

Corvus Dolphin NxtGen - Power

The Corvus Dolphin NxtGen marine energy storage system power variation is designed for applications that require a high-power battery system where lightweight is essential.

The Corvus Dolphin NxtGen Power offers high power density, reasonable energy density and the highest level of marine battery safety. The space-efficient, rack-free design enables flexible installation configurations to maximize utilisation of available battery room space.



Applications

Dolphin NxtGen - Power is ideal for ships where high C-rate requirements and lightweight is essential.

Typical Vessel Types:

- Ferries
- High Speed Fast Ferries
- Harbor Tugs
- Offshore Vessels
- Offshore Wind Vessels
- Crew Transfer Vessels

Features

- Suitable for rapid charging and discharging
- Low weight
- Designed for voltages up to 1200 VDC
- Flexible installation
- Low life cycle cost
- Easy and safe plug and play connections
- Very flexible and modularized design
- Passive single-cell Thermal Runaway protection
- Scalable capacity and voltage according to vessel requirements
- Industry-proven Battery Management System (BMS)
- Remote monitoring capabilities
- Enhanced EMI immunity design for maritime environments

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



Technical Specifications | Corvus Dolphin NxtGen ESS - Power

Performance Specifications

C-Rate - Peak (Discharge / Charge)	2,5 CC for 10 seconds
C-Rate - Continuous (Discharge / Charge)	1,5 CP / 1,5 CP

System Specifications

Battery Cell Chemistry	Lithium ion NCA
Single Module Size / Increments	6,56 kWh / 50 VDC
Single Module Capacity	152 Ah
Module Dimensions	660 x 500 x 100 mm (l x w x h)
Module Weight	46.5 kg
Max Gravimetric Density - String	127 Wh/kg
Max Volumetric Density - String	155 Wh/l

Safety Specifications

Thermal Runaway Anti-Propagation	Passive cell-level thermal runaway isolation
External Fire Suppression	Per SOLAS, class and Corvus recommendation
Disconnect Protection	Hardware-based fail-safe overcharge protection
Short Circuit Protection	Integrated cell-level fusing
Emergency Stop Circuit	Hard-wired
Ground Fault Detection	Integrated
Integral Disconnect Circuitry Rating ¹	Full load

General Specifications

Class Compliance	DNV
Type Approval	DNV ²
Ingress Protection	IP66 ³
Cooling	Liquid

¹ not compliant with IEC 60947-1

² Pending

³ LV AC compartment of SIB is IP56

