

Illustrative render generated from published specifications

18.35 × 65.1 mm
38.8 g

Sony US18650FT

Sony · released 2014

18650 LFP



Live page & updates

1,100 mAh CAPACITY	10 A RATED CONTINUOUS	3.2 V NOMINAL · 2 – 3.6 V	3.52 Wh ENERGY · 90.72 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 18650S #167 of 169 Lowest in databaseHighest Higher discharge than 80% of 18650 cells in our database. Great for high-drain builds.	VOLTAGE OPERATING WINDOW 1.6 V usable Cutoff 2 VNominal 3.2 VMax 3.6 V Below nominal the cell sags fast under load; above it, the last of the capacity fills slowly on the constant-voltage taper.
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APPLICATION SUITABILITY

Rule-of-thumb ratings from this cell's capacity and continuous discharge. Check your own load before committing.

Powerwalls	Too low capacity for practical powerwall use. You'd need too many cells.
Ebike packs	Not enough discharge for ebike use. Voltage sag would be a problem under load.
Car audio	Might work for smaller setups. Check your amp's peak current draw.
High-drain vaping	Below the 25A Mooch CDR threshold that high-drain vaping needs. Use a higher-drain cell.
Flashlights	Lower capacity means shorter runtime. Better cells are available for flashlight use.
Power tools	May work for lighter-duty tools. Check your tool's current requirements.

IDENTITY

Manufacturer	Sony
Model	US18650FT
Format	18650
Chemistry	LFP
Year released	2014
Wrap colour	Green
Insulator	Black
Terminal	Flat top
Protection	Unprotected

OPERATING TEMPERATURE

Charging	0°C to 45°C
Discharging	-20°C to 60°C

ENERGY & POWER DENSITY

Energy	3.52 Wh
Specific energy	90.72 Wh/kg
Volumetric density	204.46 Wh/L
Power density (mass)	825 W/kg
Power density (volume)	1,859 W/L
Capacity ranking	#167 of 169 18650s

PHYSICAL

Diameter	18.35 mm
Length	65.1 mm
Weight	38.8 g

ELECTRICAL

Rated capacity	1,100 mAh
Nominal voltage	3.2 V
Max charge voltage	3.6 V
Discharge cutoff	2 V
Energy	3.52 Wh
Internal resistance	17 mΩ
Max continuous discharge	10 A (datasheet)
Discharge C-rate	9.1C
Standard charge current	1,050 mA
Typical charge time	1 h
Standard discharge	220mA

C-RATE CONVERSION · 1,100 MAH

C-RATE	CURRENT	THEORETICAL RUNTIME
0.2C	0.22 A	5h 00m
0.5C	0.55 A	2h 00m
1C	1.1 A	1h 00m
2C	2.2 A	30m
3C	3.3 A	20m
5C	5.5 A	12m

8C

8.8 A

7m 30s

Highlighted row is closest to the rated 10 A continuous discharge.

CHARGING

RATE	CURRENT	ESTIMATED TIME TO FULL
0.5C	550 mA	~2h 00m
1C	1,100 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
4S	12.8 V	14.4 V	12	3.3 Ah	42 Wh
8S	25.6 V	28.8 V	24	3.3 Ah	84 Wh
16S	51.2 V	57.6 V	48	3.3 Ah	169 Wh

EXAMPLE PACKS

4S1P 12V system 4 cells · 12.8 V 1,100 mAh · 14 Wh 10 A max · ≈0.16 kg cells	4S2P 12V with more capacity 8 cells · 12.8 V 2,200 mAh · 28 Wh 20 A max · ≈0.31 kg cells	8S1P 24V system 8 cells · 25.6 V 1,100 mAh · 28 Wh 10 A max · ≈0.31 kg cells	16S1P Powerwall / 48V ebike 16 cells · 51.2 V 1,100 mAh · 56 Wh 10 A max · ≈0.62 kg cells
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SIMILAR CELLS

Same format and chemistry, within ±500 mAh.

CELL	MAH	CONTINUOUS	WH	WEIGHT	WH/KG
Sony US18650FT (this cell)	1,100	10 A	3.52	38.8 g	91
Lishen (LS) IFR-18650EC	1,500	5 A	4.8	42 g	114
A123Systems APR18650M1A	1,100	30 A	3.6	39 g	93

HANDLING & SAFETY

- Never charge above 3.6V or discharge below 2V.

- 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/sony-us18650ft
Manufacturer datasheet	https://www.bto.pl/pdf/08390/001436404-da-01-en-SONY_18650_LIF...
Full cell database	cellsaviors.com/cell-database