ABB general machinery drives

ABB general machinery drives are designed for machine building. In serial type manufacturing the consumed time per unit is critical. The drives are designed to be the fastest drives in terms of installation, setting parameters and commissioning. The basic products have been made as user-friendly as possible, yet providing high intelligence. The drives offer diverse functionality to cater for the most demanding needs.

ABB general machinery drives are designed to meet the requirements of an extensive range of machinery applications. The drives are ideal for food and beverage, material handling, textile, printing, rubber and plastics, and woodworking applications.

**Highlights**

- Unified height and depth
- Side-by-side mounting
- Inbuilt C3 EMC filter
- Inbuilt brake chopper
- Easy programming
- Sequence programming
- FlashDrop tool for fast parameter setting

**Voltage and power range**

- 1-phase, 200 to 240 V ±10%
  - 0.37 to 2.2 kW (0.5 to 3 hp)
- 3-phase, 200 to 240 V ±10%
  - 0.37 to 11 kW (0.5 to 15 hp)
- 3-phase, 380 to 480 V ±10%
  - 0.37 to 22 kW (0.5 to 30 hp)

**Options**

- User interface
  - Basic control panel
  - Assistant control panel
  - Potentiometer
- FlashDrop tool
- Fieldbuses
  - PROFIBUS DP
  - CANopen
  - DeviceNet
  - Modbus
  - Ethernet
- Encoder interface
- NEMA 1 kit
- Input/Output chokes
- C2 EMC filters
- DriveWindow Light 2 software
## Ratings, types, voltages and dimensions

### Motor connection

<table>
<thead>
<tr>
<th>Voltage</th>
<th>3-phase, from 0 to U&lt;sub&gt;supply&lt;/sub&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>0 to 500 Hz</td>
</tr>
<tr>
<td>Overload capacity</td>
<td>1.5 x I&lt;sub&gt;N&lt;/sub&gt;, for 1 minute</td>
</tr>
<tr>
<td>Ambient temperature</td>
<td>at max. ambient temperature of 40 °C</td>
</tr>
<tr>
<td>Rated current</td>
<td>0.37 to 202 A</td>
</tr>
<tr>
<td>Starting frequency</td>
<td>4 kHz</td>
</tr>
<tr>
<td>Selectable</td>
<td>4 to 16 kHz with 4 kHz steps</td>
</tr>
<tr>
<td>Torque control</td>
<td>Static accuracy 20% of motor nominal slip</td>
</tr>
<tr>
<td>Non-linearity</td>
<td>Torque step rise time &lt; 10ms with nominal torque</td>
</tr>
<tr>
<td>Torque control</td>
<td>± 5% with nominal torque</td>
</tr>
</tbody>
</table>

### Programmable control connections

- **Two analog inputs**
  - Voltage signal
    - Unipolar: 0 (2) to 10 V, R<sub>N</sub> > 312 kΩ
    - Bipolar: -10 to 10 V, R<sub>N</sub> > 312 kΩ
  - Current signal
    - Unipolar: 0 (4) to 20 mA, R<sub>N</sub> = 100 Ω
    - Bipolar: -20 to 20 mA, R<sub>N</sub> = 100 Ω
  - Potentiometer reference value: 10 V ±1% max. 10 mA, R<sub>N</sub> < 10 kΩ
  - Resolution: 0.1%
  - Accuracy: ±1%

- **One analog output**
  - 0 (4) to 20 mA, load < 500 Ω

- **Auxiliary voltage**
  - 24 V DC ±10%, max. 200 mA

- **Five digital inputs**
  - 12 to 24 V DC with internal or external supply, PNP and NPN, pulse train 0 to 16 kHz

- **Input impedance**
  - 2.4 kΩ

- **One relay output**
  - Type: NO + NC
  - Maximum switching voltage: 250 V AC/30 V DC
  - Maximum switching current: 0.5 A/30 V DC; 5 A/230 V AC
  - Maximum continuous current: 2 A rms

- **One digital output**
  - Type: Transistor output
  - Maximum switching voltage: 30 V DC
  - Maximum switching current: 100 mA/30 V DC, short circuit protected
  - Frequency: 10 Hz to 16 kHz

- **Resolution**
  - 1 Hz

- **Accuracy**
  - ±2%

### Product compliance

- UL, cUL, CE, C-Tick and GOST R approvals

### Environmental limits

- **Degree of protection**
  - IP20 / optional NEMA 1 enclosure
- **Ambient temperature**
  - -10 to 40 °C (14 to 104 °F), no frost allowed
  - 50 °C (122 °F) with 10% derating
- **Relative humidity**
  - Lower than 95% (without condensation)

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Find your nearest contact at www.abb.com/drivespartners