



## R Series

Module-Level Micro Controller  
(Rapid Shutdown Function Series)



## Product Introduction

AdvanSol R series Module-Level Micro Controller has module-level rapid shutdown function, and two product models of "1 to 1" and "2 to 1" can be selected according to the system design.

The R series module-level micro controller provides an effective solution for fire safety, and meets the safety requirements for solar system specified in the American Standard NEC 690.12-2014, 2017 and 2020. In the event of an emergency, the micro controller will automatically disconnect the output of each module to ensure the safety of the system. The customer can also turn off the AC power supply or press the Emergency-stop button to trigger the rapid shutdown function of micro controller. PLC communication mode does not require additional wiring, while avoiding wireless instability. R series micro controller has many advantages such as simple and convenient installation, safe and reliable operation, and can perfectly match with other third-party string inverter.



**30s Rapid shutdown, match NEC standard**



**PLC communication mode, stable communication without additional wiring**



**Compatible with third-party string inverters**



Technical Parameters	APT-MC-R-T1	APT-MC-R-T2
Number of Modules Connected	1	2
Input		
Rated Input Power	800W	1600W
Input Voltage Range	10V-80V	10V-80V*2
Max. Operating Current (Imp)	20A / 25A (Optional)	20A / 25A (Optional)
Max. Short-circuit Current (Isc)	25A / 31.2A (Optional)	25A / 31.2A (Optional)
Max. Efficiency	> 99.5%	> 99.5%
Output		
Max. Output Voltage	80V	160V
Max. Output Current	20A / 25A (Optional)	20A / 25A (Optional)
Bypass Output	☑	☑
Output Shutdown Voltage	1V	1V
Shutdown Response Time	30s	30s
Communication		
Communication Mode	PLC	PLC
Compatible Data Controller	DCON-S	
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 (Reduced to within 30V in 30s)	
EMC	FCC part 15b	
RoHS Certification	☑	☑
General Parameters		
Dimensions (L x W x D)	144 x 50 x 16.9 mm	143 x 62 x 19.5 mm
Weight (Including Cables)	0.45KG	0.76KG
Input and Output Terminals	MC4 / Compatible with MC4 / Customized	MC4 / Compatible with MC4 / Customized
Length of Output Cable	1.2m / Customized	1.2m / Customized
Operating Temperature Range	-40℃ to +85℃	-40℃ to +85℃
Humidity Range	0%-100%	0%-100%
Protection Rating	IP68	IP68
Max.System Voltage	1000V / 1500V (Optional)	1000V / 1500V (Optional)

