

ABB Low Voltage Drives

Capabilities





ABB is one of the largest technology companies in the world with broad industry knowledge and geographic scope. It has approximately 135,000 employees in over 100 countries and occupies a leading position (1st, 2nd or 3rd) in each industry and product area it serves.

ABB offers complete industry and process-specific solutions, from products to turnkey projects in utilities, oil, gas and petrochemicals, manufacturing and consumer industries, and process industries. ABB also offers world-class collaborative business platforms and solutions based on open architecture software.

AC Drives

AC drives are used to control the speed and torque of a standard induction motor, the workhorse of industry. ABB is the market leader in both motors and drives worldwide.

AC drive technology provides complete control of motor speed, increasing the productivity and efficiency of the drive process. When low capacity is required, the drive reduces the machine speed and saves energy. Accurate speed control of the manufacturing process optimizes the quality of the end product. The Direct Torque Control (DTC) developed by ABB, and used in the ACS800, has improved control accuracy by making speed encoders unnecessary.

DC Drives

ABB is an industry leader in variable speed as well as DC Drives. Having been the preferred drives technology over many decades, DC drives products from ABB offer state-of-the-art digital control technology. ABB offers the most complete portfolio of three-phase DC drives - from 9 kW (12 Hp) up to 18 MW (24 000 Hp). ABB DC drives are available directly from ABB or through valued ABB Drives partners.

Engineered Drives

ABB provides best-in-class engineered product solutions and services that improve productivity. This includes the capability to modify and customize products that meet customer and project needs. Specifically, ABB has developed a tailored business model that focuses on eliminating non-value added activities, maintaining a high level of product quality, and providing a reliable delivery model with lead times that meet customer defined requirements. ABB's customer-centric philosophy and commitment to collaborative efforts enhances and fosters business growth for both customers and the company.





ABB high performance drives

ABB industrial drives are designed for industrial applications, and especially for applications in process industries such as the pulp & paper, metals, mining, cement, power, chemical, and oil and gas industries. ABB high performance drives are highly flexible AC drives that can be configured to meet the precise needs of industrial applications, and hence order-based configuration is an integral part of the offering. These drives cover a wide range of ratings and voltages, including industrial voltages up to 690V. ABB industrial drives come with a wide range of built-in options. A key feature of these drives is programmability, which makes adaptation to different applications easy.

ABB general purpose drives

ABB general purpose drives are simple to buy, install, configure and use. The drives have common user and process interface with field bus, common software tools for sizing, commissioning, maintenance and common spare parts. All this is accomplished while still maintaining a high performance level for simple to sophisticated applications.

ABB machinery drives

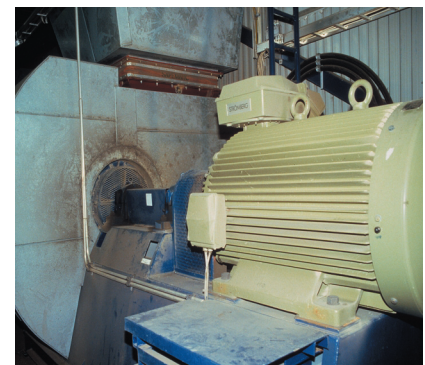
ABB machinery drives meet the requirements of machine building OEMs by supporting a wide range of machinery applications that demand high repeatability. The drives have features that make them easy to install and integrate.

ABB component drives

ABB component drives meet the requirements of OEMs, installation companies and panel builders. The drive is simple to buy, install, configure and use, saving considerable time. It is also stocked, and the number of options and variants has been optimized for logistical distribution.

ABB drives for specific industries or applications

ABB offers drives that are designed to meet the requirements of specific industries or applications. This offering includes drives that have been type approved by ABS, DNV and Lloyd's. Drives for HVAC, drives for crane applications, drives for extruder applications, and more are offered. Please contact ABB or one of ABB's channel partners for more information.





AC Drive Family Descriptions



ACS50 and ACS150 Adjustable Speed AC Drives

The ACS50 and the ACS150 can easily be integrated into existing panels, replacing contactors and motor starters due to its compact size as well as new installations or wherever energy savings of small AC induction motors is desired.

- Power range 0.25 to 5 Hp (100-240V)
- Protected Chassis (IP 20)
- Optimized switching frequency up to 16kHz
- Easy and descriptive operator interface
- Compact size
- DIN rail mounting
- Quiet motor operation



ACS350 Adjustable Speed AC Drives

The ABB ACS350 machinery drive is designed specifically for the OEM machine-building sector. The ACS350 is designed to be the fastest drive in terms of installation, setting parameters and commissioning. The ACS350 has been designed to be as user-friendly as possible, yet provide high application flexibility. The ACS350 offers diverse functionality to cater to the most demanding needs.

- Power range 0.5 to 10 Hp (200 to 480V)
- Standard, versatile software
- IP20, Protected Chassis
- Sensorless vector control
- V/Hz, Sensorless Vector and Flux Vector control
- Fieldbus option modules including Modbus RTU, DeviceNet, Profibus and CANopen
- An extensive library of pre-programmed application macros
- UL and cUL Listed and CE approved



ACS550 Adjustable Speed AC Drives

The ABB ACS550 standard drive is simple to buy, install, configure and use, saving considerable time. The drive has common user and process interface with fieldbus, common software tools for sizing, commissioning, maintenance and common spare parts.

The ABB ACS550 is ideal for those situations where there is a need for simple installation, commissioning and use and where customization or special product engineering is not required.

- Power range 1 to 550 Hp (208 - 600V)
- Advanced control panel permitting intuitive operation
- Patented swinging choke for superior harmonic reduction
- Sensorless vector control
- Integral RFI filter for 1st and 2nd environment as standard
- Built-in Modbus and numerous internally mountable fieldbus adapters
- UL, cUL listed and CE approved (600V) product is CSA approved (but does not carry CE approval)



ACS800 Adjustable Speed

The ACS800 series offers a wide range of drive products with common technologies. This includes Start-up Assistant, Adaptive Programming and Direct Torque Control (DTC), common user and process interfaces, software tools for sizing, commissioning and maintenance and common spare parts.

The heart of the ACS800 is DTC, its first class motor control system. The consistently excellent performance of the ACS800 guarantees that the drive is not the limiting factor in your process.

- Power range 1 to 3000 Hp (208 - 690V)
- Patented Direct Torque Control (DTC) for high performance
- Start-Up Assistant provides 'user friendly' start-up and drive tuning
- Adaptive Programming provides access to enhancing functionality
- Common user and process interfaces make the ACS800 easy to implement for your application

DC Drive Family Descriptions



DCS400 and DCS500

ABB's Digital DC Drives are designed to be used in both simple and complex applications. Advanced Control panel operation and easy Application Block Programming make DC Drives flexible and user friendly.

ABB DC Drives take advantage of ABB's extensive experience in the Industrial Marketplace. High quality components, together with the latest production technology guarantee reliable operation and customer satisfaction. Performance with flexibility for industrial applications.

- 5 to 6,000 Hp (208-1200V)
- CE, UL, cUL Certified
- Compact Design
- Connectivity to all major serial communication protocols
- Global service and support
- High performance
- Simple commissioning
- 12-pulse capable

Packaged Drive Family Description



ABB Provides a wide variety of packaged drive solutions for industrial applications. Pre-engineered packages make it easy to utilize ABB drives with a selection of required control, power, and interface options, to meet specific requirements. In addition, Industry, Application and Customer-Specific Drive Packages can be offered as solutions tailored to the specific needs of customers.

- 1 to 550 HP (208-600 V)
- Disconnect and Input Protection
- Bypass
- Environmental Enclosure
- 115V Control



ABB Drives is the world's leading supplier of AC and DC drive products and systems for use in industrial, commercial and residential applications, improving the manageability, efficiency and energy economy of processes. Below is a sample of where our products are being used in various applications:



Ski Lift Chairs

ABB drives and motors maintain constant tension on the cable to which chairs attach.



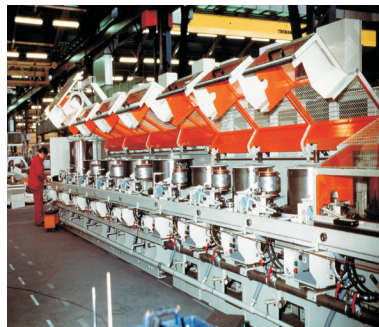
Cooling Tower Fans

Warm water from the condenser unit of the chiller, pumped to the cooling tower, is cooled by ABB AC drive-powered fans blowing air over the water.



Water/Waste-Water Pumping

ABB drives are used to process sewage and wastewater, transferring water from process to process.



Winding

ABB drives excel in a variety of winding applications. From wire to tissue paper, ABB drives feature special winder software that maximizes the quality and efficiency of your wound product.



Extruders

ABB drives power the hopper motor and screw that process plastic pellets into a host of products, such as PVC pipe.



Beverage Conveyors

ABB drives power motors to move bottles at optimum speed from wash line through filling operation to final packaging.



All the support you need

ABB has the largest drive service team with field service engineers located throughout the world. In addition, the ABB drives channel partners - the technical partner network with outlets in many countries - provide you with round-the-clock support and service. All ABB and its channel partner drive specialists have been trained, audited and certified to exacting standards, allowing each to provide fast and professional support where and when you need it.

Support Products

To reduce the total cost of owning ABB drives and to maximize their availability, ABB offers the following services:

ABB maintenance services

ABB maintenance services ensure optimal operation of your drives and extends their useful life.

On-site spares kits

On-site spare kits contain the most critical spare parts for your AC drives. The contents of the kit can be chosen according to the number of drives in use. Having a spares kit 'on site' reduces downtime of equipment and increases the availability of critical processes.

Start-up services

When you use ABB's Start-up services you can trust that your drives are correctly commissioned and well-tuned to their application. ABB employs authorized professionals who have been thoroughly trained to service all your start-up needs.

Training services

ABB offers dedicated training on ABB drives for your service and operating personnel. Upon successful completion of the training course, your personnel will have acquired the skills to use ABB drives correctly and safely, and get the best results from their application. The training courses are organized into modules that allow for customization of the contents depending on the objectives and skill level of the participants.

ABB has a service organization that spans the globe.

Contact your local ABB sales office for more information about our services.



ABB Product Family



ACS50, ACS150, ACS350 and ACS550 AC Drive Families

Includes the ACS50, ACS150, ACS350 and ACS550 AC drives, covering sizes from ¼ hp to 550 hp and voltages from 110 to 600 V.



ACS800 AC Drive Family

The ACS800 product family includes Single drives, Multi-Drives, Regenerative AC drives, and Ultra Low Harmonic drives in ratings from 0.75 hp to 3,000 hp and voltages from 230 to 690 V.



Medium Voltage Drives

ABB's highly reliable ACS1000 is available from 400 hp to 6,700 hp and voltages of 2.3, 3.3, and 4.16 kV.



DCS400 and DCS500 DC Drive Families

DCS400 and DCS500 DC Drives are available from 5 hp to 10,000 hp and voltages from 230 to 1,190 V.



Low Voltage AC, DC and Medium Voltage AC Motors

Low Voltage AC motors from ABB range from ¼ hp to 800 hp and voltages from 208 to 480 V. A wide range of Medium Voltage AC and Low Voltage DC motors are also available.



ABB Control Products

ABB provides the widest range of low voltage products and systems. Our broad product lines include high-quality solutions for industrial controls, circuit protection devices, starters & soft-starters, automation, and wire management & connection systems.



ABB Inc.
Low Voltage Drives
16250 W. Glendale Drive
New Berlin, WI 53151
Telephone (800) 752-0696
Fax (262) 785-0397
Internet <http://www.abb.us/drives>

