

# Powering next gen mobility

**VERS** active  
inside



Mild Hybrid System  
Product Card

**VERS**



# New standard of efficiency

New advancements in carbon and graphene technologies enabled Energy Recuperation with **99% efficiency** across the Automotive industry. Our systems focus on recovering energy in the process of combustion engine braking: rather than dissipating the kinetic energy into heat, recuperation can improve fuel savings by **up to 10,5%**.





# Working principle



## Hybrid Assist

VERS Mild Hybrid System recovers energy via a dedicated belt-driven 48 V Motor-Generator. The electrical energy is saved with up to 15 kW of Power, stored in the supercapacitors module and used to support the main engine during vehicle acceleration. The supercapacitors' loading takes only seconds thanks to the ion exchange energy transfer which is rapid physical process.

**VERS**



# Mild Hybrid System

## TCO Optimised

High efficiency delivered at low cost enables VERS Mild Hybrid System to be the most profitable City Bus solution on the market.

## High Capacity

Our best-in-class 130 Wh supercapacitor module enables Energy Recovery with up to 15 kW of Power and Hybrid Assist with up to 10 kW Power Boost.

## Ultralight

Advanced supercapacitor cells allow to downsize the weight of the System to 58 kg without sacrificing performance and durability.

## Longer Lifetime

The System is engineered to allow for 1 million of loading cycles; to guarantee reliability, our supercapacitors pack is protected by a 10-year extended warranty.

# VERS

Up to 15 kW  
Energy Recovery

10 years  
Supercap warranty

Start-Stop  
Enabled

Rated voltage: **48V**  
Maximum Mechanical Power: **10 kW**  
Energy Capacity: **130 Wh**



ISO 9001:2015  
Certification



CE Certification





# Power when you need it

Winter conditions and low battery levels can affect fleet reliability in Northern climates. VERS Mild Hybrid System provides additional boost of **up to 65 Nm of torque** on uphill routes. Each System is also equipped with functions dedicated towards battery problems: **Start Assist and Battery Protection**. First, the System supports the electric installation with up to 150 A increasing reliability in all conditions. Secondly, it protects the onboard battery from high loading currents, lengthening its life expectancy by up to 400% (as tested with Cuty Bus Customers).





# Regular savings

Each VERS Mild Hybrid System is equipped with a custom Monitoring unit, measuring performance and sending the data via Wifi. Our Customers receive regular updates on their savings in **VERS Monthly Reports** delivered directly to their email. While the results vary depending on the route profile and fuel prices, the Return on Investment in the Total Cost of Ownership is estimated to **3-5 years** of a City Bus operation.



# Customer Contact

We are delighted to know your views. If you need additional information or would like to test VERS Systems onboard your vehicles, please feel free to contact our Customer Team.

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