

BROCHURE

ABB automation solutions

Helping OEMs build better machines



ABB automation solutions that empower your business

Build reliable, easy to use, competitive machines with best in class capability using ABB's scalable automation solutions.

Staying competitive while building high quality machines means you have many different priorities. Obviously, you have to meet your customers specifications as well as industry standards. In addition, the machine has to be safe, fit within the designated location, and connect seamlessly to the rest of your customers' system. So how do you do all those things and stay competitive? You leverage the breadth and depth of ABB automation solutions.

ABB is uniquely positioned to deliver superior, comprehensive automation solutions to meet your needs. As a global market leader in drives, motors, programmable automation controllers (PACs), communications, and services, ABB has what it takes to fully support you with today's demanding industrial applications.

Address your needs today and into the future

Streamline development

- Optimize your machine with a complete end-to-end solution from one vendor that provides a range of scalable automation solutions, including PACs, I/O, HMIs, VFDs and motors that deliver performance, quality and reliability.
- Commission, program and simulate your machine using a single CODESYS-based tool for PACs, safety, drives, control panels and networks.
- Easily mix and match I/O within the PAC to to minimize cost.
- Control and monitor up to eight drives with one HMI.
- Benefit from a choice of network protocols to integrate I/O, drives, HMI, SCADA and 3rd party devices.
- Streamline your machine with two independent, switch-enabled Ethernet connections and an integrated IIoT gateway.
- Benefit from an all-compatible drives for human interface, process, business, and environmental consistency.





Take the guesswork out

- Rely on regional application engineers to assist with your design, including matching drives and motors to provide optimal machine performance.
- Take advantage of technical support that is included with every purchase.
- Shorten the learning curve with technical, product, and application classroom training.

Promote your brand

- Customize the automation solution to make your machines 100% your brand.
- Offer your customers the ability to assign meaningful names to drives and I/O.

Access information easily

- Benefit from expanded memory for IIoT data collection and manipulation.
- Leverage flexible communications that enable your machine to work with a wide variety of industrial and IIoT protocols.
- Use integrated comms and data to enable customers to optimize their processes.

Safely meet deployment needs

- Leverage integrated safety protocols that combine logic and safety.
- Rely on STO to stop machinery safely.
- Build machines for extreme conditions with rugged, safety, and certified products.

Access local and global support

- Leverage ABB's wide channel partner network and global services.
- Benefit from the services and support that fit your needs, from training to customized service agreements.



Save time, improve flexibility, increase profit

PACs, HMIs, VFDs, and motors all play a vital part in helping you to build a better machine. Easy programming, all-compatible products, and flexible connectivity make it more profitable.



Turn data into insight

- Leverage a powerful CPU for communication, gateway to IIoT applications or motion control.
- Web server with HTML5 web visualization
- IIoT-enabled with OPC UA server

ABB Ability™ enables you to remotely:

- Monitor both on-site and remote assets
- Evaluate the efficiency of operation
- Diagnose conditions to ensure appropriate decisions are made
- Leverage integrated reporting tools



HMI & drive faceplates

- Achieve the performance you need with an extensive selection, including multiple screen sizes and brightness.
- Personalize views to meet specific needs.
- Benefit from significant network capabilities.
- Operate in a wide temperature range, including NEMA 4X for extreme environments.



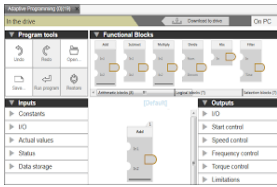
Programmable Automation Controllers (PACs)

Flexible and scalable/open architecture

- Choose from all major communication protocols, including built-in Modbus-RTU, BACnet, and energy management (IEC61850), enabling in-person as well as remote control.
- Select from modular, expandable I/O.
- Meet extreme environmental specifications.
- Easily backup and expand with micro memory cards.

Functional safety

- Choose from a range safety capability, from CPUs with safety features to CPUs that provide safety in extreme conditions.
- Select from modular, expandable safety modules.
- Easily combine PAC safety features, such as speed and torque control, with external safety devices, such as light curtains.
- Add decentralize safety with ProfiSafe.



Programming

- Commission, program, and simulate your machine using a single CODESYS-based tool for PACs, safety, drives, control panels and networks.



Adaptive Programming

- Enhance your solution with optional Adaptive Programming for ABB All-Compatible Drives



Variable Frequency Drives (VFDs)

Fieldbus compatible

- Communicate with plant monitoring systems to provide detailed insight into productivity, performance, and quality control.
- Feed information to the VFD to adjust motor speed and torque.

All-compatible drives

- Benefit from consistency in human interface, process, business, and environmental aspects.
- Share the same software platform, tools, user interface and options.

Functional safety

- Bring applications to a safe stop with Safe Torque Off (SIL3)
- Avoid hazardous or difficult to reach locations with Bluetooth access.

Motors

Full line of both NEMA and IEC motors

- Meet spec no matter where you machine goes.

Rugged design for harsh environments

- Explosion-proof motors for hazardous or high heat and humidity locations.
- Complete line of IP69 Foodsafe stainless steel encapsulated motors in NEMA or IEC designs. Hygienic designs ensure our motors can withstand high pressure cleaning for increased reliability.

Higher efficiency

- Enjoy the lowest total cost of ownership with NEMA Premium and IEC higher efficiency class motors.



With you, wherever you are in the world

Partnering with ABB gives you access to some of the world's most innovative technology.

End-to-end product portfolio

Alongside its variable frequency drives, motors, and soft starters, ABB's automation offering includes a wide range of scalable PLCs, a selection of HMIs, instrumentation and robotics. With functional safety options, from built-in safe torque off to safety PLCs, you can readily incorporate safety into your machine.

With you every step of the way

Even before you buy a PAC, HMI, drive, or motor, ABB's experts are on hand to offer technical advice from dimensioning through to potential energy saving.

When you've decided on the right products, ABB and its partners can help with installation and commissioning. They are also on hand throughout the operations and maintenance phases of the products life cycle, providing preventive maintenance programs tailored to your customers needs.



Services

No matter where your machines are installed or used, our wide channel partner network and global service is always local. You and your customers choose the services that fit your needs, from classroom training to customized service contracts.

Global reach

ABB operates in over 100 countries with its own manufacturing, logistics and sales operations together with a wide network of local channel partners that can quickly respond to your needs. Stock availability is good, with short delivery times for many products backed by 24-hour spare parts delivery.

We have seven global R&D centers with more than 8,000 technologists and invest \$1.5 billion annually on innovation.

Sustainability

ABB believes building a sustainable tomorrow takes all of us. Through our leading technologies, we address the world's energy challenges, energize the transformation of industry, and embed sustainability in everything we do to support our customers and partners around the globe to enable a low-carbon society.



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