



435w~455w

M10 solar modules Aquaman series
Mono MBB perc large size half cut module

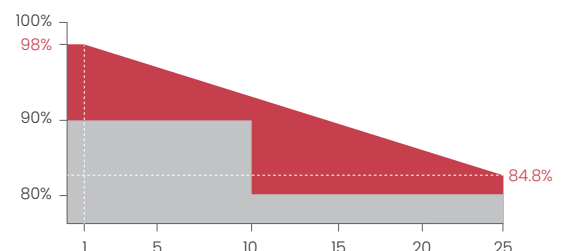
Excellent technical advantages and system design scheme to achieve high reliability, power generation effective gain and EPC cost reduction. Products can match different installation conditions, taking into account high adaptability and high compatibility. With mature support and inverter scheme, customized design for industrial and commercial and centralized ground power stations.

MODULE CHARACTER

-  PID Resistance
-  Salt mist resistance/Ammonia resistance /dust and hail resistance
-  Production process reliability test
-  0~+5W Positive Tolerance
-  Mono MBB half cut
-  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



Linear performance warranty



Product warranty

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⚠ If any update, Sunrise would not make further notice. Sunrise reserves the right of final interpretation.



Module Type	SR-60M435HLPro		SR-60M440HLPro		SR-60M445HLPro		SR-60M450HLPro		SR-60M455HLPro	
Module Efficiency (%)	20.13		20.36		20.59		20.82		21.05	
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)	435	323.74	440	327.46	445	331.18	450	334.9	455	338.63
Open Circuit Voltage	41.38	39.06	41.44	39.12	41.50	39.17	41.56	39.23	41.62	39.29
Short Circuit CurrentIsc(A)	13.41	10.83	13.55	10.94	13.67	11.04	13.81	11.15	13.95	11.26
Maximum Power Voltage	34.16	31.78	34.21	31.83	34.26	31.87	34.31	31.92	34.36	31.97
Maximum Power Current	12.74	10.19	12.87	10.29	12.99	10.39	13.12	10.49	13.25	10.6
Cell Type (mm)	MBB(Mono-Crystalline Silicon)									
Number of Cells (Pcs)	120(6×20)									
Maximum System Voltage	DC1500									
Temp.Coeff.of Voc (%/°C)	-0.282									
Temp.Coeff.of Isc (%/°C)	0.05									
Temp.Coeff.of Pm (%/°C)	-0.348									
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/m², Cell temperature 25°C, AM1.5
 NOCT: Irradiance 800W/m², Ambient temperature 20°C, Wind speed 1m/s

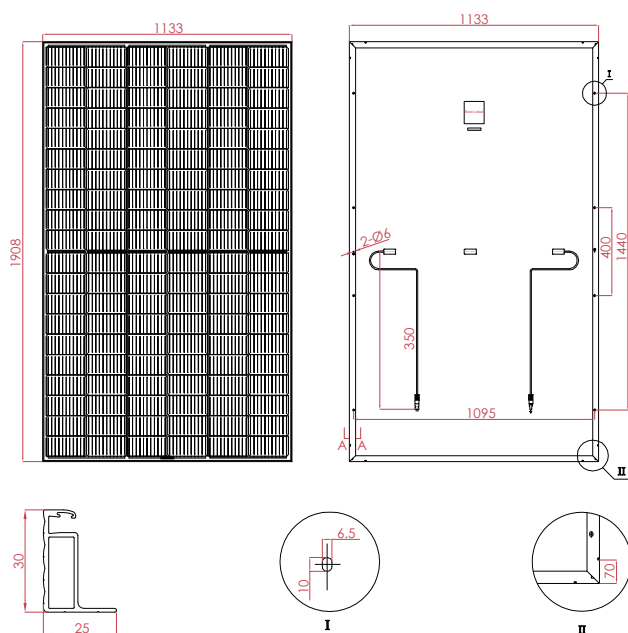
MATERIAL DETAILS

Frame	Anodized aluminum	Glass	3.2mm low-iron tempered suede glass
Cell	6×20pcs mono solar cell	Junction Box	IP≥68, TÜV & UL
Diode quantity	3	Cable&Connector	4mm ² , EVO2 or EVO2 compatible
Net length of Cable	350mm or as customer's requirements		

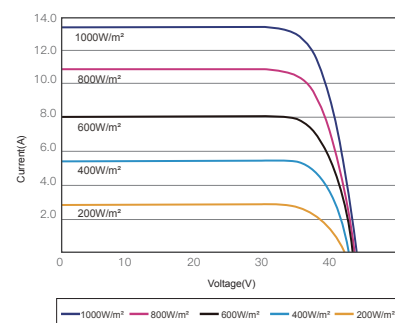
PACKING DETAILS

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

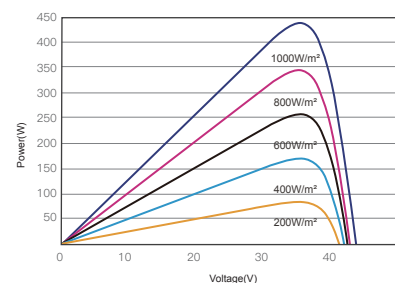
ENGINEERING DRAWINGS



IV CURVES



I-V CURVES OF PV MODULE(445W)



P-V CURVES OF PV MODULE(445W)