Configurable drives with 42 mm diameter

Next-generation modular drive system

Different outputs, transmission designs and reduction stages, drives with and without an encoder, industrial-grade connection technology and IP54 degree of protection: ebm-papst's ECI-42 modular system for drives with a diameter of 42 mm will enable users to create customized solutions by combining different modules.

Configurable drives

Drive specialist ebm-papst St. Georgen has completely redesigned its ECI-42 modular system. Now the configurable drives with a diameter of 42 mm and IP54 degree of protection will also be available with magnetic incremental encoders (12 bit resolution) and industrial-grade plugs for easy electrical hookup. The radial angled plug with bayonet connector can be turned and engages automatically. For space-critical applications, an axial plug module is provided — even a prepared cable connection is available.

42 mm drive at the heart of the modular system

At the heart of all the configurations is a brushless, electronically commutated internal rotor motor with a diameter of 42 mm and stator lengths of 20 or 40 mm. It achieves output levels of around 45 or 90 watts at a nominal torque of 110 or 220 mNm and a nominal speed of 4,000 rpm. The efficiency rating is over 75%. The motors come in industry-standard designs of 24 and 48 VDC. Hall sensors are currently integrated for rotor position detection and the motor is actuated by an external controller. Further smart integrated electronic modules will follow, such as speed and position controllers with the option of a bus interface.

Selection of motors, transmission modules and brakes

In order to bring the high speeds of the internal rotor drive to an appropriate level for the application and to increase the output torque, transmission modules are available, for example planetary gearheads and crown gearheads with innovative crown technology. If the application demands holding or safety brakes, modules with spring pressure or permanent magnet brakes can supplement the drive unit.

Versatile range of application

The industrial-grade drives are ideal for practically all applications that require energy-efficient small drives, from automation and packaging systems to laboratory and medical equipment. Thanks to defined preferred types, selected drive configurations will be ready to ship within 48 hours (from spring 2019), which means that sampling, for example, can be realized in a short period of time. The drives can be configured and ordered via the online portal idt-config.ebmpapst.com.
Configurable drives with 42 mm diameter

Next-generation modular drive system

Fig. 1: Configurable drives with 42 mm diameter: next-generation modular drive system, here with industrial-grade plug.

About ebm-papst
The ebm-papst Group is the world's leading manufacturer of fans and motors. Since it was founded, the technology company has continuously set global industry standards: from the digital interconnection of electronically controlled EC fans to aerodynamic improvements for fan blades to the use of eco-friendly materials.

In fiscal year 2017/18, the company achieved sales of over €2 billion. ebm-papst employs over 15,000 people at 27 production sites (e.g. in Germany, China and the US) and in 48 sales offices worldwide. Fans and motors from the world market leader are used in many industries, including ventilation, air conditioning and refrigeration, household appliances, heating, automotive and drive engineering.