

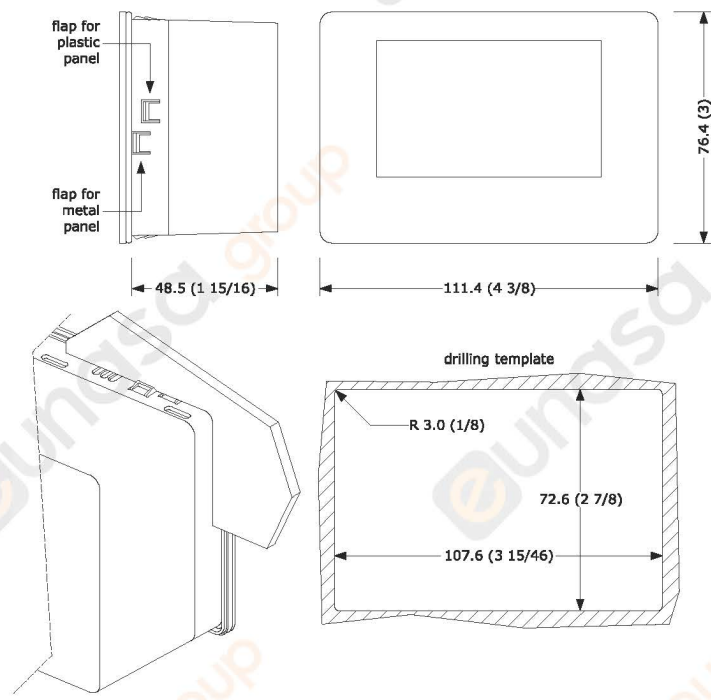


1 MEASUREMENTS AND INSTALLATION | Measurements in mm (inches)

- EN ENGLISH**
- Controllers for low temperature units.
 - Power supply 12 VAC/DC.
 - Incorporated clock (according to the model).
 - Cabinet probe and evaporator probe (PTC/NTC).
 - Door switch input.
 - Compressor relay 16 A res. @ 250 VAC or 30 A res. @ 250 VAC (according to the model).
 - Alarm buzzer.
 - TTL MODBUS slave port for EVconnect app, EPoCA remote monitoring system or for BMS.
 - Port for SD card data-logger module EVBD05 (according to the model).
 - Models in plastic container or open-frame (according to the model).

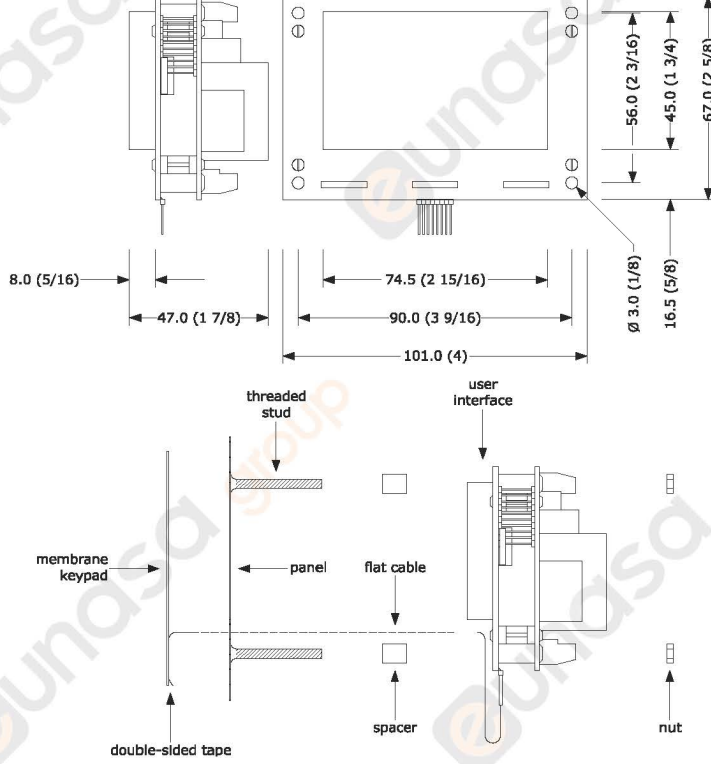
1.1 Models in plastic container

To be fitted to a panel, with elastic holding flaps.



1.2 Open-frame models

To be installed from behind, with threaded studs and membrane keypad.

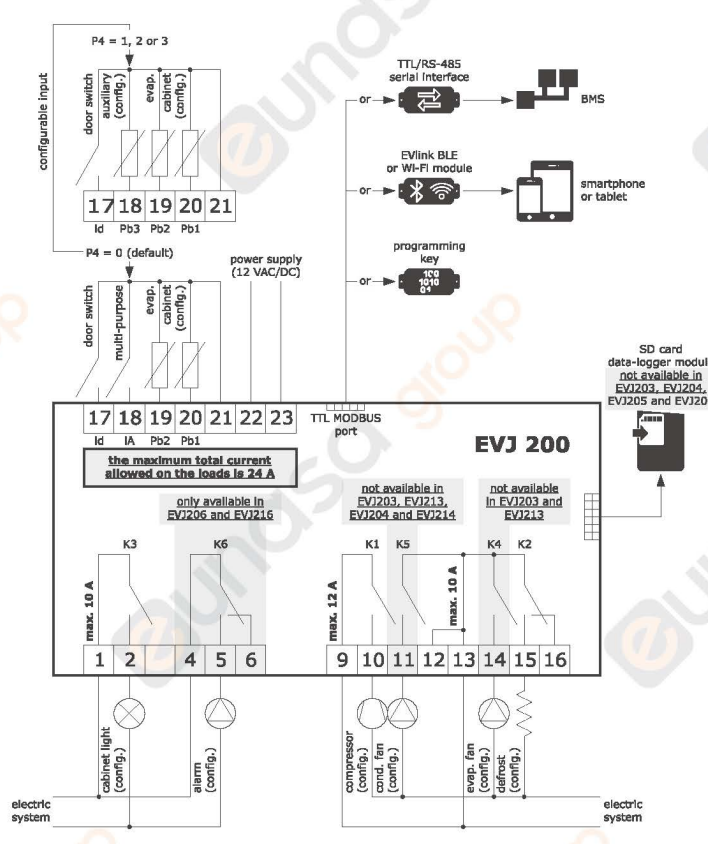


INSTALLATION PRECAUTIONS

- Ensure that the working conditions are within the limits stated in the **TECHNICAL SPECIFICATIONS** section.
- Do not install the device close to heat sources, equipment with a strong magnetic field, in places subject to direct sunlight, rain, damp, excessive dust, mechanical vibrations or shocks.
- In compliance with safety regulations, the device must be installed properly to ensure adequate protection from contact with electrical parts. All protective parts must be fixed in such a way as to need the aid of a tool to remove them.

2 ELECTRICAL CONNECTION

N.B.
- Use cables of an adequate section for the current running through them.
- To reduce any electromagnetic interference connect the power cables as far away as possible from the signal cables.



PRECAUTIONS FOR ELECTRICAL CONNECTION

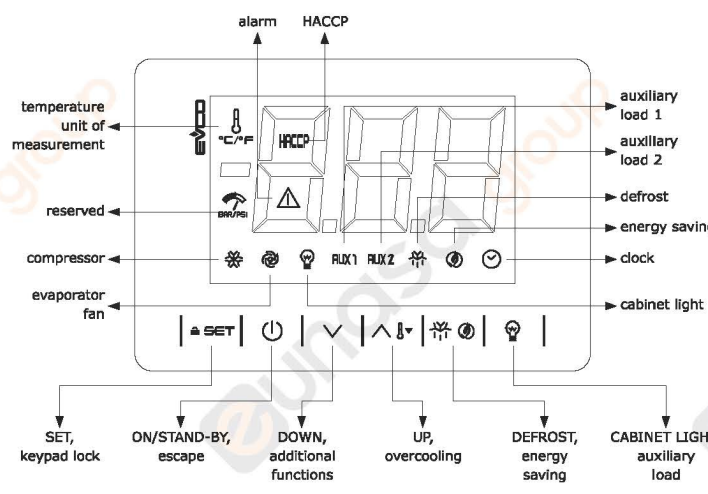
- If using an electrical or pneumatic screwdriver, adjust the tightening torque.
- If the device has been moved from a cold to a warm place, the humidity may have caused condensation to form inside. Wait about an hour before switching on the power.
- Make sure that the supply voltage, electrical frequency and power are within the set limits. See the section **TECHNICAL SPECIFICATIONS**.
- Disconnect the power supply before doing any type of maintenance.
- Do not use the device as safety device.
- For repairs and for further information, contact the EVCO sales network.

3 FIRST-TIME USE

1. Install following the instructions given in the section **MEASUREMENTS AND INSTALLATION**.
 2. Power up the device and an internal test will be run. The test normally takes a few seconds, when it is finished the display will switch off.
 3. Configure the device as shown in the section **Setting configuration parameters**. Recommended configuration parameters for first-time use.
- | PAR. | DEF. | PARAMETER | MIN... MAX. |
|------|------|---------------------------------|---|
| SP | 0.0 | setpoint | r1... r2 |
| P0 | 1 | probe type | 0 = PTC 1 = NTC |
| P2 | 0 | temperature unit of measurement | 0 = °C 1 = °F |
| d1 | 0 | defrost type | 0 = electric 1 = hot gas 2 = compressor stopped |

4. Then check that the remaining settings are appropriate; see the section **CONFIGURATION PARAMETERS**.
5. Disconnect the device from the mains.
6. Make the electrical connection as shown in the section **ELECTRICAL CONNECTION** without powering up the device.
7. For the connection in an RS-485 network connect the interface EVIF22TSX or EVIF23TSX, to activate real time functions in EVJ203, EVJ204, EVJ205 and EVJ206 connect the module EVIF23TSX, for recording HACCP data in CSV format on SD card connect the module EVBD05, to use the device with the EPoCA remote monitoring system, connect the EVIF25TWX module, to use the device with the Android APP EVconnect connect the interface EVIF25TBX; see the relevant instruction sheets. **If EVIF22TSX or EVIF23TSX is used, set parameter BLE to 0.**
8. Power up the device.

4 USER INTERFACE AND MAIN FUNCTIONS



4.1 Switching the device on and off

1. If POF = 1 (default), touch the ON/STAND-BY key for 2s. If the device is switched on, the display will show the P5 value ("cabinet temperature" default); if the display shows an alarm code, see the section **ALARMS**.

LED	ON	OFF	FLASHING
	compressor on	compressor off	- compressor protection active - setpoint being set
	evaporator fan on	evaporator fan off	evaporator fan stop active
	cabinet light on	cabinet light off	cabinet light on by digital input
AUX 1	auxiliary function 1 on	auxiliary function 1 off	- auxiliary function 1 on by digital input - auxiliary function 1 delay active
AUX 2	auxiliary function 2 on	auxiliary function 2 off	- auxiliary function 2 on by digital input - auxiliary function 2 delay active
	defrost or pre-drip active	-	- defrost delay active - dripping active
	- energy saving active - low consumption active	-	-

	view time	-	set date, time and day of the current week
	view temperature	-	overcooling or overheating active
HACCP	saved HACCP alarm	-	new HACCP alarm saved
	alarm active	-	-

If Loc = 1 (default) and 30s have elapsed without the keys being pressed, the display will show the "Loc" label and the keypad will lock automatically.

4.2 Unlock keypad

Touch a key for 1s: the display will show the label "UnL".

4.3 Set the setpoint (if r3 = 0, default)

Check that the keypad is not locked.

1. Touch the SET key.
2. Touch the UP or DOWN key within 15s to set the value within the limits r1 and r2 (default "-40... 50").
3. Touch the SET key (or do not operate for 15s).

4.4 Activate manual defrost (if r5 = 0, default)

Check that the keypad is not locked and that overcooling is not active.

1. Touch the DEFROST key for 2s.

If P3 = 1 (default), defrost is activated provided that the evaporator temperature is lower than the d2 threshold.

4.5 Cabinet light on/off (if u1c... u6c = 5)

1. Touch the CABINET LIGHT key.

4.6 Button-operated load on/off (if u1c... u6c = 10 or 11)

1. Touch the CABINET LIGHT key (for 2s if u1c... u6c = 5).

If u1c... u6c = 6, the demisting switch on for the u6 duration.

4.7 Silence buzzer (if u9 = 1, default)

Touch a key.

If u1c... u6c = 11 and u4 = 1, the alarm output is deactivated.

5 ADDITIONAL FUNCTIONS

5.1 Activate/deactivate overcooling and overheating

Check that the keypad is not locked.

1. Touch the UP key for 2s.

FUNCTION	CONDITION	CONSEQUENCE
overcooling	r5 = 0 and defrost not active	the setpoint becomes "setpoint - r6", for the r7 duration
overheating	r5 = 1	the setpoint becomes "setpoint + r6", for the r7 duration

5.2 Activate/deactivate energy saving in manual mode (if r5 = 0)

Check that the keypad is not locked.

1. Touch the DEFROST key.

The setpoint becomes "setpoint + r4", at maximum for HE2 duration.

5.3 Activate the high or low humidity functions (if F0 = 5)

Check that the keypad is not locked.

1. Touch the DOWN key for 1s.
2. Touch the UP or DOWN key within 15s to select the label "rH".
3. Touch the SET key for 2s until the display shows the right label for the function (only touch the key to see the function activated).

LAB.	DESCRIPTION
rHl	low humidity function (evaporator fan with F17 and F18 if the compressor is off, on if the compressor is on)
rHh	high humidity function (evaporator fan on)

4. Touch the ON/STAND-BY key (or do not operate for 60s) to exit the procedure.

5.4 View/delete HACCP alarm information (not available in EVJ203, EVJ204, EVJ205 and EVJ206)

Check that the keypad is not locked.

1. Touch the DOWN key for 1s.
2. Touch the UP or DOWN key within 15s to select a label.

LAB.	DESCRIPTION
LS	view HACCP alarm information
rLS	delete HACCP alarm information

3. Touch the SET key.
4. Touch the UP or DOWN key to select an alarm code (to select label "LS") or to set "149" (to select label "rLS").

COD.	DESCRIPTION
AL	low temperature alarm
AH	high temperature alarm
id	open door alarm (if i4 = 1)
PF	power failure alarm (available in EVJ213, EVJ214, EVJ215 and EVJ216 or in EVJ203, EVJ204, EVJ205 and EVJ206 with interface EVIF25TBX connected)

5. Touch the SET key.
6. Touch the ON/STAND-BY key (or do not operate for 60s) to exit the procedure.

Example of alarm information (e.g. a high temperature alarm).

8.0	critical value (calculated cabinet/product temperature) was 8.0 °C/°F
Sta	(available in EVJ213, EVJ214, EVJ215 and EVJ216 or in EVJ203, EVJ204, EVJ205 and EVJ206 with interface EVIF25TBX connected)
y15	alarm signalled in 2015
n03	alarm signalled in March
d26	alarm signalled on 26 March 2015
h16	alarm signalled at 16:00
n30	alarm signalled at 16:30
dur	
h01	alarm lasted 1h
n15	alarm lasted 1h 15min

5.5 View/delete compressor functioning hours

Check that the keypad is not locked.

1. Touch the DOWN key for 1s.
2. Touch the UP or DOWN key within 15s to select a label.

LAB.	DESCRIPTION
CH1	view compressor functioning hundreds of hours
CH2	view second compressor functioning hundreds of hours (if u1c... u6c = 1)