

## Corvus Dolphin Power NxtGen

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

The Corvus Dolphin Power NxtGen offers outstanding energy density, high power density, and the highest level of marine battery safety. Its space-efficient, high-power battery system design is perfect for applications where lightweight is essential.



### Applications

Dolphin Power NxtGen ESS 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

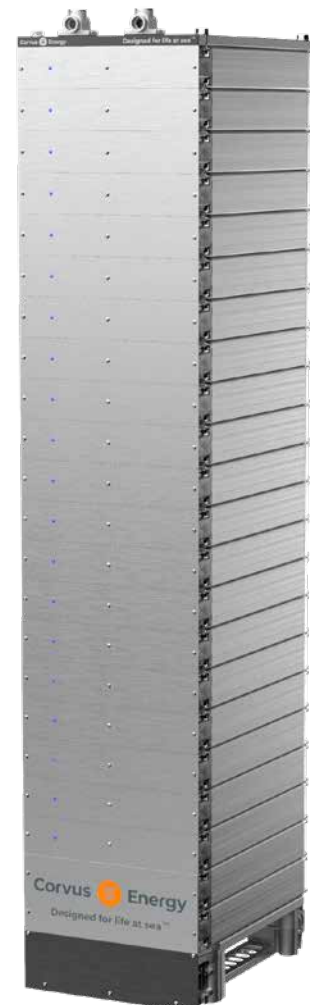
### Features

- 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 Power NxtGen

### 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 NMC/ graphite
Single Module Size / Increments	6,56 kWh / 50 VDC
Single Module Capacity	152 Ah
Max Gravimetric Density - <b>String</b>	127 Wh/kg
Max Volumetric Density - <b>String</b>	155 Wh/l

### Safety Specifications

Thermal Runaway Anti-Propagation	Passive cell-level thermal runaway isolation
Fire Suppression	Per SOLAS, class and Corvus recommendation
Disconnect Circuit	Hardware-based fail-safe for over-temperature and over-voltage
Short Circuit Protection	Fuses included on cell level
Emergency Stop Circuit	Hard-wired
Ground Fault Detection	Integrated
Disconnect Switchgear Rating	Full load

### General Specifications

Class Compliance	DNV, Lloyds Register, Bureau Veritas, RINA, ABS
Type Approval	Pending
Ingress Protection System Level	IP55
Ingress Protection Module Level	IP66
Cooling	Liquid Cooling
Vibration and Shock	UNT38.3, DNV 2.4
EMC	DNV-CG-0339

2024-07-02

