


Safety and Regulatory Statements



For more information on this product, visit www.Vertiv.com to download the user manual.

Cautions and Warnings


 **CAUTION:** A CAUTION indicates potential damage to hardware or possible loss of data and tells you how to avoid the problem.

 **WARNING:** A WARNING indicates a potential for property damage, personal injury, or death.

General Safety

WARNING: Observe the following instructions to help prevent potential for property damage, personal injury, or death:


- The power supply units (PSUs) in your system may produce high voltages and energy hazards. Opening or removing covers that are marked with the triangle symbol with a lightning bolt may expose you to a risk of electric shock. Components inside these compartments should be serviced only by a trained service technician.

 **WARNING:** Shock hazard, disconnect all power sources.

The system may have more than one PSU cable. To reduce the risk of electrical shock, a trained service technician may need to disconnect all PSU cables before servicing the system.

Where the system regulatory label has the electric current rating suffixed by (X#), # = maximum number of PSUs per system.

- Do not operate your equipment with any cover(s) removed.
- The internal components, including memory modules, can become extremely hot during operation. Allow sufficient time to cool before handling.
- Do not use damaged equipment, including exposed, frayed, or damaged power cables.
- When connecting or disconnecting power to hot-pluggable PSUs:
 - Install the PSU before connecting the power cable to the PSU.
 - Unplug the power cable before removing the PSU.
 - Disconnect all sources of power from the system by unplugging all power cables from the PSUs.

 **CAUTION:** Moving fan blade. Keep body parts away from the moving fan blade.

- Do not use the equipment where it can get wet. Protect equipment from liquid intrusion. If your equipment gets wet, disconnect power to the equipment and to any attached devices. If the computer is connected to an electrical outlet, turn off the AC power at the circuit breaker before attempting to remove the power cables from the electrical outlet. Disconnect any attached devices.
- Do not push any objects into the air vents or openings of the equipment. Doing so can cause fire or electric shock.
- Do not attempt to service the equipment yourself, except as explained in your documentation or in instructions otherwise provided to you by the manufacturer. Always follow installation and service instructions closely.
- If your hardware has a voltage selection switch on the PSU, be sure to set it for the voltage that most closely matches the AC power available at your location.
- Operate the equipment only from the type of external power source indicated on the electrical ratings label. To avoid possible damage to the system board, wait 30 seconds after turning off the equipment before removing a component from the system board or disconnecting a peripheral device from the equipment.
- For non-rack-mounted servers, leave 10.2 cm (4 in) minimum of clearance on all vented sides of the equipment to permit the airflow required for proper ventilation. Restricting airflow can damage the equipment or cause overheating.

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- Do not stack equipment or place equipment so close together that it is subject to re-circulated or preheated air, such as next to an appliance or exhaust vent.
- Ensure that nothing rests on your equipment's cables.
- Move equipment with care; ensure that all casters and/or stabilizers are firmly connected to the system. Avoid sudden stops and uneven surfaces.
- Review the weight limits referenced in your equipment documentation before placing a monitor or other device on top of your equipment.
- Use only approved power cable(s) rated for the equipment. The voltage and current rating of the cable should be greater than the ratings marked on the equipment.
- Plug the equipment power cables into properly grounded electrical outlets. Do not use adapter plugs or remove the grounding prong from a cable. If you must use an extension cable, use a 3-wire cable with properly grounded plugs.
- Observe extension cable and power strip ratings. Ensure that the total ampere rating of all equipment plugged into the extension cable or power strip does not exceed 80 percent of the ampere ratings limit for the extension cable or power strip.
- To help protect the equipment from fluctuations in electrical power, use a surge suppressor, line conditioner, or uninterruptible power supply (UPS).



BATTERY WARNING: *Incorrectly installing a battery or using an incompatible battery may increase the risk of fire or explosion. Replace the battery only with the same or equivalent type.*

- Do not disassemble, crush, or puncture batteries.
- Do not store or place your battery pack next to or in a heat source such as a fire, heat-generating appliance, car or exhaust vent. Heating battery cells to temperatures above 65 °C (149 °F) can cause explosion or fire.
- Do not attempt to open or service batteries. Do not dispose of batteries in a fire or with household waste. See Battery Disposal instructions.



CAUTION: *Hot surface. Do not touch internal parts until cool.*

Additional Instructions for Rack-mounted Systems

CAUTION: *If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (T_{ma}) specified by the manufacturer. For more information, see your product documentation.*

- Your rack kit has been approved only for the rack cabinet provided. It is your responsibility to ensure that installation of the equipment into any other rack complies with all applicable standards. The manufacturer disclaims all liability and warranties with respect to combinations of equipment with any other rack.
- Before installing your equipment in a rack, install all front and side stabilizers. Failure to install stabilizers can allow the rack to tip over.
- Always load from the bottom up, and load the heaviest items first.
- Do not overload the AC power supply branch circuit that provides power to the rack.
- Do not stand or step on any components in the rack.
- Stability hazard, the rack may tip over causing serious personal injury.
- Before extending the rack to the installation position, read the installation instructions.
- Do not put any load on the slide-rail mounted equipment in the installation position.
- Do not leave this slide-rail mounted equipment in the installation position.

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WARNING: Slide/rail-mounted equipment is not to be used as a shelf or work space.

Do not add weight to slide/rail-mounted equipment.

- Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips).

The following statement applies only to rack-installed products that are GS-Marked:

This equipment is not intended for use at workplaces with visual display units, in accordance with §2 of the German ordinance for workplaces with visual display units.



WARNING: For equipment using $-(48-60)$ V DC power supplies, a qualified electrician must perform all connections to DC power and to safety grounds. Do not attempt connecting to DC power or installing grounds yourself. All electrical wiring must comply with applicable local or national codes and practices.



CAUTION: Systems using $-(48-60)$ V DC power supplies may have a connection between the earthed conductor of the DC power supply circuit and the earthing conductor.

The system using a DC power supply must be connected directly to the system-earthing electrode conductor, to a bonding jumper from an earthing terminal bar, or the bus to which the system earthing electrode conductor is connected.

The system using a DC power supply must be located in the same immediate area (such as adjacent cabinets) as any other equipment that has a connection between the earthed conductor of the same DC power supply circuit and the earthing conductor, and also the point of earthing of the DC-powered system.

The DC power supply must be located within the same premises as the equipment.

Switching or disconnecting devices must not be in the earthed circuit conductor between the source of the DC power supply and the point of the connection of the earthing electrode conductor.

Instructions for the Qualified Electricians Only

Systems using $-(48-60)$ V DC Power Supplies are intended for restricted access locations in accordance with Articles 110-5, 110-6, 110-11, 110-14, and 110-17 of the National Electrical Code, American National Standards Institute (ANSI)/ National Fire Protection Association (NFPA) 70.

240 V DC Power Supplies shall be connected to the 240 V DC outlet from certified Power Distribution Units if applicable in country of use.

Power supply cords/Jumper Cords and the associated plugs/ inlets/ connectors shall have appropriate electrical ratings referencing the rating label on the system when used for connection.

Before connecting safety ground or power cables, ensure that the power is removed from the DC circuit. To ensure that the power is off, locate the circuit breaker on the DC source circuit (usually at the power distribution of the battery distribution fuse bay). Switch the circuit breaker to the off position and, if available, install an approved safety locking device on the circuit breaker or switch.

While grounding techniques may vary, a positive connection to a safety (earth) ground is a requirement.

When installing the unit, the ground connection must always be made first and disconnected last to prevent a hazard.

Never defeat the ground conductor or operate the equipment in the absence of a suitably installed ground conductor. Contact the appropriate electrical inspection authority or an electrician if you are uncertain that suitable grounding is available.

The system chassis must be securely grounded to the rack cabinet frame. Do not attempt to connect power to the system until grounding cables are connected.

When stranded wiring is required, use approved wiring termination, such as closed-loop or spade-type with upturned lugs. These terminations should be the appropriate size for the wires and must be double crimped, one on the conductor and one on the insulation. For additional information, see the cabling instructions provided with your system.

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Ergonomic Instructions



WARNING: *Improper or prolonged keyboard use may result in injury.*

WARNING: *Viewing a display or external monitor screen for extended periods of time may result in eye strain.*

Environmental Considerations



ENERGY STAR for Servers

ENERGY STAR® Compliance

The Environmental Protection Agency's (EPA) ENERGY STAR program is a joint effort between the EPA and manufacturers to reduce air pollution by promoting energy-efficient products.

ENERGY STAR Label

Any product bearing the ENERGY STAR emblem electronically or physically on the product is certified to comply with the EPA ENERGY STAR requirements as configured when shipped by the manufacturer.

For more information about power management, see www.energystar.gov/powermanagement.

For more information about the ENERGY STAR program, see www.energystar.gov.

Battery Disposal

Do not dispose of the battery along with household waste. Contact your local waste disposal agency for the address of the nearest battery deposit site.



Battery Directive

In the European Union, this label indicates that the batteries in this product should be collected separately and not disposed of with household waste. Substances in batteries can have a potential negative impact on health and environment and you have a role in recycling waste batteries, thus contributing to the protection, preservation, and improvement of the quality of the environment. You should contact your local authority or retailer for details of the collection and recycling schemes available.



Waste Electrical And Electronic Equipment (WEEE) Directive

In the European Union, this label indicates that this product should not be disposed of with household waste. It should be deposited at an appropriate facility to enable recovery and recycling.

Perchlorate Material

The product's coin cell battery may contain perchlorate and may require special handling when recycled or disposed. See www.dtsc.ca.gov/hazardouswaste/perchlorate.

EMI Statements

Products which are certified for EMC in the regions or countries indicated will have the required marking or statement on the product label. The applicable statement for that country is listed below.

European Union

WARNING: *This is a class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.*

USA

WARNING: *Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.*

NOTE: *This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio*

Safety and Regulatory Statements



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communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his/her own expense.

Canada

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

CAN ICES -3(A)/ NMB -3(A)

Japan

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラスA 情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

Korea

| 기종별 | 사용자 안내문 |
|-----------------------|---|
| A급 기기 (업무용 정보통신기기) | 이 기기는 업무용으로 전자파적합등록을 한 기기이오니 판매자 또는 사용자는 이 점을 주의하시기 바라며 만약 잘못 구매 하였을 때에는 가점으로 교환하시기 바랍니다. |

Taiwan

警告使用者：
此為甲類資訊技術設備，於居住環境中使用時，可能造成射頻擾動，在此種情況下，使用者會被要求採取某些適當的對策。

Please visit <http://www.Vertiv.com/ComplianceRegulatoryInfo> for important safety information.

Wichtige sicherheitsrelevante Informationen erhalten Sie unter <http://www.Vertiv.com/ComplianceRegulatoryInfo>.

Veillez consulter le site <http://www.Vertiv.com/ComplianceRegulatoryInfo> qui contient des informations importantes concernant la sécurité.

Visitare la pagina <http://www.Vertiv.com/ComplianceRegulatoryInfo> per importanti informazioni sulla sicurezza.

安全に関する重要な情報については、Webサイト (<http://www.Vertiv.com>) のComplianceRegulatoryInfo でご確認ください。

请访问 <http://www.Vertiv.com/ComplianceRegulatoryInfo> 了解重要的安全信息。

중요한 안전 관련 정보는 <http://www.Vertiv.com/ComplianceRegulatoryInfo> 를 방문하십시오.

如需重要安全資訊，請造訪：<http://www.Vertiv.com/ComplianceRegulatoryInfo>。

Посетите страницу <http://www.Vertiv.com/ComplianceRegulatoryInfo> для получения важной информации о безопасности.

Visite <http://www.Vertiv.com/ComplianceRegulatoryInfo> para obtener información de seguridad importante.

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Besøk <http://www.Vertiv.com/ComplianceRegulatoryInfo> for viktig sikkerhetsinformasjon.

Rendez-vous sur <http://www.Vertiv.com/ComplianceRegulatoryInfo> pour obtenir des informations importantes sur la sécurité.

Safety and Regulatory Statements

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