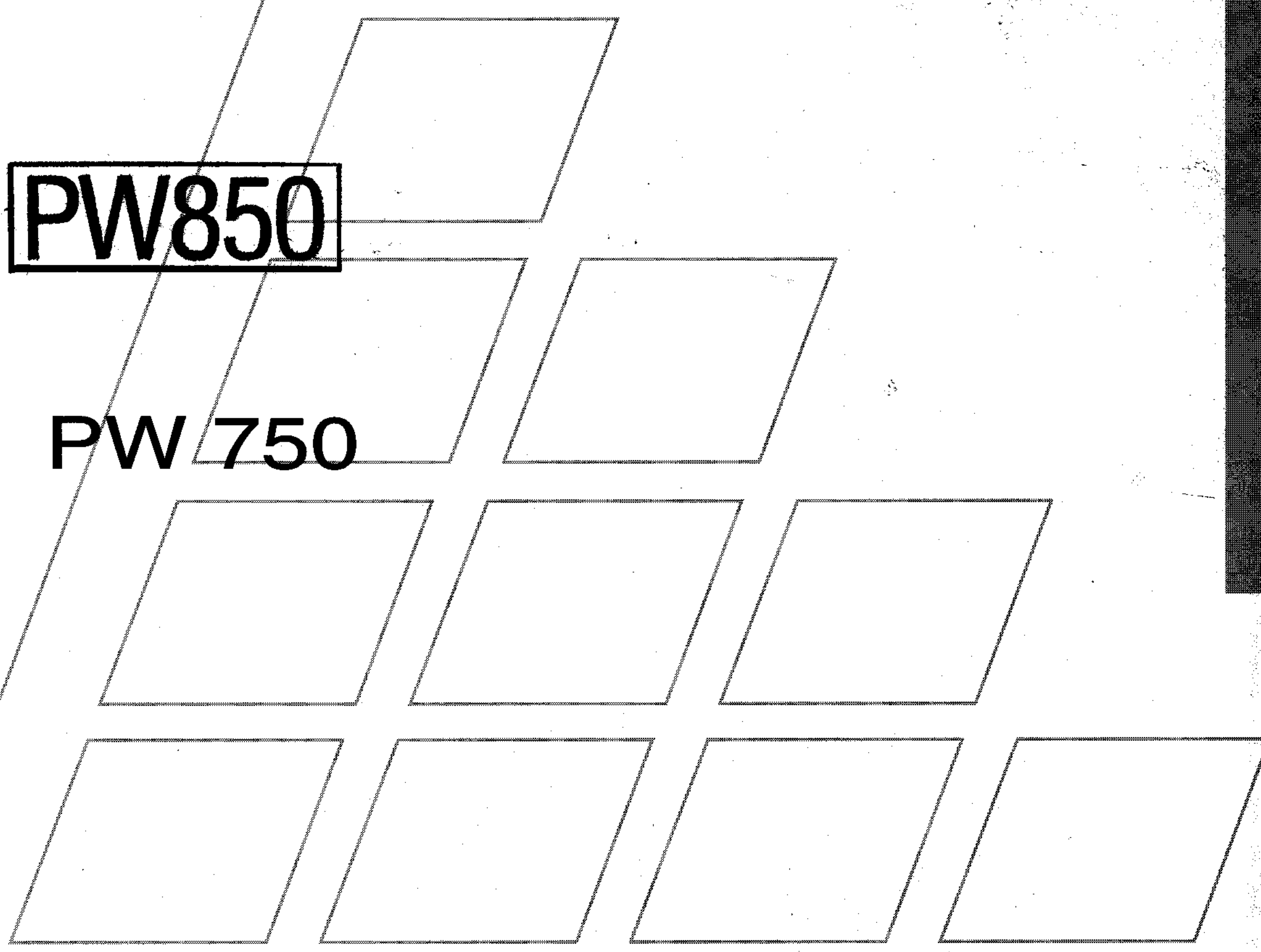


# **INSTALLATION AND CARE**



**PW850**

**PW 750**

## WARNING

Before handling, installing, wiring or using this photovoltaic (PV) module, it is important to read and comply with the information provided herein. If you have any doubts or difficulties in understanding this information, contact an electrician familiar with such products and their use.

## ELECTRIC SHOCKS

The multicrystalline silicon cells in this PV module generate an electrical current when their front side is exposed to sunlight. Although the voltage and current from a single module are low, touching the terminals or wiring can still cause shocks or burns. That hazard increases when several modules are installed together and produce higher voltage and current.

To avoid any accident, turn the front of the module away from the sun or any intense source of light when wiring. If this is not possible, place an opaque material (cardboard, cloth, etc.) on the front of the module for the entire time needed for the work, including wiring all the other components in the system.

## RECOMMENDATIONS FOR HANDLING AND INSTALLATION

Although this product has been designed to be sturdy, it is preferable to handle it with care:

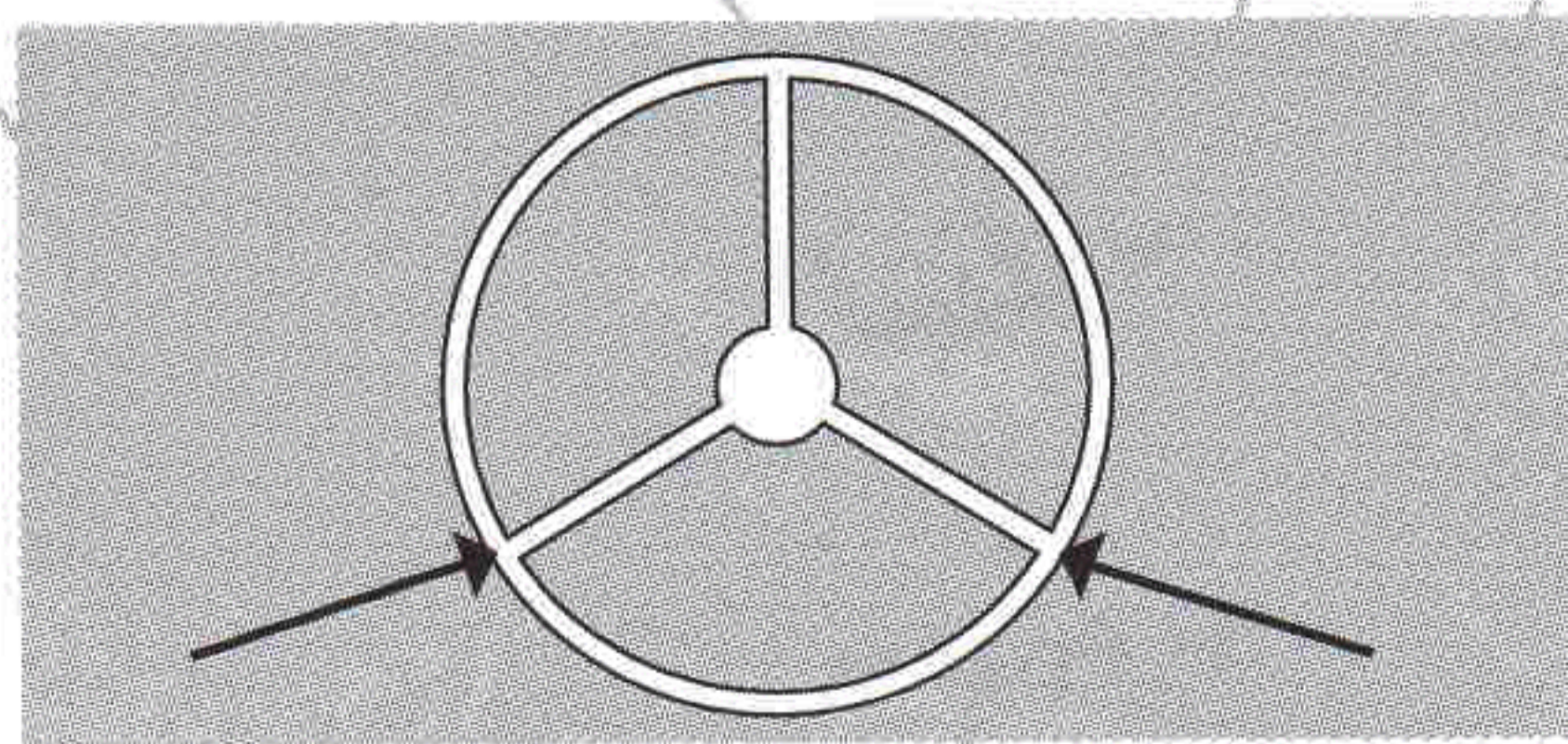
- \* Significant irreparable damage can be caused by impacts on the front or back surface.
- \* Always keep the module flat (do not bend, twist, etc.).
- \* Never disassemble the module.
- \* Do not drill or weld the frame if possible.
- \* Do not use a light concentrator. Such a device could destroy the module.
- \* Use insulated tools.

## PREPARATION AND WIRING OF THE JUNCTION BOX

The cable glands must be placed in one of the 6 positions provided. Punch out the circle of thinner plastic in the chosen hole with a screw driver or similar instrument. Do not push on the center of the circle.

Be careful not to touch the back of the module.

Cable diameter when the wiring method is cable : minimum 6, maximum 12 mm



Push on a point on the edge of the circle

## MOUNTING AND FASTENING

Install the module horizontally, or vertically with the junction box at the top. Vertical mounting with the box at the bottom, where water

might accumulate in or around it, should be precluded.

Use stainless steel screws and fastenings only. For proper mechanical securement, use at least 4  $\varnothing$  6 mm screws. The screws must be of sufficient length to penetrate at least 12 mm into the building's structural members.

The cable glands and, where used, conduit fasteners (use flexible non-metallic conduit only) should preferably be placed on the side facing downwards. If this is not possible arrange the wiring to avoid any drops of water accumulating. All UL listed modules come with a grounding screw, which must be connected by an appropriate conductive material to a suitable ground. If this method of grounding is desired for other products, use a  $\varnothing$  4 mm screw. When assembling modules in an array, consult an electrician for alternative grounding techniques.

Leave enough space behind the module (at least 20 cm if possible) to allow for proper ventilation by free flow of air.

As this module is non-integral, in the case of roof-top mounting the assembly must be mounted over a fire resistant roof covering rated for the application

## POSITION AND TILT

For maximum output, face the module towards the equator (southwards in the northern hemisphere and northwards in the southern hemisphere).

Tilt angle depends on the application:

- \* For regular power supply throughout the year, the tilt angle from the horizontal should be equal to latitude + 15 to 20° in temperate regions. In tropical areas, the tilt angle should be

equal to the latitude but should never be less than 10° so that water and dust will be carried away naturally.

- \* For any other type of application, consult a specialist to determine the best position for requirements. Under no circumstances should the module be positioned with the backside upwards without special provisions to seal the junction box.

In all cases, make sure that no shadow from anything near the module (grass, trees, buildings, etc.) will cover any part of the module when the sunshine is brightest (mainly in midday) in any season.

## CLEANING AND CARE

An accumulation of dust or dirt on the module will decrease its output. Clean the front of the module once or twice a year if possible. Use a soft cloth, dry or moist as the need may be. Never use any greasy substance or metal tool that might scratch the glass.

Inspect the module as well to ascertain that all connections and fixings are tight and corrosion free.

## Information for the US market:

Under normal conditions, a photovoltaic module is likely to experience conditions that produce more current and/or voltage than reported at standard test conditions. Accordingly, the values of  $I_{sc}$  and  $V_{oc}$  marked on this module should be multiplied by a factor of 1.25 when determining component voltage ratings, conductor ampacities, fuse sizes, and size of controls connected to the photovoltaic outlet. Refer to Section 690-8 of the National Electrical Code for an additional multiplying factor of 125 percent (80 percent derating) which may be applicable.

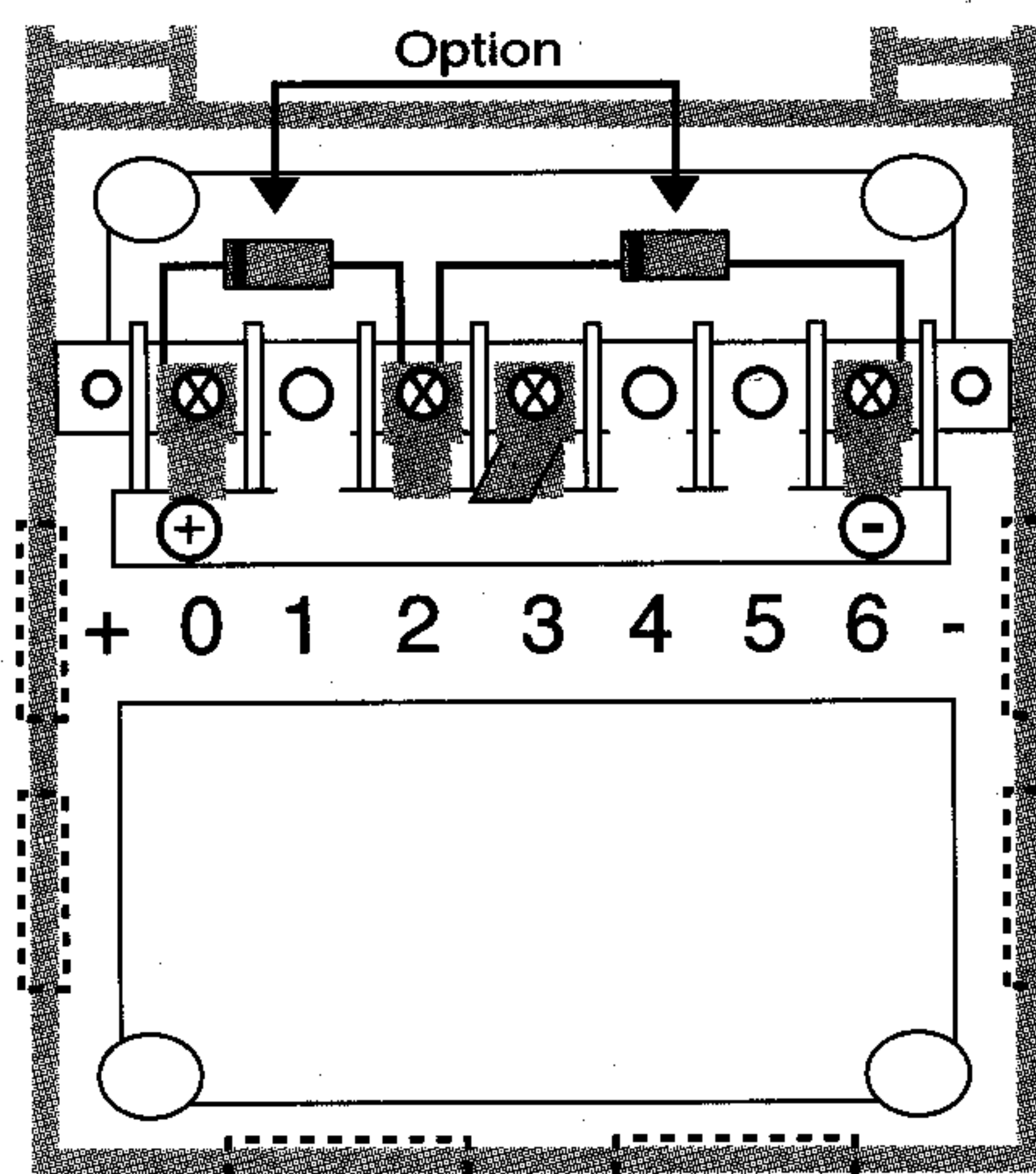
## PW 750

This module is designed for use at 12 V. The positive connection (+) should be on terminal 0 and the negative connection (-) on terminal 6.

Use cables suitable for outdoor use only. After the connections have been made, coat all metal parts with the silicone grease in the pouch to protect the module from corrosion.

Close the junction box with the captive screws provided. Whenever the cover must be removed or replaced, open it 180° before prying it from the hinges.

If a sealed box is preferred, put an O-ring in the groove around the cover and then place the 2 screws provided in the bag in the other 2 holes in the cover near the hinges. (A sealed box may, however, trap moisture and condensation in the box.)



Module weight  
PW 750 : 17 lbs

Packaging  
2 x PW 750 : 25 3/4" x 3" x 52 1/2". Weight : 42 lbs.

### ELECTRICAL RATINGS

Typical power (W)	70.0	75.0	80.0	85.0	90.0
Operating voltage (V)	16.7	17.0	17.3	17.6	17.8
Current at rated operating voltage (A)	4.2	4.4	4.6	4.8	5.0
Short circuit current (A)	4.5	4.7	5.0	5.4	5.7
Open circuit voltage (V)	21.3	21.6	21.9	22.0	22.2
Minimum power (W)	65.0	70.1	75.1	80.1	85.1

Above specifications @ STC: 1000W/m<sup>2</sup>, AM 1.5, Cell T 25°C

Measuring uncertainty 5%, including 2.5% uncertainty on the reference module tested by an internationally recognized laboratory.

Diode type and voltage rating: P600 D to M (6 A - 200 to 1000 V)

Maximum syst. oper. voltage : 600 V

Series fuse : 8 A

Made in the U.S.A.



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