EtaSolution Series K

Eta-K geared motors help you make savings in many way at once: in terms of planning and installation as well as operating costs and maintenance. They help you control the efficiency of your systems, spare their mechanisms and reduce the load on the mains. Eta-K geared motor thus make a valuable contribution to energy savings and to optimising the level of efficiency of your application.

Eta-K geared motors are a combination of spur-geared, flat-geared, bevel-geared and worm-geared motors in all mounting types with VLT frequency converter. They provide compact drive solutions with infinitely-variable speed in the motor power range of up to 7.5 kW. The frequency converters are mounted directly onto the motor. Thanks to their compact design, the installation volume required for the entire drive is only slightly greater than that for a standard geared motor.

Eta-K geared motors are intelligent drivers for the process engineering of tomorrow. This makes them ideally suited to the operating conditions and the process speeds required. Control is provided by digital and analog inputs and output, via a PC or preferably, via fieldbus systems. Furthermore, the converter delivers valuable additional information which can be used to protect and monitor the plant.

Benefits that count

- Planning and installation costs are down
- Less space needed for control cabinet
- Fewer drive versions so stock keeping is streamlined
- Improved thermal climate inside the switch cabinet
- Avoidance of shielded motor leads and EMC problems

Think system – avoid matching

- Converter and motor are integrated in a single, compact unit
- Converter is optimised for motor and application in the factory
- Retrofits available for existing drive configurations
- New systems are easier to equip

Replace standards – boost functionality

- Substitute mechanical adjustable speed gear units with the convenience on remote operation
- Replacement for pole-changing motors with defined ramp functions
- Monitoring function integrated into the drive

Suitable for all applications

- Conveyor belts
- Roller conveyors
- Rotary tables
- Agitators

Technology at a glance

- Complete VLT frequency converter for all requirements
- Motor power range 0.12 – 7.5 kW
- Supply voltage 3 x 380-480 V
- Speed range 1 : 50

- 160% of nominal motor torque over the entire speed range
- Controlled by anlogue and digital inputs or a serial interface
- Decentralized control via a PROFIBUS fieldbus system
- Electric braking by means of AC braking

Complies with all regulations

- CE mark
- Complies with EMC code of practice for industry in accordance with EN61800-3 (EN 50081, EN 50082)
- Optional compliance with EMC code of practice for domestic installations in accordance with EN61800-3 (EN 50081, EN 50082)
- Constructed in accordance with UL requirements

Emphasis on protection and safety

- Motor and converter degree of protection IP 65
- Integrated protection against overload, overcurrent, phase failure, overvoltage and undervoltage
- Thermal monitoring for the motor and converter
- Clock frequency adjusts automatically to temperature

Construction of the converter

- Compact, slimline geometry
- Plug-fit to motor
- Maintenance-friendly, accessible and easily replaced
- Complete unit, requires no external control voltage

Methods of control

- 4 digital inputs, 2 analog inputs (9-bit resolution), 1 output (analog or digital)
- Integrated 24 V supply to the inputs
- Setpoint addition for complex control tasks
- RS485 serial interface to enable up to 126 VLT frequency converters to be networked
- PROFIBUS option

User benefits

- Preconfigured, plug and play on application specific basis
- Slip compensation for load independent constant speed
- PID controller for structuring process control

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