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Gree Electric Appliances Inc. of Zhuhai, founded in 1991, is the world's largest air conditioner enterprise integrating R&D, manufacturing, marketing and service.

- 2012, Gree became the first listed electrical appliances enterprise in China with sales revenue over 16 billion USD (RMB 100 billion).
- 2013, GREE's sales revenue exceeded 19 billion USD.

Gree has been ranked on the Fortune Magazine as one of the Top 100 Chinese listed companies for 12 consecutive years.

Thanks to 300 million user's choices, Gree products are sold widely in more than 200 countries and regions. Today Gree's annual production capacity of RAC and CAC are more than 60 million sets and 5.5 million sets respectively.

Action makes the future and innovation makes achievement. Looking forward, Gree will firmly persist in the business philosophy of passion, innovation and realization. We aim to build a century's standing air conditioning enterprise, to create a better life for human.

For the Clearer Sky and Greener Earth.



1 in 3 air conditioners sold worldwide is made by Gree

مكيفر غازى  
 مكيف الهواء  
 air conditioner  
 램온풍기  
 エアコン  
 एर कन्डिशनर  
 空调 climatiseur  
 acondicionador de aire  
 ar condicionado

300,000,000 users

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**No. 1**  
air conditioner  
manufacturer



## Some Parts



### Golden fin condenser

Anti-corrosive performance of golden fin is 3 times better than normal Fin.



### Inner groove copper

Special thickened inner groove copper tube enhances heat exchanging performance.



### Built-in drain pump

The drain pump can pump the condensation to a high level. It facilitates condensation draining from the indoor unit and makes the installation of indoor unit easier.



### Washable filter

Filters are easy to dismantle and install. You can use dirt collector or water to clear away the dust.



### Quality motor

Quality motor makes operation steady and in low noise.



### Auxiliary electric heater

Auxiliary heater greatly improves heating capacity and saves energy.



### Slave and master wired controller

One indoor unit can be connected with two wired controllers to realize controlling of the same indoor unit from different control points.



### Long connection pipe design

The total length of connection pipe reaches 1000m, which greatly improves the project flexibility of the unit.

## High Efficiency & Energy Saving



### High efficiency

The air conditioner is designed to high energy efficiency and to realize power saving.



### Intelligent defrosting

It performs defrosting intelligently when necessary, thus improving heating efficiency and saving energy.



### Energy saving function

When this function is activated, the temperature setting is only in limited range, so as to save energy.



### All DC inverter technology

All motors adopt DC inverter technology, which greatly improves energy efficiency.

## Comfortable & Healthy



### Vertical swing

Air discharge flaps can automatic move vertically for efficient air and temperature distribution throughout the room.



### Horizontal swing

Air discharge Louvre can automatic move horizontally for efficient air and temperature distribution throughout the room.



### Anti-cold function

The indoor unit will not blow in the winter if the air is not warm enough.



### Turbo function

To run with strong power and make you feel comfortable(cool or warm) quickly.



### Fresh air supply ventilation

The unit can introduce a certain percentage of fresh air to satisfy the fresh air requirement.



### Comfortable sleeping mode

The setting temperature and the indoor noise can be adjusted to a more comfortable level when you set the "sleeping mode".



### Quiet function

Unit is ensured to operate with the lowest noise by ultra-low fan speed and auto adjustment according to system parameter.

## Convenience



### Memory function

Unit is able to remember the operations before power failure and automatically returns to those operations when power restored.



### Compact design

Unit is designed with smaller dimension, which is easy to install and transport, and saves the cost.



### Easier maintainability

The unit is designed to be easier for maintenance and component replacement.



### Auto addressing technology

The new generation of indoor unit applies auto addressing technology, which greatly reduces project debugging time and error rate.

## Reliability



### Auto clean

After unit turn off , the indoor fan will keep running in low speed for a moment to dry the inner components and parts, in order to prevent mildew and keep users healthy.



### Self-diagnosis

Malfunction codes are shown on the display panel for fast and easy maintenance when problem occur.



### Low voltage startup

Unit is able to safely start when voltage is below standard.



### Low temperature heating

Unit is able to start and operate in normal when the ambient temperature is lower than -20°C and heating capacity remains still.



### Modular operating

Several units can operate together as modules, so that capacity output control is more precise, and also higher reliability.



### Comprehensive protection

The unit is designed with various of protection functions to ensure the reliability.

## Versatility



### High ESP

The external static pressure range is higher, which ensures longer delivery distance for air to provide powerful cooling.



### Wide voltage range

The unit can operate in a wide range of voltage, greatly reducing the impact of voltage fluctuation.



### Wide operation range

Unit can operate in wide range, greatly reducing the ambient temperature limitation.



### Multi fan speed

The fan can operate with multi speeds and satisfy different air flow volume requirement.



### Modular structure

High efficiency compressor presents reliable performance.

## Control



### 24 hour timer

Unit can be set to turn on or turn off at anytime in a day.(The timing interval is 5-minute.)



### Weekly timer

Unit can be set to start heating or cooling anytime on a daily or weekly basis.



### °C/°F switch

Under status of unit off, press MODE and "-" buttons simultaneously to switch °C/°F.



### Clock display

Time is shown on remote controller .



### Child lock

It avoids child's wrong operation on the remote controller.



### Key-card control

The Key-card control function is specially designed for the hotel rooms. By removing the key-card the air conditioner, it can be automatically switched to stand-by status.



### Centralized control

Starts, stops and regulates the air conditioner from a distance.



### Long-distance monitoring

Long-distance monitoring enables the unit to be controlled and monitored from a long distance.



### Shield function

Remote control the indoor unit and shield the functions of wired controller which include ON/OFF, temp or mode setting, energy-saving function, etc.



### Human engineering operation

Adopts the technologies of auto addressing, non-polar communication and auto debugging, which improves project efficiency.



### Floor Heating Debugging

# LIGHT COMMERCIAL AC

U-Match  
Duct Split Unit

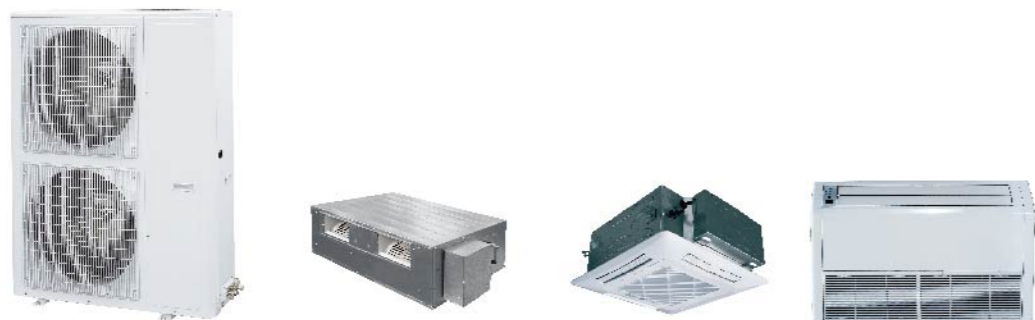




# U-Match

## High Efficiency Series

It is a kind of split system that the outdoor unit can be freely connected to different types of indoor units according to various indoor decoration requirements.



- Built-in drain pump
- High efficiency
- Intelligent defrosting
- Anti-cold function
- Comprehensive protection
- Compact design
- Easier maintainability

- Double ambient temperature sensor design makes a precision temperature monitoring.
- Low start-up current thanks to power delay control design.
- Higher efficiency thanks to sine wave DC inverter compressor control.
- High reliability and easy maintenance thanks to one piece integrated PCB board.
- Stable cooling under -15°C and heating under -10°C outdoor environment temperature.



### Indoor Unit

|   | Duct type  | Cassette type  | Floor ceiling type |
|---|--|--|--------------------|
| <ul style="list-style-type: none"> <li>• Drain pump fitted as optional with increased lift of 1100mm.</li> <li>• Fresh air inlet and air valve control function improve the indoor air quality.</li> <li>• Flexible air in/outlet and condensing water outlet direction according to different installation requirements.</li> <li>• Optimized air duct design improves the performance and lower the noise.</li> </ul> | <ul style="list-style-type: none"> <li>• Drain pump fitted as standard with increased lift of 1100mm.</li> <li>• Special low noise fan design.</li> <li>• Different swing angle design for cooling and heating mode for better comfort.</li> </ul> | <ul style="list-style-type: none"> <li>• 3-D air flue design.</li> <li>• Easy replacement of motor and fan blade thanks to clamp block propeller design.</li> <li>• Different swing angle design for cooling and heating mode for better comfort.</li> </ul> |                    |

| Item    | Nominal operating condition (temperature) |         |                  |         | Operation range (temperature) |
|---------|---|---------|------------------|---------|-------------------------------|
|         | Outdoor condition                         |         | Indoor condition |         | Outdoor condition             |
|         | DB (°C)                                   | WB (°C) | DB (°C)          | WB (°C) | DB (°C)                       |
| Cooling | 35  | 24      | 27               | 19      | -15~48                        |
| Heating | 7   | 6       | 20               | -       | -10~24                        |

## Indoor Units Lineup

| Capacity Index (BTU/h) |               | 9K          | 12K         | 18K         | 24K         | 30K         |           |
|------------------------|---------------|-------------|-------------|-------------|-------------|-------------|-----------|
| Outdoor Unit           | Model         | GUHD09NK3FO | GUHD12NK3FO | GUHD18NK3FO | GUHD24NK3FO | GUHD30NK3FO |           |
|                        | Picture       |             |             |             |             |             |           |
| Indoor Unit            | Duct          | Model       | GFH09K3FI   | GFH12K3FI   | GFH18K3FI   | GFH24K3FI   | GFH30K3FI |
|                        |               | Picture     |             |             |             |             |           |
|                        | Cassette      | Model       | ---         | GKH12K3FI   | GKH18K3FI   | GKH24K3FI   | GKH30K3FI |
|                        |               | Picture     | ---         |             |             |             |           |
|                        | Floor Ceiling | Model       | GTH09K3FI   | GTH12K3FI   | GTH18K3FI   | GTH24K3FI   | GTH30K3FI |
|                        |               | Picture     |             |             |             |             |           |

| Capacity Index (BTU/h) |               | 36K         | 42K         | 48K         | 60K         |             |             |             |           |
|------------------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------|
| Outdoor Unit           | Model         | GUHD36NK3FO | GUHD36NM3FO | GUHD42NK3FO | GUHD42NM3FO | GUHD48NK3FO | GUHD48NM3FO | GUHD60NM3FO |           |
|                        | Picture       |             |             |             |             |             |             |             |           |
| Indoor Unit            | Duct          | Model       | GFH36K3FI   | GFH36K3FI   | GFH42K3FI   | GFH42K3FI   | GFH48K3FI   | GFH48K3FI   | GFH60K3FI |
|                        |               | Picture     |             |             |             |             |             |             |           |
|                        | Cassette      | Model       | GKH36K3FI   | GKH36K3FI   | GKH42K3FI   | GKH42K3FI   | GKH48K3FI   | GKH48K3FI   | GKH60K3FI |
|                        |               | Picture     |             |             |             |             |             |             |           |
|                        | Floor Ceiling | Model       | GTH36K3FI   | GTH36K3FI   | GTH42K3FI   | GTH42K3FI   | GTH48K3FI   | GTH48K3FI   | GTH60K3FI |
|                        |               | Picture     |             |             |             |             |             |             |           |

Table with columns: Model, Outdoor unit, Indoor unit, GUHD09NK3FO, GUHD12NK3FO. Rows include Capacity, SEER/SCOP, Power supply, Power input, Current input, Refrigerant charge volume, Indoor unit, Panel, Outdoor unit, Connection pipe, Loading quantity.

Table with columns: Model, Outdoor unit, Indoor unit, GUHD30NK3FO, GUHD36NK3FO. Rows include Capacity, SEER/SCOP, Power supply, Power input, Current input, Refrigerant charge volume, Indoor unit, Panel, Outdoor unit, Connection pipe, Loading quantity.




























Table with columns: Model, Outdoor unit, Indoor unit, GUHD18NK3FO, GUHD24NK3FO. Rows include Capacity, SEER/SCOP, Power supply, Power input, Current input, Refrigerant charge volume, Indoor unit, Panel, Outdoor unit, Connection pipe, Loading quantity.

Table with columns: Model, Outdoor unit, Indoor unit, GUHD36NM3FO, GUHD42NK3FO. Rows include Capacity, SEER/SCOP, Power supply, Power input, Current input, Refrigerant charge volume, Indoor unit, Panel, Outdoor unit, Connection pipe, Loading quantity.

| Model                     | Outdoor unit                   |          | GUHD42NM3FO  |               |               | GUHD48NK3FO  |               |               |              |
|---------------------------|--------------------------------|----------|--------------|---------------|---------------|--------------|---------------|---------------|--------------|
|                           | Indoor unit                    |          | Duct         | Cassette      | Floor Ceiling | Duct         | Cassette      | Floor Ceiling |              |
|                           |                                |          | GFH42K3FI    | GKH42K3FI     | GTH42K3FI     | GFH48K3FI    | GKH48K3FI     | GTH48K3FI     |              |
| Capacity                  | Cooling                        | kW       | 11.5         | 11.0          | 11.5          | 14.0         | 14.0          | 14.0          |              |
|                           |                                | BTU/h    | 39238        | 37532         | 39238         | 47768        | 47768         | 47768         |              |
|                           | Heating                        | kW       | 13.5         | 12.5          | 13.5          | 15.5         | 16.0          | 16.0          |              |
|                           |                                | BTU/h    | 46062        | 42650         | 46062         | 52886        | 54592         | 54592         |              |
| SEER/SCOP                 |                                | W/W      | 5.6/4.0      | 6.1/4.0       | 5.6/4.0       | 6.1/3.8      | 6.1/3.8       | 5.6/3.8       |              |
| Power supply              |                                | Ph/V/Hz  | 3/380-415/50 |               |               | 1/220-240/50 |               |               |              |
| Power input               | Cooling                        | kW       | 4.9          | 4.8           | 4.8           | 6.7          | 6.7           | 6.6           |              |
|                           | Heating                        | kW       | 4.9          | 4.9           | 4.9           | 6.7          | 6.5           | 6.7           |              |
| Current input             | Cooling                        | A        | 6.9          | 6.7           | 6.7           | 21.8         | 21.3          | 22.3          |              |
|                           | Heating                        | A        | 6.7          | 6.6           | 6.5           | 20.4         | 20.8          | 20.0          |              |
| Refrigerant charge volume |                                | kg       | 3.7          | 3.7           | 3.7           | 4.0          | 4.0           | 4.0           |              |
| Indoor unit               | Air flow volume(H/W/L)         |          | CFM          | 1236          | 1095          | 1118         | 1412          | 1354          | 1354         |
|                           | ESP                            | Rated    | m³/h         | 2100          | 1860          | 1900         | 2400          | 2300          | 2300         |
|                           |                                | Range    | Pa           | 37            | -             | -            | 50            | -             | -            |
|                           | Sound pressure level (SHH/WML) | dB(A)    |              | 53/52/48/44   | 51/49/46/43   | 55/54/52/47  | 55/53/49/45   | 53/52/47/41   | 56/55/50/40  |
|                           |                                | Outline  | mm           | 1226×775×290  | 840×840×320   | 1420×700×245 | 1340×750×350  | 910×910×290   | 1700×700×245 |
|                           | Dimension (W×D×H)              | Package  | mm           | 1338×877×305  | 963×963×409   | 1548×828×345 | 1423×837×455  | 1023×993×375  | 1828×828×345 |
| Net weight/Gross weight   |                                | kg       | 46/53        | 31/38         | 50/58         | 56/65        | 43/50         | 59/68         |              |
| Panel                     | Dimension (W×D×H)              |          | Outline      | mm            |               |              |               |               |              |
|                           | Package                        | mm       |              | 950×950×60    |               |              | 1040×1040×65  |               |              |
|                           | Net weight/Gross weight        | kg       |              |               |               |              |               |               |              |
| Outdoor unit              | Sound pressure level           |          | dB(A)        | 61            |               |              | 59            |               |              |
|                           | Dimension (W×D×H)              | Outline  | mm           | 958×412×1349  |               |              | 958×412×1349  |               |              |
|                           |                                | Package  | mm           | 1043×453×1500 |               |              | 1043×453×1500 |               |              |
|                           | Net weight/Gross weight        |          | kg           | 108/118       |               |              | 105/115       |               |              |
| Connection pipe           | Outer diameter                 | Liquid   | inch(mm)     | φ3/8(9.52)    |               |              | φ3/8(9.52)    |               |              |
|                           | Gas                            | inch(mm) | φ5/8(15.9)   |               |               | φ5/8(15.9)   |               |               |              |
| Max distance              | Height/Length                  | m        | 30/50        |               |               | 30/50        |               |               |              |
|                           |                                |          |              |               |               |              |               |               |              |
| Loading quantity          |                                |          | 52/58        | 45/48         | 43/47         | 38/48        | 43/50         | 43/47         |              |

| Model                     | Outdoor unit                   |          | GUHD48NM3FO  |               |               | GUHD60NM3FO  |               |               |              |
|---------------------------|--------------------------------|----------|--------------|---------------|---------------|--------------|---------------|---------------|--------------|
|                           | Indoor unit                    |          | Duct         | Cassette      | Floor Ceiling | Duct         | Cassette      | Floor Ceiling |              |
|                           |                                |          | GFH48K3FI    | GKH48K3FI     | GTH48K3FI     | GFH60K3FI    | GKH60K3FI     | GTH60K3FI     |              |
| Capacity                  | Cooling                        | kW       | 14.0         | 14.0          | 14.0          | 16.0         | 16.0          | 16.0          |              |
|                           |                                | BTU/h    | 47768        | 47768         | 47768         | 54592        | 54592         | 54592         |              |
|                           | Heating                        | kW       | 15.5         | 16.0          | 16.0          | 16.5         | 17.0          | 17.0          |              |
|                           |                                | BTU/h    | 52886        | 54592         | 54592         | 56298        | 58004         | 58004         |              |
| SEER/SCOP                 |                                | W/W      | 5.6/3.8      | 5.6/3.8       | 5.6/4.0       | 5.6/3.8      | 6.1/4.0       | 5.1/4.0       |              |
| Power supply              |                                | Ph/V/Hz  | 3/380-415/50 |               |               | 3/380-415/50 |               |               |              |
| Power input               | Cooling                        | kW       | 6.7          | 6.7           | 6.6           | 7.4          | 7.4           | 7.4           |              |
|                           | Heating                        | kW       | 6.7          | 6.7           | 6.7           | 7.2          | 7.2           | 7.2           |              |
| Current input             | Cooling                        | A        | 8.80         | 8.90          | 8.60          | 9.70         | 9.80          | 10.0          |              |
|                           | Heating                        | A        | 7.80         | 7.80          | 7.80          | 7.80         | 8.2           | 8.2           |              |
| Refrigerant charge volume |                                | kg       | 4.0          | 4.0           | 4.0           | 5.0          | 5.0           | 5.0           |              |
| Indoor unit               | Air flow volume(H/W/L)         |          | CFM          | 1412          | 1354          | 1354         | 1766          | 1412          | 1471         |
|                           | ESP                            | Rated    | m³/h         | 2400          | 2300          | 2300         | 3000          | 2400          | 2500         |
|                           |                                | Range    | Pa           | 50            | -             | -            | 50            | -             | -            |
|                           | Sound pressure level (SHH/WML) | dB(A)    |              | 55/53/49/45   | 53/52/47/41   | 56/55/50/46  | 57/56/54/49   | 55/53/47/41   | 58/56/52/46  |
|                           |                                | Outline  | mm           | 1340×750×350  | 910×910×290   | 1700×700×245 | 1340×750×350  | 910×910×290   | 1700×700×245 |
|                           | Dimension (W×D×H)              | Package  | mm           | 1423×837×455  | 1023×993×375  | 1828×828×345 | 1423×837×455  | 1023×993×375  | 1828×828×345 |
| Net weight/Gross weight   |                                | kg       | 56/65        | 43/50         | 59/68         | 57/69        | 43/50         | 59/68         |              |
| Panel                     | Dimension (W×D×H)              |          | Outline      | mm            |               |              |               |               |              |
|                           | Package                        | mm       |              | 1040×1040×65  |               |              | 1040×1040×65  |               |              |
|                           | Net weight/Gross weight        | kg       |              |               |               |              |               |               |              |
| Outdoor unit              | Sound pressure level           |          | dB(A)        | 59            |               |              | 63            |               |              |
|                           | Dimension (W×D×H)              | Outline  | mm           | 958×412×1349  |               |              | 1085×427×1365 |               |              |
|                           |                                | Package  | mm           | 1043×453×1500 |               |              | 1143×478×1505 |               |              |
|                           | Net weight/Gross weight        |          | kg           | 114/124       |               |              | 126/138       |               |              |
| Connection pipe           | Outer diameter                 | Liquid   | inch(mm)     | φ3/8(9.52)    |               |              | φ3/8(9.52)    |               |              |
|                           | Gas                            | inch(mm) | φ5/8(15.9)   |               |               | φ3/4(19.05)  |               |               |              |
| Max distance              | Height/Length                  | m        | 30/50        |               |               | 30/50        |               |               |              |
|                           |                                |          |              |               |               |              |               |               |              |
| Loading quantity          |                                |          | 38/48        | 43/50         | 43/47         | 40/40        | 38/48         | 39/42         |              |

## Control System Lineup

| Controlling system         | Product series | High efficiency series  |   |   |
|----------------------------|----------------|---|---|---|
|                            |                | Duct type   | Cassette type   | Floor ceiling type  |
|                            |                |  |  |  |
| Wireless remote controller | YB1FA          |  |  |  |
|                            | YV1FB7F        |  |  |  |
|                            | YV1FB7         |  |  |  |
|                            | YB1FAF         |  |  |  |
|                            | YAM1F          |  |  |  |
|                            | YAMIFF         |  |  |  |
| Wired controller           | Z4K351J        |  |  |  |
|                            | Z4K351CJ       |  |  |  |

Note:  
 means standard,  means optional.



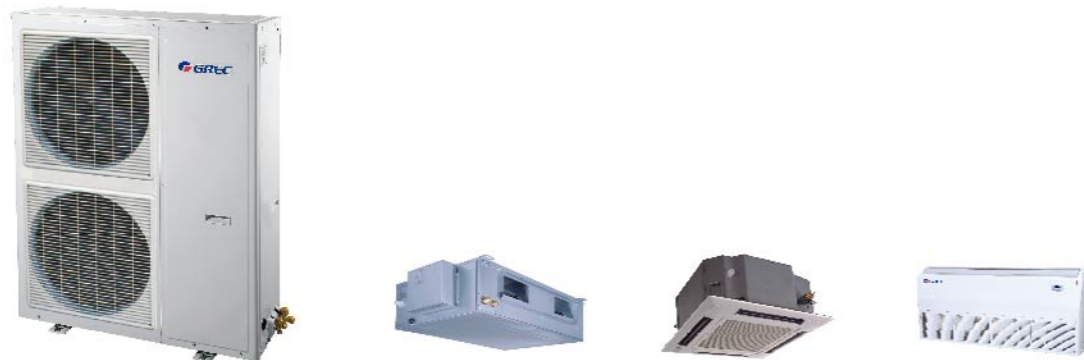




# U-Match

## Fixed Frequency Series

It is a kind of split system that the outdoor unit can be freely connected to different types of indoor units according to various indoor decoration requirements.



Intelligent defrosting



Compact design



Anti-cold function



Comprehensive protection



Easier maintainability



Self diagnosis



Wide operation range

- Double ambient temperature sensor design makes a precision temperature monitoring.
- With low ambient temperature cooling function, cooling normally in -7°C.
- The outdoor unit is universal, can be matched with floor ceiling, cassette, duct type indoor unit.



### Indoor Unit

#### Duct type

- Fresh air inlet and air valve control function improve the indoor air quality.
- Flexible air in/outlet and condensing water outlet direction according to different installation requirements.
- Optimized air duct design improves the performance and lower the noise.

#### Cassette type

- Drain pump fitted as standard with increased lift of 1100mm.
- Special low noise fan design.
- Different swing angle design for cooling and heating mode for better comfort.
- All kinds of air freshener can be installed in the filter, such as catechin

#### Floor ceiling type

- 3-D air flue design.
- Easy replacement of motor and fan blade thanks to clamp block propeller design.
- Different swing angle design for cooling and heating mode for better comfort.

| Item    | Nominal operating condition (temperature) |         |                  |         | Operation range (temperature)   |
|---------|---|---------|------------------|---------|---|
|         | Outdoor condition                         |         | Indoor condition |         | Outdoor condition   |
|         | DB (°C)                                   | WB (°C) | DB (°C)          | WB (°C) |   |
| Cooling | 35  | 24      | 27               | 19      | -7~43(with low ambient cooling)<br>18~43(without low ambient cooling) |
| Heating | 7   | 6       | 20               | 15      | -7~24   |

## Indoor Units Lineup

| Capacity Index (BTU/h) |               | 9K          | 12K         | 18K         | 24K         |  |
|------------------------|---------------|-------------|-------------|-------------|-------------|--|
| Outdoor Unit           |               |             |             |             |             |  |
|                        |               | GUHN09NK3AO | GUHN12NK3AO | GUHN18NK3AO | GUHN24NK3AO |  |
|                        | Indoor Unit   | Duct        |             |             |             |  |
|                        |               | Cassette    | —           |             |             |  |
|                        |               | GKH12K3BI   | GKH18K3BI   | GKH24K3BI   |             |  |
|                        | Floor Ceiling |             |             |             |             |  |
|                        |               | GTH09K3BI   | GTH12K3BI   | GTH18K3BI   | GTH24K3BI   |  |













| Capacity Index (BTU/h) |               | 30K          | 36K                        | 42K         | 48K          | 60K          |
|------------------------|---------------|--------------|----------------------------|-------------|--------------|--------------|
| Outdoor Unit           |               |              |                            |             |              |              |
|                        |               | GUHN30NK3A1O | GUHN36NK3AO<br>GUHN36NM3AO | GUHN42NM3AO | GUHN48NM3A1O | GUHN60NM3A2O |
| Indoor Unit            | Duct          |              |                            |             |              |              |
|                        |               | GFH30K3BI    | GFH36K3BI                  | GFH42K3BI   | GFH48K3BI    | GFH60K3BI    |
|                        | Cassette      |              |                            |             |              |              |
|                        |               | GKH30K3BI    | GKH36K3BI                  | GKH42K3BI   | GKH48K3BI    | GKH60K3BI    |
|                        | Floor Ceiling |              |                            |             |              |              |
|                        |               | GTH30K3BI    | GTH36K3BI                  | GTH42K3BI   | GTH48K3BI    | GTH60K3BI    |



## U-Match(Fixed Frequency Series)

| Model                     | Outdoor unit                |                   | GUHN48NM3A10   |                |                | GUHN60NM3A20   |                |                |             |
|---------------------------|-----------------------------|-------------------|----------------|----------------|----------------|----------------|----------------|----------------|-------------|
|                           | Indoor unit                 |                   | Duct           | Cassette       | Floor Ceiling  | Duct           | Floor Ceiling  | Cassette       |             |
|                           |                             |                   | GFH48K3B1I     | GKH48K3B1I     | GTH48K3B1I     | GFH60K3B2I     | GTH60K3B2I     | GKH60K3B2I     |             |
| Capacity                  | Cooling                     | W                 | 13200          | 13200          | 13200          | 15500          | 15500          | 15500          |             |
|                           |                             | BTU/h             | 45040          | 45040          | 45040          | 52800          | 52800          | 52800          |             |
|                           | Heating                     | W                 | 14500          | 14500          | 14500          | 18500          | 18500          | 18000          |             |
|                           |                             | BTU/h             | 49470          | 49470          | 49470          | 63120          | 63120          | 61410          |             |
| EER/COP                   |                             | W/W               | 2.59/3.15      | 2.75/2.79      | 2.64/3.02      | 2.50/3.49      | 2.58/3.49      | 2.50/3.48      |             |
| Power supply              |                             | Ph/V/Hz           | 3/380-415/50   | 3/380-415/50   | 3/380-415/50   | 3/380-415/50   | 3/380-415/50   | 3/380-415/50   |             |
| Power input               | Cooling                     | kW                | 5.10           | 4.80           | 5.0            | 6.20           | 6.00           | 6.00           |             |
|                           | Heating                     | kW                | 4.60           | 5.20           | 4.8            | 5.30           | 5.30           | 5.30           |             |
| Current input             | Cooling                     | A                 | 9.2            | 8.7            | 9.0            | 11.3           | 10.9           | 10.8           |             |
|                           | Heating                     | A                 | 8.3            | 9.5            | 8.7            | 9.6            | 9.6            | 10.3           |             |
| Refrigerant charge volume |                             | kg                | 3.8            | 3.8            | 3.8            | 5              | 4.5            | 4.5            |             |
| Indoor unit               | Air flow volume(H/M/L)      | m <sup>3</sup> /h | 2300/2110/1850 | 1660/1570/1500 | 2100/1900/1800 | 2500/2070/1730 | 2300/2100/1900 | 2400/2100/1900 |             |
|                           |                             | CFM               | 1354/1242/1089 | 977/924/883    | 1236/1118/1059 | 1471/1218/1018 | 1353/1236/1118 | 1412/1295/1118 |             |
|                           | ESP                         | Rated             | Pa             | 50             | —              | —              | 50             | —              | —           |
|                           |                             | Range             | Pa             | 0-150          | —              | —              | 0-50           | —              | —           |
|                           | Sound pressure level(H/M/L) |                   | dB(A)          | 53/50/46       | 53/51/48       | 58/55/52       | 53/50/48       | 58/55/52       | 55/53/49    |
|                           | Dimension (W×D×H)           |                   | mm             | 1226×775×290   | 840×840×320    | 1590×695×238   | 1226×815×330   | 1700×700×245   | 910×910×290 |
| Package                   |                             | mm                | 1338×837×305   | 963×963×409    | 1717×833×345   | 1338×885×345   | 1825×825×330   | 1020×990×360   |             |
| Net Weight /Gross Weight  |                             | kg                | 57/67          | 32/43          | 48/58          | 66/76          | 65/73          | 43/53          |             |
| Panel                     | Dimension (W×D×H)           | Outline           | mm             | —              | 950×950×60     | —              | —              | 1040×1040×65   |             |
|                           |                             | Package           | mm             | —              | 1028×1043×130  | —              | —              | 1137×1137×140  |             |
| Net weight /Gross weight  |                             | kg                | —              | 6.5/10         | —              | —              | 8/12           |                |             |
| Outdoor unit              | Sound pressure level        |                   | dB(A)          | 63             | —              | —              | 64             | —              |             |
|                           | Dimension (W×D×H)           | Outline           | mm             | —              | 1032×412×1250  | —              | —              | 1032×412×1250  |             |
|                           |                             | Package           | mm             | —              | 1113×453×1400  | —              | —              | 1113×453×1400  |             |
|                           | Net weight /Gross weight    |                   | kg             | —              | 112/123        | —              | —              | 123/134        |             |
| Connection pipe           | Outer diameter              | Liquid            | inch(mm)       | —              | φ1/2(12.7)     | —              | —              | φ1/2(12.7)     |             |
|                           | Gas                         | inch(mm)          | —              | φ3/4(19.05)    | —              | —              | —              | φ3/4(19.05)    |             |
| Max distance              | Height/Length               | m                 | —              | 30/50          | —              | —              | —              | 30/50          |             |
| Loading quantity          |                             | 40'GP/40'HQ       | set            | 45/49          | 42/48          | 44/49          | 45/49          | 45/49          |             |

## Control System Lineup

| Controlling system                | Product series  | Image   | U-Match   |               |                    |                        |                     |                    |   |
|-----------------------------------|---|---|---|---------------|--------------------|------------------------|---------------------|--------------------|---|
|                                   |   |   | Super inverter series   |               |                    | Fixed frequency series |                     |                    |   |
|                                   |   |   | Duct type   | Cassette type | Floor ceiling type | Duct type              | 4-Way Cassette type | Floor ceiling type |   |
| Wireless remote controller        | YB1F2   |  | ●   | ●             | ●                  | ○                      | ○                   | ○                  |   |
|                                   | Wired controller  | Z4B351  |    |               |                    |                        | ●                   |                    |   |
|                                   |   | Z4B351A   |    |               |                    |                        | ○                   |                    |   |
|                                   |   | Z7A351  |    |               |                    |                        |                     | ●                  | ● |
|                                   | Z7A351A   |  |   |               |                    |                        | ○                   | ○                  |   |
|                                   | Z4E351A   |  | ●   | ●             | ●                  | ○                      | ○                   | ○                  |   |
| Z4E351D                           |  | ○   | ○   | ○             | ○                  | ○                      | ○                   |                    |   |
| Long-distance monitoring software | Gree AC Eudemon 2009*   | FE30-00/A(M)  |   | ○             | ○                  | ○                      | ○                   | ○                  | ○ |
| BMS accessories                   | Communication module (modbus)   | ME30-00/E2  |  | ○             | ○                  | ○                      | ○                   | ○                  | ○ |
| Smart zone controller             |   | CE50-24/E   |  | ○             | ○                  | ○                      | ○                   | ○                  | ○ |
| Other modules                     | Optoelectronic isolated converter   | RS232-RS422/485   |  | ○             | ○                  | ○                      | ○                   | ○                  | ○ |
|                                   | Optoelectronic isolated signal multiplier   | RS-422/485  |  | ○             | ○                  | ○                      | ○                   | ○                  | ○ |

Note:

● means standard, ○ means optional.

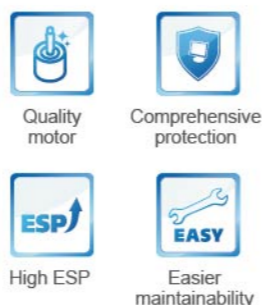
\* If Long-distance monitoring software Gree Eudemon 2009 is selected, the communication module ME30-00/E2 shall be selected also. The quantity of the module shall be confirm according to the quantity of outdoor units.



# Duct Split Unit

## High Capacity Series

It is a kind of split system that can be connected with air duct to realize cooling/heating in subdivided area.



- Dual temperature sensor.
- Anticorrosion heat exchanger, easy cleaning and less performance decline after years operation.
- Optimized air flue design greatly improves the fan efficiency and largely lowers the operation noise.
- Five directions pipe connection connector to meet various installation environments (top discharge ODU only).
- Flexible air inlet/outlet direction and condensing water outlet direction, meet various installation environments.

| Item    | Nominal operating condition (temperature) |         |                  |         | Operating range (temperature) |
|---------|---|---------|------------------|---------|-------------------------------|
|         | Outdoor condition                         |         | Indoor condition |         | Outdoor condition             |
|         | DB (°C)                                   | WB (°C) | DB (°C)          | WB (°C) | DB (°C)                       |
| Cooling | 35  | 24      | 27               | 19      | -15~43                        |
| Heating | 7   | 6       | 20               | 15      | -7~24                         |

| Model                     | Heat pump            |                   | FGR20/BNa-M  | FGR25/CNa-M   | FGR30/BNa-M   | FGR40/BNa-M   |               |
|---------------------------|----------------------|-------------------|--------------|---------------|---------------|---------------|---------------|
| Capacity                  | Cooling              | kW                | 20           | 24.5          | 30            | 39.5          |               |
|                           |                      | BTU/h             | 68200        | 83597         | 102364        | 134780        |               |
|                           | Heating              | kW                | 22           | 27.5          | 33            | 42            |               |
|                           |                      | BTU/h             | 75067        | 93834         | 112601        | 143310        |               |
| EER/COP                   |                      | W/W               | 2.38/3.14    | 2.5/3.06      | 2.4/3.14      | 2.50/3.00     |               |
| Power supply              |                      | Ph/V/Hz           | 3/380-415/50 | 3/380-415/50  | 3/380-415/50  | 3/380-415/50  |               |
| Power input               | Cooling              | kW                | 8.4          | 9.8           | 12.1          | 15.8          |               |
|                           | Heating              | kW                | 7.0          | 9.0           | 10.5          | 14.0          |               |
| Current input             | Cooling              | A                 | 15.3         | 22.2          | 23.4          | 30            |               |
|                           | Heating              | A                 | 13.2         | 21.2          | 22.6          | 26.6          |               |
| Refrigerant charge volume |                      | kg                | 5.3          | 6.7           | 9.5           | 12            |               |
| Indoor unit               | Air flow volume      | CFM               | 2354         | 2825          | 3237          | 4120          |               |
|                           |                      | m <sup>3</sup> /h | 4000         | 4800          | 5500          | 7000          |               |
|                           | ESP                  | Rated             | Pa           | 200           | 110           | 110           | 150           |
|                           |                      | Range             | Pa           | 100-300       | 30-250        | 50-250        | 50-300        |
|                           | Sound pressure level |                   | dB (A)       | 56            | 54            | 57            | 58            |
|                           | Dimension (W×D×H)    | Outline           | mm           | 1463×799×389  | 1500×1000×500 | 1500×1000×500 | 1700×1100×650 |
| Package                   |                      | mm                | 1546×886×485 | 1840×1230×688 | 1840×1230×688 | 1893×1463×850 |               |
| Net weight /Gross weight  |                      | kg                | 86/109       | 150/200       | 156/206       | 215/265       |               |
| Outdoor unit              | Sound pressure level |                   | dB (A)       | 65            | 66            | 67            | 69            |
|                           | Dimension (W×D×H)    | Outline           | mm           | 1150×360×1350 | 1150×360×1600 | 990×880×1772  | 1290×880×1772 |
|                           |                      | Package           | mm           | 1320×505×1490 | 1320×505×1745 | 1165×983×1965 | 1373×983×1965 |
| Net weight /Gross weight  |                      | kg                | 158/174      | 185/200       | 227/248       | 293/316       |               |
| Connection pipe           | Outer diameter       | Liquid            | inch(mm)     | φ3/8(9.52)    | φ3/8(9.52)    | φ1/2(12.7)    | φ5/8(15.9)    |
|                           |                      | Gas               | inch(mm)     | φ3/4(19.05)   | φ1(25.4)      | φ9/8(28.6)    | φ9/8(28.6)    |
|                           | Max. distance        | Height            | m            | 30            | 30            | 30            | 30            |
|                           | Length               | m                 | 50           | 50            | 50            | 50            |               |
| Loading quantity          | 20/GP                | set               | 17           | 13            | 13            | 8             |               |
|                           | 40/GP40/HQ           | set               | 36/36        | 28/38         | 28/38         | 16/16         |               |

## Control System Lineup

| Controlling system                |   | Product series  |  | High capacity series |
|-----------------------------------|---|-----------------|--|----------------------|
|                                   |   |                 |  |                      |
| Wireless remote controller        | YB1F2                                     |                 |  | ○                    |
|                                   | YT1F                                      |                 |  |                      |
| Wired controller                  | Z4E351A                                   |                 |  | ●                    |
| Long-distance monitoring software | Gree AC Eudemon 2009*                     | FE30-00/A(M)    |  | ○                    |
| BMS accessories                   | Communication module (modbus)             | ME30-00/E2      |  | ○                    |
| Centralized controller            | Smart zone controller                     | CE50-24/E       |  | ○                    |
| Other modules                     | Optoelectronic isolated converter         | RS232-RS422/485 |  | ○                    |
|                                   | Optoelectronic isolated signal multiplier | RS-422/485      |  | ○                    |

Note:  
 ● means standard, ○ means optional.  
 \* If Long-distance monitoring software Gree Eudemon 2009 is selected, the communication module ME30-00/E2 shall be selected also. The quantity of the module shall be confirm according to the quantity of outdoor units.

# MULTI-VRF

Free Match 3+  
Super Free-Match  
All DC Inverter VRF (GMV5)  
Inverter Series (GMV IV)  
HOME GMV  
GMV5 HR  
GMV HR-II  
Fresh Air Series  
Energy Recovery Ventilation(ERV)  
Control System Lineup





Floor Ceiling Type Indoor Unit



| Model                     |             |          | GTH(09)BA-K3DNA1A/I | GTH(12)BA-K3DNA1A/I | GTH(18)BA-K3DNA1A/I | GTH(24)BB-K3DNA1A/I |
|---------------------------|-------------|----------|---------------------|---------------------|---------------------|---------------------|
| Capacity                  | Cooling     | BTU/h    | 8530                | 11942               | 17060               | 24225.2             |
|                           | Heating     | BTU/h    | 9553                | 13136               | 18766               | 27296               |
| Power supply              | PhV/Hz      |          | 1Ph,220-240V,50Hz   |                     |                     |                     |
| Airflow volume            | m³/h        |          | 650                 | 650                 | 950                 | 1250                |
|                           | CFM         |          | 353                 | 382                 | 559                 | 735                 |
| Sound pressure level(H/L) | dB(A)       |          | 40/36               | 40/36               | 45/40               | 48/40               |
| Connecting pipe           | Gas         | inch(mm) | 3/8(φ9.52)          | 3/8(φ9.52)          | 1/2(φ12.7)          | 5/8(φ15.88)         |
|                           | Liquid      | inch(mm) | 1/4 (φ6.35)         | 1/4 (φ6.35)         | 1/4 (φ6.35)         | 3/8(φ9.52)          |
| Dimension (W×H×D)         | Outline     |          | mm 1220×700×225     | mm 1220×700×225     | mm 1220×700×225     | mm 1220×700×225     |
|                           | Package     |          | mm 1340×820×300     | mm 1343×823×315     | mm 1340×820×300     | mm 1340×820×300     |
| Net weight/Gross weight   | kg          |          | 40/50               | 40/50               | 40/50               | 45/54               |
| Loading quantity          | 20'GP       |          | -                   | 102                 | 66                  | 66                  |
|                           | 40'GP/40'HQ |          | -                   | 132/132             | 132/132             | 132/132             |

Cassette Type Indoor Unit



| Model                           |                         |          | GKH(12)BA-K3DNA2A/I | GKH(18)BA-K3DNA2A/I | GKH(24)BA-K3DNA1A/I |
|---------------------------------|-------------------------|----------|---------------------|---------------------|---------------------|
| Capacity                        | Cooling                 | BTU/h    | 11942               | 15354               | 24225               |
|                                 | Heating                 | BTU/h    | 13648               | 17060               | 27296               |
| Power supply                    | PhV/Hz                  |          | 1Ph,220-240V,50Hz   |                     |                     |
| Airflow volume                  | m³/h                    |          | 600                 | 600                 | 1180                |
|                                 | CFM                     |          | 353                 | 353                 | 694.43              |
| Sound pressure level(H/M/L/S/L) | dB(A)                   |          | 56/52/46/42         | 56/52/46/42         | 49/45/39/35         |
| Connecting pipe                 | Gas                     | inch(mm) | 3/8(φ9.52)          | 3/8(φ9.52)          | 3/8(φ9.52)          |
|                                 | Liquid                  | inch(mm) | 1/4 (φ6.35)         | 1/4 (φ6.35)         | 1/4 (φ6.35)         |
| Main body                       | Outline                 |          | mm 570×570×230      | mm 570×570×230      | mm 840×840×240      |
|                                 | Package                 |          | mm 848×728×310      | mm 848×728×310      | mm 1040×1025×115    |
| Panel                           | Outline                 |          | mm 650×650×50       | mm 650×650×50       | mm 950×950×60       |
|                                 | Package                 |          | mm 733×673×117      | mm 733×673×117      | mm 1043×1028×130    |
| Loading quantity                | Net Weight/Gross weight |          | kg 2.5/3.5          | kg 2.5/3.5          | kg 6.5/10           |
|                                 | 20'GP                   |          | -                   | -                   | -                   |
| 40'GP/40'HQ                     |                         | -        | 237/269             | 237/269             | 144/144             |

Duct Type Indoor Unit



| Model                     |             |          | GFH(09)EA-K3DNA1A/I | GFH(12)EA-K3DNA1A/I | GFH(18)EA-K3DNA1A/I | GFH(21)EA-K3DNA1A/I | GFH(24)EA-K3DNA1A/I |
|---------------------------|-------------|----------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Capacity                  | Cooling     | BTU/h    | 8530                | 11940               | 17060               | 20470               | 24230               |
|                           | Heating     | BTU/h    | 9550                | 13140               | 18770               | 22520               | 27300               |
| Power supply              | PhV/Hz      |          | 1Ph,220-240V,50Hz   |                     |                     |                     |                     |
| Airflow volume            | m³/h        |          | 450                 | 550                 | 700                 | 1000                | 1000                |
|                           | CFM         |          | 264.825             | 294.25              | 411.95              | 588.5               | 588.5               |
| Sound pressure level(H/L) | dB(A)       |          | 37/31               | 39/32               | 41/33               | 42/34               | 42/34               |
| Connecting pipe           | Gas         | inch(mm) | 3/8(φ9.52)          | 3/8(φ9.52)          | 3/8(φ9.52)          | 5/8(φ15.88)         | 5/8(φ15.88)         |
|                           | Liquid      | inch(mm) | 1/4 (φ6.35)         | 1/4 (φ6.35)         | 1/4 (φ6.35)         | 3/8(φ9.52)          | 3/8(φ9.52)          |
| Dimension (W×H×D)         | Outline     |          | mm 700×615×200      | mm 700×615×200      | mm 900×615×200      | mm 1100×615×200     | mm 1100×615×200     |
|                           | Package     |          | mm 890×740×290      | mm 893×740×290      | mm 1123×743×305     | mm 1320×740×290     | mm 1320×740×290     |
| Net weight/Gross weight   | kg          |          | 22/27               | 23/29               | 27/36               | 31/41               | 31/41               |
| Loading quantity          | 20'GP       |          | -                   | 108                 | 90                  | 72                  | 72                  |
|                           | 40'GP/40'HQ |          | -                   | 234/234             | 234/234             | 180/180             | 162/162             |

Control System Lineup

| Controlling system         | Product series | Wall mounted type |        |       |      |      |        | Duct type | Cassette type | Floor ceiling type |
|----------------------------|----------------|-------------------|--------|-------|------|------|--------|-----------|---------------|--------------------|
|                            |                | Hansol            | U-Cool | Viola | Lomo | Cozy | Change |           |               |                    |
| Wireless remote controller | YAA1FB1        |                   | ●      |       |      |      |        |           |               |                    |
|                            | YAG1FB         |                   |        | ●     |      |      |        |           |               |                    |
|                            | YT1F(XFAN)     |                   |        |       |      | ●    |        |           |               |                    |
|                            | YB1F2 (XFAN)   |                   |        |       |      |      | ●      |           |               |                    |
|                            | YN1F1(XFAN)    |                   |        |       | ●    |      |        |           |               |                    |
|                            | YAG1FB         | ●                 |        |       |      |      |        |           |               |                    |
|                            | YT1F(MOTO)     |                   |        |       |      |      | ●      | ●         | ●             |                    |
| Wired controller           | XK19           |                   |        |       |      |      | ●      | ●         | ●             |                    |
| Centralized controller     | CE50-24/E      |                   |        |       |      |      | ○      | ○         | ○             |                    |

Note: ● means standard, ○ means optional.









### Console Type Indoor Unit

| Model                                    |               |          | GEH(09)AA-K3DNA1C/I  | GEH(12)AA-K3DNA1C/I  | GEH(18)AA-K3DNA1C/I  |
|--|---------------|----------|----------------------|----------------------|----------------------|
| Capacity                                 | Cooling       | BTU/h    | 8874                 | 11946                | 18089                |
|  | Heating       | BTU/h    | 9556                 | 12969                | 19795                |
| Power supply                             |               | PhV/Hz   | 1/220~240/50         | 1/220~240/50         | 1/220~240/50         |
| Airflow volume                           |               | m³/h     | 650                  | 750                  | 840                  |
|  |               | CFM      | 382.3529412          | 441                  | 494                  |
| Sound pressure level (SH/H/MH/M/ML/L/SL) |               | dB(A)    | 40/38/36/33/30/27/25 | 42/40/38/37/35/32/25 | 48/46/44/41/37/35/32 |
| Connecting pipe                          | Gas           | inch(mm) | φ3/8(9.52)           | φ3/8(9.52)           | φ1/2(12.7)           |
|  | Liquid        | inch(mm) | φ1/4(6.35)           | φ1/4(6.35)           | φ1/4(6.35)           |
| Dimension(WxHxD)                         | Outline       | mm       | 700X600X215          | 700X600X215          | 700X600X215          |
|  | Package       | mm       | 791X710X286          | 791X710X286          | 791X710X286          |
| Net weight/Gross weight                  |               | kg       | 15/18                | 15/18                | 15/18                |
| Loading quantity                         | 20'GP         | set      | 168                  | 168                  | 168                  |
|  | 40' GP/40' HQ | set      | 348/440              | 348/440              | 348/440              |

### Control System Lineup

| Controlling system         |              |  | Product series |        |      |        |       | Wall mounted type |               |                    |              |   |
|----------------------------|--------------|--|----------------|--------|------|--------|-------|-------------------|---------------|--------------------|--------------|---|
|                            |              |  | Hansol         | U-Cool | Cozy | Change | Viola | Duct type         | Cassette type | Floor ceiling type | Console type |   |
| Wireless remote controller | YAA1FB1      |  |                | ●      |      |        |       |                   |               |                    |              | ● |
|                            | YT1F(MOTO)   |  |                |        | ●    |        | ●     | ●                 |               |                    |              |   |
|                            | YAG1FB       |  | ●              |        |      |        |       |                   |               |                    |              |   |
|                            | YB1F2 (XFAN) |  |                |        |      | ●      |       |                   |               |                    |              |   |
| Wired controller           | XK19         |  |                |        |      |        | ●     | ●                 | ●             |                    |              |   |
| Centralized controller     | CE50-24/E    |  |                |        |      |        | ○     | ○                 | ○             |                    |              |   |

Note:  
 ● means standard, ○ means optional.  
 \* If Long-distance monitoring software Gree Eude mon 2009 is selected, the communication module ME30-00/E2 shall be selected also. The quantity of the module shall be confirm according to the quantity of outdoor units.

## All DC Inverter VRF Air Conditioning System

Gree GMV5 All DC Inverter VRF adopts high-efficient DC inverter compressor and DC inverter fan motor. The unit can be combined modularly from 8HP to 88HP. Maximum capacity can up to 180kW.



- All DC inverter technology
- Energy saving function
- Quiet function
- Human engineering operation
- Intelligent Management
- Long connection pipe design
- Wide operation range
- Modular operating\*
- High ESP

Comprehensive protection

- Outdoor unit quiet mode.
- Oil balance between compressors.
- High energy efficiency with high-performance compressor; Long connection pipe design with the maximum length of 1000m.
- Auto switch of module status in every 8hrs, which greatly improves the reliability of complete unit.
- 4 levels of static pressure for option with the maximum of 82Pa.

| Max. piping length (meter)   | GMV5 Mini | GMV5 Slim | GMV5  |
|--|-----------|-----------|-------|
| Total piping length  | 300m      | 300m      | 1000m |
| Actual piping length   | 120m      | 100m      | 165m  |
| Equivalent piping length   | 150m      | 120m      | 190m  |
| Height difference between indoor units                               | 15m       | 40m       | 30m   |
| Height difference between ODU and IDU (ODU is located above the IDU) | 50m       | 50m       | 90m   |
| Height difference between ODU and IDU (IDU is located above the ODU) | 40m       | 40m       | 90m   |
| Piping length from first indoor branch to the farthest IDU           | 40m       | 10m       | 40m   |


| Item    | Nominal operating condition (temperature) |        |                  |        | Operating range (temperature) |           |        |
|---------|---|--------|------------------|--------|-------------------------------|-----------|--------|
|         | Outdoor condition                         |        | Indoor condition |        | Outdoor condition DB(°C)      |           |        |
|         | DB(°C)                                    | WB(°C) | DB(°C)           | WB(°C) | GMV5 Mini                     | GMV5 Slim | GMV5   |
| Cooling | 35  | -      | 27               | 19     | -5~48                         | -5~50     | -5~52  |
| Heating | 7   | 6      | 20               | -      | -20~27                        | -20~27    | -20~24 |

## Outdoor Units Lineup

### GMV5 Mini

| HP | Model         | Product Outlook   |
|----|---------------|---|
| 4  | GMV-120WL/A-T |  |
| 5  | GMV-140WL/A-T |   |
| 6  | GMV-160WL/A-T |   |

### GMV5 Slim

| HP | Model          | Product Outlook   |
|----|----------------|---|
| 7  | GMV-H200WL/A-X |  |
| 8  | GMV-H224WL/A-X |   |
| 9  | GMV-H250WL/A-X |   |
| 10 | GMV-H280WL/A-X |   |
| 11 | GMV-H308WL/A-X |   |
| 12 | GMV-H335WL/A-X |   |

## Specifications of Outdoor Units

### GMV5 Mini 50/60 Hz

| Model                     |         |         | GMV-120WL/A-T <sup>1</sup>          | GMV-140WL/A-T <sup>1</sup> | GMV-160WL/A-T <sup>1</sup> |
|---------------------------|---------|---------|-------------------------------------|----------------------------|----------------------------|
| Capacity range            | HP      |         | 4                                   | 5                          | 6                          |
| Capacity                  | Cooling | kW      | 12.1                                | 14                         | 16                         |
|                           | Heating | kW      | 14                                  | 16.5                       | 18.5                       |
| EER                       |         | kW/kW   | 3.97                                | 3.52                       | 3.3                        |
| COP                       |         | kW/kW   | 4.28                                | 4.14                       | 3.96                       |
| IPLV                      | Cooling | kW/kW   | /                                   | /                          | /                          |
| Power supply              | V/Ph/Hz |         | 220~240V-1Ph-50Hz&208~230V-1Ph-60Hz |                            |                            |
| Max. Circuit/Fuse Current | A       |         | 28.1/32                             | 31.8/32                    | 33.6/40                    |
| Power consumption         | Cooling | kW      | 3.05                                | 3.98                       | 4.85                       |
|                           | Heating | kW      | 3.27                                | 3.99                       | 4.67                       |
| Maximum drive IDU NO.     | unit    |         | 7                                   | 8                          | 9                          |
| Refrigerant Charge volume | kg      |         | 5                                   | 5                          | 5                          |
| Sound pressure level      | dB(A)   |         | 55                                  | 56                         | 58                         |
| Connecting pipe           | Liquid  | mm      | Φ9.52                               |                            |                            |
|                           | Gas     | mm      | Φ15.87                              |                            |                            |
| Dimension (W*D*H)         | Outline | mm      | 900*340*1345                        |                            |                            |
|                           | Package | mm      | 998*458*1515                        |                            |                            |
| Net weight/Gross weight   | kg      | 110/120 | 110/120                             | 110/120                    |                            |
| Loading quantity          | 40' GP  | set     | 57                                  | 57                         | 57                         |
|                           | 40' HQ  | set     | 57                                  | 57                         | 57                         |

\*1: This series outdoor unit cannot match with US air handler, fresh air processing unit and high static ESP duct type unit.

### GMV5 Slim 50/60 Hz

| Model                     |         |         | GMV-H200WL/A-X <sup>2</sup> | GMV-H224WL/A-X <sup>2</sup> | GMV-H250WL/A-X <sup>2</sup> | GMV-H280WL/A-X <sup>2</sup> | GMV-H308WL/A-X <sup>2</sup> | GMV-H335WL/A-X <sup>2</sup> |
|---------------------------|---------|---------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Capacity range            | HP      |         | 7                           | 8                           | 9                           | 10                          | 11                          | 12                          |
| Capacity                  | Cooling | kW      | 20.0                        | 22.4                        | 25.0                        | 28.0                        | 30.8                        | 33.5                        |
|                           | Heating | kW      | 22.4                        | 25.0                        | 27.0                        | 31.5                        | 33.9                        | 37.5                        |
| EER                       |         | kW/kW   | /                           | /                           | /                           | /                           | /                           | /                           |
| COP                       |         | kW/kW   | /                           | /                           | /                           | /                           | /                           | /                           |
| IPLV                      | Cooling | kW/kW   | 6.1                         | 6.1                         | 6.0                         | 6.0                         | 6.0                         | 6.0                         |
| Power supply              | V/Ph/Hz |         | 380-415-3Ph-50/60Hz         |                             |                             |                             |                             |                             |
| Max. Circuit/Fuse Current | A       |         | 25                          | 25                          | 25                          | 25                          | 25                          | 25                          |
| Power consumption         | Cooling | kW      | 6.5                         | 7.2                         | 7.7                         | 9.4                         | 10.3                        | 11.0                        |
|                           | Heating | kW      | 5.6                         | 6.1                         | 7.2                         | 8.6                         | 9.6                         | 10.4                        |
| Maximum drive IDU NO.     | unit    |         | 12                          | 13                          | 15                          | 17                          | 18                          | 20                          |
| Refrigerant Charge volume | kg      |         | 5.0                         | 5.5                         | 6.0                         | 7.5                         | 8.0                         | 8.8                         |
| Sound pressure level      | Cooling | dB(A)   | 57                          | 58                          | 59                          | 59                          | 59                          | 60                          |
|                           | Heating | dB(A)   | 58                          | 59                          | 60                          | 60                          | 60                          | 61                          |
| Connecting pipe           | Liquid  | mm      | Φ9.52                       | Φ9.52                       | Φ9.52                       | Φ12.7                       | Φ12.7                       | Φ12.7                       |
|                           | Gas     | mm      | Φ19.05                      | Φ19.05                      | Φ19.05                      | Φ25.4                       | Φ25.4                       | Φ25.4                       |
| Dimension (W*D*H)         | Outline | mm      | 940*320*1430                | 940*320*1430                | 940*320*1430                | 940*460*1615                | 940*460*1615                | 940*460*1615                |
|                           | Package | mm      | 1033*433*1580               | 1033*433*1580               | 1033*433*1580               | 1033*573*1765               | 1033*573*1765               | 1033*573*1765               |
| Net weight/Gross weight   | kg      | 133/144 | 133/144                     | 133/144                     | 160/175                     | 165/180                     | 170/185                     |                             |
| Loading quantity          | 40' GP  | set     | 54                          | 54                          | 54                          | 44                          | 44                          | 44                          |
|                           | 40' HQ  | set     | 54                          | 54                          | 54                          | 44                          | 44                          | 44                          |

Note:

- ① Testing conditions of rated cooling capacity: indoor 27°CDB/19°CWB, outdoor 35°CDB, connection pipe length of 5m, no height difference between units.
- ② Testing conditions of rated heating capacity: indoor 20°CDB, outdoor 7°CDB/6°CWB, connection pipe length of 5m, no height difference between units.
- ③ The total indoor unit capacity shall be within 50% to 130% of outdoor unit capacity. Correction of other parameters can be referred to the unit capacity correction sheet.
- ④ The above-mentioned parameters are tested with standard connection pipe length. In actual engineering, please arrange correction according to the capacity correction with long connection pipe.

\*2: This product is under development. The parameters are estimated, please refer to the value on the nameplate.

### GMV5 50/60 Hz

| Model                     |         |         | GMV-224WM/B-X        | GMV-280WM/B-X | GMV-335WM/B-X | GMV-400WM/B-X | GMV-450WM/B-X | GMV-504WM/B-X <sup>1</sup> | GMV-560WM/B-X <sup>1</sup> | GMV-615WM/B-X <sup>1</sup> |  |
|---------------------------|---------|---------|----------------------|---------------|---------------|---------------|---------------|----------------------------|----------------------------|----------------------------|--|
| Capacity range            | HP      |         | 8                    | 10            | 12            | 14            | 16            | 18                         | 20                         | 22                         |  |
| Capacity                  | Cooling | kW      | 22.4                 | 28            | 33.5          | 40            | 45            | 50.4                       | 56                         | 61.5                       |  |
|                           | Heating | kW      | 25                   | 31.5          | 37.5          | 45            | 50            | 56                         | 63                         | 69                         |  |
| EER                       |         | kW/kW   | 4.31                 | 4             | 3.98          | 3.76          | 3.56          | 3.38                       | 2.97                       | 2.75                       |  |
| COP                       |         | kW/kW   | 4.55                 | 4.32          | 4.17          | 4.05          | 3.85          | 3.84                       | 3.6                        | 3.16                       |  |
| Power supply              | V/Ph/Hz |         | 380~415V-3Ph-50/60Hz |               |               |               |               |                            |                            |                            |  |
| Max. Circuit/Fuse Current | A       |         | 15.7/20              | 20.9/25       | 24.7/32       | 28.8/40       | 33.2/40       | 36.8/40                    | 43.8/50                    | 48.9/50                    |  |
| Power consumption         | Cooling | kW      | 5.2                  | 7             | 8.41          | 10.65         | 12.65         | 14.9                       | 18.9                       | 22.3                       |  |
|                           | Heating | kW      | 5.5                  | 7.3           | 9             | 11.1          | 13            | 14.6                       | 17.5                       | 21.8                       |  |
| Maximum drive IDU NO.     | unit    |         | 13                   | 16            | 19            | 23            | 26            | 31                         | 34                         | 38                         |  |
| Refrigerant Charge volume | kg      |         | 5.9                  | 6.7           | 8.2           | 9.8           | 10.3          | 12.7                       | 13                         | 13.5                       |  |
| Sound pressure level      | dB(A)   |         | 60                   | 61            | 63            | 63            | 63            | 65                         | 66                         | 66                         |  |
| Connecting pipe           | Liquid  | mm      | Φ9.52                |               | Φ12.7         |               | Φ15.9         |                            |                            |                            |  |
|                           | Gas     | mm      | Φ19.05               | Φ22.2         | Φ25.4         |               | Φ28.6         |                            | Φ28.6                      |                            |  |
| Dimension (W*D*H)         | Outline | mm      | 930*765*1605         |               |               | 1340*765*1605 |               |                            | 1340*765*1740              |                            |  |
|                           | Package | mm      | 1010*840*1775        |               |               | 1420*840*1775 |               |                            | 1420*840*1910              |                            |  |
| Net weight/Gross weight   | kg      | 225/235 | 225/235              | 285/300       | 360/375       | 360/375       | 400/415       | 400/415                    | 400/415                    |                            |  |
| Loading quantity          | 40' GP  | set     | 24                   | 24            | 16            | 16            | 16            | 16                         | 16                         | 16                         |  |
|                           | 40' HQ  | set     | 24                   | 24            | 16            | 16            | 16            | 16                         | 16                         | 16                         |  |

Note:

\*1: This product is under development. The parameters are estimated, please refer to the value on the nameplate.













# Floor Standing Type Indoor Unit

The cooling capacity of floor standing type indoor unit ranges from 10kW~14kW, which can be widely adopted in hotels, restaurants, office, etc.



50/60 Hz

| Model                       |               | GMV-ND100L/A-T                   | GMV-ND140L/A-T |
|-----------------------------|---------------|----------------------------------|----------------|
| Capacity                    | Cooling       | 10                               | 14             |
|                             | Heating       | 11                               | 15             |
| Power supply                |               | 220-240/1/50Hz & 208-230/1/60 Hz |                |
| Power consumption           |               | 180                              | 180            |
| Airflow volume(H/M/L)       |               | 1600/1500/1300                   | 1700/1600/1400 |
|                             |               | 942/883/765                      | 1000/942/824   |
| Rated Current <sup>2</sup>  | Cooling       | 1.5                              | 1.5            |
|                             | Heating       | 1.5                              | 1.5            |
|                             | Water Heating | /                                | /              |
| ESP                         |               | 0                                | 0              |
| Sound pressure level(H/M/L) |               | 51/50/48                         | 52/50/48       |
| Connecting pipe diameter    | Liquid        | 9                                | 9              |
|                             | Gas           | 16                               | 16             |
| Drain pipe                  | External dia. | 31                               | 31             |
|                             | Thickness     | 4.5                              | 4.5            |
| Dimension (WxDxH)           | Outline       | 1870x580x400                     | 1870x580x400   |
|                             | Package       | 2080x735x530                     | 2080x735x530   |
| Net weight/Gross weight     |               | 53/73                            | 57/77          |
| Loading                     | 40' GP        | 67                               | 67             |
|                             | 40' HQ        | 67                               | 67             |



Quiet function



Horizontal swing



Vertical swing



Easier maintainability



Self-diagnosis



Memory Function



Anti-cold function



Turbo function

# Fresh Air Processing Indoor Unit

Fresh air processing indoor unit is widely adopted in villas, high-end communities, business places and public places. It introduces outdoor fresh air into the room to improve the air quality without fluctuation of indoor temperature, which belongs to the most advanced and comfortable VRF air conditioning technology.



Fresh air supply ventilation



Energy saving function



Compact design

50 Hz

| Model                       |               | GMV-NX140P/A(X1.2)-K * | GMV-NX224P/A(X2.0)-M * | GMV-NX280P/A(X2.5)-M * | GMV-NX280P/A(X3.0)-M * | GMV-NX450P/A(X4.0)-M * |
|-----------------------------|---------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Capacity                    | Cooling       | 14.0                   | 22.4                   | 28.0                   | 28.0                   | 5.0                    |
|                             | Heating       | 10.0                   | 16.0                   | 20.0                   | 20.0                   | 5.5                    |
| Power supply                |               | 220-240/1/50           |                        | 380-415/3/50           |                        |                        |
| Power consumption           |               | 360                    | 740                    | 760                    | 1060                   | 1240                   |
| Airflow volume(H/M/L)       |               | 1200                   | 2000                   | 2500                   | 3000                   | 4000                   |
|                             |               | 705                    | 1175                   | 1470                   | 1765                   | 2355                   |
| Rated Current <sup>2</sup>  | Cooling       | 1.82                   | 1.32                   | 1.36                   | 1.89                   | 2.22                   |
|                             | Heating       | 1.82                   | 1.32                   | 1.36                   | 1.89                   | 2.22                   |
|                             | Water Heating | /                      | /                      | /                      | /                      | /                      |
| ESP                         |               | 150                    |                        | 200                    |                        |                        |
| Sound pressure level(H/M/L) |               | 42                     | 47                     | 48                     | 51                     | 52                     |
| Connecting pipe diameter    | Liquid        | Φ9.52                  | Φ9.52                  | Φ9.52                  | Φ9.52                  | Φ12.7                  |
|                             | Gas           | Φ15.9                  | Φ19.05                 | Φ22.2                  | Φ22.2                  | Φ28.6                  |
| Drain pipe                  | External dia. | 25                     | 25                     | 25                     | 25                     | 25                     |
|                             | Thickness     | 2.5                    | 2.5                    | 2.5                    | 2.5                    | 2.5                    |
| Dimension (WxDxH)           | Outline       | 1463 x 756 x 300       |                        | 1500 x 1000 x 500      |                        | 1700 x 1100 x 650      |
|                             | Package       | 1514x785x360           |                        | 1840x1200x673          |                        | 1890x1460x835          |
| Net weight/Gross weight     |               | 63.5/71                | 130/182                | 134/188                | 134/188                | 208/266                |
| Loading                     | 40' GP        | 84.0                   | 18.0                   | 18.0                   | 18.0                   | 16.0                   |
|                             | 40' HQ        | 98.0                   | 18.0                   | 18.0                   | 18.0                   | 16.0                   |

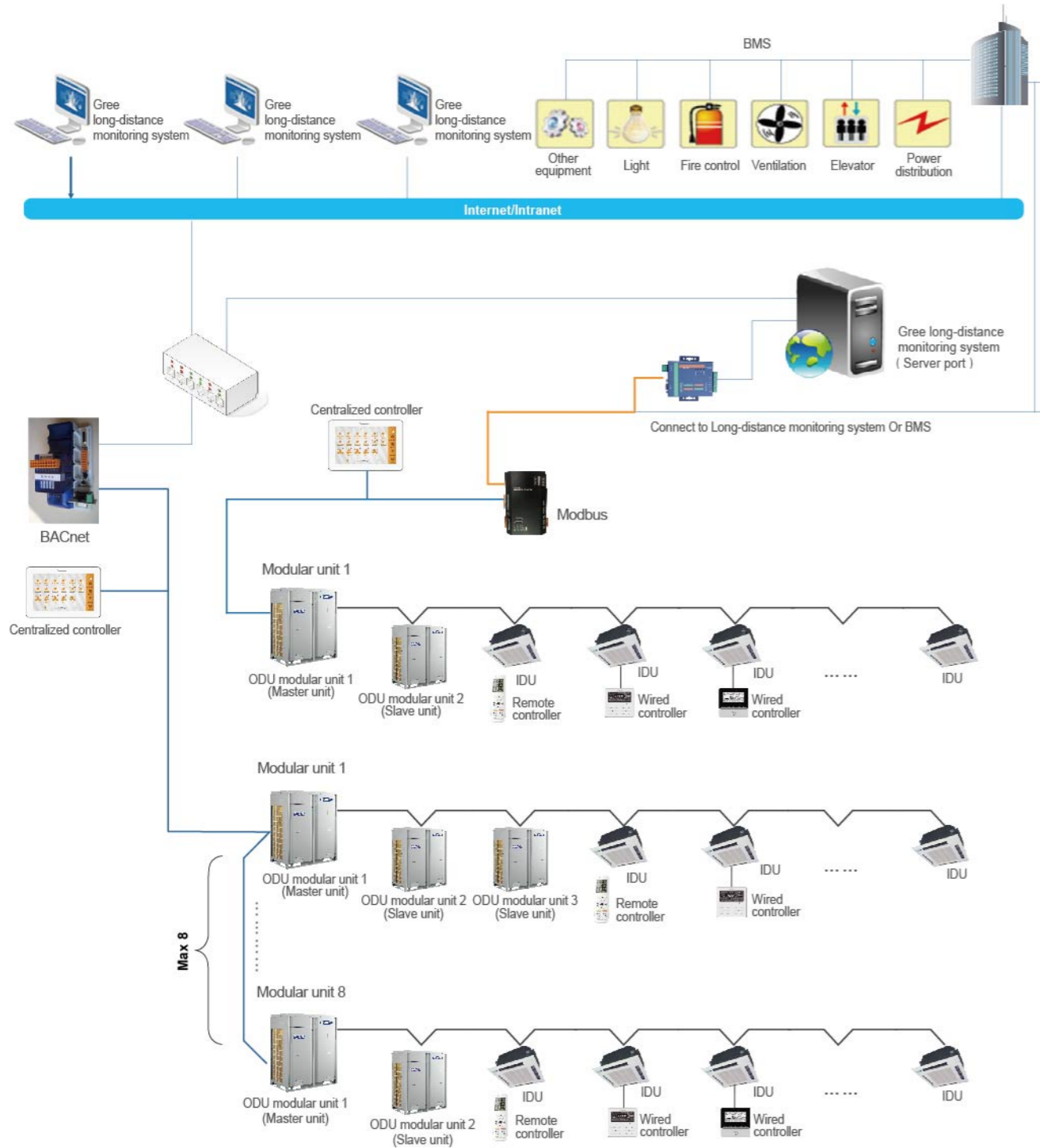
Note: \* This series can be matched with GMV5(Top discharge outdoor unit)only.

## Control System Lineup

| Controlling system                | Product series                            | Cassette Type   | (High ESP, Low ESP, Slim Ducted) Duct Type | Fresh Air Processing | Wall mounted Type | Floor Ceiling Type | Console Type | Floor Standing Type |
|-----------------------------------|---|-----------------|--|----------------------|-------------------|--------------------|--------------|---------------------|
| Wireless Controller               | YAP1F                                     | ●               | ○  | ○                    | ●                 | ●                  | ●            | ●                   |
|                                   | YV1L1                                     | ○               | ○  | ○                    | ○                 | ○                  | ○            | ○                   |
| Wired controller                  | XK46                                      | ○               | ●  | ●                    | ○                 | ○                  | ○            | ○                   |
|                                   | XK49                                      | ○               | ○  | ○                    | ○                 | ○                  | ○            | ○                   |
|                                   | XK62                                      | ○               | ○  | ○                    | ○                 | ○                  | ○            | ○                   |
|                                   | XK55                                      | ○               | ○  | ○                    | ○                 | ○                  | ○            | ○                   |
|                                   | JS05(receiver)                            | ○               | ○  | ○                    | ○                 | ○                  | ○            | ○                   |
| Centralized Controller            | CE52-24/F(C)                              | ○               | ○  | ○                    | ○                 | ○                  | ○            | ○                   |
|                                   | CE53-24/F(C)                              | ○               | ○  | ○                    | ○                 | ○                  | ○            | ○                   |
| Long-distance monitoring software | FE31-00/AD(BM)                            | ○               | ○  | ○                    | ○                 | ○                  | ○            | ○                   |
| BMS Accessories                   | Communication module(modbus)              | ME30-24/E4(M)   | ○  | ○                    | ○                 | ○                  | ○            | ○                   |
|                                   | GMV BACnet gateway (BACnet)               | MG30-24/D2(B)   | ○  | ○                    | ○                 | ○                  | ○            | ○                   |
| Other modules                     | Optoelectronic isolated converter         | RS232-RS422/485 | ○  | ○                    | ○                 | ○                  | ○            | ○                   |
|                                   | Optoelectronic isolated signal multiplier | RS-422/485      | ○  | ○                    | ○                 | ○                  | ○            | ○                   |

Note: ● means standard, ○ means optional.

# GMV5 Network



# Inverter Series

It is a kind of VRF system that adopt DC inverter compressor and the outdoor unit could be connected with several indoor units to realize independent cooling or heating control in different rooms.

## GMV Mini



## GMV IV



- Golden fin condenser
- Inner groove copper
- High efficiency
- Intelligent defrosting
- Energy saving function
- Long-distance monitoring
- Quiet function
- Modular operating\*
- Comprehensive protection
- Wide voltage range
- Wide operation range
- Compact design
- Easier maintainability
- Centralized control

- Advanced control functions.
- Better reliability.
- Compact outdoor unit.
- Greatly improved energy efficiency\*: Significantly greater efficiency is realized by the use of DC inverter compressors with high pressure chamber design, improved DC inverter driving technology and large heat exchanger.
- Modular outdoor unit design\*: Various combination form 8HP to 64HP with 2HP increments. Max. capacity of outdoor units is 180kW (4 modules combination).
- Various combinations\*: Up to 110 sets of indoor units can be connected. 6 types and 73 models of indoor unit. Max. diversity is 135%.
- DC inverter scroll compressor.
- ECO-friendly R410A refrigerant.
- Flexible piping Design.

\* For GMV IV only.

| Item  | Max. piping length (meter) |        |
|---|----------------------------|--------|
|   | GMV Mini                   | GMV IV |
| Total piping length   | 150m                       | 500m   |
| Actual piping length  | 70m                        | 150m   |
| Equivalent piping length  | 80m                        | 175m   |
| Height difference between indoor units  | 10m                        | 15m    |
| Height difference between outdoor unit and indoor unit (outdoor unit is located above the indoor unit)      | 30m                        | 50m    |
| Height difference between indoor unit and outdoor unit (outdoor unit is located underneath the indoor unit) | 25m                        | 40m    |
| Piping length from first indoor branch to the farthest indoor unit  | 25m                        | 40m    |





Indoor Units Lineup (for Inverter Series & HOME GMV)

| Capacity Index (kw) |                | 22 | 28 | 3.6 | 4.5 | 5.0 | 5.6 | 6.3 | 7.1 | 8.0 | 9.0 | 10.0 | 11.2 | 12.5 | 14.0 | 22.4 | 28.0 |   |
|---------------------|----------------|----|----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|---|
| Duct                | High ESP type  |    | •  | •   | •   | •   | •   | •   | •   | •   | •   | •    | •    | •    | •    | •    | •    | • |
|                     | Slim type      |    | •  | •   | •   | •   | •   | •   | •   | •   | •   | •    | •    | •    | •    | •    | •    | • |
| Cassette            | 4-way          |    | •  | •   | •   | •   | •   | •   | •   | •   | •   | •    | •    | •    | •    | •    | •    | • |
|                     | Compact 4-way  |    | •  | •   | •   | •   | •   | •   | •   | •   | •   | •    | •    | •    | •    | •    | •    | • |
|                     | 1-way          |    | •  | •   | •   | •   | •   | •   | •   | •   | •   | •    | •    | •    | •    | •    | •    | • |
| Wall mounted        | EXV integrated |    | •  | •   | •   | •   | •   | •   | •   | •   | •   | •    | •    | •    | •    | •    | •    | • |
| Floor ceiling       | EXV integrated |    | •  | •   | •   | •   | •   | •   | •   | •   | •   | •    | •    | •    | •    | •    | •    | • |
|                     |                |    | •  | •   | •   | •   | •   | •   | •   | •   | •   | •    | •    | •    | •    | •    | •    | • |
|                     |                |    | •  | •   | •   | •   | •   | •   | •   | •   | •   | •    | •    | •    | •    | •    | •    | • |
| Console             |                |    | •  | •   | •   | •   | •   | •   | •   | •   | •   | •    | •    | •    | •    | •    | •    | • |
| Floor standing      |                |    | •  | •   | •   | •   | •   | •   | •   | •   | •   | •    | •    | •    | •    | •    | •    | • |

High ESP Duct Type Indoor Unit



Fresh air supply ventilation\*1



Quiet function



High ESP



Multi fan speed\*2



Compact design



Easier maintainability



Key-card control

\*1 For the unit between 5.6kW to 14kW. \*2 For the unit below 15kW.

| Model                    | without drain water pump |          | GMV-R22P/NaB-K  | GMV-R28P/NaB-K  | GMV-R36P/NaB-K  | GMV-R45P/NaB-K  | GMV-R56P/NaB-K  | GMV-R71P/NaB-K  |
|--------------------------|--------------------------|----------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                          | with drain water pump    |          | GMV-R22PS/NaB-K | GMV-R28PS/NaB-K | GMV-R36PS/NaB-K | GMV-R45PS/NaB-K | GMV-R56PS/NaB-K | GMV-R71PS/NaB-K |
| Capacity                 | Cooling                  | kW       | 2.2             | 2.8             | 3.6             | 4.5             | 5.6             | 7.1             |
|                          | Heating                  | kW       | 2.5             | 3.2             | 4.0             | 5.0             | 6.3             | 8.0             |
| Power supply             | PhV/Hz                   |          | 1/220-240/50    | 1/220-240/50    | 1/220-240/50    | 1/220-240/50    | 1/220-240/50    | 1/220-240/50    |
| Motor power input        | W                        |          | 75              | 80              | 80              | 140             | 240             | 240             |
| Air flow volume          | m <sup>3</sup> /h        |          | 450             | 570             | 570             | 700             | 1000            | 1100            |
|                          | CFM                      |          | 265             | 335             | 335             | 412             | 589             | 647             |
| Standard ESP             | Pa                       |          | 20/50           | 20/50           | 20/50           | 20/50           | 30/60           | 30/60           |
| Sound pressure level     | dB(A)                    |          | 37/35/33        | 39/37/35        | 39/37/35        | 40/38/36        | 44/42/40        | 45/43/41        |
| Dimension (W×D×H)        | Outline                  | mm       | 880×665×250     | 880×665×250     | 880×665×250     | 980×721×266     | 1155×736×300    | 1155×736×300    |
|                          | Package                  | mm       | 1023×748×320    | 1023×748×320    | 1023×748×320    | 1123×798×323    | 1248×788×375    | 1248×788×375    |
| Net weight/ Gross weight | without DWP*             | kg       | 27/31           | 28.5/33.5       | 28.5/33.5       | 34/37           | 49/56           | 49/56           |
|                          | with DWP*                | kg       | 28.5/33.5       | 30.5/35.5       | 30.5/35.5       | 36/39           | 51/58           | 51/58           |
| Connecting pipe diameter | Gas                      | inch(mm) | φ3/8(9.52)      | φ3/8(9.52)      | φ1/2(12.7)      | φ1/2(12.7)      | φ5/8(15.9)      | φ5/8(15.9)      |
|                          | Liquid                   | inch(mm) | φ1/4(6.32)      | φ1/4(6.32)      | φ1/4(6.32)      | φ1/4(6.32)      | φ3/8(9.52)      | φ3/8(9.52)      |
| Loading quantity         | 40'GP                    | set      | 192             | 192             | 192             | 180             | 108             | 108             |
|                          | 40'HQ                    | set      | 192             | 192             | 192             | 180             | 108             | 108             |

| Model                    | without drain water pump |          | GMV-R90P/NaB-K  | GMV-R112P/NaB-K  | GMV-R140P/NaB-K  | GMV-R224P/NaB-M | GMV-R280P/NaB-M |
|--------------------------|--------------------------|----------|-----------------|------------------|------------------|-----------------|-----------------|
|                          | with drain water pump    |          | GMV-R90PS/NaB-K | GMV-R112PS/NaB-K | GMV-R140PS/NaB-K | —               | —               |
| Capacity                 | Cooling                  | kW       | 9.0             | 11.2             | 14.0             | 22.4            | 28.0            |
|                          | Heating                  | kW       | 10.0            | 12.5             | 15.0             | 25.0            | 31.0            |
| Power supply             | PhV/Hz                   |          | 1/220-240/50    | 1/220-240/50     | 1/220-240/50     | 3/380-415/50    | 3/380-415/50    |
| Motor power input        | W                        |          | 360             | 360              | 500              | 1600            | 1600            |
| Air flow volume          | m <sup>3</sup> /h        |          | 1700            | 1700             | 2000             | 4000            | 4800            |
|                          | CFM                      |          | 1000            | 1000             | 1177             | 2381            | 2857            |
| Standard ESP             | Pa                       |          | 40/80           | 40/80            | 50/100           | 200             | 220             |
| Sound pressure level     | dB(A)                    |          | 48/46/44        | 48/46/44         | 50/48/46         | 56              | 57              |
| Dimension (W×D×H)        | Outline                  | mm       | 1425×736×300    | 1425×736×300     | 1425×736×300     | 1463×799×389    | 1628×869×454    |
|                          | Package                  | mm       | 1517×788×375    | 1517×788×375     | 1517×788×375     | 1543×883×485    | 1748×1028×595   |
| Net weight/ Gross weight | without DWP*             | kg       | 62/71           | 62/71            | 63.5/73          | 90/110          | 115/145         |
|                          | with DWP*                | kg       | 64/73           | 64/73            | 65.5/75          | —               | —               |
| Connecting pipe diameter | Gas                      | inch(mm) | φ5/8(15.9)      | φ5/8(15.9)       | φ5/8(15.9)       | φ7/8(22.2)      | φ7/8(22.2)      |
|                          | Liquid                   | inch(mm) | φ3/8(9.52)      | φ3/8(9.52)       | φ3/8(9.52)       | φ3/8(9.52)      | φ3/8(9.52)      |
| Loading quantity         | 40'GP                    | set      | 90              | 90               | 90               | 56              | 36              |
|                          | 40'HQ                    | set      | 90              | 90               | 90               | 70              | 48              |

\* DWP means drain water pump.





# Wall Mounted Type Indoor Unit



- Washable filter
- Auto clean
- Vertical swing
- Anti-cold function
- Quiet function
- Compact design
- Easier maintainability

## EXV Integrated

| Model                        |         |                   | GMV-R22G/NaG-K | GMV-R28G/NaG-K | GMV-R36G/NaG-K | GMV-R45G/NaG-K |
|------------------------------|---------|-------------------|----------------|----------------|----------------|----------------|
| Capacity                     | Cooling | kW                | 2.2            | 2.8            | 3.6            | 4.5            |
|                              | Heating | kW                | 2.5            | 3.2            | 4.0            | 5.0            |
| Power supply                 |         | PhV/Hz            | 1/220-240/50   | 1/220-240/50   | 1/220-240/50   | 1/220-240/50   |
| Motor power input            |         | W                 | 50             | 50             | 60             | 60             |
| Air flow volume              |         | m <sup>3</sup> /h | 500            | 500            | 630            | 630            |
|                              |         | CFM               | 294            | 294            | 371            | 371            |
| Sound pressure level (H/W/L) |         | dB(A)             | 38/34          | 38/34          | 44/38          | 44/38          |
| Dimension (W×D×H)            | Outline | mm                | 843×180×275    | 843×180×275    | 940×200×298    | 940×200×298    |
|                              | Package | mm                | 918×258×370    | 918×258×370    | 1013×288×395   | 1013×288×395   |
| Net weight/Gross weight      |         | kg                | 10.5/12.5      | 10.5/12.5      | 13/16          | 13/16          |
| Connecting pipe diameter     | Gas     | inch(mm)          | φ3/8(9.52)     | φ3/8(9.52)     | φ1/2(12.7)     | φ1/2(12.7)     |
|                              | Liquid  | inch(mm)          | φ1/4(6.32)     | φ1/4(6.32)     | φ1/4(6.32)     | φ1/4(6.32)     |
| Loading quantity             | 40'GP   | set               | 702            | 702            | 557            | 557            |
|                              | 40'HQ   | set               | 819            | 819            | 624            | 624            |

| Model                        |         |                   | GMV-R50G/NaG-K | GMV-R56G/NaG-K | GMV-R63G/NaG-K | GMV-R71G/NaG-K |
|------------------------------|---------|-------------------|----------------|----------------|----------------|----------------|
| Capacity                     | Cooling | kW                | 5.0            | 5.6            | 6.3            | 7.1            |
|                              | Heating | kW                | 5.8            | 6.3            | 7.0            | 8.0            |
| Power supply                 |         | PhV/Hz            | 1/220-240/50   | 1/220-240/50   | 1/220-240/50   | 1/220-240/50   |
| Motor power input            |         | W                 | 60             | 70             | 70             | 70             |
| Air flow volume              |         | m <sup>3</sup> /h | 630            | 800            | 800            | 800            |
|                              |         | CFM               | 371            | 471            | 471            | 471            |
| Sound pressure level (H/W/L) |         | dB(A)             | 44/38          | 44/38          | 44/38          | 44/38          |
| Dimension (W×D×H)            | Outline | mm                | 940×200×298    | 1008×221×319   | 1008×221×319   | 1008×221×319   |
|                              | Package | mm                | 1013×288×395   | 1076×316×410   | 1076×316×410   | 1076×316×410   |
| Net weight/Gross weight      |         | kg                | 13/16          | 15/20          | 15/20          | 15/20          |
| Connecting pipe diameter     | Gas     | inch(mm)          | φ1/2(12.7)     | φ5/8(15.9)     | φ5/8(15.9)     | φ5/8(15.9)     |
|                              | Liquid  | inch(mm)          | φ1/4(6.32)     | φ3/8(9.52)     | φ3/8(9.52)     | φ3/8(9.52)     |
| Loading quantity             | 40'GP   | set               | 557            | 441            | 441            | 441            |
|                              | 40'HQ   | set               | 624            | 503            | 503            | 503            |

# Floor Ceiling Type Indoor Unit



- Washable filter
- Quiet function
- Vertical swing
- Horizontal swing
- Compact design
- Easier maintainability

## EXV Integrated

| Model                    |         |                   | GMV-R28Zd/NaB-K | GMV-R36Zd/NaB-K | GMV-R50Zd/NaB-K | GMV-R71Zd/NaB-K |
|--------------------------|---------|-------------------|-----------------|-----------------|-----------------|-----------------|
| Capacity                 | Cooling | kW                | 2.8             | 3.6             | 5.0             | 7.1             |
|                          | Heating | kW                | 3.2             | 4.0             | 5.8             | 8.0             |
| Power supply             |         | PhV/Hz            | 1/220-240/50    | 1/220-240/50    | 1/220-240/50    | 1/220-240/50    |
| Motor power input        |         | W                 | 55              | 55              | 110             | 140             |
| Air flow volume          |         | m <sup>3</sup> /h | 650             | 650             | 950             | 1400            |
|                          |         | CFM               | 383             | 383             | 559             | 824             |
| Sound pressure level     |         | dB(A)             | 40              | 40              | 45              | 49              |
| Dimension (W×D×H)        | Outline | mm                | 1220×700×225    | 1220×700×225    | 1220×700×225    | 1420×700×245    |
|                          | Package | mm                | 1343×823×315    | 1343×823×315    | 1343×823×315    | 1548×828×345    |
| Net weight/Gross weight  |         | kg                | 40/50           | 40/50           | 40/50           | 52/61           |
| Connecting pipe diameter | Gas     | inch(mm)          | φ3/8(9.52)      | φ1/2(12.7)      | φ1/2(12.7)      | φ5/8(15.9)      |
|                          | Liquid  | inch(mm)          | φ1/4(6.32)      | φ1/4(6.32)      | φ1/4(6.32)      | φ3/8(9.52)      |
| Loading quantity         | 40'GP   | set               | 132             | 132             | 132             | 90              |
|                          | 40'HQ   | set               | 132             | 132             | 132             | 90              |

| Model                    |         |                   | GMV-R90Zd/NaB-K | GMV-R112Zd/NaB-K | GMV-R125Zd/NaB-K | GMV-R140Zd/NaB-K |
|--------------------------|---------|-------------------|-----------------|------------------|------------------|------------------|
| Capacity                 | Cooling | kW                | 9.0             | 11.2             | 12.5             | 14               |
|                          | Heating | kW                | 10.0            | 12.5             | 13.5             | 16               |
| Power supply             |         | PhV/Hz            | 1/220-240/50    | 1/220-240/50     | 1/220-240/50     | 1/220-240/50     |
| Motor power input        |         | W                 | 180             | 250              | 250              | 250              |
| Air flow volume          |         | m <sup>3</sup> /h | 1600            | 2000             | 2000             | 2000             |
|                          |         | CFM               | 942             | 1177             | 1177             | 1177             |
| Sound pressure level     |         | dB(A)             | 51              | 55               | 55               | 55               |
| Dimension (W×D×H)        | Outline | mm                | 1420×700×245    | 1700×700×245     | 1700×700×245     | 1700×700×245     |
|                          | Package | mm                | 1548×828×345    | 1828×828×345     | 1828×828×345     | 1828×828×345     |
| Net weight/Gross weight  |         | kg                | 54/63           | 64/72            | 66/74            | 66/74            |
| Connecting pipe diameter | Gas     | inch(mm)          | φ5/8(15.9)      | φ5/8(15.9)       | φ5/8(15.9)       | φ5/8(15.9)       |
|                          | Liquid  | inch(mm)          | φ3/8(9.52)      | φ3/8(9.52)       | φ3/8(9.52)       | φ3/8(9.52)       |
| Loading quantity         | 40'GP   | set               | 84              | 72               | 72               | 72               |
|                          | 40'HQ   | set               | 90              | 84               | 84               | 84               |

## Console Indoor Unit



- Vertical swing
- Anti-cold function
- Self-diagnosis
- Quiet function
- Comprehensive protection
- Auto Restart
- Compact design
- Easier maintainability

| Model                    |         |          | GMV-R28C/Na-K   | GMV-R36C/Na-K   | GMV-R50C/Na-K   |
|--------------------------|---------|----------|-----------------|-----------------|-----------------|
| Capacity                 | Cooling | kW       | 2.8             | 3.6             | 5.0             |
|                          | Heating | kW       | 3.2             | 4.0             | 5.5             |
| Power supply             | PhV/Hz  |          | 1/220-240/50    | 1/220-240/50    | 1/220-240/50    |
| Motor power input        | W       |          | 60              | 60              | 60              |
| Air flow volume          | m³/h    |          | 500-430/370/280 | 600-520/440/360 | 650-620/500/410 |
|                          | CFM     |          | 294-253/218/165 | 353-306/259/212 | 383-365/294/241 |
| Sound pressure level     | dB(A)   |          | 38/33/26        | 40/37/32        | 46/41/35        |
| Dimension (W×D×H)        | Outline | mm       | 700×215×600     | 700×215×600     | 700×215×600     |
|                          | Package | mm       | 788×283×697     | 788×283×697     | 788×283×697     |
| Net weight/Gross weight  | kg      |          | 16/19           | 16/19           | 16/19           |
| Connecting pipe diameter | Gas     | inch(mm) | φ3/8(9.52)      | φ3/8(9.52)      | φ1/2(12.7)      |
|                          | Liquid  | inch(mm) | φ1/4(6.32)      | φ1/4(6.32)      | φ1/4(6.32)      |
| Loading quantity         | 40'GP   | set      | 387             | 387             | 387             |
|                          | 40'HQ   | set      | 433             | 433             | 433             |

## Floor Standing Type Indoor Unit



- Quiet function
- Horizontal swing
- Vertical swing
- Easier maintainability
- Self-diagnosis
- Memory Function
- Anti-cold function
- Turbo function

| Model                    |         |          | GMV-R71L/Na-K | GMV-R100L/Na-K | GMV-R140L/Na-K |
|--------------------------|---------|----------|---------------|----------------|----------------|
| Capacity                 | Cooling | kW       | 7             | 10             | 14             |
|                          | Heating | kW       | 8             | 11             | 15             |
| Power supply             | PhV/Hz  |          | 1/220-240/50  | 1/220-240/50   | 1/220-240/50   |
| Motor power input        | W       |          | 160           | 185            | 200            |
| Air flow volume          | m³/h    |          | 1100          | 1600           | 1700           |
|                          | CFM     |          | 655           | 952            | 1012           |
| Sound pressure level     | dB(A)   |          | 48/42         | 51/47          | 52/48          |
| Dimension (W×D×H)        | Outline | mm       | 502×316×1756  | 556×381×1896   | 556×381×1896   |
|                          | Package | mm       | 633×450×1943  | 738×545×2083   | 738×545×2083   |
| Net weight/Gross weight  | kg      |          | 39/60         | 53/73          | 57/77          |
| Connecting pipe diameter | Gas     | inch(mm) | φ5/8(15.9)    | φ5/8(15.9)     | φ5/8(15.9)     |
|                          | Liquid  | inch(mm) | φ3/8(9.52)    | φ3/8(9.52)     | φ3/8(9.52)     |
| Loading quantity         | 40'GP   | set      | 95            | 67             | 67             |
|                          | 40'HQ   | set      | 95            | 67             | 67             |

## Branching Joint

### For Indoor Units

| Model   | Indoor unit total capacity X (kW) | Appearance |             |
|---------|-----------------------------------|------------|-------------|
|         |                                   | Gas pipe   | Liquid pipe |
| FQ01A/A | X ≤ 20                            |            |             |
| FQ01B/A | 20 < X ≤ 30                       |            |             |
| FQ02A/A | 30 < X ≤ 70                       |            |             |
| FQ03A/A | 70 < X ≤ 135                      |            |             |
| FQ04A/A | 135 < X                           |            |             |
| FQ05A/A | —                                 |            |             |

### For Outdoor Units

| Model   | Outdoor unit total capacity X (kW) | Appearance |             |
|---------|------------------------------------|------------|-------------|
|         |                                    | Gas pipe   | Liquid pipe |
| ML01A/A | 20 ≤ X ≤ 56                        |            |             |

# GMV5 HR

(Heat Recovery Series)

GMV5 Heat Recovery System embodies the excellent features of GMV5(DC inverter technology, DC fan linkage control, precise control of capacity output, balancing control of refrigerant, original oil balancing technology with high pressure chamber, high-efficiency output control, low-temperature operation control technology, super heating technology, high adaptability for project, environmental refrigerant). Its energy efficiency is improved by 78% compared with conventional multi VRF.



Golden fin condenser



Inner groove copper



High efficiency



Intelligent defrosting



Long-distance monitoring



Quiet function



Modular operating\*



Comprehensive protection



Wide voltage range



Wide operation range



Compact design



Easier maintainability



Centralized control

- All DC Inverter Technology. All DC inverter compressor is used in this system. It can directly intake gas to reduce loss of overheat and improve efficiency.
- 82 Pa Wide Application Location
- Advanced Control Functions.
- Better Reliability
- Wide Operation Range: -10°C~20°C
- Flexible Piping Design

## Outdoor Units Lineup-GMV5 Heat Recovery Series

| HP   | Model          | Product Outlook |
|------|----------------|-----------------|
| 8HP  | GMV-Q224WM/B-X |                 |
| 10HP | GMV-Q280WM/B-X |                 |
| 12HP | GMV-Q335WM/B-X |                 |
| 14HP | GMV-Q400WM/B-X |                 |
| 16HP | GMV-Q450WM/B-X |                 |

| Model  | Product Outlook |
|--------|-----------------|
| NCHS1B |                 |
| NCHS4B |                 |
| NCHS8B |                 |

## Specification and Parameters

### 50/60 Hz

| Model                     |             |         | GMV-Q224WM/B-X       | GMV-Q280WM/B-X | GMV-Q335WM/B-X | GMV-Q400WM/B-X | GMV-Q450WM/B-X |
|---------------------------|-------------|---------|----------------------|----------------|----------------|----------------|----------------|
| Capacity range            | HP          |         | 8                    | 10             | 12             | 14             | 16             |
| Capacity                  | Cooling     | kW      | 22.4                 | 28             | 33.5           | 40             | 45             |
|                           | Heating     | kW      | 25                   | 31.5           | 37.5           | 45             | 50             |
| EER                       |             | kW/kW   | 4.07                 | 3.73           | 3.76           | 3.54           | 3.33           |
| COP                       |             | kW/kW   | 4.17                 | 3.89           | 3.68           | 3.85           | 3.62           |
| IPLV                      | Cooling     | kW/kW   | /                    | /              | /              | /              | /              |
| Power Supply              |             | V/Ph/Hz | 380-415V-3Ph-50/60Hz |                |                |                |                |
| Max. circuit/fuse current |             | A       | 15.7/20              | 20.9/25        | 24.7/32        | 28.8/40        | 33.2/40        |
| Power consumption         | Cooling     | kW      | 5.5                  | 7.5            | 8.9            | 11.3           | 13.5           |
|                           | Heating     | kW      | 6                    | 8.1            | 10.2           | 11.7           | 13.8           |
| Maximum drive IDU NO.     |             | unit    | 13                   | 16             | 19             | 23             | 26             |
| Refrigerant Charge volume |             | kg      | 6.2                  | 7.1            | 8.6            | 10.2           | 10.5           |
| Sound pressure level      |             | dB(A)   | 60                   | 61             | 63             | 63             | 63             |
| Connecting pipe           | Liquid      | mm      | Φ9.52                |                | Φ12.7          |                |                |
|                           | Gas         | mm      | Φ19.05               | Φ22.2          | Φ25.4          |                | Φ28.6          |
|                           | Oil balance | mm      | Φ19.05               |                |                | Φ22.2          |                |
| Dimension (W*D*H)         | Outline     | mm      | 930*765*1605         |                |                | 1340*765*1605  |                |
|                           | Package     | mm      | 1010*840*1775        |                |                | 1420*840*1775  |                |
| Net weight/Gross weight   |             | kg      | 225/235              | 225/235        | 285/300        | 360/375        | 360/375        |
| Loading quantity          | 40' GP      | set     | 24                   | 24             | 16             | 16             | 16             |
|                           | 40' HQ      | set     | 24                   | 24             | 16             | 16             | 16             |

### 50 Hz

| Model                                 |         |         | NCHS1B            | NCHS4B | NCHS8B |
|---------------------------------------|---------|---------|-------------------|--------|--------|
| Max.IDU Branches                      |         | unit    | 1                 | 4      | 8      |
| No. of connectable IDU of each branch |         | unit    | 8                 | 8      | 8      |
| Total Connectable IDU                 |         | unit    | 8                 | 32     | 64     |
| Max. Capacity of each branch          |         | kW/kW   | 14                | 14     | 14     |
| Max. Capacity of connectable IDU      |         | kW/kW   | 14                | 45     | 65     |
| Power supply                          |         | V/Ph/Hz | 220-240V-1Ph-50Hz |        |        |
| Power consumption                     |         | W       | 20                | 30     | 30     |
| Maximum drive IDU NO.                 |         | unit    | 1                 | 4      | 8      |
| Outdoor Unit Piping Connection        | Liquid  | mm      | Φ9.52             | Φ12.7  | Φ15.9  |
|                                       | Suction | mm      | Φ15.9             | Φ22.2  | Φ22.2  |
| indoor Unit Piping Connection         | Gas     | mm      | Φ19.05            | Φ28.6  | Φ28.6  |
|                                       | Liquid  | mm      | Φ9.5              | Φ9.5   | Φ9.5   |
|                                       | Gas     | mm      | Φ15.9             | Φ15.9  | Φ15.9  |









# Floor Standing Type Indoor Unit

The cooling capacity of floor standing type indoor unit ranges from 10kW~14kW, which can be widely adopted in hotels, restaurants, office, etc.



50/60 Hz

| Model                       |               | GMV-ND100L/A-T                   | GMV-ND140L/A-T |
|-----------------------------|---------------|----------------------------------|----------------|
| Capacity                    | Cooling       | 10                               | 14             |
|                             | Heating       | 11                               | 15             |
| Power supply                | V/Ph/Hz       | 220-240/1/50Hz & 208-230/1/60 Hz |                |
| Power consumption           | W             | 180                              | 180            |
| Airflow volume(H/M/L)       | m³/h          | 1600/1500/1300                   | 1700/1600/1400 |
|                             | CFM           | 942/883/765                      | 1000/942/824   |
| Rated Current <sup>2</sup>  | Cooling       | 1.5                              | 1.5            |
|                             | Heating       | 1.5                              | 1.5            |
|                             | Water Heating | /                                | /              |
| ESP                         | Pa            | 0                                | 0              |
| Sound pressure level(H/M/L) | dB(A)         | 51/50/48                         | 52/50/48       |
| Connecting pipe diameter    | Liquid        | 9                                | 9              |
|                             | Gas           | 16                               | 16             |
| Drain pipe                  | External dia. | 31                               | 31             |
|                             | Thickness     | 4.5                              | 4.5            |
| Dimension (WxDxH)           | Outline       | 1870x580x400                     | 1870x580x400   |
|                             | Package       | 2080x735x530                     | 2080x735x530   |
| Net weight/Gross weight     | kg            | 53/73                            | 57/77          |
| Loading                     | 40' GP        | 67                               | 67             |
|                             | 40' HQ        | 67                               | 67             |



Quiet function



Horizontal swing



Vertical swing



Easier maintainability



Self-diagnosis



Memory Function



Anti-cold function



Turbo function

# Fresh Air Processing Indoor Unit

Fresh air processing indoor unit is widely adopted in villas, high-end communities, business places and public places. It introduces outdoor fresh air into the room to improve the air quality without fluctuation of indoor temperature, which belongs to the most advanced and comfortable VRF air conditioning technology.



Fresh air supply ventilation



Energy saving function



Compact design

50 Hz

| Model                       |               | GMV-NX140P/A(X1.2)-K * | GMV-NX224P/A(X2.0)-M * | GMV-NX280P/A(X2.5)-M * | GMV-NX280P/A(X3.0)-M * | GMV-NX450P/A(X4.0)-M * |
|-----------------------------|---------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Capacity                    | Cooling       | 14.0                   | 22.4                   | 28.0                   | 28.0                   | 5.0                    |
|                             | Heating       | 10.0                   | 16.0                   | 20.0                   | 20.0                   | 5.5                    |
| Power supply                | V/Ph/Hz       | 220-240/1/50           |                        | 380-415/3/50           |                        |                        |
| Power consumption           | W             | 360                    | 740                    | 760                    | 1060                   | 1240                   |
| Airflow volume(H/M/L)       | m³/h          | 1200                   | 2000                   | 2500                   | 3000                   | 4000                   |
|                             | CFM           | 705                    | 1175                   | 1470                   | 1765                   | 2355                   |
| Rated Current <sup>2</sup>  | Cooling       | 1.82                   | 1.32                   | 1.36                   | 1.89                   | 2.22                   |
|                             | Heating       | 1.82                   | 1.32                   | 1.36                   | 1.89                   | 2.22                   |
|                             | Water Heating | /                      | /                      | /                      | /                      | /                      |
| ESP                         | Pa            | 150                    |                        | 200                    |                        |                        |
| Sound pressure level(H/M/L) | dB(A)         | 42                     | 47                     | 48                     | 51                     | 52                     |
| Connecting pipe diameter    | Liquid        | Φ9.52                  | Φ9.52                  | Φ9.52                  | Φ9.52                  | Φ12.7                  |
|                             | Gas           | Φ15.9                  | Φ19.05                 | Φ22.2                  | Φ22.2                  | Φ28.6                  |
| Drain pipe                  | External dia. | 25                     | 25                     | 25                     | 25                     | 25                     |
|                             | Thickness     | 2.5                    | 2.5                    | 2.5                    | 2.5                    | 2.5                    |
| Dimension (WxDxH)           | Outline       | 1463 x 756 x 300       |                        | 1500 x 1000 x 500      |                        | 1700 x 1100 x 650      |
|                             | Package       | 1514x785x360           |                        | 1840x1200x673          |                        | 1890x1460x835          |
| Net weight/Gross weight     | kg            | 63.5/71                | 130/182                | 134/188                | 134/188                | 208/266                |
| Loading                     | 40' GP        | 84.0                   | 18.0                   | 18.0                   | 18.0                   | 16.0                   |
|                             | 40' HQ        | 98.0                   | 18.0                   | 18.0                   | 18.0                   | 16.0                   |

Note: \* This series can be matched with GMV5(Top discharge outdoor unit)only.

## Control System Lineup

| Controlling system                | Product series                            | Cassette Type   | (High ESP, Low ESP, Slim Ducted) Duct Type | Fresh Air Processing | Wall mounted Type | Floor Ceiling Type | Console Type | Floor Standing Type |
|-----------------------------------|---|-----------------|--|----------------------|-------------------|--------------------|--------------|---------------------|
| Wireless Controller               | YAP1F                                     | ●               | ○  | ○                    | ●                 | ●                  | ●            | ●                   |
|                                   | YV1L1                                     | ○               | ○  | ○                    | ○                 | ○                  | ○            | ○                   |
| Wired controller                  | XK46                                      | ○               | ●  | ●                    | ○                 | ○                  | ○            | ○                   |
|                                   | XK49                                      | ○               | ○  | ○                    | ○                 | ○                  | ○            | ○                   |
|                                   | XK62                                      | ○               | ○  | ○                    | ○                 | ○                  | ○            | ○                   |
|                                   | XK55                                      | ○               | ○  | ○                    | ○                 | ○                  | ○            | ○                   |
|                                   | JS05(receiver)                            | ○               | ○  | ○                    | ○                 | ○                  | ○            | ○                   |
| Centralized Controller            | CE52-24/F(C)                              | ○               | ○  | ○                    | ○                 | ○                  | ○            | ○                   |
|                                   | CE53-24/F(C)                              | ○               | ○  | ○                    | ○                 | ○                  | ○            | ○                   |
| Long-distance monitoring software | FE31-00/AD(BM)                            | ○               | ○  | ○                    | ○                 | ○                  | ○            | ○                   |
| BMS Accessories                   | Communication module(modbus)              | ME30-24/E4(M)   | ○  | ○                    | ○                 | ○                  | ○            | ○                   |
|                                   | GMV BACnet gateway (BACnet)               | MG30-24/D2(B)   | ○  | ○                    | ○                 | ○                  | ○            | ○                   |
| Other modules                     | Optoelectronic isolated converter         | RS232-RS422/485 | ○  | ○                    | ○                 | ○                  | ○            | ○                   |
|                                   | Optoelectronic isolated signal multiplier | RS-422/485      | ○  | ○                    | ○                 | ○                  | ○            | ○                   |

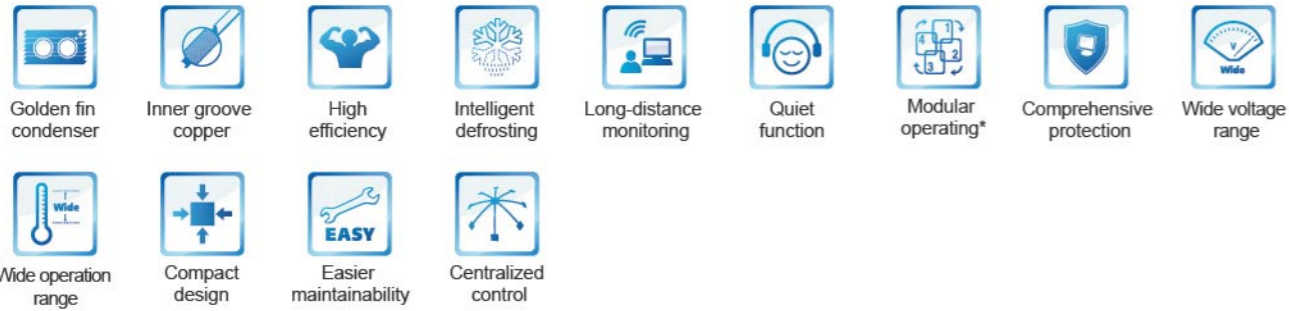
Note: ● means standard, ○ means optional.



# GMV HR- II

(Heat recovery series)

It is a kind of VRF system that adopt DC inverter compressor and the outdoor unit could be connected with several indoor units to realize independent cooling or heating control in different rooms.



- Advanced control functions.
- Better reliability.
- Compact outdoor unit.
- Greatly improved energy efficiency: Significantly greater efficiency is realized by the use of DC inverter hermetic scroll compressors with high pressure chamber design, improved DC inverter driving technology and large heat exchanger.
- Modular outdoor unit design: Various combination form 8HP to 64HP with 2HP increments. Max. capacity of outdoor units is 180kW (4 modules combination).
- Various combinations: Up to 110 sets of indoor units can be connected. 4 types and 56 models of indoor unit. Max. diversity is 135%.
- DC inverter scroll compressor.
- ECO-friendly R410A refrigerant.
- Flexible piping Design.

| Max. piping length (meter)  |      |
|---|------|
| Total piping length   | 500m |
| Actual piping length  | 150m |
| Equivalent piping length  | 175m |
| Height difference between indoor units  | 15m  |
| Height difference between outdoor unit and indoor unit (outdoor unit is located above the indoor unit)      | 50m  |
| Height difference between indoor unit and outdoor unit (outdoor unit is located underneath the indoor unit) | 40m  |
| Piping length from first indoor branch to the farthest indoor unit  | 40m  |

## Outdoor Units Lineup—Heat Recovery Series

| MODEL                      | GMV-Pdhm224W/Na-M (8HP) | GMV-Pdhm280W/Na-M (10HP) | GMV-Pdhm335W/Na-M (12HP) | GMV-Pdhm400W/Na-M (14HP) | GMV-Pdhm450W/Na-M (16HP) |
|----------------------------|-------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| GMV-Pdhm224W/Na-M (8HP)    | ●                       |                          |                          |                          |                          |
| GMV-Pdhm280W/Na-M (10HP)   |                         | ●                        |                          |                          |                          |
| GMV-Pdhm335W/Na-M (12HP)   |                         |                          | ●                        |                          |                          |
| GMV-Pdhm400W/Na-M (14HP)   |                         |                          |                          | ●                        |                          |
| GMV-Pdhm450W/Na-M (16HP)   |                         |                          |                          |                          | ●                        |
| GMV-Pdhm504W2/Na-M (18HP)  | ●                       | ●                        |                          |                          |                          |
| GMV-Pdhm560W2/Na-M (20HP)  |                         | ●●                       |                          |                          |                          |
| GMV-Pdhm615W2/Na-M (22HP)  |                         | ●                        | ●                        |                          |                          |
| GMV-Pdhm680W2/Na-M (24HP)  |                         | ●                        |                          | ●                        |                          |
| GMV-Pdhm730W2/Na-M (26HP)  |                         | ●                        |                          |                          | ●                        |
| GMV-Pdhm800W2/Na-M (28HP)  |                         |                          |                          | ●●                       |                          |
| GMV-Pdhm850W2/Na-M (30HP)  |                         |                          |                          | ●                        | ●                        |
| GMV-Pdhm900W2/Na-M (32HP)  |                         |                          |                          |                          | ●●                       |
| GMV-Pdhm960W3/Na-M (34HP)  |                         | ●●                       |                          | ●                        |                          |
| GMV-Pdhm1010W3/Na-M (36HP) |                         | ●●                       |                          |                          | ●                        |
| GMV-Pdhm1070W3/Na-M (38HP) |                         | ●                        | ●                        |                          | ●                        |
| GMV-Pdhm1130W3/Na-M (40HP) |                         | ●                        |                          | ●                        | ●                        |
| GMV-Pdhm1180W3/Na-M (42HP) |                         | ●                        |                          |                          | ●●                       |
| GMV-Pdhm1250W3/Na-M (44HP) |                         |                          |                          | ●●                       | ●                        |
| GMV-Pdhm1300W3/Na-M (46HP) |                         |                          |                          | ●                        | ●●                       |
| GMV-Pdhm1350W3/Na-M (48HP) |                         |                          |                          |                          | ●●                       |
| GMV-Pdhm1410W4/Na-M (50HP) |                         | ●●                       |                          | ●                        | ●                        |
| GMV-Pdhm1460W4/Na-M (52HP) |                         | ●●                       |                          |                          | ●●                       |
| GMV-Pdhm1515W4/Na-M (54HP) |                         | ●                        | ●                        |                          | ●●                       |
| GMV-Pdhm1580W4/Na-M (56HP) |                         | ●                        |                          | ●                        | ●●                       |
| GMV-Pdhm1630W4/Na-M (58HP) |                         | ●                        |                          |                          | ●●                       |
| GMV-Pdhm1700W4/Na-M (60HP) |                         |                          |                          | ●●                       | ●●                       |
| GMV-Pdhm1750W4/Na-M (62HP) |                         |                          |                          | ●                        | ●●                       |
| GMV-Pdhm1800W4/Na-M (64HP) |                         |                          |                          |                          | ●●                       |







## Branching Joint

| For Indoor Units |                                   |                        |                       |             |
|------------------|-----------------------------------|------------------------|-----------------------|-------------|
| Indoor model     | Indoor unit total capacity X (kW) | Appearance             |                       |             |
|                  |                                   | High-pressure gas pipe | Low-pressure gas pipe | Liquid pipe |
| FQ01Na/A         | $X \leq 5.6$                      |                        |                       |             |
| FQ02Na/A         | $5.6 < X \leq 22$                 |                        |                       |             |
| FQ03Na/A         | $22 < X \leq 30$                  |                        |                       |             |
| FQ04Na/A         | $30 < X \leq 68$                  |                        |                       |             |
| FQ05Na/A         | $68 < X \leq 96$                  |                        |                       |             |
| FQ06Na/A         | $96 < X \leq 135$                 |                        |                       |             |
| FQ07Na/A         | $135 < X$                         |                        |                       |             |

| For Outdoor Units |                                   |                        |                       |             |
|-------------------|-----------------------------------|------------------------|-----------------------|-------------|
| Model             | Indoor unit total capacity X (kW) | Appearance             |                       |             |
|                   |                                   | High-pressure gas pipe | Low-pressure gas pipe | Liquid pipe |
| ML01R             | $22.4 \leq X \leq 96$             |                        |                       |             |
| ML02R             | $96 < X$                          |                        |                       |             |

## Fresh Air Series

It is a kind of VRF system that adopt DC inverter compressor and the outdoor unit could be connected with several 100% fresh air inlet ducted type indoor units to realize independent cooling (heating) control in different rooms.



- Inner groove copper
  - Washable filter
  - High efficiency
  - Intelligent defrosting
  - Precise temperature control
  - Quiet function
  - Self-diagnosis
  - Comprehensive protection
  - Compact design
  - Easier maintainability
  - Centralized control
  - Long-distance monitoring
- 

| Item      | Nominal operating condition (temperature) |        |                  |        | Operation range (temperature) |
|-----------|---|--------|------------------|--------|-------------------------------|
|           | Outdoor condition                         |        | Indoor condition |        | Outdoor condition             |
|           | DB(°C)                                    | WB(°C) | DB(°C)           | WB(°C) | DB(°C)                        |
| Cooling   | 35  | 24     | 27               | 19     | 20/15~43/35                   |
| Hot water | 7   | 6      | 20               | 15     | -5/-8~14/11                   |

### Outdoor Unit

| Model                                  | Heat pump       |          | GMV-Pdm224W/NaX-M | GMV-Pdm280W/NaX-M | GMV-Pdm450W/NaX-M |
|--|-----------------|----------|-------------------|-------------------|-------------------|
| Capacity                               | Cooling         | kW       | 22.4              | 28.0              | 45.0              |
|  | Heating         | kW       | 16.0              | 20.0              | 32.0              |
| EER/COP                                | Cooling/Heating | kW/kW    | 2.24/1.88         | 2.67/2.22         | 3.10/2.37         |
| Power supply                           |                 | Ph/V/Hz  | 3/380/50          | 3/380/50          | 3/380-415/50      |
| Power input                            | Cooling         | kW       | 10.0              | 10.5              | 14.5              |
|  | Heating         | kW       | 8.5               | 9.0               | 13.5              |
| Refrigerant charge volume              |                 | kg       | 15.5              | 15.5              | 17                |
| Compressor configuration*              |                 |          | DC×1+F×1          | DC×1+F×1          | DC×1+F×2          |
| Sound pressure level                   |                 | dB(A)    | 58                | 58                | 61                |
| Dimension (W×D×H)                      | Outline         | mm       | 930×770×1670      | 930×770×1670      | 1340×770×1670     |
|  | Package         | mm       | 1013×853×1865     | 1013×853×1865     | 1423×853×1865     |
| Net weight/Gross weight                |                 | kg       | 255/275           | 255/275           | 370/400           |
| Connecting pipe diameter               | Gas             | inch(mm) | φ7/8(22.2)        | φ7/8(22.2)        | φ9/8(28.6)        |
|  | Liquid          | inch(mm) | φ3/8(9.52)        | φ3/8(9.52)        | φ1/2(12.7)        |
|  | Oil balance     | inch(mm) | φ1/2(12.7)        | φ1/2(12.7)        | φ1/2(12.7)        |
| Max. equivalent connection pipe length |                 | m        | 70                | 70                | 70                |
| Maximum drive IDU NO.                  |                 | unit     | 14                | 16                | 16                |
| Loading quantity                       | 40'GP           | set      | 24                | 24                | 16                |
|  | 40'HQ           | set      | 24                | 24                | 16                |

DC: DC inverter scroll compressor F: Fixed frequency Scroll compressor

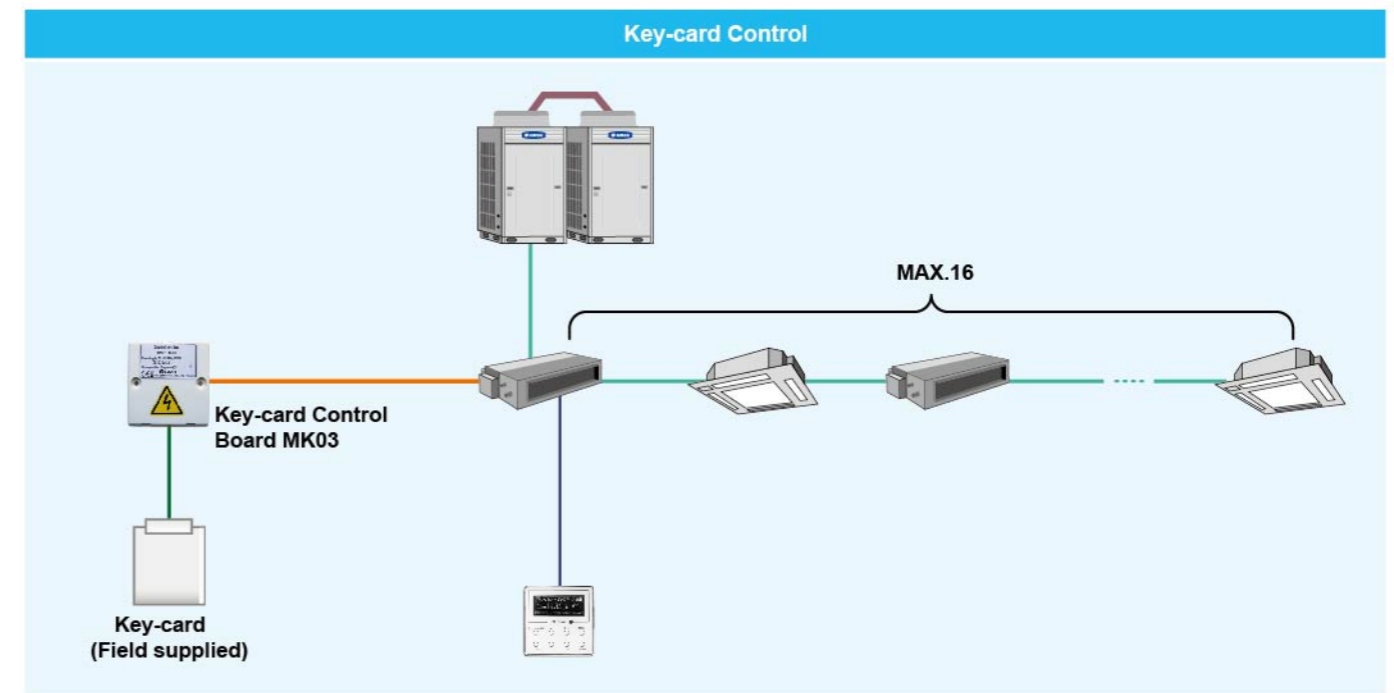
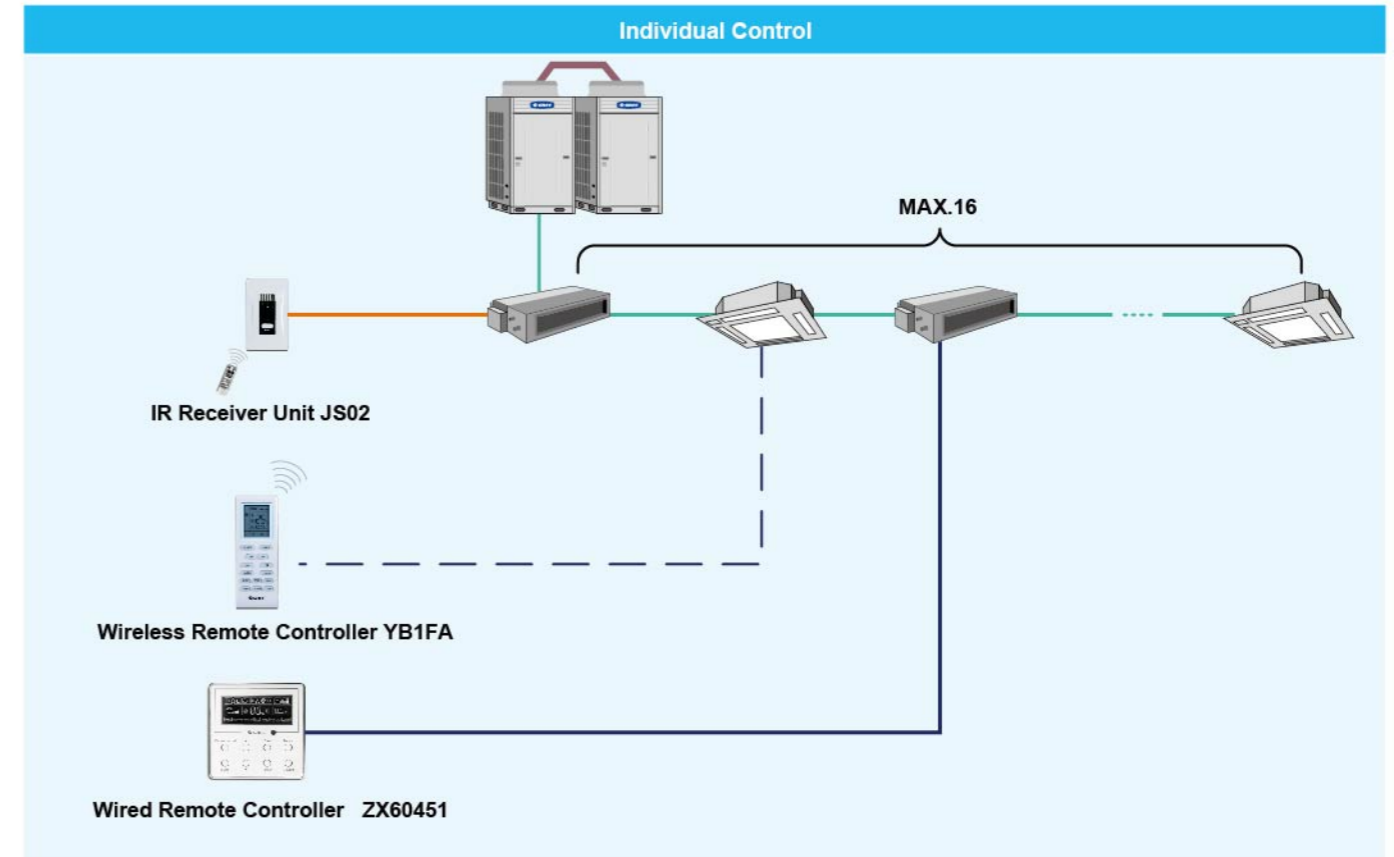


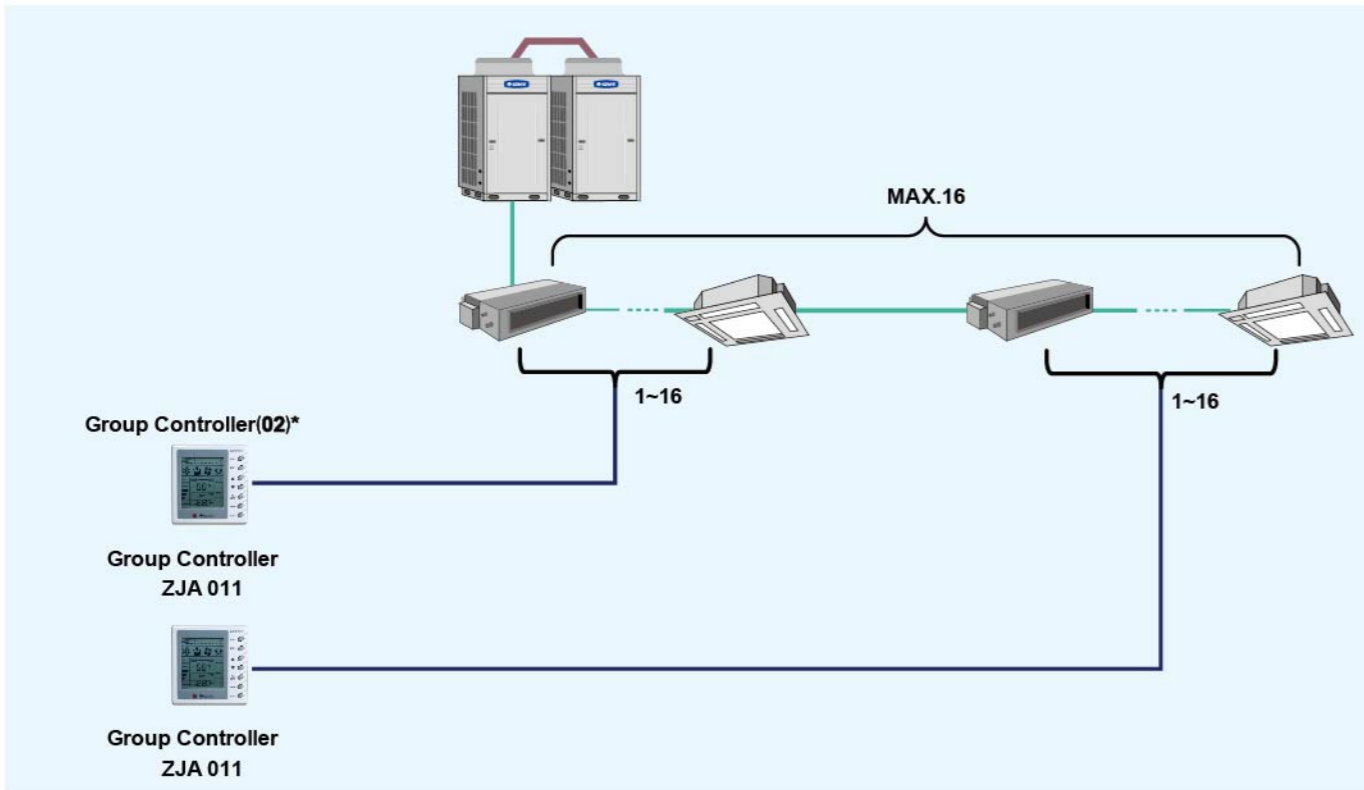
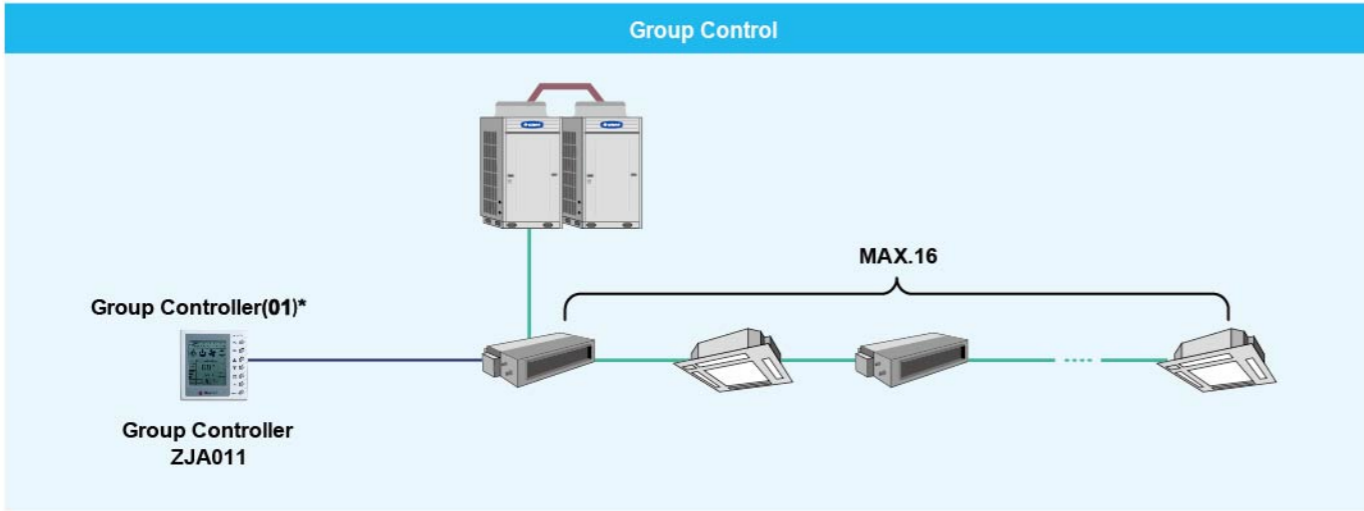
## Control System Lineup

| Control system                    |  | Product series  | Inverter series & HOME GMV |               |                   |                    |                    |              | Heat recovery series |           |               |                    | ERV |
|-----------------------------------|--|-----------------|----------------------------|---------------|-------------------|--------------------|--------------------|--------------|----------------------|-----------|---------------|--------------------|-----|
|                                   |  |                 | Duct type                  | Cassette type | Wall-mounted type | Floor ceiling type | Floor ceiling type | Console type | Floor standing type  | Duct type | Cassette type | Floor ceiling type |     |
| Wireless remote controller        | Y512   |                 |                            | ●             | ●                 | ●                  |                    |              |                      | ●         | ●             | ●                  |     |
|                                   | YB1FA  |                 | ●                          | ●             | ●                 |                    | ●                  | ●            |                      | ●         | ●             |                    |     |
|                                   | YB1F2  |                 |                            |               |                   |                    |                    | ●            |                      |           |               |                    |     |
| Wired controller                  | Z63151F (Heat/Cool)                            |                 |                            | ●             | ●                 | ●                  | ●                  | ○            |                      | ●         | ●             | ●                  |     |
|                                   | Z60351F (Heat/Cool)                            |                 | ●                          |               |                   |                    |                    |              | ●                    |           |               |                    |     |
|                                   | Z5N151   |                 |                            |               |                   |                    |                    |              |                      |           |               |                    | ●   |
|                                   | ZX60451  |                 | ○                          | ○             | ○                 | ○                  | ○                  | ○            | ○                    | ○         | ○             | ○                  |     |
|                                   | JS02 (Receiver)                                |                 | ○                          |               |                   |                    |                    |              |                      | ○         |               |                    |     |
| Centralized controller            | Group controller (mini centralized controller) | ZJA011          |                            | ○             | ○                 | ○                  | ○                  | ○            | ○                    | ○         | ○             | ○                  |     |
|                                   | Centralized controller(modbus)                 | CE51-24E(M)*1   |                            | ○             | ○                 | ○                  | ○                  | ○            | ○                    | ○         | ○             | ○                  |     |
|                                   | Smart zone controller                          | CE50-24E        |                            | ○             | ○                 | ○                  | ○                  | ○            | ○                    | ○         | ○             | ○                  |     |
| BMS accessories                   | Communication module (modbus)                  | ME30-00E2       |                            | ○             | ○                 | ○                  | ○                  | ○            | ○                    | ○         | ○             | ○                  |     |
|                                   | Communication module (modbus)                  | ME30-24E2(M)    |                            | ○             | ○                 | ○                  | ○                  | ○            | ○                    | ○         | ○             | ○                  |     |
|                                   | GMV BACnet gateway (BACnet)                    | MG30-24D1(B)*2  |                            | ○             | ○                 | ○                  | ○                  | ○            | ○                    | ○         | ○             | ○                  |     |
|                                   | Interface of the main board                    | BMS             |                            |               |                   |                    |                    |              |                      |           |               |                    | ●   |
| Long-distance monitoring software | Gree AC Eudemon 2009*1                         | FE30-00/A(M)    |                            | ○             | ○                 | ○                  | ○                  | ○            | ○                    | ○         | ○             | ○                  |     |
| Other modules                     | Key-card control board                         | MK03            |                            | ○             | ○                 | ○                  | ○                  | ○            | ○                    | ○         | ○             | ○                  |     |
|                                   | Optoelectronic isolated converter              | RS232-RS422/485 |                            | ○             | ○                 | ○                  | ○                  | ○            | ○                    | ○         | ○             | ○                  | ○   |
|                                   | Optoelectronic isolated signal multiplier      | RS-422/485      |                            | ○             | ○                 | ○                  | ○                  | ○            | ○                    | ○         | ○             | ○                  | ○   |

Note:  
 ● means standard, ○ means optional.  
 \*1 If centralized controller CE51-24E(M) or long-distance monitoring software Gree Eudemon 2009 is selected, the communication module shall be selected also. The quantity of the module should be confirmed according to the quantity of outdoor units.  
 \*2 If MG30-24D1(B) is selected, the communication module shall be selected also. The maximum quantity is 4. 4-outdoor-unit combinations can match 64 indoor units at most.

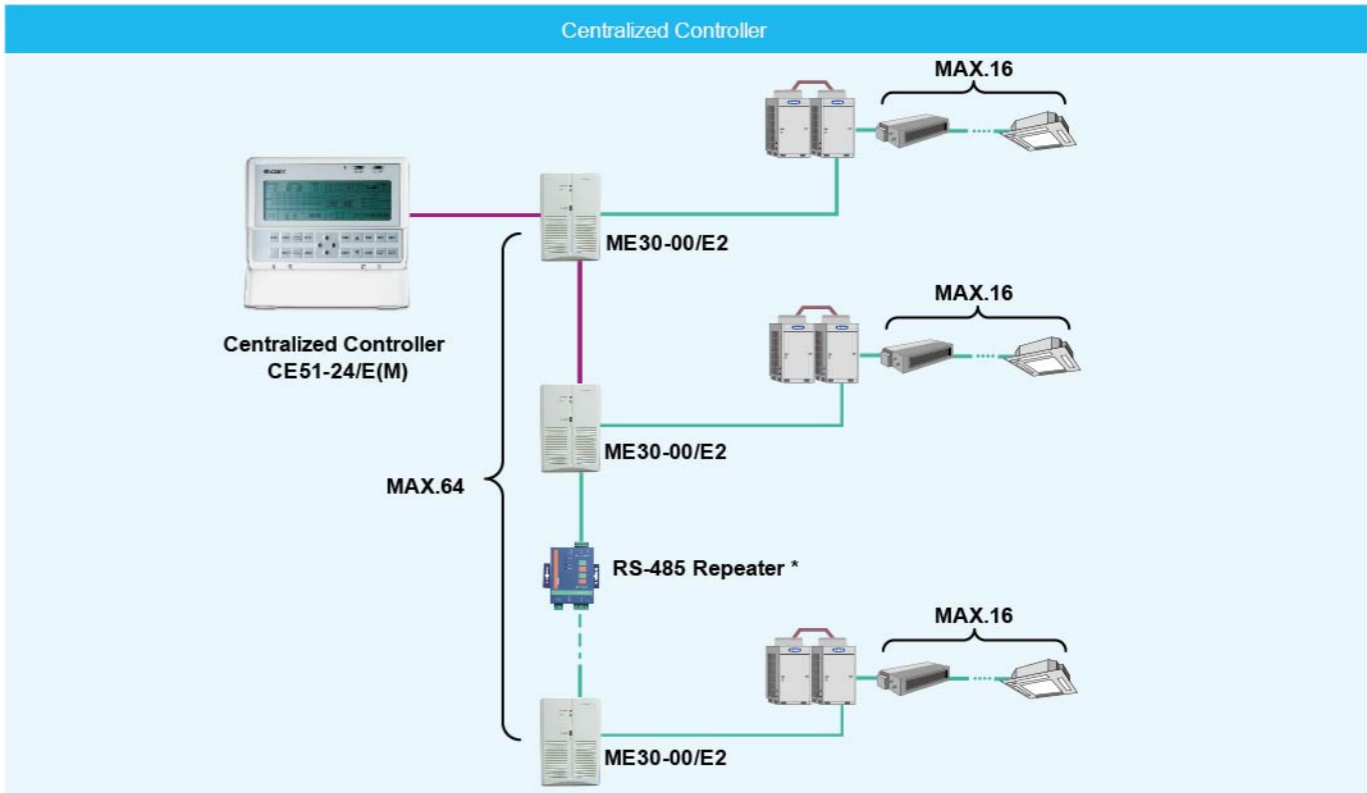
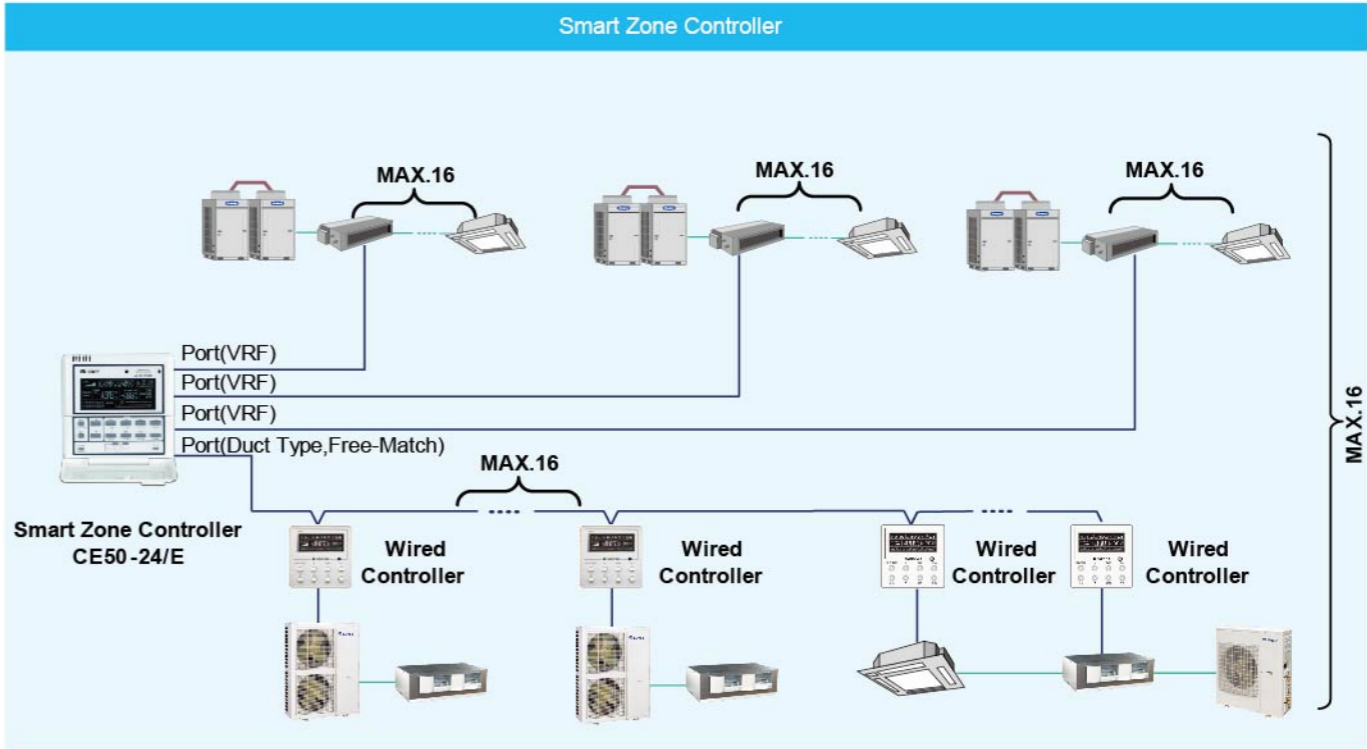
## GMV Control System





\* 01 indicates the group controller working together with the individual wired controller while 02 indicates the group controller working without the individual wired controller.

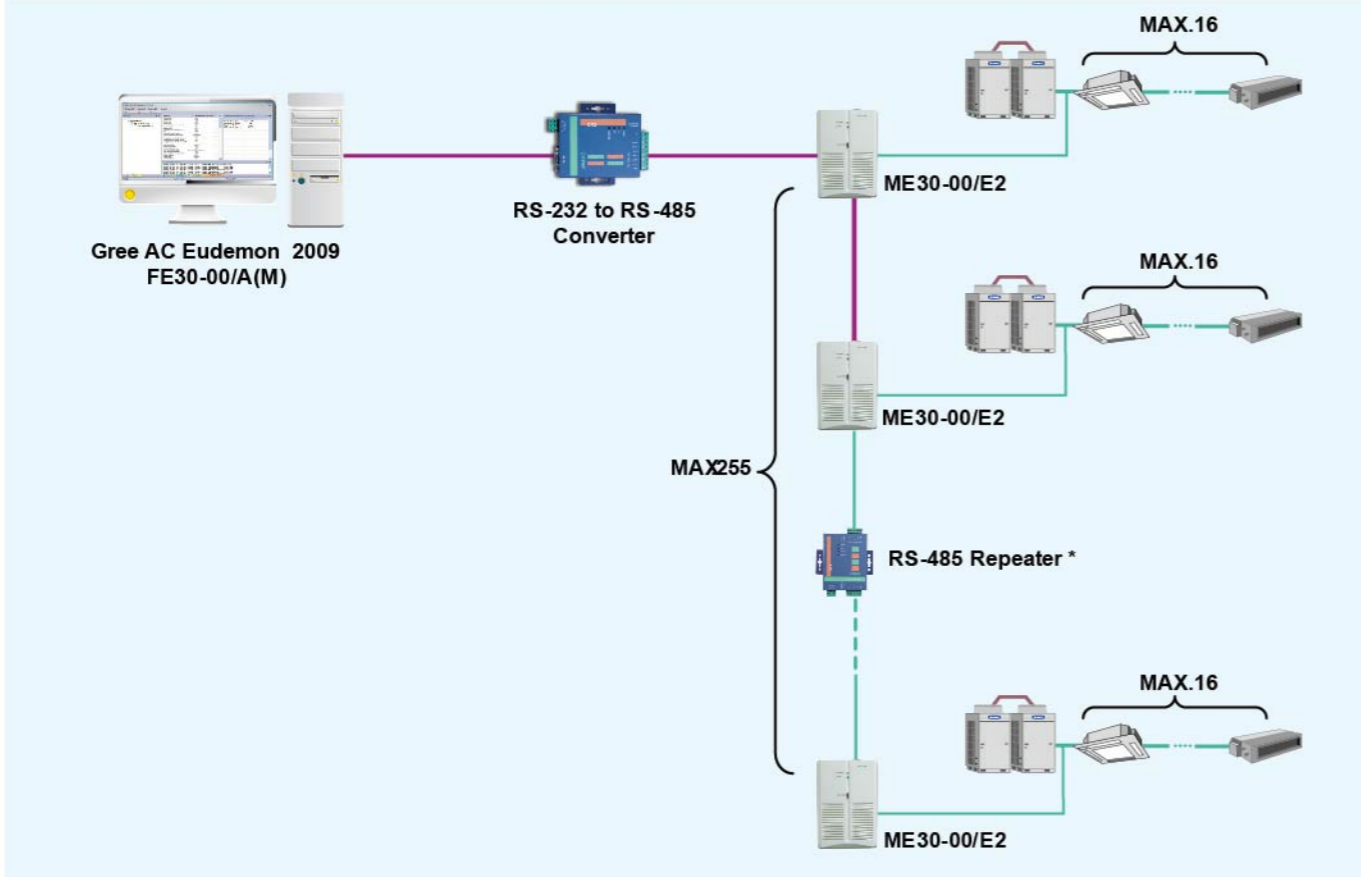
- Transmission line (GMV network)
- Group controller line
- Remote controller line
- IR receiver line
- Key-card control board line
- Key-card signal line



\* It applies when the communication line exceeds 800m or more than 30 communication modules are put into use.



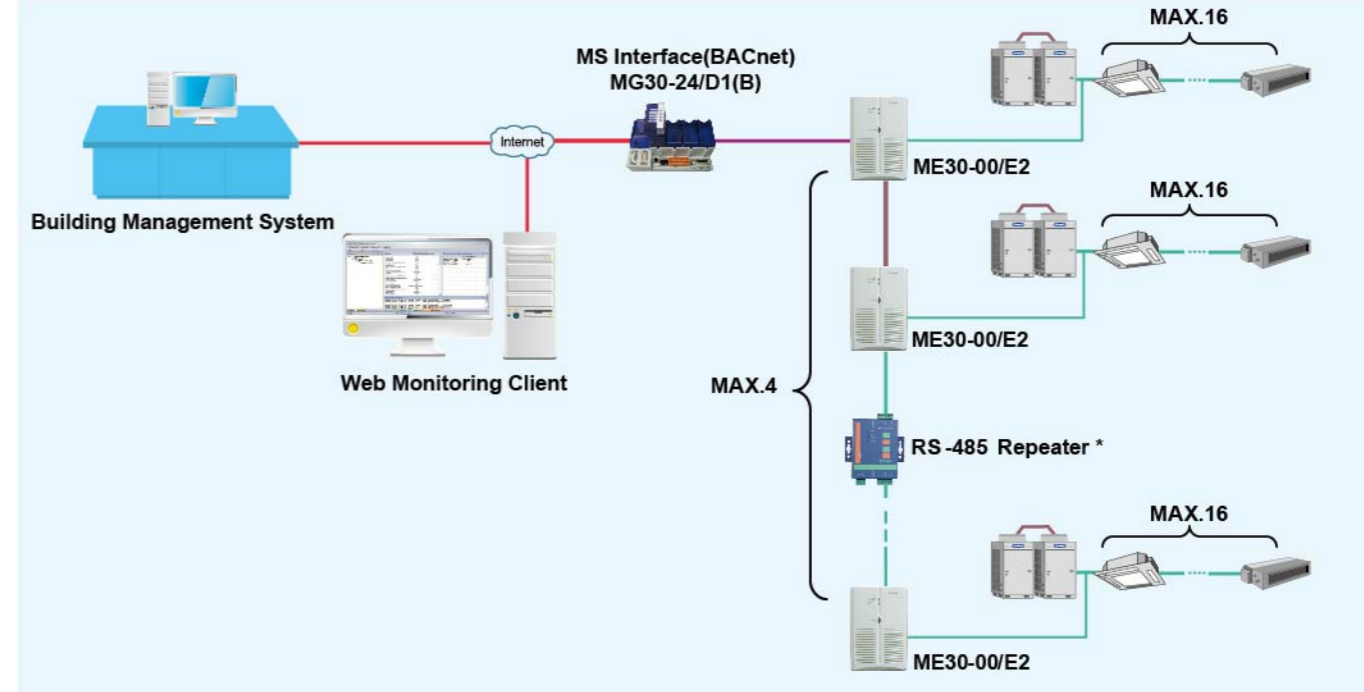
Remote Monitoring



\* It applies when the communication line exceeds 800m or more than 30 communication modules are put into use.

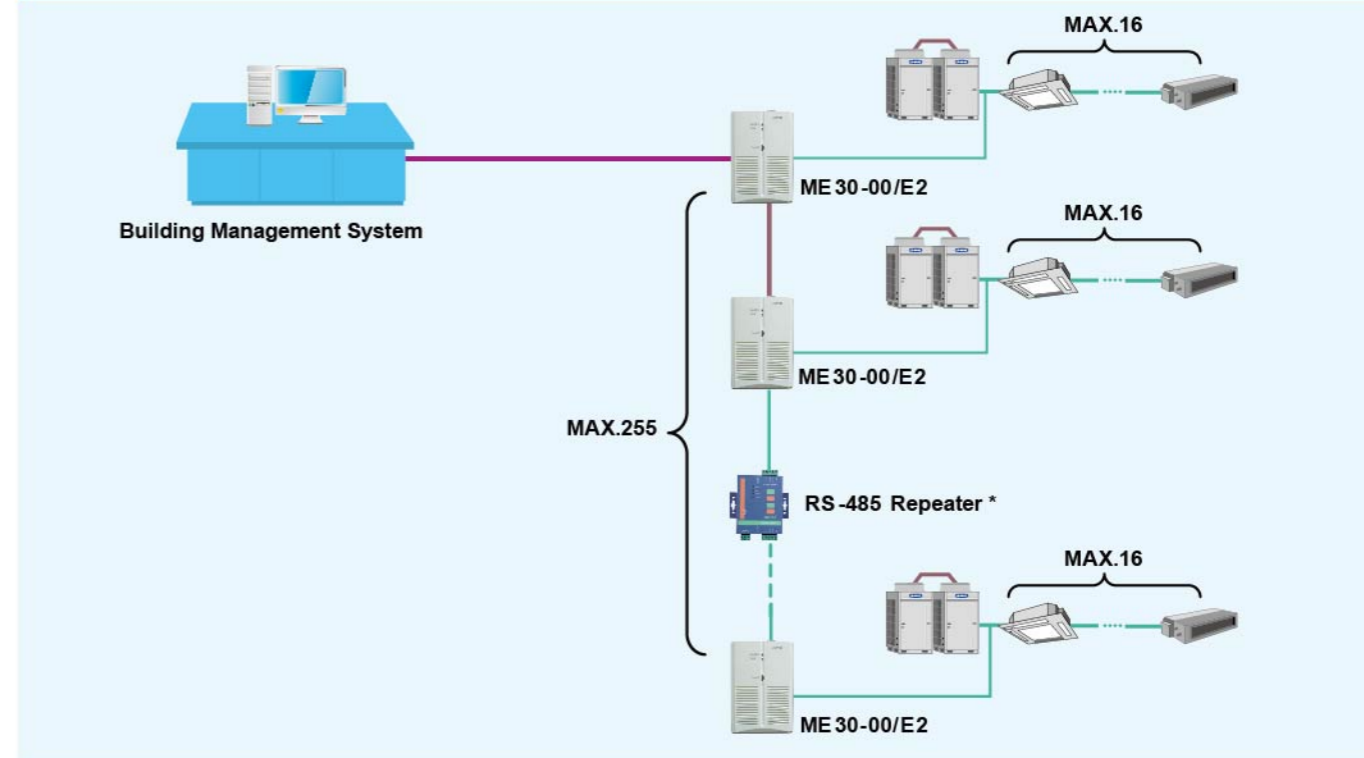
— Transmission line (GMV network)  
— Modbus network

Building Automation Control (BACnet)



\* It applies when the communication line exceeds 800m.

Building Automation Control (Modbus)



\* It applies when the communication line exceeds 800m or more than 30 communication modules are put into use.

— Module link  
— Transmission line (GMV network)  
— BACnet network

# AIR TO WATER

Versati II  
Versati II<sup>+</sup> (Monobloc Type)  
Split Type Water Heater  
Ultra Series



# VERSATI II

It is a kind of DC inverter multifunctional air to water heat pump that could not only supply domestic hot water, but also realize cooling or heating for residential use.



- Twin rotary DC inverter compressor creates comfortable living circumstance and saves energy.
- The electronic expansion valve guarantees that the system made adjustments automatically according to the changes of the circumstance and water temperature.
- Smart dual-temperature detection control technology.
- The disinfection function at a high temperature up to 70°C can prevent the growth of bacteria and ensure sanitary water, creating a wholesome life for the use.
- Isolation of water and electricity ensures safe operation.
- Dual-coil design makes it convenient to join solar panel or boiler.
- Five-mode operation: heating, cooling, water heating, heating and water heating, cooling and water heating.
- The unit will periodically increase or decrease water temperature in debugging process, to improve floor adaptability for temperature change.



| Item          | Nominal operating condition |        | Outdoor condition |
|---------------|-----------------------------|--------|-------------------|
|               | DB(°C)                      | WB(°C) | DB(°C)            |
| Cooling       | 35                          | 24     | 10~48             |
| Heating       | 7                           | 6      | -20~35            |
| Water heating | 7                           | 6      | -20~45            |

## Outdoor Unit

| Model                      |                      | GRS-CQ6.0Pd/NaB-K(O) | GRS-CQ8.0Pd/NaB-K(O) | GRS-CQ10Pd/NaB-K(O) | GRS-CQ12Pd/NaB-K(O) | GRS-CQ14Pd/NaB-K(O) | GRS-CQ16Pd/NaB-K(O) |
|----------------------------|----------------------|----------------------|----------------------|---------------------|---------------------|---------------------|---------------------|
| Power supply               | V/Ph/Hz              | 220~240V-1Ph-50Hz    |                      |                     |                     |                     |                     |
| Capacity*1                 | Cooling <sup>3</sup> | kW                   | 5.8                  | 8.5                 | 10                  | 12.5                | 14.5                |
|                            | Heating <sup>4</sup> | kW                   | 6.2                  | 8.5                 | 9.6                 | 12.5                | 15.5                |
| Power Input*1              | Cooling <sup>3</sup> | kW                   | 1.53                 | 2.54                | 3.28                | 3.57                | 4.09                |
|                            | Heating <sup>4</sup> | kW                   | 1.43                 | 2.05                | 2.36                | 2.80                | 3.06                |
| EER/COP*1                  | W/W                  | 3.84/3.5             | 3.35/4.15            | 3.05/4.10           | 3.5/4.45            | 3.3/4.4             | 3.2/4.1             |
| Capacity*2                 | Cooling <sup>5</sup> | kW                   | 4.2                  | 6.2                 | 7.5                 | 9.5                 | 10                  |
|                            | Heating <sup>6</sup> | kW                   | 5.4                  | 7.5                 | 8.5                 | 11                  | 12                  |
| Power Input*2              | Cooling <sup>5</sup> | kW                   | 1.56                 | 2.38                | 3.00                | 3.39                | 3.57                |
|                            | Heating <sup>6</sup> | kW                   | 1.74                 | 2.50                | 2.79                | 3.14                | 3.36                |
| EER/COP*2                  | W/W                  | 2.7/3.10             | 2.61/3.00            | 2.50/3.05           | 2.8/3.5             | 2.8/3.45            | 2.65/3.5            |
| Refrigerant charge volume  | kg                   | 1.9                  | 2.1                  | 2.1                 | 3.2                 | 3.2                 | 3.2                 |
| Sanitary water temperature | °C                   | 40~80                | 40~80                | 40~80               | 40~80               | 40~80               | 40~80               |
| Sound pressure level       | Cooling              | dB(A)                | 51                   | 54                  | 54                  | 55                  | 57                  |
|                            | Heating              | dB(A)                | 52                   | 55                  | 55                  | 57                  | 58                  |
| Connecting pipe diameter   | Gas                  | inch(mm)             | φ5/8(15.9)           | φ5/8(15.9)          | φ5/8(15.9)          | φ5/8(15.9)          | φ5/8(15.9)          |
|                            | Liquid               | inch(mm)             | φ3/8(9.52)           | φ3/8(9.52)          | φ3/8(9.52)          | φ3/8(9.52)          | φ3/8(9.52)          |
| Dimensions (W×D×H)         | Outline              | mm                   | 930×360×790          | 930×360×790         | 930×360×790         | 900×412×1345        | 900×412×1345        |
|                            | Packaged             | mm                   | 1094×474×847         | 1094×474×847        | 1094×474×847        | 995×455×1500        | 995×455×1500        |
| Net weight/Gross weight    | kg                   | 77/82                | 78.5/83.5            | 78.5/83.5           | 106/118             | 106/118             | 106/118             |
| Loading quantity           | 40'GP                | -                    | 96                   | 96                  | 96                  | 50                  | 50                  |
|                            | 40'HQ                | -                    | 96                   | 96                  | 96                  | 50                  | 50                  |

| Model                      |                      | GRS-CQ12Pd/NaB-M(O) | GRS-CQ14Pd/NaB-M(O) | GRS-CQ16Pd/NaB-M(O) |
|----------------------------|----------------------|---------------------|---------------------|---------------------|
| Power supply               | V/Ph/Hz              | 380~415V-3Ph-50Hz   |                     |                     |
| Capacity*1                 | Cooling <sup>3</sup> | kW                  | 13.5                | 14.5                |
|                            | Heating <sup>4</sup> | kW                  | 12.5                | 14.2                |
| Power Input*1              | Cooling <sup>3</sup> | kW                  | 3.46                | 3.91                |
|                            | Heating <sup>4</sup> | kW                  | 2.75                | 3.23                |
| EER/COP*1                  | W/W                  | 3.90/4.55           | 3.71/4.4            | 3.65/4.1            |
| Capacity*2                 | Cooling <sup>5</sup> | kW                  | 9.5                 | 10.5                |
|                            | Heating <sup>6</sup> | kW                  | 11.5                | 12.5                |
| Power Input*2              | Cooling <sup>5</sup> | kW                  | 3.17                | 3.56                |
|                            | Heating <sup>6</sup> | kW                  | 3.38                | 3.62                |
| EER/COP*2                  | W/W                  | 3.0/3.4             | 2.95/3.45           | 2.95/3.4            |
| Refrigerant charge volume  | kg                   | 3.4                 | 3.4                 | 3.4                 |
| Sanitary water temperature | °C                   | 40~80               | 40~80               | 40~80               |
| Sound pressure level       | Cooling              | dB(A)               | 55                  | 55                  |
|                            | Heating              | dB(A)               | 57                  | 57                  |
| Connecting pipe diameter   | Gas                  | inch(mm)            | φ5/8(15.9)          | φ5/8(15.9)          |
|                            | Liquid               | inch(mm)            | φ3/8(9.52)          | φ3/8(9.52)          |
| Dimensions (W×D×H)         | Outline              | mm                  | 900×412×1345        | 900×412×1345        |
|                            | Packaged             | mm                  | 995×455×1500        | 995×455×1500        |
| Net weight/Gross weight    | kg                   | 107/117             | 107/117             | 107/117             |
| Loading quantity           | 40'GP                | -                   | 50                  | 50                  |
|                            | 40'HQ                | -                   | 50                  | 50                  |

Note:

1. Capacities and power inputs are based on the following conditions:
- Cooling conditions.
  - Indoor Water Temperature 23°C/18°C.
  - Outdoor Air Temperature 35°CDB/24°CWB.
  - Heating conditions.
  - Indoor Water Temperature 30°C/35°C.
  - Outdoor Air Temperature 7°CDB/6°CWB.
  - Standing piping length 7.5m.

2. Capacities and power inputs are based on the following conditions:
- Cooling conditions.
  - Indoor Water Temperature 12°C/7°C.
  - Outdoor Air Temperature 35°CDB/24°CWB.
  - Heating conditions.
  - Indoor Water Temperature 40°C/45°C.
  - Outdoor Air Temperature 7°CDB/6°CWB.
  - Standing piping length 7.5m.

3. For floor cooling.  
4. For floor heating.  
5. For fan coil unit.  
6. For fan coil or radiator.

## Indoor Hydro Unit

| Model                     | Indoor unit           |          | GRS-CQ6.0Pd/NaB-K(I)          | GRS-CQ8.0Pd/NaB-K(I) | GRS-CQ10Pd/NaB-K(I) | GRS-CQ12Pd/NaB-K(I) | GRS-CQ14Pd/NaB-K(I) | GRS-CQ16Pd/NaB-K(I) |
|---------------------------|-----------------------|----------|-------------------------------|----------------------|---------------------|---------------------|---------------------|---------------------|
| Power Supply              |                       | V/Ph/Hz  | 1/220-240/50                  | 1/220-240/50         | 1/220-240/50        | 1/220-240/50        | 1/220-240/50        | 1/220-240/50        |
| Normal input              |                       | W        | 3200                          | 6200                 | 6200                | 6200                | 6200                | 6200                |
| Leaving water temperature | Cooling <sup>*1</sup> | °C       | 7-25                          | 7-25                 | 7-25                | 7-25                | 7-25                | 7-25                |
|                           | Cooling <sup>*2</sup> | °C       | 18-25                         | 18-25                | 18-25               | 18-25               | 18-25               | 18-25               |
|                           | Heating <sup>*1</sup> | °C       | 25-55(High temperature cycle) |                      |                     |                     |                     |                     |
|                           | Heating <sup>*2</sup> | °C       | 25-45(Low temperature cycle)  |                      |                     |                     |                     |                     |
| Pump                      | Type                  | -        | Water-cooled                  |                      |                     |                     |                     |                     |
|                           | Nr. of speed          | -        | 3                             | 3                    | 3                   | 3                   | 3                   | 3                   |
|                           | Power input           | W        | 200                           | 200                  | 200                 | 200                 | 200                 | 200                 |
|                           | Water flow limit      | LPM      | 7.5                           | 7.5                  | 7.5                 | 7.5                 | 7.5                 | 7.5                 |
|                           | Operation             | -        | Automatic                     | Automatic            | Automatic           | Automatic           | Automatic           | Automatic           |
| Electric Heater           | Steps                 | -        | 2                             | 2                    | 2                   | 2                   | 2                   | 2                   |
|                           | Capacity              | kW       | 3                             | 3                    | 3                   | 3                   | 3                   | 3                   |
|                           | Combination           | kW       | 1.5+1.5                       | 3+3                  | 3+3                 | 3+3                 | 3+3                 | 3+3                 |
|                           | Power input           | PhV/Hz   | 1/230/50                      | 1/230/50             | 1/230/50            | 1/230/50            | 1/230/50            | 1/230/50            |
| Sound pressure level      |                       |          | 31                            | 31                   | 31                  | 31                  | 31                  | 31                  |
| Connecting pipe diameter  | Gas                   | inch(mm) | φ5/8(15.9)                    | φ5/8(15.9)           | φ5/8(15.9)          | φ5/8(15.9)          | φ5/8(15.9)          | φ5/8(15.9)          |
|                           | Liquid                | inch(mm) | φ3/8(9.52)                    | φ3/8(9.52)           | φ3/8(9.52)          | φ3/8(9.52)          | φ3/8(9.52)          | φ3/8(9.52)          |
| Dimensions (W×D×H)        | Outline               | mm       | 900×500×324                   | 900×500×324          | 900×500×324         | 900×500×324         | 900×500×324         | 900×500×324         |
|                           | Packaged              | mm       | 1040×605×380                  | 1040×605×380         | 1040×605×380        | 1040×605×380        | 1040×605×380        | 1040×605×380        |
| Net weight/Gross weight   |                       | kg       | 57.5/68                       | 57.5/68              | 57.5/68             | 57/66               | 57/66               | 57/66               |
| Loading quantity          |                       | -        | 205/246                       | 205/246              | 205/246             | 205/246             | 205/246             | 205/246             |

| Model                     | Indoor unit           |          | GRS-CQ12Pd/NaB-M(I)           | GRS-CQ14Pd/NaB-M(I) | GRS-CQ16Pd/NaB-M(I) |
|---------------------------|-----------------------|----------|-------------------------------|---------------------|---------------------|
| Power Supply              |                       | V/Ph/Hz  | 3/380-415/50                  | 3/380-415/50        | 3/380-415/50        |
| Normal input              |                       | W        | 6200                          | 6200                | 6200                |
| Leaving water temperature | Cooling <sup>*1</sup> | °C       | 7-25                          | 7-25                | 7-25                |
|                           | Cooling <sup>*2</sup> | °C       | 18-25                         | 18-25               | 18-25               |
|                           | Heating <sup>*1</sup> | °C       | 25-55(High temperature cycle) |                     |                     |
|                           | Heating <sup>*2</sup> | °C       | 25-45(Low temperature cycle)  |                     |                     |
| Pump                      | Type                  | -        | Water-cooled                  |                     |                     |
|                           | Nr. of speed          | -        | 3                             | 3                   | 3                   |
|                           | Power input           | W        | 200                           | 200                 | 200                 |
|                           | Water flow limit      | LPM      | 7.5                           | 7.5                 | 7.5                 |
|                           | Operation             | -        | Automatic                     | Automatic           | Automatic           |
| Electric Heater           | Steps                 | -        | 1                             | 1                   | 1                   |
|                           | Capacity              | kW       | 6                             | 6                   | 6                   |
|                           | Combination           | kW       | 6                             | 6                   | 6                   |
|                           | Power input           | PhV/Hz   | 3/400/50                      | 3/400/50            | 3/400/50            |
| Sound pressure level      |                       |          | 31                            | 31                  | 31                  |
| Connecting pipe diameter  | Gas                   | inch(mm) | φ5/8(15.9)                    | φ5/8(15.9)          | φ5/8(15.9)          |
|                           | Liquid                | inch(mm) | φ3/8(9.52)                    | φ3/8(9.52)          | φ3/8(9.52)          |
| Dimensions (W×D×H)        | Outline               | mm       | 900×500×324                   | 900×500×324         | 900×500×324         |
|                           | Packaged              | mm       | 1040×605×380                  | 1040×605×380        | 1040×605×380        |
| Net weight/Gross weight   |                       | kg       | 60/69                         | 60/69               | 60/69               |
| Loading quantity          |                       | -        | 205/246                       | 205/246             | 205/246             |

Note:  
<sup>\*1</sup> for fan coil unit; <sup>\*2</sup> for floor cooling; <sup>\*3</sup> for floor heating

## Water Tank

| Model                     |                  |            | SXVD200L.C.J/A-K      | SXVD200L.C.J2/A-K     | SXVD300L.C.J/A-K      | SXVD300L.C.J2/A-K     |
|---------------------------|------------------|------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Water tank volume         |                  | L          | 200                   | 200                   | 300                   | 300                   |
| Power supply              |                  | PhV/Hz     | 1/230/50              | 1/230/50              | 1/230/50              | 1/230/50              |
| Electric heater power     |                  | W          | 3000                  | 3000                  | 3000                  | 3000                  |
| Screw thread spec of pipe | Cool water inlet | inch(mm)   | φ1/2"Female BSP(12.7) | φ1/2"Female BSP(12.7) | φ1/2"Female BSP(12.7) | φ1/2"Female BSP(12.7) |
|                           | Hot water outlet | inch(mm)   | φ1/2"Female BSP(12.7) | φ1/2"Female BSP(12.7) | φ1/2"Female BSP(12.7) | φ1/2"Female BSP(12.7) |
| Dimension                 | Outline          | Diameter×H | mm                    | φ540×1595             | φ540×1595             | φ620×1620             |
|                           | Packaged         | W×D×H      | mm                    | 1620×625×630          | 1620×625×630          | 1645×705×710          |
| Net weight/Gross weight   |                  | kg         | 68/77                 | 71/80                 | 82/92                 | 87/97                 |
| Loading quantity          |                  | set        | 75/100                | 75/100                | 63/63                 | 63/63                 |

| Model                     |                  |            | SXVD200L.C.J/A-M      | SXVD200L.C.J2/A-M     | SXVD300L.C.J/A-M      | SXVD300L.C.J2/A-M     |
|---------------------------|------------------|------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Water tank volume         |                  | L          | 200                   | 200                   | 300                   | 300                   |
| Power supply              |                  | PhV/Hz     | 3/400/50              | 3/400/50              | 3/400/50              | 3/400/50              |
| Electric heater power     |                  | W          | 3000                  | 3000                  | 3000                  | 3000                  |
| Screw thread spec of pipe | Cool water inlet | inch(mm)   | φ1/2"Female BSP(12.7) | φ1/2"Female BSP(12.7) | φ1/2"Female BSP(12.7) | φ1/2"Female BSP(12.7) |
|                           | Hot water outlet | inch(mm)   | φ1/2"Female BSP(12.7) | φ1/2"Female BSP(12.7) | φ1/2"Female BSP(12.7) | φ1/2"Female BSP(12.7) |
| Dimension                 | Outline          | Diameter×H | mm                    | φ540×1595             | φ540×1595             | φ620×1620             |
|                           | Packaged         | W×D×H      | mm                    | 1620×625×630          | 1620×625×630          | 1645×705×710          |
| Net weight/Gross weight   |                  | kg         | 68/77                 | 71/80                 | 82/92                 | 87/97                 |
| Loading quantity          |                  | set        | 75/100                | 75/100                | 63/63                 | 63/63                 |

 VERSATI II<sup>+</sup> (Monobloc Type)

It is a kind of DC inverter multifunctional air to water heat pump that could not only supply domestic hot water, but also realize cooling or heating for residential use.



8-10kW



12-14kW



Wired controller Z263P



Floor Heating Debugging



High efficiency



Quiet function



Self-diagnosis



Wide voltage range



Comprehensive protection



Compact design

- Integral installation, convenient and cost-saving.
- Two-stage compression technology is adopted to greatly improve the system's performance, especially for improving energy efficiency of heating in low ambient temperature.
- Smart dual-temperature detection control technology.
- Solar kit linkage function is added to automatically control water heating of solar energy, energy-saving and eco-friendly.
- High outlet water temperature and wide water temperature range, meeting the demands of various terminals.



| Item          | Operation range (temperature) |        |                   |
|---------------|-------------------------------|--------|-------------------|
|               | Nominal operating condition   |        | Outdoor condition |
|               | DB(°C)                        | WB(°C) | DB(°C)            |
| Cooling       | 35                            | 24     | 10~48             |
| Heating       | 7                             | 6      | -20~35            |
| Water heating | 7                             | 6      | -20~45            |

| Model                      |           |          | GRS-CQ8.0Pd/NaC-K(O) | GRS-CQ10Pd/NaC-K(O) | GRS-CQ12Pd/NaC-M(O) | GRS-CQ14Pd/NaC-M(O) |
|----------------------------|-----------|----------|----------------------|---------------------|---------------------|---------------------|
| Power supply               | V/Ph/Hz   |          | 380~415V-3Ph-50Hz    |                     |                     |                     |
| Capacity*1                 | Cooling*3 | kW       | 9.5                  | 11                  | 12.5                | 13.5                |
|                            | Heating*4 | kW       | 9                    | 10                  | 12.5                | 13.5                |
| Power Input*1              | Cooling*3 | kW       | 2.57                 | 3.24                | 3.57                | 4.09                |
|                            | Heating*4 | kW       | 2.17                 | 2.44                | 2.81                | 3.07                |
| EER/COP*1                  | W/W       |          | 3.7/4.15             | 3.4/4.1             | 3.5/4.45            | 3.3/4.4             |
| Capacity*2                 | Cooling*5 | kW       | 7                    | 8.5                 | 9.5                 | 10                  |
|                            | Heating*6 | kW       | 8.5                  | 9                   | 11                  | 12                  |
| Power Input*2              | Cooling*5 | kW       | 2.59                 | 3.15                | 3.39                | 3.57                |
|                            | Heating*6 | kW       | 2.79                 | 2.81                | 3.14                | 3.48                |
| EER/COP*2                  | W/W       |          | 2.7/3.05             | 2.7/3.2             | 2.8/3.5             | 2.8/3.45            |
| Refrigerant charge volume  | kg        |          | 2.1                  | 2.1                 | 3.2                 | 3.2                 |
| Sanitary water temperature | °C        |          | 40~80                | 40~80               | 40~80               | 40~80               |
| Sound pressure level       | Cooling   | dB(A)    | 57                   | 57                  | 55                  | 55                  |
|                            | Heating   | dB(A)    | 59                   | 59                  | 57                  | 57                  |
| Connecting pipe diameter   | Gas       | inch(mm) | φ5/8(15.9)           | φ5/8(15.9)          | φ5/8(15.9)          | φ5/8(15.9)          |
|                            | Liquid    | inch(mm) | φ3/8(9.52)           | φ3/8(9.52)          | φ3/8(9.52)          | φ3/8(9.52)          |
| Dimensions (W×D×H)         | Outline   | mm       | 1389×427×412         | 1389×427×412        | 1354×344×1365       | 1354×344×1365       |
|                            | Packaged  | mm       | 1461×501×537         | 1461×501×537        | 1426×418×1490       | 1426×418×1490       |
| Net weight/Gross weight    | kg        |          | 66/71                | 66/71               | 106/118             | 106/118             |
| Loading quantity           | 40'GP     | -        | 96                   | 96                  | 50                  | 50                  |
|                            | 40'HQ     | -        | 144                  | 144                 | 50                  | 50                  |

Note:

1. Capacities and power inputs are based on the following conditions:

- Cooling conditions.
- Indoor Water Temperature 23°C/18°C.
- Outdoor Air Temperature 35°CDB/24°CWB.
- Heating conditions.
- Indoor Water Temperature 30°C/35°C.
- Outdoor Air Temperature 7°CDB/6°CWB.
- Standing piping length 7.5m.

2. Capacities and power inputs are based on the following conditions:

- Cooling conditions.
- Indoor Water Temperature 12°C/7°C.
- Outdoor Air Temperature 35°CDB/24°CWB.
- Heating conditions.
- Indoor Water Temperature 40°C/45°C.
- Outdoor Air Temperature 7°CDB/6°CWB.
- Standing piping length 7.5m.

- 3. For floor cooling.
- 4. For floor heating.
- 5. For fan coil unit.
- 6. For fan coil or radiator.

- **Safety and eco-friendly**  
Water and electricity are separated to avoid possible electric shock. Without possible toxicities of CO, user's safety can be ensured. No pollutant is released during operation, so there is no damage to the environment.
- **Reliable and durable**  
Adopting special compressor, the unit is resistant to high temp and pressure. The water tank adopts advanced stainless steel inner container with ultra-long magnesium sticks. The entire unit is with multiple protection functions to ensure long lifespan of the system.
- **Easy installation**  
Without limitation of environment, the unit can be installed in kitchen, garage, stock room or basement. It is also suitable for skyscrapers, villa, and so on. Installation and maintenance is convenient for its no cycle waterway system.
- **Easy operation**  
Water temperature can be set. Water supply can be on or off depending on water temperature and water consumption, so that hot water can be supplied at any time. Unit on/off can be set by user according to requirements (the unit will stop once water temperature reaches the setting point). Running of unit in electric plating is possible to reduce electricity fee.
- **Intelligent defrosting**  
The unit with anti-freezing and intelligent defrosting functions can efficiently prevent freezing and frosting.
- **All-day use**  
The unit can make and supply hot water all day in despite of night, overcast and rainy days.

## Outdoor Unit

| Model                        |               | GRS-S3.0G/NbA-K |             |
|------------------------------|---------------|-----------------|-------------|
| Rated water heating capacity | kW            | 2.8             |             |
| Rated water supply           | L/h           | 60              |             |
| COP                          | W/W           | 4               |             |
| Water temperature range      | °C            | 35~70           |             |
| Power supply                 | Ph/V/Hz       | 220-240V/50Hz   |             |
| Rated power input            | Water heating | kW              | 0.7         |
| Max power input              | Water heating | kw              | 2.9         |
| Sound Pressure level         |               | dB(A)           | 50          |
| Dimension(W×D×H)             | Outline       | mm              | 848×320×540 |
|                              | Packaged      | mm              | 941×371×615 |
| Net weight/Gross weight      |               | kg              | 36/42       |
| Loading quantity             | 40'GP/40'HQ   | set             | 225/258     |

## Water Tank

| Model                   |                  | SXD200LJW/C1-K |              |
|-------------------------|------------------|----------------|--------------|
| Volume                  | L                | 200            |              |
| Dimension               | Diameter         | mm             | 545          |
|                         | Height           | mm             | 1919         |
|                         | Package(W×D×H)   | mm             | 2009×656×625 |
| Water pipes diameter    | Cool water inlet | inch           | 0.59         |
|                         | Hot water outlet | inch           | 0.59         |
| Net weight/Gross weight | kg               | 52/60          |              |
| Loading quantity        | 40'GP/40'HQ      | set            | 51/68        |

Note: Testing conditions of above data: Outdoor ambient temperature 20°C DB/15°C WB; initial/terminative water temperature in water tank: 15°C/55°C. If the specifications are changed due to product improvement, please refer to the parameters on the nameplate.

# Split Type Water Heater

High-temperature split type air source water heater can operate from -7°C to 45°C. Its installation is convenient and it is applicable for a family of 3 to 5 members.



Controller XK63



Self-diagnosis



°C/°F switch



Inner groove copper



Compact design



Clock display



Intelligent defrosting



Easier maintainability



Child lock



Intelligent defrosting

# Ultra Series

Ultra series water heater is capable of operation in ambient temperature from -26°C to 46°C with the maximum outlet water temperature of 70°C. It is with multiple protection functions and intelligent management functions to ensure safety, reliable and energy-saving operation of unit.



GRS-Dm30/NaA-M  
GRS-Dm40/NaA-M



GRS-Dm60/NaA-M



Wired controller ZF0101D

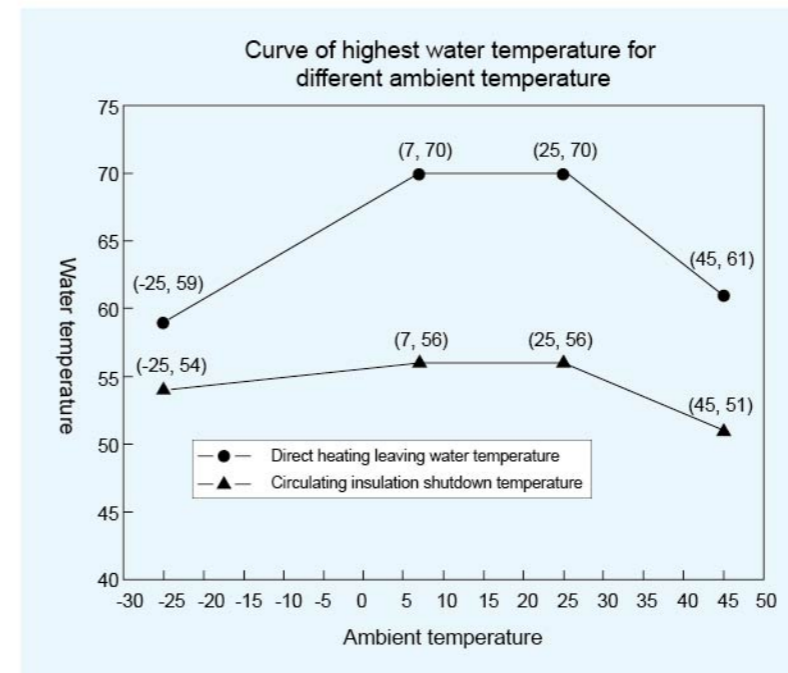
|                          |                         |                     |                |                        |                    |                        |                        |
|--------------------------|-------------------------|---------------------|----------------|------------------------|--------------------|------------------------|------------------------|
|                          |                         |                     |                |                        |                    |                        |                        |
| High efficiency          | Low temperature heating | Low voltage startup | Compact design | Intelligent defrosting | Wide voltage range | Easier maintainability | Intelligent defrosting |
|                          |                         |                     |                |                        |                    |                        |                        |
| Comprehensive protection | Wide operation range    | Modular operating   |                |                        |                    |                        |                        |

- Grounding protection: The system is with multiple grounding protection to avoid electric leakage.
- Electric leakage protection: The electric leakage switch will automatically cut off the power supply when there is electric leakage, in order to ensure safety.
- Over-current protection: The system will turn off automatically in overload, in order to ensure safety of the system.
- High pressure protection: Protection in overhigh pressure ensures the reliability of the system.
- Low pressure protection: It avoids no-load operation to ensure the reliability of the system.
- High temperature protection: It avoid the influence of overhigh discharge temperature to ensure the lubrication effect of compressor lubricant.
- Water pressure protection: It restricts the lowest water pressure to ensure high-efficiency operation of the system.
- Water flow protection: It detects the water flow to avoid no water operation.
- Anti-freezing protection: It is with multiple anti-freezing design to ensure reliable operation of the system in ultra-low ambient temperature.
- Overflowing protection: It detects the water level automatically to avoid overflowing of water tank.

| Model                        |                  | GRS-Dm30/NaA-M | GRS-Dm40/NaA-M | GRS-Dm60/NaA-M |
|------------------------------|------------------|----------------|----------------|----------------|
| Rated water heating capacity | kW               | 31             | 40             | 60             |
| Rated water supply           | l/h              | 667            | 860            | 1300           |
| COP                          | W/W              | 3.83           | 4              | 4              |
| Water temperature range      | °C               | 35~70          | 35~70          | 35~70          |
| Power supply                 | Ph/V/Hz          | 3/380-415/50   | 3/380-415/50   | 3/380-415/50   |
| Rated power input            | Water heating kW | 8.1            | 10             | 15             |
| Max power input              | Water heating kW | 10.5           | 13             | 20             |
| Sound Pressure level         | Db(A)            | ≤67            | ≤67            | ≤67            |
| Dimension(W×D×H)             | Outline mm       | 930×800×1605   | 930×800×1605   | 1340×800×1605  |
|                              | Packaged mm      | 1010×865×1775  | 1010×865×1775  | 1420×880×1775  |
| Net weight/Gross weight      | kg               | 238/252        | 264/286        | 362/378        |
| Loading quantity             | 40'GP/40'HQ set  | 26/26          | 26/26          | 21/21          |

**Note:**

1. Testing conditions of above data: Ambient temperature 20°C DB/15°C WB; entering/leaving water temperature: 15°C/55°C; power supply: 380V 3N/50HZ;
2. Considering the system reliability and various water temperature demands for different ambient temperature, we have limited the highest water temperature. The curve is shown as below.



# SCROLL CHILLER

Inverter Mini Chiller

Mini Chiller

Modular Air-cooled Scroll Chiller



# Inverter Mini Chiller

Inverter mini chiller, is a kind of small-size air-cooled chiller that can be connected to all sorts of fan coil unit to realize cooling and heating. It can be used on the temperature range of -15~48°C.



- Inner groove copper
- Self-diagnosis
- Comprehensive protection
- Memory function

- Compressor inverter control regulates water temperature precisely.
- Integral installation is convenient and cost-saving.
- Precise system pressure control improves the anti-freezing function of the system.
- Two-stage compression technology is adopted to greatly improve the system's performance.



| Item    | Water side (water temperature) |            |                 |                    | Air side (outdoor temperature) |        |                 |
|---------|--------------------------------|------------|-----------------|--------------------|--------------------------------|--------|-----------------|
|         | Nominal operating condition    |            | Operating range |                    | Nominal operating condition    |        | Operating range |
|         | Inlet(°C)                      | Outlet(°C) | Outlet(°C)      | I/O difference(°C) | DB(°C)                         | WB(°C) | DB(°C)          |
| Cooling | 12                             | 7          | 7~12            | 3~8                | 35                             | 24     | 16~48           |
| Heating | 40                             | 45         | 45~50           | 3~8                | 7                              | 6      | -15~28          |

| Model  | Heat pump        |         | HLR8Na-K     | HLR10Na-K    | HLR12Na-M     | HLR14Na-M     |
|--|------------------|---------|--------------|--------------|---------------|---------------|
| Capacity                                     | Cooling          | kW      | 8.00         | 10.00        | 12.50         | 14            |
|  | Heating          | kW      | 9            | 11           | 13            | 15            |
| EER/COP                                      |                  | W/W     | 2.8/3.1      | 2.8/3.1      | 2.8/3.1       | 2.8/3.1       |
| Power supply                                 |                  | Ph/V/Hz | 3/230/50     | 3/230/50     | 3/400/50      | 3/400/50      |
| Power input                                  | Cooling          | kW      | 2.8          | 3.6          | 4.4           | 5             |
|  | Heating          | kW      | 2.9          | 3.5          | 4.2           | 4.8           |
| Compressor                                   | Type             | -       | Rotary       | Rotary       | Rotary        | Rotary        |
|  | Quantity         | -       | 1            | 1            | 1             | 1             |
| Refrigerant charge volume                    |                  | kg      | 2.6          | 2.6          | 3.2           | 3.2           |
| Water flow volume                            |                  | l/s     | 0.39         | 0.47         | 0.61          | 0.72          |
|  |                  | GPM     | 5            | 6.3          | 7.79          | 9.5           |
| Build-in chilled water pump                  | Pump power input | kW      | 250          | 250          | 250           | 250           |
|  | Delivery lift    | m       | 7.5          | 7.5          | 7.5           | 7.5           |
| Build-in expansion vessel volume             |                  | L       | 10           | 10           | 10            | 10            |
| Chilled water outlet/inlet screw thread spec |                  | inch    | 5/8          | 5/8          | 5/8           | 5/8           |
| Sound pressure level                         |                  | Db(A)   | 55           | 56           | 58            | 58            |
| Dimension (W×D×H)                            | Outline          | mm      | 1389x427x412 | 1389x427x412 | 1354x344x1365 | 1354x344x1365 |
|  | Packaged         | mm      | 1461x501x537 | 1461x501x537 | 1426x418x1490 | 1426x418x1490 |
| Net weight/Gross weight                      |                  | kg      | 85/100       | 85/100       | 85/100        | 85/100        |
| Loading quantity                             | 40'GP/40'HQ      | set     | 87/87        | 87/87        | 87/87         | 87/87         |
| Standard controller                          | Wired            | -       | /            | /            | /             | /             |

# Mini Chiller

It is a kind of small-sized air-cooled chiller that can be connected to all sorts of fan coil unit to realize cooling/heating for hotel, villa, apartment, office, etc.



- Inner groove copper
  - Self-diagnosis
  - Comprehensive protection
  - Modular structure\*
  - Memory function
- Wired controller Z16301/Z12301A

Wired controller Z26301C



- Unique wired control of chiller, realize general control and individual control.
- Low start-up current thanks to power delay control design.(for the unit of 22kW and above).
- Running condition real-time display.
- The performance will not be effected by seasonal wind or installation place thanks to up-inclined air outlet design (for the unit of 19kW or above).
- Double anti-freezing control, makes the system safer and more reliable.
- Maximum 16 units can be freely modularized to reach a total capacity of 560kW (only applicable for the modular model HLR35SM/NaA-M).



| Item    | Water side (water temperature) |            |                 |                    | Air side (outdoor temperature) |        |                 |
|---------|--------------------------------|------------|-----------------|--------------------|--------------------------------|--------|-----------------|
|         | Nominal operating condition    |            | Operating range |                    | Nominal operating condition    |        | Operating range |
|         | Inlet(°C)                      | Outlet(°C) | Outlet(°C)      | I/O difference(°C) | DB(°C)                         | WB(°C) | DB(°C)          |
| Cooling | 12                             | 7          | 7~12            | 3~8                | 35                             | —      | 16~43           |
| Heating | 40                             | 45         | 45~50           | 3~8                | 7                              | 6      | -15~28          |



### Split type

| Model  | Heat pump               |          | HLR8WZNa-M   | HLR10WZNa-M  | HLR12.5WZNa-M | HLR15WZNa-M   |               |
|--|-------------------------|----------|--------------|--------------|---------------|---------------|---------------|
| Capacity                                     | Cooling                 | kW       | 7.5          | 10           | 12.5          | 14.2          |               |
|  | Heating                 | kW       | 9            | 12           | 13            | 16.5          |               |
| EER/COP                                      |                         | W/W      | 2.14/2.73    | 2.27/2.73    | 2.19/2.71     | 2.49/3.11     |               |
| Power supply                                 |                         | Ph/V/Hz  | 3/380-415/50 | 3/380-415/50 | 3/380-415/50  | 3/380-415/50  |               |
| Power input                                  | Cooling                 | kW       | 3.5          | 4.4          | 5.7           | 5.7           |               |
|  | Heating                 | kW       | 3.3          | 4.4          | 4.8           | 5.3           |               |
| Compressor                                   | Type                    |          | Scroll       | Scroll       | Scroll        | Scroll        |               |
|  | Quantity                |          | 1            | 1            | 1             | 1             |               |
| Refrigerant charge volume                    |                         | kg       | 3.10         | 3.55         | 4.50          | 5.00          |               |
| Water flow volume                            |                         | l/s      | 0.38         | 0.48         | 0.59          | 0.72          |               |
|  |                         | GPM      | 5.00         | 6.30         | 7.79          | 9.50          |               |
| Build-in chilled water pump                  | Pump power input        | kW       | 0.55         | 0.55         | 0.55          | 0.55          |               |
|  | Delivery lift           | m        | 18           | 18           | 18            | 18            |               |
| Build-in expansion vessel volume             |                         | L        | 5            | 5            | 5             | 5             |               |
| Chilled water outlet/inlet screw thread spec |                         | inch     | 1"Female BSP | 1"Female BSP | 1"Female BSP  | 1"Female BSP  |               |
| Indoor unit                                  | Sound pressure level    | dB(A)    | 38           | 38           | 38            | 38            |               |
|  | Dimension (W×D×H)       | Outline  | mm           | 1100×450×288 | 1100×450×288  | 1100×450×288  | 1100×450×288  |
|  |                         | Packaged | mm           | 1285×682×385 | 1285×682×385  | 1285×682×385  | 1285×682×385  |
|  | Net weight/Gross weight | kg       | 84/96        | 84/96        | 84/96         | 84/96         |               |
| Outdoor unit                                 | Sound pressure level    | dB(A)    | 60           | 60           | 60            | 60            |               |
|  | Dimension (W×D×H)       | Outline  | mm           | 950×412×840  | 950×412×1250  | 950×412×1250  | 950×412×1250  |
|  |                         | Packaged | mm           | 1110×450×985 | 1110×450×1385 | 1110×450×1385 | 1110×450×1385 |
|  | Net weight/Gross weight | kg       | 90/100       | 112/123      | 115/129       | 119/129       |               |
| Outer diameter of connection pipe            | Liquid pipe             | inch(mm) | φ1/2(12.7)   | φ1/2(12.7)   | φ1/2(12.7)    | φ1/2(12.7)    |               |
|  | Gas pipe                | inch(mm) | φ3/4(19.05)  | φ3/4(19.05)  | φ3/4(19.05)   | φ3/4(19.05)   |               |
| Loading quantity                             | 40'GP/40'HQ             | set      | 52/52        | 63/64        | 63/64         | 63/64         |               |
| Standard controller                          | Wired                   |          |              | Z16301       |               |               |               |

Note:  
The specification is tested under the connection pipe of 7.5 meters.

### Integral type

| Model  | Heat pump        |         | HLR22SNa-M    | HLR25SNa-M    | HLR35SNa-M       | HLR45SNa-M       | HLR35SM/NaA-M    |
|--|------------------|---------|---------------|---------------|------------------|------------------|------------------|
| Capacity                                     | Cooling          | kW      | 21.5          | 22.8          | 31               | 42               | 31               |
|  | Heating          | kW      | 25            | 25            | 37.5             | 49               | 36               |
| EER/COP                                      |                  | W/W     | 2.50/2.91     | 2.59/2.81     | 2.61/3.00        | 2.30/2.80        | 2.60/2.88        |
| Power supply                                 |                  | Ph/V/Hz | 3/380-415/50  | 3/380-415/50  | 3/380-415/50     | 3/380-415/50     | 3/380-415/50     |
| Power input                                  | Cooling          | kW      | 8.6           | 8.8           | 11.9             | 18.3             | 11.9             |
|  | Heating          | kW      | 8.6           | 8.9           | 12.5             | 17.5             | 12.5             |
| Compressor                                   | Type             |         | Scroll        | Scroll        | Scroll           | Scroll           | Scroll           |
|  | Quantity         |         | 2             | 2             | 2                | 2                | 2                |
| Refrigerant charge volume                    |                  | kg      | 3.6×2         | 4.8×2         | 6.5×2            | 7.3×2            | 6.5×2            |
| Water flow volume                            |                  | l/s     | 1.05          | 1.2           | 1.4              | 2.2              | 1.4              |
|  |                  | GPM     | 13.9          | 15.8          | 22.0             | 29.0             | 22.0             |
| Build-in chilled water pump                  | Pump power input | kW      | 0.75          | 0.75          | 1.50             | 1.50             | —                |
|  | Delivery lift    | m       | 22            | 24            | 25               | 27               | —                |
| Build-in expansion vessel volume             |                  | L       | 8             | 8             | 8                | 8                | —                |
| Chilled water outlet/inlet screw thread spec |                  | inch    | 1"Female BSP  | 1"Female BSP  | 1-1/2"Female BSP | 1-1/2"Female BSP | 1-1/2"Female BSP |
| Sound pressure level                         |                  | dB(A)   | 66            | 66            | 68               | 68               | 68               |
| Dimension (W×D×H)                            | Outline          | mm      | 1460×530×1850 | 1460×530×1850 | 1750×800×1760    | 1750×800×1760    | 1750×800×1760    |
|  | Packaged         | mm      | 1540×710×2100 | 1540×710×2100 | 1910×960×1970    | 1910×960×1970    | 1910×960×1970    |
| Net weight/Gross weight                      |                  | kg      | 380/387       | 380/392       | 680/690          | 755/765          | 600/610          |
| Loading quantity                             | 40'GP/40'HQ      | set     | 25/25         | 25/25         | 12/12            | 12/12            | 12/12            |
| Standard controller                          | Wired            |         |               | Z12301A       |                  |                  | Z26301C          |

## Modular Air-cooled Scroll Chiller

It is a kind of air-cooled scroll chiller that can be connected to all sorts of fan coil unit to realize cooling/heating for civil or industrial buildings.

### D Series



- Golden fin condenser
- Inner groove copper
- Modular structure
- Comprehensive protection
- Self-diagnosis
- Easier maintainability
- Memory function
- 24 hour timer

- Running condition real-time display.
- Low start-up current thanks to power delay control design.
- Use U-type heat exchange tube to improve the heat-exchange efficiency of the complete unit;
- Special equalizing plate design of shell and tube: the distribution of refrigerant is more even for improving the heat-exchanging efficiency of the complete unit.
- Any module can be set as the main module .
- Main module patent: any unit can be set as main module via wired controller.
- Up to 16 units (60/71kW) or 8 units (120/145kW) can be integrated freely to get a max capacity of 1160kW thanks to modular design.
- Auto anti-freezing function under heating mode when the unit is switched off.



| Item    | Water side (water temperature) |            |                 |                    | Air side (outdoor temperature) |        |                 |
|---------|--------------------------------|------------|-----------------|--------------------|--------------------------------|--------|-----------------|
|         | Nominal operating condition    |            | Operating range |                    | Nominal operating condition    |        | Operating range |
|         | Inlet(°C)                      | Outlet(°C) | Outlet(°C)      | I/O difference(°C) | DB(°C)                         | WB(°C) | DB(°C)          |
| Cooling | 12                             | 7          | 5-15            | 2.5-6              | 35                             | —      | 15-45           |
| Heating | 40                             | 45         | 40-50           | 2.5-6              | 7                              | 6      | -15-24          |

| Model                      | Heat pump             |         | LSQWRF65M/NaD-M                              | LSQWRF80M/NaD-M      | LSQWRF130M/NaD-M     | LSQWRF160M/NaD-M     |
|----------------------------|-----------------------|---------|--|----------------------|----------------------|----------------------|
| Capacity                   | Cooling/Heating       | kW      | 60/65  | 71/79.5              | 120/130              | 145/170              |
|                            |                       | RT      | 17.0/18.5                                    | 20.2/22.6            | 34.1/37.0            | 41.2/48.3            |
| Capacity steps             |                       | %       | 0-50-100                                     | 0-50-100             | 0-25-50-75-100       | 0-25-50-75-100       |
| EER/COP                    |                       | W/W     | 2.84/3.09                                    | 2.76/2.94            | 2.84/2.93            | 2.74/3.04            |
| Power supply               |                       | Ph/V/Hz | 3/380-415/50                                 | 3/380-415/50         | 3/380-415/50         | 3/380-415/50         |
| Power input                | Cooling               | kW      | 21.1   | 25.7                 | 42.3                 | 53.0                 |
|                            | Heating               | kW      | 21.0   | 27.0                 | 44.4                 | 56.0                 |
| Compressor                 | Type                  |         | Hermetic scroll                              | Hermetic scroll      | Hermetic scroll      | Hermetic scroll      |
|                            | Starting mode         |         | Direct starting                              | Direct starting      | Direct starting      | Direct starting      |
|                            | Quantity              |         | 2  | 2                    | 4                    | 4                    |
| Water side heat exchanger  | Type                  |         | High-efficient shell and tube heat exchanger |                      |                      |                      |
|                            | Water flow volume     | L/s     | 2.9  | 3.4                  | 5.8                  | 6.8                  |
|                            |                       | GPM     | 45.0   | 54.0                 | 92.6                 | 108.4                |
|                            | Pressure drop         | kPa     | 15   | 20                   | 30                   | 35                   |
|                            |                       | ft.WG   | 4.9  | 6.6                  | 9.8                  | 11.5                 |
| Connection pipe            |                       | DN65    | DN65   | DN80                 | DN80                 |                      |
| Air side heat exchanger    | Type                  |         | High-efficient fin tube type heat exchanger  |                      |                      |                      |
|                            | Fan type and quantity |         | axial×2                                      | axial×2              | axial×4              | axial×4              |
|                            | Total fan air flow    | L/s     | 0.75×10 <sup>4</sup>                         | 0.83×10 <sup>4</sup> | 1.5×10 <sup>4</sup>  | 1.67×10 <sup>4</sup> |
|                            |                       | CFM     | 1.59×10 <sup>4</sup>                         | 1.76×10 <sup>4</sup> | 3.18×10 <sup>4</sup> | 3.53×10 <sup>4</sup> |
|                            | Total fan motor power | kW      | 0.65×2                                       | 0.95×2               | 0.65×4               | 0.95×4               |
| Sound pressure level       | dB(A)                 | 70      | 71   | 72                   | 74                   |                      |
| Dimension                  | Outline(W×D×H)        | mm      | 2040×1000×2230                               | 2040×1000×2230       | 2226×1650×2230       | 2226×1650×2230       |
|                            | Package(W×D×H)        | mm      | 2120×1080×2230                               | 2120×1080×2230       | 2306×1730×2230       | 2306×1730×2230       |
| Net/Gross/Operating weight |                       | kg      | 710/715/781                                  | 760/765/836          | 1256/1261/1382       | 1440/1445/1584       |
| Loading quantity           | 40'GP/40'HQ           | set     | 10/10  | 10/10                | 6/6                  | 6/6                  |

Note: The specification is tested under the connection pipe of 7.5 meters.

# SCREW CHILLER

Modular Air-cooled Screw Chiller  
Water-cooled Screw Chiller



# Modular Air-cooled Screw Chiller

It is a kind of air-cooled screw chiller that can be connected to all sorts of fan coil unit to realize cooling/heating for civil or industrial buildings.



230kW

330kW

430kW

Display panel Z2F3M



- The compressor adopts stepless capacity control, which matches perfectly with actual load.
- Throttling by electronic expansion valve with more accurate control and more rapid adjustment to ensure the best running status of the system.
- Unique extend performance: flexible combination in different models, 4 modules for each system and the cooling capacity can reach 1680kW.
- High efficient oil separator with the efficiency of 99.97%, which greatly improves the reliability of the unit.
- Oil supply is done with the oil pump for the heat pump unit, which can effectively prevent oil supply failure at the low pressure difference of the compressor or during defrosting and thus enhance the operation reliability of the unit.
- The heat pump's economizer design will help to remarkably enhance the heating capacity and EER at low ambient temperature.
- Equipped with perfect protection function to ensure safe running.
- With multiple freeze prevention, can prevent shell and tube heat exchanger from freezing up when the unit is running, powered off or in malfunction condition.



| Item    | Water side (water temperature)             |            |                 |                    | Air side (outdoor temperature) |        |                 |
|---------|--|------------|-----------------|--------------------|--------------------------------|--------|-----------------|
|         | Nominal operating condition                |            | Operating range |                    | Nominal operating condition    |        | Operating range |
|         | Water flow volume [m <sup>3</sup> /(h.kw)] | Outlet(°C) | Outlet(°C)      | I/O difference(°C) | DB(°C)                         | WB(°C) | DB(°C)          |
| Cooling | 0.172                                      | 7          | 5~15            | 2.5~8              | 35                             | -      | 18~52           |
| Heating | 0.172                                      | 45         | 40~50           | 2.5~8              | 7                              | 6      | -15~24          |

| Model                      | Cooling only          |                   | LSBLGF230MT3/NbA-M       | LSBLGF330MT3/NbA-M       | LSBLGF430MT3/NbA-M       |
|----------------------------|-----------------------|-------------------|--------------------------|--------------------------|--------------------------|
|                            | Heat pump             |                   | LSBLGRF230MT3/NbA-M      | LSBLGRF330MT3/NbA-M      | LSBLGRF430MT3/NbA-M      |
| Capacity                   | Cooling/Heating*      | kW                | 220/245                  | 320/355                  | 420/450                  |
|                            |                       | RT                | 63/70                    | 91/101                   | 119/128                  |
| Capacity steps             |                       | %                 | 25, 50~100               | 25, 50~100               | 25, 50~100               |
| EER/COP*                   |                       | W/W               | 2.72/2.88                | 2.67/2.91                | 2.65/2.92                |
| Power supply               |                       | Ph/V/Hz           | 3/380/50                 | 3/380/50                 | 3/380/50                 |
| Power input                | Cooling               | kW                | 81                       | 120                      | 158                      |
|                            | Heating*              | kW                | 85                       | 122                      | 154                      |
| Compressor                 | Type                  | -                 | semi-hermetic screw      | semi-hermetic screw      | semi-hermetic screw      |
|                            | Starting mode         | -                 | Y-Δ                      | Y-Δ                      | Y-Δ                      |
|                            | Quantity              | -                 | 1                        | 1                        | 1                        |
| Water side heat exchanger  | Type                  | -                 | Dry expansion evaporator | Dry expansion evaporator | Dry Expansion Evaporator |
|                            | Water flow volume     | m <sup>3</sup> /h | 37.8                     | 55.0                     | 72.2                     |
|                            |                       | GPM               | 167                      | 243                      | 318                      |
|                            | Pressure drop         | kPa               | ≤50                      | ≤50                      | ≤50                      |
|                            |                       | ft.WG             | ≤16.4                    | ≤16.4                    | ≤16.4                    |
| Connection pipe            | -                     | DN100             | DN100                    | DN125                    |                          |
| Air side heat exchanger    | Type                  | -                 | High-efficient fin tube  | High-efficient fin tube  | High-efficient fin tube  |
|                            | Fan type and quantity | -                 | axial×6                  | axial×8                  | axial×10                 |
|                            | Total fan air flow    | m <sup>3</sup> /h | 12×10 <sup>4</sup>       | 16×10 <sup>4</sup>       | 20×10 <sup>4</sup>       |
|                            |                       | CFM               | 70634                    | 94179                    | 117724                   |
| Total fan motor power      | kW                    | 1.5×6             | 1.5×8                    | 1.5×10                   |                          |
| Sound pressure level       |                       | dB(A)             | 78                       | 79                       | 80                       |
| Dimension                  | Outline(W×D×H)        | mm                | 4000×2250×2550           | 5000×2250×2550           | 6000×2250×2550           |
|                            | Package(W×D×H)        | mm                | 4080×2330×2550           | 5080×2330×2550           | 6080×2330×2550           |
| Net/Gross/Operating weight | Cooling only          | kg                | 3860/3880/4246           | 4970/4990/5467           | -                        |
|                            | Heat pump             | kg                | 4020/4040/4422           | 5270/5290/5797           | 5950/5970/6545           |
| Loading quantity           | 40'GP/40'HQ           | set               | 0/2                      | 0/2                      | 0/1                      |

| Model                      | Cooling only          |                   | LSBLGF430MT3/NbA-M       | LSBLGF600MT3/NbA-M       | LSBLGF900MT3/NbA-M       |
|----------------------------|-----------------------|-------------------|--------------------------|--------------------------|--------------------------|
|                            | Capacity              | Cooling/Heating*  | kW                       | 420/450                  | 570                      |
|                            |                       | RT                | 119/128                  | 162/-                    | 250/-                    |
| Capacity steps             |                       | %                 | 25,50~100                | 12.5,25~100              | 12.5,25~100              |
| EER/COP*                   |                       | W/W               | 2.8                      | 2.65                     | 2.80                     |
| Power supply               |                       | Ph/V/Hz           | 3/380/50                 | 3/380/50                 | 3/380/50                 |
| Power input                | Cooling               | kW                | 150                      | 215                      | 314                      |
|                            | Heating*              | kW                | -                        | -                        | -                        |
| Compressor                 | Type                  | -                 | Semi-hermetic screw      | Semi-hermetic screw      | Semi-hermetic screw      |
|                            | Starting mode         | -                 | Y-Δ                      | Y-Δ                      | Y-Δ                      |
|                            | Quantity              | -                 | 1                        | 2                        | 2                        |
| Water side heat exchanger  | Type                  | -                 | Dry Expansion Evaporator | Dry Expansion Evaporator | Dry Expansion Evaporator |
|                            | Water flow volume     | m <sup>3</sup> /h | 72.2                     | 98.0                     | 151.4                    |
|                            |                       | GPM               | 318                      | 432                      | 667                      |
|                            | Pressure drop         | kPa               | ≤50                      | ≤65                      | ≤75                      |
|                            |                       | ft.WG             | ≤16.4                    | ≤21.32                   | ≤24.60                   |
| Connection pipe            | -                     | DN125             | DN150                    | DN150                    |                          |
| Air side heat exchanger    | Type                  | -                 | High Efficient fin tube  | Aluminum Fin-copper Tube | Aluminum Fin-copper Tube |
|                            | Fan type and quantity | -                 | axial×10                 | axial×12                 | axial×16                 |
|                            | Total fan air flow    | m <sup>3</sup> /h | 20×104                   | 264000                   | 352000                   |
|                            |                       | CFM               | 117724                   | 70634                    | 94179                    |
| Total fan motor power      | kW                    | 1.5×10            | 2.2×12                   | 2.2×16                   |                          |
| Sound pressure level       |                       | dB(A)             | 80                       | 82                       | 84                       |
| Dimension                  | Outline(W×D×H)        | mm                | 6000×2250×2550           | 7450×2250×2550           | 9950×2250×2550           |
|                            | Package(W×D×H)        | mm                | 6080×2330×2550           | 7530×2330×2550           | 10030×2330×2550          |
| Net/Gross/Operating weight |                       | kg                | 5600/5620/6160           | 8080/8100/8888           | 11400/11420/12540        |
| Loading quantity           | 40'GP/40'HQ           | set               | 0/1                      | 0/1                      | 0/1                      |

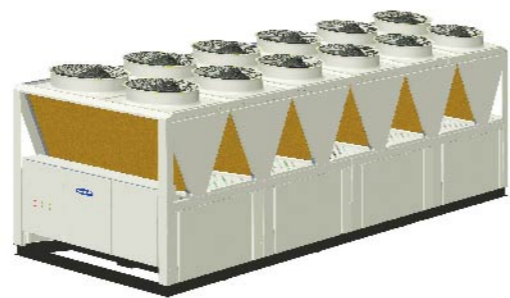
Note: EER/COP Applicable Standard Eurovent  
\* Only available for heat pump model.

# High-efficiency Modular Air-cooled Scroll Chiller

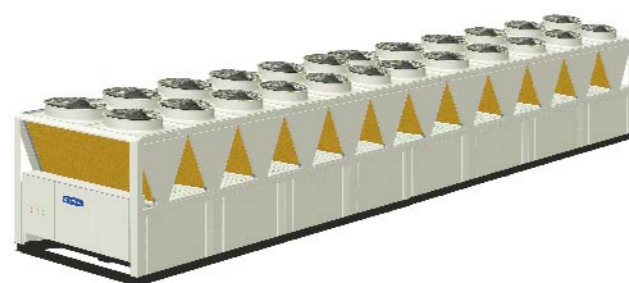
It is a kind of High-efficiency air-cooled scroll chiller that can be connected to all sorts of fan coil unit to realize cooling/heating for civil or industrial buildings.



320/420/500/580MH/NbA-M



650/750/860/950MH/NbA-M



1050/1160/1320/1520MH/NbA-M

Note: Photos are for reference only.



- Thanks to V type fin structure, unit features small refrigerant pressure loss and high efficiency.
- With flooded type shell-and-tube design, evaporating temperature is increased, hence improving the heat exchanging efficiency and energy efficiency.
- Unit adopts low noise fan blades and specialized compressor noise reduction device, therefore sound level is at least 5dB(A) lower than the 2nd generation.
- Due to the totally-enclosed design, its appearance is harmonious and nice-looking.

| Item    | Water side (water temperature)            |            |                 |                    | Air side (outdoor temperature) |        |                 |
|---------|---|------------|-----------------|--------------------|--------------------------------|--------|-----------------|
|         | Nominal operating condition               |            | Operating range |                    | Nominal operating condition    |        | Operating range |
|         | Water flow volume[m <sup>3</sup> /(h·kw)] | Outlet(°C) | Outlet(°C)      | I/O difference(°C) | DB(°C)                         | WB(°C) | DB(°C)          |
| Cooling | 0.172                                     | 7          | 5~15            | 2.5~8              | 35                             | —      | 18~52           |
| Heating | 0.172                                     | 45         | 45~50           | 2.5~8              | 7                              | 6      | -15~24          |

| Model                      | Cooling only          |                   | LSBLGF320<br>MH/NbA-M*       | LSBLGF420<br>MH/NbA-M* | LSBLGF500<br>MH/NbA-M* | LSBLGF580<br>MH/NbA-M* | LSBLGF650<br>MH/NbA-M* | LSBLGF750<br>MH/NbA-M* |
|----------------------------|-----------------------|-------------------|------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Capacity                   | Cooling               | kW                | 320                          | 420                    | 500                    | 580                    | 650                    | 750                    |
|                            |                       | RT                | 91.0                         | 119.4                  | 142.2                  | 164.9                  | 184.8                  | 213.3                  |
| Capacity steps             |                       | %                 | 25%,50%~100%                 | 25%,50%~100%           | 25%,50%~100%           | 25%,50%~100%           | 25%,25%~100%           | 25%,25%~100%           |
| EER/COP*                   |                       | W/W               | 3.20                         | 3.23                   | 3.27                   | 3.28                   | 3.25                   | 3.26                   |
| Power supply               |                       | Ph/V/Hz           | 3/380/50                     | 3/380/50               | 3/380/50               | 3/380/50               | 3/380/50               | 3/380/50               |
| Power input                | Cooling               | kW                | 100                          | 130                    | 153                    | 177                    | 200                    | 230                    |
|                            | Heating*              | kW                | /                            | /                      | /                      | /                      | /                      | /                      |
| Compressor                 | Type                  |                   | Semi-hermetic screw          | Semi-hermetic screw    | Semi-hermetic screw    | Semi-hermetic screw    | Semi-hermetic screw    | Semi-hermetic screw    |
|                            | Starting mode         |                   | Star Delta Start             | Star Delta Start       | Star Delta Start       | Star Delta Start       | Star Delta Start       | Star Delta Start       |
|                            | Quantity              |                   | 1                            | 1                      | 1                      | 1                      | 2                      | 2                      |
| Water side heat exchanger  | Type                  |                   | Flooded Expansion Evaporator |                        |                        |                        |                        |                        |
|                            | Water flow volume     | m <sup>3</sup> /h | 55.0                         | 72.2                   | 86.0                   | 99.8                   | 111.8                  | 129.0                  |
|                            |                       | GPM               | 243                          | 319                    | 379                    | 440                    | 493                    | 569                    |
|                            | Pressure drop         | kPa               | ≤50                          | ≤50                    | ≤55                    | ≤60                    | ≤60                    | ≤60                    |
|                            |                       | ft.WG             | ≤16.4                        | ≤16.4                  | ≤18.04                 | ≤19.68                 | ≤19.68                 | ≤19.68                 |
| Connection pipe            |                       | DN100             | DN125                        | DN125                  | DN150                  | DN150                  | DN150                  |                        |
| Air side heat exchanger    | Type                  |                   | Aluminum Fin-copper Tube     |                        |                        |                        |                        |                        |
|                            | Fan type and quantity |                   | axial×6                      | axial×8                | axial×10               | axial×12               | axial×12               | axial×14               |
|                            | Total fan air flow    | m <sup>3</sup> /h | 120000                       | 160000                 | 200000                 | 240000                 | 240000                 | 280000                 |
|                            |                       | CFM               | 423805                       | 565073                 | 706341                 | 847609                 | 847609                 | 988878                 |
| Total fan motor power      | kW                    | 1.5×6             | 1.5×8                        | 1.5×10                 | 1.5×12                 | 1.5×12                 | 1.5×14                 |                        |
| Sound pressure level       |                       | dB(A)             | 77                           | 78                     | 79                     | 81                     | 82                     | 82                     |
| Dimension                  | Outline(W×D×H)        | mm                | 3660X2250X2500               | 4880X2250X2500         | 6100X2250X2500         | 7320X2250X2500         | 7320X2250X2500         | 8540X2250X2500         |
|                            | Package(W×D×H)        | mm                | 3700X2250X2550               | 4920X2250X2550         | 6140X2250X2550         | 7360X2250X2550         | 7360X2250X2550         | 8580X2250X2550         |
| Net/Gross/Operating weight |                       | kg                | 3650/3690/4015               | 4650/4690/5115         | 5550/5590/6105         | 6450/6490/7095         | 7250/7290/7975         | 8350/8390/9185         |
| Loading quantity           |                       | set               | 0/2                          | 0/2                    | 0/1                    | 0/1                    | 0/1                    | 0/1                    |

| Model                      | Cooling only          |                   | LSBLGF860<br>MH/NbA-M*       | LSBLGF950<br>MH/NbA-M* | LSBLGF1050<br>MH/NbA-M* | LSBLGF1160<br>MH/NbA-M* | LSBLGF1320<br>MH/NbA-M* | LSBLGF1520<br>MH/NbA-M* |
|----------------------------|-----------------------|-------------------|------------------------------|------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Capacity                   | Cooling               | kW                | 860                          | 950                    | 1050                    | 1160                    | 1320                    | 1520                    |
|                            |                       | RT                | 244.5                        | 270.1                  | 298.6                   | 329.9                   | 375.4                   | 432.2                   |
| Capacity steps             |                       | %                 | 12.5%,25%~100%               | 12.5%,25%~100%         | 12.5%,25%~100%          | 8.3%,16.7%~100%         | 12.5%,25%~100%          | 6.25%,12.5%~100%        |
| EER/COP*                   |                       | W/W               | 3.41                         | 3.39                   | 3.28                    | 3.31                    | 3.34                    | 3.38                    |
| Power supply               |                       | Ph/V/Hz           | 3/380/50                     | 3/380/50               | 3/380/50                | 3/380/50                | 3/380/50                | 3/380/50                |
| Power input                | Cooling               | kW                | 252                          | 280                    | 320                     | 350                     | 395                     | 450                     |
|                            | Heating*              | kW                | /                            | /                      | /                       | /                       | /                       | /                       |
| Compressor                 | Type                  |                   | Semi-hermetic screw          | Semi-hermetic screw    | Semi-hermetic screw     | Semi-hermetic screw     | Semi-hermetic screw     | Semi-hermetic screw     |
|                            | Starting mode         |                   | Star Delta Start             | Star Delta Start       | Star Delta Start        | Star Delta Start        | Star Delta Start        | Star Delta Start        |
|                            | Quantity              |                   | 2                            | 2                      | 2                       | 3                       | 4                       | 4                       |
| Water side heat exchanger  | Type                  |                   | Flooded Expansion Evaporator |                        |                         |                         |                         |                         |
|                            | Water flow volume     | m <sup>3</sup> /h | 147.9                        | 163.4                  | 180.6                   | 199.5                   | 227.0                   | 261.4                   |
|                            |                       | GPM               | 652                          | 720                    | 796                     | 880                     | 1001                    | 1153                    |
|                            | Pressure drop         | kPa               | ≤70                          | ≤70                    | ≤80                     | ≤85                     | ≤100                    | ≤100                    |
|                            |                       | ft.WG             | ≤22.96                       | ≤22.96                 | ≤22.96                  | ≤24.6                   | ≤26.24                  | ≤26.24                  |
| Connection pipe            |                       | DN200             | DN200                        | DN200                  | DN200                   | DN200                   | DN200                   |                         |
| Air side heat exchanger    | Type                  |                   | Aluminum Fin-copper Tube     |                        |                         |                         |                         |                         |
|                            | Fan type and quantity |                   | axial×16                     | axial×18               | axial×20                | axial×22                | axial×24                | axial×28                |
|                            | Total fan air flow    | m <sup>3</sup> /h | 320000                       | 360000                 | 400000                  | 440000                  | 480000                  | 560000                  |
|                            |                       | CFM               | 1130146                      | 1271414                | 1412682                 | 1553951                 | 1695219                 | 1977755                 |
| Total fan motor power      | kW                    | 1.5×16            | 1.5×18                       | 1.5×20                 | 1.5×22                  | 1.5×24                  | 1.5×28                  |                         |
| Sound pressure level       |                       | dB(A)             | 83                           | 83                     | 84                      | 84                      | 85                      | 85                      |
| Dimension                  | Outline(W×D×H)        | mm                | 9760X2250X2500               | 10980X2250X2500        | 12200X2250X2500         | 13420X2250X2500         | 14640X2250X2500         | 17080X2250X2500         |
|                            | Package(W×D×H)        | mm                | 9800X2250X2550               | 11020X2250X2550        | 12240X2250X2550         | 13460X2250X2550         | 14680X2250X2550         | 17120X2250X2550         |
| Net/Gross/Operating weight |                       | kg                | 9540/9590/10494              | 10650/10690/11715      | 11750/11830/12925       | 13000/13080/14300       | 14750/14830/16225       | 16950/17030/18645       |
| Loading quantity           |                       | set               | 0/1                          | 0/1                    | 0/0                     | 0/0                     | 0/0                     | 0/0                     |

Note: \* This product is under development. The parameters are estimated, please refer to the value on the nameplate.

# Water-cooled Screw Chiller

It is a kind of water-cooled screw chiller with flooded screw compressor that can be connected to all sorts of fan coil unit to realize cooling for large civil or industrial buildings.



Display panel Z2G1DJ01



Comprehensive protection



Self-diagnosis



Memory function



Easier maintainability



24 hour timer



Long-distance monitoring

- Precision water temperature control thanks to stepless capacity adjustment from 25%~100%.(single comp.) or 12.5%~100%(dual comp.).
- Higher heat exchange efficiency thanks to flooded evaporating method.
- Higher efficiency under partial load thanks to paralleling operation design.
- High reliability oil return technology to avoid compressor damage from oil lack.
- Precision and stable volume adjusting thanks to orifice plus EXV throttle method.
- Automatic operation and energy saving operation makes an easier management.



| Operating condition of nominal cooling (water temperature) |            |               |            | Operating range (water temperature) |                    |               |                    |
|--|------------|---------------|------------|-------------------------------------|--------------------|---------------|--------------------|
| Chilled water  |            | Cooling water |            | Chilled water                       |                    | Cooling water |                    |
| Inlet(°C)  | Outlet(°C) | Inlet(°C)     | Outlet(°C) | Outlet(°C)                          | I/O difference(°C) | Inlet(°C)     | I/O difference(°C) |
| 12   | 7          | 30            | 35         | 4~15                                | 2.5~8              | 18~35         | 3.5~8              |

| Model                      |                   | LSBLG180H/Nb-M                 | LSBLG210H/Nb-M | LSBLG240H/Nb-M | LSBLG300H/Nb-M | LSBLG340H/Nb-M | LSBLG380H/Nb-M |       |
|----------------------------|-------------------|--------------------------------|----------------|----------------|----------------|----------------|----------------|-------|
| Cooling capacity           | kW                | 175                            | 202            | 231            | 292            | 331            | 376            |       |
|                            | RT                | 49.76                          | 57.44          | 65.69          | 83.03          | 94.12          | 106.92         |       |
| Capacity steps             | %                 | 25-100                         | 25-100         | 25-100         | 25-100         | 25-100         | 25-100         |       |
| EER                        | W/W               | 5.00                           | 5.05           | 5.13           | 5.21           | 5.25           | 5.30           |       |
| IPLV                       | W/W               | 5.87                           | 5.71           | 5.80           | 5.91           | 6.02           | 5.94           |       |
| Power supply               | Ph/V/Hz           | 3/380-415/50                   | 3/380-415/50   | 3/380-415/50   | 3/380-415/50   | 3/380-415/50   | 3/380-415/50   |       |
| Power input                | kW                | 35                             | 40             | 45             | 56             | 63             | 71             |       |
| RLA                        | A                 | 68.4                           | 77.2           | 77.2           | 102.5          | 117.9          | 117.9          |       |
| LRA                        | A                 | 290A D/485A DD                 | 350A D/585A DD | 350A D/585A DD | 520A D/801A DD | 612A D/943A DD | 612A D/943A DD |       |
| Compressor                 | Type              | Semi-hermetic twin screw comp. |                |                |                |                |                |       |
|                            | Starting mode     | Part winding start             |                |                |                |                |                |       |
|                            | Quantity          | 1                              | 1              | 1              | 1              | 1              | 1              |       |
| Refrigerant charge         | Volume            | 100                            | 100            | 100            | 110            | 120            | 130            |       |
|                            | Type              | BSE170                         |                |                |                |                |                |       |
| Refrigeration oil          | Charge volume     | 15                             | 15             | 15             | 19             | 19             | 19             |       |
|                            | Type              | Flooded Evaporator             |                |                |                |                |                |       |
| Evaporator                 | Fouling factor    | 0.086                          | 0.086          | 0.086          | 0.086          | 0.086          | 0.086          |       |
|                            | Water flow volume | m³/h                           | 30             | 35             | 40             | 50             | 57             | 65    |
|                            |                   | GPM                            | 132            | 154            | 176            | 220            | 251            | 287   |
|                            | Pressure drop     | kPa                            | 40             | 45             | 50             | 60             | 60             | 62    |
|                            |                   | ft.WG                          | 13.12          | 14.76          | 16.40          | 19.68          | 19.68          | 20.34 |
| Condenser                  | Connection pipe   | DN100                          | DN100          | DN100          | DN125          | DN125          | DN125          |       |
|                            | Type              | Shell and tube                 |                |                |                |                |                |       |
|                            | Fouling factor    | m²·c/kW                        | 0.086          | 0.086          | 0.086          | 0.086          | 0.086          | 0.086 |
|                            | Water flow volume | m³/h                           | 38             | 43             | 50             | 63             | 71             | 81    |
|                            |                   | GPM                            | 168            | 190            | 220            | 278            | 313            | 357   |
| Pressure drop              | kPa               | 56                             | 57             | 65             | 65             | 66             | 67             |       |
|                            | ft.WG             | 18.37                          | 18.70          | 21.32          | 21.32          | 21.65          | 21.98          |       |
|                            | Connection pipe   | DN100                          | DN100          | DN100          | DN125          | DN125          | DN125          |       |
| Sound pressure level       | dB(A)             | 76.2                           | 76.6           | 77.4           | 80.1           | 81.2           | 83.3           |       |
| Outline dimension (WxDxH)  | mm                | 3160×1150×1587                 | 3160×1150×1587 | 3160×1150×1587 | 3160×1400×1680 | 3160×1400×1680 | 3160×1400×1720 |       |
| Net/Gross/Operating weight | kg                | 1800/1850/1890                 | 1900/1950/1995 | 2100/2150/2205 | 2800/2850/2940 | 2900/2950/3045 | 3100/3150/3255 |       |
| Loading quantity           | 40'GP/40'HQ       | set                            | 3/3            | 3/3            | 3/3            | 3/3            | 3/3            |       |

| Model                      |                   | LSBLG450H/Nb-M                 | LSBLG500H/Nb-M | LSBLG580H/Nb-M | LSBLG640H/Nb-M | LSBLG680H/Nb-M | LSBLG760H/Nb-M |       |
|----------------------------|-------------------|--------------------------------|----------------|----------------|----------------|----------------|----------------|-------|
| Cooling capacity           | kW                | 442                            | 495            | 572            | 636            | 676            | 752            |       |
|                            | RT                | 125.69                         | 140.76         | 162.65         | 180.85         | 192.23         | 213.84         |       |
| Capacity steps             | %                 | 25-100                         | 25-100         | 25-100         | 25-100         | 12.5-100       | 12.5-100       |       |
| EER                        | W/W               | 5.33                           | 5.32           | 5.35           | 5.30           | 5.37           | 5.30           |       |
| IPLV                       | W/W               | 6.09                           | 6.08           | 5.87           | 5.85           | 6.01           | 6.02           |       |
| Power supply               | Ph/V/Hz           | 3/380-415/50                   | 3/380-415/50   | 3/380-415/50   | 3/380-415/50   | 3/380-415/50   | 3/380-415/50   |       |
| Power input                | kW                | 83                             | 93             | 107            | 120            | 126            | 142            |       |
| RLA                        | A                 | 136.5                          | 154.3          | 169.6          | 199.4          | 102.5          | 117.9          |       |
| LRA                        | A                 | 318A Y/1182A D                 | 436A Y/1364A D | 465A Y/1442A D | 586A Y/1853A D | 520A D/801A DD | 612A D/943A DD |       |
| Compressor                 | Type              | Semi-hermetic twin screw comp. |                |                |                |                |                |       |
|                            | Starting mode     | Y—Δ                            |                |                |                |                |                |       |
|                            | Quantity          | 1                              |                |                | 1              |                | 2              |       |
| Refrigerant charge         | Volume            | 210                            | 210            | 210            | 200            | 240            | 240            |       |
|                            | Type              | BSE170                         |                |                |                |                |                |       |
| Refrigeration oil          | Charge volume     | 35                             | 35             | 35             | 35             | 19             | 19             |       |
|                            | Type              | Flooded Evaporator             |                |                |                |                |                |       |
| Evaporator                 | Fouling factor    | m²·c/kW                        | 0.086          | 0.086          | 0.086          | 0.086          | 0.086          |       |
|                            | Water flow volume | m³/h                           | 76             | 85             | 98             | 109            | 116            | 129   |
|                            |                   | GPM                            | 335            | 375            | 432            | 481            | 511            | 569   |
|                            | Pressure drop     | kPa                            | 64             | 66             | 68             | 74             | 76             | 76    |
|                            |                   | ft.WG                          | 20.99          | 21.65          | 22.30          | 24.27          | 24.93          | 24.93 |
| Condenser                  | Connection pipe   | DN150                          | DN150          | DN150          | DN150          | DN200          | DN200          |       |
|                            | Type              | Shell and tube                 |                |                |                |                |                |       |
|                            | Fouling factor    | m²·c/kW                        | 0.086          | 0.086          | 0.086          | 0.086          | 0.086          | 0.086 |
|                            | Water flow volume | m³/h                           | 95             | 106            | 123            | 137            | 145            | 162   |
|                            |                   | GPM                            | 419            | 467            | 542            | 604            | 639            | 714   |
| Pressure drop              | kPa               | 69                             | 71             | 72             | 73             | 76             | 77             |       |
|                            | ft.WG             | 22.63                          | 23.29          | 23.62          | 23.94          | 24.93          | 25.26          |       |
|                            | Connection pipe   | DN200                          | DN200          | DN200          | DN200          | DN200          | DN200          |       |
| Sound pressure level       | dB(A)             | 83.9                           | 84.1           | 84.3           | 85.4           | 82.5           | 84.6           |       |
| Outline dimension (WxDxH)  | mm                | 3160×1520×2130                 | 3160×1520×2130 | 3160×1520×2130 | 3160×1520×2130 | 3400×1700×2030 | 3400×1700×2030 |       |
| Net/Gross/Operating weight | kg                | 3850/3900/4043                 | 4100/4160/4305 | 4400/4460/4620 | 4600/4660/4830 | 5100/5160/5355 | 5500/5600/5775 |       |
| Loading quantity           | 40'GP/40'HQ       | set                            | 3/3            | 3/3            | 3/3            | 3/3            | 3/3            |       |

| Model                      |                   | LSBLG880H/Nb-M                 | LSBLG1000H/Nb-M | LSBLG1160H/Nb-M | LSBLG1280H/Nb-M | LSBLG1400H/Nb-M |       |
|----------------------------|-------------------|--------------------------------|-----------------|-----------------|-----------------|-----------------|-------|
| Cooling capacity           | kW                | 871                            | 990             | 1144            | 1275            | 1485            |       |
|                            | RT                | 247.68                         | 281.51          | 325.30          | 362.56          | 396.68          |       |
| Capacity steps             | %                 | 12.5-100                       | 12.5-100        | 12.5-100        | 12.5-100        | 12.5-100        |       |
| EER                        | W/W               | 5.34                           | 5.32            | 5.35            | 5.62            | 5.60            |       |
| IPLV                       | W/W               | 5.94                           | 5.97            | 5.82            | 5.98            | 5.99            |       |
| Power supply               | Ph/V/Hz           | 3/380-415/50                   | 3/380-415/50    | 3/380-415/50    | 3/380-415/50    | 3/380-415/50    |       |
| Power input                | kW                | 163                            | 186             | 214             | 245             | 245             |       |
| RLA                        | A                 | 136.5                          | 154.3           | 169.6           | 199.4           | 223.0           |       |
| LRA                        | A                 | 318A Y/1182A D                 | 436A Y/1364A D  | 465A Y/1442A D  | 586A Y/1853A D  | 650A Y/2029A D  |       |
| Compressor                 | Type              | Semi-hermetic twin screw comp. |                 |                 |                 |                 |       |
|                            | Starting mode     | Y—Δ                            |                 |                 |                 |                 |       |
|                            | Quantity          | 2                              |                 | 2               |                 | 2               |       |
| Refrigerant charge         | Volume            | 350                            | 350             | 350             | 350             | 450             |       |
|                            | Type              | BSE170                         |                 |                 |                 |                 |       |
| Refrigeration oil          | Charge volume     | 35                             | 35              | 35              | 35              | 38              |       |
|                            | Type              | Flooded Evaporator             |                 |                 |                 |                 |       |
| Evaporator                 | Fouling factor    | m²·c/kW                        | 0.086           | 0.086           | 0.086           | 0.086           | 0.086 |
|                            | Water flow volume | m³/h                           | 150             | 170             | 197             | 219             | 240   |
|                            |                   | GPM                            | 661             | 750             | 869             | 966             | 1058  |
|                            | Pressure drop     | kPa                            | 76              | 77              | 78              | 78              | 80    |
|                            |                   | ft.WG                          | 24.93           | 25.26           | 25.58           | 25.58           | 26.24 |
| Condenser                  | Connection pipe   | DN200                          | DN200           | DN200           | DN200           | DN200           |       |
|                            | Type              | Shell and tube                 |                 |                 |                 |                 |       |
|                            | Fouling factor    | m²·c/kW                        | 0.086           | 0.086           | 0.086           | 0.086           | 0.086 |
|                            | Water flow volume | m³/h                           | 187             | 213             | 246             | 274             | 300   |
|                            |                   | GPM                            | 825             | 939             | 1085            | 1208            | 1323  |
| Pressure drop              | kPa               | 82                             | 83              | 84              | 85              | 87              |       |
|                            | ft.WG             | 26.90                          | 27.22           | 27.55           | 27.88           | 28.54           |       |
|                            | Connection pipe   | DN250                          | DN250           | DN250           | DN250           | DN250           |       |
| Sound pressure level       | dB(A)             | 85.2                           | 85.4            | 85.6            | 86.8            | 87.5            |       |
| Outline dimension (WxDxH)  | mm                | 4150×2020×2230                 | 4150×2020×2230  | 4150×2020×2230  | 4150×2020×2230  | 4900×2000×2230  |       |
| Net/Gross/Operating weight | kg                | 6200/6300/6510                 | 6500/6650/6825  | 6800/6950/7140  | 7000/7150/7350  | 8000/8200/8400  |       |
| Loading quantity           | 40'GP/40'HQ       | set                            | 3/3             | 3/3             | 3/3             | 3/3             |       |

Note: Haven't got EUROVENT certification. Not for European Union market.

# CENTRIFUGAL CHILLER

Centrifugal Chiller  
Inverter Centrifugal Chiller  
Magnetic Suspension Inverter Centrifugal Chiller



# Centrifugal Chiller

It is a kind water-cooled chiller with centrifugal compressor that can be connected to all sorts of fan coil unit to realize cooling for large civil or industrial buildings.



Touch Screen  
CM27-GM12/A2(M)



Quiet function



Comprehensive protection



Memory function



Long-distance monitoring

- Precision water temperature control thanks to stepless capacity adjustment from 10%~100%.
- Higher reliability and less maintenance cost thanks to 3D-covered impeller.
- Lower noise and less vibration thanks to variable cross-section diffuser technology.
- Higher compressor reliability thanks to keyless connection technology.
- Urgent oil providing system to avoid compressor damage when sudden power failure occurs.
- Orifice throttle makes a steady flow volume adjustment.
- Multilevel password protection makes the operation controllable and reliable.
- Adjustable water outlet temperature according to various project requirement.
- Thanks to special refrigerant loop to cool the lubricant, no field oil cooling water pipe or external connection lubricant cooling system is needed.
- Inverter models are optional.



| Operating condition of nominal cooling (water temperature) |            |               |            | Operating range (water temperature) |                    |               |                    |
|--|------------|---------------|------------|-------------------------------------|--------------------|---------------|--------------------|
| Chilled water  |            | Cooling water |            | Chilled water                       |                    | Cooling water |                    |
| Inlet(°C)  | Outlet(°C) | Inlet(°C)     | Outlet(°C) | Outlet(°C)                          | I/O difference(°C) | Inlet(°C)     | I/O difference(°C) |
| 12   | 7          | 30            | 35         | 5~15                                | 2.5~8              | 18~35         | 3.5~8              |

## Single-stage

| Model                       | LSBLX1400-M       |                                      | LSBLX1600-M    |                | LSBLX1800-M     |                 | LSBLX2000-M       |                | LSBLX2200-M |            | LSBLX2400-M |            |
|-----------------------------|-------------------|--------------------------------------|----------------|----------------|-----------------|-----------------|-------------------|----------------|-------------|------------|-------------|------------|
|                             | LSBLX1400-G       |                                      | LSBLX1600-G    |                | LSBLX1800-G     |                 | LSBLX2000-G       |                | LSBLX2200-G |            | LSBLX2400-G |            |
| Cooling capacity            | kW                | 1400                                 | 1600           | 1800           | 2000            | 2200            | 2400              |                |             |            |             |            |
|                             | RT                | 398                                  | 456            | 511            | 562             | 625             | 682               |                |             |            |             |            |
| Capacity adjustment range   | %                 | 10-100                               | 10-100         | 10-100         | 10-100          | 10-100          | 10-100            |                |             |            |             |            |
| EER                         | W/W               | 5.36                                 | 5.46           | 5.61           | 5.65            | 5.74            | 5.74              |                |             |            |             |            |
| IPLV                        | W/W               | 6.10                                 | 6.21           | 6.38           | 6.43            | 6.54            | 6.53              |                |             |            |             |            |
| Power supply                | -M                | Ph/V/Hz                              | 3/380/50       | 3/380/50       | 3/380/50        | 3/380/50        | 3/380/50          | 3/380/50       | 3/380/50    | 3/380/50   | 3/380/50    | 3/380/50   |
|                             | -G                | Ph/V/Hz                              | 3/10000/50     | 3/10000/50     | 3/10000/50      | 3/10000/50      | 3/10000/50        | 3/10000/50     | 3/10000/50  | 3/10000/50 | 3/10000/50  | 3/10000/50 |
| Power input                 | kW                | 261                                  | 293            | 321            | 354             | 383             | 418               |                |             |            |             |            |
| RLA                         | -M                | A                                    | 450.6          | 505.9          | 554.2           | 611.2           | 661.3             | 721.7          |             |            |             |            |
|                             | -G                | A                                    | 17.1           | 19.2           | 21.1            | 23.2            | 25.1              | 27.4           |             |            |             |            |
| Compressor                  | Type              | Semi-hermetic centrifugal compressor |                |                |                 |                 |                   |                |             |            |             |            |
|                             | Starting mode*    | Star-delta / Direct-start*           |                |                |                 |                 |                   |                |             |            |             |            |
|                             | Quantity          | 1                                    |                | 1              |                 | 1               |                   | 1              |             | 1          |             | 1          |
| Refrigerant charge volume   | kg                | 330                                  | 360            | 600            | 625             | 650             | 700               |                |             |            |             |            |
| Refrigeration oil           | Type              | No.68 synthetic fatty oil            |                |                |                 |                 |                   |                |             |            |             |            |
|                             | Charge volume     | L                                    | 50             | 50             | 60              | 60              | 60                | 80             |             |            |             |            |
|                             | Type              | Flooded type evaporator              |                |                |                 |                 |                   |                |             |            |             |            |
| Evaporator                  | Fouling factor    | m <sup>2</sup> ·c/kW                 | 0.018          | 0.018          | 0.018           | 0.018           | 0.018             | 0.018          |             |            |             |            |
|                             | Water flow volume | L/s                                  | 66.9           | 76.4           | 86.1            | 95.6            | 105.0             | 114.7          |             |            |             |            |
|                             |                   | GPM                                  | 1061           | 1211           | 1365            | 1514            | 1664              | 1818           |             |            |             |            |
|                             | Pressure drop     | kPa                                  | 75             | 75             | 75              | 75              | 75                | 90             |             |            |             |            |
|                             |                   | ft.WG                                | 25.1           | 25.1           | 25.1            | 25.1            | 25.1              | 30.1           |             |            |             |            |
|                             | Connection pipe   | -                                    | DN200          | DN200          | DN250           | DN250           | DN250             | DN250          |             |            |             |            |
| Condenser                   | Type              | Shell and tube                       |                |                |                 |                 |                   |                |             |            |             |            |
|                             | Fouling factor    | m <sup>2</sup> ·c/kW                 | 0.044          | 0.044          | 0.044           | 0.044           | 0.044             | 0.044          |             |            |             |            |
|                             | Water flow volume | L/s                                  | 83.6           | 95.6           | 107.5           | 119.4           | 131.4             | 143.3          |             |            |             |            |
|                             |                   | GPM                                  | 1325           | 1514           | 1704            | 1893            | 2082              | 2272           |             |            |             |            |
|                             | Pressure drop     | kPa                                  | 70             | 70             | 70              | 70              | 70                | 85             |             |            |             |            |
|                             |                   | ft.WG                                | 23.4           | 23.4           | 23.4            | 23.4            | 23.4              | 28.5           |             |            |             |            |
| Connection pipe             | -                 | DN200                                | DN200          | DN250          | DN250           | DN250           | DN250             |                |             |            |             |            |
| Sound pressure level (Max.) | dB(A)             | ≤88                                  | ≤88            | ≤88            | ≤90             | ≤90             | ≤90               |                |             |            |             |            |
| Dimension                   | Outline(WxDxH)    | mm                                   | 3630×1680×2060 | 3630×1680×2060 | 4150×1900×2250  | 4150×1900×2250  | 4150×1900×2250    | 4530×2070×2500 |             |            |             |            |
|                             | Package(WxDxH)    | mm                                   | 3700×1750×2130 | 3700×1750×2130 | 4200×1970×2410  | 4200×1970×2410  | 4200×1970×2410    | 4650×2110×2660 |             |            |             |            |
| Net/Gross/Operating weight  | kg                | 6300/6500/6800                       | 6600/6800/7100 | 8800/9000/9800 | 9200/9400/10200 | 9400/9600/10600 | 10800/11000/12800 |                |             |            |             |            |
| Loading quantity            | 40'GP/40'HQ       | set                                  | 0/2            | 0/2            | 0/2             | 0/2             | 0/2               |                |             |            |             |            |

| Model                       | LSBLX2600-M       |                                      | LSBLX2800-M       |                   | LSBLX3000-M       |                   | LSBLX3200-M       |                | LSBLX3400-M |            | LSBLX3600-M |            |
|-----------------------------|-------------------|--------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|----------------|-------------|------------|-------------|------------|
|                             | LSBLX2600-G       |                                      | LSBLX2800-G       |                   | LSBLX3000-G       |                   | LSBLX3200-G       |                | LSBLX3400-G |            | LSBLX3600-G |            |
| Cooling capacity            | kW                | 2600                                 | 2800              | 3000              | 3200              | 3400              | 3600              |                |             |            |             |            |
|                             | RT                | 740                                  | 796               | 854               | 909               | 967               | 1023              |                |             |            |             |            |
| Capacity adjustment range   | %                 | 10-100                               | 10-100            | 10-100            | 10-100            | 10-100            | 10-100            |                |             |            |             |            |
| EER                         | W/W               | 5.80                                 | 5.83              | 5.74              | 5.78              | 5.84              | 5.70              |                |             |            |             |            |
| IPLV                        | W/W               | 6.6                                  | 6.64              | 6.53              | 6.57              | 6.65              | 6.48              |                |             |            |             |            |
| Power supply                | -M                | Ph/V/Hz                              | 3/380/50          | 3/380/50          | 3/380/50          | 3/380/50          | 3/380/50          | 3/380/50       | 3/380/50    | 3/380/50   | 3/380/50    | 3/380/50   |
|                             | -G                | Ph/V/Hz                              | 3/10000/50        | 3/10000/50        | 3/10000/50        | 3/10000/50        | 3/10000/50        | 3/10000/50     | 3/10000/50  | 3/10000/50 | 3/10000/50  | 3/10000/50 |
| Power input                 | kW                | 448                                  | 480               | 523               | 554               | 582               | 632               |                |             |            |             |            |
| RLA                         | -M                | A                                    | 773.5             | 828.8             | 903.0             | 956.5             | 1004.9            | 1091.2         |             |            |             |            |
|                             | -G                | A                                    | 29.4              | 31.5              | 34.3              | 36.3              | 38.2              | 41.5           |             |            |             |            |
| Compressor                  | Type              | Semi-hermetic centrifugal compressor |                   |                   |                   |                   |                   |                |             |            |             |            |
|                             | Starting mode*    | Star-delta / Direct-start*           |                   |                   |                   |                   |                   |                |             |            |             |            |
|                             | Quantity          | 1                                    |                   | 1                 |                   | 1                 |                   | 1              |             | 1          |             | 1          |
| Refrigerant charge volume   | kg                | 725                                  | 750               | 775               | 800               | 825               | 900               |                |             |            |             |            |
| Refrigeration oil           | Type              | No.68 synthetic fatty oil            |                   |                   |                   |                   |                   |                |             |            |             |            |
|                             | Charge volume     | L                                    | 80                | 80                | 80                | 80                | 80                | 100            |             |            |             |            |
|                             | Type              | Flooded type evaporator              |                   |                   |                   |                   |                   |                |             |            |             |            |
| Evaporator                  | Fouling factor    | m <sup>2</sup> ·c/kW                 | 0.018             | 0.018             | 0.018             | 0.018             | 0.018             | 0.018          |             |            |             |            |
|                             | Water flow volume | L/s                                  | 124.2             | 133.9             | 143.3             | 152.8             | 162.5             | 171.9          |             |            |             |            |
|                             |                   | GPM                                  | 1968              | 2122              | 2272              | 2421              | 2575              | 2725           |             |            |             |            |
|                             | Pressure drop     | kPa                                  | 90                | 90                | 90                | 90                | 90                | 115            |             |            |             |            |
|                             |                   | ft.WG                                | 30.1              | 30.1              | 30.1              | 30.1              | 30.1              | 38.5           |             |            |             |            |
|                             | Connection pipe   | -                                    | DN250             | DN250             | DN300             | DN300             | DN300             | DN300          |             |            |             |            |
| Condenser                   | Type              | Shell and tube                       |                   |                   |                   |                   |                   |                |             |            |             |            |
|                             | Fouling factor    | m <sup>2</sup> ·c/kW                 | 0.044             | 0.044             | 0.044             | 0.044             | 0.044             | 0.044          |             |            |             |            |
|                             | Water flow volume | L/s                                  | 155.3             | 167.2             | 179.2             | 191.1             | 203.1             | 215.0          |             |            |             |            |
|                             |                   | GPM                                  | 2461              | 2650              | 2839              | 3029              | 3218              | 3407           |             |            |             |            |
|                             | Pressure drop     | kPa                                  | 85                | 85                | 85                | 85                | 85                | 100            |             |            |             |            |
|                             |                   | ft.WG                                | 28.5              | 28.5              | 28.5              | 28.5              | 28.5              | 33.5           |             |            |             |            |
| Connection pipe             | -                 | DN250                                | DN250             | DN300             | DN300             | DN300             | DN350             |                |             |            |             |            |
| Sound pressure level (Max.) | dB(A)             | ≤90                                  | ≤90               | ≤90               | ≤92               | ≤92               | ≤92               |                |             |            |             |            |
| Dimension                   | Outline(WxDxH)    | mm                                   | 4350×2070×2500    | 4350×2070×2500    | 4350×2070×2500    | 4530×2120×2500    | 4530×2120×2500    | 4750×2330×2750 |             |            |             |            |
|                             | Package(WxDxH)    | mm                                   | 4650×2110×2660    | 4650×2110×2660    | 4650×2160×2660    | 4650×2160×2660    | 4650×2160×2660    | 5000×2340×2910 |             |            |             |            |
| Net/Gross/Operating weight  | kg                | 11200/11400/13000                    | 11600/11800/13200 | 11800/12000/13500 | 12000/12200/14000 | 12200/12400/14500 | 14600/14800/16500 |                |             |            |             |            |
| Loading quantity            | 40'GP/40'HQ       | set                                  | 0/0               | 0/0               | 0/0               | 0/0               | 0/0               |                |             |            |             |            |

Note: \* The starting mode of star-delta is applicable for the models with suffix“-M”, while the starting mode of direct-start is applicable with the suffix“-G”.

| Model                       |                   | LSBLX3800-M          | LSBLX4000-M                          | LSBLX4400-M       | -                 | -                 |       |
|-----------------------------|-------------------|----------------------|--------------------------------------|-------------------|-------------------|-------------------|-------|
|                             |                   | LSBLX3800-G          | LSBLX4000-G                          | LSBLX4400-G       | LSBLX4800-G       | LSBLX5200-G       |       |
| Cooling capacity            | kW                | 3800                 | 4000                                 | 4400              | 4800              | 5200              |       |
|                             | RT                | 1081                 | 1136                                 | 1251              | 1364              | 1479              |       |
| Capacity adjustment range   | %                 | 10-100               | 10-100                               | 10-100            | 10-100            | 10-100            |       |
| EER                         | W/W               | 5.74                 | 5.81                                 | 5.50              | 5.82              | 5.91              |       |
|                             | W/W               | 6.53                 | 6.62                                 | 6.55              | 6.62              | 6.72              |       |
| Power supply                | -M                | Ph/V/Hz              | 3/380/50                             | 3/380/50          | 3/380/50          | -                 |       |
|                             | -G                | Ph/V/Hz              | 3/10000/50                           | 3/10000/50        | 3/10000/50        | 3/10000/50        |       |
| Power input                 | kW                | 662                  | 688                                  | 764               | 825               | 880               |       |
|                             | A                 | 1143.0               | 1187.9                               | 1319.1            | -                 | -                 |       |
| RLA                         | -M                | A                    | 43.4                                 | 45.1              | 50.1              | 54.1              |       |
|                             | -G                | A                    | -                                    | -                 | -                 | -                 |       |
| Compressor                  | Type              | -                    | Semi-hermetic centrifugal compressor |                   |                   | -                 |       |
|                             | Starting mode*    | -                    | Star-delta / Direct-start*           |                   | Direct-start      | -                 |       |
|                             | Quantity          | -                    | 1                                    | 1                 | 1                 | 1                 |       |
| Refrigerant charge volume   | kg                | 925                  | 950                                  | 1000              | 1050              | 1100              |       |
| Refrigeration oil           | Type              | -                    | No.68 synthetic fatty oil            |                   |                   | -                 |       |
|                             | Charge volume     | L                    | 100                                  | 100               | 100               | 100               |       |
| Evaporator                  | Type              | -                    | Flooded type evaporator              |                   |                   | -                 |       |
|                             | Fouling factor    | m <sup>2</sup> ·c/kW | 0.018                                | 0.018             | 0.018             | 0.018             |       |
|                             | Water flow volume | L/s                  | 181.7                                | 191.1             | 210.3             | 229               | 248.3 |
|                             |                   | GPM                  | 2879                                 | 3029              | 3332              | 3636              | 3936  |
|                             | Pressure drop     | kPa                  | 115                                  | 115               | 115               | 115               | 115   |
|                             |                   | ft.WG                | 38.5                                 | 38.5              | 38.5              | 38.5              | 38.5  |
| Connection pipe             | -                 | DN300                | DN300                                | DN350             | DN350             | DN350             |       |
| Condenser                   | Type              | -                    | Shell and Tube                       |                   |                   | -                 |       |
|                             | Fouling factor    | m <sup>2</sup> ·c/kW | 0.044                                | 0.044             | 0.044             | 0.044             |       |
|                             | Water flow volume | L/s                  | 226.9                                | 238.9             | 262.8             | 286.7             | 310.6 |
|                             |                   | GPM                  | 3597                                 | 3786              | 4164              | 4543.053354       | 4922  |
|                             | Pressure drop     | kPa                  | 100                                  | 100               | 105               | 105               | 105   |
|                             |                   | ft.WG                | 33.5                                 | 33.5              | 35.2              | 35.2              | 35.2  |
| Connection pipe             | -                 | DN350                | DN350                                | DN350             | DN350             | DN350             |       |
| Sound pressure level (Max.) | dB(A)             | ≤ 92                 | ≤ 92                                 | ≤ 92              | ≤ 95              | ≤ 95              |       |
| Dimension                   | Outline(WxDxH)    | mm                   | 4750×2330×2750                       | 4750×2330×2750    | 4750×2480×2750    | 4750×2480×2750    |       |
|                             | Package(WxDxH)    | mm                   | 5000×2340×2910                       | 5000×2340×2910    | 5000×2490×2910    | 5000×2490×2910    |       |
| Net/Gross/Operating weight  | kg                | 14800/15000/17000    | 15200/15400/17500                    | 15800/16000/18000 | 16200/16400/18500 | 16600/16800/19000 |       |
| Loading quantity            | 40'GP/40'HQ       | set                  | 0/0                                  | 0/0               | 0/0               | 0/0               |       |

## Inverter Centrifugal Chiller

The inverter centrifugal chiller adopts high-efficiency DC inverter centrifugal compressor with internationally leading coefficient of performance. It provides high-efficiency and stable operation, and can be connected to all sorts of fan coil unit to realize cooling for large civil and industrial buildings.



Quiet function



Comprehensive protection



Memory function



Long-distance monitoring

## Two-stage

| Model                       |                   | LSBLX5600S-G         | LSBLX6000S-G                         | LSBLX6400S-G      | LSBLX6800S-G      | LSBLX7200S-G      |        |
|-----------------------------|-------------------|----------------------|--------------------------------------|-------------------|-------------------|-------------------|--------|
| Cooling capacity            | kW                | 5600                 | 6000                                 | 6400              | 6800              | 7200              |        |
|                             | RT                | 1591                 | 1706                                 | 1818              | 1934              | 2044              |        |
| Capacity adjustment range   | %                 | 10-100               | 10-100                               | 10-100            | 10-100            | 10-100            |        |
| EER                         | W/W               | 5.89                 | 5.94                                 | 5.97              | 5.98              | 6.03              |        |
|                             | W/W               | 6.71                 | 6.76                                 | 6.79              | 6.80              | 6.86              |        |
| Power supply                | Ph/V/Hz           | 3/10000/50           | 3/10000/50                           | 3/10000/50        | 3/10000/50        | 3/10000/50        |        |
| Power input                 | kW                | 950                  | 1010                                 | 1072              | 1138              | 1195              |        |
|                             | A                 | 62.3                 | 66.3                                 | 70.3              | 74.7              | 78.4              |        |
| Compressor                  | Type              | -                    | Semi-hermetic centrifugal compressor |                   |                   | -                 |        |
|                             | Starting mode     | -                    | Direct-delta                         |                   |                   | -                 |        |
|                             | Quantity          | -                    | 1.0                                  | 1.0               | 1.0               | 1.0               |        |
| Refrigerant charge volume   | kg                | 1500                 | 1600                                 | 1700              | 1800              | 1900              |        |
| Refrigeration oil           | Category          | -                    | No.68 synthetic fatty oil            |                   |                   | -                 |        |
|                             | Charge volume     | L                    | 125                                  | 125               | 125               | 125               |        |
| Evaporator                  | Type              | -                    | Flooded type evaporator              |                   |                   | -                 |        |
|                             | Fouling factor    | m <sup>2</sup> ·c/kW | 0.018                                | 0.018             | 0.018             | 0.018             |        |
|                             | Water flow volume | L/s                  | 267.5                                | 286.7             | 305.8             | 325.0             | 343.9  |
|                             |                   | GPM                  | 4239.3                               | 4543.6            | 4846.3            | 5150.6            | 5450.1 |
|                             | Pressure drop     | kPa                  | 125                                  | 125               | 125               | 125               | 125    |
|                             |                   | ft.WG                | 41.0                                 | 41.0              | 41.0              | 41.0              | 41.0   |
| Connection pipe             | -                 | DN350                | DN350                                | DN400             | DN400             | DN400             |        |
| Condenser                   | Type              | -                    | Shell and tube                       |                   |                   | -                 |        |
|                             | Fouling factor    | m <sup>2</sup> ·c/kW | 0.044                                | 0.044             | 0.044             | 0.044             |        |
|                             | Water flow volume | L/s                  | 334.4                                | 358.3             | 382.2             | 406.1             | 430.0  |
|                             |                   | GPM                  | 5299.5                               | 5678.3            | 6057.1            | 6435.8            | 6814.6 |
|                             | Pressure drop     | kPa                  | 125                                  | 125               | 125               | 125               | 125    |
|                             |                   | ft.WG                | 41.0                                 | 41.0              | 41.0              | 41.0              | 41.0   |
| Connection pipe             | -                 | DN400                | DN400                                | DN450             | DN450             | DN450             |        |
| Sound pressure level (Max.) | dB(A)             | ≤ 95                 | ≤ 95                                 | ≤ 95              | ≤ 95              | ≤ 95              |        |
| Dimension                   | Outline(WxDxH)    | mm                   | 5350×2620×3100                       | 5350×2620×3100    | 5350×2820×3100    | 5350×2820×3100    |        |
|                             | Package(WxDxH)    | mm                   | 5800×2630×3260                       | 5800×2630×3260    | 5800×2830×3260    | 5800×2830×3260    |        |
| Net/Gross/Operating weight  | kg                | 22500/22700/25950    | 23800/24000/27500                    | 25500/25700/29450 | 26100/26300/30200 | 26500/26700/31000 |        |
| Loading quantity            | 40'GP/40'HQ       | set                  | 0/0                                  | 0/0               | 0/0               | 0/0               |        |

Note: \* The starting mode of star-delta is applicable for the models with suffix "-M", while the starting mode of direct-start is applicable with the suffix "-G".

- It adopts high-efficiency motor driving two-stage impellers with simpler structure and more reliable operation. The size and weight of compressor is only 40% of the conventional compressor with the same cooling capacity.
- It adopts high-efficiency permanent magnet synchronous inverter motor, whose power is over 400kW and rotation speed is over 18000rpm. Meanwhile, the helical refrigerant ejecting cooling technology is adopted to ensure high-efficiency operation of the motor.
- The design of impeller and diffuser is optimized for the load of 25-100%, achieving high-efficiency operation of compressor in various loads.
- It adopts patented sensor control technology to control the position of motor precisely and improve the reliability.
- It adopts the unique low solidity diffuser to achieve high-efficiency recycle of pressure.
- Two-stage compression technology is adopted to improve efficiency by 5~6% compared with one-stage cooling circulation system.
- User-friendly touch screen is adopted for convenient operation, precise control and stable output.



| Model                       |                   | LSBLX250SVE           | LSBLX275SVE                          | LSBLX300SVE    | LSBLX350SVE    | LSBLX400SVE    | LSBLX450SVE    |                |
|-----------------------------|-------------------|-----------------------|--------------------------------------|----------------|----------------|----------------|----------------|----------------|
| Cooling capacity            | kW                | 880                   | 967                                  | 1055           | 1231           | 1406           | 1582           |                |
|                             | RT                | 250                   | 275                                  | 300            | 350            | 400            | 450            |                |
| Capacity adjustment range   | %                 | 10~100                | 10~100                               | 10~100         | 10~100         | 10~100         | 10~100         |                |
| EER                         | W/W               | 5.99                  | 6.01                                 | 6.03           | 6.12           | 6.22           | 6.25           |                |
| IPLV                        | W/W               | 9.94                  | 9.98                                 | 10.01          | 10.18          | 10.34          | 10.43          |                |
| Power supply                | -M PhV/Hz         | 3/380/50              | 3/380/50                             | 3/380/50       | 3/380/50       | 3/380/50       | 3/380/50       |                |
|                             | -G PhV/Hz         | /                     | /                                    | /              | /              | /              | /              |                |
| Power input                 | kW                | 147                   | 161                                  | 175            | 201            | 226            | 253            |                |
|                             | -M A              | 225.6                 | 247.1                                | 268.6          | 308.5          | 346.9          | 388.3          |                |
| RLA                         | -G A              | /                     | /                                    | /              | /              | /              | /              |                |
|                             | Type              | -                     | Semi-hermetic centrifugal compressor |                |                |                |                |                |
| Compressor                  | Starting mode     | -                     | Variable Frequency Drives            |                |                |                |                |                |
|                             | Quantity          | -                     | 1                                    | 1              | 1              | 1              | 1              |                |
| Refrigerant charge volume   | kg                | 350                   | 375                                  | 400            | 425            | 450            | 550            |                |
|                             | Type              | -                     | No.68 synthetic fatty oil            |                |                |                |                |                |
| Refrigeration oil           | Charge volume     | L                     | 25                                   | 25             | 25             | 30             | 45             |                |
|                             | Type              | -                     | Flooded type evaporator              |                |                |                |                |                |
| Evaporator                  | Fouling factor    | m <sup>2</sup> .°C/kW | 0.018                                | 0.018          | 0.018          | 0.018          | 0.018          |                |
|                             | Water flow volume | L/s                   | 37.8                                 | 46.2           | 50.4           | 58.8           | 67.2           | 75.6           |
|                             |                   | GPM                   | 599.8                                | 659.1          | 719            | 839            | 958.3          | 1078.2         |
|                             | Pressure drop     | kPa                   | 60                                   | 60             | 60             | 60             | 60             | 60             |
|                             |                   | ft.WG                 | 20                                   | 20             | 20             | 20             | 20             | 20             |
|                             | Connection pipe   | -                     | DN200                                | DN200          | DN200          | DN200          | DN200          | DN200          |
| Condenser                   | Type              | -                     | Shell and tube                       |                |                |                |                |                |
|                             | Fouling factor    | m <sup>2</sup> .°C/kW | 0.044                                | 0.044          | 0.044          | 0.044          | 0.044          |                |
|                             | Water flow volume | L/s                   | 47.5                                 | 57.7           | 63             | 73.5           | 84             | 94.5           |
|                             |                   | GPM                   | 753.2                                | 827.7          | 903            | 1053.6         | 1203.4         | 1354.1         |
|                             | Pressure drop     | kPa                   | 55                                   | 55             | 55             | 55             | 55             | 55             |
|                             |                   | ft.WG                 | 18.3                                 | 18.3           | 18.3           | 18.3           | 18.3           | 18.3           |
| Connection pipe             | -                 | DN200                 | DN200                                | DN200          | DN200          | DN200          | DN200          |                |
| Sound pressure level (Max.) | Db(A)             | 88                    | 88                                   | 88             | 88             | 88             | 88             |                |
| Dimension                   | Outline(WxDxH)    | mm                    | 3770x1580x1840                       | 3770x1580x1840 | 3770x1580x1840 | 3650x1810x2000 | 3650x1810x2000 | 3650x1810x2000 |
|                             | Package(WxDxH)    | mm                    | 3900x1700x2000                       | 3900x1700x2000 | 3900x1700x2000 | 3700x1900x2200 | 3700x1900x2200 | 3700x1900x2200 |
| Net/Gross/Operating weight  | Kg                | 5150/5600/5600        | 5250/5700/5700                       | 5400/5850/6200 | 5500/5900/6400 | 5700/6100/6700 | 6100/6500/7200 |                |
| Loading quantity            | 40'GP/40'HQ       | set                   | 0/0                                  | 0/0            | 0/0            | 0/0            | 0/0            |                |

| Model                       |                   | LSBLX800SVE           | LSBLX850SVE                          | LSBLX900SVE       | LSBLX950SVE        | LSBLX1000SVE       | LSBLX1100SVE       |                |
|-----------------------------|-------------------|-----------------------|--------------------------------------|-------------------|--------------------|--------------------|--------------------|----------------|
| Cooling capacity            | kW                | 2813                  | 2989                                 | 3164              | 3340               | 3516               | 3868               |                |
|                             | RT                | 800                   | 850                                  | 900               | 950                | 1000               | 1100               |                |
| Capacity adjustment range   | %                 | 10~100                | 10~100                               | 10~100            | 10~100             | 10~100             | 10~100             |                |
| EER                         | W/W               | 6.63                  | 6.75                                 | 6.58              | 6.65               | 6.89               | 6.91               |                |
| IPLV                        | W/W               | 11.06                 | 11.23                                | 10.95             | 11.08              | 11.68              | 11.68              |                |
| Power supply                | -M PhV/Hz         | 3/380/50              | 3/380/50                             | 3/380/50          | 3/380/50           | 3/380/50           | 3/380/50           |                |
|                             | -G PhV/Hz         | /                     | /                                    | /                 | /                  | /                  | /                  |                |
| Power input                 | kW                | 424                   | 443                                  | 481               | 502                | 510                | 560                |                |
|                             | -M A              | 650.7                 | 679.9                                | 738.2             | 770.4              | 782.7              | 859.5              |                |
| RLA                         | -G A              | /                     | /                                    | /                 | /                  | /                  | /                  |                |
|                             | Type              | -                     | Semi-hermetic centrifugal compressor |                   |                    |                    |                    |                |
| Compressor                  | Starting mode     | -                     | Variable Frequency Drives            |                   |                    |                    |                    |                |
|                             | Quantity          | -                     | 1                                    | 1                 | 1                  | 1                  | 1                  |                |
| Refrigerant charge volume   | kg                | 750                   | 775                                  | 900               | 925                | 950                | 975                |                |
|                             | Type              | -                     | No.68 synthetic fatty oil            |                   |                    |                    |                    |                |
| Refrigeration oil           | Charge volume     | L                     | 50                                   | 50                | 50                 | 50                 | 50                 |                |
|                             | Type              | -                     | Flooded type evaporator              |                   |                    |                    |                    |                |
| Evaporator                  | Fouling factor    | m <sup>2</sup> .°C/kW | 0.018                                | 0.018             | 0.018              | 0.018              | 0.018              |                |
|                             | Water flow volume | L/s                   | 134.4                                | 142.8             | 151.2              | 159.6              | 168                | 184.8          |
|                             |                   | GPM                   | 1917.2                               | 2037.2            | 2156.5             | 2276.4             | 2396.4             | 2636.3         |
|                             | Pressure drop     | kPa                   | 75                                   | 75                | 100                | 100                | 100                | 115            |
|                             |                   | ft.WG                 | 25.1                                 | 25.1              | 33.5               | 33.5               | 33.5               | 38.5           |
|                             | Connection pipe   | -                     | DN250                                | DN250             | DN300              | DN300              | DN300              | DN300          |
| Condenser                   | Type              | -                     | Shell and tube                       |                   |                    |                    |                    |                |
|                             | Fouling factor    | m <sup>2</sup> .°C/kW | 0.044                                | 0.044             | 0.044              | 0.044              | 0.044              |                |
|                             | Water flow volume | L/s                   | 168                                  | 178.5             | 189                | 199.5              | 210                | 231            |
|                             |                   | GPM                   | 2407.7                               | 2558.3            | 2708.1             | 2858.8             | 3009.4             | 3310.7         |
|                             | Pressure drop     | kPa                   | 70                                   | 70                | 85                 | 85                 | 85                 | 105            |
|                             |                   | ft.WG                 | 23.4                                 | 23.4              | 28.5               | 28.5               | 28.5               | 35.2           |
| Connection pipe             | -                 | DN250                 | DN250                                | DN300             | DN300              | DN300              | DN300              |                |
| Sound pressure level (Max.) | Db(A)             | 90                    | 90                                   | 92                | 92                 | 92                 | 92                 |                |
| Dimension                   | Outline(WxDxH)    | mm                    | 4250x2020x2300                       | 4250x2020x2300    | 4580x2210x2430     | 4580x2210x2430     | 4580x2210x2430     | 4580x2210x2430 |
|                             | Package(WxDxH)    | mm                    | 4370x2050x2410                       | 4370x2050x2410    | 4700x2350x2550     | 4700x2350x2550     | 4700x2350x2550     | 4700x2350x2550 |
| Net/Gross/Operating weight  | Kg                | 9500/10000/11000      | 9900/10400/11500                     | 10000/10600/12000 | 10150/10750/122000 | 10500/111000/12700 | 11000/116000/13500 |                |
| Loading quantity            | 40'GP/40'HQ       | set                   | 0/0                                  | 0/0               | 0/0                | 0/0                | 0/0                |                |

| Model                       |                   | LSBLX500SVE           | LSBLX550SVE                          | LSBLX600SVE    | LSBLX650SVE    | LSBLX700SVE     | LSBLX750SVE     |                |
|-----------------------------|-------------------|-----------------------|--------------------------------------|----------------|----------------|-----------------|-----------------|----------------|
| Cooling capacity            | kW                | 1758                  | 1934                                 | 2110           | 2285           | 2461            | 2637            |                |
|                             | RT                | 500                   | 550                                  | 600            | 650            | 700             | 750             |                |
| Capacity adjustment range   | %                 | 10~100                | 10~100                               | 10~100         | 10~100         | 10~100          | 10~100          |                |
| EER                         | W/W               | 6.32                  | 6.43                                 | 6.53           | 6.72           | 6.74            | 6.58            |                |
| IPLV                        | W/W               | 10.55                 | 10.69                                | 10.88          | 11.2           | 11.22           | 10.95           |                |
| Power supply                | -M PhV/Hz         | 3/380/50              | 3/380/50                             | 3/380/50       | 3/380/50       | 3/380/50        | 3/380/50        |                |
|                             | -G PhV/Hz         | /                     | /                                    | /              | /              | /               | /               |                |
| Power input                 | kW                | 278                   | 301                                  | 323            | 340            | 365             | 401             |                |
|                             | -M A              | 426.7                 | 462                                  | 495.7          | 521.8          | 560.2           | 615.4           |                |
| RLA                         | -G A              | /                     | /                                    | /              | /              | /               | /               |                |
|                             | Type              | -                     | Semi-hermetic centrifugal compressor |                |                |                 |                 |                |
| Compressor                  | Starting mode     | -                     | Variable Frequency Drives            |                |                |                 |                 |                |
|                             | Quantity          | -                     | 1                                    | 1              | 1              | 1               | 1               |                |
| Refrigerant charge volume   | kg                | 575                   | 600                                  | 625            | 650            | 675             | 725             |                |
|                             | Type              | -                     | No.68 synthetic fatty oil            |                |                |                 |                 |                |
| Refrigeration oil           | Charge volume     | L                     | 45                                   | 45             | 45             | 45              | 50              |                |
|                             | Type              | -                     | Flooded type evaporator              |                |                |                 |                 |                |
| Evaporator                  | Fouling factor    | m <sup>2</sup> .°C/kW | 0.018                                | 0.018          | 0.018          | 0.018           | 0.018           |                |
|                             | Water flow volume | L/s                   | 84                                   | 92.4           | 100.8          | 109.2           | 117.6           | 126            |
|                             |                   | GPM                   | 1198.2                               | 1318.1         | 1438.1         | 1557.4          | 1677.3          | 1797.3         |
|                             | Pressure drop     | kPa                   | 60                                   | 60             | 75             | 75              | 75              | 75             |
|                             |                   | ft.WG                 | 20                                   | 20             | 25.1           | 25.1            | 25.1            | 25.1           |
|                             | Connection pipe   | -                     | DN200                                | DN250          | DN250          | DN250           | DN250           | DN250          |
| Condenser                   | Type              | -                     | Shell and tube                       |                |                |                 |                 |                |
|                             | Fouling factor    | m <sup>2</sup> .°C/kW | 0.044                                | 0.044          | 0.044          | 0.044           | 0.044           |                |
|                             | Water flow volume | L/s                   | 105                                  | 115.5          | 126            | 136.5           | 147             | 157.5          |
|                             |                   | GPM                   | 1504.7                               | 1655.3         | 1806           | 1955.8          | 2106.4          | 2257.1         |
|                             | Pressure drop     | kPa                   | 55                                   | 55             | 70             | 70              | 70              | 70             |
|                             |                   | ft.WG                 | 18.3                                 | 18.3           | 23.4           | 23.4            | 23.4            | 23.4           |
| Connection pipe             | -                 | DN200                 | DN250                                | DN250          | DN250          | DN250           | DN250           |                |
| Sound pressure level (Max.) | Db(A)             | 88                    | 90                                   | 90             | 90             | 90              | 90              |                |
| Dimension                   | Outline(WxDxH)    | mm                    | 3850x1810x2000                       | 4200x1920x2250 | 4200x1920x2250 | 4250x2020x2300  | 4250x2020x2300  | 4250x2020x2300 |
|                             | Package(WxDxH)    | mm                    | 3950x1950x2100                       | 4300x2050x2350 | 4300x2050x2350 | 4370x2050x2410  | 4370x2050x2410  | 4370x2050x2410 |
| Net/Gross/Operating weight  | Kg                | 6600/7000/7800        | 7200/7700/8600                       | 8300/8800/9800 | 8400/8900/9900 | 8500/9000/10200 | 9100/9600/10500 |                |
| Loading quantity            | 40'GP/40'HQ       | set                   | 0/0                                  | 0/0            | 0/0            | 0/0             | 0/0             |                |

# Magnetic suspension inverter centrifugal chiller(CC series)

Gree CC series magnetic suspension inverter centrifugal chiller adopts the magnetic suspension compressor for aeronautic industry, which achieves oil-free operation of cooling system, avoids complicated lubricant system and greatly improves system's reliability. This series can be widely adopted in hotels, office buildings, etc.



130/150RT



250/275/300RT



Quiet function



Comprehensive protection



Memory function



Long-distance monitoring

- It adopts magnetic bearing to achieve oil-free operation and reduce the heat exchange influence of lubricant
- The system adopts flooded heat exchange design and build-in subcooler in condenser
- Impellers directly driven by the motor with gearless design, improving the reliability of the system
- With advanced and reliable microcomputer control system, powerful group control modules and building communication interface
- User-friendly touch screen is adopted for convenient operation, precise control and stable output
- Multiple protection function
- Noise of the entire unit is lower than 70dB(A)

| Model                       |                   | LSBLX130SCE                          | LSBLX150SCE    | LSBLX250SCE    | LSBLX275SCE    | LSBLX300SCE    |                |
|-----------------------------|-------------------|--------------------------------------|----------------|----------------|----------------|----------------|----------------|
| Cooling capacity            | kW                | 457                                  | 528            | 879            | 967            | 1055           |                |
|                             | RT                | 130                                  | 150            | 250            | 275            | 300            |                |
| Capacity adjustment range   | %                 | 10~100                               |                |                |                |                |                |
| EER                         | W/W               | 5.79                                 | 5.56           | 5.98           | 5.86           | 5.76           |                |
|                             | W/W               | 10.3                                 | 10.16          | 10.5           | 10.42          | 10.2           |                |
| IPLV                        | W/W               | 10.3                                 | 10.16          | 10.5           | 10.42          | 10.2           |                |
|                             | W/W               | 10.3                                 | 10.16          | 10.5           | 10.42          | 10.2           |                |
| Power supply                | -M                | PhV/Hz                               | 3/380/50       | 3/380/50       | 3/380/50       | 3/380/50       |                |
|                             | -G                | PhV/Hz                               | /              | /              | /              | /              |                |
| Power input                 | kW                | 79                                   | 95             | 147            | 165            | 183            |                |
|                             | A                 | 121.2                                | 145.8          | 225.6          | 253.2          | 280.9          |                |
| RLA                         | -M                | A                                    | 121.2          | 145.8          | 225.6          | 253.2          |                |
|                             | -G                | A                                    | /              | /              | /              | /              |                |
| Compressor                  | Type              | Semi-hermetic centrifugal compressor |                |                |                |                |                |
|                             | Starting mode     | Variable Frequency Drives            |                |                |                |                |                |
|                             | Quantity          | 1                                    | 1              | 2              | 2              | 2              |                |
| Refrigerant charge volume   | kg                | 235                                  | 260            | 255            | 280            | 305            |                |
| Refrigeration oil           | Type              | /                                    |                |                |                |                |                |
|                             | Charge volume     | L                                    | /              | /              | /              | /              |                |
| Evaporator                  | Type              | Flooded type evaporator              |                |                |                |                |                |
|                             | Fouling factor    | m <sup>2</sup> .°C/kW                | 0.018          | 0.018          | 0.018          | 0.018          | 0.018          |
|                             | Water flow volume | L/s                                  | 19.7           | 22.7           | 37.8           | 41.6           | 45.4           |
|                             |                   | GPM                                  | 311.5          | 359.9          | 599.1          | 659.1          | 719            |
|                             | Pressure drop     | kPa                                  | 65             | 65             | 75             | 75             | 75             |
|                             |                   | ft.WG                                | 21.7           | 21.7           | 25.1           | 25.1           | 25.1           |
| Connection pipe             | -                 | DN150                                | DN150          | DN150          | DN150          | DN150          |                |
| Condenser                   | Type              | Shell and tube                       |                |                |                |                |                |
|                             | Fouling factor    | m <sup>2</sup> .°C/kW                | 0.044          | 0.044          | 0.044          | 0.044          | 0.044          |
|                             | Water flow volume | L/s                                  | 24.7           | 28.5           | 47.5           | 52.2           | 57             |
|                             |                   | GPM                                  | 391.2          | 451.9          | 752.4          | 827.7          | 903            |
|                             | Pressure drop     | kPa                                  | 60             | 60             | 70             | 70             | 70             |
|                             |                   | ft.WG                                | 20             | 20             | 20             | 20             | 20             |
| Connection pipe             | -                 | DN150                                | DN150          | DN200          | DN200          | DN200          |                |
| Sound pressure level (Max.) | Db(A)             | 86                                   |                |                |                |                |                |
| Dimension                   | Outline(WxDxH)    | mm                                   | 3000x1250x2000 | 3000x1250x2000 | 3800x1250x2000 | 3800x1250x2000 | 3800x1250x2000 |
|                             | Package(WxDxH)    | mm                                   | 3100x1350x2100 | 3100x1350x2100 | 3900x1330x2080 | 3900x1330x2080 | 3900x1330x2080 |
| Net/Gross/Operating weight  | Kg                | 2200/2500/2600                       | 2200/2500/2600 | 3000/3250/3700 | 3000/3250/3700 | 3000/3250/3700 |                |
| Loading quantity            | 40'GP/40'HQ       | set 0/0 0/0 0/0 0/0 0/0              |                |                |                |                |                |

## Control System Lineup

| Control system                    | Product series                            |                 | Modular chiller |                          |                            | Screw chiller       |                              | Centrifugal chiller   | Inverter Centrifugal Chiller | Magnetic suspension inverter centrifugal chiller(CC series) |
|-----------------------------------|---|-----------------|-----------------|--------------------------|----------------------------|---------------------|------------------------------|---|------------------------------|---|
|                                   | Split series                              | Integral series | D series        | Air-cooled Screw chiller | Water-cooled screw chiller | Centrifugal chiller | Inverter Centrifugal Chiller | Magnetic suspension inverter centrifugal chiller(CC series) |                              |   |
| Chiller                           | Wired remote controller                   | Z16301          |                 |                          |                            |                     |                              |   |                              |   |
|                                   |   | Z12301A         |                 |                          |                            |                     |                              |   |                              |   |
|                                   | Display panel                             | Z26301C         |                 |                          |                            |                     |                              |   |                              |   |
|                                   |   | Z2F3M*1         |                 |                          |                            |                     |                              |   |                              |   |
| Touch screen*1                    | Z2G1DJ01*1                                |                 |                 |                          |                            |                     |                              |   |                              |   |
|                                   | CM27-GM12/A2(M)                           |                 |                 |                          |                            |                     |                              |   |                              |   |
| Long-distance monitoring software | Gree AC Eudemon 2009*3                    | FE30-00/A(M)    |                 |                          |                            |                     |                              |   |                              |   |
|                                   |   | CM18-GM8/A2(M)  |                 |                          |                            |                     |                              |   |                              |   |
| BMS accessories*2 (modbus)        | Communication module                      | ME30-28/E(M)    |                 |                          |                            |                     |                              |   |                              |   |
| Other modules                     | Optoelectronic isolated converter         | RS232-RS422/485 |                 |                          |                            |                     |                              |   |                              |   |
|                                   | Patch board                               | RS-422/485      |                 |                          |                            |                     |                              |   |                              |   |
|                                   | Optoelectronic isolated signal multiplier | Z103            |                 |                          |                            |                     |                              |   |                              |   |

Note:

● means standard, ○ means optional.

\*1 With BMS(modbus) function.

\*2 BMS interface is equipped.

\*3 For air-cooled scroll chiller, if long-distance monitoring software Gree Eudemon 2009 is selected, the communication module ME30-28/E(M) shall be selected also.

The selection shall refer to actual models.

# TERMINAL

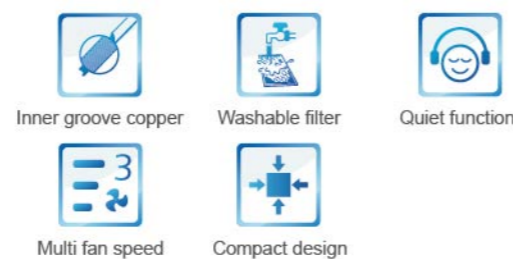
Fan Coil Unit  
Air Handling Unit  
Air Curtain  
Diffuser



# Fan Coil Unit

## Concealed Ceiling Type

It is a kind of fan coil unit that is connected to the chillers to realize cooling/heating for civil or residential use.



- Thanks to optimized air flue design that greatly improve the fan efficiency and lower the operation noise.
- Flexible air inlet/outlet directions, meet different installation requirements.
- Washable filter is optional when equipped with air return box.



| Nominal test condition (temperature) |         |         |            |             |
|--------------------------------------|---------|---------|------------|-------------|
| Item                                 | DB (°C) | WB (°C) | Inlet (°C) | Outlet (°C) |
| Cooling                              | 27      | 19.5    | 7          | 12          |
| Heating                              | 21      | —       | 60         | —           |

## 2 Rows/Standard Type\*

| Model                    |                                      | FP-34WA-K   | FP-51WA-K  | FP-68WA-K    | FP-85WA-K    | FP-102WA-K   | FP-136WA-K   | FP-170WA-K   | FP-204WA-K   |              |
|--------------------------|--------------------------------------|-------------|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Air flow volume(H/M/L)   | CFM                                  | 200/146/125 | 300/232/155  | 400/291/194  | 500/375/250  | 600/464/309  | 800/644/429  | 1000/750/500 | 1200/926/618 |              |
| ESP                      | Pa                                   | 12          | 12   | 12           | 12           | 12           | 12           | 12           | 12           |              |
| Capacity                 | Cooling/Heating                      | kW          | 1.9/3.1  | 2.8/4.4      | 3.6/5.5      | 4.5/7.0      | 5.5/8.9      | 7.4/11.0     | 9.2/14.0     | 11.0/17.0    |
| Power system             | Type                                 | PhV/Hz      | 1/220-240/50   | 1/220-240/50 | 1/220-240/50 | 1/220-240/50 | 1/220-240/50 | 1/220-240/50 | 1/220-240/50 | 1/220-240/50 |
|                          | Input                                | W           | 37   | 45           | 62           | 70           | 96           | 120          | 145          | 185          |
| Water system             | Water flow volume                    | l/s         | 0.1  | 0.14         | 0.17         | 0.21         | 0.27         | 0.6          | 0.45         | 0.5          |
|                          | Pressure drop                        | kPa         | 12   | 21           | 16           | 23           | 36           | 38           | 38           | 40           |
| Ft-WG                    |                                      | 4           | 7  | 5.3          | 7.7          | 12.0         | 12.7         | 12.7         | 13.3         |              |
| Sound pressure level     | dB(A)                                | 35          | 38   | 40           | 42           | 44           | 46           | 48           | 50           |              |
| Dimension (W×D×H)        | Outline                              | mm          | 881×510×245  | 1011×510×245 | 1131×510×245 | 1211×510×245 | 1211×510×245 | 1176×510×245 | 1761×510×245 | 1761×510×245 |
|                          | Package                              | mm          | 900×560×275  | 1030×560×275 | 1150×560×275 | 1230×560×275 | 1230×560×275 | 1780×560×275 | 1780×560×275 | 1780×560×275 |
| Net weight/Gross weight  | kg                                   | 14/17       | 15/19.5  | 16.5/21      | 18/22        | 19/24        | 28.5/35      | 34/39        | 35/40        |              |
| Connection pipe diameter | Water inlet & outlet (inner groove)  | inch(mm)    | φ3/4(19.05)  |              |              |              |              |              |              |              |
|                          | Condensed water drain (outer groove) | inch(mm)    | φ3/4(19.05)  |              |              |              |              |              |              |              |
| Loading quantity         | 40'GP/40'HQ                          | set         | 448/490  | 447/482      | 344/386      | 316/355      | 316/355      | 220/247      | 220/247      | 220/247      |
| Optionals                | Wired remote controller              | —           | Luxury wired controller: WK-010PA-K; LCD controller: WK-110PA0 |              |              |              |              |              |              |              |
|                          | Plenum with filter                   | —           | HF31   | HF32         | HF33         | HF34         | HF34         | HF36         | HF36         | HF36         |
|                          | Plenum without filter                | —           | HF41   | HF42         | HF43         | HF44         | HF44         | HF46         | HF46         | HF46         |

## 2 Rows/High ESP Type\*

| Model                    |                                      | FP-34WAH-K  | FP-51WAH-K   | FP-68WAH-K   | FP-85WAH-K   | FP-102WAH-K  | FP-136WAH-K  | FP-170WAH-K  | FP-204WAH-K  |           |
|--------------------------|--------------------------------------|-------------|--|--------------|--------------|--------------|--------------|--------------|--------------|-----------|
| Air flow volume(H/M/L)   | CFM                                  | 200/146/125 | 300/232/155  | 400/291/194  | 500/375/250  | 600/464/309  | 800/644/429  | 1000/750/500 | 1200/926/618 |           |
| ESP                      | Pa                                   | 30          | 30   | 30           | 30           | 30           | 30           | 30           | 30           |           |
| Capacity                 | Cooling/Heating                      | kW          | 1.9/3.1  | 2.8/4.4      | 3.6/5.5      | 4.5/7.0      | 5.5/8.9      | 7.4/11.0     | 9.2/14.0     | 11.0/17.0 |
| Power system             | Type                                 | PhV/Hz      | 1/220-240/50   | 1/220-240/50 | 1/220-240/50 | 1/220-240/50 | 1/220-240/50 | 1/220-240/50 | 1/220-240/50 |           |
|                          | Input                                | W           | 42   | 55           | 68           | 80           | 102          | 140          | 158          | 195       |
| Water system             | Water flow volume                    | l/s         | 0.1  | 0.14         | 0.17         | 0.21         | 0.27         | 0.6          | 0.45         | 0.5       |
|                          | Pressure drop                        | kPa         | 12   | 21           | 16           | 23           | 36           | 38           | 38           | 40        |
| Ft-WG                    |                                      | 4           | 7  | 5.3          | 7.7          | 12.0         | 12.7         | 12.7         | 13.3         |           |
| Sound pressure level     | dB(A)                                | 38          | 40   | 42           | 44           | 46           | 47           | 49           | 52           |           |
| Dimension (W×D×H)        | Outline                              | mm          | 881×510×245  | 1011×510×245 | 1131×510×245 | 1211×510×245 | 1211×510×245 | 1761×510×245 | 1761×510×245 |           |
|                          | Package                              | mm          | 900×560×275  | 1030×560×275 | 1150×560×275 | 1230×560×275 | 1230×560×275 | 1780×560×275 | 1780×560×275 |           |
| Net weight/Gross weight  | kg                                   | 14/17       | 15/19.5  | 16.5/21      | 18/22        | 19/24        | 28.5/35      | 34/39        | 35/40        |           |
| Connection pipe diameter | Water inlet & outlet (inner groove)  | inch(mm)    | φ3/4(19.05)  |              |              |              |              |              |              |           |
|                          | Condensed water drain (outer groove) | inch(mm)    | φ3/4(19.05)  |              |              |              |              |              |              |           |
| Loading quantity         | 40'GP/40'HQ                          | set         | 448/490  | 447/482      | 344/386      | 316/355      | 316/355      | 220/247      | 220/247      | 220/247   |
| Optionals                | Wired remote controller              | —           | Luxury wired controller: WK-010PA-K; LCD controller: WK-110PA0 |              |              |              |              |              |              |           |
|                          | Plenum with filter                   | —           | HF31   | HF32         | HF33         | HF34         | HF34         | HF36         | HF36         | HF36      |
|                          | Plenum without filter                | —           | HF41   | HF42         | HF43         | HF44         | HF44         | HF46         | HF46         | HF46      |

\*Note: Horizontal fan coil unit with air return can be added for option choice.

## 3 Rows\*

| Model                    |                                      | FP-34WAS-R  | FP-51WAS-R   | FP-68WAS-R   | FP-85WAS-R   | FP-102WAS-R  | FP-136WAS-R  |              |
|--------------------------|--------------------------------------|-------------|--|--------------|--------------|--------------|--------------|--------------|
| Air flow volume(H/M/L)   | CFM                                  | 200/146/125 | 300/232/155  | 400/291/194  | 500/375/250  | 600/464/309  | 800/644/429  |              |
| ESP                      | Pa                                   | 30          | 30   | 30           | 30           | 30           | 30           |              |
| Capacity                 | Cooling/Heating                      | kW          | 2.19/3.29  | 3.37/5.06    | 4.28/6.42    | 5.04/7.56    | 6.46/9.70    | 8.17/10.90   |
| Power system             | Type                                 | PhV/Hz      | 1/220-240/50   | 1/220-240/50 | 1/220-240/50 | 1/220-240/50 | 1/220-240/50 |              |
|                          | Input                                | W           | 44   | 59           | 72           | 87           | 108          | 156          |
| Water system             | Water flow volume                    | l/s         | 0.11   | 0.17         | 0.22         | 0.25         | 0.32         | 0.37         |
|                          | Pressure drop                        | kPa         | 10   | 15           | 25           | 30           | 40           | 20           |
| Ft-WG                    |                                      | 3.3         | 5  | 8.4          | 10           | 13.3         | 6.7          |              |
| Sound pressure level     | dB(A)                                | 38          | 40   | 42           | 44           | 46           | 47           |              |
| Dimension (W×D×H)        | Outline                              | mm          | 881×510×245  | 1011×510×245 | 1131×510×245 | 1211×510×245 | 1371×510×245 | 1761×510×245 |
|                          | Package                              | mm          | 900×560×275  | 1030×560×275 | 1150×560×275 | 1230×560×275 | 1390×560×275 | 1780×560×275 |
| Net weight/Gross weight  | kg                                   | 15/19       | 16/20.5  | 18/23        | 19.5/24.5    | 21/26        | 30/35        |              |
| Connection pipe diameter | Water inlet & outlet (inner groove)  | inch(mm)    | φ3/4(19.05)  |              |              |              |              |              |
|                          | Condensed water drain (outer groove) | inch(mm)    | φ3/4(19.05)  |              |              |              |              |              |
| Loading quantity         | 40'GP/40'HQ                          | set         | 448/490  | 392/434      | 344/386      | 316/355      | 268/301      | 220/247      |
| Optionals                | Wired remote controller              | —           | Luxury wired controller: WK-010PA-K; LCD controller: WK-110PA0 |              |              |              |              |              |
|                          | Plenum with filter                   | —           | HF31   | HF32         | HF33         | HF34         | HF35         | HF36         |
|                          | Plenum without filter                | —           | HF41   | HF42         | HF43         | HF44         | HF45         | HF46         |

| Model                    |                                      | FP-170WAS-R  | FP-204WAS-R  | FP-238WAS-R  | FP-272WAS-R   | FP-306WAS-R   | FP-340WAS-R   |              |
|--------------------------|--------------------------------------|--------------|--|--------------|---------------|---------------|---------------|--------------|
| Air flow volume(H/M/L)   | CFM                                  | 1000/750/500 | 1200/926/618   | 1400/971/729 | 1600/1235/868 | 1800/1006/674 | 2000/1400/812 |              |
| ESP                      | Pa                                   | 30           | 30   | 30           | 30            | 30            | 30            |              |
| Capacity                 | Cooling/Heating                      | kW           | 11.4/18.2  | 12.2/18.6    | 12.4/19.5     | 13.5/21.3     | 16.0/24.8     | 17.0/26.1    |
| Power system             | Type                                 | PhV/Hz       | 1/220-240/50   | 1/220-240/50 | 1/220-240/50  | 1/220-240/50  | 1/220-240/50  |              |
|                          | Input                                | W            | 174  | 212          | 380           | 475           | 535           | 640          |
| Water system             | Water flow volume                    | l/s          | 0.55   | 0.57         | 0.57          | 0.64          | 0.74          | 0.79         |
|                          | Pressure drop                        | kPa          | 38   | 45           | 21.9          | 27.9          | 37.5          | 41.2         |
| Ft-WG                    |                                      | 12.7         | 15   | 7.3          | 9.3           | 12.5          | 13.7          |              |
| Sound pressure level     | dB(A)                                | 49           | 52   | 56           | 59            | 62            | 63            |              |
| Dimension (W×D×H)        | Outline                              | mm           | 1921×510×245   | 1921×510×245 | 1671×595×354  | 1671×595×354  | 1921×595×354  | 1921×595×354 |
|                          | Package                              | mm           | 1940×560×275   | 1940×560×275 | 1750×650×380  | 1750×650×380  | 1950×650×380  | 1950×650×380 |
| Net weight/Gross weight  | kg                                   | 33/38.5      | 24/39.5  | 48/55        | 48/55         | 52/60         | 52/60         |              |
| Connection pipe diameter | Water inlet & outlet (inner groove)  | inch(mm)     | φ3/4(19.05)  |              |               | φ1(25.4)      |               |              |
|                          | Condensed water drain (outer groove) | inch(mm)     | φ3/4(19.05)  |              |               | φ1(25.4)      |               |              |
| Loading quantity         | 40'GP/40'HQ                          | set          | 196/220  | 196/220      | 140/166       | 140/166       | 130/153       | 130/153      |
| Optionals                | Wired remote controller              | —            | Luxury wired controller: WK-010PA-K; LCD controller: WK-110PA0 |              |               |               |               |              |
|                          | Plenum with filter                   | —            | HF37   | HF37         | HF28          | HF28          | HF29          | HF29         |
|                          | Plenum without filter                | —            | HF47   | HF47         | HF48          | HF48          | HF49          | HF49         |

| Nominal test condition (temperature) |         |         |            |             |
|--------------------------------------|---------|---------|------------|-------------|
| Item                                 | DB (°C) | WB (°C) | Inlet (°C) | Outlet (°C) |
| Cooling                              | 27      | 19      | 7          | 12          |
| Heating                              | 21      | —       | 60         | —           |

## 4 Rows\*

| Model                    |                                      | FP-34WAF-R | FP-51WAF-R   | FP-68WAF-R   | FP-85WAF-R   | FP-102WAF-R  | FP-136WAF-R  |              |
|--------------------------|--------------------------------------|------------|--|--------------|--------------|--------------|--------------|--------------|
| Air flow volume(H/M/L)   | CFM                                  | 188/156/80 | 289/259/186  | 383/324/207  | 477/368/242  | 571/507/395  | 760/616/424  |              |
| ESP                      | Pa                                   | 30         | 30   | 30           | 30           | 30           | 30           |              |
| Capacity                 | Cooling/Heating                      | kW         | 2.11/3.70  | 3.82/5.70    | 4.85/7.20    | 5.71/8.50    | 7.32/10.90   | 9.26/13.80   |
| Power system             | Type                                 | PhV/Hz     | 1/220-240/50   | 1/220-240/50 | 1/220-240/50 | 1/220-240/50 | 1/220-240/50 |              |
|                          | Input                                | W          | 44   | 59           | 80           | 87           | 108          | 156          |
| Water system             | Water flow volume                    | l/s        | 0.11   | 0.19         | 0.24         | 0.31         | 0.35         | 0.43         |
|                          | Pressure drop                        | kPa        | 15   | 7.8          | 9.7          | 23.3         | 35.5         | 16.4         |
| Ft-WG                    |                                      | 5          | 2.6  | 3.2          | 7.8          | 11.8         | 5.5          |              |
| Sound pressure level     | dB(A)                                | 40         | 42   | 44           | 47           | 49           | 50           |              |
| Dimension (W×D×H)        | Outline                              | mm         | 881×510×245  | 1011×510×245 | 1131×510×245 | 1211×510×245 | 1371×510×245 | 1761×510×245 |
|                          | Package                              | mm         | 900×560×275  | 1030×560×275 | 1150×560×275 | 1230×560×275 | 1390×560×275 | 1780×560×275 |
| Net weight/Gross weight  | kg                                   | 14.4/18.9  | 17.2/21.9  | 19.2/24.1    | 20.5/25.6    | 23.2/28.7    | 34.2/40.5    |              |
| Connection pipe diameter | Water inlet & outlet (inner groove)  | inch(mm)   | φ1(25.4)   |              |              |              |              |              |
|                          | Condensed water drain (outer groove) | inch(mm)   | φ1(25.4)   |              |              |              |              |              |
| Loading quantity         | 40'GP/40'HQ                          | set        | 448/490  | 392/434      | 344/386      | 316/355      | 268/301      | 220/247      |
| Optionals                | Wired remote controller              | —          | Luxury wired controller: WK-010PA-K; LCD controller: WK-110PA0 |              |              |              |              |              |
|                          | Plenum with filter                   | —          | HF31   | HF32         | HF33         | HF34         | HF35         | HF36         |
|                          | Plenum without filter                | —          | HF41   | HF42         | HF43         | HF44         | HF45         | HF46         |

\*Note: Horizontal fan coil unit with air return can be added for option choice.

### 4 Rows

| Model                    |                                      | FP-170WAF-R  | FP-204WAF-R  | FP-238WAF-R  | FP-272WAF-R   | FP-306WAF-R  | FP-340WAF-R   |      |
|--------------------------|--------------------------------------|--------------|--|--------------|---------------|--------------|---------------|------|
| Air flow volume(H/M/L)   | CFM                                  | 948/750/500  | 1043/926/618   | 1400/971/729 | 1600/1235/868 | 180/1006/674 | 2000/1400/812 |      |
| ESP                      | Pa                                   | 30           | 30   | 30           | 30            | 30           | 30            |      |
| Capacity                 | Cooling/Heating                      | kW 11.4/18.2 | 12.2/20.6  | 14.2/21.4    | 16.0/24.0     | 18.7/28.1    | 19.8/29.7     |      |
| Power system             | Type                                 | Ph/V/Hz      | 1/220-240/50   | 1/220-240/50 | 1/220-240/50  | 1/220-240/50 | 1/220-240/50  |      |
|                          | Input                                | W            | 174  | 212          | 380           | 475          | 535           | 640  |
| Water system             | Water flow volume                    | l/s          | 0.51   | 0.58         | 0.78          | 0.89         | 1.02          | 1.13 |
|                          | Pressure drop                        | kPa          | 23.9   | 31.5         | 29.2          | 21.7         | 26.2          | 32.5 |
| Ft-WG                    |                                      | 8.0          | 10.5   | 9.7          | 7.2           | 8.7          | 10.8          |      |
| Sound pressure level     | dB(A)                                | 51           | 52   | 56           | 58            | 60           | 61            |      |
| Dimension (W×D×H)        | Outline                              | mm           | 1921×510×245   | 1921×510×245 | 1671×595×354  | 1671×595×354 | 1921×595×354  |      |
|                          | Package                              | mm           | 1940×560×275   | 1940×560×275 | 1750×650×380  | 1750×650×380 | 1950×650×380  |      |
| Net weight/Gross weight  | kg                                   | 37.5/44      | 37.5/44  | 52/60        | 52/60         | 59/66        | 59/66         |      |
| Connection pipe diameter | Water inlet & outlet (inner groove)  | inch(mm)     | φ3/4(19.05)  |              |               | φ1(25.4)     |               |      |
|                          | Condensed water drain (outer groove) | inch(mm)     | φ3/4(19.05)  |              |               | φ1(25.4)     |               |      |
| Loading quantity         | 40'GP/40'HQ                          | set          | 196/220  | 196/220      | 140/166       | 140/166      | 130/153       |      |
| Optionals                | Wired remote controller              | —            | Luxury wired controller: WK-010PA-K; LCD controller: WK-110PA0 |              |               |              |               |      |
|                          | Plenum with filter                   | —            | HF37   | HF37         | HF28          | HF28         | HF29          |      |
|                          | Plenum without filter                | —            | HF47   | HF47         | HF48          | HF48         | HF49          |      |

### 3+1 Rows

| Model                    |                                      | FP-34WAT-R   | FP-51WAT-R   | FP-68WAT-R   | FP-85WAT-R   | FP-102WAT-R  | FP-136WAT-R  |         |
|--------------------------|--------------------------------------|--------------|--|--------------|--------------|--------------|--------------|---------|
| Air flow volume(H/M/L)   | CFM                                  | 188/156/80   | 289/259/186  | 383/324/207  | 477/368/242  | 571/507/395  | 760/616/424  |         |
| ESP                      | Pa                                   | 30           | 30   | 30           | 30           | 30           | 30           |         |
| Capacity                 | Cooling/Heating                      | kW 1.95/1.76 | 3.07/2.49  | 3.88/3.17    | 4.55/3.83    | 5.82/4.85    | 7.35/6.69    |         |
| Power system             | Type                                 | Ph/V/Hz      | 1/220-240/50   | 1/220-240/50 | 1/220-240/50 | 1/220-240/50 | 1/220-240/50 |         |
|                          | Input                                | W            | 44   | 59           | 80           | 87           | 108          | 156     |
| Water system             | Water flow volume                    | l/s          | 0.11   | 0.17         | 0.21         | 0.29         | 0.39         |         |
|                          | Pressure drop                        | kPa          | 10.6   | 23.3         | 18.2         | 38           | 56.5         | 16.8    |
| Ft-WG                    |                                      | 3.5          | 7.8  | 6.1          | 12.7         | 18.8         | 5.6          |         |
| Sound pressure level     | dB(A)                                | 40           | 42   | 44           | 47           | 49           | 50           |         |
| Dimension (W×D×H)        | Outline                              | mm           | 881×510×245  | 1011×510×245 | 1131×510×245 | 1211×510×245 | 1371×510×245 |         |
|                          | Package                              | mm           | 900×560×275  | 1030×560×275 | 1150×560×275 | 1230×560×275 | 1390×560×275 |         |
| Net weight/Gross weight  | kg                                   | 14.4/18.9    | 17.2/21.9  | 19.2/24.1    | 20.5/25.6    | 23.2/28.7    | 34.2/40.5    |         |
| Connection pipe diameter | Water inlet & outlet (inner groove)  | inch(mm)     | φ3/4(19.05)  |              |              |              |              |         |
|                          | Condensed water drain (outer groove) | inch(mm)     | φ3/4(19.05)  |              |              |              |              |         |
| Loading quantity         | 40'GP/40'HQ                          | set          | 448/490  | 392/434      | 344/386      | 316/355      | 268/301      | 220/247 |
| Optionals                | Wired remote controller              | —            | Luxury wired controller: WK-010PA-K; LCD controller: WK-110PA0 |              |              |              |              |         |
|                          | Plenum with filter                   | —            | HF31   | HF32         | HF33         | HF34         | HF35         | HF36    |
|                          | Plenum without filter                | —            | HF41   | HF42         | HF43         | HF44         | HF45         | HF46    |

| Model                    |                                      | FP-170WAT-R  | FP-204WAT-R  | FP-238WAT-R  | FP-272WAT-R   | FP-306WAT-R   | FP-340WAT-R   |
|--------------------------|--------------------------------------|--------------|--|--------------|---------------|---------------|---------------|
| Air flow volume(H/M/L)   | CFM                                  | 948/836/645  | 1043/786/754   | 1400/970/729 | 1600/1235/867 | 1800/1006/674 | 2000/1400/812 |
| ESP                      | Pa                                   | 30           | 30   | 30           | 30            | 30            | 30            |
| Capacity                 | Cooling/Heating                      | kW 9.65/7.00 | 10.96/8.85   | 12.35/12.97  | 13.49/14.165  | 15.67/16.46   | 16.53/17.36   |
| Power system             | Type                                 | Ph/V/Hz      | 1/220-240/50   | 1/220-240/50 | 1/220-240/50  | 1/220-240/50  | 1/220-240/50  |
|                          | Input                                | W            | 174  | 212          | 380           | 475           | 535           |
| Water system             | Water flow volume                    | l/s          | 0.50   | 0.52         | 0.59          | 0.65          | 0.80          |
|                          | Pressure drop                        | kPa          | 28   | 29.4         | 21.8          | 26.6          | 42.1          |
| Ft-WG                    |                                      | 9.3          | 9.8  | 7.3          | 8.9           | 14.0          | 15.5          |
| Sound pressure level     | dB(A)                                | 51           | 52   | 56           | 58            | 60            | 61            |
| Dimension (W×D×H)        | Outline                              | mm           | 1921×510×245   | 1921×510×245 | 1671×595×354  | 1671×595×354  | 1921×595×354  |
|                          | Package                              | mm           | 1940×560×275   | 1940×560×275 | 1750×650×380  | 1750×650×380  | 1950×650×380  |
| Net weight/Gross weight  | kg                                   | 37.5/44      | 37.5/44  | 52/60        | 52/60         | 59/66         | 59/66         |
| Connection pipe diameter | Water inlet & outlet (inner groove)  | inch(mm)     | φ3/4(19.05)  |              |               | φ1(25.4)      |               |
|                          | Condensed water drain (outer groove) | inch(mm)     | φ3/4(19.05)  |              |               | φ1(25.4)      |               |
| Loading quantity         | 40'GP/40'HQ                          | set          | 196/220  | 196/220      | 140/166       | 140/166       | 130/153       |
| Optionals                | Wired remote controller              | —            | Luxury wired controller: WK-010PA-K; LCD controller: WK-110PA0 |              |               |               |               |
|                          | Plenum with filter                   | —            | HF37   | HF37         | HF28          | HF28          | HF29          |
|                          | Plenum without filter                | —            | HF47   | HF47         | HF48          | HF48          | HF49          |

## High ESP Duct Type

It is a kind of fan coil unit that is connected to the chillers to realize cooling/heating for civil or residential use.



Washable filter



Quiet function



Compact design



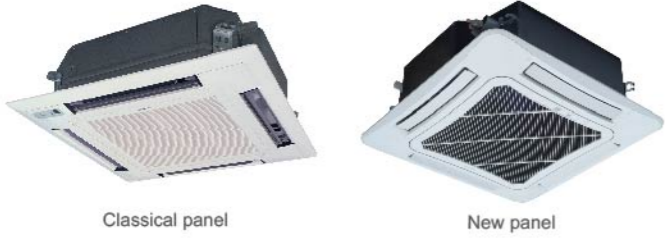
Easier maintainability

- High static pressure design up to 50Pa, especially suitable for the application with long air supply distance
- Adopting DC inverter motor for more efficient and energy-saving
- Convenient installation and compact structure

| Model                    |                                      | FP-51WA5S-K  | FP-68WA5S-K   | FP-102WA5S-K |
|--------------------------|--------------------------------------|--------------|---|--------------|
| Air flow volume(H/M/L)   | CFM                                  | 300/232/155  | 400/291/194   | 600/464/309  |
| ESP                      | Pa                                   | 50           | 50  | 50           |
| Capacity                 | Cooling/Heating                      | kW 2.85/5.06 | 4.28/6.42   | 6.46/9.7     |
| Power system             | Type                                 | Ph/V/Hz      | 1/220-240/50  | 1/220-240/50 |
|                          | Input                                | W            | 62  | 78           |
| Water system             | Water flow volume                    | l/s          | 0.169   | 0.215        |
|                          | Pressure drop                        | kPa          | 15  | 25           |
| Ft-WG                    |                                      | 5            | 8.3   |              |
| Sound pressure level     | dB(A)                                | 44           | 49  |              |
| Dimension (W×D×H)        | Outline                              | mm           | 1033x575x278  | 1153x575x278 |
|                          | Package                              | mm           | 968x510x245   | 1088x510x245 |
| Net weight/Gross weight  | kg                                   | 16.5/21      | 18/22   | 22/27        |
|                          | Water inlet & outlet (inner groove)  | inch(mm)     | 3/4" (19.05)  |              |
| Connection pipe diameter | Condensed water drain (outer groove) | inch(mm)     | 3/4" (19.05)  |              |
|                          | Loading quantity                     | 40'GP/40'HQ  | set   | —            |
| Optionals                | Wired remote controller              | —            | Luxury wired controller:WK-010PA-K;LCD controller:WK-110PA0 |              |
|                          | Plenum with filter                   | —            | HF32  | HF33         |
|                          | Plenum without filter                | —            | HF42  | HF43         |

# Fan Coil Unit

Cassette Type



- Inner groove copper
- Built-in drain pump
- Washable filter
- Anti-cold function
- Quiet function
- Multi fan speed
- Compact design
- Self-diagnosis

- Thanks to optimized air flue design that greatly improve the fan efficiency and lower the operation noise.
- Four directions airflow that makes an even temperature and humidity distribution.
- Evaporator moisture auto cleaning after power off to avoid mildew.
- Forced high speed fan operation under emergency condition.



| Nominal test condition (temperature) |         |         |            |             |
|--------------------------------------|---------|---------|------------|-------------|
| Item                                 | DB (°C) | WB (°C) | Inlet (°C) | Outlet (°C) |
| Cooling                              | 27      | 19.5    | 7          | 12          |
| Heating                              | 20      | —       | 50         | 40          |

| Model                        |                         | FP-85XD/B-T | FP-102XD/B-T | FP-125XD/B-T  | FP-140XD/B-T  | FP-160XD/B-T  | FP-180XD/B-T  | FP-200XD/B-T  |
|------------------------------|-------------------------|-------------|--------------|---------------|---------------|---------------|---------------|---------------|
| Air flow volume (H/M/L)      | CFM                     | 471/382/324 | 600/559/529  | 694/588/529   | 824/735/676   | 912/824/765   | 1059/853/794  | 1176/1000/853 |
| Capacity                     | Cooling/Heating         | kW          | 4.50/5.60    | 5.00/6.50     | 6.00/7.80     | 8.00/9.00     | 8.70/10.00    | 9.50/11.00    |
|                              | Type                    | Ph/V/Hz     | 1/220-240/50 | 1/220-240/50  | 1/220-240/50  | 1/220-240/50  | 1/220-240/50  | 1/220-240/50  |
| Power system                 | Input                   | W           | 80           | 110           | 80            | 120           | 130           | 160           |
|                              | Water flow volume       | l/s         | 0.21         | 0.24          | 0.29          | 0.38          | 0.42          | 0.45          |
|                              | Pressure drop           | kPa         | 24           | 36            | 24            | 30            | 30            | 34            |
| Water system                 |                         | Ft-WG       | 7.872        | 11.871        | 7.872         | 9.840         | 9.840         | 11.221        |
|                              | Sound pressure level    | dB(A)       | 38           | 47            | 43            | 48            | 50            | 50            |
|                              | Connection pipe size    | inch(mm)    | φ3/4(19.05)  | φ3/4(19.05)   | φ3/4(19.05)   | φ3/4(19.05)   | φ3/4(19.05)   | φ3/4(19.05)   |
| Body                         | Water inlet & outlet    |             | mm           | 840×840×190   | 840×840×190   | 840×840×240   | 840×840×240   | 840×840×320   |
|                              | Condensed water drain   |             | mm           | 960×960×257   | 960×960×257   | 960×960×310   | 960×960×310   | 960×960×394   |
|                              | Dimension (W×D×H)       | Package     | mm           | 960×960×257   | 960×960×257   | 960×960×310   | 960×960×310   | 960×960×394   |
| Panel                        | Net weight/Gross weight |             | kg           | 27/35         | 27/35         | 27/35         | 33/42         | 33/42         |
|                              | Dimension (W×D×H)       |             | mm           | 950×950×85    | 950×950×85    | 950×950×85    | 950×950×85    | 950×950×85    |
|                              | Package                 |             | mm           | 1030×1035×118 | 1030×1035×118 | 1030×1035×118 | 1030×1035×118 | 1030×1035×118 |
| Loading quantity 40'GP/40'HQ | set                     |             | 132/148      | 132/148       | 132/148       | 112/120       | 112/120       |               |
| Standard controller          | Wireless remote         |             | YB1FA(X-FAN) | YB1FA(X-FAN)  | YB1FA(X-FAN)  | YB1FA(X-FAN)  | YB1FA(X-FAN)  |               |
| Optional controller          | Wired remote            |             | Z4E351B      | Z4E351B       | Z4E351B       | Z4E351B       | Z4E351B       |               |

| Model                        |                         | FP-68XDT/B-K | FP-85XDT/B-K  | FP-125XDT/B-K | FP-180XDT/B-K |
|------------------------------|-------------------------|--------------|---------------|---------------|---------------|
| Air flow volume (H/M/L)      | CFM                     | 400          | 500           | 735           | 1059          |
| Capacity                     | Cooling/Heating         | kW           | 3.5/6         | 4.1/6.8       | 6/9.5         |
|                              | Type                    | Ph/V/Hz      | 1/220-240~/50 | 1/220-240~/50 | 1/220-240~/50 |
| Power system                 | Input                   | W            | 80            | 80            | 140           |
|                              | Water flow volume       | l/s          | 0.21          | 0.24          | 0.29          |
|                              | Pressure drop           | kPa          | 34            | 57            | 43            |
| Water system                 |                         | Ft.WG        | 11.197        | 18.601        | 14.128        |
|                              | Sound pressure level    | dB(A)        | 39            | 40            | 43            |
|                              | Connection pipe size    | mm           | 840×840×190   | 840×840×190   | 840×840×240   |
| Body                         | Condensed water drain   |              | mm            | 963×963×272   | 963×963×272   |
|                              | Dimension (W×D×H)       |              | kg            | 25/33         | 25/33         |
|                              | Package                 |              | mm            | 950×950×85    | 950×950×85    |
| Panel                        | Net weight/Gross weight |              | mm            | 1033×1038×133 | 1033×1038×133 |
|                              | Dimension (W×D×H)       |              | kg            | 7/11          | 7/11          |
|                              | Package                 |              | inch(mm)      | G3/4(26.4)    | G3/4(26.4)    |
| Loading quantity 40'GP/40'HQ | set                     |              | 131/147       | 131/147       |               |
| Standard controller          | Wireless remote         |              | YB1FA(XFAN)   | YB1FA(XFAN)   |               |
| Optional controller          | Wired remote            |              | Z4E351B       | Z4E351B       |               |

# Fan Coil Unit

Floor Ceiling Type



- Inner groove copper
- Washable filter
- Anti-cold function
- Quiet function
- Auto clean
- Multi fan speed
- Self-diagnosis
- Compact design

- Thanks to optimized air flue design that greatly improve the fan efficiency and lower the operation noise.
- The fan will be operated only if the chilled water inlet temperature is lower than the setting value to avoid warm air under cooling condition.



| Nominal test condition (temperature) |        |        |        |        |
|--------------------------------------|--------|--------|--------|--------|
| Item                                 | DB(°C) | DB(°C) | DB(°C) | DB(°C) |
| Cooling                              | 27     | 19     | 7      | 12     |
| Heating                              | 21     | —      | 70     | 60     |

| Model                        |                            | FP-34ZD-K   | FP-51ZD-K   | FP-68ZD-K   | FP-85ZD-K   | FP-102ZD-K   | FP-136ZD-K   | FP-170ZD-K    | FP-204ZD-K     |
|------------------------------|----------------------------|-------------|-------------|-------------|-------------|--------------|--------------|---------------|----------------|
| Air flow volume (H/M/L)      | m <sup>3</sup> /h          | 400/292/250 | 510/395/264 | 680/450/430 | 720/615/410 | 1020/765/510 | 1100/880/550 | 1800/1276/850 | 2040/1575/1051 |
|                              | CFM                        | 235/172/147 | 300/232/155 | 400/265/194 | 424/362/241 | 599/450/300  | 647/518/324  | 1059/751/500  | 1201/927/619   |
| Capacity                     | Cooling                    | kW          | 2.0         | 2.8         | 3.6         | 4.2          | 5.4          | 6.35          | 8.9            |
|                              | Heating                    | kW          | 5.0         | 7.2         | 8.5         | 9.5          | 11.5         | 13.7          | 19.0           |
| Power system                 | Type                       | Ph/V/Hz     | 1/230/50    | 1/230/50    | 1/230/50    | 1/230/50     | 1/230/50     | 1/230/50      | 1/230/50       |
|                              | Input                      | W           | 45          | 58          | 72          | 80           | 86           | 78            | 150            |
|                              | Water flow volume          | l/s         | 0.13        | 0.14        | 0.16        | 0.20         | 0.27         | 0.32          | 0.40           |
| Water system                 |                            | kPa         | 16.5        | 5           | 10          | 20           | 36           | 38            | 52             |
|                              | Sound pressure level       | dB(A)       | 37          | 38          | 45          | 47           | 49           | 48            | 50             |
|                              | Connection pipe diameter   | inch(mm)    | φ3/4(19.05) | φ3/4(19.05) | φ3/4(19.05) | φ3/4(19.05)  | φ3/4(19.05)  | φ3/4(19.05)   | φ3/4(19.05)    |
| Dimension (W×D×H)            | Outline                    |             | mm          | 834×238×694 | 834×238×694 | 834×238×694  | 834×238×694  | 1300×188×600  | 1300×188×600   |
|                              | Package                    |             | mm          | 963×333×845 | 963×333×845 | 963×333×845  | 963×333×845  | 1417×251×739  | 1417×251×739   |
|                              | Net weight/Gross weight    |             | kg          | 26/33       | 26/33       | 27/34        | 27/34        | 34/40         | 34/40          |
| Loading quantity 40'GP/40'HQ | set                        |             | 224/267     | 224/267     | 224/267     | 220/267      | 220/244      | 220/244       |                |
| Standard                     | Wireless remote controller | —           | YB1FA       | YB1FA       | YB1FA       | YB1FA        | YB1FA        | YB1FA         |                |
| Optional                     | Wired remote controller    | —           | Z4E351B     | Z4E351B     | Z4E351B     | Z4E351B      | Z4E351B      | Z4E351B       |                |

# Fan Coil Unit

Wall Mounted Type



-   
Inner groove copper
-   
Washable filter
-   
Anti-cold function
-   
Quiet function
-   
Auto clean
-   
Multi fan speed
-   
Compact design

- Thanks to optimized air flue design that greatly improve the fan efficiency and lower the operation noise.
- Reasonable airflow that makes an even temperature and humidity distribution.



| Nominal test condition (temperature) |        |        |           |            |
|--------------------------------------|--------|--------|-----------|------------|
| Item                                 | DB(°C) | WB(°C) | Inlet(°C) | Outlet(°C) |
| Cooling                              | 27     | 19     | 7         | 12         |
| Heating                              | 21     | —      | 60        | —          |

## With air release valve

| Model                    |                            |          | FP-34BA2/D-K | FP-51BA2/D-K | FP-68BA2/D-K | FP-85BA2/D-K |
|--------------------------|----------------------------|----------|--------------|--------------|--------------|--------------|
| Air flow volume          | High                       | CFM      | 212          | 324          | 400          | 500          |
|                          | Medium                     | CFM      | 189          | 243          | 348          | 417          |
|                          | Low                        | CFM      | 166          | 216          | 313          | 363          |
| ESP                      |                            | Pa       | 0            | 0            | 0            | 0            |
| Capacity                 | Cooling                    | kW       | 2            | 2.5          | 3.6          | 4.2          |
|                          | Heating                    | kW       | 2.7          | 3.2          | 4.6          | 5.4          |
| Power system             | Type                       | Ph/V/Hz  | 1/220-240/50 | 1/220-240/50 | 1/220-240/50 | 1/220-240/50 |
|                          | Input                      | W        | 50           | 50           | 60           | 66           |
| Water system             | Water flow volume          | l/s      | 0.111        | 0.125        | 0.167        | 0.195        |
|                          |                            | kPa      | 20           | 36           | 53           | 70           |
|                          | Pressure drop              | Ft-WG    | 6.56         | 11.81        | 17.38        | 22.96        |
| Sound pressure level     |                            | dB(A)    | 35           | 40           | 43           | 48           |
| Connection pipe diameter | Water inlet & outlet       | inch(mm) | φ1/2(12.7)   | φ1/2(12.7)   | φ1/2(12.7)   | φ1/2(12.7)   |
|                          | Condensed water drain      | inch(mm) | φ5/8(15.6)   | φ5/8(15.6)   | φ5/8(15.6)   | φ5/8(15.6)   |
| Dimension (W×D×H)        | Outline                    | mm       | 845X180X275  | 845X180X275  | 940X200X298  | 940X200X298  |
|                          | Package                    | mm       | 915X255X355  | 915X255X355  | 1010X285X380 | 1010X285X380 |
| Net weight/Gross weight  |                            | kg       | 11/14        | 11/14        | 13/17        | 13/17        |
| Loading quantity         | 40'GP/40'HQ                | set      | 765/850      | 765/850      | 595/671      | 595/671      |
| Standard                 | Wireless remote controller | —        | YB1FA(XFAN)  | YB1FA(XFAN)  | YB1FA(XFAN)  | YB1FA(XFAN)  |
| Optional                 | Wired remote controller    | —        | Z4E351B      | Z4E351B      | Z4E351B      | Z4E351B      |

# Air Handling Unit

Horizontal Mounted Packaged

It is a kind of fan coil unit that is connected to the chillers to realize cooling/heating for civil or industrial use.

## B Series



## E Series



-   
Washable filter
-   
Quiet function
-   
Compact design
-   
Easier maintainability

## B Series

- Anti-freeze designed cooling coil.
- Anti-corrosion thanks to painted double-faced electro-galvanized or hot-electro-galvanized metal case.
- Easy maintenance thanks to detachable panel and adjustable motor base.
- Blue hydrophilic aluminum fin: The fin is anti-corrosion and easy clean, lower decreasing of performance after years of operation.
- Anti-frostcrack design for heat exchanger: With proper designed water discharge valve, complete water discharging is ensured, so that the copper tube will not be frost cracked during winter.
- The heat exchange stream is well optimized design, that the heat exchange performance of the heat exchanger can be maximum utilized.
- Slimmer body by maximum optimized design, can save more space and bring down the cost.

## E Series

- Anti-freeze designed cooling coil.
- Anti-corrosion thanks to painted double-faced electro-galvanized or hot-electro-galvanized metal case.
- Easy maintenance thanks to detachable panel and adjustable motor base.
- Blue hydrophilic aluminum fin: The fin is anti-corrosion and easy clean, lower decreasing of performance after years of operation.
- Anti-frostcrack design for heat exchanger: With proper designed water discharge valve, complete water discharging is ensured, so that the copper tube will not be frost cracked during winter.
- The heat exchange stream is well optimized design, that the heat exchange performance of the heat exchanger can be maximum utilized.
- Slimmer body by maximum optimized design, can save more space and bring down the cost.

| Nominal test condition (temperature) |         |         |         |            |             |
|--------------------------------------|---------|---------|---------|------------|-------------|
| Item                                 |         | DB (°C) | WB (°C) | Inlet (°C) | Outlet (°C) |
| Return air type                      | Cooling | 27      | 19.5    | 7          | 12          |
|                                      | Heating | 21      | —       | 60         | —           |
| Fresh air type                       | Cooling | 35      | 28      | 7          | 12          |
|                                      | Heating | 7       | —       | 60         | —           |

### B Series

| Model                      |                       |             | G-1.5WD(I)(Y)/B-M | G-1.5WDX(I)(Y)/B-M | G-2WD(I)(Y)/B-M | G-2WDX(I)(Y)/B-M | G-2.5WD(I)(Y)/B-M | G-2.5WDX(I)(Y)/B-M |             |
|----------------------------|-----------------------|-------------|-------------------|--------------------|-----------------|------------------|-------------------|--------------------|-------------|
| Air flow volume            |                       |             | m³/h              | 1500               | 1500            | 2000             | 2000              | 2500               | 2500        |
|                            |                       |             | CFM               | 881                | 881             | 1174             | 1174              | 1468               | 1468        |
| Capacity (4/6rows)         | Cooling               | kW          | 8.40/12.03        | 20.85/23.49        | 11.03/13.50     | 25.71/31.32      | 14.10/18.42       | 35.48/39.15        |             |
|                            | Heating               | kW          | 13.70/17.28       | 22.58/26.19        | 17.96/19.58     | 28.26/33.21      | 22.27/27.02       | 37.64/42.91        |             |
| Water flow volume(4/6rows) |                       |             | l/s               | 0.41/0.57          | 1/1.25          | 0.53/0.65        | 1.23/1.59         | 0.67/0.88          | 1.69/2.05   |
|                            |                       |             | GPM               | 1.80/2.51          | 4.4/5.5         | 2.33/2.86        | 5.412/6.996       | 2.95/3.87          | 7.436/9.02  |
| Pressure drop(4/6rows)     |                       |             | kPa               | 5/7                | 10.74/21.05     | 7/10             | 15.6/32.19        | 8/11               | 30.81/20.99 |
|                            |                       |             | Ft-WG             | 1.67/2.34          | 3.59/7.02       | 2.34             | 5.21/10.73        | 2.67               | 10.29/7     |
| Esp.range(optional)        |                       |             | Pa                | 40-300             | 40-300          | 40-300           | 40-300            | 50-350             | 50-350      |
|                            |                       |             | Ft-WG             | 0.013-0.098        | 0.013-0.1       | 0.013-0.098      | 0.013-0.1         | 0.016-0.115        | 0.017-0.117 |
| 4 Rows                     | ESP range 1           | ESP         | Pa                | 40-300             | 40-300          | 40-300           | 40-300            | 50-200             | 50-210      |
|                            |                       | Motor Input | Kw                | 0.55               | 0.55            | 0.55             | 0.55              | 0.55               | 0.55        |
|                            | ESP range 2           | ESP         | Pa                | -                  | -               | -                | -                 | 200-350            | 210-350     |
|                            |                       | Motor Input | Kw                | -                  | -               | -                | -                 | 0.75               | 0.75        |
|                            | ESP range 3           | ESP         | Pa                | -                  | -               | -                | -                 | -                  | -           |
|                            |                       | Motor Input | Kw                | -                  | -               | -                | -                 | -                  | -           |
| 6 Rows                     | ESP range 1           | ESP         | Pa                | 40-300             | 40-300          | 40-240           | 40-300            | 50-170             | 50-210      |
|                            |                       | Motor Input | Kw                | 0.55               | 0.55            | 0.55             | 0.55              | 0.55               | 0.55        |
|                            | ESP range 2           | ESP         | Pa                | -                  | -               | 240-300          | -                 | 170-290            | 210-350     |
|                            |                       | Motor Input | Kw                | -                  | -               | 0.75             | -                 | 0.75               | 0.75        |
|                            | ESP range 3           | ESP         | Pa                | -                  | -               | -                | -                 | 290-350            | -           |
|                            |                       | Motor Input | Kw                | -                  | -               | -                | -                 | 1.1                | -           |
| Net weight(4/6rows)        |                       |             | kg                | 103/140            | 105/140         | 138/150          | 125/160           | 146/160            | 125/160     |
| Gross weight(4/6rows)      |                       |             | kg                | 130/170            | 130/165         | 173/185          | 160/200           | 186/200            | 160/200     |
| Sound pressure level       |                       |             | dB(A)             | 53                 | 53              | 55               | 55                | 56                 | 56          |
| Connection pipe size       | Water inlet & outlet  | —           | DN40              | DN40               | DN40            | DN40             | DN40              | DN40               | DN40        |
|                            | Condensed water drain | —           | DN25              | DN25               | DN25            | DN25             | DN25              | DN25               | DN25        |
| Dimension (W×D×H)          | Outline               | mm          | 1100×1020×440     | 1100X1020X440      | 1100×1020×460   | 1100X1020X460    | 1400×1120×460     | 1400X1120X460      |             |
|                            | Package               | mm          | 1280×1130×595     | 1280X1130X595      | 1280×1230×615   | 1280X1230X615    | 1580×1230×615     | 1580X1230X615      |             |
| Loading quantity           | 40'GP                 | set         | 54                | 54                 | 54              | 54               | 44                | 44                 |             |
|                            | 40'HQ                 | set         | 54                | 54                 | 54              | 54               | 44                | 44                 |             |

| Model                      |                       |             | G-3WD(I)(Y)/B-M | G-3WDX(I)(Y)/B-M | G-4WD(I)(Y)/B-M | G-4WDX(I)(Y)/B-M |               |
|----------------------------|-----------------------|-------------|-----------------|------------------|-----------------|------------------|---------------|
| Air flow volume            |                       |             | m³/h            | 3000             | 3000            | 4000             |               |
|                            |                       |             | CFM             | 1761             | 1761            | 2348             |               |
| Capacity (4/6rows)         | Cooling               | kW          | 17.11/21.53     | 40.6/46.99       | 22.50/28.78     | 48.74/62.64      |               |
|                            | Heating               | kW          | 27.80/30.13     | 43.44/49.83      | 34.55/42.79     | 56.64/64.22      |               |
| Water flow volume(4/6rows) |                       |             | l/s             | 0.86/1.03        | 1.94/2.38       | 1.08/1.38        | 2.33/3.07     |
|                            |                       |             | GPM             | 3.78/4.53        | 8.536/10.472    | 4.75/6.07        | 10.252/13.508 |
| Pressure drop(4/6rows)     |                       |             | kPa             | 11/15            | 39.15/27.45     | 13/16            | 6.5/13.4      |
|                            |                       |             | Ft-WG           | 3.67             | 13.08/9.15      | 4.34             | 2.17/4.47     |
| Esp.range(optional)        |                       |             | Pa              | 50-350           | 50-350          | 65-350           | 65-350        |
|                            |                       |             | Ft-WG           | 0.016-0.115      | 0.017-0.117     | 0.021-0.115      | 0.022-0.117   |
| 4 Rows                     | ESP range 1           | ESP         | Pa              | 50-130           | 50-140          | 65-130           | 65-150        |
|                            |                       | Motor Input | Kw              | 0.55             | 0.55            | 0.75             | 0.75          |
|                            | ESP range 2           | ESP         | Pa              | 130-210          | 140-230         | 130-250          | 150-250       |
|                            |                       | Motor Input | Kw              | 0.75             | 0.75            | 1.1              | 1.1           |
|                            | ESP range 3           | ESP         | Pa              | 210-350          | 230-350         | 250-350          | 250-350       |
|                            |                       | Motor Input | Kw              | 1.1              | 1.1             | 1.5              | 1.5           |
| 6 Rows                     | ESP range 1           | ESP         | Pa              | 50-180           | 50-140          | 65-180           | 65-150        |
|                            |                       | Motor Input | Kw              | 0.75             | 0.55            | 0.75             | 0.75          |
|                            | ESP range 2           | ESP         | Pa              | 180-280          | 140-230         | 100-220          | 150-250       |
|                            |                       | Motor Input | Kw              | 1.1              | 0.75            | 1.1              | 1.1           |
|                            | ESP range 3           | ESP         | Pa              | 280-350          | 230-350         | 220-350          | 250-350       |
|                            |                       | Motor Input | Kw              | 1.5              | 1.1             | 1.5              | 1.5           |
| Net weight(4/6rows)        |                       |             | kg              | 167/180          | 160/180         | 186/200          | 195/200       |
| Gross weight(4/6rows)      |                       |             | kg              | 207/220          | 195/210         | 236/250          | 230/235       |
| Sound pressure level       |                       |             | dB(A)           | 58               | 58              | 59               | 59            |
| Connection pipe size       | Water inlet & outlet  | —           | DN40            | DN40             | DN40            | DN40             | DN40          |
|                            | Condensed water drain | —           | DN25            | DN25             | DN25            | DN25             | DN25          |
| Dimension (W×D×H)          | Outline               | mm          | 1600×1120×460   | 1680X1120X460    | 2000×1120×460   | 2080X1120X460    |               |
|                            | Package               | mm          | 1780×1230×615   | 1780X1230X615    | 2180×1230×615   | 2180X1230X615    |               |
| Loading quantity           | 40'GP                 | set         | 44              | 44               | 18              | 18               |               |
|                            | 40'HQ                 | set         | 44              | 44               | 18              | 18               |               |

Note:  
 1. Testing conditions is as follows:  
 COOLING: Air 35°CDB/28°CWB; Entering water temp. 7°C; Leaving water temp. 12°C; HEATING: Air 7°CDB; Entering water temp. 60°C;  
 2. Sound power level according to Iso5151-sound pressure calculated at 1m distance.  
 3. Operation weight= Net. Weight x 1.2  
 4. Data of motor power, sound pressure lever etc. listed above may change according to the different standard ESP type selected, please see the standard data on nameplate on the unit or consult our sales person.

| Model                      |                       |             | G-5WD(I)(Y)/B-M | G-5WDX(I)(Y)/B-M | G-6WD(I)(Y)/B-M | G-6WDX(I)(Y)/B-M |             |
|----------------------------|-----------------------|-------------|-----------------|------------------|-----------------|------------------|-------------|
| Air flow volume            |                       |             | m³/h            | 5000             | 5000            | 6000             |             |
|                            |                       |             | CFM             | 2935             | 2935            | 3522             |             |
| Capacity (4/6rows)         | Cooling               | kW          | 28.69/36.19     | 60.87/78.31      | 33.47/43.52     | 73.21/93.97      |             |
|                            | Heating               | kW          | 43.40/53.90     | 67.72/80.11      | 52.70/63.40     | 81.27/96.2       |             |
| Water flow volume(4/6rows) |                       |             | l/s             | 1.37/1.73        | 2.91/3.83       | 1.68/2.08        | 3.5/4.6     |
|                            |                       |             | GPM             | 6.03/7.61        | 12.804/16.852   | 7.39/9.15        | 15.4/20.24  |
| Pressure drop(4/6rows)     |                       |             | kPa             | 16/19            | 10.1/20.7       | 16/21            | 10.1/20.7   |
|                            |                       |             | Ft-WG           | 5.34/6.35        | 3.37/6.9        | 5.28/6.95        | 3.37/6.9    |
| Esp.range(optional)        |                       |             | Pa              | 65-350           | 65-350          | 75-400           | 75-400      |
|                            |                       |             | Ft-WG           | 0.021-0.115      | 0.022-0.117     | 0.025-0.131      | 0.025-0.133 |
| 4 Rows                     | ESP range 1           | ESP         | Pa              | 65-220           | 65-160          | 75-180           | 75-280      |
|                            |                       | Motor Input | Kw              | 1.1              | 1.1             | 1.1              | 1.5         |
|                            | ESP range 2           | ESP         | Pa              | 220-310          | 160-280         | 180-290          | 280-400     |
|                            |                       | Motor Input | Kw              | 1.5              | 1.5             | 1.5              | 2.2         |
|                            | ESP range 3           | ESP         | Pa              | 310-400          | 280-350         | 290-400          | -           |
|                            |                       | Motor Input | Kw              | 2.2              | 2.2             | 2.2              | -           |
| 6 Rows                     | ESP range 1           | ESP         | Pa              | 65-190           | 65-160          | 75-150           | 75-280      |
|                            |                       | Motor Input | Kw              | 1.1              | 1.1             | 1.1              | 1.5         |
|                            | ESP range 2           | ESP         | Pa              | 190-280          | 160-280         | 150-250          | 280-400     |
|                            |                       | Motor Input | Kw              | 1.5              | 1.5             | 1.5              | 2.2         |
|                            | ESP range 3           | ESP         | Pa              | 280-400          | 280-350         | 60-400           | -           |
|                            |                       | Motor Input | Kw              | 2.2              | 2.2             | 2.2              | -           |
| Net weight(4/6rows)        |                       |             | kg              | 235/250          | 235/250         | 235/250          | 235/250     |
| Gross weight(4/6rows)      |                       |             | kg              | 290/305          | 290/300         | 290/305          | 290/300     |
| Sound pressure level       |                       |             | dB(A)           | 60               | 60              | 60               | 60          |
| Connection pipe size       | Water inlet & outlet  | —           | DN50            | DN50             | DN50            | DN50             |             |
|                            | Condensed water drain | —           | DN25            | DN25             | DN25            | DN25             |             |
| Dimension (W×D×H)          | Outline               | mm          | 2100×1320×560   | 2180X1320X560    | 2100×1320×560   | 2180X1320X560    |             |
|                            | Package               | mm          | 2280×1430×715   | 2280X1430X715    | 2280×1430×715   | 2280X1430X715    |             |
| Loading quantity           | 40'GP                 | set         | 18              | 18               | 18              | 18               |             |
|                            | 40'HQ                 | set         | 18              | 18               | 18              | 18               |             |

| Model                      |                       |             | G-7WD(I)(Y)/B-M | G-7WDX(I)(Y)/B-M | G-8WD(I)(Y)/B-M | G-8WDX(I)(Y)/B-M |               |
|----------------------------|-----------------------|-------------|-----------------|------------------|-----------------|------------------|---------------|
| Air flow volume            |                       |             | m³/h            | 7000             | 7000            | 8000             |               |
|                            |                       |             | CFM             | 4109             | 4109            | 4696             |               |
| Capacity (4/6rows)         | Cooling               | kW          | 39.04/53.22     | 91.62/109.63     | 44.62/59.70     | 100.82/125.29    |               |
|                            | Heating               | kW          | 62.80/77.17     | 99.12/117.14     | 66.80/87.56     | 110/130.58       |               |
| Water flow volume(4/6rows) |                       |             | l/s             | 2.01/2.54        | 4.38/5.6        | 2.33/2.85        | 4.82/6.24     |
|                            |                       |             | GPM             | 8.84/11.18       | 19.27/24.64     | 10.25/12.54      | 21.208/27.456 |
| Pressure drop(4/6rows)     |                       |             | kPa             | 17/21            | 16.4/32.4       | 18/22            | 19.4/39.3     |
|                            |                       |             | Ft-WG           | 5.68/7.01        | 5.48/10.8       | 6.01/7.35        | 6.48/13.1     |
| Esp.range(optional)        |                       |             | Pa              | 75-400           | 75-400          | 90-450           | 90-450        |
|                            |                       |             | Ft-WG           | 0.025-0.131      | 0.025-0.133     | 0.030-0.148      | 0.03-0.15     |
| 4 Rows                     | ESP range 1           | ESP         | Pa              | 75-230           | 75-200          | 90-200           | 90-320        |
|                            |                       | Motor Input | Kw              | 1.5              | 1.5             | 1.5              | 2.2           |
|                            | ESP range 2           | ESP         | Pa              | 230-380          | 200-400         | 200-330          | 320-450       |
|                            |                       | Motor Input | Kw              | 2.2              | 2.2             | 2.2              | 3             |
|                            | ESP range 3           | ESP         | Pa              | 380-450          | -               | 330-450          | -             |
|                            |                       | Motor Input | Kw              | 3.0              | -               | 3.0              | -             |
| 6 Rows                     | ESP range 1           | ESP         | Pa              | 75-200           | 75-200          | 90-170           | 90-320        |
|                            |                       | Motor Input | Kw              | 1.5              | 1.5             | 1.5              | 2.2           |
|                            | ESP range 2           | ESP         | Pa              | 200-350          | 200-400         | 170-300          | 320-450       |
|                            |                       | Motor Input | Kw              | 2.2              | 2.2             | 2.2              | 3             |
|                            | ESP range 3           | ESP         | Pa              | 350-450          | -               | 300-450          | -             |
|                            |                       | Motor Input | Kw              | 3.0              | -               | 3.0              | -             |
| Net weight(4/6rows)        |                       |             | kg              | 280/300          | 280/300         | 325/350          | 325/350       |
| Gross weight(4/6rows)      |                       |             | kg              | 340/360          | 340/360         | 390/415          | 390/415       |
| Sound pressure level       |                       |             | dB(A)           | 61               | 61              | 63               | 63            |
| Connection pipe size       | Water inlet & outlet  | —           | DN50            | DN50             | DN50            | DN50             |               |
|                            | Condensed water drain | —           | DN25            | DN25             | DN25            | DN25             |               |
| Dimension (W×D×H)          | Outline               | mm          | 2300×1320×560   | 2380X1320X560    | 2300×1320×560   | 2380X1320X560    |               |
|                            | Package               | mm          | 2480×1430×715   | 2480X1430X715    | 2480×1430×715   | 2480X1430X815    |               |
| Loading quantity           | 40'GP                 | set         | 18              | 18               | 18              | 18               |               |
|                            | 40'HQ                 | set         | 18              | 18               | 18              | 18               |               |

Note:  
 1. Testing conditions is as follows:  
 COOLING: Air 35°CDB/28°CWB; Entering water temp. 7°C; Leaving water temp. 12°C; HEATING: Air 7°CDB; Entering water temp. 60°C;  
 2. Sound power level according to Iso5151-sound pressure calculated at 1m distance.  
 3. Operation weight= Net. Weight x 1.2  
 4. Data of motor power, sound pressure lever etc. listed above may change according to the different standard ESP type selected, please see the standard data on nameplate on the unit or consult our sales person.



### E Series

| Model                      |                       |                   | G-1.5WD(I)(Y)/E-M       | G-1.5WDX(I)(Y)/E-M      | G-2WD(I)(Y)/E-M         | G-2WDX(I)(Y)/E-M | G-2.5WD(I)(Y)/E-M | G-2.5WDX(I)(Y)/E-M |
|----------------------------|-----------------------|-------------------|-------------------------|-------------------------|-------------------------|------------------|-------------------|--------------------|
| Air flow volume            |                       | m <sup>3</sup> /h | 1500                    | 1500                    | 2000                    | 2000             | 2500              | 2500               |
|                            |                       | CFM               | 881                     | 881                     | 1175                    | 1175             | 1469              | 1469               |
| Capacity (4/6rows)         | Cooling               | kW                | 9.8/11.96               | 20.6/25.8               | 12.5/14.26              | 27.5/33.5        | 15.6/19.2         | 33/41.6            |
|                            | Heating               | kW                | 15.8/17.12              | 22.8/24.8               | 22.4/22.62              | 27.3/25.8        | 27.3/25.8         | 35.8/41.3          |
| Water flow volume(4/6rows) |                       | l/s               | 0.43/0.57               | 0.99/1.25               | 0.53/0.65               | 1.28/1.6         | 0.66/0.88         | 1.57/2.1           |
|                            |                       | GPM               | 1.89/2.51               | 4.36/5.50               | 2.33/2.86               | 5.63/7.04        | 2.9/3.87          | 6.97/9.24          |
| Pressure drop(4/6rows)     |                       | kPa               | 6.5/5.25                | 30.3/30.4               | 9.2/7.85                | 40.5/22.3        | 16.3/15.40        | 25.4/35.6          |
|                            |                       | Ft-WG             | 2.17/1.75               | 10.12/10.15             | 3.07/2.62               | 13.53/7.45       | 5.44/5.14         | 8.48/11.89         |
| Esp.range(optional)        |                       | Pa                | 40-285/50-280           | 40-285/50-280           | 40-285/55-295           | 40-285/55-295    | 90-255/95-270     | 90-255/95-270      |
|                            |                       | Ft-WG             | 0.013-0.093/0.016-0.092 | 0.013-0.093/0.018-0.097 | 0.030-0.084/0.031-0.089 |                  |                   |                    |
| 4 Rows                     | ESP range 1           | ESP               | Pa                      | 40-285                  | 40-285                  | 40-285           | 90-222            | 90-222             |
|                            |                       | Motor Input       | Kw                      | 0.55                    | 0.55                    | 0.55             | 0.55              | 0.55               |
|                            | ESP range 2           | ESP               | Pa                      | -                       | -                       | -                | 233-255           | 223-255            |
|                            |                       | Motor Input       | Kw                      | -                       | -                       | -                | 0.75              | 0.75               |
|                            | ESP range 3           | ESP               | Pa                      | -                       | -                       | -                | -                 | -                  |
|                            |                       | Motor Input       | Kw                      | -                       | -                       | -                | -                 | -                  |
| 6 Rows                     | ESP range 1           | ESP               | Pa                      | 50-280                  | 50-280                  | 55-295           | 95-233            | 95-233             |
|                            |                       | Motor Input       | Kw                      | 0.55                    | 0.55                    | 0.55             | 0.55              | 0.55               |
|                            | ESP range 2           | ESP               | Pa                      | -                       | -                       | -                | 234-270           | 234-270            |
|                            |                       | Motor Input       | Kw                      | -                       | -                       | -                | 0.75              | 0.75               |
|                            | ESP range 3           | ESP               | Pa                      | -                       | -                       | -                | -                 | -                  |
|                            |                       | Motor Input       | Kw                      | -                       | -                       | -                | -                 | -                  |
| Net weight(4/6rows)        |                       | kg                | 98/104                  | 98/104                  | 98/104                  | 107/115          | 107/115           |                    |
| Gross weight(4/6rows)      |                       | kg                | 127/133                 | 127/133                 | 127/133                 | 137/145          | 137/145           |                    |
| Sound pressure level       |                       | dB(A)             | ≤53                     | ≤53                     | ≤55                     | ≤56              | ≤61               |                    |
| Connection pipe size       | Water inlet & outlet  |                   | DN25                    | DN25                    | DN25                    | DN25             | DN25              |                    |
|                            | Condensed water drain |                   | DN25                    | DN25                    | DN25                    | DN25             | DN25              |                    |
| Dimension (W×D×H)          | Outline               | mm                | 1070×1050×478           | 1070×1050×478           | 1070×1050×478           | 1070×1050×478    | 2570×1050×704     | 2570×1050×704      |
|                            | Package               | mm                | 1370X1130X535           | 1370X1130X535           | 1370X1130X535           | 1370X1130X535    | 2770×1130×789     | 2770×1130×789      |
| Loading quantity           | 40'GP                 | set               | 32                      | 32                      | 32                      | 32               | 28                | 28                 |
|                            | 40'HQ                 | set               | 32                      | 32                      | 32                      | 32               | 28                | 28                 |

| Model                      |                       |                   | G-6WD(I)(Y)/E-M         | G-6WDX(I)(Y)/E-M        | G-7WD(I)(Y)/E-M         | G-7WDX(I)(Y)/E-M | G-8WD(I)(Y)/E-M | G-8WDX(I)(Y)/E-M |         |
|----------------------------|-----------------------|-------------------|-------------------------|-------------------------|-------------------------|------------------|-----------------|------------------|---------|
| Air flow volume            |                       | m <sup>3</sup> /h | 6000                    | 6000                    | 7000                    | 7000             | 8000            | 8000             |         |
|                            |                       | CFM               | 3525                    | 3525                    | 4112                    | 4112             | 4699            | 4699             |         |
| Capacity (4/6rows)         | Cooling               | kW                | 37.4/44.1               | 79.6/98.8               | 43.6/50.8               | 92.9/112.3       | 49.8/62.5       | 106.3/129.7      |         |
|                            | Heating               | kW                | 66.8/63.5               | 80.7/96.5               | 78.8/72.5               | 89.5/113.6       | 90.8/88.7       | 108.8/124.1      |         |
| Water flow volume(4/6rows) |                       | l/s               | 1.6/2.1                 | 3.8/4.7                 | 1.83/2.43               | 4.4/5.4          | 2.1/2.85        | 5.1/6.1          |         |
|                            |                       | GPM               | 7.04/9.24               | 16.72/20.68             | 8.05/10.69              | 19.49/23.76      | 9.24/12.54      | 22.44/26.84      |         |
| Pressure drop(4/6rows)     |                       | kPa               | 38.9/34.10              | 45.8/29.4               | 46.7/17.30              | 50.5/31.5        | 53.5/20.80      | 55.1/40.4        |         |
|                            |                       | Ft-WG             | 12.99/11.39             | 15.30/9.82              | 15.60/5.78              | 16.87/10.52      | 17.87/6.95      | 18.40/13.49      |         |
| Esp.range(optional)        |                       | Pa                | 75-400/135-400          | 75-400/135-400          | 75-360/120-400          | 75-360/120-400   | 90-370/140-370  | 90-370/140-370   |         |
|                            |                       | Ft-WG             | 0.025-0.131/0.044-0.131 | 0.025-0.118/0.039-0.131 | 0.030-0.121/0.046-0.121 |                  |                 |                  |         |
| 4 Rows                     | ESP range 1           | ESP               | Pa                      | 72-146                  | 75-146                  | 75-257           | 75-257          | 90-182           | 90-182  |
|                            |                       | Motor Input       | Kw                      | 0.75                    | 0.75                    | 1.1              | 1.1             | 1.1              | 1.1     |
|                            | ESP range 2           | ESP               | Pa                      | 147-347                 | 147-347                 | 258-360          | 258-360         | 183-307          | 183-307 |
|                            |                       | Motor Input       | Kw                      | 1.1                     | 1.1                     | 1.5              | 1.5             | 1.5              | 1.5     |
|                            | ESP range 3           | ESP               | Pa                      | 348-400                 | 348-400                 | -                | -               | 308-370          | 308-370 |
|                            |                       | Motor Input       | Kw                      | 1.5                     | 1.5                     | -                | -               | 2.2              | 2.2     |
| 6 Rows                     | ESP range 1           | ESP               | Pa                      | 135-280                 | 135-280                 | 120-254          | 120-254         | 140-175          | 140-175 |
|                            |                       | Motor Input       | Kw                      | 1.1                     | 1.1                     | 1.1              | 1.1             | 1.1              | 1.1     |
|                            | ESP range 2           | ESP               | Pa                      | 281-400                 | 281-400                 | 255-400          | 255-400         | 176-300          | 176-300 |
|                            |                       | Motor Input       | Kw                      | 1.5                     | 1.5                     | 1.5              | 1.5             | 1.5              | 1.5     |
|                            | ESP range 3           | ESP               | Pa                      | -                       | -                       | -                | -               | 301-370          | 301-370 |
|                            |                       | Motor Input       | Kw                      | -                       | -                       | -                | -               | 2.2              | 2.2     |
| Net weight(4/6rows)        |                       | kg                | 163/179                 | 163/179                 | 179/197                 | 179/197          | 209/229         | 209/229          |         |
| Gross weight(4/6rows)      |                       | kg                | 190/206                 | 190/206                 | 210/228                 | 210/228          | 236/256         | 236/256          |         |
| Sound pressure level       |                       | dB(A)             | ≤60                     | ≤60                     | ≤61                     | ≤61              | ≤63             | ≤63              |         |
| Connection pipe size       | Water inlet & outlet  |                   | DN40                    | DN40                    | DN40                    | DN40             | DN40            | DN40             |         |
|                            | Condensed water drain |                   | DN25                    | DN25                    | DN25                    | DN25             | DN25            | DN25             |         |
| Dimension (W×D×H)          | Outline               | mm                | 1500×1050×734           | 1500×1050×734           | 1670×1050×734           | 1670×1050×734    | 1870×1050×734   | 1870×1050×734    |         |
|                            | Package               | mm                | 1700×1130×812           | 1700×1130×812           | 1870×1130×812           | 1870×1130×812    | 2070×1130×812   | 2070×1130×812    |         |
| Loading quantity           | 40'GP                 | set               | 24                      | 24                      | 24                      | 24               | 20              | 20               |         |
|                            | 40'HQ                 | set               | 24                      | 24                      | 24                      | 24               | 20              | 20               |         |

| Model                      |                       |                   | G-3WD(I)(Y)/E-M         | G-3WDX(I)(Y)/E-M        | G-4WD(I)(Y)/E-M         | G-4WDX(I)(Y)/E-M | G-5WD(I)(Y)/E-M | G-5WDX(I)(Y)/E-M |         |
|----------------------------|-----------------------|-------------------|-------------------------|-------------------------|-------------------------|------------------|-----------------|------------------|---------|
| Air flow volume            |                       | m <sup>3</sup> /h | 3000                    | 3000                    | 4000                    | 4000             | 5000            | 5000             |         |
|                            |                       | CFM               | 1762                    | 1762                    | 2350                    | 2350             | 2937            | 2937             |         |
| Capacity (4/6rows)         | Cooling               | kW                | 18.7/22.13              | 40.7/50.2               | 24.9/30.18              | 55.3/66.6        | 31/35.4         | 66.3/82.4        |         |
|                            | Heating               | kW                | 33.5/33                 | 42.5/49.8               | 43.2/44.2               | 55.9/64.3        | 56.1/53.1       | 68.9/81.1        |         |
| Water flow volume(4/6rows) |                       | l/s               | 0.79/1.03               | 1.9/2.4                 | 1.1/1.44                | 2.63/3.2         | 1.3/1.71        | 3.17/4.0         |         |
|                            |                       | GPM               | 3.48/4.53               | 8.36/10.56              | 4.84/6.34               | 11.57/14.08      | 5.72/7.52       | 13.95/17.60      |         |
| Pressure drop(4/6rows)     |                       | kPa               | 26.2/19.92              | 46.6/42.5               | 20.1/24.60              | 30.8/50.8        | 35.3/34.00      | 56.9/35.6        |         |
|                            |                       | Ft-WG             | 8.75/6.65               | 15.56/14.20             | 6.71/8.22               | 10.29/16.97      | 11.79/11.36     | 19/11.89         |         |
| Esp.range(optional)        |                       | Pa                | 75-400/90-345           | 75-400/90-345           | 60-400/120-400          | 60-400/120-400   | 95-400/135-390  | 95-400/135-390   |         |
|                            |                       | Ft-WG             | 0.025-0.131/0.030-0.113 | 0.020-0.131/0.039-0.131 | 0.031-0.131/0.044-0.128 |                  |                 |                  |         |
| 4 Rows                     | ESP range 1           | ESP               | Pa                      | 75-249                  | 75-246                  | 60-281           | 60-280          | 95-134           | 95-134  |
|                            |                       | Motor Input       | Kw                      | 0.55                    | 0.55                    | 0.75             | 0.75            | 0.75             | 0.75    |
|                            | ESP range 2           | ESP               | Pa                      | 250-343                 | 250-343                 | 282-400          | 282-400         | 135-400          | 135-400 |
|                            |                       | Motor Input       | Kw                      | 0.75                    | 0.75                    | 1.1              | 1.1             | 1.1              | 1.1     |
|                            | ESP range 3           | ESP               | Pa                      | 344-400                 | 344-400                 | -                | -               | -                | -       |
|                            |                       | Motor Input       | Kw                      | 1.1                     | 1.1                     | -                | -               | -                | -       |
| 6 Rows                     | ESP range 1           | ESP               | Pa                      | 90-176                  | 90-176                  | 120-246          | 120-246         | 135-390          | 135-390 |
|                            |                       | Motor Input       | Kw                      | 0.55                    | 0.55                    | 0.75             | 0.75            | 1.1              | 1.1     |
|                            | ESP range 2           | ESP               | Pa                      | 177-271                 | 177-271                 | 247-400          | 247-400         | -                | -       |
|                            |                       | Motor Input       | Kw                      | 0.75                    | 0.75                    | 1.1              | 1.1             | -                | -       |
|                            | ESP range 3           | ESP               | Pa                      | 272-345                 | 272-345                 | -                | -               | -                | -       |
|                            |                       | Motor Input       | Kw                      | 1.1                     | 1.1                     | -                | -               | -                | -       |
| Net weight(4/6rows)        |                       | kg                | 110/119                 | 110/119                 | 134/144                 | 134/144          | 145/158         | 145/158          |         |
| Gross weight(4/6rows)      |                       | kg                | 139/148                 | 139/148                 | 165/175                 | 165/175          | 175/188         | 175/188          |         |
| Sound pressure level       |                       | dB(A)             | ≤58                     | ≤58                     | ≤59                     | ≤59              | ≤60             | ≤60              |         |
| Connection pipe size       | Water inlet & outlet  |                   | DN25                    | DN25                    | DN32                    | DN32             | DN32            | DN32             |         |
|                            | Condensed water drain |                   | DN25                    | DN25                    | DN25                    | DN25             | DN25            | DN25             |         |
| Dimension (W×D×H)          | Outline               | mm                | 1070×1050×651           | 1070×1050×651           | 1270×1050×651           | 1270×1050×651    | 1450×1050×651   | 1450×1050×651    |         |
|                            | Package               | mm                | 1270×1130×690           | 1270×1130×690           | 1470×1130×710           | 1470×1130×710    | 1650×1130×710   | 1650×1130×710    |         |
| Loading quantity           | 40'GP                 | set               | 36                      | 36                      | 32                      | 32               | 28              | 28               |         |
|                            | 40'HQ                 | set               | 36                      | 36                      | 32                      | 32               | 28              | 28               |         |

Note:  
 1. The specification is based on 100% return air. 100% fresh air model is also available for the same range.  
 2. The power input of motor is subjected to the external static pressure, please refer to the brand for the accurate value.

| Model                      |             |                   | G-9WD(I)(Y)/E-M | G-9WDX(I)(Y)/E-M | G-10WD(I)(Y)/E-M | G-10WDX(I)(Y)/E-M | G-12WD(I)(Y)/E-M | G-12WDX(I)(Y)/E-M |         |
|----------------------------|-------------|-------------------|-----------------|------------------|------------------|-------------------|------------------|-------------------|---------|
| Air flow volume            |             | m <sup>3</sup> /h | 9000            | 9000             | 10000            | 10000             | 12000            | 12000             |         |
|                            |             | CFM               | 5287            | 5287             | 5874             | 5874              | 7049             | 7049              |         |
| Capacity (4/6rows)         | Cooling     | kW                | 56/67.8         | 119.5/148.9      | 62.4/80.8        | 134.9/165.2       | 74.8/95.9        | 159.3/198.8       |         |
|                            | Heating     | kW                | 96.3/99.8       | 121.4/142.6      | 115.8/110.5      | 138.6/164.5       | 135.6/137.6      | 160.9/197.1       |         |
| Water flow volume(4/6rows) |             | l/s               | 2.4/3.10        | 5.7/7.3          | 2.6/3.88         | 6.4/8.4           | 3.2/4.65         | 7.6/9.5           |         |
|                            |             | GPM               | 10.56/13.64     | 25.08/32.12      | 11.44/17.07      | 28.16/36.96       | 14.08/20.46      | 33.44/41.80       |         |
| Pressure drop(4/6rows)     |             | kPa               | 34/14.30        | 45.2/42.5        | 48.9/16.50       | 47.4/46.8         | 37.3/25.60       | 50.8/48.7         |         |
|                            |             | Ft-WG             | 11.36/4.78      | 15.10/14.20      | 16.33/5.51       | 15.83/15.63       | 12.46/8.55       | 16.97/16.27       |         |
| Esp.range(optional)        |             | Pa                | 95-450          | 95-450           | 130-450          | 130-450           | 125-500          | 125-500           |         |
|                            |             | Ft-WG             | 0.031-0.148     | 0.031-0.148      | 0.043-0.148      | 0.043-0.148       | 0.041-0.164      | 0.041-0.164       |         |
| 4 Rows                     | ESP range 1 | ESP               | Pa              | 95-265           | 95-265           | 130-343           | 130-343          | 125-180           | 125-180 |
|                            |             | Motor Input       | Kw              | 1.5              | 1.5              | 2.2               | 2.2              | 2.2               | 2.2     |
|                            | ESP range 2 | ESP               | Pa              | 266-450          | 266-450          | 344-450           | 344-450          | 181-377           | 181-377 |
|                            |             | Motor Input       | Kw              | 2.2              | 2.2              | 3.0               | 3.0              | 3.0               | 3.0     |
|                            | ESP range 3 | ESP               | Pa              | -                | -                | -                 | -                | 378-500           | 378-500 |
|                            |             | Motor Input       | Kw              | -                | -                | -                 | -                | 4.0               | 4.0     |
| 6 Rows                     | ESP range 1 | ESP               | Pa              | 95-167           | 95-167           | 130-222           | 130-222          | 125-180           | 125-180 |
|                            |             | Motor Input       | Kw              | 1.5              | 1.5              | 2.2               | 2.2              | 2.2               | 2.2     |
|                            | ESP range 2 | ESP               | Pa              | 168-407          | 168-407          | 223-450           | 223-450          | 181-347           | 181-347 |
|                            |             | Motor Input       | Kw              | 2.2              | 2.2              | 3.0               | 3.0              | 3.0               | 3.0     |
|                            | ESP range 3 | ESP               | Pa              | 408-450          | 408-450          | -                 | -                | 348-500           | 348-500 |
|                            |             | Motor Input       | Kw              | 3.0              | 3.0              | -                 | -                | 4.0               | 4.0     |
| Net weight(4/6rows)        |             | kg                | 259/271         | 259/271          | 271/284          | 271/284           | 318/333          | 318/333           |         |

# Air Handling Unit

## Vertical Mounted Packaged

It is a kind of fan coil unit that is connected to the chillers to realize cooling/heating for civil or industrial use.



Washable filter



Quiet function



Multi fan speed



Compact design



Easier maintainability

- Anti-corrosion and cold bridges prevention thanks to sandwich structure case.
- Anti-corrosion thanks to painted double-faced electro-galvanized or hot-electro-galvanized metal case.
- Painted electro-galvanized metal sheet as outer-layer.
- Hot galvanized metal sheet as inner-layer.
- High-density heat-insulated urethane foam filled between outer and inner layers.
- Easy maintenance thanks to detachable panel and adjustable motor base.

| Nominal test condition (temperature) |         |         |         |            |             |
|--------------------------------------|---------|---------|---------|------------|-------------|
| Item                                 |         | DB (°C) | WB (°C) | Inlet (°C) | Outlet (°C) |
| Return air type                      | Cooling | 27      | 19.5    | 7          | 12          |
|                                      | Heating | 21      | —       | 60         | —           |
| Fresh air type                       | Cooling | 35      | 28      | 7          | 12          |
|                                      | Heating | 7       | —       | 60         | —           |

| Model                      |                       |             | G-3(Y)-M      | G-3X(Y)-M     | G-4(Y)-M      | G-4(Y)-M      | G-5(Y)-M      | G-5X(Y)-M     | G-6(Y)-M      |
|----------------------------|-----------------------|-------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Air flow volume            |                       | m³/h        | 3000          | 3000          | 4000          | 4000          | 5000          | 5000          | 6000          |
|                            |                       | CFM         | 1762          | 1762          | 2350          | 2350          | 2937          | 2937          | 3525          |
| Capacity (4/6rows)         | Cooling               | kW          | 18.2/26.5     | 43.8/53.5     | 23.5/35.1     | 58.5/73.1     | 32.2/44.1     | 73.1/91.1     | 36.4/52.5     |
|                            | Heating               | kW          | 28.2/35.3     | 47.3/57.2     | 40.2/46.5     | 63.2/78.2     | 50.2/58.4     | 78.5/97.5     | 58.2/68.9     |
| Water flow volume(4/6rows) |                       | l/s         | 0.87/1.27     | 2.1/2.58      | 1.13/1.68     | 2.8/3.49      | 1.54/2.1      | 3.49/4.35     | 1.74/2.51     |
|                            |                       | GPM         | 3.83/5.59     | 9.24/11.35    | 4.97/7.39     | 12.32/15.36   | 6.78/9.24     | 15.36/19.14   | 7.66/11.04    |
| Pressure drop(4/6rows)     |                       | kPa         | 9.15/12.9     | 17.4/23.5     | 11.9/14.6     | 20.1/30.5     | 16/15         | 12.2/28.8     | 21.2/16.1     |
|                            |                       | Pa          | 3.06/4.31     | 5.81/7.85     | 3.97/4.88     | 6.71/10.19    | 5.34/5.01     | 4.07/9.62     | 7.08/5.35     |
| Esp.range(optional)        |                       | Pa          | 50-300        | 50-300        | 65-350        | 65-350        | 65-350        | 65-350        | 75-350        |
|                            |                       | Pa          | 0.016-0.098   | 0.016-0.098   | 0.021-0.115   | 0.021-0.115   | 0.021-0.115   | 0.021-0.115   | 0.025-0.115   |
| 4 Rows                     | ESP range 1           | ESP         | Pa            | 50-170        | 40-170        | 65-200        | 65-200        | 65-220        | 65-220        |
|                            |                       | Motor Input | Kw            | 0.55          | 0.55          | 1.1           | 1.1           | 1.1           | 1.1           |
|                            | ESP range 2           | ESP         | Pa            | 170-250       | 170-250       | 200-350       | 200-350       | 220-350       | 220-350       |
|                            |                       | Motor Input | Kw            | 0.75          | 0.75          | 1.5           | 1.5           | 1.5           | 2.2           |
|                            | ESP range 3           | ESP         | Pa            | 250-300       | 250-300       | -             | -             | -             | -             |
|                            |                       | Motor Input | Kw            | 1.1           | 1.1           | -             | -             | -             | -             |
| 6 Rows                     | ESP range 1           | ESP         | Pa            | 50-170        | 50-170        | 65-200        | 65-200        | 65-220        | 65-220        |
|                            |                       | Motor Input | Kw            | 0.55          | 0.55          | 1.1           | 1.1           | 1.1           | 1.1           |
|                            | ESP range 2           | ESP         | Pa            | 170-250       | 170-250       | 220-350       | 200-350       | 220-350       | 220-350       |
|                            |                       | Motor Input | Kw            | 0.75          | 0.75          | 1.5           | 1.5           | 1.5           | 2.2           |
|                            | ESP range 3           | ESP         | Pa            | 250-300       | 250-300       | -             | -             | -             | -             |
|                            |                       | Motor Input | Kw            | 1.1           | 1.1           | -             | -             | -             | -             |
| Net weight(4/6rows)        |                       | kg          | 215/240       | 215/240       | 260/295       | 260/295       | 305/330       | 305/330       | 340/375       |
| Gross weight(4/6rows)      |                       | kg          | 250/275       | 250/275       | 295/335       | 295/335       | 345/360       | 345/360       | 420/455       |
| Sound pressure level       |                       | dB(A)       | ≤58           | ≤58           | ≤59           | ≤59           | ≤60           | ≤60           | ≤60           |
| Connection pipe size       | Water inlet & outlet  |             | DN50/DN40     | DN50/DN40     | DN50/DN40     | DN50/DN40     | DN50/DN40     | DN50/DN40     | DN65/DN65     |
|                            | Condensed water drain |             | DN25          | DN25          | DN25          | DN25          | DN25          | DN25          | DN25          |
| Dimension (W×D×H)          | Outline               | mm          | 1150×730×1300 | 1150×730×1300 | 1150×730×1400 | 1150×730×1400 | 1350×830×1400 | 1350×830×1400 | 1350×830×1600 |
|                            | Package               | mm          | 1260×830×1420 | 1260×830×1420 | 1260×830×152  | 1260×830×152  | 1450×950×155  | 1450×950×155  | 1450×950×175  |
| Loading quantity           | 40'GP                 | set         | 22            | 22            | 22            | 22            | 16            | 16            | 14            |
|                            | 40'HQ                 | set         | 22            | 22            | 22            | 22            | 16            | 16            | 14            |

| Model                      |                       |             | G-6(Y)-M      | G-8(Y)-M      | G-8X(Y)-M     | G-10(Y)-M     | G-10X(Y)-M    | G-12(Y)-M     | G-12X(Y)-M  |
|----------------------------|-----------------------|-------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------|
| Air flow volume            |                       | m³/h        | 6000          | 8000          | 8000          | 10000         | 10000         | 12000         | 12000       |
|                            |                       | CFM         | 3525          | 4699          | 4699          | 5874          | 5874          | 7049          | 7049        |
| Capacity (4/6rows)         | Cooling               | kW          | 88.2/105.5    | 50.5/66.1     | 116.5/151.6   | 61.1/84.1     | 145.8/182.3   | 72.1/96.5     | 172.6/215.5 |
|                            | Heating               | kW          | 95.2/112.8    | 75.8/88.8     | 125.8/162.2   | 92.3/112.3    | 157.4/195.1   | 112.8/133.5   | 184.4/228.4 |
| Water flow volume(4/6rows) |                       | l/s         | 4.21/5.04     | 2.32/3.16     | 5.59/6.98     | 2.87/4.02     | 6.98/8.7      | 3.44/4.61     | 8.27/10.37  |
|                            |                       | GPM         | 18.52/22.18   | 10.21/13.90   | 24.60/30.71   | 12.63/17.69   | 30.71/38.28   | 15.14/20.28   | 36.39/45.63 |
| Pressure drop(4/6rows)     |                       | kPa         | 14.1/25.8     | 30.9/20.8     | 18.4/29.8     | 57.1/23.2     | 24/35.2       | 12/25.6       | 34.6/41.2   |
|                            |                       | Pa          | 4.71/8.62     | 10.32/6.95    | 6.15/9.95     | 19.07/7.75    | 8.02/11.76    | 4.01/8.55     | 11.56/13.76 |
| Esp.range(optional)        |                       | Pa          | 75-350        | 90-450        | 90-450        | 90-500        | 90-500        | 100-500       | 100-500     |
|                            |                       | Pa          | 0.025-0.115   | 0.030-0.148   | 0.030-0.148   | 0.030-0.164   | 0.030-0.164   | 0.033-0.164   | 0.033-0.164 |
| 4 Rows                     | ESP range 1           | ESP         | Pa            | 75-100        | 90-340        | 90-450        | 90-180        | 90-180        | 100-200     |
|                            |                       | Motor Input | Kw            | 1.5           | 2.2           | 2.2           | 2.2           | 2.2           | 3.0         |
|                            | ESP range 2           | ESP         | Pa            | 130-350       | 340-450       | 340-450       | 180-350       | 180-350       | 200-370     |
|                            |                       | Motor Input | Kw            | 2.2           | 3.0           | 3.0           | 3.0           | 3.0           | 4.0         |
|                            | ESP range 3           | ESP         | Pa            | -             | -             | -             | 350-500       | 350-500       | 370-450     |
|                            |                       | Motor Input | Kw            | -             | -             | -             | 4.0           | 4.0           | 5.5         |
| 6 Rows                     | ESP range 1           | ESP         | Pa            | 75-130        | 90-340        | 90-340        | 90-180        | 90-180        | 100-200     |
|                            |                       | Motor Input | Kw            | 1.5           | 2.2           | 2.2           | 2.2           | 2.2           | 3.0         |
|                            | ESP range 2           | ESP         | Pa            | 130-350       | 340-350       | 340-450       | 180-350       | 180-350       | 200-370     |
|                            |                       | Motor Input | Kw            | 2.2           | 3.0           | 3.0           | 3.0           | 3.0           | 4.0         |
|                            | ESP range 3           | ESP         | Pa            | -             | -             | -             | 350-500       | 350-500       | 370-450     |
|                            |                       | Motor Input | Kw            | -             | -             | -             | 4.0           | 4.0           | 5.5         |
| Net weight(4/6rows)        |                       | kg          | 340/375       | 390/435       | 390/435       | 450/485       | 450/485       | 503/535       |             |
| Gross weight(4/6rows)      |                       | kg          | 420/455       | 430/475       | 430/475       | 475/535       | 475/535       | 563/585       |             |
| Sound pressure level       |                       | dB(A)       | ≤60           | ≤63           | ≤63           | ≤65           | ≤65           | ≤66           |             |
| Connection pipe size       | Water inlet & outlet  |             | DN65/DN65     | DN65/DN65     | DN65/DN65     | DN50/DN65     | DN50/DN65     | DN65/DN65     |             |
|                            | Condensed water drain |             | DN25          | DN32          | DN32          | DN32          | DN32          | DN32          |             |
| Dimension (W×D×H)          | Outline               | mm          | 1350×830×1600 | 1750×830×1800 | 1750×830×1800 | 1950×830×1800 | 1950×830×1800 | 1950×830×1900 |             |
|                            | Package               | mm          | 1450×950×1750 | 1850×950×1950 | 1850×950×1950 | 2050×950×1950 | 2050×950×1950 | 2150×950×2050 |             |
| Loading quantity           | 40'GP                 | set         | 14            | 12            | 12            | 12            | 12            | 12            |             |
|                            | 40'HQ                 | set         | 14            | 12            | 12            | 12            | 12            | 12            |             |

| Model                      |                       |                   | G-14(I)(Y)-M   | G-14X(I)(Y)-M  | G-16(I)(Y)-M   | G-16X(I)(Y)-M  | G-18(I)(Y)-M   | G-18X(I)(Y)-M  | G-20(I)(Y)-M   |
|----------------------------|-----------------------|-------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Air flow volume            |                       | m <sup>3</sup> /h | 14000          | 14000          | 16000          | 16000          | 18000          | 18000          | 20000          |
|                            |                       | CFM               | 8224           | 8224           | 9399           | 9399           | 10574          | 10574          | 11748          |
| Capacity (4/6rows)         | Cooling               | kW                | 87.8 /111.6    | 197.6 /240.7   | 95.1 /123      | 212.1 /252.1   | 118.2 /143.8   | 239.6 /291.1   | 124.5 /165     |
|                            | Heating               | kW                | 129.5 /155.4   | 214.6 /246.8   | 143.3 /173.2   | 245.3 /282.1   | 161.5 /198.2   | 276.0 /317.4   | 178.4 /224     |
| Water flow volume(4/6rows) |                       | l/s               | 3.92 /5.34     | 9.46 /12.09    | 4.35 /5.88     | 10.13 /12.66   | 5.07 /6.87     | 11.45 /14.62   | 5.81 /7.89     |
|                            |                       | GPM               | 17.25 /23.50   | 41.62 /53.20   | 19.14 /25.87   | 44.57 /55.70   | 22.31 /30.23   | 50.38 /64.33   | 25.56 /34.72   |
| Pressure drop(4/6rows)     |                       | kPa               | 22.05 /28.01   | 22.05 /33.8    | 23 /32.1       | 26.6 /40.2     | 25 /35.2       | 25 /38.2       | 25 /38.5       |
|                            |                       | Ft-WG             | 7.36 /9.36     | 7.36 /11.29    | 7.68 /10.72    | 8.88 /13.43    | 8.35 /11.76    | 8.35 /12.76    | 8.35 /12.86    |
| Esp.range(optional )       |                       | Pa                | 100-550        | 100-550        | 120-600        | 120-600        | 120-600        | 120-600        | 140-600        |
|                            |                       | Ft-WG             | 0.033-0.180    | 0.033-0.180    | 0.039-0.197    | 0.039-0.197    | 0.039-0.197    | 0.039-0.197    | 0.046-0.197    |
| 4 Rows                     | ESP range 1           | ESP               | Pa             | 100-210        | 100-210        | 120-250        | 120-250        | 120-340        | 120-340        |
|                            |                       | Motor Input       | Kw             | 3.0            | 3.0            | 4.0            | 4.0            | 5.5            | 5.5            |
|                            | ESP range 2           | ESP               | Pa             | 210-330        | 210-330        | 250-600        | 250-600        | 340-600        | 340-600        |
|                            |                       | Motor Input       | Kw             | 4.0            | 4.0            | 5.5            | 5.5            | 7.5            | 7.5            |
|                            | ESP range 3           | ESP               | Pa             | 330-550        | 330-550        | -              | -              | -              | 450-600        |
|                            |                       | Motor Input       | Kw             | 5.5            | 5.5            | -              | -              | -              | 11             |
| 6 Rows                     | ESP range 1           | ESP               | Pa             | 100-210        | 100-210        | 120-250        | 120-250        | 120-340        | 120-340        |
|                            |                       | Motor Input       | Kw             | 3.0            | 3.0            | 4.0            | 4.0            | 5.5            | 5.5            |
|                            | ESP range 2           | ESP               | Pa             | 210-330        | 210-330        | 250-600        | 250-600        | 340-600        | 340-600        |
|                            |                       | Motor Input       | Kw             | 4.0            | 4.0            | 5.5            | 5.5            | 7.5            | 7.5            |
|                            | ESP range 3           | ESP               | Pa             | 330-550        | 330-550        | -              | -              | -              | 450-600        |
|                            |                       | Motor Input       | Kw             | 5.5            | 5.5            | -              | -              | -              | 11             |
| Net weight(4/6rows)        |                       | kg                | 545/580        | 545/580        | 745/780        | 745/780        | 790/840        | 815/840        | 815/860        |
| Gross weight(4/6rows)      |                       | kg                | 590/630        | 590/630        | 820/850        | 820/850        | 850/900        | 890/900        | 890/930        |
| Sound pressure level       |                       | dB(A)             | ≤67            | ≤67            | ≤68            | ≤68            | ≤69            | ≤69            | ≤69            |
| Connection pipe size       | Water inlet & outlet  |                   | DN65/DN65      | DN65/DN65      | DN65/DN65      | DN65/DN65      | DN65/DN65      | DN65/DN65      | DN80/DN80      |
|                            | Condensed water drain |                   | DN32           | DN32           | DN32           | DN32           | DN32           | DN32           | DN32           |
| Dimension (W×D×H)          | Outline               | mm                | 2250×930×2100  | 2250×930×2100  | 2250×930×2100  | 2250×930×2100  | 2250×930×2100  | 2250×930×2100  | 1950×1440×1930 |
|                            | Package               | mm                | 2450×1050×2250 | 2450×1050×2250 | 2380×1050×2450 | 2380×1050×2450 | 2380×1050×2450 | 2380×1050×2450 | 2040×1500×2060 |
| Loading quantity           | 40'GP                 | set               | 8              | 8              | 8              | 8              | 8              | 8              | 7              |
|                            | 40'HQ                 | set               | 8              | 8              | 8              | 8              | 8              | 8              | 7              |

| Model                      |                       |                   | G-20X(I)(Y)-M  | G-22(I)(Y)-M   | G-22X(I)(Y)-M  | G-25(I)(Y)-M | G-25X(I)(Y)-M | G-30(I)(Y)-M | G-30X(I)(Y)-M |         |
|----------------------------|-----------------------|-------------------|----------------|----------------|----------------|--------------|---------------|--------------|---------------|---------|
| Air flow volume            |                       | m <sup>3</sup> /h | 20000          | 22000          | 22000          | 25000        | 25000         | 30000        | 30000         |         |
|                            |                       | CFM               | 11748          | 12923          | 12923          | 14686        | 14686         | 17623        | 17623         |         |
| Capacity (4/6rows)         | Cooling               | kW                | 290.8/320.5    | 143.5/179      | 316.4 /370.3   | 158.3/195    | 344.5/407.7   | 200.8/233    | 414.5/492.4   |         |
|                            | Heating               | kW                | 306.6 /352.6   | 207.2/245.6    | 337.3 /387.9   | 226.3/278.5  | 383.3/440.8   | 271.4/335    | 460.0/529.0   |         |
| Water flow volume(4/6rows) |                       | l/s               | 13.9 /16.1     | 6.38 /8.56     | 15.12 /18.65   | 7.28 /9.32   | 16.46 /20.48  | 8.39 /11.14  | 19.98 /24.73  |         |
|                            |                       | GPM               | 61.16 /70.84   | 28.07 /37.66   | 66.53 /82.06   | 32.03 /41.01 | 72.42 /90.11  | 36.92 /49.02 | 87.91 /108.81 |         |
| Pressure drop(4/6rows)     |                       | kPa               | 25 /36.5       | 20 /32.1       | 20 /32.1       | 29 /36       | 29 /38        | 23 /38       | 23 /38        |         |
|                            |                       | Ft-WG             | 8.35 /12.19    | 6.68 /10.72    | 6.68 /10.72    | 9.69 /12.02  | 9.69 /12.69   | 7.68 /12.69  | 7.68 /12.69   |         |
| Esp.range(optional )       |                       | Pa                | 140-600        | 170-570        | 170-570        | 170-550      | 170-550       | 220-650      | 220-650       |         |
|                            |                       | Ft-WG             | 0.046-0.197    | 0.056-0.187    | 0.056-0.187    | 0.056-0.180  | 0.056-0.180   | 0.072-0.213  | 0.072-0.213   |         |
| 4 Rows                     | ESP range 1           | ESP               | Pa             | 140-220        | 170-300        | 170-300      | 170-380       | 170-380      | 220-550       | 220-580 |
|                            |                       | Motor Input       | Kw             | 5.5            | 5.5            | 5.5          | 7.5           | 7.5          | 11            | 11      |
|                            | ESP range 2           | ESP               | Pa             | 220-450        | 300-460        | 300-460      | 380-550       | 380-550      | 550-650       | 580-650 |
|                            |                       | Motor Input       | Kw             | 7.5            | 7.5            | 7.5          | 11            | 11           | 15            | 15      |
|                            | ESP range 3           | ESP               | Pa             | 450-600        | 460-570        | 460-570      | -             | -            | -             | -       |
|                            |                       | Motor Input       | Kw             | 11             | 11             | 11           | -             | -            | -             | -       |
| 6 Rows                     | ESP range 1           | ESP               | Pa             | 140-220        | 170-300        | 170-300      | 170-380       | 170-380      | 220-550       | 220-580 |
|                            |                       | Motor Input       | Kw             | 5.5            | 5.5            | 5.5          | 7.5           | 7.5          | 11            | 11      |
|                            | ESP range 2           | ESP               | Pa             | 220-450        | 300-460        | 300-460      | 380-550       | 380-550      | 580-650       | 580-650 |
|                            |                       | Motor Input       | Kw             | 7.5            | 7.5            | 7.5          | 11            | 11           | 15            | 15      |
|                            | ESP range 3           | ESP               | Pa             | 450-600        | 460-570        | 460-570      | -             | -            | -             | -       |
|                            |                       | Motor Input       | Kw             | 11             | 11             | 11           | -             | -            | -             | -       |
| Net weight(4/6rows)        |                       | kg                | 815/860        | 865/915        | 865/915        | 910/960      | 910/960       | 1015/1250    | 1015/1250     |         |
| Gross weight(4/6rows)      |                       | kg                | 890/930        | 905/980        | 905/980        | 950/1000     | 950/1000      | 1075/1310    | 1075/1310     |         |
| Sound pressure level       |                       | dB(A)             | ≤69            | ≤63            | ≤63            | ≤65          | ≤65           | ≤66          | ≤66           |         |
| Connection pipe size       | Water inlet & outlet  |                   | DN80/DN80      | DN80/DN80      | DN80/DN80      | DN80/DN80    | DN80/DN80     | DN80/DN80    | DN80/DN80     |         |
|                            | Condensed water drain |                   | DN32           | DN32           | DN32           | DN32         | DN32          | DN32         | DN32          |         |
| Dimension (W×D×H)          | Outline               | mm                | 1950×1440×1930 | 2250×1640×2030 | 2250×1640×200  | 2250×1640×20 | 2250×1640×20  | 2250×1640×23 | 2250×1640×23  |         |
|                            | Package               | mm                | 2040×1500×2060 | 2340×1700×2160 | 2340×1700×2160 | 2340×1700×21 | 2340×1700×21  | 2450×1750×25 | 2450×1750×25  |         |
| Loading quantity           | 40'GP                 | set               | 7              | 5              | 5              | 5            | 5             | 4            | 4             |         |
|                            | 40'HQ                 | set               | 7              | 5              | 5              | 5            | 5             | 4            | 4             |         |

Note:  
 1. The specification is base on 100% return air. 100% fresh air model is also available for the same range.  
 2. The power input of motor is subjected to the external static pressure, please refer to the brand for the accurate value.

# Air Handling Unit

## Hydronic Air Handling Unit

It is a kind of air handling unit that the function section could be chosen customized according to various project requirement.



Washable filter



Quiet function

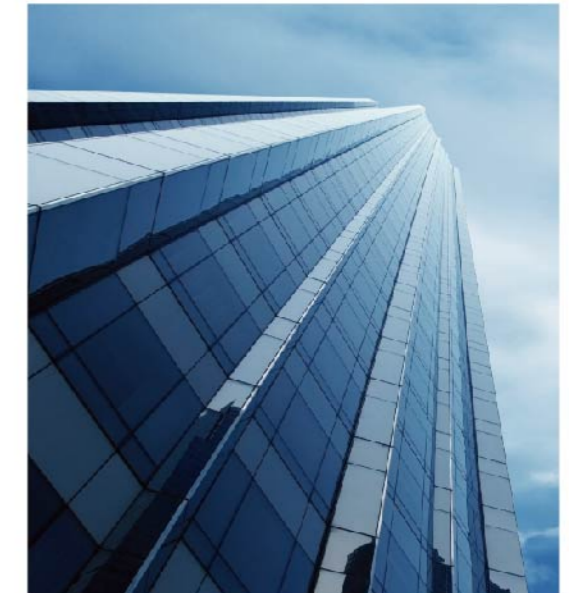


Compact design



Easier maintainability

- **Cold bridge preventing design:** The AHU adopts anodized aluminum alloy with high anti-corrosion performance, hard PVC as cold bridge, soft PVC as seal packing ring and beading, of which insulation performance is higher. Double skin panel with polyurethane foam insulation, which is lighter and lower heat conductivity factor.
- **Modular design:** All the function sections of the AHU are of modular design, which can be matched randomly to satisfy various of requirements.
- **High airtightness design:** The AHU adopts special rubber material as seal packing ring and buckle aluminum extruded sections, with extreme low air leakage rate.
- **Computer software selection:** AHU Selection software is available to make computer selection according to need.



| Nominal test condition (temperature) |         |         |            |             |
|--------------------------------------|---------|---------|------------|-------------|
| Item                                 | DB (°C) | WB (°C) | Inlet (°C) | Outlet (°C) |
| Cooling                              | 27      | 19.5    | 7          | 12          |
| Heating                              | 21      | —       | 60         | —           |

| Spec. | Section dimension |       | Airflow volume against air velocity |       |        |           |          | Cooling capacity under air return condition | Cooling capacity under fresh air condition | Air supply total pressure |          |
|-------|-------------------|-------|-------------------------------------|-------|--------|-----------|----------|---|--|---------------------------|----------|
|       | GZK               | W(mm) | H(mm)                               | Unit  | 2(m/s) | 2.25(m/s) | 2.5(m/s) | 2.75(m/s)                                   | 3(m/s)                                     | kW                        | kW       |
| 0804  | 850               | 450   | m³/h                                | 1128  | 1269   | 1410      | 1552     | 1693  | 6-14                                       | 17-28                     | 400-1200 |
|       |                   |       | CFM                                 | 663   | 746    | 829       | 911      | 994   |  |                           |          |
| 0806  | 850               | 650   | m³/h                                | 1975  | 2221   | 2468      | 2715     | 2962  | 10-24                                      | 29-50                     | 400-1200 |
|       |                   |       | CFM                                 | 1160  | 1305   | 1450      | 1595     | 1740  |  |                           |          |
| 0808  | 850               | 850   | m³/h                                | 2821  | 3174   | 3526      | 3879     | 4231  | 15-35                                      | 41-71                     | 400-1200 |
|       |                   |       | CFM                                 | 1657  | 1864   | 2071      | 2278     | 2486  |  |                           |          |
| 1008  | 1050              | 850   | m³/h                                | 3735  | 4202   | 4669      | 5136     | 5603  | 20-44                                      | 53-95                     | 400-1200 |
|       |                   |       | CFM                                 | 2194  | 2468   | 2743      | 3017     | 3291  |  |                           |          |
| 1208  | 1250              | 850   | m³/h                                | 4650  | 5231   | 5812      | 6393     | 6975  | 25-56                                      | 66-116                    | 400-1200 |
|       |                   |       | CFM                                 | 2731  | 3073   | 3414      | 3756     | 4097  |  |                           |          |
| 1608  | 1650              | 850   | m³/h                                | 6479  | 7288   | 8098      | 8908     | 9718  | 36-81                                      | 94-162                    | 400-1200 |
|       |                   |       | CFM                                 | 3806  | 4281   | 4757      | 5233     | 5708  |  |                           |          |
| 1010  | 1050              | 1050  | m³/h                                | 4856  | 5463   | 6070      | 6677     | 7284  | 25-57                                      | 69-124                    | 400-1500 |
|       |                   |       | CFM                                 | 2852  | 3209   | 3566      | 3922     | 4279  |  |                           |          |
| 1210  | 1250              | 1050  | m³/h                                | 6045  | 6800   | 7556      | 8311     | 9067  | 32-72                                      | 86-151                    | 400-1500 |
|       |                   |       | CFM                                 | 3551  | 3995   | 4438      | 4882     | 5326  |  |                           |          |
| 1610  | 1650              | 1050  | m³/h                                | 8351  | 9395   | 10438     | 11482    | 12526                                       | 46-104                                     | 122-209                   | 400-1500 |
|       |                   |       | CFM                                 | 4905  | 5519   | 6132      | 6745     | 7358  |  |                           |          |
| 2010  | 2050              | 1050  | m³/h                                | 10728 | 12069  | 13410     | 14751    | 16092                                       | 62-127                                     | 147-254                   | 400-1500 |
|       |                   |       | CFM                                 | 6302  | 7090   | 7877      | 8665     | 9453  |  |                           |          |
| 1212  | 1250              | 1250  | m³/h                                | 7811  | 8788   | 9764      | 10740    | 11717                                       | 41-93                                      | 111-195                   | 400-1500 |
|       |                   |       | CFM                                 | 4588  | 5162   | 5736      | 6309     | 6883  |  |                           |          |
| 1612  | 1650              | 1250  | m³/h                                | 10920 | 12285  | 13650     | 15015    | 16380                                       | 60-136                                     | 159-274                   | 400-1500 |
|       |                   |       | CFM                                 | 6415  | 7217   | 8018      | 8820     | 9622  |  |                           |          |
| 2012  | 2050              | 1250  | m³/h                                | 13905 | 15643  | 17381     | 19119    | 20857                                       | 80-164                                     | 191-329                   | 400-1500 |
|       |                   |       | CFM                                 | 8168  | 9189   | 10210     | 11231    | 12252                                       |  |                           |          |
| 1616  | 1650              | 1650  | m³/h                                | 14606 | 16432  | 18258     | 20083    | 21909                                       | 81-182                                     | 213-366                   | 400-1500 |
|       |                   |       | CFM                                 | 8580  | 9652   | 10725     | 11797    | 12870                                       |  |                           |          |
| 1816  | 1850              | 1650  | m³/h                                | 16709 | 18798  | 20887     | 22975    | 25064                                       | 99-210                                     | 222-422                   | 400-1500 |
|       |                   |       | CFM                                 | 9815  | 11042  | 12269     | 13496    | 14723                                       |  |                           |          |
| 2016  | 2050              | 1650  | m³/h                                | 18812 | 21164  | 23516     | 25867    | 28219                                       | 114-222                                    | 258-445                   | 400-1500 |
|       |                   |       | CFM                                 | 11051 | 12432  | 13813     | 15195    | 16576                                       |  |                           |          |
| 2020  | 2050              | 2050  | m³/h                                | 23107 | 25995  | 28884     | 31772    | 34660                                       | 139-273                                    | 317-547                   | 400-2000 |
|       |                   |       | CFM                                 | 13573 | 15270  | 16967     | 18664    | 20360                                       |  |                           |          |

# Air Curtain

The air curtain adopts cross flow blower to generate high speed air flow downward, that be installed upward side of the entrance door or window, to isolate the indoor air from the outdoor air and reduce the loss of indoor cool air, also prevent the insects and dust from entering the indoor environment.



Washable filter



Quiet function



Compact design



Easier maintainability

## Optionl Funtion Section

| Name  | Sketch | Name   | Sketch | Name                                  | Sketch | Name                          | Sketch |
|---|--------|--|--------|---------------------------------------|--------|-------------------------------|--------|
| Air-suction section ( fresh air/return air)   |        | Primary filtrating section (plate type/bag type) |        | Cooling coil section                  |        | Electrode humidifying section |        |
| Air-suction section (secondary air -returning section)                                  |        | Primary filtrating section (plate type/bag type) |        | Electrical heating section            |        | Contact humidifying section   |        |
| Mixing section  |        | Sub high-efficiency filtrating section           |        | Heating coil section                  |        | Dry steam humidifying section |        |
| Complex section (combination sections of exhaust, air-returning and fresh air sections) |        | High-efficiency filtrating section               |        | Steam coil section                    |        | Fan section                   |        |
| Air equalizing section  |        | Sound absorber section                           |        | Service section (maintenance section) |        | Turning section               |        |
| Blowing section   |        |  |        |                                       |        |                               |        |

- Optimized cross-flow fan and good performance motor are adopted.
- Micro processor controlling with high reliability and long service life.
- Anti-corrosion thanks to two-side painted electro-galvanized metal case.
- High quality galvanized steel casing with double-sided plastic spray processing, high anti-corrosion.
- Good strength structure provides powerful airflow.
- Integrated electric components, easy maintenance.
- High performance cross flow fan blade with 3D-optimized streamlined.



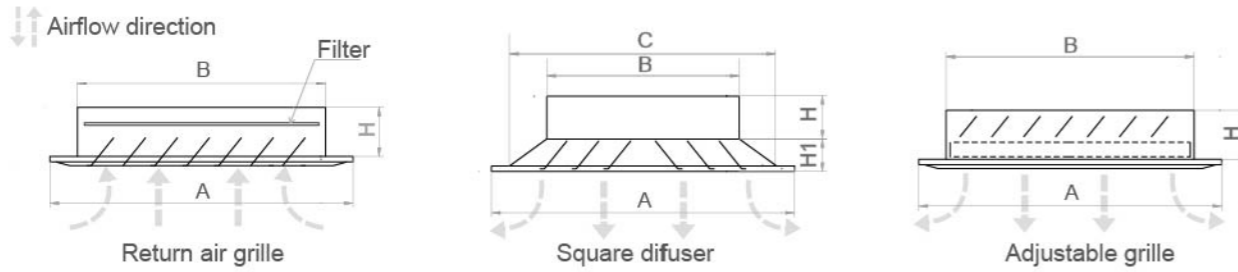
| Model                      |                         | FM-1.25-9-K | FM-1.25-12-K |
|----------------------------|-------------------------|-------------|--------------|
| Power supply               | V/Hz                    | 220-230/50  | 220-230/50   |
| Power input                | W                       | 110         | 140          |
| Air flow volume            | m³/h                    | 1200        | 1650         |
| Sound pressure level (H/L) | dB (A)                  | 59/56       | 61/56        |
| Dimension (W×D×H)          | Outline                 | mm          | 900×215×193  |
|                            | Package                 | mm          | 1015×270×256 |
| Net weight /gross weight   | kg                      | 16/18       | 20/22        |
| Loading quantity           | 40'GP                   | set         | 848          |
|                            | 40'HQ                   | set         | 954          |
| Setting height             | m                       | 2.3-3       | 2.3-3        |
| Standard                   | Wired remote controller | ZY611       | ZY611        |

# Diffuser

The diffuser is applicable to various constructions for its combination of square and round types. It is with good appearance, strong air pressure, low noise, even airflow distribution and long distribution distance, etc.



- Single Deflection Return Air Grille**  
 The single-layer louver air inlet is equipped with filter which is detachable and mountable.
- Adjustable Double Deflection Grille**  
 The dual-layer grille type air outlet can adjust the airflow to each corner.



## Installation Dimension

| Adjustable grille |          |          |    |
|-------------------|----------|----------|----|
| Model             | Throat B | A        | H  |
| FKSB6312          | 630×120  | 690×180  | 50 |
| FKSB10012         | 1000×120 | 1040×160 | 50 |

| Return air grille |          |          |    |
|-------------------|----------|----------|----|
| Model             | Throat B | A        | H  |
| FKDB45            | 375×375  | 448×448  | 60 |
| FKDB60            | 517×517  | 598×598  | 60 |
| FKDB6325          | 630×253  | 685×308  | 28 |
| FKDB10025         | 1005×260 | 1034×290 | 30 |

| Square difuser |          |         |      |    |    |
|----------------|----------|---------|------|----|----|
| Model          | Throat B | A       | C    | H  | H1 |
| FKFS45         | 270×270  | 448×448 | φ365 | 25 | 25 |
| FKFS60         | 368×368  | 598×598 | φ485 | 27 | 34 |

## Control System Lineup

| Control system                    |   | Product series  | Concealed Ceiling Type/ High ESP Duct Type | Cassette type | Floor ceiling type | Wall mounted type | Air curtain |
|-----------------------------------|---|-----------------|--|---------------|--------------------|-------------------|-------------|
|                                   |   |                 |  |               |                    |                   |             |
| Wireless remote controller        | YB1FA                                     |                 |  | ●             | ●                  | ●                 |             |
|                                   | ZY611*1                                   |                 |  |               |                    |                   | ●           |
| Wired controller                  | Z4E351B                                   |                 |  | ○             | ○                  | ○                 |             |
| Mechanical FCU controller         | Z54352A1                                  |                 | ○  |               |                    |                   |             |
| Digital thermostat                | Luxury WK-D10PA-K                         |                 | ○  |               |                    |                   |             |
|                                   | WK-110PA0                                 |                 | ○  |               |                    |                   |             |
| Long-distance monitoring software | Gree AC Eudemon 2009*2                    | FE30-00/A(M)    |  | ○             | ○                  | ○                 |             |
| BMS accessories                   | Communication module (modbus)             | ME30-17/E2(M)   |  | ○             | ○                  | ○                 |             |
|                                   |   | DQ34*3          |  | ○             |                    |                   |             |
|                                   |   | ZJ0212          |  |               | ○                  |                   |             |
| Other modules                     | Optoelectronic isolated converter         | RS232-RS422/485 |  | ○             | ○                  | ○                 |             |
|                                   | Optoelectronic isolated signal multiplier | RS-422/485      |  | ○             | ○                  | ○                 |             |

Note:  
 ● means standard, ○ means optional.  
 \*1 The pictures of unit and wireless remote controller please refer to the actual product.  
 \*2 If long-distance monitoring software Gree Eudemon 2009 is selected, the communication module ME30-17/E2(M) shall be selected also. The selection shall refer to actual models.  
 \*3 DQ34 including wired remote controller Z4E351B and Communication module ZJ0212, so if DQ34 is selected, the wired remote controller Z54352A1 is not necessary to be selected. ME30-17/E2(M) is not necessary also.

# SPECIALIZED AC

Marine Air Conditioner  
Elevator Air Conditioner  
Close Control Air Conditioner



# Marine Air Conditioner

It is a kind of sea water source AC that is widely used in yachts and boats.



Display Panel Z5A35

- Golden fin condenser
- Inner groove copper
- Washable filter
- Quiet function
- Self-diagnosis
- Memory function
- Compact design
- °C/°F Switch

- 360 degree air blowing.
- Outlay electric box for easy installation & maintenance.
- Low start-up current thanks to power delay control design.
- Forced operation available for emergency situation.
- LCD display of operation status.
- Highly anti-corrosion special spray processing on the complete unit.
- Nickel-Copper tube-in-tube heat exchanger for sea water side.
- All-copper fined tube heat exchanger for air side.
- Only one PCB for the entire control and minimize cable connections, with higher reliability and also easier maintenance.
- Universal for both 50Hz and 60Hz.



| Model                                | Hump    |                   | CYR5/NaB-T   | CYR9/NaB-T   | CYR12/NaB-T  | CYR16/NaB-T  |
|--------------------------------------|---------|-------------------|--------------|--------------|--------------|--------------|
| Capacity                             | Cooling | W                 | 1400         | 2350         | 3300         | 3700         |
|                                      |         | BTU/h             | 4800         | 8000         | 11600        | 12600        |
|                                      | Heating | W                 | 1700         | 2550         | 3500         | 3800         |
|                                      |         | BTU/h             | 5800         | 8700         | 11900        | 13000        |
| EER/COP                              |         | W/W               | 2.69/3.40    | 2.94/3.23    | 3.30/3.37    | 3.52/3.17    |
| Power supply                         |         | Ph/V/Hz           | 1/220-240/50 | 1/220-240/50 | 1/220-240/50 | 1/220-240/50 |
| Power input                          | Cooling | kW                | 0.52         | 0.80         | 1.00         | 1.05         |
|                                      | Heating | kW                | 0.50         | 0.79         | 1.04         | 1.20         |
| Input current                        | Cooling | A                 | 2.9          | 4.2          | 5.1          | 5.7          |
|                                      | Heating | A                 | 2.8          | 4.2          | 5.3          | 5.7          |
| Sound pressure level                 |         | dB(A)             | 58           | 58           | 58           | 58           |
| Refrigerant charge volume            |         | kg                | 0.35         | 0.44         | 0.55         | 0.69         |
| Air flow volume (H/M/L)              |         | m <sup>3</sup> /h | 320          | 470          | 466          | 600          |
|                                      |         | CFM               | 190          | 276          | 275          | 350          |
| Dimension (W×D×H)                    | Outline | mm                | 309×440×324  | 411×457×324  | 409×458×370  | 478×488×365  |
|                                      | Package | mm                | 588×539×403  | 636×594×403  | 636×549×437  | 706×635×432  |
| Net weight/Gross weight              |         | kg                | 26/31        | 28/34        | 35/41        | 41/46        |
| Fan motor supply air outlet diameter |         | inch              | 3.6          | 3.6          | 4.7          | 4.7          |
| Condenser pipe diameter              |         | inch              | 0.87         | 0.63         | 0.87         | 0.63         |
| Loading quantity                     | 40'GP   | set               | 430          | 300          | 300          | 270          |
|                                      | 40'HQ   | set               | 516          | 360          | 360          | 324          |

# Elevator Air Conditioner

Elevator air conditioner is specially designed for temperature control of elevators in hotel, office building and residential building. The unit is with beautiful appearance, compact structure, complete functions and reliable performance, which can satisfy different customers' requirements.



2~3 kW



YB1FA(XFAN)

- Inner groove copper
- Washable filter
- Quality motor
- High efficiency
- Energy saving function
- Fresh air supply ventilation
- Low voltage startup
- Wide voltage startup
- Memory function
- Compact design
- Easier maintainability

- Intelligent control according to the operation status of elevator.
- Compact structure.
- Innovative malfunction feedback function.
- With fresh air supply.
- With clock timer function.
- Adopt dual-side noise-silencing hose to decrease noise efficiently.
- Outer signal wire adopts AMP terminal connection, convenient and reliable.

| Cooling operation temperature range(DB°C) |  |
|---|--|
| 22~43                                     |  |

| Model                                |             | GDT25             | GDT35       |
|--------------------------------------|-------------|-------------------|-------------|
| Capacity                             | Heating     | W                 | 2000        |
|                                      |             | BTU/h             | 6824        |
| EER/COP                              |             | W/W               | 2           |
| Power supply                         |             | Ph/V/Hz           | 1/220/50    |
| Power input                          | Cooling     | kW                | 1           |
| Input current                        | Cooling     | A                 | 4.6         |
| Sound pressure level                 |             | dB (A)            | 55          |
| Refrigerant charge volume            |             | kg                | 0.55        |
| Air flow volume (H/M/L)              |             | m <sup>3</sup> /h | 360         |
|                                      |             | CFM               | 212         |
| Dimension (W×D×H)                    | Outline     | mm                | 350×600×400 |
|                                      | Package     | mm                | 483×783×495 |
| Net weight/Gross weight              |             | kg                | 46/52       |
| Fan motor supply air outlet diameter |             | inch(mm)          | 7.244(184)  |
| Condenser pipe diameter              |             | inch(mm)          | 0.276(7)    |
| Loading quantity                     | 40'GP/40'HQ | set               | 276/345     |



# Close Control Air Conditioner

It is a kind of air cooled split AC that is widely used in equipment room, machinery room, etc. to precisely control the temperature and humidity.



Long-distance monitoring software (optional) FE30-00/A(M)



Energy saving function



Self-diagnosis



Modular structure



Easier maintainability



Compact design



Long-distance monitoring

- Rapid and safe start-up.
- Flexible installation Several air outlet directions to meet different installation requirements.
- Modular design, up to 4 units could be freely integrated to get a max. capacity of 160kW.

| Model                                    | Normal               | JKFD5DC/Na-E | JKFD5DQS/Na-E        | JKFD7DC/Na-E     | JKFD7DQS/Na-E        | JKFD7C/Na-E      | JKFD7QS/Na-E         |                 |              |
|--|----------------------|--------------|----------------------|------------------|----------------------|------------------|----------------------|-----------------|--------------|
| Power supply                             |                      | PhV/Hz       | 1/220/50             | 1/220/50         | 1/220/50             | 1/220/50         | 1/220/50             |                 |              |
| Cooling capacity (total/sensible)        | 22°C/ 50%            | kW           | 5.0/4.5              | 6.9/5.9          | 6.9/5.9              | 6.9/5.9          | 6.9/5.9              |                 |              |
|  | 24°C/17°C            | kW           | 5.3/4.8              | 7.2/6.5          | 7.2/6.5              | 7.2/6.5          | 7.2/6.5              |                 |              |
|  | 24°C/45%             | kW           | 5.2/4.7              | 7.0/6.4          | 7.0/6.4              | 7.0/6.4          | 7.0/6.4              |                 |              |
|  | 26°C/50%             | kW           | 5.5/5.0              | 7.3/6.5          | 7.3/6.5              | 7.3/6.5          | 7.3/6.5              |                 |              |
| Rated input                              | Cooling/Heating      | kW           | 2.05/3.2             | 2.8/3.6          | 2.8/3.6              | 2.8/3.6          | 2.8/3.6              |                 |              |
| Rated current                            | Cooling/Heating      | A            | 9.55/14.55           | 12.73/16.36      | 12.73/16.36          | 12.73/16.36      | 12.73/16.36          |                 |              |
| Heating capacity                         |                      | kW           | 3                    | 3                | 3                    | 3                | 3                    |                 |              |
| Humidifying                              | Rated capacity       | kg/h         | 2                    | 2                | 2                    | 2                | 2                    |                 |              |
|  | Power input          | kW           | 1.5                  | 1.5              | 1.5                  | 1.5              | 1.5                  |                 |              |
| Range of temp. controlling and precision |                      | °C           | 17~28°C±1°C          | 17~28°C±1°C      | 17~28°C±1°C          | 17~28°C±1°C      | 17~28°C±1°C          |                 |              |
| Range of humidity and precision          |                      | %            | 40~60%±5%            | 40~60%±5%        | 40~60%±5%            | 40~60%±5%        | 40~60%±5%            |                 |              |
| ESP                                      |                      | Pa           | 0 15                 | 0 15             | 0 15                 | 0 15             | 0 15                 |                 |              |
| Indoor units                             | Model                | Normal       | JKFD5DC/Na-E(I)      | JKFD5DQS/Na-E(I) | JKFD7DC/Na-E(I)      | JKFD7DQS/Na-E(I) | JKFD7C/Na-E(I)       | JKFD7QS/Na-E(I) |              |
|  | Air flow volume      | m³/h         | 1850                 | 1900             | 2000                 | 2200             | 2000                 | 2200            |              |
|  | Sound pressure level | dB(A)        | 61                   | 62               | 61                   | 62               | 61                   | 62              |              |
|  | Dimension (W×D×H)    | Outline      | mm                   | 800×690×2250     | 800×690×1950         | 800×690×2250     | 800×690×1950         | 800×690×2250    | 800×690×1950 |
|  |                      | Package      | mm                   | 900×790×2370     | 900×790×2100         | 900×790×2370     | 900×790×2100         | 900×790×2370    | 900×790×2100 |
| Net weight/gross weight                  |                      | kg           | 235/245              | 215/225          | 235/245              | 215/225          | 235/245              | 215/225         |              |
| Outdoor units                            | Model                | Normal       | JKFD5/Na-E(O)        | JKFD5/Na-E(O)    | JKFD7/Na-E(O)        | JKFD7/Na-E(O)    | JKFD7/Na-E(O)        | JKFD7/Na-E(O)   |              |
|  | Quantity             | Set          | 1                    | 1                | 1                    | 1                | 1                    | 1               |              |
|  | Air flow volume      | m³/h         | 6200                 | 6200             | 6200                 | 6200             | 6200                 | 6200            |              |
|  | Sound pressure level | dB(A)        | 64                   | 64               | 64                   | 64               | 64                   | 64              |              |
|  | Dimension (W×D×H)    | Outline      | mm                   | 890×980×1000     | 890×980×1000         | 890×980×1000     | 890×980×1000         | 890×980×1000    |              |
| Package                                  |                      | mm           | 1060×930×560         | 1060×930×560     | 1060×930×560         | 1060×930×560     | 1060×930×560         |                 |              |
| Net weight/gross weight                  |                      | kg           | 60/80                | 60/80            | 60/80                | 60/80            | 60/80                |                 |              |
| Liquid/Gas                               |                      | mm           | φ9.52/12             | φ9.52/12         | φ9.52/12             | φ9.52/12         | φ9.52/12             |                 |              |
| Connecting pipe                          | Method of connection |              | Flared-fitting Joint |                  | Flared-fitting Joint |                  | Flared-fitting Joint |                 |              |
| Loading quantity                         | 40'GP/40'HQ          | set          | 0/20                 | 20/20            | 0/20                 | 20/20            | 0/20                 | 20/20           |              |

Notes:  
 1. The cooling capacity was tested when the outdoor temperature was as follows: Dry-bulb temperature was 35°C; Wet-bulb temperature was 24°C.  
 2. The noise value was tested in the semi-anechoic chamber but the actual value will be a little higher for the change of ambient temperature.  
 3. The temperature range of running environment is between -35°C~48°C

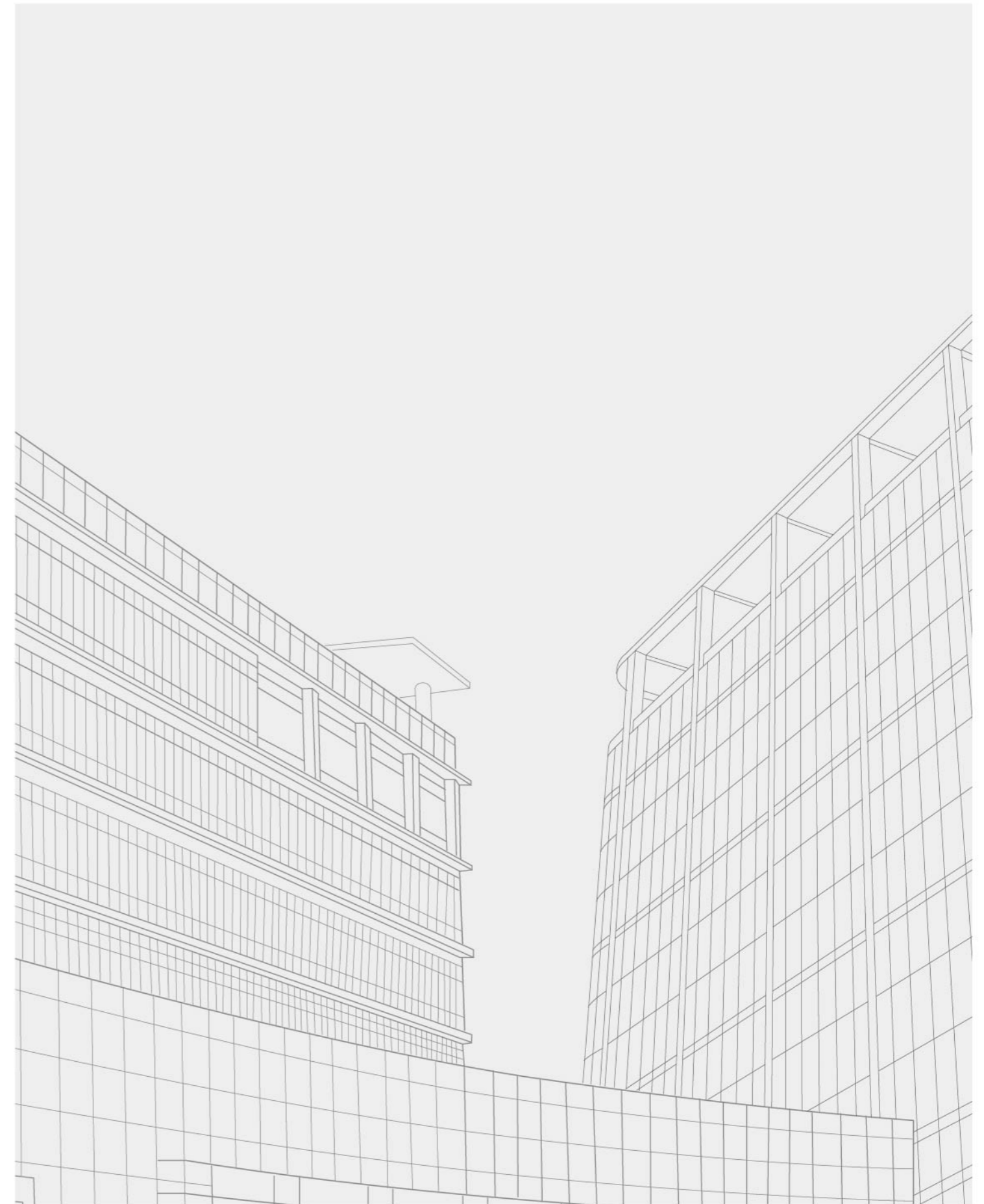
| Model                                    | Normal               | JKFD13C/Na-M | JKFD13QS/Na-M        | JKFD13SX/Na-M    | JKFD19C/Na-M     | JKFD19QS/Na-M        | JKFD19SX/Na-M    |                  |               |
|--|----------------------|--------------|----------------------|------------------|------------------|----------------------|------------------|------------------|---------------|
| Power supply                             |                      | PhV/Hz       | 3/380/50             |                  |                  | 3/380/50             |                  |                  |               |
| Cooling capacity (total/sensible)        | 22°C/ 50%            | kW           | 13.8/12.5            |                  |                  | 18.0/17.0            |                  |                  |               |
|  | 24°C/17°C            | kW           | 14.0/12.6            |                  |                  | 19.0/17.4            |                  |                  |               |
|  | 24°C/45%             | kW           | 13.9/12.8            |                  |                  | 18.8/17.8            |                  |                  |               |
|  | 26°C/50%             | kW           | 15.6/14.0            |                  |                  | 20.3/18.9            |                  |                  |               |
| Rated input                              | Cooling/Heating      | kW           | 6.0/7.1              |                  |                  | 7.9/10.5             |                  |                  |               |
| Rated current                            | Cooling/Heating      | A            | 9.10/10.77           |                  |                  | 11.97/15.91          |                  |                  |               |
| Heating capacity                         |                      | kW           | 6                    |                  |                  | 9                    |                  |                  |               |
| Humidifying                              | Rated capacity       | kg/h         | 4                    |                  |                  | 4                    |                  |                  |               |
|  | Power input          | kW           | 3                    |                  |                  | 3                    |                  |                  |               |
| Range of temp. controlling and precision |                      | °C           | 17~28°C±1°C          |                  |                  | 17~28°C±1°C          |                  |                  |               |
| Range of humidity and precision          |                      | %            | 40~60%±5%            |                  |                  | 40~60%±5%            |                  |                  |               |
| ESP                                      |                      | Pa           | 0                    | 50               | 50               | 0                    | 100              |                  |               |
| Indoor units                             | Model                | Normal       | JKFD13C/Na-M(I)      | JKFD13QS/Na-M(I) | JKFD13SX/Na-M(I) | JKFD19C/Na-M(I)      | JKFD19QS/Na-M(I) | JKFD19SX/Na-M(I) |               |
|  | Air flow volume      | m³/h         | 4900                 | 4800             | 4500             | 7200                 | 6600             | 6600             |               |
|  | Sound pressure level | dB(A)        | 62                   | 64               | 64               | 65                   | 67               | 67               |               |
|  | Dimension (W×D×H)    | Outline      | mm                   | 1100×810×2250    | 1100×810×1950    | 1100×810×1950        | 1380×810×2250    | 1380×810×1950    | 1380×810×1950 |
|  |                      | Package      | mm                   | 1200×910×2370    | 1200×910×2100    | 1200×910×2070        | 1480×910×2370    | 1480×910×2100    | 1480×910×2070 |
| Net weight/gross weight                  |                      | kg           | 355/370              | 325/340          | 325/340          | 435/450              | 395/410          | 430/445          |               |
| Outdoor units                            | Model                | Normal       | JKFD13/Na-M(O)       | JKFD13/Na-M(O)   | JKFD13/Na-M(O)   | JKFD19/Na-M(O)       | JKFD19/Na-M(O)   | JKFD19/Na-M(O)   |               |
|  | Quantity             | Set          | 1                    |                  |                  | 1                    |                  |                  |               |
|  | Air flow volume      | m³/h         | 9800                 |                  |                  | 11900                |                  |                  |               |
|  | Sound pressure level | dB(A)        | 64                   |                  |                  | 64                   |                  |                  |               |
|  | Dimension (W×D×H)    | Outline      | mm                   | 1080×1180×960    |                  |                      | 1080×1180×1040   |                  |               |
| Package                                  |                      | mm           | 1265×1135×540        |                  |                  | 1265×1135×615        |                  |                  |               |
| Net weight/gross weight                  |                      | kg           | 100/115              |                  |                  | 100/115              |                  |                  |               |
| Liquid/Gas                               |                      | mm           | φ12/16               |                  |                  | φ16/19               |                  |                  |               |
| Connecting pipe                          | Method of connection |              | Flared-fitting Joint |                  |                  | Flared-fitting Joint |                  |                  |               |
| Loading quantity                         | 40'GP/40'HQ          | set          | 0/14                 | 14/14            | 14/14            | 0/11                 | 11/11            | 11/11            |               |

| Model                                    | Normal               | JKFD25C2/Na-M | JKFD25QS2/Na-M       | JKFD25SX2/Na-M    | JKFD40C2/Na-M     | JKFD40QS2/Na-M       | JKFD40SX2/Na-M    |                   |               |
|--|----------------------|---------------|----------------------|-------------------|-------------------|----------------------|-------------------|-------------------|---------------|
| Power supply                             |                      | PhV/Hz        | 3/380/50             |                   |                   | 3/380/50             |                   |                   |               |
| Cooling capacity (total/sensible)        | 22°C/ 50%            | kW            | 25.4/22.8            |                   |                   | 39.4/36.0            |                   |                   |               |
|  | 24°C/17°C            | kW            | 27.0/24.3            |                   |                   | 40.0/36.1            |                   |                   |               |
|  | 24°C/45%             | kW            | 26.4/24.4            |                   |                   | 39.2/37.5            |                   |                   |               |
|  | 26°C/50%             | kW            | 27.6/24.5            |                   |                   | 42.5/38.0            |                   |                   |               |
| Rated input                              | Cooling/Heating      | kW            | 11.2/13.8            |                   |                   | 16.5/21.0            |                   |                   |               |
| Rated current                            | Cooling/Heating      | A             | 16.97/20.91          |                   |                   | 24.24/31.82          |                   |                   |               |
| Heating capacity                         |                      | kW            | 12                   |                   |                   | 18                   |                   |                   |               |
| Humidifying                              | Rated capacity       | kg/h          | 8                    |                   |                   | 8                    |                   |                   |               |
|  | Power input          | kW            | 6                    |                   |                   | 6                    |                   |                   |               |
| Range of temp. controlling and precision |                      | °C            | 17~28°C±1°C          |                   |                   | 17~28°C±1°C          |                   |                   |               |
| Range of humidity and precision          |                      | %             | 40~60%±5%            |                   |                   | 40~60%±5%            |                   |                   |               |
| ESP                                      |                      | Pa            | 0                    | 100               | 100               | 0                    | 100               |                   |               |
| Indoor units                             | Model                | Normal        | JKFD25C2/Na-M(I)     | JKFD25QS2/Na-M(I) | JKFD25SX2/Na-M(I) | JKFD40C2/Na-M(I)     | JKFD40QS2/Na-M(I) | JKFD40SX2/Na-M(I) |               |
|  | Air flow volume      | m³/h          | 7800                 | 7500              | 7500              | 13000                | 12500             | 12500             |               |
|  | Sound pressure level | dB(A)         | 66                   | 68                | 68                | 68                   | 70                | 70                |               |
|  | Dimension (W×D×H)    | Outline       | mm                   | 1900×810×2250     | 1900×810×1950     | 1900×810×1950        | 2480×810×2250     | 2480×810×1950     | 2480×810×1950 |
|  |                      | Package       | mm                   | 2000×910×2370     | 2000×910×2100     | 2000×910×2100        | 2580×910×2400     | 2580×910×2130     | 2580×910×2100 |
| Net weight/gross weight                  |                      | kg            | 585/600              | 570/585           | 535/550           | 725/755              | 660/690           | 660/690           |               |
| Outdoor units                            | Model                | Normal        | JKFD13/NaA-M(O)      | JKFD13/NaA-M(O)   | JKFD13/NaA-M(O)   | JKFD19/NaA-M(O)      | JKFD19/NaA-M(O)   | JKFD19/NaA-M(O)   |               |
|  | Quantity             | Set           | 2                    |                   |                   | 2                    |                   |                   |               |
|  | Air flow volume      | m³/h          | 9800                 |                   |                   | 11900                |                   |                   |               |
|  | Sound pressure level | dB(A)         | 64                   |                   |                   | 64                   |                   |                   |               |
|  | Dimension (W×D×H)    | Outline       | mm                   | 1080×1180×960     |                   |                      | 1080×1180×1040    |                   |               |
| Package                                  |                      | mm            | 1265×1135×540        |                   |                   | 1265×1135×615        |                   |                   |               |
| Net weight/gross weight                  |                      | kg            | 100/115              |                   |                   | 100/115              |                   |                   |               |
| Liquid/Gas                               |                      | mm            | φ12/16               |                   |                   | φ16/19               |                   |                   |               |
| Connecting pipe                          | Method of connection |               | Flared-fitting Joint |                   |                   | Flared-fitting Joint |                   |                   |               |
| Loading quantity                         | 40'GP/40'HQ          | set           | 0/7                  | 7/7               | 7/7               | 0/6                  | 6/6               | 6/6               |               |

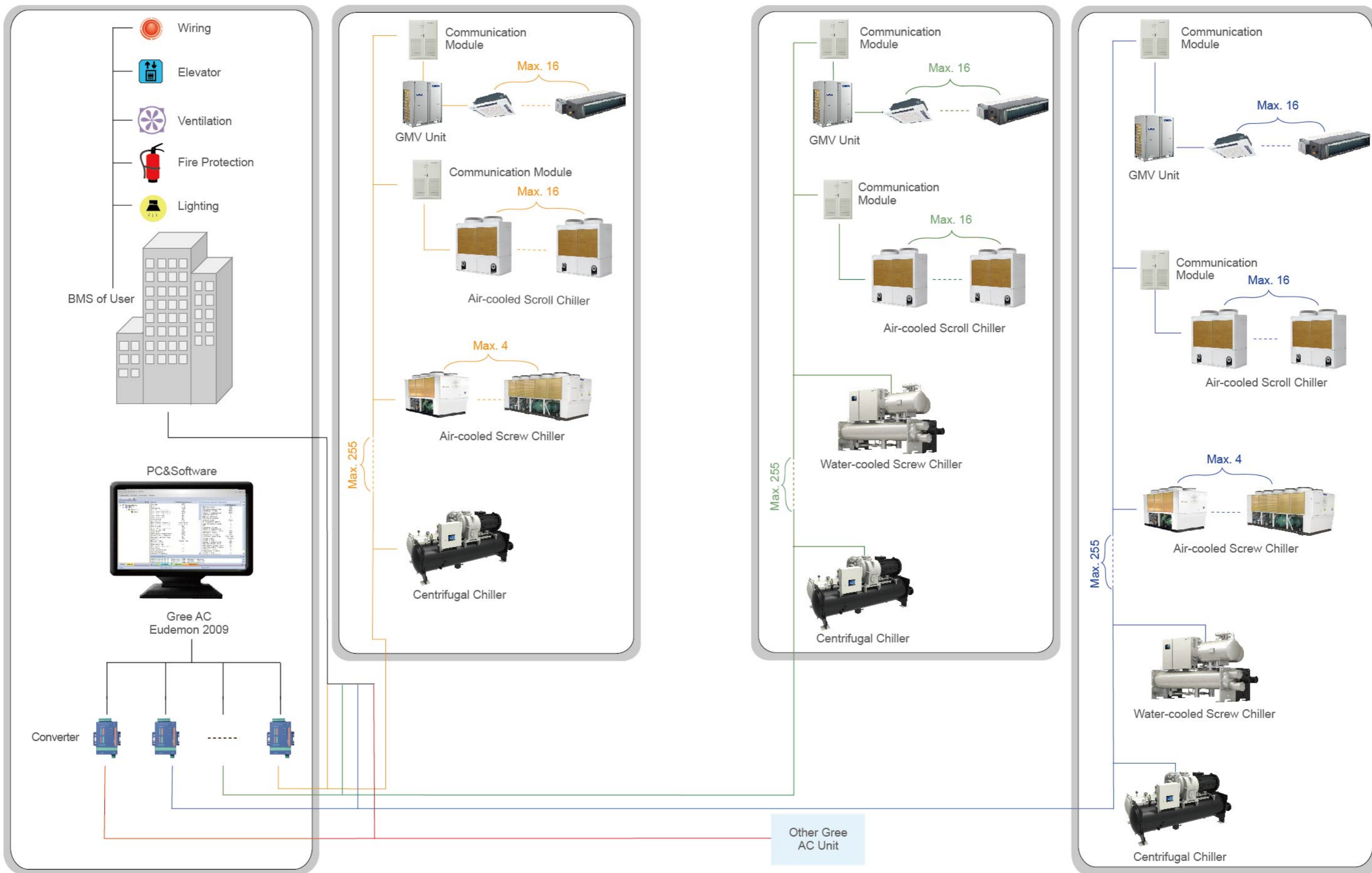
Notes:  
 1. The cooling capacity was tested when the outdoor temperature was as follows: Dry-bulb temperature was 35°C; Wet-bulb temperature was 24°C.  
 2. The noise value was tested in the semi-anechoic chamber but the actual value will be a little higher for the change of ambient temperature.  
 3. The temperature range of running environment is between -35°C~48°C



| Model                                    | Normal                  |                   | JKFD40C/Na-M  |                  | JKFD40QS/Na-M  |                   |               |
|--|-------------------------|-------------------|---------------|------------------|----------------|-------------------|---------------|
|  | Modular                 |                   | JKFD40CM/Na-M |                  | JKFD40QSM/Na-M |                   |               |
| Power supply                             |                         | Ph/V/Hz           |               | 3/380/50         |                |                   |               |
| Cooling capacity (total/sensible)        | 22°C/50%                | kW                |               | 39.3/36.0        |                |                   |               |
|  | 24°C/17°C               | kW                |               | 40.0/36.1        |                |                   |               |
|  | 24°C/45%                | kW                |               | 39.4/37.4        |                |                   |               |
|  | 26°C/50%                | kW                |               | 42.3/38.0        |                |                   |               |
| Rated input                              | Cooling/Heating         | kW                |               | 16.5/21.0        |                |                   |               |
| Rated current                            | Cooling/Heating         | A                 |               | 34/38            |                |                   |               |
| Heating capacity                         |                         | kW                |               | 18               |                |                   |               |
| Humidifying                              | Rated capacity          | kg/h              |               | 8                |                |                   |               |
|  | Power input             | kW                |               | 6                |                |                   |               |
| Range of temp. controlling and precision |                         | °C                |               | 17~28°C±1°C      |                |                   |               |
| Range of humidity and precision          |                         | %                 |               | 40~60%±5%        |                |                   |               |
| ESP                                      |                         | Pa                |               | 0                |                | 100               |               |
| Indoor units                             | Model                   | Normal            |               | JKFD40C/Na-M(I)  |                | JKFD40QS/Na-M(I)  |               |
|  |                         | Modular           |               | JKFD40CM/Na-M(I) |                | JKFD40QSM/Na-M(I) |               |
|  | Air flow volume         | m <sup>3</sup> /h |               | 13000            |                | 12500             |               |
|  | Sound pressure level    | dB(A)             |               | 68               |                | 70                |               |
|  | Dimension (W×D×H)       | Outline           | mm            |                  | 2480×810×2250  |                   | 2480×810×1950 |
|  |                         | Package           | mm            |                  | 2560×910×2480  |                   | 2560×910×2180 |
|  | Net weight/gross weight | kg                |               | 755/795          |                | 690/730           |               |
| Outdoor units                            | Model                   |                   |               | JKFD40/Na-M(O)   |                | JKFD40/Na-M(O)    |               |
|  | Quantity                | Set               |               | 1                |                |                   |               |
|  | Air flow volume         | m <sup>3</sup> /h |               | 23800            |                |                   |               |
|  | Sound pressure level    | dB(A)             |               | 64               |                |                   |               |
|  | Dimension (W×D×H)       | Outline           | mm            |                  | 2500×1150×1250 |                   |               |
|  |                         | Package           | mm            |                  | 2600×1280×1410 |                   |               |
| Net weight/gross weight                  | kg                      |                   | 240/280       |                  |                |                   |               |
| Connecting pipe                          | Liquid/Gas              | mm                |               | φ19/22           |                |                   |               |
|  | Method of connection    |                   |               | Soldering Joint  |                |                   |               |
| Loading quantity                         | 40'GP/40'HQ             | —                 |               | 0/4              |                | 4/4               |               |



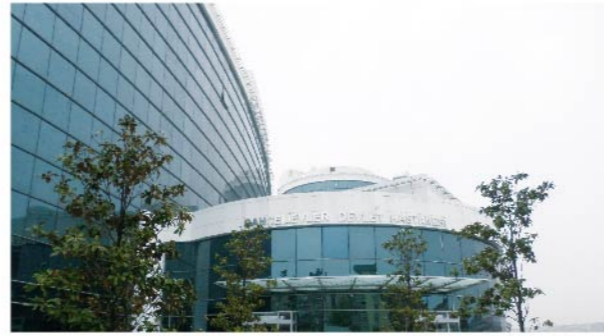
# LONG-DISTANCE CONTROL SYSTEM



REFERENCE PROJECTS



CECMED National Drug Laboratory  
Water-cooled Screw Chiller Hydronic Air Handling Unit Fan Coil Unit  
Cuba



Bahcelievler Government Hospital  
GMV  
Turkey



B.N. Eltsin's Community Center  
GMV  
Russia



Trading Building  
Air Cooled Screw Chiller  
Oman



Conad Supermarket  
GMV  
Italy



Al-Bustan Hotel  
GMV  
Yemen



Bella Roma Hotel  
GMV  
Iraq



XCMG Brasil  
GMV  
Brazil

Reference Projects Lineup

| Country      | Project Name                                      | Installed Series  |
|--------------|---|---|
| Panama       | Panama De Universidad Technology                  | GMV   |
| Cuba         | CECMED National Drug Laboratory                   | Water-cooled Screw Chiller, Hydronic Air Handling Unit, Fan Coil Unit |
| Inida        | The Research & Development Headquarters of Biocon | Air-cooled Screw Chiller, Water-cooled Screw Chiller                  |
| Laos         | State Power Corporation of Laos                   | GMV   |
| Bahrain      | IBN School  | Rooftop Package Unit  |
| Kuwait       | Substation for Ministry of Electricity and Water  | Rooftop Package Unit  |
| Libya        | Rail Station                                      | Air-cooled Screw Chiller  |
| Turkey       | Adana Sabanci Mosque                              | GMV   |
| Turkey       | Bahcelievler Government Hospital                  | GMV   |
| Turkey       | Nursery House                                     | GMV   |
| Russia       | Arbitration Tribunal                              | GMV   |
| Russia       | Design and Construction Department                | GMV   |
| Russia       | Court of Law                                      | GMV   |
| Russia       | Design and Research Institute                     | GMV   |
| Russia       | Office of Russian Federal Tax Service             | GMV   |
| Russia       | B.N. Eltsin's Community Center of Uralskiy region | GMV   |
| Russia       | Transport and Logistics Centre                    | Duct Split Unit   |
| Laos         | Lao Telecom                                       | Air-cooled Screw Chiller, Closed Control Air Conditioner              |
| Laos         | Agriculture Promotion Bank                        | GMV   |
| Bahrain      | Millennium Tower                                  | Fan Coil Unit   |
| Oman         | Trading Building                                  | Air-cooled Screw Chiller  |
| Turkey       | Tepe Home Project                                 | GMV   |
| Turkey       | Adiyaman Patisserie                               | GMV   |
| Turkey       | Suluntepe Sport Complex                           | GMV   |
| Russia       | Green Park Commercial Center                      | GMV   |
| Iraq         | NawRoz City                                       | Super Free Match  |
| Iraq         | Lebanese Village                                  | DC Inverter GMV; U-Match; Super Free Match; Air-cooled Screw Chiller  |
| Iraq         | New Eskan Project                                 | Super Free Match  |
| Libya        | Land Registration Department                      | GMV   |
| Turkey       | Istanbul Kabataş Residence                        | GMV   |
| Russia       | Greenwood   | GMV   |
| Italy        | Conad Supermarket                                 | GMV   |
| Russia       | Furniture Trading centre                          | GMV   |
| Russia       | Tools Shop  | U-Match   |
| Ghana        | Atlantic Hotel                                    | GMV   |
| Bahrain      | Swiss Bell Hotel                                  | GMV   |
| Qatar        | Hilton Garden Inn                                 | Fan Coil Unit   |
| Yemen        | Al-Bustan   | GMV   |
| Turkey       | Antakya Neccar Hotel                              | GMV   |
| Russia       | Lighthouse Hotel                                  | GMV   |
| Brazil       | XCMG Brasil                                       | GMV   |
| Qatar        | DVAC Factory                                      | Rooftop Package Unit; Duct Split Unit                                 |
| Turkey       | OASIS Factory                                     | GMV   |
| Russia       | TTS Tooltechnic Systems AG & Co                   | GMV   |
| Russia       | Aircraft Plant                                    | U-Match   |
| Russia       | All-Russian Sectoral Textile Complex              | Duct Split Unit   |
| India        | Biocon R&D Building                               | Water-cooled Screw Chiller  |
| Jordan       | Medical Clinics Building                          | U-Match   |
| Greece       | Armonia Rehabilitation Medical Center             | GMV   |
| Croatia      | Ex. Dairy Put Murvice                             | Free Match  |
| Iraq         | Phoenix Hotel                                     | Rooftop Package Unit  |
| Macao, China | Nittobo Glass Weaving                             | Water-cooled Screw Chiller  |
| Australia    | SKF   | Heat Recovery GMV   |

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