TPSh-M10M144SH1W

Recommended

Residential Roof

Utility Scale Ground Mounted

Half Cell:

- Half cell design allows the module to be operated in half of the original current, lowers the internal loss and decreases the CTM loss, generating more power.
- Topray Solar half cell operates in lower temperature, decreases the risk of hot spot and the loss due to temperature coefficient, enhancing the performance and reliability.
- Module circuit separated into two sections that are connected in parallel. Combined with built-in bypass diodes, providing better performance under shading scenario.
- Advanced laser cutting technology ensures no damage to the cell during cutting process.
- Encapsulated with our own Topray Solar glass with highest effective solar transmittance from 380nm to 1100nm of 94.5% certified by National Lab, enhancing the performance and guarantees more operational hours during day to day usage.
- Equipped with anti-soiling film and hydrophilic coating on the front glass, Topray Solar modules are capable of self-cleaning, ensuring maximum performance and requiring minimum manual cleaning.
- Module certified by TUV

  For SNOW ZONE III, withstand high level of wind loads(2400Pa) and snow loads(5400Pa).

  For PID test. No Potential Induced Degradation caused by High Voltage Stress.

  For salt mist corrosion, ammonia corrosion test.

Qualifications and Certification

TPSh-M10M144SH1W

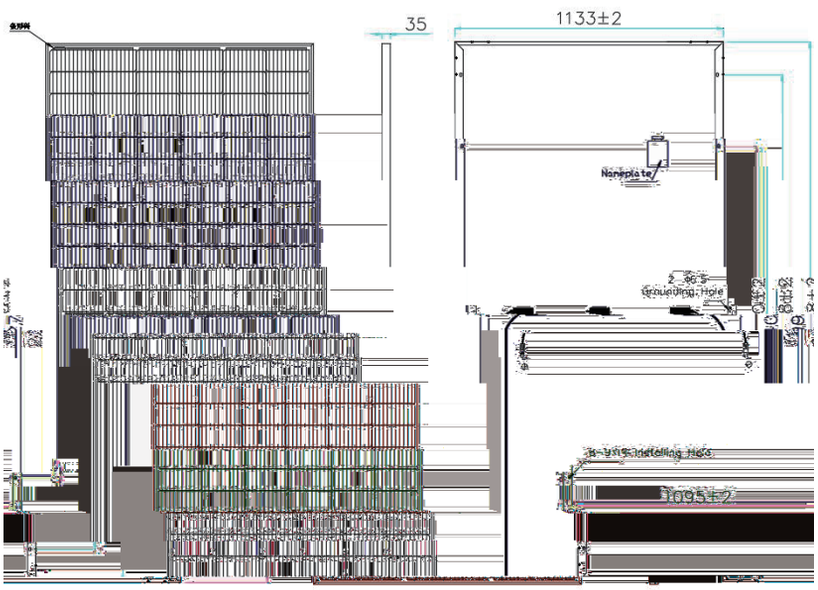
530-550W

Mechanical Specification

Cell Type	Mono Crystalline 182x91 mm
Numbers of cells	144
Dimension	2278x1133x35mm
Weight	275KG
Glass	3.2 mm low iron tempered glass
Frame	Anodized aluminum
Junction Box	IP 67, with 3 bypass diodes
Connector	MC4 comatible
Output Cables	TUV tested,length 450mm,4.0mm^2

Module Series	TPSh-M10M144SH1W				
Maximum Power at STC(Pmax) (W)	530	535	540	545	550
Short Circuit Current(Isc) (A)	13.34	13.44	13.54	13.64	13.74
Open Circuit Voltage(Voc) (V)	49.64	49.72	49.80	49.89	49.97
Maximum Power Current(Impp) (A)	12.76	12.84	12.92	13.00	13.08
Maximum Power Voltage(Vmpp) (V)	41.54	41.67	41.80	41.93	42.05
Module Efficiency	20.53%	20.73%	20.92%	21.12%	21.31%
Power Tolerance	0/+3%	0/+3%	0/+3%	0/+3%	0/+3%

Mechanical drawings (mm)



TEMPERATURE CHARACTERISTICS

Nominal Operating Cell Temperature(NOCT)	44±2°C
Temperature Coefficient of Pmax(γ)	-0.4%/K
Temperature Coefficient of Voc(β)	-0.37%/K
Temperature Coefficient of Isc(α)	+0.05%/K

PACKING CONFIGURATION

Container	20'GP	40'GP	40'HQ
Pieces per container	155	341	620

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