

SUN-120K-G01P3-EU-AM8 is a high-power 120kW three-phase grid-tied string inverter equipped with 8 independent MPPT trackers, designed for commercial and industrial PV systems. It delivers up to 98.8% efficiency, features Zero Export application capabilities, and integrates DC/AC Type II Surge Protection Devices (SPD).

8 MPPT Trackers	Max. Efficiency 98.8%	IP65 Rating	DC/AC SPD Type II
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PV STRING INPUT DATA (DC)	AC OUTPUT DATA (GRID OUTPUT)
Max. DC Input Power180 kW	Rated AC Power120 kW
Max. PV Input Voltage1100 V	Max. AC Apparent Power132 kVA
Start-up Voltage250 V	Nominal Grid Voltage3L+N+PE (220/380V, 230/400V)
Rated PV Input Voltage600 V	Grid Frequency50 Hz / 60 Hz
MPPT Operating Range200 V – 1000 V	Max. AC Output Current204.6 A / 195.7 A
Number of MPPT Trackers8	Power Factor0.8 leading to 0.8 lagging
Strings per MPPT Tracker4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 (32)	Current Harmonics Distortion (THDi)< 3%
Max. MPPT Operating Current40 A × 8	
Max. Short-Circuit Current (Isc)60 A × 8	
EFFICIENCY	GENERAL & PROTECTION SPECIFICATIONS
Max. Efficiency98.8%	Ingress Protection (IP Rating)IP65
Euro Efficiency98.2%	Cooling ConceptSmart Forced Air Cooling
MPPT Efficiency> 99.0%	Surge ProtectionType II (DC) / Type II (AC)
	Operating Temperature Range-25°C to +60°C (>45°C Derating)
	Dimensions (W × H × D)1006 × 516 × 325.5 mm
	Weight103 kg
	Communication InterfacesRS485, RS232, Wi-Fi / GPRS / LAN / 4G

- KEY HIGHLIGHTS
- **8 Independent MPPTs:** Maximizes yield on commercial rooftops and ground mounts with complex orientations or partial shading.
 - **Comprehensive Protection:** Features integrated DC Reverse Polarity Protection, AC Short Circuit Protection, AC Overcurrent Protection, and Type II Surge Protection Devices for both DC and AC sides.
 - **Zero Export & VSG Support:** Compatible with zero-export control systems and Virtual Synchronous Generator (VSG) operational modes.
 - **Wide MPPT Range:** Ultra-wide voltage tracking from 200V to 1000V for optimized string design flexibility.