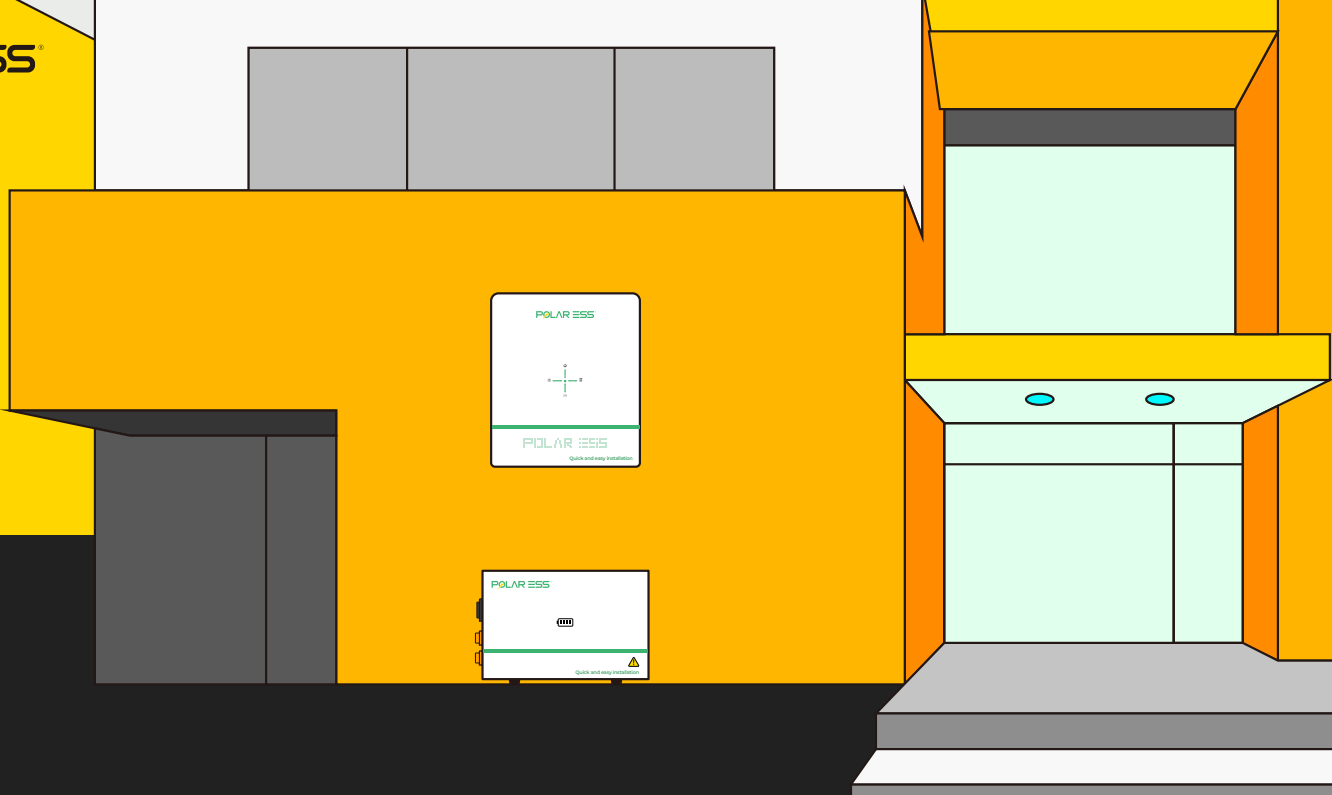


POLAR ESS

Part of the
GivEnergy[®]
Group



Residential Energy Storage System

-Whole-home backup

Experience seamless home energy with the Polar ESS household storage system. One unit powers your entire home, offering affordable whole-home backup protection and ensuring you stay powered up during any outage.

Provides uninterrupted power to your entire home during grid outages, keeping all essential systems and appliances running smoothly.

Whole-Home Backup



Seamlessly monitor and automatically manage your inverter, solar panels, batteries, loads, etc. with the Polar ESS App.

Control Your Energy



IP65 water and dust resistant, installable indoors or outdoors, and durable enough to function between -10 - 50°C.

Robust



System Components



Single-phase Hybrid Inverter



Wall-mounted Lithium Battery



Polar Portal & APP



Meter



Inverter Cable

Accessories

Single-phase Hybrid Inverter

3.6kW | 4.6kW | 5.0kW | 6.0kW

- 5500kW backup power to support whole-home loads.
- 2 MPPTs, Max . PV input 9kW.
- Support up to 6 units in parallel.
- IP65 water and dust resistance.
- Zero Export Setting available
- In-built WiFi plus LAN to give you a fast, reliable connection.
- Meet even high energy needs, with output power of up to 9000W.
- UPS function, 10ms transition.
- Easy to install and setup



Model

ALPS Cube HY3.6 Pro ALPS Cube HY4.6 Pro ALPS Cube HY5.0 Pro ALPS Cube HY6.0 Pro

Input Data (PV)

Max. PV Input Power	5400W	6900W	7500W	9000W
Start-up Voltage	80V			
Max. PV Voltage	600V			
MPPT Range	90V-550V			
Nominal Voltage	360V			
Max. Short Current	2*23A			
Max. Input Current	17A/17A			
MPPT Tracker/No. of Strings per MPP	2 / 1			

Battery

Battery Type	Li-ion			
Battery Voltage Range	46.7-57.6V			
Nominal Voltage	48V			
Max. Charging/Discharging Current	83A/83A	104A/104A	120A/120A	120A/120A
Max. Battery Charge/ Discharge Power	4000W/4000W	5000W/5000W	5800W/5800W	5800W/5800W
Battery Communication	RS485/CAN			

Output Data (AC)

Nominal AC Output Power	3600W	4600W	5000W	6000W
Max. Apparent Power Output to Utility Grid	3600VA	4600VA	5000VA	6000VA

Max. Output Current	16A	20A	21.7A	26A
Nominal Voltage/ Range	230V/ 180--270V			
Frequency Range	50 /60Hz; ±5Hz			
Power Factor (@Full Load)	>0.99			
Power Factor Range	0.8 Lagging - 0.8 Leading			
THDI (@Rated Power)	<3%			
AC Output Type	Single Phase			

Output Data (AC, Backup)

Nominal AC Output Power	3600W	4600W	5000W	5500W
Nominal Voltage	230V			
Max. Output Current	16A	20A	21.7A	23.9A
Nominal Frequency	50 Hz			
Automatic Switch Time	10ms			
THDv (Linear Load)	<3%			

General Data

PV Max. Efficiency	97.60%			
Euro Efficiency	97%			
MPPT Efficiency	99.90%			
Ingress Protection	IP65			
Protective Class	I			
Noise Emission (Typical)	<30dB			
Operation Temperature	-25~+60°C			
Cooling	Nature			
Relative Humidity	0~100%			
Altitude	4000m (Derating above 2000 m)			
Dimensions (WXHDXD)	480mm*560mm*210mm			
Weight	30kg			
Inverter Topology	Transformerless			
Self-consumption	<5W			
Communication Interface	RS485/CAN/LAN/WIFI/USB/DIDO			
Monitoring	LAN/WIFI/4G (Optional)			

Features

Display LCD	LED & APP			
Interface	Communication with Meter--Pluggable connector			