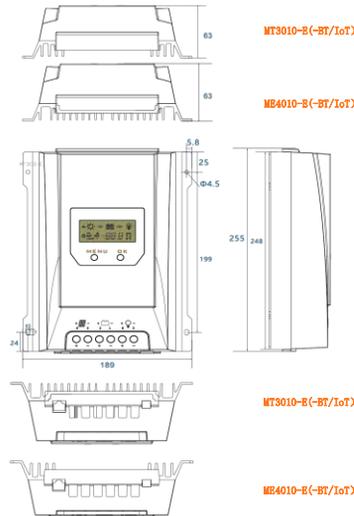


## Magic-E series

MPPT Solar charge controller

30/40A



Unit: mm

- Innovative Max Power Point Tracking(MPPT) technology, tracking efficiency >99.9%
- Full digital technology, high charge conversion efficiency up to 98.5%
- LCD display design, read operating data and working condition easily
- Real-time energy statistics function
- 12/24 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
- 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 IoT/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-E series

MPPT Solar charge controller

	Item	MT3010-E	MT4010-E
<b>Battery Parameters</b>	System Voltage	12V/24V automatical recognition	
	Max Charging Current	30A	40A
	MPPT Charging Voltage	before boost or equal charging stage	
	Boost Voltage	14.5V/29V @25°C	*3
	Equal Voltage	14.8V/29.6V @25°C(Liquid, AGM)	
	Float Voltage	13.7V/27.4V @25°C	
	Low Voltage 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	15.8V/31.3V	
	Charging Target Voltage	10.0~32.0V(Lithium, default: 14.4V)	
	Charging Recovery Voltage	9.2~31.8V(Lithium, default: 14V)	
	Low Voltage Disconnect	9.0~30.0V(Lithium, default: 10.6V)	
	Low Voltage Reconnect	9.6~31.0V(Lithium, default: 12V)	
	Max Voltage On Battery Terminal	35V	
	Temperature Compensation	-4.17mV/K per cell (Boost, Equal), -3.33mV/K per cell (Float)	
Battery Type	Liquid, Gel, AGM, Lithium		
<b>Panel Parameters</b>	Max Voltage On PV Terminal (-20°C)	100V	*1
	Max Voltage On PV Terminal (25°C)	90V	
	Max Input Power	390W/780W	520W/1040W
	Dusk/Dawn Detect Voltage	8V/16V	
	MPPT Tracking Range	(Battery Voltage+1V) ~ Voc*0.9 *2	
<b>Load Parameters</b>	Output Current	30A	
	Work Mode	Standard, D2D, Street lamp, User-defined mode	
<b>System Parameters</b>	Max Tracking Efficiency	> 99.9%	
	Max Charge Conversion	98%	
	Dimensions (mm)	189*255*63	
	Weight (g)	1300	1400
	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.PV panel Voc can not exceed this value, otherwise it will damage the controller.

\*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.

# Lumiax



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