

# TRAE SERIES THERMOSTATIC EXPANSION VALVES

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



TRAE+20HC-01

**FEATURES**

- Suitable for heat pump bi-directional applications
- External superheat adjustment
- Integral body with straight thru connections
- Balanced port construction
- Solid copper connections
- Large diaphragm provides superior stability
- Replaceable power element and cage assembly for full serviceability on TRAE+ models
- Stainless steel power element for TRAE+
- Permanent inlet strainer

**SPECIFICATIONS**

Maximum Working Pressure..... 450 psig (31 bar)  
 UR/CUR File Number ..... SA5312  
 Canadian CRN ..... 0C21506.513467890YTN



TRAE 50HC-02

**MODEL NUMBER NOMENCLATURE** - Example: TRAE+ 30HC-01

SERIES	EQUALIZER	REPLACEABLE COMPONENTS	CAPACITY	SYSTEM REFRIGERANT CODE	CHARGE CODE	SEQUENTIAL IDENTIFIER	CUSTOMER SPECIAL	PACK TYPE
TRA	E	+	30	H	C	-01		
Double Balanced Port Design	E = External 1/4" SAE	Cage and Power Assembly	Nominal Rating in Tons	F = R-12 H = R-22 M = R-134a N = R-407C P = R-507 R = R-502 S = R-404A	AA = Wide Range C = Medium Temp. CA = Heat Pump W(MOP) = Press. Limiting Z = Low Temp.	-01 Thru -999	G = Customer Special  (Omit for Standard)	B1 = Bulk Pack  (Omit for Individual Pack)

**TRAE SERIES THERMOSTATIC EXPANSION VALVES** (Body Style Straight Thru)

REFRIGERANT CODE	CAPACITY (NOMINAL TONNAGE)	CHARGE CODE	INLET X OUTLET CONNECTION	CAP LENGTH	MODEL NUMBER	ITEM NUMBER
H (R-22) *R-407C	10	C (Med. Temp.)	5/8" X 7/8" ODF	5 Ft.	TRAE+ 10HC-01	062718
	10	C (Med. Temp.)	7/8" X 1-1/8" ODF	15 Ft.	TRAE+ 10HC-02	063100
	10	CA (Heat Pump)	5/8" X 7/8" ODF	10 Ft.	TRAE+ 10HCA-05	063138
	10	CA (Heat Pump)	7/8" X 1-1/8" ODF	10 Ft.	TRAE+ 10HCA-07	063554
	15	C (Med. Temp.)	5/8" X 7/8" ODF	10 Ft.	TRAE+ 15HC-04	063139
	15	C (Med. Temp.)	7/8" X 1-1/8" ODF	10 Ft.	TRAE+ 15HC-02	062721
	15	CA (Heat Pump)	5/8" X 7/8" ODF	10 Ft.	TRAE+ 15HCA-05	063510
	15	CA (Heat Pump)	7/8" X 1-1/8" ODF	10 Ft.	TRAE+ 15HCA-03	062722
	15	CA (Heat Pump)	7/8" X 1-3/8" ODF	10 Ft.	TRAE+ 15HCA-04	063141
	15	W100 (MOP)	5/8" X 7/8" ODF	5 Ft.	TRAE+ 15HW100-02	063103
	15	W100 (MOP)	7/8" X 1-1/8" ODF	10 Ft.	TRAE+ 15HW100-01	062723
	20	C (Med. Temp.)	7/8" X 1-1/8" ODF	10 Ft.	TRAE+ 20HC-01	062724
	20	C (Med. Temp.)	7/8" X 1-3/8" ODF	10 Ft.	TRAE+ 20HC-03	063650
	20	CA (Heat Pump)	7/8" X 1-1/8" ODF	10 Ft.	TRAE+ 20HCA-04	062725

# THERMOSTATIC EXPANSION VALVES

# TRAE SERIES

REFRIGERANT CODE	CAPACITY (NOMINAL TONNAGE)	CHARGE CODE	INLET X OUTLET CONNECTION	CAP LENGTH	MODEL NUMBER	ITEM NUMBER
+62727  H (R-22) *R-407C	20	CA (Heat Pump)	1-1/8" X 1-1/8" ODF	10 Ft.	TRAE+ 20HCA-10	064581
	20	W100 (MOP)	7/8" X 1-1/8" ODF	10 Ft.	TRAE+ 20HW100-01	062726
	20	W90 (MOP)	7/8" X 1-1/8" ODF	15 Ft.	TRAE+ 20HW90-05	064018
	30	C (Med. Temp.)	7/8" X 1-1/8" ODF	10 Ft.	TRAE+ 30HC-03	062727
	30	C (Med. Temp.)	1-1/8" X 1-3/8" ODF	10 Ft.	TRAE+ 30HC-04	062728
	30	CA (Heat Pump)	1-1/8" X 1-3/8" ODF	10 Ft.	TRAE+ 30HCA-07	062730
	30	W100 (MOP)	7/8" X 1-3/8" ODF	5 Ft.	TRAE+ 30HW100-04	063425
	30	W85 (MOP)	7/8" X 1-1/8" ODF	15 Ft.	TRAE+ 30HW85-01	063109
	40	C (Med. Temp.)	1-1/8" X 1-3/8" ODF	10 Ft.	TRAE+ 40HC-02	062733
	40	C (Med. Temp.)	1-1/8" X 1-3/8" ODF	15 Ft.	TRAE+ 40HC-03	063153
	40	CA (Heat Pump)	1-1/8" X 1-3/8" ODF	10 Ft.	TRAE+ 40HCA-04	062734
	50	C (Med. Temp.)	1-1/8" X 1-3/8" ODF	10 Ft.	TRAE 50HC-02	061700
	60	C (Med. Temp.)	1-1/8" X 1-3/8" ODF	10 Ft.	TRAE 60HC-03	061865
	60	C (Med. Temp.)	1-3/8" X 1-3/8" ODF	20 Ft.	TRAE 60HC-01	058657
	70	C (Med. Temp.)	1-1/8" X 1-3/8" ODF	10 Ft.	TRAE 70HC-03	061866
M (R-134a) *R-12	22	C (Med. Temp.)	7/8" X 1-1/8" ODF	10 Ft.	TRAE+ 22MC-02	063462
	30	C (Med. Temp.)	1-1/8" X 1-3/8" ODF	10 Ft.	TRAE+ 30MC-01	064001
	40	C (Med. Temp.)	1-1/8" X 1-3/8" ODF	15 Ft.	TRAE 40MC-01	063941
S (R-404A) *R-502 *R-507	14	C (Med. Temp.)	1-1/8" X 1-1/8" ODF	10 Ft.	TRAE+ 14SC-01	064407
	20	C (Med. Temp.)	7/8" X 1-1/8" ODF	10 Ft.	TRAE+ 20SC-02	063461
	20	Z (Low Temp.)	5/8" X 7/8" ODF	10 Ft.	TRAE+ 20SZ-01	064923
	35	C (Med. Temp.)	1-1/8" X 1-3/8" ODF	10 Ft.	TRAE 35SC-01	064217

\* Valve capacity is for the first refrigerant listed. To determine the capacity for additional refrigerants listed, consult the Nominal Capacity Tables for Interchangeable Refrigerants.

## NOMINAL CAPACITY TABLES FOR INTERCHANGEABLE REFRIGERANTS IN TONS (kW): TRAE+ 10-40 Ton

R-134a	R-12	R-404A / R-502	R-507	R-22 / R-407C
9 (31.7)	7-1/2 (26.4)	8 (28.1)	8 (28.1)	10 (35.2)
13 (45.7)	10 (35.2)	12 (42.2)	12 (42.2)	15 (52.8)
14 (49.2)	12 (42.2)	14 (49.2)	14 (49.2)	20 (70.3)
22 (77.4)	18 (63.3)	20 (70.3)	20 (70.3)	30 (105.5)
30 (105.5)	25 (87.9)	30 (105.5)	28 (98.5)	40 (140.8)

## NOMINAL CAPACITY TABLES FOR INTERCHANGEABLE REFRIGERANTS IN TONS (kW): TRAE 40-70 Ton

R-134a	R-12	R-404A / R-507 / R-502	R-22 / R-407C
40 (140.8)	30 (105.5)	35 (123.1)	50 (175.8)
45 (158.3)	35 (123.1)	40 (140.8)	60 (211.0)
50 (175.8)	40 (140.8)	50 (175.8)	70 (246.2)

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 AHRI standard 750.

# TRAE SERIES

# THERMOSTATIC EXPANSION VALVES

## TRAE+ POWER ASSEMBLY MODEL NOMENCLATURE - Example: X-28458HCA-2

PRINT REFERENCE	SYSTEM REFRIGERANT CODE	CHARGE CODE	CAPILLARY TUBE LENGTH CODE
X-28458	H	CA	2
X-28458 = Drawing Number	H = R-22 M = R-134a R = R-502 S = R-404A	C = Medium Temp. CA = Heat Pump G(MOP) = Press. Limiting W(MOP) = Press. Limiting Z = Low Temp.	1 = 5 Ft. 2 = 10 Ft. 3 = 15 Ft.

## TRAE+ POWER ASSEMBLIES

PRINT REFERENCE	SYSTEM REFRIGERANT CODE	CHARGE CODE	CAP LENGTH	MODEL NUMBER	ITEM NUMBER
X-28458	H (R-22, R-407C)	CA (Heat Pump)	10 Ft.	X-28458HCA-2	063414
X-28458	H (R-22, R-407C)	W100 (MOP)	10 Ft.	X-28458HW100-2	063416
X-28458	S (R-404A, R-502, R-507)	C (Med. Temp.)	10 Ft.	X-28458SC-2	065439
X-28458	S (R-404A, R-502, R-507)	W45 (MOP)	10 Ft.	X-28458SW45-2	065298
X-28458	M (R-134a)	C (Medium Temp.)	15 Ft.	X-28458MC-3	063593

## TRAE+ CAGE KITS

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.

NOMINAL CAPACITY - TONS			MODEL NUMBER	ITEM NUMBER
R-22	R-12 / R-134a	R-507 / R-404A / R-502		
10	9	8	KT-20289	063387
15	13	12	KT-20290	063388
20	14	14	KT-20291	063389
30	22	20	KT-20292	063390
40	30	30	KT-20293	063391

Capacities shown are at 100° F condensing and 40° F evaporator temperature. See Extended Capacity Tables for ratings at a wide range of conditions.

## TRAE+ PARTS LIST

DESCRIPTION	MODEL NUMBER	ITEM NUMBER
TRAE Series Cage Wrench	KT-20294	063392
Nut Seal	27676-1	058707



Capacity  
Tables (Tons)