

WP-HD144N

540-560W



N-type Bifacial High Efficiency Mono Silicon Half-Cell Double Glass Module

N TOPCon Module

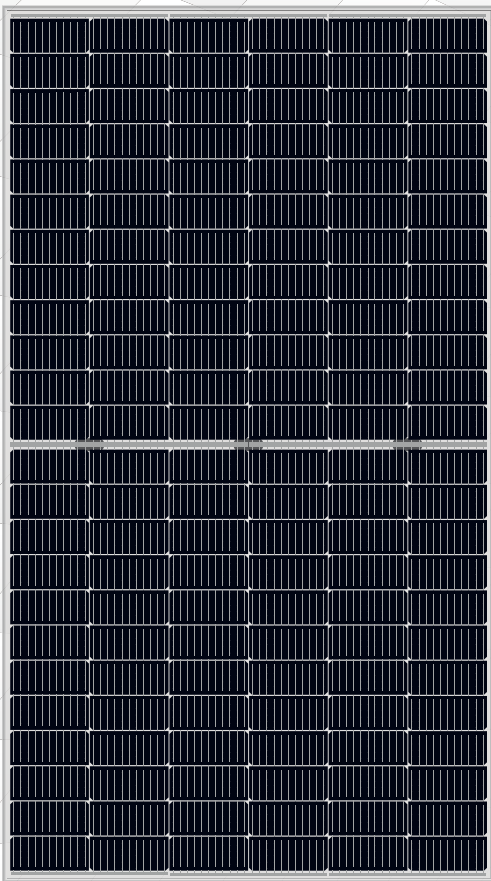
Maximum Power Output

Power Output Tolerance

144CELL

21.80%

0~+5W



- More Power Gain**
30 Years guaranteed product life allows extra 10-30% power output;
- LID-FREE (Light induced Degradation)**
No LID issue naturally with WattPower N-type cells technology;
- Lower LCOE**
BOS cost saving with high power class and 1500V system voltage
- Excellent Weak Light Performance**
Better performing in weak light conditions such as cloudy days
- Better Temperature Coefficient**
More power generation with leading passivating contact cell technology

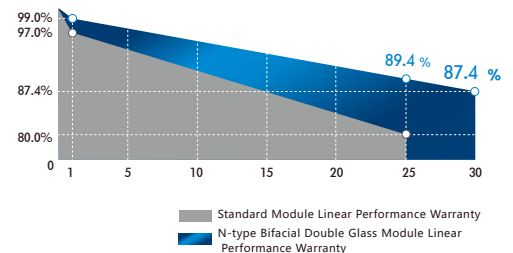


IEC61215, IEC61730
ISO 9001:2015 Quality management system
ISO 14001 Standards for environment management system
OHSAS 18001 International standards for occupational health & safety

Linear Performance Warranty

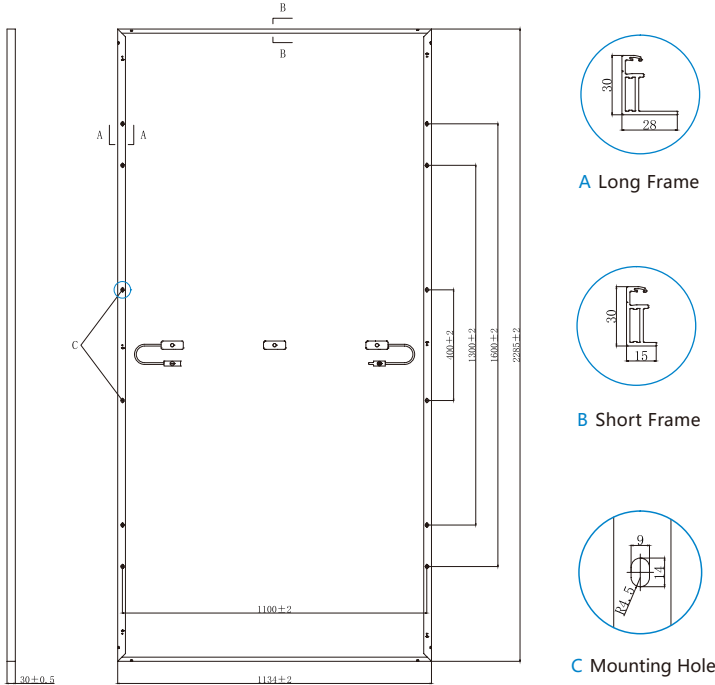
12 Years
Product Material & Workmanship

30 Years
Linear Performance Warranty

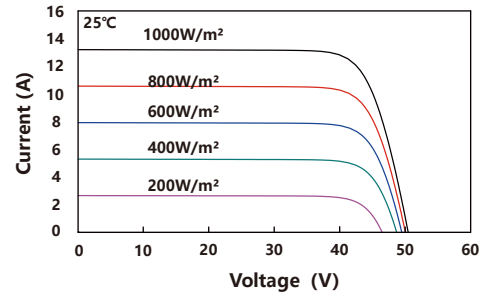


WP-HD144N

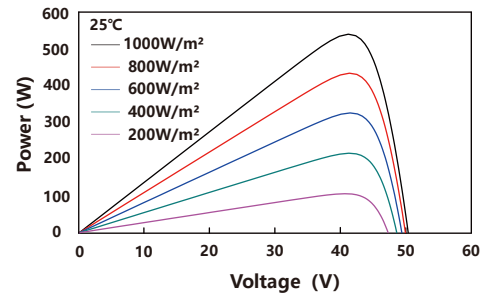
Engineering Drawing (unit: mm)



Characteristic Curves HD144N-545



I-V Characteristics At Different Irradiances



P-V Characteristics At Different Irradiances

Electrical Properties STC*

Testing Condition	Front Side	Front Side	Front Side	Front Side	Front Side
Peak Power (Pmax) (W)	540	545	550	555	560
MPP Voltage (Vmp) (V)	41.6	41.8	42.0	42.2	42.4
MPP Current (Imp) (A)	12.99	13.04	13.10	13.16	13.21
Open Circuit Voltage (Voc) (V)	49.8	50.0	50.2	50.4	50.6
Short Circuit Current (Isc) (A)	13.75	13.81	13.87	13.93	13.99
Module Efficiency (%)	20.84	21.03	21.23	21.42	21.61

*STC: Irradiance 1000 W/m², Cell Temperature 25°C, AM1.5
The data above is for reference only and the actual data is in accordance with the practical testing

Electrical Properties NOCT*

Testing Condition	Front Side	Front Side	Front Side	Front Side	Front Side
Peak Power (Pmax) (W)	408	412	416	420	424
MPP Voltage (Vmp) (V)	39.0	39.2	39.4	39.6	39.8
MPP Current (Imp) (A)	10.47	10.51	10.56	10.61	10.65
Open Circuit Voltage (Voc) (V)	47.6	47.8	48.0	48.2	48.4
Short Circuit Current (Isc) (A)	11.09	11.13	11.18	11.23	11.28

*NOCT: Irradiance at 800 W/m², Ambient Temperature 20°C, Wind Speed 1 m/s

With Different Power Generation Gain (regarding 545W as an example)

Power Gain (%)	Peak Power (Pmax) (W)	MPP Voltage (Vmp) (V)	MPP Current (Imp) (A)	Open Circuit Voltage (Voc) (V)	Short Circuit Current (Isc) (A)
10	586	41.8	14.00	50.0	14.83
15	606	41.9	14.49	50.1	15.34
20	627	41.9	14.97	50.1	15.85
25	647	41.9	15.45	50.1	16.36
30	668	41.9	15.93	50.1	16.88

Operating Properties

Operating Temperature (°C)	-40°C~+85°C
Maximum System Voltage (V)	1500V (IEC)
Maximum Series Fuse Rating(A)	30
Power Tolerance	0~+5W
Bifaciality*	75%

*Bifaciality=Pmaxrear (STC) / Pmaxfront (STC) , Bifaciality tolerance:±5%

Temperature Coefficient

Temperature Coefficient of Pmax*	-0.320%/°C
Temperature Coefficient of Voc	-0.260%/°C
Temperature Coefficient of Isc	+0.046%/°C
Nominal Operating Cell Temperature (NOCT)	42±2°C

*Temperature Coefficient of Pmax±0.03%/°C

Mechanical Properties

Cell Type	182.00mm*91.00mm
Number of Cells	144pcs(12*12)
Dimension	2285mm*1134mm*30mm
Weight	32.5kg
Front /Rear Glass*	2.0mm/2.0mm
Frame	Anodized Aluminium
Junction Box	IP68 (3 diodes)
Length of Cable*	4.0mm ² , +300mm/-180mm
Connector	MC4 Compatible

*Heat strengthened glass
*Cable length can be customized

Packaging Configuration

Packing Type	40HQ
Piece/Pallet	35
Piece/Container	700

www.watt-power.com