

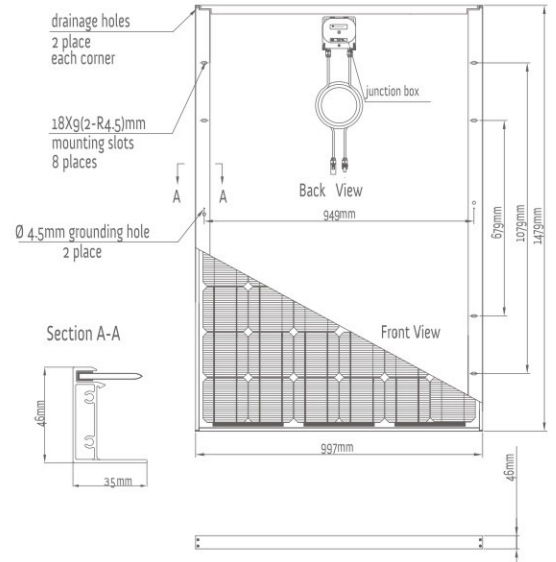
# Monocrystalline Solar Module

# 156x156mm 6x9 Cells

## ► Electrical characteristics

TUV-Model	UL-215M-54	UL-220M-54	UL-225M-54	UL-230M-54
UL-Model	UL-215M	UL-220M	UL-225M	UL-230M
Max. Power Pm (W)	215	220	225	230
Max. Power Voltage Vm (V)	27.2	27.3	27.5	27.6
Max. Power Current Im (A)	7.91	8.06	8.20	8.34
Open-Circuit Voltage Voc (V)	33.4	33.6	33.9	34.1
Short-Circuit Current Isc (A)	8.51	8.61	8.71	8.83
Cell Efficiency	16.7	17.0	17.4	17.8
Module Efficiency	14.6	14.9	15.3	15.6
Power Tolerance	0~+3%			
Max. System Voltage (V)	1000 (TUV) / 600 (UL)			
Temperature Coefficient of Isc	+0.065%/°C			
Temperature Coefficient of Voc	-0.330%/°C			
Temperature Coefficient of Pmax	-0.403%/°C			
Operating Temperature	-40°C~+85°C			
NOCT	45±2°C			
Series Fuse Rating (A)	15			

STC: irradiance: 1000 W/m<sup>2</sup>; Solar spectrum: AM 1.5; cell temperature: 25°C



## ► Mechanical characteristics

Module Dimension (mm)	1479x997x46
Cell Dimension (mm)	156x156
Array (PCS)	6x9
Weight (kg)	17.5

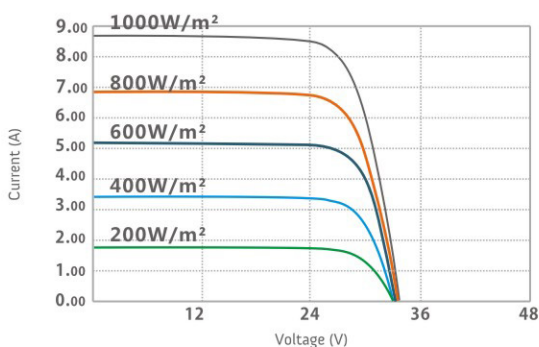
## ► Guarantee

- 10-year product guarantee
- 12-year performance guarantee at 90% power output
- 25-year power guarantee at 80% power output

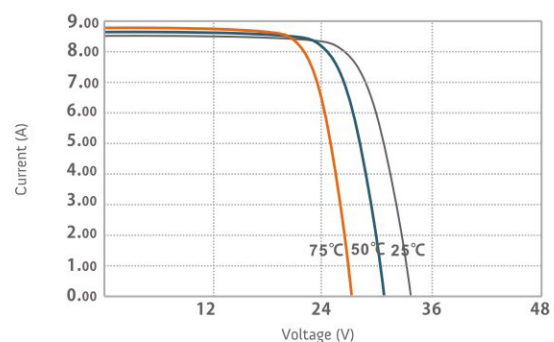
## ► Note

- Nominal operating cell temperature above data is only for reference
- Deviation of Vm(V), Im(A), Voc(V) and ISC(A) of ± 10%
- Due to continuous Innovation, research and improvement, the specification is subject to change without prior notice.

## ► I-V Curves



I-V Curves at different irradiance



I-V Curves at different temperature