



# HYBRID MODULE THERMO-PHOTOVOLTAIC (TPV)

New



# RA 30 HYBRID 713W of combined energy

## Photovoltaic

- Module **150W**
- High efficiency monocrystalline cells cooled by coolant
- Enhanced life-span
- Hail resistant glass

## Self-bearing roof

**0,98 m<sup>2</sup>**



## Thermal

- Module **563W** in plants with H.P. (heat pump)
- Extruded aluminum collector
- Innovative thermal exchange system
- Water + coolant capacity **7,7 litres**
- **Water flow over 20 lt per min**

The new concept of hybrid energy module, specifically developed to increase electrical efficiency and use thermal energy to feed all sorts of applications.



Manufactured in Italy

Member of CISQ Federation



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Cap. Soc./Stock Capital: € 286.000,00  
Reg. Soc. Trib. Lecce 13048  
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# TECHNICAL DATA

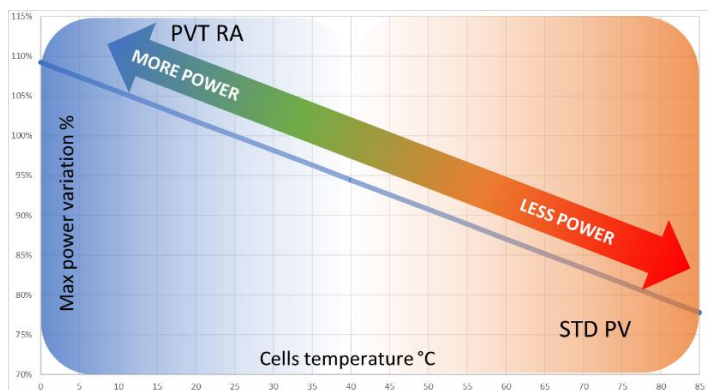
Electrical Specifications STC ( Standard Test Conditions )  
1.000 W/m<sup>2</sup> ( 25±2 )°C AM 1,5 EN 60904-3

## OVERALL

Lenght mm	<b>2406</b>
Height mm	<b>325</b>
Width mm	<b>43</b>
Inter-axis width mm	<b>310</b>
Weight Kg ( full / empty )	<b>29,2 / 21,5</b>
Colour	<b>Black</b>
Power ratio (thermal/electrical)	<b>3,75</b>
Front tempered glass mm	<b>4</b>
Cell encapsulation	<b>E.V.A.</b>
Chassis	<b>Aluminum 6063</b>

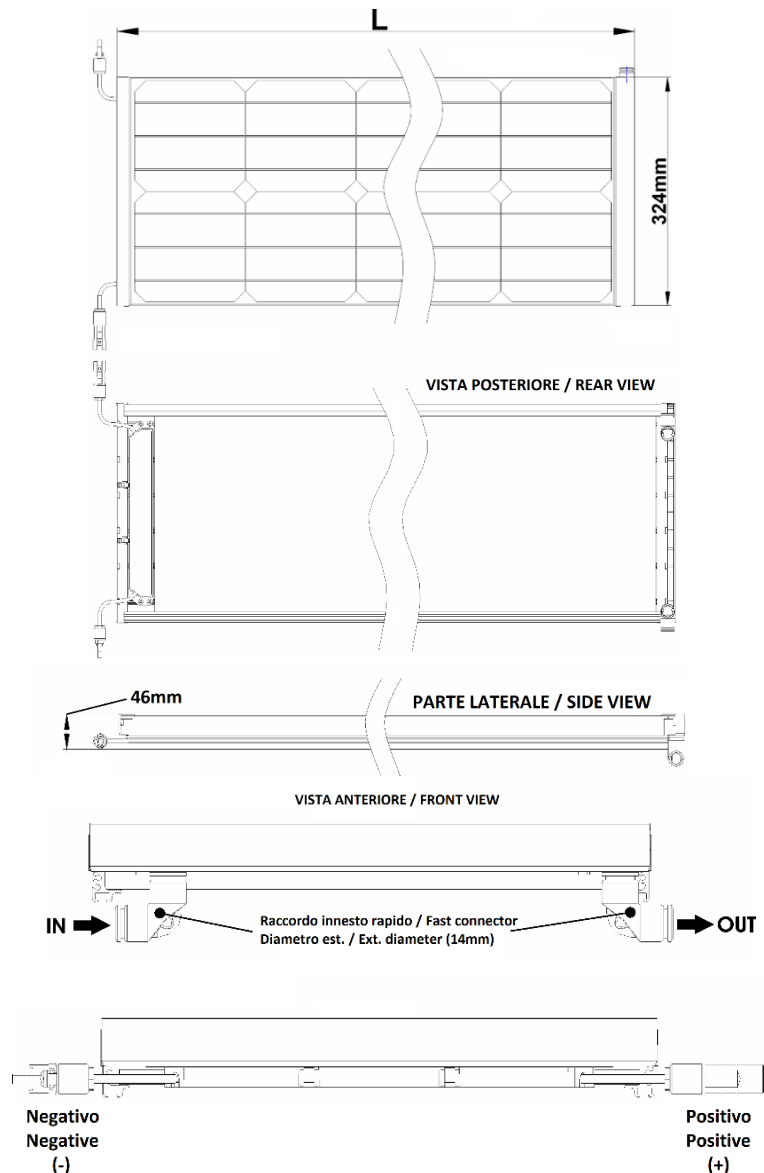
## ELECTRICAL

Cells per module	<b>30</b>
Cell type	<b>monocrystalline</b>
Nominal Power ± 3% (Pmax) Wp	<b>150</b>
Power per area W/ m <sup>2</sup>	<b>192</b>
Module efficiency η(%)	<b>19,2</b>
Max Voltage U <sub>MPP</sub> (V)	<b>16,7</b>
Max Current I <sub>MPP</sub> (A)	<b>9,2</b>
Open Circuit Voltage U <sub>OC</sub> (A)	<b>19,9</b>
Short Circuit Current I <sub>SC</sub> (A)	<b>9,6</b>
Max Reverse Current I <sub>R</sub> (A)	<b>20</b>
System Max Voltage V <sub>SYS</sub> (V)	<b>777</b>



The RA module is not affected by temperature variation

- special module-module joining system through a silicone gasket
- 33% reduced space thanks to photovoltaic and thermal combined
- designed for water-proof treadable roofing



## THERMAL

Thermal power W	<b>563</b>
Power per area W/ m <sup>2</sup>	<b>719</b>
Hydraulic connectors	<b>quick coupling</b>
Pressure (mmH <sub>2</sub> O)	<b>1</b>
Volume flow rate (l/min)	<b>17</b>
Water + coolant (litres)	<b>7,7</b>
Coolant type	<b>25% glycol pro.</b>
Gross area m <sup>2</sup>	<b>0,78</b>
Aperture area m <sup>2</sup>	<b>0,77</b>
Absorption area m <sup>2</sup>	<b>0,77</b>
Thermal insulation λ=0,037	<b>polystyrene</b>
Max pressure (bar)	<b>1,5</b>

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Cert. n°2026/99/S

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