

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.
- UR/CUR file number: SA5312

**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
<b>Valve Series</b>	<b>Equalizer</b>	<b>Replaceable Components</b>	<b>Capacity</b> Nominal Rating in Tons	<b>Refrigerant Code</b>	<b>Charge Code</b>	<b>Capillary Tube Length</b>	<b>Inlet x Outlet Connection Sizes</b>	<b>Connection Type</b>	<b>Configuration</b>
Double Balanced Port Design	E=External 1/4"SAE	Cage and Power Assembly	(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) = press. limiting Z = low temp	10 FT (std)	5/8 x 7/8 7/8 x 1 1/8 1 1/8 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

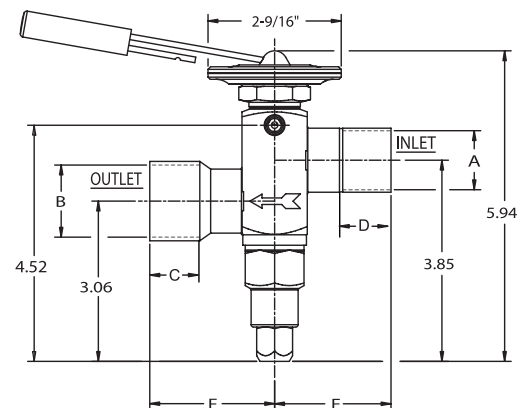
### TRAE+ Series – Nominal \* Capacity Table in Tons (kW)

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)

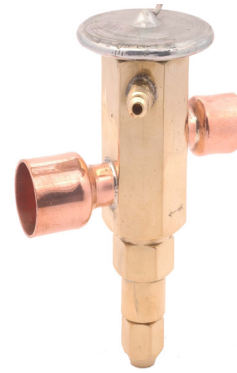
TRAE Valve Type	Nominal Inlet (B)	Sizes (ODF) Inlet (C) Outlet (E)	Inlet		Inlet	
			A	C	D	F
TRAE+ 10-40 Tons	5/8	7/8	1.57	0.50	2.09	0.75
	5/8	1 1/8	1.57	0.50	2.21	0.91
	7/8	7/8	2.09	0.75	2.09	0.75
	7/8	1 1/8	2.09	0.75	2.21	0.91
	7/8	1 1/8	2.09	0.75	2.39	0.97
	1 1/8	1 1/8	2.21	0.91	2.21	0.97
	1 1/8	1-3/8	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
- UR/CUR file number: SA5312

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

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

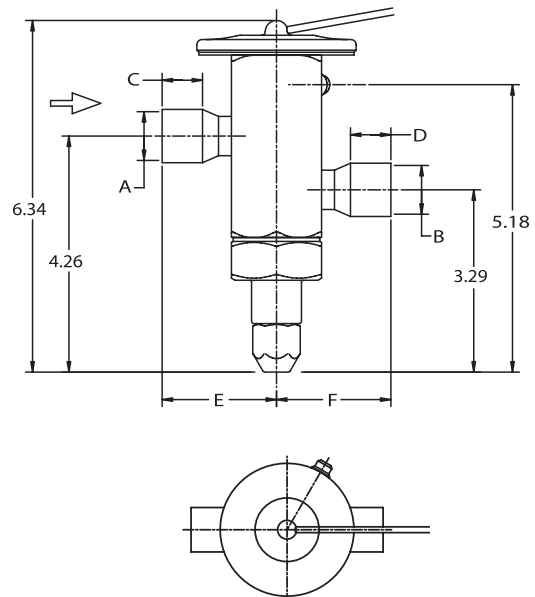
All capacities shown are at 100°F condensing, 40°F evaporator temperature.  
\*See Extended Capacity Tables for ratings at a wide range of conditions per ARI standard 750.

### 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 1/2 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 1/2 ODF	1.13	1.38	0.91	0.97	2.21	2.39
1 1/2 ODF	1 1/2 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 1/8 ODF S/T	10 FT	063141	
		20	HW100	5/8 X 7/8 ODF S/T	10 FT	063103	
			HC	7/8 X 1 1/8 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	
		30	SZ	5/8 X 7/8 ODF S/T	10 FT	064923	
			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 1/8 ODF S/T	5 FT	063425	
		40	MC	1-1/8 X 1 3/8 ODF S/T	10 FT	064001	
			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	
		TRAE	40	HCA	1-1/8 X 1 3/8 ODF S/T	10 FT	062734
	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