

Illustrative render generated from published specifications

18.3 × 35 mm
26 g

Vapcell F16

Vapcell

18350

NMC

MOOCH-TESTED · 3 A



Live page & updates

1,600 mAh

CAPACITY

3 A

MOOCH CONTINUOUS

3.6 V

NOMINAL · 2.5 – 4.2 V

5.76 Wh

ENERGY · 221.54 WH/KG

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

#1 of 10

Lowest in database

Highest

More capacity than 100% of 18350 cells in our database, but lower discharge than average.

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	Usable for powerwalls but lower capacity means you'll need more cells to hit your target kWh.
Ebike packs	Not enough discharge for ebike use. Voltage sag would be a problem under load.
Car audio	Not enough discharge for car audio amplifiers. You need at least 15-20A continuous for most setups.
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		PHYSICAL	
Manufacturer	Vapcell	Diameter	18.3 mm
Model	F16	Length	35 mm
Format	18350	Weight	26 g
Chemistry	NMC	ELECTRICAL	
Wrap colour	Red		
Terminal	Flat top		
Protection	Unprotected		
ENERGY & POWER DENSITY			
Energy	5.76 Wh	Energy	5.76 Wh
Specific energy	221.54 Wh/kg	Internal resistance	60 mΩ
Volumetric density	625.69 Wh/L	Max continuous discharge	3 A (mooch)
Power density (mass)	415 W/kg	Discharge C-rate	1.9C
Power density (volume)	1,173 W/L	Standard charge current	500 mA
Capacity ranking	#1 of 10 18350s	Typical charge time	3.2 h

C-RATE CONVERSION · 1,600 MAH

C-RATE	CURRENT	THEORETICAL RUNTIME
0.2C	0.32 A	5h 00m
0.5C	0.8 A	2h 00m
1C	1.6 A	1h 00m

Highlighted row is closest to the rated 3 A continuous discharge.

CHARGING

RATE	CURRENT	ESTIMATED TIME TO FULL
Standard	500 mA	~3h 12m
0.5C	800 mA	~2h 00m
1C	1,600 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	4.8 Ah	52 Wh
7S	25.2 V	29.4 V	21	4.8 Ah	121 Wh
10S	36 V	42 V	30	4.8 Ah	173 Wh
13S	46.8 V	54.6 V	39	4.8 Ah	225 Wh
14S	50.4 V	58.8 V	42	4.8 Ah	242 Wh

EXAMPLE PACKS

7S2P 24V ebike / small pack 14 cells · 25.2 V 3,200 mAh · 81 Wh 6 A max · ≈0.36 kg cells	13S4P 48V ebike standard 52 cells · 46.8 V 6,400 mAh · 300 Wh 12 A max · ≈1.35 kg cells	16S4P DIY powerwall 64 cells · 57.6 V 6,400 mAh · 369 Wh 12 A max · ≈1.66 kg cells	4S6P Power tool replacement 24 cells · 14.4 V 9,600 mAh · 138 Wh 18 A max · ≈0.62 kg cells
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SIMILAR CELLS

Same format and chemistry, within ±500 mAh.

CELL	MAH	CONTINUOUS	WH	WEIGHT	WH/KG
Vapcell F16 (this cell)	1,600	3 A	5.76	26 g	222
Vapcell H16	1,600	5 A	5.8	26 g	222
Keeppower UH1835P	1,200	10 A	4.3	25 g	173
Vapcell 18350 1100mAh 9A	1,100	9 A	4	26 g	152
Vapcell M11	1,100	9 A	4	26 g	152

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/vapcell-f16
Manufacturer datasheet	https://www.vapcelltech.com/h-pd-216.html
Independent test (Mooch)	https://www.e-cigarette-forum.com/threads/bench-test-results-v...
Full cell database	cellsaviors.com/cell-database