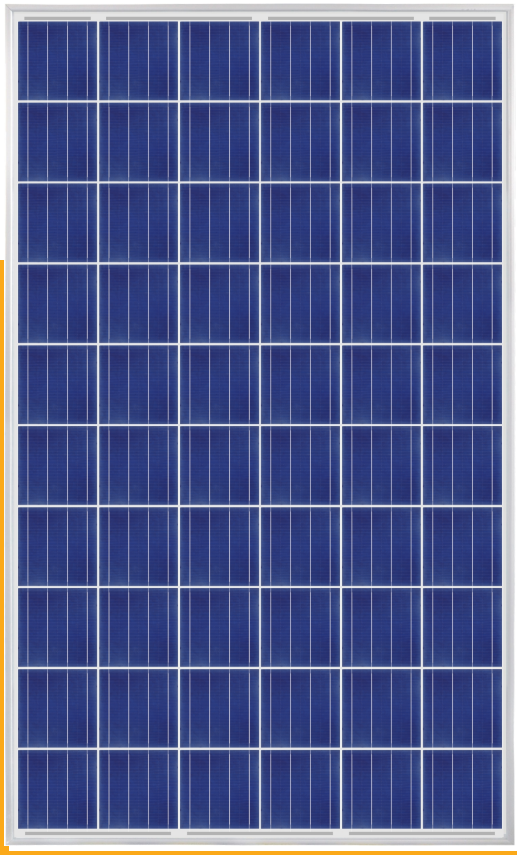
winsolar

Polycrystalline photovoltaic module (5BB)

280 Wp



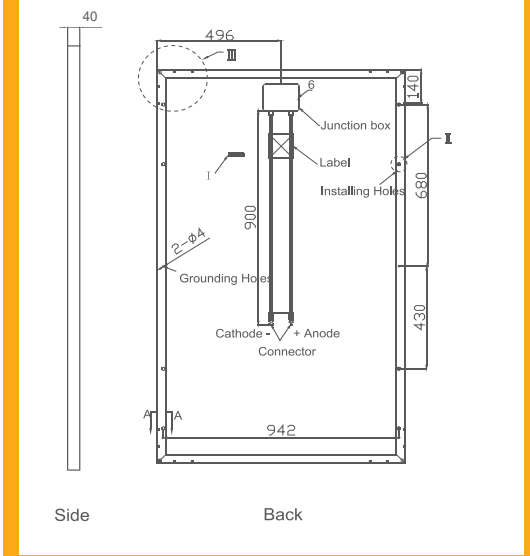
Positive performance tolerance 0+5 Wp

13 years product warranty

25 years linear performance warranty

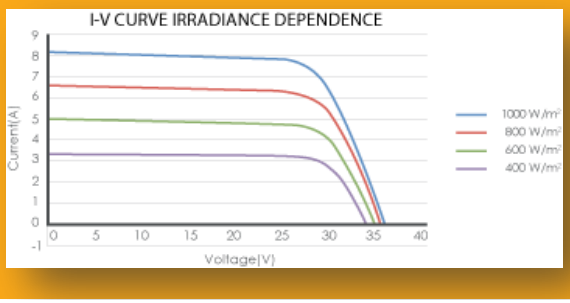
Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal).

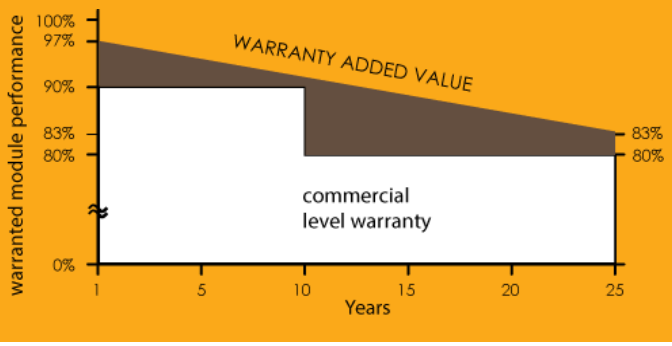
High-performance polycrystalline silicon; 156mm cells; module efficency up to 15%; 5 busbar technology to increase power output



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 warranty and 25 years of linear performance warranty: 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 maintenance given its hydrophilic. The thickness of 3.22 mm provides resistance to mechanical stress.
5 busbar solar cell adopts new technology to improve the efficiency of modules , offers a better aesthetic appearance, making it perfect for rooftop installation.





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Data Sheet

270 Wp

Electrical Data		**WNS 280 P60**
Maximum Power	P_{max}	280 Wp
Nominal Voltage	V_{mpp}	31,50 V
Short circuit current	I_{sc}	9,31 A
Maximum power point current	I_{mpp}	8,89 A
Open circuit voltage	V_{oc}	38,6 V
Module efficiency	%	17,21%
Performance Tolerance	$P_{(Wp)}$	0Wp… + 5Wp
Nr of cells		60 pcs
Cells		Polycrystalline

Limit values		
Maximum system voltage SCII	(V_{dc})	1000 V_{dc}
Maximum reverse current	(A)	16 A
NOCT (800 W/m², 20°C, AM 1.5, 1 m/s)	(°C)	+42°C +/-2C°

Thermal characteristics		
Voltage	V_{oc}	-0,292% / °C
Current	I_{sc}	+0,045% / °C
Output	P_{mpp}	-0,408% / °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 40 mm
Weight	(Kg)	18 Kg
Junction Box	Protection degree IP67 - 3 bypass diodes - MC4 connector compatible	
Cables	Conductor section 4 mm², length 1 m (MC4)	

Irradiance Dependence		**1000 W/m²**	**800 W/m²**	**600 W/m²**	**400 W/m²**
	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	40 mm silver anodized alluminium frame
Cells	60 polycrystalline high efficiency cells 156 mm x 156 mm (6")

Certifications

GL ISO 9001 ISO 14001 OHSAS 18001 — GL Systems Certification

IEC 61215

TÜV NORD Type Tested — Photovoltaic Modules

Ammonia resistance certificate

Salt water mist resistance certificate

Fire resistance certificate

cobat