

## Corvus Dolphin NxtGen - Energy

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

The Dolphin NxtGen ESS energy variation offers outstanding energy density, reasonable power 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 - Energy is ideal for ships with long, slow charges and discharges where lightweight is essential.

#### Typical Vessel Types:

- Tourist vessels
- Canal boats
- Yachts
- Sightseeing vessels
- Ferries

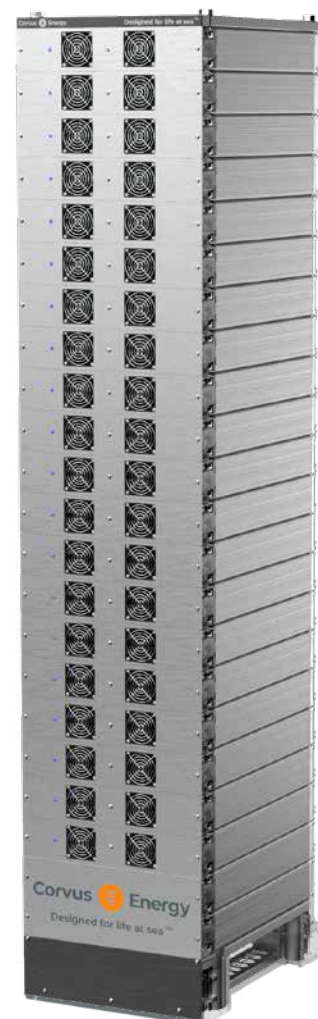
### Features

- Low C-rate for slow charge and discharge
- 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 - Energy

### Performance Specifications

C-Rate - Peak (Discharge / Charge)	1,0C / 1,0C for 10 seconds
C-Rate - Continuous (Discharge / Charge)	0,5C / 0,5C

### System Specifications

Battery Cell Chemistry	Lithium ion NCA
Single Module Size / Increments	8,2 kWh / 50 VDC
Single String Range	33 ± 197 kWh / 130 ± 1205 VDC
Max Gravimetric Density - <b>String</b>	168 Wh/kg   5,96 kg/kWh
Max Volumetric Density - <b>String</b>	212,5 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 <sup>1</sup>	Full load

### General Specifications

Class Compliance	DNV, Bureau Veritas, Lloyd's Register <sup>2</sup>
Type Approval	DNV, Bureau Veritas, Lloyd's Register <sup>3</sup>
Ingress Protection	IP66 <sup>4</sup>
Cooling	Forced air

<sup>1</sup> Not compliant with IEC 60947-1

<sup>2</sup> Project Approval

<sup>3</sup> Type Approval pending

<sup>4</sup> LV AC compartment of SIB is IP56

