

IFR18650 — Typical Specifications Overview

3.2 V nominal · 1500 mAh · Ø18.2 × 65 mm · off-grid solar storage, cold-climate backup & AGV 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	IFR18650 (CMX-IFR18650-1500)
Chemistry	Lithium iron phosphate (LiFePO4 / LFP)
Nominal capacity	1500 mAh @ 0.2C discharge
Nominal voltage	3.2 V
Nominal energy	≈ 4.8 Wh
Dimensions	Ø18.2 × 65 mm
Weight	≈ 42 g
End-of-charge voltage	3.65 V ± 0.03 V (CC-CV) — never 4.2 V
Standard charge current	0.2–0.5C (300–750 mA)
Maximum charge current	1C (1500 mA)
Discharge cut-off voltage	2.0 V
Continuous discharge	3C (4.5 A)
Pulse discharge	5C (7.5 A)
High-rate grade	10C continuous / 20C pulse class [CONFIRM]
Internal resistance	≤ 65 mΩ (AC 1 kHz); ≤ 20 mΩ high-rate grade
Charge temperature	0–45 °C (low-temp grade: to –30 °C) [CONFIRM]
Discharge temperature	–20 °C to 60 °C
Low-temperature grade	Discharge to –50 °C [CONFIRM]
Cycle life	≥ 80% capacity after 2000+ cycles
Certifications	UN38.3, MSDS, IEC 62133-2, CE, RoHS, REACH

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, and REACH documentation for EU-bound programs.

Safety testing

Production cells of this format are tested for over-discharge, overcharge, external short circuit, thermal abuse, drop, vibration and temperature shock — all with no fire, no explosion, no leakage. The LiFePO₄ chemistry's higher thermal runaway onset temperature removes propagation concern 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.