

# 60-cell monocrystalline black module VE360PVTB



### POWER RANGE from 280 to 310 Wp



#### **CELL TECHNOLOGY**

Monocrystalline silicon



#### **GUARANTEES**

20 year warranty against manufacturing defects; 30 year linear warranty to 82,5% of the maximum declared power\*

#### **OUR COMPANY VISION**



High quality, certified and controlled raw materials, combined with "Made in Italy" are the distinctive features of our products.



Constant company research and development have always increased our standards both in terms of performance and in terms of architectural integration.



The combination of aesthetics and functionality is a fundamental point in a society that is increasingly attentive to the approach of the product with the context.

#### **Product certifications:**

- CELEN / IEC 61215 (2016)
- CEI EN / IEC 61730-1/2 (2016)
- Factory Inspection
- Class of reaction to fire I (UNI 9177)
- Anti-corrosion saline IEC 61701
- Anti-corrosion ammonia IEC 62716
- PID Free A Class
- Production "made in Italy"
- EC Directives: EMC 2004/108/EC; 2006/95/EC low Voltage

#### Company certifications:

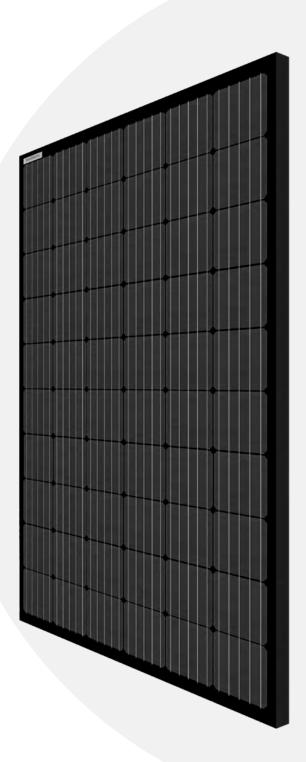
- Corporate Quality Management EN ISO 9001:2015
- Environmental Management EN ISO 14001:2015
- Management of Health and Safety at the Workplace EN ISO 45001:2018
- Certificates issued by ASACERT Assessment & Certification











### AVAILABLE POWERS [1][2]

Maximum power <sup>[3]</sup>	P <sub>max</sub> [W]	310	305	300	295	290	285	280	
Maximum power voltage	$V_{mp}[V]$	33,12	32,85	32,58	32,31	32,03	31,75	31,47	
Current at maximum power	I <sub>mp</sub> [A]	9,36	9,28	9,21	9,13	9,05	8,98	8,90	
Open-circuit voltage	V <sub>oc</sub> [V]	39,78	39,14	38,50	37,86	37,21	36,57	35,93	
Short-circuit current	I <sub>sc</sub> [A]	9,76	9,63	9,50	9,37	9,24	9,11	8,98	
Efficiency	Eff. [%]	18,79	18,48	18,18	17,88	17,58	17,27	16,97	

- [1] Electrical values measured under STC conditions: Irradiation 1000 W / m2 Module temperature = 25 ° C Air mass AM 1.5 Wind speed 1 m / s. [2] Measurement tolerance of Pmp, Vmp, Imp, Voc, Isc values equal to (- / + 3%) with A class solar simulator in accordance with IEC 60904-9. [3] Sorting tolerance Pmax: 0/+4.99 W

## **CONSTRUCTION PROPERTIES**

Module size [mm]	1650 x 1000 x 35
Cell technology	PERC monocrystalline silicon
Cell size [mm]	158,75 mm x 158,75 mm
Cell number	60
Front side	Anti-glare tempered solar glass (EN 12150)
Back side	Black PET
Frame type	Aluminum
Frame finish	Black coloring
Cables type	Solar cables with a section of 4.0 mm2
Cable length [mm]	1000
Connector type	MC4
Number of bypass diodes	3
Module weight [kg]	18



### PARAMETERS FOR INTEGRATION INTO THE SYSTEM

Maximum system voltage [V]	1000	
Class of protection against electrical leakage	Class II	
Load capacity of reverse current [A]	15	
Maximum permissible load in pressure/traction [Pa]	5400 / 2400	
Nominal operating temperature range [°C]	-45/+85	
Maximum allowable relative humidity [%]	85	
Hail impact resistance [Km/h] [4]	84,6	

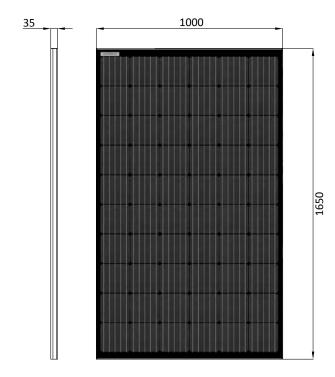
[4] Test carried out with a sphere with a diameter of 25 mm according to IEC 61730.

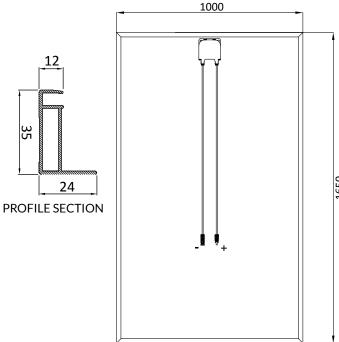
#### THERMAL CHARACTERISTICS [5]

NMOT [°C]	45,9
Temperature coefficient of electric current Alfa [%/°C]	0,049
Temperature coefficient of electrical voltage Beta [%/°C]	-0,2693
power temperature coefficient Gamma [%/°C]	-0,3562

[5] NMOT value tested under the following conditions:

- 1. Air temperature Te, NOCT = 20 °C
- 2. GNOCT irradiance = 800 W/m2; Wind speed 1 m/s;
- $3. \ \ \text{Module placed on } 37^{\circ} \text{ inclined surface, therefore no thermal convection on the underside.}$





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The Company reserves the right to make changes to product specifications. This data sheet corresponds to the requirements of Standard EN50380.