

Magic-E series

MPPT Solar charge controller

	Item	ALE-MT3010-E	ALE-MT4010-E
Battery Parameters	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		
Panel Parameters	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	
Load Parameters	Output Current	30A	
	Work Mode	Standard, D2D, Street lamp, User-defined mode	
System Parameters	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 ²)	
	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.