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 interfaces, system monitoring and control, and system level diagnostics. 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 enables overall system performance to be customized to an operator’s specific requirements and provide diagnostic information to enhance maintenance of the entire system. Combined with our Accessory Power System (APS-2 and APS-3), the PCS and SCU fully support stop/start technology and Depot Drive mode (EV driving>50 yards). The PCS and SCU are available for HDS100, HDS200, and HDS300 systems and EV PCS is available for Series-EV, full battery-electric systems.

### Features

#### PCS for HDS100, HDS200, HDS300, and Series-EV
- Selectable acceleration and regenerative braking settings
- Onboard diagnostics
- Standard SAE 1939 CAN interface
- 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

#### EV PCS for Series-EV
- Same footprint, connection points, and space claim as HDS100/200/300 PCS
- Same 240kW motor inverter as HDS300 PCS
- Added port for 200A charge (with pre-charge)
- Added port for 400A charge (with pre-charge)
- Available DC output for APS (Accessory Power System)
- Compatible with all traction motors

### Specifications

#### Power for HDS100/HDS200
- Generator 200kW continuous
- Motor 200kW continuous

#### Power for HDS300
- Generator 240kW continuous
- Motor 240kW continuous

#### Coolant
- Water ethylene/glycol (or propylene glycol)
- Coolant temperature: -40°C to 65°C
- 45°C nominal

#### External ambient
- External ambient temperature: -40°C to 75°C

#### Size
- Length: 919 mm (36.2 in)
- Width: 569 mm (22.4 in)
- Height: 237 mm (9.3 in)
- Weight: wet: 85 kg (188 lbs.)
System Control Unit (SCU)

**Ratings**

- External ambient: -40°C to 52°C continuous, up to 75°C at initial start-up
- Air cooled

**Size**

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

**Features**

- Supports 3 SAE J1939 CAN buses
- On board diagnostics (OBD) compliant
- System control and vehicle interface electronics

Series-E and Series-ER electric hybrids

(The position of components may vary depending on OEM)

Series-EV battery electrics

(The position of components may vary depending on OEM)

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