# SANHUA

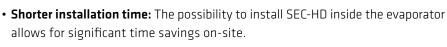
## Electronic Expansion Valve Controller Heavy Duty Series

**Heavy Duty** series is a superheat controller with low temperature resistance and high water protection class. It can be installed inside of the cold storage room.

The SEC-HD series is compatible with all refrigerants, including CO2 (R744) and HC/HFO.

#### **KEY FEATURES**

- High water resistance
- Low-temperature-resistant parts to be installed down to -35°C environment
- Integrated temperature sensor, pressure transmitter socket and EEV coil
- Accurate and efficient superheat control performance to improve the refrigeration system efficiency
- Remote display available allowing a quick and comfortable access of the operating parameters.
- Enclosure IP67
- Large choice of pressure transducers adapted to your application
- Integrated or remote coil for longer cable length and quicker service
- Power supply: 220 Vac (85 V ~ 264 Vac), 50/60 Hz, 25 VA under 220 Vac
- Communication: RS485



- **Convenient setup:** Refrigeration professionals can conveniently place and set up the controller inside the evaporator during site preparation, even before the delivery of the goods.
- **Copy key functionality:** The copy key is useful for reproducing configurations, especially in cases with numerous evaporators in warehouses.
- Versatile installation: SEC-HD can also be installed on the evaporator's facade, and its IP67 protection ensures compatibility with cleaning procedures required on evaporators.











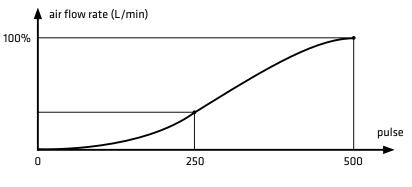
#### **ORDERING REFERENCES**

Name	Model	U11 code	Description		
SEC-HD with integrated coil					
EEV Controller	SEC631-HD (1)	10680004002	PQ-M24 coil included		
SEC-HD with remote coil		^ 			
EEV Controller	SEC641-HD (1)	10680003902	PQ-M24 coil included (remote)		
Pressure transducer					
Pressure Transducer (CO2)	YCQB06L01	10185067202	Input: 0~60 bar, Output: 0.5-3.5 V Packard connector, Flare 7/16-20UNF-2B (Female)		
Pressure Transducer (HC) - (inch)	YCQB02H165	10185087602	Input: -1~20 bar, Output: 0.5-3.5 V Packard connector, Solder ¼″ (ODM)		
Pressure Transducer (HC) - (mm)	YCQB02H166	10185087002	Input: -1~20 bar, Output: 0.5-3.5 V Packard connector, Solder 6 mm (ODM)		
Pressure Transducer (HFC)	YCQB02L171	10185060402	Input: -1~20 bar, Output: 0.5-3.5 V Packard connector, Flare 7/16-20UNF-2B (Female)		
Remote Display	MD03-R4	10680002502	For displaying and parameter setting		
Manual Operator	MD04-R4	10680002402	For quickly copying parameters		

Note: 1) Approved EEV models: LPF, LPF-T.

Pressure transmitter and valve body are not included in the controller package.





LPF and LPF-T

#### **GENERAL INFORMATION**

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

Valve Model	Kv (m³/h)	Maximal Cooling Capacity [kW]									
		R134a	R513A	R404A	R448A	R454B	R455A	R290	R744		
LPF03/LPF03T	0.009	0.90	0.74	0.80	1.14	1.62	1.06	1.21	1.89		
LPF05/LPF05T	0.014	1.39	1.15	1.23	1.75	2.49	1.64	1.86	2.91		
LPF08/LPF08T	0.025	2.3	1.84	2.0	2.8	4.0	2.6	3.0	4.7		
LPF10/LPF10T	0.04	3.6	3.0	3.2	4.6	6.5	4.3	4.9	7.6		
LPF14/LPF14T	0.08	6.9	5.7	6.1	8.7	12.4	8.1	9.2	14.4		
LPF18/LPF18T	0.12	9.5	7.9	8.4	12.0	17.1	11.2	12.8	19.9		
LPF24/LPF24T	0.20	13.0	10.8	11.5	16.4	23.4	15.3	17.5	27.2		
LPF30/LPF30T	0.27	18.4	15.2	16.2	23.3	33.0	21.7	24.7	38.5		
LPF32/LPF32T	0.30	20.2	16.6	17.8	25.5	36.2	23.7	27.0	42.1		
LPF45	0.5	45.3	37.3	39.9	57.1	81.1	53.3	60.6	-		
LPF52	0.7	60.6	49.9	53.4	76.3	108.5	71.2	81.1	-		
LPF55	0.9	70.2	57.7	61.8	88.4	125.5	82.5	93.9	-		
LPF62	1.1	85.3	70.2	75.2	107.5	152.7	100.3	114.2	-		

**Note:** The Max capacity is given for full opened position

LPF... is standard series, LPF...T is designed for CO2 application Please look in the Datasheet for specific details from SEC-HD, LPF-T and DPF.

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