

POSEIDON POWER



Offshore and service vessels



Commercial vessels



Superyachts



Passenger vessels

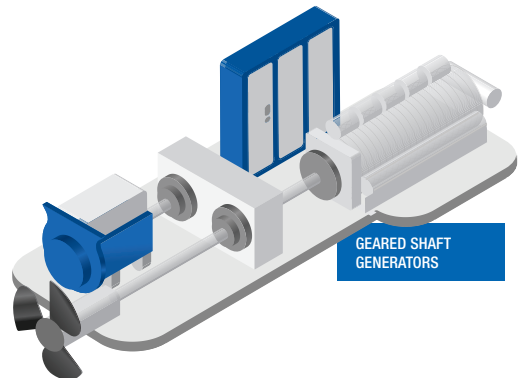
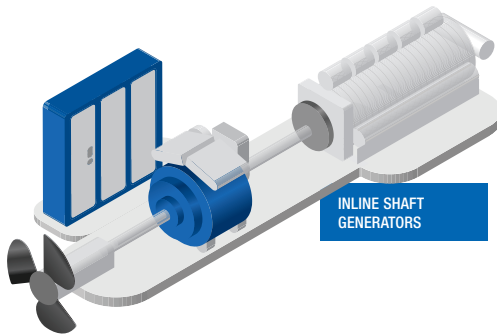


ENVIRONMENTAL ENERGY

YASKAWA

Permanent magnet (PM) shaft generators

PM technology offers vessels unprecedented benefits, including high power density, better reliability and lower operational costs.



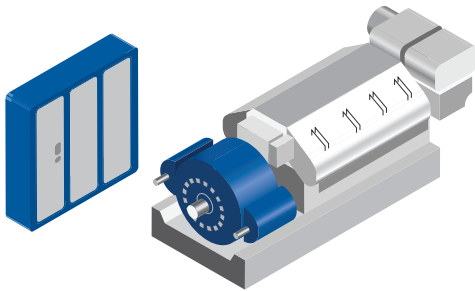
- More compact, lighter in weight and smaller in size than traditional solutions
- Allows the generation of cheaper electricity
- Simple mechanical construction reduces maintenance and increases reliability
- Enables the diesel engine to be run at variable speed
- Various operational modes, including Take Me Home and Boost
- Available as direct drive or a geared solution
- More than 40 PM shaft generators now successfully sailing
- Increased redundancy due to dual windings and rapid disconnection of rotor

Power drive trains and gensets

Our own designed and purely marine-built Power Drives or DC-Hubs are a perfect match for our permanent magnet machines to secure seamless integration.

- Matched interfaces
- Tested and guaranteed
- Ultimate efficiency and operational costs
- One-stop shop for service and spare parts

Gensets



- Variable speed operation results in fuel savings at partial loads
- Significantly more compact than traditional solutions
- Can be a standalone or integrated into diesel engine
- Minimal need for maintenance thanks to its reliable construction

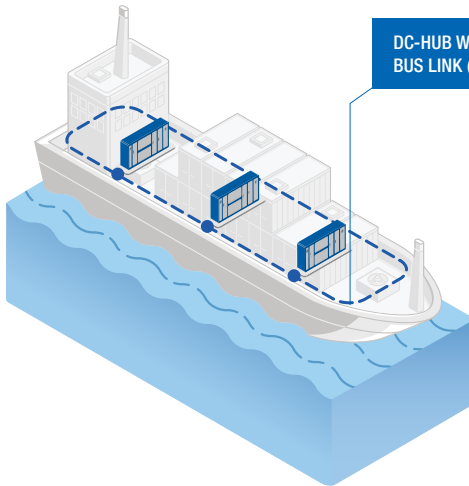
Yaskawa Drives



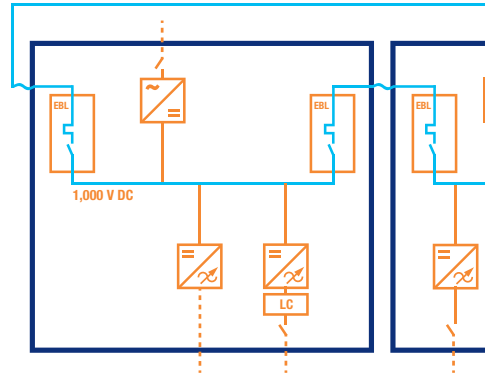
- Marine-certified drives
- A1000 premium inverters
- U1000 matrix converters
- Power range: 0.55 kW–630 kW

DC-Hub

The Switch DC-Hub offers a ring network for multi-megawatt DC power systems.



DC-HUB WITH ELECTRONIC
BUS LINK (EBL)

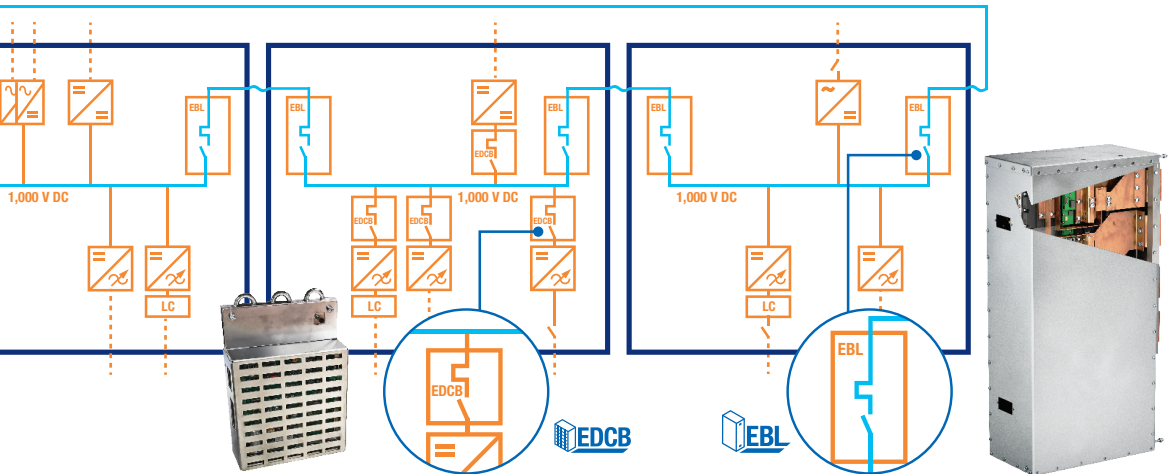


- Built from proven Power Drive units for marine
- Provides a vessel with a flexible choice of power generation, energy storage, charging, propulsion power and clean power
- All connected with a DC link, the backbone of the DC-Hub
- An intelligent solution for multi-megawatt DC distribution
- Increases availability and redundancy
- Eliminates the use of an AC switchboard

EBL – Electronic Bus Link

Designed to increase redundancy when several The Switch DC-Hubs have been joined together to create a vessel's network.

- Secures selectivity between the DC-Hubs if a major fault occurs
- Allows each DC-Hub to work independently
- Ultra-rapidly detects, cuts and isolates any possible error in the system in only 10 microseconds
- Creates safe redundancy for the vessel, even for DP3 operations



EDCB – Electronic DC Breaker

Increases redundancy inside The Switch DC-Hubs, ensuring selectivity between the modules.

- Secures selectivity between modules if a major fault occurs inside one module
- Allows each module to work independently and pre-charges the module from the live DC-link
- Ultra-rapidly detects, cuts and isolates any critical fault for the module in 10 microseconds
- Creates redundancy between modules. Voltage drops less than 80 VDC if a critical fault occurs

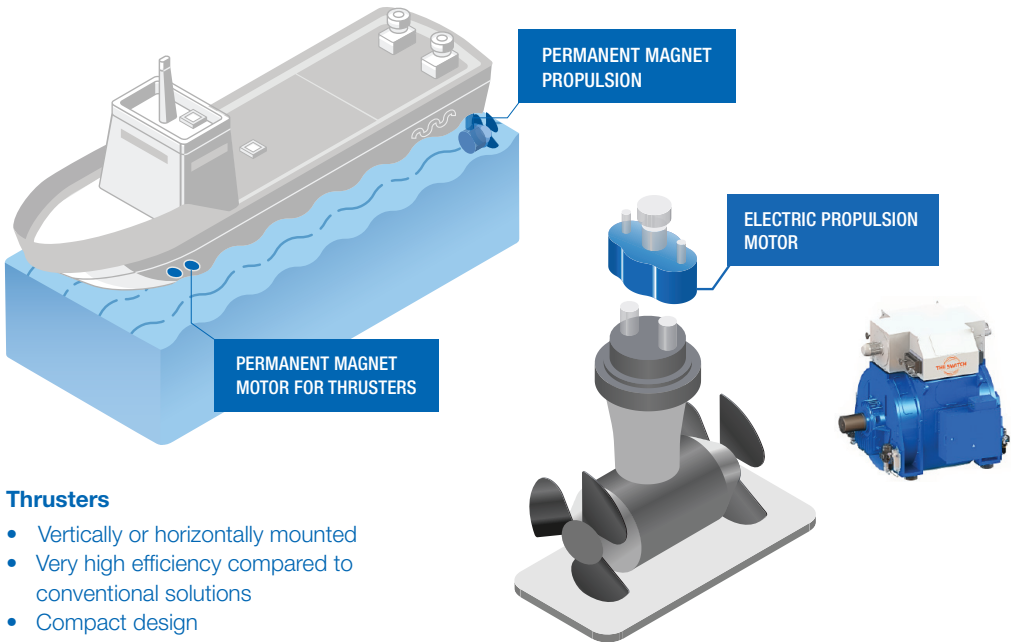
Power Drive

Since the beginning, our stainless steel The Switch Power Drives are designed and built without compromise for harsh marine applications and vessels that aim to emit low or no emissions.

- Lightweight, compact panels
- Exceptionally high power density
- Available in a wide range of low-voltage powers from 600 kW to 12 MW
- Passive front-end input is available for 2-quadrant operations
- Active front-end for 4-quadrant operations
- Over 1,100 rugged Power Drives delivered
- 15 years of proven field experience around the world
- Applications range from propulsion to drilling



The Switch permanent magnet (PM) machines are perfect to boost efficiency at any power, any speed. They fit well for conventional shaft lines and L-type propulsors.



Thrusters

- Vertically or horizontally mounted
- Very high efficiency compared to conventional solutions
- Compact design

Propulsion

- From 200 kW to 15 MW, with low, medium and high speed
- Proven, unmatched power density
- Considerably cuts back on fuel consumption and operating costs
- Runs quietly with minimal vibrations
- Flexible design configurations
- Simple mechanical construction reduces maintenance and increases reliability
- Adjustable speed control

The legacy of Poseidon lives on

Although some believe that Poseidon, ancient Greek god of the sea, was but a myth, we know his legacy of ocean primacy is still very much alive. Poseidon's mythic sea power is resurging anew through advanced technology to create a long-lasting change in the way we care for our oceans, waterways and seas.

With his energy and superpowered trident, the god has been stirring up many new storms: tsunamis of tighter regulations, growing piles of rusting discarded assets and the poison of polluted waters.

Yet he also offers us the power to solve these immense challenges of our time. Using his trident, he empowers us with:

- Increased efficiency
- Highest possible reliability
- Superior flexibility

Whether you're powering your vessels with diesel electric, hybrid or fully electric energy, Poseidon Power enables you to reach lower emissions, higher profitability and future flexibility.

Poseidon shows us how to control the waves of electricity with ultimate efficiency – and a new way to make our seas clean and blue again.

Energize your growth with Poseidon Power – and become the master of DC distribution.



www.theswitch.com