VONBLAY

LiFePO4 Deep Cycle Battery Series

12.8V PLATFORM · 10–30Ah · 128–384Wh



10Ah	16Ah	20Ah	30Ah
128Wh	204.8Wh	256Wh	384Wh

A SEMPRE BRAND

Reliable energy for mobile, backup and off-grid applications.

2026

Power that lasts.

The VONBLAY 12.8V LiFePO4 series

VONBLAY LiFePO4 batteries are built around a simple idea: dependable energy that stays dependable. Each pack combines lithium iron phosphate cells with a built-in Battery Management System in a sealed, lightweight case.

Compared with conventional lead-acid batteries, LiFePO4 chemistry delivers far more charge cycles, a lower self-discharge rate and stable output across a wide temperature range. Fewer replacements, and more usable energy from every charge.

The 12.8V series covers four capacities, from 10Ah to 30Ah. The same platform can be specified for compact backup devices as well as higher-demand mobile and off-grid systems.

2000+

Charge cycles

4

Models in the series

12

Month warranty

12.8V

Nominal voltage

BUILT-IN BMS · 2000+ CYCLES · 12-MONTH WARRANTY

One chemistry, four capacities, consistent performance.

Advanced cell design / Long life cycle / Lower self-discharge

Four capacities. One platform.

A shared 12.8V LiFePO4 platform, sized for different energy demands.



10Ah

128Wh

Compact backup & small devices



16Ah

204.8Wh

Portable power, longer runtime



20Ah

256Wh

All-round mobile energy



30Ah

384Wh

Higher-demand off-grid systems

SPECIFICATION	12V10A	12V16A	12V20A	12V30A
Nominal voltage	12.8V	12.8V	12.8V	12.8V
Nominal capacity	10Ah	16Ah	20Ah	30Ah
Energy	128Wh	204.8Wh	256Wh	384Wh
Chemistry	LiFePO4	LiFePO4	LiFePO4	LiFePO4
BMS protection	Built-in	Built-in	Built-in	Built-in
Warranty	12 months	12 months	12 months	12 months

All four models share built-in BMS protection, low self-discharge and the same 12.8V LiFePO4 chemistry.

Six reasons to specify LiFePO4

Protection, endurance and flexibility built into every pack.

01

BUILT-IN BMS

Guards against overcharge, over-discharge, over-current and short circuit.

02

2000+ CYCLES

Lithium iron phosphate outlasts conventional lead-acid by a wide margin.

03

LOW SELF-DISCHARGE

Holds its charge through long periods of storage.

04

LIGHTWEIGHT

Easier to carry, mount and ship than lead-acid equivalents.

05

GREEN ENERGY

No lead, no acid. A cleaner chemistry for mobile power.

06

FLEXIBLE WIRING

Connect up to four identical packs in series or parallel.



Characteristics refer to the 12V series. Refer to the product label for model-specific ratings.

12V 10Ah

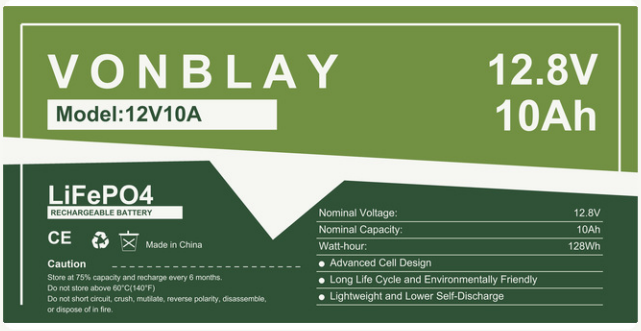
128Wh · LiFePO4



Model 12V10A · Sealed, lightweight case with built-in BMS.

SPECIFICATIONS

Model	**12V10A**
Chemistry	**LiFePO4**
Nominal voltage	**12.8V**
Nominal capacity	**10Ah**
Energy	**128Wh**
Cycle life	**2000+ cycles**
BMS protection	**Built-in**
Warranty	**12 months**



HIGHLIGHTS

- **Safe and reliable**
- **2000+ cycles**
- **Green energy**
- **Lightweight and portable**
- **Powerful BMS**
- **High energy**

Caution: store at 75% capacity and recharge every 6 months. Do not store above 60°C (140°F).

12V 16Ah

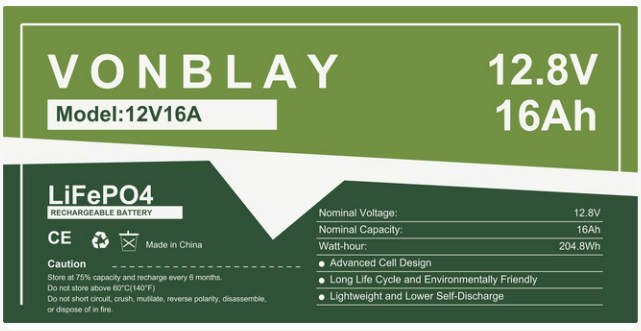
204.8Wh · LiFePO4



Model 12V16A · Sealed, lightweight case with built-in BMS.

SPECIFICATIONS

Model	**12V16A**
Chemistry	**LiFePO4**
Nominal voltage	**12.8V**
Nominal capacity	**16Ah**
Energy	**204.8Wh**
Cycle life	**2000+ cycles**
BMS protection	**Built-in**
Warranty	**12 months**



HIGHLIGHTS

- **Safe and reliable**
- **2000+ cycles**
- **Green energy**
- **Lightweight and portable**
- **Powerful BMS**
- **High energy**

Caution: store at 75% capacity and recharge every 6 months. Do not store above 60°C (140°F).

12V 20Ah

256Wh · LiFePO4



Model 12V20A · Sealed, lightweight case with built-in BMS.

SPECIFICATIONS

Model	**12V20A**
Chemistry	**LiFePO4**
Nominal voltage	**12.8V**
Nominal capacity	**20Ah**
Energy	**256Wh**
Cycle life	**2000+ cycles**
BMS protection	**Built-in**
Warranty	**12 months**



HIGHLIGHTS

- **Safe and reliable**
- **2000+ cycles**
- **Green energy**
- **Lightweight and portable**
- **Powerful BMS**
- **High energy**

Caution: store at 75% capacity and recharge every 6 months. Do not store above 60°C (140°F).

12V 30Ah

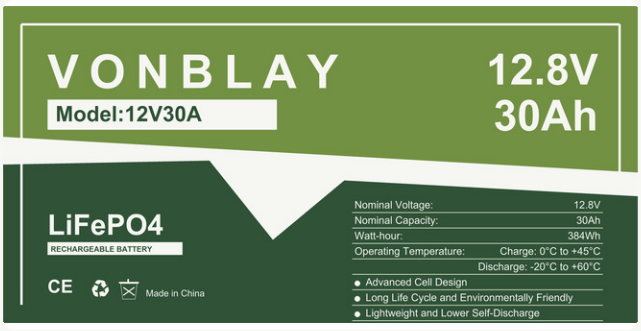
384Wh · LiFePO4



Model 12V30A · Sealed, lightweight case with built-in BMS.

SPECIFICATIONS

Model	**12V30A**
Chemistry	**LiFePO4**
Nominal voltage	**12.8V**
Nominal capacity	**30Ah**
Energy	**384Wh**
Cycle life	**2000+ cycles**
BMS protection	**Built-in**
Warranty	**12 months**



HIGHLIGHTS

- **Safe and reliable**
- **2000+ cycles**
- **Green energy**
- **Lightweight and portable**
- **Powerful BMS**
- **High energy**

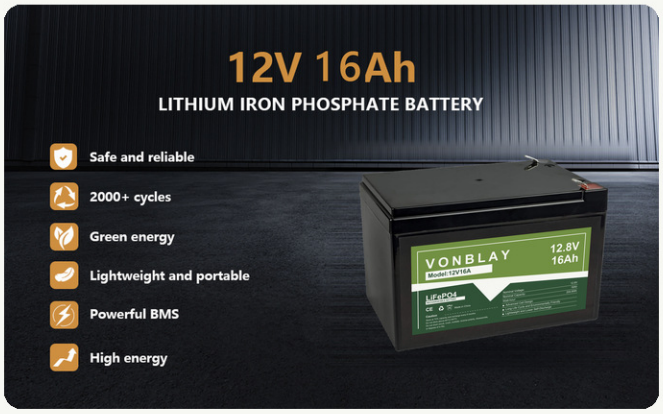
Caution: store at 75% capacity and recharge every 6 months. Do not store above 60°C (140°F).

Designed for real-world use.

Six key selling points, shared across all four capacities.



10Ah · 128Wh



16Ah · 204.8Wh



20Ah · 256Wh



30Ah · 384Wh

WHAT EVERY MODEL SHARES

- Advanced cell design
- Long life cycle and environmentally friendly
- Lightweight and lower self-discharge

LABEL INFORMATION

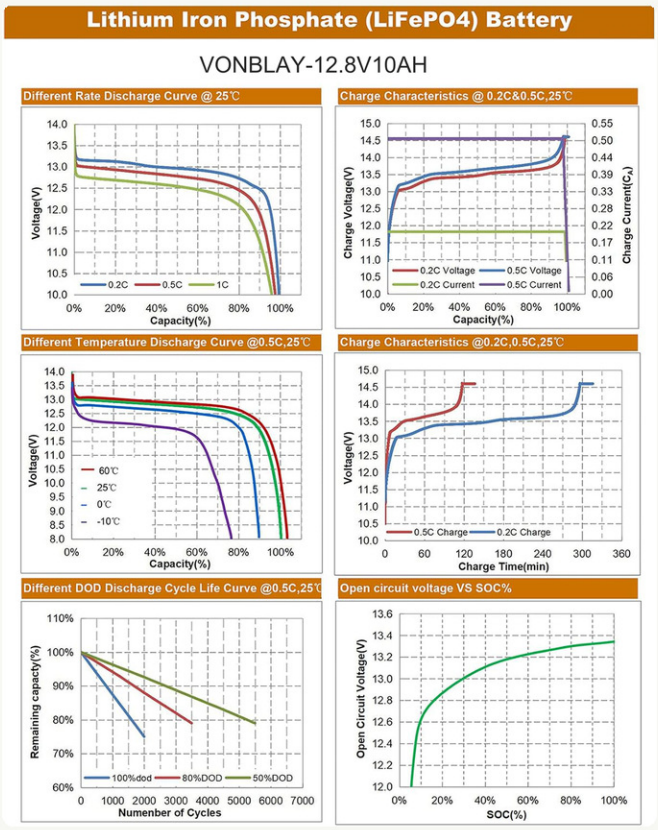
Each pack carries a label with its model, nominal voltage, capacity and watt-hour rating, together with operating and storage cautions. The values printed in this brochure are taken from those labels.

SELECTION TIP

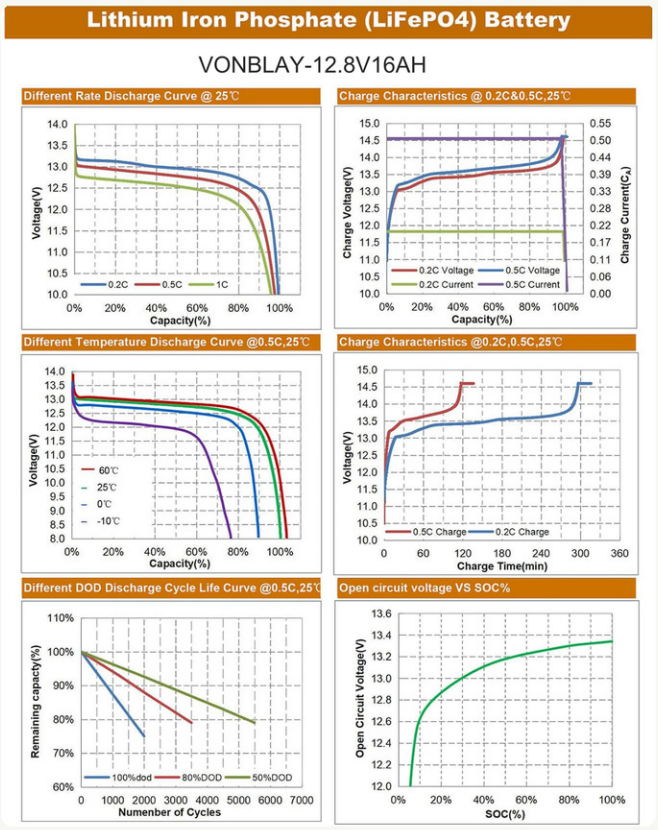
Choose by watt-hours: 128Wh for compact electronics, 204.8Wh and 256Wh for portable and mobile systems, 384Wh for longer off-grid runtimes. All four models run on the same 12.8V platform.

Performance Curves

Discharge, charge and cycle-life characteristics · 10Ah & 16Ah



10Ah / 12V10A



16Ah / 12V16A

SIX MEASUREMENTS, ONE PLATFORM

01 Different Rate Discharge Curve @ 25°C

02 Charge Characteristics @ 0.2C & 0.5C, 25°C

03 Different Temperature Discharge Curve @ 0.5C, 25°C

04 Charge Characteristics @ 0.2C, 0.5C, 25°C

05 Different DOD Discharge Cycle Life Curve @ 0.5C, 25°C

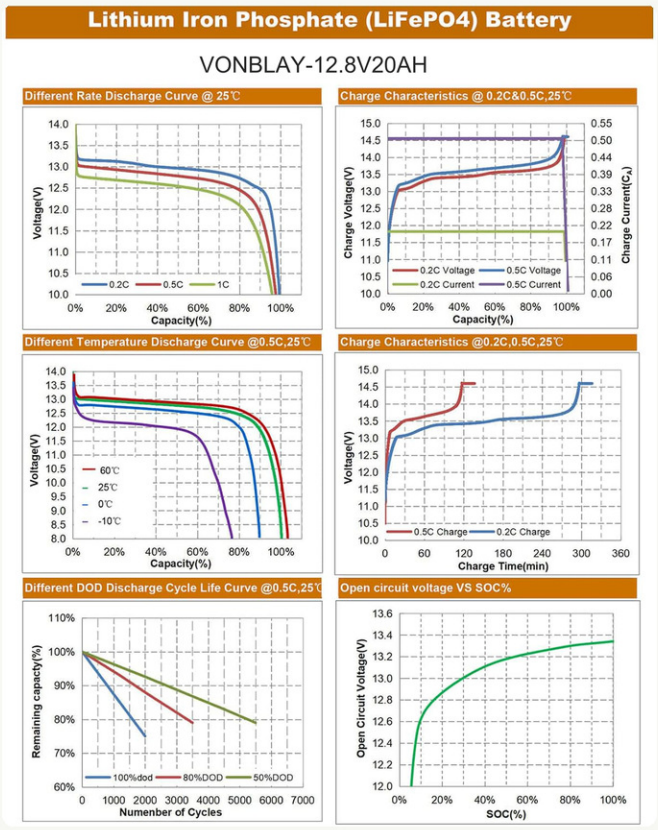
06 Open Circuit Voltage vs SOC%

The curves document voltage stability across the discharge, charge behaviour at 0.2C and 0.5C, temperature performance from -10°C to 60°C, depth-of-discharge cycle life and open-circuit voltage against state of charge.

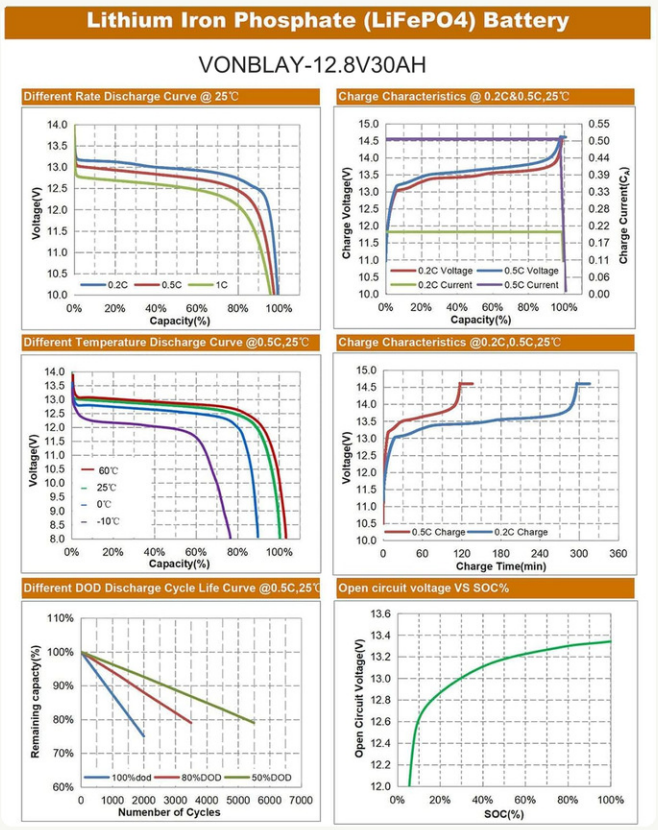
Curves are reproduced from the model product data sheets.

Performance Curves

Discharge, charge and cycle-life characteristics · 20Ah & 30Ah



20Ah / 12V20A



30Ah / 12V30A

SIX MEASUREMENTS, ONE PLATFORM

01 Different Rate Discharge Curve @ 25°C

02 Charge Characteristics @ 0.2C & 0.5C, 25°C

03 Different Temperature Discharge Curve @ 0.5C, 25°C

04 Charge Characteristics @ 0.2C, 0.5C, 25°C

05 Different DOD Discharge Cycle Life Curve @ 0.5C, 25°C

06 Open Circuit Voltage vs SOC%

The curves document voltage stability across the discharge, charge behaviour at 0.2C and 0.5C, temperature performance from -10°C to 60°C, depth-of-discharge cycle life and open-circuit voltage against state of charge.

Curves are reproduced from the model product data sheets.

One battery, many uses.



10Ah · 128Wh



16Ah · 204.8Wh



20Ah · 256Wh



30Ah · 384Wh

TYPICAL APPLICATIONS

- Emergency lighting & LED strips
- Kids ride-on cars & power wheels
- Ham radio & communications
- Mobility scooters & golf carts
- 12V routers & networking
- Fish finders & marine electronics
- Home alarm & remote cameras
- Backup power for remote sites
- RV and outdoor camping
- Small UPS (under 200W)
- Solar and wind power storage

Not intended as a motorcycle starter battery.

VONBLAY

A SEMPRE BRAND

12.8V LiFePO4 Deep Cycle Battery Series

10Ah · 16Ah · 20Ah · 30Ah

WARRANTY	12 months
CHEMISTRY	Lithium Iron Phosphate (LiFePO4)
PROTECTION	Built-in Battery Management System
MARKINGS	CE · WEEE
STORAGE	Store at 75% capacity and recharge every 6 months.
SAFETY	Do not store above 60°C (140°F). Do not short circuit or disassemble.

VONBLAY is a brand of SEMPRE.

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For product enquiries and distribution, please contact your SEMPRE representative.

Specifications shown are taken from product labels and are subject to change without notice.