

# Monocrystalline photovoltaic module(4BB) 270 Wp



Positive performance tolerance 0+5 Wp



**Produced in EU** 



13 years product warranty



25 years linear performance warranty



Load 5400 Pa



High-performance monocrystalline silicon; 156mm cells; module efficency up to 16%; 4-busbar technology to increase power output



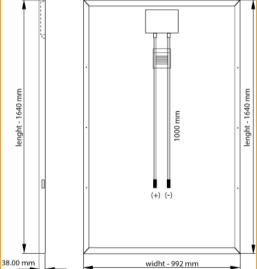








## **General informations**



WinSolar is always careful in the choice of materials and the search for new technological solutions more innovative. Each module exceeds, through the entire production cycle, over 30 quality controls, from the selection of raw materials, production processes up to the final test operation and classification of the finished product.

The choice of materials, the high level of automation in production processes ensure excellent performance and extreme reliability over time, which is why we guarantee our modules 13 years and 25 anni of linear performance warranty covering a period of 25 year: 2,5% maximum performance degression during the first year and 0,7% p.a. for the next 24 years.

The JB is produced in order to spare hot spot event to maximize the efficiency of the system. Thanks to the special anti-reflective coating, the glass maximizes the capture of sunlight and therefore implements the productivity of PV module also in low radiation conditions. The glass offers better resistance to dust deposits and requires less maintenanceGiven its hydrophilic. The thickness of 3.22 mm provides resistance to mechanical stress.

All modules have high efficiency cells 4 bus bars that allow better collection of the current produced and increase the power of the module.









# **Data Sheet**

Electrical Data		WNS 270 M60				
Maximum Power	$P_{max}$	270 Wp				
Nominal Voltage	$V_{mpp}$	31,20 V				
Short circuit current	I <sub>sc</sub>	9,07 A				
Maximum power point current	I <sub>mpp</sub> 8,65 A					
Open circuit voltage	V <sub>oc</sub> 38,3 V					
Module efficiency	%	16,65%				
Performance Tolerance	P <sub>(Wp)</sub>	0Wp + 5Wp				
Nr of cells	60 pcs					
Cells	Monocrystalline					
Limit values						
Maximum system voltage SCII	(V <sub>dc</sub> )	1000 V <sub>dc</sub>				
Maximum reverse current	(A)	20 A				
NOCT (800 W/m², 20°C, AM 1.5, 1 m/s)	(°C)	+45°C +/-2°C				
Thermal characteristics						
Voltage	$V_{oc}$	V <sub>oc</sub> -0,307% / °C				
Current	I <sub>sc</sub>	+0,039% / °C				
Output	$P_{mpp}$	-0,423% / °C				
Load/dynamic load	Pa	5400 Pa				
Number of bypass diodes	N.	3				
Operating range	N.	-40°C a +85°C				
Physical Characteristics						
Dimensions (L x W x H)	(mm)	1640 x 990 x 35 mm				
Weight	(Kg)	18 Kg				
Junction Box	Protection degree IP65 - 3 bypass diodes - MC4 connector compatible					
Cables	Conductor section 4 mm², length 1 m (MC4)					

Irradiance Dependence		1000 W/m <sup>2</sup>	800 W/m <sup>2</sup>	600 W/m <sup>2</sup>	400 W/m <sup>2</sup>
	$I_{sc}$	0 %	-19,6 %	-39,5 %	-59,2 %
	$V_{oc}$	0 %	-1,38 %	-3,05 %	-5,9 %

#### General data

Frontside Low-reflection 3,2 mm tempered glass
Frame 35 mm silver anodized alluminium frame

Cells 60 monocrystalline high efficiency cells 156 mm x 156 mm (6")

Elements Made in EU elements (glass, frame, cables...)

## **Certifications**





















