

TE 5 - TE 55, Thermostatic expansion valves

TE 5 - TE 55 thermostatic expansion valves regulate the injection of refrigerant liquid into evaporators for medium sized plants. Injection is controlled by the refrigerant superheat. Therefore the valves are especially suitable for liquid injection in "dry" evaporators where the superheat at the evaporator outlet should always be kept constant.

TE 5 - TE 55 valves are supplied as parts programme, built up of three main components - thermostatic element, orifice assembly, and valve body with connections, and have external pressure equalization. Refrigerants: R22, R134a, R404A, R507, R407A, R407F and R407C.

Features TE 5 - TE 55



Laser-welded power element in stainless steel

- longer diaphragm life
- high pressure tolerance and working pressure
- high corrosion resistance

To ensure long operating life, the valve cone and seat are made of a special alloy with particularly good wear qualities

Stainless steel capillary tube and bulb

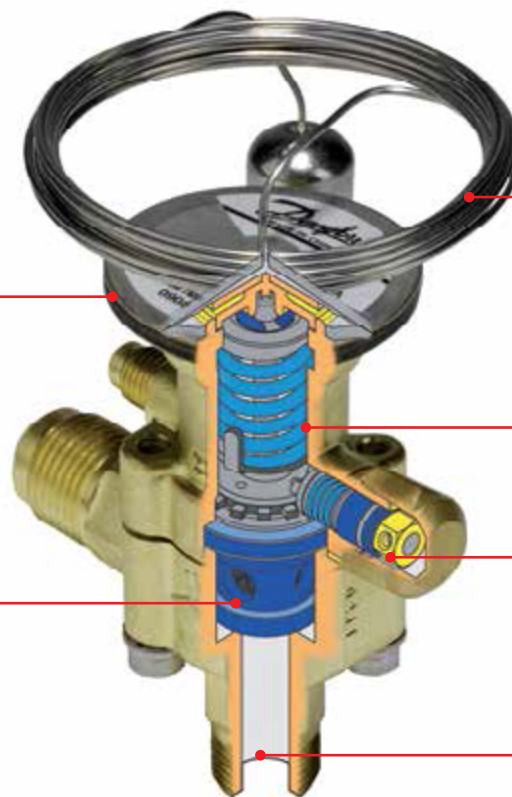
- high corrosion resistance
- high strength and vibration resistance

Large parts programme ensures minimal stocks

Easy adjustment of superheat setting

More connection possibilities

- solder x solder
- flare x flare
- flanges
- straightway or angleway



Facts

Applications:

- Traditional refrigeration
- Air conditioning units
- Water chillers

Maximum working pressure:

- 46 bar / 667 psig

Refrigerants:

- R1234yf
- R23
- R134a
- R404A/R507
- R407C
- R22
- R407A
- R407F
- R448A
- R449A
- R449B
- R454C
- R455A
- R452A
- R513A

Capacity range:

- 2.3 – 71 TR / 8.17 – 250 kW

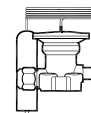
Benefit:

- Balance port design
- Biflow with expansion in both directions
- Cylindrical bulb and patented bulb strap design

Technical data and ordering



Thermostatic element + Orifice + Valve body



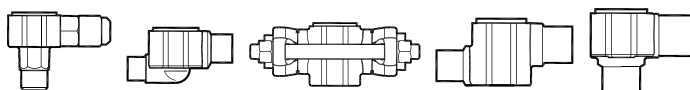
TE5 - TE 55

Thermostatic element - including bulb strap, Capillary Tube - 3M

Valve type	Refrigerant	Code no.
		Range N -40 to +10°C Without MOP
TE 5	R407C	067B3278
TE 12		067B3366
TE 55		067G3240
TE 5	R134a	067B3297
TE 12		067B3232
TE 5		067B3342
TE 12	R404A / R507	067B3347
TE 20		067B3352
TE 55		067G3302
TE 5	R22	067B3250
TE 12		067B3210
TE 20		067B3274
TE 55	R448 / R449	067G3205
TE 5		067B3252
TE 12		067B2512
TE 20	R448 / R449	067B3294
TE 55		067G3219

TE5 - TE 55

Body selection



Type	Connection Inlet x Outlet		Code no.	
	in.	Flare angleway	Solder angleway	Solder straightway
TE 5	1/2 x 5/8	067B4013	067B4009 ¹⁾	067B4007 ¹⁾
	1/2 x 7/8	-	067B4010 ¹⁾	067B4008 ¹⁾
	5/8 x 7/8	-	067B4011 ¹⁾	-
	7/8 x 1 1/8	-	067B4034 ²⁾	-
TE 12	7/8 x 1 1/8	-	067B4023 ²⁾	067B4021 ²⁾
TE 20	7/8 x 1 1/8	-	067B4023 ²⁾	-
TE 55	1 1/8 x 1 3/8	-	067G4004 ³⁾	067G4003 ³⁾

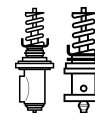
1) ODF x ODF, 2) ODF x ODM, 3) ODM x ODM

ODF = Internal Diameter, ODM - External Diameter

Technical data and ordering

TE5 - TE 55

Orifice assembly



Valve type	Orifice no.	(kW)										Code no.
		R448A / R449A		R404A / R507		R22		R134a		R407C		
		MT	LT	MT	LT	MT	LT	MT	LT	MT	LT	
TE 5	0.5	9.3	6	7.4	4.8	9.8	6.6	6	3.8	9.5	6.2	067B2788
	1	17.2	11.1	13.7	8.8	18	12.3	11.1	7.1	17.6	11.5	067B2789
	2	24.1	15.7	19	12.4	25.2	17.3	15.5	10	24.7	16.2	067B2790
	3	30.2	19.6	24.1	15.5	31.9	21.6	19.8	12.7	31.1	20.2	067B2791
TE 12	4	41.4	26.2	32.95	20.9	43.5	29.1	27	17	42.4	27	067B2792
	5	46.7	29.7	43.6	26.1	51.5	34.1	33.4	21.5	46.8	28.5	067B2708
	6	61.4	37.8	54.6	31.8	68.1	43.9	43.9	27.6	61.1	36.2	067B2709
TE 20	7	75.1	46.7	66	37.8	84.5	54.9	56.6	36	75.4	44.6	067B2710
	8	107.4	66.8	76.8	46	117.8	77.2	69	43.4	101.6	63.9	067B2771
TE 55	9	117.2	69.7	85.5	49.8	132	82.4	79.22	48.5	112.5	68.2	067B2773
	10	129.3	75.1	106.5	59.6	148.1	91.1	94.3	55.7	133.6	79.9	067G2701
	11	140.3	81.6	115	64.6	161.1	99.3	103.6	61.3	145.1	87	067G2704
	12	150.7	86.5	124	68.6	174.4	106.1	112.7	65.9	156.1	92.5	067G2707
	13	181	102.7	148.3	81.3	210.9	127.1	138.5	80.4	187.7	110.2	067G2710

Rated capacity at:

MT rated condition: Evaporating Temp. $t_e = -5\text{ }^\circ\text{C}$, Condensing Temp. $t_c = +43\text{ }^\circ\text{C}$, superheat=8K, Subcooling=4K

LT rated condition: Evaporating Temp. $t_e = -25\text{ }^\circ\text{C}$, Condensing Temp. $t_c = +43\text{ }^\circ\text{C}$, superheat=8K, Subcooling=4K

Note: For capacity of other refrigerant please refer datasheet of the valve or Coolselector.