

**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	
<b>SEK</b>	10	01	SANHUA electronic Expansion valve Kit
SEK	<b>10</b>	01	Valve orifice
SEK	10	<b>01</b>	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	15VA with LPF at 24VDC	
Operation	-30~55°C, Humidity≤95%RH	
Storage	-30~55°C, Humidity≤95%RH	
Protection level	IP20	

*LPF and Coil with 3m cable length:*

Items	Description	
Rated voltage	12V DC (± 10%)	
Excitation mode	1-2 phase excitation, uni-polar-500stps	
Excitation rate	30 - 90pps	
Current and resistance	260mA, 46 ± 3.7 Ω/phase(20°C)	
Medium temp.	-40°C / +70°C (duty cycle≤40%)	
Ambient temp.	-40°C / +60°C (duty cycle≤40%)	
Relative humidity	0 to 95% RH	
Design Pressure	42bar	
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	±0.8% F.S.(-40~+40°C)	
Protection class	IP 67	
Connection Type	Thread SAE - 1/4"7/16-20UNF	
Electrical connector	Packard connector	

Temperature sensor:

Items	Description	
Type	NTC 5KΩat 25°C	
Wire	2×0.5mm <sup>2</sup> -2m length	
Protection class	IP 67	
Accuracy	±0.3°C (below 25°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
SEK10-02	10142000202	10 -12 mm		LPF10-004
SEK14-02	10142000402			LPF14-004
SEK18-02	10142000602			LPF18-003
SEK24-02	10142000802			LPF 24-003

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.



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
	-20	2.0	2.7	2.1	1.8	2.6
	-10	2.0	2.7	2.1	1.8	2.7
	0	1.9	2.7	2.1	1.8	2.6
	10	1.8	2.5	2.0	1.6	2.5
LPF10	-30	3.2	4.4	3.3	2.9	4.2
	-20	3.3	4.5	3.4	2.9	4.3
	-10	3.3	4.4	3.4	2.9	4.3
	0	3.2	4.3	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
	-20	6.2	8.5	6.5	5.5	8.1
	-10	6.2	8.4	6.5	5.6	8.2
	0	6.0	8.2	6.4	5.4	8.1
	10	5.6	7.7	6.0	5.0	7.8
LPF18	-30	8.4	11.6	8.8	7.5	11.0
	-20	8.6	11.7	9.0	7.7	11.2
	-10	8.6	11.6	9.0	7.7	11.3
	0	8.3	11.3	8.8	7.5	11.2
	10	7.7	10.6	8.3	7.0	10.7
LPF24	-30	11.5	15.8	12.0	10.2	15.0
	-20	11.8	16.0	12.3	10.5	15.4
	-10	11.7	15.9	12.4	10.5	15.5
	0	11.4	15.5	12.1	10.2	15.3
	10	10.5	14.5	11.4	9.5	14.7
LPF30	-30	16.3	22.4	17.0	14.5	21.3
	-20	16.6	22.7	17.4	14.8	21.8
	-10	16.6	22.5	17.5	14.9	21.9
	0	16.1	21.9	17.1	14.5	21.7
	10	14.9	20.5	16.1	13.5	20.8
LPF32	-30	17.9	24.6	18.6	15.9	23.4
	-20	18.3	24.9	19.1	16.3	23.9
	-10	18.2	24.7	19.2	16.3	24.1
	0	17.7	24.0	18.8	15.9	23.8
	10	16.3	22.5	17.7	14.8	22.8

**ELECTRONIC EXPANSION VALVE KIT**



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
	-20	1.9	2.7	2.0	1.8	2.6
	-10	2.0	2.8	2.1	1.8	2.6
	0	2.0	2.7	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
	-20	3.1	4.4	3.3	2.9	4.2
	-10	3.2	4.5	3.4	3.0	4.3
	0	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
	-20	6.0	8.4	6.2	5.6	7.9
	-10	6.1	8.5	6.4	5.7	8.1
	0	6.1	8.4	6.4	5.7	8.2
	10	5.9	8.2	6.3	5.5	8.0
LPF18	-30	7.9	11.4	8.3	7.4	10.6
	-20	8.2	11.6	8.6	7.7	11.0
	-10	8.4	11.8	8.8	7.9	11.2
	0	8.4	11.7	8.9	7.9	11.3
	10	8.1	11.3	8.7	7.7	11.1
LPF24	-30	10.8	15.5	11.3	10.1	14.5
	-20	11.3	15.9	11.8	10.5	15.0
	-10	11.5	16.1	12.1	10.8	15.3
	0	11.5	16.0	12.1	10.8	15.4
	10	11.1	15.5	11.9	10.5	15.2
LPF30	-30	15.3	22.0	16.0	14.3	20.5
	-20	15.9	22.5	16.7	14.9	21.2
	-10	16.3	22.8	17.1	15.2	21.7
	0	16.2	22.6	17.2	15.3	21.8
	10	15.7	21.9	16.8	14.8	21.5
LPF32	-30	16.8	24.1	17.5	15.7	22.5
	-20	17.5	24.7	18.3	16.3	23.3
	-10	17.8	25.0	18.8	16.7	23.8
	0	17.8	24.8	18.9	16.7	23.9
	10	17.2	24.0	18.4	16.3	23.6

**ELECTRONIC EXPANSION VALVE KIT**

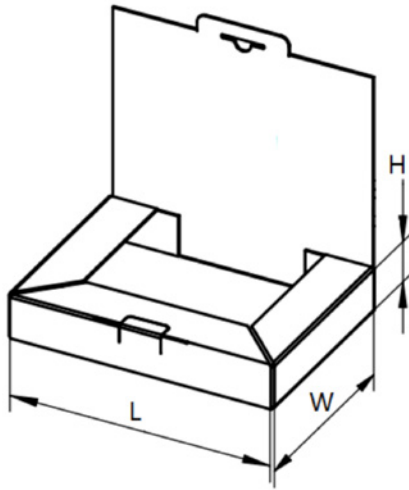


Valve Model	Evap Temp. ( °C )	Max cooling capacity [kW]				
		Cond. Temp. @55°C, SH=6K, SBC=2K				
		R404A	R449A	R452A	R513A	R455A
LPF08	-30	1.6	2.5	1.7	1.6	2.3
	-20	1.7	2.6	1.8	1.7	2.4
	-10	1.8	2.7	1.9	1.8	2.5
	0	1.8	2.7	2.0	1.8	2.5
	10	1.8	2.7	2.0	1.9	2.5
LPF10	-30	2.6	4.1	2.8	2.7	3.7
	-20	2.8	4.2	3.0	2.8	3.9
	-10	2.9	4.3	3.1	2.9	4.0
	0	3.0	4.4	3.2	3.0	4.1
	10	3.0	4.3	3.2	3.0	4.2
LPF14	-30	5.0	7.7	5.3	5.1	7.0
	-20	5.3	8.0	5.6	5.3	7.4
	-10	5.6	8.2	5.9	5.6	7.7
	0	5.7	8.3	6.0	5.7	7.8
	10	5.7	8.2	6.1	5.7	7.9
LPF18	-30	6.9	10.7	7.3	7.0	9.7
	-20	7.4	11.1	7.7	7.4	10.2
	-10	7.7	11.4	8.1	7.7	10.6
	0	7.9	11.5	8.3	7.9	10.8
	10	7.8	11.4	8.4	7.9	10.9
LPF24	-30	9.5	14.6	10.0	9.6	13.3
	-20	10.1	15.2	10.6	10.1	14.0
	-10	10.5	15.5	11.1	10.5	14.5
	0	10.7	15.7	11.4	10.8	14.8
	10	10.7	15.6	11.5	10.8	14.9
LPF30	-30	13.4	20.7	14.1	13.5	18.8
	-20	14.2	21.5	15.0	14.3	19.8
	-10	14.9	22.0	15.7	14.9	20.5
	0	15.2	22.2	16.1	15.3	21.0
	10	15.2	22.0	16.2	15.3	21.1
LPF32	-30	14.7	22.7	15.5	14.8	20.7
	-20	15.6	23.5	16.5	15.7	21.7
	-10	16.3	24.1	17.2	16.4	22.5
	0	16.7	24.4	17.7	16.8	23.0
	10	16.7	24.1	17.8	16.8	23.1

**ELECTRONIC EXPANSION VALVE KIT**



**PACKAGE DIMENSIONS**



Name	Dimensions (mm)			Weight (kg)
	L	W	H	
SEK EEV kit	312	226	50	0.78

