



RWD Hybrid Drive System

The Ashwoods RWD Hybrid Drive System is categorised as a Not Off Vehicle charging (NOVC) Torque Assist Mild Hybrid System. The Ashwoods Hybrid Drive works to reduce fuel consumption by recovering energy that would normally be wasted during braking and deceleration events.

The energy is recovered by a permanent magnet Asynchronous Motor/Generator (PMAC) that is connected to the vehicles driveline. The energy that is recovered is then stored in a Lithium Iron Phosphate (LiFePO4) battery pack. The stored energy can then be used to deliver Torque Assist to the vehicle during acceleration events when its engine is at its least efficient therefore reducing fuel consumption and CO2 emissions.

The IPM contains the control electronics, traction inverter and batteries pack.

The MGM consist of the motor generator and power transmission.

The DDI provides real time information to the driver on the hybrid systems behaviour and also encourages the driver to optimally use the hybrid system through appropriate driving style

The power transmission from the MGM to the vehicle drive line is by way of a High Torque asynchronous belt drive which has a 20,000 mile service interval in normal operation. Both the IPM and MGM are factory sealed units that require no user servicing or maintenance.

Hybrid Drive Specification

Dimensions		Thermal Endurance	Electrical	
IPPM Length	567mm	Storage Min -20°C	IPPM Stored Energy	1.22kWh
IPPM Width	264mm	Storage Max +60°C	IPPM Nominal Voltage	79.2V
IPPM Height	245mm	Operation Min -10°C	MGM Voltage	55.5Vrms
		Operation Max +40°C	MGM Peak Power	9.1kW
			MGM Torque	50Nm
Mass				
Total System Mass	85kg	MGM Insulation	Class F	
EMC Compliance	CISPR25	ISO7637-2 ISO7637-3	ISO11451-3 ISO10605	ISO11452-2



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