

## VersaView 6300P Panel PCs

Bulletin Number 6300P

### Summary of Changes

This publication contains the following new or updated information. This list includes substantive updates only and is not intended to reflect all changes. Translated versions are not always available for each revision.

Topic	Page
Added the two last sentences in the UL/cUL Mark Compliance section.	1
Revised the temperature adjustment for angled positions in the Important table in the Mounting Requirements section.	2
Added the French translations to the Attention table in the Prepare the Panel Cutout section.	2
Added 12.1-inch widescreen format dimensions to the table in the Prepare the Panel Cutout section.	2
Replaced the Warning table with the introductory paragraph in the Power Consumption section.	4
Added 12.1 inch widescreen display to the table in the Power Consumption section.	4
Updated existing values to Power Consumption section.	4

### Environment and Enclosure Information



**ATTENTION:** This equipment is intended for use in a Pollution Degree 2 industrial environment, in overvoltage Category II applications (as defined in IEC 60664-1), at altitudes up to 2000 m (6561 ft) without derating.

This equipment is considered Group 1, Class A industrial equipment according to IEC/CISPR 32. Without appropriate precautions, there can be potential difficulties with electromagnetic compatibility in other environments due to conducted as well as radiated disturbance.

This equipment is considered open equipment, which means it must be mounted in an enclosure where the equipment can be operated from the front panel.

The enclosure in which this equipment is installed must be accessed only with a key or tool, and only by trained and authorized personnel.

In addition to this publication, see the following:

- Industrial Automation Wiring and Grounding Guidelines, publication [1770-4.1](#), for more installation requirements
- UL 50, CSA C22.2 No. 94.1, and IEC 60529, as applicable, for explanations of the degrees of protection provided by enclosures

### UL/cUL Mark Compliance

Equipment with the UL/cUL mark complies with the requirements of UL 61010-1, UL 61010-2-201, CSA C22.2 No. 61010-1, and CSA C22.2 No. 61010-2-201. A copy of the certificate of compliance is available at <https://rok.auto/certifications>.

This equipment is not suitable for use in locations where children are likely to be present.

Cet équipement ne convient pas à une utilisation dans des lieux pouvant accueillir des enfants.

### European Union Directive Compliance

This computer meets the European Union Directive requirements when installed within the European Union or EEA regions and have the CE marking. A copy of the declaration of the conformity is available at <https://rok.auto/certifications>.



**ATTENTION:** This computer is intended to operate in an industrial or control room environment, which uses some form of power isolation from the public low-voltage mains. Some computer configurations cannot comply with the EN 61000-3-2 Harmonic Emissions standard as specified by the EMC Directive of the European Union. Obtain permission from the local power authority before you connect any computer configuration that draws more than 75 W of AC power directly from the public mains.

All I/O cables must be used only indoors.

## Installation Guidelines

Follow these guidelines to make sure that your computer provides service with excellent reliability.

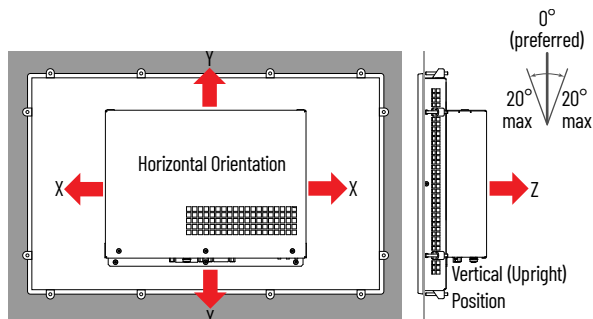
- When choosing the installation site, consider the following:
  - The site must have sufficient power
  - The site must be indoors and non-hazardous
  - The site must not expose the computer to direct sunlight
- The computers can operate in a surrounding air temperature range as follows:
  - 0...50 °C (32...122 °F) with the Intel Celeron and Intel Core<sup>(1)</sup> processors

The surrounding air temperature must not exceed the maximum temperature for your computer, especially when the computer is mounted in an enclosure.
- The computers can be stored in a surrounding air temperature range of -10...+60 °C (4...140 °F).
- The relative humidity of the ambient air must be 90% noncondensing at 0...40 °C (32...104 °F), and 80% noncondensing at 41...50 °C (105...122 °F).

## Mounting Requirements

Follow these requirements to mount the computer.

- Choose a suitable mounting height
- To help prevent overheating and to provide access to the I/O ports for cable connections, mount the computer so there is the following minimum clearances:
  - X and Z directions: 7 cm (2.75 in.)
  - Y direction: 10 cm (3.94 in.)
- For optimal performance, mount the computers in the horizontal orientation and vertical (upright) position, so the I/O ports face down.



**IMPORTANT** The vertical position can be tilted up to 20° forward or 20° backward from the upright position. However, any tilt angle reduces the maximum operating temperature by 5 °C (9 °F) to 45 °C (113 °F).

## Prepare the Panel Cutout

Observe these guidelines to install the computer in a panel.



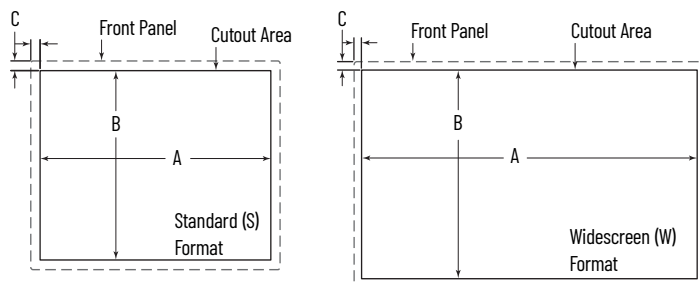
**ATTENTION:** Failure to follow these guidelines can result in personal injury or damage to the panel components.

Take precautions so any metal fragments during the panel cutout do not enter components that are installed already in the panel.

**À l'attention des:** Lorsqu'un panneau est découpé, des morceaux de métal peuvent être produits.

Vous devez prendre les mesures de sécurité nécessaires pour prévenir la pénétration des morceaux dans les composants déjà installés dans le panneau.

- Plan the panel cutout area that is needed for your computer.



- The mounting panel material must be 2...6 mm (0.08...0.24 in.) thick.
- For a uniform gasket seal, the roughness of the panel surface must not exceed 120 microns (Rz 120).
- Verify that the area around the panel is clear of obstructions.

All dimensions are in mm (in.)

Display Size, in.	Format <sup>(1)</sup>	Panel Cutout Dimensions <sup>(2)</sup>		
		A	B	C
12.1	S	315 (12.4)	250 (9.84)	10 (0.39)
	W	301 (11.85)	203 (7.99)	4 (0.16)
15	S	370 (14.57)	295 (11.61)	10 (0.39)
15.6	W	387.5 (15.26)	237.5 (9.35)	4 (0.16)
17	S	435 (17.13)	335 (13.19)	10 (0.39)
18.5	W	453 (17.83)	274.5 (10.81)	4 (0.16)
19	S	470 (18.5)	368 (14.49)	10 (0.39)
21.5	W	520 (20.47)	312 (12.28)	4 (0.16)
24		576 (22.68)	344.5 (13.56)	

(1) Standard (S) format is offered with an analog resistive touch screen. Widescreen (W) format is offered with analog resistive and projective capacitive (PCAP) touch screens.

(2) All dimensions are +/-1 mm (0.04 in.).

(1) The Intel Core i7 processor throttles above 45 °C (113 °F) when the CPU is heavily loaded.

## Required Tools for Installation

These tools are required for computer installation:

- Panel cutout tools
- 1.5 mm hex key (supplied)
- Mounting clips (supplied); for the needed quantity, see [Figure 1](#)
- Safety glasses

## Install the Computer

Perform the following steps to install the computer in the panel cutout.

**IMPORTANT** You need two people to install the computer; one person to hold the computer in place while another person installs the mounting clips.

1. Remove all electrical power from the panel before you make the cutout.
2. Cut an opening in the panel area to the dimensions needed for your computer.
3. After the cutout is completed, clean the panel area of all debris and metal fragments.
4. Make sure that the sealing gasket is positioned properly on the computer.

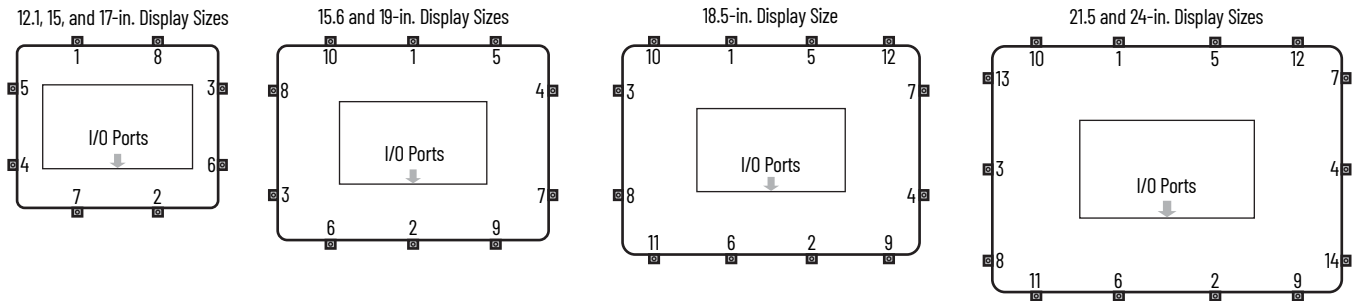
**IMPORTANT** The gasket that is provided with the display forms a compression-type seal. Therefore, do not use sealing compounds.

5. From the front of the panel, insert the computer into the cutout.
6. Slide the mounting clips into the holes on all four sides of the computer as shown at right.
7. Hand-tighten the mounting clips according to the tighten sequence in [Figure 1](#).
8. With the supplied 1.5 mm hex key, tighten the mounting clips to a torque of 0.2 N•m (1.8 lb•in) by the tighten sequence in [Figure 1](#).
9. Repeat this process at least three times until all clips are torqued properly to 0.2 N•m (1.8 lb•in).  
Verify that the gasket is compressed uniformly against the panel.



**ATTENTION:** Tighten the mounting clips to the specified torque to provide a proper seal and to help prevent product damage. Rockwell Automation assumes no responsibility for water or chemical damage to the computer or other equipment within the enclosure because of improper installation.

**Figure 1 - Mounting Clips Tighten and Torque Sequences**



## Connect Peripheral Cables

Connect peripheral cables to the appropriate I/O ports on the computer. To comply with EN 61326-1, use the following for cable types. All I/O cables must be used only indoors, and USB cables must be less than 3 m (9.84 ft) long.

Item No.	Cable Type	Required Attribute
1	LAN	Shielded
2	USB 2.0	
3	USB 3.0	
4	RS-232 DB9M	Unshielded
5	DVI-D	
—	DC power	Unshielded



## Grounding and Bonding

Whenever two connected pieces of equipment are far apart, it is possible that their ground connections could be at a different potential level.

To overcome possible grounding problems, the following bonding methods are recommended:

- Bonding method 1: Connect the data cable shields to the Equipotential bonding rail on both sides before connecting the cable to the interfaces.
- Bonding method 2: Use an Equipotential bonding cable (16 mm<sup>2</sup>) to connect the grounds between the monitor and the VersaView® 6300P panel PC.

## DC Power Supply Guidelines

Follow these guidelines to select the DC power supply for the computer.

- The computer must be powered with a voltage of 24V DC (18...32V DC SELV input voltage range).
- The nominal output power must be 25% larger than the drained power.
- The output voltage rise time has to be less than 100 ms.
- Consider the working temperature and the thermal derating of the power supply.
- The inrush current cannot exceed a peak current of 10 A and a pulse width time of 400 µs.

**IMPORTANT** In environments with electrical noise, use an isolated power source and electromagnetic compatibility (EMC) filter to help provide a reliable touch screen operation.  
Use an analog resistive touch screen where you anticipate EMC noise.

## Power Consumption

Total system power consumption cannot exceed 120 W. The following values exclude any externally connected USB devices.

Component	Description	Power Consumption (W), Max	Component	Description	Power Consumption (W), Max	Component	Description	Power Consumption (W), Max																															
Display	12.1 in. (4:3)	12	Processor <sup>(1)</sup>	Intel Celeron	43	USB ports	2.0 Type A, each port	1																															
	12.1 in. (16:10)	8		Intel Core i3	43		15 in. (4:3)		13	Intel Core i5	61	CFast slot <sup>(2)</sup>	SATA III, MLC	1.3	15.6 in. (16:9)	24	Intel Core i7	65	17 in. (5:4)	17	Solid-state drive (SSD)	2.5 in., SATA III, 3D TLC	3	RAM	8 GB	1	18.5 in. (16:9)	24	mSATA, SATA III, 3D TLC	16 GB	2	19 in. (5:4)	17	Expansion slot <sup>(2)</sup>	1 x PCIe x4 half-size	1.5 <sup>(3)</sup>	32 GB	21.5 in. (16:9)	22
	15 in. (4:3)	13		Intel Core i5	61	CFast slot <sup>(2)</sup>	SATA III, MLC	1.3																															
	15.6 in. (16:9)	24		Intel Core i7	65		17 in. (5:4)		17	Solid-state drive (SSD)	2.5 in., SATA III, 3D TLC	3	RAM	8 GB	1	18.5 in. (16:9)	24	mSATA, SATA III, 3D TLC	16 GB	2	19 in. (5:4)	17	Expansion slot <sup>(2)</sup>		1 x PCIe x4 half-size	1.5 <sup>(3)</sup>	32 GB	21.5 in. (16:9)	22	24 in. (16:9)	16								
	17 in. (5:4)	17	Solid-state drive (SSD)	2.5 in., SATA III, 3D TLC	3	RAM	8 GB	1																															
	18.5 in. (16:9)	24		mSATA, SATA III, 3D TLC			16 GB	2																															
	19 in. (5:4)	17	Expansion slot <sup>(2)</sup>	1 x PCIe x4 half-size	1.5 <sup>(3)</sup>		32 GB																																
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24 in. (16:9)	16																																						

(1) Power consumption values include the motherboard and 1 x 4 GB RAM.  
 (2) Power consumption value applies only when the port or slot is loaded.  
 (3) 5 W is the maximum that the card can use.

## Install the Ground Wire

1. Turn off the main power switch or breaker.
2. Remove the supplied nut, eyelet terminal, and washers from the ground screw.
3. For earth ground, fasten a 2.5 mm<sup>2</sup> (14 AWG) or larger external wire to the eyelet terminal. Use a ground wire with an insulation color that is approved by local inspection authority.
4. Install the ground wire to the ground screw in the sequence at right.
5. Tighten the nut to the ground screw.



Sequence No.	Description	Sequence No.	Description
1	Toothed washer	4	Lock washer
2	Eyelet terminal	5	Nut
3	Washer		

## Connect DC Power



**ATTENTION:** When you connect power to the computer for the first time, these actions occur:

- The default UEFI setting automatically starts the computer after it is plugged into a power source.
- For VersaView 6300P panel PCs with a Microsoft Windows® operating system (OS), you must read and accept an End User Setup procedure. Do not disconnect power from the system until after the Windows Setup procedure is completed. If power is disconnected during this procedure, it can result in a corrupted system image.

Operate the panel PC in an industrial or control room environment, which uses some form of power isolation from the public, low voltage mains.



**ATTENTION:** For VersaView 6300P panel PCs with a Windows OS, perform the following:

- Supply the computer with its own disconnect. Use an uninterruptible power source (UPS) to help protect against unexpected power failure or power surges.
- Always shut down the Windows OS before you disconnect power to the computer to minimize performance degradation and operating system failures.

All VersaView DC powered models require a safety extra low voltage (SELV) power supply per UL. The power supply is internally protected against reverse polarity.

To minimize ground loop currents and noise, Allen-Bradley recommends that DC powered models use only one grounded connection. See [Install the DC Power Connector Assembly](#) for the ground connection on these models.

Follow these steps to connect the computer to a DC power source.



You need the following tools for this installation:

- Adjustable torque screwdriver with M2 and M3 flat-blade screw bits
- Wire stripper, cutter, and crimper tool
- Cutting pliers

### Install the DC Power Connector Assembly

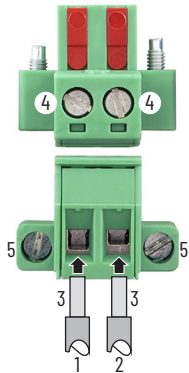
This connector assembly provides strain relief for the DC power wires by reducing their movement. To assemble and attach the connector assembly, perform the following steps.

**IMPORTANT** DC power wires must be of stranded copper and sized according to Table 1.

1. Remove the DC terminal block from the computer.
2. Open the power connector kit that shipped with the computer (A on [page 6](#)).
3. Insert the cable tie through the slots of the appropriate connector clamp (B on [page 6](#)).
4. Strip the end of each DC power wire to the length in [Table 1](#).
5. Insert each stripped end into the DC terminal block as shown in [Table 1](#).

**IMPORTANT** The DC terminal block in the photos is only for illustrative purposes. Your DC terminal block can differ in size, shape, and color to what is shown in the photos.

**Table 1 - DC Terminal Block Connection Specifications**



Item	Description	Attribute
1	DC+ (24V DC nominal) recommended power wire size	1.5 mm <sup>2</sup> (16 AWG)
2	DC- (0V DC) recommended power wire size	
3	Stripped wire length	7 mm (0.275 in.)
4	Torque range to secure DC power wires	0.22...0.25 N•m (0.16...0.18 ft•lb)
5	Torque value to reinstall DC terminal block to computer	0.3 N•m (0.22 ft•lb)

6. Tighten the screws on top of the terminal block to secure the DC power wires to the torque value in [Table 1](#).
7. Slide the connector half with the attached tie onto the end of the DC terminal block (C on [page 6](#)).
8. Tighten the cable tie so it is snug against the terminal wires.
9. Use cutting pliers to cut the excess cable tie (D on [page 6](#)).
10. Install the white label supplied with the kit (E on [page 6](#)).



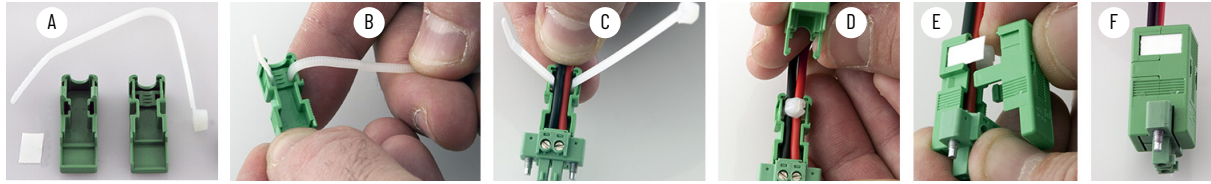
The white label can be used for identification or other information.

11. Align and install the other connector clamp half to complete the assembly (F on [page 6](#)).



When installed correctly, both tabs of the clamp half lock into place.

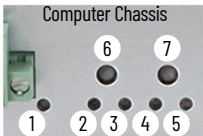
12. Reconnect the DC terminal block with the connector assembly to the computer chassis.  
Torque the DC terminal block flange screws to the values in [Table 1 on page 5](#).
13. Turn on the main power switch or breaker.



## Computer Power Status

Once power is supplied to the computer, front and rear light-emitting diodes (LEDs) display the current power status as follows:

No.	Description	Color	Function
1	Power supply LED	No color	The computer is not powered.
		Green	The computer is on and powered by the main power supply.
		Flashing green	The computer is on and powered by an uninterruptible power supply (UPS).
		Yellow	If a UPS is connected, verify that the UPS connection is secure or that the UPS battery is not faulty.
2	Over temperature/battery fault LED	Red	The computer has exceeded its operating temperature. For more information, see Thermal Alarms in the VersaView 6300P Panel PC User Manual, publication <a href="#">6300P-UM001</a> .
		Flashing red	The real-time clock (RTC) battery is lower than 2.5V. Replace before the battery goes lower and risks loss of date and time.
3	Watchdog LED	Green	The watchdog is working.
		Red	The watchdog timer has expired.
4	Mass storage LED	Yellow	When lit, access to a mass storage device (SSD or CFast) is happening through a SATA channel.
5	On/Off/Standby/UPS LED	No color	The computer is powered off or the CPU is not starting.
		Green	<ul style="list-style-type: none"> <li>• The computer is powered on.</li> <li>• The system is in a low-power state, and current session information is being stored in the RAM.</li> </ul>
		Flashing green	The computer is powered but a UPS is powering the system while main power is missing.
		Yellow	The computer is safe to power off; the operating system has been shut down successfully.
6	System reset button	—	Forces an internal reset, as if power was lost temporarily and then returned. <b>IMPORTANT:</b> Use this button only if there are no better options, like keyboard or mouse commands, or if the resumed DC power does not restart the computer. System reset can cause data loss and possible corruption to the operating system.
7	Watchdog reset button	—	Turns off the watchdog LED (item 3).



(1) Aluminum glass True Flat bezel shown.

## UEFI (BIOS) Settings

The UEFI settings on all VersaView 6300P panel PCs are factory configured and at their optimal settings. These default settings get the maximum system performance for non-real-time applications. To modify UEFI settings, see the VersaView 6300P Panel PC User Manual, publication [6300P-UM001](#).

## Touch Screen Calibration

VersaView 6300P panel PCs with analog resistive touch screens use an eGalax driver and can be field calibrated. VersaView 6300P panel PCs with PCAP touch screens use the native Microsoft Windows Human Interface Device (HID) driver and cannot be field calibrated.

## Additional Resources

This publication provides basic installation instructions. For more information, see the following publications from Rockwell Automation. You can view or download publications at <https://rok.auto/literature>.

Resource	Description
VersaView 6300P Panel PC User Manual, publication <a href="#">6300P-UM001</a>	Provides details on how to install, configure, operate, and troubleshoot the VersaView 6300P panel PCs.
Industrial Automation Wiring and Grounding Guidelines, publication <a href="#">1770-4.1</a>	Provides general guidelines to install a Rockwell Automation industrial system.
Product Certifications website, <a href="https://rok.auto/certifications">https://rok.auto/certifications</a>	Provides declarations of conformity, certificates, and other certification details.

# Rockwell Automation Support

Use these resources to access support information.

<b>Technical Support Center</b>	Find help with how-to videos, FAQs, chat, user forums, and product notification updates.	<a href="http://rok.auto/support">rok.auto/support</a>
<b>Knowledgebase</b>	Access Knowledgebase articles.	<a href="http://rok.auto/knowledgebase">rok.auto/knowledgebase</a>
<b>Local Technical Support Phone Numbers</b>	Locate the telephone number for your country.	<a href="http://rok.auto/phonesupport">rok.auto/phonesupport</a>
<b>Literature Library</b>	Find installation instructions, manuals, brochures, and technical data publications.	<a href="http://rok.auto/literature">rok.auto/literature</a>
<b>Product Compatibility and Download Center (PCDC)</b>	Download firmware, associated files (such as AOP, EDS, and DTM), and access product release notes.	<a href="http://rok.auto/pcdc">rok.auto/pcdc</a>

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## Battery Removal



This computer contains a sealed lithium battery that could need replacement during the life of the computer. For instructions to remove and replace the battery, refer to publication [6300P-UM001](#), VersaView 6300P Panel PCs User Manual.  
At the end of its life, collect the battery contained in this computer separately from any unsorted municipal waste.

## Waste Electrical and Electronic Equipment (WEEE)







At the end of life, this equipment should be collected separately from any unsorted municipal waste.

Rockwell Automation maintains current product environmental compliance information on its website at [rok.auto/pec](http://rok.auto/pec).

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