

Illustrative render generated from published specifications

Lishen LR2170LH

Lishen · released 2023

21700

NMC



Live page & updates

MOOCH-TESTED · 60 A

3,000 mAh CAPACITY	60 A MOOCH CONTINUOUS	3.6 V NOMINAL · 2.75 – 4.2 V	10.8 Wh ENERGY
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REFERENCE ONLY — NOT AN OFFICIAL DOCUMENT

This information is gathered from multiple sources, including manufacturer datasheets, independent third-party testing, and community contributions. Cell specifications vary between production batches and change over time, and no figure here is guaranteed to be correct or current. **Always consult the manufacturer's spec sheet directly.** Use this sheet for reference only — never as the sole basis for a safety-critical decision about charging, discharging, or assembling cells. The cell image is an illustrative render generated from published specifications, not a photograph.

CAPACITY AMONG 21700S #69 of 72 Lowest in database Highest Higher discharge than 96% of 21700 cells in our database. Great for high-drain builds.	VOLTAGE OPERATING WINDOW 1.45 V usable Cutoff 2.75 V Nominal 3.6 V Max 4.2 V Below nominal the cell sags fast under load; above it, the last of the capacity fills slowly on the constant-voltage taper.
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APPLICATION SUITABILITY

Rule-of-thumb ratings from this cell's capacity and continuous discharge. Check your own load before committing.

Powerwalls	High capacity means more stored energy per cell. Fewer cells needed for a given kWh target.
Ebike packs	Good balance of capacity for range and discharge for hills. Works well in most ebike packs.
Car audio	Enough discharge to handle amplifier bursts without voltage sag.
High-drain vaping	Above the 25A Mooch CDR threshold. Suitable for regulated and mechanical mods.
Flashlights	High capacity means long runtime. Great for everyday carry and extended use.
Power tools	Sufficient discharge and capacity for most power tool packs.

IDENTITY		ELECTRICAL	
Manufacturer	Lishen	Rated capacity	3,000 mAh
Model	LR2170LH	Nominal voltage	3.6 V
Format	21700	Max charge voltage	4.2 V
Chemistry	NMC	Discharge cutoff	2.75 V
Year released	2023	Energy	10.8 Wh
Terminal	Flat top	Internal resistance	9 mΩ
Protection	Unprotected	Max continuous discharge	60 A (mooch)
OPERATING TEMPERATURE		Discharge C-rate	20C
Charging	0°C to 45°C	Standard charge current	1,500 mA
ENERGY & POWER DENSITY		Typical charge time	2 h
		Standard discharge	1500mA
Energy	10.8 Wh		
Capacity ranking	#69 of 72 21700s		

C-RATE CONVERSION · 3,000 MAH

C-RATE	CURRENT	THEORETICAL RUNTIME
0.2C	0.6 A	5h 00m
0.5C	1.5 A	2h 00m
1C	3 A	1h 00m
2C	6 A	30m
3C	9 A	20m
5C	15 A	12m
8C	24 A	7m 30s
10C	30 A	6m
15C	45 A	4m
20C	60 A	3m

Highlighted row is closest to the rated 60 A continuous discharge.

CHARGING

RATE	CURRENT	ESTIMATED TIME TO FULL
0.5C	1,500 mA	~2h 00m
1C	3,000 mA	~1h 00m

Constant-current phase only. Real charge time runs longer because of the constant-voltage taper at the end.

SERIES PACK CONFIGURATIONS

Voltages calculated from this cell's own nominal and maximum charge voltage. The 3P columns show one common parallel count as a worked example — scale the parallel group to the capacity you need.

SERIES	NOMINAL	FULLY CHARGED	CELLS AT 3P	CAPACITY	ENERGY
3S	10.8 V	12.6 V	9	9 Ah	97 Wh
7S	25.2 V	29.4 V	21	9 Ah	227 Wh
10S	36 V	42 V	30	9 Ah	324 Wh
13S	46.8 V	54.6 V	39	9 Ah	421 Wh
14S	50.4 V	58.8 V	42	9 Ah	454 Wh

EXAMPLE PACKS

7S2P 24V ebike / small pack 14 cells · 25.2 V 6,000 mAh · 151 Wh 120 A max	13S4P 48V ebike standard 52 cells · 46.8 V 12,000 mAh · 562 Wh 240 A max	16S4P DIY powerwall 64 cells · 57.6 V 12,000 mAh · 691 Wh 240 A max	4S6P Power tool replacement 24 cells · 14.4 V 18,000 mAh · 259 Wh 360 A max
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SIMILAR CELLS

Same format and chemistry, within ±500 mAh.

CELL	MAH	CONTINUOUS	WH	WEIGHT	WH/KG
Lishen LR2170LH (this cell)	3,000	60 A	10.8	—	—
Vapcell PURPLE 35A 3100mAh	3,100	35 A	11.2	68 g	164
Hohm Tech Hohm RUN	3,023	39 A	10.9	—	—
Vapcell BLUE 35A 3000mAh	3,000	35 A	10.8	68 g	159
Vapcell T30	3,000	35 A	10.8	70 g	154

HANDLING & SAFETY

- Never charge above 4.2V or discharge below 2.75V.
- Store cells at around 3.6-3.8V (roughly 40-60% charge) for long-term storage.
- Don't mix cells with different capacities, chemistries, or states of charge in a pack.
- Inspect wraps before use. A torn wrap can cause a short circuit.
- Always use a BMS or balance charger appropriate for your pack configuration.
- Keep cells away from metal objects, keys, and coins. A short across the terminals can cause fire.

SOURCES & FURTHER READING

Cell Saviors page	cellsaviors.com/cell-database/lishen-lr2170lh
Manufacturer datasheet	https://www.ancoo-battery.com/en/product/LR2170LH.html
Independent test (Mooch)	https://www.e-cigarette-forum.com/threads/bench-test-results-l...
Full cell database	cellsaviors.com/cell-database