XTRA-N G3 / XTRA-N G3 BLE

Mppt Solar Charge Controller

Overview

The XTRA-N G3 series is a new generation of MPPT solar charge and discharge controllers with an integrated Bluetooth module*. Users can easily read or modify settings parameters through the EPEVER APP. It boasts rapid tracking speed and response for high-power points, ensuring maximal utilization of solar energy. The device features an adaptive three-stage charging mode and a stable function for lithium battery activation, which safeguards battery charging and enhances the overall system performance and lifespan. It also offers a constant voltage output function, which allows the PV to directly supply power to the load in sunlight without a battery, significantly broadening the system's applications. With an IP33 protection and a low self-consumption, along with optimized EMC and comprehensive protection functions, it is suitable for various fields including RVs, residential systems, and field monitoring, meeting a variety of needs.

* Only XTRA-N G3 BLE series has built-in Bluetooth module

Features

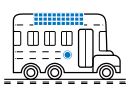
- Constant voltage output
- Rated Charging Power & Current Limitation
- Certain models support Bluetooth for parameter reading and modification via app
- Operates at full load within the working temperature range
- Innovative MPPT technology & ultra-fast tracking speed
- Tracking efficiency is no less than 99.5%
- Compatible with various types of batteries: lithium, gel, sealed, etc
- Wide MPPT voltage range, maximizes the utilization of PV modules
- Automatic temperature compensation for lead-acid batteries and stable self-activation for lithium batteries
- RS485 communication interface with optional 4G or Wi-Fi modules for remote monitoring
- Low self-consumption, lower than 10mA
- IP33 enclosure, Comprehensive electronic protections

Product Certification









Solar Car



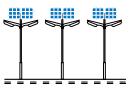
Solar Home



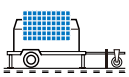
Solar Backpack



Solar Boat



Solar Street Light



Solar Power Generator

Technical Specifications

Item	XTRA1206N G3/G3 BLE	XTRA2206N G3/G3 BLE	XTRA1210N G3/G3 BLE	XTRA2210N G3/G3 BLE	XTRA3210N G3/G3 BLE	XTRA4210N G3/G3 BLE	XTRA3215N G3/G3 BLE	XTRA4215N G3/G3 BLE	XTRA3415N G3/G3 BLE	XTRA4415N G3/G3 BLE
Electrical Parameters										
Battery Rated Voltage	12/24VDC★ Auto								12/24/36/48VDC★Auto	
Rated Charging Current	10A	20A	10A	20A	30A	40A	30A	40A	30A	40A
Rated Discharging Current	10A	20A	10A	20A	30A	40A	30A	40A	30A	40A
Controller Work Voltage Range	8～31V								8～62V	
PV Maximum Open-circuit Voltage	60V(At minimum operating environment temperature) 46V(At 25°C environment		100V(At minimum operating environment temperature) 92V(At 25°C environment temperature)				150V(At minimum operating environment temperature) 138V(At 25°C environment temperature)			
MPPT Voltage Range	temperature) (Battery voltage+2V)～36V		(Battery voltage+2V)～72V				(Battery voltage+2V)～108V			
Rated Charging 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
Maximum Conversion Efficiency	97.90%	98.30%	98.20%	98.30%	98.60%	98.60%	97.60%	97.90%	98.10%	98.50%
Maximum Load Efficiency	97.00%	96.70%	96.20%	96.40%	96.60%	96.50%	95.10%	95.40%	96.90%	97.20%
Static Losses (Enable the com. port)	⩽10mA(12V) ⩽7mA(24V)	⩽10mA(12V) ⩽7mA(24V)	⩽15mA(12V) ⩽9mA(24V)	⩽15mA(12V) ⩽9mA(24V)	⩽15mA(12V) ⩽9mA(24V)	⩽15mA(12V) ⩽9mA(24V)	⩽15mA(12V) ⩽9mA(24V)	⩽15mA(12V) ⩽9mA(24V)	⩽14mA(12V) ⩽9mA(24V) ⩽8mA(36V) ⩽7mA(48V)	⩽14mA(12V) ⩽9mA(24V) ⩽8mA(36V) ⩽7mA(48V)
Static Losses (Disable the com. port)	⩽8mA(12V) ⩽5mA(24V)	⩽8mA(12V) ⩽5mA(24V)	⩽8mA(12V) ⩽6mA(24V)	⩽8mA(12V) ⩽6mA(24V)	⩽8mA(12V) ⩽5mA(24V)	⩽8mA(12V) ⩽5mA(24V)	⩽8mA(12V) ⩽5mA(24V)	⩽8mA(12V) ⩽5mA(24V)	⩽8mA(12V) ⩽5mA(24V) ⩽5mA(36V) ⩽5mA(48V)	⩽8mA(12V) ⩽5mA(24V) ⩽5mA(36V) ⩽5mA(48V)
Discharge-circuit Voltage Drop	⩽0.23V									
Temperature Compensation	-3mV/°C/2V (Default)									
Grounding Type	Common negative									
RS485 Port	5VDC/200mA(RJ45)									
LCD Backlight Time	Default: 60S, Range: 0~999S(0S: the backlight is ON all the time)									
Mechanical Parameters										
Dimension (L x W x H)	175×143×48 mm	217×158×56.5 mm	175×143×48 mm	217×158×56.5 mm	230×165×63 mm	255×185×67.8 mm	255×185×67.8 mm	255×187×75.7 mm	255×187×75.7 mm	255×189×83.2 mm
Mounting Size (L x W)	120×134mm	160×149mm	120×134mm	160×149mm	173×156mm	200×176mm	200×176mm	200×178mm	200×178mm	200×180mm
Mounting Hole Size	Φ5mm									
Terminal	12AWG($4mm^2$)	6AWG($16mm^2$)	12AWG($4mm^2$)	6AWG($16mm^2$)	6AWG($16mm^2$)	6AWG($16mm^2$)	6AWG($16mm^2$)	6AWG($16mm^2$)	6AWG($16mm^2$)	6AWG($16mm^2$)
Recommended Wire Size	12AWG($4mm^2$)	10AWG($6mm^2$)	12AWG($4mm^2$)	10AWG($6mm^2$)	8AWG($10mm^2$)	6AWG($16mm^2$)	8AWG($10mm^2$)	6AWG($16mm^2$)	8AWG($10mm^2$)	6AWG($16mm^2$)
Net Weight	0.58kg	0.97kg	0.59kg	0.97kg	1.30kg	1.72kg	1.66kg	2.08kg	2.16kg	2.60kg
Work Temperature Range	-25°C～+50°C						-25°C～+45°C			
Storage Temperature Range	-20°C～+70°C									
Relative Humidity	⩽95%, N.C.									
Enclosure	IP33 (3-protection against solid objects: protected against solids objects over 2.5mm. 3-protected against sprays to 60°from the vertical.									
Pollution Degree	PD2									

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