

## THE WORLD'S OBAIR

In the vast global innovation landscape, "Obair" shines like a brilliant star, leading the wave of technological innovation.

We are not just a company, but also advocates and practitioners of the global upgrade in quality of life.

In the world of Obair, technological innovation is not only a driving force but also the soul.

We firmly believe that "Obair" will resonate in every corner of the world, representing excellence, quality, and dreams.

We cross mountains and seas, connecting the five continents, adding a bright color to the global stage of life, becoming a synonym for beauty in the hearts of people around the world, and together writing a glorious chapter in human civilization.



The related products of Oubo have obtained the above certification, and the specific product certification is detailed in the relevant product certification certificate

### Haojin Oubo Technology Co.,Ltd

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Note: There may be discrepancies between all product descriptions, data, and actual products in this catalog. Please refer to the actual product. Changes will not be notified separately.



Official WeChat  
Public Account

# OBAIR

FP |

## Fan Coil Unit



**OBAIR**  
Central air conditioning

Version NO.: OB-202504A  
Haojin Oubo Technology CO., LTD

## COMPANY PROFILE

Haojin Oubo Technology Co., Ltd. is a large-scale purification central air conditioning national high-tech enterprise integrating research and development, production, sales, and service.

Obair has always adhered to technological innovation, participated in the formulation of national and industry standards as a member unit of China's "Cold Standard Committee", and has obtained multiple invention patents and utility model patents. It has established industry-university-research bases with Nanchang University and Jiangxi University of Science and Technology. It is a key demonstration enterprise for deep integration of informatization and industrialization in Jiangxi Province, a demonstration enterprise for service-oriented manufacturing in Jiangxi Province, and the company has successively won honors such as Jiangxi Province Technology Center, Ganzhou City Industrial Design Center, Jiangxi Famous Brand Product, national green factory, and national specialized and innovative "little giant" enterprise.

Obair currently has two phases in Ganzhou, Jiangxi, using digital park management, with over 120 digital production equipment, achieving an annual production capacity of 100,000 units.

Obair currently has more than 1000 models of high-quality air conditioning products independently developed, and the products have obtained energy-saving certification, CRAA, EU CE certification, American AHRI certification and other authoritative institutions' testing and certification, widely used in hospitals, dust-free workshops, pharmaceutical factories, electronics, tobacco, painting, photovoltaic, new energy, semiconductor, laboratory and other industries, and has the industry reputation of "King of Cleanliness" and "King of Constant Temperature and Humidity Non-standard".

Obair strictly implements the ISO9001/ISO14001/ISO45001 management system, always practices the purpose of "willing to explain the price for a while, but not to apologize for the quality for a lifetime", proposes the "6-hour" on-site service concept for all customers and for all customers, and provides the most professional and high-quality technical support and after-sales service.

From the mission, born for purification!

Obair, your regret-free choice!

**170,000**<sup>square meters</sup>  
of complete machine production base

**70+**  
National Service Contact Points

**1000+**  
employees

**100,000+**  
Pilot Project Air Conditioning Solutions



# HONORARY QUALIFICATIONS



Advanced equipment, professional technology and strict management have created the high quality of "OBAIR" brand products.

It has successively won dozens of honors such as national high-tech enterprise, China's well-known brand, specialized and special new enterprise, cold standard committee enterprise, provincial service-oriented manufacturing demonstration enterprise, provincial enterprise technology center, Jiangxi famous brand product, etc.

"OBAIR" products are your reliable choice.

100<sup>+</sup>

It has obtained more than 10 certifications and more than 100 patents.





National Cold Standard Committee Member Certificate



Engineering Practice Teaching Cooperation Base



Demonstration Enterprise for Development and Upgrading



National Specialized and Innovative "Little Giant" Enterprise



National Green Factory



National High-tech Enterprise



Provincial Demonstration Enterprise for Service-oriented Manufacturing



Top Ten Economic Personalities of the Year



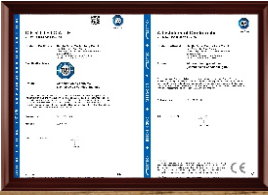
Jiangxi Province Famous Brand Product



Enterprise Technology Center



AHRI Certificate



TUV Certificate





### Rapid Heating and Cooling

High-efficiency hydrophilic opening fins with a fin width that exceeds industry standards, achieving high thermal efficiency while enhancing corrosion resistance.



### Smooth and tranquil

While reducing operational energy consumption, it also minimizes the generation of vortex airflow, ensuring the unit operates smoothly and quietly, allowing you to enjoy a quality life.



### Energy-efficient and high-performance

Compliant with the ANSI/AMCA-204 standard electronic balancing machine for two-stage dynamic balance testing, with an internal control precision reaching the G2.5 level, energy-saving and efficient, and operates quietly.



### Optional temperature control

Optional mechanical thermostats or LCD touch screen thermostats can be used to control the opening/closing of pipe valve control components such as fan coil pipe valves and other pipeline systems, to connect/interrupt the flow of media like cold and hot water sources in the pipelines, thereby controlling the temperature within the area.

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## » Product Overview

Fan coil units are the terminal devices of large central air conditioning systems, which are air conditioning devices that integrate fans and heat exchangers. They use cold (hot) water supplied by cold or heat sources to send cold or hot air into air-conditioned rooms. They are suitable for horizontal concealed spaces such as hotels, residences, office buildings, villas, radio stations, airports, and subways.

Auburn fan coil units include: horizontal concealed installation, cassette series, with airflow ranges from 340m³/h to 2380m³/h, and there are three-speed options for high, medium, and low airflow. More differentiated options are also available (such as thermostats, three-speed switches, etc.), to more comprehensively meet user needs in terms of performance parameters, air quality, installation and maintenance, and operational maintenance.



## » Product Features

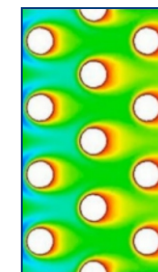
### Energy-efficient and high-performance, quiet operation, enjoy a comfortable life

Precision-grade stamped large diameter forward multi-blade wheel, Pittsburgh-style helical gear structure, overcoming the traditional spot welding mode's drawbacks of easy air leakage and rusting. The airflow runs streamlined between the blades, reducing pressure loss and vortex noise caused by turbulence. Tested with ANSI/AMCA-204 standard electronic balancing machines at two levels of dynamic balance, with internal control precision reaching G2.5 grade, energy-saving and efficient, quiet operation, and enjoy a comfortable life.



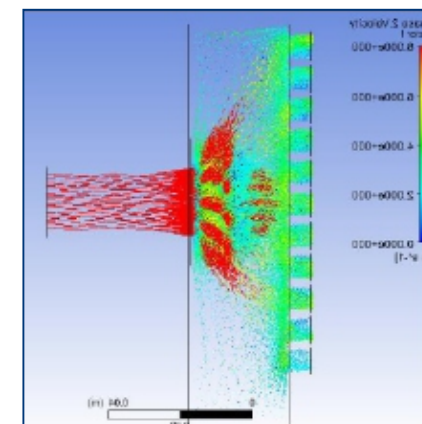
### Genuine materials, rapid heating and cooling, enjoy a tech-savvy life

Counterflow cross-circuit design, professional simulation calculation, verified by the national CNAS laboratory, high-efficiency hydrophilic opening fins, fin width exceeding industry peers, achieving high thermal efficiency while enhancing corrosion resistance, genuine materials, rapid heating and cooling, enjoy a tech-savvy life.



### Smooth and tranquil, enjoy a quality life

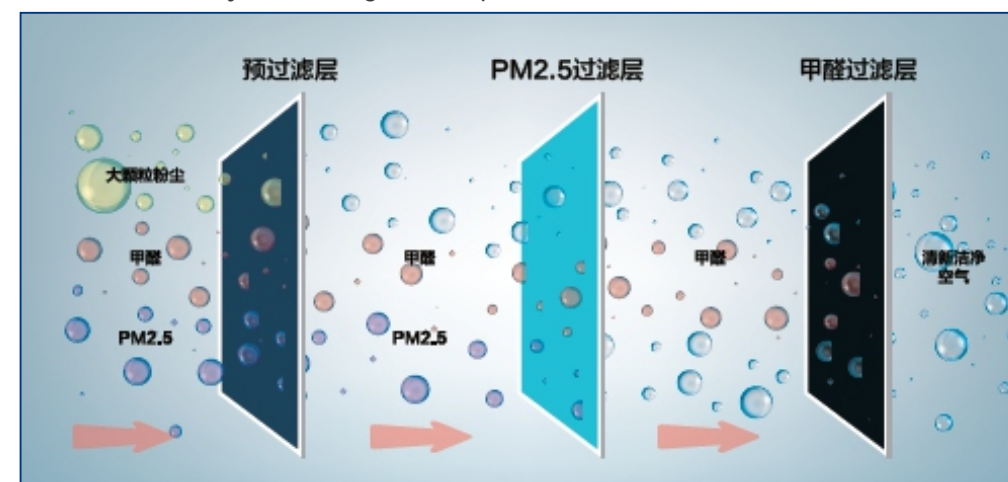
High-quality galvanized steel plate is used to form the water tray by whole stamping, with double-sided spray plastic and an outer layer of seamless B2-grade flame-retardant insulation material. The 8° inclined drainage ensures smooth water flow and prevents condensate from lingering. Professionally optimized ventilation pathways achieve the best aerodynamic performance. While reducing operational energy consumption and minimizing the generation of vortex airflow, the unit operates smoothly and quietly, allowing you to enjoy a quality life.



### A variety of choices for an exciting life

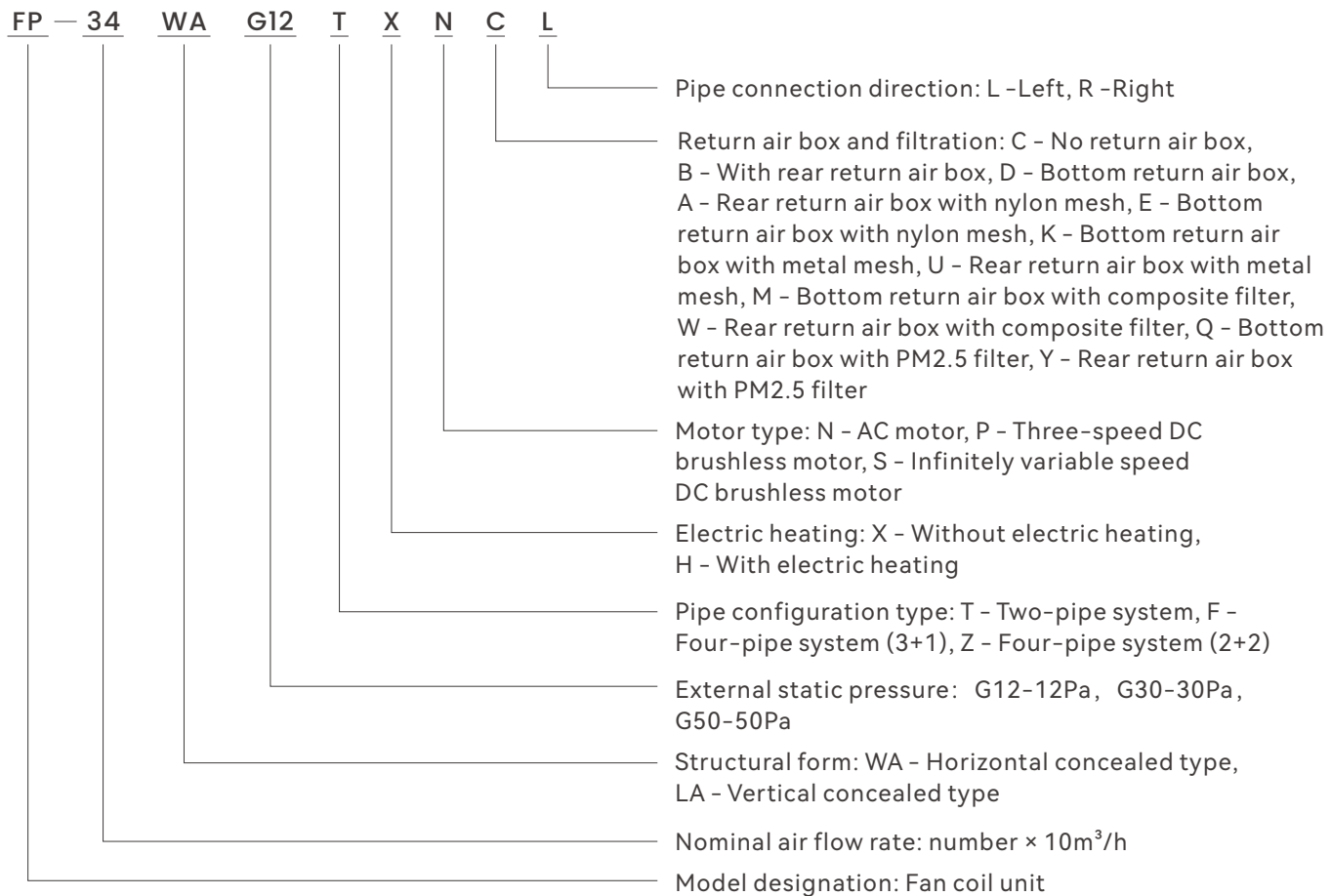
Optional electrostatic dust removal devices and nano photocatalytic air purification devices can effectively reduce indoor PM2.5 levels, creating a fresh and clean indoor environment.

Optional mechanical thermostats or LCD touch screen thermostats can be used to control the opening and closing of fan coil unit pipeline valve control components to connect or block the flow of media such as cold and hot water sources, thereby controlling the temperature within the area.

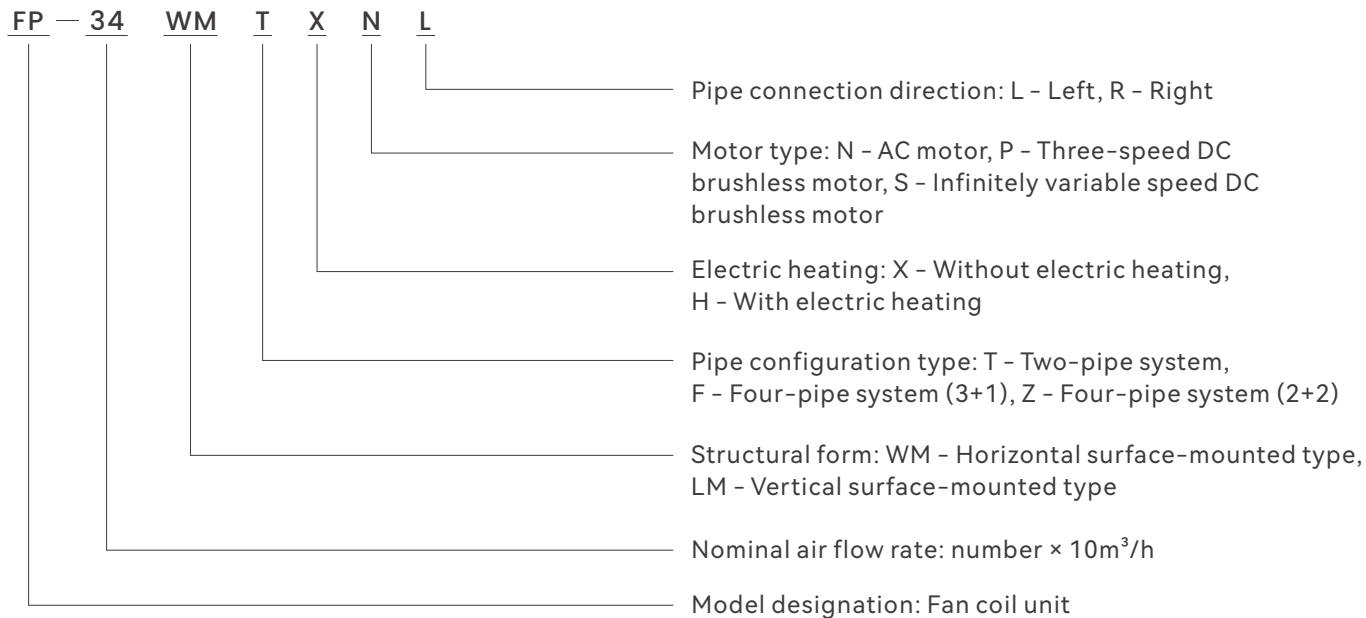


## » Model Description

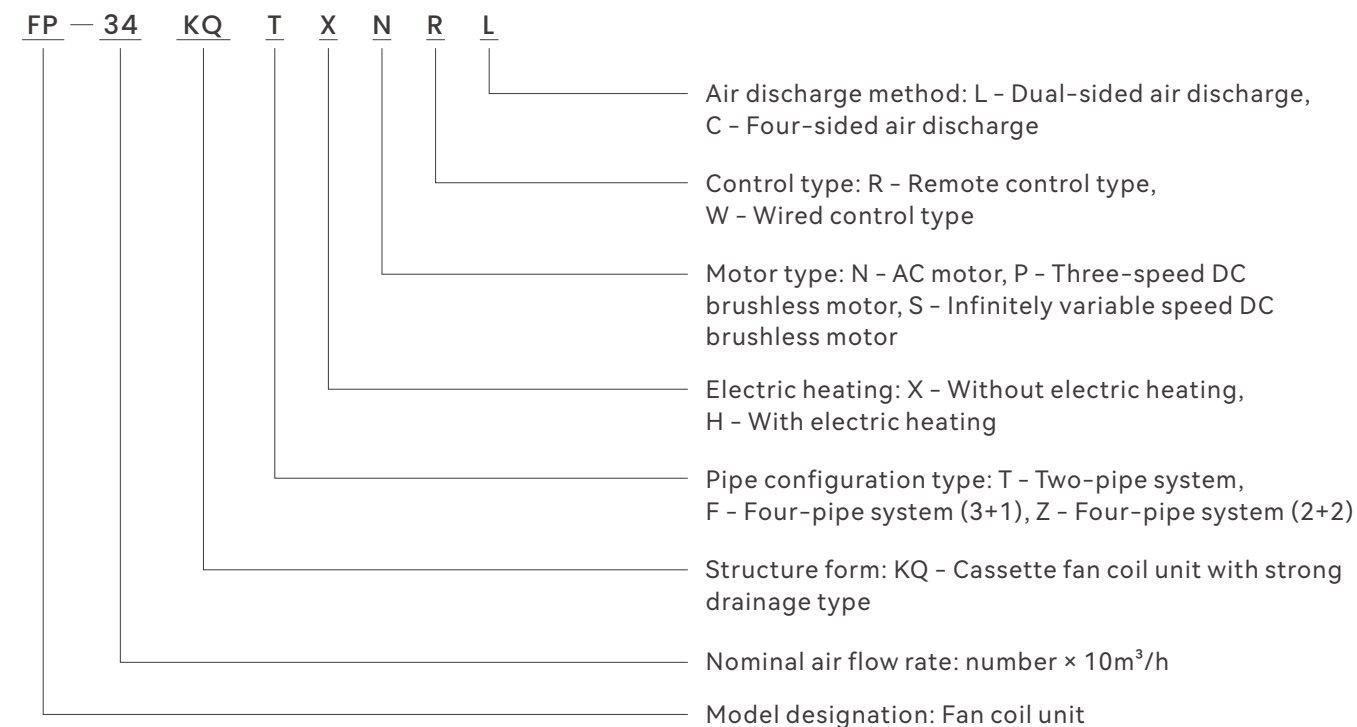
### Horizontal concealed installation and vertical concealed installation fan coil units



### Horizontal surface-mounted, vertical surface-mounted fan coil units



### 卡式风机盘管



## » Ordering Instructions

- When placing an order, customers must specify the model, specifications, and quantity, as well as the operating conditions and installation requirements, and also indicate the direction of the water inlet and outlet pipes.
- Pipe direction: Take the fan coil unit's air outlet as the reference, if the pipe is on the left side, it is considered a left machine, and vice versa for a right machine (the image above is a right machine).
- This product is available with a return air box (in two forms: rear return air and bottom return air).
- Our company also offers electric two-way valves and three-speed switches, TC series thermostats, and other temperature control components that can be used with the fan coil units for purchase by customers; simply specify when ordering.
- Our company also offers four-pipe system compatible coils (3 rows for cooling plus 1 row for heating) and direct expansion coils for selection.

» Performance Parameters

|                                                                   |                                 |                                                                                              |      |      |      |       |       |       |       |       |
|-------------------------------------------------------------------|---------------------------------|----------------------------------------------------------------------------------------------|------|------|------|-------|-------|-------|-------|-------|
| Model FP-                                                         |                                 | 34                                                                                           | 51   | 68   | 85   | 102   | 136   | 170   | 204   | 238   |
| Rated Airflow<br>m³/h                                             | High Speed                      | 430                                                                                          | 680  | 910  | 1130 | 1330  | 1795  | 2240  | 2700  | 2870  |
|                                                                   | Medium Speed                    | 340                                                                                          | 510  | 680  | 850  | 1020  | 1360  | 1700  | 2040  | 2380  |
|                                                                   | Low Speed                       | 270                                                                                          | 380  | 510  | 640  | 780   | 1030  | 1290  | 1540  | 1975  |
| Cooling Capacity<br>W                                             | High Speed                      | 2690                                                                                         | 3960 | 4960 | 6060 | 7340  | 9560  | 11380 | 13620 | 15800 |
|                                                                   | Medium Speed                    | 2100                                                                                         | 3480 | 4110 | 4770 | 5940  | 7490  | 9580  | 11220 | 12760 |
|                                                                   | Low Speed                       | 1830                                                                                         | 2520 | 3160 | 3570 | 4680  | 6340  | 6960  | 9810  | 10120 |
| Heating CapacityW                                                 | High Speed                      | 3980                                                                                         | 5665 | 7150 | 8680 | 10305 | 13805 | 16830 | 19030 | 22660 |
| Fan                                                               | Type                            | Front-curved Multi-blade Galvanized Steel Plate Centrifugal Double-suction Fan               |      |      |      |       |       |       |       |       |
|                                                                   | Quantity                        | 1                                                                                            | 2    | 2    | 2    | 2     | 3     | 4     | 4     | 4     |
| Motor                                                             | Type                            | Single-phase Capacitor Run Motor                                                             |      |      |      |       |       |       |       |       |
|                                                                   | Insulation Class                | B                                                                                            |      |      |      |       |       |       |       |       |
|                                                                   | Power Supply                    | 220V/1~50Hz                                                                                  |      |      |      |       |       |       |       |       |
|                                                                   | Quantity                        | 1                                                                                            | 1    | 1    | 1    | 1     | 2     | 2     | 2     | 2     |
| High Speed<br>Input Power<br>W                                    | Low Static Pressure(12Pa)       | 37                                                                                           | 52   | 62   | 76   | 96    | 134   | 152   | 189   | 228   |
|                                                                   | 30Pa Static Pressure            | 44                                                                                           | 59   | 72   | 87   | 108   | 156   | 174   | 212   | 253   |
|                                                                   | 50Pa Static Pressure            | 49                                                                                           | 66   | 84   | 100  | 118   | 174   | 210   | 250   | 300   |
| Heat<br>Exchanger                                                 | Structural Form                 | Copper tubes with high-efficiency flanged aluminum fins, tightly expanded into a single unit |      |      |      |       |       |       |       |       |
|                                                                   | Working Pressure Mpa            | 1.6                                                                                          |      |      |      |       |       |       |       |       |
|                                                                   | Inlet and Outlet Pipe Diameters | Rc 3/4(Conical Internal Thread)                                                              |      |      |      |       |       |       |       |       |
|                                                                   | Water Flow Rate kg/h            | 462                                                                                          | 681  | 853  | 1042 | 1262  | 1644  | 1957  | 2342  | 2717  |
|                                                                   | Water Resistance kPa            | 8                                                                                            | 10   | 12   | 13   | 14    | 16    | 18    | 22    | 32    |
| Cooling Energy<br>Efficiency Ratio<br>FCEER                       | Low Static Pressure(12Pa)       | 64                                                                                           | 66   | 69   | 68   | 65    | 61    | 63    | 60    | 56    |
|                                                                   | 30Pa Static Pressure            | 54                                                                                           | 59   | 60   | 60   | 59    | 53    | 56    | 54    | 51    |
|                                                                   | 50Pa Static Pressure            | 49                                                                                           | 53   | 52   | 53   | 54    | 48    | 47    | 46    | 44    |
| Heating Energy<br>Efficiency Ratio<br>FCCOP<br>(60°C inlet water) | Low Static Pressure(12Pa)       | 95                                                                                           | 95   | 99   | 98   | 92    | 88    | 93    | 84    | 80    |
|                                                                   | 30 PaStatic Pressure            | 80                                                                                           | 84   | 86   | 86   | 82    | 76    | 82    | 75    | 73    |
|                                                                   | 50 PaStatic Pressure            | 72                                                                                           | 75   | 74   | 76   | 76    | 69    | 69    | 65    | 63    |
| High-Speed<br>Noise<br>dB(A)                                      | Low Static Pressure(12Pa)       | 36                                                                                           | 36   | 40   | 42   | 44    | 44    | 47    | 49    | 51    |
|                                                                   | 30Pa Static Pressure            | 39                                                                                           | 41   | 43   | 45   | 46    | 47    | 49    | 51    | 53    |
|                                                                   | 50Pa Static Pressure            | 41                                                                                           | 43   | 45   | 47   | 48    | 50    | 52    | 53    | 54    |
| Condensate Pipe                                                   |                                 | R <sub>1</sub> 3/4(Conical External Thread)                                                  |      |      |      |       |       |       |       |       |

Note:

1. Cooling: Supply and return water temperature 7/12°C; Air return conditions: Inlet air dry bulb temperature 27°C; Wet bulb temperature 19.5°C;
2. Heating: Water supply temperature 60°C; Air return conditions: Inlet air dry bulb temperature 21°C;
3. The airflow in the table is measured under dry operation conditions; at a dry bulb temperature of 20°C;
4. The noise in the table is measured inside a semi-anechoic chamber with a background noise level of 11.5dB(A);
5. Specifications and parameters are subject to change without notice due to product improvements.

» Refrigeration Performance Variation Table

| Model<br>FP- | Water<br>Flow<br>Rate<br>kg/h | Water<br>Resistance<br>kPa | Inlet Air Temperature DB24°C WB17°C |                          |                                      |                       |                          |                                      |                       |                          |                                      |                       |                          |                                      |                       |                          |                                      |
|--------------|-------------------------------|----------------------------|-------------------------------------|--------------------------|--------------------------------------|-----------------------|--------------------------|--------------------------------------|-----------------------|--------------------------|--------------------------------------|-----------------------|--------------------------|--------------------------------------|-----------------------|--------------------------|--------------------------------------|
|              |                               |                            | Inlet Water Temperature (°C)        |                          |                                      |                       |                          |                                      |                       |                          |                                      |                       |                          |                                      |                       |                          |                                      |
|              |                               |                            | 5                                   |                          |                                      | 6                     |                          |                                      | 7                     |                          |                                      | 8                     |                          |                                      | 9                     |                          |                                      |
|              |                               |                            | Total<br>Cooling<br>W               | Sensible<br>Cooling<br>W | Outlet<br>Water<br>Temperature<br>°C | Total<br>Cooling<br>W | Sensible<br>Cooling<br>W | Outlet<br>Water<br>Temperature<br>°C | Total<br>Cooling<br>W | Sensible<br>Cooling<br>W | Outlet<br>Water<br>Temperature<br>°C | Total<br>Cooling<br>W | Sensible<br>Cooling<br>W | Outlet<br>Water<br>Temperature<br>°C | Total<br>Cooling<br>W | Sensible<br>Cooling<br>W | Outlet<br>Water<br>Temperature<br>°C |
| 34           | 131                           | 2                          | 1000                                | 953                      | 11.6                                 | 982                   | 982                      | 12.4                                 | 941                   | 941                      | 13.2                                 | 898                   | 898                      | 13.9                                 | 806                   | 806                      | 14.3                                 |
|              | 267                           | 5                          | 1652                                | 1471                     | 10.3                                 | 1559                  | 1403                     | 11.0                                 | 1438                  | 1309                     | 11.6                                 | 1286                  | 1184                     | 12.1                                 | 1234                  | 1160                     | 13.0                                 |
|              | 391                           | 10                         | 2007                                | 1546                     | 9.5                                  | 1826                  | 1425                     | 10.1                                 | 1701                  | 1344                     | 10.8                                 | 1523                  | 1219                     | 11.4                                 | 1478                  | 1226                     | 12.3                                 |
|              | 527                           | 16                         | 2193                                | 1601                     | 8.6                                  | 1950                  | 1463                     | 9.2                                  | 1864                  | 1403                     | 10.0                                 | 1654                  | 1290                     | 10.7                                 | 1538                  | 1231                     | 11.5                                 |
| 51           | 184                           | 4                          | 1492                                | 1492                     | 12.0                                 | 1476                  | 1776                     | 12.9                                 | 1391                  | 1391                     | 13.5                                 | 1349                  | 1349                     | 14.3                                 | 1255                  | 1255                     | 14.9                                 |
|              | 367                           | 13                         | 2546                                | 2266                     | 10.9                                 | 2366                  | 2129                     | 11.5                                 | 2153                  | 1959                     | 12.0                                 | 1980                  | 1821                     | 12.6                                 | 177                   | 1664                     | 13.1                                 |
|              | 576                           | 25                         | 2970                                | 2287                     | 9.7                                  | 2767                  | 2158                     | 10.4                                 | 2584                  | 2041                     | 11.1                                 | 2321                  | 1857                     | 11.6                                 | 2139                  | 1775                     | 12.4                                 |
|              | 729                           | 40                         | 3287                                | 2400                     | 8.9                                  | 3022                  | 2266                     | 9.6                                  | 2774                  | 2108                     | 10.3                                 | 2516                  | 1963                     | 11.0                                 | 2251                  | 1801                     | 11.6                                 |
| 68           | 231                           | 4                          | 1869                                | 1869                     | 11.9                                 | 1819                  | 1819                     | 12.7                                 | 1741                  | 1741                     | 13.4                                 | 1687                  | 1687                     | 14.2                                 | 1602                  | 1602                     | 14.9                                 |
|              | 463                           | 11                         | 3143                                | 2797                     | 10.8                                 | 2916                  | 2625                     | 11.4                                 | 2704                  | 2461                     | 12.0                                 | 2426                  | 2232                     | 12.5                                 | 2262                  | 2126                     | 13.2                                 |
|              | 716                           | 18                         | 3723                                | 2867                     | 9.6                                  | 3479                  | 2714                     | 10.3                                 | 3139                  | 2480                     | 10.9                                 | 2901                  | 2321                     | 11.6                                 | 2647                  | 2197                     | 12.3                                 |
|              | 925                           | 30                         | 4005                                | 2923                     | 8.7                                  | 3754                  | 2815                     | 9.5                                  | 3449                  | 2621                     | 10.2                                 | 3110                  | 2426                     | 10.9                                 | 2780                  | 2224                     | 11.6                                 |
| 85           | 283                           | 4                          | 2259                                | 2259                     | 11.8                                 | 2198                  | 2198                     | 12.7                                 | 2099                  | 2099                     | 13.4                                 | 2035                  | 2035                     | 14.2                                 | 1942                  | 1942                     | 14.9                                 |
|              | 566                           | 11                         | 3799                                | 3381                     | 10.8                                 | 3549                  | 3194                     | 11.4                                 | 3283                  | 2987                     | 12.0                                 | 2966                  | 2728                     | 12.5                                 | 2757                  | 2591                     | 13.2                                 |
|              | 853                           | 21                         | 4535                                | 3492                     | 9.6                                  | 4230                  | 3299                     | 10.3                                 | 3851                  | 3042                     | 10.9                                 | 3552                  | 2842                     | 11.6                                 | 3137                  | 2604                     | 12.2                                 |
| 102          | 1126                          | 33                         | 4908                                | 3583                     | 8.7                                  | 4647                  | 3485                     | 9.5                                  | 4251                  | 3230                     | 10.2                                 | 3850                  | 3003                     | 10.9                                 | 3575                  | 2860                     | 11.7                                 |
|              | 331                           | 4                          | 2491                                | 2491                     | 11.4                                 | 2422                  | 2422                     | 12.3                                 | 2296                  | 2296                     | 12.9                                 | 2203                  | 2203                     | 13.7                                 | 2087                  | 2087                     | 14.4                                 |
|              | 668                           | 13                         | 4115                                | 3663                     | 10.3                                 | 3822                  | 3440                     | 10.9                                 | 3536                  | 3218                     | 11.5                                 | 3251                  | 2991                     | 12.2                                 | 2938                  | 2762                     | 12.8                                 |
|              | 1069                          | 30                         | 4943                                | 3717                     | 9.2                                  | 4600                  | 3578                     | 9.9                                  | 4441                  | 3627                     | 10.8                                 | 3858                  | 3260                     | 11.3                                 | 3454                  | 3096                     | 12.0                                 |
| 136          | 1336                          | 38                         | 5249                                | 3832                     | 8.4                                  | 4831                  | 3624                     | 9.1                                  | 4389                  | 3335                     | 9.8                                  | 4074                  | 3178                     | 10.6                                 | 3661                  | 2929                     | 11.3                                 |
|              | 700                           | 5                          | 5550                                | 5550                     | 11.8                                 | 5462                  | 5462                     | 12.7                                 | 5184                  | 5184                     | 13.3                                 | 4962                  | 4962                     | 14.1                                 | 4729                  | 4729                     | 14.8                                 |
|              | 929                           | 16                         | 6294                                | 5602                     | 10.8                                 | 5867                  | 5281                     | 11.4                                 | 5311                  | 4833                     | 11.9                                 | 4894                  | 4503                     | 12.5                                 | 4447                  | 4180                     | 13.1                                 |
|              | 1375                          | 30                         | 7330                                | 5644                     | 9.5                                  | 6850                  | 5343                     | 10.2                                 | 6345                  | 5012                     | 10.9                                 | 5701                  | 4561                     | 11.5                                 | 5039                  | 4183                     | 12.1                                 |
| 170          | 1858                          | 41                         | 8032                                | 5863                     | 8.7                                  | 7393                  | 5544                     | 9.4                                  | 6956                  | 5287                     | 10.2                                 | 6288                  | 4905                     | 10.9                                 | 5672                  | 4538                     | 11.6                                 |
|              | 535                           | 7                          | 4066                                | 4066                     | 11.5                                 | 3979                  | 3979                     | 12.4                                 | 3864                  | 3864                     | 13.2                                 | 3664                  | 3664                     | 13.9                                 | 3428                  | 3428                     | 14.5                                 |
|              | 1069                          | 23                         | 6820                                | 6070                     | 10.5                                 | 6339                  | 5705                     | 11.1                                 | 5880                  | 5351                     | 11.7                                 | 5288                  | 4865                     | 12.2                                 | 4943                  | 4646                     | 13.0                                 |
|              | 1657                          | 39                         | 7806                                | 5924                     | 9.2                                  | 7251                  | 5677                     | 9.9                                  | 6942                  | 5626                     | 10.7                                 | 6047                  | 5173                     | 11.3                                 | 5430                  | 4926                     | 11.9                                 |
| 204          | 2128                          | 61                         | 8836                                | 6450                     | 8.6                                  | 8052                  | 6039                     | 9.2                                  | 7354                  | 5589                     | 10.0                                 | 6898                  | 5381                     | 10.8                                 | 6211                  | 4969                     | 11.5                                 |
|              | 678                           | 5                          | 5232                                | 5232                     | 11.6                                 | 5154                  | 5154                     | 12.5                                 | 4927                  | 4927                     | 13.2                                 | 4691                  | 4691                     | 13.9                                 | 4451                  | 4451                     | 14.6                                 |
|              | 1356                          | 14                         | 8768                                | 7804                     | 10.5                                 | 8143                  | 7329                     | 11.1                                 | 7531                  | 6853                     | 11.8                                 | 6894                  | 6342                     | 12.4                                 | 6237                  | 5863                     | 12.9                                 |
|              | 1983                          | 28                         | 9731                                | 7363                     | 9.1                                  | 9007                  | 7050                     | 9.8                                  | 8271                  | 6736                     | 10.5                                 | 8055                  | 6866                     | 11.4                                 | 6758                  | 7244                     | 11.9                                 |
| 238          | 2701                          | 44                         | 11294                               | 8245                     | 8.6                                  | 10323                 | 7742                     | 9.3                                  | 9430                  | 7167                     | 10.0                                 | 8471                  | 6607                     | 10.7                                 | 7816                  | 6253                     | 11.5                                 |
|              | 745                           | 9                          | 5975                                | 5975                     | 11.9                                 | 5789                  | 5789                     | 12.7                                 | 5550                  | 5550                     | 13.4                                 | 5243                  | 5243                     | 14.0                                 | 5014                  | 5014                     | 14.8                                 |
|              | 1490                          | 25                         | 9964                                | 8868                     | 10.7                                 | 9226                  | 8303                     | 11.3                                 | 8526                  | 7759                     | 11.9                                 | 7670                  | 7057                     | 12.4                                 | 7137                  | 6709                     | 13.1                                 |
|              | 2303                          | 49                         | 11715                               | 9021                     | 9.5                                  | 10958                 | 8547                     | 10.2                                 | 9953                  | 7863                     | 10.8                                 | 9142                  | 7313                     | 11.5                                 | 8085                  | 6711                     | 12.1                                 |
| 238          | 2980                          | 70                         | 12544                               | 9157                     | 8.6                                  | 11921                 | 8941                     | 9.4                                  | 10840                 | 8239                     | 10.1                                 | 9812                  | 7653                     | 10.8                                 | 8769                  | 7015                     | 11.5                                 |

» Refrigeration Performance Variation Table

| Model<br>FP- | Water<br>Flow<br>Rate<br>kg/h | Water<br>Resistance<br>kPa | Inlet Air Temperature DB25℃ WB18℃ |                          |                                     |                       |                          |                                     |                       |                          |                                     |                       |                          |                                     |                       |                          |                                     |
|--------------|-------------------------------|----------------------------|-----------------------------------|--------------------------|-------------------------------------|-----------------------|--------------------------|-------------------------------------|-----------------------|--------------------------|-------------------------------------|-----------------------|--------------------------|-------------------------------------|-----------------------|--------------------------|-------------------------------------|
|              |                               |                            | Inlet Water Temperature (℃)       |                          |                                     |                       |                          |                                     |                       |                          |                                     |                       |                          |                                     |                       |                          |                                     |
|              |                               |                            | 5                                 |                          |                                     | 6                     |                          |                                     | 7                     |                          |                                     | 8                     |                          |                                     | 9                     |                          |                                     |
|              |                               |                            | Total<br>Cooling<br>W             | Sensible<br>Cooling<br>W | Outlet<br>Water<br>Temperature<br>℃ | Total<br>Cooling<br>W | Sensible<br>Cooling<br>W | Outlet<br>Water<br>Temperature<br>℃ | Total<br>Cooling<br>W | Sensible<br>Cooling<br>W | Outlet<br>Water<br>Temperature<br>℃ | Total<br>Cooling<br>W | Sensible<br>Cooling<br>W | Outlet<br>Water<br>Temperature<br>℃ | Total<br>Cooling<br>W | Sensible<br>Cooling<br>W | Outlet<br>Water<br>Temperature<br>℃ |
| 34           | 131                           | 2                          | 1057                              | 1014                     | 11.9                                | 1055                  | 1031                     | 12.9                                | 995                   | 995                      | 13.5                                | 954                   | 954                      | 14.3                                | 911                   | 911                      | 15.0                                |
|              | 267                           | 5                          | 1856                              | 1614                     | 11.0                                | 1767                  | 1555                     | 11.7                                | 1615                  | 1437                     | 12.2                                | 1465                  | 1319                     | 12.7                                | 1350                  | 1229                     | 13.3                                |
|              | 391                           | 10                         | 2185                              | 1661                     | 9.9                                 | 2055                  | 1582                     | 10.6                                | 1875                  | 1463                     | 11.2                                | 1740                  | 1375                     | 11.9                                | 1564                  | 1298                     | 12.5                                |
|              | 527                           | 16                         | 2368                              | 1075                     | 8.9                                 | 2251                  | 1463                     | 9.7                                 | 2008                  | 1486                     | 10.3                                | 1828                  | 1389                     | 11.0                                | 1715                  | 1355                     | 11.8                                |
| 51           | 184                           | 4                          | 1577                              | 1577                     | 12.4                                | 1550                  | 1550                     | 13.2                                | 1492                  | 1492                     | 14.0                                | 1430                  | 1430                     | 14.7                                | 1344                  | 1344                     | 15.3                                |
|              | 367                           | 13                         | 2772                              | 2412                     | 11.5                                | 2568                  | 2260                     | 12.0                                | 2396                  | 2133                     | 12.6                                | 2232                  | 2009                     | 13.2                                | 2020                  | 1838                     | 13.7                                |
|              | 576                           | 25                         | 3286                              | 2498                     | 10.2                                | 3027                  | 2331                     | 10.8                                | 2831                  | 2209                     | 11.5                                | 2644                  | 2089                     | 12.2                                | 2381                  | 1976                     | 12.7                                |
|              | 729                           | 40                         | 3545                              | 2552                     | 9.2                                 | 3384                  | 2470                     | 10.0                                | 3116                  | 2306                     | 10.7                                | 2855                  | 2170                     | 11.4                                | 2595                  | 2050                     | 12.1                                |
| 68           | 231                           | 4                          | 1983                              | 1983                     | 12.3                                | 1923                  | 1923                     | 13.1                                | 1868                  | 1868                     | 13.9                                | 1783                  | 1783                     | 14.6                                | 1710                  | 1710                     | 15.3                                |
|              | 463                           | 11                         | 3470                              | 3019                     | 11.4                                | 3249                  | 2859                     | 12.0                                | 2976                  | 2648                     | 12.5                                | 2755                  | 2480                     | 13.1                                | 2522                  | 2295                     | 13.7                                |
|              | 716                           | 18                         | 4040                              | 3071                     | 10.0                                | 3787                  | 2916                     | 10.7                                | 3545                  | 2765                     | 11.4                                | 3219                  | 2543                     | 12.0                                | 2967                  | 2463                     | 12.7                                |
|              | 925                           | 30                         | 4426                              | 3187                     | 9.1                                 | 4092                  | 2987                     | 9.8                                 | 3774                  | 2793                     | 10.5                                | 3548                  | 2696                     | 11.3                                | 3206                  | 2532                     | 12.0                                |
| 85           | 283                           | 4                          | 2392                              | 2392                     | 12.3                                | 2318                  | 2318                     | 13.0                                | 2253                  | 2253                     | 13.8                                | 2165                  | 2165                     | 14.6                                | 2064                  | 2064                     | 15.3                                |
|              | 566                           | 11                         | 4193                              | 3648                     | 11.4                                | 3934                  | 3462                     | 12.0                                | 3606                  | 3209                     | 12.5                                | 3335                  | 3002                     | 13.1                                | 3082                  | 2805                     | 13.7                                |
|              | 853                           | 21                         | 4921                              | 3740                     | 10.0                                | 4615                  | 3553                     | 10.7                                | 4317                  | 3367                     | 11.4                                | 3932                  | 3106                     | 12.0                                | 3631                  | 3014                     | 12.7                                |
|              | 1126                          | 33                         | 5391                              | 3881                     | 9.1                                 | 4998                  | 3648                     | 9.8                                 | 4601                  | 3405                     | 10.5                                | 4342                  | 3300                     | 11.3                                | 3957                  | 3126                     | 12.0                                |
| 102          | 331                           | 4                          | 2623                              | 2623                     | 11.8                                | 2545                  | 2545                     | 12.6                                | 2435                  | 2435                     | 13.3                                | 2337                  | 2337                     | 14.0                                | 2221                  | 2221                     | 14.7                                |
|              | 668                           | 13                         | 4553                              | 3961                     | 10.8                                | 4266                  | 3754                     | 11.5                                | 3954                  | 3519                     | 12.1                                | 3606                  | 3245                     | 12.6                                | 3296                  | 2999                     | 13.2                                |
|              | 1069                          | 30                         | 5426                              | 3846                     | 9.7                                 | 5101                  | 3719                     | 10.4                                | 5029                  | 3867                     | 11.3                                | 4348                  | 3405                     | 11.7                                | 3956                  | 3244                     | 12.4                                |
|              | 1336                          | 38                         | 5833                              | 4200                     | 8.7                                 | 5375                  | 3924                     | 9.4                                 | 4963                  | 3673                     | 10.2                                | 4515                  | 3430                     | 10.9                                | 4072                  | 3216                     | 11.6                                |
| 136          | 700                           | 5                          | 5847                              | 5847                     | 12.2                                | 5769                  | 5769                     | 13.1                                | 5505                  | 5505                     | 13.7                                | 5272                  | 5272                     | 14.5                                | 5017                  | 5017                     | 15.1                                |
|              | 929                           | 16                         | 6840                              | 5951                     | 11.3                                | 6387                  | 5621                     | 11.9                                | 5958                  | 5302                     | 12.5                                | 5516                  | 4965                     | 13.1                                | 4995                  | 4546                     | 13.6                                |
|              | 1375                          | 30                         | 8122                              | 6173                     | 10.0                                | 7472                  | 5753                     | 10.6                                | 7003                  | 5462                     | 11.3                                | 6481                  | 5120                     | 12.0                                | 5839                  | 4847                     | 12.6                                |
|              | 1858                          | 41                         | 8853                              | 6374                     | 9.1                                 | 8228                  | 6006                     | 9.8                                 | 7583                  | 5611                     | 10.5                                | 6936                  | 5271                     | 11.2                                | 6298                  | 4975                     | 11.9                                |
| 170          | 535                           | 7                          | 4313                              | 4313                     | 11.9                                | 4252                  | 4252                     | 12.8                                | 4082                  | 4082                     | 13.5                                | 3892                  | 3892                     | 14.2                                | 3718                  | 3718                     | 15.0                                |
|              | 1069                          | 23                         | 7538                              | 6558                     | 11.0                                | 7066                  | 6218                     | 11.7                                | 6484                  | 5771                     | 12.2                                | 6009                  | 5408                     | 12.8                                | 5518                  | 5021                     | 13.4                                |
|              | 1657                          | 39                         | 8588                              | 6140                     | 9.6                                 | 7991                  | 5883                     | 10.3                                | 7724                  | 5852                     | 11.2                                | 6819                  | 5399                     | 11.7                                | 6202                  | 5142                     | 12.3                                |
|              | 2128                          | 61                         | 9725                              | 7002                     | 8.9                                 | 9016                  | 6581                     | 9.6                                 | 8289                  | 6134                     | 10.3                                | 7582                  | 5762                     | 11.1                                | 6892                  | 5444                     | 11.8                                |
| 204          | 678                           | 5                          | 5526                              | 5526                     | 12.0                                | 5450                  | 5450                     | 12.9                                | 5198                  | 5198                     | 13.6                                | 4969                  | 4969                     | 14.3                                | 4743                  | 4743                     | 15.0                                |
|              | 1356                          | 14                         | 9675                              | 8417                     | 11.1                                | 9040                  | 7956                     | 11.7                                | 8419                  | 7493                     | 12.3                                | 7617                  | 6855                     | 12.8                                | 6998                  | 6369                     | 13.4                                |
|              | 1983                          | 28                         | 10704                             | 7623                     | 9.5                                 | 9990                  | 7352                     | 10.2                                | 9244                  | 7006                     | 10.9                                | 7617                  | 7028                     | 11.8                                | 7731                  | 6390                     | 12.3                                |
|              | 2701                          | 44                         | 12195                             | 8781                     | 8.9                                 | 11555                 | 8436                     | 9.7                                 | 10602                 | 7846                     | 10.4                                | 9687                  | 7362                     | 11.1                                | 8755                  | 6916                     | 11.8                                |
| 238          | 745                           | 9                          | 6223                              | 6223                     | 12.2                                | 6138                  | 6138                     | 13.1                                | 5860                  | 5860                     | 13.7                                | 5590                  | 5590                     | 14.4                                | 5355                  | 5355                     | 15.2                                |
|              | 1490                          | 25                         | 10928                             | 9507                     | 11.3                                | 10280                 | 9047                     | 11.9                                | 9543                  | 8493                     | 12.5                                | 8713                  | 7842                     | 13.0                                | 7999                  | 7279                     | 13.6                                |
|              | 2303                          | 49                         | 12721                             | 9668                     | 9.9                                 | 11999                 | 9239                     | 10.6                                | 11164                 | 8708                     | 11.3                                | 1015                  | 8019                     | 11.9                                | 9345                  | 7756                     | 12.6                                |
|              | 2980                          | 70                         | 14001                             | 1008                     | 9.0                                 | 13284                 | 9698                     | 9.8                                 | 12251                 | 9066                     | 10.5                                | 11135                 | 8463                     | 11.2                                | 10134                 | 8006                     | 11.9                                |

» Refrigeration Performance Variation Table

| Model<br>FP- | Water<br>Flow<br>Rate<br>kg/h | Water<br>Resistance<br>kPa | Inlet Air Temperature DB26℃ WB19℃ |                          |                                     |                       |                          |                                     |                       |                          |                                     |                       |                          |                                     |                       |                          |                                     |
|--------------|-------------------------------|----------------------------|-----------------------------------|--------------------------|-------------------------------------|-----------------------|--------------------------|-------------------------------------|-----------------------|--------------------------|-------------------------------------|-----------------------|--------------------------|-------------------------------------|-----------------------|--------------------------|-------------------------------------|
|              |                               |                            | Inlet Water Temperature (℃)       |                          |                                     |                       |                          |                                     |                       |                          |                                     |                       |                          |                                     |                       |                          |                                     |
|              |                               |                            | 5                                 |                          |                                     | 6                     |                          |                                     | 7                     |                          |                                     | 8                     |                          |                                     | 9                     |                          |                                     |
|              |                               |                            | Total<br>Cooling<br>W             | Sensible<br>Cooling<br>W | Outlet<br>Water<br>Temperature<br>℃ | Total<br>Cooling<br>W | Sensible<br>Cooling<br>W | Outlet<br>Water<br>Temperature<br>℃ | Total<br>Cooling<br>W | Sensible<br>Cooling<br>W | Outlet<br>Water<br>Temperature<br>℃ | Total<br>Cooling<br>W | Sensible<br>Cooling<br>W | Outlet<br>Water<br>Temperature<br>℃ | Total<br>Cooling<br>W | Sensible<br>Cooling<br>W | Outlet<br>Water<br>Temperature<br>℃ |
| 34           | 131                           | 2                          | 1145                              | 1113                     | 12.5                                | 1100                  | 1065                     | 13.2                                | 1056                  | 1022                     | 13.9                                | 1026                  | 1008                     | 14.7                                | 979                   | 979                      | 15.4                                |
|              | 267                           | 5                          | 2031                              | 1665                     | 11.5                                | 1918                  | 1592                     | 12.2                                | 1766                  | 1483                     | 12.7                                | 1650                  | 1403                     | 13.3                                | 1557                  | 1339                     | 14.0                                |
|              | 391                           | 10                         | 2369                              | 1729                     | 10.3                                | 2235                  | 1069                     | 11.0                                | 2098                  | 1531                     | 11.7                                | 1914                  | 1416                     | 12.2                                | 1823                  | 1386                     | 13.0                                |
|              | 527                           | 16                         | 2547                              | 1783                     | 9.1                                 | 2480                  | 1761                     | 10.0                                | 2312                  | 1665                     | 10.8                                | 2070                  | 1511                     | 11.4                                | 1947                  | 1460                     | 12.2                                |
| 51           | 184                           | 4                          | 1697                              | 1697                     | 12.9                                | 1635                  | 1635                     | 13.6                                | 1574                  | 1574                     | 14.4                                | 1515                  | 1515                     | 15.1                                | 1446                  | 1446                     | 15.8                                |
|              | 367                           | 13                         | 2989                              | 2451                     | 12.0                                | 2817                  | 2338                     | 12.6                                | 2652                  | 2228                     | 13.2                                | 2448                  | 2081                     | 13.7                                | 2277                  | 1958                     | 14.3                                |
|              | 576                           | 25                         | 3594                              | 2624                     | 10.7                                | 3346                  | 2409                     | 11.3                                | 3148                  | 2298                     | 11.9                                | 2899                  | 2145                     | 12.6                                | 2702                  | 2054                     | 13.2                                |
|              | 729                           | 40                         | 3893                              | 2725                     | 9.6                                 | 2630                  | 2577                     | 10.3                                | 346                   | 2492                     | 11.1                                | 3203                  | 2338                     | 11.8                                | 2702                  | 2209                     | 12.5                                |
| 68           | 231                           | 4                          | 2109                              | 2109                     | 12.8                                | 2054                  | 2054                     | 13.6                                | 1980                  | 1980                     | 14.3                                | 1901                  | 1901                     | 15.0                                | 1816                  | 1816                     | 15.7                                |
|              | 463                           | 11                         | 3726                              | 3055                     | 11.9                                | 3513                  | 2916                     | 12.5                                | 3289                  | 2763                     | 13.1                                | 3082                  | 2619                     | 13.7                                | 2801                  | 2409                     | 14.2                                |
|              | 716                           | 18                         | 4467                              | 3261                     | 10.5                                | 4206                  | 3029                     | 11.2                                | 3867                  | 2823                     | 11.8                                | 3623                  | 2681                     | 12.5                                | 3292                  | 2502                     | 13.1                                |
|              | 925                           | 30                         | 4865                              | 3405                     | 9.5                                 | 4547                  | 3228                     | 10.2                                | 4205                  | 3207                     | 10.9                                | 3865                  | 2822                     | 11.6                                | 3642                  | 2731                     | 12.4                                |
| 85           | 283                           | 4                          | 2545                              | 2545                     | 12.7                                | 2480                  | 2480                     | 13.5                                | 2381                  | 2381                     | 14.2                                | 2293                  | 2293                     | 14.9                                | 2190                  | 2190                     | 15.6                                |
|              | 566                           | 11                         | 4504                              | 3693                     | 11.8                                | 4254                  | 3531                     | 12.4                                | 3990                  | 3352                     | 13.0                                | 3736                  | 3176                     | 13.7                                | 3411                  | 2934                     | 14.2                                |
|              | 853                           | 21                         | 5414                              | 3952                     | 10.5                                | 5098                  | 3671                     | 11.2                                | 4700                  | 3431                     | 11.8                                | 4409                  | 3263                     | 12.5                                | 4019                  | 3054                     | 13.1                                |
|              | 1126                          | 33                         | 5945                              | 4162                     | 9.5                                 | 5542                  | 3935                     | 10.2                                | 5125                  | 3690                     | 10.9                                | 4747                  | 3465                     | 11.6                                | 4470                  | 3353                     | 12.4                                |
| 102          | 331                           | 4                          | 2806                              | 2806                     | 12.3                                | 2725                  | 2725                     | 13.1                                | 2624                  | 2624                     | 13.8                                | 2510                  | 2510                     | 14.5                                | 2364                  | 2364                     | 15.1                                |
|              | 668                           | 13                         | 4989                              | 4091                     | 11.4                                | 4689                  | 3892                     | 12.0                                | 4317                  | 3626                     | 12.5                                | 4038                  | 3433                     | 13.2                                | 3739                  | 3216                     | 13.8                                |
|              | 1069                          | 30                         | 5961                              | 3993                     | 10.1                                | 5610                  | 3853                     | 10.8                                | 5544                  | 3902                     | 11.8                                | 4858                  | 3541                     | 12.2                                | 4465                  | 3386                     | 12.8                                |
|              | 1336                          | 38                         | 6415                              | 4490                     | 9.1                                 | 5959                  | 4231                     | 9.8                                 | 5532                  | 3983                     | 10.5                                | 5112                  | 3732                     | 11.3                                | 4654                  | 3491                     | 12.0                                |
| 136          | 700                           | 5                          | 6330                              | 6330                     | 12.8                                | 6092                  | 6092                     | 13.5                                | 5821                  | 5821                     | 14.1                                | 5584                  | 5584                     | 14.8                                | 5337                  | 5337                     | 15.5                                |
|              | 929                           | 16                         | 7460                              | 6117                     | 11.9                                | 7055                  | 5855                     | 12.5                                | 6587                  | 5533                     | 13.1                                | 6081                  | 5169                     | 13.6                                | 5636                  | 4847                     | 14.2                                |
|              | 1375                          | 30                         | 8933                              | 6521                     | 10.5                                | 8270                  | 5954                     | 11.1                                | 7808                  | 5700                     | 11.8                                | 7144                  | 5287                     | 12.4                                | 6663                  | 5064                     | 13.1                                |
|              | 1858                          | 41                         | 9517                              | 6662                     | 9.4                                 | 9101                  | 6462                     | 10.2                                | 8426                  | 6067                     | 10.9                                | 7777                  | 5677                     | 11.6                                | 7129                  | 5347                     | 12.3                                |
| 170          | 535                           | 7                          | 4606                              | 4606                     | 12.4                                | 4477                  | 4477                     | 13.2                                | 4308                  | 4308                     | 13.9                                | 4145                  | 4145                     | 14.6                                | 3959                  | 3959                     | 15.3                                |
|              | 1069                          | 23                         | 8150                              | 6683                     | 11.5                                | 7676                  | 6371                     | 12.2                                | 7173                  | 6026                     | 12.7                                | 6693                  | 5689                     | 13.4                                | 6100                  | 5246                     | 13.9                                |
|              | 1657                          | 39                         | 9410                              | 6366                     | 10.1                                | 8824                  | 6109                     | 10.7                                | 8423                  | 6119                     | 11.5                                | 7621                  | 5615                     | 12.1                                | 7004                  | 5368                     | 12.8                                |
|              | 2128                          | 61                         | 10650                             | 7455                     | 9.3                                 | 9948                  | 7063                     | 10.0                                | 9280                  | 6681                     | 10.7                                | 8526                  | 6224                     | 11.4                                | 7824                  | 5868                     | 12.2                                |
| 204          | 678                           | 5                          | 5967                              | 5967                     | 12.5                                | 5739                  | 5739                     | 13.3                                | 5531                  | 5531                     | 14.0                                | 5295                  | 5295                     | 14.7                                | 5062                  | 5062                     | 15.4                                |
|              | 1356                          | 14                         | 10574                             | 8671                     | 11.7                                | 9969                  | 8274                     | 12.3                                | 9366                  | 7867                     | 12.9                                | 8554                  | 7271                     | 13.4                                | 7954                  | 6841                     | 14.0                                |
|              | 1983                          | 28                         | 11699                             | 7893                     | 10.0                                | 10996                 | 7590                     | 10.7                                | 10272                 | 7266                     | 11.4                                | 1015                  | 7460                     | 12.3                                | 8725                  | 6660                     | 12.7                                |
|              | 2701                          | 44                         | 13400                             | 9380                     | 9.30                                | 12463                 | 8849                     | 10.0                                | 11861                 | 8540                     | 10.8                                | 10904                 | 7960                     | 11.5                                | 10009                 | 7507                     | 12.2                                |
| 238          | 745                           | 9                          | 6755                              | 6755                     | 12.8                                | 6475                  | 6475                     | 13.5                                | 6224                  | 6224                     | 14.2                                | 6025                  | 6025                     | 14.9                                | 5677                  | 5677                     | 15.5                                |
|              | 1490                          | 25                         | 12009                             | 9847                     | 11.9                                | 11296                 | 9376                     | 12.5                                | 10450                 | 8778                     | 13.0                                | 9735                  | 8275                     | 13.6                                | 9058                  | 7790                     | 14.2                                |
|              | 2303                          | 49                         | 14027                             | 10240                    | 10.4                                | 13283                 | 9564                     | 11.0                                | 12227                 | 8925                     | 11.7                                | 11430                 | 8458                     | 12.4                                | 10387                 | 7894                     | 13.0                                |
|              | 2980                          | 70                         | 15394                             | 10776                    | 9.4                                 | 14313                 | 10162                    | 10.1                                | 13636                 | 9818                     | 10.9                                | 12565                 | 9172                     | 11.6                                | 11534                 | 8651                     | 12.3                                |

» Refrigeration Performance Variation Table

| Model<br>FP- | Water<br>Flow<br>Rate<br>kg/h | Water<br>Resistance<br>kPa | Inlet Air Temperature DB27°C WB19.5°C |                          |                                      |                       |                          |                                      |                       |                          |                                      |                       |                          |                                      |                       |                          |                                      |
|--------------|-------------------------------|----------------------------|---------------------------------------|--------------------------|--------------------------------------|-----------------------|--------------------------|--------------------------------------|-----------------------|--------------------------|--------------------------------------|-----------------------|--------------------------|--------------------------------------|-----------------------|--------------------------|--------------------------------------|
|              |                               |                            | Inlet Water Temperature (°C)          |                          |                                      |                       |                          |                                      |                       |                          |                                      |                       |                          |                                      |                       |                          |                                      |
|              |                               |                            | 5                                     |                          |                                      | 6                     |                          |                                      | 7                     |                          |                                      | 8                     |                          |                                      | 9                     |                          |                                      |
|              |                               |                            | Total<br>Cooling<br>W                 | Sensible<br>Cooling<br>W | Outlet<br>Water<br>Temperature<br>°C | Total<br>Cooling<br>W | Sensible<br>Cooling<br>W | Outlet<br>Water<br>Temperature<br>°C | Total<br>Cooling<br>W | Sensible<br>Cooling<br>W | Outlet<br>Water<br>Temperature<br>°C | Total<br>Cooling<br>W | Sensible<br>Cooling<br>W | Outlet<br>Water<br>Temperature<br>°C | Total<br>Cooling<br>W | Sensible<br>Cooling<br>W | Outlet<br>Water<br>Temperature<br>°C |
| 34           | 131                           | 2                          | 1198                                  | 1163                     | 12.9                                 | 1159                  | 1148                     | 13.6                                 | 1116                  | 1096                     | 14.3                                 | 1081                  | 1055                     | 15.1                                 | 1058                  | 1035                     | 15.9                                 |
|              | 267                           | 5                          | 2130                                  | 1693                     | 11.8                                 | 1975                  | 1600                     | 12.3                                 | 2853                  | 1538                     | 13.0                                 | 1736                  | 1458                     | 13.6                                 | 1618                  | 1375                     | 14.2                                 |
|              | 391                           | 10                         | 2495                                  | 1721                     | 10.5                                 | 2358                  | 1662                     | 11.2                                 | 2260                  | 1620                     | 12.0                                 | 2090                  | 1526                     | 12.6                                 | 1921                  | 1441                     | 13.3                                 |
|              | 527                           | 16                         | 2782                                  | 1864                     | 9.5                                  | 2535                  | 1724                     | 10.1                                 | 2450                  | 1643                     | 10.8                                 | 2241                  | 1591                     | 11.6                                 | 2067                  | 1488                     | 12.4                                 |
| 51           | 184                           | 4                          | 1775                                  | 1722                     | 13.3                                 | 1716                  | 1699                     | 14.0                                 | 1695                  | 1659                     | 14.7                                 | 1592                  | 1592                     | 15.4                                 | 1536                  | 1536                     | 16.2                                 |
|              | 367                           | 13                         | 3151                                  | 2505                     | 12.4                                 | 2947                  | 2387                     | 12.9                                 | 2780                  | 2307                     | 13.5                                 | 2613                  | 2195                     | 14.1                                 | 2393                  | 2034                     | 14.6                                 |
|              | 576                           | 25                         | 3745                                  | 2584                     | 10.9                                 | 3541                  | 2497                     | 11.6                                 | 3330                  | 2285                     | 12.0                                 | 3086                  | 2253                     | 12.9                                 | 2837                  | 2128                     | 13.5                                 |
|              | 729                           | 40                         | 4075                                  | 2730                     | 9.8                                  | 3801                  | 2585                     | 10.5                                 | 3650                  | 2526                     | 11.3                                 | 3365                  | 2389                     | 12.0                                 | 3116                  | 2244                     | 12.7                                 |
| 68           | 231                           | 4                          | 2220                                  | 2153                     | 13.2                                 | 2164                  | 2142                     | 14.0                                 | 2088                  | 2088                     | 14.7                                 | 2004                  | 2004                     | 15.4                                 | 1918                  | 1918                     | 16.1                                 |
|              | 463                           | 11                         | 3951                                  | 3141                     | 12.3                                 | 3672                  | 2974                     | 12.8                                 | 3462                  | 2874                     | 13.4                                 | 3248                  | 2728                     | 14.0                                 | 2974                  | 2528                     | 14.5                                 |
|              | 716                           | 18                         | 4606                                  | 3178                     | 10.7                                 | 4368                  | 3080                     | 11.4                                 | 4180                  | 2920                     | 12.0                                 | 3792                  | 2768                     | 12.7                                 | 3556                  | 2667                     | 13.4                                 |
|              | 925                           | 30                         | 5087                                  | 3408                     | 9.7                                  | 4755                  | 3233                     | 10.4                                 | 4610                  | 3069                     | 11.1                                 | 4094                  | 2907                     | 11.8                                 | 3864                  | 2782                     | 12.6                                 |
| 85           | 283                           | 4                          | 2675                                  | 2595                     | 13.1                                 | 2613                  | 2587                     | 13.9                                 | 2510                  | 2510                     | 14.6                                 | 2424                  | 2424                     | 15.3                                 | 2328                  | 2328                     | 16.1                                 |
|              | 566                           | 11                         | 4772                                  | 3794                     | 12.2                                 | 4460                  | 3613                     | 12.8                                 | 4198                  | 3484                     | 13.4                                 | 3914                  | 3288                     | 13.9                                 | 3607                  | 3066                     | 14.5                                 |
|              | 853                           | 21                         | 5608                                  | 3870                     | 10.7                                 | 5295                  | 3733                     | 11.4                                 | 5100                  | 3535                     | 12.0                                 | 4604                  | 3361                     | 12.7                                 | 4320                  | 3240                     | 13.4                                 |
|              | 1126                          | 33                         | 6176                                  | 4138                     | 9.7                                  | 5794                  | 3940                     | 10.4                                 | 5521                  | 3740                     | 11.1                                 | 4996                  | 3547                     | 11.8                                 | 4612                  | 3320                     | 12.5                                 |
| 102          | 331                           | 4                          | 2945                                  | 2856                     | 12.6                                 | 2872                  | 2843                     | 13.4                                 | 2761                  | 2761                     | 14.1                                 | 2651                  | 2651                     | 14.9                                 | 2548                  | 2548                     | 15.6                                 |
|              | 668                           | 13                         | 5211                                  | 4143                     | 11.7                                 | 4928                  | 3992                     | 12.3                                 | 4610                  | 3826                     | 12.9                                 | 4262                  | 3580                     | 13.5                                 | 3969                  | 3374                     | 14.1                                 |
|              | 1069                          | 30                         | 6231                                  | 4193                     | 10.3                                 | 5888                  | 4057                     | 11.1                                 | 6180                  | 4190                     | 12.0                                 | 5123                  | 3740                     | 12.4                                 | 4752                  | 3586                     | 13.1                                 |
|              | 1336                          | 38                         | 6718                                  | 4501                     | 9.3                                  | 6265                  | 4260                     | 10.0                                 | 6698                  | 4053                     | 10.7                                 | 5376                  | 3817                     | 11.4                                 | 4959                  | 3570                     | 12.2                                 |
| 136          | 700                           | 5                          | 6645                                  | 6445                     | 13.1                                 | 6399                  | 6335                     | 13.8                                 | 6164                  | 6164                     | 14.5                                 | 5905                  | 5905                     | 15.2                                 | 5759                  | 5759                     | 16.1                                 |
|              | 929                           | 16                         | 7818                                  | 6215                     | 12.2                                 | 7358                  | 5960                     | 12.8                                 | 6935                  | 5756                     | 13.4                                 | 6386                  | 5364                     | 13.9                                 | 5957                  | 5063                     | 15.5                                 |
|              | 1375                          | 30                         | 9242                                  | 6377                     | 10.7                                 | 8744                  | 6165                     | 11.4                                 | 8050                  | 5840                     | 12.0                                 | 7619                  | 5562                     | 12.7                                 | 6972                  | 5229                     | 13.3                                 |
|              | 1858                          | 41                         | 9948                                  | 6665                     | 9.6                                  | 9555                  | 6498                     | 10.4                                 | 8850                  | 6182                     | 11.1                                 | 8222                  | 5838                     | 11.8                                 | 7558                  | 5442                     | 12.5                                 |
| 170          | 535                           | 7                          | 4830                                  | 4685                     | 12.7                                 | 4735                  | 4688                     | 13.6                                 | 4559                  | 4559                     | 14.3                                 | 4373                  | 4373                     | 15.0                                 | 4205                  | 4205                     | 15.7                                 |
|              | 1069                          | 23                         | 8649                                  | 6876                     | 11.9                                 | 8048                  | 6519                     | 12.4                                 | 7532                  | 6251                     | 13.0                                 | 7090                  | 5956                     | 13.7                                 | 6480                  | 5508                     | 14.2                                 |
|              | 1657                          | 39                         | 9827                                  | 6675                     | 10.3                                 | 9256                  | 6428                     | 11.0                                 | 9580                  | 6695                     | 12.0                                 | 8022                  | 5924                     | 12.3                                 | 7415                  | 5687                     | 13.0                                 |
|              | 2128                          | 61                         | 1116                                  | 7478                     | 9.5                                  | 10424                 | 7088                     | 10.2                                 | 10450                 | 6774                     | 10.9                                 | 9040                  | 6419                     | 11.6                                 | 8314                  | 5986                     | 12.3                                 |
| 204          | 678                           | 5                          | 6274                                  | 6086                     | 12.9                                 | 6058                  | 5998                     | 13.7                                 | 5831                  | 5831                     | 14.4                                 | 5609                  | 5609                     | 15.1                                 | 5452                  | 5452                     | 15.9                                 |
|              | 1356                          | 14                         | 11072                                 | 8802                     | 12.0                                 | 10434                 | 8452                     | 12.6                                 | 9798                  | 8132                     | 13.2                                 | 9053                  | 7605                     | 13.7                                 | 8403                  | 7143                     | 14.3                                 |
|              | 1983                          | 28                         | 12263                                 | 8304                     | 10.2                                 | 11569                 | 7979                     | 10.9                                 | 11460                 | 8480                     | 12.0                                 | 11807                 | 8501                     | 13.0                                 | 9234                  | 7060                     | 12.9                                 |
|              | 2701                          | 44                         | 14020                                 | 9393                     | 9.4                                  | 13106                 | 8912                     | 10.2                                 | 12560                 | 8675                     | 11.0                                 | 11553                 | 8023                     | 11.7                                 | 10584                 | 7620                     | 12.4                                 |
| 238          | 745                           | 9                          | 7104                                  | 6891                     | 13.2                                 | 6819                  | 6750                     | 13.8                                 | 6569                  | 6569                     | 14.6                                 | 6393                  | 6393                     | 15.4                                 | 6134                  | 6134                     | 16.1                                 |
|              | 1490                          | 25                         | 12545                                 | 9973                     | 12.2                                 | 11844                 | 9594                     | 12.8                                 | 10932                 | 9074                     | 13.3                                 | 10233                 | 8596                     | 13.9                                 | 9371                  | 7965                     | 14.4                                 |
|              | 2303                          | 49                         | 14821                                 | 10227                    | 10.7                                 | 13799                 | 9728                     | 11.3                                 | 13310                 | 9360                     | 12.0                                 | 11965                 | 8734                     | 12.6                                 | 11196                 | 8397                     | 13.3                                 |
|              | 2980                          | 70                         | 16060                                 | 10760                    | 9.6                                  | 15033                 | 10222                    | 10.3                                 | 14450                 | 9916                     | 11.1                                 | 13224                 | 9389                     | 11.8                                 | 12196                 | 8781                     | 12.5                                 |

» Refrigeration Performance Variation Table

| Model<br>FP- | Water<br>Flow<br>Rate<br>kg/h | Water<br>Resistance<br>kPa | Inlet Air Temperature DB27°C WB20°C |                          |                                      |                       |                          |                                      |                       |                          |                                      |                       |                          |                                      |                       |                          |                                      |
|--------------|-------------------------------|----------------------------|-------------------------------------|--------------------------|--------------------------------------|-----------------------|--------------------------|--------------------------------------|-----------------------|--------------------------|--------------------------------------|-----------------------|--------------------------|--------------------------------------|-----------------------|--------------------------|--------------------------------------|
|              |                               |                            | Inlet Water Temperature (°C)        |                          |                                      |                       |                          |                                      |                       |                          |                                      |                       |                          |                                      |                       |                          |                                      |
|              |                               |                            | 5                                   |                          |                                      | 6                     |                          |                                      | 7                     |                          |                                      | 8                     |                          |                                      | 9                     |                          |                                      |
|              |                               |                            | Total<br>Cooling<br>W               | Sensible<br>Cooling<br>W | Outlet<br>Water<br>Temperature<br>°C | Total<br>Cooling<br>W | Sensible<br>Cooling<br>W | Outlet<br>Water<br>Temperature<br>°C | Total<br>Cooling<br>W | Sensible<br>Cooling<br>W | Outlet<br>Water<br>Temperature<br>°C | Total<br>Cooling<br>W | Sensible<br>Cooling<br>W | Outlet<br>Water<br>Temperature<br>°C | Total<br>Cooling<br>W | Sensible<br>Cooling<br>W | Outlet<br>Water<br>Temperature<br>°C |
| 34           | 131                           | 2                          | 1218                                | 1157                     | 13.0                                 | 1169                  | 1123                     | 13.7                                 | 1145                  | 1111                     | 14.5                                 | 1128                  | 1099                     | 15.4                                 | 1084                  | 1054                     | 16.1                                 |
|              | 267                           | 5                          | 2213                                | 1726                     | 12.1                                 | 2071                  | 1657                     | 12.7                                 | 1946                  | 1576                     | 13.3                                 | 1860                  | 1544                     | 14.0                                 | 1737                  | 1459                     | 14.6                                 |
|              | 391                           | 10                         | 2593                                | 1763                     | 10.8                                 | 2456                  | 1707                     | 11.5                                 | 2315                  | 1632                     | 12.1                                 | 2231                  | 1651                     | 13.0                                 | 2006                  | 1525                     | 13.5                                 |
|              | 527                           | 16                         | 2903                                | 1916                     | 9.7                                  | 2654                  | 1792                     | 10.3                                 | 2490                  | 1718                     | 11.1                                 | 2428                  | 1724                     | 12.0                                 | 2241                  | 1613                     | 12.6                                 |
| 51           | 184                           | 4                          | 1802                                | 1711                     | 13.4                                 | 1715                  | 1646                     | 14.0                                 | 1653                  | 1603                     | 14.7                                 | 1591                  | 1591                     | 15.4                                 | 1529                  | 1529                     | 16.1                                 |
|              | 367                           | 13                         | 3290                                | 2566                     | 12.7                                 | 3081                  | 2465                     | 13.2                                 | 2898                  | 2347                     | 12.8                                 | 2696                  | 2238                     | 14.3                                 | 2520                  | 2117                     | 14.9                                 |
|              | 576                           | 25                         | 3866                                | 2629                     | 11.1                                 | 3671                  | 2551                     | 11.8                                 | 3475                  | 2450                     | 12.5                                 | 3277                  | 2388                     | 13.1                                 | 2968                  | 2255                     | 13.7                                 |
|              | 729                           | 40                         | 4241                                | 2799                     | 10.0                                 | 3975                  | 2683                     | 10.7                                 | 3731                  | 2575                     | 11.4                                 | 3554                  | 2523                     | 12.2                                 | 3297                  | 2374                     | 12.9                                 |
| 68           | 231                           | 4                          | 2303                                | 2188                     | 13.5                                 | 2198                  | 2110                     | 14.1                                 | 2109                  | 2045                     | 14.8                                 | 2030                  | 2030                     | 15.5                                 | 1950                  | 1950                     | 16.2                                 |
|              | 463                           | 11                         | 4131                                | 3222                     | 12.7                                 | 3908                  | 3126                     | 13.2                                 | 3692                  | 2990                     | 13.8                                 | 3458                  | 2870                     | 14.4                                 | 3189                  | 2678                     | 14.9                                 |
|              | 716                           | 18                         | 4940                                | 3359                     | 11.1                                 | 4608                  | 3202                     | 11.7                                 | 4367                  | 3079                     | 12.4                                 | 4114                  | 3045                     | 13.1                                 | 3800                  | 2888                     | 13.7                                 |
|              | 925                           | 30                         | 5432                                | 3585                     | 10.0                                 | 5080                  | 3429                     | 10.7                                 | 4747                  | 3275                     | 11.4                                 | 4436                  | 3149                     | 12.1                                 | 4095                  | 2949                     | 12.8                                 |
| 85           | 283                           | 4                          | 2739                                | 2602                     | 13.3                                 | 2605                  | 2500                     | 13.9                                 | 2522                  | 2447                     | 14.6                                 | 2418                  | 2418                     | 15.3                                 | 2321                  | 2321                     | 16.0                                 |
|              | 566                           | 11                         | 4901                                | 3823                     | 12.4                                 | 4653                  | 3722                     | 13.1                                 | 4388                  | 3554                     | 13.6                                 | 4122                  | 3421                     | 14.2                                 | 3797                  | 3190                     | 14.8                                 |
|              | 853                           | 21                         | 5891                                | 4006                     | 11.1                                 | 5495                  | 3819                     | 11.6                                 | 5189                  | 3658                     | 12.3                                 | 4921                  | 3641                     | 13.0                                 | 4528                  | 3441                     | 13.6                                 |
|              | 1126                          | 33                         | 6465                                | 4267                     | 9.9                                  | 6077                  | 4102                     | 10.6                                 | 5677                  | 3917                     | 11.3                                 | 5264                  | 3737                     | 12.0                                 | 4888                  | 3519                     | 12.7                                 |
| 102          | 331                           | 4                          | 3014                                | 2863                     | 12.8                                 | 2880                  | 2765                     | 13.5                                 | 2759                  | 2676                     | 14.1                                 | 2653                  | 2653                     | 14.9                                 | 2542                  | 2542                     | 15.6                                 |
|              | 668                           | 13                         | 5418                                | 4226                     | 12.0                                 | 5124                  | 4099                     | 12.6                                 | 4768                  | 3862                     | 13.1                                 | 4488                  | 3725                     | 13.8                                 | 4117                  | 3458                     | 14.3                                 |
|              | 1069                          | 30                         | 6493                                | 4123                     | 10.6                                 | 6161                  | 3992                     | 11.3                                 | 6200                  | 4041                     | 12.2                                 | 5368                  | 3672                     | 12.6                                 | 4986                  | 3521                     | 13.3                                 |
|              | 1336                          | 38                         | 6994                                | 4616                     | 9.5                                  | 6574                  | 4438                     | 10.2                                 | 6850                  | 4226                     | 10.9                                 | 5689                  | 4039                     | 11.7                                 | 5245                  | 3777                     | 12.4                                 |
| 136          | 700                           | 5                          | 6717                                | 6381                     | 13.2                                 | 6421                  | 6164                     | 13.9                                 | 6158                  | 5973                     | 14.5                                 | 5930                  | 5930                     | 15.3                                 | 5739                  | 5739                     | 16.0                                 |
|              | 929                           | 16                         | 8097                                | 6316                     | 12.5                                 | 7705                  | 6164                     | 13.1                                 | 7140                  | 5784                     | 13.6                                 | 6711                  | 5570                     | 14.2                                 | 6268                  | 5265                     | 14.8                                 |
|              | 1375                          | 30                         | 9600                                | 6528                     | 10.9                                 | 9105                  | 6328                     | 11.6                                 | 8598                  | 6062                     | 12.3                                 | 7944                  | 5878                     | 12.9                                 | 7329                  | 5570                     | 13.5                                 |
|              | 1858                          | 41                         | 10375                               | 6848                     | 9.8                                  | 9964                  | 6725                     | 10.6                                 | 9289                  | 6409                     | 11.3                                 | 8666                  | 6153                     | 12.0                                 | 8028                  | 5780                     | 12.7                                 |
| 170          | 535                           | 7                          | 4956                                | 4708                     | 12.9                                 | 4716                  | 4527                     | 13.6                                 | 4557                  | 4420                     | 14.3                                 | 4368                  | 4368                     | 15.0                                 | 4190                  | 4190                     | 15.7                                 |
|              | 1069                          | 23                         | 8861                                | 6911                     | 12.1                                 | 8403                  | 6723                     | 12.7                                 | 7888                  | 6389                     | 13.3                                 | 7413                  | 6153                     | 13.9                                 | 6826                  | 5734                     | 14.5                                 |
|              | 1657                          | 39                         | 0238                                | 6561                     | 10.5                                 | 9667                  | 6315                     | 11.2                                 | 9680                  | 6387                     | 12.1                                 | 8444                  | 5821                     | 12.5                                 | 7796                  | 5574                     | 13.2                                 |
|              | 2128                          | 61                         | 11628                               | 7675                     | 9.7                                  | 10899                 | 7357                     | 10.4                                 | 11550                 | 7023                     | 11.1                                 | 9477                  | 6729                     | 11.8                                 | 8776                  | 6319                     | 12.5                                 |

» Refrigeration Performance Variation Table

| Model<br>FP- | Water<br>Flow<br>Rate<br>kg/h | Water<br>Resistance<br>kPa | Inlet Air Temperature DB28°C WB21°C |                          |                                      |                       |                          |                                      |                       |                          |                                      |                       |                          |                                      |                       |                          |                                      |
|--------------|-------------------------------|----------------------------|-------------------------------------|--------------------------|--------------------------------------|-----------------------|--------------------------|--------------------------------------|-----------------------|--------------------------|--------------------------------------|-----------------------|--------------------------|--------------------------------------|-----------------------|--------------------------|--------------------------------------|
|              |                               |                            | Inlet Water Temperature (°C)        |                          |                                      |                       |                          |                                      |                       |                          |                                      |                       |                          |                                      |                       |                          |                                      |
|              |                               |                            | 5                                   |                          |                                      | 6                     |                          |                                      | 7                     |                          |                                      | 8                     |                          |                                      | 9                     |                          |                                      |
|              |                               |                            | Total<br>Cooling<br>W               | Sensible<br>Cooling<br>W | Outlet<br>Water<br>Temperature<br>°C | Total<br>Cooling<br>W | Sensible<br>Cooling<br>W | Outlet<br>Water<br>Temperature<br>°C | Total<br>Cooling<br>W | Sensible<br>Cooling<br>W | Outlet<br>Water<br>Temperature<br>°C | Total<br>Cooling<br>W | Sensible<br>Cooling<br>W | Outlet<br>Water<br>Temperature<br>°C | Total<br>Cooling<br>W | Sensible<br>Cooling<br>W | Outlet<br>Water<br>Temperature<br>°C |
| 34           | 131                           | 2                          | 1333                                | 1239                     | 13.7                                 | 1271                  | 1194                     | 14.3                                 | 1204                  | 1144                     | 14.9                                 | 1173                  | 1126                     | 15.7                                 | 1131                  | 1086                     | 16.4                                 |
|              | 267                           | 5                          | 2397                                | 1821                     | 12.7                                 | 2279                  | 1778                     | 13.3                                 | 2124                  | 1678                     | 13.8                                 | 2030                  | 1634                     | 14.5                                 | 1858                  | 1533                     | 15.0                                 |
|              | 391                           | 10                         | 2814                                | 1885                     | 11.2                                 | 2672                  | 1844                     | 11.9                                 | 2498                  | 1749                     | 12.5                                 | 2366                  | 1703                     | 13.3                                 | 2279                  | 1686                     | 14.1                                 |
|              | 527                           | 16                         | 3076                                | 2000                     | 10.0                                 | 2895                  | 1954                     | 10.7                                 | 2723                  | 1865                     | 11.4                                 | 2537                  | 1776                     | 12.1                                 | 2421                  | 1731                     | 12.9                                 |
| 51           | 184                           | 4                          | 1962                                | 1825                     | 14.2                                 | 1881                  | 1768                     | 14.8                                 | 1776                  | 1687                     | 15.3                                 | 1699                  | 1631                     | 15.9                                 | 1611                  | 1547                     | 16.5                                 |
|              | 367                           | 13                         | 3535                                | 2686                     | 13.3                                 | 3377                  | 2634                     | 13.9                                 | 3151                  | 2490                     | 14.4                                 | 2985                  | 2403                     | 15.0                                 | 2778                  | 2292                     | 15.5                                 |
|              | 576                           | 25                         | 4179                                | 2800                     | 11.6                                 | 3990                  | 2753                     | 12.3                                 | 3726                  | 2608                     | 12.9                                 | 3538                  | 2548                     | 13.6                                 | 3342                  | 2473                     | 14.3                                 |
|              | 729                           | 40                         | 4597                                | 2988                     | 10.4                                 | 4334                  | 2925                     | 11.1                                 | 4149                  | 2824                     | 11.9                                 | 3899                  | 2729                     | 12.6                                 | 3643                  | 2605                     | 13.3                                 |
| 68           | 231                           | 4                          | 2484                                | 2301                     | 14.2                                 | 2388                  | 2245                     | 14.8                                 | 2276                  | 2163                     | 15.4                                 | 2137                  | 2052                     | 15.9                                 | 2056                  | 1974                     | 16.6                                 |
|              | 463                           | 11                         | 4496                                | 3417                     | 13.3                                 | 4286                  | 3343                     | 13.9                                 | 4000                  | 3160                     | 14.4                                 | 3801                  | 3060                     | 15.0                                 | 3510                  | 2896                     | 15.5                                 |
|              | 716                           | 18                         | 5353                                | 3587                     | 11.6                                 | 5033                  | 3473                     | 12.2                                 | 4788                  | 3352                     | 12.9                                 | 4445                  | 3200                     | 13.5                                 | 4218                  | 3122                     | 14.2                                 |
|              | 925                           | 30                         | 5880                                | 3822                     | 10.4                                 | 5524                  | 3728                     | 11.1                                 | 5190                  | 3555                     | 11.8                                 | 4871                  | 3410                     | 12.5                                 | 4538                  | 3245                     | 13.2                                 |
| 85           | 283                           | 4                          | 2967                                | 2759                     | 14.0                                 | 2842                  | 2672                     | 14.6                                 | 2713                  | 2577                     | 15.2                                 | 2545                  | 2443                     | 15.7                                 | 2448                  | 2350                     | 16.4                                 |
|              | 566                           | 11                         | 5360                                | 4074                     | 13.1                                 | 5094                  | 3973                     | 13.7                                 | 4772                  | 3770                     | 14.2                                 | 4509                  | 3630                     | 14.8                                 | 4192                  | 3458                     | 15.4                                 |
|              | 853                           | 21                         | 6384                                | 4277                     | 11.5                                 | 6001                  | 4141                     | 12.1                                 | 5704                  | 3993                     | 12.8                                 | 5290                  | 3809                     | 13.4                                 | 5006                  | 3705                     | 14.1                                 |
|              | 1126                          | 33                         | 6973                                | 4532                     | 10.3                                 | 6590                  | 4449                     | 11.0                                 | 6180                  | 4233                     | 11.7                                 | 5796                  | 4057                     | 12.4                                 | 5394                  | 3857                     | 13.1                                 |
| 102          | 331                           | 4                          | 3272                                | 3043                     | 13.5                                 | 3117                  | 2930                     | 14.1                                 | 2978                  | 2829                     | 14.7                                 | 2808                  | 2696                     | 15.3                                 | 2687                  | 2579                     | 16.0                                 |
|              | 668                           | 13                         | 5855                                | 4450                     | 12.5                                 | 5586                  | 4357                     | 13.2                                 | 5286                  | 4176                     | 13.8                                 | 4919                  | 3960                     | 14.3                                 | 4629                  | 3819                     | 14.9                                 |
|              | 1069                          | 30                         | 7056                                | 4255                     | 11.1                                 | 6703                  | 4123                     | 11.7                                 | 6528                  | 4271                     | 12.6                                 | 5934                  | 3809                     | 13.1                                 | 5624                  | 3656                     | 13.8                                 |
|              | 1336                          | 38                         | 7575                                | 4924                     | 9.9                                  | 7151                  | 4827                     | 10.6                                 | 7125                  | 4578                     | 11.3                                 | 6268                  | 4388                     | 12.0                                 | 5836                  | 4173                     | 12.7                                 |
| 136          | 700                           | 5                          | 7301                                | 6970                     | 13.9                                 | 6951                  | 6534                     | 14.5                                 | 6633                  | 6302                     | 15.1                                 | 6336                  | 6082                     | 15.8                                 | 6077                  | 5834                     | 16.4                                 |
|              | 929                           | 16                         | 8786                                | 6677                     | 13.1                                 | 8337                  | 6503                     | 13.7                                 | 7892                  | 6234                     | 14.3                                 | 7379                  | 5940                     | 14.8                                 | 6942                  | 5727                     | 15.4                                 |
|              | 1375                          | 30                         | 10373                               | 6950                     | 11.4                                 | 9931                  | 6852                     | 12.1                                 | 9253                  | 6477                     | 12.7                                 | 8749                  | 6299                     | 13.4                                 | 8106                  | 5999                     | 14.0                                 |
|              | 1858                          | 41                         | 11510                               | 7481                     | 10.3                                 | 10852                 | 7352                     | 11.0                                 | 10168                 | 6965                     | 11.7                                 | 9536                  | 6675                     | 12.4                                 | 8900                  | 6363                     | 13.1                                 |
| 170          | 535                           | 7                          | 5372                                | 4996                     | 13.6                                 | 5129                  | 4821                     | 14.2                                 | 4913                  | 4667                     | 14.9                                 | 4613                  | 4429                     | 15.4                                 | 4425                  | 4248                     | 16.1                                 |
|              | 1069                          | 23                         | 9707                                | 7377                     | 12.8                                 | 9215                  | 7188                     | 13.4                                 | 8653                  | 6836                     | 13.9                                 | 8150                  | 6560                     | 14.5                                 | 7540                  | 6220                     | 15.0                                 |
|              | 1657                          | 39                         | 11138                               | 6767                     | 11.0                                 | 1052                  | 6510                     | 11.7                                 | 10130                 | 6500                     | 12.4                                 | 9328                  | 5831                     | 13.0                                 | 8680                  | 5790                     | 13.7                                 |
|              | 2128                          | 61                         | 12615                               | 8200                     | 10.1                                 | 11904                 | 8036                     | 10.8                                 | 11169                 | 7651                     | 11.5                                 | 10450                 | 7315                     | 12.2                                 | 9758                  | 6977                     | 12.9                                 |
| 204          | 678                           | 5                          | 6985                                | 6496                     | 13.8                                 | 6666                  | 6266                     | 14.4                                 | 6291                  | 5977                     | 15.0                                 | 5986                  | 5746                     | 15.6                                 | 5754                  | 5524                     | 16.3                                 |
|              | 1356                          | 14                         | 12492                               | 9494                     | 12.9                                 | 11857                 | 9248                     | 13.5                                 | 11195                 | 8844                     | 14.1                                 | 10457                 | 8418                     | 14.6                                 | 9836                  | 8115                     | 15.2                                 |
|              | 1983                          | 28                         | 13850                               | 8412                     | 10.9                                 | 13137                 | 8109                     | 11.6                                 | 12434                 | 7817                     | 12.3                                 | 12218                 | 7925                     | 13.2                                 | 10812                 | 7190                     | 13.6                                 |
|              | 2701                          | 44                         | 1588                                | 10323                    | 10.0                                 | 15272                 | 10309                    | 10.8                                 | 14356                 | 9834                     | 11.6                                 | 13386                 | 9370                     | 12.2                                 | 12502                 | 8939                     | 13.0                                 |
| 238          | 745                           | 9                          | 7799                                | 7253                     | 14.0                                 | 7462                  | 7014                     | 14.6                                 | 7072                  | 6719                     | 15.1                                 | 6732                  | 6462                     | 15.7                                 | 6460                  | 6201                     | 16.4                                 |
|              | 1490                          | 25                         | 14075                               | 10697                    | 13.1                                 | 13376                 | 10433                    | 13.7                                 | 12542                 | 9908                     | 14.2                                 | 11858                 | 9546                     | 14.8                                 | 10973                 | 9053                     | 15.3                                 |
|              | 2303                          | 49                         | 16615                               | 11132                    | 11.4                                 | 15876                 | 10954                    | 12.1                                 | 14834                 | 10384                    | 12.7                                 | 14069                 | 10130                    | 13.4                                 | 12992                 | 9614                     | 14.0                                 |
|              | 2980                          | 70                         | 18094                               | 11761                    | 10.2                                 | 17051                 | 1509                     | 10.9                                 | 16444                 | 11264                    | 11.7                                 | 15394                 | 10776                    | 12.4                                 | 14289                 | 10216                    | 13.1                                 |

Note: The cooling capacity in the above table is for high-speed airflow; for medium and low-speed airflow, the cooling capacity is the parameter in the table multiplied by the correction factor (see page 12 for the medium and low-speed cooling capacity correction factor table).

» Medium and low-grade cooling capacity correction factor

| Model FP-       |               | 34   | 51   | 68   | 85   | 102  | 136  | 170  | 204  | 238  |
|-----------------|---------------|------|------|------|------|------|------|------|------|------|
| Medium<br>Speed | Total Heat    | 0.89 | 0.87 | 0.86 | 0.84 | 0.87 | 0.85 | 0.88 | 0.87 | 0.9  |
|                 | Sensible Heat | 0.87 | 0.84 | 0.83 | 0.82 | 0.85 | 0.83 | 0.86 | 0.84 | 0.85 |
| Low Speed       | Total Heat    | 0.73 | 0.72 | 0.7  | 0.66 | 0.73 | 0.71 | 0.68 | 0.67 | 0.66 |
|                 | Sensible Heat | 0.65 | 0.68 | 0.67 | 0.62 | 0.69 | 0.67 | 0.64 | 0.62 | 0.61 |

» Medium Speed Heating Capacity Correction Factor

| Model FP-       |               | 34   | 51   | 68  | 85   | 102  | 136  | 170  | 204  | 238  |
|-----------------|---------------|------|------|-----|------|------|------|------|------|------|
| Medium<br>Speed | Total Heat    | 0.84 | 0.83 | 0.8 | 0.79 | 0.83 | 0.81 | 0.83 | 0.82 | 0.85 |
|                 | Sensible Heat | 0.66 | 0.66 | 0.6 | 0.57 | 0.64 | 0.61 | 0.59 | 0.58 | 0.62 |

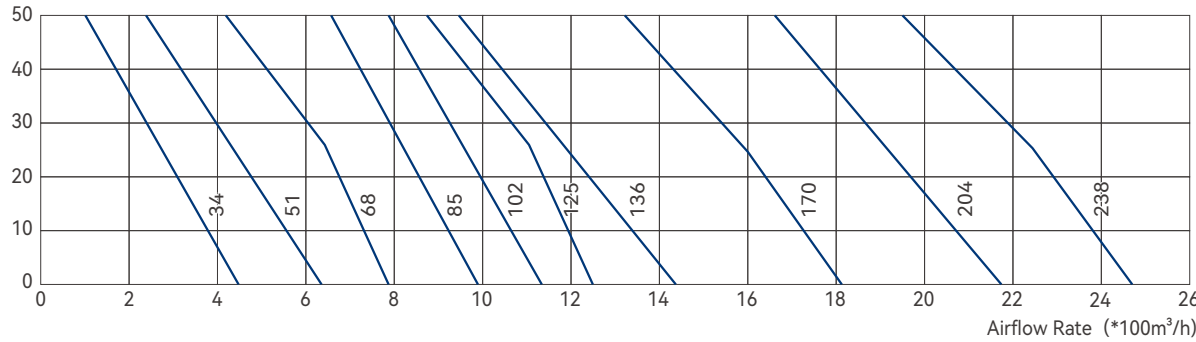
» Heating Performance Variation Table

| Model<br>FP- | Water<br>Flow<br>Rate<br>kg/h | Water<br>Resistance<br>kPa | Inlet Water Temperature °C |                                      |                       |                                      |                       |                                      |                       |                                      |                       |                                      |                       |                                      |                       |                                      |                       |                                      |                       |                                      |
|--------------|-------------------------------|----------------------------|----------------------------|--------------------------------------|-----------------------|--------------------------------------|-----------------------|--------------------------------------|-----------------------|--------------------------------------|-----------------------|--------------------------------------|-----------------------|--------------------------------------|-----------------------|--------------------------------------|-----------------------|--------------------------------------|-----------------------|--------------------------------------|
|              |                               |                            | 40                         |                                      | 45                    |                                      | 50                    |                                      | 55                    |                                      | 60                    |                                      | 65                    |                                      | 70                    |                                      | 75                    |                                      | 80                    |                                      |
|              |                               |                            | Heat<br>Quantity<br>W      | Outlet<br>Water<br>Temperature<br>°C | Heat<br>Quantity<br>W | Outlet<br>Water<br>Temperature<br>°C | Heat<br>Quantity<br>W | Outlet<br>Water<br>Temperature<br>°C | Heat<br>Quantity<br>W | Outlet<br>Water<br>Temperature<br>°C | Heat<br>Quantity<br>W | Outlet<br>Water<br>Temperature<br>°C | Heat<br>Quantity<br>W | Outlet<br>Water<br>Temperature<br>°C | Heat<br>Quantity<br>W | Outlet<br>Water<br>Temperature<br>°C | Heat<br>Quantity<br>W | Outlet<br>Water<br>Temperature<br>°C | Heat<br>Quantity<br>W | Outlet<br>Water<br>Temperature<br>°C |
| 34           | 131                           | 2                          | 1142                       | 32.5                                 | 1477                  | 35.3                                 | 1772                  | 38.4                                 | 2160                  | 40.8                                 | 2548                  | 43.3                                 | 2935                  | 45.7                                 | 3254                  | 48.6                                 | 3673                  | 50.9                                 | 3927                  | 54.2                                 |
|              | 267                           | 5                          | 1338                       | 35.7                                 | 2117                  | 38.2                                 | 2773                  | 41.1                                 | 3084                  | 45.1                                 | 3452                  | 48.9                                 | 3735                  | 53                                   | 4046                  | 57                                   | 4273                  | 61.3                                 | 4793                  | 64.6                                 |
|              | 391                           | 10                         | 1576                       | 36.5                                 | 2297                  | 39.9                                 | 2908                  | 43.5                                 | 3076                  | 48.2                                 | 3805                  | 51.5                                 | 4383                  | 55.3                                 | 4447                  | 60.1                                 | 4814                  | 64.3                                 | 5344                  | 68.1                                 |
|              | 527                           | 16                         | 1782                       | 37.1                                 | 2704                  | 40.6                                 | 3184                  | 44.8                                 | 3743                  | 48.9                                 | 4246                  | 53.1                                 | 4413                  | 57.8                                 | 4643                  | 62.4                                 | 5140                  | 66.6                                 | 5914                  | 70.4                                 |
| 51           | 184                           | 4                          | 1799                       | 31.6                                 | 2377                  | 33.9                                 | 2965                  | 36.2                                 | 3417                  | 39                                   | 3888                  | 41.8                                 | 4379                  | 44.5                                 | 5090                  | 46.2                                 | 5712                  | 48.3                                 | 6237                  | 50.9                                 |
|              | 367                           | 13                         | 2549                       | 34                                   | 3040                  | 37.9                                 | 3763                  | 41.2                                 | 4208                  | 45.2                                 | 4613                  | 49.2                                 | 5018                  | 53.3                                 | 5965                  | 56.1                                 | 7006                  | 58.6                                 | 7767                  | 61.9                                 |
|              | 576                           | 25                         | 3033                       | 35.2                                 | 4069                  | 38.6                                 | 4580                  | 42.8                                 | 5348                  | 46.5                                 | 5380                  | 51.5                                 | 6127                  | 55.4                                 | 6490                  | 59.8                                 | 7041                  | 63.9                                 | 7899                  | 67.6                                 |
|              | 729                           | 40                         | 3494                       | 35.9                                 | 4335                  | 39.9                                 | 4992                  | 44.1                                 | 5657                  | 48.3                                 | 6156                  | 52.8                                 | 6323                  | 57.6                                 | 6822                  | 62                                   | 7404                  | 66.3                                 | 8560                  | 69.9                                 |
| 68           | 231                           | 4                          | 2344                       | 31.3                                 | 2915                  | 34.2                                 | 3599                  | 36.7                                 | 4485                  | 38.4                                 | 5085                  | 41.2                                 | 5632                  | 44.1                                 | 6623                  | 45.5                                 | 7067                  | 48.8                                 | 7920                  | 50.7                                 |
|              | 463                           | 11                         | 3134                       | 34.2                                 | 3455                  | 38.6                                 | 4285                  | 42.1                                 | 5661                  | 44.5                                 | 6031                  | 48.8                                 | 6613                  | 52.7                                 | 7512                  | 56.1                                 | 8412                  | 59.4                                 | 9840                  | 61.8                                 |
|              | 716                           | 18                         | 3487                       | 35.7                                 | 4291                  | 39.7                                 | 5241                  | 43.5                                 | 5956                  | 47.6                                 | 7010                  | 51.4                                 | 7623                  | 55.6                                 | 7862                  | 60.3                                 | 9211                  | 63.6                                 | 10449                 | 67.1                                 |
|              | 925                           | 30                         | 4244                       | 36.1                                 | 4534                  | 40.8                                 | 5648                  | 44.8                                 | 6287                  | 49.2                                 | 7459                  | 53.1                                 | 8098                  | 57.5                                 | 8844                  | 61.8                                 | 10017                 | 65.7                                 | 11386                 | 69.5                                 |
| 85           | 283                           | 4                          | 2839                       | 31.4                                 | 3860                  | 33.3                                 | 4460                  | 36.5                                 | 5010                  | 39.8                                 | 5773                  | 42.5                                 | 6384                  | 45.6                                 | 7545                  | 47.1                                 | 8370                  | 49.6                                 | 8976                  | 52.8                                 |
|              | 566                           | 11                         | 4083                       | 33.8                                 | 4619                  | 38.0                                 | 5060                  | 42.3                                 | 6497                  | 45.2                                 | 6997                  | 49.4                                 | 7622                  | 53.4                                 | 9121                  | 56.2                                 | 10308                 | 59.4                                 | 11497                 | 62.6                                 |
|              | 853                           | 21                         | 4386                       | 35.5                                 | 5016                  | 39.9                                 | 5975                  | 43.9                                 | 7003                  | 47.9                                 | 8323                  | 51.5                                 | 8776                  | 56.1                                 | 10107                 | 59.7                                 | 11484                 | 63.3                                 | 12286                 | 67.5                                 |
|              | 1126                          | 33                         | 4935                       | 36.2                                 | 5254                  | 41                                   | 6443                  | 45.1                                 | 7807                  | 49.1                                 | 8922                  | 53.2                                 | 9665                  | 57.6                                 | 10780                 | 61.8                                 | 12143                 | 65.8                                 | 12995                 | 70.1                                 |
| 102          | 331                           | 4                          | 3104                       | 32                                   | 4289                  | 33.9                                 | 4952                  | 37.2                                 | 5635                  | 40.4                                 | 6454                  | 43.3                                 | 7820                  | 44.8                                 | 8469                  | 48.1                                 | 9357                  | 50.8                                 | 10271                 | 53.4                                 |
|              | 668                           | 13                         | 4420                       | 34.3                                 | 5064                  | 38.5                                 | 5654                  | 42.7                                 | 7329                  | 45.6                                 | 7958                  | 49.8                                 | 8935                  | 53.5                                 | 10610                 | 56.4                                 | 11378                 | 60.4                                 | 12846                 | 63.5                                 |
|              | 1069                          | 30                         | 5041                       | 35.7                                 | 6177                  | 39.7                                 | 6898                  | 44.1                                 | 8413                  | 47.8                                 | 9616                  | 51.7                                 | 9824                  | 56.6                                 | 10975                 | 60.6                                 | 12116                 | 64.6                                 | 13257                 | 68.6                                 |
|              | 1336                          | 38                         | 5521                       | 36.5                                 | 5765                  | 41.3                                 | 7207                  | 45.4                                 | 8455                  | 49.6                                 | 10118                 | 53.5                                 | 10395                 | 58.3                                 | 11920                 | 62.3                                 | 13731                 | 66.2                                 | 14536                 | 70.7                                 |
| 136          | 700                           | 5                          | 6825                       | 31.6                                 | 8489                  | 34.6                                 | 11088                 | 36.4                                 | 13290                 | 38.7                                 | 14429                 | 42.3                                 | 16859                 | 44.3                                 | 19571                 | 46                                   | 21639                 | 48.5                                 | 23066                 | 51.7                                 |
|              | 929                           | 16                         | 5699                       | 34.7                                 | 7480                  | 38.1                                 | 9334                  | 41.4                                 | 9943                  | 45.8                                 | 11464                 | 49.4                                 | 14305                 | 51.8                                 | 15175                 | 56                                   | 16993                 | 59.3                                 | 18469                 | 63                                   |
|              | 1375                          | 30                         | 6314                       | 36.1                                 | 8439                  | 39.8                                 | 9892                  | 43.9                                 | 11262                 | 48.1                                 | 13131                 | 51.9                                 | 14153                 | 56.3                                 | 15842                 | 60.2                                 | 18029                 | 63.9                                 | 20176                 | 67.6                                 |
|              | 1858                          | 41                         | 6839                       | 36.8                                 | 8889                  | 40.9                                 | 10754                 | 45                                   | 12378                 | 49.3                                 | 13595                 | 53.7                                 | 15015                 | 58.1                                 | 17431                 | 62                                   | 19065                 | 66.2                                 | 20075                 | 70.7                                 |
| 170          | 535                           | 7                          | 5086                       | 31.8                                 | 6176                  | 35.1                                 | 8079                  | 37                                   | 9407                  | 39.9                                 | 10956                 | 42.4                                 | 12395                 | 45.1                                 | 14092                 | 47.4                                 | 15371                 | 50.4                                 | 16478                 | 53.6                                 |
|              | 1069                          | 23                         | 6194                       | 35                                   | 8109                  | 38.5                                 | 9771                  | 42.2                                 | 11568                 | 45.7                                 | 12803                 | 49.7                                 | 14600                 | 53.3                                 | 16685                 | 56.6                                 | 18581                 | 60.1                                 | 19112                 | 64.7                                 |
|              | 1657                          | 39                         | 6529                       | 36.5                                 | 8369                  | 40.5                                 | 10015                 | 44.6                                 | 11825                 | 48.6                                 | 15390                 | 51.8                                 | 15424                 | 56.7                                 | 17110                 | 60.8                                 | 18920                 | 64.8                                 | 20668                 | 68.9                                 |
|              | 2128                          | 61                         | 8178                       | 36.7                                 | 8940                  | 41.4                                 | 11121                 | 45.5                                 | 12678                 | 49.9                                 | 15720                 | 54.1                                 | 16682                 | 58.3                                 | 18658                 | 62.5                                 | 20217                 | 66.9                                 | 22446                 | 71                                   |
| 204          | 678                           | 5                          | 6704                       | 31.5                                 | 8384                  | 34.4                                 | 9812                  | 37.6                                 | 12162                 | 39.6                                 | 13682                 | 42.7                                 | 15340                 | 45.6                                 | 18157                 | 47                                   | 19618                 | 50.2                                 | 20578                 | 54                                   |
|              | 1356                          | 14                         | 8318                       | 34.7                                 | 10757                 | 38.2                                 | 12077                 | 42.4                                 | 15307                 | 45.3                                 | 17113                 | 49                                   | 18256                 | 53.5                                 | 22282                 | 55.9                                 | 24381                 | 59.6                                 | 25564                 | 63.8                                 |
|              | 1983                          | 28                         | 8189                       | 36.5                                 | 10149                 | 40.7                                 | 12279                 | 44.8                                 | 14464                 | 48.9                                 | 18262                 | 52.3                                 | 18251                 | 57.3                                 | 20353                 | 61.4                                 | 22486                 | 65.5                                 | 24599                 | 69.6                                 |
|              | 2701                          | 44                         | 11209                      | 36.4                                 | 11974                 | 41.2                                 | 14352                 | 45.4                                 | 16885                 | 49.6                                 | 19136                 | 53.9                                 | 21669                 | 58.1                                 | 23890                 | 62.4                                 | 26441                 | 66.6                                 | 29791                 | 70.5                                 |
| 238          | 745                           | 9                          | 7197                       | 31.7                                 | 9200                  | 34.4                                 | 11229                 | 37.1                                 | 13270                 | 39.7                                 | 15324                 | 42.4                                 | 17360                 | 45                                   | 19512                 | 47.6                                 | 21551                 | 50.2                                 | 23611                 | 52.8                                 |
|              | 1490                          | 25                         | 8968                       | 34.8                                 | 11385                 | 38.5                                 | 13815                 | 42.1                                 | 16260                 | 45.6                                 | 18711                 | 49.2                                 | 21186                 | 52.8                                 | 23643                 | 56.4                                 | 26132                 | 60                                   | 28620                 | 63.5                                 |
|              | 2303                          | 49                         | 9622                       | 36.3                                 | 12169                 | 40.3                                 | 14773                 | 44.3                                 | 17345                 | 48.3                                 | 21240                 | 52.3                                 | 22604                 | 56.3                                 | 25169                 | 60.3                                 | 27861                 | 64.3                                 | 30521                 | 68.3                                 |
|              | 2980                          | 70                         | 12611                      | 36.4                                 | 12611                 | 41.4                                 | 15278                 | 45.6                                 | 17945                 | 49.8                                 | 21788                 | 54.1                                 | 23347                 | 58.3                                 | 26059                 | 62.5                                 | 28777                 | 66.7                                 | 31537                 | 70.9                                 |

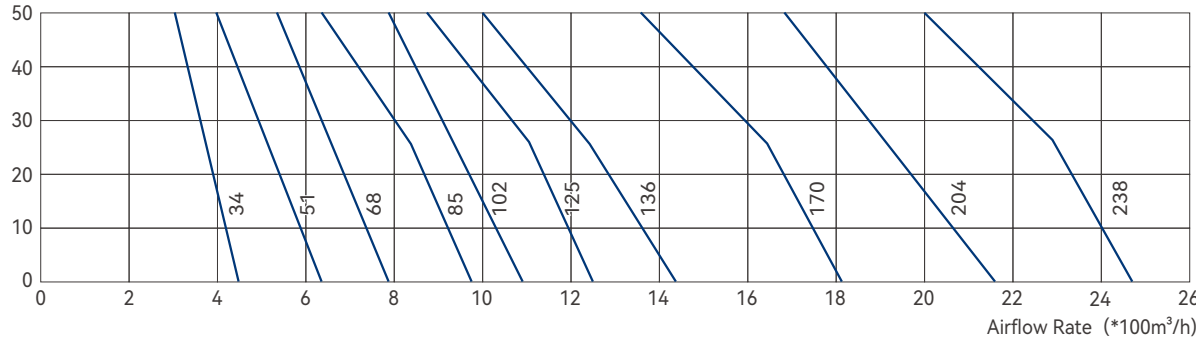
Note: The heating capacity in the above table is for high-speed airflow; for medium and low-speed airflow, the heating capacity is the parameter in the table multiplied by the correction factor (see page 12 for the medium and low-speed heating capacity correction factor table).

» Performance Curve Chart

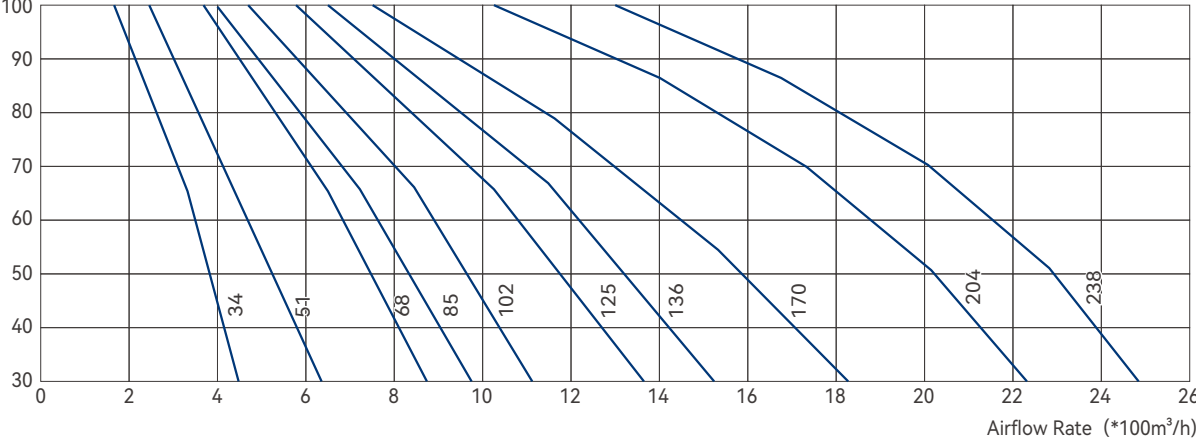
12Pa Unit Static Pressure and Airflow Characteristics



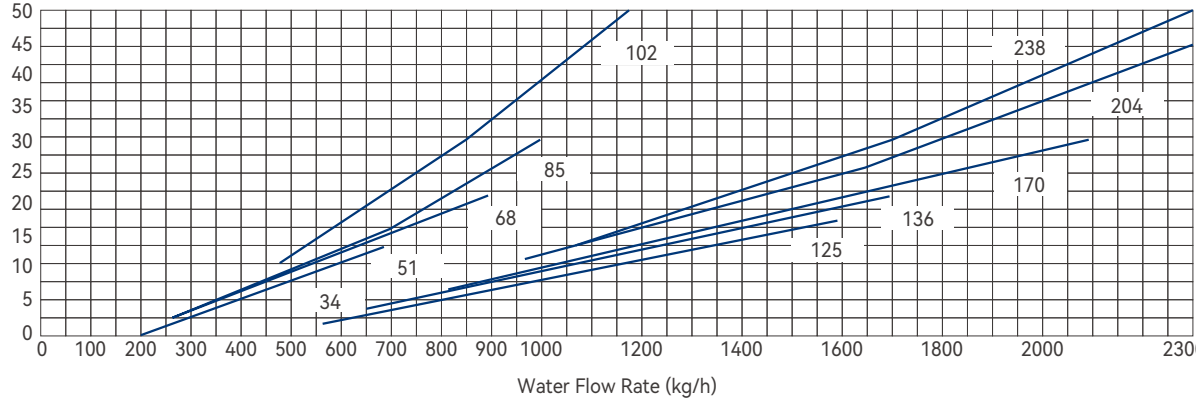
30Pa Unit Static Pressure and Airflow Characteristics



50Pa Unit Static Pressure and Airflow Characteristics



Water Flow Rate vs. Water Resistance Curve



Cassette Fan Coil Unit Parameters Table

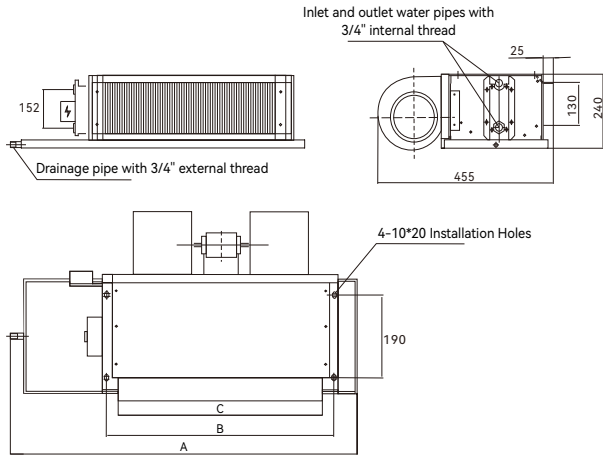
| Model FP-                                                     |                                   | 34KQ                                                                                         | 51KQ | 68KQ | 85KQ | 102KQ | 136KQ | 170KQ | 204KQ | 238KQ |
|---------------------------------------------------------------|-----------------------------------|----------------------------------------------------------------------------------------------|------|------|------|-------|-------|-------|-------|-------|
| Rated Air Flow m³/h                                           | High                              | 340                                                                                          | 510  | 680  | 850  | 1020  | 1360  | 1700  | 2040  | 2380  |
|                                                               | Medium                            | 280                                                                                          | 390  | 520  | 640  | 790   | 1030  | 1290  | 1500  | 1800  |
|                                                               | Low                               | 180                                                                                          | 260  | 350  | 430  | 520   | 690   | 860   | 1030  | 1200  |
| Cooling Capacity W                                            | High                              | 2160                                                                                         | 3220 | 3970 | 5380 | 6030  | 7780  | 10690 | 11660 | 13610 |
|                                                               | Medium                            | 1650                                                                                         | 2279 | 2814 | 3750 | 4322  | 5534  | 7512  | 8088  | 9681  |
|                                                               | Low                               | 1068                                                                                         | 1519 | 1984 | 2519 | 2854  | 3500  | 5008  | 5554  | 6454  |
| Heating Capacity W                                            | High                              | 3000                                                                                         | 4070 | 5450 | 6800 | 8160  | 10800 | 13700 | 16200 | 18900 |
|                                                               | Medium                            | 2474                                                                                         | 3520 | 4210 | 5121 | 6315  | 8179  | 10200 | 12353 | 14521 |
|                                                               | Low                               | 1590                                                                                         | 2150 | 2790 | 3200 | 4140  | 5479  | 6535  | 8482  | 9681  |
| Fan                                                           | Quantity                          | 1                                                                                            | 1    | 1    | 1    | 1     | 1     | 1     | 1     | 1     |
| Motor                                                         | Power Supply                      | 220V/1~50Hz                                                                                  |      |      |      |       |       |       |       |       |
|                                                               | Input Power W                     | 34                                                                                           | 50   | 58   | 72   | 92    | 126   | 128   | 152   | 198   |
| Heat Exchanger                                                | Configuration                     | Copper tubes with high-efficiency flanged aluminum fins, mechanically expanded and tightened |      |      |      |       |       |       |       |       |
|                                                               | Working Pressure MPa              | 1.6                                                                                          |      |      |      |       |       |       |       |       |
|                                                               | Inlet /Outlet Water Pipe Diameter | Rc3/4 (Tapered pipe internal threads)                                                        |      |      |      |       |       |       |       |       |
|                                                               | Water Flow Rate kg/h              | 371                                                                                          | 553  | 683  | 924  | 1036  | 1337  | 1838  | 2005  | 2340  |
|                                                               | Water Resistance kPa              | 14                                                                                           | 14   | 16   | 18   | 22    | 25    | 39    | 43    | 46    |
| Cooling Energy Efficiency Ratio FCEER Limit Value (W/W)       |                                   | 60                                                                                           | 61   | 64   | 69   | 60    | 56    | 69    | 63    | 57    |
| Heating Energy Efficiency Coefficient FCCOP Limit Value (W/W) |                                   | 84                                                                                           | 77   | 88   | 87   | 81    | 78    | 89    | 88    | 79    |
| Noise dB(A)                                                   | High                              | 37                                                                                           | 39   | 41   | 43   | 45    | 46    | 47    | 49    | 52    |
|                                                               | Medium                            | 36                                                                                           | 37   | 39   | 40   | 43    | 44    | 45    | 46    | 48    |
|                                                               | Low                               | 34                                                                                           | 35   | 37   | 39   | 40    | 41    | 41    | 43    | 44    |
| Condensate Drain Pipe                                         |                                   | φ26                                                                                          |      |      |      |       |       |       |       |       |

Note:

1. Cooling: Supply and return water temperature 7/12°C; return air condition: entering air dry bulb temperature 27°C, wet bulb temperature 19.5°C;
2. Heating: Supply water temperature 60°C; return air condition: entering air dry bulb temperature 21°C;
3. The air volume in the table is measured when the unit is operating in a dry state, at a dry bulb temperature of 20°C;
4. The noise in the table is measured inside a semi-anechoic chamber with a background noise of 11.5dB(A);
5. Specifications and parameters are subject to change without notice due to product improvements; please refer to the nameplate on the unit for the most accurate information.

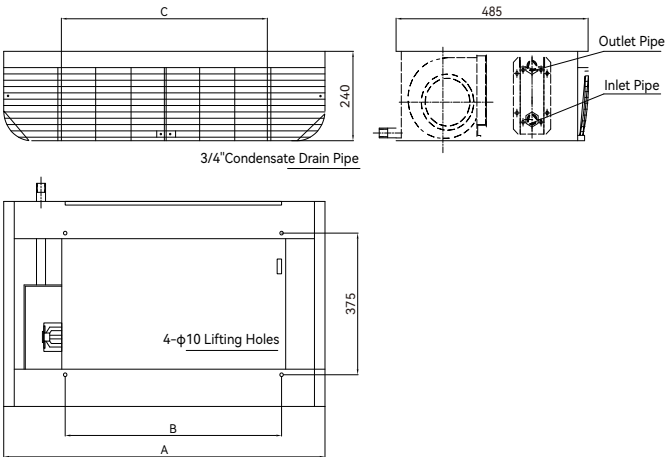
Structure and Main Dimensions

Horizontal Recessed Fan Coil Unit



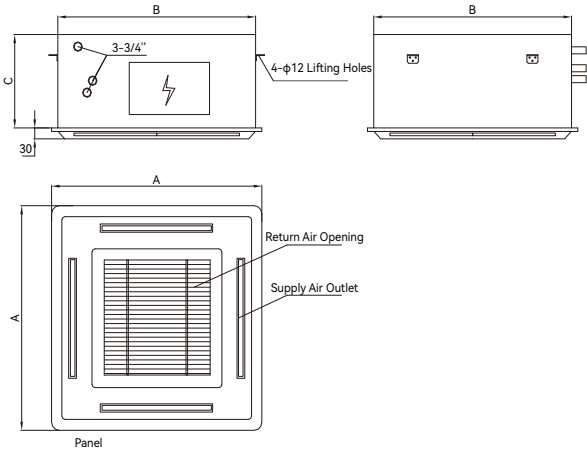
| Model  | External Dimensions (mm) |      |      | Quantity |       | Net Weight |
|--------|--------------------------|------|------|----------|-------|------------|
|        | A                        | B    | C    | Fan      | Motor | kg         |
| FP-34  | 760                      | 485  | 460  | 1        | 1     | 11         |
| FP-51  | 860                      | 605  | 580  | 2        | 1     | 14         |
| FP-68  | 960                      | 675  | 650  | 2        | 1     | 15         |
| FP-85  | 1060                     | 805  | 780  | 2        | 1     | 16         |
| FP-102 | 1160                     | 925  | 900  | 2        | 1     | 18         |
| FP-136 | 1360                     | 1125 | 1100 | 3        | 2     | 23         |
| FP-170 | 1660                     | 1385 | 1360 | 4        | 2     | 27         |
| FP-204 | 1860                     | 1585 | 1560 | 4        | 2     | 30         |
| FP-238 | 2060                     | 1785 | 1760 | 4        | 2     | 32         |

Horizontal Surface-mounted Fan Coil Unit



| Model    | External Dimensions (mm) |      |      |
|----------|--------------------------|------|------|
|          | A                        | B    | C    |
| FP-34WM  | 790                      | 490  | 470  |
| FP-51WM  | 940                      | 610  | 620  |
| FP-68WM  | 980                      | 680  | 660  |
| FP-85WM  | 1100                     | 810  | 780  |
| FP-102WM | 1250                     | 930  | 930  |
| FP-136WM | 1410                     | 1130 | 1090 |
| FP-170WM | 1640                     | 1390 | 1320 |
| FP-204WM | 1840                     | 1590 | 1520 |
| FP-238WM | 1920                     | 1790 | 1600 |

Cassette Fan Coil Unit

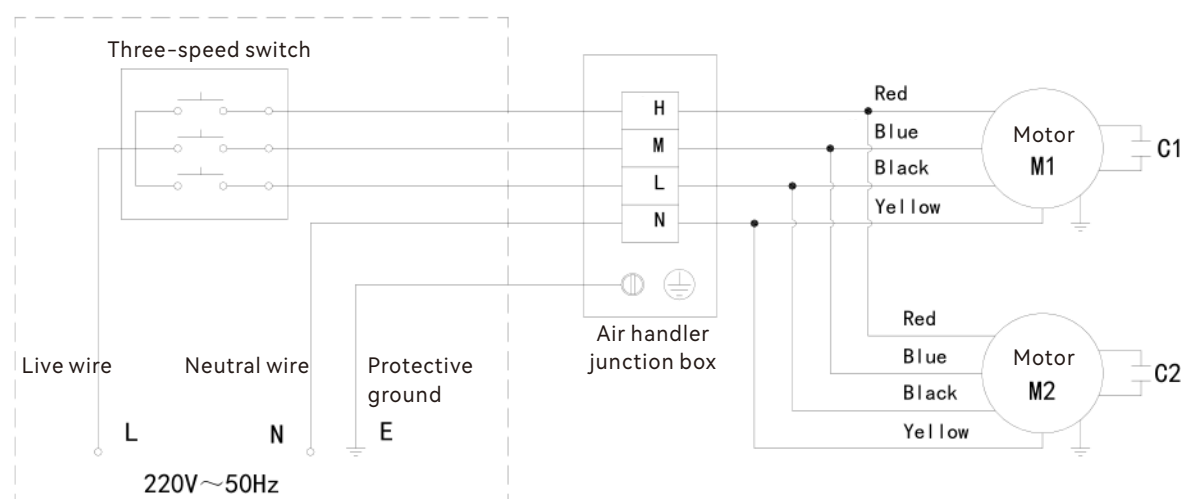


Strong Drainage Unit Size Table  
(Two-pipe System with Four Air Outlets)

| Model    | External Dimensions (mm) |     |     | Net Weight (kg) |
|----------|--------------------------|-----|-----|-----------------|
|          | A                        | B   | C   |                 |
| FP-34KQ  | 650                      | 620 | 290 | 18              |
| FP-51KQ  | 650                      | 620 | 290 | 19              |
| FP-68KQ  | 650                      | 620 | 290 | 20              |
| FP-85KQ  | 800                      | 760 | 290 | 26              |
| FP-102KQ | 800                      | 760 | 290 | 27              |
| FP-136KQ | 800                      | 760 | 290 | 28              |
| FP-170KQ | 950                      | 890 | 290 | 33              |
| FP-204KQ | 950                      | 890 | 290 | 34              |
| FP-238KQ | 950                      | 890 | 290 | 35              |

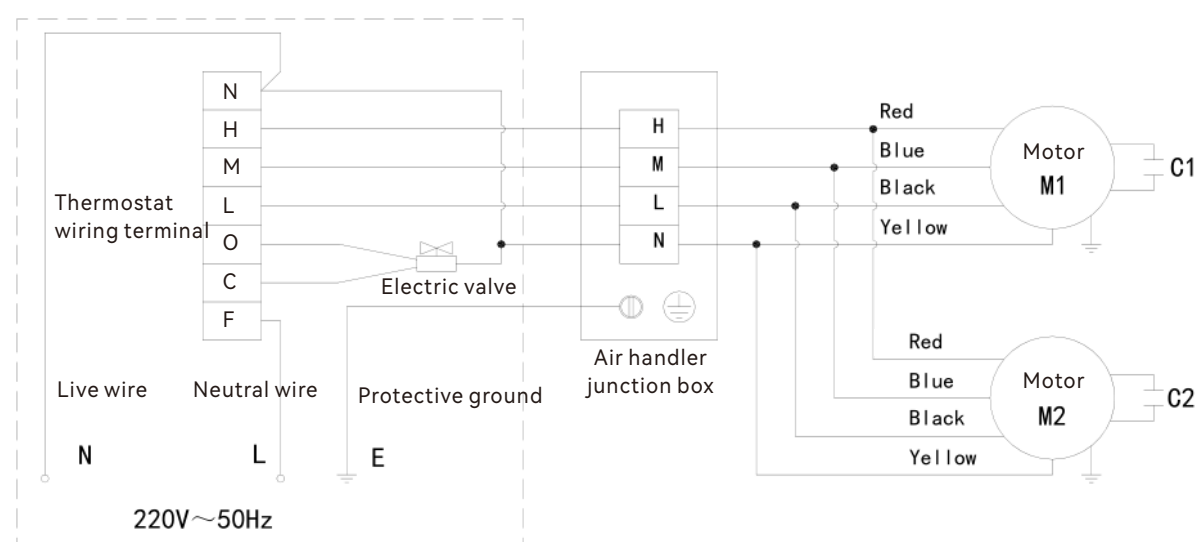
## » Wiring Schematic Diagram (Concealed units)

### Equipped with a three-speed switch



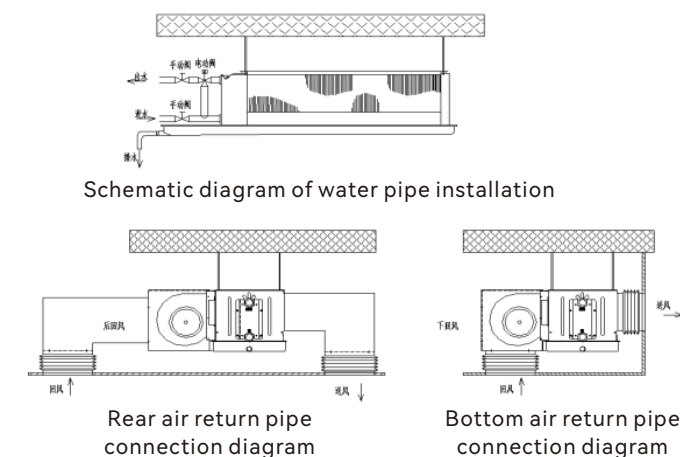
Note: The dashed box indicates customer wiring. If a three-speed switch or thermostat is required, please specify when placing the order.

### Equipped with an LCD thermostat



Note: The dashed box indicates customer wiring. If a three-speed switch or thermostat is required, please specify when placing the order.

## » Unit Installation and Maintenance



To ensure smooth installation and operation of the unit, please pay attention to the following matters during installation:

- Check if there is sufficient space for installation and maintenance of the unit.
- Inspect the lifting structure; the lifting points of the unit should be secure and have enough strength to withstand the weight of the unit and vibrations during operation.
- Confirm the positions of the water supply and return, condenser water pipes, and electrical connections.
- Ensure the unit is installed level; otherwise, it may cause condensate water to overflow.
- Prevent debris from entering the fan wheel, motor, and heat exchanger during installation, and ensure that the drainage end is at least 3-5mm lower than the other end to ensure condensate water is drained.
- Check if the length of the duct connected to the unit matches the external static pressure of the machine to avoid excessive noise due to excessive airflow or performance degradation due to insufficient airflow.
- A filter should be installed in the water system pipes to prevent equipment coil blockage.
- The unit uses 220V~50HZ power supply with power fluctuations  $\leq \pm 10\%$ . Wiring should be done according to the circuit diagram, and it is strictly prohibited to connect any of the high, medium, or low taps to the neutral wire. The unit's junction box has a grounding nut for connection to the grounding system during installation. Note: It is strictly forbidden to use one thermostat to control multiple fan coil units to prevent motor burnout.
- Before the initial operation, please remove any foreign objects from the water pan, fan casing, and around the coil, check the water pipes and electrical connections, and ensure they are correct. Use a three-speed switch to adjust, preferably starting from the high speed and then selecting other speeds.
- Before the initial operation, close the unit's water supply and return valves, clean the chilled water pipe system, and then open the unit's water supply and return valves.
- Before the initial operation, open the air vent on the return water pipe to expel all the air from the coil and pipes.

01. The unit's water supply requirements are chilled water  $>3^{\circ}\text{C}$ , hot water  $<65^{\circ}\text{C}$ , and the water quality should be clean and softened.

02. The unit should be handled with care during transportation, and it is strictly forbidden to carry the unit by holding the fan wheel or casing. If serious damage, fan casing deformation, condensate water pan deformation, or motor and fan detachment are found before installation, please contact service personnel for handling.

03. Keep the unit level during installation for smooth drainage from the built-in water pan; when lifting the unit, it should only bear its own weight and not bear the force of ducts, pipes, or other objects. Please reserve enough space for maintenance during installation.

04. Please add a filter net at the return air opening to prevent dust from clogging the heat exchanger fins and ensure the cold and hot effects of the coil.

05. The unit's water pipes are bottom in and top out, and flexible connectors should be used for water supply and return pipes. Be careful not to twist the connectors too tightly to avoid damaging the heat exchanger. The water supply and return pipes should be insulated, and thread connections should be sealed with PTFE tape. The drainage pipe should maintain a sufficient slope to drain condensate water.

06. The unit's outlet pipe is equipped with a manual air vent valve. Each time water is passed through, the vent valve should be opened to expel all the air from the coil and pipes before closing it. Failure to do so will affect the unit's cold and hot effects.

07. The heat exchanger should be regularly cleaned to maintain good heat transfer performance; the filter mesh should be regularly washed to ensure smooth airflow, and it is strictly forbidden to operate the unit for long periods without the filter mesh.
08. When the unit is to be out of service for a long time, the coil should be filled with water to reduce corrosion of the pipes.
09. To prevent condensation on the surface of the unit when it is stopped, an electric valve interlocked with a thermostat should be used in the design, or a cold water bypass should be adopted; otherwise, only the manual closing of the water inlet valve can be used to solve the problem.
10. The unit should be maintained and repaired by professionals who are familiar with the product.
11. The duct should be connected to the unit with canvas flexible hoses to effectively isolate vibrations and noise.
- # When the unit is pressure tested for leaks or out of service in winter with environmental temperatures below 0°C, anti-freezing measures should be taken to prevent the coil and supply and return water pipes from freezing and cracking.

Routine Maintenance and Care

- Air conditioning is a specialized piece of equipment, and it is recommended that users keep records of the daily operating data and perform regular maintenance and care.
1. Before the equipment is put into use for the first time, it is necessary to check whether the terminal equipment and other components of the water system are functioning normally.
2. During the use of the equipment, we recommend that users adopt the following maintenance and care methods:

| Unit Maintenance Content                                                                                   | Standard Maintenance Cycle |         |           | Notes                                                                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------|----------------------------|---------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                            | Month                      | Quarter | Half-year |                                                                                                                                                                                          |
| 1. Inspect the power supply cable (from the distribution cabinet to the unit) for any looseness or damage. |                            |         | ★         |                                                                                                                                                                                          |
| 2. Check if the condensate drainage is functioning properly.                                               |                            | ☆       | ★         | Whether it is installed as required, whether there is any blockage due to dirt, whether the drainage is smooth, and whether there is any overflow.                                       |
| 3. Check if there are any abnormal noises during the unit's operation.                                     | ☆                          | ☆       | ★         | Such as sharp unit friction sounds, whistling, obvious impact noises, or resonance, significant electromagnetic noise (which can cause discomfort to people), and other abnormal noises. |

- Note:
- ① ★ - Items that must be maintained or replaced; ☆ - Items for which maintenance is decided based on actual conditions.
- ② Daily and monthly inspection items should be executed and recorded by the customer.
- ③ The replacement of consumable parts and materials is determined by the unit's service life or operating time. For units used year-round or for process purposes, operating time is considered; for normal use or comfort purposes, service life is considered.
- ④ It is recommended that a comprehensive maintenance and care should be conducted every 1 year of use or after approximately 1000 hours of operation.
3. For equipment that will not be used for a long period, we recommend the following maintenance and care methods:
- When the unit is not operating for a long time or not running in winter, it is necessary to drain all the water from the system and then turn off the power supply. Before restarting the unit, check for any looseness or damage to the power supply cable (from the distribution cabinet to the unit), and conduct a comprehensive inspection of the unit. Only after confirming everything is normal should you start the unit. If necessary, you can follow the maintenance and care methods before the equipment is put into use.



**For specific operations on unit installation, use, and maintenance, please refer to the included "Installation and Use Manual" and "Electrical Operation Manual".**

Note: As OBAIR products are continuously improved and innovated, changes to product models, specifications, and parameters shown in this material will not be notified separately. Your understanding is appreciated.