

#### PRODUCTIVITY

1. Increase productivity because fewer staff required to maintain batteries
2. Less down time because batteries last longer
3. Save floor space, rack mount is possible
4. Individual batteries can be replaced instead of replacing total battery banks

#### LOW MAINTENANCE

1. Totally sealed unit
2. Average 2000 cycle life span
3. Faster charging
4. Lower self-discharge

#### INFRASTRUCTURE

1. No special building requirements for charging
2. Compact design allow for great number of batteries used
3. Long shelf life, only 10% discharge in 1 year of storage
4. Greater performance means fewer batteries needed

#### HEALTH AND SAFETY

1. Light weight for lifting
2. Totally sealed unit
3. Safe charging environment
4. Longer gap between maintenance

#### ENVIRONMENT

1. No Acid used in the manufacturing process
2. No Lead used in the manufacturing process
3. No specific charging environment required
4. Longer life spans means fewer batteries need to be manufactured

#### Super B

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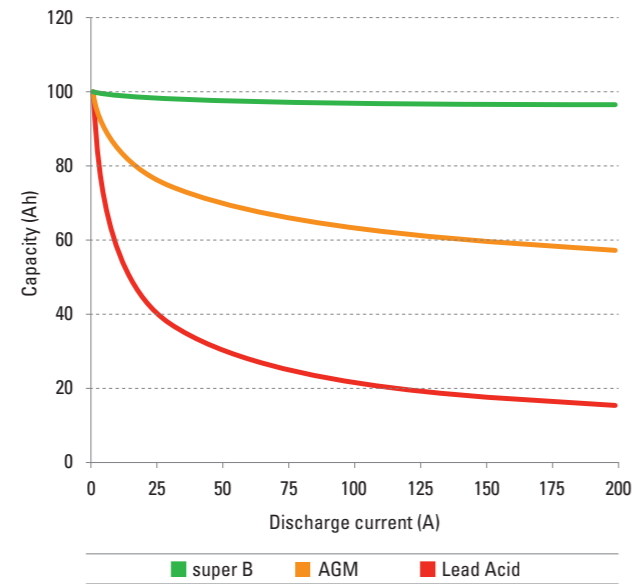
**A BREAKTHROUGH  
LITHIUM ION BATTERY** | lower weight  
higher power  
longer life





## Why should you change your lead battery for a super B lithium battery?

To get a better understanding why Lithium Iron Phosphate batteries perform much better than conventional lead batteries, please see the performance table below.



As shown in the table, conventional batteries do not reach the maximum performance prescribed by the manufacturer. This is due to the Peukert-exponent: when a battery is fully used in 20hrs, it provides more power than when used in 5 hrs. Lithium Iron Phosphate batteries stay 100%, regardless of the operating time.

## Lead acid batteries

- Advantage**
  - Inexpensive and simple to manufacture: lowest cost per watt-hour
  - Mature and well-understood technology: provides dependable service
  - High specific power, capable of high discharge currents
- Disadvantage**
  - Low specific energy: poor weight-to-energy ratio
  - Slow charge: fully saturated charge takes 14 hours
  - Must always be stored in charged condition
  - Limited cycle life: repeated deep-cycling reduces battery life
  - Flooded version requires watering
  - Not environmentally friendly
  - Transportation restrictions on the flooded type
  - High self discharge

## Super B Lithium batteries

- Advantage**
  - Weighs less: as much as 80% weight saving
  - Can be fully re-charged within 1 hour
  - Is much smaller: 1/3 or less of the space
  - Has a longer service life: more than 5 years instead of 2 to 3 years
  - Has a low self-discharge rate, 10% per year
  - Low total cost of ownership
- Disadvantage**
  - Higher initial costs compared to lead acid batteries

For more information, please visit our website: [www.super-b.com](http://www.super-b.com) or email us at [info@super-b.com](mailto:info@super-b.com)

## The super B energy range

Specifications	super B 3200E	super B 6400E	super B 10E	super B 13E	super B 19E
Nominal capacity and voltage EqPb (Equals lead acid battery) rec.	3.2 Ah, 13.2 V 6Ah	6.4 Ah, 13.2 V 12Ah	9.6Ah, 13.2 V 20Ah	12.8Ah, 13.2 V 26Ah	19.2 Ah, 13.2 V 40Ah
Rec. standard charge method	3.2A to 14.4V CCCV	6.4A to 14.4 CCCV	10A to 14.4 CCCV	13A to 14.4 CCCV	19A to 14.4 CCCV
Max. continuous discharge	12A	24A	36A	48A	72A
Pulse discharge	28A	56A	84A	112A	168A
Rec.charge and cut-off V at 25°C	14.6V to 8V	14.6V to 8V	14.6V to 8V	14.6V to 8V	14.6V to 8V
Rec.charge and cut-off V below 0°C	16.4V to 2V	16.4V to 2V	16.4V to 2V	16.4V to 2V	16.4V to 2V
Operating temperature range	-22°F to +140°F / -30°C to +60°C	-22°F to +140°F / -30°C to +60°C	-22°F to +140°F / -30°C to +60°C	-22°F to +140°F / -30°C to +60°C	-22°F to +140°F / -30°C to +60°C
Storage temperature range	-58°F to +140°F / -50°C to +60°C	-58°F to +140°F / -50°C to +60°C	-58°F to +140°F / -50°C to +60°C	-58°F to +140°F / -50°C to +60°C	-58°F to +140°F / -50°C to +60°C
Battery weight	1.05 lb / 475 grams;	1.98 lb / 900 grams	< 2.86 lb / 1.3 kg	< 3.86 lb / 1.75 kg	6 lb / 2.6 kg
Dimensions	4.49 x 3.2 x 1.38 inch (WxHxD) 114 x 81.25 x 35 mm (WxHxD)	4.49 x 3.2 x 2.4 inch (WxHxD) 114 x 81.25 x 62 mm (WxHxD)	4.7 x 3.7 x 3.2 inch (WxHxD) 120 x 95 x 82 mm (WxHxD)	4.7 x 5 x 3.2 inch (WxHxD) 120 x 127 x 82 mm (WxHxD)	4.7 x 7.1 x 3.2 inch (WxHxD) 120 x 180 x 82 mm (WxHxD)

Specifications	super B 26E	super B 32E	super B 12V50E	super B SB12V100E	super B 12V160E
Nominal capacity and voltage EqPb (Equals lead acid battery) rec.	25.6 Ah, 13.2 V 50Ah	32 Ah, 13.2 V 64Ah	50 Ah, 13.2 V 100Ah	100 Ah, 13.2 V 200Ah	160 Ah, 13.2 V 320Ah
Rec. standard charge method	26A to 14.4 CCCV	32A to 14.4 CCCV	50A to 14.4 CCCV	100A to 14.4 CCCV	160A to 14.4 CCCV
Max. continuous discharge	96A	120A	150A	300A	480A
Pulse discharge	224A	280A	250A	500A	800A
Rec.charge and cut-off V at 25°C	14.6V to 8V	14.6V to 8V	14.6V to 8V	14.6V to 8V	14.6V to 8V
Rec.charge and cut-off V below 0°C	16.4V to 2V	16.4V to 2V	15.4V to 2V	15.4V to 2V	15.4V to 2V
Operating temperature range	-22°F to +140°F / -30°C to +60°C	-22°F to +140°F / -30°C to +60°C	-22°F to +140°F / -30°C to +60°C	-22°F to +140°F / -30°C to +60°C	-22°F to +140°F / -30°C to +60°C
Storage temperature range	-58°F to +140°F / -50°C to +60°C	-58°F to +140°F / -50°C to +60°C	-58°F to +140°F / -50°C to +60°C	-58°F to +140°F / -50°C to +60°C	-58°F to +140°F / -50°C to +60°C
Battery weight	7.5 lb / 3.4 kg	9.5 lb / 4.2 kg	24.3 lb / 11.0 kg	44.1 lb / 20.0 kg	61.7 lb / 28.0 kg
Dimensions	4.7 x 9.3 x 3.2 inch (WxHxD) 120 x 236 x 82 mm (WxHxD)	4.7 x 12.2 x 3.2 inch (WxHxD) 120 x 310 x 82 mm (WxHxD)	10.6 x 6.9 x 9.6 inch (WxHxD) 270 x 175 x 245 mm (WxHxD)	14.4 x 7.5 x 10.4 inch (WxHxD) 365 x 190 x 265 mm (WxHxD)	16.3 x 7.5 x 11.4 inch (WxHxD) 415 x 190 x 290 mm (WxHxD)