

IFR14500 — Typical Specifications Overview

3.2 V nominal · 600 mAh · Ø14 × 50 mm · solar garden lights, IoT sensors & 12.8 V packs

About this document. Typical values for OEM evaluation and fitment reference. Final specifications, tolerances and test conditions are defined by the CMX controlled product datasheet, which is issued with your quotation on request.

Specifications (typical)

Parameter	Specification
Model	IFR14500 (CMX-IFR14500-600)
Chemistry	Lithium iron phosphate (LiFePO4 / LFP)
Nominal capacity	600 mAh @ 0.2C discharge
Capacity grades	600 / 700 mAh class [CONFIRM]
Nominal voltage	3.2 V
Nominal energy	≈ 1.9 Wh
Dimensions	Ø14 × 50 mm
Weight	≈ 18 g
End-of-charge voltage	3.65 V ± 0.03 V (CC-CV) — never 4.2 V
Standard charge current	0.2C (120 mA)
Maximum charge current	1C (600 mA)
Discharge cut-off voltage	2.0 V
Continuous discharge	1C (600 mA)
Pulse discharge	3C (1.8 A), few seconds
Internal resistance	≤ 80 mΩ (AC 1 kHz)
Charge temperature	0–45 °C
Discharge temperature	–20 °C to 60 °C
Cycle life	≥ 80% capacity after 1500–2000+ cycles
Certifications	UN38.3, MSDS, IEC 62133-2, CE, RoHS

Certifications & compliance

Every production cell ships against the documentation compliance teams ask for first: UN38.3 (UN Manual of Tests and Criteria test summary required for lithium transport by air and sea), MSDS, IEC 62133-2 cell safety compliance, CE and RoHS declarations.

Safety testing

Production cells of this format are tested for over-discharge, overcharge, external short circuit, drop, heating and crush — all with no fire, no explosion, no leakage. The LiFePO₄ chemistry's higher thermal runaway onset temperature lowers propagation risk in multi-cell series strings. A CID safety vent and optional protection circuit provide overpressure and overcurrent protection inside the sealed steel can.

Documentation with every lot

Per-lot capacity, internal resistance (AC 1 kHz) and open-circuit voltage test data accompany each shipment, so incoming QC starts from data rather than sampling.

Request the controlled datasheet and quotation: sales@cmxbattery.com — response within 24 hours.

CMX Battery · OEM/ODM lithium cell manufacturing · This overview is not a controlled document; the controlled product datasheet supersedes it where values differ.