

655~685W

210mm Cells All Black Mono PERC with MBB & Half-cut Technology

Quality Guarantee

12-year Warranty for Materials and Processing 25-year Warranty for Extra Linear Power Output



Complete System and Product Certifications

IEC 61215, IEC 61730, UL 61730 ISO 9001:2008: ISO Quality Management System ISO 14001: 2004: ISO Environment Management System OHSAS 18001: 2007 Occupational Health and Safety



* Specifications subject to technical changes and tests. Sunpal Solar reserves the right of interpretation.

Positive power tolerance (0~+5W) guaranteed

High module conversion efficiency (up to 22.06%)

Slower power degradation enabled by Low LID Mono PERC technology: first year <2%, 0.55% year 2-25

 $\ensuremath{\textbf{Solid}}\xspace$ PID resistance ensured by solar cell process optimization and careful module BOM selection

Reduced resistive loss with lower operating current

Higher energy yield with lower operating temperature

 $\ensuremath{\textbf{Reduced}}\xspace$ hot spot risk with optimized electrical design and lower operating current



 Add:
 No. 398 Ganquan Road, Hefei, Anhui, China.

 Email:
 silvia@sunpalsolar.com
 Tel: +86 551 6586 5992

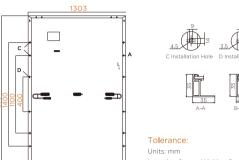
 WhatsApp:
 +86 182 6991 2022
 Web:
 www.sunpalsolar.com





6 HIMAX ALL BLACK 655~685W

Design (mm)



Length: ±2mm Width: ±2mm Height: ±1mm Hole distance: ±1mm

Cell Orientation	132 (6x22)						
Junction Box	IP68, three diodes						
Output Cable	4mm ² , 300mm in length,						
	length can be customized						
Glass	Single glass						
	3.2mm coated tempered glass						
Frame	Anodized aluminum alloy frame						
Weight:	33.6kg±3%						
Dimension	2384 x 1303x35mm						
Packaging	31pcs per pallet						
	558pcs per 40'GP						

Operational Temperature	-40°C~+85°C					
Power Output Tolerance	0~+5W					
Voc & Isc Tolerance	±3%					
Max, System Voltage	DC1500V(IEC/UL)					
Max. Series Fuse Ratin	30A					
NOCT	45±2°C					
Safety Class	Ш					
Fire Rating	UL type 1 or 2					
Max. Static Load(Front)	5400Pa					
Max, Static Load(Back)	2400Pa					

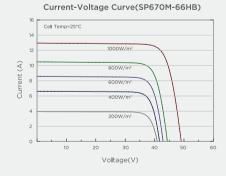
Electrical Characteristics															
Model Number	SP655M-66HB		SP660M-66HB		SP665M-66HB		SP670M-66HB		SP675M-66HB		SP680M-66HB		SP685M-66HB		
Testing Condition	STC	NOCT													
Maximum Power (Pmax/W)	655	496	660	500	665	504	670	508	675	512	680	516	685	520	
Open Circuit Voltage (Voc/V)	45.5	42.8	45.7	43	45.9	43.2	46.1	43.4	46.3	43.6	46.5	43.8	46.7	44	
Short Circuit Current (Isc/A)	18.48	14.89	18.53	14.93	18.58	14.97	18.63	15.01	18.68	15.05	18.73	15.09	18.78	15.13	
Voltage at Maximum Power (Vmp/V)	37.6	35.1	37.8	35.3	38	35.5	38.2	35.7	38.4	35.9	38.6	36.1	38.8	36.3	
Current at Maximum Power (Imp/A)	17.43	14.14	17.47	14.17	17.5	14.2	17.54	14.23	17.58	14.27	17.62	14.3	17.66	14.33	
Module Efficiency(%)	21	21.09		21.25		21.41		21.57		21.73		21.9		22.06	
Temperature Coefficient of Isc	+0.04%/°C														
Temperature Coefficient of Voc	-0.25%/°C														
Temperature Coefficient of Pmax	-0.34%/°C														

* STC (Standard Testing Conditions): Irradiance 1000W/m², Cell Temperature 25°C, Spectra at AM1.5

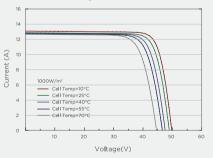
* NOCT (Nominal Operating Cell Temperature): Irradiance 800W/m², Ambient Temperature 20°C, Spectra at AM1.5, Wind at 1m/S

*Test uncertainty for Pmax: ±3%

I-V Curve



Current-Voltage Curve(SP670M-66HB)



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*CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT. *Specfications included in this datasheet are subject to change without notice.



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