

# HD SOLAR

## N-type Monocrystalline N 144cells 182 Bifacial Half-cell PV Module

### HDM-N182 Half cell 565-590wp bifacial double glass PV MODULE

#### RELIABLE QUALITY

- 30-year Product life, more than 10%-30% additional power gain comparing with conventional module
- ZERO LID, No LID, more power generation
- High power and 1500v system voltage, Saving BOS cost
- Wide spectral response, Higher power output even under low-light setting like smog or cloudy days
- Higher power generation under working conditions, thanks to passivating contact cell technology
- BIPV, Vertical Installation/Snowfield/High-humid Area/Windy and dusty area

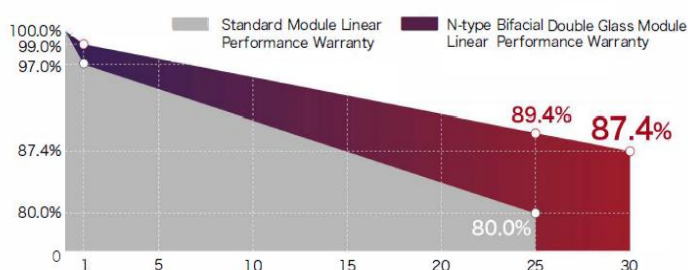
#### MECHANICAL PARAMETERS

Cell(mm)	Mono182×91.00mm 16BB
Weight(kg)	31.5KG
Dimensions(L×W×H)(mm)	2278×1134×30mm
Cable cross section size(mm <sup>2</sup> )	4mm <sup>2</sup> 300mm in length
NO.of cells and connections	144(12×12)
Front/Real Glass	2.0mm/2.0mm
Frame	Anodized Aluminium
Junction Box	IP68, 3 diodes
Connector	MC4 Compatible

#### WORKING CONDITIONS

Maximum system voltage	DC1500V(IEC)
Operating temperature	-40°C --- +85°C
Maximum series fuse	25A
Fire Safety	Class C
Power Tolerance	0 -+ 5WP
Bifaciality	80%(±5%)

**-1.00%** 1st-year Degradation | **15** Years Product Material & Workmanship  
**-0.40%** Annual Degradation | **30** Years Linear Performance Warranty



Electrical data in this catalog do not refer to a single module and they are not part of the offer. They only serve for comparison among different module types

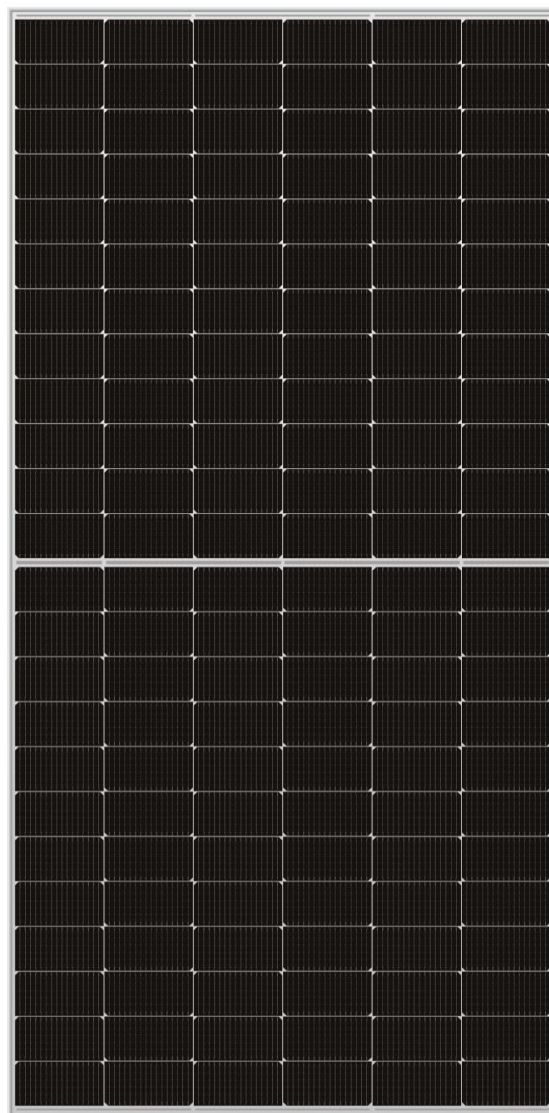
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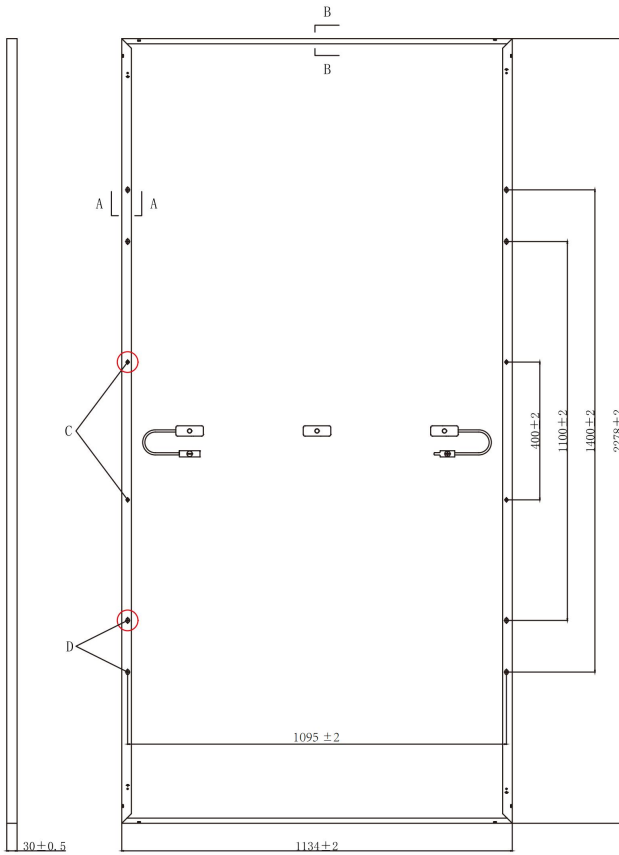
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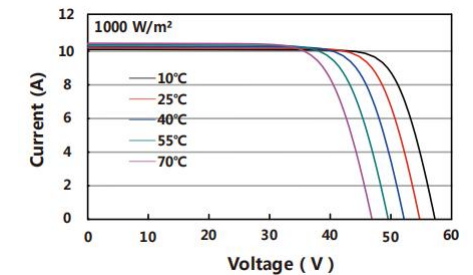
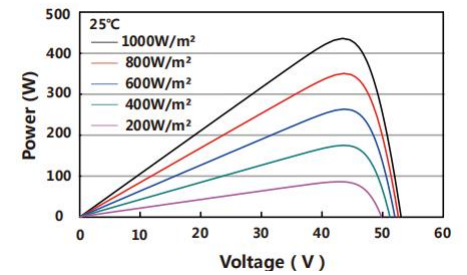
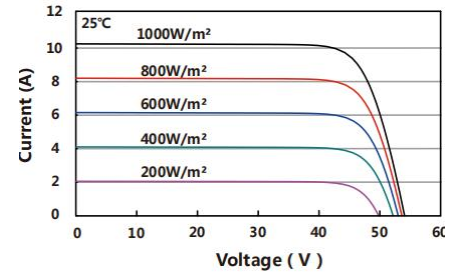
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### Engineering Drawing( unit mm)



### I-V CURVE



customized cable length available upon request

### Electrical Properties STC Irradiance 1000W/m<sup>2</sup>, Module Temperature 25°C, Air Mass 1.5

Rated maximum power at STC(W)	565	570	575	580	585	590
Open circuit voltage (Voc/V)	50.88	51.08	51.28	51.48	51.68	51.88
Maximum power voltage(Vmp/V)	42.6	42.8	43	43.2	43.4	43.6
Short circuit current(Isc/A)	14.18	14.24	14.30	14.36	14.42	14.48
Maximum power current(Imp/A)	13.27	13.32	13.38	13.43	13.48	13.54
Module Efficiency [%]	21.87	22.07	22.26	22.45	22.65	22.84

### Electrical Properties NOCT:Irradiance at 800w/m<sup>2</sup>, Ambient Temperature 20 Wind Speed 1m/s

Testing condition	Front Side	Front Side	Front Side	Front Side	Front Side	Front Side
Peak Pwer(Pmax)(w)	428	432	436	440	444	448
Mpp Voltage(Vmp)(v)	40.0	40.2	40.4	40.6	40.8	41.0
MPP Current(Imp)(A)	10.70	10.74	10.79	10.84	10.89	10.93
Open Circuit Voltage(VOC)(V)	47.8	48.0	48.2	48.4	48.6	48.7
Short Circuit Current(Isc)(A)	11.33	11.38	11.42	11.46	11.5	11.54

### Different Power Generation Gain Temperature Coefficient

Power Gain	Pmax(W)	Vmp(V)	Imp(A)	Voc(V)	Isc(A)	Temperature Coefficient
10%	621	43.0	14.44	51.28	15.30	Temperatrue Coefficient of Pmax -0.320%/°C
15%	644	43.0	14.98	51.28	15.87	Temperature Coefficiency of Voc -0.260%/°C
20%	667	43.0	15.51	51.28	16.43	Temperature Coefficient of Isc +0.046%/°C
25%	690	43.0	16.05	51.28	17.01	NOCT 42 ± 2°C
30%	713	43.0	16.13	51.28	17.57	Temperature Coefficient of Pmax 0.03%/°C

### Packing Configuration

36pcs/Pallet 20GP 180PCS 40HQ 720PCS