

PLC AUTOMATION

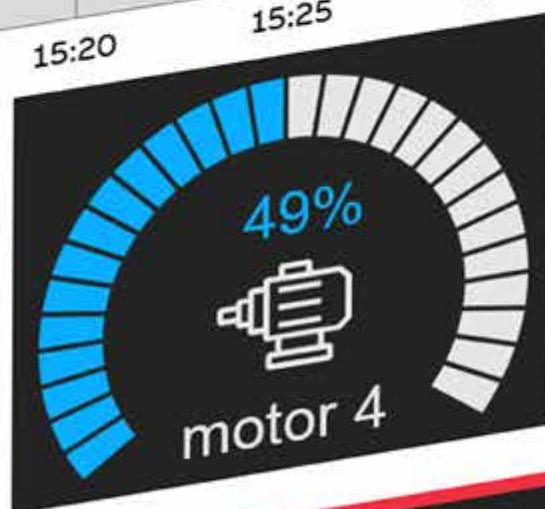
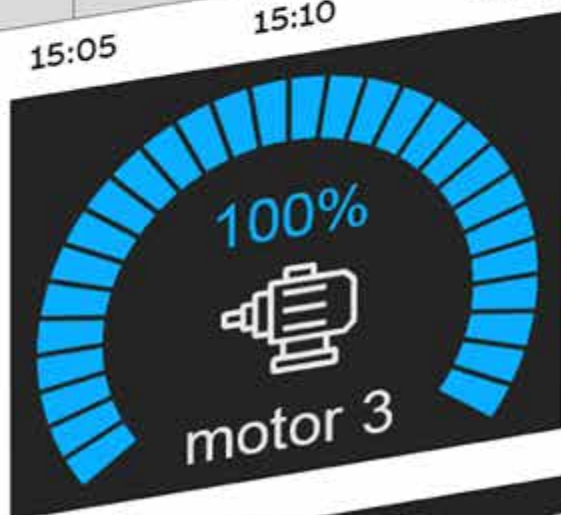
CP600-eCo, CP600 and CP600-Pro

Control panels





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10 Jul 2020



HVAC

Chiller

Alarm

e 2

CP600-eCo, CP600 and CP600-Pro

Key features

Various options for tailor-made HMI solutions

- PB610 Panel Builder 600 HMI applications
- Visualization of AC500 web servers (V3)
- Mobile remote access to HMI applications
- PB610-R PC runtime for Windows platforms
- Drivers for integration into automation systems
- OPC UA client and server

CP600 2nd generation

- Brilliant display
- Aluminium enclosure
- Operating temperature: -20...+60 °C
- Three different screen sizes
- Usable as web panel



CP600-Pro

- Multi-touch
- Brilliant real glass screen
- Aluminium enclosure
- Fast ETH 10/100/1000
- Operating temperature: -20...+60 °C
- Five different screen sizes from 5" to 21.5"
- Usable as web panel

CP600-eCo

- Slim design for easy installation even in compact spaces
- Robust plastic enclosure
- Three different screen sizes
- CP610 usable as web panel

PB610 Panel Builder 600

User interfaces with pure web



Your interface to the application

Whether you prefer to use your smart device anywhere, stand in front of a control panel at your application or want to inform yourself about an installation abroad e.g. via the cloud: CP600 platform control panels with PB610 Panel Builder 600 provide you with the free selection of how to get the information you need, let you operate your application easily and support the effective analysis of your processes.

Tailor-made for easy, intuitive operation

PB610 Panel Builder 600 supports the design of easy to use and reliable to operate graphical user interfaces for all control panels of the CP600 platform, mobile smart devices and notebooks. Standardized faceplates are easily realized by means of so called custom widgets and structured tags.

User management and cyber security

Configuration of users and user groups allows to define access rights and permissions for and from different devices and media according to your needs. Devices and software are regularly tested according to latest known possible vulnerabilities.

Web panels

CP600 control panels with PB610 provide web servers for HTML5 based visualization on various users' devices. The majority of the control panels comes with a browser for using them for

- visualization of AC500 web server (V3)
- nearly unlimited information through general web access
- easy combination of PB610 user interface with information from the web.

Mobile / remote access to HMI

HTML5 based graphical user interfaces enable remote access and operation via mobile devices like smartphones, tablets etc.

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 ABB Ability™ 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.

Programming software licenses

Description	Type	Order code	Price	Weight (1 pce) kg
PB610 Panel Builder 600, engineering tool license for CP600-eCo, CP600 2nd gen., CP600, CP600-Pro control panels and PB610-R PC-runtime, for stand-alone installation via Automation Builder installer. PB610 is included in Automation Builder Standard.	PB610	1SAP500900R0101		0.005
PB610-R Panel Builder 600 runtime license for running a PB610 application on one Windows 32-/64-Bit platform. Installation via Automation Builder installer.	PB610-R	1SAP500901R0101		0.005

Communication cables (connection control panel <--> PLC)

Description	Type	Order code	Price	Weight (1 pce) kg
Communication cable RS232: CP600-eCo, CP600 2nd gen., CP600, CP600-Pro <--> AC500	TK681	1SAP500981R0001		0.130
Communication cable RS485: CP600-eCo, CP600 2nd gen., CP600, CP600-Pro <--> AC500-eCo	TK682	1SAP500982R0001		0.130

CP600-eCo, CP600 and CP600-Pro

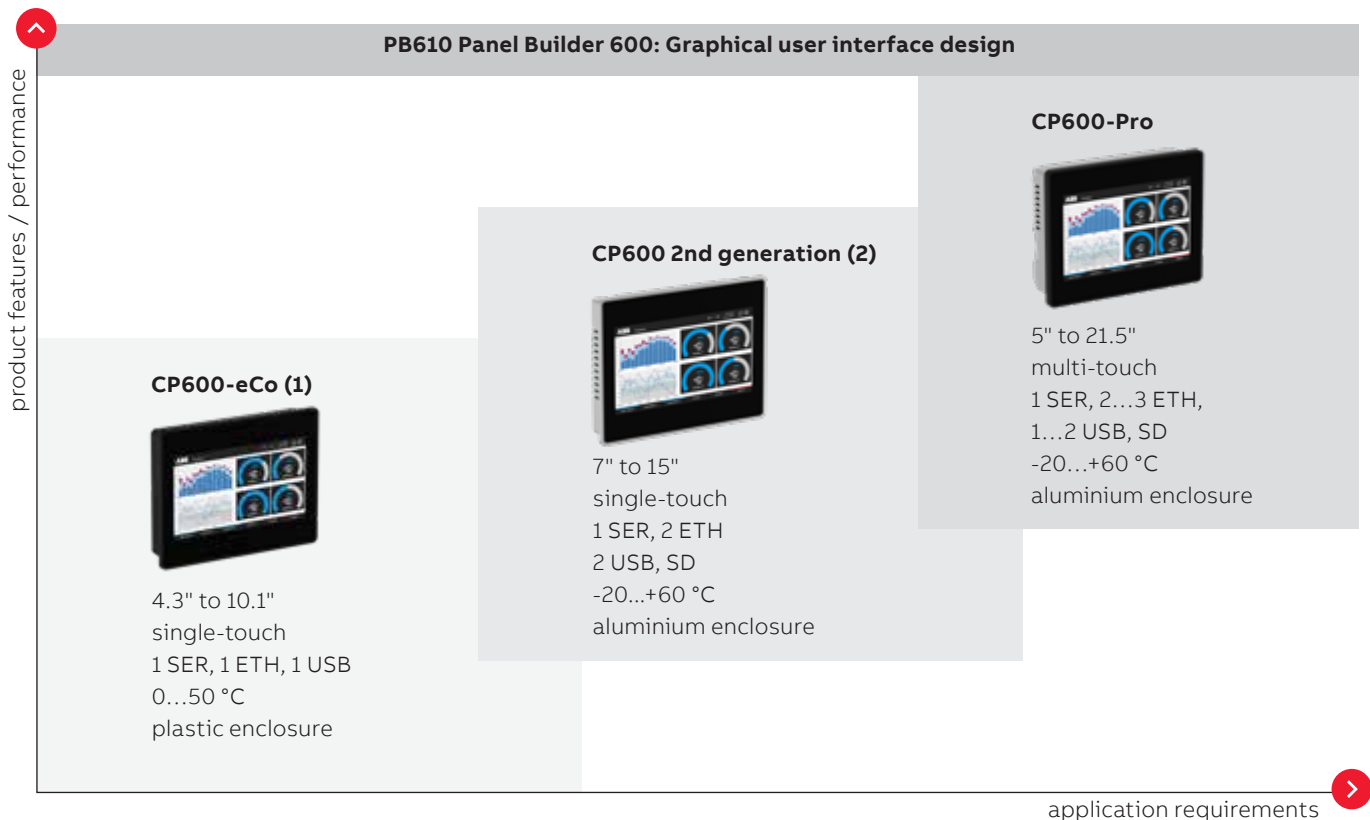
Control panels at a glance ...

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.

New comprehensive CP600 control panels platform for different applications



- (1) CP600-eCo is available with ABB front design as well as black.
 (2) CP600 is available in parallel to CP600 2nd generation.
 For details refer to page 12.

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 2nd generation HMI provides state-of-the-art 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 ABB Ability™ 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.

CP600 platform selection guide for tailor made HMI applications

CP600-eCo	for PB610 HMI applications; CP610: Or visualization of AC500 V3 web server (*)
CP600 2nd gen.	for PB610 HMI applications or visualization of AC500 V3 web server
CP600	for PB610 HMI applications
CP600-WEB	for visualization of AC500 V2 web server
CP600-Pro	for PB610 HMI applications or visualization of AC500 V3 web server

(*) Supported by products with revision index C1 or higher

What does your application need ?

	CP600-eCo	CP600 2nd gen. (1)	CP600-Pro
Screen sizes	sizes from 4" to 10" 4.3", 7", 10.1"	sizes from 7" to 15" 7", 10.4", 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, 1 SD	1 SER, 3 ETH (2), 2 USB (3), 1 SD
Operating temperature	0...50 °C	-20...+60 °C	-20...+60 °C
Enclosure	plastic / glass + front foil	aluminium / glass + front foil	aluminium / real glass
Operating system	Linux	Linux	Linux
PB610 application	60 MB	150 MB	240 MB (4)

(1) CP600 is available in parallel to CP600 2nd generation. For details refer to page 12.

(2) CP6605: 2 ETH

(3) CP6605: 1 USB

(4) CP6605: 60 MB

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Ideal combination:
scalable AC500 PLCs
and CP600 control
panels



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 ABB Ability™ 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 Ability™ 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.



CP600-eCo control panels

Display size	Resolution pixels	Description	Type	Order code	Price	Weight (1 pce) kg
4.3"	480 x 272	for PB610 applications	CP604	1SAP504100R0001		0.400
7.0"	800 x 480	for PB610 applications	CP607	1SAP507100R0001		0.600
10.1"	1024 x 600	for PB610 applications or visualization of AC500 V3 web server	CP610	1SAP510100R0001		1.000
4.3"	480 x 272	black, for PB610 applications	CP604-B	1SAP504100R2001		0.400
7.0"	800 x 480	black, for PB610 applications	CP607-B	1SAP507100R2001		0.600
10.1"	1024 x 600	black, for PB610 applications or visualization of AC500 V3 web server	CP610-B	1SAP510100R2001		1.000

Visualization of AC500 V3 web server is supported by products with revision index C1 or higher.

CP600 2nd generation

Control panels



New state-of-the-art HMI range for diverse applications

Three new control panels in screen sizes of 7", 10.4" and 15" provide comprehensive HMI functions for a wide range of applications. The engineering tool PB610 Panel Builder 600, part of ABB Ability™ Automation Builder, ensures easy scalability on the CP600 platform. Same front dimensions, cutouts and screen resolutions support an easy replacement of current CP600 control panels.

Tailor-made for your needs

- Three different screen sizes with standard aspect ratio or widescreen from 7" to 15" are suitable for a lot of different 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.

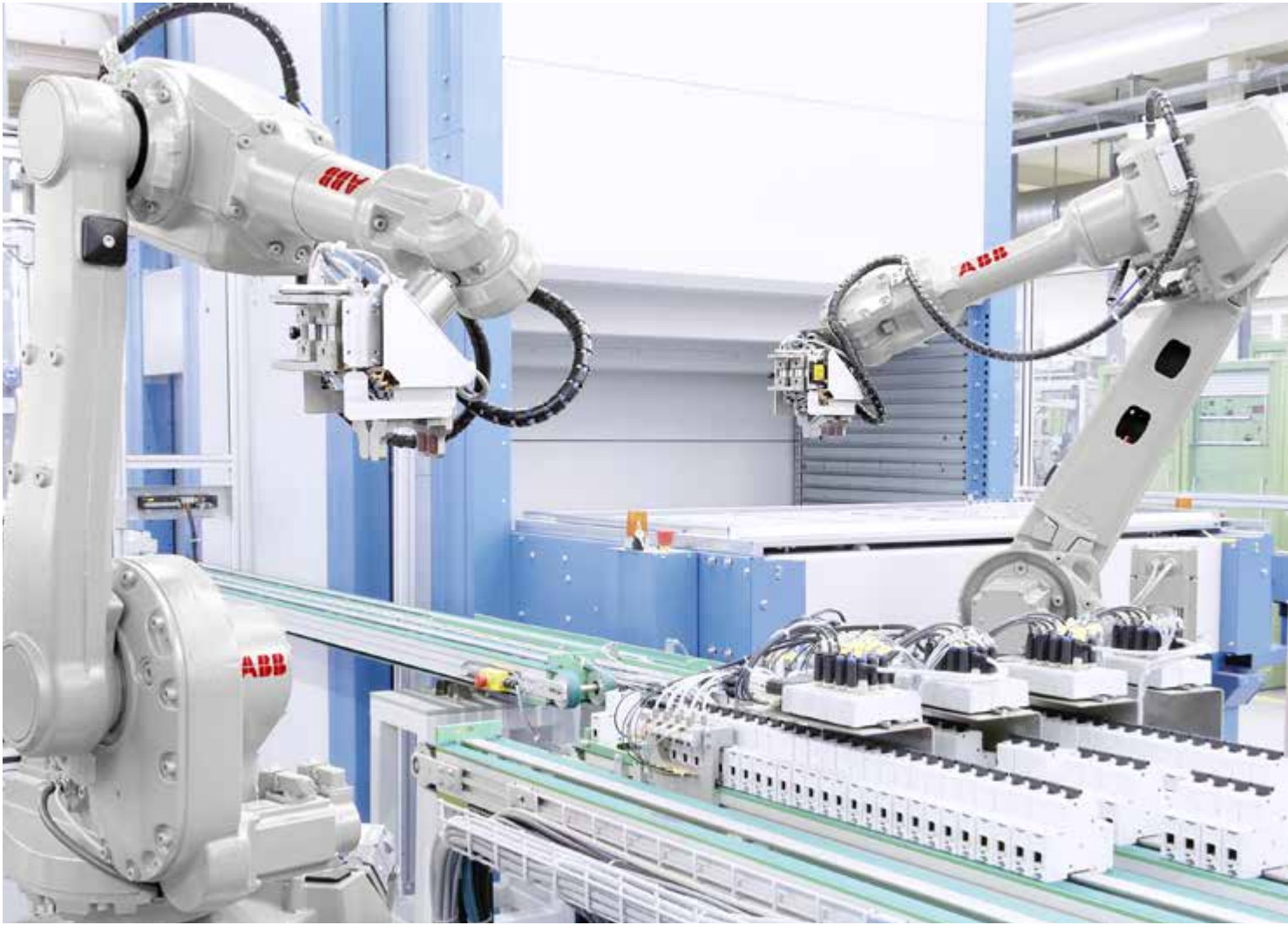
- Engineering by means of PB610 Panel Builder 600, part of ABB Ability™ Automation Builder, facilitates integration into automation packages and enables good scalability of the CP600 platform for various applications.

Solid design, wide operating temperature range

The robust aluminum enclosure in attractive industrial design, providing all connectors on one side, enables installation in various environments. Wide operating temperature range from -20 up to +60 °C makes these panels suitable for even challenging 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 configurable bridge mode for easy connectivity with ABB automation components.
- Flexible serial connectivity with 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.



Significant benefits of new CP600 2nd generation in comparison to current offering

- Increased performance for applications of up to 150 MB
- Improved network capabilities: 2x ETH with different physical layers (PHY)
- Extended operating temperature: -20...+60 °C
- Increased brightness: 400 cd/m²
- Black, neutral front foils suitable for most applications
- Harmonized with CP600 platform:
 - Operation system LINUX
 - Enhanced features
- Three most requested screen sizes: 7", 10.4" and 15"
- Easy replacement of current CP600 devices

CP600 2nd generation control panels

Display size	Resolution pixels	Description	Type	Order code	Price	Weight (1 pce) kg
7"	800 x 480	for PB610 applications or web panel e.g. for AC500 V3 web visu	CP6407	1SAP540710R0001		1.000
10.4"	800 x 600	for PB610 applications or web panel e.g. for AC500 V3 web visu	CP6410	1SAP541010R0001		2.000
15"	1024 x 768	for PB610 applications or web panel e.g. for AC500 V3 web visu	CP6415	1SAP541510R0001		3.300

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 as well as black variants.

Various options for flexible connectivity and data storage

- 2 Ethernet interfaces 10/100 Mbit
- Flexible serial connectivity
- USB hosts for the flexible connection of accessories or data storage and easy updating
- SD card slot for easy data storage and updating

CP600 control panels

Display size	Resolution pixels	Description	Type	Order code	Price	Weight (1 pce) kg
4.3"	480 x 272	for PB610 Panel Builder 600 applications	CP620	1SAP520100R0001		0.950
4.3"	480 x 272	for visualization of AC500 V2 web server	CP620-WEB	1SAP520200R0001		0.950
5.7"	320 x 240	for PB610 Panel Builder 600 applications	CP630	1SAP530100R0001		1.150
5.7"	320 x 240	for visualization of AC500 V2 web server	CP630-WEB	1SAP530200R0001		1.150
7.0"	800 x 480	for PB610 Panel Builder 600 applications	CP635	1SAP535100R0001		1.100
7.0"	800 x 480	black, for PB610 Panel Builder 600 applications	CP635-B	1SAP535100R2001		1.100
7.0"	800 x 480	for visualization of AC500 V2 web server	CP635-WEB	1SAP535200R0001		1.100
10.4"	800 x 600	for PB610 Panel Builder 600 applications	CP651	1SAP551100R0001		2.100
10.4"	800 x 600	for visualization of AC500 V2 web server	CP651-WEB	1SAP551200R0001		2.100
12.1"	800 x 600	for PB610 Panel Builder 600 applications	CP661	1SAP561100R0001		2.800
12.1"	800 x 600	for visualization of AC500 V2 web server	CP661-WEB	1SAP561200R0001		2.800
13.3"	1280 x 800	for PB610 Panel Builder 600 applications	CP665	1SAP565100R0001		2.600
13.3"	1280 x 800	for visualization of AC500 V2 web server	CP665-WEB	1SAP565200R0001		2.600
15"	1024 x 768	for PB610 Panel Builder 600 applications	CP676	1SAP576100R0001		3.600
15"	1024 x 768	for visualization of AC500 V2 web server	CP676-WEB	1SAP576200R0001		3.600

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.

First choice for meat processing

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.

Real glass screens for easy operation

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.

CP600 control panels, sanitary design

Display size	Resolution	Description	Type	Order code	Price	Weight (1 pce) kg
	pixels					
7.0"	800 x 480	stainless steel frame, front: IP69, blue for PB610 Panel Builder 600 applications	CP635-FB	1SAP535110R6001		2.500
7.0"	800 x 480	stainless steel frame, front: IP69, white for PB610 Panel Builder 600 applications	CP635-FW	1SAP535110R1001		2.500

CP600-Pro

Control panels



Outstanding HMI range designed for challenging applications

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 °C make them first choice even for harsh environments. The engineering tool PB610 Panel Builder 600, part of ABB Ability™ Automation Builder, ensures easy scalability on the CP600 platform.

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 °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.

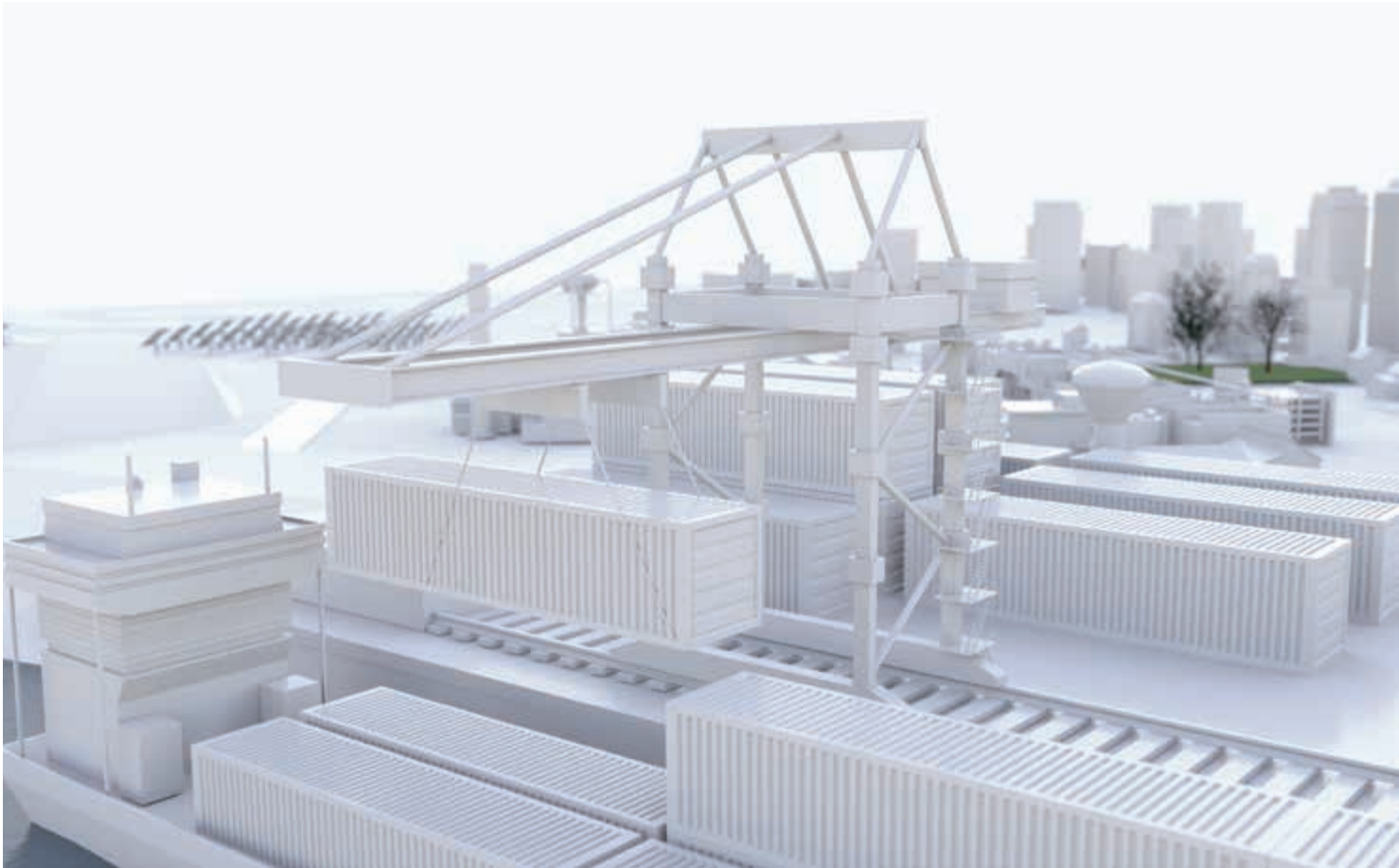
- Engineering by means of PB610 Panel Builder 600, part of ABB Ability™ Automation Builder, facilitates integration into automation packages and enables good scalability on the CP600 platform for versatile applications.

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.



CP600-Pro control panels

Display size	Resolution pixels	Description	Type	Order code	Price	Weight (1 pce) kg
5.0"	800 x 480	for PB610 applications or visualization of AC500 V3 web server	CP6605	1SAP560510R0001		1.000
7.0"	800 x 480	for PB610 applications or visualization of AC500 V3 web server	CP6607	1SAP560710R0001		1.300
10.1"	1280 x 800	for PB610 applications or visualization of AC500 V3 web server	CP6610	1SAP561010R0001		1.700
15.6"	1366 x 768	for PB610 applications or visualization of AC500 V3 web server	CP6615	1SAP561510R0001		4.100
21.5"	1920 x 1080	for PB610 applications or visualization of AC500 V3 web server	CP6621	1SAP562110R0001		6.100



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