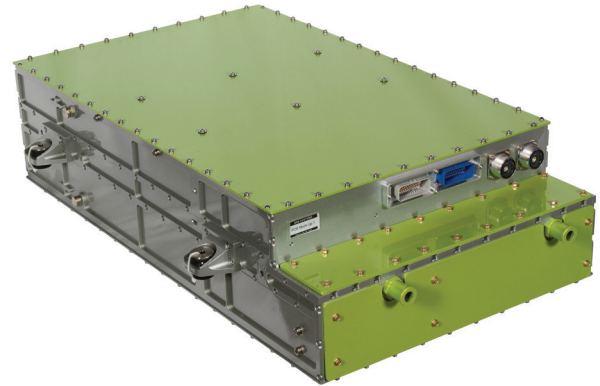


PCS

(Propulsion Control System)

The Propulsion Control System (PCS) is the power processing and power management center for all of BAE Systems' electric-drive systems. The PCS is available for installation in vehicles of various sizes and weights. Our compact system works in conjunction with our System Control Unit (SCU), which provides the vehicle and operator interface with system monitoring, and control. Together the PCS and SCU optimally control power flow to and from the traction motor, generator, and energy storage system and they also support the high-voltage interface for DC accessories.

The PCS and SCU also enables overall system performance to be customized to an operator's specific requirements and provide diagnostic information to enhance maintenance of the entire system. These components fully support stop/start technology and our Depot Drive mode (EV driving >50 yards) when combined with our Accessory Power Systems (APS-2 and APS-3) and electric accessories. The PCS and SCU are available for HDS100, HDS200, and HDS300 systems and our EV PCS is available for our Series-EV, full battery-electric systems.



Specifications

Power for HDS100/HDS200

- Generator 210kW continuous
- Motor 210kW continuous

Power for HDS300

- Generator 240kW continuous
- Motor 240kW continuous

Power for Series-EV

- Motor 210kW continuous

Coolant

- Coolant temperature: -40°F to 149°F (-40°C to 65°C)
113°F (45°C) nominal
- External ambient: -40°F to 167°F (-40°C to 75°C)

Size

- Length: 36.2 in (919 mm)
- Width: 22.4 in (569 mm)
- Height: 9.3 in (237 mm)
- Weight: wet: 188 lbs. (85 kg)
- Coolant: water ethylene/glycol (or propylene glycol)
15 gpm (57 lpm)

Features

PCS for HDS100, HDS200, HDS300, and Series-EV

- Selectable acceleration and regenerative braking settings
- Onboard diagnostics
- Standard SAE 1939 CAN interface
- System control and vehicle interface electronics mounted externally
- Operation and diagnostics fully integrated with APS-1, APS-2, and APS-3
- Optional high-voltage output to support electric cabin heater
- Liquid cooled for superior thermal management

PCS for HDS300

- Larger internal bus bars for higher power handling
- Larger power transistors (IGBTs) for continuous power handling

EV-PCS for Series-EV

- Added port for 200A charge (with pre-charge)
- Added port for 400A charge (with pre-charge)
- Available DC output for APS (Accessory Power System)

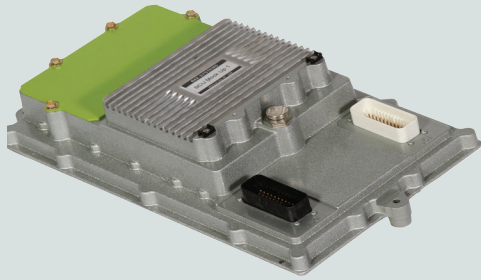
Benefits

- Rugged, durable, and highly reliable
- Flexible installation and cooling
- Standard communications interface
- Supports prognostics health management
- Optional heater output, eliminates need for fuel-fired heater
- Performance can be tailored to customer needs
- Identical mounting points and connections for HDS100, HDS200, and HDS300

Benefits EV-PCS

- Same as PCS but provides two charge ports: one for an inductive and another for a fast charger with pre-charge on both
- Provides access point for APS DC link
- Like PCS has 1x 200kW inverter

SCU (System Control Unit)



Ratings

Operating temperature:

- External ambient: -40°F to 125°F (-40°C to 52°C) continuous, up to 167°F (75°C) at initial start-up

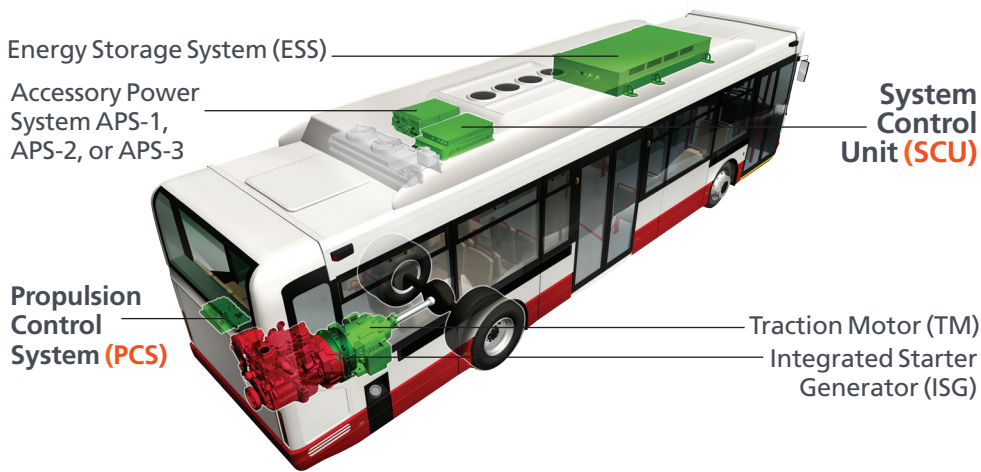
Size (over chassis)

- Length: 15.15 in (385 mm)
- Width: 8.70 in (221 mm)
- Height: 3.91 in (99 mm)
- Weight: 10 lbs. (4.5 kg)
- Coolant: Air cooled

Features

- Supports 3 SAE J1939 CAN buses
- On board diagnostics interface

Series-E and Series-ER Hybrid Electrics



*Note: The position of components may vary depending on OEM

Series-EV Battery Electrics

Battery options available

APS-2 or APS-3

Battery options available



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