



## HYBRID SOLAR PANEL



- › Developed and manufactured in Spain
- › TIC technology
- › Reduction of 40% in the aperture area against Photovoltaic + Thermal
- › Up to 15% of efficiency improvement versus a conventional PV panel
- › Improvement of collector efficiency at high  $T^a$
- › Certification tests according to EN-12975
- › Durability and reliability tests according to ISO 9806:2013



Made in UE



**CENER**  
ADIttech



GOBIERNO  
DE ESPAÑA

MINISTERIO  
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Y TURISMO

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## General features

Cell size	156x156mm
Cell number	60
Front glass	3.2mm tempered glass
Weight (empty)	45.8 kg
Dimensions (LxWxT)	1645 x 978 x 93(+25)mm
Junction box	IP65 / IP67 available
Cable length	1000mm
Cable section	4mm <sup>2</sup>
Diodes number	3
Connectors	MC4 compatible
Frame	Aluminium

## Electric specifications

Values tested under Standard Conditions STC (AM 1.5, Irradiance 1000 W/m<sup>2</sup>, Cell temperature 25°C)

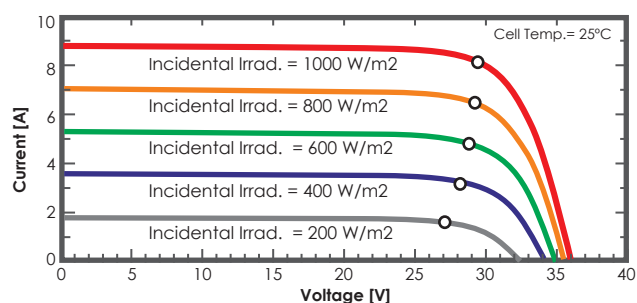
Nominal Power (P <sub>max</sub> )	255 Wp
Nominal Voltage (V <sub>mp</sub> )	31.65 V
Nominal Current (I <sub>mp</sub> )	8.06 A
Open circuit voltage (V <sub>oc</sub> )	38.58 V
Short circuit current (I <sub>sc</sub> )	9.06 A
Output Tolerance	0 + 4.99 Wp
Module Efficiency	15.98%

Voltage temp. coefficient	-0.37%/K
Current temp. coefficient	+0.06%/K
Power temp. coefficient	-0.47%/K

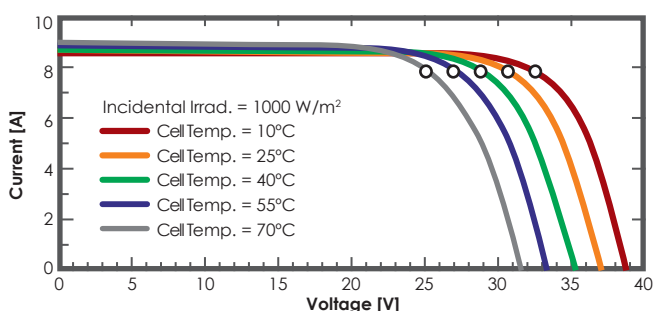
Maximum system voltage	DC 1000V (TUV)
Working temperature	-40°C / +85°C
Maximum reverse current	15A
Protection degree IP	IP65
Safety class	II

Ecomesh panels are distinguished by the incorporation of the TIC technology, which improves the global efficiency of the panel by recovering the heat lost through the frontal face. This technology has been validated, patented, tested and installed by EndeF Engineering.

## I-V Curve according to incident irradiance



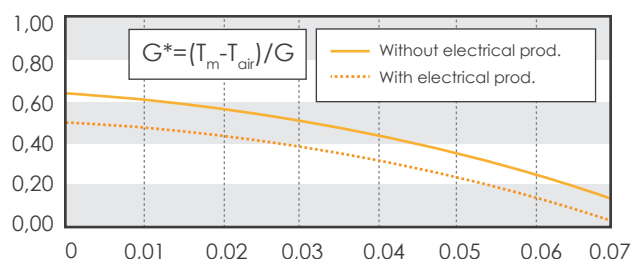
## I-V Curve according to temperature



## Thermal specifications

Maximum pressure	10 bar
Absorber	Copper
Fluid Volume	1,2 L
Optical performance (η <sub>o</sub> )	0.51
Heat loss coefficient, α <sub>1</sub>	4.93 W/m <sup>2</sup> k
Heat loss coefficient, α <sub>2</sub>	0.021 W/m <sup>2</sup> k <sup>2</sup>
Pressure loss	0.04 bar

## Thermal efficiency



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