

Molicel ICR-18650G

Molicel

18650

NMC



Live page & updates

2,000 mAh CAPACITY	— A RATED CONTINUOUS	3.6 V NOMINAL · 2.75 – 4.2 V	7.2 Wh ENERGY · 163.64 WH/KG
--	--	--	--

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.

CAPACITY AMONG 18650S

#221 of 279

Lowest in databaseHighest

A mid-range 18650 cell. Solid for builds that don't need extreme capacity or discharge.

VOLTAGE OPERATING WINDOW

1.45 V usable

Cutoff 2.75 VNominal 3.6 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.

IDENTITY		PHYSICAL	
Manufacturer	Molicel	Weight	44 g
Model	ICR-18650G	ELECTRICAL	
Format	18650	Rated capacity	2,000 mAh
Chemistry	NMC	Nominal voltage	3.6 V
Wrap colour	Grey	Max charge voltage	4.2 V
Insulator	Black	Discharge cutoff	2.75 V
Terminal	Flat top	Energy	7.2 Wh
Protection	Unprotected	Standard charge current	2,000 mA
ENERGY & POWER DENSITY		Typical charge time	1 h
Energy	7.2 Wh	Standard discharge	2A
Specific energy	163.64 Wh/kg		
Capacity ranking	#221 of 279 18650s		

CHARGING

RATE	CURRENT	ESTIMATED TIME TO FULL
0.5C	1,000 mA	~2h 00m
1C	2,000 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	6 Ah	65 Wh
7S	25.2 V	29.4 V	21	6 Ah	151 Wh
10S	36 V	42 V	30	6 Ah	216 Wh
13S	46.8 V	54.6 V	39	6 Ah	281 Wh
14S	50.4 V	58.8 V	42	6 Ah	302 Wh

EXAMPLE PACKS

7S2P 24V ebike / small pack 14 cells · 25.2 V 4,000 mAh · 101 Wh · ≈0.62 kg cells	13S4P 48V ebike standard 52 cells · 46.8 V 8,000 mAh · 374 Wh · ≈2.29 kg cells	16S4P DIY powerwall 64 cells · 57.6 V 8,000 mAh · 461 Wh · ≈2.82 kg cells	4S6P Power tool replacement 24 cells · 14.4 V 12,000 mAh · 173 Wh · ≈1.06 kg cells
--	---	--	---

SIMILAR CELLS

Same format and chemistry, within ±500 mAh.

CELL	MAH	CONTINUOUS	WH	WEIGHT	WH/KG
Molicel ICR-18650G (this cell)	2,000	—	7.2	44 g	164
LG LGDBHE21865	2,500	20 A	9.3	48 g	193
Sanyo UR18650F	2,500	5 A	9.3	47 g	197
Sanyo UR18650FM	2,500	5 A	9.3	47 g	197
BAK N18650COP	2,500	30 A	9	47 g	191
BAK N18650NCP	2,500	30 A	9	47 g	191

HANDLING & SAFETY

- Never charge above 4.2V or discharge below 2.75V.
- 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/molicel-icr-18650g
Full cell database	cellsaviors.com/cell-database