



✓ Key Features



Elegant Design

Unified design of the whole unit



Outdoor

IP65 rating can be installed outdoor



UPS

Uninterrupted power supply in 0.01S



VPP Ready

Compatible with Discover Energy VPP function



High Energy Density

44.6Wh per Litres



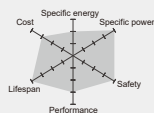
Quick Installation

Plug and play design, significantly reduce installation time



Real-time Monitoring

All systems can be monitored by **Web and iOS/Android APP**.



Safest Chemistry

AlphaESS uses Li-phosphate for its excellent safety and long lifespan.



Battery Specifications

Model	SMILE-BAT-13.3P
Battery Type	LFP (LiFePO4)
System Weight	120 kg
Dimension (W x D x H)	610 x 236 x 812 mm
IP Protection	IP65
Warranty	5 Year Product Warranty, 10 Year Performance Warranty, ≥ 8000 Cycle Life

Electrical

Energy Capacity	13.34 kWh
Usable Capacity	13.34 kWh
Depth of Discharge (DoD)	100%
Nominal Voltage	48 V
Operating Voltage Range	45 ~ 54 V
Internal Resistance	≤ 20 mΩ

Operation

Max. Charging Current	100 A (0.35C)
Max. Discharging Current	100 A (0.35C)
Operating Temperature Range	-10 °C ~ 50 °C*
Humidity	15% ~ 85%

BMS

Modules Connection	1~6 in parallel (with expansion pack)
Power Consumption	<1 W (Work), <10 mW (Sleep)
Monitoring Parameters	System voltage, current, cell voltage, cell temperature, PCBA temperature measurement
Communication	CAN and RS-485 compatible

Certificate

Transportation	UN38.3
Safety	IEC 62619 (Cell), IEC 62619 (Pack)

*When the temperature is below 0 °C or above 40 °C, the performance will be limited.

Inverter		SMILE5 INV
PV String Input Data		
Max. DC Input Power [W]		6660
The maximum DC input power for STC [W] (Small-scale Technology Certificates)		6600
Max. DC Voltage [V]		580
MPPT Voltage Range [V]		125 ~ 550
Starting Voltage [V]		125
Max. DC Current [A]		12 / 12
No. of DC Connectors		2
No. of MPPTs		2
DC Connector		MC4
Battery Input Data		
Nominal Voltage [V]		51.2
Max. Charging Voltage [V]		57.6
Max. Charging Current [A]		100
Max. Discharging Current [A]		100
AC Output Data (On Grid)		
Nominal AC Power [VA]		5000
Max. AC Power [VA]		5000
Max. AC Current [A]		21.7
Nominal Output Voltage [V]		230
Nominal Output Frequency [Hz]		50 / 60
THDi		< 3%
Power Factor		~1 (Adjustable from 0.8 leading to 0.8 lagging)
AC Output Data (Buck-Up)		
Nominal AC Power [VA]		4600
Peak AC Power [VA]		5200, 2 sec
Nominal Output Voltage [V]		230
Nominal Output Frequency [Hz]		50 / 60
Efficiency		
Max. Efficiency		97.60%
Europe Efficiency		97.00%
MPPT Adaptation Efficiency		99.90%
Protection		
Residual Current Monitoring Unit		Integrated
Anti-islanding Protection		Integrated
AC Over Current Protection		Integrated
Insulation Monitoring		Integrated
General Data		
Dimensions (WxHxD) [mm]		1604 x 610 x 236.6
Weight [kg]		155
Ambient Temperature Range [°C]		-10 ~ 50
Relative Humidity		0 ~ 95%
Protection Degree		IP65
Topology		High Frequency Isolation
Standby Losses [W]		< 13
Cooling		Nature Convection
Noise Emission [dB]		< 25
Monitoring		RS485; CAN; Wi-Fi
Standard Warranty [Years]		5
Certificates & Standards		
Grid Regulation	VDE-AR-N 4105, VDE 0126-1-1, AS 4777.2/3, CEI 0-21, G59/3, RD 1699, NRS 097-2-1	
EMC	EN 61000-6-1/2/3/4	
Safety Regulation	IEC 62109-1&-2, IEC 62477-1, IEC 62040.1.1, IEC 62116	