

TFE Series R-410A

Thermal Expansion Valves

The TFE R-410A series is designed for large tonnage heat pump, air conditioning, and commercial refrigeration applications.



Features

- Stainless steel power element eliminates corrosion and prevents valve failure
- Replaceable power element
- External superheat adjustment
- ODF connections
- Balanced port construction compensates for changes in operating pressures due to varying ambients, or widely varying evaporator loads
- Bi-Directional control capacity
- External equalizer
- ZAA charge for R-410A systems

Specifications

- Maximum working pressure: 630 psig

TFE Nominal* Capacity Table in Tons

| Model | Typical System Application |
|--------|----------------------------|
| TFE 12 | 10-13 Tons |
| TFE 16 | 14-17 Tons |
| TFE 20 | 18-20 Tons |

*See Extended Capacity Tables for ratings at a wide range of conditions per ARI standard 750

Nomenclature example: TFES 16 ZAA 5/8 x 7/8 ODF S/T

| TF | E | S | 16 | Z | AA | 5/8 x 7/8 | ODF | S/T |
|--|-------------------------------------|-------------------------------|---------------------------------------|--------------------------------|--------------------------------|--|----------------------------------|--|
| Valve Series Balanced Port, Replaceable Power Assembly | Equalizer E=External 1/2" ODF | Connection Type S = solder | Capacity Nominal Rating in Tons | Refrigerant Code Z = R-410A | Charge Code AA = wide range | Inlet x Outlet Connection Sizes (See ordering information table below) | Connection Type ODF=solder | Configuration S/T = Straight- thru |

Ordering Information

| Refrigerant | Tons | Bleed | Inlet x Outlet | Sensing Bulb Capillary Tube Length | PCN |
|-------------|------|-------|---------------------|--|--------|
| R-410A | 12 | - | 5/8 ODF x 7/8 ODF | 5 ft. | 066146 |
| | | 15% | 5/8 ODF x 7/8 ODF | 5 ft. | 066147 |
| | | - | 7/8 ODF x 1-1/8 ODF | 10 ft. | 066148 |
| | 16 | - | 5/8 ODF x 7/8 ODF | 5 ft. | 066149 |
| | | 15% | 5/8 ODF x 7/8 ODF | 5 ft. | 066150 |
| | | - | 7/8 ODF x 1-1/8 ODF | 10 ft. | 066151 |
| | 20 | - | 5/8 ODF x 7/8 ODF | 5 ft. | 066152 |
| | | 15% | 5/8 ODF x 7/8 ODF | 5 ft. | 066153 |
| | | - | 7/8 ODF x 1-1/8 ODF | 10 ft. | 066154 |

Inlet/Outlet Fittings Dimensional Data (in)

| Connections | | Inlet | | Outlet | |
|-------------|-----------|-------|--------|--------|--------|
| Inlet | Outlet | A | B MIN. | C | D MIN. |
| 1/2 ODF | 1/2ODF | 0.50 | 0.37 | 0.50 | 0.37 |
| | 5/8 ODF | 0.50 | 0.37 | 0.63 | 0.50 |
| | 7/8ODF | 0.50 | 0.37 | 0.88 | 0.76 |
| 5/8 ODF | 5/8 ODF | 0.63 | 0.50 | 0.63 | 0.50 |
| | 7/8ODF | 0.63 | 0.50 | 0.88 | 0.76 |
| | 1-1/8 ODF | 0.63 | 0.50 | 1.13 | 0.91 |
| 7/8 ODF | 7/8ODF | 0.88 | 0.76 | 0.88 | 0.76 |
| | 1-1/8 ODF | 0.88 | 0.76 | 1.13 | 0.91 |

Replacement Parts

| Description | P/N | PCN |
|-------------------------|--------------------------|---------|
| R-410 A Power Assembly* | KT-30032 (X-30669 ZAA-2) | 066155* |
| Seal Nut | 27676-1 | 058707 |

*Approved for use only on TEF Series R-410A valves (with ZAA charge)

Dimensional Data (in)

