Have feedback on QuickSpecs? We're listening

HPE ProLiant Compute XD230 QuickSpecs

HPE introduces a scale-out system with a compact form factor, designed to meet the evolving demands of workloads in HPC and enterprise data centers.

HPE ProLiant Compute XD230 System is a compact-sized platform that delivers exceptional performance and workload flexibility in a compact footprint, enabling shared infrastructure efficiencies.

Overview

It is a 1U chassis system that supports Intel® Xeon® 6 processors with P-cores that deliver up to twice the HPC performance compared to the 5th Gen Intel® Xeon® processors. With the capability to scale up to 128 cores, 12 memory channels, and 96 PCIe lanes per socket, the Intel® Xeon® 6 processors address diverse HPC application needs, significantly reducing memory bandwidth bottlenecks with innovative Multiplexed Rank DIMMs (MRDIMM) delivering up to 8800 megatransfers per second (MT/s).

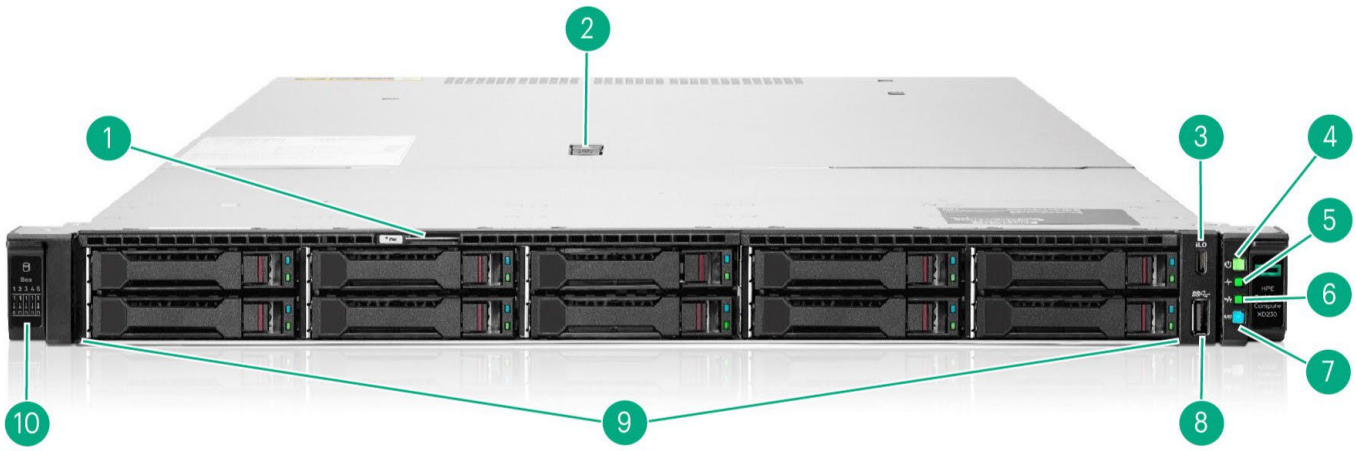
HPE ProLiant Compute XD230 delivers a complete HPC solution from chassis-scale to rack-scale, in a rack-scale deployment. It offers a complete, scalable solution for HPC customers everywhere, and ensures maximum performance at the lowest possible total cost of ownership. It comes with the flexibility of right-sized power and cooling options, including closed loop cooling, Direct Liquid Cooling and support for Rear Door Heat Exchanger (RDHX) and Adaptive Rack Cooling Solutions (ARCS).

Built with Exascale-ready networking technologies, integrated storage, extensive software portfolio and management tools, HPE ProLiant Compute XD230 systems can enable customers to innovate and prepare for tomorrow's challenges.

What's New

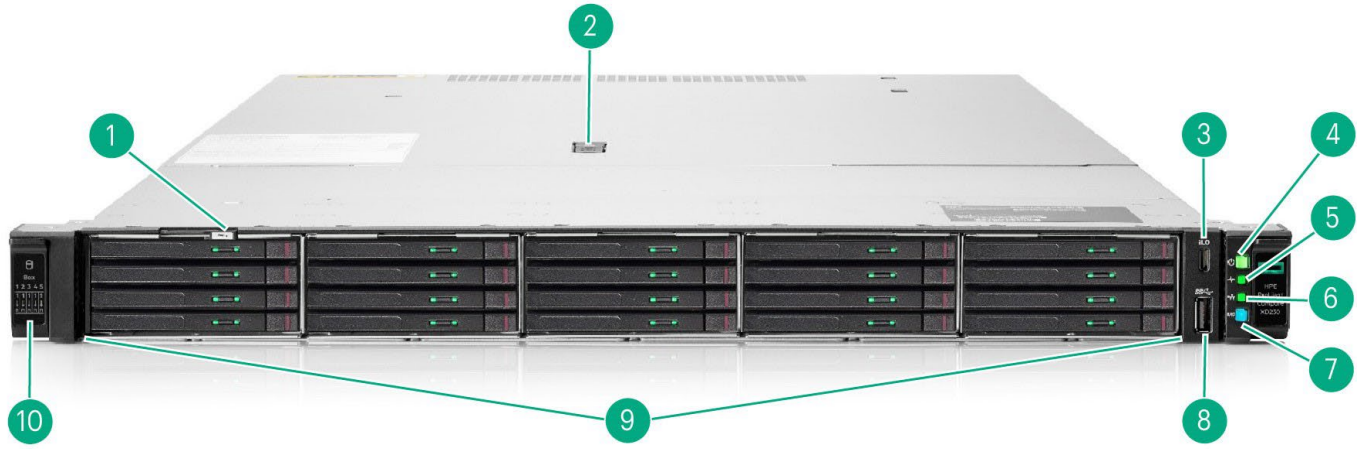
- All new XD230 server
  - New 6th Generation Intel® Xeon® Scalable Processors (AP with P-cores) Support for up to 24 DDR5 6400MT/s DIMMs per 1 server Support for up to 24 DDR5 8800MT/s MRDIMMs per 1 server
- Direct Liquid Cooling (DLC) option for HPE ProLiant Compute XD230 System comes ready to plug-and-play.
- Supports up to two 3200 W or 2400 W redundant power supplies, delivering up to 6400 W of power in a single node.
- Features Slingshot 200 Gbps and 400 Gbps, InfiniBand NDR, and standard Ethernet, offering a range of HPC interconnect technologies.
- Includes HPE Integrated Lights-Out (iLO) server management software.
- Provides hot-pluggable, high-availability RAID M.2 boot options.
- Compatible with OpenBMC through the iLO Transfer of Ownership process.

Overview



HPE ProLiant Compute XD230

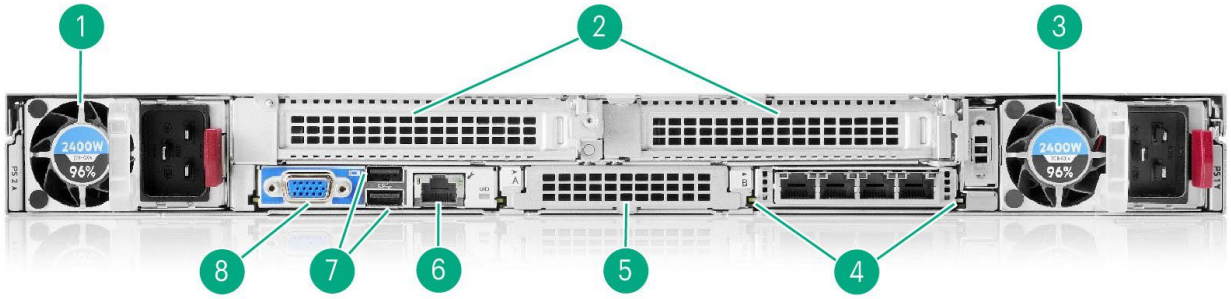
Item	Description	Item	Description
1.	Serial number/iLO information pull tab	6.	NIC status LED
2.	Quick removal access panel	7.	UID button LED
3.	iLO Service port	8.	USB 3.2 Gen1 port
4.	Power on/Standby button/LED	9.	10x SFF drives
5.	Health LED	10.	Drive support label



HPE ProLiant Compute XD230

Item	Description	Item	Description
1.	Serial number/iLO information pull tab	6.	NIC Status LED
2.	Quick removal access panel	7.	UID button LED
3.	iLO Service port	8.	USB 3.2 Gen1 port
4.	Power on/Standby button/LED	9.	20x EDSFF drives
5.	Health LED	10.	Serial number/iLO information pull tab

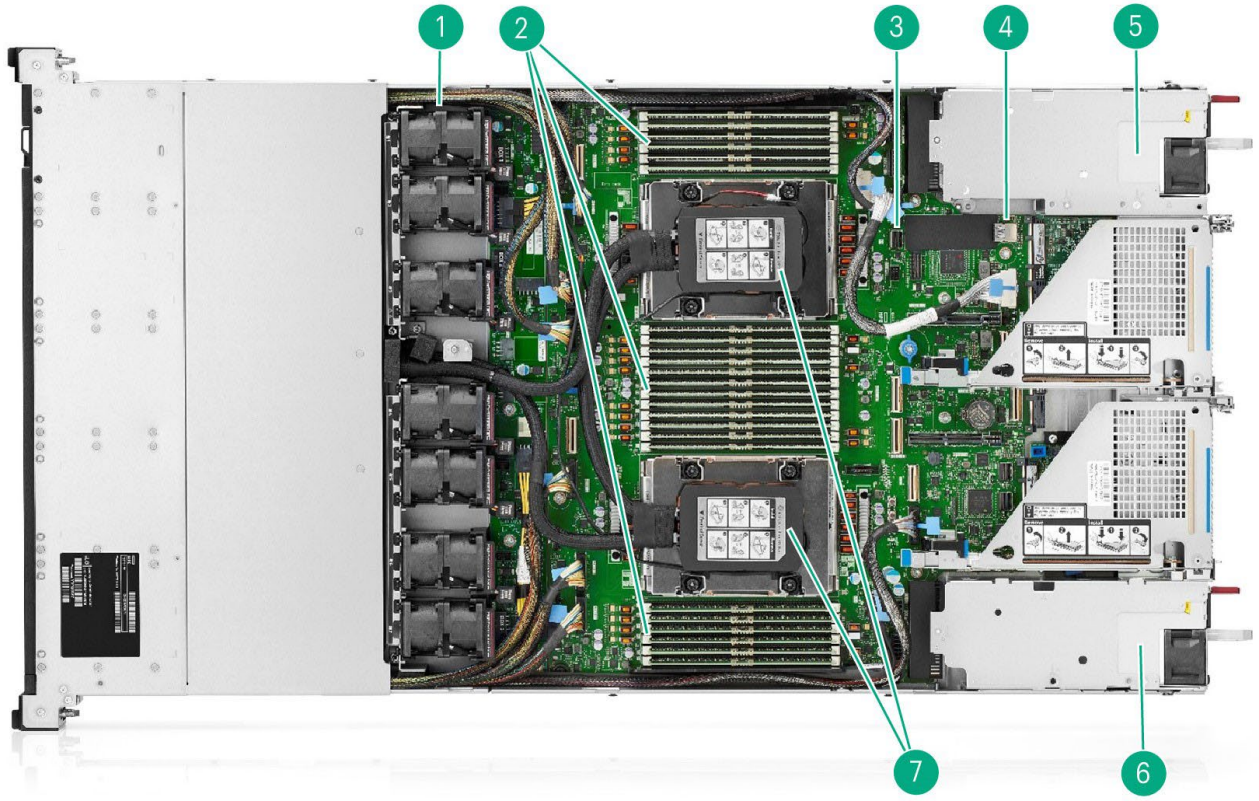
Overview



HPE ProLiant Compute XD230 Server Rear Panel Components

Item	Description	Item	Description
1.	Power supply 2	5.	OCP A slot
2.	Slot 1 & 2 x16 PCIe 5.0 – Full Height Supported Options: 2 FHHL (CLC) model (as shown) 3 HHHL (CLC) model 1 FHHL + 1 HHHL (DLC) model	6.	iLO Management Port
3.	Power supply 1	7.	USB 3.2 Gen1 Ports
4.	OCP B slot	8.	Video (VGA) port

Overview



HPE ProLiant Compute XD230 – Internal View

Item	Description	Item	Description
1.	FAN #1 - #7	5.	Power supply 1
2.	DDR5 DIMM Slots (24 DIMMs fully populated as shown)	6.	Power supply 2
3.	Boot Optimized Storage Device 41 Connector (for NS204i-u signal)	7.	CPU 1 (top) and CPU 2 (bottom)
4.	Internal USB 3.2 Gen1 port		

Overview

Platform Information

Form Factor

– 1U rack

Chassis Types 20 EDSFF Carrier 1T (EC1) drive bays 10 SFF Basic Carrier (BC) drive bay

Each HPE ProLiant Compute XD230 Chassis is built with the following:

– Supports up to two (2) power supplies for the chassis
  - Minimum of one (1) power supply required.
– Five backplanes, each with 2 SFF NVMe drives
– Or five backplanes each with 4 EDSFF drives

HPE ProLiant Compute XD230 server

– 2P server built on the 6th Generation Intel® Xeon® Scalable Processors. With choices from 72-128 cores, up to 2.0 GHz base and 3.9 GHz turbo CPU speed and power ratings up to 500 W
– XD230 has 24 memory channels per server and supports 8800 MT/s memory, up to three PCIe 5.0 slots, and multiple networking options including high speed fabric.
– Optional M.2 NVMe SSD: 2 x 480 GB or 2 x 960 GB (shipped with optional HPE NS204i-u NVMe Hot Plug Boot Optimized Storage Device):
– One iLO Management Port

Rack Airflow Requirements

HPE ProLiant Compute XD230 System

The increasing power of new high-performance processor technology requires increased cooling efficiency for rack-mounted servers. For maximum cooling, HPE racks are recommended to allow these racks to be fully loaded with servers using the latest processors. For detailed information, please see HPE ProLiant Compute XD230 System User Guide.

Notes:

– If a third-party rack is used, observe the following additional requirements to ensure adequate airflow and to prevent damage to the equipment.
– When selecting Direct Liquid Cooling (DLC), HPE racks are required for factory integration.
– Always use blanking panels to fill all remaining empty front panel U-spaces in the rack. This arrangement ensures proper airflow. Using a rack without blanking panels will result in improper cooling that can lead to thermal damage.

Standard Features

Modular Common Redundant Power Supplies (M-CRPS)

HPE's M-CRPS power supplies are certified for high-efficiency operation and offer multiple power output options—both high-line and low-line—enabling users to right-size the power supply for specific server configurations. In addition to more secure firmware upgrades and ease of serviceability, their flexibility helps reduce power waste, lower overall energy costs, and prevent "trapped" power capacity in the data center.

HPE M-CRPS power supplies are available in two physical design options (73.5 mm and 60 mm widths), allowing for hot-plug, tool-less installation into select HPE ProLiant Gen12 Performance Servers. This server supports the following power supplies:

- HPE 2400 W M-CRPS Kit — C20 connector
- HPE 3200 W M-CRPS Kit — C20 connector

Notes: All of the above power supplies are rated for 96% efficiency.

- For information on power specifications and technical content, visit HPE Server power supplies.
- To determine the power requirements for your configuration, please use the HPE Power Advisor Tool.
- For information on power cord specifications, visit the HPE Power Cords and Cables guide.

6th Gen Intel® Xeon® Processor	Cores	Base Frequency	Max Frequency	Max Memory	Default TDP (W)	Cache	DDR5 Memory	MCR Memory
Xeon® 6980P	128	2.0 GHz	3.9 GHz	3 TB	500	504 MB	6400 MT/s	8800 MT/s
Xeon® 6978P	120	2.1 GHz	3.9 GHz	3 TB	500	504 MB	6400 MT/s	8800 MT/s
Xeon® 6972P	96	2.4 GHz	3.9 GHz	3 TB	500	480 MB	6400 MT/s	8800 MT/s
Xeon® 6960P	72	2.7 GHz	3.9 GHz	3 TB	500	432 MB	6400 MT/s	8800 MT/s
Xeon® 6952P	96	2.3 GHz	4 GHz	3 TB	400	480 MB	6400 MT/s	8800 MT/s

On System Management Chipset

HPE iLO ASIC

Read and learn more in the iLO QuickSpecs

Memory

Type	DDR5 Registered (RDIMM) MCRDIMM
DIMM slots available	24 slots per server 12 channels per processor, 1 DIMM per channel
Maximum capacity (RDIMM)	3 TB 24 x 128 GB @6400 MT/s

Notes: Memory DIMM availability with a server platform is dependent upon completion of certification testing.

Standard Features

Expansion Slots & Riser Information

Full Height Riser FIO Cage Kit (P77595-B21)					
Option	**Technology**	**Bus Width**	**Connector Width**	**Slot Form Factor**	**Source**
1	PCIe 5.0	x16	x16	Full Height	CPU1 & 2

Low Profile Riser FIO Cage Kit (P77596-B21)					
Option	**Technology**	**Bus Width**	**Connector Width**	**Slot Form Factor**	**Source**
2	PCIe 5.0	x16	x16	Low Profile	CPU1 & 2

Notes:

- If quantity one of 'FH Riser' is in the order, then the customer can choose max of one 'LP Riser'.
- If quantity two of 'FH Riser' is in the orders, then customers cannot select 'LP Riser'.
- If No 'FH Riser' is in the order, then customers can select max of three 'LP Riser'.
- If Direct Liquid Cooling (HPE XD230 DLC FIO Kit) is in the order, If Riser Cards are selected, then the only allowed combination of risers is: 1 Quantity of 'LP Riser' and/or 1 Quantity of 'FH Riser'.

Maximum Internal Storage Per node		
Drive	**Capacity**	**Configuration**
M.2 NVMe SSDs	960 GB	2x 480 GB

Internal Storage Devices

Optional M.2 NVMe SSD Mezz Riser Kit: 2 x 480 GB or 2 x 960 GB (shipped with optional HPE NS204i-u NVMe Hot Plug Boot Optimized Storage Device).

Interfaces

USB Ports	2 external USB 3.2 Gen1 Ports 1 Internal USB 3.2 Gen1 port
Health LED	1
Power	1
UID	1
Do not remove LED	1

Industry Standard Compliance

- ACPI 6.3 Compliant
- PCIe 5.0 Compliant
- WOL Support
- Microsoft® Logo certifications
- PXE Support
- USB 3.0 Compliant (internal)
- SMBIOS 3.4

Standard Features

- UEFI 2.8
- Redfish API
- European Union ErP Lot 9 Regulation, known as the EU eco-design regulations for server and storage products, establishes power thresholds for idle state, as well as efficiency and performance in active state which vary among configurations. HPE ProLiant Gen12 servers are compliant with Lot9 requirements. Please visit: https://www.HPE.com/us/en/about/environment/msds-specs-more.html for more information regarding HPE Lot 9 conformance.

  Beginning on January 1st, 2024, units sold into the European Economic Area (EEA), the United Kingdom, Switzerland, or Turkey must include more efficient AC power supplies: 94% for multi-output and 96% for single-output. HPE M-CRPS power supplies are single-output, and the part numbers P67240-B21, P67244-B21, P67248-B21, and P67252-B21 are 96% efficient, thus meeting the requirements.

  HPE is on target to fulfill compliant systems ahead of time and will begin enforcing these requirements in advance to satisfy requests with the current power supplies by the set deadline.

Power Specifications

To review typical system power ratings, please use the HPE Power Advisor Tool
For information on power specifications and technical content visit HPE Common Slot Power Supplies - Specifications

HPE ProLiant Compute XD230 Server UEFI

Unified Extensible Firmware Interface (UEFI) is an industry standard that provides better manageability and more secured configuration than the legacy ROM while interacting with your server at boot time.

The UEFI System utility is embedded in the system ROM. Its features enable you to perform a wide range of configuration activities, including:

- Configuring system devices and installed options.
- Enabling and disabling system features.
- Displaying system information.
- Selecting the primary boot controller or partition.
- Configuring memory options.
- Launching other pre-boot environments.

HPE ProLiant Compute XD230 servers with UEFI can provide:

- Secure Boot that enables the system firmware, option card firmware, operating systems, and software that collaborates to enhance platform security.
- An Embedded UEFI Shell that provides a pre-boot environment for running scripts and tools.
- Boot support for option cards that only support a UEFI option ROM.

Standard Features

UEFI

Configure and boot your servers securely with industry-standard Unified Extensible Firmware Interface (UEFI).
Learn more at: http://www.HPE.com/servers/uefi

Software Portfolio for HPE ProLiant Compute XD230s

Operating Systems and Virtualization Software Support for XD230 Servers

HPE servers are designed for seamless integration with partner Operating Systems and Virtualization Software. By collaborating closely with our partners, we ensure that their products are optimized, certified, and fully supported within your HPE server environment. Access the certified and supported servers for each OS and Virtualization software: HPE Servers Support & Certification Matrices.

Fabric software

- Mellanox UFM

Server Management

HPE iLO Advanced

HPE iLO Advanced licenses offer smart remote functionality without compromise, for all HPE ProLiant servers. The license includes the full integrated remote console, virtual keyboard, video, and mouse (KVM), multi-user collaboration, console record and replay, and GUI-based and scripted virtual media and virtual folders. You can also activate the enhanced security and power management functionality.

HPE OneView Advanced

HPE OneView Advanced offers a sophisticated level of automation to infrastructure management by taking a template driven approach to provisioning, updating, and integrating compute, storage, and networking infrastructure. It provides full-featured licenses which can be purchased for managing multiple HPE server generations. To learn more visit http://www.HPE.com/info/oneview

HPE Performance Cluster Manager

Fully integrated system management solution offering the capabilities you need to manage your HPE Linux®-based high performance computing (HPC) clusters.
HPE Performance Cluster Manager aggregates system metrics and remote management.
The software provides:

- System setup
- Hardware monitoring and management including GPU management
- Image management and software updates
- Power management
- Integration with ISV & open-source software solutions
- AIOps capabilities

Standard Features

HPE Message Passing Interface (MPI) is an MPI development environment designed to enable the development and optimization of high-performance computing (HPC) applications. This software leverages a scalable MPI library and boosts performance of existing applications without requiring recompilation.

Additional 3rd party software development tools:

- AMD AOCC
- Intel® oneAPI
- GNU Compiler Collection
- Perforce® TotalView®
- Mellanox HPC-X

Security

- UEFI Secure Boot and Secure Start support
- HPE XD Hardware Root of Trust
- Tamper-free updates – components are digitally signed and verified
- Secure Recovery – recover critical firmware to known good state on detection of compromised firmware
- TPM (Trusted Platform Module) Module Kit option
- HPE ProLiant Compute XD230 supports OpenSSL 3.0
- Runtime Firmware Validation – Periodically scans essential firmware for compromised code during runtime

Liquid Cooling Overview

Liquid cooling provides effective cooling for the most powerful chips while they operate at their highest possible performance. It also provides very energy efficient cooling and enables higher rack densities.

Selecting DLC Options

HPE ProLiant Compute XD230 servers can be equipped with Direct Liquid Cooling (DLC) by selecting from the following options, in addition to normal server configuration menu options:

Notes: *highlighted options are specific to ARCS configurations only

Standard Features

SKU Description	HPE SKU	Selection Criteria	Comments
HPE 42U 800 mm x 1200 mm Enterprise G2 Shock rack	P9K46A	One (1) per rack	DLC compatible 42U HPE racks
HPE 48U 800 mm x 1200 mm Enterprise G2 Shock rack	P9K58A		DLC compatible 48U HPE racks
HPE ARCS 48U 800 mm x1600 mm Rack*	R8N95A		DLC compatible 48U HPE ARCS racks
HPE Cray XD 75 kW 208 V FIO In-Rack Coolant Distribution Unit	P55832-B21	One (1) per rack	4U CDU mounted at the bottom of the rack
HPE Cray Fill and Drain FIO Hand Pump Kit	P59920-B21	One (1) for multiple racks	Filling kit for CDU. One can be used to service multiple CDUs
HPE Cray 4U CDU 2.5 m FIO Leak Detection Kit	P55834-B21	One (1) per rack	Additional external leak detection cable (is default but can be removed if not needed). Connects to rear of CDU and can be routed to desired location (CDU already contains internal leak detection)
HPE Cray G2 Rack 25.4 mm SAN to FD83 Secondary FIO Water Hose Kit	P56290-B21	One (1) per rack	1″ inner diameter hose kit connects the CDU to the rack manifold in a standard HPE G2 rack
HPE Cray ARCS 25.4 mm SAN to FD83 Secondary FIO Water Hose Kit*	P56291-B21		1″ inner diameter hose kit connects the CDU to the rack manifold in a HPE ARCS rack
HPE Cray 25 mm 1.83 m Primary FIO Water Hose Kit with Insulation	P56286-B21	One (1) per rack	1″ inner diameter insulated hose kit connects the CDU to the facility water piping below the rack
HPE Cray 25 mm 3.66 m Primary FIO Water Hose Kit with Insulation	P56287-B21		1″ inner diameter Insulated hose kit connects the CDU to the facility water piping above the rack
HPE Cray 38 mm 1.83 m Primary FIO Water Hose Kit	P59224-B21		1.5″ inner diameter non-insulated hose kit connects the CDU to the facility water piping below the rack
HPE Cray 38 mm 3.66 m Primary FIO Water Hose Kit	P59225-B21		1.5″ inner diameter non-insulated hose kit connects the CDU to the facility water piping above the rack
HPE Cray 42U 72-node Direct Liquid Cooling FD83 SCG03 FIO Rack Manifold	P56288-B21	One (1) per rack	42U rack manifold with connections for 72 servers
HPE Cray 48U 84-node Direct Liquid Cooling FD83 SCG03 FIO Rack Manifold	P56289-B21		48U rack manifold with connections for 84 servers
HPE XD230 DLC FIO Kit	P76166-B21	One (1) per server	
HPE XD230 DLC FIO Cage Kit	P77598-B21		

Cooling options

The following optional cooling technologies are compatible with both air cooled and liquid cooled HPE servers.

HPE Adaptive Rack Cooling System (ARCS)

HPE ARCS can provide advanced cooling for HPE ProLiant Compute XD230 servers using facility water.
This cooling solution supports up to 4 full racks (servers, networking or storage) and manages 100% of the server heat in a completely enclosed cluster. It provides cool air for inlet side and manages exhaust heat, transferring it to facility water cooling. When servers with DLC are added to ARCS, the highest rack density is possible, with 100% heat transfer to facility water.

This option can be used for air cooled HPE ProLiant Compute XD230 racks or in combination with DLC to cool high density racks.

For additional information, refer to the HPE Adaptive Rack Cooling System QuickSpecs here.

HPE Rear Door Heat Exchanger (RDHX)

HPE RDHX can neutralize warm exhaust air from HPE ProLiant Compute XD230 servers using facility water.
This cooling solution attaches to the back of a single rack (servers, networking or storage) and neutralizes the hot air exiting the rack by transferring the heat to facility water cooling. When servers with DLC are added to RDHX, the highest rack density is possible, with 100% heat transfer to facility water.
This option can be used for air cooled HPE ProLiant Compute XD230 racks or in combination with HPE ProLiant Compute XD230 DLC to cool high density racks.

For additional information, please visit HPE Rear Door Heat Exchanger QuickSpecs here.

Service and Support

HPE Services

No matter where you are in your digital transformation journey, you can count on HPE Services to deliver the expertise you need when, where, and how you need it. From planning to deployment, ongoing operations and beyond, our experts can help you realize your digital ambitions.
https://www.HPE.com/services

Consulting Services

No matter where you are in your journey to hybrid cloud, experts can help you map out your next steps. From determining what workloads should live where, to handling governance and compliance, to managing costs, our experts can help you optimize your operations.
https://www.HPE.com/services/consulting

HPE Managed Services

HPE runs your IT operations, providing services that monitor, operate, and optimize your infrastructure and applications, delivered consistently and globally to give you unified control and let you focus on innovation.
HPE Managed Services | HPE

Operational services

Optimize your entire IT environment and drive innovation. Manage day-to-day IT operational tasks while freeing up valuable time and resources. Meet service-level targets and business objectives with features designed to drive better business outcomes.
https://www.HPE.com/services/operational

HPE Complete Care Service

HPE Complete Care Service is a modular, IT environment service designed to help optimize your entire IT environment and achieve agreed upon IT outcomes and business goals through a personalized experience. All delivered by an assigned team of HPE Services experts. HPE Complete Care Service provides:

- A complete coverage approach
- An assigned HPE team
- Modular and fully personalized engagement
- Enhanced Incident Management experience with priority access
- Digitally enabled and AI driven customer experience

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

HPE Tech Care Service

HPE Tech Care Service is the operational support service experience for HPE products. The service goes beyond traditional support by providing access to product-specific experts, an AI driven digital experience, and general technical guidance to not only reduce risk but constantly search for ways to do things better. HPE Tech Care Service delivers a customer-centric, AI driven, and digitally enabled customer experience to move your business forward. HPE Tech Care Service is available in three response levels. Basic, which provides 9x5 business hour availability and a 2-hour response time. Essential, which provides a 15-minute response time 24x7 for most enterprise-level customers, and Critical, which includes a 6-hour repair commitment where available and outage management response for severity 1 incidents.
https://www.HPE.com/services/techcare

HPE Lifecycle Services

HPE Lifecycle Services provide a variety of options to help maintain your HPE systems and solutions at all stages of the product lifecycle. A few popular examples include:

- Lifecycle Install and Startup Services: Various levels for physical installation and power-on, remote access setup, installation and startup, and enhanced installation services with the operating system.
- HPE Firmware Update Analysis Service: Recommendations for firmware revision levels for selected HPE products, taking into account the relevant revision dependencies within your IT environment.
- HPE Firmware Update Implementation Service: Implementation of firmware updates for selected HPE server, storage, and solution products, taking into account the relevant revision dependencies within your IT environment.
- Implementation assistance services: Highly trained technical service specialists to assist you with a variety of activities, ranging from design, implementation, and platform deployment to consolidation, migration, project management, and onsite technical forums.
- HPE Service Credits: Access to prepaid services for flexibility to choose from a variety of specialized service activities, including assessments, performance maintenance reviews, firmware management, professional services, and operational best practices.

Notes: To review the list of Lifecycle Services available for your product go to:
https://www.HPE.com/services/lifecycle

For a list of the most frequently purchased services using service credits, see the HPE Service Credits Menu

Other Related Services from HPE Services

HPE Education Services

Training and certification designed for IT and business professionals across all industries. Broad catalogue of course offerings to expand skills and proficiencies in topics ranging from cloud and cybersecurity to AI and DevOps. Create learning paths to expand proficiency in a specific subject. Schedule training in a way that works best for your business with flexible continuous learning options.
https://www.HPE.com/services/training

Service and Support

Defective Media Retention

An option available with HPE Complete Care Service and HPE Tech Care Service and applies only to Disk or eligible SSD/Flash Drives replaced by HPE due to malfunction.

Consult your HPE Sales Representative or Authorized Channel Partner of choice for any additional questions and service options.

Parts and Materials

HPE will provide HPE-supported replacement parts and materials necessary to maintain the covered hardware product in operating condition, including parts and materials for available and recommended engineering improvements.

Parts and components that have reached their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual, product QuickSpecs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

How to Purchase Services

Services are sold by Hewlett Packard Enterprise and Hewlett Packard Enterprise Authorized Service Partners:

- Services for customers purchasing from HPE or an enterprise reseller are quoted using HPE order configuration tools.
- Customers purchasing from a commercial reseller can find services at https://ssc.HPE.com/portal/site/ssc/

AI Powered and Digitally Enabled Support Experience

Achieve faster time to resolution with access to product-specific resources and expertise through a digital and data driven customer experience

Sign in to the HPE Support Center experience, featuring streamlined self-serve case creation and management capabilities with inline knowledge recommendations. You will also find personalized task alerts and powerful troubleshooting support through an intelligent virtual agent with a seamless transition to a live support agent when needed.
https://support.HPE.com/hpesc/public/home/signin

GreenLake

GreenLake is the cloud to run and manage your entire hybrid landscape—private, public, and edge. It helps you to:

- Streamline IT Operations across compute, storage, and networking without the chaos
- Unify and secure data, as you move faster
- Accelerate AI, from pilot to production

The result: greater operational efficiency, lower TCO, and faster AI delivery—all from one unified, intelligent platform built for today’s hybrid enterprise.

Configuration Information

This section lists some of the steps required to configure a Factory Integrated Model. To ensure only valid configurations are ordered, Hewlett Packard Enterprise recommends the use of a Hewlett Packard Enterprise approved configurator. Contact your local sales representative for information on configurable product offerings and requirements.

Notes: FIO indicates that this option is only available as a factory installable option.

Step 1: Choose the Server

Option 1	SKU
HPE ProLiant Compute XD230 Configure-to-order Server	P74169-B21
HPE ProLiant Compute DL380a Gen12 iLO DC-SCM 2.0 FIO Management Module Kit	P74726-B21

Option 2	SKU
HPE ProLiant Compute XD230 v2 Configure-to-order Server	P83951-B21
HPE ProLiant Compute XD230 iLO7 DC-SCM FIO Management Module Kit	P77597-B21

Notes: XD230 launched with iLO6 in Feb 2025 and was upgraded to XD230 v2 with iLO7 in Sep 2025. Please use XD230 v2 with iLO7 (option2) for all new configurations.

Power Supplies	SKU
HPE 2400 W M-CRPS Titanium Hot Plug Power Supply Kit	P67252-B21
HPE 3200 W M-CRPS Titanium Hot Plug Power Supply Kit	P67248-B21

Cooling Options	SKU
HPE ProLiant Compute XD230 Closed-loop Liquid Cooling FIO Kit	P76165-B21
HPE ProLiant Compute XD230 Direct Liquid Cooling FIO Kit	P76166-B21

Step 2: Choose Processor option

Notes: Certain limitations may apply to select processors, please contact your HPE sales representative

Intel® Processors – Factory Integrated Processor Kit for XD230	SKU
Intel Xeon 6980P 2.0 GHz 128-core 500 W Processor Kit for HPE ProLiant Compute XD	P76802-B21
Intel Xeon 6978P 2.1 GHz 120-core 500 W Processor Kit for HPE ProLiant Compute XD	P84907-B21
Intel Xeon 6972P 2.4 GHz 96-core 500 W Processor Kit for HPE ProLiant Compute XD	P76804-B21
Intel Xeon 6960P 2.7 GHz 72-core 500 W Processor Kit for HPE ProLiant Compute XD	P76805-B21
Intel Xeon 6952P 2.1 GHz 96-core 400 W Processor Kit for HPE ProLiant Compute XD	P76806-B21

Notes: Mixing of Processors is not allowed. If two Processors are in the order along with 'HPE XD230 CLC FIO Kit' then maximum of two 'HPE DL3XX G12 1U 4 EDSFF NVMe Stack BP Kit' are allowed per server.

Step 3: Choose Additional Options from Core and Additional Options sections below

HPE ProLiant Compute XD230 Memory

Registered DIMMs and MRDIMM for XD230	SKU
HPE 32 GB (1x32GB) Dual Rank x8 DDR5-6400 CAS-52-52-52 EC8 Registered Smart Memory Kit	P69727-H21
HPE 64 GB (1x64GB) Dual Rank x4 DDR5-6400 CAS-52-52-52 EC8 Registered Smart Memory Kit	P69728-H21
HPE 96 GB (1x96GB) Dual Rank x4 DDR5-6400 CAS-52-52-52 EC8 Registered Smart Memory Kit	P69729-H21

Configuration Information

HPE 128 GB (1x128GB) Dual Rank x4 DDR5-6400 CAS-52-52-52 EC8 Registered Smart Memory Kit	P69730-H21
HPE 32 GB (1x32GB) Dual Rank x8 DDR5-88/44 CAS-36-36-36 EC8 Multiplexed Rank Smart Memory Kit	P76826-H21
HPE 64 GB (1x64GB) Dual Rank x4 DDR5-88/44 CAS-36-36-36 EC8 Multiplexed Rank Smart Memory Kit	P76828-H21

Notes:

- Mixing of Memory is not allowed.
- P76828-H21 requires the selection of 'HPE XD230 DLC FIO Kit'
- If this Memory P69730-H21 or P76826-H21 is selected along with HPE XD230 CLC FIO Kit then max of quantity of two of HPE DL3XX G12 1U 4 EDSFF NVMe Stack BP Kit are allowed per server.

Drive Cage

	SKU
HPE ProLiant Compute DL3XX Gen12 1U 4EDSFF NVMe Stacking Backplane Kit	P72221-B21
HPE ProLiant Compute DL3XX Gen12 1U 2SFF x4 Tri-Mode U.3 Stacking Backplane Kit	P72223-B21

Step 4: Choose Additional Factory Integrated Options

	SKU
HPE NS204i-u Gen11 NVMe Hot Plug Boot Optimized Storage Device	P48183-B21
HPE NS204i-u v2 960 GB NVMe SED Hot Plug Boot Optimized Storage Device	P81162-B21

Hard Drives

Hot Plug EDSFF	SKU
HPE 1.92 TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 CD8P SSD	P69234-H21
HPE 3.84 TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 CD8P SSD	P69237-H21
HPE 7.68 TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 CD8P SSD	P69239-H21
HPE 1.6 TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 CD8P SSD	P69241-H21
HPE 3.2 TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 CD8P SSD	P69243-H21
HPE 6.4 TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 CD8P SSD	P69245-H21
HPE 15.36 TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 CD8P SSD	P69546-H21
HPE 3.84 TB NVMe Gen5 High Performance Read Intensive E3S EC1 PS1010 SSD	P70392-H21
HPE 7.68 TB NVMe Gen5 High Performance Read Intensive E3S EC1 PS1010 SSD	P70395-H21
HPE 15.36 TB NVMe Gen5 High Performance Read Intensive E3S EC1 PS1010 SSD	P70397-H21
HPE 3.2 TB NVMe Gen5 High Performance Mixed Use E3S EC1 PS1030 SSD	P70399-H21
HPE 6.4 TB NVMe Gen5 High Performance Mixed Use E3S EC1 PS1030 SSD	P70401-H21
HPE 12.8 TB NVMe Gen5 High Performance Mixed Use E3S EC1 PS1030 SSD	P70403-H21
HPE 3.2 TB NVMe Gen5 High Performance Mixed Use E3S EC1 Self-encrypting FIPS 140-3 CM7 SSD	P70669-H21
HPE 6.4 TB NVMe Gen5 High Performance Mixed Use E3S EC1 Self-encrypting FIPS 140-3 CM7 SSD	P70672-H21
HPE 7.68 TB NVMe Gen5 High Performance Read Intensive E3S EC1 Self-encrypting FIPS 140-3 CM7 SSD	P70674-H21

Notes:

- Requires the selection of 'Four EDSFF NVMe Stack BP Kit'.
- Total number of EDSFF Drives allowed per server depends on number of 'EDSFF Drive Cage' ordered. One 'EDSFF Drive cage' can support up to 4 EDSFF Drives, consider this during the total number of EDSFF Drives allowed per server.

Configuration Information

Hot Plug SFF	SKU
HPE 1.92 TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61019-H21
HPE 3.84 TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61027-H21
HPE 7.68 TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61035-H21
HPE 1.6 TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61043-H21
HPE 3.2 TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61051-H21
HPE 6.4 TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61059-H21
HPE 1.92 TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 CM7 SSD	P63829-H21
HPE 3.84 TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 CM7 SSD	P63833-H21
HPE 7.68 TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 CM7 SSD	P63837-H21
HPE 15.36 TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 CM7 SSD	P63841-H21
HPE 1.6 TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 CM7 SSD	P63845-H21
HPE 3.2 TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 CM7 SSD	P63849-H21
HPE 6.4 TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 CM7 SSD	P63853-H21
HPE 960 GB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2 Multi Vendor SSD	P64842-H21
HPE 1.92 TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2 Multi Vendor SSD	P64844-H21
HPE 3.84 TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2 Multi Vendor SSD	P64846-H21
HPE 7.68 TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2 Multi Vendor SSD	P64848-H21
HPE 800 GB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 Static V2 Multi Vendor SSD	P64999-H21
HPE 1.6 TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 Static V2 Multi Vendor SSD	P65007-H21
HPE 3.2 TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 Static V2 Multi Vendor SSD	P65015-H21
HPE 6.4 TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 Static V2 Multi Vendor SSD	P65023-H21
HPE 3.2 TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PS1030 SSD	P70426-H21
HPE 6.4 TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PS1030 SSD	P70428-H21
HPE 7.68 TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PS1010 SSD	P70434-H21
HPE 15.36 TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PS1010 SSD	P70436-H21

Notes:

- Requires the selection of 'Two SFF x 4 TM Stack BP Kit'
- Total number of SFF Drives allowed per server depends on number of 'SFF Drive Cage' ordered. One 'SFF Drive cage' can support up to 2 SFF Drives, consider this during the total number of SFF Drives allowed per server.

Storage Controller	SKU
HPE MR416i-p Gen11 x16 Lanes 8 GB Cache PCI SPDM Plug-in Storage Controller	P47777-B21
HPE MR416i-o Gen11 x16 Lanes 8 GB Cache OCP SPDM Storage Controller	P47781-B21
HPE MR216i-p Gen11 x16 Lanes without Cache PCI SPDM Plug-in Storage Controller	P47785-B21
HPE MR216i-o Gen11 x16 Lanes without Cache OCP SPDM Storage Controller	P47789-B21
HPE MR408i-o Gen11 x8 Lanes 4 GB Cache OCP SPDM Storage Controller	P58335-B21
HPE MR408i-p Gen11 x8 Lanes 4 GB Cache PCI SPDM Plug-in Storage Controller	P74775-B21

Notes:

- Requires the selection of 'HPE 96 W Smart Stg Li-ion Batt 145 mm Kit' (P01366-B21) or 'HPE Smart Hybrid Capacitor w/ 145 mm Cable'(P02377-B21) or HPE 16 W Smart Hybrid Cap w/145 mm Cable (P65038-B21)

Configuration Information

- One Controller can support up to two SFF Drive Cages or one EDSFF Drive Cage. Consider this during the total selection of Controller to support Drive Cages.
- Requires the selection of 'HPE XD230 Controller Signal Cable Kit' OR 'HPE XD230 MR408i-p Signal Cable Kit'.
- Requires the selection of 'HPE XD230 OROC Signal Cable' OR 'HPE XD230 MR408i-o Signal Cable Kit'.
- One Controller can support one SFF Drive Cage. Consider this during the total selection of Controller to support Drive Cages.
- It cannot be selected with EDSFF Drive cage.

Networking	**SKU**
Broadcom BCM57416 Ethernet 10 GB 2-port BASE-T OCP3 Adapter for HPE	P10097-B21
Intel E810-XXVDA2 Ethernet 10/25 GB 2-port SFP28 OCP3 Adapter for HPE	P10106-B21
Broadcom BCM57414 Ethernet 10/25 GB 2-port SFP28 OCP3 Adapter for HPE	P10115-B21
Intel E810-CQDA2 Ethernet 100 GB 2-port QSFP28 OCP3 Adapter for HPE	P22767-B21
Broadcom BCM57412 Ethernet 10 GB 2-port SFP+ OCP3 Adapter for HPE	P26256-B21
Broadcom BCM57504 Ethernet 10/25 GB 4-port SFP28 OCP3 Adapter for HPE	P26269-B21
Intel E810-XXVDA4 Ethernet 10/25 GB 4-port SFP28 OCP3 Adapter for HPE	P41614-B21
Mellanox MCX631432AS-ADAI Ethernet 10/25 GB 2-port SFP28 OCP3 Adapter for HPE	P42041-B21
Broadcom BCM57416 Ethernet 10 GB 2-port BASE-T OCP3 Adapter for HPE	P10097-B21
HPE InfiniBand NDR/Ethernet 400 GB 1-port OSFP PCIe5 x16 MCX75310AAS-NEAT Adapter	P45641-H23
HPE InfiniBand NDR200/Ethernet 200 GbE 2-port QSFP112 PCIe5 x16 MCX755106AC-HEAT Adapter	P65333-H21
HPE Data Processing Unit InfiniBand NDR/Ethernet 400 GB 1-port QSFP112 HHHL B3140H Adapter	P66387-H21

HPE Performance Cluster Manager

For additional information, please visit HPE Performance Cluster Manager QuickSpecs here

	SKU
HPE Performance Cluster Manager 1 Node 3yr 24x7 Support Perpetual E-LTU	Q9V60AAE

Notes:
- One license per node
- Including three years of support
- This is an electronic license
- This is a perpetual license. The software will continue working even when the support term ends

HPE Performance Cluster Manager 1 Node 3yr 24x7 Support Perpetual LTU	Q9V60A

Notes:
- One license per node.
- Includes three years of support.
- This is a perpetual license. The software will continue working even when the support term ends.

HPE Performance Cluster Manager FIO Software	Q9V61A

Notes:
- This SKU does not include the license. Please order with Q9V60AAE.
- Order one per node

HPE Performance Cluster Manager Media Kit	Q9V62A

Notes: One media kit per solution.

Configuration Information

HPE Power Distribution Units

Power Distribution Units (PDUs) are an integral piece to this data center solution and HPE offers several types. Basic PDUs provide reliable power with 0U or 1U installation options. Metered PDUs have added intelligence to precisely track power usage and switched PDUs provide both local and remote power management. There are additional metered PDUs that are recommended for this solution that are not part of the mainstream PDU product offering. They are as follows:

	SKU
HPE Metered 3Ph 57.6kVA/60309 100A 5-wire 80A/230 V Outlets (3) C13 (18) C19/Vertical NA PDU	880460-B21
HPE Metered 3Ph 34.5kVA/60309 60A 5-wire 48A/230 V Outlets (3) C13 (18) C19/Vertical NA FIO PDU	880461-B21
HPE Cray Supercomputer 60A 415 V 3 Phase 24 CX PDU	R4N30A
HPE Mtrd 3P 69.1kVA 125A 96A230V FIO PDU	880462-B21
HPE Metered 3Ph 45.1kVA/60309 63A 5-wire 63A/230 V Outlets (3) C13 (18) C19/Vertical INTL FIO PDU	880463-B21
HPE Cray Supercomputer 63A 400 V 3 Phase 24 CX PDU	R4N29A

Technical Specifications

HPE ProLiant Compute XD230		
Dimensions	**Height**	1.69 in (4.3 cm)
	Width	17.11 in (43.46 cm)
	Depth	30.04 in (86.47 cm)
Shipping Dimensions	**Height**	9.52 in (24.2 cm)
	Width	23.6 in (60 cm)
	Depth	43.3 in (110 cm)
Net Weight		51.41 lbs. (23.32 kg)
Ship Weight	**Approximate – 10 SFF drive configuration**	78.37 lbs. (35.55 kg)
System Inlet Temperature Standard Operating Support	10 ° to 35 °C (50 ° to 95 °F)	At sea level with an altitude derating of 1.0 °C per every 305 m (1.8 °F per every 1000 ft) above sea level to a maximum of 3050 m (10,000 ft), no direct sustained sunlight. Maximum rate of change is 20 °C per hour. (68 °F per hour.). The upper limit and rate of change may be limited by the type and number of options installed.
Extended Ambient Operating Support	5 ° to 10 °C (41 ° to 50 °F) and 35 ° to 40 °C (95 ° to 104 °F)	System performance may be reduced during standard operating conditions if operating with a fan fault or at temperatures above 30 °C (86 °F). For approved hardware configurations, the supported system inlet range is extended to be: 5 ° to 10 °C (41 ° to 50 °F) and 35 ° to 40 °C (95 ° to 104 °F) at sea level with an altitude derating of 1.0 °C per every 175 m (1.8 °F per every 574 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft). For approved hardware configurations, the supported system inlet range is extended to be: 40 ° to 45 °C (104 ° to 113 °F) at sea level with an altitude derating of 1.0 °C per every 125 m (1.8 °F per every 410 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the URL:http://www.HPE.com/servers/ashrae System performance may be reduced if operating in the extended ambient operating range or with a fan fault.
	-30 ° to 60 °C (-22 ° to 140°F).	Maximum rate of change is 20 °C/hr. (36 °F/hr.).
Relative Humidity (non-condensing) Operating	8% to 90%	Relative humidity (RH), 28 °C maximum wet bulb temperature, non-condensing.
Non-operating	5 to 95%	Relative humidity (RH), 38.7 °C (101.7 °F) maximum wet bulb temperature, non-condensing.
Altitude Operating	3050 m (10,000 ft).	This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
Non-operating	9144 m (30,000 ft).	Maximum allowable altitude change rate is 457 m/min (1500 ft/min).

Environmentally-friendly Products and Approach – End-of-life Management and Recycling

Hewlett Packard Enterprise offers end-of-life product return, trade-in, and recycling programs, in many geographic areas for our products. Products returned to Hewlett Packard Enterprise will be recycled, recovered, or disposed of in a responsible manner.

The European Union Waste Electrical and Electronic Equipment Directive [EU WEEE] (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. Information about product disassembly instructions can be found here**.**

These instructions may be used by recyclers and other WEEE treatment facilities as well as Hewlett Packard Enterprise OEM customers who integrate and re-sell Hewlett Packard Enterprise equipment.

TCO Certified

The HPE ProLiant XL225n servers have been TCO Certified. All HPE TCO Certified products can be found in the TCO Certified Product Finder. More information on TCO Certified can be downloaded here: https://www.HPE.com/us/en/about/environment/eco-labels.html

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Summary of Changes

Date	Version History	Action	Description of Change
06-Apr-2026	Version 15	Added	Added additional factory integrated options: (P01366-B21) and (P02377-B21) or HPE 16W Smart Hybrid Cap w/145mm Cable (P65038-B21).
02-Mar-2026	Version 14	Changed	Service and Support section was updated.
		Added	Updated GreenLake statement.
02-Feb-2026	Version 13	Changed	Standard Features and Core Options sections were updated.
		Added	Modular Common Redundant Power Supplies (M-CRPS) rules and Storage Controllers SKUs.
05-Jan-2026	Version 12	Changed	Configuration Information section was updated.
		Added	Registered DIMMs and MRDIMM for XD230 SKU.
		Removed	InfiniBand obsolete SKU.
01-Dec-2025	Version 11	Changed	Configuration Information section was updated.
		Added	HPE Memory rules.
		Removed	Hard Drive Hot Plug SFF obsolete SKU.
03-Nov-2025	Version 10	Changed	Standard Features and Configuration Information sections were updated.
		Added	HPE Servers Support and Certification Matrices.
06-Oct-2025	Version 9	Changed	Configuration Information section was updated.
		Added	Server Base SKUs, Storage Controller, and Networking SKUs.
02-Sep-2025	Version 8	Changed	Overview, Standards Features and Configuration Information sections were updated.
		Added	Updated ErP Lot9 Regulation.
		Removed	Intel® Processors – Factory Integrated Processor Kit for XD230 obsolete SKU.
28-Jul-2025	Version 7	Changed	Survey link updated.
12-Jun-2025	Version 6	Changed	Configuration Information section was updated
27-May-2025	Version 5	Changed	Overview and Standard Features sections were updated
28-Apr-2025	Version 4	Changed	Overview and Standard Features sections were updated
07-Apr-2025	Version 3	Changed	Overview, Standard Features and Configuration Information sections were updated
03-Mar-2025	Version 2	Changed	Overview and Standard Features sections were updated
03-Feb-2025	Version 1	New	New QuickSpecs

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