



Photo: Courtesy Robert McConnell

ECO Saver IV™

Hybrid Electric Bus

by **DesignLine usa**

DESCRIPTION

DesignLine unveils the sum of more than 10 years of hybrid bus experience, the fourth generation DesignLine ECOSaver IV. The ECOSaver IV was specifically developed for the North American market with a unique technical and aesthetic design.

The ECOSaver IV is an electric bus equipped with an Auxiliary Power Unit (APU) to extend the driving range, and under normal operation, it can remain in service as long as fuel is provided to the APU.

The ECOSaver IV is available in lengths of 35 and 42 feet.

FEATURES

- Aerodynamic and innovative styling with curved body and seamless windows.
- No structural defects reported in the 28-year history of worldwide service.
- A proprietary Vehicle Management System (VMS) that monitors and controls all aspects of the hybrid system.
- A proprietary Battery Management System (BMS) that monitors and controls the charge and discharge of the batteries at the cell level.

- Wireless troubleshooting and communication with customized report generator.
- The ECOSaver IV is built with over 80% U.S. content.

ADVANTAGES

Reduced Emissions

- The ECOSaver IV runs emission free more than 20% of the time, and each diesel bus replaced with an ECOSaver IV will reduce atmospheric pollution.

Improved Fuel Economy

- The ECOSaver IV enjoys a 100+% improvement in fuel economy over a diesel bus and can save half your current fuel budget.

- Federal EPA emission compliant

Reduced Noise Levels

- During zero emission mode the noise level of the bus is less than the ambient background noise of the city.
- The ECOSaver IV is so quiet that passengers carry on conversations at normal voice levels, even when conversing from the front to the back of the bus.

Increased Passenger Comfort

- Because there is no no transmission or gearbox, acceleration is smooth and quiet (no jerking).
- Due to the solid construction and aluminum flooring, there is a distinct reduction in squeaks and rattles that come from looser construction methods.

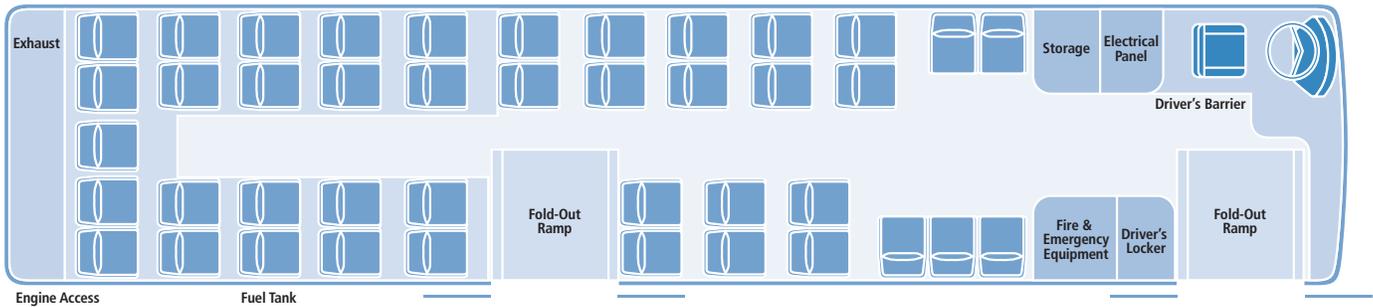
Life Cycle Costs

- A 40% reduction in overall life cycle costs is attainable.



ECO Saver IV™ Hybrid Electric Bus

Specifications



SEATING ACCOMMODATIONS (ADA)

Up to 42 seats in various layouts based upon customer requirements. Multiple ADA locations available.

DRIVER CONFIGURATION

Ergonomically designed driver stations make information and controls easy and comfortable.



CONSTRUCTION

A steel and aluminum, modified hybrid, integral construction process similar to the construction methods for light rail cars, subways and high-speed trains. Extensive use of robotic welding. Near automotive tolerances maintained throughout the structure. Up to 5 tons lighter than other comparably sized buses, yet maintains extraordinary structural integrity.

DOORS

Vapor or Bode plug doors available in various widths to meet customer requirements. Slide glide doors optional.

RAMP

Ricon or Lift-U with manual, telescoping or flip-out operation. Front and rear kneeling capabilities to less than 10".

HVAC

SuTrak LRT series roof-mount with scroll compressor standard. ThermoKing optional.

POWER STORAGE

Lithium Ion batteries.

MAIN INVERTERS

2 SemiKron advanced integration modules, 250 kW each.

MOTORS

2 Bosch Rexroth Idramat 3-phase AC induction motors, 120 kW each, 250 kW total, equals 335 hp.

DRIVE SYSTEM

Auxiliary power unit Capstone MicroTurbine in 30 kW standard utilizing low sulfur diesel, CNG, LNG or LPG. Optional 45 kW 4-cylinder diesel GenSet.

AXLES/SUSPENSION/BRAKES

ZF 85A steer and A132 drive axles with ZF suspension and Bendix/Knorr/Bremse disk brakes and Bendix ABS or ABS with ATC. MAN and Meritor optional (disc or drum brakes).

DIMENSIONS

Overall Length	35' and 42'
Overall Width	102"
Height (Main Roof Line)	113"
Height (With Roof Mounted HVAC)	121"
Wheelbase	245.8"
Front Overhang	100.1"
Rear Overhang	133.5"
Standing Height Inside (Front)	96"
Standing Height Inside (Rear)	74"
Passenger Step Height (Front)	15"
Passenger Step Height (Rear)	15" (max.)
Approach Angle	9°
Breakover Angle	9°
Departure Angle	9°
Curb Weight	27,750 lbs. (avg.)
Gross Vehicle Weight Rating	38,000 lbs.
Turning Radius	480"



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All design and dimensional data represented in this document is subject to change and should be considered as a recommendation only, not a guarantee.