

VOLVO BUS HYBRID B5LH



General	Volvo B5LH low floor hybrid double deck bus.
Body options	Wrightbus Gemini 2 Body options are available with one door provincial specification or two door London specification.
Hybrid driveline	Volvo parallel hybrid system. Traction power supplied by either the diesel engine or electric motor working independently or together. Power for the electric motor power is supplied by a 600 volt battery. Driveline uses stop/start technology.
Engine	Volvo D5F215 4cyl 4.76 litre Euro 5 engine rated at 215hp@2200rpm with maximum torque of 800Nm at 1200-1700rpm. Emission levels comply with Euro 5/EEV legislation. Engine emission control uses SCR technology.
Electric motor	I-SAM 600 volt ac permanent magnet water cooled electric motor mounted between engine and gearbox. Motor is rated at 160hp/800Nm max and 94hp/400Nm continuous. Motor acts as a generator to recharge 600 volt batteries during braking.
Transmission	Volvo AT2412D I-Shift fully automated 12 speed gearbox. 3 button gear selector control.
Energy storage system	Lithium-Ion battery with battery management unit, isolation resistance and battery disconnect unit. Water cooled and heated with independent system.
Rear axle	ZF drop centre portal axle with a 4.72:1 ratio. Electronically limited max speed options of 70km/hr, 80km/h and 90km/h are available.
Brakes	The EBS5 brake system is an electronically controlled pneumatic system. The front and rear brakes are disc brake design and incorporate integral automatic brake adjusters. Chassis mounted screw compressor is electrically driven by 600 volt motor. ABS anti lock braking system, door brake interlock, brake temperature warning and lining wear Indicator.
Steering	ZF hydraulic power assisted steering. Steering pump is electrically driven. The steering wheel position is adjustable for height and rake.
Suspension	Electronically controlled air suspension. Beam front axle, with front axle kneeling and ferry lift.
Electrical	The chassis electrical system is of multiplex design (BEA 2) and is a 24 volt negative earth system with two 12 volt, 225 amp hour, heavy duty lead acid batteries mounted in a swing out carrier. 1 x Bosch 120 amp alternator is fitted. 24 volt chassis electrical system is also supplied via DC/DC converter from the hybrid 600 volt system. Electronic monitoring of oil and coolant levels is fitted as standard.
Fuel system	A 220 litre aluminium fuel tank is offered, fitted over O/S/F wheel arch. The fuel filler is located on the right hand side (offside) of the body; this can be offered with Posi lock or Identic fast filling systems as an option.
Tyres & Rims	10 stud 22.5" wheels with 275/70R22.5 tyres.