

Illustrative render generated from published specifications

18.5 × 65.2 mm

Sinowatt 35HP

Sinowatt · released 2023

18650 NMC

MOOCH-TESTED · 10 A



Live page & updates

3,350 mAh CAPACITY	10 A MOOCH CONTINUOUS	3.6 V NOMINAL · 2.5 – 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.

CAPACITY AMONG 18650S #14 of 279 Lowest in databaseHighest More capacity than 95% of 18650 cells in our database. One of the higher-capacity options.	VOLTAGE OPERATING WINDOW 1.7 V usable Cutoff 2.5 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	High capacity means more stored energy per cell. Fewer cells needed for a given kWh target.
Ebike packs	Good balance of capacity for range and discharge for hills. Works well in most ebike packs.
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	High capacity means long runtime. Great for everyday carry and extended use.
Power tools	May work for lighter-duty tools. Check your tool's current requirements.

IDENTITY		PHYSICAL	
Manufacturer	Sinowatt	Diameter	18.5 mm
Model	35HP	Length	65.2 mm
Format	18650	ELECTRICAL	
Chemistry	NMC		
Year released	2023		
Wrap colour	Grey		
Terminal	Flat top		
Protection	Unprotected		
ENERGY & POWER DENSITY			
Energy	12.06 Wh	Rated capacity	3,350 mAh
Volumetric density	688.12 Wh/L	Nominal voltage	3.6 V
Power density (volume)	2,054 W/L	Max charge voltage	4.2 V
Capacity ranking	#14 of 279 18650s	Discharge cutoff	2.5 V
		Energy	12.06 Wh
		Internal resistance	30 mΩ
		Max continuous discharge	10 A (mooch)
		Discharge C-rate	3C

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
3C	10.05 A	20m

Highlighted row is closest to the rated 10 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
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 20 A max	13S4P 48V ebike standard 52 cells · 46.8 V 13,400 mAh · 627 Wh 40 A max	16S4P DIY powerwall 64 cells · 57.6 V 13,400 mAh · 772 Wh 40 A max	4S6P Power tool replacement 24 cells · 14.4 V 20,100 mAh · 289 Wh 60 A max
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SIMILAR CELLS

Same format and chemistry, within ± 500 mAh.

CELL	MAH	CONTINUOUS	WH	WEIGHT	WH/KG
Sinowatt 35HP (this cell)	3,350	10 A	12.06	—	—
Vapcell F38	3,800	10 A	13.7	48 g	285
Vapcell N36	3,650	8 A	13.1	48 g	274
LG LGEBMJ11865	3,500	10 A	12.7	49 g	260
LG LGDBMJ11865	3,500	10 A	12.7	49 g	259
AWT AWT 35A 3500mAh	3,500	35 A	12.6	—	—

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/sinowatt-35hp
Independent test (Mooch)	https://www.e-cigarette-forum.com/threads/bench-test-results-s...
Full cell database	cellsaviors.com/cell-database