



Toshiba LGR18650S

Toshiba

18650

NCA



Live page & updates

18.3 × 65 mm
45 g

1,350 mAh

CAPACITY

— A

RATED CONTINUOUS

3.6 V

NOMINAL · 2.5 – 4.2 V

4.86 Wh

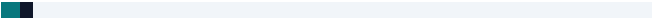
ENERGY · 108 WH/KG

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

#268 of 279



Lowest in database

Highest

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

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.

IDENTITY

Manufacturer	Toshiba
Model	LGR18650S
Format	18650
Chemistry	NCA
Wrap colour	Purple
Insulator	White
Terminal	Flat top
Protection	Unprotected

ENERGY & POWER DENSITY

Energy	4.86 Wh
Specific energy	108 Wh/kg
Volumetric density	284.27 Wh/L
Capacity ranking	#268 of 279 18650s

PHYSICAL

Diameter	18.3 mm
Length	65 mm
Weight	45 g

ELECTRICAL

Rated capacity	1,350 mAh
Nominal voltage	3.6 V
Max charge voltage	4.2 V
Discharge cutoff	2.5 V
Energy	4.86 Wh
Internal resistance	60 mΩ
Standard charge current	675 mA
Typical charge time	2 h
Standard discharge	675mA

CHARGING

RATE	CURRENT	ESTIMATED TIME TO FULL
0.5C	675 mA	~2h 00m
1C	1,350 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	4.1 Ah	44 Wh
7S	25.2 V	29.4 V	21	4.1 Ah	102 Wh
10S	36 V	42 V	30	4.1 Ah	146 Wh
13S	46.8 V	54.6 V	39	4.1 Ah	190 Wh
14S	50.4 V	58.8 V	42	4.1 Ah	204 Wh

EXAMPLE PACKS

7S2P 24V ebike / small pack 14 cells · 25.2 V 2,700 mAh · 68 Wh · ≈0.63 kg cells	13S4P 48V ebike standard 52 cells · 46.8 V 5,400 mAh · 253 Wh · ≈2.34 kg cells	16S4P DIY powerwall 64 cells · 57.6 V 5,400 mAh · 311 Wh · ≈2.88 kg cells	4S6P Power tool replacement 24 cells · 14.4 V 8,100 mAh · 117 Wh · ≈1.08 kg cells
---	---	--	--

SIMILAR CELLS

Same format and chemistry, within ±500 mAh.

CELL	MAH	CONTINUOUS	WH	WEIGHT	WH/KG
Toshiba LGR18650S (this cell)	1,350	—	4.86	45 g	108
Sony US18650VT3	1,500	20 A	5.4	45.1 g	120
Sony US18650S	1,300	3.5 A	4.7	43 g	109

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/toshiba-lgr18650s
Manufacturer datasheet	https://abra-electronics.com/index.php?attachment_id=1360&disp...
Full cell database	cellsaviors.com/cell-database