Illustrative render generated from published specifications

18.15 × 34.82 mm

AW 18350

AW · released 2016

18350 | LMO | MOOCH-TESTED · 12 A

Live page & updates

800 mAh	12 A	3.6 V	2.88 Wh
CAPACITY	MOOCH CONTINUOUS	NOMINAL · 2.5 – 4.2 V	ENERGY

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 18350S — #8 of 10

Lowest in database — Highest

Higher discharge than 100% of 18350 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.

APPLICATION SUITABILITY

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

Powerwalls	Too low capacity for practical powerwall use. You'd need too many cells.
Ebike packs	Not enough discharge for ebike use. Voltage sag would be a problem under load.
Car audio	Might work for smaller setups. Check your amp's peak current draw.
High-drain vaping	Below the 25A Mooch CDR threshold that high-drain vaping needs. Use a higher-drain cell.
Flashlights	Lower capacity means shorter runtime. Better cells are available for flashlight use.
Power tools	Not enough discharge or capacity for power tool use.

IDENTITY

Manufacturer	**AW**
Model	**18350**
Format	**18350**
Chemistry	**LMO**
Year released	**2016**
Wrap colour	**Red**
Terminal	**Flat top**
Protection	**Unprotected**

OPERATING TEMPERATURE

Discharging	**-10°C to 60°C**

ENERGY & POWER DENSITY

Energy	**2.88 Wh**
Volumetric density	**319.68 Wh/L**
Power density (volume)	**4,795 W/L**
Capacity ranking	**#8 of 10 18350s**

PHYSICAL

Diameter	**18.15 mm**
Length	**34.82 mm**

ELECTRICAL

Rated capacity	**800 mAh**
Nominal voltage	**3.6 V**
Max charge voltage	**4.2 V**
Discharge cutoff	**2.5 V**
Energy	**2.88 Wh**
Internal resistance	**52.9 mΩ**
Max continuous discharge	**12 A (mooch)**
Discharge C-rate	**15C**
Standard charge current	**800 mA**
Typical charge time	**1 h**
Cycle life	**500 cycles**

C-RATE CONVERSION · 800 MAH

C-RATE	CURRENT	THEORETICAL RUNTIME
0.2C	0.16 A	5h 00m
0.5C	0.4 A	2h 00m
1C	0.8 A	1h 00m
2C	1.6 A	30m
3C	2.4 A	20m
5C	4 A	12m
8C	6.4 A	7m 30s
10C	8 A	6m
15C	**12 A**	**4m**

Highlighted row is closest to the rated 12 A continuous discharge.

CHARGING

RATE	CURRENT	ESTIMATED TIME TO FULL
0.5C	400 mA	~2h 00m
1C	800 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	2.4 Ah	26 Wh
7S	25.2 V	29.4 V	21	2.4 Ah	60 Wh
10S	36 V	42 V	30	2.4 Ah	86 Wh
13S	46.8 V	54.6 V	39	2.4 Ah	112 Wh
14S	50.4 V	58.8 V	42	2.4 Ah	121 Wh

EXAMPLE PACKS

7S2P
24V ebike / small pack

14 cells · 25.2 V

1,600 mAh · 40 Wh

24 A max

13S4P
48V ebike standard

52 cells · 46.8 V

3,200 mAh · 150 Wh

48 A max

16S4P
DIY powerwall

64 cells · 57.6 V

3,200 mAh · 184 Wh

48 A max

4S6P
Power tool replacement

24 cells · 14.4 V

4,800 mAh · 69 Wh

72 A max

SIMILAR CELLS

Same format and chemistry, within ±500 mAh.

CELL	MAH	CONTINUOUS	WH	WEIGHT	WH/KG
AW 18350 (this cell)	**800**	**12 A**	**2.88**	**—**	**—**
Epoch 18350	1,100	9 A	4	26 g	152
AWT 18350	850	10 A	3.1	22.1 g	138
Efest IMR18350	700	10 A	2.5	28 g	90
Nitecore 18350 700mAh 7A	700	7 A	2.5	22 g	115

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/aw-18350
Manufacturer datasheet	https://lygte-info.dk/review/batteries2012/AW%20IMR18350%20800...
Independent test (Mooch)	https://www.e-cigarette-forum.com/threads/bench-test-results-a...
Full cell database	cellsaviors.com/cell-database