MAKING MODERN LIVING POSSIBLE

Upgrade and service with ease
Extend lifetime with modular design

Thermostatic expansion valves Type TE5-55

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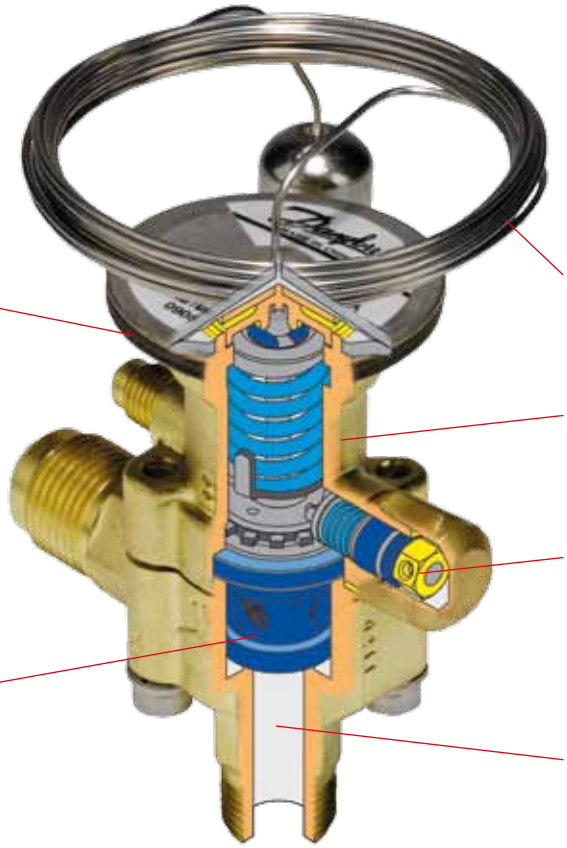
TE5-55 – Thermostatic expansion valve

Thermostatic expansion valves TE5-55 regulate the injection of refrigerant liquid into evaporators for medium sized plants (rated capacities from 19 to 356 kW for R22). 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 is proportional to the evaporator load.

Features

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 program ensures minimal stocks

Easy adjustment of superheat setting

More connection possibilities
- solder × solder
- flare × flare
- flanges
- straightway or angleway

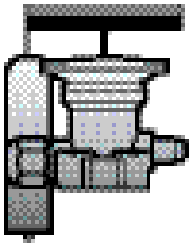
Features	Values
Mix and Match parts program	• Smaller stock, less parts
Stainless steel power element, capillary tube and bulb	• No corrosion, no boken tube
Easy to mount bulb strab	• Easy mounting
Dual diagphragm	• Long lifetime - high releiability
Max. working pressure 28 bar	• Wider application area
Wide balanced capacity range	• Easy selection

Technical data and ordering

Thermostatic element - including bulb strap **R407C**

Valve type	Pressure equalization	Capillary tube	Code no.	
			Range N –40 to +10°C	
	1/4 in. / 6 mm	m	Without MOP	MOP+15°C
TEZ 5	External	3	**067B3278**	**067B3277**
TEZ 12	External	3	**067B3366**	**067B3367**
TEZ 20	External	3	**067B3371**	**067B3372**
TEZ 55	External	3	**067G3240**	**067G3241**

Thermostatic element - including bulb strap. **R134a**



Valve type	Pressure equalization	Capillary tube	Code no.		
			Range N –40 to +10°C		Range NM –40 to –5°C
	1/4 in. / 6 mm	m	Without MOP	MOP +15°C	MOP 0°C
TEN 5	External	3	**067B3297**	**067B3298**	**067B3360**
TEN 12	External	3	**067B3232**	**067B3233**	
TEN 12	External	5	**067B3363**		
TEN 20	External	3	**067B3292**	**067B3293**	
TEN 20	External	5	**067B3370**		
TEN 55	External	3	**067G3222**	**067G3223**	
TEN 55	External	5	**067G3230**		

Thermostatic element - including bulb strap **R404A/R507**

Valve type	Pressure equalization	Capillary tube	Code no.					
			Range N –40 to +10°C		Range NM –40 to –5°C	Range NL –40 to –15°C	Range B –60 to –25°C	
	1/4 in. / 6 mm	m	Without MOP	MOP +15°C	MOP 0°C	MOP –10°C	Without MOP	MOP –20°C
TES 5	External	3	**067B3342**		**067B3357**	**067B3358**	**067B3344**	**067B3343**
TES 12	External	3	**067B3347**		**067B3345**	**067B3348**		**067B3349**
TES 12	External	5	**067B3346**					**067B3350**
TES 20	External	3	**067B3352**		**067B3351**	**067B3353**		**067B3354**
TES 20	External	5	**067B3356**					**067B3355**
TES 55	External	3	**067G3302**		**067G3303**	**067G3304**		**067G3305**
TES 55	External	5	**067G3301**					**067G3306**

Thermostatic element - including bulb strap **R22/R407C**

Valve type	Pressure equalization	Capillary tube	Code no.					
			Range N –40°C to +10°C		Range NM –40 to –5°C	Range NL –40 to –15°C	Range B –60 to –25°C	
	1/4 in. / 6 mm	m	Without MOP	MOP+15°C	MOP 0°C	MOP –10°C	Without MOP	MOP –20°C
TEX 5	External	3	**067B3250**	**067B3267**	**067B3249**	**067B3253**	**067B3263**	**067B3251**
TEX 12	External	3	**067B3210**	**067B3227**	**067B3207**	**067B3213**		**067B3211**
TEX 12	External	5	**067B3209**					**067B3212**
TEX 20	External	3	**067B3274**	**067B3286**	**067B3273**	**067B3275**		**067B3276**
TEX 20	External	5	**067B3290**					**067B3287**
TEX 55	External	3	**067G3205**	**067G3220**	**067G3206**			**067G3207**
TEX 55	External	5	**067G3209**					**067G3217**

Bulb strap (delivered with the valve) and spare

Type	Lengh	Max. diameter of suction line	Code no.
TE5 and TE12	225 mm	2 1/8" (54 mm)	**067N0558**
TE20 and TE55	350 mm	3 1/2" (89 mm)	**067N0559**

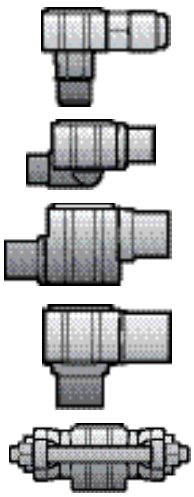
Technical data and ordering

Orifice assembly

	R22	R22	R407C	R134a	R404A/507	R404A/507		
Valve type	Rated capacity Range N: –40°C to 10°C kW	Rated capacity Range B: –60°C to –25°C kW	Rated capacity Range N: –40°C to 10°C kW	Rated capacity range N: -40°C to 10°C kW	Rated capacity range N: –40°C to 10°C kW	Rated capacity range B: –60°C to –25°C kW	Orifice no.	**Code no.**
TEX 5	11.1	6.4	10.8	7.0	8.7	5.7	0.5	**067B2788**
TEX 5	18.8	11.0	18.3	12.0	14.6	9.9	1	**067B2789**
TEX 5	26.1	15.8	25.6	16.9	20.1	14.4	2	**067B2790**
TEX 5	33.9	19.5	33.0	21.7	26.3	17.3	3	**067B2791**
TEX 5	44.8	25.9	43.9	29.0	34.6	22.9	4	**067B2792**
TEX 12	60.0	35.6	58.8	39.0	50.6	24.2	5	**067B2708**
TEX 12	72.7	42.0	71.2	47.5	61.0	28.4	6	**067B2709**
TEX 12	84.5	46.4	81.4	55.8	70.6	31.0	7	**067B2710**
TEX 20	113.6	55.0	104.0	69.5	77.6	43.8	8	**067B2771**
TEX 20	131.5	57.5	113.5	78.4	84.5	44.0	9	**067B2773**
TEX 55	156.3	68.2	148.4	102.8	118.4	52.3	10	**067G2701**
TEX 55	190.0	77.8	177.4	124.7	143.2	58.9	11	**067G2704**
TEX 55	228.8	95.3	215.3	154.7	170.3	71.0	12	**067G2707**
TEX 55	281.0	131.4	273.6	190.8	209.8	100.2	13	**067G2710**

The rated capacity is based on:
Evaporating temperature t_e = +4°C for range N and t_e = –30°C for range B
Condensing temperature t_c = +38°C
Refrigerant temperature ahead of valve t_l = +37°C

Valve body



Type	Connection Inlet × Outlet		**Code no.**			
	in.	mm	Flare angleway	Solder angleway	Solder straightway	Solder flanges
TE 5	$^1/_2 \times ^5/_8$ $^1/_2 \times ^7/_8$ $^5/_8 \times ^7/_8$ $^7/_8 \times 1^1/_8$		**067B4013**	**067B4009** [1] **067B4010** [1] **067B4011** [1] **067B4034** [2]	**067B4007** [1] **067B4008** [1] **067B4032** [1] **067B4033** [2]	
TE 5		12 × 16 12 × 22 16 × 22 22 × 28	**067B4013**	**067B4004** [1] **067B4005** [1] **067B4012** [1] **067B4037** [2]	**067B4002** [1] **067B4003** [1] **067B4035** [1] **067B4036** [2]	
TE 12	$^5/_8 \times ^7/_8$ $^7/_8 \times 1$ $^7/_8 \times 1^1/_8$			**067B4023** [2]	**067B4021** [2]	**067B4025** [1] **067B4026** [1]
TE 12		16 × 22 22 × 25 22 × 28		**067B4017** [2]	**067B4016** [2]	**067B4027** [1] **067B4015** [1]
TE 20	$^7/_8 \times 1^1/_8$	22 × 28		**067B4023** [2] **067B4017** [2]	**067B4021** [2] **067B4016** [2]	
TE 55	$1^1/_8 \times 1^3/_8$	28 × 35		**067G4004** [3] **067G4002** [3]	**067G4003** [3] **067G4001** [3]	

[1]) ODF × ODF
[2]) ODF × ODM
[3]) ODM × ODM
ODF = Internal diameter
ODM = External diameter

Thermostatic element *Orifice* *Valve body*

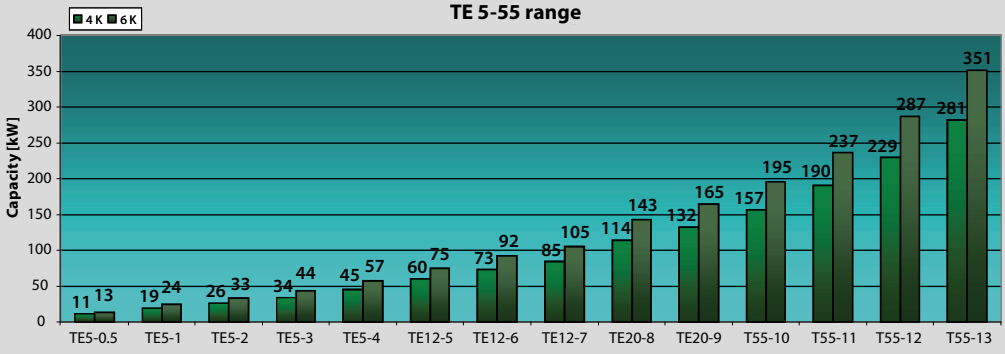
Product range

The range is build up on four valve sizes covering the capacity range combined with the orifice program.

Parts program

The mix and match parts program give the possibility of designing exactly the valve needed within refrigerant, capacity and connection type.

Capacity range without gap or overlap



Conditions: Asercom standard • +4°C / +38°C / 1 K subcooling
Rated capacities based on R22/R407C

A reliable solution

The performance of the expansion valve is one of the key figures in a refrigeration plant. Correct dimensioning and adjustment is a must if the plant has to work perfectly.

The range of thermostatic expansion valves covers all applications. The wide TE range makes selection easy to get exactly the valve you need for your application and the MIX and MATCH feature provides optimal flexibility. With only a few parts, you can design your valve based on – refrigerant, capacity and connection.

Air conditioning application

Freezing application

Refrigeration application

The Danfoss expansion valve program consists of:

Thermostatic expansion valves in stainless steel for smaller plants

Thermostatic expansion valves for smaller and medium sized plants

Electronically controlled expansion valves for smaller plants

Electronically controlled expansion valves for medium sized plants

Electronically controlled expansion valves for larger plants

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