



# **SANHUA**

# GENERAL PRODUCT

## Catalogue

Air  
conditioning

Commercial  
refrigeration

Heat Pump



SANHUA

CHILLING IDEAS  
WORLDWIDE



# SANHUA

*“Strive for perfection  
Pursuit of excellence”*

Sanhua is a leading HVAC&R manufacturer of controls and components with a global footprint and 35 years of experience. Our cooperation with the largest companies in the Automotive, Appliance and HVAC&R industry makes Sanhua a leading worldwide OEM supplier providing the highest quality components at the most competitive price.

# HUA

## 三花

**SANHUA IS LISTED AMONG TOP 100 STRONGEST CHINESE INDUSTRIAL BRANDS.**

After sustainable growth over the last 3 decades, Sanhua have made significant progress to introduce a comprehensive range of controls and line components for the Commercial Air conditioning and Refrigeration Industries and to increase its service level coverage in the most important European markets.

CHILLING IDEAS  
WORLDWIDE

# SANHUA

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Technical information  
**sanhuaeurope.com**

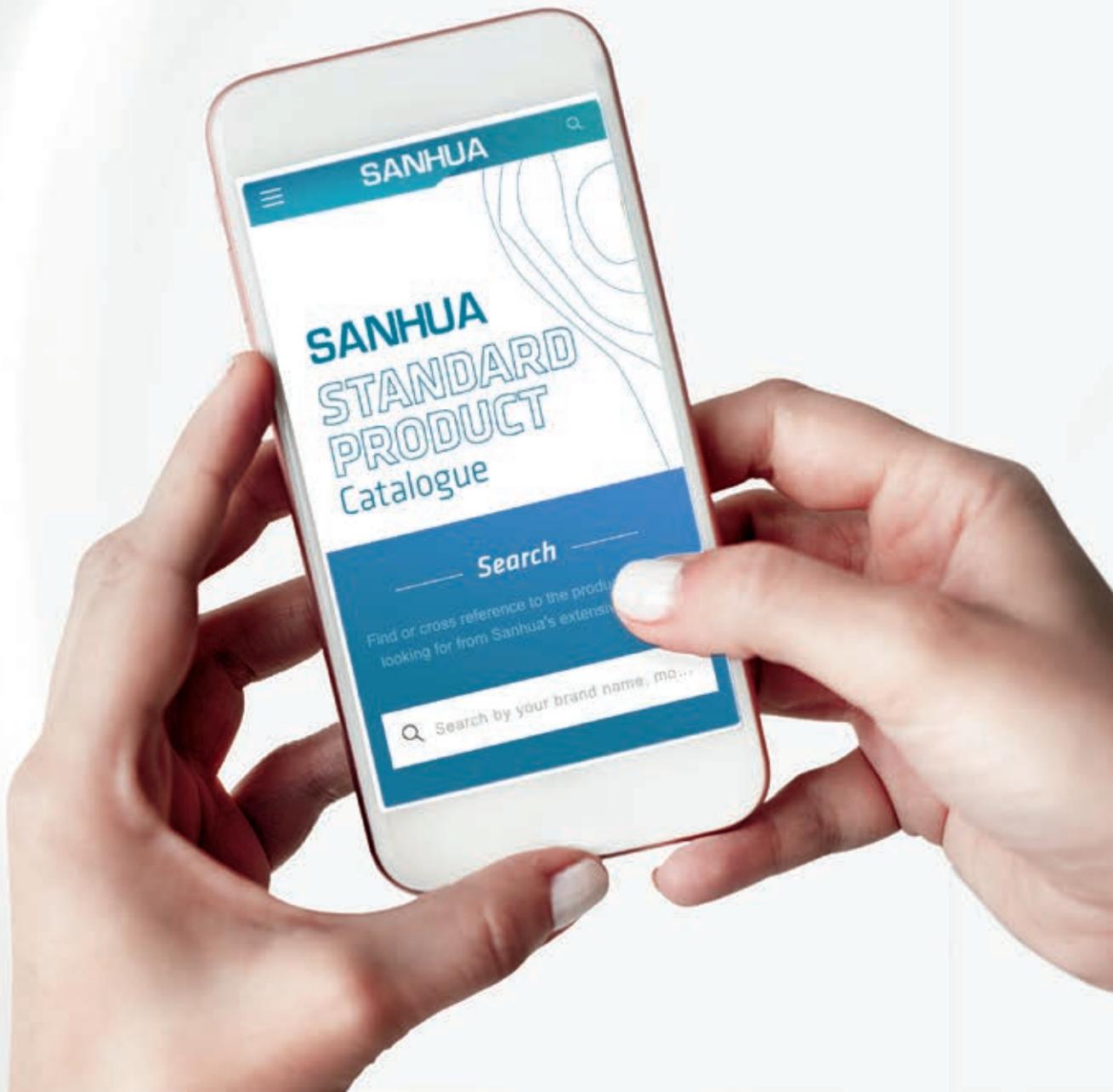


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**CATALOGUE**



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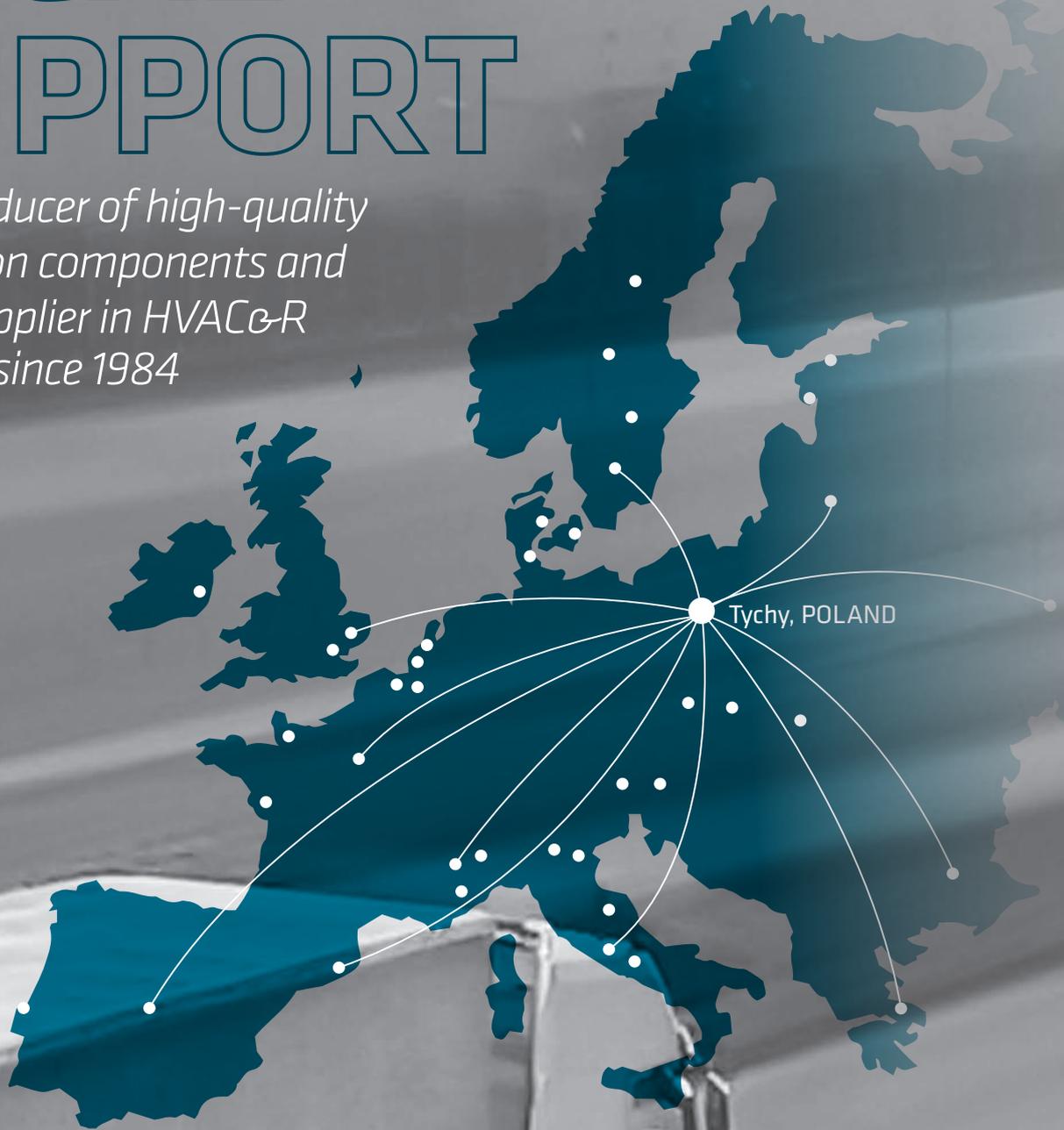


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# GLOBAL FOOTPRINT & LOCAL SUPPORT

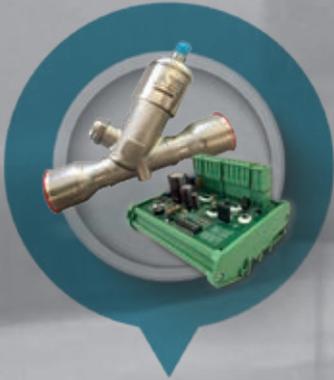
*Global producer of high-quality  
refrigeration components and  
leading supplier in HVAC&R  
industries since 1984*



SANHUA

**SANHUA**

# KEEPS YOU ONE STEP AHEAD OF THE COMING EFFICIENCY AND ENVIRONMENTAL EUROPEAN CHALLENGES



## EEV TECHNOLOGY AND ELECTRONIC CONTROLS

IMPROVES HVAC&R SYSTEM EFFICIENCY UP TO 20%

DPF&VPF SERIES FROM 2KW TO 1400KW

\*75KW AND 1400KW AVAILABLE IN QUARTER 4

ADVANCED MSS (*MINIMUM STABLE SUPERHEAT*) CONTROL LOGIC

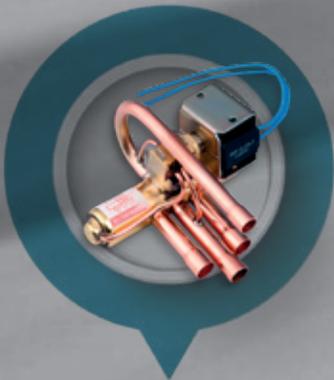
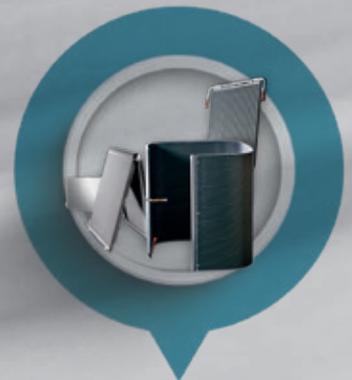


## MICRO-CHANNEL HEAT EXCHANGERS

IMPROVES EFFICIENCY BY 30%

REFRIGERANT CHARGE REDUCTION BY 30% *ENVIRONMENTAL FRIENDLY*

MCHE IS LIGHTER IN WEIGHT, SMALLER IN VOLUME *COMPACT DESIGN*



## FOUR WAY REVERSING VALVE

IMPROVES EFFICIENCY BY 5%

SHF SERIES 1KW TO 420 KW

WIDEST RANGE IN THE MARKET WITH SINGLE BODY DESIGN

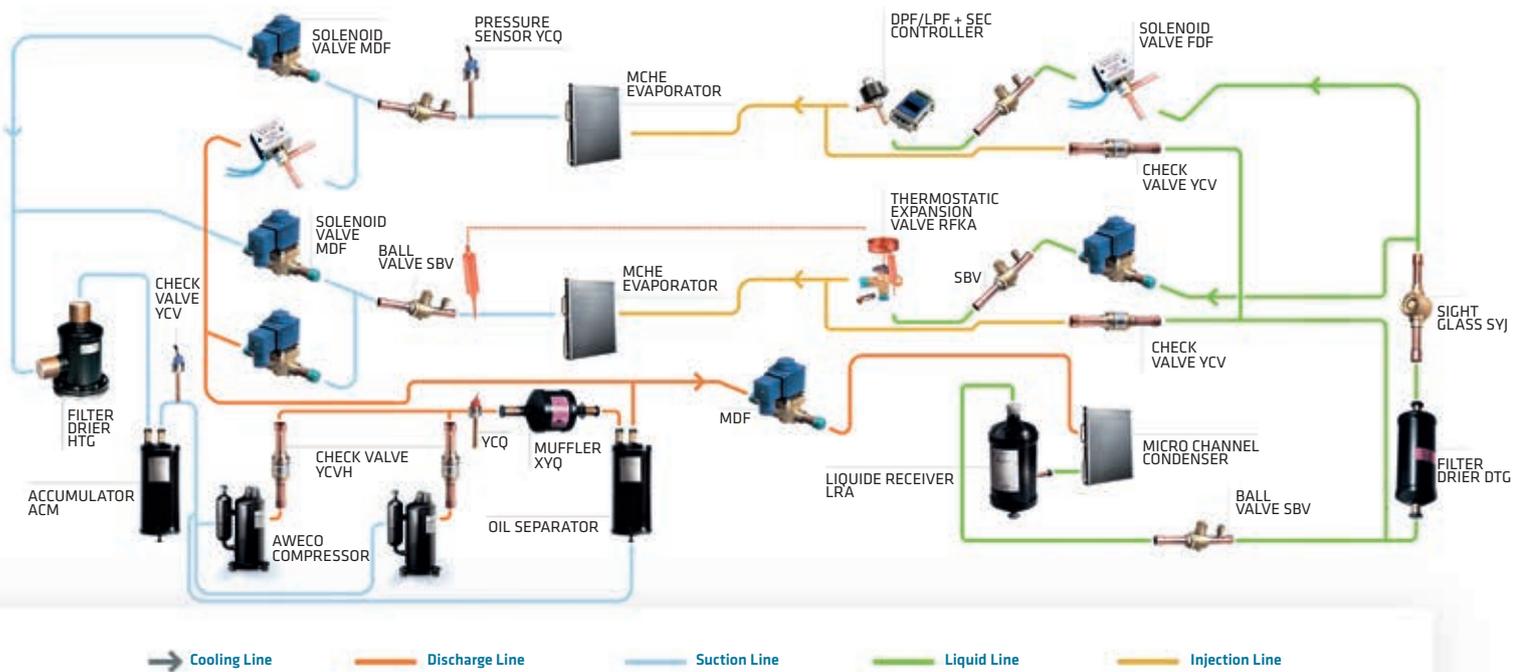


# YOUR ROAD MAP TO THE ECO-DESIGN DIRECTIVE

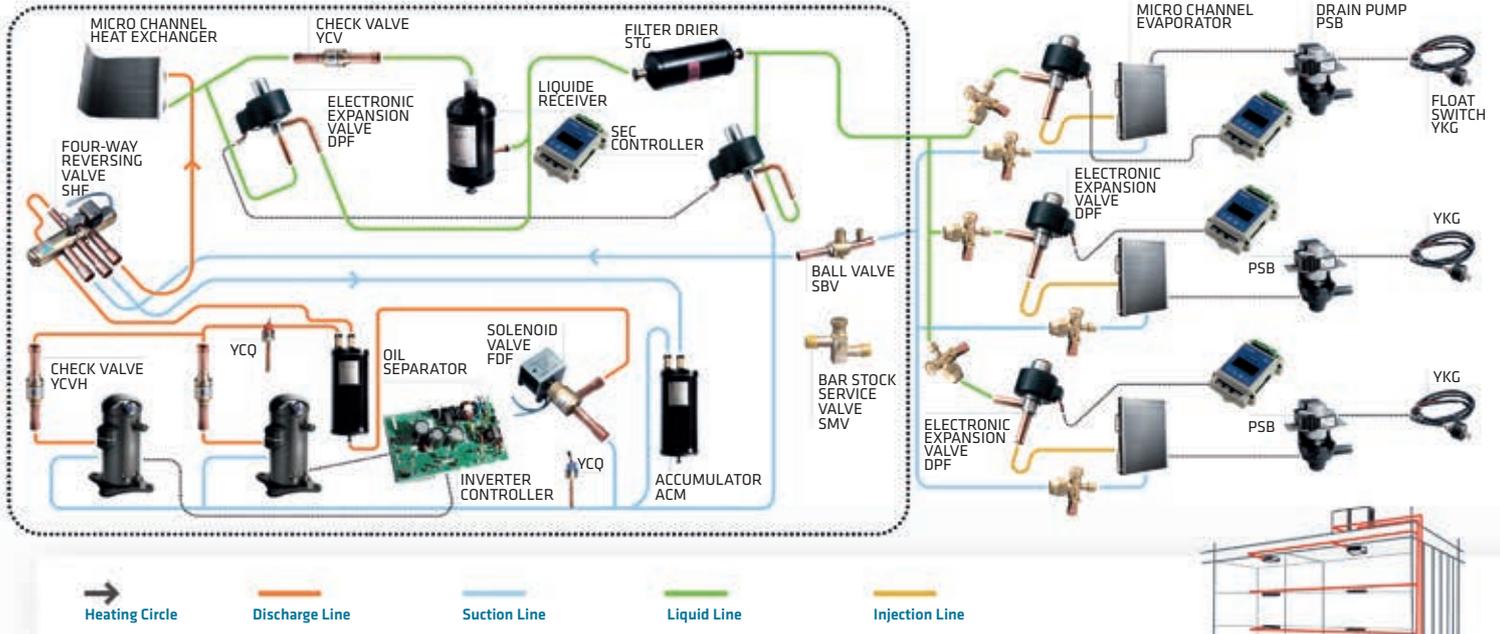
# THE SOLUTION IS HERE

**SANHUA IS YOUR PARTNER WITH COMPLETE RANGE AND TECHNOLOGY TO ADRESS NEW EFFICIENCY CHALLENGES**

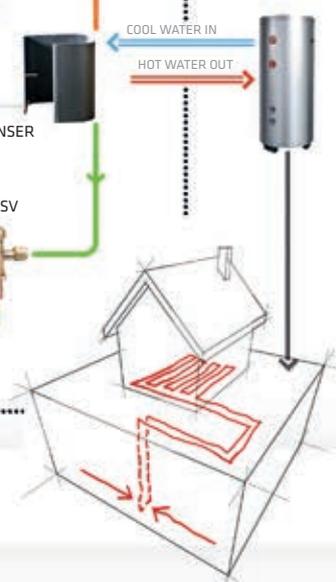
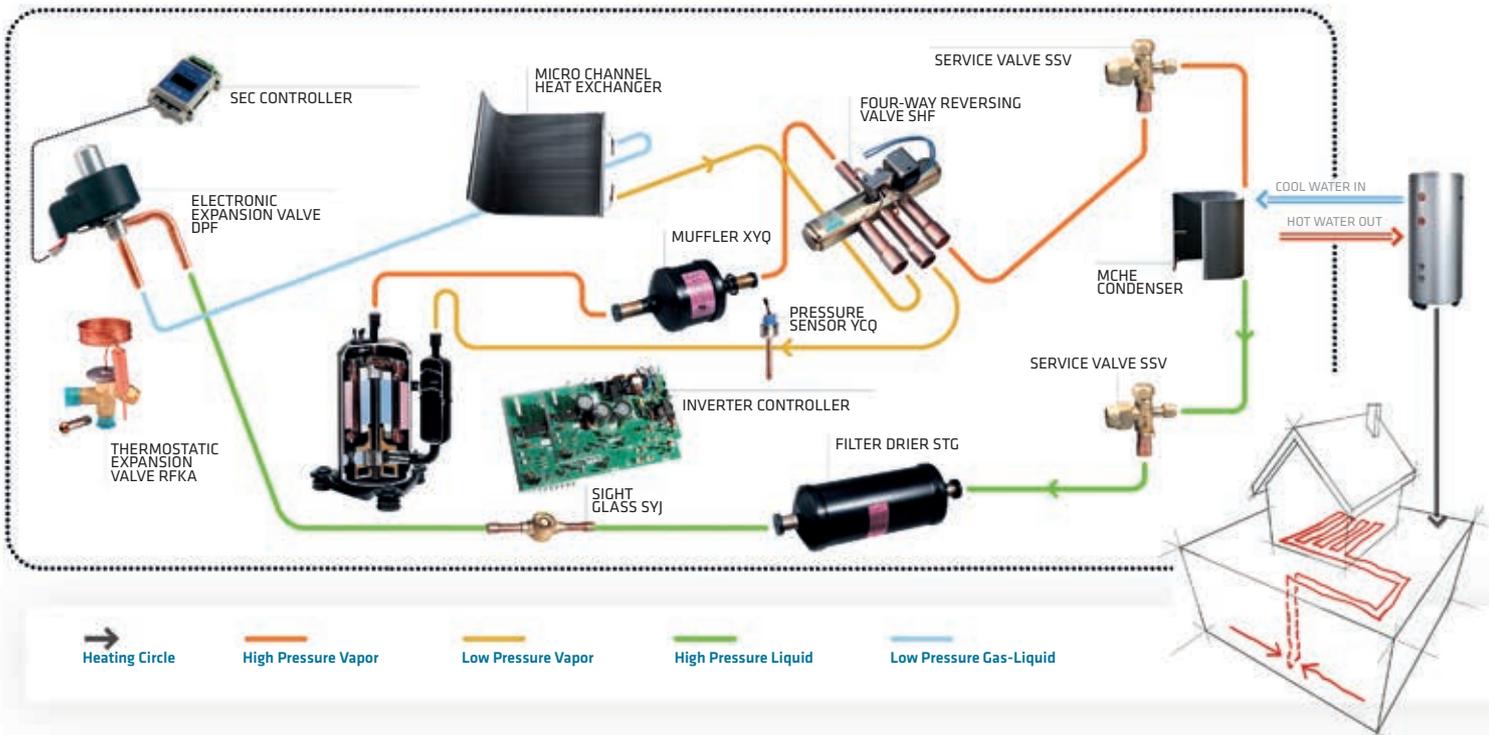
## *Commercial Refrigeration Application Solutions*



# COMMERCIAL AIR CONDITIONING VRF SYSTEM

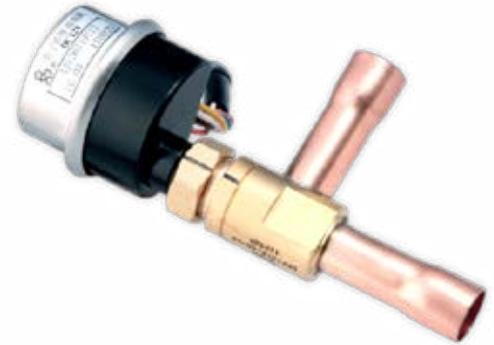


## Air to Water Heat Pump Application Solutions



**O SERIES****ELECTRONIC EXPANSION VALVE**

O series electronic expansion valve are mainly used in air conditioning systems variable refrigerant flow to realize automatic adjustment of refrigerant flow rate and make the air conditioning system work under the best working condition for the purpose of fast cooling, precise temperature control and power saving. These valves can also be used for other controls. These valves are reversible which can automatically control the flow of refrigerant in either heating or cooling mode.

**FEATURES**

- HIGH PRECISION: FULL OPEN PULSE 2000
- LONG LIFE
- LOW NOISE
- ENERGY SAVING

**GENERAL SPECIFICATIONS**

- Applicable for all common HCFC, HFC, HC, HFO refrigerants<sup>1)</sup> such as: R22, R134a, R404A, R407C, R410A, R507, R407A/F, R290, R1234ze, R1234yf, R32, R448A/R449A, R452A, R450A/R513A
- Capacity: 1USRT~13.3USRT (R22 Nominal Capacity)
- Applicable medium temperature: -30°C ~ +70°C (electrified rate below 50%)
- Applicable ambient temperature: -30°C ~ +60°C (electrified rate below 50%)
- Relative humidity: below 95% RH
- Installation mode: Coil upwards, central axis of valve rotor within ±15° vertical to horizontal surface

**Note:**

1) Cooling capacity besides R22 pls contact SANHUA local sales representative

**ELECTRICAL PARAMETERS**

- Rated voltage: DC12V (±10%), rectangular wave;
- Actuating mode: 4-phase 4-step permanent magnet stepping motor of speed reduction type;
- Excitation mode: 2-2 phase excitation, monopole actuation;
- Excitation rate: 100PPS~250PPS (opening excitation speed ≤ closing excitation speed, the ending excitation mode maintains more than 0.1S);
- Current of coil: 80mA/phase(20°C)
- Resistance of coil: 150±15Ω/phase(20°C)
- Insulation grade of coil: E



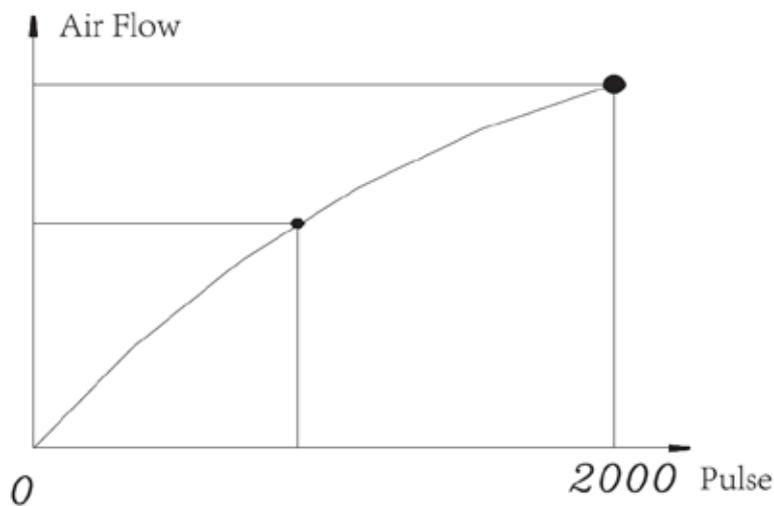
**TECHNICAL PARAMETERS**

Model	Port mm	R22 Nominal Capacity		Max. Operation Pressure Difference MPa			Internal Leakage ml/min	Reverse Open Valve Pressure Difference MPa		
		kW	US.R.T	R22	R407C	R410A		R22	R407C	R410A
DPF(O)1.3	1.3	5.28	1.5	2.26	2.48	3.43	≤600	3.0	3.3	4.2
DPF(O)2.0	2.0	8.8	2.5							
DPF(O)2.4	2.4	10.56	3.0							
DPF(O)3.2	3.2	14.1	4.0				≤1000			
DPF(O)3.2	3.2	17.6	5.0							
DPF(O)4.0	4.0	21.2	6.0							
DPF(O)5.2	5.2	28.1	8.0							
DPF(O)6.4	6.4	35.2	10.0							
DPF(O)8.0	8.0	47.6	13.3							

**Note:**  
 1) Nominal working conditions: Condensing temperature: 38°C, vaporizing temperature 5°C, Supercooling temperature 0°C, superheat temperature 0°C  
 2) When using other refrigerants, it is need to use a factor to adjust nominal capacity of R22. (R134A --0.75, R407C--1, R410A--1.2)

**STANDARD FLOW CURVE**

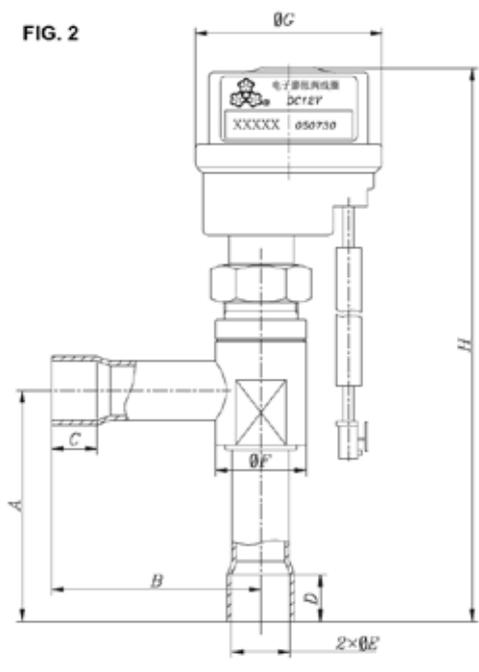
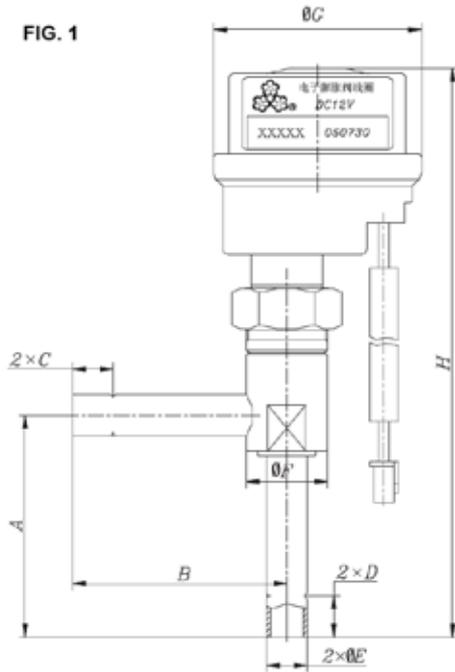
Standard Flow Curve



**ELECTRONIC EXPANSION VALVE**



**DIMENSIONS**



Model	Dimensions (mm)								Note
	A	B	C	D	E	F	G	H	
DPF(O)1.3	43	42.5	8	8	7.94	16	41.2	110	Fig.1
DPF(O)2.0	43	42.5	8	8	7.94	16	41.2	110	
DPF(O)2.4	43	42.5	8	8	7.94	16	41.2	110	
DPF(O)3.2	43	42.5	8	8	7.94	16	41.2	110	
DPF(O)3.2	50	46	10	10	12.8	20	41.2	119	Fig.2
DPF(O)4.0	50	46	10	10	12.8	20	41.2	119	
DPF(O)5.2	50	46	10	10	12.8	20	41.2	119	
DPF(O)6.4	50	46	10	10	12.8	20	41.2	119	
DPF(O)8.0	50	46	10	10	12.8	20	41.2	119	

GREEN  
TECHNOLOGY  
FOR LOW  
CARBON  
FOOTPRINT

**SANHUA**

**R SERIES****ELECTRONIC EXPANSION VALVE**

R series electronic expansion valve are mainly used in air conditioning systems with variable refrigerant flow to realize automatic adjustment of refrigerant flow rate and make the air conditioning system work under the best working condition for the purpose of fast cooling, precise temperature control and power saving. These valves can also be used for other controls. These valves are reversible which can automatically control the flow of refrigerant in either heating or cooling mode.

**FEATURES**

- APPLICABLE FOR OIL-FREE COOLING SYSTEM
- SMALLER INSTALLATION SPACE: LOW HEIGHT, SMALL VOLUME AND LIGHT WEIGHT
- WIDER APPLICABILITY FOR ELIMINATING SYSTEM REFRIGERANT NOISE: WITH OPTIMIZED FLOW PATH DESIGN
- OUTER ENCAPSULATION COIL STRUCTURE: BETTER CORROSION RESISTANCE

**GENERAL SPECIFICATIONS**

- Applicable refrigerant: R744(CO<sub>2</sub>)
- Applicable medium temperature: -30°C ~ 80°C (electrified rate below 40%)
- Applicable ambient temperature: -30°C ~ 60°C (electrified rate below 40%)
- Relative humidity: below 95% RH
- Installation mode: Coil upwards, central axis of valve rotor within ±15° vertical to horizontal surface.
- Direction of Medium: one direction from horizontal tube to Vertical tube

**ELECTRICAL PARAMETERS**

- Rated voltage: DC12V (±10%), rectangular wave
- Actuating mode: 4-phase 8-step permanent magnet stepping motor of direct-operated type
- Excitation mode: 1-2 phase excitation, monopole actuation
- Excitation rate: 31,3PPS (the ending excitation mode maintains 0.1~1.0s)
- Current of coil: 260mA/phase(20°C)
- Resistance of coil: 46±3.7Ω/phase(20°C)
- Insulation grade of coil: E

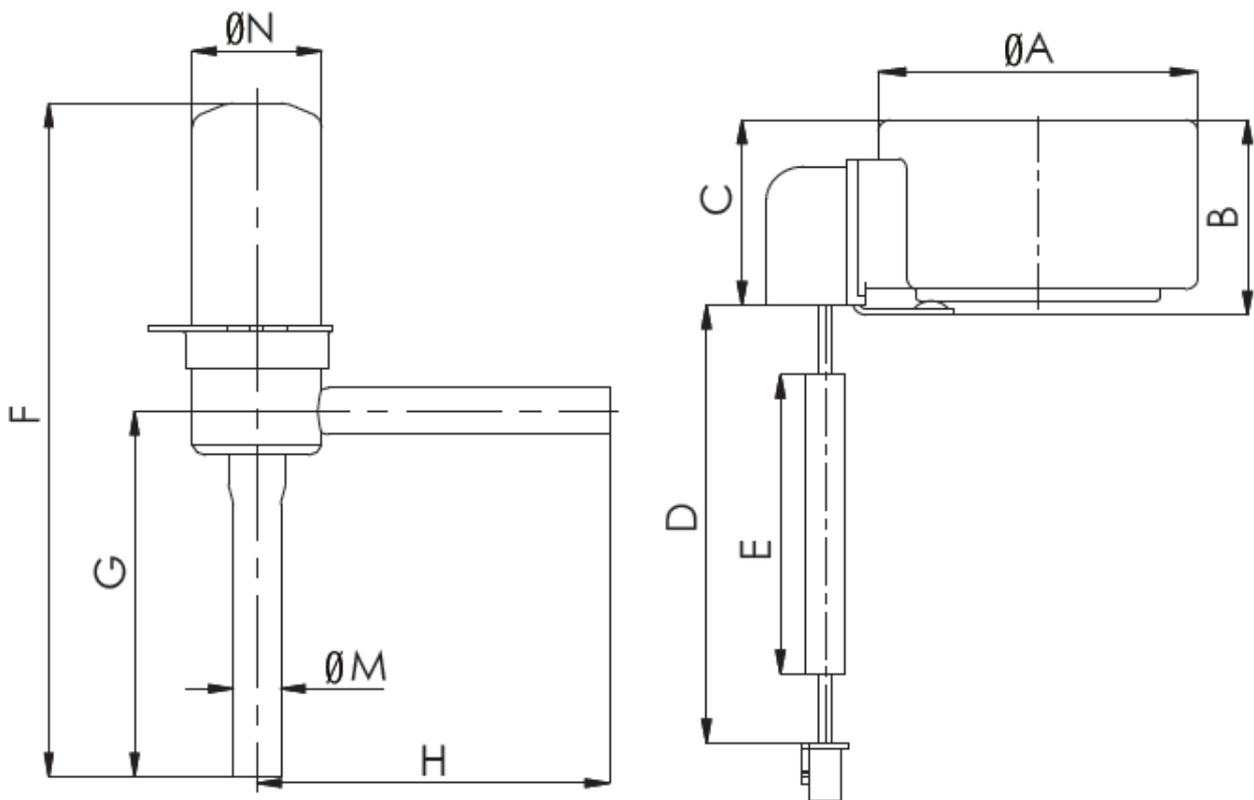
# ELECTRONIC EXPANSION VALVE



## TECHNICAL PARAMETERS

Model	Port mm	R744 Nominal Capacity		Full Open Pulse	Opening Pulse	Max. Operation Pressure Difference MPa	Internal Leakage ml/min	Max. Working Pressure MPa
		kW	US.R.T					
DPF(R04)1.5D	1.5	10,5	3	500	32 ± 20	10	≤600	14

## DIMENSIONS



Port mm	Code of the Coil Series	Dimensions (mm)									
		A	B	C	D	E	F	G	H	M	N
1.5	M10	38.5	26.4	25.6	700	600	93,5	50	47	6.35	17.3

# SANHUA

# MICRO-CHANNEL HEAT EXCHANGERS MCHE

## BENEFITS

- No galvanic corrosion (100% aluminum)
- Refrigerant charge reduction – up to 70%
- Long life alloy for very aggressive environments
- Helps manufacturers to meet high SEER (Seasonal Efficiency Ratio) and HSPF (Heating Seasonal Performance Factor) requirements.
- MCHE is more than 30% higher HT efficiency
- Up to 30% lower airside dP
- MCHE is lighter in weight, smaller in volume: up to 50%

## SANHUA MCHE Evaporator

*Over 100,000 coils on the market since 2011*

### The Sanhua MCHE Evaporator

- Performs in both heating, cooling and as a dehumidifier.
- Operates in both condensing and evaporating mode.

### Applications

- Commercial cooling and heating.
- Residential air conditioning and heating.
- Commercial retail refrigeration.

## SANHUA MCHE Heat Pump Coil

### The Sanhua MCHE Heat Pump Coil

- Designed to perform in both cooling and heating functions.

### Applications

- Commercial heating and cooling applications (Rooftop and chiller units).
- Residential air conditioning units.
- Heating Heat pump units.

- 100% Aluminum, easy to cycle
- Minimum performances decrease with lifetime (100% brazed)
- Special tube bending structure for A-coil
- Special desing for good refrigerant distribution
- Special fin desing for good water drainage



## SANHUA MCHE Condenser

*Over 1,3 million coils on the market since 2008*

### The Sanhua MCHE Condenser

- Developed with a superior design and performance in cooling mode.

### Applications

- Commercial cooling application for chillers units.
- Residential air conditioning for outdoor units.
- Refrigeration application (transport and retail refrigeration).

Scan QR  
for more info



FOR DETAILED INFORMATION PLEASE CONTACT

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## COMMERCIAL AC

Key benefits

- Raise product efficiency or reduce footprint
- Save money on raw material, transport, storage
- Improve environmental performance and meet regulations
- Attract customers with lean, MCHE-based products

## TRANSPORT REFRIGERATION

Key benefits

- Create high-capacity products for transport
- Attract customers with reduced fuel costs and more cargo space
- Improve environmental performance and meet regulations

## PRECISION COOLING

Key benefits

- Precise temperature control to safeguard sensitive equipment
- Compact, space-saving units
- Low energy consumption
- Meet environmental regulations

## COLD ROOMS

Key benefits

- Hygiene - very easy to clean
- Build compact space saving units
- Reliable temperature control
- Meet environmental regulations
- Low energy consumption

## RESIDENTIAL AC and Heating Heat Pump

Key benefits

- Higher system efficiency
- Better environmental performance
- Lower noise levels

## APPLICABILITY

Refrigerant:

R410A, R134a, R22, R407C, R404A

Design pressure:

4.5MPa

Ambient air temperature:

-30°C to 72°C (-22°F to 161.6°F)

Expected refrigerant temperature:

-30°C to 121°C (-22°F to 250°F)

Storage temperature:

-30°C to 121°C (-22°F to 250°F)

# Manufacturing capabilities

ASSEMBLY



SHIPPING PALLET



FIN PROCESS



FIN MACHINE



HELIUM DETECTOR



FURNACES



# RESIDENTIAL INVERTER CONTROLLER

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.



## 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 APPLICABLE FOR SPLIT OR PACKAGED UNIT, EITHER COOLING OR BOTH COOLING AND HEATING WITH VARIOUS VOLTAGE

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.)

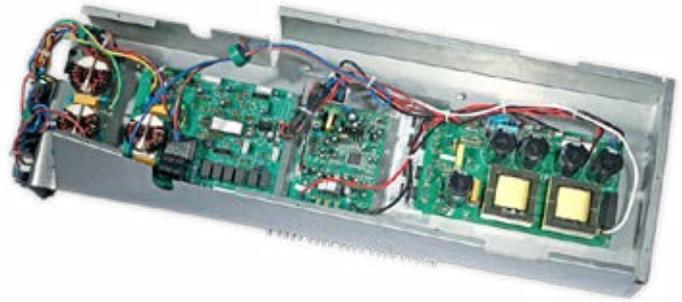
CONTROL TECHNIQUES WITH MULTIPLE SOLUTIONS TO MEET VARIOUS NEEDS OF THE CUSTOMERS

## TECHNICAL PARAMETERS

Project / Nominal Refrigerating Capacity	1HP	1.5HP	2HP	3HP
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			-15°C ~ +55°C
Compressor actuating method	150° wide-angle actuating/Sine wave actuating			Sine wave actuating
Outdoor fan	DC motor/AC motor			
Throttle mode	Electronic expansion valve/capillary tubes			
Actuating compressor	GMCC, Panasonic, Hitachi, Sanyo, MITSUBISHI etc.			
Certification	3C\CE\ETL\TUV(including EMC)			

# INVERTER CONTROLLER FOR LARGE SYSTEM

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.



## 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

## GENERAL SPECIFICATIONS

- Applicable voltage: single phase AC 220V - 230V  $\pm$  20%,  
3 phase AC380V - 400V  $\pm$  15%
- Nominal Refrigerating capacity: 3HP~12HP
- Frequency conversion range: 15~120Hz
- Temperature control accuracy:  $\pm$ 1°
- Compatible indoor units: wall mounted air conditioners,  
cabinet air conditioners, ceiling air conditioners and duct type  
air conditioners

# INVERTER CONTROLLER FOR HP WATER HEATER

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.



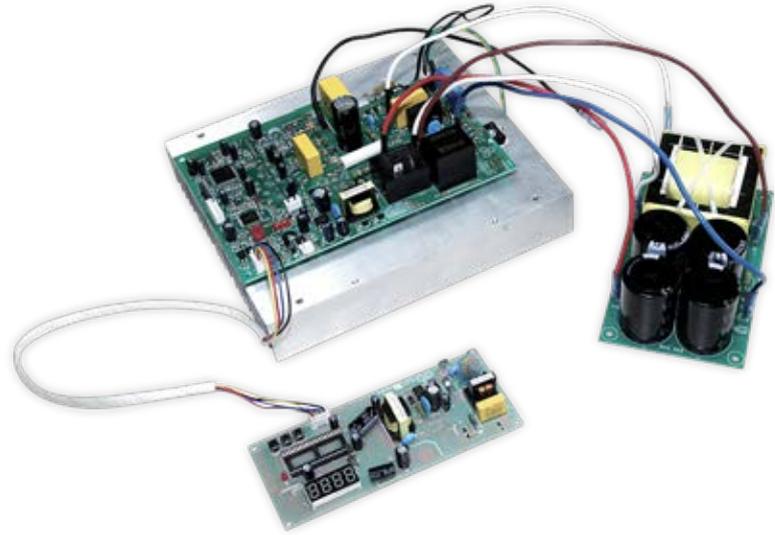
## FEATURES

- 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

## GENERAL SPECIFICATIONS

- Applicable voltage: single phase AC220V-230V±20%, 3 phase AC380V-400V±15%
- Frequency conversion range: 15~150Hz
- Water heating temperature: 0~+55°
- Water temperature control accuracy: ±0.5°
- Specifications of controllers: inverter 3HP, inverter 5HP; inverter 3HP+fixed frequency 3HP, inverter 5HP + fixed frequency 5HP

# STANDARD INVERTER COMPRESSOR CONTROLLER



## FEATURES

- APPLICABLE FOR UNITS OF 1HP TO 5HP AND FOR MITSUBISHI, SANYO, TCC,GMCC, HITACHI, HIGHLY, PANASONIC,ETC.
- PCB ASSEMBLY WITHOUT C-BOX, OPTIONAL FOR HEATSINK PROVIDED OR HEATSINK OUTSOURCED BY CUSTOMERS THEMSELVES.
- OPTIONAL FOR EXTERNAL HIGH FREQUENCY REACTOR AND BIG ELECTROLYTIC CAPACITOR PROVIDED OR OUTSOURCED BY CUSTOMERS THEMSELVES.
- OPTIONAL DC12V FAN, WHICH CAN AUTOMATICALLY CONTROL TEMPERATURE ACCORDING TO TEMPERATURE OF HEATSINK.
- USE FAIRCHILD 20A,30A IPM AND MITSUBISHI 50 AIPM
- USE ISOLATED OPTICAL COUPLING ASYNCHRONOUS COMMUNICATION
- HAVE A COMMUNICATING DEBUGGING BOARD.
- USE ISOLATED OPTICAL COUPLING ASYNCHRONOUS COMMUNICATION
- PHASE CURRENT PROTECTION, AC BUSBAR VOLTAGE PROTECTION,HEATSINK OVERHEAT PROTECTION, ETC.

## TECHNICAL PARAMETERS

<b>Storage Temperature</b>	-30C° ~ +85C°
<b>Humidity</b>	30 ~ 95%RH
<b>ambient temperature for operating</b>	-20C° ~ +60C°
<b>Power supply</b>	AC187V ~ AC276V,50/60Hz;
<b>PFC</b>	0.97-0.998
<b>Load electric power</b>	max.5000W for inverter
<b>Frequency</b>	15 ~ 110Hz
<b>Temperature control and measurement accuracy</b>	±1C°
<b>current measurement accuracy</b>	0.1A
<b>voltage measurement accuracy</b>	2V

**MDF FLANGE SERIES**

**SOLENOID VALVE**

MDF flange solenoid valve are used in the oil return line of compressors, applicable for various POE refrigeration oil and general refrigerants such as R22. But applicable maximum differential pressure is different in pure oil and in non-pure oil environments for the oil temperature and viscosity.



**FEATURES**

- APPLICABLE FOR STOP-AND-GO CONTROL OF OIL RETURN LINE IN REFRIGERATING COMPRESSORS
- DIRECT OPERATED, NORMALLY CLOSE VALVE WITH ZERO MIN. VALVE OPENING PRESSURE DIFFERENCE
- APPLICABLE FOR POE REFRIGERATION OIL AND VARIOUS FLUORIDE REFRIGERANTS
- MAXIMUM VALVE OPENING PRESSURE DIFFERENCE FOR GASSY OIL AND 90°C PURE OIL IS 2.2MPA
- UTILIZING NO CONNECTION TUBE STRUCTURE, BUT FLANGE CONNECTION IS COMPACT, LIGHT, EASY TO INSTALL AND HAVE GOOD PERFORMANCE OF ANTI-VIBRATION
- THE VALVE BODY IS ALL WELDED FOR TIGHTNESS WITH LITTLE LEAKAGE RIS

**GENERAL SPECIFICATIONS**

- Applicable refrigerant: POE refrigeration oil, R22, R134a, R407C, R404A etc.
- Applicable medium temperature: 0°C ~90°C
- Applicable ambient temperature: -30C ~+55°C
- Maximum working pressure: 4.5MPa(655Psig)

**TECHNICAL PARAMETERS** *Technical Parameters of Valve Body*

Model	Operation Type	Cv Value	Operation Pressure Difference MPa		
			Max		Min
			Gas and 90°C pure oil	0°C pure oil	
FDF2A905	Directoperated	0.14	2.2	0.8	0

*Electrical Parameters of Coil*

Series	Insulation Grade	Voltage Change	Frequency Hz	Wiring Type	IP Grade
Matching Coil MQ-A01220	F	AC220V	50	DIN junction box	IP65

**FDF FLANGE SERIES**

**SOLENOID VALVE**

FDF series Solenoid Valve are used in the new compressor system developed by Copeland, which uses a flange to connect the compressor. It is available in high ambient temperature and medium temperature with long service life.



**FEATURES**

- LOW TEMPERATURE RISE OF THE COIL, LOW ENERGY CONSUMPTION AND RELIABLE;
- LONG SERVICE LIFE, UP TO 35,000,000 TIMES;

**GENERAL SPECIFICATIONS**

- Applicable refrigerant: R22, R134a, R404A, R407A, R407C and R507 etc.;
- Applicable medium temperature: +10°C ~ +146°C (non-persistent);
- Applicable ambient temperature: -30°C ~+60°C;
- Relative humidity: below 95% RH

**TECHNICAL PARAMETERS** *Technical Parameters Of Valve Body*

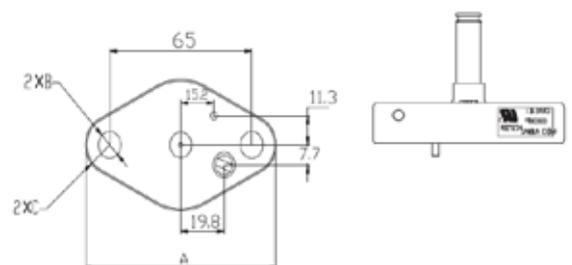
Model	Flow L/min ( $\Delta P=0.345MPa$ )	Operation Pressure Difference MPa		Max. Working Pressure MPa
		Max	Min	
FDF2A903-01	42.5	2.8	0	3.5
FDF2A903-02				

*Electrical Parameters of Coil*

Model	Insulation Grade	Rated Voltage V	Voltage Change	Frequency Hz
SHF-4-10FA5	F	AC220V~240V	85%~110%	50/60
SHF-4-10FA2		AC120V		
SHF-4-10FA4		AC24V		

**DIMENSIONS**

Model	A	B	C
FDF2A903-01	(87)	10.30	R11.1
FDF2A903-02	(90)	13.47	R12.7



**HDF SERIES****SOLENOID VALVE**

HDF series solenoid valves are piston type pilot operated solenoid valves, mainly used in refrigerant control of various devices such as refrigerating and freezing systems, air conditioners and heat pumps. The maximum admitted refrigerant temperature (equal to +140°C) permits to install HDF valves in gas injection or hot gas bypass lines such as in the compressor discharge line.

**FEATURES**

- VALVE BODY WITH A COMPACT DESIGN, EASY TO MANAGE AND INSTALL
- VALVE BODY WITH HERMETIC DESIGN TO ELIMINATE THE RISK OF EXTERNAL LEAKAGE
- SOLENOID VALVES PILOTED BY PISTON ACTUATION. WIDE MEDIUM TEMPERATURE RANGE ALLOWED
- GREAT VALVE OPENING PERFORMANCE, HIGH MAX. OPD
- COILS: LOW ENERGY CONSUMPTION, RELIABLE
- COILS ARE DOUBLE SEALED, WATER TIGHT AND SAFE
- COILS CAN BE SELECTED WITH DIN CONNECTOR

**GENERAL SPECIFICATIONS**

- Applicable for all common HCFC, HFC refrigerants such as: R22, R134a, R404A, R407C, R410A, R507, R407A/F, R448A/R449A, R452A, R450A/R513A<sup>1)</sup>
- Medium temperature TS min./max.: -40°C/+140°C
- Ambient temperature min./max.: -30°C /+55°C
- Relative humidity: 0 to 95% RH

- Installation position:
  - Liquid, suction and discharge line
  - Preferably coil upwards and flow direction corresponds to the arrow
- Certifications: Declaration according to LVD and PED (2014/68/EU)

**Note:** 1) Flammable refrigerants like R32, R290, R1234ze(E), R1234yf on request

**TECHNICAL PARAMETERS OF VALVE BODY**

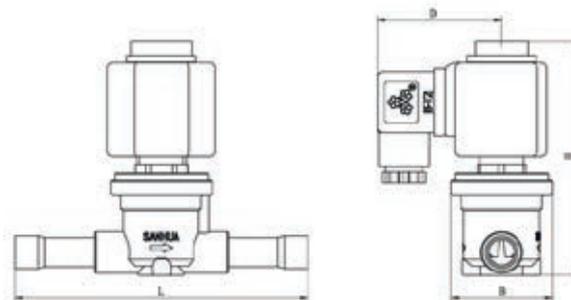
Valve body (solder connections)	Normal Position	Actuation	Kv [m <sup>3</sup> /h]	MOP [MPa]	Max. OPD [MPa]		Min. OPD [MPa]
					AC coil	DC coil	
HDF 3	NC	Pilot (piston operated)	0,3	4,5	3,8	2,8	0.007
HDF 6			0,8	4,5	3,8	2,8	0.007
HDF 10			1,9	4,5	3,8	2,8	0.007
HDF 15			2,6	4,5	3,8	2,8	0.007
HDF 20			4,0	4,5	3,8	2,8	0.007
HDF 22			5,7	4,5	3,8	2,8	0.007



DIMENSIONS

Model Valve body	Part Number <sup>1)</sup>	Solder Connection (ODF)		Kv [m <sup>3</sup> /h]	PED Category Group 2	Dimensions [mm]			
		[inch]	[inch]			L	B	D	H
HDF3H01	10129000302	1/4"	-	0,3	4.3	118	33	54	95
HDF3H03	10129000502	-	6	0,3	4.3	118	33	54	95
HDF3H02	10129000402	3/8"	-	0,3	4.3	118	33	54	95
HDF3H05	10129000602	-	10	0,3	4.3	118	33	54	95
HDF6H02	10129000102	3/8"	-	0,8	4.3	118	33	54	95
HDF6H04	10129000802	-	10	0,8	4.3	118	33	54	95
HDF6H03	10129000702	1/2"	-	0,8	4.3	127	33	54	95
HDF6H07	10129000202	-	12	0,8	4.3	127	33	54	95
HDF10H01	10129003402	1/2"	-	1,9	4.3	127	44	54	102
HDF10H03	10129000902	-	12	1,9	4.3	127	44	54	102
HDF10H02	10129001702	5/8"	16	1,9	4.3	166	44	54	102
HDF15H01	10129003502	5/8"	16	2,6	4.3	175	48	54	105
HDF15H02	10129001002	7/8"	22	2,6	4.3	175	48	54	105
HDF20H01	10129001102	7/8"	22	4,0	4.3	181	57	54	114
HDF20H02	10129001202	1 1/8"	-	4,0	4.3	214	57	54	114
HDF20H03	10129001302	-	28	4,0	4.3	214	57	54	114
HDF22H01	10129003602	7/8"	22	5,7	4.3	190	58	54	114
HDF22H03	10129001502	1 1/8"	-	5,7	4.3	214	58	54	114
HDF22H04	10129001602	-	28	5,7	4.3	214	58	54	114
HDF22H02	10129001402	1 3/8"	35	5,7	I	281	58	54	114

**Note:** 1) Extent of delivery: valve body without coil



Valve Body Solder Connection- with standard coils (DIN connector) - (MQ-A03)

**SOLENOID VALVE**



**TECHNICAL PARAMETERS OF COIL**

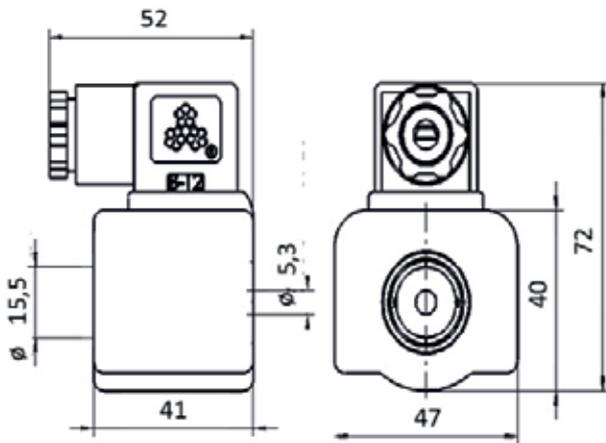
Standard coils with DIN connector (MQ-A03)

Model Coil <sup>1)</sup>	Part Number <sup>2)</sup>	Rated Voltage [V]	Supply	Power [W]	Frequency [Hz]	Voltage Tolerance	Insulation Class	Protection Class (w/plug)	Wiring type
MQ-A03 024-001001	10820006102	24	AC	8,5 (50Hz) 7,5 (60Hz)	50/60	-15% to +10%	F	IP65	DIN Plug
MQ-A03 11A-001001	10820006302	110 to 120		8,5 (50Hz) 7,5 (60Hz)					
MQ-A03 22G-001001	10820005702	220 to 240		8,5 (50Hz) 7,5 (60Hz)					

**Note:** Extent of delivery: coil body, fastening screw for the coil body, DIN plug for electrical connection incl. gaskets

**DIMENSIONS OF THE COILS**

Coils with DIN Plug (MQ-A03)



Coils with DIN Plug (MQ-A03 and MQ-D03 Series)



THINK  
GLOBALLY  
ACT LOCALLY

**SANHUA**

**FLOAT TYPE SERIES****CHECK VALVE**

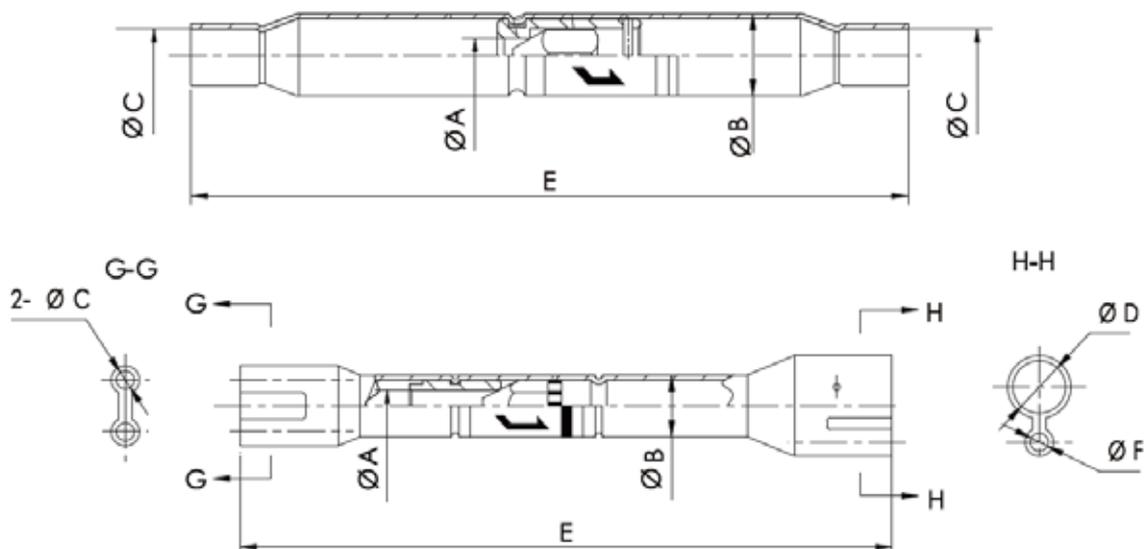
Float type check valve are used in air conditioning system in shunt connection with capillary tubes to control the forward and reverse flow of refrigerant and make refrigerant flow in a specified direction.

**FEATURES**

- GOOD SEALING PERFORMANCE, STABLE STRUCTURE: USING HIGH QUALITY ENGINEERING PLASTIC VALVE CORE
- SMALL FLOW RESISTANCE, BIG FLOW RATE

**GENERAL SPECIFICATIONS**

- Applicable refrigerant: R22, R407C, R410A etc.
- Applicable medium temperature: -30°C~+120°C
- Maximum working pressure: 4.2MPa

**DIMENSIONS**



**DIMENSIONS**

Model	Dimensions mm				
	A	B	C	D/F	E
YCV3	3	9.52	3.18	3.18	100
			6.35	6.35	
YCV5	5	12.7	9.52	9.52	110
			12.7	12.7	
YCV8	8	19.05	12.7	12.7	150
			15.88	15.88	
YCV11	11	22.2	15.88	15.88	160
			19.05	19.05	
YCV14	14	28	19.05	19.05	
			22.2	22.2	
CV/CAV	4.8	9.52	2.7	6.0/3.1	100
			2.9	6.5/2.7	
			3.1	6.5/2.9	
			3.3	8.1/2.7	
			3.5	8.1/3.3	

**ZJF SERIES****RECEIVER VALVE**

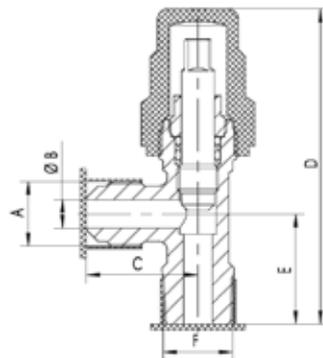
Receiver valve are used for tube connection or compressor and reservoirs of commercial air conditioner, freezing or deep-freezing equipment. Inner path of the valve can be closed or opened by operating the valve stem.

**FEATURES**

- COST EFFECTIVE: OPTIMAL DESIGN BASED ON PERFORMANCE
- GOOD APPEARANCE AND ENDURABLE: THE VALVE BODY TREATED WITH SHOT BLAST.
- WELL SEALING PERFORMANCE: WITH PARTICULAR SEALING STRUCTURE AND DESIGN

**GENERAL SPECIFICATIONS**

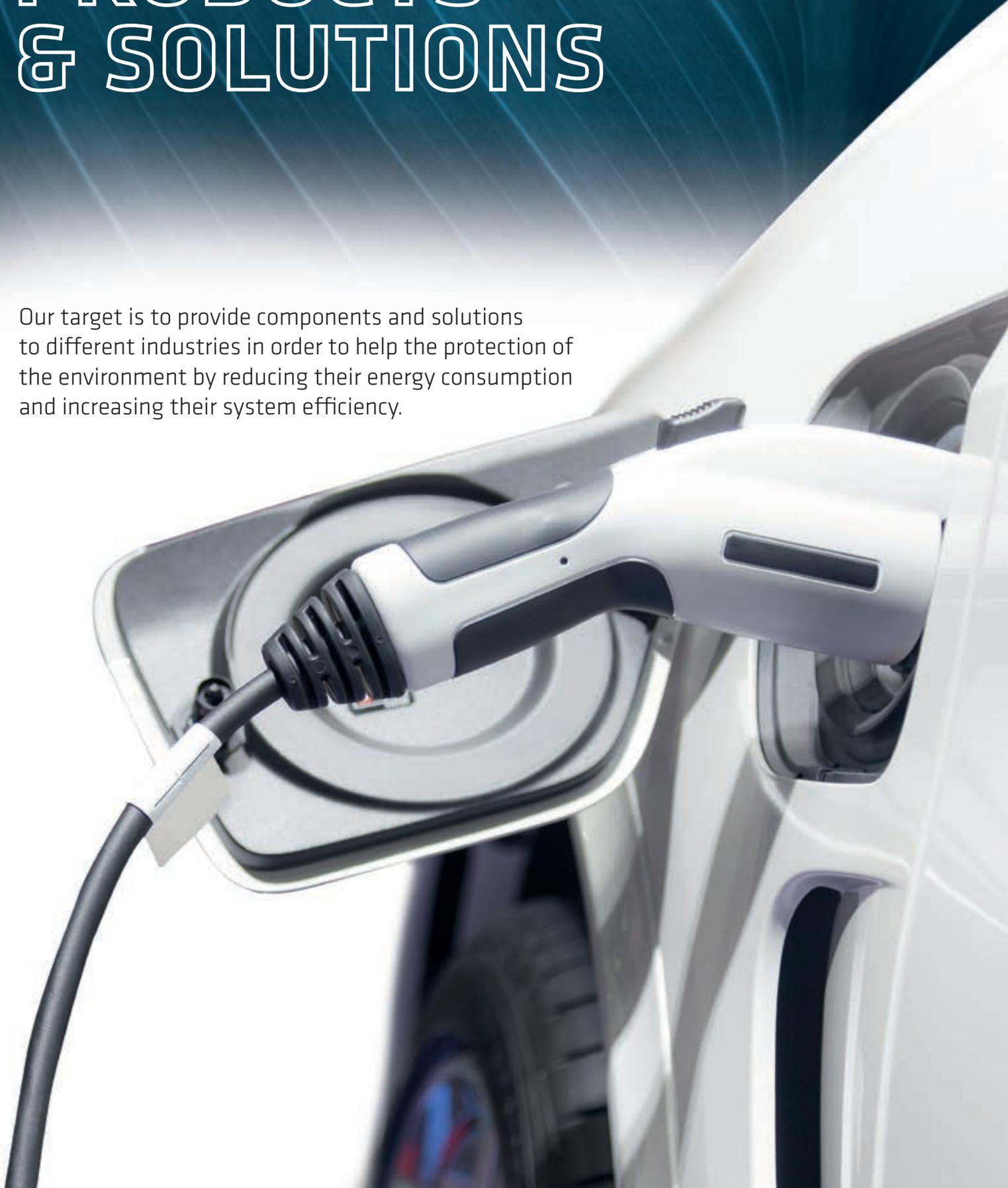
- Applicable refrigerant: R22, R124a, R407C, R410A, R404A, R507, R1234ze
- Applicable medium temperature: -40°C ~ +120°C
- Maximum working pressure: 4.83 MPa
- Certification: UL

**DIMENSIONS**

Model	A in	Dimensions mm				F in
		B	C	D	E	
ZJF-A22	7/16-20UNF	4.8	23.5	74	23.5	NPT 1/4
ZJF-A23	7/16-20UNF	4.8	27	77	27	NPT 3/8
ZJF-A33	5/8-18UNF	7	27	77	27	NPT 3/8
ZJF-A32	5/8-18UNF	7	27	77	27	NPT 1/4
ZJF-A34	5/8-18UNF	7	32	114	37	NPT 1/2
ZJF-A44	3/4-16UNF	10	36	114	37	NPT 1/2
ZJF-A43	3/4-16UNF	10	36	114	37	NPT 3/8
ZJF-A54	7/8-14UNF	12.5	36	114	37	NPT 1/2
ZJF-A66	1 1/16-14UNS	16	42	122	43	NPT 3/4
ZJF-A76	1 1/4-12UNF	20	48	122	43	NPT 3/4

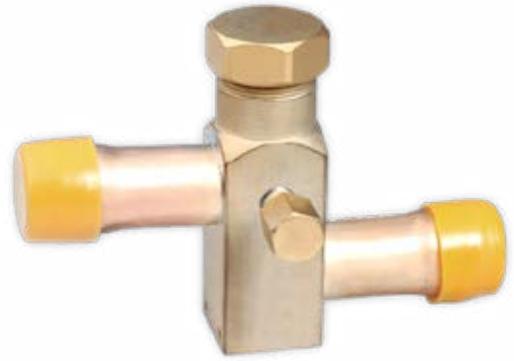
# SANHUA ECO-FRIENDLY PRODUCTS & SOLUTIONS

Our target is to provide components and solutions to different industries in order to help the protection of the environment by reducing their energy consumption and increasing their system efficiency.



**SMV SERIES****BAR-STOCK SERVICE VALVE**

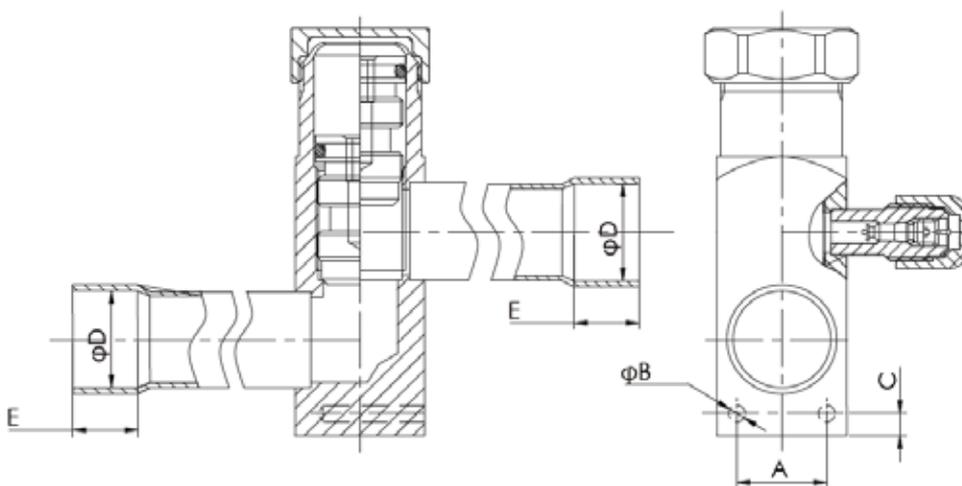
Bar-stock service valve can be used in split air conditioners to connect indoor unit and outdoor unit, which can close the inner passage of the valve by operating the valve stem; it can be used as service valve during maintenance for the purpose of vacuum pumping and refrigerant injection. It can also be used in other refrigerating systems.

**FEATURES**

- COST-EFFECTIVE: UNIQUE METAL CAPTURE STRUCTURE, ENSURE HIGH QUALITY
- VARIOUS SQUARE SHAPES TO MEET SPECIAL INSTALLATION MODE AND FLOW REQUIREMENTS OF EQUIPMENT
- GOOD CONSISTENCY: SIMULTANEOUS WELDING OF MULTIPLE SPOTS BY TUNNEL FURNACE
- HIGH TESTING PRECISION: PRODUCTS ARE 100% H/HE INSPECTED

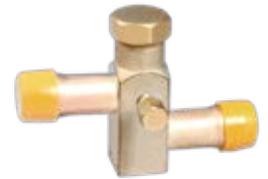
**GENERAL SPECIFICATIONS**

- Applicable refrigerant: R22, R134a, R407C, R410A etc.
- Applicable medium temperature: -30°C ~ +120°C
- Maximum working pressure: 4.2MPa, 4.83 MPa for special square body valve
- Certification: UL

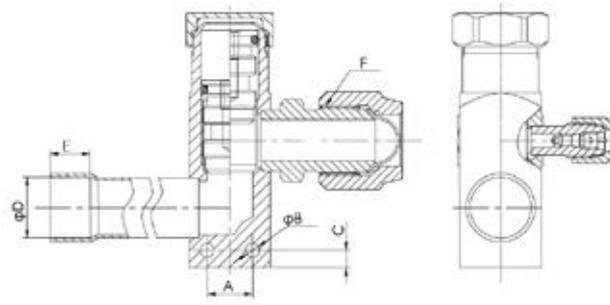
**TECHNICAL PARAMETERS**

Solder Connection

BAR-STOCK SERVICE VALVE



Type	Model	Copper tube Size in	Dimensions mm					Thread Size F
			A	B	C	D	E	
Solder Connection	SMV-JA3Y	3/8	10.6±0.5	3.6±0.10	3,6	9,6	8±1.0	/
	SMV-JA4Y	1/2	17.7±0.5	3.6±0.10	3,6	12,8	9.7±1.0	/
	SMV-JA5Y	5/8	17.7±0.5	3.6±0.10	3,6	15,95	14.2±1.0	/
	SMV-JA6Y	3/4	17.7±0.5	3.6±0.10	3,6	19,13	15.7±1.0	/
	SMV-JA7Y	7/8	17.7±0.5	3.6±0.10	3,6	22,33	19±1.0	/
	SMV-JA8Y	1	17.7±0.5	3.6±0.10	3,6	25,4	15±1.0	/
	SMV-JA9Y	9/8	17.7±0.5	3.6±0.10	3,6	28,8	15±1.0	/
	SMV-8JA3Y	3/8	10.6±0.5	3.6±0.10	3,6	9,6	8±1.0	/
	SMV-15JA4Y	1/2	17.7±0.5	3.6±0.10	3,6	12,8	9.7±1.0	/
	SMV-15JA5Y	5/8	17.7±0.5	3.6±0.10	3,6	15,95	14.2±1.0	/
	SMV-15JA6Y	3/4	17.7±0.5	3.6±0.10	3,6	19,13	15.7±1.0	/
	SMV-17JA7Y	7/8	17.7±0.5	3.6±0.10	3,6	22,33	19±1.0	/



Solder/Flare Nut

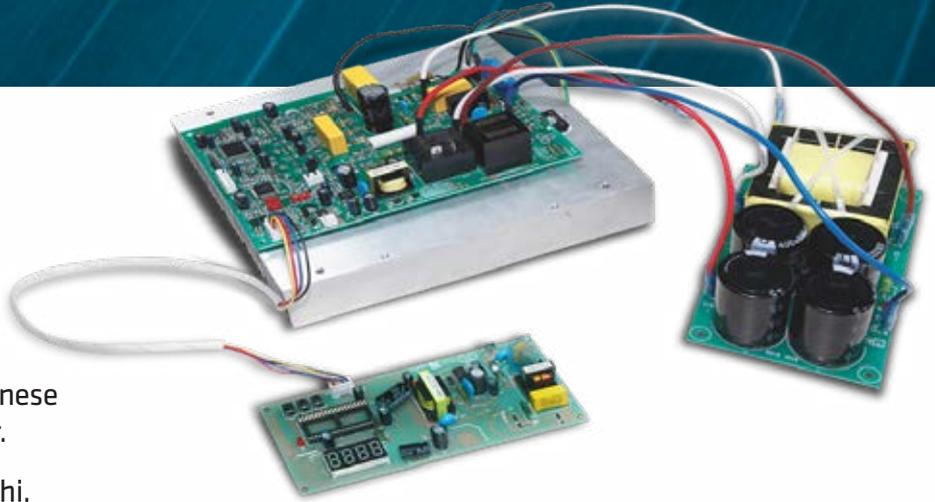
Type	Model	Copper tube Size in	Dimensions mm					Thread Size F
			A	B	C	D	E	
Solder / Flare Nut	SMV-JA3	3/8	10.6±0.5	3.6±0.10	3,6	9,6	8±1.0	5/8-18UNF
	SMV-JA4	1/2	17.7±0.5	3.6±0.10	3,6	12,8	9.7±1.0	3/4-16UNF
	SMV-JA5	5/8	17.7±0.5	3.6±0.10	3,6	15,95	14.2±1.0	7/8-14UNF
	SMV-JA6	3/4	17.7±0.5	3.6±0.10	3,6	19,13	15.7±1.0	1 1/16-14UNS
	SMV-JA7	7/8	17.7±0.5	3.6±0.10	3,6	22,33	19±1.0	1 1/16-14UNS
	SMV-8JA3	3/8	10.6±0.5	3.6±0.10	3,6	9,6	8±1.0	5/8-18UNF
	SMV-15JA4	1/2	17.7±0.5	3.6±0.10	3,6	12,8	9.7±1.0	3/4-16UNF
	SMV-15JA5	5/8	17.7±0.5	3.6±0.10	3,6	15,95	14.2±1.0	7/8-14UNF
	SMV-15JA6	3/4	17.7±0.5	3.6±0.10	3,6	19,13	15.7±1.0	1 1/16-14UNS
	SMV-17JA7	7/8	17.7±0.5	3.6±0.10	3,6	22,33	19±1.0	1 1/16-14UNS

# SANHUA

# ELECTRONIC CONTROLS

## FEATURES OF STANDARD INVERTER DRIVER:

- Up to 30% high energy efficiency.
- Mutually optimized and qualified: More than 20 Years Experienced Japanese Experts in Compressor Inverter Driver.
- Famous Compressor Brand: Mitsubishi, Sanyo, Toshiba, Hitachi, Panasonic...
- Capacity from 1HP to 12HP, Single phase or Three phase Power.
- Wide compressor speed range from 10Hz to 120Hz.
- Excellent compressor noise and vibration reduce technology.
- Protects compressor with current and voltage monitoring.
- Active power factor correction (PF > 0.985).
- Total core algorithms developed by Sanhua inside the CPU.
- Multi board easy for combine, update, after sale service and good for qualified power management.
- Wide application: Industrial, Refrigeration, RAC, CAC, Heat pump water heater, HVAC, DC motors...



**Controller  
for EEV**



**Inverter  
Controller  
for HP Water  
Heater**



**Inverter  
Controller for  
Large System**



**Residential  
Inverter  
Controller**

# Manufacturing *capabilities*

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Annual capacity of inverter controller for 2012 is 500,000 sets, and the capacity will be expanded to 1 million sets in 2013.

All equipment is imported, for example DEK England Printing machine, JUKI Japan SMT machine, Heller America Reflow Soldering machine, Omron Japan Auto Optical Inspector, and Panasonic Japan Auto Plug-in machine.

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The former Foxconn management team brings scientific manufacturing process and strict quality control. Along with all the advanced equipment, we achieve a modern production process from raw material input to product output.

- > IQC, Raw Material Ware House & SMT Workshop Equipment:
- > Transistor Curve Tracer ,Precision LCR Meter etc. (IQC Equipment)
- > Electric Moisture-proof Cabinet, Vacuum Packaging Machine, Hygrothermograph, Check List (Raw material warehouse and Equipment)
- > Silk screen printing machine (DEK UK)
- > SMT machine (JUKI Japan)
- > Re-flow Welding Machine (HELLER USA)
- > Auto optics inspector (Omron Japan)
- > Auto plug-in machine (Panasonic Japan)

Scan QR  
for more info



**DTG-M02 SERIES****1.5 IN<sup>3</sup>  
FILTER DRIER**

DTG-M02 series 1.5in<sup>3</sup> filter drier are mainly used for light commercial refrigeration applications, with unidirectional flow to absorb moisture and filter out the impurities.

**FEATURES**

- STAINLESS STEEL HOUSING WITH HIGH-STRENGTH
- HOUSING SURFACE ADOPTS ADSORPTION PRINCIPLE TO FORM A NANO-SOLID FILM TO ANTI-RUST, SURVIVES MORE THAN 1500 HOURS OF NEUTRAL SALT SPRAY TEST.
- SOLID FILER CORES, HIGHLY EFFICIENT IN MOISTURE ABSORPTION, FILTERING IMPURITY.
- COMPACT DESIGN, MEETING THE STRICT 150G SYSTEM LIMITS FOR FLAMMABLE REFRIGERANTS SUCH AS R290.

**GENERAL SPECIFICATIONS**

- Applicable refrigerants: HCFC, HFC, HC, HFO
- Medium temperature: -30°C~+120°C
- Ambient temperature: -30°C~ +55°C
- Max. Operation pressure PS max:  
4.83MPa (48,3bar) – 700 PSI
- Installation position:
  - Flow direction corresponds to the arrow
  - Preferably installed in liquid line
- Certification: UL/CSA and PED declaration

**1.5 IN<sup>3</sup> FILTER DRIER**



*Model Designation Legend*

1	Product Code	Filter Drier Series	
	DTG	Indicates unidirectional filter drier	
2	Filter Core	Structure and Material	
	M	Solid core, 100%3Å desiccant, stainless steel housing	
3	Filter core volume	[ inch <sup>3</sup> ]	[ cm <sup>3</sup> ]
	02	1.5	25
4	Connection Size	Pos. 5 shows "0": Solder [inch]	
	02	1/4	
	03	3/8	
	04	1/2	
4	Connection Size	Pos. 5 shows "1": Solder [mm]	
	06	6	
	10	10	
	12	12	
5	Pipe Connection	Type	
	0	Solder with inch connections	
	1 *	Solder with metric connections	
6	Version Number	Description	
	901	Series number	

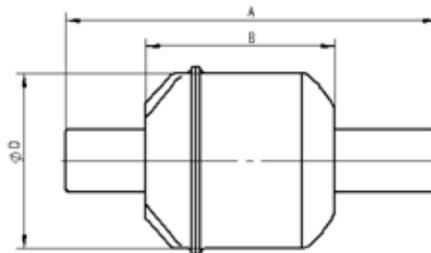
**MODEL DESIGNATION EXAMPLE**

Position Number						According to Model Designation Legend
1	2	3	4	5	6	
<b>DTG</b>	M	02	02	0	901	Unidirectional filter drier
DTG	<b>M</b>	02	02	0	901	Solid filter core with 100% 3Å desiccant, stainless steel housing
DTG	M	<b>02</b>	02	0	901	1.5 inch <sup>3</sup> filter core volume
DTG	M	02	<b>02</b>	0	901	When Pos. 5 is "0": connection size 1/4" inch
DTG	M	02	02	<b>0</b>	901	Solder connection inch
DTG	M	02	02	0	<b>901</b>	Series number

**1.5 IN<sup>3</sup> FILTER DRIER**



**GENERAL CHARACTERISTICS**



Filter	Model	Part number (Industrial pack) <sup>1)</sup>	Solder connection		Dimensions & Weight				PED Category
			[inch]	[mm]	ØD	B	A	Weight	
					[mm]	[mm]	[mm]	[g]	
DTGM022s	DTG-M02020-901	10230041401	1/4		42	45	77	95	Art. 4.3
DTGM023s	DTG-M02030-901	10230039601	3/8		42	45	77	95	Art. 4.3
DTGM024s	DTG-M02040-901	10230041501	1/2		42	45	83	95	Art. 4.3

**Note:** 1) Please contact Sanhua representative regarding availability and exact item number. Products can be supplied in industrial boxes only.

**SELECTION TABLE**

Model	Capacity <sup>1)</sup> [ kW ]					Moisture Absorption (gram H <sub>2</sub> O)							
	R134a	R404A	R290	R407C <sup>2)</sup>	R410A	R134a		R404A		R407C <sup>2)</sup>		R22	
		R507A				75°F	125°F	R507A		R410A		R22	
						23,9°C	51,7°C	75°F	125°F	75°F	125°F	75°F	125°F
						23,9°C	51,7°C	23,9°C	51,7°C	23,9°C	51,7°C	23,9°C	51,7°C
DTGM022s	4.67	3.28	5.13	4.72	4.82	3.2	2.8	3.5	2.9	2.7	2.5	3.0	2.2
DTGM023s	3.50	2.46	3.85	3.54	3.54	3.2	2.8	3.5	2.9	2.7	2.5	3.0	2.2
DTGM024s	2.33	1.64	2.56	2.36	2.36	3.2	2.8	3.5	2.9	2.7	2.5	3.0	2.2

**Note:** 1) The above data is based on clean system at ideal conditions; with impurities, accumulated in the filter, the capacity may decrease  
 2) R407C capacity is based on dew point conditions

**1.5 IN<sup>3</sup> FILTER DRIER**



**SELECTION FORMULAS**

Filter Driers for liquid line are manufactured in compliance with ARI Standard 710. Maximum flow rate of liquid refrigerant at a differential pressure of 0,07bar (1psi) is indicated by kW (ton) which is based on the temperature of liquid refrigerant 30°C (86°F), the evaporating temperature of -15°C (5°F) and the following mass flow:

- 0,40 kg/min/kW (3.1 lb/min/ton) R134a
- 0,53 kg/min/kW (4.1 lb/min/ton) R404A, R507A
- 0,39 kg/min/kW (3.0 lb/min/ton) R407C
- 0,36 kg/min/kW (2.8 lb/min/ton) R410A

**Note:** Data on water absorption is based on the following EPD (method: ASHRAE Standard 63.1):

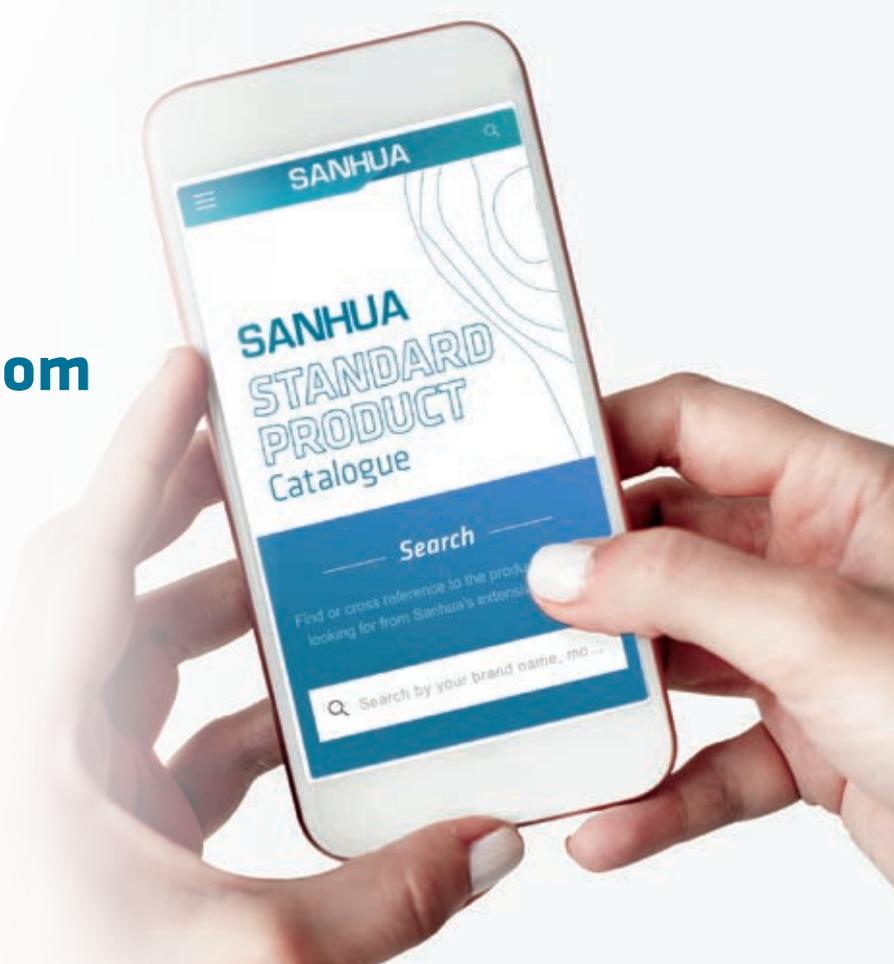
- 50ppm R134a
- 50ppm R404A
- 50ppm R407C
- 50ppm R410A
- 50ppm R507A

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**BDF/KMV SERIES****BI-STABLE SOLENOID VALVE**

BDF/KMV bi-stable solenoid valve are used in dual temperature/double control household refrigerators, deep freezers, wine cabinet, water dispenser and other similar small scale cooling systems to switch the flow path of refrigerants.

**FEATURES**

- MAINTAINING WORKING CONDITIONS WITH PULSE ACTUATION AND MAGNET LATCHING MODE
- GOOD INNER LEAKAGE PERFORMANCE
- LOW NOISE

**GENERAL SPEC.**

- Applicable refrigerant: R600a, R134a etc.
- Applicable medium temperature: -30°C ~ +65°C
- Ambient temperature: -20°C ~ +60°C
- Relative humidity: below 95% RH
- Maximum working pressure: 2.5MPa

**TECHNICAL PARAMETERS**

Model	Voltage V	Frequency Hz	Sealing Structure	Max. Opening Differential Pressure MPa	Air Flow L/h ( $\Delta P=0.4\text{MPa}$ )	Inner Leakage ml/min ( $\Delta P=0.4\text{MPa}$ )
BDF	AC110V~120V	50/60	Rubber	1.6	$\geq 1000$	$\leq 10$
KMV	AC220V~240V	50/60	Steel ball	1.6	$\geq 1000$	$< 83.3$

**DIMENSIONS**

- Product structure and interface dimensions can be customized according to customers' requirements.



# Quick Finder



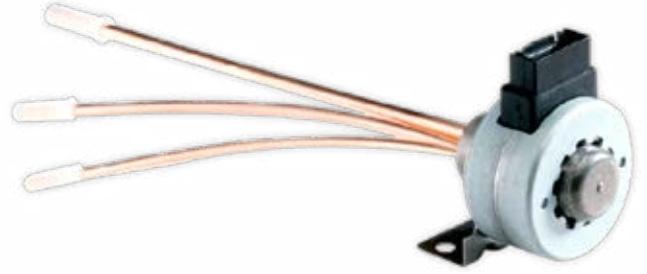
## SELECT THE RIGHT PRODUCT

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**DDF/KMV SERIES****STEP VALVE**

DDF series step valve are mainly used in dual temperature/ double control household refrigerators with variable temperature areas (with 0°C preservation area or -7°C temperature area) and similar refrigeration systems for controlling and switching the flow direction of refrigerant.

**FEATURES**

- OPTIMIZED DESIGN OF REFRIGERATION SYSTEM, LOWER POWER CONSUMPTION
- LOW OPERATION NOISE: UTILIZING ROTARY ACTUATION

**GENERAL SPEC.**

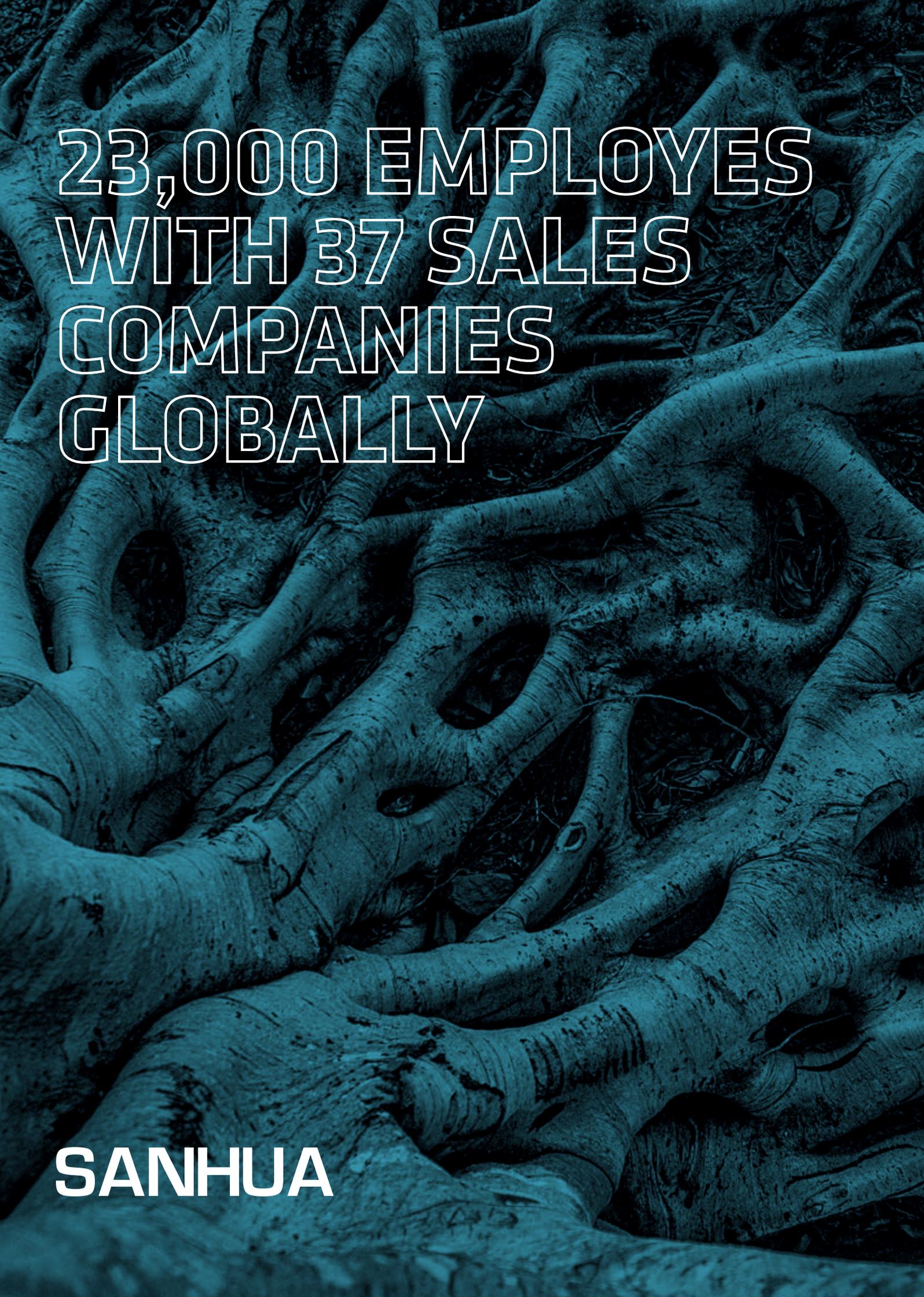
- Applicable refrigerant: R600a and R134a
- Applicable medium temperature: -20°C ~ +65°C
- Applicable ambient temperature: -20°C ~ +60°C
- Relative humidity: below 95%RH
- Noise: Distance 15cm, starting noise ≤ 50dB (A), rotary noise ≤ 40dB (A)

**TECHNICAL PARAMETERS**

Technical Parameters of Valve Body				
Model	Port mm	Air Flow L/h ( $\Delta P=0.8\text{MPa}$ )	Inner Leakage mL/min ( $\Delta P=0.8\text{MPa}$ )	Max. Working Pressure MPa
DDF	0.8	≥1500	150	2.5
Electrical Parameters of Coil				
Resistance at 20°C $\Omega$	Rated Voltage V	Voltage Change	Rated Current When Unidirectional Winding is Powered mA	Max. Differential Pressure of Opening Valve MPa
46±3	DC12V	90%~110%	260	1.8

**DIMENSIONS**

- Product structure and interface dimensions can be customized according to the customer's requirements.



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## A SERIES DRAIN PUMP

Drain pump are used in packaged air conditioners, indoor units of ceiling air conditioners to drain the condensing water generated by heat exchangers during cooling and dehumidification.



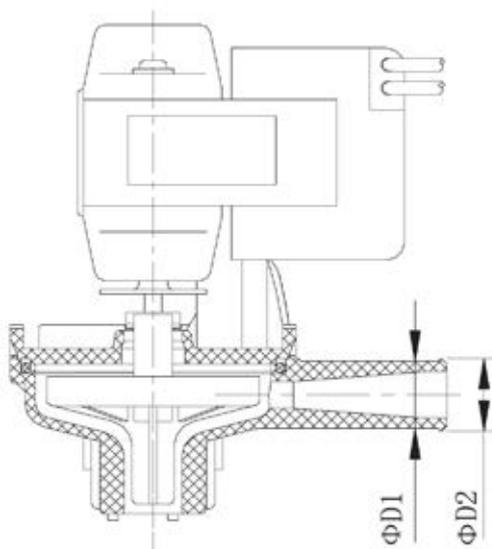
### FEATURES

- LOW NOISE, LOW VIBRATION AND LIGHT WEIGHT
- SMALL SCALE WITH ENOUGH FLOW RATE, LONG LIFE
- COST-EFFECTIVE

### GENERAL SPECIFICATIONS

- Applicable fluid temperature: 0°C ~ +40°C (but no fluid frozen)
- Applicable ambient temperature: -10°C ~ 45°C
- Relative humidity: below 95% RH
- Certification: UL, CQC and VDE

### DIMENSIONS



Model	Dimensions mm			
	D1		D2	
PSB-7A	13	16	14	17
PSB-12A	13	16	14	17

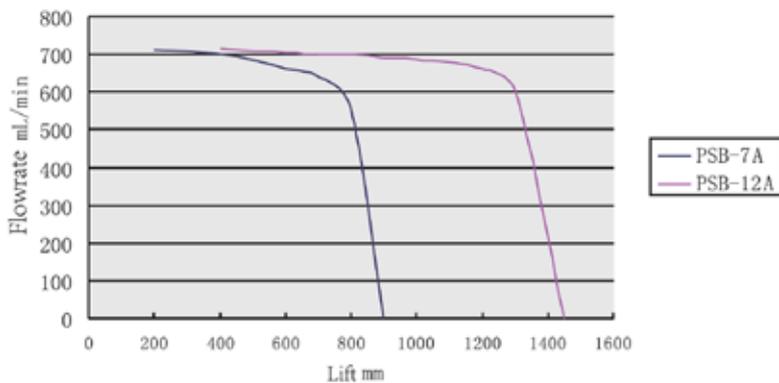
- Note:**
- 1) Type and length of leads, terminal insulation casing and support will be optional subject to the customers' needs.
  - 2) In addition to the water outlet direction shown in the figure, there are another three optional outlet directions every 90°.

**DRAIN PUMP**



**TECHNICAL PARAMETERS**

Model	Rated Lift mm	Rated Flow ml/min	Rated Voltage V	Rated Current mA	Input Power W
PSB-7A	700	≥450	AC220V~240V	<108/96	<10.8/96
		≥320	AC115V	<108/96	<10.8/96
PSB-12A	1200	≥400	AC220V~240V	120/108	12/10.8

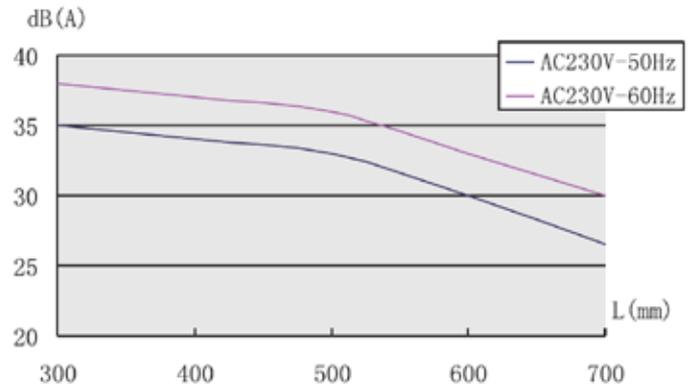


*Lift and Flowrate Graph*

- AC230V 50Hz/60Hz, at a water level of 10mm, testing draining noise in 1min under different lift (at the distance of 1m)

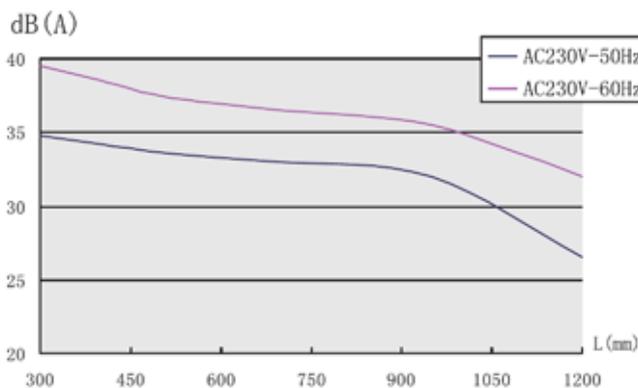
*PSB-7A Model Lift - Noise Graph*

- PSB-12A Model Lift - Noise Graph AC230V 50Hz/60Hz, at a water level of 10mm, testing draining noise in 1min under different lift (at the distance of 1m)



*PSB-12A Model Lift - Noise Graph*

- AC230V 50Hz/60Hz, at a water level of 10mm, testing draining noise in 1min under different lift (at the distance of 1m)



**B SERIES****DRAIN PUMP**

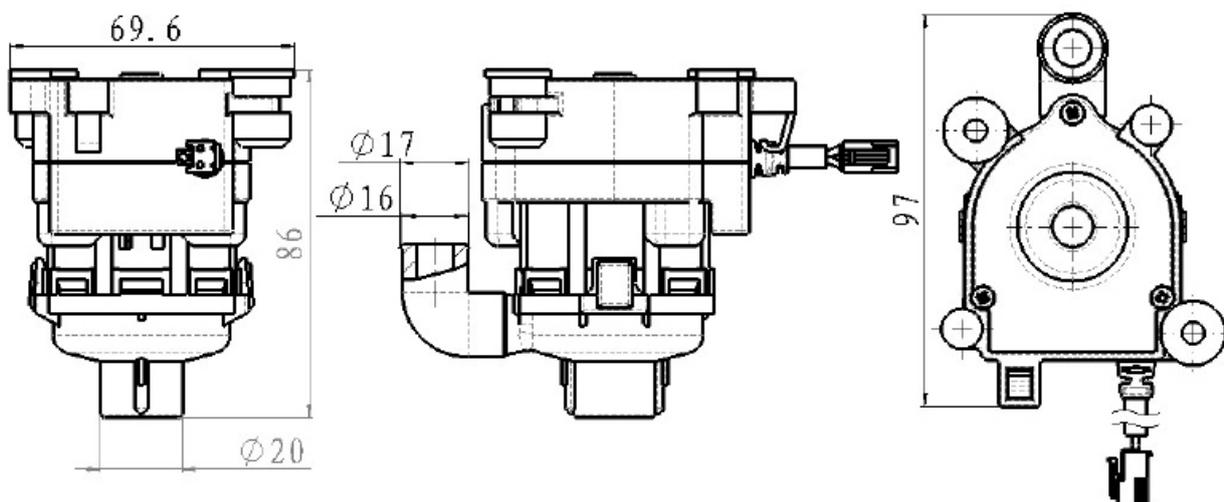
PSB 12B series drain pump are used in packaged air conditioners and indoor unit of ceiling air conditioners to drain the condensate generated by the heat exchanger during cooling and dehumidification.

**FEATURES**

- LOW NOISE, LOW VIBRATION AND LIGHT WEIGHT
- SMALL VOLUME, BIG FLOW AND LONG SERVICE LIFE
- LOW ENERGY CONSUMPTION
- COST-EFFECTIVE

**GENERAL SPECIFICATIONS**

- Applicable fluid temperature: 0°C ~ +50°C (but no fluid frozen)
- Applicable ambient temperature: -10°C ~ 50 °C
- Relative humidity: below 95% RH

**DIMENSIONS**

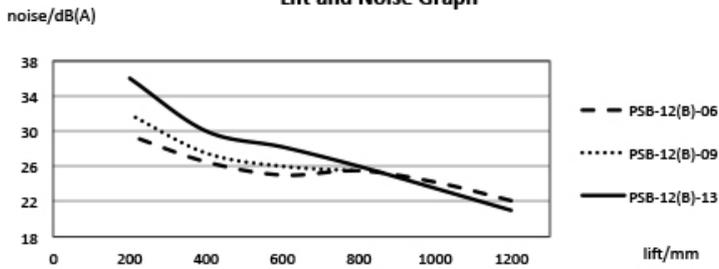
**DRAIN PUMP**



**TECHNICAL PARAMETERS**

Model	Nominal lift	Nominal flow	Rated voltage	Rated current	input power
	mm	ml/min	V	mA	W
PSB-12(B)-06	1200	≥400	DC13V	<323	<4.2
PSB-12(B)-09	850	≥450	DC12V	<300	<3.6
PSB-12(B)-13	1200	≥400	DC12V	<350	<4.2

**Lift and Noise Graph**



*Lift and Noise Graph*

- AC230V 50Hz/60Hz, at a water level of 10mm, testing draining noise in 1min under different lift (at the distance of 1m)

**YKG (A) SERIES****FLOAT LEVEL SWITCH**

YKG (A) series level switches are applicable to many environments, usually connected to actuators such as drain pumps or electromagnetic valves to control the fluid level in the equipment for the purpose of level warning in the system.

**FEATURES**

- RELIABLE ACTION POINT, AND LONG LIFE
- COST EFFECTIVE

**GENERAL SPECIFICATIONS**

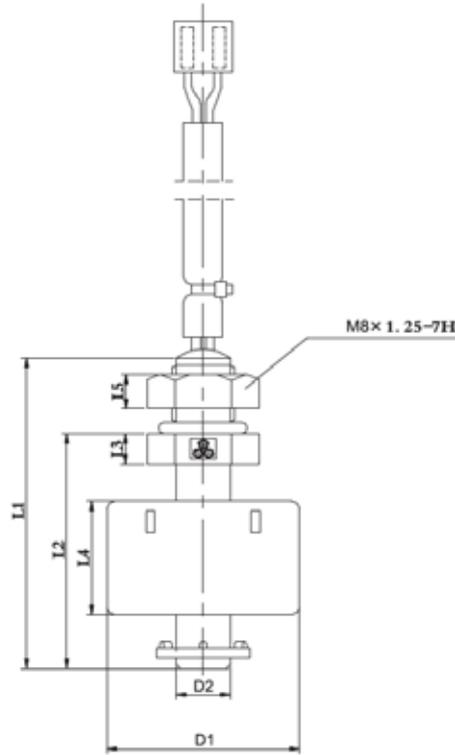
- Applicable fluid temperature: 0°C ~ +40°C (but no fluid frozen)
- Applicable ambient temperature: -10°C ~ +60°C
- Relative humidity: below 95% RH

**TECHNICAL PARAMETERS**

Model	Max. Contact Power W	Max. Switching Voltage V	Max. Switching Current A	Action Life 10 thousand times	Contact Resistance between Reed Contacts mΩ
YKG(A)-10	10	DC 100/AC 100	DC 0.5/AC 0.5	100	≤300
YKG(A)-50	50	DC 300/AC 300	DC 0.7/AC 0.5	100	≤300



**DIMENSIONS**



Model	Dimension	
L1	41±0.5	44±0.5
L2	31±0.5	34±0.5
D1	φ25	
D2	φ7	
L3	15	
L4	4	
L5	4.5	

**Notes:**

- 1) Type and length of leads, terminal insulation casing will be optional subject to the customers' needs.
- 2) See above figure for external dimensions of nuts. Recommended to tighten the nut to 0.25 N.m;

**P SERIES****ACCUMULATOR**

Accumulator is installed between the suction port of the refrigerating system compressors and evaporator to separate gas and fluid, store fluid, return oil and filter.

**FEATURES**

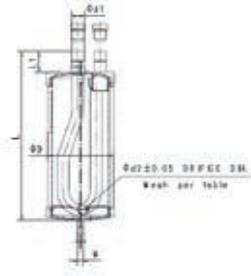
- INLET AND OUTLET ARE MADE OF COPPER TUBES
- AIR GUIDING PART DIRECT THE REFRIGERANT TOWARD THE WALL WHICH FROM A SLIPSTREAM TO MAKE THE REFRIGERANT EXPAND QUICKLY AND SLOW THE FLOW TO LET THE LIQUID DROP DOWN. THIS EFFECTIVELY SEPARATES THE LIQUID AND GAS.
- THE U TUBE DESIGN GUARANTEE A MAX FLOW OF REFRIGERANT AND STOP LITTLE LUBRICATION OIL. THE INLET OF U TUBE IS BEHIND AIR GUIDING PART WHICH CAN PREVENT THE LIQUID FROM ENTERING COMPRESSOR. AT THE SAME TIME, IT CAN CHANGE THE DIRECTION OF REFRIGERANT TO COMPLETELY SEPARATE THE LIQUID AND GAS.
- THE BALANCING HOLE IN THE UPPER U TUBE CAN EFFECTIVELY ELIMINATE THE SIPHON CAUSED THE RESTART OF SYSTEM SO AS TO AVOID EXCESSIVE LIQUID ENTERING COMPRESSOR.
- THE OIL RETURN HOLE IS MATCHING THE SYSTEM CAPACITY TO OPTIMIZE THE FLOW OF LIQUID REFRIGERANT AND LUBRICATION OIL INTO COMPRESSOR
- CONNECTION TUBE, U TUBE AND VOLUME OF ACCUMULATOR IS DESIGNED BASED ON THE BASIC DEMAND OF HEAT PUMP SYSTEM ALLOWS A PROPER AND RELIABLE LIQUID REFRIGERANT AND LUBRICATION OIL BACK TO COMPRESSOR. THIS COMBINATION IS TO ACHIEVE A MINIMUM PRESSURE DROP AND LARGEST REFRIGERANT CAPACITY.
- POWER COATED SURFACE CAN SURVIVE 500 HOURS OF SALT SPRAY TEST.
- INCORPORATED FUSE OF 220°C

**GENERAL SPECIFICATIONS**

- Applicable refrigerant: CFC, HCFC, HFC and HFO
- Applicable medium temperature: -30°C ~+120°C (22°F~+240°F)
- Applicable ambient temperature: -35°C ~+55°C (22°F~+131°F)
- Maximum working pressure: 2.5MPa
- Certification: UL, CSA and PED

**ACCUMULATOR**

**TECHNICAL PARAMETERS**



Model	D mm	L mm	d1 mm	L1 mm	d2 mm	N meshes/in	Screw Size M	d2 mm	Volume L
ACM-P21076-901	76	185,8	16,12	34,3	1,0	60	3/8-16UNC-2A	1,0	0,63
ACM-P22076-901	76	268,8	16,12	34,3	1,0	60	3/8-16UNC-2A	1,0	0,98
ACM-P23076-901	76	382,3	16,12	34,3	1,0	60	3/8-16UNC-2A	1,0	1,46
ACM-P21101-901	101,6	251	16,12	34,3	1,0	60	3/8-16UNC-2A	1,0	1,59
ACM-P22101-901	101,6	251	16,12	34,3	1,4	30	3/8-16UNC-2A	1,4	1,59
ACM-P23101-901	101,6	251	19,17	34,3	1,0	60	3/8-16UNC-2A	1,0	1,59
ACM-P24101-901	101,6	251	19,17	34,3	1,4	30	3/8-16UNC-2A	1,4	1,59
ACM-P25101-901	101,6	282,3	16,12	34,3	1,0	60	3/8-16UNC-2A	1,0	1,83
ACM-P26101-901	101,6	282,3	16,12	34,3	1,4	30	3/8-16UNC-2A	1,4	1,83
ACM-P27101-901	101,6	282,3	19,17	34,3	1,0	60	3/8-16UNC-2A	1,0	1,83
ACM-P28101-901	101,6	282,3	19,17	34,3	1,4	30	3/8-16UNC-2A	1,4	1,83
ACM-P29101-901	101,6	320	16,12	34,3	1,0	60	3/8-16UNC-2A	1,0	2,11
ACM-P30101-901	101,6	320	16,12	34,3	1,4	30	3/8-16UNC-2A	1,4	2,11
ACM-P31101-901	101,6	320	19,17	34,3	1,0	60	3/8-16UNC-2A	1,0	2,11
ACM-P32101-901	101,6	320	19,17	34,3	1,4	30	3/8-16UNC-2A	1,4	2,11
ACM-P33101-901	101,6	357,1	16,12	34,3	1,0	60	3/8-16UNC-2A	1,0	2,39
ACM-P34101-901	101,6	357,1	16,12	34,3	1,4	30	3/8-16UNC-2A	1,4	2,39
ACM-P35101-901	101,6	357,1	19,17	34,3	1,0	60	3/8-16UNC-2A	1,0	2,39
ACM-P36101-901	101,6	357,1	19,17	34,3	1,4	30	3/8-16UNC-2A	1,4	2,39
ACM-P37101-901	101,6	432,1	16,12	34,3	1,0	60	3/8-16UNC-2A	1,0	2,96
ACM-P38101-901	101,6	432,1	16,12	34,3	1,4	30	3/8-16UNC-2A	1,4	2,96
ACM-P39101-901	101,6	432,1	19,17	34,3	1,0	60	3/8-16UNC-2A	1,0	2,96
ACM-P40101-901	101,6	432,1	19,17	34,3	1,4	30	3/8-16UNC-2A	1,4	2,96
ACM-P21127-901	127	250,4	22,35	40,4	1,4	30	3/8-16UNC-2A	1,4	2,49
ACM-P22127-901	127	250,4	22,35	40,4	1,0	60	3/8-16UNC-2A	1,0	2,49
ACM-P23127-901	127	244,3	19,17	34,3	1,4	30	3/8-16UNC-2A	1,4	2,49
ACM-P24127-901	127	244,3	19,17	34,3	1,0	60	3/8-16UNC-2A	1,0	2,49
ACM-P25127-901	127	293,9	22,35	40,4	1,4	30	3/8-16UNC-2A	1,4	3,01
ACM-P26127-901	127	293,9	22,35	40,4	1,0	60	3/8-16UNC-2A	1,0	3,01
ACM-P27127-901	127	287,8	19,17	34,3	1,4	30	3/8-16UNC-2A	1,4	3,01
ACM-P28127-901	127	287,8	19,17	34,3	1,0	60	3/8-16UNC-2A	1,0	3,01
ACM-P29127-901	127	327,2	22,35	40,4	1,4	30	3/8-16UNC-2A	1,4	3,41
ACM-P30127-901	127	327,2	22,35	40,4	1,0	60	3/8-16UNC-2A	1,0	3,41
ACM-P31127-901	127	321,1	19,17	34,3	1,4	30	3/8-16UNC-2A	1,4	3,41
ACM-P32127-901	127	321,1	19,17	34,3	1,0	60	3/8-16UNC-2A	1,0	3,41
ACM-P33127-901	127	389,6	22,35	40,4	1,4	30	3/8-16UNC-2A	1,4	4,14
ACM-P34127-901	127	389,6	22,35	40,4	1,0	60	3/8-16UNC-2A	1,0	4,14
ACM-P35127-901	127	383,5	19,17	34,3	1,4	30	3/8-16UNC-2A	1,4	4,14
ACM-P36127-901	127	383,5	19,17	34,3	1,0	60	3/8-16UNC-2A	1,0	4,14
ACM-P37127-901	127	438,2	22,35	40,4	1,4	30	3/8-16UNC-2A	1,4	4,72
ACM-P38127-901	127	438,2	22,35	40,4	1,0	60	3/8-16UNC-2A	1,0	4,72
ACM-P39127-901	127	432,1	19,17	34,3	1,4	30	3/8-16UNC-2A	1,4	4,72
ACM-P40127-901	127	432,1	19,17	34,3	1,0	60	3/8-16UNC-2A	1,0	4,72
ACM-P21153-901	152,4	366,3	28,63	48,3	2,03	30	1/2-13UNC-2A	2,03	5
ACM-P22153-901	152,4	370,3	35,15	52,3	2,03	30	1/2-13UNC-2A	2,03	5
ACM-P23153-901	152,4	408,3	28,63	48,3	2,03	30	1/2-13UNC-2A	2,03	5,7
ACM-P24153-901	152,4	412,3	35,15	52,3	2,03	30	1/2-13UNC-2A	2,03	5,7
ACM-P25153-901	152,4	475,5	28,63	48,3	2,03	30	1/2-13UNC-2A	2,03	6,8
ACM-P26153-901	152,4	479,5	35,15	52,3	2,03	30	1/2-13UNC-2A	2,03	6,8
ACM-P27153-901	152,4	530,1	28,63	48,3	2,03	30	1/2-13UNC-2A	2,03	7,8
ACM-P28153-901	152,4	534,1	35,15	52,3	2,03	30	1/2-13UNC-2A	2,03	7,8

## S SERIES

# ACCUMULATOR

S series accumulator is installed between the suction port of the refrigerating system compressors and evaporator to separate gas and fluid, store fluid, return oil and filter.



## FEATURES

- INLET AND OUTLET ARE MADE OF COPPER TUBES
- AIR GUIDING PART DIRECT THE REFRIGERANT TOWARD THE WALL WHICH FORM A SLIPSTREAM TO MAKE THE REFRIGERANT EXPAND QUICKLY AND SLOW THE FLOW TO LET THE LIQUID DROP DOWN. THIS EFFECTIVELY SEPARATES THE LIQUID AND GAS.
- THE U TUBE DESIGN GUARANTEE A MAX FLOW OF REFRIGERANT AND STOP LITTLE LUBRICATION OIL. THE INLET OF U TUBE IS BEHIND AIR GUIDING PART WHICH CAN PREVENT THE LIQUID FROM ENTERING COMPRESSOR. AT THE SAME TIME, IT CAN CHANGE THE DIRECTION OF REFRIGERANT TO COMPLETELY SEPARATE THE LIQUID AND GAS.
- THE BALANCING HOLE IN THE UPPER U TUBE CAN EFFECTIVELY ELIMINATE THE SIPHON CAUSED THE RESTART OF SYSTEM SO AS TO AVOID EXCESSIVE LIQUID ENTERING COMPRESSOR
- THE OIL RETURN HOLE IS MATCHING THE SYSTEM CAPACITY TO OPTIMIZE THE FLOW OF LIQUID REFRIGERANT AND LUBRICATION OIL INTO COMPRESSOR.
- CONNECTION TUBE, U TUBE AND VOLUME OF ACCUMULATOR IS DESIGNED BASED ON THE BASIC DEMAND OF HEAT PUMP SYSTEM INCLUDING SAFETY STORE CAPACITY (VS. TOTAL CAPACITY); PROTECTIVE FLOW CONTROL BACK TO COMPRESSOR ALLOWS A PROPER AND RELIABLE LIQUID REFRIGERANT AND LUBRICATION OIL BACK TO COMPRESSOR. THIS COMBINATION IS TO ACHIEVE A MINIMUM PRESSURE DROP AND LARGEST REFRIGERANT CAPACITY.
- POWDER COATED SURFACE CAN SURVIVE 500HOURS OF SALT SPRAY TEST
- ADVANCED STRUCTURE DESIGN AND PROCESS, COST-EFFECTIVE

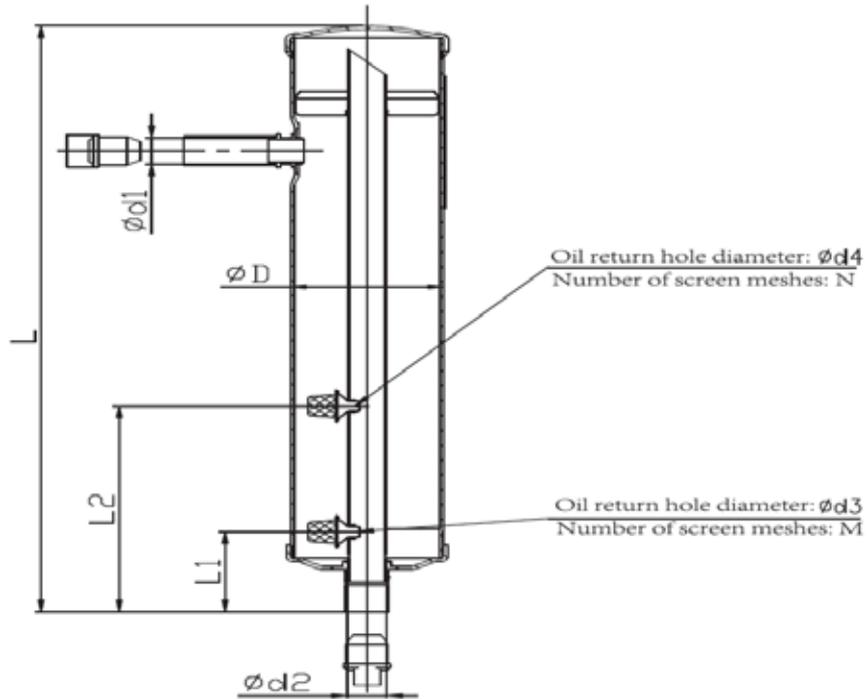
## GENERAL SPECIFICATIONS

- Applicable refrigerant: CFC, HCFC, HFC and HFO
- Applicable medium temperature: -30°C~+120°C (-22°F~+240°F)
- Applicable ambient temperature: -35°C~+55°C (-22°F~+131°F)
- Maximum working pressure: 2.5MPa (362.5Psig)
- Certification: UL, CSA and PED

**Note:** 1) Please contact Sanhua representative for details regarding refrigerants.



TECHNICAL PARAMETERS



Model	L mm	D mm	d1 mm	d2 mm	L1 mm	L2 mm	d3 mm	d4 mm	M meshes/in	N meshes/in
ACM-S00063-004	355.6	63.5	16	16	51	127	1.52	0.74	60	60
ACM-S00063-005	355.6	63.5	16	16	51	127	3.2	0.74	60	60
ACM-S00063-006	355.6	63.5	16	16	51	127	0.74	0.74	60	60
ACM-S00063-012	431.8	63.5	19.2	19.2	51	127	1.14	0.74	60	60
ACM-S00076-007	279.4	76	19.2	19.2	64.3	140.5	1.52	1.52	30	30
ACM-S00076-008	330.2	76	22.4	22.4	70.6	146.8	1.52	1.52	30	30
ACM-S00101-023	333.3	101.6	19.2	19.2	50.8	127	1.52	0.74	30	60
ACM-S00101-033	333.3	101.6	22.4	22.4	50.8	127	1.52	0.74	60	60
ACM-S00101-017	371.4	101.6	19.2	19.2	50.8	127	1.52	0.74	60	60
ACM-S00101-012	371.4	101.6	22.4	22.4	50.8	127	1.52	0.74	60	60
ACM-S00101-022	438	101.6	22.4	22.4	50.8	127	1.52	0.74	30	60
ACM-S00101-021	485.7	101.6	22.4	22.4	50.8	127	1.52	0.74	60	60
ACM-S00101-016	523.7	101.6	22.4	22.4	50.8	127	1.52	0.74	60	60
ACM-S00101-025	558.8	101.6	19.2	19.2	50.8	127	0.74	0.74	60	60
ACM-S00101-024	612.7	101.6	22.4	22.4	50.8	152.4	1.52	0.74	60	60

## LRA SERIES

# LIQUID RECEIVER

Liquid receiver is usually installed in liquid line of refrigeration or AC systems to store excessive refrigerant when the load of the system changes



A series

B series

C series

## FEATURES

- THREE DIFFERENT SERIES AND SIXTEEN MODELS OF VERTICAL MODELS ARE AVAILABLE.
- THE INLET TUBE IS SOLDER CONNECTION AND 3 TYPES OF OUTLET CONNECTIONS ARE AVAILABLE: A SERIES WITH SOLDER CONNECTION, B SERIES WITH FLARE CONNECTION, AND C SERIES WITH ANGLE VALVE STRUCTURE.
- THE FIXING OF A AND B SERIES IS CENTRAL THREADED BOLT BELOW, WHILE C SERIES IS FASTENING BRACKET BELOW.
- INTERNAL FLOW-OUT IS REALIZED BY SUCTION TUBE FROM THE BOTTOM OF THE RECEIVER.
- POWDER COATED SURFACE CAN SURVIVE 500 HOURS OF SALT SPRAY TEST.

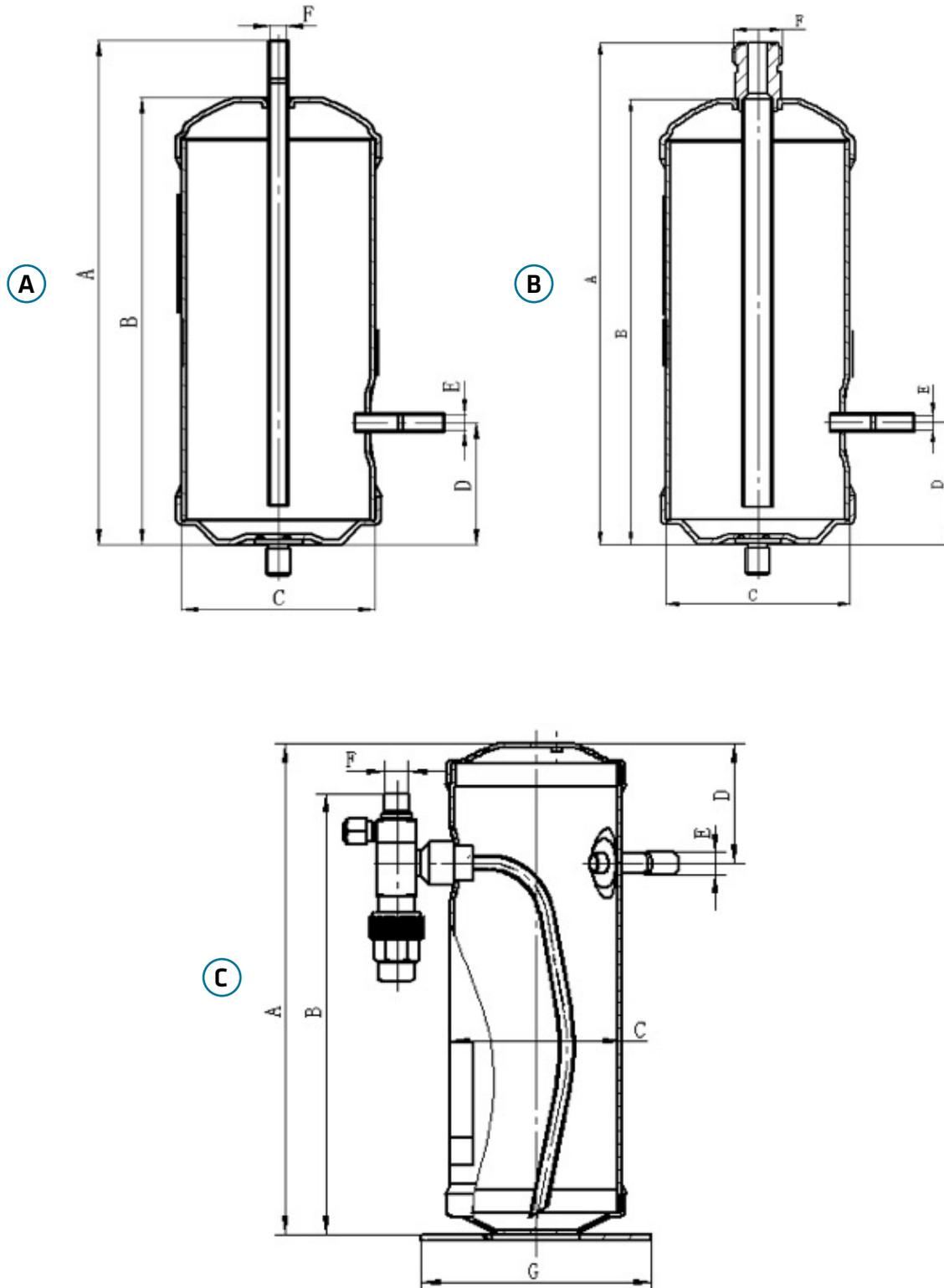
## GENERAL SPECIFICATIONS

- Applicable refrigerant: HCFC, HFC and HFO
- Applicable medium temperature: -30 °C to +120 °C
- Applicable ambient temperature: -35 °C to +55 °C
- Maximum allowable pressure: 35bar
- Certification: UL and PED declaration\*

\*: - PED declaration is available for the models in Art.4.3 or category grading I for FG I & FG II (Tab.2).  
 - **For the other higher categorised models, the corresponding PED certifications are still pending and can be only provided on request.**



**TECHNICAL PARAMETERS**





Series	Model	U11 Code	Internal Volume (L)	Dimensions [mm]						
				A	B	C	D	E (Inlet)	F (Outlet)	G
A	LRA-A01063-901	10210015701	0.4	171	143	Φ63.5	51	Φ6.5±0.1	Ø6.5±0.1	/
	LRA-A02076-901	10210015801	0.75	210	186	Φ76	51	Φ6.5±0.1	Ø6.5±0.1	/
B	LRA-B01076-901	10210015601	0.6	171±4	147±3	Φ76	51	Φ6.5±0.1	3/4-16UNF-2A	/
	LRA-B02076-901	10210019601	0.75	210±4	186±3	Φ76	51	Φ6.5±0.1	3/4-16UNF-2A	/
	LRA-B03076-901	10210020601	0.9	252±4	228±3	Φ76	51	Φ 6.5±0.1	3/4-16UNF-2A	/
	LRA-B04076-901	10210020701	1.2	323±4	299±3	Φ76	51	Φ6.5±0.1	3/4-16UNF-2A	/
	LRA-B05127-901 <sup>1</sup>	10210015501	2.1	221±5	197±4	Φ127	63.5	Φ6.5±0.1	3/4-16UNF-2A	/
	LRA-B06127-901 <sup>1</sup>	10210015301	3.5	329±5	305±4	Φ127	63.5	Φ9.7±0.1	3/4-16UNF-2A	/
	LRA-B07153-901 <sup>1</sup>	10210019701	5	328.5±5	304.8±4	Φ152.4	63.5	Φ9.7±0.1	1-14UNS-2A	/
	LRA-B08153-901 <sup>1,2</sup>	10210016001	6	403.5±5	379.5±4	Φ152.4	63.5	Φ9.7±0.1	1-14UNS-2A	/
C	LRA-C01089-901 <sup>1</sup>	10210016101	1.5	254	224	Φ89	63.5	Φ9.7±0.1	Φ9.7±0.1	120
	LRA-C02127-901 <sup>1</sup>	10210016301	2.5	257	240	Φ127	63.5	Φ9.7±0.1	Φ9.7±0.1	165.1
	LRA-C03153-901 <sup>1</sup>	10210018201	5.2	307.8	270.8	Φ152.4	63.5	Φ9.7±0.1	Φ9.7±0.1	165.1
	LRA-C04153-901 <sup>1,2</sup>	10210015401	6.8	409.4	372	Φ152.4	63.5	Φ9.7±0.1	Φ9.7±0.1	165.1
	LRA-C05153-901 <sup>1,2</sup>	10210016201	7.7	460	423.2	Φ152.4	63.5	Φ12.85±0.1	Φ12.85±0.1	165.1
	LRA-C06153-901 <sup>1,2</sup>	10210018101	9.9	587.2	550.2	Φ152.4	63.5	Φ12.85±0.1	Φ12.85±0.1	165.1

Tab.1: Models and dimensions of the liquid receiver LRA-A/B/C series

**Note:** <sup>1</sup>: the model is on request regarding classification as category II or III for refrigerant group I with hazardous substance or mixture according to PED (Tab.2).

<sup>2</sup>: the model is on request regarding classification as category II for refrigerant group II without hazardous substance or mixture according to PED (Tab.2).



Product model	Net Volume [ L ]	PS [ bar ]	PS*V	PED Category	
				FG II	FG I
LRA-A01063-901	0,4	35	14	Art.4.3	Art.4.3
LRA-A02076-901	0,75	35	26,25	Art.4.3	Art.4.3
LRA-B01076-901	0,6	35	21	Art.4.3	Art.4.3
LRA-B02076-901	0,75	35	26,25	Art.4.3	Art.4.3
LRA-B03076-901	0,9	35	31,5	Art.4.3	Art.4.3
LRA-B04076-901	1,2	35	42	Art.4.3	I
LRA-B05127-901	2,1	35	73,5	I	II
LRA-B06127-901	3,5	35	122,5	I	II
LRA-B07153-901	5	35	175	I	II
LRA-B08153-901	6	35	210	II	III
LRA-C01089-901	1,5	35	52,5	I	II
LRA-C02127-901	2,5	35	87,5	I	II
LRA-C03153-901	5,2	35	182	I	II
LRA-C04153-901	6,8	35	238	II	III
LRA-C05153-901	7,7	35	269,5	II	III
LRA-C06153-901	9,9	35	346,5	II	III

Tab.2: Category grading of the liquid receiver LRA-A/B/C series

**KCY SERIES****SUCTION LINE  
ACCUMULATOR  
(COMPRESSOR)**

Applicable for household air conditioner compressor, the Accumulator is installed in front of the compressor to separate refrigerant and refrigeration oil and impurities not completely gasified by evaporators. It has functions of gas-liquid separation, liquid storage, oil return and noise reduction to ensure that the compressor would not be damaged by fluid impact.

**FEATURES**

- CORROSION RESISTANCE: FINISHED WITH POWDER PAINTING SURVIVING 500 HOURS OF SALT SPRAY TEST
- LONG SERVICE LIFE: STEEL CASING, MORE ENDURABLE

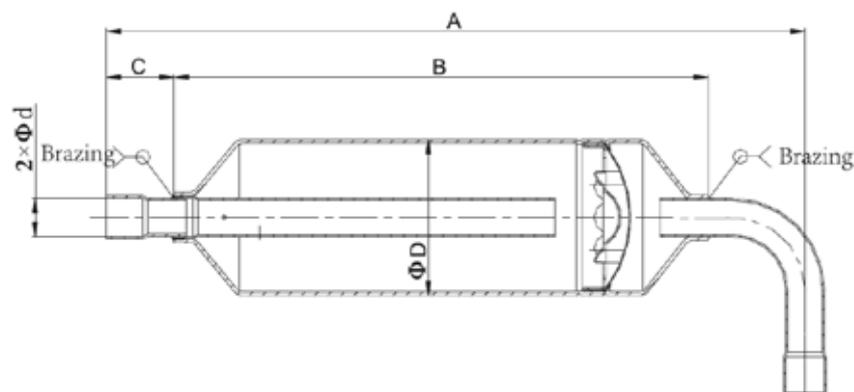
**GENERAL  
SPECIFICATIONS**

- Applicable refrigerant: CFC, HCFC, HFC etc.
- Applicable medium temperature:  $-30^{\circ}\text{C} \sim +120^{\circ}\text{C}$   
( $-22^{\circ}\text{F} \sim +240^{\circ}\text{F}$ )

- Applicable ambient temperature:  $-30^{\circ}\text{C} \sim +65^{\circ}\text{C}$   
( $-22^{\circ}\text{F} \sim +131^{\circ}\text{F}$ )
- Maximum working pressure: 4.8MPa
- Certification: UL and CSA

**TECHNICAL PARAMETERS**

*Steel Receiver*



## SUCTION LINE ACCUMULATOR (COMPRESSOR)



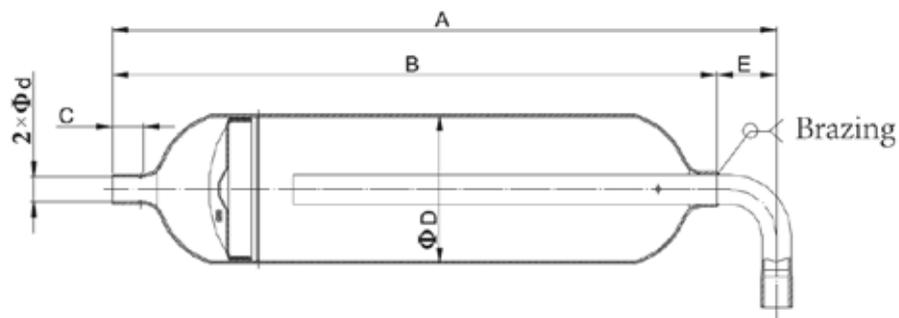
### TECHNICAL PARAMETERS

Steel Receiver

Model	Dimensions					Connection Type
	D mm	B mm	A mm	C mm	d in	
KCY-FXX025	25,4	70~330	120~450	25~150	1/2, 1/4, 3/8	Solder Connection
KCY-FXX031	31,75	70~330	120~450	25~150	1/2, 1/4, 3/8	
KCY-FXX035	35	70~330	120~450	25~150	1/2, 1/4, 3/8	
KCY-FXX040	40	90~330	140~450	25~150	1/2, 1/4, 3/8	
KCY-FXX048	48	90~330	140~450	25~150	1/2, 1/4, 3/8	
KCY-FXX050	50,8	90~330	140~450	25~150	1/2, 1/4, 3/8	
KCY-FXX065	65	130~330	180~450	25~150	1/2, 1/4, 3/8	

### DIMENSIONS

Copper Receiver



Model	Dimensions						Connection Type
	D mm	B mm	A mm	C mm	E mm	d in	
KCY-CXX025	25,4	70~330	120~450	5~15	25~150	1/2, 1/4, 3/8	Solder Connection
KCY-CXX030	30	70~330	120~450	5~15	25~150	1/2, 1/4, 3/8	
KCY-CXX031	31,75	70~330	120~450	5~15	25~150	1/2, 1/4, 3/8	
KCY-CXX035	35	90~330	140~450	5~15	25~150	1/2, 1/4, 3/8	
KCY-CXX041	41,3	90~330	140~450	5~15	25~150	1/2, 1/4, 3/8	
KCY-CXX048	48	90~330	140~450	5~15	25~150	1/2, 1/4, 3/8	
KCY-CXX050	50,8	130~330	180~450	5~15	25~150	1/2, 1/4, 3/8	
KCY-CXX057	57,2	130~330	180~450	5~15	25~150	1/2, 1/4, 3/8	

**JYQ** SERIES

# COMPENSATOR

The Compensator is applicable for commercial air conditioner, freezing or deep-freezing equipment or other refrigeration circuits in order to open and to shut off inner flow path by operating the valve stem. It can also be used as service valve for vacuum pumping and refrigerant injection etc.



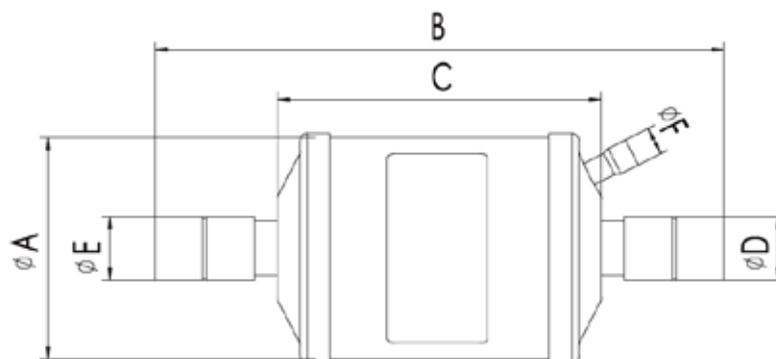
## FEATURES

- SOLID COPPER SOLDER CONNECTION
- MINIMIZE PRESSURE DROP
- GUARANTEE THE MAXIMUM WORKING PRESSURE
- POWDER COATED SURFACE CAN SURVIVE 500 HOURS OF SALT SPRAY TEST
- EXCELLENT ANTI-SHOCK AND VIBRATION PERFORMANCE: USING STEEL CASING

## GENERAL SPECIFICATIONS

- Applicable refrigerant: HFC, HCFC, HC and HFO
- Applicable medium temperature: -30°C~ +120°C (-22°F~+240°F)
- Applicable ambient temperature: -30°C~ +55°C (-22°F~+131°F)
- Maximum working pressure: 4.83MPa
- Certification: UL, CSA Declaración PED

## DIMENSIONS TECHNICAL PARAMETERS



**Note:** 1) Please contact Sanhua representative for details regarding refrigerants.



**TECHNICAL PARAMETERS**

Model	Dimensions						Connection Type
	A mm	B mm	C mm	D in	E in	F in	
JYQ-A23060-901	89	182,6	84,6	6/8	6/8	3/8	Solder Connection
JYQ-A36060-901	89	226,5	128,5	6/8	6/8	3/8	
JYQ-A45060-901	89	258	160	6/8	6/8	3/8	
JYQ-A55060-901	89	280,4	182,7	6/8	6/8	3/8	
JYQ-A66060-901	89	306,3	208,3	6/8	6/8	3/8	
JYQ-A78060-901	89	358,4	260,4	6/8	6/8	3/8	
JYQ-A89060-901	89	402,8	304,8	6/8	6/8	3/8	
JYQ-B13060-901	89	463,8	365,8	6/8	6/8	3/8	
JYQ-A23070-901	89	182,6	84,6	7/8	7/8	3/8	
JYQ-A36070-901	89	226,5	128,5	7/8	7/8	3/8	
JYQ-A45070-901	89	258	160	7/8	7/8	3/8	
JYQ-A55070-901	89	280,4	182,7	7/8	7/8	3/8	
JYQ-A66070-901	89	306,3	208,3	7/8	7/8	3/8	
JYQ-A78070-901	89	358,4	260,4	7/8	7/8	3/8	
JYQ-A89070-901	89	402,8	304,8	7/8	7/8	3/8	
JYQ-B13070-901	89	463,8	365,8	7/8	7/8	3/8	

# TXY/XYQ SERIES MUFFLER

Muffler are used in refrigerating systems such as household air conditioners or commercial air conditioners. Muffler are installed in discharge line or other pipes with vibration and noise to eliminate and alleviate noises.



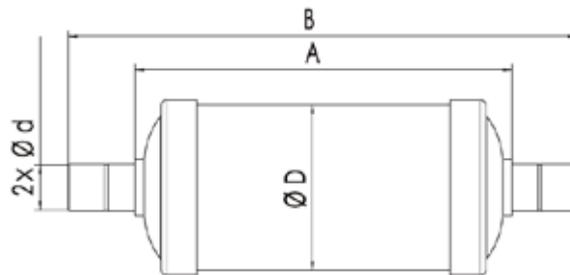
## FEATURES

- CORROSION RESISTANT: FINISHED WITH EPOXY POWDER PAINTING
- EXCELLENT ANTI-SHOCK AND ANTI-VIBRATION PERFORMANCE WITH STEEL OR COPPER CASING

## GENERAL SPECIFICATIONS

- Applicable refrigerant: HCFC, HFC and HC
- Applicable medium temperature: -30°C~+120°C (-22°F~+240°F)
- Applicable ambient temperature: -30°C~ +55°C (-22°F~+131°F)
- Maximum working pressure: 4.8MPa
- Certification: UL, CSA and PED declaration

## TECHNICAL PARAMETERS

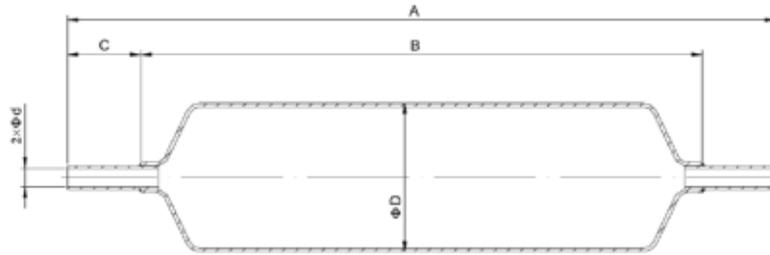


Regular Steel Muffler

Model	Dimensions					Connection Type
	D mm	A mm	B mm	d in	d in	
TXY-A12040-002	65	76.2	154.4	1/2	1/2	Solder Connections
TXY-A29040-001	76	115.6	163.8	1/2	1/2	
TXY-A49040-001	76	190.5	238.7	1/2	1/2	
TXY-A30040-003	76	123.9	231.9	1/2	1/2	

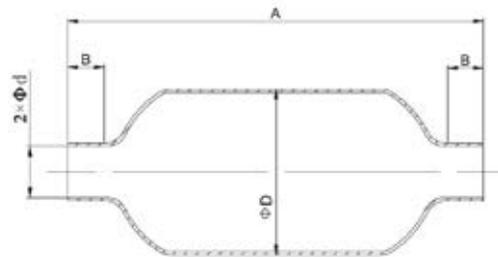
**Note:** 1) Please contact Sanhua representative for details regarding refrigerants.

**MUFFLER**



Spun Steel Muffler

Model	Dimensions					Connection Type
	D mm	A mm	B mm	C mm	d in	
XYQ-FXX025	25,4	70~330	120~450	25~150	1/2, 1/4, 3/8	Solder Connections
XYQ-FXX031	31,75	70~330	120~450	25~150	1/2, 1/4, 3/8	
XYQ-FXX035	35	70~330	120~450	25~150	1/2, 1/4, 3/8	
XYQ-FXX040	40	70~330	120~450	25~150	1/2, 1/4, 3/8	
XYQ-FXX048	48	90~330	120~450	25~150	1/2, 1/4, 3/8	
XYQ-FXX050	50,8	90~330	120~450	25~150	1/2, 1/4, 3/8	
XYQ-FXX065	65	130~330	120~450	25~150	1/2, 1/4, 3/8	



Spun Copper Muffler

Model	Dimensions				Connection Type
	D mm	B mm	A mm	d in	
XYQ-CXX025	25,4	5~15	70~330	1/2, 1/4, 3/8	Solder Connections
XYQ-CXX030	30	5~15	70~330	1/2, 1/4, 3/8	
XYQ-CXX031	31,75	5~15	70~330	1/2, 1/4, 3/8	
XYQ-CXX035	35	5~15	70~330	1/2, 1/4, 3/8	
XYQ-CXX041	41,3	5~15	90~330	1/2, 1/4, 3/8	
XYQ-CXX048	48	5~15	90~330	1/2, 1/4, 3/8	
XYQ-CXX050	50,8	5~15	90~330	1/2, 1/4, 3/8	

## Y SERIES

# PRESSURE VESSEL

## FEATURES

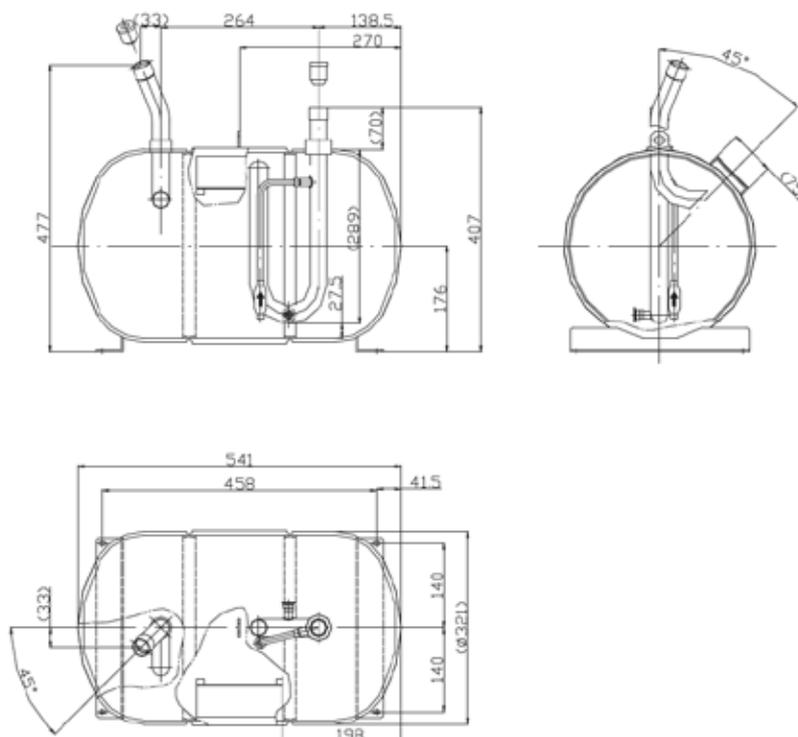
- THE DESIGN, MANUFACTURING AND INSPECTION IS BASED ON NB/T 47012 AND TSG R0004 STANDARD
- THE WELDING IS GOVERNED BY JB/T 4709
- THE INSPECTION OF WELDING LINE IS GOVERNED BY GRADE II IN JB/T 4730.2 WITH X-RAY.
- THE PRESSURE TEST IS FOLLOWING NB/T 47012



## GENERAL SPECIFICATIONS

- Type of the vessel: D2
- Maximum operating pressure: 10 MPa
- Material of the main pressure parts: Carbon Steel and stainless steel
- Applicable refrigerant: as per customer
- Diameter range of body:  $\Phi 150 \sim \Phi 700$  mm
- Maximum length of the product: 4000 mm

## TECHNICAL PARAMETERS





4000 PATENTS,  
NEW PATENT  
EVERY  
24 HOURS

**SANHUA**

# GZJ SERIES ASSEMBLY

GZJ series piping assembly is applicable for heat pump air conditioning systems such as room air conditioners to provide flow path for refrigerant.

## FEATURES

- ALL HAVE BEEN TESTED AGAINST AIR TIGHTNESS TO ENSURE NO LEAKAGE UPON DELIVERY
- COMPLETE PERFORMANCE TEST ON VALVES SUCH AS 4-WAY VALVES AND ELECTRONIC EXPANSION VALVES TO ENSURE THE PRODUCT PERFORMANCE UPON DELIVERY



## GENERAL SPECIFICATIONS

- Applicable refrigerant: HFC, HCFC and CFC etc.
- Applicable medium temperature: -30°C~+120°C
- Maximum working pressure: R22, R407C: 3MPa  
R410A: 4.15MPa

## TECHNICAL PARAMETERS

Item	Refrigerant	Standard
Content of undissolved impurities	R22	≤5mg
	R407C	≤5mg
	R410A	≤5mg
Content of mineral oil	R22	≤20mg
	R407C	≤15mg
	R410A	≤15mg
Content of chloride ion	R22	/
	R407C	≤5PPM
	R410A	≤5PPM

## DIMENSIONS

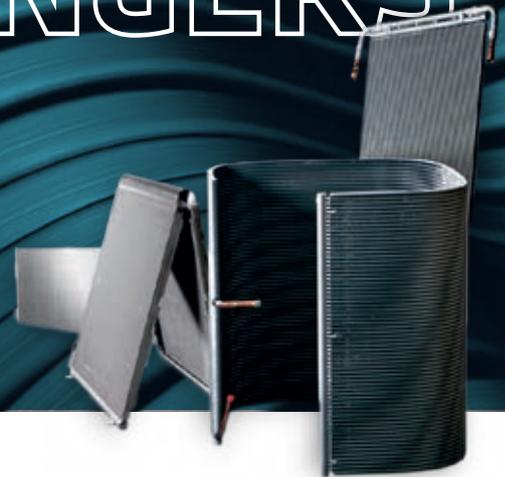
Due to the particularity of pipe components, the installation position, product structure and connection size required by different customers differs, even those required by different model of products of one customer differs. Therefore, product structure and interface size are varied subject to the specific customer and product model.

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