

TCLE、TRFE 系列热力膨胀阀 (Thermo-expansion valves)

Shanghai Thermostat Factory Co.,Ltd.

概述

TCLE/TRFE系列热力膨胀阀是分拆式膨胀阀,适用于空调、商业制冷、运输空调及冷冻等广泛

特点

- 拼装式结构简单易修,只需旋下固定螺栓,就可更换动力头与阀芯。
- 稳定的过热度;具有双向节流功能。
- 可提供MOP(马达过载保护)功能。
- 可提供各种接管尺寸和形式。
- 适用R22, R134a, R407c, R404A/R507,R410A冷媒等介质。
- 特殊要求请与上恒联系

General

TCLE/TRFE series are take-apart valves applicable to freezing ,refrigeration and air conditioning plant.

Characteristics

- Interchangeable orifice assembly ,easier stocking ,easy capacity matching ,better service.
- Stable superheat setting with bi-flow function.
- MOP (Max. operating pressure) function is available.
- Various connection type and size can be made according to customer's requirement.
- Suitable for R22, R134a, R407C, R404A/R507,R410A.
- If you have special requirement , please contact STF.

膨胀阀产品命名方式

TCL	E	3	H	C	S	IN	L3
阀基本型号	平衡方式 E=外平衡	名义冷量 (冷吨)	制冷剂代码 H=R22 M=R134a N=R407C Z=R410A S=R404A/R507	充注形式 C=液体充注 W100=混合充注 (带MOP保护)	连接形式 S=直通 A=直角 F=法兰 (仅限TRFE)	外平衡 英制接口	毛细管长度 L3=3米 1.5米省略

选型表格 Technical data

R134a			R22		R407c		R404A/R507		R410A	
型号 (Model)	名义容量 Nominal capacity (KW)		型号 (Model)	名义容量 Nominal capacity (KW)	型号 (Model)	名义容量 Nominal capacity (KW)	型号 (Model)	名义容量 Nominal capacity (KW)	型号 (Model)	名义容量 Nominal capacity (KW)
TCLE 1/4M	1.20		TCLE 1/2H	1.76	TCLE 1/2N	1.68	TCLE 1/3S	1.17	TCLE 2/3Z	2.20
TCLE 3/4M	2.29		TCLE 1H	3.52	TCLE 1N	3.49	TCLE 2/3S	2.35	TCLE 1-1/4Z	4.40
TCLE 1-1/2M	4.93		TCLE 2H	7.04	TCLE 2N	7.00	TCLE 1-1/2S	5.28	TCLE 2-1/2Z	8.80
TCLE 2-1/2M	10.91		TCLE 3H	10.55	TCLE 3N	10.23	TCLE 2S	7.04	TCLE 3-1/2Z	12.30
TCLE 3-1/2M	14.08		TCLE 5H	17.60	TCLE 5N	16.80	TCLE 3-1/2S	12.32	TCLE 6Z	21.10
TCLE 5-1/2M	19.36		TCLE 7-1/2H	26.40	TCLE 7-1/2N	25.75	TCLE 5S	17.60	TCLE 9Z	31.60
TCLE 7-1/2M	26.05		TCLE 10H	35.20	TCLE 10N	34.78	TCLE 7S	24.64	TCLE 12Z	42.20
TCLE 9M	30.72		TCLE 12H	42.24	TCLE 12N	41.85	TCLE 8-1/2S	29.92	TCLE 15Z	52.80
TRFE 11M	38.72		TRFE 14H	49.28	TRFE 14N	47.93	TRFE 10S	35.20	TRFE 17Z	60.00
TRFE 13M	45.76		TRFE 18H	63.36	TRFE 18N	61.59	TRFE 12S	42.24	TRFE 22Z	77.40
TRFE 16M	56.32		TRFE 22H	77.44	TRFE 22N	75.88	TRFE 15S	52.80	TRFE 26Z	91.50
TRFE 19M	66.36		TRFE 26H	91.52	TRFE 26N	90.79	TRFE 18S	63.36	TRFE 30Z	105.00
TRFE 25M	84.48		TRFE 35H	123.20	TRFE 35N	121.90	TRFE 25S	88.00	TRFE 42Z	147.80
TRFE 31M	105.60		TRFE 45H	158.40	TRFE 45N	156.78	TRFE 32S	112.64	TRFE 55Z	193.60
TRFE 45M	147.84		TRFE 55H	193.60	TRFE 55N	191.41	TRFE 38S	133.76	TRFE 65Z	228.80
TRFE 55M	193.60		TRFE 75H	264.00	TRFE 75N	262.50	TRFE 52S	183.04	TRFE 90Z	316.80
TRFE 68M	228.80		TRFE 100H	352.00	TRFE 100N	350.17	TRFE 70S	246.40	TRFE 100Z	352.00
TRFE 80M	280.60		TRFE 120H	420.70	TRFE 120N	416.70	TRFE 84S	295.70	TRFE 140Z	492.00

注: 名义制冷量是基于蒸发温度 $t_e=4.4^{\circ}\text{C}$, 冷凝温度 $t_c=40^{\circ}\text{C}$, 阀前制冷剂温度为 $t_1=38^{\circ}\text{C}$ 。

Note: Nominal capacity is based on evaporating temperature $t_e=4.4^{\circ}\text{C}$, condensing temperature $t_c=40^{\circ}\text{C}$, and refrigerant temperature ahead of valve $t_1=38^{\circ}\text{C}$.

注: 如需其它工作特性和规格产品, 请与本公司接洽联系。

Note :If you have special requirement ,please contact STF.



TCLE-S

TCLE-A

TRFE-S

TRFE-A

TCLE、TRFE 系列热力膨胀阀 (Thermo-expansion valves)

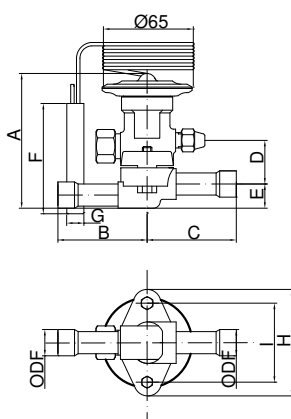
上海恒温控制器厂有限公司

过热度调节

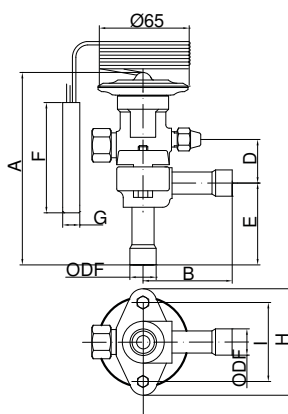
出厂过热度设定为3.5K，静过热度调节范围2~8K。
逆时针转动调节杆一圈，过热度减少0.3K。

Superheat adjusting

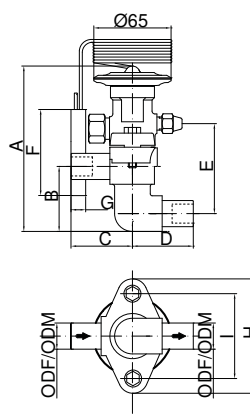
Factory setting :superheat 3.5K, static superheat adjusting range is between 2~8K.
Turn adjusting stem anticlockwise one round ,reduces superheat 0.3K.



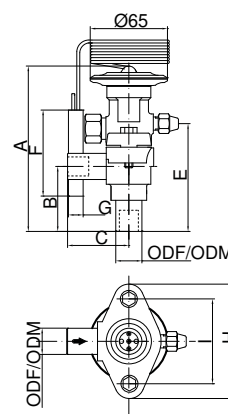
TCLE直通型热力膨胀阀



TCLE直角型热力膨胀阀



TRFE直通型热力膨胀阀



TRFE直角型热力膨胀阀

选型表格 Technical data

型号 Model	接管形式 Form of connection	标准接管 Connection size		A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	毛细管长度 Capillary length	
		进口 Inlet	出口 Outlet											
TCLE	直通式 Straight-way	ODF 16 ODF 5/8	ODF 16 ODF 5/8	94	65	65	30.5	17	122	Φ13	62	62	1.5m	
	直角式 Angle	ODF16 ODF5/8	ODF16 ODF5/8	138	65	/	30.5	61	122	Φ13	62	62		
TRFE	直通式 Straight-way	ODF22 ODF7/8	ODF22 ODF7/8	138	55	49	44	75	122	Φ13	65	65	1.5m	
		ODM28.5 ODF1-1/8	ODM28.5 ODF1-1/8											
	直角式 Angle-way	ODF22 ODF7/8	ODF22 ODF7/8	138	55	49	/	75	122	Φ13	65	65		3m
		ODM28.5 ODF1-1/8	ODM28.5 ODF1-1/8											
	法兰式 Flange	Φ33X3.5	Φ38.5X3.5	123	115	59	57	Φ35	122	Φ13	65	65		

注：毛细管长度有特殊要求可与本公司接洽联系。

Note :If you have special requirement about the length of capillary , please contact STF.

TCLE、TRFE 系列热力膨胀阀 (Thermo-expansion valves)

Shanghai Thermostat Factory Co.,Ltd.

TCLE/TRFE 扩展容量表 (KW) TCLE,TRFE extended capacity tables

R22 型号 规格	蒸发温度 (℃) Evaporating temperature (℃)																	
	+10℃						+4.4℃						-6.7℃					
	通过阀的压降 Pressure drop across valve (MPa)																	
	0.54	0.72	0.90	1.08	1.26	1.44	0.54	0.72	0.90	1.08	1.26	1.44	0.54	0.72	0.90	1.08	1.26	1.44
TCLE 1/2H	1.58	1.80	2.01	2.18	2.36	2.53	1.52	1.76	1.97	2.15	2.32	2.50	1.48	1.72	1.94	2.11	2.32	2.43
TCLE 1H	2.89	3.34	3.87	4.22	4.58	4.58	2.85	3.31	3.85	4.20	4.22	4.58	2.82	3.24	3.52	2.87	4.22	4.58
TCLE 2H	5.98	7.04	7.74	8.45	9.15	9.86	5.98	6.69	7.74	8.40	9.15	9.50	4.93	6.69	7.39	8.10	9.15	9.50
TCLE 3H	10.91	12.70	14.08	15.49	16.54	17.92	10.90	12.32	14.08	15.14	16.50	17.60	10.55	11.97	13.73	14.78	16.54	17.25
TCLE 5H	15.84	18.60	20.42	22.18	23.94	25.7	15.50	17.95	20.06	22.18	22.94	25.34	15.14	17.60	19.71	21.47	23.94	24.64
TCLE 7-1/2H	22.88	26.40	29.57	32.38	34.85	37.31	22.40	26.05	29.21	32.03	34.50	36.96	21.82	25.34	28.51	30.98	34.50	35.90
TCLE 10H	31.33	36.26	40.48	44.35	48.22	51.40	30.98	35.90	40.10	44.00	47.52	50.69	30.27	34.85	39.07	42.94	47.52	49.63
TCLE 12H	38.02	44.00	48.93	53.86	58.08	61.60	37.66	43.29	48.65	53.15	57.38	61.25	36.31	42.24	47.17	51.74	57.40	59.84
TRFE 14H	45.40	52.10	58.40	64.10	69.00	73.90	44.70	51.70	57.70	63.40	68.60	73.20	43.60	50.30	56.30	62.00	66.90	71.50
TRFE 18H	54.20	62.70	70.40	76.70	83.10	88.70	53.50	62.00	69.30	76.00	82.00	87.60	52.40	60.50	67.60	73.90	79.90	85.50
TRFE 22H	67.50	78.50	87.50	96.10	103.50	110.90	67.20	77.40	86.60	94.70	102.40	109.50	65.50	75.30	84.50	92.60	100.00	109.50
TRFE 26H	80.30	92.60	103.50	113.30	122.50	130.90	79.20	91.50	102.40	112.00	121.10	129.60	77.10	89.10	99.60	109.10	117.90	126.00
TRFE 35H	108.10	124.60	139.40	152.80	164.80	176.40	106.70	123.20	137.60	151.00	163.00	174.20	103.80	120.00	134.10	147.10	158.80	169.70
TRFE 45H	138.70	160.20	179.20	196.40	211.90	226.70	137.30	158.40	177.10	194.00	209.40	223.90	133.80	154.50	172.50	189.00	204.20	218.20
TRFE 55H	169.70	195.70	218.90	240.10	259.10	277.00	167.60	193.60	216.50	244.00	256.30	273.90	163.30	188.70	210.80	230.90	249.60	266.80
TRFE 75H	231.30	267.20	298.50	327.00	353.40	377.70	228.50	264.00	293.50	323.50	349.20	373.50	222.80	257.30	287.60	315.00	340.40	364.00
TRFE 100H	308.40	356.20	398.10	436.10	471.00	503.80	304.80	352.00	393.50	431.20	465.70	497.80	297.10	342.90	383.70	419.90	453.70	485.10
TRFE 120H	368.60	425.90	476.20	521.30	563.20	602.40	364.30	420.70	470.50	515.60	556.80	594.90	354.40	410.10	458.70	501.90	542.80	580.10
R22 型号 规格	蒸发温度 (℃) Evaporating temperature (℃)																	
	-17.8℃						-29℃						-40℃					
	通过阀的压降 Pressure drop across valve (MPa)																	
	0.72	0.90	1.08	1.26	1.44	1.62	0.90	1.08	1.26	1.44	1.62	1.80	0.90	1.08	1.26	1.44	1.62	1.80
TCLE 1/2H	1.41	1.58	1.72	1.87	2.01	2.11	1.09	1.20	1.30	1.37	1.48	1.55	0.77	0.84	0.91	0.99	1.06	1.09
TCLE 1H	2.60	2.92	3.20	3.45	3.87	3.87	2.08	2.29	2.46	2.64	2.78	2.92	1.44	0.88	1.72	1.83	1.94	2.04
TCLE 2H	5.28	5.98	6.69	7.04	7.74	8.10	4.22	4.58	4.93	5.28	5.63	5.98	2.99	3.29	3.52	3.87	4.05	4.22
TCLE 3H	9.86	10.91	11.97	13.02	14.08	14.78	7.74	8.45	9.15	9.86	10.56	10.91	5.63	5.98	6.69	7.04	7.39	7.74
TCLE 5H	14.08	15.84	17.25	18.66	20.06	21.47	11.26	12.32	13.38	14.43	15.14	15.84	8.10	8.80	8.50	9.86	10.56	11.26
TCLE 7-1/2H	20.77	22.88	25.34	27.10	29.22	30.98	16.54	17.95	19.36	20.77	21.82	23.23	11.62	12.62	13.73	14.43	15.49	16.19
TCLE 10H	28.51	32.03	34.85	37.66	40.13	42.59	22.52	24.64	26.75	28.51	30.27	32.03	15.84	17.29	18.66	20.06	21.12	22.53
TCLE 12H	34.14	38.37	41.98	45.41	48.58	51.39	27.10	29.92	32.38	34.49	36.31	38.37	19.09	20.77	22.53	24.29	25.70	27.10
TRFE 14H	40.80	45.80	50.00	54.20	57.70	61.20	32.40	35.60	38.40	41.20	43.60	46.10	23.90	26.00	28.20	30.30	32.00	33.80
TRFE 18H	48.90	54.60	59.80	64.80	69.30	73.40	39.10	42.60	46.10	49.30	52.10	54.90	27.50	29.90	32.40	34.50	36.60	38.40
TRFE 22H	61.30	68.30	75.00	81.00	86.60	91.90	48.60	53.50	57.70	61.60	65.50	67.00	37.30	40.50	43.40	45.80	48.20	50.70
TRFE 26H	72.20	81.00	88.70	95.70	102.10	108.40	57.40	63.00	67.90	72.90	77.10	81.30	44.40	47.90	51.40	54.20	57.00	59.80
TRFE 35H	97.20	108.80	119.30	128.80	137.60	146.10	77.40	84.80	91.50	97.90	103.80	109.50	59.50	64.40	68.60	72.70	76.70	80.60
TRFE 45H	125.00	139.80	153.10	165.40	177.10	187.60	99.60	109.10	117.90	126.00	133.80	140.80	76.40	82.70	88.40	93.60	98.70	103.50
TRFE 55H	153.10	171.10	187.30	202.40	216.10	229.50	121.80	133.40	143.90	153.80	163.30	172.10	93.60	101.00	108.10	114.40	120.70	126.70
TRFE 75H	209.80	233.00	255.60	276.00	295.00	313.00	166.10	182.00	196.40	209.80	222.80	234.80	127.40	137.60	147.10	156.00	164.40	172.50
TRFE 100H	278.10	310.80	340.40	367.80	393.20	417.40	221.40	242.50	261.90	278.90	296.70	312.90	170.00	183.40	196.10	208.00	219.30	230.20
TRFE 120H	332.30	371.40	406.90	439.70	470.30	498.90	264.70	289.70	312.90	333.50	354.40	373.80	200.50	216.60	232.00	246.40	260.00	272.80

TCLE、TRFE 系列热力膨胀阀 (Thermo-expansion valves)

上海恒温控制器厂有限公司

TCLE/TRFE 扩展容量表 (KW) TCLE,TRFE extended capacity tables

R134a 型号规格	蒸发温度 (°C) Evaporating temperature (°C)																	
	+10 °C						+4.4 °C						-6.7 °C					
	通过阀的压降 Pressure drop across valve (MPa)																	
	0.30	0.40	0.60	0.70	0.80	0.80	0.40	0.60	0.70	0.80	1.00	1.10	0.40	0.60	0.70	0.80	1.00	1.10
TCLE 1/4M	1.10	1.20	1.50	1.60	1.80	1.80	1.20	1.50	1.60	1.70	1.90	2.00	1.10	1.40	1.50	1.60	1.80	1.90
TCLE 3/4M	2.10	2.40	2.90	3.10	3.40	3.40	2.30	2.80	3.00	3.20	3.60	3.80	2.20	2.70	2.90	3.10	3.50	3.60
TCLE 1-1/2M	4.40	5.10	6.30	6.80	7.20	7.20	4.90	6.00	6.50	6.90	7.80	8.10	4.70	5.80	6.30	6.70	7.50	7.80
TCLE 2-1/2M	9.80	11.30	13.80	15.00	16.00	16.00	10.90	13.30	14.40	15.40	17.20	18.00	10.50	12.80	13.80	14.80	16.50	17.30
TCLE 3-1/2M	12.60	14.60	17.90	19.30	20.60	20.60	14.00	17.20	18.60	19.80	22.20	23.30	13.50	16.50	17.90	19.10	21.30	22.40
TCLE 5-1/2M	17.40	20.10	24.60	26.50	28.40	28.40	19.30	23.60	25.50	27.30	30.50	32.00	18.60	22.70	24.60	26.20	29.40	30.80
TCLE 7-1/2M	23.40	27.00	33.10	35.70	38.20	38.20	26.00	31.80	34.40	36.70	41.10	43.10	25.00	30.60	33.00	35.30	39.50	41.40
TCLE 9M	27.50	31.70	38.90	42.00	44.90	44.90	30.50	37.40	40.40	43.20	48.30	50.60	29.40	35.90	38.80	41.50	46.40	48.70
TRFE 11M	33.00	38.90	47.00	51.00	54.00	54.00	37.00	45.00	49.00	52.00	58.00	61.00	35.00	43.00	47.00	50.00	56.00	59.00
TRFE 13M	40.00	46.00	56.00	61.00	66.00	66.00	44.00	54.00	59.00	63.00	70.00	73.20	43.00	52.00	56.00	60.00	67.00	71.00
TRFE 16M	49.00	57.00	70.00	75.00	80.00	80.00	55.00	67.00	72.00	77.00	87.00	91.50	53.00	65.00	70.00	74.00	83.00	87.00
TRFE 19M	57.00	68.00	80.00	87.00	93.00	93.00	63.00	77.00	84.00	89.00	100.00	105.20	61.00	74.00	80.00	86.00	96.90	101.90
TRFE 25M	78.00	87.00	107.00	115.00	123.00	123.00	84.00	103.90	111.00	119.00	133.50	139.60	81.00	99.00	107.00	114.00	128.00	134.00
TRFE 31M	94.00	109.00	133.00	144.00	154.00	154.00	105.00	128.00	130.00	148.00	155.20	173.50	101.00	123.00	133.00	142.00	159.00	167.00
TRFE 45M	132.00	152.00	187.00	202.00	216.00	216.00	147.00	180.00	194.00	207.00	232.10	243.00	141.00	173.00	187.00	199.00	223.00	234.00
TRFE 55M	170.00	196.00	240.00	259.00	277.00	277.00	188.00	231.00	249.00	266.00	298.70	312.50	181.00	222.00	240.00	256.00	287.00	300.00
TRFE 68M	206.00	238.00	292.00	315.00	337.00	337.00	229.00	281.00	303.00	324.00	362.40	380.10	220.00	270.00	292.00	312.00	349.00	365.00
TRFE 80M	248.00	283.00	347.00	374.00	400.00	400.00	313.00	334.90	360.00	385.00	432.20	452.10	262.00	321.00	347.00	370.00	415.00	434.00
R134a 型号规格	蒸发温度 (°C) Evaporating temperature (°C)																	
	-17.8 °C						-29 °C						-40 °C					
	通过阀的压降 Pressure drop across valve (MPa)																	
	0.60	0.70	0.80	1.00	1.10	1.20	0.60	0.70	0.80	1.00	1.10	1.20	0.60	0.70	0.80	1.00	1.10	1.20
TCLE 1/4M	1.10	1.20	1.20	1.40	1.50	1.50	0.72	0.78	0.84	0.94	0.98	1.03	0.47	0.50	0.54	0.60	0.63	0.66
TCLE 3/4M	2.10	2.20	2.40	2.70	2.80	2.90	1.40	1.50	1.60	1.80	1.90	2.00	0.89	0.96	1.03	1.15	1.21	1.26
TCLE 1-1/2M	4.40	4.80	6.10	7.70	8.00	8.30	3.00	3.20	3.40	3.90	4.00	4.20	1.90	2.10	2.20	2.50	2.60	2.70
TCLE 2-1/2M	9.80	10.60	11.30	12.70	13.30	13.90	6.60	7.10	7.60	8.50	8.90	9.30	4.30	4.60	4.90	5.50	5.80	6.00
TCLE 3-1/2M	12.70	13.70	14.60	16.40	17.20	17.90	8.50	9.20	9.80	11.10	11.50	12.10	5.50	5.90	6.30	7.10	7.40	7.80
TCLE 5-1/2M	17.40	18.80	20.10	22.50	23.60	24.70	11.70	12.70	13.50	15.10	15.90	16.60	7.60	8.20	8.70	9.80	10.20	10.70
TCLE 7-1/2M	23.50	25.30	27.10	30.30	31.80	33.20	15.80	17.00	18.20	20.40	21.40	22.30	10.20	11.00	11.70	13.10	13.80	14.40
TCLE 9M	27.60	29.80	31.80	35.50	37.30	39.00	18.50	20.00	21.40	24.00	25.10	26.20	11.90	12.90	13.80	15.40	16.20	16.90
TRFE 11M	33.00	36.00	38.10	43.50	45.70	47.20	22.30	24.60	26.50	29.10	30.30	32.50	14.00	16.00	17.00	19.00	20.00	21.00
TRFE 13M	40.00	43.50	46.20	52.30	54.20	57.50	27.50	29.60	31.20	35.40	36.20	38.40	17.00	19.90	20.00	22.00	23.00	25.00
TRFE 16M	50.20	53.60	57.80	64.20	67.50	70.30	33.40	36.50	38.20	43.20	45.30	47.80	21.00	23.00	25.00	28.00	29.00	30.00
TRFE 19M	57.40	62.50	66.80	74.10	77.50	81.40	38.10	42.20	44.70	50.60	52.20	54.30	25.00	27.00	29.00	32.00	34.00	35.00
TRFE 25M	76.50	82.10	88.60	97.90	103.10	107.50	54.20	55.40	59.60	66.30	69.10	72.10	33.00	36.00	38.00	42.00	44.00	46.00
TRFE 31M	96.20	102.10	108.50	122.30	128.50	134.50	69.50	73.70	82.90	86.50	90.30	93.00	41.00	44.00	47.00	53.00	55.00	58.00
TRFE 45M	123.10	143.20	153.50	171.40	179.60	187.20	89.20	96.30	103.10	115.20	121.40	126.70	57.00	62.00	66.00	74.00	78.00	81.00
TRFE55M	170.20	184.50	197.30	220.50	231.90	241.20	115.30	124.70	132.30	148.20	155.00	162.60	74.00	80.00	85.00	95.00	100.00	104.00
TRFE 68M	207.00	224.30	239.50	267.20	280.10	293.60	139.60	150.40	161.40	180.20	189.70	197.60	90.00	97.00	104.00	115.00	121.00	127.00
TRFE 80M	246.70	266.60	285.90	318.40	335.00	348.70	169.50	180.10	191.90	214.50	224.10	234.70	107.00	116.00	123.00	137.00	144.00	150.00

TCLE、TRFE 系列热力膨胀阀 (Thermo-expansion valves)

Shanghai Thermostat Factory Co.,Ltd.

TCLE/TRFE 扩展容量表 (KW) TCLE,TRFE extended capacity tables

R404A/ R507 型号规格	蒸发温度 (℃) Evaporating temperature (℃)																	
	+10 ℃						+4.4 ℃						-6.7 ℃					
	通过阀的压降 Pressure drop across valve (MPa)																	
	0.52	0.69	0.86	1.03	1.21	1.38	0.69	0.86	1.03	1.21	1.38	1.55	0.86	1.03	1.21	1.38	1.55	1.72
TCLE 1/3S	1.53	1.69	1.86	2.03	2.25	2.47	1.35	1.62	1.74	1.88	2.03	2.19	1.49	1.60	1.73	1.87	2.02	2.18
TCLE 2/3S	3.07	3.37	3.71	4.07	4.49	4.93	2.69	3.23	3.49	3.76	4.07	4.39	2.97	3.21	3.47	3.75	4.05	4.37
TCLE 1-1/2 S	6.92	7.61	8.38	9.17	10.14	11.13	6.08	7.29	7.86	8.48	9.17	9.89	6.71	7.23	7.82	8.45	9.13	9.85
TCLE 2 S	9.20	10.12	11.14	12.20	13.48	14.80	8.08	9.70	10.46	11.28	12.20	13.16	8.92	9.62	10.40	11.24	12.14	13.10
TCLE 3-1/2 S	16.10	17.71	19.50	21.35	23.59	25.90	14.14	16.98	18.31	19.74	21.35	23.03	15.61	16.84	18.20	19.67	21.25	22.93
TCLE 5 S	23.00	25.30	27.85	30.50	33.70	37.00	20.20	24.25	26.15	28.20	30.50	32.90	22.30	24.05	26.00	28.10	30.35	32.75
TCLE 7 S	32.20	35.42	38.99	42.70	47.18	51.80	28.28	33.95	36.61	39.48	42.70	46.06	31.22	33.67	36.40	39.34	42.49	45.85
TCLE 8-1/2 S	39.10	43.01	47.35	51.85	57.29	62.90	34.34	41.23	44.46	47.94	51.85	55.93	37.91	40.89	44.20	47.77	51.60	55.68
TRFE 10 S	46.00	50.60	55.70	61.00	67.40	74.00	40.40	48.50	52.30	56.40	61.00	65.80	44.60	48.10	52.00	56.20	60.70	65.50
TRFE 12 S	55.20	60.72	66.84	73.20	80.88	88.80	48.48	58.20	62.76	67.68	73.20	78.96	53.52	57.72	62.40	67.44	72.84	78.60
TRFE 15S	69.00	75.90	83.55	91.50	101.10	111.00	60.60	72.75	78.45	84.60	91.50	98.70	66.90	72.15	78.00	84.30	91.05	98.25
TRFE 18 S	82.80	91.08	100.26	109.80	121.32	133.20	72.72	87.30	94.14	101.52	109.80	118.44	80.28	86.58	93.60	101.16	109.26	117.90
TRFE 25 S	115.09	126.60	139.36	152.62	168.63	185.15	101.08	121.35	130.85	141.11	152.62	164.63	111.59	120.35	130.10	140.61	151.87	163.88
TRFE 32 S	159.98	175.98	193.71	212.14	234.40	257.36	140.50	168.67	181.89	196.15	212.14	228.84	155.11	167.28	180.84	195.45	211.10	227.79
TRFE 38 S	190.37	209.41	230.52	252.45	278.94	306.25	167.20	200.72	216.45	233.41	252.45	272.32	184.58	199.06	215.21	232.59	251.21	271.08
TRFE 52 S	260.81	286.89	315.81	345.86	382.15	419.57	229.06	274.99	296.53	319.78	345.86	373.07	252.87	272.72	294.83	318.64	344.16	371.37
TRFE 70 S	352.10	387.31	426.34	466.91	515.90	566.42	309.23	371.23	400.32	431.70	466.91	503.65	341.38	368.17	398.02	430.17	464.61	501.35
TRFE 84 S	420.79	462.90	509.50	558.00	616.60	676.90	369.60	443.70	478.40	515.90	558.00	601.90	408.00	440.00	475.70	514.10	555.30	599.20
R404A/ R507 型号规格	蒸发温度 (℃) Evaporating temperature (℃)																	
	-17.8 ℃						-29 ℃						-40 ℃					
	通过阀的压降 Pressure drop across valve (MPa)																	
	1.03	1.21	1.38	1.55	1.72	1.90	1.21	1.38	1.55	1.72	1.90	2.07	1.38	1.55	1.72	1.90	2.07	2.24
TCLE 1/3S	1.34	1.47	1.59	1.68	1.79	1.89	1.03	1.08	1.13	1.19	1.25	1.31	0.91	0.96	1.01	1.06	1.11	1.17
TCLE 2/3S	2.69	2.94	3.17	3.37	3.57	3.79	2.05	2.15	2.27	2.38	2.50	2.62	1.83	1.92	2.02	2.11	2.22	2.33
TCLE 1-1/2 S	6.06	6.63	7.16	7.59	8.06	8.54	4.63	4.86	5.11	5.37	5.64	5.91	4.12	4.33	4.56	4.77	5.01	5.26
TCLE 2 S	8.06	8.82	9.52	10.10	10.72	11.36	6.16	6.46	6.80	7.14	7.50	7.86	5.48	5.76	6.06	6.34	6.66	7.00
TCLE 3-1/2 S	14.11	15.44	16.66	17.68	18.76	19.88	10.78	11.31	11.90	12.50	13.13	13.76	9.59	10.08	10.61	11.10	11.66	12.25
TCLE 5 S	20.15	22.05	23.80	25.25	26.80	28.40	15.40	16.15	17.00	17.85	18.75	19.65	13.70	14.40	15.15	15.85	16.65	17.50
TCLE 7 S	28.21	30.87	33.32	35.35	37.52	39.76	21.56	22.61	23.80	24.99	26.25	27.51	19.18	20.16	21.21	22.19	23.31	24.50
TCLE 8-1/2 S	34.26	37.49	40.46	42.93	45.56	48.28	26.18	27.46	28.90	30.35	31.88	33.41	23.29	24.48	25.76	26.95	28.31	29.75
TRFE 10 S	40.30	44.10	47.60	50.50	53.60	56.80	30.80	32.30	34.00	35.70	37.50	39.30	27.40	28.80	30.30	31.70	33.30	35.00
TRFE 12 S	48.36	52.92	57.12	60.60	64.32	68.16	36.96	38.76	40.80	42.84	45.00	47.16	32.88	34.56	36.36	38.04	39.96	42.00
TRFE 15S	60.45	66.15	71.40	75.75	80.40	85.20	46.20	48.45	51.00	53.55	56.25	58.95	41.10	43.20	45.45	47.55	49.95	52.50
TRFE 18 S	72.54	79.38	85.68	90.90	96.48	102.24	55.44	58.14	61.20	64.26	67.50	70.74	49.32	51.84	54.54	57.06	59.94	63.00
TRFE 25 S	100.83	110.34	119.10	126.35	134.11	142.11	77.06	80.81	85.07	89.32	93.83	98.33	68.55	72.06	75.81	79.31	83.32	87.57
TRFE 32 S	129.06	141.23	152.44	161.73	171.66	181.91	98.64	103.44	108.89	114.33	120.10	125.86	87.75	92.23	97.04	101.52	106.65	112.09
TRFE 38 S	153.59	168.07	181.41	192.46	204.27	216.47	117.38	123.10	129.58	136.05	142.91	149.77	104.42	109.76	115.47	120.81	126.91	133.39
TRFE 52 S	210.41	230.25	248.53	263.67	279.85	296.56	160.81	168.64	177.52	186.39	195.79	205.19	143.06	150.37	158.20	165.51	173.86	182.74
TRFE 70 S	284.06	310.84	335.51	355.95	377.80	400.36	217.09	227.67	239.65	251.63	264.32	277.01	193.13	203.00	213.57	223.44	234.72	246.70
TRFE 84 S	339.50	371.50	401.00	425.40	451.50	478.50	259.50	272.10	286.40	300.70	315.90	331.05	230.80	242.40	255.2	267.00	280.50	294.80

TCLE、TRFE 系列热力膨胀阀 (Thermo-expansion valves)

上海恒温控制器厂有限公司

TCLE/TRFE 扩展容量表 (KW) TCLE,TRFE extended capacity tables

R407c 型号规格	蒸发温度 (℃) Evaporating temperature (℃)																	
	+10℃						+4.4℃						-6.7℃					
	通过阀的压降 Pressure drop across valve (MPa)																	
	0.54	0.72	0.90	1.08	1.26	1.44	0.54	0.72	0.90	1.08	1.26	1.44	0.54	0.72	0.90	1.08	1.26	1.44
TCLE 1/2N	1.39	1.60	1.86	2.03	2.20	2.33	1.37	1.59	1.85	2.02	2.12	2.20	1.35	1.56	1.69	1.86	2.03	2.20
TCLE 1N	2.77	3.20	3.72	4.05	4.40	4.66	2.74	3.18	3.70	4.03	4.24	4.40	2.70	3.11	3.38	3.71	4.05	4.39
TCLE 2N	5.54	6.40	7.44	8.10	8.80	9.32	5.48	6.36	7.40	8.06	8.48	8.80	5.40	6.22	6.76	7.42	8.10	8.78
TCLE 3N	8.31	9.60	11.16	12.15	13.20	13.98	8.22	9.54	11.10	12.09	12.72	13.20	8.10	9.33	10.14	11.13	12.15	13.17
TCLE 5N	13.85	16.00	18.60	20.25	22.00	23.30	13.70	15.90	18.50	20.15	21.20	22.00	13.50	15.55	16.90	18.55	20.25	21.95
TCLE 7-1/2N	20.78	24.00	27.90	30.38	33.00	34.95	20.55	23.85	27.75	30.23	31.80	33.00	20.25	23.33	25.35	27.83	30.38	32.93
TCLE 10N	27.70	32.00	37.20	40.50	44.00	46.60	27.40	31.80	37.00	40.30	42.40	44.00	27.00	31.10	33.80	37.10	40.50	43.90
TCLE 12N	33.24	38.40	44.64	48.60	52.80	55.92	32.88	38.16	44.40	48.36	50.88	52.80	32.40	37.32	40.56	44.52	48.60	52.68
TRFE 14N	38.78	44.80	52.08	56.70	61.60	65.24	38.36	44.52	51.80	56.42	59.36	61.60	37.80	43.54	47.32	51.94	56.70	61.46
TRFE 18N	49.86	57.60	66.96	72.90	79.20	83.88	49.32	57.24	66.60	72.54	76.32	79.20	48.60	55.98	60.84	66.78	72.90	79.02
TRFE 22N	60.94	70.40	81.84	89.10	96.80	102.52	60.28	69.96	81.40	88.66	93.28	96.80	59.40	68.42	74.36	81.62	89.10	96.58
TRFE 26N	72.02	83.20	96.72	105.30	114.40	121.16	71.24	82.68	96.20	104.78	110.24	114.40	70.20	80.86	87.88	96.46	105.30	114.14
TRFE 35N	96.95	112.00	130.20	141.75	154.00	163.10	95.90	111.30	129.50	141.05	148.40	154.00	94.50	108.85	118.30	129.85	141.75	153.65
TRFE 45N	124.65	144.00	167.40	182.25	198.00	209.70	123.30	143.10	166.50	181.35	190.80	198.00	121.50	139.95	152.10	166.95	182.25	197.55
TRFE 55N	152.35	176.00	204.60	222.75	242.00	256.30	150.70	174.90	203.50	221.65	233.20	242.00	148.50	171.05	185.90	204.05	222.75	241.45
TRFE 75N	207.75	240.00	279.00	303.75	330.00	349.50	205.50	238.50	277.50	302.25	318.00	330.00	202.50	233.25	253.50	278.25	303.75	329.25
TRFE 100N	277.00	320.00	372.00	405.00	440.00	466.00	274.00	318.00	370.00	403.00	424.00	440.00	270.00	311.00	338.00	371.00	405.00	439.00
TRFE 120N	332.40	384.00	446.40	486.00	528.00	559.20	328.80	381.60	444.00	483.60	508.80	528.00	324.00	373.20	405.60	445.20	486.00	526.80
R407c 型号规格	蒸发温度 (℃) Evaporating temperature (℃)																	
	-17.8℃						-29℃						-40℃					
	通过阀的压降 Pressure drop across valve (MPa)																	
	0.72	0.90	1.08	1.26	1.44	1.62	0.90	1.08	1.26	1.44	1.62	1.80	0.90	1.08	1.26	1.44	1.62	1.80
TCLE 1/2N	1.25	1.40	1.54	1.66	1.86	1.91	1.00	1.10	1.18	1.27	1.33	1.40	0.69	0.80	0.83	0.88	0.93	0.98
TCLE 1N	2.50	2.80	3.07	3.31	3.71	3.81	2.00	2.20	2.36	2.53	2.66	2.80	1.38	1.60	1.65	1.75	1.86	1.95
TCLE 2N	5.00	5.60	6.14	6.62	7.42	7.62	4.00	4.40	4.72	5.06	5.32	5.60	2.76	3.20	3.30	3.50	3.72	3.90
TCLE 3N	7.50	8.40	9.21	9.93	11.13	11.43	6.00	6.60	7.08	7.59	7.98	8.40	4.14	4.80	4.95	5.25	5.58	5.85
TCLE 5N	12.50	14.00	15.35	16.55	18.55	19.05	10.00	11.00	11.80	12.65	13.30	14.00	6.90	8.00	8.25	8.75	9.30	9.75
TCLE 7-1/2N	18.75	21.00	23.03	24.83	27.83	28.58	15.00	16.50	17.70	18.98	19.95	21.00	10.35	12.00	12.38	13.13	13.95	14.63
TCLE 10N	25.00	28.00	30.70	33.10	37.10	38.10	20.00	22.00	23.60	25.30	26.60	28.00	13.80	16.00	16.50	17.50	18.60	19.50
TCLE 12N	30.00	33.60	36.84	39.72	44.52	45.72	24.00	26.40	28.32	30.36	31.92	33.60	16.56	19.20	19.80	21.00	22.32	23.40
TRFE 14N	35.00	39.20	42.98	46.34	51.94	53.34	28.00	30.80	33.04	35.42	37.24	39.20	19.32	22.40	23.10	24.50	26.04	27.30
TRFE 18N	45.00	50.40	55.26	59.58	66.78	68.58	36.00	39.60	42.48	45.54	47.88	50.40	24.84	28.80	29.70	31.50	33.48	35.10
TRFE 22N	55.00	61.60	67.54	72.82	81.62	83.82	44.00	48.40	51.92	55.66	58.52	61.60	30.36	35.20	36.30	38.50	40.92	42.90
TRFE 26N	65.00	72.80	79.82	86.06	96.46	99.06	52.00	57.20	61.36	65.78	69.16	72.80	35.88	41.60	42.90	45.50	48.36	50.70
TRFE 35N	87.50	98.00	107.45	115.85	129.85	133.35	70.00	77.00	82.60	88.55	93.10	98.00	48.30	56.00	57.75	61.25	65.10	68.25
TRFE 45N	112.50	126.00	138.15	148.95	166.95	171.45	90.00	99.00	106.20	113.85	119.70	126.00	62.10	72.00	74.25	78.75	83.70	87.75
TRFE 55N	137.50	154.00	168.85	182.05	204.05	209.55	110.00	121.00	129.80	139.15	146.30	154.00	75.90	88.00	90.75	96.25	102.30	107.25
TRFE 75N	187.50	210.00	230.25	248.25	278.25	285.75	150.00	165.00	177.00	189.75	199.50	210.00	103.50	120.00	123.75	131.25	139.50	146.25
TRFE 100N	250.00	280.00	307.00	331.00	371.00	381.00	200.00	220.00	236.00	253.00	266.00	280.00	138.00	160.00	165.00	175.00	186.00	195.00
TRFE 120N	300.00	336.00	368.40	397.20	445.20	457.20	240.00	264.00	283.20	303.60	319.20	336.00	165.60	192.00	198.00	210.00	223.20	234.00