

- Accumulator
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- Drain Pump & Float Switch
- Electronic Expansion Valve
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- Micro Channel Heat Exchanger
- Muffler & Strainer
- Piping Assembly
- Pressure Relief Valve
- Recore Filter Drier
- Sight Glass
- Solenoid Valve
- Thermostatic Expansion Valve



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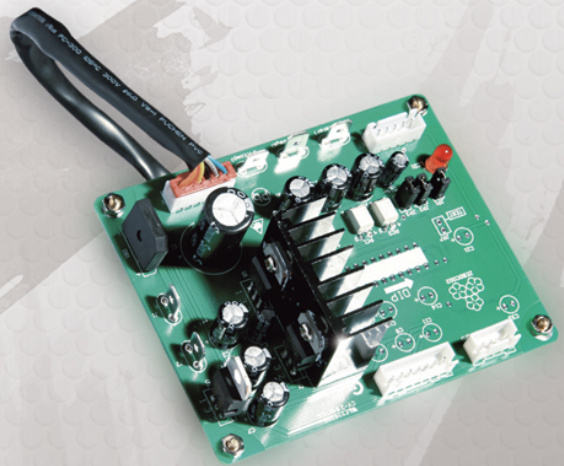
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www.sanhuaeurope.com/catalogue



Controllers



Controller

EEV Controller

01. Outline

Electronic expansion valve controller is applicable for cooling systems such as room air conditioners, commercial air conditioners and freezers which is the core component for refrigerant flow control.

02. Features

- High sharing design:

Adopting sharing PCB design (4 models), applicable for detections of three temperature sensors or one temperature and one pressure sensor

Applicable for split or packaged unit, either cooling or both cooling and heating with various voltage

Applicable for all Sanhua electronic expansion valves allowing trouble-free selection and compatibility for customers

The controller is equipped with a whole set of advanced system control solutions for which parameters could be adjusted according to users' requirements

- High quality design:

Adopting overheat feedback control, PID core algorithm adjustment and control as well as functions such as abnormal protection control, defrosting control and sensor abnormal alarm

Using imported high quality elements for important components to ensure control accuracy of the controller

The bottom is painted with silica gel to improve dust-free, moistureproof and corrosion resistance performance

Controller

Air Conditioning Controller Assembly Inverter Controller for HP Water Heater

01. Outline

Inverter Controller for HP Water Heater is used to realize overall control of the outdoor unit of heat pump and water heating system. Energy efficiency of whole water heating system can be greatly improved by actuating frequency conversion control over DC converter compressor and electrical parts such as outdoor blower, electronic expansion valve and solenoid valves. Normally, the efficiency can be up to 3.2 with incomparable energy saving advantages over other water heating methods.

02. Features

- Intelligent anti-freeze protection under low temperature, suitable for outdoor use in low temperature
- Utilizing active frequency conversion technology for the whole process with a power factor above 98.5%, applicable for a wider range of voltage
- Using DC frequency conversion 180° sine wave actuating technology, increasing torque compensation and more intelligent control
- Multiple stage timing switch to meet the customers' requirements in different time intervals
- Sub-controller can not only control temperature of the water tank but also realize inquiry of real-time temperature and faults etc.
- Available with circuit controlled by electronic expansion valve to better bring the efficiency of the system into full play
- DC frequency conversion blower can be equipped to improve the system efficiency
- Passing EMC tests with the whole frequency meeting national and relevant export standards

03. General spec.

- Applicable voltage: single phase 220V±25%, 3-phase 380V±15%
- Frequency conversion range: 15~150Hz
- Water heating temperature: 0~+55°C
- Water temperature control accuracy: ±0.5°
- Specifications of controllers: inverter 3HP, inverter 5HP, inverter 3HP+fixed frequency 3HP, inverter 5HP + fixed frequency 5HP

Controller

Air Conditioning Controller Assembly Inverter Controller for Large System

01. Outline

Inverter controller for large System is mainly used to control whole electric control systems such in outdoor unit as commercial or multiple inverter air conditioners. They not only realize frequency conversion control over DC converter compressor, but also control all kinds of electric parts such as outdoor blowers, electronic expansion valves and solenoid valves, greatly improving the efficiency of the whole system.

02. Features

- Utilizing active frequency conversion technology for the whole process with a power factor above 98.5%, applicable for a wider range of voltage
- Using DC frequency conversion 180° sine wave actuating technology, increasing torque compensation, more intelligent control
- Available with circuit controlled by electronic expansion valve to better bring whole efficiency of the system into full play
- DC frequency conversion blower can be equipped to improve the system efficiency
- Passing EMC tests with the whole frequency meeting national and relevant export standards

03. General spec.

- Applicable voltage: single phase 220V±25%
- Frequency conversion range: 15~120Hz
- Temperature control accuracy: ±1°
- Specifications of controllers: 1-with-4, 1-with-3, 1-with-2 and 1-with-1 (max. 5HP)
- Compatible indoor units: wall mounted air conditioners, cabinet air conditioners, ceiling air conditioners and duct type air conditioners

	Shared Model	Cooling & Heating Type
Project		
Voltage	DC12V±10%、AC24V±10%、AC100V~AC240V	
Frequency	50Hz/60Hz	
Construction mode	One-unit, duel-panel FR4 design	
Ambient temperature and humidity	-20°C~+70°C、10%~95%	
Storage environment temperature and humidity	-30°C~+85°C、10%~95%	
Rated Electric Input Power	20VA	
Max. Electric Input Power	30VA	
Applicable Expansion Valve Type	Q series, O series, S series, R series, T series	
Applicable Expansion Valve Port Size	1.3mm ~ 6.5mm	
Applicable Expansion Valve Full Open Pulse	500Pulse、2000Pulse	
Applicable Expansion Valve Excitation Mode	1~2 phase excitation, 2~2 phase excitation	
Size	90x70mm 100x80mm、110x90mm、available for customization as per customers' needs	
Certification	3C/CE/ETL/TUV/UL(including EMC)	

Controller

Residential Inverter Controller

01. Outline

Residential inverter controller is applicable for controlling room air conditioners including heat pump air conditioning systems, which is the core component of inverter air conditioners.

02. Features

- High integration design:

In addition to researching and developing electric control products, we also provide whole set of advanced cooling control solutions and structure design, including control of compressors, electronic expansion valves, defrosting, outside temperature, discharge temperature, overheat protection and rotating speed of outdoor blowers

We have laboratories for 10HP multiple indoor system including enthalpy difference laboratory, environment & noise combined laboratory, endurance laboratory, EMC laboratory, electric assembly laboratory, thermal shock tester and a large batch of high precision imported testing devices to ensure a good developing quality

- High quality design:

Mastering core frequency conversion technologies to realize torque compensation control and field weakening, reduce compressor vibration, noise and improve the operation frequency of the compressor

Utilizing imported high quality elements for important components (MITSUBISHI IPM, FairChild IPM, NEC chips and TOSHIBA chips etc.)

Control techniques with multiple solutions to meet various needs of the customers

	1匹	1.5匹	2匹	3匹	4匹	5匹
Nominal Refrigerating Capacity						
Project						
Voltage	220V±25%					
Frequency	50Hz/60Hz					
Frequency conversion range	Passive PFC 15-85Hz/Active PFC 15-120Hz					
Power factor	-Passive PFC : 0.85~0.90					
	Part PFC : 0.95~0.98					
	Whole range PFC : 0.97~0.997					
Construction	One-unit design/Split design			Split design		
Allowed ambient temperature	-15°C~+55°C					
Compressor actuating method	150°wide-angle actuating/Sine wave actuating					
Outdoor blower	DC blower/AC blower					
Thecttle mode	Electronic expansion valve/capillary tubes					
Actuating compressor	GMCC, Panasonic, Hitachi, Sanyo, MITSUBISHI etc.					
Certification	3C\CE\ETL\TUV(including EMC)					