

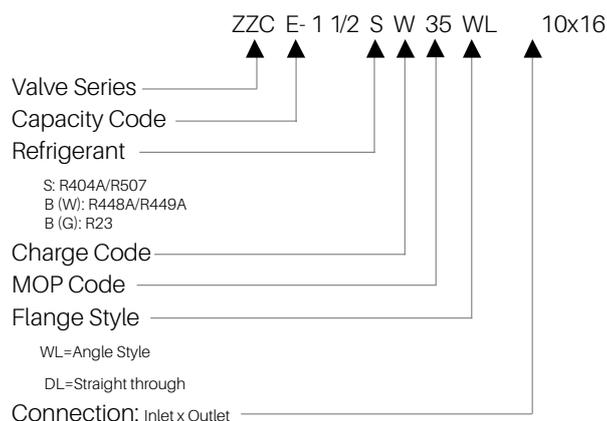
# Thermo™ - expansion valve series ZZ for low evaporating temperatures between -45 and -100°C

## Features

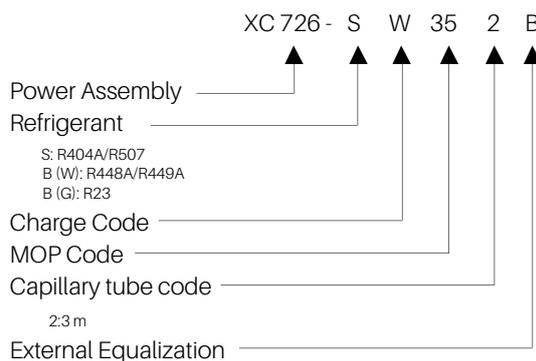
- Modular design for economical logistics and easy assembly and servicing
- Very good stability due to large diaphragm diameter
- High-quality materials and processes for high reliability and long lifetime
- To withstand stress at extremely low temperatures, ZZ-Series valves feature bronze bolts.
- Max.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



## Type code valve



## Type code power element



## Selection table

Valve Series	Type	Nominal Capacity (kW)	Type	Nominal Capacity (kW)		Type	Nominal Capacity (kW)			Orifice	Power Assembly
		R23		R404A / R507	R452A		R448A / R449A	R454A	R455A		
ZZCE	2BG	1.9	2/4SW	1.2	1.3	1BW	1.7	1.7	1.6	X10-B01	XC726...2B
	6BG	4.0	1-1/2SW	2.6	2.8	2BW	3.7	3.7	3.4	X10-B02	
	8BG	6.8	2-1/2SW	4.4	4.6	3BW	6.2	6.2	5.7	X10-B03	
	12BG	10.8	3-1/2SW	7.0	7.4	5BW	9.8	9.8	9.1	X10-B04	
	17BG	16.3	5SW	10.6	11.1	6BW	14.8	14.8	13.7	X10-B05	
	25BG	21.7	8SW	14.1	14.8	10BW	19.8	19.8	18.2	X10-B06	
	31BG	27.1	9SW	17.6	18.5	12BW	24.7	24.7	22.8	X10-B07	

**Note 1:** Nominal conditions:

R23: Evaporating Temperature -60°C, Condensing Temperature -25°C, Subcooling 1 K

Other refrigerants: Evaporating Temperature -40°C (dew point), Condensing Temperature 25°C (bubble point), Subcooling 1 K"

**Note 2:** Attention - To withstand stress at extremely low temperatures, ZZ-Series valves feature bronze bolts. Please order separately Screw BZ 32 Part No. 803575

## 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" x 5/8" ODF -	
	X 10-B04/ B05	A 576 mm		16x22 mm ODF		
			A 576	22x28 mm ODM	5/8" x 7/8" ODF	

## MOP charges ZZ-Series

MOP Code	MOP		Evaporating Temperature Range		
	bar	T <sub>max</sub>	R23	R404A/R507/R452A	R448A/ R449A/R545A/R455A
20	1.4	-66°C	-100 ... -71°C		
35	2.1	-14°C			-75 ... -18°C
40	2.8	-14°C		-75 ... -18°C	
55	3.8	-7°C		-75 ... -10°C	
60	4.1	-48°C	-100 ... -51°C		
125	8.6	-32°C	-100 ... -35°C		

## 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