

Thermo™ -Expansion Valves L-Series

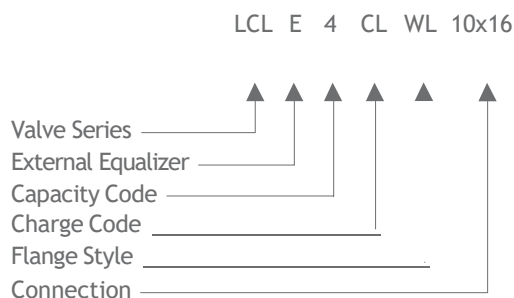
Exchangeable Power Assemblies and Orifices

Features

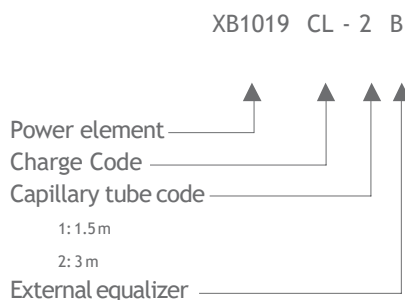
- Applications for series L valves include superheat control (desuperheating of suction gas i.e., in hotgas bypass systems and interstage cooling in multiple stage compressors)
- Modular design for economical logistics and easy assembly and servicing
- Very good stability is attained because of the large forces generated by the large diaphragm diameter
- High-quality materials and processes for high reliability and long lifetime
- Superior partial load performance due to seat orifice design (LJRE, LERE & LIRE)
- Max. allowable pressure PS
 - 46 bar with XB power assembly
 - 31 bar with XC power assembly.
- Medium Temperature Range TS: -45...+65° C



Type Code Valve



Type Code PowerAssembly



Nominal Capacities for Cages

Valve Series	Capacity Code*	Nominal Capacity Q _n (kW)														Orifice Type	Power Assembly Type	
		R134a	R404A / R407C	R448A / R450A	R513A	R448A	R449A	R410A	R32	R454A	R454C	R1234yf	R1234ze	R455A				
LCLE	1*	1.5	1.3	2.1	1.9	1.3	1.3	1.9	1.9	2.2	3.3	1.9	1.6	1.1	1.1	1.8	X22440-B1B	XB1019 ...1B
	2*	2.9	2.6	4	3.7	2.5	2.6	3.7	3.6	4.3	6.4	3.6	3.0	2.1	2.2	3.5	X22440-B2B	
	3*	6.1	5.6	8.5	7.9	5.4	5.5	7.9	7.7	9.2	13.7	7.8	6.5	4.4	4.8	7.5	X22440-B3B	
	3.5*	9.3	8.4	12.9	11.9	8.1	8.3	11.9	11.6	13.9	20.7	11.7	9.7	6.6	7.2	11.3	X22440-B3.5B	
	4*	13.5	12.2	18.7	17.3	11.8	12.1	17.3	16.9	20.2	30.0	17.0	14.2	9.6	10.5	16.4	X22440-B4B	
	6*	17.3	15.7	24	22.1	15.1	15.5	22.1	21.6	25.9	38.5	21.8	18.2	12.4	13.4	21.0	X22440-B5B	
	7*	23.6	21.5	32.9	30.3	20.7	21.2	30.3	29.6	35.5	52.8	29.9	24.9	17.0	18.4	28.8	X22440-B6B	
	9*	32	29	44.4	41	28	28.7	41.0	40.0	48.0	71.4	40.4	33.6	22.9	24.8	38.9	X22440-B7B	
LJRE	10*	37.2	33.8	51.7	47.7	32.6	33.4	47.7	46.6	55.8	83.0	47.0	39.1	26.7	28.9	45.3	X22440-B8B	XB1019 ...1B
	11*	45	40	62	58	40	40	57.8	56.5	67.7	100.7	57.0	47.4	32.3	35.1	54.9	X11873-B4B	
LERE	12*	57	51	80	74	50	52	73.8	72.1	86.4	128.5	72.8	60.5	41.3	44.7	70.1	X11873-B5B	XC726...2B
	13*	71	63	99	91	62	64	90.7	88.6	-	-	89.5	74.4	50.7	55.0	86.2	X9117-B6B	
	14*	81	72	112	104	71	73	103.7	101.3	-	-	102.3	85.1	58.0	62.9	98.5	X9117-B7B	
	15*	112	99	155	143	98	100	142.6	139.3	-	-	140.6	117.0	79.7	86.4	135.4	X9117-B8B	
	16*	135	120	188	174	119	173.5	169.5	-	-	171.1	142.3	97.0	105.2	164.8	X9117-B9B		

LIRE-	17*	174	154	241	222	152	156	222.4	217.2	-	-	219.3	182.4	124.3	134.8	211.2	X 9166-B10B
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Note 1: Nominal conditons: Evaporating Temperature +4°C (dew point), Condensing Temperature +38°C (bubble point), Subcooling 1 K

Note 2: For selection of other operating conditions, please use "Controls Navigator" selection program.

Note 3: *) Please indicate designation character for desired superheat.

Selection Table Power Assembly and Recommended Flanges

Valve Series	Orifice Type	Connection Standard Flange, Angle Style		Connection (Inlet x Outlet)		Power Element Type
		Type	Type	Metric	Imperial	
LCLE	X22440-B1B /B2B/ B3B /B3.5B /B4B		C501-5	-	3/8" x 5/8" ODF	XB1019...1B
		C501-5mm		10x16 mm ODF		
	X22440-B5B /B6B		C501-7		1/2" x 5/8" ODF	
		C501-7mm		12x16 mm ODF		
			A576		5/8" x 7/8" ODF 7/8" x 1 1/8" ODF	
A576-mm		16x22 mm ODF 22x28 mm ODM	-			
LJRE	X11873-B4B /B5B	10331	10331	22x22 mm ODF	7/8" x 7/8" ODF 1 1/8" x 1 1/8" ODM	XC726...2B
LERE/LIRE	X9117-B6B /B7B / B8B /B9B /B10B		9153	-	7/8" x 7/8" ODF 1 1/8" x 1 1/8" ODM	
		9153-mm		22x22 mm ODF 22x28 mm ODM		

Suction Gas Superheat Selection:

* Charge Code	Refrigerant												
	R134a	R404A / R507	R407C	R410A	R448A / R449A	R450A	R513A	R454A	R454C	R1234yf	R1234ze	R32	R455A
CL	-	22K	13K	30K	17K	-	-	19K	13K	-	-	31K	15K
GL	14K	-	25K	-	30K	10K	17K	32K	27K	16K	-	-	28K
UL	30K	-	-	-	-	26K	-	-	-	-	22K	-	-

Note: *) Please Indicate Designation Character for Desired Superheat.

Description	Type	Part No.
Service Tool for T, ZZ, L and 935 Series valves	X 99999	027 579
Gasket sets for T, ZZ, L and 935 Series valves	X 13455 -1	800 005
Gasket sets for T, ZZ, L and 935 Series valves Steel Screws for flange types: C500, C501, 9761, X6346, X6669, A576	Screw ST 32	803 573
Steel Screws for flange types: 9148, 9149, 9152, 9153, 10331, 10332	Screw ST 48	803 574
Bulb clamp for XB1019	XA 1728-4	803260
Bulb clamp for XC726	XA 1728-5	803261

Accessories and Spare Parts