



Quantum3

Quantum3 is a high-performance AC block energy storage system delivering unmatched performance, longevity, and safety, all powered by the industry-leading GEMS Digital Energy Platform.

Quantum3 works smarter, not harder.

As energy storage projects scale in complexity and demand, there's mounting pressure to deliver reliable, high-performance systems under tighter timelines, stricter regulations, and constrained land availability.

Quantum3 redefines energy storage with a smarter, safer, and more scalable solution. Its high-density, modular AC block design accelerates deployment, minimises land use, and simplifies logistics. With built-in intelligence, advanced safety systems, and seamless GEMS integration, Quantum3 delivers reliable performance and long-term value—turning your energy storage system into a dynamic asset.

Built to perform. Engineered to last. Designed for safety.

Performance

Integrated 5016 KWh AC block

Maximises uptime and throughput with optimised rack-level performance.

GEMS integration

Delivers intelligent forecasting and real-time control.

Cell-level analytics via GEMS

Identifies weak or imbalanced cells to optimise performance.

Longevity

Battery Management System (BMS)

Extends battery life with precise state-of-charge/state-of-health tracking.

Internal string inverters

Maximises system life with modular and easily replaceable string inverters.

Proactive maintenance

Enables proactive analytics and fleet-level optimisation for longer asset life.

Safety

End-to-end fire safety system

Designed for UL 9540A and global standards to prevent propagation.

Integrated fire suppression & detection

Rapidly isolates and contains thermal events at the unit level.

BMS with U.S.-engineered hardware/software

Ensures secure, resilient operation with advanced threat detection.

Certifications and tests

- **UL 9540A** – Unit-level and container-level fire testing
- **NFPA 855 (2023 & 2026 editions)** – U.S. fire safety standard for energy storage systems
- **Large-Scale Fire Test** – Third-party validated to demonstrate no unit-to-unit propagation
- **Active Ignition Mitigation System (AIMS) Testing** – Integrated fire detection and suppression validation
- **IEC 62443-4** – Cybersecurity standard for industrial automation and control systems
- **Noise Compliance Testing** – Acoustic attenuation validated for community settings

Your trusted partner in energy storage

With over 190 years of proven innovation and global energy leadership, Wärtsilä is your bankable partner—backed by a worldwide network of expert service technicians ready to support your project from commissioning through long-term performance.

Quantum3 specifications

Nominal energy	5016 kWh
Avalability	2026
Voltage range	1164 – 1498 VDC
Nominal voltage	1331 VDC
Nominal C-rate	0.1 – 0.5 C
String inverter rating	500kVA (2x 250kVA)
Operating temperature	-30 +50°C
Weight	97000 / 44000 lbs/kg
Shipping footprint	20' high-cube ISO container
Installed dimensions (w, d, h)	6.41 x 2.44 x 2.89m
Coolant type	Water and glycol mix
Nominal energy	5016 kWh



Contact us today to learn how Quantum3 can energise your next project.
www.wartsila.com/energy/energy-storage