



435~460W

M10 solar panels Aquaman series

Mono SMBB TOPCon large size half cut
double glass solar panel

Products can match different installation conditions, taking into account high adaptability and high compatibility. With mature support and inverter scheme, customized design for distributed scenarios.

MODULE CHARACTER



Exceptional 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

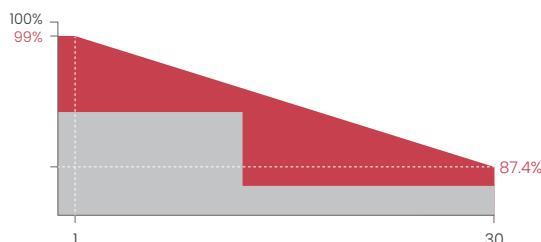
CERTIFICATION

IEC61215/IEC61730

ISO9001:Quality Management System

ISO14001:Environmental Management System

ISO45001:Occupational Health and Safety Management System



Linear performance warranty



Product warranty

Official Distributor:

Bornay

P.I. Riu, Cno. del Riu, s/n
03420 Castalla (Alicante) España

Tel. 965 560 025 / 671 680 080

bornay@bornay.com
www.bornay.com

Module Type	SR-54M 435NHLProD		SR-54M 440NHLProD		SR-54M 445NHLProD		SR-54M 450NHLProD		SR-54M 455NHLProD		SR-54M 460NHLProD	
Module Efficiency (%)	21.79		22.05		22.3		22.55		22.8		23.05	
Tolerance (W)	0~+5		0~+5		0~+5		0~+5		0~+5		0~+5	
Test Environment	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power Pmax(W)	435	328.16	440	331.93	445	335.70	450	339.48	455	343.25	460	347.02
Open Circuit Voltage Voc(V)	38.79	37.05	39.02	37.27	39.25	37.49	39.48	37.71	39.71	37.93	39.94	38.15
Short Circuit Current Isc(A)	14.34	11.58	14.42	11.64	14.50	11.71	14.58	11.77	14.65	11.83	14.72	11.89
Maximum Power Voltage Vm(V)	32.05	30.07	32.24	30.25	32.43	30.43	32.62	30.61	32.81	30.79	33.00	30.97
Maximum Power Current Im(A)	13.58	10.95	13.65	11.01	13.73	11.07	13.8	11.13	13.87	11.18	13.94	11.24
Cell Type(mm)	M10 TOPCon											
Number of Cells(Pcs)	108(6×18)											
Maximum System Voltage(V)	DC1500											
Temp.Coeff.of Voc (%/°C)	-0.29											
Temp.Coeff.of Isc (%/°C)	0.045											
Temp.Coeff.of Pm (%/°C)	-0.25											
Operating Temperature (°C)	-40 to 85											
Nominal Operating Cell Temperature(NOCT) (°C)	45±2											
Max.Series Fuse (A)	30											
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(450W)	10%	15%	20%	25%
Peak Power Pmax(W)	495	517.5	540	562.5
Open Circuit Voltage Voc(V)	39.49	39.51	39.52	39.53
Short Circuit Current Isc(A)	16.02	16.75	17.47	18.19
Maximum Power Voltage Vm(V)	32.63	32.64	32.65	32.66
Maximum Power Current Im(A)	15.17	15.85	16.54	17.22

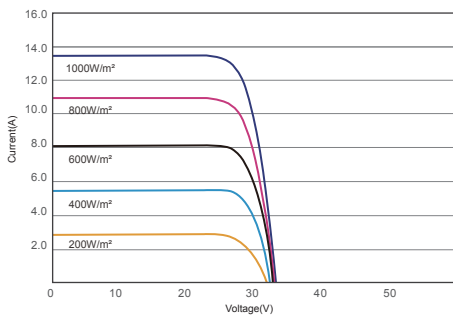
MATERIAL DETAILS

Frame	Anodized aluminum	Cable&Connector	4mm ² , EVO2 or EVO2 compatible
Cell	6×18pcs mono solar cell	Junction Box	Ip≥68, TÜV&UL
Glass	2x2.0mm Anti-Reflection Coating Heat Strengthened Glass	Net length of Cable	350mm or as customer's requirements

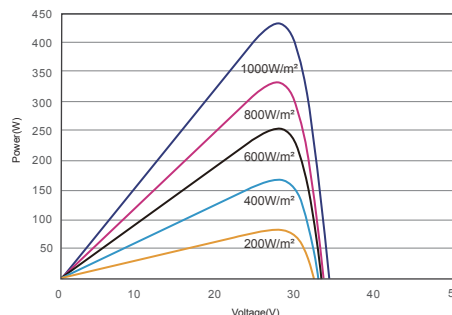
PACKING DETAILS

Dimension	1762×1133×30mm	Weight	24.2kg
Loading Capacity	962pcs/40'HC	Packing	37pcs/pallet

IV CURVES

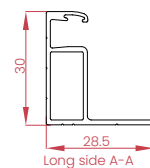
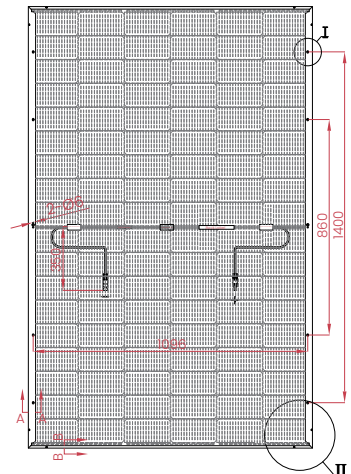
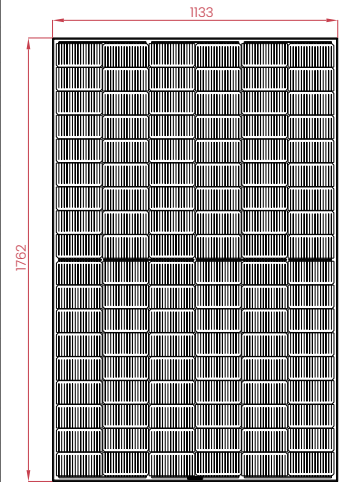


I-V CURVES OF PV MODULE(435W)

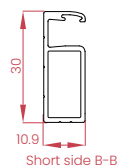


P-V CURVES OF PV MODULE(435W)

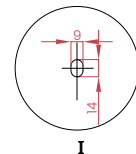
ENGINEERING DRAWINGS



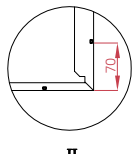
Long side A-A



Short side B-B



I



II

Length: ±2mm
Width: ±2mm
Thickness: ±1mm
Pitch-row: ±2mm