

Sony US18650VT

Sony

18650

NMC



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1,300 mAh CAPACITY	10 A RATED CONTINUOUS	3.6 V NOMINAL · 2.5 – 4.2 V	4.68 Wh ENERGY · 108.84 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.

CAPACITY AMONG 18650S

#269 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.

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		PHYSICAL	
Manufacturer	Sony	Weight	43 g
Model	US18650VT	ELECTRICAL	
Format	18650	Rated capacity	1,300 mAh
Chemistry	NMC	Nominal voltage	3.6 V
Wrap colour	Green	Max charge voltage	4.2 V
Insulator	Black	Discharge cutoff	2.5 V
Terminal	Flat top	Energy	4.68 Wh
Protection	Unprotected	Internal resistance	22 mΩ
ENERGY & POWER DENSITY		Max continuous discharge	10 A (datasheet)
Energy	4.68 Wh	Discharge C-rate	7.7C
Specific energy	108.84 Wh/kg	Standard charge current	1,000 mA
Power density (mass)	837 W/kg	Typical charge time	1.3 h
Capacity ranking	#269 of 279 18650s	Standard discharge	1000mA

C-RATE CONVERSION · 1,300 MAH

C-RATE	CURRENT	THEORETICAL RUNTIME
0.2C	0.26 A	5h 00m
0.5C	0.65 A	2h 00m
1C	1.3 A	1h 00m
2C	2.6 A	30m
3C	3.9 A	20m
5C	6.5 A	12m
8C	10.4 A	7m 30s

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

CHARGING

RATE	CURRENT	ESTIMATED TIME TO FULL
0.5C	650 mA	~2h 00m

Standard	1,000 mA	~1h 18m
1C	1,300 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	3.9 Ah	42 Wh
7S	25.2 V	29.4 V	21	3.9 Ah	98 Wh
10S	36 V	42 V	30	3.9 Ah	140 Wh
13S	46.8 V	54.6 V	39	3.9 Ah	183 Wh
14S	50.4 V	58.8 V	42	3.9 Ah	197 Wh

EXAMPLE PACKS

7S2P 24V ebike / small pack 14 cells · 25.2 V 2,600 mAh · 66 Wh 20 A max · ≈0.6 kg cells	13S4P 48V ebike standard 52 cells · 46.8 V 5,200 mAh · 243 Wh 40 A max · ≈2.24 kg cells	16S4P DIY powerwall 64 cells · 57.6 V 5,200 mAh · 300 Wh 40 A max · ≈2.75 kg cells	4S6P Power tool replacement 24 cells · 14.4 V 7,800 mAh · 112 Wh 60 A max · ≈1.03 kg cells
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SIMILAR CELLS

Same format and chemistry, within ±500 mAh.

CELL	MAH	CONTINUOUS	WH	WEIGHT	WH/KG
Sony US18650VT (this cell)	1,300	10 A	4.68	43 g	109
GP Batteries GP1865L180	1,800	1.8 A	6.7	—	—
Panasonic CGR18650HG	1,800	3.4 A	6.5	42 g	154
Panasonic CGR18650HGL	1,800	3.4 A	6.5	—	—
Sanyo UR18650P	1,700	—	6.3	41 g	153
Panasonic CGR18650HM	1,630	3.2 A	6	—	—

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/sony-us18650vt
Manufacturer datasheet	https://www.megacellmonitor.com/pdf/vendor_specs/SPEC_SONY_US1...
Full cell database	cellsaviors.com/cell-database