High Torque Motor as Direct Drive

The energy-efficient drive for your EIRICH mixer

– also available for retrofitting –

Up to 25% savings on energy
The advantages of the high torque motor

- High torque density
- Improved efficiency
- Optimal speed adjustment by frequency inverter
- No transmission elements like belt drive or gear unit are needed
- Simple configuration of the drive train means low failure incidence
- Fewer bearings result in less maintenance effort

Energy efficiency of the direct drive

<table>
<thead>
<tr>
<th>Example with data from a production plant*</th>
<th>V-belt drive with asynchronous motor</th>
<th>Direct drive via high torque motor</th>
<th>Energy savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy consumption in kWh</td>
<td>5.47</td>
<td>4.20</td>
<td>- 23 %</td>
</tr>
<tr>
<td>Specific energy consumption in kWh/100 kg</td>
<td>0.45</td>
<td>0.34</td>
<td>- 24 %</td>
</tr>
</tbody>
</table>

*calculated for a batch on the same mixer type and identical process material

Conclusion:
Because of the savings on energy, the acquisition costs of the high torque motor will already pay back after a short time.

Calculation example:
- Electricity price: 11 ct/kWh
- 3-shift operation on 220 working days
- Amortization already in the 3rd year with energy consumption as specified in the example above

Low energy consumption over the entire mixing phase