

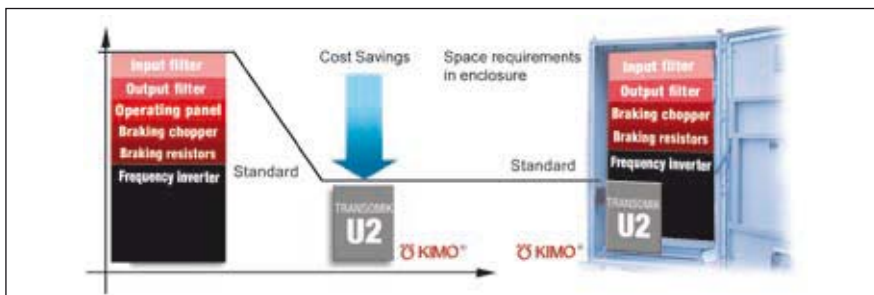
# Frequency inverters – energy recovery offers additional improvement in efficiency with reduced space requirements and costs

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Antriebstechnik

Today, the potentials to increase energy efficiency in the industry and especially in electrical drives technology are well-known to a large circle of users, but there is still a much to be done in practice.

On the one hand, there are no additional costs for optional, but necessary additional components. On the other hand, substantial savings can be achieved by minimizing follow-up costs. For example the planning and enclosure costs are minimized as the inverter requires little space, fewer additional components and the heat-loss of the inverter are low.



Improvement in efficiency with space/  
cost savings in practice

According to field surveys about 12 percent of the motor capacity installed in the German industry is operated with energy-saving electronic speed controllers – this with a potential portion of about 50 percent! But even this 12 percent does not tap the available potential fully.

Studies by the drive specialist KIMO have shown that in applications with frequent drive switching there is still great potential for saving energy and costs. Even today, braking often means a waste of energy! Regenerative feedback is an alternative.

## Frequency inverters of the TRANSOMIK U2-family

For these applications KIMO has developed the compact, fully regenerative frequency inverter family TRANSOMIK U2 which is available with a rated power within the range 4 to 200 kW.

Apart from the improvement of the energy efficiency by regenerating the braking energy, the functional principle of this frequency inverter family provides further capabilities to increase the efficiency. These result from the compact and complete design of the units.

## Compact and complete

- No additional input or output filters required, chokes are already integrated
- Full regeneration of the braking energy into the electrical supply, braking-choppers or brake resistors are not required
- Low dissipated heat

## Environmental friendly with a long service life

- Operation without electrolytic capacitors in the d.c. link result in long service life of the frequency inverter
- Low supply harmonics / compliance with EN 61000-3-12

## Other features

- Fast input and output switching, highly dynamic
- Compatible with earth-leakage circuit breakers
- Low bearing currents



Frequency inverter TRANSOMIK U2 (factory photo KIMO)