

Illustrative render generated from published specifications

18.4 × 68.5 mm
47 g

Xtar 18650

2600mAh 25A



Live page & updates

Xtar · released 2013

18650

LCO

MOOCH-TESTED · 25 A

2,600 mAh CAPACITY	25 A MOOCH CONTINUOUS	3.6 V NOMINAL · 2.5 – 4.2 V	9.36 Wh ENERGY · 199.15 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 18650S #96 of 279 Lowest in database Highest Higher discharge than 84% of 18650 cells in our database. Great for high-drain builds.	VOLTAGE OPERATING WINDOW 1.7 V usable Cutoff 2.5 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	Decent runtime. Works well for most flashlights.
Power tools	Sufficient discharge and capacity for most power tool packs.

IDENTITY		PHYSICAL	
Manufacturer	Xtar	Diameter	18.4 mm
Model	18650 2600mAh 25A	Length	68.5 mm
Format	18650	Weight	47 g
Chemistry	LCO	ELECTRICAL	
Year released	2013	Rated capacity	2,600 mAh
Wrap colour	■ Black	Nominal voltage	3.6 V
Terminal	Button top	Max charge voltage	4.2 V
Protection	Protected	Discharge cutoff	2.5 V
ENERGY & POWER DENSITY		Energy	9.36 Wh
Energy	9.36 Wh	Max continuous discharge	25 A (mooch)
Specific energy	199.15 Wh/kg	Discharge C-rate	9.6C
Volumetric density	513.88 Wh/L		
Power density (mass)	1,915 W/kg		
Power density (volume)	4,941 W/L		
Capacity ranking	#96 of 279 18650s		
C-RATE CONVERSION · 2,600 MAH			
C-RATE	CURRENT	THEORETICAL RUNTIME	
0.2C	0.52 A	5h 00m	
0.5C	1.3 A	2h 00m	
1C	2.6 A	1h 00m	
2C	5.2 A	30m	
3C	7.8 A	20m	
5C	13 A	12m	
8C	20.8 A	7m 30s	
10C	26 A	6m	

Highlighted row is closest to the rated 25 A continuous discharge.

CHARGING

Rate	Current	Estimated Time to Full
0.5C	1,300 mA	~2h 00m
1C	2,600 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	7.8 Ah	84 Wh
7S	25.2 V	29.4 V	21	7.8 Ah	197 Wh
10S	36 V	42 V	30	7.8 Ah	281 Wh
13S	46.8 V	54.6 V	39	7.8 Ah	365 Wh
14S	50.4 V	58.8 V	42	7.8 Ah	393 Wh

EXAMPLE PACKS

7S2P 24V ebike / small pack 14 cells · 25.2 V 5,200 mAh · 131 Wh 50 A max · ≈0.66 kg cells	13S4P 48V ebike standard 52 cells · 46.8 V 10,400 mAh · 487 Wh 100 A max · ≈2.44 kg cells	16S4P DIY powerwall 64 cells · 57.6 V 10,400 mAh · 599 Wh 100 A max · ≈3.01 kg cells	4S6P Power tool replacement 24 cells · 14.4 V 15,600 mAh · 225 Wh 150 A max · ≈1.13 kg cells
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SIMILAR CELLS

Same format and chemistry, within ±500 mAh.

Cell	MAH	CONTINUOUS	WH	WEIGHT	WH/KG
Xtar 18650 2600mAh 25A (this cell)	2,600	25 A	9.36	47 g	199
Sinc CRN18650-2200MAH	2,200	2 A	7.9	44 g	180

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/xtar-18650-2600mah-25a
Manufacturer datasheet	https://www.xtar.cc/product/xtar-18650-2600mah-battery-69.html
Independent test (Mooch)	https://www.e-cigarette-forum.com/threads/bench-test-results-x...
Full cell database	cellsaviors.com/cell-database