



## HRAP-110H 540-560M12

**21.4%**  
Maximum Module Efficiency

**560W**  
Maximum Power Output

Power Shorting Tolerance:0-3W

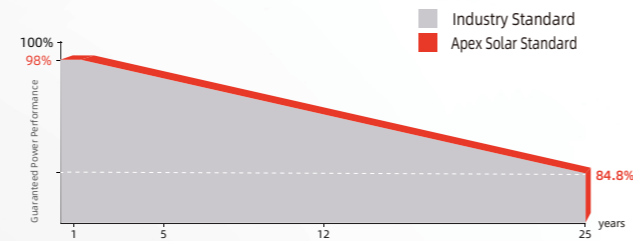
**2384×1096×35mm**  
Module Dimensions

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 , 25-year Warranty for Extra Linear Power Output



**12 YEARS** Process Warranty      **25 YEARS** Power Warranty

## High Efficiency Half-cells Solar Panel HRAP-110H 540-560M12

### ELECTRICAL PARAMETERS AT STC

Rated Maximum Power(Pmax) [W]	540	545	550	555	560
Maximum Power Voltage(Vmp) [V]	31.2	31.4	31.6	31.8	32
Maximum Power Current(Imp) [A]	17.33	17.37	17.4	17.45	17.5
Open Circuit Voltage(Voc) [V]	37.5	37.7	37.9	38.1	38.3
Short Circuit Current(Isc) [A]	18.41	18.47	18.52	18.56	18.6
Module Efficiency [%]	20.7	20.9	21	21.2	21.4

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

### ELECTRICAL PARAMETERS AT NMOT

Rated Maximum Power(Pmax)[W]	409	413	417	420	424
Maximum Power Voltage(Vmp) [V]	29	29.2	29.3	29.5	29.7
Maximum Power Current(Imp) [A]	14.1	14.15	14.19	14.23	14.27
Open Circuit Voltage(Voc) [V]	35.3	35.5	35.7	35.9	36.1
Short Circuit Current(Isc) [A]	14.84	14.88	14.92	14.96	15

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

### MECHANICAL SPECIFICATION

Cell Type	Monocrystalline
Cell Dimensions	210×210mm
Cell Arrangement	110(5×22)
Weight	28.60kg(±3%)
Module Dimensions	2384×1096×35mm
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 Photovoltage Technology Co., Ltd)
Mechanical Load	Front side 5400Pa/Rear side 2400Pa

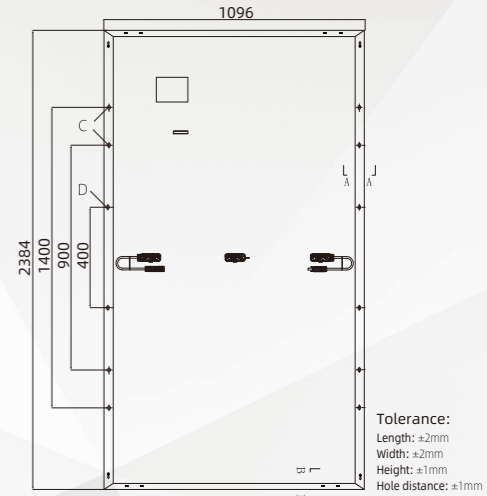
### OPERATING CONDITIONS

Maximum System Voltage (V)	1000/1500VDC (IEC)
Pmax Temperature Coefficient	-0.34%/°C
Voc Temperature Coefficient	-0.28%/°C
ISC Temperature Coefficient	+0.05%/°C
Nominal Operating Cell Temperature	45±2°C
Operating Temperature	- 40°C +85°C
Maximum Series Fuse	30A

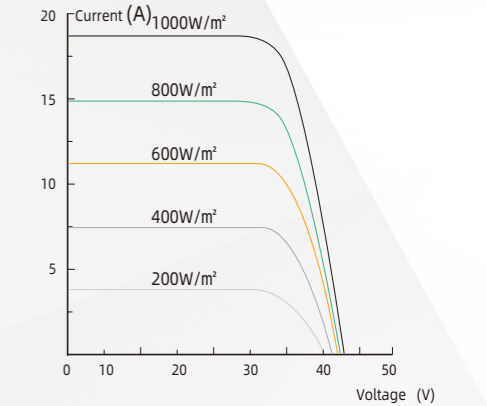
### PPACKING CONFIGURATION

Quantity/Pallet	31 pcs/pallet
Quantity/Container	616 pcs/40HQ

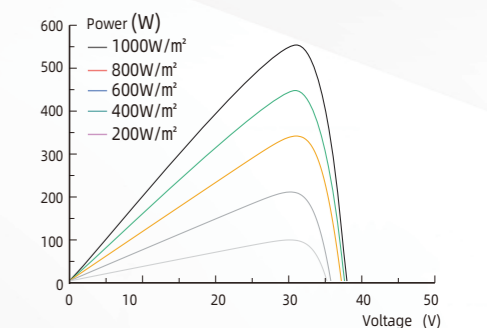
### Module Dimension(mm)



### Current-Voltage Curve (560W)



### Power-Voltage Curve (560W)



- 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