

THERMOSTATIC EXPANSION VALVES / Type ATX



Type ATX-B



Type ATX-D

Thermostatic Expansion Valve Selection Software ⇒



URL : <https://www.saginomiya.co.jp/en/auto/utilitysoft.html>

Capacity Table ⇒



URL : http://saginomiya.co.jp/en/auto/pdf/atx_capacity.pdf

FEATURES

- Suitable for refrigeration systems with hot gas defrosting
- Compatible with low GWP refrigerants (R448A, R449A)

APPLICATIONS

- Water chillers
- Air conditioning systems
- Freezers
- Refrigerators
- Brine coolers, etc.

COMMON SPECIFICATIONS

- External equalizer type
- Max. working pressure : 2.8 MPa (R134a, R404A, R448A, R449A), 3.3 MPa (R407C, R410A)
- Max. body temperature : 80°C
- Max. sensing bulb temperature : 40°C (C, CL Charge), 120°C (S, SL Charge)
- Adjustable range of static superheat : 0 to 10°C (C Charge for R448A and R449A), 0 to 8°C (S, SL Charge), 1 to 7°C (R410A, S, SL Charge for R404A)
 - Increase about 0.007 MPa / rotation
- Flare connection / Solder connection

DESCRIPTION OF CATALOG NUMBER

ATX - $\frac{3}{I}$ $\frac{4}{II}$ $\frac{006}{III}$ $\frac{B}{IV}$ $\frac{U}{V}$ $\frac{S}{VI}$ $\frac{S}{VII}$

I	Type
II	Inlet pipe size
III	Outlet pipe size
IV	Capacity
V	Connection
VI	Refrigerant
VII	Charge type

Charge	Evaporating Temp. (°C)	MOP (°C)	Temp. Condition	
S	R134a	-30 to 10	20	Ts ≥ Tb
S	R404A	-40 to 10	20	Ts ≥ Tb
SL		-60 to -25	-20	Ts ≥ Tb
S	R407C	-40 to 10	20	Ts ≥ Tb
C	R410A	-20 to 10	—	—
CL		-40 to -10	—	—
S	R448A	-40 to 10	20	Ts ≥ Tb
C		-40 to 10	—	—
SL		-60 to -25	-20	Ts ≥ Tb
S	R449A	-40 to 10	20	Ts ≥ Tb
C		-40 to 10	—	—
SL		-60 to -25	-20	Ts ≥ Tb

Ts : Power Element Temp. , Tb : Sensing Bulb Temp.

TYPE NUMBER SELECTION

< S, C, CL Charge >

Catalog No.				Equalizer Type	Connection			Factory superheat setting (°C)	Wt. (kg)
Type	Model	Refrigerant	Charge Type		Inlet	Outlet	Equalizer		
ATX	34006B [D]	M (R134a) U (R404A) P (R407C) V (R410A) C (Others) C1 (R448A) C1 (R449A)	S (R134a, R404A, R407C, R448A, R449A) C (R410A, R448A, R449A) CL (R410A)	External	3/8" Flare [3/8" (OD)] Solder	1/2" Flare [1/2" (OD)] Solder	1/4" Flare	5	1.2 [1.1]
	34013B [D]								
	34023B [D]								
	34035B [D]								
	34045B [D]								
	57060D								
	57080D								
	71110D								
	71140D								
	71160D								
	12220D								
	12270D								
	12330D								
	12420D								
	12500D								

• For other refrigerant, please contact SAGINOMIYA.

Catalog No.				Capacity (U.S.R.T.) (kW)					
Type	Model	Refrigerant	Charge Type	CT 38°C / ET 5°C					
				R134a	R404A	R407C	R410A	R448A	R449A
ATX	34006B [D]	M (R134a) U (R404A) P (R407C) V (R410A) C (Others) C1 (R448A) C1 (R449A)	S (R134a, R404A, R407C, R448A, R449A) C (R410A, R448A, R449A) CL (R410A)	0.70	0.70	1.00	1.09	0.94	0.91
	34013B [D]			{2.46}	{2.46}	{3.51}	{3.85}	{3.30}	{3.19}
	34023B [D]			1.60	1.50	2.20	2.31	1.97	1.91
	34035B [D]			{5.63}	{5.27}	{7.74}	{8.14}	{6.94}	{6.72}
	34045B [D]			2.80	2.70	3.70	3.98	3.38	3.27
	57060D			{9.85}	{9.49}	{13.0}	{14.0}	{11.9}	{11.5}
	57080D			4.21	4.01	5.69	6.06	5.15	4.98
	71110D			{14.8}	{14.1}	{20.0}	{21.3}	{18.1}	{17.5}
	71140D			5.40	5.09	7.20	7.76	6.63	6.40
	71160D			{19.0}	{17.9}	{25.3}	{27.3}	{23.3}	{22.5}
	12220D			7.22	6.80	9.98	10.7	9.10	8.82
	12270D			{25.4}	{23.9}	{35.1}	{37.6}	{32.0}	{31.0}
	12330D			9.58	9.10	13.4	14.3	12.2	11.8
	12420D			{33.7}	{32.0}	{47.1}	{50.3}	{42.9}	{41.5}
	12500D			13.2	12.5	18.3	19.6	16.7	16.2
	{46.4}	{44.0}	{64.3}	{69.0}	{58.8}	{56.9}			
	16.8	16.0	23.3	24.9	21.2	20.5			
	{59.1}	{56.3}	{81.9}	{87.4}	{74.6}	{72.1}			
	19.2	18.2	26.8	28.7	24.5	23.7			
	{67.5}	{64.0}	{94.2}	{101}	{86.0}	{83.2}			
	26.4	25.1	37.0	39.5	33.6	32.4			
	{92.8}	{88.3}	{130}	{139}	{118}	{114}			
	32.4	30.7	44.9	48.4	41.2	39.8			
	{114}	{108}	{158}	{170}	{145}	{140}			
	39.8	37.5	54.9	58.6	50.1	48.4			
	{140}	{132}	{193}	{206}	{176}	{170}			
	50.3	47.8	69.7	74.2	63.4	61.1			
	{177}	{168}	{245}	{261}	{223}	{215}			
	60.0	56.9	83.3	89.3	76.2	73.7			
	{211}	{200}	{293}	{314}	{268}	{259}			

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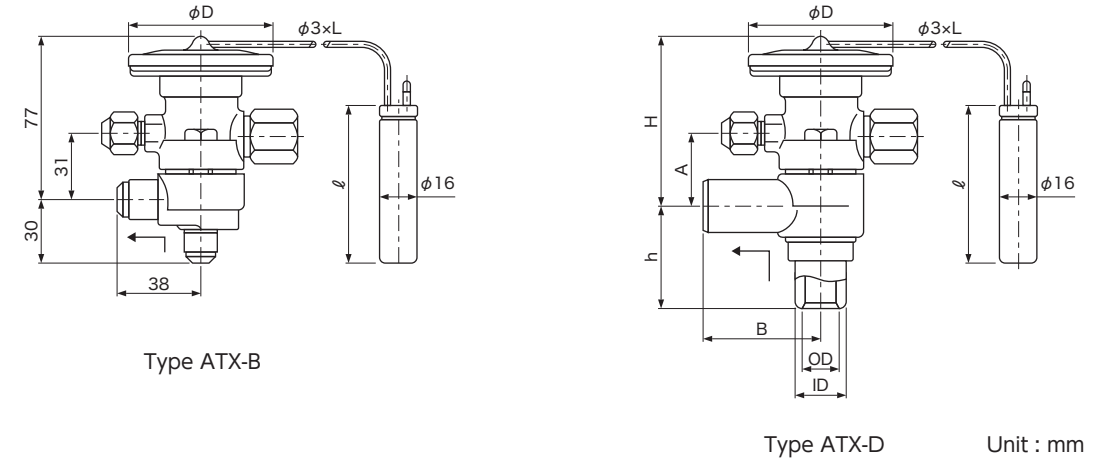
TYPE NUMBER SELECTION

< SL Charge >

Catalog No.		Refrigerant	Charge Type	Equalizer Type	Connection			Factory superheat setting (°C)	Wt. (kg)
Type	Model				Inlet	Outlet	Equalizer		
ATX	34006B [D]	U (R404A)	SL (R404A, R448A, R449A)	External	3/8" Flare [3/8" (OD) Solder]	1/2" Flare [1/2" (OD) Solder]	1/4" Flare	5	1.2 [1.1]
	34013B [D]								
	34023B [D]								
	34035B [D]								
	34045B [D]								
	57060D				C1 (R448A)	5/8" (OD) or 7/8" (ID) Solder		7/8" (OD) or 1-1/8" (ID) Solder	1.3
	57080D								
	71110D								
	71140D				C1 (R449A)	1" (OD) or 1-1/4" (ID) Solder		1" (OD) or 1-1/4" (ID) Solder	1.5
	71160D								
	12220D								
	12270D								
12330D									
12420D									
12500D									

Catalog No.		Refrigerant	Charge Type	Capacity (U.S.R.T.) {kW}		
Type	Model			CT 38°C / ET -30°C		
				R404A	R448A	R449A
ATX	34006B [D]	U (R404A)	SL (R404A, R448A, R449A)	0.33 {1.16}	0.50 {1.76}	0.49 {1.73}
	34013B [D]			0.82 {2.90}	1.26 {4.42}	1.24 {4.35}
	34023B [D]			1.36 {4.78}	2.07 {7.29}	2.04 {7.17}
	34035B [D]			2.04 {7.19}	3.10 {10.9}	3.04 {10.7}
	34045B [D]			2.62 {9.23}	3.98 {14.0}	3.92 {13.8}
	57060D			3.67 {12.9}	5.57 {19.6}	5.49 {19.3}
	57080D			4.92 {17.3}	7.48 {26.3}	7.37 {25.9}
	71110D			6.94 {24.4}	9.47 {33.3}	9.33 {32.8}
	71140D			8.73 {30.7}	13.3 {46.7}	13.1 {46.0}
	71160D			9.95 {35.0}	18.6 {65.3}	18.3 {64.3}
	12220D			13.7 {48.2}	24.5 {86.2}	24.1 {84.9}
	12270D			16.9 {59.3}	29.6 {104}	29.3 {103}
	12330D			20.6 {72.4}	35.8 {126}	35.3 {124}
	12420D			27.6 {97.1}	46.9 {165}	46.4 {163}
	12500D			33.0 {116}	59.2 {208}	58.3 {205}

DIMENSIONS

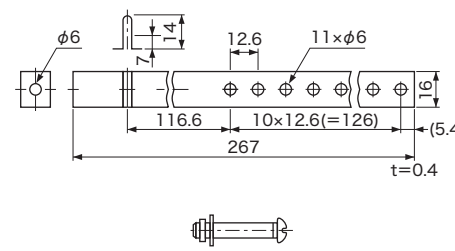


Catalog No.		Unit : mm						
Type	Model	H	h	A	B	φ D	L	ℓ
ATX	34006B [D]	77	30	31	38	68	2000	100
	34013B [D]							
	34023B [D]							
	34035B [D]							
	34045B [D]							
	57060D	80	52	34	51			
	57080D							
	71110D							
	71140D	82	56	36	51			
	71160D							
	12220D							
	12270D							
12330D								
12420D								
12500D								

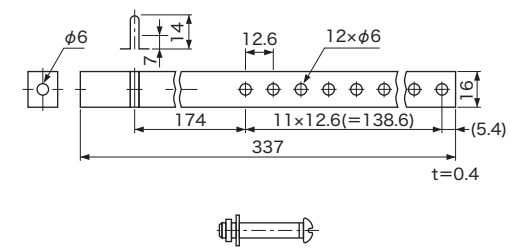
ACCESSORY

● Sensing Bulb Mounting Band

For Type ATX-34006 to 71160



For Type ATX-12220 to 12500



Unit : mm