Poly Crystaline Solar Panels

5W TO 250W | 12V/24V SYSTEM | For small to big solar installations

- Solar modules are designed in Consistent with IEC 61215 Standards
- Manufactured with proven materials and tested to ensure the stable output power
- Each 18 and 36 cells series one bypass diode is installed to avoid "hot spot" effect
- SiN/TiO2 Films deposited on the front surface by PECVD acts as anti-reflection coating and gives a uniform dark blue appearance.
- Cells are laminated between high transmissivity low - iron 3.2mm tempered glass and sheet of TPT meterial by two sheets of EVA to prevent moisture penetrating into the module.
- Heavy duty anodized aluminum frame provides high wind resistance and convenient mounting access.
- Water -proof versatile junction box provides flexibility of connection.
- **Insulation** > 100 MW Voltage Standoff: AC2000V DC3000V
- **Wind Bearing** > 120Km/h System Voltage 1000V
- **Impact Resistance - Height Impact Test:** 225g steel ball drop from height of 100cm

ELECTRICAL CHARATERISTICS of 250W solar panel Under Standard Test Conditions (STS) of 1000w/m^2 irradiance AM 1.5 spectrums and 25°C Cell Temperature

Rated power / voltage	**250W/24V**
Nominal Maximum power, Pm (W)*	250
Power Tolerance	-5%/+5%
Open Circuit Voltage, Voc(V)*	37.2
Short Circuit Current, Isc (A)*	8.96
Voltage at Maximum Power, Vmp (V)*	30.8
Current Maximum Power, Imp (A)*	8.12
Maximum System Voltage (V)	1000(IEC)
Module Efficiency (%)	15.4
Maximum Series Fuse Rating & Reverse Current	15A

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MECHANICAL CHARATERISTICS	250W/24V
Length x Width x Thickness (LxWxT)-mm	*1640x990x42*
Mounting Holes Pitch (Y)-mm	*1000*
Mounting Holes Pitch (X)-mm	*942*
Weight (kg)	*18.5*
Solar Cells per Module (Units)/Arrangement	*60/(10x6)*
Solar Cell Type/ Length x Width (mm)	*Multi crystalline Silicon/ 156x156 (6"x6")*
Front Cover (Material/Thickness)	*Tempered & Low Iron Glass/3.2mm*
Encapsulate	*Ethylene Vinyl Acetate*
Frame Material	*Anodized Aluminum Alloy*
Junction Box (Protection degree/Material)	*IP65 rated /Weatherproof PPO enclosure (with bypass diodes 3/6)*
Connector (Protection degree/Type)	*IP67rated/MC compatible*
Cable (Length /Cross sectional area)	*1100mm/4mm2*
Mechanical Load	*7500pa*
Fire Safety Class	*C*
Safety Application Class	*A*
Safety Class	*II*

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THERMAL CHARACTERISTICS

Temperature Co-efficient of Current (I_{sc}), α (% /°C)	0.0681
Temperature Co-efficient of Voltage (V_{oc}), β (% /°C)	-0.2941
Temperature Co-efficient of Power (P_m), Y (% /°C)	-0.3845
NOCT(°C)	46±2
Operating temperature range (°C)	-40 to 85

Other Poly - Crytalline Solar Modules

Power Watt	Size	THICKNESS	Voc	Vmp	Short Circuit Isc	Max Current Imp	WT (KG)
5	290*200MM	17MM	20	17.7	0.36	0.3	1
8	355*255MM	23MM	21	17.7	0.4	0.46	1.5
10	390*340MM	23MM	21	17.7	0.67	0.61	1.8
15	500*400MM	25MM	21	17.7	0.94	0.85	2.8
20	740*350MM	25MM	21	17.7	1.35	1.22	3.8
30	670*450MM	25MM	21	17.7	1.87	1.7	5
40	740*660MM	30MM	21	17.7	2.49	2.26	6.8
50	990*540MM	35MM	21	17.7	3.15	2.83	9
100	1205*670MM	35MM	21	17.7	6.22	5.66	14
125	1475*675MM	35MM	21	17.7	7.7	7	17

Note: Any of the above specifications can change without notice due to continuous up gradations.