

MPPT Solar charge controller

eTracer-AD series



eTracer-AD is an intelligent, efficient, high-speed solar charge controller with advanced Maximum Power Point Tracking (MPPT) algorithm, which can harvest the maximum power from the solar array to charge battery. It can be applied in the off-grid PV systems up to 3KW, and increase the efficiency up to 30% .

The die-cast aluminum design ensure higher heat dissipation performance. Electronic protections prevent damage as operating error.RS485 Port/ Modbus protocol improve extensive communication ability, and programmable parameter make the controllers working with different battery types.



Models:

ET4415AD, 45A, 12V/24V/36V/48V auto work

ET6415AD, 60A, 12V/24V/36V/48V auto work

Features:

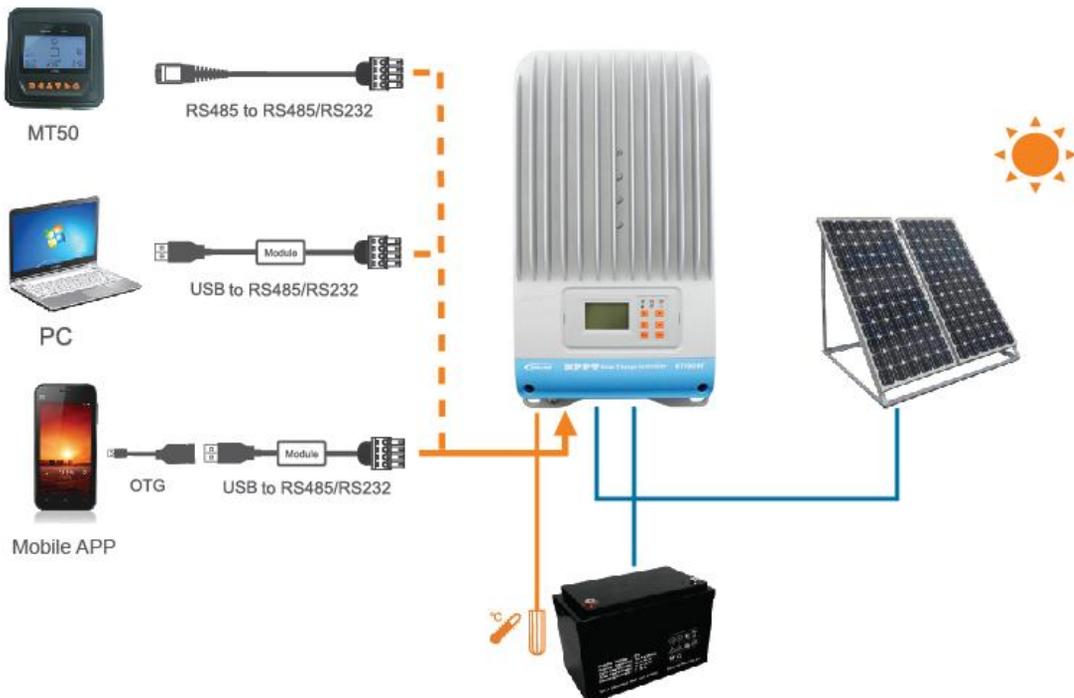
- Advanced Maximum Power Point Tracking (MPPT) technology
- High tracking efficiency $\geq 99.5\%$
- Peak conversion efficiency of 98% and full load efficiency of 97%
- Ultra-fast tracking speed
- Multiphase synchronous rectification technology(MSRT), ensuring high conversion efficiency even with weak 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
- Die-cast aluminum design, ensuring excellent heat dissipation
- Concise human-computer interactive interface, dynamically displaying system operating data and working status.
- Battery type selection: Sealed, Gel, Flooded and User(programmable)
- Battery temperature compensation
- Built-in running data and event logging
- RS485 port with industrial standard MODBUS open architecture
- Real-time data monitoring and parameters setting with MT50, APP or PC software
- Widely used in solar telecom base station, solar home system, solar power station, etc.
- Support firmware upgrade.



Electronic protections:

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





Accessories:

| Option | | Standard | | | |
|---|---------------------------|--|--|--|----------|
| | | | | | |
| MT50 Remote meter with 2m communication cable | OTG-12CM OTG cable (12cm) | Remote temp. sensor RTS300R10K5.08A (3m) | PC communication cable CC-USB-RS485-150U-3.81 (1.5m) | Connector (for battery voltage sampling) | Software |

PC software:



Mobile APP:



* Free download from website for PC software and APP.

Technical specifications:

CE RoHS

| Model | ET4415AD | ET6415AD |
|--------------------------------------|---|-------------|
| Nominal system voltage | 12/24/36/48V auto work | |
| Rated charge current | 45A | 60A |
| Max. PV open circuit voltage | 150V at minimum operating environment temperature 138V at 25°C environment temperature | |
| MPP. voltage range | (Battery voltage+2V)~108V | |
| Rated PV input power | 600W (12V) | 800W (12V) |
| | 1200W (24V) | 1600W (24V) |
| | 1800W (36V) | 2400W (36V) |
| | 2400W (48V) | 3200W (48V) |
| 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 | 1.4~2.2W | |
| Temperature compensation coefficient | -3mV/°C/2V | |
| Grounding | Common positive | |

* Technical data for 12V system at 25°C, twice in 24V system, triple in 36V system and quadruple in 48V system.

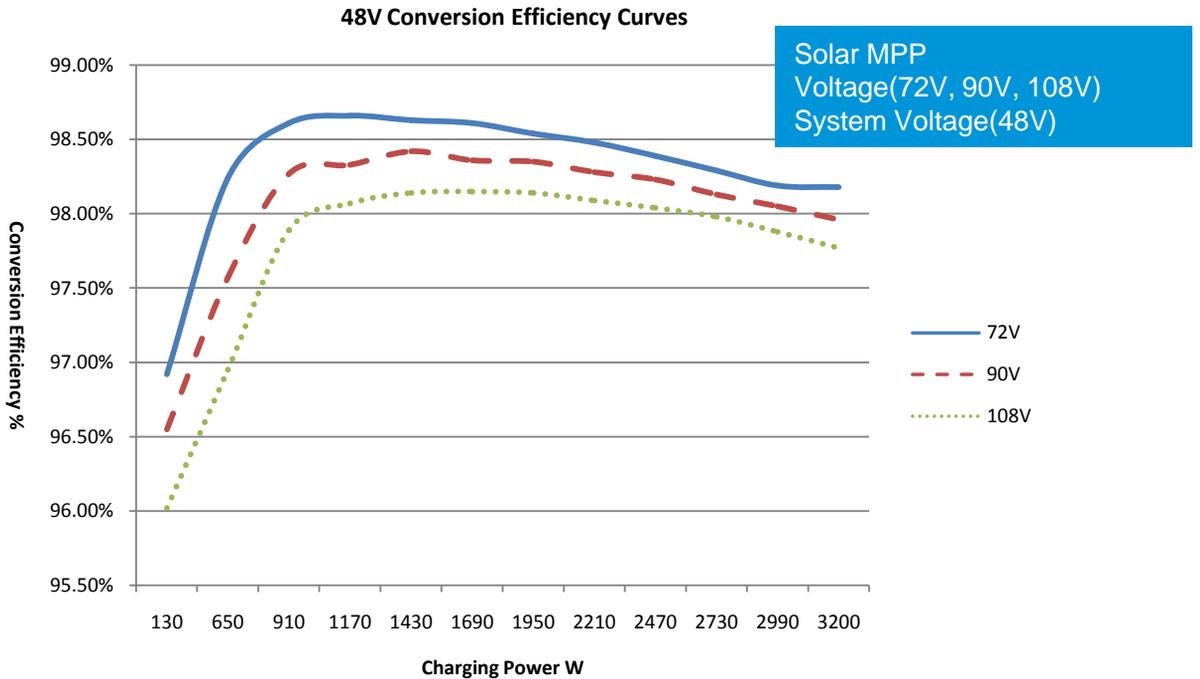
* Programmable voltage value by PC, MT50 and APP.

| Mechanical | ET4415AD | ET6415AD |
|-------------------|--------------------------|--------------------------|
| Overall dimension | 398.6x208x107mm | 449x208x107mm |
| Terminal | 2AWG(35mm ²) | 2AWG(35mm ²) |
| Net weight | 4.3kg | 5.5kg |
| Enclosure | IP20 | |

| Environmental | |
|---------------------------------|---------------|
| LCD temperature range | -20°C ~ +70°C |
| Working environment temperature | -25°C ~ +55°C |
| Relative humidity | ≤95% (N.C.) |

Conversion efficiency curves:

Illumination Intensity: 1000W/m² Temperature: 25°C Test model: ET6415AD



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ISO9001:2008 ISO14001:2004