

Illustrative render generated from published specifications

21.6 × 70.5 mm
70 g

Vapcell BLUE

30A 3750mAh



Live page & updates

Vapcell · released 2018

21700

NMC

MOOCH-TESTED · 30 A

3,750 mAh CAPACITY	30 A MOOCH CONTINUOUS	3.6 V NOMINAL · 2.5 – 4.2 V	13.5 Wh ENERGY · 192.86 WH/KG
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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. The cell image is an illustrative render generated from published specifications, not a photograph.

CAPACITY AMONG 21700S

#64 of 72

Lowest in database

Highest

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

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	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	21.6 mm
Model	BLUE 30A 3750mAh	Length	70.5 mm
Format	21700	Weight	70 g
Chemistry	NMC	ELECTRICAL	
Year released	2018		
Wrap colour	■ Blue	Rated capacity	3,750 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	13.5 Wh
Energy	13.5 Wh	Internal resistance	10 mΩ
Specific energy	192.86 Wh/kg	Max continuous discharge	30 A (mooch)
Volumetric density	522.57 Wh/L	Discharge C-rate	8C
Power density (mass)	1,543 W/kg	Standard charge current	1,500 mA
Power density (volume)	4,181 W/L	Typical charge time	2.5 h
Capacity ranking	#64 of 72 21700s	Standard discharge	750mA

C-RATE CONVERSION · 3,750 MAH

C-RATE	CURRENT	THEORETICAL RUNTIME
0.2C	0.75 A	5h 00m
0.5C	1.88 A	2h 00m
1C	3.75 A	1h 00m
2C	7.5 A	30m
3C	11.25 A	20m
5C	18.75 A	12m
8C	30 A	7m 30s

Highlighted row is closest to the rated 30 A continuous discharge.

CHARGING

RATE	CURRENT	ESTIMATED TIME TO FULL
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Standard	1,500 mA	~2h 30m
0.5C	1,875 mA	~2h 00m
1C	3,750 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	11.3 Ah	122 Wh
7S	25.2 V	29.4 V	21	11.3 Ah	284 Wh
10S	36 V	42 V	30	11.3 Ah	405 Wh
13S	46.8 V	54.6 V	39	11.3 Ah	527 Wh
14S	50.4 V	58.8 V	42	11.3 Ah	567 Wh

EXAMPLE PACKS

7S2P 24V ebike / small pack 14 cells · 25.2 V 7,500 mAh · 189 Wh 60 A max · ~0.98 kg cells	13S4P 48V ebike standard 52 cells · 46.8 V 15,000 mAh · 702 Wh 120 A max · ~3.64 kg cells	16S4P DIY powerwall 64 cells · 57.6 V 15,000 mAh · 864 Wh 120 A max · ~4.48 kg cells	4S6P Power tool replacement 24 cells · 14.4 V 22,500 mAh · 324 Wh 180 A max · ~1.68 kg cells
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SIMILAR CELLS

Same format and chemistry, within ±500 mAh.

CELL	MAH	CONTINUOUS	WH	WEIGHT	WH/KG
Vapcell BLUE 30A 3750mAh (this cell)	3,750	30 A	13.5	70 g	193
Xtar XTAR 30A 4200mAh	4,200	30 A	15.1	70 g	216
Hohm Tech Hohm Run XL	4,007	30 A	14.4	—	—
Ampace JP40	4,000	60 A	14.4	69 g	209
Energig EC-2174HC	4,000	30 A	14.4	70 g	206
EVE INR21700-40P	4,000	35 A	14.4	70 g	206

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-blue-30a-3750mah
Manufacturer datasheet	https://www.vapcelltech.com/h-pd-30.html
Independent test (Mooch)	https://www.e-cigarette-forum.com/threads/bench-test-results-v...
Full cell database	cellsaviors.com/cell-database