

# Frequency Inverter Geared Motor Series Eta-K

## Compact and Cost Optimized Speed Control

### Benefits that count

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

### Complies with all regulations

- CE mark
- Complies with EMC code of practice for industry in accordance with EN 61800-3 (EN 50081, EN 50082)
- Optional compliance with EMC code of practice for domestic installations in accordance with EN 61800-3 (EN 50081, EN 50082)
- Designed in accordance with UL requirements

### User benefits

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

Eta-K geared motors help you make savings in many ways at once. In terms of planning and installation as well as operating costs and maintenance. They help you control the efficiency of your systems, treat the mechanics with care and reduce the load on the mains. Eta-K geared motors 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 helical, parallel shaft, bevel and worm-gear motors in all mounting arrangements 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. Due 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 drives 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 analogue inputs and outputs, 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.

## 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 analogue and digital inputs or a serial interface
- Decentralized control via a PROFIBUS fieldbus system
- Electric braking by means of AC braking

## Emphasis on protection and safety

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

## Think system – avoid matching

- Converter and geared motor are integrated in a single, compact unit
- Converter is optimised for motor and application of the customer
- 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 of remote operation
- Replacement for pole-changing motors with defined ramp functions.
- Monitoring function integrated into the drive

## Suitable for all applications

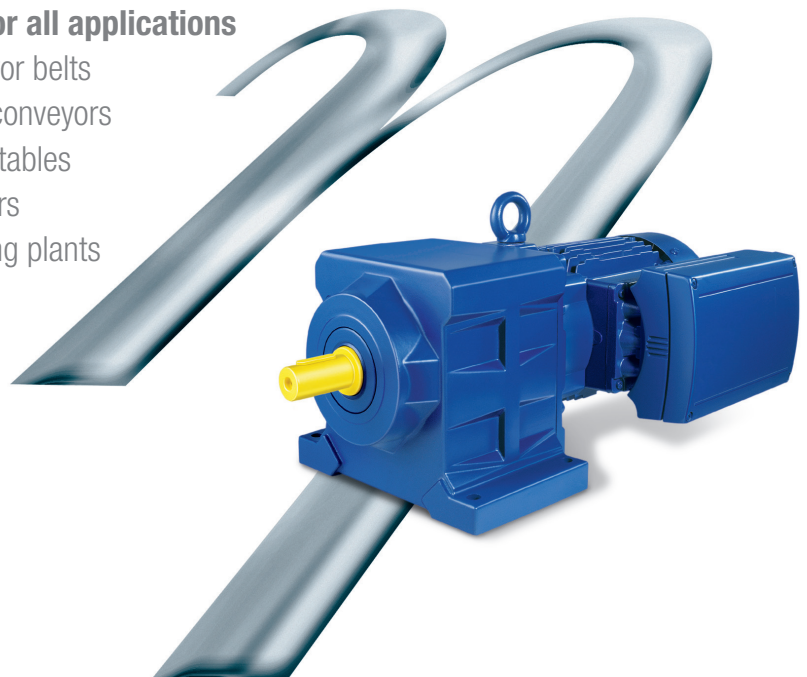
- Conveyor belts
- Roller conveyors
- Rotary tables
- Agitators
- Batching plants

## Design 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 analogue inputs (9-bit resolution), 1 output (analogue 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



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