

• YOUR  
• SMART  
• ENERGY



# SMILE5

RESIDENTIAL SERIES

## POWER

5 kW Inverter

## CAPACITY

10.1 / 13.3 kWh

Battery Modular

Expandable to 80 kWh



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 <sub>4</sub> )                         |
| IP Protection               |                          | IP65                                               |
| Warranty                    |                          | 10 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/DR Controllable |
| 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  
 Jiuqia 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,  
 Jeju-si, Jeju-do, Republic of  
 Korea