

iT Series MPPT Solar charge controller with load control



iT series solar charge controller is an industrial grade product with advanced Maximum Power Point Tracking (MPPT) algorithm. It can deliver the maximum available power for charging batteries and charge a lower nominal voltage battery from a higher nominal voltage array. And can be applied in the off-grid PV systems up to 3KW. The die-cast aluminum design ensures excellent heat dispersion.



Models :

IT3415ND, IT4415ND, IT6415ND
30A,45A,60A
12V/24V/36V/48V

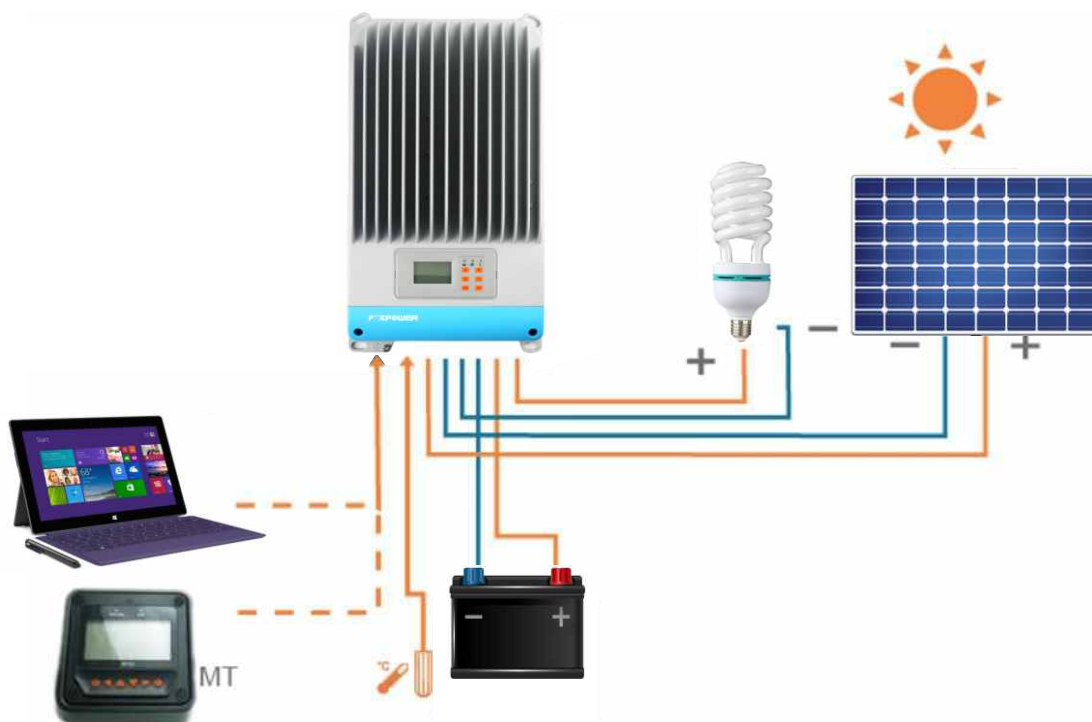
Features :

- Advanced MPPT technology, with efficiency no less than 99.5%
- Maximum conversion efficiency of 98% and full load efficiency of 97%
- MSRT, realizing high conversion efficiency in the situation of low charge power
- Ultra-fast tracking speed and guaranteed tracking efficiency
- Accurately recognizing and tracking of multiple power points
- Reliable automatic limit function of maximum PV input power, ensuring no overload
- Wide MPP operating voltage range
- High-speed and high-powered dual-core processor architecture, improving system response speed, optimizing system performance

- Die-cast aluminum case for heat dissipating, ensuring excellent heat dissipation characteristic
- 12/24/36/48VDC automatically identifying system voltage or user-defined working voltage
- Concise human-computer interactive interface, convenient multiple combination keys, dynamically displaying system operating data and working condition.
- Multiple load control modes: manual control, light ON/OFF, light on+timer and time control.
- Support 4 charging options: Sealed, Gel, Flooded and User.
- Battery temperature compensation function.
- Real-time energy statistics function.
- With RS-485, RS-232 communication bus interface and Modbus communication protocol, it is available to meet various communication requirements in different situations.
- Available for PC monitoring and external display unit connecting like MT50 and so on, realizing real-time data checking and parameters setting.
- Support software upgrade.

Electronic protections:

- PV short circuit protection
- PV reverse polarity protection
- Battery over discharge protection
- Load overload protection
- Battery overheating protection
- PV over current protection
- Battery over voltage protection
- Battery reverse polarity protection
- Load short circuit protection
- Controller overheating protection



PC software



Mobile APP (Option):Android



Display interface



Accessories



Remote Control Panel
Mt50



Remote temp. sensor
RTS300R10K5.08A



PC communication cable
CC-USB-RS485-150U-3.81

Technical specifications

Model	IT3415ND	IT4415ND	IT6415ND
Nominal system voltage	12/24/36/48V auto work		
Rated battery current	30A	45A	60A
Rated load current	30A	45A	60A
Max. PV open circuit voltage	150V (at minimum operating environment temperature) 138V (at 25°C environment temperature)		
Battery Input Voltage Range	8~68V		
Max. PV input power	400W (12V)	600W (12V)	800W (12V)
	800W (24V)	1200W (24V)	1600W (24V)
	1200W (36V)	1800W (36V)	2400W (36V)
	1600W (48V)	2400W (48V)	3200W (48V)
Self-consumption	1.4~2.6W		
Equalize charging voltage	Sealed: 14.6V, Flooded: 14.8V, User-defined: 9~17V		
Boost charging voltage	Gel: 14.2V, Sealed: 14.4V, Flooded: 14.6V, User-defined: 9~17V		
Float charging voltage	Gel /Sealed /Flooded: 13.8V, User-defined: 9~17V		
Low voltage reconnect voltage	Gel /Sealed /Flooded: 12.6V, User-defined: 9~17V		
Low voltage disconnect voltage	Gel /Sealed /Flooded: 11.1V, User-defined: 9~17V		
Grounding	Common negative		

* Technical data for 12V system at 25°C

Mechanical	IT3415ND	IT4415ND	IT6415ND
Overall	358x219x102mm	382x231x107mm	440x231x110mm
Mounting	339x195mm	362x205mm	420x205mm
Terminal	25mm ²	35mm ²	35mm ²
Net Weight	3.7kg	4.6kg	5.9kg

Environmental	
LCD temperature range	-20°C ~ +70°C
Ambient temperature range	-25°C ~ +50°C
Humidity range	95% N.C.
Enclosure	IP20

Conversion Efficiency Curves:

Illumination Intensity: 1000W/m² Temperature: 25°C

Test model: IT6415ND

Solar MPPT Voltage(72V, 90V, 108V) / System Voltage(48V)

48V Conversion Efficiency Curves

