

# Auxiliary Power System (APS-1)

**BAE Systems' Power and Propulsion Solutions business area provides products to increase a vessel's operating efficiency and performance while saving fuel, operational costs, and our environment. With more than 20 years of experience in hybrid propulsion, BAE Systems is partnering with leading naval architects and shipyards to provide complete, efficient power and propulsion solutions.**

Auxiliary Power System – APS-1 provides 24/28 volt DC power to support a range of electronic components (e.g., cooling fans, cooling pumps, and all conventional 28V systems and accessories). The unit functions as an electronic alternator, completely replacing the conventional belt-driven alternator. It operates by converting power from the hybrid high-voltage DC system directly to 24/28 volt and 545 amps of continuous DC power. The APS-1 is packaged in a compact liquid-cooled unit for ease of installation and performance.



## Features

- SAE 1939 CAN interface
- Operation and diagnostics fully integrated with each system
- APS-1 is liquid cooled for superior thermal management and control

## Benefits

- Rugged, durable, and highly reliable
- Standard communications interface
- Supports prognostics health management
- Provides accessory power and removes parasitic loads from the engine
- Increased fuel economy and reduced emissions
- Greater reliability and increased life of sub-components
- Safer - eliminates belts and hydraulic lines
- Quieter, smoother accessory operation

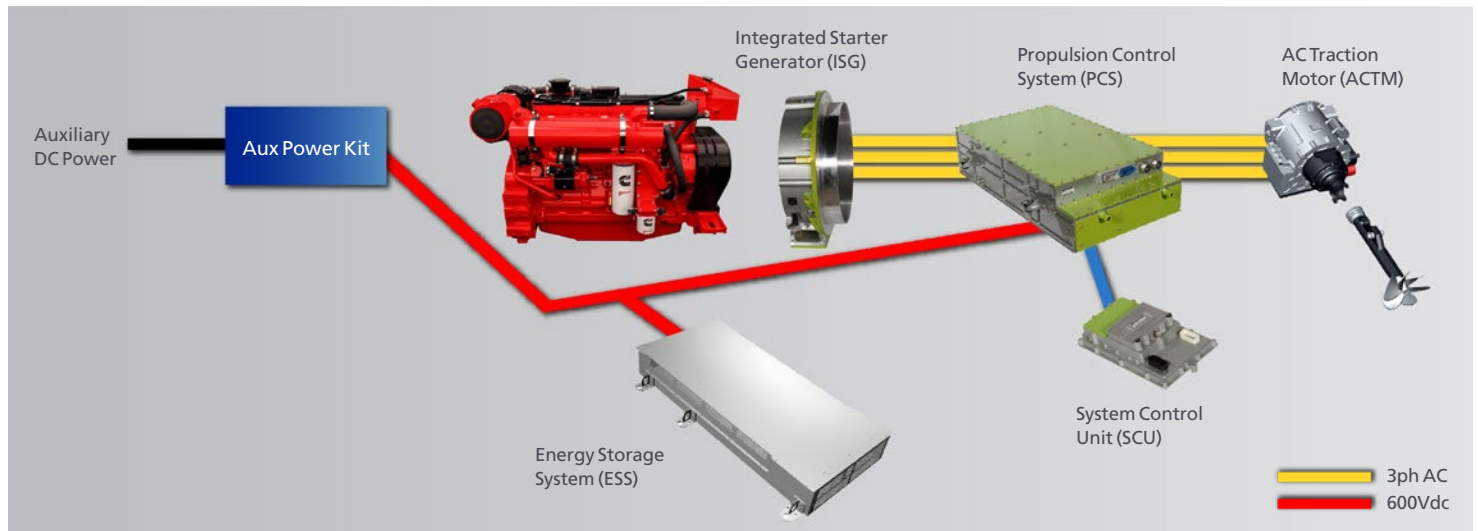
## Ratings

- DC/DC Converter: 15kW (545 Amps @ 27.5 Vdc) at battery post
- Coolant temperature for full performance: -40°C to 65°C (-40° to 149° F) 45°C (113°F) nominal
- External ambient: -40°C to 75°C (-40°F to 167°F)

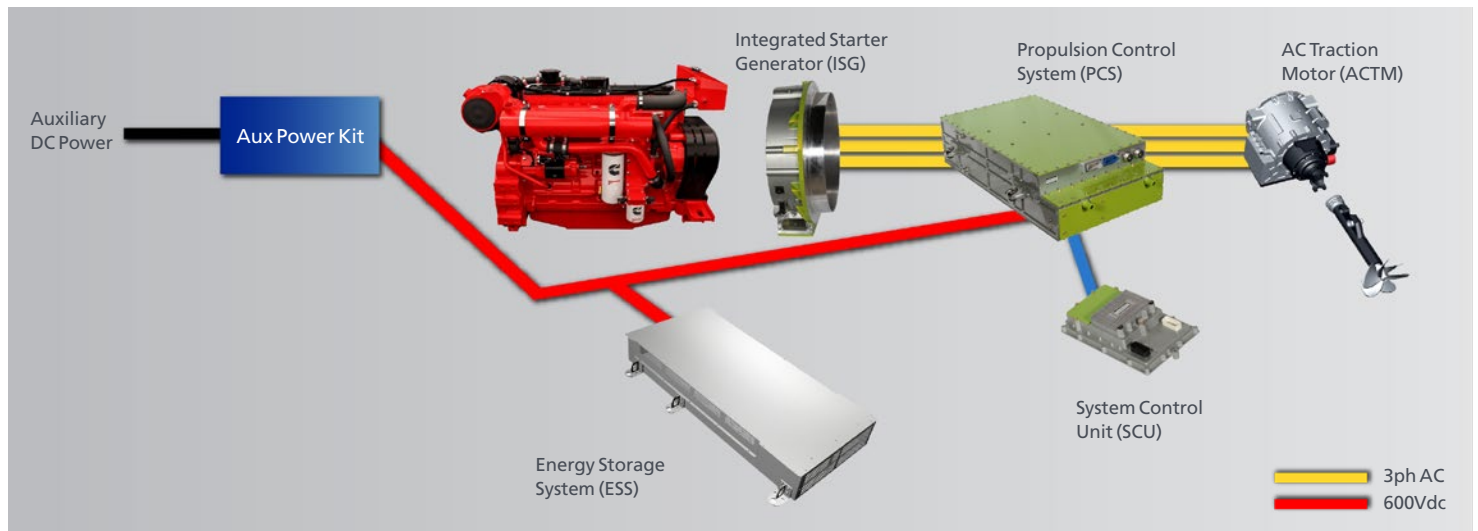
## Size

- Length: 582 mm (22.9 in)
- Width: 337 mm (13.3 in)
- Height: 236 mm (9.3 in)
- Weight: wet: 37 kg (82 lbs.)
- Coolant: water ethylene or propylene glycol 57 lpm (15 gpm)

# Starboard



# Port



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