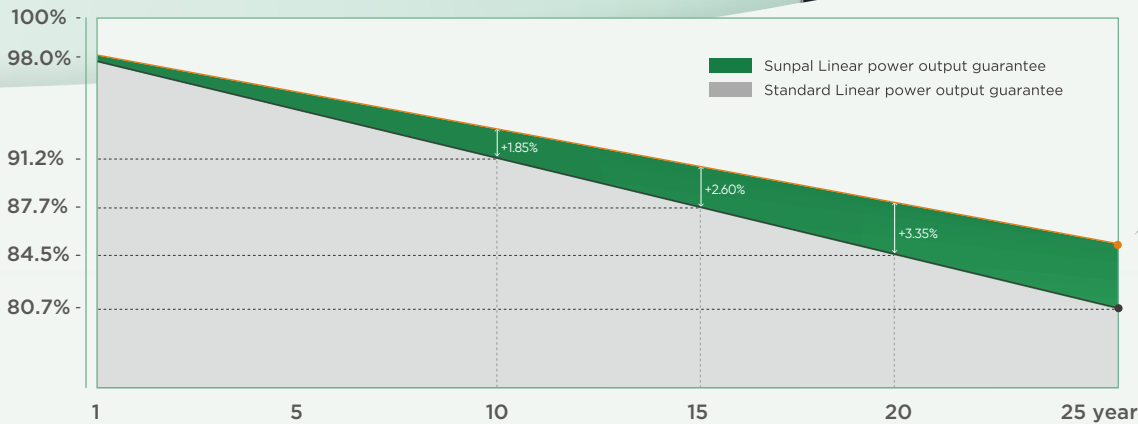


490~515W

210mm Cells Mono
PERC with MBB & Third-cut
Technology

Quality Guarantee

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



84.80%

21.37%
Max Module Eff.

0~+5W
Positive Tolerance

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 21.37%)

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

Solid PID resistance ensured by solar cell process optimization and careful module BOM selection

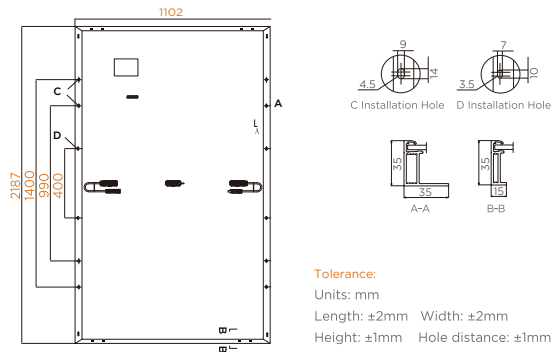
Reduced resistive loss with lower operating current

Higher energy yield with lower operating temperature

Reduced hot spot risk with optimized electrical design and lower operating current



Design (mm)



Cell Orientation	150 (5x30)
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:	26.3kg
Dimension	2187×1303×35mm
Packaging	31pcs per pallet 620pcs per 40'GP

Operational Temperature	-40°C~+85°C
Power Output Tolerance	0~+4.99W
Voc & Isc Tolerance	±3%
Max. System Voltage	DC1500V(IEC/UL)
Max. Series Fuse Rating	30A
NOCT	45±2°C
Safety Class	II
Fire Rating	UL type 1 or 2
Max. Static Load(Front)	5400Pa
Max. Static Load(Back)	2400Pa

Electrical Characteristics

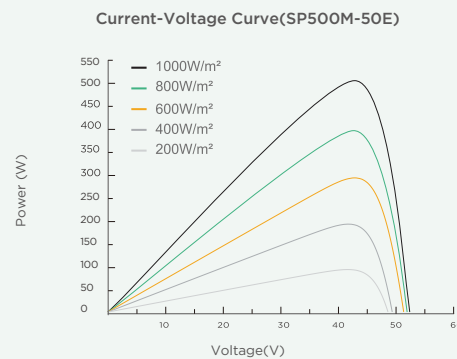
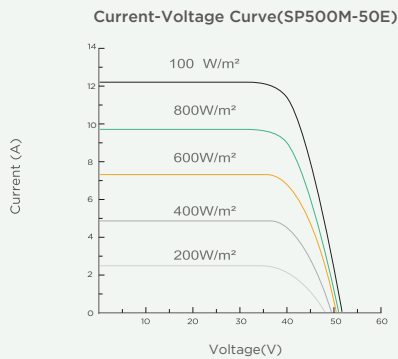
Model Number	SP490M-50E		SP495M-50E		SP500M-50E		SP505M-50E		SP510M-50E		SP515M-50E	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax/W)	490	369	495	373	500	377	505	306	510	385	515	389
Open Circuit Voltage (Voc/V)	51.3	48.2	51.5	48.4	51.7	48.6	51.9	35.06	52.1	49	52.3	49.2
Short Circuit Current (Isc/A)	12.14	9.78	12.19	9.82	12.24	9.86	12.29	11.25	12.34	9.94	12.39	9.98
Voltage at Maximum Power (Vmp/V)	42.4	40	42.6	40.2	42.8	40.4	43	28.74	43.2	40.8	43.4	41
Current at Maximum Power (Imp/A)	11.56	9.23	11.62	9.28	11.69	9.34	11.75	10.65	11.81	9.44	11.87	9.49
Module Efficiency(%)	20.34		20.54		20.75		20.96		21.17		21.37	
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



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* CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.

* Specifications included in this datasheet are subject to change without notice.

