

ECP 208

Cold Rooms Controllers



USER'S MANUAL



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DESCRIPTION

ECP208 is an electrical panel suitable for refrigerating installations up to 2 HP, static or ventilated, with electrical or off-cycle defrost.

It has a standard thermoregulator integrated and can supply the control and power necessary to the most important components of an installation, such as compressor, evaporator fans, defrost heaters and cold room light.

It is possible to incorporate an alarm relay, a door switch connection or to select pup down by means of a simple jumper (an output is used for solenoid valve).

Different temperature controllers may be placed on board:

□ **IS 974 LX** Eliwell controller that manages compressor, fans, defrost heaters, alarm

□ XR 172 C Dixell controller that manages compressor, fans, defrost heaters, alarm

The version with IS 974 LX is ECP208.

The version with XR 172 C is ECP208 XR172C.



FUNCTIONING

Two frontal switches allow the user to put the unit in ST-BY and proceed to switch on/off the cold room light. In both versions, one digital inputs (called **SECURITY**) manages the plant safety. Wiring an external safety device that has a normally closed contact, it is possible to stop fans and compressor each time the device intervene. (In order to activate this function it is necessary to take out jumper JP1 from the relays card).

It is possible to manage switch door simply wiring to clamps **SWITCH DOOR.** When the contact is closed, the light is on and the compressor and fans stop.

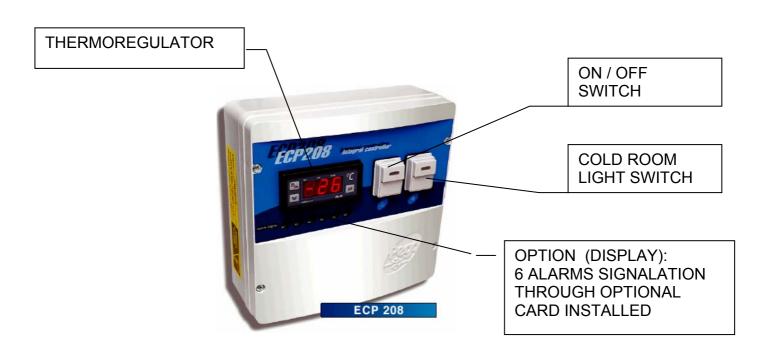
With the **standard** functioning of the board, the compressor is managed directly from the thermostat.

With **pump down** functioning (that can be selected by using a jumper), the thermostat manages the solenoid valve, while the working pressosta stops the compressor.

PARAMETERS SETTING

To set the plant operating values (set point, differential, compressor acting) see the specific manual relating to the installed instrument: **IS 974 LX, XR 172 C.**

FRONTAL SETTING CONTROLS





MAIN FEATURES

- Power supply 230 Vac 50/60 Hz
- Connection through circuit screwed clamps
- 2 analogic inputs for probe (ambient and stop-defrost) (see user's manual of the thermoregulator to know which probe should be wired)
- 1 switch ON / OFF
- 1 cold room light switch (max. 800 Watt)
- 1 relay 30 Amp. (max 2 hp) for compressor control
- 1 relay 30 Amp. AC1 for defrost heaters control
- 1 relay 16 Amp. AC1 for evaporator fans control
- 1 relay 8 A AC1 for cold room light
- 1 relay 8 A AC1 for alarm output
- 1 digital inputs (switch door, safety)
- 1 input switch door (stop compressor and fans, light ON)
- 1 input pressostat (only pump down version)
- 1 output for the control of solenoid valve (only pump down version)

□ <u>BOX</u> self-extinguish ABS

□ PROTECTION DEGREE IP55

□ <u>DIMENSIONS</u> 203x193x79 mm

☐ FRONTAL LABEL

scratch-resistant polycarbonate

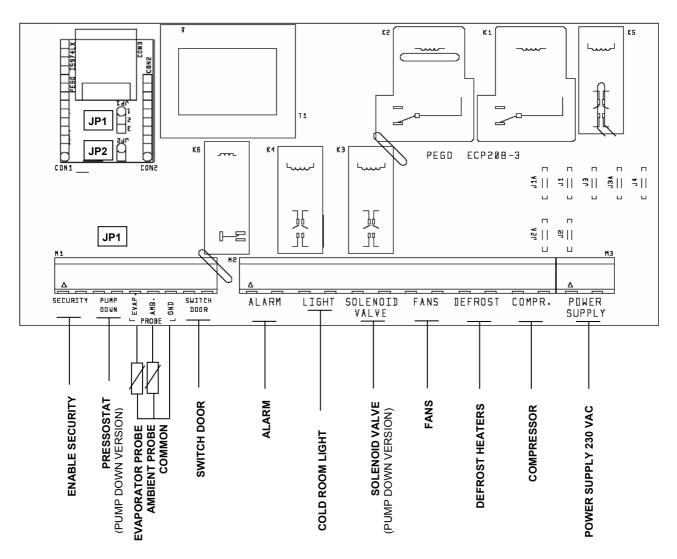
□ <u>OPERATING TEMPERATURE</u> -5÷50 °C

□ <u>STORAGE TEMPERATURE</u> -10÷70 °C

□ <u>AMBIENT RELATIVE HUMIDITY</u> Lower than 90%



LAYOUT AND TERMINAL BLOCKS



Jumper configuration

Card interface controller:

- JP1 closed 2-3 thermostat functioning
- JP1 closed 1-2 pump down functioning
- JP2 open thermostat functioning
- JP2 closed pump down functioning

Relay card:

- JP1 closed, SECURITY input disabled
- JP1open SECURITY input enabled

PLEASE NOTE:

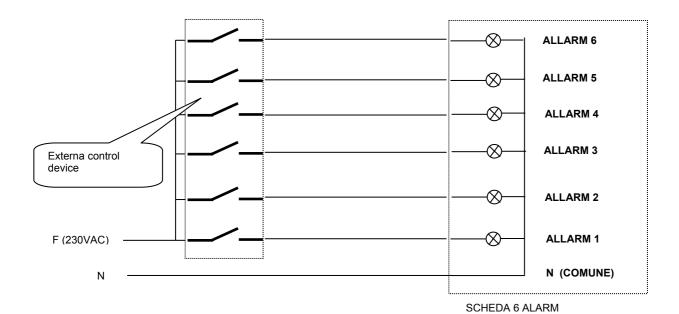
In case of thermostat functioning, you must leave free the clamps "PUMP DOWN"



OPTIONS

An additional keyboard signalling possible visual alarms, is available. It way be placed inside the board and allows the signalling of max. 6 alarms (Kriwan, compressor thermal relay, Pressure switches HP e LP, differential pressure switch, cold room additional light, compressor ON, etc...). Follow the diagram for the keyboard mounting (power supply 230 VAC for the contacts)

WIRING DIAGRAM





WARNING

- 1. Install the device in places where the protection degree is respected and try not to damage the box making the holes for installation.
- 2. Do not use multi-polar cables.
- 3. Do not put in the same place power supply cables with signalling cables (probes and digital inputs)
- 4. Reduce the lenght of the linking cables and avoid to put cables in a spiral shape;
- 5. Place a general protection fuse near the device;
- 6. All conductors must have specific dimensions according to the power to supply;
- 7. When it is necessary to extend the probes, the conductors must have a section not lower than 1mm²

Before effecting any maintenance operation disconnect the power supply from the board

WARNING!

One jumper, **JP1**, is placed next to the digital input **SECURITY** clamps. That jumper must be closed with a "bridge" if the digital input is not used. Remove the "bridge" in case the digital input is used. When the contact is opened, the compressor and fans stop.





PROGETTAZIONE – COSTRUZIONE UMIDIFICATORI E QUADRI ELETTRICI PER LA REFRIGERAZIONE

PEGO SRL

45030 OCCHIOBELLO (Rovigo) VIA PIACENTINA,6b TEL. 0425/762906 – FAX 0425/762905 REG.IMPRESE ROVIGO N.105810/1997

DICHIARAZIONE DI CONFORMITA' ALLE DIRETTIVE CE/EC DECLARATION OF CONFORMITY

COSTRUTTORE / MANUFACTURER

PEGO SRL Via Piacentina,6b 45030 Occhiobello (RO) - ITALY -

DENOMINAZIONE DEL PRODOTTO / NAME OF THE PRODUCT

MOD.: ECP208

IL PRODOTTO E' CONFORME ALLE SEGUENTI DIRETTIVE CE/THE PRODUCT IS IN CONFORMITY WITH THE REQUIREMENTS OF THE FOLLOWING EUROPEAN DIRECTIVES:

2006/95/CE Direttiva del Consiglio per l'unificazione delle normative dei Paesi CEE relativa al

materiale elettrico destinato ad essere utilizzato entro certi limiti di tensione e successive

modificazioni

2006/95/EC Concil Directive on the approximation of the laws of the Member States relating to electrical

equipments employed within certain limits of tension and following modifications

89/336 CEE Direttiva del Consiglio per l'unificazione delle normative dei Paesi CEE relativa alla

compatibilità elettromagnetica e successive modificazioni

89/336 EEC Concil Directive on the approximation of the laws of the Member States relating to the electro-

magnetical compatibility and following modifications

93/68 CEE Direttiva del consiglio per la marcatura CE del materiale elettrico destinato ad essere

utilizzato entro talunni limiti di tensione.

LA CONFORMITA' PRESCRITTA DALLE DIRETTIVE E' GARANTITA DALL' ADEMPIMENTO A TUTTI GLI EFFETTI DELLE SEGUENTI NORME:

CONFORMITY WITH THE REQUIREMENTS OF THIS DIRECTIVE IS TESTIFIED BY COMPLETE ADHRENCE TO THE FOLLOWING STANDARDS:

NORME ARMONIZZATE / HARMONIZED EUROPEAN STANDARDS

EN 61000-6-1 EN 61000-6-3 EN 60335 - 1



GUARANTEE CONDITIONS

ECP208 system controllers are covered by a 12 months guarantee against all manufacturing faults. If the system is subjected to abnormal use, the guarantee will be invalidated. It is strongly recommended to respect all the technical data and installation of the device.



WARNING!!

ALL MODIFICATIONS EFFECTED TO CONNECTIONS, INTERNAL EQUIPMENTS AND DIFFERENT FROM THOSE OF THIS MANUAL HAVE NO VALUE. THE MANUFACTURER DISCLAIMS ANY RESPONSIBILITY FOR ALL DAMAGES CAUSED TO PEOPLE, ANIMALS OR THINGS DUE TO NON COMPLIANCE WITH TECHNICAL AND SAFETY RULES.

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PEGO S.r.I.

Via Piacentina, 6/b

45030 OCCHIOBELLO –ROVIGOTel: +39 0425 762906

Fax: +39 0425 762905

www.pego.it

E-mail: info@pego.it