Advantages Of Jungheinrich's Proprietary 3-Phase Technology

Jungheinrich introduced 3-phase AC to electric trucks

In the early 1990s, Jungheinrich applied powerful frequency converters to successfully convert direct current into 3-phase AC current — achieving this conversion in an economical way. This brought the advantages of 3-phase AC technology, such as the omission of carbon brushes and enclosure of the motor, to electric trucks. It also gave way to new application possibilities for electric counterbalanced trucks — and a significant reduction in operating costs. Today, Jungheinrich installs 3-phase AC technology in all of its warehouse products.

Jungheinrich's proprietary 3-phase alternating current (AC) technology has been tried and tested numerous times in various industries. Our 3-phase AC motors deliver a significant reduction in the number of components and working parts, as well as a more efficient, reliable and cost-effective operation.

A 3-phase AC motor is simpler in construction than a shunt-wound DC motor and can be built with a more compact design.

- Magnetic field build-up does not occur in the rotor, but rather in the stator.
- Current does not need to be transferred to the armature / rotor.
- Commutator and carbon brushes are not required.
- Motor operates with less heat build-up.
- Motor does not need to be ventilated on the inside.
- Motor can be enclosed for protection.

Shunt-wound or series-wound motor with carbon brushes and commutator

3-phase AC motor, completely enclosed, less parts to wear