








# 425~445W

**M10 solar modules** Aquaman series

Mono SMBB TOPCon large size half cut  
bifacial double glass module

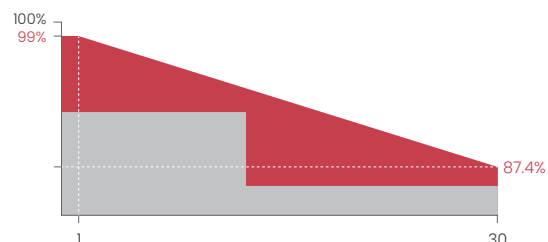
Products can match different installation conditions, taking into account high adaptability and high compatibility. With mature support and inverter scheme, customized design for distributed scenarios.

## 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

**SUNRISE ENERGY CO., LTD** TEL: +86-519-81688389 E-mail: info@sunriseenergy.cn

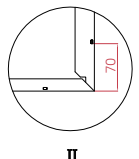
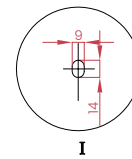
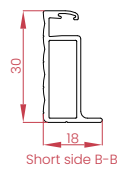
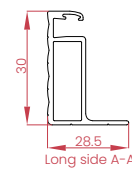
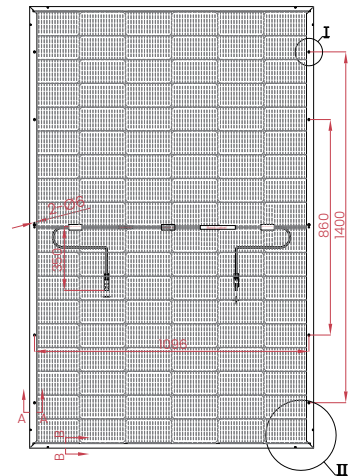
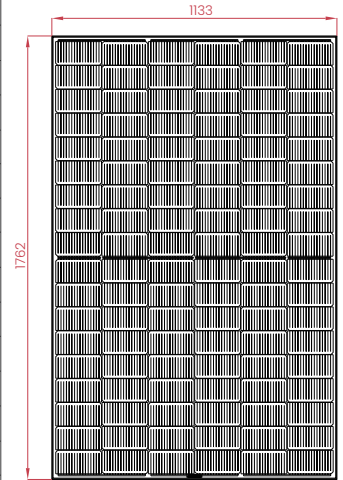
ADD: No.20 Tongzi River West Road, Zhonglou Development Zone, Changzhou, Jiangsu

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



Module Type	SR-54M 425NHLProD		SR-54M 430NHLProD		SR-54M 435NHLProD		SR-54M 440NHLProD		SR-54M 445NHLProD	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Module Efficiency (%)	21.29		21.54		21.79		22.05		22.3	
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)	425	320.62	430	324.39	435	328.16	440	331.93	445	335.70
Open Circuit Voltage Voc(V)	38.33	36.61	38.56	36.83	38.79	37.05	39.02	37.27	39.25	37.49
Short Circuit Current Isc(A)	14.18	11.45	14.26	11.51	14.34	11.58	14.42	11.64	14.50	11.71
Maximum Power Voltage Vm(V)	31.67	29.72	31.86	29.90	32.05	30.07	32.24	30.25	32.43	30.43
Maximum Power Current Im(A)	13.43	10.83	13.50	10.89	13.58	10.95	13.65	11.01	13.73	11.07
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									

## ENGINEERING DRAWINGS



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

Different backside power gains(430W)	10%	15%	20%	25%
Peak Power Pmax(W)	473	494.5	516	537.5
Open Circuit Voltage Voc(V)	38.57	38.59	38.60	38.61
Short Circuit Current Isc(A)	15.68	16.39	17.10	17.80
Maximum Power Voltage Vm(V)	31.87	31.88	31.89	31.9
Maximum Power Current Im(A)	14.85	15.52	16.19	16.85

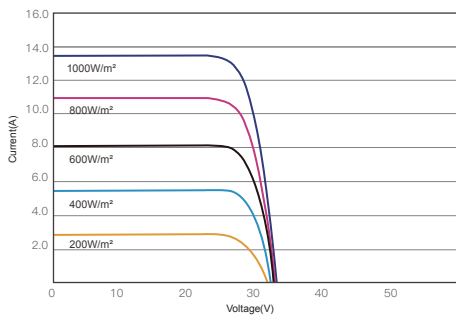
## MATERIAL DETAILS

Frame	Anodized aluminum	Cable&Connector	4mm <sup>2</sup> , 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

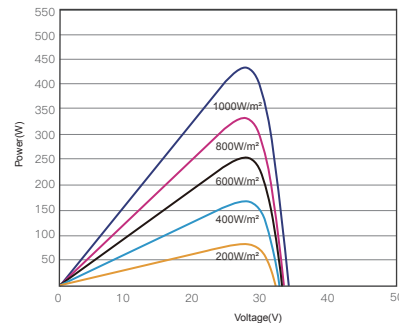
## PACKING DETAILS

Dimension	1762×1133×30mm	Weight	24.5kg
Loading Capacity	936pcs/40'HC	Packing	36pcs/pallet

## IV CURVES



I-V CURVES OF PV MODULE(435W)



P-V CURVES OF PV MODULE(435W)

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