



Superior  
electrical  
driving.

## Get into gear with VECTOPOWER!

The VECTOPOWER system consists of an optimally matched combination of inverter and electric motor. This allows unrivaled performance data.

- The optimally adapted combination of inverter and motor forms a mechatronic system with excellent performance data.
- Whether on land, in water or in the air, VECTOPOWER gets you there faster and more efficiently in the most varied areas of application.
- The many years of industrial experience of the involved companies ensure high system reliability.
- The VECTOPOWER system is scalable and can be expanded with additional functions.
- The development and production of the VECTOPOWER components are both “made in Germany” - while maintaining a price in line with the market.
- VECTOPOWER is a modular product with interfaces to different system levels.
- VECTOPOWER grows along with your requirements! You define how far you want to go into the system.
- We also supply ready-to-operate devices for direct installation in a vehicle.
- If desired, we can develop tailor-made solutions from our standards with your additional functions - and develop them for you.
- In the case of large quantities, we also offer customer manufacturing as an alternative.
- Your valuable know-how is effectively protected by a special technology. Only you can see it and develop it further.



## Mount & Drive. Tailor-made.

### VECTOPOWER tailor-made

**Mount & Drive. The complete solution of the VECTOPOWER system allows you to get started fast.**

You receive ready-to-operate VECTOPOWER devices. You specify the torque for them via CAN-bus – VECTOPOWER ensures that it is optimally generated at the drive shaft.

Fast and sensitive torque control is our domain; we regard all higher tasks for realizing a drive control as your competence. There is a clear division between the VECTOPOWER product and additional services.

VECTOPOWER is thus an optimum platform for implementing your know-how in products. For example, you can create optimum driving dynamics as well as eliminate undesirable vibrations and noise through systematic interventions in the torque production. At the same time, your know-how is protected by a special technology. Only you can access it and develop it further. The VECTOPOWER hardware thus functions as a “dongle” for your know-how.

**For applications with large quantities, we can develop a serial version of VECTOPOWER together with you.**

This consists only of the components required for your applications. This variant offers you maximum added value with optimum integration and protection of your know-how at the same time.

In detail, the series version comprises the following:

- You can receive an electric motor that is optimized for your application or, if desired, only the stator and rotor. You can use these to construct your own motor and create a mechatronic overall system with gears and other coupling elements, for example.
- We can also offer you a made-to-measure driving inverter for your application or we can supply you with tailor-made key elements for your own inverter.

Your know-how is reliably protected even in a serial version.



Made in Germany.  
Best value for money.



## The companies behind VECTOPOWER

**The VECTOPOWER system was developed by two companies that are both recognized experts in their fields.**

The VECTOPOWER motor comes from ATE Antriebssysteme und Entwicklungs GmbH, which specializes in electric motors with all functional principles. ATE relies on experience from over 200,000 delivered asynchronous motors and synchronous motors.

The VECTOPOWER electronics come from ARADEX AG, which has been producing inverters, controls and energy converters for over 20 years. Their products range from serial products to customized individual items. They rely on their experience with approx. 2000 industrial installations and 20,000 delivered inverters. ARADEX products cover a performance range from a few watts up to several megawatts.

The many years of industrial experience of these companies ensure high system reliability.

**Regardless of which of the two VECTOPOWER partners you commission, you will have a contact partner who assumes responsibility for the complete motor/inverter system.**



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## Technical data of the system

**The VECTOPOWER components are designed and implemented as a system.**

Technical data of the system:

- The system supports battery voltages from 48 to 1100 VDC
- Output currents up to 450 A<sub>eff</sub>
- Power up to 200 kW per drive; it is possible to use several drives
- Motor torques up to 20,000 rpm and higher
- Special-purpose solutions are always possible for particular voltages, currents, performance and speeds.

The **VECTOPOWER motor** is available in a synchronous and asynchronous version. The motor is characterized by a high performance density and a simultaneously low weight. The optimized efficiency is very advantageous, especially in the important partial load operational range.

The robust and adaptable construction is optimally suited for installation in vehicles. The VECTOPOWER motor is available in different diameters and constructional lengths. In the case of a malfunction, the braking torque is limited by the system.

The **VECTOPOWER inverter** is optimized for very different applications, performance and voltages.

The inverter is particularly characterized by the fast and sensitive torque control.

The switching and control technology was developed together with the VECTOPOWER motors and achieves excellent performance data as a result of optimum interaction. The inverter is optimized for the respective motor topology.

The dimensions remain small as a result of the very high performance density, which saves space in vehicles.

### Interested in more information?

Request documentation on features and technical details.



If you would rather find out directly how we can promote your application with our electric traction drives then **just contact us**. A meeting with our experts will surely yield starting points for a solution to your challenge.

