

Illustrative render generated from published specifications

21.44 × 70.8 mm
67 g

LG M50LT

LG · released 2020

21700 NMC

MOOCH-TESTED · 14 A



Live page & updates

4,932 mAh CAPACITY	14 A MOOCH CONTINUOUS	3.6 V NOMINAL · 2.5 – 4.2 V	17.76 Wh ENERGY · 265.07 WH/KG
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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 #37 of 72 Lowest in databaseHighest A mid-range 21700 cell. Solid for builds that don't need extreme capacity or discharge.	VOLTAGE OPERATING WINDOW 1.7 V usable Cutoff 2.5 VNominal 3.6 VMax 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	Might work for smaller setups. Check your amp's peak current draw.
High-drain vaping	Below the 25A Moolch CDR threshold that high-drain vaping needs. Use a higher-drain cell.
Flashlights	High capacity means long runtime. Great for everyday carry and extended use.
Power tools	May work for lighter-duty tools. Check your tool's current requirements.

IDENTITY		PHYSICAL	
Manufacturer	LG	Diameter	21.44 mm
Model	M50LT	Length	70.8 mm
Format	21700	Weight	67 g
Chemistry	NMC	ELECTRICAL	
Year released	2020		
Wrap colour	Clear		
Terminal	Flat top		
Protection	Unprotected		
ENERGY & POWER DENSITY		Rated capacity	4,932 mAh
Energy	17.76 Wh	Nominal voltage	3.6 V
Specific energy	265.07 Wh/kg	Max charge voltage	4.2 V
Volumetric density	694.82 Wh/L	Discharge cutoff	2.5 V
Power density (mass)	752 W/kg	Energy	17.76 Wh
Power density (volume)	1,972 W/L	Max continuous discharge	14 A (mooch)
Capacity ranking	#37 of 72 21700s	Discharge C-rate	2.8C
		Standard charge current	1,440 mA
		Typical charge time	3.4 h
		Standard discharge	1440mA
		Cycle life	1,000 cycles

C-RATE CONVERSION · 4,932 MAH

C-RATE	CURRENT	THEORETICAL RUNTIME
0.2C	0.99 A	5h 00m
0.5C	2.47 A	2h 00m
1C	4.93 A	1h 00m
2C	9.86 A	30m

Highlighted row is closest to the rated 14 A continuous discharge.

CHARGING

RATE	CURRENT	ESTIMATED TIME TO FULL
Standard	1,440 mA	~3h 25m
0.5C	2,466 mA	~2h 00m
1C	4,932 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	14.8 Ah	160 Wh
7S	25.2 V	29.4 V	21	14.8 Ah	373 Wh
10S	36 V	42 V	30	14.8 Ah	533 Wh
13S	46.8 V	54.6 V	39	14.8 Ah	692 Wh
14S	50.4 V	58.8 V	42	14.8 Ah	746 Wh

EXAMPLE PACKS

7S2P 24V ebike / small pack 14 cells · 25.2 V 9,864 mAh · 249 Wh 28 A max · ≈0.94 kg cells	13S4P 48V ebike standard 52 cells · 46.8 V 19,728 mAh · 923 Wh 56 A max · ≈3.48 kg cells	16S4P DIY powerwall 64 cells · 57.6 V 19,728 mAh · 1,136 Wh 56 A max · ≈4.29 kg cells	4S6P Power tool replacement 24 cells · 14.4 V 29,592 mAh · 426 Wh 84 A max · ≈1.61 kg cells
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SIMILAR CELLS

Same format and chemistry, within ±500 mAh.

CELL	MAH	CONTINUOUS	WH	WEIGHT	WH/KG
LG M50LT (this cell)	4,932	14 A	17.76	67 g	265
BAK 53E	5,300	10 A	19.1	69 g	277
Samsung INR21700-53G	5,300	10 A	19.1	72 g	265
LG M50T	5,014	14 A	18.1	70 g	258
Ampace JP50P1	5,000	40 A	18	72 g	250
Amprius INR21700-50Q	5,000	50 A	18	70 g	257

HANDLING & SAFETY

- Never charge above 4.2V or discharge below 2.5V.
- 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/lg-m50lt
Manufacturer datasheet	https://evwest.com/support/21700_M50LT_datasheet.pdf
Independent test (Mooch)	https://www.e-cigarette-forum.com/threads/bench-test-results-l...
Full cell database	cellsaviors.com/cell-database