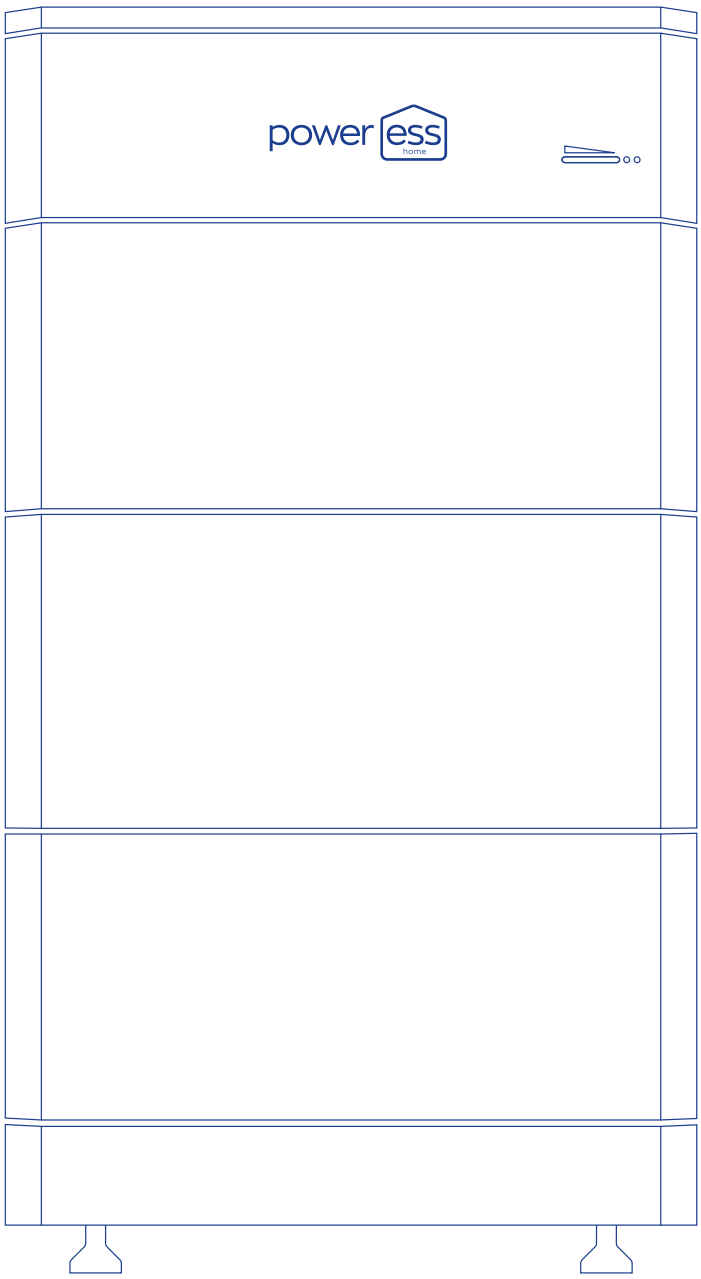
SUNLIGHT

Technical Datasheet

Residential Energy Storage System



power ess home

sunlight-group.com

Product Features

Modular & Scalable Energy Storage

5.12 kWh per module

Scalable up to 30.72 kWh per system

Expandable to 184.32 kWh with parallel systems (max. 6)

Operation Convenience

Self-heating for low ambient temperatures

OTA (over-the-air) remote firmware upgrades

Automatic parallel cluster configuration

Easy installation

Quick stackable plug-in design

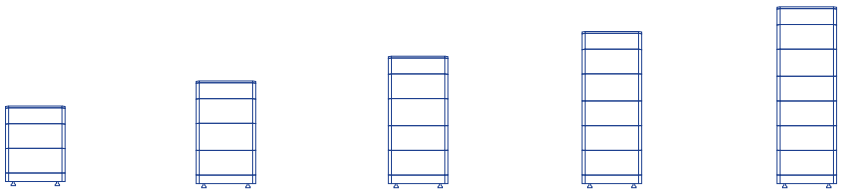
No wirings between modules

High Safety

Tier-1 LFP cells

Equipped with fire extinguishing system

Product Specifications



System Name	powerESS Home 10	powerESS Home 15	powerESS Home 20	powerESS Home 25	powerESS Home 30
Electrical parameters					
Battery module quantity	2	3	4	5	6
Nominal voltage (Vdc)	204.8	307.2	409.6	512	614.4
Output voltage range (Vdc)	179.2 - 233.6	268.8 - 350.4	358.4 - 467.2	448.0 - 584.0	537.6 - 700.8
Total energy (kWh)	10.24	15.36	20.48	25.6	30.72
Usable energy (kWh) [1]	8.66	12.99	17.32	21.66	25.99
Maximum depth of discharge (DoD)	100%				
Recommended depth of discharge (DoD)	90%				
Rated charge/discharge current (A)	30 (0.6C)				
General data					
Cell type	LFP				
Nominal capacity (Ah)	50				
Total weight (kg)	128	180	232	284	336
Dimensions (WxDxH, mm)	560x400x735	560x400x967	560x400x1199	560x400x1431	560x400x1663
Communication protocol	CAN/RS485				
Display	SOC status indicator				
Cycle life	6000 cycles (0.5C at 25ºC, 80%DoD, 70%SoH)				
Operating temperature	Charging: -5 to +55 ºC | Discharging: -15 to +55 ºC				
Storage temperature	-15 to +55 ºC				
Recommended operating & storage temperature	+10 to +30 ºC				
Maximum altitude (m)	2000				
Operating ambient humidity	5%-95%RH				
Self-discharge rate of module	≤2% per month at 25ºC				
Parallel connectivity / Maximum capacity (kWh)	up to 6 systems / 184.32				
Ingress protection	IP55				
Cooling method	Natural convection				
Compatible inverter brands	Solis, Deye, Solinteg, Senergy, Hoymiles (*Refer to Sunlight Group approved compatible models list)				
Certifications	IEC 62619 / IEC 62040 / IEC 62477 / VDE 2510-50 / EN 61000-6-1 / EN 61000-6-3 / UN38.3 / RoHS / CE / UKCA				
Warranty	10 years				
Applications	Residential & Small Commercial, On-grid/On-grid & Back-up/Off-grid, Micro-grids				

[1] RTE:94%; Depth of Discharge: 90%