

ESSENTIAL SERIES

24V 230Ah

HEATED BLUETOOTH LiFePO4 BATTERY

MODEL 24230A-H

A 25.6 V, 230 Ah, 5.89 kWh lithium iron phosphate battery for 24 V deep-cycle systems. It combines internal heating for cold-weather charging, Bluetooth monitoring and an advanced battery management system in a Group 8D footprint with an IP54 enclosure.



MASTER RATINGS

AT 25 °C UNLESS NOTED

25.6_V

 NOMINAL VOLTAGE
Operating range 20.0–29.2 V

230_{Ah}

 NOMINAL CAPACITY
8S1P · prismatic LiFePO4

5.89_{kWh}

 STORED ENERGY
5,888 Wh nominal

200_A

 CONTINUOUS DISCHARGE
Peak 300 A for ≤ 10 s

200_A

 MAX CONTINUOUS CHARGE
115 A recommended

28.4–28.8_V

 BULK / ABSORPTION
Float off preferred · max 29.2 V

–20–55_{°C}

 CHARGE TEMPERATURE
With internal heating

4P

 PARALLEL PLANNING
Examples only · no series · confirm with Epoch

NOTICE

Deep-cycle load application. The 24230A-H is not a cranking-rated battery. Size continuous loads, conductors and overcurrent protection to the 200 A continuous rating — the 300 A rating applies for up to 10 seconds only. Use a LiFePO4 charge profile with equalization and temperature compensation disabled.


11-year
Warranty

4,000+
Cycles

Bluetooth
iOS / Android app

Internal
Heating

Advanced
BMS protection

Group 8D
Footprint

IP54
Splash-resistant

LiFePO4
Stable chemistry

01 PRODUCT OVERVIEW

DESIGN INTENT AND FEATURES

A 25.6 V, 230 Ah, 5.89 kWh lithium iron phosphate battery for 24 V deep-cycle systems. It combines internal heating for cold-weather charging, Bluetooth monitoring and an advanced battery management system in a Group 8D footprint with an IP54 enclosure.

Designed for RV, marine house-power, solar, off-grid, backup, van, camper and auxiliary 24 V deep-cycle systems where the application requirements match the specifications in this data sheet. It fits many Group 8D installations, but verify tray fitment, terminal clearance, cable size, overcurrent protection, charger profile and load requirements before replacing a lead-acid or AGM battery.



LiFePO4 chemistry

Lithium iron phosphate cells for thermal stability, long cycle life and dependable deep-cycle operation.



230 Ah · 5.89 kWh

About 5.89 kWh of nominal stored energy at 25.6 V in a single Group 8D case weighing 84 lb.



Internal heating

Below 0 °C, charge current powers heating pads that warm the battery to 5 °C before charging resumes.



Bluetooth monitoring

The Epoch Li-Ion app shows SOC, voltage, current and temperature from a built-in BMS shunt; no external shunt needed.



Advanced BMS

Protection against overcharge, over-discharge, over-current, short circuit and temperature extremes.



IP54 enclosure

Dust-protected and splash-resistant for protected marine compartments, RV bays and mobile installs. Not submersible.



Native 24 V

One 25.6 V battery can replace two 12 V batteries wired in series, with less cabling and fewer connections.



Maintenance-free

No watering, acid service or routine lead-acid maintenance. Periodic inspection keeps it safe.

Compatible applications

- 24 V trolling motors where the motor's current draw matches the battery ratings
- Marine house power for electronics, navigation, pumps, lighting and refrigeration
- RV house-battery upgrades moving to a 24 V LiFePO4 platform
- Camper vans, overland rigs and mobile systems built around 24 V DC power
- Solar, off-grid, backup and standby systems with 24 V lithium charging equipment
- High-demand 24 V inverter systems within the 200 A continuous rating

Compatible accessories

- Epoch 24V 15A lithium battery charger
- Epoch battery tray for 12460A-H / 24230A-H

Confirm accessory compatibility with Epoch before ordering.

PRODUCT IDENTIFICATION

Model / SKU	24230A-H
Battery type	Heated Bluetooth deep-cycle LiFePO4
System voltage class	24 V (25.6 V nominal)
Group size	BCI Group 8D
Chemistry	LiFePO4 (lithium iron phosphate)
Cell type	Prismatic LiFePO4
Cell configuration	8S1P
Bluetooth	Yes — Epoch Li-Ion app (iOS and Android)
Bluetooth security PIN	Printed on the battery's lid; can be changed in the app
Current sensing	BMS-integrated shunt; 0.2 A accuracy on discharge
Internal heating	Yes — for cold-weather charging
Cycle life	4,000+ cycles
Warranty	11-year limited manufacturer warranty

02 ELECTRICAL SPECIFICATIONS

RATINGS AT 25 °C UNLESS NOTED

ELECTRICAL	
Nominal voltage	25.6 V
Nominal capacity	230 Ah
Stored energy (nominal)	5.89 kWh (5,888 Wh)
Operating voltage range	20.0–29.2 V
Maximum charge voltage	29.2 V

CURRENT RATINGS	
Max continuous discharge	200 A
Recommended discharge current	115 A
Peak discharge	300 A for up to 10 s
Max continuous charge	200 A
Recommended charge current	115 A

BATTERY BANKS	
Series connection	Not approved in current Epoch documentation — contact Epoch
Parallel connection	Planning examples up to 4 batteries (920 Ah); confirm the maximum with Epoch

TEMPERATURE AND ENVIRONMENT	
Charge temperature (with heating)	–20 °C to 55 °C (–4 °F to 131 °F)
Discharge temperature	–20 °C to 60 °C (–4 °F to 140 °F)
Storage temperature (recommended)	0 °C to 35 °C (32 °F to 95 °F)
Enclosure rating	IP54 — dust-protected, splash-resistant; not submersible

HEATING SYSTEM	
Low-temperature charge cut-off	0 °C (32 °F) — charging is disabled
Cell charge acceptance	Only when every battery temperature reading is at or above 0 °C (32 °F)
Heater power source	Incoming charge current only; never stored battery energy
Heater activation	Charger connected and supplying at least 0.5 A
Charging resumes after a cut-off	Automatically at 5 °C (41 °F)
Heating system tested to	–20 °C (–4 °F)
Rated external ambient	Down to –40 °C (–40 °F)

C-rate reference for this battery

RATING	CURRENT	C-RATE
Max continuous discharge	200 A	0.87C
Recommended discharge	115 A	0.5C
Max continuous charge	200 A	0.87C
Recommended charge	115 A	0.5C
Absorption end (tail current)	11.5 A	C/20

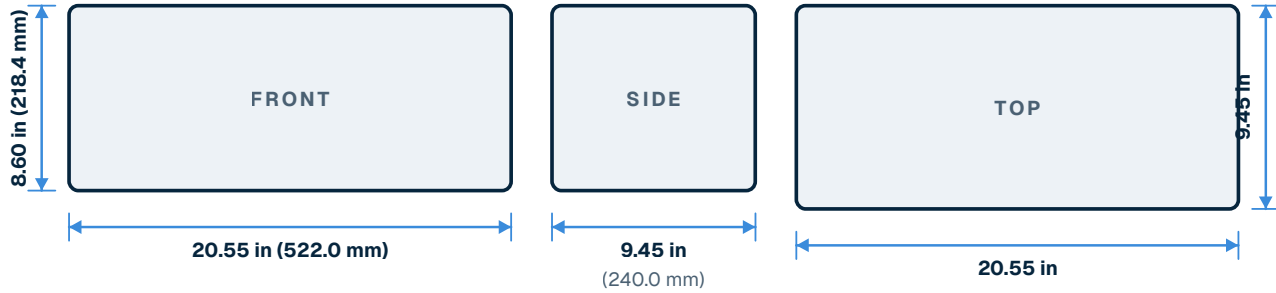
C-rate expresses current relative to capacity: 1C = 230 A for a 230 Ah battery. Peak discharge of 300 A is permitted for up to 10 seconds; continuous loads, busbars, switches, conductors and overcurrent protection must be sized to the continuous rating, the surge profile, voltage drop and applicable standards.

03 MECHANICAL AND INSTALLATION

DIMENSIONS, TERMINALS AND MOUNTING

MODEL-SPECIFIC DATA

Simplified case outline. All three views share one scale; drawing is not full size.



Overall case dimensions (Group 8D footprint). Allow additional space for terminal hardware, cable bend radius, ventilation access and service removal.

MECHANICAL

Dimensions (L × W × H)	20.55 × 9.45 × 8.60 in (522.0 × 240.0 × 218.4 mm)
Weight	84 lb (38.1 kg)
Case material	Battery-grade ABS/PC housing
Terminal type	M8 female
Terminal torque	8–12 N·m (71–106 in-lb)

Installation requirements

- Secure the battery with a tray, strap, bracket or enclosure suited to the application; it must not slide, tip or strike nearby equipment. Choose mounting hardware rated for the battery's weight of 84 lb (38.1 kg).
- Install upright unless Epoch documentation for this model allows another orientation.
- Tighten the M8 terminal hardware to 8–12 N·m (71–106 in-lb). Do not over-tighten.
- Place the main fuse or DC-rated breaker as close as practical to the battery positive terminal.
- Leave clearance above the terminals for cable bend radius, terminal boots and inspection.
- IP54 is dust-protected and splash-resistant. Do not submerge, pressure-wash or expose the battery to bilge flooding or continuous water.

04 CHARGING AND THERMAL MANAGEMENT

LIFEPO4 PROFILE AND INTERNAL HEATING

RECOMMENDED CHARGING SETTINGS

Bulk / absorption voltage	28.4–28.8 V
Absorption end	Charge current $\leq C/20$ (11.5 A) or 15 min, whichever comes first
Float voltage	Disabled (preferred) or 26.6–27.2 V
Re-bulk voltage	26.4 V
Maximum continuous charge current	200 A
Recommended charge current	115 A
Temperature compensation	0 mV/°C (off)
Equalization	Disabled
Charger temperature limit setting	0 °C to 55 °C (32 °F to 131 °F) unless the charger has approved cold-charge logic
BMS high-voltage cutoff	29.2 V
SOC recalibration voltage	29.2 V

Charging sources

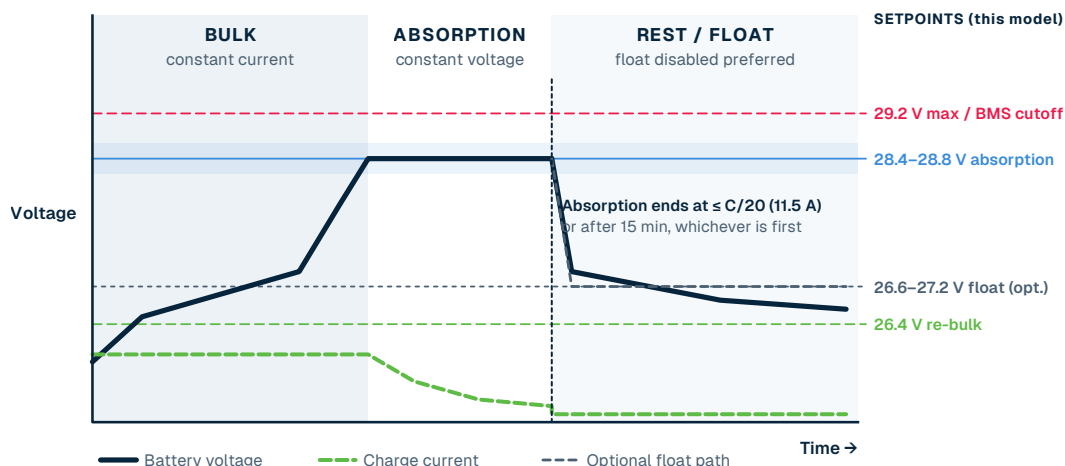
- **AC chargers and inverter chargers:** LiFePO4 profile or the settings shown; no lead-acid, AGM or gel profiles.
- **Solar controllers:** settings shown; confirm array open-circuit voltage suits the controller and bank.
- **Alternators:** DC-to-DC charger programmed for LiFePO4 highly recommended.
- **Multiple sources:** combined current ≤ 200 A continuous and within wiring limits.
- No equalization, desulfation or repair modes; temperature compensation 0 mV/°C.

Cold-weather charging sequence

- 1 • **Charger connected** A LiFePO4 charger supplies at least 0.5 A of charge current.
- 2 • **Charging paused** At 0 °C the low-temperature cut-off disables charging.
- 3 • **Pads warm the battery** Incoming charge current powers the heating pads, not stored battery energy.
- 4 • **Charging resumes** Automatically once the battery reaches 5 °C.

Heating needs a connected charger supplying at least 0.5 A; it never uses stored battery energy. Little or no charge current during warm-up is normal.

CONCEPTUAL DIAGRAM



05 BMS PROTECTION AND PERFORMANCE

PROTECTION FUNCTIONS, DISCHARGE LIMITS, RUNTIME

BMS PROTECTION FUNCTIONS

Overcharge	Disconnects or limits operation to protect the cells
Over-discharge	Disconnects or limits operation to protect the cells
Over-current	Protects against sustained loads above ratings
Short circuit	Rapid BMS cutoff
High temperature	Disconnects outside the operating range
Low temperature	Charging disabled at 0 °C; resumes at 5 °C after heating

What the BMS does — and does not do

The battery management system monitors cell voltage, current and temperature and switches charging or discharging off to protect the cells. Current is measured by a BMS-integrated shunt with 0.2 A accuracy on discharge, so no external shunt is needed. It does not replace external overcurrent protection for the wiring. After a protection event, record the app data, remove the cause and allow protection to reset when conditions return to normal.

Runtime planning

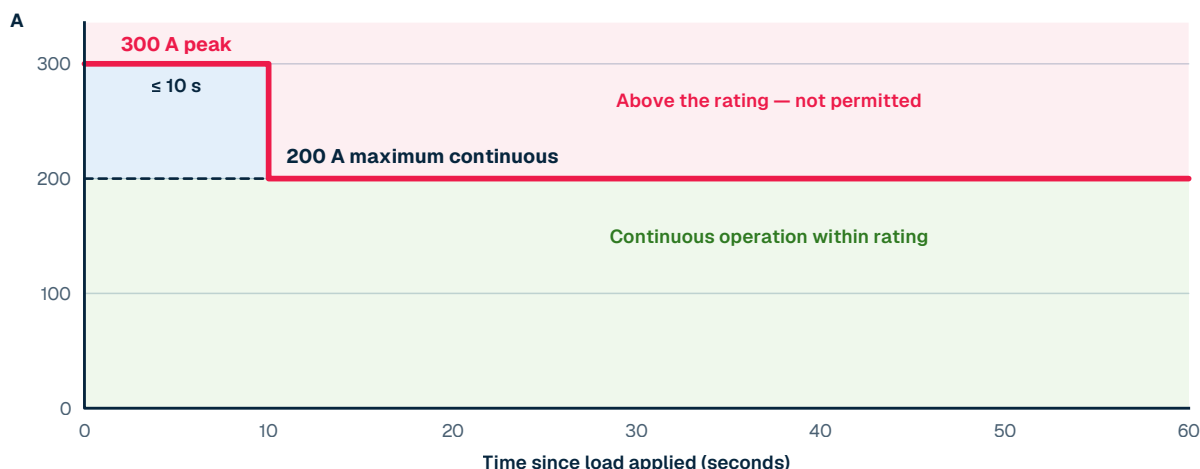
Planning basis: 80% of nominal energy $\approx 4,710$ Wh (184 Ah) per battery — a conservative assumption, not a rating.

$$\text{Runtime (h)} \approx \text{usable Wh} \div \text{load (W)}$$

LOAD	CALCULATION	RUNTIME
100 W	$4,710 \text{ Wh} \div 100 \text{ W}$	$\approx 47.1 \text{ h}$
250 W	$4,710 \text{ Wh} \div 250 \text{ W}$	$\approx 18.8 \text{ h}$
500 W	$4,710 \text{ Wh} \div 500 \text{ W}$	$\approx 9.4 \text{ h}$
10 A DC load	$184 \text{ Ah} \div 10 \text{ A}$	$\approx 18.4 \text{ h}$

For a parallel bank, multiply usable energy by the number of batteries. Inverter efficiency and idle draw, cabling, temperature, battery age, BMS limits and duty cycle change real-world results.

MODEL-SPECIFIC DATA

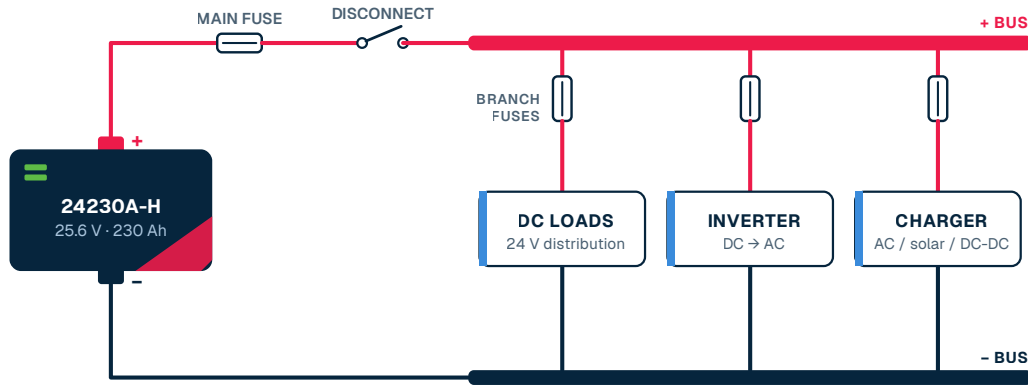


Allowable discharge current over time for one 24230A-H. The 300 A rating is a short-duration peak only: do not size continuous loads, busbars, switches, conductors or overcurrent protection around it. Use the continuous load current, surge profile, voltage drop and applicable standards.

06 SYSTEM CONFIGURATION

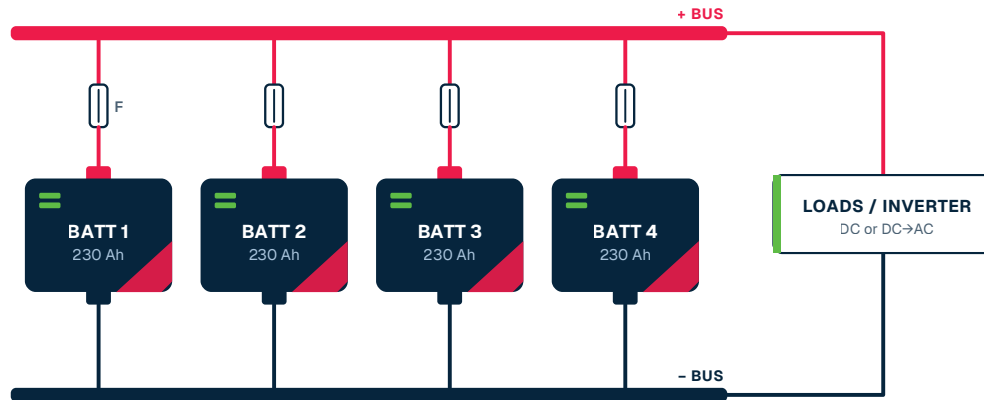
SINGLE BATTERY AND PARALLEL BANKS

CONCEPTUAL DIAGRAM



Single-battery 24 V system: main fuse close to the battery positive terminal, service disconnect, and fused branch circuits from busbars. Terminal positions are simplified — both terminals are on the battery lid.

CONCEPTUAL DIAGRAM



Parallel planning example: 4 batteries (24 V class, 920 Ah); confirm the maximum with Epoch. Fuse each battery branch and keep branch cables equal in length and gauge to common busbars.

Bank rules

- Parallel only — examples up to 4P; confirm the maximum with Epoch. Series is not approved.
- Use only matched 24230A-H batteries of similar age, condition and firmware.
- Charge each battery fully and bring all to the same state of charge before connecting.
- Equal cable lengths and gauges; common busbars; fuse each battery or string as the design requires.
- Do not hot-connect batteries. Pre-charge large inverters where required.
- Never mix with lead-acid batteries or with other models, capacities, ages or chemistries.

07 SAFETY, STORAGE AND COMPLIANCE

CRITICAL WARNINGS AND DOCUMENTATION

⚠ DANGER

Short-circuit hazard. Never connect the terminals together or allow tools or jewelry to bridge them. A short circuit can release extremely high current and cause arcing, burns or fire.

⚠ WARNING

The internal BMS does not replace a correctly rated external fuse or DC circuit breaker. Do not bypass the BMS, force-charge a protected battery or defeat a low-temperature lockout.

⚠ WARNING

Stop use if the battery is swollen, leaking, smoking, unusually hot or damaged. Do not use water directly on a damaged or burning lithium battery unless directed by emergency responders. Follow the Safety Data Sheet (SDS).

Commissioning checks

- ☐ Label shows model 24230A-H; charger programmed for LiFePO₄.
- ☐ Polarity and voltage confirmed with a multimeter.
- ☐ Main fuse or breaker sized for the wire, load and system voltage.
- ☐ Terminals torqued to 8–12 N·m; boots installed.
- ☐ First charge completed; app shows no active faults.
- ☐ Battery registered within 90 days of purchase.

Storage and handling

- Store clean and dry, 0 °C to 35 °C (32 °F to 95 °F) where practical, at about 50% SOC or higher.
- Disconnect loads and chargers; check SOC at least every 3 months and recharge as needed.
- Warranty excludes storage above 60 °C (140 °F) or below –40 °C (–40 °F) and batteries left uncharged for more than three months.
- Ship damaged or returned batteries only under an RMA, in compliance with lithium battery shipping regulations.

COMPLIANCE AND LISTINGS

Label markings	CE; RoHS; UN 38.3
Enclosure	IP54 per IEC 60529

REVISION DATE CHANGE

V01	2026-06-20	Initial release.
V02	2026-09-27	New document format; specifications reconciled with the product page and V01 documents. Recommended charge and discharge current 115 A (0.5C); replaces the 100 A charge setting. Heating logic, shunt, PIN and lid labels added. Storage check at least every 3 months.

Related documents: 24230A-H User Manual (Letter and 5 × 7 print editions), 24230A-H Product Spec Sheet, Safety Data Sheet (SDS) and 11-year limited warranty terms.

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Specifications are subject to change without notice. Always confirm the ratings on the battery label and use the latest documentation at epochbatteries.com/resources.