

SERIEEPEV

REGULATOR IMPULSE

The PEV range of impulse expansion valves are designed specifically for use in refrigeration systems to precisely control the flow of refrigerant into the evaporator.

Thanks to the solenoid valve structure, the flow rate is regulated by pulse width modulation (on/off power duration).



FEATURES

- MAXIMUM PRESSURE OF 90 BARS FOR R744 REFRIGERANT
- LOW KV VALUES CAN BE ACHIEVED (PEV0 WITH ONLY 0.003M3/H)
- SOLENOID VALVE STRUCTURE, WITH IMMEDIATE CLOSING IN CASE OF POWER FAILURE
- THE VALVE BODY CAN BE DISASSEMBLED AND THE BUILT-IN FILTER CAN BE REPLACED TO CLEANING OR CHANGE

GENERAL SPECIFICATIONS

- Applicable to all HFCF, HFC and HFO refrigerants usual, such as R134a, R404A, R407A/F, R407C, R407H, R410A, R448A, R449A, R449B, R450A, R452A, R513A, R507A and R744 (Co2), incompatible with R22
- Fluid temperature TS min./max. : -60°C to +70°C
- Ambient temperature min./max. : -40°C to +55°C
- Maximum operating pressure: 90 bar
- Min OPD: 0 bar

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ELECTRICAL PARAMETERS

- Recommended cycle time: 6 seconds
- Regulation range (power range): 10%-100%
- Voltage range: -15%~10%
- Coil insulation class: F
- Protection class: IP 67

MAIN FEATURES

Model valve	Code U11 Multipack	kV m3/h	MWP [Bar]	MOPD [Bar]	Dimensions		Weight (g)
				liquid state Inlet Øe Outlet Ød			
PEV0-1	10386000502	0.003	90	35* (35)**	3/8	1/2	185
PEV0-2	10386001602				10mm	12mm	
PEV1-1	10386000402	0.009			3/8	1/2	
PEV1-2	10386001502				10mm	12mm	
PEV2-1	10386000702	0.016			3/8	1/2	
PEV2-2	10386001402				10mm	12mm	
PEV3-1	10386000102	0.024		35* (30)**	3/8	1/2	
PEV3-2	10386001202			10mm	12mm		
PEV3.5-1	10386000802	0.035		30* (23)**	3/8	1/2	
PEV3.5-2	10386001302			10mm	12mm		
PEV4-1	10386000302	0.046		30* (18)**	3/8	1/2	
PEV4-2	10386001102			10mm	12mm		
PEV5-1	10386000602	0.064		25* (12)**	3/8	1/2	
PEV5-2	10386001002			10mm	12mm		
PEV6-1	10386000202	0.114		18* (8)**	3/8	1/2	
PEV6-2	10386000902			10mm	12mm		

*Maximum pressure difference at nominal voltage / 50 and 60 Hz

**Maximum pressure difference at 80% of nominal voltage / 50 and 60Hz

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POWERS

Condition 1: Tc/Te/Sc/SH: 45°C/-10°C/2K/
6K 0°C/-20°C/2K/6K for R744

Model valve	Maximum cold power [kW]							
	R134a	R404A	R407F	R448A	R449A	R450A	R452A	R513A
PEV0	0.26	0.23	0.36	0.32	0.32	0.22	0.24	0.21
PEV1	0.75	0.66	1.06	0.95	0.93	0.65	0.69	0.62
PEV2	1.32	1.16	1.86	1.66	1.63	1.15	1.22	1.08
PEV3	2.34	2.06	3.30	2.94	2.88	2.04	2.16	1.92
PEV3.5	2.96	2.61	4.18	3.73	3.66	2.58	2.74	2.44
PEV4	3.91	3.44	5.52	4.92	4.83	3.41	3.61	3.22
PEV5	5.44	4.80	7.69	6.86	6.72	4.74	5.03	4.48
PEV6	9.33	8.22	13.18	11.75	11.52	8.13	8.62	7.68

Model valve	Maximum cold power [kW]							
	R454B	R454C	R455A	R1234yf	R1234ze	R290	R410A	R744
PEV0	0.46	0.28	0.30	0.18	0.20	0.35	0.40	0.54
PEV1	1.34	0.81	0.88	0.53	0.58	1.01	1.15	1.57
PEV2	2.36	1.43	1.55	0.92	1.02	1.76	2.02	2.75
PEV3	4.18	2.53	2.75	1.64	1.80	3.13	3.58	4.88
PEV3.5	5.30	3.20	3.48	2.08	2.29	3.96	4.54	6.18
PEV4	6.99	4.23	4.59	2.74	3.02	5.23	6.00	8.16
PEV5	9.74	5.89	6.40	3.82	4.21	7.29	8.35	11.36
PEV6	16.69	10.09	10.97	6.54	7.21	12.49	14.31	19.48

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Condition 2: $T_c/T_e/S_c/S_H$: 45°C/-35°C/2K/6K
 -10°C/-40°C/2K/6K for R744

Model valve	Maximum cold power [kW]							
	R134a	R404A	R407F	R448A	R449A	R450A	R452A	R513A
PEV0	0.24	0.21	0.35	0.31	0.30	0.21	0.22	0.19
PEV1	0.71	0.61	1.02	0.90	0.88	0.60	0.63	0.57
PEV2	1.24	1.07	1.80	1.58	1.55	1.06	1.11	1.00
PEV3	2.20	1.90	3.18	2.80	2.74	1.87	1.97	1.76
PEV3.5	2.79	2.40	4.04	3.55	3.47	2.37	2.50	2.24
PEV4	3.68	3.17	5.33	4.69	4.58	3.13	3.30	2.95
PEV5	5.12	4.42	7.42	6.53	6.38	4.36	4.60	4.11
PEV6	8.78	7.58	12.71	11.19	10.94	7.47	7.88	7.05

Model valve	Maximum cold power [kW]							
	R454B	R454C	R455A	R1234yf	R1234ze	R290	R410A	R744
PEV0	0.47	0.26	0.28	0.16	0.18	0.33	0.40	0.62
PEV1	1.35	0.75	0.81	0.47	0.53	0.96	1.15	1.81
PEV2	2.38	1.32	1.43	0.82	0.93	1.69	2.02	3.17
PEV3	4.21	2.33	2.53	1.46	1.64	2.99	3.58	5.63
PEV3.5	5.34	2.96	3.21	1.85	2.08	3.80	4.54	7.13
PEV4	7.05	3.90	4.24	2.44	2.75	5.01	5.99	9.41
PEV5	9.82	5.44	5.91	3.40	3.82	6.98	8.35	13.11
PEV6	16.83	9.32	10.12	5.83	6.56	11.96	2:30 p.m.	22.47

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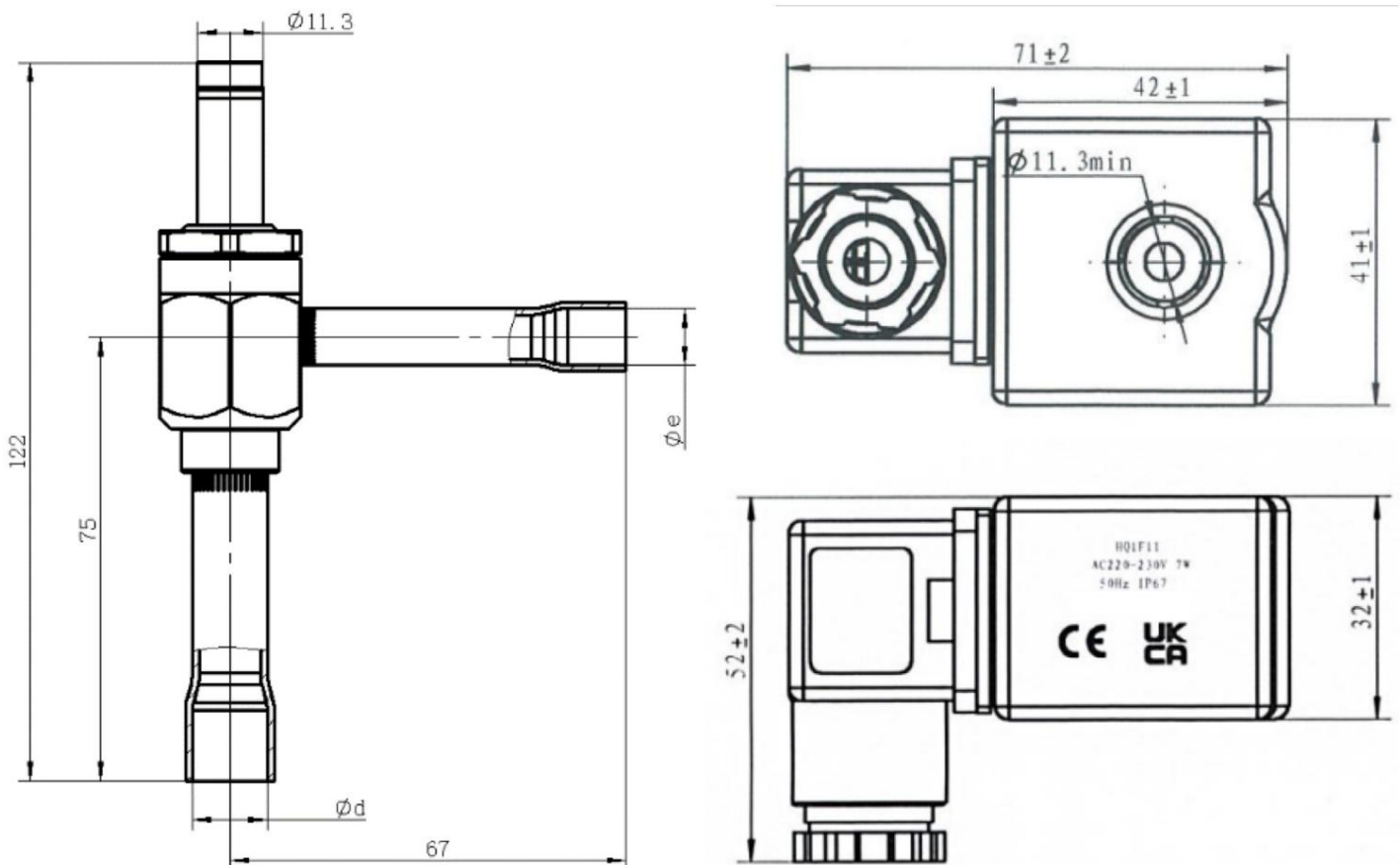


COIL MODEL

Model	Code U11 Multipack	Tension nominal	Frequency	Power absorbed	Insulation class	Protection sign	Weight (g)
HQ1F11	10780001202	AC220~230V	50HZ	7W	F	IP67	186
HQ1D17	10780001302	AC120V	50HZ	6W			
HQ1D80	10780001602	AC120V	60Hz	6w			
HQ1K17	10780001402	AC24V	50HZ	6W			
HQ1K80	10780001502	AC24V	60Hz	6w			

DIMENSIONS

(in mm)



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DETACHED PIECES

Model	PEV-K01	PEV-K02	PEV-K03	PEV-K04	PEV-K05
U11 code	20386002302	20386002402	20386002702	20386002502	20386002602
Composition					

ACCESSORY

Product	Description	U11 code
Solenoid valve magnet	Permanent magnet for PEV valves (useful for installation and for tests)	10108000102

