

5 kWh

WALL-MOUNTED LITHIUM BATTERY

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Slim wall-mounted 5.12 kWh LiFePO4 energy storage module with integrated battery management system, available in 24 V and 48 V configurations. Silent natural-convection cooling and an IP54 enclosure for indoor residential installation.

5.12
KWH NOMINAL ENERGY

LiFePO4
CELL CHEMISTRY

IP54
ENCLOSURE RATING

CAN
RS485 / RS232

TYPICAL APPLICATIONS

- **Residential energy storage** — stores surplus solar generation for evening and overnight use.
- **Backup power** — maintains essential circuits through utility outages and load shedding.
- **Off-grid homes** — standalone household systems in areas without a grid connection.
- **Load shifting** — moves consumption away from peak-tariff periods.
- **Small business** — shops, offices and clinics requiring uninterrupted supply.
- **Telecom and light industrial** — compact wall-mounted storage where floor space is limited.

KEY FEATURES

- **LiFePO4 chemistry** — inherently stable cathode chemistry with a long cycle life.
- **Integrated BMS** — over-charge, over-discharge, over-current, short-circuit and temperature protection.
- **Automatic cell balancing** — maintains capacity across the pack over its service life.
- **IP54 enclosure** — protected against dust and water spray from any direction.
- **Natural convection cooling** — no fans, therefore silent and maintenance-free.
- **RS485 / RS232 / CAN communication** for inverter BMS integration and monitoring.
- **LED status display** for state of charge and fault indication.
- **Parallel expansion** — multiple units connect in parallel to increase capacity and current.
- Non-toxic and free of heavy metals; no memory effect.
- Slim wall-mounted format for indoor installation.

TECHNICAL SPECIFICATION

PARAMETER	S200Ah — 24 V / 200 Ah	S100Ah — 48 V / 100 Ah
ELECTRICAL		
Nominal Voltage	25.6 V	51.2 V
Rated Capacity	200 Ah	100 Ah
Nominal Energy	5.12 kWh	5.12 kWh
Operating Voltage Range	21.6 – 28.8 V	43.2 – 57.6 V
Cell Chemistry	Lithium iron phosphate (LiFePO4)	
Cell Configuration ¹	1P 8S	1P 16S
Depth of Discharge ²	98 % (BMS limit)	
CHARGE & DISCHARGE		
Nominal Charging Current	100 A	40 A
Nominal Charging Power ³	≈ 2.56 kW	≈ 2.05 kW
Nominal Discharging Current	100 A	60 A
Continuous Discharge Power ³	≈ 2.56 kW	≈ 3.07 kW
BANK CONFIGURATION		
Modules in Series	Not permitted — parallel connection only	
Modules in Parallel	Permitted. Maximum is set by the inverter — see the inverter datasheet	
Typical Maximum in Parallel ⁴	4 modules (20 kWh) on SNM-ECO / TURBO; 8 modules (41 kWh) on MAX	
INVERTER COMPATIBILITY		
Maximum Inverter Rating, One Unit ³	2.4 kW	2.9 kW
Units Required — SATTE SNM-ECO 3.6KW	2	2
Units Required — SATTE SNM-ECO 4.2KW / SINV-4.2KW	2	2
Units Required — SATTE SNM-ECO 6.2KW / SINV-6.2KW	—	3
Communication Protocol	Pylontech · Deye/Sunsynk · Growatt · GoodWe · Victron · SofarSolar · LuxPower · Solis · SMA · SRNE · Outback · AlphaESS	
ENVIRONMENTAL		
Charging Temperature Range	0 °C to +45 °C	
Discharging Temperature Range	–20 °C to +60 °C	
Relative Humidity	≤ 95 %, non-condensing	
Maximum Operating Altitude	2000 m	
Cooling Method	Natural convection	
Ingress Protection	IP54	
INTERFACE		
Communication Ports	RS485 / RS232 / CAN	
Display	LED status indicator	
MECHANICAL		
Dimensions (H × W × D)	565 × 480 × 180 mm	
Dimensions (inches)	22.3 × 18.9 × 7.1 in	
Weight	51.0 kg (112.4 lb)	51.5 kg (113.6 lb)
Mounting	Wall-mounted, indoor	
CERTIFICATION		
Transport Certification	UN38.3 / MSDS / DGM	

INVERTER COMPATIBILITY

ITEM	DETAIL
SATTE inverters	SMS · SML · SINV · SNM-ECO · SINV TURBO, at the matching DC system voltage
Compatible third-party inverter brands	Pylontech · Deye/Sunsynk · Growatt · GoodWe · Victron · SofarSolar · LuxPower · Solis · SMA · SRNE · Voltronic · Outback · AlphaESS · MUST
Basis of compatibility	The inverter must support one of the BMS protocols listed above. Pylontech CAN is the most widely implemented.
Not supported	High-voltage hybrid inverters (200 V and above) — this is a low-voltage battery
Verification required	Bench-test each inverter model before sale — see document SATTE-TG-COMPAT-001

Note 1 — Cell configuration. A 25.6 V pack is 8 cells in series and a 51.2 V pack is 16 cells in series, both single-string. Earlier revisions of this datasheet showed 1P 16S for the 24 V model in error.

Note 2 — Depth of discharge. The 98 % figure is the BMS cut-off limit. For maximum cycle life, configure the inverter's low-voltage disconnect for a working depth of discharge of approximately 90 %.

Note 3 — Power figures and inverter sizing. Charging and discharging power are calculated from the rated currents at nominal pack voltage. Maximum inverter rating assumes 94 % inverter efficiency. A single unit cannot support an inverter rated above the figure shown; connect units in parallel as indicated. Charge current must also be checked: a 48 V unit accepts 40 A nominal, so an inverter configured to charge at 120 A requires three units in parallel.

Note 4 — Bank configuration. Modules with an integral BMS must never be wired in series; parallel connection only, and only with identical modules of the same capacity and manufacturing batch. The number of modules a system can take is set by the inverter, not the battery: the minimum by the discharge current needed for rated output, the maximum by the solar array behind it.