HYBRID MODULE
THERMO-PHOTOVOLTAIC (TPV)

New

Photovoltaic

- Module **190W**
- High efficiency monocrystalline cells cooled by coolant
- Enhanced life-span
- Hail resistant glass

Self-bearing roof

0,98 m²

Thermal

- Module **713W** in plants with H.P. (heat pump)
- Extruded aluminum collector
- Innovative thermal exchange system
- Water + coolant capacity **9,8 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 CE

Member of CISQ Federation
CERTIFIED MANAGEMENT SYSTEM
ISO 9001
Cert. n°2026/99/S

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Cap. Soc./*Stock Capital:* € 286.000,00
Reg. Soc. Trib. Lecce 13048
C.C.I.A.A. LECCE 159307

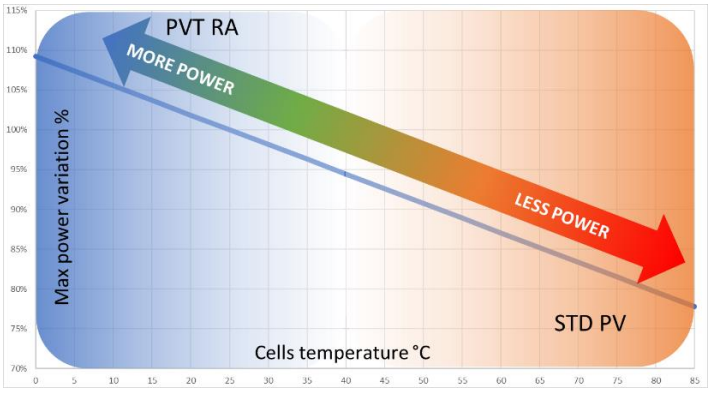
034

TECHNICAL DATA

Electrical Specifications STC (Standard Test Conditions)
1.000 W/m² (25±2)°C AM 1,5 EN 60904-3

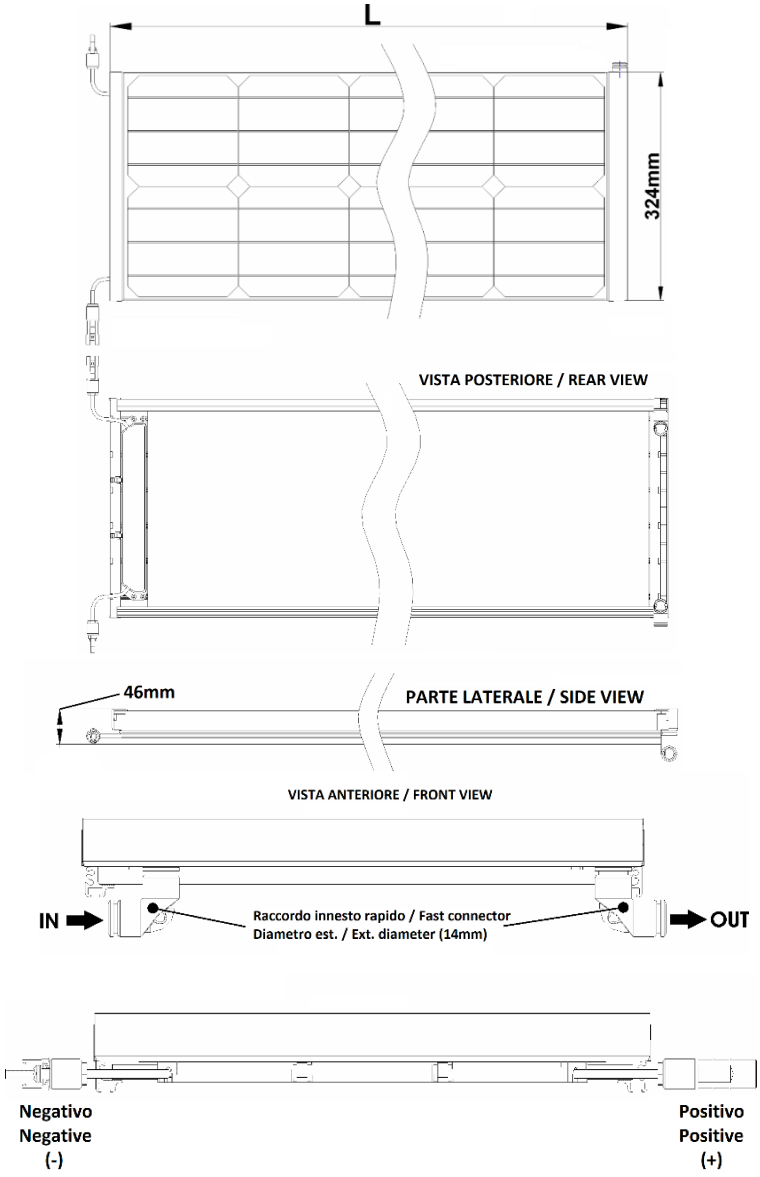
OVERALL	
Lenght mm	**3034**
Height mm	**325**
Width mm	**43**
Inter-axis width mm	**310**
Weight Kg (full / empty)	**36,8 / 27,1**
Colour	**Black**
Power ratio (thermal/electrical)	**3,75**
Front tempered glass mm	**4**
Cell encapsulation	**E.V.A.**
Chassis	**Aluminum 6063**

ELECTRICAL	
Cells per module	**38**
Cell type	**monocrystalline**
Nominal Power ± 3% (Pmax) Wp	**190**
Power per area W/ m²	**193**
Module efficiency η(%)	**19,3**
Max Voltage U_{Mpp}(V)	**21,1**
Max Current I_{Mpp}(A)	**9,2**
Open Circuit Voltage U_{OC}(A)	**25,2**
Short Circuit Current I_{SC}(A)	**9,6**
Max Reverse Current I_R(A)	**20**
System Max Voltage V_{SYS}(V)	**777**



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	**713**
Power per area W/ m²	**723**
Hydraulic connectors	**quick coupling**
Pressure (mmH_2O)	**1**
Volume flow rate (l/min)	**17**
Water + coolant (litres)	**9,8**
Coolant type	**25% glycol pro.**
Gross area m²	**0,99**
Aperture area m²	**0,97**
Absorption area m²	**0,97**
Thermal insulation λ=0,037	**polystyrene**
Max pressure (bar)	**1,5**

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