

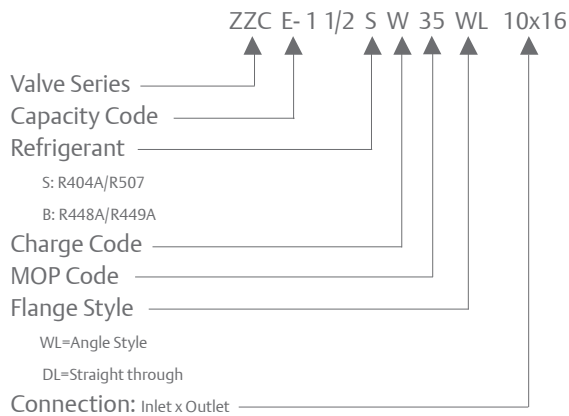
Thermo™ - Expansion Valve Series ZZ for Low Evaporating Temperatures Between -45 and -100°C

Features

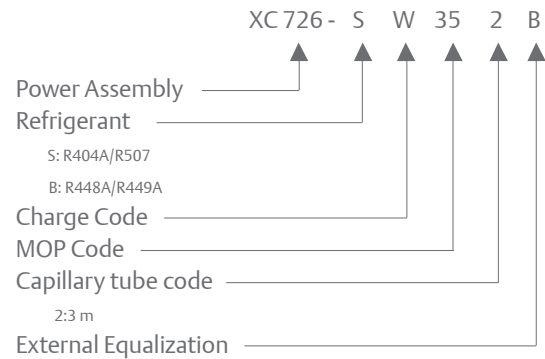
- Modular design for economical logistics and easy assembly and servicing
- Very good stability due to large diaphragm diameter
- High-quality materials and processes for high reliability and long lifetime
- To withstand stress at extremely low temperatures, ZZ-Series valves feature bronze bolts.
- Max. working pressure PS:
- 31 bar with XC power assembly



Type Code Valve



Type Code Power Element



Selection table and Nominal Capacities

Valve Series	R23		R404A / R507		R448A/ R449A		Orifice	Power Assembly
	Type	Nominal Capacity (kW)	Type	Nominal Capacity (kW)	Type	Nominal Capacity (kW)		
ZZCE	2 BG	1.9	2/4 SW	1.2	1BW	1.7	X 10-B01	XC726 ... 2B
	6 BG	4.0	1 1/2 SW	2.6	2BW	3.7	X 10-B02	
	8 BG	6.8	2 1/2 SW	4.4	3BW	6.2	X 10-B03	
	12 BG	10.8	3 1/2 SW	7.0	5BW	9.8	X 10-B04	
	17 BG	16.3	5 SW	10.6	6BW	14.8	X 10-B05	
	25 BG	21.7	8 SW	14.1	10BW	19.8	X 10-B06	
	31 BG	27.1	9 SW	17.6	12BW	24.7	X 10-B07	

Note: Attention - To withstand stress at extremely low temperatures, ZZ-Series valves feature bronze bolts. Please order separately Screw BZ 32 Part No. 803575, Screw BZ 48 Part No. 803576

Nominal capacity (Q_n) is based on the following conditions:

Refrigerant	Evaporating temperature	Condensing temperature	Subcooling
R23	-60°C	-25°C	1K
R448A, R449A	-40°C	25°C bubble / 30,1°C dew point	
R404A, R507	-40°C	25°C	

For selection of other operating conditions, please use „Controls Navigator“ selection program.

Selection table Power Element and Recommended Flanges

Valve Series	Orifice type	Connection Standard Flange, Angle Style		Connection (inlet x outlet)		Power Element Type
		Type	Type	Metric	Imperial	
ZZCE	X 10-B01/ B02/ B03	C501-5mm		10 X 16 mm ODF		XC726 ... 2B
			C501-5		3/8" X 5/8 ODF	
	X 10-B04/ B05	C501-7 mm		12x16 mm ODF		
			C501-7		1/2"x5/8" ODF -	
	X 10-B04/ B05	A 576 mm		16x22 mm ODF		
			A 576	22x28 mm ODM	5/8"x7/8" ODF	

MOP Charges ZZ-Series

MOP Code	MOP		Evaporating Temperature Range °C		
	bar	Tmax	R23	R404A/R507	R448A/ R449A
20	1.4	-66°C	-100 ... -71		
35	2.1	-14°C			-75 ... -18
40	2.8	-14°C		-75 ... -18	
55	3.8	-7°C		-75 ... -10	
60	4.1	-48°C	-100 ... -51		
125	8.6	-32°C	-100 ... -35		

Accessories and Spare Parts

Description	Type	Part No.
Service Tool for T, ZZ, L and 935 Series valves	X 99999	800005
Gasket sets for T, ZZ, L and 935 Series valves	X 13455-1	027579
Bronze screw for Flange types: C500, C501, 9761, X6346, X6669, A576	Screw BZ 32	803575
Bulb clamp for XC726	XA 1728-5	803261