

Application

DPF(E) Series electronic expansion valve is designed for application CO₂ systems, such as HP water heater, freezing and refrigerating systems. Thanks to precise control and automatic regulation of refrigerant flow, rapid response to cooling or heating can be achieved, efficiency of system in turn could be significantly improved.

Features

- Compact and lightweight design;
- Advanced laser welding technology ensures reliability at high operating pressure level;
- Lower refrigerant running noise;
- New material provides good corrosion resistance.



Technical Data

Applicable Medium: R744 (CO₂) + PAG oil

Relative Humidity: ≤95%

Medium Temperature: -30°C~+70°C (energized rate below 50%)

Ambient Temperature: -30°C~+70°C (energized rate below 50%)

Max. Operating Pressure: 14.0 MPa

Internal Leakage: ≤ 600mL/min (except EEV without shut off function)

Uni-directional flow

Life Cycle: ≥ 50,000

CO₂ Electronic Expansion Valve

Specification

Model	Orifice Φ [mm]	Nominal Capacity ⁽¹⁾ [kW]	Max. Operating Pressure [MPa]	MOPD [MPa]	Connection [mm]
DPF(E)1.0D	1.0	5.0	14	10	6.35
DPF(E)1.2D	1.2	6.9			
DPF(E)1.4D	1.4	9.0			
DPF(E)1.8D	1.8	15.5			
DPF(E)2.0D	2.0	20.2			
DPF(E)2.4D	2.4	29.3			

⁽¹⁾ Normal capacities are based on:

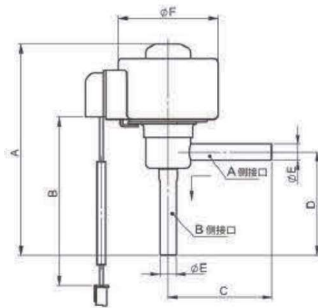
1. Gas cooler outlet temperature $T_c=22^{\circ}\text{C}$;
2. Gas cooler outlet pressure $P_c=10\text{MPa}$;
3. Evaporating Temperature $T_e=6^{\circ}\text{C}$;
4. Superheating $\Delta T_{sh}=0\text{K}$

The above specifications can be bulk supply, and can be customized according to customers' requirements

Coil Parameters

Model	DPFX07
Full Stroke	500 pulses
Opening Pulse	32±20 (except EEV without shut off function)
Nominal Voltage	DC 12V±10%, rectangular wave
Actuating Mode	4-phase 8-step permanent magnet stepper motor
Excitation Mode	1 ~ 2 phase excitation, monopole actuation
Excitation Rate	30 ~ 90 PPS
Insulation Class	E
Resistance	46±3.7 Ω (20°C)
Current	260mA/phase (20°C)
Wire Number	6
Protection Class	IP54

Dimensions



Model	A	B	C	D	E	F
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
DPF(E) 1.0D ~ 2.4D	80	700	37	37	6.35	38

Note:

Valve dimensions could be customized