



Quantum2

Quantum2 is a fully integrated DC block BESS engineered for rapid deployment and installation, delivering scalable performance with uncompromising safety—all powered by the industry-leading GEMS Digital Energy Platform.

Big energy. Small footprint.

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.

Quantum2 delivers utility-scale performance with a reduced physical footprint. Designed for speedy deployment and seamless grid integration, Quantum2 ships in standard 20-foot ISO containers, enabling faster transport and efficient installation. All powered by the industry-leading GEMS Digital Energy Platform, which enhances operational visibility, streamlines maintenance, and extends system longevity through intelligent diagnostics and control.

Built to perform. Ready to deploy. Designed for safety.

Performance

GEMS integration

Delivers intelligent forecasting and real-time control.

Cell-level analytics via GEMS

Identifies weak or imbalanced cells to optimise performance and extend asset life.

Top-tier battery cells

Maximises system throughput using high-performance cells from vetted Tier 1 suppliers.

Deployment

Standard 20-foot ISO container

Simplifies global logistics and accelerates transport and installation.

Energy density configuration

Reduces land use and enables high energy density at the site level.

Pre-installed and fully tested system

Minimises field wiring and civil work, reducing commissioning time and cost.

Safety

End-to-end fire safety system

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

Gas detection ports and H₂ sensors

Enables early hazard detection and enhances first responder safety.

Noise-optimised fan system

Minimises acoustic impact for compliance in sensitive environments.

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.

Quantum2 specifications

Nominal energy	4073 kWh
Configuration	10P x 8S x 52S
Voltage range	1164 – 1498 VDC
Nominal voltage	1331 VDC
Nominal C-rate	0.1 – 0.5 C
Auxiliary load voltage	480V 60Hz and 380 – 415 V 50/60 Hz 3-phase
Auxiliary peak load	30 kW
Weight	83775 / 38000 lbs/kg
Operating temperature	-30 +50°C
Footprint	20' high-cube ISO container
Dimensions (w, d, h)	6.1 x 2.4 x 2.8m
Coolant type	Water and glycol mix



Contact us today to learn how Quantum2 can energise your next project.

www.wartsila.com/energy/energy-storage