Dell EMC PowerEdge T340

Technical Specifications

Regulatory Model: E60S Series
Regulatory Type: E60S001

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Rev. A04

Notes, cautions, and warnings

NOTE: A NOTE indicates important information that helps you make better use of your product.

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

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

Contents

1

Dell EMC PowerEdge T340 system overview

The Dell EMC PowerEdge T340 system is a tower server that supports:

- One Intel Xeon, Core i3, Pentium, or Celeron processor
- Four DIMM slots
- Redundant and cabled AC power supply units
- Up to eight 3.5-inch or four 3.5-inch SAS, SATA drives, or SSDs.

For more information, see the Technical specifications section.

NOTE: All instances of SAS, SATA drives, and SSDs are referred to as drives in this document, unless specified otherwise.

Topics:

Front view of the system

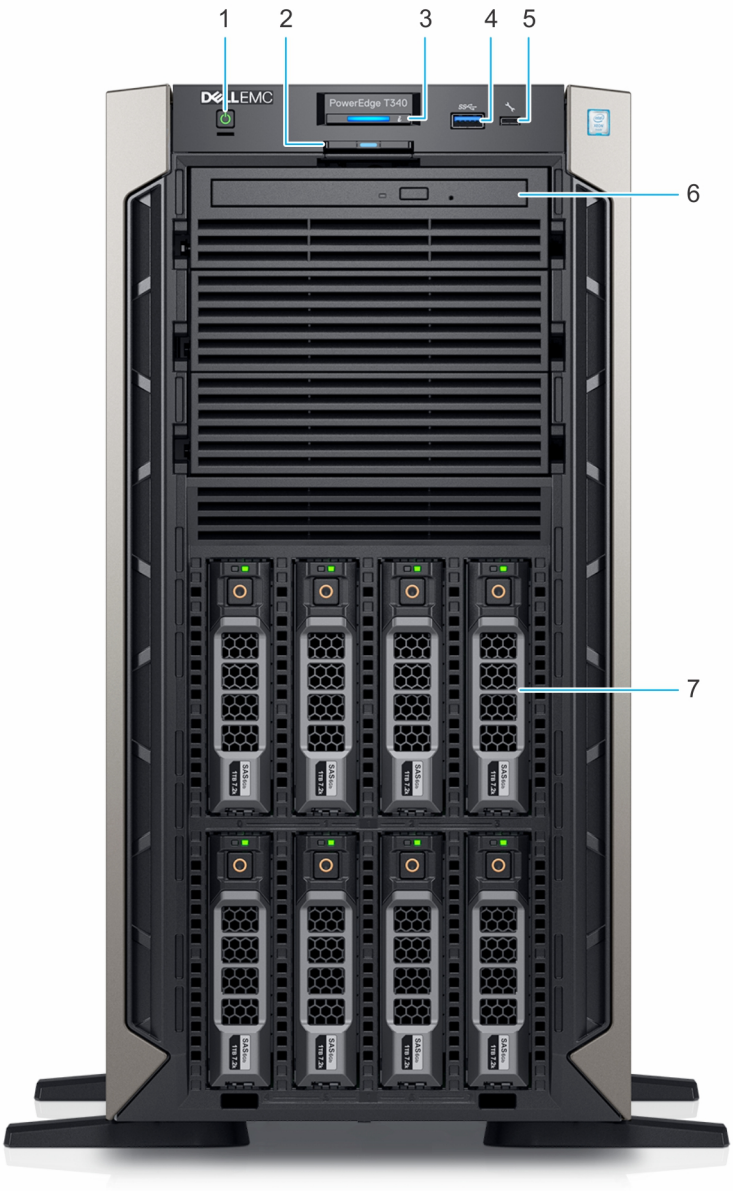

Figure 1. Front view of 8 x 3.5-inch drive system

1. Power button
2. Information tag
3. System health and system ID indicator
4. USB 3.0 port
5. iDRAC direct micro USB port
6. Optical drive (optional)
7. Drive (8)

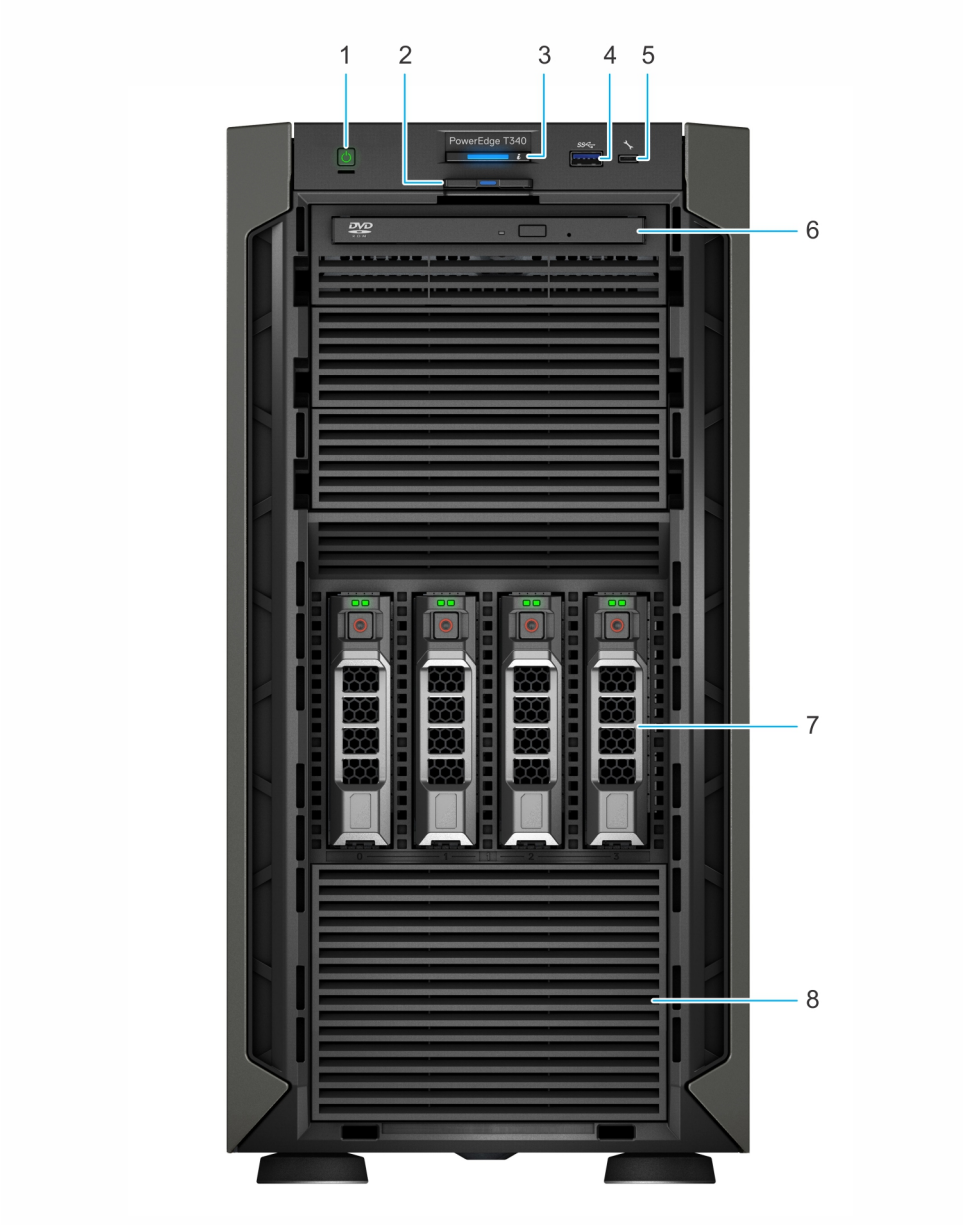

Figure 2. Front view of 4 x 3.5-inch drive system

1. Power button
2. Information tag
3. System health and system ID indicator
4. USB 3.0 port
5. iDRAC direct micro USB port
6. Optical drive (optional)
7. Drive (4)
8. Four-slot drive blank

For more information about the ports, see the Ports and connectors specifications section.

Rear view of the system

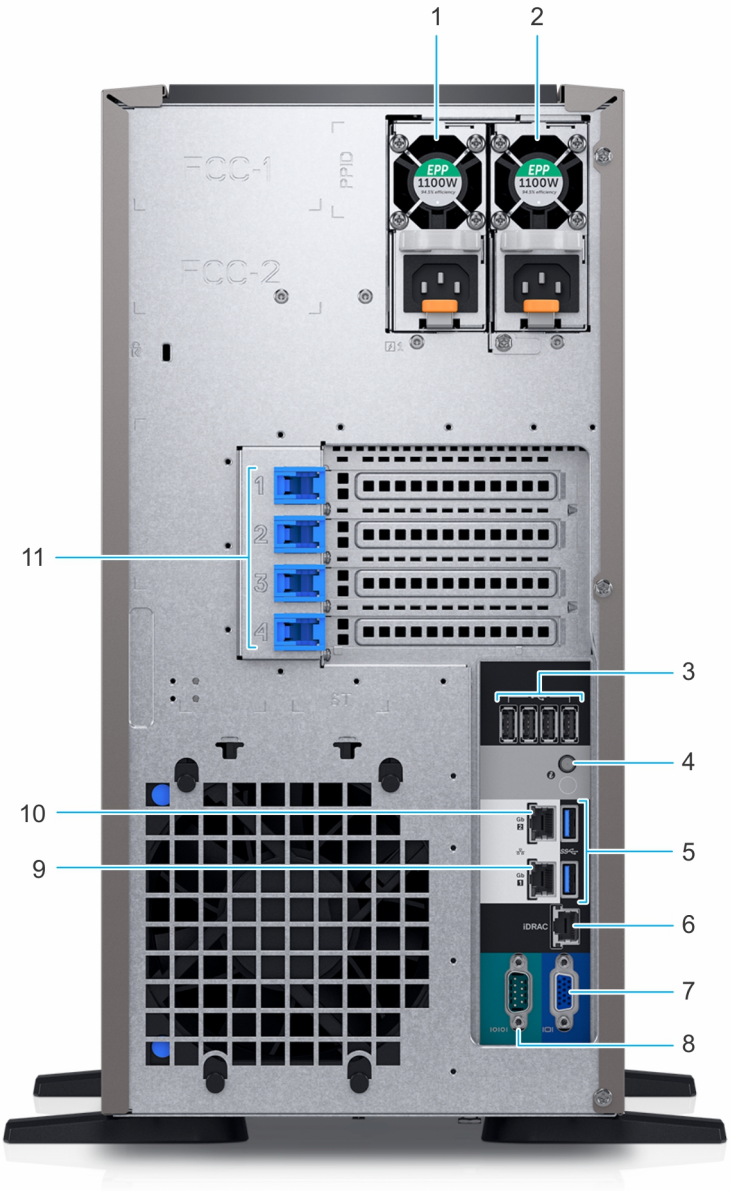

Figure 3. Rear view of 8 x 3.5-inch drive system

1. Power supply unit (PSU 1)
2. Power supply unit (PSU 2)
3. USB 2.0 port (4)
4. System Identification button
5. USB 3.0 port (2)
6. iDRAC dedicated NIC port
7. VGA port
8. Serial port
9. NIC port (Gb1)
10. NIC port (Gb2)
11. PCIe expansion card slots (4)

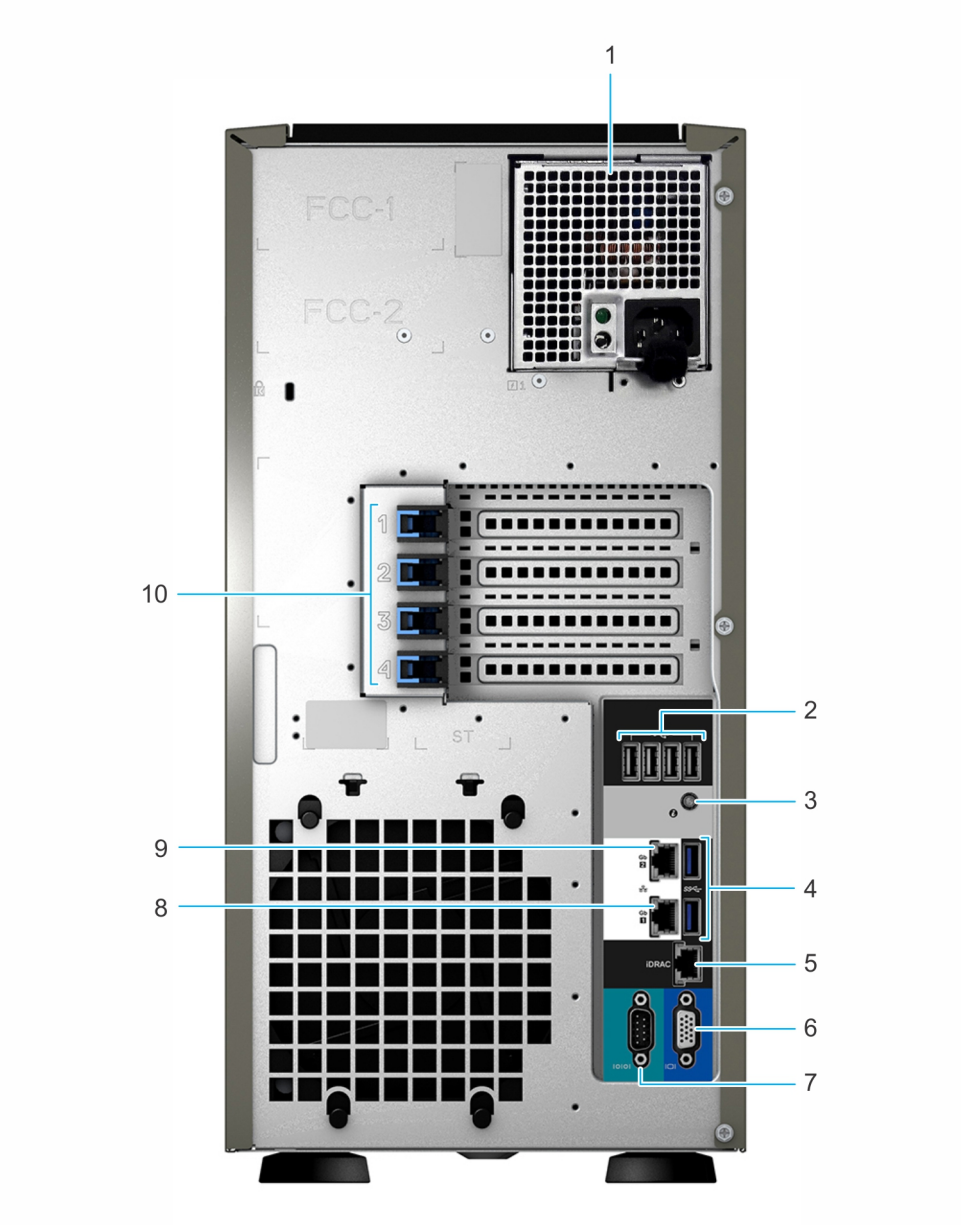

Figure 4. Rear view of 4 x 3.5-inch drive system

1. Cabled power supply unit (PSU)
2. USB 2.0 port (4)
3. System identification button
4. USB 3.0 port (2)
5. iDRAC dedicated NIC port
6. VGA port
7. Serial port
8. NIC port (Gb1)
9. NIC port (Gb2)
10. PCIe expansion card slots (4)

NOTE: For more information about the ports and connectors, see the Ports and connectors specifications section.

2

Technical specifications

The technical and environmental specifications of your system are outlined in this section.

Topics:

Chassis dimensions

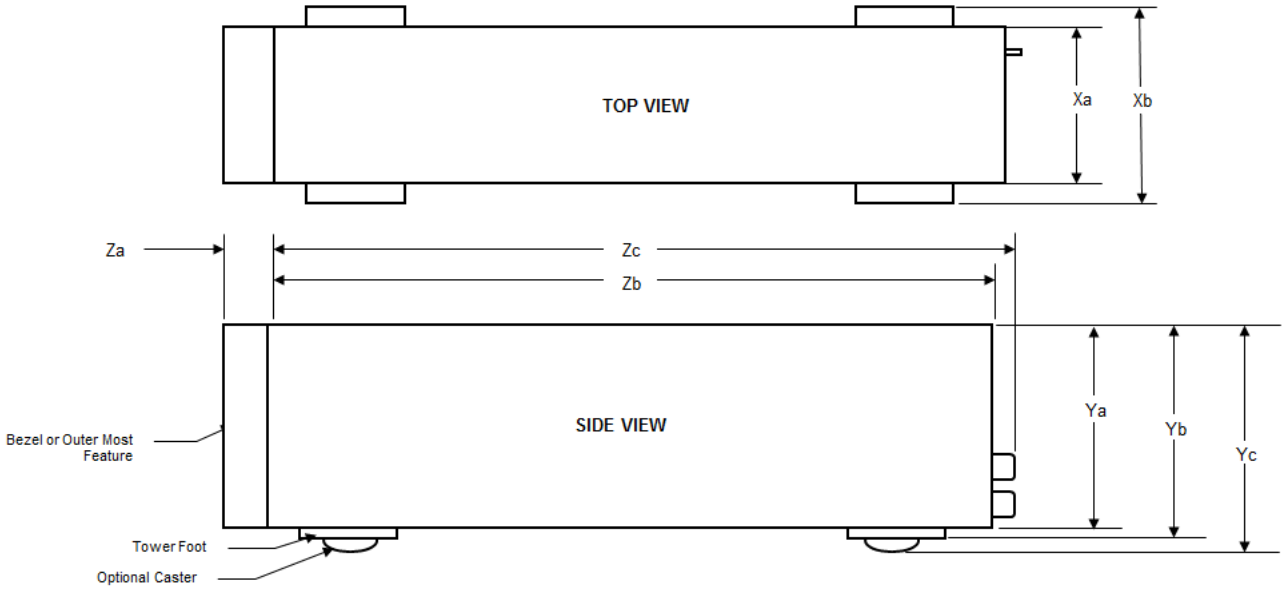

Figure 5. Chassis dimensions

Table 1. Dell EMC PowerEdge T340 chassis dimensions

Xa	Xb	Ya	Yb	Yc	Za	Zb	Zc
218 mm (8.58 inches)	307.9 mm (12.12 inches)	430.3 mm (16.94 inches)	443.3 mm (17.45 inches)	471.3 mm (18.56 inches)	With bezel: 14.1 mm (0.56 inches)	545.4 mm (21.47 inches)	589.1 mm (23.19 inches)

System weight

Table 2. Dell EMC PowerEdge T340 system chassis weight

System configuration	Maximum weight (with all drives/SSDs)
8 x 3.5-inch drives	26 Kg (57.32 lb)

Processor specifications

Table 3. Dell EMC PowerEdge T340 processor specifications

Supported processor	Number of processors supported
Intel Xeon processor E-2200 product family Intel Core i3 9100 processor Intel Pentium G5420 processor Intel Celeron G4930 processor Intel Xeon processor E-2100 product family Intel Core i3 8100 processor Intel Pentium G5500 processor Intel Celeron G4900 processor	One

PSU specifications

The Dell EMC PowerEdge T340 system supports up to two AC power supply units (PSUs).

Table 4. Dell EMC PowerEdge T340 PSU specifications

PSU	Class	Heat dissipation (maximum)	Frequency	Voltage	AC		DC	Current
					High line (100–240 V)	Low line (100–120 V)		
495 W AC	Platinum	1908 BTU/hr	50/60 Hz	100–240 V AC, autoranging	495 W	NA	N/A	6.5 A–3 A
350 W AC	Bronze	1455 BTU/hr	50/60 Hz	100–240 V AC, autoranging	350 W	NA	N/A	5.5 A–3 A

Cooling fan specifications

The Dell EMC PowerEdge T340 system supports one system cooling fan.

NOTE: When selecting or upgrading the system configuration, to ensure optimum power utilization, verify the system power consumption with the Dell Energy Smart Solution Advisor available at Dell.com/ESSA.

System battery specifications

The Dell EMC PowerEdge T340 system supports CR 2032 3.0-V lithium coin cell system battery.

Expansion card specifications

The Dell EMC PowerEdge T340 system supports up to four PCI express (PCIe) Generation 3.

Table 5. Expansion card slots supported on the system board

PCIe slot	Processor Connection	PCIe slot height	PCIe slot length	Slot width
Slot 1 (Gen3)	Processor	Full Height	Half Length	x8 link in x8 slot
Slot 2 (Gen3)	Processor	Full Height	Half Length	x8 link in x16 slot
Slot 3 (Gen3)	Platform Controller Hub	Full Height	Half Length	x1
Slot 4 (Gen3)	Platform Controller Hub	Full Height	Half Length	x4 link in x8 slot

NOTE: The expansion cards are not hot swappable.

Memory specifications

The Dell EMC PowerEdge T340 system supports the following memory specifications for optimized operation:

Table 6. Memory specifications

DIMM type	DIMM rank	DIMM capacity	Minimum RAM	Maximum RAM
UDIMM	Single rank	8 GB	8 GB	32 GB
		16 GB	16 GB	64 GB
	Dual rank	8 GB	8 GB	32 GB
		16 GB	16 GB	64 GB

Table 6. Memory specifications

Memory module sockets	Speed
Four 288-pin	2666 MT/s 2400 MT/s 2133 MT/s

Storage controller specifications

The Dell EMC PowerEdge T340 system supports the following controller cards:

Table 7. Dell EMC PowerEdge T340 system controller cards

Internal controllers	External controllers
• PERC H730P • PERC H330 • S140 • HBA330	• 12Gbps SAS Ext. HBA

Drive specifications

Drives

The Dell EMC PowerEdge T340 system supports:

- 4 x 3.5-inch SAS, SATA drives, 2.5-inch hotplug drives
- 8 x 3.5-inch SAS, SATA drives, 2.5-inch hotplug drives

NOTE: 2.5-inch drives in 3.5-inch carriers are supported for SAS, and SATA SSD drives.

Optical drives

The Dell EMC PowerEdge T340 system supports the following optical drives.

Table 8. Supported optical drive type

Supported drive type	Supported number of drives
Dedicated SATA DVD-ROM drive or DVD +/-RW drive	One

Tape drives

The Dell EMC PowerEdge T340 system supports up to two dedicated 5.25-inch tape drives.

Ports and connectors specifications

USB ports specifications

Table 9. Dell EMC PowerEdge T340 system USB port specifications

Front panel	Back panel	Internal USB
• One USB 3.0-compliant port • One iDRAC USB MGMT port (USB 2.0) **NOTE: The micro USB 2.0 compliant port can only be used as an iDRAC Direct or a management port.**	• Two USB 3.0-compliant ports • Four USB 2.0-compliant ports	• One internal USB 3.0-compliant port

NIC ports specifications

The Dell EMC PowerEdge T340 system supports up to two 10/100/1000 Mbps Network Interface Controller (NIC) ports that are located on the back panel.

Serial connector specifications

The Dell EMC PowerEdge T340 system supports one serial connector on the back panel, which is a 9-pin connector, Data Terminal Equipment (DTE), 16550-compliant.

VGA ports specification

The Dell EMC PowerEdge T340 system supports one 15-pin VGA port, on the back of the system.

IDSDM module

The Dell EMC PowerEdge T340 system supports optional Internal Dual SD module (IDSDM) module.

The module supports three microSD cards; two cards for IDSDM and one card for vFlash. In 14th generation of PowerEdge servers, the IDSDM or vFlash module is combined into a single card module, and is available in the following configurations:

- vFlash or
- vFlash and IDSDM

Table 10. Supported microSD card storage capacity

IDSDM card	vFlash card
• 16 GB • 32 GB • 64 GB	• 16 GB

NOTE: There are two dip switches on the IDSDM or vFlash module for write-protection.

NOTE: One IDSDM card slot is dedicated for redundancy.

NOTE: Use Dell EMC branded microSD cards that are associated with the IDSDM or vFlash configured systems.

Video specifications

The Dell EMC PowerEdge T340 system supports Matrox G200eR2 graphics card with 16 MB capacity.

Table 11. Supported video resolution options

Resolution	Refresh rate	Color depth (bits)
640x480	60, 70	8, 16, 24
800x600	60, 75, 85	8, 16, 24
1024x768	60, 75, 85	8, 16, 24
1152x864	60, 75, 85	8, 16, 24
1280x1024	60, 75	8, 16, 24

Environmental specifications

NOTE: For additional information about environmental certifications, refer to the *Product Environmental Datasheet* located with the Manuals & Documents on www.dell.com/support/home.

Table 12. Temperature specifications

Temperature	Specifications
Storage	-40–65°C (-40–149°F)
Continuous operation (for altitude less than 950 m or 3117 ft)	10–35°C (50–95°F) with no direct sunlight on the equipment
Fresh air	For information about fresh air, see the Expanded operating temperature section.
Maximum temperature gradient (operating and storage)	20°C/h (68°F/h)

Table 13. Relative humidity specifications

Relative humidity	Specifications
Storage	5% to 95% RH with 33°C (91°F) maximum dew point. Atmosphere must be noncondensing at all times.
Operating	10% to 80% RH with 29°C (84.2°F) maximum dew point.

Table 14. Maximum vibration specifications

Maximum vibration	Specifications
Operating	0.26 G_{rms} at 5 Hz to 350 Hz (all operation orientations)
Storage	1.88 G_{rms} at 10 Hz to 500 Hz for 15 minutes (all six sides tested)

Table 15. Maximum shock pulse specifications

Maximum shock pulse	Specifications
Operating	Six consecutively executed shock pulses in the positive and negative x, y, and z axis of 6 G for up to 11 ms.
Storage	Six consecutively executed shock pulses in the positive and negative x, y, and z axis (one pulse on each side of the system) of 71 G for up to 2 ms.

Table 16. Maximum altitude specifications

Maximum altitude	Specifications
Operating	3048 m (10,000 ft)
Storage	12,000 m (39,370 ft)

Table 17. Operating temperature derating specifications

Operating temperature derating	Specifications
Up to 35°C (95°F)	Maximum temperature is reduced by 1°C/300 m (1°F/547 ft), above 950 m (3,117 ft).
35–40°C (95–104°F)	Maximum temperature is reduced by 1°C/175 m (1°F/319 ft), above 950 m (3,117 ft).
40–45°C (104–113°F)	Maximum temperature is reduced by 1°C/125 m (1°F/228 ft), above 950 m (3,117 ft).

Standard operating temperature

Table 18. Standard operating temperature specifications

Standard operating temperature	Specifications
Continuous operation (for altitude less than 950 m or 3117 ft)	10–35°C (50–95°F) with no direct sunlight on the equipment.

Expanded operating temperature

Table 19. Expanded operating temperature specifications

Expanded operating temperature	Specifications
Continuous operation	5°C–40°C at 5% to 85% RH with 29°C dew point.

Table 19. Expanded operating temperature specifications(continued)

Expanded operating temperature	Specifications
	NOTE: Outside the standard operating temperature (10°C–35°C), the system can operate continuously in temperatures as low as 5°C and as high as 40°C. For temperatures 35°C– 40°C, derate maximum allowable temperature by 1°C per 175 m (1°F per 319 ft) above 950 m (3,1171 ft).
≤ 1% of annual operating hours	-5°C–45°C at 5% to 90% RH with 29°C dew point. **NOTE: Outside the standard operating temperature (10°C–35°C), the system can operate down to -5°C or up to 45°C for a maximum of 1% of its annual operating hours.** For temperatures 40°C– 45°C, derate maximum allowable temperature by 1°C per 125 m (1°F per 228 ft) above 950 m (3.117 ft).

NOTE: When operating in the expanded temperature range, the performance of the system may be impacted.

NOTE: When operating in the expanded temperature range, ambient temperature warnings may be reported on the System Event Log.

Expanded operating temperature restrictions

- Do not perform a cold startup of the system below 5°C.
- The operating temperature specified is for a maximum altitude of 950 m for Fresh Air cooling.
- Two redundant power supply units are required.
- Cooling redundancy is not supported due to single fan only in system.
- Support up to 80 W processor.
- One system fan is required.
- Non-Dell qualified peripheral cards and/or peripheral cards greater than 25 W are not supported.
- GPU is not supported.
- Tape backup unit is supported.

Particulate and gaseous contamination specifications

The following table defines the limitations that help avoid any damages to the IT equipment and/or, or both failure from particulate and gaseous contamination. If the levels of particulate or gaseous pollution exceed the specified limitations and results in equipment damage or failure, you must rectify the environmental conditions. Remediation of environmental conditions is the responsibility of the customer.

Table 20. Particulate contamination specifications

Particulate contamination	Specifications
Air filtration	Data center air filtration as defined by ISO Class 8 per ISO 14644-1 with a 95% upper confidence limit. **NOTE: This condition applies to data center environments only. Air filtration requirements do not apply to IT equipment designed to be used outside a data center, in environments such as an office or factory floor.** **NOTE: Air entering the data center must have MERV11 or MERV13 filtration.**

Table 20. Particulate contamination specifications (continued)

Particulate contamination	Specifications
Conductive dust	Air must be free of conductive dust, zinc whiskers, or other conductive particles. **NOTE: This condition applies to data center and non-data center environments.**
Corrosive dust	• Air must be free of corrosive dust. • Residual dust present in the air must have a deliquescent point less than 60% relative humidity. **NOTE: This condition applies to data center and non-data center environments.**

Table 21. Gaseous contamination specifications

Gaseous contamination	Specifications
Copper Coupon Corrosion	<300 Å/month per Class G1 as defined by ANSI/ISA71.04-1985.
Silver Coupon Corrosion	<200 Å/month as defined by AHSRAE TC9.9.

NOTE: Maximum corrosive contaminant levels measured at ≤50% relative humidity.

3

System diagnostics and indicator codes

The diagnostic indicators on the system front panel display system status during system startup.

Topics:

System health and system ID indicator codes

The system health and system ID indicator is located on the front panel of your system.

Figure 6. System health and system ID indicator

Table 22. System health and system ID indicator codes

System health and system ID indicator code	Condition
Solid blue	Indicates that the system is turned on, system is healthy, and system ID mode is not active. Press the system health and system ID button to switch to system ID mode.
Blinking blue	Indicates that the system ID mode is active. Press the system health and system ID button to switch to system health mode.
Solid amber	Indicates that the system is in fail-safe mode. If the problem persists, see the Getting help section.
Blinking amber	Indicates that the system is experiencing a fault. Check the System Event Log for specific error messages. For information about the event and error messages generated by the system firmware and agents that monitor system components, see the Error Code Lookup page at qrl.dell.com

iDRAC Direct LED indicator codes

The iDRAC Direct LED indicator lights up to indicate that the port is connected and is being used as a part of the iDRAC subsystem.

You can configure iDRAC Direct by using a USB to micro USB (type AB) cable, which you can connect to your laptop or tablet. The following table describes iDRAC Direct activity when the iDRAC Direct port is active:

Table 23. iDRAC Direct LED indicator codes

iDRAC Direct LED indicator code	Condition
Solid green for two seconds	Indicates that the laptop or tablet is connected.
Flashing green (on for two seconds and off for two seconds)	Indicates that the laptop or tablet connected is recognized.
Powers off	Indicates that the laptop or tablet is unplugged.

NIC indicator codes

Each NIC on the back of the system has indicators that provide information about the activity and link status. The activity LED indicator indicates if data is flowing through the NIC, and the link LED indicator indicates the speed of the connected network.

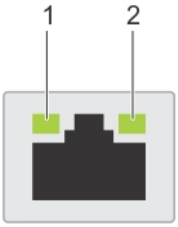

Figure 7. NIC indicator codes

1. Link LED indicator
2. Activity LED indicator

Table 24. NIC indicator codes

Status	Condition
Link and activity indicators are off.	The NIC is not connected to the network.
Link indicator is green, and activity indicator is blinking green.	The NIC is connected to a valid network at its maximum port speed, and data is being sent or received.
Link indicator is amber, and activity indicator is blinking green.	The NIC is connected to a valid network at less than its maximum port speed, and data is being sent or received.
Link indicator is green, and activity indicator is off.	The NIC is connected to a valid network at its maximum port speed, and data is not being sent or received.
Link indicator is amber, and activity indicator is off.	The NIC is connected to a valid network at less than its maximum port speed, and data is not being sent or received.
Link indicator is blinking green, and activity is off.	NIC identify is enabled through the NIC configuration utility.

Non-redundant cabled power supply unit indicator codes

Press the self-diagnostic button to perform a quick health check on the non-redundant cabled power supply unit (PSU) of the system.

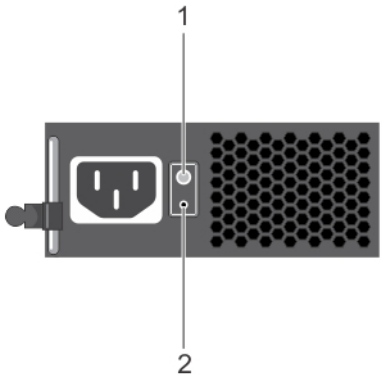

Figure 8. Non-redundant cabled AC PSU status indicator and self-diagnostic button

1. Self-diagnostic button
2. AC PSU status indicator

Table 25. Non-redundant AC PSU status indicator

Power Indicator Pattern	Condition
Not lit	Power is not connected or PSU is faulty.
Green	A valid power source is connected to the PSU and the PSU is operational.

Power supply unit indicator codes

AC power supply units (PSUs) have an illuminated translucent handle that serves as an indicator. The indicator shows whether power is present or if a power fault has occurred.

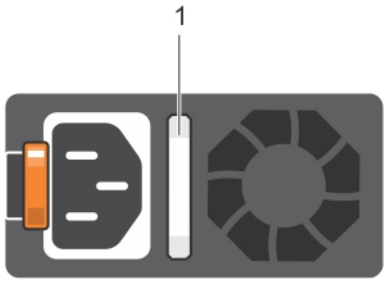

Figure 9. AC PSU status indicator

1. AC PSU status indicator/handle

Table 26. AC PSU status indicator codes

Power indicator codes	Condition
Green	A valid power source is connected to the PSU and the PSU is operational.
Blinking amber	Indicates a problem with the PSU.
Not illuminated	Power is not connected to the PSU.
Blinking green	When the firmware of the PSU is being updated, the PSU handle blinks green. **CAUTION: Do not disconnect the power cord or unplug the PSU when updating firmware. If firmware update is interrupted, the PSUs do not function.**
Blinking green and turns off	When hot-plugging a PSU, the PSU handle blinks green five times at a rate of 4 Hz and turns off. This indicates a PSU mismatch with respect to efficiency, feature set, health status, or supported voltage. **CAUTION: If two PSUs are installed, both the PSUs must have the same type of label; for example, Extended Power Performance (EPP) label. Mixing PSUs from previous generations of PowerEdge servers is not supported, even if the PSUs have the same power rating. This results in a PSU mismatch condition or failure to power on the system.** **CAUTION: When correcting a PSU mismatch, replace only the PSU with the blinking indicator. Swapping the PSU to make a matched pair can result in an error condition and unexpected system shutdown. To change from a high output configuration to a low output configuration or vice versa, you must power off the system.** **CAUTION: AC PSUs support both 240 V and 120 V input voltages with the exception of Titanium PSUs, which support only 240 V. When two identical PSUs receive different input voltages, they can output different wattages, and trigger a mismatch.** **CAUTION: If two PSUs are used, they must be of the same type and have the same maximum output power.**

Drive indicator codes

The LEDs on the drive carrier indicates the state of each drive. Each drive carrier in your system has two LEDs: an activity LED (green) and a status LED (bicolor, green/amber). The activity LED flashes whenever the drive is accessed.

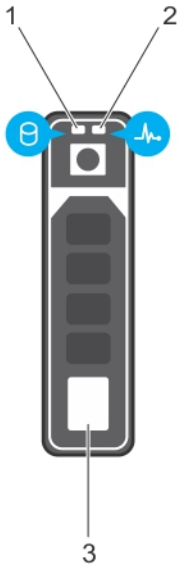

Figure 10. Drive indicators on the drive and the mid drive tray backplane

1. Drive activity LED indicator
2. Drive status LED indicator
3. Drive Capacity Label

NOTE: If the drive is in the Advanced Host Controller Interface (AHCI) mode, the status LED indicator does not turn on.

Table 27. Drive indicator codes

Drive status indicator code	Condition
Flashes green twice per second	Identifying drive or preparing for removal.
Off	Drive ready for removal. **NOTE: The drive status indicator remains off until all drives are initialized after the system is turned on. Drives are not ready for removal during this time.**
Flashes green, amber, and then turns off	Predicted drive failure.
Flashes amber four times per second	Drive failed.
Flashes green slowly	Drive rebuilding.
Solid green	Drive online.
Flashes green for three seconds, amber for three seconds, and then turns off after six seconds	Rebuild stopped.

4

Getting help

Topics:

Recycling or End-of-Life service information

Take back and recycling services are offered for this product in certain countries. If you want to dispose of system components, visit www.dell.com/recyclingworldwide and select the relevant country.

Contacting Dell

Dell provides several online and telephone based support and service options. If you do not have an active internet connection, you can find contact information about your purchase invoice, packing slip, bill, or Dell product catalog. Availability varies by country and product, and some services may not be available in your area. To contact Dell for sales, technical assistance, or customer service issues:

1. Go to www.dell.com/support/home
2. Select your country from the drop-down menu on the lower right corner of the page.
3. For customized support:
   a. Enter your system Service Tag in the **Enter your Service Tag** field.
   b. Click **Submit**.
   The support page that lists the various support categories is displayed.
4. For general support:
   a. Select your product category.
   b. Select your product segment.
   c. Select your product.
   The support page that lists the various support categories is displayed.
5. For contact details of Dell Global Technical Support:
   a. Click Global Technical Support
   b. The **Contact Technical Support** page is displayed with details to call, chat, or e-mail the Dell Global Technical Support team.

Accessing system information by using QRL

Ensure that your smartphone or tablet has the QR code scanner installed.

The QRL includes the following information about your system:

- How-to videos
- Reference materials, including the Installtion and Service Manual, and mechanical overview
- Your system service tag to quickly access your specific hardware configuration and warranty information
- A direct link to Dell to contact technical assistance and sales teams

1. Go to www.dell.com/qrl and navigate to your specific product or
2. Use your smartphone or tablet to scan the model-specific Quick Resource (QR) code on your system or in the Quick Resource Locator section.

Quick Resource Locator for Dell EMC PowerEdge T340 system

Figure 11. Quick Resource Locator for Dell EMC PowerEdge T340 system

Receiving automated support with SupportAssist

Dell EMC SupportAssist is an optional Dell EMC Services offering that automates technical support for your Dell EMC server, storage, and networking devices. By installing and setting up a SupportAssist application in your IT environment, you can receive the following benefits:

- **Automated issue detection** — SupportAssist monitors your Dell EMC devices and automatically detects hardware issues, both proactively and predictively.
- **Automated case creation** — When an issue is detected, SupportAssist automatically opens a support case with Dell EMC Technical Support.
- **Automated diagnostic collection** — SupportAssist automatically collects system state information from your devices and uploads it securely to Dell EMC. This information is used by Dell EMC Technical Support to troubleshoot the issue.
- **Proactive contact** — A Dell EMC Technical Support agent contacts you about the support case and helps you resolve the issue.

The available benefits vary depending on the Dell EMC Service entitlement purchased for your device. For more information about SupportAssist, go to www.dell.com/supportassist.

5

Safety instructions

NOTE: Whenever you need to lift the system, get others to assist you. To avoid injury, do not attempt to lift the system by yourself.

WARNING: Opening or removing the system cover while the system is powered on may expose you to a risk of electric shock.

CAUTION: Do not operate the system without the cover for a duration exceeding five minutes.

CAUTION: Many repairs may only be done by a certified service technician. You should only perform troubleshooting and simple repairs as authorized in your product documentation, or as directed by the online or telephone service and support team. Damage due to servicing that is not authorized by Dell is not covered by your warranty. Read and follow the safety instructions that are shipped with your product.

NOTE: It is recommended that you always use an antistatic mat and antistatic strap while working on components inside the system.

NOTE: To ensure proper operation and cooling, all bays in the system and system fans must be populated always with either a component or with a blank.