

21 × 70.2 mm
68 g

Vapcell · released 2018

NMC

MOOCH-TESTED · 35 A

CAPACITY

MOOCH CONTINUOUS

NOMINAL · 2.5 – 4.2 V

ENERGY · 158.82 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.

A mid-range 21700 cell. Solid for builds that don't need extreme capacity or discharge.

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 | 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		PHYSICAL	
Manufacturer	Vapcell	Diameter	21 mm
Model	BLUE 35A 3000mAh	Length	70.2 mm
Format	21700	Weight	68 g
Chemistry	NMC	ELECTRICAL	
Year released	2018		
Wrap colour	■ Blue	Rated capacity	3,000 mAh
Terminal	Flat top	Nominal voltage	3.6 V
Protection	Unprotected	Max charge voltage	4.2 V
ENERGY & POWER DENSITY		Discharge cutoff	2.5 V
		Energy	10.8 Wh
Energy	10.8 Wh	Internal resistance	8 mΩ
Specific energy	158.82 Wh/kg	Max continuous discharge	35 A (mooch)
Volumetric density	444.18 Wh/L	Discharge C-rate	11.7C
Power density (mass)	1,853 W/kg	Standard charge current	2,000 mA
Power density (volume)	5,182 W/L	Typical charge time	1.5 h
Capacity ranking	#69 of 72 21700s		

C-RATE CONVERSION · 3,000 MAH

C-RATE	CURRENT	THEORETICAL RUNTIME
0.2C	0.6 A	5h 00m
0.5C	1.5 A	2h 00m
1C	3 A	1h 00m
2C	6 A	30m
3C	9 A	20m
5C	15 A	12m
8C	24 A	7m 30s
10C	30 A	6m

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

CHARGING

RATE	CURRENT	ESTIMATED TIME TO FULL
0.5C	1,500 mA	~2h 00m
Standard	2,000 mA	~1h 30m
1C	3,000 mA	~1h 00m

Constant-current phase only. Real charge time runs longer because of the constant-voltage taper at the end.

SERIES PACK CONFIGURATIONS

Voltagess 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 Ah	97 Wh
7S	25.2 V	29.4 V	21	9 Ah	227 Wh
10S	36 V	42 V	30	9 Ah	324 Wh
13S	46.8 V	54.6 V	39	9 Ah	421 Wh
14S	50.4 V	58.8 V	42	9 Ah	454 Wh

EXAMPLE PACKS

7S2P 24V ebike / small pack 14 cells · 25.2 V 6,000 mAh · 151 Wh 70 A max · ≈0.95 kg cells	13S4P 48V ebike standard 52 cells · 46.8 V 12,000 mAh · 562 Wh 140 A max · ≈3.54 kg cells	16S4P DIY powerwall 64 cells · 57.6 V 12,000 mAh · 691 Wh 140 A max · ≈4.35 kg cells	4S6P Power tool replacement 24 cells · 14.4 V 18,000 mAh · 259 Wh 210 A max · ≈1.63 kg cells
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SIMILAR CELLS

Same format and chemistry, within ± 500 mAh.

CELL	MAH	CONTINUOUS	WH	WEIGHT	WH/KG
Vapcell BLUE 35A 3000mAh (this cell)	3,000	35 A	10.8	68 g	159
Vapcell PURPLE 35A 3100mAh	3,100	35 A	11.2	68 g	164
Hohm Tech Hohm RUN	3,023	39 A	10.9	—	—
Lishen LR2170LH	3,000	60 A	10.8	—	—
Vapcell T30	3,000	35 A	10.8	70 g	154

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/vapcell-blue-35a-3000mah
Manufacturer datasheet	https://www.vapcelltech.com/h-pd-34.html
Independent test (Mooch)	https://www.e-cigarette-forum.com/threads/bench-test-results-v...
Full cell database	cellsaviors.com/cell-database