

TRAE Series Thermo™ - expansion Valves

For chiller, heat pump, refrigeration, and air conditioning applications

The TRAE series is a large capacity valve for chiller, heat pump, refrigeration, and air conditioning applications.

Features

- Suitable for Bi-Flow applications
- Stainless steel power element prevents corrosion and valve failure
- Balanced port design improves valve operation and stability over wide loads and evaporator temperature range
- Solid copper connections
- External superheat adjustment
- Integral body with straight-thru connections
- Large diaphragm provides superior stability



Specifications

- Maximum Working Pressure: 450 psig
- UR/CUR file number: SA5312

Model nomenclature example: TRAE 50HC10FT7/8X1-1/8ODFS/T

TRA	E	50	H	C	10 FT	7/8 X 1-1/8	ODF	S/T
Series	Equalizer	Capacity	Refrigerant code	Charge code	Capillary tube length	Inlet x outlet Connection sizes	Connection type	Configuration
Hermetic balanced port design	E = External 1/4" Sae	Nominal Rating in Tons (See Nominal Capacity Table below)	+F = R-12 • H = R-22 +M = R-134a • N = R-407C *P = R-507 *R = R-502 *S = R-404A	C = medium temp CA = heat pump W(mop) ¹ = press. limiting Z = low temp	10 Ft (std)	1/4 X 3/8 3/8 X 1/2 7/8 X 1-1/8	ODF = solder (only)	S/t = straight-thru (only)

+ = R-12 and R-134a are interchangeable refrigerant charges

* = R-507, R-502 and R-404A are interchangeable refrigerant charges

• = R-22 and R-407C are interchangeable refrigerant charges

¹ Maximum Operating Pressure

TRAE Series – nominal* capacity table in Tons (kW)

R-12	R-134a	R-22/R-407C	R-507/R-404A/R-502
30 (106)	40 (142)	50 (177)	35 (124)
35 (124)	45 (159)	60 (212)	40 (142)
40 (142)	50 (177)	70 (248)	50 (177)

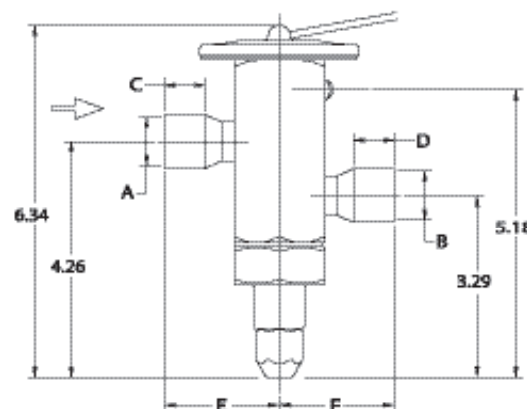
All capacities shown are at 100°F condensing, 40°F evaporator temperature.

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

TRAE dimensional data (in.)

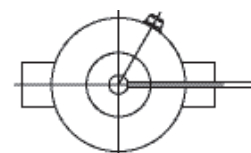
Remote bulb tubing length 10' standard

Connection size		A	B	C MIN	D MIN	E	F
Inlet (ODF)	Outlet (ODF)						
7/8 ODF	7/8 ODF	0.88	0.88	0.75	0.75	2.09	2.09
7/8 ODF	1-1/8 ODF	0.88	1.13	0.75	0.91	2.90	2.21
7/8 ODF	1-3/8 ODF	0.88	1.38	0.75	0.97	2.90	2.39
1-1/8 ODF	1-1/8 ODF	1.13	1.13	0.91	0.91	2.21	2.21
1-1/8 ODF	1-3/8 ODF	1.13	1.38	0.91	0.97	2.21	2.39
1-3/8 ODF	1-3/8 ODF	1.38	1.38	0.91	0.97	2.39	2.39



Remote bulb table

Remote bulb tubing length	Bulb length
5, 10, 15 ft.	4-7/8
20, 30 ft.	
40, 50 ft.	6-3/16



TRAE+/TRAE Series Thermo™ - expansion valves

For refrigeration, air conditioning, heat pump, and chiller applications

Ordering information

Refrigerant	Series	Tons *	Charge	Connections	Cap tube	PCN
R-22 R-407C R-404A R-134A	TRAE+	10	HC	5/8 X 7/8 ODF S/T	5 FT	062718
			HCA	5/8 X 7/8 ODF S/T	10 FT	063138
			HCA	7/8 X 1-1/8 ODF S/T	10 FT	063554
			HC	7/8 X 1-1/8 ODF S/T	15 FT	063100
		15	HC	7/8 X 1-1/8 ODF S/T	10 FT	062721
			HCA	5/8 X 7/8 ODF S/T	10 FT	063510
			HCA	7/8 X 1-1/8 ODF S/T	10 FT	062722
			HCA	7/8 X 1-3/8 ODF S/T	10 FT	063141
			HW100	5/8 X 7/8 ODF S/T	10 FT	063103
		20	HC	7/8 X 1-3/8 ODF S/T	10 FT	063650
			HCA	7/8 X 1-1/8 ODF S/T	10 FT	062725
			HCA	1-1/2 X 1-1/8 ODF S/T	10 FT	064581
			HW90	7/8 X 1-1/8 ODF S/T	15 FT	064018
			HC	7/8 X 1-1/8 ODF S/T	10 FT	062724
			SC	7/8 X 1-1/8 ODF S/T	10 FT	063461
			SZ	5/8 X 7/8 ODF S/T	10 FT	064923
		30	HC	7/8 X 1-1/8 ODF S/T	10 FT	062727
			HC	1-1/8 X 1-3/8 ODF S/T	10 FT	062728
			HCA	1-1/8 X 1-3/8 ODF S/T	10 FT	062730
			HW100	7/8 X 1-3/8 ODF S/T	5 FT	063425
			MC	1-1/8 X 1-3/8 ODF S/T	10 FT	064001
		40	HC	1-1/8 X 1-3/8 ODF S/T	10 FT	062733
			HC	1-1/8 X 1-3/8 ODF S/T	15 FT	063153
			HCA	1-1/8 X 1-3/8 ODF S/T	10 FT	062734
	TRAE	35	SC	1-1/8 X 1-3/8 ODF S/T	10 FT	064217
		40	MC	1-1/8 X 1-3/8 ODF S/T	15 FT	063941
		50	HC	1-1/8 X 1-3/8 ODF S/T	10 FT	061700
		60	HC	1-1/8 X 1-3/8 ODF S/T	10 FT	061865
		70	HC	1-1/8 X 1-3/8 ODF S/T	10 FT	061866

(+) Replaceable power assembly

Cage replacement kits for TRAE+ Series Valves

Cage kits are cross referenced by capacity and tonnage in the table below. Each cage kit consists of a replacement cage and cage removal wrench. In addition, the cage removal wrench (KT-20294) can be ordered as a separate item

PCN	TRAE+ KIT Model	Nominal capacity - Tons		
		R-22	R-12/R-134a	R-507/R-404A/ R-502
063387	KT-20289	10	9	8
063388	KT-20290	15	13	12
063389	KT-20291	20	14	14
063390	KT-20292	30	22	20
063391	KT-20293	40	30	30
063392	KT-20294	Cage wrench kit for all tonnages		

Replacement parts

Description	Model	PCN
Power assembly	X-28458HCA-2	063414
	X-28458MC-3	063593
	X-28458SC-2	065439
	X-28458HW100-2	063416
	X-28458SW45-2	065298
Seal nut	27676-1	058707