

MPPT Solar Charge Controller Buck-Boost



Green & Solar For Life

DC-DC Buck-Boost charge mode with Negative Grounded design, suitable for energy storage equipment use.

Advanced MPPT scanning technology & effective temperature management, ensuring efficient, reliable and lasting solar DC charge.

Support SEL, GEL, FLD, LI and USE battery types.

Support 12V/24V/36V/48V automatic detection, lithium battery requires the user to set the system voltage.

PCBA glued with polyurethane & silicon mixture, for a great cooling and waterproof system, ensures better charge performance in environment of high temperature and high humidity.

Support Bluetooth RS485, CAN communication, using Modbus, RV-C communication protocol (support customer customization protocol and communication media), optional remote LCD screen.

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Product Parameters

Controller Parameter	Value	
Model No.	M4820CUK	M4840CUK
Battery System Voltage	12V/24V/36V/48V Auto (FLD/GEL/SEL/USE) Manual (LI/USE)	
No-load Loss	10mA	
Max Solar Input Voltage	<150Voc	
Rated Solar Charge Current	20A	40A
Max Solar Input Power	300W/12V; 600W/24V 900W/36V; 1200W/48V	600W/12V; 1200W/24V 1800W/36V; 2400W/48V
Light Control Voltage	5V	
Light Control Delay Time	10s	
Operating Temperature	-25°C ~ +55°C	
IP Protection	IP32	
Net Weight	1.2kg	2.2kg
Operating Altitude	≤ 3000 m	
Controller Dimension	220*159*58mm	240*180*80mm
Communication Port	RS485+Bluetooth(App) / CAN Optional	
Protection	PV Over-Voltage, PV Reverse Protection, Battery Over-Charge, Battery Reverse Protection, Controller Over-Heating, High Ambient Temperature	
Key	1 Key (Set the battery type and the system voltage)	
Key Function	1. Short press-view the battery type, the SET indicator flashes and the others represent the battery type	
	2. Long press-enter the setting, SET indicator is always on, the rest of the indicators are flashing, short press can adjust the parameters	

Battery Voltages	Battery Parameters				
Battery Types	FLD	SEL	GEL	USE	LI (LiFePO4)
Equalize Charge Voltage	14.8V*n	14.6V*n	-	-	-
Boost Charge Voltage	14.6V*n	14.4V*n	14.2V*n	Default: GEL	Default: 14.2V*n
Float Charge Voltage	13.8V*n	13.8V*n	13.8V*n	Default: GEL	-
Boost Charge Recovery Voltage	13.2V*n	13.2V*n	13.2V*n	Default: GEL	-
Over-discharge Recovery Voltage	-	-	-	Default: GEL	-
Over-discharge Voltage	-	-	-	Default: GEL	-
Auto Temperature Compensation	-3Mv/2V/°C--				-