



YOUR
SMART
ENERGY



SMILE-G3-T4~10

RESIDENTIAL SERIES

POWER

4 / 6 / 8 / 10 kW

CAPACITY

7.7 ~ 23.0 kWh with
3.8 kWh Battery Module

8.2 ~ 49.2 kWh with
8.2 kWh Battery Module



3 MPPT for Higher PV Input

Redundant Design without HV Box

Capable of 150% Unbalancing per Phase

SMILE-G3-T4~10



Model	SMILE-G3-T4	SMILE-G3-T6	SMILE-G3-T8	SMILE-G3-T10
System Specifications				
Nominal Output Power	4000 W	6000 W	8000 W	10000 W
Capacity Range	7.7 ~ 23.0 kWh / 8.2 ~ 49.2 kWh (95% DoD)			
Battery Chemistry	LFP (LiFePO ₄)			
IP Protection	IP21 (Indoor)			
Warranty	5 Years Product Warranty, 10 Years Battery Performance Warranty			

Inverter Technical Specifications				
Model	SMILE-G3-T4-INV	SMILE-G3-T6-INV	SMILE-G3-T8-INV	SMILE-G3-T10-INV
Coupling	Hybrid	Hybrid	Hybrid	Hybrid
Max. PV Input Power	8000 W	12000 W	16000 W	20000 W
Max. PV Input Current	16 A / 16 A / 16 A			
Max. PV Input Voltage	1000 V			
MPPT Number / Max. Input Strings Number per MPPT	3 / 1			
MPPT Voltage Range	140 ~ 950 V			
Max. PV Short-Circuit Current	24 A / 24 A / 24 A			
Max. Charging/Discharging Current	40 A			
Max. Charging/Discharging Power	4000 W	6000 W	8000 W	10000 W
Rated Frequency	50 / 60 Hz			
Rated Voltage	400 V			
Phase	Three Phase			
Rated Output Power (Grid Port)	4000 W	6000 W	8000 W	10000 W
Rated Output Power (Backup Port)	4000 W	6000 W	8000 W	10000 W
Rated Output Power (Grid Port + Backup Port)	8000 W	12000 W	15000 W	15000 W
Backup	UPS			
Communication	WIFI / LAN / RS485			
Relative Humidity	0 ~ 90% (No Condensation)			
Dimensions (W x D x H)	610 x 212.5 x 416 mm			
Weight	26.7 kg			
Safety	IEC 62109-1/-2			
EMC	IEC 61000-6-1/-3			
Overvoltage Category	DC II			
Grid Regulation	VDE-AR-N 4105:2018-11, EN 50549-1:2019			

Battery Technical Specifications		
Module Model	SMILE-G3-BAT-3.8S	SMILE-G3-BAT-8.2P
Module Capacity	3.8 kWh	8.2 kWh
Usable Capacity	3.6 kWh	7.8 kWh
Depth of Discharge (DoD)	95%*	95%*
Nominal Voltage	96 V	256 V
Max. Charging/Discharging Current	40 A**	32 A***
Operating Temperature Range	-10°C ~ 50 °C****	-10 °C ~ 50 °C****
Cycle Life	10000*****	10000*****
Battery Modules Connection	2 ~ 6 in Series	1 ~ 6 in Parallel
Dimensions (W x D x H)	610 x 212.5 x 435 mm	610 x 250 x 793 mm
Weight	39.2 kg	78.3 kg

* 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.

+44 145 354 5222
 info@alpha-ess.com
 Drake house, Long street, Dursley, gl11 4hh UK

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