

# SPA 130A SPA 230



## ATEX Solar Modules

SPA 130A and SPA 230 are solar modules with ATEX Classification on Categories 2 and 3, to be installed in potentially explosive atmospheres classified for Zone 1 and Zone 2.

The cells of the panel are encapsulated between a tempered glass cover and a back sheet from aluminium and polyester to provide maximum protection in the most extreme environmental conditions.


These panels have been designed for use in isolated hazardous areas where the installation of electrical mains supply is difficult.

## Features:

- ATEX Classification:  
GROUP II: Equipment on surface (no mining).  
ZONE 1: Category 2.  
ZONE 2: Category 3.  
ATMOSPHERE: GAS.
- 135W maximum power.
- 36 nos. silicon polycrystalline cells on 156 x 156mm shape.
- Cells encapsulated between EVA tempered glass and a back protective sheet from aluminium and polyester.
- High efficiency, even with low levels of sunlight.
- Maximum concentration and diffusion of light on cells.
- Lightweight anodized aluminium mounting frame, resistant to marine environment.
- Designed for maximum reliability and minimum maintenance.
- IP66 polyester junction box, with 2 nos. M25 ATEX glands.



 II 2 G Ex mb e II T5

 II 3 G Ex nA nC T5

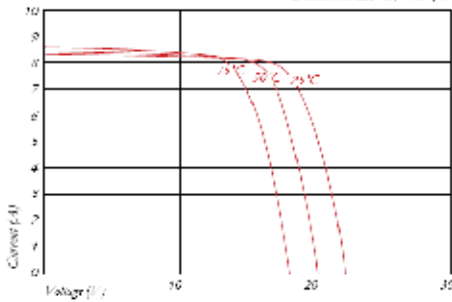
Specifications subject to change without previous notice.

# SPA 130A SPA 230

## ELECTRICAL CHARACTERISTICS

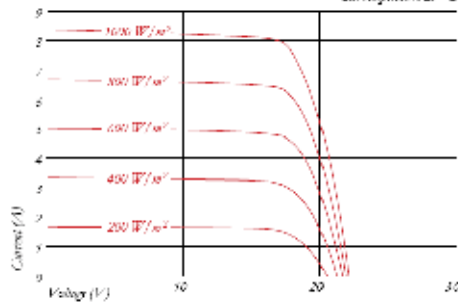
Current (I) Voltage characteristics at nominal cell temperature

Intensity  $I_{sc}$  (A)  $V_{oc}$  (V)



Current (I) Voltage characteristics at nominal irradiance level

Cell temperature 27 °C



## Specifications

|   | SPA 130A                      | SPA 230             |
|---|-------------------------------|---------------------|
| <b>ATEX Category:</b>                           | CAT 2.                        | CAT 3.              |
| <b>ATEX Zone:</b>                               | Zone 1 and Zone 2.            | Zone 2.             |
| <b>ATEX Classification:</b>                     | II 2 G Ex mb e II T5.         | II 3 G Ex nA nC T5. |
| <b>Maximum power:</b>                           | 135Wp.                        |                     |
| <b>Nominal voltage:</b>                         | 12V.                          |                     |
| <b>Maximum power current (I<sub>mpp</sub>):</b> | 7.63 A.                       |                     |
| <b>Short circuit current (I<sub>sc</sub>):</b>  | 8.37 A.                       |                     |
| <b>Open circuit voltage (V<sub>oc</sub>):</b>   | 22.1V.                        |                     |
| <b>Maximum power voltage (V<sub>mpp</sub>):</b> | 17.7V.                        |                     |
| <b>NOCT:</b>                                    | (+/-2) 49°C.                  |                     |
| <b>Maximum system voltage:</b>                  | 1,000V.                       |                     |
| <b>Temperature range:</b>                       | From -20 to +40°C.            |                     |
| <b>Number of cells:</b>                         | 36 nos. polycrystalline cells |                     |
| <b>Watertightness degree:</b>                   | IP 66.                        |                     |
| <b>Dimensions (+/-2.5 mm):</b>                  | 1500 x 668 x 136 mm.          |                     |
| <b>Weight:</b>                                  | 14 kg.                        |                     |
| <b>Power tolerance:</b>                         | (+/-) 5%.                     |                     |

## Standards and Methods of Protection (SPA 130A Model)

General requirements: EN 60079-0 Standard.

Equipment protection by Encapsulation: "mb", EN 60079-18 Standard.

Equipment protection by Increased Safety: "e", EN 60079-7 Standard.

Temperature Class: T5. 100°C.

Protection against Gas: (G).

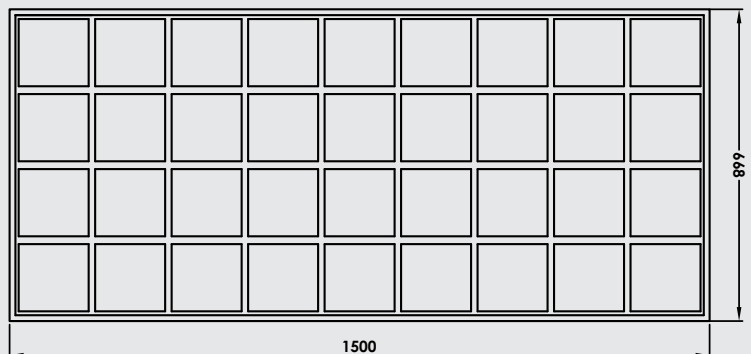
## Standards and Methods of Protection (SPA 230 Model)

General requirements: EN 60079-0 Standard.

Equipment protection by Type of Protection: "nA", "nC", EN 60079-15.

Temperature Class: T5. 100°C.

Protection against Gas: (G).



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