

• YOUR
• SMART
• ENERGY



SMILE-S5

RESIDENTIAL SERIES

POWER

5 kW

CAPACITY

5.04 kWh Battery Module
Expandable to 30.24 kWh



All-In-One Module

24/7 Online Monitoring

Slim but Powerful

Easy Installation & Maintenance

SMILE-S5



Model	SMILE-S5
System Specifications	
Nominal Output Power	5000 W
Capacity Range	5.04 ~ 30.24 kWh (95% DoD)
Battery Chemistry	LFP (LiFePO ₄)
IP Protection	IP65 (Outdoor)
System Dimensions (W x D x H)	640 x 250 x 745 mm
System Weight	75 kg
Warranty	5 Years Product Warranty, 10 Years Battery Performance Warranty
Inverter Technical Specifications	
Model	SMILE-S5-INV
Coupling	Hybrid
Max. PV Input Power	8000 W
Max. PV Input Current	15 A / 15 A
Nominal PV Input Voltage	330 V
MPPT Number / Max. Input Strings Number per MPPT	2 / 1
MPPT Voltage Range	90 ~ 520 V
Max. PV Short-Circuit Current	22.5 / 22.5 A
Max. Charging/Discharging Current	100 A
Max. Charging/Discharging Power	5000 W
Rated Frequency	50 / 60 Hz
Rated Voltage	230 V
Max. AC Output Current	21.7 A
Max. AC Input Current	33 A
Backup	UPS
Communication	Ethernet / WiFi
Relative Humidity	0 ~ 95% (No Condensation)
Dimensions (W x D x H)	640 x 250 x 350 mm
Weight	21 kg
Safety	IEC 62109, IEC 62477, EN 50549
EMC	EN 61000-6-1/-2/-3/-4
Grid Regulation	AS 4777.2
Battery Technical Specifications	
Module Mode	SMILE-BAT-5P
Module Capacity	5.04 kWh
Usable Capacity	4.79 kWh
Depth of Discharge (DoD)	95%*
Nominal Voltage	48 V
Max. Charging/Discharging Current	52.5 A
Operating Temperature Range	-10°C ~ 50°C**
Cycle Life	6000
External Battery Expansion	1 ~ 5 in Parallel

* Test Condition: Max. 0.5C charge & discharge at 25±2°C.

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



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