



Panouri 72-125

Monocrystalline silicon
photovoltaic module Power peak 160 W to
200 W

GENERAL DESCRIPTION

The photovoltaic modules are suitable for grid-connect systems such as: solar power stations, medium and large size photovoltaic parks, installations on offices and commercial buildings, residential estates and private houses. **They are also suitable for 24V stand-alone installations.**

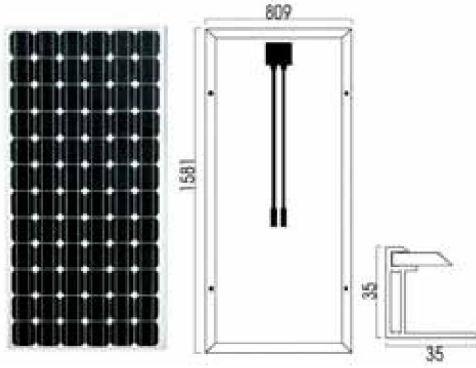
The max system voltage DC of 1000V makes it applicable in any type of grid-connect plant. Manufacturer uses top quality elements in order to guarantee that its photovoltaic modules are reliable and cost-effective over a long period of time. With grade "A" raw materials, the modules so engineered are highly efficient and with minimum tolerances. The 72-125 photovoltaic modules are IEC 61215 and Safety Class Second Edition certified.

CHARACTERISTICS

- Photovoltaic modules are designed with 72 monocrystalline silicon 125x125 mm cells.
- Cells are protected on the outside by a highly transparent 3.2 mm prismatic tempered glass and by a Tedlar sheet; the three layers are then vacuum encapsulated at high temperature between two sheets of EVA (Ethylene Vinyl Acetate).
- A strong anodized aluminum frame grants the modules extreme resistance.
- The production process ensures the cells maximum protection against toughest and critical operating and environmental conditions.
- modules are manufactured by highly specialized personnel employing cutting edge technologies and machinery.



DIMENSIONS



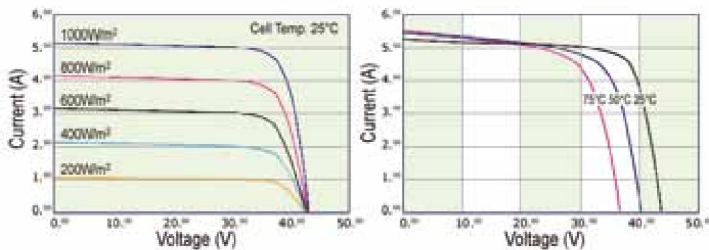
MECHANICAL FEATURES AND PACKING

Module Dimensions	(mm)	1581 x 809 x 35
Module Weight	(kg)	16
Front Glass		3.2 mm thickness prismatic tempered glass
Carton Dimensions	(cm)	161 x 83 x h9
Pallet Dimensions	(cm)	165 x 105 x h195
Pallet Weight	(kg)	800
1 Carton		2 modules
1 Pallet		25 cartons (50 modules)
Container Loading Capacity	20ft	300 modules (6 pallets)

ELECTRICAL FEATURES

Type		72-125	160	165	170	175	180	185	190	195	200
Module Efficiency	η_m (%)	12.60	12.90	13.30	13.70	14.10	14.50	15.00	15.40	15.80	
Cell Efficiency	η_c (%)	15.00	15.40	15.90	16.40	16.80	17.30	17.50	17.80	18.00	
Power Peak	P_m (W)	160	165	170	175	180	185	190	195	200	
Max-Power Voltage	V_m (V)	34.90	35.60	35.80	36.20	36.80	37.20	37.30	37.40	37.50	
Max-Power Current	I_m (A)	4.60	4.65	4.76	4.85	4.90	4.98	5.10	5.22	5.35	
Open-Circuit Voltage	V_{oc} (V)	42.80	43.20	43.60	43.90	44.20	44.50	44.55	44.65	44.70	
Short-Circuit Current	I_{sc} (A)	5.15	5.20	5.25	5.30	5.35	5.40	5.50	5.60	5.70	
Max-System Voltage	(VDC)	1,000									
Electrical Parameters Tolerance	(%)	± 3 (Power Output Tolerance 0/+5 Watt)									
Cell Size	(mm)	125 x 125									
Arrangement of cells		72 cells in series - monocrystalline silicon									
Max-Series Fuse	(A)	7									
P_m Temperature Coefficient	(% / °C)	- 0.45									
V_{oc} Temperature Coefficient	(% / °C)	- 0.35									
I_{sc} Temperature Coefficient	(% / °C)	0.05									
NOCT - Nominal Operating Cell Temperature	(°C)	47 \pm 2									
Operating and Storage Temperature	(°C)	- 40 ~ + 85									
Dielectric Insulation Voltage	(VDC)	3,000 max									
Test Conditions	(STC)	1,000 W/m ² ; 1.5 AM e 25 °C cell temperature									
Code		MFM	50181	50183	50184	50185	50186	50187	50188	50189	50190

72 CELLS - MONOCRYSTALLINE



JUNCTION BOX



- Quick fastening connectors - 3 bypass diodes
- 90 cm solar cables
- Line 3 connectors (MC3 compatible)

WARRANTY:

- 5 YEAR LIMITED WARRANTY ON MATERIALS AND MANUFACTURING DEFECTS
- 10 YEAR WARRANTY ON POWER OUTPUT NOT LOWER THAN 90%
- 25 YEAR WARRANTY ON POWER OUTPUT NOT LOWER THAN 80%

The power output values shall be those measured under standard measurement conditions as follows:

- light spectrum of AM 1.5;
- irradiation of 1,000 W per m²;
- a cell temperature of 25 °C.

