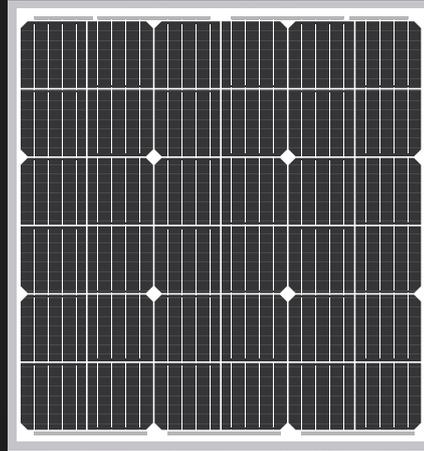# ST-50P-12
High Efficiency Monocrystalline PV Module

- Nominal 12V DC for standard output.
- Outstanding low-light performance.
- Heavy-duty anodized frames.
- High transparent low-iron, tempered glass.
- Designed to withstand high wind pressures, hail and heavy snow.
- Quality aesthetic appearance.

36 CELL
MONOCRYSTALLINE MODULE

50W
POWER OUTPUT

20.00%
MODULE EFFICIENCY

5%
POSITIVE TOLERANCE

High Efficiency
Module Efficiency improved through advanced cell technology and manufacturing capabilities

High PID Resistance
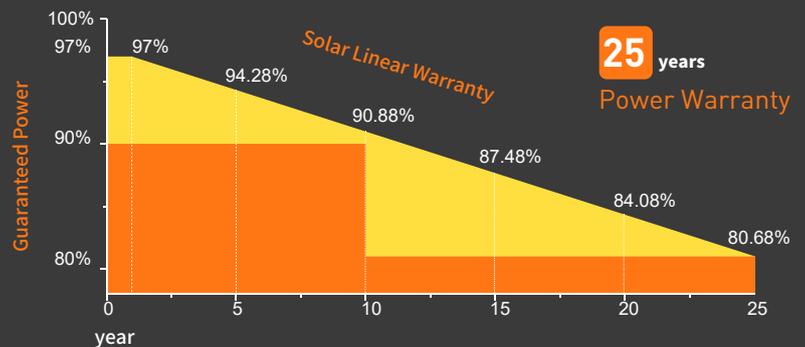Advanced cell technology and qualified materials lead to high resistance to PID

Withstands Harsh Environment
High PID resistance, 5400 Pa positive load, 2400 Pa negative load, Salt mist (IEC 61701)

Performance Warranty
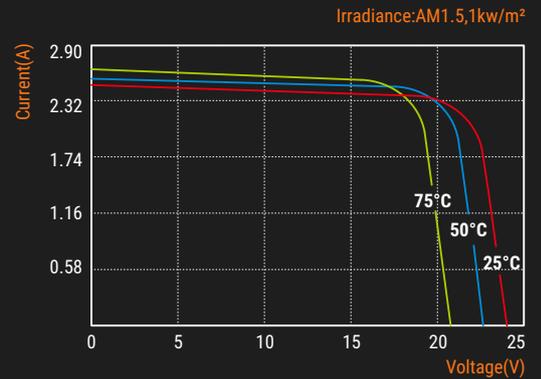
10 years
Product Warranty

25 years
Power Warranty

Guaranteed Power

100%	
97%	97%
	94.28%
	90.88%
90%	87.48%
	84.08%
80%	80.68%

Solar Linear Warranty

0   5   10   15   20   25
year

Positive mechanical load	>5400Pa
Positive Power Tolerance	0~+5W
Warranty Information	2 Year Product Workmanship

SLD TECH®

Electrical Characteristics

Product code	050P3601A
Maximum power (Pmax)	50W
Voltage at Pmax (Vmp)	20.84V
Current at Pmax (Imp)	2.40A
Open-circuit voltage (Voc)	24.04V
Short-circuit current (Isc)	2.53A
Temperature coefficient of Voc	-(80±10)mV/°C
Temperature coefficient of Isc	(0.065±0.015)%/ °C
Temperature coefficient of power	-(0.5±0.05)%/ °C
NOCT (Air 20°C; Sun 0.8kW/m² wind 1m/s)	47±2°C
Operating temperature	-40°C to 85°C
Maximum system voltage	1000V DC
Power tolerance	± 5%

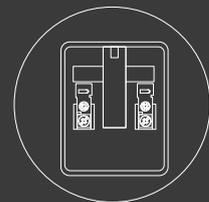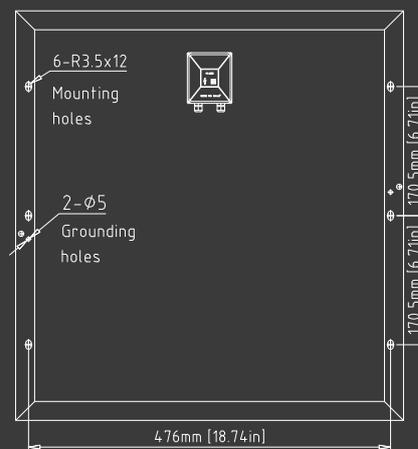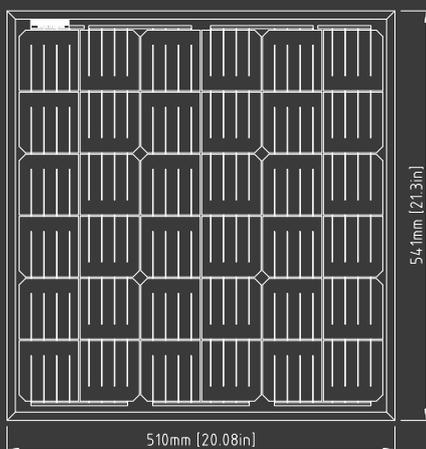*STC: Irradiance 1000W/m², AM1.5 spectrum, module temperature 25°C
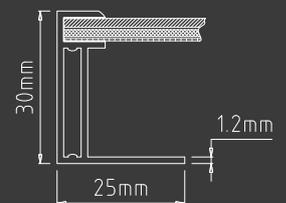*NOCT:Nominal operating cell temperature (the data is only for reference)

Irradiance:AM1.5,1kw/m²

I-V Curves

Specifications

Cells	Monocrystalline silicon solar cell
No. of cells and connections	36(6X6)
Module dimension	541mm[21.30in.]x510mm[20.08in.]x30mm[1.18in.]
Weight	3.29kg[7.26lbs]
Packing information(Carton)	590mm[23.23in.]x560mm[22.05in.]x80mm[3.15in.]/(1pc/ctn)

6-R3.5x12
Mounting holes

2-Φ5
Grounding holes

541mm [21.3in]

510mm [20.08in]

476mm [18.74in]

170.5mm [6.71in] 170.5mm [6.71in] 170.5mm [6.71in]

**Junction Box
Top View (Lid Open)**

30mm

25mm

1.2mm

Section A-A

Dimensions in brackets are in inches.
Un-bracketed dimensions are in millimeters.
Unit: mm[in.]