



Sony US18650V

Sony

18650

LCO



Live page & updates

18.35 × 65.1 mm

1,600 mAh CAPACITY	10 A RATED CONTINUOUS	3.6 V NOMINAL · 2.75 – 4.2 V	5.76 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.

CAPACITY AMONG 18650S #250 of 279 Lowest in databaseHighest A mid-range 18650 cell. Solid for builds that don't need extreme capacity or discharge.	VOLTAGE OPERATING WINDOW 1.45 V usable Cutoff 2.75 VNominal 3.6 VMax 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.
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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	Usable for powerwalls but lower capacity means you'll need more cells to hit your target kWh.
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	Diameter	18.35 mm	
Model	US18650V	Length	65.1 mm	
Format	18650	ELECTRICAL		
Chemistry	LCO			
Wrap colour	Green		Rated capacity	1,600 mAh
Insulator	Black		Nominal voltage	3.6 V
Terminal	Flat top		Max charge voltage	4.2 V
Protection	Unprotected		Discharge cutoff	2.75 V
ENERGY & POWER DENSITY			Energy	5.76 Wh
		Max continuous discharge	10 A (datasheet)	
		Discharge C-rate	6.3C	
		Standard charge current	800 mA	
		Typical charge time	2 h	
Energy	5.76 Wh	Standard discharge	1600mA	
Volumetric density	334.56 Wh/L	Cycle life	300 cycles	
Power density (volume)	2,091 W/L			
Capacity ranking	#250 of 279 18650s			

C-RATE CONVERSION · 1,600 MAH

C-RATE	CURRENT	THEORETICAL RUNTIME
0.2C	0.32 A	5h 00m
0.5C	0.8 A	2h 00m
1C	1.6 A	1h 00m
2C	3.2 A	30m
3C	4.8 A	20m
5C	8 A	12m

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

CHARGING

RATE	CURRENT	ESTIMATED TIME TO FULL
0.5C	800 mA	~2h 00m
1C	1,600 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	4.8 Ah	52 Wh
7S	25.2 V	29.4 V	21	4.8 Ah	121 Wh
10S	36 V	42 V	30	4.8 Ah	173 Wh
13S	46.8 V	54.6 V	39	4.8 Ah	225 Wh
14S	50.4 V	58.8 V	42	4.8 Ah	242 Wh

EXAMPLE PACKS

7S2P 24V ebike / small pack 14 cells · 25.2 V 3,200 mAh · 81 Wh 20 A max	13S4P 48V ebike standard 52 cells · 46.8 V 6,400 mAh · 300 Wh 40 A max	16S4P DIY powerwall 64 cells · 57.6 V 6,400 mAh · 369 Wh 40 A max	4S6P Power tool replacement 24 cells · 14.4 V 9,600 mAh · 138 Wh 60 A max
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SIMILAR CELLS

Same format and chemistry, within ± 500 mAh.

CELL	MAH	CONTINUOUS	WH	WEIGHT	WH/KG
Sony US18650V (this cell)	1,600	10 A	5.76	—	—
EVE 20P	2,000	30 A	7.2	45 g	160
FP 18650-2000mAh	2,000	—	7.2	—	—

HANDLING & SAFETY

- Never charge above 4.2V or discharge below 2.75V.
- 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-us18650v
Manufacturer datasheet	https://www.megacellmonitor.com/pdf/vendor_specs/SPEC_SONY_US1...
Full cell database	cellsaviors.com/cell-database