# EVCO S.p.A. | Code 104X800E123 | Page 1 of 2 | PT 19 / 13 EVX 800 series - Controllers for blast chillers (which can be integrated into the unit)



2. Press and hold button DOWN and button START / STOP 3.

1 s: the display will show "Loc" 1 s.

again to start the cycle time controlled.

4. Press and hold button DOWN and button START / STOP

Make sure the keyboard is not locked and no procedure

Press and release button BLAST CHILLING: LED 👫 and LED A will flash; according to the model, press and release button BLAST CHILLING again to start the cycle

4.1 According to the model, the display will show the working setpoint during the blast chilling or the blast chilling

4.2 Press and release button UP or button DOWN in 15 s to

Press and release button START / STOP: LED 🔆 will firmly remain switched on and it will be started the test for the verification of the proper insertion of the needle probe. 5.1 If the test is successfully completed, the cycle will be

5.2 If the test is not successfully completed, the cycle will be

Make sure the keyboard is not locked and no procedure

Press and release button BLAST CHILLING: LED 🚜 and LED A will flash; according to the model, press and release button BLAST CHILLING again to start the cycle

4. Press and release button HARD / SOFT: LED HARD will

5.1 According to the model, the display will show the working setpoint during the blast chilling or the blast chilling

5.2 Press and release button UP or button DOWN in 15 s to

Press and release button START / STOP: LED 🔆 and LED HARD will firmly remain switched on and it will be started the test for the verification of the proper insertion of the

6.1 If the test is successfully completed, the cycle will be

6.2 If the test is not successfully completed, the cycle will be

Make sure the keyboard is not locked and no procedure

3. Press and release button BLAST FREEZING: LED 🔆 , LED \*\*\* , LED HARD and LED A will flash; according to the model, press and release button BLAST CHILLING

4.1 According to the model, the display will show the working setpoint during the blast freezing or the blast freez-

4.2 Press and release button UP or button DOWN in 15 s to

Press and release button START / STOP: LED 🌺 , LED \*\*\* and LED HARD will firmly remain switched on and it will be started the test for the verification of the proper

5.1 If the test is successfully completed, the cycle will be

5.2 If the test is not successfully completed, the cycle will be

2. Make sure the keyboard is not locked and no procedure

Press and release button BLAST FREEZING: LED 🙀 , LED \*\*\* , LED HARD and LED / will flash; according to the model, press and release button BLAST CHILLING

- 4. Press and release button HARD / SOFT: LED HARD will switch off.
- 5.1 According to the model, the display will show the working setpoint during the blast freezing or the blast freezing cut off temperature
- 5.2 Press and release button UP or button DOWN in 15 s to modify these values.
- 6. Press and release button START / STOP: LED 🐥 and LED \*\*\* will firmly remain switched on and it will be started the test for the verification of the proper insertion of the needle probe.
- 6.1 If the test is successfully completed, the cycle will be started.
- 6.2 If the test is not successfully completed, the cycle will be started time controlled.
- To stop the cycle operate as follows
- 7. Press and release button START / STOP. Starting the precooling 5.5
- To start the precooling operate as follows:
- 1. Make sure the device is in status "on".
- Make sure no procedure is running.
- 3. According to the model, switch on the device or press and hold button BLAST CHILLING 1 s: LED Av will flash. To stop the precooling operate as follows:
- 4. Press and hold button BLAST CHILLING 1 s or start an operating cycle.

#### Switching on the UV light for the cycle of 5.6 sterilization (only in the model EVX805 and in the model EVX815)

Operate as follows:

- Make sure the function is enabled.
- 2. Make sure the device is in status "on" and the door is closed, or the door switch input is not active.
- 3. Make sure the keyboard is not locked and no procedure is running.
- 4. Press and hold button AUXILIARY 1 s: LED AUX will switch on.

#### 5.7 Needle probe heating (only in the model EVX805 and in the model EVX815)

Operate as follows:

- Make sure the function is enabled.
- 2. Make sure the device is in status "on" or a storing is running and the door is open, or the door switch input is active.
- Make sure the keyboard is not locked and no proce-3. dure is running.
- Press and hold button AUXILIARY 1 s: LED A will 4. flash and LED AUX will switch on

6	SIGNALINGS AND INDICATIONS
6.1	Signalings
LED	Meaning
*	LED blast chilling
**	LED blast freezing
HARD	LED hard blast chilling / blast freezing
~2	LED temperature controlled blast chilling / tem-
	perature controlled blast freezing
0	LED time controlled blast chilling / time control-
-	led blast freezing
*	LED storing
	LED defrost
Å₹	LED precooling
AUX	LED auxiliary (only in the model EVX805 and in
	the model EVX815)
HACCP	LED HACCP
°C	LED Celsius degree
°F	LED Fahrenheit degree
min	LED minutes
	LED on / stand-by

6.2	Indications
Code	Meaning
Loc	The keyboard is locked; look at paragraph "Lock-
	ing / unlocking the keyboard"
UnL	The keyboard has been unlocked; look at para- graph "Locking / unlocking the keyboard"
7	ALARMS

7.4	
7.1	Alarms
Code	Meaning
tiME	Alarm temperature controlled blast chilling or tem-
	perature controlled blast freezing not concluded
	within the maximum duration (HACCP alarm)
AL	Low temperature alarm
AH	High temperature alarm (HACCP alarm)
id	Open door alarm
HP	High pressure alarm
PF	Lack of power supply alarm (HACCP alarm; only
	in the model EVX812 and in the model EVX815)
СОН	Overheated condenser alarm
CSd	Locked compressor alarm

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- ESt Alarm download of the configuration parameters not successfully completed
- **CEr** Alarm firmwares of the configuration parameters contained in EVKEY not coinciding with that of the device
- Erd Alarm upload of the configuration parameters not successfully completed

#### Errors

#### 8.1 Errors

- Code Meaning Pr1 Room probe error
- Pr2 Needle probe error
- Pr3 Evaporator probe error
- Pr4 Condenser probe error
- rtc Real time clock error (only in the model EVX812 and in the model EVX815)

#### TECHNICAL DATA

9.1 Technical data

Purpose of the devices: controllers for blast chillers. Execution: open frame board.

Size:

- 156.0 x 45.0 x 44.2 mm (6.141 x 1.771 x 1.740 in; W x H x D) for EVX802 and EVX812
- 156.0 x 45.0 x 48.7 mm (6.141 x 1.771 x 1.917 in;
- W x H x D) for EVX805 and EVX815. Installation: by back panel, with M3 threaded studs.

### Index of protection: IP00.

Connections: faston 6.3 mm (0.248 in) wide (power supply and outputs), fixed screw terminal block (inputs), 6

poles connector (serial port). Operating temperature: from 0 to 55 °C (from 32 to

131 °F). Storage temperature: from -25 to 60 °C (from -13 to

140 °F). Operating humidity: from 10 to 90% of relative humid-

ity not condensing Pollution situation: 2.

### Power supply:

- 230 VAC (±10%), 50 / 60 Hz, 2.3 VA max. or 115 VAC (±10%), 50 / 60 Hz, 2.3 VA max. in EVX802 and in FVX812
- 230 VAC (±10%), 50 / 60 Hz, 2.8 VA max. or 115 VAC (±10%), 50 / 60 Hz, 2.8 VA max. in EVX805 and in EVX815.

## Overvoltage category: III.

## Real time clock:

not available in EVX802 and in EVX805 incorporated (with capacitor) in EVX812 and in EVX815. Battery autonomy in the event of lack of power supply:

24 h with battery fully charged. Battery charging time: 2 min (the battery is charged by

# the power supply of the device).

Signaling and alarm buzzer: incorporated. Analog inputs: 3 inputs (room probe, needle probe and evaporator probe), which can be set via configuration parameter for PTC / NTC probes.

PTC analog inputs (990 Ω @ 25 °C, 77 °F) Kind of sensor: KTY 81-121. Working range: from -50 to 150 °C (from -58 to 302 °F).

Resolution: 0.1 °C (1 °F). Protection: none. NTC analog inputs (10K Ω @ 25 °C, 77 °F) Kind of sensor: ß3435. from -40 to 105 °C (from -40 Working range: to 220 °F). 0.1 °C (1 °F). Resolution:

Protection: none. **Digital inputs:** 1 input (door switch), which can be set via configuration parameter for normally open / normally closed contact (free of voltage contact, 5 VDC, 2 mA).

**Digital** inputs Power supply: none. Protection: none.

Other inputs: 1 input which can be set via configuration parameter for analog input (condenser probe) / digital input (high pressure), with the same technical features illustrated previously.

**Displays:** 4 digits custom display, with function icons.

**Digital outputs:** 

2 outputs (electromechanical relays) in EVX802 and in <u>EVX812</u>

- 1 SPST 30 res. A @ 250 VAC output (K1) for compressor management



- 1 SPDT 8 res. A @ 250 VAC output (K2) for defrost or evaporator fan management.
- 5 outputs (electromechanical relays) in EVX805 and in EVX815 1 SPST 30 res. A @ 250 VAC output (K1) for compressor management
  - 1 SPDT 8 res. A @ 250 VAC output (K2) for defrost or evaporator fan management
- 2 SPST 8 res. A @ 250 VAC outputs (K3 and K4) for evaporator fan management and for door heater or condenser fan management
- 1 SPST 5 res. A @ 250 VAC output (K5) for room light, needle probe heater or UV light management
- The maximum current allowed on the loads is 16 A. Type of actions and additional features: 1C.

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Communication ports: 1 TTL serial port with MODBUS communication protocol.

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