

Energy Storage System (ESS) for residential applications -

# STORION SERIES SMILE-B3



## ✓ Key Features



AC-Coupling



Built-in battery



Modular design



Easy installation and low maintenance

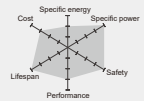


24/7 Monitoring



### 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.

### 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, TÜV, CEC and many other international standards.

All AlphaESS energy systems are integrated with smart energy management solutions. AlphaESS is committed to revolutionize the future energy network through our patented German technologies.



Official Website



Scan to download APP (IOS/Android)



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## System Specification

Model	Storion-SMILE-B3
Max. AC Output Power	3000 W
Max. AC Input Power	3000 W
IP Protection	IP65 (Outdoor) / IP21 (Indoor)
Dimension (W x D x H)	610 x 236 x 625 mm
Weight	45 kg
Operating Temperature Range	-10 °C ~ 50 °C*, 0 °C ~ 40 °C (1C)
Warranty	5 Year Product Warranty, 10 Year Battery Warranty

## Inverter Technical Specification

Max. AC Input Current	13 A
Nominal AC Input Voltage	230 V
Battery Voltage Range	40 ~ 58 V
Max. Charging/Discharging Current	60 A
Max. Charging/Discharging Power	3000 W
Phase	Single-Phase
Nominal AC Output Voltage	230 V
Grid Voltage Range	180 ~ 270 V
Rated Frequency	50/60 Hz
Backup	UPS
Grid Regulation	AS 4777.2, VDE-AR-N 4105, G83/2
Safety	IEC 62040-1, IEC 62477-1

## Battery Technical Specification

Module Capacity	2.9 kWh
Usable Capacity	2.8 kWh
Depth of Discharge (DoD)	96%
Module Nominal Voltage	51.2 V
Max. Short-circuit Current	200 A
Cycle Life	10 000 **
Max. Charging/Discharging Current	56 A (1C)
External Battery Expansion	1 ~ 5 M4856-P in parallel
Certification	UN38.3, IEC 62619 (Cell), IEC 62619 (Pack)

\*When the temperature is below 0 °C or above 40 °C, the performance will be limited.  
\*\*Under specific test conditions



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## Alpha ESS SMILE-B3

The Alpha ESS SMILE-B3 provides a battery backup system ideal for providing a household with power during periods of a power outage such as load shedding.

The unit is an all in one inverter and lithium battery which can provide 2.8kWh of power (Capacity of 2.9kWh with 96% depth of discharge).

This means that you can run appliances with a combined usage of 2800kWh. The table here provides an example of the usage of appliances during a period of load shedding and the combined watts required to power them.

The SMILE-B3 is mounted inside your unit and wired directly to your DB. This allows the battery to remain fully charged while Eskom power is active. During a power outage the system will automatically switch over from Eskom power to battery backup allowing you to run most household appliances during a typical period of load shedding. The system will however not power the geyser and oven/hob to allow for a longer period of time that other appliances can be utilised during the period of the power outage.

Appliance	Rated Power (Watts)	Voltage (V)	Number of Appliances	Typical Load-shedding Usage (minutes)	Total Watts Used
 LED Light	3	5DC	20	120	120
 Phone	5	5DC	2	120	20
 Tablet	10	5DC	1	120	20
 Fan	30	220	1	120	60
 Router	30	220	1	120	60
 Fridge	200	220	1	120	400
 22" TV	65	220	1	120	130
 Laptop	65	220	1	120	130
 Radio	30	220	1	120	60
 42" TV & Decoder	130	220	1	120	260
 Personal Computer	200	220	1	120	400
 Power Drill	600	220	1	10	100
 Microwave	800	220	1	10	400
 Iron	1 000	220	1	-	-
 Toaster	1 200	220	1	5	100
 Dishwasher	1 500	220	1	-	-
 Kettle	1 800	220	1	5	150
 Oven	2 000	220	1	-	-
<b>Total</b>					<b>2 410</b>