

Illustrative render generated from published specifications

18.1 × 64.8 mm
46 g

Sanyo UR18650H

Sanyo

18650 NMC



Live page & updates

1,900 mAh CAPACITY	— A RATED CONTINUOUS	3.7 V NOMINAL · 2.5 – 4.2 V	7.03 Wh ENERGY · 152.83 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

#143 of 169

Lowest in databaseHighest

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 VNominal 3.7 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.

IDENTITY

Manufacturer	Sanyo
Model	UR18650H
Format	18650
Chemistry	NMC
Wrap colour	Red
Insulator	Black
Terminal	Flat top
Protection	Unprotected

OPERATING TEMPERATURE

Charging	0°C to 40°C
Discharging	-20°C to 60°C

ENERGY & POWER DENSITY

Energy	7.03 Wh
Specific energy	152.83 Wh/kg
Volumetric density	421.63 Wh/L
Capacity ranking	#143 of 169 18650s

CHARGING

RATE	CURRENT	ESTIMATED TIME TO FULL
0.5C	950 mA	~2h 00m
1C	1,900 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	11.1 V	12.6 V	9	5.7 Ah	63 Wh
7S	25.9 V	29.4 V	21	5.7 Ah	148 Wh

PHYSICAL

Diameter	18.1 mm
Length	64.8 mm
Weight	46 g

ELECTRICAL

Rated capacity	1,900 mAh
Nominal voltage	3.7 V
Max charge voltage	4.2 V
Discharge cutoff	2.5 V
Energy	7.03 Wh
Standard charge current	1,900 mA
Typical charge time	1 h
Standard discharge	330mA

10S	37 V	42 V	30	5.7 Ah	211 Wh
13S	48.1 V	54.6 V	39	5.7 Ah	274 Wh
14S	51.8 V	58.8 V	42	5.7 Ah	295 Wh

EXAMPLE PACKS

7S2P

24V ebike / small pack

14 cells · 25.9 V

3,800 mAh · 98 Wh

· ≈0.64 kg cells

13S4P

48V ebike standard

52 cells · 48.1 V

7,600 mAh · 366 Wh

· ≈2.39 kg cells

16S4P

DIY powerwall

64 cells · 59.2 V

7,600 mAh · 450 Wh

· ≈2.94 kg cells

4S6P

Power tool replacement

24 cells · 14.8 V

11,400 mAh · 169 Wh

· ≈1.1 kg cells

SIMILAR CELLS

Same format and chemistry, within ±500 mAh.

CELL	MAH	CONTINUOUS	WH	WEIGHT	WH/KG
Sanyo UR18650H (this cell)	1,900	—	7.03	46 g	153
Samsung ICR18650-24A	2,400	4.8 A	8.9	47 g	189
Samsung ICR18650-24B	2,400	4.8 A	8.9	47 g	189
Samsung ICR18650-24E	2,400	4.8 A	8.9	47 g	189
Samsung ICR18650-24F	2,400	5 A	8.9	47 g	189
Sanyo UR18650FB	2,400	4.8 A	8.9	—	—

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/sanyo-ur18650h

Manufacturer datasheet

<http://www.houseofbatteries.com/documents/UR18650H.pdf>

Full cell database

cellsaviors.com/cell-database