

Max-EU series

Solar charge controller



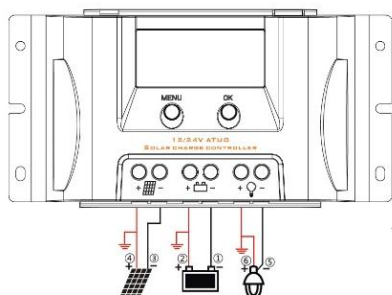
Max20-EU
Max30-EU
Max40-EU
Max40-RS485
Max60-E
Max6048-E

Overview

With your new Max-E series solar charge controller you own a state-of-the-art device which was developed according to the latest available technical standards.

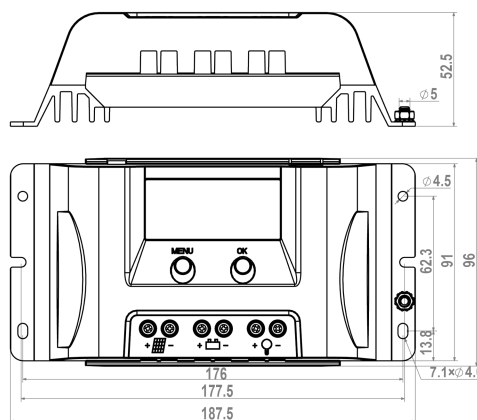
It comes with a number of outstanding features, such as:

- 12/24/36/48V automatic recognition
- Real-time energy statistics function
- Two USB interfaces (Max20/30/40-EU)
- Perfect EMC & thermal design
- Full automatic electronic protect function
- LCD display design, read operating data and working condition easily
- Flexible System battery selection: Liquid, Gel, AGM and Lithium
- Extends battery life through accurate remote temperature sensor
- Controller is protected against over-temperature due to built-in power reduction function
- Four stages battery charging process: fast, boost, equalization, float
- Multiple load control modes: Always on, Street lamp, User-defined Mode
- IoT wireless communication or Bluetooth communication functions optional (Max6048-E)
- Based RS-485 standard Modbus protocol with RJ11 interface to maximize the communication needs of different occasions (Max6048-E)

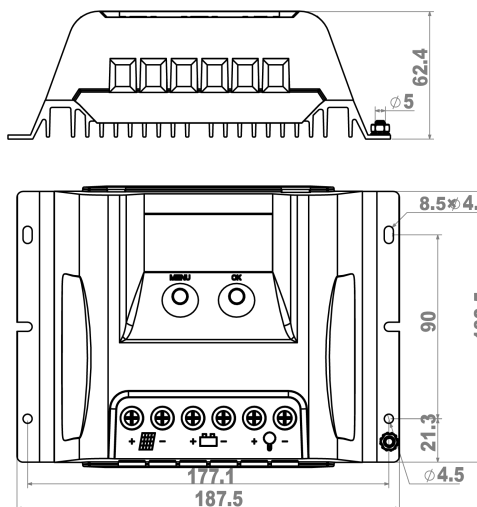


Dimensions

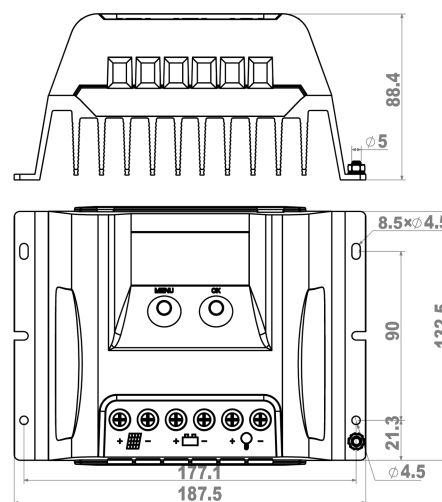
Unit:mm



Max20-EU
Max30-EU
Max40-EU
Max40-RS485



Max60-E



Max6048-E

Technical Data

	Item	Max20-EU	Max30-EU	Max40-EU	Max40-RS485	
Battery Parameters	Max Charging Current	20A	30A	40A		
	System Voltage	12/24V automatic recognition				
	Max volt on Bat. terminal	35V				
	Battery Type	Gel, AGM, Liquid, Lithium(default: Gel)				
	Gel, AGM, Liquid	Fast Charging Voltage	before boost or equalization charging stage			
		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(default: 11.2/22.4V)			
		Overcharge Protect	15.8/31.3V			
Lithium	Temp. Compensation	-4.17mV/K per cell (Boost, Equalization), -3.33mV/K per cell (Float)				
	Charging target voltage	10.1~32.0V(Lithium, default: 14.4V)				
	Low voltage disconnect	9.0~30.0V(Lithium, default: 10.6V)				
Panel Parameters	Max volt on PV terminal *1	25V/50V *1				
	Dusk/Dawn detect volt.	8.0/16.0V				
Load Parameters	Output Current	20A	30A	40A		
	Load mode	Always on(Default) , Street lamp, User-defind Mode				
System Parameters	Dimensions	189*96*53mm				
	Weight	420g				
	Self consumption	8mA/12mA				
	Communication	/			RS485(RJ11 interface)	
	Grounding	Common Positive			Common Positiv	
	Power terminals	8AWG(10mm²)				
	Ambient temperature	-20~+45°C				
	Storage temperature	-25~+70°C				
	Ambient humidity	≤95% RH , No condensation				
	Protection degree	IP32				

*1. Maximum solar panel voltage at minimum ambient operating temperature

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

Technical Data

	Item	Max60-E	Max6048-E
Battery Parameters	Max Charging Current	60A	
	System Voltage	12/24V automatic recognition	12/24/36/48V automatic recognition
	Max volt on Bat. terminal	35V	65V
	Battery Type	Gel, AGM, Liquid, Lithium (default: Gel)	
	Gel, AGM, Liquid	Fast Charging Voltage	before boost or equalization charging stage
		Boost Voltage	14~14.8/28~29.6V @25°C(default: 14.5/29V) 14~14.8/28~29.6/42~44.4/56~59.2V@25°C(default: 14.5/29/43.5/58V)
		Equalization Voltage	14~15.0/28~30V@25°C(default: 14.8/29.6V)(Liquid, AGM) 14~15/28~30/42~45/56~60V@25°C(default: 14.8/29.6/44.4/59.2V)(Liquid, AGM)
		Float Voltage	13~14.5/26~39V @25°C(default: 13.7/27.4V) 13~14.5/26~29/39~43.5/52~58V@25°C(default: 13.7/27.4/41.1/54.8V)
		Low Volt. Disconnect	10.8~11.8V/21.6~23.6V(default: 11.2/22.4V) 10.8~11.8/21.6~23.6/32.4~35.4/43.2~47.2V(default: 11.2/22.4/33.6/44.8V)
		Reconnect Voltage	11.4~12.8V/22.8~25.6V (default: 12.0/24.0V) 11.4~12.8/22.8~25.6/34.2~38.4/45.6~51.2V(default: 12/24/36/48V)
		Overcharge Protect	15.8/31.3V 15.8/31.3/46.8/62.3V
		Temp. Compensation	-4.17mV/K per cell (Boost, Equalization), -3.33mV/K per cell (Float) -4.17mV/K per cell (Boost, Equalization), -3.33mV/K per cell (Float)
	Lithium	Charging target voltage	10.1~32.0V(Lithium, default: 14.4V) 11.0~64.0V(Lithium, default: 14.4V)
		Charging recovery voltage	9.2~31.8V(Lithium, default: 14.0V) 9.2~63.8V(Lithium, default: 14.0V)
		Low voltage disconnect	9.0~30.0V(Lithium, default: 10.6V) 9.0~60.0V(Lithium, default: 10.6V)
		Low voltage reconnect	9.6~31.0V(Lithium, default: 12.0V) 9.6~62.0V(Lithium, default: 12.0V)
Panel Parameters	Max volt on PV terminal *1	25V/50V/	25V/50V/75V/100V
	Day/Night threshold	Lithium: 3.0~20.0V(Programmable) Gel, AGM and Liquid: 3.0~10.0/6.0~20.0V(Programmable)	Lithium: 3.0~40.0V Gel, AGM and Liquid: 3~10/6~20/9~30/12~40V
	Day/Night delay Time	0~30min	
Load Parameters	Output Current	30A	
	Load mode	Always on(Default) , Street lamp, User-defind Mode	
System Parameters	Dimensions	138*187.5*62.5mm	138*187.5*88.5mm
	Weight	720g	1.1Kg
	Self consumption	10mA	10mA (12/24V); 7mA (36/48V)
	Communication	RS485(RJ11 interface)	
	Optional	IoT, Cyber-BT	Cyber-BT
	Grounding	Common Positive	
	Power terminals	6AWG(16mm2)	
	Ambient temperature	-20~+45°C	
	Storage temperature	-25~+70°C	
	Ambient humidity	≤95% RH, No condensation	
	Protection degree	IP32	

*1. Maximum solar panel voltage at minimum ambient operating temperature

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