The AutoTram® Extra Grand carries over 250 passengers, is flexibly operable on any route and features the option of fully electric driving over a longer distance. Additionally, it combines conventional and modular bus construction, which is one of its most important advantages.

Another particular highlight is the excellent maneuverability of the tripartite, over 30 meters long vehicle. Novel articulation joint and gangway systems combined with an electronic multi-axle steering system enable cornering with a minimum turning circle, both in forward and in reverse drive, with a turning radius of only 12.5 meters, which is extremely narrow in view of its length. The AutoTram® Extra Grand fulfills all homologation requirements for road vehicles operated in public transport. Due to its high passenger capacity, its comparatively low costs, and great application flexibility, the AutoTram® Extra Grand is especially suited for operation in metropolitan areas and megacities with rapidly growing transport needs, but it is also recommendable for integration into existing BRT or public transport systems.

The foundations for this intermediate vehicle concept were established at Fraunhofer IVI over the course of several years of development. Together with Göppel Bus GmbH, these technologies were implemented in a fully operational premium vehicle of the go4city bus family.
New perspectives for tomorrow’s mobility!

Precise multi-axle steering technology
The combination of supercaps and lithium-ion battery guarantees a zero tailpipe for the electric traction system. When the supercaps buffer the energy during braking and regeneration, the high-energy density of the lithium-ion battery enables a smooth handling of the AutoTram® Extra Grand.

Dual storage system
The combination of supercaps and lithium-ion batteries guarantees a long life cycle for the electric traction storage. While the supercaps buffer peak loads during braking and acceleration, the high energy density of the lithium-ion battery provides enough current for about 8 kilometers of purely electric driving.

Powerpack
Two diesel-electric generator units supply the necessary backup power for demanding route profiles. While the diesel electric main propulsion system is able to actively control an optimal energy management, the AutoTram® Extra Grand is able to recharge the battery storage.

Electric motors positioned close to the wheels
Two of the five axles are driven by permanent magnet synchronous motors with a peak power of 240 kW each. The compact lightweight construction and the direct cooling of the electronics make the motor developed especially for the AutoTram® Extra Grand.

minimum turning radius 12.5 m