



More energy each day



Flexible



High resistance and Walking on panels



Microcracking managing



Light and thin



High resistance to marine environment



Easy to be integrated



GIVING YOU MORE



3% positive tolerance



Series of internal harsh tests



Authorised photovoltaic certificates



Linear performance warranty

EFS series is at the top of the range, thanks to the use of selected SunPower monocrystalline silicon cells, reaching a record 23% conversion of sunlight into electricity and with a pleasant appearance, thanks to back-contact technology which hides the electrical contacts. SunPower cells represent the most advanced available technology on the market, and make the Top Solar panels the highest-efficiency flexible panels.

www.topsolar-energy.com

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Electrical Characteristics under STC*

Model No.:	TS-EFS180
Maximum Power-Pmax(Wp)	180W
Voltage at Maximum Power-Vmp(V)	29.75V
Current at Maximum Power-Imp(A)	6.06A
Open Circuit Voltage-Voc(V)	36.23V
Short Circuit Current-Isc(A)	6.37A
Solar Cell Efficiency(%)	22.5
Power Tolerance(%)	0/+3

Mechanical Characteristics

Cell Type	Sunpower solar cell
Number of Cells	54(6*9)
Dimension(mm)	1185*800*3
Weight(kg)	3
Frontsheet	ETFE
Backsheet	TPT,white/black/blue
Frame	Frameless
Junction box	IP68,bypass diodes
Output cables	4mm ² ,90cm,MC4

Temperature Characteristics

Temperature Coefficient of Pmax(%)	-0.35%/°C
Temperature Coefficient of Voc(%)	-58.9mV/°C
Temperature Coefficient of Isc(%)	2.6mA/°C

Maximum System Ratings

Operating Temperature	-40°C to +85°C
Maximum System Voltage	600V DC
Maximum Series Fuse Rating	20A



*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