

热力膨胀阀

TRE10, TRE20, TRE40, TRE80 型

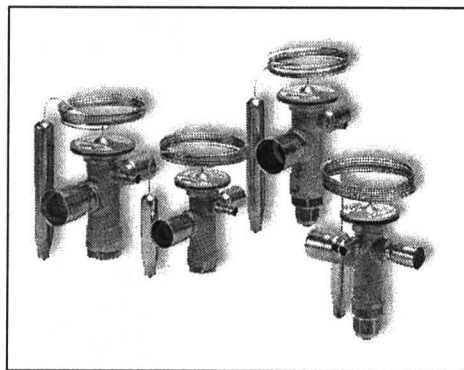
引言

TRE型热力膨胀阀可焊接用于空调和制冷系统。其高密封性的设计可满足各种环保要求。该阀可用于制冷量 28 到 245KW (8 到 70 冷吨(R22))的系统。

TRE 阀包括热处理的铜制阀体和执行元件, 两端上下错开的双金属钎焊接口是由不锈钢和黄铜压合而成的材料制造的。TRE 阀的两向平衡流口设计可方便地用于双向流。

所有的 TRE 型热力膨胀阀都有外部过热度调整功能。对于不可调整的 OEM 型阀, 可提供设置组件。安装在进口连接处的滤网可作为附件提供。

TRE 型热力膨胀阀可用于 R22, R410A, R134a 和 R407c 等工质。



特点

- 双金属片连接件
- 可用于 R410A
- 激光焊接的执行元件
- 不锈钢质执行元件, 毛细管和感温包
- 两向平衡流口设计
- 不锈钢双接触感温包
- 外部过热度可调/不可调两种类型

基本参数 膨胀阀选项

- N 系列: $-40 \sim +10$ °C, 不带 MOP
- K 系列: $-25 \sim +10$ °C, 带 MOP
- 静态过热度, 可调/不可调: 2K~6K
- 泄流能力: 15%
- 最大工作温度
 - 热力元件
 - N 系列: 100 °C (R410A: 70°C)
 - K 系列: 150 °C
 - 阀体: 110 °C
- 最大工作压力 $P_B = 42$ bar
- 最大测试压力 $P' = 46.5$ bar
- 双向流应用性能

毛细管长度

型号	毛细管长度	
	米	英尺
TRE10	0.9, 1.5m	3.0, 5.0ft
TRE20	0.9, 1.5, 3.0m	3.0, 5.0, 10.0ft
TRE40	1.5, 3.0m	5.0, 10.0ft
TRE80	1.5, 3.0m	5.0, 10.0ft

连接件

型号	进口 ODF 焊接	出口 ODF 焊接
	TRE10	$\frac{1}{2}-\frac{5}{8}-\frac{7}{8}$ in.
12-16-22mm		12-16-22-28mm
TRE20	$\frac{5}{8}-\frac{7}{8}-1 \frac{1}{8}$ in.	$\frac{5}{8}-\frac{7}{8}-1 \frac{1}{8}-1 \frac{3}{8}$ in.
	12-16-28mm	12-16-28-35mm
TRE40	$\frac{7}{8}-1 \frac{1}{8}$ in.	$\frac{7}{8}-1 \frac{1}{8}-1 \frac{3}{8}$ in.
	22-28mm	22-28-35mm
TRE80	$1 \frac{1}{8}-1 \frac{3}{8}$ in.	$1 \frac{1}{8}-1 \frac{3}{8}-1 \frac{5}{8}$ in.
	28-35mm	28-35-42mm

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MOP 阀

MOP(最大操作压力)

制冷剂	K 系列 -25 ~ 10°C / -15 ~ 50°F
	MOP 点, 蒸发温度 t_e 和蒸发压力 P_e ¹⁾ $t_e = +15^\circ\text{C}/60^\circ\text{F}$
R 22	$P_e = 100 \text{ psig}/6.9 \text{ bar}$
R 410A	$P_e = 165 \text{ psig}/11.5 \text{ bar}$
R 407C	$P_e = 95 \text{ psig}/6.6 \text{ bar}$
R 134a	$P_e = 55 \text{ psig}/3.9 \text{ bar}$
R 404A/R507	$P_e = 120 \text{ psig}/8.4 \text{ bar}$

1) P_e 以 bar 为单位

当使用 MOP 热力膨胀阀时, 为避免冲注物转移, 感温包温度必须低于热力执行元件的温度

铭牌标识

热力膨胀阀的铭牌上标明了阀的基本数据。

例如, 图 1

TRE10	= 阀型
8RT	= 名义制冷量 Q_{nom} . 单位/冷吨
28kW	= 名义制冷量 Q_{nom} . 单位/千瓦
R22	= 制冷剂
-25/+10°C	= 蒸发温度范围(°C)
-15/+50°F	= 蒸发温度范围(°F)
067L1018	= 产品代码
BP15	= 泄流孔泄流能力 15%
MOP100	= 最大操作压力
PB42bar/ MWP 600psig	= 最大工作压力

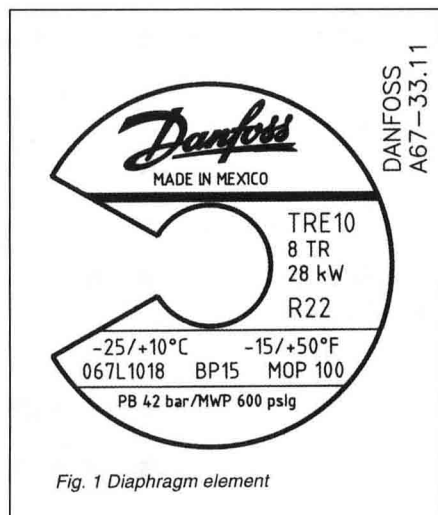


Fig. 1 Diaphragm element

型号: TRE10-8X100

制冷剂代码: R22	= X
R134a	= N
R407C	= Z
R410A	= L
R404A / R507	= S

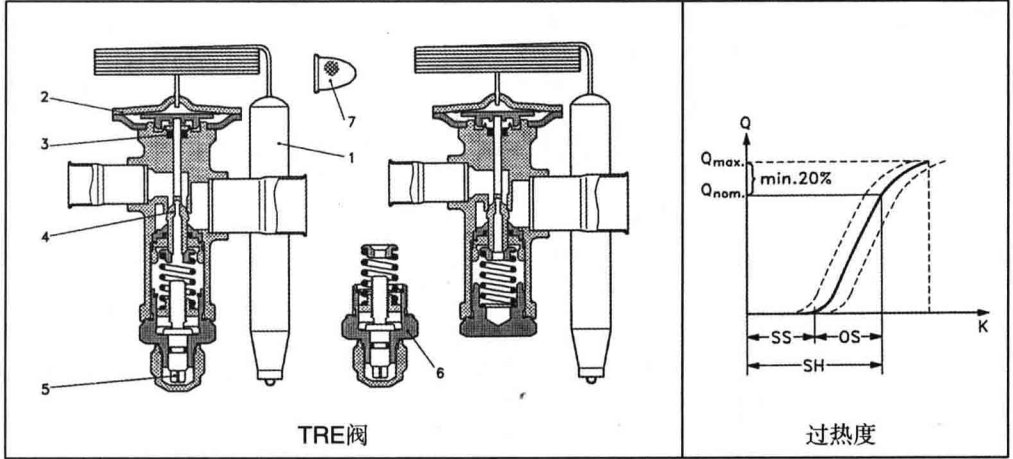
TRE	= 产品系列
10	= 最大制冷量
8	= TR, 名义制冷量
X	= 制冷剂代码
100	= MOP (psig)

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设计 / 功能

1. 毛细管/感温包
2. 热力元件
3. 压力密封钉
4. 双向平衡流口
5. 静态过热度 SS 调整杆
6. 调整组件(附件)
7. 过滤器附件



用调整杆 5 可以调整静态过热度 SS。通常带 MOP 的 SS 为 4K，不带 MOP 的 SS 为 5K。Danfoss 可提供固定设置的 TRE 阀。对于不可调整的 OEM 阀,附件 6 可作为调整组件供货。

双向平衡流口 4 的特性保证压力变化时过热度变化小,此设计使得 TRE 阀非常适合双向流的操作。

带密封塞的压力密封钉可保证阀的紧密性。入口过滤器 7 可作为附件供应。

术语

SS:静态过热度

OS:开启过热度

SH = SS + OS:总过热度

达到开启过热度,阀开始打开直到名义制冷量。开启过热度在设计时确定,不能改变。

改变静态过热度 SS(通过调整杆实现)可以改变总过热度。

过冷度修正系数

修正系数	Δt_{sub}									
	4K 7.2°F	10K 18°F	15K 27°F	20K 36°F	25K 45°F	30K 54°F	35K 63°F	40K 72°F	45K 81°F	50K 90°F
R22	1.00	1.06	1.11	1.15	1.20	1.25	1.30	1.35	1.39	1.44
R410A	1.00	1.08	1.15	1.21	1.27	1.33	1.39	1.45	1.50	1.56
R407C	1.00	1.08	1.14	1.21	1.27	1.33	1.39	1.45	1.51	1.57
R134a	1.00	1.08	1.13	1.19	1.25	1.31	1.37	1.42	1.48	1.54
R404A/R507	1.00	1.10	1.20	1.29	1.37	1.46	1.54	1.63	1.70	1.78

如果过冷度大于 4K,蒸发器的制冷量必须根据上表进行修正。

例如:

工质: R22
 蒸发器: $t_e = -10^\circ\text{C}$, $p_e = 3.5 \text{ bar}$
 冷凝器: $t_c = 40^\circ\text{C}$, $p_c = 15.5 \text{ bar}$
 阀压力降: $\Delta p = 15.5 - 3.5 - 2 = 10 \text{ bar}^1)$
 过冷度: $\Delta t_{sub} = 15 \text{ K}$
 蒸发器冷量: $= 40 \text{ kW}/11.4 \text{ TR}$
 修正系数 $= 1.11$

注意:如果过冷度太低会引起闪蒸。

修正的蒸发器冷量为: $40/1.11 = 36 \text{ kW}/10.3 \text{ TR}$

一般膨胀阀的容量要比修正的蒸发器冷量要稍大,因此选择名义冷量为 $37.7 \text{ kW}/10.8 \text{ TR}$ 的 TRE20-12.5X。

1)压力降($p_c - p_e$)必须考虑经过液管和分液器的压力降,因此实际的压力降为 $\Delta p = p_c - p_e - 2$

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订货

类型	工业包装	复合包装
TRE10	12pcs	12pcs
TRE20	8pcs	8pcs
TRE40	4pcs	6pcs
TRE80	4pcs	4pcs

阀和感温包按左表可以有工业包装或单个的复合包装订货。

产品范围一览

冷量		制冷剂		范围	MOP
TR	kW	种类	代码		
8 - 70	28 - 246	R22	X	K	15°C/60°F
8 - 70	28 - 246	R22	X	N	
8 - 85	28 - 298	R410A	L	K	15°C/60°F
8 - 85	28 - 298	R410A	L	N	
8 - 70	28 - 246	R407C	Z	K	15°C/60°F
8 - 70	28 - 246	R407C	Z	N	
5 - 56	18 - 196	R134a	N	K	15°C/60°F
5 - 56	18 - 196	R134a	N	N	

K: -25°C ~ +10°C N: -40°C ~ +10°C

制冷剂	K 系列 -25→+10°C / -15→+50°F MOP 点的蒸发温度 t_e 和蒸发压力 p_e ¹⁾ $t_e = +15°C / +60°F$
	R22
R410A	$p_e = 165\text{psig} / 11.5\text{bar}$
R407C	$p_e = 95\text{psig} / 6.6\text{bar}$
R134a	$p_e = 55\text{psig} / 3.9\text{bar}$
R404A/R507	$p_e = 120\text{psig} / 8.4\text{bar}$

在使用带 MOP 的膨胀阀时, 未避免冲注物转移, 感温包温度必须低于热力执行元件的温度。

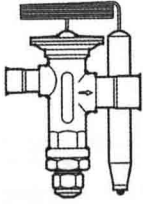
1) P_e 为表压

热力膨胀阀

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订货(续)

常规产品



R22, R410A

制冷剂	类型 名称制冷量 $Q_{nom}^{1)}$ TR	名义制冷量 $Q_{nom}^{1)}$ kW	连接 ODF 焊接		K 系列 -25°/+10°C MOP15°C -15°/+50°F MOP60°F		N 系列 -40°/+10°C -40°/+50°F	
			进口	出口	产品代码	产品代码	产品代码	产品代码
			in	in	复合包装	工业包装	复合包装	工业包装
R22	TRE10-8X	28	5/8	7/8	067L1021	067L2021	067L1121	067L2121
	TRE10-10X	35	5/8	7/8	067L1024	067L2024	067L1124	067L2124
	TRE20-10X	35	5/8	7/8	067L1075	067L2075	067L1175	067L2175
	TRE20-12.5X	44	5/8	7/8	067L1079	067L2079	067L1179	067L2179
	TRE20-15X	53	7/8	1 1/8	067L1084	067L2084	067L1184	067L2184
	TRE20-20X	70	7/8	1 1/8	067L1087	067L2087	067L1187	067L2187
	TRE20-20X	70	7/8	1 3/8	067L1088	067L2088	067L1188	067L2188
	TRE40-20X	70	7/8	1 1/8	067L3001	067L4001	067L3101	067L4101
	TRE40-20X	70	7/8	1 3/8	067L3002	067L4002	067L3102	067L4102
	TRE40-25X	88	7/8	1 3/8	067L3005	067L4005	067L3105	067L4105
	TRE40-25X	88	1 1/8	1 3/8	067L3006	067L4006	067L3106	067L4106
	TRE40-30X	105	1 1/8	1 3/8	067L3009	067L4009	067L3109	067L4109
	TRE40-40X	140	1 1/8	1 3/8	067L3012	067L4012	067L3112	067L4112
	TRE80-40X	140	1 1/8	1 3/8	067L3060	067L4060	067L3160	067L4160
TRE80-55X	193	1 1/8	1 3/8	067L3063	067L4063	067L3163	067L4163	
TRE80-70X	245	1 1/8	1 5/8	067L3066	067L4066	067L3166	067L4166	
R410A	TRE10-8L	28	5/8	5/8	067L1028	067L2028	067L1128	067L2128
	TRE10-8L	28	5/8	7/8	067L1029	067L2029	067L1129	067L2129
	TRE10-10L	35	5/8	5/8	067L1030	067L2030	067L1130	067L2130
	TRE10-10L	35	5/8	7/8	067L1031	067L2031	067L1131	067L2131
	TRE10-12.5L	44	5/8	5/8	067L1034	067L2034	067L1134	067L2134
	TRE10-12.5L	44	5/8	7/8	067L1035	067L2035	067L1135	067L2135
	TRE10-15L	53	7/8	7/8	067L1038	067L2038	067L1138	067L2138
	TRE10-15L	53	7/8	1 1/8	067L1039	067L2039	067L1139	067L2139
	TRE20-15L	53	7/8	7/8	067L1091	067L2091	067L1191	067L2191
	TRE20-15L	53	7/8	1 1/8	067L1092	067L2092	067L1192	067L2192
	TRE20-20L	70	7/8	7/8	067L1093	067L2093	067L1193	067L2193
	TRE20-20L	70	7/8	1 1/8	067L1094	067L2094	067L1194	067L2194
	TRE20-25L	88	7/8	1 1/8	067L1097	067L2097	067L1197	067L2197
	TRE20-25L	88	1 1/8	1 1/8	067L1099	067L2099	067L1199	067L2199
	TRE40-25L	88	7/8	1 1/8	067L3015	067L4015	067L3115	067L4115
	TRE40-25L	88	1 1/8	1 3/8	067L3016	067L4016	067L3116	067L4116
	TRE40-30L	105	1 1/8	1 3/8	067L3019	067L4019	067L3119	067L4119
	TRE40-30L	105	1 1/8	1 3/8	067L3020	067L4020	067L3120	067L4120
	TRE40-40L	140	1 1/8	1 1/8	067L3023	067L4023	067L3123	067L4123
	TRE40-40L	140	1 1/8	1 3/8	067L3024	067L4024	067L3124	067L4124
	TRE40-55L	193	1 1/8	1 1/8	067L3027	067L4027	067L3127	067L4127
	TRE40-55L	193	1 1/8	1 3/8	067L3028	067L4028	067L3128	067L4128
	TRE80-55L	193	1 1/8	1 1/8	067L3069	067L4069	067L3169	067L4169
	TRE80-55L	193	1 1/8	1 3/8	067L3070	067L4070	067L3170	067L4170
TRE80-80L	245	1 1/8	1 3/8	067L3073	067L4073	067L3173	067L4173	
TRE80-80L	245	1 1/8	1 5/8	067L3074	067L4074	067L3174	067L4174	
TRE80-80L	245	1 3/8	1 3/8	067L3075	067L4075	067L3175	067L4175	
TRE80-100L	350	1 1/8	1 3/8	067L3078	067L4078	067L3178	067L4178	
TRE80-100L	350	1 3/8	1 5/8	067L3079	067L4079	067L3179	067L4179	

外压力平衡管=1/4 in. 外径

1) 名义制冷量基于蒸发温度 $t_e = 5^\circ\text{C}$, 液体温度 $t_l = 28^\circ\text{C}$, 冷凝温度 $t_c = 32^\circ\text{C}$, 开启过热度 $OS = 4\text{K}$ 工况下的数据。

常规产品以外的连接, 制冷剂, 毛细管长度请参考膨胀阀选项。

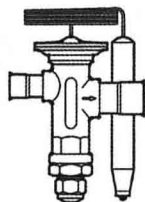
热力膨胀阀

TRE10, TRE20, TRE40, TRE80 型

订货(续)

常规产品

R407C, R134a

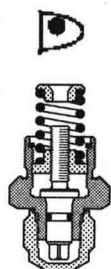


制冷剂	类型 名义制冷量 $Q_{nom}^{1)}$ TR	名义制冷量 $Q_{nom}^{1)}$ kW	连接 ODF 焊接		K 系列 -25°/+10°C MOP 15°C -15°/+50°F MOP 60°F		N 系列 -40°/+10°C -40°/+50°F	
			进口 in.	出口 in.	产品代码 复合包装	产品代码 工业包装	产品代码 复合包装	产品代码 工业包装
R407C	TRE10-8Z	28	5/8	3/8	067L1012	067L2012	067L1112	067L2112
	TRE10-10Z	35	5/8	3/8	067L1015	067L2015	067L1115	067L2115
	TRE20-20Z	35	5/8	3/8	067L1058	067L2058	067L1158	067L2158
	TRE20-12.5Z	44	5/8	3/8	067L1062	067L2062	067L1162	067L2162
	TRE20-15Z	53	3/8	1 1/8	067L1067	067L2067	067L1167	067L2167
	TRE20-20Z	70	3/8	1 1/8	067L1070	067L2070	067L1170	067L2170
	TRE20-20Z	70	3/8	1 3/8	067L1071	067L2071	067L1171	067L2171
	TRE40-20Z	70	3/8	1 3/8	067L3030	067L4030	067L3130	067L4130
	TRE40-20Z	70	3/8	1 3/8	067L3031	067L4031	067L3131	067L4131
	TRE40-25Z	88	3/8	1 3/8	067L3034	067L4034	067L3134	067L4134
	TRE40-25Z	88	1 1/8	1 3/8	067L3035	067L4035	067L3135	067L4135
	TRE40-30Z	105	1 1/8	1 3/8	067L3038	067L4038	067L3138	067L4138
	TRE40-40Z	140	1 1/8	1 3/8	067L3040	067L4040	067L3140	067L4140
	TRE80-40Z	140	1 1/8	1 3/8	067L3082	067L4082	067L3182	067L4182
TRE80-55Z	193	1 1/8	1 3/8	067L3085	067L4085	067L3185	067L4185	
TRE80-70Z	245	1 1/8	1 3/8	067L3088	067L4088	067L3188	067L4188	

R134a	TRE10-5N	18	5/8	3/8	067L1003	067L2003	067L1103	067L2103
	TRE10-7N	25	5/8	3/8	067L1006	067L2006	067L1106	067L2106
	TRE20-7N	25	5/8	3/8	067L1041	067L2041	067L1141	067L2141
	TRE20-9N	32	5/8	3/8	067L1045	067L2045	067L1145	067L2145
	TRE20-11N	39	3/8	1 1/8	067L1050	067L2050	067L1150	067L2150
	TRE20-14N	49	3/8	1 1/8	067L1053	067L2053	067L1153	067L2153
	TRE20-14N	49	3/8	1 3/8	067L1054	067L2054	067L1154	067L2154
	TRE40-14N	49	3/8	1 3/8	067L3043	067L4043	067L3143	067L4143
	TRE40-14N	49	3/8	1 3/8	067L3044	067L4044	067L3144	067L4144
	TRE40-16N	56	3/8	1 3/8	067L3047	067L4047	067L3147	067L4147
	TRE40-16N	56	1 1/8	1 3/8	067L3048	067L4048	067L3148	067L4148
	TRE40-20N	70	1 1/8	1 3/8	067L3051	067L4051	067L3151	067L4151
	TRE40-25N	88	1 1/8	1 3/8	067L3054	067L4054	067L3154	067L4154
	TRE80-25N	88	1 1/8	1 3/8	067L3091	067L4091	067L3191	067L4191
	TRE80-35N	123	1 1/8	1 3/8	067L3094	067L4094	067L3194	067L4194
	TRE80-45N	158	1 1/8	1 3/8	067L3097	067L4097	067L3197	067L4197

常规产品以外的连接,制冷剂,毛细管长度请参考膨胀阀选项。

附件



过滤器:安装在进口处。

调整杆组合件:
安装在阀体上,固定设置。
注意:不带弹簧。

尺寸	产品代码
1/2 in.	067L1281
5/8 in.	067L1282
3/4 in.	067L1283
1 1/8 in.	067L1284

类型	紧固扭矩	产品代码
TRE10	30Nm (22 ft lbf)	067L1295
TRE20	46Nm (34 ft lbf)	067L1296
TRE40	66Nm (49 ft lbf)	067L1297
TRE80	90Nm (66 ft lbf)	067L1298

热力膨胀阀 TRE10, TRE20, TRE40, TRE80 型

制冷量 (N 系列和 K 系列)

R22

制冷量单位: kW

开启过热度 OS = 4K

阀型和名义制冷量 Q _{nom} TR	阀两端压力降 Δp bar								阀两端压力降 Δp bar							
	2	4	6	8	10	12	14	16	2	4	6	8	10	12	14	16

蒸发温度 +10℃

蒸发温度 +5℃

TRE10 - 8X	19.6	25.3	28.6	30.5	31.6	32.1	32.3	32.3	18.9	24.5	27.4	29.2	30.1	30.7	30.8	30.6
TRE10 - 10X	24.6	31.7	35.5	38.0	39.3	40.1	40.3	40.2	23.9	30.6	34.2	36.4	37.6	38.3	38.5	38.5
TRE20 - 10X	25.9	33.6	37.9	40.5	41.6	42.7	43.0	42.8	24.7	32.0	36.0	38.3	40.0	40.3	40.5	40.3
TRE20 - 12.5X	30.9	40.1	45.0	48.0	49.9	50.7	51.2	50.8	29.6	38.3	42.9	45.7	47.2	47.9	48.1	47.9
TRE20 - 15X	37.8	49.1	55.2	58.9	61.0	63.2	62.4	62.2	36.3	46.8	52.6	55.9	57.9	58.8	59.0	58.8
TRE20 - 20X	49.5	63.6	71.4	76.3	79.1	80.5	80.9	79.9	47.8	61.1	68.5	72.7	75.1	76.5	76.8	76.6
TRE40 - 20X	49.2	63.8	72.1	77.0	80.0	81.5	82.0	81.7	46.9	60.6	68.3	72.3	75.4	76.7	77.1	76.8
TRE40 - 25X	61.8	80.0	90.1	96.3	99.8	101.8	102.4	102.0	59.2	76.2	85.7	91.6	94.5	96.0	96.5	95.9
TRE40 - 30X	74.1	96.0	108.1	115.3	119.6	121.9	122.6	122.4	71.1	91.7	102.9	107.8	113.5	115.3	115.5	115.3
TRE40 - 40X	99.4	128.6	143.6	154.0	159.7	162.7	163.8	163.6	95.8	123.5	138.3	147.1	152.1	154.8	155.5	155.1
TRE80 - 40X	100.4	128.9	144.9	154.4	159.9	162.6	163.4	162.8	95.2	121.0	136.8	145.5	150.3	152.7	153.3	152.7
TRE80 - 55X	138.3	177.5	198.3	211.2	218.5	222.2	223.7	223.1	132.3	168.9	188.5	200.2	206.9	210.2	219.6	219.1
TRE80 - 70X	177.1	224.3	251.2	267.0	276.8	282.6	283.4	284.3	171.3	215.0	240.4	257.2	263.7	268.3	270.1	269.4

蒸发温度 0℃

蒸发温度 -5℃

TRE10 - 8X	18.1	23.3	26.0	27.6	28.5	28.4	29.0	28.8	17.2	22.0	24.5	25.9	26.7	27.0	27.1	26.9
TRE10 - 10X	22.9	29.3	32.7	34.6	35.7	36.2	36.3	36.1	21.8	27.7	30.8	32.5	33.6	34.0	34.0	33.8
TRE20 - 10X	23.5	30.2	33.8	35.9	37.1	37.6	37.7	37.5	22.1	28.2	31.6	33.4	34.4	34.8	34.8	34.6
TRE20 - 12.5X	28.0	36.0	40.3	42.8	44.2	44.8	44.9	44.7	26.4	33.7	37.6	39.8	41.0	41.5	41.6	41.2
TRE20 - 15X	34.5	44.4	49.7	52.7	54.4	55.2	55.3	54.9	32.7	41.5	46.5	49.0	50.5	51.2	51.2	50.8
TRE20 - 20X	45.5	58.2	64.9	68.8	71.0	72.0	72.2	71.8	43.0	54.0	60.9	64.4	66.2	67.0	67.2	66.7
TRE40 - 20X	44.3	57.2	64.2	68.2	70.5	71.6	71.8	71.4	41.7	53.3	59.5	63.2	64.5	66.1	66.2	65.7
TRE40 - 25X	56.1	71.9	80.5	85.6	88.4	89.7	90.0	89.6	52.5	67.1	75.1	79.5	81.9	83.0	83.1	82.6
TRE40 - 30X	67.5	86.4	96.8	103.0	106.3	108.0	108.3	107.6	63.4	81.0	90.4	95.7	98.7	100.0	100.1	99.5
TRE40 - 40X	91.3	117.0	130.9	137.7	143.6	145.7	146.3	145.6	87.5	110.3	122.8	129.8	135.1	135.7	136.0	135.3
TRE80 - 40X	90.0	114.7	128.2	135.9	140.1	142.1	142.6	141.7	84.0	106.6	118.8	125.7	129.3	130.9	131.2	130.3
TRE80 - 55X	125.5	159.5	178.2	188.0	193.5	196.8	197.6	196.5	118.2	148.1	165.4	174.8	179.9	182.4	182.8	181.7
TRE80 - 70X	162.3	204.9	227.8	241.3	249.0	253.0	254.2	253.0	153.3	193.3	213.9	226.0	232.9	236.2	237.0	235.8

蒸发温度 -10℃

蒸发温度 -15℃

TRE10 - 8X	16.3	20.6	22.8	24.1	24.8	25.1	25.0	24.8	15.2	19.1	21.1	22.2	22.7	22.9	22.9	22.7
TRE10 - 10X	20.6	26.4	28.8	30.4	31.2	31.5	31.6	31.3	19.3	24.2	26.7	28.0	28.7	29.0	29.0	28.7
TRE20 - 10X	20.5	26.1	29.1	30.7	31.5	31.9	31.9	31.6	18.8	23.8	26.5	27.9	28.6	28.9	28.8	28.5
TRE20 - 12.5X	24.5	31.2	35.0	36.6	37.7	38.1	38.0	37.7	22.5	28.6	31.6	33.4	34.2	34.5	34.5	34.1
TRE20 - 15X	30.4	38.6	42.9	45.3	46.5	47.0	47.0	46.6	28.1	35.4	39.2	41.3	42.3	42.7	42.6	42.2
TRE20 - 20X	40.4	51.0	56.5	59.6	61.2	62.2	61.9	61.4	37.4	46.9	51.8	54.7	56.0	56.5	56.3	55.9
TRE40 - 20X	38.6	49.1	54.8	57.9	59.6	60.4	60.4	59.9	35.4	44.9	50.0	52.6	54.0	54.6	54.6	54.1
TRE40 - 25X	48.8	62.4	69.0	73.0	75.1	76.0	76.0	75.4	44.8	56.7	63.0	66.4	68.2	68.8	68.8	68.2
TRE40 - 30X	58.9	75.0	83.5	88.1	90.6	91.8	91.8	91.1	54.7	68.8	76.2	80.3	82.5	83.4	83.3	82.5
TRE40 - 40X	81.2	102.7	113.8	120.2	123.6	125.1	125.3	124.4	75.3	94.5	104.5	110.2	113.0	114.3	114.3	113.4
TRE80 - 40X	77.5	98.3	109.1	115.1	118.3	119.6	119.6	118.7	71.1	89.5	99.0	104.4	107.1	108.2	108.0	107.1
TRE80 - 55X	109.7	138.1	152.7	161.0	165.3	167.5	167.7	166.5	101.1	126.4	139.5	146.8	150.7	152.2	152.3	151.0
TRE80 - 70X	143.8	179.9	198.7	209.4	215.5	218.3	218.8	217.5	133.4	165.8	182.7	192.3	197.5	199.8	200.0	198.5

热力膨胀阀 TRE10, TRE20, TRE40, TRE80 型

制冷量 (N 系列和 K 系列)

R22

制冷量单位: kW

开启过热度 OS = 4K

阀型和名义制冷量 Q_{nom} TR	阀两端压力降 Δp bar								阀两端压力降 Δp bar							
	2	4	6	8	10	12	14	16	2	4	6	8	10	12	14	16

蒸发温度 -20°C

蒸发温度 -25°C

TRE10-8X	16.3	20.6	22.8	24.1	24.8	25.1	25.0	24.8	15.2	19.1	21.1	22.2	22.7	22.9	22.9	22.7
TRE10-10X	20.6	26.4	28.8	30.4	31.2	31.5	31.6	31.3	19.3	24.2	26.7	28.0	28.7	29.0	29.0	28.7
TRE20-10X	17.1	21.6	23.9	25.1	25.7	25.9	25.8	25.5	15.4	19.4	21.4	22.4	22.8	23.0	22.9	22.6
TRE20-12.5X	20.5	25.9	28.6	30.4	30.8	31.0	30.9	30.6	18.5	23.2	25.6	26.8	27.1	27.6	27.4	27.1
TRE20-15X	25.6	32.2	35.5	37.3	38.2	38.5	38.3	37.9	23.1	28.9	31.8	33.3	34.1	34.3	34.1	33.7
TRE20-20X	34.2	42.9	47.1	49.5	50.7	51.0	50.9	50.4	31.0	38.5	42.4	44.4	45.3	45.6	45.5	44.9
TRE40-20X	32.1	40.5	44.9	47.3	48.5	48.9	48.8	48.3	28.9	36.3	40.1	42.0	43.1	43.4	43.3	42.8
TRE40-25X	40.8	51.3	56.8	59.7	61.3	61.8	61.7	61.0	36.7	46.0	51.2	53.3	54.5	54.9	54.7	54.1
TRE40-30X	49.7	62.4	68.9	72.5	74.3	74.9	74.8	74.0	44.8	55.9	61.6	64.7	66.2	66.7	66.5	65.7
TRE40-40X	68.9	86.1	94.9	99.8	102.2	103.2	103.1	102.2	62.4	77.6	85.3	89.5	91.6	92.3	92.1	91.2
TRE80-40X	64.5	80.8	89.2	93.7	96.0	96.9	96.7	95.7	58.2	72.3	79.4	83.3	85.3	85.9	85.6	84.7
TRE80-55X	93.1	114.6	126.1	132.5	135.8	137.0	136.9	135.7	83.0	102.8	112.9	118.5	121.2	122.2	121.9	120.7
TRE80-70X	121.3	151.2	166.2	174.6	179.1	181.0	180.9	179.4	110.5	136.4	149.6	157.0	160.8	162.3	162.0	160.5

蒸发温度 -30°C

蒸发温度 -35°C

TRE10-8X	11.4	14.2	15.5	16.2	16.5	16.6	16.5	16.3	10.2	12.6	13.7	14.3	14.6	14.6	14.5	14.3
TRE10-10X	14.7	18.1	19.8	20.7	21.1	21.2	21.6	20.8	13.1	16.1	17.5	18.3	18.6	18.7	18.5	18.2
TRE20-10X	13.8	17.2	18.9	19.7	20.1	20.2	20.2	19.8	12.1	15.1	16.5	17.2	17.6	17.6	17.5	17.2
TRE20-12.5X	16.6	20.6	22.6	23.7	24.2	24.3	24.1	23.8	14.6	18.1	19.8	20.7	21.1	21.2	21.0	20.7
TRE20-15X	20.7	25.7	28.2	29.5	30.1	30.2	30.0	29.6	18.3	22.6	24.7	25.8	26.3	26.4	26.2	25.8
TRE20-20X	27.8	34.4	37.5	39.4	40.2	40.4	40.2	39.6	24.6	30.3	33.1	34.6	35.2	35.4	35.1	34.6
TRE40-20X	25.7	32.0	35.3	37.1	37.9	38.1	37.9	37.5	22.6	28.2	30.9	32.3	33.0	33.2	33.0	32.5
TRE40-25X	32.6	40.8	44.9	47.0	48.0	48.3	48.2	47.5	28.8	35.8	39.3	41.0	41.9	42.1	41.8	41.3
TRE40-30X	40.0	49.7	54.6	57.1	58.4	58.8	58.5	57.8	35.2	43.6	47.9	50.0	51.1	51.3	51.0	50.3
TRE40-40X	55.9	69.1	75.8	79.4	81.2	81.7	81.4	80.5	49.4	60.9	66.7	69.7	71.2	71.6	71.2	70.3
TRE80-40X	51.4	63.9	70.1	73.4	75.1	75.5	75.2	74.3	45.2	55.9	61.2	64.0	65.4	65.7	65.3	64.5
TRE80-55X	74.0	91.3	100.0	104.8	107.1	107.8	107.5	106.3	65.2	80.2	87.8	91.8	93.7	94.2	93.8	92.7
TRE80-70X	98.9	121.7	133.3	139.7	142.8	143.9	143.6	142.1	87.7	107.4	117.3	122.9	125.6	126.4	125.9	124.5

蒸发温度 -40°C

TRE10-8X	9.0	11.0	12.0	12.5	12.7	12.7	12.6	12.4
TRE10-10X	11.5	14.1	15.4	16.0	16.3	16.3	16.1	15.9
TRE20-10X	10.6	13.1	14.3	14.9	15.2	15.2	15.1	14.8
TRE20-12.5X	12.7	15.7	17.2	17.9	18.2	18.3	18.1	17.8
TRE20-15X	16.0	19.7	21.5	22.4	22.8	22.8	22.6	22.3
TRE20-20X	21.5	26.4	28.8	30.0	30.6	30.7	30.4	30.0
TRE40-20X	19.7	24.4	26.7	27.9	28.5	28.6	28.4	27.9
TRE40-25X	25.1	31.1	34.0	35.5	36.2	36.3	36.0	35.5
TRE40-30X	30.8	37.9	41.5	43.3	44.1	44.3	44.0	43.4
TRE40-40X	43.3	53.2	58.1	60.6	61.8	62.1	61.7	60.8
TRE80-40X	39.4	48.5	52.8	55.3	56.4	56.6	56.3	55.5
TRE80-55X	56.9	69.7	76.2	79.6	81.2	81.6	81.1	80.0
TRE80-70X	76.8	93.8	102.4	106.9	109.3	109.9	109.3	107.9

过冷度的修正系数 Δt_0

Δt_0	4K	10K	15K	20K	25K	30K	35K	40K	45K	50K
R22	1.00	1.06	1.11	1.15	1.20	1.25	1.30	1.35	1.39	1.44

热力膨胀阀

TRE10, TRE20, TRE40, TRE80 型

制冷量 (N 系列和 K 系列)

制冷量单位: kW

开启过热度 OS = 4K

R410A

阀型和名义制冷量 Q _{nom} TR	阀两端压力降 Δp bar								阀两端压力降 Δp bar							
	3	6	9	12	15	18	21	24	3	6	9	12	15	18	21	24

蒸发温度 +10℃

蒸发温度 +5℃

TRE10 - 8L	22.0	28.0	31.0	32.4	32.9	32.6	31.8	30.5	21.6	27.5	30.4	31.7	32.1	31.8	31.0	29.8
TRE10 - 10L	25.4	32.4	36.0	37.6	38.0	37.7	36.8	35.3	25.1	31.9	35.2	36.7	37.1	36.2	35.9	34.5
TRE10 - 12.5L	30.3	38.2	42.6	44.6	45.1	44.7	43.7	42.0	30.0	37.6	41.8	43.7	44.2	43.8	42.7	41.1
TRE10 - 15L	35.9	45.8	50.9	52.9	53.6	53.1	51.9	49.9	35.5	45.2	49.8	52.0	52.7	52.1	50.9	49.0
TRE20 - 15L	37.7	48.4	53.4	56.3	57.3	56.9	55.6	53.6	36.9	47.1	52.5	54.7	55.5	55.1	54.0	52.0
TRE20 - 20L	53.9	69.0	76.5	80.3	81.5	81.0	79.2	76.3	52.9	67.4	74.7	78.2	79.4	78.9	77.1	74.4
TRE20 - 25L	69.7	89.2	98.8	104	105	105	102	98.7	68.7	87.4	96.9	101	103	102	100	96.6
TRE40 - 25L	70.1	89.9	99.5	104.3	105.7	105.1	102.6	98.6	68.1	86.7	95.6	100.5	102.0	101.2	98.9	95.3
TRE40 - 35L	87.6	112.2	124.4	130.4	132.1	131.1	130.2	123.1	85.2	108.7	120.3	125.9	127.5	126.7	123.7	119.1
TRE40 - 40L	105.3	135.0	148.5	155.5	157.7	156.5	152.8	147.0	102.4	130.4	144.2	150.4	152.5	151.5	148.0	142.6
TRE40 - 55L	138.6	175.7	195.2	203.7	207.1	205.9	201.3	193.7	136.2	173.2	190.8	199.0	201.8	200.4	195.9	188.9
TRE80 - 55L	145.5	185.0	204.6	214.9	216.1	213.8	208.9	200.3	140.9	179.3	197.2	205.7	207.8	205.9	200.7	192.9
TRE80 - 80L	196.5	252.7	274.7	286.2	289.6	287.1	280.4	269.3	191.8	241.9	266.3	276.9	280.7	278.1	271.4	261.5
TRE80 - 100L	248.2	309.8	343.0	356.9	363.1	360.3	351.5	337.9	240.7	306.2	334.8	349.7	354.0	351.7	344.0	332.0

蒸发温度 +10℃

蒸发温度 +5℃

TRE10 - 8L	21.1	26.6	29.3	30.5	30.8	30.5	29.7	28.6	20.2	25.5	28.0	29.0	29.3	29.1	28.2	27.2
TRE10 - 10L	24.4	31.0	34.0	35.4	35.8	35.4	33.9	33.2	23.5	29.6	32.5	33.8	34.1	33.7	32.8	31.6
TRE10 - 12.5L	29.2	37.2	40.5	42.3	42.7	42.2	41.2	39.7	28.1	35.4	38.8	40.3	40.7	40.3	39.2	37.8
TRE10 - 15L	34.8	44.0	48.4	50.4	50.9	50.5	49.3	47.5	33.6	42.3	46.5	48.3	48.8	48.2	47.1	45.4
TRE20 - 15L	35.6	45.3	50.1	52.4	53.2	52.8	51.6	49.8	34.0	43.0	47.6	49.7	50.3	49.9	48.8	47.1
TRE20 - 20L	51.3	65.2	72.0	75.2	76.3	75.7	74.1	71.5	49.3	62.1	68.7	71.6	72.0	71.8	70.3	67.8
TRE20 - 25L	66.9	85.2	93.7	98.0	99.4	98.7	96.7	93.4	65.2	81.6	89.8	93.7	94.8	94.1	92.1	89.0
TRE40 - 25L	65.3	83.0	92.4	95.9	97.2	96.6	94.1	90.7	62.0	78.6	86.6	90.4	91.3	90.6	88.5	85.3
TRE40 - 35L	82.0	104.2	115.5	120.3	121.7	120.7	117.9	113.7	78.5	99.0	108.9	113.5	114.8	113.8	111.1	107.1
TRE40 - 40L	99.1	125.2	136.4	144.3	146.0	145.0	141.5	136.5	94.5	119.1	131.1	136.5	138.1	136.9	133.7	129.0
TRE40 - 55L	132.3	166.9	183.9	191.8	194.1	192.7	188.5	182.0	127.1	159.8	176.6	182.5	184.6	183.1	179.1	172.7
TRE80 - 55L	136.3	171.0	188.0	196.0	197.7	195.7	190.9	183.9	128.7	161.8	177.4	184.3	185.8	184.4	179.4	172.8
TRE80 - 80L	185.2	232.8	255.4	265.7	268.4	266.1	259.2	250.6	177.9	222.3	242.5	251.9	263.8	251.8	245.9	237.2
TRE80 - 100L	234.2	295.9	324.1	337.1	341.8	339.3	331.9	320.5	225.3	284.2	310.4	322.8	326.2	323.7	316.6	305.9

蒸发温度 -10℃

蒸发温度 -15℃

TRE10 - 8L	19.2	23.9	26.3	27.3	27.5	27.2	26.4	25.6	18.0	22.5	24.5	25.4	25.5	25.1	24.5	23.5
TRE10 - 10L	22.3	28.0	30.7	31.8	31.9	31.6	30.8	29.6	21.1	26.2	28.6	29.6	29.7	29.3	28.6	27.4
TRE10 - 12.5L	26.9	33.6	36.8	38.1	38.4	37.9	37.0	35.5	25.3	31.6	34.4	35.5	35.7	35.3	34.4	33.0
TRE10 - 15L	32.6	40.4	44.1	45.8	46.1	45.6	44.4	42.8	30.6	38.0	41.4	42.8	43.1	42.5	41.4	39.9
TRE20 - 15L	32.1	40.6	44.6	46.5	47.0	46.7	45.5	43.9	29.9	37.7	41.4	43.0	43.4	43.0	42.0	40.5
TRE20 - 20L	46.6	58.8	64.6	67.2	68.0	67.4	65.8	63.5	43.6	54.9	60.1	62.5	63.0	62.4	60.9	58.8
TRE20 - 25L	61.8	77.5	85	88.4	89.4	88.6	86.7	83.7	58.3	72.7	79.4	82.5	83.4	82.6	80.7	77.9
TRE40 - 25L	58.2	73.6	80.8	84.9	85.0	84.1	82.2	79.3	54.1	68.1	74.7	77.5	78.2	77.4	75.5	72.8
TRE40 - 35L	73.9	92.7	101.9	105.9	106.9	105.9	103.5	99.7	68.6	86.0	94.0	97.8	98.6	97.6	95.2	91.8
TRE40 - 40L	89.3	112.1	122.9	127.8	129.0	127.8	124.8	120.4	83.3	104.5	113.9	118.4	119.2	118.0	115.1	110.9
TRE40 - 55L	119.9	151.0	165.5	171.9	173.6	172.1	168.0	162.3	114.4	141.2	154.2	160.1	161.4	159.8	156.0	150.6
TRE80 - 55L	121.0	151.3	165.4	171.5	173.0	171.1	166.8	160.9	112.6	139.9	152.7	158.1	159.2	157.3	153.4	147.7
TRE80 - 80L	167.6	208.6	227.8	236.1	238.1	235.5	230.0	221.9	156.9	194.5	211.3	217.9	220.4	218.1	212.8	205.0
TRE80 - 100L	220.7	269.5	293.9	305.0	307.9	305.3	298.5	288.4	205.0	253.1	275.2	285.0	287.3	284.7	278.1	269.1

热力膨胀阀

TRE10, TRE20, TRE40, TRE80 型

制冷量 (N 系列和 K 系列)

R410A

制冷量单位: kW

开启过热度 OS = 4K

阀型和名义制冷量 Q _{nom} TR	阀两端压力降 Δp bar								阀两端压力降 Δp bar							
	3	6	9	12	15	18	21	24	3	6	9	12	15	18	21	24

蒸发温度 -20℃

蒸发温度 -25℃

TRE10-8L	16.7	20.7	22.5	23.3	23.4	23.0	22.3	21.5	15.3	18.9	20.3	21.1	21.2	20.8	20.2	19.4
TRE10-10L	19.5	24.2	26.4	27.1	27.3	26.9	26.1	25.1	17.9	22.2	24.0	24.7	24.8	24.4	23.7	22.7
TRE10-12.5L	23.6	29.2	31.8	32.8	32.9	32.4	31.5	30.3	21.7	26.8	28.9	29.9	29.9	29.4	28.6	27.5
TRE10-15L	28.6	35.4	38.4	39.6	39.8	39.2	38.2	36.7	26.4	32.5	35.2	36.2	36.3	35.7	34.7	33.4
TRE20-15L	27.7	34.6	37.9	39.3	39.7	39.2	38.3	36.9	25.3	31.5	34.4	35.6	35.8	35.4	34.5	33.2
TRE20-20L	40.8	50.6	55.6	57.4	57.8	57.2	55.8	53.8	37.2	46.2	50.3	52.1	52.4	51.8	50.4	48.6
TRE20-25L	54.3	67.4	73.4	76.1	76.8	76.0	74.2	71.6	50.1	61.7	67.1	69.4	69.9	69.1	67.4	65.0
TRE40-25L	50.0	62.3	68.1	70.7	71.2	71.1	68.5	66.1	45.3	56.4	61.5	63.7	64.1	63.2	61.6	59.3
TRE40-35L	63.3	78.3	86.2	89.3	90.0	88.9	86.6	83.5	57.6	71.6	78.0	80.7	81.1	80.1	78.0	75.1
TRE40-40L	76.6	95.8	104.6	108.0	109.0	107.7	105.0	101.2	70.6	87.1	94.7	97.9	98.5	97.2	94.7	91.2
TRE40-55L	105.3	130.6	142.1	147.2	148.3	146.7	143.1	138.1	96.6	119.3	129.6	133.9	134.8	133.1	129.8	125.1
TRE80-55L	103.4	127.9	142.0	144.0	145.0	143.1	139.4	134.2	94.1	115.9	125.9	130.1	130.6	128.9	125.3	120.6
TRE80-80L	145.1	179.0	194.4	200.8	202.0	199.7	194.6	187.7	132.8	162.9	176.6	182.2	183.1	180.8	176.0	169.5
TRE80-100L	191.2	234.5	254.8	263.4	265.3	262.6	256.3	247.4	176.2	215.3	233.2	240.8	242.1	239.4	233.5	225.2

蒸发温度 -30℃

蒸发温度 -35℃

TRE10-8L	13.9	17.1	18.4	18.9	18.9	18.6	18.0	17.3	12.4	15.2	16.4	16.8	16.6	16.5	15.9	15.2
TRE10-10L	16.3	20.0	21.6	22.2	22.3	21.8	21.2	20.3	14.6	17.9	19.2	19.7	19.7	19.3	18.7	17.9
TRE10-12.5L	19.8	24.2	26.2	26.9	26.9	26.4	25.6	24.6	17.9	21.7	23.4	24.0	23.9	23.5	22.7	21.8
TRE10-15L	24.1	29.5	31.8	32.7	32.7	32.2	31.2	30.0	21.7	26.5	28.5	29.2	29.2	28.7	27.8	26.6
TRE20-15L	22.8	28.3	30.8	31.8	32.0	31.5	30.7	29.5	20.4	25.1	27.3	28.1	28.2	27.8	27.0	26.0
TRE20-20L	33.7	41.7	45.3	46.7	46.9	46.3	45.1	43.4	30.2	37.1	40.2	41.5	41.6	41.0	39.9	38.3
TRE20-25L	45.4	55.9	60.6	62.6	62.9	62.1	60.5	58.3	40.7	50.0	54.0	55.7	56.0	55.2	53.7	51.7
TRE40-25L	40.7	50.6	55.0	56.8	57.0	56.2	54.7	52.6	36.3	44.8	48.6	50.1	50.2	49.5	48.0	46.2
TRE40-35L	51.9	64.2	69.8	72.1	72.4	71.3	69.4	66.5	46.3	57.0	61.7	63.6	63.8	62.8	61.1	58.7
TRE40-40L	63.4	78.3	85.0	87.7	88.0	86.8	84.5	81.3	56.6	69.5	75.3	77.6	77.8	76.6	74.5	71.6
TRE40-55L	87.7	107.7	116.8	120.5	121.0	119.5	116.3	112.0	78.6	96.2	104.0	107.1	107.5	106.0	103.0	99.2
TRE80-55L	84.6	104.4	112.6	116.0	116.3	114.6	111.5	107.2	74.6	92.2	99.5	102.4	102.6	101.0	98.1	94.2
TRE80-80L	118.3	146.7	158.6	163.6	164.0	161.8	157.4	151.5	107.1	130.7	141.0	145.0	145.4	143.2	139.2	133.8
TRE80-100L	160.3	194.9	210.9	217.5	218.5	215.7	210.2	202.4	143.8	174.8	188.6	194.2	194.9	192.2	187.0	180.0

蒸发温度 -40℃

TRE10-8L	11.0	13.4	14.4	14.7	14.7	14.4	13.9	13.3
TRE10-10L	12.9	15.8	16.9	17.3	17.3	16.9	16.4	15.6
TRE10-12.5L	15.8	19.2	20.6	21.1	21.0	20.6	19.9	19.1
TRE10-15L	19.3	23.4	25.2	25.8	25.7	25.2	24.4	23.4
TRE20-15L	17.9	22.1	23.9	24.6	24.7	24.3	23.6	22.6
TRE20-20L	26.7	32.7	35.3	36.4	36.4	35.9	34.8	33.5
TRE20-25L	36.2	44.2	47.7	49.1	49.2	48.5	47.1	45.3
TRE40-25L	31.9	39.2	42.4	43.7	43.7	43.0	41.8	40.1
TRE40-35L	40.9	50.0	54.0	55.6	55.7	54.8	53.1	51.0
TRE40-40L	49.9	61.1	66.0	67.9	68.0	66.9	64.9	62.4
TRE40-55L	69.6	84.8	91.4	94.2	94.4	92.9	90.3	86.7
TRE80-55L	66.1	80.9	87.1	89.4	89.5	88.0	85.3	81.9
TRE80-80L	94.6	115.0	123.9	127.3	127.4	125.3	121.7	116.9
TRE80-100L	127.8	154.7	166.7	171.5	171.8	169.2	164.4	158.1

 过冷度的修正系数 Δt₀

Δt ₀	4K	10K	15K	20K	25K	30K	35K	40K	45K	50K
R410A	1.00	1.08	1.15	1.21	1.27	1.33	1.39	1.45	1.50	1.56

热力膨胀阀

TRE10, TRE20, TRE40, TRE80 型

制冷量 (N 系列和 K 系列)

制冷量单位: kW

开启过热度 OS = 4K

R407C

阀型和名义制冷量 Q_{nom} TR	阀两端压力降 Δp bar								阀两端压力降 Δp bar							
	2	4	6	8	10	12	14	16	2	4	6	8	10	12	14	16

蒸发温度 +10°C

蒸发温度 +5°C

TRE10-8Z	18.4	23.7	26.4	27.9	28.6	29.3	28.6	28.1	17.7	22.7	25.2	26.5	27.1	27.3	27.0	26.6
TRE10-10Z	23.5	30.0	33.5	35.3	36.2	36.4	36.2	35.6	22.7	28.5	32.0	33.7	34.4	34.5	34.3	33.7
TRE20-10Z	24.1	30.9	34.5	36.6	37.6	38.1	37.6	36.9	23.0	29.4	32.8	34.5	35.4	35.5	35.3	34.6
TRE20-12.5Z	28.7	36.9	41.2	43.6	44.7	45.0	44.7	43.9	27.4	35.1	38.8	41.1	42.2	42.3	42.1	41.3
TRE20-15Z	35.3	45.1	50.6	53.2	54.6	54.9	54.5	53.6	33.8	43.1	47.8	50.4	51.6	51.8	51.4	50.5
TRE20-20Z	46.4	58.8	66.1	69.7	71.4	71.9	71.4	70.2	44.6	57.4	62.8	66.2	67.7	68.0	67.6	66.3
TRE40-20Z	46.4	59.7	66.8	71.1	72.5	72.9	72.6	71.3	44.1	56.6	63.1	66.5	68.2	68.6	68.0	66.8
TRE40-25Z	58.9	75.2	84.2	89.1	91.4	92.0	91.4	89.9	56.2	71.3	79.7	84.1	86.1	86.7	85.9	84.4
TRE40-30Z	70.6	90.3	100.8	106.6	109.3	110.1	109.0	107.5	67.4	86.4	95.9	100.8	103.2	103.6	102.8	101.1
TRE40-40Z	96.2	121.7	135.8	143.2	146.6	147.6	146.7	144.4	92.5	116.9	129.1	137.1	139.2	139.7	138.4	136.4
TRE80-40Z	96.1	123.5	135.8	143.3	146.7	147.5	146.4	143.9	91.0	115.6	128.0	134.8	138.2	138.1	136.8	134.4
TRE80-55Z	132.5	168.2	186.3	196.0	200.5	209.2	200.0	196.8	126.6	159.6	176.3	185.0	189.1	189.7	188.0	185.0
TRE80-70Z	171.7	215.3	237.5	252.0	256.0	257.2	256.0	252.0	163.5	205.5	226.6	237.6	242.7	244.0	244.9	238.3

蒸发温度 0°C

蒸发温度 -5°C

TRE10-8Z	17.0	21.5	23.8	25.0	25.5	25.6	25.3	24.9	16.1	20.1	22.3	23.3	23.8	23.8	23.5	23.0
TRE10-10Z	21.7	27.8	30.3	31.8	32.5	32.6	32.3	31.7	20.6	25.8	28.5	29.7	30.3	30.3	30.0	29.4
TRE20-10Z	21.7	27.6	30.6	32.2	32.9	33.0	32.4	32.1	20.2	25.6	28.3	29.8	30.4	30.4	30.1	29.1
TRE20-12.5Z	25.9	33.0	36.9	38.5	39.3	39.4	39.0	38.3	24.2	30.6	33.9	35.6	36.2	36.3	35.9	35.2
TRE20-15Z	32.0	40.5	44.9	47.1	48.2	48.3	47.8	46.9	29.9	37.7	41.7	43.7	44.4	44.6	44.1	43.2
TRE20-20Z	42.5	53.6	59.3	62.2	63.5	63.6	63.0	61.9	39.8	50.1	55.2	57.8	58.8	58.9	58.3	57.2
TRE40-20Z	41.7	53.0	59.0	62.1	62.8	63.7	63.2	61.9	38.9	49.2	54.5	57.2	58.4	58.5	57.9	56.8
TRE40-25Z	53.0	66.9	74.8	78.5	80.6	80.5	79.9	78.3	49.5	63.0	69.2	72.6	73.9	74.1	73.4	71.9
TRE40-30Z	63.7	81.0	89.8	94.3	96.3	96.7	95.7	94.0	60.1	75.5	83.4	87.3	89.0	89.1	88.2	86.4
TRE40-40Z	88.0	110.4	121.8	127.8	130.5	130.9	129.8	127.5	82.3	103.0	113.6	118.8	121.0	121.2	118.7	117.8
TRE80-40Z	85.5	107.9	119.3	125.0	127.6	128.1	126.1	124.4	79.4	99.9	112.1	115.2	117.4	117.5	116.1	113.9
TRE80-55Z	119.5	150.9	165.1	173.0	176.1	176.9	175.2	172.0	111.7	139.5	153.1	160.1	162.9	163.1	161.4	158.3
TRE80-70Z	155.9	194.4	213.5	223.5	228.1	229.0	227.1	223.0	146.4	181.8	198.9	208.1	212.0	212.4	210.3	206.5

蒸发温度 -10°C

蒸发温度 -15°C

TRE10-8Z	15.0	18.8	20.6	21.5	21.9	21.9	21.6	21.1	13.8	17.2	18.9	19.7	19.9	19.9	19.6	19.1
TRE10-10Z	19.3	24.0	26.4	27.5	28.0	28.0	27.6	27.0	17.9	22.2	24.2	25.2	25.6	25.5	25.2	24.6
TRE20-10Z	18.7	23.5	26.0	27.2	27.7	27.7	27.3	26.7	17.1	21.3	23.5	24.6	24.9	24.9	24.6	24.0
TRE20-12.5Z	22.4	28.3	31.1	32.5	33.1	33.1	32.7	31.9	20.6	25.7	28.2	29.4	29.9	29.8	29.4	28.7
TRE20-15Z	27.7	34.8	38.3	40.0	40.6	40.6	40.2	39.3	25.4	31.7	34.8	36.2	36.8	36.7	36.2	35.4
TRE20-20Z	37.0	46.3	50.8	53.1	54.0	53.0	53.3	52.2	34.1	42.4	46.4	48.3	49.0	48.9	48.2	47.1
TRE40-20Z	35.9	45.2	49.8	52.3	53.2	52.6	52.6	51.5	32.7	41.1	45.2	47.2	48.0	47.9	47.2	46.2
TRE40-25Z	45.8	57.6	63.4	66.3	67.5	67.5	66.7	65.3	41.9	52.4	57.5	60.0	60.9	60.9	60.0	58.7
TRE40-30Z	55.7	69.5	76.5	79.9	81.3	81.3	80.3	78.7	50.8	63.2	69.8	72.4	73.5	73.4	72.4	70.8
TRE40-40Z	76.5	95.3	104.1	109.3	111.1	111.2	109.9	107.7	70.2	87.3	95.4	99.4	100.9	100.8	99.5	97.4
TRE80-40Z	73.3	91.7	100.5	105.1	106.7	106.8	105.7	103.2	66.8	83.1	90.9	94.7	96.2	96.0	94.7	92.6
TRE80-55Z	102.3	128.3	140.4	146.4	148.8	148.9	147.1	144.2	95.7	116.8	127.3	132.7	134.7	134.7	132.8	129.9
TRE80-70Z	136.4	168.1	183.7	191.6	194.9	195.1	193.0	189.3	124.6	154.0	160.5	174.6	177.4	177.3	175.2	171.6

热力膨胀阀

TRE10, TRE20, TRE40, TRE80 型

制冷量 (N 系列和 K 系列)

R407C

制冷量单位: kW

开启过热度 OS = 4K

阀型和名义制冷量 Q_{nom} TR	阀两端压力降 Δp_{bar}								阀两端压力降 Δp_{bar}							
	2	4	6	8	10	12	14	16	2	4	6	8	10	12	14	16

 蒸发温度 $-20^{\circ}C$

 蒸发温度 $-25^{\circ}C$

TRE10-8Z	12.6	15.7	17.1	17.8	18.0	17.9	17.6	17.2	11.4	14.1	15.3	15.9	16.0	15.9	15.7	15.3
TRE10-10Z	16.3	20.2	22.0	22.8	23.1	23.0	22.7	22.1	14.8	18.2	19.8	20.5	20.7	20.6	20.2	19.7
TRE20-10Z	15.4	19.4	21.1	22.0	22.3	22.2	21.9	21.3	13.8	17.2	18.7	19.4	19.7	19.6	19.2	18.8
TRE20-12.5Z	18.6	23.1	25.3	26.4	26.7	26.6	26.2	25.5	16.7	20.6	22.5	23.3	23.6	23.5	23.1	22.5
TRE20-15Z	23.0	28.3	31.3	32.5	32.9	32.8	32.3	31.5	20.6	25.5	27.8	28.8	29.2	29.0	28.5	27.8
TRE20-20Z	31.0	38.3	41.8	43.4	44.0	43.8	43.2	42.2	27.9	34.3	37.3	38.7	39.1	38.9	38.3	37.3
TRE40-20Z	29.6	36.9	40.5	42.2	42.8	42.6	42.0	41.0	26.5	32.8	35.9	37.3	37.7	37.6	37.0	36.0
TRE40-25Z	37.9	47.2	51.6	53.7	54.3	54.2	53.5	52.2	33.8	42.0	45.8	47.5	48.1	47.9	47.1	46.0
TRE40-30Z	46.0	57.1	62.4	64.8	65.8	65.6	64.6	63.1	41.2	50.9	55.4	57.6	58.2	58.0	57.1	55.7
TRE40-40Z	64.1	77.4	86.0	89.5	90.7	90.5	89.2	86.6	57.5	70.6	76.8	79.7	80.7	80.4	79.1	77.3
TRE80-40Z	59.8	74.5	81.3	84.6	85.8	85.5	84.2	82.3	53.7	66.2	72.1	74.8	75.7	75.4	74.2	72.3
TRE80-55Z	85.6	105.2	114.6	119.1	120.7	120.4	118.7	116.0	76.8	93.7	101.9	105.7	107.0	106.6	104.9	102.4
TRE80-70Z	113.8	139.3	151.5	157.5	159.8	159.5	157.4	153.9	102.5	124.8	135.4	140.6	142.4	141.9	139.9	136.7

 蒸发温度 $-30^{\circ}C$

 蒸发温度 $-35^{\circ}C$

TRE10-8Z	10.2	12.5	13.6	14.0	14.2	14.0	13.8	13.4	9.0	11.0	11.9	12.3	12.4	12.2	12.0	11.6
TRE10-10Z	13.3	16.2	17.5	18.1	18.3	18.2	17.8	17.4	11.7	14.3	15.4	15.9	16.0	15.9	15.6	15.1
TRE20-10Z	12.3	15.1	16.5	17.0	17.2	17.1	16.8	16.3	10.7	13.2	14.3	14.8	14.9	14.8	14.5	14.1
TRE20-12.5Z	14.8	18.2	19.8	20.5	20.7	20.5	20.2	19.6	12.9	15.9	17.3	17.8	17.9	17.8	17.4	16.9
TRE20-15Z	18.3	22.5	24.5	25.3	25.7	25.4	24.9	24.3	16.1	19.7	21.3	22.0	22.2	22.0	21.6	21.0
TRE20-20Z	24.8	30.3	32.9	34.0	34.4	34.1	33.5	32.7	21.6	26.5	28.7	29.7	29.9	29.7	29.1	28.3
TRE40-20Z	23.4	28.9	31.5	32.6	33.0	32.8	32.2	31.4	20.5	25.4	27.4	28.3	28.5	28.3	27.8	27.0
TRE40-25Z	29.9	37.0	40.2	41.7	42.1	41.9	41.1	40.0	26.5	32.3	35.0	36.2	36.5	36.2	35.5	34.5
TRE40-30Z	36.6	44.9	48.8	50.5	51.1	50.8	49.9	48.6	32.1	39.2	42.5	44.0	44.3	44.0	43.2	42.0
TRE40-40Z	51.2	62.6	67.8	70.2	71.0	70.6	69.4	67.7	45.0	54.8	59.3	61.3	61.8	61.4	60.3	58.7
TRE80-40Z	47.5	58.3	63.3	65.5	66.2	65.8	64.7	63.0	41.5	50.7	55.0	56.9	57.7	56.9	55.8	54.3
TRE80-55Z	68.0	82.8	89.7	92.9	94.0	93.4	91.9	89.6	59.5	72.3	78.2	80.9	81.7	81.1	79.7	77.5
TRE80-70Z	91.2	110.7	119.9	124.2	125.6	125.1	123.1	120.0	80.2	97.0	104.9	108.6	109.7	109.0	107.2	104.4

 蒸发温度 $-40^{\circ}C$

TRE10-8Z	7.9	9.6	10.3	10.6	10.7	10.6	10.3	10.0
TRE10-10Z	10.3	12.4	13.4	13.8	13.9	13.7	13.4	13.0
TRE20-10Z	9.3	11.4	12.3	12.7	12.8	12.7	12.4	12.0
TRE20-12.5Z	11.2	13.7	14.8	15.3	15.4	15.2	14.9	14.4
TRE20-15Z	14.0	17.0	18.4	19.0	19.1	18.9	18.5	17.9
TRE20-20Z	18.9	23.0	24.8	25.6	25.8	25.5	25.0	24.3
TRE40-20Z	17.8	21.7	23.5	24.3	24.5	24.2	23.7	23.0
TRE40-25Z	22.8	27.9	30.1	31.1	31.3	31.0	30.4	29.5
TRE40-30Z	27.9	33.9	36.6	37.8	38.1	37.7	37.0	35.9
TRE40-40Z	39.1	47.5	51.3	52.9	53.3	52.9	51.8	50.3
TRE80-40Z	36.1	43.9	47.5	49.1	49.5	49.1	48.1	46.8
TRE80-55Z	51.8	62.8	67.9	70.2	70.7	70.2	68.9	67.0
TRE80-70Z	70.2	84.7	91.5	94.6	95.4	94.8	93.1	90.6

 过冷度的修正系数 Δt_c

Δt_c	4K	10K	15K	20K	25K	30K	35K	40K	45K	50K
R407C	1.00	1.08	1.14	1.21	1.27	1.33	1.39	1.45	1.51	1.57

热力膨胀阀

TRE10, TRE20, TRE40, TRE80 型

制冷量 (N 系列和 K 系列)

R134a

制冷量单位: kW

开启过热度 OS = 4K

阀型和名义制冷量 Q _{nom} TR	阀两端压力降 Δpbar								阀两端压力降 Δpbar							
	2	4	6	8	10	12	14	16	2	4	6	8	10	12	14	16

蒸发温度 +10℃

蒸发温度 +5℃

TRE10 -5N	15.8	19.6	21.6	22.0	22.0	21.7	21.2	20.5	15.0	18.5	20.0	20.5	20.6	20.3	19.7	19.0
TRE10 -7N	19.9	24.5	26.6	27.4	27.6	27.2	26.5	25.7	20.0	23.2	25.1	25.8	25.8	25.4	24.7	23.9
TRE20 -7N	22.2	27.6	30.0	31.0	31.0	30.5	29.6	28.6	21.1	26.0	28.1	28.8	28.8	28.3	27.4	26.4
TRE20 -9N	26.6	32.9	35.8	36.7	36.7	36.2	35.2	33.9	25.2	31.0	33.4	34.2	34.2	33.6	32.6	31.4
TRE20 -11N	32.6	40.2	43.6	45.0	45.0	44.3	43.1	41.6	31.0	37.9	41.0	42.0	42.0	41.2	40.1	38.6
TRE20 -14N	42.2	52.4	56.6	58.3	58.4	57.6	56.0	54.1	40.2	49.6	53.4	54.8	54.7	53.8	52.3	50.2
TRE40 -14N	39.4	49.1	53.5	55.3	55.6	54.9	53.5	51.6	36.9	45.7	49.5	51.0	51.1	50.3	49.0	47.2
TRE40 -16N	49.9	61.8	67.1	69.3	69.6	68.8	67.1	64.8	46.5	57.5	62.2	64.0	64.2	63.2	61.5	59.3
TRE40 -20N	60.1	74.5	80.8	83.4	83.8	82.7	80.7	77.9	56.4	69.4	75.1	77.2	77.2	76.2	74.2	71.6
TRE40 -25N	81.3	100.2	108.5	111.9	112.5	111.1	108.5	105.0	76.9	94.0	101.3	104.0	104.4	103.6	100.3	96.9
TRE80 -25N	79.9	98.3	106.6	109.8	110.2	108.7	106.0	102.3	74.3	91.1	98.2	100.9	101.0	99.5	96.8	93.3
TRE80 -35N	111.5	135.9	146.9	151.2	151.8	149.9	146.3	141.4	103.8	127.0	136.0	139.7	139.9	137.9	134.3	129.7
TRE80 -45N	140.4	174.1	187.8	193.5	194.4	192.3	188.0	182.0	137.6	163.1	173.5	180.3	180.5	178.2	173.8	168.1

蒸发温度 0℃

蒸发温度 -5℃

TRE10 -5N	14.2	17.3	18.6	19.0	19.0	18.7	18.1	17.4	13.2	16.0	17.1	17.5	17.4	17.0	16.5	15.8
TRE10 -7N	17.9	21.8	23.4	24.0	23.9	23.5	22.8	22.0	16.8	20.2	21.6	22.0	22.0	21.5	20.8	20.0
TRE20 -7N	19.8	24.2	26.1	26.7	26.6	26.6	26.0	25.2	18.4	22.4	23.9	24.4	24.2	23.7	22.8	21.8
TRE20 -9N	23.7	28.9	31.0	31.7	31.6	30.9	30.0	28.6	22.0	26.7	28.6	29.1	28.9	28.2	27.2	26.0
TRE20 -11N	29.3	35.6	37.4	39.0	38.8	38.0	36.8	35.4	27.3	32.9	35.2	35.8	35.5	34.8	33.6	32.1
TRE20 -14N	38.9	46.6	49.7	51.0	50.8	49.8	48.3	46.4	36.0	43.3	46.1	47.0	46.7	45.7	43.6	42.3
TRE40 -14N	34.1	41.9	45.3	46.5	46.5	45.7	44.3	42.6	31.1	38.1	41.0	41.9	41.8	41.0	39.7	38.1
TRE40 -16N	43.1	52.8	56.7	58.5	58.3	57.5	55.8	53.7	39.5	48.1	51.7	52.8	52.7	51.7	50.1	48.1
TRE40 -20N	52.4	64.1	68.9	70.7	70.6	69.4	67.5	64.9	48.1	58.4	62.6	64.0	63.8	62.5	60.7	58.3
TRE40 -25N	71.7	87.1	93.5	95.9	95.8	94.3	91.7	88.5	65.2	79.7	85.3	87.3	87.0	85.5	82.9	79.8
TRE80 -25N	68.2	83.4	89.5	91.7	91.6	90.0	87.4	84.1	62.3	75.5	80.8	82.5	82.3	80.7	78.2	75.1
TRE80 -35N	96.1	116.4	124.7	127.7	127.7	125.6	122.1	117.6	88.4	105.9	113.2	115.6	115.3	113.2	109.8	105.6
TRE80 -45N	125.6	151.1	161.8	165.8	165.7	163.4	159.4	153.5	115.6	138.5	147.7	151.1	150.7	148.2	144.0	138.7

蒸发温度 -10℃

蒸发温度 -15℃

TRE10 -5N	12.2	14.6	15.6	15.9	15.7	15.4	14.8	14.2	11.1	13.2	14.0	14.2	14.1	13.7	13.2	12.6
TRE10 -7N	15.4	18.5	19.7	20.0	19.9	19.5	18.8	18.0	14.1	16.8	17.8	18.0	17.9	17.4	16.8	16.0
TRE20 -7N	16.9	20.4	21.8	22.1	21.9	21.2	20.5	19.5	15.4	18.5	19.6	19.8	19.5	18.9	18.2	17.3
TRE20 -9N	20.3	24.4	26.0	26.4	26.1	25.4	24.5	23.3	18.5	22.1	23.4	23.6	23.3	22.6	21.7	20.7
TRE20 -11N	25.1	30.2	32.0	32.5	32.2	31.4	30.2	28.9	22.9	27.3	28.9	29.2	28.8	28.0	26.9	25.6
TRE20 -14N	33.3	39.8	42.2	42.8	42.4	41.5	40.0	38.2	30.5	36.1	38.2	38.6	38.2	37.1	35.7	34.0
TRE40 -14N	28.3	34.2	36.7	37.4	37.3	36.4	35.2	33.7	25.2	30.5	32.4	32.6	32.7	32.0	30.8	29.5
TRE40 -16N	35.7	43.3	46.3	47.2	47.0	45.9	44.4	42.6	32.1	38.5	41.1	41.8	41.4	40.4	39.0	37.3
TRE40 -20N	43.7	52.6	56.2	57.3	57.0	55.8	54.0	51.7	39.1	46.9	49.9	50.8	50.4	49.2	47.5	45.4
TRE40 -25N	60.2	72.2	77.1	78.5	78.2	76.6	74.2	71.1	54.2	64.7	68.8	69.9	69.4	68.1	65.5	62.8
TRE80 -25N	56.1	67.6	72.2	73.5	73.1	71.6	69.2	66.4	50.2	60.1	63.8	64.8	64.3	62.8	60.6	58.0
TRE80 -35N	79.8	94.4	101.6	103.5	103.0	100.9	97.7	93.8	71.4	84.9	90.2	91.6	91.1	89.1	86.1	82.4
TRE80 -45N	105.7	125.3	133.6	136.1	135.6	133.2	129.0	123.9	94.7	112.2	119.2	121.3	120.8	118.0	114.2	109.5

热力膨胀阀

TRE10, TRE20, TRE40, TRE80 型

制冷量 (N 系列和 K 系列)

制冷量单位: kW

开启过热度 OS = 4K

R134a

阀型和名义制冷量 Q_{nom} TR	阀两端压力降 Δp_{bar}								阀两端压力降 Δp_{bar}							
	2	4	6	8	10	12	14	16	2	4	6	8	10	12	14	16

蒸发温度 +10℃

蒸发温度 +5℃

TRE10 -5N	9.9	11.7	12.5	12.6	12.5	12.1	11.6	11.1	8.8	10.4	11.0	11.1	10.9	10.6	10.1	9.6
TRE10 -7N	12.7	15.0	15.9	16.1	15.9	15.4	14.8	14.1	11.3	13.3	14.0	14.1	13.9	13.5	13.0	12.3
TRE20 -7N	13.9	16.5	17.6	17.5	17.2	16.7	16.0	15.1	12.3	14.5	15.3	15.3	15.0	14.5	13.9	13.1
TRE20 -9N	16.6	19.7	20.8	20.9	20.6	20.0	19.1	18.1	14.7	17.4	18.3	18.4	18.0	17.4	16.6	15.7
TRE20 -11N	20.6	24.4	25.7	25.9	25.5	24.8	23.7	22.5	18.4	21.6	22.7	22.8	22.4	21.6	20.7	19.6
TRE20 -14N	27.5	32.4	34.2	34.5	33.9	32.9	31.6	30.0	24.6	28.8	30.3	30.4	29.8	28.9	27.6	26.2
TRE40 -14N	22.3	26.7	28.4	28.8	28.5	27.8	26.7	25.5	19.5	23.3	24.6	24.9	24.6	23.9	22.9	21.8
TRE40 -16N	28.4	34.0	36.0	36.5	36.1	35.1	33.9	32.3	24.9	29.2	31.3	31.6	31.2	30.3	29.2	27.7
TRE40 -20N	34.4	41.3	43.9	44.5	43.9	42.9	41.3	39.4	30.4	36.1	38.1	38.6	38.1	37.0	35.6	33.8
TRE40 -25N	48.4	57.3	60.7	61.6	61.0	59.5	57.3	54.7	42.5	50.1	53.0	53.6	53.0	51.5	49.5	47.2
TRE80 -25N	44.2	52.6	55.8	56.6	56.0	54.6	52.6	50.2	38.6	45.7	48.3	48.9	48.3	46.9	45.1	43.0
TRE80 -35N	63.2	74.9	79.3	80.5	79.7	77.8	75.0	71.6	55.4	65.3	69.0	69.8	69.0	67.2	64.6	61.6
TRE80 -45N	84.2	99.5	105.4	107.0	106.1	103.6	100.0	95.7	74.1	87.1	92.1	93.3	92.3	90.0	86.7	82.6

蒸发温度 -30℃

蒸发温度 -35℃

TRE10 -5N	7.7	9.1	9.6	9.6	9.4	9.1	8.7	8.2	6.7	7.9	8.2	8.2	8.0	7.8	7.4	7.0
TRE10 -7N	10.0	11.6	12.2	12.3	12.1	11.7	11.1	10.6	8.6	10.1	10.5	10.5	10.3	10.0	9.5	9.0
TRE20 -7N	10.8	12.7	13.3	13.3	13.0	12.5	11.9	11.2	9.4	10.9	11.4	11.4	11.1	10.6	10.1	9.5
TRE20 -9N	13.0	15.2	15.9	15.9	15.6	15.0	14.3	13.5	11.3	13.1	13.7	13.6	13.3	12.8	12.1	11.4
TRE20 -11N	16.2	18.9	19.8	19.8	19.4	18.7	17.8	16.8	14.0	16.3	17.0	17.0	16.6	15.9	15.1	14.2
TRE20 -14N	21.7	25.2	26.4	26.5	25.9	25.0	23.8	22.5	18.8	21.7	22.8	22.8	22.2	21.4	20.3	19.1
TRE40 -14N	16.9	20.0	21.1	21.3	21.0	20.3	19.5	18.5	14.5	17.0	17.9	18.0	17.7	17.1	16.3	15.5
TRE40 -16N	21.5	25.5	26.8	27.1	26.7	25.8	24.7	23.5	18.5	21.7	22.8	22.9	22.5	21.8	20.8	19.7
TRE40 -20N	26.4	31.1	32.8	33.1	32.6	31.6	30.3	28.7	22.7	26.6	27.9	28.1	27.6	26.7	25.5	24.1
TRE40 -25N	36.9	43.4	45.7	46.1	45.5	44.1	42.3	40.2	31.7	37.2	39.0	39.3	38.7	37.4	35.8	33.9
TRE80 -25N	33.3	39.3	41.4	41.8	41.2	40.0	38.3	36.4	28.5	33.4	35.1	35.4	34.8	33.7	32.2	30.5
TRE80 -35N	48.0	56.3	59.4	60.0	59.2	57.4	55.1	52.4	41.1	48.1	50.6	50.9	50.0	48.6	46.5	44.1
TRE80 -45N	64.4	75.5	79.6	80.5	79.5	77.2	74.2	70.6	55.4	64.7	68.1	68.7	67.6	65.6	62.8	59.6

蒸发温度 -40℃

TRE10 -5N	5.8	6.7	7.0	7.0	6.8	6.5	6.2	5.8
TRE10 -7N	7.4	8.6	9.0	9.0	8.7	8.4	8.0	7.5
TRE20 -7N	8.0	9.3	9.7	9.6	9.3	8.9	8.5	7.9
TRE20 -9N	9.6	11.2	11.4	11.6	11.2	10.7	10.2	9.5
TRE20 -11N	11.9	13.9	14.5	14.4	14.0	13.4	12.7	11.9
TRE20 -14N	16.2	18.7	19.5	19.4	18.9	18.1	17.1	16.1
TRE40 -14N	12.2	14.4	15.0	15.1	14.8	14.3	13.6	12.8
TRE40 -16N	15.6	18.3	19.2	19.2	18.8	18.2	17.3	16.3
TRE40 -20N	19.2	22.4	23.5	23.6	23.1	22.3	21.3	20.1
TRE40 -25N	27.0	31.5	33.0	33.1	32.5	31.4	29.9	28.3
TRE80 -25N	24.1	28.2	29.5	29.6	29.1	28.1	26.8	25.3
TRE80 -35N	34.8	40.6	42.6	42.8	42.1	40.6	38.8	36.7
TRE80 -45N	47.1	54.9	57.7	58.0	57.0	55.1	52.6	49.8

过冷度的修正系数 Δt_c

Δt_c	4K	10K	15K	20K	25K	30K	35K	40K	45K	50K
R134a	1.00	1.08	1.13	1.19	1.25	1.31	1.37	1.42	1.48	1.54

热力膨胀阀
TRE10, TRE20, TRE40, TRE80 型

制冷量 (N 系列和 K 系列)

R404A

制冷量单位: kW

开启过热度 OS = 4K

阀型和名义制冷量 Q _{nom} TR	阀两端压力降 Δpbar								阀两端压力降 Δpbar							
	2	4	6	8	10	12	14	16	2	4	6	8	10	12	14	16

蒸发温度 +10℃

蒸发温度 +5℃

TRE10 -6.5S	15.4	19.5	21.4	22.2	22.3	21.9	21.3	20.3	15.1	19.1	20.9	21.6	21.6	21.3	20.6	19.7
TRE10 -8S	19.3	24.2	26.6	27.5	27.6	27.2	26.4	25.2	19.0	23.8	26.0	26.9	27.1	26.4	25.6	24.5
TRE20 -8S	20.6	26.1	28.7	29.8	30.0	29.5	28.6	27.3	20.1	25.3	27.8	28.6	28.9	28.4	27.5	26.3
TRE20 -10S	24.6	30.9	34.0	35.3	35.4	35.0	33.9	32.4	24.0	30.0	33.1	34.2	34.4	33.7	32.6	31.1
TRE20 -12S	30.0	37.9	41.6	43.8	43.4	42.6	41.2	39.5	29.4	36.9	40.4	41.8	41.9	41.2	39.9	38.1
TRE20 -16S	39.0	49.0	53.7	55.6	55.8	54.9	53.2	50.9	38.4	47.9	52.3	54.0	54.1	53.2	51.5	49.2
TRE40 -16S	39.1	49.6	54.2	56.5	57.0	56.1	54.4	51.9	38.0	47.9	52.9	54.6	54.7	53.8	52.1	49.8
TRE40 -20S	48.9	62.0	67.9	70.7	71.1	69.9	67.8	63.7	47.9	60.1	66.1	68.2	68.4	67.4	65.2	62.3
TRE40 -25S	59.1	74.4	80.8	84.6	85.1	83.5	81.2	77.8	57.6	72.4	78.2	82.1	82.3	80.8	78.3	74.8
TRE40 -30S	78.4	99.2	108.4	112.1	112.6	110.8	107.3	102.9	77.0	96.6	105.4	108.9	109.3	107.6	104.1	99.7
TRE80 -30S	80.0	100.3	109.9	113.6	113.9	112.0	108.5	103.6	77.6	96.9	105.2	109.1	109.2	107.1	102.6	99.0
TRE80 -40S	109.3	136.4	145.4	154.2	154.1	151.6	147.6	140.5	106.6	132.2	144.0	148.3	148.3	146.0	141.5	135.0
TRE80 -55S	138.7	171.9	187.0	193.0	194.6	190.8	185.0	177.2	136.5	167.9	182.2	187.7	188.0	184.8	179.1	171.6

蒸发温度 0℃

蒸发温度 -5℃

TRE10 -6.5S	14.7	18.5	20.1	20.4	20.8	20.4	19.7	18.8	14.2	17.6	19.2	19.7	19.7	19.3	18.6	17.8
TRE10 -8S	18.6	23.1	25.1	25.9	25.9	25.4	24.6	23.5	17.9	22.2	24.0	24.7	24.6	24.1	23.3	22.2
TRE20 -8S	19.4	24.4	26.5	27.7	27.5	27.0	26.1	24.9	18.4	23.1	25.1	25.8	25.8	25.2	24.4	23.2
TRE20 -10S	23.1	28.8	31.6	32.6	32.7	32.0	30.9	29.5	22.1	27.6	29.9	30.7	30.7	30.2	29.0	27.7
TRE20 -12S	28.4	35.7	38.8	40.0	40.0	39.2	37.9	36.2	27.1	33.8	36.7	37.8	37.7	36.9	35.6	34.0
TRE20 -16S	37.3	46.2	50.4	51.8	51.9	50.9	49.2	47.1	35.7	44.2	47.9	49.0	49.0	48.0	46.9	44.3
TRE40 -16S	36.5	45.8	50.5	51.8	52.0	50.9	49.3	47.1	34.7	43.3	47.3	48.7	48.7	47.7	46.1	44.0
TRE40 -20S	46.1	57.7	62.9	65.1	65.1	63.9	61.9	59.1	43.9	54.6	59.4	61.2	61.1	59.8	57.9	55.2
TRE40 -25S	55.6	69.7	76.9	78.3	78.4	76.9	74.4	71.1	53.0	66.0	71.7	73.8	73.7	72.2	69.8	66.6
TRE40 -30S	74.7	93.5	101.5	104.6	104.6	102.8	99.5	95.1	71.5	89.1	95.7	99.1	99.0	97.0	93.8	89.7
TRE80 -30S	74.3	92.3	100.3	103.4	103.5	101.2	97.7	93.4	70.0	85.8	94.2	96.3	96.4	94.5	91.0	87.0
TRE80 -40S	102.8	127.3	137.5	136.7	141.6	138.8	134.2	128.3	97.7	120.3	129.9	133.3	133.0	130.3	125.8	120.1
TRE80 -55S	132.9	162.1	176.5	180.2	180.2	176.8	171.3	164.0	126.3	154.1	166.8	170.8	170.3	167.3	161.8	154.4

蒸发温度 -10℃

蒸发温度 -15℃

TRE10 -6.5S	13.5	16.8	18.1	18.5	18.5	18.0	17.4	16.6	12.7	15.7	16.9	17.2	17.5	16.7	16.1	15.3
TRE10 -8S	17.1	21.1	22.6	23.3	23.2	22.7	21.8	20.8	16.2	19.8	21.2	21.7	21.5	21.0	20.2	19.2
TRE20 -8S	17.4	21.6	23.4	24.0	23.9	23.4	22.5	21.4	16.2	20.0	21.6	22.0	22.2	21.4	20.6	19.5
TRE20 -10S	20.8	25.8	27.9	28.6	28.5	27.9	26.8	25.6	19.4	23.9	25.7	26.3	26.2	25.5	24.5	23.3
TRE20 -12S	25.8	31.8	34.4	35.2	35.1	34.3	33.0	31.5	24.1	29.5	31.8	32.5	32.3	31.4	30.3	28.8
TRE20 -16S	33.8	41.7	44.9	46.0	45.8	44.8	43.2	41.2	31.7	38.8	41.7	42.6	42.3	41.3	39.8	37.9
TRE40 -16S	32.5	40.6	43.9	45.2	45.1	44.1	42.5	40.4	30.3	37.4	40.5	41.4	41.2	40.2	38.7	36.9
TRE40 -20S	41.2	51.2	55.4	56.6	56.7	55.4	53.5	51.0	38.4	47.3	51.0	52.2	51.9	50.7	48.8	46.4
TRE40 -25S	50.0	61.9	67.0	68.7	68.5	67.0	64.6	61.6	46.5	57.7	61.7	63.2	62.9	61.5	59.1	56.3
TRE40 -30S	68.9	84.0	90.6	92.8	92.5	90.5	87.3	83.3	64.0	78.5	84.1	85.9	85.4	83.4	80.4	76.5
TRE80 -30S	65.8	81.0	87.4	89.5	88.7	87.2	84.0	79.9	60.8	74.7	80.3	82.0	81.3	79.5	76.5	72.8
TRE80 -40S	92.3	112.7	120.8	124.1	123.6	120.9	116.5	111.2	85.8	103.6	112.0	114.2	113.5	110.8	106.7	101.5
TRE80 -55S	119.7	145.7	156.6	160.0	159.5	156.2	150.9	144.1	112.7	136.2	145.4	148.5	147.5	144.2	139.0	132.6

热力膨胀阀

TRE10, TRE20, TRE40, TRE80 型

制冷量 (N 系列和 K 系列)

R404A

制冷量单位: kW

开启过热度 OS = 4K

阀型和名义制冷量 Q_{nom} TR	阀两端压力降 Δp_{bar}								阀两端压力降 Δp_{bar}							
	2	4	6	8	10	12	14	16	2	4	6	8	10	12	14	16

蒸发温度 -20°C

蒸发温度 -25°C

TRE10-6.5S	12.0	14.5	15.6	15.8	15.7	15.3	15.0	13.9	11.0	13.3	14.2	14.4	14.2	13.8	13.2	12.5
TRE10-8S	15.1	18.4	19.7	20.0	19.8	19.3	18.5	17.6	14.0	16.5	17.9	18.2	17.9	17.4	16.7	15.8
TRE20-8S	14.9	18.3	19.6	20.0	19.8	19.3	18.5	17.6	13.5	16.5	17.7	18.0	17.8	17.2	16.5	15.8
TRE20-10S	17.8	21.9	23.5	23.9	23.7	23.1	22.1	21.0	16.2	19.8	20.9	21.5	21.2	20.6	19.8	18.7
TRE20-12S	22.2	27.0	29.2	29.6	29.3	28.5	27.4	26.0	20.2	24.6	26.2	26.6	26.3	25.5	24.5	23.2
TRE20-16S	29.5	36.4	38.3	39.0	38.6	37.6	36.1	34.3	27.0	32.6	34.7	35.2	34.8	33.8	32.4	30.7
TRE40-16S	27.9	34.2	36.8	37.5	37.3	36.3	34.9	33.1	25.2	30.8	33.0	33.7	33.3	32.4	31.0	29.4
TRE40-20S	35.3	42.9	46.6	47.4	47.0	45.8	44.0	41.8	32.1	39.1	41.8	42.6	42.1	40.9	39.2	37.2
TRE40-25S	42.8	52.6	56.4	57.5	57.1	55.6	53.4	50.8	39.5	47.7	50.9	51.6	51.2	49.8	47.7	45.2
TRE40-30S	59.2	72.1	77.1	78.5	77.9	75.9	73.0	69.4	54.3	65.7	69.8	70.9	70.2	68.3	65.5	62.2
TRE80-30S	55.9	68.0	72.8	74.2	73.6	71.6	68.9	65.4	50.6	61.3	65.4	66.4	65.7	63.9	61.2	58.1
TRE80-40S	79.1	95.6	102.1	104.0	103.1	100.4	96.6	91.8	73.4	87.2	92.8	94.4	93.4	90.9	87.3	83.0
TRE80-55S	104.1	125.3	133.6	136.0	134.1	132.4	126.7	120.5	95.3	114.0	121.3	123.0	122.2	118.6	114.0	108.2

蒸发温度 -30°C

蒸发温度 -35°C

TRE10-6.5S	10.0	12.0	12.7	12.9	12.7	12.3	11.7	11.1	9.0	10.7	11.3	11.4	11.2	10.8	10.3	9.7
TRE10-8S	12.7	15.3	16.2	16.4	16.1	15.6	14.9	14.1	11.5	13.7	14.4	14.6	14.3	13.8	13.2	12.4
TRE20-8S	12.2	14.8	15.7	15.9	15.7	15.2	14.5	13.7	10.8	13.1	13.8	14.0	13.8	13.3	12.7	11.9
TRE20-10S	14.6	17.7	18.9	19.1	18.8	18.2	17.4	16.5	13.0	15.7	16.6	16.8	16.5	15.9	15.2	14.3
TRE20-12S	18.2	22.0	23.4	23.7	23.4	22.6	21.6	20.4	16.2	19.5	20.7	20.9	20.5	19.8	18.9	17.8
TRE20-16S	24.4	29.3	31.0	31.4	30.9	30.0	28.7	27.2	21.8	25.9	27.5	27.8	27.3	26.4	25.2	23.7
TRE40-16S	22.7	27.5	29.3	29.8	29.4	28.5	27.3	25.8	20.1	24.3	25.8	26.1	25.7	24.9	23.7	22.4
TRE40-20S	28.9	34.9	37.3	37.8	37.3	36.1	34.6	32.8	25.7	30.9	32.8	33.1	32.6	31.5	30.1	28.4
TRE40-25S	35.3	42.6	45.4	46.0	45.4	44.0	42.1	39.9	31.5	37.6	40.0	40.4	39.8	38.5	36.8	34.7
TRE40-30S	49.0	58.8	62.5	63.4	62.6	60.7	58.2	55.1	43.8	51.1	55.5	55.9	55.1	53.3	51.0	48.1
TRE80-30S	45.0	54.3	58.2	58.8	58.1	56.3	53.9	51.0	39.8	48.1	50.9	51.6	50.8	49.1	46.9	44.3
TRE80-40S	64.7	77.4	82.2	83.3	82.2	79.8	76.4	72.3	57.6	68.6	72.5	73.3	72.2	69.9	66.8	63.1
TRE80-55S	86.8	102.5	108.6	110.1	108.8	105.7	101.3	96.1	76.8	91.2	96.4	97.5	96.1	93.1	89.0	84.2

蒸发温度 -40°C

TRE10-6.5S	8.0	9.5	10.0	10.0	9.8	9.4	9.0	8.4
TRE10-8S	10.2	12.1	12.7	12.8	12.5	12.1	11.5	10.8
TRE20-8S	9.5	11.4	12.0	12.1	11.9	11.6	10.9	10.2
TRE20-10S	11.5	13.7	14.5	14.6	14.3	13.8	13.1	12.3
TRE20-12S	14.3	17.1	18.0	18.1	17.8	17.2	16.3	15.3
TRE20-16S	19.2	22.8	24.0	24.2	23.8	22.9	21.8	20.5
TRE40-16S	17.7	21.2	22.4	22.6	22.3	21.5	20.4	19.2
TRE40-20S	22.5	27.0	28.5	28.8	28.2	27.3	25.9	24.4
TRE40-25S	27.7	33.0	34.9	35.1	34.5	33.3	31.7	29.9
TRE40-30S	38.6	45.9	48.4	48.8	48.0	46.4	44.2	41.6
TRE80-30S	35.2	42.0	44.3	44.7	43.9	42.4	40.4	38.0
TRE80-40S	50.6	59.9	63.3	63.8	63.1	60.6	57.7	54.4
TRE80-55S	67.6	79.8	84.5	85.3	83.9	81.1	77.4	73.0

 过冷度的修正系数 Δt_u

Δt_u	4K	10K	15K	20K	25K	30K	35K	40K	45K	50K
R404A	1.00	1.10	1.20	1.29	1.37	1.46	1.54	1.63	1.70	1.78

热力膨胀阀

TRE10, TRE20, TRE40, TRE80 型

制冷量 (N 系列和 K 系列)

制冷量单位: kW

开启过热度 OS = 4K

R507

阀型和名义制冷量 Q _{nom} TR	阀两端压力降 Δpbar								阀两端压力降 Δpbar							
	2	4	6	8	10	12	14	16	2	4	6	8	10	12	14	16

蒸发温度 +10℃

蒸发温度 +5℃

TRE10-6.5S	16.3	20.8	23.3	24.2	24.6	24.6	24.2	23.4	16.0	20.4	22.7	23.5	23.8	23.3	22.6
TRE10-8S	20.2	25.7	28.5	30.1	30.5	30.4	29.9	29.0	20.0	25.3	27.8	29.1	29.6	28.9	28.1
TRE20-8S	22.1	28.3	31.1	32.9	33.4	33.3	32.8	31.7	21.5	27.4	30.4	31.7	32.2	31.4	30.4
TRE20-10S	26.2	33.4	37.1	39.0	39.6	39.5	38.7	37.5	25.6	32.5	35.9	37.6	38.1	37.9	36.1
TRE20-12S	31.9	40.7	45.1	47.3	48.1	48.0	47.1	45.7	31.3	39.6	43.7	45.8	46.4	45.4	43.9
TRE20-16S	41.2	52.4	58.2	61.0	62.0	61.9	60.8	59.0	40.5	51.3	56.6	59.2	60.0	59.9	57.0
TRE40-16S	41.5	53.2	59.0	61.9	63.1	63.0	61.9	60.0	40.4	51.5	56.8	59.5	60.5	60.3	57.4
TRE40-20S	51.6	66.1	73.4	76.9	78.5	78.2	76.9	74.5	50.3	64.0	70.8	74.2	75.3	75.0	71.5
TRE40-25S	62.1	79.6	87.6	92.0	93.6	93.4	91.7	89.1	60.6	76.7	84.7	88.7	90.1	89.7	85.6
TRE40-30S	81.7	104.5	115.3	120.5	123.0	123.0	120.8	117.4	80.2	102.0	111.9	117.1	119.0	118.6	113.5
TRE80-30S	84.4	107.7	118.8	124.5	126.5	126.0	123.7	119.6	82.3	103.5	114.1	119.1	120.7	120.1	114.2
TRE80-40S	114.9	144.9	159.9	167.4	170.0	169.4	166.4	161.5	111.6	140.5	154.2	161.2	163.2	162.5	154.8
TRE80-55S	144.2	180.7	199.5	208.6	212.2	211.7	208.5	202.2	142.0	176.3	193.7	202.2	205.0	204.5	196.4

蒸发温度 0℃

蒸发温度 -5℃

TRE10-6.5S	15.7	19.7	21.7	22.6	22.9	22.7	22.3	21.6	15.1	18.9	20.7	21.5	21.7	21.5	21.0
TRE10-8S	19.6	24.6	26.9	28.0	28.4	28.2	27.7	26.9	19.1	23.6	25.8	26.7	27.0	26.8	25.4
TRE20-8S	20.8	26.2	29.1	30.1	30.5	30.3	29.7	28.8	19.8	24.9	27.3	28.4	28.6	28.4	26.8
TRE20-10S	24.8	31.2	34.3	35.8	36.2	36.0	35.2	34.1	23.7	29.6	32.4	33.7	34.0	33.7	31.9
TRE20-12S	30.3	38.2	42.0	43.0	44.2	44.0	43.1	41.7	29.1	36.3	39.7	41.3	41.7	41.3	39.1
TRE20-16S	39.8	49.5	54.5	57.2	57.5	57.1	56.0	54.3	38.4	47.5	51.8	53.9	54.3	53.9	51.1
TRE40-16S	38.8	49.0	54.1	56.5	57.4	57.0	55.9	54.2	36.9	46.4	50.6	53.0	53.6	53.2	50.5
TRE40-20S	48.4	61.3	67.5	70.4	71.4	70.9	69.7	67.5	46.5	58.0	63.9	66.2	66.8	66.5	63.0
TRE40-25S	58.5	73.7	81.0	84.4	85.5	85.2	83.5	81.0	56.0	69.9	76.6	79.6	80.4	79.9	75.8
TRE40-30S	78.2	98.0	107.6	112.2	113.7	113.2	111.2	107.8	75.3	93.7	102.2	106.2	107.4	106.7	101.5
TRE80-30S	78.9	98.5	108.1	112.4	114.0	113.1	110.9	107.4	74.6	93.0	101.5	105.3	106.1	105.4	100.0
TRE80-40S	108.1	134.7	147.2	153.0	154.9	154.1	151.1	146.5	103.2	127.2	139.0	149.2	145.5	144.6	137.1
TRE80-55S	138.5	170.1	186.2	193.3	196.1	195.3	191.9	186.4	133.6	162.8	175.6	183.6	185.5	184.4	175.7

蒸发温度 -10℃

蒸发温度 -15℃

TRE10-6.5S	14.5	18.0	19.5	20.2	20.3	20.1	19.7	19.0	13.7	16.9	18.3	18.8	18.9	18.6	17.5
TRE10-8S	18.2	22.5	24.4	25.3	25.4	24.9	24.6	23.8	17.3	21.2	22.9	23.6	23.7	23.4	22.0
TRE20-8S	18.7	23.3	25.5	26.4	26.6	26.3	25.6	24.8	17.5	21.7	23.5	24.0	24.4	24.0	22.6
TRE20-10S	22.3	27.8	30.3	31.4	31.6	31.2	30.5	29.5	21.0	25.7	28.0	28.9	29.0	28.6	26.9
TRE20-12S	27.6	34.1	37.3	38.6	38.8	38.4	37.5	36.2	25.8	32.0	34.5	35.6	35.7	35.2	33.1
TRE20-16S	36.4	44.9	48.9	50.5	50.8	50.8	49.2	47.5	34.3	42.0	45.5	46.8	47.0	46.4	43.7
TRE40-16S	34.7	43.4	47.8	49.2	49.6	49.2	48.0	46.4	32.3	40.2	43.6	45.1	45.4	44.8	42.2
TRE40-20S	43.8	54.5	59.4	61.5	62.1	61.5	60.1	58.1	40.8	50.5	54.8	56.6	56.9	56.2	53.0
TRE40-25S	52.9	65.7	71.6	74.1	74.7	74.0	72.4	70.1	49.5	61.0	66.2	68.3	68.7	67.8	64.0
TRE40-30S	71.6	88.6	96.2	99.5	100.3	99.5	97.2	94.5	66.7	82.6	89.4	92.2	92.6	91.7	86.7
TRE80-30S	69.9	86.7	94.3	97.5	98.2	97.1	94.9	91.8	65.2	81.2	86.6	89.2	89.6	88.5	83.4
TRE80-40S	97.4	119.6	129.8	134.1	135.1	133.9	131.0	126.8	90.9	111.3	120.0	123.6	124.5	122.8	116.0
TRE80-55S	125.6	153.7	166.3	173.8	173.6	172.3	168.8	163.6	118.5	143.7	154.9	159.7	160.6	159.1	150.7

热力膨胀阀

TRE10, TRE20, TRE40, TRE80 型

制冷量 (N 系列和 K 系列)

R507

制冷量单位: kW

开启过热度 OS = 4K

阀型和名义制冷量 Q _{nom} TR	阀两端压力降 Δpbar								阀两端压力降 Δpbar							
	2	4	6	8	10	12	14	16	2	4	6	8	10	12	14	16

蒸发温度 -20°C

蒸发温度 -25°C

TRE10-6.5S	12.9	15.7	16.9	17.3	17.3	17.1	16.6	16.0	11.9	14.4	15.4	15.8	15.7	15.4	15.0	14.4
TRE10-8S	16.3	19.8	21.3	21.8	21.8	21.5	20.9	20.2	15.1	18.2	19.5	19.9	19.9	19.5	18.9	18.2
TRE20-8S	16.2	19.9	21.5	22.1	22.1	21.7	21.1	20.3	14.9	18.1	19.4	19.9	19.8	19.4	18.9	18.1
TRE20-10S	19.4	24.0	25.7	26.3	26.4	25.9	25.2	24.3	17.8	21.6	23.2	23.7	23.7	23.2	22.6	21.6
TRE20-12S	23.9	29.4	31.6	32.5	32.5	32.0	31.1	30.0	22.2	26.7	28.7	29.3	29.2	28.7	27.9	26.8
TRE20-16S	32.0	39.0	41.8	42.9	43.0	42.2	41.3	39.7	29.5	35.6	38.1	38.9	38.8	38.2	37.1	35.7
TRE40-16S	29.8	36.7	39.8	40.9	41.0	40.5	39.4	38.0	27.3	33.3	35.8	36.7	36.7	36.1	35.1	33.7
TRE40-20S	37.7	46.2	50.0	51.4	51.5	50.8	49.5	47.7	34.5	42.0	45.1	46.2	46.2	45.5	44.2	42.5
TRE40-25S	45.8	56.1	60.5	62.2	62.4	61.5	59.9	57.8	41.9	50.7	54.7	56.0	56.0	55.1	53.6	51.6
TRE40-30S	63.4	76.3	82.1	84.4	84.6	83.5	81.5	78.7	57.7	69.6	74.6	76.4	76.4	75.3	73.3	70.6
TRE80-30S	59.8	73.0	78.7	80.9	81.0	79.9	77.8	75.0	54.4	66.0	70.8	72.5	72.4	71.3	69.3	66.7
TRE80-40S	84.4	102.0	109.6	112.6	112.9	111.4	108.5	104.8	77.0	92.6	99.1	101.5	101.5	99.9	97.2	93.7
TRE80-55S	110.2	132.8	142.6	146.5	147.1	145.3	141.9	136.3	101.4	121.5	129.7	132.9	133.1	131.2	127.9	123.4

蒸发温度 -30°C

蒸发温度 -35°C

TRE10-6.5S	10.9	13.1	14.0	14.2	14.1	13.8	13.4	12.8	9.9	11.8	12.5	12.6	12.5	12.2	11.8	11.3
TRE10-8S	13.9	16.6	17.7	18.0	17.9	17.5	17.0	16.3	12.6	15.0	15.8	16.1	15.9	15.6	15.0	14.4
TRE20-8S	13.4	16.2	17.3	17.7	17.6	17.2	16.6	15.9	12.0	14.4	15.3	15.5	15.4	15.0	14.5	13.9
TRE20-10S	16.1	19.4	20.7	21.1	21.0	20.6	19.9	19.1	14.4	17.2	18.3	18.6	18.4	18.0	17.4	16.6
TRE20-12S	20.0	24.1	25.7	26.2	26.0	25.5	24.7	23.7	17.9	21.4	22.7	23.1	22.9	22.4	21.6	20.7
TRE20-16S	26.8	32.1	34.2	34.8	34.7	34.0	33.0	31.6	24.1	29.3	30.4	30.9	30.6	30.0	28.9	27.7
TRE40-16S	24.6	29.8	31.9	32.6	32.1	31.9	30.9	29.7	21.9	26.4	28.1	28.6	28.5	27.9	26.9	25.8
TRE40-20S	31.1	37.6	40.3	41.1	41.0	40.2	39.0	37.4	27.8	33.0	35.5	36.1	35.9	35.2	34.0	32.6
TRE40-25S	37.7	45.7	48.9	49.9	49.7	48.8	47.4	45.5	34.0	40.6	43.2	44.0	43.7	42.8	41.4	39.7
TRE40-30S	52.3	62.8	67.0	68.4	68.2	67.1	65.1	62.6	47.1	56.1	59.5	60.5	60.2	59.0	57.2	54.9
TRE80-30S	49.1	59.0	63.0	64.3	64.1	62.9	61.0	58.7	43.7	52.2	55.5	56.5	56.1	55.0	53.2	51.0
TRE80-40S	69.6	83.1	88.6	90.6	90.2	88.7	86.1	82.9	62.2	73.8	78.4	79.8	79.4	77.8	75.5	72.4
TRE80-55S	92.0	109.6	116.7	119.3	119.1	117.2	113.9	109.8	82.9	97.8	103.8	105.8	105.4	103.4	100.4	96.4

蒸发温度 -40°C

TRE10-6.5S	8.8	10.4	11.0	11.1	11.0	10.7	10.3	9.8
TRE10-8S	11.3	13.3	14.0	14.2	14.0	13.6	13.1	12.6
TRE20-8S	10.6	12.6	13.4	13.5	13.4	13.0	12.5	12.0
TRE20-10S	12.7	15.4	16.0	16.2	16.0	15.6	15.0	14.4
TRE20-12S	15.9	18.8	19.9	20.1	19.9	19.4	18.7	17.9
TRE20-16S	21.4	25.3	26.7	27.0	26.8	26.1	25.2	24.1
TRE40-16S	19.4	23.1	24.5	24.9	24.7	24.1	23.2	22.2
TRE40-20S	24.6	29.2	30.9	31.4	31.2	30.4	29.4	28.1
TRE40-25S	30.1	35.7	37.8	38.3	38.0	37.1	35.9	34.3
TRE40-30S	41.8	49.3	52.2	53.0	52.6	51.4	49.7	47.6
TRE80-30S	38.5	45.7	48.3	49.1	48.6	47.5	45.9	43.9
TRE80-40S	55.0	64.8	68.6	69.7	69.1	67.6	65.4	62.6
TRE80-55S	73.5	86.3	91.3	92.8	92.2	90.3	87.4	83.8

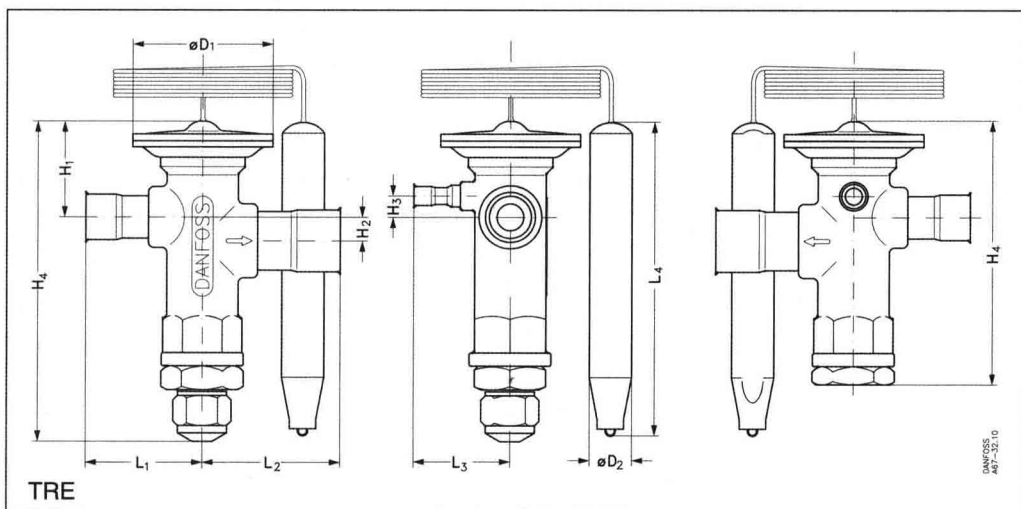
 过冷度的修正系数 Δt₀

Δtu	4K	10K	15K	20K	25K	30K	35K	40K	45K	50K
R 507	1.00	1.10	1.20	1.29	1.37	1.46	1.54	1.63	1.70	1.78

热力膨胀阀

TRE10, TRE20, TRE40, TRE80 型

尺寸和重量



阀型	接口尺寸, ODF 焊接		毛细管 长度 m	H1 mm	H2 mm	H3 mm	H4 mm	L1 mm	L2 mm	L3 mm	L4 mm	φD1 mm	φD2 mm	重量 kg
	入口 x 出口 in	入口 x 出口 mm												
TRE10	1/2 x 1/2	12 x 12	1.5	32	7.5	5	104	40.5	40.5	34.5	70	45	15	0.39 0.35 ¹⁾
	1/2 x 5/8	12 x 16							45.5					
	5/8 x 1/2	16 x 12							40.5					
	5/8 x 5/8	16 x 16							45.5					
	5/8 x 7/8	16 x 22							51.5					
	7/8 x 7/8	22 x 22							51.5					
TRE20	5/8 x 5/8	16 x 16	1.5	37	9	8	122	48	48	38	119	53	16.5	0.60 0.56 ¹⁾
	5/8 x 7/8	16 x 22							54					
	7/8 x 7/8	22 x 22							54					
	7/8 x 1 1/8	22 x 28							61					
	7/8 x 1 3/8	22 x 35							71					
	1 1/8 x 7/8	28 x 22							54					
	1 1/8 x 1 1/8	28 x 28							61					
	1 1/8 x 1 3/8	28 x 35							71					
TRE40	7/8 x 7/8	22 x 22	3	42	13	11	145	57.5	57.5	41	111	60	20.3	0.79 0.93 ¹⁾
	7/8 x 1 1/8	22 x 28							64.5					
	7/8 x 1 3/8	22 x 35							74.5					
	1 1/8 x 1 1/8	28 x 28							64.5					
	1 1/8 x 1 3/8	28 x 35							74.5					
	1 1/8 x 1 5/8	28 x 42							82.5					
TRE80	1 1/8 x 1 1/8	28 x 28	3	47	17	13	165	67	67	44	148	72	20.3	1.34 1.30 ¹⁾
	1 1/8 x 1 3/8	28 x 35							77					
	1 1/8 x 1 5/8	28 x 42							85					
	1 3/8 x 1 3/8	35 x 35							77					
	1 3/8 x 1 5/8	35 x 42							85					