

Illustrative render generated from published specifications

FST 20650-3350mAh



Live page & updates

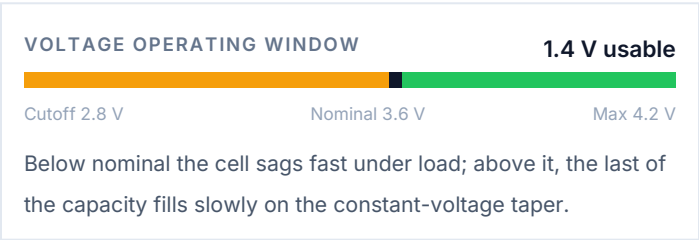
FST

- 20650
- NMC

3,350 mAh CAPACITY	6.7 A RATED CONTINUOUS	3.6 V NOMINAL · 2.8 – 4.2 V	12.06 Wh ENERGY
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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.



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	Marginal. Check your motor's peak draw first. You might get voltage sag under load.
Car audio	Not enough discharge for car audio amplifiers. You need at least 15-20A continuous for most setups.
High-drain vaping	Below the 25A Mooch CDR threshold that high-drain vaping needs. Use a higher-drain cell.
Flashlights	High capacity means long runtime. Great for everyday carry and extended use.
Power tools	Not enough discharge or capacity for power tool use.

IDENTITY		ELECTRICAL	
Manufacturer	FST	Rated capacity	3,350 mAh
Model	20650-3350mAh	Nominal voltage	3.6 V
Format	20650	Max charge voltage	4.2 V
Chemistry	NMC	Discharge cutoff	2.8 V
Wrap colour	Blue (Dark)	Energy	12.06 Wh
Insulator	White	Internal resistance	35 mΩ
ENERGY & POWER DENSITY		Max continuous discharge	6.7 A (datasheet)
Energy	12.06 Wh	Discharge C-rate	2C
Capacity ranking	#1 of 1 20650s	Standard charge current	1,675 mA
		Typical charge time	2 h
		Standard discharge	1675mA

C-RATE CONVERSION · 3,350 MAH

C-RATE	CURRENT	THEORETICAL RUNTIME
0.2C	0.67 A	5h 00m
0.5C	1.68 A	2h 00m
1C	3.35 A	1h 00m
2C	6.7 A	30m

Highlighted row is closest to the rated 6.7 A continuous discharge.

CHARGING

RATE	CURRENT	ESTIMATED TIME TO FULL
0.5C	1,675 mA	~2h 00m
1C	3,350 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
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3S	10.8 V	12.6 V	9	10.1 Ah	109 Wh
7S	25.2 V	29.4 V	21	10.1 Ah	253 Wh
10S	36 V	42 V	30	10.1 Ah	362 Wh
13S	46.8 V	54.6 V	39	10.1 Ah	470 Wh
14S	50.4 V	58.8 V	42	10.1 Ah	507 Wh

EXAMPLE PACKS

7S2P

24V ebike / small pack

14 cells · 25.2 V

6,700 mAh · 169 Wh

13 A max

13S4P

48V ebike standard

52 cells · 46.8 V

13,400 mAh · 627 Wh

27 A max

16S4P

DIY powerwall

64 cells · 57.6 V

13,400 mAh · 772 Wh

27 A max

4S6P

Power tool replacement

24 cells · 14.4 V

20,100 mAh · 289 Wh

40 A max

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 Savors page

cellsaviors.com/cell-database/fst-20650-3350mah

Full cell database

cellsaviors.com/cell-database