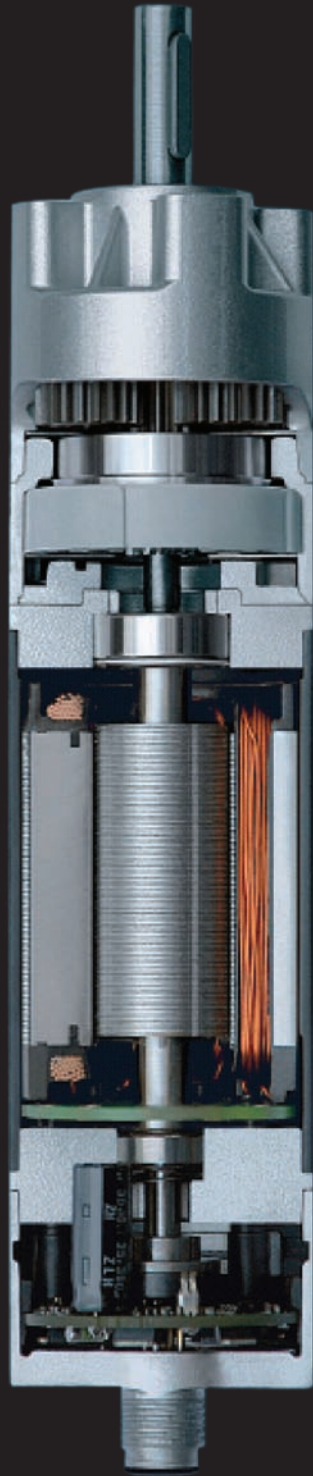


The new all-inclusive motor
ECI 42.40 Compact



Simple to connect, ready to start

The engineers choice.

ebmpapst

Brainware

If there were IQ tests for small drives, ebm-papst EC compact motors would surely be classified as “highly gifted”! Not visible at first glance are the important features packed directly into the motor: the entire operating and speed control electronics and the microprocessor-controlled motor management. Together, they make up its intelligence for solving a wide variety of drive tasks. Their outstanding features include excellent control behaviour over the entire speed range, outstanding synchronous features, high efficiency and a long service life - all at an attractive price. For more information about ebm-papst “brainware” for your drive tasks, see: www.ebmpapst.com/eci4240

The technological top class as industry standard

With the new ECI 42.40 Compact, a drive showpiece from ebm-papst has been unveiled which will set new standards in a wide range of different drive applications. A new industrial standard is the result of an intelligent, compact all-inclusive motor which can be used to operate a wide range of different applications – without additional development costs.

All-inclusive: the “ready-to-use” solution

EC technology including drive and control electronics together with ebm-papst know-how, engineering and service. The highly dynamic EC internal rotor motor in size 42 is perfect for everyone looking for an integrated, ready-to-use motor system for their drive tasks and for those who rely on a motor design which has already proven itself in large quantities, for example as active steering motors for the automotive industry or in the field of conveyor technology.

You can now replace your brush-commutated solutions with a superior EC system and ensure that your products have a clear innovative advantage and therefore competitive advantage too.

The integrated electronics

The integrated electronic system of the motor houses all of the brains behind the ECI 42.40 Compact in a small space – more precisely in one sixth of the area previously required. The microprocessor-controlled electronic system controls the different motor management tasks. 3 Hall sensors provide the microcontroller with exact rotor position signals required for perfect commutation of motor current. The 4 quadrant controller combines a power stage (with peak currents) and protective functions such as locked rotor and overload protection.

Gearbox (A)

1-, 2- and 3-stage

- Nominal torque from 0.3 to 10 Nm
- Compact system with the highest power density on the market
- Extremely quiet-running motor/gearbox combination
- Extremely high modularity with possible ratios: 3.2:1, 5:1, 21.2:1, 30:1 and 150:1
- Due to the compact electronic system, few ratios are necessary

Stator (B)

- Needle-wound stator with very high filling grade
- Very high degree of material utilisation
- Automatic connection of the winding strands using a printed circuit board for a highly efficient production process

Rotor (C)

- Fully automated, process-monitored rotor assembly
- High precision, low residual unbalance
- Rotor package with pockets for accommodating high-quality rare earth bar magnets
- Precision ball-bearing system with reliable assembly process in case of axial loads
- Typical service life: over 20,000 hours (motor without gearbox)

Drive electronics (D)

- Digital rotational speed controller
- Flash technology providing the following programming possibilities: fine tuning, speed range, overload capability, control dynamics etc. specifically during production
- Speed sensing using integrated Hall sensors
- Intelligent matching to customer requirements without high expenses

So, you can now replace your brush-commutated solutions with a superior EC system and ensure that your products have a clear innovative advantage and therefore competitive advantage too.

