

● YOUR
● SMART
● ENERGY



SMILE-G3-S3.6/S5/B5

RESIDENTIAL SERIES

POWER

3.68 / 5 kW

CAPACITY

3.8 kWh Battery Module Expandable to 15.4 kWh

4.0 kWh Battery Module Expandable to 16 kWh

10.1 kWh Battery Module Expandable to 60.5 kWh



reddot design award 2022



GOOD DESIGN AWARD



200% PV Input

PV Inverter Works in Off-Grid Operation

Support Multiple VPP Applications

Support Dual Power Supply
(Grid & Diesel Generator)

Parallel Operation

10 Year Product Warranty

SMILE-G3-S3.6/S5/B5



Model	SMILE-G3-S3.6	SMILE-G3-S5	SMILE-G3-B5
System Specifications			
Nominal Output Power	3680 W	5000 W	5000 W
Capacity Range	3.8 ~ 15.4 kWh / 8.2 ~ 49.2 kWh / 10.1 ~ 60.5 kWh (95% DoD)		
Battery Chemistry	LFP (LiFePO ₄)		
IP Protection	IP65 (Outdoor) / IP21 (Indoor)		
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	7360 W	10000 W	N/A
Max. PV Input Current	15 A / 15 A		N/A
Max. PV Input Voltage	580 V		N/A
MPPT Number / Max. Input Strings Number 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		N/A
Max. Charging/Discharging Current	60 A		
Max. Charging/Discharging Power	3680 W	5000 W	5000 W
Rated Frequency	50 / 60 Hz		
Rated Voltage	230 V		
Phase	Single Phase		
Rated Output Apparent Power (Grid Port)	3680 VA	5000 VA	5000 VA
Rated Output Apparent Power (Backup Port)	3680 VA	5000 VA	5000 VA
Max. AC Input Power (Grid Port)	7360 W	10000 W	10000 W
Rated Output Current (Grid Port)	16 A	21.7 A	21.7 A
Max. AC Output Current (Grid Port)	16 A	21.7 A	21.7 A
Rated Output Current (Backup Port)	16 A	21.7 A	21.7 A
Max. AC Output Current (Backup Port)	16 A	21.7 A	21.7 A
Max. Inverter Efficiency	97.3%		
Backup	UPS		
Communication	Ethernet / WiFi		
Relative Humidity	0 ~ 90% (No Condensation)		
Dimensions (W x D x H)	610 x 212 x 366 mm		
Weight	19.5 kg		
Safety	IEC 62109, IEC 62040		
EMC	EN 61000-6-1/-2/-3/-4		
Grid Regulations	AS 4777.2, NRS 097, VDE 0126-01-01, VDE 4105, EN 50549, CE1 0-21, RD 1699, G98, G99		

Battery Technical Specifications			
Module Mode	SMILE-G3-BAT-3.8S	SMILE-G3-BAT-4.0S	SMILE-G3-BAT-10.1P
Module Capacity	3.8 kWh	4.0 kWh	10.1 kWh
Usable Capacity	3.6 kWh	3.8 kWh	9.6 kWh
Depth of Discharge (DoD)	95%*	95%*	95%*
Nominal Voltage	96 V	96 V	96 V
Battery Voltage Range	90 V ~ 108 V	90 V ~ 108 V	91.5 V ~ 106.5 V
Max. Charging/Discharging Current	40 A**	40 A**	60 A
Operating Temperature Range	-10 °C ~ 50 °C****	-10 °C ~ 50 °C****	-10 °C ~ 50 °C****
Cycle Life	10000*****	10000*****	10000*****
Battery Modules Connection	1 ~ 4 in Series	1 ~ 4 in Series	1 ~ 6 in Parallel

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

** 50A discharging current sustainable for 30 minutes in off-grid operation.

*** 40A discharging current sustainable for 30 minutes in off-grid operation.

**** Max. charge/discharge current derating may occur with changes in temperature and SoC.

***** Under specific test conditions.



Alpha ESS Co., Ltd.

+86 513 8060 6891
 info@alpha-ess.com
 www.alphaess.com
 Jiuhua Road 888, Nantong High-Tech Industrial Development Zone, Nantong, Jiangsu Province, China

Alpha ESS Europe GmbH

+49 610 3459 1601
 europe@alpha-ess.de
 www.alphaess.de
 Paul-Ehrlich-Straße 1a, Langen, Hessen D-63225 Germany

Alpha ESS Australia Pty. Ltd.

+61 02 9000 7676
 Australia@alpha-ess.com
 www.alphaess.com
 8/15-21 Gibbes 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 Italy S.r.l.

+39 339 462 4288
 info@alpha-ess.it
 www.alphaess.com
 Via Don Minzoni, 17, Calenzano Firenze 50041 Italy

Alpha ESS UK Ltd.

0330 043 2610
 info@alpha-ess.co.uk
 Suite 4F, Regus House, Herons Way, Chester Business Park, Chester, Cheshire, United Kingdom. CH4 9QR

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