

SW(430-450)-144M

High efficiency

High quality

High reliability

Possessing high output power and high reliability, using the most advanced manufacturing technology, with lower operating temperature and excellent weak light effect, which can effectively guarantee the power generation and investment income of the power station."



Structural parameters

1500V Up to IEC1500 VDC system voltage, saving on BoS costs

Minimize micro-cracks and prevent snail trails

Suitable for harsh environments, such as coasts, deserts and lakes

Fire Class A and Type 3/Type 13 certified according to IEC 61730-2 / MST 23 and UL 1703

5400 Pa snow load, 2400 Pa wind load

System Certification

ISO9001:2015
ISO14001:2015
ISO45001:2018

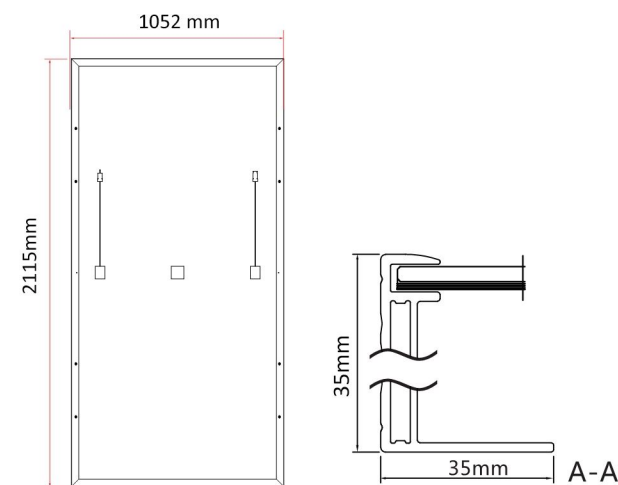
Product Certification



25 years linear power output warranty

10 years product warranty on materials and workmanship

Mechanical Diagrams



Specifications

No.of cells : 144(166 x 83mm)
J-Box : IP68 Rated,3 by-pass diodes
Cables : Cable 4.0mm ² 900mm
Connector : MC-4(or equivalent MC-4)
Weight : 24.0kg
Module dimensions : 2115 x 1052 x 35 mm
Packaging Configuration : pallet/ 30 pieces

Working Data

Operational Temperature: -40°C~ +85°C
Power Tolerance: 0~ +5W
Maximum System Voltage: DC1500V(IEC)
Max Series Fuse Rating: 15A
Nominal Operating Cell Temperature(NOCT): 45±2°C
Module application level: Class A

Electrical Characteristics

Parameter	SW430-144M	SW435-144M	SW440-144M	SW445-144M	SW450-144M	
Maximum Power at STC [Pmax]	[W] 430	435	440	445	450	
Open Circuit Voltage [Voc]	[V] 49.2	49.4	49.6	49.8	50.0	
Short Circuit Current [Isc]	[A] 11.19	11.26	11.33	11.4	11.47	
Voltage at Maximum Power point[Vm]	[V] 40.6	40.8	41.0	41.2	41.4	
Current at Maximum Power point[Im]	[A] 10.6	10.6	10.47	10.8	10.97	
Power Tolerance	[W]	0~ +5W				
Module Efficiency	[%]	19.3	19.6	19.8	20.0	20.22
Maximum Power at NOCT [Pmax]	[W] 318.5	322.2	326	329.8	333.6	
Open Circuit Voltage [Voc]	[V] 45.9	42.1	42.3	42.5	42.7	
Short Circuit Current [Isc]	[A] 8.5	8.56	8.61	8.67	8.73	
Voltage at Maximum Power point[Vm]	[V] 37.5	37.7	37.9	38.1	38.3	
Current at Maximum Power point[Im]	[A] 8.49	8.55	8.61	8.67	8.73	

Values at Standard Test Conditions STC(Air Mass AM1.5, irradiance 1000W/m², Cell Temperature 25°C).

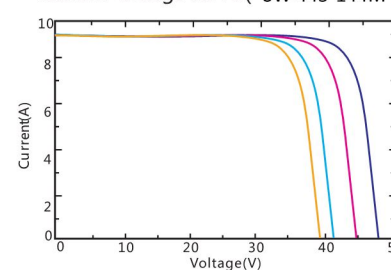
NOCT: Irradiance at 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s.

Temperature Coefficients

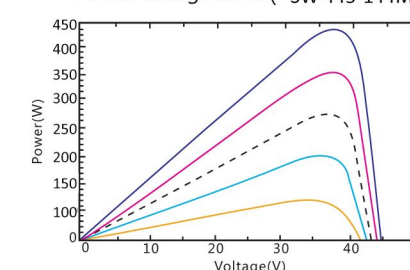
Parameter	Unit	Value
Temperature Coefficient of Pmax	[%/°C]	-0.44
Temperature Coefficient of Voc	[%/°C]	-0.34
Temperature Coefficient of Isc	[%/°C]	+0.06

Electrical Curves

Current-voltage curve (SW 445-144M)



Power-voltage curve (SW 445-144M)



Current-voltage curve (SW 445-144M)

