

Electric Boat (EB) propulsion systems explained

The table below summarises the main EB systems and highlights some of the differences.

	BEB Battery electric boat	BREB Battery range extended electric boat	HEB Hybrid ICE electric boat Parallel Hybrid	PHEB Plug-in hybrid ICE electric boat
Main source of power and propulsion	Propelled by large powerful electric motors		Internal combustion engine (ICE) and direct drive to the propeller, assisted by a small electric motor	
Battery charged by	external source/plug-in	external source/plug-in and a range extending generator	the engine (ICE)	the engine (ICE) and external source/plug-in
Operating mode	100% electric	100% electric mode and Hybrid mode when required	ICE assisted by e-motor	
Emissions	Zero emissions	Zero emissions in electric mode Emissions significantly reduced in Hybrid mode	Lower emissions than a pure ICE	
Performance	High speed when required Range limited by battery capacity	High speed when required No range limit	High speed (ICE) only Low speeds on small electric motor (limited range)	

The Furyan F35 Eco Hybrid marine cruiser is a BREB system.

However the Furyan cascade propulsion system used in the F35 can be configured as a BEB, by removing the range extending generator.

The BEB configuration will be more suited to a lake or river application, whereas the BREB configuration is more suited to marine cruising as it removes the “range anxiety” when at sea.

For full details of the Furyan F35 specification visit our [website](#).

Furyan Marine Technology design and manufacture Eco Hybrid marine cruisers in the UK, supplying hybrid and electric propulsion systems and consultancy services on sustainable manufacture.