### Safety Guidelines

These safety guidelines are user hints only, and may not be complete!

#### Warning!
Life threatening! Do not touch voltage-carrying cables and components!

To prevent injury or damage, only professionals and suitably qualified personnel should work on the units.

#### Danger!
This caution applies when:
- the electromagnetic units are used incorrectly
- the electromagnetic units are modified or converted
- the relevant safety standards for safety and/or installation conditions are ignored.

#### Warning!
Before installation and initial operation, please read the installation and operation instructions carefully.
The electromagnetic units have been developed in accordance with the latest technology regulations for the time and are, at the point of delivery, operationally safe.

#### Appointed Use
mayr® products are for use in machines and systems and must only be used in the situations for which they are designed and ordered. Using them for any other purpose is inappropriate.

#### Guidelines for Electromagnetic Compatibility (EMC)
In accordance with the EMC regulations 89/336/EEC, the single components produce no emissions. However, functional components such as the line-side energising rectifiers for the units along with the phase demodulators, the ROBA®-switch or similar controls can produce disturbance which lies above the allowed limit values.

For this reason it is important to read the installation and operational instructions very carefully and to keep to the EMC guidelines.

#### Device Conditions
The catalogue values are guideline values which can, in certain cases, vary. When selecting the units, please allow for varying installation situations, torque fluctuations, permitted friction work, run-in behaviour and wear as well as for general ambient conditions, all of which should be carefully assessed and adjustments made accordingly.

#### Caution!
- Connection and fixing dimensions must be adjusted according to the size of the units at the place of work.
- The units are designed for a relative duty cycle of 100%.
- The units are only designed for dry running. The torque can be lost, if the friction lining comes into contact with oil, grease or water.
- The torque is dependent on the present run-in condition of the units.
- Please check the manufacturer-side corrosion protection of the metallic surface.

#### Protection Class I
This protection can only be guaranteed if the basic insulation is intact AND if all conductive parts are connected to the Protective Earth conductor. Should the basic insulation fail, the contact voltage cannot function. (VDE 0580).
Nominal torque $M_2$ in new condition for clutch and brake

In new condition, approximately 50% of the catalogue nominal torque $M_0$ is transmitted if:

a: static operation is used or
b: when below, the minimum values (see Table 1) in dynamic operation fall below.

In order to reach the given nominal torque $M_2$, it is necessary to reach a dynamic operation with a minimum friction work $Q_a$ or a minimum speed $n$ (see Table 1) in the run-in phase.

**Table 1**

<table>
<thead>
<tr>
<th>Size</th>
<th>Min. friction work $Q_a$ [J]</th>
<th>Min. speed $n$ [rpm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>16</td>
<td>300</td>
</tr>
<tr>
<td>4</td>
<td>29</td>
<td>250</td>
</tr>
<tr>
<td>5</td>
<td>55</td>
<td>200</td>
</tr>
<tr>
<td>6</td>
<td>105</td>
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<tr>
<td>7</td>
<td>200</td>
<td>130</td>
</tr>
<tr>
<td>8</td>
<td>380</td>
<td>120</td>
</tr>
</tbody>
</table>

**Guidelines, Standards and Regulations followed:**

- 98/37/EC  
  Machine regulations
- 73/23/EEC  
  Low Voltage regulations
- 89/336/EEC  
  EMC regulations
- DIN VDE 0580  
  Electromagnetic units and components, general specifications

**Please observe the following standards:**

- DIN EN ISO 12100-1 and 2  
  Machine safety
- DIN EN61000-6-4  
  Noise radiation
- DIN EN61000-6-2  
  Interference immunity
- EN60204  
  Machine electrical equipment

**Liability**

- The information, guidelines and technical data in these documents were up to date at the time of printing. Demands on previously delivered units are not valid.
- Liability for damage and/or operational malfunctions will NOT be taken when:
  - the installation and operational instructions are ignored or neglected.
  - units are used inappropriately
  - the units are tampered with or altered.
  - the units are worked on unprofessionally
  - the units are handled or operated incorrectly

**Guarantee**

- The guarantee conditions comply with the Chr. Mayr GmbH + Co. KG. Sales and Delivery Conditions.
- Mistakes or deficiencies are to be reported to mayr® at once!

**Conformity Marks**

The product conforms to the CE according to the Low Voltage Regulations 73/23/EEC

**Identification**

mayr® components are clearly marked and described on the type tag:

- Manufacturer
- mayr®
- Product name / Type
- Article number
- Serial number