





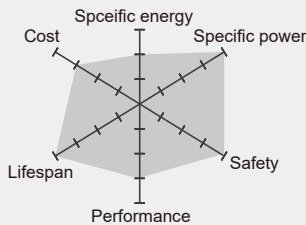
Battery System Designed For Big PV Household Application

Battery Series M4856-S



✓ Key Features

-  **Modular**
-  **Plug & play**
-  **Safety**
-  **Long lifespan**



CHEMISTRY

AlphaESS only goes with LFP for safest operation and longest cycle-life

Whilst Alpha's batteries are slightly larger per physical capacity versus other types of Li-ion used in electronics and EVs, they are easily banked in parallel close together because they don't suffer heat issues and thermal runaway. We have chosen LiFePO₄ for their superior life, safety and environmental performance.

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




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Physical	
Model	M4856-S
Battery Type	LFP (LiFePO4)
Battery Manufacturer	
System Weight	35 kg
Dimension (W x D x H)	600 mm x 250 mm x 300 mm
IP Protection	IP65
Warranty	5 Year Product Warranty, 10 Year Performance Warranty
Electrical	
Energy Capacity	2.9 kWh
Usable Capacity	2.6 kWh
DoD	90%
Nominal Voltage	51.2 V
Operation Voltage Range	48 V ~ 57.6 V
Internal Resistance	≤ 30 mΩ
Cycle Life	≥ 10.000 for 90% DOD or 12.000 for 80% DOD at 25° 1C
Operation	
Max. Charge Current	56A (1C)
Max. Discharge Current	56 A (1C)
Operating Temperature Range	-10 °C ~ 50°C*
Humidity	15% ~ 85%
BMS	
Modules Connection	2 ~ 8 in series
Capacity Range	2.9 / 5.8 / 8.6 /.../ 23.0 kWh
BMU Model	HV50056
Power Consumption	<2 W (Work), <100 mW (Sleep)
Monitoring Parameters	System voltage, current, cell voltage, cell temperature, PCBA temperature measurement.
SOC	Intelligent algorithm
Communication	CAN and RS485 compatible

*When the temperature is below 0 °C or above 40 °C, the performance will be limited.

