



## **MPPT, LCD display, RS-485, 12/24/48V system voltage**

- Innovative Max Power Point Tracking(MPPT) technology, tracking efficiency >99.9%
- Full digital technology, high charge conversion efficiency up to 98%
- LCD display design, read operating data and working condition easily
- Real-time energy statistics function
- 12/24/48V automatic recognition
- Liquid, Gel, AGM and Lithium battery for selection
- External temperature sensor, automatic temperature compensation
- Built-in temperature sensor, when the temperature exceeds the set value, the charging current will lower down followed by the decrease of temperature, so as to control the controller' s temperature rise
- Four stages charge way: MPPT, boost, equalization, float
- With current-limiting charging mode, when the power of solar panel is over-sized and charging current exceeds the rated current, the controller will lower the charging power, which enables the system to work under the rated charging current
- Multiple load control modes: Always on, Dusk to Dawn, Evening and Manual
- TWO USB interfaces(EU Series)
- IoT Wireless Communication, Bluetooth Communication or RS-485 Communication Functions Optional
- Support Android mobile phone APP, realize wireless monitoring function of solar controller
- Use high performance, ultra-low power consumption Bluetooth dedicated chip
- Adopt Bluetooth 4.2 and BLE technology, communication distance up to 10m
- With the wireless communication function of the IoT, the controller can be connected remotely through lot/GPRS.
- The IoT can monitor and control the system remotely and in real time through the WeChat /PC program
- Real-time automatic fault alarm
- Charging and discharging quantities can be counted and displayed by item grouping and month
- Based RS-485 standard Modbus protocol, to maximize the communication needs of different occasions
- Perfect EMC & thermal design
- Full automatic electronic protect function

	Item	MT1050EU	MT1550EU	MT2075	MT3075	
Battery Parameters	System Voltage	12V		12/24V automatical recognition		
	Max Charging Current	10A	15A	20A	30A	
	MPPT Charging Voltage	<14.5V@25°C		<14.5/29.0V@25°C		
	Boost Voltage	14.5V@25°C		14.5/29.0V@25°C		
	Equalization Voltage	14.8V@25°C		14.8/29.6V@25°C(Liquid,AGM)		
	Float Voltage	13.7V@25°C		13.7/27.4V@25°C		
	Low Volt. Disconnect	10.8~11.8V, SOC1~5		10.8~11.8/21.6~23.6V, SOC1~5		
	Reconnect Voltage	11.6~12.8V		11.4~12.8V/22.8~25.6V		
	Overcharge Protect	15.5V		15.8/31.3V		
	Max volt on Bat. terminal	20V		35V		
	Temp. Compensation	-4.17mV/K per cell (Boost, Equalization), -3.33mV/K per cell (Float)				
Battery Type	Gel, AGM, Liquid		Gel, AGM, Liquid, Lithium, (default: GEL)			
Panel Parameters	Max volt on PV(-20°C) *1	45V	35V	55V		
	Max volt on PV(25°C)	40V	30V	50V		
	Max input power	130W	200W	260/520W	390/780W	
	Day/Night threshold	8.0V		8.0/16.0V		
	MPPT tracking range	(Battery Voltage + 1.0V) ~Voc*0.9 *2				
Load	Output Current	10A		20A	30A	
	USB interface	5V, 2A		—		
	Load mode	Always on, Dusk to Dawn, Evening, Manual				
System Parameters	Max tracking efficiency	>99.9%				
	Max charge conversion	97.5%		98.0%		
	Dimensions	189 * 96 * 53mm		189 * 182 * 58mm	189 * 182 * 64mm	
	Weight	420g		1000g	1300g	
	Self consumption	7mA		≤8mA(12V); ≤12mA(24V)		
	Communication	—		RS485(RJ11 interface)		
	Grounding	Common Negative				
	Power terminals	8AWG(10mm <sup>2</sup> )		6AWG(16mm <sup>2</sup> )		
	Ambient temperature	-20 ~ +55°C				
	Storage temperature	-25 ~ +80°C				
	Ambient humidity	0 ~ 100%RH				
Protection degree	IP32					
Max Altitude	4000m					

**\*1. This value represents the maximum voltage of the solar panel at the minimum operating ambient temperature.**

**\*2. Voc means the open circuit voltage of the solar panel.**

**\*3. Around oblique line value separately on behalf of 12V and 24V system's value.**

	Item	MT2010	MT3010	MT4010
Battery Parameters	Max Charging Current	20A	30A	40A
	System Voltage	12V/24V automatical recognition		
	MPPT Charging Voltage	<14.5/29.0V@25°C		
	Boost Voltage	14.5/29.0V @25°C		
	Equalization Voltage	14.8/29.6V @25°C (Liquid, AGM)		
	Float Voltage	13.7/27.4V @25°C		
	Low Volt. Disconnect	10.8~11.8V/21.6~23.6V, SOC1~5(default: 11.2/22.4V)		
	Reconnect Voltage	11.4~12.8V/22.8~25.6V (default: 12.0/24.0V)		
	Overcharge Protect	15.8/31.3V		
	Max volt on Bat. terminal	35V		
	Temp. Compensation	-4.17mV/K per cell (Boost, Equalization), -3.33mV/K per cell (Float)		
Battery Type	Gel, AGM, Liquid, Lithium (default: Gel)			
Panel Parameters	Max volt on PV terminal	100V(-20°C), 90V(25°C)		
	Max input power	260/520W	390/780W	520/1040W
	Day/Night threshold	8.0/16.0V		
	MPPT tracking range	(Battery Voltage + 1.0V) ~Voc*0.9 *		
Load	Output Current	20A	30A	
	Load mode	Always on, Dusk to Dawn, Evening, Manual		
System Parameters	Max tracking efficiency	>99.9%		
	Max charge conversion	98.0%		
	Dimensions	189 * 182 * 64mm	189 * 255 * 69mm	
	Weight	1300g	2000g	
	Self consumption	≤8mA(12V); ≤12mA(24V)		
	Communication	RS485(RJ11 interface)		
	Grounding	Common Negative		
	Power terminals	6AWG(16mm <sup>2</sup> )		
	Ambient temperature	-20 ~ +55°C		
	Storage temperature	-25 ~ +80°C		
	Ambient humidity	0 ~ 100%RH		
Protection degree	IP32			
Max Altitude	4000m			

**\*1.Voc means the open circuit voltage of the solar panel.**

**\*2.Around oblique line value separately on behalf of 12V and 24V system's value.**

	Item	MT4015
Battery Parameters	Max Charging Current	40A
	System Voltage	24/48V automatical recognition
	MPPT Charging Voltage	<29.0/58.0V@25°C
	Boost Voltage	29.0/58.0V @25°C
	Equalization Voltage	29.6/59.2V @25°C (Liquid, AGM)
	Float Voltage	27.4/54.8V @25°C
	Low Volt. Disconnect	21.6~23.6/43.2~47.2V, SOC1~5(default: 22.4/44.8V)
	Reconnect Voltage	22.8~25.6V/45.6~51.2V (default: 24.0/48.0V)
	Overcharge Protect	31.3/62.3V
	Max volt on Bat. terminal	65V
	Temp. Compensation	-4.17mV/K per cell (Boost, Equalization), -3.33mV/K per cell (Float)
Battery Type	Gel, AGM, Liquid, Lithium (default: Gel)	
Panel Parameters	Max volt on PV terminal	150V(-20°C), 138V(25°C)
	Max input power	1000/2000W
	Day/Night threshold	16.0/32.0V
	MPPT tracking range	(Battery Voltage + 1.0V) ~Voc*0.9 *
Load	Output Current	30A
	Load mode	Always on, Dusk to Dawn, Evening, Manual
System Parameters	Max tracking efficiency	>99.9%
	Max charge conversion	98.7%
	Dimensions	189 * 255 * 89mm
	Weight	2500g
	Self consumption	8mA
	Communication	RS485(RJ11 interface)
	Grounding	Common Negative
	Power terminals	6AWG(16mm <sup>2</sup> )
	Ambient temperature	-20 ~ +55°C
	Storage temperature	-25 ~ +80°C
	Ambient humidity	0 ~ 100%RH
	Protection degree	IP32
Max Altitude	4000m	

\*1.Voc means the open circuit voltage of the solar panel.

\*2.Around oblique line value separately on behalf of 24V and 48V system's value.