LESSO

LET-XB2-HJ Series

MPPT Solar Charge Controller

The LET-XB2-HJ series is a new generation of high-current MPPT charge and discharge controller. It features load output capability and delivers superior MPPT tracking and conversion efficiency. The series is compatible with various lithium battery types and supports three-stage charging management to extend battery lifespan. Its exceptional low-power design significantly reduces static consumption, prolonging system standby time.

Comprehensive electronic protection and flexible communication options (WiFi, Bluetooth, 4G, etc.) further enhance system reliability and monitoring capabilities. It is widely used in RVs, boats, industrial monitoring, and small to medium-sized solar power systems.

Features

- Supports 12V/24V/36V/48V systems; Charge/Discharge current: 50A–100A
- All metal die-casting shell, IP43(1)
- Supports two PV inputs(2)
- Max. MPPT tracking efficiency: 99.9%; Max. Conversion efficiency: 98.5%
- Compatible with AGM, Gel, Flooded, LiFePO4 batteries, etc.
- Constant voltage output functio: Enables direct load supply with sufficient PV energy
- Communication interface with electrical isolation
  - · CAN: Parallel operation of up to 6 devices(with or without batteries)
  - · BMS: Ensures reliable lithium battery charge/discharge management(3)
  - · RS485: Optional Bluetooth, WiFi, or 4G modules(4)
- Real-time data recording, event logging, and power statistics function
- EMC compliant (CLASS B)

(1) IP32 without terminal cover

(2) LET-H100LN242-HJ, LET-H100LN2B2-HJ; LET-H100HN2R2-HJ;LET-H80HN242-HJ support two PV inputs

(3) Requires BMS-LINK module for others company batteries

(4) LET-XXXXXXBXX-HJ models feature integrated Bluetooth

Model	LET-H50HN2R1-HJ	LET-H60LN2R1-HJ LET-H60LN2B1-HJ	LET-H60HN2R1-HJ	LET-H75LN2R1-HJ
Electrical Parameters				
Battery Rated Voltage	12/24/48VDC~Auto			
Controller Operating Voltage Range	8–62V			
Battery Type	AGM (Default) / Gel / Flooded / User			
Lithium Battery Type	LiFePO4 / Li (NiCoMn)O2 / User			
Rated Charging / Discharging Current	50A	60A		75A
Rated Charging Power	650W/12V; 1,300W/24V; 2,600W/48V	780W/12V; 1,560W/24V; 3,120W/48V		975W/12V; 1,950W/24V; 3,900W/48V
Maximum Charging Power	650W/12V; 1,300W/24V; 2,600W/48V	780W/12V; 1,560W/24V; 3,120W/48V		975W/12V; 1,950W/24V; 3,900W/48V
Rated Load Current	50A	60A		75A
Maximum Load Current	50A	60A		75A
PV Maximum Open-circuit Voltage	200V (@ lowest temperature); 180V (@ 25°C)	150V (@ lowest temperature); 138V (@ 25°C)	200V (@ lowest temperature); 180V (@ 25°C)	150V (@ lowest temperature); 138V (@ 25°C)
MPPT Operating Voltage Range	(Battery voltage plus 2V, and>28V) to 144V (@ 25°C)	(Battery voltage plus 2V, and>28V) to 108V (@ 25°C)	(Battery voltage plus 2V, and>28V) to 144V (@ 25°C)	(Battery voltage plus 2V, and>28V) to 108V (@ 25°C)
Tracking Efficiency	≥ 99.5%			
Maximum Conversion Efficiency	98.30%	98.60%	98.10%	98.60%
Full Load Efficiency	97.10%	98.00%	98.00%	98.00%
Temperature Compensation Coefficient	-3mV/°C/2V (Default)			
Self-consumption (Enabled Communication)	98mA/12V; 60mA/24V; 46mA/48V			
Self-consumption (Disabled Communication)	48mA/12V; 25mA/24V; 14mA/48V			
Grounding Type	Common negative grounding			
Dry Contact (Oil Generator / Utility)	Rated value: 5A/30VDC; Maximum value: 0.5A/60VDC			
RS485 Communication Port	5VDC/200mA (RJ45)			
Mechanical Parameters				
Dimension (L*W*H) IP43 (Controller & White Terminal Cover)	307×253×143mm	320×263×143mm		320×263×158mm
Dimension (L*W*H) IP32 (Controller Only)	307×202×134mm	320×212×134mm		320×212×149mm
Mounting Dimension (L*W)	295×130mm	308×140mm		
Mounting Hole Size	Φ7mm			
Wiring Terminal	6AWG/16mm²	2AWG/35mm²		
Recommended Cable	6AWG/16mm²			4AWG/25mm²
Net Weight IP43 (Controller & White Terminal Cover)	5.07kg	5.88kg	5.93kg	6.56kg
Net Weight IP32 (Controller Only)	4.86kg	5.66kg	5.71kg	6.34kg
Environmental Parameters				
Operating Temperature Range	-25°C to +60°C (Derating when temperature is higher than 40°C)			
LCD Temperature Range	-20°C to +70°C			
Storage Temperature Range	-30°C to +70°C			
Relative Humidity	5%–95% (N.C)			
Altitude	< 5,000M (Derating when altitude is higher than 2,000m)			
Enclosure	Ip43 (Controller & White Terminal Cover); IP32 (Controller Only)			
Pollution Degree	PD2			
Certification				
Safety	EN/IEC62109-1			
EMC	EN61000-6-1 / EN61000-6-3			
FCC	47 CFR Part 15, Subpart B			
ROHS	IEC62321-3-1			

Remarks: Specifications are subject to change without notice.

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Model	LET-H75HN2R1-HJ	LET-H80HN2R2-HJ	LET-H100LF2R2-HJ LET-H100LF2B2-HJ	LET-H100HF2R2-HJ
Electrical Parameters				
Battery Rated Voltage	12/24/48VDC~Auto			
Controller Operating Voltage Range	8–62V			
Battery Type	AGM (Default) / Gel / Flooded / User			
Lithium Battery Type	LiFePO4 / Li (NiCoMn)O2 / User			
Rated Charging / Discharging Current	75A	80A	100A	
Rated Charging Power	975W/12V; 1,950W/24V; 3,900W/48V	1,040W/12V; 2,080W/24V; 4,160W/48V	1,300W/12V; 2,600W/24V; 5,200W/48V	
Maximum Charging Power	975W/12V; 1,950W/24V; 3,900W/48V	1,040W/12V; 2,080W/24V; 4,160W/48V	1,300W/12V; 2,600W/24V; 5,200W/48V	
Rated Load Current	75A	80A	100A	
Maximum Load Current	75A	80A	100A	
PV Maximum Open-circuit Voltage	200V (@ lowest temperature); 180V (@ 25°C)	200V (@ lowest temperature); 180V (@ 25°C)	150V (@ lowest temperature); 138V (@ 25°C)	200V (@ lowest temperature); 180V (@ 25°C)
MPPT Operating Voltage Range	(Battery voltage plus 2V, and>28V) to 144V (@ 25°C)		(Battery voltage plus 2V, and>28V) to 108V (@ 25°C)	(Battery voltage plus 2V, and>28V) to 144V (@ 25°C)
Tracking Efficiency	≥ 99.5%			
Maximum Conversion Efficiency	98.10%	98.50%	98.60%	98.50%
Full Load Efficiency	97.50%	97.50%	98.00%	97.60%
Temperature Compensation Coefficient	-3mV/°C/2V (Default)			
Self-consumption (Enabled Communication)	98mA/12V; 60mA/24V; 46mA/48V			
Self-consumption (Disabled Communication)	48mA/12V; 25mA/24V; 14mA/48V			
Grounding Type	Common negative grounding			
Dry Contact (Oil Generator / Utility)	Rated value: 5A/30VDC; Maximum value: 0.5A/60VDC			
RS485 Communication Port	5VDC/200mA (RJ45)			
Mechanical Parameters				
Dimension (L*W*H) IP43 (Controller & White Terminal Cover)	320×263×158mm	352×263×158mm		
Dimension (L*W*H) IP32 (Controller Only)	320×212×149mm	352×212×149mm		
Mounting Dimension (L*W)	308×140mm	340×140mm		
Mounting Hole Size	Φ7mm			
Wiring Terminal	2AWG/35mm²			
Recommended Cable	4AWG/25mm²		4AWG/35mm²	
Net Weight IP43 (Controller & White Terminal Cover)	6.62kg	7.79kg	7.87kg	7.87kg
Net Weight IP32 (Controller Only)	6.40kg	7.55kg	7.63kg	7.63kg
Environmental Parameters				
Operating Temperature Range	-25°C to +60°C (Derating when temperature is higher than 40°C)			
LCD Temperature Range	-20°C to +70°C			
Storage Temperature Range	-30°C to +70°C			
Relative Humidity	5%–95% (N.C)			
Altitude	< 5,000M (Derating when altitude is higher than 2,000m)			
Enclosure	Ip43 (Controller & White Terminal Cover); IP32 (Controller Only)			
Pollution Degree	PD2			
Certification				
Safety	EN/IEC62109-1			
EMC	EN61000-6-1 / EN61000-6-3			
FCC	47 CFR Part 15, Subpart B			
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