

Overview

Shape the Future of QuickSpecs – Your Input Matters

HPE Alletra Storage MP X10000

Data is the life force of modern business, driving insights, innovation, and competitive advantage. To stay ahead, organizations must accelerate and prioritize their data-driven modernization efforts. However, this journey is often hindered by challenges such as limited performance, scalability limitations, and operational complexity.

HPE Alletra Storage MP X10000 is a next-generation, software defined, scale-out data system that delivers high-performance object storage services, data intelligence services, and an architecture designed for exabyte-scale capacities to accelerate time-to-value from data-intensive workloads including active data lakes, digital repositories, and modern data protection. The X10000 is managed through the HPE GreenLake cloud, which uniquely enables simplified and unified cloud management of HPE's block, file, and object services, allowing enterprises to optimize their hybrid estate to take full advantage of AI.



HPE Alletra Storage MP X10000
(2-Node all NVMe Storage Base)

What is new

- QLC drives for capacity-centric workloads such as data protection
- Data intelligence services automatically add custom metadata to objects.
- Optional data protection acceleration node(s) to increase performance and efficiency when HPE Alletra Storage MP X10000 provides the storage for high-capacity and high-restore performance data protection workloads.

Overview

Data intelligence to enhance AI and analytics

- **Infuse data with intelligence:** Built-in, inline data intelligence services provide the ability to easily and efficiently enrich file metadata to improve the speed, accuracy and outcomes for AI and analytics projects.
- **Built-in support for instant Retrieval-Augmented Generation (RAG) pipelines:** The X10000 enables you to accelerate data pipelines by extracting metadata in the form of vector embeddings. These embeddings can then be used to connect to large language models (LLMs).
- **Software development kit (SDK) for NVIDIA AI Data Platform:** Streamline unstructured data pipelines for AI-driven ingestion, training, and inference. The SDK for the X10000 integrates seamlessly with the NVIDIA AI Data Platform reference design, enabling accelerated performance and intelligent pipeline orchestration for agentic AI.

Enhance and accelerate data access

- **Bring data closer to compute:** Manage your unstructured data with a singular solution that delivers a high-performance object storage service, exabyte-scale capacity, a flexible containerized design, and radically simple management with HPE GreenLake cloud.
- **Access data across your hybrid estate:** Designed to integrate with on-premises and cloud-native environments, the X10000 is a software defined containerized solution featuring Kubernetes-based orchestration.

Sustain efficient performance at scale

- **Built for data intensive workloads:** Power your most demanding data lake, digital repository, and data protection workloads with a high-performance, high throughput, low latency solution optimized for flash that leverages a disaggregated architecture to maximize resource utilization and deliver linear performance at scale.
- **Rapid restore:** Modernize your backup environment by replacing legacy data storage solutions with the X10000 to rapidly restore data and recover quickly from outages and disasters, including ransomware attacks.
- **Right-size with ease to support diverse workloads:** The X10000's disaggregated architecture allows for independent scaling of performance and capacity to meet the needs of any workload while lowering costs and increasing flexibility. Rebalance performance and capacity during expansion with minimal performance impact and no need for expensive data movement.
- **Start small, scale big:** Don't be forced to overprovision right from the start. The X10000 allows you to start with just three nodes and is designed to scale to hundreds of nodes, while always maintaining storage efficiency and high availability.
- **Store data efficiently and densely:** Lower your storage hardware requirements and reduce costs with inline data reduction and efficient erasure coding technologies.

Simplify with an intuitive cloud operational experience

- **Unify management for IT and end-users:** HPE Data Services Cloud Console (DSCC) enables centralized management, monitoring, protection, self-provisioning, and proactive support capabilities for your global infrastructure with a singular cloud console.
- **Scale simply, non-disruptively and infinitely:** Seamlessly scale without pausing your business operations based on an elastic cloud-native software platform that scales autonomously with your data infrastructure.
- **Optimize your infrastructure and meet SLAs:** Take the guesswork out of provisioning decisions. Data Ops Manager (DOM) provides better visibility into the utilization of the existing infrastructure to avoid over-saturation situations.
- **Simplify onboarding:** Streamlined device deployment can be completed in minutes. New systems are automatically discovered and onboarded.
- **Ensure secure management of global infrastructure:** Secure entry points end-to-end—from identity and access management, through to back-end hardening and intrusion detection based on multilevel advanced capabilities.
- **Cloud-like, consumption-based acquisition:** HPE GreenLake allows cloud-like procurement through a pay-as-you-go, consumption basis model. HPE GreenLake allows you to scale storage and compute capacity up and down while paying only for the capacity consumed.



Standard Features

Hardware

- HPE Alletra Storage MP X10000 is powered by the HPE Alletra Storage MP hardware platform. This platform features a 2U chassis as the building block, with each chassis holding either two storage controller nodes or 24 high-performance SSDs. In addition, a pair of dedicated 100Gbps Ethernet switches provide interconnect between the modules.
- The optional data protection accelerator node is based on a StoreOnce Gen 5 System. Up to 4 of these accelerator nodes can be added to the HPE Alletra Storage MP X10000 to support high-capacity and high-performance data protection workloads. The HPE Alletra Storage MP X10000 SPOCK document should be consulted to check interoperability with backup software. Each accelerator node includes 8 SSDs with RAID 6 protection to provide 92 TB of cache and can be configured with up to 2 PB of backup data storage.

Simplify management with an intuitive cloud experience on-prem

- **Simplify operations and move faster with a cloud operational experience:** Reduce on-premises storage complexity across the lifecycle— from install to upgrade — with an AI-driven cloud operational experience powered by the HPE GreenLake cloud.
- **Unified storage management:** 100% cloud-managed infrastructure means you can manage, monitor, and protect your global storage environment from a single cloud console that's accessible from any location, on any device – so managing hundreds of systems across geographies is as simple as managing one.

HPE Alletra Storage MP X10000 – Storage Controller Nodes

Base Chassis	2U
Minimum Number of Nodes	3
Maximum Number of Nodes	8
Number of slots per Node ¹	4
Minimum / Maximum Host Ports per Storage Controller (100 Gbps)	2 / 4 Ports
Minimum / Maximum Host Ports per Storage Controller (10/25 Gbps)	4 / 8 Ports
Max Raw Capacity per System ³	5898TB / 5364TiB
Max Effective Capacity ² per System ³	8777TB / 7982TiB

HPE Alletra Storage MP X10000 – JBOF Storage Shelf

JBOF Storage Shelf	2U
Minimum Number of JBOFs	1
Maximum Number of JBOFs ³	8
SSDs per Expansion Shelf	24
Max Raw Capacity per expansion shelf	737TB / 670.6TiB
Max Effective Capacity ² per expansion shelf	1097TB / 998TiB

HPE Alletra Storage MP X10000 – Data Protector Accelerator Node

Accelerator node	2U
Minimum number of nodes	0
Maximum number of nodes	4
SSDs	8
25 GbE ports	8
Usable cache for data protection acceleration	92 TB
Max usable storage for backup data per accelerator node	2 PB
Max effective ⁴ storage for backup data per accelerator node	120 PB



Standard Features

- All Storage Controllers in an X10000 must have identical host-port configurations.
- Mixing 100Gbps and 10/25Gbps host-ports is not supported

Notes:

- ¹Slot 3 and Slot 4 can be used for host connectivity (at least one is required); Slot 1 and Slot 2 are used for inter-node communication
- ²Effective capacity assumes 2:1 data compaction ratio (compression) in a triple parity RAID (20+3+1) configuration. Note TB vs TiB. Actual ratios will vary based on workload.
- ³Limits will increase with future software versions
- ⁴Assumes the HPE StoreOnce deduplication achieves a 60:1 space saving of backup data written compared to backup data stored. The actual space saving may be higher or lower depending upon multiple factors including the protected data type, the change rate of the protected data, the backup frequency and the restore point retention times.

Host OS Support

The X10000 supports connections from any host capable of making HTTPS connections.
The AWS and MinIO S3 SDKs have been tested and are supported.



Service and Support

Warranty

HPE Alletra Storage MP X10000 has a 1-year, parts only warranty. The warranty on all X10000 Solid State Drives (SSD) is 1 year, parts only, and offers unconditional replacement in case of drive failure, media wear-out, or both. For more information about Hewlett Packard Enterprise's Global Limited Warranty and Technical Support, visit: <http://www.hpe.com/storage/warranty>

Notes:

- For hardware warranty claims, defective parts must be received before replacement parts are shipped
- Warranty is covered under HPE Storage Global Limited Warranty and Technical Support
- Link to [HPE Global Limited Warranty and Technical Support](#)

Service and Support

Support is required for all HPE Alletra Storage MP X10000 systems. Support SKUs provide up to five years of 24x7 telephone support for the arrays and hardware components (Including SSDs reaching the write wear limit).

HPE Services Tech Care is an operational service experience that goes beyond traditional support by providing access to product specific experts, an AI driven digital experience, and general technical guidance. HPE Services Tech Care has been reimaged from the ground up to support a customer-centric, AI-driven, and digitally enabled customer experience to move your business forward.

Additional recommended HPE Services to help you accelerate your business outcomes

- HPE Service Credits
- HPE Backup and Recovery Efficiency Analysis Service - [Datasheet](#) [Customer Presentation](#)
- HPE Data Profiling Service – [Datasheet](#) - [Customer Presentation](#)
- HPE File Data Migration Service (also support object/S3) – [Datasheet](#) - [Customer Presentation](#)
- HPE Data Sanitization Service

Notes: Support contract is mandatory for all HPE Alletra Storage MP X10000 products

Data Services Support with HPE Alletra Storage MP X10000

A valid subscription enables the following enterprise-level support:

- 24x7 telephone support for all entitled services available through HPE Data Services
- Direct connection to expert-level support within minutes
- Guidance through troubleshooting and configuration of available services and interoperability within your cloud and/or on-premises environment.

For a summary of HPE Alletra Storage MP X10000 service and support features, see the following Tech Care addendum:

<https://www.hpe.com/psnow/doc/a50003571enw>

Proactive Support Account Manager Services – Pro SAM (PSM)

For any organization with a sizeable deployment of HPE Alletra Storage MP X10000 or business-critical use cases, the assigned HPE Proactive Support Manager (HPE Pro SAM) Service can be enlisted to provide management and support services that are tailored to fit the exact needs of the organization. The world-class HPE Pro SAM team includes some of the most experienced and reliable storage experts in the industry. HPE Pro SAM services are strongly recommended for your HPE Alletra Storage MP X10000 product and experience. For a summary of the Pro SAM (PSM) benefits, see the following data sheet:

<https://www.hpe.com/psnow/doc/a00030176enw>



Service and Support

HPE Services Tech Care

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 Services Tech Care is available with the following service level options for HPE Alletra Storage MP X10000:

- Essential, which provides 24x7 onsite parts exchange

Service Feature	Coverage Window	Feature Description
Enhanced phone response	Remote response service is available 24 hours per day, 7 days per week including HPE holidays.	15-minute callback for severity 1 incidents, 1 hour for severity 2 and 3; where available, direct phone access to product specialists without the need for a callback (all severities).
4-hour on-site attendance	On-site response service is available 24 hours per day, 7 days per week including HPE holidays.	4-hour on-site attendance ^{3*} for covered hardware.

Notes: *See [Hardware on-site support service limitations](#) section for more information regarding on-site response times. Regardless of the service level, customers have direct access to Level 3 support engineers by telephone 24x7.
<https://www.hpe.com/us/en/services/tech-care.html>

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/us/en/services/lifecycle-services.html>

For a list of the most frequently purchased services using service credits, see the [HPE Service Credits Menu](#)



Service and Support

Installation Services

Installation Services are intended to guide you from start to finish and to help make your installation a success. This installation service is mandatory, and the installation engagement includes:

- Inventory and verify HPE Alletra Storage MP X10000 equipment against the sales order and site preparation survey conducted by the pre-sales team.
- Physically rack and cable all HPE Alletra Storage MP X10000 equipment, including connecting network cables provided by the customer.
- Conduct power-on tests and verify operation.
- Add the storage and compute to an existing HPE Alletra Storage MP X10000
- Configure basic management, monitoring, & reporting capabilities
- Configure for additional data networks / SAN connectivity as needed
- Installation services are required for all components of HPE Alletra Storage MP X10000 products.

Other Related Services from HPE Services:

HPE Education Services

Training and certification are designed for IT and business professionals across all industries. A broad catalogue of course offerings is available 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>

Defective Media Retention

An option available with HPE Complete Care Service and HPE Tech Care Service and applies only to 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 services 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 into 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 seamless transition when needed to a live support agent.

<https://support.hpe.com/hpesc/public/home/signin>



Service and Support

Consume IT On Your Terms

HPE GreenLake edge-to-cloud platform brings the cloud experience directly to your apps and data wherever they are—the edge, colocations, or your data center. It delivers cloud services for on-premises IT infrastructure specifically tailored to your most demanding workloads. With a pay-per-use, scalable, point-and-click self-service experience that is managed for you, HPE GreenLake edge-to-cloud platform accelerates digital transformation in a distributed, edge-to-cloud world.

- Get faster time to market
- Save on TCO, align costs to business
- Scale quickly, meet unpredictable demand
- Simplify IT operations across your data centers and clouds

For more information about HPE Alletra Storage MP X10000 on HPE GreenLake platform please visit:

[HPE GreenLake for Alletra Storage MP X10000](#)

To learn more about HPE Services, please contact your Hewlett Packard Enterprise sales representative or Hewlett Packard Enterprise Authorized Channel Partner. Contact information for a representative in your area can be found at "Contact HPE"

<https://www.hpe.com/us/en/contact-hpe.html>

For more information: **<http://www.hpe.com/services>**

HPE Complete Care Service

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

- A complete coverage approach -- edge to cloud
- 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/completecure>



Configuration Information

Section 1: Storage Chassis and Controller Nodes

HPE Alletra Storage MP X10000 configuration starts with selecting the HPE Alletra Storage MP Chassis and Storage Controller Nodes. Each HPE Alletra Storage MP Chassis is a 2U unit that includes two 1600-watt high-line power supplies and can house either 1 or 2 controller nodes. Although the chassis includes 24-drive bays, they do not contain SSDs. A minimum of two MP chassis with compute nodes is required. Based on the configuration, all chassis, except the final one, must be populated with two storage controller nodes. The final chassis may be configured with either one or two controller nodes. Additional storage shelves can be added to expand capacity as needed.

Each Controller Node contains two (2) OCP slots for host adapters (Slot 3 and Slot 4), and Slot 1 and Slot 2 are used for internode and back-end communication.

Section 2: Storage Shelves (JBOFs)

- The minimum supported quantity is twenty-four (24) drives per chassis
- Within a shelf all drives must be of the same capacity and type. Mixing drives of different capacities on the same shelf is not allowed.
- Mixing shelves with different drive sizes is supported; however, the ratio of capacity of the highest capacity shelf to the lowest capacity shelf should not be higher than four (4).
- The system supports up to eight (8) storage shelves

To support a variety of performance and capacity needs, the X10000 OS 1.2.0.0 introduces support for QLC drives alongside existing TLC options. This enhancement offers greater flexibility with a broader range of capacity and performance profiles to suit diverse workload requirements. Please note drive types cannot be mixed within a cluster. All drives in a cluster must be either TLC or QLC to maintain consistency in performance,

TLC drives are optimized for high write throughput, making them ideal for write-intensive workloads. In contrast, the new QLC drive options deliver significantly higher storage density, making them better suited for capacity-centric workloads where write performance is less critical. For guidance on selecting the best drive type, please refer to the HPE Ninja Sizer tool (<https://ninjaonline.ext.hpe.com/D>).

Below are the available drive choices from which to select:

Choices of TLC drives include:

- HPE Alletra Storage MP 3.84TB NVMe SFF Self-encrypting TLC SSD
- HPE Alletra Storage MP 7.68TB NVMe SFF Self-encrypting TLC SSD
- HPE Alletra Storage MP 15.36TB NVMe SFF Self-encrypting TLC SSD
- HPE Alletra Storage MP 30.72 TB NVMe SFF Self-encrypted TLC SSD

Choices of QLC drives include:

- HPE Alletra Storage MP 15.36TB NVMe SFF Self-encrypting QLC SSD
- HPE Alletra Storage MP 30.72TB NVMe SFF Self-encrypting QLC SSD
- HPE Alletra Storage MP 61.44TB NVMe SFF Self-encrypting QLC SSD



Configuration Information

Section 3: Switch Bundle

HPE Alletra Storage MP 32-port 100GbE Switch Bundle

For each HPE Alletra Storage MP X10000 configuration, two (2) of the switch bundles are added. The switch bundles can only be used for interconnectivity of HPE Alletra Storage MP X10000 storage controller nodes and HPE Alletra Storage MP X10000 JBOFs.

Notes: HPE Alletra Storage MP switch bundles cannot be used for connectivity to host servers or any other systems

Section 4: Power Supplies and Power Cords

The HPE Alletra Storage MP X10000 Chassis requires two (2) Power Supplies per chassis. All Power Supplies will be factory-integrated in the Storage chassis for shipment and support high-line 220V.

All power cords will default to 2m length cords.

Section 5: Front-side Host Network Configuration (Network Adapters)

Host adapters are used for connection to hosts. HPE Alletra Storage MP X10000 does not have any built-in host ports, therefore, any configuration needs to have at least one (1) host adapter per storage controller node. Host adapters provide connectivity between the storage controller nodes and the hosts and the data protection accelerator node when that is configured. These adapters are factory-integrated into the controller nodes.

For each X10000 configuration, a choice is available between a HPE Alletra Storage MP 100GbE 2-port OCP Bus Adapter (HBA) or HPE Alletra Storage MP 10/25GbE 4-port HBA.

- Each Storage Controller Node must have at least one 10/25GbE HBA or one 100GbE HPA for host connectivity. A Controller Node without any host adapters is not a supported configuration.
 - Maximum of two (2) 10/25GbE HBA or two (2) 100GbE can be ordered per Controller Node.
 - All Storage Controller nodes in an X10000 system must have the same number and type of host adapters.
 - Mixing 10/25GbE and 100GbE host adapters is not supported.
-

Section 6: Bluetooth Connectivity Kit Option

HPE Alletra Storage MP supports a Chassis Discovery Module (CDM) – Bluetooth Connector Kit - which enables the chassis connecting to Data Services Cloud Console (DSCC) without a controller node presents. There is an optional Bluetooth setup and configuration of the chassis.

Section 7: Racking

HPE Alletra Storage MP X10000 is compatible with most industry standard 4-post EIA 19-inch racks with square mounting holes. HPE Alletra Storage MP X10000 will be shipped without a rack for field integration into an existing rack.



Configuration Information

Section 8: Software

HPE Alletra Software and Support SaaS

HPE Alletra Storage MP X10000 includes a subscription to HPE Alletra Storage MP Software and Support SaaS that includes all-inclusive software features for the specified raw capacity and term, and it enables cloud-based management of the array from the HPE Data Services Cloud Console and access to data services, and related support.

HPE Alletra Software and Support SaaS

HPE Alletra Storage MP X10000 per TB 3-year Software and Support SaaS

HPE Alletra Storage MP X10000 per TB 5-year Software and Support SaaS

Section 9: *Optional* data protector accelerator node

For high-capacity data protection solutions and high restore performance data protection solutions. Each data protector accelerator node can be configured with up to 2 PB of Alletra Storage MP X10000 capacity. Up to four (4) data protector accelerator nodes can be added to provide up to 8 PB of physical storage capacity to support backup software. These nodes feature HPE StoreOnce backup data deduplication to reduce the space requirements for the backup data.

HPE Storage StoreOnce G5 7720 92TB Accelerator for Alletra Storage MP X10000

To enable the backup data to be encrypted at rest HPE Storage StoreOnce G5 Encryption LTU license is required per data protector accelerator node. This license has to be self-installed.

Section 10: Support

Choose HPE Services Tech Care to experience the new operational service for HPE products. For HPE Alletra Storage MP X10000, only one level of HPE Services Tech Care is currently available:

1. Essential: provides 4-hour parts exchange where available

All levels of Tech Care enjoy 7x24 access to experienced technical engineers upon calling HPE for support.

<https://www.hpe.com/psnow/doc/a50003571enw>

Section 11 – Installations

Storage Installation and Startup Service

- HPE Alletra Storage MP X10000 Installation and Startup Service provides deployment of your HPE Alletra Storage MP X10000, helping to ensure proper installation in your storage environment as well as helping you increase the benefit from your storage investment. The service provides activities required to help you deploy your HPE Alletra Storage MP X10000 into operation.
- HPE Alletra Storage MP X10000 Base Configuration Startup Service fully deploys your HPE Alletra Storage X10000 base configuration. The base configuration includes 3 nodes and 1 JBOF with 2 external switches basic connectivity.
- HPE Alletra Storage MP X10000 Controller Startup Service —This service provides installation and startup for every additional controller node above the base configuration. The service can be leveraged for also other node slot components such as IOMS and compute nodes.
- HPE Alletra Storage MP X10000 JBOF Startup Service —The service provides installation and startup service for every additional JBOF above base configuration defined previously.
- HPE Alletra Storage MP X10000 data protector acceleration node Startup Service - This service provides installation and startup service for one data protector accelerator node.

No Self-Installation – Startup Services are Required

Self-Installation is not yet available for the HPE Alletra Storage MP X10000 or the data protector accelerator node.

Hewlett Packard Enterprise requires HPE Deployment Services.



Technical Specifications

Power Requirements

Input Voltage - AC PCM option

- HPE Alletra Storage MP X10000 Base: 200 to 240 VAC (50 to 60 Hz)
- HPE Alletra Storage MP X10000 data protection accelerator node: 200 to 240 VAC (50 to 60 Hz)

HPE Alletra Storage MP X10000 Power

Physical Dimensions	Width in/mm	Depth in/mm	Height in/mm/U	Weight lb/kg	Max Power	Idle Power	Max Heat	Idle Heat
HPE Alletra Storage 10000 MP Base Enclosure (Enclosure, two Controller IOMs, two PS, one CDM, no drives, no HBAs)	19.00 / 483	33.11 / 841	3.44 / 87.5 / 2	74.0 / 33.6	1072W	780W	3658 BTU/Hr	2662 BTU/Hr
HPE Alletra Storage 10000 MP Base Enclosure Packaging Pallet	23.00/584 24.00/610	38.75/ 984 40.00/ 1016	11.50/292					
HPE Alletra Storage MP NVMe SSD with carrier	3.11 / 79	6.57 / 167	0.59 / 15.0	0.63 / 0.28	14.5W	7W	49 BTU/Hr	24 BTU/Hr
HPE 10/25Gb 4-port Ethernet Host Bus Adapter	3.33 / 84.6	5.20 / 132	0.59 / 15.0	0.50 / 0.23	20.33W	20.1W	69 BTU/Hr	68 BTU/Hr
HPE Alletra Storage MP X10000 data protection accelerator node (HPE StoreOnce G5, 8 x 15.36 TB SFF SSD, two PS, 4 HBAs providing 8 x 25 GbE host ports)	17.63 / 448	32.00 / 813	3.44 / 88 / 2	47 / 21				

Environmental Specifications

Operating Temperature	41° to 95° F (5° to 35° C) - Reduce rating by 1° F for each 1000 ft altitude (1.8° C/1,000 m)	
Shipping Temperature	-30° to 60°C (-22 to 140°F). Maximum rate of change is 20°C/hr (36°F/hr)	
Operating Altitude (ft/m) max.	10,000 ft / 3,048 m	
Shipping Altitude (ft/m) max.	40,000ft / 12,192 m	
Humidity	10% to 90% non-condensing	
Shipping Humidity	10% to 90% non-condensing	
Operating Vibration	0.25 G, Sine, 5-500 Hz; 0.25 GRMS, Random 5-500 Hz	
Non-operating Vibration	0.75 G, Sine, 5-500 Hz	
Operating Shock	5G, 11ms, half-sine	
Non-operating Shock	10 G, 11ms, half-sine	
Maximum Exhaust Air Flow	HPE Alletra Storage MP Base: 267 CFM	
Acoustic Sound Pressure Level*	Typical 60% Duty Cycle Fans	100% Duty Cycle Fans
HPE Alletra Storage MP Base	65.7 dB	74.5 dB

*Acoustics Sound pressure level measured per ISO 7779 specifications



Technical Specifications

Electromagnetic Compatibility

- CISPR 32:2015/ EN 55032: 2015 +A11:2020 Class A
- BS EN 55032:2015 +A11:2020
- CISPR 35:2016/ EN 55035:2017 +A11:2020
- BS EN 55035:2017 +A11:2020
- IEN 61000-3-2: 2019 +A1:2021
- EN 61000-3-3: 2013 +A2:2021
- AS/NZS CISPR 32:2015 +A1:2020 Class A
- CNS 13438:2006 Class A
- 47 CFR Part 15 Subpart b Class A
- ICES-003 Issue 7 Class A
- VCCI-CISPR 32: 2016 Class A
- RRA Notice No. 2021-3 (2021.02.08) Class A
- RRA Notice No. 2021-10 (2021.02.08)

Safety

- IEC 60950-1:2005 (2nd Edition); +A1:2009 +A2:2013
- EN 62479:2010
- IEC 62368-1: 2014/ IEC 62368-1:2018
- EN 62368-1:2014+A11:2017/ EN 62368-1:2020 +A11:2020
- CNS 14336-1
- ANSI/UL 62368-1:2021
- CAN/CSA-C22.2 No. 62368-1:19 Update No. 1-2021

Certifications/Markings

- BIS
 - BSMI
 - cCSAus
 - CE
 - FCC Class A
 - IC Class A
 - KCC
 - Morocco
 - RCM
 - VCCI
 - WEEE
 - China RoHS
 - EU RoHS
 - UKCA
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Summary of Changes

Date	Version History	Action	Description of Change
04-Aug-2025	<u>Version 5</u>	Changed	Overview and Standard Features sections were updated - Data intelligence to enhance AI and analytics introduction. Ratio of data protection acceleration node effective capacity to usable capacity revised to 60:1 in line with ratio in HPE StoreOnce QuickSpecs Configuration Information section was updated. - HPE Alletra Storage MP 61,44TB NVMe SFF Self-encrypting QLC SSD added in Choices of QLC drives
21-Jul-2025	<u>Version 4</u>	Changed	Survey link updated
02-Jun-2025	<u>Version 3</u>	Changed	Overview, Standard Features, Service and Support and Technical Specifications sections were updated Added content on data protector accelerator node and QLC drives Added power data
05-May-2025	<u>Version 2</u>	Changed	Overview, Standard Features, Service and Support and Technical Specifications sections were updated General X10K details, and Service and Support sections were updated
20-Nov-2024	<u>Version 1</u>	New	New QuickSpecs.



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Shape the Future of QuickSpecs – Your Input Matters



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