

TM-SERIES POLYCRYSTALLINE

TM-P660230 · TM-P660235 · TM-P660240 · TM-P660245 · TM-P660250
230W / 235W / 240W / 245W / 250W

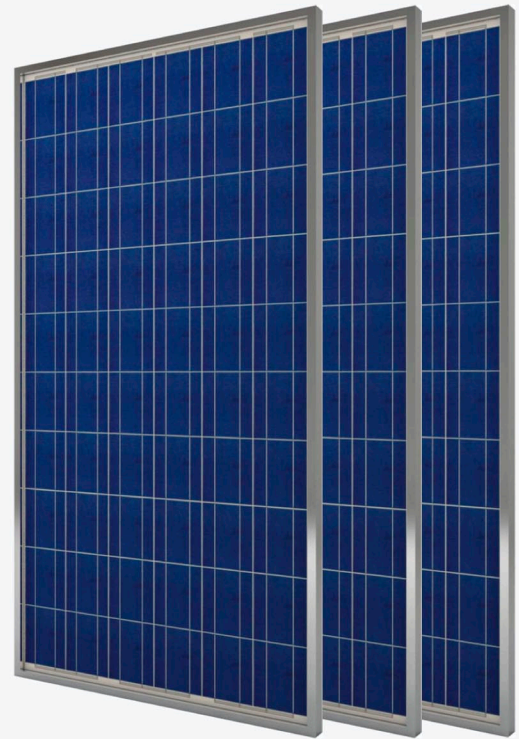


FEATURES

- High module conversion efficiency up to 15.4%, through superior manufacturing technology.
- Guaranteed 0 to +5% power tolerance.
- Robust and corrosion free modules. Entire module certificated to withstand high wind loads and snow loads up to 5400Pa.
- Anodized aluminum frame improves load resistance capabilities.
- Highly transparent, low-iron, and tempered glass and antireflective coating.
- Excellent performance under low light environments.

BENEFITS

- International certificates to ensure the best quality and performance.
- Manufacturing process certified under the ISO 9001 standards.
- Product liability insurance.
- Local technical support.
- Enhanced design for easy installation and long term reliability.



TM-P660230 230W, TM-P660235 235W, TM-P660240 240W, TM-P660245 245W, TM-P660250 250W

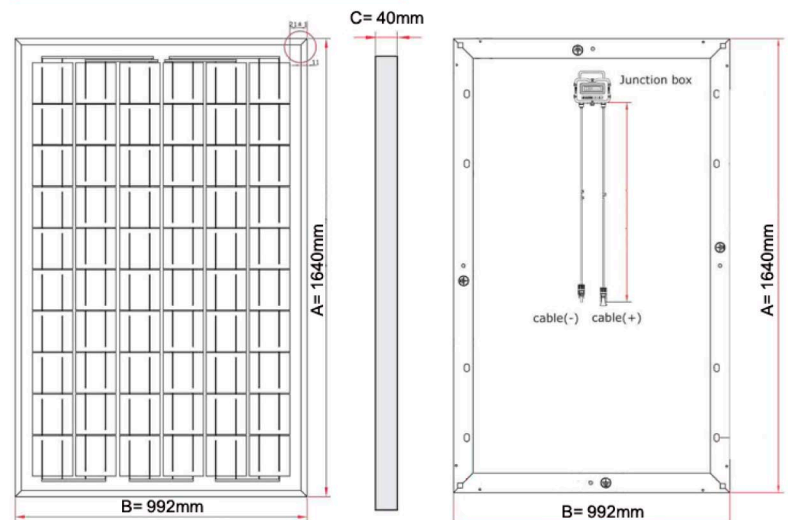


WARRANTIES

- 10-years warranty on material and workmanship.
- Linear power output warranty: power output decrease yearly. Year 25 rated power output not below than 80%.
- Additional warranted production insurance by top world insurance companies.



PHYSICAL CHARACTERISTICS



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ELECTRICAL SPECIFICATION

STC	TM-P660250	TM-P660245	TM-P660240	TM-P660235	TM-P660230
Nominal Power (Pmax)	250 W	245 W	240 W	235 W	230 W
Voltage at Pmax (Vmp)	30.1 V	29.9 V	29.7 V	29.5 V	29.3 V
Current at Pmax (Imp)	8.30 A	8.19 A	8.08 A	7.96 A	7.84 A
Open Circuit Voltage (Voc)	37.9 V	37.7V	37.5 V	37.3 V	37.2 V
Short Circuit Current (Isc)	8.65 A	8.57 A	8.48 A	8.40 A	8.31 A
Module efficiency	15.37%	15.06%	14.75%	14.44%	14.14%
Power Tolerance	0, +5%				
Max. system voltage	1.000 V DC				
Max. series fuse rating	20 A				
Operating temperature range	-40 °C to +85 °C				

Electric characteristics at standard conditions (STC)

STC conditions: Irradiance: 1.000W/m2, cell temperature: 25°C, AM=1.5

NOCT	TM-P660250	TM-P660245	TM-P660240	TM-P660235	TM-P660230
Nominal Power (Pmax)	182 W	178 W	175 W	171 W	167 W
Voltage at Pmax (Vmp)	27.5 V	27.3 V	27.1 V	26.8 V	26.5 V
Current at Pmax (Imp)	6.62 A	6.53 A	6.46 A	6.38 A	6.30 A
Open Circuit Voltage (Voc)	34.8 V	34.7V	34.5 V	34.4 V	34.2 V
Short Circuit Current (Isc)	7.04 A	6.99 A	6.93 A	6.88 A	6.82 A

Electric characteristics at normal operation conditions (NOCT)

NOCT conditions: Irradiance: 800W/m2, ambient temperature: 20°C, AM=1.5, wind speed: 1m/s

THERMAL CHARACTERISTICS

Nominal operating cell temperature (NOCT)	45 ± 2 °C
Temperature coefficient of Pmax	-0.45 %/°C
Temperature coefficient of Voc	-0.33 %/°C
Temperature coefficient of Isc	+0.06 %/°C
Temperature coefficient of Vmp	-0.420 %/°C

PACKAGING

Modules per pallet	21
N° of pallets per HC container (40')	28

PARTNER

MECHANICAL CHARACTERISTICS

Solar cells	Poly-crystalline silicon 156 x 156 mm
Cell arrangement	60 cells in series
Dimensions	1640x992x40 mm
Weight	19.5 kg
Max. load	5400 Pa
Front cover	Low-iron tempered glass 3.2 mm
Frame	Anodized aluminum alloy
Encapsulant	EVA (ethylene vinyl acetate)
Junction box (protection degree)	IP65
Bypass diodes	6
Cables (length / area)	≥1000 mm / 4 mm ²
Connectors	MC4