

### NEW GENERATION PHOTOVOLTAIC MODULES

The new photovoltaic module **H750** is the new entry on the actual wide range of modules manufactured by Helios Technology and it is particularly suitable for installations where high power density in short space is required. It's the most innovative product in the market as it is made by monocrystalline silicon cells with special dimensions: in fact the **H750** is made by 39 high efficiency cells I-Max of 165 x 82,5 mm.

Thanks to I-Max technology developed by Helios for its range of high efficiency modules, the **H750** performs an increased current output by 10-17% at operating battery voltage (12-13 volts).

They have been designed to work under the toughest environmental and operating conditions and have been proven to guarantee at least 30 years effective service lifetime.

Furthermore every single cell and module produced has been several times tested and checked throughout the manufacturing process.

Interconnections between modules are easy, practical and optimised for all configuration and voltages.

Robust construction and heavy duty anodised aluminium frame design make this module suitable to all power applications.

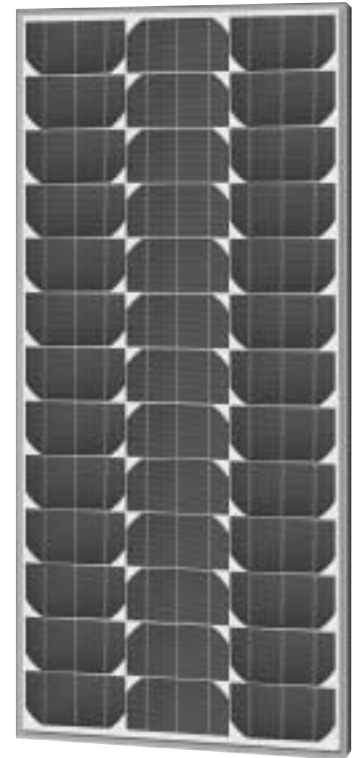
#### Guaranteed power $\geq$ 80% 25 years

Relative Humidity up to 100%

Dimensions 1130 x 524 x 34  $\pm$ 1 mm

Weight Kg. 7,9

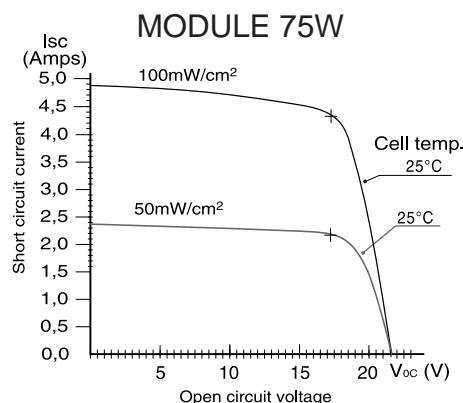
Tolerance on technical data:  $\pm$  10%

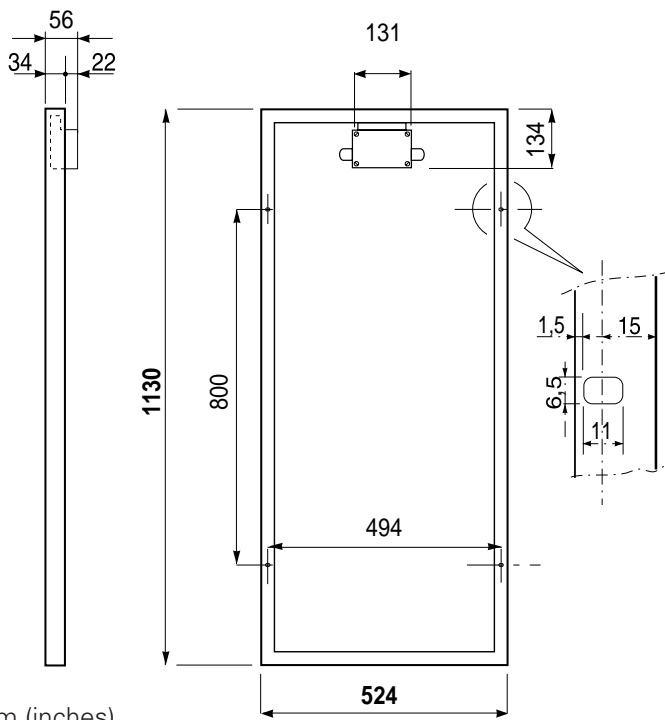


**H750/75W**

### ELECTRICAL SPECIFICATIONS (at 100 mW/cm<sup>2</sup>, 25°C, AM 1,5) MODULE H750

Peak Power (Wp)	Watts	75
Short circuit current (Isc)	Amps	4,78
Open circuit voltage (Voc)	Volts	21,6
Voltage at maximum power (Vmp)	Volts	17,3
Current at maximum power (Imp)	Amps	4,33
<b>Typical Current at battery operating voltage (12-13.8 V)</b>	<b>Amps</b>	<b>4,5</b>
NOCT (Nominal operating cell temperature)	°C	43 $\pm$ 2
Change of Voc with temperature $\beta$	mv/°C	-90
Wind loading or surface pressure	N/m <sup>2</sup> 2400 (200 km/h equiv.)	
Hailstone Impact Resistance	24 mm at 80 km/h	
Storage and operating temperature	°C from -40 to +95	
Maximum System Voltage	Volts	1000





mm (inches)  
Tolerance  $\pm 1$ mm

## MODULE PHYSICAL FEATURES

Helios modules incorporate the latest manufacturing technologies, and extensive experience gained in the field as well as many professional installer suggestions.

The result is a module frame with 4 mounting slotted holes unmatched in the market for its practical design and attention to detail, making Helios modules the most adaptable, quick and easy to install.

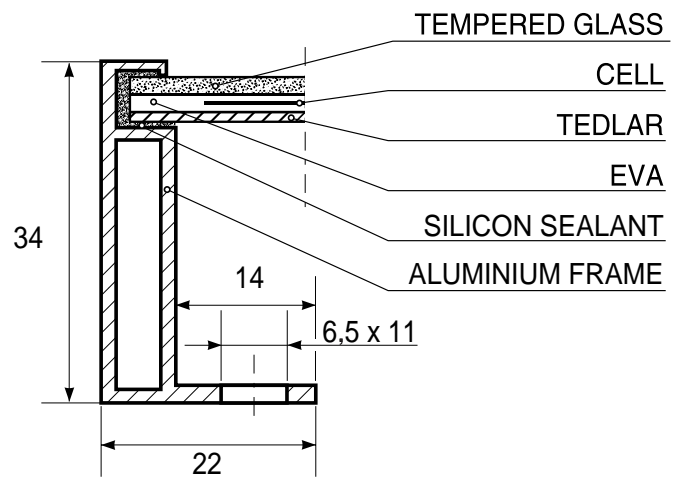
The corner/frame assembly system devised by Helios since 1982 has proven very effective in providing perfect electric continuity within the frame components for better safety on high voltage systems.

## MODULE CROSS SECTION

The cells are laminated between sheets of ethylene vinyl acetate (EVA), tempered glass and Tedlar, which offers an ideal weatherproof package against moisture and saline corrosion.

The high transparency, low iron, antireflection tempered glass is secured in the frame by silicon sealant providing protection against environmental and mechanical effects.

The high insulation between the cells and frame minimise current leakage so crucial in major PV high voltage installations where such leakage is the cause of major power losses.



## JUNCTION BOX

A waterproof, high capacity junction box with protection grade IP65 contains two by-pass diodes and oversized connecting terminals. The junction box is equipped with two PG11 cable glands for easy interconnections. Always with the installers in mind:

1. All screws can be easily tightened using flat or star screwdrivers.
2. Cover screws are prevented from falling off even when loose.  
All covers are hooked to the junction box, for easy handling and maintenance.
3. All connections are soldered for longer life.
4. The junction box components are PC board mounted, for easy replacement in case of damage by lightning.



Helios Technology reserves the right to change the technical features without notice.