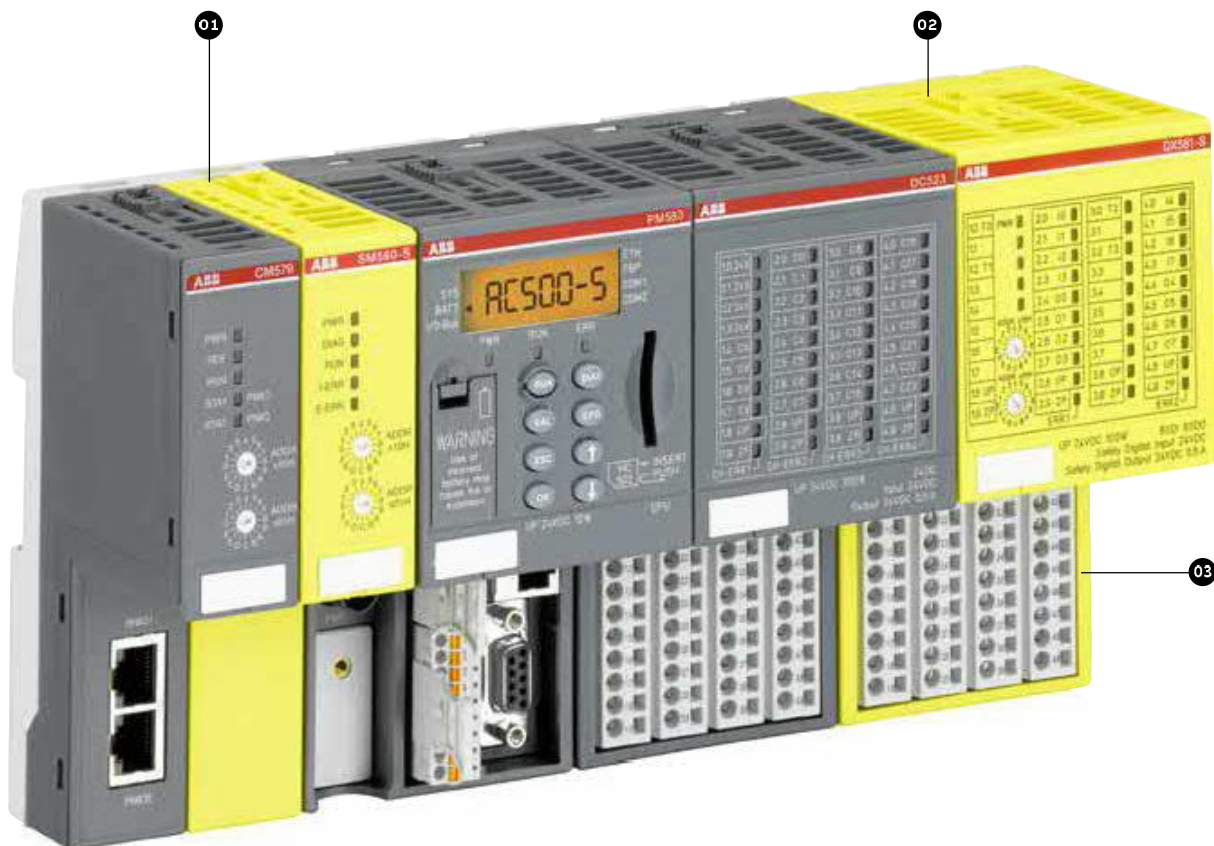


# PLC Automation product family

## Functional Safety

AC500-S safety PLC is the solution for both simple and complex machine safety applications requiring maximum reliability, efficiency and flexibility.

This safety PLC protects people, machines and processes, the environment and investments - the ideal choice for wind turbine, crane, material handling, hoist, robot and other factory and process applications.





01



02



03

— 01 Safety CPU

— 02 S500 Safety I/O module

— 03 Safety terminal unit

### Better integration and ease of programming

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.

The AC500-S safety PLC, ABB's latest addition to the AC500 family, 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 PROFINET communication, like Shared Device functions, gives you greater flexibility and simplifies safety application development. The AC500-S safety PLC is also available in a version for extreme conditions.

# PLC Automation product family

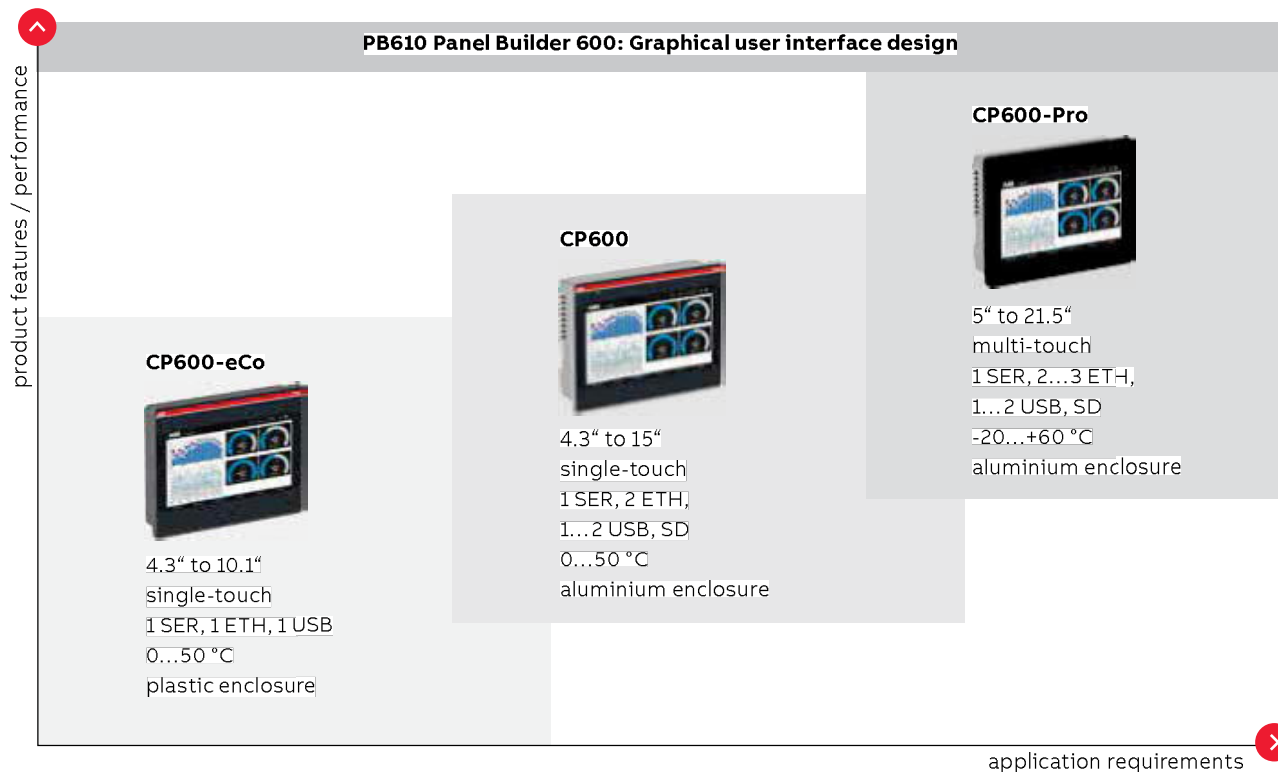
## CP600-eCo, CP600 and CP600-Pro control panels at a glance ...

ABB offers a wide range of scalable PLCs and robust HMI control panels.

With comprehensive but easy-to-use functionalities, ABB control panels stand out from competitor products. At one single touch, they intuitively provide operators with tailor-made operational

information for production plants and machines. CP600-eCo, CP600 and CP600-Pro control panels make machine operation efficient, predictable and user-friendly.

Comprehensive CP600 control panels platform for different applications





**CP600-eCo, CP600, CP600-Pro**

Wide range of control panel offerings in three assortments. Ideal choice for visualization of AC500 PLC platform automation solution.

The economical CP600-eCo control panel is aimed for standard functions and high usability for clear interaction with the operation process.

The robust CP600 HMI provides high visualization performance, versatile communication and representative design for machines and systems.

The CP600-Pro HMI comes with high end visualization performance, multi-touch operation, versatile trendsetting communication and representative design.

Due to the good scalability between CP600-eCo, CP600 and CP600-Pro, CP600-eCo HMI applications can be re-used easily for CP600 or CP600-Pro control panels and vice versa.

**PB610 Panel Builder 600**

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. For integration into a couple of third party automation systems, drivers are available. OPC UA client and server support future-orientated communication solutions.

**What does your application need ?**

	CP600-eCo	CP600	CP600-Pro
Screen sizes	sizes from 4" to 10" 4.3", 7", 10.1"	various sizes from 4" to 15" 4.3", 5.7", 7", 10.4", 12.1", 13.3", 15"	wide range from 5" to 21" 5", 7", 10.1", 15.6", 21.5"
Operation	single-touch	single-touch	multi-touch
Communication	1 SER, 1 ETH, 1 USB	1 SER, 2 ETH, 2 USB <sup>1)</sup> , 1 SD	1 SER, 3 ETH <sup>2)</sup> , 2 USB <sup>3)</sup> , 1 SD
Operating temperature	0...50 °C	0...50 °C	-20...+60 °C
Enclosure	plastic / glass + front foil	aluminium / glass + front foil	aluminium / real glass
Operating system	Linux	Win CE 6.0	Linux
PB610 application	60 MB	30...60 MB	240 MB <sup>4)</sup>

<sup>1)</sup> CP620: 1 USB, <sup>2)</sup>CP6605: 2 ETH , <sup>3)</sup>CP6605: 1 USB, <sup>4)</sup>CP6605: 60 MB

# PLC Automation product family

## CP600-eCo control panels



### **Economic HMI range for basic applications**

Control panels in three different screen sizes from 4.3" to 10.1" in ABB design or just black provide HMI functions typically required for basic applications. The engineering tool PB610 Panel Builder 600, part of Automation Builder, ensures easy scalability on the CP600 platform.

### **Designed for basic applications**

- The widescreens available in 4.3", 7" and 10.1" are suitable for many applications.
- Protocols for ABB PLCs, machinery and motion drives for Ethernet and serial connection make these control panels first choice for ABB automation solutions.
- OPC UA client and server functions make them well prepared for future communication solutions.
- Engineering by means of PB610 Panel Builder 600, part of ABB's Automation Builder, facilitates integration into automation packages and enables good scalability on the CP600 platform for different applications.

### **Slim industrial design**

The slim plastic enclosure in attractive industrial design with a mounting depth of 29 mm enables installation even in narrow spaces. All connectors are located on one side. Landscape and portrait mounting options provide installation flexibility and various HMI presentations. These devices are available either in ABB design or in black.

### **State-of-the-art connectivity**

- Ethernet interface 10/100 Mbit for easy connectivity to ABB automation components.
- Flexible serial connectivity to automation components without Ethernet interface.
- USB host for flexible data storage and easy updating.



# PLC Automation product family

## CP600 control panels



### **Comprehensive HMI range for versatile applications**

Various control panels in screen sizes from 4.3" to 15" provide comprehensive HMI functions for a wide range of applications. The range is completed by panels in sanitary design (page 42) as well as black variants. The engineering tool PB610 Panel Builder 600, part of Automation Builder, ensures easy scalability on the CP600 platform.

### **Various designs for diverse applications**

- Seven different screen sizes with standard aspect ratio or widescreen from 4.3" to 15" are suitable for the most diverse applications.
- Protocols for ABB PLCs, machinery and motion drives for Ethernet and serial connection make these control panels first choice for ABB automation solutions. The IRC5 protocol enables easy direct communication with ABB robot controllers.
- OPC UA client and server functions make them well prepared for future communication solutions.

- Engineering by means of PB610 Panel Builder 600, part of ABB's Automation Builder, facilitates integration into automation packages and enables good scalability on the CP600 platform for versatile applications.

### **Solid aluminum design**

The robust aluminum enclosure in attractive industrial design, providing all connectors on one side, enables installation in various environments. Landscape and portrait mounting options provide installation flexibility and various HMI presentations.

### **Various options for flexible connectivity and data storage**

- 2 Ethernet interfaces 10/100 Mbit with integrated switch for easy connectivity to ABB automation components.
- Flexible serial connectivity to automation components without Ethernet interface.
- USB hosts for the flexible connection of accessories or data storage and easy updating.
- SD card slot for easy data storage and updating.

# PLC Automation product family

## CP600 sanitary design control panels



### Control panels in sanitary design for demanding applications

Hygienic standards and cleaning procedures in food & beverage applications typically require a special design of the relevant automation components. Human machine interfaces (HMIs) for meat processing have to comply with really challenging requirements. As a consequence e.g. mixers and cutters for meat processing are usually still equipped with conventional lamps and switches instead of state-of-the-art HMIs.



The CP635-FB and CP635-FW control panels are especially designed for reliable operation in harsh environments such as mixers in meat processing. These panels withstand the demanding cleaning procedures in meat processing better than most of the similar products in the market: stainless steel frame, rounded edges and front protection class IP69K make them withstand harsh cleaning procedures with high-pressure hot water jets directed at the equipment in different angles according to the relevant hygienic standards.

The displays of the control panels CP635-FB and CP635-FW are brighter than standard units, because of real glass screens. This ensures clear information for operators/users even in bright environments. Capacitive touch screens enable quick and easy operation even with gloves.

# PLC Automation product family

## CP600-Pro control panels



### Outstanding HMI range designed for challenging applications

New control panels in screen sizes from 5" to 21.5" provide comprehensive HMI functions with multi-touch operation for a wide range of applications. Real glass fronts and an increased operating temperature range of  $-20...+60^{\circ}\text{C}$  make them first choice even for harsh environments. The engineering tool PB610 Panel Builder 600, part of Automation Builder, ensures easy scalability on the CP600 platform.

### New multi-touch control panels for high-end applications

- The portfolio includes five screen sizes from 5" to 21.5", all widescreen, with multi-touch real glass screens for demanding high-end applications.
- The wide range of operating temperatures of  $-20...+60^{\circ}\text{C}$  makes them suitable for versatile applications and first choice for demanding ones.
- Protocols for ABB PLCs, machinery and motion drives for Ethernet and serial connection make these control panels preferred option for ABB automation solutions.
- OPC UA client and server functions make them well prepared for future communication solutions.

- Engineering by means of PB610 Panel Builder 600, part of ABB's Automation Builder, facilitates integration into automation packages and enables good scalability on the CP600 platform for versatile applications.

### Real glass front and solid aluminum enclosure

CP600-Pro control panels have real glass fronts and robust aluminum enclosures in attractive industrial design, with all connectors located on one side, for installation in various even demanding environments. Landscape and portrait mounting options support installation flexibility for various HMI presentations.

### Flexible connectivity and data storage with a view to the future

- Up to 3 Ethernet networks with different physical layers for easy connectivity to ABB automation components for upcoming networking concepts.
- Flexible serial connectivity to automation components without Ethernet interface.
- USB hosts for connecting printers and accessories, data storage and updating.
- SD card slot for easy data storage and updating.



# PLC Automation product family

## Mobile / remote access to HMI

### Mobile / remote access to HMI

All control panels of the CP600 platform provide a web server for flexible access to HMI applications via mobile devices: PB610 Panel Builder 600 enables easy creation of HTML5 pages for mobile devices like smartphones, tablets etc. within standard HMI applications. Remote devices can log in to the HMI application without installation of an app.



# PLC Automation product family

## PB610 Panel Builder 600

### Engineering tool for easy design of tailor-made graphical user interfaces for the entire CP600 platform

PB610 Panel Builder 600 software is integrated in the Automation Builder engineering suite and can be downloaded via Automation Builder installer.

#### Tailor-made human machine interface (HMI)

- For the efficient design of flexible HMI applications in versatile automation solutions.
- Vector graphics (\*.SVG) for precise, easily scalable and dynamic HMI design.
- Alpha blending for realistic transparency effects.
- Libraries including rich sets of widgets – ready-to-use graphical objects.
- Easy creation of customized widgets through the combination/modification of standard widgets.
- Customized widgets clearly arranged in user galleries.

- Page templates for professional design.
- Numerous configuration options for all HMI elements.
- Realization of customized functions and individual dynamic manipulation via Java Script with debugger.
- Easy data acquisition and trend presentation.
- Reliable user management and secure access control.
- Rich set of configurable features: dynamic objects, data acquisition, alarm handling, multi-language applications, recipes, ...
- HMI simulation for efficient commissioning.
- Numerous drivers for easy connection to e.g. PLCs, drives, robots.
- OPC UA client and server for future-orientated cloud connectivity and IoT.
- Gateway function for easy data exchange between different protocols and systems.



# PLC Automation product family

## PLC Automation website – online tools

The [www.abb.com/plc](http://www.abb.com/plc) website is a mine of information on our products and documentation.

**ABB** HOME • OFFERINGS • PLC AUTOMATION GLOBAL SITE

LOG IN Partners | ABB

You can view this page in: [EN](#) [DE](#) [IT](#) [ES](#) [PL](#) [SV](#) [FI](#) [ZH](#) [JA](#)

### PLC Automation

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 more.

Are you looking for support or purchase information?  
+ [Contact us](#)

#### Our offering

- 01** Programmable Logic Controllers PLCs
- 02** Automation Builder
- 03** ABB zenon
- 04** Control panels
- 05** Legacy products

#### 06 Highlights

- ACS500-S safety PLC facilitates use of fail-safe condition monitoring
- Distribution center using ACS500 with new safety CPUs
- Embedding safety I/Os in ABB robots enhances man-machine collaboration
- Advanced control and safety technology improves tower crane performance
- Predictive Performance with ACS500 Condition Monitoring CMS
- Using standard HMIs to reconfigure safety control functions of PLC automation systems
- More PLC stories, articles and videos
- New PLC Automation main catalog pdf
- New control panels CP635-Fx for reliable operation in harsh environmental conditions

#### 07 Popular links

- Main catalog flipbook
- Industry solutions
- Documents & Downloads
- Training & support
- Partner network
- Spare parts

#### 08 Related products

- Drives
- Motion control
- Robotics
- Distributed control systems
- Safety solutions

09

## Contact information

What would you like to do?

I need more information

ABB Sales

### Submit your inquiry

Please select country from the list below

Country / region ABB

Select Country/region

Name

Company

E-Mail

Phone

Your message

[→ Privacy policy](#) [Cancel](#) [Send message](#)

### Your local ABB Sales Team

Please select country from the list

#### 01 – Programmable Logic Controllers PLCs

- AC500-eCo (CPUs, S500-eCo I/O modules, Accessories)
- AC500 (CPUs, Communication modules, Communication interface modules, S500 I/O modules, Accessories, Condition Monitoring CMS)
- AC500-XC (CPUs, Communication modules, Communication interface modules, S500 I/O modules, Accessories, Condition Monitoring CMS)
- AC500-S (CPUs, S500 I/O modules)

#### 02 – Automation Builder engineering suite

- Download link  
[www.abb.com/automationbuilder](http://www.abb.com/automationbuilder)

#### 03 – ABB zenon

#### 04 – Control panels

- CP600-eCo (Devices, Software, Accessories)
- CP600 (Devices, Software, Accessories)
- CP600-Pro (Devices, Software, Accessories)

#### 05 – Legacy products

- AC31 and previous series
- CP400
- CP500
- DigiVis 500
- Wireless products

#### 06 – Highlights

- Articles, videos, product news, success stories and more

#### 07 – Popular links

- Main catalog
- Industry solutions
- Documents & Downloads
- Training & support
- Partner network
- Spare parts

#### 08 – Related products

- Drives
- Motion control
- Robotics
- Distributed control systems
- Safety solutions

#### 09 – Contact information for your country

Please watch our videos on our ABB PLC YouTube channel:



[www.youtube.com/user/abbplc](http://www.youtube.com/user/abbplc)



