

SL144-166MN 440-460W

MONOCRYSTALLINE MODULE

Positive power tolerance of 0~+3%

ISO9001:2015 certified factory
IEC61215, IEC61730 certified products

(9BB) PERC



KEY FEATURES



System voltage 1500V :

Compared with 1000V system, the design of 1500V system voltage greatly reduce the cost of BOS.



9 Busbar Solar Cell:

More uniform current collection capacity, reduce the current and heat loss of the cell inside the module, beautiful appearance, more suitable for roof installation.



High Efficiency:

The output power of 144 single crystal modules is up to 460W by using half per cell structure technology.



PID RESISTANT:

Mass-produced modules pass PID test (85 C /85% RH, 96H), limited power degradation by PID test is guaranteed for mass production.



Low-light Performance:

Advanced glass and solar cell surface texturing allow for excellent performance in low-light environments.



Severe Weather Resilience:

Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal).

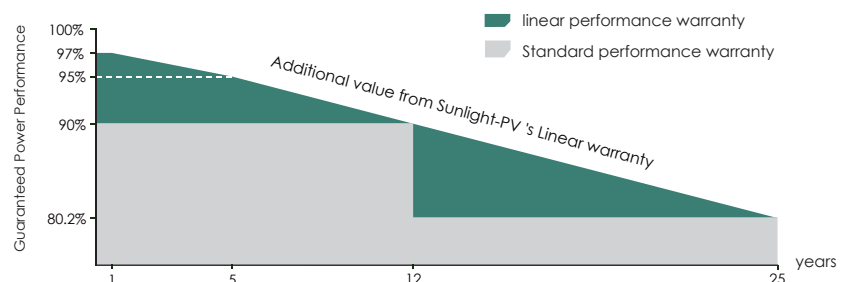


Durability against extreme environmental conditions:

High salt mist and ammonia resistance certified by TUV SUD.

LINEAR PERFORMANCE WARRANTY

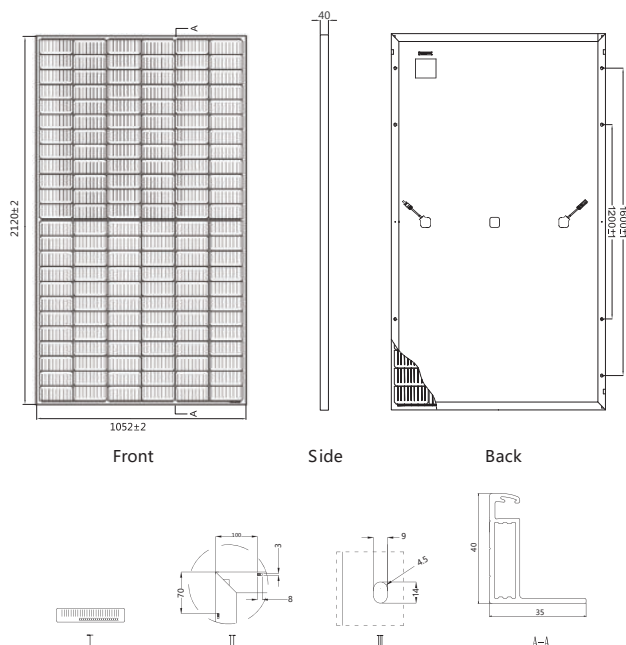
12 Year Product Warranty 25 Year Linear Power Warranty



Product Certification



Engineering Drawings



Packaging Configuration

Vehicle type	40HQ
Quantity of each support	27
Number of supports per vehicle	22
Number of vehicles per vehicle	594

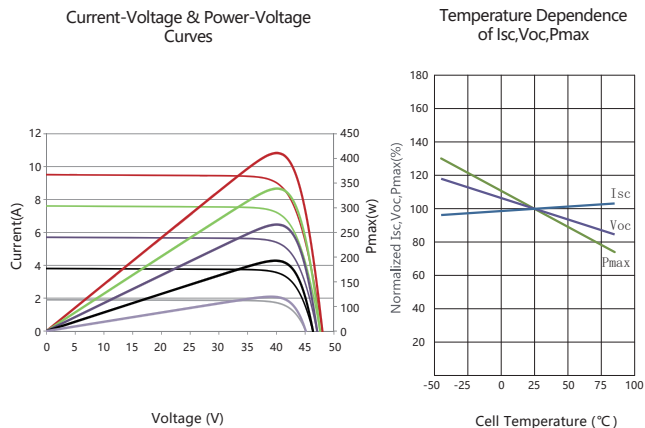
SPECIFICATIONS

Module Type	SL144-166MN-440W		SL144-166MN-445W		SL144-166MN-450W		SL144-166MN-455W		SL144-166MN-460W	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	440Wp	333Wp	445Wp	336Wp	450Wp	340Wp	455Wp	344Wp	460Wp	348Wp
Maximum Power Voltage (Vmp)	40.90V	38.70V	41.21V	38.95V	41.52V	39.19V	41.82V	39.44V	42.13V	39.68V
Maximum Power Current (Imp)	10.76A	8.60A	10.80A	8.64A	10.84A	8.68A	10.88A	8.72A	10.92A	8.76A
Open-circuit Voltage (Voc)	49.40V	46.40V	49.56V	46.65V	49.70V	46.90V	49.85V	47.15V	50.01V	47.38V
Short-circuit Current (Isc)	11.28A	9.16A	11.32A	9.20A	11.36A	9.25A	11.41A	9.29A	11.45A	9.33A
Module Efficiency STC (%)	19.7%		20.0%		20.2%		20.4%		20.6%	
Operating Temperature (°C)	-40°C~+85°C									
Maximum system voltage	1500V									
Maximum series fuse rating	20A									
Power tolerance	0~+3%									
Temperature coefficients of Pmax	-0.350%/°C									
Temperature coefficients of Voc	-0.272%/°C									
Temperature coefficients of Isc	+0.044%/°C									
Nominal operating cell temperature (NOCT)	45±2°C									

STC: Irradiance 1000W/m Cell Temperature 25°C AM=1.5

NOCT: Irradiance 800W/m Ambient Temperature 20°C AM=1.5 Wind Speed 1m/s

Electrical Performance & Temperature Dependence



Mechanical Characteristics

Cell Type	Mono-crystalline PERC 166×166mm
No. of cells	144 (12×12)
Dimensions	2120×1052×40 mm (83.46×41.41×1.57 inch)
Weight	25kg (55.11 lbs)
Front Glass	3.2mm, High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP67/IP68 Rated
Output Cables	TÜV4.0mm²Wire, MC4 Connector