

**SEC61 SERIES**

# ELECTRONIC EXPANSION VALVE CONTROLLER

Electronic Expansion Valve Controller SEC61 series is the controller with enhanced features for the refrigeration applications, A/C and HP applications.



## 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: -30~55°C
- Storage temperature: -30~55°C
- Relative humidity: ≤95%RH
- Certification: UL, CE Declaration according to EMC
- Installation method: DIN railsnap-in or wall mounting with screws

## ELECTRICAL PARAMETERS

- Power supply:
  - 24Vac +10%/-15%, 50/60Hz (SEC611 & SEC613 only)
  - 24Vdc+10%/-15% (Suitable for all the SEC models)
  - Class II
- Requested transformer: ≥ 15VA
- Inputs: 1 Pressure sensor input  
1 Temperature sensor input  
1 Communicationinput (RS485 Modbus)
- Output: 1 Auxiliary relay output (30Vdc/3A)  
1 EEV output (12V DC±10%), rectangular wave

# ELECTRONIC EXPANSION VALVE CONTROLLER



## MODEL DESIGNATION LEGEND

NO.				Model Designation Legend
1	2	3	4	
SEC	6	11	R4	Electronic Expansion valve Controller
SEC	<b>6</b>	11	R4	Digital means the sixth-generation product
SEC	6	<b>11</b>	R4	Odd means voltage P-sensor, even means current type
SEC	6	11	<b>R4</b>	R4 means with RS485 modbus communication

## ORDERING METHOD

All the models are compatible with the main refrigerants on the market :

R22, R404A, R410A, R134a, R407C, R507, R1234ze, R1234yf, R290, R450A, R513A, R448A, R449A, R452A, R744(CO2), R744(N2O), R32, R245fa, R23, R407A, R407F, R124, R717, R407H, R454C, R455A.

All the models get a RS485 port for communication.

NO.	Item	Model	Part Number	Details		
				Item	Qty.	
1	Controller Package <sup>1)</sup>	SEC611-R4	10680001002	Voltage pressure sensor	°C/Bar	1
		SEC613-R4	10680001202		°F/Psi	1
		SEC612-R4	10680001102	Current pressure sensor	°C/Bar	1
		SEC614-R4	10680001302		°F/Psi	1
2	Temp. Sensor <sup>2)</sup>	NTC2A1	10665000102	2m Temp. Sensor		
3		NTC5A1	10665000202	5m Temp. Sensor		
4		NTC9A1	10665000402	9m Temp. Sensor		
6	Pressure Sensor <sup>3)</sup>	YCQB02H01-1	10185001502	Ratio with Solder connection, 2m cable length		
7		YCQB02L12-1	10185015502	Ratio with Thread connection, 2m cable length		
8		YCQB02H18-1	10185015402	Ratio with Solder connection, 4.9m cable length		
9		YCQB02L28-1	10185015602	Ratio with Thread connection, 4.9m cable length		
10		YCQC02L18	10185017102	Current with Thread connection, Packard connection		
11	Packard cable	YCQC02-013038	20185051202	5m cable length		
12		YCQC02-013039	20185051302	9m cable length		

**Note:** The temperature & pressure sensors should be ordered separately.

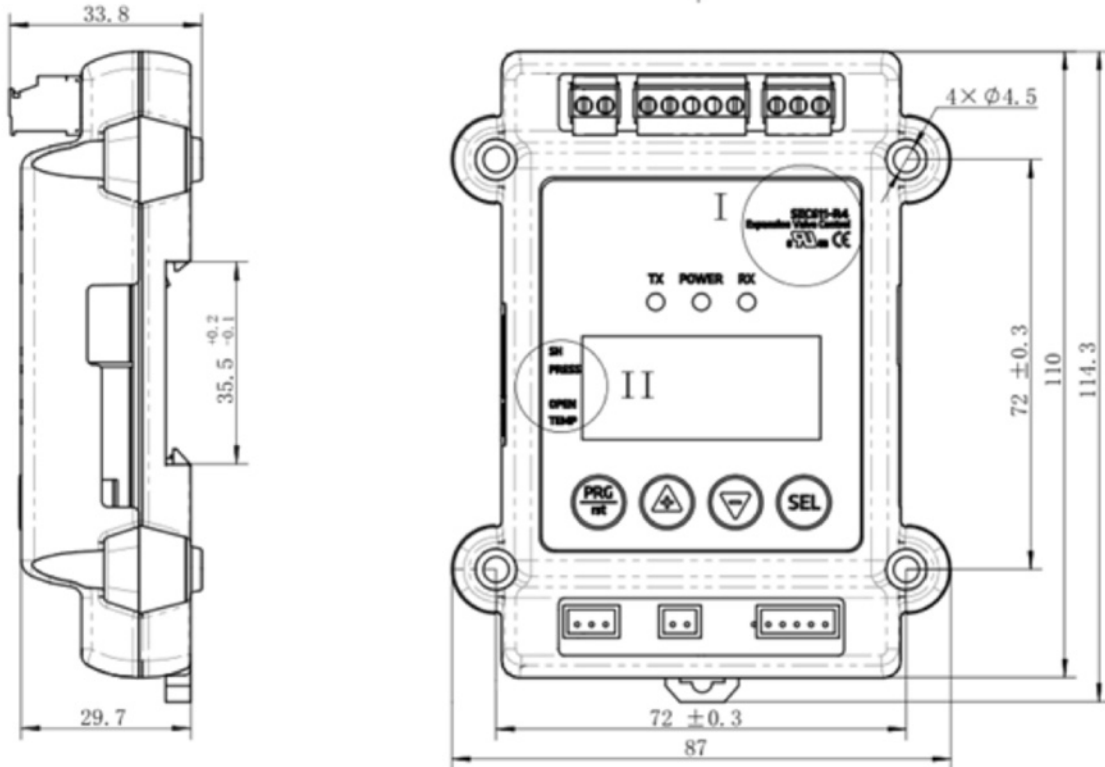
Others YCQ models are available, ask your local support



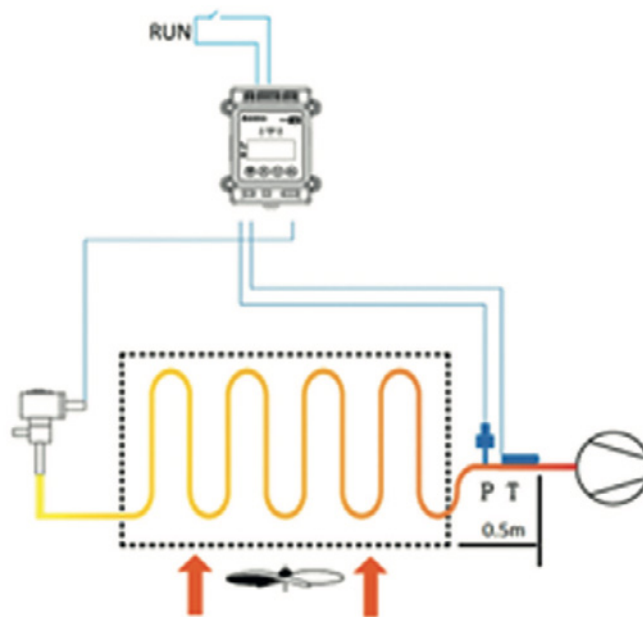
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## DIMENSIONS AND INSTALLATION



## INSTALLATION DIAGRAM

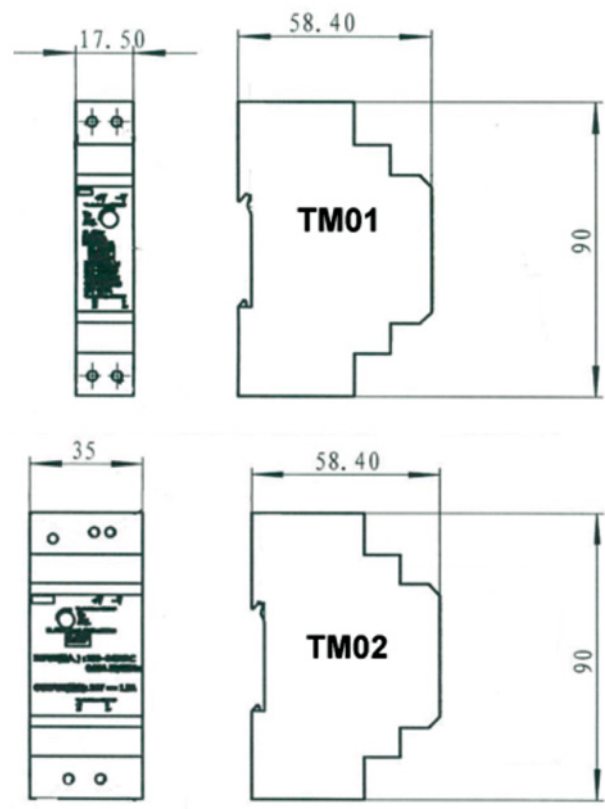


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## ACCESSORIES

### Transformer

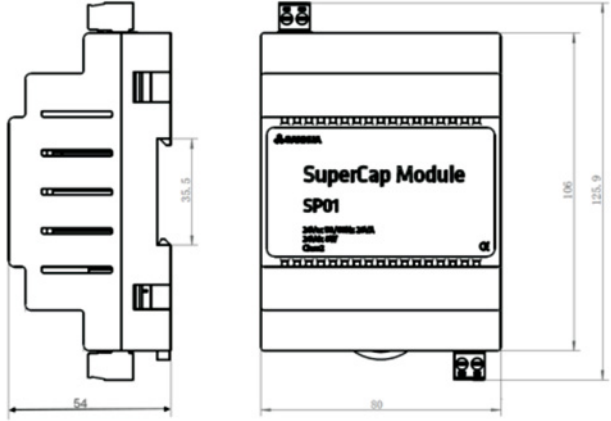
Item	Description		
Transformer	Supply Voltage	100 ~ 240 VAC	
	Output Voltage	From 21.6 to 29V, Set at 24 VDC	
	Output current	0.63 A for TM01 1.5 A for TM02	
	Operating Temperature	-30 ~ +70°C	
	Mounting	DIN 35mm	

Model	Part Number	Output current	Code reported on the product label
TM01	20680008002	0.63 A	HDR 15
TM02	20680008102	1.5 A	HDR 30

**ELECTRONIC EXPANSION VALVE CONTROLLER**



*Supercapacitor*

Item	Description			
Supercapacitor	Power supply	24Vac +10%/-15%, 50/60Hz  24Vdc+10%/-15%, Class II		
	Protection Level	IP20		
	Mounting	DIN 35mm		
	Weight	171 g		

Model	Part Number
SP01	10680001702