

THERMAL EXPANSION VALVE TC SERIES

Function

- ◆ Be used to regulate liquid supply capacity of evaporator refrigerant in the refrigeration system to control superheat degree.
- ◆ The products of this series are mainly employed by equipments like water chiller units, air conditioning systems, rooftop Air Conditioning Unit and heat pump air conditioners.etc.

Features

- ◆ Bi-Flow design could satisfy the need for both refrigerating and heating;
- ◆ Power element structure of stainless steel can prolong service life;
- ◆ Available with MOP controlled characteristic (max. operating pressure) to protect the compressor motor against damage caused by excessive evaporating pressure;
- ◆ Optional adjustable superheat setting mode;
- ◆ Optional BP function;
- ◆ Temperature bulb charging way can be determined based on customer demand;
- ◆ Optional link modes, such as ODF, MIO and ORFS.

Application

- ◆ Applicable refrigerants: R22/R134a/R404A/R507/R407C/R410A
- ◆ Max. operation pressure: 4.3 MPa
- ◆ Applicable fluid temperature: -40 °C ~ +120 °C
- ◆ Applicable ambient temperature: -20 °C ~ +55 °C
- ◆ Applicable evaporating temperature: -40 ~ +20 °C;



Nomenclature

Example: TCEX12

TC	E	X	12
Model	Equalizer: External equalizer - E Internal equalizer - None	Refrigerant Code: L=R410A X= R22 Z=R407C N=R134a S= R404A/R507	Nominal Refrigerating capacity Unit: TR- ton of refrigeration (please see Fundamental Performance Parameter Table)

Fundamental Performance Parameter

Model Spec.	R22		R134a		R404A/R507		R407C		R410A	
	kW	TR	kW	TR	kW	TR	kW	TR	kW	TR
TCE/TC	10	3.0	6	1.5	7	2.0	9	2.5	12	3.5
	14	4.0	8	2.5	9	2.5	13	3.5	16	4.5
	20	6.0	12	3.5	14	4.0	19	5.0	24	6.5
	27	7.5	17	4.5	18	5.0	25	7.0	32	9.0
	38	11.0	24	7.0	26	7.5	36	10.0	45	13.0
	43	12.0	29	8.0	31	9.0	42	12.0	54	15.0
	54	15.0	37	10.0	39	11.0	53	15.0	68	19.0
63	18.0	44	12.0	45	13.0	62	18.0	79	23.0	

Normal condition: the condensing temperature of 38 °C, refrigerant temperature before valve of 37 °C, evaporating temperature of 4 °C.