MPPT

UNINTERRUPTED LIFE PATTERN®

MRC-3048

Series MRC

SOLAR CHARGE CONTROLLER

- **Advanced Dual-Peak/Multi-Peak Tracking Technology**
  Accurately tracks the maximum power point even when solar panels are shaded or partially damaged.
  Ensures stable performance with complex I-V curves.
- **High MPPT Tracking Efficiency**
  Combines multiple tracking algorithms for fast and precise power optimization.
  Achieves up to 99.9% MPPT tracking efficiency and 98% energy conversion efficiency.
- **Smart LCD Display & Data Monitoring**
  Built-in LCD screen for real-time data viewing and status updates.
  Supports historical data storage to monitor power generation anytime.
- **Comprehensive Protection Features**
  Intelligent over-temperature protection adjusts charging power based on ambient temperature.
  Prevents overheating and extends controller lifespan.
- **Wide Battery Compatibility**
  Supports charging for gel, sealed, open, and lithium batteries.
  Ideal for various off-grid and hybrid solar systems.
- **Reliable Solar Power Management**
  This smart solar charge controller ensures efficient energy use and system safety.
  Optimize your solar setup with the MPPT solar battery charge controller for consistent performance



Product size
240x181x80mm

Model	MRC-3048
	Input
Maximum PV open circuit voltage	<150V (at the lowest temperature), <138V (at a standard temperature of 25°)
Minimum PV voltage	20V/40V/60V/80V
Rated Charge Current	30A
PV maximum input power	390W
	780W
	1170W
	1560W
	Output
System voltage	12V/24V/36V/48V/Auto
Rated Discharge Current	20A
Own consumption	=35mA(48V)
MPPT highest accuracy	99%
Maximum charging efficiency	97%
Charging control mode	Multi-stage(MPPT,Absorption,Float,Equalization,CV)
Float charge	13.8V/27.6V/41.4V/55.2V
Absorption charge	14.4V/28.8V/43.2V/57.6V
Equalization charge	14.6V/29.2V/43.8V/58.4V
Load disconnection(LVD)	10.8V/21.6V/32.4V/43.2V
Load reconnection(LVR)	12.6V/25.2V/37.8V/50.4V
Load control mode	Normal, light control, light and timing control, timing control, reverse light control
Light control point voltage	5V/10V/15V/20V
Battery Type	GEL, SLD, FLD and USER(default),Lithium batteries customization 3 series 3.7V,4 series 3.7V,4series 3.2V,5series 3.2V
	Other
Human interface	Color LCD with backlight, 2 buttons
Cooling mode	AL alloy heat sink and cooling fan
Wiring	High current copper terminal≤25 mm2 (3AWG)
Temperature probe	line length 3 meters
Communication mode	Bluetooth optional
Working temperature range	-20~+55℃
Storage temperature range	-30~+80℃
Humidity	10%~90%/Nocondensation
Note: Please operate at the ambient temperature allowed by the controller. If the ambient temperature exceeds the allowable range of the controller, please derate it	