



The Mobile Robot Company

Knowledge Center — Battery Specifications · 2026-08-04

<https://info.mobilerobot.com/documentation/technical-reference/battery-specifications>

Battery Specifications

Reference data for the J1600's battery system: chemistry, consumption, charging, runtime, and compliance. For charger hardware and prices, see [electrical specifications](https://info.mobilerobot.com/documentation/technical-reference/electrical-specifications/) (<https://info.mobilerobot.com/documentation/technical-reference/electrical-specifications/>).

PRELIMINARY SPECIFICATIONS

The January 2026 specifications are preliminary and subject to change.

Battery data

Parameter	Value
Nominal voltage	24 V
Capacity	200 Ah
Chemistry	Lithium iron phosphate (LiFePO4)

LiFePO4 chemistry supports [opportunity charging](https://info.mobilerobot.com/application/s/scenarios/automatic-charging/) (<https://info.mobilerobot.com/application/s/scenarios/automatic-charging/>): topping up the battery during breaks or idle periods rather than waiting for a full discharge cycle.

Consumption and charging rates

Operating state	Rate
Driving, fully loaded	Approximately 13% of capacity per hour
Driving, without load	Approximately 12% per hour
Standby	Approximately 2% per hour
Charging	Approximately 47 percentage points per hour

Runtime

Runtime exceeds eight hours in a typical duty cycle. The drain rates above imply approximately 7.7 hours of continuous fully loaded driving, or 8.3 hours unloaded, before allowing for standby time, lifting, duty cycle, battery reserve, and operating conditions.

CALCULATED FIGURES

The 7.7- and 8.3-hour values are derived from the drain rates, not guaranteed runtimes. Real duty cycles mix driving, lifting, and standby, so achieved runtime varies by application.

Charging options

- **Manual charging** (<https://info.mobilerobot.com/products/chargers-and-accessories/manual-charger/>): plug in the charger during a break or while the machine is idle.
- **Automatic charging:** with the optional [automatic charger](https://info.mobilerobot.com/products/chargers-and-accessories/automatic-charger/) (<https://info.mobilerobot.com/products/chargers-and-accessories/automatic-charger/>), the robot drives to the station, positions itself, and the charging interface extends to the vehicle's charging plates — opportunity charging without operator involvement. This is an advanced automation capability.

Transport testing and regulation

Reference	Coverage
UN Manual of Tests and Criteria, subsection 38.3 (UN 38.3)	Lithium-battery transport testing
Regulation (EU) 2023/1542 — Batteries Regulation	EU battery regulation, part of the J1600's compliance list

Related reference

- [Electrical specifications](https://info.mobilerobot.com/documentation/technical-reference/electrical-specifications/) (https://info.mobilerobot.com/documentation/technical-reference/electrical-specifications/) — motors, chargers, and electrical safety functions.
- [Product data sheets](https://info.mobilerobot.com/documentation/technical-reference/product-data-sheets/) (https://info.mobilerobot.com/documentation/technical-reference/product-data-sheets/) — the consolidated specification summary.
- [Battery UN 38.3 documentation](https://info.mobilerobot.com/safety-compliance/certificates/battery-un-38-3-documentation/) (https://info.mobilerobot.com/safety-compliance/certificates/battery-un-38-3-documentation/) — what the transport test regime covers and how to request documentation.