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# **EnergyPal**

## **Solar Panel Guide Specification Data Sheet**

**PV Power Technologies Pvt. Ltd.  
ECO 60cells-Poly  
ECO 270**

Also available on the web at  
[EnergyPal.com/pv-power-technologies-pvt-ltd-solar-panels/eco-270](http://EnergyPal.com/pv-power-technologies-pvt-ltd-solar-panels/eco-270)

# ECO SERIES - DEVELOPING THE SOLAR ARRAY OF THE FUTURE

At PV Power Tech, our focus is to recognise market trends and opportunities which helps develop innovative products. This yields to better products and higher returns for our customers.

Our ECO series panels are high efficiency solar panels manufactured using only the premium raw materials available from industry leaders.

Our panels are available in different sizes and watt options ranging from 36 cells up to 72 cells reaching modules efficiencies of close to 16.5%.

## PREMIUM QUALITY

PV Power Tech, modules are manufactured using state-of-the-art automated manufacturing processes that ensure consistency in production and high quality standards. Our manufacturing standards adhere to strict guidelines laid down by ISO 9001 certifications. Our plant is also certified for ISO 14001.

## CERTIFICATIONS

ECO series panels are certified for industry standard IEC 61215 (design and performance) and IEC 61730 (safety class II) certification by both TUV intercert as well as UL. Over and above these standard certifications our panels have also been tested and approved by the leading association of farmers in Germany DLG e.v. for its long term resistance to Ammonia. Our Modules are FREE from PID effect & are IEC 62804 certified.

## FLEXIBLE APPLICATIONS

Our panels are suitable for a wide range of application – from individual homes to industry roofs and ground-mounted system. They are compatible with all industry standard mounting system as well as inverters. The ECO series is available as both framed and laminates. It is designed for easy installation. Additionally, customization with black back sheet and black frames is also offered for an aesthetically appealing product.

## CORROSION RESISTANCE

The ECO series has been tested by TUV for IEC 61701 proving its resistance to salt, mist, corrosion and can be installed in areas with salty air, especially near sea.

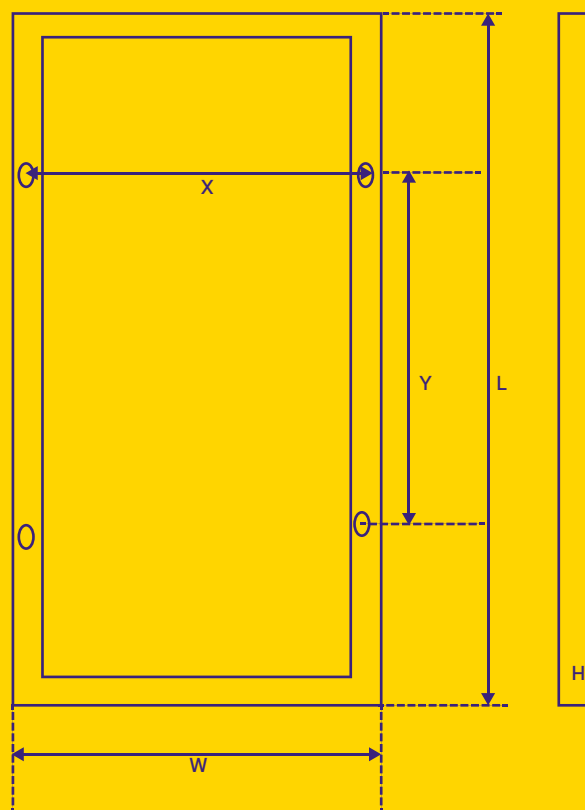
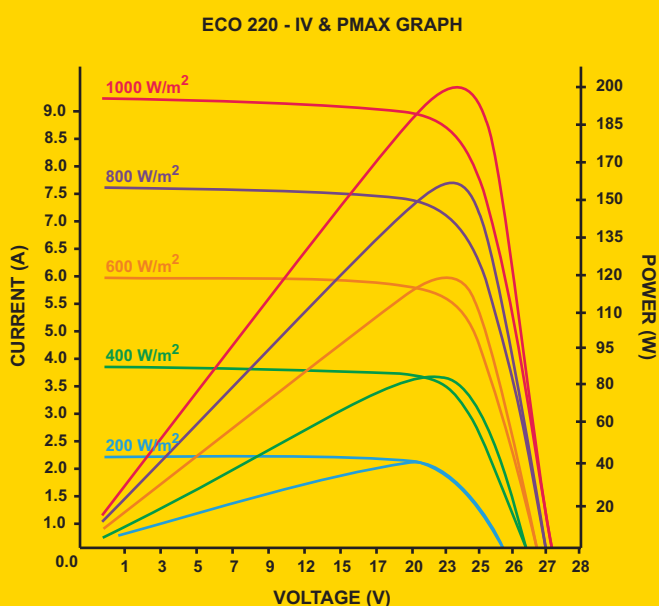
## RELIABILITY

The ECO series panel are backed by a standard 10 years limited manufacturing warranty, power warranties of 90% of the minimum output power of 10years and 80% of the minimum output power for 25 years. High resistance to Mechanical loads/snow loads upto 5,400 Pa.

## 48 FULL CELL MODULE DETAILS

Electrical Parameters					
Model Name	ECO 200	ECO 205	ECO 210	ECO 215	ECO 220
Cell Configurations (Nos.)	8 x 6 (48) Series				
Pmax (W) (0 + 3.0%)	200	205	210	215	220
Voc (V) (0 ± 3.0%)	30.7	31	31.20	31.5	31.7
Isc (A) (0 ± 3.0%)	8.66	8.77	8.90	9	9.12
Vmax (V)	24.3	24.5	24.70	24.9	25.1
Imax (A)	8.24	8.4	8.52	8.66	8.78
Fill Factor (%)	75.23%	75.40%	75.63%	75.84%	76.10%
Module Efficiency (%)	15.14%	15.51%	15.89%	16.27%	16.65%
Maximum System Voltage (VDC)	1000				
Nominal Operating Cell Temp. (NOCT) (°C)	44 ± 2				
Temp. Coefficient of Pmax (%/°C)	-0.42				
Temp. Coefficient of Voc (%/°C)	-0.32				
Temp. Coefficient of Isc (%/°C)	0.05				

Electrical values measured at STC: 25°C, 1.5AM, 1000 W/m<sup>2</sup>



	MECHANICAL PARAMETERS				
	ECO 200	ECO 205	ECO 210	ECO 215	ECO 220
L - Length of Module (mm)	1332 mm ± 1.0 mm				
W - Width of Module (mm)	992 mm ± 1.0 mm				
H - Height of Module (mm)	35 mm ± 0.5 mm				
X - Pitch Distance (mm)	955 mm ± 0.5 mm				
Y - Pitch Distance (mm)	700 mm ± 0.5 mm				
Mounting Hole (mm)	4 oblong of size 6.5 mm x 10 mm				
Cell	4 BB Polycrystalline Solar Cells				
Junction Box	TUV approved, IP 65 / IP 67 rated 4 terminal junction box with 3 bypass diodes				
Cable	1000 mm long 4.0 mm <sup>2</sup> cables with MC4 compatible connectors				
Weight	15 kg				

Certificates: The Modules are certified to IEC 61215 & IEC 61730, Electrical Protection Class II and the CE - guidelines. Moreover PV Power Tech is certified & Registered to ISO 9001 & ISO 14001.

Note:

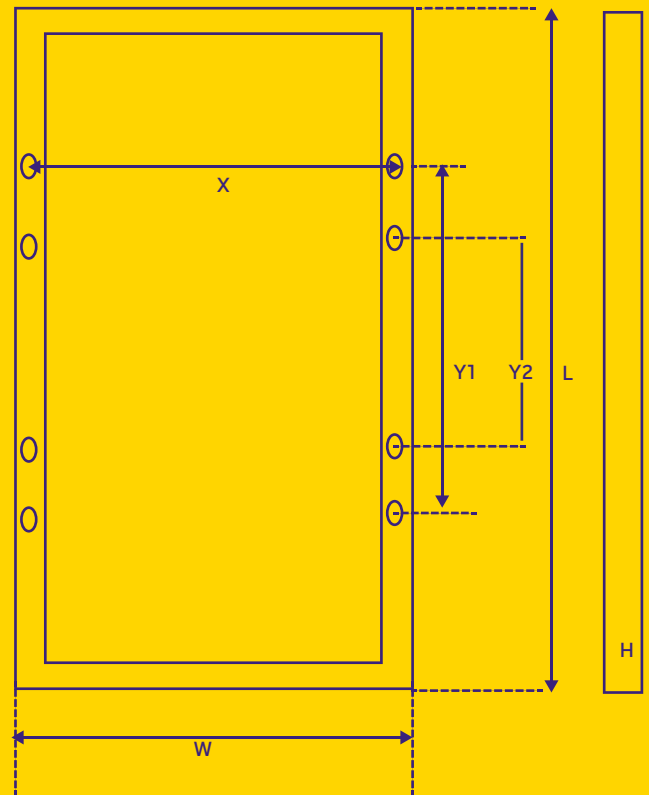
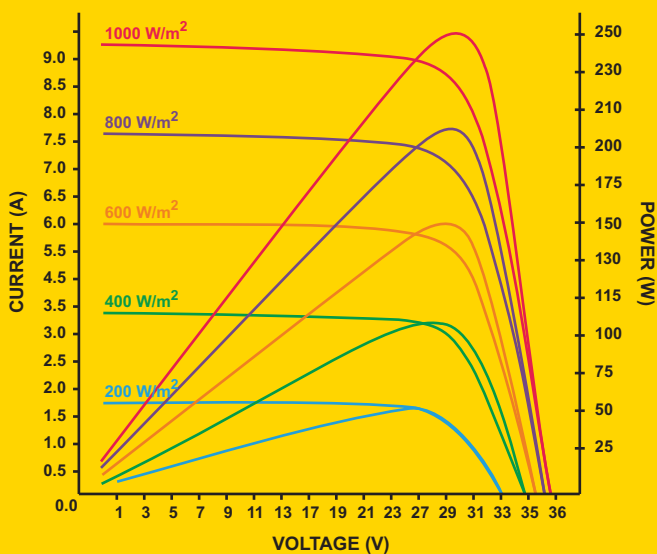
1. PV Power Tech reserves the right to change the specifications with prior notice.
2. All measurements and warranty/guarantee applicability under standard test conditions (1000W/m<sup>2</sup>, 25°C, AM 1.5)

## 60 FULL CELL MODULE DETAILS

Electrical Parameters					
Model Name	ECO 250	ECO 255	ECO 260	ECO 265	ECO 270
Cell Configurations (Nos.)	10 x 6 (60) Series				
Pmax (W) (0 + 3.0%)	250	255	260	265	270
Voc (V) (0 ± 3.0%)	37.55	37.65	37.75	37.82	37.95
Isc (A) (0 ± 3.0%)	8.84	8.97	9.1	9.23	9.35
Vmax (V)	29.7	29.9	30.1	30.30	30.55
Imax (A)	8.43	8.54	8.65	8.76	8.85
Fill Factor (%)	75.31%	75.51%	75.69%	75.91%	76.09%
Module Efficiency (%)	15.27%	15.58%	15.88%	16.19%	16.50%
Maximum System Voltage (VDC)	1000				
Nominal Operating Cell Temp. (NOCT) (°C)	44 ± 2				
Temp. Coefficient of Pmax (%/°C)	-0.42				
Temp. Coefficient of Voc (%/°C)	-0.32				
Temp. Coefficient of Isc (%/°C)	0.05				

Electrical values measured at STC: 25°C, 1.5AM, 1000 W/m<sup>2</sup>

ECO 270 - IV & PMAX GRAPH



	MECHANICAL PARAMETERS				
	ECO 250	ECO 255	ECO 260	ECO 265	ECO 270
L - Length of Module (mm)	1650 mm ± 1.0 mm				
W - Width of Module (mm)	992 mm ± 1.0 mm				
H - Height of Module (mm)	35 mm ± 0.5 mm				
X - Pitch Distance (mm)	955 mm ± 0.5 mm				
Y - Pitch Distance (mm)	Y1 - 1,350 & Y2 - 852 mm ± 0.5 mm				
Mounting Hole (mm)	8 oblong of size 6.5 mm x 10 mm				
Cell	4 BB Polycrystalline Solar Cells				
Junction Box	TUV approved, IP 65 / IP 67 rated 4 terminal junction box with 3 bypass diodes				
Cable	1000 mm long 4.0 mm <sup>2</sup> cables with MC4 compatible connectors				
Weight	19 kg				

Certificates: The Modules are certified to IEC 61215 & IEC 61730, Electrical Protection Class II and the CE - guidelines. Moreover PV Power Tech is certified & Registered to ISO 9001 & ISO 14001.

Note:

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2. All measurements and warranty/guarantee applicability under standard test conditions (1000W/m<sup>2</sup>, 25°C, AM 1.5)

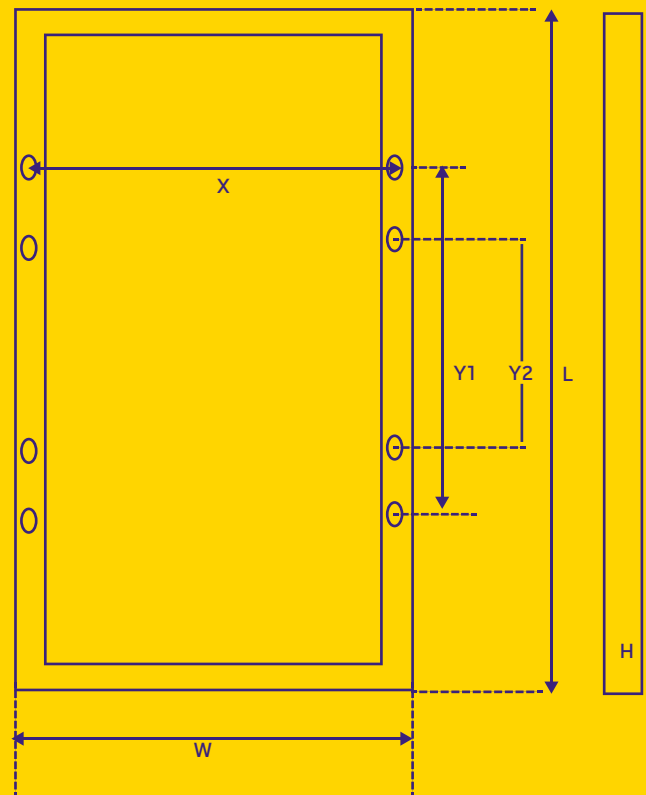
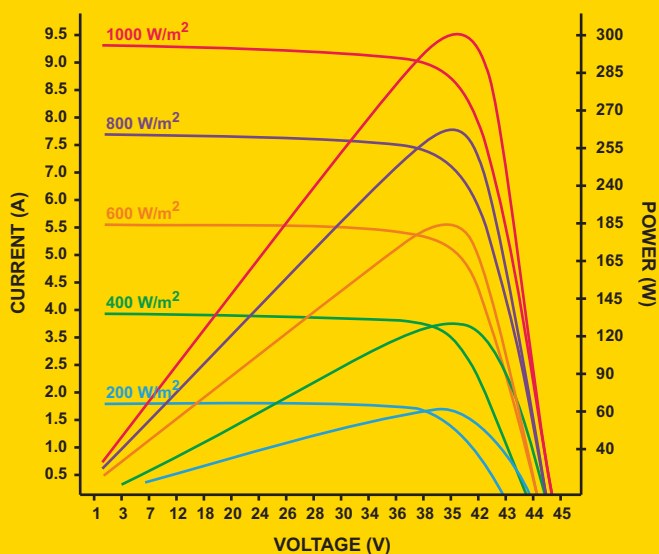
## 72 FULL CELL MODULE DETAILS

### Electrical Parameters

Model Name	ECO 300	ECO 305	ECO 310	ECO 315	ECO 320	ECO 325
Cell Configurations (Nos.)	12 x 6 (72) Series					
Pmax (W) (0 + 3.0%)	300	305	310	315	320	325
Voc (V) (0 ± 3.0%)	45.1	45.2	45.3	45.45	45.55	45.65
Isc (A) (0 ± 3.0%)	8.8	8.91	9.02	9.10	9.2	9.3
Vmax (V)	35.95	36.1	36.3	36.50	36.7	36.9
Imax (A)	8.36	8.46	8.55	8.64	8.73	8.82
Fill Factor (%)	75.59%	75.73%	75.87%	76.16%	76.36%	76.55%
Module Efficiency (%)	15.38%	15.64%	15.90%	16.15%	16.41%	16.66%
Maximum System Voltage (VDC)	1000					
Nominal Operating Cell Temp. (NOCT) (°C)	44 ± 2					
Temp. Coefficient of Pmax (%/°C)	-0.42					
Temp. Coefficient of Voc (%/°C)	-0.32					
Temp. Coefficient of Isc (%/°C)	0.05					

Electrical values measured at STC: 25°C, 1.5AM, 1000 W/m<sup>2</sup>

ECO 325 - IV & PMAX GRAPH



Parameters	MECHANICAL PARAMETERS					
	ECO 300	ECO 305	ECO 310	ECO 315	ECO 320	ECO 325
L - Length of Module (mm)	1966 mm ± 1.0 mm					
W - Width of Module (mm)	992 mm ± 1.0 mm					
H - Height of Module (mm)	40 mm ± 0.5 mm					
X - Pitch Distance (mm)	955 mm ± 0.5 mm					
Y - Pitch Distance (mm)	Y1 - 1,670 & Y2 - 1,200 mm ± 0.5 mm					
Mounting Hole (mm)	8 oblong of size 6.5 mm x 10 mm					
Cell	4 BB Polycrystalline Solar Cells					
Junction Box	TUV approved, IP 65 / IP 67 rated 4 terminal junction box with 3 bypass diodes					
Cable	1000 mm long 4.0 mm <sup>2</sup> cables with MC4 compatible connectors					
Weight	24 kg					

Certificates: The Modules are certified to IEC 61215 & IEC 61730, Electrical Protection Class II and the CE - guidelines. Moreover PV Power Tech is certified & Registered to ISO 9001 & ISO 14001.

Note:

- PV Power Tech reserves the right to change the specifications with prior notice.
- All measurements and warranty/guarantee applicability under standard test conditions (1000W/m<sup>2</sup>, 25°C, AM 1.5)



## PV POWER TECH

*Team PV Power Tech will be happy to assist you with your queries and requirements.*

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