
PRODUCT CATALOG

ABB drives and controls

The green guide to more profitable business



- Improving energy efficiency is the fastest, the most sustainable and the cheapest way to reduce greenhouse gas emissions
- The installed base of ABB drives saves over 310 million megawatt hours per year. This is equivalent to the amount of energy used by 75 million households

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Technology is the core of our business. For over 100 years we have invested a significant proportion of our turnover in research and development.

As a result, we developed the very first high-power AC drive in the 1970s, and today we offer you the most advanced range of variable speed drives in the world.

Still, the cutting edge technology is not the only thing that makes us the global leader in AC and DC drives. You can expect more from us.



ABB drives and controls

The green guide to more profitable business

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What can you expect from the world's largest drives and softstarters manufacturer?

Our equipment is only a part of the solution

Our attention to service matches the technological pursuits of our R&D department. This means a globally local presence, customer service, support, expertise, various tools and a technical partnership to give you added value as a system integrator, OEM or end user.

You can expect us to understand your business, your process and your needs from A to Z. We know by experience how to increase your production capacity, improve your product quality, reduce waste and lower your maintenance costs. Our dedicated experts talk your language and can offer the quickest route to a profitable solution, without forgetting personnel safety and environmental responsibility.

Buy a drive or a softstarter and you get our expertise

The world's leading application engineering organization is at your service. We have a thorough knowledge of all applications from pumps, fans and compressors through to conveyors, extruders, winders and marine applications.

In your plant, our expertise extends across entire electrical installations from correct selection, dimensioning and installation through to operation and maintenance of drives, PLCs, motors, transformers, relays, switches and contactors and all the way to transducers and meters. Our offering is digitally enabled, combining connectivity, data analytics and data management to make your operations efficient, predictable and safe. Optimal choices not only save energy, but also reduce the application's maintenance needs.



For instance, a combination of ABB motors and drives helps minimize the life cycle cost of pumps, fans and other driven machines as well as the entire mechanical installation.

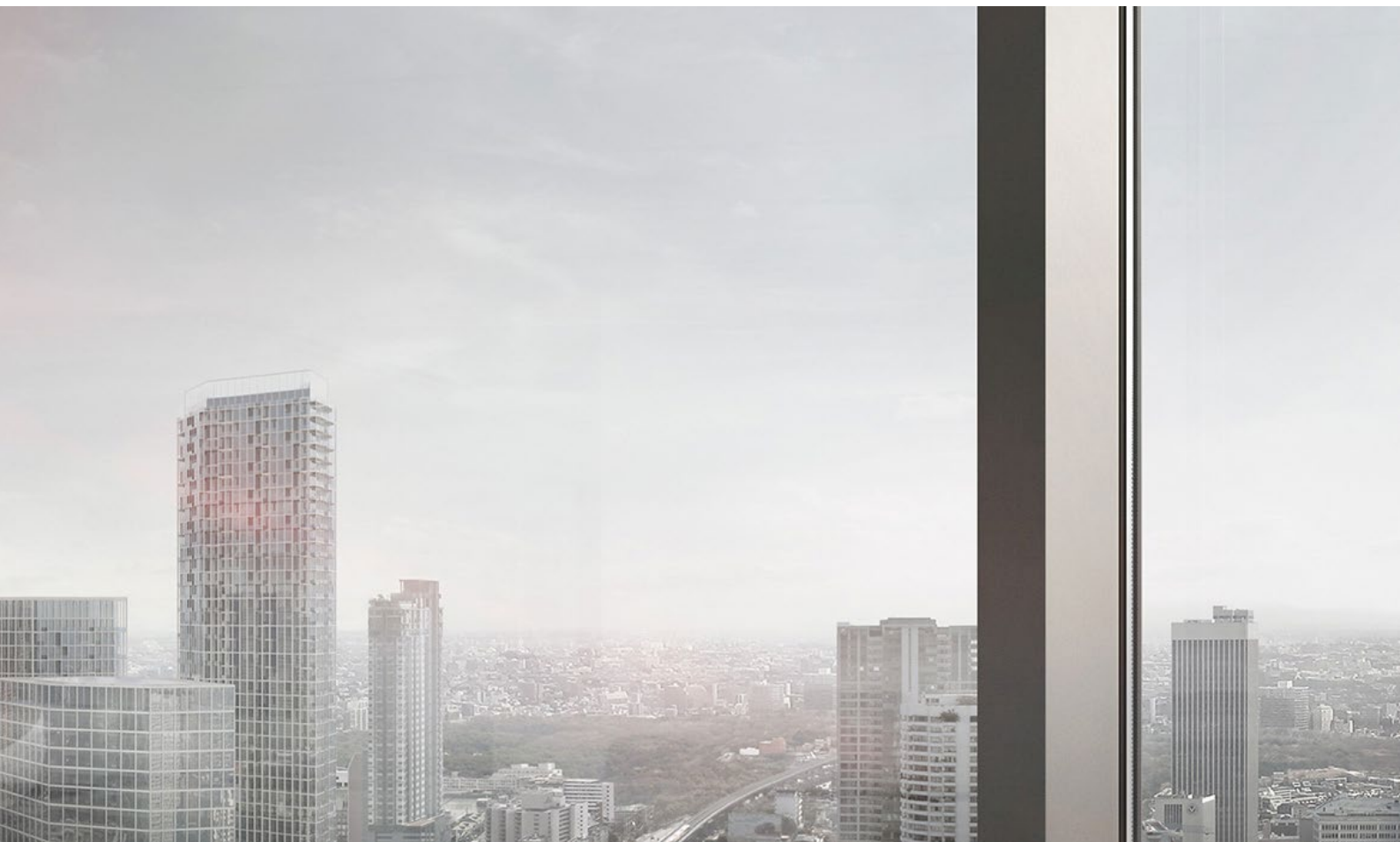
**Wherever the equipment goes,
we are there to support your business**

You can expect us to be beside you, wherever you are. Our companies and sales offices are at your service in more than 100 countries, and chances are that one of our authorized value provider companies is probably located right in your neighborhood.

If you are a machine builder, the global ABB can be a vital part of your customer service. You, and your product, are never alone.



So, what can you expect from the world's largest drives and softstarters manufacturer? Not only the most optimal equipment, but the things you really want to be investing in: **efficiency, productivity, reliability and safety.**



The most effective way to a green process is also the most profitable

Improve your processes with softstarters and drives

INCREASED LIFE TIME – Reduced starting current decreases the electrical stress on the motor and network. Smooth ramp up to full speed also reduces mechanical wear on the equipment prolonging its life time.

INCREASED PRODUCTIVITY – Using softstarters and drives increases the productivity of the applications by reducing the number of unintended stops caused by excessive heating of the motor or sudden breakdowns of mechanical equipment due to high mechanical stress.

REDUCED NEED FOR MAINTENANCE – Being able to apply a softer starting moment and vary the speed and torque of an electric motor means there is less wear and tear on the motor and the driven machine. For example, the ability to

bring a process up to speed slowly prevents the sudden shock loading that can damage the motor and the driven machine over time.

Further optimize your processes with AC drives

SUBSTANTIAL ENERGY SAVINGS – Rather than have an electric motor running continuously at full speed, an electric drive allows the user to slow down or speed up the motor depending on the demands. Reducing motor speed to meet the actual demand of the process often means substantial energy savings and reduced operating costs.

OPTIMAL PROCESS CONTROL – An electric drive enables a process to achieve the right speed and torque while maintaining its accuracy – this contributes to a more consistent quality and throughput of the end product.



EFFICIENT SYSTEM UPGRADE – An electric drive allows for the removal of valves, gears and belts. It also ensures network dimensioning based on a lower starting current.

FUNCTIONAL SAFETY – Most ABB drives offer functional safety features providing safety for machine operators. The features comply with the requirements of the European Union Machinery Directive 2006/42/EC. This directive is associated with standards like EN 62061 (IEC, defining SIL – Safety Integrity Level) and EN ISO 13849-1 (defining PL – Performance Level).

ABB drives and softstarters common features

EASY TO SELECT – You can be sure to find a right product for your application from a wide selection of ABB softstarters and drives.

EASY TO PURCHASE – ABB softstarters and drives are available from ABB and selected ABB partners. Please contact ABB for more details and see the following page for more details about our value provider network.

EASY TO INSTALL AND COMMISSION – The softstarters and drives are simple to install, featuring a variety of mounting options from wall-mounted to cabinet mounted.

EASY TO USE – The drives and softstarters are designed with the end user in mind, to make it as easy as possible to use our devices. Once installed and commissioned, the softstarters and drives are incredibly easy to operate. The user interface allows instant adjustments to speed or other more advanced parameters.



Extend your choices by ABB Value Providers

The ABB Value Provider network provides more choices and flexibility when buying ABB products and services. The network members deliver sales, support, service and engineering in seamless cooperation with ABB.

ABB Value Providers are members of the ABB channel program – the ABB Value Provider Program. They are fully trained, regularly audited and officially authorized to represent the defined ABB products and services. With their in-depth knowledge of local markets and expertise in selected products and services, they can ensure speed, efficiency and consistency in daily operations. Their work secures that ABB products are backed by the same high standards of service and support all over the world.

Products and services for your specific needs

The multichannel network offers more choices and flexibility to match the local business requirements via globally consistent offering.

Finding your local ABB Value Providers

To learn more about our unique ABB Value Providers near you, please visit:

abb.com/drivespartners

Channel type	Focused offering	Authorization for
Distributor	Availability	Sales Support ^{*)}
Technical distributor	Product specialist	Sales Support Service ^{*)} Engineering ^{*)}
System integrator	Hardware and software integration	Sales Support Service ^{*)} Engineering
Panel builder	Panel designs	Engineering
Service provider	Life cycle provider	Support Service Engineering ^{*)}

^{*)} Optional



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This label is a sign of quality services from the official members of the ABB Value Provider Program.



Our extensive drives, softstarters and controls portfolio means the most optimal solution for you

ABB low voltage AC drives and softstarters

The ABB low voltage AC drives product range, from 0.18 to 5600 kW, is the widest selection available from any manufacturer. These drives establish the global benchmark signifying reliability, simplicity, flexibility and ingenuity throughout the entire life cycle of the drive.

ABB softstarters

Softstarters are ideal choice when an application requires speed and torque control only during startup. The softstarters prevent large inrush currents from being drawn while starting the motor by smoothly ramping up the supply voltage. The smooth ramp up prolongs the life time of the motors because less current means also less heat in the motors.

ABB micro drives

ABB micro drives are suitable for a variety of low power applications such as pumps, fans and conveyors. The focus in the design has been the easy integration into machines, which provides flexible mounting and straightforward commissioning.

ABB general purpose drives

ABB general purpose drives are easy to install, commission and use. They are designed to offer control over a broad range of standard drive applications and have a wide range of built-in features simplifying all operations.

ABB machinery drives

ABB machinery drives can be flexibly configured to meet demands set by different machines. An order-based configuration is an integral part of the machinery drives offering. The drives have a broad range of standard and optional features. Their programming capability offers additional flexibility to meet challenging machine requirements.

ABB industrial drives

ABB industrial drives are highly flexible AC drives that can be customized to meet the precise needs of industrial applications. The drives cover a wide power and voltage range up to 5600 kW and 690 V. The drives are designed for industrial applications such as those found in pulp and paper, metals, mining, cement, power, chemical, oil and gas, water and wastewater, and food and beverage. Drives adapted and approved for use in marine environment are also included in this drives family.

ABB industry specific drives

The drives for HVAC, and water and waste water provide customers with dedicated drive solutions for virtually any type of motor control which speaks the same languages as users and their systems.

ABB mobile modules

The mobile drive solution is designed to provide dependable heavy cycle operation in very demanding conditions that are present in marine and working machine applications. The focus of these products is to help OEMs to simplify manufacturing process.

ABB wind turbine converters

ABB offers wind turbine converters for small-scale and utility-scale wind turbines. ABB wind turbine converters, suitable for any of today's turbine concepts, deliver durable, reliable performance and are backed by a complete set of life-cycle services.

ABB motion control drives

ABB motion control drives offer flexible technologies and high performance motor control for a wide variety of applications. The drives enable operation with single and three-phase supplies for global markets, and have open communication options as well as real-time Ethernet technologies such as EtherCAT® and POWERLINK. In addition to drives, ABB offers complete motion control solutions, including human-machine interfaces, programmable logic controllers, safety technology, motion controllers and servo motors.

ABB medium voltage AC drives

ABB offers an extensive portfolio of variable speed drives and soft starters for medium voltage applications with a power range from 250 kW to over 100 MW.

ABB medium voltage drives are used in a wide range of applications in industries such as metals, marine, mining, cement, power, chemical, oil, gas, water and wastewater.

The drives are equipped with air or water cooling and with different line supply connection options. Some products come with an integrated input transformer or with the capability to operate direct-to-line without an input transformer, and therefore minimize both, weight and space.



ABB general purpose and industrial drives

ABB general purpose and industrial drives are used to control standard motors. These motors are typically used to drive applications such as pumps, fans, compressors, mixers, mills and conveyors.

ABB special purpose drives

Special purpose drives are engineered drives, typically used for high power, high speed or special performance applications such as test stands, marine propulsion and thrusters, rolling mills, SAG and ball mills, large pumps, fans and compressors.

ABB DC drives

ABB's DC drives portfolio, from 9 to 18000 kW, provides the highest power-to-size ratio on the market. The drives are designed for most industries and applications including metals, cement, mining, pulp and paper, printing, food and beverage, wire manufacturing, and test rigs. ABB DC drives are available as complete cabinets, modules for cabinet assembly, and retrofit kits.

The DC drives feature auto-tuning capabilities. Intuitive user software minimizes startup time and improves daily operation. This helps to increase process productivity and improve production quality.

ABB standard drives

With compact dimensions and robust technology, ABB standard drives are an ideal solution for any machinery and OEM manufacturer as a new installation or a replacement for older analog devices.

ABB industrial drives

ABB industrial drives are designed for all industrial applications. The fast drive-to-drive DCS link is designed for demanding high power 12-pulse applications, as well as smart master-follower configurations. ABB industrial drives are available both as complete enclosed DC drives and as converter modules to meet the requirements of the users, OEMs and system integrators. These drives are highly flexible and they can be configured to meet the precise needs of industrial applications.

Power controller

The DCT880 thyristor power controller provides precise control of resistive or inductive heaters and infrared heaters in applications for annealing, drying, melting or heating in glass, plastic or metal industry.

ABB Programmable Logic Controllers (PLCs)

ABB offers a comprehensive range of scalable, powerful PLCs and robust HMI control panels. The PLC range starts with the affordable AC500-eCo. AC500 is the powerful flagship PLC, offering a wide range of performance levels. High availability configurations are easy to implement. For eXtreme Conditions like in marine, wind, solar, vibrating machines and waste water treatment, the AC500-XC series is the first choice. AC500-S is the ideal choice for simple and complex safety solutions. Automation Builder is the effortless, straightforward engineering tool for PLC, drives, HMI and internet services.

ABB softstarters

For full speed applications

ABB's softstarters offer you several values and benefits. Whether you are a consultant, OEM, panel builder or end user, a softstarter will add to your business value by securing motor reliability, improving installation efficiency and increasing application productivity.





Advanced with full control and complete motor protection built-in

PSTX – THE ADVANCED RANGE

Highlights

- Advanced softstarter with full control and motor protection built-in
- Supports all major communication protocols
- Detachable HMI with symbol display

Features

- Rated operational current: 30 to 1250 A
- Three-phase controlled
- Operational voltage: 208 – 690 V AC
- Wide rated control supply voltage: 100 – 250 V, 50/60 Hz
- (inside-delta: 2160 A)
- Both in-line and inside-delta connection
- Coated PCBA
- Detachable keypad rated IP66 (4X outdoor)
- Graphical display with 17 languages
- Built-in bypass for energy saving and easy installation
- Built-in Modbus RTU for monitoring and control
- Support for all major communication protocols
- Analog output for measurement of current, voltage, power factor etc.
- Complete built-in protections



General purpose with high starting capacity

PSE – THE EFFICIENT RANGE

Highlights

- General purpose softstarter
- Built-in communication and protections
- Language neutral display

Features

- Rated operational current: 18...370 A
- Operational voltage: 208...600 V AC
- Wide rated control supply voltage: 100...250 V AC, 50/60 Hz
- Voltage ramp and torque control for both start and stop
- Two-phase controlled
- Current limit
- Kick-start
- Built-in bypass for energy saving and easy installation
- Coated PCBA
- Illuminated display with symbols, language neutral
- External keypad rated IP66 (Type 1, 4X,12)
- Built-in modbus-RTU communication
- Fieldbus communication
- Analog output for display of motor current
- Built-in protections



Compact with basic benefits and values

PSR – THE COMPACT RANGE

Highlights

- Compact and easy to use
- Basic values and benefits
- Many starts per hour

Features

- Rated operational current: 3...105 A
- Operational voltage: 208...600 V AC
- Wide rated control supply voltage: 100...240 V AC, 50/60 Hz or 24 V AC/DC
- Two-phase controlled
- Soft start and stop with voltage ramp
- Built-in bypass for energy saving and easy installation
- Easy set-up by three potentiometers
- Fieldbus communication with fieldbus plug adapter and the fieldbus plug
- Run and Top of Ramp relays available for monitoring
- Connection kits available for connection to ABB's manual motor starters (MMS)

ABB low voltage AC drives

The ABB low voltage AC drives product range, from 0.18 to 5600 kW, is the widest selection available from any manufacturer.



These drives establish the global benchmark signifying reliability, simplicity, flexibility and ingenuity throughout the entire life cycle of the drive.



ABB micro drives for basic applications

ABB micro drives are very easy to install and set up. They provide flexible mounting alternatives and straightforward configuration for many basic applications. Where ever the micro drives are delivered and installed the local ABB will be there to support your business.



Little big drives easy to set up using switches

ACS55

Highlights

- The drive works with single phase power and can be used in a wide variety of simple machines such as automatic gates, solar trackers, treadmills, whirlpool baths, fans, and conveyors.
- Intuitive user interface with DIP switches and potentiometers
- DriveConfig kit enables drive set up without a power connection to the drive

Features

- Power range 0.18 to 0.37 kW (1-phase 100 to 120 V)
- Power range 0.18 to 2.2 kW (1-phase 200 to 240 V)
- IP20 enclosure (UL open type)
- For basic machinery applications
- Scalar control
- Entry-level product for new users
- Suitable for domestic networks as standard
- Parameter setting by switches or by PC software
- Built-in C2 EMC filter
- Options
 - DriveConfig kit PC tool, potentiometer
 - Input and output chokes

For further information, see catalog "ABB micro drives, ACS55, 0.18 to 2.2 kW", code: 3AFE68899842 EN.



Little big drives with a wider power range and functionality

ACS150

Highlights

- The ACS150 drives are designed to be incorporated into a wide variety of machines such as mixers, conveyors, fans or pumps or anywhere where a fixed speed motor needs to run at variable speed.
- A more advanced micro drive with functions such as PID control and a built-in brake chopper
- Integrated user interface and a speed control potentiometer
- The drive is available for both single and three-phase supplies

Features

- Power range 0.37 to 2.2 kW (1-phase/ 3-phase 200 to 240 V)
- Power range 0.37 to 4 kW (3-phase 380 to 480 V)
- IP20 enclosure (UL open type), optional NEMA 1 kit
- For basic machinery applications
- Scalar control
- Integrated user interface and potentiometer
- Built-in brake chopper
- Built-in C3 EMC filter
- Options
 - External C2 EMC filter
 - Input and output chokes
 - FlashDrop tool for unpowered drive configuration in 2 seconds

For further information, see catalog "ABB micro drives, ACS150, 0.37 kW to 4 kW", code: 3AFE68596114 EN.



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About 70 percent of electricity consumed by industry is used to run electric motors.

All-compatible general purpose drives

Streamlined automation and efficiency to improve your bottom line



The all-compatible general purpose drives are designed to control a wide range of applications such as mixers, conveyors, compressors, fans, pumps, centrifuges, as well as process control in industries including material handling, food and beverage, chemical, rubber and plastics, textile and printing.

The drives are easy to select, install, configure and use, saving considerable time. They are equipped with ready-made application control logics, making it easy to fulfill your application requirements.

The general purpose drives ACS480 and ACS580 are part of ABB's all-compatible drives portfolio, offering technically compatible drives with long-term solutions and support for users, processes, business and the environment.





Effortless process automation for
a broad range of applications

ACS580

Highlights

- Wall-mounted, drive modules and cabinet-built drives to control a variety applications
- Easy to select, install and use
- All essential features built into the drive
- Straightforward settings menu and assistants for fast commissioning
- Energy efficiency features for optimal energy management and support for energy efficient motors
- Connectivity to most common automation networks and extensive selection of I/O options to match your needs
- Member of ABB's all-compatible drives portfolio
- Adaptive programming for fine tuning and engineering the drive functionality
- ATEX certified thermistor relay for potentially explosive environment (dust areas in F&B)

Features

- Power range 0.75 to 500 kW (3-phase 380 to 415 V, 440 to 480 V)
- Wall-mounted drives, IP21 as standard (UL type 1), IP55 as option (UL type 12 in frame sizes R1-R9)
- Drive module, IP00 as standard, IP20 as option
- Cabinet-built drives, IP21 as standard, IP42 and IP54 as options
- Assistant control panel as standard with primary settings and diagnostics menu with various assistants for effortless use of the drive
- Integrated EMC C2 filter for domestic environments as standard in wall-mounted drives and cabinet-built drives for frames R6 to R9
- Integrated EMC C3 filter for cabinet-built drives as standard
- Built-in patented 2nd generation swinging choke for frames R10 and R11
- Brake chopper up to 22 kW (R3)
- Adjustable switching frequency control reducing motor audible noise
- Options
 - Wide range of fieldbus adapters and remote monitoring
 - Relay extension, PTC-thermistor, 115/230 V DI plug-in options, ATEX-certified PTC-thermistor, bipolar analog input
 - Free entry level PC tool with USB connection on control panel



Essential process efficiency for many applications

ACS480

Highlights

- Cabinet-optimized design and all essential features built-in offer pure ease of use for various of applications, such as pumps, compressors, conveyors and fans
- Straightforward settings menu and assistants for fast commissioning
- Energy efficiency features for optimal energy management and support for energy efficient motors
- Connectivity to most common automation networks
- Member of ABB's all-compatible drives portfolio

Features

- Power range 0.75 to 22 kW (3-phase 380 to 480 V)
- Cabinet-optimized, IP20 as standard
- Assistant control panel as standard with primary settings for quick operation without a need to scroll through parameter lists
- Integrated and preprogrammed features, such as PID, pump and fan macros, timers
- Integrated EMC C2 filter as standard
- Adjustable switching frequency control reducing motor audible noise
- Built-in Safe torque off to enhance safety
- Options
 - Basic control panel, assistant control panel with Bluetooth capability, industrial assistant control panel
 - Most common fieldbus adapters available
- Remote monitoring with NETA-21
- Safe configuration for unpowered drives

For further information, see catalog "ABB general purpose drives ACS480, 0.75 to 22 kW", code: 3AUA0000204668 EN.



Built-in features for pump and fan applications

ACS310

Highlights

- Designed for squared torque applications such as pumps and fans, without overload demands
- Compact dimensions with unified height and depth save space and facilitate cabinet installations
- Equipped with pump and fan control (PFC), PID control with booster functionality and pump protection functions e.g., pump cleaning, pipefill to optimize pump or fan flow, to cut maintenance costs and to save energy

Features

- Power range 0.37 to 2.2 kW (1-phase 200 to 240 V), 0.37 to 11 kW (3-phase 200 to 240 V), 0.37 to 22 kW (3-phase 380 to 480 V)
- IP20 enclosure (UL open type), optional NEMA 1 kit
- Built-in pump and fan features such as multi-pump control, pump clean and soft pipe fill functions
- Built-in C3 EMC filter and Modbus EIA-485 fieldbus interface
- Motor noise smoothing
- Options
 - Basic and assistant control panels
 - Input and output chokes
 - Relay output extension module
 - External EMC C2 filter
 - FlashDrop tool for unpowered drive configuration in 2 seconds

For further information, see catalog "ABB general purpose drives, ACS310, 0.37 to 22 kW", code: 3AUA0000051082 EN.

All-compatible machinery drives

Persistent and adaptable performance



The all-compatible machinery drives provide high performance, adaptability and dependability for machine building needs. The drives help machine builders improve machine performance and provide more added value for their customers, while simultaneously cutting integration and maintenance costs.

The machinery drives are part of ABB's all-compatible drives portfolio, offering technically compatible drives with long-term solutions and support for users, processes, business and the environment.



All-compatible machinery drives



The configurable and compact machinery drive with performance for even demanding applications

ACS380

Highlights

- Preconfigured drive variant for fast installation and commissioning
- Integrated icon based user interface for faster usability
- Adaptive programming for extended application programming
- Optimal application performance with vector control
- Connectivity to almost any automation network
- Member of ABB's all-compatible drives portfolio

Features

- Power and voltage range: 1-phase, 0.25 to 2.2 kW, 200 to 240 V
- Power and voltage range: 3-phase, 0.37 to 22 kW, 380 to 480 V
- Enclosure class: IP20
- EMC variant with built-in EMC C2 filter
- Integrated safe torque off (STO) as standard
- Standard variant with built-in Modbus RTU and extensive I/O connection
- Built-in icon based user panel
- Scalar control, open and closed loop vector control
- Supports various motor types including synchronous reluctance motors (SynRM)
- Adaptive programming
- Built-in braking chopper
- Common DC connection with built-in charging unit
- Options
 - Advanced control panel with USB or Bluetooth connectivity
 - Various I/O extension options, encoder interface side option, 24 V auxiliary power side option
 - External EMC filter for C1
 - Cold configuration tool (CCA-01)



The adaptable and high performance drive for converting machinery and material handling applications

ACS880-M04

Highlights

- Optimized narrow design for cabinet assembly
- Extensive configurability
- High performance from open or closed loop speed and torque control to position control and synchronizing
- Support for almost any kind of motor
- Programmability up to full scale PLC programming
- Integrated safety functionality
- Connectivity to almost any automation network
- Member of ABB's all-compatible drives portfolio

Features

- Power and voltage range: 3-phase, 0.37 to 22 kW, 200 to 240 V AC
- Power and voltage range: 3-phase, 0.75 to 45 kW, 380 to 500 V AC
- Enclosure class: IP20
- Integrated safe torque off (STO) as standard
- Built-in braking chopper
- Built-in EMC filter, category C2
- Extended connectivity to I/O
- Options
 - IEC61131-3 programming
 - Extended connectivity to I/O
 - Speed and Ethernet communication options
 - Advanced control panel with USB or Bluetooth connectivity
 - Built-in/plug-in EMC filters for category C3, external EMC filters for category C2
 - Functional safety modules (FSO-12/21)
 - Safety functions: SS1, SSE, SBC, SLS, SMS, SDI, SSM
 - PROFIsafe over PROFINET connectivity between drive and safety PLC
 - Applications specific firmwares like position control, tower crane, winder etc.

ABB machinery drives for flexible needs

ABB machinery drives can be flexibly configured to meet demands set by different machines. An order-based configuration is an integral part of the machinery drives offering. The drives have a broad range of standard and optional features. Their programming capability offers additional flexibility to meet challenging machine requirements.



Compact and easy drives to install, set and commission

ACS355

Highlights

- A compact drive with a wide range of built-in features including safety functionality
- Sequence programming provides an easy way to implement drive's control logic
- A wide range of options for enhanced performance and flexible connectivity to different processes
- Compact dimensions with unified height and depth save space and facilitate cabinet installations
- Advanced functionality with sequence programming
- Scalar control, open and closed loop vector control
- Induction and permanent magnet motor control
- Built-in brake chopper and C3 EMC filter
- Integrated safe torque off (STO) as standard
- Product variants include solar pump drive, high speed application, and enhanced sequence programming

Features

- Power range 0.37 to 2.2 kW (1-phase 200 to 240 V), 0.37 to 11 kW (3-phase 200 to 240 V)
- Power range 0.37 to 22 kW (3-phase 380 to 480 V)
- IP20 enclosure (UL open type), optional NEMA 1 kit
- IP66, IP67 or IP69K (Nema 4X) as optional variant up to 7.5 kW
- Options:
 - Basic and assistant control panels
 - Potentiometer, plug-in fieldbus adapters, encoder interface, relay output extension module, input and output chokes
 - External EMC filter for 1st environment
 - FlashDrop tool for unpowered drive configuration in 2 seconds



Power and motion for any axis

ACS880 POSITION CONTROL

Highlights

- Ready-made control functions for decentralized motion systems – no need for external position controllers
- Support for virtually any type of motor, feedback device and communication protocol
- Available for any ACS880 hardware – extensive power and voltage range with extensive selection of variants and options
- Same drive family can be used for any application of the production line
- Member of ABB's all-compatible drives portfolio

Features

- 0.55-5600 kW
- 200-690 V
- Ready-made motion functions
- Program is made by using PLC Open motion blocks that can be modified by IEC programming
- Drive modules or ready made cabinets
- Single & multi drive solutions
- Different IP classes (IP20/21/55...)
- Different cooling concepts - air, flange (push through), liquid
- Variants for regenerative and ultra-low harmonic operation
- Synchronized drive-to-drive link as standard
- Removable memory unit enabling fast drive replacement without compatibility issues

ABB industrial drives for comprehensive solutions for all industries



ABB industrial drives are highly flexible AC drives that enable uncompromised productivity for industrial applications. The drives cover a power and voltage range up to 5600 kW and 690 V. The drives are designed for heavy industrial applications such as those found in pulp and paper, metals, mining, cement, power, chemical, oil and gas, water and wastewater, marine, and food and beverage.

Thanks to their configurability, high performance and all-compatible user interface they can be used also to extend the power or voltage range of the ABB machinery drives.



With direct torque control (DTC) there is no need for motor feedback in 95% of applications.

ACS800 series, liquid-cooled cabinet-built drives



High availability in harsh environmental conditions

ACS800-07LC, LIQUID-COOLED CABINET-BUILT SINGLE DRIVES

Highlights

- A fully enclosed drive cabinet with direct liquid cooling optimized for harsh environmental conditions
- Extremely compact, customizable and reliable design for a broad range of medium and high power applications
- High availability delivered with features such as built-in redundancy and the ability to run a partial load even when one of the modules is not operating

Features

- Power range 200 to 5600 kW (380 to 690 V)
- Fully enclosed cabinet, IP42 as standard, IP54 as option
- Liquid-cooled cabinet-built drives for harsh conditions
 - Compact size
 - Fully enclosed cabinet
 - 98% of heat dissipation through coolant, no additional air conditioning needed
- Direct torque control (DTC) for high performance motor control
- Customized solutions
 - Order-based solutions by application engineering
 - Industry and marine specific hardware and software solutions
 - Marine type approved design

ABB's cabinet-built liquid cooled single drives are ideal for harsh conditions. The complete assembly is offered and delivered as one package. Often the cabinet will include additional accessories such as contactors and earth fault protection units. Cabinet drives are typically made-to-order products.



Benefits of liquid cooling and regenerative supply in a compact package

ACS800-17LC, LIQUID-COOLED CABINET-BUILT REGENERATIVE SINGLE DRIVES

Highlights

- Combines the benefits of direct liquid cooling and regenerative operation to deliver an extremely compact, efficient and silent drive that helps to conserve energy
- High availability delivered with features such as built-in redundancy and the ability to run a partial load even when one of the modules is not operating
- Extensive range of built-in features and options enable optimal solutions for different applications

Features

- Power range 55 to 5200 kW (380 to 690 V)
- Fully enclosed cabinet, IP42 as standard, IP54 as option
- Liquid-cooled regenerative cabinet-built drives
 - 98% of heat dissipation through coolant, no additional air conditioning needed
 - Fully enclosed cabinet
 - Rugged design
 - Silent operation
- Direct torque control (DTC) for high performance motor control
- Customized solutions
 - Order-based solutions by application engineering
 - Industry and marine specific hardware and software solutions
 - Marine type approved design

ACS800 series, liquid-cooled cabinet-built single drives



Tackling effects of harmonics together with efficient liquid cooling

ACS800-37LC, CABINET-BUILT LIQUID-COOLED LOW HARMONIC SINGLE DRIVES

Highlights

- Combining the benefits of direct liquid cooling and low harmonic drive for an extremely compact and efficient drive that eliminates harmonic issues
- Enables exceptionally low harmonic content in the network with a total current distortion of less than 5.0%
- Extensive range of built-in features and options for optimal solutions to different applications

Features

- Power range 55 to 5200 kW (380 to 690 V)
- Fully enclosed cabinet, IP42 as standard, IP54 as option
- Liquid-cooled low harmonic cabinet-built drives
 - Fully enclosed cabinet
 - Rugged design
 - Low noise level
- Direct torque control (DTC) for high performance motor control
- Low harmonic content exceeding the requirements of IEEE519 standard
- Customized solutions
 - Order-based solutions by application engineering
 - Marine type approved design

ACS800 series, multidrives



ABB's multidrives are built from ABB industrial drive modules connected to a common DC bus. This enables a single power entry and common braking resources for several drives.

This construction simplifies the total installation and results in many benefits including savings in cabling, reduced installation and maintenance costs, reduced line currents and more.

Liquid-cooled process control in a compact package

ACS800, LIQUID-COOLED MULTIDRIVES

Highlights

- Direct liquid cooling and robust design with fully enclosed cabinet for applications where space savings and silent operation is a must. No need for air conditioning in the electrical rooms.
- Flexible multidrive configurations for a broad range of heavy industrial processes
- Extensive programmability and optional control programs for a wide range of applications
- Designed for easy installation, commissioning and maintenance

Features

- Power range 1.1 to 5600 kW (380 to 690 V)
- Fully enclosed cabinet, IP42 as standard, IP54 as option
- Common DC busbar
- Fully enclosed cabinet

- For harsh environments
- Silent operation
- Compact size
- Customized solutions
 - Industry and marine specific hardware and software solutions
 - Marine type approved design

Features

- Inverter units, ACS800-107LC
- Regenerative IGBT supply units, ACS800-207LC
- Diode supply units, 6-pulse ACS800-307LC, 12-pulse ACS800-507LC, 18-pulse ACS800-1107LC and 24-pulse ACS800-1207LC
- Liquid-cooling unit, ACS800-1007LC
- Braking unit, ACS800-607LC

ACS800 series, liquid-cooled drive modules



ABB's single drive modules are designed for fast, cost-effective installation and integration into a customer's own cabinet. Modules enable OEMs, system integrators and panel builders to build their own drive while benefitting from ABB drives' technology such as DTC motor control, adaptive programming and a wide range of built-in and external options. ABB provides detailed cabinet installation instructions and other support material to help customers build their own solutions.

Compact drive modules optimized for cabinet assembly

ACS800-04LC

Highlights

- Drive modules have been designed to minimize cabinet space use, make assembly as easy as possible, and give maximum flexibility
- All drive modules, regardless of the power and voltage, have the same customer interface and I/O making system design and training easier
- Everything necessary comes built-in and a wide selection of different I/O and communications options is available. Also, liquid-cooled drive modules are available to meet higher power requirements.

Features

- Power range 200 to 2240 kW (380 to 690 V)
- IP00, IP20
- Optimized design for cabinet assembly
- Compact and modular design allowing a wide range of variants
- Easy cabling
- EMC compliant modules available
- Wide range of built-in options
- Marine type approved design as option

ACS800 series, liquid-cooled multidrive modules



ABB's multidrive modules are designed to be installed in cabinets that feature a common DC bus. They are available as inverter modules, supply modules and braking choppers and resistors, and cover a wide range of applications. These modules contain all the drive technology and different types of supply units that convert the AC supply from the mains into a DC supply for the inverter modules. ABB provides full engineering support for designing cabinets.



INVERTER UNITS ACS800-104 AND ACS800-104LC

- Power range 1.1 to 2240 kW (380 to 690 V)

DIODE SUPPLY UNITS ACS800-304LC (6-PULSE) AND ACS800-704LC (6-/12-PULSE)

- Power range 300 to 3650 kW (380 to 690 V)

IGBT SUPPLY UNITS ACS800-204LC + LCL FILTERS

- Power range 181 to 2370 kW (380 to 690 V)
- Provides regenerative capacity plus additional filtering of harmonics in the supply

All-compatible industrial drives

Simplifying your world without limiting your possibilities

The ACS880 series drives have been designed with the highest standards for demanding applications. These drives are easily adaptable to suit different customer needs and integrate into various industry solutions. The drives are part of ABB's all-compatible drives portfolio that is designed to provide customers across industries and applications with unprecedented levels of compatibility, flexibility and ease of use. The ACS880 industrial drives are compatible with virtually all types of processes, automation systems, user groups and business requirements. Yet, despite the drives' wide-ranging capabilities, they are remarkably easy to use and integrate.

The ACS880 drives are available as single drives, multidrives and drive modules. They also offer ultra-low harmonic and regenerative variants, as well as extensive programmability, functional safety and extension features.



stop

Loc/Rem

Start



Local ACS880 1400.0 Rpm
Save money
Save energy
Save nerves
Save all
Exit
Select

?

ACS880 series, all-compatible industrial drives



All-compatible wall-mounted drive with everything built-in

ACS880-01, WALL-MOUNTED SINGLE DRIVES

Highlights

- Compact wall-mounted drives with all important features built-in the drive, saving installation space and time
- Premium motor control with direct torque control (DTC) for virtually any type of AC motor, including permanent magnet motors and synchronous reluctance motors (SynRM)
- A broad range of options offer flexibility and universal connectivity
- Built on ABB's all-compatible drives architecture providing unprecedented levels of compatibility, flexibility and ease-of-use
- Common PC tool, Drive composer, for commissioning and configuration
- Drive-to-drive link for fast communication between drives including master-follower configurations without any additional software
- Removable memory unit enabling fast replacement without compatibility issues
- Drive's energy efficiency information and the energy optimizer feature help to improve process efficiency
- Marine type approved design
- ATEX certified with ABB motors for explosive atmospheres
- Application specific control programs e.g. for position control, cranes, winders etc.

Features

- Power range 0.55 to 250 kW (208 to 690 V)
- IP21 as standard (UL type 1), IP20 and IP55 (UL type 12) as options
- Supports optimized cabinet mounting (+P940 or +P944)
- Flange (push through) mounting option with separated control electronics and IP55 backside protection
- Integrated safety including safe torque off (STO) as standard with several safety functions as options
- Intuitive control panel with USB connection for PC tool and support up to 20 languages
- Drive application programming based on IEC 61131-3
- Supports various motor types including synchronous reluctance motors and high speed motors
- Options include:
 - I/O extension modules
 - Fieldbus adapter modules
 - Integrated safety features
 - Speed feedback interfaces
 - EMC filter, braking chopper



All-compatible drive cabinet tailored to customer needs

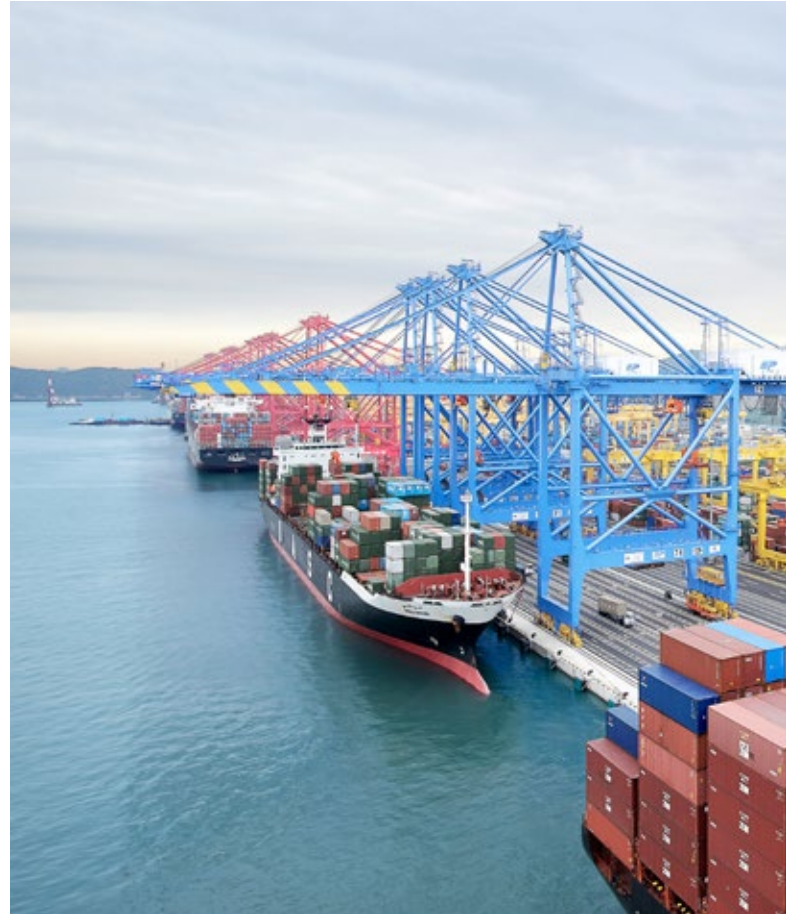
ACS880-07, CABINET-BUILT SINGLE DRIVES

Highlights

- Cabinet-built drives with a wide range of standard and optional features all built inside the cabinet, saving installation space and time
- Premium motor control with direct torque control (DTC) for virtually any type of AC motor, including permanent magnet motors and synchronous reluctance motors (SynRM)
- Flexible connectivity and an extensive range of options for the optimum solution to different applications
- Built on ABB's all-compatible drives architecture providing unprecedented levels of compatibility, flexibility and ease-of-use
- Drive-to-drive link for fast communication between drives, including master-follower configurations without any additional software
- Removable memory unit enabling fast replacement without compatibility issues
- Drive's energy efficiency information and the energy optimizer feature help to improve process efficiency
- Marine approved design
- ATEX certified with ABB motors for explosive atmospheres
- Application specific control programs e.g. for position control, cranes, winders etc.
- Drive application programming based on IEC 61131-3
- Supports various motor types including synchronous reluctance motors and high speed motors

Features

- Power range 45 to 2800 kW (380 to 690 V)
- Degree of protection, IP22 as standard, IP42 and IP54 (UL type 12) as options
- Integrated safety including safe torque off (STO) as standard with several safety functions as options
- Intuitive control panel with USB connection for PC tool and support up to 20 languages
- Common PC tool, Drive composer, for commissioning and configuration
- Options include:
 - I/O extension modules
 - Fieldbus adapter modules
 - Integrated safety features
 - Speed feedback interfaces
 - EMC filter, braking chopper



Capture and utilize braking energy with all-compatible drives

ACS880-11, WALL-MOUNTED REGENERATIVE SINGLE DRIVES

Highlights

- Complete and compact regenerative wall-mounted drives with all important features built-in the drive
- Regenerative drives save energy compared to other braking methods as energy is fed back to the network
- Does not need external braking devices, which makes drive installation simple
- The active supply unit is able to boost output voltage, which ensures reliable operation and guarantees full motor voltage even when the supply voltage is below nominal
- Common PC tool, Drive composer, for commissioning and configuration
- Drive-to-drive link for fast communication between drives including master-follower configurations without any additional software
- Removable memory unit enabling fast replacement without compatibility issues
- Drive's energy efficiency information and the energy optimizer feature help to improve process efficiency

Features

- Power range 3 to 110 kW (380 to 500 V)
- IP21 (UL Type 1) as standard, IP20 (UL Open Type) and IP55 (UL type 12) as options
- Supports optimized cabinet mounting (+P940)
- Flange (push through) mounting option with separated control electronics and IP55 backside protection
- Reaches unity power factor
- Integrated safety including safe torque off (STO) as standard with several safety functions as options
- Intuitive control panel with USB connection for PC tool and support up to 20 languages
- Application specific control programs e.g. for position control, cranes, winders etc.
- Drive application programming based on IEC 61131-3
- Supports various motor types including synchronous reluctance motors and high speed motors
- Options include:
 - I/O extension modules
 - Fieldbus adapter modules
 - Integrated safety features
 - Speed feedback interfaces
 - EMC filter, output filters



Manage and control harmonics with all-compatible drives

ACS880-31, WALL-MOUNTED ULTRA-LOW HARMONIC SINGLE DRIVES

Highlights

- Complete and compact wall-mounted drives producing exceptionally low harmonic content in the drives input without external filters
- The active supply unit in the drive is able to boost output voltage, which ensures reliable operation and guarantees full motor voltage even when the supply voltage is below nominal
- Extensive range of built-in features and options enable optimal solutions for different applications

Features

- Power range 3 to 110 kW (380 to 500 V)
- IP21 (UL Type 1) as standard, IP20 (UL Open Type) and IP55 (UL type 12) as options
- Supports optimized cabinet mounting (+P940)
- Flange (push through) mounting option with separated control electronics and IP55 backside protection
- Reaches unity power factor
- Integrated safety including safe torque off (STO) as standard with several safety functions as options
- Intuitive control panel with USB connection for PC tool and support up to 20 languages

- Common PC tool, Drive composer, for commissioning and configuration
- Drive-to-drive link for fast communication between drives including master-follower configurations without any additional software
- Removable memory unit enabling fast replacement without compatibility issues
- Drive's energy efficiency information and the energy optimizer feature help to improve process efficiency
- ATEX certified with ABB motors for explosive atmospheres
- Application specific control programs e.g. for position control, cranes, winders etc.
- Drive application programming based on IEC 61131-3
- Supports various motor types including synchronous reluctance motors and high speed motors
- Options include:
 - I/O extension modules
 - Fieldbus adapter modules
 - Integrated safety features
 - Speed feedback interfaces
 - EMC filter, braking chopper



Capture and utilize braking energy with all-compatible drives

ACS880-17, CABINET-BUILT REGENERATIVE SINGLE DRIVES

Highlights

- Complete regenerative drive in a single, compact and customizable package
- Regenerative drives save energy compared to other braking methods as energy is fed back to the network
- Does not need external braking devices, which makes drive installation simple as less need for cabinet space is required
- Especially suitable for demanding applications with fast transition between motoring and generating that benefit from the DTC control method
- The active supply unit is able to boost output voltage, which guarantees full motor voltage even when the supply voltage is below nominal
- Common PC tool, Drive composer, for commissioning and configuration
- Drive-to-drive link for fast communication between drives including master-follower configurations without any additional software
- Removable memory unit enabling fast replacement without compatibility issues
- Drive's energy efficiency information and the energy optimizer feature help to improve process efficiency
- ATEX certified with ABB motors for explosive atmospheres
- Application specific control programs e.g. for position control, cranes, winders etc.
- Drive application programming based on IEC 61131-3
- Supports various motor types including synchronous reluctance motors and high speed motors
- Marine type approved design

Features

- Power range 45 to 3200 kW/380 to 690 V
- IP22 as standard (UL type 1), IP42 and IP55 (UL type 12) as option
- Reaches unity power factor
- Integrated safety including safe torque off (STO) as standard with several safety functions as options
- Intuitive control panel with USB connection for PC tool and support up to 20 languages
- Options include:
 - I/O extension modules
 - Fieldbus adapter modules
 - Integrated safety features
 - Speed feedback interfaces
 - EMC filter, braking chopper



Manage and control harmonics with all-compatible drives

ACS880-37, CABINET-BUILT ULTRA-LOW HARMONIC SINGLE DRIVES

Highlights

- Produces exceptionally low harmonic content in the drives input, which is achieved without external filters or multi-pulse transformers
- Active supply unit in the drive is able to boost output voltage, which guarantees full motor voltage even when the supply voltage is below nominal
- Extensive range of built-in features and options enable optimal solutions for different applications
- Removable memory unit enabling fast replacement without compatibility issues
- Drive's energy efficiency information and the energy optimizer feature help to improve process efficiency
- ATEX certified with ABB motors for explosive atmospheres
- Application specific control programs e.g. for position control, cranes, winders etc.

Features

- Power range 45 to 3200 kW/380 to 690 V
- IP22 as standard (UL type 1), IP42 and IP55 (UL type 12) as option
- Integrated safety including safe torque off (STO) as standard with several safety functions as options
- Intuitive control panel with USB connection for PC tool and support up to 20 languages
- Common PC tool, Drive composer, for commissioning and configuration
- Drive-to-drive link for fast communication between drives including master-follower configurations without any additional software
- Drive application programming based on IEC 61131-3
- Supports various motor types including synchronous reluctance motors and high speed motors
- Marine type approved design
- Options include:
 - I/O extension modules
 - Fieldbus adapter modules
 - Integrated safety features
 - Speed feedback interfaces
 - EMC filter, braking chopper

ACS880 series, multidrives



All-compatible space-saving multidrives

ACS880, MULTIDRIVES

Highlights

- Single supply and DC bus arrangement with several inverters reduce line power and system size
- Premium motor control with DTC for virtually any type of AC motor, including permanent magnet motors and synchronous reluctance motors (SynRM)
- A wide range of built-in features, flexible connectivity and an extensive range of options for the optimum solution to different applications
- Built on ABB's all-compatible drives architecture providing unprecedented levels of compatibility, flexibility and ease-of-use

Features

- Power range 1.5 to 5600 kW (380 to 690 V)
- Degree of protection, IP22 as standard, IP42 and IP54 (UL type 12) as options
- Integrated safety including safe torque off (STO) as standard with several safety functions as options
- High packing density with 16 inverter units up to frame size R2i can be installed into one cabinet
- Fast connectors for motor cables located in the bottom part
- DC fuse disconnectors, DC fuses or DC fuse switch including charging circuit for inverters
- Highly efficient thermal handling – heat loss of each inverter unit is guided to the back of the cabinets

- Intuitive control panel with USB connection for PC tool and support up to 20 languages
- Common PC tool, Drive composer, for commissioning and configuration
- Drive-to-drive link for fast communication between drives including master-follower configurations without any additional software
- Removable memory unit enabling fast replacement without compatibility issues
- Drive's energy efficiency information and the energy optimizer feature help to improve process efficiency
- ATEX certified with ABB motors for explosive atmospheres
- Application specific control programs e.g. for position control, cranes, winders etc.
- Drive application programming based on IEC 61131-3
- Supports various motor types including synchronous reluctance motors and high speed motors
- Marine type approved design
- Options include:
 - I/O extension modules
 - Fieldbus adapter modules
 - Integrated safety features
 - Speed feedback interfaces
 - EMC filter, braking chopper



All-compatible drive modules for easy cabinet assembly

ACS880, MULTIDRIVE MODULES

Highlights

- Offering includes multidrive modules and module packages
- Compact design for easy cabinet assembly and maintenance
- Mechanical and electrical kit accessories including 3D images and assembly drawings
- EPLAN electric macros
- Premium motor control with DTC for virtually any type of AC motor, including permanent magnet motors and synchronous reluctance motors (SynRM)
- Built on ABB's all-compatible drives architecture providing unprecedented levels of compatibility, flexibility and ease-of-use
- Removable memory unit enabling fast replacement without compatibility issues
- Drive's energy efficiency information and the energy optimizer feature help to improve process efficiency
- ATEX certified with ABB motors for explosive atmospheres
- Application specific control programs e.g. for position control, cranes, winders etc.
- Drive application programming based on IEC 61131-3
- Supports various motor types including synchronous reluctance motors and high speed motors
- Marine type approved design

Features

- Power range 1.5 to 3200 kW (380 to 690 V)
- Integrated safety including safe torque off (STO) as standard with several safety functions as options
- Intuitive control panel with USB connection for PC tool and support up to 20 languages
- Common PC tool, Drive composer, for commissioning and configuration
- Drive-to-drive link for fast communication between drives including master-follower configurations without any additional software
- Options include:
 - I/O extension modules
 - Fieldbus adapter modules
 - Integrated safety features
 - Speed feedback interfaces
 - Braking chopper
 - Assembly kits for Rittal cabinets and generic cabinets



All-compatible single drive modules for optimized cabinet assembly

ACS880-04/-04F, SINGLE DRIVE MODULES

Highlights

- Optimized for easy and cost efficient cabinet assembly
- Compact and robust cabinet design, saves floor space and is easy to maintain and service
- Easy to integrate into automation systems
- Premium motor control with DTC for virtually any type of AC motor, including permanent magnet motors, synchronous reluctance and high speed motors
- Built on ABB's all-compatible drives architecture providing unprecedented levels of compatibility, flexibility and ease-of-use

Features

- Power range 250 to 710 kW/380 to 690 V for -04/-04F single drive module
- Power range 630 to 2200 kW/380 to 690 V for -04XT (parallel running -04) and -04 single drive module packages (drives consisting of multiple modules)
- Degree of protection IP00 and IP20 (UL open type)
- Possibility for flat mounting minimizing the depth of the module
- Flange (push through) mounting variant (-04F) with separated control electronics and IP55 backside protection
- Control unit can be either external or internal
- Integrated safety including safe torque off (STO) as standard with several safety functions as options

- Intuitive control panel with USB connection for PC tool and support up to 20 languages
- Common PC tool, Drive composer, for commissioning and configuration
- Drive-to-drive link for fast communication between drives, including master-follower configurations without any additional software
- Removable memory unit enabling fast replacement without compatibility issues
- Drive's energy efficiency information and the energy optimizer feature help to improve process efficiency
- Marine type approved design
- ATEX certified with ABB motors for explosive atmospheres
- Application specific control programs e.g. for position control, cranes, winders etc.
- Drive application programming based on IEC 61131-3
- Supports various motor types including synchronous reluctance and high speed motors
- Options include:
 - Fieldbus adapter modules
 - Integrated safety features
 - Speed feedback interfaces
 - EMC filter, braking chopper
 - Assembly kits for Rittal cabinets and generic cabinets



Capture and utilize braking energy with all-compatible drive modules

ACS880-14, REGENERATIVE SINGLE DRIVE MODULES

Highlights

- Complete and compact regenerative drive modules with all important features built-in the drive
- Regenerative drives save energy compared to other braking methods as energy is fed back to the network
- Does not need external braking devices, which makes drive installation simple
- The active supply unit is able to boost output voltage, which ensures reliable operation and guarantees full motor voltage even when the supply voltage is below nominal
- Drive-to-drive link for fast communication between drives including master-follower configurations without any additional software
- Removable memory unit enabling fast replacement without compatibility issues
- Drive's energy efficiency information and the energy optimizer feature help to improve process efficiency
- ATEX certified with ABB motors for explosive atmospheres
- Application specific control programs e.g. for position control, cranes, winders etc.

Features

- Power range 110 to 400 kW / 380 to 690 V
- Degree of protections IP20 (UL Open Type)
- Reaches unity power factor
- Control unit can be either internal or external
- Integrated safety including safe torque off (STO) as standard with several safety functions as options
- Intuitive control panel with USB connection for PC tool and support up to 20 languages
- Common PC tool, Drive composer, for commissioning and configuration
- Drive application programming based on IEC 61131-3
- Supports various motor types including synchronous reluctance motors and high speed motors
- Options include:
 - I/O extension modules
 - Fieldbus adapter modules
 - Integrated safety features
 - Speed feedback interfaces
 - EMC filter, output filters



Manage and control harmonics with all-compatible drive modules

ACS880-34, ULTRA-LOW HARMONIC SINGLE DRIVE MODULES

Highlights

- Complete and compact drive modules producing exceptionally low harmonic content in the drives input without external filters
- The active supply unit in the drive is able to boost output voltage, which ensures reliable operation and guarantees full motor voltage even when the supply voltage is below nominal
- Extensive range of built-in features and options enable optimal solutions for different applications
- Drive-to-drive link for fast communication between drives including master-follower configurations without any additional software
- Removable memory unit enabling fast replacement without compatibility issues
- Drive's energy efficiency information and the energy optimizer feature help to improve process efficiency
- ATEX certified with ABB motors for explosive atmospheres
- Application specific control programs e.g. for position control, cranes, winders etc.

Features

- Power range 110 to 400 kW / 380 to 690 V
- Degree of protections IP20 (UL Open Type)
- Reaches unity power factor
- Control unit can be either internal or external
- Integrated safety including safe torque off (STO) as standard with several safety functions as options
- Intuitive control panel with USB connection for PC tool and support up to 20 languages
- Common PC tool, Drive composer, for commissioning and configuration
- Drive application programming based on IEC 61131-3
- Supports various motor types including synchronous reluctance motors and high speed motors
- Options include:
 - I/O extension modules
 - Fieldbus adapter modules
 - Integrated safety features
 - Speed feedback interfaces
 - EMC filter, output filters





Capture and utilize braking energy with all-compatible drives

ACS880-14, REGENERATIVE SINGLE DRIVE MODULE PACKAGES

Highlights

- Regenerative single drive modules equipped with an active supply unit and optimized for cabinet assembly
- All important features and options, including LCL line filter module(s), IGBT supply module(s), inverter module(s), common mode filters, come in the package
- Regenerative drives save energy compared to other braking methods as energy is fed back to the network
- Does not need external braking devices, which makes drive installation simple as less need for cabinet space is required
- Especially suitable for demanding applications with fast transition between motoring and generating that benefit from the DTC control method
- The active supply unit is able to boost output voltage, which guarantees full motor voltage even when the supply voltage is below nominal
- Compact and modular design allowing a wide range of variants
- Removable memory unit enabling fast replacement without compatibility issues
- Drive's energy efficiency information and the energy optimizer feature help to improve process efficiency
- ATEX certified with ABB motors for explosive atmospheres
- Application specific control programs e.g. for position control, cranes, winders etc.
- Drive application programming based on IEC 61131-3
- Supports various motor types including synchronous reluctance motors and high speed motors
- Marine type approved design
- Options include:
 - I/O extension modules
 - Fieldbus adapter modules
 - Integrated safety features
 - Speed feedback interfaces
 - EMC filter, braking chopper
 - Assembly kits for Rittal cabinets and generic cabinets

Features

- Power range 250 to 2200 kW/ 380 to 690 V
- Reaches unity power factor
- Integrated safety including safe torque off (STO) as standard with several safety functions as options
- Optimized design for cabinet assembly



Manage and control harmonics with all-compatible drives

ACS880-34, ULTRA-LOW HARMONIC SINGLE DRIVE MODULES

Highlights

- Ultra-low harmonic single drive modules equipped with an active supply unit and optimized for cabinet assembly
- Produces exceptionally low harmonic content in the drives input, which is achieved without external filters of multi-pulse transformers
- All important features and options, including LCL line filter module(s), IGBT supply module(s), inverter module(s), common mode filters, come in the package
- Active supply unit in the drive is able to boost output voltage, which guarantees full motor voltage even when the supply voltage is below nominal
- Extensive range of built-in features and options enable optimal solutions for different applications
- Removable memory unit enabling fast replacement without compatibility issues
- Drive's energy efficiency information and the energy optimizer feature help to improve process efficiency
- ATEX certified with ABB motors for explosive atmospheres
- Application specific control programs e.g. for position control, cranes, winders etc.
- Drive application programming based on IEC 61131-3
- Supports various motor types including synchronous reluctance motors and high speed motors
- Marine type approved design
- Options include:
 - I/O extension modules
 - Fieldbus adapter modules
 - Integrated safety features
 - Speed feedback interfaces
 - EMC filter, braking chopper
 - Assembly kits for Rittal cabinets and generic cabinets

Features

- Power range 250 to 2200 kW/ 380 to 690 V
- Reaches unity power factor
- Integrated safety including safe torque off (STO) as standard with several safety functions as options
- Optimized design for cabinet assembly
- Compact and modular design allowing a wide range of variants



Liquid-cooled drives in a compact package

ACS880, LIQUID-COOLED MULTIDRIVES

Highlights

- Direct liquid cooling and robust design with fully enclosed cabinet for applications where space savings and silent operation is a must. No need for air conditioning in the electrical rooms.
 - 98% of total losses are transferred to cooling liquid
 - Coolant is commercially and globally available ready-made mixture, Antifrogen® L
- Flexible multidrive configurations for a broad range of heavy industrial processes
- Extensive programmability and optional control programs for a wide range of applications
- Designed for easy installation, commissioning and maintenance
- Considerably higher power density compared to ACS800
 - Less modules needed for high motor powers
 - Reduced footprint

Features

- Power range 355 to 6000 kW (525 to 690 V)
- Fully enclosed cabinet, IP42 as standard, IP54 as option
- Common DC busbar
- For harsh environments
- Silent operation
- Compact size
- Customized solutions
 - Industry and marine specific hardware and software solutions
 - Marine type approved design

Available units

- Inverter units, ACS880-107LC
- Regenerative IGBT supply units, ACS880-207LC
- DC-DC converter (DDC) ACS880-1607LC
- Liquid-cooling unit, ACS880-1007LC
- Braking unit, ACS880-607LC



All-compatible drive modules for compact cabinet assembly

ACS880, MULTIDRIVE LC MODULES

Highlights

- Offering includes inverter modules, supply modules and braking choppers
- Direct liquid cooling and robust design for applications where space savings, fully enclosed cabinet or silent operation is a must. No need for air conditioning in the electrical rooms.
 - 98% of total losses are transferred to cooling liquid
 - Coolant is commercially and globally available ready-made mixture, Antifrogen® L
- High power density due to efficient liquid cooling
- Compact design for cabinet assembly with a small footprint
- Optimal solution for demanding operation environments
- Mechanical and electrical kit accessories including 3D images, assembly drawings and EPLAN electric macros
- Built on ABB's all-compatible drives architecture providing unprecedented levels of compatibility, flexibility, compactness and ease-of-use

Features

- Power range 355 to 3000 kW (525 to 690 V)
- ABB's multidrive modules are designed to be installed in cabinets with a common DC bus
- Integrated safety including safe torque off (STO) as standard with several safety functions as options
- Supports various motor types
- Marine type approvals from several classification societies
- Installation accessory kits for Rittal cabinets and generic cabinets

Available units

- Inverter units, ACS880-104LC
- Diode supply module ACS880-304LC+A019
- Regenerative IGBT supply units, ACS880-204LC
- DC-DC converter (DDC) ACS880-1604LC
- Liquid-cooling unit, ACS880-1007LC
- Braking unit, ACS880-604LC

ABB industry specific drives tailored to save energy and money

ABB industry specific drives provide our customers with dedicated drive solutions for AC motor control used in industries and applications such as HVAC and water and wastewater. Working closely with these industries, we have developed targeted functionality to help you improve your overall operating performance while also helping to reduce energy use. Extremely intuitive control panel with menus and assistants help you easily set up and tailor the drives to meet the needs of your processes.



All-compatible drives for water

Securing the flow of water and wastewater



Robust design securing optimal flow of water and wastewater

ACQ580

Highlights

- Optimized efficiency of the water and wastewater process
- Enhanced reliability with dedicated pump application functionalities
- Proven performance in demanding environments with robust and compact drives offering
- Seamless integration and operation with wide motor and communication protocol support
- Easy to commission, configure and use with intuitive Hand-Off-Auto control panel that speaks pump language

Features

- Power range 0.75 to 500 kW (3-phase 380 to 480 V)
 - Wall-mounted drives, IP21 as standard (UL type 1), IP55 as option (UL type 12)
 - Drive module, IP00 as standard, IP20 as option
 - Cabinet-built drives, IP21 as standard, IP42 and IP54 as options
- Built-in pump application program with Intelligent multipump functionality, Sensorless flow calculation, Level control, Soft pipe fill, Quick ramps, Pump cleaning and Pump protection functions
- Adaptive programming
- Intuitive and easy to use Hand-Off-Auto control panel available also with Bluetooth functionality
- Built-in choke and EMC filter, category C2
- Functional safety: Safe torque off (STO) as standard
- Extended connectivity to I/O
- Coated PCBs as standard for humid and harsh environments





ABB drives for HVAC



The compact drive for HVAC pump and fan OEM applications up to 4 kW

ACS320

Highlights

- Embedded BACnet MS/TP, N2, FLN and Modbus RTU
- Built-in HVAC application control
- Saves energy in HVAC systems

Features

- Power range 0.37 to 4 kW (3-phase 380 to 480 V)
- Embedded BACnet MS/TP, N2, FLN and Modbus RTU
- Built-in HVAC application control
- Two PID controllers
- Timers with real-time clock
- Pump and fan controls
- Cooling fan control
- Pump cleaning
- Energy optimizer feature
- Sleep function

All-compatible drives for HVAC



Complete HVAC functionality in a compact package

ACH480

Highlights

- Complete set of HVAC functions
- Optimized for cabinet installations
- Easy to commission and use thanks to intuitive HVAC control panel
- Flexible in programming
- Wide set of motor types supported, including PM and SynRM
- Instant availability from ABB authorized partners and ABB regional & central stocks (2019)

Features

- Compact drive for HVAC applications
- Power range 0.75 to 22 kW (3-phase 380 to 480 V)
- IP20 as standard, UL type 1 with option
- EMC category C2
- Flexible I/O configurations
- User friendly operation with HVAC control panel with Hand-Off-Auto functionality
- Optional Bluetooth enabled HVAC control panel and Drivetune app allows the drive to be operated from a distance
- BMS communication embedded with BACnet MS/TP, Modbus RTU and N2
- Certified Safe Torque Off (STO) as standard
- Loop controllers for controlling the speed of a fan or pump. Additional loop controllers to control external devices.
- Real time clock and built-in timers for timed operation of the drive and control of external HVAC devices



Comprehensive climate control, effortless operation

ACH580

Highlights

- Complete HVAC functionality in a scalable package
- Simple to select, install and use, all the essential features are embedded inside
- Seamless integration to applications and jobsites in languages users and systems speak
- Widely available from ABB authorized partners and from ABB central and regional stocks
- Controls induction motors (IM) and energy efficient permanent magnet (PM) and synchronous reluctance motors (SynRM)
- Ultra-low harmonic solution for more demanding applications

Features

- Premium drive for HVACR applications
- Power range 0.75 to 500 kW (3-phase 380 to 480 V)
- Wall-mounted drives: IP21 as standard, IP55 as option
- Cabinet-built drives: IP21 as standard, IP42 or IP54 as option
- Public networks compliant with standard EMC C2 filter and built-in swinging choke
- User friendly operation with HVAC control panel with Hand-Off-Auto functionality
- BMS communication embedded with BACnet MS/TP, Modbus RTU and N2
- Optional Bluetooth enabled HVAC control panel and Drivetune app allows the drive to be operated from a distance
- Loop controllers for controlling the speed of a fan or pump. Additional loop controllers to control external devices.
- Real time clock and built-in timers for timed operation of the drive and control of external HVAC devices
- Certified Safe torque off (STO) as standard
- The ultra low harmonic drive variant ensures a pollution-free electric supply and allows the motor to be run at full voltage even in situations where the network voltage is reduced

ABB wind turbine converters

The wind turbine converter plays an important role in helping customers create the perfect wind economy. The selection of the right converter is critical in the turbine design and for a higher return on investment.

ABB offers wind turbine converters for small-scale and utility-scale wind turbines. ABB wind turbine converters, suitable for any of today's turbine concepts, deliver durable, reliable performance and are backed by a complete set of life-cycle services.





Grid code compatible converter for renewables

ACS880-17, SMART GRID CONVERTER

Highlights

- The ACS880 smart grid converter is has been adapted from ACS880 drive family and optimized to meet the requirements of the renewable industry. It is based on a technology proven and tested in thousands of applications worldwide.
- Complete grid code compatible converter in a single, compact and customizable package
- Especially suitable for wind turbine retrofit cases when upgrading a fixed speed wind turbine into a variable speed wind turbine
- ATEX certification with ABB motors
- Easy troubleshooting and fast replacement thanks to modular components, such as control units and power modules. Possible faults are limited to one modular component.
- Improved stability of the renewable power supply conforming to user-defined settings with the optional integrated battery control, enabling connection to an external energy storage

Features

- Power range 250 to 3200 kW/380 to 690 V
- Air cooled
- IP22 as standard (UL type 1), IP42 and IP55 (UL type 12) as option
- Supports renewable market requirements to comply with the most stringent grid code requirements
- Standard Ethernet connection for PC browser
- Removable memory unit enabling fast replacement without compatibility issues
- ATEX certification with ABB motors for potentially explosive atmospheres enables use in gas turbine applications
- Drive application programming based on IEC 61131-3
- Supports various motor types including permanent magnet, synchronous reluctance motors and high-speed motors
- Marine type approved design
- Heaters for cabinet heating & dry-out sequences
- Integrated safety including safe torque off (STO) as standard with several safety functions as options
- Options include:
 - I/O extension modules
 - Fieldbus adapter modules
 - Integrated safety features
 - Speed feedback interfaces
 - EMC filter, braking chopper
 - Sin filter



Designed for extreme conditions

ACS880-77LC/-87LC/-87CC, WIND TURBINE CONVERTERS

Highlights

- The ACS880 wind turbine converter is has been adapted from ACS880 drive family and optimized to meet the requirements of the wind industry. It is based on a technology proven and tested in thousands of applications worldwide.
- The precise, fast control dampens drivetrain oscillations, minimizing stress on the gearbox. This results in a longer lifetime for the mechanical drivetrain.
- The converter can be installed as both nacelle and tower installations, either in-line or back-to-back cabinet with liquid cooling or combined cooling. Various cabling options enable adaption to different installations.
- Easy troubleshooting and fast replacement thanks to modular components, such as control units and power modules. Possible faults are limited to one modular component.
- Improved stability of the turbine's power supply conforming to user-defined settings with the optional integrated battery control, enabling connection to an external energy storage.
- Total harmonic current distortion, measured value 2.5%
- Ambient temperature:
 - Transport -40 to +70 °C
 - Storage -40 to +70 °C
 - Operation -30 to +50 °C
- Coolant inlet temperature +5 to +50 °C
- Totally enclosed cabinet IP21 and IP54 / UL type 12
- Cabling connections: Bottom
- Cooling connections: Left or right side
- Cabinet configuration: In-line, back-to-back or several separate
- Fieldbus interfaces: EtherCAT, PROFINET IO, PROFIBUS-DP, CANopen, Modbus, ControlNet, InterBus-S, DeviceNet
- Standard Ethernet connection for PC browser
- Supports wind turbines to comply with the most stringent grid code requirements
- Product markings: CE, GL2010, North American EMC EN 61800-3/ A11 (2000), EN 61800-3 (2004) 2nd environment, unrestricted distribution, category C3
- Quality assurance system ISO 9001
- Environmental system ISO 14001
- Product approvals: UL61800-5-1, CSA C22.2 No 274, DNVGL-SE-0441

Features

- Generator power range 1 to 12 MW
- Liquid cooling with totally enclosed cabinet
- Full power converter for permanent magnet and asynchronous generators
- Rated grid voltage 525 to 690 V AC, 3-phase, $\pm 10\%$
- Rated generator voltage 0 to 750 V AC
- Nominal grid frequency 50/60 Hz
- Efficiency at converter's rated point, typical value 97%
- Generator-side converter du/dt, measured value 1.25 kV/ μ s
- Options include:
 - Sub-converter configuration
 - Cooling method Liquid or combined cooling
 - Online reconfiguration
 - Integrated energy storage
 - Output contactors on the generator side protection
 - High coolant inlet temperature up to +55 °C
 - High altitude up to 4000 m



Superior system performance

PCS6000, WIND TURBINE CONVERTERS

Highlights

- The PCS6000 wind turbine converter is has been adapted from ABB's medium voltage frequency converters and optimized to meet the requirements of the wind industry. It is based on a technology proven and tested in thousands of applications worldwide.
- The converter can be installed as both nacelle and tower installations, either in-line, back-to-back, face-to-face or T-shape arrangement with liquid cooling. Various cabling options enable adaption to different installations.
- Easy troubleshooting and fast replacement thanks to modular components, such as control units and power modules. Possible faults are limited to one modular component.
- Very compact, light-weighted, fuseless and filterless design
- Very robust and reliable power conversion by IGCT semiconductors
- Efficient cable connections to generator and transformer due to MV technology
- The precise, fast control dampens drivetrain oscillations, minimizing stress on the gearbox. This results in a longer lifetime for the mechanical drivetrain.
- Nominal grid frequency 50/60 Hz
- Efficiency at converter's rated point, typical value 98%
- Generator-side converter du/dt, measured value 1.5 kV/μs
- Ambient temperature:
 - Transport -25 to +70 °C
 - Storage -25 to +55 °C
 - Operation -10 to +45 °C
- Coolant inlet temperature up to +45 °C, higher temperatures possible on request.
- Enclosed cabinet IP54
- Cabling connections:
 - Generator-side connections from top (Pfisterer P3)
 - Grid-side connections from top (Pfisterer P3)
 - Braking resistor connections from back or top (Pfisterer P3)
 - Control connections from bottom (terminals inside control cabinet)
- Cooling connections: DN80 from top
- Cabinet configuration: in-line, back-to-back, face-to-face or T-shape
- Fieldbus interfaces: Profibus DP, Profinet IO, Modbus TCP, EtherCAT, CANopen

Features

- Generator power range up to 12 MW (higher on request)
- Liquid cooling with IP54 enclosed cabinet
- Full power converter for permanent magnet and induction generators
- Rated grid voltage 3.3 kV AC
- Rated generator voltage 0 to 3.3 kV AC
- Standard Ethernet connection for PC
- Supports wind turbines to comply with the most stringent grid code requirements
- Product markings CE (acc. 2014/35/EU, 2014/30/EU), DNV-GL (acc. GL-IV-2:2012), CGC (acc. CGC-R46022:2011)
- Quality assurance system ISO 9001:2008
- Environmental system ISO 14001:2004

Mobile drive solution for working machine and marine applications

Dependable heavy duty performance is essential to your operations. Our HES880 drives are designed with this in mind. They help you increase productivity, while reducing fuel consumption and emissions.





Rugged and reliable in hard conditions

HES880 MOBILE DRIVE MODULES

Highlights

- HES880 has three different firmwares. One hardware can be configured to operate in three modes:
 - Inverter for traction motor and generator up to 510 kW continuous and up to 760 kW peak electrical power (500 V and $\cos\phi$ 0.98)
 - Bi-directional line converter for grid connectivity
 - DC/DC converter for super capacitor or battery interface, up to 620 kW
- Complete and compact regenerative drive modules with all important features built-in the drive
- Regenerative drives save energy compared to other braking methods as energy is fed back to the battery or super capacitor
- Does not need external braking devices, which makes drive installation simple
- The active supply unit can boost output voltage, which ensures reliable operation and guarantees full motor voltage even when the supply voltage is below nominal

Features

- Current range 233 A to 600 A
- Supply voltage 3-phase, 230 to 500 V
- Degree of protection IP 67
- Coolant temperature -40 to +70 °C (-40 to 160 °F)
- Ambient temperature -40 to +85 °C (-40 to +185 °F)
- Vibration tolerance: IEC 60068-2, 4g constant and 30 g shocks
- Integrated safe torque off (STO) as standard
- Intuitive control panel with USB connection for PC tool and support up to 20 languages
- Common PC tool, Drive composer, for commissioning and configuration
- Removable memory unit enabling fast replacement without compatibility issues
- Drive's energy efficiency information and the energy optimizer feature help to improve process efficiency
- Application specific control program for cranes and winches
- Drive application programming based on IEC 61131-3
- Supports various motor types including synchronous reluctance motors and high-speed motors
- Options include:
 - External filters
 - Chokes for DC/DC converter
 - LCL-filter for grid connection
 - Converter options
 - Internal brake chopper
 - Encoded power connection
 - Hazardous Voltage Interlock Loop (HVIL)

ABB motion control drives provide capability without complexity

ABB motion control drives offer flexible technologies and high performance motor control to solve a wide variety of applications. The range includes powers from less than 1 kW to more than 100 kW. The drives enable operation with single and three-phase supplies for global markets, and have open communication options as well as real-time Ethernet technologies such as EtherCAT® and POWERLINK.

Our intelligent motion drives include programming options for single and multi-axis control applications or can be combined with our multi-axis motion controllers and PLC products for system solutions.



ABB motion control drives



Versatile motion control drive with integrated real-time Ethernet technology

MotiFlex e180

Highlights

- Wide range of motion functions
- Software selectable Ethernet protocols including EtherCAT®, POWERLINK, Modbus TCP, EtherNet/IP™ and PROFINET IO
- Dynamic control of rotary and linear servo motors
- Safety as standard with integrated safe torque off in accordance to IEC 61800-5-2, SIL 3, PL e
- HIPERFACE DSL one cable solutions

Features

- Servo duty output current 3 to 50 A (3-phase 200 to 480 V AC)
- IP20 enclosure for cabinet installation (UL open)
- Suitable for stand-alone and multi-axis motion systems
- Integrated Safe Torque Off (STO) as standard
- Memory unit for all drive settings
- Real time Ethernet operation with EtherCAT® and POWERLINK
- EtherNet/IP™, Modbus TCP and PROFINET IO (software selectable)
- Controls rotary and linear AC servo motors
- Powerful programmable motion for solving single axis motion such as flying shears indexing applications
- Options
 - Different speed/position feedback interfaces
 - External EMC filters, chokes and braking resistors

For further information, see catalog "ABB motion control products, MotiFlex e180 servo drives", code: 3AUA0000168683 EN.



COMPLETE MOTION CONTROL SOLUTIONS

Highlights

The motion control drives are part of ABB's extensive range of motion control solutions. The solutions include human machine interfaces (HMI), Programmable Logic Controllers (PLC), functional safety technology, multi-axis motion controllers, rotary servo motors and linear motors. All of which seamlessly interface to provide a complete machine control solution.



Compact motion control drive
with software selected
Ethernet technology

MicroFlex e190

Highlights

- Compact motion control drive with embedded safety for single and three-phase operation
- Software selectable Ethernet protocols including EtherCAT®, POWERLINK, Modbus TCP, EtherNet/IP™ and PROFINET IO
- Advanced motion programming for multitasking control of communications, logic, motion and HMI interaction in a powerful yet simple programming language

Features

- 1 or 3-phase operation from 105 to 250 V AC
- 1.6, 3, 6 and 9 A rms 200% overload up to 3s
- 1.6, 2.5, 5 and 7.5 A rms 300% overload up to 3s
- IP20 enclosure for cabinet installation (UL open)
- Embedded real-time Ethernet including EtherCAT®, POWERLINK, Modbus TCP
- EtherNet/IP™ and PROFINET IO (software selectable)
- Suitable for single drive and multi-axis systems
- Controls rotary and linear AC servo motors
- Safe Torque Off feature as standard
- Simulated encoder output
- Second encoder input for dual feedback operation or electronic gearing
- PTO and analog operation
- EMC bonding plate
- Options
 - Resolver adapter
 - Resolver Adaptor OPT-MF-201 IO Expansion OPT-SIO-1
 - Space-saving footprint EMC filter
 - Braking resistors

For further information, see flyer "ABB motion control products, MicroFlex e190 servo drive", code: 3AUA0000201840 EN.

Features

- CP600 HMI range offers touchscreen displays from 4.3" to 21.5", portrait and landscape versions
- Safety technology with integrated drive features, safety PLC and safe I/O systems, as well as Jokab Safety sensors, actuators, safety relays, programmable safety controllers
- AC500 PLC offers comprehensive and scalable platform, which is based on IEC 61131-3 and PLCopen
- NextMove motion controllers offer a choice of hardware platform and feature CANopen® expansion, on board I/O and powerful MINT motion control programming
- A wide range of rotary servo motors and gearheads

For further information, see brochure "ABB motion control solutions", code: 3AUA0000068580 EN.

Medium voltage drives

ABB offers an extensive portfolio of variable speed drives and soft starters for medium voltage applications in the power range from 250 kW to more than 100 MW.



They are used in a wide range of applications in industries such as metals, marine, mining, cement, power, chemical, oil and gas, water and wastewater, food and beverage, pulp and paper, and test stands.



ABB general performance drives offer ease-of-use with standard motors



Effortless energy efficiency for a wide range of applications

ACS580MV

Highlights

- Simple to select, order, commission and operate
- All essential features built into the drive
- Straightforward settings menu and assistants
- Bluetooth connection available
- Energy efficiency features for optimal energy use
- Universal connectivity
- Member of ABB's all-compatible drives portfolio

Features

- Power range 200 kW to 6.3 MW (6.0 to 11 kV)
- Air cooling
- Cabinet-built drives, IP21 as standard, IP42 as option
- VSI – Voltage Source Inverter, multiple-pole diode rectifier, multilevel output
- In-line manual bypass panel for highest availability of any application that can operate direct on line (DOL)
- In-line synchronize bypass panel for softstarter applications with large motor as well as multi-motor starting
- Free entry level PC tool with USB connection on control panel
- Advanced diagnostics and monitoring system
- Wide range of fieldbus adaptors for all major automation networks
- Compliance with CE and GOST-R

General purpose drives are suitable for a wide variety of applications such as pumps, fans, compressors, mixers, mills, propulsion and thrusters, mine hoists and conveyors in many industries. The drives are all-rounders that ensure energy-efficient and productive processes.



Superior arc protection for a high level of personal safety

ACS5000

Highlights

- Highest level of personnel safety due to arc fault resistant design with fast fault elimination
- High reliability due to proven design and low parts count
- Available with combined transformer (common cooling water loop) or for connection to an external input isolation transformer

Features

- Power range 2 to 36 MW and higher on request (6.0 to 6.9 kV, 10 to 13.8 kV)
- Air and water cooling
- Superior arc protection function for very fast arc detection and elimination (IAC classified)
- Low harmonic solution (36-pulse configuration)
- Suitable for single loop cooling (external heat exchanger or fin-fan)
- Available for induction, synchronous and permanent magnet motors
- Options
 - Suitable for high speed applications up to 250 Hz
 - Hot standby for fast startup (pre-charged system with open MCB)
 - IP54 enclosure protection
 - Marine approved design for offshore applications



Proven technology for high powers

MEGADRIVE-LCI

Highlights

- Suitable for high power and high voltage applications
- Available as variable speed drives and soft starters

Features

- Air-cooled power range 2 to 40 MW
- Water-cooled power range 2 to 150 MW and higher on request
- Available as variable speed drives and soft starters
- 6, 12 or 24-pulse converters to minimize the harmonic influence on the supply system and on the motor
- Series connection of thyristors for the scalability of voltage and power as well as for the implementation of n+1 thyristor redundancy
- User-friendly control terminal
- For synchronous motors
- MPTC (Model Predictive Torque Control) for an optimized operation point and highest availability
- Arc resistant design to protect people and equipment



ABB industrial drives for process control and engineered solutions



Well-proven industrial drive ensures high productivity and efficiency of operations

ACS1000

Highlights

- Retrofit-ready for existing motors
- Output sine filter for pure sinusoidal voltage and current output
- Integrated or separate input transformer for highest system design flexibility

Features

- Air-cooled power range 315 kW to 2 MW (2.3 to 4.16 kV)
- Water-cooled power range 1.8 to 5 MW (3.3 to 4.16 kV)
- Available with an integrated input transformer or for connection to external input isolation transformer
- Output sine filter for pure sinusoidal voltage and current outputs
- 12- or 24- pulse diode rectifier
- For induction motors
- Seismic design
- Marine certification available for ABS, CCS, DNV
- IEC, EN and UL certified

These drives are engineered drives, typically used for high power, high speed or special application such as test stands, marine propulsion and thrusters, rolling mills, SAG and ball mills, large pumps, fans and compressors.



Technology leading industrial drive for a broad range of applications

ACS2000

Highlights

- Suitable for use with or without an input isolation transformer
- Available as low harmonic or regenerative drive
- Market specific design to comply with IEC and NEMA specific industry standards
- Flexible connectivity and various options offer an optimum solution for different applications

Features

- Power range 250 to 3.2 MW (4.0 to 6.9 kV)
- Air cooling
- Available for transformerless operation allowing a direct connection to the line supply (direct-to-line), for connection to an external input isolation transformer or with an integrated transformer
- Available as a low harmonic drive for optimal low harmonic performance or as a regenerative drive for enhanced active braking and power factor correction
- For induction motors
- Two line side connection configurations, the diode front end (DFE) and the active front end (AFE)
- Optional output sine filter for pure sinusoidal output voltage and current outputs
- EN, IEC, CE, NEMA, IEEE and UL certifications



Modular drive for demanding applications

ACS6000 AND ACS6080

Highlights

- Modular drive designed for the most demanding single or multi-motor applications
- Available as a regenerative drive for reduced harmonics, enhanced active braking and power factor correction
- Superior arc protection for high level of personal safety and drive availability

Features

- Power range 5 to 36 MW (2.3 to 3.3 kV)
- Water cooling
- Modular design for optimum configurations
- Common DC bus enabling multi-motor operation and energy regeneration as option
- Line Supply Unit (LSU) for two-quadrant operation with a constant power factor over the whole speed range
- Active Rectifier Unit (ARU) for four-quadrant operation and reduced harmonics with adjustable power factor
- Available for induction, synchronous and permanent magnet motors
- Marine type approved design available as an option



DC drives

ABB DC drives are available as regenerative or non-regenerative drives. ABB offers digital DC drives from machinery applications all the way up to complete drive solutions in cabinets.



The latest product generation is built on ABB's common all-compatible drives platform and comes with integrated functional safety (STO SILCL 3/PL e) for DC drives as a standard.

The drives can be also used in revamp or upgrade solutions. The power range is from 9 up to 18000 kW in 12-pulse systems.



ABB standard drives designed for machine manufacturers

Standard drives offer ideal DC drive solutions for machine manufacturers – both in new installations or as a replacement for older analog devices. Various interfaces and compact design provide machine manufacturers with maximum flexibility for machine integration.



Ideal drive for machinery manufacturers with its compact dimensions and robust technology

DCS550-S MODULES

Highlights

- Compact drive for machinery manufacturers
- Suited for new installation and retrofitting
- Integrated high performance three-phase field exciter up to 35 A
- Control panel and PC assistant provide ease-of-use

Features

- Power 9 kW up to 545 kW
- 230 to 525 V AC, three-phase
- 20 to 1000 A DC
- Integrated high performance three-phase field exciter maximum 35 A
- Adaptive programmable with Drives AP
- Integrated Winder
- Built-in options
 - I/O extensions modules
 - Fieldbus adapter modules

ABB industrial drives offer flexibility for a broad range of applications



Complete delivery of a tested drive system in a compact enclosure

DCS880 – COMPLETE DRIVE SOLUTIONS

Highlights

- Wide range of power, max. 18 MW
- Proven type tested design
- Fully routine tested for short commissioning and downtime
- Approvals for different markets (e.g., marine or US)

Features

- Power 10 kW up to 18 MW
- 230 to 1200 V AC
- 20 to 20000 A DC
- 0 to 1500 V DC
- Individually adaptable to customer requirements
- High power solutions in 6- and 12-pulse up to 20000 A, 1500 V
- Individually factory load tested
- Very flexible cable connections to bottom, top or rear
- Marine approvals DNV, ABS, RMT etc.
- US market approval UL
- Degree of protection IP21, IP22, IP31, IP42, IP54R
- Built-in safety functions (e.g., STO/SS1)



Modernization solutions for improved production performance and reliability

DCS880 – MODERNIZATION SOLUTIONS

Highlights

- Enhance productivity and quality
- State-of-the-art communication via fieldbus
- Reuse proven long-life components (busbars, chokes, cables, etc.)
- Enhance connectivity and remote monitoring
- Solve spare part problem of by partial upgrade

Features

- Upgrade of existing control electronics by reusing existing thyristors (DCS800-R)
- Fully mounted, cabled and tested panel solution for an existing cubicle, ready for insertion (DCS800-E)
- Prepared upgrade packages for classic and obsolete drives (e.g., DCS500, TYRAK)

For further information, see catalog "DC Drives Modernization – Expansion – Modernization", code: 3ADW000007.



ABB's new all-compatible DC drives with built-in functional safety



Whatever the application, the new DCS880 industrial drives offer users an integrated solution based on safety, simplicity, connectivity and reliability. They are flexible DC drives that can meet the precise needs of a broad range of industrial environments and applications via easy customer-specific configuration.

DCS880 drives combine all-compatible platform, integrated safety and Internet of Things connectivity

DCS880-S MODULES

Highlights

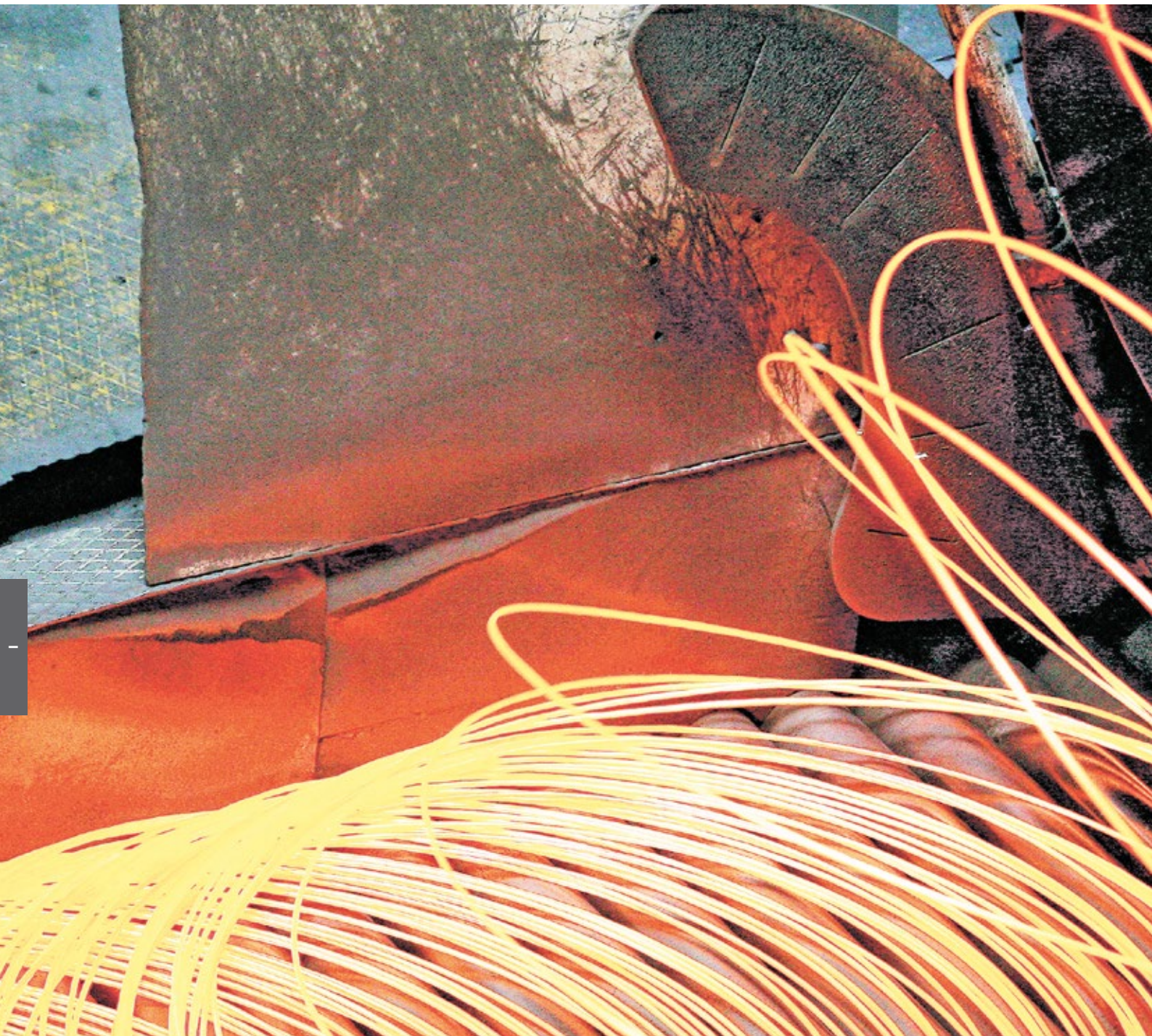
- High power density save space in existing installations
- User-friendly due to startup assistance, auto-tuning functions and a multilingual assistant control panel
- Flexible connectivity using a common PC tool Drive Composer and remote monitoring
- Additional functions and features with IEC 61131 programming

Features

- Power 10 kW up to 18 MW
- 230 to 1200 V AC
- 20 to 20000 A DC
- 0 to 1500 V DC
- Individually adaptable to customer requirements
- High power solutions in 6- and 12-pulse up to 20000 A, 1500 V
- Individually factory load tested
- Very flexible cable connections to bottom, top or rear
- Marine approvals DNV, ABS, RMT etc.
- US market approval UL
- Degree of protection IP21, IP22, IP31, IP42, IP54R
- Built-in safety functions (e.g., STO/SS1)

ABB thyristor power controllers offer precise control of heaters

With the DCT880 ABB offers its customers a thyristor power controller for precise control of resistive or inductive heaters and infrared heaters in applications for annealing, drying, melting or heating in glass, plastic or metal industry.





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With a variety of control methods, it is ideal for controlling electro-thermal processes

DCT880-W

Highlights

- Ideal for controlling electro-thermal processes
- Suitable for all resistive and inductive loads, infrared heaters and ultraviolet lamps
- Integrated temperature controller and free process controllers
- Reduces energy costs by load optimization and multitap
- Programmable (IEC 61131-3) and flexible
- Support of all common fieldbuses including PROFINET and Ethernet
- Large, high contrast display with USB port

Features

- 16 A to 4200 A
- 110 to 1200 V
- 2-phase, 3-phase and 3 × 1-phase
- Phase angle, full-wave burst and half-wave mode
- U, I, P, I² or direct temperature control
- All common load configurations incl. star, delta, open, transformer load and multitap
- Integrated load monitoring (true RMS) and compensation of aging heating elements
- PC tool Drive Composer for startup, configuration and process tuning is connected via Ethernet or USB interface



Programmable Logic Controllers

ABB offers a comprehensive range of scalable Programmable Logic Controllers (PLCs) and robust HMI control panels. Since its launch, the AC500 PLC platform has achieved significant industry recognition for delivering high performance, quality and reliability. ABB delivers scalable, flexible and efficient ranges of automation components to fulfill all conceivable requirements of the most diverse automation applications.

ABB's automation devices deliver solutions with high performance and flexibility to be effectively deployed within diverse industries and applications including water, building infrastructure, data centers, renewable energy, machinery automation, material handling, marine and many more.

The AC500 PLC platform offers different performance levels and is the ideal choice for high availability, extreme environments, condition monitoring, motion control or safety solutions.



PLC Automation product family



Comprehensive range of scalable PLCs

AC500 PLC PLATFORM

Highlights

- The AC500-eCo, AC500, AC500-XC and AC500-S scalable PLC ranges provide solutions for small, medium and high-end applications.
- Our AC500 platform offers different performance levels and is the ideal choice for high availability, extreme environments, condition monitoring, motion control or safety solutions. Our AC500 PLC platform offers interoperability and compatibility in hardware and software from compact PLCs up to high end and safety PLCs.

Features

- **AC500-eCo:** Compact PLC offering optimally suited flexible and economical configurations for automation solutions in smaller applications
- **AC500:** Powerful PLC featuring a wide range of performance, communications and I/O capabilities for industrial applications. The ideal choice for complex, high-speed machinery and networking solutions.
- **AC500-XC:** Extreme Condition PLC variant of the AC500 platform with extended operating temperature, immunity to vibration and hazardous gases, use at high altitudes and in humid conditions
- **AC500-S:** Integrated safety PLC (SIL3, PL e) designed for safety applications involved in factory, machinery or process automation area. For simple and complex safety solutions.



Operational information at one single touch

CP600 CONTROL PANELS PLATFORM

Highlights

- CP600-eCo, CP600 and CP600-Pro control panels offer a wide range of features and functionalities for maximum operability
- ABB control panels are distinguished by their robustness and easy usability, providing all the relevant information from production plants and machines at a single touch
- Ideal choice for visualization of AC500 PLC platform automation solution

Features

- **CP600-eCo:** The economical CP600-eCo control panel is aimed for standard functions and high usability for clear interaction with the operation process
- **CP600:** The robust CP600 HMI provides high visualization performance, versatile communication and representative design for machines and systems
- **CP600-Pro:** The CP600-Pro HMI portfolio comes with high end visualization performance, multi-touch operation, versatile trendsetting communication and representative design

PB610 Panel Builder 600 is the engineering tool for the entire CP600 control panels platform. PB610 Panel Builder 600 software is integrated in the Automation Builder engineering suite.



Powerful PLC offering with a wide range of performance levels

AC500 PLC

Highlights

- IoT protocols MQTT and OPC UA
- Where most competitors require multiple product ranges to deliver comparable functionalities, ABB's AC500 PLC offers scalability and a wide range of performance levels within one simple concept
- Featuring an integrated web server and the IEC 60870-5-104 remote control protocol for all Ethernet versions
- Complete range of I/O modules can be used as remote I/O with controllers supporting Modbus TCP, PROFIBUS, PROFINET, EtherCAT or CANopen

Features

- CPU is available in a number of high performance and large memory configurations including up to 4 GB of internal data storage
- Up to 4 communication modules in any configuration which can communicate with most fieldbus devices
- Slaves for PROFIBUS DP®, CANopen®, EtherCAT®, Modbus TCP and PROFINET®
- One or two Ethernet interfaces on CPU for programming via PC, internet protocols (web server, FTP, e-mail, time sync and more), OPC DA/AE, IEC 60870-5-104, Modbus® TCP or integrated PROFINET® IO / EtherCAT® (e.g., PM595), IEC61850, MQTT, OPC UA
- COM2 (Sub-D9, RS232/RS485), programming via PC, ASCII protocol, Modbus® RTU (master or slave)
- COM1 (spring terminal, RS232/RS485), programming via PC, CS31 bus (master), ASCII protocol, Modbus® RTU (master or slave)
- Programming with IEC 61131-3 standard languages or with C and C++
- Digital and analog S500 I/O modules can be configured to best meet customer requirements and to offer local and/or remote expansion options using most industry standard communications protocols



Cost-effective and compact PLC

AC500-eCo PLC

Highlights

- MQTT protocol for IoT applications
- Meets the demands for cost-efficiency of the compact PLC market whilst offering total interoperability with the core AC500 range
- Up to 10 I/O modules can be connected to the CPU, fast counter onboard CPU with up to 50 kHz.
- Web server, FTP server and Modbus® TCP for all Ethernet versions
- A pulse train output module is available for multi-axis positioning

Features

- CPU variants with 128 kByte or 512 kByte program memory
- Program processing time 0.08 µs per instruction
- One onboard RS485 serial interface (2nd is optional)
- Optional SD card adapter for data storage and programming backup
- Web server for EtherNet CPUs, suitable for your demands the visualization can be programmed with the integrated WebVisualization
- Web server memory 512 kByte / 1024 kByte depending on CPU type
- Wide range of analog and digital S500-eCo I/O modules available
- Pre-wiring is possible via the use of pluggable terminal blocks



The rugged variant for extreme indoor and outdoor conditions

AC500-XC PLC

Highlights

- “Extreme conditions” modules for extended operating temperature ranges in rough environments, immunity to vibration and hazardous gases, suitable for high altitudes, humid conditions, etc.
- Lower lifetime cost and many of the traditional practices are not required, such as: HVAC for the panel, shock absorbers, door sealing, etc.
- All the benefits from AC500 range: Automation Builder engineering suite, I/O modules, scalable and flexible, same high performance communication, libraries and web services

Features

- Operation in extremely humid environments
 - Increased resistance against 100% humidity and condensation
- Reliable in high altitudes
 - Operation in altitudes up to 4000 m above sea level or air pressures up to 620 hPa
- Extended immunity to vibration
 - 4 g rms random vibration up to 500 Hz
 - 2 g sinusoidal vibration up to 500 Hz
- Extended operating temperature
 - -40 °C up to +70 °C operating temperature
- Extended immunity to corrosive gases and salt mist
 - G3, 3C2 immunity
 - Salt mist EN 60068-2-52 / EN 60068-2-11
- Extended EMC requirements
 - EN 61000-4-5 surge immunity test
 - EN 61000-4-4 transient / burst immunity test



For functional safety applications involved in factory, machinery or process automation area

AC500-S PLC

Highlights

- Featuring a consistent look and feel across the entire range, the AC500 is the PLC of choice for applications where uncompromised flexibility, comprehensive integration and seamless communication are a must
- Automation Builder seamlessly integrates your safety application in ABB PLC, safety, drives, motion and HMI
- Through integrated standard languages, such as IEC 61131-3, Automation Builder is easy to use thus allowing you to get started in virtually no time at all
- And what is more: intuitive system configuration using one single tool ensures optimal transparency

Features

- The AC500-S Safety PLC, facilitates the implementation of even most complex safety applications
- Support of safety-relevant calculations, such as COS, SIN, TAN, ASIN, ACOS and LOG makes the AC500-S the ideal solution for crane engineering, wind power generation, robotics and hoisting applications
- Safety programming with Structured Text (ST) and full support for Function Block Diagram (FBD) and Ladder Diagram (LD) programming and advanced features in PROFIsafe over PROFINET communication, like Shared Device functions, gives you greater flexibility and simplifies safety application development
- PROFINET/PROFIsafe interface for safety CPU to CPU communication, decentralized safety I/Os, safe position and speed monitoring as well as triggering of safety drive functions
- The AC500-S Safety PLC is also available in a version for extreme conditions



Connectivity and software tools

ABB drives are connected to automation systems using embedded protocols and fieldbus adapters. All major fieldbus protocols are supported allowing flexibility and compatibility with the automation system. Different software tools and remote monitoring solutions offer support throughout the drive's life cycle.





FIELDBUSES

- BACnet MS/TP and IP
- CANopen®
- ControlNet
- DeviceNet™
- EtherCAT®
- EtherNet/IP™
- EtherNet POWERLINK
- FLN
- InterBus-S
- LonWorks®
- Modbus RTU
- Modbus/TCP
- N2
- PROFIBUS DP
- PROFINET IO
- SERCOS II
- IBA

DEVICES FOR REMOTE CONNECTION

NETA-21 for remote monitoring

NETA-21 allows access to a drive via a local internet connection and a standard web browser. This enables easy application and drive diagnostics, monitoring, configuration and even drive control when needed.

Bluetooth control panel for safe access

The optional Bluetooth control panel *) enables connection with the Drivetune mobile app. The app is available for free from Google Play and the Apple App store. Together with the Drivetune app and the Bluetooth control panel, users can, for example, commission and monitor the drive remotely.

*) Check compatibility with the product

SOFTWARE TOOLS

ABB drives are supported by a selection of software tools used for drive selection, commissioning, programming, daily operation and maintenance, monitoring, and process tuning.

ENGINEERING AND SALES TOOLS

- DriveSize
- EnergySave calculator
- Functional safety design tool
- ABB Ability™ Virtual Commissioning

STARTUP AND MAINTENANCE TOOLS

- DriveAnalyzer
- DriveBrowser
- Drive Composer entry/pro
- DriveConfig
- DriveMonitor
- DriveStudio
- DriveWindow
- DriveWindow Light

INTEGRATION AND PROGRAMMING

- DriveAP
- DriveOPC
- DriveSPC
- MINTWorkBench
- Automation Builder
- ABB Ability™ Operations Data Management zenon
- Application Builder

MOBILE TOOLS

- Drivebase
- Drivetune

Automation Builder



Automation Builder for next level engineering productivity

AUTOMATION BUILDER

Highlights

- Automation Builder is the integrated software suite for machine builders and system integrators requiring state-of-the-art productive machine and system automation
- Automation Builder connects the engineering tools for PLC, safety, control panels, SCADA, drives and motion
- Automation Builder combines the tools required for configuring, programming, debugging and maintaining automation projects from one common intuitive interface
- Virtual commissioning allows machine builders and system integrators to simulate and automate all kinds of applications with minimum effort. This enables seamless testing of the complete system at an early stage. Even complex systems can be built up quickly and efficiently, ensuring smooth interaction of all the components, as well as high reliability and system safety.

Features

- Improve your productivity with seamless engineering, common data storage, a single project archive, time-saving library blocks for device integration, and one common software installer
- Automation Builder combines the proven ABB tools Drive Manager, Drive Composer pro, MINT WorkBench, zenon Editor and Panel Builder
- Build combined PLC and drives solutions with Drive management, configuration and diagnosis with common process data editor and Drive engineering in Drive composer pro
- Speed up your project with the powerful ECAD and MS EXCEL® interfaces of Automation Builder.
- Virtual commissioning allows the simulation of your automation system with minimum effort, including PLCs, drives, HMIs and robots for seamless testing of the complete system before involving real hardware
- Download Automation Builder from new.abb.com/plc/automationbuilder

ABB Ability™ Operations Data Management zenon



Information – Integrity – Insight

OPERATIONS DATA MANAGEMENT ZENON

Highlights

- zenon integrates your technology by connecting drives, motors, PLCs, and electrical devices to complete automation and electrification
- It enables supervision, control, data acquisition, scheduling and performance reporting for your machines and factories
- zenon hosts ABB Ability™ solutions on premises and connects to other remote solutions
- The platform's security is designed to be smartly integrated into all processes and systems in critical infrastructure
- Turning data into information, zenon provides insight into production processes via its more than 300 communication protocols and drivers, enterprise resource planning capability, and cloud interfaces
- Its extensive lifecycle, backward compatibility and ability to engineer mixed version environments, ensures low total cost of ownership and cost-effective extensions for factories

Features

- Control and supervision for factory assets
- Connectivity through more than 300 communication protocols and drivers
- IoT from machines to multi factory
- Secure data storage and communication
- Certified ISO 50001 Energy Data Management System
- Freely definable KPIs
- Alarm management
- Realtime Management Dashboards
- Extensive production data analytics
- Audit Trail
- Batch and recipe handling – ANSI/ISA–88.01 compliant
- Equipment Model – ISA S95 compliant
- Production scheduler
- Soft PLC
- HTML5 Webserver
- FDA CFR 21 Part 11 compliant
- GAMP 5 compliant
- Weihenstephan pack and food standard compliant
- Certified SAP ERP and MS Azure interface

Drive Application Programming



Combine your application knowledge with the world's number one electrical drives

DRIVE APPLICATION PROGRAMMING

Drive Application Programming lets you create cutting-edge advantages in your machines, thanks to the built-in PLC functionality of ACS880 drives. The application program runs on top of the drive's standard drive firmware. This allows seamless implementation of custom control algorithms in addition to the standard drive functionality, access to the drive peripheral I/O and customization of the drive user interface.

Drive application programming is accomplished with the Drive Application Builder tool and based on the well-known IEC 61131-3 standard. This standard allows to start a program development with minimal training and to transfer customized programs to other platforms.

Benefits and Features of Drive Application Programming include:

- Cost savings and higher reliability, due to fewer system components and simpler installation work because no external PLC is needed
- Compact solution requires less cabinet space, as the PLC is inside the drive enclosure, with the same IP class
- Performance and productivity improvements, since decentralized machine control enables faster control loops
- No need for a separate HMI, as a drive control panel can be used instead in some applications
- Creation of intelligent applications with several drives, using the drive-to-drive communication

Drive Application Builder is a tool for developing IEC 61131-3 programs in a drive-embedded PLC.

Standard features:

- IEC 61131-3 programming
- 160KB of program memory
- Running application program in parallel drive FW in tree configurable tasks (1ms-1000ms)
- Interface to standard drive parameters
- Adding customer parameters
- Adding customer events
- Drive I/O programming
- Drive-to-drive communication

Premium version includes standard features plus:

- Customization of ABB parameter groups
- Extra program memory (amount depends on a device)
- Project Compare
- Virtual Drive for code development and testing without the need for actual hardware

Productivity add-on includes:

- Interface to SVN version control system
- Static code analysis functionality

ABB Ability™ Virtual Commissioning for drives



— Save time, reduce risk, and increase engineering productivity

VIRTUAL COMMISSIONING FOR DRIVES

Virtual engineering and commissioning allow machine builders and system integrators to develop and simulate entire industrial processing lines and machines, including ABB drives, without actually running the hardware. This gives valuable benefits in the phases of designing, commissioning and operating machines.

Design safely and efficiently

Engineers can start configuring and programming drives well before receiving them from ABB production line, since the same software tools like Drive Composer Pro can be used with virtual and real drives. Virtualization can also cover the kinematical and physical behavior of the machine and the overriding automation. Virtual drives can also be used with the ABB Robot Studio tool and ABB Automation Builder programming tools to build more complete virtual machines and processing lines.

After deploying the virtual machine in use on-site, any future improvements can be virtually tested before implementing them in the process. This all supports safety and quality in the engineering process.

Benefits

Throughout the value chain from sales, marketing, and training to field engineering and product development, virtual commissioning makes drive applications more easily understood and helps to:

- Design, test and learn drive applications virtually with the same software tools as for the actual hardware
- Train users and engineers with application simulation
- Tune up drive parameters easily off-site before going into more demanding on-site testing
- Find and solve potential problems earlier
- Save time and money due to faster drive commissioning
- Assist the dimensioning and energy optimization of electromechanical drive systems

Services to match your needs

Your service needs depend on your operations, the life cycle of your equipment, and your business priorities. We have identified our customers' four most common needs, and we created service options to satisfy them. Which will you choose to keep your drives at peak performance?

Is uptime your priority?

Keep your drives running with precisely planned and executed maintenance.

Example services include:

- ABB Ability™ Life Cycle Assessment
- Installation and Commissioning
- Spare Parts
- Preventive Maintenance
- Reconditioning
- ABB Drive Care agreement
- Drive Exchange



Operational efficiency

Is rapid response a key consideration?

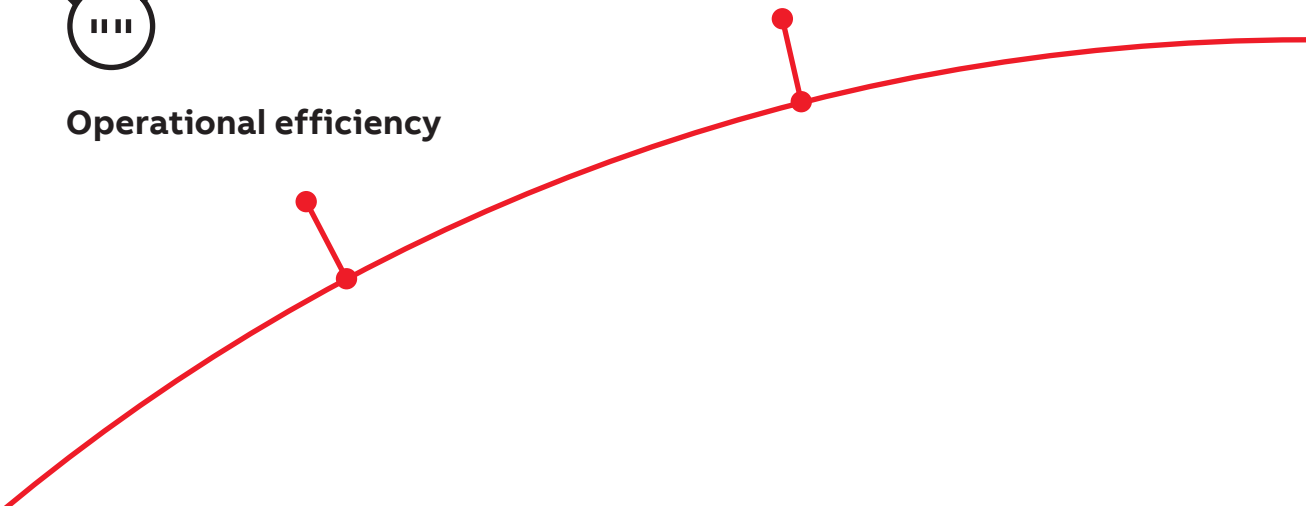
If your drives need immediate action, our global network is at your service.

Example services include:

- Technical Support
- On-site Repair
- ABB Ability™ Remote Assistance
- Response time agreements
- Training



Rapid response



Drives service

Your choice, your future

The longevity of your drives is influenced by the service you choose.

Whatever you choose, it should be a well-informed decision. We have the expertise and experience to help you find and implement the right service for your drive equipment. Start by asking yourself these two critical questions:

- Why would my drive be serviced?
- What would my optimal service options be?

From here, count on our guidance and full support throughout the entire lifetime of your drives.

Your choice, your business efficiency

ABB Drive Care lets you focus on your core business. A selection of predefined service options matching your needs provides optimal, more reliable performance, extends your drive's lifetime, and controls costs. This reduces the risk of unplanned downtime and makes it easier to budget for maintenance.

We can help you more if we know where you are!

Register your drive for advanced services.

Need to extend your assets' lifetime?

Maximize the lifetime of your drive with our services.

Example services include:

- ABB Ability™ Life Cycle Assessment
- Upgrades, Retrofits and Modernization
- Replacement, Disposal and Recycling



Life cycle management

Is performance most critical to your operation?

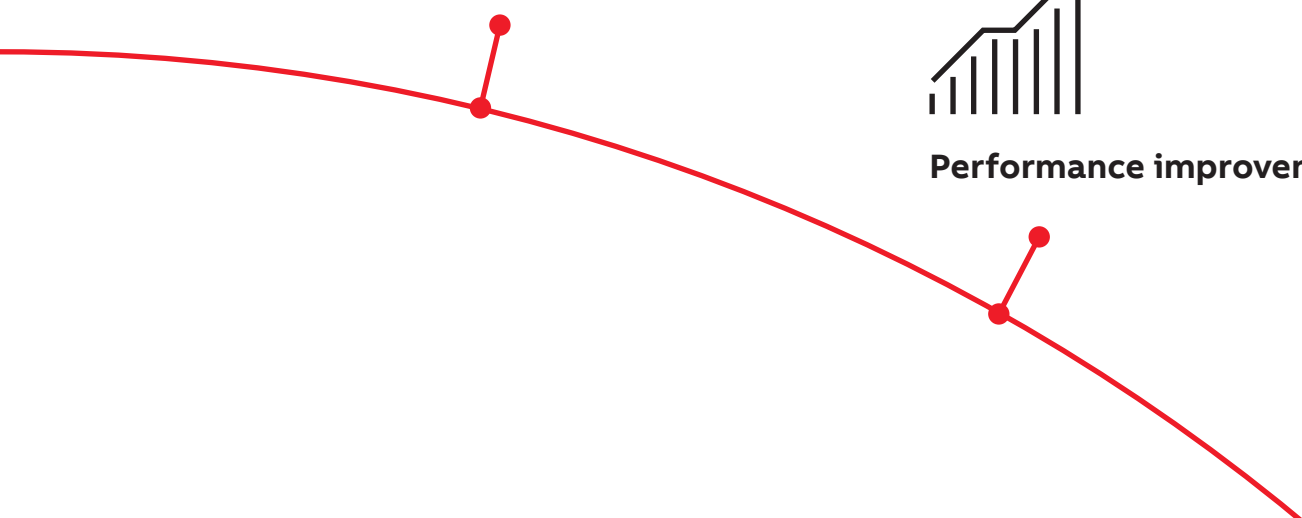
Get optimal performance out of your machinery and systems.

Example services include:

- ABB Ability™ Remote Services
- Engineering and Consulting
- Inspection and Diagnostics
- Upgrades, Retrofits and Modernization
- Workshop Repair
- Tailored services



Performance improvement



A lifetime of peak performance

You're in control of every life cycle phase of your drives. At the heart of drive services is a four-phase product life cycle management model. This model defines the services recommended and available throughout drives lifespan.

Now it's easy for you to see the exact service and maintenance available for your drives.

ABB drives life cycle phases explained:



Full range of life cycle services and support

Limited range of life cycle services and support

Replacement and end-of-life services

Product	Product is in active sales and manufacturing phase.	Serial production has ceased. Product may be available for plant extensions, as a spare part or for installed base renewal.	Product is no longer available.	Product is no longer available.
	Services	Full range of life cycle services is available.	Full range of life cycle services is available. Product enhancements may be available through upgrade and retrofit solutions.	Limited range of life cycle services is available. Spare parts availability is limited to available stock.

Keeping you informed

We notify you every step of the way using life cycle status statements and announcements.

Your benefit is clear information about your drives' status and precise services available. It helps you plan the preferred service actions ahead of time and make sure that continuous support is always available.

Step 1

Life Cycle Status Announcement

Provides early information about the upcoming life cycle phase change and how it affects the availability of services.

Step 2

Life Cycle Status Statement

Provides information about the drive's current life cycle status, availability of product and services, life cycle plan and recommended actions.

ABB Ability™ Condition Monitoring for drives



ABB Ability™ Condition Monitoring for Drives is a service that delivers you accurate, real-time information about drive events to ensure your equipment is available, reliable and maintainable. When you have the facts, you can make the right decisions.



Make best decisions

You know your process, we know the drives. Our monitoring system provides you with data and information from the drives for your best decisions.



Reduce the risks

You have the information when needed most. Our monitoring system is continuously collecting data for you to set warning limits and to trouble-shoot potential problems.



Available on your need

You can combine Remote Assistance Service with Condition Monitoring. Our experts will always be on hand to consult with you.



Check the service availability for your drive types with your local ABB representative.

Need help?

Contact ABB or third party channel company.

abb.com/drives/services

abb.com/searchchannels



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For more information, please contact
your local ABB representative or visit

abb.com/drives
abb.com/drivespartners
abb.com/plc
abb.com/automationbuilder