The 80kW Fuel Cell engine is our most robust engine with 40 kW/sec transient power capabilities offering a fully integrated freeze capable system with a rapid startup design and industry leading power density specifically designed for medium and heavy duty, transit bus, drayage trucks, GSE, ports and logistics equipment and off-road applications.

**Performance Characteristics**

- **Electrical**
  - Output Power: 6 - 80kW
  - Output voltage: 375 - 750VDC (Integrated Isolated dc-dc converter)
  - Ramp rate: 40 kW/sec

- **Efficiency**
  - System Efficiency: 56.9 to 46.3% (10% to full power)

- **Temperature**
  - Ambient Temperature: -40 to 50°C
  - Cooling Inlet: 55 to 57°C (50/50 WEG)

- **Fuel**
  - Fuel Flow: 5.2 kg/hr @ full power
  - Fuel Pressure: 1200 ±300 kPa
  - Fuel Type: SAE J2719 Hydrogen

- **Physical Characteristics**
  - Dimensions (L x W x H): 916 x 879 x 614 mm
  - Weight: 248 kg, (298 kg including isolated dc-dc converter)

- **Interface**
  - Vehicle Communications: CAN SAE J1939

- **Startup / Shutdown**
  - Startup Time: 30 seconds
  - Startup from Frozen Time: 6 minutes
  - Shutdown Time: 10 seconds
FCe™80 is an integrated fuel cell engine that is purposed-built for heavy-duty vehicles meeting SAE J1455 shock and vibration and environmental requirement. The FC engine includes the integrated isolated dc-dc converter and the safety disconnect and protection system with high voltage isolations (>2M ohms).

The FCe™80 engine is the most efficient fuel cell engine with all BOP components integrated and no demand from the vehicle. The low-pressure operation allow fast transient response with high efficiency even at low power range. The FC engine design allow ease with installation, command and control similar to conventional engine. Cooling is 50/50 WEG system with no external DI water-cooling or circulation pump.

† System efficiency represents energy delivered per energy fed in the form of hydrogen (calculated on a LHV basis).
‡ Full power is the maximum power the electric engine can continuously deliver.