Extended Ambient Temperature Guidelines for HPE ProLiant Gen11, Alletra, Edge, Cray XD, and Synergy Products

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Abstract

This document provides information about the extended ambient operating temperature support for HPE Gen11 servers.

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Hewlett Packard Enterprise Extended Ambient Operating Support standards

The American Society of Heating Refrigeration and Air-Conditioning Engineers (ASHRAE) sets standards for building systems, energy efficiency, indoor air quality, refrigeration, and sustainability. The ASHRAE A3 and A4 classes are the latest classes that have been defined in an effort to support the Fresh Air Data cooling initiative. Hewlett Packard Enterprise Extended Ambient Operating Support is defined as comparable to an ASHRAE class.

The following table provides a summary of environmental ranges supported, with altitude de-ratings, by Hewlett Packard Enterprise ProLiant servers. Items in bold are ProLiant features that exceed the ASHRAE comparable class feature set.

Hewlett Packard Enterprise Standard Operating Support

Dry bulb temp range (°C)	Relative humidity range (% RH)	Maximum wet bulb temp (°C)	Maximum altitude	Altitude de-rating [1]	Available yearly operational time [2]
10°C to 35°C (50°F to 95°F)	8% to 90%	28°C non-condensing	3,050 meters	1.0°C/305 m above sea level	See specific product information for any temperature restrictions

1 Altitude de-rating assumes no direct sustained sunlight.
2 At Standard Operating Support conditions, there is no time limitation for operating the servers in ASHRAE Class A2 conditions.

Hewlett Packard Enterprise Extended Ambient 40°C Operating Support (ASHRAE Class A3 compliant)

Dry bulb temp range (°C)	Relative humidity range (% RH)	Maximum wet bulb temp (°C)	Maximum altitude	Altitude de-rating [1]	Available yearly operational time
5°C to 40°C (41°F to 104°F)	8% to 90%	28°C non-condensing	3,050 meters	1.0°C/175 m above 900m	See specific product information for any temperature restrictions [2]

1 Altitude de-rating assumes no direct sustained sunlight.

[2] Only systems containing an earlier generation of the HPE Smart Storage Battery (727258-B21; 782958-B21; 727261-B21; or 782961-B21) are restricted to 10% (or less) of available yearly operational time.

Hewlett Packard Enterprise Extended Ambient 45°C Operating Support (ASHRAE Class A4 compliant)

Dry bulb temp range (°C)	Relative humidity range (% RH)	Maximum wet bulb temp (°C)	Maximum altitude	Altitude de-rating [1]	Available yearly operational time
5°C to 45°C (41°F to 113 °F)	8% to 90%	28°C non-condensing	3,050 meters	1.0°C/125 m above 900m	Up to 1% of available yearly operational time

[1] Altitude de-rating assumes no direct sustained sunlight.

The maximum rate of change for Inlet Ambient temperature is 20°C/hr (36°F/hr). The upper limit and rate of change is limited by the type and number of options installed.

Hewlett Packard Enterprise Extended Ambient Operating Support summary

This section provides a summary of the Extended Ambient Operating support details. See the specific server information for configuration details that affect support.

Server	Hewlett Packard Enterprise Extended Ambient 40°C Operating Support (ASHRAE Class A3 compliant)	Hewlett Packard Enterprise Extended Ambient 45°C Operating Support (ASHRAE Class A4 compliant)
HPE ProLiant DL110 Gen11 Server	Yes	Yes
HPE ProLiant DL145 Gen11 Server	Yes	Yes
HPE ProLiant DL20 Gen11 Server	Yes	Yes
HPE ProLiant DL320 Gen11 Server	Yes	Yes
HPE ProLiant DL325 Gen11 Server	Yes	Yes

Server	Hewlett Packard Enterprise Extended Ambient 40°C Operating Support (ASHRAE Class A3 compliant)	Hewlett Packard Enterprise Extended Ambient 45°C Operating Support (ASHRAE Class A4 compliant)
HPE ProLiant DL345 Gen11 Server	Yes	Yes
HPE ProLiant DL360 Gen11 Server	Yes	Yes
HPE ProLiant DL365 Gen11 Server	Yes	Yes
HPE ProLiant DL380 Gen11 Server	Yes	Yes
HPE ProLiant DL380a Gen11 Server	Yes	Yes
HPE ProLiant DL385 Gen11 Server	Yes	Yes
HPE ProLiant DL560 Gen11 Server	Yes	Yes
HPE ProLiant MicroServer Gen11	Yes	No
HPE ProLiant ML110 Gen11 Server	Yes	Yes
HPE ProLiant ML30 Gen11 Server	Yes	Yes
HPE ProLiant ML350 Gen11 Server	Yes	Yes
HPE ProLiant RL300 Gen11 Server	No	No
HPE ProLiant Compute XD685	Yes	Yes
HPE Alletra 4110 System	Yes	No
HPE Alletra 4120 System	Yes	No
HPE Alletra 4140 System	No	No
HPE Compute Edge Server e920 / e920d	Yes	Yes
HPE Cray XD220v Server	Yes	Yes
HPE Cray XD225v Server	Yes	No
HPE Cray XD295v Server	Yes	No
HPE Cray Supercomputing XD665 CTO Chassis	Yes	Yes

Server	Hewlett Packard Enterprise Extended Ambient 40°C Operating Support (ASHRAE Class A3 compliant)	Hewlett Packard Enterprise Extended Ambient 45°C Operating Support (ASHRAE Class A4 compliant)
HPE Synergy 480 Gen11 Compute Module	Yes	Yes

HPE ProLiant DL110 Gen11 Server

For more information about configuration rules and requirements, see the HPE ProLiant DL110 Gen11 Server documentation on the Hewlett Packard Enterprise website (**https://www.hpe.com/info/dl110gen11-docs**).

Subtopics

Onboard M.2 SSD

Onboard M.2 SSD

Cooling component types	Standard operating support	40°C operating support	45°C operating support
			Unsupported options: • CPUs with TDP > 185 W • Nokia Cloud RAN SmartNIC Accelerator with active optical cable(AOC); only support card with DAC cable

Cooling component types	Standard operating support	40°C operating support	45°C operating support
			• OCP card with QSFP112 interface (P73114-B21)

HPE ProLiant DL145 Gen11 Server

For more information about configuration rules and requirements, see the HPE ProLiant DL145 Gen11 Server documentation on the Hewlett Packard Enterprise website (**https://www.hpe.com/info/dl145gen11-docs**).

Subtopics

2 SFF
6 EDSFF or 4 EDSFF

2 SFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Standard fan • 2U heatsink	Unsupported options: None	Unsupported option: • HPE 6.4 TB NVMe MU SFF BC U.3ST MV SPDM SSD (P65023-B21)	Unsupported options: • HPE 3.84 TB NVMe RI SFF BC U.3ST MV SPDM SSD (P64846-B21) • HPE 7.68 TB NVMe RI SFF BC U.3ST MV SPDM SSD (P64848-B21) • HPE 15.36 TB NVMe RI BC U.3ST

Cooling component types	Standard operating support	40°C operating support	45°C operating support
			SPDM MV SSD (P69255-B21) • HPE 3.2 TB NVMe MU SFF BC U.3ST MV SPDM SSD (P65015-B21) • HPE 6.4 TB NVMe MU SFF BC U.3ST MV SPDM SSD (P65023-B21)

6 EDSFF or 4 EDSFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• High performance fan • 2U heatsink	Unsupported options: None	Unsupported options: None	Unsupported options: • All capacity models of NVMe Gen 5 High Performance E3S EC1 EDSFF SPDM CM7 SSD • NVMe Gen5 Mainstream Performance E3S EC1 CD8P SSDs with capacity ≧ 6.4 TB

HPE ProLiant DL20 Gen11 Server

For more information about configuration rules and requirements, see the HPE ProLiant DL20 Gen11 Server documentation on the Hewlett Packard Enterprise website (**https://www.hpe.com/info/dl20gen11-docs**).

Subtopics

2 LFF non-hot plug, 2 LFF hot plug, 4 SFF + 2 SFF
Models with ATX power supply

2 LFF non-hot plug, 2 LFF hot plug, 4 SFF + 2 SFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• 3 performance single rotor non-hot plug and non-redundant 4028 fans • Standard heatsink	Options limited to maximum 25°C inlet temperature: • NVMe SSDs	Additional unsupported options: • CPUs with TDP > 80 W • NS204i-u boot device • OCP/PCIe NIC cards • iLO-M.2-serial module • GPUs	Additional unsupported options: • CPUs with TDP > 65 W • 2.5" 10K RPM SAS HDDs • 3.5" HDD and SSD • 96 W energy pack

Models with ATX power supply

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• 3 performance single rotor non-hot plug and non-redundant 4028 fans • Standard heatsink	Options limited to maximum 25°C inlet temperature: • The configuration maximum support ambient is 25° C. Additional unsupported options: • NVMe SFF SSDs	Not supported	Not supported

HPE ProLiant DL320 Gen11 Server

For more information about configuration rules and requirements, see the HPE ProLiant DL320 Gen11 Server documentation on the Hewlett Packard Enterprise website (**https://www.hpe.com/info/dl320gen11-docs**).

Subtopics

4 LFF
8+2 SFF
12 LFF

4 LFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• High performance fan • High performance heatsink	Options limited to maximum 25°C inlet temperature: • GPUs (follow GPU support table in **QuickSpecs**) • InfiniBand/Networking cards ≥ 40 Gb • Networking OCP cards ≥ 40 Gb	Unsupported options: • > 225 W processor, 6448Y, 6438Y, 6438Y+, 6434H, 6434, 4516Y+, 6534, 6538Y+ • NVMe/SAS4 drive • HPE NS204i-u Gen11 • M.2 pass-through card • All GPUs • > 64 GB DIMMs • InfiniBand/Networking PCIe cards > 25 Gb • InfiniBand/Networking OCP cards > 25 Gb • Energy pack • PCIe workload accelerators • PCIe/OCP card P08458-B21, P37687-B21, P26269-B21 • Active cable or transceiver	Additional unsupported options: • > 165 W processor

8+2 SFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• High performance fan • High performance heatsink	Options limited to maximum 25°C inlet temperature: • GPUs (follow GPU support table in **QuickSpecs**) • InfiniBand/Networking cards ≥ 40 Gb • Networking OCP cards ≥ 40 Gb	Unsupported options: • > 225 W processor, 6448Y, 6438Y, 6438Y+, 6434H, 6434, 4516Y+, 6534, 6538Y+ • NVMe/SAS4 drive • HPE NS204i-u Gen11 • M.2 pass-through card • All GPUs • > 64 GB DIMMs • InfiniBand/Networking PCIe cards > 25 Gb • InfiniBand/Networking OCP cards > 25 Gb • Energy pack • PCIe workload accelerators • PCIe/OCP card P08458-B21, P37687-B21, P26269-B21, P26264-B21, P42044-B21	Additional unsupported options: • > 165 W processor

Cooling component types	Standard operating support	40°C operating support	45°C operating support
		• Active cable or transceiver	

12 LFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• High performance fan • High performance heatsink	Options limited to maximum 25°C inlet temperature: • GPUs (follow GPU support table in **QuickSpecs**) • InfiniBand/Networking cards ≥ 40 Gb • Networking OCP cards ≥ 40 Gb	Unsupported options: • > 225 W processor, 6448Y, 6438Y, 6438Y+, 6434H, 6434, 4516Y+, 6534, 6538Y+ • HPE NS204i-u Gen11 • M.2 pass-through card • All GPUs • > 64 GB DIMMs • InfiniBand/Networking PCIe cards > 25 Gb • InfiniBand/Networking OCP cards > 25 Gb • Energy pack • PCIe workload accelerators	Additional unsupported options: • > 165 W processor • InfiniBand/Networking PCIe cards > 10 Gb • InfiniBand/Networking OCP cards > 10 Gb

Cooling component types	Standard operating support	40°C operating support	45°C operating support
		• PCIe/OCP card P08458-B21, P37687-B21, P26269-B21, P26264-B21, P42044-B21 • Active cable or transceiver	

HPE ProLiant DL325 Gen11 Server

For more information about configuration rules and requirements, see the HPE ProLiant DL325 Gen11 Server documentation on the Hewlett Packard Enterprise website (**https://www.hpe.com/info/dl325gen11-docs**).

Subtopics

SFF
LFF

SFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• High performance fan • High performance heatsink	Options limited to maximum 25°C inlet temperature: • GPUs (follow GPU support table in **QuickSpecs**) • 256 GB DIMMs	Unsupported options: • > TDP 240 W processors AMD EPYC 9224 AMD EPYC 9254 • NVMe/SAS4 drive	Additional unsupported options: • AMD EPYC 9334 • InfiniBand/Networking PCIe cards > 10 Gb • InfiniBand/Networking OCP cards

Cooling component types	Standard operating support	40°C operating support	45°C operating support
		• HPE NS204i-u Gen11 • M.2 pass-through card • All GPUs • > 64 GB DIMMs • 2 SFF side-by-side drive cage assembly • InfiniBand/Networking PCIe/OCP cards slot #1 > 25 Gb and active cable • InfiniBand/Networking PCIe/OCP cards slot #2 > 10 Gb and active cable • Energy pack	> 10 Gb and active cable
• Liquid cooling fan • Liquid cooling heatsink	Options limited to maximum 25°C inlet temperature: • GPUs (follow GPU support table in **QuickSpecs**) • 256 GB DIMMs (maximum 4 installed) • 128 GB DIMMs	Unsupported options: • > TDP 300 W processors except 9654P • NVMe/SAS4 drive • HPE NS204i-u Gen11 • M.2 pass-through card • All GPUs • > 64 GB DIMMs	Additional unsupported options: • All > TDP 300 W processors

Cooling component types	Standard operating support	40°C operating support	45°C operating support
		• 2 SFF side-by-side drive cage assembly • InfiniBand/Networking PCIe cards >10 Gb • InfiniBand/Networking OCP cards > 10 Gb and active cable • Energy pack	

LFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• High performance fan • High performance heatsink	Options limited to maximum 25°C inlet temperature: • GPUs (follow GPU support table in **QuickSpecs**) • 256 GB DIMMs	Unsupported options: • > TDP 240 W processors AMD EPYC 9254 • NVMe/SAS4 drive • HPE NS204i-u Gen11 • All GPUs • > 64 GB DIMMs • InfiniBand/Networking PCIe/OCP cards slot #1 > 25	Additional unsupported options: • AMD EPYC 9224 • InfiniBand/Networking PCIe cards > 10 Gb • InfiniBand/Networking OCP cards > 10 Gb and active cable

Cooling component types	Standard operating support	40°C operating support	45°C operating support
		Gb and active cable • InfiniBand/Networking PCIe/OCP cards slot #2 > 10 Gb and active cable • Energy pack	
• Liquid cooling fan • Liquid cooling heatsink	Options limited to maximum 25°C inlet temperature: • GPUs (follow GPU support table in **QuickSpecs**) • 256 GB DIMMs (maximum 4 installed) • 128 GB DIMMs	Unsupported options: • > TDP 300 W processors except 9654P • NVMe/SAS4 drive • HPE NS204i-u Gen11 • M.2 pass-through card • All GPUs • > 64 GB DIMMs • InfiniBand/Networking PCIe cards > 10 Gb • InfiniBand/Networking OCP cards > 10 Gb and active cable • Energy pack	Additional unsupported options: • All > TDP 300 W processors

HPE ProLiant DL345 Gen11 Server

For more information about configuration rules and requirements, see the HPE ProLiant DL345 Gen11 Server documentation on the Hewlett Packard Enterprise website (**https://www.hpe.com/info/dl345gen11-docs**).

Subtopics

8 SFF / NVMe with 2 bay blanks
16 SFF / NVMe with 1 bay blank or media bay
8 LFF with media bay
12 LFF

8 SFF / NVMe with 2 bay blanks

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Standard fan • Standard heatsink (CPU cTDP ≤ 240 W) • Performance heatsink (CPU cTDP > 240 W)	Options limited to maximum 25°C inlet temperature: • Midtray drive cage • Rear drive cage • InfiniBand/Networking cards ≥ 100 Gb • Networking OCP cards ≥100 Gb • Storage offload adapter • GPU	Not supported	Not supported
• Performance fan	Options limited to maximum 25°C inlet temperature:	Unsupported options: • CPU 9374F (400 W/32°C)	Additional unsupported options: • CPU 9554 (400 W/64°C)

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Standard heatsink (CPU cTDP ≤ 240 W) • Performance heatsink (CPU cTDP > 240 W) • 1U Performance heatsink for midtray (CPU cTDP ≤ 300 W)	• InfiniBand/Networking cards ≥ 100 Gb in PCIe slot 6 • Networking OCP cards ≥ 100 Gb in slot 22	• Midtray drive cage • Rear drive cage • InfiniBand/Networking cards ≥ 100 Gb • Networking OCP cards ≥ 100 Gb • Storage offload adapter • GPUs • 96 W energy pack • 256 GB DIMMs • HPE NS204i-u Gen11 NVMe boot device • Standard heatsink (use Performance heatsink for all CPU types)	• InfiniBand/Networking cards ≥ 25 Gb • Networking OCP cards ≥ 25 Gb

16 SFF / NVMe with 1 bay blank or media bay

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Standard fan	Options limited to maximum 25°C inlet temperature: • Midtray drive cage	Not supported	Not supported

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Standard heatsink (CPU cTDP ≤ 240 W) • Performance heatsink (CPU cTDP > 240 W)	• Rear drive cage • InfiniBand/Networking cards ≥ 100 Gb • Networking OCP cards ≥100 Gb • Storage offload adapter • GPU • 256 GB DIMMs (supported up to 25°C)		
• Performance fan • Standard heatsink (CPU cTDP ≤ 240 W) • Performance heatsink (CPU cTDP > 240 W) • 1U Performance heatsink for midtray (CPU cTDP ≤ 300 W)	Options limited to maximum 25°C inlet temperature: • InfiniBand/Networking cards ≥ 100 Gb in PCIe slot 6 • Networking OCP cards ≥ 100 Gb in slot 22	Unsupported options: • CPU 9374F (400 W/32°C) CPU 9554P (400 W/64°C) CPU 9554 (400 W/64°C) CPU 9474F (400 W/48°C) CPU 9274F (400 W/24°C) CPU 9654P (400 W/96°C) CPU 9654 (400 W/96°C) CPU 9254 (240 W/24°C) • Midtray drive cage	Additional unsupported options: • CPU with cTDP ≥ 400 W • InfiniBand/Networking cards ≥ 25 Gb • Networking OCP cards ≥ 25 Gb

Cooling component types	Standard operating support	40°C operating support	45°C operating support
		• Rear drive cage • InfiniBand/Networking cards ≥ 100 Gb • Networking OCP cards ≥ 100 Gb • Storage offload adapter • GPUs • 96 W energy pack • 256 GB DIMMs • HPE NS204i-u Gen11 NVMe boot device • Standard heatsink (use Performance heatsink for all CPU types)	

8 LFF with media bay

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Standard fan • Standard heatsink (CPU cTDP ≤ 240 W)	Options limited to maximum 25°C inlet temperature: • Midtray drive cage • Rear drive cage	Not supported	Not supported

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Performance heatsink (CPU cTDP > 240 W)	• InfiniBand/Networking cards ≥ 100 Gb • Networking OCP cards ≥100 Gb • Storage offload adapter • GPU		
• Performance fan • Standard heatsink (CPU cTDP ≤ 240 W) • Performance heatsink (CPU cTDP > 240 W) • 1U Performance heatsink for midtray (CPU cTDP ≤ 300 W)	Options limited to maximum 25°C inlet temperature: • InfiniBand/Networking cards ≥ 100 Gb in PCIe slot 6 • Networking OCP cards ≥ 100 Gb in slot 22	Unsupported options: • CPU 9374F (400 W/32°C) • Midtray drive cage • Rear drive cage • InfiniBand/Networking cards ≥100 Gb • Networking OCP cards ≥ 100 Gb • Storage offload adapter • GPUs • 96 W energy pack • 256 GB DIMMs • HPE NS204i-u Gen11 NVMe boot device • Standard heatsink (use Performan	Additional unsupported options: • CPU 9554 (400 W/64°C) CPU 9474F (400 W/48°C) CPU 9274F (400 W/24°C) CPU 9654P (400 W/96°C) CPU 9654 (400 W/96°C) • InfiniBand/Networking cards ≥ 25 Gb • Networking OCP cards ≥ 25 Gb

Cooling component types	Standard operating support	40°C operating support	45°C operating support
		ce heatsink for all CPU types)	

12 LFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Standard fan • Standard heatsink (CPU cTDP ≤ 240 W) • Performance heatsink (CPU cTDP > 240 W)	Options limited to maximum 25°C inlet temperature: • Midtray drive cage • Rear drive cage • InfiniBand/Networking cards ≥ 100 Gb • Networking OCP cards ≥100 Gb • Storage offload adapter • GPU	Not supported	Not supported
• Performance fan • Standard heatsink (CPU cTDP ≤ 240 W) • Performance heatsink (CPU cTDP > 240 W)	Options limited to maximum 25°C inlet temperature: • InfiniBand/Networking cards ≥ 100 Gb in PCIe slot 6 • Networking OCP cards ≥ 100 Gb in slot 22	Not supported	Not supported

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• 1U Performance heatsink for midtray (CPU cTDP ≤ 300 W)			

HPE ProLiant DL360 Gen11 Server

For more information about configuration rules and requirements, see the HPE ProLiant DL360 Gen11 Server documentation on the Hewlett Packard Enterprise website (**https://www.hpe.com/info/dl360gen11-docs**).

Subtopics

4 LFF or 8 SFF
10 SFF
10 NVMe
8 NVMe
4 LFF or 8 SFF + 2 SFF

4 LFF or 8 SFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Max performance fan • Performance heatsink	Options limited to maximum 25°C inlet temperature: • GPUs (follow GPU support table in **QuickSpecs**) • InfiniBand/Networking cards ≥ 40 Gb	Unsupported options: • > 225 W processor, XCC/HBM processor, 6442Y, 6448Y, 6444Y, 6454Y+, 6458Q, and 6448H • DIMMS > 64 GB	Additional unsupported options: • > 150 W processor, XCC/MCC/HBM processor except 5415+, 4410Y, 3408U, 4410T, 5416S • DIMMS > 64 GB

Cooling component types	Standard operating support	40°C operating support	45°C operating support
	• Networking OCP cards ≥ 40 Gb • 256 GB DIMMs	• GPUs • NVMe SSDs • PCIe accelerator cards • PCIe slot SATA/NVMe M.2 • InfiniBand/Networking cards > 25 Gb • Networking OCP cards > 25 Gb • NS204i-u boot device • Optical cable	• GPUs • NVMe SSDs • PCIe accelerator cards • PCIe slot SATA/NVMe M.2 • InfiniBand/Networking cards > 25 Gb • Networking OCP cards > 25 Gb • NS204i-u boot device • Optical cable

10 SFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Max performance fan • Performance heatsink	Options limited to maximum 25°C inlet temperature: • GPUs (follow GPU support table in **QuickSpecs**) • InfiniBand/Networking cards ≥ 40 Gb • Networking OCP cards ≥ 40 Gb	Unsupported options: • > 225 W processor, XCC/HBM processor, 6442Y, 6448Y, 6444Y, 6454Y+, 6458Q, 6448H • DIMMS > 64 GB • GPUs • NVMe SSDs	Not Supported

Cooling component types	Standard operating support	40°C operating support	45°C operating support
	• 256 GB LRDIMM	• PCIe accelerator cards • PCIe slot SATA/NVMe M.2 • InfiniBand/Networking cards > 25 Gb • Networking OCP cards > 25 Gb • NS204i-u boot device • Optical cable	

10 NVMe

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Max performance fan • Performance heatsink	Options limited to maximum 25°C inlet temperature: • GPUs (follow GPU support table in **QuickSpecs**) • InfiniBand/Networking cards ≥ 40 Gb • Networking OCP cards ≥ 40 Gb • 256 GB DIMM	Not Supported	Not Supported

8 NVMe

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Max performance fan • Performance heatsink	Options limited to maximum 25°C inlet temperature: • GPUs (follow GPU support table in **QuickSpecs**) • Infiniband/Networking cards ≥ 40 Gb • Networking OCP cards ≥ 40 Gb • 256 GB DIMM	Unsupported options: • > 225 W processor, XCC/HBM processor, 6442Y, 6448Y, 6444Y, 6454Y+, 6458Q, 6448H • DIMMS > 64 GB • GPUs • NVMe SSDs • PCIe accelerator cards • PCIe slot SATA/NVMe M.2 • InfiniBand/Networking cards > 25 Gb • Networking OCP cards > 25 Gb • NS204i-u boot device • Optical cable	Not Supported

4 LFF or 8 SFF + 2 SFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Standard fan • Performance heatsink	Unsupported options: • GPUs • 256 GB DIMM and NVDIMM • Infiniband/Networking cards ≥ 40Gb • Networking OCP cards ≥ 40Gb • PCIe slot SATA/NVMe M.2 • ≥ 205 W processor Options limited to maximum 25°C inlet temperature: • HDD/SSD >10 W • PCIe accelerator cards	Not Supported	Not Supported

HPE ProLiant DL365 Gen11 Server

For more information about configuration rules and requirements, see the HPE ProLiant DL365 Gen11 Server documentation on the Hewlett Packard Enterprise website (**https://www.hpe.com/info/dl365gen11-docs**).

Subtopics

EDSFF and GPU

Cooling component types	Standard operating support	40°C operating support	45°C operating support
	Server limited to maximum 25°C inlet temperature	Not supported	Not supported

SFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• High performance fan • Performance heatsink	Options limited to maximum 25°C inlet temperature: • GPUs (follow GPU support table in **QuickSpecs**) • 256 GB DIMMs	Unsupported options: • > TDP 240 W processors and AMD EPYC 9254 • NVMe/SAS4 drive • HPE NS204i-u Gen11 • All GPUs • > 64 GB DIMMs • InfiniBand/Networking PCIe cards > 25 Gb • InfiniBand/Networking OCP cards	Additional unsupported options: • AMD EPYC 9224 • AMD EPYC 9234 • InfiniBand/Networking PCIe cards > 10 Gb • InfiniBand/Networking OCP cards > 10 Gb and active cable

Cooling component types	Standard operating support	40°C operating support	45°C operating support
		> 25 Gb and active cable • PCIe/OCP card P08458-B21, P37687-B21, P26269-B21	

HPE ProLiant DL380 Gen11 Server

For more information about configuration rules and requirements, see the HPE ProLiant DL380 Gen11 Server documentation on the Hewlett Packard Enterprise website (**https://www.hpe.com/info/dl380gen11-docs**).

Subtopics

12 LFF
12+4+4 LFF
24 SFF, 36 EDSFF
24 SFF + 8 + 6 SFF
8 LFF, 16 SFF
8 SFF, 12 EDSFF
8 SFF

12 LFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Max performance fan • Performance heatsink	Unsupported options • 256 GB DIMMs • Liquid cooling processor	Additional unsupported options: • Mid and rear HDD • NS204i-u boot device	Not supported

Cooling component types	Standard operating support	40°C operating support	45°C operating support
	• Options (follow support table in **QuickSpecs**) • GPUs with location or ambient limitation • InfiniBand/Networking cards > Thermal level/tier 4 • Networking OCP cards > Thermal level/tier 4	• CPUs with TDP > 225 W • InfiniBand/Networking cards ≥ 25 Gb • Networking OCP cards ≥ 25 Gb • 128 GB DIMMs	
• Max performance fan • Direct liquid cooling	Unsupported options • 256 GB DIMMs • Options (follow support table in **QuickSpecs**) • GPUs with location or ambient limitation • InfiniBand/Networking cards > Thermal level/tier 7 • Networking OCP cards > Thermal level/tier 6	Not supported [1]	Not supported [1]

[1] Direct liquid cooling is not designed for such high Ambient temperatures

12+4+4 LFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Max performance fan • Performance heatsink	Unsupported options • 256 GB DIMMs • CPUs with TDP > 205 W • Options (follow support table in **QuickSpecs**) • GPUs with location or ambient limitation • InfiniBand/Networking cards > Thermal level/tier 4 • Networking OCP cards > Thermal level/tier 4 • DLC	Additional unsupported options: • Mid and rear HDD • NS204i-u boot device • CPUs with TDP > 165 W • InfiniBand/Networking cards ≥ 25 Gb • Networking OCP cards ≥ 25 Gb • 128 GB DIMMs	Not supported

24 SFF, 36 EDSFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Max performance fan	Unsupported options • 256 GB DIMMs	Additional unsupported options: • Mid and rear HDD	Not supported

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Performance heatsink	• Liquid cooling processor • Options (follow support table in **QuickSpecs**) • GPUs with location or ambient limitation • InfiniBand/Networking cards > Thermal level/tier 4 • Networking OCP cards > Thermal level/tier 4	• NS204i-u boot device • CPUs with TDP > 225 W • InfiniBand/Networking cards ≥ 25 Gb • Networking OCP cards ≥ 25 Gb • 128 GB DIMMs	
• Max performance fan • Direct liquid cooling	Unsupported options • 256 GB DIMMs • Options (follow support table in **QuickSpecs**) • GPUs with location or ambient limitation • InfiniBand/Networking cards > Thermal level/tier 7 • Networking OCP cards > Thermal level/tier 6	Not supported [1]	Not supported [1]

[1] Direct liquid cooling is not designed for such high Ambient temperatures

24 SFF + 8 + 6 SFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Max performance fan • Performance heatsink	Unsupported options • 256 GB DIMMs • CPUs with TDP > 205 W • Options (follow support table in **QuickSpecs**) • GPUs with location or ambient limitation • InfiniBand/Networking cards > Thermal level/tier 4 • Networking OCP cards > Thermal level/tier 4 • DLC	Additional unsupported options: • Mid and rear HDD • NS204i-u boot device • CPUs with TDP > 165 W • InfiniBand/Networking cards ≥ 25 Gb • Networking OCP cards ≥ 25 Gb • 128 GB DIMMs	Not supported

8 LFF, 16 SFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Max performance fan	Unsupported options • Options (follow support table in **QuickSpecs**)	Additional unsupported options: • NS204i-u boot device	Additional unsupported options: • CPUs with TDP > 150 W

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Performance heatsink	• GPUs with location or ambient limitation • InfiniBand/Networking cards > Thermal level/tier 5 • Networking OCP cards > Thermal level/tier 6	• CPUs with TDP > 185 W • InfiniBand/Networking cards ≥ 25 Gb • Networking OCP cards ≥ 25 Gb • 256 GB DIMMS • 128 GB DIMMs	• InfiniBand/Networking cards > 1 Gb • Networking OCP cards > 1 Gb • 64 GB DIMMs
• Max performance fan • Direct liquid cooling	Unsupported options • Options (follow support table in **QuickSpecs**) • GPUs with location or ambient limitation • InfiniBand/Networking cards > Thermal level/tier 7 • Networking OCP cards > Thermal level/tier 8	Not supported [1]	Not supported [1]

[1] Direct liquid cooling is not designed for such high ambient temperatures

8 SFF, 12 EDSFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Max performance fan • Performance heatsink	Unsupported options • Options (follow support table in **QuickSpecs**) • GPUs with location or ambient limitation • InfiniBand/Networking cards > Thermal level/tier 6 • Networking OCP cards > Thermal level/tier 7	Additional unsupported options: • NS204i-u boot device • CPUs with TDP > 225 W • InfiniBand/Networking cards > 25 Gb • Networking OCP cards > 25 Gb • 256 GB DIMMS • 128 GB DIMMs	Additional unsupported options: • CPUs with TDP > 185 W • InfiniBand/Networking cards > 10 Gb • Networking OCP cards > 10 Gb • 64 GB DIMMs
• Max performance fan • Direct liquid cooling	Unsupported options • Options (follow support table in **QuickSpecs**) • GPUs with location or ambient limitation • InfiniBand/Networking cards > Thermal level/tier 7 • Networking OCP cards > Thermal level/tier 10	Not supported [1]	Not supported [1]

[1] Direct liquid cooling is not designed for such high Ambient temperatures

8 SFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Standard fan • Performance heatsink	Unsupported options: • Options (follow support table in **QuickSpecs**) • GPUs with location or ambient limitation • InfiniBand/Networking cards > Thermal level/tier 4 • Networking OCP cards > Thermal level/tier 5	Additional unsupported options: • NS204i-u boot device • CPUs with TDP > 165 W • InfiniBand/Networking cards > 10 Gb • Networking OCP cards > 10 Gb • 256 GB DIMMS • 128 GB DIMMs • 64 GB DIMMs	Additional unsupported options: • CPUs with TDP > 135 W • InfiniBand/Networking cards > 1 Gb • Networking OCP cards > 1 Gb • 64 GB DIMMs

HPE ProLiant DL380a Gen11 Server

For more information about configuration rules and requirements, see the HPE ProLiant DL380a Gen11 Server documentation on the Hewlett Packard Enterprise website (**https://www.hpe.com/info/dl380aGen11-docs**).

Subtopics

8 NVMe, 8 EDSFF

8 NVMe, 8 EDSFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Max performance fan • Standard heatsink • Performance heatsink	Options limited to maximum 25°C inlet temperature: • 128 GB DIMMs • External NS204i-u with Micron 7450 max 400 G M.2 • Networking cards ≥ 25 Gb • InfiniBand • Rear mounted GPUs	Supported options: • CPU ≤ 205 W • NVIDIA A100 80G • 64 GB DIMMs maximum • NS204i-u, internal only • Networking PCIe Cards ≤ 25 Gb (DAC only) • Networking OCP Cards ≤ 25 Gb (DAC only)	Supported options: • CPU ≤ 185 W • NVIDIA A100 80 G, 4 front GPU slots only • NS204i-u, internal only • 32 GB DIMMs maximum • 1 Gb networking PCIe cards • 1Gb networking OCP cards

HPE ProLiant DL385 Gen11 Server

For more information about configuration rules and requirements, see the HPE ProLiant DL385 Gen11 Server documentation on the Hewlett Packard Enterprise website (**https://www.hpe.com/info/dl385gen11-docs**).

Subtopics

12 LFF, 48 SFF, EDSFF, and GPU
24 SFF
8 LFF, 16 SFF

12 LFF, 48 SFF, EDSFF, and GPU

Cooling component types	Standard operating support	40°C operating support	45°C operating support
	Server limited to maximum 25°C inlet temperature	Not supported	Not supported

24 SFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• High performance fan • Max performance heatsink	Options limited to maximum 25°C inlet temperature: • GPUs (follow GPU support table in **QuickSpecs**) • 256 GB DIMMs	Unsupported options: • > TDP 300 W processors • NVMe/SAS4 drive • HPE NS204i-u Gen11 • All GPUs • > 64 GB DIMMs • Mid/rear drive cage • InfiniBand/Networking PCIe cards > 25 Gb • InfiniBand/Networking OCP cards > 25 Gb and active cable • PCIe/OCP card P08458-B21, P	Additional unsupported options: • > TDP 240 W processors • InfiniBand/Networking PCIe cards > 10 Gb • InfiniBand/Networking OCP cards > 10 Gb and active cable

Cooling component types	Standard operating support	40°C operating support	45°C operating support
		37687-B21, P26 269-B21	

8 LFF, 16 SFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• High performance fan • Max performance heatsink	Options limited to maximum 25°C inlet temperature: • GPUs (follow GPU support table in **QuickSpecs**) • 256 GB DIMMs	Unsupported options: • > TDP 300 W processors • NVMe/SAS4 drive • HPE NS204i-u Gen11 • All GPUs • > 64 GB DIMMs • Mid/rear drive cage • InfiniBand/Networking PCIe cards > 25 Gb • InfiniBand/Networking OCP cards > 25 Gb and active cable • PCIe/OCP card P08458-B21, P37687-B21, P26269-B21	Additional unsupported options: • InfiniBand/Networking PCIe cards > 10 Gb • InfiniBand/Networking OCP cards > 10 Gb and active cable

HPE ProLiant DL560 Gen11 Server

For more information about configuration rules and requirements, see the HPE ProLiant DL560 Gen11 Server documentation on the Hewlett Packard Enterprise website (**https://www.hpe.com/info/DL560Gen11-docs**).

Subtopics

8 SFF
12 EDSFF
Media bay + 8 SFF
Media bay + 12 EDSFF
16 SFF
24 EDSFF
Media bay + 16 SFF
Media bay + 24 EDSFF
24 SFF

8 SFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
2U CPU heatsink 6056 dual rotor fan	Options limited to maximum 25°C inlet temperature: • 256 GB DIMM • H100 GPU card Options limited to maximum 30°C inlet temperature: • L40 GPU card For other support limitations, see the component support tabl	Supported components: **CPUs**: • 6416H (P49620-B21) • 6418H (P49621-B21) • 6448H (P49622-B21) • 6434H (P49623-B21)	Not supported

Cooling component types	Standard operating support	40°C operating support	45°C operating support
	es in the **QuickSpecs**.	• 8444H (P49625-B21) • 8450H (P49626-B21) • 8454H (P49627-B21) **DIMMs**: • 32GB or lower capacity DDR5 DIMM **PCIe cards**: • 1 GB NIC cards: P51178-B21, P21106-B21 • 10 GB NIC cards: P26259-B21, P26253-B21 • 10/25 GB NIC cards: P26262-B21, P26264-B21, P08443-B21, P08458-B21 • 100 GB NIC cards: P21112-B21, P31246-B21 AOC cables are not supported **OCP cards**: • P26256-B21 • P51181-B21 • P08449-B21	
1U CPU heatsink	Not supported:	Supported components:	Not supported

Cooling component types	Standard operating support	40°C operating support	45°C operating support
6056 dual rotor fan	• CPU TDP ≥ 270 W, 6434H (P49623-B21) Options limited to maximum 30°C inlet temperature: • L40 GPU card Options limited to maximum 25°C inlet temperature: • H100 GPU card • 256 GB DIMMs For other support limitations, see the component support tables in the **QuickSpecs**.	**CPUs**: • 6416H (P49620-B21) • 6418H (P49621-B21) **DIMMs**: • 32GB or lower capacity DDR5 DIMM **PCIe cards**: • 1 GB NIC cards: P51178-B21, P21106-B21 • 10 GB NIC cards: P26259-B21, P26253-B21 • 10/25 GB NIC cards: P26262-B21, P26264-B21, P08443-B21, P08458-B21 AOC cables are not supported **OCP cards**: • P26256-B21 • P51181-B21 • P08449-B21	
Liquid cooling module 6038 dual rotor fan	Not supported: • 256 GB DIMMs • H100 GPU card • L40 GPU card	Supported components: **CPUs**: • 8444H (P49625-B21)	Not supported

Cooling component types	Standard operating support	40°C operating support	45°C operating support
	Options limited to maximum 30°C inlet temperature: • 128 GB DIMMs Options limited to maximum 25°C inlet temperature: • NS204i-u boot device For other support limitations, see the component support tables in the **QuickSpecs**.	• 8454H (P49627-B21) **DIMMs**: • 32GB or lower capacity DDR5 DIMM **PCIe cards**: • 1 GB NIC cards: P51178-B21, P21106-B21 • 10 GB NIC cards: P26259-B21, P26253-B21 • 10/25 GB NIC cards: P26262-B21, P26264-B21, P08443-B21, P08458-B21 AOC cables are not supported **OCP cards**: • P26256-B21 • P51181-B21 • P08449-B21	

12 EDSFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
2U CPU heatsink 6056 dual rotor fan	Options limited to maximum 25°C inlet temperature: • 256 GB DIMM • H100 GPU card Options limited to maximum 30°C inlet temperature: • L40 GPU card For other support limitations, see the component support tables in the **QuickSpecs**.	Supported components: **CPUs**: • 6416H (P49620-B21) • 6418H (P49621-B21) • 6448H (P49622-B21) • 6434H (P49623-B21) • 8444H (P49625-B21) • 8450H (P49626-B21) • 8454H (P49627-B21) **DIMMs**: • 32GB or lower capacity DDR5 DIMM **PCIe cards**: • 1 GB NIC cards: P51178-B21, P21106-B21 • 10 GB NIC cards: P26259-B21, P26253-B21 • 10/25 GB NIC cards: P26262-B2	Not supported

Cooling component types	Standard operating support	40°C operating support	45°C operating support
		1, P26264-B21, P08443-B21, P08458-B21 • 100 GB NIC cards: P21112-B21, P31246-B21 AOC cables are not supported **OCP cards**: • P26256-B21 • P51181-B21 • P08449-B21	
1U CPU heatsink 6056 dual rotor fan	Not supported: • CPU TDP ≥ 270 W, 6434H (P49623-B21) • 256 GB DIMMs • H100 GPU card Options limited to maximum 30°C inlet temperature: • 128 GB DIMMs • L40 GPU card For other support limitations, see the component support tables in the **QuickSpecs**.	Supported components: **CPUs**: • 6416H (P49620-B21) • 6418H (P49621-B21) **DIMMs**: • 32GB or lower capacity DDR5 DIMM **PCIe cards**: • 1 GB NIC cards: P51178-B21, P21106-B21 • 10 GB NIC cards: P26259-B21, P26253-B21 • 10/25 GB NIC cards: P26262-B21, P26264-B21, P	Not supported

Cooling component types	Standard operating support	40°C operating support	45°C operating support
		08443-B21, P08458-B21 AOC cables are not supported **OCP cards**: • P26256-B21 • P51181-B21 • P08449-B21	
Liquid cooling module 6038 dual rotor fan	Not supported: • 256 GB DIMMs • H100 GPU card • L40 GPU card Options limited to maximum 25°C inlet temperature: • NS204i-u boot device Options limited to maximum 30°C inlet temperature: • The configuration maximum support ambient is 30°C. For other support limitations, see the component support tables in the **QuickSpecs**.	Not supported	Not supported

Media bay + 8 SFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
2U CPU heatsink 6056 dual rotor fan	Options limited to maximum 25°C inlet temperature: • 256 GB DIMM • H100 GPU card Options limited to maximum 30°C inlet temperature: • L40 GPU card For other support limitations, see the component support tables in the **QuickSpecs**.	Supported components: **CPUs**: • 6416H (P49620-B21) • 6418H (P49621-B21) • 6448H (P49622-B21) • 6434H (P49623-B21) • 8444H (P49625-B21) • 8450H (P49626-B21) • 8454H (P49627-B21) **DIMMs**: • 32GB or lower capacity DDR5 DIMM **PCIe cards**: • 1 GB NIC cards: P51178-B21, P21106-B21 • 10 GB NIC cards: P26259-B21, P26253-B21 • 10/25 GB NIC cards: P26262-B2	Not supported

Cooling component types	Standard operating support	40°C operating support	45°C operating support
		1, P26264-B21, P08443-B21, P08458-B21 • 100 GB NIC cards: P21112-B21, P31246-B21 AOC cables are not supported **OCP cards**: • P26256-B21 • P51181-B21 • P08449-B21	
1U CPU heatsink 6056 dual rotor fan	Not supported: • CPU TDP ≥ 270 W, 6434H (P49623-B21) • 256 GB DIMMs • H100 GPU card Options limited to maximum 30°C inlet temperature: • 128 GB DIMMs • L40 GPU card For other support limitations, see the component support tables in the **QuickSpecs**.	Not Supported	Not supported
Liquid cooling module 6038 dual rotor fan	Not supported: • 256 GB DIMMs • H100 GPU card • L40 GPU card	Not supported	Not supported

Cooling component types	Standard operating support	40°C operating support	45°C operating support
	Options limited to maximum 25°C inlet temperature: • NS204i-u boot device Options limited to maximum 30°C inlet temperature: • The configuration maximum support ambient is 30°C. For other support limitations, see the component support tables in the **QuickSpecs**.		

Media bay + 12 EDSFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
2U CPU heatsink 6056 dual rotor fan	Options limited to maximum 25°C inlet temperature: • 256 GB DIMM • H100 GPU card Options limited to maximum 30°C inlet temperature: • L40 GPU card For other support limitations, see the com	Supported components: **CPUs**: • 6416H (P49620-B21) • 6418H (P49621-B21) • 6448H (P49622-B21)	Not supported

Cooling component types	Standard operating support	40°C operating support	45°C operating support
	ponent support tables in the **QuickSpecs**.	• 6434H (P49623-B21) • 8444H (P49625-B21) • 8450H (P49626-B21) • 8454H (P49627-B21) **DIMMs**: • 32GB or lower capacity DDR5 DIMM **PCIe cards**: • 1 GB NIC cards: P51178-B21, P21106-B21 • 10 GB NIC cards: P26259-B21, P26253-B21 • 10/25 GB NIC cards: P26262-B21, P26264-B21, P08443-B21, P08458-B21 • 100 GB NIC cards: P21112-B21, P31246-B21 AOC cables are not supported **OCP cards**: • P26256-B21 • P51181-B21 • P08449-B21	

Cooling component types	Standard operating support	40°C operating support	45°C operating support
1U CPU heatsink 6056 dual rotor fan	Not supported: • CPU TDP ≥ 270 W, 6434H (P49623-B21) • 256 GB DIMMs • H100 GPU card Options limited to maximum 30°C inlet temperature: • 128 GB DIMMs • L40 GPU card For other support limitations, see the component support tables in the **QuickSpecs**.	Not supported	Not supported

16 SFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
2U CPU heatsink 6056 dual rotor fan	Options limited to maximum 25°C inlet temperature: • 256 GB DIMMs • H100 GPU card Options limited to maximum 30°C inlet temperature: • 128 GB DIMMs • L40 GPU card	Supported components: **CPUs**: • 6416H (P49620-B21) • 6418H (P49621-B21) • 6448H (P49622-B21)	Not supported

Cooling component types	Standard operating support	40°C operating support	45°C operating support
	For other support limitations, see the component support tables in the **QuickSpecs**.	• 6434H (P49623-B21) • 8444H (P49625-B21) • 8450H (P49626-B21) • 8454H (P49627-B21) **DIMMs**: • 32GB or lower capacity DDR5 DIMM **PCIe cards**: • 1 GB NIC cards: P51178-B21, P21106-B21 • 10 GB NIC cards: P26259-B21, P26253-B21 • 10/25 GB NIC cards: P26262-B21, P26264-B21, P08443-B21, P08458-B21 • 100 GB NIC cards: P21112-B21, P31246-B21 AOC cables are not supported **OCP cards**: • P26256-B21 • P51181-B21 • P08449-B21	

Cooling component types	Standard operating support	40°C operating support	45°C operating support
1U CPU heatsink 6056 dual rotor fan	Not supported: • CPU TDP ≥ 270 W, 6434H (P49623-B21) • 256 GB DIMMs • H100 GPU card Options limited to maximum 30°C inlet temperature: • 128 GB DIMMs • L40 GPU card For other support limitations, see the component support tables in the **QuickSpecs**.	Not supported	Not supported

24 EDSFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
2U CPU heatsink 6056 dual rotor fan	Not supported: • H100 GPU card Options limited to maximum 25°C inlet temperature: • 128 GB DIMMs • 256 GB DIMMs • L40 GPU card	Not supported	Not Supported

Cooling component types	Standard operating support	40°C operating support	45°C operating support
	For other support limitations, see the component support tables in the **QuickSpecs**.		
1U CPU heatsink 6056 dual rotor fan	Not supported: • CPU TDP ≥ 270 W, 6434H (P49623-B21) • 128 GB DIMMs • 256 GB DIMMs • InfiniBand card (P31323-B21, P31348-B21) • H100 GPU card • L40 GPU card Options limited to maximum 30°C inlet temperature: • The configuration maximum support ambient is 30 C. • NS204i-u boot device For other support limitations, see the component support tables in the **QuickSpecs**.	Not Supported	Not Supported

Media bay + 16 SFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
2U CPU heatsink 6056 dual rotor fan	Not supported: • H100 GPU card Options limited to maximum 30°C inlet temperature: • 128 GB DIMMs Options limited to maximum 25°C inlet temperature: • 256 GB DIMMs • L40 GPU card For other support limitations, see the component support tables in the **QuickSpecs**.	Not supported	Not supported
1U CPU heatsink 6056 dual rotor fan	Not supported: • CPU TDP ≥ 270 W, 6434H (P49623-B21) • 128 GB DIMMs • 256 GB DIMMs • InfiniBand card (P31323-B21, P31348-B21) • H100 GPU card • L40 GPU card Options limited to maximum 30°C inlet temperature:	Not supported	Not supported

Cooling component types	Standard operating support	40°C operating support	45°C operating support
	• The configuration maximum support ambient is 30°C. • NS204i-u boot device For other support limitations, see the component support tables in the **QuickSpecs**.		

Media bay + 24 EDSFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
2U CPU heatsink 6056 dual rotor fan	Not supported: • H100 GPU card Options limited to maximum 25°C inlet temperature: • 256 GB DIMMs • L40 GPU card Options limited to maximum 30°C inlet temperature: • 128 GB DIMMs For other support limitations, see the component support tables in the **QuickSpecs**.	Not supported	Not supported

Cooling component types	Standard operating support	40°C operating support	45°C operating support
1U CPU heatsink 6056 dual rotor fan	Not supported: • CPU TDP ≥ 270 W, 6434H (P49623-B21) • 128 GB DIMMs • 256 GB DIMMs • H100 GPU card • L40 GPU card Options limited to maximum 25°C inlet temperature: • The configuration maximum support ambient is 25° C. For other support limitations, see the component support tables in the **QuickSpecs**.	Not supported	Not supported
Liquid cooling module 6038 dual rotor fan	Not supported: • 256 GB DIMMs • H100 GPU card • L40 GPU card • NS204i-u boot device Options limited to maximum 30°C inlet temperature: • The configuration maximum support ambient is 30° C.	Not supported	Not supported

Cooling component types	Standard operating support	40°C operating support	45°C operating support
	For other support limitations, see the component support tables in the **QuickSpecs**.		

24 SFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
2U CPU heatsink 6056 dual rotor fan	Not supported: • H100 GPU card • L40 GPU card Options limited to maximum 25°C inlet temperature: • 128 GB DIMMs • 256 GB DIMMs For other support limitations, see the component support tables in the **QuickSpecs**.	Not supported	Not supported

HPE ProLiant MicroServer Gen11

For more information about configuration rules and requirements, see the HPE ProLiant MicroServer Gen11 documentation on the Hewlett Packard Enterprise website (**https://www.hpe.com/info/microservergen11-docs**).

Subtopics

4 LFF non-hot plug
4 SFF non-hot plug

4 LFF non-hot plug

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Non-hot plug 9232 system fan • Standard heatsink	Unsupported options: None	• Options limited to 1 LFF populated: All processors (P65220-B21, P65233-B21, P65224-B21, P65225-B21, P65226-B21) • Unsupported options: None	Not supported

4 SFF non-hot plug

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Non-hot plug 9232 system fan • Standard heatsink	Unsupported options: None	Unsupported options: None	Additional unsupported options: • HPE 96 W energy pack (P01367-B21) • HPE 480 GB NVMe RI M.2 PM9A3

Cooling component types	Standard operating support	40°C operating support	45°C operating support
			SSD (P69543-B21)

HPE ProLiant ML110 Gen11 Server

For more information about configuration rules and requirements, see the HPE ProLiant ML110 Gen11 Server documentation on the Hewlett Packard Enterprise website (**https://www.hpe.com/info/ml110gen11-docs**).

Subtopics

Any SFF or LFF

Any SFF or LFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
Standard fan	Unsupported options • 2.5 inch 15K rpm SAS drive • 2.5 inch SAS4 drive • Passive GPU • NS204i-u boot device	Not supported	Not supported
Redundant fan	Options limited to maximum 25°C inlet temperature:	Additional unsupported options: • ≥ 64 GB DIMMs • 2.5 inch SAS HDD	Additional unsupported options:

Cooling component types	Standard operating support	40°C operating support	45°C operating support
	• 2.5 inch SAS4 drive power > 15 W • GPUs (follow GPU support table in product **QuickSpecs**) • > 64 GB DIMMs	• 2.5 inch SAS4 drive • Passive GPU • NS204i-u boot device • Tape storage • > TDP 165 W processors	• Networking cards with AOC transceivers • > TDP 150 W processors

HPE ProLiant ML30 Gen11 Server

For more information about configuration rules and requirements, see the HPE ProLiant ML30 Gen11 Server documentation on the Hewlett Packard Enterprise website (**https://www.hpe.com/info/ml30gen11-docs**).

Subtopics

4 LFF Non-Hot Plug, 4 LFF Hot-Plug
8 SFF Hot Plug

4 LFF Non-Hot Plug, 4 LFF Hot-Plug

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Non-hot plug 9232 system fan • Non-hot plug 9232 PCIe fan (option)	Unsupported options: • None	Additional unsupported options: CPUs: • Intel E-2488 95 W • Intel E-2468 95 W CPU	Additional unsupported options: PCIe cards • 10/25 GB NIC cards: P26264-B21, P08443-B21 PCIe/OCP cards

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• STD CPU fan heat sink • Performance CPU heatsink (option)		Drives: • SAS SFF HDD • SAS LFF HDD • NS204i-u boot device Power supplies: • HPE ML30 Gen10 Plus 350 W FIO Power Supply Kit • HPE ML30 Gen10 350 W Gold FIO Power Supply Kit • LTOs • RDXs • GPUs	• P08458-B21, P42044-B21

8 SFF Hot Plug

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Non-hot plug 9232 system fan • Non-hot plug 9232 PCIe fan (option) • STD CPU fan heat sink	Unsupported options: • None	Additional unsupported options: CPUs: • Intel E-2488 95 W • Intel E-2468 95 W CPU Drives: • SAS SFF HDD • SAS LFF HDD	Not supported

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Performance CPU heatsink (option)		• NS204i-u boot device Power supplies: • HPE ML30 Gen10 Plus 350 W FIO Power Supply Kit • HPE ML30 Gen10 350 W Gold FIO Power Supply Kit • LTOs • RDXs • GPUs	

HPE ProLiant ML350 Gen11 Server

For more information about configuration rules and requirements, see the HPE ProLiant ML350 Gen11 Server documentation on the Hewlett Packard Enterprise website (**https://www.hpe.com/info/ml350gen11-docs**).

Subtopics

12 LFF, 24 SFF
8 SFF, 4 LFF, 16 SFF, 8 LFF
8 NVMe

12 LFF, 24 SFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Standard fan • Performance or standard heatsink	Options limited to maximum 25°C inlet temperature: • InfiniBand networking cards ≥ 100 Gb with AOC transceiver • NS204i-u boot device in nonredundant fan configuration • 256 GB DIMMs in nonredundant fan configuration	Unsupported options: • 256GB DIMMs • NS204i-u boot device • InfiniBand networking cards • Networking OCP cards ≥ 100 Gb • Tape storage • NVMe SSDs • > TDP 270 W processors	Additional unsupported options: • Networking cards with transceivers

8 SFF, 4 LFF, 16 SFF, 8 LFF

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Standard fan • Performance or standard heatsink	Options limited to maximum 25°C inlet temperature: • InfiniBand networking cards ≥ 100 Gb with AOC transceiver and CPUs TDP > 270W	Unsupported options: • 256GB DIMMs • NS204i-u boot device • InfiniBand networking cards • Networking OCP cards ≥ 100 Gb	Additional unsupported options: • Networking cards with transceivers

Cooling component types	Standard operating support	40°C operating support	45°C operating support
	• 256 GB DIMMs in nonredundant fan configuration	• Tape storage • NVMe SSDs • > TDP 270 W processors	

8 NVMe

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Standard fan • Performance or standard heatsink	Options limited to maximum 25°C inlet temperature: • InfiniBand networking cards ≥ 100 Gb with AOC transceiver • 256 GB DIMMs in nonredundant fan configuration	Not supported	Not supported

HPE ProLiant RL300 Gen11 Server

For more information about configuration rules and requirements, see the HPE ProLiant RL300 Gen11 Server documentation on the Hewlett Packard Enterprise website (**https://www.hpe.com/info/RL300Gen11-docs**).

Subtopics

10 NVMe

10 NVMe

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Max performance fan • Performance heatsink		Not supported	Not supported

HPE ProLiant Compute XD685

For more information about configuration rules and requirements, see the HPE ProLiant Compute XD685 documentation on the Hewlett Packard Enterprise website (**https://www.hpe.com/info/ProLiantComputeXD685-docs**).

Subtopics

EDSFF front end

EDSFF front end

Cooling component types	Standard operating support	40°C operating support	45°C operating support
High performance heatsink	Options limited to maximum 25°C inlet temperature: • AMD EPYC 9374F • AMD EPYC 9384X • AMD EPYC 9544 • AMD EPYC 9555	Not supported	Not supported

Cooling component types	Standard operating support	40°C operating support	45°C operating support
	• AMD EPYC 9575F Options limited to maximum 27°C inlet temperature: • 256 GB DIMMs • 128 GB DIMMs Options limited to maximum 28°C inlet temperature: • Nvidia H200 GPU		
DLC solution	Options limited to maximum 27°C inlet temperature: • 256 GB DIMMs • 128 GB DIMMs	Not supported	Not supported

HPE Alletra 4110 System

For more information about configuration rules and requirements, see the HPE Alletra 4110 System documentation on the Hewlett Packard Enterprise website (**https://www.hpe.com/info/Alletra4110-docs**).

Subtopics

20 SFF/EDSFF AC
20 SFF/EDSFF LC

20 SFF/EDSFF AC

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Max performance fan • Performance heatsink	Options limited to maximum 25°C inlet temperature: • 128 GB and 256 GB DIMMs • Networking cards ≥ 25 Gb • InfiniBand • GPUs	Unsupported options: • NVMe power > 15 W • CPU TDP > 185 W • 64 GB, 128 GB, and 256 GB DIMMs • NS204i-u boot device • PTB (Pass-through board) • InfiniBand • PCI/OCP NIC cards > 25 Gb • Active optical transceiver (AOC cable) • GPUs	Not supported

20 SFF/EDSFF LC

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Liquid cooling fan • Closed-loop liquid cooling module	Options limited to maximum 25°C inlet temperature: • CPU TDP ≥ 300 W	Not supported	Not supported

Cooling component types	Standard operating support	40°C operating support	45°C operating support
	• NS204i-u boot device • PTB (Pass-through board) Additional unsupported options: • 64 GB, 128 GB, and 256 GB DIMMs • InfiniBand • 100 Gb/200 Gb PCI/OCP NIC cards • Active optical transceiver (AOC cable) • GPUs		

HPE Alletra 4120 System

For more information about configuration rules and requirements, see the HPE Alletra 4120 System documentation on the Hewlett Packard Enterprise website (**https://www.hpe.com/info/Alletra4120-docs**).

Subtopics

24 LFF HDD
48 SFF HDD

24 LFF HDD

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Max performance fan • Standard heatsink	Options limited to maximum 25°C inlet temperature: • CPU TDP > 205 W (and ≤ 270 W) • > 128GB DIMMs 256 GB DIMM restrictions: • 1 CPU: ◦ CPU TDP ≤ 205 W ◦ 256 GB DIMMs (2 DIMMs per channel) • 2 CPUs with rear LFF HDDs: ◦ CPU TDP ≤ 205 W ◦ 256 GB DIMMs (1 DIMM per channel maximum) ◦ No AOC cables with OCP cards ◦ GPU: A2 only (secondary riser kit only) • 2 CPUs with primary/secondary option card bays or	Unsupported options: • CPU > 165 W • DIMMs > 32 GB • PCIe NIC 10 Gb, 25 Gb, 100 Gb, 200 Gb, 400 Gb AOC and DAC • PCIe accelerators • OCP NIC 10 Gb, 25 Gb, 100 Gb, 200 Gb, 400 Gb AOC and DAC • Rear NVMe drives • Rear EDSFF drives • Rear LFF HDDs	Not supported

Cooling component types	Standard operating support	40°C operating support	45°C operating support
	rear NVMe/EDSFF drives: ◦ CPU TDP ≤ 250 W ◦ 256 GB DIMMs (1 DIMM per channel maximum) ◦ No AOC cables with OCP or PCIe cards ◦ OCP fan kit when needed		

48 SFF HDD

Cooling component types	Standard operating support	40°C operating support	45°C operating support
• Max performance fan • Standard heatsink	Options limited to maximum 25°C inlet temperature: 256 GB DIMM restrictions: • 1 CPU: ◦ 256 GB DIMMs (2 DIMMs per channel) • 2 CPUs: ◦ 256 GB DIMMs (1 DIMM per	Unsupported options: • CPU > 225 W • DIMMs > 64 GB • PCIe NIC 10 Gb, 25 Gb AOC • PCIe NIC 100 Gb, 200 Gb, 400 Gb AOC and DAC • PCIe accelerators • OCP NIC 10 Gb, 25 Gb, 100 Gb, 20	Not supported

Cooling component types	Standard operating support	40°C operating support	45°C operating support
	channel maximum)	0 Gb, 400 Gb AOC and DAC • Rear NVMe drives • Rear EDSFF drives Rear LFF HDDs	

HPE Alletra 4140 System

For more information about configuration rules and requirements, see the HPE Alletra 4140 System documentation on the Hewlett Packard Enterprise website (**https://www.hpe.com/info/Alletra4140-docs**).

Subtopics

Alletra 4140 Gen11

Alletra 4140 Gen11

Front end type	Cooling component types	Standard operating support	40°C operating support	45°C operating support
All	All		Not supported	Not supported

HPE Compute Edge Server e920 / e920d

For more information about configuration rules and requirements, see the HPE Compute Edge Server e920 / e920d documentation on the Hewlett Packard Enterprise website (**https://support.hpe.com/**).

Subtopics

HPE Compute Edge Server e920
HPE Compute Edge Server e920d

HPE Compute Edge Server e920

Front End Type	Cooling component types	Standard operating support	40°C operating support	45°C operating support
Standard	• Standard fan • Standard heat sink			Unsupported options: • Intel Xeon-P 8380 • Intel Xeon-P 8351N • Intel Xeon-P 6338T

HPE Compute Edge Server e920d

Front End Type	Cooling component types	Standard operating support	40°C operating support	45°C operating support
Standard	• Standard fan • Standard heat sink			Unsupported options: • Intel Xeon-P 8368 • Intel Xeon-P 8380 • Intel Xeon-P 8351N

Front End Type	Cooling component types	Standard operating support	40°C operating support	45°C operating support
				• Intel Xeon-P 6338T • DIMMs > 64 GB • 3.84 TB M.2 • Optane 375 Gb M.2 • Nvidia A40

HPE Cray XD220v Server

For more information about configuration rules and requirements, see the HPE Cray XD220v Server documentation on the Hewlett Packard Enterprise website (**https://www.hpe.com/info/CrayXD2000-docs**).

Subtopics

Driveless front end
8 SFF front end (2 drives per node)

Driveless front end

Cooling component types	Standard operating support	40°C operating support	45°C operating support
2 CPUs		Unsupported options: • Processors with TDP > 225 W • OCP 3.0 cards with any of the foll	Additional unsupported options: • Processors with TDP > 185 W • Add-in cards are not supported

Cooling component types	Standard operating support	40°C operating support	45°C operating support
		owing conditions : ◦ Processor TDP > 150 W ◦ QSFP56 interface ◦ AOC • PCIe cards with any of the following conditions ◦ Processor TDP > 150 W ◦ QSFP28 interface ◦ AOC	
1 CPU		Unsupported options: • Processors: 9460, 9468 • OCP 3.0 cards with any of the following conditions : ◦ QSFP56 interface ◦ AOC • PCIe cards with AOC	Additional unsupported options: • Processors with TDP > 300 W • PCIe cards with QSFP28 interface

8 SFF front end (2 drives per node)

Cooling component types	Standard operating support	40°C operating support	45°C operating support
2 CPUs		Unsupported options: • Processors with TDP > 225 W • OCP 3.0 cards with any of the following conditions: ◦ Processor TDP > 150 W ◦ QSFP56 interface ◦ AOC • PCIe cards with any of the following conditions ◦ Processor TDP > 150 W ◦ QSFP28 interface ◦ AOC	Additional unsupported options: • Processors with TDP > 185 W • Add-in cards are not supported

HPE Cray XD225v Server

For more information about configuration rules and requirements, see the HPE Cray XD225v Server documentation on the Hewlett Packard Enterprise website (**https://www.hpe.com/info/CrayXD2000-docs**).

Subtopics

Driveless front end
8 SFF front end (2 drives per node)

Driveless front end

Cooling component types	Standard operating support	40°C operating support	45°C operating support
2 CPUs		Not supported	Not supported
1 CPU		Unsupported options: • Processors with cTDP > 240 W • OCP 3.0 cards with any of the following conditions: ◦ QSFP56 interface ◦ AOC	Not supported

8 SFF front end (2 drives per node)

Cooling component types	Standard operating support	40°C operating support	45°C operating support
2 CPU		Not supported	Not supported

HPE Cray XD295v Server

For more information about configuration rules and requirements, see the HPE Cray XD295v Server documentation on the Hewlett Packard Enterprise website (**https://www.hpe.com/info/CrayXD2000-docs**).

Subtopics

Driveless front end
8 SFF front end (2 drives per node)

Driveless front end

Cooling component types	Standard operating support	40°C operating support	45°C operating support
2 CPUs		Not supported	Not supported
1 CPU		Unsupported options: • Processors with cTDP > 240 W • OCP 3.0 cards with any of the following conditions: ◦ QSFP56 interface ◦ AOC	Not supported

8 SFF front end (2 drives per node)

Cooling component types	Standard operating support	40°C operating support	45°C operating support
2 CPUs		Not supported	Not supported

HPE Cray Supercomputing XD665 CTO Chassis

For more information about configuration rules and requirements, see the HPE Cray Supercomputing XD665 CTO Chassis documentation on the Hewlett Packard Enterprise website (**https://www.hpe.com/info/CrayXD665-docs**).

Subtopics

8x SFF NVMe

8x SFF NVMe

Cooling component types	Standard operating support	40°C operating support	45°C operating support
DLC cooling loops			Unsupported options: • 128 GB DIMMs
Performance optimized air cooling	Options limited to maximum 25°C inlet temperature: • 9174F • 9274F • 9374F • 9474F	Not supported	Not supported

Cooling component types	Standard operating support	40°C operating support	45°C operating support
	• 9554		

HPE Synergy 480 Gen11 Compute Module

For more information about configuration rules and requirements, see the HPE Synergy 480 Gen11 Compute Module documentation on the Hewlett Packard Enterprise website (**https://www.hpe.com/info/synergy-docs**).

Subtopics

Driveless or 2 SFF backplane
4 SFF backplane
8 EDSFF backplane

Driveless or 2 SFF backplane

Cooling component types	Standard operating support	40°C operating support	45°C operating support
		Unsupported options: • 256 GB DIMMs • Processors: 8480+, 8470, 8468, 8468V, 8458P, 8462Y+, 6448Y, 6434	Additional unsupported options: • 128 GB DIMMs • Processors: 8470N, 8460Y+, 8452Y, 6454S, 6430

4 SFF backplane

Cooling component types	Standard operating support	40°C operating support	45°C operating support
		Unsupported options: • 256 GB DIMMs • Processors: 8480+, 8470, 8468, 8468V, 8458P, 8462Y+, 6448Y, 6434, 8470N, 8460Y+, 8452Y, 6454S, 6430	Additional Unsupported Options: • 128 GB DIMMs • Processors: 6448Y, 6442Y, 6438Y

8 EDSFF backplane

Cooling component types	Standard operating support	40°C operating support	45°C operating support
	Options limited to maximum 25°C inlet temperature: • TDP 350 W processors • 256 GB DIMMs	Unsupported options: • Processors: 8480+, 8470, 8468, 8468V, 8458P, 8462Y+, 6448Y, 6434, 8470N, 8460Y+, 8452Y, 6454S, 6430 • 128GB DIMMs	Additional unsupported options: • Processors: 6448Y, 6442Y, 6438Y

Websites

QuickSpecs

https://www.hpe.com/info/quickspecs

Hewlett Packard Enterprise Support Center

https://www.hpe.com/support/hpesc

For additional websites, see Support and other resources.

Support and other resources

Subtopics

Accessing Hewlett Packard Enterprise Support
HPE product registration
Accessing updates
Remote support
Warranty information
Regulatory information
Documentation feedback

Accessing Hewlett Packard Enterprise Support

- For live assistance, go to the Contact Hewlett Packard Enterprise Worldwide website:

  https://www.hpe.com/info/assistance

- To access documentation and support services, go to the Hewlett Packard Enterprise Support Center website:

  https://www.hpe.com/support/hpesc

Information to collect

- Technical support registration number (if applicable)
- Product name, model or version, and serial number
- Operating system name and version

- Firmware version
- Error messages
- Product-specific reports and logs
- Add-on products or components
- Third-party products or components

HPE product registration

To gain the full benefits of the Hewlett Packard Enterprise Support Center and your purchased support services, add your contracts and products to your account on the HPESC.

- When you add your contracts and products, you receive enhanced personalization, workspace alerts, insights through the dashboards, and easier management of your environment.
- You will also receive recommendations and tailored product knowledge to self-solve any issues, as well as streamlined case creation for faster time to resolution when you must create a case.

To learn how to add your contracts and products, see **https://www.hpe.com/info/add-products-contracts**.

Accessing updates

- Some software products provide a mechanism for accessing software updates through the product interface. Review your product documentation to identify the recommended software update method.
- To download product updates:

  Hewlett Packard Enterprise Support Center

  https://www.hpe.com/support/hpesc

  My HPE Software Center

  https://www.hpe.com/software/hpesoftwarecenter

- To subscribe to eNewsletters and alerts:

  https://www.hpe.com/support/e-updates

- To view and update your entitlements, and to link your contracts and warranties with your profile, go to the Hewlett Packard Enterprise Support Center **More Information on Access to Support Materials** page:

  https://www.hpe.com/support/AccessToSupportMaterials

> **IMPORTANT**
> Access to some updates might require product entitlement when accessed through the Hewlett Packard Enterprise Support Center. You must have an HPE Account set up with relevant entitlements.

Remote support

Remote support is available with supported devices as part of your warranty or contractual support agreement. It provides intelligent event diagnosis, and automatic, secure submission of hardware event notifications to Hewlett Packard Enterprise, which initiates a fast and accurate resolution based on the service level of your product. Hewlett Packard Enterprise strongly recommends that you register your device for remote support.

If your product includes additional remote support details, use search to locate that information.

HPE Get Connected

https://www.hpe.com/services/getconnected

HPE Tech Care Service

https://www.hpe.com/services/techcare

HPE Complete Care Service

https://www.hpe.com/services/completecare

Warranty information

To view the warranty information for your product, see the **warranty check tool**.

Regulatory information

To view the regulatory information for your product, view the Safety and Compliance Information for Server, Storage, Power, Networking, and Rack Products, available at the Hewlett Packard Enterprise Support Center:

https://www.hpe.com/support/Safety-Compliance-EnterpriseProducts

Additional regulatory information

Hewlett Packard Enterprise is committed to providing our customers with information about the chemical substances in our products as needed to comply with legal requirements such as REACH (Regulation EC No 1907/2006 of the European Parliament and the Council). A chemical information report for this product can be found at:

https://www.hpe.com/info/reach

For Hewlett Packard Enterprise product environmental and safety information and compliance data, including RoHS and REACH, see:

https://www.hpe.com/info/ecodata

For Hewlett Packard Enterprise environmental information, including company programs, product recycling, and energy efficiency, see:

https://www.hpe.com/info/environment

Documentation feedback

Hewlett Packard Enterprise is committed to providing documentation that meets your needs. To help us improve the documentation, click the **Feedback** button on the page of an opened document on the Hewlett Packard Enterprise Support Center portal (**https://www.hpe.com/support/hpesc**). Use this feature to send any errors, suggestions, or comments. This process captures all document information.