

# High-Efficiency Solar Panel with Integrated Optimizer

This high-efficiency solar panel features an integrated cell-string level optimizer. The redesigned module maximizes power output and enhances energy harvest in various conditions.



## Product Overview

### Smart Energy Solution

This high-efficiency photovoltaic module features an integrated cell-string level DC optimizer to maximize power output. By eliminating hot-spot issues and enhancing energy harvest under various environmental conditions, it offers a robust alternative to conventional solar panels. The design supports flexible PV system layouts, allowing for 20-35% more modules per string to reduce Balance of System (BoS) costs.

## Key Features

Suitable Applications

Residential, Commercial, Utility-scale

## Performance Comparison

Benefit	Conventional	Seraphim MX		
	Diode		Panel Optimizer	AC Module
Improves Panel Reliability	×	✓	×	×
Flexible System Design	×	✓	✓	✓
Broad Inverter Compatibility	✓	✓	×	×
DC Monitoring	Add only if needed		always included in cost	
Rapid Disconnect	Add only if needed		always included in cost	
Relative Cost	---	✓	×	×

Technical comparison of advanced integrated solar technology versus conventional solutions.

## Comparative Analysis

Feature	Conventional	Advanced Integrated
Reliability	Standard	Enhanced
System Design Flexibility	Limited	High
Inverter Compatibility	Broad	Broad
Hot-spot Elimination	No	Yes

## Efficiency Gains

**35 %**

Max String Capacity Increase