



FOGSTAR x LUXPOWERTEK · SINGLE-PHASE HYBRID INVERTER

GEN PRO 8-12K

TECHNICAL
SPECIFICATION SHEET**8-12kW**

OUTPUT

21kW

MAX. PV INPUT

270A

BATTERY CURRENT

IP66

ENCLOSURE

Built for higher-demand homes, the **Fogstar x LuxPowerTek GEN PRO 8-12K** combines up to **21kW PV input**, up to **270A battery charge and discharge** and **three MPPT inputs** in an **IP66-rated hybrid platform**.

Triple MPPT

Three independent MPPT inputs at 20A each, with up to 21kW PV input.

Quick specs

Output options	8kW / 10kW / 12kW
MPPT inputs	3 (Triple MPPT)
MPPT voltage range (V)	60-425 (530 max)
Rated battery voltage (V)	48
Battery type	Lithium-ion
Switching time (UPS)	7ms
Rated output voltage	230V (50Hz)
Max. AC input power (W)	23,000
Generator input (W)	18,400
Parallel operation	Up to 16 units
Dimensions (W × H × D) mm	420 × 634 × 229.5
Weight (kg)	27.2 (8kW) / 30.2 (10-12kW)
Warranty	10 years



Monitoring and installation

- Remote monitoring via the **LuxCloud app**, with Wi-Fi module included
- **RS485, Wi-Fi** and **CAN** communication
- Multifunction port for **generator, smart load or AC coupling**
- Built-in **Type II AC/DC** surge protection
- Up to **16 units** in parallel

Battery pairing

Designed for the Fogstar Energy 48V battery range, with CAN and RS485 battery communication.

MINIMUM SETUP

16.1kWh / 16.1kWh ECO

A 200A BMS covers most of the 270A battery current from one battery.

RECOMMENDED

32kWh Battery

Its 300A covers the full 270A battery current from one battery.

FULL HEADROOM

Modular Stack

Up to 64.4kWh for higher-demand homes.

Battery capacity and discharge capability should always be matched to the expected system demand.

GEN PRO 8-12K Single-Phase Hybrid Inverter

OUTPUT RATING	8kW	10kW	12kW
INPUT (PV DC)			
Max. PV input power (W)	16,000	21,000	21,000
Rated PV input voltage (V)		360	
Number of independent MPPT inputs		3 (1:1:1)	
Max. PV input voltage (V)		530	
MPPT voltage range (V)		60–425	
Start-up voltage (V)		50	
Max. PV input current per MPPT (A)		20 / 20 / 20	
Max. PV short-circuit current input per MPPT (A)		32 / 32 / 32	
BATTERY			
Battery type		Lithium-ion	
Rated battery voltage (V)		48 (48–60 range)	
Max. charge / discharge current (A)	180	230	270
Max. charge / discharge power (W)	8,000	10,000	12,000
Battery wake-up from PV, grid and generator		Yes	
GRID			
Rated AC voltage / frequency		230V / 50Hz	
Rated AC output power (W)	8,000	10,000	12,000
Rated AC output current (A)	34.7	43.5	52
Max. AC input current / power		100A / 23,000W	
Max. continuous AC passthrough current (A)		100	
Power factor		0.99 (adjustable 0.8 leading to 0.8 lagging)	
THDI		< 3%	
GENERATOR			
Rated generator input		80A / 18,400W	
UPS / BACKUP OUTPUT			
Rated backup output power (W)	8,000	10,000	12,000
Surge power / duration		2 × rated power for 1s	
Switching time		7ms	
Waveform		Sine wave (THDV < 3%)	
EFFICIENCY			
MPPT efficiency		99.9%	
EU efficiency		96.0%	
Max. efficiency		97.3%	
Max. charge / discharge efficiency		95.0%	
PROTECTION			
Protection functions	Over-current, over-voltage, anti-islanding, AC short-circuit, leakage current, ground fault and grid monitoring		
DC switch		Yes	
Arc fault circuit interrupter (AFCI)		Optional	
AC / DC surge protection		Type II	
GENERAL			
Dimensions (W × H × D) mm		420 × 634 × 229.5	
Weight (kg)	27.2	30.2	30.2
Ingress protection rating		IP66	
Operating temperature (°C)		-25 to 60 (derating above 45)	
Storage temperature (°C)		-40 to 65	
Relative humidity		0–100%	
Max. operating altitude (m)		4,000 (derating above 2,000)	
Display and communication		LCD, RS485, Wi-Fi, CAN	
Cooling method		Smart cooling	
Topology (AC / battery side)		Transformerless / Transformer	
Noise emission (dB)		< 50	
Warranty		10 years	
STANDARDS AND CERTIFICATION			

EN 62109-1/-2, EN 61000, EN 50549-1/-10, G99, G100