

EMPPT 48 Series

COMMUNICATION BASE STATION
PHOTOVOLTAIC SMART MPPT
CONTROLLER

CE FC RoHS



Product introduction

- EMPPT series is a rack-mounted photovoltaic MPPT charging controller for -48V communication base stations independently developed by Ipandee: It supports project or develops and designs for customized usage scenario;
- Adopts 19 inch standard rack design, the maximum power of a single machine is 3.4kw~6.8kw, the volume is 2~4U, with excellent electrical performance, high reliability, easy maintenance and other advantages, suitable for small and compact space room, cabinet;
- Support multiple parallel machines, flexible configuration of full scene overlapping light, multi-channel photovoltaic input, easy installation, it have both the function of the bus box, do not need additional bus box;
- The modular redundant design enables the photovoltaic system to run stably for a long time while efficiently converting;
- Use RS485 communication to support the expansion of remote management, intelligent control of the entire system, greatly simplifying the difficulty of operation and maintenance, reduce operating costs.



Core Advantage

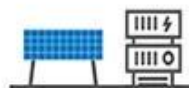
- The maximum power point tracking accuracy is greater than 99%, and the conversion efficiency is up to 97%;
- Photovoltaic input wide voltage range: 65~250VDC;
- Support multiple parallel controller to meet the system's subsequent expansion of solar modules;
- Support man-machine interaction, parameter setting and data display function;
- Standard rack design, support multiple photovoltaic input (2~4 photovoltaic input);
- Output Voltage Regulated Accuracy and with self-regulating voltage function;
- Record photovoltaic daily, monthly, total electricity;
- Multiple protection: with lightning protection, anti-re flux, anti-surge, anti-reverse connection and other protection functions;
- Adopts standard Modbus protocol, RS485 communication, supports secondary integrated development, and can customize dry contact function;
- Support 4G remote monitoring.



Macro base station
micro base station
4G, 5G base station, etc



Independent solar power
system



Photovoltaic superimposed
power system



Solar - mains/oil engine
complementary power
system

Model number	EMPPT4860	EMPPT4880	EMPPT48100	EMPPT48120
MPPT efficiency	≥99%			
Whole machine conversion Efficiency	≥97%			
Installation	Cabinet Installation			
Heat dissipation method	Air cooling			
Input operating voltage range *	65~250VDC (Recommended 120V~250V)			
Start charging Vstart-pv	Vbat+3V			
Low voltage protection Vlow-pv	Vbat+2V			
Input Protection Voltage	250Vdc			
Input Protection Recovery Voltage	245Vdc			
Rated input power**	3360W	4480W	5600W	6720W
Component Access	Supports 2 equal accesses			
Output DC voltage range	Output range: 42V to 60VDC (Factory default output: 56VDC)			
Battery management	Output charging parameters and protection parameters can be set			
Output DC current	0~60A(Adjustable)	0~80A(Adjustable)	0~100A(Adjustable)	0~120A(Adjustable)
Output Voltage Setting	Setting of equalizing voltage, floating voltage			
Electricity measurement	1. Built-in DC meter function; 2. Controller comes with metering;			
Communication method	Standard Modbus protocol			
Monitoring Methods	Remote monitoring with 4G module or PC software			
Photovoltaic input protection	Input over-voltage and under-voltage protection, reverse connection protection, anti-reverse current protection			
Output protection	Voltage regulator protection, battery reverse connection protection, battery disconnection protection and over-under-voltage protection, etc.			
General Protection	Thermal over-temperature protection and over-temperature load reduction operation, environmental over-temperature protection, etc.			
Product Size	482*350*89mm (2U)			
Product weight (kg)	5.4		6.7	
Operating Temperature	-20°C~+50°C			
IP Protection Rating	IP21			
Altitude	≤3000m			