Photovoltaic Solar Module

Photovoltaic solar modules convert sunlight into electricity. These modules are designed for system stability with a power generation efficiency attenuation that shall not exceed 20% over 25 years.

Product Overview

High-Efficiency Solar Power

This advanced monocrystalline photovoltaic module is engineered for high-yield energy conversion in residential, commercial, and utility-scale projects. Designed for durability and stability, it features a robust frame and advanced cell technology that ensures consistent power generation even under varied environmental conditions. With an impressive 19.8% conversion efficiency, it provides a reliable, maintenance-free solution for long-term sustainable energy integration.

Technical Specifications

Performance Metrics

400 W	42.29 V	9.46 A	19.8 %
Peak Power	Best Working Voltage	Best Working Current	Conversion Rate

Voltage & Current Ratings

Parameter	Value
Open Circuit Voltage	49.10 V
Short Circuit Current	10.35 A
Maximum System Voltage	1500 V DC
Maximum Protection Current	20 A

Construction & Durability

Physical Dimensions

Attribute	Measurement
Cell Type	Mono-crystalline
Cell Quantity	144 (6*24)
Dimensions	2014mm * 1002mm * 35mm
Weight	22.5 kg

Environmental Resilience

- Operating Temperature: -40°C to +85°C
- Rated Operating Temperature: 45±2°C
- Open Circuit Voltage Temperature Coefficient: -0.34%/°C
- Short Circuit Current Temperature Coefficient: +0.05%/°C
- Peak Power Temperature Coefficient: -0.46%/°C

System Benefits

Large-scale installation showing effective land-use integration.

Photovoltaic modules arranged in rows across a terraced landscape.

Optimized module placement for maximum sunlight absorption.

Robust crystalline silicon modules integrated with rural infrastructure.

Core Advantages	System Stability, Maintenance Free, Architectural Integration, Low Attenuation