



LITHIUM-ION BATTERIES

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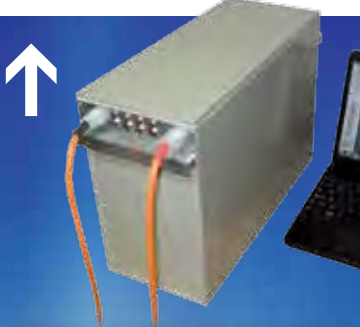
As Battery Supplies we put a lot of efforts in investigating new products & technologies. Lithium-Ion Batteries is one of the technologies on which we believe it can offer many advantages.



LiFePO4 = Lithium Iron Phosphate

We can offer a full power solution of LiFePO4 battery pack + charger + BMS. Our range covers from 12V – 24V – 48V – 72V – 144V to 388V. With a capacity of 10 Ah – 20Ah – 30Ah – 50Ah – 100Ah – 200Ah – 600Ah.

The batteries are supplied with a LiFePO4 charger & patented BMS (Battery Management System) that can monitor and equalize each single cell during charge & discharge.



WHY TO CHOOSE FOR OUR “LIFEPO4” = LITHIUM IRON PHOSPHATE BATTERIES :

- High Performance and super compact
- Extremely safe & stable chemistry : It is non-explosive & will not catch fire under collision due to overcharging or from short circuit.
- High discharge rate capability : When accelerating, the battery will have better powerful performance than other Lithium and NiMh batteries.
- Long service life : Over 6-7 years, up to 2000 cycles (under 80%DOD)
- Deep Depth of Discharge (DOD) : The batteries can be fully (100%) discharged.
- Lead-acid batteries can only be discharged till 80%, otherwise they will be damaged. So with the same capacity the LiFePO4 battery is more powerful.
- The voltage of LiFePO4 is 3.2V/cell. The voltage will also remain from 3.2V – 2.85V within 85% of its discharge time.
- No memory effect
- Environmentally friendly : Non-toxic, non-contaminating, no rare metals.
- CE, UL and SGS/ROHS approved.
- Wide working temperature : from -20°C to +45°C for discharge and from 0°C to +45°C for charge





BATTERY MANAGEMENT SYSTEM (BMS)

We supply a range of low-cost, next generation, proven Battery Management System that will work for all high-power lithium iron phosphate (LiFePO4) batteries commonly used in a range of Electric Vehicle (and other) applications.

They are highly configurable in both hardware and software, allowing battery systems ranging from a few cells up to hundreds of cells. The modular nature allows systems to easily expand with your needs, reconfiguring as required.

They seamlessly link with the PC (or Tablet) based software that also works throughout your whole home network (or Wifi network) common in most installations. Yes, that means wireless remote monitoring of your car.

If you have an inquiry for our Lithium-Ion (LiFePO4) batteries, please send a mail to info@batterysupplies.be and our technical team will look to offer you the battery that will fit for your application.

	Cell model	dimensions (W x L x H)	Nominal Capacity (Ah)	Nominal Voltage (V)	Internal Resistance (mΩ)	Weight	Continuous Discharging Current (C)
	LIT/03.02.0003	71 mm x 256 mm x 235 mm	200Ah	3,2	<0,6	6400	1C
	LIT/03.02.0004	53 mm x 163 mm x 276 mm	100Ah	3,2	<1	3400	2C
	LIT/03.02.0008	63 mm x 115 mm x 195 mm	60Ah	3,2	<1	2040	2C
	LIT/03.02.0005	67 mm x 114 mm x 167 mm	40Ah	3,2	<1	1520	2C

LITHIUM-ION BATTERIES

Battery Packs made on your demand!

LIFEPO4 12V MODULE 40AH-110AH

Can be used in serial configuration
up to 4S (48V)

**SERIAL
CONFIGURATION
POSSIBLE
UPTO 4S**



**SERIAL
CONFIGURATION
POSSIBLE
NO LIMITS**

Specifications		LIT/05.02.0004	LIT/05.02.0014	LIT/05.02.0015	LIT/05.02.0016
Nominal Module Voltage		12.8V	12.8V	12.8V	12.8V
Nominal Capacity (C/5, 23°C)		40Ah	110Ah	40Ah	110Ah
Weight (approximate)		6.5 kg	15.8 kg	6,5 kg	15.8 kg
Dimensions (incl. terminals)		197 x 131 x 182 mm	260 x 172 x 225 mm	197 x 131 x 182 mm	260 x 172 x 225 mm
Terminals, Female Threaded		M6 x 1.0	M8 x 1.25	M6 x 1.0	M8 x 1.25
Specific Energy		79 Wh/kg	89 Wh/kg	79 Wh/kg	89 Wh/kg
Standard Discharge	Max. Continuous Current	30A	30A	80A	120A
	Peak Current (10S)	60A	60A	120A	200A
	Cut-off Voltage	10V	10V	10V	15V
Standard Charge	Cut-off Voltage	14.6V	14.6V	14.6V	21,9V
	Standard Charge Rate	0.5C	0.5C	0.5C	0.5C

plug-and-play solutions

DROP-IN REPLACEMENT BATTERIES



LIT/05.02.0011*

Layout/Terminals : T1

Nominal voltage: 12.8 V

Rated Capacity: 6 Ah

Standard discharge (0.2 C₅) after standard charge (0.2 C₅)

Dimensions LxWxH : 70x90x101 mm

Weight: 0,68 kg

Discharge cut-off voltage: 10 V

Charging cut-off voltage: 14.6 V

Standard charge: 0.3-0.5C constant current(CC) charge to 14.6V, then constant voltage (CV)14.6V charge till charge current decline to ≤0.05C

Operation temperature : 0°C-55°C

Charge time : Approx 3h @0.5C

Standard discharge: Constant current 0.3C

Operation temperature : -10°C-60°C

Max. Discharge Current : 6,6A

Peak Discharge Current : 13,2A

Suitable charger 14,6v 2A : LIT/04.01.0062



LIT/05.02.0001*

Layout/Terminals : T2

Nominal voltage: 12.8 V

Rated Capacity: 10 Ah

Standard discharge (0.2 C₅) after standard charge (0.2 C₅)

Dimensions LxWxH : 151x98x95 mm

Weight: 1,3 kg

Discharge cut-off voltage: 10 V

Charging cut-off voltage: 14.6 V

Standard charge: 0.3-0.5C constant current(CC) charge to 14.6V, then constant voltage (CV)14.6V charge till charge current decline to ≤0.05C

Operation temperature : 0°C-55°C

Charge time : Approx 3h @0.5C

Standard discharge: Constant current 0.3C

Operation temperature : -10°C-60°C

Max. Discharge Current : 10A

Peak Discharge Current : 20A

Suitable charger 14,6v 3A : LIT/04.01.0052



LIT/05.02.0002*

Layout/Terminals : T2

Nominal voltage: 12.8 V

Rated Capacity: 12 Ah

Standard discharge (0.2 C₅) after standard charge (0.2 C₅)

Dimensions LxWxH : 151x98x95 mm

Weight: 1,65 kg

Discharge cut-off voltage: 10 V

Charging cut-off voltage: 14.6 V

Standard charge: 0.3-0.5C constant current(CC) charge to 14.6V, then constant voltage (CV)14.6V charge till charge current decline to ≤0.05C

Operation temperature : 0°C-55°C

Charge time : Approx 3h @0.5C

Standard discharge: Constant current 0.3C

Operation temperature : -10°C-60°C

Max. Discharge Current : 12A

Peak Discharge Current : 24A

Suitable charger 14,6v 3A : LIT/04.01.0052

*No Parallel Or Serial Use

LITHIUM-ION BATTERIES



LIT/05.02.0005*

Layout/Terminals : M5

Nominal voltage: 12.8 V

Rated Capacity: 15 Ah
Standard discharge (0.2 C₃) after standard charge (0.2 C₃)

Dimensions LxWxH : 181x76x166 mm

Weight: 2 kg

Discharge cut-off voltage: 10 V

Charging cut-off voltage: 14.6 V

Standard charge: 0.3-0.5C constant current(CC) charge to 14.6V, then constant voltage (CV)14.6V charge till charge current decline to ≤0.05C
Operation temperature : 0°C-55°C
Charge time : Approx 3h @0.5C

Standard discharge: Constant current 0.3C
Operation temperature : -10°C-60°C

Max. Discharge Current : 15A
Peak Discharge Current : 30A

Suitable charger 14,6v 5A : LIT/04.01.0053



LIT/05.02.0006*

Layout/Terminals : M5

Nominal voltage: 12.8 V

Rated Capacity: 20 Ah
Standard discharge (0.2 C₃) after standard charge (0.2 C₃)

Dimensions LxWxH : 181x76x166 mm

Weight: 2,75 kg

Discharge cut-off voltage: 10 V

Charging cut-off voltage: 14.6 V

Standard charge: 0.3-0.5C constant current(CC) charge to 14.6V, then constant voltage (CV)14.6V charge till charge current decline to ≤0.05C
Operation temperature : 0°C-55°C
Charge time : Approx 3h @0.5C

Standard discharge: Constant current 0.3C
Operation temperature : -10°C-60°C

Max. Discharge Current : 20A
Peak Discharge Current : 40A

Suitable charger 14,6v 5A : LIT/04.01.0053



LIT/05.02.0007*

Layout/Terminals : M6

Nominal voltage: 12.8 V

Rated Capacity: 30 Ah
Standard discharge (0.2 C₃) after standard charge (0.2 C₃)

Dimensions LxWxH : 195x130x182 mm

Weight: 3,8 kg

Discharge cut-off voltage: 10 V

Charging cut-off voltage: 14.6 V

Standard charge: 0.3-0.5C constant current(CC) charge to 14.6V, then constant voltage (CV)14.6V charge till charge current decline to ≤0.05C
Operation temperature : 0°C-55°C
Charge time : Approx 3h @0.5C

Standard discharge: Constant current 0.3C
Operation temperature : -10°C-60°C

Max. Discharge Current : 30A
Peak Discharge Current : 60A

Suitable charger 14,6v 10A : LIT/04.01.0080



LIT/05.02.0008*

Layout/Terminals : M6

Nominal voltage: 12.8 V

Rated Capacity: 40 Ah
Standard discharge (0.2 C₃) after standard charge (0.2 C₃)

Dimensions LxWxH : 95x98x151 mm

Weight: 5,7 kg

Discharge cut-off voltage: 10 V

Charging cut-off voltage: 14.6 V

Standard charge: 0.3-0.5C constant current(CC) charge to 14.6V, then constant voltage (CV)14.6V charge till charge current decline to ≤0.05C
Operation temperature : 0°C-55°C
Charge time : Approx 3h @0.5C

Standard discharge: Constant current 0.3C
Operation temperature : -10°C-60°C

Max. Discharge Current : 40A
Peak Discharge Current : 80A

Suitable charger 14,6v 10A : LIT/04.01.0080



LIT/05.02.0009*

Layout/Terminals : M6

Nominal voltage: 12.8 V

Rated Capacity: 60 Ah
Standard discharge (0.2 C₃) after standard charge (0.2 C₃)

Dimensions LxWxH : 195x130x182 mm

Weight: 7,2 kg

Discharge cut-off voltage: 10 V

Charging cut-off voltage: 14.6 V

Standard charge: 0.3-0.5C constant current(CC) charge to 14.6V, then constant voltage (CV)14.6V charge till charge current decline to ≤0.05C
Operation temperature : 0°C-55°C
Charge time : Approx 3h @0.5C

Standard discharge: Constant current 0.3C
Operation temperature : -10°C-60°C

Max. Discharge Current : 40A
Peak Discharge Current : 80A

Suitable charger 14,6v 25A : LIT/04.01.0043



LIT/05.02.0013*

Layout/Terminals : M6

Nominal voltage: 12.8 V

Rated Capacity: 80 Ah
Standard discharge (0.2 C₃) after standard charge (0.2 C₃)

Dimensions LxWxH : 246x158x260 mm

Weight: 10,8 kg

Discharge cut-off voltage: 10 V

Charging cut-off voltage: 14.6 V

Standard charge: 0.3-0.5C constant current(CC) charge to 14.6V, then constant voltage (CV)14.6V charge till charge current decline to ≤0.05C
Operation temperature : 0°C-55°C
Charge time : Approx 3h @0.5C

Standard discharge: Constant current 0.3C
Operation temperature : -10°C-60°C

Max. Discharge Current : 60A
Peak Discharge Current : 120A

Suitable charger 14,6v 25A : LIT/04.01.0043

*No Parallel Or Serial Use

LITHIUM-ION BATTERIES



LIT/05.02.0010*

Layout/Terminals : M6

Nominal voltage: 12.8 V

Rated Capacity: 100 Ah

Standard discharge (0.2 C₅) after standard charge (0.2 C₅)

Dimensions LxWxH : 246x158x260 mm

Weight: 13,5 kg

Discharge cut-off voltage: 10 V

Charging cut-off voltage: 14.6 V

Standard charge: 0.3-0.5C constant current(CC) charge to 14.6V, then constant voltage (CV)14.6V charge till charge current decline to ≤0.05C

Operation temperature : 0°C-55°C

Charge time : Approx 3h @0.5C

Standard discharge: Constant current 0.3C

Operation temperature : -10°C-60°C

Max. Discharge Current : 60A

Peak Discharge Current : 120A

Suitable charger 14,6v 25A : LIT/04.01.0043



LIT/05.02.0201*

Layout/Terminals : M6

Nominal voltage: 25,6 V

Rated Capacity: 10 Ah

Standard discharge (0.2 C₅) after standard charge (0.2 C₅)

Dimensions LxWxH : 166x76x181 mm

Weight: 2,5 kg

Discharge cut-off voltage: 20 V

Charging cut-off voltage: 29,2 V

Standard charge: 0.3-0.5C constant current(CC) charge to 14.6V, then constant voltage (CV)14.6V charge till charge current decline to ≤0.05C

Operation temperature : 0°C-55°C

Charge time : Approx 3h @0.5C

Standard discharge: Constant current 0.3C

Operation temperature : -10°C-60°C

Max. Discharge Current : 10A

Peak Discharge Current : 20A

Suitable charger 29,4v 3A : LIT/04.01.0008



LIT/05.02.0200*

Layout/Terminals : M6

Nominal voltage: 25,6 V

Rated Capacity: 20 Ah

Standard discharge (0.2 C₅) after standard charge (0.2 C₅)

Dimensions LxWxH : 195x130x182 mm

Weight: 5,5 kg

Discharge cut-off voltage: 20 V

Charging cut-off voltage: 29,2 V

Standard charge: 0.3-0.5C constant current(CC) charge to 14.6V, then constant voltage (CV)14.6V charge till charge current decline to ≤0.05C

Operation temperature : 0°C-55°C

Charge time : Approx 3h @0.5C

Standard discharge: Constant current 0.3C

Operation temperature : -10°C-60°C

Max. Discharge Current : 20A

Peak Discharge Current : 40A

Suitable charger 29,4v 5A : LIT/04.01.0054

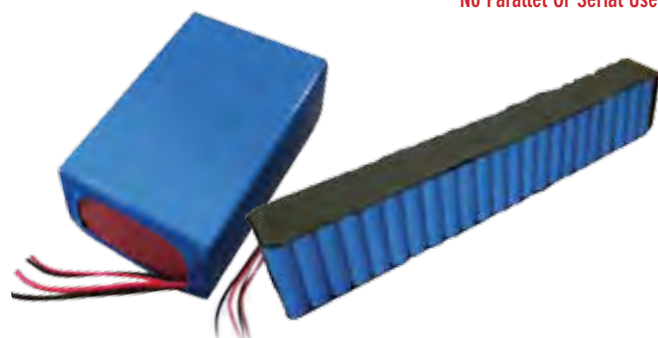
*No Parallel Or Serial Use

CUSTOMIZED LI-ION SOLUTIONS

Battery Supplies' strength in regards to li-ion-solutions is the full technical support we provide.

At Battery Supplies we have a technical team fully dedicated to LIFEP04-Solutions.

We provide OEM-companies and installers with a custom-made and ready-made solution based on your specifications and demands. Please put yourself into contact with our engineering department!



CUSTOMIZED LI-ION BATTERY PACKS

According to your specifications :

- Li-NMC-02 or LiFePO4 chemistry
- Cylindrical or pouch cell
- Voltage < 48V
- Capacity up to 40Ah
- Different C-rates (for energy storage or power applications)
- Build-in protection PCB, cell balancing
- Dimensions following demand
- Soft PVC or Aluminium housing

For solar energy storage, stand-alone systems