







400w~420w

M10 solar modules **Aquaman series**

Mono MBB per large size half cut bifacial module

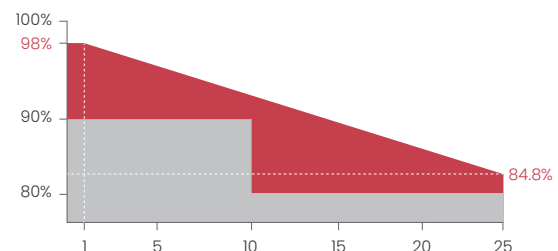
Excellent technical advantages and system design scheme to achieve high reliability, power generation effective gain and EPC cost reduction. Products can match different installation conditions, taking into account high adaptability and high compatibility. With mature support and inverter scheme, customized 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
-  Double-sided electricity generation

CERTIFICATION

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



Linear performance warranty



Product warranty

SUNRISE ENERGY CO., LTD

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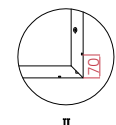
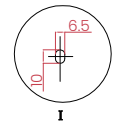
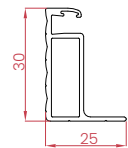
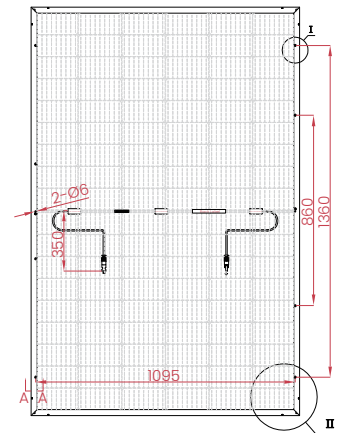
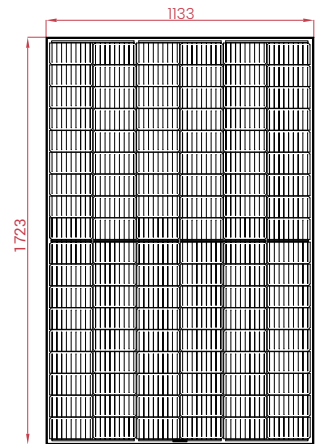
ADD:No.20 Tongzi River West Road, Zhonglou Development Zone, Changzhou, Jiangsu



SR-54MHLProB 400w-420w Aquaman series



ENGINEERING DRAWINGS



Module Type	SR-54M 400HLProB		SR-54M 405HLProB		SR-54M 410HLProB		SR-54M 415HLProB		SR-54M 420HLProB	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Module Efficiency (%)	20.5		20.75		21.01		21.26		21.52	
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)	400	297.69	405	301.41	410	305.13	415	308.86	420	312.58
Open Circuit Voltage Voc(V)	36.99	34.92	37.22	35.14	37.45	35.36	37.68	35.57	37.91	35.79
Short Circuit Current Isc(A)	13.79	11.13	13.87	11.20	13.97	11.28	14.04	11.34	14.13	11.41
Maximum Power Voltage Vm(V)	30.54	28.41	30.73	28.59	30.92	28.77	31.11	28.94	31.3	29.12
Maximum Power Current Im(A)	13.1	10.48	13.18	10.54	13.27	10.61	13.34	10.67	13.42	10.73
Cell Type(mm)	MBB-182×91mm(Mono-Crystalline Silicon)									
Number of Cells(Pcs)	108(6×18)									
Maximum System Voltage (V)	DC1500									
Temp.Coeff.of Voc (%/°C)	-0.282									
Temp.Coeff.of Isc (%/°C)	0.05									
Temp.Coeff.of Pm (%/°C)	-0.348									
Operating Temperature (°C)	-40 to 85									
Nominal Operating Cell Temperature(NOCT) (°C)	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

Different backside power gains(400W)	10%	15%	20%	25%
Peak Power Pmax(W)	440	460	480	500
Open Circuit Voltage Voc(V)	36.99	37.01	37.02	37.03
Short Circuit Current Isc(A)	15.17	15.85	16.54	17.22
Maximum Power Voltage Vm(V)	30.54	30.55	30.56	30.57
Maximum Power Current Im(A)	14.41	15.06	15.71	16.36

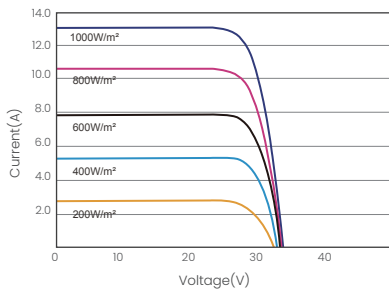
MATERIAL DETAILS

Frame	Anodized aluminum	Cable&Connector	4mm ² , EVO2 or EVO2 compatible
Cell	6×18pcs mono solar cell	Junction Box	Ip≥68, TÜV&UL
Glass	3.2mm Anti-Reflection Coating Heat Strengthened Glass	Net length of Cable	350mm or as customer's requirements

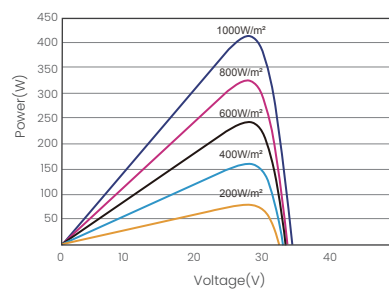
PACKING DETAILS

Dimension	1723×1133×30mm	Weight	20kg
Loading Capacity	936pcs/40'HC	Packing	36pcs/pallet

IV CURVES



I-V CURVES OF PV MODULE(410W)



P-V CURVES OF PV MODULE(410W)