AMCP

Smart PV Optimizer

⚡ Optimization   ☁ Design Flexibility   📈 Monitoring   ▱ Multi-layer Protection   🔧 Quick Installation
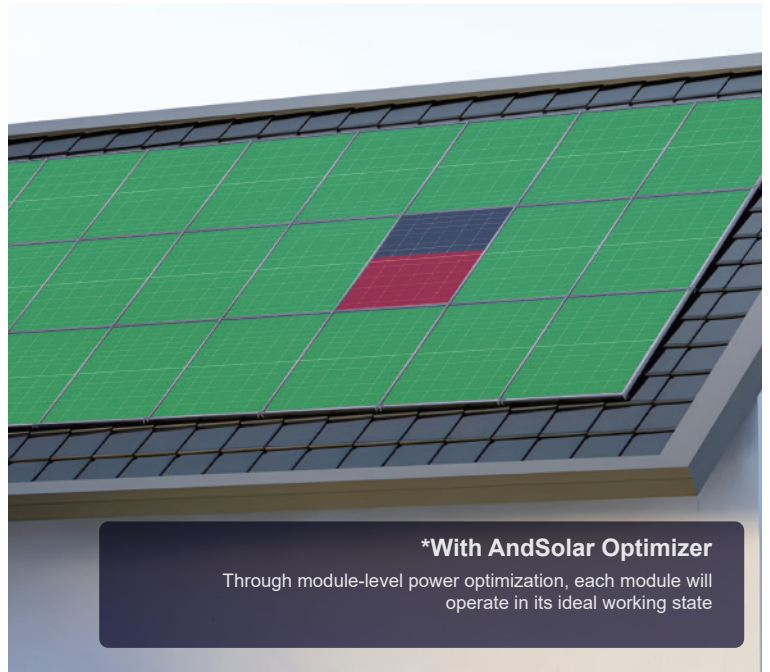
Optimization

Resolving system mismatch issue, increasing power generation by **5-25%**

*Without AndSolar Optimizer

In traditional PV systems, the barrel effect of a single faulty PV module due to **dust, shading, blockage, damage, varied PV degradation,** will affect the performance of the entire string

*With AndSolar Optimizer

Through module-level power optimization, each module will operate in its ideal working state

Design Flexibility

More installed PV panels equal to higher power generation, flexible system design

Flexible System Design

*Without AndSolar Optimizer

*With AndSolar Optimizer

Allowing installation of up to **25%** more PV modules

Oversized String Design

*Without AndSolar Optimizer

String①

String②

*With AndSolar Optimizer

String①

Increasing the quantity of PV modules in a string up to **25%** , reducing system installation cost
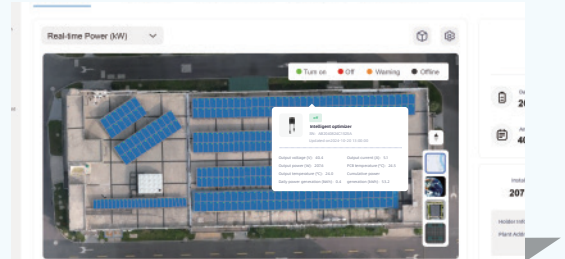
Monitoring

Increasing O&M efficiency by more than **50%**
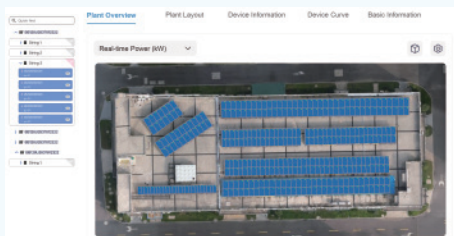
Physical Positioning

Generate a 1:1 virtual twin power station to quickly locate module locations

Data Monitoring

View each individual module voltage, current, power, electricity generation, temperature and other data in real time

Data Playback

Dynamically display the station operational data

Full Life Cycle Monitoring
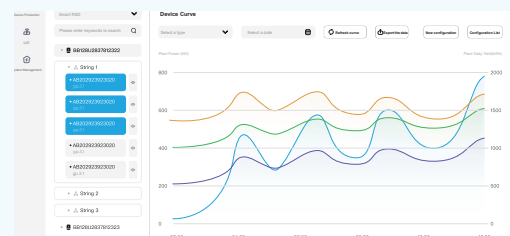
Monitoring of the entire life cycle of a power station, with operational data easily accessible

Multi-layer Protection

Protect the safety of PV system

Safety Assurance

< 30s

1000V   80V
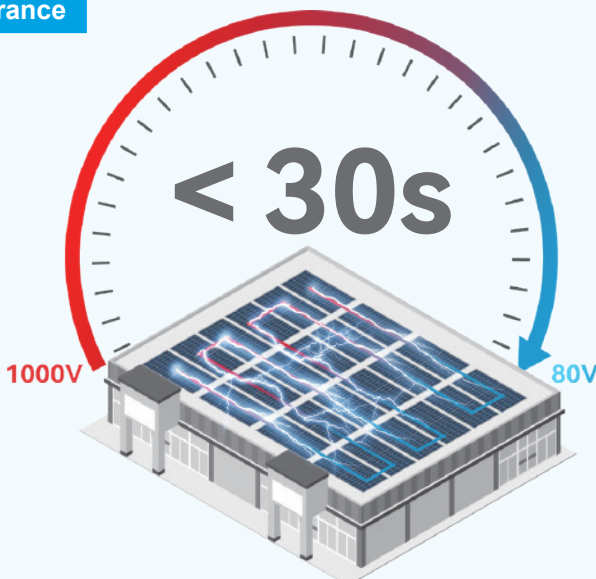
Modul level rapid shutdown, system voltage reduced to safe voltage(below 80v) within **30s**, compliance to NEC 2017&2020(690.12) regulation

Various Shutdown Methods

High Temperature Auto Shutdown
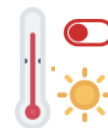
Cloud Platform Remote Shutdown
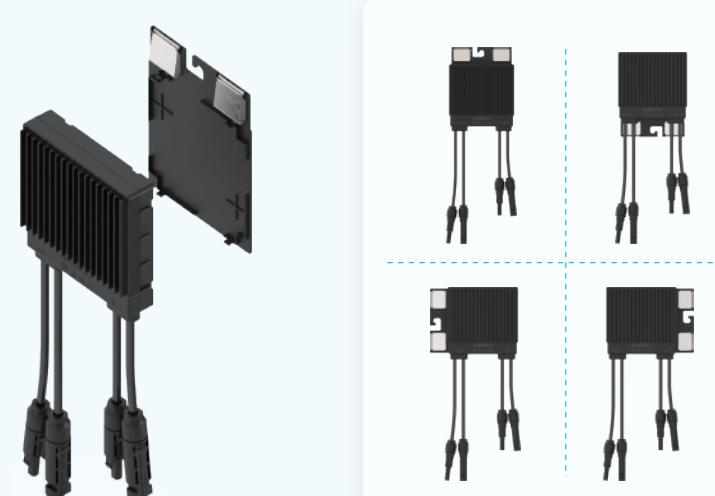
On-site Physical Manual Shutdown

Quick Installation

Innovative split design, and installation can be completed within **30s**

Innovative Split Design

180-degree bending

Traditional Wiring Method ❌

AndSolar Optimizer Wiring Method ✅

Four-way outlet enhances installation flexibility, saves wires, and avoids 180-degree bending

Installation Methods

① Clip installation method

② Bolt installation method

Certification

Product Parameters

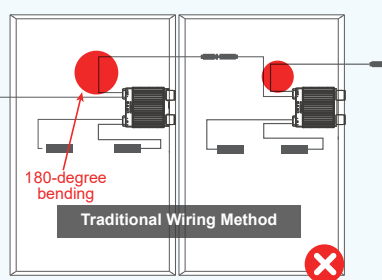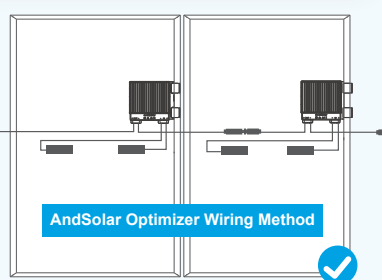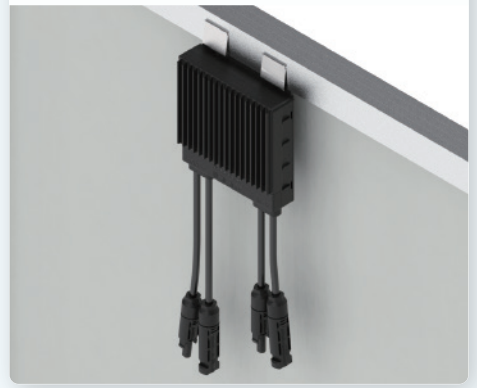| Model	AMCP500-600T1	AMCP600-750T1
Input Parameters		
Rated Power	600W	750W
Maximum Input Power	650W	900W
MPPT Voltage Range	12-80V	
Maximum Input Current	16A	22A
Overvoltage Level	II	
Output Parameters		
Voltage Range	0-80V	
Maximum Output Current	16A	22A
Maximum Voltage in Disconnected State	1V	
Maximum System Voltage	1500V	
Efficiency		
Maximum Efficiency	99.60%	
Weighted Efficiency	99.00%	
Structure Parameters		
Dimensions (W*D*H)	120*33*155mm	
Input/Output Connectors	MC4/Compatible with MC4/Customizable	
Input Cable Length	0.6m/1.2m/Customizable	
Output Cable Length	0.75m/Customizable	
Ingress Protection Rating	IP68	
Environment Parameters		
Temperature Range*	-40℃~+85℃	
Relative Humidity Range	0~100%	
Highest Altitude	4000m	
Other Parameters		
Communication Method	HPLC	
User Interface	WEB+APP	
Certification		
Safety	IEC 62109-1, EN 62109-1, NEC 2017&2020(690.12)	
EMC	IEC/EN 61000-6-1/-2/-3/-4	

* When the operating temperature exceeds 70°C, the device may work in de-rating mode and return to normal operating mode after the operating temperature decreases;

Product Feature

	Features	AndSolar Smart Optimizer	Other Brands Optimizer
Specifications	Compatible PV Power	500-900W	650W
	Maximum Rated Current	22A	20A
	Max. Efficiency	99.6%	99.5%
	Overload Capacity	1.1-1.2X	1X
	Max. Communication Distance	800m	300m
Basic Features	Module Level Power Optimization（MPPT）	√	√
	Module Level Rapid Shutdown	√	✕
	Oversized String Design	√	✕
	Fault Warning	√	✕
Smart Features	Module Level Data Monitoring	√	✕
	Graphic Data Display	√	✕
	Output Curve and Comparison	√	✕
	Module Level Physical Positioning	√	✕
	Early Warning Active Protection	√	✕
	Digital Work Orders	√	✕
	Fault Analysis	√	✕
	O&M Strategy Analysis	√	✕
	System Loss Analysis	√	✕
	Full Life Cycle Asset Management	√	✕
	Remote Upgrade（OTA）	√	✕

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