

Illustrative render generated from published specifications

20.35 × 70.3 mm
63 g

Keppower
NCR20700B



Live page & updates

Keppower

20700

NCA

MOOCH-TESTED · 15 A

4,250 mAh CAPACITY	15 A MOOCH CONTINUOUS	3.6 V NOMINAL · 2.5 – 4.2 V	15.3 Wh ENERGY · 242.86 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 20700S

#1 of 12

Lowest in database

Highest

More capacity than 100% of 20700 cells in our database, but lower discharge than average.

VOLTAGE OPERATING WINDOW

1.7 V usable

Cutoff 2.5 V

Nominal 3.6 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	Usable in regulated mods at moderate wattage. Not recommended for mechanical mods.
Flashlights	High capacity means long runtime. Great for everyday carry and extended use.
Power tools	Sufficient discharge and capacity for most power tool packs.

IDENTITY

Manufacturer	Keppower
Model	NCR20700B
Format	20700
Chemistry	NCA
Terminal	Flat top
Protection	Unprotected

OPERATING TEMPERATURE

Charging	10°C to 45°C
Discharging	-20°C to 60°C

ENERGY & POWER DENSITY

Energy	15.3 Wh
Specific energy	242.86 Wh/kg
Volumetric density	669.14 Wh/L
Power density (mass)	857 W/kg
Power density (volume)	2,362 W/L
Capacity ranking	#1 of 12 20700s

PHYSICAL

Diameter	20.35 mm
Length	70.3 mm
Weight	63 g

ELECTRICAL

Rated capacity	4,250 mAh
Nominal voltage	3.6 V
Max charge voltage	4.2 V
Discharge cutoff	2.5 V
Energy	15.3 Wh
Max continuous discharge	15 A (mooch)
Discharge C-rate	3.5C
Standard charge current	2,000 mA
Typical charge time	2.1 h

C-RATE CONVERSION · 4,250 MAH

C-RATE	CURRENT	THEORETICAL RUNTIME
0.2C	0.85 A	5h 00m
0.5C	2.13 A	2h 00m
1C	4.25 A	1h 00m
2C	8.5 A	30m
3C	12.75 A	20m

Highlighted row is closest to the rated 15 A continuous discharge.

CHARGING

RATE	CURRENT	ESTIMATED TIME TO FULL
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Standard	2,000 mA	~2h 08m
0.5C	2,125 mA	~2h 00m
1C	4,250 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	12.8 Ah	138 Wh
7S	25.2 V	29.4 V	21	12.8 Ah	321 Wh
10S	36 V	42 V	30	12.8 Ah	459 Wh
13S	46.8 V	54.6 V	39	12.8 Ah	597 Wh
14S	50.4 V	58.8 V	42	12.8 Ah	643 Wh

EXAMPLE PACKS

7S2P 24V ebike / small pack 14 cells · 25.2 V 8,500 mAh · 214 Wh 30 A max · ≈0.88 kg cells	13S4P 48V ebike standard 52 cells · 46.8 V 17,000 mAh · 796 Wh 60 A max · ≈3.28 kg cells	16S4P DIY powerwall 64 cells · 57.6 V 17,000 mAh · 979 Wh 60 A max · ≈4.03 kg cells	4S6P Power tool replacement 24 cells · 14.4 V 25,500 mAh · 367 Wh 90 A max · ≈1.51 kg cells
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SIMILAR CELLS

Same format and chemistry, within ±500 mAh.

CELL	MAH	CONTINUOUS	WH	WEIGHT	WH/KG
Keeppower NCR20700B (this cell)	4,250	15 A	15.3	63 g	243
Energig 20700 4000mAh 15A	4,000	15 A	14.4	63 g	229

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	cellsaviors.com/cell-database/keeppower-ncr20700b
Manufacturer datasheet	https://akkuplus.de/mediafiles/Datenblatt/Panasonic/Panasonic_...
Independent test (Mooch)	https://www.e-cigarette-forum.com/threads/bench-test-results-k...
Full cell database	cellsaviors.com/cell-database