MPPT Solar Charging Controller
MA Series

Model	MA2460N15	
Battery Voltage	12V	24V
Max.Solar Power	800W	1600W
Solar Vmp	17V~110V	36V~110V
Max.Solar Voc	150V	
Max.Charging Current	63A	
Max.Load Power	480W	960W

Product Characteristics

◆Using MPPT technology, the tracking efficiency of MPPT can reach 99.9%.

◆Support CAN communication function (optional).

◆Supports a wide variety of batteries such as SLA、GEL、FLD、Li、 user-defined.

◆Support line loss compensation of charging voltage, so that the battery charging
 voltage control is more accurate (partial models).

◆Support starting capacitive load and inductive load.

◆RS485 communication supporting standard Modbus protocol, with baud rate adjustable.

◆Support TTL communication of standard Modbus protocol, with baud rate fixed.

◆With perfect charging and discharging protection mechanism such as supervoltage,
overcurrent, overload, overtemperature and short-circuiting.

◆ Using high-quality aluminum radiator and high-temperature derating processing
 can ensure reliable and efficient operation in each work environment.

Product Connection Diagram
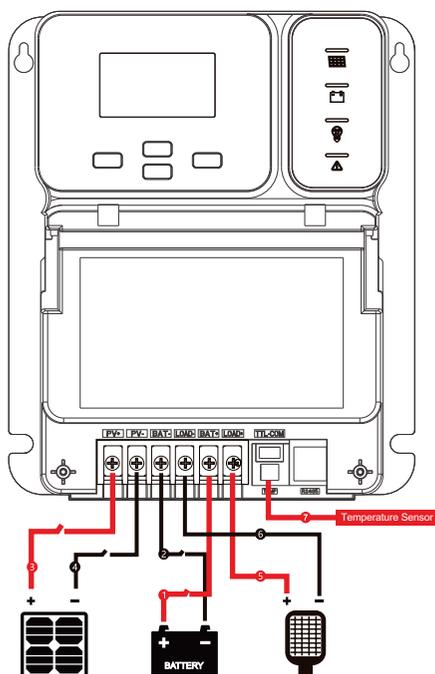
Product Parameters

Product Type	MA2430N15	MA2440N15	MA2460N15	MA4830N15
Static power consumption	≤30mA	≤40mA	≤50mA	≤50mA
Battery type	USE/FLD/GEL/LI/SLD(Default)			
System Voltage	12V/24V			12V/24V/36V/48V
Battery's operating voltage range	8V-32V			8V-64V
Rated Charging Current	30A	40A	60A	30A
Maximum PV Input Current	27A	35A	53A	27A
Maximum solar panel power	400W/12V 800W/24V	520W/12V 1040W/24V	800W/12V 1600W/24V	400W/12V 800W/24V 1200W/36V 1600W/48V
Maximum PV Open-circuit Voltage	150V			
MPPT Operating Voltage Point Range	(Battery Voltage +2)~110V			
MPPT Efficiency	>99%			
Charging Conversion Efficiency	85%-98%(10%~100% of rated power)			
Rated load current	30A	40A	40A	30A
Load operation mode	Pure light-dependent control, light and time-dependent control, manual mode (default), debugging mode, normally opened.			
Parallel connection for charging	×	×	√	√
Line loss compensation	×	×	√	√
Charging cut-off current setting	√	√	√	√
Constant voltage output setting	√	√	√	√
Charging temperature compensation of lead-acid battery	√	√	√	√
Temperature protection	√	√	√	√
Overload/short-circuit protection	√	√	√	√
Load pre-start	√	√	√	√
TTL Communication	Baud Rate 9600kps			
RS485 Communication	One isolated RS485 communication port, with power output of 5V200mA, baud rate of 9,600kps by default and adjustable.		2 isolated RS485 communication ports, supporting parallel use, with power output of 5V200mA, baud rate of 9,600kps by default and adjustable.	
CAN communication	Optional (RV-C Protocol)			
Historical Data	Can store historical data of the past 300 days			
Backlight function	Light up if the key is pressed down, and automatically turn off in 20s if there is no key action			
Protection function	PV Overvoltage Protection, PV Reverse Connection Protection, PV Short-Circuit Protection, Nighttime Reverse Charge Protection, Input Limited Power Protection, Overtemperature Protection, Load Short-Circuit Protection, Load Overload Protection, Battery Supervoltage /Over-discharge Protection, Battery Reverse Connection Protection and Battery Terminal Short-Circuit Protection.			
Grounding Type	Co-negative design and negative grounding			
Operating ambient temperature range	-35℃~ 65℃ (no derating within 45℃ if well ventilated)			
Protection Grades	IP32			
Cooling mode	Natural Cooling			
Size	260*216*83.2mm		260*216*98.5mm	
Weight	2.3kg		3.4kg	3.6kg