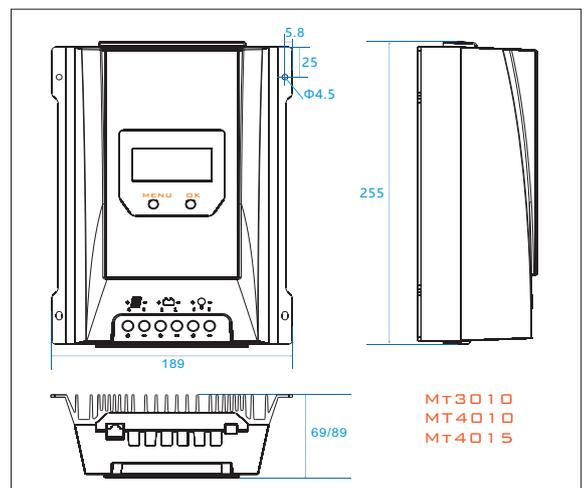
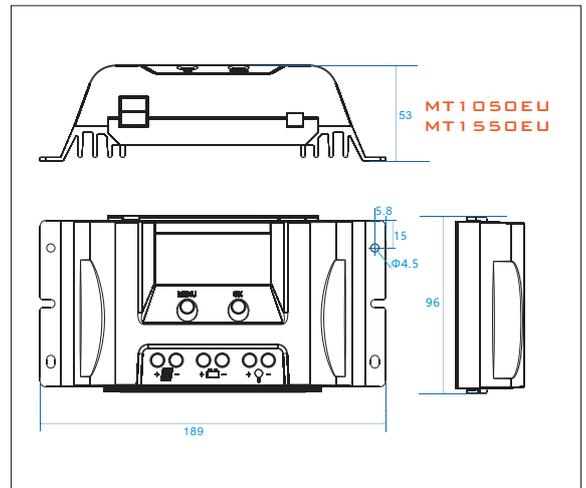
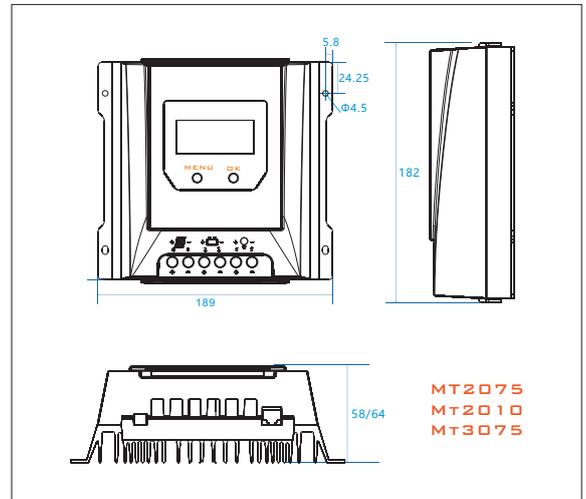


Magic series MPPT Solar charge controller

10/15/20/30/40A



Magic series

MPPT Solar charge controller

10/15/20/30/40A

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

Magic series

MPPT Solar charge controller

10/15/20/30A

Datasheet

	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 ²)		6AWG(16mm ²)		
	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.

Magic series

MPPT Solar charge controller

20/30/40A

Datasheet

	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 ²)		
	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.

Magic series

MPPT Solar charge controller

40A

Datasheet

	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 ²)
	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.