

MAJOR ADVANTAGES

Universal Compatibility
Multi-layer Protection
Intelligent Cell Balancing
Ultra-low Standby Consumption
Exclusive Intermittent Charging

OVER 20 YEARS LIFE

Delivers over 8,000 cycles,
providing more than 20 years at
daily use

DIMENSIONS

Size: 740 x 555 x 250 mm
Weight: ~120 Kg

WHISPER QUIET

Completely silent fan-less design
ideal for living spaces, RVs, and
marine applications.

WARRANTY PERIOD

5 years
* paid warranty extension
available to double the standard
coverage period

III. LFP Battery 16kW

The battery that outlasts, outsmarts, and powers everything. True 16 kWh capacity, universal inverter compatibility, and 20+ year lifespan in a whisper-quiet, fan-less design.



- **UNIVERSAL COMPATIBILITY**
Inverter ready and compatible with mainstream brands via standard communication protocols.
- **MULTI-LAYER PROTECTION**
Multi-layer safeguards protect against hardware faults, temperature extremes, and short circuits.
- **INTELLIGENT CELL BALANCING**
Intelligent cell balancing maintains 30mV variance to maximize battery life and usable capacity.
- **ULTRA-LOW STANDBY CONSUMPTION**
Ultra-low standby draw, losing less than 0.002% charge per day while idle.
- **EXCLUSIVE INTERMITTENT CHARGING**
Proprietary intermittent charging prevents long-term float damage and extends lithium cell lifespan.

Op-Parameters

Operating temperature charging: 0°C to +60°C

<10°C: ≤0.2C recommended

<0°C: Charging prohibited

Discharging: -30°C to +60°C

Optimal range: 25°C ±2°C (best performance and lifespan)

BMS thermal protection: Alarm: 55°C, Protection: 60°C (shutdown), Recovery: 50°C

DOD (Depth of Discharge), Over-discharge

protection: 2.7V/cell (43.2V for 16S)

Absolute limit: 2.0V/cell (T>0°C), 2.5V/cell (T≤0°C)

Recommended DOD: ~85% (to optimize lifespan >8000 cycles at 25°C)

Maximum parallel packs: 15 units

Energy capacity

Cell Type: Lithium Iron Phosphate (LiFePO₄)

Energy capacity per cell: 314 Ah

Pack capacity (configured): 200 Ah (selected option in BMS)

Nominal voltage: 51.2V (16 × 3.2V)

Operating voltage range: 43.2V to 57.6V

Total pack energy: 16.07 kWh

Certificates: CB IEC 62619:2022, BMS IEC 60730-1:2022, UN38.3, CE-LVD IEC 62477-1:2022, CE-EMC EN IEC 61000-6-1:2019 EN IEC 61000-6-3:2021, Battery Directive (EU) 2023/1542, RoHS IEC 62321

TRIPLE COMMS

CAN, RS-485, RS-232,
Bluetooth, optional WiFi

TRUE 16 kWh

16-series LiFePO₄ cells provide
full 16kWh usable energy with
complete depth flexibility

LIVE DASHBOARD

Color touchscreen display shows
SOC, power, temperature, and
alarms for remote monitoring.

OPERATING ENVIRONMENT

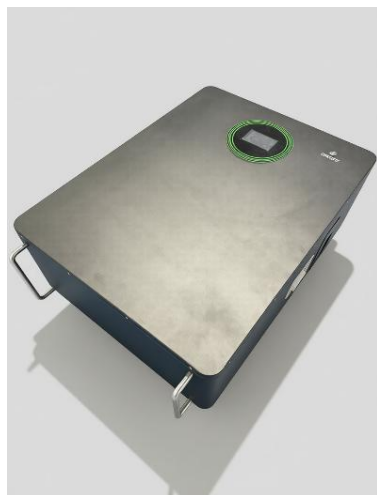
Charging 0°C to +60°C
Discharging: -30°C to +60°C
IP rating: IP21

SKU

301-Bat-16

www.enerstein-solar.com
contact@forge-solar.com

LFP Battery - Specification data - Charging



Maximum Charging Power

Theoretical pack power: ~16,076 W

BMS limit: 200A continuous (protection triggers at 210A)

Max. Charging Current

BMS limited: 200A (alarm at 205A, protection at 210A)

Configurable option: 20A (default parameter in options)

* **Protections:** Comprehensive protection against over-current, short-circuit, reverse polarity, and MOS over-temperature

Specification data – Discharge

Maximum Discharging Power

Theoretical pack power: ~10,240 Wh

BMS protection limits:

Overcurrent level 1: 210A

Overcurrent level 2: ≥250A

Short circuit: Instant protection

Peak discharge power: 12,800W (51.2V × 250A)

BMS protection:

Alarm: 205A (10 consecutive occurrences = lockout)

Protection level 1: 210A

Protection level 2: 250A

Short circuit: Immediate trigger

RELATED PRODUCTS

I. Solar Panel 455 W

II. Inverter Off-Grid Hybrid 5kW

IV. Full Solution Solar Car Port

* Specifications in the datasheet are subject to change without notice