A world leader in climate and energy technology

The Danfoss Group operates globally with the primary aims of making modern living possible for our stakeholders and being a leader in refrigeration, heating, power electronics, and mobile hydraulics.

We employ 24,000 people, and produce approximately 290,000 components each day at over 76 factories in 25 countries.

We promise leadership in our businesses through reliability, excellence, and innovation – driving true customer satisfaction and solutions within climate and energy.

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Main Features

Stainless steel, hermetically tight soldering version
- High connection strength
- High corrosion resistance
- Capacity tube joints of high strength and vibration resistance

Bi-metal connections
- Straightforward and fast soldering (no wet cloth or refrigeration pliers required).

Laser welded stainless steel thermostatic element
- Longer diaphragm life
- High-pressure tolerance and working pressure
- High corrosion resistance

Compact design
- Small dimensions and low weight

Can be supplied with MOP (Maximum Operating Pressure)
- Protects the compressor motor against excessive evaporating pressure during normal operation

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Learn more at www.district-cooling.danfoss.com

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequential changes being necessary in specifications already agreed.

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### Thermostatic expansion valve

Danfoss' range of Thermostatic Expansion Valves are available as complete valves, fixed or parts programme, e.g. with separate valve body and orifice assemblies.

Danfoss has an extensive experience as industry leader thanks to its recognised innovation. This experience is reflected in every feature of its Thermostatic Expansion Valve programme, which ensures the optimal performance for every HVAC/R application.

In 2020, the company celebrates its passion for performance with the 75th anniversary of its Thermostat Expansion Valve programme, which ensures the optimal performance for every HVAC/R application.

Danfoss Thermostatic Expansion Valves are available as complete valves, fixed or parts programme, e.g. with separate valve body and orifice assemblies.

### Main Characteristics

- **Capacities** are for R449A only
- **Copper** or **stainless steel** windings are delivered with **SAE flare** or **solder** connections.
- **Depending on type,** the Thermostatic Expansion Valves may be transported in a **separate valve body and orifice assembly**, **complete valve** (fixed orifice) or **parts programme**, i.e. separate valve body and orifice and valve body programme - element, or **standard temperature range** - element.

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### Technical Specifications

<table>
<thead>
<tr>
<th>Type</th>
<th>TD1 series</th>
<th>T2 series</th>
<th>TUA series</th>
<th>TUB series</th>
<th>TCAE</th>
<th>TCBE</th>
<th>TR6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>R134a</strong></td>
<td>0.3 − 3.8 kW</td>
<td>0.1 − 1.0 TR</td>
<td>0.1 − 1.1 TR</td>
<td>0.2 − 2.5 TR</td>
<td>0.2 − 2.5 TR</td>
<td>0.2 − 2.5 TR</td>
<td>0.1 − 0.5 TR</td>
</tr>
<tr>
<td><strong>R448A</strong></td>
<td>0.4 − 4.4 kW</td>
<td>0.2 − 1.4 TR</td>
<td>0.2 − 2.8 TR</td>
<td>0.4 − 5.5 TR</td>
<td>0.4 − 5.5 TR</td>
<td>0.4 − 5.5 TR</td>
<td>0.2 − 0.9 TR</td>
</tr>
<tr>
<td><strong>R449A</strong></td>
<td>0.5 − 5.3 kW</td>
<td>0.2 − 1.6 TR</td>
<td>0.2 − 2.9 TR</td>
<td>0.5 − 7.5 TR</td>
<td>0.5 − 7.5 TR</td>
<td>0.5 − 7.5 TR</td>
<td>0.3 − 1.1 TR</td>
</tr>
</tbody>
</table>

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### Connection types

- **R407C**
- **R513A**
- **R134a/R513A**
- **R449A/R448A/R404A**
- **R452A/R452B/R454B**
- **R407C/R452B**

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### Bulb and capillary tube

- **Copper** or **stainless steel** windings are delivered with **SAE flare** or **solder** connections.

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### Connection type configuration

- **Angleway** / **Straightway**
- **Angledway / Straightway**
- **Straightway**
- **Angledway / Straightway**
- **Straightway**
- **Straightway**
- **Straightway**
- **Straightway**

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### Valves

- **Bi-metal**
- **Steel / copper bi-metal**

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### Reliable function • Laser Welding • Wide capacity range

They are compatible with the several major refrigerants. For more information, please check [Coolselector.danfoss.com](http://Coolselector.danfoss.com).