



TPS 144 CELL

166 HalfCell ----- Module

Topsola TPS***M-144H series modules, using the best quality P-type Mono cell with professional manufacturing technology to provide reliable quality assurance for the system power generation



25 year linear warranty
 Topsola linear quality assurance
 Industry P type mono quality assurance

435~450W



Higher Durability

More reliable materials ensure the durability of the products.



High power Output

The new generation of TPS Mono series products can achieve high power output by reducing resistance loss.



Half cell design

The half-cut technology reduced the outdoor operating and hot spot temperature, which decrease the loss under the shade



Advanced Glass

Our high-transmission glass features a unique anti-reflective coating that directs more light on the solar cells, resulting in a higher energy yield.

Topsolar enters the photovoltaic industry very first in China. It is a modern high-tech photovoltaic enterprise integrating research and development, sales, production and service, Company's brand "Topsola" founded in 2002 by the leading team, senior managers and technicians of the photovoltaic industry and registered in 16 different countries. Topsolar will adhere to the Chinese and worldwide market combining with the characteristics of open innovation, excellent operation management, first-class service, technology and products to fully build the company's core competitiveness, in order to achieve excellent industry reputation by provide valuable services to all clients

TPS 144 CELL

HalfCell-Module
(166 CELL)

Electrical parameters at Standard Test Conditions (STC)

Outputs	Pmax[W]	435	440	445	450
Maximum power voltage	Vmp[V]	41.30	41.50	41.70	42.00
Maximum power current	Imp[A]	10.54	10.61	10.68	10.73
Open circuit voltage	Voc[V]	48.60	48.80	49.00	49.20
Short circuit current	Isc[A]	11.22	11.27	11.32	11.37
Module efficiency	%	19.7	19.9	20.1	20.4
Power of tolerance	[W]	0~+5			

*Standard test conditions : (air mass AM1.5, irradiance 1000W/m², cell temperature 25°C)

Thermal Characteristics

Nominal operating cell temperature	NOCT	°C	45±2
Temperature coefficient of Pmax	γ	%/°C	-0.356
Temperature coefficient of Voc	β	%/°C	-0.271
Temperature coefficient of Isc	α	%/°C	0.050

Operating conditions

Maximum system voltage	1500VDC
Maximum fuse rating	20 A
Operating temperature	-40°C to 85°C
Maximum front static load (snow load)	5400Pa
Maximum back static load (wind load)	2400Pa
Max.hailstone impact (diameter/velocity)	25 mm/ 23m/s

*Do not parallel two modules in the same box fuse

Construction materials

Glass (material/thickness)	Anti-Reflection Coating, High Transmission, Tempered Glass /3.2mm
Cell (quantity /type)	144/Mono
Aluminum frame	Anodic alumina
Junction box (protection class)	≥ IP68
Cable (length / conductor cross-sectional area)	300mm/4mm ²

General features

Size (length/ width/height)	2094 mm / 1038 mm / 30 mm
Weight	23.5kg

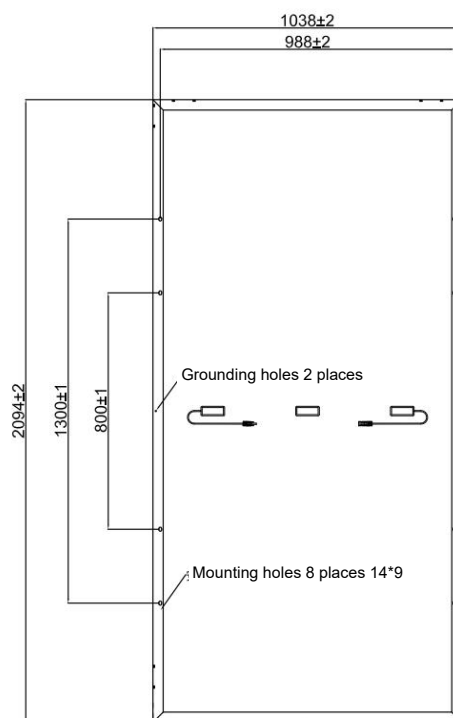
Packing specification

The mode of transportation	Total per container	Numbers per pallet
Container 40HQ	792	36

•Due to continuous innovation, research and product upgrades.The contents of specification can be changed slightly without prior notice.

•These data are not specific to a single module, but used to compare different models.

Engineering Drawings



Warning: read the component installation instructions carefully before operating, installing, and running the Topsola modules.



Qualification and certification
IEC 61215, IEC 61730, CE, MCS, GB/T19001:2016, GB/T24001:2016, ISO45001:2018

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