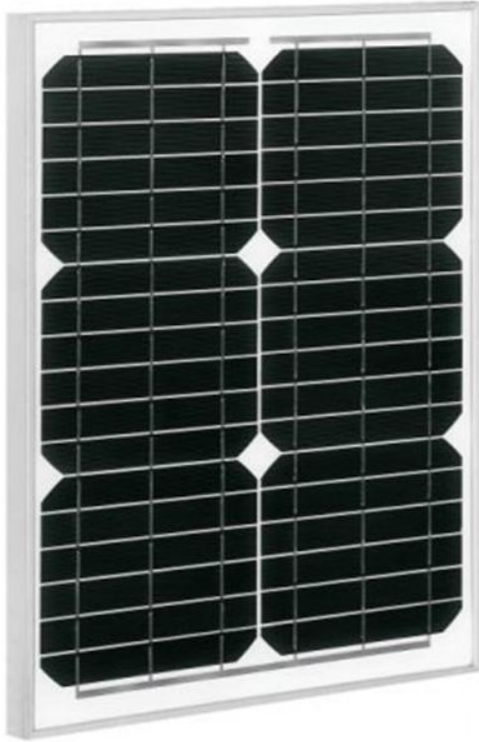


MONOCRYSTALLINE SOLAR PANEL

TS-S20M

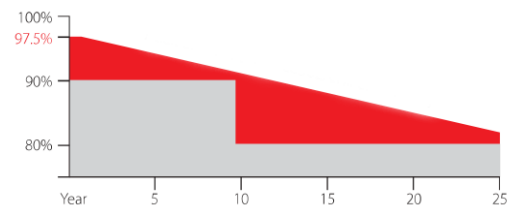


- High conversion efficiency
- Extremely environmental testing
- Salt mist corrosion resistant
- IP67 Junction box
- Strong compressive strength
- Fire test approved
- PID Resistant

GIVING YOU MORE

- 3% positive tolerance
- Series of internal harsh tests
- Authorised photovoltaic certificates
- Linear performance warranty

Top Solar was established in 2008 and is a hi-tech corporation with its core business in R&D, manufacturing and sale of high efficiency solar panel.



www.topsolar-energy.com

Shenzhen Top Solar Energy Co.,Ltd.
F4,Building C,Zhonghengxinda Industrial Park,
Shajing Town,Baoan District,Shenzhen City,Guangdong Province,China
Tel:86 755 85224431 Fax:86 755 28167996 Email:info@topsolar-energy.com

Electrical Characteristics under STC*

Model No.:	TS-S20M
Maximum Power-Pmax(Wp)	20W
Voltage at Maximum Power-Vmp(V)	18.2V
Current at Maximum Power-Imp(A)	1.1A
Open Circuit Voltage-Voc(V)	22V
Short Circuit Current-Isc(A)	1.21A
Solar Panel Efficiency(%)	11.0
Power Tolerance(%)	0/+3

Mechanical Characteristics

Cell Type	Monocrystalline	156*156mm
Number of Cells	36(2*18)	
Dimension	485*350*25mm	
Weight	2.3kg	
Front Glass	Low Iron Tempered Glass	
Encapsulant	EVA	
Frame	Anodized Aluminum Alloy	

Temperature Characteristics

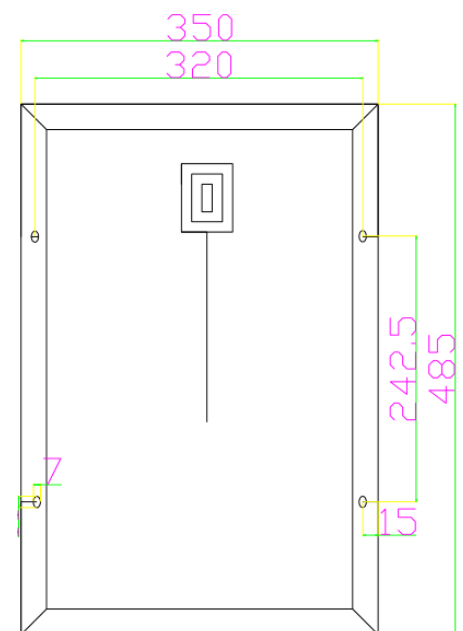
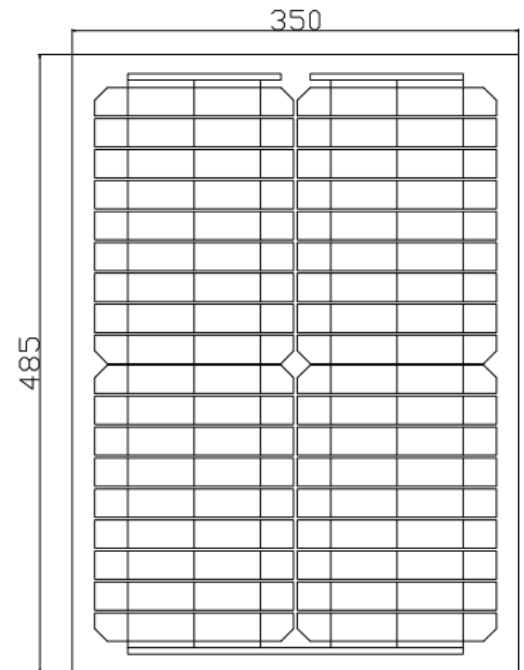
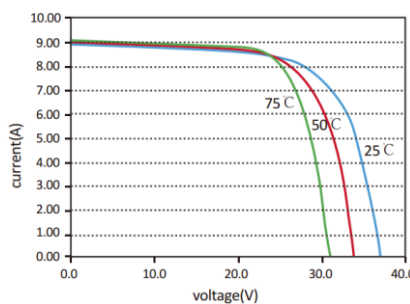
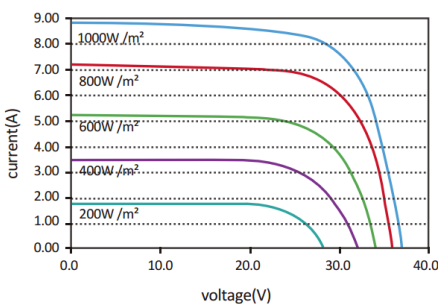
NOCT*	45±2°C
Temperature Coefficient of Pmax(%)	-0.40/°C
Temperature Coefficient of Voc(%)	-0.31/°C
Temperature Coefficient of Isc(%)	0.04/°C

Maximum System Ratings

Operating Temperature	-40°C to +85°C
Maximum System Voltage	600V DC
Maximum Series Fuse Rating	15A

Warranty

- 12 years product warranty
- 12 years warranty on 90% power output
- 25 years warranty on 80% power output



*STC(Standard Testing Conditions):Irradiance 1000W/m²,cell temperature 25°C,AM=1.5 *NOCT(Nominal Operating Cell Temperature):Irradiance 800W/m², ambient temperature 20°C,wind speed 1m/s

The specifications in this datasheet are subjected to change without prior notice