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#### Note:

Gree is committed to continuously improving its products to ensure the highest quality and reliability standards, and to meet local regulations and market requirements.

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Distributor information

# **ABOUT GREE**

Gree Electric Appliances, Inc. of Zhuhai was founded in 1991 and it was listed on the Shenzhen Stock Exchange in November 1996. At the beginning, Gree was only a company that assembled residential air conditioners. Now it has grown into a diversified technological global industrial group that has expanded its business to air conditioners, home appliances, high-end equipment and communication equipment. Gree products are sold widely to more than 200 countries and regions.

2005: Gree has topped No.1 in production and sales volume of residential air conditioners for 14 consecutive years.

2015: Gree's sales revenue exceeded 15.08 billion USD.

2016: Gree's sales revenue exceeded 16.51 billion USD.

2017: Gree's sales revenue exceeded 22.21 billion USD.

2018: Gree entered into the list of Forbes Globasl 2000 again and ranked No.294, Moving up 70 places compared with the previous year. Gree's sales revenue exceeded 30.23 billion USD.

2019: Gree has ranked the 414th on the list of Fortune Globle 500.

Thanks to 300 million users 'choices, Gree products are widely sold in more than 200 countries and regions. Today Gree's annual production capacity of RAC and CAC is more than 60 million and 6 million sets respectively.

Action makes the future and innovation makes achievement. Looking forward, Gree will press ahead with its business philosophy of passion, innovation and realization. We aim to build a centenary air conditioning enterprise and create a better life for humanl

# LIGHT COMMERCIAL AC

#### **U-MATCH**

# Fixed-frequency Series



































- > Intelligent defrosting——U-match can start defrosting when it's necessary, which is more energy-saving and comfortable.
- > I-FEEL function——the mini sensor in the remote controller can sense its surrounding temperature, and transmit the signal back to the indoor unit.
- > MODBUS protocol & long-distance monitoring——because of MODBUS protocol, the unit operation information will be sent to the building management system in order to control and monitor the units.
- > Smart zone controller——the indoor unit is equipped with the interface that can be connected with Gree smart zone controller, in order to control on/off, fan speed, temperature setting and timer of a single unit or a group of units.

# LIGHT COMMERCIAL AC

#### **U-MATCH**

#### **Inverter Series**























Compact design Intelligent defrosting





- > All DC inverter design——high-efficiency DC brushless motor was adopted. The efficiency of such motor will be improved by over 30% compared with conventional AC motor. The energy efficiency of the entire unit will be improved by 15% under low frequency operation.
- > 180 ° sine wave technology——Gree advanced DC inverter 180 ° vector control ensures the stable operation in the frequency as low as 10Hz. Energy-saving up to 20% per year (compared with the common AC).
- > Precise temperature control technology——the load variation from 10% to 120% and maintains the room temperature within 1°C of set temperature.

# LIGHT **COMMERCIAL AC**

# **TOP DISCHARGE CONDENSING** UNIT & INDOOR UNITS.

# Fixed-frequency Series















Wide operation









- > Double ambient temperature sensor control ensures more precise temperature adjustment and makes user feel more comfortable.
- > Strong self-protection function: the unit can conduct shutdown protection in time to avoid damage of unit. Corresponding fault code will be displayed.
- > Corrosion-proof fin: the heat exchanger can withstand long-time salt spray test that its corrosion resistance is greatly improved.
- > Wide operation voltage range——187~254V.

# LIGHT COMMERCIAL AC

#### **FDUCT TYPE SPLIT UNIT**











Wide

Comprehens







- > All DC inverter for high efficiency and energy saving;
- > High static units for longer ducted runs.
- > ESP is up to 250 Pa.
- > Static pressre is adjustable

# LIGHT COMMERCIAL AC

### **"ROOFTOP PACKAGED UNIT"**













olden fin

in In er

Energy saving func

High efficiency

ompact design Intelligent defrosting

Easier aintainability













- > DC inverter design for automatic and fast adjustment of capacity output, reducing power consumption and achieving high efficiency.
- > Wide voltage range design, perfectly adapted to the fluctuation of power grid during peak periods or under other conditions, safe and reliable.
- > Multiple protection design for effective protection of key components, safe and reliable.
- > Anticorrosive heat exchanger with fins treated with high anticorrosive coating and passing 1500h neutral salt spray test, capable of good anticorrosive performance.
- > Two-core non-polar communication design with strong anti-interference ability and long communication distance up to 100m. Ordinary communication wire can be used, flexible and convenient.
- > Auxiliary controller design, connectable to centralized controller and building management system, flexible and convenient for using.

# LIGHT COMMERCIAL AC

### **WATER-COOLED PACKAGED UNIT**





maintainability







Wide volta

Wide volta





- > Capacity range is from 16kW to 196kW;
- > High energy efficiency and compact packaged design (reliability \( \text{transportability} \) is highly approved)

# MULTI-VRF

### **GMV SERIES**

# Photovoltaic direct-driven inverter multi VRF



















Inner groot copper

groove Compact design pper

Easier aintainability

rai

ge s







All DC inverter Human engineering Wide operati technology operation range



- > Zero electricity charge——photovoltaic direct-driven technology.
- Gree photovoltaic direct-driven inverter multi VRF system breaks through tradition, combining photovoltaic power generation with power consumption of air conditioner for the first time.
- > Zero wastage——ternary converting technology.
- It can not only achieve zero electricity charge, but also generate power to the grid, benefiting energy conservation and emission reduction.
- > Inverter technology
- Energy efficiency improved by 6%--8% and photovoltaic utilization ratio up to 99%.
- > Five working modes——air conditioning mode, photovoltaic mode, photovoltaic air conditioning mode, photovoltaic air conditioning & power generation mode, photovoltaic air conditioning & power consumption mode.

## **MULTI-VRF**

#### **GMV SERIES**

#### **GMV5** Home











Golden fin Inner groove

High efficiency













- > Five Basic Modes—unique five-mode operation is a breakthrough in traditional heat recovery technology where heating and water-heating cannot be achieved at the same time.
- > Wide Range of Operation Condition——outdoor operation temperature range is improved to -5 ℃~50 ℃ in cooling and -15 ℃~24 ℃ in heating.
- > Auto Heat Recovery in Cooling ---- when the indoor units are set in cooling mode, the heat which should be discharged into the environment is transferred to hot water, which is free of charge. System high pressure is reduced and energy consumption is reduced by 10%.
- > Air Source Heat Pump Technology——GMV5 Home requires only 1 kW of electricity to pump over 4 kW of heat into your home.
- > Intelligent Water Tank Defrosting Technology——During defrosting of conventional unit, indoor unit will switch to low pressure side(indoor heat getting) and room temperature will decrease by 4~6°C after completing defrosting. Water tank defrosting won't affect indoor temperature at all.

## **MULTI-VRF**

#### **GMV SERIES**

# GMV5(Heat pump)/GMV5(Cooling only)













Energy saving function

nrotection





- > All DC inverter compressor and high-performance high pressure chamber are adopted to reduce loss of overheat and improve compression efficiency from direct intake.
- > Sensorless DC inverter fan motor——stepless speed regulation ranges from 5Hz to 65Hz. Compared with traditional inverter motors, the operation is more energy-saving.
- > Max. capacity of single outdoor unit reaches 22HP and max. combination capacity is even up to 88HP, reaching industry leading level.
- > Non-polar CAN technology provides quicker system response speed, more convenient installation debugging and more reliable communication data.
- > Outdoor operation temperature range: GMV5 (Heat pump): cooling: -5 C ~52 C, heating: -20 C ~24 C GMV5 (Cooling only): cooling: -5 °C ~50 °C
- > SRL(Self-reaction Load) can intelligently detect and control system parameters and automatically adapt to indoor cold/heat load requirement to reducing unit's power and improve the energy efficiency.

# **MULTI-VRF**

### **GMV SERIES**

#### **GMV5 HR**















High efficiency





range





- > High Efficiency——GMV5 Heat Recovery System embodies the excellent features of GMV5. Its energy efficiency is improved by 78% compared with conventional multi VRF.
- > Five Efficient Operation Modes——Fully Cooling Mode; Fully Heat Recovery Mode; Mainly Cooling Mode; Mainly Heating Mode; Fully Heating Mode.
- > All DC Inverter Technology----It can directly intake gas to reduce loss of overheat and improve efficiency.
- > Wider applicable location——GMV5 can realize a combination of 4 outdoor unit modules connecting with as many as 80 indoor units. It's especially applicable for business building or hotels.

# **MULTI-VRF**

### **GMV SERIES**

#### GMV5 Mini & Slim

















Turbo function

Wide voltage Compact design

Comprehensive







- > All DC inverter technology to improve compression efficiency.
- > Sensorless DC inverter fan motor——stepless speed regulation ranges from 5Hz to 44Hz. Compared with traditional inverter motors, the operation is more energy-saving.
- > 180° sine wave DC speed varying technology——it can satisfy various places' demands for different temperature and is able to save a great deal of electricity and provide users with utmost comfort at the same time.
- > Outdoor operation temperature range is improved to -5°C~52°C in cooling and -20°C~27°C in heating.

# **MULTI-VRF**

### **GMV SERIES**

### **GMV5 Max**

















Easier maintainability



- > All DC inverter technology to improve compression efficiency——all DC inverter compressor and high-performance high pressure chamber are adopted to reduce loss of overheat and improve compression efficiency from direct intake.
- > Sensorless DC inverter fan motor——stepless speed regulation ranges from 5Hz to 65Hz. Compared with traditional inverter motors, the operation is more energy-saving.
- > Wide range of operation condition——outdoor operation temperature range is improved to -5°C~52°C in cooling and -20°C~24°C in heating.
- > High efficiency and more energy saving——thanks to the advanced DC inverter compressor and DC fan, optimized system design and accurate intelligent control technology.

## **MULTI-VRF**

## **GMV SERIES**

#### GMV5C









maintainability





- > High efficiency and more energy saving——thanks to the advanced DC inverter compressor and DC fan, optimized system design and accurate intelligent control technology.
- > Intelligent defrosting control——through real-time detection of operation parameters of the system, it can decide the defrosting time by intelligently estimating the thickness of frost, high pressure of system and blockage status of heat exchanger.
- > Lower power consumption queration mode——power consumption limitation can be set according to 100%, 90% or 80% of the capacity of complete unit.

# 0 1 5 / 0 1 6

# **MULTI-VRF**

# **GMV SERIES**

# **GMV5CP**









High efficiency Intelligent defrosting

Easie

Energy saving func



- > High Efficiency and more energy saving——thanks to the advanced DC inverter technology, optimized system design and accurate intelligent control technology.
- > 88HP Max Capacity-the largest free combination—max capacity of single outdoor unit reaches 22HP and max combination capacity is even up to 88HP, reaching industry leading level.
- > The GMV5 CP unit adopts corrosion-resistance materials on both metal and electronic parts and it can be installed near the sea.

# **MULTI-VRF**

# **GMV SERIES**

# Indoor unit

#### **Specifications of Indoor Units**

Type of indoor unit	Specification	22	25	28	32	36	40	45	50	56	63	71	72	80	90	100	112	125	140	160	224	250	280	450	560
High Static Pressure Duct Type Unit		•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•		•		
Low Static Pressure Duct Type Unit		•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•						
360° Air Discharge Cassette Indoor Unit				•		•		•	•	•	•	•		•	•	•	•	•	•	•					
360° Air Discharge Compact Cassette Indoor Unit		•		•		•		•	•	•															
2-way Cassette Indoor Unit				•		•		•	•	•	•	•													
1-way Cassette Unit		•		•		•		•	•	•															
Wall- mounted Type Unit	-	•		•		•		•	•	•	•	•		•	•	•									
Floor Ceiling Type Indoor Unit	-			•		•			•	•	•	•			•		•	•	•	•					
Console Indoor Unit		•		•		•		•	•																
Floor Standing Type Indoor Unit																•			•						
Fresh Air Processing Indoor Unit																		•	•		•	•	•	•	
AHU KIT						•						•							•				•		•
Concealed Floor Standing Type		•		•		•		•		•	•	•													

# FREE MATCH & SPECIAL AC

### FREE MATCH

#### Free match















4 High efficiency









> Capacities range from 14K Btu/h to 42K Btu/h; it can be widely used in residential house, hotel, business office; especially in variable loading situation.

# FREE MATCH & SPECIAL AC

### **FREE MATCH**

# Super free match



































Console type

- > Capacities range from 42K Btu/h to 56K Btu/h; it can be widely used in residential house, hotel, business office; especially in variable loading situation.
- > Power supply startup delay design, lower the unit starting current.
- > High efficiency thanks to DC inverter compressor.
- > The lowest noise thanks to advanced technology.
- > The system could run stably under hard operation conditions.
- > Connection pipe up to 145m, convenient for installation.

# FREE MATCH & SPECIAL AC

**SPECIAL AC** 

## Close control air conditioner



















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

# FREE MATCH & SPECIAL AC

**SPECIAL AC** 

# Marine air conditioner



















- > 360° degree air blowing.
- > Outlay electric box for easy installation and maintenance.
- > Low start-up current thanks to power delay control design.
- > Forced operation is available for emergency situatioin.

# FREE MATCH & SPECIAL AC

**SPECIAL AC** 

## Elevator air conditioner















Wide voltage

Low volta



- > Intelligent control according to the operation status of elevator.
- > Compact structure.
- > Innovative malfunction feedback function.
- > Fresh air supply.

# CHILLER

### **CENTRIFUGAL CHILLER**

# Photovoltaic direct-driven inverter centrifugal chiller





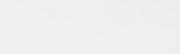














Quiet function

Comprehensive protection



- > World-leading——utilization ratio of photovoltaic power is up to 99%. This system efficiency is improved by 6%~8%.
- > Five working modes--air conditioning mode, photovoltaic mode, photovoltaic air conditioning mode, photovoltaic air conditioning & power generation mode, photovoltaic air conditioning & power consumption mode.
- > Units are consistent with photovoltaic characteristics. Optical energy can be fully utilized to realize free electricity.
- > Excess power can be uploaded to power line to avoid power waste.

#### **CENTRIFUGAL CHILLER**

# CE series water-cooled centrifugal chiller

















Comprehensive Centralized control





> Core technology——high efficiency

Two-stage compression technology; multiple noise reduction technologies; double independent systems; system positive pressure design.

- > Core components——stable and reliable Semi-hermetic motor; high-efficiency heat exchanger; variable section diffuser; on-board startup cabinet.
- > Control center with colorful touch screen display.
- > The control circuits adopt low-voltage DC24V control for safety concern. It is applicable to a wider power range.

# **CHILLER**

### **CENTRIFUGAL CHILLER**

# CVE series permanent magnet synchronous inverter centrifugal chiller

























- > As it adopts high-efficiency motor direct-driven two-stage impellers with simpler structure for more reliable operation, the size and weight of compressor is only 40% of the conventional compressor with the same cooling capacity.
- > It adopts high-efficiency permanent magnet synchronous inverter motor, whose power is over 400kW and rotation speed is over 18,000rpm. Meanwhile, the helical refrigerant ejecting cooling technology is adopted to ensure high-efficiency operation of the motor.
- > The design of impeller and diffuser is optimized for achieving high-efficiency operation of compressor in various loads.
- > It adopts patented sensor control technology to control the position of motor precisely and improve the reliability.

### **CENTRIFUGAL CHILLER**

# CC series magnetic bearing inverter centrifugal chiller











- > It adopts magnetic bearing to achieve oil-free operation and reduce the heat exchange influence of lubricant.
- > The system adopts flooded heat exchange design and build-in subcooler in condenser.
- > Impellers directly driven by the motor with gearless design, improving the reliability of the system.
- > With advanced and reliable microcomputer control system, powerful group control modules and building communication interface.

# CHILLER

#### **SCREW CHILLER**

# High-efficiency modular air-cooled screw chiller



















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

#### **SCREW CHILLER**

# High-efficiency heat pump air-cooled screw chiller





















- > Highly efficient and energy saving;
- > Gree's efficient air-cooled heat pump specialized compressor;
- > Heat pump flooded type shell-and-tube design;
- > V-shaped fin structure, efficient heat exchange design;
- > Seamless connectivity on site; cooling capacity can be enlarged infinitely;
- > Totally enclosed structure, patent low noise and low vibration design, safe and comfortable.

# CHILLER

### **SCREW CHILLER**

# High-efficiency water-cooled screw chiller













- > Semi-closed dual screw compressor for high-efficiency unit.
- > Thanks to brand new air discharge low pressure loss pipeline design, resistance of the air discharge side is only 5kPa.
- > Efficient heat exchanger, intensifying the heat transfer efficiency of water side and refrigerant side at the same time, further enhances energy efficiency of water chiller.
- > By adopting efficient vertical oil separator, the structure is tight. Through cyclone separation, inertial impaction, natural setting and adsorption separation, oil and gas is separated thoroughly. Oil separation efficiency is up to 99.98%.

#### **SCREW CHILLER**

# Permanent magnetic synchronous inverter screw chiller











Long-distance Centralized control



- > Independent adjustment and control of pressure ratio and load——adjusting the load through revolving speed, and continously adjusting the pressure ratio through slide valve, which achieves a perfect match between the pressure ratio, load and actual working conditions. No over-compression and under-compression, effectively improving the efficiency of compressor under all working conditions.
- > It adopts high-efficiency permanent magnet synchronous inverter motor, no excitation loss, creating an automatic optimization method of load probability. The rated efficiency of motor can be up to 97.5%, which is 4% higher than the asynchronous motor, and can achieve 95% for all working conditions.
- > Double-side driven GRZ molded lines——effectively improve the efficiency of compressor; volumetric efficiency can be up to 95%; adiabatic efficiency can be up to 78%.
- > Falling film evaporator——multi-layer uniform spray design for uniform liquid separation, with high heat transfer efficiency, reducing refrigerant consumption by 35%.

# CHILLER

#### **SCROLL CHILLER**

#### Water-cooled scroll chiller

saving function















- > World-famous scroll compressor——adopts the flexible scroll compressor and sealed vortex, with small abrasion, good reliability and high energy efficiency ratio; stable operation and low noise:
- > Efficient shell and tube evaporator——adopt liquid separation sharing technology to ensure even heat transfer capacity. Evaporation temperature will be increased and overall unit capacity and energy efficiency will be improved.
- > Efficient shell and tube condenser——adopt efficient heat exchange tube to improve fluid state of refrigerant side, enhancing heat exchange area and heat exchange efficiency.

### **SRCOLL/ROTOR CHILLER**

### Modular Air-cooled scroll/rotor chiller













Wide voltage

Comprehensive

Quiet function Intelligent defrosting











#### > No master and slave module

Any module can be a master module. Different modules can be combined freely regardless of their different capacity. Therefore, units can have various kinds of capacity to meet wide application range. If one unit fails to function normally, the rest of units within the module can operate normally in order to ensure cooling supply of the entire system.

#### > Uninterrupted heating in winter

For modular combination, the number of defrosting modules is set automatically so that not all of the modules will be in frosting at the same time. System performs heating and defrosting in good order for comfortable air conditioning and higher defrosting efficiency.

#### > Module balanced operation

Operation time of module is automatically balanced. This is to avoid overuse of a single module and to extend unit's service life.

#### > Multistage anti-freezing

Unit adopts multipoint anti-freezing control. Each module has its own water flow switch to protect itself from frost crack caused by uneven water flow or bad working condition.

# CHILLER

### **INVERTER MINI CHILLER**

# Heat pump R410 series









Easier





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

# CHILLER **SCROLL CHILLER**

# Integral type











- > Up-inclined air outlet design with high flexibility——the unit's cooling heating performance will not be affected by seasonal wind and installation place thanks to this design, especially suitable for installation site with limited floor height and building distance;
- > Scroll compressor with high efficiency——high-quality scroll compressor is adopted with the advantages of less moving parts, smaller noise and vibration, higher raliability and efficiency;
- > cost-effective installation and convenient operation——the unit is equipped with water pump, expansion tank, automatic water makeup valve and safety valve.

# **TERMINAL FAN COIL UNIT**

# **Concealed Ceiling Type**















- > With small size, the installation of unit is flexible and convenient, occupying small space so as to coordinate the decoration;
- > Plastic fan with low weight is adopted, providing bigger air volume under driving of the same motor. The air distribution inside the unit is even with low flowing noise;
- > standard series adopts small enthalpy difference design, suitable for the application with high comfort demand and high regulation precision.

## **FAN COIL UNIT**

# Cassette Type















(Y)

Self-diagnosis



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

# **TERMINAL**

### **FAN COIL UNIT**

# Floor Ceiling Type

























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

### FAN COIL UNIT

# Wall Mounted Type















- > Thanks to optimized air flue design that greatly improve the fan efficiency and lower the opera-
- > Reasonable airflow that makes an even temperature and humidity distribution.
- > The unit is with air valve for more reliable operation.

# **TERMINAL**

## **FAIR HANDLING UNIT**

# Horizontal Mounted Packaged/ **Vertical Mounted Packaged**











- > Anti corrosion thanks to the case made up of double surfaces painted and galvanized sheet-metal.
- > With the access door, easy to maintenance the motor and adjust the belt.
- > With the water discharge valve. Water inside the coil can be discharged completely, to avoid the coil cracked by frozen water during winter.
- > The heat exchanger stream is designed optimize, and the heat exchange ability of the heat exchanger can be utilized to maximum.

### **FAIR HANDLING UNIT**

# Hydronic Air Handling Unit













old Quiet function Multi fa





- > Beartiful appearance and long lifespan—the outer surface of unit adopts high-quality painted steel plate(color steel plate is optional) for effective anti-corrosion.
- > High-intensity case——the close frame is made up of 2mm aluminium extruded section and 3D glass fiber angle brace. its strength is much bigger than normal open frame, which can reduce torsional deflection in max design wind pressure and ensure stable performance in various bad environments.
- > Good airtightness and anti-cold bridge design—the case adopts unique anti-cold bridge aluminum alloy with high-pressure polyurethane in the double-layer panel. in addition to the neoprene and PVC double-layer sealing structure, it can prevent cold bridge completely and ensure the leakage rate of case within 1%.

# TERMINAL

### **"VENTILATION"**

#### **ERV**















- > Four models in a range of 350~1000m³/h fit for different spaces and reduce the waste of power.
- > Filter and heat exchange core can be easily taken out from the access for cleaning.
- > Internal air filter keeps the fresh air introduced into room pure and dustless.
- > With antibacterial and anti-mildew materials, the heat exchange core is suitable for healthy.

## **[VENTILATION]**

### Air Curtain











Easier maintainabil



- > Air Flue Design——optimized air flue design can greatly improve the fan efficiency and lower the operation noise.
- > Flexible Installation——flexible air inlet/outlet directions, meet different installation requirements.
- > Washable Filter——washable filter is optional when equipped with air return box.
- > Wide Application—usable for both 50/60Hz.

# **TERMINAL**

## **[VENTILATION]**

### Diffuser













- > Anti-corrosion——the painted double-faced electro-galvanize or hot-electro-galvanized metal case ensure its longer life span.
- > Easy Maintenance——detachable panel and adjusted motor base make it easily for maintenance.
- > Anti-frost crack Design for Heat Exchanger——with proper designed water discharge valve, complete water discharging is ensured, so that the copper tube will not be frost cracked during winter.

# AIR TO WATER HEAT PUMP

#### MULTIFUNCTIONAL HEAT PUMP

# Versati [ (Split type)]















rgy Quiet function Cor

**Easier** 

Easier maintainability



- > This unit is very powerful, smart and user-friendly, featuring various functions including holiday mode, absence mode, quiet mode, quiet preset, clock timer, weekly timer, holiday exclusion, floor setting, environment dependency mode.
- > Cooling performance satisfies EU ERP energy efficiency, with a rating up to A++. Motor and water pump elements conform to the requirements set out by the EU eco directive.
- > It can perform cooling, heating, water heating, cooling+water heating, and heating+water heating, and can be connected to radiator, floor or fan coil for heat radiation.

# AIR TO WATER HEAT PUMP

#### MULTIFUNCTIONAL HEAT PUMP

# Versati Ⅱ + (Split type)

















Golden fin condenser

oner groove copper

Auxiliary electric High heater

saving function

Quiet function

ction Compa



Easier maintainability



- > Twin rotary DC inverter compresoor creates comfortable living circumstance and saves energy.
- > The electronic expansion valve guarantees that the system made adjustments automatically according to the changes of the circumstance and water temperature.
- > Smart dual-temperature detection control technology.
- > the disinfection function at a high temperature up to 70°C can prevent the growth of bacteria and ensure sanitary water, creating a wholesome life for users.

# AIR TO WATER **HEAT PUMP**

## **"MULTIFUNCTIONAL HEAT PUMP"**

# Versati III (Monobloc type)







































24:00

Clock display





- > Floor debugging function;
- > Integrated structure, simple installation, less installation cost;
- > R32 refrigerant, low GWP;
- > Adopt two-stage compressor to widen the ambient temperature range for heating;
- > Leaving water temperature up to 60°C, applicable to various heating terminals.

# AIR TO WATER **HEAT PUMP**

### **"MULTIFUNCTIONAL HEAT PUMP"**

# 



























24:00

Clock display











- > Floor debugging function;
- > Integrated structure, simple installation, less installation cost;
- > R32 refrigerant, low GWP;
- > Adopt two-stage compressor to widen the ambient temperature range for heating;
- > Leaving water temperature up to 60°C, applicable to various heating terminals.

# AIR TO WATER **HEAT PUMP**

#### MULTIFUNCTIONAL HEAT PUMP

# Versati Ⅲ (All in one)















- > With functions of timer, thermostat linkage control, weather dependent, etc.
- > With compact indoor unit, built-in 3-way valve and expansion vessel, convenient for instal-
- > GWP and refrigerant-charging volume is 32% and 70% of R410a respectively; CO2 emission is reduced by 75% above
- > Support 20 languages; with APP smart control
- > Adopt two-stage compressor to widen the ambient temperature range for heating;
- > Leaving water temperature up to 60 °C, applicable to various heating terminals.

# AIR TO WATER **HEAT PUMP**

## **COMMERCIAL WATER HEATER**

# **Circulating Water Heater**



















#### > Wide Range of Operation

Wide ambient temperature range Specially designed for users of various regions. It can be steadily operated within the temperature range of -26 °C ~46 °C, and provide hot water for users all the year round.

#### > Various System Protection Function

Water heater unit possesses a set of complete operational protection system. The advanced microcomputer control system has a powerful error self- diagnosis function to ensure reliable and high-efficiency operation of unit.

#### Protection function of main unit

Extract: compressor high pressure protection, compressor low pressure protection, compressor overload protection, anti-freeze protection, winter auto anti-freeze protection, water flow switch protection, water level switch error protection, temperature sensor error protection, reverse phase protection, high air exhaust temperature protection, etc.

#### **Energy-saving Operation Project**

> In the commercial water heating engineering, by reason of different using location and using habit, this energy-saving air source heat pump water heater may not achieve a better energy-saving effect. For example: long-term operation of back water pump may lead to heat loss of end pipe networks and waste of electricity, etc.

#### > Intelligent water returning-instant heating

User end auto water returning function can achieve instant heating of end pipe network for convenient using.

The end water temperature can be freely set to satisfy different demands.

Water returning has timer function that it can be set to be started up at the desirable using period, so as to ensure comfortable water using and reduce heat waste.

#### > Intelligent Defrost Function

4-way-valve reversing defrost. Upon reversing of 4-way-valve can absorb heat from water tank and achieve defrost. Through which can realize thoroughly defrosting with short defrosting time and high efficiency.

Different defrosting interval is adopted according to different ambient temperature. It can determine whether to enter into defrosting according to the thickness of frost, so as to ensure the water heating effect.

#### > Self Adapting Error Settlement

The unit is subjected to the influence of exterior environment. When malfunction occurs and the unit closes down, it can intelligently settle the malfunction to prevent starting up of protection that the unit will frequently turn on and turn off, and finally lead to closedown of unit. For example: Prolong the close-down time, automatically eliminate restart method. Ultra temperature decreasing start-up method.

# AIR SOURCE HEAT PUMP WATER HEATER

#### **FRESIDENTIAL WATER HEATER**

# Split Type Heat Pump Water Heater















Automatic energy efficiency optimization technology

wo-stage inverted



- > Flexible control by dual temperature sensors.
- > Distributed water injection design for improving utilization ratio of hot water.
- > Patent self-adaptive adjustment and control technology for electronic expansion valve, higher efficiency and more energy-saving.
- > Humanized technology : 4 kinds of modes for selection( HOT WATER mode; SAVE mode; NIGHT mode; PRESET mode)

# AIR SOURCE HEAT PUMP WATER HEATER

**FRESIDENTIAL WATER HEATER** 

# Integral Heat Pump Water Heater













Automatic energy Two
efficiency optimization technology

Two-stage inve compression technology



- > Applying integral design which combines compressor, evaporator, condenser and water tank in a same cobinet, it can be installed without refrigeration pipe.
- > Hot water supplied all day——the unit will not be affected by night or weather.
- > Controlled by microcomputer to automatically realize heating, thermal insulation, defrosting, and freeze protection.

Note	



# **AWARD AND CERTIFICATION**







































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Australian SAA Safe Certificate



