

SEK SERIES

ELECTRONIC EXPANSION VALVE KIT

FEATURES

- COMPLETE AND SIMPLE SOLUTION FOR REFRIGERATION SYSTEM
- QUICK AND ACCURATE SUPERHEAT CONTROL TO ENSURE THE SYSTEM OPERATING WELL
- KIT CONTAINS SEC SERIES CONTROLLER: EEV, PRESSURE TRANSDUCER WITH PACKARD CABLE, TEMPERATURE SENSOR
- LPF SERIES, EEV WITH VERY LOW INTERNAL LEAKAGE <1ML/MIN

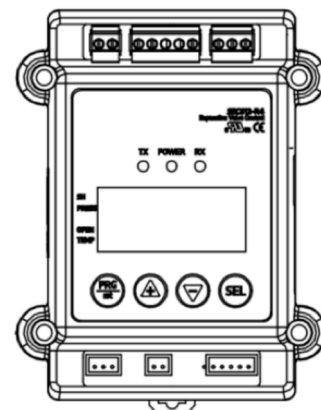
MODEL DESIGNATION LEGEND

NO.			Model Designation Legend
1	2	3	
SEK	10	01	electronic Expansion valve Kit Valve
SEK	10	01	ori ice
SEK	10	01	Design code

GENERAL SPECIFICATIONS

Controller:

Items	Description
Dimension	87(W)mm x 114(H)mm x 30 (D)mm
Power supply	24Vdc+10%/-15% Class II
Power consumption	9W with LPF at 24VDC
Operation	-30~55°C, Humidity≤95%RH
Storage	-30~55°C, Humidity≤95%RH
Protection level	IP20

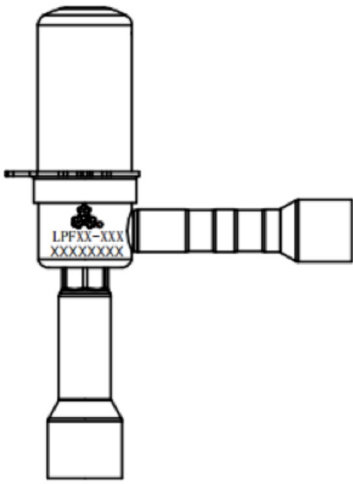
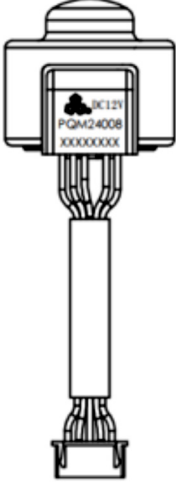


ELECTRONIC EXPANSION VALVE KIT



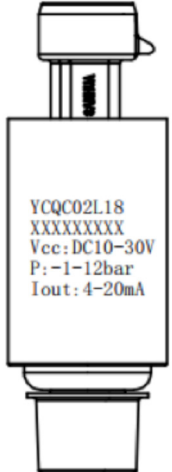

LPF and Coil with 3m cable length:

Items	Description
Rated voltage	12V DC ($\pm 10\%$)
Excitation mode	1-2 phase excitation, uni-polar-500steps
Excitation rate	30 - 90pps for LPF08 ~32 30 - 40pps for LPF 45 ~62
Current and resistance	260mA, $46 \pm 3.7 \Omega/\text{phase}(20^\circ\text{C})$
Medium temp.	$-40^\circ\text{C} / +70^\circ\text{C}$ (duty cycle $\leq 40\%$)
Ambient temp.	$-40^\circ\text{C} / +60^\circ\text{C}$ for LPF 08~32 $-30^\circ\text{C} / +60^\circ\text{C}$ for LPF 45~62
Relative humidity	0 to 95% RH
Design Pressure	42 bar for LPF08 ~32 49 bar for LPF 45~62
MOPD	35 bar

Pressure transducer and Packard cable with 2m length:

Items	Description
Voltage supply	10-30Vdc
Output	4-20mA
Pressure range	-1~12 Bar
Test Pressure	52.5Bar
Accuracy	$\pm 0.8\%$ F.S. ($-40 \sim +40^\circ\text{C}$)
Protection class	IP 67
Connection Type	Thread SAE - 1/4"7/16-20UNF
Electrical connector	Packard connector





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Temperature sensor:

Items	Description
Type	NTC 5KΩat 25°C
Wire	2×0.5mm ² -2m length
Protection class	IP 67
Accuracy	±0.3°C (below25°C)
Temperature Range	-50 ~50°C



ORDERING METHOD

Model	Part Number	Valve Connection	Common products	Valve type
SEK08-01	10142001402	3/8 - 1/2	SEC612-R4 -> Controller YCQC02L18 -> Pressure Transmitter YCQC02-013022 -> Packard Cable NTC2A1 -> Probe PQ-M24012-000008 -> EEV coil	LPF08-001
SEK10-01	10142000102			LPF10-002
SEK14-01	10142000302			LPF14-002
SEK18-01	10142000502			LPF18-002
SEK24-01	10142000702			LPF 24-002
SEK30-01	10142001302			LPF30-001
SEK32-01	10142001202			LPF32-001
SEK45-01	10142002902	5/8 - 5/8		LPF45-001
SEK52-01	10142003002			LPF52-001
SEK55-01	10142003102			LPF55-001
SEK62-01	10142003202			LPF62-001
SEK08-02	10142002102	10 -12 mm		LPF-08-003
SEK10-02	10142000202			LPF10-004
SEK14-02	10142000402			LPF14-004
SEK18-02	10142000602		LPF18-003	
SEK24-02	10142000802		LPF24-003	
SEK30-02	10142002002		LPF30-002	
SEK32-02	10142001902		LPF32-003	

Compatible with the main refrigerants on the market:

R404A, R134a, R407C, R507, R1234ze, R1234yf, R450A, R513A, R448A, R449A, R452A, R245fa, R23, R407A, R407F, R124, R407H, R454C, R455A.

For other refrigerants as R290, CO2, R410a... please contact your local representative.

ELECTRONIC EXPANSION VALVE KIT



CAPACITY SELECTION FOR LPF

Valve Model	Evap Temp. (°C)	Max cooling capacity [kW]				
		Cond. Temp. @35°C, SH=6K, SBC=2K				
		R404A	R449A	R452A	R513A	R455A
LPF08	-30	2.0	2.7	2.1	1.8	2.6
	-10	2.0	2.7	2.1	1.8	2.7
	10	1.8	2.5	2.0	1.6	2.5
LPF10	-30	3.2	4.4	3.3	2.9	4.2
	-10	3.3	4.4	3.4	2.9	4.3
	10	2.9	4.0	3.2	2.7	4.1
LPF14	-30	6.1	8.4	6.3	5.4	8.0
	-10	6.2	8.4	6.5	5.6	8.2
	10	5.6	7.7	6.0	5.0	7.8
LPF18	-30	8.4	11.6	8.8	7.5	11.0
	-10	8.6	11.6	9.0	7.7	11.3
	10	7.7	10.6	8.3	7.0	10.7
LPF24	-30	11.5	15.8	12.0	10.2	15.0
	-10	11.7	15.9	12.4	10.5	15.5
	10	10.5	14.5	11.4	9.5	14.7
LPF30	-30	16.3	22.4	17.0	14.5	21.3
	-10	16.6	22.5	17.5	14.9	21.9
	10	14.9	20.5	16.1	13.5	20.8
LPF32	-30	17.9	24.6	18.6	15.9	23.4
	-10	18.2	24.7	19.2	16.3	24.1
	10	16.3	22.5	17.7	14.8	22.8
LPF45	-30	40	54.9	41.6	35.5	52.2
	-10	40.8	55.3	42.9	36.4	53.8
	10	36.5	50.4	39.6	33.1	51
LPF52	-30	53.6	73.5	55.7	47.5	69.9
	-10	54.5	74	57.4	48.8	72
	10	48.9	67.4	53	44.2	68.3
LPF55	-30	62	85.1	64.5	55	80.9
	-10	63.1	85.7	66.4	56.4	83.3
	10	56.6	78	61.3	51.2	79
LPF62	-30	75.4	103.5	78.4	66.9	98.4
	-10	76.8	104.2	80.8	68.7	101.4
	10	68.8	94.9	74.6	62.3	96.1

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Valve Model	Evap Temp. (°C)	Max cooling capacity [kW]				
		Cond. Temp. @45°C, SH=6K, SBC=2K				
		R404A	R449A	R452A	R513A	R455A
LPF08	-30	1.9	2.7	1.9	1.7	2.5
	-10	2.0	2.8	2.1	1.8	2.6
	10	1.9	2.6	2.0	1.8	2.6
LPF10	-30	3.0	4.3	3.2	2.8	4.0
	-10	3.2	4.5	3.4	3.0	4.3
	10	3.1	4.3	3.3	2.9	4.2
LPF14	-30	5.7	8.2	6.0	5.3	7.7
	-10	6.1	8.5	6.4	5.7	8.1
	10	5.9	8.2	6.3	5.5	8.0
LPF18	-30	7.9	11.4	8.3	7.4	10.6
	-10	8.4	11.8	8.8	7.9	11.2
	10	8.1	11.3	8.7	7.7	11.1
LPF24	-30	10.8	15.5	11.3	10.1	14.5
	-10	11.5	16.1	12.1	10.8	15.3
	10	11.1	15.5	11.9	10.5	15.2
LPF30	-30	15.3	22.0	16.0	14.3	20.5
	-10	16.3	22.8	17.1	15.2	21.7
	10	15.7	21.9	16.8	14.8	21.5
LPF32	-30	16.8	24.1	17.5	15.7	22.5
	-10	17.8	25.0	18.8	16.7	23.8
	10	17.2	24.0	18.4	16.3	23.6
LPF45	-30	37.6	53.9	39.2	35.1	50.3
	-10	39.9	55.9	41.9	37.3	53.2
	10	38.5	53.7	41.2	36.4	52.7
LPF52	-30	50.4	72.2	52.5	46.9	67.2
	-10	53.4	74.7	56.1	49.9	71.2
	10	51.5	71.9	55.1	48.7	70.5
LPF55	-30	58.3	83.5	60.7	54.3	77.8
	-10	61.8	86.5	64.9	57.8	82.4
	10	59.6	83.2	63.8	56.4	81.6
LPF62	-30	70.9	101.6	73.9	66.1	94.7
	-10	75.1	105.2	79	70.3	100.2
	10	72.5	101.2	77.6	68.6	99.3

ELECTRONIC EXPANSION VALVE KIT



Valve Model	Evap Temp. (°C)	Max cooling capacity [kW]				
		Cond. Temp. @55°C, SH=6K, SBC=2K				
		R404A	R449A	R452A	R513A	R455A
LPF08	-30	1.6	2.5	1.7	1.6	2.3
	-10	1.8	2.7	1.9	1.8	2.5
	10	1.8	2.7	2.0	1.9	2.5
LPF10	-30	2.6	4.1	2.8	2.7	3.7
	-10	2.9	4.3	3.1	2.9	4.0
	10	3.0	4.3	3.2	3.0	4.2
LPF14	-30	5.0	7.7	5.3	5.1	7.0
	-10	5.6	8.2	5.9	5.6	7.7
	10	5.7	8.2	6.1	5.7	7.9
LPF18	-30	6.9	10.7	7.3	7.0	9.7
	-10	7.7	11.4	8.1	7.7	10.6
	10	7.8	11.4	8.4	7.9	10.9
LPF24	-30	9.5	14.6	10.0	9.6	13.3
	-10	10.5	15.5	11.1	10.5	14.5
	10	10.7	15.6	11.5	10.8	14.9
LPF30	-30	13.4	20.7	14.1	13.5	18.8
	-10	14.9	22.0	15.7	14.9	20.5
	10	15.2	22.0	16.2	15.3	21.1
LPF32	-30	14.7	22.7	15.5	14.8	20.7
	-10	16.3	24.1	17.2	16.4	22.5
	10	16.7	24.1	17.8	16.8	23.1
LPF45	-30	32.9	50.7	34.6	33.2	46.2
	-10	36.5	54	38.5	36.6	50.3
	10	37.3	54.1	39.8	37.6	51.7
LPF52	-30	44.1	67.9	46.3	44.4	61.8
	-10	48.8	72.2	51.5	48.9	67.3
	10	49.8	72.3	53.3	50.3	69.1
LPF55	-30	51	78.6	53.5	51.4	71.6
	-10	56.5	83.5	59.6	56.6	77.9
	10	57.7	83.6	61.6	58.2	80
LPF62	-30	62.1	95.6	65.1	62.5	87.1
	-10	68.7	101.6	72.5	68.9	94.7
	10	70.2	101.7	75	70.8	97.3