

HRAP-144H-N570-N590M10

N-TOPCon Technology

22.80%
Maximum Module Efficiency

590W
Maximum Power Output

Power Shorting Tolerance:0-3W

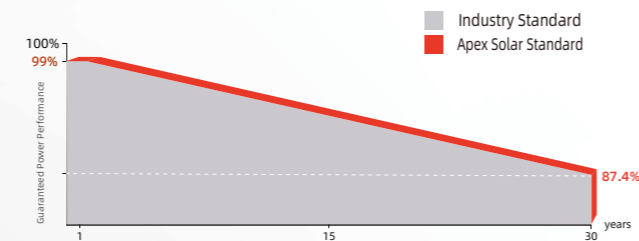
2279×1134×30mm
Module Dimensions

IEC 61215 / IEC 61730
Fire safety class:Class C according to UL790
ISO 9001 :Quality Management System
ISO 14001 :Environment Management

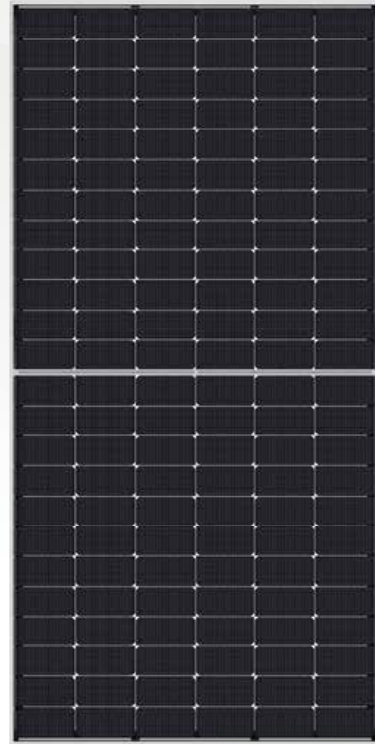


Industry Leading Linear Power Warranty

12-year Warranty for Materials and Processing .30-year Warranty for Extra Linear Power Output



12 Process Warranty **30** Power Warranty



- 0-3W**
Guaranteed 0-3W positive tolerance ensures the power output reliability
- High customer value**
Lower cost per kilowatt hour.High quality silicon wafer guarantee, high power module output, excellent cost performance advantage, is an ideal choice for solar power stations
- Highly reliable due to stringent quality control**
Three times strict EL testing beyond certification requirements
- Fusion of MBB and half-cut cells technology**
The new circuit design, minimizes the impact of shadow on the power generation of solar module.Excellent light utilization and current collection capacity, effectively improve product power output and reliability
- Excellent Anti-PID performance**
Ensure that the scale production passes the PID test, and greatly reduce the attenuation caused by PID by optimizing the wafer process
- Outstanding low light performance**
The coated glass with high transmittance and the surface technology of the wafer are used to achieve excellent performance in low light environment

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ELECTRICAL PARAMETERS AT STC

Rated Maximum Power(Pmax) [W]	570	575	580	585	590
Maximum Power Voltage(Vmp) [V]	42.99	43.17	43.35	43.53	43.71
Maximum Power Current(Imp) [A]	13.26	13.32	13.38	13.44	13.50
Open Circuit Voltage(Voc) [V]	51.99	52.15	52.31	52.47	52.63
Short Circuit Current(Isc) [A]	13.89	13.95	14.01	14.07	14.13
Module Efficiency [%]	22.10	22.30	22.50	22.70	22.80

STC: Irradiance 1000 W/m² module temperature 25°C AM=1.5

ELECTRICAL PARAMETERS AT NMOT

Rated Maximum Power(Pmax)[W]	430	433	437	441	445
Maximum Power Voltage(Vmp) [V]	40.37	40.54	40.70	40.86	41.05
Maximum Power Current(Imp) [A]	10.64	10.69	10.74	10.79	10.83
Open Circuit Voltage(Voc) [V]	49.38	49.54	49.69	49.84	49.99
Short Circuit Current(Isc) [A]	11.21	11.26	11.31	11.36	11.41

NMOT: Irradiance 800 W/m² ambient temperature 20°C wind speed: 1 m/s

MECHANICAL SPECIFICATION

Cell Type	N-Type Monocrystalline
Cell Dimensions	182×182mm
Cell Arrangement	144(2×72)
Weight	27.0kg(±3%)
Module Dimensions	2279×1134×30mm
Cable	4.0 mm ² positive/negative:300mm(11.8inches),length Can be customized
Front Glass	3.2 mm high transmittance,AR coating tempered glass
Frame	Anodized aluminium alloy
Junction Box	Protection class IP68
Type of Connector	PV-XT101.1 (Suzhou Xtong Photovoltage Technology Co., Ltd)
Mechanical Load	Front side 5400Pa/Rear side 2400Pa

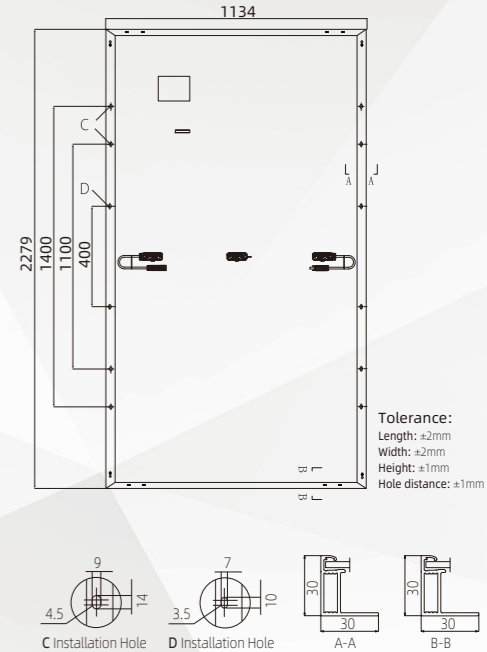
OPERATING CONDITIONS

Maximum System Voltage (V)	1000/1500VDC (IEC)
Pmax Temperature Coefficient	-0.30%/°C
Voc Temperature Coefficient	-0.25%/°C
ISC Temperature Coefficient	0.046%/°C
Nominal Operating Cell Temperature	45±2°C
Operating Temperature	-40°C~+85°C
Maximum Series Fuse	25A

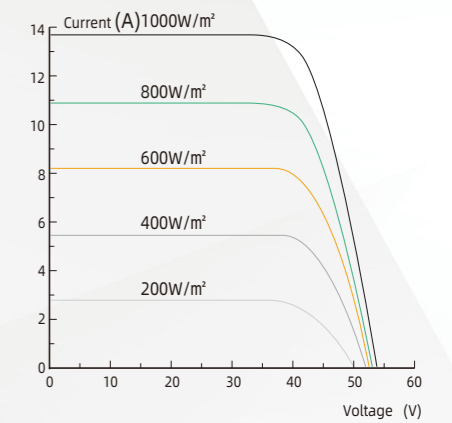
PPACKING CONFIGURATION

Quantity/Pallet	31pcs/pallet
Quantity/Container	620pcs/40HQ

Module Dimension(mm)



Current-Voltage Curve (590W)



Power-Voltage Curve (590W)

