



- Advanced MPPT technology
- High tracking efficiency no less than 99.5%
- Peak conversion efficiency of 98%
- Ultra-fast tracking speed.
- Multiphase synchronous rectification technology (MSRT), ensuring high conversion efficiency even with weak power charging
- Accurately tracking and recognizing MPP among multiple wave crest
- Reliable automatic PV current limiting function
- Wide MPP operating voltage range
- High-speed dual-core processor architecture, improving system response speed, optimizing system performance

MPPT Solar Charge Controller with DC load output

iTracer-ND is an intelligent, efficient, high-speed solar charge controller with advanced MPPT (Maximum Power Point Tracking) algorithm, that harvests the maximum power from a solar array to charge battery banks.

Applied to off-grid PV systems up to 3KW it can increase efficiency up to 30%.

Its outer die-cast aluminum design ensures higher heat dissipation performance. An electronic protection system prevents damage during operational errors.

A RS485 Port/Modbus protocol, improves extensive communication ability. Programmable parameters make the controller more compatible with different battery types.

TECHNICAL INFORMATION

Specifications:

Nominal system voltage	12/24/36/48VDC auto work
Rated charge current	45A
Rated discharge current	45A
Max. PV open circuit voltage	150V(at minimum operating environment temperature) 138V at 25° environment temperature
3 MPP voltage range	Vbat+2V~108V
Max. PV input power	(12V) 600W (24V) 1200W (36V) 1800W (48V) 2400W
Equalize charging voltage*	Sealed: 14.6V, Flooded:14.8V, User: 9~17V
Boost charging voltage*	Gel: 14.2V, Sealed: 14.4V, Flooded: 14.6V, User: 9~17V
Float charging voltage*	Gel /Sealed /Flooded: 13.8V, User: 9~17V
Low voltage reconnect voltage*	Gel /Sealed /Flooded: 12.6V, User: 9~17V
Low voltage disconnect voltage*	Gel /Sealed /Flooded: 11.1V, User: 9~17V
Self-consumption	1.4~2.6W
Temperature compensation	-3mV/ °C/2V
Communication:	RS485/RS232 (3.81 -4P Interface)
Grounding	Common negative
Enclosure	IP20
Working temperature	-25 °C ~ +45 °C
Humidity Range	≤95% (N.C.)

PACKAGE CONTENTS

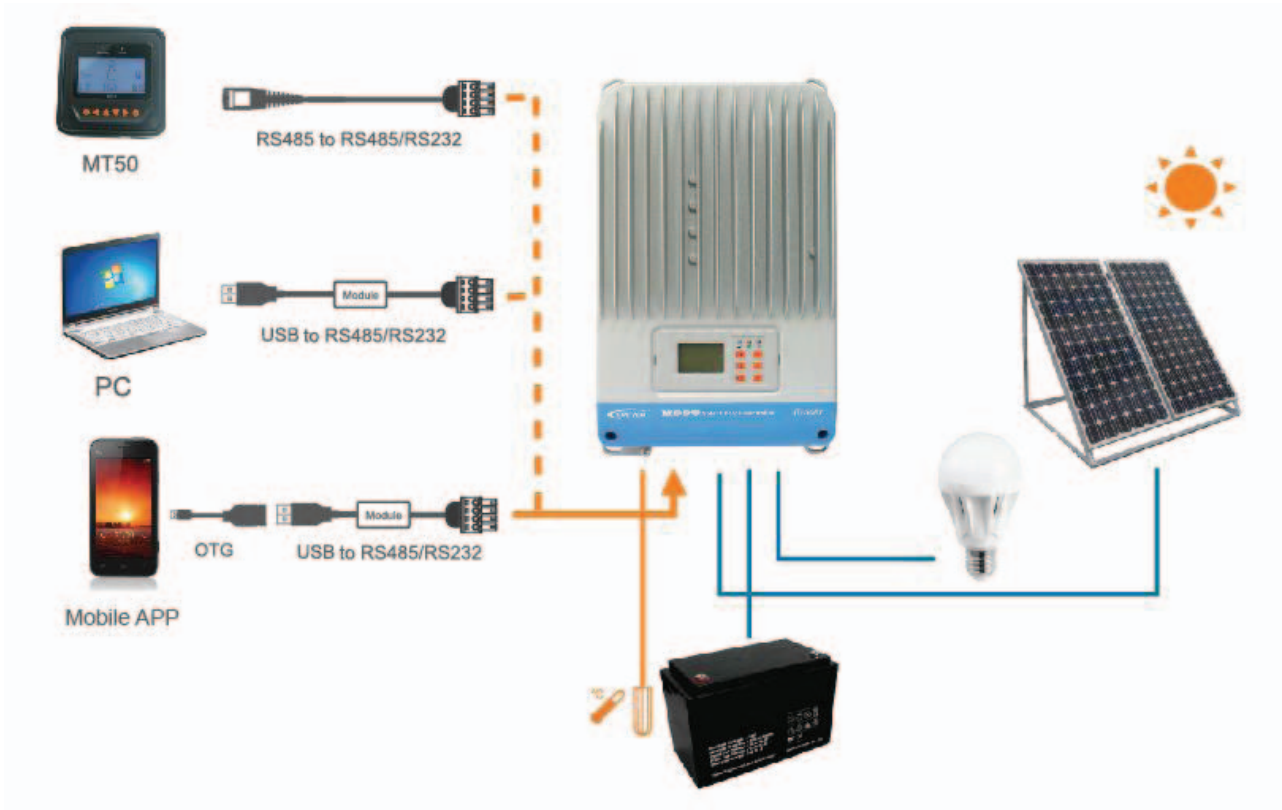
 1 x MPPT Solar Charge Controller

PACKAGE DIMENSIONS

	Height (mm)	Depth (mm)	Width (mm)	Weight (kg)
Product	382	231	107	4.6



Basic Diagram



Conversion Efficiency Curves:

Illumination Intensity: 1000W/m² Temperature: 25°C
 Test model: IT6415ND

