

Battery System Designed For PV Household Application

# Battery Series SMILE5-BAT



## **<a>✓ Key Features**</a>



Modular



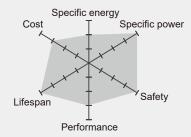
Plug & play



Safe



Long lifespan



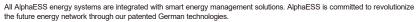
## CHEMISTRY AlphaESS only goes with LFP for safest operation and longest cycle-life

Whilst Alpha's batteries are slightly larger per physical capacity versus other types of Li-Ion used in electronics and EVs, they are easily banked in parallel close together because they don't suffer heat issues and thermal runaway. We have chosen LiFePO4 for their superior life, safety and environmental performance.

#### About AlphaESS

As one of the earliest pioneers in energy storage market with lithium iron technology, AlphaESS has a vision to pave the path for everyone in the world to enjoy clean energy one day.

AlphaESS is a multinational company that currently has more than 10'000 residential and commercial systems running in 30 countries globally and its products are accredited by IEC,  $T\ddot{U}V$ , CEC and many other international standards.











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| Physical                    |  |
|-----------------------------|--|
| Model                       | SMILE5-BAT   |
| Battery Type                | LFP (LiFePO4)  |
| Battery Manufacturer        | EVE 0 DESIGN VERY VERY VERY VERY VERY VERY VERY VERY |
| System Weight               | 65 kg  |
| Dimension (W x D x H)       | 600 x 250 x 600 mm                                   |
| IP Protection               | IP21 / IP65  |
| Warranty                    | 10 Year Battery Warranty                             |
| Electrical                  |  |
| Energy Capacity             | 5.7 kWh  |
| Usable Capacity             | 5.5 kWh  |
| Depth of Discharge (DoD)    | 96%  |
| Nominal Voltage             | 51.2 V   |
| Operation Voltage Range     | 48 V ~ 57.6V   |
| Internal Resistance         | ≤ 30 mΩ  |
| Cycle Life                  | 10 000*  |
| Operation                   |  |
| Max. Charge Current         | 56 A (0.5C)  |
| Max. Discharge Current      | 56 A (0.5C)  |
| Max. Short-circuit Current  | 200 A  |
| Operating Temperature Range | -10 °C ~ 50 °C**, 0 °C ~ 40 °C (0.5C)                |
| Humidity                    | 15% ~ 85%  |
| BMS                         |  |
| Modules Connection          | 1 ~ 6 in parallel                                    |
| Capacity Range              | 5.7 / 11.5 / 17.2 // 34.4 kWh                        |
| Usable Capacity Range       | 5.5 / 11.0 / 16.5 / / 33.0 kWh                       |
| Monitoring Parameters       | System voltage, current, cell voltage,               |
|                             | cell temperature, PCBA temperature                   |
| Communication               | CAN and RS485 compatible                             |
| Certification               |  |
| Transportation              | UN38.3   |
| Safety                      | IEC 62619 (Cell), IEC 62619 (Pack)                   |

<sup>\*</sup> Under specific test conditions
\*\* When the temperature is below 0 °C or above 40 °C, the performance will be limited.
The detailed battery safety datasheet is supplied with battery.





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