APT-MC-MRO APT-MC-MRO-120

MRO series Micro Controller
Model MRO/MRO-120

Full-Function Optimizer

- Module-Level MPPT Optimization + Monitoring + Rapid Shutdown
- Three-Level Protection System (Patented Hardware Protection Module)
- Super-HPLC | Unlimited Communication Distance
- Internationally Recognized Certifications
- Compatible Mixed Installation with MR Series
- Dual High Standards: Protection & Flame Retardancy

ADVANSOL
EXPERT OF SOLAR MODULE - LEVEL CONTROL

Product Model	APT-MC-MRO	APT-MC-MRO-120
Functions	Module-level Rapid Shutdown; Module-level Monitoring; Moudle-level MPPT Optimization	
Number of Modules Connected	1	2
Input		
Rated Input Power	800W	1600W
Max.Input Voltage	80V	120V
MPPT Operating Range	12V-80V	15V-105V
Max.Operating Current (Imp)	20A	20A
Max.Short-circuit Current (Isc)	25A	25A
Max.Efficiency	99.5%	99.5%
Output		
Max.Output Voltage	80V	80V
Max.Output Current	22A	22A
Bypass Output	✓	✓
Output Shutdown Voltage	< 1V	< 2V
Shutdown Response Time	30s	30s
Communication		
Communication Mode	Super-HPLC	Super-HPLC
PLC Maximum Communication Distance (Along the Cable)	Distance from the V2.5 control box to the the nearestst micro controller ≤ 400 m Distance between micro controllers ≤ 50 m	
Communication Rate	200k-1M/s Self-Adaptive	200k-1M/s Self-Adaptive
Compatible V2.5 Control Box	APT-CB-D-4G/WIFI-S/L	APT-CB-D-4G/WIFI-S/L
Safety Certification		
Safety	UL1741/UL3741/CE/IEC62109-1/EN18031/CSA C22.2 No. N107.1/ CSA C22.2 NO.330 comply with NEC Code Article 690.12 module-level shutdown characteristics	
EMC	FCC part 15b	FCC part 15b
RoHS Certification	✓	✓
General Parameters		
Dimensions (L x W x D)	123.8 x 112 x 27 mm	133.8 x 115 x 37 mm
Weight (Including Cables)	0.66KG	0.86KG
Input and Output Terminals	MC4/Compatible with MC4/Customized	MC4/Compatible with MC4/Customized
Length of Cable(mm)	OUT:+770 -770 IN:+770-260	OUT:+1400-1400 IN:+1200 -1200
Operating Temperature Range	-40°C to +85°C	-40°C to +85°C
Humidity Range	0%-100%	0%-100%
Protection Rating	IP68	IP68
Max.System Voltage	1000V/1500V	1000V/1500V

Note**: Max DC resistance of DC cable <5(Ω/km)， Higher resistance may affect communication distance