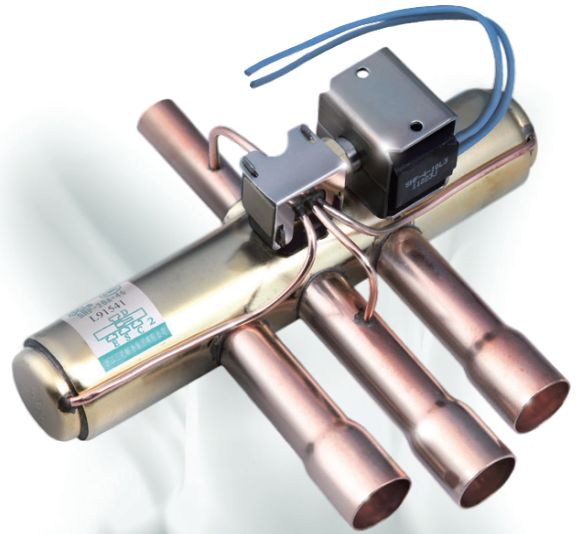




4 Way Reversing Valve

SHF (HP) series four-way reversing valves are designed especially for usage in heat pump systems to realize switching between cooling mode and heating mode by changing the flow path of the refrigerant.



FEATURES

- WIDE APPLICATION RANGE
- SUITABLE FOR COOLING CAPACITIES FROM 3 TO 40 KW (R407C, CONDITION 1)
- SEVERAL DESIGNS AVAILABLE

GENERAL SPECIFICATIONS

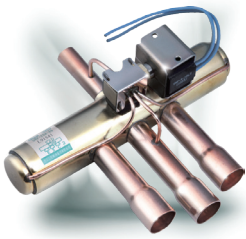
- Applicable for all common HCFC and HFC refrigerants such as: R22, R134a, R404A, R407C, R410A, R507A ...
- Medium temperature TS min./max.: -30°C / +135°C
- Ambient temperature min./max.: -25°C / +70°C
- Relative humidity: 0 to 95% RH
- Max. operating pressure PS: 4,5 MPa (45 bar)
- Max. opening pressure difference OPD: 4,0 MPa (40 bar)
- Installation position:
 - Coil upwards or with body axis in horizontal alignment
 - Flow direction according to installation instruction
- Certifications: UL/CSA* and declaration according to LVD or PED

* Coil selection on request

NOMINAL OPERATING CONDITIONS

Nominal operating conditions	Condition 1:	Condition 2:
Condensing Temperature t_c	38°C	54,4°C
Evaporating Temperature t_o	5°C	7,2°C
Superheat Δt_{oh}	5K	5K
Subcooling Δt_{cu}	0K	5K





SANHUA SHF HP SERIES 4 Way Reversing Valve

GENERAL CHARACTERISTICS

Valve Model	Product Number	Ø Port [mm]	Kv [m ³ /h]	Connections ODF		MOP [MPa]	OPD		PED category
				ØD [inch]	ØE/S/C [inch]		MAX [MPa]	MIN [MPa]	
				SHF(L)-4H-23U-E	SHF-19005		8,0	1,7	
SHF(L)-7H-34U-E	SHF-19006	11,1	3,1	3/8	1/2	4,5	4,0	0,25	3,3
SHF-20D-46-02-E	SHF-50022	17,2	9,9	1/2	3/4	4,5	4,0	0,34	I
SHF-35B-67-02-E	SHF-50023	20,9	14,7	3/4	7/8	4,5	4,0	0,34	I

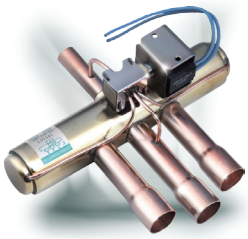
CAPACITY SELECTION

Valve Model ¹⁾	Product Number	Nominal Capacity (condition 1)							
		R407C ²⁾		R410A		R134a		R404A / R507	
		ΔP: 0,1 bar	ΔP: 0,2 bar	ΔP: 0,1 bar	ΔP: 0,2 bar	ΔP: 0,1 bar	ΔP: 0,2 bar	ΔP: 0,1 bar	ΔP: 0,2 bar
		[kW]	[kW]	[kW]	[kW]	[kW]	[kW]	[kW]	[kW]
SHF(L)-4H-23U-E	SHF-19005	3,8	5,3	4,5	6,4	2,9	4,2	3,2	4,6
SHF(L)-7H-34U-E	SHF-19006	7,0	9,9	8,5	12,0	5,5	7,8	6,0	8,5
SHF-20D-46-02-E	SHF-50022	22,1	31,3	26,7	37,8	17,4	24,6	19,0	26,8
SHF-35B-67-02-E	SHF-50023	32,6	46,2	39,4	55,7	25,6	36,2	28,0	39,6

Valve Model ¹⁾	Product Number	Nominal Capacity (condition 2)							
		R407C ²⁾		R410A		R134a		R404A / R507	
		ΔP: 0,1 bar	ΔP: 0,2 bar	ΔP: 0,1 bar	ΔP: 0,2 bar	ΔP: 0,1 bar	ΔP: 0,2 bar	ΔP: 0,1 bar	ΔP: 0,2 bar
		[kW]	[kW]	[kW]	[kW]	[kW]	[kW]	[kW]	[kW]
SHF(L)-4H-23U-E	SHF-19005	3,4	4,8	4,0	5,7	2,7	3,9	2,7	3,9
SHF(L)-7H-34U-E	SHF-19006	6,4	9,0	7,5	10,6	5,1	7,2	5,1	7,2
SHF-20D-46-02-E	SHF-50022	20,2	28,5	23,6	33,4	16,1	22,8	16,1	22,7
SHF-35B-67-02-E	SHF-50023	29,7	42,0	34,8	49,2	23,7	33,5	23,7	33,5

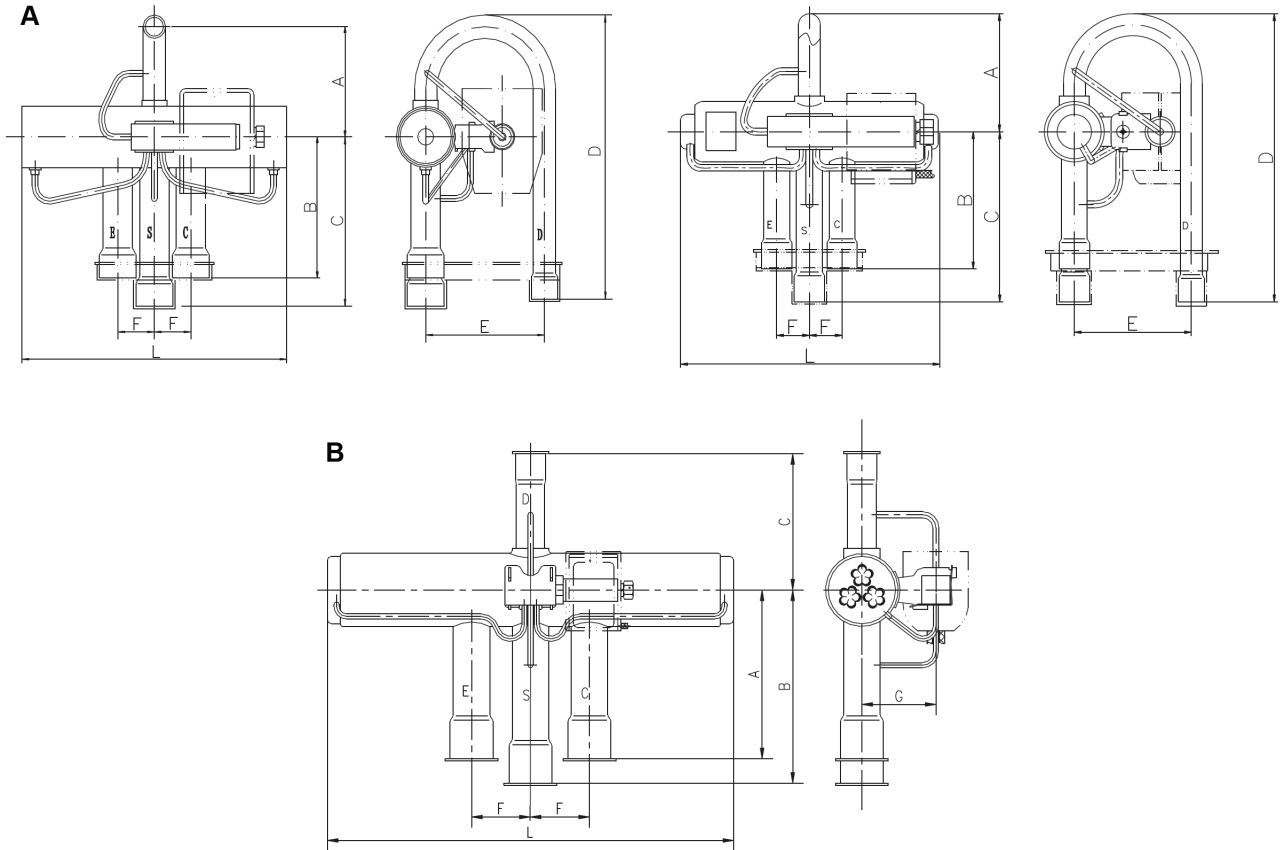
Note: 1) Pressure drop is valid for flow from ØC to ØS or ØE to ØS
2) R407C data based on dew point conditions





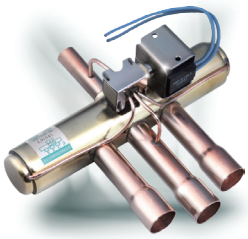
SANHUA SHF HP SERIES 4 Way Reversing Valve

DIMENSIONS - VALVES



Valve Model	Product Number	Valve Style	L	A	B	C	D	E	F	G	Weight
			[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]
SHF(L)-4H-23U-E	SHF-19005	A	94,4	43	50	62	105	43	12	-	0,20
SHF(L)-7H-34U-E	SHF-19006		113	51	59	71	119	52	16	-	0,28
SHF-20D-46-02-E	SHF-50022	B	183,6	67	83	95	-	-	28,6	35,5	0,75
SHF-35B-67-02-E	SHF-50023		213	82	87	100	-	-	33	40	1,23





SANHUA SHF HP SERIES 4 Way Reversing Valve

COIL CHARACTERISTICS

Coil Model ¹⁾	Winding Code	Product Number	Electrical Connection Type	Power Supply	Rated Voltage	Power Consumption			Protection class	Insulation class	Max Operating Temp.
						AC 50Hz	AC 60Hz	DC			
						[-]	[V]	[W]			
SQ-A44 22G-00 0771	SHF-4-10FA5	SHF-56012	Spade (Faston)	AC	220 to 240	6	5	-	IP00	F	155
SQ-A44 220-00 0001	SHF-4-10FA1	SHF-56013	Spade (Faston)	AC	220	6	5	-	IP00	F	155
SQ-A44 11B-00 0001	SHF-4-10FA2	SHF-56014	Spade (Faston)	AC	120	6	5	-	IP00	F	155
SQ-A44 10A-00 0001	SHF-4-10FA3	SHF-56015	Spade (Faston)	AC	100 to 110	6	5	-	IP00	F	155
SQ-A44 024-00 0771	SHF-4-10FA4	SHF-56016	Spade (Faston)	AC	24	6	5	-	IP00	F	155
SQ-A44 26H-00 0831	SHF-4-10FA6	SHF-56017	Spade (Faston)	AC	265 to 277	6	5	-	IP00	F	155
SQ-A44 200-00 0001	SHF-4-10FA7	SHF-56018	Spade (Faston)	AC	200	6	5	-	IP00	F	155
SQ-D44 012-00 0001	SHF-4-10FA8	SHF-56019	Spade (Faston)	DC	12	-	-	10	IP00	F	155
SQ-D44 024-00 0001	SHF-4-10FA9	SHF-56020	Spade (Faston)	DC	24	-	-	11	IP00	F	155

Note: 1) Every coil is applicable to all above specified valve models

DIMENSIONS - COIL

Coils with Spade Connections

