



# ML series

DC/DC Controller (Charge and Discharge)

## For off-grid application

- Can be connected to both PV 、 battery and load
- Multiple load operating modes to meet diverse needs

## User-Friendly

- Easy to install and simple to use
- Natural cooling, absolutely quiet

## Safety

- Complete charge and discharge protection mechanism
- High quality components for stable operation

## All-in-One

- Supports multiple battery types
- Highly integrated, helps you save space and wire

## Efficient

- MPPT with up to 99.9% efficiency
- Support solar panel 2 in series/more in parallel

## Intelligent

- Supports RS232、RS485、(RV-C protocols)
- Supports Bluetooth with mobile APP

Application scenario



House



Farm



Telecom



Countryside

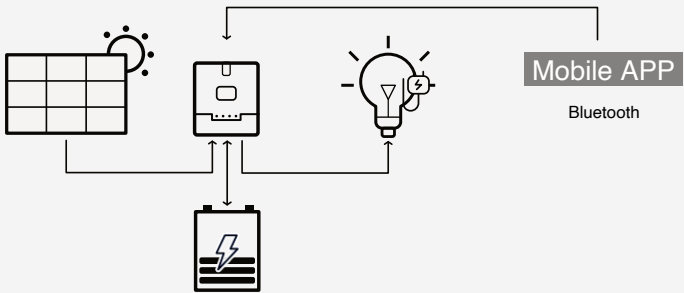


Island



Pasture

MODEL	ML2420/ML2420-C	ML2430/ML2430-C	ML2440/ML2440-C	Can Be Set
PV INPUT				
Max.Voltage of Open Circuit	100Vdc			
MPPT Voltage Range	(Battery voltage+2V) ~ 75V			
Max.PV Input Power	260W / 12V 520W / 24V	400W / 12V 800W / 24V	550W / 12V 1100W / 24V	✓
BATTERY				
Battery Type	Lead-acid / Li-ion / User Defined			✓
Rated Battery Voltage	12/24Vdc			
Battery Voltage Range	9~35Vdc			✓
Rated Charging Current	20A	30A	40A	✓
MPPT Charging Mode	Buck			
LOAD				
Load Type	Resistive load 、Capacitive load、Inductive load			
Rated Load Voltage	Equal to battery voltage 12/24V			
Rated Load Current	20A			
Load Working Mode	Light control,Light control + Time control, Manual control (default), Debugging mode, Normal open			✓
EFFICIENCY				
MPPT Tracking Efficiency	>99%			
Max. Charging Conversion Efficiency	≤98%			
ACCESSORIES				
Standard	BTS temperature sensors/-C, BTS temperature sensors, RS485 8 pole communication cable			
Optional	RM-5 display, BT-1 Bluetooth module, USB to RS232 connection cable, GP-2 IoT module, 6 pole communication cable			✓
GENERAL				
Communication	RS232/-C RS485			✓
Weight	1.4kg (3.09lb)	2kg (4.41lb)		
Dimension	210*151*59.5mm (0.69*0.50*0.20ft)	238*173*72.5mm (0.78*0.57*0.24ft)		
Protection Degree	IP32			
Operating Temperature Range	-35°C~-45°C (-31°F~113°F)			



Wirting diagram



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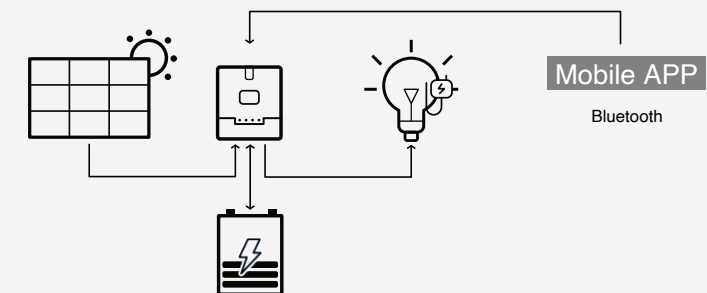


Island



Pasture

MODEL	ML4830N15	ML4860N15	Can Be Set
PV INPUT			
Max.Voltage of Open Circuit	145Vdc		
MPPT Voltage Range	(Battery voltage+2V) ~ 120V		
Max.PV Input Power	400W/12V 800W/24V 1200W/36V 1600W/48V	800W/12V 1600W/24V 2400W/36V 3200W/48V	✓
Num.of Parallel	1-10 units		
BATTERY			
Battery Type	Lead-acid / Li-ion / User Defined		✓
Rated Battery Voltage	12/24/36/48Vdc		
Battery Voltage Range	9~70Vdc	9~65Vdc	✓
Rated Charging Current	30A	60A	✓
MPPT Charging Mode	Buck		
LOAD			
Load Type	Resistive load 、Capacitive load、Inductive load		
Rated Load Voltage	Equal to battery voltage 12/24/36/48V		
Rated Load Current	20A		
Load Working Mode	Light control,Light control + Time control, Manual control (default), Debugging mode, Normal open		✓
EFFICIENCY			
MPPT Tracking Efficiency	>99%		
Max. Charging Conversion Efficiency	≤98%		
ACCESSORIES			
Standard	BTS temperature sensors	BTS temperature sensor, 3 pole communication cable	
Optional	RM-5 display, BT-1 Bluetooth module, USB to RS232 connection cable, GP-2 IoT module, 6 pole communication cable		✓
GENERAL			
Communication	RS232/RS485		✓
Weight	2.3kg (5.07lb)	3.6kg (7.94lb)	
Dimension	226*182*81mm (0.74*0.60*0.27ft)	285*205*93mm (0.94*0.67*0.31ft)	
Protection Degree	IP32		
Operating Temperature Range	-35℃~45℃ (-31°F~113°F)		



Wirting diagram