

Illustrative render generated from published specifications

18.29 × 65.15 mm
48.5 g

LG LGABC41865

LG · also sold as INR18650C4 ·

released 2014



Live page & updates

18650 NMC

2,750 mAh CAPACITY	5.5 A RATED CONTINUOUS	3.65 V NOMINAL · 2.8 – 4.2 V	10.04 Wh ENERGY · 207.01 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 18650S #35 of 169 Lowest in databaseHighest More capacity than 80% of 18650 cells in our database. One of the higher-capacity options.	VOLTAGE OPERATING WINDOW 1.4 V usable Cutoff 2.8 VNominal 3.65 VMax 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.
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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	Decent runtime. Works well for most flashlights.
Power tools	Not enough discharge or capacity for power tool use.

IDENTITY		PHYSICAL	
Manufacturer	LG	Diameter	18.29 mm
Model	LGABC41865	Length	65.15 mm
Also sold as	INR18650C4	Weight	48.5 g
Format	18650	ELECTRICAL	
Chemistry	NMC	Rated capacity	2,750 mAh
Year released	2014	Nominal voltage	3.65 V
Wrap colour	Brown	Max charge voltage	4.2 V
Insulator	White	Discharge cutoff	2.8 V
Terminal	Flat top	Energy	10.04 Wh
Protection	Unprotected	Internal resistance	70 mΩ
OPERATING TEMPERATURE		Max continuous discharge	5.5 A (datasheet)
Charging	-3°C to 50°C	Discharge C-rate	2C
Discharging	-20°C to 60°C	Standard charge current	1,375 mA
ENERGY & POWER DENSITY		Typical charge time	2 h
Energy	10.04 Wh	Standard discharge	550mA
Specific energy	207.01 Wh/kg		
Volumetric density	586.55 Wh/L		
Power density (mass)	414 W/kg		
Power density (volume)	1,173 W/L		
Capacity ranking	#35 of 169 18650s		
C-RATE CONVERSION · 2,750 MAH			
C-RATE	CURRENT	THEORETICAL RUNTIME	
0.2C	0.55 A	5h 00m	
0.5C	1.38 A	2h 00m	
1C	2.75 A	1h 00m	
2C	5.5 A	30m	

Highlighted row is closest to the rated 5.5 A continuous discharge.

CHARGING

RATE	CURRENT	ESTIMATED TIME TO FULL
0.5C	1,375 mA	~2h 00m
1C	2,750 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	11 V	12.6 V	9	8.3 Ah	90 Wh
7S	25.6 V	29.4 V	21	8.3 Ah	211 Wh
10S	36.5 V	42 V	30	8.3 Ah	301 Wh
13S	47.4 V	54.6 V	39	8.3 Ah	391 Wh
14S	51.1 V	58.8 V	42	8.3 Ah	422 Wh

EXAMPLE PACKS

7S2P 24V ebike / small pack 14 cells · 25.6 V 5,500 mAh · 141 Wh 11 A max · ≈0.68 kg cells	13S4P 48V ebike standard 52 cells · 47.4 V 11,000 mAh · 522 Wh 22 A max · ≈2.52 kg cells	16S4P DIY powerwall 64 cells · 58.4 V 11,000 mAh · 642 Wh 22 A max · ≈3.1 kg cells	4S6P Power tool replacement 24 cells · 14.6 V 16,500 mAh · 241 Wh 33 A max · ≈1.16 kg cells
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SIMILAR CELLS

Same format and chemistry, within ± 500 mAh.

CELL	MAH	CONTINUOUS	WH	WEIGHT	WH/KG
LG LGABC41865 (this cell)	2,750	5.5 A	10.04	48.5 g	207
LG LGABE11865	3,200	9 A	12	49 g	245
LG LGEBE11865	3,200	4.9 A	12	—	—
Samsung ICR18650-32A	3,200	6.4 A	12	50 g	240
EVE EVE-INR18650/33V	3,200	10 A	11.5	—	—
LG LGDBMH11865	3,200	10 A	11.5	—	—

HANDLING & SAFETY

- Never charge above 4.2V or discharge below 2.8V.
- 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/lg-lgabc41865
Manufacturer datasheet	https://www.dnkpowers.com/wp-content/uploads/2022/07/LG-INR1865...
Full cell database	cellsaviors.com/cell-database