**Original Instructions** 



# ASEM 6300B Box PCs and 6300T Thin Clients

Catalog Numbers 6300B-BMA, 6300B-BMB, 6300B-BMF, 6300B-BMN, 6300B-DRA, 6300B-DRF, 6300B-DRN, 6300T-BA, 6300T-BB

The following catalog numbers are ASEM™ 6300B Edge Box PCs intended for use with FactoryTalk<sup>®</sup> Edge™ Manager:

- 6300B-BMBDNE-3DBAE01FNNBNN-NN1S
- 6300B-BMBDNE-7EDAE01FNNDNN-NN1S
- 6300B-BMBDNE-3DBAE01NNNBNN-NN1S
- 6300B-BMBDNE-7EDAE01NNNDNN-NN1S

These catalog numbers have a unique Edge Virtualization Engine operating system (EVE-OS) orchestrated from FactoryTalk Edge Manager. If you have sent the product to be returned or repaired, the device software and data has been erased and the EVE-OS has been reinstalled. For more information on FactoryTalk Edge Manager, see publication <u>95055-UM007-EN-P</u> and publication <u>95055-0S003-EN-P</u>.

### **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.

| Topic  | Page |
|--|------|
| Added information regarding ASEM 6300B Edge Box PCs intended for use with FactoryTalk Edge Manager | 1    |

# **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/EN 61326-1. 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 <u>1770-4.1</u>, 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 rok.auto/certifications.

### **European Union Directive Compliance**

This equipment 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 <u>rok.auto/certifications</u>.



**ATTENTION:** This equipment 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.

All I/O cables must be used only indoors.



### **Required Tools and Hardware**

You need the following tools to install and connect your box PC or thin client.

- M4x20 stainless steel screws (quantity of 4) · Drill and 4 mm drill bit
- · #2 Phillips screwdriver
- · Adjustable torque screwdriver with bits · Adjustable torque screwdriver with bits • DIŃ rail (for DIŃ rail installation only)
- Various I/O shielded cables
- DC power supply Safety glasses
- Wire stripper/crimper/cutter tool

Installation Guidelines

Follow these quidelines to make sure that your 6300B box PC or 6300T thin client provides service with excellent reliability.

- Your installation site:
  - must have sufficient power,
  - must be indoors and non-hazardous,
  - must not expose your box PC or thin client to direct sunlight, and
  - must be placed in an industrial or control room environment, which uses some form of power isolation from the public, low voltage mains.
- The surrounding air temperature must not exceed the maximum temperature for your box PC or thin client, especially when mounted in an enclosure. The surrounding air temperature ranges are:
  - 0...55 °C (32...131 °F) with the Intel Atom® x5 processor
  - 0...50 °C (32...122 °F) with the Intel Atom x7 processor and Intel® Core™ i3, Core i5, and Core i7 processors
- Your box PC or thin client can be stored in a surrounding air temperature range of -10...+60 °C (14...140 °F).
- Operating and storage: 20%...90% relative humidity (RH) noncondensing

# Mounting Requirements

Follow these requirements to mount your 6300B box PC or 6300T thin client.

- Choose a suitable, ergonomic mounting height.
- Only mount your box PC or thin client in a vertical (upright) position, where the ground screw is at the bottom.
- Mount your box PC or thin client so there is at least 20 mm (0.79 in.) of clearance on each side for the circulation necessary for cooling.

# DC Power Supply Guidelines

Follow these guidelines to select the DC power supply for your box PC or thin client.

- Your box PC or thin client must be powered with a voltage of 24V DC (18...32V DC).
- The DC supply should be able to provide momentary current of at least 10 A for up to 400 µs for box PC and thin client inrush current. •
- 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 thermal derating of the power supply.

# Approximate Dimensions

Dimensions are shown in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

#### Figure 1 - 6300B-BMA, 6300T-BAB, 6300B-DRA, and 6300T-BAD [mm (in.)]



#### Figure 2 - 6300B-BMBE...J Box PC [mm (in.)]









Front View (Vertical Upright)







(0.79)



6300B-BMN, 6300T-BBB Front View (Vertical Upright)

Side View





Front View (Vertical Upright)



6300B-DRN, 6300T-BBD



### I/O Port and Peripheral Connections

The I/O port and slot locations of your shipped product may vary from the drawings that are shown in Figure 5.





### Mount your Box PC or Thin Client

Select models feature optional PCIe slots, removable drive slots, an internal USB port, and/or CFAST slot. Before mounting, add peripherals to your box PC or thin client. See Figure 5 for peripheral locations and the User Manual for your respective model (see Additional Resources on page 8) to properly add peripherals.

#### **Use Supplied Brackets**

To mount your 6300B box PC or 6300T thin client with supplied brackets:

- 1. Locate and drill holes for four M4x20 stainless steel screws against your mounting surface. See Approximate Dimensions on page 2.
- 2. Partially tighten the four M4x20 stainless steel screws (not supplied) into your mounting surface. Leave enough space to hang the brackets.
- 3. Align the keyhole slots on the top bracket with the top two screws.
- 4. Align the slots on the bottom bracket with the bottom two screws.
- 5. Slide your box PC or thin client downward until all four screws are at the top of each bracket slot.
- 6. Tighten the four screws flush against your mounting surface.

#### Use a DIN Rail Bracket — 6300B-DRF

IMPORTANT A DIN Rail is not supplied with the book mount bracket. An installed DIN Rail is the responsibility of the customer.

- 1. Plan your DIN rail installation according to the 6300B-DRF box PC approximate dimensions shown in Figure 4 on page 3.
- 2. Install your box PC onto the installed DIN Rail according to the DIN rail installation instructions, publication 6300V-IN002.

### **Connect DC Power Wiring**

Follow these steps to connect your box PC or thin client to a DC power source.



ATTENTION: Your box PC or thin client must have its own supply disconnect. On models with an available UPS connection, use a UPS to help protect against unexpected power failure or power surges.

### **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.
- 4. Use a ground wire with an insulation color approved by local inspection authority.
- 5. Install the ground wire to the ground screw in the sequence shown at the right.
- 6. Tighten the nut to the ground screw.
- 7. Proceed to Attach the Power Connector Assembly.

|              | 1 2            | 3 | 4     | 5        |             |
|--------------|----------------|---|-------|----------|-------------|
|              | ÕÕ             | 0 | 0     | C        |             |
| Sequence No. | Description    |   | Seque | ence No. | Description |
| 1            | Toothed washe  | r |       | 4        | Lock washer |
| 2            | Eyelet termina | I |       | 5        | Nut         |
| 3            | Washer         | _ |       |          |             |

#### Attach the Power Connector Assembly

The factory-supplied connector assembly provides strain relief for the DC power wires by reducing their movement.

For 6300B-BMA, 6300B-BMB, 6300B-DRA, and 6300T-BA

See Figure 6 and Table 1 when performing the following steps to successfully install the DC power connector assembly steps.

IMPORTANT The DC terminal block that is shown is for illustrative purposes only. Your DC terminal block can differ in size, shape, and color.

#### Figure 6 - DC Power Connector Assembly Steps



Table 1 - DC Power Connection Assembly: 6300B-BMA, 6300T-BA, 6300B-BMB

### 6300B-BMA, 6300B-DRA, 6300T-BA



To assemble and attach the DC power connector assembly:

- 1. Remove the DC terminal block from the chassis of your box PC.
- 2. Open the power connector assembly kit that ships with your box PC or thin client (A of Figure 6).
- 3. Insert the cable tie through the slots of the appropriate connector half (B of Figure 6).
- 4. Strip the end of each DC power wire to the length specified in Table 1.

**IMPORTANT** DC power wires must be of stranded copper and certified for at least 85 °C (185 °F) operation.

- 5. Insert each stripped end into the DC terminal block as shown in the figure at right.
- 6. Tighten the screws on top of the terminal block to secure the DC power wires to the torque value in Table 1 on page 5.
- 7. Slide the connector half with the attached tie onto the end of the DC terminal block (C of Figure 6).
- 8. Tighten the cable tie so it is snug against the terminal wires.
- 9. Use cutting pliers to cut the excess part of the cable tie (D of Figure 6).
- 10. Install the white label supplied with the kit (E of Figure 6).



Use the white label for identification or other information.

- Align and install the other connector clamp half to complete the assembly (F of Figure 6). When it is installed correctly, both tabs of the clamp half lock into place.
- 12. Reconnect the DC terminal block with the connector assembly to the chassis of your box PC or thin client.
- 13. Torque the DC terminal block flange screws to the values in <u>Table 1 on page 5</u>.
- 14. Proceed to <u>Connect the I/O Cables and DC Power on page 6</u>.

For 6300B-BMF, 6300B-BMN, 6300B-DRF, 6300B-DRN, and 6300T-BB

#### Table 2 - DC Power Connection Assembly



To assemble and attach the DC power connector assembly, perform the following steps.

- 1. Remove the DC terminal block from the chassis of your box PC.
- 2. Strip 10 mm (0.4 in.) from the end of four different-colored wires.

**IMPORTANT** Use stranded copper wire sized 1.5 mm<sup>2</sup> (16 AWG) and certified for at least 85 °C (185 °F) operation.

- 3. Press the spring connection tabs on the DC terminal block, and insert each stripped end of wire according to Table 2.
- 4. Release the spring connection tabs after the stripped end of each wire has been fully inserted in the appropriate terminal connection.
- 5. Reconnect the DC terminal block to the chassis of your box PC or thin client.
- 6. Torque the DC terminal block flange screws to 0.3 N•m (0.22 lb•ft).
- 7. Proceed to <u>Connect the I/O Cables and DC Power</u>.

### Connect the I/O Cables and DC Power

IMPORTANT To comply with EN 61326-1, the following cable types must be shielded: Digital I/O, DisplayPort, DVI-D, LAN, RS-232 DB9M, USB 2.0, and USB 3.0. All I/O cables must be used only indoors, and USB cables must be less than 3 m (9.84 ft) in length. Whenever two connected pieces of equipment are far apart, it is possible that their ground connections could be at another potential level. To overcome these possible grounding problems, the following bonding methods are recommended: Method 1: Connect the data cable shields to the equipotential bonding rail on both sides before connecting the cable to the interfaces. Method 2: Use an equipotential bonding cable (16 mm<sup>2</sup> or #6 AWG) to connect the grounds between the 6300B Box PC/6300T Thin Client and a connected monitor.
 IMPORTANT • All DC powered models require a safety extra low voltage (SELV) power supply. The internal power supply is protected against reverse polarity. To minimize ground loop currents and noise, we recommend that DC powered models use only one grounded connection. See Install the Ground Wire on page 5 for the ground connection on these models.
 Follow all guidelines as stated in <u>DC Power Supply Guidelines on page 2</u>.

1. Connect shielded I/O cables to your 6300B box PC or 6300T thin client. See Figure 5 on page 4 for I/O port locations of your particular model.

 Connect the DC power to your 6300B box PC or 6300T thin client. Light-emitting diode (LED) status indicators illuminate on your 6300B box PC or 6300T thin client. For a description of these LED status indicators, see LED Status Indicators and Buttons on page 7.

### **LED Status Indicators and Buttons**

- ATTENTION: When you connect power to your box PC or thin client for the first time, these actions occur:
  The default UEFI setting automatically starts your box PC or thin client after it is plugged into a power source.
  For 6300B box PCs with a Microsoft Windows<sup>®</sup> operating system (0S), you must read and accept an End-User Setup procedure.
  Do not disconnect power from the system until after the Microsoft Windows Setup procedure is completed.
  If power is disconnected during this procedure, it can result in a corrupted system image.

#### Table 3 - Description of LED Status Indicators and Buttons

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|--|---|----------|--------------------------------|----------------|---|
| Noticity         Offen         The box PC or thin client is goare of the US has been shut down successfully.           Fund Way         Peaking See         The box PC or thin client is aget to power state, the current session information is being.           Fund Way         2         Mess Starage         Yellow         When BL access to a mass storage device (SSD or CF) is happening through a SMA channel.           Image: Starage         Yellow         When BL access to a mass storage device (SSD or CF) is happening through a SMA channel.           Image: Starage         Yellow         When BL access to a mass storage device (SSD or CF) is happening through a SMA channel.           Image: Starage         Yellow         When BL access to a mass storage device (SSD or CF) is happening through a SMA channel.           Image: Starage         Yellow         When BL access to a mass storage device (SSD or CF) is happening through a SMA channel.           Image: Starage         Yellow         When BL access to a mass storage device (SSD or CF) is happening through a SMA channel.           Image: Starage         Yellow         Peaking See         Peaking See           Image: Starage         Peaking See         Peaking See         Peaking See           Image: Starage Access to a mass storage device (SSD or CF) is happening through a SMA channel.         Peaking See           Image: Starage Access to a mass storage device (SSD or CF) is happening through a SMA channel.         Peaking See  | 6300B<br>(-BMA, -BMF, -BMN, -DMN, -DRF, -DRN) | 1        | Standby /<br>Power On          | No color       | The box PC or thin client is powered off.   |
| SBODT This Clients         Image: Teal of the top PC of this client is a lake to pawer off: the CS has been shut down successfully.           Front View (Vertical Unright)         Flashing Green, Teal of the top PC of this client is a lake power state: the current sessies information is being strong in RAM.           Image: PC of this strong PC of this strong PC of this strong PC of this strong PC of the Strong PC of th  | BOX PUS<br>and                                |          |                                | Green          | The box PC or thin client is powered on.  |
| Front View<br>(Nertical Upright)         Reaking Grees,<br>accord in RAN.         The box PC or thin client is in a low-power state: the current session information is being<br>scored in RAN.           3         A         -         Not implemented.           3         A         -         Not implemented.           4         Therma Marriny<br>Low Satzry         Read         A thermal servor on the motherboard near the CPU has exceeded the thermal limit of<br>dis C (165 °F).           6         Power / A         Therma Marriny<br>Read         A thermal servor on the motherboard near the CPU has exceeded the thermal limit of<br>dis C (165 °F).           7         Datalink         Not implemented.         For the main reads of the spitem.           7         Datalink         No calor         No timplemented.           7         Datalink         No calor         No timplemented.           7         Datalink         No calor         No timplemented.           8         Data Speed         No calor         No timplemented.           7         Datalink         Statisfies distatisfies distational of the spitem.           8         Data Speed         No Color         No timplemented.           7         Datalink         No Color         No timplemented.           8         Data Speed         No Color         No Color The icient is powe   | 6300T Thin Clients                            |          |                                | Yellow         | The box PC or thin client is safe to power off; the OS has been shut down successfully.   |
| Cherical Upright)         Z         Mess Storage         Yellow         When It access to a mass storage device ISSD or CF) is happening through a SATA channel.           3 $\Delta$ -         Not implemented.           4         Thermal Marrin /<br>Low Battry         Red         A thermal sensor on the motherboard near the CPU has exceeded the thermal limit of<br>65 °C (165 °F).           5         System Reset         -         For the main reset of the system.           7         Detaink         No color         No timplemented.           8         On timplemented.         No timplemented.           7         Detaink         No color         No timplemented.           7         Detaink         No color         No timplemented.           8         Data Spaced         No color         No timplemented.           7         Detaink         No color         No timplemented.           8         Data Spaced         No color         No timplemented.           7         Detaink         No color         No timplemented.           8         Data Spaced         No color         No timplemented.           7         Detaink         No color         No timplemented.           8         Data Spaced         No color         No timplemented.   | Front View                                    |          |                                | Flashing Green | The box PC or thin client is in a low-power state; the current session information is being stored in RAM.  |
| 3         A          Not implemented.           4         In Brand Marrini         Red         A thermal sensor on the motherboard near the CPU has exceeded the thermal limit of 85°C (186°T).           5         System Rest          For thermal sensor on the motherboard near the CPU has exceeded the thermal limit of 85°C (186°T).           6         W0R          For the main rest of the system.           7         Datalinik Rest          For the main rest of the system.           7         Datalinik Rest          Rest in Biathin is established and there is data transfer.           8         Data Speed         No calar         No balank is present.            Front No Calar         No balank is present.            Forem         Datalinik is established and there is data transfer.           8         Data Speed         No Calar         No Balank is present.             Tellow         100 Mbps         No Data           1         Power On         No Calar         No UPS battery pack is disconnected.             The box PC or thin client is powered off.             No Calar         No UPS battery pack is disconnected.            No Calar   | (Vertical Upright)                            | 2        | Mass Storage                   | Yellow         | When lit, access to a mass storage device (SSD or CF) is happening through a SATA channel.  |
| First View         1         Power Discussion         No color         No fail         Sec 10(6 S^1)           S0008-0FB Bax PCs         1         Power Discussion         No color         No color         No color           S0008-0FB Bax PCs         1         Power Discussion         No color         No color         No color           First View         1         Power Discussion         No color         No color         No color           8         Data Sing Social Soci   |   | 3        | $\mathbb{A}$                   | -              | Not implemented.  |
| Store         Prashing Rd         The clock battery power is below 25%: consider replacing.           Importantic A2, volta and and increases in the system state.         6         WDR         -           Importantic A2, volta and and reset the system state.         6         WDR         -           Importantic A2, volta and increases in the system state.         6         WDR         -           Importantic A2, volta and increases in the system state.         6         WDR         -           Importantic A2, volta and increases in the system state.         -         Fores this build on once to restart and reset the system state.           Importantic A2, volta and infinities present.         -         No clore         No clore           Importantic A2, volta and infinities present.         -         No clore         No clore           Importantic A2, volta and infinities present.         -         No clore         No clore           Importantic A2, volta and infinities present.         -         No clore         No clore           Importantic A2, volta and infinities present.         -         -         No clore           Importantic A2, volta and infinities present.         -         -         -           Importantic A2, volta and infinities present.         -         -         -           Importantis present in the volta voltan   |   | 4        | Thermal Alarm/<br>Low Battery  | Red            | A thermal sensor on the motherboard near the CPU has exceeded the thermal limit of 85 °C (185 °F).  |
| For the main reset of the system.           For the main reset of the system system.           For the main reset of the system.           For the main reset of the system.           For the main reset of the system system.           For the main reset of the system system system.           For the main reset of the system system.           For the main reset of the system system.           For the main reset of the system system system system system system reset on the main reset  |   |          |                                | Flashing Red   | The clock battery power is below 2.5V; consider replacing.<br>IMPORTANT: At 2V, data and time loss is possible.   |
| 6         WOR         -         Not implemented.           7         Batalink         No color         No batalink is present.           8         Data Speed         Mo color         In Batalink is established.           8         Data Speed         No color         In Muss           8         Data Speed         No color         In Muss           8         Data Speed         No Color         The box PC or thin client is powered on.           Frent View         -         Yellow         The box PC or thin client is powered on.           Vertical Upright)         -         Yellow         No Color         No UPS battery pack is installed.           Vertical Upright)         2         UPS (optional)         No Color         No UPS battery pack is installed.           1         Power On         The box PC or thin client is powered on.         The box PC or thin client is powered by a external 24V DC source.           1         UPS (optional)         No Color         No UPS battery pack is installed.           2         UPS (optional)         No Color         No UPS battery pack is installed.           3         Mass Storage         Yellow         The box PC or thin client is powered by the UPS.           3         Mass Storage         Yellow         The watchdog is working.<  |   | 5        | Power /<br>System Reset        | -              | For the main reset of the system.<br>Press this button once to restart and reset the system state.  |
| Postalink         No color         No batalink is established.           8         Jata Speed         No color         Datalink is established.           8         Jata Speed         No color         10 Mbps           9         Green         Datalink is established.           9         Jata Speed         No color         10 Mbps           9         Green         100 Mbps (1 Gbps)           8         Jata Speed         No Color         The box PC or thin cilent is powered off.           9         Front View         Green         The box PC or thin cilent is apter upower off; the DS has been shut down successfully.           1         Power On         No Color         No VPC or thin cilent is apter upower off; the DS has power off.           1         Power On         No Color         No VPC or thin cilent is apter upower off; the DS has power off.           1         Power On         No Color         No VPC or thin cilent is powered by an external 24V DC source.           1         Yellow         The box PC or thin cilent is powered by an external 24V DC source.           1         Yellow         The external 24V DC source is last, and the box PC or thin cilent is powered by the UPS.           3         Mass Storage         Yellow         The external 24V DC source is last, and the box PC or thin cilent is powered by the UPS.   |   | 6        | WDR                            | _              | Not implemented.  |
| Branchink is established.           Flashing Green         Datalink is established and there is data transfer.           B         Data Speed         Ne color         Ti Mpss           B         Data Speed         Ne color         Ti Mpss           B         Data Speed         Ne color         Ti Mpss           B         Data Speed         Ne color         The box PC or thin client is powered off.           Front Wew<br>(Vertical Upright)         The box PC or thin client is space to power off: the OS has been shut down successfully.         Power On         No UPS battery pack is installed.           C         Yellow         The box PC or thin client is powered by an external 24V DC source.         Yellow           Yellow         The box PC or thin client is powered by an external 24V DC source.         Yellow         The box PC or thin client is powered by an external 24V DC source.           S         Mass Storage         Yellow         The box PC or thin client is powered by the UPS.           S         Mass Storage         Yellow         The external 24V DC source is solat and the box PC or thin client is powered by the UPS.           S         Watchdog         Green         The external 24V DC source is solat and the core SD or or finction is powered by the UPS.           S         Watchdog         Green         The external 24V DC source is solat and time.         The w  |   | 7        | Datalink                       | No color       | No Datalink is present.   |
| Fashing Green         Data Speed         No color         10 Mps           6         Ota Speed         No color         10 Mps           6         Ota Speed         No Color         10 Mps           6         Person         No Color         10 Mps           6         Person         No Color         The box PC or thin client is powered off.           Front New<br>(Vertical Upright)         -         Green         The box PC or thin client is safe to power off; the 0S has been shut down successfully.           2         UPS logitonal)         No Color         No UPS battery pack is installed.           4         Oter Person         No WPS battery pack is installed.           5         Mass Storage         Yellow         The box PC or thin client is powered by an external 24V DC Source.           4         Thermal Alarn         Red         A thermal exeror on the motherboard near the CPU has exceeded the thermal limit of 85 °C (165 °F).           6         No Battery         Red         The real-time clock (RIC) battery pack is lost and thene.           7         BUS         -         Not applicable.           7         BUS         -         Not applicable.           7         BUS         -         Not applicable.           8         Power On Button   |   |          |                                | Green          | Datalink is established.  |
| 8         Data Speed         No color         10 Mbps           6:0         Green         100 Mbps         100 Mbps           6:000-BMB Box PCs         1         Power 0n         No Color         The box PC or thin client is powered off.           Front View<br>(Vertical Upright)         2         UPS (optional)         No Color         The box PC or thin client is powered on.           7         Velow         The box PC or thin client is powered by an external 24V DC source.           7         Front View<br>(Vertical Upright)         -         Freen         The box PC or thin client is powered by an external 24V DC source.           7         Flashing Green         The box PC or thin client is powered by an external 24V DC source.           7         Flashing Green         The external 24V DC source is lost, and the box PC or thin client is powered by the UPS.           3         Mass Storage         Yellow         When IL access to a mass storage device (SSD or CFast) is happening through a SATA channel.           4         Theorem Alarm /<br>Low Battery         Red         A thermal sensor on the motherboard near the CPU has exceeded the thermal limit of<br>BS Velobage           5         Watchdog         Green         The watchdog is working.           6         PLC         -         Not applicable.           9         System Reset         -   |   |          |                                | Flashing Green | Datalink is established and there is data transfer.   |
| Green         100 Mbps           63008-BH8 Box PCs         1         Power 0n         No Color         The box PC or thin client is powered on.           Front View<br>(Vertical Upright)         -         Green         The box PC or thin client is safe to power off; the 0S has been shut down successfully.           Image: Comparison of the comp   |   | 8        | Data Speed                     | No color       | 10 Mbps   |
| B300B-BHB Box PCs         1         Power 0n         No Color         The box PC or thin client is powered off.           Front View<br>(Vertical Upright)         -         Oreen         The box PC or thin client is powered on.           2         UPS (optional)         No Color         No Color         The box PC or thin client is powered by an external 24V DC source.           -         -         -         Front View<br>(Vertical Upright)         -   |   |          |                                | Green          | 100 Mbps  |
| S300B-BHB Box PCs       1       Power On       No Color       The box PC or thin client is powered off.         Front View<br>(Vertical Upright)       -       Green       The box PC or thin client is spowered on.         Vertical Upright)       2       UPS (optional)       No Color       No UPS battery pack is installed.         Vertical Upright)       2       UPS (optional)       No UPS battery pack is installed.       -         Vertical Upright)       2       UPS (optional)       No UPS battery pack is installed.       -         Vertical Upright)       2       UPS (optional)       No UPS battery pack is installed.       -         Vertical Upright)       2       UPS (optional)       No UPS battery pack is installed.       -         Vertical Upright)       2       UPS (optional)       No UPS battery pack is installed.       -         Vertical Upright)       2       UPS (optional)       No UPS battery pack is installed.       -         3       Mass Storage       Yellow       The thermal sensor on the motherboard near the CPU has exceeded the thermal limit of 85 °C (185 °F).         4       Thermal Alarm / Low Battery       Red       The watchdog is working.       -         5       Watchdog       Green       The watchdog is working.       -         6       PLC   |   |          |                                | Yellow         | 1000 Mbps (1 Gbps)  |
| Front View<br>(Vertical Upright)          Yellow        The box PC or thin client is powered on.             Vertical Upright)           Vertical Upright)           Vertical Upright)             Vertical Uprigh   | 6300B-BMB Box PCs                             | 1        | Power On                       | No Color       | The box PC or thin client is powered off.   |
| Front View<br>(Vertical Upright)         Vellow         The box PC or thin client is safe to power off; the OS has been shut down successfully.           Vertical Upright)         2         UPS (optional)         No Color         No UPS battery pack is installed.           Vertical Upright)         2         UPS (optional)         No Color         The box PC or thin client is softer by an external 24V DC source.           Vellow         The UPS battery pack is disconnected.         1         1         1         1           Vellow         The UPS battery pack is disconnected.         1         1         1         1           Vellow         The tremal Aarm /<br>Low Battery         Red         A thermal sensor on the motherboard near the CPU has exceeded the thermal limit of<br>5 (0 (16 ° F).           Tor Freit-Inter clock (RTC) battery is lower than 2.5V. Replace before the battery goes lower and<br>risks loss of date and time.         1   |   |          |                                | Green          | The box PC or thin client is powered on.  |
| (Vertical Upright)       2       UPS (optional)       No Color       No UPS battery pack is installed.         Image: Constraint of the tox PC or thin client is powered by an external 24V DC source.       The Dox PC or thin client is powered by an external 24V DC source.         Image: Constraint of the UPS battery pack is disconnected.       The UPS battery pack is disconnected.         Image: Constraint of the UPS battery pack is disconnected.       The UPS battery pack is disconnected.         Image: Constraint of the UPS battery pack is disconnected.       The UPS battery pack is disconnected.         Image: Constraint of the UPS battery pack is disconnected.       The transl Alarm / Low Battery         Image: Constraint of the UPS battery pack is disconnected.       The transl Alarm / Low Battery         Image: Constraint of the UPS battery pack is disconnected.       The transl Alarm / Low Battery         Image: Constraint of the UPS battery pack is disconnected.       The transl Alarm / Low Battery         Image: Constraint of the UPS battery pack is disconnected.       The transl Alarm / Low Battery         Image: Constraint of the UPS battery pack is disconnected.       The transl Alarm / Low Battery         Image: Constraint of the UPS battery pack is disconnected.       The transl Alarm / Low Battery does for the does for the battery does for the battery does for the batt   | Front View                                    |          |                                | Yellow         | The box PC or thin client is safe to power off; the OS has been shut down successfully.   |
| Image: state of the s  | (Vertical Upright)                            | 2        | UPS (optional)                 | No Color       | No UPS battery pack is installed.   |
| Image: Second  |   |          |                                | Green          | The box PC or thin client is powered by an external 24V DC source.  |
| Image: Storage       Flashing Green       The external 24V DC source is lost, and the box PC or thin client is powered by the UPS.         Image: Storage       Yellow       When lit, access to a mass storage device (SSD or CFast) is happening through a SATA channel.         Image: Storage       Yellow       When lit, access to a mass storage device (SSD or CFast) is happening through a SATA channel.         Image: Storage       Yellow       When lit, access to a mass storage device (SSD or CFast) is happening through a SATA channel.         Image: Storage       Yellow       When lit, access to a mass storage device (SSD or CFast) is happening through a SATA channel.         Image: Storage       Yellow       When lit, access to a mass storage device (SSD or CFast) is happening through a SATA channel.         Image: Storage       Yellow       A thermal sensor on the motherboard near the CPU has exceeded the thermal limit of 85 °C (185 °F).         Image: Storage       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.         Image: Storage       Watchdog       Green       The watchdog is working.         Image: Storage       Red       The watchdog is working.       The watchdog is working.         Image: Storage       PLC       Not applicable.       Not applicable.         Image: Storage: Sto   |   |          |                                | Yellow         | The UPS battery pack is disconnected.   |
| 3       Mass Storage       Yellow       When lit, access to a mass storage device (SSD or CFast) is happening through a SATA channel.         4       Thermal Alarm /<br>Low Battery       Red       A thermal sensor on the motherboard near the CPU has exceeded the thermal limit of<br>85 °C (BS °F).         Top View       Flashing Red       The real-time clock (RTC) battery is lower than 2.5V. Replace before the battery goes lower and<br>risks loss of date and time.         5       Watchdog       Green       The watchdog timer has expired.         6       PLC       -       Not applicable.         7       BUS       -       Not applicable.         9       System Reset       -       Turns the box PC on or off.         9       System Reset       -       Turns off the watchdog LED (Item 5).         10       Watchdog Reset       -       Turns off the watchdog LED (Item 5).         11       PLC Run / Stop /<br>Reset       -       No Color       No talalink is setablished.         12       No Color       No Color       No Latlink is setablished and there is data transfer.         13       Data Speed       No Color       10 Mbps         14       Thermal Alarm /<br>Low Battery       Yellow       100 Mbps   |   |          |                                | Flashing Green | The external 24V DC source is lost, and the box PC or thin client is powered by the UPS.  |
| 3       2       4       Thermal Alarm /<br>Low Battery       Red       A thermal sensor on the motherboard near the CPU has exceeded the thermal limit of<br>B5 °C (185 °F).         Top View       Flashing Red       The real-time clock (RTC) battery is lower than 2.5V. Replace before the battery goes lower and<br>risks loss of date and time.         5       Watchdog       Green       The watchdog is working.         7       BUS       -       Not applicable.         7       BUS       -       Torresa in iternal reset, as if power was lost temporarily and then returned.         9       System Reset       -       Forces an internal reset, as if power was lost temporarily and then returned.         10       Watchdog Reset       -       Turns off the watchdog LED (Item 5).         11       PLC Run / Stop /<br>Reset       -       Not implemented.         12       Datalink       Green       Datalink is present.         13       Data Speed       No Color       No Maps         13       Data Speed       No Color       10 Maps         14       Yellow       1000 Mbps (1 6bps)       Yellow  |   | 3        | Mass Storage                   | Yellow         | When lit, access to a mass storage device (SSD or CFast) is happening through a SATA channel.   |
| Image: Second  |   | 4        | Thermal Alarm /<br>Low Battery | Red            | A thermal sensor on the motherboard near the CPU has exceeded the thermal limit of 85 °C (185 °F).  |
| S       Watchdog       Green       The watchdog is working.         Top View       Red       The watchdog timer has expired.       6         6       PLC       -       Not applicable.         7       BUS       -       Turns the box PC on or off.         8       Power On Button       -       Turns the box PC on or off.         9       System Reset       -       Forces an internal reset, as if power was lost temporarily and then returned.         IMPORTANT: Use system reset only if there are no better options, like keyboard or mouse commands. System reset on ly if there are no better options, like keyboard or mouse commands. System reset can cause data loss and corruption to the OS.         10       Watchdog Reset       -       Turns off the watchdog LED (Item 5).         11       PLC Run / Stop / Reset       -       Not implemented.         12       No Color       No Datalink is present.         13       Data Speed       No Color       10 Mbps         13       Data Speed       No Color       10 Mbps         13       Data Speed       No Color       10 Mbps         14       Yellow       100 Mbps (1 Gbps)  |   |          |                                | 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.  |
| Top View       Red       The watchdog timer has expired.         6       PLC       -       Not applicable.         7       BUS       -       Turns the box PC on or off.         8       Power On Button       -       Turns the box PC on or off.         9       System Reset       -       IMPORTANT: Use system reset only if there are no better options, like keyboard or mouse commands. System reset can cause data loss and corruption to the OS.         10       Watchdog Reset       -       Turns off the watchdog LED (Item 5).         11       PLC Run / Stop / Reset       -       Not implemented.         12       Datalink       Green       Datalink is established.         13       Data Speed       No Color       10 Mbps         13       Data Speed       No Color       10 Mbps         14       Yellow       1000 Mbps (1 6bps)   |   | 5        | Watchdog                       | Green          | The watchdog is working.  |
| Top View       6       PLC       -       Not applicable.         7       BUS       -       Turns the box PC on or off.         10       9       System Reset       -       Forces an internal reset, as if power was lost temporarily and then returned.         10       Watchdog Reset       -       Turns off the watchdog LED (Item 5).         10       Watchdog Reset       -       Not applicable.         11       PLC Run / Stop /<br>Reset       -       Not implemented.         12       Datalink       Green       Datalink is present.         13       Data Speed       No Color       No Maps         13       Data Speed       No Color       10 Mbps         14       Green       100 Mbps         15       Data Speed       No Color       10 Mbps  |   |          |                                | Red            | The watchdog timer has expired.   |
| 7       BUS       -       Invo applicable.         8       Power On Button       -       Turns the box PC on or off.         9       System Reset       -       Forces an internal reset, as if power was lost temporarily and then returned.         IMPORTANT: Use system reset only if there are no better options, like keyboard or mouse commands. System reset can cause data loss and corruption to the OS.         10       Watchdog Reset       -         11       PLC Run / Stop / Reset       -         12       No Color       No blatlink is present.         12       Datalink       Green         13       Data Speed       No Color         13       Data Speed       No Color         10       Wport applicable.         13       Data Speed         14       Yellow         15       Yellow  |   | 6        | PLC                            |                | Not applicable  |
| 8       Power On Button       -       Turns the box PC on or off.         9       System Reset       -       Forces an internal reset, as if power was lost temporarily and then returned.         10       Watchdog Reset       -       Turns off the watchdog LED (Item 5).         10       Watchdog Reset       -       Turns off the watchdog LED (Item 5).         11       PLC Run / Stop /<br>Reset       -       No Color         12       Datalink       Green       Datalink is present.         13       Data Speed       No Color       10 Mbps         13       Data Speed       No Color       10 Mbps         14       Yellow       100 Mbps (1 Gbps)  |   | 7        | BUS                            | -              | Not applicable.   |
| 9       System Reset       -       Forces an internal reset, as if power was lost temporarily and then returned.         IMPORTANT: Use system reset only if there are no better options, like keyboard or mouse commands. System reset can cause data loss and corruption to the OS.         10       Watchdog Reset       -         11       PLC Run / Stop / Reset       -         12       No Color       No Datalink is present.         12       Datalink       Green         13       Data Speed       No Color         13       Data Speed       No Color         10       Mb Color       10 Mbps         13       Data Speed       No Color         14       Flashing Green       Datalink is established and there is data transfer.   |   | 8        | Power On Button                | -              | Turns the box PC on or off.   |
| 10       Watchdog Reset       —       Turns off the watchdog LED (Item 5).         11       PLC Run / Stop /<br>Reset       —       Not implemented.         12  |   | 9        | System Reset                   | _              | Forces an internal reset, as if power was lost temporarily and then returned.<br><b>IMPORTANT:</b> Use system reset only if there are no better options, like keyboard or mouse<br>commands. System reset can cause data loss and corruption to the OS. |
| Image: Solution of the second seco  |   | 10       | Watchdog Reset                 | _              | Turns off the watchdog LED (Item 5).  |
| No     No     Dolatilik is present.       Datalink     Green     Datalink is established.       13     Data     Speed     No     Color     10       Mbps     Green     100     Mbps       Yellow     Yellow     1000     Mbps  |   | 11       | PLC Run / Stop /<br>Reset      | _              | Not implemented.  |
| Datalink         Green         Datalink is established.           Flashing Green         Datalink is established and there is data transfer.           13         Data Speed         No Color         10 Mbps           Green         100 Mbps         100 Mbps           Yellow         Yellow         1000 Mbps(1 Gbps)  |   | 12       |                                | No Color       | No Datalink is present.   |
| Flashing Green     Datalink is established and there is data transfer.       13     Data Speed     No Color     10 Mbps       6     Green     100 Mbps       Yellow     1000 Mbps (1 Gbps)   |   |          | Datalink                       | Green          | Datalink is established.  |
| 13     Data Speed     No Color     10 Mbps       Green     100 Mbps       Yellow     1000 Mbps (1 Gbps)  |   |          |                                | Flashing Green | Datalink is established and there is data transfer.   |
| Green     100 Mbps       Yellow     1000 Mbps (1 Gbps)   |   | 13       | Data Speed                     | No Color       | 10 Mbps   |
| Yellow 1000 Mbps (1 Gbps)  |   |          |                                | Green          | 100 Mbps  |
|  |   |          |                                | Yellow         | 1000 Mbps (1 Gbps)  |

### **Additional Resources**

This publication provides basic installation instructions. For more information, see the following Rockwell Automation publications at https://rok.auto/literature.

| Resource  | Description   |
|---|---|
| 6300B Book Mount Box PCs and 6300T Book Mount Thin Clients User Manual, publication <u>6300B-UM001</u> .    | Provides details on how to install, configure, operate, and troubleshoot the 6300B book mount box PCs and 6300T book mount thin clients (Cat. Nos. 6300B-BMA, 6300B-BMB, and 6300T-BAx1). |
| 6300B Wall Mount Box PCs User Manual, publication 6300B-UM002.  | Provides details on how to install, configure, operate, and troubleshoot the 6300B wall mount PCs (Cat. Nos. 6300B-PBCx and 6300B-PBDx).  |
| 6300B Machine Mount Box PC, publication <u>6300B-UM003</u> .  | Provides details on how to install, configure, operate, and troubleshoot the 6300B machine mount box PCs (Cat. No. 6300B-MM).   |
| 6300 Industrial Computer and Monitor Specifications Technical Data, publication 6300-TD001.                 | Provides technical specifications for 6300 industrial computers and monitors.   |
| Wall-mount and DIN Rail Brackets for 6300B Box PCs and 6300T Thin Clients, publication <u>6300V-IN002</u> . | Provides installation instructions to secure 6300V-BWALLA wall-mount brackets or 6300V-BDINA DIN rail bracket to a 6300B box PC or 6300T thin client.                                     |
| FactoryTalk Edge Manager User Manual, publication <u>95055-UM007-EN-P</u> .                                 | Provides instructions on operating the FactoryTalk Edge Manager, applicable to applicable to these catalog numbers with EVE-OS installed:   |
|   | • 6300B-BMBDNE-3DBAE01FNNBNN-NN1S<br>• 6300B-BMBDNE-7EDAE01FNNDNN-NN1S<br>• 6300B-BMBDNE-7EDAE01FNNDNN-NN1S   |
| FactoryTalk Edge Manager Quick Start Guide, publication <u>95055-0S003-EN-P</u> .                           | Provides quick start instructions for FactoryTalk Edge Manager, applicable to these<br>catalog numbers with EVE-OS installed:   |
|   | 6300B-BMBDNE-3DBAE01FNNBNN-NNIS     6300B-BMBDNE-3DBAE01NNNBNN-NNIS     6300B-BMBDNE-7EDAE01FNNDNN-NNIS     6300B-BMBDNE-7EDAE01NNNDNN-NNIS   |
| Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1                                 | Provides general guidelines to install a Rockwell Automation industrial system.   |
| Product Certifications website, rok.auto/certifications.  | Provides declarations of conformity, certificates, and other certification details.   |

# 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.

Your comments help us serve your documentation needs better. If you have any suggestions on how to improve our content, complete the form at <u>rok.auto/docfeedback</u>. For technical support, visit <u>rok.auto/support</u>.

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