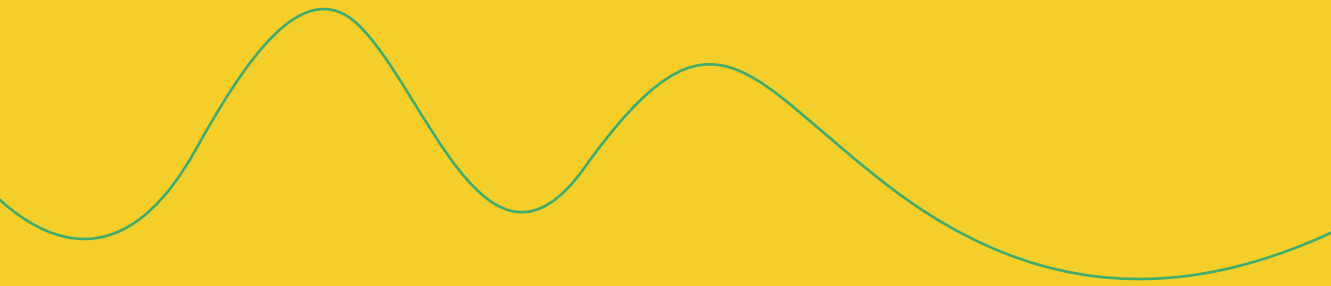


PRODUCT BROCHURE

the affordable
energy storage
people



Your **energy** independence, sorted

We're PolarESS, and we build trusty little battery storage systems that won't break the bank. Energy bills are crazy, inflation is crazy, and carbon emissions are crazy.

And home energy storage solutions can help tackle all those problems. So, we're making the tech affordable for everyone.

No more **dirty** energy. No more **daft** bills.

A PolarESS battery storage system will help you save loads of money on your energy bills. It'll help get your home off fossil fuels.

And it will help you track and control your energy in a super easy way.

85%

potential energy bill savings per year

<1

day installation turnaround

50-60%

of the cost of the battery storage heavies

>300

/p.a. average carbon emission reduction per home

Let's get your home and business running cheaply and cleanly. >>

POLAR ESS ENERGY STORAGE SOLUTION

Solid products. Small price tags.

Power Your House



Hybrid Inverter

- ALPS HY3.6-GL
- ALPS HY4.6-GL
- ALPS HY5.0-GL
- ALPS HY6.0-GL
- ALPS HY8.0-GL



Home Battery

- 5.2kWh**
- ALPS BA5.2

Power Your Independence



High-frequency Off-grid Inverter

- ALPS OG3-24
- ALPS OG5.5-48P
- ALPS OG11-48P



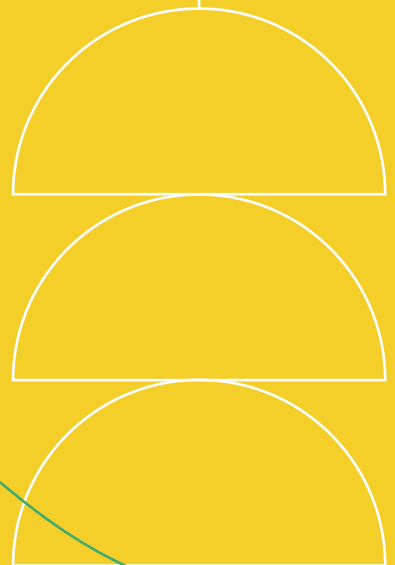
Home Battery

- 4.8kWh**
- ALPS BA4.8



Low-frequency Off-grid Inverter

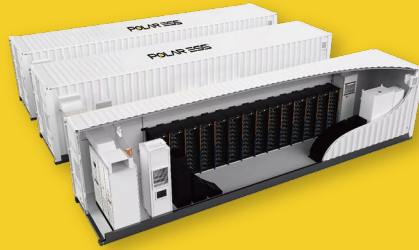
- ALPS OG4-48LF



Power Your Business



**SME
Commercial
ESS**



**Battery Storage
Container**

Power on the Go



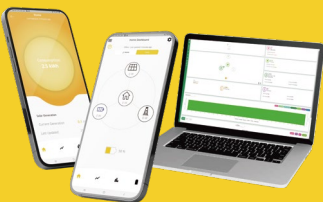
**Portable Balcony
Energy Storage
System**

ALPS PP2.0

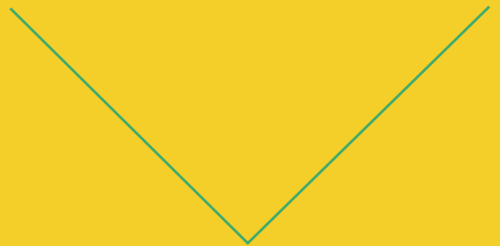
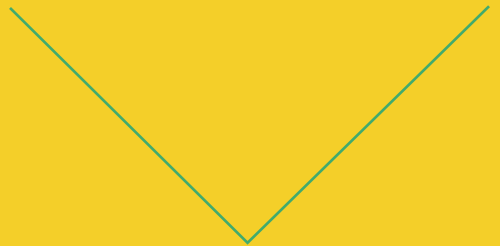


**12V LFP
Battery**

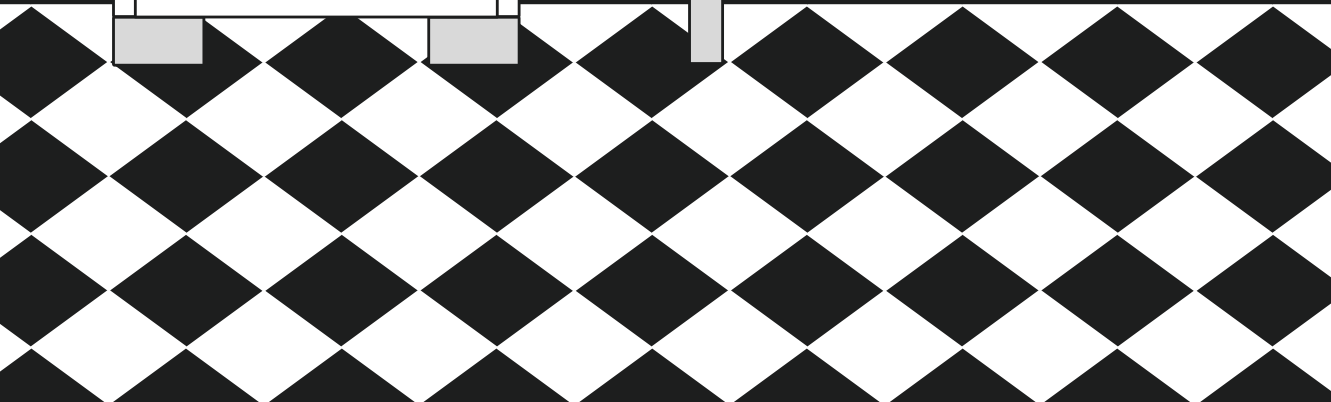
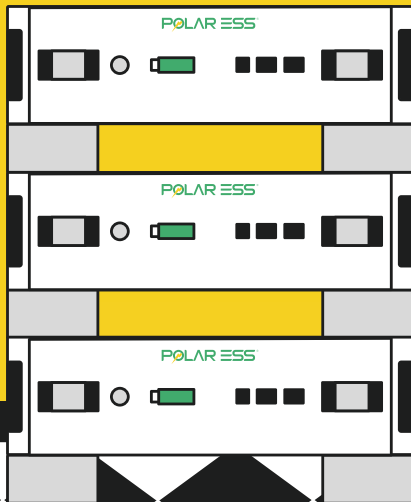
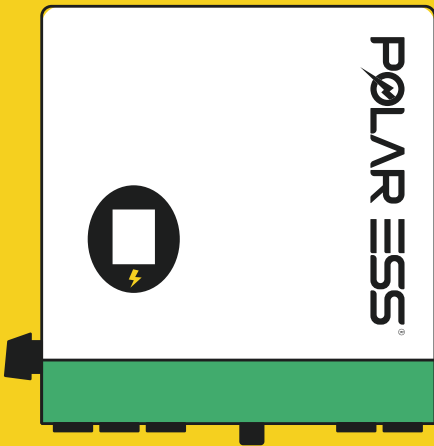
Software



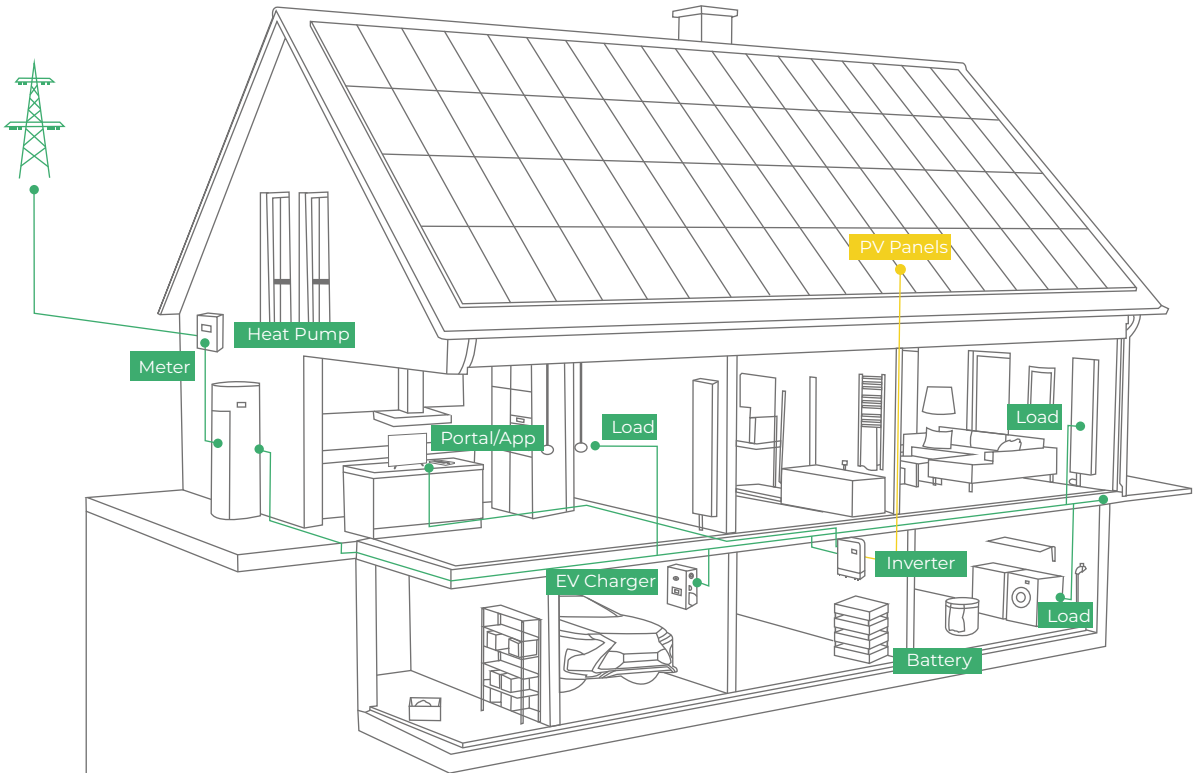
**The Portal
The App**



Power Your House - More **added value**



The Complete Home Battery Storage Solution



Eases grid stress



Lowers customers' bills



Optimizes onsite solar generation



Back-up power



Off-peak charge, peak discharge



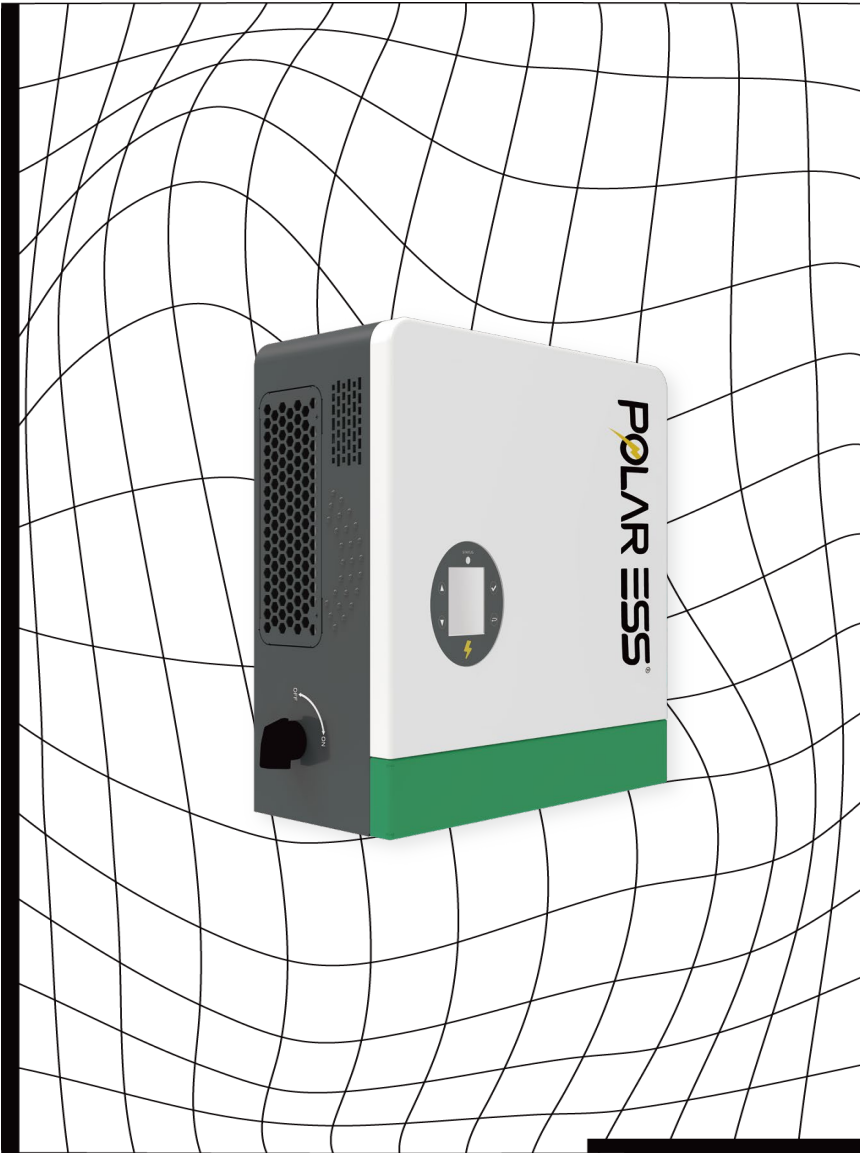
Monitor your demand from install



Improve your carbon footprint



Energy independence



HYBRID INVERTER

ALPS Series Hybrid Inverter

3.6KW/4.6KW/5KW/6KW/8KW

Your inverter is the computer that tracks and monitors everything.

Designed to offer an economical solution with premium functionality, the hybrid inverter combines the benefits of grid-tied and off-grid systems, allowing you to optimize your energy usage and save cost while ensuring reliable power supply.



SCALABLE

Supports multiple parallel operations, so you can scale as you like.



ECONOMICAL

Seriously high cost-performance ratio, featuring 2 MPPTs, wide PV voltage range and LCD display.



LINKABLE

Connect your third-party devices via dry contact or DI port.



AFFORDABLE

Coming to you at 50-60% of the cost of the industry heavies.

Model	ALPS HY3.6-GL	ALPS HY4.6-GL	ALPS HY5.0-GL	ALPS HY6.0-GL	ALPS HY8.0-GL
Input Data (PV)					
Max. PV Input Power	5400W	7000W	7500W	9000W	12000W
Start-up Voltage			90V		110V
Max. PV Open-circuit Voltage			550V		
MPPT Voltage Range			90V-530V		
Rated MPPT Voltage			360V		
Max. PV Short-circuit Current			2*23A		
Max. PV Input Current			17A/17A		20A/20A
MPPT Tracker/No. of Strings per MPPT Tracker			2 / 1		
Battery					
Battery Type	Lead-acid or Li-ion				
Battery Voltage Range	46.7-57.6V				
Nominal Voltage	51.2V				
Max. Charging/Discharging Current	83A/83A	104A/104A	112A/112A	130A/130A	175A/175A
Max. Battery Charging/Discharging Power	4000W/4000W	5000W/5000W	5400W/5400W	6500W/6500W	8500W/8800W
Battery Communication	RS485 / CAN				
Output Data (AC)					
Rated AC Output Power	3600W	4600W	5000W	6000W	8000W
Rated/Max. Apparent Power	3600VA	4600VA	5000VA	6000VA	8000VA
Rated/Max. Output Current	16Aa.c.	20Aa.c.	21.7Aa.c.	26Aa.c.	34Aa.c.
Nominal Grid Voltage/Range	230V / 180-270V			230V/184-260V	
Nominal Frequency/Range	50 / 60Hz; ±5Hz			50±5Hz	
Power Factor(@Full Load)	>0.99				
Power Factor Range	0.8 Lagging - 0.8 Leading			0.85 Lagging - 0.85 Leading	
THDI (@Rated Power)	<3%				

AC Output Topology

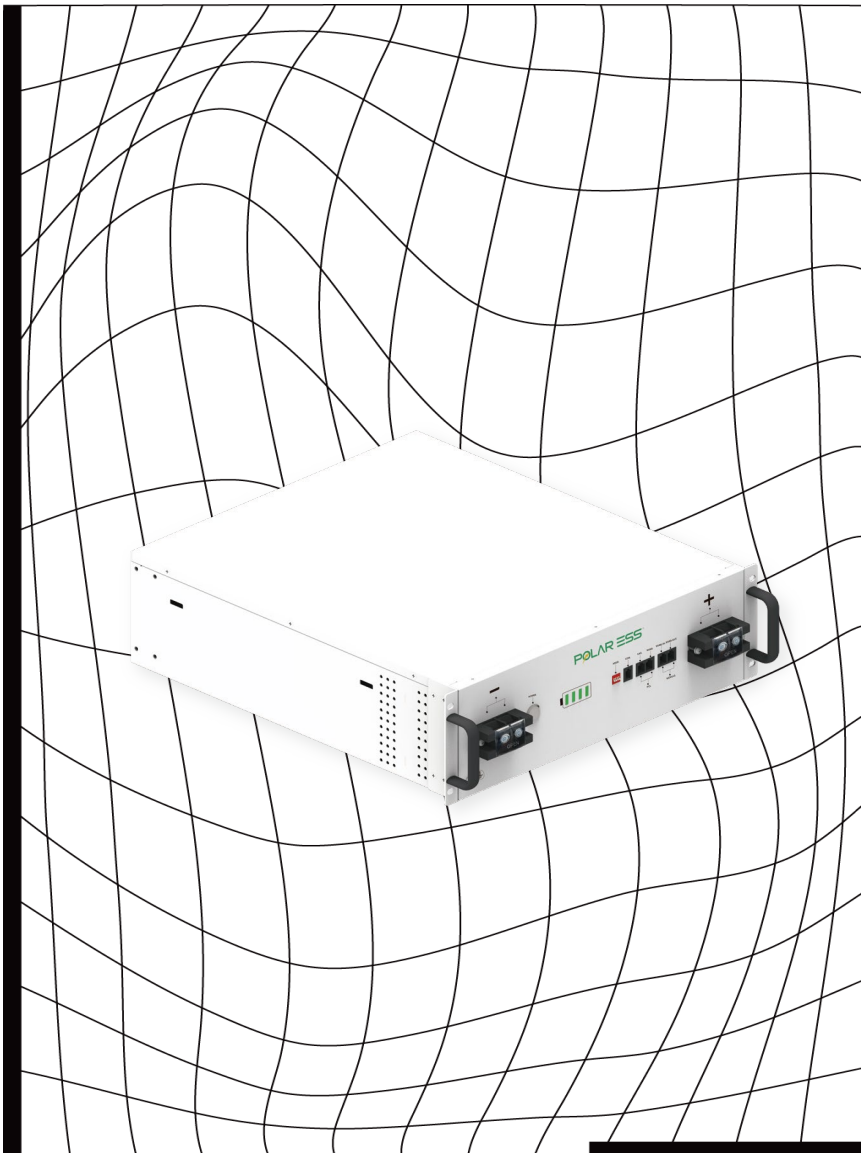
Single Phase

Backup

Nominal EPS Output Power	3600W	4600W	5000W	6000W	8000W
EPS Peak Power (10s)	7200VA	9200VA	10000VA	12000VA	16000VA
AC Nominal Voltage	230Va.c.				
Rated/Max. Output Current	16Aa.c.	20Aa.c.	21.7Aa.c.	26Aa.c.	34Aa.c.
Nominal Frequency	50 Hz				
Automatic Switch Time	≤10ms				
THDV (Linear Load)	<3%				

General Data

Battery Max. Charging/Discharging Efficiency	94% / 94%				
PV to AC Max. Efficiency	97.00%				
Euro Efficiency	96.5%				
MPPT Efficiency	99.90%				
Ingress Protection	IP20				
Protective Class	I				
Overvoltage Category	PV: II, Battery: II, AC: III				
Inverter Topology	PV: Transformer-less; Battery: Isolated				
Cooling	Forced Air Cooling				
Noise Emission (Typical)	<45dB				
Operating Temperature Range	-25 ~ 60 C				
Full Load Operation Temperature	-25 ~ 45 C				
Relative Humidity	0~100%, Non-condensing				
Max. Altitude	4000m (Derating above 2000m)				
Dimensions (W×H×D)	455mm×425mm×190mm				
Weight	22kg			25kg	
Self-consumption	10W				
Display	LCD / LED				
Interface	Communication with Meter - Pluggable Connector Communication with Portal - Wi-Fi (USB)		Communication with Meter RS485: Pluggable Connector Communication with Portal: Wi-Fi (USB) 2×Programmable DI/DO		
Warranty	3 Years				
Certificates	CE, UKCA, G98, G99, EN50549, C10/11, VDE-N4105, NTS2.1, UNE217001, NRS097, AS4777.2				



HOME BATTERY

5.2kWh Battery Storage Systems

Your battery stores energy that can power your home.

- If you've got solar panels in place, you can charge it for free and save the sun's energy for later.
- If you've not got solar panels, use smart tariffs. On a smart tariff, your battery charges when energy is cheaper than normal. (Like overnight, or when wind farms are giving the grid loads of power.)
- Either way, that lovely cheap energy in your battery will supply your home when you need it.



SCALABLE

Run up to 16 batteries in parallel – for a usable capacity of over 80kWh.



FLEXIBLE

Rack-mounted or floor-standing, suitable for retrofit projects, new solar projects, or as a standalone battery.



DURABLE

High safety LFP battery cell, built to last, with a design life of 6000 cycles.



RELIABLE

Over-charging /discharging protection
Over-current protection
Over and under temperature protection
Short-circuit protection
Clever battery reverse protection function



AFFORDABLE

Coming to you at 50-60% of the cost of the industry heavies.

Model		ALPS BA5.2
Nominal Voltage (Vdc)	51.2	
Voltage Range (Vdc)	44.8~ 57.6	
Nominal Capacity (Wh)	5120	
Recommended Charge /Discharge Current(A)	50	
Charge /Discharge Current(A)	100	
	100~120 @15mins	
	>120 @ 15secs	
Communication Port	RS232,RS485,CAN	
Working Temperature (Charge)	0~50 C	
Working Temperature (Discharge)	-10~50 C	
Storage Temperature	-20~60 C	
Protection Class	IP20	
Humidity	5% ~ 95%(RH) No Condensation	
Altitude	<4000m	
Cycle Life	6,000 (25 C)	
Standard	CE/UN38.3	
Number of Parallel Batteries (Max.)	16	
Dimensions(D x W x H)	505 x 134 x 440mm	
Weight (kg)	46	
Installation	Rack Mounting or Floor Standing	
Technology	Lithium-ion	

Power Your Independence - Prepare for Outages





OFF-GRID INVERTERS

ALPS High Frequency Off-grid Inverters **3kW-11kW | 24V-48V**

Smaller Size, Lighter Weight, Higher Efficiency

Ideal for remote areas, this inverter seamlessly connects to solar panels and various batteries for flexible energy solutions. It offers real-time monitoring, stable power delivery for electronics, and built-in safety features. Easily scalable through parallel operation, it's a versatile solution for efficient and independent power generation, perfect for emergencies.

- High-frequency inverter with high efficiency and light weight design.
- Pure sine wave output, adaptable to various loads, and delivering high-quality power.
- Compatible with lithium battery, and lead acid battery.
- Parallel Capability: Supports up to 9 units, offering expanded capacity (ALPS OG3-24 not included).
- Real-time display of power consumption, offering convenient awareness.

- Power factor 1.0, indicating a robust load capacity.
- Output short circuit protection ensures system safety by rapidly shutting down during a short circuit.
- Numerous parameters can be customized based on user requirements.
- Max PV input of 500Vdc minimizes PV-side installation wiring.
- Capable to work without battery, enabling grid independence with PV input only.
- Supports on-demand activation of lithium batteries, optimizing performance.

Model	ALPS OG3-24	ALPS OG5.5-48P	ALPS OG11-48P
Input			
Nominal Input Voltage	220/230/240VAC		
Input Voltage Range	90-280VAC±3V (Normal Mode) 170-280VAC±3V (UPS Mode)		
Frequency Range	50/60Hz±5%		
Output			
Rated Power	3000W	5500W	11000W
Output Voltage	220/230/240VAC±5%		
Output Frequency	50/60Hz±0.1%		
Waveform	Pure Sine Wave		
Transfer Time (Adjustable)	10ms (for Computer Equipment); 20ms (for Household Equipment)		
Peak Power	6000VA	11000VA	22000VA
Overload Capability	Battery Mode: 10.5s @110%~150% Load; 5.5s @150%~200% Load; 200ms @>200% Load		
Peak Efficiency	94%		

Battery

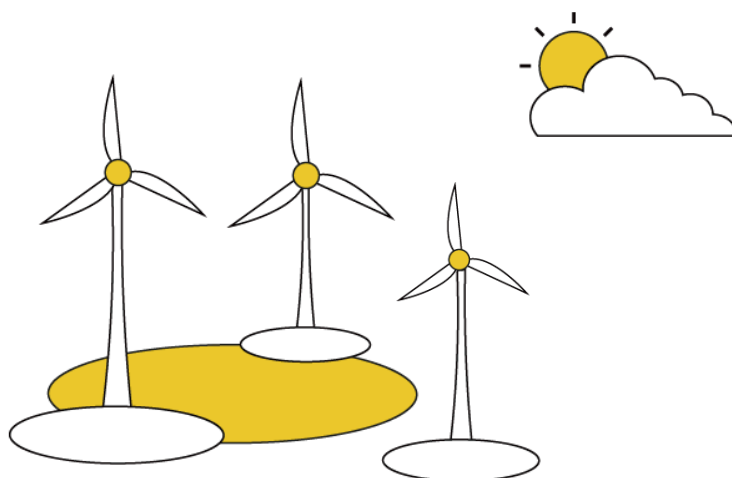
Rated Voltage	24VDC	48VDC
Constant Charging Voltage	28.2VDC	56.4VDC
Float Charging Voltage	27VDC	54VDC

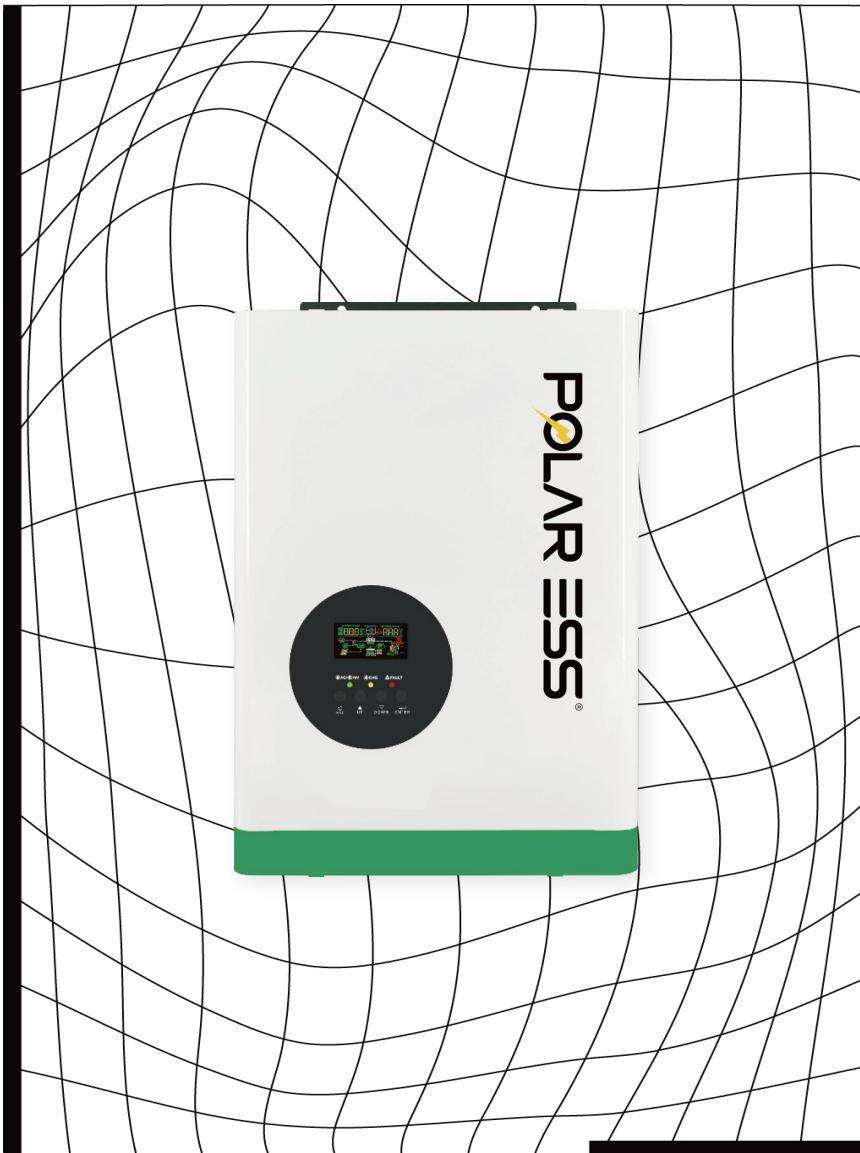
Charger

PV Charging Method	MPPT		
Max. PV Power	4000W	5500W	2*5500W
MPPT Voltage Range	120~500VDC		
Max. PV Input Voltage	500VDC		
Max. MPPT Current	16A	20A	20A/20A
Max. PV Charge Current	100A	100A	160A
Max. AC Charge Current	60A		120A
Max. Charge Current	100A	100A	160A

General Data

LCD	Capable of displaying the operating mode, load, input, and output information.		
Communication Port	RS232: Baud Rate 2400		
	Expansion Slot Interface: Lithium Battery BMS, WiFi, Dry Contact		
	No Parallel Support	Support Parallel	
Operating Temperature	0°C~40°C		
Storage Temperature	-15°C~60°C		
Humidity	20%~95% Non-condensing		
Altitude (Max.)	4000m (Derating above 2000m)		
Noise	< 50dB		
Dimension (H x W x D)	495 x 312 x 125mm	571 x 500 x 141mm	
Weight(kg)	7.5	8.56	19.5





OFF-GRID INVERTERS

ALPS Low Frequency Off-grid Inverters **4kW | 48V**

Highly reliable for areas with unstable or absent power grids.

ALPS Power Frequency Off-grid Inverters efficiently convert DC power from sources like solar panels into stable AC power. Adaptable to different loads, they offer versatility in power applications. Often employed in remote locations or areas without reliable grid access, these inverters contribute to energy independence by enabling users to generate and use their own electricity. With real-time monitoring and safety features, they are essential for reliable and self-sufficient power solutions.

- Pure sine wave output, adaptable to various loads, and delivering high-quality power.
- Built-in isolation transformer to better handle unstable and harsh grid conditions.
- Powerful charge rate of up to 90 amps for highly efficient charging.
- Real-time display of power consumption, offering convenient awareness.
- Featuring DC start capability and automatic self-diagnostic function, ensuring smooth initiation with direct current power and ongoing system checks for efficient, reliable operation.
- Auto-restart on AC recovery for seamless operation, combined with DC start and self-diagnostic checks for continuous functionality.

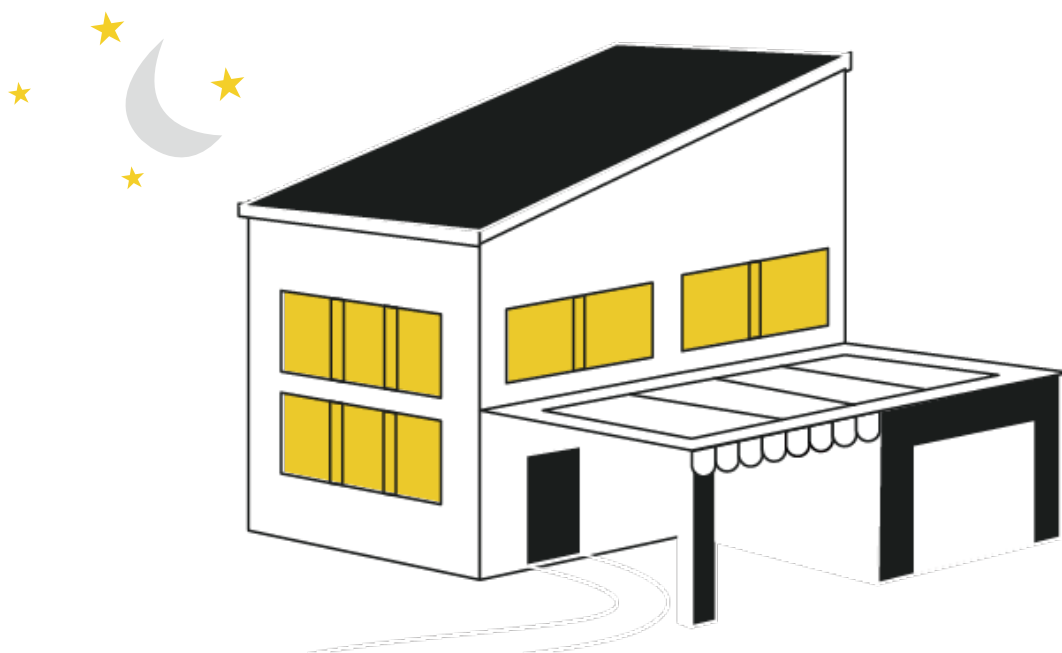
- Adjustable charging current tailored to specific applications.
- Optional priority selection for AC, DC, and Solar inputs, providing flexibility and customization based on your power source preferences.
- Significantly reduced no-load power consumption, less than half compared to high-frequency inverters, saving power and ensuring efficiency.

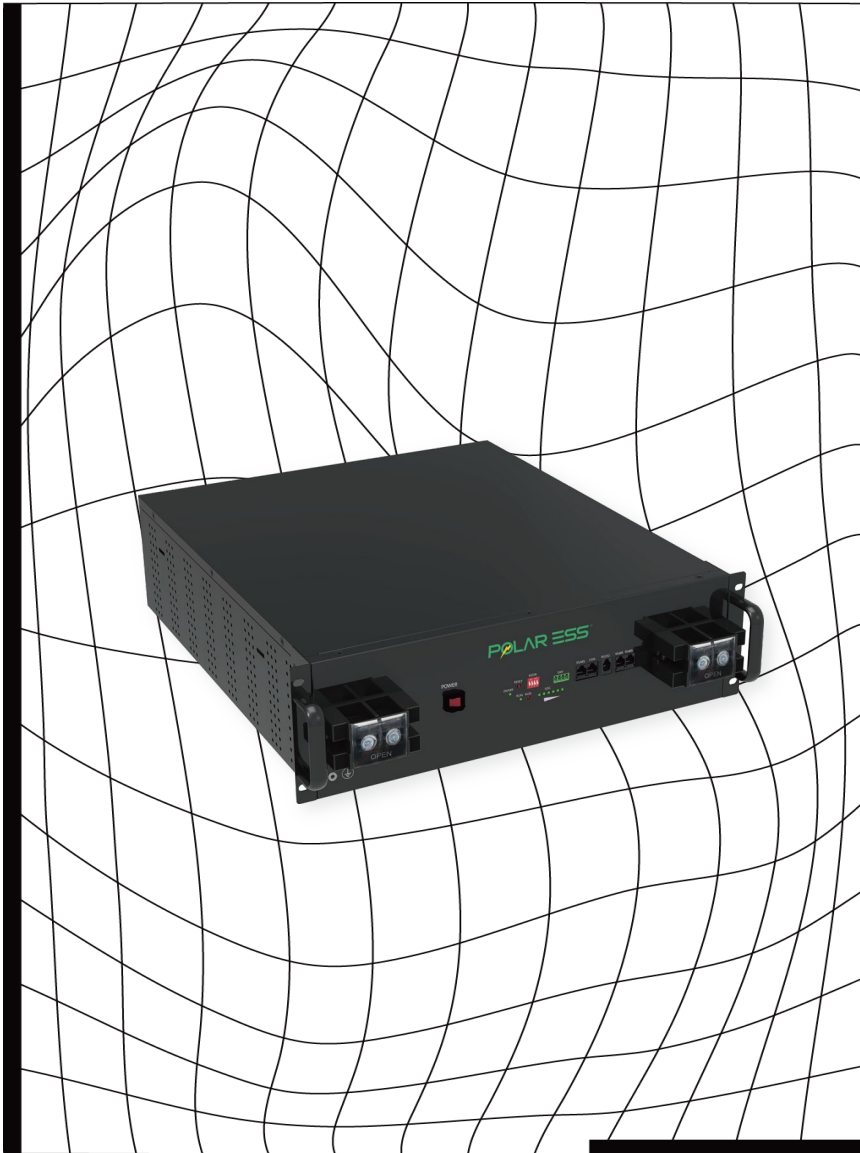
Model

ALPS OG4-48LF

Nominal Voltage	220 / 230 / 240V	
Voltage Range	154-264VAC ± 3V (Normal Mode)	185-264VAC ± 3V (UPS Mode)
Capacity (VA)	5000VA	
Input Voltage (DC)	48V	
Rated Power	4000W	
Frequency	50 / 60Hz±1%	
Output Voltage (AC)	220/230/240VAC±10%	
Output Frequency (AC)	The output voltage frequency under AC matches the input frequency.	
Waveform	Pure Sine Wave	
Battery Type	Lead Acid Battery, Lithium-ion Battery	
Battery Voltage	48VDC	
Battery Charging Voltage	54.8VDC	
Max. PV Array Power	48V: 3200W	
PV Input Voltage Range (PWM / MTTP Controller)	48V: MPPT 60V-150VDC	
Max. PV Open-circuit Voltage	48V: MPPT 150VDC	

Maximum Solar Charging Current	60A
Maximum AC charging Current	48A
Standby Current	32W
Protections	Overload Protection
	Short-Circuit Protection
	Low Voltage Protection
	Battery Reverse Connection Protection (with Fuse)
Communication	RS232, RS485 and BMS
LCD Indicator	AC Input Voltage, AC Input Frequency, PV Voltage, PV Current, Output Voltage,.etc
Display	<ul style="list-style-type: none"> • Dot matrix screen plus LED display / Segment code screen + LED display. • Easily navigate and view parameters like AC voltage, AC frequency, PV voltage, PV current, output voltage, output frequency, battery voltage, and load current. • LED indicators display the status of power, charging, inverter and main power.
Working Temperature	0-40 C
Storage Temperature	-15~45 C
Relative Humidity	5%-95% Non-condensing
Noise	<45dB
Dimension (H x W x D)	490 x 312 x 125MM
Weight	22kg





HOME BATTERY

4.8kWh Battery Storage Systems

Your battery stores energy that can power your home.

Available in 4.8kWh and 5.12kWh options, the ALPS series battery offers a compelling blend of affordability and performance. Harness renewable energy, reduce reliance on the grid, and enjoy significant savings on electricity bills. Seamlessly integrate with your existing setup and take control of your energy usage, empowering your energy independence efficiently and economically.



SCALABLE

Run up to 16 batteries in parallel – for a usable capacity of over 70kWh.



FLEXIBLE

Rack-mounted or floor-standing, suitable for retrofit projects, new solar projects, or as a standalone battery.



DURABLE

High safety LFP battery cell, built to last, with a design life of 6000 cycles.



RELIABLE

Over-charging /discharging protection
Over-current protection
Over and under temperature protection
Short-circuit protection
Clever battery reverse protection function



AFFORDABLE

Coming to you at 50-60% of the cost of the industry heavies.

Model		ALPS BA4.8
Nominal Voltage (Vdc)	48	
Voltage Range (Vdc)	42~ 54	
Nominal Capacity (Wh)	4800	
Recommended Charge /Discharge Current(A)	50	
Charge /Discharge Current(A)	100	
	100~120 @15mins	
	>120 @15sec	
Communication Port	RS232,RS485,CAN	
Working Temperature (Charge)	0~50 °C	
Working Temperature (Discharge)	-10~50 C	
Storage Temperature	-20~60 C	
Protection Class	IP20	
Humidity	5% ~ 95%(RH) No Condensation	
Altitude	<4000m	
Cycle Life	6,000 (25 °C)	
Standard	CE/UN38.3	
Number of Parallel Batteries (Max.)	16	
Dimensions(D x W x H)	505 x 134 x 440mm	
Weight (kg)	45.1	
Installation	Rack Mounting or Floor Standing	
Technology	Lithium-ion	

Power Your Business - 69kWh to **Utility Scale MWh**





COMMERCIAL ESS

SME Commercial ESS | 69kWh

A battery and PCS combined – unrivalled for power and price point.

With the Commercial ESS, you can power your small to medium sized enterprise even the highest-demand loads with maximum efficiency, minimum energy costs. It's suitable for various industrial parks, malls, hotels, hospitals, etc.



All-in-one Integration

The PCS, battery pack, BMS, EMS, intelligent air cooling systems are seamlessly integrated within a compact cabinet.



Easy to Install & Operate

Factory pre-assembly enhances system integration, simplifying transportation and deployment on site.



Modular Design

Allows for flexible system scale expansion through the parallel use of multiple machines.

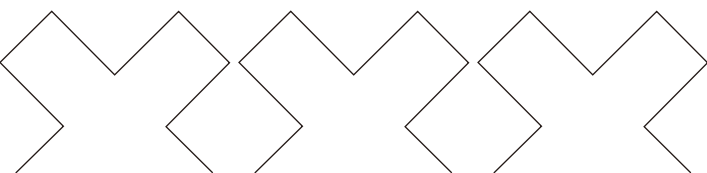
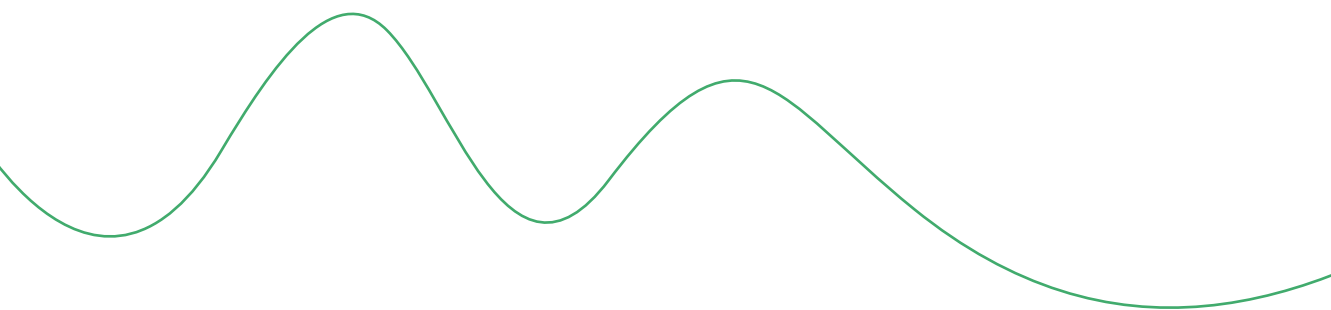


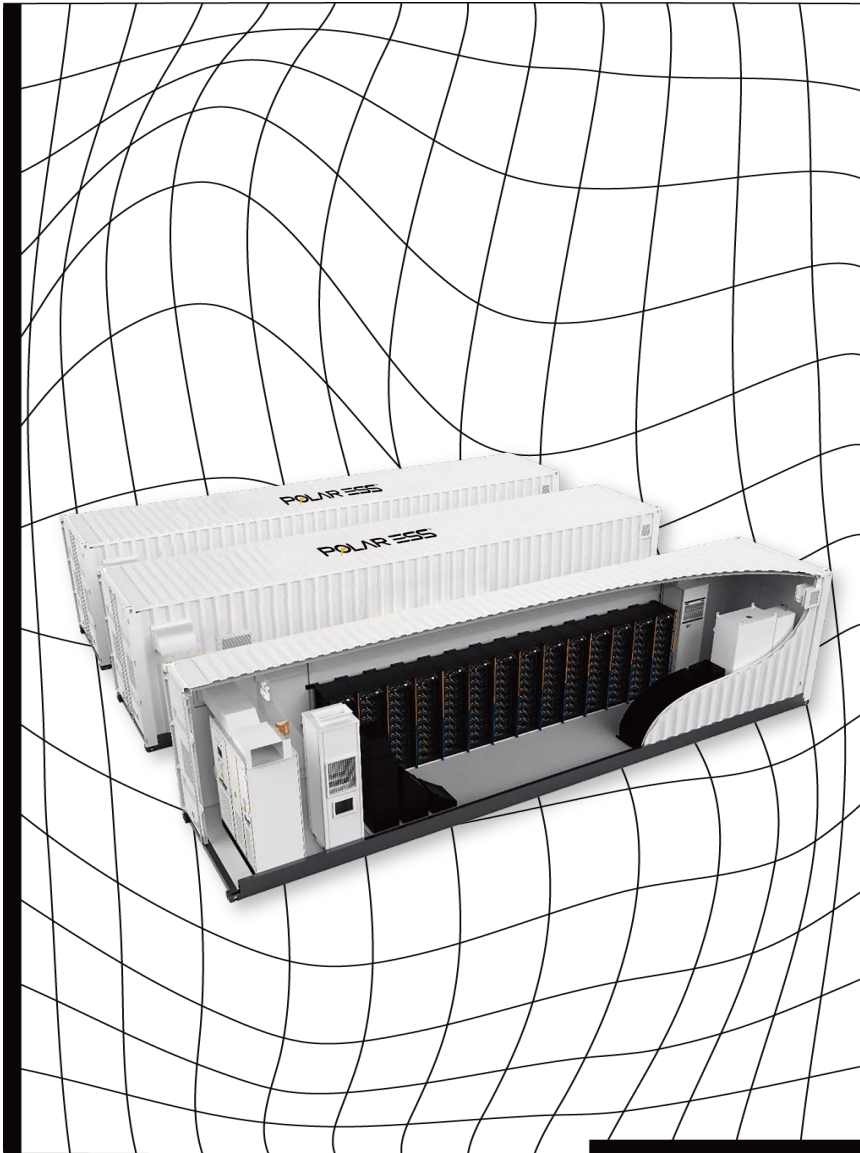
Online Monitoring

All data, including cell voltages, pack temperatures, power and energy values, are regularly reported to the cloud. Mode selection and timed control are available via the web or APP, enabling a full remote monitoring platform.

Model	Polar-SME-30/64-ID	Polar-SME-50/64-ID
Battery		
Battery Type	LFP 3.2V/100Ah	
Battery Pack Configuration	1P24S	
Battery Module Connection	1P216S	
Rated Voltage	691.2V	
Voltage Range	580-788.4V	
Battery Module Qty	9	
System Capacity	69.12kWh	
Usable Capacity	64kWh	
AC Output		
Rated Power	30kW	50kW
Max. Output Power	33kW	60kW
THDi	≤3% (rated power)	
Rated Voltage	230V/400V	
Voltage Range	360-440V	
AC Connection	3P4W+PE	
Rated Frequency	50Hz/60Hz	
Power Factor	1 Lagging... 1 Leading	
Protection		
DC Reverse Polarity Protection	Yes	
Output Over Current Protection	Yes	

Output Over Voltage Protection	Yes	
Short Circuit Protection	Yes	
Surge Protection	Level 2	
High and Low Voltage Ride-through	Yes	
Communication		
Communication Interfaces	RS485/CAN/Ethernet	
Human Machine Interface	Touchscreen	
General Data		
Charge/Discharge Rate	0.5C	1C
Depth of Discharge	90%	
Battery Cycle Life	≥6000	≥4000
Topology	Transformerless	
Max. Efficiency	≥90%	≥89%
Protection Class	IP20	
Cooling Method	Fan Cooling	
Communication Protocol	CAN/RS485/LAN	
Operating Temperature	0°C~55°C	
Humidity	0~95% (No Condensation)	
Size (W*D*H)	600mm*800mm*2000mm	600mm*800mm*2160mm
Weight	850kg	880kg





COMMERCIAL

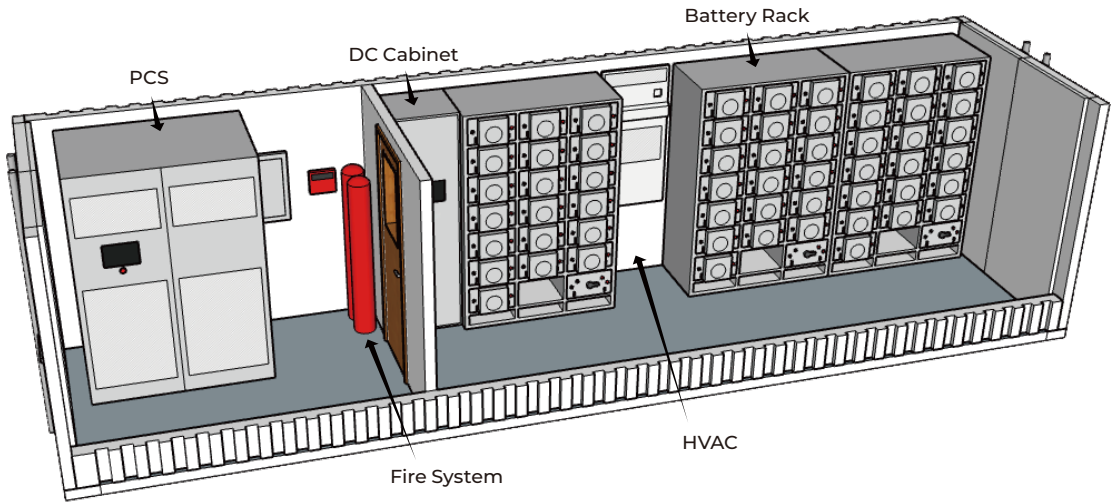
Battery Storage Container

30-500kW | 200kWh-5MWh

Compact, mobile, convenient, and fully customised to your power needs

Polar ESS battery storage container ensures safety of your critical battery assets.

We can neatly fit a large-scale commercial battery storage system into a specially designed container, giving you the freedom to place it wherever you need.



PCS

The Power Conversion System converts AC to DC to charge and discharge the batteries. The PCS has a screen and emergency stop on the front cover and isolators inside.

DC Cabinet

Our Direct Current Cabinet with BMS integrated, is designed for managing and distributing direct current electricity, ensuring the efficient operation of a system. It provides functions such as aggregation, distribution, and protection against overloads and short circuits in the DC power circuit.

Battery Racks

Each battery rack contains its own BMS that monitors and controls the voltage and temperatures of each pack / cell, this information is sent to the screen on the BMS unit.



Flexible Installation

Can be placed anywhere according to your needs.



Customized Power Solutions

Range from 30kW to 500kW power and 200kWh to 2800kWh capacity, housed in containers ranging from 10 to 40 feet. Multiple containers can be stacked for larger storage needs.



Assured Performance

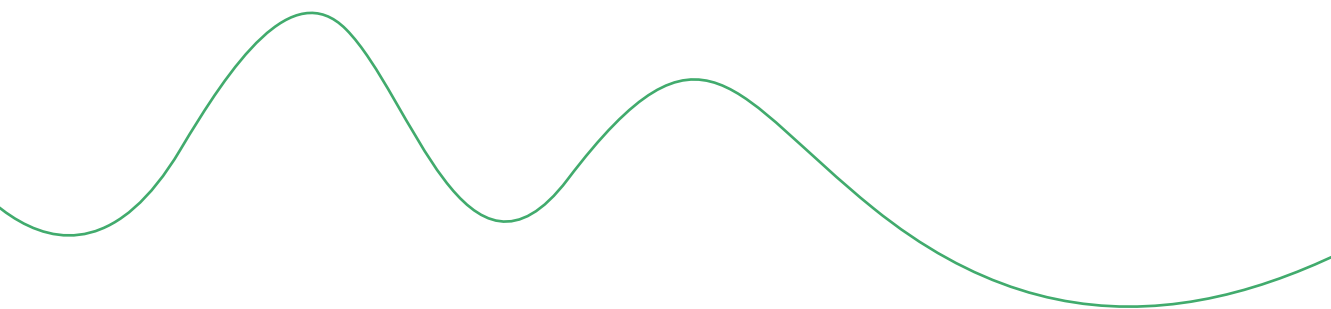
The system is fully equipped with all necessary systems, Class 0 fire rating, and complete insulation, ensuring efficient operation.



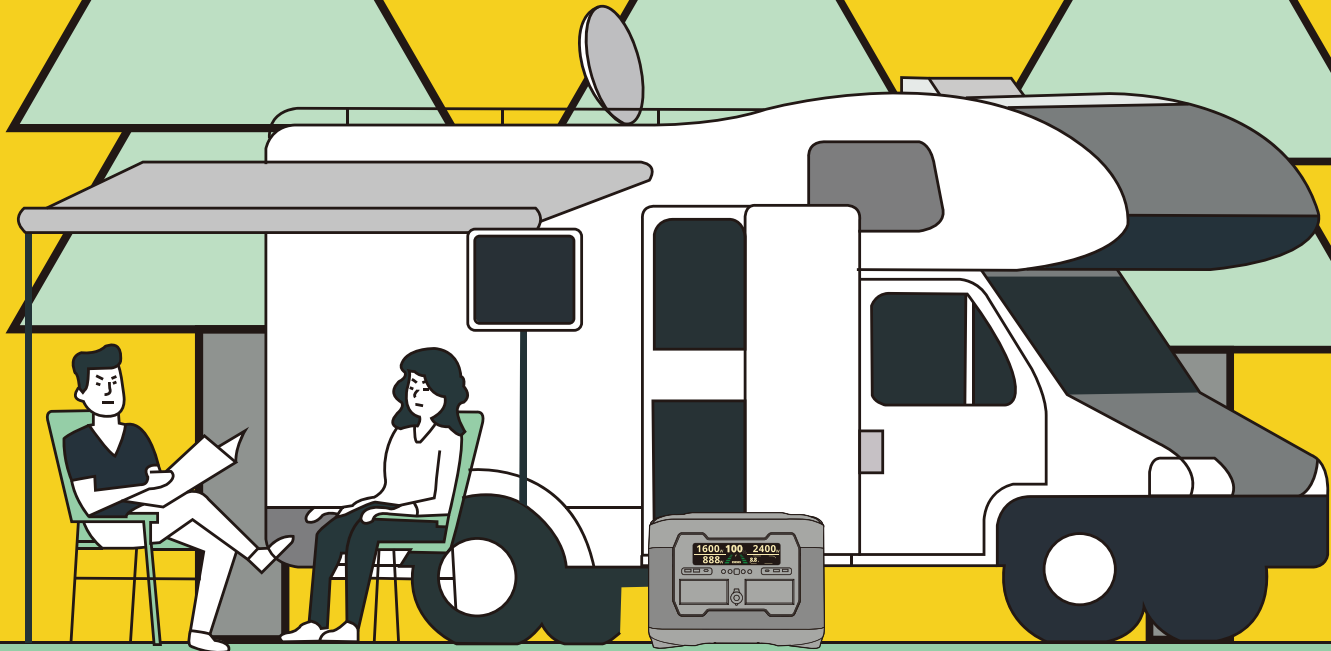
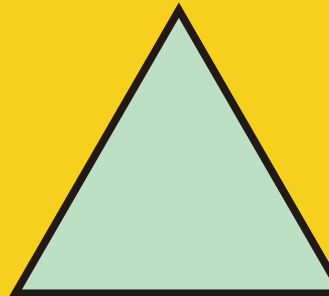
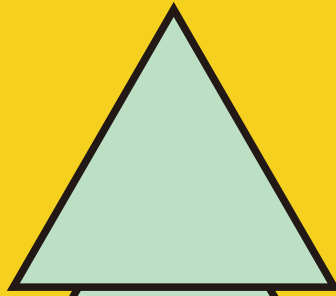
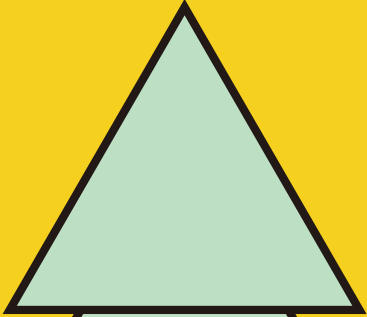
5/10 Year Warranty

Supplied with a full manufacturers warranty. Our support team are 24/7 on hand to help if any issues arises.

Model	C&I ESS 215kWh	C&I ESS 1.2MWh	C&I ESS 2MWh
System Information			
Nominal AC Power	100KW	500KW	1MW
Nameplate Capacity	215kWh	1.2MWh	2MWh
Dimensions (W×D×H)	1200×1800×2350	20ft Container	40ft Container
Weight (Totally)	2400kg	17000kg	28000kg
Advantage	Low Field Labor Cost Plug & Play Flexible Deployment		
Cooling	HVAC		
Fire Suppression System	Aerosol		
Certificates	IEC62619 & IEC62477 & CE & IEC62368 & IEC/EN50549 etc.		
Working Conditions			
Degree of Protection	NEMA 3R / IP54		
Noise Emission	<70dB@1m		
Operating Temperature	-20°C - 60°C*		
Relative Humidity	0 - 95%		
Max. Working Altitude	5000m (Derated above 3000m)		
* Charge/discharge rate and capacity reduced at lower and higher temperatures			



Power on the Go - Empower **Anywhere**

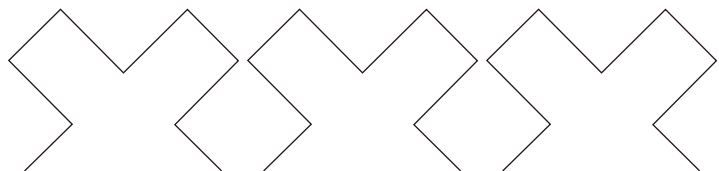




PORTABLE ESS

Portable **Balcony** Energy Storage System | **2-4kWh**

Balcony Solar Energy and Portable Power Station in one product



All-in-one design: 3 selectable operational modes based on your specific needs or situations.



Full Power Generation Mode

A reliable substitute for fuel-based generators, offering a comprehensive whole-home backup power solution, ensuring uninterrupted electricity supply during outages.



PPS (Portable Power Station) Mode

Designed for mobility, our PPS mode offers multiple charging outlets. Lightweight and compact, it serves as a go-to energy source for camping, emergencies, and remote worksites in off-grid scenarios.



Micro-inverter Mode

The built-in Micro-inverter effortlessly converts solar panel DC to AC for immediate use or grid integration, featuring free installation. This eliminates the need for extra purchases and ensures a user-friendly operation.

Mega fast charge: 3 ways to recharge



APPLICATIONS

Support EV emergency topup

- Small moto boats

0.5 hour charging for EV  1000Wh
1 hour charging for EV  2000Wh (10km, 6.25 miles)



Backup power for household appliances



Electric Grill
1000W

1.7
HOURS



Microwave
700W

2.4
HOURS



Refrigerator
360W

4.7
HOURS



Professional Field working

- Emergency rescue
- Outdoor work


Cutting Machine
(1600W)
1.05
Hours

Delight in outdoor leisure activities

- Camping/ outing

- Field adventure/ Sturdy



Camera



Mini Refrigerator



Electric Blanket



Projector



Drone



Console



Mini Fan



Mini Rice Cooker



Light



Laptops



Tablets



Mobile Phones



Model

ALPS-PP2.0

Battery Info

Type of Battery	LMFP
Capacity	2047.5 Wh
Cycle Life	2000 to 80%
Warranty	2 Years

PV Power Input

Input Port	XT60
Input Power	1200W
Input Current	Max 20A
Input Voltage	11.5V - 100V
Charging Temperature	0~55°C

Power Output

DC Output	24V=5A; 12V=10A
Cigarette Lighter Output	12V=10A
USB Output	QC3.0 * 4; 5V 3A; 9V 2A; 12V 1.5A
Type-C Output	5V; 9V; 12V; 15V=3A / 20V=5A
AC Output	110V 50Hz / 60Hz 1500W or 230V 50Hz 2400W

Mains Power Input (110V)

Input Power	500W - 1500W
Input Current	MAX 15A
Input Voltage	90V - 130V

Mains Power Input (230V)

Input Power	500W - 2000W
Input Current	MAX 10A
Input Voltage	180V - 260V

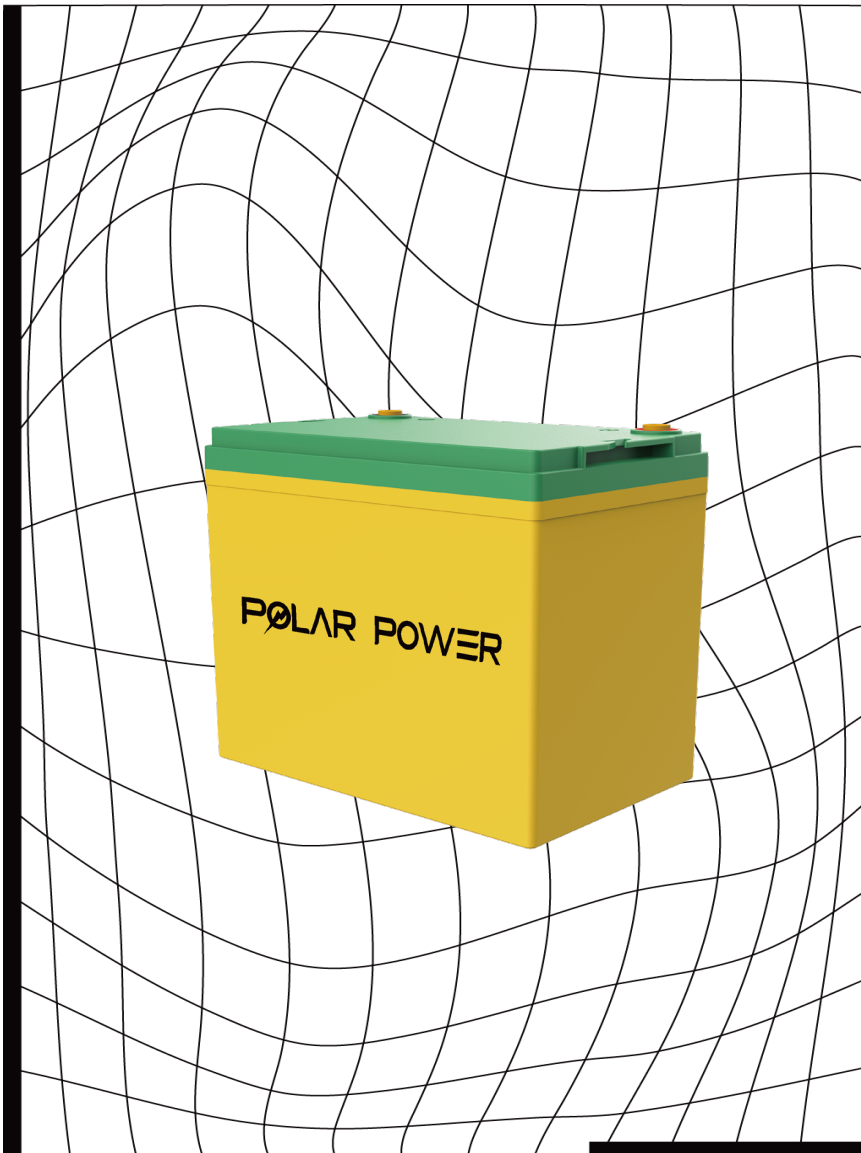
General

Product Weight	28.9 kg
Product Dimension	432×334×296mm
Packaging Weight	30.7 kg
Packaging Dimension	540×400×440mm

Certifications	CE-EMC CE-LVD FCC-ID PSE UI2743 UKCA-EMC UKCA-LVD
----------------	---

Package	1 pc AC charging cable
	1 pc user manual
	1 pc power station





PORTABLE ESS

Polar Power Series LFP Battery **12V 104Ah**

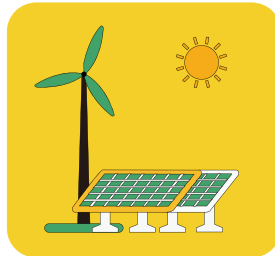
Replace Lead-acid battery, Experience unbeatable price.

A rechargeable Lithium Iron Phosphate Battery with a capacity of 104Ah and a voltage of 12V is versatile for various applications traditionally relying on Lead Acid, GEL, or AGM batteries such as caravans, marine vessels, golf carts, solar storage, remote monitoring, and switching systems. Its advanced battery cells guarantee a prolonged cycle life and outstanding discharge capabilities.

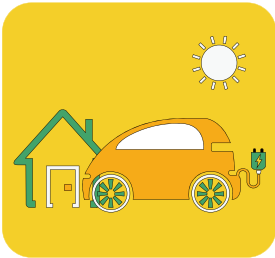
MEET THE POLAR POWER 12V BATTERY.

- Over-charging / discharging protection
- Over-current protection
- Over and under temperature protection
- Short-circuit protection
- Constant power during discharge (very low internal resistance)
- Very low self-discharge (<3 % per month)

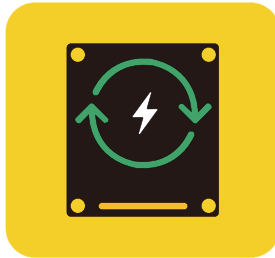
This battery can be used in **any application** that would normally use Lead Acid, GEL or AGM type batteries.



Off-grid solar and wind energy storage



Electrical vehicles:
Caravan, Golf carts, Marine



Robotics and AGVs



Medical equipment



Telecom



CCTV and security camera



DURABLE

The advanced battery cells provide over 4000 cycles, 100A continuous discharge. In contrast, traditional lead acid batteries usually last 400–500 cycles.



COMPACT POWER

Approximately 50% lighter and 40% smaller compared to an equivalent Lead-acid battery, while delivering the same usable energy.



OPTIMAL SAFETY

Our LFP battery incorporates an ultra-safe chemistry, eliminating the risks of thermal runaway, fire, or explosions.



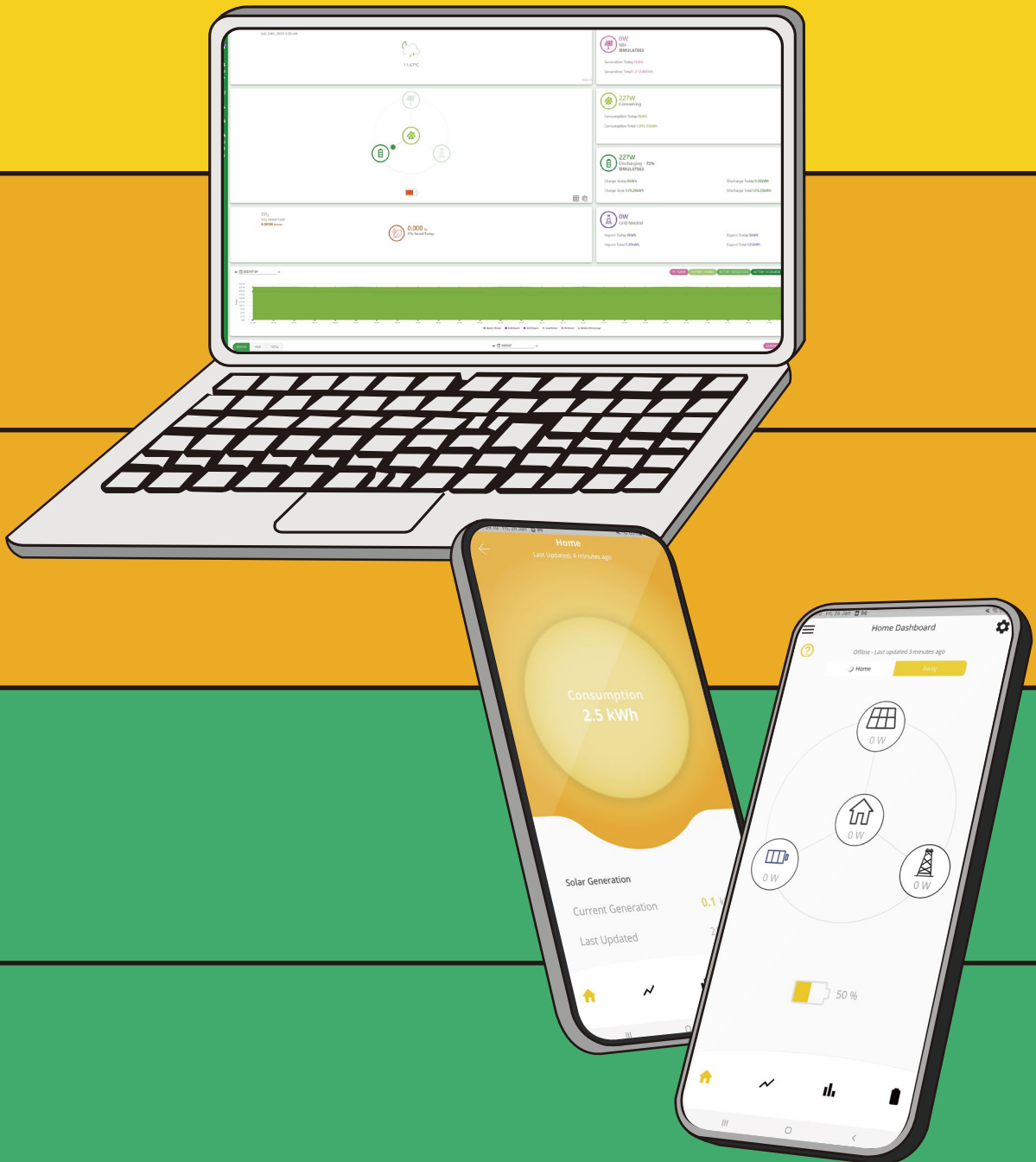
AFFORDABLE

Coming to you at 50-60% of the cost of the industry heavies.

Model	ALPS BA-12-104	
Rated Capacity	104Ah	
Nominal Voltage (Vdc)	12.8	
Voltage Range (Vdc)	11.2-14.4V	
Nominal Capacity (Wh)	1331	
Charge /Discharge Current (A)	100	
Working Temperature	0~50°C (Charge)	-10~50°C (Discharge)
Storage Temperature	0~50°C	
Protection Class	IP20	
Humidity	5% ~ 95%(RH) Non-Condensation	
Altitude	<4000m	
Cycle Life	4000 Cycles (@0.5C)	
Standard	CE/UN383	
Dimensions (L x W x H)	260 x 168 x 214.7 mm	
Warranty	1 year	

Smart Energy Management Platform

- Low on cost. Big on control.



The Portal.

Your portal hosts the full details of your energy data. It's for detailed management and monitoring.

Remotely manage your system in the cloud with total control.

Get clicky with our clean, easy-to-use interface.

Get up close and personal with your data with up-to-the-minute visibility, and granular insights.

Plus limited-time launch offer: full access to even our advanced and premium features for the first 12 months.





The App.

Your app is lighter and designed to keep you connected on the go.

Grab all the prime, headline info on import, export, generation, demand, and battery status.

Plus limited-time launch offer: full access to even our advanced and premium features for the first 12 months.

Make any ad-hoc changes you need, based on where the day is taking you.

Download completely free from Google Play or the App Store.

