



TN-P225~250



TOENERGY is the expert to provide our customers mono and poly crystalline solar cells, on and off-grid solar modules, and varied portable solar kits. The products, from solar cells to solar home, which are designed and qualified with IEC61215 and IEC61730 and certificated by CE, TUV, UL, CEC and MCS, have been worldwide used in Europe, USA, Australia, Southeast Asia... in residential and commercial area.

OUR VISION: TO PROVIDE PRODUCTS AND SOLUTIONS OF SOLAR ENERGY, BRING PEOPLE A GREEN AND SUSTAINABLE HOME.



Specifications

Model type	TN-P225	TN-P230	TN-P235	TN-P240	TN-P245	TN-P250
Peak power - Pmax (W)	225	230	235	240	245	250
Open circuit voltage - Voc (V)	36.6	36.6	37.2	37.2	37.6	37.54
Maximum power voltage - Vmp (V)	29.5	29.5	30.0	30.0	30.5	30.53
Short circuit current - Isc (A)	8.24	8.42	8.46	8.65	8.75	8.84
Maximum power current - Imp (A)	7.63	7.80	7.83	8.00	8.04	8.19
Cell efficiency μc (%)	15.87	16.23	16.56	16.92	17.28	17.60
Module efficiency μm (%)	13.75	14.05	14.36	14.66	14.97	15.25
Maximum system voltage	1000V DC					
Maximum series fuse rating	15A					
Power tolerance	0~+3%					
Temperature coefficients of Pmax	-(0.4+0.05)%/°C					
Temperature coefficients of Voc	-(115+5)mV/°C					
Temperature coefficients of Isc	(0.08±0.015)%/°C					
Nominal operating cell temperature	47±2°C					

Standard testing condition (STC): Irradiance 1000W/m², Temperature: 25°C, AM=1.5

Qualification test parameters

Operating temperature	-40°C to +85°C
Storage temperature	-40°C to +85°C
Pressure bearing	≥5400 Pascal
Wind bearing	≥3800 Pascal

Packing configuration

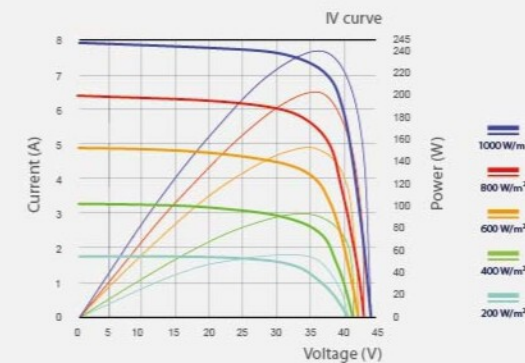
Container	20'GP	40'GP	40'HQ
Pieces per pallet	20	20	22
Pallets per container	12	28	28
Pieces per container	240	560	616

Mechanical characteristics

Cell size	Poly 156*156 (6inch)
No. of cells	60pcs (6*10)
Dimension	1940*992*40mm
Weight	17.8kg
Glass	3.2mm high transmission, low iron, tempered glass
Frame	Anodized aluminum alloy
Junction box	MC4 connector, TUV certified
Internal diodes	6 bypass diodes
Cable	Section: 4.0mm ² Length: 900mm

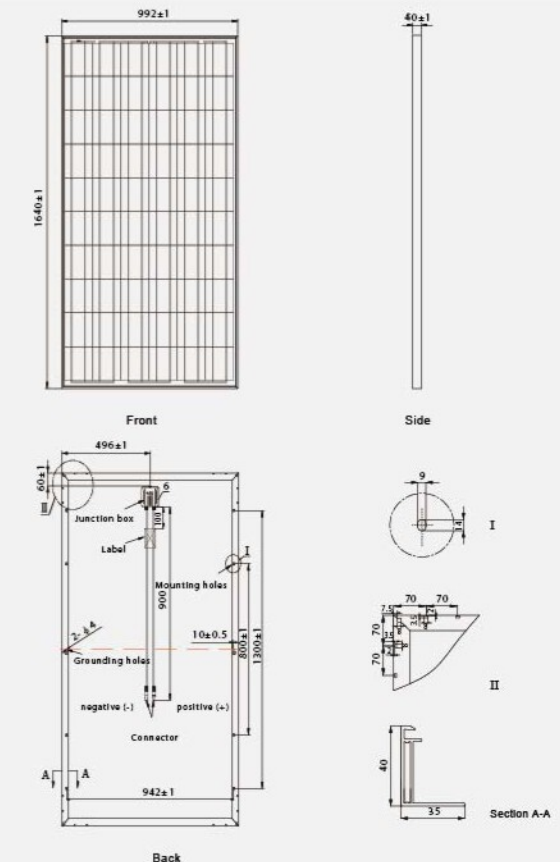
Electrical performance

Cell temperature 25°C



Product dimension

Unit: mm



CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.
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