Medium voltage drives
Product overview

High safety standards
Arc resistant design and integrated functional safety features ensure the highest safety in your day to day operations for your personnel and equipment.

Broad product portfolio
We supply medium voltage variable speed drives for a wide range of applications in various industries in the power range from 250 kW to more than 100 MW.

Efficient process control
Control even your most demanding applications with ABB’s direct torque control (DTC) technology for high dynamic performance of your processes and systems.

Worldwide service network
An extensive global service network allows us to provide local service delivery whenever and wherever you need it.

Contact us
For more information contact your local ABB representative or visit:
www.abb.com/drives

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ABB medium voltage drives
Drive solutions to support your business

**Energy efficiency**

Our medium voltage drives run your motors based on the demands of your process rather than running them at full speed and ensure optimized power consumption and process efficiency. In this way, you can save energy and reduce CO₂ emissions.

**More than 40 years’ experience**

With more than 40 years of experience, we are a pioneer in the medium voltage drive business and offer you support with our professional expertise globally.

**Know how**

Experts in the field of engineering, system design, system integration and project management develop customized solutions according to your specific requirements.

**High reliability**

Thanks to the straightforward design with well-proven components and low parts count, we provide reliable and efficient medium voltage drives which ensure excellent availability and long lifetimes for the drives.

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**General purpose and industrial drives**

Our general purpose and industrial drives family comprises highly flexible medium voltage drives suitable for a wide variety of applications in many industries. These drives are industrial all-rounders that ensure energy-efficient and productive processes.

**Special purpose drives**

Our special purpose medium voltage drives are specifically tailored for your high power, high speed or high performance applications. Get a drive solution that adapts to your specific requirements and take your business forward with everything working like clockwork.

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### General Purpose and Industrial Drives

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<thead>
<tr>
<th>Product</th>
<th>ACS5000</th>
<th>ACS8000</th>
<th>ACS5500</th>
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<tbody>
<tr>
<td><strong>Typical applications</strong></td>
<td>Induction motor</td>
<td>Induction motor</td>
<td>Induction motor</td>
</tr>
<tr>
<td><strong>Frequency</strong></td>
<td>50/60 Hz</td>
<td>50/60 Hz</td>
<td>50/60 Hz</td>
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<tr>
<td><strong>Output power</strong></td>
<td>100 to 4000 kW</td>
<td>4000 to 18,000 kW</td>
<td>18,000 to 75,000 kW</td>
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<tr>
<td><strong>Environmental conditions</strong></td>
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<tr>
<td><strong>Features</strong></td>
<td>Multi-motor control</td>
<td>Multi-motor control</td>
<td>Multi-motor control</td>
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<tr>
<td><strong>Benefits</strong></td>
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<td>High reliability and availability</td>
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</table>

### Special Purpose Drives

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<th>ACS1000</th>
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<th>ACS1000</th>
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<tr>
<td><strong>Typical applications</strong></td>
<td>Regenerative drives</td>
<td>Regenerative drives</td>
<td>Regenerative drives</td>
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<tr>
<td><strong>Frequency</strong></td>
<td>400 Hz</td>
<td>400 Hz</td>
<td>400 Hz</td>
</tr>
<tr>
<td><strong>Output power</strong></td>
<td>250 to 3200 kW</td>
<td>250 to 3200 kW</td>
<td>250 to 3200 kW</td>
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<tr>
<td><strong>Environmental conditions</strong></td>
<td>IP54</td>
<td>IP54</td>
<td>IP54</td>
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<tr>
<td><strong>Features</strong></td>
<td>High converter efficiency</td>
<td>High converter efficiency</td>
<td>High converter efficiency</td>
</tr>
<tr>
<td><strong>Benefits</strong></td>
<td>High high-speed applications</td>
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</tr>
</tbody>
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### Speed-torque quadrants

- **High level of personal safety**
  - Arc resistant design
  - Functional safety features
  - Integrated DC grounding switch

- **High performance**
  - Control of high-speed applications
  - Dynamic control performance
  - Optional output sine filter

- **Regenerative capability**
  - Multilevel output
  - Optional output sine filter

- **Industry-specific solutions for individual needs**
  - Industry-specific options for individual needs
  - High reliability and availability
  - Low part count
  - Modular design
  - Power loss ride through

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### Type of motor

- **Induction motor**
- **Synchronous motor**
- **Permanent magnet motor**

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### Typical applications

- **Medium voltage drives**
  - Compressors, pumps, fans, blowers, ventilation systems
  - Suitable for mining, metalworking, and process industry

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### Typical operating conditions

- **Nominal frequency**
  - Typical: 50 Hz
  - Higher frequencies on request

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### Special features

- **High reliability and availability**
  - Soft starting of large synchronous motors
  - High converter efficiency

- **Industry-specific solutions for individual needs**
  - Industry-specific options
  - High reliability and availability
  - Low part count
  - Modular design

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### Performance-based reliability

- **Power loss ride through**
  - Inbuilt USB connection to PC tool
  - Automatic restart
  - Monitoring system
  - Digital output signal filter

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### Industry-specific solutions for individual needs

- **High power variable speed drive systems**
  - Inherent of large synchronous generator
  - High reliability and availability
  - Low part count
  - Modular design

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### Type of drives

- **Industrial, synchronous or permanent magnet motor**
- **Induction, synchronous or permanent magnet motor**
- **Synchronous motor**