



LITHIUM STORAGE

A leading lithium-ion battery solution provider.



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Lithium
Storage



*Your professional lithium battery
solution provider.*

CONTENT



COMPANY PROFILE



BUSINESS SCOPE



PRODUCT



SALES REGION



CERTIFICATIONS



COMPANY PROFILE

LITHIUM STORAGE designs, and manufactures, advanced lithium-ion battery solutions for electric commercial vehicles, smart forklift trucks and energy storage. Our China production factory is located in Wenzhou with a technical complex in Nanjing plus international sales support in the United Kingdom. The current production capacity of our factory is 26GWh with 50GWh in construction. The workforce of 1600+ employees includes 580 R&D engineers and an international sales team.

Our factory practices TQM (Total Quality Management) and uses the framework provided add: by ISO9001, IATF16949, ISO14001 and ISO45001 to monitor and manage production quality. Our products have passed MSDS, UN38.3, UL, IEC62619, JET, and BIS product certification.

LITHIUM STORAGE key products are LFP/NCM chemistry prismatic lithium-ion Cell 40Ah-302Ah, lithium-ion battery modules, battery packs, active cooled Flexi Packs for commercial vehicles, smart forklift truck FLT batteries, PDU, BMS smart control units, and flexible energy storage battery systems. We produce a standard range of parts with customized options.

LITHIUM STORAGE is led by an innovative and professional R&D operations team with abundant projects and experience in the lithium battery field. These advantages make LITHIUM STORAGE a leading lithium-ion battery solution provider. Our vision is to commit to developing a series of intelligent lithium battery products to support the energy transition to a low-carbon economy addressing the real-world climate crisis.

2011

Lithium Storage was established in Shanghai.



2017

Starting supply cells with screw/nut terminals and welded battery module supply.



2019

Battery pack certificated by ECE-R100.



2020

Luoyang branch and UK distribution center established.



2014

The battery pack factory was founded in Suzhou.



2017

The sales and marketing department was established in Nanjing.



2020

Battery pack certificated by DNV.



2021

16million USD sales realized. Seattle warehouse established.



BUSINESS SCOPE



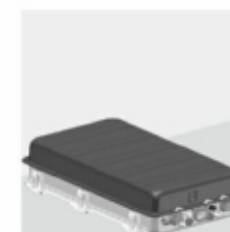
CELL

LITHIUM STORAGE offers a multitude of terminal solutions for cells including welded, screw, and nut options. These solutions have passed multiple inspection tests including drawing force, shear force, and torque testing. Our Cells and battery solutions are used in class-leading battery products in multiple countries.



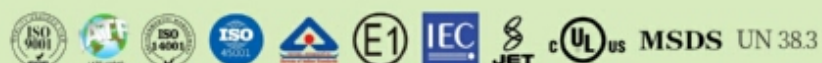
MODULE

LITHIUM STORAGE manufactures standard battery and customized LFP/NCM prismatic lithium cell battery modules of both banding and frame welded modules. The high structural strength of frame welding modules is designed specifically for harsh vehicle operating conditions. Our highly flexible banding module is designed to meet a wide range of dimensional and structural requirements via module customization.



PACK

Lithium Storage designs and manufactures battery packs, especially for industrial vehicles and commercial vehicles. The optimal performance and structure parameters are achieved by a combination of our manufactured lithium battery cells, IP grade, communication protocols, and thermal management, protection and control units. Our pack products are used throughout the United States, Europe, South Africa, and India.



CELL-LFP

Best fit for trucks, cars, buses, forklifts, and ESS, BESS energy storage systems.

Welding
Terminal

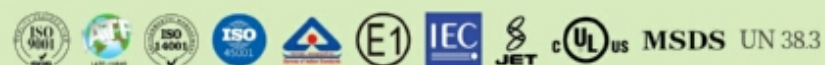
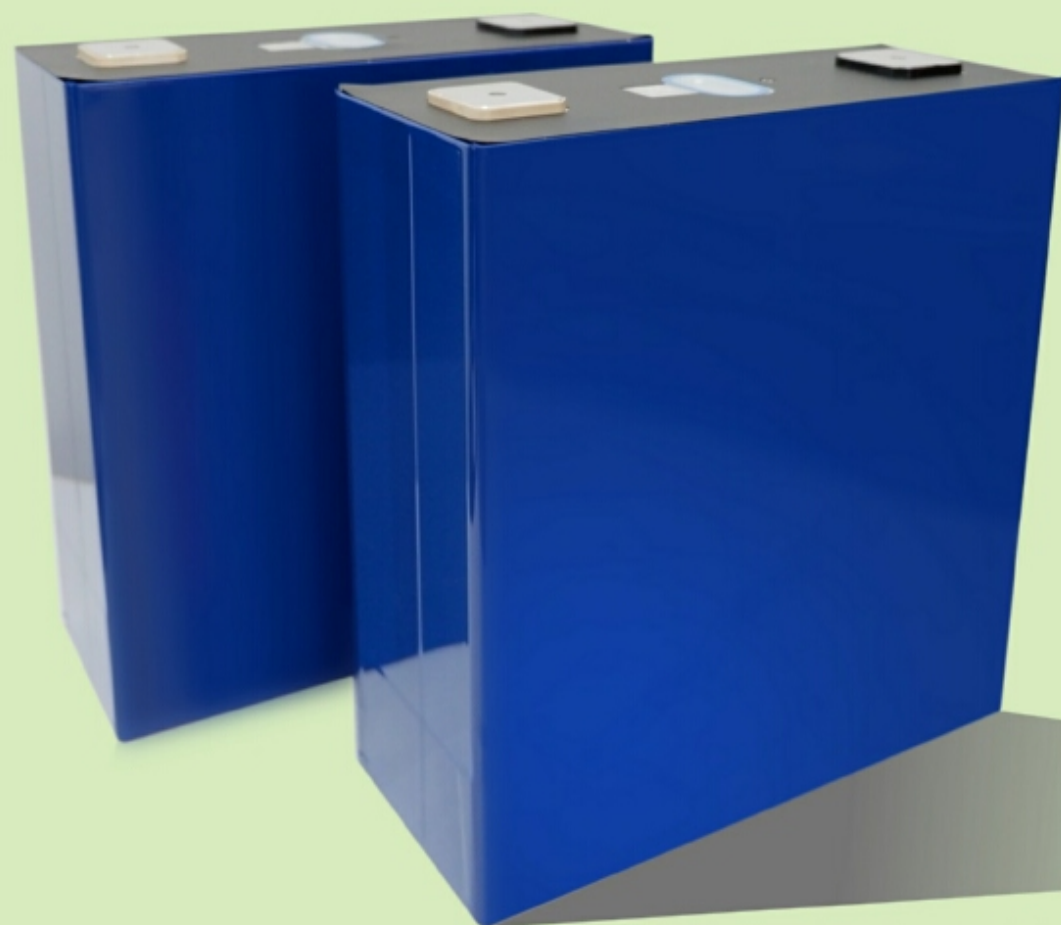
Screw
Terminal

Nut
Terminal

ITEM	SPECIFICATIONS			
Product Type	LFP40Ah	LFP50Ah	LFP100Ah	LFP135Ah
Nominal Capacity	40Ah	50Ah	100Ah	135Ah
Constant Charge & Discharge Rate	≤6C	≤1C		
Voltage Range/Normal	2.5-3.65V / 3.2V			
Operating Temperature	Charge: 0°C~55°C		Discharge: -20°C~55°C	
Weight	1.06±0.02kg	1.18±0.05kg	2.13±0.05kg	2.63±0.05kg
Energy Density	120Wh/kg	140Wh/kg	150Wh/kg	165Wh/kg 365Wh/L
Cycle Life	≥5000 times	≥4000 times	≥4000 times	≥4000 times
Dimension	T:27.50±0.5mm W:148.00±0.3mm H:129.40±0.5mm	T:39.72±0.3mm W:148.44±0.6mm H:95.77±0.6mm	T:27.22±0.3mm W:174.04±0.5mm H:204.01±0.6mm	T:79.30±0.5m W:148.60±0.6mm H:102.67±0.6mm

ITEM	SPECIFICATIONS				
Product Type	LFP205Ah	LFP230Ah	LFP280Ah	LFP280Ah long cycle	LFP302Ah
Nominal Capacity	205Ah	230Ah	280Ah	280Ah	302Ah
Constant Charge & Discharge Rate	≤1C				
Voltage Range/Normal	2.5-3.65V / 3.2V				
Operating Temperature	Charge: 0°C~55°C		Discharge: -30°C~55°C		
Weight	3.90±0.12kg	4.09±0.12kg	5.27±0.16kg	5.34±0.15kg	5.40±0.16kg
Energy Density	168Wh/kg	180Wh/kg	170Wh/kg	165Wh/kg 350Wh/L	180Wh/kg 357Wh/L
Cycle Life	≥4000 times	≥4000 times	≥4000 times	≥6000 times	≥4000 times
Dimension	T:53.72±0.5mm W:174.00±0.5mm H:200.40±0.5mm	T:53.82±0.5mm W:174.00±0.5mm H:204.40±0.6mm	T:71.57±0.5mm W:174.00±0.5mm H:200.37±0.6mm	T:71.55±0.5mm W:173.93±0.3mm H:204.59±0.5mm	T:71.55±0.5mm W:173.93±0.3mm H:204.59±0.5mm

Remark: "H" in dimension represents shoulder height of cells.



CELL-NCM

Best fit for trucks, cars, buses, vehicles with limited space.

Welding
Terminal

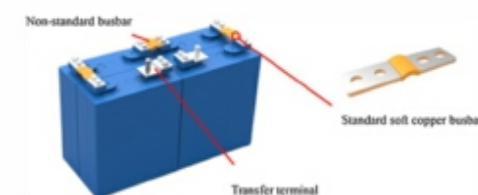
Screw
Terminal

Nut
Terminal

ITEM	SPECIFICATIONS	
Product Type	NCM102Ah	NCM177Ah
Nominal Capacity	102Ah	177Ah
Constant Charge & Discharge Rate	$\leq 1C$	
Voltage Range/Normal	2.8-4.3V / 3.7V	2.8-4.35V / 3.73V
Operating Temperature	Charge: 0°C~55°C Discharge: -30°C~55°C	Charge: 0°C~55°C Discharge: -30°C~55°C
Weight	1.73Kg	2.70±0.1kg
Energy Density	218Wh/kg 506Wh/L	240Wh/kg 550Wh/L
Cycle Life	≥ 2000 times	≥ 2500 times
Dimension	T:52.20±0.3mm W:148.90±0.3mm H:95.80±0.5mm	T:79.22±0.3mm W:148.44±0.3mm H:102.77±0.3mm

Remark: "H" in dimension represents shoulder height of cells.

BUSBAR OPTION FOR LFP/NCM CELLS



To suit customers' connection requirements, Lithium Storage provides multiple soft copper busbar options for our lithium battery cells.



Options include standard busbars, non-standard busbars, and custom busbars. The standard type of soft copper busbar is composed of 30 layers of 0.1 mm thickness copper foils inside with 2 layers of nickel foils covered top and bottom. We recommend using our busbars design to ensure the busbar's terminals fit our lithium battery cells exactly during installation.

BATTERY BRACKET OPTION



Battery Brackets for LFP are designed by Lithium Storage, especially for the module installment LFP205Ah, LFP230Ah, LFP280Ah, and LFP280Ah long cycle lithium battery cells. The battery bracket consists of bracket A (side part) and bracket B (middle part). Batteries can be fixed and combined by battery brackets via thread pole. Battery Bracket brings an unparalleled convenience to customers to assemble battery modules with greater flexibility in multiple combinations.



FRAME WELDING MODULE



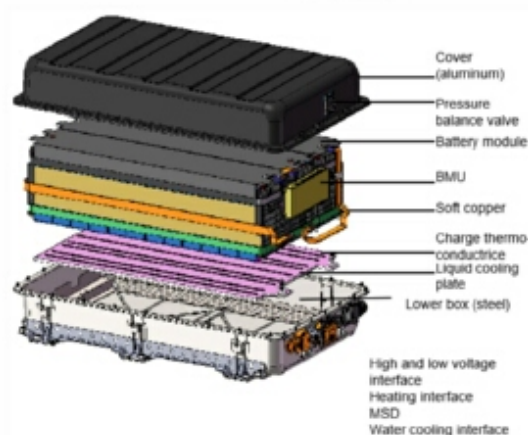
BANDING MODULE

MODULE	ITEM	NCM102Ah 1P6S(VDA)	LFP135Ah 1P4S(VDA)	NCM177Ah 1P4S(VDA)
Dimension	Length&Width(mm)	355×151.5	355×152	355×152
	Height(mm)	108.5	108.5	108.5
Module Performance	Cell Type	NCM5214895 -102Ah	LFP79148102 -135Ah	NCM79148102 -177Ah
	Capacity(Ah)	102	135	177
	Normal Energy (25°C,kwh)	2.264	1.728	2.591
	Group Mode	1P6S	1P4S	1P4S
	Module Weight(kg)	11.2	11.6	11.9
	Voltage Range /Normal(V)	16.8~25.8/22.2	10~14.6/12.8	11.2~17.4/14.64

MODULE	ITEM	LFP50Ah 1P8S(VDA)	LFP100Ah 1P8S	LFP135Ah 1P4S(VDA)	LFP230Ah 1P8S	LFP280Ah 1P8S	LFP302Ah 1P8S
Dimension	Length&Width(mm)	355.6×151	273.5×177	354.7×151.2	480.9×177	622.9×177	624.4×177
	Height(mm)	110	220	110	220	220	220
Module Performance	Cell Type	LFP3914895 -50Ah	LFP27173204 -100Ah	LFP79148102 -135Ah	LFP54173204 -230Ah	LFP71173200 -280Ah LFP71173204E -280Ah	LFP71173204 -302Ah
	Capacity(Ah)	50	100	135	230	280	302
	Normal Energy (25°C,kwh)	1.28	2.56	1.728	5.888	7.168	7.731
	Group Mode	1P8S	1P8S	1P4S	1P8S	1P8S	1P8S
	Module Weight(kg)	10.44	19.74	11.52	35	45.1	46
	Voltage Range /Normal(V)	20~29.2/25.6	20~29.2/25.6	10~14.6/12.8	20~29.2/25.6	20~29.2/25.6	20~29.2/25.6



ACTIVE THERMAL CONTROL FLEXI PACK FOR COMMERCIAL VEHICLES



C Pack	D Pack
1070(L) × 635(W) × 249(H) ± 1%	1020(L) × 635(W) × 249(H) ± 1%
Liquid cooling and electric heating	Liquid cooling and electric heating

Standard Pack C&D is our standard Flexi Pack design using prismatic lithium iron phosphate cells LFP205Ah, LFP230Ah, LFP280Ah, and LFP302Ah. The fixed dimension with multiple battery combinations with a smart PDU system is a multi-configurable powertrain option ideal for commercial vehicles, including electric trucks, buses, and heavy-duty mining vehicles.

ITEM	STANDARD PACK C				STANDARD PACK D			
Cell Model	LFP71173200 -280Ah	LFP71173204 -302Ah	LFP54173200 -205Ah	LFP54173204 -230Ah	LFP71173200 -280Ah	LFP71173204 -302Ah	LFP54173200 -205Ah	LFP54173204 -230Ah
Battery Grouping Mode	1P36S	1P36S	1P48S	1P48S	1P33S	1P33S	1P45S	1P45S
Rate Voltage (V)	115.2	115.2	153.6	153.6	105.6	105.6	144	144
Rate Capacity (Ah)	280	302	205	230	280	302	205	230
Rate Energy (kWh)	32.26	34.79	31.49	35.33	29.57	31.89	29.52	33.12
Weight (kg)	212	219	207	220	195	202	195	207
Energy Density (Wh/kg)	152.2	158.9	152.1	160.6	151.6	157.9	151.4	160.0
Thermal Management	Liquid cooling and electric heating							
Size (mm)	1070(L) × 635(W) × 249(H) ± 1%				1020(L) × 635(W) × 249(H) ± 1%			



SMART FLT FORKLIFT BATTERY PACK

CHARACTERISTIC

- Remote Onsite Product Support
- GPS & GPRS function
- Charge communication
- Charge and discharge connector adapter
- Interactive integrated display with voice, audible warning, and switch button
- Customization service against any brand of forklift truck
- IP 54 Rated
- Flexibility if additional weight required
- Vehicle CAN communication support

MATCHED BRANDS



ITEM	PARAMETER			
Voltage Series	24 V	48V	80 V	96V
Rated Voltage (V)	25.6	48 / 51.2	80 / 83.2	96
Series Qty. (S)	8	15 / 16	25 / 26	30
Capacity Series	1P	2P	3P	NP
Cell- LFP50Ah	50	100	150	N*50
Cell- LFP100Ah	100	200	300	N*100
Cell- LFP205Ah	205	410	615	N*205
Cell- LFP230Ah	230	460	690	N*230
Cell- LFP280Ah	280	560	840	N*280
Cell- LFP302Ah	302	604	906	N*302
Electrical Performance	Maximum Constant Charge Rate: 300A Maximum Constant Discharge Rate: 300A Cycle Life: >3000times			
Mechanical Performance	IP Grade: ≥Ip54 Enclosure Material: Commercial grade steel			
Communication Mode	Vehicle Communication Mode: CAN Display Communication Method: Rs485			
Temperature Performance	Discharging Temperature Range: -20~55°C Storage Temperature Range: 0~50°C Charge Temperature Range: 0~50°C(heating function option)			
Custom Option	Weight: customizable Connector: customizable Dimension: customizable Charger: optional			



THE PRODUCT
HAS PASSED
THE FOLLOWING
CERTIFICATIONS.



CERTIFICATIONS

Products have passed the following certifications, as MSDS, UN38.3,UL, IEC62619, JET and BIS.

The factory has successively passed quality management system, as ISO9001, IATF16949, ISO14001 and ISO45001.

