



# HYBRID MODULE THERMO-PHOTOVOLTAIC (TPV)

New



# RA 28 HYBRID 665W of combined energy

## Photovoltaic

- Module **140W**
- High efficiency monocrystalline cells cooled by coolant
- Enhanced life-span
- Hail resistant glass

## Self-bearing roof

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



## Thermal

- Module **525W** in plants with H.P. (heat pump)
- Extruded aluminum collector
- Innovative thermal exchange system
- Water + coolant capacity **7,2 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



Cert. n°2026/99/S

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

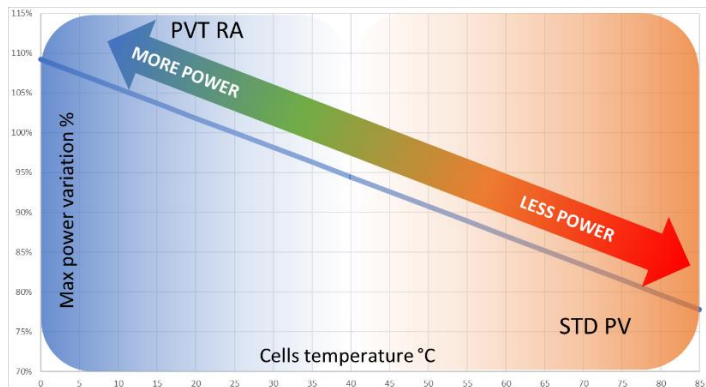
Electrical Specifications STC ( Standard Test Conditions )  
1.000 W/m<sup>2</sup> ( 25±2 )°C AM 1,5 EN 60904-3

## OVERALL

Lenght mm	<b>2249</b>
Height mm	<b>325</b>
Width mm	<b>43</b>
Inter-axis width mm	<b>310</b>
Weight Kg ( full / empty )	<b>27,3 / 20,1</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>

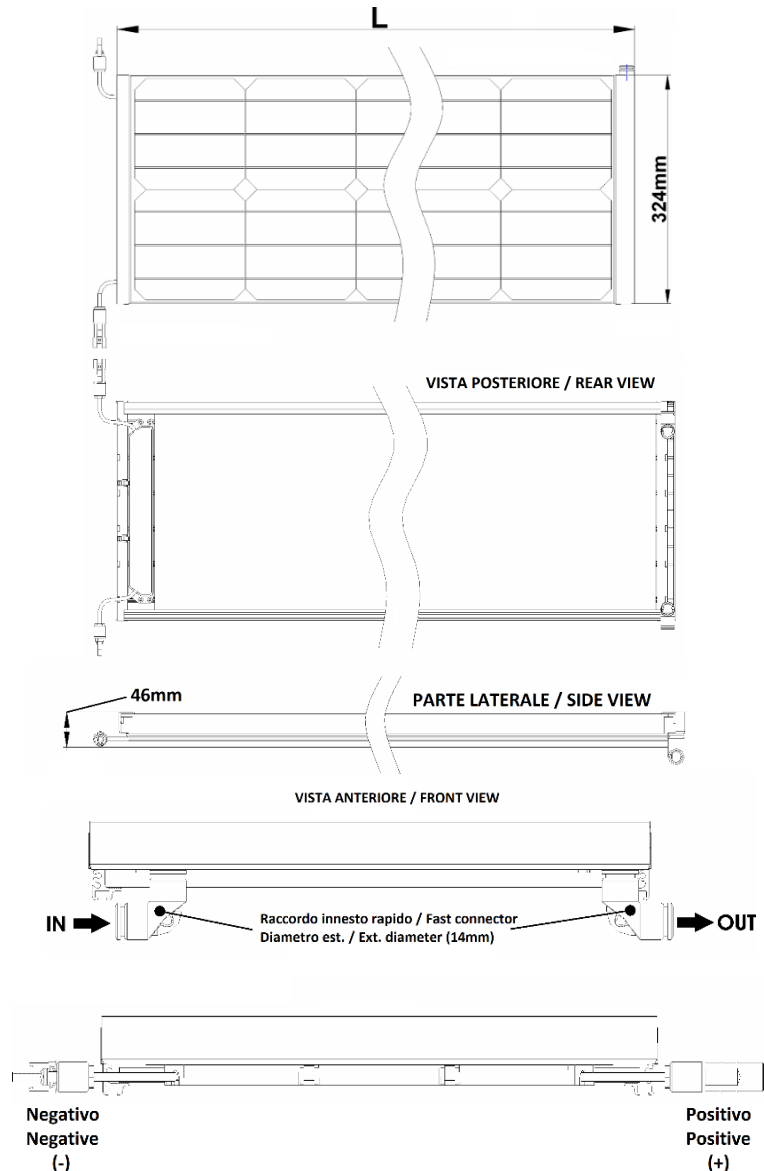
## ELECTRICAL

Cells per module	<b>28</b>
Cell type	<b>monocrystalline</b>
Nominal Power ± 3% (Pmax) Wp	<b>140</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>15,5</b>
Max Current I <sub>MPP</sub> (A)	<b>9,2</b>
Open Circuit Voltage U <sub>OC</sub> (A)	<b>18,5</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>525</b>
Power per area W/ m <sup>2</sup>	<b>718</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>7,2</b>
Coolant type	<b>25% glycol pro.</b>
Gross area m <sup>2</sup>	<b>0,73</b>
Aperture area m <sup>2</sup>	<b>0,72</b>
Absorption area m <sup>2</sup>	<b>0,72</b>
Thermal insulation λ=0,037	<b>polystyrene</b>
Max pressure (bar)	<b>1,5</b>

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