

Illustrative render generated from published specifications

18.29 × 65.15 mm
49 g

LG LGABD21865

LG · also sold as INR18650D2 ·

released 2015



Live page & updates

18650NMC

MOOCH-TESTED · 60 A

2,950 mAh CAPACITY	60 A MOOCH CONTINUOUS	3.64 V NOMINAL · 2.8 – 4.2 V	10.74 Wh ENERGY · 219.18 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#23 of 169

Lowest in databaseHighest

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

VOLTAGE OPERATING WINDOW1.4 V usable

Cutoff 2.8 VNominal 3.64 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.

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	Decent runtime. Works well for most flashlights.
Power tools	Sufficient discharge and capacity for most power tool packs.

IDENTITY		PHYSICAL	
Manufacturer	LG	Diameter	18.29 mm
Model	LGABD21865	Length	65.15 mm
Also sold as	INR18650D2	Weight	49 g
Format	18650	ELECTRICAL	
Chemistry	NMC		
Year released	2015	Rated capacity	2,950 mAh
Wrap colour	Blue	Nominal voltage	3.64 V
Insulator	White	Max charge voltage	4.2 V
Terminal	Flat top	Discharge cutoff	2.8 V
Protection	Unprotected	Energy	10.74 Wh
OPERATING TEMPERATURE		Max continuous discharge	60 A (mooch)
		Discharge C-rate	20.3C
		Standard charge current	1,475 mA
Charging	0°C to 45°C	Typical charge time	2 h
Discharging	-20°C to 60°C	Standard discharge	590mA
ENERGY & POWER DENSITY		Cycle life	300 cycles
		Energy	10.74 Wh
		Specific energy	219.18 Wh/kg
Volumetric density		627.44 Wh/L	
Power density (mass)		4,457 W/kg	
Power density (volume)		12,759 W/L	
Capacity ranking		#23 of 169 18650s	
C-RATE CONVERSION · 2,950 MAH			
C-RATE	CURRENT	THEORETICAL RUNTIME	
0.2C	0.59 A	5h 00m	
0.5C	1.48 A	2h 00m	
1C	2.95 A	1h 00m	
2C	5.9 A	30m	
3C	8.85 A	20m	

5C	14.75 A	12m
8C	23.6 A	7m 30s
10C	29.5 A	6m
15C	44.25 A	4m
20C	59 A	3m

Highlighted row is closest to the rated 60 A continuous discharge.

CHARGING

RATE	CURRENT	ESTIMATED TIME TO FULL
0.5C	1,475 mA	~2h 00m
1C	2,950 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	10.9 V	12.6 V	9	8.9 Ah	97 Wh
7S	25.5 V	29.4 V	21	8.9 Ah	225 Wh
10S	36.4 V	42 V	30	8.9 Ah	322 Wh
13S	47.3 V	54.6 V	39	8.9 Ah	419 Wh
14S	51 V	58.8 V	42	8.9 Ah	451 Wh

EXAMPLE PACKS

7S2P 24V ebike / small pack 14 cells · 25.5 V 5,900 mAh · 150 Wh 120 A max · ≈0.69 kg cells	13S4P 48V ebike standard 52 cells · 47.3 V 11,800 mAh · 558 Wh 240 A max · ≈2.55 kg cells	16S4P DIY powerwall 64 cells · 58.2 V 11,800 mAh · 687 Wh 240 A max · ≈3.14 kg cells	4S6P Power tool replacement 24 cells · 14.6 V 17,700 mAh · 258 Wh 360 A max · ≈1.18 kg cells
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SIMILAR CELLS

Same format and chemistry, within ± 500 mAh.

CELL	MAH	CONTINUOUS	WH	WEIGHT	WH/KG
LG LGABD21865 (this cell)	2,950	60 A	10.74	49 g	219
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
LG LGEBE11865	3,200	4.9 A	12	—	—

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 Saviors page	cellsaviors.com/cell-database/lg-lgabd21865
Manufacturer datasheet	https://files.batteryjunction.com/frontend/files/lg/msds/LG-D2...
Independent test (Mooch)	https://www.e-cigarette-forum.com/threads/bench-test-results-b...
Full cell database	cellsaviors.com/cell-database