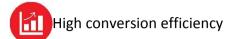
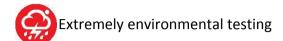
MONOCRYSTALLINE SOLAR PANEL

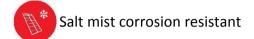






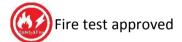


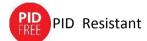












GIVING YOU MORE



3% positive tolerance



Authorised photovoltaic certificates

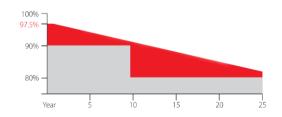


Series of internal harsh tests



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



MONOCRYSTALLINE SOLAR PANEL

TS-S230M

Electrical Characteristics under STC*

Model No.:	TS-S230M
Maximum Power-Pmax(Wp)	230W
Voltage at Maximum Power-Vmp(V)	28.65V
Current at Maximum Power-Imp(A)	8.03A
Open Circuit Voltage-Voc(V)	33.77V
Short Circuit Current-Isc(A)	8.59A
Solar Panel Efficiency(%)	15.6
Power Tolerance(%)	0/+3

Mechanical Characteristics

Cell Type	Monocrystalline 156*156mm
Number of Cells	54(6*9)
Dimension	1482*992*40mm
Weight	17.0kg
Front Glass	Low Iron Tempered Glass
Encapsulant	EVA
Frame	Anodized Aluminum Alloy

Temperature Characteristics

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

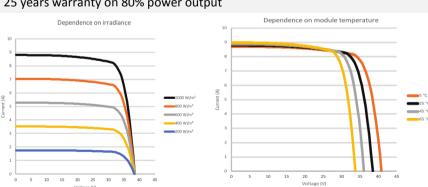
正面 侧面 Side

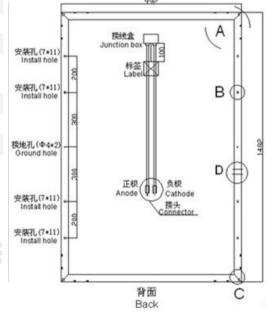
Maximum System Ratings

Operating Temperature	–40°C to +85°C
Maximum System Voltage	1000V 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