

HD SOLAR

N-type Monocrystalline 156 half cells M10 Bifacial PV Module

HD-N-M10 156 Half cells 615-645wp 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

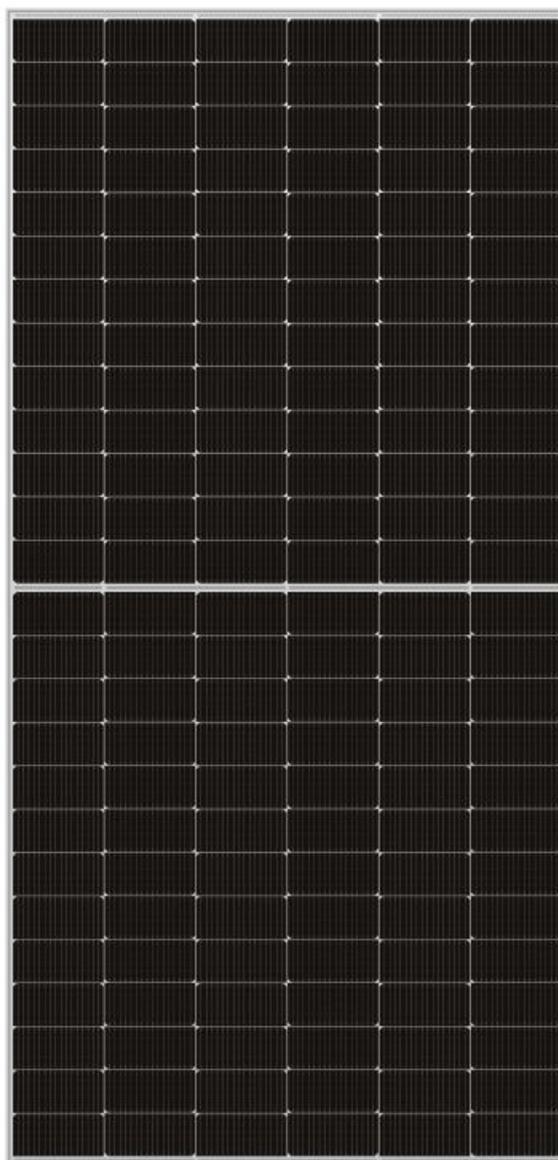
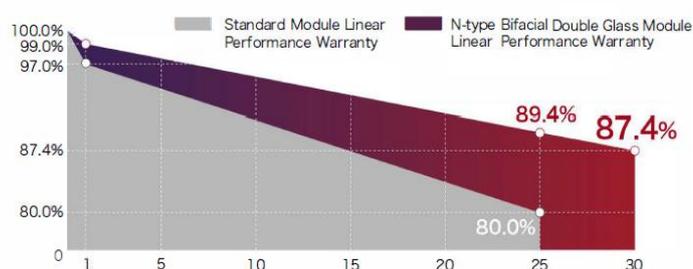
MECHANICAL PARAMETERS

Cell(mm)	Mono182×105.00mm 16BB
Weight(kg)	34.5KG
Dimensions(L×W×H)(mm)	2465×1134×30mm
Cable cross section size(mm ²)	4mm ² 300mm in length
NO.of cells and connections	156(6×26)
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

HD solar power ltd

TEL:86-18688922286

email: hdsolar@hdsolar.com

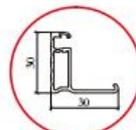
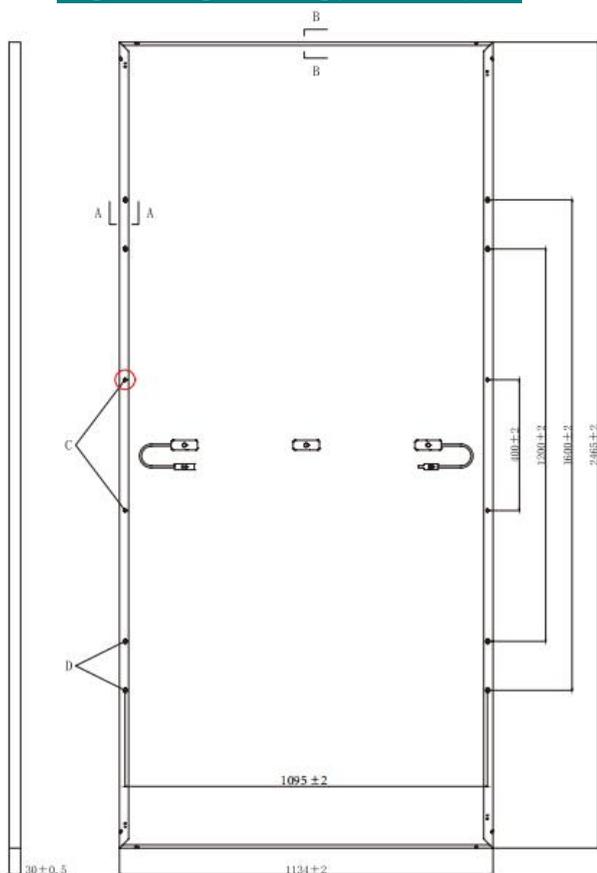
www.hdsolar.com

Add: Rm803 Chevalier House 45-51 Chatham Road South Tsim Sha Tsui Hongkong

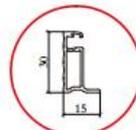
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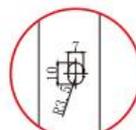
Engineering Drawing(unit mm)



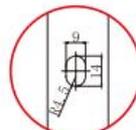
A 长边截面



B 短边截面



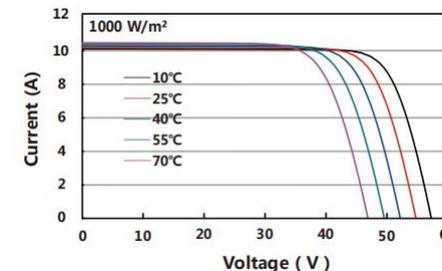
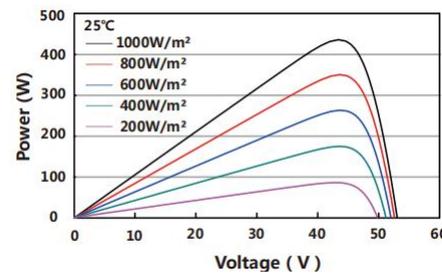
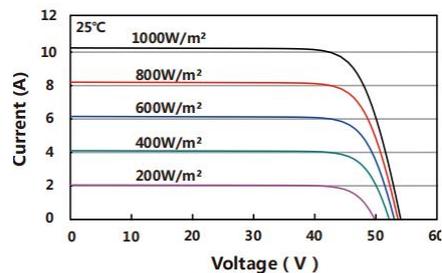
C 安装孔



D 安装孔

customized cable length available upon request

I-V CURVE



Electrical Properties	STC	Irradiance 1000W/m ² , Module Temperature 25°C, Air Mass 1.5						
Rated maximum power at STC(W)		615	620	625	630	635	640	645
Open circuit voltage (Voc/V)		55.48	55.68	55.88	56.08	56.28	56.48	56.68
Maximum power voltage(Vmp/V)		47.59	47.77	47.95	48.13	48.31	48.49	48.67
Short circuit current(Isc/A)		13.72	13.76	13.81	13.85	13.90	13.94	13.99
Maximum power current(Imp/A)		12.92	12.98	13.03	13.09	13.14	13.20	13.25
Module Efficiency [%]		22.00	22.20	22.40	22.50	22.70	22.90	23.10

Electrical Properties	NOCT:Irradiance at 800w/m ² , Ambient Temperature 20 Wind Speed 1m/s						
Testing condition	Front Side						
Peak Pwer(Pmax)(w)	461	464	468	472	476	479	483
Mpp Voltage(Vmp)(v)	45.57	45.74	45.91	46.09	46.26	46.43	46.60
MPP Current(Imp)(A)	10.11	10.15	10.20	10.24	10.28	10.32	10.37
Open Circuit Voltage(VOC)(V)	53.13	53.32	53.51	53.70	53.89	54.08	54.28
Short Circuit Current(Isc)(A)	11.08	11.12	11.15	11.19	11.23	11.26	11.30

Different Power Generation Gain					
Power Gain	Pmax(W)	Vmp(V)	Imp(A)	Voc(V)	Isc(A)
10%	693.0	48.13	14.40	56.08	15.23
15%	724.5	48.13	15.05	56.08	15.93
20%	756.0	48.23	15.67	56.18	16.59
25%	787.5	48.23	16.33	56.18	17.28
30%	819.0	48.23	16.98	56.18	17.97

Temperature Coefficient	
Tempertrue Coefficient of Pmax	-0.300%/°C
Temperature Coefficiency of Voc	-0.250%/°C
Temperature Coefficient of Isc	+0.045%/°C
NOCT	42 ± 2°C
Temperature Coefficient of Pmax	0.03%/°C

Packing Configuration

36pcs/Pallet 40HQ 576PCS