

ELENA is a Plug-in Hybrid Electric Vehicle based on the Mercedes-Benz Sprinter.

The electric drive mode can be switched on while driving, giving you the option to drive without any emission in urban and regional areas.

For supra-regional trips, the conventional Diesel engine can still be used without any restrictions.

The product is also available as aftermarket kit.

ELENA

...is an association  
of automotive experts  
off of Baden Württemberg

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The First  
Electric Plug-in  
Hybrid LCV





## OPERATING COMFORT

Ergonomic and intuitive user interface via intelligent pushbutton

Information of current operation mode (SOC, driving mode, state of gearbox) via integrated LEDs

Original vehicle operating concept maintained

Smooth mode switching via button control at standstill or while driving



## DRIVING MODES

Hybrid mode set as default

Free choice of 3 driving modes

**electric mode:** Full electric driving by using a high-torque electric engine enabling noiseless driving free of emissions for a range of max. 50 km and a max. speed of 90 km/h

**hybrid mode:** Combination of both driving units to increase fuel efficiency. Fuel reduction under real driving condition by up to 35 %. The maximum speed is limited to 120 km/h.

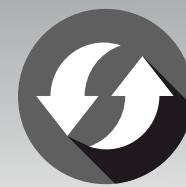
**diesel engine mode:** The original driving concept available at all times. The maximum speed will be similar to the basic vehicle.

## VARIABILITY

Wide variety of configurations: Passenger transportation vans, delivery vans, curtainsiders with different configurations

New and used vehicles

Loading volume is not affected. The maximum payload will be reduced by 280 kg



## SAFETY CONCEPT

The vehicle dynamics control (ABS, ESP, ASR) operates in all 3 driving modes

Guaranteed high voltage cut-off in case of hazardous situations

Unrestricted system reliability (Diesel mode as fallback solution)

Redundant sensors and actuators



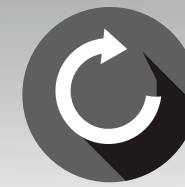
ESP, ABS, ASR

Unrestricted system reliability

## REKUPERATION

Automatic recuperation control during braking and overrun mode depending on route profile, vehicle speed and loading

Additional energy recovery by selective load point adjustment for specific load points during long-distance driving..



## XTRA-CHARGE / POWERBOOST

Optional activation of additional functionalities by pressing and holding the pushbutton in hybrid mode

**Xtra-Charge:** Battery charging via permanent recuperation while driving

**Power-Boost:** Improved performance via maximum interaction of electric and combustion driving torque

## PLUG-IN

Charge of the high voltage battery by using a conventional household power outlet type „Schuko“ 230 V AC.

Charging time will be app. 5h.

## BENEFITS OF THE CONCEPT

**Noiseless travelling free of emissions in electric mode:**

For low emission zones, residential areas, city centres, workshops, recreation areas, airports or simply to demonstrate environmental awareness

**Efficient long-distance driving in hybrid mode:**

Increase of fuel efficiency, recuperation and maximisation of the total driving range

**Original maximum vehicle speed when using the conventional diesel engine**

