

XTRA Solar Charge Controller

10-40A, 12/24VDC Auto
30A,40A, 12/24/36/48VDC Auto



Overview:

XTRA(10A-40A) series is advanced maximum power point tracking (MPPT) charge controllers for off-grid photovoltaic systems, with optional display units (XDB1/XDS1/XDS2). It is designed according to the international standard with higher quality, reliability, and safety. The limitation function of the charging power, charging current, and automatic power reduction function fully ensure stability when working with oversize PV modules(max. 1.5 times of rated power) and operating under a high-temperature environment.

Features:

- *MPPT tracking efficiency above 99.5%
- *Maximum charge conversion efficiency as high as 97.4%
- *Support lead-acid and lithium-ion batteries
- *Multiple load work modes
- *Charging power and current limitation function
- *High-temperature charging power derating function
- *Standard Modbus communication protocol with isolated RS485 interface
- *Real-time energy statistics function
- *Optional LCD display units (XDB1/XDS1/XDS2) and accessories
- *IP33 ingress protection design
- *CE(LVD IEC62109, EMC EN3/1-6-61000)and ROHS, ETL(UL-1741:2010 and Canadian CSA C22.2 No. 107.1.01), FCC Class B Part 15 Compliant, IEC62509:2010

Specifications

| Model | XTRA1206N | XTRA2206N | XTRA1210N | XTRA2210N | XTRA3210N | XTRA4210N | XTRA3215N | XTRA4215N | XTRA3415N | XTRA4415N |
|--|---|---------------------------|--|---------------------------|---------------------------|---------------------------|---|----------------------------|--|--|
| Nominal system voltage | 12/24VDC/Auto | 12/24VDC/Auto | 12/24VDC/Auto | 12/24VDC/Auto | 12/24VDC/Auto | 12/24VDC/Auto | 12/24VDC/Auto | 12/24VDC/Auto | 12/24/36/48VDC/Auto | 12/24/36/48VDC/Auto |
| Battery type | Lead-acid (Sealed/Gel/Flooded)/Lithium (LiFePO ₄ /Li(NiCoMnO ₂)/User | | | | | | | | | |
| Battery input voltage range | 8-32V | 8-32V | 8-32V | 8-32V | 8-32V | 8-32V | 8-32V | 8-32V | 8-68V | 8-68V |
| Rated charge current | 10A | 20A | 10A | 20A | 30A | 40A | 30A | 40A | 30A | 40A |
| Rated discharge current | 10A | 20A | 10A | 20A | 30A | 40A | 30A | 40A | 30A | 40A |
| Rated charge power | 130W/12V 280W/24V | 260W/12V 520W/24V | 130W/12V 260W/24V | 260W/12V 520W/24V | 390W/12V 780W/24V | 520W/12V 1040W/24V | 390W/12V 780W/24V | 520W/12V 1040W/24V | 390W/12V 780W/24V 1170W/36V 1560W/48V | 520W/12V 1040W/24V 1560W/36V 2080W/48V |
| Max. conversion efficiency | 97.90% | 98.30% | 98.20% | 98.30% | 98.60% | 98.60% | 97.60% | 97.90% | 98.10% | 98.50% |
| Tracking efficiency | ≥99.5% | | | | | | | | | |
| Max. PV open circuit voltage | 60V (At minimum operating environment temperature) 46V (At 25°C environment temperature) | | 100V (At minimum operating environment temperature) ; 92V (At 25°C environment temperature) | | | | 150V (At minimum operating environment temperature) ; 138V (At 25°C environment temperature) | | | |
| MPP voltage range | (Battery voltage +2V)~36V | (Battery voltage +2V)~36V | (Battery voltage +2V)~72V | (Battery voltage +2V)~72V | (Battery voltage +2V)~72V | (Battery voltage +2V)~72V | (Battery voltage +2V)~108V | (Battery voltage +2V)~108V | (Battery voltage +2V)~108V | (Battery voltage +2V)~108V |
| Equalization voltage | Sealed:14.6V/Flooded:14.8V/User-defined:9-17V | | | | | | | | | |
| Boost voltage | Gel:14.2V,Sealed:14.4V/Flooded:14.6V/User-defined:9-17V | | | | | | | | | |
| Float 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 | | | | | | | | | |
| Self-consumption | ≤14mA(12V) ≤15mA(24V) | ≤14mA(12V) ≤15mA(24V) | ≤30mA(12V) ≤16mA(24V) | ≤30mA(12V) ≤16mA(24V) | ≤30mA(12V) ≤16mA(24V) | ≤30mA(12V) ≤16mA(24V) | ≤30mA(12V) ≤16mA(24V) | ≤30mA(12V) ≤16mA(24V) | ≤30mA(12V) ≤16mA(24V) ≤13mA(36V) ≤13mA(48V) | ≤30mA(12V) ≤16mA(24V) ≤13mA(36V) ≤13mA(48V) |
| Temperature compensation (for lead-acid battery) | -3mV/°C/2V (Default) | | | | | | | | | |
| Relative humidity | ≤95% N.C | | | | | | | | | |
| Enclosure | IP33 | | | | | | | | | |
| Communication interface | RS485(RJ45) | | | | | | | | | |
| Grounding | Common negative | | | | | | | | | |
| Operating temperature range | -25°C ~ +50°C (LCD); -30°C ~ +50°C (No LCD) | | | | | | -25°C ~ +45°C (LCD); -30°C ~ +45°C (No LCD) | | | |
| Dimensions(LxWxH)(mm) | 175×143×48 | 217×158×56.5 | 175×143×48 | 217×158×56.5 | 230×165×63 | 255×185×67.8 | 255×185×67.8 | 255×187×75.7 | 255×187×75.7 | 255×189×83.2 |
| Net weight | 0.57kg | 0.96kg | 0.57kg | 0.96kg | 1.31kg | 1.70kg | 1.70kg | 2.07kg | 2.07kg | 2.47kg |

1. The controller can't auto-identify system voltage if lithium batteries were connected.
2. The voltage point is for 12V system, please *2 in 24V system, *3 in 36V system, *4 in 48V system.

Accessories (optional)



MT-75
Remote Meter



MT-50
Remote Meter



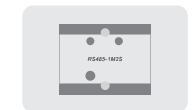
EPEVER-RTU-4G
Wireless Data Transmission Unit



EPEVER-WIFI-2.4G-RJ45-A
WIFI Serial Server



EPEVER-BLE-RJ45-A
Bluetooth Module



RS485-1M2S
Extension Module

EPEVER can provide many accessories to meet different applications. Please contact sales for more accessories information.