HM Series
Lithium Iron Phosphate Battery

Ideal LiFePO4 battery Solution For Energy Storage System

HM series lithium iron phosphate batteries are **safer, smarter, simpler** alternative to lead-acid batteries in your marine, solar, RV, energy storage, floor cleaning machines, golf carts, e-scooters, fishing boats, and many other applications. The batteries have built-in smart BMS (battery management system) which provides complete protection and offer a drop-in solution for lead acid battery replacement. They can be used individually or assembled in series to create larger system.

Features and Benefits

More reliable :
15 years design life

Longer life :
HM series lithium batteries provide up to 10 times longer life than lead-acid batteries, and they still provide 80% of the rated capacity after 6,000 cycles. Warranty is 3 years, 5 years optional.

Light weight:
Lithium iron phosphate batteries have 3 times higher energy density compared to lead acid batteries, so the battery weight is reduced considerably. It has only approx.30-50% weight of equivalent lead acid battery, which making it easy handling, more robust.

High safety:
Built-in supersmart Battery Management System (BMS), guarantees the safe operation during whole service life. The BMS is built with perfect automatic protection against over-voltage, over-current, over-discharge, short-circuit.

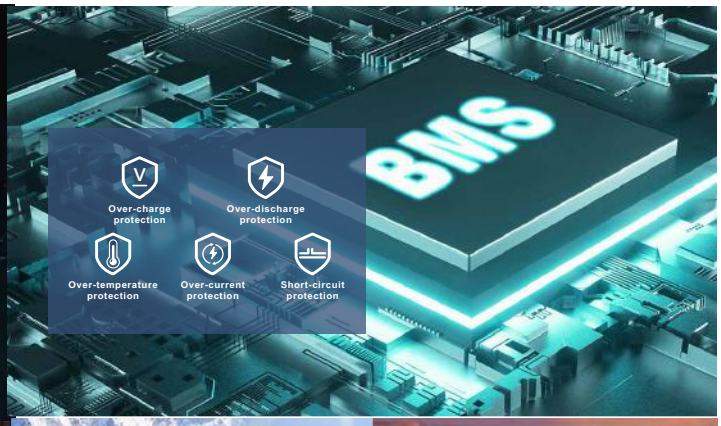
More usable capacity:
Provide 100% of usable energy, regardless of the rate of discharge. so for longer trips you can discharge the battery more than the traditional lead acid, addressing Your Energy Anxiety.

Fast charging:
Provides up to 1C rate charging ability, 5 times more that of lead-acid, and can be fully charged in 1-2 hours, greatly improve the efficiency of use.

Temperature tolerant:
-20℃ (-4℉) and +60℃ (140℉).
Lithium batteries can handle a wide variety of conditions and are even 2.5X more efficient at low temperatures than lead-acid while being able to safely operate up to 140°F (60°C).

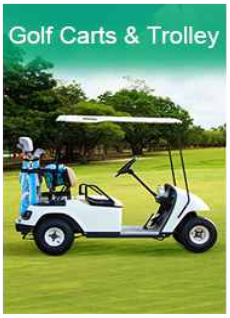
Cobalt-free:
Adopt lithium iron phosphate technology which is a totally environment friendly green energy storage solution.

Superior safety



Application

Wheel chair, sweeper, electric vehicle, robot; Solar/wind energy storage system;UPS backup power;Recreational vehicles; Golf carts; Solar street light;



Why choose our LiFePO4 batteries?

Perfect replacement of lead acid batteries

Safer

- Adopt tier 1 & grade A LFP battery cells;
- Excellent deep cycle ability: ≥6000 cycles;
- 15+ years design life, 5 years warranty(optional); UL2054, CE, RoHS, UN38.3, etc.

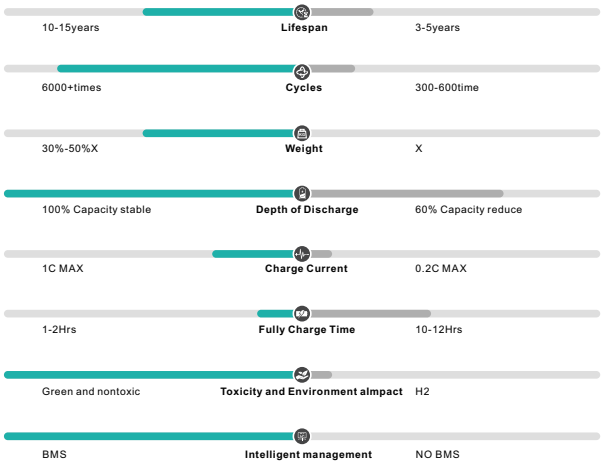
Smarter

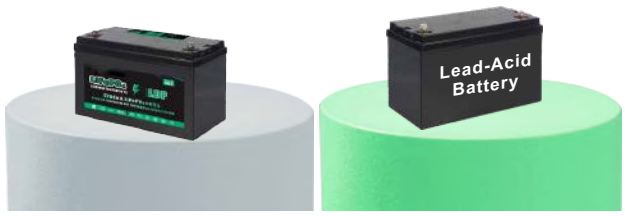
- Adopt high-end IC and MOSFET;
- Built-in smart BMS with multiple protetions;
- Supports Bluetooth monitoring(Optional);
- Flexible deployment: up to 4 packs in parallel or 4 in series.

Simpler

- Drop-in replacement for lead acid batteries;
- Lighter weight, up to 70% weight saving;
- Fast charging: 90% within 1~1.5 hours;
- Easy operation & maintenance free.

Battery comparison

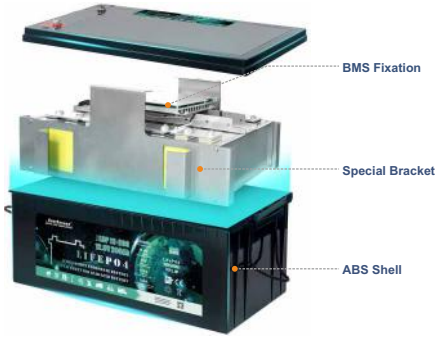




- The battery is internally insulated with epoxy resin plates to effectively avoid internal short circuits.
- Flame-retardant ABS material with excellent fire performance.
- Internal wiring harnesses are wrapped in flame retardant velvet tape to enhance battery safety.
- High-density EVA foam fixing, excellent shock resistance in transportation and harsh environments.

Double protection with ABS shell and special bracket

- The wire harness is fixed with a special wire groove to avoid pulling off during transportation and handling.
- Glue the sampling line terminals to prevent them from loosening during transportation and handling.
- The battery cell is wrapped and fixed by a bracket to prevent the expansion of the battery cell and the dislocation of the battery cell.
- The battery is surrounded by a protruding bracket structure, which provides a heat dissipation gap and vibration buffer effect, preventing shock to the cell and BMS, which can cause battery failure.



Power your life
HOOTRUM

Specification

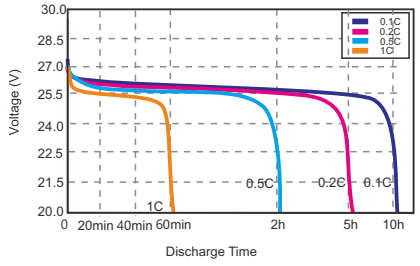
Battery Model	Nominal Voltage	Rated Capacity @ 5-HR Rate (77°F/25°C)	Typical energy	Recommended charge current	Max charge current	Max continuous discharge current	Outline Dimension						Weight	Terminal
							Length		Width		Height			
	(V)	(Ah)	(Wh)	(A)	(A)	(A)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(kg)	
HM 12-6	12.8	6	76.8	3	6	6	151	5.94	65	2.56	100	3.94	0.8	F2
HM12-8		8	102.4	4	8	8	151	5.94	65	2.56	100	3.94	1.05	F2
HM12-12		12	153.6	6	12	12	151	5.94	98	3.86	101	3.98	1.3	F2
HM12-18		18	230.4	9	18	18	181	7.13	77	3.03	167	6.57	2.2	M5
HM12-24		24	307.2	12	20	20	181	7.13	77	3.03	167	6.57	2.9	M5
HM12-30		30	384.0	15	30	30	165	6.50	125	4.92	175	6.89	4.2	M5
HM12-36		36	460.8	18	36	36	195	7.68	130	5.12	167	6.57	4.8	M6
HM12-42		42	537.6	21	42	42	197	7.76	165	6.50	170	6.69	5.5	M6
HM12-50		50	640.0	25	50	50	229	9.02	138	5.43	217	8.54	7.2	M6
HM12-60		60	768.0	25	50	50	229	9.02	138	5.43	217	8.54	7.5	M6
HM12-70		70	896.0	35	50	50	260	10.24	169	6.65	215	8.46	8.1	M8
HM12-84		85	1088.0	42	84	84	260	10.24	169	6.65	215	8.46	10	M8
HM12-90		90	1152.0	45	90	90	305	12.01	168	6.61	215	8.46	11	M8
HM12-100		100	1280.0	50	100	100	328	12.91	172	6.77	220	8.66	11.5	M8
HM12-120		120	1536.0	60	100	100	328	12.91	172	6.77	220	8.66	13	M8
HM12-150		150	1920.0	75	100	100	483	19.02	170	6.69	240	9.45	14.5	M8
HM12-200		200	2560.0	75	150	150	522	20.55	240	9.45	220	8.66	20.5	M8
HM12-230		230	2944.0	115	150	150	522	20.55	268	10.55	220	8.66	23	M8
HM12-300		300	3840.0	120	150	150	522	20.55	268	10.55	220	8.66	30	M8
HM12-400		400	5120.0	120	150	150	522	20.55	268	10.55	220	8.66	38	M8
HM24-12	25.6	12	307.2	6	12	12	165	6.50	125	4.92	175	6.89	3	M5
HM24-24		24	614.4	12	20	20	197	7.76	165	6.50	170	6.69	5.8	M6
HM24-30		30	768.0	15	20	20	229	9.02	138	5.43	217	8.54	7.2	M6
HM24-42		42	1075.2	21	42	42	260	10.24	169	6.65	215	8.46	11	M8
HM24-50		50	1280.0	25	50	50	328	12.91	172	6.77	220	8.66	10.5	M8
HM24-60		60	1536.0	30	50	50	483	19.02	170	6.69	240	9.45	13.5	M8
HM24-70		70	1792.0	30	50	50	483	19.02	170	6.69	240	9.45	14.5	M8
HM24-100		100	2560.0	50	100	100	522	20.55	240	9.45	220	8.66	23.5	M8
HM24-120		120	3072.0	60	100	100	522	20.55	268	10.55	220	8.66	24	M8
HM24-150		150	3840.0	75	100	100	522	20.55	268	10.55	220	8.66	27	M8
HM24-200		200	5120.0	100	150	150	522	20.55	268	10.55	220	8.66	38	M8

Charging temperature	(0℃~50℃)
Discharge temperature	(-20℃~60℃)
Recommended Storage Temperature	(10℃~35℃)

Performance Curve

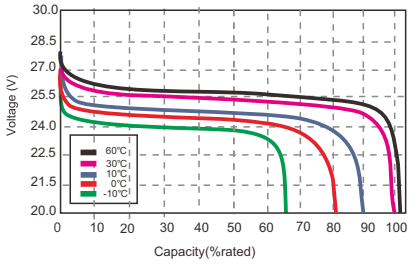
Different Rate Discharge Curve

Different Rate Discharge Curve @25°C



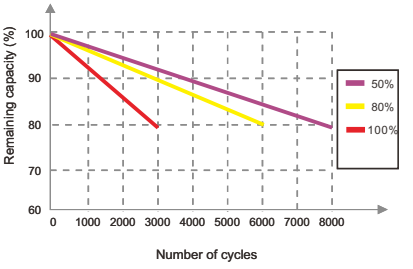
Different Temperature Discharge Curve

Different Temperature Discharge Curve @0.5C



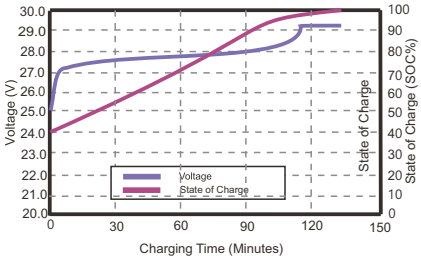
Cycle Life Curve

Different DOD Discharge Cycle Life Curve @0.2C



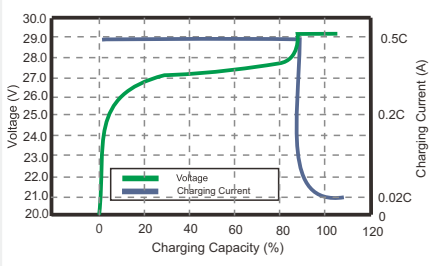
State of Charge Curve

State of Charge Curve @0.5C 25°C



Charging Characteristics

Charging Characteristics @0.5C 25°C



Temperature Effects On Capacity

Temperature effects on capacity @ 0.5C