

Xtar BLACK 35A 3200mAh

Xtar

26650LMO

MOOCH-TESTED · 35 A

Live page & updates

3,200 mAhCAPACITY	35 AMOOCH CONTINUOUS	3.6 VNOMINAL · 2.5 – 4.2 V	11.52 WhENERGY
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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.

CAPACITY AMONG 26650S

#13 of 15

Lowest in databaseHighest

A mid-range 26650 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.

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	Xtar	Rated capacity	3,200 mAh
Model	BLACK 35A 3200mAh	Nominal voltage	3.6 V
Format	26650	Max charge voltage	4.2 V
Chemistry	LMO	Discharge cutoff	2.5 V
Wrap colour	Black	Energy	11.52 Wh
Terminal	Flat top	Max continuous discharge	35 A (mooch)
Protection	Unprotected	Discharge C-rate	10.9C

ENERGY & POWER DENSITY	
Energy	11.52 Wh
Capacity ranking	#13 of 15 26650s

C-RATE CONVERSION · 3,200 MAH		
C-RATE	CURRENT	THEORETICAL RUNTIME
0.2C	0.64 A	5h 00m
0.5C	1.6 A	2h 00m
1C	3.2 A	1h 00m
2C	6.4 A	30m
3C	9.6 A	20m
5C	16 A	12m
8C	25.6 A	7m 30s
10C	32 A	6m

Highlighted row is closest to the rated 35 A continuous discharge.

CHARGING		
RATE	CURRENT	ESTIMATED TIME TO FULL
0.5C	1,600 mA	~2h 00m
1C	3,200 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	9.6 Ah	104 Wh
7S	25.2 V	29.4 V	21	9.6 Ah	242 Wh
10S	36 V	42 V	30	9.6 Ah	346 Wh
13S	46.8 V	54.6 V	39	9.6 Ah	449 Wh
14S	50.4 V	58.8 V	42	9.6 Ah	484 Wh

EXAMPLE PACKS

7S2P 24V ebike / small pack 14 cells · 25.2 V 6,400 mAh · 161 Wh 70 A max	13S4P 48V ebike standard 52 cells · 46.8 V 12,800 mAh · 599 Wh 140 A max	16S4P DIY powerwall 64 cells · 57.6 V 12,800 mAh · 737 Wh 140 A max	4S6P Power tool replacement 24 cells · 14.4 V 19,200 mAh · 276 Wh 210 A max
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SIMILAR CELLS

Same format and chemistry, within ± 500 mAh.

CELL	MAH	CONTINUOUS	WH	WEIGHT	WH/KG
Xtar BLACK 35A 3200mAh (this cell)	3,200	35 A	11.52	—	—
Efest PURPLE 32A 3500mAh	3,500	32 A	12.6	—	—

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 Savors page

cellsaviors.com/cell-database/xtar-black-35a-3200mah

Independent test (Mooch)

<https://www.e-cigarette-forum.com/threads/xtar-black-35a-3200m...>

Full cell database

cellsaviors.com/cell-database