



MR Series

Module-Level Micro Controller

Monitoring & Rapid Shutdown Function Series



Module-Level Rapid Shutdown

Reduce the voltage to 1V within 30s



Module-Level Monitoring

1:1 digital twin virtual power station
Real-time monitoring and diagnosis of panel status



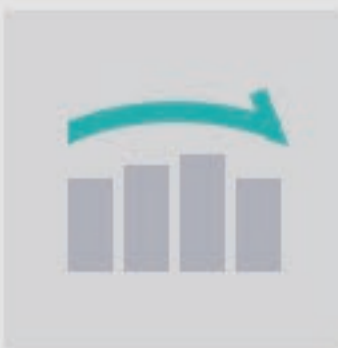
The MR series not only has a module-level rapid shutdown function, meeting the safety requirements of the US NEC 690.12-2014, 2017 and 2020 for photovoltaics, but also can monitor the power, voltage, current and other parameters of any panel in real time, and collect and upload them to the Acloud platform through the data controller (V2.5 data control box).

1:1 digital twin virtual power station can realize convenient operation and maintenance of solar system, in-depth health scan and operation data analysis of each single panel, realizing intelligent analysis of solar system.



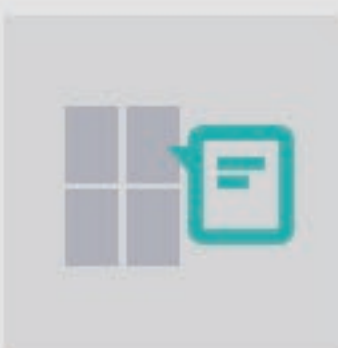
Reduce the voltage to 1V within 30s

Compatible with any third party PV inverters
Achieving module-level safe and rapid shutdown within 30s (safety mode)



Intelligent operation costs reduced by 50%

Equipped with Acloud smart platform
Monitoring and controlling power station operation anytime and anywhere



Digital Twin Power Station One-Stop Control

1:1 digital twin virtual power plant,
Achieving intelligent power plant operation and maintenance and in-depth module-level health scan



Multiple efficient and convenient installation methods

Installed on the bracket or the edge of the solar panel using M6 bolts Or directly buckle it

Technical Parameters	APT-MC-MR-T2
Functions	Module-level Rapid shutdown ; Module-level Monitoring
Number of Modules Connected	2
Input	
Rated Input Power	1600W
Input Voltage Range	10V-80V*2
Max. Operating Current (Imp)	20A / 25A (Optional)
Max. Short-circuit Current (Isc)	25A / 31.2A (Optional)
Output	
Max. Output Voltage	160V
Max. Output Current	20A / 25A (Optional)
Bypass Output	✓
Output Shutdown Voltage	< 1.5V
Shutdown Response Time	30s
Communication	
Communication Mode	PLC
Communication Rate	200k-1M/s Self-Adaptive
Compatible Data Controller	DCON
Safety Certification	
Safety	UL1741 / CSA C22.2 No.107.1 / CSA C22.2 No.330 comply with NEC Code Article 690.12 module-level shutdown characteristics
EMC	FCC part 15b
RoHS Certification	✓
General Parameters	
Dimensions (L x W x D)	143 x 62 x 19.5 mm
Weight (Including Cables)	0.76KG
Input and Output Terminals	MC4 / Compatible with MC4 / Customized
Length of Output Cable	1.2m / Customized
Operating Temperature Range	-40℃ to +85℃
Humidity Range	0%-100%
Protection Rating	IP68
Max.System Voltage	1500V

