



LET-XB1-HJ Series

MPPT Solar Charge Controller

The LET-XB1-HJ 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 LET-XB1-HJ 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



Solar Car



Solar Home



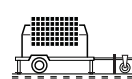
Solar Backpack



Solar Boat



Solar Street Light



Solar Power Generator

Model	LET-G10KN2R1-HJ/ LET-G10KN2B1-HJ	LET-G20KN2R1-HJ/ LET-G20KN2B1-HJ	LET-G10TN2R1-HJ/ LET-G10TN2B1-HJ	LET-G20TN2R1-HJ/ LET-G20TN2B1-HJ	LET-G30TN2R1-HJ/ LET-G30TN2B1-HJ
Electrical Parameters					
Battery Rated Voltage	12/24VDC★Auto				
Rated Charging Current	10A	20A	10A	20A	30A
Rated Discharging Current	10A	20A	10A	20A	30A
Controller Work Voltage Range	8~31V				
PV Maximum 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)		
MPPT Voltage Range	(Battery voltage+2V)~36V		(Battery voltage+2V)~72V		
Rated Charging Power	130W/12V 260W/24V	260W/12V 520W/24V	130W/12V 260W/24V	260W/12V 520W/24V	390W/12V 780W/24V
Maximum Conversion Efficiency	97.90%	98.30%	98.20%	98.30%	98.60%
Maximum Load Efficiency	97.00%	96.70%	96.20%	96.40%	96.60%
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)
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)
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 back ight is ON all the time)				
Mechanical Parameters					
Dimension (L *W *H)	175×143×48mm	217×158×56.5mm	175×143×48mm	217×158×56.5mm	230×165×63mm
Mounting Size (L *W)	120×134mm	160×149mm	120×134mm	160×149mm	173×156mm
Mounting Hole size	Φ5mm				
Terminal	12AWG(4mm²)	6AWG(16mm²)	12AWG(4mm²)	6AWG(6mm²)	6AWG(16mm²)
Recommended Wire Size	12AWG(4mm²)	10AWG(6mm²)	12AWG(4mm²)	10AWG(6mm²)	8AWG(10mm²)
Net Weight	0.58kg	0.97kg	0.59kg	0.97kg	1.30kg
Work Temperature Range	-25°C~+50°C				
Storage Temperature Range	-20°C~+70°C				
Relative Humidity	≤95%, N.C.				
Enclosure	IP33 (3 -protection againstsolid objects: protected against solids objects over 2.5mm. 3-protected against sprays to 60°from the vertical.				
Pollution Degree	PD2				

Remarks: Specifications are subject to change without notice.

	LET-G40TN2R1-HJ/ LET-G40TN2B1-HJ	LET-G30LN2R1-HJ/ LET-G30LN2B1-HJ	LET-G40LN2R1-HJ/ LET-G40LN2B1-HJ	LET-H30LN2R1-HJ/ LET-H30LN2B1-HJ	LET-H40LN2R1-HJ/ LET-H40LN2B1-HJ
Electrical Parameters					
Battery Rated Voltage	12/24VDC★Auto			12/24/36/48VDC★Auto	
Rated Charging Current	40A	30A	40A	30A	40A
Rated Discharging Current	40A	30A	40A	30A	40A
Controller Work Voltage Range	8~31V			8~62V	
PV Maximum Open-Circuit Voltage	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	(Battery voltage+2V)~72V	(Battery voltage+2V)~108V			
Rated Charging Power	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	98.60%	97.60%	97.90%	98.10%	98.50%
Maximum Load Efficiency	96.50%	95.10%	95.40%	96.90%	97.20%
Static Losses (Enable the com.port)	≤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) ≤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 back ight is ON all the time)				
Mechanical Parameters					
Dimension (L *W *H)	255×185×67.8mm	255×185×67.8mm	255×187×75.7mm	255×187×75.7mm	255×189×83.2mm
Mounting Size (L *W)	200×176mm	200×176mm	200×178mm	200×178mm	200×180mm
Mounting Hole size	Φ5mm				
Terminal	6AWG(16mm²)	6AWG(16mm²)	6AWG(16mm²)	6AWG(16mm²)	6AWG(16mm²)
Recommended Wire Size	6AWG(16mm²)	8AWG(10mm²)	6AWG(16mm²)	8AWG(10mm²)	6AWG(16mm²)
Net Weight	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 againstsolid objects: protected against solids objects over 2.5mm. 3-protected against sprays to 60°from the vertical.				
Pollution Degree	PD2				

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