

• YOUR
• SMART
• ENERGY



SMILE5

RESIDENTIAL SERIES

POWER

5 kW Inverter

CAPACITY

10.1 / 13.3 kWh

Battery Modular

Expandable to 80 kWh



reddot design award 2018



product
design award 2018



5kW Single Phase Hybrid Inverter

Fast Response

UPS Ability

24/7 Monitoring

VPP Ready



SMILE5



Model		SMILE5
System Specification		
Rated Output Power		5000 W
Rated Output Apparent Power		5000 VA
Capacity Range	10.1 ~ 60.6 kWh(96% DoD)	13.3 ~ 80 kWh(100% DoD)
Usable Capacity Range	9.7 ~ 58.1 kWh	13.3 ~ 80 kWh
Battery Chemistry		LFP (LiFePO ₄)
IP Protection		IP65
Warranty		5 Year Product Warranty, 10 Year Battery Warranty

Inverter Technical Specification			
Model	SMILE5-INV	Rated Output Apparent Power (Backup Port)	5000 VA
Coupling	Hybrid	Max. AC input Power (Grid Port)	7500 W
Max. PV Input Power	7500 W	Rated Output Current (Grid Port)	21.7 A
Max. PV Input Current	15 A / 15 A	Max. AC Output Current (Grid Port)	21.7 A
Max. PV Input Voltage	550 V	Rated Output Current (Backup Port)	21.7 A
Start-up input voltage	90 V	Max. AC Output Current (Backup Port)	21.7 A
Rated PV Input Voltage	360 V	Max Inverter Efficiency	96.50%
MPPT Number/Max. Input Strings Number Per MPPT	2/1	Backup	UPS
MPPT Voltage Range	70 ~ 540 V	Communication	Ethernet / WIFI
Max. PV Short-circuit Current	18 A / 18 A	Humidity	0 ~ 90% (No Condensing)
Max. Charging/Discharging Current	100 A	Dimension (W x D x H)	610 x 210 x 627 mm
Max. Charging/Discharging Power	5000 W	Weight	27.7 kg
Rated Frequency	50 / 60 Hz	Safety	IEC 62109
Rated Voltage	230 V	EMC	EN 61000-6-1 / EN 61000-6-3
Rated Output Apparent Power (Grid Port)	5000 VA	Grid Regulation	AS4777.2.2020

Battery Technical Specification		
Module Model	SMILE-BAT-10.1P	SMILE-BAT-13.3P
Module Capacity	10.1 kWh	13.3 kWh
Module Nominal Voltage	48 V	48 V
Operating Temperature Range	-10 °C ~ 50 °C*	-10 °C ~ 50 °C*
Max. Modules in Parallel	6	6**
Max. Charging / Discharging Current	100 A	100 A
Cycle Life	8000***	8000***

* Max. charge/discharge current derating will occur related to temperature and SOC.

** ≥2 needs to install expansion pack

*** 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 Suzhou Co., Ltd.

+86 512 6828 7609
info@alpha-ess.com
www.alphaess.com
Building 10-A, Canal Town Industrial
Park, 99 Taihu E Rd, Wuzhong District,
Suzhou, 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 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 International Pte. Ltd.

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

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,
Jeu-si, Jeju-do, Republic of
Korea