

VARTA® ProMotive AGM: Power pack for modern commercial vehicles

- High performance battery minimizes Total Cost of Ownership
- Hotel comfort: Power for parking cooler and heater
- Long service life even under the heaviest loads

With up to six times longer cycle life¹ and great reliability the VARTA ProMotive AGM, introduced by Clarios, a leader in advanced battery technology, reduces the Total Cost of Ownership (TCO). In addition, it also enables the greatest possible level of comfort in the driver's cabin. This is an important competitive advantage in an industry where it is increasingly difficult to obtain and retain drivers.

Large numbers of electrical consumers require more and more energy. This leads to deep discharged batteries especially after overnight stays. In addition, conditions to fully recharge the battery are often limited. This puts a strain on the performance of commercial vehicle batteries. The result: increasing numbers of battery failures. Clarios has solved this problem. The VARTA ProMotive AGM, which is Europe's first AGM battery for commercial vehicles, provides the ideal power supply for vehicles equipped with comfort and advanced start-stop features. 'Clarios is market and technology leader in the field of commercial vehicle and car batteries, especially AGM batteries. We combined the know-how from both product lines and worked closely with leading commercial vehicle manufacturers. With the VARTA ProMotive AGM Clarios developed a product that is unique on the market today,' explains Thorsten Werle Engineering Design Lead Heavy Duty at Clarios EMEA.

Stricter emission regulations and additional consumers

Passive boost and upcoming functions like start-stop, sailing/coasting provide some downtime for the engine. While the alternator is having a break electrical devices like GPS, radio and lights discharge the battery. There is additional strain placed on the battery in order to support electronic and electrical devices which improve driving efficiency, safety and comfort. On top of that, journeys nowadays take longer which translates into more overnight stays in the cabin - with increased expectations regarding to comfort. Refrigerators, microwaves, coffee machines

¹ In comparison with conventional commercial vehicle batteries

and entertainment electronics discharge the battery during rest periods. However, the major sources of battery stress are parking coolers and heaters.

Glass fleece prevents loss of capacity

Commercial vehicle manufacturers can prevent this, by selecting the right battery. The VARTA ProMotive AGM reliably provides power for parking coolers and heaters. AGM stands for Absorbent Glass Mat. The absorbent glass fleece absorbs the battery acid and increases cycle stability. This prevents loss of capacity due to acid stratification. The advantage: The battery has a cycle life which is up to six times longer than that of conventional batteries. Due to the special design, up to 80 percent of the specified capacity can be utilized without significantly compromising cycle life time. In comparison, conventional batteries that are designed for starting purposes, VARTA recommends maximum 20 percent discharge to achieve a proper field life. In addition, it is completely maintenance free and provides a considerably higher starting power than gel batteries.

Vibrations? No problem!

A further challenge are the vibrations to which commercial vehicles are exposed. AdBlue tanks and larger fuel tanks are displacing batteries towards the rear end of commercial vehicles. In this position, they have to be able to withstand increased vibrations in order to prevent premature failure. The VARTA ProMotive AGM addresses this challenge with its connectors. With this combination of features the VARTA ProMotive AGM ensures cost-effective, safe and comfortable driving. For the first time it is possible to take advantage of the full potential of commercial vehicles with an extended battery life time.

About VARTA

VARTA® batteries are the driving force behind innovations like start-stop engines. They will reliably restart a vehicle engine again and again, and effectively help to maximize vehicles performance. The VARTA brand has a history going back more than 125 years. VARTA batteries are factory-fitted by major carmakers and trusted by drivers globally.

About Clarios

Clarios, formerly Power Solutions, is a world leader in advanced energy storage solutions. We partner with our customers to meet increasing market demand for smarter applications, on a global scale. Our 16,000 employees develop, manufacture and distribute a portfolio of evolving battery technologies for virtually every type of vehicle. Technologies that deliver uniquely sustainable, next-generation performance, and bring reliability, safety and comfort to everyday lives. We add value at every link in the supply chain, contributing to the progress of the communities we serve and the planet we all share. Learn more about Clarios at www.clarios.com. Clarios is a subsidiary of Brookfield Business Partners, a business services and industrials company focused on owning and operating high-quality businesses that benefit from barriers to entry and/or low production costs. Brookfield Business Partners is listed on the New York and Toronto stock exchanges (NYSE: BBU) (TSX: BBU.UN). For more information, please visit <https://bbu.brookfield.com>.
