



**Power range:**  
from 150 to 165 Wp



**Positive tolerance:**  
from 0 to +4,99 Wp



**Transparency:**  
from 39%



**Frame:**  
anodised aluminium



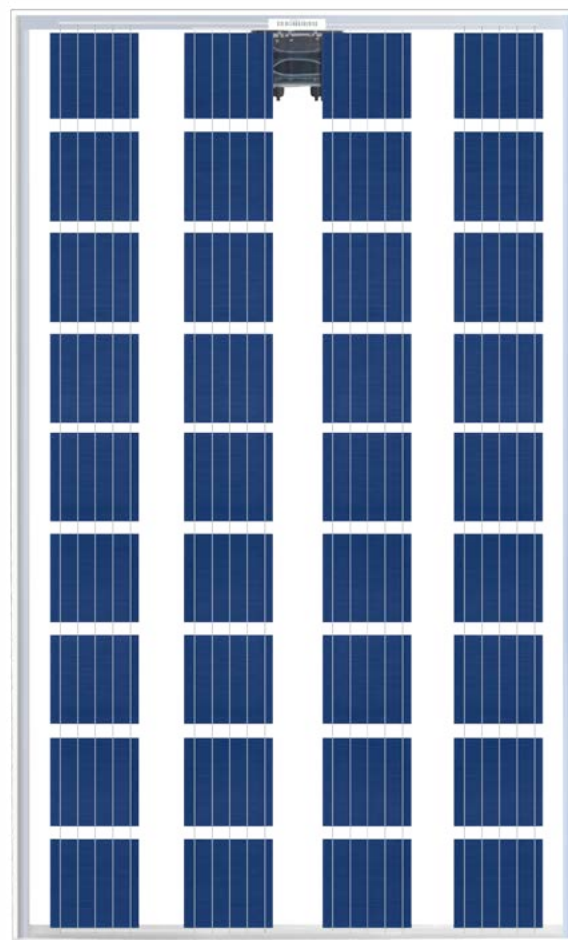
**Fire resistance:**  
class of reaction to fire 1 (UNI 9177)



**Warranty:**  
12 year against manufacturing defects



**Cell:**  
5BB Polycrystalline, standard color



## Specifications

- Use of tempered glass anti-glare with low iron content and high quality for optimum light collection.
- Anodised aluminium frame which provides solidity and sturdiness to withstand constant loads and climatic stresses such as snow and ice with applied pressure max 5,4kN/m<sup>2</sup>
- NOCT = 45°C
- Temperature range from -40°C a 85°C
- Mechanical load on surface max 550 kg/m<sup>2</sup>
- Hail impact resistance Ø 25mm a 86 km/h

## System certifications

- Corporate Quality Management EN ISO 9001:2008
- Environmental Management EN ISO 14001:2004
- Management of Health and Safety at the Workplace BS/OHSAS 18001:2007
- Certificates issued by TUV Rheinland ID:9105084080

## Product certifications

- IEC 61215:2005
- EN 61730-1/-2:2007
- Class of reaction to fire I (UNI 9177)
- Anti-corrosion saline IEC 61701
- Anti-corrosion ammonia IEC 62716
- PID Free - Classe A
- Safety class II
- Factory Inspection
- Production "made in Italy"
- EC Directives: EMC 2004/108/EC; 2006/95/EC low Voltage

## Measures VE136PVTT

• Length	1650	mm
• Width	992	mm
• Height	35	mm
• Weight	18	kg
• Frame	Anodized aluminium (possibility of SEASIDE QUALICOAT)	
• Glass thickness	3,2	mm

## Guarantees

- 12 year warranty against manufacturing defects\*
- 25 year linear warranty to 82.5% of the maximum declared power\*

\*If used and installed according to technical and operational instructions. The Company reserves the right to make changes to product specifications. This data sheet corresponds to the requirements of Standard EN50380. Rel.1 03/2019

## Behavior in standard test conditions STC\*

Power class (maximum value)	$P_{max}$	150 Wp	155 Wp	160 Wp	165 Wp
Efficiency	$\eta$	9,16 %	9,47 %	9,78 %	10,08%
Open-circuit voltage	$V_{oc}$	22,58 V	22,99 V	23,41 V	23,82 V
Short-circuit current	$I_{sc}$	8,83 A	8,91 A	8,99 A	9,06A
Maximum power voltage	$V_{mp}$	18,32 V	18,68 V	19,05 V	19,44 V
Current at maximum power	$I_{mp}$	8,25 A	8,34 A	8,43 A	8,52 A

\* Note - Under standard conditions: Irradiation 1000 W/mq - Module temperature = 25°C - Air mass AM 1,5  
 Measurement tolerance solar simulator class A (- / + 2%) in accordance with IEC 60904-9

## Materials used

Cells per module	36
Cell type	5BB Polycrystalline
Cell size	156,75 mm x 156,75 mm
Front side	Anti-glare tempered glass (EN 12150)
Back side	Transparent backsheet

## Parameters for optimal integration into the system

Maximum system voltage class II	1000 V
Load capacity of reverse current	15 A
High snow loads (standard IEC 61215)	max 5,4 kN/m <sup>2</sup>
Number of bypass diodes	2

## Thermal characteristics

NOCT**	45 +/- 2°C
TC $I_{sc}$	0,046 %/°C
TC $U_{oc}$	-0,345 %/°C
TC $P_{mpp}$	-0,417 %/°C

\*\*Note - Under NOCT conditions: Irradiation 800 W/mq - Module temperature = 45°C - Air mass AM 1,5

## More Info

Transparency	39%
Sorting tolerance $P_{max}$	0/+4,99 W
Type of protection (IP)	IP65
Connector	MC4
Cable	Solar cable 4mm <sup>2</sup> - Length 1m

