



ASHOK LEYLAND
Koi Manzil Door Nahin

FCEV

Fuel Cell Electric Vehicle



HINDUJA GROUP

INTRODUCING FUEL CELL ELECTRIC VEHICLE

Technology has progressed at an unimaginable rate. In this new wave of technological revolution, Ashok Leyland showcases the future of mobility.

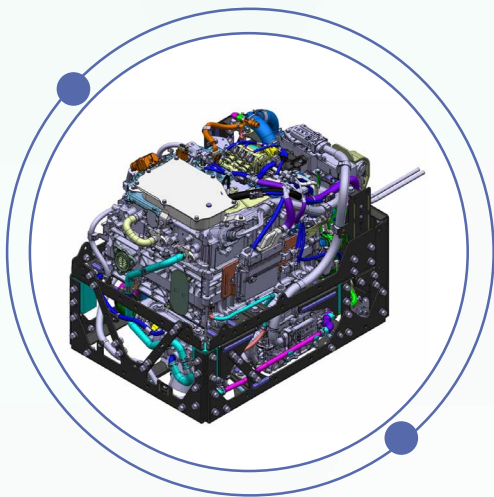
Here's introducing the Hydrogen-Powered Fuel Cell Electric Trucks for a cleaner, greener, and unstoppable future.

This vehicle is powered with green hydrogen and thus offers zero tailpipe emissions. The heart of this vehicle is the fuel cell. Here atmospheric oxygen reacts with hydrogen to produce electricity that powers the truck. This vehicle also has an NMC battery pack that provides additional thrust to ascend any terrain.

An ingenious innovation like this is helping us progress toward achieving the goal of a cleaner and greener world, and hence, with the hydrogen-powered fuel cell electric truck,
Koi Manzil Door Nahin!

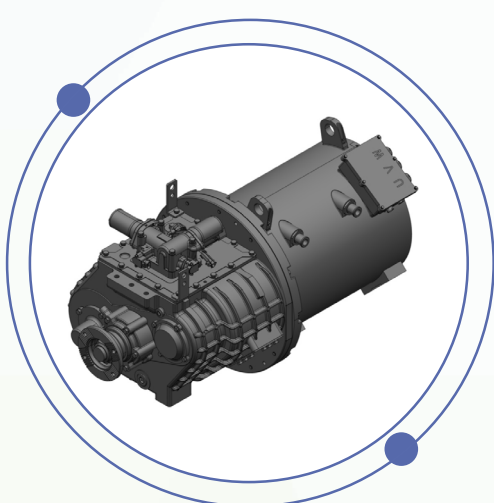


KEY AGGREGATES



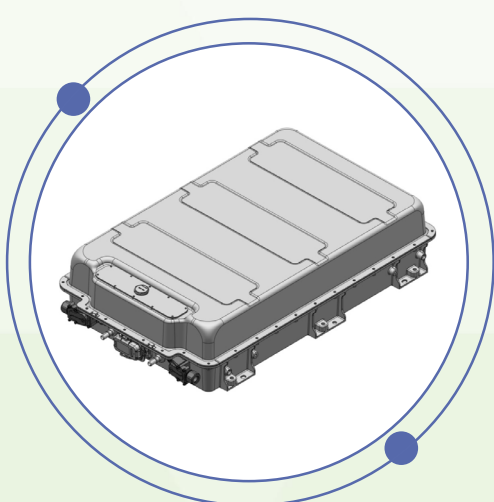
Fuel cell

- Rated Output: 80 kW
- Voltage: 400 V to 750 V
- Proton Exchange Membrane (PEM) technology



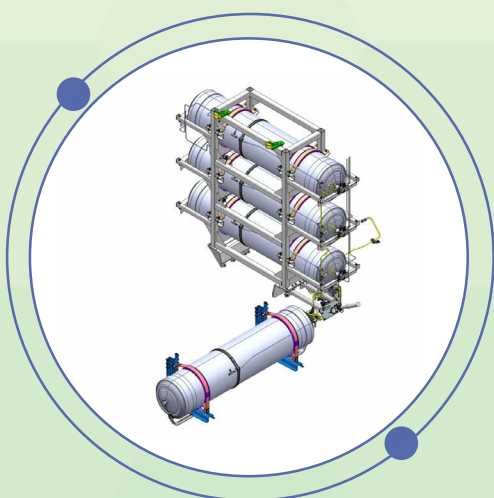
Electric Motor

- Permanent Magnet Synchronous (PMS) motor
- Input voltage: 300 V – 750 V
- Power/ torque rating: 360 kW/ 3000 Nm (max)
- Power/ torque rating: 250 kW/ 1600 Nm (continuous)



High Voltage Battery

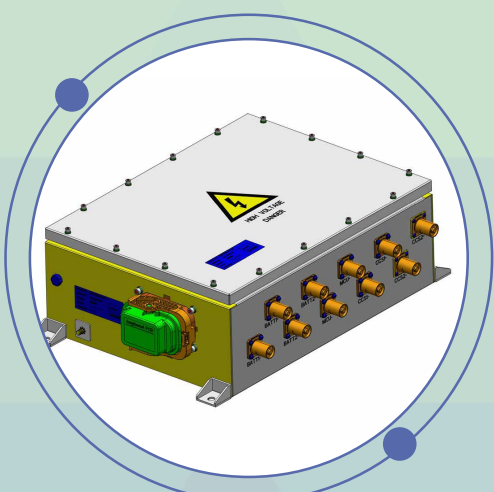
- Nominal Voltage: 650 V
- Energy Capacity: 55 kWh
- Battery Chemistry: Li-NMC



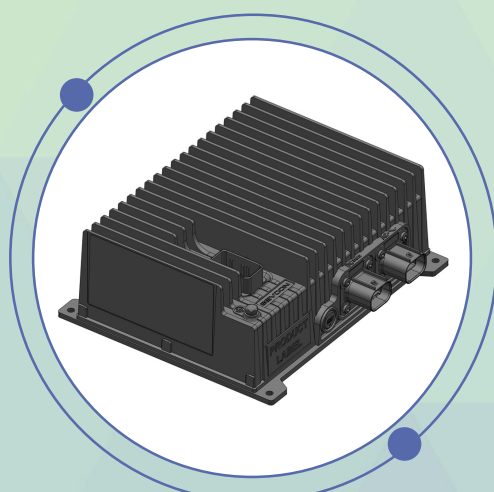
Fuel System

- Tank type: T4
- No. of tanks: 4
- Total tank capacity: (8.4 kg x4) = 33.6 kg
- 3 behind the cabin and 1 on RH side

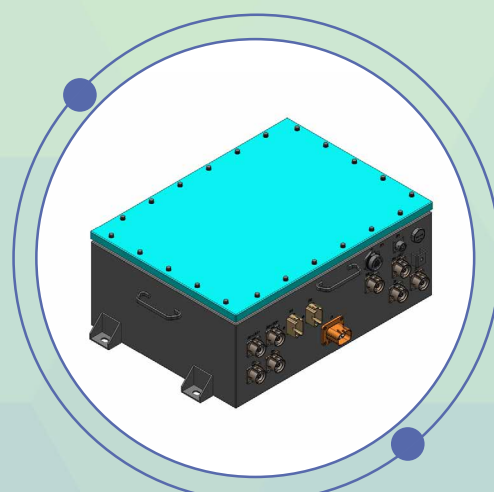
Power Electronics



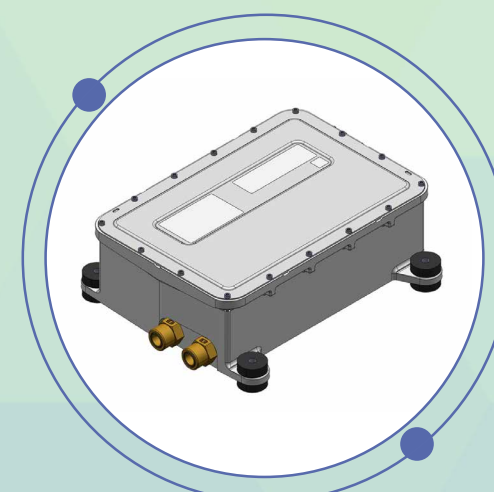
Power Distribution
Box



Inverter








Motor Control Unit

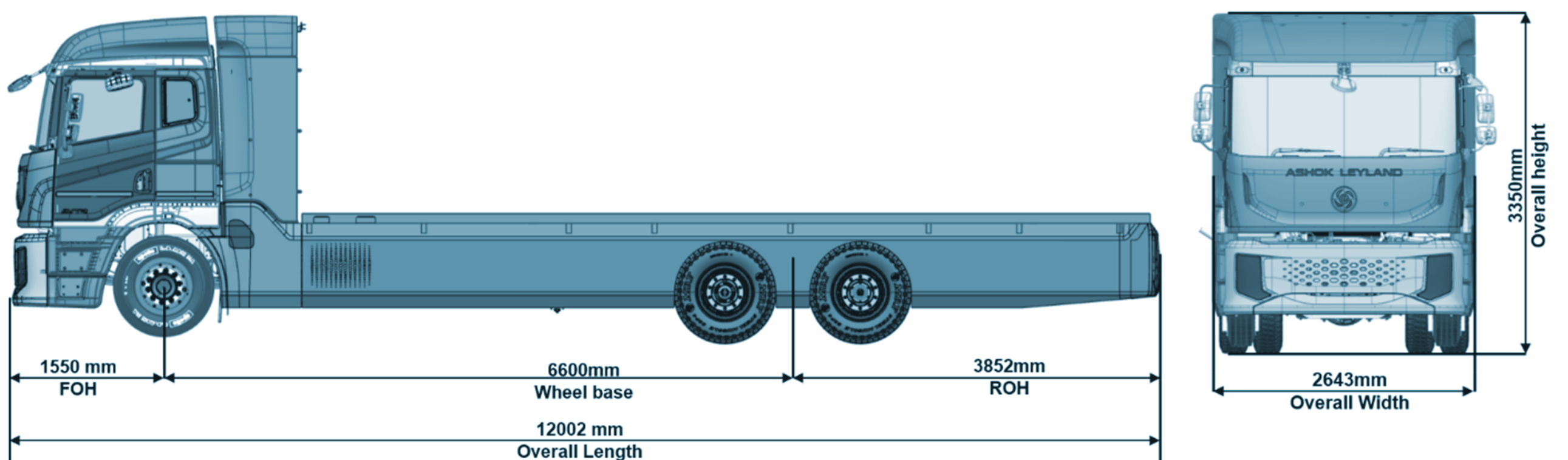


DC-DC converter

FEATURES

-  **Faster fuel filling time**
Fueling time is similar to diesel vehicles
-  **Highly efficient when compared to other energy resources**
Hydrogen packs the highest energy density and with higher thermal efficiency, offers superior mileage
-  **Zero Tailpipe Emission**
FCEV emission contains only water vapour
-  **Rear View camera and 178 mm (7") display**
-  **Wide range of vehicle configurations from the AVTR modular platform**
With the AVTR modular platform, customers can configure vehicles based on their specific application and needs

SCHEMATIC LAYOUT



FUEL CELL ELECTRIC VEHICLE

TECHNICAL SPECIFICATIONS

GVW	28000 kg
Fuel cell	80 kW
Max power	250 kW
Max torque	1600 Nm
EV motor	Permanent Magnet Synchronous Motor
High voltage battery	2C Lithium-Ion NMC Battery, 55 kWh
Fuel tank	4 x 350L tank (T4)
Low voltage battery	24 V System
Battery cooling	Cooling system fully integrated with battery pack
Front axle	Forged I section – Reverse Elliot type
Rear axle	Fully floating single reduction hypoid axle
Front suspension	Parabolic suspension
Rear suspension	Slipper ended suspension
Chassis frame	Bolted construction with constant width over chassis
Brakes	Full air dual line brakes with ABS
Gearbox	2-Speed AT gear box
Tyres	Low resistance tubeless tyre - 295/ 80 R 22.5
Cabin	N - Premium cabin
Max speed	80 kmph
Overall length	11960 mm
Wheelbase	6600 mm
Turning circle diameter	22700 mm
Load body type	Cab Chassis



ASHOK LEYLAND

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