

SUSTAIN ME SuperPack (suitable for lead-acid replacement)

Solar Lithium Battery (LiFePO4) 12.8V / 150Ah - 25.6V / 200Ah



SuperPack 2 kWh & 5 kWh

SUSTAIN ME SuperPack Simplicity:

The SuperPack batteries are extremely easy to install, needing no additional components thanks to the integrated design of the internal BMS. Integrated protection for the battery cells against over discharge, over charge, low or high temperature.

SUSTAIN ME SuperPack instead of traditional lead-acid batteries:

* Thanks to its monobloc design **SUSTAIN ME SuperPack** serves as an optimum replacement for lead-acid batteries.

* With its 5 year warranty and 6000 cycles, solar energy storage is trouble-free.

* In several applications (especially solar power), energy efficiency is of crucial importance. The round-trip efficiency of **SUSTAIN ME SuperPack** is 92 % . On the contrary the round-trip efficiency of an average lead-acid battery is 80 % . Moreover this may drop to 50% or less when lead-acid batteries are deeply discharged. Yet, SuperPack Li-ion battery will still exceed 90 % efficiency at deep discharge conditions (80% DOD).

* A Lithium-Ion battery does not need to be fully charged in every charge. Service life even slightly improves in case of partial charge instead of a full charge. This is another major advantage of Li-ion compared to lead-acid.

Technical Specifications

SUSTAIN ME SuperPack	2 kWh 12.8 V / 150 Ah	5 kWh 25.6 V / 200 Ah
Chemistry	LiFePO4	
Nominal voltage	12.8V	25.6V
Nominal capacity @ 25°C	150Ah	200Ah
Nominal energy @ 25°C	1920Wh	5120Wh
Cycle life @ 80 % DoD and 25°C	6000 cycles	
CHARGE & DISCHARGE		
Max. cont. discharge current	100A	100A
Peak discharge current (10 sec)	140A	140A
End of discharge voltage	9.2V	21.6V
Charge voltage, absorption	14.2~14.4V	28.4~28.8V
Charge voltage, float	13.6V	27.2V
Max. cont. charge current	42±5A	100±5A
OPERATING CONDITIONS		
Parallel configuration	Battery voltage difference is within 1.5V	Battery voltage difference is within 3V
Series configuration	Support ≤4 battery packs in series	
Operating temperature	Discharge: -20°C to +50°C ; Charge: +0°C to +45°C	
Storage temperature	-40°C to +65°C	
Max. storage time when fully charged	1 year ≤ 25°C ; 3 months ≤ 40°C	
Humidity (non-condensing)	Max. 95 %	
Protection class	IP 66	
OTHER		
Power connection (threaded inserts)	M8	M8
Dimensions (h x w x d) mm	339x185x218	522x238x218
Weight	14.3kg	38.7kg

Notes:

1. The absorption period should preferably not exceed 4 hrs. A longer absorption period may slightly reduce service life.
2. Serial number HQ2040 and newer: charge is automatically blocked when the cell temperature decreases below 0±3 °C. It will accept charging again when increased above 3±3 °C. Discharge is automatically blocked when cell temperature decreases below -20±3 °C. This protection resets when temperature above -15±3 °C.
3. In order to sustain longer service life, avoid that the battery is operating in deficit mode during long periods of time (battery is never at all fully charged) or battery is left for long fully discharged.

Series and Parallel Flexibility:

SUSTAIN ME SuperPack can be connected in series, parallel and series/parallel so that a battery bank can be built for system voltages of 12 V, 24 V or 48 V.