

# MPPT Solar charge controller with load control



## iTracer series

iTracer 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

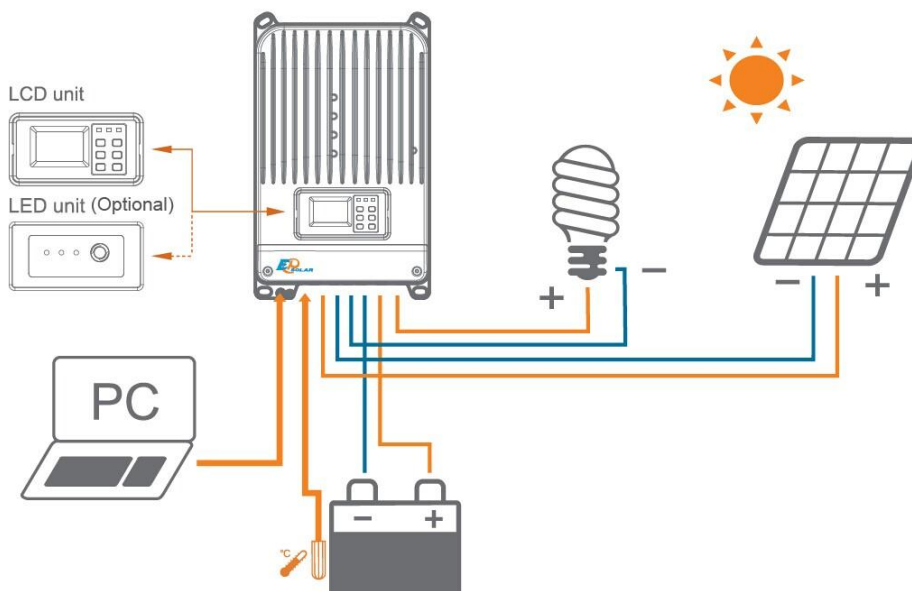
### Features:

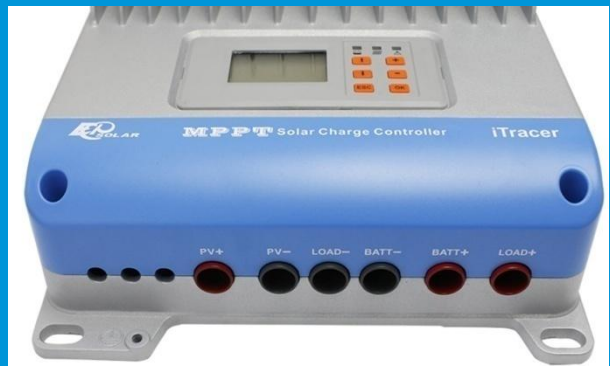
- ◆ Advanced MPPT algorithm with the max. tracking efficiency of 99%.
- ◆ Multi-phase synchronous rectification technology realizing peak conversion efficiency 98%
- ◆ Dual-core(ARM CPU+DSP) control architecture improves the system response speed and optimizes the performance of the system

- ◆ Multiphase control technology, optimizes charging current smoothness, reduces ripple and improves the system efficiency
- ◆ 128\*64 dot-matrix LCD intuitively displays data and state, 6 buttons combinations for easy operation
- ◆ Four battery type options: Sealed, Gel, Flooded and User-defined
- ◆ Energy statistics recording, it is convenient for users to view charging and discharging energy of each day, month, year and total value.
- ◆ Diversified load control mode
- ◆ Programmable battery management parameters
- ◆ Built-in running data and event logging, max. 15 months
- ◆ Extensive communication capabilities (RS232,RS485 with Modbus protocol, CAN Bus extendable)
- ◆ PC software available for real time monitoring and parameter setting
- ◆ Field upgradable firmware

### Electronic protections:

- ◆ PV short circuit protection
- ◆ PV over current protection
- ◆ Reverse current protection at night
- ◆ Battery reverse polarity protection
- ◆ Load short circuit protection
- ◆ PV overvoltage protection
- ◆ PV reverse polarity protection
- ◆ Over temperature protection
- ◆ Load overload protection





### Accessories :



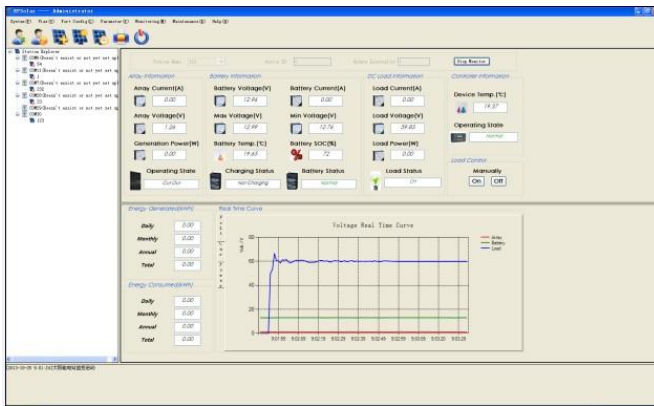
Remote temperature sensor  
RTS300R10K5.08A



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



## PC software:



## Display interface:



## Technical specifications

Model	IT3415ND	IT4415ND	IT6415ND
Nominal system voltage	12V/24V /36V/48V auto work		
Rated battery current	30A	45A	60A
Rated load current	30A	45A	60A
Max. PV open circuit voltage	150V		
Voltage range	8~72V		
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	1.4~2.2W		
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		
Tracking efficiency	99%		
Peak conversion efficiency	98%		

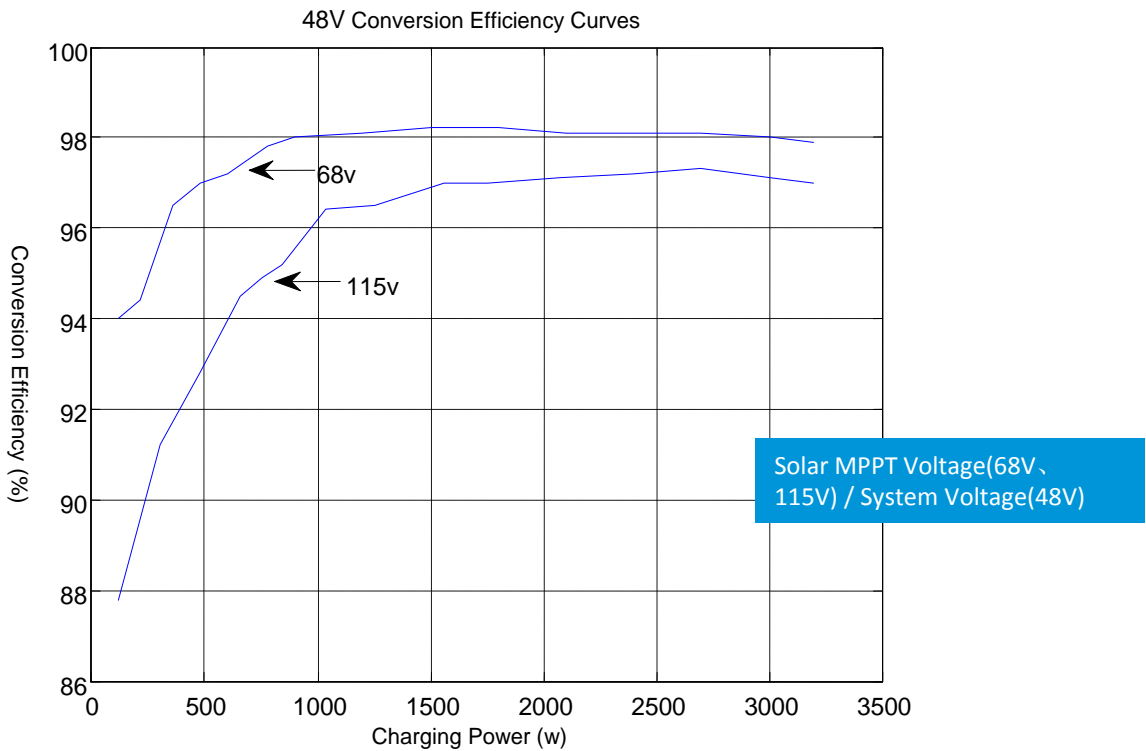
\* Technical data for 12V system at 25°C

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

Environmental	
Ambient temp. range	-25°C ~ +55°C
Storage temp. range	-30°C ~ +85°C
Humidity range	95% N.C.
Enclosure	IP20

### Conversion Efficiency Curves:

Illumination Intensity: 1000W/m<sup>2</sup>    Temperature: 25°C  
 Test model: IT6415ND



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