

VOLTA

**Electric-powered
High Speed Ferries**




AUSTAL

Beyond electric

A sustainable maritime transport solution for everyone.

Forward thinking urban communities throughout the world are looking for mass transport solutions that are both economically and environmentally sustainable, for everyone.

Today's ferry services need to be faster, quieter, more efficient, while being less expensive to operate and better for the environment.

Austal has developed the VOLTA series of electric-powered high-speed ferries to spark a change in thinking, challenge convention and exceed the expectations of communities, operators and passengers alike.

Austal's VOLTA series is a complete, customisable electric-powered transport *solution* that has been designed from the hull up to offer a smarter, affordable alternative for ferry operators.

Ultimately comprising multiple vessel designs, Austal's VOLTA series combines state-of-the-art electric drive and lithium ion battery technology with lightweight, low-resistance, optimised hull forms to produce high-speed ferries like no other.

On-shore, Austal's VOLTA series are kept running at peak efficiency by the latest in charging infrastructure and in-service support.

Pursuing the ultimate in form and function, Austal's VOLTA series offers a true sustainable solution for *everyone*:

- » **Our planet** – Zero emissions*, reduced noise and low wave wash.
- » **Our community** – Cleaner, more reliable, safer and quieter.
- » **Your company** – Reduced energy consumption, maintenance costs and total cost of ownership.

*subject to source of energy

Powered by innovation



For more than three decades, Austal has been at the forefront of high-speed craft design, technology, construction and sustainment - delivering 340 ships to 121 operators in 59 countries.

As the world's largest aluminium shipbuilder, Austal has earned a reputation built on innovative hull design, 'smart' maritime technology, modular manufacturing techniques and value-adding in-service support.

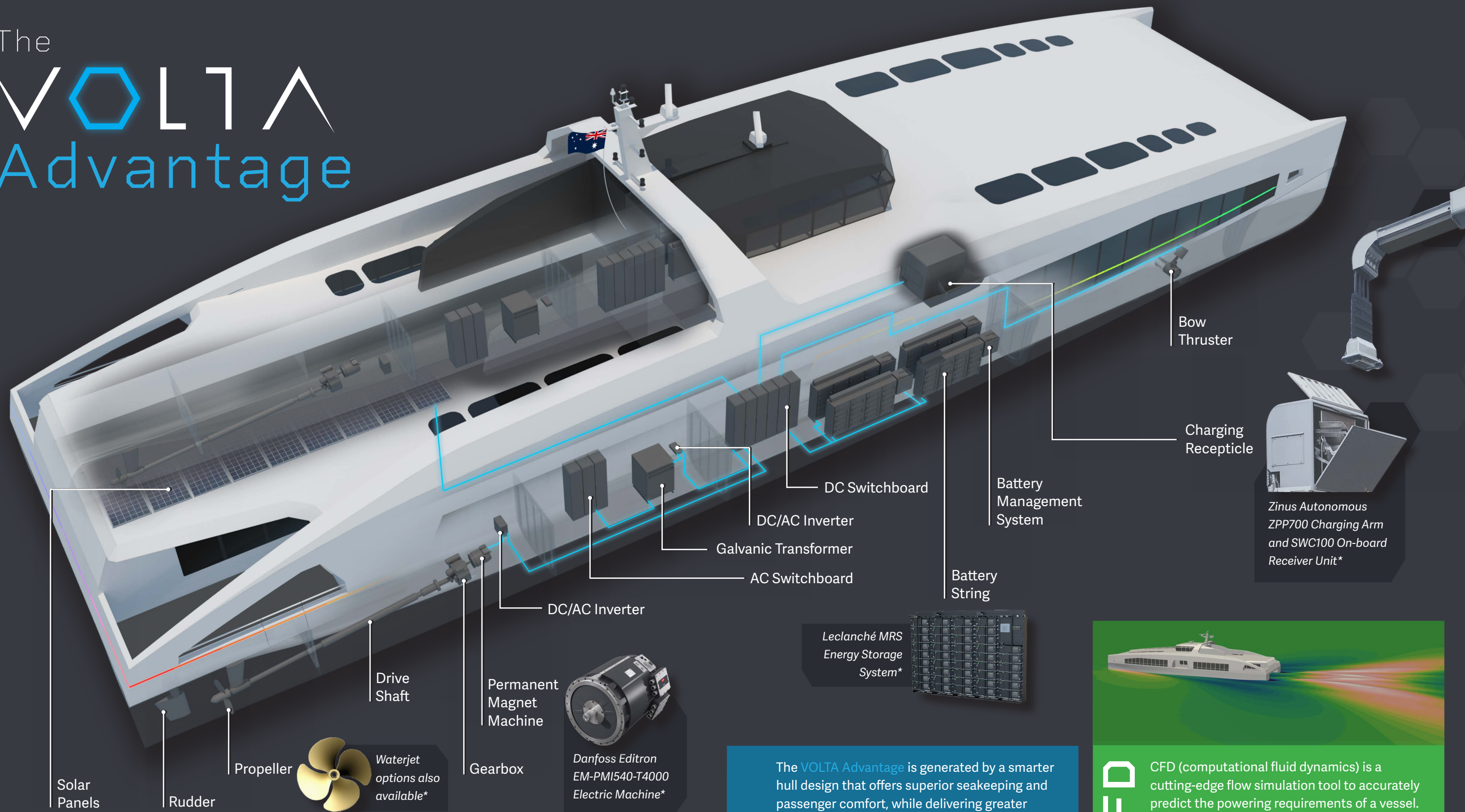
From safe, modern and efficient shipyards located in Australia, USA, The Philippines and Vietnam, Austal offers a growing portfolio of proven monohull, catamaran and trimaran vessel designs - ideal for commercial passenger and vehicle-passenger ferry services - with specifications optimised to match your vessel's operating profile and environment.

Austal has also developed value adding technologies such as **MARINELINK** and **MOTION CONTROL** that have transformed commercial ferry operations and helped set industry benchmarks for vessel and systems performance management, seakeeping and onboard experience for both passengers and crew.

Not just a ship designer and builder, Austal is a true technology partner in your commercial maritime operations, with the capability to also provide ongoing service and support, wherever your fleet is in operation.



The VOLTA Advantage



Austal's VOLTA series is the future of commercial commuter ferry operations, with vessels that are better for the environment, better for passengers and better for operators.

Going well beyond a traditional powerplant replacement, Austal's VOLTA series introduces an all new, optimised hull form specifically designed for the electric drive and lithium ion battery technology that provides operators with a genuine *advantage* in a changing world and a competitive market environment.

The VOLTA Advantage is generated by a smarter hull design that offers superior seakeeping and passenger comfort, while delivering greater efficiency from less power - and zero emissions.

The VOLTA Advantage also includes shore-based charging infrastructure and in-service support that minimises turnaround times and keeps your fleet moving.

** Images provided for illustration purposes only. Alternative equipment solutions are available to suit operational requirements.*

CFD

CFD (computational fluid dynamics) is a cutting-edge flow simulation tool to accurately predict the powering requirements of a vessel. Austal achieves hull form optimisation using CFD, to maximise efficiency through the water and minimising environmental impact (such as wave wash).

Increasing transport efficiency = reduced powering requirements = fewer batteries required = lower capex and operating costs.

Passenger *Express* 46V

Electrification
 meets
 exhilaration.

The **Passenger Express 46V** is an IACS-approved, electric passenger ferry, ideal for any inland waterway service operating within a high population, urban environment.

Featuring a striking design with capacity for between 400 and 450 passengers, the catamaran boasts a natural, light filled interior enabled by large, panoramic side windows and generous

skylights located along the entire length of the vessel.

Distinctive, double automatic sliding doors provide direct access to the passenger deck for quick loading and unloading of passengers; ensuring turnaround times 'alongside' never exceed your fast battery charging requirements.



An environmentally friendly, zero emission* electric high-speed ferry that delivers a superior passenger experience, greater efficiency and lower operating costs.

*subject to source of energy

Principal Dimensions

- » Length overall (LOA) 45.6m
- » Beam 12.3m
- » Draft < 2m

Propulsion

- » Full electric 2 x permanent magnet motors
- » Propellers 2 x FPP, or CPP, waterjet or Azimuth
- » Batteries Full redundancy with 2 Lithium battery banks (one in each hull)

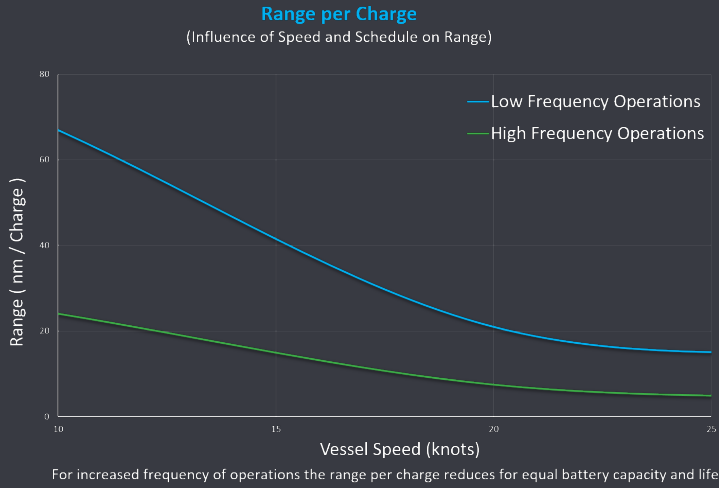
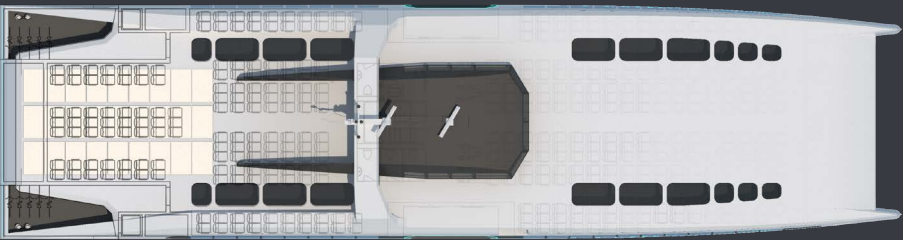
Payload and Capacities

- » Passenger capacity 400 to 450
- » Bicycle capacity 10
- » Crew capacity 3

Performance

- » Maximum speed 25+ knots
- » Maximum range per day >175 nm with 20% reserve
- » Minimum guaranteed battery life 7 years

Plan view of main deck





VOLTA

Further Information:

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