TOPCO SOLAR

H-series Solar Module

390-410W

HIGH EFFICIENCY MONOCRYSTALLINE PERC PV MODULE

Excellent Cells Efficiency
- MBB technology reduce the distance between busbars and finger grid line which is benefit to power increase

Better Weak Illumination Response
- More power output in weak light condition, such as haze, cloudy, and early morning

Anti PID
- Ensured PID resistance through the quality control of cell manufacturing process and raw materials

Adapt To Harsh Outdoor Environment
- Resistant to harsh environments such as salt, ammonia, sand, high temperature and high humidity environment

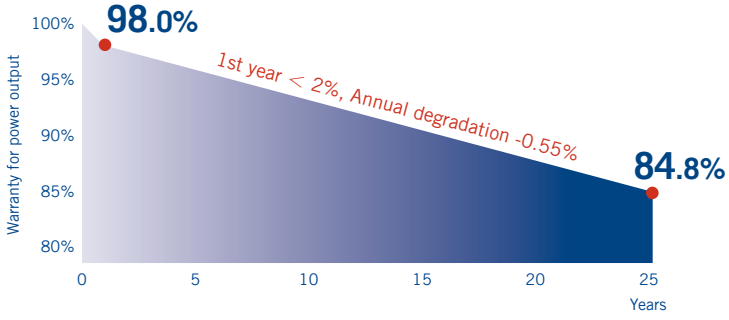
Excellent Quality Management System
- Warranted reliability and stringent quality assurances well beyond certified requirements

Improved Aesthetics
- Compared to conventional modules, full black modules have a more uniform appearance and superior aesthetics

Linear Power Output Warranty

12 12-year warranty for materials

25 25-year warranty for linear power output



Quality Management System and Product Certification

c UL US LISTED

C SA US

IEC 61215/IEC 61730/IEC 61701/IEC 62716/UL61730
ISO 14001: Environmental Management System
ISO 9001: Quality Management System
ISO45001: Occupational Health and Safety Management System

Version EN-202201021

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Electrical Characteristics (STC)

Module Type: TPM7-SH108	[W]	390	395	400	405	410
Maximum Power Voltage Vmp	[V]	30.5	30.7	30.9	31.1	31.3
Maximum Power Current Imp	[A]	12.79	12.87	12.95	13.03	13.1
Open Circuit Voltage Voc	[V]	36.7	36.9	37.1	37.3	37.5
Short Circuit Current Isc	[A]	13.56	13.63	13.7	13.77	13.84
Module Efficiency-η [%]	[%]	19.97	20.23	20.48	20.74	21

Note:
1. The data above is for reference only and the actual data is in accordance with the pratical testing
2. STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25±2℃, AM 1.5
3. Measuring uncertainty: ±3%, all the electrical characteristics such as Power, Im, Vm and FF are within ±3% tolerance.

Electrical Characteristics at NMOT

Maximum Power Pmax	[Wp]	291.5	295.2	299.0	302.7	306.3
Maximum Power Voltage Vmpp	[V]	28.3	28.5	28.7	28.9	29.1
Maximum Power Current Impp	[A]	10.29	10.35	10.41	10.47	10.53
Open Circuit Voltage Voc	[V]	34.3	34.5	34.7	34.8	35
Short Circuit Current Isc	[A]	10.95	11.01	11.06	11.12	11.18

Note: NMOT:Irradiance 800W/m²,Ambient Temperature 20℃,AM 1.5,Wind Speed 1m/s

Mechanical Parameters

Solar cells	Mono PERC
Cells orientation	108(6×18)
Module dimension	1722×1134×30 mm (With Frame)
Weight	20.5±1 .0 kg
Glass	3.2mm, High Transmission, AR Coated Tempered Glass
Junction box	IP 68,3 diodes
Cables	4 mm² , 350mm / Customized length with connectors
Connectors	MC4-compatible / Original MC4

Temperature Parameters

NMOT	44℃ (±2℃)
Temperature coefficient of Pmax	-0.35%/℃
Temperature coefficient of Voc	-0.29%/℃
Temperature coefficient of Isc	0.05%/℃

Working Conditions

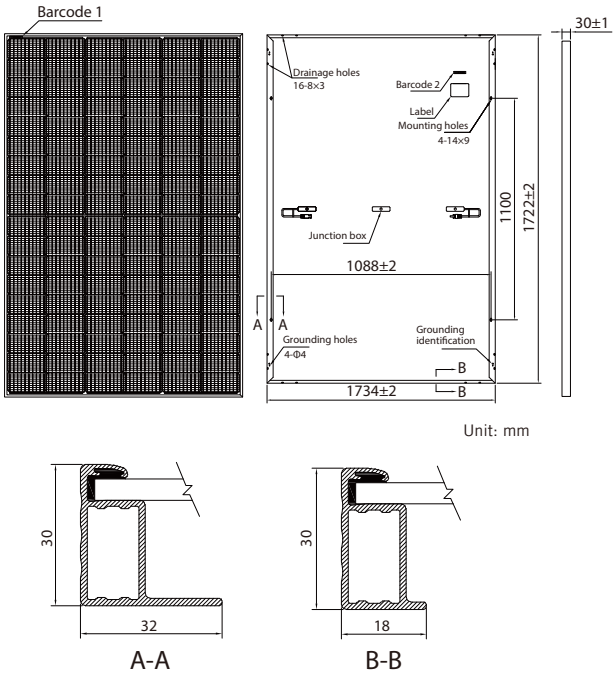
Maximum system voltage	1500 V DC
Operating temperature	-40℃~+85℃
Maximum series fuse	25 A
Front Side Maximum Static Loading	Up to 5400 Pa
Rear Side Maximum Static Loading	Up to 2400 Pa

Packaging Configuration

Piece/Box	36
Piece/Container(40'HQ)	936

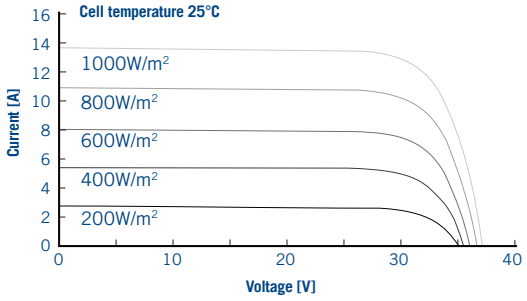
*Customized packaging is available upon request.

Engineering Drawings

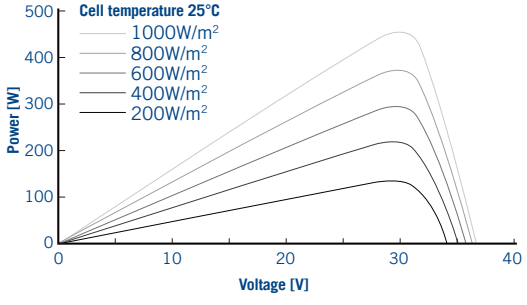


*Remark: customized frame color and cable length available upon request

I-V Curve



P-V Curve



Declaration: With the technical progress and product updates, there exists a deviation between the technical parameter of the Topco Solar's future products and the technical parameter in this specification, The Topco Solar reserves the right to adjust the technical parameter at any time without notifying the customers, Topco Solar reserves the final right of interpretation.