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 250,000 components each day at our 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.

Extensive experience in all key HVAC/R segments

Danfoss plays a leading role in research, development and production in a wide spectrum of industries, and has been a key player in the HVAC/R field for more than 75 years. Our Refrigeration & Air Conditioning Division designs, produces and markets a comprehensive range of automated solutions and compressors for a wide variety of HVAC/R segments, including:

- Heat Pumps
- Commercial Air Conditioning
- Residential Air Conditioning
- Commercial Refrigeration
- Household, Light Commercial and Mobile Refrigeration
- Wholesalers & Installers
- Industrial Refrigeration
- Food Retail

Main Features

Stainless steel, hermetically tight solder
- High connection strength
- High corrosion resistance
- Capillary tube joints of high strength and vibration resistance

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

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

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

Compact design
- Small dimensions and low weight

High connection strength
- High corrosion resistance
- Capillary tube and bulb in stainless steel
- Extremely strong and corrosion resistant

Achieve the highest precision flow control - regardless of the system conditions

Wide range of thermostatic expansion valves

Learn more at ra.danfoss.com
Thermostatic expansion valve

Danfoss Thermostatic Expansion Valves are designed to ensure a precise control of the injection of refrigerant liquid into evaporators. They also control the compressor motor against liquid refrigerant entering it.

Depending on type, the Thermostatic Expansion Valves are delivered with connections in SAE flare or solder to metal. The valves are heat treated, laser welded which ensures a long lifetime of the system.

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

### Main applications

- **Transport Refrigeration**
- **A/C Systems**
- **Commercial Refrigeration**
- **Heat Pumps**
- **Cold Room**
- **Computer Room**
- **Water Chiller**
- **Ice Making Machine**
- **Display Cabinets**
- **Supermarket**

### Main Characteristics (sub types)

- **Design**
  - Exchangeable
  - Fixed
- **Valve body type**
  - Fixed
  - Adjustable
- **Valve body configuration**
  - External
  - Internal
- **Connections**
  - Flare
  - SAE flare
  - Solder
  - Bi-metal
- **Construction (sub types)**
  - Stainless steel
  - Copper
  - Brass
- **Capacity for R407C**
  - 17.8 − 25.3 kW
  - 5.07 − 7.18 TR
- **Dimensions (in mm)**
  - 34 − 35
  - 70 − 80
- **Valve body material**
  - Stainless steel
  - Copper
  - Brass
- **Soft parts**
  - Brass
  - Stainless steel

### Technical Specifications

- **Type**
  - TAU series
  - Tuba series
  - TAU series
  - TUB series
  - TUA series
  - TUB series
- **Valve body material**
  - Stainless steel
  - Copper
  - Brass
- **Capacity**
  - 0.53 − 5.35 kW
  - 0.91 − 19.7 kW
  - 0.49 − 14.0 kW
  - 17.8 − 25.3 kW
  - 10.65 − 24.6 kW
  - 10.8 − 233.2 kW
- **Max. working pressure (PSI)**
  - 30 − 50 PSI
  - 90 − 120 PSI
  - 120 − 180 PSI
  - 150 − 200 PSI
  - 180 − 250 PSI
  - 250 − 375 PSI
- **Max. working pressure (Bar)**
  - 2 − 4 Bar
  - 10 − 16 Bar
  - 16 − 25 Bar
  - 25 − 37 Bar
  - 37 − 55 Bar
  - 55 − 80 Bar
- **Valve body material**
  - Stainless steel
  - Copper
  - Brass
- **Soft parts**
  - Brass
  - Stainless steel
- **Options**
  - Fixed
  - Adjustable

### Materials

- **Valve body:**
  - Stainless steel
  - Copper
  - Brass
- **Soft parts:**
  - Brass
  - Stainless steel

### Valves and controls

- **Valve body material:**
  - Stainless steel
  - Copper
- **Soft parts:**
  - Brass
  - Stainless steel

Choose the optimum solution