

YOUR
SMART
ENERGY



up to
>12%

Additional
energy use



up to
>20%

Longer
service life



SMILE-G3-S3.6/S5/B5

HOME SERIES

POWER

3.6 / 5 kW

CAPACITY

SMILE-G3-BAT-3.8S Modular
3.65 kWh ~ 14.6 kWh

SMILE-G3-BAT-4.5S Modular
4.56 kWh ~ 18.24 kWh

SMILE-G3-BAT-9.3S Modular
9.3 kWh ~ 37.2 kWh



ALPHALINX TECH

Combining Series & Parallel Advantages

Dynamic Balancing Maximizes Usable Capacity

Full 1C Charge/Discharge Power

Comprehensive Safety Protection

Intelligent Fault Bypass for Continuous Operation

Flexible Expansion

HYBRID INVERTER

Ultimate All-in-One Solution

Dynamic Tariff Scheduling

Reliable Backup: Switchover in 20ms,
Supports Transient Overload

Supports 3 Units in Parallel

Wall or Floor Mounting

High-Voltage Inverter with Flexible Battery Options

SMILE-G3-S3.6/S5/B5



Model	SMILE-G3-S3.6	SMILE-G3-S5	SMILE-G3-B5
System Specifications			
Nominal Output Power	3.68 kW	5 kW	5 kW
Usable Capacity Range	3.65 - 14.6 kWh / 3.8 - 15.2 kWh / 4.5 - 18 kWh / 9.3 - 37.2 kWh		
Battery Chemistry	LFP (LiFePO4)		
Warranty	10 Years Product Warranty, 10 Years Battery Performance Warranty		

Inverter Technical Specifications			
Model	SMILE-G3-S3.6-INV	SMILE-G3-S5-INV	SMILE-G3-B5-INV
Coupling	Hybrid	Hybrid	AC
Max. PV Input Power	7.36 kW	10 kW	N/A
Max. PV Input Current	15 A / 15 A		N/A
Max. PV Input Voltage	580 V		N/A
MPPT Number / Strings per MPPT	2 / 1		N/A
MPPT Voltage Range	100 ~ 550 V		N/A
Max. PV Short-Circuit Current	18.75 A / 18.75 A	24 A / 24 A	N/A
Max. Charging/Discharging Current	60 A		
Max. Charging/Discharging Power	3.68 kW	5 kW	5 kW
Nominal Frequency	50 / 60 Hz		
Nominal Voltage	220 V / 230 V		
Phase	Single Phase / 3-Phase Compensation		
Nominal Output Current (Grid Port)	16 A	21.7 A	21.7 A
Nominal Output Current (Backup Port)	16 A	21.7 A	21.7 A
Nominal Input Power (On-Grid)	7.36 kW	10 kW	10 kW
Backup	UPS		
Communication	Ethernet / Wi-Fi / Modbus / API		
Relative Humidity	0~90% (No Condensation)		
Dimensions (W×D×H)	610 × 212 × 366 mm		
Weight	19.5 kg		
Ingress Protection	IP65		
Safety	IEC 62109-1/-2, IEC 62040		
EMC	IEC 61000-6-1/-2/-3/-4		
Grid Regulation	VDE 4105, VDE 0126-1-1, EN 50549-1, CEI O-21, RD1699, G98/G99, AS 4777.2, NRS 097, C10/11		
Overvoltage Category	DC Type II according to EN / IEC 61643		
Cooling	Natural Convection		
Noise	≤ 35 dB		
Maximum/European Efficiency	97 % / 96.2 %		

Battery Technical Specifications			
Model	SMILE-G3-BAT-3.8S	SMILE-G3-BAT-4.5S	SMILE-G3-BAT-9.3S
Nominal Capacity	3.8 kWh	4.56 kWh	9.3 kWh
Usable Capacity	3.65 kWh	4.56 kWh	9.3 kWh
Depth of Discharge (DoD)	95 % *	100% *	100% *
Nominal Voltage	96 V	96 V	96 V
Max. Charging/Discharging Current	40 A	50 A	52.5 A
Operating Temperature Range	-10°C ~ 50 °C **	-20 °C ~ 50 °C **	-20 °C ~ 50 °C **
Modular Connection	1 ~ 4	1 ~ 4	1 ~ 4
Ingress Protection	IP21	IP65	IP65
Dimensions (W×D×H)	610 × 212.5 × 435 mm	610 × 212.5 × 435 mm	610 × 210 × 634 mm
Weight	39.2 kg	53 kg	81 kg
Noise	≤ 35 dB	≤ 35 dB	≤ 35 dB
Fire-Fighting	Aerosol	Aerosol	Aerosol

* Test condition: Max. 0.5C charge/discharge at 25±2°C.

** Performance reduction may occur depending on the state of charge and temperature. Optimal operating temperature 15°C ~ 30°C.



Alpha ESS Co., Ltd.

+86 513 8060 6891
 info@alpha-ess.com
 www.alphaess.com
 No. 1086, Bihua Road,
 Nantong Hi-Tech Zone,
 Jiangsu Province, China

Alpha ESS Europe GmbH

+49 610 3459 1601
 europe@alpha-ess.de
 www.alphaess.de
 Horizon Tower 17.0G
 Alfred-Herrhausen-Allee 3-5
 65760 Eschborn, Germany

Alpha ESS Australia Pty. Ltd.

+61 02 9000 7676
 techsupport@alphaess.au
 www.alphaess.com
 8/15-21 Gibbs Street,
 Chatswood,
 NSW 2067 Australia

Alpha ESS International Pte. Ltd.

+65 6513 1125 / +65 6513 1126
 Singapore@alpha-ess.com
 2 Corporation Road #01-06A
 Corporation Place 618494
 Singapore

Alpha ESS Benelux B.V.

contact@alphaess.nl
 www.alphaess.nl
 High Tech Campus 41, 5656AE
 Eindhoven, the Netherlands

Alpha ESS Italy S.r.l.

+39 339 462 4288
 info@alphaess.it
 www.alphaess.com
 Via Del Molinuzzo 83,
 59100 Prato (PO), Italy

Alpha ESS UK Ltd.

+44 0330 043 2610
 info@alpha-ess.co.uk
 www.alpha-ess.co.uk
 Drake house, Long street, Dursley,
 GL11 4HH United Kingdom

Alpha ESS USA, Inc.

+1 408 368 7828
 usa@alpha-ess.com
 Unit 5 2180 S Ivanhoe St,
 Denver, CO 80222 USA

Alpha ESS Korea Co., Ltd.

info@alpha-ess.com
 2F, 19-4, Nohyeong 11-gil,
 Jeju-si, Jeju-do, Republic
 of Korea

Alpha ESS South Africa (Pty.) Ltd.

measervice@alpha-ess.com
 La Rocca Office Park, Block
 B1 321 Main Road, Bryanston,
 Johannesburg, 2191