# HITECH


# 2016

## 50Hz R410a

AIR-CONDITIONERS

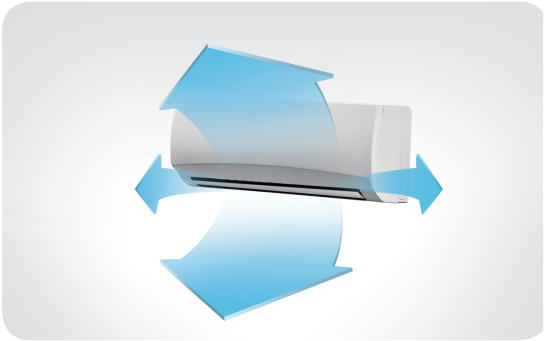
HEAT PUMPS

FAN COIL

# Quality Living

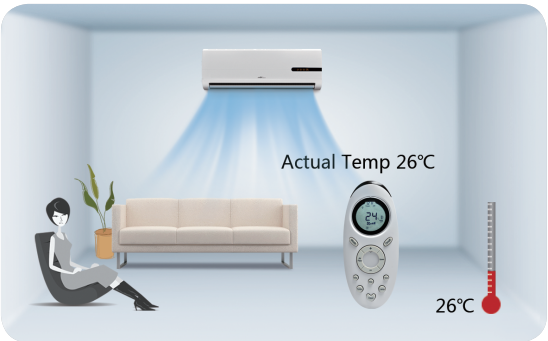
## Independent Dehumidifying

Effectively removes moisture from the room.



## 360° Three Dimensional Air Delivery

360° air swing design allows air to reach every corner of a room within a wide angle.

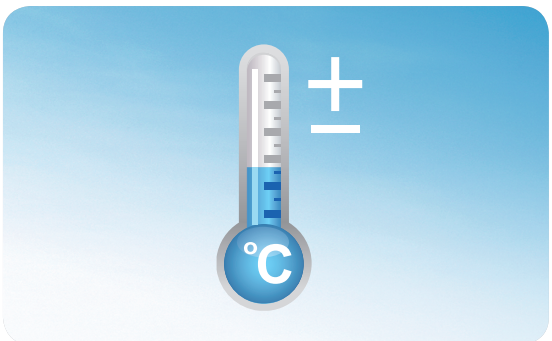



## I Feel (Follow me)

Sensors detect temperatures around the remote control, leading to more precise adjustment of room temperature and mode.

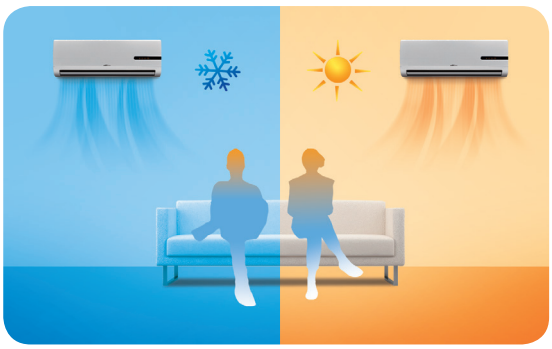
## Cold Air Protection

During winter heating, unit output is restricted at a low level, or set in gentle breeze mode, throughout initial power-up. This guarantees heat exchange as well as comfort, while preventing cold blasts entering the room.




## Temperature Compensation

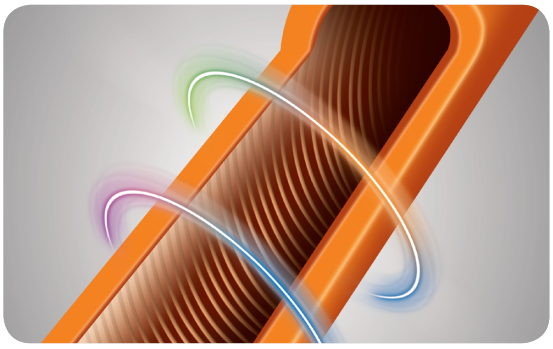
As indoor units are installed at different heights, the temperature detected by the indoor unit temperature probe will often be different from the actual ground temperature. This feature can correct the temperature difference.



## Turbo Cooling/Heating

This feature maximizes cooling or heating output so room temperature quickly reaches the preset level.

# Quality Living

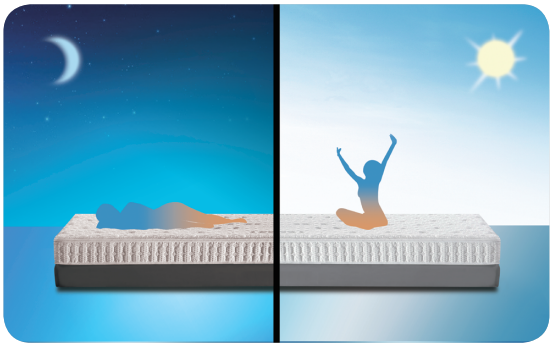


## Inner-grooved Copper Tubes

High quality inner-grooved copper increases the surface area of the inner copper wall, significantly improving thermal conductivity (conductivity is 20-30% higher than that of smooth tubes).

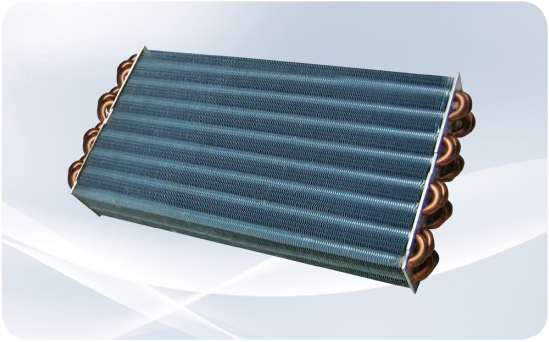
## World Famous Compressor

A name brand compressor, using PM motors with PMs in the rotor and stator structure to produce an opposing, self-rotating force during operation, results in more efficient operation.



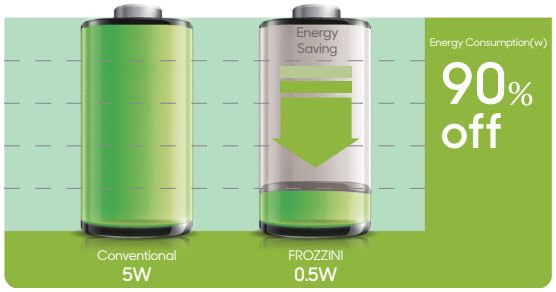
## Sleep Mode

The AC will automatically increase (cooling) or decrease (heating) the temperature by 1°C within the first two hours, and then maintain a constant temperature for the next 5 hours, after that it will switch off, which maintains both energy saving and comfort.



## Multi-folding Evaporator

With heat exchange area increased, multi-folding evaporator improves heat change efficiency.




## 0.5W Standby

FROZZINI AC units automatically enter energy-saving standby mode, dropping from the usual consumption of 4-5 watts to 0.5 watts, thereby reducing energy consumption by more than 90%.

# Features

## Comfort

**Independent Dehumidifying**
Can effectively remove moisture from the room.

**Turbo Cooling/heating**
Maximizes cooling or heating output to rapidly cool or heat the room.

**Cold Air Protection**
This feature can prevent cold air being emitted prior to normal operation, thereby avoiding user discomfort.

**Intelligent Defrost**
Intelligently adjusts heating time to ensure the AC unit can enter heating mode as quickly as possible, thereby improving heat efficiency.

**Multiple Flow Speeds**
Multi-variable flow speeds, ensuring more precise control and a more comfortable breeze.

**360° Three Dimensional Air Delivery**
360° air swing design allows air to reach every corner of a room within a wide angle.

## Convenience

**Easy to Clean Panel**
The indoor unit panel can be detached easily for regular cleaning.

**Washable Filter**
Patented disassembling technology offers easier detachment, so filter mesh may be cleaned at will.

**Timer Switch**
24-Hour timer can be set to automatically turn the device on and off.

**Self-diagnosis**
Automatic detection of abnormal operation or components, fault codes will be displayed on the indoor unit.

**Auto-restart**
If the unit stops unexpectedly due to a power cut, the AC unit will automatically restart in the previous mode once power is restored.

**LED Display**
Temperature will be shown in the LED displayer, which is functional and aesthetic.

**Two-way Draining Connection**
Both left and right sides of the indoor unit are possible for outstretch of connective piping and drainage hose, which enables easy installation.

## Health

**Self-cleaning**
Dust on the evaporator is removed by the fast-flowing condensation water while the clean button is pressed.

## Others

**Child Lock**
Remote control button, the remote cannot be operated without being unlocked, preventing use by children and accidental use.

## Energy Saving

**Sleep Mode**
The AC will automatically increase (cooling) or decrease (heating) the temperature by 1°C within the first two hours, and then maintain a constant temperature for the next 5 hours, after that it will switch off, which maintains both energy saving and comfort.

**Inner-grooved Copper Tubes**
High quality inner-grooved copper increases the surface area of the inner copper wall, significantly improving thermal conductivity (heat conductivity is 20%-30% higher than that of smooth tubes).

**Multi-folding Evaporator**
With heat exchange area increased, multi-folding evaporator improves heat change efficiency.

# Remote Control


### 1 OPERATION MODE

Changes the operation mode: AUTO,COOL,DRY, HEAT,FAN.

### 2 AIR FLOW (OPTIONAL)

Used for selection of the left/right air flow direction,whenever pressed the in flap will swing or fix (It just works on three-dimensional air flow model).

### 3 SWING

Changes the flap mode: natural flow, swing or fixed wind.

### 4 SLEEP

Changes to SLEEP operation.

### 5 TURBO

Changes to TURBO operation (It does not work in AUTO,DRY,and FAN mode).

### 6 ON/OFF

This button, when pressed starts operation and stops when repressed.

### 7 FAN SPEED

Sets air rate.

### 8 ±

Sets room temperature.

### 9 TIMER

Used to set the switch-on or switch-off and the timer time.

### 10 LAMP

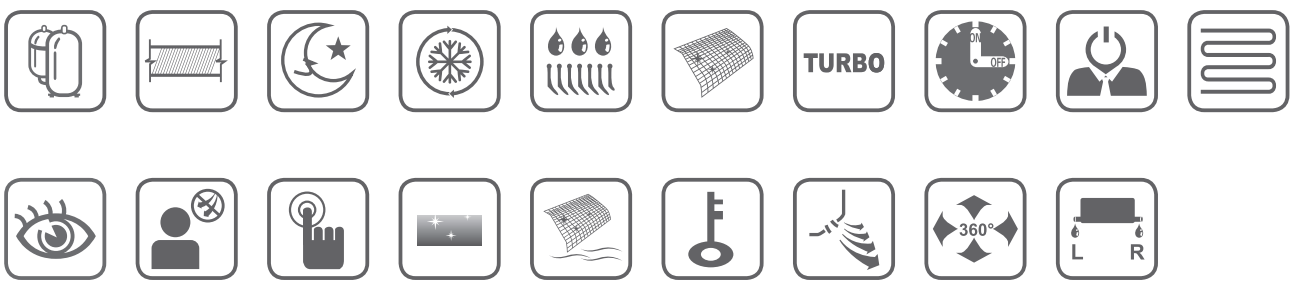
Usedto turn on/off LED display.

### 11 CLEAN

Usedto start self-cleaning function.

# 2016 New Product





| Capacity | | | 9000BTU | | 12000BTU | | 18000BTU | | 24000BTU | |
|---|---|---|---|---|---|---|---|---|---|---|
| Model | | | AS09Y4M | | AS12Y4M | | AS18Y4M | | AS24Y4M | |
| (Ph-V-Hz)Rated volt and frequency | | | 1-220-240/50 | | 1-220-240/50 | | 1-220-240/50 | | 1-220-240/50 | |
| Mode | | | Cooling | Heating | Cooling | Heating | Cooling | Heating | Cooling | Heating |
| (W)Rated capacity | | | 9000 (6200~12000) | 9000 (6200~12000) | 12000 (6200~14000) | 12000 (5500~14000) | 18000 (6200~21000) | 18000 (6200~21000) | 24000 (9000~25000) | 24000 (7000~26000) |
| (W)Cooling power input | | | 760 | 690 | 1080 | 760 | 1600 | 1400 | 2180 | 1930 |
| (A)Heating current input | | | 3.8 | 3.5 | 4.9 | 3.5 | 7.2 | 6.4 | 9.4 | 8.3 |
| Working temperature | | | -15 to 46 degree | -15 to 24 degree | -15 to 46 degree | -15 to 24 degree | -15 to 46 degree | -15 to 24 degree | -15 to 46 degree | -15 to 24 degree |
| SEER/SCOP(W/W) | | | 5.9/A+ | 4.0/A+ | 5.9/A+ | 4.0/A+ | 6.1/A++ | 4.0/A+ | 5.6/A+ | 4.0/A+ |
| Climatic zones of heating | | | / | Average | / | Average | / | Average | / | Average |
| (W)Design load | | | 2500 | 2300 | 3200 | 2800 | 5100 | 4500 | 7000 | 6300 |
| T biv.(°C)Heating balance point temperature | | | / | -7 | / | -7 | / | -7 | / | -7 |
| T ol.(°C)Heating limit operating temperature | | | / | -10 | / | -10 | / | -15 | / | -15 |
| (W)thermostat-off mode | | | 29 | | 30 | | 60 | | 80 | |
| (W)Stand by mode | | | 0.5 | | 0.5 | | 0.5 | | 0.5 | |
| throttle type | | | capillary | | capillary | | capillary | | capillary | |
| Anuual Consumption Capacity(KW) | | | 156 | 847 | 200 | 1032 | 293 | 1575 | 438 | 2205 |
| (L/h)Moisture Removal | | | 0.95 | | 1.2 | | 1.86 | | 2.56 | |
| Compressor | | Model | ASK89D53UEZ | | ASK89D53UEZ | | ATD141RDPA8JT | | ATL165SDNC9AU1 | |
| | | Type (Rotary/Piston/scroll) | Rotary | | Rotary | | Rotary | | Rotary | |
| | | Brand | GMCC | | GMCC | | HIGHLY | | HIGHLY | |
| Indoor | Fan motor | Model | YDK-14-4 | | YDK-16-4 9 | | YDK-27-4 A6 | | YDK-30-4 | |
| | | power type | AC | | AC | | AC | | AC | |
| | | (W)Power input | 33 | | 16 | | 56 | | 63 | |
| | | (uF)Capacitance | 1.2 | | 1 | | 1.8 | | 2 | |
| | | Indoor Fan Speed RPM (High/Med/Low) | 1350±30 | | 1250/1100/850 | | 1300/1150/1000 | | 1350/1200/1050 | |
| | ($m^3$/h)Indoor Air Circulation | | 450 | | 550 | | 850 | | 1050 | |
| | (mm) Dimension (L*W*H) | | 745×250×195 | | 780×276×202 | | 900*292*215 | | 1080×302×220 | |
| | (mm)Packing (L*W*H) | | 835×330×278 | | 960×367×305 | | 983×377×300 | | 1275×392×318 | |
| | (Kg)Net/Gross weight | | 9/11 | | 10/12 | | 14/17 | | 16/20 | |
| | (dB/A)noise sound pressure level | | 30~38 | | 30~39 | | 42~46 | | 42~48 | |
| | (dB/A)Sound power noise | | 40~48 | | 40~49 | | 52~56 | | 52~58 | |
| Outdoor | Fan motor | Model | D-280-25-8H | | D-280-25-8H | | DR-9538-722A | | MDR-9538-901M | |
| | | power type | DC | | DC | | DC | | DC | |
| | | W)Power input | 25 | | 25 | | 57 | | 100 | |
| | | (uF)capacity | / | | / | | / | | / | |
| | | Indoor Fan Speed RPM (High/Med/Low) | 1150 | | 1150 | | 850 | | 850 | |
| | (mm) Net Dimension (L*W*H) | | 715×235×540 | | 715×235×540 | | 850×295×605 | | 970×395×760 | |
| | (mm) Packing Dimension (L*W*H) | | 851×335×600 | | 851×335×600 | | 995×415×690 | | 990×410×770 | |
| | (Kg) Net/Gross weight | | 27/29 | | 27/29 | | 40/45 | | 52/57 | |
| | (dB/A)noise sound pressure level | | 52 | | 53 | | 55 | | 58 | |
| | (dB/A)Sound power noise | | 62 | | 63 | | 65 | | 68 | |
| | Refrigerant type/weight | | R410A/770 | | R410A/780 | | R410A/1350g | | R410A/1700g | |
| | Defrost mode | | Automatic defrosting | | Automatic defrosting | | Automatic defrosting | | Automatic defrosting | |
| | Applicable climate types | | T1 | | T1 | | T1 | | T1 | |
| Refrigerant piping /Connection wiring | Liquid side/ Gas side/Length | | (φ6.0+φ9.52)×3500 | | φ6.0+φ9.52×3500 | | (φ6.0+φ12)×5000 | | (φ9.52+φ15.88)×5000mm | |
| | Max. refrigerant pipe length/ Max. difference in level | | 15/5 | | 15/5 | | 15/5 | | 15/5 | |
| | Power cord (line numberX line diameter X length) | | 3×1.5mm2×2000mm | | 3×1.5mm2×2000mm | | 3×2.5mm2×2500mm | | 3×2.5mm2×2500mm | |
| | Indoor&Outdoor connecting cable (line numberX line diameter X length) | | 4×1.5mm2×4580mm | | 4×1.5mm2×4580mm | | 4×1.5mm2×6080mm | | 4×2.5mm×6500mm | |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| Model | | | | HFC40C3A |
|---|---|---|---|---|
| Rated volt and frequency | | | Ph-V-Hz | 380V/50Hz/3PH |
| Cooling | | Cooling capacity | W | 14000 |
| | | Cooling power input | W | 4390 |
| | | Cooling current input | A | 7.5 |
| | | EER | w/w | 3.19 |
| Heating | | Heating capacity | W | 15000 |
| | | Heating power input | W | 4740 |
| | | Heating current input | A | 8.1 |
| | | COP | w/w | 3.16 |
| Additional electrical heater power input (actual/label) | | | W | 2500 |
| Additional electrical heater current input(actual/label) | | | A | 11.4 |
| Max. input consumption | | | W | 9500 |
| Max. current | | | A | 26 |
| Compressor | | Model | | ATE590SC3Q9JK |
| | | Type (Rotary,Piston,scroll) | | Rotary |
| | | Brand | | HIGHLY |
| Indoor | Fan motor | Model | | YDK-100-10B 1 |
| | | Power input | W | 277 |
| | | capacity | uF | 6μF/500V |
| | | Indoor Fan Speed RPM | r/min | High 480±20rpm<br>Med 400±25rpm<br>Low 300±30rpm |
| | Indoor Air Circulation | | m3/h | 1900 |
| | Indoor Noise Level dB | | dB(A) | 57 |
| | Dimension (L×W×H) | | mm | 600x313x1868 |
| | Packing (L×W×H) | | mm | 2050×485×695 |
| | Net/Gross weight | | Kg | 61/75 |
| Outdoor | Fan motor | Model | | YDK-60-6G 1 |
| | | Power input | W | 138 |
| | | capacity | uF | 4 |
| | | Outdoor Fan Speed RPM | r/min | 840±20 |
| | Outdoor Noise Level dB | | dB(A) | 67 |
| | Dimension (L×W×H) | | mm | 970×345×1237 |
| | Packing (L×W×H) | | mm | 1125×485×1385 |
| | Net/Gross weight | | Kg | 95/108 |
| | Refrigerant type/weight | | g | R410A/2800 |
| | Design pressure (Hi/Low) | | MPa | 4.0/1.2 |
| Refrigerant piping | | Liquid side/ Gas side/Length | mm | ϕ 9.52+ 19.05×5000 |
| | | Max. refrigerant pipe length /Max. difference in level | m | 15/5 |

## DC Inverter Light
# Commercial Universal Outdoor Unit


18K Btu/h


24K Btu/h


36K Btu/h


48K/60K Btu/h

# 4-way Cassette Unit

18k~60k Btu/h

Standard

## R410A Heating Pump

| Model | | | HOD-18DOA | HOD-24DOA | HOD-36DOA | HOD-36DOA3 | HOD-48DOA | HOD-60DOA |
|---|---|---|---|---|---|---|---|---|
| **Indoor power supply** | | **V/Ph/Hz** | **220~240/1/50** | **220~240/1/50** | **220~240/1/50** | **380~415/3/50** | **380~415/3/50** | **380~415/3/50** |
| **Performance** | | | | | | | | |
| Cooling | Capacity | Btu/h | 18,000 | 24,000 | 36,000 | 36,000 | 48,000 | 60,000 |
| | | KW | 5.3(2.0-5.6) | 7.0(3.5-8.0) | 10.5(6.6-12.8) | 10.5(6.6-12.8) | 14.0(7.15-15.6) | 16.0(7.8-17.5) |
| Heating | Capacity | Btu/h | 20,000 | 26,000 | 40,000 | 36,000 | 52,000 | 60,000 |
| | | KW | 5.9(3.0-6.0) | 7.7(4.5-8.5) | 11.5(7.35-13.2) | 11.5(7.35-13.2) | 15.2(8.0-17.2) | 17.6(8.5-19.5) |
| **Physical data** | | | | | | | | |
| Compressor type | | | DC/ Twin-rotary | DC/ Twin-rotary | DC/ Twin-rotary | DC/ Twin-rotary | DC/ Twin-rotary | DC/ Twin-rotary |
| Motor type | | | DC | DC | DC | DC | AC/DC | AC/DC |
| Air flow | | $m^3/h$ | 4000 | 5000 | 5800 | 5800 | 7200 | 7200 |
| Noise Level (MAX) | Power level | dB(A) | 63 | 67 | 68 | 68 | 70 | 70 |
| | Pressure level | | 52 | 54 | 55 | 55 | 58 | 58 |
| Net Dimension (W*H*D) | | mm | 925×700×366 | 958×843×392 | 1054x944x399 | 1054x944x399 | 950×1335×388 | 950×1335×388 |
| Net Weight | | kg | 45 | 59 | 80 | 80 | 96 | 96 |
| Packing Dimension (W*H*D) | | mm | 990×410×770 | 1025×880×430 | 1135×1045×465 | 1135×1045×465 | 964x1445x402 | 964x1445x402 |
| Gross Weight | | kg | 49 | 69 | 86 | 85 | 104 | 104 |
| Refrigerant type / Quantity | | g | R410A/1800 | R410A/2400 | R410A/3700 | R410A/3700 | R410A/4100 | R410A/4100 |
| **Piping Data** | | | | | | | | |
| Diameter | Liquid Side | mm | Φ6.53 | Φ9.52 | Φ9.52 | Φ9.52 | Φ9.52 | Φ9.52 |
| | Gas Side | mm | Φ12.7 | Φ15.88 | Φ15.88 | Φ15.88 | Φ15.88 | Φ15.88 |
| Max Pipe Length | | m | 15 | 20 | 50 | 50 | 50 | 50 |
| Max Height Difference | | m | 8 | 10 | 20 | 20 | 20 | 20 |

## R410A Heating Pump

| Model | | | HCD-18DCA | HCD-24DCA | HCD-36DCA | HCD-48DCA | HCD-60DCA |
|---|---|---|---|---|---|---|---|
| **Indoor power supply** | | **V/Ph/Hz** | **220~240/1/50** | **220~240/1/50** | **220~240/1/50** | **220~240/1/50** | **220~240/1/50** |
| | | | | | | | |
| Cooling | Capacity | Btu/h | 18,000 | 24,000 | 36,000 | 48,000 | 60,000 |
| | | KW | 5.3(2.0-5.6) | 7.0(3.5-8.0) | 10.5(6.6-12.8) | 14.0(7.15-15.6) | 16.0(7.8-17.5) |
| | Input | KW | 1.59(0.42-1.84) | 2.15(0.6-3.0) | 3.27(1.05-4.6) | 4.78(1.22-5.58) | 5.33(1.9-6.1) |
| | SEER | | 5.6 | 5.6 | 5.1 | / | / |
| | EER | | 3.33 | 3.26 | 3.21 | 2.93 | 3.0 |
| | Energy Class | | A+ | A+ | A | A | A |
| Heating | Capacity | Btu/h | 20,000 | 26,000 | 40,000 | 52,000 | 60,000 |
| | | KW | 5.9(3.0-6.0) | 7.7(4.5-8.5) | 11.5(7.35-13.2) | 15.2(8.0-17.2) | 17.6(8.5-19.5) |
| | Input | KW | 1.43(0.64-1.64) | 2.07(1.5-2.6) | 3.2(1.1-4.15) | 4.23(1.2-5.28) | 4.96(2.0-6.5) |
| | SCOP | | 4.0 | 4.0 | 4.0 | / | / |
| | COP | | 4.12 | 3.72 | 3.59 | 3.59 | 3.55 |
| | Energy Class | | A+ | A+ | A+ | A | A |
| **Physical data** | | | | | | | |
| Airflow (High Speed) | | $m^3/h$ | 900 | 1100 | 1800 | 1900 | 1900 |
| Noise level (MAX) | Power Level | dB (A) | 46-58 | 56-63 | 53-61 | 56-63 | 56-63 |
| | Pressure Level | | 36-45 | 43-49 | 43-48 | 45~52 | 45~52 |
| Net Dimension (W*H*D) | Body | mm | 840×230×840 | 840×230×840 | 840×285×840 | 840×285×840 | 840×285×840 |
| | Panel | mm | 950×50×950 | 950×50×950 | 950×50×950 | 950×50×950 | 950×50×950 |
| Net Weight | Body | kg | 25 | 25 | 30.5 | 30.5 | 30.5 |
| | Panel | kg | 5.4 | 5.4 | 5.4 | 5.4 | 5.4 |
| Packing Dimension (W*H*D) | Body | mm | 920×265×920 | 920×265×920 | 920×310×920 | 920×310×920 | 920×310×920 |
| | Panel | mm | 1030×105×1030 | 1030×105×1030 | 1030×105×1030 | 1030×105×1030 | 1030×105×1030 |
| Gross Weight | Body | kg | 30 | 30 | 36 | 36 | 36 |
| | Panel | kg | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 |
| **Piping Data** | | | | | | | |
| Diameter | Liquid Side | mm | Φ6.53 | Φ9.52 | Φ9.52 | Φ9.52 | Φ9.52 |
| | Gas Side | mm | Φ12.7 | Φ15.88 | Φ15.88 | Φ15.88 | Φ15.88 |
| Drain Pipe | | mm | DN25 | DN25 | DN25 | DN25 | DN25 |

# Floor & Ceiling Unit

18K ~60K  Btu/h

Standard

# Low ESP Ducted Unit

18K-24K Btu/h

Standard

## R410A Heating Pump

| Model | | | HDD-18DBA | HDD-24DBA | HDD-36DBA | HDD-48DBA | HDD-60DBA |
|---|---|---|---|---|---|---|---|
| Indoor power supply | | V/Ph/Hz | 220~240/1/50 | 220~240/1/50 | 220~240/1/50 | 220~240/1/50 | 220~240/1/50 |
| Performance | | | | | | | |
| Cooling | Capacity | Btu/h | 18,000 | 24,000 | 36,000 | 48,000 | 60,000 |
| | | KW | 5.3(2.0-5.6) | 7.0(3.5-8.0) | 10.5(6.6-12.8) | 14.0(7.15-15.6) | 16.0(7.8-17.5) |
| | Input | KW | 1.6(0.42-1.84) | 2.15(0.6-3.0) | 3.27(1.05-4.6) | 4.86(1.22-5.58) | 5.43(1.9-6.1) |
| | SEER | | 5.6 | 5.6 | 5.6 | / | / |
| | EER | | 3.31 | 3.26 | 3.21 | 2.88 | 2.95 |
| | Energy Class | | A+ | A+ | A+ | A | A |
| Heating | Capacity | Btu/h | 20,000 | 26,000 | 40,000 | 52,000 | 60,000 |
| | | KW | 5.9(3.0-6.0) | 7.7(4.5-8.5) | 11.5(7.35-13.2) | 15.2(8.0-17.2) | 17.6(8.5-19.5) |
| | Input | KW | 1.39(0.64-1.64) | 2.0(1.5-2.6) | 3.05(1.1-4.15) | 4.31(1.2-5.28) | 5.06(2.0-6.5) |
| | SCOP | | 4.0 | 4.0 | 4.0 | / | / |
| | COP | | 4.24 | 3.85 | 3.77 | 3.53 | 3.48 |
| | Energy Class | | A+ | A+ | A+ | A | A |
| Physical data | | | | | | | |
| Airflow (High Speed) | | $m^3/h$ | 900 | 1150 | 1800 | 2000 | 2000 |
| Noise level (MAX) | Power Level | dB (A) | 46-58 | 53-60 | 56-65 | 56-67 | 57-67 |
| | Pressure Level | | 36-47 | 43-49 | 45-51 | 45-52 | 46-52 |
| Net Dimension (W*H*D) | | mm | 1245×680×240 | 1245×680×240 | 1245×680×240 | 1670x680x240 | 1670x680x240 |
| Net Weight | | kg | 34 | 35 | 35 | 50 | 50 |
| Packing Dimension (W*H*D) | | mm | 1325×770×325 | 1325×770×325 | 1325×770×325 | 1750x765x330 | 1750x765x330 |
| Gross Weight | | kg | 40 | 41 | 41 | 57 | 57 |
| Piping Data | | | | | | | |
| Diameter | Liquid Side | mm | Φ6.53 | Φ9.52 | Φ9.52 | Φ9.52 | Φ9.52 |
| | Gas Side | mm | Φ12.7 | Φ15.88 | Φ15.88 | Φ15.88 | Φ15.88 |
| Drain Pipe | | mm | DN25 | DN25 | DN25 | DN25 | DN25 |

## R410A Heating Pump

| Model | | | HRD-18DRA | HRD-24DRA |
|---|---|---|---|---|
| Indoor power supply | | V/Ph/Hz | 220~240/1/50 | 220~240/1/50 |
| Performance | | | | |
| Cooling | Capacity | Btu/h | 18,000 | 24,000 |
| | | KW | 5.3(2.0-5.6) | 7.0(3.5-8.0) |
| | Input | KW | 1.59(0.42-1.84) | 2.14(0.6-3.0) |
| | SEER | | 5.5 | 5.5 |
| | EER | | 3.33 | 3.27 |
| | Energy Class | | A | A |
| Heating | Capacity | Btu/h | 20,000 | 26,000 |
| | | KW | 5.9(3.0-6.0) | 7.7(4.5-8.5) |
| | Input | KW | 1.4(0.64-1.64) | 2.06(1.5-2.6) |
| | SCOP | | 3.8 | .3.8 |
| | COP | | 4.21 | 3.74 |
| | Energy Class | | A | A |
| Physical data | | | | |
| Airflow (High Speed) | | $m^3/h$ | 800 | 1050 |
| Stastic Pressure | | Pa | 0-30 | 0-30 |
| Noise level (MAX) | Power Level | dB (A) | 46-58 | 56-63 |
| | Pressure Level | | 36-45 | 43-47 |
| Net Dimension (W*H*D) | | mm | 1214×210×467 | 1214×210×467 |
| Net Weight | | kg | 22.5 | 25 |
| Packing Dimension (W*H*D) | | mm | 1310×240×510 | 1310×240×510 |
| Gross Weight | | kg | 25.5 | 28 |
| Piping Data | | | | |
| Diameter | Liquid Side | mm | Φ6.53 | Φ9.52 |
| | Gas Side | mm | Φ12.7 | Φ15.88 |
| Drain Pipe | | mm | DN25 | DN25 |

# Medium ESP Ducted Unit

36K-60K Btu/h

Standard

# High ESP Ducted Type Unit

48k~60k Btu/h

Standard

## R410A Heating Pump

| Model | | | HRD-36DRA | HRD-48DRA3 | HRD-60DRA3 |
|---|---|---|---|---|---|
| Indoor power supply | | V/Ph/Hz | 220~240/1/50 | 220~240/1/50 | 220~240/1/50 |
| Performance | | | | | |
| Cooling | Capacity | Btu/h | 36,000 | 48,000 | 60,000 |
| | | KW | 10.5(6.6-12.8) | 14.0(7.15-15.6) | 16.0(7.8-17.5) |
| | Input | KW | 3.27(1.05-4.6) | 4.94(1.22-5.58) | 5.49(1.9-6.1) |
| | SEER | | 5.1 | / | / |
| | EER | | 3.21 | 2.83 | 2.91 |
| | Energy Class | | A | A | A |
| Heating | Capacity | Btu/h | 40,000 | 52,000 | 60,000 |
| | | KW | 11.5(7.35-13.2) | 15.2(8.0-17.2) | 17.6(8.5-19.5) |
| | Input | KW | 3.1(1.1-4.15) | 4.39(1.2-5.28) | 5.12(2.0-6.5) |
| | SCOP | | 3.8 | / | / |
| | COP | | 3.71 | 3.46 | 3.44 |
| | Energy Class | | A | A | A |
| Physical data | | | | | |
| Airflow (High Speed) | | $m^3/h$ | 1800 | 2000 | 2000 |
| Stastic Pressure | | Pa | 50 | 50 | 50 |
| Noise level (MAX) | Power Level | dB (A) | 55-63 | 55-65 | 55-65 |
| | Pressure Level | | 42-48 | 40-52 | 40-52 |
| Net Dimension (W*H*D) | | mm | 1425×260×643 | 1425x260x643 | 1425x260x643 |
| Net Weight | | kg | 46 | 45 | 45 |
| Packing Dimension (W*H*D) | | mm | 1490×325×720 | 1490x325x720 | 1490x325x720 |
| Gross Weight | | kg | 50 | 50 | 50 |
| Piping Data | | | | | |
| Diameter | Liquid Side | mm | Φ9.52 | Φ9.52 | Φ9.52 |
| | Gas Side | mm | Φ15.88 | Φ15.88 | Φ15.88 |
| Drain Pipe | | mm | DN25 | DN25 | DN25 |

## R410A Heating Pump

| Model | | | HRD-48DRA3 | HRD-60DRA3 |
|---|---|---|---|---|
| Indoor power supply | | V/Ph/Hz | 220~240/1/50 | 220~240/1/50 |
| Performance | | | | |
| Cooling | Capacity | Btu/h | 48,000 | 60,000 |
| | | KW | 14.0(7.15-15.6) | 16.0(7.8-17.5) |
| | Input | KW | 5.1(1.22-5.58) | 5.65(1.9-6.1) |
| | SEER | | / | / |
| | EER | | 2.75 | 2.83 |
| | Energy Class | | A | A |
| Heating | Capacity | Btu/h | 52,000 | 60,000 |
| | | KW | 15.2(8.0-17.2) | 17.6(8.5-19.5) |
| | Input | KW | 4.55(1.2-5.28) | 5.28(2.0-6.5) |
| | SCOP | | / | / |
| | COP | | 3.34 | 3.33 |
| | Energy Class | | A | A |
| Physical data | | | | |
| Airflow (High Speed) | | $m^3/h$ | 2300 | 2300 |
| Stastic Pressure | | Pa | 120 | 120 |
| Noise level (MAX) | Power Level | dB (A) | 56-66 | 56-66 |
| | Pressure Level | | 44-52 | 44-52 |
| Net Dimension (W*H*D) | | mm | 1175x370x625 | 1175x370x625 |
| Net Weight | | kg | 47 | 47 |
| Packing Dimension (W*H*D) | | mm | 1245x445x655 | 1245x445x655 |
| Gross Weight | | kg | 51 | 51 |
| Piping Data | | | | |
| Diameter | Liquid Side | mm | Φ9.52 | Φ9.52 |
| | Gas Side | mm | Φ15.88 | Φ15.88 |
| Drain Pipe | | mm | DN25 | DN25 |


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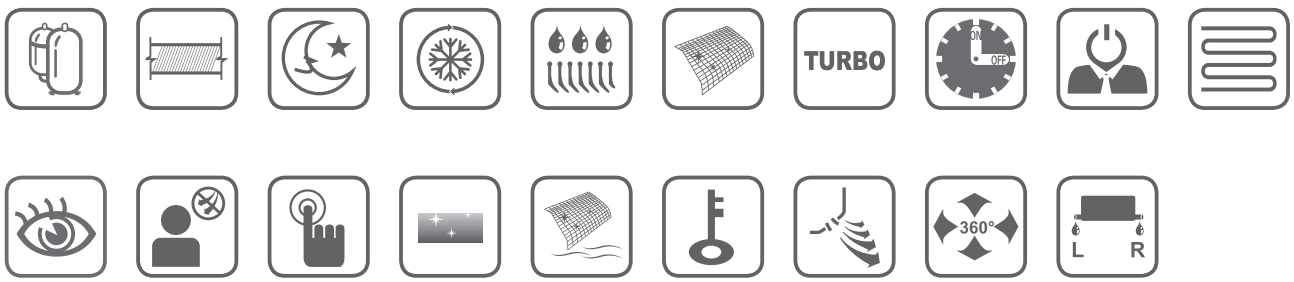
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| Capacity | | | | 9000BTU | 12000BTU | 18000BTU | 24000BTU |
|---|---|---|---|---|---|---|---|
| Model | | | | HCS-25C1A | HCS-32C1A | HCS-51C1A | HCS-61C1A |
| energy rate | | | | A/A | A/A | A/B | A/B |
| Rated volt and frequency | | | Ph-V-Hz | 220-240/50 | 220-240/50 | 220-240/50 | 220-240V/50Hz |
| Cooling | | Cooling capacity | W | 2700 | 3200 | 5100 | 6400 |
| | | Cooling power input | W | 800 | 955 | 1530 | 1930 |
| | | Cooling current input | A | 3.6 | 4.4 | 6.6 | 8.6 |
| | | EER | w/w | 3.38 | 3.35 | 3.33 | 3.32 |
| Heating | | Heating capacity | W | 2750 | 3750 | 5500 | 6600 |
| | | Heating power input | W | 725 | 1000 | 1540 | 1880 |
| | | Heating current input | A | 3.3 | 4.6 | 6.7 | 8.4 |
| | | COP | w/w | 3.79 | 3.75 | 3.57 | 3.51 |
| Max. input consumption | | | W | 1150 | 1700 | 2400 | 2700 |
| Max. current | | | A | 5.8 | 7.4 | 12.5 | 14.3 |
| Compressor | | Model | | 44A203BK&FJKC | ASM135V1VDZ | PA200X2CS-4KU1 | PA240X2CS-4KU1 |
| | | Type (Rotary,Piston ,scroll) | | Rotary | Rotary | Rotary | Rotary |
| | | Brand | | Rechi | GMCC | GMCC | GMCC |
| Indoor | Fan motor | Model | | YDK-14-4 | YDK-14-4 | YDK-23-4 A6 | YDK-27-4 A6 |
| | | Power input | W | 40 | 40 | 47 | 56 |
| | | capacity | uF | 1.2 | 1.2 | 1.2 | 1.8 |
| | | Indoor Fan Speed RPM | r/min | 1350 | 1350 | 1250±20rpm<br>1150±30rpm<br>950±30rpm | 1300/1150/1000 |
| | Indoor Air Circulation | | m3/h | 500 | 500 | 800 | 900 |
| | Indoor Noise Level dB | | dB(A) | 30-39 | 32-40 | 37-44 | 42-46 |
| | Dimension (L×W×H) | | mm | 745×250×195 | 745×250×195 | 900×292×215 | 900×292×215 |
| | Packing (L×W×H) | | mm | 833×330×278 | 833×330×278 | 983×377×300 | 983×377×300 |
| | Net/Gross weight | | Kg | 9/11 | 9/11 | 13/15 | 14/17 |
| Outdoor | Fan motor | Model | | YDK-30-6 | YDK-35-6A H | YDK-38-6B | YDK-40-6A 1 |
| | | Power input | W | 60 | 67 | 85 | 106 |
| | | capacity | uF | 2 | 2 | 2.5 | 3 |
| | | Outdoor Fan Speed RPM | r/min | 930/890/880 | 900 | 920 | 870 |
| | Outdoor Noise Level dB | | dB(A) | 51 | 54 | 54 | 54 |
| | Dimension (L×W×H) | | mm | 700×225×500 | 715×235×540 | 795×255×540 | 850×295×605 |
| | Packing (L×W×H) | | mm | 825×320×550 | 851×335×600 | 920×335×595 | 995×415×690 |
| | Net/Gross weight | | Kg | 25/29 | 28/33 | 38/42 | 45/51 |
| | Refrigerant type/weight | | g | R410A/600 | R410A/790g | R410A/1500 | R410A/1900 |
| | Design pressure (Hi/Low) | | MPa | 4.2/1.2 | 3.8/1.2 | 4.2/1.2 | 4.0-1.2 |
| Refrigerant piping | | Liquid side/ Gas side/Length | mm | ϕ 6.0+ 9.52×3500 | ϕ 6.35+ 9.52×3500 | ϕ 6.0+ 12.7×4000 | ϕ 6.0+ 12.7×4000 |
| | | Max. refrigerant pipe length /Max. difference in level | m | 15/5 | 15/5 | 15/5 | 15/5 |

## ON/OFF Light Commercial

# Universal Outdoor Unit


9K/12K/18K Btu/h


24K Btu/h


36K Btu/h


48k/60k Btu/h

# 4-way Cassette (Compact) Unit

12K/18K Btu/h

Standard

# R410A Heating Pump

| Outdoor unit | | | HOD-18DOA | HOD-24DOA | HOD-36DOA | HOD-36DCO3 | HOD-48DOA | HOD-60DOA |
|---|---|---|---|---|---|---|---|---|
| Power supply | | V/Ph/Hz | 220~240/1/50 | 220~240/1/50 | 220~240/1/50 | 380~415/3/50 | 380~415/3/50 | 380~415/3/50 |
| Capacity | | | | | | | | |
| Cooling | Capacity | Btu/h | 18000 | 24000 | 36000 | 36000 | 48000 | 60000 |
| | | KW | 5.3 | 7.1 | 10.5 | 10.5 | 14 | 16 |
| | Input | W | 1900 | 2400 | 3710 | 3800 | 5000 | 5700 |
| | Rated current | A | 8.26 | 10.6 | 16.7 | 6.9 | 8.2 | 10 |
| Heating | Capacity | Btu/h | 20000 | 26000 | 39000 | 39000 | 52000 | 60000 |
| | | KW | 5.9 | 7.7 | 11.5 | 11.5 | 15.2 | 16 |
| | Input | W | 1690 | 2100 | 3310 | 3600 | 5100 | 5800 |
| Physical data | | | | | | | | |
| Max. input consumption | | W | 2500 | 2700 | 4800 | 4900 | 6000 | 6600 |
| Max. current | | A | 12.6 | 13.2 | 21.2 | 10.3 | 10.5 | 11.8 |
| Starting current | | A | 40 | 49 | 112 | 48 | 66 | 70 |
| Compressor | Type | | Rotary | Rotary | Scroll | Scroll | Scroll | Scroll |
| | Brand | | Hitachi | Hitachi | Panasonic | Panasonic | Panasonic | Panasonic |
| Outdoor air flow | | $m^3/h$ | 2800 | 3800 | 6000 | 6000 | 6100 | 6100 |
| Outdoor noise level | | dB(A) | 53 | 58 | 65 | 65 | 60 | 60 |
| Dimension(WxHxD) | | mm | 866×535×304 | 930×700×370 | 1070×995×400 | 1070×995×400 | 911×1335×400 | 911×1335×400 |
| Packing dimension(WxHxD) | | mm | 920×585×335 | 990×770×410 | 1145×1120×475 | 1145×1120×475 | 964×1445×402 | 964×1445×402 |
| Net/Gross weight | | kg | 41/43 | 52/56 | 92/100 | 92/100 | 99/110 | 99/110 |
| Refrigerant type/quantity | | g | R410A/1200 | R410A/1800 | R410A/2100 | R410A/2100 | R410A/3600 | R410A/4000 |
| Design pressure | | MPa | 4.0/1.2 | 4.0/1.2 | 4.0/1.2 | 4.0/1.2 | 4.0/1.2 | 4.0/1.2 |
| Piping data | | | | | | | | |
| Liquid side/Gas side | | mm | Φ6.35/Φ12.7 | Φ9.52/Φ15.88 | Φ9.52/Φ19.05 | Φ9.52/Φ19.05 | Φ9.52/Φ19.05 | Φ9.52/Φ19.05 |
| Max. pipe length | | m | 20 | 20 | 20 | 20 | 20 | 20 |
| Max. high drop | | m | 10 | 10 | 10 | 10 | 10 | 10 |

# R410A Heating Pump

| Indoor Unit | | | HCC-18CCAC |
|---|---|---|---|
| Power supply | | V/Ph/Hz | 220~240/1/50 |
| Capacity | | | |
| Cooling | Capacity | Btu/h | 18000 |
| | | KW | 5.3 |
| | Input | W | 75 |
| | Rated curren | A | 0.4 |
| | EER | W/W | 2.68 |
| Heating | Capacity | Btu/h | 20000 |
| | | KW | 5.9 |
| | Input | W | 75 |
| | Ratted curren | A | 0.4 |
| | COP | W/W | 3.34 |
| Physical data | | | |
| Indoor air flow(Hi/Med/Lo) | | $m^3/h$ | 700/580/480 |
| Indoor noise level(Hi/Med/Lo) | | dB(A) | 48/45/43 |
| Dimension(W×H×D) | | Body(mm) | 580×275×580 |
| | | Panel(mm) | 650×30×650 |
| Packing dimension(W×H×D) | | Body(mm) | 745×375×675 |
| | | Panel(mm) | 750×95×750 |
| Net/Gross weight | | Body(Kg) | 25/27 |
| | | Panel(Kg) | 2.7/4.0 |
| Refrigerant type | | | R410a |
| Piping data | | | |
| Liquid side/Gas side | | mm | Φ6.35/Φ12.7 |
| Drainag pipe | | mm | DN25 |
| Application area | | $m^2$ | 20-35 |
| Stuffing Quantity(set) | | 40'HQ | 150 |

# 4-way Cassette Unit

18k~60k Btu/h

Standard

# Floor & Ceiling Unit

18K ~60K Btu/h

Standard

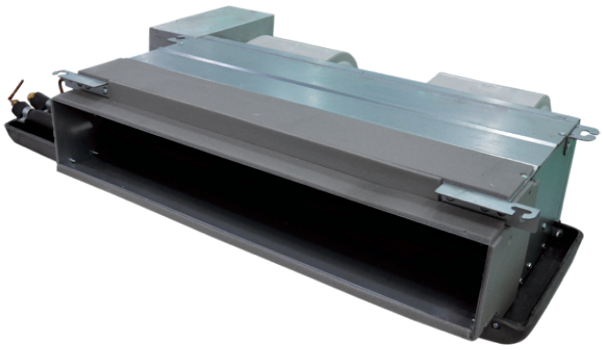
## R410A Heating Pump

| Indoor Unit | | | HCC-18CCA | HCC-24CCA | HCC-36CCA | HCC-48CCA | HCC-60CCA |
|---|---|---|---|---|---|---|---|
| Power supply | | V/Ph/Hz | 220-240/1/50 | 220-240/1/50 | 220-240/1/50 | 220-240/1/50 | 220-240/1/50 |
| Capacity | | | | | | | |
| Cooling | Capacity | Btu/h | 18000 | 24000 | 36000 | 48000 | 60000 |
| | | KW | 5.3 | 7.1 | 10.5 | 14 | 16 |
| | Input | W | 65 | 150 | 160 | 180 | 180 |
| | Rated current | A | 0.4 | 0.7 | 0.8 | 0.8 | 0.8 |
| | EER | W/W | 2.70 | 2.78 | 2.71 | 2.70 | 2.72 |
| Heating | Capacity | Btu/h | 20000 | 26000 | 39000 | 52000 | 60000 |
| | | KW | 5.9 | 7.7 | 11.5 | 15.2 | 16.0 |
| | Input | W | 65 | 150 | 160 | 180 | 180 |
| | Rated current | A | 0.4 | 0.7 | 0.8 | 0.8 | 0.8 |
| | COP | W/W | 3.31 | 3.42 | 3.31 | 2.88 | 2.78 |
| Physical data | | | | | | | |
| Indoor air flow(Hi/Med/Lo) | | $m^3/h$ | 810/720/640 | 1200/1020/840 | 1700/1500/1300 | 1900/1650/1400 | 1900/1650/1400 |
| Indoor noise level(Hi/Med/Lo) | | dB(A) | 45/41/38 | 48/46/44 | 48/46/44 | 52/48/45 | 52/48/45 |
| Dimension(W×H×D) | | Body(mm) | 840×230×840 | 840×230×840 | 840×285×840 | 840×285×840 | 840×285×840 |
| | | Panel(mm) | 950×50×950 | 950×50×950 | 950×50×950 | 950×50×950 | 950×50×950 |
| Packing dimension(W×H×D) | | Body(mm) | 920×265×920 | 920×265×920 | 920×310×920 | 920×310×920 | 920×310×920 |
| | | Panel(mm) | 1030×105×1030 | 1030×105×1030 | 1030×105×1030 | 1030×105×1030 | 1030×105×1030 |
| Net/Gross weight | | Body(kg) | 24/29 | 24/29 | 28/33.5 | 28/33.5 | 30.5/36 |
| | | Panel(kg) | 5.4/8.0 | 5.4/8.0 | 5.4/8.0 | 5.4/8.0 | 5.4/8.0 |
| Refrigerant type | | | R410a | R410a | R410a | R410a | R410a |
| Piping data | | | | | | | |
| Liquid side/Gas side | | mm | Φ6.35/Φ12.7 | Φ9.52/Φ15.88 | Φ9.52/Φ19.05 | Φ9.52/Φ19.05 | Φ9.52/Φ19.05 |
| Drainag pipe | | mm | DN25 | DN25 | DN25 | DN25 | DN25 |
| Application area | | $m^2$ | 20-35 | 28-50 | 40-70 | 55~95 | 60~105 |

## R410A Cooling Only

| Indoor Unit | | | HDC-18CBA | HDC-24CBA | HDC-36CBA | HDC-48CBA | HDC-60CBA |
|---|---|---|---|---|---|---|---|
| Power supply | | V/Ph/Hz | 220-240/1/50 | 220-240/1/50 | 220-240/1/50 | 220-240/1/50 | 220-240/1/50 |
| Capacity | | | | | | | |
| Cooling | Capacity | Btu/h | 18000 | 24000 | 36000 | 48000 | 60000 |
| | | KW | 5.3 | 7.1 | 10.5 | 14 | 16 |
| | Input | W | 130 | 150 | 300 | 260 | 260 |
| | Rated current | A | 0.3 | 0.7 | 1.4 | 1.15 | 1.15 |
| | EER | W/W | 2.61 | 2.78 | 2.62 | 2.66 | 2.68 |
| Physical data | | | | | | | |
| Indoor air flow(Hi/Med/Lo) | | $m^3/h$ | 790/670/540 | 1300/1050/900 | 1700/1300/1100 | 2300/1900/1500 | 2300/1900/1500 |
| Indoor noise level(Hi/Med/Lo) | | dB(A) | 52/48/44 | 48/43/39 | 52/48/44 | 57/52/48 | 57/52/48 |
| Dimension(W×H×D) | | mm | 880×635×203 | 1245×680×247 | 1245×680×247 | 1670×680×247 | 1670×680×247 |
| Packing dimension(W×H×D) | | mm | 970×725×301 | 1325×770×325 | 1325×770×325 | 1750×770×325 | 1750×770×325 |
| Net/Gross weight | | kg | 30/35 | 35/41 | 37/43 | 47/54 | 47/54 |
| Refrigerant type | | | R410a | R410a | R410a | R410a | R410a |
| Piping data | | | | | | | |
| Liquid side/Gas side | | mm | Φ6.35/Φ12.7 | Φ9.52/Φ15.88 | Φ9.52/Φ19.05 | Φ9.52/Φ19.05 | Φ9.52/Φ19.05 |
| Drainag pipe | | mm | DN25 | DN25 | DN25 | DN25 | DN25 |
| Application area | | $m^2$ | 20-35 | 28-50 | 40-70 | 55~95 | 60~105 |
| Stuffing Quantity（Set） | | 40' HQ | 150 | 95 | 70 | 60 | 60 |

# Low ESP Ducted Unit



9K-24K Btu/h

Standard

# Medium ESP Ducted Unit

18K-60K Btu/h

Standard

## R410A Heating Pump

| Indoor Unit | | | CTA-18HR1 | CTA-24HR1 |
|---|---|---|---|---|
| Power supply | | V/Ph/Hz | 220-240/1/50 | 220-240/1/50 |
| Capacity | | | | |
| Cooling | Capacity | Btu/h | 18000 | 24000 |
| | | KW | 5.3 | 7.1 |
| | Input | W | 70 | 150 |
| | Rated current | A | 0.4 | 0.7 |
| | EER | W/W | 2.69 | 2.78 |
| Heating | Capacity | Btu/h | 20000 | 26000 |
| | | KW | 5.9 | 7.7 |
| | Input | W | 70 | 150 |
| | Rated current | A | 0.4 | 0.7 |
| | COP | W/W | 3.35 | 3.42 |
| Physical data | | | | |
| Indoor air flow(Hi/Med/Lo) | | $m^3/h$ | 730/600/500 | 1150/950/700 |
| Static Pressure | | Pa | 0~20 | 0~20 |
| Indoor noise level(Hi/Med/Lo) | | dB(A) | 46/42/37 | 48/42/38 |
| Dimension(W×H×D) | | mm | 1204×181×560 | 1532×181×560 |
| Packing(W×H×D) | | mm | 1310x250x645 | 1625×250×645 |
| Net/Gross weight | | kg | 20/24 | 24/27.5 |
| Refrigerant type | | | R410a | R410a |
| Piping data | | | | |
| Liquid side/Gas side | | mm | Φ6.35/Φ12.7 | Φ9.52/Φ15.88 |
| Drainag pipe | | mm | DN25 | DN25 |
| Application area | | $m^2$ | 20-35 | 28~50 |
| Stuffing quantity（Set） | | 40' HQ | 130 | 120 |

## R410A Heating Pump

| Indoor Unit | | | CTB-18HR1-B | CTB-24HR1 | CTB-36HR1 | CTB-48HR1 | CTB-60HR1 |
|---|---|---|---|---|---|---|---|
| Power supply | | V/Ph/Hz | 220~240/1/50 | 220-240/1/50 | 220-240/1/50 | 220-240/1/50 | 220-240/1/50 |
| Capacity | | | | | | | |
| Cooling | Capacity | Btu/h | 18000 | 24000 | 36000 | 48000 | 60000 |
| | | KW | 5.3 | 7.1 | 10.5 | 14 | 16 |
| | Input | W | 250 | 250 | 300 | 340 | 340 |
| | Rated current | A | 1.1 | 1.1 | 1.4 | 1.6 | 1.6 |
| | EER | W/W | 2.47 | 2.68 | 2.62 | 2.56 | 2.65 |
| Heating | Capacity | Btu/h | 19800 | 26000 | 39000 | 52000 | 60000 |
| | | KW | 5.9 | 7.7 | 11.5 | 15.2 | 16.0 |
| | Input | W | 250 | 250 | 300 | 340 | 340 |
| | Rated current | A | 1.1 | 1.1 | 1.4 | 1.6 | 1.6 |
| | COP | W/W | 3.04 | 3.28 | 3.18 | 2.79 | 2.61 |
| Physical data | | | | | | | |
| Indoor air flow(Hi/Med/Lo) | | $m^3/h$ | 900/750/640 | 1200/980/720 | 1900/1600/1300 | 2000/1700/1400 | 2000/1700/1400 |
| Static Pressure | | Pa | 30~70 | 30~70 | 30~70 | 30~70 | 30~70 |
| Indoor noise level(Hi/Med/Lo) | | dB(A) | 48/44/40 | 48/44/40 | 50/45/40 | 50/45/40 | 50/45/40 |
| Dimension(W×H×D) | | mm | 1189x260x643 | 1189×260×643 | 1425×260×643 | 1425×260×643 | 1425×260×643 |
| Packing dimension(W×H×D) | | mm | 1255x325x720 | 1255×325×720 | 1490×325×720 | 1490×325×720 | 1490×325×720 |
| Net/Gross weight | | kg | 33/36 | 33/37 | 44/48 | 44/48 | 44/48 |
| Refrigerant type | | | R410a | R410a | R410a | R410a | R410a |
| Piping data | | | | | | | |
| Liquid side/Gas side | | mm | ϕ6.35/ϕ12.7 | Φ9.52/Φ15.88 | Φ9.52/Φ19.05 | Φ9.52/Φ19.05 | Φ9.52/Φ19.05 |
| Drainag pipe | | mm | DN25 | DN25 | DN25 | DN25 | DN25 |
| Application area | | $m^2$ | 20-35 | 28-50 | 40-70 | 55~95 | 60~105 |
| Stuffing quantity（Set） | | 40' HQ | 100 | 100 | 70 | 60 | 60 |

# High ESP Ducted Type Unit

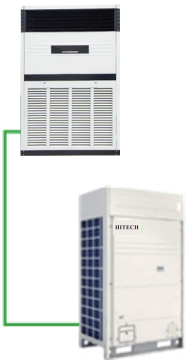
48k~60k Btu/h

Standard

# 8/10HP Outdoor Unit


96K Btu/h

Matching mode

| 10Hp Ducted unit | 10Hp Floor–standing unit |
| --- | --- |
|  |  |

## R410A Heating Pump

| Indoor Unit | | | HRC-48CRA3H | HRC-60CRA3H |
|---|---|---|---|---|
| power supply | | V/Ph/Hz | 220-240/1/50 | 220-240/1/50 |
| Capacity | | | | |
| Cooling | Capacity | Btu/h | 48000 | 60000 |
| | | KW | 14 | 16 |
| | Input | W | 500 | 500 |
| | Rated current | A | 2.3 | 2.3 |
| | EER | W/W | 2.55 | 2.58 |
| Heating | Capacity | Btu/h | 52500 | 60000 |
| | | KW | 15.2 | 16.0 |
| | | W | 500 | 500 |
| | Rated current | A | 2.3 | 2.3 |
| | COP | W/W | 2.71 | 2.54 |
| Physical data | | | | |
| Indoor air flow(Hi/Med/Lo) | | $m^3/h$ | 2300/1900/1500 | 2300/1900/1500 |
| Static Pressure | | pa | 120 | 120 |
| Indoor noise level(Hi/Med/Lo) | | dB(A) | 52/48/44 | 52/48/44 |
| Dimension(WxHxD) | | mm | 1175x370x625 | 1175x370x625 |
| Packing(WxHxD) | | mm | 1245×445×655 | 1245×445×655 |
| Net/Gross weight | | Kg | 45/49 | 45/49 |
| Refrigerant type | | | R410a | R410a |
| Piping data | | | | |
| Liquid side/Gas side | | mm | Φ9.52/Φ19.05 | Φ9.52/Φ19.05 |
| Drainage pipe | | mm | DN25 | DN25 |
| Application area | | $m^2$ | 55~95 | 60~105 |
| Stuffing Quantity（Set） | | 40'HQ | 57 | 57 |

## R410A Heating Pump

| Outdoor Unit | | | HOC-96CFA3 |
|---|---|---|---|
| power supply | | V/Ph/Hz | 380-415/3/50 |
| Capacity | | | |
| Cooling | Capacity | Btu/h | 96000 |
| | | KW | 28 |
| | Input | W | 9400 |
| Heating | Capacity | Btu/h | 105000 |
| | | KW | 30 |
| | Input | W | 9000 |
| Physical data | | | |
| Outdoor air flow | | $m^3/h$ | 12000 |
| Outdoor noise level | | dB(A) | 63 |
| Net dimension (WxHxD) | | mm | 974×1618×766 |
| Packing dimension(WxHxD) | | mm | 1030×1750×825 |
| Net weight | | kg | 194 |
| Gross weight | | kg | 200 |
| Refrigerant Type | | | R410a |
| Charge | | g | 2X5000 |
| Piping data | | | |
| Liquid side | | mm | Φ9.52X2 |
| Gas side | | mm | Φ19.05X2 |
| Max. refrigerant pipe length | | m | 50 |
| Max. difference in level | | m | 20 |
| Application area | | $m^2$ | 140~187 |

## 70K / 96K Btu/h
# Floor-standing Indoor Unit

70k / 96k Btu/h

Standard

## 96K Btu/h High ESP
# Ducted Indoor Unit

96K Btu/h

Standard

## R410a Heating Pump

| Indoor Unit | | | HFC-96CFA3 |
|---|---|---|---|
| Power supply | | V/Ph/Hz | 220~240/1/50 |
| Capacity | | | |
| Cooling | Capacity | Btu/h | 96000 |
| | | KW | 28 |
| | Input | W | 740 |
| | EER | W/W | 2.76 |
| Heating | Capacity | Btu/h | 105000 |
| | | KW | 30 |
| | Input | W | 740 |
| Physical data | | | |
| Indoor air flow (Hi/Med/Lo) (0 pa) | | $m^3/h$ | 4000/3600/3300 |
| Indoor noise level (Hi/Med/Lo) | | dB(A) | 54/50/45 |
| Net dimension (WxHxD) | | mm | 1200×1855×420 |
| Packing dimension(WxHxD) | | mm | 1350×1960 ×452 |
| Net weight | | kg | 120 |
| Gross weight | | kg | 135 |
| refrigerant type | | | R410a |
| Piping data | | | |
| Liquid side | | mm | Φ9.52X2 |
| Gas side | | mm | Φ19.05X2 |
| Drainage pipe | | mm | DN25 |
| Application area | | $m^2$ | 140~187 |
| Stuffing Quantity（Set） | | 40'HQ | 18 |

## R410a Heating Pump

| Indoor Unit | | | HRC-96CRA3H |
|---|---|---|---|
| power supply | | V/Ph/Hz | 220~240/1/50 |
| Capacity | | | |
| Cooling | Capacity | Btu/h | 96000 |
| | | KW | 28 |
| | EER | W/W | 2.64 |
| Heating | Capacity | Btu/h | 105000 |
| | | KW | 30 |
| | COP | W/W | 2.94 |
| Physical data | | | |
| Indoor air flow (Hi/Med/Lo) | | $m^3/h$ | 4400/3800/3300 |
| Static Pressure | | Pa | 120 |
| Indoor noise level(Hi/Med/Lo) | | dB(A) | 55/50/45 |
| Dimension (WxHxD) | | mm | 1440×811×448 |
| Packing (WxHxD) | | mm | 1595×855×560 |
| Net/Gross weight | | kg | 100/104 |
| Refrigerant type | | | R410a |
| Piping data | | | |
| Liquid side/ Gas side | | mm | Φ9.52/Φ19.05 |
| Ambient temp | | °C | DN25 |
| Application area | | $m^2$ | 140~187 |
| Stuffing Quantity | | 40'HQ | 47 |


Hitachi
Hitachi

| Model | | | | HFC-20C1A | HFC-30C3A |
|---|---|---|---|---|---|
| Rated volt and frequency | | | Ph-V-Hz | 220V~50HZ | 380-V/50Hz/3PH |
| Cooling | | Cooling capacity | W | 7600 | 12200 |
| | | Cooling power input | W | 2405 | 3620 |
| | | Cooling current input | A | 10.5 | 7.9 |
| | | EER | w/w | 5.1 | 3.21 |
| Heating | | Heating capacity | W | 8400+2100 | 12300+3000 |
| | | Heating power input | W | 2390 | 3220 |
| | | Heating current input | A | 10.4 | 7 |
| | | COP | w/w | 3.8 | 3.62 |
| Additional electrical heater power input (actual/label) | | | W | 2100 | 3000 |
| Additional electrical heater current input(actual/label) | | | A | 9.5 | 4.6 |
| Max. input consumption | | | W | 7500 | 6500 |
| Max. current | | | A | 25 | 16.5 |
| Compressor | | Model | | ATL232SDNC9AUA | ATH356SDPC9FQ |
| | | Type (Rotary,Piston ,scroll) | | Rotary | Rotary |
| | | Brand | | HIGHLY | HIGHLY |
| Indoor | Fan motor | Model | | MDR-9538-805D | YDK-90-10G 1 |
| | | Power input | W | DC | 280 |
| | | capacity | uF | 70W/570rpm | 5μF/450V |
| | | Indoor Fan Speed RPM | r/min | 540/510/430/400 | High 440±20rpm<br>Med 340±20rpm<br>Low 270±20rpm |
| | Indoor Air Circulation | | m3/h | ⩾1100 | 1700 |
| | Indoor Noise Level dB | | dB(A) | 42~48 | 46~54 |
| | Dimension (L×W×H) | | mm | 520×210×1690 | 600x313x1868 |
| | Packing (L×W×H) | | mm | 618×460×1990 | 750×520×2085 |
| | Net/Gross weight | | Kg | 53/74 | 59/75 |
| Outdoor | Fan motor | Model | | MDR-9538-901M | YDK-150-6H 2 |
| | | Power input | W | DC | 210 |
| | | capacity | uF | 100 | 6 |
| | | Outdoor Fan Speed RPM | r/min | 850 | 850/800 |
| | Outdoor Noise Level dB | | dB(A) | 58 | 59 |
| | Dimension (L×W×H) | | mm | 870×310×700 | 970×370×790 |
| | Packing (L×W×H) | | mm | 990×410×780 | 1120×485×900 |
| | Net/Gross weight | | Kg | 58/62 | 70/78 |
| | Refrigerant type/weight | | g | R410A/2290G | R410A/3200 |
| | Design pressure (Hi/Low) | | MPa | 4.2/1.3 | 4.2/1.3 |
| Refrigerant piping | | Liquid side/ Gas side/Length | mm | ϕ 6+ 12×5000 | ϕ 9.52+ 19.05×5000 |
| | | Max. refrigerant pipe length /Max. difference in level | m | 15/5 | 15/5 |

# Air-cooled
# Modular Chiller

## Features


30kW


60/65kW


130kW

HCH-WRC

### Wired Controller (Optional for chiller, but one chiller system need one controller)

- 2 operation modes: Cooling, Heating
- Timer function
- Operation and error information inquiry
- Forced defrosting operation
- Button lock

| Chiller Type | | | | R410A/50Hz | |
|---|---|---|---|---|---|
| **Model** | | | **HCH-30ZR1** | **HCH-65ZR1** | **HCH-130ZR1** |
| Power supply | | V/ph/Hz | 380-415/3/50 | 380-415/3/50 | 380-415/3/50 |
| **Capacity** | | | | | |
| Cooling | | kW | 30 | 65 | 130 |
| Heating | | kW | 35 | 70 | 140 |
| **Electrical data** | | | | | |
| Power input | Cooling | kW | 11 | 22 | 44 |
| | Heating | kW | 10.5 | 21 | 42 |
| | Max. power input | kW | 15 | 26 | 52 |
| Rated current | Cooling | A | 19 | 38 | 78 |
| | Heating | A | 18 | 37 | 76 |
| | Max. Current | A | 29 | 51 | 102 |
| **Physical data** | | | | | |
| Refrigerant | Weight | kg | 6.5 | 6.5x2 | 6.5x4 |
| | Refrigerant control | | EXV+Capillary | EXV+Capillary | EXV+Capillary |
| | Type | | R410A | R410A | R410A |
| Compressor | Brand | | Copeland | Copeland | Copeland |
| | Type | | Scroll | Scroll | Scroll |
| | Quantity | pcs | 1 | 2 | 4 |
| Fan motor | Quantity | pcs | 1 | 2 | 4 |
| | Air flow volume | $m^3/h$ | 12000 | 24000 | 48000 |
| Evaporator (Water side) | Heat-exchanger type | | Shell and tube | Shell and tube | Shell and tube |
| | Water pressure drop | kPa | 30 | 30 | 40 |
| | Water inlet/ outlet diameter | mm | DN40 | DN100 | DN65 |
| | Water flow volume | $m^3/h$ | 5.16 | 11.18 | 22.36 |
| | Max. Pressure | MPa | 1.1 | 1.1 | 1.1 |
| | Connection type | | Flange connection | Flange connection | Flange connection |
| Dimension (W×H×D) | Net | mm | 1160×2090×900 | 2000×2090×900 | 2000×2090×1700 |
| | Packing | mm | 1240×2250×950 | 2080×2250×950 | 2080×2250×1740 |
| Weight | | | | | |
| | Gross | kg | 330 | 600 | 1120 |
| Control type | | | Wired controller | Wired controller | Wired controller |
| Sound level(semi-anechoic ) | | dB(A) | 62 | 65 | 68 |
| Quantity per 20GP/40GP/40HQ | | Set | 10/21/21 | 6/12/12 | 3/6/6 |
| **Operation range** | | | | | |
| Water inlet temperature | Cooling | ˚C | 9-25 | 9-25 | 9-25 |
| | Heating | ˚C | 30-48 | 30-48 | 30-48 |
| Water outlet temperature | Cooling | ˚C | 5-20 | 5-20 | 5-20 |
| | Heating | ˚C | 35-53 | 35-53 | 35-53 |
| Ambient temperature | Cooling | ˚C | 10-46 | 10-46 | 10-46 |
| | Heating | ˚C | -10-21 | -10-21 | -10-21 |

Remarks(specifications are based on the following conditions):
1.Cooling:water inlet/outlet:12˚C / 7˚C,outdoor ambient temp.of 35°C DB.
2.Heating:water inlet/outlet:40˚C / 45˚C,outdoor ambient temp. 7˚C DB/6°CWB.
3.Water side fouling factor:0.086m2˚C /kW.

# 4-Way Cassette

**Compact 4-way Cassette Type**

300~470CFM

**4-way Cassette Type**

600~1000CFM

300~470CFM


600~1000CFM

## Wireless Controller（for cassette type FCUs）

- Wireless 8m transmission
- 5 operation modes: Auto, Cooling, Dehumidification, Heating, Fan
- Timer ON/OFF setting up to 24Hr
- Temperature control range 16-32˚C
- Three fan speed selection
- Sleep mode function

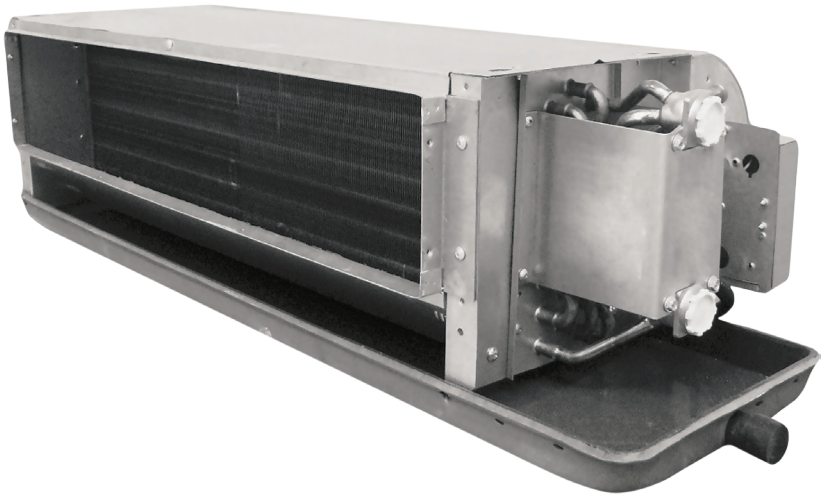
| FCU type | | | Compact 4-way Cassette Type | | |
|---|---|---|---|---|---|
| **Model** | | | **FHC300** | **FHC350** | **FHC470** |
| Power supply | | V/ph/Hz | 220-240/1/50 | 220-240/1/50 | 220-240/1/50 |
| **Capacity** | | | | | |
| Air-flow volume | Hi/Med/Lo | CFM | 300/260/180 | 350/300/210 | 470/400/280 |
| | | $m^3/h$ | 500/430/310 | 600/510/360 | 800/680/480 |
| Cooling | Hi/Med/Lo | kW | 2.8/2.4/1.8 | 3.5/3.0/2.3 | 4.5/3.9/2.9 |
| Heating | Hi/Med/Lo | kW | 4.2/3.7/2.7 | 5.3/4.6/3.4 | 6.8/5.9/4.4 |
| **Physical data** | | | | | |
| Noise level (High-speed) | | dB(A) | 40 | 44 | 44 |
| Water flow volume | | $m^3/h$ | 0.48 | 0.60 | 0.78 |
| Water pressure drop | | kPa | 25 | 28 | 30 |
| Indoor coil | Number Of Rows | | 2 | 2 | 2 |
| | Fin type | | copper tube, aluminum fin | | |
| Fan motor | Quantity | pcs | 1 | 1 | 1 |
| | Power Input | W | 43 | 64 | 65 |
| Indoor unit | Dimension (W×H×D) | mm | 580×275×580 | 580×275×580 | 580×275×580 |
| | Packing (W×H×D) | mm | 745×350×675 | 745×350×675 | 745×350×675 |
| | Net/Gross weight | kg | 22/24 | 22/24 | 22/24 |
| panel | Dimension (W×H×D) | mm | 650×30×650 | 650×30×650 | 650×30×650 |
| | Packing (W×H×D) | mm | 750×95×750 | 750×95×750 | 750×95×750 |
| | Net/Gross weight | Kg | 2.7/4.0 | 2.7/4.0 | 2.7/4.0 |
| Pipe | Water-inlet pipe | mm | DN20 | DN20 | DN20 |
| | Water-outlet pipe | mm | DN20 | DN20 | DN20 |
| | Drainage pipe | mm | DN25 | DN25 | DN25 |
| Controller | | | remote controller(standard) | | |

Remark:
1. Cooling capacity test condition:air side temperature:27DB˚C/19WB˚C,water inlet temperature 7˚C,water temperature difference 5˚C.
2. Heating capacity test condition:air side temperature:21DB˚C,ater inlet temperature 60 DB˚C,water temperature difference 5˚C.

| FCU type | | | 4–way Cassette Type | | | |
|---|---|---|---|---|---|---|
| **Model** | | | **FHC600** | **FHC760** | **FHC880** | **FHC1000** |
| Power supply | | V/ph/Hz | 220-240/1/50 | 220-240/1/50 | 220-240/1/50 | 220-240/1/50 |
| **Capacity** | | | | | | |
| Air-flow volume | Hi/Med/Lo | CFM | 600/510/360 | 760/646/456 | 880/748/528 | 1000/850/600 |
| | | $m^3/h$ | 1000/867/612 | 1300/1098/775 | 1500/1272/898 | 1700/1445/1020 |
| Cooling capacity | Hi/Med/Lo | kW | 5.3/4.6/3.4 | 7.2/6.3/4.7 | 8.5/7.4/5.5 | 10.0/8.7/6.5 |
| Heating capacity | Hi/Med/Lo | kW | 8.0/7.0/5.2 | 10.8/9.4/7.0 | 12.8/11.1/8.3 | 15.0/13.1/9.8 |
| **Physical data** | | | | | | |
| Noise level (High-speed) | | dB(A) | 43-48 | 44-48 | 45-52 | 45-53 |
| Water flow volume | | $m^3/h$ | 1.10 | 1.24 | 1.46 | 1.55 |
| Water pressure drop | | kPa | 36 | 36 | 38 | 40 |
| Indoor coil | Number Of Rows | | 2 | 2 | 2 | 2 |
| | Fin type | | copper tube, aluminum fin | | | |
| Fan motor | Quantity | pcs | 1 | 1 | 1 | 1 |
| | Power Input | W | 140 | 150 | 160 | 180 |
| Indoor unit | Dimension (W×H×D) | mm | 840×230×840 | 840×230×840 | 840×285×840 | 840×285×840 |
| | Packing (W×H×D) | mm | 920×265×920 | 920×265×920 | 920×310×920 | 920×310×920 |
| | Net/Gross weight | kg | 23/28 | 23/28 | 26/31.5 | 28/33.5 |
| panel | Dimension (W×H×D) | mm | 950×50×950 | 950×50×950 | 950×50×950 | 950×50×950 |
| | Packing (W×H×D) | mm | 1030×105×1030 | 1030×105×1030 | 1030×105×1030 | 1030×105×1030 |
| | Net/Gross weight | Kg | 5.4/8.0 | 5.4/8.0 | 5.4/8.0 | 5.4/8.0 |
| Pipe | Water-inlet pipe | mm | DN20 | DN20 | DN20 | DN20 |
| | Water-outlet pipe | mm | DN20 | DN20 | DN20 | DN20 |
| | Drainage pipe | mm | DN25 | DN25 | DN25 | DN25 |
| Controller | | | Wired controller(optional),remote controller(standard) | | | |

Remark:
1. Cooling capacity test condition: air side temperature:27DB˚C/19WB˚C,water inlet temperature 7˚C,water temperature difference 5˚C.
2. Heating capacity test condition: air side temperature:21DB˚C,ater inlet temperature 60 DB˚C,water temperature difference 5˚C.

# Duct Type



200~1400CFM

| FCU type | | | Ducted type (Pro Series) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Model NO. | | | FHR200 | FHR300 | FHR400 | FHR500 | FHR600 | FHR800 | FHR1000 | FHR1200 | FHR1400 |
| Power supply | | V/ph/Hz | 220-240/1/50 | 220-240/1/50 | 220-240/1/50 | 220-240/1/50 | 220-240/1/50 | 220-240/1/50 | 220-240/1/50 | 220-240/1/50 | 220-240/1/50 |
| | | | 208-230/1/60 | 208-230/1/60 | 208-230/1/60 | 208-230/1/60 | 208-230/1/60 | 208-230/1/60 | 208-230/1/60 | 208-230/1/60 | 208-230/1/60 |
| **Capacity** | | | | | | | | | | | |
| Air-flow volume | Hi/Med/Lo | CFM | 200/170/120 | 300/250/190 | 400/340/250 | 500/410/310 | 600/490/370 | 800/680/490 | 1000/820/590 | 1200/970/780 | 1400/1120/840 |
| | | $m^3/h$ | 340/290/210 | 510/420/320 | 680/580/420 | 850/700/520 | 1020/840/620 | 1360/1150/840 | 1700/1400/1000 | 2040/1650/1250 | 2380/2000/1480 |
| Cooling | Hi/Med/Lo | kW | 2.2/1.7/1.1 | 3.3/2.5/1.6 | 4.2/3.3/2.0 | 4.6/3.6/2.2 | 5.8/4.5/2.8 | 7.9/6.2/3.8 | 9.1/7.1/4.4 | 10.8/8.6/7.0 | 12.6/10/7.5 |
| Heating | Hi/Med/Lo | kW | 3.5/2.7/2.2 | 5.3/4.1/3.4 | 6.8/5.2/4.4 | 7.9/6.1/5.1 | 10.0/7.7/6.4 | 13.6/10.5/8.7 | 16.0/12.3/10.3 | 16.2/12.9/10.5 | 18.9/15/11.5 |
| **Physical data** | | | | | | | | | | | |
| External static pressure | | Pa | 12 | 12 | 12 | 12 | 30 | 30 | 30 | 30 | 30 |
| Noise level (High-speed) | | dB(A) | 36 | 37 | 40 | 43 | 47 | 47 | 50 | 51 | 52 |
| Water flow volume | | $m^3/h$ | 0.37 | 0.56 | 0.72 | 0.83 | 1.00 | 1.36 | 1.56 | 1.98 | 2.24 |
| Water pressure drop | | kPa | 14 | 20 | 22 | 24 | 34 | 34 | 40 | 42 | 50 |
| Indoor coil | Number Of Rows | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | Fin type | | copper tube, aluminum fin | | | | | | | | |
| Fan motor | Quantity | pcs | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 |
| | Power Input | W | 30 | 39 | 60 | 76 | 106 | 150 | 172 | 210 | 250 |
| Indoor unit | Dimension (W×H×D) | mm | 770×240×472 | 827×240×472 | 927×240×472 | 927×240×472 | 1140×240×472 | 1440×240×472 | 1546×240×472 | 1835×240×461 | 1835×240×461 |
| | Packing (W×H×D) | mm | 790×265×500 | 865×265×500 | 940×265×500 | 940×265×500 | 1155×265×500 | 1475×265×500 | 1565×265×500 | 1845×265×500 | 1845×265×500 |
| Pipe | Net/Gross weight | kg | 13/15 | 15/17 | 17/20 | 17/20 | 20/23 | 27/31 | 32/35 | 36/40 | 36/40 |
| | Water-inlet pipe | mm | DN20 | DN20 | DN20 | DN20 | DN20 | DN20 | DN20 | DN20 | DN20 |
| | Water-outlet pipe | mm | DN20 | DN20 | DN20 | DN20 | DN20 | DN20 | DN20 | DN20 | DN20 |
| | Drainage pipe | mm | DN25 | DN25 | DN25 | DN25 | DN25 | DN25 | DN25 | DN25 | DN25 |

Remark:

1. All performance data above are based upon 12Pa ESP(200-500); 30Pa ESP(600-1000).
2. Cooling capacity test condition: air side temperature: 27DB℃/19WB℃, water inlet temperature 7℃, water temperature difference 5℃.
3. Heating capacity test condition: air side temperature: 21DB℃, ater inlet temperature 60 DB℃, water temperature difference 5℃.

**Superior Klima**
Zyrat Qendrore: Rr. Sulejman Delvina, Pallati Melrose, pranë Stadiumit Dinamo.Tiranë, Albania | Tel: +355 42 256 230 | **info@superiorklima.al** | **www:superiorklima.com**

Shkodër: +355 68 20 68671 Lezhë: +355 68 20 65935 Elbasan: +355 69 40 24414 Fier: +355 68 20 00744 Sarandë: +355 66 20 08800 Vlorë: +355 66 20 30701

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