

High-efficiency photovoltaic module using multicrystalline solar cells.



Performance

Rated power [P _{max}]	48W
Power tolerance	+10, -5%
Limited Warranty	20 years

Electrical Performance under Standard Test Conditions(*STC)

Maximum power [P _{max}]	48W
Open-circuit voltage [Voc]	22.1V
Short-circuit current [Isc]	2.89A
Maximum power voltage [Vpm]	18.6V
Maximum power current [Ipm]	2.59A
Maximum Series fuse rating	15A
Maximum system voltage	600VDC

*STC : Irradiance 1000W/m², AM1.5 spectrum, module temperature 25°C

Electrical Performance at 800W/m², NOCT*, AM1.5

Maximum power [P _{max}]	34W
Open-circuit voltage [Voc]	20.5V
Short-circuit current [Isc]	2.26A
Maximum power voltage [Vpm]	17.1V
Maximum power current [Ipm]	2.02A

*NOCT (Nominal Operating Cell Temperature) : 47°C

Mechanical Characteristics

Dimensions	Length : 560mm Width : 680mm Depth : 38mm (tolerance ± 2 mm)
Weight	4.5kg
Solar Cells	36cells in a 4 x 9 matrix connected in series
Output Cables	Cable with polarized weatherproof DC rated connectors; Cable length:1000mm (+ -)
Construction	Front: High-transmission 3.2mm low iron tempered glass; White back sheet Encapsulant; EVA
Frame	Anodized aluminum frame; Color: silver

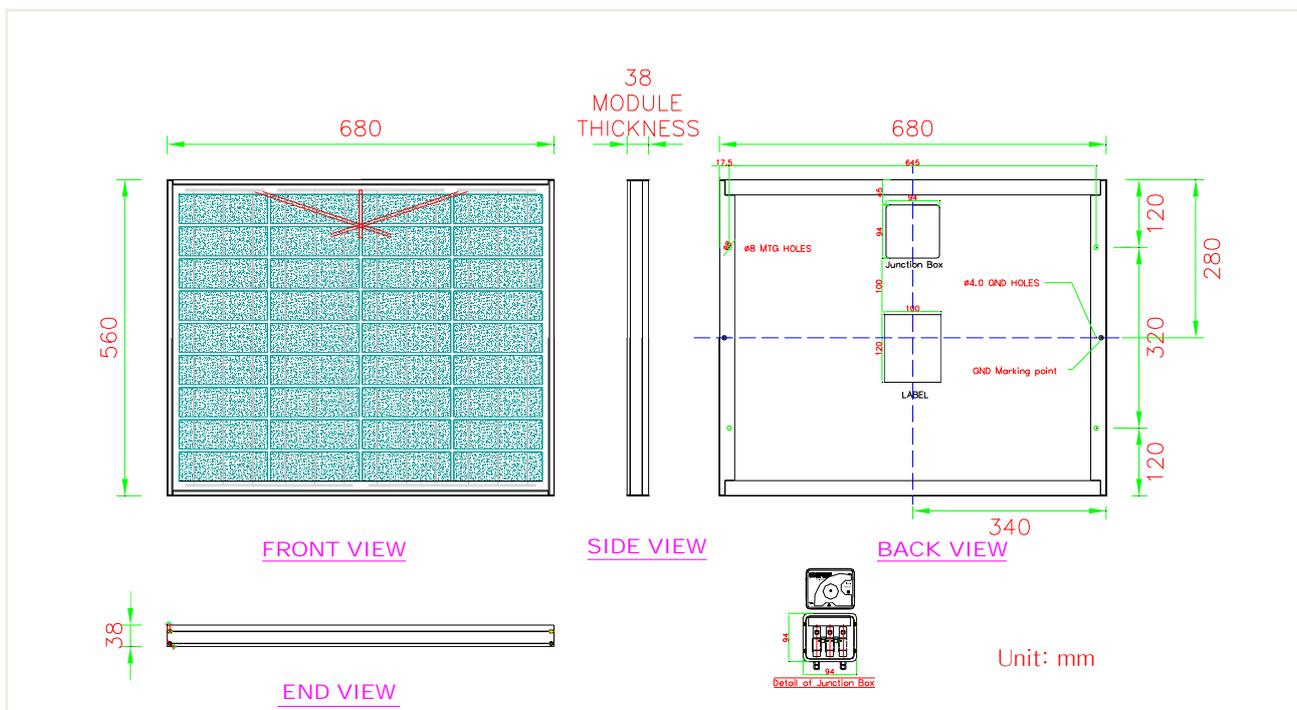
- Warrant : Power output for 20 years
(10% of minimum output power per 10 years, 20% of minimum output power per 20 years).
Free from defects in materials and workmanship for 3 years.
- These data represent the performance of typical SM-48KSM products, and are based on measurements made in accordance with ASTM E1038 corrected to SRC (STC)

Qualification Test Parameters

Tests are proceeded by IEC 61215 standard.

Thermal cycling Range	-40°C to +85°C
Humidity Freeze, damp heat	-40°C to +85°C (85% RH), 85°C (85% RH)
Mechanical load	2400Pa
Hailstone impact	25mm at 23m/s
STC	1000W/m ² ; 25°C ; AM 1.5

Module Diagram



NOTE : This publication summarizes product warranty and specification, which are subject to change without notice