

Vapcell N41



18650

NMC

4,050 mAh

CAPACITY

10 A

MOOCH CONTINUOUS

3.6 v

NOMINAL · 2.5 – 4.2 V

14.58 Wh

ENERGY · 303.75 WH/KG

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.

#1 of 279



More capacity than 100% of 18650 cells in our database. One of the higher-capacity options.

1.7 V usable



Below nominal the cell sags fast under load; above it, the last of the capacity fills slowly on the constant-voltage taper.

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

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|----------------------------|---|
| ● 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 Mooch 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	Vapcell	Diameter	18.3 mm
Model	N41	Length	65 mm
Format	18650	Weight	48 g
Chemistry	NMC	ELECTRICAL	
Year released	2025		
Wrap colour	Blue/Pink		
Terminal	Flat top		
Protection	Unprotected		
ENERGY & POWER DENSITY		Rated capacity	4,050 mAh
Energy	14.58 Wh	Nominal voltage	3.6 V
Specific energy	303.75 Wh/kg	Max charge voltage	4.2 V
Volumetric density	852.81 Wh/L	Discharge cutoff	2.5 V
Power density (mass)	750 W/kg	Energy	14.58 Wh
Power density (volume)	2,106 W/L	Internal resistance	17 mΩ
Capacity ranking	#1 of 279 18650s	Max continuous discharge	10 A (mooch)
		Discharge C-rate	2.5C
		Standard charge current	1,500 mA
		Typical charge time	2.7 h
		Cycle life	1,000 cycles

C-RATE CONVERSION · 4,050 MAH

C-RATE	CURRENT	THEORETICAL RUNTIME
0.2C	0.81 A	5h 00m
0.5C	2.03 A	2h 00m
1C	4.05 A	1h 00m
2C	8.1 A	30m

Highlighted row is closest to the rated 10 A continuous discharge.

CHARGING

RATE	CURRENT	ESTIMATED TIME TO FULL
Standard	1,500 mA	~2h 42m
0.5C	2,025 mA	~2h 00m
1C	4,050 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	12.1 Ah	131 Wh
7S	25.2 V	29.4 V	21	12.1 Ah	306 Wh
10S	36 V	42 V	30	12.1 Ah	437 Wh
13S	46.8 V	54.6 V	39	12.1 Ah	569 Wh
14S	50.4 V	58.8 V	42	12.1 Ah	612 Wh

EXAMPLE PACKS

7S2P 24V ebike / small pack 14 cells · 25.2 V 8,100 mAh · 204 Wh 20 A max · ≈0.67 kg cells	13S4P 48V ebike standard 52 cells · 46.8 V 16,200 mAh · 758 Wh 40 A max · ≈2.5 kg cells	16S4P DIY powerwall 64 cells · 57.6 V 16,200 mAh · 933 Wh 40 A max · ≈3.07 kg cells	4S6P Power tool replacement 24 cells · 14.4 V 24,300 mAh · 350 Wh 60 A max · ≈1.15 kg cells
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SIMILAR CELLS

Same format and chemistry, within ±500 mAh.

CELL	MAH	CONTINUOUS	WH	WEIGHT	WH/KG
Vapcell N41 (this cell)	4,050	10 A	14.58	48 g	304
Amprius INR18650/40	4,000	12 A	14.4	48 g	300
Vapcell N40	4,000	10 A	14.4	48 g	300
Vapcell F38	3,800	10 A	13.7	48 g	285
Vapcell N36	3,650	8 A	13.1	48 g	274

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-n41
Manufacturer datasheet	https://www.vapcelltech.com/h-pd-281.html
Independent test (Mooch)	https://www.e-cigarette-forum.com/threads/bench-test-results-v...
Full cell database	cellsaviors.com/cell-database