

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(NiCoMn)O 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 260W/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 automatically 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.

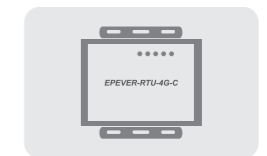
Accessories (optional)



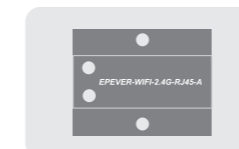
MT-75
Remote Meter



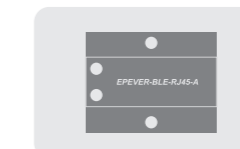
MT-50
Remote Meter



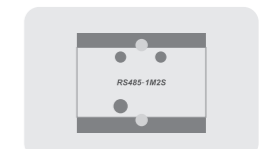
EPEVER-RTU-4G
Wireless Data Transmission Unit



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.