

Electronic Expansion Valve

T/S series electronic expansion valves are designed for usage in air conditioning and refrigeration systems or in heat pumps. The valve supports automatic adjustment of refrigerant flow rate and makes the system work under optimized conditions for the purpose of fast cooling or heating, precise temperature control and energy saving. The valve can also be used e.g. for suction line pressure controls. These valves provide bidirectional operation to control the refrigerant flow rate in heating or cooling mode.



FEATURES

- APPLICABLE FOR OIL-FREE SYSTEM (T SERIES)
- SMALLER INSTALLATION SPACE: LOW HEIGHT, SMALL VOLUME, LIGHT WEIGHT
- OPTIMIZED FLOW PATH DESIGN FOR NOISE REDUCTION
- FAST OPERATION, ENERGY SAVING
- APPLICABLE FOR REVERSIBLE SYSTEMS LIKE HEAT PUMPS: BIDIRECTIONAL FLOW

GENERAL SPECIFICATIONS

- Applicable refrigerants: R22, R134A, R404A, R407C, R410A etc.
- Cooling Capacity: 3,5 to 105 kW (R22 Nominal Capacity)
- Medium temperature: -30°C to +70°C (duty cycle rate below 50%)
- Ambient temperature: -30°C to +60°C (duty cycle rate below 50%)
- Relative humidity: below 95% RH
- Installation position: Coil upwards, valve rotor central axis within +/-15° versus vertical axis
- 500 steps (full stroke); 32 ± 20 opening steps

ELECTRICAL PARAMETERS

- Rated Voltage: 12V DC(+/- 10%), rectangular wave
- Actuating mode: 4-phase 8-step permanent magnet stepping motor of direct-acting type
- Excitation mode: 1 ~ 2 phase excitation, monopole actuation
- Excitation rate: 30 to 90pps (Maintain excitation in stop position min. 0.1~1.0sec. to activate self-holding mechanism.)
- Coil current: 260mA/phase (20°C)
- Coil resistance: 46 +/- 3.7 Ω/phase (20°C)
- Insulation class of coil: E
- Protection class: IP 66

DPF-T/S SERIES

Electronic Expansion Valve



GENERAL CHARACTERISTICS

Model	Part Number	Seat ϕ (mm)	Kv (m ³ /h)	Nominal Cooling Capacity (kW)					MOP Max. Oper. Press. (MPa)	MOPD Direct (MPa)	MOPD Rev. (MPa)	
				R22	R134a	R407C	R404A R507	R410A				
DPF(T01)1.3C-07	DPF-09001	1,3	0,05	3,5	2,7	3,5	2,5	4,2	4,2	3,43	≥ 2.1	
DPF(T01)1.65C-05	DPF-09002	1,65	0,08	5,3	4,1	5,3	3,7	6,36				
DPF(T01)1.8C-08	DPF-09003	1,8	0,1	7	5,4	7	4,9	8,4				
DPF(T01)2.0C-03	DPF-09004	2	0,16	8,75	6,7	8,75	6,1	10,5				
DPF(T01)2.2C-01	DPF-09005	2,2	0,2	10,5	8,1	10,5	7,4	12,6				
DPF(T01)2.4C-01	DPF-09006	2,4	0,23	17,5	13,5	17,5	12,3	21				
DPF(TS1)3.0C-01	DPF-09007	3	0,39	21	16,2	21	14,7	25,2				≥ 1.47
DPF(TS1)3.2C-01	DPF-09008	3,2	0,43	28	21,6	28	19,6	33,6				
DPF(S03)4.0C-01	DPF-09010	4	0,5	42	32,3	42	29,4	50,4				≥ 0.7
DPF(S03)4.5C-01	DPF-09011	4,5	0,7	52,5	40,4	52,5	36,8	63				
DPF(S03)5.5C-01	DPF-09012	5,5	0,9	70	53,9	70	49,0	84				
DPF(S03)6.5C-02	DPF-09013	6,5	1,1	105	80,9	105	73,5	126		3		

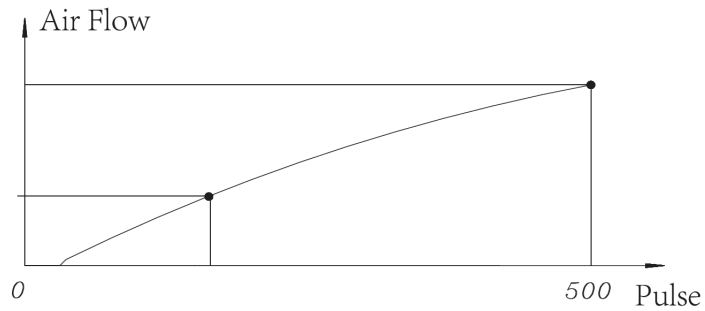
(*) Nominal working conditions: Condensing temperature: 38°C; evaporating temperature 5°C; Sub cooling OK; Superheating OK

DPF-T/S SERIES

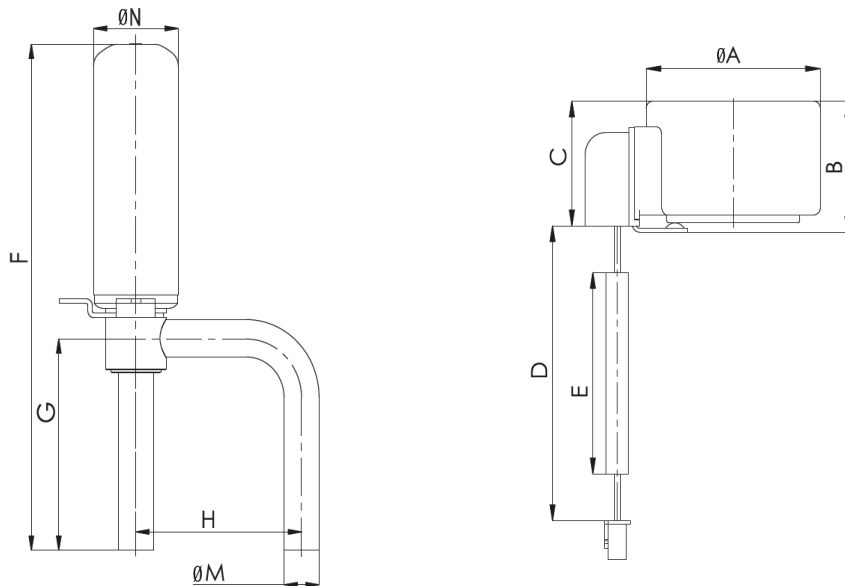
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FLOW CHARACTERISTIC



DIMENSIONS



Valve Model	Coil Series	Dimensions (mm)					Part No.
		A	B	C	D	E	
DPF(T01)1.3C-07 to DPF(TS1)3.2C-01	PQ-M10012-000001	38,5	26,4	25,6	700	600	DPF-58001
DPF(S03)4.0C-01 to DPF(S03)6.5C-02	PQ-M03012-000001	67,5	42,4	33	700	600	DPF-58002