

DOMESTIC ENERGY STORAGE SYSTEM

Single Phase: 5 / 8 kW AC Output
3.8 - 60.6 kWh, 96 / 256 V

Three Phase: 15 kW AC Output
8.2 - 49.2 kWh, 256 V

BESPOKE SOLUTIONS FOR SOUTH AFRICA



SMILE-G3-S5




Single Phase
3.8~60.6 kWh

SMILE-G3-S8

Single Phase
8.2~49.2 kWh

SMILE-G3-T15

Three Phase
8.2~49.2 kWh

-  All-in-One Design, Quick Installation
-  UPS Seamless Switch, Overload 150% AC Output
-  High Voltage System, High Efficiency
-  Long Lifespan, 10-Year Warranty
-  Support 3 in Parallel, Dual Power Supply (Single Phase Product Series Only)

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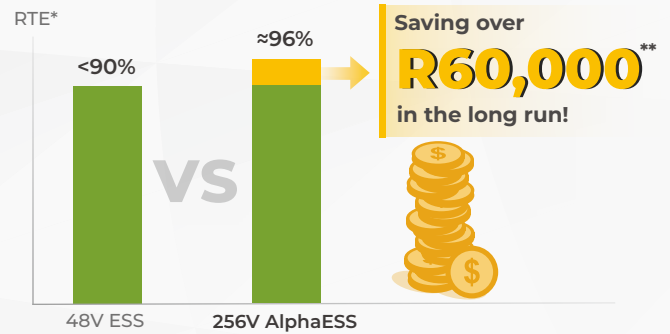
WHY CHOOSE ALPHAESS?

1

HIGH VOLTAGE SYSTEM

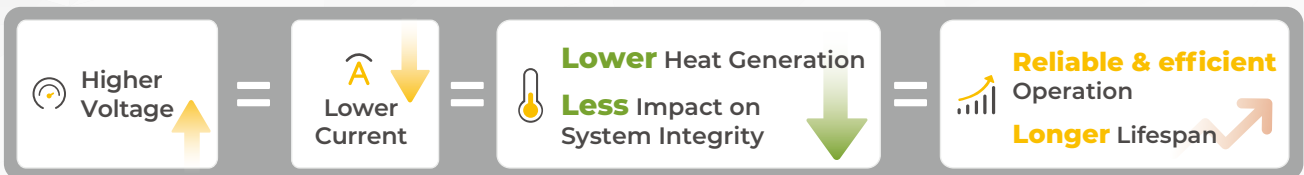
1. More Savings: **Saving over 60,000 Rand!**

Did you know that for a regular 10 kWh battery system, every 1% difference in charge/discharge efficiency could translate to approximately 800 kWh* over its 10-year warranty period? Our SMILE-G3 system boasts a **High Voltage battery efficiency 6-7% higher** than standard 48V systems, potentially saving over 60,000 Rand!



*The round-trip efficiency (RTE) of a battery refers to how efficiently it can store and release energy during a complete charge and discharge cycle.
 **This value is estimated based on 2.5 cycles a day and x% annual electricity price increase.

2. **Longer Equipment Lifespan**



2

ELEGANT ALL-IN-ONE DESIGN



Why settle for an industrial-looking machine inside the house when you can have a sleek and stylish AlphaESS SMILE-G3 all-in-one system?



3

10-YEAR WARRANTY WITH INSURANCE AND REINSURANCE



We've purchased product liability insurance from China's leading insurance company, PING AN, and reinsurance from the world's largest reinsurer, MUNICH RE, providing absolute peace of mind for homeowners.

4

DIRECT LOCAL SUPPORT



"We as the manufacture, provide direct support and development input through our local support team. As an accredited installation partner, you can bypass lengthy supply chains to avoid service delays and added costs. Experience all the benefits that come from dealing directly with the manufacturer of world-leading energy storage solutions."

YOUR
SMART
ENERGY



SMILE-G3-S5

RESIDENTIAL SERIES

POWER

5 kW Hybrid Inverter
Expandable to 15 kW
Single Phase

CAPACITY

3.8 kWh Battery Module, Up to 15.2 kWh
8.2 kWh Battery Module, Up to 49.2 kWh
10.1 kWh Battery Module, Up to 60.6 kWh



KEY FEATURES

All-in-One Design

High Voltage System

UPS Seamless Switch

Off-grid Max. 150% Overload, 30s

Support 3 in Parallel, Dual Power Supply

200% PV Oversized, Max.15A DC Input

Wider Range of MPPT Work Voltage

Max. 28 Configurable Time Periods*

*Up to 6 time periods daily or 4 time periods*7 days weekly for charging and discharging can be set.

SMILE-G3-S5



Model	SMILE-G3-S5		
System Specification			
Rated Output Power	5000 W		
Battery Chemistry	LFP (LiFePO4)		
Capacity Range	3.8 ~ 181.8 kWh (95% DoD)		
Warranty	10 Years		
PV Input Technical Specification			
Max PV Input Power	10000 W		
Max PV Input Current	15 A / 15 A		
Max. PV Input Voltage	580 V		
MPPT Number / Max. Input Strings Number per MPPT	2 / 1		
MPPT Voltage Range	100 ~ 550 V		
Max. PV Short-Circuit Current	18.75 A / 18.75 A		
MPPT Efficiency	>99%		
Inverter Technical Specification			
AC Input & Output Data (Grid Side)			
Rated AC Output Power	5000 W		
Max. AC Input Power	10000 W		
Rated Frequency	50 / 60 Hz		
Rated Voltage	230 V		
Grid Voltage Range	180 ~ 270 V		
Backup Output Data			
Rated Output Power (Off-grid)	5000 W		
Rated Output Voltage (Off-grid)	230 V ± 10%		
On/Off Grid Switch Time	≤10ms		
Peak Power (Off-grid)	5500 W 60s; 7500 W 30s; 10000 W 0.5s		
Max. Continuous AC Passthrough	35 A		
Rated Output Current (off-grid)	21.7 A		
General Specification			
Dimension (W x D x H)	610 x 212 x 366 mm		
Weight	19.5 kg		
Communication	Ethernet / WiFi		
Relative Humidity	0 ~ 90% (Non-Condensing)		
Operation Temperature	-25 ~ 60 °C		
Noise	<35 dB		
Over Voltage Category	DC Type III / AC Type II		
Ingress Protection(IP) Rating	IP 65		
Operation Altitude	3000 m		
Safety	IEC62109-1/-2, IEC62477, IEC62040-1		
EMC	IEC61000-6-1/-2/-3/-4		
Grid Regulation	AS 4777.2, NRS 097, VDE 4105, EN 50549, CEI 0-21		
Battery Technical Specification			
Module Mode	SMILE-G3-BAT-3.8S	SMILE-G3-BAT-8.2P	SMILE-G3-BAT-10.1P
Module Capacity	3.8 kWh	8.2 kWh	10.1 kWh
Usable Capacity	3.6 kWh	7.8 kWh	9.6 kWh
Depth of Discharge (DoD)	95%*	95%*	95%*
Nominal Voltage	96 V	256 V	96 V
Max. Charging / Discharging Current	40 A	32 A	60 A
Operating Temperature Range	-10 °C ~ 50 °C**	-10 °C ~ 55 °C**	-10 °C ~ 50 °C**
Ingress Protection(IP) Rating	IP 21	IP 21	IP 65
Battery Modules Connection	1 ~ 4 in Series	1 ~ 6 in Parallel	1 ~ 6 in Parallel
Dimension (W x D x H)	610 x 212.5 x 435 mm	610 x 212 x 793 mm	610 x 212 x 793 mm
Weight	39.2 kg	78.3 kg	90 kg

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

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



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YOUR
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SMILE-G3-S8

RESIDENTIAL SERIES

POWER

8 kW Hybrid Inverter
Expandable to 24 kW
Single Phase

CAPACITY

8.2 kWh Battery Module
Up to 49.2 kWh



Key Features

All-in-one Design

High Voltage System

UPS Seamless Switch

Off-grid Max. 200% Overload, 30s

Support 3 in Parallel, Dual Power Supply

Wider Range of MPPT Work Voltage

Max. 28 Configurable Time Periods*

*Up to 6 time periods daily or 4 time periods*7 days weekly for charging and discharging can be set.

SMILE-G3-S8



Model	SMILE-G3-S8
System Specification	
Battery Chemistry	LFP (LiFePO4)
Nominal Output Power	8000 W
Capacity Range	8.2 ~ 49.2 kWh (95% DoD)
Warranty	10 Years
PV Input Technical Specification	
Max PV Input Power	10000 W
Max PV Input Current	15 A / 15 A
Max. PV Input Voltage	580 V
MPPT Number / Max. Input Strings Number per MPPT	2 / 1
MPPT Voltage Range	100 ~ 550 V
Max. PV Short-Circuit Current	22.5 A / 22.5 A
MPPT Efficiency	>99%
Inverter Technical Specification	
AC Input & Output Data (Grid Side)	
Rated AC Output Power	8000 W
Max. AC Input Power	11500 W
Rated Frequency	50 / 60 Hz
Rated Voltage	230 V
Grid Voltage Range	150 ~ 287 V
Backup Output Data	
Rated Output Power (Off-grid)	8000 W
Rated Output Voltage (Off-grid)	230 V ± 10%
On/Off Grid Switch Time	≤20ms
Peak Power (Off-grid)	8800 W 60s; 16000 W 30s
Max. Continuous AC Passthrough	50 A
Rated Output Current (off-grid)	34.8 A
General Specification	
Dimension (W x D x H)	610 x 212 x 366 mm
Weight	19.5 kg
Communication	Ethernet / WiFi
Relative Humidity	0 ~ 90% (Non-Condensing)
Operation Temperature	-25 ~ 60°C
Noise	<35 dB
Over Voltage Category	DC Type III / AC Type II
Ingress Protection(IP) Rating	IP 65
Operation Altitude	3000 m
Safety	IEC62109-1/-2, IEC62477, IEC62040-1
EMC	IEC61000-6-1/-2/-3/-4
Grid Regulation	AS 4777.2, NRS 097, VDE 4105, EN 50549, CEI 0-21
Battery Technical Specification	
Module Mode	SMILE-G3-BAT-8.2P
Module Capacity	8.2 kWh
Usable Capacity	7.8 kWh
Depth of Discharge (DoD)	95 %*
Nominal Voltage	256 V
Max. Charging / Discharging Current	32 A**
Operating Temperature Range	-10°C ~ 50°C***
Battery Modules Connection	1 ~ 6 in parallel
Dimension (W x D x H)	610 x 212 x 793 mm
Weight	78.3 kg
Ingress Protection(IP) Rating	IP 21

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

** Support 32 A long-term work, support 40 A work for 30min

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



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YOUR
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SMILE-G3-T15

RESIDENTIAL SERIES

POWER

15 kW Hybrid Inverter
Three Phase

CAPACITY

8.2 kWh Battery Module
Up to 49.2 kWh



KEY FEATURES

All-in-One Design

High Voltage System

UPS Seamless Switch

Off-grid Max. 150% Overload, 10S

Three Phase Unbalance

Support Dual Power Supply (Grid & Generator)

3 MPPTs of PV Input

Max. 28 Configurable Time Periods*

*Up to 6 time periods daily or 4 time periods*7 days weekly for charging and discharging can be set in APP.

SMILE-G3-T15



Model	SMILE-G3-T15
System Specifications	
Battery Chemistry	LFP (LiFePO4)
Nominal Output Power	15000 W
Capacity Range	8.2 ~ 49.2 kWh (95% DoD)
Warranty	10 years
PV Input Specifications	
Max. PV Input Power	30000 W
Max. PV Input Current	18 A / 18 A / 18 A
Rated PV Voltage	700 V
Max. PV Short-Circuit Current	22.5 A
MPPT Number / Max. Input Strings Number per MPPT	3 / 1
MPPT Voltage Range	200 ~ 850 V
MPPT Efficiency	>99.9%
Inverter Specifications	
AC Input & Output Data (Grid Side)	
Rated AC Output Power	15000 W
Max. AC Output Power	16500 W
Max. AC Input Power	20000 W
Rated Output Frequency (On-grid)	50 / 60 Hz
Rated Output Voltage (On-grid)	230 V / 400 V
Grid Voltage Range	180 ~ 270V
Backup Output Data	
Rated Output Power (Off-grid)	15000 W
Rated Output Voltage (Off-grid)	230 V ± 10%
On / Off Grid Switch Time	≤20ms
Peak Power (Off-grid)	110% continuous ; 120% 10min ; 150% 10s
General Specifications	
Dimensions (W x D x H)	610 x 250 x 600 mm
Weight	38 kg
Operation Altitude	4000 m
Noise	50 dB
Operation Humidity	0 - 90% (No condensation)
Type Of Cooling	Intelligent air cooling
Operation Temperature	-25 °C ~ 60 °C
Ingress Protection(IP) Rating	IP 65
Over Voltage Category	DC Type II / AC Type II
Integrated Protection	Anti-islanding protection ; PV input reverse connection protection ; Output over-voltage protection;Integral insulation impedance protection ; Leakage current protection ; Output short circuit protection
Safety EMC	IEC62109-1/-2; IEC62040-1; IEC62477
Grid Regulation	VDE4105; EN 50549; NRS 097-2-1
Battery Technical Specifications	
Module Model	SMILE-G3-BAT-8.2P
Module Capacity	8.2 kWh
Usable Capacity	7.8 kWh
Depth of Discharge (DoD)	95%*
Nominal Voltage	256 V
Max. Charging / Discharging Current	32 A
Operating Temperature Range	-10 °C ~ 55 °C**
Battery Modules Connection	1 ~ 6 in Parallel
Ingress Protection(IP) Rating	IP21
Dimensions (W x D x H)	610 x 212 x 793 mm
Weight	78.3 kg

* Test condition: Max. 0.5C charge/discharge at 25±2°C.

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



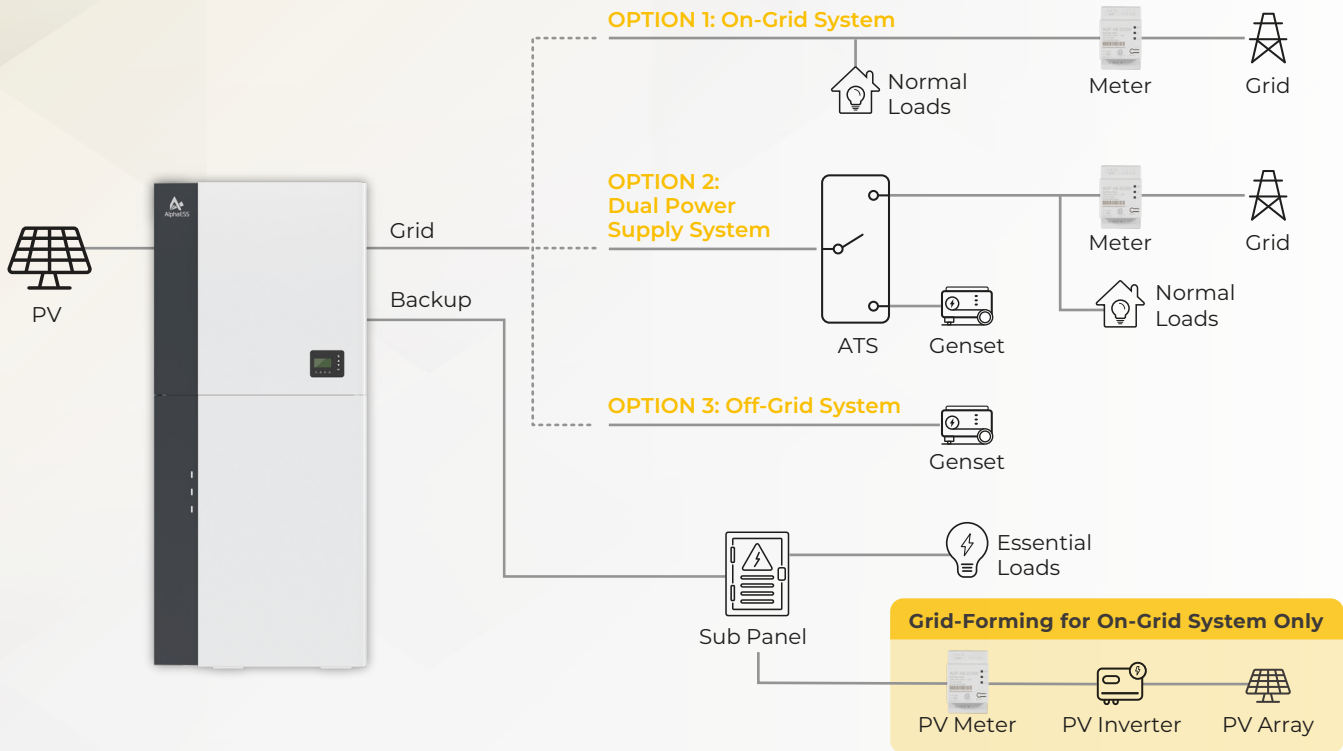
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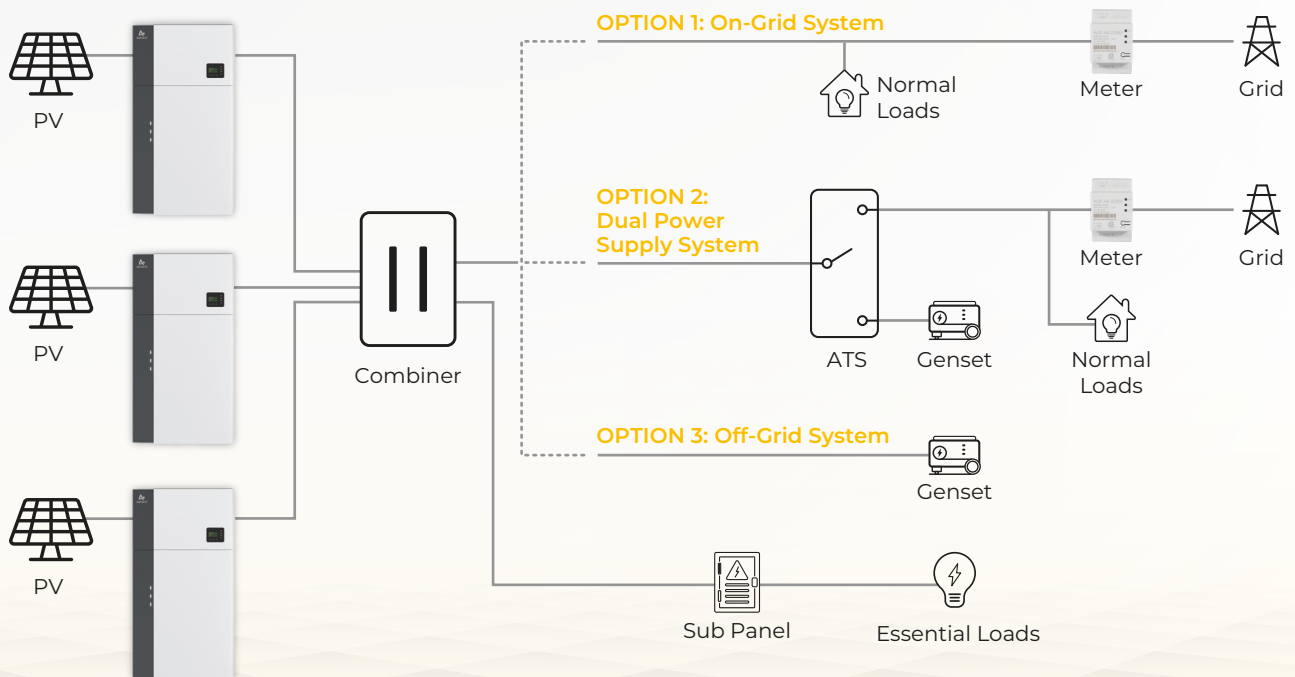
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HYBRID ENERGY STORAGE SYSTEM SOLUTION



PARALLEL HYBRID ENERGY SOLUTION (SMILE G3-S5 / S8 ONLY)



ALPHACLOUD




The AlphaCloud App is available for download on iOS and Android devices.




Download on the
App Store


GET IT ON
Google Play

Web Link: <https://cloud.alphaess.com/>

 Max. 28 Configurable Time Periods*

 Smart Anti-Theft Lock

 Lease Control Mode**

 Remote One-Click Restart

 3-level Software Protection

 24 / 7 Remote Monitoring & Control

*Take control of your power usage with configurable charging and discharging schedules, offering up to 6 time periods daily or 4 time periods*7 days weekly.

**This function is only available to installers.

To Our Partners in South Africa:

AlphaESS first launched its products into the South African market in 2018. Following years of success as a supplier to the growing demand for reliable energy storage systems, AlphaESS developed a range of systems specifically designed to meet the unique demands of the South African market. During this development time, a need for localized support was identified in order to better assist South African clients, and because of this, AlphaESS South Africa was established as a registered sub-company of Alpha ESS Co., Ltd. in China.

AlphaESS South Africa established its head office in Johannesburg with a growing national footprint to provide clients with unparalleled levels of support directly from the manufacturer.

“Our mission is to become the service benchmark of Southern Africa by providing the best energy storage initiatives through our accredited partner network.”



Jacques Hattingh
CEO of AlphaESS South Africa



AlphaESS is one of the world-leading green energy storage solution and service providers. The company has specialized in residential and commercial energy storage applications for **12 years**, delivering pre-eminent products and fit-for-purpose solutions. With **30+** subsidiaries and branches around the globe, AlphaESS provides local services and supports **100,000+** systems actively running in over **90+** countries.



2022 & 2023 TOP 1
Australia Market Share
from SunWiz



2023 H1 TOP 5 Residential
ESS Providerin Germany
from EUPD Research



2021 TOP 6 Supplier of
Global Residential ESS
from IHS Markit



iF & Reddot & G-Mark
Design Award



TOP BRAND PV
(STORAGE)



ESG Transparency Award
& GlocalIN Top50



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