

18.2 × 65 mm
44 g

Nitecore

NMC

MOOCH-TESTED · 30 A

CAPACITY

MOOCH CONTINUOUS

NOMINAL · 2.5 – 4.2 V

ENERGY · 171.82 WH/KG

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.

Highest

Max 4.2 V

● Powerwalls	Usable for powerwalls but lower capacity means you'll need more cells to hit your target kWh.
● Ebike packs	Marginal. Check your motor's peak draw first. You might get voltage sag under load.
● 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	Lower capacity means shorter runtime. Better cells are available for flashlight use.
● Power tools	Sufficient discharge and capacity for most power tool packs.

IDENTITY		PHYSICAL	
Manufacturer	Nitecore	Diameter	18.2 mm
Model	18650 2100mAh 30A	Length	65 mm
Format	18650	Weight	44 g
Chemistry	NMC	ELECTRICAL	
Terminal	Flat top		
Protection	Unprotected		
OPERATING TEMPERATURE			
Charging	0°C to 45°C	Rated capacity	2,100 mAh
Discharging	-20°C to 60°C	Nominal voltage	3.6 V
ENERGY & POWER DENSITY		Max charge voltage	4.2 V
		Discharge cutoff	2.5 V
		Energy	7.56 Wh
		Max continuous discharge	30 A (mooch)
		Discharge C-rate	14.3C
Energy	7.56 Wh	Standard charge current	2,000 mA
Specific energy	171.82 Wh/kg	Typical charge time	1.1 h
Volumetric density	447.07 Wh/L		
Power density (mass)	2,455 W/kg		
Power density (volume)	6,387 W/L		
Capacity ranking	#212 of 279 18650s		
C-RATE CONVERSION · 2,100 MAH			
C-RATE	CURRENT	THEORETICAL RUNTIME	
0.2C	0.42 A	5h 00m	
0.5C	1.05 A	2h 00m	
1C	2.1 A	1h 00m	
2C	4.2 A	30m	
3C	6.3 A	20m	
5C	10.5 A	12m	
8C	16.8 A	7m 30s	
10C	21 A	6m	

15C

31.5 A

4m

Highlighted row is closest to the rated 30 A continuous discharge.

CHARGING

RATE	CURRENT	ESTIMATED TIME TO FULL
0.5C	1,050 mA	~2h 00m
Standard	2,000 mA	~1h 03m
1C	2,100 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	6.3 Ah	68 Wh
7S	25.2 V	29.4 V	21	6.3 Ah	159 Wh
10S	36 V	42 V	30	6.3 Ah	227 Wh
13S	46.8 V	54.6 V	39	6.3 Ah	295 Wh
14S	50.4 V	58.8 V	42	6.3 Ah	318 Wh

EXAMPLE PACKS

7S2P 24V ebike / small pack 14 cells · 25.2 V 4,200 mAh · 106 Wh 60 A max · ≈0.62 kg cells	13S4P 48V ebike standard 52 cells · 46.8 V 8,400 mAh · 393 Wh 120 A max · ≈2.29 kg cells	16S4P DIY powerwall 64 cells · 57.6 V 8,400 mAh · 484 Wh 120 A max · ≈2.82 kg cells	4S6P Power tool replacement 24 cells · 14.4 V 12,600 mAh · 181 Wh 180 A max · ≈1.06 kg cells
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SIMILAR CELLS

Same format and chemistry, within ± 500 mAh.

CELL	MAH	CONTINUOUS	WH	WEIGHT	WH/KG
Nitecore 18650 2100mAh 30A (this cell)	2,100	30 A	7.56	44 g	172
LG LGDB118650	2,600	—	9.8	—	—
LG LGDBB11865	2,600	5.1 A	9.8	—	—
BAK C18650CC	2,600	2 A	9.6	48 g	200
Cham CMICR18650F	2,600	—	9.6	45.5 g	211
GP Batteries ICR18650-26F	2,600	5 A	9.6	47 g	205

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 Savors page	cellsaviors.com/cell-database/nitecore-18650-2100mah-30a
Independent test (Mooch)	https://www.e-cigarette-forum.com/threads/nitecore-30a-2100mah...
Full cell database	cellsaviors.com/cell-database