

Illustrative render generated from published specifications

18.3 × 65.4 mm  
48 g

Vapcell N36

Vapcell

18650

NMC

MOOCH-TESTED · 8 A



Live page & updates

|                                          |                                            |                                                   |                                                      |
|------------------------------------------|--------------------------------------------|---------------------------------------------------|------------------------------------------------------|
| <div>3,650 mAh</div> <div>CAPACITY</div> | <div>8 A</div> <div>MOOCH CONTINUOUS</div> | <div>3.6 v</div> <div>NOMINAL · 2.5 – 4.2 V</div> | <div>13.14 Wh</div> <div>ENERGY · 273.75 WH/KG</div> |
|------------------------------------------|--------------------------------------------|---------------------------------------------------|------------------------------------------------------|

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.

|                                                                                                                                                                                                |                                                                                                                                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div>CAPACITY AMONG 18650S</div> <div>#5 of 279</div> <div>Lowest in databaseHighest</div> <div>More capacity than 99% of 18650 cells in our database, but lower discharge than average.</div> | <div>VOLTAGE OPERATING WINDOW</div> <div>1.7 V usable</div> <div>Cutoff 2.5 VNominal 3.6 VMax 4.2 V</div> <div>Below nominal the cell sags fast under load; above it, the last of the capacity fills slowly on the constant-voltage taper.</div> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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       | Marginal. Check your motor's peak draw first. You might get voltage sag 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       | High capacity means long runtime. Great for everyday carry and extended use.                        |
| Power tools       | Not enough discharge or capacity for power tool use.                                                |

| IDENTITY               |                             | PHYSICAL                 |             |
|------------------------|-----------------------------|--------------------------|-------------|
| Manufacturer           | Vapcell                     | Diameter                 | 18.3 mm     |
| Model                  | N36                         | Length                   | 65.4 mm     |
| Format                 | 18650                       | Weight                   | 48 g        |
| Chemistry              | NMC                         | ELECTRICAL               |             |
| Wrap colour            | <div><div></div>Green</div> |                          |             |
| Terminal               | Flat top                    |                          |             |
| Protection             | Unprotected                 |                          |             |
| ENERGY & POWER DENSITY |                             |                          |             |
| Energy                 | 13.14 Wh                    | Energy                   | 13.14 Wh    |
| Specific energy        | 273.75 Wh/kg                | Internal resistance      | 25 mΩ       |
| Volumetric density     | 763.88 Wh/L                 | Max continuous discharge | 8 A (mooch) |
| Power density (mass)   | 600 W/kg                    | Discharge C-rate         | 2.2C        |
| Power density (volume) | 1,674 W/L                   | Standard charge current  | 1,000 mA    |
| Capacity ranking       | #5 of 279 18650s            | Typical charge time      | 3.7 h       |
|                        |                             | Standard discharge       | 730mA       |

C-RATE CONVERSION · 3,650 MAH

| C-RATE | CURRENT | THEORETICAL RUNTIME |
|--------|---------|---------------------|
| 0.2C   | 0.73 A  | 5h 00m              |
| 0.5C   | 1.83 A  | 2h 00m              |
| 1C     | 3.65 A  | 1h 00m              |
| 2C     | 7.3 A   | 30m                 |

Highlighted row is closest to the rated 8 A continuous discharge.

CHARGING

| RATE     | CURRENT  | ESTIMATED TIME TO FULL |
|----------|----------|------------------------|
| Standard | 1,000 mA | ~3h 39m                |
| 0.5C     | 1,825 mA | ~2h 00m                |
| 1C       | 3,650 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 Ah    | 118 Wh |
| 7S     | 25.2 V  | 29.4 V        | 21          | 11 Ah    | 276 Wh |
| 10S    | 36 V    | 42 V          | 30          | 11 Ah    | 394 Wh |
| 13S    | 46.8 V  | 54.6 V        | 39          | 11 Ah    | 512 Wh |
| 14S    | 50.4 V  | 58.8 V        | 42          | 11 Ah    | 552 Wh |

EXAMPLE PACKS

|                                                                                                                   |                                                                                                                |                                                                                                            |                                                                                                                    |
|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| <b>7S2P</b><br>24V ebike / small pack<br><br>14 cells · 25.2 V<br>7,300 mAh · 184 Wh<br>16 A max · ≈0.67 kg cells | <b>13S4P</b><br>48V ebike standard<br><br>52 cells · 46.8 V<br>14,600 mAh · 683 Wh<br>32 A max · ≈2.5 kg cells | <b>16S4P</b><br>DIY powerwall<br><br>64 cells · 57.6 V<br>14,600 mAh · 841 Wh<br>32 A max · ≈3.07 kg cells | <b>4S6P</b><br>Power tool replacement<br><br>24 cells · 14.4 V<br>21,900 mAh · 315 Wh<br>48 A max · ≈1.15 kg cells |
|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|

SIMILAR CELLS

Same format and chemistry, within ±500 mAh.

| CELL                    | MAH   | CONTINUOUS | WH    | WEIGHT | WH/KG |
|-------------------------|-------|------------|-------|--------|-------|
| Vapcell N36 (this cell) | 3,650 | 8 A        | 13.14 | 48 g   | 274   |
| Vapcell N41             | 4,050 | 10 A       | 14.6  | 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   |
| LG LGEBMJ11865          | 3,500 | 10 A       | 12.7  | 49 g   | 260   |

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

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|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Cell Saviors page        | <a href="https://cellsaviors.com/cell-database/vapcell-n36">cellsaviors.com/cell-database/vapcell-n36</a>                                         |
| Manufacturer datasheet   | <a href="https://www.vapcelltech.com/h-pd-171.html">https://www.vapcelltech.com/h-pd-171.html</a>                                                 |
| Independent test (Mooch) | <a href="https://www.e-cigarette-forum.com/threads/bench-test-results-v...">https://www.e-cigarette-forum.com/threads/bench-test-results-v...</a> |
| Full cell database       | <a href="https://cellsaviors.com/cell-database">cellsaviors.com/cell-database</a>                                                                 |