SW460M-144

144 Cells Half Cell MBB Mono Module

Mono Solar Panel Features

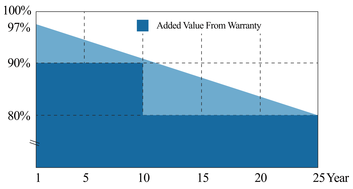
- Widely using of the most popular and mature type of modules for solar system
- High power output and highest conversion efficiency of 20.82%
- Anti-reflective and anti-soiling surface reduces power loss from dirt and dust
- Outstanding Performance in low-light irradiance environments
- Excellent mechanical load resistance: Certified to withstand high wind loads (2400Pa) and Snow loads (5400Pa)
- Positive power tolerance: 0~+5W

Warranty

12 years for product defects in materials & workmanship
10 years for 90% of warranted minimum power output
25 years for 80% of warranted minimum power output
25 years liner warranty

Reliable Quality

Positive power tolerance: 0~+5W
100% EL Double-inspection ensures modules are defects free
Modules Binned by Current to improve system performance
Potential induced Degradation (PID) Resistant

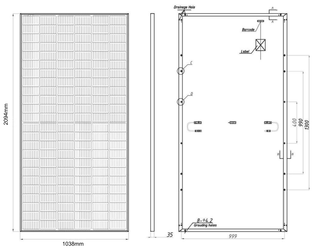


SUNWAY SOLAR
YOUR PROFESSIONAL PV SUPPLIER

Mechanical parameters

Cell(mm)	9BB MONO 166*83
Weight(kg)	24.5kg
Dimensions (A*B*C)(mm)	2094*1038*35mm
Cable Cross Section Size (mm²)	4
Cable Cross Section Length (mm)	300mm
Glass Thickness	3.2mm
Junction Box	IP67/IP68,3 Bypass Diodes
Connector	MC4 Compatiple

Engineering Drawings



Working Conditions

Maximum System Voltage	1500V(IEC)
Operating Temperature	-40℃~+85℃
Maximum Series Fuse	20A
Maximum Static Load,Front (e.g.,snow and wind)	5400Pa (112 lb/ft²)
Maximum Static Load,Back (e.g.,wind)	2400Pa (50 lb/ft²)
NOCT	45±2℃
Positive power tolerance	0~+5W
Application Class	Class A

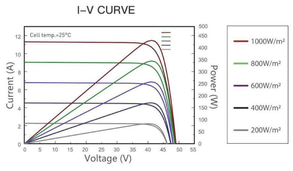
Packaging Configuration

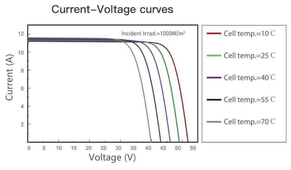
Moduels Per Pallet	31Pcs
Moduels Per 40HQ	660Pcs

Electrical Parameters

Module	SW440M-144 ~ SW460M-144				
Encapsulation	Class/Eva/Cell/Eva/Backsheet				
Maximum Power Pmax (W)	440	445	450	455	460
Maximum Power Voltage (Vmp/V)	40.50	40.80	41.00	41.20	41.40
Maximum Power Current (Imp/A)	10.86	10.92	10.98	11.04	11.10
Open Circuit Voltage (Voc/V)	49.00	49.20	49.50	49.80	50.00
Short Circuit Current (Isc/A)	11.30	11.36	11.42	11.48	11.54
Cell Efficiency(%)	22.18	22.43	22.68	22.93	23.19
Module Efficiency (%)	19.92	20.14	20.37	20.60	20.82
Power Tolerance (W)	0~+5W				
Temperature Coefficient of Isc (αIsc)	+0.06%/℃				
Temperature Coefficient of Voc (βVoc)	-0.30%/℃				
Temperature Coefficient of Pmax (γPmp)	-0.38%/℃				
STC	Irradiance 1000W/㎡, Cell Temperature 25℃, Spectrum AM 1.5				

I-V Curve





Sunway Solar Energy Tech. Co., Ltd. + 86 177 3020 9697 Sales@sunwaypv.com www.sunwaypv.com