



Corvus Dolphin Energy

The Dolphin ESS from Corvus Energy is specifically designed for lightweight applications.

Outstanding energy density and power density combined with the highest level of safety has set the new industry standard.

Applications

Corvus Dolphin Energy is tailored towards ships with long, slow charges and discharges and where lightweight is essential; Tourist, sightseeing and canal boats which sail at slow to moderate speeds are ideal use cases for Dolphin Energy.

Features

- Low weight
- Flexible, modular design
- Easy to install
- Designed for pack voltages up to 900 VDC
- Scalable from <20 kWh to >2 MWh
- Supports currents up to 100A max per pack
- Low life cycle cost
- Easy and safe installation – plug and play connections with no risk of electrical shock for personell
- Reduces fuel, emissions, noise and maintenance
- Industry-proven Battery Management System (BMS)
- Remote monitoring





Technical Specifications

Performance Specifications

C-Rate - Peak	1C
C-Rate - Continuous	0,5C

Operational Specifications

Pack Sizing	130-1000V/11-77kWh
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Standard Pack example (6 modules)

Energy	66kWh
Voltage	Max: 770 VDC Min: 575 VDC
Cooling	Forced Air
Dimensions (Vertical)	Height: 2110mm Width: 580mm Depth: 350mm
Dimensions (Horizontal)	Height: 580mm Width: 2110mm Depth: 350mm
Weight	375kg (827lb)

General Specifications

EMC	IEC60945-9
Ingress Protection	System: IP23
Vibration and Shock	UN 38.3, DNV 2.4
Class Compliance	DNV-GL

Safety Specifications

Thermal Runaway anti-propagation	Cell-level; DNV-GL Pt.6 Ch.2, NMA 2016 circular
Fire suppression recommended	Inertgas
Disconnect circuit	Cell individual fail-safe-for over-temp, over voltage
Maximum current parameter	Updated 2x per second
Faults communicated	Over-voltage, under-voltage, over-temperature, communication
Short Circuit protection	Fuses included (3 levels)
Disconnect switchgear rating	Full load
Emergency stop circuit	Hard-wired
Ground fault detection	Integrated

Corvus Energy safety innovations

Passive-Single -Cell-level Thermal Runaway (TR) Isolation

- True cell-level thermal runaway isolation
- TR does not propagate to neighbouring cells
- Isolation NOT dependant on active cooling

Exceeds Class and Flag standards TR Gas venting

- Integrated thermal runaway gas exhaust system
 - Easily vented to external atmosphere rather than the battery room
- Additional fire suppression system not required.