

Polycrystalline Solar Module

Series P-050.18-A545



INTRODUCTION

SOKOYO photovoltaic(PV) modules are assembled by high-performance A-class cells and encapsulated by a durable back sheet, are capable of converting energy from incident lights on the front and diffuse light, as well as reflected and scattered light on rear sides, which make them better reliable, superior low irradiance performance, and excellent energy generation performance.



High-Quality Guarantee

EL TEST twice 100% for semi-finished and finished products to eliminate defectives.



Afford Any Bad Weather

Certificated 2400-Pascal wind and snow load.



Efficiency Under Dim

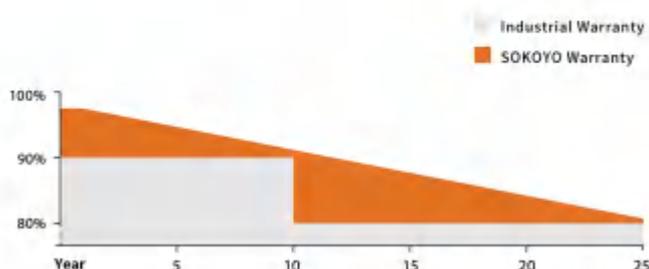
Using advanced glass and textures. Superior low irradiance performance.



Higher Efficiency

High efficiency of conversion by using the new manufacturing technique and A-class cell.

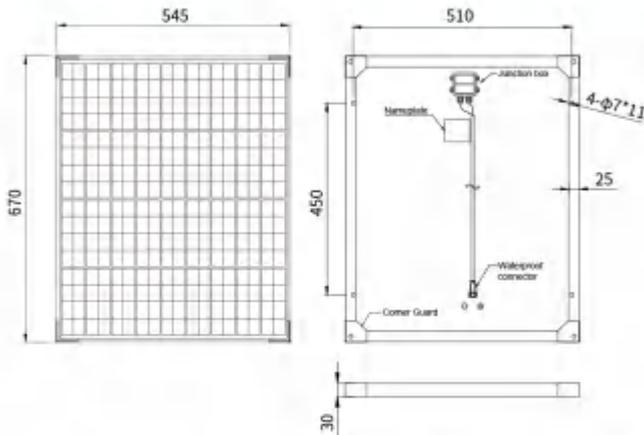
Linear Graph of Performance Warranty



Comprehensive Certificates

- IEC 61215, IEC 61730
- ISO 9001: 2015 Quality management systems
- ISO 14001: 2015 Environmental management systems
- OHSAS 18001: 2007 Occupational health and safety management systems
- RoHS-2011/65/EU



MECHANICAL DIAGRAMS

SPECIFICATIONS

Cell	A Class Poly
Frame (material)	anodized aluminum alloy
Low-iron tempered glass	3.2mm
Mount Hole	4-φ7*11
No. of cells	36
Junction Box	IP65
Cable Connector	M18
Cable Length	according to system design
Packaging Configuration	4pcs Per Carton

Remark: customized cable length available upon request . Installation Holes Distance(D) depends on final order confirmation.

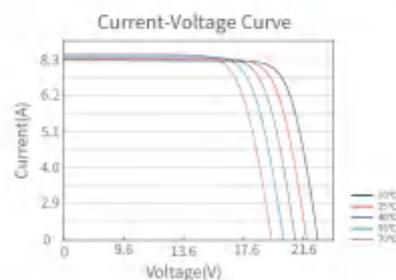
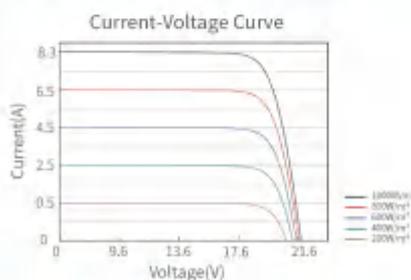
ELECTRICAL PARAMETERS AT STC

TYPE	P-050.18-A545
Rated Maximum Power(Pmax) [W]	50
Maximum Power Voltage(Vmp) [V]	18
Open Circuit Voltage(Voc) [V]	21.6
Short Circuit Current(Isc) [A]	3.00
Maximum Power Current(Imp) [A]	2.78
Module Efficiency [%]	17
Power Tolerance	±3W
Temperature Coefficient of Isc(α _{Isc})	+0.060%/°C
Temperature Coefficient of Voc(β _{Voc})	-0.300%/°C
Temperature Coefficient of Pmax(γ _{Pmp})	-0.370%/°C
STC	Irradiance 1000W/m ² , cell temperature 25°C, AM1.5G
Dimensions (mm)	670*545*30(mm)
Weight (KG)	3.90kg

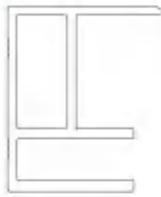
ELECTRICAL CHARACTERISTICS AT NOCT

Rated Max Power(Pmax) [W]	37.50	Maximum System Voltage	700V DC(IEC)	
Open Circuit Voltage(Voc) [V]	20.30	Operating Temperature	-40°C~+85°C	
Max Power Voltage(Vmp) [V]	16.92	Maximum Series Fuse	15A	
Short Circuit Current(Isc) [A]	2.39	Maximum Static Load,Front	2400Pa	
Max Power Current(Imp) [A]	2.22	Maximum Static Load,Back	2400Pa	
NOCT	Irradiance 800W/m ² , 20°C ambient temperature, 1m/s wind speed.		NOCT	45±2°C

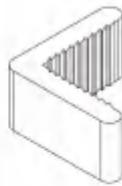
Remark: the above data do not refer to a single module and they are not part of the offer, only serve for comparison among different module types.

CHARACTERISTICS


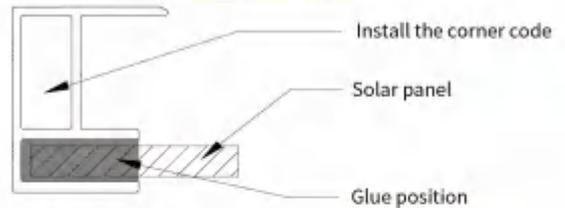
STRUCTURE DISPLAY



Profile Section



Docking corner code



Profile installation section

PRODUCT DETAIL



Aluminum Alloy Frame

Anodized aluminum frame for high corrosion resistance
Up to 25 years of service life
Improved load resistance capabilities for heavy wind loads



Protect Corner

Protect the solar panel frame during transportation
Do not deform under the action of external force
Protect the safety of the installer during the installation process



High Transmission Low Iron Tempered Glass

3.2mm thickness
>91% higher light transmittance
Work normally under 5400Pa snow load
High mechanical strength



EVA

>91% higher light transmittance
Higher gel content to provide good encapsulation
And protect cells from vibration with longer durability

Panel Label

SOKOYO [®] PHOTOVOLTAIC MODULE	
at STC (E=1000W/m ² , I _{sc} =1.5, T=25°C)	
ELECTRICAL PARAMETERS	
Maximum Power (P _{max})	48 W
Tolerance of P _{max}	±5 %
Voltage at P _{max} (V _{mp})	18 V
Current at P _{max} (I _{mp})	2.78 A
Open Circuit Voltage (V _{oc})	21.6 V
Short Circuit Current (I _{sc})	3.00 A
Maximum Series Fuse	15 A
Maximum System Voltage	750 Vdc
PHYSICAL PARAMETERS	
Solar Cell Material	poly-crystalline
Cell Arrangement	4*9 in series
Module Net Weight	3.80 kg
Module Dimension	420*148*35mm

CE

□



External View of Junction Box



High-performance Fluorine and Strong TPT Film Standard



Inside View of Junction Box

