

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

Features

- Stainless steel power element eliminates corrosion and prevents valve failure
- Suitable for Bi-Flow applications
- Replaceable power element and cage assembly for full serviceability
- Double balanced port design improves operation and stability over wide loads and evaporator temperature ranges
- Square body with straight-thru connections
- Solid copper connections
- External superheat adjustment
- Large diaphragm provides superior stability
- Permanent inlet strainer



Options

- Cages (For available cage kits, see page 26.)

Specifications

- Maximum working pressure: 450 psig
- Torque Power Assembly: 375 - 425 in. lb.

Nomenclature example: TRAE+ 30 HC 10 FT 7/8 x 1 1/8 ODF S/T

TRA	E	+	30	H	C	10 FT	7/8 x 1 1/8	ODF	S/T
Valve Series Double Balanced Port Design	Equalizer E=External 1/4"SAE	Replaceable Components Cage and Power Assembly	Capacity Nominal Rating in Tons (See nominal capacity table below)	Refrigerant Code +F = R-12 +H = R-22 +M = R-134a • N = R-407C *P = R-507 *R = R-502 *S = R-404A	Charge Code C = medium temp CA = heat pump W(MOP) = press. limiting Z = low temp	Capillary Tube Length 10 FT (std)	Inlet x Outlet Connection Sizes 5/8 x 7/8 7/8 x 1 1/8 1 1/8 x 1 1/8	Connection Type ODF = solder (Only)	Configuration 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

TRAE+ Series – Nominal* Capacity Table in Tons (kW)

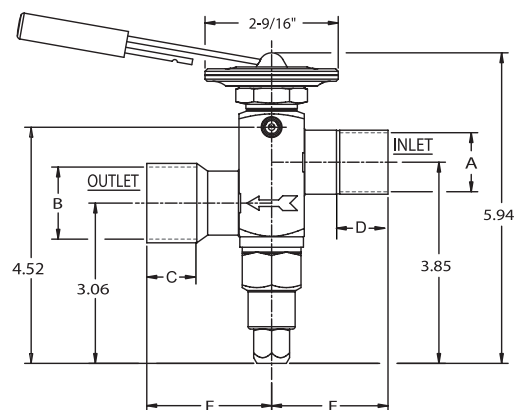
R-12	R-134a	R-22/R-407C	R-507/R-404A/R-502
7 1/2 (27)	9 (32)	10 (35)	8 (28)
10 (35)	13 (46)	15 (53)	12 (42)
12 (42)	14 (50)	20 (71)	14 (50)
18 (64)	22 (78)	30 (106)	20 (71)
25 (88)	30 (106)	40 (142)	30 (106)

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)

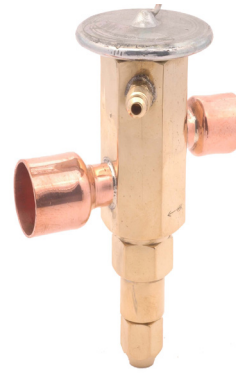
TRAE Valve Type	Nominal Inlet (B)	Sizes (ODF) Inlet (D) Outlet (E)	Inlet		Inlet	
			A	C	D	F
TRAE+ 10-40 Tons	5/8	7/8	1.57	0.50	2.09	0.75
	5/8	1-1/8	1.57	0.50	2.21	0.91
	7/8	7/8	2.09	0.75	2.09	0.75
	7/8	1-3/8	2.09	0.75	2.21	0.91
	7/8	1-3/8	2.09	0.75	2.39	0.97
	1-1/8	1-1/8	2.21	0.91	2.21	0.97
	1-1/8	1-3/8	2.21	0.91	2.39	0.97



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

Features

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



Specifications

- Maximum Working Pressure: 450 psig

Nomenclature example: TRAE 50 HC 10 FT 7/8 x 1/8 ODF S/T

TRA	E	50	H	C	10 FT	7/8 x 1/8	ODF	S/T
Valve Series Hermetic Balanced Port Design	Equalizer E=External 1/4"SAE	Capacity Nominal Rating in Tons (See nominal capacity table below)	Refrigerant Code +F = R-12 • H = R-22 +M = R-134a • N = R-407C *P = R-507 *R = R-502 *S = R-404A	Charge Code C = medium temp CA = heat pump W(MOP) = press. limiting Z = low temp	Capillary Tube Length 10 FT (std)	Inlet x Outlet Connection Sizes 1/4 x 3/8 3/8 x 1/2	Connection Type ODF = solder (Only)	Configuration 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

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.

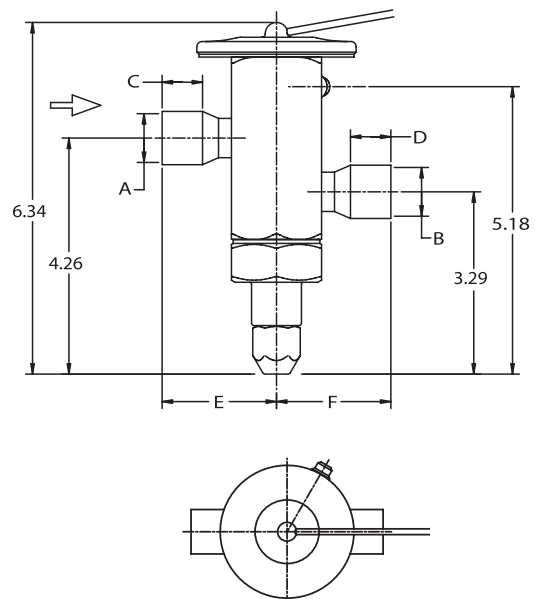
Dimensional Data (in)

Remote Bulb Tubing Length 10' Standard

Connection Size		A	B	C MIN	D MIN	E	F
Inlet	Outlet						
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



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 1/8 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	Nominal Capacity - Tons		
		R-22	R-12/R-134a	R-507/R-404A/ R-502
063387	KT-20289 CAGE KIT	10	9	8
063388	KT-20290 CAGE KIT	15	13	12
063389	KT-20291 CAGE KIT	20	14	14
063390	KT-20292 CAGE KIT	30	22	20
063391	KT-20293 CAGE KIT	40	30	30
063392	KT-20294 CAGE WRENCH KIT	All tonnages		

Replacement Parts

Description	Part Number	PCN
Power Assembly	X-28458 HCA-2	063414
	X-28458 MC	063593
	X-28458 SC	065439
	X-28458 HW100-2	063416
	X-28458 SW45-2	065298
Seal Nut	27676-1	058707