

Illustrative render generated from published specifications

LG LGEBMJ11865

LG · also sold as INR18650MJ1

18650

NMC



Live page & updates

|                                          |                                             |                                                     |                                       |
|------------------------------------------|---------------------------------------------|-----------------------------------------------------|---------------------------------------|
| <div>3,500 mAh</div> <div>CAPACITY</div> | <div>10 A</div> <div>RATED CONTINUOUS</div> | <div>3.635 V</div> <div>NOMINAL · 2.5 – 4.2 V</div> | <div>12.72 Wh</div> <div>ENERGY</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.

CAPACITY AMONG 18650S

#1 of 169

Lowest in database

Highest

Top tier for both capacity and discharge. One of the best all-around 18650 cells.

VOLTAGE OPERATING WINDOW

1.7 V usable

Cutoff 2.5 V

Nominal 3.635 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         | 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               |                  | ELECTRICAL               |                  |
|------------------------|------------------|--------------------------|------------------|
| Manufacturer           | LG               | Rated capacity           | 3,500 mAh        |
| Model                  | LGEBMJ11865      | Nominal voltage          | 3.64 V           |
| Also sold as           | INR18650MJ1      | Max charge voltage       | 4.2 V            |
| Format                 | 18650            | Discharge cutoff         | 2.5 V            |
| Chemistry              | NMC              | Energy                   | 12.72 Wh         |
| Wrap colour            | Green            | Internal resistance      | 40 mΩ            |
| Insulator              | Tan              | Max continuous discharge | 10 A (datasheet) |
| ENERGY & POWER DENSITY |                  | Discharge C-rate         | 2.9C             |
| Energy                 | 12.72 Wh         | Standard charge current  | 1,700 mA         |
| Capacity ranking       | #1 of 169 18650s | Typical charge time      | 2.1 h            |
|                        |                  | Standard discharge       | 680mA            |

C-RATE CONVERSION · 3,500 MAH

| C-RATE | CURRENT | THEORETICAL RUNTIME |
|--------|---------|---------------------|
| 0.2C   | 0.7 A   | 5h 00m              |
| 0.5C   | 1.75 A  | 2h 00m              |
| 1C     | 3.5 A   | 1h 00m              |
| 2C     | 7 A     | 30m                 |
| 3C     | 10.5 A  | 20m                 |

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

CHARGING

| RATE | CURRENT  | ESTIMATED TIME TO FULL |
|------|----------|------------------------|
| 0.5C | 1,750 mA | ~2h 00m                |
| 1C   | 3,500 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     | 10.9 V  | 12.6 V        | 9           | 10.5 Ah  | 115 Wh |
| 7S     | 25.4 V  | 29.4 V        | 21          | 10.5 Ah  | 267 Wh |
| 10S    | 36.3 V  | 42 V          | 30          | 10.5 Ah  | 382 Wh |
| 13S    | 47.3 V  | 54.6 V        | 39          | 10.5 Ah  | 496 Wh |
| 14S    | 50.9 V  | 58.8 V        | 42          | 10.5 Ah  | 534 Wh |

### EXAMPLE PACKS

|                                                                                              |                                                                                            |                                                                                       |                                                                                               |
|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| <b>7S2P</b><br>24V ebike / small pack<br>14 cells · 25.4 V<br>7,000 mAh · 178 Wh<br>20 A max | <b>13S4P</b><br>48V ebike standard<br>52 cells · 47.3 V<br>14,000 mAh · 662 Wh<br>40 A max | <b>16S4P</b><br>DIY powerwall<br>64 cells · 58.2 V<br>14,000 mAh · 814 Wh<br>40 A max | <b>4S6P</b><br>Power tool replacement<br>24 cells · 14.5 V<br>21,000 mAh · 305 Wh<br>60 A max |
|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|

### SIMILAR CELLS

Same format and chemistry, within  $\pm 500$  mAh.

| CELL                       | MAH   | CONTINUOUS | WH    | WEIGHT | WH/KG |
|----------------------------|-------|------------|-------|--------|-------|
| LG LGEBMJ11865 (this cell) | 3,500 | 10 A       | 12.72 | —      | —     |
| LG LGDBMJ11865             | 3,500 | 10 A       | 12.7  | 49 g   | 259   |
| LG LGABF1L1865             | 3,350 | 4.9 A      | 12.2  | 49 g   | 248   |
| LG LGGBF1L1865             | 3,350 | 4.9 A      | 12.2  | —      | —     |
| Panasonic NCR18650B        | 3,350 | 4 A        | 12.1  | 47.5 g | 254   |
| LG LGABE11865              | 3,200 | 9 A        | 12    | 49 g   | 245   |

### 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  | <a href="https://cellsaviors.com/cell-database/lg-lgebmj11865">cellsaviors.com/cell-database/lg-lgebmj11865</a> |
| Full cell database | <a href="https://cellsaviors.com/cell-database">cellsaviors.com/cell-database</a>                               |