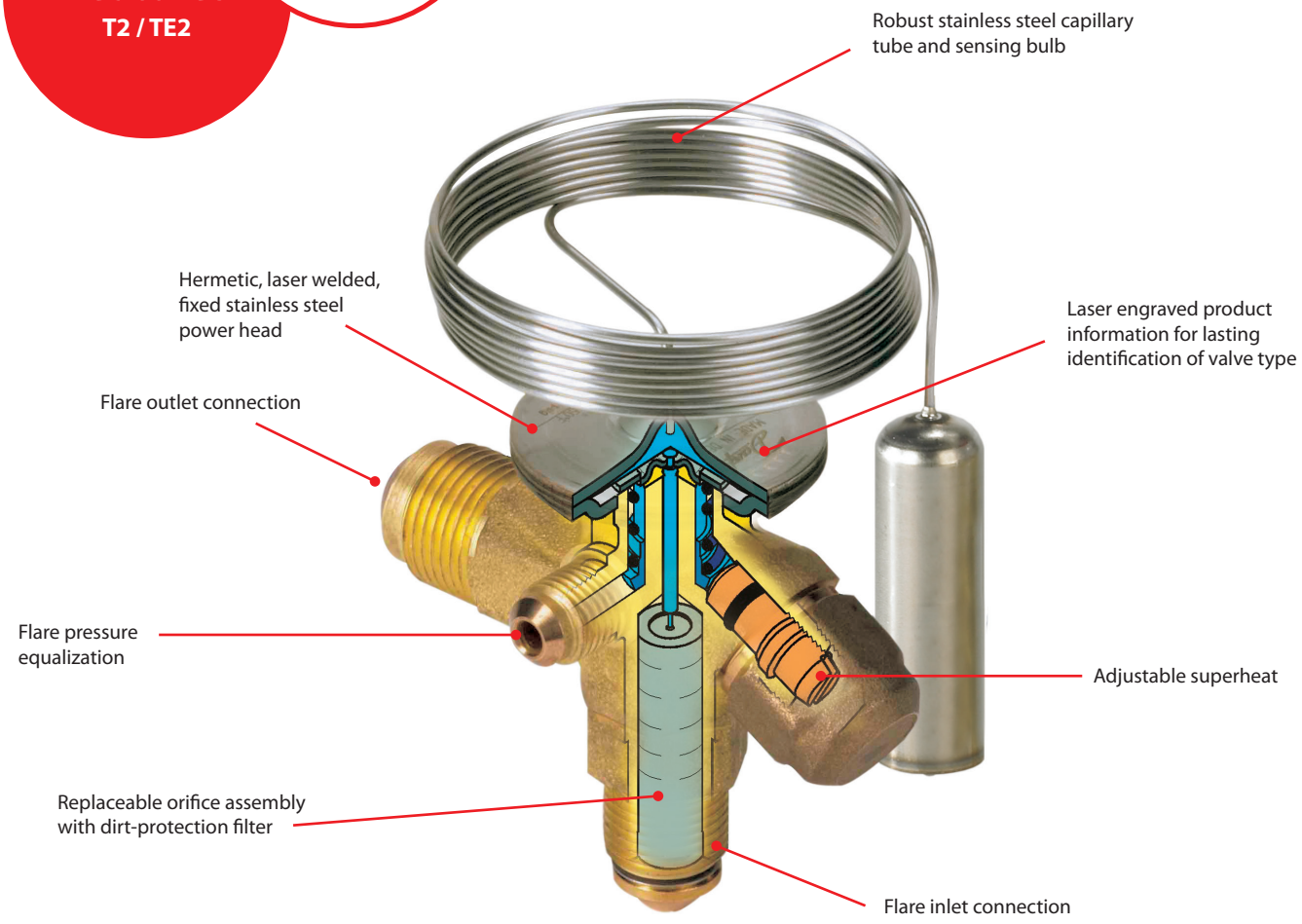
T2 / TE2 - Thermostatic Expansion Valves

Danfoss T2/TE2 brass body thermostatic expansion valves feature flare inlet and outlet connections. By pairing one valve body with one of eight replaceable orifices, a contractor can satisfy applications from –40 °F to +50 °F and from ⅛ to 5 ¾ tons capacity (see capacity chart for specifics).

Features
T2 / TE2



Facts

Applications:

- Traditional refrigeration
- Self-contained refrigerators
- Transport refrigeration
- Supermarket refrigeration

- Temperature range: –40 °F to +50 °F
- Capacity range: ⅛ to 5 ¾ tons (varies by refrigerant)
- Refrigerants: R-22, R-407C, R-134a, R-404A
- Functional valve consists of valve body and orifice
- Flare/solder adaptor available

Product Selection

1. Select Valve Body

Equalization	R-22	R-407C	R-404A	R-134a
Internal	068Z3206		068Z3400	068Z3346
External	068Z3209		068Z3403	068Z3348

All valves above have ⅜ in. × ½ in. flare connections and are designed for evaporator temperatures –40 °F to +50 °F (N charge).
Other variations available, please contact your local Danfoss authorized wholesaler.

2. Select Orifice

T2/TE2 valve capacities are based on the installed orifice.
To select the correct size, use one of the two methods below:

A. System characteristics: Select the orifice using appropriate refrigerant, evaporator temperature, and system capacity.

OR

B. Nominal capacity of the installed valve: Use the nominal capacity of the originally installed valve and match with the nominal capacity in chart (3rd column from left).

Technical data and ordering

T2 and TE2 (IF EXACT CAPACITY CANNOT BE FOUND, USE NEXT LARGER ORIFICE)

R-22 / R-407C			Evaporator temperature (°F)									
Orifice size	Danfoss Code No.	Nominal capacity of installed valve[1] (tons)	–40	–30	–20	–10	0	10	20	30	40	50
			Rated capacity[2] (tons)									
0X	068-2002	¼	⅕	¼	¼	¼	¼	¼	¼	¼	¼	¼
00	068-2003	½	¼	⅓	⅓	⅓	⅓	⅓	½	½	½	½
01	068-2010	1	⅓	⅓	½	½	½	¾	¾	¾	1	1
02	068-2015	1 ⅓	⅓	½	½	¾	¾	1	1	1 ¼	1 ⅓	1 ⅓
03	068-2006	2 ⅓	¾	¾	1	1	1 ⅓	1 ½	1 ¾	2	2 ¼	2 ⅓
04	068-2007	3 ⅓	1	1	1 ½	1 ¾	2	2 ⅓	2 ¾	3	3 ½	3 ½
05	068-2008	5	1 ⅓	1 ¾	2	2 ⅓	2 ¾	3	3 ¾	4 ¼	4 ¾	5
06	068-2009	5 ½	1 ½	2	2 ⅓	2 ¾	3	3 ¾	4 ⅓	5	5 ½	5 ¾

R-404A			Evaporator temperature (°F)									
Orifice size	Danfoss Code No.	Nominal capacity of installed valve[1] (tons)	–40	–30	–20	–10	0	10	20	30	40	50
			Rated capacity[2] (tons)									
0X	068-2002	⅙	⅛	⅙	⅙	⅙	⅙	⅕	⅕	⅕	⅕	⅙
00	068-2003	⅓	⅕	⅕	¼	¼	⅓	⅓	⅓	⅓	⅓	⅓
01	068-2010	¾	¼	⅓	⅓	⅓	½	½	½	¾	¾	¾
02	068-2015	1	¼	⅓	⅓	½	½	¾	¾	1	1	1
03	068-2006	1 ¾	½	½	¾	¾	1	1 ⅓	1 ½	1 ¾	1 ¾	1 ¾
04	068-2007	2 ¾	¾	¾	1	1 ⅓	1 ½	2	2 ⅓	2 ½	3	3
05	068-2008	3 ¾	1	1	1 ½	1 ¾	2	2 ½	3	3 ½	3 ¾	4
06	068-2009	4 ½	1	1 ⅓	1 ¾	2	2 ½	3	3 ¾	4	4 ½	4 ½

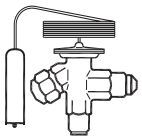
R-134a			Evaporator temperature (°F)									
Orifice size	Danfoss Code No.	Nominal capacity of installed valve[1] (tons)	–40	–30	–20	–10	0	10	20	30	40	50
			Rated capacity[2] (tons)									
0X	068-2002	⅕	⅛	⅛	⅙	⅙	⅙	⅕	⅕	⅕	⅕	⅕
00	068-2003	⅓	⅛	⅙	⅕	⅕	¼	¼	¼	⅓	⅓	⅓
01	068-2010	½	⅕	¼	¼	⅓	⅓	⅓	½	½	½	½
02	068-2015	¾	¼	¼	⅓	⅓	⅓	½	½	½	¾	¾
03	068-2006	1 ½	⅓	⅓	½	½	¾	¾	1	1	1 ¼	1 ⅓
04	068-2007	1 ¾	½	½	¾	¾	1	1 ¼	1 ⅓	1 ½	1 ¾	2
05	068-2008	2 ⅓	¾	¾	1	1	1 ⅓	1 ½	1 ¾	2	2 ⅓	2 ½
06	068-2009	3	¾	1	1¼	1 ⅓	1 ½	2	2 ¼	2 ½	2 ¾	3

All capacity data is in accordance to ARI 750-2007 except where noted.
[1] Nominal capacity based on condensing temperature of 100 °F, an evaporator temperature of 40 °F, liquid temperature of 98 °F ahead of the valve.
[2] Capacity based on condensing temperature of 95 °F and a vapor free liquid temperature of 88 °F ahead of the expansion valve.

Selection and Installation Instructions

1. Select Valve Body

Select the valve body based on refrigerant and need for internal or external equalization using the table on the previous page under “Select Valve Body.”

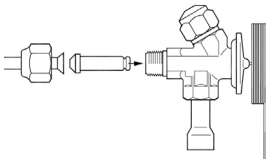


2. Select Orifice

T2/TE2 valve capacities are based on the installed orifice.
To select the correct size orifice, use one of the two methods using the “Select Orifice” section on the previous page.

3. Assemble Valve and Install into System

1. Slide the orifice into the valve body and secure using liquid line flare nut
2. Attach evaporator inlet or distributor assembly to valve outlet flare nut
3. Tighten both flare nuts
   - Specification for inlet is 26–33 ft.-lbs
   - Specification for outlet is 37–52 ft.-lbs
4. Secure sensing bulb with enclosed bulb strap to suction line. Bulb should be located between 1:00 and 4:00 on the tube, and the strap should be tight enough that no bulb movement is possible.
5. Wrap included insulation tape beginning one inch before the bulb and overlapping each wrap, finishing one inch beyond the bulb on the other end.



4. Adjust Superheat

1. Remove the cap
2. Make superheat adjustments ¼ turn at a time (¼ turn ≈ 1.75 °F).
   - Turning clockwise increases superheat.
   - Turning counter-clockwise decreases superheat.
3. Reinstall the cap

Easy to carry kits for truck stock	
All T2/TE2 valve bodies and orifice featured on the next page and a hex key for superheat adjustment.	**068Z7100**
Both TUA/TUAE valve bodies and orifices and T2/TE2 and orifices plus gaskets for TUA/TUAE and a hex key for superheat adjustment.	**068U7001**

Kits are plastic cases with foam inserts, all valves and orifices, and instructions for selection and installation of the valves. Empty kits and foam available available upon request.

Spare Parts and Accessories

Description	Danfoss Code No.
Bulb strap	**068U3507**