



E-MARINE  
SOLUTIONS

Brittany Ferries E-Flexer  
**Hybrid RoPax Vessel**

# Electrification of major trade/ferry route (English Channel) using Leclanché batteries

## Vessel description

The series comprises two hybrid vessels, both equipped with **Leclanché Navius MRS-3 Marine Rack Systems**. The ferries will operate between *Portsmouth*, United Kingdom and the French ports of *Saint-Malo* and *Caen*, on a 10-year lease to Brittany Ferries.



## Our battery solution

The **Navius MRS-3 battery system** is the latest generation of marine battery systems from Leclanché and has been specifically designed for the supply of on-board energy storage in marine applications.

It comprises the latest Leclanché M3 Energy battery modules fitted with proprietary high energy G/NMC cells, a Functionally Safe Battery Management system and is assembled into a scalable and modular rack system. This new design enables the **Navius MRS-3** to be configured to fit efficiently into the available space on nearly any vessel.

At the heart of the new **Navius MRS-3** battery system are class leading Leclanché high cycle-life G/NMC cells which are designed and developed by our world class electro-chemistry experts and produced at our automated facility in Germany.

It utilises modules with dedicated liquid-cooled plates for more efficient thermal management and a longer system lifetime. This liquid-cooled technology also permits significant system weight savings and a more compact footprint compared to an equivalent capacity air-cooled system.



## Technical Specifications

Ship yard	CMI Jinling (Weihai, China)
Ship design	Stena RoRo
Newbuild/Retrofit	Newbuild
Vessel size	195 m x 28 m
Passenger capacity	1'200
Area of operation	Portsmouth (UK), Saint Malo (FR), Caen (FR)
Ship integrator	Wartsila
Battery capacity	10,028 kWh
Bus voltage	937 to 1051 V
Class	DNV
Flag state	France