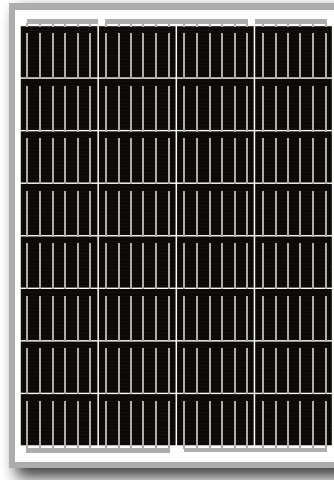


ST-050R-12CID2-QC

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.



272637
CLASS I, DIVISION 2,
GROUPS A, B, C AND D



5 years

Product Warranty

10 years

Power Warranty



Industry Compliant

This CID2-rated solar panel is suitable for industries that are at risk of gas explosions, meeting NFPA and NEC safety standards



Enhanced Safety

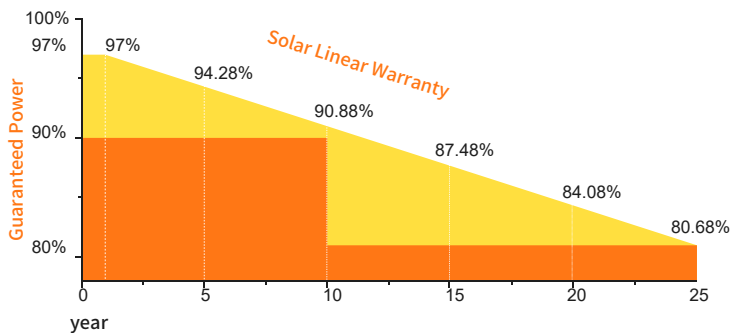
Equipped with specialized design elements, minimizing risk of ignition in hazardous environments, further adhering to CID2 certification standards



Mechanical Robustness & Reliability

Engineered for durability and reliability, capable of operating efficiently even in volatile and hazardous conditions, where safety and efficiency matter most

Performance Warranty



Wind Load/Snow Load:
2400pa/5400pa

Positive Power Tolerance :
0~+5W

Warranty Information :
5 Years Product Workmanship

Specifications

Cells	Monocrystalline silicon solar cell
No. of cells and connections	32(4x8)
Module dimension	25in.x18.03in.x1.38in. [635mmx458mmx35mm]
Weight	7.85lbs[3.56kg]

Rating Characteristics

Operating temperature	-40°C to 65°C
Maximum system voltage	600V/1000V DC
Power tolerance	0~± 3%
Module Fire Performance	Type 1 (for US)
Fire Resistance Rating	Class C (For Canada)
PV module application class	Class A
Temperature code rating	T3C

*NOCT:Nominal operating cell temperature (the data is only for reference)

Electrical Characteristics

Module Type	ST-050R-12CID2-QC
Maximum power (Pmax)	50W
Voltage at Pmax (Vmp)	17.27V
Current at Pmax (Imp)	2.90A
Open-circuit voltage (Voc)	20.61V
Short-circuit current (Isc)	3.06A
Module Efficiency	21.3%

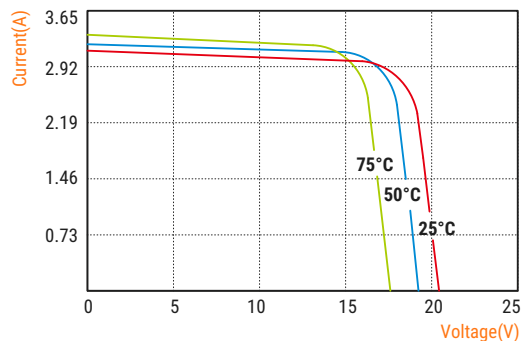
*STC: Irradiance 1000W/m², AM1.5 spectrum, module temperature 25°C

Temperature Characteristics

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/m ² wind 1m/s)	47±2°C

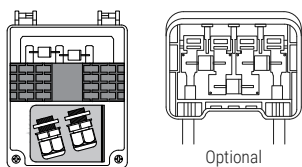
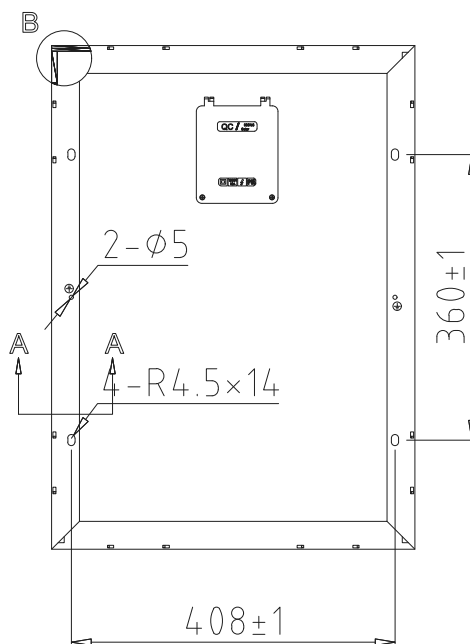
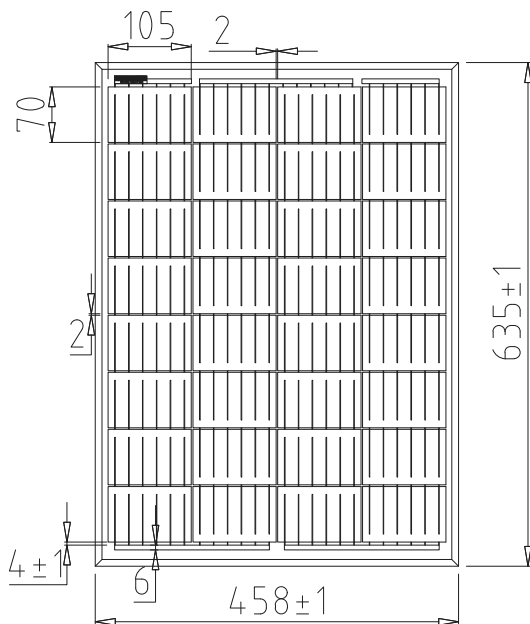
I-V Curves (STC)

ST-050R-12CID2(-QC)

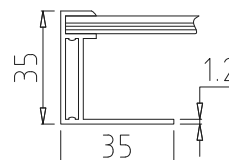


Mechanical Diagrams

ST-050R-12CID2(-QC)



Junction Box
Top View (Lid Open)



Section A-A