

HRAP-108H-N410-N425M10

N-TOPCon Technology

21.76%

Maximum Module Efficiency

425W

Maximum Power Output

Power Shorting Tolerance:0~+3W

1722x1134x30mm

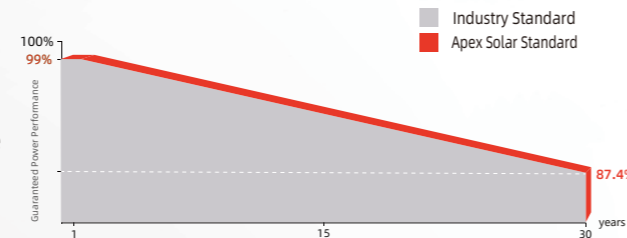
Module Dimensions

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 YEARS Process Warranty

30 YEARS Power Warranty

0-3w **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]	410	415	420	425
Maximum Power Voltage(Vmp) [V]	31.13	31.32	31.51	31.70
Maximum Power Current(Imp) [A]	13.17	13.25	13.33	13.41
Open Circuit Voltage(Voc) [V]	37.73	37.92	38.11	38.30
Short Circuit Current(Isc) [A]	13.91	13.99	14.07	14.15
Module Efficiency [%]	21.00	21.25	21.51	21.76

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

ELECTRICAL PARAMETERS AT NMOT

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

NMOT: Irradiance 800 W/m2 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 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

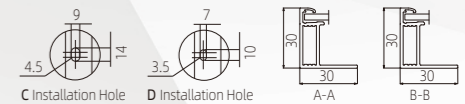
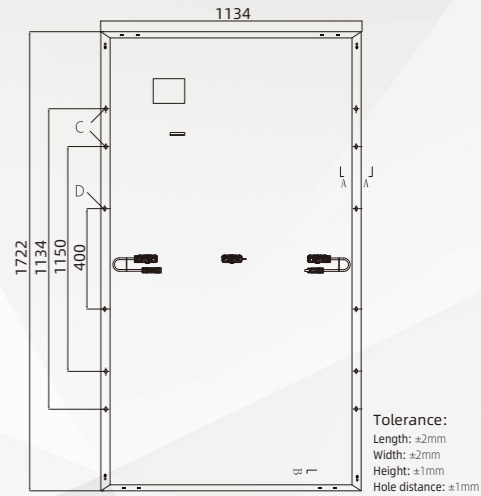
OPERATING CONDITIONS

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

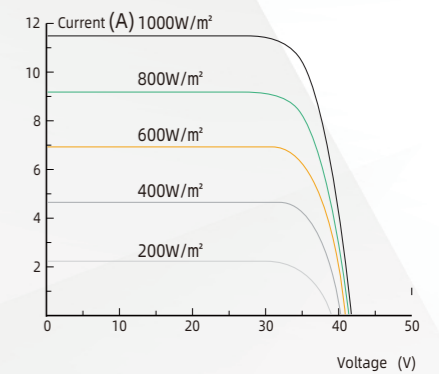
PPACKING CONFIGURATION

Quantity/Pallet	36pcs/pallet
Quantity/Container	936pcs/40HQ

Module Dimension(mm)



Current-Voltage Curve 425W



Power-Voltage Curve (425W)

