

OXYGEN

mcc magnetic cell cluster

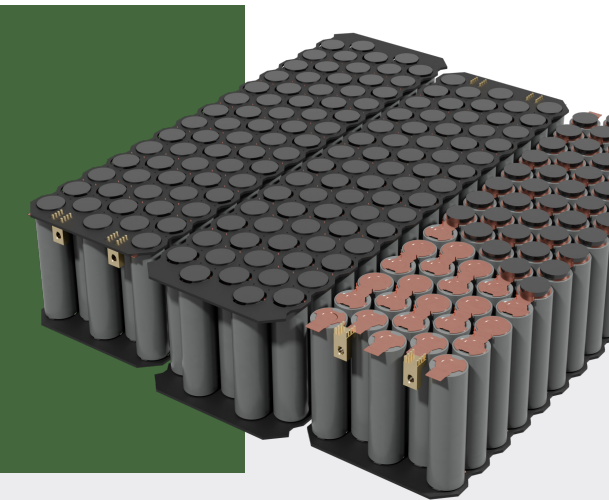
Reshaping the future of batteries

No welds

No bonds

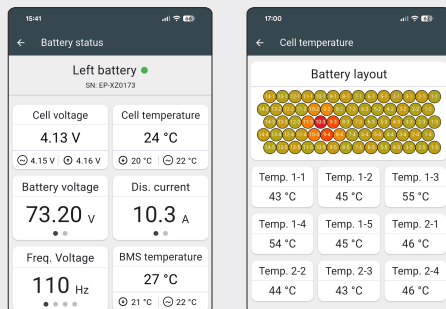


Neomium

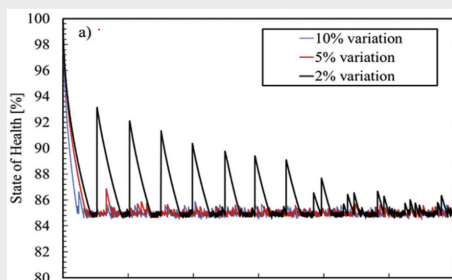


	OXYGEN K34a
Product Name:	OXYGEN K35x
	OXYGEN K36x
Item Number:	NC.KTE
Category:	Eletric Drive Train

Software Monitoring and diagnostics



Scientific data Extend battery life by up to 18x



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K34a: Cubic battery

OXYGEN is the first aviation-approved battery system **without welded/bonded interconnections**.

As individual cells begin to lose performance, they can be easily replaced by the customer. Batteries based on Magnetic Cell Cluster mcc® technology have a **lifespan up to 18 times longer** than that of traditionally welded or bonded cell packs.

The system features a comprehensive **Four-Level Safety Architecture** through PTR ¹ and PTP ² functionality. The integrated OXYGEN Battery Management System (BMS) enables real-time monitoring of all relevant operating parameters. Beyond simple condition monitoring, it provides predictive analytics, early warnings, and specific measures to extend battery life and ensure maximum safety. The modern system architecture, featuring a wide range of interfaces, offers both seamless integration into higher-level systems and intuitive user interaction via corresponding UI applications.

FEATURES

- **Replaceable individual cells** by customers or certified service technicians
- **BMS real-time monitoring** to ensure compliance with operating limits as the first level of safety
- **Single-cell temperature monitoring** as the second safety barrier
- **Intumescent cell separators** as a third safety barrier preventing thermal propagation
- **Basalt fiber enclosure** as a fourth safety layer – sustainable, lightweight, and robust
- **Aviation approved** - compliant with LTF-UL 2-547, CS-22 (expandable to CS-23), UN 38.3
- **Modular design** with three units, configurable in series or parallel
- **Modern BMS interfaces** like WiFi, Bluetooth, Ethernet, USB, CAN, ...
- **Smartphone app** for diagnostics, parameterization, and real-time monitoring
- **Increased efficiency** through High-Voltage Architecture
- **High discharge capability**, suitable for performance-demanding launches
- **Sustainable recycling** with up to 100% material separation

SPECIFICATIONS

Capacity:	3,7 kWh, 4,5 kWh , 4,9 kWh
Weight:	~ 19 kg
Voltage:	176 V
Possible variations:	118 V, 59 V
Discharge rate:	7C Peak, 5C Continuous
Dimensions	380 x 336 x 85 mm
Electronics & Software	Modern BMS with mobile application
Interfaces	WiFi, Bluetooth, CAN, Ethernet, USB

¹ Predictive Thermal Runaway, ² Predictive Thermal Propagation

