

High Speed Power Generation Systems

DRIVING INNOVATION. POWERING SUCCESS.

General Atomics Electromagnetic Systems (GA-EMS) designs and manufactures **High Speed Power Generation Systems** for a wide range of ship installations and power requirements. GA-EMS' permanent magnet motors and generators and modular drives are designed to meet the escalating demand for power to support ship services and systems.

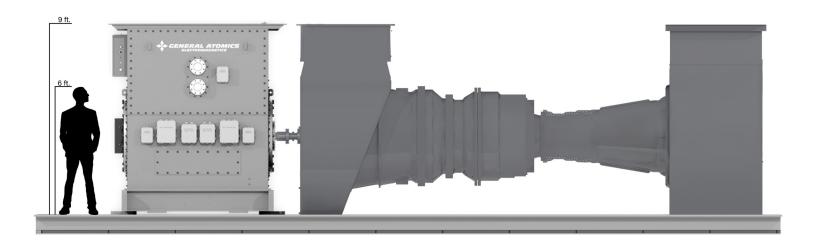
High power density - 1 MW to 16 MW

Efficient permanent magnet generators

Modular drives for power conversion

Significant fuel savings over ship service life

Scalable designs for new and retrofit system installations





Larger, higher power gas turbine



High speed direct coupling eliminates speed reducing gearbox

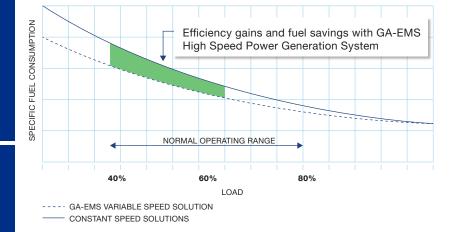


Smaller, high efficiency permanent magnet generator

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GA-EMS' high speed generators directly couple with gas turbine engines and are optimized for variable speed operation, eliminating the need for speed-reducing gearboxes. The system optimizes the ratio between gas flow and turbine speed to significantly reduce fuel consumption, particularly when the turbines are operating at 40-60% of their rated power for long periods of time. Each system is lighter, more compact and requires less ancillary equipment. For new and existing ship designs, this results in measurable fuel, maintenance and space savings, and improved reliability to accommodate future power growth margins for extended ship service life.





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