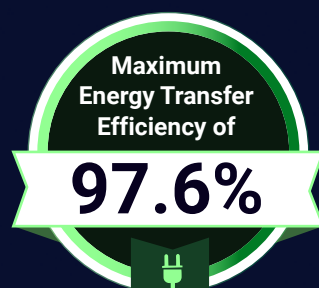




# SLA LIFE



SLA LIFE is a fully integrated Hybrid Coupled solar battery energy storage system designed for outdoor and indoor installations.

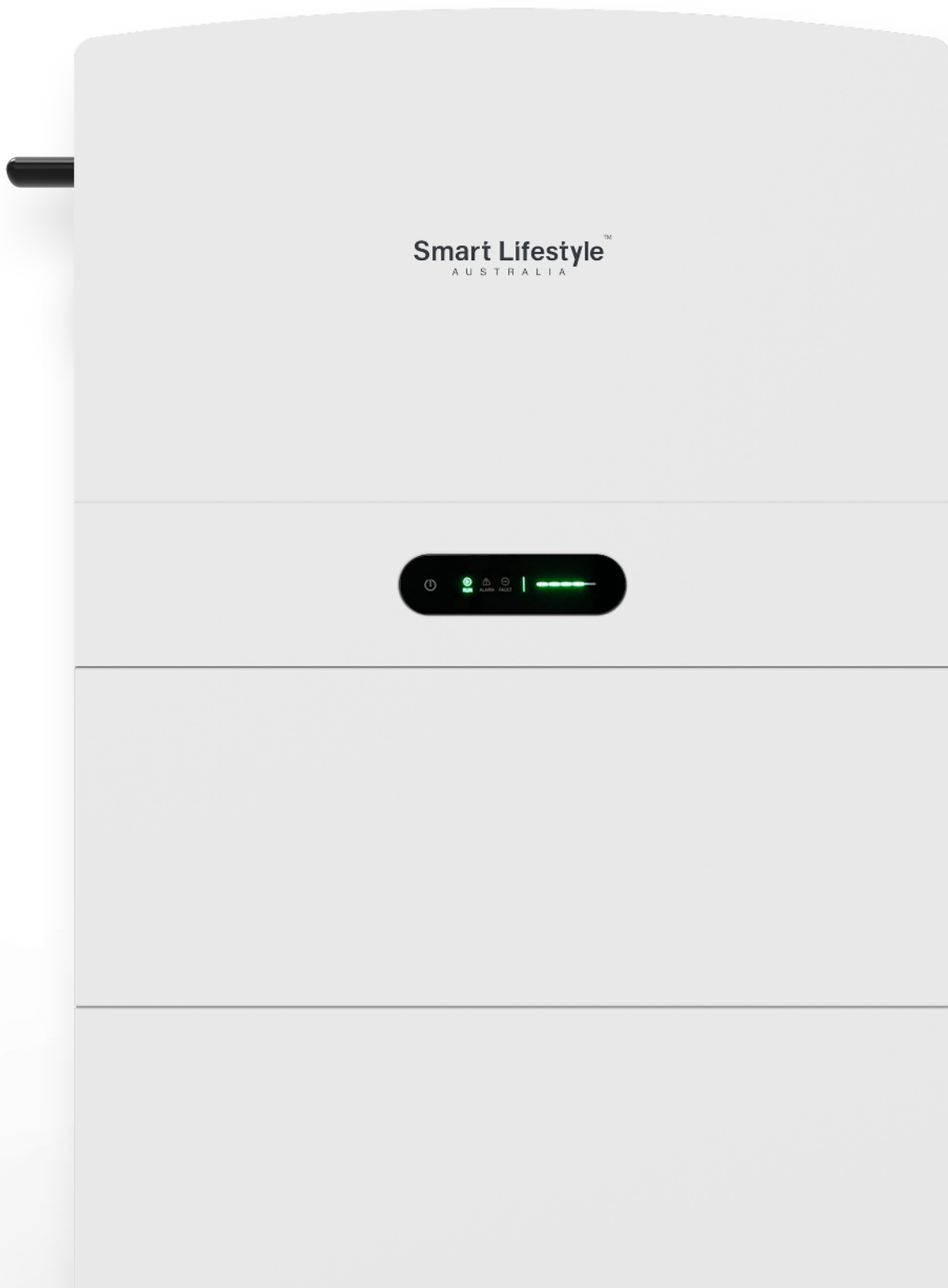




# SLA LIFE

Designed and Engineered in Australia

Our Battery Energy Storage is designed to offer superior performance, safety, and convenience, our storage solution is perfect for residential and commercial applications. With the SLA Battery Energy Storage, you can reduce your reliance on grid electricity, ensuring energy security and a clean energy lifestyle.







# Power Your Home, Discover the Savings

Investing in our cutting-edge solar battery storage system can transform your energy usage and significantly reduce your electricity bills. Here's a detailed and transparent look at how it works and the savings you can expect:

## Why Choose Our Solar Battery Energy Storage?

### Maximize Your Solar Investment:

Store the excess energy generated during the day for use at night or during peak times, ensuring you get the most out of your solar panels.

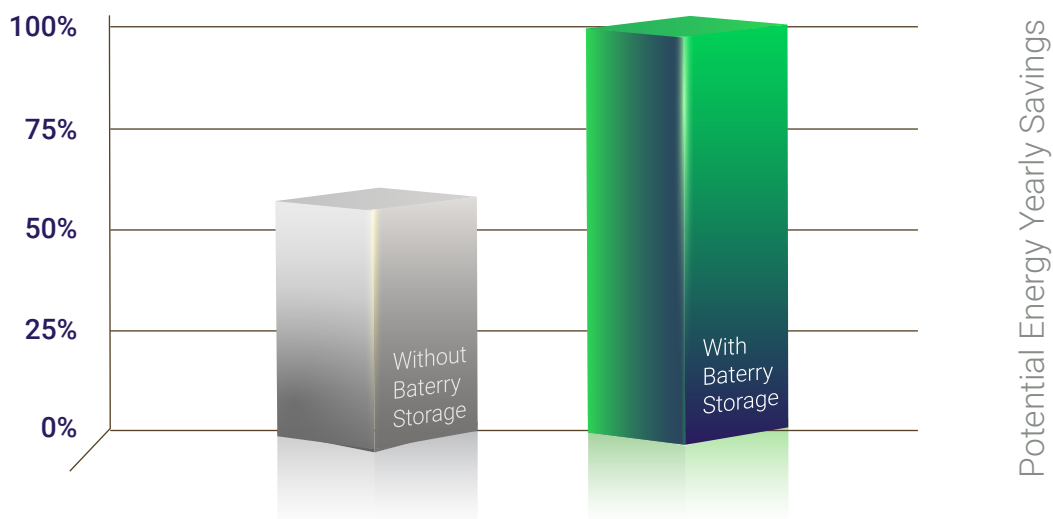
### Energy Independence and Security:

Reduce your reliance on the grid and enjoy uninterrupted power supply, even during outages.

### Government-Backed Savings:

Benefit from various federal and state government schemes designed to make solar and battery systems more affordable.

Energy Savings Comparison: With and Without Battery



An Australia household with a 5kW solar system and a 10kWh battery can save up to \$2,500 per year on electricity costs based on data obtained from DCCEE estimate and reneweconomy.



# SLA LIFE

## Battery Energy Storage Benefits



### High Efficiency:

Our battery storage system is designed for optimal energy utilization. It offers a maximum efficiency of 97.6% for energy transfer from photovoltaic (PV) systems to the battery.

This means that nearly all the energy generated by your solar panels is stored with minimal loss. Additionally, the battery to alternating current (AC) conversion efficiency stands at 96.0%, ensuring that when you use the stored energy, you receive the maximum output.

This high efficiency translates to significant savings on your energy bills and maximizes the return on your investment in renewable energy.

### Durability:

Built to withstand extreme conditions, our battery storage system operates efficiently in a wide temperature range from -20°C to +60°C. This robust temperature tolerance ensures reliable performance in various climates, from cold winters to hot summers.

The durability of our battery storage system means it can provide consistent performance and longevity, offering peace of mind and long-term reliability.

### Safety:

Safety is a top priority in our battery storage system. It comes equipped with multiple layers of protection to ensure safe operation under all conditions.

The system includes reverse connect protection to prevent damage from incorrect wiring, overcurrent protection to avoid damage from electrical surges, and an ingress protection rating of IP65, which safeguards against dust and water ingress.

These comprehensive safety features ensure the system operates safely, protecting your investment and maintaining the safety of your property.





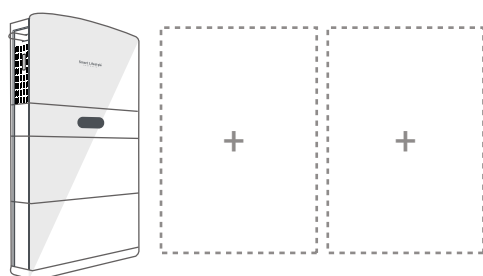
# Automatically Back Up Your Home During an Outage

Secure your home from a power outage with reliable backup power. SLA Life is able to detect a grid outage, disconnect from the grid and bring power back to your home in a fraction of a second. That is over 100× faster than typical standby generators, and fast enough to keep your appliances running without interruption. You will not have to reset your clocks or your alarm.

Our goal is to provide backup power to your entire home. However, depending on the type of appliances at your home, we may recommend an essential load backup instead of whole home backup.

## Whole Home Backup

Your entire home is backed up by our recommended number of SLA Life. In some cases, an upgrade to your electrical panel may be needed and we will advise you if this is the case. You can add more SLA Life to keep your house operational longer during an outage.



Computer



Lights



Devices



Outlets



Refrigerator



TV



AC



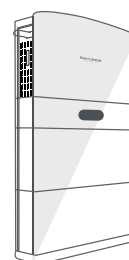
EV charger



Washer

## Essential Load Backup

If your electrical situation doesn't allow for a whole home backup, we can backup select essential loads. Since lights and outlets require less energy, a single SLA Life will typically, be sufficient and a secondary electrical panel is usually required.



Computer



Lights



Devices



Outlets



Refrigerator



TV

# Harnessing Advanced Energy Storage Technology

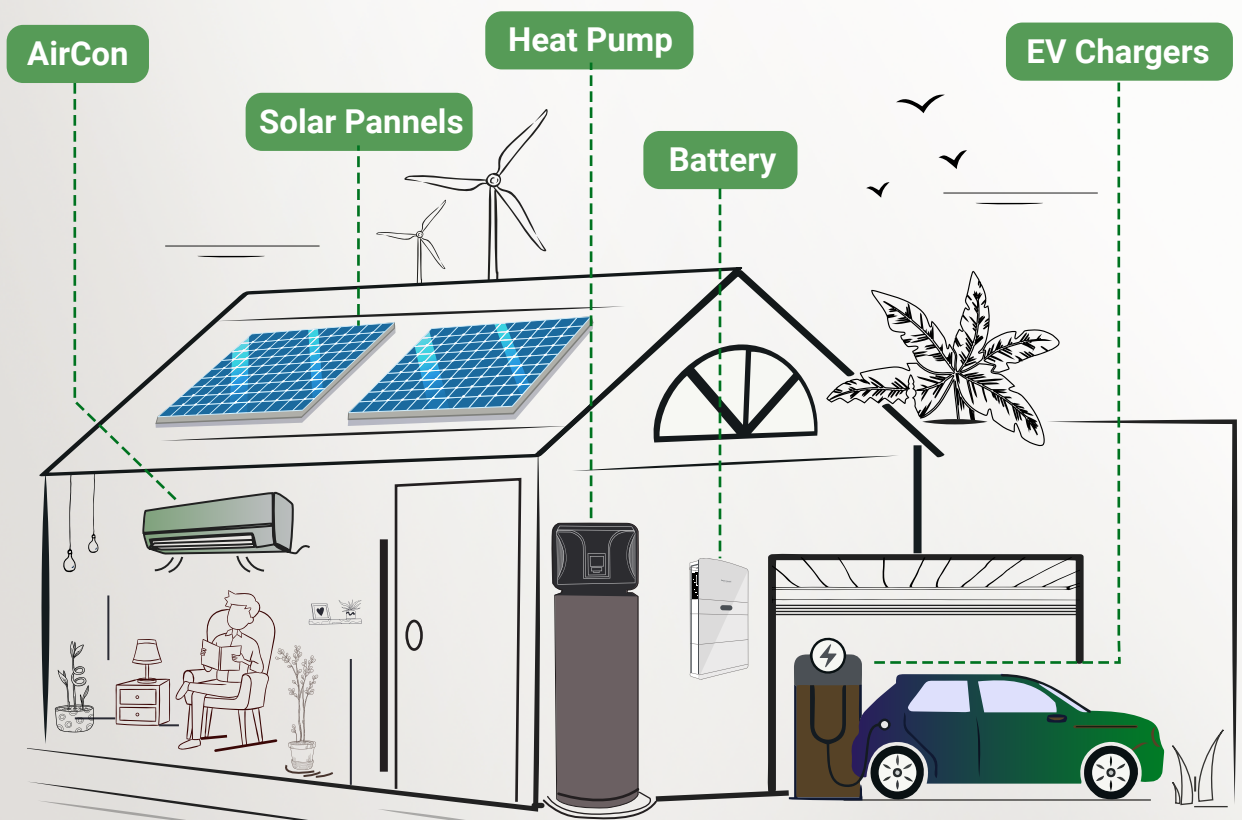
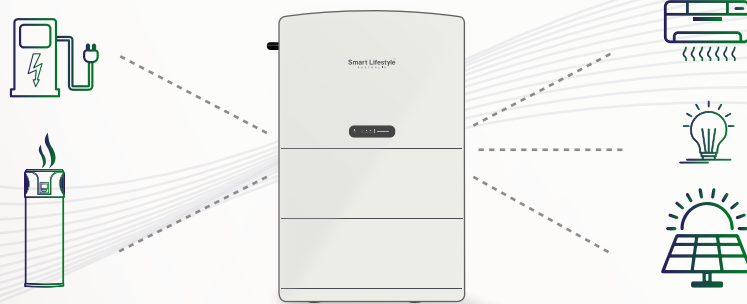
1

**Battery Charging:** The battery stores energy generated from your solar panels or the grid during off-peak times.

2

**Energy Usage:** Use the stored energy during peak times or when solar energy production is low, ensuring a continuous power supply.

**Monitoring:** Easily monitor and control your energy storage system via our user-friendly LED, app, and touch button interface.







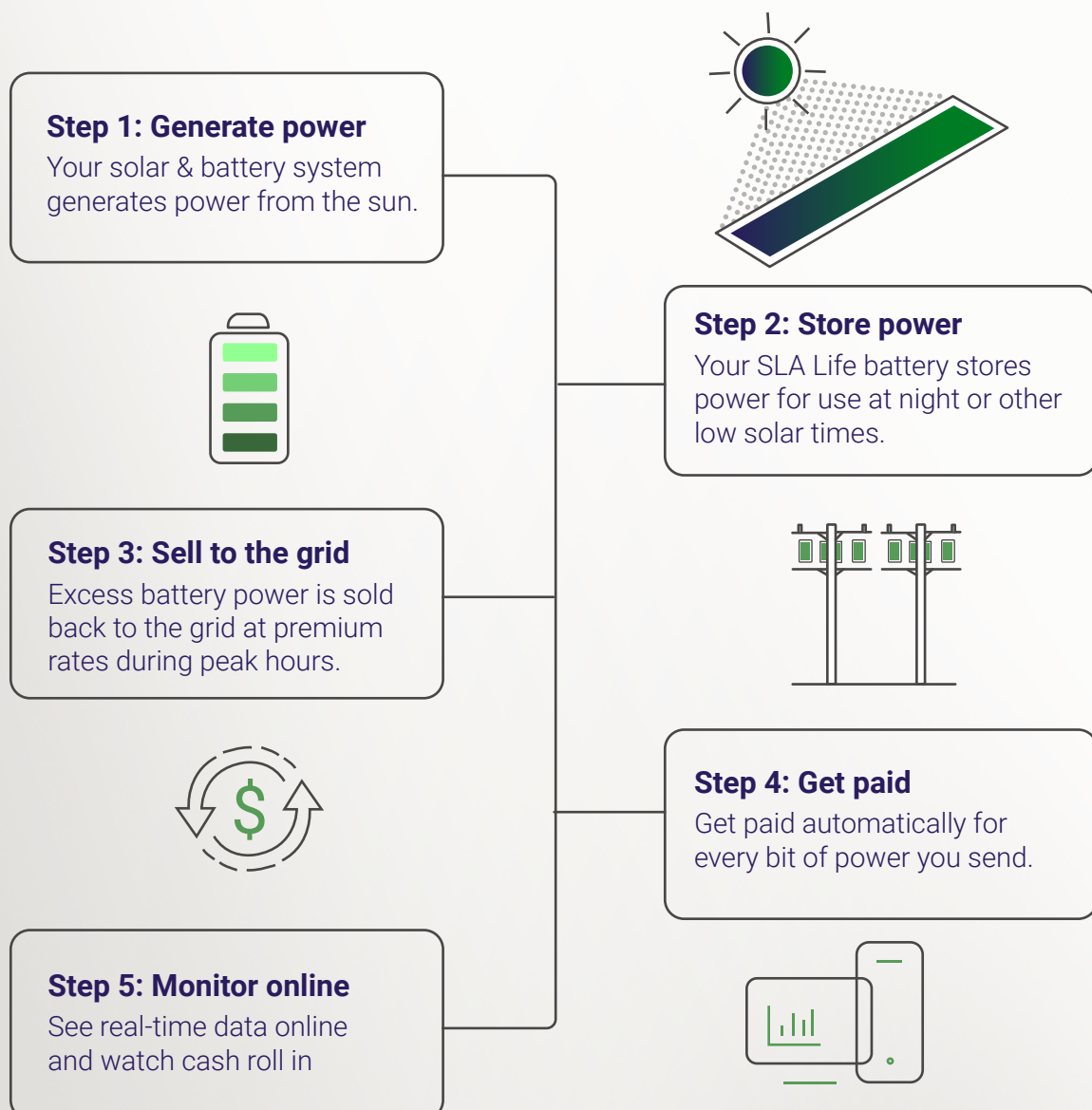
# Connect SLA Life To A VPP!

A Virtual Power Plant (VPP) is a network of home energy systems, like solar panels and batteries, working together through smart software. It helps ensure reliable power, lowers electricity bills, and promotes the use of green energy.

## Our VPP Partners



## VPP Step By Step Process



## SLA RESS - Hybrid Inverter Specification

Product Model	SLA-HB-S1-6kW1P		SLA-HB-S1-5kW1P	SLA-HB-S1-3.8kW1P
PV Input				
Maximum PV Array Power [String1/String2] (W)	3750/3750			
Maximum DC Voltage (V)	600 <sup>[1]</sup>			
Rated DC Operating Voltage (V)	360			
MPPT Voltage Range (V)	100 - 540			
MPPT Voltage Range for Rated Power (V)	225 - 480	185 - 480	141 - 480	
Startup Voltage (V)	120			
Maximum Input Current [A/B] (A)	15 / 15			
Maximum Short-Circuit Current [A/B] (A)	18 / 18			
Number of MPP Tracks/String per MPP Tracker	2 / 1			
Battery Side				
Battery Type	Lithium Ion			
Battery Voltage Range (V)	85 <sup>[2]</sup> - 400			
Battery Voltage Range for Nominal Power (V)	250 - 400	225 - 400	170 - 400	
Recommended Battery Voltage (V)	300			
Maximum Charge/Discharge Current (A)	25 / 25			
Communication Interface	RS485 / CAN			
Reverse Connect Protection	Yes			
AC Grid Side				
Rated AC Output Power (W)	6000 <sup>[3]</sup>	5000 <sup>[3]</sup>	3800	
Maximum Output Power (W)	6000 <sup>[3]</sup>	5000 <sup>[3]</sup>	3800	
Rated Apparent Power Output to Utility Grid (VA)	6000 <sup>[3]</sup>	5000 <sup>[3]</sup>	3800	
Max. Apparent Power Output to Utility Grid (VA)	6000 <sup>[3]</sup>	5000 <sup>[3]</sup>	3800	
Rated Apparent Power from Utility Grid (VA)	6000	5000	3800	
Max. Apparent Power from Utility Grid (VA)	6000	6000	6000	
Rated Grid AC Voltage (V)	L/N/PE 230			
Grid AC Voltage Range (V)	180 - 280			
Rated Grid Frequency (Hz)	50			
AC Grid Frequency Range (Hz)	50 ± 5			
Maximum Output AC Current to Utility Grid (A)	26.1	21.7	16.5	
Rated Output AC Current to Utility Grid (A)	26.1	21.7	16.5	
Maximum Input AC Current from Utility Grid (A)	26.1	26.1	26.1	
Rated Input AC Current from Utility Grid (A)	26.1	21.7	16.5	
Power factor	~ 1 (Adjustable from 0.8 Leading to 0.8 Lagging)			
Total Harmonic Distortion (%)	< 3 at Rated Power		< 5 at Rated Power	



## SLA RESS - Hybrid Inverter Specification

Emergency Power Supply (EPS) Side			
Back-up Nominal Apparent Power (VA)	6000	5000	3800
Nominal Power (W)	6000	5000	3800
Max. Output Apparent Power without Grid (VA)	7500 at <10 Seconds		
Max. Output Apparent Power with Grid (VA)	7500 at <10 Seconds		
Nominal Output AC Voltage (V)	L/N/PE 230 V		
Nominal Output Frequency (Hz)	50		
Rated Output Current (A)	26.1	21.7	16.5
Maximum Output Current (A)	26.1	21.7	16.5
Maximum Output Overcurrent Protection (A)	32.6 at 10 Seconds		
Switching from Grid Connected Mode to Stand-Alone Mode (ms)	< 20		
Output Total Harmonic Distortion (%)	<5 at Linear Load		
Efficiency			
MPPT Efficiency (%)	99.9		
Euro Efficiency (%)	95.2	95.2	95.0
Maximum Efficiency (%)	96.8	96.7	96.5
Battery Charge/Discharge Efficiency (%)	97.6 (PV - Battery), 96.0 (Battery – AC)	97.6 (PV – Battery), 96.0 (Battery – AC)	97.6 (PV – Battery), 95.4 (Battery – AC)
Environment Limit			
Ingress Protection	IP65		
Protection Class	Class I		
Pollution Degree	PD3		
Over Voltage Category	Ⅲ (Mains), Ⅱ (DC)		
Operating Temperature Range (°C)	-20 °C~+60°C(derating at +45)		
Operation Altitude (m)	<2000m		
Humidity	0%-95%		
Cooling Method	Natural Ventilation		
User Interface	LED,APP, Touch Button		
Communication with BMS	CAN/RS485		
Communication with Meter	RS485		
Communication with Portal	Wi-Fi		
Typical Noise Emission (dB)	<40		
Dimension WxHxD (mm)	800 x 450 x 160		
Weight (kg)	34		
Topology	Non-isolated		
Method for Anti-Islanding	Active Frequency Drift (AFD)		
Self-Consumption at Night (W)	< 25		

## SLA RESS - Hybrid Inverter Specification

DC Connector	MC4 (4 ~ 6 mm <sup>2</sup> )
AC Connector	Quick Plug
Storage Temperature	-40 ~ 85
Standard Warranty	120 Months
<b>Standard Certification</b>	
Safety	IEC/EN 62109-1&2, IEC 62477
EMC	IEC 61000-6-1, IEC 61000-6-3
Environment	IEC 60529, IEC 60068
Efficiency	IEC 61683
Certificates	AS/NZS 4777.2, VDE4105

### Remarks:

- [1] The MPPT board may get damaged if PV port exceeds this voltage. The full power operation voltage should be less than 480V, and the range 480V-540V is for limited power operation.
- [2] Battery port boot voltage must be greater than 95V.
- [3] The grid feed in power for VDE4105 is limited to 4600VA.



# SLA RESS - Battery Specification

Mode	SLA-ESS-S1-5kWh	SLA-ESS-S1-10kWh	SLA-ESS-S1-15kWh	SLA-ESS-S1-20kWh	SLA-ESS-S1-30kWh
Component	Base+BMS +1 Module	Base+BMS +2 Modules	Base+BMS +3 Modules	2*(Base+BMS +2 Modules)	2*(Base+BMS +3 Modules)
Battery Type	Lithium-iron-phosphate (LiFePO4) - Lithium-ion Type (LFP)				
Nominal Voltage	102.4 V	204. 8 V	307.2 V	204. 8 V	307.2 V
Maximum protection voltage (V)	116.8 V	233.6 V	350.4 V	233.6 V	350.4 V
Minimum protection voltage (V)	89.6 V	179.2 V	268.8 V	179.2 V	268.8 V
Number of Battery Modules	1	2	3	4	6
Rated Capacity	50 Ah	50 Ah	50 Ah	100 Ah	100 Ah
Total Energy	5.1 kWh	10.2 kWh	15.3 kWh	20.4 kWh	30.6 kWh
Usable Energy	4.6 kWh	9.2 kWh	13.77 kWh	18.36 kWh	27.54 kWh
Depth of discharge	90%	90%	90%	90%	90%
Nominal Power	2.56 kW	5.12 kW	7.68 kW	10.24 kW	15.36 kW
Maximum Charge/Discharge Current	30A DC	30A DC	30A DC	50A DC	
Cycle Life	6000 Cycles (at 25°C, 0.5C, 90% DoD, 70% SoH)				
Performance Warranty	10 Years (70% SoH) - Expected Lifetime				
Operating temperature	0°C to 55°C / -20°C to 55°C				
	-20°C to 55°C (Build-in heating function) / -20°C to 55°C				
Storage Temperature	-20°C to 45°C (3 months)				
	-20°C to 35°C (1 year)				
Humidity	0% - 95%				
Altitude	Below 2000m				
Ingress Protection	IP65				
Communication	RS485 / CAN2.0				
Status Indicator	LED Lights				
SoC Indicator	5 LED (20%, 40%, 60%, 80%,100%)				
Switch ON/OFF	Button*1 + Breaker*1			Button*2 + Breaker*2	
Standard Certificate	CE, IEC 62619, IEC 62040, IEC 60529, IEC 61000, UN 38.3				
Weight (excluding Inverter)	Module 50kg, BMS 10kg, Base 5kg				
	65kg	115kg	165kg	230kg	330kg
Dimension (mm), WxHxD (excluding Inverter)	Module 800 x 310 x 160, BMS 800 x 150 x 160, Base 800 x 65 x 160				
	800 x 525 x 160	800 x 835 x 160	800 x 1145 x 160	2 * (800 x 835 x 160)	2 * (800 x 1145 x 160)
Remark	1 Series			2 Series in Parallel	

Capacity measurement under following conditions
i. Ambient temperature: 25 ~ 30°C (77 ~ 86°F)
ii. Initial battery temperature from BMS: 25 ~ 30°C (77 ~ 86°F)
ii. Current and voltage measurement at battery DC side

Battery type	System Chemistry	System Configuration			
LFP (Lithium-ion type)	Lithium-iron-phosphate (LiFePO4)	DC Couple	AC Couple	Hybrid Couple	OFF Grid



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