Trusted electric propulsion solutions for more than 25 years.

Sailing Superyachts

BAE Systems has a proven track record of delivering safety, quality, performance, and reliability. Our HybriGen® power and propulsion solution provides efficient electric propulsion and auxiliary power using on-demand technology to help reduce the gap to zero emissions. Our patented technology utilizes a main engine and lithium-ion batteries to provide nearly silent, vibration-free electric propulsion, enhancing the operator and passenger experience.

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BAE SYSTEMS

How it works:

Our HybriGen solution uses variable speed generator sets to create electricity for auxiliary vessel power and electric propulsion. The system utilizes the generated electricity to efficiently deliver power to the hotel loads, the energy storage system, or paralleling with other power sources for greater power demand and system flexibility.

Electric-Hybrid Mode

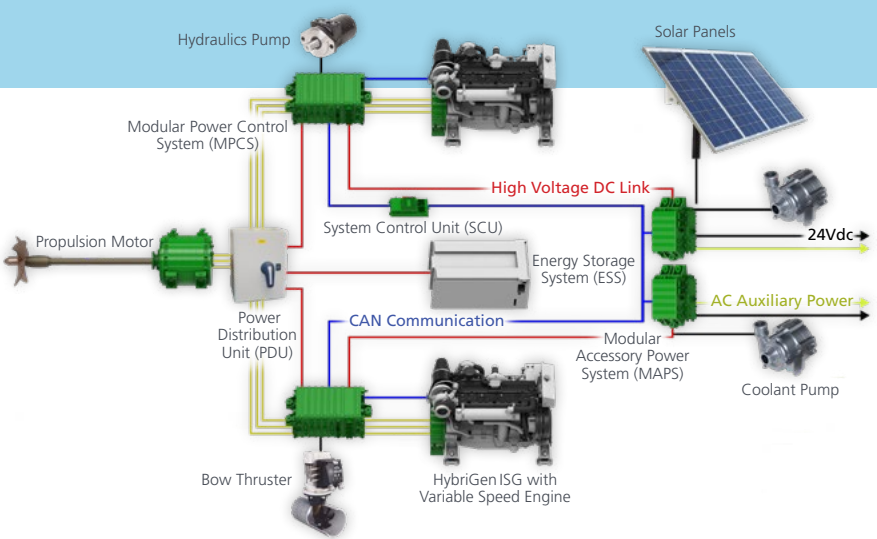
The twin variable speed gensets ensure efficient operation and provide system redundancy. The gensets use the minimum amount of fuel to produce the amount of power commanded by the system.

Silent Mode: Zero Emissions

When motoring or at anchor, the vessel can operate silently with zero emissions utilizing power stored in the Energy Storage System (ESS).

Sailing Mode: HydroGeneration

When under sail, the prop can turn the motor to act as a generator and produce electric power for hotel loads and recharge the batteries.



Benefits

- The ESS is sized to the vessel requirements.
- The HydroGeneration mode extends zero emissions operation.
- The variable prop pitch control is integrated into the system, optimizing propulsion and regeneration efficiencies.
- The bi-directional MAPS capability provides an easy interface for solar inverters.
- Use of advanced materials and controls in the MPCS and MAPS, results in market leading electrical efficiency.
- The system performs self-thermal management by directly controlling the WEG cooling pumps and raw water pump to minimize energy usage.
- The ability to integrate thrusters and hydraulics into the same hardware simplifies the installation, reducing complexity, size and weight.
- Both AC and DC shore power charging capability, with no loss of supply feature.