AndSolar

AMCL

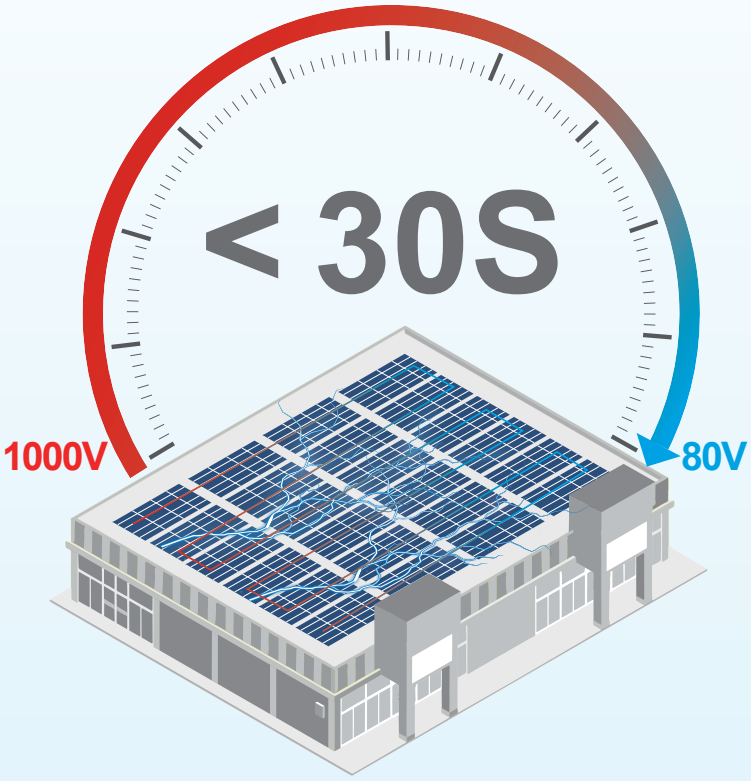
Smart Rapid Shutdown Device

Multi-layer Protection | Smart Monitoring | Quick Installation | Flexible Design

Multi-layer Protection

Protect the safety of the power plant

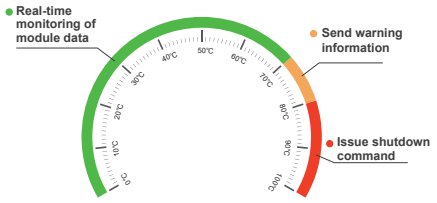
Module-level RSD



Decrease to safe voltage within **30S**
compliance to **NEC 2017/2020/2023(690.12)** regulation

Active and passive safety strategy

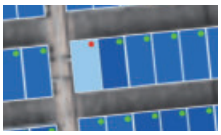
High Temperature Auto Shutdown



Cloud Platform Response

Cloud Platform Remote Shutdown

Shutdown the power plant



Shutdown one module

On-site Manual Shutdown

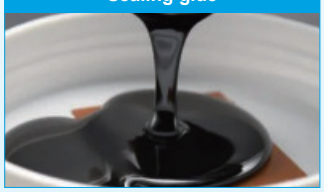
Respond to emergencies immediately to ensure safety

Highest Standard of Flame Retardant Grade : 5VA

Each material complies with the 5VA flame retardant grade in the **U.S. UL94 standard**

Casing

Sealing glue



DC cable

Terminals

Smart Monitoring

Comprehensive understanding of every PV module

Significantly improve O&M efficiency by 50%

- **Reducing inspection frequency by module-level data monitoring**

Traditional solution

Traditional photovoltaic power plants have low monitoring accuracy, and maintenance teams are required to conduct on-site inspections 2-3 times per quarter to ensure safety

2~3 times/quarter

VS

AndSolar solution

AndSolar Cloud enables real-time monitoring of your PV system and module operation status, reducing inspection frequency

1 time/quarter

- **1:1 restoration of the actual power plant scene, remote troubleshooting**

Traditional troubleshooting

If the capacity is 200kW with 350 modules, the investigation is expected to take 4 hours

4+ hours

VS

Remote troubleshooting

AndSolar Cloud→Warning List→Plant Details→Fault Location
More helpful for large-scale and operationally inconvenient projects

5 mins

- **Module-level management, remote shutdown low-efficiency or faulty modules and improve revenue**

Traditional management method

Unable to shutdown low efficiency modules in a timely manner results in reduced power generation efficiency of the power plant, requiring manual O&M, and increasing operating costs

Reduce power plant revenue

VS

Module-level management

The faulty modules can be shutdown in time to improve the power generation efficiency, and the power plant problems can be solved together to save O&M costs

Improve power plant revenue

Precise Module-level monitoring around 24/7

- **Data playback and locate problems**

Replay daily operating data to identify potential problems in power plants

- **Maximize ROI with AI integrated**

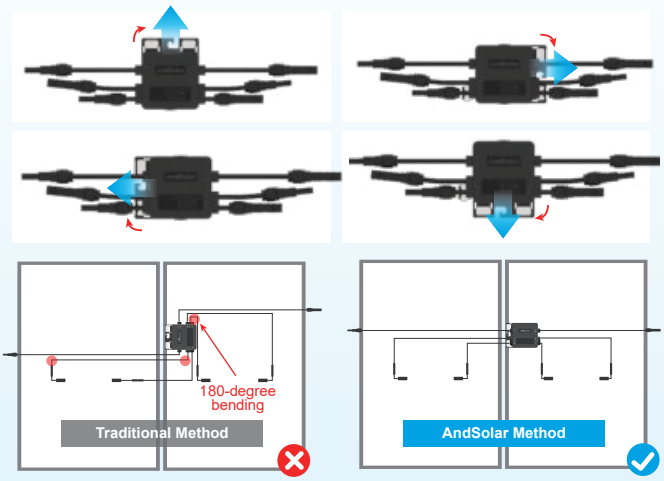
*Launching in H1 2026

Precise module-level management powered by AI, ensure the profit of your power plant

Quick Installation

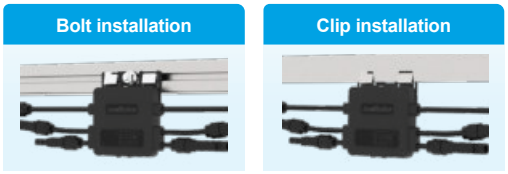
Innovative design, and installation can be completed within **30S**

Rotatable installation design



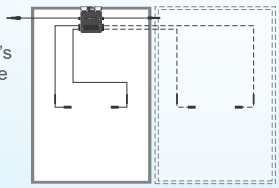
The first four-way rotatable installation design, saving wires and avoiding 180-degree bending

Installation methods



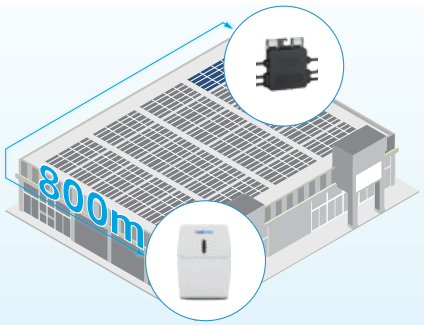
Supported pre-installation with PV modules

Enhance the connector's compatibility and reduce cost up to **15%**



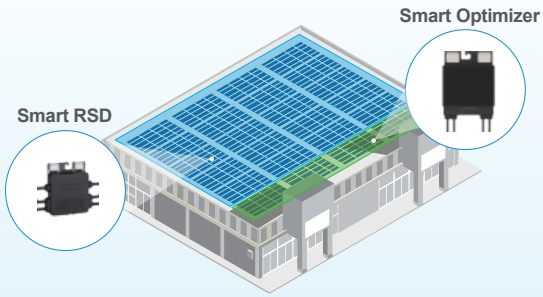
Flexible Design

Communication distance: 800 meters



Meet the larger-scale of C&I projects

Mixed installation



Allow mixed installation of RSD and power optimizers meets the needs of various scenarios

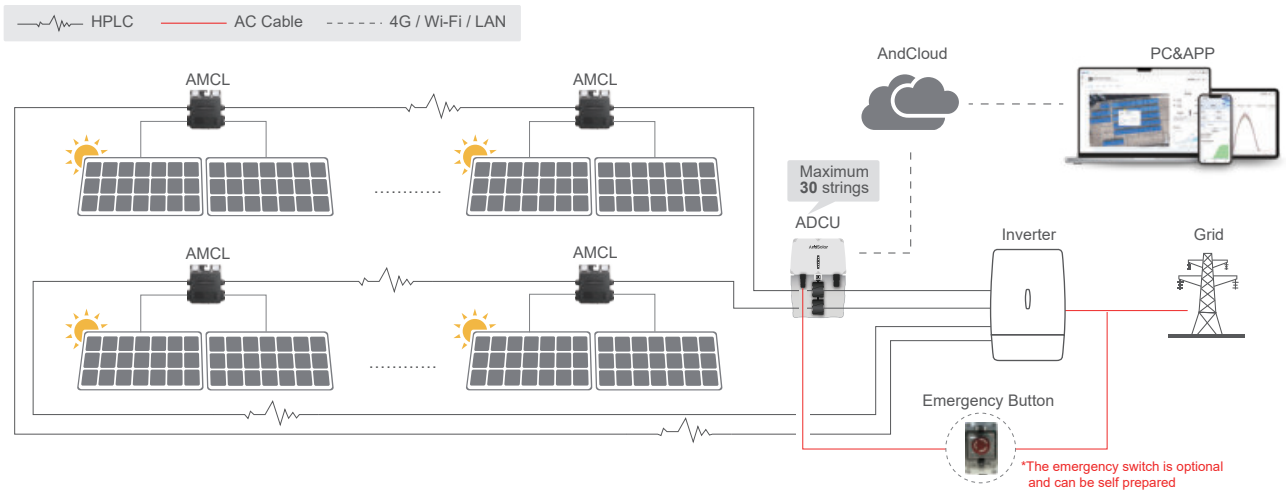
Product Features

	Features	AndSolar Smart RSD	Other Brands RSD
Specifications	Compatible PV Current	15-25A	15A
	Max. Communication Distance	800m	300m
	Working Voltage	8-120V(Dual-channel)	10-80V (Single-channel)
Basic Features	Module-level Rapid Shutdown	√	√
	Active Safety Protection	√	×
	Fault Warning	√	×
	Shutdown Method	On-site Shutdown&Remote Shutdown&Active Shutdown	On-site Shutdown
	Control Level	Module-level	String-level
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)	√	×

Product Parameters

Model	AMCL-D2	AMCL-E2	AMCL-F2
Input			
Voltage Range	8-80V Single-channel, 8-120V Dual-channel		
Maximum Input Current	15A	20A	25A
Maximum Short-Circuit Current	30A		
Output			
Voltage Range	8-120V		
Maximum System Voltage	600/1000/1500V		
Maximum Output Current	15A	20A	25A
Maximum Voltage in Disconnect State	1V		
Structure Parameters			
Dimensions (W*D*H)	103*23*105mm		
Input/Output Connectors	MC4/Compatible with MC4/Customizable		
Input Cable Length	PV1: 0.3m(+), 0.6m(-)/0.7m(+), 1.5m(-)/Customizable		
	PV2: 0.3m(-), 0.6m(+)/0.7m(-), 1.5m(+)/Customizable		
Output Cable Length	0.3m(+), 2.7m(-)/Customizable		
Ingress Protection Rating	IP68/Tpye 6P		
Flame Retardant Grade	UL94 5VA		
Environment Parameters			
Temperature Range	-40℃-+85℃		
Relative Humidity Range	0-100%		
Other			
Communication Method	HPLC		
User Interface	WEB+APP		
Certification			
Safety	NEC 2017/2020/2023(690.12), UL1741, CSA C22.2 No.330, UL3741, IEC/EN 62109-1		
EMC	FCC Part15, IEC/EN 61000-6-1/-2/-3/-4		

System Topology



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