

GEN2-LB-EU-3.6K INVERTER

TECHNICAL SPECIFICATION SHEET

QUICK SPECS

GEN2-LB-EU-3.6K

Rated Output Power (W)	3600W @ 230V
System Type	Hybrid (On-grid / Off-grid)
Rated Battery Voltage (V)	48 / 51.2
Battery Type	Lithium-ion / Lead-Acid
Max. Charge/Discharge Current	80A
Switching Time (UPS)	7ms
Rated Output Voltage	230V (50/60Hz)
Waveform	Sine wave
Max. AC Input Power (W)	12000
Parallel Operation	Up to 10 units
Dimensions (W × H × D) mm	440 × 528 × 220
Weight (kg)	25
IP Rating	IP66
Warranty	10 years

Built for hybrid solar and battery storage systems, the GEN2-LB-EU 3.6K combines strong PV input capability with intelligent battery management and seamless backup switching for both on-grid and off-grid operation. With dual MPPTs, AC coupling, generator and smart load support, plus parallel capability for up to 10 units, it delivers a flexible and scalable solution for residential energy systems.

MONITORING & INSTALLATION

- Remote monitoring via LuxpowerTek app
- RS485, Wi-Fi, and CAN communication
- Integrated battery and load breakers for simplified install

BATTERY PAIRING

The GEN2-LB-EU 3.6K is designed to integrate seamlessly with the Fogstar Energy 48V battery range, supporting efficient energy storage and flexible system configurations. Its compact design, IP66-rated enclosure, and installer-friendly setup make it suitable for both new installations and system upgrades.

Minimum Setup: Fogstar Energy 48V 5.12kWh Rack Battery

- A compact entry-level solution, ideal for basic energy storage and essential backup applications.

Recommended: Fogstar Energy 48V 10kWh

- A balanced setup offering improved storage capacity and performance, well suited to most residential systems.

Full Headroom: Fogstar Energy 48V 16.1kWh ECO / 16.1kWh IP-Rated

- Higher capacity options designed for extended runtimes and increased energy usage, ideal for larger or more demanding installations.



INPUT (PV DC)		GEN2-LB-EU 3.6K
Max. PV Input power (W)		7000
Rated PV input voltage(V)		360
Number of independent MPPT inputs		2 / (1:1)
Max. PV input voltage (V)		530
MPPT voltage range (V)		150 ~ 425
Start-up voltage (V)		100
Max. PV input current per MPPT (A)		18 / 18
Max. PV short-circuit current input per MPPT (A)		32 / 32
Battery		
Battery voltage range (V)		40 ~ 60
Max. charge/discharge current (A)		80 / 80
Max. charge/discharge power (W)		3600
Force wake up battery from PV and Grid function		YES
Grid		
Rated AC voltage (V)		230
Rated AC frequency (Hz)		50 / 60
Rated AC output current (A)		15.7
Rated AC output power (W)		3600
Max. AC input power (W)		12000
PF	0.99 (Adjustable from 0.8 leading to 0.8 lagging)	
THDI		< 3%
Max. continuous AC passthrough current (A)		52.2
GEN		
Rated GEN voltage (V)		230
Rated GEN frequency (Hz)		50 / 60
Rated GEN input current (A)		40
Rated GEN input power (W)		9200
UPS		
Rated output power (W)		3600
Rated output voltage (V)		230
Rated output current (A)		15.7
Rated output frequency (Hz)		50 / 60
Surge power (duration)	2 × rated power for 0.5s	
Switching time (UPS)		7ms
Waveform		Sine wave
THDV		< 5%
Efficiency		
Max. MPPT efficiency		99.9%
Max. Efficiency		97.3%
Max. Charge/Discharge efficiency		94.5%
Protection		
Over current / voltage protection		YES
Anti-islanding protection		YES
AC Short-circuit current protection		YES
Leakage current protection		YES
Ground fault monitoring		YES
Grid monitoring		YES
DC switch		YES
DC surge protection		Type III
AC surge protection		Type III
General		
Ingress protection rating		NEMA4X / IP66
Operating environment temperature range (°C)		-25 ~ 60
Storage temperature range (°C)		-40 ~ 65
Relative humidity		0 ~ 100%
Display & Communication interface		LCD + RGB, RS485 / Wi-Fi / CAN
Cooling method		Natural Cooling
Topology on AC side		Transformerless
Topology on Battery side		Transformer
Max. Operating Altitude (m)		2000
Noise emission (dB)		30
DC connection (VP-D4/MC4 (Optional)		MC4
AC connector		YES
Standards & Certification		
EN 62109/EN 61000, IEC 62116, IEC 61727, IEC 61683, G100/G99/G98, PIPEREE TypeA, CEI 0-21: 2022 (V2:2024-01)		