

T Series – Take-Apart

Thermostatic expansion valves

The T-series Take-Apart valves, with adjustable superheat and replaceable, interchangeable components are ideal for original equipment and field replacements in air conditioning, heat pump, and refrigeration applications.

Features

- Take-Apart construction for easy field service
- External superheat adjustment
- Bi-Flow capability
- Stainless steel power assembly



Options

- Replaceable, interchangeable cages
- Interchangeable body flanges and power assemblies
- 1/4 to 100 tons capacity

Specifications

- Maximum working pressure: 450 psig
- Torque Bolts: 300 in. lb.

Nomenclature example: TCLEB 5HC5FT3/8x1/2SAEANG

T	CL	N	E	B	5	H	C	5FT	3/8 X 1/2	SAE
Series	Type	Navy	Equalizer	Bleed hole	Capacity	Refrigerant code	Charge code	Capillary tube length code	Inlet x outlet connection sizes	Connection type
Take-Apart Adjustable Superheat	Small Capacity = CL, JL, JR ¹ Large Capacity, Balanced Port = ER ¹ , IR, HR, MR	(Optional) N= Navy	E= External (Omit for Internal)	(Optional) B = Bleed Hole (Omit for No Bleed Hole)	Nomnal Rating in Tons (See Cage Assembly Interchangeability Tables)	+F = R-12 • H = R-22 +M = R-134a • N = R-407C *P = R-507 *R = R-502 *S = R404A	C = Medium Temp CA = Heat Pump W* (MOP) = Press. Limiting Z = Low Temp	5 FT (std)	Various Sizes Are Available VLF = Valve Less Flange	SAE = Flare ODF = Solder

¹ Extended length capscrews and balanced port

+ = 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

Power assembly model nomenclature example: X-8019FS-1B

X-8019	F	S	1	B
Series	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 Code 1 = 5 FT (std) 2 = 10 FT 15 = 30 IN	Equalizer A = Internal B = External

T Series – Take-Apart

Thermostatic expansion valves

Small capacity ½ to 18 tons
(R-22 Nominal – Bi Flow)

Step 1: Select cage
From capacity table

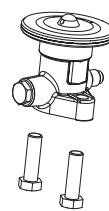
Externally adjustable
Cage assembly



Step 3: Select
Power assembly

Superheat Plug
X28124-1 (ODM)
(PCN: 058336)

Capscrews



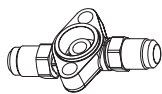
Valve series	Nominal capacity - Tons						Cage assembly ¹	
	R-12	R-134a	R-22	R-404A R-507	R-502	R-407C	Model	PCN
TCL TCLE	1/4	1/4	1/2	1/4	1/4	1/2	X-22440-B1A	037034
	1/4	1/4	1/2	1/4	1/4	1/2	X-22440-B1B	037035
	1/2	3/4	1	1/2	1/2	1	X-22440-B2A	037036
	1/2	3/4	1	1/2	1/2	1	X-22440-B2B	037037
	1	1-1/2	2	1	1	2	X-22440-B3A	037038
	1	1-1/2	2	1	1	2	X-22440-B3B	037039
	2	2-1/2	3	2	2	3	X-22440-B4A	037040
	2	2-1/2	3	2	2	3	X-22440-B4B	037041
	3	3-1/2	5	3	3	5	X-22440-B5B	037043
	4	5-1/2	7-1/2	4-1/2	4-1/2	7-1/2	X-22440-B6B	037045
TJLE	6-1/2	7-1/2	10	7	7	10	X-22440-B7B	037047
	7-1/2	9	12	8	8	12	X-22440-B8B	037049
	7	9	11	7	7	11	XC-724-B4B	093343
TJR	8	11	14	9	9	14	XC-724-B5B	038699
	8	11	14	9	9	14	X-11873-B4B	088837
TJR	11	13	18	12	12	18	X-11873-B5B	089058

¹ Gaskets included on cage.

Gasket strip X13455-1 (PCN: 027579) replaces all older T-Series Gasket kits.



Angle, ODF



Straight-Thru, SAE

Step 2: Select flange

Series	Flow	Size & style connections		Body flange part	
		Inlet	Outlet	Model	PCN
TCL TCLE	Angle	3/8 SAE	1/2 SAE	C-500-4	056932
		3/8 SAE	5/8 SAE	C-500-5	057153
		1/2 SAE	5/8 SAE	C-500-6	056294
		3/8 ODF	1/2 ODF	C-501-4	065527
		3/8 OFD	5/8 ODF	C-501-5	065748
		1/2 ODF	5/8 ODF	C-501-7	065861
		5/8 ODF or 7/8 ODM	7/8 ODF or 1-1/8 ODM	A-576	027764
	Straight-Thru	3/8 SAE	1/2 SAE	X-6669-4	051176
		3/8 SAE	5/8 SAE	X-6669-1	050563
		1/2 SAE	1/2 SAE	X-6669-5	083378
		1/2 SAE	5/8 SAE	X-6669-2	050842
		3/8 ODF	1/2 ODF	9761-5	027769
		3/8 ODF	5/8 ODF	9761-3	027771
		1/2 ODF	1/2 ODF	9761-9	027766
		1/2 ODF	5/8 ODF	9761-4	027268
		1/2 ODF	7/8 ODF	9761-2	027770
		5/8 ODF	5/8 ODF	X-6346-16	044733
		5/8 ODF	7/8 ODF	X-6346-17	044846
		5/8 ODF	1-1/8 ODF	X-6346-18	094038
		7/8 ODF	1-1/8 ODF	X-6346-34	071757
TJLE	Angle	5/8 ODF or 7/8 ODM	7/8 ODF or 1-1/8 ODM	B-504	044984
	Straight-Thru	5/8 ODF	1-1/8 ODF	X-6347-2	094289
		7/8 ODF	1-1/8 ODF	X-6347-6	057210
		7/8 ODF	1-3/8 ODF	X-6347-7	057323
TJR ²	Angle	5/8 ODF or 1-1/8 ODM	7/8 ODF or 1-1/8 ODM	10331	029411
	Straight-Thru	7/8 ODF or 1-1/8 ODM	7/8 ODF or 1-1/8 ODM	10332	032988

² TJR is balanced ported. TJR flange includes extended length capscrews.

TCL-TCLE-TJLE-TJR Power assemblies ³						
Refrigerant	Equalizer type	Cap tube length	Application		Model	PCN
			Temp. Range	MOP ⁴ (psi)		
R-12	Internal	5 FT	-20 to +50	NONE	XB-1019FC-1A	052951
	1/4 SAE	5 FT	-20 to +50	NONE	XB-1019FC-1B	049881
	Internal	10 FT	-20 to +50	NONE	XB-1019FC-2A	032374
	1/4 SAE	10 FT	-20 to +50	NONE	XB-1019FC-2B	052954
	1/4 SAE	15 FT	-20 to +50	NONE	XB-1019FC-3B	058569
	1/4 SAE	5 FT	-50 to +50	35	XB-1019FW35-1B	079346
	1/4 SAE	5 FT	-50 to +50	55	XB-1019FW55-1B	057432
	1/4 SAE	10 FT	-50 to +50	55	XB-1019FW55-2B	050981
	1/4 SAE	5 FT	-50 to 0	15	XB-1019FW15-1B	077063
	Internal	5 FT	-20 to +50	NONE	XB-1019HC-1A	062078
R-22	1/4 SAE	5 FT	-20 to +50	NONE	XB-1019HC-1B	053416
	1/4 SAE	10 FT	-20 to +50	NONE	XB-1019HC-2B	054390
	1/4 SAE	5 FT	-20 to +50	NONE	XB-1019HCA-1B	056039
	1/4 SAE	5 FT	-50 to +5	35	XB-1019HW35-1B	089975
	1/4 SAE	5 FT	-50 to +20	55	XB-1019HW55-1B	039152
	1/4 SAE	5 FT	-50 to +30	65	XB-1019HW65-1B	089445
	1/4 SAE	5 FT	-50 to +50	100	XB-1019HW100-1B	062437
	1/4 SAE	20 FT	-10 to +50	NONE	XB-1019HW-4B	055703
	1/4 SAE	10 FT	-50 to +50	100	XB-1019HW100-2B	062658
	1/4 SAE	5 FT	-50 to +10	NONE	XB-1019HZ-1B	040568
R-407C	1/4 SAE	10 FT	-50 to +10	NONE	XB-1019HZ-2B	054105
	1/4 SAE	5 FT	-20 to +50	NONE	XB-1019NC-1B	064837
	1/4 SAE	5 FT	-20 to +50	100	XB-1019NW100-1B	063069
	1/4 SAE	5 FT	-20 to +50	NONE	XB-1019PC-1B	061949
R-507	1/4 SAE	5 FT	-50 to 0	40	XB-1019PW40-1B	064200
	1/4 SAE	5 FT	-50 to +10	NONE	XB-1019PZ-1B	061951
	1/4 SAE	5 FT	-20 to +50	NONE	XB-1019MC-1B	057878
R-134a	1/4 SAE	10 FT	-20 to +50	NONE	XB-1019MC-2B	059548
	1/4 SAE	5 FT	-50 to +50	55	XB-1019MW55-1B	057370
	1/4 SAE	5 FT	-50 to +10	NONE	XB-1019MZ-1B	061946
	1/4 SAE	5 FT	-20 to +50	NONE	XB-1019RC-1B	052955
	1/4 SAE	10 FT	-20 to +50	NONE	XB-1019RC-2B	054415
R-502	1/4 SAE	5 FT	-50 to +20	15	XB-1019RW15-1B	070346
	1/4 SAE	5 FT	-50 to +5	35	XB-1019RW35-1B	063644
	1/4 SAE	5 FT	-50 to +5	45	XB-1019RW45-1B	055881
	1/4 SAE	10 FT	-50 to +5	45	XB-1019RW45-2B	055704
	1/4 SAE	5 FT	-50 to +25	65	XB-1019RW65-1B	063114
	1/4 SAE	5 FT	-50 to +10	NONE	XB-1019RZ-1B	046474
	1/4 SAE	10 FT	-50 to +10	NONE	XB-1019RZ-2B	047358
	1/4 SAE	5 FT	-20 to +50	NONE	XB-1019SC-1B	059189
R-404A	1/4 SAE	5 FT	-50 to 0	40	XB-1019SW40-1B	059130
	1/4 SAE	5 FT	-50 to +25	65	XB-1019SW65-1B	063541
	1/4 SAE	10 FT	-50 to +10	NONE	XB-1019SZ-2B	061948
	Internal	5 FT		NONE	XB-1019A-1A	037389
Misc.	1/4 SAE	5 FT	Liquid Injection	NONE	XB-1019A-1B	034803
	1/4 SAE	5 FT		NONE	XB-1019B-1B	032207
	1/4 SAE	5 FT		NONE	XB-1019C-1B	035162
	1/4 SAE	5 FT		NONE	XB-1019CW-1B	084768

³ Capscrews included with Power Assembly

⁴ Maximum Operating Pressure Limit to prevent motor overload

NOTE: Nominal capacities shown here are based on 40°F evaporator temperature and 100°F vapor-free liquid refrigerant entering the valve. R-12 and R-134a rated at 60 PSID. All other refrigerants rated at 100 PSID.

T Series – Take-Apart

Thermostatic expansion valves

Large capacity 22 to 100 tons
(R22 Nominal – Balanced ported and Bi Flow)

Step 1: Select cage from capacity table

Externally adjustable
double ported
cage assembly

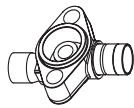


Series	Nominal capacity - Tons						Cage assembly ¹	
	R-12	R-134a	R-22	R-404A R-507	R-502	R-407C	Model	PCN
TER	13	16	22	14	14	22	X-9117-B6B	077896
	15	19	26	16	16	26	X-9117-B7B	078117
	20	25	35	21	21	35	X-9117-B8B	071155
	25	31	45	27	27	45	X-9117-B9B	029429
TIR	35	45	55	37	37	55	X-9166-B10B	070738
THR	35	45	55	37	37	55	X-9144-B10B	071238
	45	55	75	48	48	70	X-9144-B11B	020846
	55	68	85	60	60	85	X-9144-B13B	021067
TMR	55	68	100	60	--	100	X-9144-B14B	065123

¹ Gaskets included on cage.



Angle, ODF



Straight-Thru, ODF

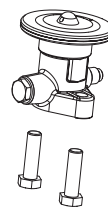
Step 2: Select flange

Series	Style	Size & style connections		Body flange part	
		Inlet	Outlet	Model	PCN
TER ²	ANGLE	7/8 ODF or 1-1/8 ODM	7/8 ODF or 1-1/8 ODM	9153	027919
	STRAIGHT-THRU	7/8 ODF or 1-1/8 ODM	7/8 ODF or 1-1/8 ODM	9152	027918
TIR	ANGLE	7/8 ODF or 1-1/8 ODM	7/8 ODF or 1-1/8 ODM	9151	027926
	STRAIGHT-THRU	7/8 ODF or 1-1/8 ODM	7/8 ODF or 1-1/8 ODM	9150	028849
THR	ANGLE	1-1/8 ODM	1-1/8 ODM	9149	028030
	STRAIGHT-THRU	1-1/8 ODM	1-1/8 ODM	9148	028032
TMR ²	ANGLE	1-1/8 ODM	1-1/8 ODM	9149-1	065124
	STRAIGHT-THRU	1-1/8 ODM	1-1/8 ODM	9148-1	065125

² TER-TMR Flange includes extended length capscrews.

Step 3: Select power assembly

Superheat plug
X28124-1 (ODM)
(PCN: 058336)



Capscrews

TER-TIR-THR-TMR Power assemblies ³						
Refrigerant	Equalizer type	Cap tube length	Application		Model	PCN
			Temp. Range	MOP ⁴ (psi)		
R-12	1/4 SAE	10 FT	-20 to +40	NONE	XC-726FC-2B	052957
	1/4 SAE	10 FT	-50 to +50	55	XC-726FW55-2B	035000
R-22	1/4 SAE	10 FT	-20 to +50	NONE	XC-726HC-2B	056421
	1/4 SAE	10 FT	-50 to +50	35	XC-726HW35-2B	024511
	1/4 SAE	10 FT	-50 to +30	65	XC-726HW65-2B	025011
	1/4 SAE	10 FT	-20 to +50	NONE	XC-726HCA-2B	059333
	1/4 SAE	10 FT	-50 to +50	100	XC-726HW100-2B	036750
	1/4 SAE	10 FT	-50 to +10	NONE	XC-726HZ-2B	040569
R-134A	1/4 SAE	10 FT	-20 to +50	NONE	XC-726MC-2B	057235
	1/4 SAE	10 FT	-50 to +50	55	XC-726MW55-2B	057372
	1/4 SAE	10 FT	-50 to +10	NONE	XC-726MZ-2B	063075
R-502	1/4 SAE	10 FT	-20 to +50	NONE	XC-726RC-2B	052958
	1/4 SAE	10 FT	-50 to +20	15	XC-726RW15-2B	023351
	1/4 SAE	10 FT	-50 to +50	35	XC-726RW35-2B	070866
	1/4 SAE	10 FT	-50 to +25	65	XC-726RW65-2B	071421
	1/4 SAE	10 FT	-50 to +10	NONE	XC-726RZ-2B	046692
R-404A	1/4 SAE	10 FT	-20 to +50	NONE	XC-726SC-2B	062303
	1/4 SAE	10 FT	-50 to +10	40	XC-726SW40-2B	063127
	1/4 SAE	10 FT	-50 to +25	65	XC-726SW65-2B	061692
	1/4 SAE	10 FT	-50 to +10	NONE	XC-726SZ-2B	063974

³ Capscrews included with Power Assembly

⁴ Maximum Operating Pressure Limit to prevent motor overload

Additional parts

Description	Model	PCN
Packing nut wrench	E-642	039862
Gasket strip	X-13455-1	027579
Superheat adjustment plug	X-28124-1	058336

NOTE: Nominal capacities shown here are based on 40°F evaporator temperature and 100°F vapor-free liquid refrigerant entering the valve. R-12 and R-134a rated at 60 PSID. All other refrigerants rated at 100 PSID.

T Series – Take-Apart

Thermostatic expansion valves

Ordering information

Valves less flange – (VLF)

TCLE/TJLE/TJRE

SAE External 5 FT. Cap Tube Length

Model					
R-12	PCN	R-22	PCN	R-502	PCN
TCLE 1/2FC5FTVLF	054413	TCLE 1HC5FTVLF	062884	TCLE 2RC5FTVLF	061215
TCLE 1FC5FTVLF	052940	TCLE 2HC5FTVLF	061724	TCLE 3RC5FTVLF	055501
TCLE 2FC5FTVLF	052941	TCLE 3HC5FTVLF	054395	TCLE 8RC5FTVLF	063501
TCLE 3FC5FTVLF	052942	TCLE 5HC5FTVLF	054399		
TCLE 4FC5FTVLF	052943	TCLE 7-1/2HC5FTVLF	054401		
TCLE 61/2FC5FTVLF	052944	TCLE 7-1/2HW1005FT1/2X5/8SAES/T	054079		
TCLE 71/2FC5FTVLF	052945	TCLE 10HC5FTVLF	054404		
TJLE 8FC5FTVLF	055104	TCLE 10HW1005FTVLF	059076		
TJRE 11FC5FTVLF	055105	TCLE 12HC5FTVLF	060854		
		TJLE 11HC5FTVLF	060855		
		TJLE 14HC5FTVLF	060856		
		TJRE 14HC5FTVLF	060857		
		TJRE 18HC5FTVLF	060858		

TCLE/TJLE/TJRE

Rapid response power assemblies

Model	PCN
X-8019FWS-1B	031654
X-8019HWS-1B	055652
X-8019HWS-2B	055873
X-8019RWS-1A	032131
X-8019RWS-2B	042426

TER/TIR/THR

Rapid response power assemblies

Model	PCN
X-7726FWS-2B	035083
X-7726HWS-2B	093565
X-7726RWS-2B	036616

TER/TIR/THR

10 FT. cap tube length

Model					
R-12	PCN	R-22	PCN	R-502	PCN
TER 20FC10FTVLF	055109	TER 22HC10FTVLF	061673	TER 14RC5FTVLF	060788
TER 25FC10FTVLF	055111	TER 22HW10010FTVLF	058582		
		TER 26HC10FTSAEVL	061674		
		TER 35HC10FTVLF	061675		
		TER 35HW10010FTVLF	058038		
		TER 45HC10FTVLF	061676		
		TIR 55HC10FTVLF	061677		
		THR 75HC10FTVLF	064961		
		THR 100HC10FTVLF	062036		
		THR 100HW1005FTVLF	052912		

Replacement cap screw kits

PCN	Model	Contains Screw #	Pcs. Per Pkg.	Valve Style
054569	KT-30021	PS-286-5	10	TCLE, TJLE
054570	KT-30022	PS-168-5	10	Flange A-00576
054571	KT-30023	PS-259	10	TJR, TER
054572	KT-30024	PS-370	10	TIR, THR, TMR
054573	KT-30025	PS-514-5	10	TJL Angled Flange
054574	KT-30026	PS-517-5	10	TJL Straight-Thru Flanges

Power assembly model nomenclature example: X-8019FS-1B

X-8019	F	S	1	B
Series	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 code 1 = 5 FT (std) 2 = 10 FT 15 = 30 IN	Equalizer A = Internal B = External