Build Your Heat Pump with SANHUA

R290 R744

sanhuaeurope.com

SANHUA

Ready for R290 Heat Pumps

R290 R744

SANHUA SD2 inverters

- Dedicated to BLDC compressor and fans

1ph (2.6-5.0kW)
3ph (3.8-22kW)

A2L/A3

- Optimised for HVAC&R applications such as outdoor units using A2L or A3 refrigerant.

- Customizable inverter cooling according to your unit's configuration

- Max. efficiency over 95%

- TUV CE certification

Solution for natural refrigerants
Check full Green Tech offer
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R290 R744 R32

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SANHUA – Reliable supplier of energy efficient solutions
Discover cutting-edge heat pump solutions with Sanhua. As a leading innovator in the HVAC industry, Sanhua offers a comprehensive range of advanced technologies designed to revolutionize heat pump performance.
From innovative expansion valves to electronic control solutions, Sanhua's offerings are tailored to elevate heat pump efficiency, reliability, and sustainability.

Note: Sanhua accepts no responsibility for any errors that may occur in this catalogue. Sanhua accepts no responsibility for any product selection made from this material, it is the customers sole responsibility to ensure the correct selection of any components.

Regulations and Rules for R290 HP-Components

All the electromechanical valves present in the Sanhua R290 Product Line Series ensure a protection against the electric shock respecting the appropriate mounting described in the installation manual. Each electronic driven valve and coil respect, the prescription of the EU Directive 2014-35-EU (Low Voltage Directive). An additional third part certification guarantees the respect of the prescriptions indicated in the LVD and in the standards listed below, ensuring a safety usage of the product in systems operating with flammable refrigerants (A2L ref.) and (A3 ref.): EN 60335-2-40; EN 60335-2-40 + A11:2004 + A12:2005 + A1:2006 + A2:2009 + A13:2012 + A13:2012/AC:2013 subclause 22.116 (no electrical component, which could be a source of ignition in case of normal operation or in the event of a leak); subclause 22.117 (Annex BB).

All products of Sanhua respect the pressure equipment (2014/68/EU) and material safety (2011/65/EU &2006/1907/EU) directives and can be shown to customer by self-declarations or 3rd party certificates where needed.

Regulations and Rules related to heatpump components

Standard Global	IEC60335-2-40	ISO60730-1/ -2		ISO5149-1, -2,-3,-4	ISO14903-2017									ISO9227
Standard Europe	EN60335-2-40	EN60730-1/ -2	EN 60079-0, -1,-7,-11, -14,-15.	EN378-1,-2, -3,-5 :2016	EN14903-2017	EN 21922:2022 (NEW) EN 12284-2004 (OLD)	EN 12263	EN 14276-1:2020	2014/30/EU / EN 55014	2014/35/EU	2014/68/EU	2011/65/EU	2006/1907/EU	
Scope	Particular Requirements for factory made air conditioners, heatpumps and dehumidifiers	Requirments for automatic electrical controls and sensing elements for household and similar use.	General requirements on parts for explosive atmospheres	Commercial and industrial refrigeration, air condition and heatpump units - safety and environmental requirements.	Refrigerating systems and heat pumps – Qualification of tightness of components and joints	Refrigerating systems and heat pumps - Valves - Requirements, testing and mar-king	Refrigerating systems and heat pumps - Safety switching devices for limiting the pressure - Requirements and tests.	Pressure equipment for refrigeration systems and heat pumps.	Electromagnetic Compatibility	Low voltage directive	Pressure equipement directive	Restriction of hazardous substances directive (RoHS)	Registration, Evaluation, Authorisation and Restriction of Chemicals Directive 2006/1907/EU (REACH).	Corrosion tests in artificial atmospheres -- Salt spray tests
Related components to the Regulations														
4 Way Valves SHF / SQ coil	X	X	X	X	X	X		X		X	X	X	X	X
Elec. Expansion Valve DPF / PQ coil	X	X	X	X	X	X		X		X	X	X	X	X
Elec. Expansion Valve DBF / PQ coil	X	X	X	X	X	X		X		X	X	X	X	X
Solenoid Valves MDF-Dxxx / MQ coil	X	X	X	X	X	X		X		X	X	X	X	X
Solenoid Valves MDF / HQ coil	X	X	X	X	X	X		X		X	X	X	X	X
Pressure Switch MPS	X	X	X	X	X		X	X	X	X	X	X	X	X
Pressure Sensor YCQB	X	X	X	X	X			X		X	X	X	X	X
Pressure Sensor YCQC	X	X	X	X	X			X		X	X	X	X	X
Float Switch YKG	X	X	X	X	X				X	X		X	X	X
Variable Speed Drive SD	X	X	X	X	X				X	X		X	X	X
Check Valve CCV	X			X	X	X		X			X	X	X	X
Check Valve YCVS	X			X	X	X		X			X	X	X	X
Filter Drier DTG	X			X	X			X			X	X	X	X
Filter Drier STG	X			X	X			X			X	X	X	X
Strainer KGQ	X			X	X			X			X	X	X	X
Accumulator ACM	X			X	X			X			X	X	X	X
Liquid Receiver LRA	X			X	X			X			X	X	X	X
Service Valve FSV	X			X	X	X		X			X	X	X	X
Muffler YXQ	X			X	X			X			X	X	X	X
BPHE S40	X			X	X			X			X	X	X	X
BPHE S60	X			X	X			X			X	X	X	X
BPHE S??	X			X	X			X			X	X	X	X

Heat Pump Easy Selection

Heat Pump Easy Selection

Pre-Selection of Sanhua Products for Heatpumps (R290)

		*ASHRAE HBP (R290) = tc54,5°C/t07,2°C/tliq46,2°C/tsuc35°C													
		Heatpump 5kW (Massflow 55kg/h*)		Heatpump 7,5kW (Massflow 82kg/h*)		Heatpump 10kW (Massflow 110kg/h*)		Heatpump 15kW (Massflow 170kg/h*)		Heatpump 20kW (Massflow 230kg/h*)		Heatpump 30kW (Massflow 350kg/h*)		Heatpump 50kW (Massflow 580kg/h*)	
		Compressor Displ. ~ 20ccm		Compressors Displ. ~ 30ccm		Compressor Displ. ~ 40ccm		Compressor Displ. = 60ccm		depends on technology		depends on technology		depends on technology	
Group	**Components**	**Type**	**Detail**	**Type**	**Detail**	**Type**	**Detail**	**Type**	**Detail**	**Type**	**Detail**	**Type**	**Detail**	**Type**	**Detail**
Flow Regulation	4 Way Valves	SHF(G)-4H-23U-AE		SHF(G)-7H-34U-AE		SHF(G)-7H-34U-AE		SHF-20D-46G36		SHF-20D-46G36		SHF-35B-67G48		SHF-50A-79G44	
	4WV - Coil (AC)	SQ-A3722G-000057	(230V)	SQ-A3722G-000057	(230V)	SQ-A3722G-000057	(230V)	SQ-A3722G-000057	(230V)	SQ-A3722G-000057	(230V)	SQ-A3722G-000057	(230V)	SQ-A3722G-000057	(230V)
	4WV - Coil (DC)	SQ-D4412G-000001	(DC12V)	SQ-D4412G-000001	(DC12V)	SQ-D4412G-000001	(DC12V)	SQ-D4412G-000001	(DC12V)	SQ-D4412G-000001	(DC12V)	SQ-D4412G-000001	(DC12V)	SQ-D4412G-000001	(DC12V)
	EEV	DPF(TS1)-1.3		DPF(TS1)-1.65		DPF(TS1)-1.8		DPF(TS1)-2.2		DPF(TS1)-2.4		DPF(TS1)-3.2		DBF 04H100	
	EEV - Coil	PQ-M10012-001002		PQ-M10012-001002		PQ-M10012-001002		PQ-M10012-001002		PQ-M10012-001002		PQ-M10012-001002		PQ-M10012-001002	
	Solenoid [HGD] 1	MDF-D03-6H 005		MDF-D03-6H 005		MDF-D03-6H 005		MDF-D03-10H 005		MDF-D03-15H 005		MDF-A03-20H 001		MDF-A03-25H003	
	Solenoid Coil [HGD] 1 DC24V	MQ-D03024-00002	(DC24V)	MQ-D03024-00002	(DC24V)	MQ-D03024-00002	(DC24V)	MQ-D03024-00002	(DC24V)	MQ-D03024-00002	(DC24V)	MQ-D03024-00002	(DC24V)	MQ-D03024-00002	(DC24V)
	Solenoid [HGD] 2	MDF6H02		MDF6H02		MDF6H02		MDF10H02		MDF15H02		MDF20H11		MDF22H11	
	Solenoid 2 Coil [HGD] AC24V	HQ1K11	(AC24V)	HQ1K11	(AC24V)	HQ1K11	(AC24V)	HQ1K11	(AC24V)	HQ1K11	(AC24V)	HQ1K11	(AC24V)	HQ1K11	(AC24V)
	Solenoid 2 Coil [HGD] AC230V	HQ1G11	(AC230V)	HQ1G11	(AC230V)	HQ1G11	(AC230V)	HQ1G11	(AC230V)	HQ1G11	(AC230V)	HQ1G11	(AC230V)	HQ1G11	(AC230V)
Electronics	Pressure Switch [LP]	MPS01AH13	0,3/1,2bar / wire	MPS01AH13	0,3/1,2bar / wire	MPS01AH13	0,3/1,2bar / wire	MPS01AH13	0,3/1,2bar / wire	MPS01AH13	0,3/1,2bar / wire	MPS01AH13	0,3/1,2bar / wire	MPS01AH13	0,3/1,2bar / wire
	Pressure Switch [HP]	MPS02AH29	24/31bar / wire	MPS02AH29	24/31bar / wire	MPS02AH29	24/31bar / wire	MPS02AH29	24/31bar / wire	MPS02AH29	24/31bar / wire	MPS02AH29	24/31bar / wire	MPS02AH29	24/31bar / wire
	Pressure Sensor [LP] Volt	YCQB01H156	0-8bar/Packard	YCQB01H156	0-8bar/Packard	YCQB01H156	0-8bar/Packard	YCQB01H156	0-8bar/Packard	YCQB01H156	0-8bar/Packard	YCQB01H156	0-8bar/Packard	YCQB01H156	0-8bar/Packard
	Pressure Sensor [HP] Volt	YCQB04H152	0-34bar/Packard	YCQB04H152	0-34bar/Packard	YCQB04H152	0-34bar/Packard	YCQB04H152	0-34bar/Packard	YCQB04H152	0-34bar/Packard	YCQB04H152	0-34bar/Packard	YCQB04H152	0-34bar/Packard
	Pressure Sensor [LP] Amp	YCQC02H807	0-16bar/M16 con	YCQC02H807	0-16bar/M16 con	YCQC02H807	0-16bar/M16 con	YCQC02H807	0-16bar/M16 con	YCQC02H807	0-16bar/M16 con	YCQC02H807	0-16bar/M16 con	YCQC02H807	0-16bar/M16 con
	Pressure Sensor [HP] Amp	YCQC04H804	0-34bar/M16 con	YCQC04H804	0-34bar/M16 con	YCQC04H804	0-34bar/M16con	YCQC04H804	0-34bar/M16con	YCQC04H804	0-34bar/M16con	YCQC04H804	0-34bar/M16con	YCQC04H804	0-34bar/M16con
	Floatswitch	YKG-B01010-015	14mm level diff.	YKG-B01010-015	14mm level diff.	YKG-B01010-015	14mm level diff.	YKG-B01010-015	14mm level diff.	YKG-B01010-015	14mm level diff.	YKG-B01010-015	14mm level diff.	YKG-B01010-015	14mm level diff.
Inverter	Variable Speed Drive	SD2015A2		SD2015A2		SD2020A2		CCV10-019		CCV10-019		CCV17-001		CCV17-018	
Line Components	Check valve	CCV2H05	1/4"	CCV2H05	1/4"	CCV2H05	1/4"	YCVS8-33GSHC-1		YCVS8-33GSHC-1		YCVS10-44GSHC-1		YCVS13-55GSHC-1	
	Filter	DTG-M02030-901	uniflow	DTG-M02030-901	uniflow	DTG-M02030-901	uniflow	DTG-M02030-901	uniflow	DTG-M02040-901	uniflow				
	Filter	STG-B05030-901	biflow	STG-B05030-901	biflow	STG-B05030-901	biflow	STG-B05030-901	biflow	STG-B08040-901	biflow	STG-B08040-901	biflow	STG-B08040-901	biflow
	Strainer	KGQ-W11000-176	uniflow	KGQ-W11000-176	uniflow	KGQ-W11000-176	uniflow	KGQ-W11000-176	uniflow	KGQ-W11000-176	uniflow	KGQ-W11000-112	uniflow	KGQ-W11000-059	uniflow
	Accumulator [Monoblock]*	ACM-P00076-555	1,5ltr	ACM-P00076-555	1,5ltr	ACM-P00076-555	1,5ltr	ACM-P00101-586	2,1ltr	ACM-P00127-616	2,3ltr	ACM-P32127-901	2,9ltr, no PED Cat2	ACM-P32127-901	2,9ltr, no PED Cat2
	Accumulator [Split Unit]*	ACM-P00101-586	2,1ltr	ACM-P00101-586	2,1ltr	ACM-P00101-586	2,1ltr	ACM-P00101-579	2,5ltr	ACM-P32127-901	2,9ltr, no PED Cat2	ACM-P32127-901	2,9ltr, no PED Cat2	ACM-P35127-901	3,4ltr, no PED Cat2
	Receiver [Monoblock]*	LRA-D00076-001	0,5ltr	LRA-D00076-001	0,5ltr	LRA-D00076-001	0,5ltr	LRA-D00076-002	0,75ltr	LRA-D00076-003	0,9ltr	LRA-B04076-901	1,2ltr	LRA-B04076-901	1,2ltr
	Receiver [Split Unit]*	LRA-B04076-901	1,2ltr	LRA-B04076-901	1,2ltr	LRA-B04076-901	1,2ltr	LRA-B04076-901	1,2ltr	LRA-B05127-901	2,1ltr	LRA-B05127-901	2,1ltr	LRA-B05127-901	2,1ltr
	Service valves (Liquid)	FSV-A2GVL-2	1/4" solder	FSV-A2GVL-2	1/4" solder	FSV-A2GVL-2	1/4" solder	FSV-A3GVL-2	3/8" solder	FSV-A3GVL-2	3/8" solder	FSV-JA4GVL-2	1/2" solder	FSV-JA4GVL-2	1/2" solder
	Service valves (Gas)	FSV-JA4GVL-2	1/2" solder	FSV-JA4GVL-2	1/2" solder	FSV-JA4GVL-2	1/2" solder	FSV-JA5GVL-3	5/8" solder	FSV(A)-JA6GVL-1	3/4" solder	FSV(A)-JA6GVL-1	3/4" solder	FSV(A)-JA6GVL-1	3/4" solder
	Muffler	XYQ-C80040-003	9,66mm solder	XYQ-C80050-002	12,85mm solder	XYQ-C80050-002	12,85mm solder	XYQ-C80050-003	16mm solder	XYQ-C80050-003	16mm solder	projected	TBD in project	projected	TBD in project
Brazed Plate Heat Exchangers	BPHX Evaporator S40A	S40AH-22HZ	Tin14.7°C/Tout 9.7°C	S40AH-32HZ	Tin14.7°C/Tout 9.7°C	S40AH-44HZ	Tin14.7°C/Tout 9.7°C	S40AH-64HZ	Tin14.7°C/Tout 9.7°C	S40AH-86HZ	Tin14.7°C/Tout 9.7°C	N/A	Tin14.7°C/Tout 9.7°C	N/A	Tin14.7°C/Tout 9.7°C
		S40AH-12HZ	Tin15.7°C/Tout 10.7°C	S40AH-16HZ	Tin15.7°C/Tout 10.7°C	S40AH-22HZ	Tin15.7°C/Tout 10.7°C	S40AH-32HZ	Tin15.7°C/Tout 10.7°C	S40AH-44HZ	Tin15.7°C/Tout 10.7°C	S40AH-64HZ	Tin15.7°C/Tout 10.7°C	S40AH-106HZ	Tin15.7°C/Tout 10.7°C
	BPHX Evaporator S60B	S60BH-12HZ	Tin14.7°C/Tout 9.7°C	S60BH-18HZ	Tin14.7°C/Tout 9.7°C	S60BH-24HZ	Tin14.7°C/Tout 9.7°C	S60BH-34HZ	Tin14.7°C/Tout 9.7°C	S60BH-46HZ	Tin14.7°C/Tout 9.7°C	S60BH-68HZ	Tin14.7°C/Tout 9.7°C	S60BH-114HZ	Tin14.7°C/Tout 9.7°C
		S60BH-8HZ	Tin15.7°C/Tout 10.7°C	S60BH-12HZ	Tin15.7°C/Tout 10.7°C	S60BH-16HZ	Tin15.7°C/Tout 10.7°C	S60BH-22HZ	Tin15.7°C/Tout 10.7°C	S60BH-30HZ	Tin15.7°C/Tout 10.7°C	S60BH-44HZ	Tin15.7°C/Tout 10.7°C	S60BH-74HZ	Tin15.7°C/Tout 10.7°C
	BPHX Condenser S40A	S40AH-22HZ	Tin48.5°C/Tout 53.5°C	S40AH-32HZ	Tin48.5°C/Tout 53.5°C	S40AH-44HZ	Tin48.5°C/Tout 53.5°C	S40AH-64HZ	Tin48.5°C/Tout 53.5°C	S40AH-86HZ	Tin48.5°C/Tout 53.5°C	N/A	Tin48.5°C/Tout 53.5°C	N/A	Tin48.5°C/Tout 53.5°C
		S40AH-16HZ	Tin47.5°C/Tout 52.5°C	S40AH-24HZ	Tin47.5°C/Tout 52.5°C	S40AH-30HZ	Tin47.5°C/Tout 52.5°C	S40AH-46HZ	Tin47.5°C/Tout 52.5°C	S40AH-62HZ	Tin47.5°C/Tout 52.5°C	S40AH-92HZ	Tin47.5°C/Tout 52.5°C	N/A	Tin47.5°C/Tout 52.5°C
		S40AH-12HZ	Tin46.5°C/Tout 51.5°C	S40AH-18HZ	Tin46.5°C/Tout 51.5°C	S40AH-24HZ	Tin46.5°C/Tout 51.5°C	S40AH-36HZ	Tin46.5°C/Tout 51.5°C	S40AH-48HZ	Tin46.5°C/Tout 51.5°C	S40AH-70HZ	Tin46.5°C/Tout 51.5°C	S40AH-106HZ	Tin46.5°C/Tout 51.5°C
	BPHX Condenser S60B	S60BH-16HZ	Tin48.5°C/Tout 53.5°C	S60BH-24HZ	Tin48.5°C/Tout 53.5°C	S60BH-32HZ	Tin48.5°C/Tout 53.5°C	S60BH-48HZ	Tin48.5°C/Tout 53.5°C	S60BH-64HZ	Tin48.5°C/Tout 53.5°C	S60BH-96HZ	Tin48.5°C/Tout 53.5°C	N/A	Tin48.5°C/Tout 53.5°C
		S60BH-10HZ	Tin47.5°C/Tout 52.5°C	S60BH-16HZ	Tin47.5°C/Tout 52.5°C	S60BH-20HZ	Tin47.5°C/Tout 52.5°C	S60BH-30HZ	Tin47.5°C/Tout 52.5°C	S60BH-40HZ	Tin47.5°C/Tout 52.5°C	S60BH-60HZ	Tin47.5°C/Tout 52.5°C	S60BH-100HZ	Tin47.5°C/Tout 52.5°C
		S60BH-8HZ	Tin46.5°C/Tout 51.5°C	S60BH-10HZ	Tin46.5°C/Tout 51.5°C	S60BH-14HZ	Tin46.5°C/Tout 51.5°C	S60BH-20HZ	Tin46.5°C/Tout 51.5°C	S60BH-28HZ	Tin46.5°C/Tout 51.5°C	S60BH-40HZ	Tin46.5°C/Tout 51.5°C	S60BH-66HZ	Tin46.5°C/Tout 51.5°C

The products suggested in above list are general proposals and might not the perfect fit for your application.
For detailed support please use the Sanhua selection software or contact your local technical support.

4 Way Reversing Valves

SHF(G)-Valves

Cooling capacity range (R290): 4kW-80kW
Maximum operation pressure: 45bar
Medium Temperature: -30°C/+135°C
Ambient Temperature: -30°C/+50°C
Certificates: PED Art.4.3 , LVD (VDE)

TECHNICAL PARAMETERS OF 4-WAY-VALVES

General Characteristics										
Valve Model	Product Number	Type of System [Variable or Fixed Speed]	Ø Port	Kv	Connections ODF		MOP	OPD		PED Category	
					ØD	ØE/ S/C		Max.	Min.	Fluid	Fluid
			[mm]	[m³/h]	[inch]	[inch]	[MPa]	[MPa]	[MPa]	Group 2	Group 1
SHF(G)-4H-23U-AE	10180963602	UNIVERSAL	8	1.54	1/4	3/8	4.9	4	0.1	Art.4.3	Art.4.3
SHF(G)-7H-34U-AE	10180963502	UNIVERSAL	10.4	3.17	3/8	1/2	4.9	4	0.1	Art.4.3	Art.4.3
SHF(G)-13H-45-E	10180960302	UNIVERSAL	12.5	4.97	1/2	5/8	4.9	4	0.1	Art.4.3	Art.4.3
SHF-20D-46G36	10325083202	Variable	16.9	9.9	1/2	3/4	4.7	4	0.1	Art.4.3	Art.4.3
SHF-20D-47G36	10325091802	Variable	16.9	9.9	1/2	7/8	4.7	4	0.1	Art.4.3	Art.4.3
SHF-35B-67G48	10325098602	Variable	21	14.7	3/4	7/8	4.7	4	0.15	Art.4.3	Art.4.3
SHF-35B-79G48	10325088902	Variable	21	14.7	7/8	1 1/8	4.7	4	0.15	Art.4.3	Art.4.3
SHF-50-79G44	10325088302	Variable	23	18.3	7/8	1 1/8	4.7	4	0.15	Art.4.3	Art.4.3
SHF(L)-70-810G34	10325084902	Variable	28.6	28.5	1	1 1/4	4.7	4	0.15	Cat.II	Art.4.3
SHF(L)-70-910G34	10325089302	Variable	28.6	28.5	1 1/8	1 1/4	4.7	4	0.15	Cat.II	Art.4.3
SHF(L)-70-911G34	10325090902	Variable	28.6	28.5	1 1/8	1 3/8	4.7	4	0.15	Cat.II	Art.4.3

* Shown valves in above table are selected types. In case of other needed port size or design check our standard catalogue or contact your local support, please.

TECHNICAL PARAMETERS OF COILS

Coil Model	Product Number	Connection Type	Cable Length	Power Supply	Rated Voltage
			[mm]	[-]	[V]
SQ-A3722G-000057	10805349102	Lead Wires	1500	AC	220-240
SQ-A37115-000028	10805372902	Lead Wires	1500	AC	110-120
SQ-A37024-000001	10805355602	Lead Wires	1500	AC	24
SQ-A5022G-000001	10805356002	Spade (Faston) [3)]	-	AC	220-240
SQ-A5011A-000001	10805355902	Spade (Faston) [3)]	-	AC	120
SQ-A50024-000001	10805355802	Spade (Faston) [3)]	-	AC	24

Electronic Expansion Valves

DPF (TS1) - Valves

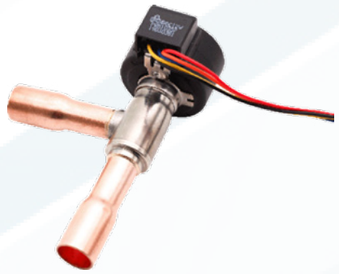
Cooling capacity range (R290): 4kW-32kW
Maximum operation pressure: 49bar
Flow direction: bi-directional
IP class: 67
Full Stroke: 500 steps
Medium Temperature: -40°C/+85°C
Ambient Temperature: -30°C/+60°C
Certificates: PED Art. 4.3, LVD (VDE)

TECHNICAL PARAMETERS OF EEV

General Characteristics DPF(TS1)						
Valve Model	Product Number*	Design Type	Cooling Capacity @5°C/38°C/5K/5K	Kv	MOPD Direct	MOPD Reverse
			[kW]	[m³/h]	[Bar]	[Bar]
DPF(TS1)1.0C-15	10130391602	n	4,2	0,03	35	≥25
DPF(TS1)1.3C-21	10130389302	n	6	0,05		
DPF(TS1)1.65C-36	10130391702	n	10,2	0,08		
DPF(TS1)1.8C-69	10130391802	n	12,1	0,1		
DPF(TS1)2.0C-33	10130392402	n	14,9	0,16		
DPF(TS1)2.2C-24	10130392702	n	16	0,2		
DPF(TS1)2.4C-40	10130392602	n	18,8	0,23		
DPF(TS1)3.0C-29	10130389902	L	31,4	0,39		≥15
DPF(TS1)3.2C-30	10130389502	L	34,4	0,43x		

* Shown valves in above table are selected types. In case of other needed port size or design check our standard catalogue or contact your local support, please.

Electronic Expansion Valves



DBF - Valves

Cooling capacity range (R290): 56kW-105kW
Max- operation pressure: 49bar
Flow direction: bi-directional
IP class: 67
Full Stroke: 500 steps
Medium Temperature: -30°C/+80°C
Ambient Temperature: -30°C/+60°C
Certificates: PED Art. 4.3, LVD (VDE)

TECHNICAL PARAMETERS OF EEV

Valve Model	Product Number*	Design Type	Cooling Capacity @5°C/38°C/5K/5K	Kv	MOPD	MOPD
			[kW]	[m3/h]	[Bar]	[Bar]
DBF04H100	10132000702	L	56,2	0,5	35	35
DBF05H100	10132000602	L	75,2	0,7		
DBF06H100	10132000802	L	87,1	0,9		
DBF07H100	10132000502	L	105,9	1,1		

* Shown valves in above table are selected types. In case of other needed port size or design check our standard catalogue or contact your local support, please.

PQ - Coils

Supply voltage: 12VDC +/-10%
Current: 0,375A
Excitation Mode: 1-2 phase
Speed of Excitation: 30-40pps
Connector: XHP or lead wire
Coil types usable for DPF and DBF valves

TECHNICAL PARAMETERS OF COILS

Coil Model	Product Number	Cable length	Terminal
		mm	
PQ-M10012-001059	10810138802	700	XHP-5
PQ-M10012-001016	10810134602	1500	XHP-5
PQ-M10012-001002	10810130702	2000	XHP-5
PQ-M10012-001268	10810160602	5000	XHP-5

Solenoid Valves

MDF (DC Voltage)

Maximum operation pressure: 45bar
Flow direction: uni-directional
IP class: 67
Normally closed (NC)
Medium Temperature: -30°C/+105°C (MDF2H...22H)
Ambient Temperature: -30°C/+55°C
El. Connection: Coil with DIN-plug
Certificates: PED Art. 4.3, LVD (VDE)

TECHNICAL PARAMETERS OF SOLENOID VALVES

Valve Body	Kv	Max. OPD	Min. OPD	Solder Connection metric		Solder Connection imperial	
	[m³/h]	[bar]	[bar]	[mm]	Product No.	[Inch]	Product No.
MDF-A03-2H	0,16	31	0	6	10125028502	1/4	10125031102
MDF-A03-3H	0,26	31	0	6	10125028602	1/4	10125031402
MDF-D03-6H	0,8	28	0,05	10	10125028702	3/8	10125020602
MDF-D03-10H	1,9	28	0,05	12	10125020102	1/2	10125020702
MDF-D03-15H	2,3	28	0,05	16	10125020802	5/8	10125020802
MDF-A03-20H	5	31	0,02	22	10125030202	7/8	10125030202
MDF-A03-22H	5,9	31	0,2	28	10125030802	1-1/8	10125030902

TECHNICAL PARAMETERS OF COILS

Model	Product Number	Type	Power Supply	Power [W]
MQ-D03012-000002	10820001302	DIN[2)] Plug	12V DC	15
MQ-D03024-000002	10820001002	DIN[2)] Plug	24V DC	15

Solenoid Valves

MDF (AC Voltage)

Maximum operation pressure: 45bar
Flow direction: uni-directional
IP class: 67
Normally closed (NC)
Medium Temperature: -30°C/+105°C (MDF2H...22H)
Ambient Temperature: -30°C/+55°C
El. Connection: Coil with DIN-plug
Certificates: PED Art. 4.3, LVD (VDE)

TECHNICAL PARAMETERS OF SOLENOID VALVES

Valve Body	Kv	Max. OPD	Min. OPD	Solder Connection metric		Solder Connection imperial	
	[m³/h]	[bar]	[bar]	[mm]	Product No.	[Inch]	Product No.
MDF2	0,16	31	0	6	10125028502	1/4	10125031102
MDF3	0,26	31	0,07	6	10125028602	1/4	10125031402
MDF6	0,8	31	0,07	10	10125028702	3/8	10125020602
MDF10	1,9	31	0,05	12	10125020102	1/2	10125020702
MDF15	2,6	31	0,05	16	10125020802	5/8	10125020802
MDF16	3,3	31	0,05	22	10125030202	7/8	10125030202
MDF20	5	31	0,2	28	10125030802	1-1/8	10125030902
MDF22	6	31	0,2	35	10125030402	1-3/8	10125030402

TECHNICAL PARAMETERS OF COILS

Model	Product Number	Type	Power Supply	Power [W] [50Hz/ 60Hz]
HQ1G11	10780000402	DIN Plug	220~240V AC	7/5.5
HQ1D11	10780000602		120V AC	6/5
HQ1K11	10780000702		24V AC	6/5

Solenoid Valves

FDF (AC Voltage)

Maximum operation pressure: 45bar
Flow direction: uni-directional
IP class: 67
Position: Normally closed (NC)
Medium Temperature: -30°C/+120°C (MDF2H...22H)
Ambient Temperature: -30°C/+50°C
Certificates: PED Art. 4.3, LVD (VDE)

TECHNICAL PARAMETERS OF VALVES

Model Valve Body	Product Number	Kv	Max. OPD	Min. OPD	Solder Connection Outer diameter	
		[m³/h]	[bar]	[bar]	[mm]	[Inch]
FDF 2A 81	10120046002	0,08	34	0	6,35	1/4
FDF 2.5A 08	10120021102	0,21	21	0,1	6,35	1/4
FDF 3A 16	10120044602	0,26	34		7,94	5/16
FDF 4A 10	10120025302	0,30	28	0	6,35	1/4
FDF 6A 98	10120044702	0,56	34	0,1	7,94	5/16
FDF 11A 36	10120043202	2,40	28	0,2	12,7	1/2
FDF 13A 26	10120046702	3,5			15,88	5/8

TECHNICAL PARAMETERS OF COILS

Model Coil	Product Number	Rated Voltage [V]	Supply	Power [W]	Freq. [Hz]	Voltage Tolerance	Insulation Class	Wiring type: flying leads [mm]
FQ-A05 22G-001022	10800057302	220 to 240	AC	5 (50Hz) 4,5 (60Hz)	50/60	-15% +10%	B	600±20

Pressure Switches

MPS - Switches

Switch Function: Automatic Reset
El. Connection: Various
IP class: 67
Medium Temperature: -35°C/+135°C
Ambient Temperature: -30°C/+65°C
Certificates: PED Cat. IV, EMC, Cat.IV, LVD (VDE)

TECHNICAL PARAMETERS OF PRESSURE SWITCHES (AUTOMATIC)

Type	Pressure OFF	Tolerance OFF	Pressure ON	Tolerance ON	Port Size	Cable
	[bar]	[bar]	[bar]	[bar]	[mm]	[cm]
MPS1AH03	0,6	+0,25/0	1,8	+0,25/2	6,35	100
MPS2AH29	31	+/-1	24	+/-1,5	6	150
MPS1AH07	0,10	+0.3/0	0,90	+0.3/-0.3	6	100
MPS1AH13	0,20	+0.2/-0.2	1,20	+0.3/-0.3	6	200
MPS1AH05	0,60	+0.25/-0	1,80	0.25/0	6	300
MPS2AH07	26	+0/-1.6	20	0/-2	6	450
MPS2AH22	29	±1	25	±1,5	8	10
MPS2AH13	31,5	+0.7/-1.3	23	+3/-3	6,35	100
MPS2AH01	41,5	0/-1.5	32	+2/-2	6,35	100
MPS2AH08	46	+0.7/-1.3	35	+3/-3	6,35	100

For specific pressure switch types please contact your local Sanhua representative

Pressure Transmitters

YCQ - Transmitters

Maximum operation pressure: Depends on type
IP class: 66/67
Current Consumption (0,5-4,5V): Max. 10mA
Supply Voltage (0-20mA): 10VDC-30VDC
El. Connection: depends on type
Certificates: PED Art. 4.3, LVD (VDE)

TECHNICAL PARAMETERS OF PRESSURE TRANSMITTERS

Model	Min Pressure (bar)	Max Pressure (bar)	Output signal	Accuracy	Work Temp range (°C)	Mech connection	Electrical connection
YCQB02H163	0	16	0,5 to 4,5V	±0,8% FS	-30 / 80	Solder 1/4	Molex
YCQB02H50	0	13,8	0,5 to 4,5V	±2% FS	-30 / 120	Solder 1/4	Packard connector
YCQB02H63	0	16	0,5 to 4,5V	±0,8% FS	-30 / 120	Solder 1/4	Molex
YCQB03H06	0	30	0,5 to 4,5V	±0.8% FS	-40 / 120	Solder 1/4	2000mm wires + XHP
YCQB04H151	0	33	0,5 to 4,5V	±1% FS	-30 / 120	Solder 1/4	Packard connector
YCQB04H50	0	34,5	0,5 to 4,5V	±2% FS	-30 / 120	Solder 1/4	Packard connector
YCQB05H11	0	50	0,5 to 4,5V	±2% FS	-40 / 150	Solder 1/4	2000mm wires + XHP
YCQC02H807	0	16	4 - 20 mA	±0,8% FS	-40 / 80	Solder 1/4	M16 connector
YCQC04H804	0	34	4 - 20 mA	±0,8% FS	-40 / 80	Solder 1/4	M16 connector

Compressor Drives

SD – Drives

Compatible for BLDC compressors
Voltage = 1Ph,230VAC or 3Ph,400VAC
Operation Temperature = -25°C/+65°C
Storage Temperature = -40°C/+85°C
Wall or Din-Rail mounting
Safe Torque Off (STO)
Modbus RTU (RS485)
Certificates: CE, LVD, EMC, UL

TECHNICAL PARAMETERS OF COMPRESSOR DRIVES

Type	Max. output Current	Model	Cooling Type	Product Number
1PH 2.6KW Inverter IP20	11 A	SD2011A2H2XA000	Horizontal Finned	10501030803
		SD2011A2V2XA000	Vertical Finned	10501031301
		SD2011A2F2XA000	Flat Plate	10501034301
1PH 3.8KW Inverter IP20	15 A	SD2015A2H2XA000	Horizontal Finned	10501030101
		SD2015A2V2XA000	Vertical Finned	10501031401
		SD2015A2F2XA000	Flat Plate	10501034401
1PH 5.0KW Inverter IP20	20 A	SD2020A2H2XA000	Horizontal Finned	10501030201
		SD2020A2V2XA000	Vertical Finned	10501031501
		SD2020A2F2XA000	Flat Plate	10501034101
3PH 3.8KW Inverter IP20	15 A	SD2015B4H2XA000	Horizontal Finned	10501030401
		SD2015B4V2XA000	Vertical Finned	10501031601
		SD2015B4F2XA000	Flat Plate	10501034501
3PH 5.0KW Inverter IP20	20 A	SD2020B4H2XA000	Horizontal Finned	10501030501
		SD2020B4V2XA000	Vertical Finned	10501031701
		SD2020B4F2XA000	Flat Plate	10501034601
3PH 8.0KW Inverter IP20	25 A	SD2025B4H2XA000	Horizontal Finned	10501030601
		SD2025B4V2XA000	Vertical Finned	10501031801
		SD2025B4F2XA000	Flat Plate	10501034701
3PH 11.5KW Inverter IP20	32 A	SD2032B4H2XA000	Horizontal Finned	10501033701
		SD2032B4V2XA000	Vertical Finned	10501033501
		SD2032B4F2XA000	Flat Plate	10501034201

TECHNICAL PARAMETERS OF CHOKES FOR COMPRESSOR DRIVES

SD2 drive	Type	Choke Model	Product Number	Weight [kg]
SD2015B4	3PH 3.8KW	LE76-0825-XT	10530500401	1,5
SD2020B4	3PH 5.0KW	LE105-1325-XTA	10530500501	3,9
SD2025B4	3PH 8.0KW	LE85.8-2503B-XTA	10530500601	2
SD2032B4	3PH 11.5KW	R3515	10521007201	1,86

Heat Pump Easy Selection

*Matched R290 compressors with Sanhua Drives**

*For updated compressor list please contact Sanhua local representative.

Phase	Drive model	Drive max output current	Suggested system heating capacity (Rated)	Compressor Brand	Compressor model	Compressor Disp. [ccm]	Compressor Brand	Compressor model	Compressor Disp. [ccm]	Compressor Brand	Compressor model	Compressor Disp. [ccm]	Compressor Brand	Compressor model	Compressor Disp. [ccm]	Compressor Brand	Compressor model	Compressor Disp. [ccm]	Compressor Brand	Compressor model	Compressor Disp. [ccm]
1ph	SD2011A2	11A	1KW	Highly	WHP01900PSD-H3BK	8,04							Panasonic	7SD110ZAC61	11,16				Sanyo	C-7RHZ320L9AAL	32
			3KW	Highly	WHP03300PRKQA3HT6	14	SIAM	SPB220F04MT	22												
			5KW	Highly	WHP05500PUKQA6NT6	22,6	SIAM	TPB220FCHMT	22	GMCC	EDTN210D32EFZ /UFZ	21									
	SD2015A2	15A	7KW	Highly	WHP07600PSDPC9KQ	30,7	SIAM	TPB306FCHMT	30,6	GMCC	EDTM310D85EMT/UMT	30,6									
			7KW				SIAM	APB33FABMT	33												
	SD2020A2	20A	10KW	Highly	WHP10200PSDPC9EQ	42	SIAM	APB42FABMT	42	GMCC	EDTF420D62EMT/UMT	41,5	Panasonic	7KD420XKSV058A	42						
				Highly	WHP10200PSKTC9KQ	42															
			12KW				SIAM	APB52FABMT	52												
	SD2015B4	15A	7KW	Highly	WHP07600PSDPC9KQ	30,7	SIAM	APB33FAAMT	33	GMCC	EDTM310D85EMT/UMT	30,6									
3ph	SD2015B4	15A	7KW	Highly	WHP07600PSDPC9KQ	30,7	SIAM	APB33FAAMT	33	GMCC	EDTM310D85EMT/UMT	30,6									
	SD2020B4	20A	10KW	Highly	WHP10200PSDPC9EQ	42	SIAM	APB42FAAMT	42	GMCC	EDTF420D62EMT/UMT	41,5									
			12KW	Highly	WHP13300PSDPC8FQ	54,8	SIAM	APB52FAAMT/FBBMT/ FDAMT/FB1MT	52	GMCC	EDTQ580D66ENT/UNT	52									
							SIAM	QPB53FABMT	53	GMCC	EDPQ580D66UNT	52	Panasonic	H550D7VZAAC6-B1	55	Emerson	YHV072RG-4X9	72			
	SD2025B4	25A	14~16KW	Highly	WHP32900VSKTQ9JK	75,2	SIAM	QPB65FA4MT	65				Panasonic	7JD650XJSV046A1	65						
			18KW	Highly	WHP37600VSKTQ9JK	84,8	SIAM	APB87FEAMT	87				Panasonic	H660D7VZAAC6-B1	65	Emerson	YHV072RG-4X9	72			
				Highly	WHP37600PSKTQ9JK	84,8															
	SD2032B4	32A	20KW	Highly	WHP37600PSKTQ9JK	84,8	SIAM	APB100FA1MT/FB2MT	100	GMCC	SEDVC096D42ELK	96									
	SD2037B4	37A	30kW																		
	SD2045B4	45A	40kW							GMCC	SEDVE135D11ELG	135									
	SD2055B4	55A	50kW							GMCC	SEDVE135D11ELG	135									

Note: This Compressor Drive match list is valid for heatpump application

SANHUA

BUILD YOUR HEAT PUMP WITH US

Reliable components for next-generation heat pumps

- Flow managment: DPF/DBF EEVs
- Electronics: pressure sensors, switches, SD2 inventers (>95% efficiency)
- Line components & BPHE S40/S60

R290 R744

Discover cutting-edge heat pump solutions with Sahnhua

Check Valves

CCV - Valves

Forced: by Magnets
Maximum operation pressure: 49bar
Medium Temperature: -40°C/+150°C
Certificates: PED Art. 4.3

TECHNICAL PARAMETERS OF MAGNETIC CHECK VALVES

Model	Product Number	Connections Ø d ODF		Kv	Min. OPD
		[inch]	[mm]	[m³/h]	[kPa]
CCV2H05	10163002302	1/4	-	0,8	10
CCV3H06	CCVX0000802	3/8	-	1,2	10
CCV4H05	CCVX0000602	1/2	-	2,7	10
CCV5H06	CCVX0000902	5/8	16	2,9	10
CCV6H05	CCVX0001702	3/4	-	2,9	10
CCV7H01	10163001302	7/8	22	6,5	10
CCV9H01	10163000502	1 1/8	-	11,4	10
CCV11H01	10163001202	1 3/8	35	16,2	10
CCV13H01	10163002902	1 5/8	-	24	10
CCV17H01	10163003002	2 1/8	54	42,8	10

Filter Driers

DTG-M02 – Filter Driers

Medium Temperature: -30°C/+120°C
Ambient Temperature: -30°C/+55°C
Max. Operation pressure: 48,3bar
Filter volume = 1,5in3
Housing: Stainless steel
Flow Direction: single flow direction
Certificates: PED Art. 4.3

TECHNICAL PARAMETERS OF DTG FILTER DRIERS

Filter	Model	Product Number	Solder connection	Capacity [kW]	Moisture Absorption (gram H2O)	
					R290	
			[inch]	R290	23,9°C	51,7°C
DTGM022s	DTG-M02020-901	10230041401	1/4	2,54	3,00	2,20
DTGM023s	DTG-M02030-901	10230039601	3/8	3,85	3,00	2,20
DTGM024s	DTG-M02040-901	10230041501	1/2	5,13	3,00	2,20

STG - Filter Driers

Medium Temperature: -30°C/+120°C
Ambient Temperature: -30°C/+55°C
Operation pressure: 48,3bar
With Acid binding or w/o available
Flow Direction: bi-flow direction
Certificates: PED Art. 4.3

TECHNICAL PARAMETERS OF STG FILTER DRIERS

Filter	General Characteristics of STG-B Filter								
	Model	Nominal Volume	Capacity (R290)	Moisture Absorption (gram H2O) with R290		Mech. Connection			
	[inch³]	[cm3]	[kW]	23,9°C	51,7°C	Inch	Product No.	[mm]	Product No.
STGB053s	5	82	9-30	4,45	3,2	3/8	10235006002	10	10235007802
STGB08x	8	131	10-31	8,5	6,2	1/2	10235006402	12	10235008102
STGB16x	16	262	24-51	15,3	11,2	5/8	10235006702	16	10235006702
STGB30x	30	492	30-66	36	26,4	7/8	10235007302	22	10235007302

Check catalogue or datasheet for more types with right port sizes and order code

Strainers

KGQ - Strainers

Body Material: Copper
Port material: Copper / solder connections
Medium Temperature = -30°C/+120°C
Ambient Temperature = -35°C/+55°C
Operation pressure = 42bar
Certificates: PED Art.4.3

TECHNICAL PARAMETERS OF STRAINERS

Model	Product Number	Mesh size	Strainer length (G)	Port size
		[mesh/in]	[mm]	[mm ID]
KGQ-W11331-701	on request	100	50	4,86
KGQ-W11441-701	10240013502	100	50	6,45
KGQ-W11442-701	10240014702	100	60	6,45
KGQ-W11551-701	10240013602	100	70	8,1
KGQ-W11661-701	10240013402	100	50	9,62
KGQ-W11881-701	10240018002	100	50	12,8
KGQ-W11882-701	10240013002	100	60	12,8
KGQ-W11000-176	on request	120	75	9,52
KGQ-W11000-082	on request	100	75	12,7
KGQ-W11000-059	on request	100	80	18

Suction Accumulators

ACM - Accumulators

Medium Temperature = -30°C/+120°C
Ambient Temperature = -35°C/+55°C
Operation pressure = 25bar
Inner volume = 0,6 – 8ltr.
Certificates: PED Art.4.3 (PED Cat. 2 for selected types)

For specific accumulator types please contact your local Sanhua representative

Liquid Receivers

LRA - Receivers

Medium Temperature = -30°C/+120°C
Ambient Temperature = -30°C/+55°C
Operation pressure = 35bar/49bar
Different design available
Certificates: PED Art.4.3 (PED Cat. 2 for selected types)

TECHNICAL PARAMETERS OF LIQUID RECEIVERS

Series	Model	Internal Volume [L]	Dimensions (mm)
			Height with ports [mm]
B	LRA-B01076-901	0,6	171±4
	LRA-B02076-901	0,75	210±4
	LRA-B03076-901	0,9	252±4
	LRA-B04076-901	1,2	323±4
	LRA-B05127-9011	2,1	221±5
D	LRA-D00076-001	0,5	155
	LRA-D00076-002	0,75	215
	LRA-D00076-003	0,9	251

Liquid receiver with bigger inner volume and PED Cat.2 available on request

Service valves

FSV - Valves

Medium Temperature = -30°C/+120°C
Ambient Temperature = -35°C/+55°C
Operation pressure = 45bar
With or w/o charge port
Certificates: PED Art.4.3

GENERAL CHARACTERISTICS OF VALVES

Model	Product Number[1)]	Connections				Nominal Capacity	PED Category
		ØA Flare	Ød ODF	ØI	Charge Port Flare (SAE)		
		[inch]	[inch]	[mm]	[inch]	[kW]	
FSV-A2GSHC-51	10165423102	7/16-20UNF	1/4	4,8	-	-	Art. 4.3
FSV(S)-JA3GSHC-28	10165258902	5/8-18UNF	3/8	7	1/2-20 UNF	4	Art. 4.3
FSV-JA4GSHC-52	10165423302	3/4-16UNF	1/2	10	1/2-20 UNF	7	Art. 4.3
FSV-JA5GSHC-45	10165423402	7/8-14UNF	5/8	12,5	1/2-20 UNF	11	Art. 4.3
FSV(A)-JA6GSHC-68	On request	1 1/16-14UNS	3/4	Inner 16 Outer 17	1/2-20 UNF	16	Art. 4.3

Note: 1) Extent of delivery:
FSV-JA valve body with schrader valve, cap charge port, cap shut-off valve, nut pipe connection
FSV-A valve body, cap shut-off valve, nut pipe connection, without charge port

Mufflers

XYQ - Mufflers

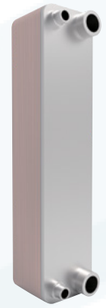
Medium Temperature = -30°C/+135°C
Ambient Temperature = -30°C/+70°C
Operation pressure = 46bar
Certificates: PED Art.4.3

TECHNICAL PARAMETERS OF MUFFLERS

Model	Diameter body	Overall Length	Length Ports	Port Size	Connection type
	[mm]	[mm]	[mm]	[in]	
XYQ-CXX025	25,4	70~330	5~15	1/2, 1/4, 3/8	Solder Connection
XYQ-CXX030	30	70~330	5~15	1/2, 1/4, 3/8	
XYQ-CXX031	31,75	70~330	5~15	1/2, 1/4, 3/8	
XYQ-CXX035	35	70~330	5~15	1/2, 1/4, 3/8	
XYQ-CXX041	41,3	90~330	5~15	1/2, 1/4, 3/8	
XYQ-CXX048	48	90~330	5~15	1/2, 1/4, 3/8	
XYQ-CXX050	50,8	130~330	5~15	1/2, 1/4, 3/8	

Individual muffler types need to be selected with local Sanhua responsible

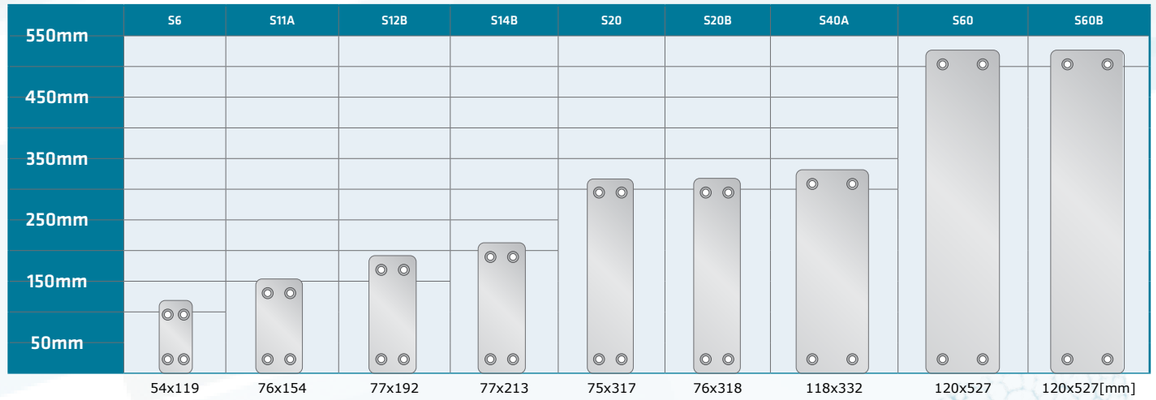
Brazed Plate Heat Exchangers



S-BPHE

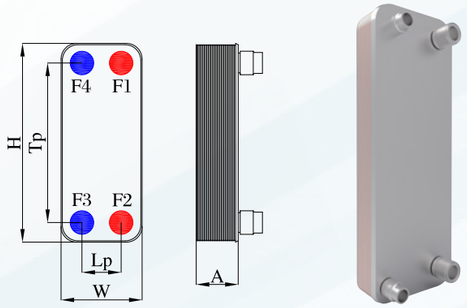
Body Material: Stainless Steel / Solder=Copper
Port material: Copper / solder connections
Max plates = 60/120 plates
Operation Temperature = -196°C/+225°C
Operation pressure = 30/50bar
Certificates: PED Art.4.3 and Cat. 2

DIMENSIONS OF BPHE TYPES



INTRODUCTION S40A

SANHUA S40A is widely used as condenser or evaporator in air-cooled chillers (or heat pumps) with capacity up to 50kw. Its high reliable structural design makes it suitable for high-pressure refrigerants such as R410A and R32.The plate adopts optimized asymmetric fishbone design and innovative distributor design, which has high heat transfer efficiency and reduces water side pressure drop. The lower hold-up volume will help to reduce the refrigerant charge.



Size Code	mm	IN
H	332	13.07
W	118	4.65
Tp	279 (F1F2) 286 (F3F4)	10.98 11.26
Lp	68 (F1F4) 75 (F2F3)	2.68 2.95
A	11+1.55N	0.433+0.061N

TECHNICAL DATA (N=NUMBER OF PLATES)

Max. no. of plates	120
Max flow(m3/h)	8.8
Max. working pressure(MPa)	5.0
Working temperature(°C)	-196/+200
Volume per channel (L)	0.0486(F1F2)/0.0422(F3F4)
Weight w/o connection(kg)	1.26+0.106N
Flow Direction	Parallel flow
Plate	SUS 316L/SUS 304
Connection	SUS 304
Solder	Copper

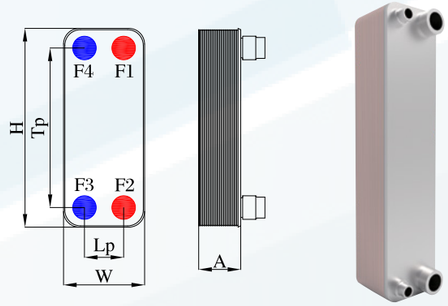
STANDARD CONNECTIONS

F3-F4 Refrigerant side	solder: 1/4", 3/8", 1/2" , 5/8" , 3/4", 7/8"
F1-F2 Water side	thread: 1/4", 3/8", 1/2" , 5/8" , 3/4"

Note: The BPHE is used as an evaporator, F3/F4 is the refrigerant inlet/outlet.

INTRODUCTION S60B

SANHUA S60B is widely used in chillers, heat pumps and IT cooling as evaporator or condenser. It is also used as economizer or oil cooler for screw chillers. The optimized plate technology can reduce the water side pressure drop and provide efficient heat transfer performance at the same design temperature.



Size Code	mm	IN
H	527	20.75
W	120	4.72
Tp	470	18.5
Lp	63	2.48
A	13+1.86N	0.512+0.073N

TECHNICAL DATA (N=NUMBER OF PLATES)

Max. no. of plates	120
Max flow(m3/h)	17
Max. working pressure(MPa)	3.0/4.9 (optional)
Working temperature(°C)	-196/+200
Volume per channel (L)	0.0967(F1/F2) / 0.0863(F3/F4)
Weight w/o connection(kg)	2.2+0.168*N
Flow Direction	Parallel flow
Plate	SUS 316L/SUS 304
Connection	SUS 304
Solder	Copper

STANDARD CONNECTIONS

F3-F4 Refrigerant side	solder, up to 1"3/8
F1-F2 Water side	thread, up to 1"1/4

Note: The BPHE is used as an evaporator, F3/F4 is the refrigerant inlet/outlet.

SANHUA

Ready for R290 Heat Pumps

R290 R744

Brazed Plate Heat Exchangers – series S40/S60

- Innovative and highly efficient fluid distribution system
- Designed and optimized for Heat Pump application
- Anti-freezing design
- Maximum working pressure up to 50 bar
- EU PED certification for flammable refrigerants, including R290
- Patented asymmetric plate design has in average 25% lower pressure drop on secondary side compared to other available heat exchangers

Our wide range of SANHUA BPHEs include many different sizes and models. They can be used as evaporators, condensers, de-superheaters or fluid to fluid exchangers. Our design is easy to install, and gasket free technology makes them fully hermetic.

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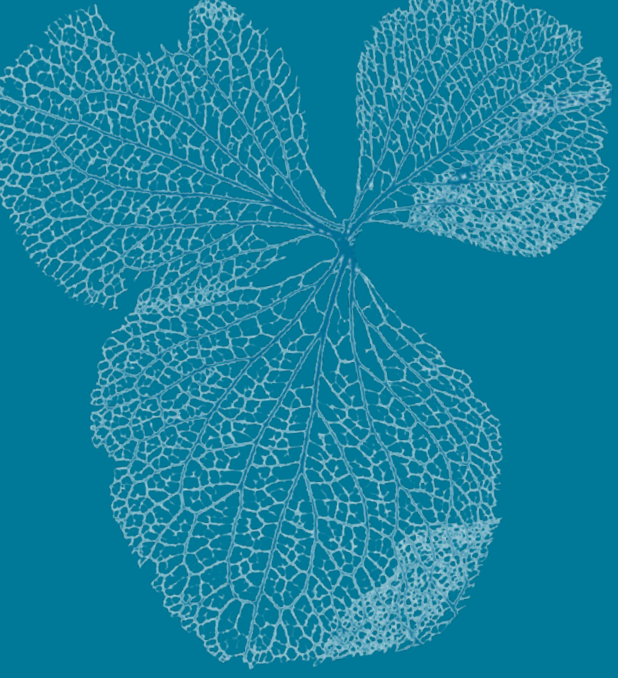

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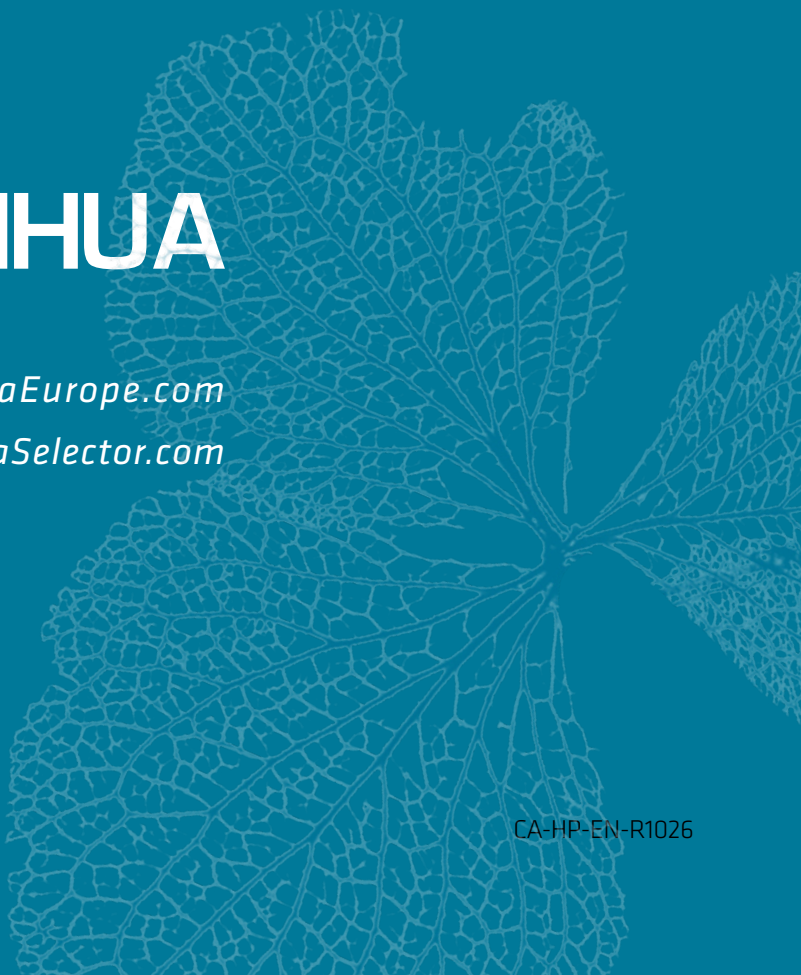

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