

PRESS RELEASE

Eberspaecher at Busworld Europe 2023: Sustainable climate comfort and digital solutions

- Increased range for e-buses with AC138 EVO and AC135 AE
- Reduced system complexity through patented heat pump technology
- User-friendly E-Control system and cloud-based services

Esslingen (Germany) / Brussels (Belgium), August 10, 2023 – From freezing cold to tropically hot, thermal management systems from Eberspaecher ensure a comfortable interior climate in all outdoor conditions. From October 7th to 12th, the system provider will be presenting primarily new climate-friendly products for alternative drive types at Busworld Europe in Brussels. Digital and cloud-based services are expanding the portfolio. Visitors can get an insight into the comprehensive range of innovative solutions for city buses and coaches of various sizes at stand 629 in hall 6.

Sustainability is becoming increasingly relevant in public transport in light of the growing population. Eberspaecher is presenting two new air conditioning systems for hybrid and battery-electric buses at Busworld Europe. With the **AC135 AE**, Eberspaecher offers a roof-mounted system with a built-in compressor for medium-sized to large passenger compartments. The all-electric platform includes a varied, cost-effective portfolio with a cooling capacity of up to 40 kW. An integrated battery cooling module maintains a constant battery temperature, which extends the service life and ensures greater efficiency. The system's lightweight construction additionally promotes low energy consumption.

The **AC138 EVO** heats and cools medium-sized to large busses in a particularly energy-saving manner with its own patented heat pump technology. The innovation lies in the reversal of the air circuit, rather than the refrigerant circuit. This ensures a less complex setup, weight reduction of up to 15 percent to 325 kg, and, last but not least, a longer range for e-buses. The AC138 EVO operates on the climate-friendly refrigerant CO₂ (R744). The natural refrigerant is much more environmentally friendly and safer than chemical alternatives. With a GWP (Global Warming Potential) value of 1, it has the lowest greenhouse potential used in bus thermal management.

Tried-and-tested systems with new functions

In addition, Eberspächer will be launching updated versions of well-known products in the fourth quarter of 2023: The **Hydronic L3** is the successor to the fuel-operated heater with a standard integrated nozzle preheating system. Preheating the heater fuel allows reliable starting, stable operation, and reduced emissions. For the first time, the new generation has a CAN- and LIN-capable controller and a brushless electric drive. This enables less wear, a longer service life, and greater efficiency. Four versions – from 16 to 35 kW heat output – address the different customer needs. A special feature is the automatic altitude adjustment. Depending on the model, the Hydronic L3 is suitable for operation at altitudes of up to 4,000 meters. In addition, the device can be operated with HVOs without further modification, as is already the case in Northern EU countries. The fuel is made from hydrogenated vegetable oils and reduces greenhouse gas emissions by 90 percent compared to fossil diesel.

User-friendly controls and digital services

All three systems are compatible with the specially developed, tried-and-tested **E-Control**. Maximum user-friendliness and a wide range of customizable functions make E-Control the perfect control system for all air conditioning components in the bus. The in-house hardware and software permit highly efficient customer-specific modification or reprogramming. An interface to the respective customer system is possible via CAN. In addition, E-Control allows units, such as the AC135 and AC138 EVO, to be integrated with the e-connected web application. **e-connected** is a digital services platform from Eberspaecher that complements the global service network. It works via a gateway in the vehicle, which transmits operating data to a cloud and thus enables a large number of data-based solutions, such as predictive maintenance to avoid unexpected failures or long downtimes through early error detection.

For more information, visit https://www.eberspaecher-busandcoach.com/en/.

Captions:

- The all-electric AC135 AE offers a varied, cost-effective portfolio of up to 40 kW cooling capacity.
- With patented heat pump technology, the AC138 EVO heats and cools medium-sized to large passenger compartments in a particularly climate-friendly manner.
- With automatic altitude adjustment, the water heater with integrated nozzle preheating system is suitable for operation at altitudes of up to 4,000 meters.

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About Eberspaecher:

With approximately 10,700 employees at 80 locations worldwide, the Eberspaecher Group is one of the automotive industry's leading system developers and suppliers. The family business, headquartered in Esslingen am Neckar, stands for innovative solutions in exhaust technology, automotive electronics and thermal management for a broad range of vehicle types. In combustion or hybrid engines and in e-mobility, the components and systems from Eberspaecher ensure greater comfort, higher safety and a clean environment. Eberspaecher is paving the way for future technologies such as mobile and stationary fuel cell applications, synthetic fuels as well as the use of hydrogen as an energy carrier. In 2022, the Group generated revenue of around 6.4 billion euros. Net revenue adjusted for transitory items amounted to 2.7 billion euros.