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VENTAS. PROYECTOS. SERVICIOS EN INGENIERIA Y SISTEMAS DE REFRIGERACION

*Danfoss*



Data Sheet

# Thermostatic expansion valves Type TE 5 - TE 55

Designed to regulate refrigerant injection into evaporators



The TE 5 - TE 55 series expansion valve regulate the injection of refrigerant into evaporators. It controls the refrigerant flow based on the superheat. The exchangeable power element is produced with the well known Danfoss laser welding technology for extended lifetime capability. The TE 5 - TE 55 series is available with a wide range of orifices which will cover a wide range of applications.

Applications:

- Air conditioning system
- Chiller
- Cold room
- Freezer
- Other refrigeration systems

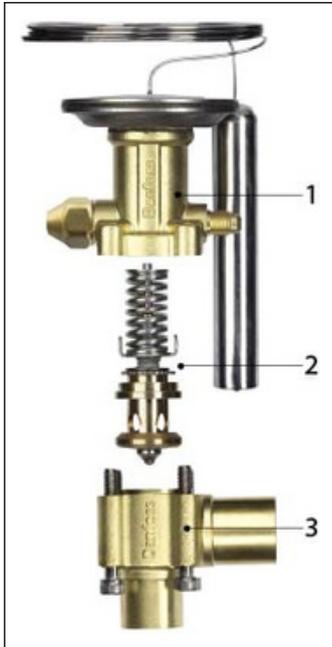
## Features

- Wide operating range: -40 – 10 °C / -40 – 50 °F & -60 – -25 °C / -75 – -15 °F
- Refrigerants: R407F, R407A, R448A, R449A, R452A, R404A, R507, R22, R513A, R134a and R407C.
- Interchangeable orifice assembly:
  - 1.Easy storage
  - 2.Easy capacity matching
  - 3.Better service
- Laser welded stainless steel power element, capillary tube and bulb.
- Wide capacity range, rated capacity from:
  - 1.R448A/R449A : 9 – 225 kW / 2.5 – 64 TR
  - 2.R407F : 11 – 250 kW / 3 – 71 TR
  - 3.R404A/R507 : 7 – 183 kW / 2 – 52 TR
- MOP function is available.
- Superior charge performance.
- PS / MWP (maximum working pressure): 28 bar / 400 psig.
- Minimized capacity gap and overlap between orifices.
- TE 55 has balanced port design.
- Patented bulb strap design.

**Functions**

**Design and Function**

Figure 1: TE 5 - TE 55



**General**

TE 5 – TE 55 valves have an interchangeable orifice assembly.

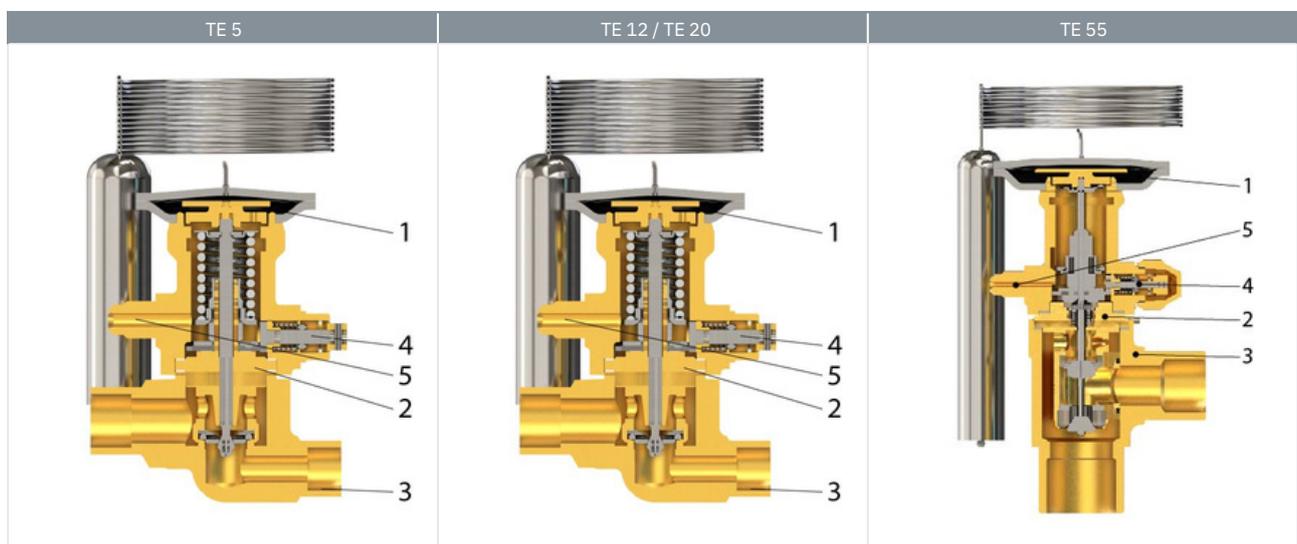
TE 5 – TE 55 valves are built up of three main components (Parts program):

- 1. Thermostatic element
- 2. Orifice assembly
- 3. Valve body with connections

The orifice is refrigerant and range independent.

All valves are equipped with external pressure equalization.

Table 1: Thermostatic expansion valves, type TE 5 – TE 55



## Thermostatic expansion valves, Type TE 5 - TE 55

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- 1 Thermostatic element.
- 2 Interchangeable orifice assembly.
- 3 Valve body.
- 4 Superheat setting spindle.
- 5 External pressure equalizing connection with  $\frac{1}{4}$  in / 6 mm flare nut (solder is available on TE 5).

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