I-Panda New 20A-60A off-grid system MPPT solar charge controller

Explorer-M develops solar field vision, making nature more beautiful and more efficient

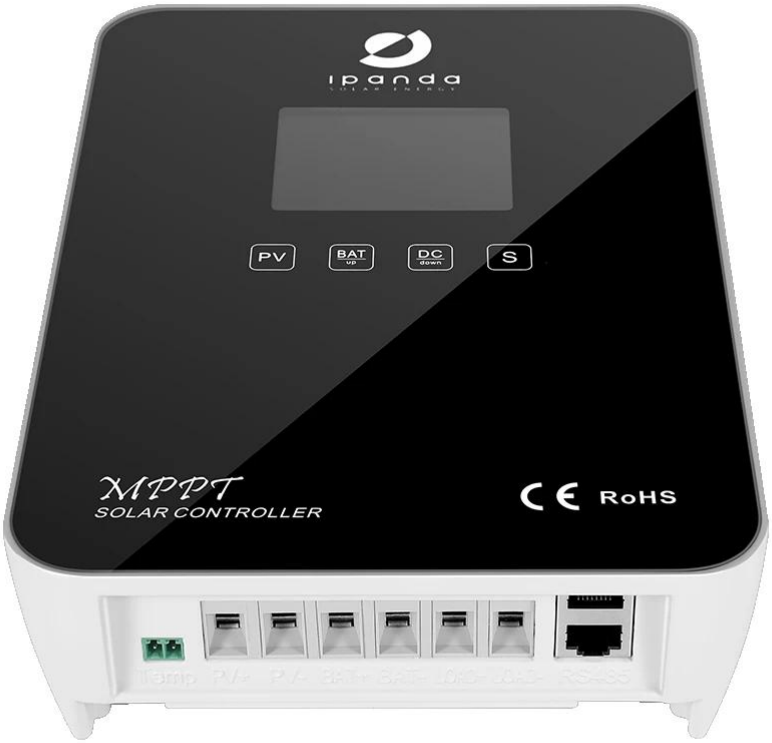
A new generation of MPPT solar intelligent digital controller

1, self-heating, waterproof rating IP43
2, beautiful design, touch buttons, internal and external repair
3, four-stage charging to extend battery life
4, tracking efficiency as high as 99.8%
5, perfect protection function
6, can expand APP, host computer, and unlimited parallel
7, can monitor the entire system status, determine system matching, etc.

ipanda
SOLAR ENERGY
PV
BAT
up
DC
down
S
MPPT
SOLAR CONTROLLER
CE RoHS

Ipanda
S
DC Out
Bat Out
PV
RoHS
MPPT
SOLAR CONTROLLER
WARNING
Do Not Touch
Sink Not To Burn

ipanda
SOLAR ENERGY
PV
BAT
DC
S
MPPT
SOLAR CONTROLLER
CE RoHS



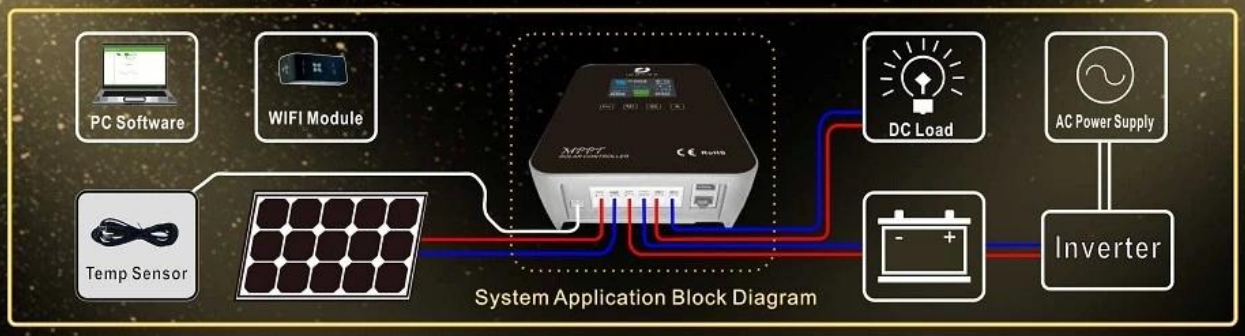
Characteristics

* High-efficient MPPT algorithm, MPPT efficiency ≥99.5%.
* Support Seal/Gel/Flooded battery and customized batteries.
* Four types of load mode selection: ON/OFF, PV voltage control, Dual Time control, PV+Time control.
* All-in-one integrated design, high stability and reliability.
* Current-limited charging function.
* IP43 protection, natural-cooling.
* High definition LCD segment display.
* Intelligent interaction experience.
* Dual RS485 communication ports, support for parallel communication.
* Support PC and APP (Android & iOS) monitoring.
* CE, RoHS, FCC certifications approved.

parameter

Shenzhen I-Panda New Energy Technology & Science Co.,Ltd

Explorer-M Series



System Application Block Diagram

	Model		EM2420	EM2430	EM2440	EM2450	EM2460
Product Category	MPPT efficiency		≥ 99.5%				
	Standby consumption		0.5W~1.2W				
	Heat-dissipating method		Natural-Cooling				
	Battery system voltage range	12V system	9VDC~15VDC(Lead acid)				
		24V system	18VDC~30VDC(Lead acid)				
		Li-ion	8VDC~30VDC(Default), ≤30VDC(Optional activation function)				
Input Characteristics	Max. PV input voltage(Voc)		100VDC(Default), DC150V(Optional)				
	Min. Vmpp Voltage		Battery voltage + 2V				
	Start-up charging voltage		Battery voltage + 3V				
	Low input voltage protection		Battery voltage + 2V				
	Over voltage protection / Recovery		100VDC/95VDC(Default),150VDC/145VDC(Optional)				
	Rated PV Power	12V system	260W	390W	520W	650W	780W
		24V system	520W	780W	1040W	1300W	1560W
		Li-ion	252W~504W	378W~756W	504W~1008W	630W~1260W	756W~1512W
Charge Characteristics	Activation for lithium battery		Optional				
	Battery types(Default Gel battery)		Sealed(SEL), Gel(GEL), Flooded(FLD), User-defined(USE), Li-ion(Lit)				
	Rated charge current		20A	30A	40A	50A	60A
	Temperature compensation		-3mV/℃/2V (default)				
	Charge method		3-stages: CC(Constant Current), CV(Constant Voltage), CF(Floating Charge)				
	Output voltage stability accuracy		≤ ±0.2V				
LOAD Characteristics	Load voltage		Same as battery voltage.				
	Rated load current		20A		30A		
	Load control mode		On\Off mode, PV voltage control mode, Dual-time control mode, PV + Time control mode				
	Low voltage protection		10.5V(default), 11V(restored), settable				
	Setting method		PC software / APP / Controller				
Display & Communication	Display		High-definition LCD segment code backlight display				
	Communication		Dual RJ45 port / RS485 protocol / PC (via RS485-USB Cable) & APP (via Wi-Fi module) / Centralized monitoring (via parallel connection and RS485-USB cable)				
Other Parameters	Protection		Input & output over-volt / low-voltage protection, reverse polarity protection, over-heating protection, battery shedding protection etc.				
	Operating ambient temperature		-20℃~+50℃				
	Storage temperature		-40℃~+75℃				
	IP(Ingress protection)		IP43				
	Noise		≤10dB				
	Altitude		0~3000m				
	Max. Wiring size		28mm²				
	Recommended breaker		≥40A	≥63A	≥63A	≥100A	≥100A
	N.weight (kg) / G.weight (kg)		1.65 / 1.98		2.35 / 2.78		
	Product size / Packing size(mm)		220×148×58.5/289×212×105		245×170×63.5/334×255×123		

Mission: To romote the new energy development, create the best value to customer, help partners to achieve self

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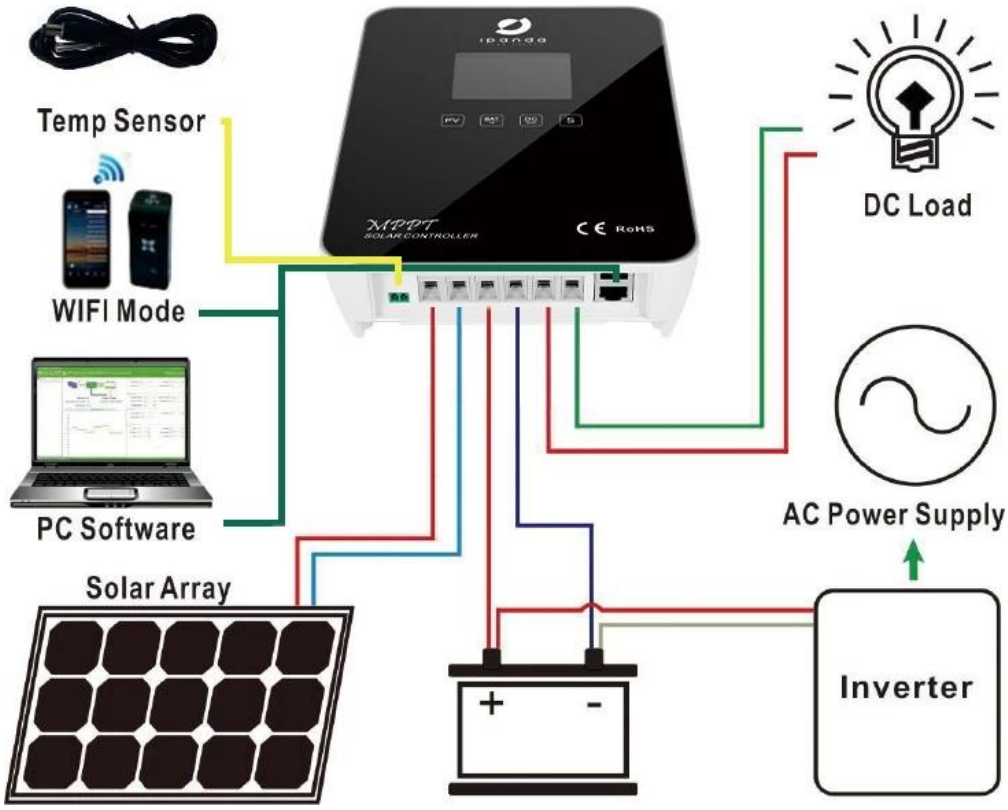
System connection diagram



Remarks:

1. The above is the standard parameters of the company. If there are any changes, please check our official website;
2. Our company can customize non-conventional MPPT controllers for customers and provide OEM and ODM services;
3. [**Click to download the specification**]