



## HRAP-108H-N410-N430M10

### N-TOPCon Technology

**22.02%**  
Maximum Module Efficiency

**430W**  
Maximum Power Output

Power Shorting Tolerance:0-3W

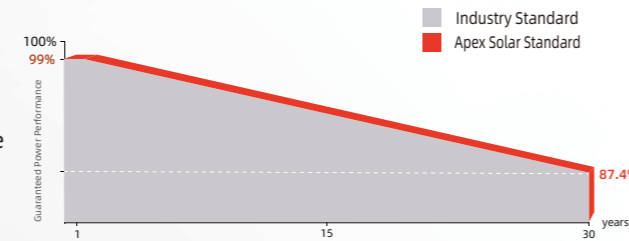
**1722x1134x30mm**  
Module Dimensions

IEC 61215 / IEC 61730  
Fire safty 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

## HRAP-108H-N410-N430M10

### ELECTRICAL PARAMETERS AT STC

Rated Maximum Power(Pmax) [W]	410	415	420	425	430
Maximum Power Voltage(Vmp) [V]	31.13	31.32	31.51	31.70	31.88
Maximum Power Current(Imp) [A]	13.17	13.25	13.33	13.41	13.49
Open Circuit Voltage(Voc) [V]	37.73	37.92	38.11	38.30	38.49
Short Circuit Current(Isc) [A]	13.91	13.99	14.07	14.15	14.23
Module Efficiency [%]	21.00	21.25	21.51	21.76	22.02

STC: Irradiance 1000 W/m<sup>2</sup> module temperature 25°C AM=1.5

### ELECTRICAL PARAMETERS AT NMOT

Rated Maximum Power(Pmax)[W]	308	312	316	320	323
Maximum Power Voltage(Vmp) [V]	29.06	29.21	29.34	29.50	29.63
Maximum Power Current(Imp) [A]	10.61	10.68	10.76	10.83	10.91
Open Circuit Voltage(Voc) [V]	35.84	36.02	36.20	36.38	36.56
Short Circuit Current(Isc) [A]	11.23	11.29	11.36	11.42	11.49

NMOT: Irradiance 800 W/m<sup>2</sup> ambient temperature 20°C wind speed: 1m/s

### MECHANICAL SPECIFICATION

Cell Type	N-Type Monocrystalline
Cell Dimensions	182x182mm
Cell Arrangement	108(2x54)
Weight	22kg(±3%)
Module Dimensions	1722x1134x30mm
Cable	4.0 mm <sup>2</sup> 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 Photovoltaage Technology Co., Ltd )
Mechanical Load	Front side 5400Pa/Rear side 2400Pa

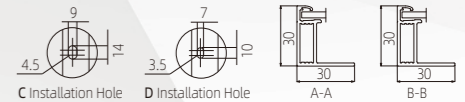
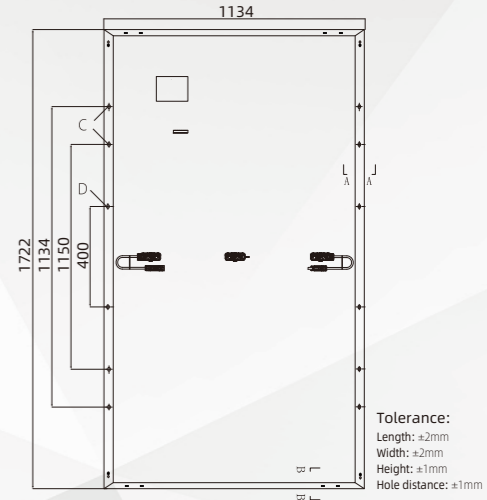
### OPERATING CONDITIONS

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

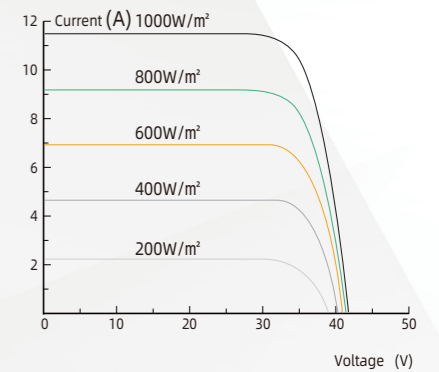
### PPACKING CONFIGURATION

Quantity/Pallet	36pcs/pallet
Quantity/Container	962pcs/40HQ

### Module Dimension(mm)



### Current-Voltage Curve (430W)



### Power-Voltage Curve (430W)

