



Electronic Expansion Valve Controller



FEATURES

- ADVANCED PID ALGORITHM TO ENSURE ACCURATE AUTOMATIC ADJUSTMENT OF SUPERHEAT
- QUICK-SAFE PREVENTION OF LOW AND HIGH SUPERHEAT TO ENSURE THE SYSTEM OPERATING WELL AT ANY CONDITIONS
- SMALL SIZE, RAIL MOUNTING DESIGN, EASY TO INSTALL
- ENERGY EFFICIENT, ACHIEVING THE MOST EFFICIENT USE OF THE EVAPORATOR

GENERAL SPECIFICATIONS

- Applicable for various refrigerants
- Operating temperature: -10~50°C
- Storage temperature: -20~60°C
- Relative humidity: ≤90%RH
- Certification: CE Declaration according to EMC
- Installation method: DIN rail snap-in or wall mounting with screws

ELECTRICAL PARAMETERS

- Power supply: 24Vac/24Vdc (+10%/-15%, 50/60Hz)
- Requested transformer: ≥ 30VA
- Inputs:
 - 1 Pressure sensor input
 - 1 Temperature sensor input
 - 1 Communication input (RS485 Modbus)
- Output:
 - 1 Auxiliary relay output (30Vdc/5A)
 - 1 EEV output (12V DC±10%), rectangular wave





SANHUA SEC60X SERIES Electronic Expansion Valve Controller

TECHNICAL PARAMETERS

Model	Pressure Sensor	RS485 port	Refrigerant type	Application
SEC601-00	0.5-3.5V	No	R22, R410A, R1234ze, R1234yf, R290, R404A, R407C, R134a	A/C & HP
SEC601-R4	0.5-3.5V	Yes		
SEC602-R4	4-20mA	Yes		
SEC605-00	0.5-3.5V	No	R404A, R407A, R407F, R448A/ R449A, R290, R452A, R744, R134a	Refrigeration
SEC605-R4	0.5-3.5V	Yes		
SEC606-R4	4-20mA	Yes		

MODEL DESIGNATION LEGEND

NO.				Model Designation Legend
1	2	3	4	
SEC	6	01	00	SANHUA electronic Expansion valve Controller
SEC	6	01	00	Digital means the sixth-generation product
SEC	6	01	00	Odd means voltageP-sensor, even means current type
SEC	6	01	00	00 means basic model, R4 means with communication

Item	Description	
Temperature Sensor	Type	NTC 5KΩ
	Wire	2C×0.5mm
	Protection class	IP 67
	Accuracy	±0.3°C (below25°C)
	Temperature Range	-50 ~50°C
Connection Cable		





SANHUA SEC60X SERIES Electronic Expansion Valve Controller

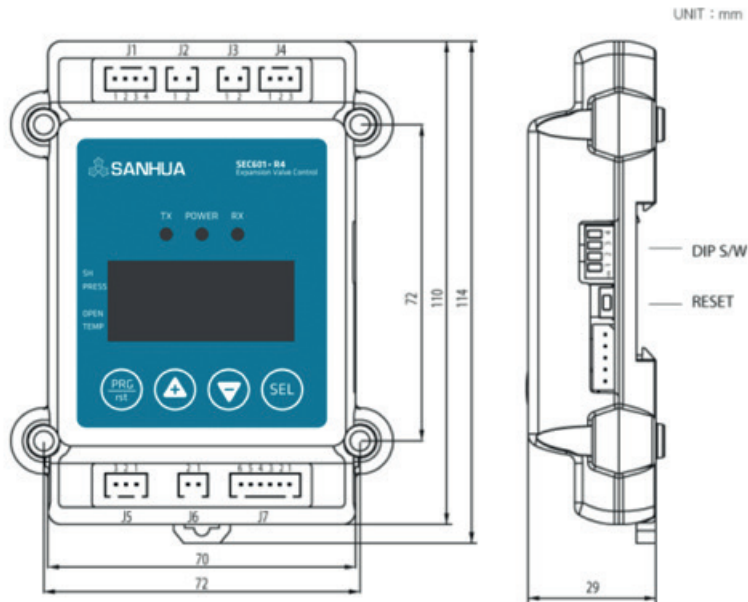
Item	Description		
Pressure sensor	Voltage supply	YCQB: 5±0.25 Vdc YCQC: 10-30Vdc	
	Output	YCQB: 0.5~3.5 Vdc YCQC: 4-20mA	
	Pressure range	0~2MPa -0.1~1.2MPa	
	Test Pressure	5.25MPa	
	Accuracy	±0.8% F.S.(-40~40°C)	
	Protection class	IP 67	
	Connection Type	Solder 1/4" Thread SAE - 1/4" 7/16-20UNF	
	Wire	YCQB: black, white, red YCQC: white, red	





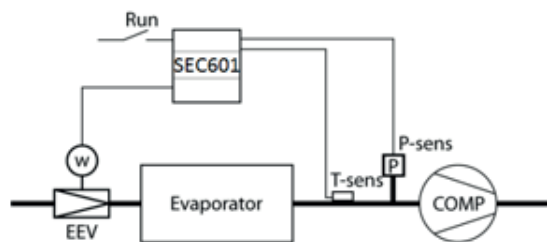
SANHUA SEC60X SERIES Electronic Expansion Valve Controller

DIMENSIONS AND INSTALLATION



No.	Function	Description
J1	AC/DC 24V	Power input port (AC/DC 24V)
J2	RUN	RUN signal input port
J3	RS485	RS485 comm. Input/output port
J4	AUX-RLY	Auxiliary relay output port
J5	P-SENS	Pressure sensor input port
J6	T-SENS	Temperature sensor input port
J7	EEV	EEV output port

INSTALLATION DIAGRAM





SANHUA *SEC60X SERIES* Electronic Expansion Valve Controller

ORDERING METHOD

NO.	Item	Model	Part Number	Details			
				Item	Qty.		
1	Controller Package	SEC601-00	10680000102	EEV controller (Basic model)	1		
		SEC605-00	10680000902	Package TP-00	1		
		SEC601-R4	10680000202	EEV controller (With RS485)	1		
		SEC605-R4	10680000702	Package TP-R4	1		
		SEC602-R4	10680000402	EEV controller (current model with RS485)	1		
		SEC606-R4	10680000802	Package TP-C5	1		
2	Temperature sensor + cable Package	TP-00	20680000702	2m Temp. Sensor×1; Cable 2pin×1 Cable 3pin×1; Cable 4pin×1			
3		TP-R4	20680000802	2m Temp. Sensor×1; Cable 2pin×2 Cable 3pin×1; Cable 4pin×1			
4		TP-C5	20680000902	5m Temp. Sensor×1; Cable 2pin×2 Cable 3pin×1; Cable 4pin×1			
5		TP-C9	20680001002	9m Temp. Sensor×1; Cable 2pin×2 Cable 3pin×1; Cable 4pin×1			
6	Pressure Sensor	YCQB02H01-1	10185001502	Connection	Solder	Cable Length	2m
7		YCQB02L12-1	10185015502		Thread		2m
8		YCQB02H18-1	10185015402		Solder		4.9m
9		YCQB02L28-1	10185015602		Thread		4.9m
10		YCQC02L18	10185017102		Packard		/
11	Packard cable	YCQB02-013054	20185016702	Packard cable for YCQC02L18			
12		YCQB02-013055	20185016802				

Note:

- 1) The controller packages already contain the corresponding temperature sensor and cable package.
- 2) The temperature sensor + cable packages can be ordered separately.
- 3) TP-00 corresponds to SEC60X-00, TP-R4 corresponds to SEC60X-R4.
- 4) The pressure sensor is not included in the packages and should be ordered separately.

