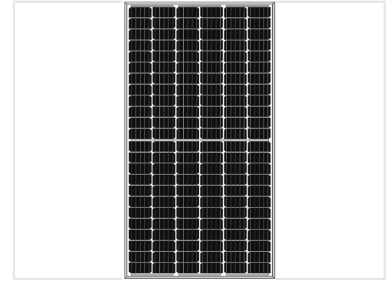


# 440W Monocrystalline Half-Cell Solar Panel

This 440W solar panel uses monocrystalline half-cut cells to maximize light capture and energy conversion efficiency. It is designed for durability and high power output in a variety of solar applications.



## Product Overview

### High-Efficiency 440W Monocrystalline Solar Solution

This 440W monocrystalline solar panel utilizes advanced half-cut cell technology to maximize energy conversion and minimize power loss from shading. Engineered for durability in diverse environments, it features a robust anodized aluminum frame and high-transmission tempered glass. Ideal for residential, commercial, and industrial applications, this panel provides a reliable, high-output solution for both grid-tied and off-grid solar energy systems.

## Key Performance Metrics

### Performance Highlights

**440 W**

Peak Power (Pmax)

**22.3 %**

Cell Efficiency

**19.81 %**

Module Efficiency

## Electrical Specifications (STC)

Specifications	Mechanical characteristics
STC Irradiance: 1000 W/m <sup>2</sup> , AM 1.5, G and cell temperature of 25°C	Cell Type: 166x81 Mono
Peak Power (Pmax): 440.00	No. of Cells: 144 (3x12)
Maximum Power Voltage (Vmp): 41.00	Dimensions: 2115*1050*4
Maximum Power Current (Imp): 10.74	Weight: 23.5kg
Open Circuit Voltage (Voc): 49.60	Front Glass: 3.2mm high transmission low iron tempered glass
Short Circuit Current (Isc): 11.33	Frame: Anodized Aluminum Alloy
Cells Efficiency (%): 22.30	Junction box: IP68, 3 blocks
Module Efficiency (%): 19.81	Output cables: 4mm <sup>2</sup> cable 300mm±
IP65, irradiance: 1000 W/m <sup>2</sup> , AM 1.5G, ambient temperature 25°C, wind	Max Wind Load/Snow: 2400Pa/5kN/m <sup>2</sup>

Comprehensive technical datasheet including dimensions, electrical parameters, and mechanical structure.

## Standard Test Conditions Data

Parameter	Value
Maximum Power Voltage (Vmp)	41.00V
Maximum Power Current (Imp)	10.74A
Open Circuit Voltage (Voc)	49.60V
Short Circuit Current (Isc)	11.33A

## Mechanical Characteristics

### Cell Configuration

- Cell Type: 166x83mm Monocrystalline
- Number of Cells: 144 (12x12)
- Glass: 3.2mm High Transmission, Low Iron, Tempered Glass
- Frame: Anodized Aluminium Alloy

### Physical Dimensions

2115 x 1050 x 40 mm

### Weight

23.5 kg

## Technical Features

### Junction Box Rating

IP68 • 3 Diodes

### Mechanical Load Capacity

- Max Wind Load: 2400 Pa
- Max Snow Load: 5400 Pa

### Output Cables

4mm<sup>2</sup> cable 90cm + MC4 connectors

## Warranty

### Warranty Coverage

- 12 Years Guarantee on product material and workmanship
- 30 Years Linear Power output warranty