

SANHUA

Go green with SANHUA

A2L-ready refrigeration solutions

Sustainable installations with a low environmental impact.



Features

- Advanced PID algorithm to ensure accurate automatic adjustment of superheat
- Quick-Safe prevention of low and high superheat to ensure the system operating well at any conditions
- Small size, rail mounting design, easy to install
- Energy efficient, achieving the most efficient use of the evaporator

General Specification

- Applicable for various refrigerants
- Installation method: DIN railsnap-in or wall mounting with screws
- Compatible with Sanhua DPF and LPF valves
- Certification: UL, CE Declaration according to EMC



SEC 61X SERIES

Features

- Extremely high internal tightness, which is as good as with solenoid valves
- Precise proportional flow regulation
- Snap-on coil for easier installation
- Coil with IP67 works safely in extremely environment
- Applicable for oil-free system; built-in strainer at inlet
- Flow direction: Uniflow

General Specification

- Applicable for all common HCFC, HFC, HFO and HC
- Cooling capacity: from 0.5 to 17.3 kW (R290)
- Medium temperature TS min./max.: -40°C / +70°C (duty cycle rate below 40%)
- Design Pressure: 42 bar, MOPD: 35 bar
- Certifications: Compliance with the EN 60335-2-24 / 2-40 / 2-89 (VDE)



LPF SERIES

Features

- Applicable for reversible systems like heat pumps: bidirectional flow
- Optimized flow path design for noise reduction
- Wide range
- High MOP - 49 bar

General Specification

- Applicable for all common HCFC, HFC, HFO, HC
- Cooling capacity: from 0.5 to 110 kW (R290) 1 to 164 kW (for R32) - PS=49bar
- Medium temperature TS min./max.: -40°C / +85°C (duty cycle rate below 50%)
- Design Pressure: 49 bar, MOPD: 35 bar
- Certification: Compliance with the EN 60335-2-24 / 2-40 / 2-89 (VDE)



DPF SERIES

Features

- XHP Connector for SEC61x Controller
- Available with lead wire direct connector or with Packard and Molex socket connections
- Different pressure ranges and different level of accuracy

General Specification

- Applicable for HCFC, HFC, HC, HFO, R32 refrigerants
- YCQB Ratiometric models with output signal: 0.5V to 3.5V or 0.5V to 4.5V
- YCQC models with 4-20mA output signal
- Certification: Compliance with EN 60335-2-24/40/89 (VDE)



YCQ SERIES

Features

- Energy saving thanks to very precise capacity control: Up to 3800 steps
- Internal Tightness like a solenoid valve
- Optimized flow path design for noise reduction
- Applicable for reversible systems like heat pumps: bidirectional flow
- Corrosion resistant design, long lifetime, high reliability
- Models with integrated sight glass are available

General Specification

- Applicable for all common HCFC, HFC, HFO, HC
- Cooling capacity: from 20 to 500 kW
- Medium temperature TS min./max.: -40°C/+90°C
- Certifications: EAC, PED Declaration for fluids group 2 full range, and fluid group 1 for VPF12.5 to 100 (PS=50bar).



VPF SERIES

Features

- High MOP (45/49bar), high MOPD – 31 bar
- Wide range with Direct or Pilot operated models, different connections
- Coils are double sealed, watertight and safe, IP67
- High reliability, extensive factory tests

General Specification

- Applicable for all common HCFC, HFC, HFO, HC
- Capacity / Size: Kv = 0,16 ÷ 25 m³/h
- Medium temperature TS min./max.: -40°C/140°C
- Maximum Operating Pressure: 4,5/4,9 MPa (45/49 bar)
- Certification: PED cat.II (TUV Rheinland); Compliance with the EN 60335-2-24 / 2-40 / 2-89 (VDE)



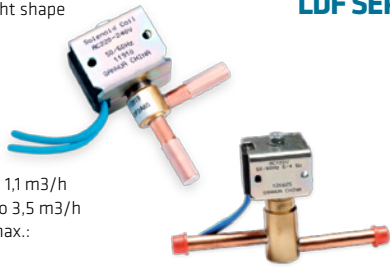
MDF SERIES

Features

- Direct or Piston Type actuation
- Compact design, Angle or Straight shape
- Cost-efficient solution
- LDF soft sealing design / very low internal leakage

General Specification

- Applicable for all common HCFC, HFC, HFO, HC
- Capacity / Size: LDF: Kv = 0,12 to 1,1 m³/h
- Capacity / Size: FDF: Kv = 0,08 to 3,5 m³/h
- Medium temperature TS min./max.: -30°C/+120°C
- Max. operating pressure PS: 4.5MPa
- Certification: Compliance with the EN 60335-2-24 / 2-40 / 2-89 (VDE)



FDF SERIES LDF SERIES

Features

- Straightway type, full port, low pressure drops, cost-effective
- Valve body and valve seat with welded structure, with high product reliability
- Bidirectional flow
- Special sealing materials to prevent internal leakage

General Specification

- Applicable for all common HCFC, HFC, HFO, HC
- Capacity size: SBV/SBV-R from 1/4" to 2" 5/8 (6mm to 67mm)
- Capacity size: RBV-R from 1/4" to 2" 1/8 (6mm to 54mm)
- SBV / SBV-R Medium temperature TS min./max.: -40°C/+120°C
- RBV-R Medium temperature TS min./max.: -60°C/+160°C
- SBV-R / RBV-R max. operating pressure PS: 4,9 MPa (49 bar)
- SBV max. operating pressure PS: 4,5 MPa (45 bar)
- Certification: PED cat.II (TUV Rheinland)



SBV / SBV-R SERIES RBV-R SERIES

Features

- Stainless steel capillary, sensing bulb and valve head
- Precise and smooth flow regulation
- Patented diaphragm design for less hysteresis and better consistency
- Wide range: MBP/LBP models, w/wo MOP

General Specification

- Applicable for HCFC, HFC, HFO refrigerants
- Cooling capacity: from 1 to 21 kW (R448A/R449A @ +4.4/38°C)
- Medium temperature TS min./max.: -40°C / +70°C; extended to -60°C / +70°C for range B models
- Max. operating pressure PS: 4.6 MPa (46 bar)
- Certification: PED Art.4.3



RFKH SERIES

Features

- Compact design with build-in orifice
- All connections pipes are completely in copper
- Valves with MOP, Bleed function can be provided to assure reliable compressor operation
- Applicable in a wide evaporation temperature range
- Reliable and consistent performance of superheat control

General Specification

- Special series designed for application with R290
- Cooling capacity: from 0,6 to 7 kW (R290, +4,4°C/+38°C)
- Medium temperature TS min./max.: -40°C / +70°C
- Max. operating pressure PS: 3,5 MPa (35 bar)
- Certification: PED Art.4.3



RFGB SERIES

Features

- YCVS / YCVS-R series: Piston type check valves
- CCV series: Magnetic type check valves
- YCVSH & YCVSH-R models with reinforced spring, applicable to compressor discharge pipes in single or multi compressor systems
- Low pressure drops during operation

General Specification

- Applicable for all common HCFC, HFC, HFO, HC refrigerants
- Capacity / Size: YCVS / YCVS-R: Kv = 0,56 to 29,1 m³/h
- CCV: Kv = 0,6 to 5,5 m³/h
- YCVS / YCVS-R Medium temperature TS min./max.: -50°C / +150°C
- CCV Medium temperature TS min./max.: -40°C / +160°C
- YCVS Max. operating pressure PS: 4,6 (46bar)
- YCVS-R & CCV Max. operating pressure PS: 4,9 MPa (49 bar)
- Certification: PED cat.II (TUV Rheinland)



YCVS / YCVS-R SERIES CCV SERIES

Features

- High precision color indicator
- Indicator pasted closely to the glass to prevent surface contamination
- Solid and corrosion resistant brass material
- New Annular humidity color indicator. Full port passage with low pressure drop

General Specification

- Applicable for HCFC, HFC, HFO, HC
- Capacity / Size: from 6 mm to 22 mm
- Medium temperature TS min./max.: -50°C / +80°C
- Max. operating pressure PS: 46/49 bar
- Certification: PED Art.4.3



SYJ / SYJ-R SERIES

Features

- DTG series: Uni Directional
- STG series: Bi-Directional
- Filtering fineness: 20µm
- High moisture absorption
- High corrosion resistance 500h SST

General Specification

- Applicable for all common HCFC, HFC, HFO, HC
- DTG: Capacity/Size: 1,5 inch³ ÷ 75 inch³
- STG: Capacity/Size: 5 inch³ ÷ 30 inch³
- Medium temperature TS min./max.: -30°C / +120°C
- Max. operating pressure PS max.: 48,3/49 bar
- Certification: Certification: PED Art.4.3



DTG SERIES STG SERIES



Features

- Suitable for cooling capacities from 3.5 to 409kW (R290, Condition 2, ΔP=0.1bar)
- Certified according PED cat.II by TUV Rheinland

General Specification

- Applicable for all common HCFC, HFC, HFO, HC
- Medium temperature TS min./max.: -30°C / +135°C
- Ambient temperature min./max.: -30°C / +50°C
- Relative humidity: 0 to 95% RH
- Max. operating pressure PS ≥ 4.5 MPa (45 bar)
- Certifications: UL/CSA3) and declaration according to LVD and PED



SHF/SHF-R SERIE



1. TABLE FOR R290 - HC & A2L

Product	Description	Remarks
SEC61x	Driver For Electronic Expansion Valve	
DPF(TS1)/(S03)	Electronic Expansion Valve - Uni polar	
LPF	Electronic Expansion Valve - Uni polar	
VPF	Electronic Expansion Valve - Bi polar	Limited to VPF 100
YCQB/C	Pressure Transmitter	Present in the common YCQ datasheet
SHF	4 Way Reversing Valve	
MDF	Solenoid Valve	Limited to MDF-A03-22H
LDF	Solenoid Valve	
FDF	Solenoid Valve	
RFKH20	Thermostatic Expansion Valve	Models suitable for R455A & R454C only
RFGB06	Thermostatic Expansion Valve	Models suitable for R290 only
SBV	Ball Valve	For models with DN≤25mm
SBV-R	Ball Valve	
YCVS	Check Valve	For models with DN≤25mm
YCVS-R	Check Valve	
SYJ	Sight Glass	
DTG	Uni-Flow Filter Drier	
STG	Bi-Flow Filter Drier	

Note: Main HC refrigerants (A3 classification): R290; R1270, R170, R600, R600a ...

Main Slightly Flammable refrigerants (A2L classification): R32; R1234yf; R1234ze; R454A/B/C; R455A; R452A/B ...

2. TABLE FOR R32

Product	Description	Remarks
SEC61x	Driver For Electronic Expansion Valve	
DPF(TS1)/(S03)	Electronic Expansion Valve - Uni polar	
VPF	Electronic Expansion Valve - Bi polar	Limited to VPF 100
YCQ	Pressure Transmitter	Special models for R32 present in the common YCQ datasheet
SHF-R	4 Way Reversing Valve	
MDF-RH	Solenoid Valve	Limited to MDF-A03RH-22H
YCQB/C-R32	Pressure Transmitter	On request
SBV-R	Ball Valve	
RBV-R	Ball Valve	
CCV	Check Valve - Magnetic Type	
YCVS-R	Check Valve - Piston Type	
SYJ-RH	Sight Glass	
DTG-932	Uni-Flow Filter Drier	
STG-932	Bi-Flow Filter Drier	
SSV	Brass Service Valve	

Note: all the product families suggested for R32 systems can also be selected and installed in systems operating with A2L and A3 refrigerants

SANHUA

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SELECT HIGH RELIABILITY - SELECT RFKH FOR A2L

SANHUA RFKH thermostatic expansion valves
with 8 sizes of interchangeable orifices

Stainless steel capillary, sensing
bulb and valve head for **precise and
smooth flow regulation**

Diaphragm with a **high tensile strength**

Settable Consistent Superheat

Excellent performance
at low temperatures

**Robustness & High
resistance to corrosion**



Wide range of models as flare or solder for MBP/LBP applications,
- with or without external pressure equalization - also with MOP

Designed for R407C, R404A, R507A, R134a, R404A, R410A, R407A,
R407F, R448A, R449A, R452A, R450A, R513A, R455A, R454C