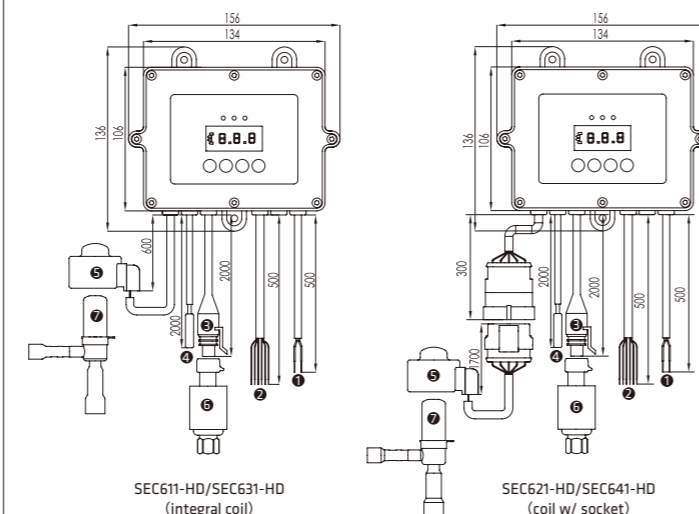
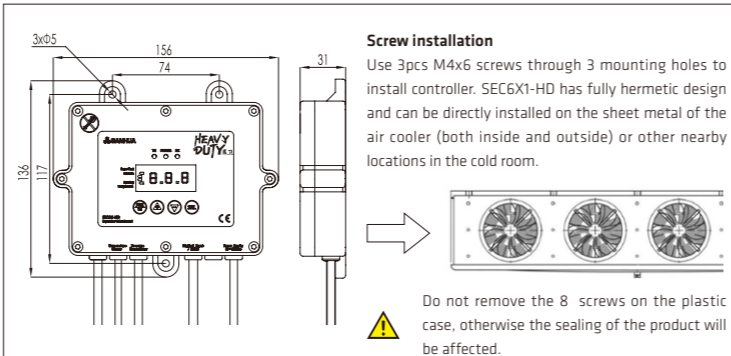


SEC6x1-HD EEV Controller Quick Installation Manual

II-SEC(HD)-MU-R2302

1. Installation and Wiring



No.	Print	Description	Function	Remarks	Cable Length (mm)	
					SEC611-HD/ SEC631-HD	SEC621-HD/ SEC641-HD
①	Power Supply	L (Red) N (Black)		220Vac (85Vac ~ 264Vac) 50/60Hz	500	500
②	Digital Input	START/STOP RUN (Grey)		Connect with GND	500	500
		Defrost DEF (Yellow)		Connect with GND		
		GND (Black)		① Connect with RUN, defrost signal to be a switch. ② Connect with 12Vdc to power the remote display.		
		RS485 Communication	B (Blue) A (Orange) 12Vdc (Red) S1 (White) GND (Black)	RS485 B- (TRX-) RS485 A+ (TRX+) 12Vdc output Power Supply Signal input GND		
③	Pressure Transmitter	GND (Red) T (Black)		/ /	2000	2000
④	Temperature Sensor	GND (Red) T (Black)		/ /	2000	2000
⑤	EEV	EEV Coil		The unipolar electronic expansion valve coil is 5-wire. SEC611-HD/SEC631-HD : The coil is integrated with the controller ; SEC621-HD/SEC641-HD : Coil and controller connected by waterproof connector, with coil PQ-M24012-000071.	600	2000
		12Vdc (Grey)				
		B (Black)				
		A (Yellow)				
		B (Red) A (Orange)				

Notes:

- Don't apply power before wiring is completed. If wiring change is needed, make sure the power is off.
- The wiring of the power cord needs to be insulated and waterproof after completion, and it is recommended that the wiring be completed in a junction box (Figure 1) above IP65.
- After the wiring of digital input and defrosting input good insulation and waterproof treatment are needed, the rest of the unused line is recommended to cut off the wire head (Figure 3) and good insulation and waterproof treatment to avoid short circuit, it is recommended in the IP65 or higher junction box (Figure 2) to complete the wiring.
- Please refer to Figure 4 for passive connection method of start/stop and defrosting signal, and Figure 5 for active connection method
- No. ⑥ Pressure transmitter (Packard connector) is included in this package. Please order No. ⑦ Electronic expansion valve body(unipolar) separately on demand.
- The priority of the defrosting signal is higher than the start/stop signal; if you need to turn on the defrosting function, first turn on the start/stop signal and then turn on the defrosting signal.



Figure 1

Figure 2

Figure 3

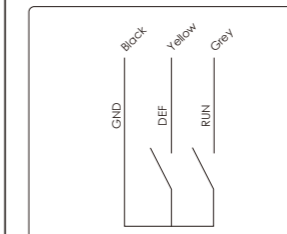


Figure 4 Passive input connection

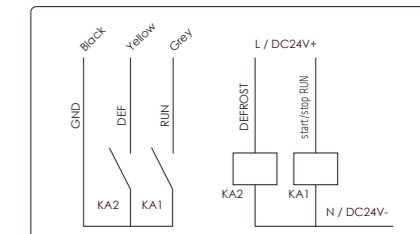
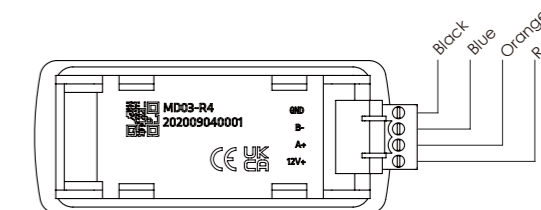


Figure 5 Active input connection

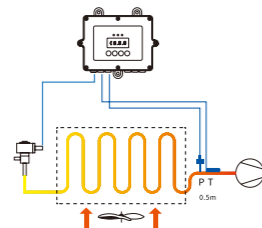
Remote display (optional) wiring diagram shown as above:

Dimension 84(W)×36(H)×19.4(D)mm
Hole size 71(W)×30(H)mm

The communication cable between the remote display and the controller recommends a twisted pair shielded above 2P×24AWG.



It is recommended to install the temperature sensor and pressure transmitter on the suction line within 0.5m from the outlet of the evaporator to avoid the interference of the superheat calculation from the environmental temperature and pressure drop.



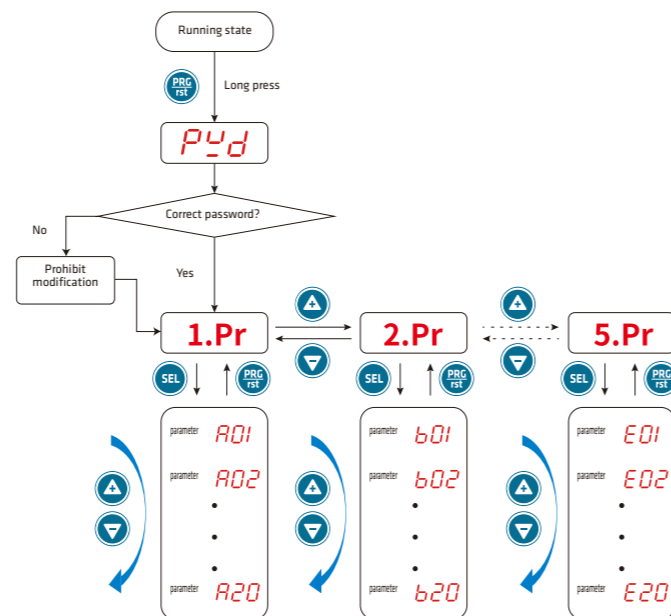
2. Button and operation

★ Default display current suction superheat SH; Press [+] or [-] to switch display content. After reading other real time data, it will automatically return to the "SH" display after 1 minute if no other key press.



Definition	Description	Definition	Description
	Long press to enter to parameter setting mode or short press to return to previous level.		LED on when communication is good.
	Add or pull up		LED on when start/stop switch is on
	Reduce or pull down		LED on when defrost switch is on
	Select and save		LED on alarm or protection
			Invalid

Definition	Description	Definition	Description
LED	°C /bar	Display temperature/pressure unit	LED
	★ SH	Display current suction superheat	
	PRESS	Display current evaporating pressure	



- In the power-on state, Long press [PRG Tst] for more than 3s, enter to parameter setting mode.
- When screen displays P.y.d, press [▲] until screen shows 5 (default password), press [SEL] to enter to parameter list.
- L.P.r stands for parameter 1, press [▲] to select 2.Pr, 3.Pr, (switch parameter list).
- After selecting parameter list, press [SEL] to enter parameter list. If want to switch to other parameter list, press [PRG Tst] to return to parameter list selection interface.
- After entering to parameter list, the panel directly displays parameter code, press [SEL] to switch among different codes.
- When the panel displays the parameter codes that should be modified, press [▲] to directly modify parameters, press [SEL] to display next parameter or press [PRG Tst] to return to previous parameter list.
- After all parameters are modified, long press [SEL] for 3s to save the settings, the digital pipe will show "..." for 1s and then automatically return to the normal operation interface.

Notes:

- If password is incorrect or no password is entered, it is allowed to review, but not allowed to modify the parameter.
- If password is correct and enter to parameter setting, the settings should be done in 10 minutes. After 10 minutes, you need to enter correct password to complete the settings again. If there is no any modification after entering to parameter setting, the interface will automatically exit to normal operation interface.

3. Main parameter settings

3.1 Controller mode selection

Holding Register Address (code)	Working mode	SETUP MODE	Description	Wire connection
56 (C16)	Controlling mode 0	0	•Automatic superheat controlling mode •The temperature/pressure signals ensure the system superheat is stable	

Holding Register Address (code)	Working mode	SETUP MODE	Description	Wire connection
56 (C16)	Controlling mode 1	1	•Valve manual operation mode •Control valve opening ratio by pressing [▲] on the panel	
56 (C16)	Controlling mode 2	2	•Driving mode •Driving by external 1-5V analog signal	
56 (C16)	Controlling mode 3	3	•Temperature Control Mode •By setting the targeted temperature, the controller will receive the temperature sensor signal to control the valve opening to meet the targeted temperature.	

Notes:

- Using use the manual operation/Driving mode, please make sure compressor start/stop signal RUN is ON.
- Using driving mode, connect 1-5V external analog signal through pressure sensor port.

