

**460W~480W**

**M10 solar modules** Aquaman series

Mono SMBB TOPCon large size half cut module

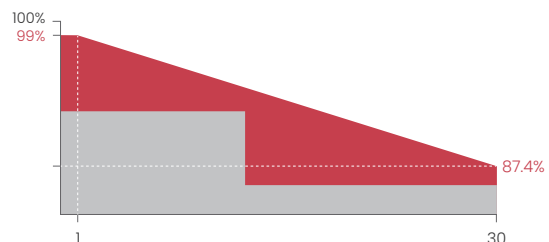
Excellent technical advantages and system design scheme to achieve high reliability, power generation effective gain and EPC cost reduction. Products can match different installation conditions, taking into account high adaptability and high compatibility.


**MODULE CHARACTER**

-  PID Resistance
-  Salt mist resistance/Ammonia resistance /dust and hail resistance
-  Production process reliability test
-  0~+5W Positive Tolerance
-  Lower LID / LETID
-  Reduce BOS cost increase ROI
-  Non-destructive cutting

**CERTIFICATION**

IEC61215/IEC61730  
ISO9001:Quality Management System  
ISO14001:Environmental Management System  
ISO45001:Occupational Health and Safety Management System



 30 YEAR Linear performance warranty

 12 YEAR Product warranty



Module Type	SR-60M460NHLPro		SR-60M465NHLPro		SR-60M470NHLPro		SR-60M475NHLPro		SR-60M480NHLPro	
Module Efficiency (%)	21.28		21.52		21.75		21.98		22.21	
Tolerance (W)	0 ~ +5		0 ~ +5		0 ~ +5		0 ~ +5		0 ~ +5	
Test Environment	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power Pmax(W)	460	347.0	465	350.8	470	354.6	475	358.3	480	362.1
Open Circuit Voltage	41.96	40.08	42.18	40.29	42.40	40.5	42.62	40.71	42.83	40.91
Short Circuit Current Isc(A)	14.02	11.32	14.10	11.38	14.17	11.44	14.26	11.51	14.33	11.57
Maximum Power Voltage	34.67	32.53	34.85	32.7	35.03	32.87	35.21	33.04	35.39	33.21
Maximum Power Current	13.27	10.7	13.35	10.77	13.42	10.82	13.5	10.89	13.57	10.94
Cell Type (mm)	M10 TOPCon									
Number of Cells (Pcs)	120(6×20)									
Maximum System Voltage	DC1500									
Temp.Coeff.of Voc (%/°C)	-0.249									
Temp.Coeff.of Isc (%/°C)	0.045									
Temp.Coeff.of Pm (%/°C)	-0.3									
Operating Temperature	-40 to 85									
Nominal Operating Cell Temperature(NOCT)	45±2									
Max.Series Fuse (A)	25									
Pressure Bearing (Pa)	5400									
Wind Bearing (Pa)	2400									

STC: Irradiance 1000W/m<sup>2</sup>, Cell temperature 25°C, AM1.5  
 NOCT: Irradiance 800W/m<sup>2</sup>, Ambient temperature 20°C, Wind speed 1m/s

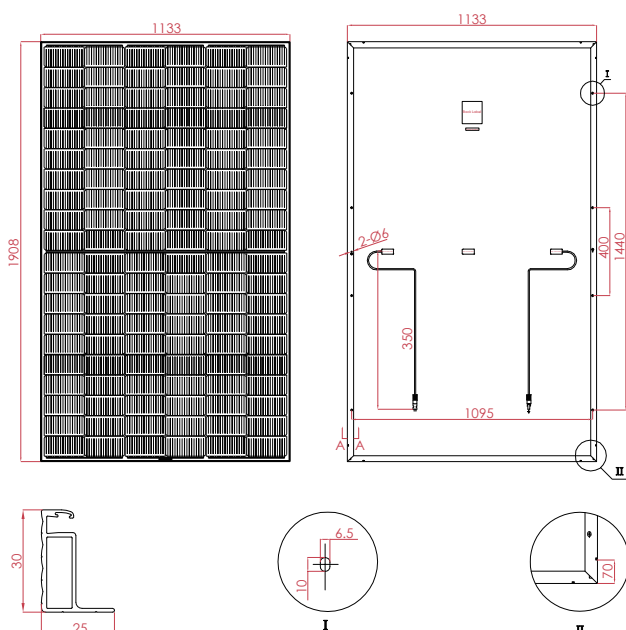
### MATERIAL DETAILS

Frame	Anodized aluminum	Net length of Cable	350mm or as customer's requirements
Cell	6×20pcs mono solar cell	Junction Box	IP≥68, TÜV & UL
Diode quantity	3	Cable&Connector	4mm <sup>2</sup> , EVO2 or EVO2 compatible
Glass	3.2mm Anti-Reflection Coating Heat Strengthened Glass		

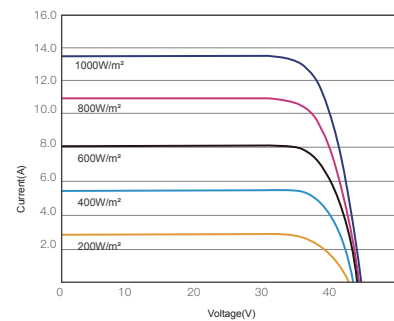
### PACKING DETAILS

Dimension	1908×1133×30mm	Weight	22.4kg
Loading Capacity	864pcs/40HC	Packing	36pcs/pallet

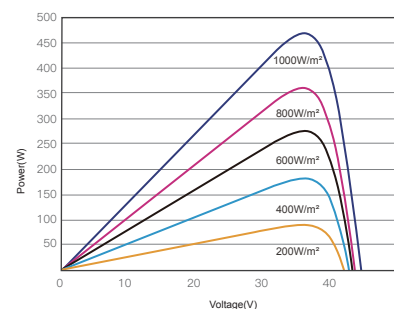
### ENGINEERING DRAWINGS



### IV CURVES



I-V CURVES OF PV MODULE(470W)



P-V CURVES OF PV MODULE(470W)