

YOUR
SMART
ENERGY



up to
>12%

Additional
energy use



bis zu
>20%

Longer
service life



SMILE-G3-S5

HOME SERIES

POWER

5 (4.6 DE) kW

CAPACITY

3.65 kWh modular
expandable up to 14.6 kWh



LUMIT
Versicherung

Munich RE



reddot design award 2022



GOOD DESIGN AWARD



HYBRID BATTERY

World
First

Optimal capacity utilization through pack balancing

100% charge/discharge power at 1C

High reliability through Multi-BMS system

Safe lithium iron phosphate (LFP) cells

Performance warranty up to 25 years

5-year all-risk insurance (optional)

HYBRID INVERTER

UPS capability

Intelligent off-grid capability

Price signaling capability

Wall and floor mounting

Anti-shading function

Smart Home Ready



SMILE-G3-S5



Model		SMILE-G3-S5
Energy Storage System		
Max. AC Nominal Power		5,000 W / 4,600 W (DE)
Rated Apparent Power		5,000 W / 4,600 W (DE)
Usable Capacity		3.65 ~ 14.6 kWh
Cell Technology		LFP (LiFePO4) cobalt-free
Ingress Protection		IP 21 (Battery), IP 65 (Inverter)
Product Warranty		10 years
Battery Performance Warranty		10 years linear, extendable up to 25 years
Max. Efficiency		97%
European Efficiency		96.2%
Hybrid Inverter		
Model		SMILE-G3-S5-INV
Max. PV Input Power		10,000 W
Max. PV Input Current		15 A / 15 A
Max. PV Input Voltage		580 V
MPPT Count/Strings per MPPT		2 / 1
MPPT Voltage Range		100 ~ 550 V
Max. PV Short-Circuit Current		24 A
Max. Charge/Discharge Current		60 A
Max. Charge/Discharge Power*		5000 W / 4600 W (DE)
Grid Frequency		50 / 60 Hz
Nominal Voltage		220 V / 230 V
Grid Connection		Single-phase / 3-phase compensation
Maximum apparent power		5000 VA / 4600 VA (DE)
Nominal Output Current (AC)		21.7 A
Nominal Output Current (Backup)		21.7 A
Backup Function		UPS
Communication		Ethernet / WiFi / Modbus / API
Relative Humidity		0 ~ 90% (No Condensation)
Dimensions (W x H x D)		610 x 366 x 212 mm
Weight		19.5 kg
Certifications		IEC 62109, IEC 62040, EN 61000 - 6 - 1/2/3/4, EN 61000 - 4 - 16/18/29
Grid Compliance		VDE 4105, EN 50549-1
DC Overvoltage Protection		Yes (Protection Type II according to EN / IEC 61643)
Cooling		Natural Convection
Noise Emission		≤ 35 dB
Battery		SMILE-G3-BAT-3.8S
Usable Capacity		3.65 kWh
Nominal Voltage		96 V
Operating Temperature		-10°C to 50°C, optimal 15°C to 30°C
Weight		39.2 kg
Dimensions (W x H x D)		610 x 435 x 212.5 mm
Cycle Life		10,000 ****
Max. Charge / Discharge Current		40 A **
Modular Units		1 ~ 4 in series
Expansion		Max. 36 months after commissioning ***
Noise Emission		≤ 35 dB

* Performance reduction may occur depending on the state of charge and temperature.

** In off-grid mode, discharge up to 50 A is possible for up to 30 minutes.

*** Subject to availability.

**** Under specific test conditions.



Alpha ESS Europe GmbH

✉ europe@alpha-ess.de

☎ +49 6196 7863485

🌐 www.alphaess.de

📍 Horizon Tower 17.OG Alfred-Herrhausen-Allee 3-5 65760 Eschborn, Germany