 Δ Every time the button is pressed, temp. setting increases 1°C  
 ∇ Every time the button is pressed, temp. setting decreases 1°C  
 Unit will start running to reach the temp. setting on LCD.

## (4) Fan speed selection

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



- Unit runs at the speed displayed on LCD.
- In HEAT mode, warm air will blow out after a short period of time due to cold-draft prevention function.
- In DRY mode, when room temp. becomes 2°C higher than temp. setting, unit will run intermittently at LO speed regardless of FAN setting.

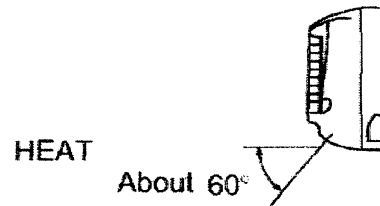
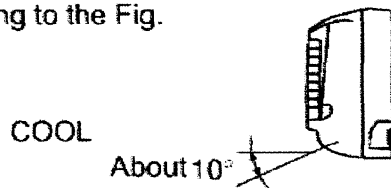


## Hints

Remote controller can memorize each operation status. When starting it next time, just press ON/OFF button and unit will run in previous status.

## (5) Air flow direction adjustment

After operation mode is selected, vertical flap will open automatically according to the mode. Referring to the Fig.



### Up and down (air flow adjustment)

Press SWING button, vertical flap will move within the range shown in the Fig. Press SWING button stop it at a fixed position.

### Three-dimensional

Press both swing, the louver and vertical louver will move at the same time, air flow direction will change continuously.

### Left and right (air flow adjustment)

Press SWING button, will move continuously from one side to another side, press again it will stop at a fixed position.

#### Cautions:

It is advisable not to keep vertical flap at downward position for a long time in COOL or DRY mode, otherwise, condensate water might occur.

#### Cautions:

When humidity is high, condensate water might occur at air outlet if all horizontal louvers are adjusted to left or right.

#### Cautions:

Do not move the vertical louver by hands. It may make the louver not work properly. In order to move the vertical louver, use wireless remote controller without fail. In case the louver does not work correctly, once stop the operation and turn on again.

#### Cautions:

Unit won't restart until 3 minutes have elapsed, due to system protection. HEAT mode is not available on cooling only unit.

## (6) Unit stop

Press ON/OFF button.  
Only time remains on LCD.  
All indicators on indoor unit go out.  
Vertical flap closes automatically.

### Hints

As cold air flows downward in COOL mode, adjusting air flow horizontally will be much more helpful for a better air circulation.

As warm air flows upward in HEAT mode, adjusting air flow downward will be much more helpful for a better air circulation.

Be careful not to catch a cold when cold air blows downward.

It is harmful to your health in summer to go frequently in and out of places where temp. difference is above 7°C. Temp. difference of 3-5°C will remove your fatigue.

More than this, unit's load can be reduced and power consumption cut down as well. So, you'd better set a temp. diff of 3-5°C between indoor and outdoor temp. in COOL mode.



## TIMER operation

Set Clock correctly before starting Timer operation(referring to page 6)  
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)Unit start

(1)After unit start, select your desired operation mode.  
Operation mode will be displayed on LCD.  
Power indicator on indoor unit lights up.

### (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 depressed, time will change quickly.

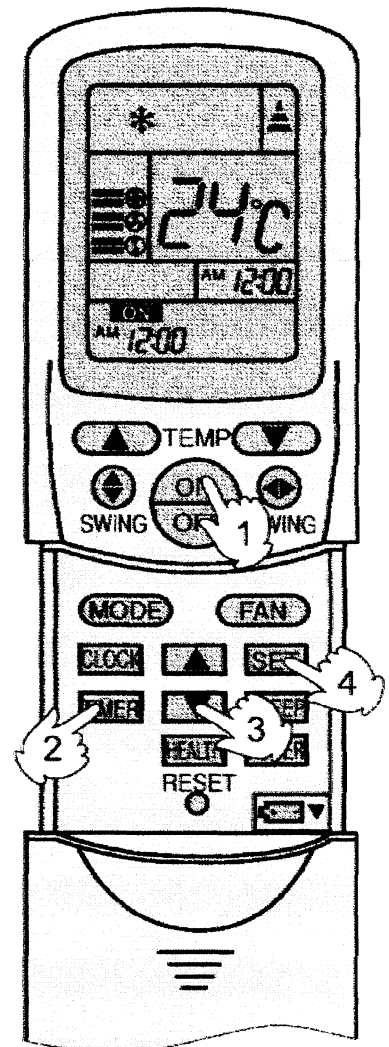
$\nabla$  Every time the button is pressed, time decreases 10 min.  
If button is kept depressed, time will change quickly. Time will be shown on LCD. It can be adjusted within 24 hours.

### (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 x hour x 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.

## TIMER ON-OFF

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

Operation mode will be displayed on LCD.

Power indicator on indoor unit lights up.

(2) Press TIMER button to change TIMER mode.

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



Select TIMER ON-OFF. "ON" will flash.

(3) Time setting for TIMER ON

Press HOUR button.

△ Every time the button is pressed, time increases 10min.

If button is kept depressed, time will change quickly.

▽ Every time the button is pressed, time decreases 10min.

If button is kept depressed, time will change quickly.

Time will be shown on LCD.

It can be adjusted within 24 hours.

AM refer's 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 at x hour x min.

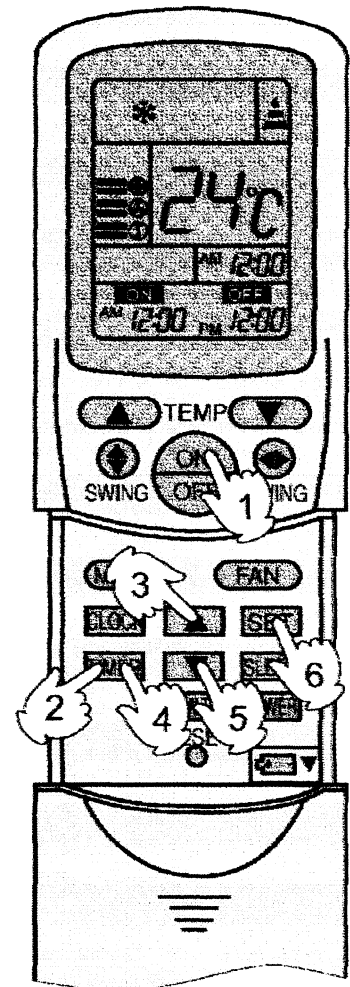
(5) Time confirming for TIMER OFF

Follow the same procedures 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 X hour X 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 Start-Stop or Stop-Start can be achieved.

## Power Mode Operation


Power mode operation includes super mode operation and soft mode operation.

### Super Mode Operation

This mode is good to have yourself blown directly to feel cooler or warmer.

#### ON


Press Power Mode Switch once.

The indication  appears on the remote controller and the operation in Super Mode starts.

During the Super Mode operation, the air flow speed is indicated as "AUTO" on the controller.

#### OFF

Press Power Mode Switch twice.

The indication  appears on the remote controller at one press and it goes out at the second press, then the operation will returns to the regular operation.

#### NOTE

- Unevenness of room air temperature may occur due to the intensive operation in a short time.
- After 15 min., the operation will return to normal automatically.

## Soft Mode Operation

Soft mode operation, operating more quietly by controlling the air flow of indoor unit, it is useful when noises should be smaller, such as, for reading and sleeping.

#### ON


Press Power Mode Switch twice.

The indication  appears on the remote controller and the operation in Soft Mode starts.

During the Soft Mode operation, the air flow speed is indicated as "AUTO" on the controller.

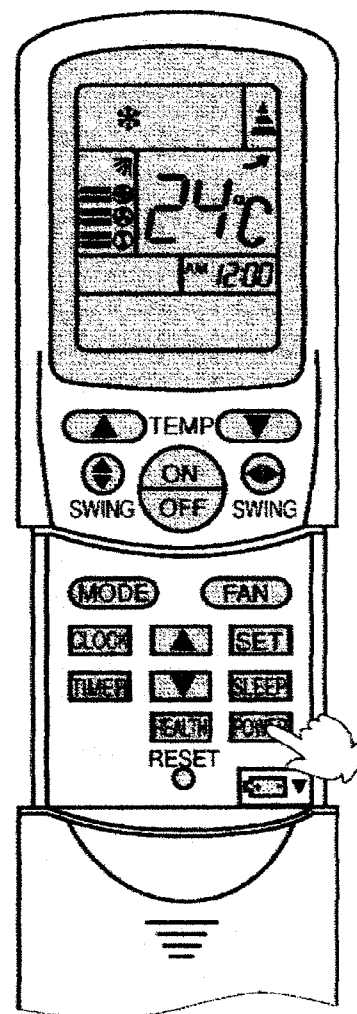
#### OFF

Press Power Mode Switch once.

The indication  goes out at one press, then the operation will return to the regular operation.

#### NOTE

- Soft mode operation may not be powerful enough to keep the room temperature at the designated for a long time.

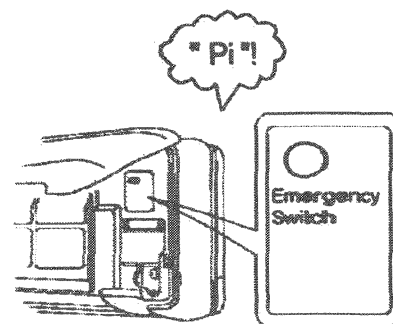


## Emergency operation and test operation

### Emergency Operation:

- Carry out this operation only when the remote controller is defective or lost.
- When the emergency operation switch is pressed, a "Pi" sound starts once, which means the start of this operation.
- In this operation, it is not possible to change the settings of temperature and air flow speed, it is also impossible to do an operation by the timer.
- Follow the requirements below.

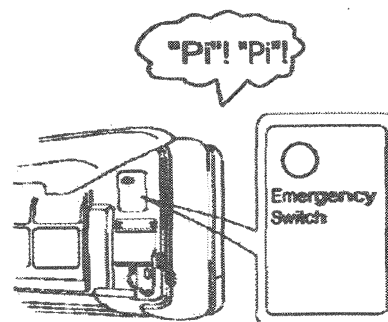
| Room temperature | Designated temperature | Timer mode | Air flow speed | Operation mode |
|------------------|------------------------|------------|----------------|----------------|
| More than 23°C   | 26°C                   | CONTINUOUS | AUTO           | COOL           |
| Less than 23°C   | 23°C                   | CONTINUOUS | AUTO           | HEAT           |



- ※ If an air conditioner is a model for both cooling and heating.  
Cooling when the room temperature at the start of operation is above 23°C.  
Heating when the room temperature at the start of operation is less 23°C.

### Test operation:

- Use this switch in the test operation when the room temperature is less 16°C, do not use it in the normal operation.  
Continue to press the test operation switch for more than 5 seconds. After you hear the "Pi" sound twice, release your finger from the switch, the cooling operation starts with the air flow speed setting "Hi".



### Removal of the restriction of emergency or test operation:

- Press once more the emergency operation switch, or manipulate through the remote controller, a "Pi" sound causes the restriction of emergency or test operation to be removed.
- When the remote controller is manipulated for the removal, then the selected operation by the remote controller.

## Comfortable SLEEP

Before going to bed at night, you can simply press the SLEEP button and unit will bring you a sound sleep in selected mode.

### In COOL mode

One hour after SLEEP mode starts, temp. will become 1°C higher than temp. setting. After running for another 1 hour, temp. rises by 1°C further. Unit will run for 6 hours then stops automatically. Temp. is higher than temp. setting so that room temp. won't be too low for your sleep. (As shown in Fig.1)

### In HEAT mode

One hour after SLEEP mode starts, temp. will become 2°C lower than temp. setting. After running for another 1 hour, temp. decreases by 2°C further. Unit will run for 3 hours at this temp. then increases another 1°C and stops automatically 3 hours later. Temp. is lower than temp. setting so that room temp. won't be too high for your sleep. (As shown in Fig.2)

### In AUTO mode

Unit will run according to the chosen mode.

### In FAN mode

SLEEP is not available.

### Power Failure Resume Function

Only some of the models have this function. If the unit is started for the first time, the compressor will not start running unless 3 minutes have elapsed. When the power resumes after power failure, the unit will run automatically, the power indicator lights up, and 3 minutes later the compressor starts running with the indicator lighting up.

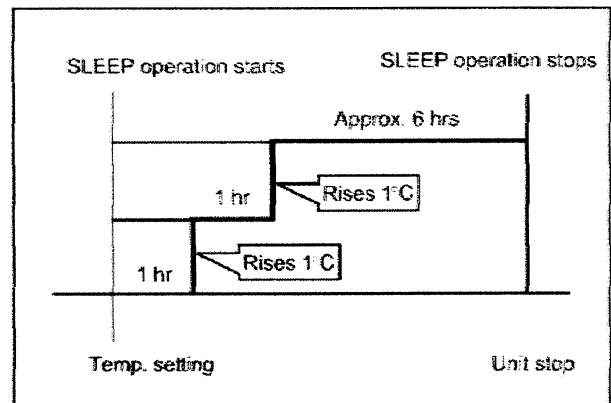
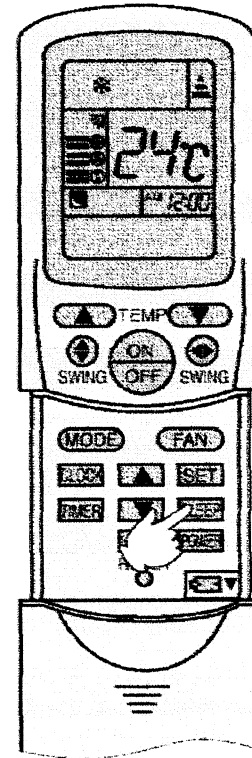


Fig.1

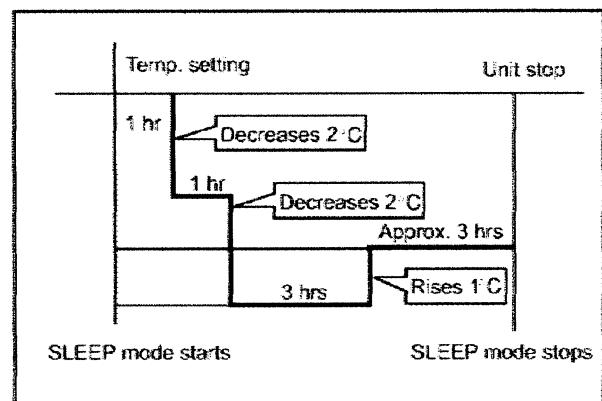
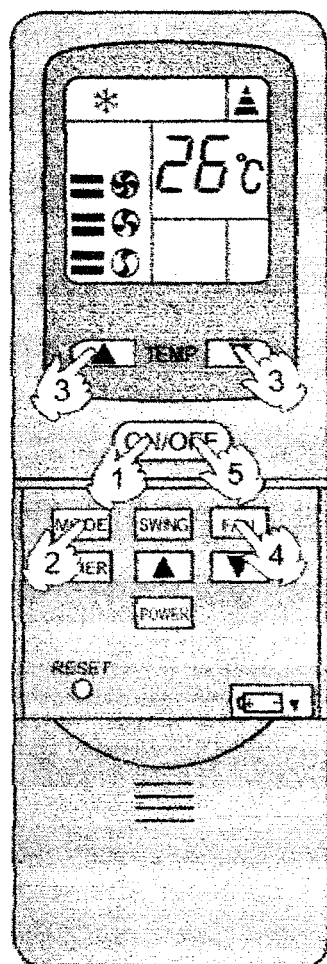


Fig.2

**B. Operation**

MODELS: All the other 13 models except AS142AHAHA/AU142AEAHA (HSU-14H03 (B))

## Cooling/Dry mode Operation



**1** Press the ON/OFF switch

**2** Set the operation mode to "COOL" or "DRY" by pressing the operation mode switch

**3** Adjust the designated temperature by pressing the temperature switches

**4** Adjust the air flow speed by pressing the air flow speed switch

When the switch is set at AUTO the adequate air flow speed is selected by micro computer automatically

## OFF

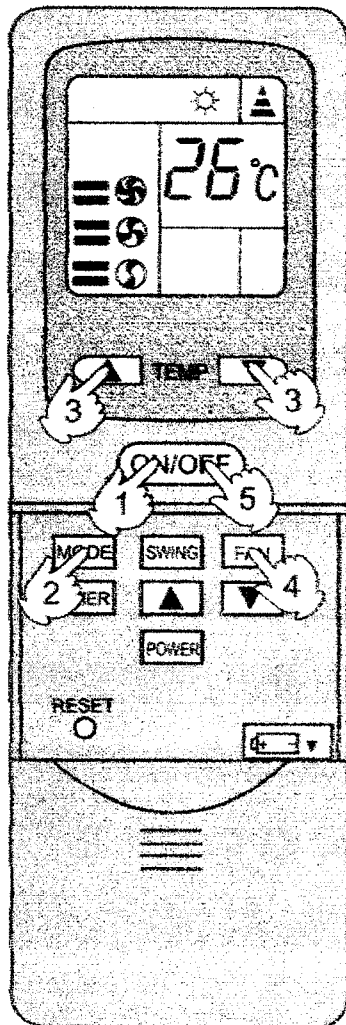
**5** Press the ON/OFF switch again

The system retains the previous setting conditions until next operation

### NOTICE

- When you press the ON/OFF switch immediately after a stop the air conditioner does not start operation for approx 3min in order to protect the system. Then the operation will start automatically after 3min.
- If the system continues cooling or dry operation for a long period under high humidity the outlet may accumulate water and cause dew drops.
- During dry mode operation the system performs the cooling operation until the room temperature reaches (33.8°F) above the designated temperature. Then it continues dry mode operation intermittently with air flow speed at LO regardless of the designated speed.
- Air flow from the system may be cold when the room temperature is low.
- After replacing the dry batteries the operating conditions returns to ex factory pre set as follows: operation mode COOL, temperature 26°C (78.8°F), timer mode NONE, air flow speed AUTO.

# Heating Operation



**1** Press the ON/OFF switch

**2** Set the operation mode to "HEAT" by pressing the operation mode switch

**3** Adjust the designated temperature by pressing the temperature switches

**4** Adjust the air flow speed by pressing the air flow speed switch

When the switch is set at AUTO the micro computer selects air flow speed automatically

## OFF

**5** Press the ON/OFF switch again

The system retains the previous setting conditions until next operation

## NOTICE

- When you press the ON/OFF switch immediately after a stop the air conditioner does not start operation for approx. 3min in order to protect the system. Operation will start automatically after 3min
- When the room temperature has not reached the required level because of a low ambient temperature add other heating facilities
- After replacing the dry batteries the operating conditions become ex factory preset as follows: operation mode COOL, temperature 26°C (78.8°F), timer mode No, air flow speed AUTO

## Air Flow Direction Adjustment

### Vertical Adjustment

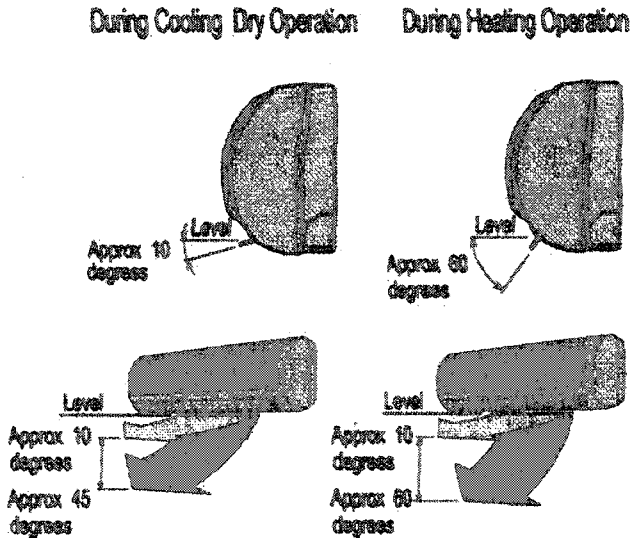
When ON/OFF switch is pressed the vertical louver will move to the adequate positions for each operation automatically

### Swing of Air Flow

If air flow direction switch is pressed once the vertical louver will move within the range of figures as right

### Fixing the Flow Direction

If air flow direction switch is pressed again the vertical louver will be fixed and that position is memorized. From the next operation the louver will be set at previous position automatically



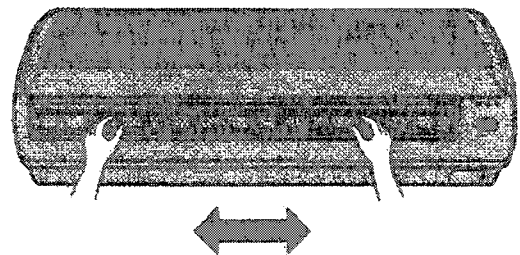
## NOTICE

- When the operation is off the vertical louver closes the outlet automatically
- **DO NOT MOVE THE VERTICAL LOUVER BY HANDS** It may make the louver not work properly. In order to move the vertical louver use wireless remote controller without fail. In case the louver does not work correctly once stop the operation and turn on again
- During cooling or dry operation the vertical louver should not be downward for a long time. If this is done dew drops may appear at the outlet (Even the louver direction is in the swing range the louver will move about 10 degrees from horizontal after one hour)

## Horizontal Adjustment

Adjust the horizontal louver by moving the adjustment tabs

If the system is operated with the horizontal louver faced completely to the left or right under high humidity (e.g. during the rainy season) dew drops may appear at the outlet

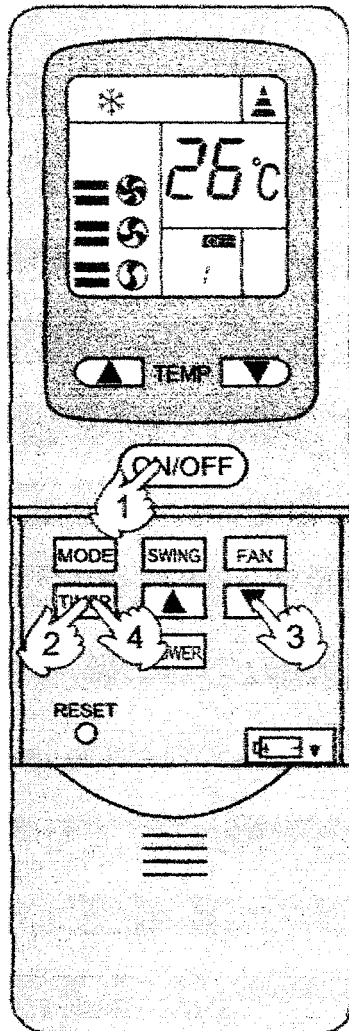




# Timer Function Usage

## OFF Timer Function

With this function the system stops operating after the designated period



### 1 Press the ON/OFF switch

Make sure that the operating conditions are those desired

### 2 Set the timer mode to "OFF" by pressing the timer mode switch

Make sure that the timer mode indicator of the indoor unit lights up

### 3 Set the operation period by pressing the time setting switches

The operation period can be set from 1 hour to 12 hours by an hour

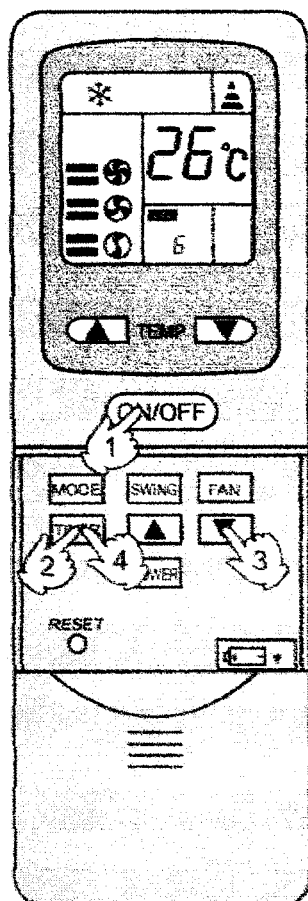
## Timer Cancellation

### 4 Just press the timer mode switch several times until TIMER mode disappears

## Changing the Designated Period

Press either ▲ or ▼ time setting switch to adjust the operating period. The timer will then immediately start its function

## ON Timer Function



With this function the system starts operating after the designated period the system can be set to turn on automatically at the time of awakening or arriving home

### 1 Press the ON/OFF switch

Make sure that the operating conditions are those desired

### 2 Set the timer mode to "ON" by pressing the timer mode switch

Make sure that the timer mode indicator of the indoor unit lights up

### 3 Set the operation period by pressing the time setting switches

The operation period can be set from 1 hour to 12 hours by an hour

### Timer Cancellation

### 4 Just press the timer mode switch several times until TIMER mode disappears

## NOTICE

- Once the wireless remote controller set the timer the period is memorized. From next time you can operate easily with operation of the ON/OFF switch and the timer mode switch
- After replacing the dry batteries the designated period is set automatically as follows: OFF 1 hour ON 6 hours. Set the timer again if necessary
- If the power fails set timer again

## Power Failure Resume Function

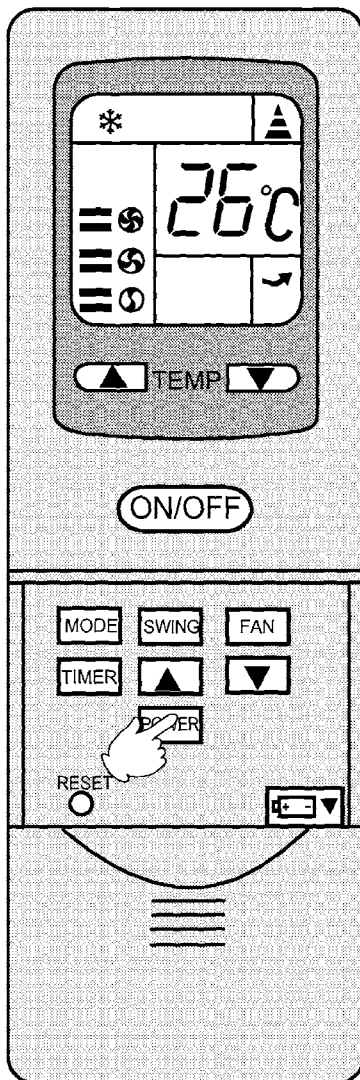
- Only some of the models have this function. If the unit is started for the first time the compressor will not start running unless 3 minutes have elapsed. When the power resumes after power failure the unit will run automatically the power indicator lights up and 3 minutes later the compressor starts running with the indicator lighting up

# Power Mode Operation

Power mode operation includes super mode operation and soft mode operation

For AS112BKAAH      AS112BLAIA      AS112BMAIA  
 AU182BFAHA      AU182BFAHA      AU182BFAHA  
 (H2SM-18HD03(B)) (H2SM-18HB03(B)) (H2SM-18HA03(B))

power mode is not available.



## Super Mode Operation

This mode is good to have yourself blown directly to feel cooler or warmer.

### ON

Press Power Mode Switch once.

The indication appears on the remote controller and the operation in Super Mode starts.

During the Super Mode operation, the air flow speed is indicated as "AUTO" on the controller.

### OFF

Press Power Mode Switch twice.

The indication appears on the remote controller at one press and it goes out at the second press, then the operation will return to the regular operation.

## NOTE

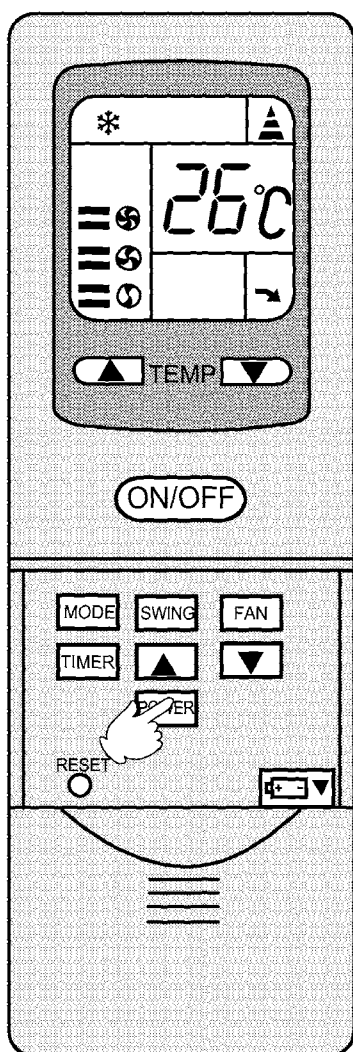
- Unevenness of room air temperature may occur due to the intensive operation in a short time.
- After 15 min., the operation will return to normal automatically.

## Power Mode Operation

Power mode operation includes super mode operation and soft mode operation

For AS112BKAAH      AS112BLAIA      AS112BMAIA  
 AU182BFAHA      AU182BFAHA      AU182BFAHA  
 (H2SM-18HD03(B)) (H2SM-18HB03(B)) (H2SM-18HA03(B))

power mode is not available.




### Soft Mode Operation

Soft mode operation, operating more quietly by controlling the air flow of indoor unit, it is useful when noises should be smaller, such as, for reading and sleeping.

#### ON


Press Power Mode Switch once.

The indication  appears on the remote controller and the operation in Soft Mode starts.

During the Soft Mode operation, the air flow speed is indicated as "AUTO" on the controller.

#### OFF

Press Power Mode Switch twice.

The indication  goes out at one press, then the operation will return to the regular operation.

### NOTE

- Soft mode operation may not be powerful enough to keep the room temperature at the designated for a long time.

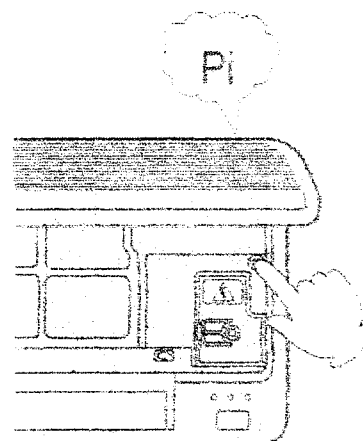
## Emergency and Test Operation

### Emergency operation

- Use this operation only when the remote controller is defective or lost
- When the emergency operation switch is pressed the Pi sound is heard once which means the start of this operation
- In this operation the system automatically selects the operation modes cooling or heating according to the room temperature as follows

| Temperature | Operation mode | Designated temperature | Timer mode | Air flow  |
|-------------|----------------|------------------------|------------|-----------|
| ABOVE 23°C  | COOLING        | 26°C                   | CONTINUOUS | AUTOMATIC |
| BELOW 23°C  | HEATING        | 23°C                   | CONTINUOUS | AUTOMATIC |

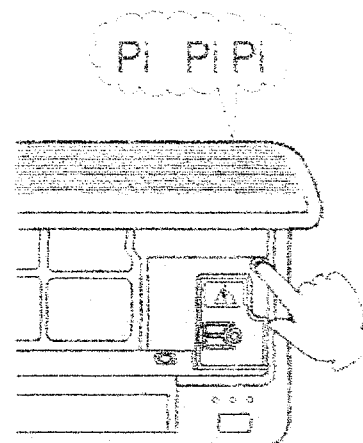
- It is not possible to operate in dry mode



### Test operation

Test operation switch is the same as emergency switch

- Use this switch in the test operation when the room temperature is below 16°C do not use in normal operation
- Continue to press the test operation switch for more than 5 seconds After you hear the Pi sound twice release your finger from the switch the cooling operation starts with the air flow speed HI
- After 30 minutes test operation ends automatically



### Termination of emergency or test operation

- Press the emergency operation switch once more or manipulate through the remote controller the Pi sound the emergency or test operation is terminated
- When the remote controller is manipulated it gets the system back to the normal operation mode

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# **BRIEF INTRODUCTION TO ELECTRICAL CONTROL FUNCTION**

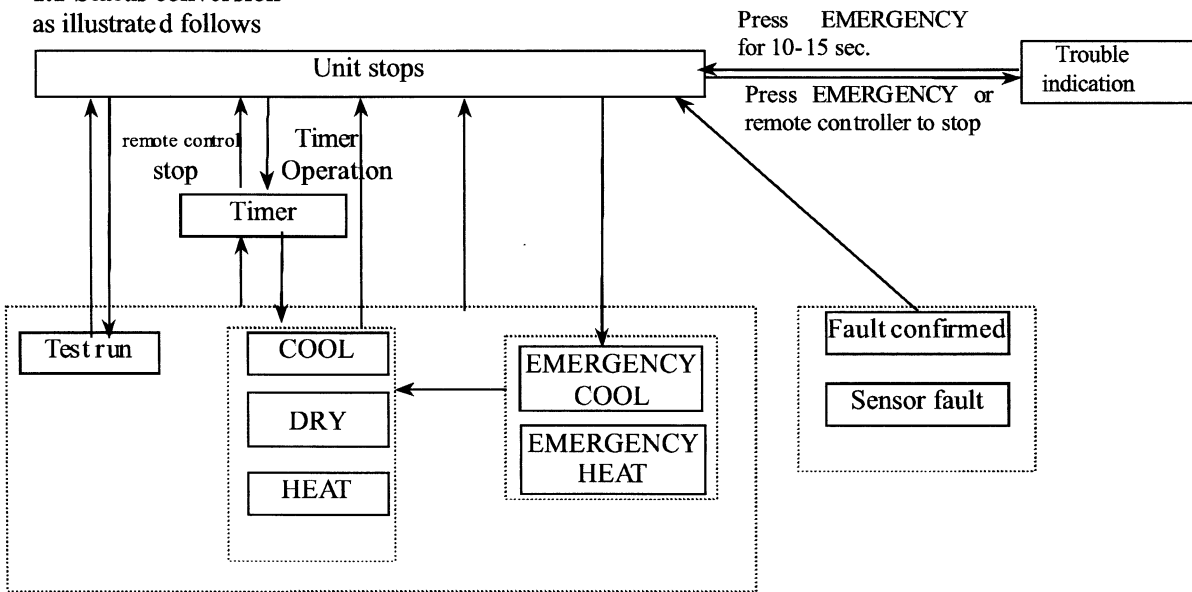
**Including electrically controlled function introduction of air conditioners as follows:**

AS072AZAHA/AU072ACAH (HSU-07H03 (B))、AS072AIAHA/AU072ACAH (HSU-07HB03 (B))  
 AS142AHAHA/AU142AEHA (HSU-14H03 (B))、AS102AMAIA/AU102ACAH (HSU-10HB03 (B))  
 AS102ALAI/AU102ACAH (HSU-10HC03 (B))、AS102AKAHA/AU102ACAH (HSU-10HE03 (B))  
 AS102AMAJA/AU102ACAH (HSU-10HY03 (B))

**1、 Introduction of electrically controlled functions**

**1.1 Status conversion**

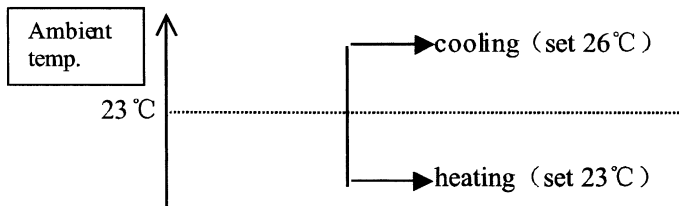
as illustrated follows



**1.2 AUTO function (press EMERGENCY button 0-5 s to enter AUTO mode)**

**1.2.1 Status conversion during AUTO operation**

as shown follows



In emergency AUTO operation, indoor unit could receive signals from the remote controller and change status.

**1.2.2 Fan speed control during AUTO operation**

Indoor fan speed is automatically controlled, see [fan speed control during COOL/HEAT] for details.

**1.2.3 Compressor frequency control in AUTO mode**

See [compressor frequency control during COOL/HEAT]

**1.3 COOL operation**

**1.3.1 Fan speed control in COOL operation (cooling offset temp. of -0.33°C)**

If selecting manual control, fan speed during compressor running shall be as setting, and as setting-60rpm when compressor stops.

If selecting auto, fan speed depends on temp. difference  $\Delta T$  ( | ambient temp.-offset-temp. setting | ), see following table for detail information.

| Temp. difference(°C) | $\Delta T > 4.3$ | $4.3 \geq \Delta T \geq 0.3$ | $\Delta T < 0.3$ |
|----------------------|------------------|------------------------------|------------------|
| Fan speed            | HI               | MED                          | LO               |

**1.3.2 Compressor control during COOL operation.**

### 1.3.2.1 Compressor control during normal operation

|                    |                  |                              |                             |                               |
|--------------------|------------------|------------------------------|-----------------------------|-------------------------------|
| Temp. diff(°C)     | $\Delta T > 4.3$ | $4.3 \geq \Delta T \geq 1.3$ | $1.3 \geq \Delta T \geq -1$ | $\Delta T < -1^\circ\text{C}$ |
| Max.frequency (Hz) | High             | Intermediate                 | Low                         | Compressor stops              |

### 1.3.2.2 In COOL mode, fan speed setting restricts frequency as follows:

|                   |                     |
|-------------------|---------------------|
| Fan speed setting | Max. frequency (Hz) |
| MED               | 90Hz                |
| LO                | 52Hz                |

### 1.3.2.3 In COOL mode, outdoor ambient temperature restrains frequency as follows: (for models with outdoor ambient temperature sensor only)

|                           |                     |
|---------------------------|---------------------|
| Outdoor ambient temp.(°C) | Max. frequency (Hz) |
| $\Delta T \geq 26$        | Unrestricted        |
| $\Delta T < 26$           | 60Hz                |

## 1.4 DRY operation

### 1.4.1 Fan speed control in DRY mode (cooling offset temp. of $-0.33^\circ\text{C}$ )

During compressor off in initial operation, fan runs at LO; when compressor stops in other cases, fan also stops. If selected manual control, fan speed during compressor operation shall be as given in the following table:

|                  |                                   |                                |
|------------------|-----------------------------------|--------------------------------|
| Temp. difference | $\Delta T \geq 0.3^\circ\text{C}$ | $\Delta T < 0.3^\circ\text{C}$ |
| Fan speed        | setting                           | LO                             |

If selected AUTO fan speed, fan speed will depend on temperature difference (ambient temp.- temp. setting) . See the following table for details.

|                       |                  |                              |                  |
|-----------------------|------------------|------------------------------|------------------|
| Temp. difference (°C) | $\Delta T > 4.3$ | $4.3 \geq \Delta T \geq 0.3$ | $\Delta T < 0.3$ |
| Fan speed             | HI               | MED                          | LO               |

### 1.4.2 Compressor control in DRY mode

#### 1.4.2.1 Compressor frequency control during normal operation

|                       |                  |                              |                             |                               |
|-----------------------|------------------|------------------------------|-----------------------------|-------------------------------|
| Temp. difference (°C) | $\Delta T > 4.3$ | $4.3 \geq \Delta T \geq 1.3$ | $1.3 \geq \Delta T \geq -1$ | $\Delta T < -1^\circ\text{C}$ |
| Max. frequency (Hz)   | High             | Intermediate                 | Low                         | Compressor stops              |

#### 1.4.2.2 In DRY operation, fan speed setting restricts frequency as given in the following table:

|                   |                     |
|-------------------|---------------------|
| Fan speed setting | Max. frequency (Hz) |
| MED               | 90Hz                |
| LO                | 52Hz                |

#### 1.4.2.3 In DRY mode, outdoor ambient temperature restricts frequency as given in the following table: (for models with outdoor ambient temperature sensor only)

|                                  |                     |
|----------------------------------|---------------------|
| Outdoor ambient temperature (°C) | Max. frequency (Hz) |
| $\Delta T \geq 26$               | Unlimited           |
| $\Delta T < 26$                  | 60Hz                |



## 1.5 Heating running (heat compensation temp. 4.67° C)

### 1.5.1 Air volume control under heating running

When heating running starts, defrosting stops. When compressor restarts, it shall be warm start to prevent cold wind.

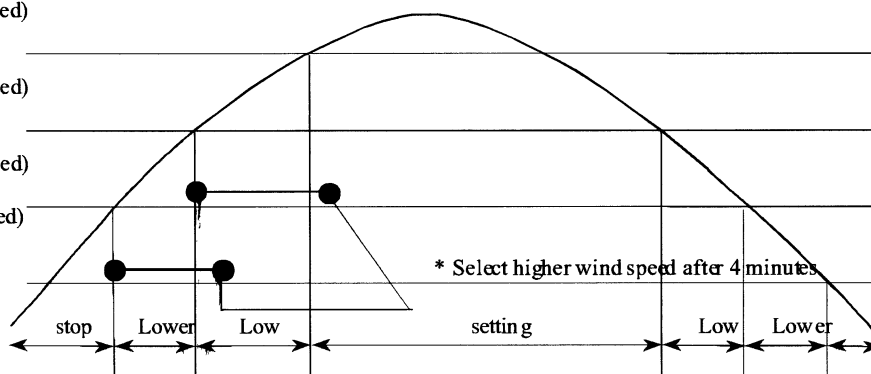
Thermal conversion temperature:

35.1° C (undetermined)

35.1° C (undetermined)

25.2° C (undetermined)

15 ° C (undetermined)



Note:

For different machine type, the "undetermined" parameters is also different, here only take this example for illustration.

\* Indicating that if unit maintains in this wind speed for more than 4 minutes, it then select higher speed.

When setting automatic wind speed, its velocity is related to the temperature difference (including compensation temperature), see the following table for details:

| Temperature difference (° C) | $\Delta T > 4.3$ | $4.3 \geq \Delta T \geq 0.3$ | $\Delta T < 0.3$ |
|------------------------------|------------------|------------------------------|------------------|
| Wind speed                   | High             | Middle                       | Low              |

### 1.5.2 Compressor control under heating running

#### 1.5.2.1 When running in normal status, control of compressor frequency:

| Temperature difference (° C) | $\Delta T > 4.3$ | $4.3 \geq \Delta T \geq 1.3$ | $1.3 \geq \Delta T \geq -1$ | $\Delta T < -1$  |
|------------------------------|------------------|------------------------------|-----------------------------|------------------|
| Maximum frequency (Hz)       | High frequency   | Mid. frequency               | Low frequency               | Compressor stops |

1.5.2.2 When running in dehumidify mode, the outdoor ambient temperature restricts frequency as follows: (only applying to the machine models with outdoor ambient temperature sensor).

| Outdoor ambient temp. (° C)       | Maximum frequency (Hz) |
|-----------------------------------|------------------------|
| $\Delta T \geq 15^\circ \text{C}$ | 60Hz                   |
| $\Delta T < 15^\circ \text{C}$    | Unlimited              |

## 1.6 Defrosting running

### 1.6.1 Defrosting process

When defrosting during heating operation, frequency is not controlled according to the temperature difference, and the maximum heating frequency is displayed.

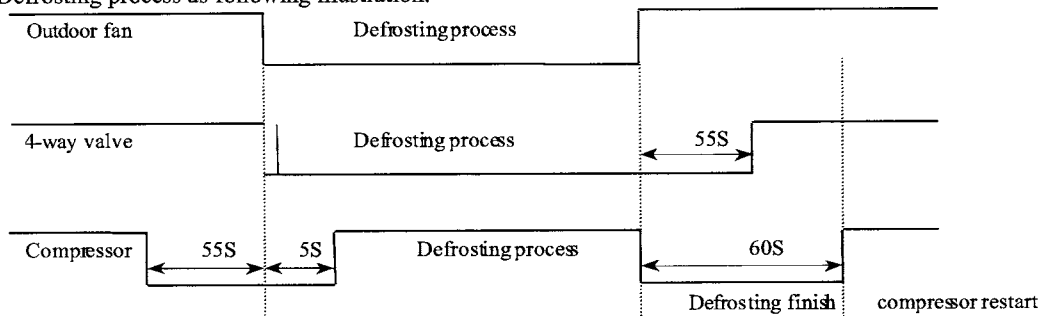
Compressor does not stop in the process of defrosting.

Defrosting beginning conditions: Heat mode, the first power on operation or the lasting time to the previous defrosting finishing is more than 47 minutes, and during compressor running, defrosting starts when the outdoor defrosting temperature is continuously found to be less than  $-4^\circ \text{C}$  (models: AS072AZAHA/AU072ACAHA(HSU-07H03(B)), AS072AIAHA/AU072ACAHA(HSU-07HB03(B)), AS102AMAIA/AU102ACAHA(HSU-10HB03(B)), AS102ALAI/AU102ACAHA(HSU-10HC03(B)), AS102AKAHA/AU102ACAHA(HSU-10HE03(B)), AS102AMAJA/AU102ACAHA(HSU-10HY03(B))) or be less than  $-5^\circ \text{C}$  (models: AS142AHAHA/AU142AEAHA(HSU-14H03(B))).

### 1.6.2 Air volume control during defrosting

20 seconds Low wind is firstly selected during defrosting, then indoor fan stops running.

Defrosting process as following illustration:



## 2. Special function

### 2.1 Trial running

#### 2.1.1 Beginning conditions

Pressing emergency button 5-10 seconds and buzzer sounding twice, then starts.

#### 2.1.2 Running status

When in trial running, the display frequency of compressor is 58Hz, running mode is cool, compressor keeps on running for 30 minutes and will not be restricted by low-load protection (refer to protection function).

#### 2.1.3 Finishing conditions

Trial running will stop when remote control or emergency signal is received. After 30 minutes trial running, emergency running (automatic running) starts.

### 2.2 Abnormity diagnose

When displaying abnormity, using indicator to express the previous error.

When having no error code record, show nothing.

The abnormity indicating mode will automatically disappeared 30 seconds later.

The remote controller only receives stopping signal and abnormity record indicating mode will finish according to the stopping signal of the switch or the remote controller.

#### 2.2.1 Beginning conditions

Pressing emergency switch 10-15 seconds, the buzzer sounds three times, and then start.

#### 2.2.2 Running status

The indicator displays the previous error code (see the error code list).

#### 2.2.3 Finishing condition

Finishing when remote control or emergency signal is received.

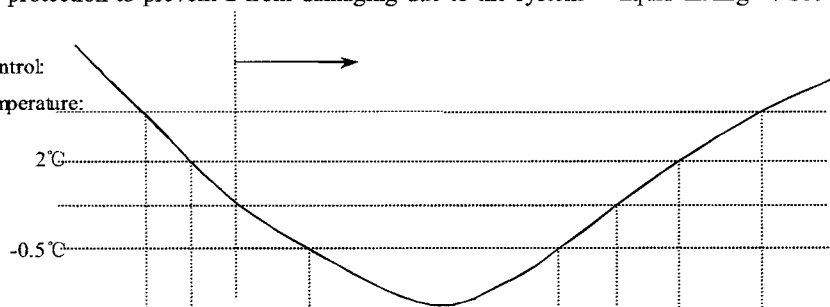
## 3. Protection function

### 3.1 Low-load protection

During cooling running, if the indoor coil-pipe does not evaporate thoroughly and the temperature is too low, the compressor must be stopped for protection to prevent it from damaging due to the system "liquid hitting". See the following figure for action details:

Low-load protection control:

Thermal conversion temperature:



| Display frequency | A | Normal | Limit | Min. frequency | Stop | Min. | Limit | Normal |
|-------------------|---|--------|-------|----------------|------|------|-------|--------|
|                   | B | Normal |       | Min. frequency | Stop | Min. | Limit | Normal |

A: AS142AHAHA/AU142AEAHA (HSU-14H03 (B))

B: AS072AZAHA/AU072ACAHA (HSU-07H03 (B))、AS072AIAHA/AU072ACAHA (HSU-07HB03 (B))

AS102AMAIA/AU102ACAHA (HSU-10HB03 (B))、AS102ALAIA/AU102ACAHA (HSU-10HC03 (B))

AS102AKAHA/AU102ACAHA (HSU-10HE03 (B))、AS102AMAJA/AU102ACAHA (HSU-10HY03 (B))

Indoor coil pipe temperature sensor type: R (25 °C)=10K Ω

During cooling-dehumidification running, low-load protection is carried out according to indoor coil-pipe temperature; whereas, the displayed frequency is “58Hz” .

The minimum frequency is displayed when indoor coil- p pipe temperature is lower than 2 °C and coil-pipe temperature is above -0.5 °C.

When thermal conversion temperature is lower than 0.5 °C, selecting 3 minutes stand-by status.

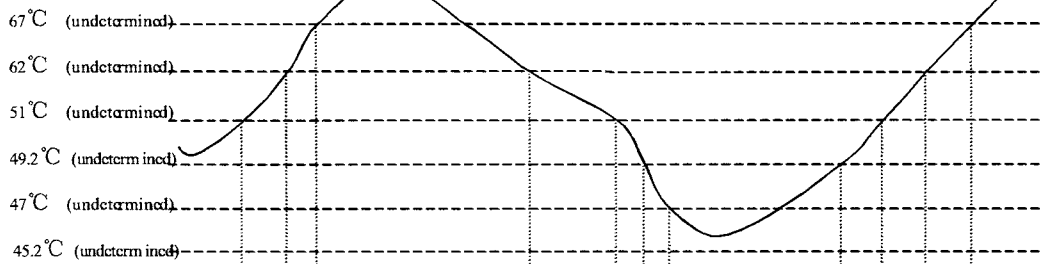
When indoor coil-pipe temperature is 2.1 °C, the compressor restarts.

During trial running, the low-load protection control can be overlooked.

### 3.2 High-load protection

During heating running, if the indoor coil-pipe temperature is too high, the compressor must be stopped for protection to prevent it from damaging due to the system overheating. See the following figure for details:

Thermal conversion temperature



|           |   |      |   |                   |                    |   |   |   |   |      |   |   |      |
|-----------|---|------|---|-------------------|--------------------|---|---|---|---|------|---|---|------|
| Indicate  | A | Stop | C | D                 | 3 minutes stand-by | D | C | B | A | B    | C | D | Stop |
| frequency | B | Stop | C | 3 minutes standby | C                  | B | A | B | C | Stop |   |   |      |

A: AS142AHAHA/AU142AEAHA (HSU-14H03 (B))

B: AS072AZAHA/AU072ACAHA (HSU-07H03 (B))、AS072ATAHA/AU072ACAHA (HSU-07H03 (B))

AS102AMATA/AU102ACAHA (HSU-10H03 (B))、AS102ALATA/AU102ACAHA (HSU-10H03 (B))

AS102AKAIIA/AU102ACAIIA (HSU-10H03 (B))、AS102AMAJA/AU102ACAIIA (HSU-10H03 (B))

|             | Parameters |
|-------------|------------|
| Frequency A | 80Hz       |
| Frequency B | 72Hz       |
| Frequency C | 50Hz       |
| Frequency D | 30Hz       |

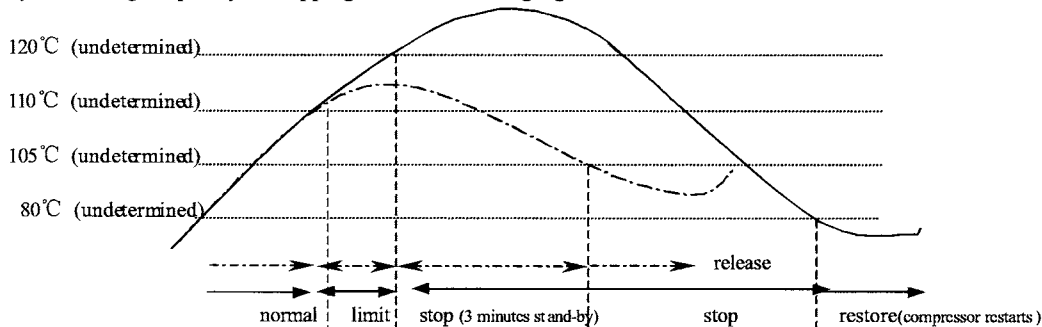
When high-load protection is limited to act twice within 30 minutes, it is high-load protection alarm.

When indoor coil pipe temperature is lower than 45 °C, it comes back to normal control.

The frequency of high load protection is priority.

### 3.3 Compressor discharge temperature protection

When air conditioner is running, the discharge temperature need not to be detected within the first 10 minutes and starts to detect after 10 minutes. If the detected temperature is found too high, the compressor shall be protected from damaging by decreasing frequency or stopping, see the following figure for details:



If the compressor continuously stops twice within 30 minutes, the compressor discharge temperature protection alarms.

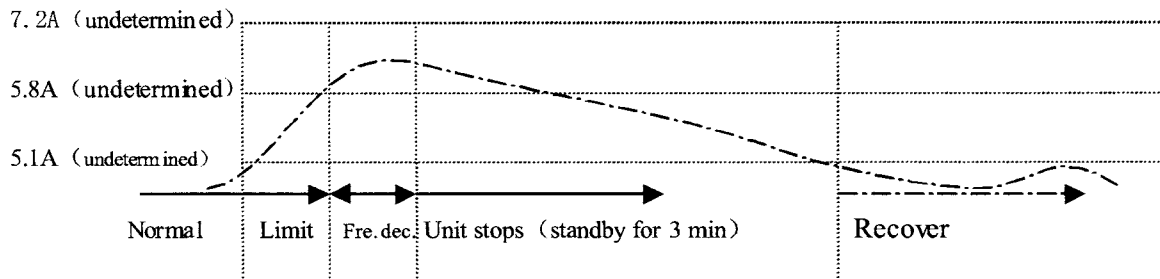
Note:

Undetermined data are for example model only but not for all models.

The dotted line is the curve of decreasing discharge temperature after frequency limit, whereas solid line indicates the curve of continuously increasing discharge temperature after frequency limit.

### 3.4 AC overcurrent protection

The compressor may show overcurrent in case of large system load during operation. In order to decrease the current to protect compressor, controls must be carried out to decrease frequency or stop the compressor. The details are as follows:



If this case occurs twice in 30 min, alarm will generate for AC over-current protection.

### 3.5 Power module over-current protection

During compressor running, when there is “blocked rotation” or super high system pressure, to ensure power module not to be damaged, “power module over-current signal” will be transmitted to outdoor unit computer board, and the system stops and alarms.

#### Attachment: Critical points for main components and protective measures

| No. | List of component  | Protective parameter | Protecting actions   |
|-----|--------------------|----------------------|--|
| 1   | Indoor transformer | 2A 145°C             | Upon reaching the temperature, blows out once, unrecoverable.            |
| 2   | Indoor motor       | AC250V, 135 ± 5°C    | Upon reaching the value, indoor motor stops; when restores, motor runs.  |
| 3   | Outdoor motor      | AC250V, 130°C        | Upon reaching the value, outdoor motor stops; when restores, motor runs. |

## 4 Malfunction confirmation and alarm

### 4.1 Disorder of indoor ambient temperature sensor

During operation, temperature above 126°C or below -31°C is considered abnormal.

When temperature recovers beyond the above ranges, operation will automatically resume.

### 4.2 Indoor coil temperature sensor abnormal

During operation, temperature above 196°C or below -53°C is considered abnormal.

When temperature recovers beyond the above ranges, operation will automatically resume.

In abnormal condition, low load protection will be released.

### 4.3 High load protection

After high load high limit activation, if high load high limit re-activate within 30 min, it will alarm for high load protection.

### 4.4 Outdoor ambient temperature sensor fault

If the outdoor unit receives outdoor thermistor error code signals for defrost, discharge temperature, base plate, it indicate there is fault thermistor. Upon the outdoor unit receives the signal that temperature sensor fault has been resolved, it will automatically resume operation.

During fault condition, low load protection is released.

### 4.5 Outdoor unit protection control action

Upon the outdoor unit receives the following error codes, it determines as fault status.

Protection for excessive high discharge pipe temperature, DC peak current, CT wire breakage, AC overcurrent, protection for ultrahigh base plate temperature, low voltage protection, abnormal rotation of compressor.

### 4.6 Transmission abnormality

According to the communication between indoor unit and outdoor unit, it is considered abnormal if outdoor unit cannot receive signals within 20 seconds after indoor unit's sending. (Except for the first 2 minutes after power on).

It is regarded as transmission abnormality after outdoor unit receives the signal of transmission abnormality.

Transmission abnormality is released by running stopping.

### 4.7 EEPROM

When power on, EEPROM is abnormal if the control parameters and the checking total amount are not identical.

EEPROM is considered abnormal since the outdoor received the abnormal signal of EEPROM.

At the same time, remote control and emergency running are not accepted.

It is only can be released by power blackout.

### Appendix: Parameter list of the main components

| No. | Name                                 | Type               | Unit  | Indoor unit | Outdoor unit | Remarks |
|-----|--------------------------------------|--------------------|-------|-------------|--------------|---------|
| 1   | Optical coupler                      | TLP371             | Piece | 1           | 1            |         |
| 2   | Optical silicon controlled rectifier | TLP3526            | Piece | 1           |              |         |
| 3   | Rectifying bridge                    | S15VB60 (15A 600V) | Piece |             | 2            |         |
| 4   | Rectifying bridge                    | SINB60             | Piece | 1           |              |         |
| 5   | Power module                         | TM-03              | Piece |             | 1            |         |
| 6   | Transformer                          |                    | Piece | 1           |              |         |
| 7   | Indoor receiver                      |                    | Piece | 1           |              |         |

Including brief introduction of items of inverter 2 by 1 series air conditioner and electric control function as follows:

AS112BMATA/AU182BFAHA (H2SM-18HA03 (B))、AS112BLATA/AU182BFAHA (H2SM-18HB03 (B))

AS112BKAHA/AU182BFAHA (H2SM-18HD03 (B))、AS112BMAHA/AU182BFAHA (H2SM-18HY03 (B))

AS122BQAHA/AU212BGAHA (H2SM-21H03 (B))、

AS112BMAJA+AS142BYAHA/AU212BGATA (H2SM-21HA03 (B))、

AS112BLAKA+AS142BVAHA/AU212BGATA (H2SM-21HB03 (B))

### 1. Corresponding operation mode of EMERGENCY SWITCH

If the time of pressing the switch is less than 5 seconds, it should be EMERGENCY OPERATION; if over 5 seconds but less than 10 seconds, should be TEST RUN.

If the time is over 10 seconds but less than 15 seconds, it is the PREVIOUS TROUBLE DISPLAY (also called TROUBLE RECORD).

When TEST RUN, EMERGENCY OPERATION, TROUBLE RECORD are displayed, they can be stopped by using remote control or pressing the switch again.

During remote control, press this switch to stop.

When powered on, even if pressing this switch continuously, the remote signals can also be received.

When stopped, if pressing this switch, the maximum time can not receive remote signals is 15 seconds.

15 seconds later, it can receive the remote signals.

#### 1.1 EMERGENCY OPERATION:

When the time of pressing the switch is less than 5 seconds, the buzzer will sound once when pressing, the power indicator light will light up. After releasing the switch, the unit starts EMERGENCY OPERATION.

When the EMERGENCY OPERATION starts, the indoor heat sensitive resistor does not reach 23°C (over 25.7K), the unit starts HEATING operation; when temperature reaches 26.6°C (21.3K), the sensor is OFF; when the heat sensitive resistor is over 23°C (under 25.3K), the unit starts COOLING operation, the set temperature is 26°C (22K), airflow is AUTO.

#### 1.2 TEST RUN:

When the time of pressing the switch is over 5 seconds, the buzzer will sound twice, release the switch, the unit will start TEST RUN. When the time reaches 10 seconds, the TEST RUN is cancelled, and the unit starts TROUBLE RECORD display.

The airflow is "HIGH", the unit starts COOLING operation, 30 minutes later it stops.

#### 1.3 TROUBLE RECORD DISPLAY mode:

When the time of pressing the switch is over 10 seconds, the buzzer will sound 3 times, after releasing the switch, the unit starts TROUBLE RECORD DISPLAY mode. When the time reaches 15 seconds, the power indicator light will go out, and the TROUBLE RECORD DISPLAY mode is cancelled.

The previous alarm contents are displayed by the lighting up, flash, going out of the power indicator light, timer indicator light and operation indicator light.

30 seconds later, the TROUBLE RECORD DISPLAY mode is deleted.

During the display, all the other remote signals can not be received except for stop signal.

When there is no trouble, there will be no display, only the buzzer sounds.

| Power | Timer | Operation | *Flash | ○Light up | ●Go out |  |
|-------|-------|-----------|--------|-----------|---------|--|
| *     | ●     | ●         |        |           |         | Indoor heat sensitive resistor abnormal      |
| *     | ○     | ○         |        |           |         | Indoor heat exchanging resistor abnormal     |
| *     | ●     | ○         |        |           |         | Outdoor heat sensitive resistor abnormal     |
| ●     | ●     | *         |        |           |         | Communication abnormal                       |
| ●     | *     | ●         |        |           |         | Over-heat protection of air discharging pipe |
| *     | *     | ●         |        |           |         | Over-current protection of AC                |
| *     | *     | ○         |        |           |         | Over-current protection of DC                |
| *     | ●     | *         |        |           |         | Over-heat protection of compressor           |
| ●     | *     | ○         |        |           |         | Low voltage protection                       |
| *     | *     | *         |        |           |         | High load protection HIGHLIMIT               |

### 2 DEFROSTING OPERATION

#### 2.1 The condition of starting defrosting

After HEATING operation start, or after the previous defrosting operation has finished about 40 minutes, and the thermostat is at ON state during HEATING operation, the defrosting heat sensitive resistor is less than 4.2°C and has checked for over 2 minutes.

##### (1) The condition of canceling defrosting

The defrosting heat sensitive resistor is over 15°C, or 9 minutes 15 seconds after defrosting start

##### (2) Defrosting process

1) When defrosting starts, the defrosting signal is sent to indoor unit, the outdoor fan motor and compressor stop, simultaneously, the electronic expansion valve are totally open. 45 seconds later, 4-way valve is OFF, the compressor operates in 50Hz speed.

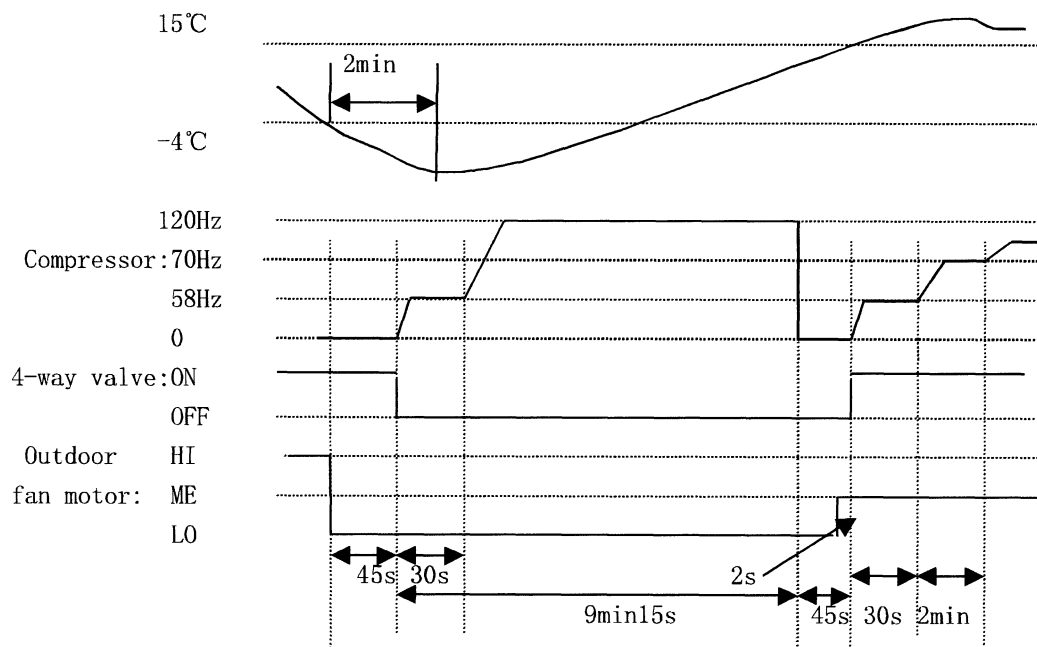
2) 30 seconds later, the compressor operates in 120Hz speed. It is forbidden to cancel defrosting operation unless 75 seconds have elapsed after the defrosting start. However, in rated operation, the compressor operates in rated frequency.

3) 9 minutes 15 seconds after the defrosting operation start, or when the defrosting heat sensitive resistor detects it is over the temperature of canceling defrosting to cancel defrosting operation.

4) After it meets the condition to finish defrosting, the compressor stops, the electronic expansion valve is at pre-defrosting standard open degree.

5) 45 later, if the thermostat is ON, the outdoor fan motor operates in L0, 2 seconds later, the 4-way valve is ON, after operating in 58Hz for 30 seconds, the compressor will operate in specified frequency.

#### DEFROSTING FLOW CHART



#### 3 Control of 4-way valve (HI refers to the 4-way valve is open, L0 refers to the 4-way valve is stopped)

When HEATING HI, in 3-minute waiting, 2 minutes 50 seconds HI, the rest 10 seconds L0

When DEHUMIDIFYING L0

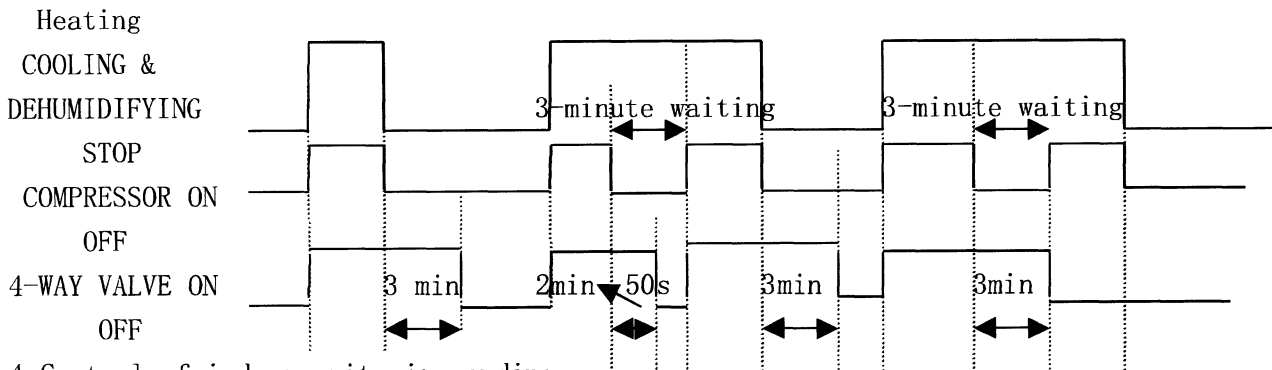
When HEATING (after COOLING & DEHUMIDIFYING 3-minute waiting is finished) HI, after 3-minute stop still is HI

When transferring to COOLING & DEHUMIDIFYING from HEATING, 3 minutes later is L0

When transferring to HEATING from COOLING & DEHUMIDIFYING, 3 minutes later is HI

**In HEATING, when the thermostat is OFF, it still is HI; in DEFROSTING, perform DEFROSTING control**

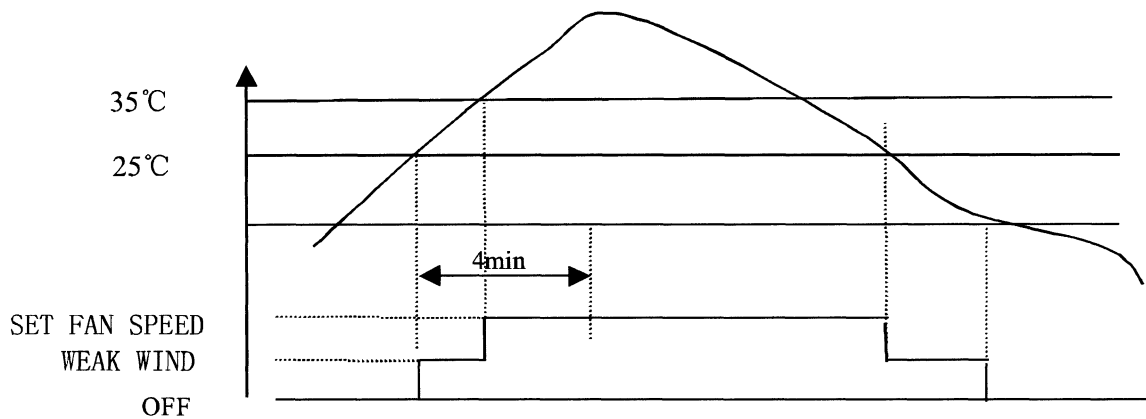
DEFROSTING control



4 Control of indoor unit air sending

Heat start control (excluding defrosting, thermostat is ON):

- (1) For the first operation or after defrosting, when HEATING starts but fan motor does not start to run, thermostat is ON, heat exchanging heat sensitive resistor is over 25°C, the fan motor starts in weak wind; when under 25°C, the fan motor stops, until reaching to over 25°C. In fan motor operating state, start with weak wind.
- (2) When detecting over 35°C, or the fan motor has started operating for 4 minutes, it will run as set fan speed, (4 minutes is counted after 3-minute waiting, thermostat is ON and fan motor starts rotating).
- (3) When operating in set fan speed, if the temperature does not reach 25°C, it is weak wind.



5 Indoor unit mode output selection: PIN36 PIN37 (1-the down-lead of this chip is connected with high level; 0- the down-lead of this chip is connected with low level)

| PIN37 | PIN36 | The down-lead of corresponding chip |
|-------|-------|-------------------------------------|
| 1     | 1     | Indoor unit is below 11000BTU/h     |
| 0     | 1     | Indoor unit is 12000-14000BTU/h     |



### 6 Operation mode

Divided into COOLING, DEHUMIDIFYING, HEATING three operation modes

#### COOLING & DEHUMIDIFYING OPERATION:

According to the difference between the remote setting and the temperature set to determine the condition of indoor unit operation frequency section,  $E = \text{indoor temperature} - \text{temperature set}$

According to the value of temperature difference to determine the frequency section of indoor unit and sent to outdoor unit, by which to determine the operation frequency of outdoor unit

There is 1°C deviation compensation.

Simultaneously, the thermostat ON once, and can not be OFF within 6 minutes

#### HEATING OPERATION:

According to the difference between the remote setting and the temperature set to determine the condition of indoor unit operation frequency section,  $E = \text{indoor temperature} - \text{temperature set}$

According to the value of temperature difference to determine the frequency section of indoor unit and sent to outdoor unit, by which to determine the operation frequency of outdoor unit

There is 1°C deviation compensation.

Simultaneously, the thermostat ON once, and can not be OFF within 6 minutes

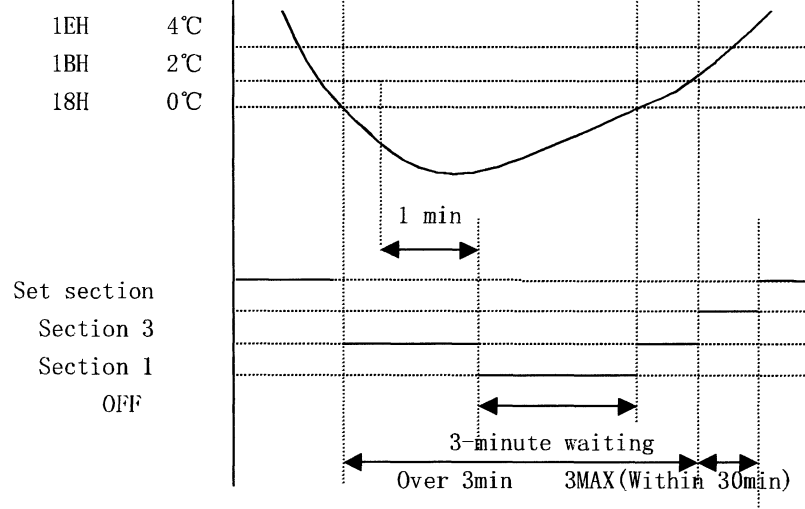
In COOLING & DEHUMIDIFYING, the heat exchanging heat sensitive resistor is under 2°C (1BH), the displayed section is 1; after 3 minutes, if the heat sensitive resistor is over 4°C (1EH), it resumes to normal control; within 30 minutes after resuming to normal control, the maximum displayed section is 3.

When the displayed section is 1, the heat exchanging heat sensitive resistor will be under 0°C (18H) for about 1 minute, the thermostat is OFF, the unit will be in 3-minute waiting state, then when the heat exchanging heat sensitive resistor is over 2°C (1BH), section 1 will resume.

### 7 Low load protection control

When the heat exchanging heat sensitive resistor is abnormal, this protection should be cancelled.

Heat sensitive resistor



### 8 Control of outdoor fan speed

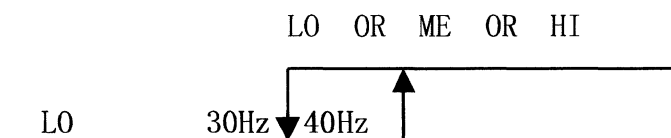
2 seconds before compressor starts, start in L0

20 seconds after compressor stops, OFF

When it is over 40Hz, operation mode, number of sets in operation and the temperature of condenser determine the fan speed.

In COOLING operation and the over 40Hz single set operates, if the temperature of condenser is less than 35°C, the fan speed will be L0; if it is over 43°C, fan speed is HI (98.8.31).

According the number of operation frequency the fan speed will switch between HI (HEATING) and ME (COOLING & DEHUMIDIFYING).



When two units are in COOLING operation: if in LO speed, the temperature of sensor to determine outdoor defrosting  $\geq 43^{\circ}\text{C}$ , the outdoor fan motor will be in HI speed. If the temperature of sensor to determine outdoor defrosting  $< 35^{\circ}\text{C}$ , the outdoor fan motor will be in LO speed. For two units in COOLING operation, if one of the two indoor units is packaged type, the outdoor unit will be HI, LO speed; if neither of them are packaged type, the outdoor unit will be ME, LO

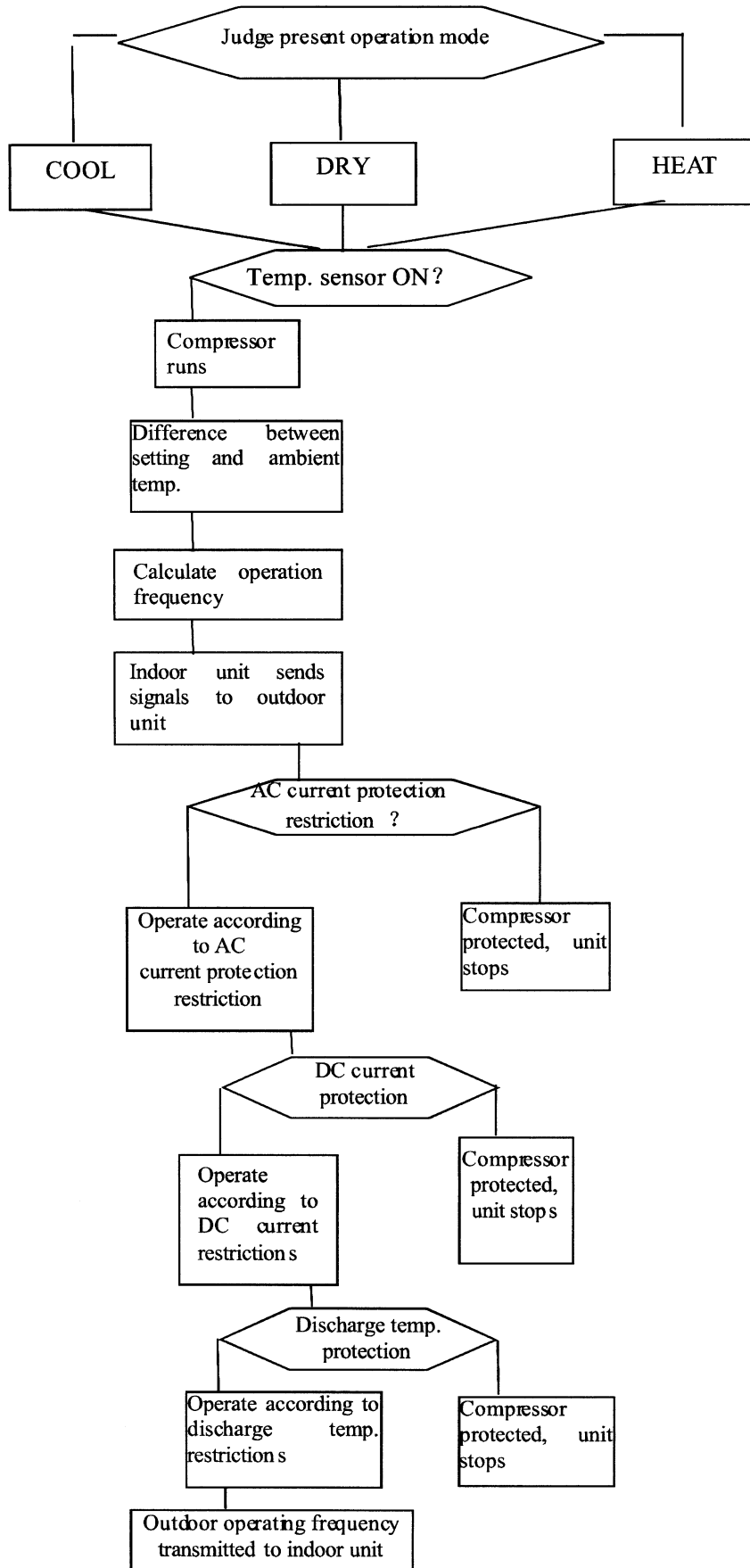
When single outdoor unit is in COOLING operation, it is ME, LO speed

When single outdoor unit is in HEATING operation, it is ME, LO speed

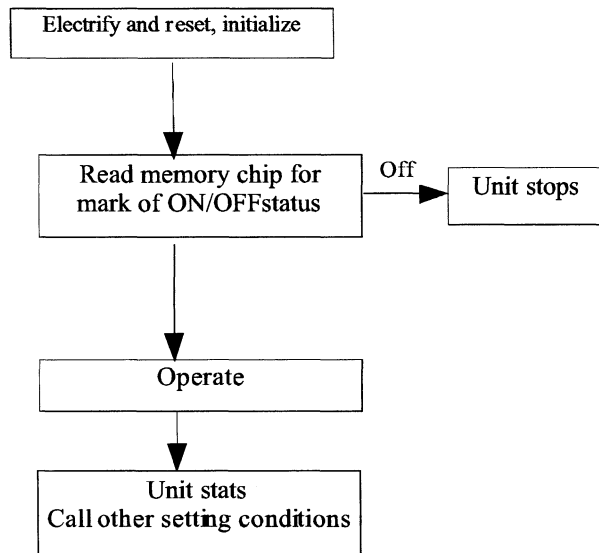
When two outdoor units are in HEATING operation, they are HI, LO speed

The other functions can see page 86 to 92.

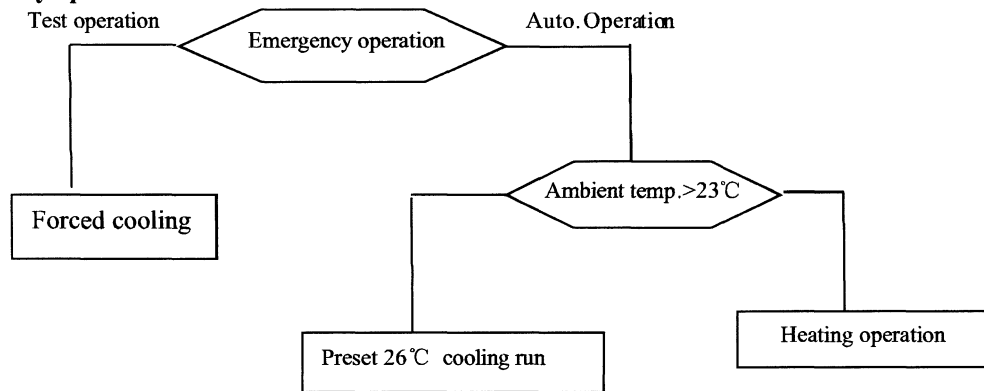
Appendix: Program flow chart  
Flow chart for compressor operating conditions



**Flow chart of power failure resume operation**



**Flow chart of emergency operation**

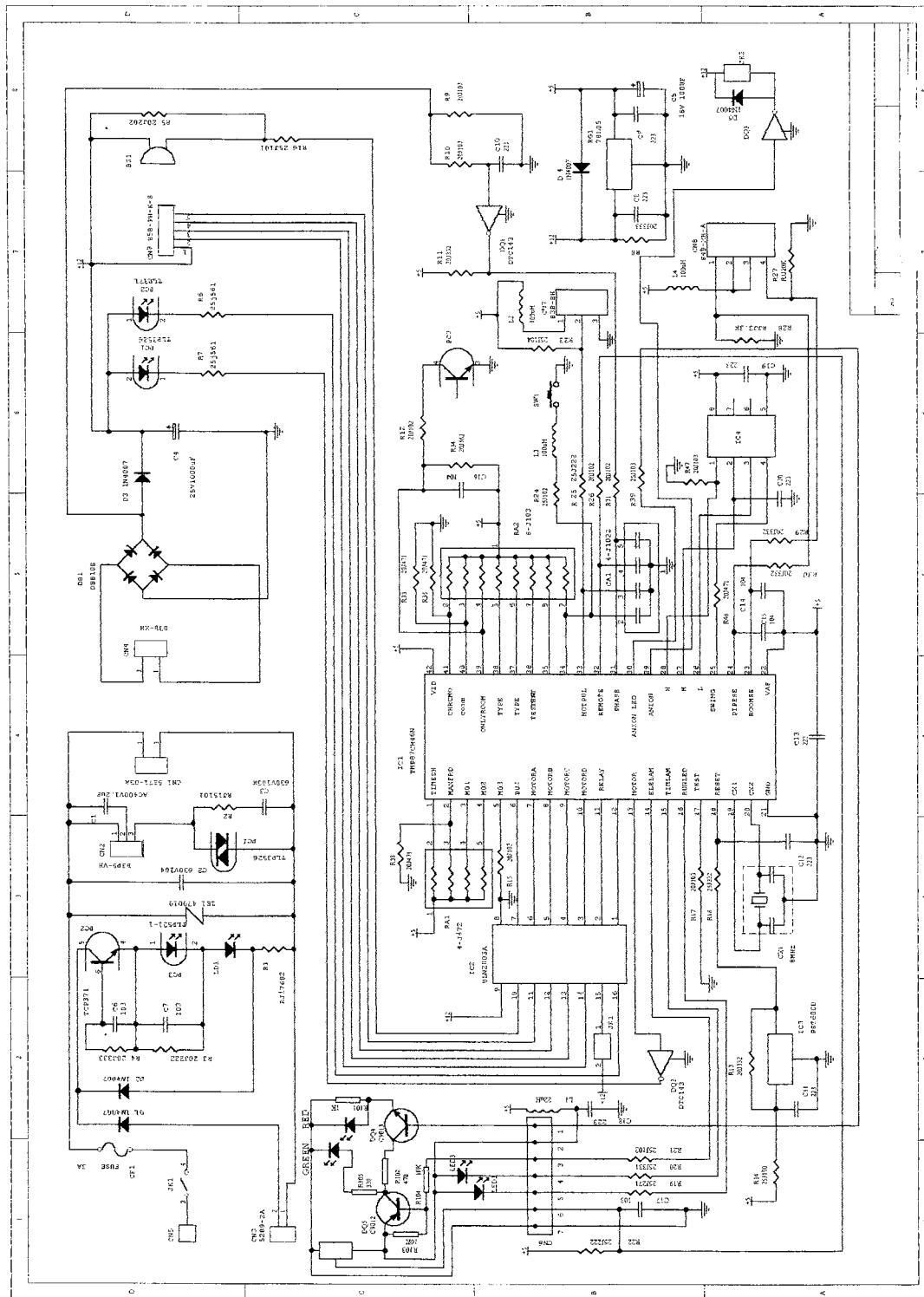


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# CIRCUIT DIAGRAM

Circuit diagram for indoor units

Models: AS072AZAHA/AU072ACAHA (HSU-07H03 (B))  
 AS072AIAHA/AU072ACAHA (HSU-07HB03 (B))、AS142AHAHA/AU142AEAHA (HSU-14H03 (B))  
 AS102AMAIA/AU102ACAHA (HSU-10HB03 (B))、AS102ALAI/AU102ACAHA (HSU-10HC03 (B))  
 AS102AKAHA/AU102ACAHA (HSU-10HE03 (B))、AS102AMAJA/AU102ACAHA (HSU-10HY03 (B))



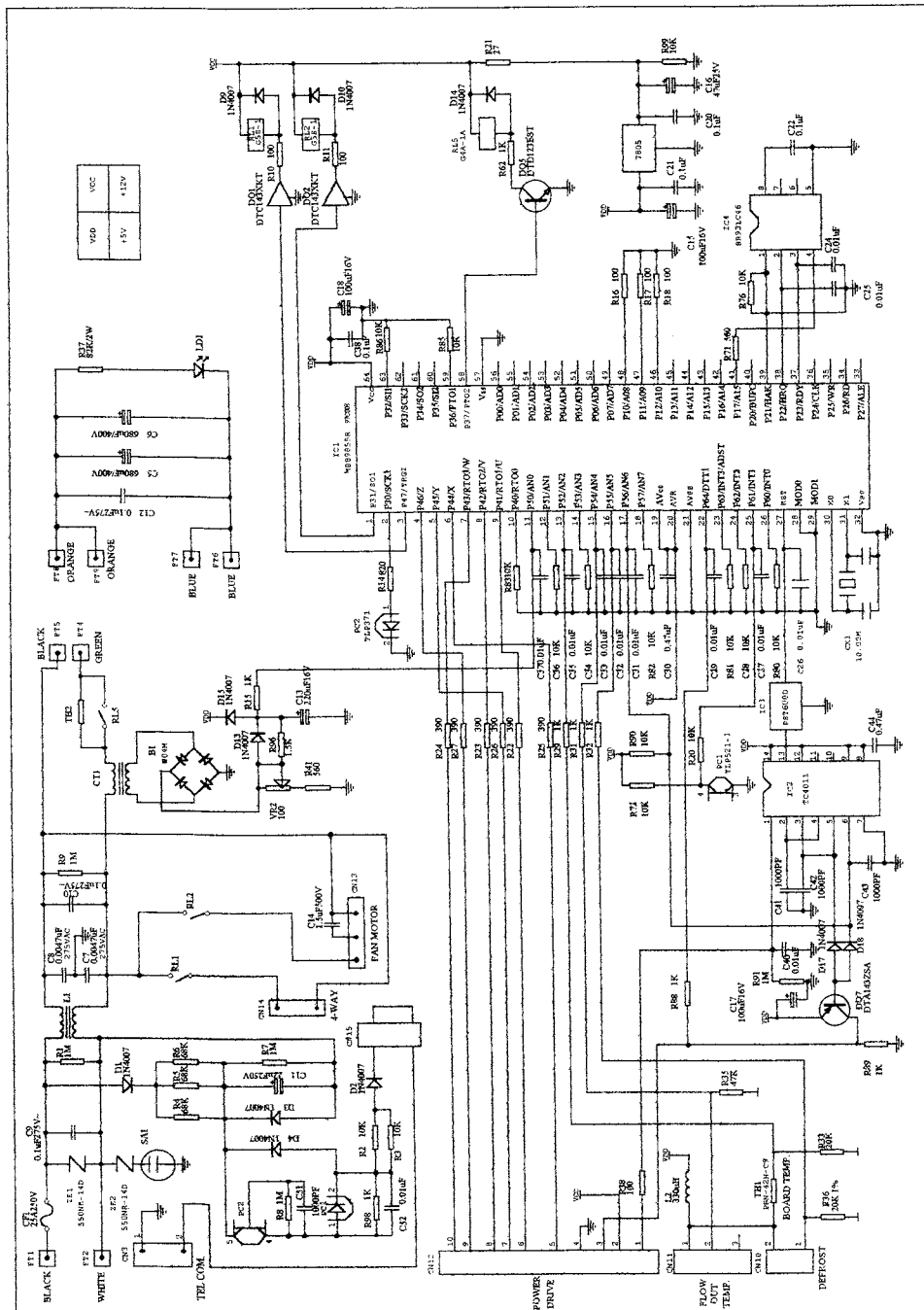
Circuit diagram for outdoor units

Models: AS072AZAHA/AU072ACAHA (HSU-07H03 (B))

AS072AIAHA/AU072ACAHA (HSU-07HB03 (B))、AS142AHAHA/AU142AEAHA (HSU-14H03 (B))

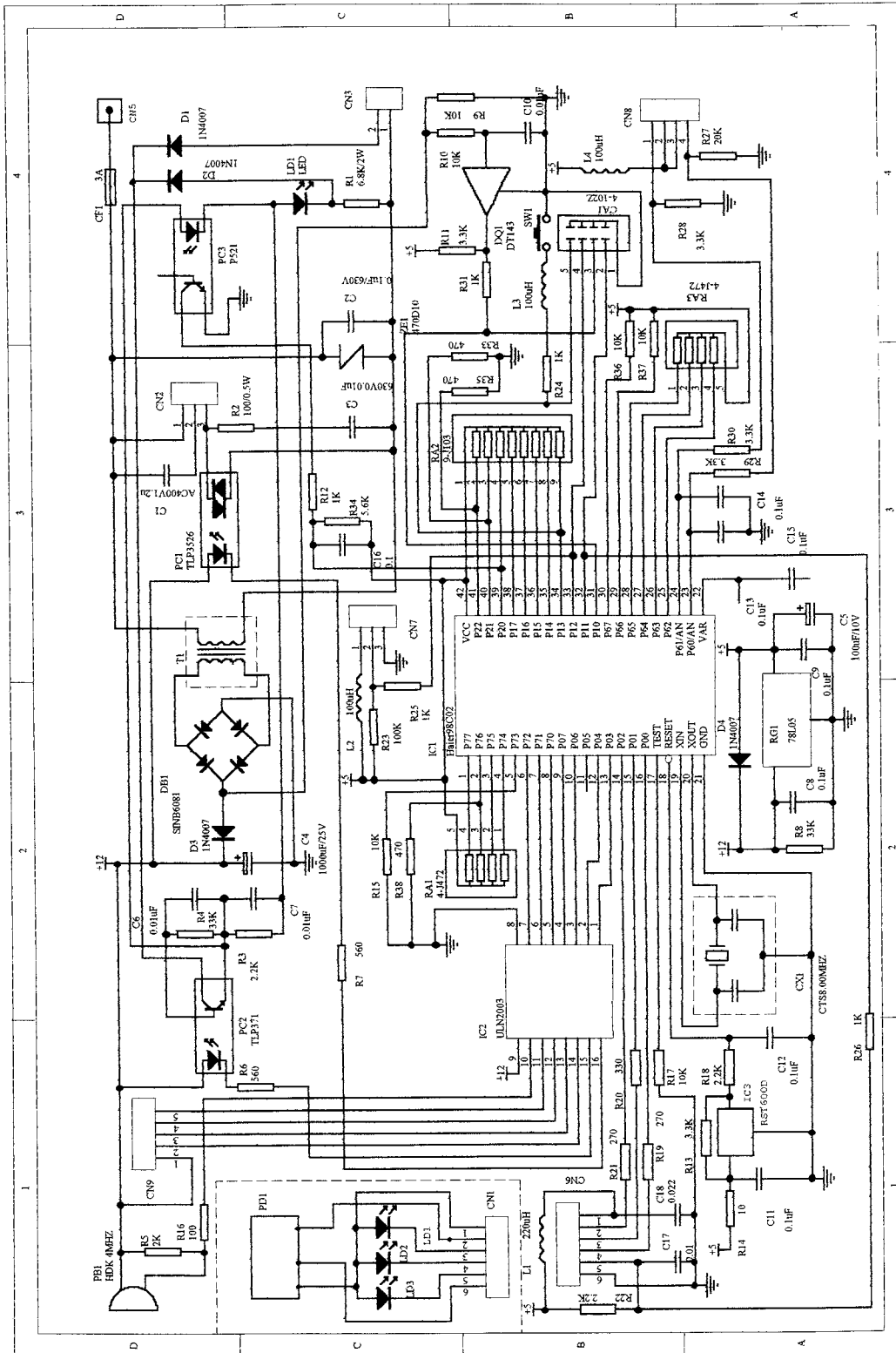
AS102AMAIA/AU102ACAHA (HSU-10HB03 (B))、AS102ALAIA/AU102ACAHA (HSU-10HC03 (B))

AS102AKAIIA/AU102ACAHIIA (HSU-10HE03 (B))、AS102AMAJA/AU102ACAHIIA (HSU-10HIY03 (B))



Circuit diagram for indoor units

- Models: AS112BMA1A/AU182BFAHA (H2SM-18HA03 (B))  
 AS112BLA1A/AU182BFAHA (H2SM-18HB03 (B)) AS112BKAHA/AU182BFAHA (H2SM-18HD03 (B))  
 AS112BMAHA/AU182BFAHA (H2SM-18HY03 (B)) AS122BQAHA/AU212BGAHA (H2SM-21H03 (B))  
 AS112BMAJA+AS142BYAHA/AU212BGA1A (H2SM-21HA03 (B))  
 AS112BLAKA+AS142BVAHA/AU212BGA1A (H2SM-21HB03 (B))





Circuit diagram for outdoor units

Models:

AS112BMA1A/AU182BFAHA (H2SM-18HA03 (B))

AS112BLA1A/AU182BFAHA (H2SM-18HB03 (B))

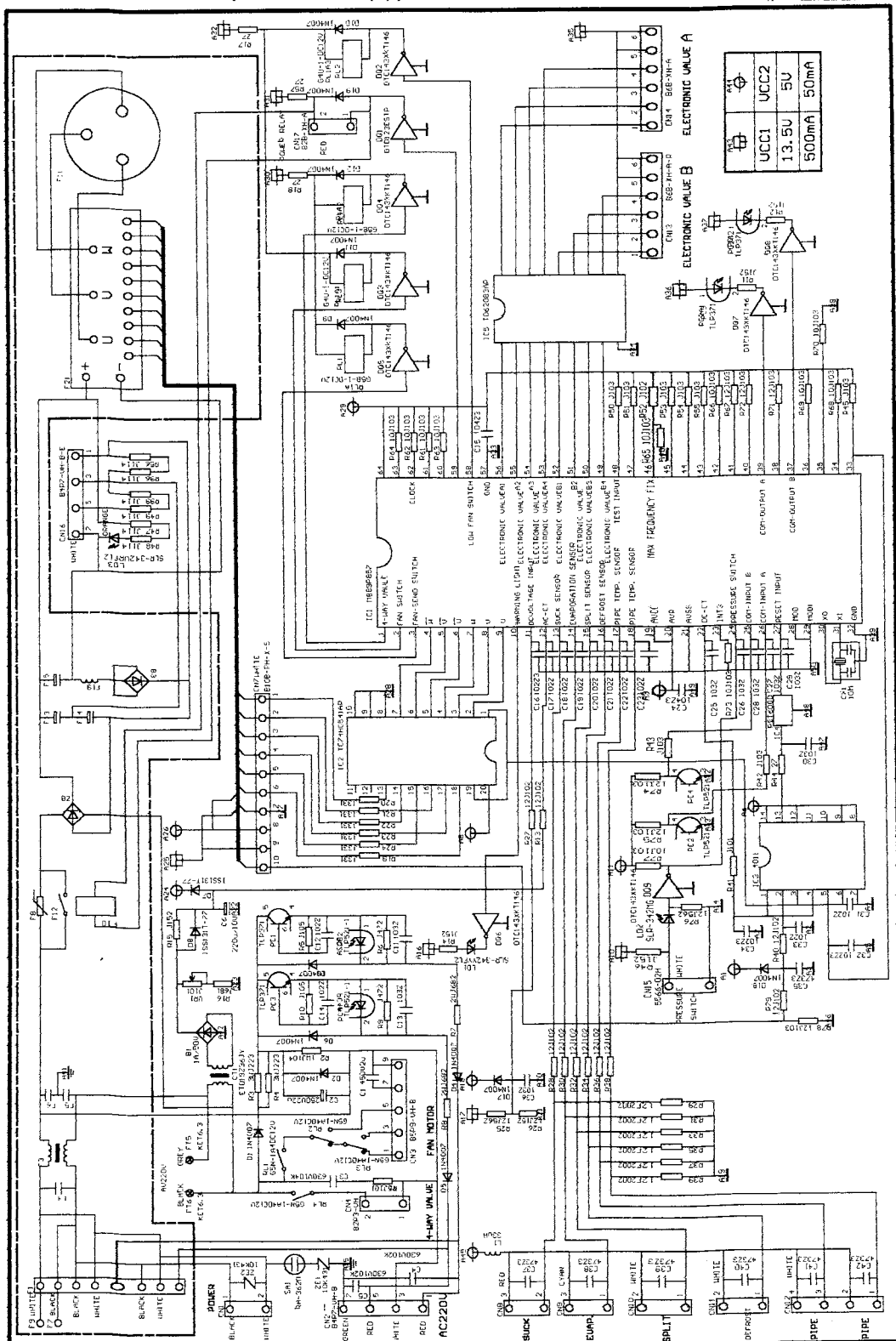
AS112BKAHA/AU182BFAHA (H2SM-18HD03 (B))

AS112BMAHA/AU182BFAHA (H2SM-18HY03 (B))

AS122BQAHA/AU212BG1A (H2SM-21H03 (B))

AS112BMAJA+AS142BYAHA/AU212BG1A (H2SM-21HA03 (B))

AS112BLAKA+AS142BVAHA/AU212BG1A (H2SM-21HB03 (B))



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# ABNORMITY DIAGNOSE

## Abnormity diagnose

The arisen trouble phenomena could be analyzed and resolved referring to the following table:

Summary of error codes:

| Trouble type                             | Error indication            |       |           | Indoor                | Outdoor | Auto restore | Cause of trouble   |
|--|-----------------------------|-------|-----------|-----------------------|---------|--------------|--|
|  | POWER                       | TIMER | OPERATION |                       |         |              |  |
| Indoor thermistor faulty                 | ★                           | ■     | ■         | *                     |         | *            | 1. Poor contact of connectors or poor control base plate   |
| HX thermistor abnormal                   | ★                           | □     | □         | *                     |         | *            | 1. Poor contact of connectors or poor control base plate   |
| Defrost thermistor faulty                | □                           | □     | ★         |                       | *       | *            | 1. Poor contact of connectors or poor control base plate   |
| Discharge thermistor disorder            | ★                           | □     | ■         |                       | *       | *            | 1. Poor contact of connectors or poor control base plate   |
| Base plate thermistor faulty             | □                           | ■     | ★         |                       | *       | *            | 1. Poor contact of connectors or poor control base plate   |
| Module thermistor faulty                 | □                           | ★     | □         |                       | *       | *            | 1. Poor contact of connectors or poor control base plate   |
| Outdoor thermistor faulty                | □                           | ★     | ■         |                       | *       | *            | 1. Poor contact of connectors or poor control base plate   |
| Signal transmission abnormal             | ■                           | ■     | ★         | *                     |         |              | 1. There is big disturbing source in surroundings  |
|  |                             |       |           |                       | *       |              | 2. Wrong wire connection or poor control base plate  |
| Compressor operation abnormal            | ★                           | ■     | □         |                       | *       |              | 1. If compressor shows shaft seizing.<br>2. If power module is damaged.  |
| Discharge temp. over-rising protection   | ■                           | ★     | ■         |                       | *       |              | 1. If the system is in lack of gas or over-charged of gas<br>2. If voltage is too high (above 242V) or too low (below 187V)<br>3. If the capillary tube is choked.<br>4. If the sensor or control base plate components are faulty<br>5. If the indoor and outdoor ambient temperature is too high |
| AC current protection                    | ★                           | ★     | ■         |                       | *       |              | 1. If the system is overcharged with gas<br>2. If voltage is too low (less than 187V)<br>3. If CT or control base plate components are abnormal  |
| DC current protection                    | ★                           | ★     | □         |                       | *       |              | 1. If compressor shows shaft seizing<br>2. If power module is damaged.<br>3. If voltage is too high (above 242V) or too low (less than 187V)   |
| Inefficient voltage protection           | ■                           | ★     | □         |                       | *       |              | 1. If voltage is too low<br>2. If control base plate is damaged  |
| Outdoor baseplate temperature protection | ■                           | ★     | ★         |                       | *       |              | 1. If control base plate is faulty<br>2. If outdoor ambient temperature is too high  |
| Module temperature rise protection       | □                           | ★     | ★         |                       | *       |              | 1. If compressor shows shaft seizing<br>2. If power module is damaged<br>3. If radiating rubber is uniform<br>4. If voltage is too high (above 242V) or too low (less than 187V)   |
| High load protection                     | ★                           | ★     | ★         | *                     |         |              | 1. If the filter is blocked<br>2. If indoor and outdoor ambient temperature is too high<br>3. If gas charge is excessive<br>4. If control base plate components damaged<br>5. If voltage is too high or too low  |
| CT wire breakage protection              | ★                           | ■     | ★         |                       | *       |              | 1. If control base plate is damaged<br>2. The system is in lack of gas<br>3. 4-way valve does not reverse in place   |
| EEPROM abnormal                          | ★                           | □     | ★         | *                     |         |              | 1. If control base plate is damaged  |
|  |                             |       |           |                       | *       |              | 1. If control base plate is damaged  |
| Remarks                                  | □: On<br>★: Flash<br>■: Off |       |           | * indicates available |         |              |  |

According the state of the indicator lights of indoor unit to determine the operation trouble of the inverter 2 by 1 series air conditioner

| Power | Timer | Operation | *Flash ○Light up ●Go out                     |
|-------|-------|-----------|--|
| *     | ●     | ●         | Indoor heat sensitive resistor abnormal      |
| *     | ○     | ○         | Indoor heat exchanging resistor abnormal     |
| *     | ●     | ○         | Outdoor heat sensitive resistor abnormal     |
| ●     | ●     | *         | Communication abnormal                       |
| ●     | *     | ●         | Over-heat protection of air discharging pipe |
| *     | *     | ●         | Over-current protection of AC                |
| *     | *     | ○         | Over-current protection of DC                |
| *     | ●     | *         | Over-heat protection of compressor           |
| ●     | *     | ○         | Low voltage protection                       |
| *     | *     | *         | High load protection HIGHLIMIT               |

Determine which sensor of the outdoor unit has trouble by the time of outdoor indicator light flashes (open circuit or short circuit)

The different trouble of heat sensitive resistor can be determined by the different flashing times of alarm light:

|   |             |              |             |
|---|-------------|--------------|-------------|
| Pipe temperature heat sensitive resistor A      | once        | 0.5s flashes | interval 3s |
| Pipe temperature heat sensitive resistor B      | twice       |              |             |
| Defrosting heat sensitive resistor              | three times |              |             |
| Suction temperature heat sensitive resistor     | four times  |              |             |
| Evaporation temperature heat sensitive resistor | five times  |              |             |
| Discharging temperature heat sensitive resistor | six times   |              |             |

| Indoor indicator light: power (green), timer (yellow), operation (green)  | Time the alarm stands for                                | The parts which are regarded as having trouble   |  | Checking method (reset, then use the operation/stop button of remote controller)  |
|---|--|--|--|---|
| Green indicator light goes out, yellow indicator light goes out, green indicator light goes out<br>Indoor unit does not operate   |  | 1.No power supply<br>2.The remote controller has no batteries or does not light up<br>3.Receiving display is poor<br>4.Fuse is blown<br>5. Transformer<br>6. Indoor control base board |  | 1. Confirm the voltage between 1-2 of indoor terminal<br>2. Use multimeter to confirm the conducted character of the penetration resistant fuse 25A (outdoor terminal block)<br>3. Confirm the voltage of outdoor terminal block<br>4. The LCD screen of remote controller is weak or without any display emergency operation, use multimeter to test the indoor PC board |
| Green indicator light flashes, yellow indicator light goes out, green indicator light goes out<br>Green indicator light flashes, yellow indicator light lights up, green indicator light lights up<br>Green indicator light flashes, yellow indicator light goes out, green indicator light lights up | As soon as starting the alarm switch, the alarm is given | Heat sensitive resistor is open circuit, because it is conducted or is not inserted firmly   | 1. Indoor ambient temperature sensor abnormal<br>2. Indoor heat exchanging sensor abnormal<br>3. Outdoor sensor abnormal | 1. Check the value of resistor<br>2. Check the alarm indicator light of outdoor control base board<br>Use multimeter to check the value of resistor   |

## Abnormity diagnose

|  |  |   |   |
|--|--|---|---|
| Green indicator light goes out, yellow indicator light goes out, green indicator light flashes<br>After indoor & outdoor unit operate 20s, the operation indicator light flashes               | Communication abnormal   | 1 .The indoor & outdoor unit connection wire is connected wrongly or not firm<br>2. There is large disturbance nearby the outdoor unit<br>3. There is breakdown part on the indoor & outdoor PC board   | 1. Check the wrong connection wire, improper contact 2. Check if there is large disturbance source nearby the outdoor unit, use aluminum foil tape to shield the outdoor chip or outdoor electric box 3. Change indoor & outdoor PC board   |
| Green indicator light goes out, yellow indicator light flashes, green indicator light goes out<br>After compressor starts for 30min-40min, both indoor unit and outdoor unit stop              |  | The surface temperature of compressor is over 120 °C , discharging pipe temperature too high protection or discharging sensor is poor   | 1. Leakage 2 .The valves are not open 3 .The connection pipe is bent or broken 4. Discharging temperature sensor is poor 5. Capacitor parallel connected with discharging sensor is poor  |
| Green indicator light flashes, yellow indicator light flashes, green indicator light goes out  | Over-electric-current protection AC current detection  | 1. Power instantaneously stops<br>2. Power voltage is too low<br>3. Compressor is locked  | After confirmation of operation, check the voltage of power. Adjust the adjustable resistor on the outdoor control board to limit the current   |
| Green indicator light flashes, yellow indicator light flashes, green indicator light lights up   | DC current detection Over-electric-current protection of power module, too high temperature protection Low voltage detection of power module   | 1. High load compelling operation<br>2. Power voltage is too low<br>3. Open circuit circulates<br>4. Outdoor control base board or power module is broken down<br>5. Compressor is locked<br>6. The connection wire of compressor is wrong  | 1. Check the installation condition (if indoor & outdoor unit circulates in short circuit) 2. Check power voltage 3. Check the installation condition and rotation of fan motor 4. Check the damage of parts, poor contact, pull the UVW wire out from the power module to test if there is the same voltage between U-V, U-W, V-W (AC0-160V) |
| Green indicator light flashes, yellow indicator light flashes, green indicator light flashes (after starting HEATING operation, all indicator lights flash, both indoor and outdoor unit stop) | In HEATING, the temperature of indoor evaporator is too high or indoor fan motor rotates but airflow is too little   | 1. Air filter is blocked<br>2. Heat sensitive resistor is abnormal<br>3. Indoor control base board<br>4. Indoor fan motor   | 1. Eycballing<br>2. Check the value of resistor<br>3. There is no voltage on the indoor fan motor terminal block of indoor control base board<br>4. Check the damage of parts and poor contact  |
| Green indicator light goes out, yellow indicator light flashes, green indicator light lights up  | Insufficient voltage   | 1. Insufficient power supply<br>2. Power instantaneously stops  | 1. Check the special circuit and the thickness of connection wire 2. Confirm the action of re-operation   |
| After powered on, there is no response.  | The power input part of PC board has no voltage  |   | Insert the power cord well  |
|  | No voltage at fuse   |   | Change PC board<br>Change the fuse  |
|  | The sub-pole of transformer has no output  |   | Insert the transformer well of change it  |
|  | The output of 7805 is abnormal   |   | Change PC board   |
| No COOLING or HEATING  | 1. Refrigerant leakage 2. Indoor heat sensitive resistor abnormal 3. Indoor heat exchanging resistor abnormal 4. Indoor fan motor 5. 4-way valve 6. Open circuit circulation 7. Insufficient power | 1. Check the leaked part and use test run and emergency operation to determine the frequency of compressor, 2. Test the pressure and determine according to the operation character table 3. Check the value of resistor 4. Check the voltage between indoor fan motor and motor terminals of indoor control board, if it can reach AC50Hz90V, the indoor fan motor is poor 5. Check the resistance value of 4-way valve coil (20 °C about 250 Ω) 6. Check the installation condition |   |

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# REFRIGERATING-CYCLE DIAGRAM

### (1) Use of refrigerant

Freon R22 shall be used as refrigerant with the supplied charge of gas charge on the nameplate plus 50 g (for double split type, charge shall be gas charge + 120g). The added refrigerant is used to evacuate air in the system upon first mounting. For connecting pipe length (L) equal or less than 5 m, additional refrigerant is not needed. If connecting pipe exceeds 5 m, 16 g refrigerant shall added for every additional 1 m. For double split type, if the total connecting pipe exceeds 10 m, 16 g refrigerant shall be added for every additional 1 m.

### (2) Vacuum pumping of the system

Vacuum pumping is to mainly draw out residual air and water in the air conditioner refrigerant system. Generally vacuum pump is connected at the processing port of the 3-way stop valve in the outdoor unit. The system vacuum degree is required to be below 200 Pa.

### (3) Refrigerating-cycle diagram:

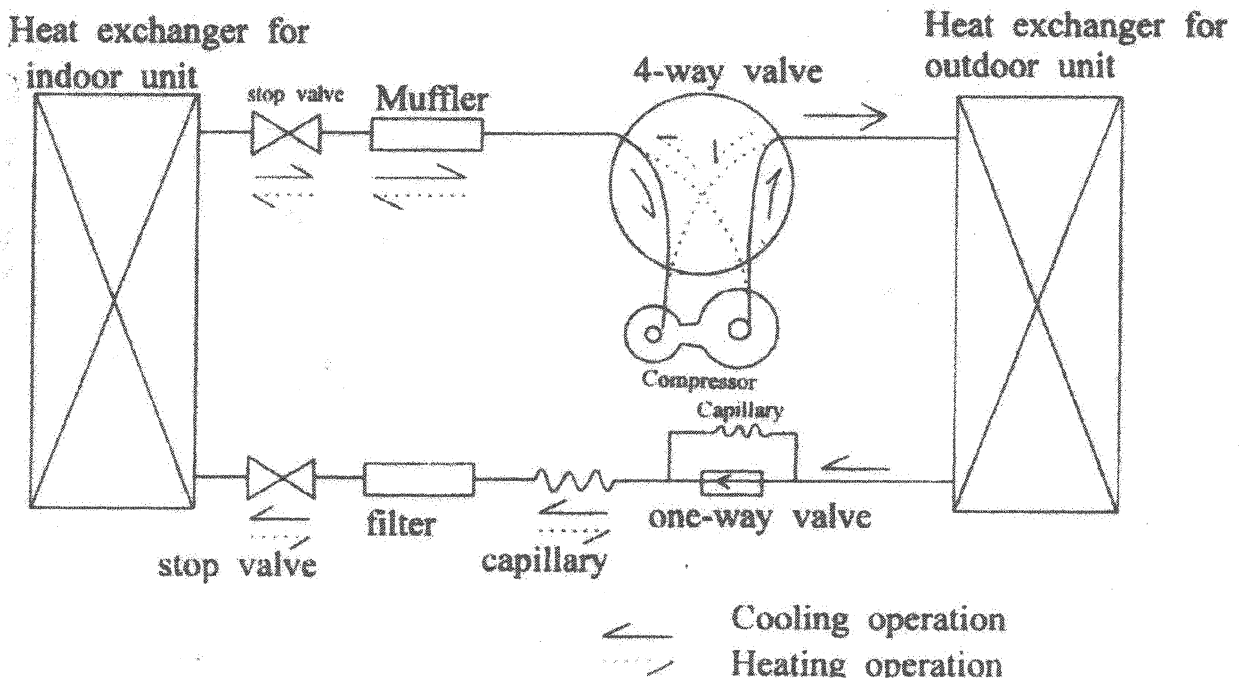
Model:

AS072AZAHA/AU072ACAH (HSU-07H03 (B))、AS072AIAHA/AU072ACAH (HSU-07HB03 (B))

AS102AMAIA/AU102ACAH (HSU-10HB03 (B))、AS102ALAI/AU102ACAH (HSU-10HC03 (B))

AS102AKAHA/AU102ACAH (HSU-10HE03 (B))、AS102AMAJA/AU102ACAH (HSU-10HY03 (B))

AS142AHAHA/AU142AEAH (HSU-14H03 (B))



For the above models, due to that these units apply 4-way valve electrified when in COOL mode, so piping shall be carefully connected correctly when replacing 4-way valve.

## Refrigerating-cycle diagram

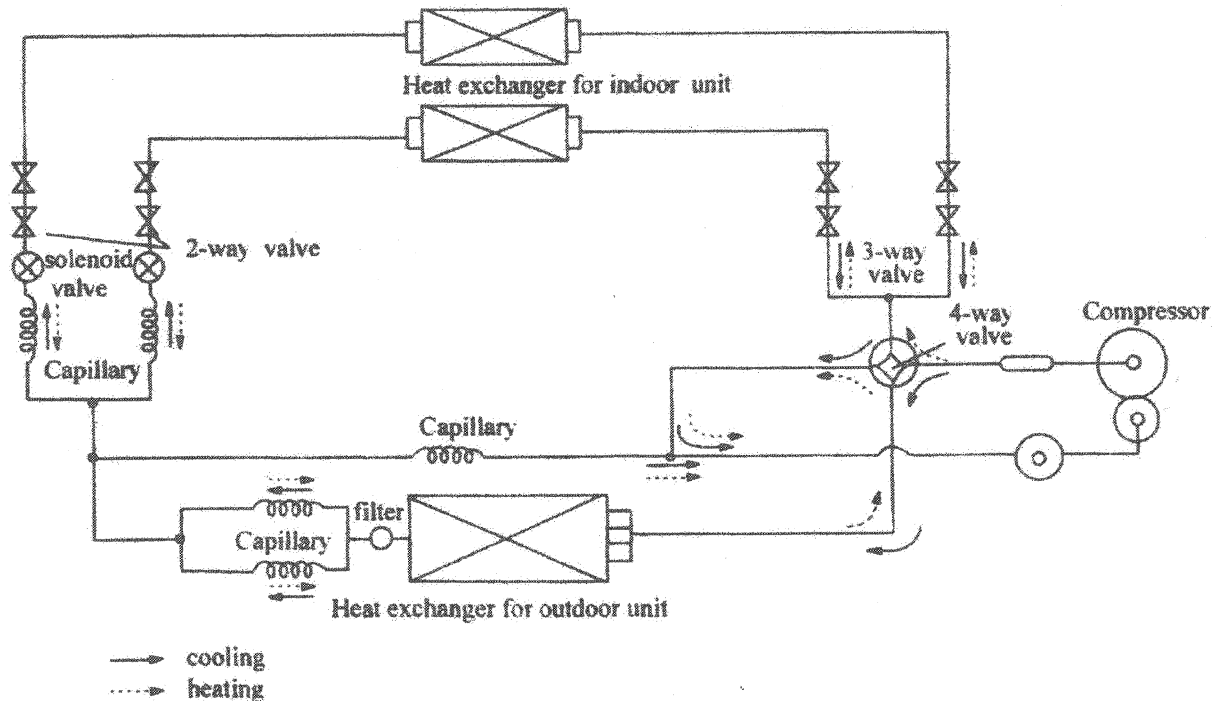
Models : AS122BQAHA/AU212BGAHA (H2SM-21H03 (B))

AS112BMAIA/AU182BFAHA (H2SM-18HA03 (B)) AS112BLAIA/AU182BFAHA (H2SM-18HB03 (B))

AS112BKAIHA/AU182BFAHA (H2SM-18HD03 (B)) AS112BMAHA/AU182BFAHA (H2SM-18HY03 (B))

AS112BMAJA+AS142BYAHA/AU212BGAIA (H2SM-21HA03 (B))

AS112BLAKA+AS142BVAIA/AU212BGAIA (H2SM-21HB03 (B))



### (4) Type and main features of compressor:

AU072ACAHA AU102ACAHA models adopt MITSUBISHI (Guangzhou) KHV04FCKC type inverter compressor, volumetric displacement of 10.4 cc/rev, and frequency range of 30-140Hz. The coil resistance of compressor is 1.67  $\Omega$  (at 20°C).

AU142AEAHA model adopts Japan SANYO C-6RV73HOW type inverter twin rotor compressor, volumetric displacement of 13.2 cc/rev, and frequency range of 10-150 Hz. The coil resistance of compressor is 1.37  $\Omega$  (at 25°C).

AU212BGAIA AU212BGAHA models adopt Japan SANYO C-7RV113HOW type inverter twin rotor compressor, volumetric displacement of 23.3 cc/rev, and frequency range of 15-120 Hz. The coil resistance of compressor is 0.69  $\Omega$  (at 25°C).

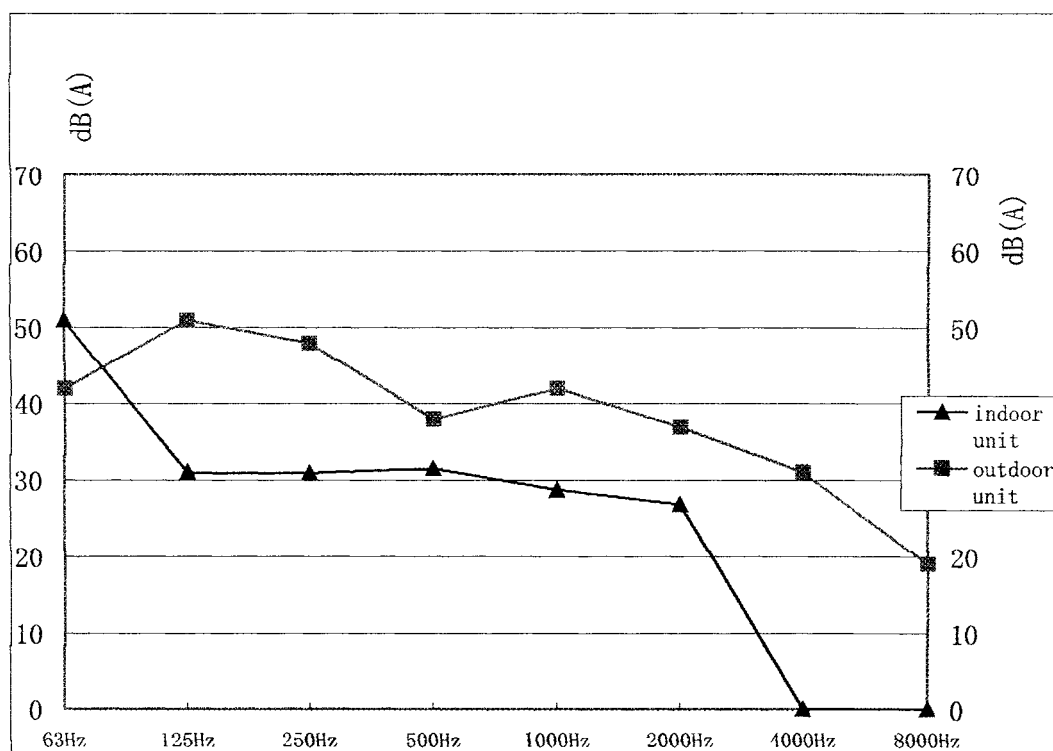


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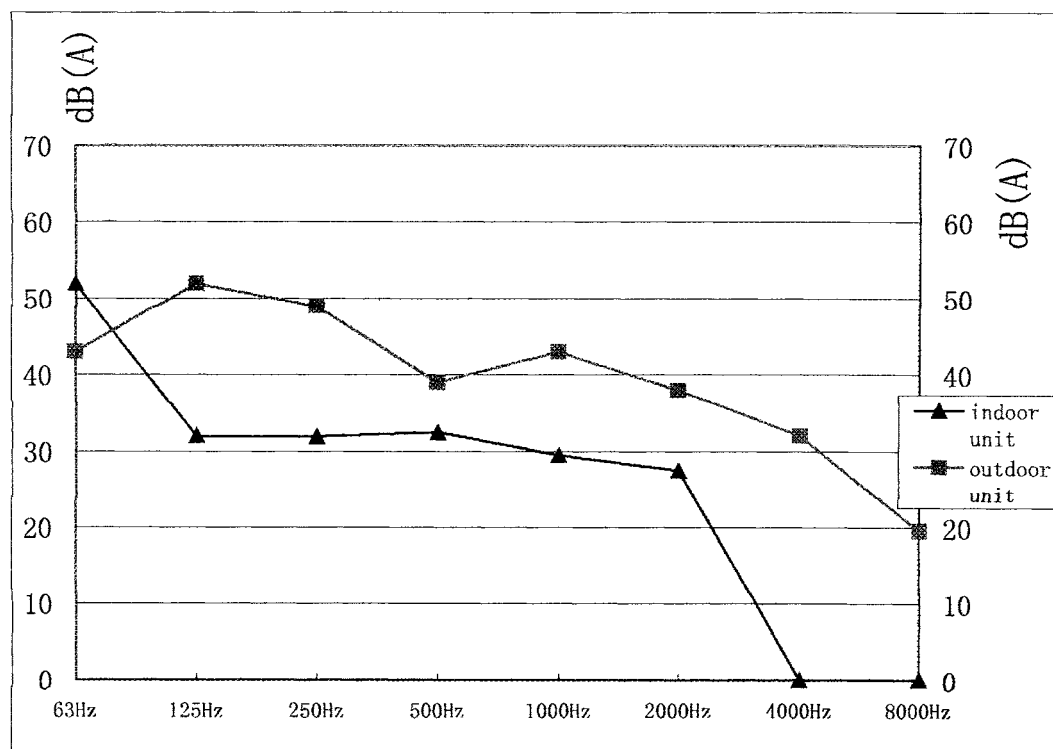
# **NOISE LEVEL TEST CHART & AIR VELOCITY DISTRIBUTION**

A. Noise level test chart

AS072AZAHA/AU072ACAHA(HSU-07H03(B)) AS072AIAHA/AU072ACAHA(HSU-07HB03(B))

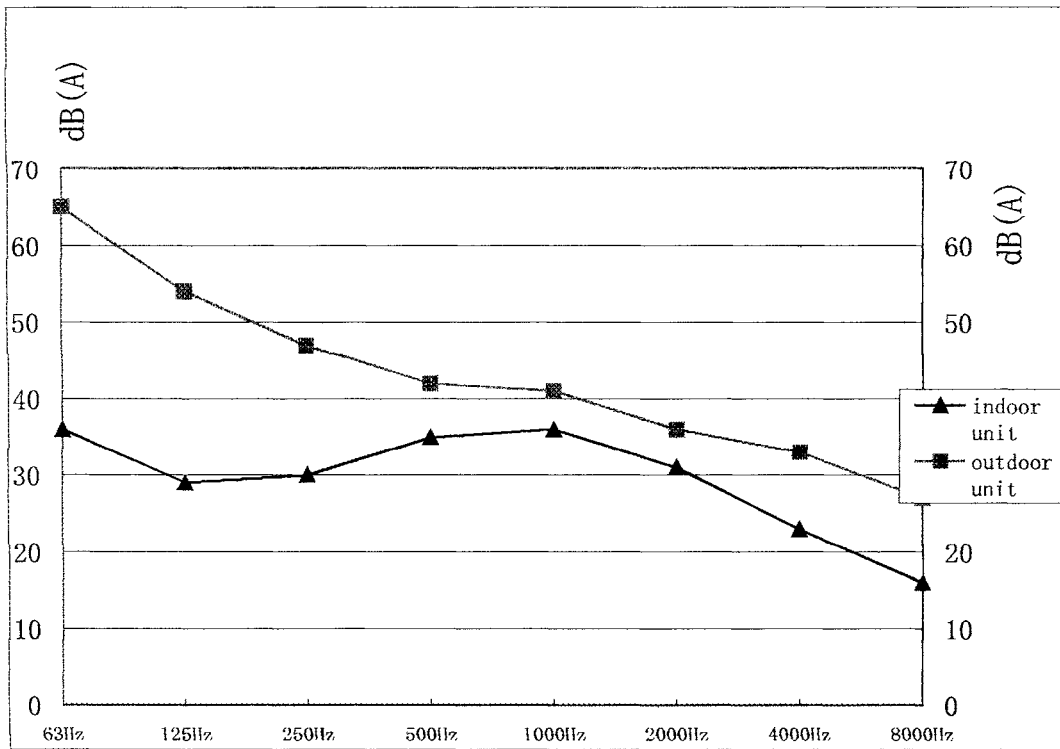


AS102AMAIA/AU102ACAHA(HSU-10HB03(B)) AS102ALAIA/AU102ACAHA(HSU-10HC03(B))  
 AS102AKAHA/AU102ACAHA(HSU-10HE03(B)) AS102AMAJA/AU102ACAHA(HSU-10HY03(B))

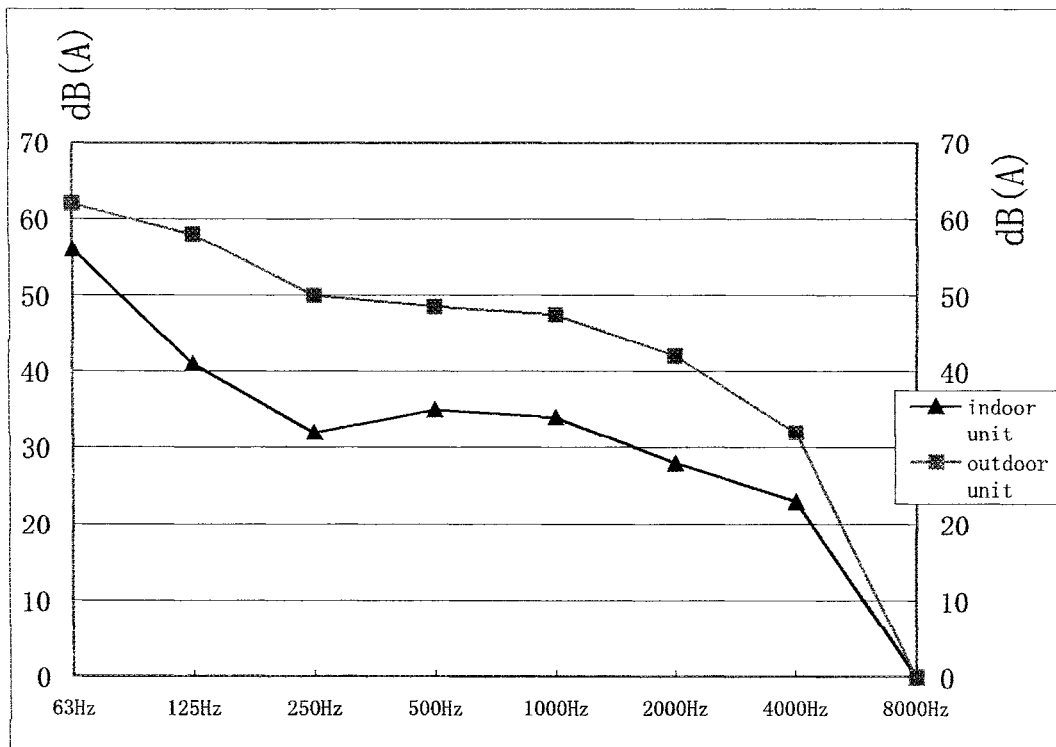


A. Noise level test chart

AS142AHAHA/AU142AEAHA(HSU-14H03(B))

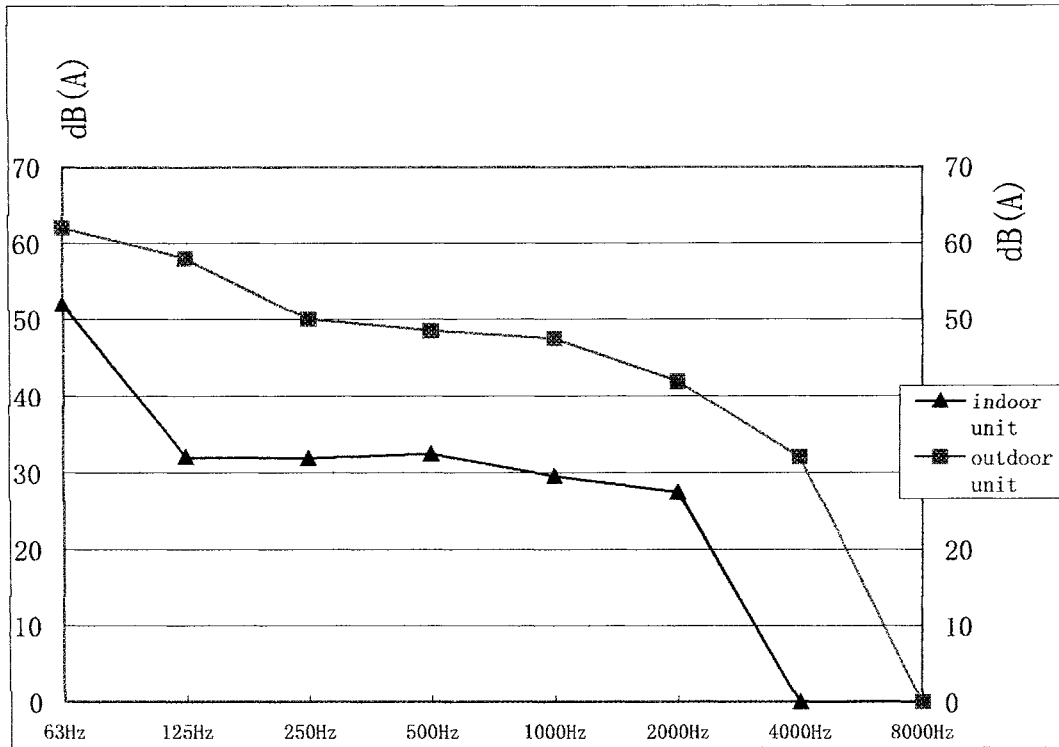


AS122BQAHA/AU212BGAHA(H2SM-21H03(B))

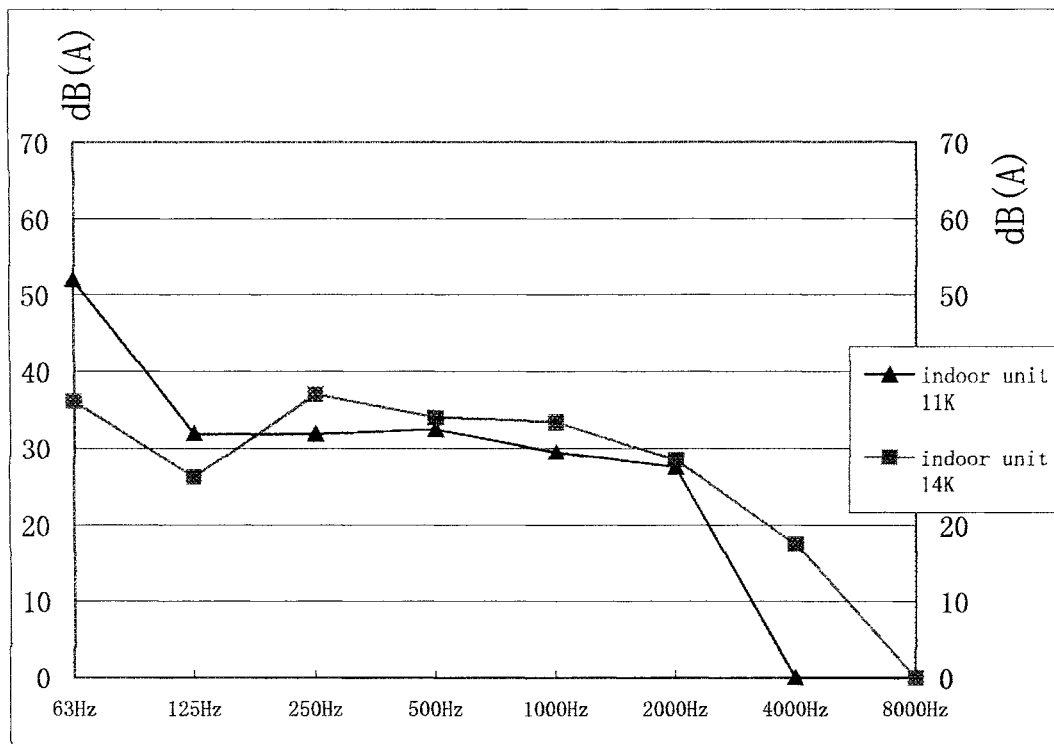


A. Noise level test chart

AS112BMAIA/AU182BFAHA(H2SM-18HA03(B)) AS112BLAIA/AU182BFAHA(H2SM-18HB03(B))  
 AS112BKAHA/AU182BFAHA(H2SM-18HD03(B)) AS112BMAHA/AU182BFAHA(H2SM-18HY03(B))



AS112BMAJA+AS142BYAHA/AU212BGAIA(H2SM-21HA03(B))  
 AS112BLAKA+AS142BVAHA/AU212BGAIA(H2SM-21HB03(B))



B. Air velocity distribution

AIR VELOCITY DISTRIBUTION

MODELS: AS072AZAHA/AU072ACAHA (HSU-07H03 (B)) AS072AIAHA/AU072ACAHA (HSU-07HB03 (B))  
 AS102AMATA/AU102ACAHA (HSU-10HB03 (B)) AS102ALATA/AU102ACAHA (HSU-10HC03 (B))  
 AS102AKAHA/AU102ACAHA (HSU-10HE03 (B)) AS102AMAJA/AU102ACAHA (HSU-10HY03 (B))  
 AS112BMAIA/AU182BFAHA (H2SM-18HA03 (B)) AS112BLAIA/AU182BFAHA (H2SM-18HB03 (B))  
 AS112BKAHA/AU182BFAHA (H2SM-18HD03 (B)) AS112BMAHA/AU182BFAHA (H2SM-18HY03 (B))  
 AS112BMAJA (H2SM-21HA03 (B)) AS112BLAKA (H2SM-21HB03 (B))

Fig 1  
 Top View  
 Flow Control Panel: Horiz.  
 Louver: Center

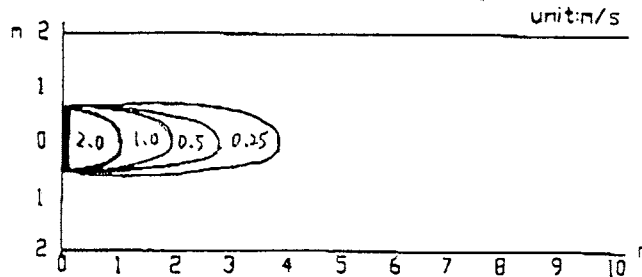


Fig 2  
 Top View  
 Flow Control Panel: Horiz.  
 Louver: right & left

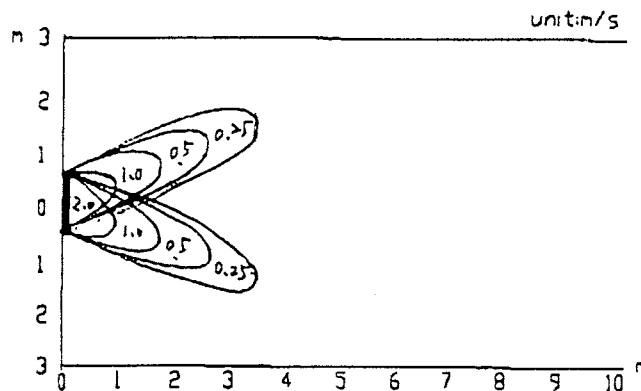


Fig 3  
 Side View  
 Flow Control Panel: Horiz.  
 Louver: Center

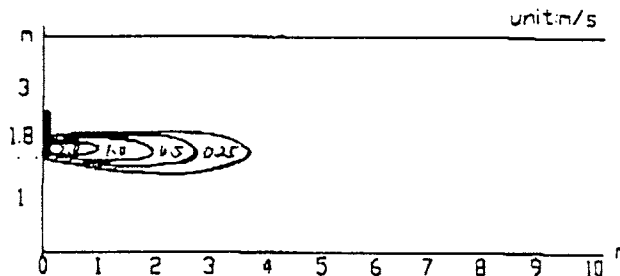
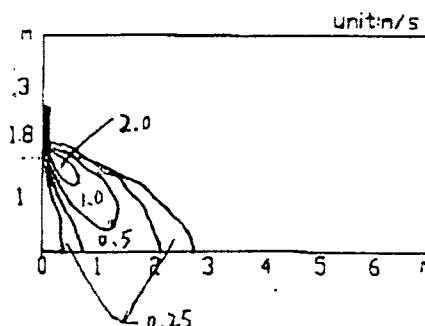


Fig 4  
 Side View  
 Flow Control Panel: Vert.  
 Louver: Center



Condition  
 Fan speed: high  
 Operation mode: Fan  
 Voltage : 230V  
 50Hz mode

B. Air velocity distribution

AIR VELOCITY DISTRIBUTION

MODELS: AS142AHAHA/AU142AEAHA (HSU-14H03 (B))

Fig 1  
Top View  
Flow Control Panel: Horiz.  
Louver: Center

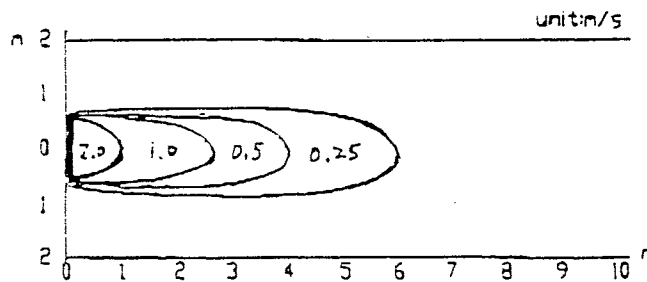


Fig 2  
Top View  
Flow Control Panel: Horiz.  
Louver: right & left

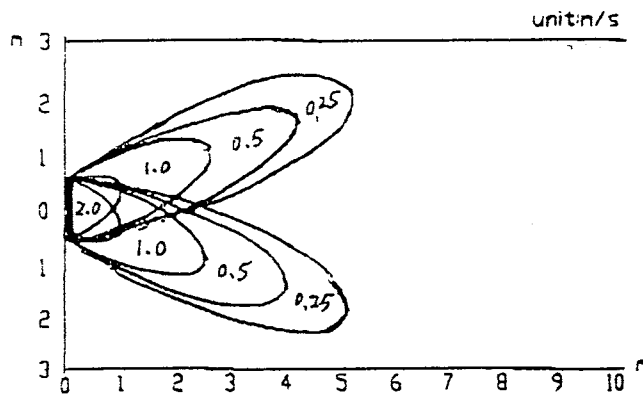


Fig 3  
Side View  
Flow Control Panel: Horiz.  
Louver: Center

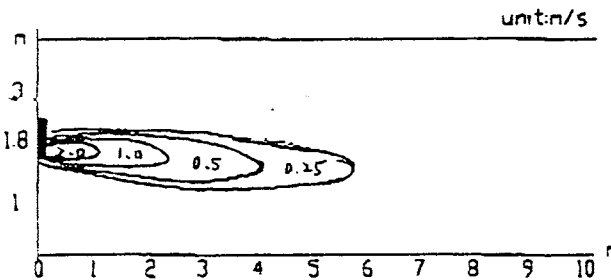
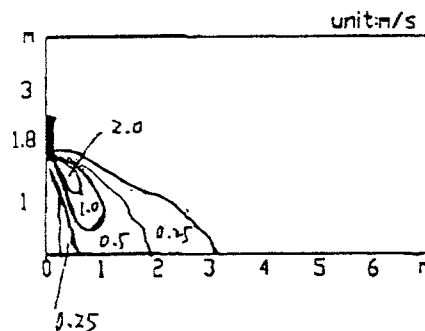


Fig 4  
Side View  
Flow Control Panel: Vert.  
Louver: Center



Condition  
Fan speed: high  
Operation mode Fan  
Voltage : 230V  
50Hz mode

B. Air velocity distribution

AIR VELOCITY DISTRIBUTION

MODELS: AS122BQAHA/AU212BGAHA (H2SM-21H03 (B))

Fig 1  
Top View  
Flow Control Panel: Horiz.  
Louver: Center

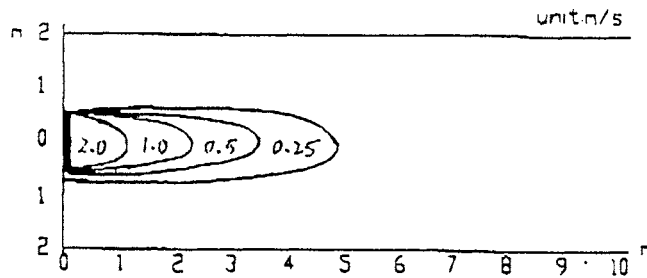


Fig 2  
Top View  
Flow Control Panel: Horiz.  
Louver: right & left

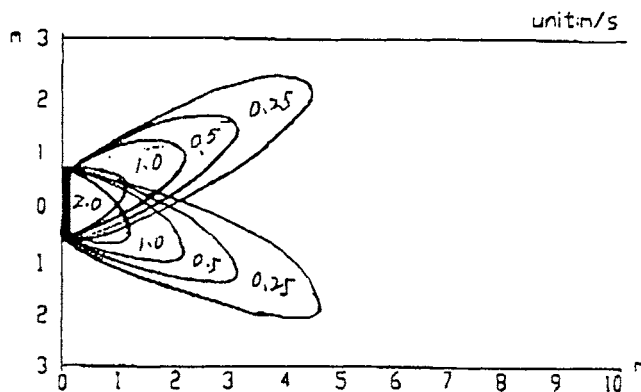


Fig 3  
Side View  
Flow Control Panel: Horiz.  
Louver: Center

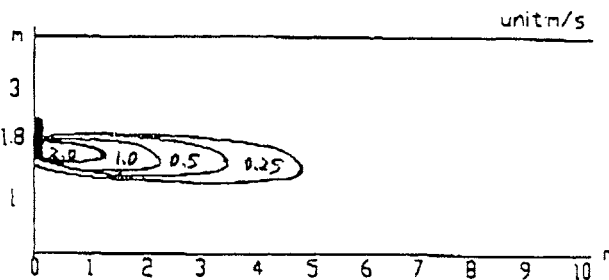
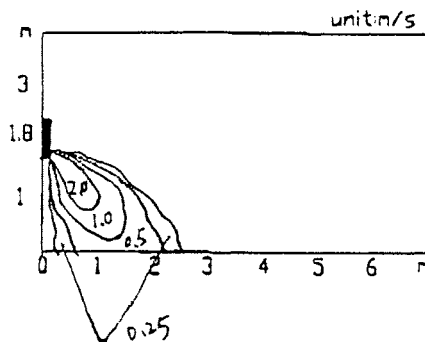


Fig 4  
Side View  
Flow Control Panel: Vert.  
Louver: Center



Condition  
Fan speed: high  
Operation mode: Fan  
Voltage : 230V  
50Hz mode

B. Air velocity distribution

AIR VELOCITY DISTRIBUTION

MODELS: AS142BYAHA (H2SM-21HA03 (B)) AS142BVAHA (H2SM-21HB03 (B))

Fig 1  
Top View  
Flow Control Panel: Horiz.  
Louver: Center

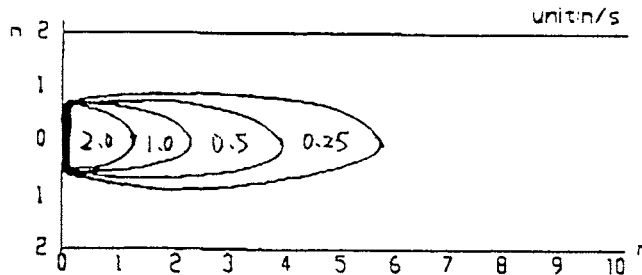


Fig 2  
Top View  
Flow Control Panel: Horiz.  
Louver: right & left

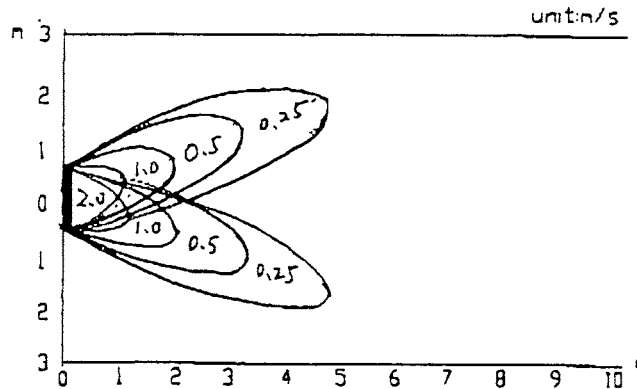


Fig 3  
Side View  
Flow Control Panel: Horiz.  
Louver: Center

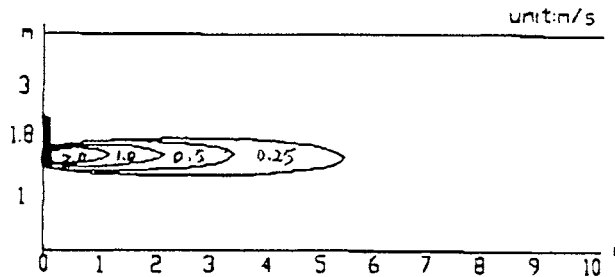
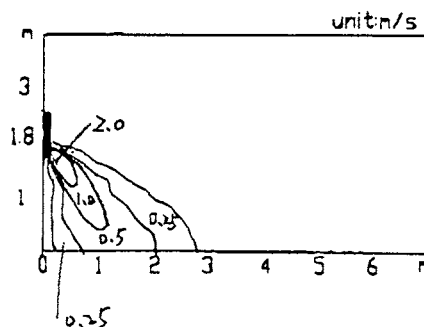


Fig 4  
Side View  
Flow Control Panel: Vert.  
Louver: Center



Condition  
Fan speed: high  
Operation mode: Fan  
Voltage : 230V  
50Hz mode



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# INSTALLATION & MAINTENANCE

**Installation Tools**


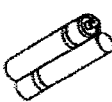
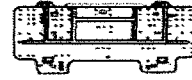

1. Screw Driver (flat head, wabblers, triangle)
2. Steel Saw
3. 60mm Drill
4. Inner Hexagon Spanner
5. Shifling Spanner
6. Spanner (14,17,19, 27 mm)
7. Pipe Cutter
8. Pipe Expander
9. Knives
10. Clippers
11. Leakage Checker or Soap Liquid
12. Measuring Tape
13. Scraper or File
14. Refrigeration Oil




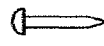

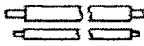
**Self-contained Accessories**







| No.           | A                 | B             | C               | D                        | E             | F          | G         |
|---------------|-------------------|---------------|-----------------|--------------------------|---------------|------------|-----------|
| Name of Parts | Non-adhesive Tape | Adhesive Tape | Connecting Hose | Heat Insulation Material | Gypsum Powder | Drain Hose | Pipe Clip |

**Accessories Delivered with Your Air Conditioner**

Please check if your unit is delivered with the following accessories.

| No.   | 1  | 2  | 3  | 4   |
|-------|--|--|--|---|
| Shape | Remote controller<br> | Batteries<br> | Mounting plate<br> | Drain Hose<br> |
| Qty   | 1  | 2  | 1  | 1   |

| No.   | 5  | 6  | 7  | 8  | 9  | 10   |
|-------|--|--|--|--|--|--|
| Shape | Pipe clip<br> | Expansion Screw & Bushing<br> | Putty<br> | Cement Steel Nail<br>4x50<br> | Drain Elbow<br> | Connection Pipe<br> |
| Qty   | 1  | 6  | 1  | 8  | 1  | 1  |

| No.   | 11   | 12  | 13   | 14   | 15  | 16  |
|-------|--|---|--|--|---|---|
| Shape | Piping Hole Cover<br> | Rubber Cushion<br> | Connection Wire<br> | Refrigeration Oil<br> | Plastic Clip<br> | Hexagon Wrench<br> |
| Qty   | 1  | 4   | 1  | 1  | 1   | 1   |

- To enable the air conditioner to work well, please install it as required by this manual.
- When moving the air conditioner, please don't scratch the shell.
- The max. length of the connection pipe is 15 meters, and the max. height difference between the indoor unit and outdoor unit is 5 meters.
- Please keep this manual carefully for maintenance and installation.
- After installation, please operate the air conditioner as per this manual.

### Electrical Requirements

- A specialized power supply wire, which shall be installed by a competent person as per the rules of the national standard.
- Power supply socket must be close to the air conditioner. And the socket must have an earth to make the air conditioner be grounded through the power supply socket.
- If the power supply wire is damaged, it must be replaced by the manufacturer or its service center or professional person.

### Hose Selection

| description | Size          |
|-------------|---------------|
| Liquid hose | Φ6.35mm(1/4") |
| Gas hose    | Φ12.7mm(1/2") |
|             | Φ9.52mm(3/8") |

Notes: After installation, please confirm that the refrigerant is not leaked.

**Installation Drawing for Indoor and Outdoor Units**

For models: AS072AZAHA/AU072ACAH (HSU-07H03 (B))

AS072ATAHA/AU072ACAH (HSU-07HB03 (B))

AS102AMAIA/AU102ACAH (HSU-10HB03 (B))

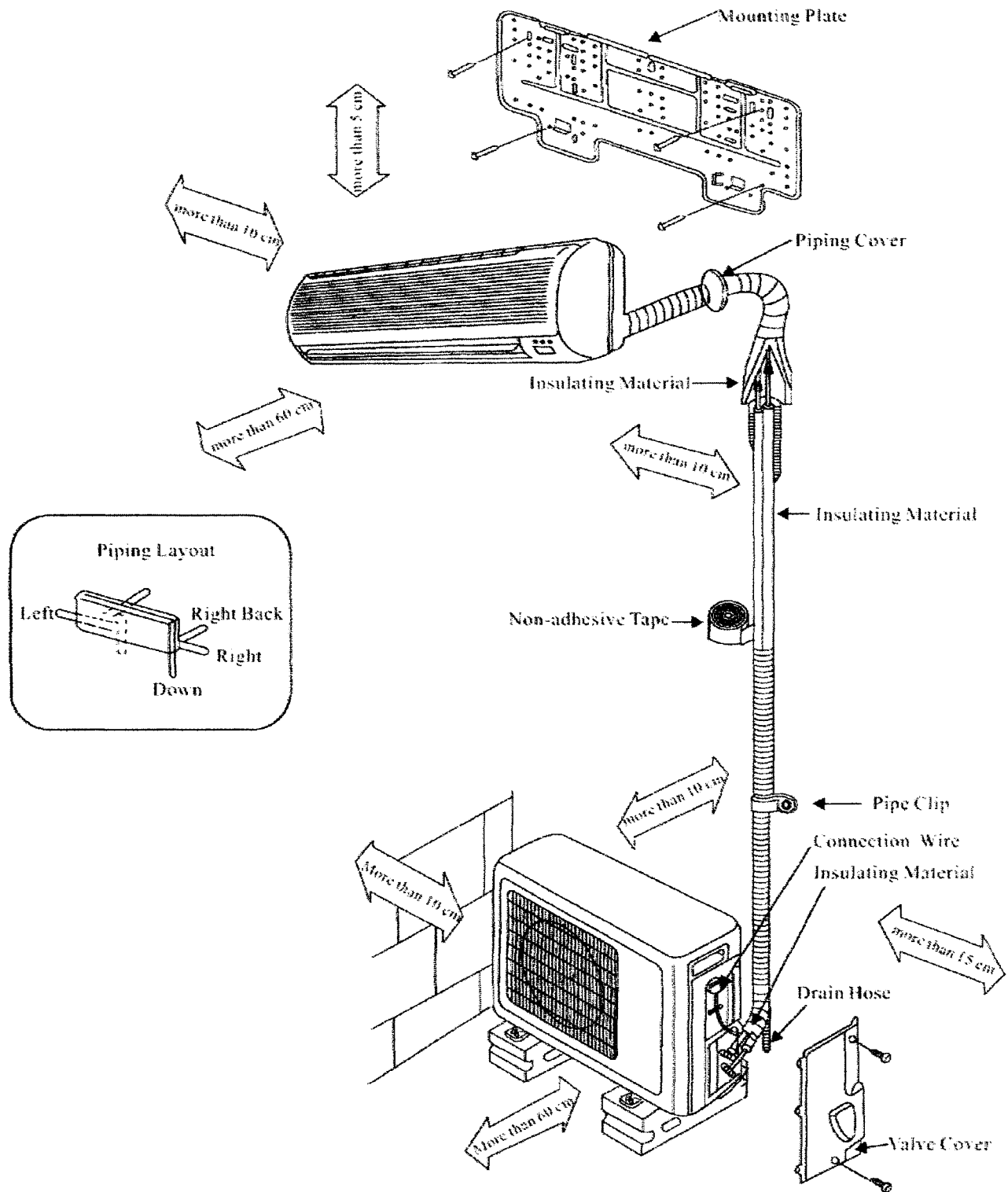
AS102AKAHA/AU102ACAH (HSU-10HE03 (B))

AS142AHAHA/AU142AEAHA (HSU-14H03 (B))

AS102ALATA/AU102ACAH (HSU-10HC03 (B))

AS102AMAJA/AU102ACAH (HSU-10HY03 (B))

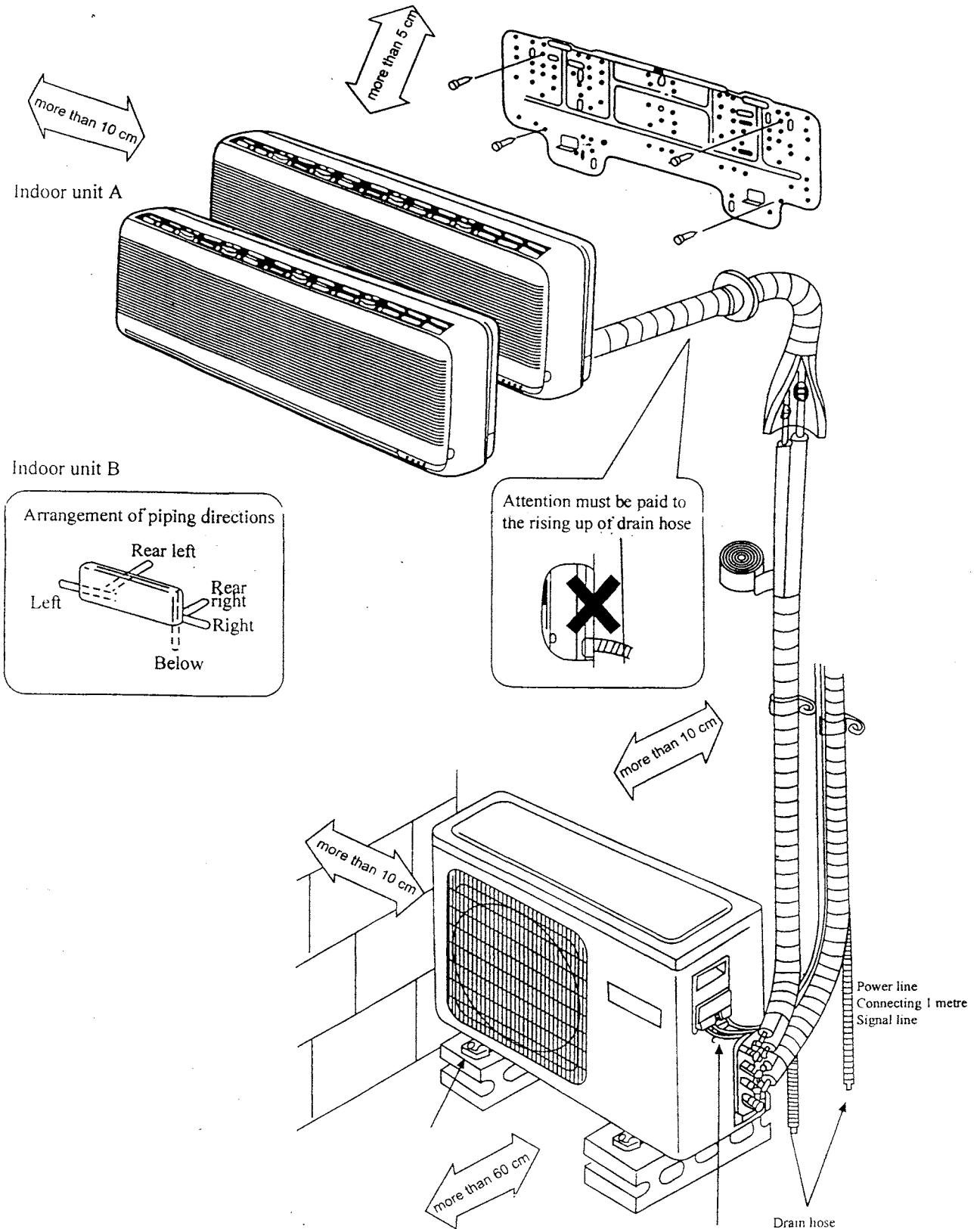
**NOTE:** The different type may has different appearance.



**Installation Drawing for Indoor and Outdoor Units**

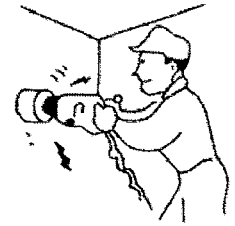
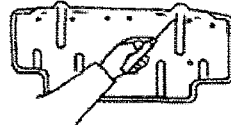
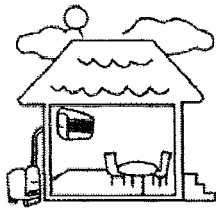
For models: AS112BMATA/AU182BFAHA (H2SM-18HA03 (B))  
 AS112BLAIA/AU182BFAHA (H2SM-18HB03 (B)) AS112BKAHA/AU182BFAHA (H2SM-18HD03 (B))  
 AS112BMAHA/AU182BFAHA (H2SM-18HY03 (B)) AS122BQAHA/AU212BGAHA (H2SM-21H03 (B))  
 AS112BMAJA+AS142BYAHA/AU212BGAIA (H2SM-21HA03 (B))  
 AS112BLAKA+AS142BVAHA/AU212BGAIA (H2SM-21HB03 (B))

**NOTE:** The different type may has different appearance.

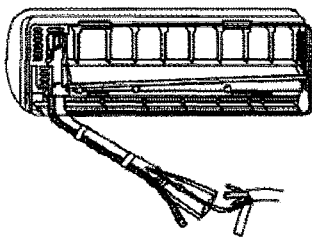


**Installation Procedure:**

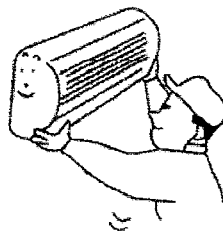
1. Installation Localization    2. Indoor Unit Mounting Plate Localization    3. Drill through Wall



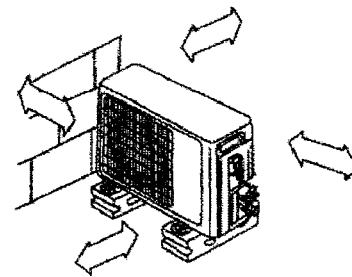
4. Connect Indoor Unit



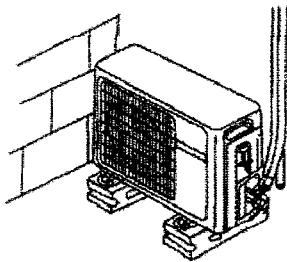
5. Install Indoor Unit



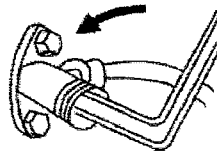
6. Install Outdoor Unit



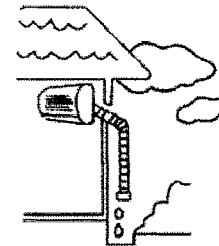
7. Connect Outdoor Unit



8. Drain Out



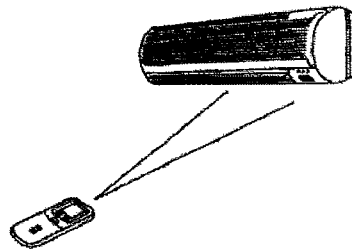
9. Check Drainage



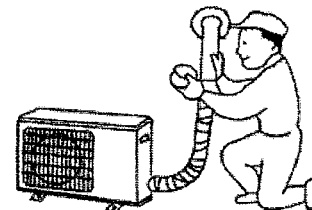
10. Check Installation



11. Trial Operation



12. Wind up Pipes



The step 4 and step 5 above can be adjusted according to the practical situation.

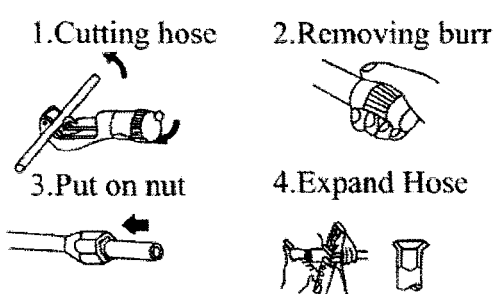
This procedure is a reference to the installation person and customer, it can be adjusted according to the practical situation.

**Localize the Installation:**

| <u>Indoor Unit</u>  |
|---|
| <ul style="list-style-type: none"> <li>● Install the indoor unit where the weight of the unit can be supported.</li> <li>● Install the indoor unit where the head source and steam source are not close and the unit inlet and outlet are not blocked.</li> <li>● Install the indoor unit where the drainage is easy and the outdoor unit can easily connected.</li> <li>● Install the indoor unit where its cold air and hot air can be easily sent to all the corners of the room.</li> <li>● Install the indoor unit where the power socket is near and there is sufficient space around the indoor unit.</li> <li>● Install the indoor unit where there is no T.V set, radio set, and wireless appliance underneath, and the sunlight lamp is over one meter away.</li> <li>● If the remote controller is installed on the wall, the indoor unit shall be ensured to receive the signal while the sunlight lamp is on.</li> </ul> |
| <u>Outdoor Unit</u>   |
| <ul style="list-style-type: none"> <li>● The location shall bear the weight of the unit and will not produce a big vibration and noise.</li> <li>● The location shall be in good ventilation, and the airflow blew out and noise produced shall not affect the neighbors.</li> <li>● The location shall not be directly drenched in rain, sun, or blew by sea wind.</li> <li>● The location shall not be near anywhere the corrosive gas(SO<sub>2</sub>), flammable gas(thinner or gasoline), oil mist, or steam are probably produced(for example in kitchen).</li> <li>● Sufficient space shall be left for air inlet and outlet.</li> <li>● The location shall be easily maintained and repaired.</li> <li>● It cannot be installed on a non-professional metal structure(like anti-burglary net).</li> </ul>  |

**Method for Cutting and Expanding Pipes:**

When the pipe is too long or its mouth is damaged, the pipe needs to cut or expand.

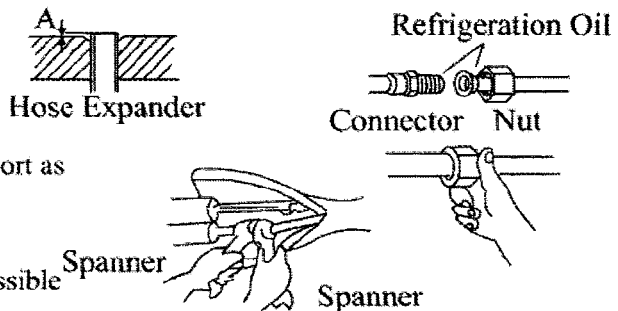


|             | Expansion Size |          |
|-------------|----------------|----------|
|             | Hose dia. Φ    | Size(mm) |
| Liquid hose | 6.35 mm(1/4")  | 0.8-1.5  |
| Gas hose    | 9.52 mm(3/8")  | 1.0-1.8  |
|             | 12.7 mm(1/2")  | 1.0-1.8  |

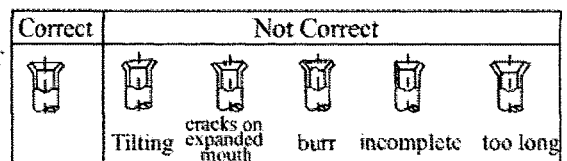
**Piping Connection**

**1. Connecting Method**

- To ensure the efficiency, the pipe should be as short as possible.
- 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 center to center then screw nut on by hand, refer to the Drawing.
- Be careful not to let foreign matters, such as sands enter the pipe.

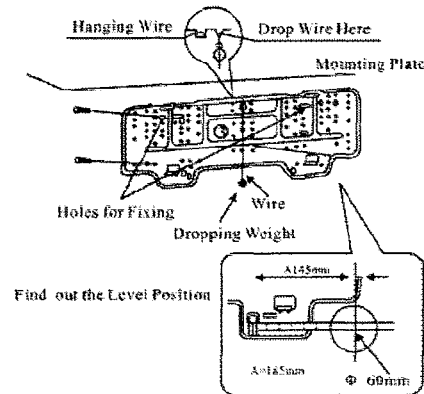


| Pipe dia.                   | Recommended Fastening Torque |
|-----------------------------|------------------------------|
| Liquid pipe 1 Φ6.35mm(1/4") | 18 N.m                       |
| Gas Pipe Φ9.52mm(3/8")      | 42 N.m                       |
| Gas Pipe Φ12.7mm(1/2")      | 50 N.m                       |



## Installation of Indoor Unit

The indoor unit shall be installed as per the indoor unit installation drawing:



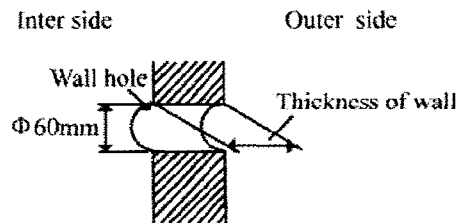
### 1. Fix the Mounting Plate and Localize the Wall-through Hole

Fix the mounting plate as per the selected position and the piping layout (see the installation drawing).

Fix the mounting plate on a smooth wall surface under the beam or beside a column. First fix the mounting plate with a steel nail, then level it with a level meter or a drop line, then fix it with A4  $\times$  50 cement nails. If the expansion screws are used, first drill holes into the wall ( $\Phi$  4.8mm), then put the plastic sleeve into the holes, then fix the mounting plate with 4  $\times$  25 screws. Measure the position the wall hole with a measuring tape.

### 2. Drill a Hole through the Wall and Install the Piping Protective Sleeve

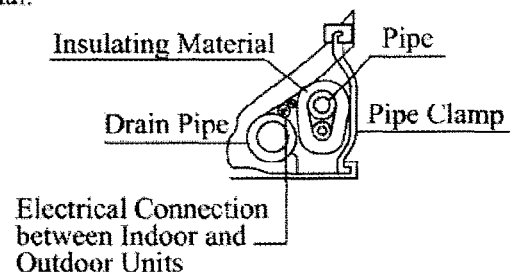
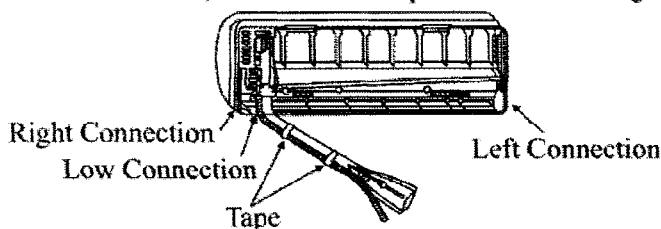
Drill a hole  $\Phi$  60mm through the wall with the outer side slightly downward, then install the piping sleeve, then seal it with gypsum powder.



(Section plan of wall hole)

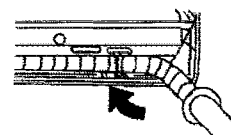
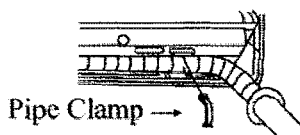
### 3. Piping Layout for Indoor Unit

Lay out the connection pipe, drain pipe, and the connection wires according to the installation position of the indoor and outdoor units. During the layout, the drain pipe shall be placed underneath, and the connection wires shall be placed on the top; the drain pipe (especially indoor or inside the unit) shall be wound up with the insulating material.



Installation of the Connection Pipe Clips (Left or Left-Back Connection):

- Insert the pipe clip into the fixing position of the pipe with the upper part inserted first.
- Press the bottom of the clip until a sound "Ka Ta" is heard.



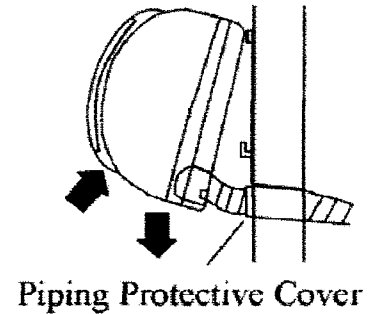


#### 4.Piping Connection for Indoor Unit:

Insert the auxiliary hoses(liquid hose and gas hose)and the unit connection wires through the wall hole from outdoor side,and connect the pipes and wires as per the method of piping connection, or insert the auxiliary hoses(liquid hose and gas hose) and the connection wires as a whole through the wall hole from indoor side for connecting the outdoor unit after connection of the auxiliary hoses and unit connection wires.

#### 5.Install and Fix:

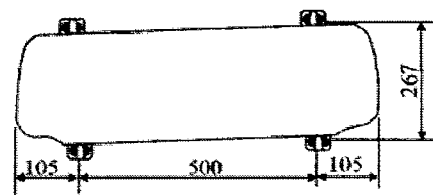
Hang the indoor wall unit on the fastener of the mounting plate, and move the unit left and right to check the firmness. Hold the two sides of the unit with two hands to press the unit to the mounting plate until a sound “kacha” is heard.



### Installation of Outdoor Unit

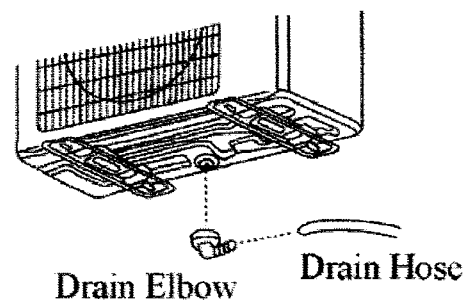
#### 1.Install and Fix:

Fix the outdoor support on the wall with M10 expansion screws, then screw tightly the outdoor unit on the support with M10 bolts and nuts, and leveled. If it is installed on wall or roof, the stand shall be firmly fixed to resist the earthquake or strong wind. A vibration reduction rubber ring shall be used.



#### 2.Install the Drain Elbow

The elbow is only used for the thermal pump type air conditioner.And the cold air type air conditioner does not need it.The elbow shall be installed as per the drawing.The drain elbow is not used in a very cold weather(the air temperature is below 0°C for long).



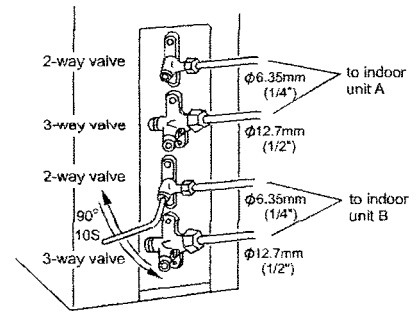
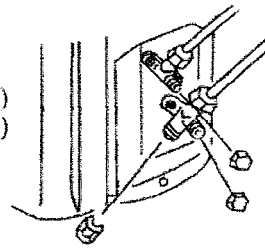
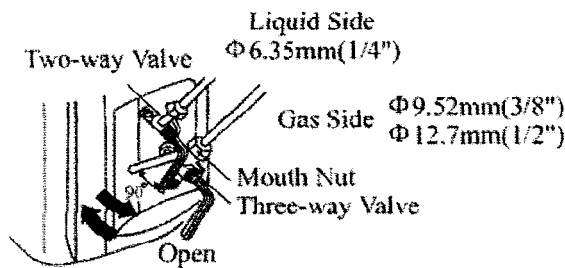
**Piping Connection for Outdoor Unit**

Connect the Piping and Inlet and Outlet Liquid Tubes  
 Gas Drainage Method:



Drain the air in the indoor unit and the pipes as per the drawing:

- (1) Remove the valve cap on the two-way valve of the indoor unit with a spanner.
- (2) Unscrew by 1/2 cycle the nut on the mouth of the thick pipe connected with the three-way valve with a spanner.
- (3) Unscrew the spool of the two-way valve by 90° with an inner hexagon spanner, and after about 10 seconds, close the two-way valve, then air will be drained out from the mouth of the thick pipe. When the air is drained out, screw tightly the nut on the mouth according to their required torque.
- (4) Open the two-way valve and three-way valve with an inner hexagon spanner.
- (5) Check the leakage with soap liquid or a leakage checker.
- (6) Screw tightly the two valve caps according to the required torque.



**Required Torque**

| Specif.     | Torque | Tight screw N. M |
|-------------|--------|------------------|
| Valve Spool |        | 7-9              |
| Valve Cap   |        | 20-25            |

When the connection pipe is more than 5 cm, it shall be filled with refrigerant as per the following form:

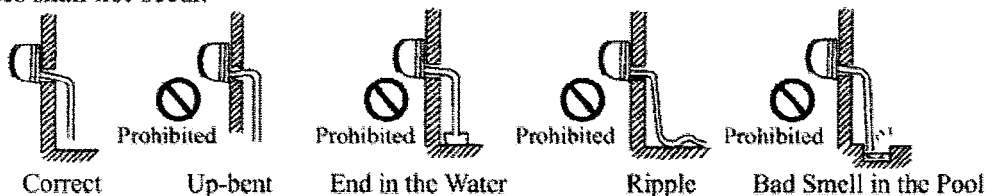
| Pipe Length        | 5m   | 7m  | 10m | 15m  |
|--------------------|------|-----|-----|------|
| Refrigerant filled | none | 32g | 80g | 160g |

Notes: When the pipe is extended, the air in the connection pipe shall be drained out with the refrigerant(R22) from outside the system, then the excess refrigerant shall be drained out as per the air drainage method.

**Check the Layout of the Drain Pipe and Connection Wires**

The drain pipe should be placed underneath, and the connection wires should be placed upside; and the drain pipe especially the section inside the machine and indoors must be wound up with insulating material to preserve heat

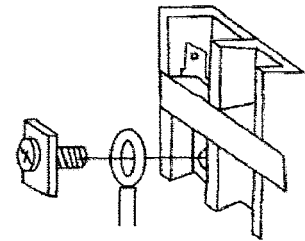
The drain pipe shall be sloped and no concave and convex shall occur along the whole pipe. And the cases as the right drawing indicates shall not occur.



**Wiring for Indoor and Outdoor Units**

**1. Wiring Method for Ring Terminal**

The wiring method is as the drawing below for the ring terminal:  
Remove the connection screw and put the screw through the ring on the connection wire terminal, then connect it to the terminal blocks, then screw it tightly.



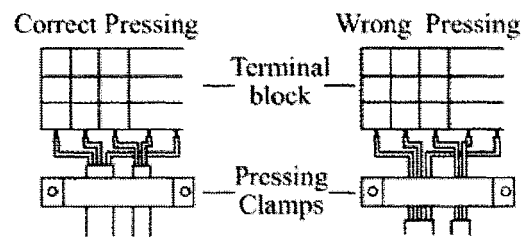
Wiring Method for Ring Terminal Block

**2. Wiring Method for Line Terminal**

The wiring method is as follows for the non-ring terminal:  
Loosen the connection screw and insert the connection wire end into the terminal block completely, screw it tightly, then slightly pull out the connection wire to ensure it be clamped tightly.

**3. Method for Pressing the Connection Wire**

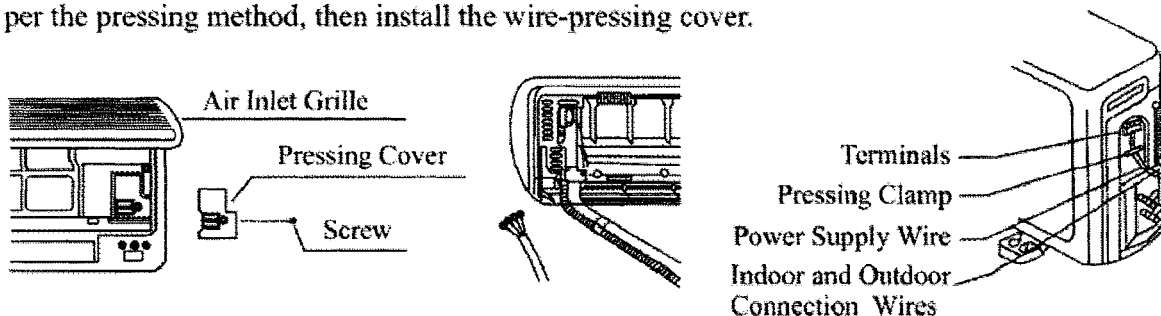
After wiring, the connection wire must be pressed tightly with a wire-pressing clip, which should press the outer sleeves of the wire as the right drawing:



**Wiring for Indoor Unit and Outdoor Unit**

Lay out the connection wires as the connection drawing (Notes: The two ends of the connection wires are different, never connect reversely)

- 1) Open the wire cover, unscrew the pressing clamp(outdoor unit).
- 2) Connect the connection wires as per the wiring method and the wiring drawing (the wires on the indoor unit shall be inserted from behind as the attached drawing).
- 3) Ensure that the terminals are clamped tightly, and press the connection wires(outdoor unit) as per the pressing method, then install the wire-pressing cover.



**Notes:**

- When connecting the wires of indoor and outdoor units, check the numbers on the terminals of the indoor and outdoor units, the same wire shall connect the same number and color terminal
- Wrong connection would damage the air conditioner's controller, or the unit cannot work.

Please operate the air conditioner in accordance with this Operation Manual

Check items for the Trial Operation(Tick “ √ ” in□)

- Is the connector leaked?
- How is the connector insulated?
- Is the electric connection between the indoor and outdoor units firmly inserted into the terminal plate?
- Are the electric wires on the indoor and outdoor units fixed firmly?
- Is the drain pipe placed correctly?
- Is the earth line connected firmly?
- Does the power supply voltage conform to the electric regulations?
- Is there any noise?
- Is the cooling operation normal?
- Is the indoor temperature adjuster working normally?
  
- Power Supply:
  - L should be connected with the live wire;
  - N should be connected with the zero wire;
  - ⊕ should be connected with the earth wire.

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