

PRS 240

REGOLATORE DI CARICA
PER MODULI FOTOVOLTAICI

CHARGE REGULATOR FOR
PHOTOVOLTAIC MODULES

REGULATEUR DE CHARGE
POUR MODULES
PHOTOVOLTAIQUES

LADUNGSREGLER FÜR
FOTOVOLTAISCHE MODULE



OVERVIEW

The PRS 240 charge regulator can automatically charge lead batteries at 12Vd.c.

The charging procedure occurs in three steps:

Step 1: **Battery charge** with photovoltaic module maximum current, until the end of charge voltage is reached (14,3Vd.c. for lead-gel batteries and 14,1Vd.c. for lead-acid batteries).

NOTE: the end of charge voltage is reached only if batteries are efficient.

Step 2: **Battery charging completion** at the end-of-charge voltage with current gradual reduction for 90 minutes for lead-acid battery and 6 hours for lead-gel battery.

Step 3: **Maintenance** at constant voltage 13,8Vd.c. (lead-gel battery) or 13,5Vd.c. (lead-acid battery).

The cycle starts again when the battery voltage is lower than 13Vd.c., such as in the case of equipment turning on.

Note: the uneven exposure to sunlight may lead to varying charging times.

OPERATION INSTRUCTIONS AND INSTALLATION

- The instrument shall be used for the regulation of photovoltaic modules charging only. Connection to other equipment which can damage the correct operation may result in warranty void.

- The regulator must be exclusively used with lead-acid and lead-gel batteries. The kind of battery to charge shall be set on the solar regulator internal board using the relevant selector (see page 3); the wrong setting of the battery to charge may damage the battery itself!

Note: the PRS 240 regulator is not suitable for the charging of nickel/cadmium batteries, lithium batteries or other kinds of rechargeable or non rechargeable batteries.

- The regulator is not suitable for external use.

- Install the regulator in an appropriate dry and ventilated housing; make sure there is a minimum distance of 300mm from the front and 100mm from the sides to the surrounding surfaces.

- Do not cover air intakes on the lid.

- The instrument produces heat during normal operation. Make sure that the installation of other equipment near the instrument does not hamper the correct air flow and prevent the necessary instrument cooling.

- Use cables with the appropriate section (recommended section 6mm² for photovoltaic module).

- Protect the cable from any possible damage.

IMPORTANT:

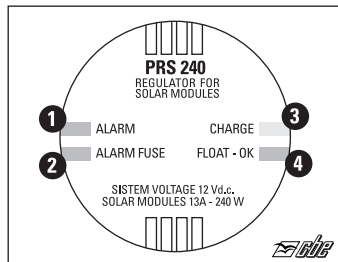
- The equipment shall be installed by qualified technical personnel only.
- In the event of instrument wrong use, the warranty shall be void and the manufacturer declines any responsibilities for damage to things or persons.
- Exhausted batteries shall be disposed of according to environmental protection regulations in force.

PRS 240 SOLAR REGULATOR**SPECIFICATIONS**

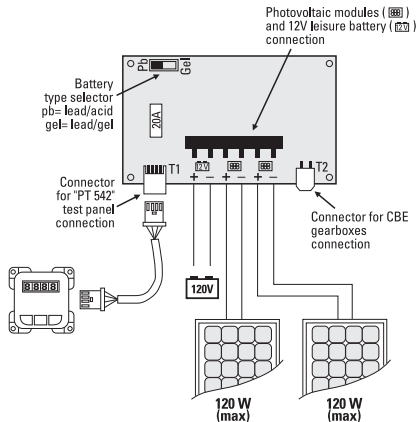
- 1) **Red led:** indicates poles inversion (wrong connection) of photovoltaic modules and/or leisure battery.
- 2) **Red led:** indicates that the internal fuse inside the PRS 240 is broken.
- 3) **Yellow led:** indicates that photovoltaic modules are charging the battery (step 1 and 2).
- 4) **Green led:** indicates the charge maintenance stage at constant voltage (step 3).

TECHNICAL DATA

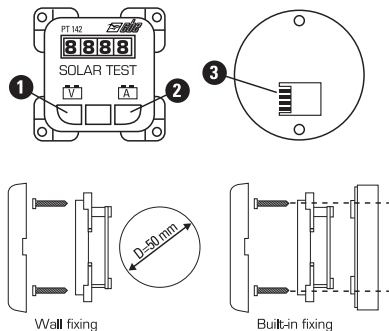
- Rated voltage 12Vd.c.
 - Self-consumption 0,01mA 12Vd.c.
 - Working temperature: -10°C +60°C.
 - Serial control with Mosfet.
 - Schottky blocking diode
 - Applicable panels: max 240W.
 - Electronic protection for short-circuits and poles inversion.
 - 20A battery fuse inside
 - "PT 542" Test panel connection
- Note:** do not connect the "PT 442" test panel
- Setting for the connection of 2 photovoltaic modules.
 - Dimensions (mm): 115x88 H37.
 - Weight (gr): 120.



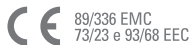
CONNECTIONS



PT 542 TEST PANEL



Test panel for the control of "B2" leisure battery voltage (ref. 1) and the control of current supplied from the photovoltaic module (Ref. 2). The panel can be built in or fixed to the wall with the spacer supplied. Connect the PT 542 test panel to the PRS 240 solar regulator with the relevant connector (ref. 3) using the cable supplied (L=1,5m).



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KIT PASSAGGIO
CAVI KT5



PANNELLO
TEST PT542



MODULI
FOTOVOLTAICI CBE



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