

Overview

HPE StoreEasy 1X60 Storage

Whether you are a small, medium, or large distributed organization with remote offices, you need reliable, cost-efficient storage that can keep pace with users and growing volumes of file data without getting in the way of how your organization operates.

If you're in search of an easy-to-manage centralized space for securely storing documents, images, audio, and video files, look no further than HPE StoreEasy 1000 Storage: flexible, efficient, and reliable network-attached storage, right-sized for your organization's needs and budget, without compromising on quality or capabilities.

Built from the foundation of the most secure industry standard servers and running the Windows Storage Server 2016 Standard Edition operating system, the new StoreEasy 1460, 1560 1660 and 1860 deliver a radically simplified admin experience through a new management console developed by Hewlett Packard Enterprise, lower-cost internal capacity expansion, better performance options for resource-intensive workloads, and more security protections built-in and included as standard to help you better protect your customers, employees, and organization against loss, corruption, and breaches.

Opt for pre-configured models that include the compute, capacity, and connectivity options most organizations need in a NAS, or tailor a StoreEasy to your requirements with standard and higher performance configure-to-order models and options.

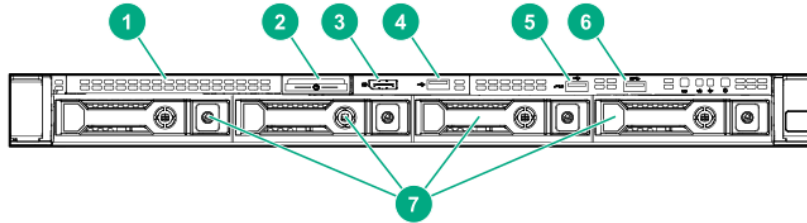
What's New

- New models and SKUs available
 - Q2R92A HPE StoreEasy 1460 8TB SATA Storage
 - Q2R93A HPE StoreEasy 1460 16TB SATA Storage
 - Q2R94A HPE StoreEasy 1460 32TB SATA Storage
 - Q2R96A HPE StoreEasy 1560 8TB SATA Storage
 - Q2R97A HPE StoreEasy 1560 16TB SATA Storage
- iLO Advanced Premium Security Edition, TPM 2.0, and chassis intrusion protection included standard with all models

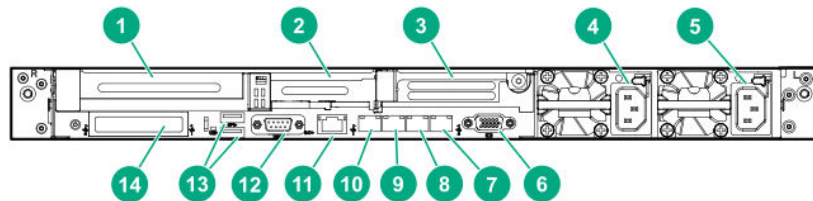
Overview

HPE StoreEasy 1460 Storage

HPE StoreEasy 1460 Storage products are storage solutions that deliver multi-protocol file serving and application storage in a compact and affordable 1U rack-mount form factor. They're easy to install and manage, making them perfect for a small workgroup, small business or remote office. StoreEasy 1460 models come with Windows Storage Server 2016 pre-installed from the factory on the four internal LFF drives. The StoreEasy 1460 is built on a ProLiant DL360 Gen 10 Server and includes a rail kit.



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|----------------------------|---------------------|
| 1. Optical drive blank | 5. iLO Service Port |
| 2. Serial label pull tab | 6. USB 3.0 Port |
| 3. Display port (optional) | 7. SATA drive bays |
| 4. USB 2.0 port (optional) | |



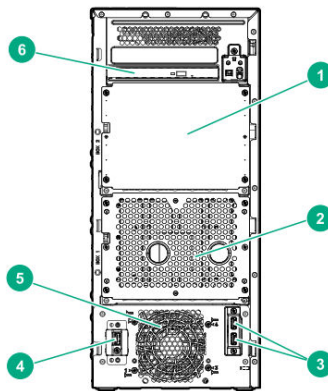
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| 1. Slot 1 PCIe3 | 8. 1GbE NIC port 3 |
| 2. Slot 2 PCIe3 | 9. 1GbE NIC port 2 |
| 3. Slot 3 PCIe (optional – requires 2 nd processor) | 10. 1GbE NIC port 1 |
| 4. Power Supply 2 | 11. iLO Management port |
| 5. Power Supply 1 | 12. Serial port (optional) |
| 6. Video port | 13. USB 3.0 ports |
| 7. 1GbE NIC port 4 | 14. FlexibleLOM (optional) |

HPE StoreEasy 1460 8TB SATA Storage	Q2R92A
NOTE: (4 x 2TB 6G 7.2K RPM LFF SATA HDDs with pre-installed OS).	
HPE StoreEasy 1460 16TB SATA Storage	Q2R93A
NOTE: (4 x 4TB 6G 7.2K RPM LFF SATA HDDs with pre-installed OS).	
HPE StoreEasy 1460 32TB SATA Storage	Q2R94A
NOTE: (4 x 8TB 6G 7.2K RPM LFF SATA HDDs with pre-installed OS).	

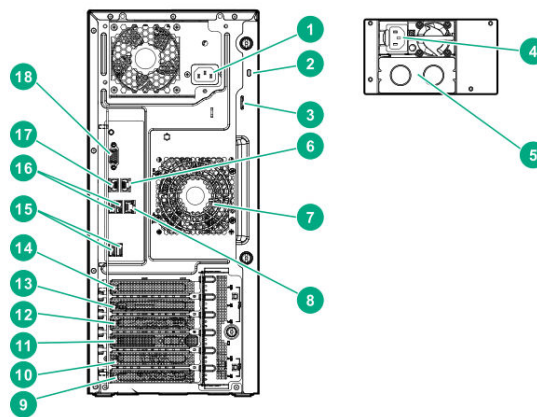
Overview

HPE StoreEasy 1560 Storage

HPE StoreEasy 1560 Storage products are storage solutions that deliver multi-protocol file serving and application storage in a compact and affordable tower form factor package. They're easy to install and manage, making them perfect for a small workgroup, small businesses or remote offices. StoreEasy 1560 models come with Windows Storage Server 2016 Standard Edition OS pre-installed from the factory on the four internal LFF drives. The StoreEasy 1560 is built on a ProLiant ML110 Gen 10 Server.



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| 1. LFF Drive Cage 2 (optional) | 4. iLO Service Port |
| 2. LFF Drive Cage 1 | 5. PCIe Fan |
| 3. USB 3.0 connectors | 6. Slim Optical Drive (optional) |



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| 1. Replaced by dual PS bay on StoreEasy 1560 | 10. Slot 4 PCIe3 x16 |
| 2. Kensington security slot | 11. Serial port (optional) |
| 3. Padlock eye | 12. Slot 3 PCIe3 x8 |
| 4. Hot-plug Power Supply bay 1 | 13. Slot 2 PCIe3 x8 |
| 5. Hot-plug Power Supply bay 2 (optional) | 14. Slot 1 PCIe3 x16 |
| 6. 1GbE NIC port 1 | 15. USB 3.0 port |
| 7. System fan | 16. USB 2.0 port |
| 8. iLO Management Port | 17. 1GbE NIC port 2 |
| 9. Slot 5 PCIe x8 | 18. Video port |

Overview

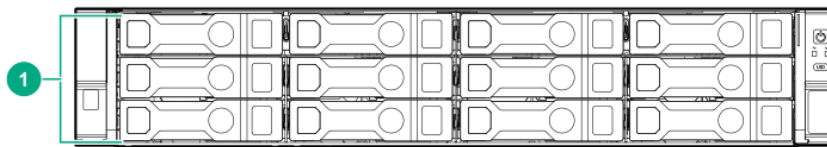
HPE StoreEasy 1560 16TB SATA Storage

Q2R97A

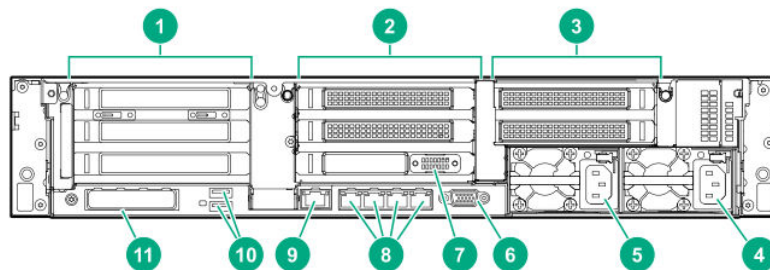
NOTE: (4 x 4TB 6G 7.2K RPM LFF SATA HDDs with pre-installed OS).

HPE StoreEasy 1660 Storage

HPE StoreEasy 1660 Storage products deliver high capacity and drives down your cost per GB. Four or six-core processing (depends on model selected), up to 16 LFF hot-plug drive slots, and ready for external expandability enhance this ultra-dense 2U shared storage solution for small, medium, or large IT environments. StoreEasy 1660 models come with Windows Storage Server 2016 Standard Edition OS pre-installed from the factory on two M.2 Solid State Disks. The StoreEasy 1660 is built on a ProLiant DL380 Gen 10 Server and includes a rail kit.



1. 12 x LFF SATA/SAS Hot Pluggable Drive Bays



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| 1. Primary Riser slots 1-3 | 7. Not used |
| 2. Primary Riser slots 4-6 (optional) | 8. 1Gb RJ-45 ports 1-4 |
| 3. Not used | 9. iLO management port |
| 4. Power Supply 1 | 10. USB 3.0 ports |
| 5. Power Supply 2 | 11. FlexibleLOM slot |
| 6. Video port | |

HPE StoreEasy 1660 Performance Storage

Q2P71A

HPE StoreEasy 1660 Storage

Q2P72A

NOTE: The above CTO models have no data drives pre-installed for capacity– StoreEasy Drive bundles should be ordered separately for complete configuration. There are 2 x SFF SSDs on a M.2 card in rear PCIe slot with pre-installed OS.

HPE StoreEasy 1660 16TB SAS Storage

Q2P73A

NOTE: (8 x 2TB 12G 7.2K RPM LFF SAS HDDs pre-installed and 4 open LFF slots in front and 2 SFF SSDs on M.2 card in rear PCIe slot with pre-installed OS).

HPE StoreEasy 1660 32TB SAS Storage

Q2P74A

NOTE: (8 x 4TB 12G 7.2K RPM LFF SAS HDDs pre-installed and 4 open LFF slots in front and 2 SFF SSDs on M.2 card in rear PCIe slot with pre-installed OS).

HPE StoreEasy 1660 64TB SAS Storage

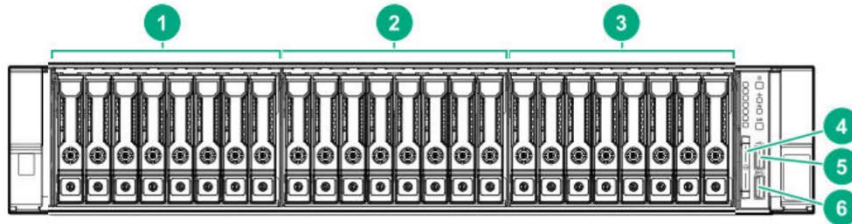
Q2P75A

NOTE: (8 x 8TB 12G 7.2K RPM LFF SAS HDDs pre-installed and 4 open LFF slots in front and 2 SFF SSDs on M.2 card in rear PCIe slot with pre-installed OS).

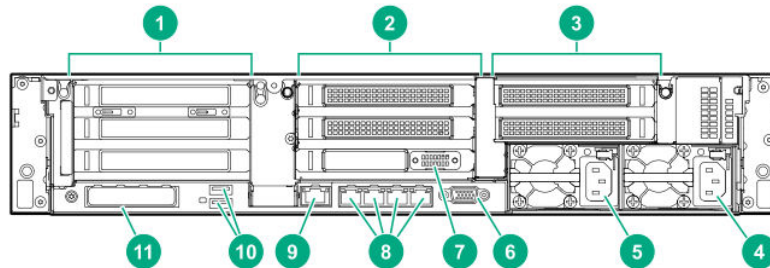
Overview

HPE StoreEasy 1860 Storage

HPE StoreEasy 1860 Storage products deliver Enterprise-class performance, expandability, and flexibility. Four or six-core processing (depending on model selected), up to 28 internal SFF data drives for performance, and ready for external expandability enhance this 2U shared storage solution for small, medium, or large IT environments. StoreEasy 1860 models come with Windows Storage Server 2016 Standard Edition OS pre-installed from the factory on two M.2 Solid State Disks. The StoreEasy 1860 is built on a ProLiant DL380 Gen10 server and includes a rail kit.



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| 1. 8 x SFF SATA/SAS Hot Pluggable Drive Bay 1 | 4. Serial label pull tab |
| 2. 8 x SFF SATA/SAS Hot Pluggable Drive Bay 2 | 5. iLO service port |
| 3. 8 x SFF SATA/SAS Hot Pluggable Drive Bay 3 | 6. USB 3.0 port |



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|---------------------------------------|------------------------|
| 1. Primary Riser slots 1-3 | 7. Not used |
| 2. Primary Riser slots 4-6 (optional) | 8. 1Gb RJ-45 ports 1-4 |
| 3. Not used | 9. iLO management port |
| 4. Power Supply 1 | 10. USB 3.0 ports |
| 5. Power Supply 2 | 11. FlexibleLOM slot |
| 6. Video port | |

HPE StoreEasy 1860 Performance Storage Q2P76A

HPE StoreEasy 1860 Storage Q2P77A

NOTE: The above CTO models have no data drives pre-installed for capacity– StoreEasy Drive bundles should be ordered separately for complete configuration. There are 2 x SFF SSDs on a M.2 card in rear PCIe slot with pre-installed OS.

HPE StoreEasy 1860 9.6TB SAS Storage Q2P78A

NOTE: (8 x 1.2TB 12G 10K RPM ENT SAS SFF HDDs pre-installed, 16 open SFF slots and 2 SFF SSDs in rear with pre-installed OS).

HPE StoreEasy 1860 14.4TB SAS Storage Q2P79A

NOTE: (8 x 1.8TB 12G 10K RPM 512e SAS SFF HDDs pre-installed, 16 open SFF slots and 2 SFF SSDs in rear with pre-installed OS).

Hardware Specifications of StoreEasy models

Processor/Cache Memory	StoreEasy 1460 (all models)	StoreEasy 1560 (all models)	StoreEasy 1660 Performance Model only	StoreEasy 1860 Performance Model only
	Intel® Xeon-Bronze 3104 (1.7GHz/6-core/85W) Processor	Intel® Xeon-Bronze 3104 (1.7GHz/6-core/85W) Processor	Intel® Xeon-Silver 4112 (2.6GHz/4-core/85W) Processor	Intel® Xeon-Silver 4112 (2.6GHz/4-core/85W) Processor
			StoreEasy 1860 (all others models)	StoreEasy 1860 (all others models)
			Intel® Xeon-Bronze 3104 (1.7GHz/6-core/85W) Processor	Intel® Xeon-Bronze 3104 (1.7GHz/6-core/85W) Processor

Memory				
Type	DDR4-2666 CAS-19-19-19 Registered (RDIMM)			
Maximum (by O/S license)	24TB (WSS2016)			
Standard	8GB (1 x 8GB)	8GB (1 x 8GB)	16GB (1 x 16GB)	16GB (1 x 16GB)
DIMM Sockets	24	6	24	24

Network Controller				
NIC ports	4	2	4	4
Controller	1Gb Ethernet 4-port	1Gb Ethernet 4-port	1Gb Ethernet 4-port	1Gb Ethernet 4-port

StoreEasy 1460 Primary PCIe Riser	Expansion Slots #	Technology	Bus Width	Connector Width	Form Factor	Notes
	1	PCIe 3.0	X16	X16	Full-height, 3/4-length (up to 9.5in) slot	Proc 1
	2	PCIe 3.0	X8	X8	Low-Profile slot	Proc 1

StoreEasy 1460 Secondary PCIe Riser (optional)	Expansion Slots #	Technology	Bus Width	Connector Width	Form Factor	Notes
	3	PCIe 3.0	X16	X16	Low Profile or Full-height; 3/4 length (up to 9.5")	Proc 2

StoreEasy 1560 PCIe slots	Expansion Slots #	Technology	Bus Width	Connector Width	Form Factor	Notes
	1	PCIe 3.0	X16	X16	Full-height, ¾ length (up to 9.5") Slot	Proc 1
	2	PCIe 3.0	X4	X8	Full-height, half-length slot	Proc 1
	3	PCIe 3.0	x8	x8	Full-height, half-length slot	Proc 1 (occupied by Smart Array P408i-p Controller)
	4	PCIe 3.0	X16	X16	Full-height, full-length slot	Proc 1

Hardware Specifications of StoreEasy models

	5	PCIe 3.0	X4	x8	Full-height, half-length slot	PCH
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StoreEasy 1660/1860 Primary PCIe Riser	Expansion Slots #	Technology	Bus Width	Connector Width	Form Factor	Notes
	1	PCIe 3.0	x8	X8	Full-height, full-length slot	Proc 1
	2	PCIe 3.0	X16	x16	Full-height, full-length slot	Proc 1 (Occupied by SAS Expander on StoreEasy 1860)
	3	PCIe 3.0	x8	x8	Full-height, half-length slot	Proc 1 (Occupied by M.2 SSD card on both StoreEasy 1660 and 1860)

StoreEasy 1660/1860 Secondary PCIe Riser	Expansion Slots #	Technology	Bus Width	Connector Width	Form Factor	Notes
	4	PCIe 3.0	X8	X8	Full height, full length slot	Proc 2
	5	PCIe 3.0	x16	x16	Full height, full length slot	Proc 2
	6	PCIe 3.0	x8	x8	Full-height, half-length slot	Proc 2

Hardware Specifications of StoreEasy models

Storage Controller	StoreEasy 1460	StoreEasy 1560	StoreEasy 1660	StoreEasy 1860
Controller(s)	HPE Smart Array P408i-a SR Gen10 (8 Internal Lanes 2GB Cache/SmartCache) 12G SAS Modular Controller for data and OS drives	HPE Smart Array P408i-p SR Gen10 (8 Internal Lanes/2GB Cache/SmartCache) 12G SAS Modular Controller for data and OS drives	HPE Smart Array P816i-a SR Gen10 (16 Internal Lanes/4GB Cache/SmartCache) 12G SAS Modular Controller for data drives; HPE Smart Array S100i SR Gen10 SW RAID for OS drives only	HPE Smart Array P816i-a SR Gen10 (16 Internal Lanes/4GB Cache/SmartCache) 12G SAS Modular Controller for data drives; HPE Smart Array S100i SR Gen10 SW RAID for OS drives only
RAID (for data drives using Smart Array controller)	RAID 0, 1, 5, 6, 10, 50, 60, 1 ADM, 10 ADM (Advanced Data Mirroring) on Smart Array P816i – Not all RAID levels recommended or supported on StoreEasy	RAID 0, 1, 5, 6, 10, 50, 60, 1 ADM, 10 ADM (Advanced Data Mirroring) on Smart Array P816i – Not all RAID levels recommended or supported on StoreEasy	RAID 0, 1, 5, 6, 10, 50, 60, 1 ADM, 10 ADM (Advanced Data Mirroring) on Smart Array P816i – Not all RAID levels recommended or supported on StoreEasy	RAID 0, 1, 5, 6, 10, 50, 60, 1 ADM, 10 ADM (Advanced Data Mirroring) on Smart Array P816i – Not all RAID levels recommended or supported on StoreEasy
Internal SAS connectors	8 SAS lanes across 2 x4 internal Mini-SAS ports	8 SAS lanes across 2 x4 internal Mini-SAS ports	16 SAS lanes across 4 x4 internal Mini-SAS ports	16 SAS lanes across 4 x4 internal Mini-SAS ports
External SAS connectors	None	None	None	None

Storage	StoreEasy 1460	StoreEasy 1560	StoreEasy 1660	StoreEasy 1860
Hard Drives Internal	4 LFF (3.5") hot-plug bays in front	4 LFF (3.5") hot-plug bays standard and 4 additional LFF (3.5") hot-plug bays optional (total of 8 internal LFF bays maximum)	12 LFF (3.5") hot-plug bays in front and optional 4 LFF hot-plug bays in mid-chassis drive cage (total of 16 internal LFF bays maximum)	24 SFF (2.5") hot-plug bays in front and optional 4 SFF hot-plug bays in rear drive cage (total of 28 SFF internal bays maximum)
External	Support for external D3X10 and D6020 Disk Enclosures requires optional Smart Array controller with external port	Support for external D3X10 and D6020 Disk Enclosures requires optional Smart Array controller with external port	Support for external D3X10 and D6020 Disk Enclosures requires optional Smart Array controller with external port	Support for external D3X10 and D6020 Disk Enclosures requires optional Smart Array controller with external port

Maximum Storage Capacity (raw)	StoreEasy 1460	StoreEasy 1560	StoreEasy 1660	StoreEasy 1860
Internal	32TB	64TB (with optional card cage and 4 x 12TB LFF HDDs)	192TB (with optional mid-chassis cage and 16 x 12TB LFF HDDs)	67.2TB (with optional rear cage and 28 x 2.4TB SFF HDDs)
External	Depends on number of Smart Arrays with external ports and type of external storage enclosure used			

Power Supply	1 x 500 Watts Platinum, hot-plug (2 nd redundant power supply optional)	1 x 500 Watts Platinum, hot-plug (2 nd redundant power supply optional)	2 x 800 Watts Platinum, hot-plug	2 x 800 Watts Platinum, hot-plug
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Power Cords	StoreEasy 1460	StoreEasy 1560	StoreEasy 1660	StoreEasy 1860
	One high voltage power cords (IEC C13 to C14) standard; two if second power supply added		Two high voltage power cords (IEC C13 to C14) standard	Two high voltage power cords (IEC C13 to C14) standard

Hardware Specifications of StoreEasy models

	<p>NOTE: StoreEasy 1460, 1660, and 1860 models ship with a standard 6-foot IEC C-13/C-14 jumper cord. This jumper cord is also included with each standard AC power supply option kit.</p> <p>The StoreEasy 1560 model comes with a standard 6-foot 10A, C13—U.S. power cord (sku# AF556A). If you order the optional 2nd power supply you must order also order sku# AF556A to get the above power cord.</p> <p>If a different power cords are required for any StoreEasy 1X60 model, please check the ProLiant Power Cables to determine what power cord options are available to order.</p>
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System Fans	Single processor system includes 5 hot-plug, redundant fans, standard Dual processor system includes 7 hot-plug redundant fans	2 non hot-plug redundant fans, standard	6 hot-plug, high-performance, redundant fans, standard	6 hot-plug, high-performance, redundant fans, standard
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Form Factor	1U rack mount (includes rail kit)	Tower (4.5U) NOTE: Sliding Shelf - 874578-B21 is optional to support rack form factor.	2U rack mount (includes rail kit)	2U rack mount (includes rail kit)
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Hardware Specifications of StoreEasy models

Additional options See the corresponding ProLiant QuickSpecs for additional options.

StoreEasy 1460 (DL360 Gen 10)

<https://h20195.www2.hp.com/v2/GetDocument.aspx?docname=a00008159enw>

StoreEasy 1560 (ML110 Gen 10)

<https://h20195.www2.hp.com/v2/GetDocument.aspx?docname=a00021851enw>

StoreEasy 1660 (DL380 Gen10 LFF), StoreEasy 1860 (DL380 Gen10 SFF):

<https://h20195.www2.hp.com/v2/Getdocument.aspx?docname=a00008180enw>

NOTE: Options offered in the HPE ProLiant servers listed above will work in the respective StoreEasy product if supported on Windows Server 2016 Standard Edition. Because StoreEasy is a storage product, not every possible option available in the equivalent ProLiant server is listed in the StoreEasy 1X60 QuickSpecs. Options that are shown in this document are the most common ones needed for the primary StoreEasy usage model as a file storage product.

Features and benefits

Focus on your business, not your file storage

The HPE StoreEasy 1X60 Storage systems come with pre-configured hardware and Microsoft Windows Storage Server 2016 Standard Edition operating system for purpose-built file storage.

HPE-enhanced Initial Configuration Tasks Wizard: StoreEasy installation and network configuration wizards simplify installation and prevent network configuration errors for faster deployment.

The StoreEasy Dashboard consolidates all key status information such as capacity utilization, performance, and health in a single interface and reduces the need to navigate multiple tools and interfaces for system monitoring. Low capacity warning email alerts now available to minimize disruption.

The StoreEasy Pool Manager is a best practice driven storage provisioning tool that automatically discovers system storage and recommends the most efficient setup for optimum performance, optimum capacity, or a balanced configuration based on the available storage. Best practices driven storage provisioning tool discovers system storage and recommends the most efficient setup for optimum performance, optimum capacity or a balanced configuration based on the available storage.

The StoreEasy Tools menu within Windows Server manager to access the most commonly accessed tools and tasks that an administrator uses for day-to-day management of StoreEasy. The StoreEasy Tools menu provides management of storage pools, snapshots, emails alerts, enclosure settings, and firmware updates. It also includes access to the Deduplication Evaluation tool, storage viewer and the initial configuration task wizard.

StoreEasy hard drive bundles make it easier for you to buy, deploy and provision additional storage capacity over the life of the product.

Windows Storage Server 2016 includes a set of new and enhanced features. StoreEasy 1X60 systems based on WSS2016 have an improved deduplication engine that supports individual files up to 1TB in size and file systems up to 64TB in size. Additionally, new security and encryption technologies provide stronger protection against man-in-the-middle attacks.

Optimized: Tailored for file storage

The Microsoft Windows Storage Server 2016 Standard Edition operating system includes a robust range of file serving and storage capabilities. They address heterogeneous environments and enable more efficient storage utilization. They deliver a similar level of performance and reliability as more expensive storage solutions and they offer support for both file (CIFS/SMB and NFS) and block (iSCSI) protocols, allow for a flexible mix of configurations and includes advanced data management tools. WSS2016 leverages your Windows Server management skill sets and tools including Active Directory, PowerShell and System Center.

Extensive protocol support: SMB (2.0, 2.1, 3.0, 3.02 and 3.1.1), NFS (v2, v3, v4.1), WebDAV, HTTP/HTTPS, FTP/FTPS, iSCSI

NOTE: The SMB 3.1.1 protocol is only supported on Windows Storage Server 2016, Windows Server 2016 and Windows 10 operating systems.

- SMB 3.X.X protocol: Leverage high performance continually available file shares to deliver feature-rich storage for business-critical applications and virtual servers using advanced new functionality.
- SMB 3.1.1 protocol: Enhances security between SMB clients and StoreEasy. When both a client and StoreEasy connect over SMB 3.1.1, SMB signing and encryption protects against an attacker tampering with or eavesdropping on any network packets. SMB 3.1.1 with AES-128-GCM, the latest fixed cryptographic algorithm, showed a 2x performance improvement compared with SMB 3.0 using AES-128-CCM in certain scenarios such as copying large files over an encrypted SMB connection.

Features and benefits

- SMB 3.X.X Multi-channel: Enable aggregation of network bandwidth and network fault tolerance when multiple paths are available between SMB clients and file servers.
- SMB 3.1.1. Multichannel and Multi-NIC Cluster Networks: Allows the use of multiple NICs on the same cluster network subnet and automatically enables SMB Multichannel. This allows customers to maximize throughput of SMB 3.1.1 network traffic.
- NFS v4.1: With Windows Storage Server, Server for NFS supports continuous availability. This makes it possible to reliably store and run VMware ESX on a virtual machine that is running Windows Server by using the NFS protocol to share files. Additional improvements in failover clustering take advantage of better resilience to hardware and software outages that may afflict individual cluster nodes. At the same time, failover clustering isolates VMware ESX hypervisor hosts from intermittent glitches during failovers.
- iSCSI: Some applications require block storage. iSCSI Target Server can provide these applications with continuously available block storage. Since the storage is remotely accessible it can also consolidate block storage for central or branch office locations.
- File Server Resource Manager (FSRM): File Server Resource Manager is a set of features within the Windows Storage Server OS that allows you to manage and classify data that is stored on file servers. File Server Resource Manager includes the following features:
- Storage Quotas: Quotas allow you to limit the space that is allowed for a volume or folder, and they can be automatically applied to new folders that are created on a volume. You can also define quota templates that can be applied to new volumes or folders.
- File screening: File screens help you control the types of files that user can store on a file server. You can limit the extension that can be stored on your shared files. For example, you can create a file screen that does not allow files with an MP3 extension to be stored in personal shared folders on a file server.
- File Classification Infrastructure: File Classification Infrastructure provides insight into your data by automating classification processes so that you can manage your data more effectively. You can classify files and apply policies based on this classification. Example policies include dynamic access control for restricting access to files, file encryption, and file expiration. Files can be classified automatically by using file classification rules or manually by modifying the properties of a selected file or folder.
- File Management Tasks: File Management Tasks enables you to apply a conditional policy or action to files based on their classification. The conditions of a file management task include the file location, the classification properties, the date the file was created, the last modified date of the file, or the last time the file was accessed. The actions that a file management task can take include the ability to expire files, encrypt files, or run a custom command.
- Storage reports: Storage reports are used to help you identify trends in disk usage and how your data is classified. You can also monitor a selected group of users for attempts to save unauthorized files.
- WSS 2016 includes an Unlimited Client Access License (CAL)

NOTE: Windows Server 2016 and Windows Storage Server 2016 are built on the same code base. Applications certified for Windows Server 2016 are expected to have the same application compatibility profile on Windows Storage Server 2016. Windows Storage Server and Windows Server have the same application frameworks, services and plumbing to support running the full breadth of Windows-compatible applications. Applications that rely upon certain roles that are removed from Windows Storage Server 2016, such as fax server, Active Directory domain controller or terminal services will not be able to leverage those roles. Independent Software Vendors (ISVs) ultimately decide what versions and editions of Windows are supported by their products and users should review ISV compatibility and support information before purchasing. Customers should review the End User License Agreement (EULA) to see the types of applications that are permitted for installation on a StoreEasy 1X60. All Windows Storage Server 2016 based systems can join Active Directory domains, but cannot be a domain controller.

Features and benefits

More Information on Windows Storage Server 2016 can be found here: <https://blogs.technet.microsoft.com/storageserver/2016/10/14/announcing-windows-storage-server-2016/>

Efficient: Saves you money and time Achieve an average of 50 percent space savings with granular data deduplication and compression.

Data deduplication enables Windows Storage Server 2016 to store more data in less physical space for greater storage efficiency. Data deduplication uses variable size chunking and compression, which deliver optimization ratios of 2:1 for general file servers and up to 20:1 for virtualization data. Evaluate your deduplication savings with the included deduplication evaluation tool which allows you to determine the expected savings that you would get if deduplication is enabled on a particular volume. The Deduplication evaluation tool supports local drives and mapped or unmapped remote shares.

Data deduplication within Windows Storage Server 2016 has specific improvements for deduplicating large volumes and large files - up to 64 TB and 1TB respectively. WSS 2016's deduplication engine will run multiple threads in parallel using multiple I/O queues on a single volume and thereby improve the performance for deduplicating large volumes.

With the Work Folders feature in Windows Storage Server 2016 users can store and access work files on personal computers and devices, often referred to as bring-your-own device (BYOD), in addition to corporate PCs. Users gain a convenient location to store work files, and they can access them from anywhere. Organizations maintain control over corporate data by storing the files on centrally managed file servers, and optionally specifying user device policies such as encryption and lock-screen passwords. Work Folders can be deployed with existing deployments of Folder Redirection, Offline Files, and home folders. Work Folders stores user files in a folder on the server called a sync share. You can specify a folder that already contains user data, which enables you to adopt Work Folders without migrating servers and data or immediately phasing out your existing solution. Work Folders is supported on Windows 10, Windows 8.1, Windows 8, Windows 7, Apple iOS and Android devices. New for Windows Storage Server 2016 version of Work Folders, when a Windows 10 client makes any changes to a file those changes are immediately synched to Work Folders and the client notified.

The file sync and share feature enables mobile workers to access their files from anywhere, and provides corporate data controls including data encryption, data wipe, user lock screen password enforcement, file classification, and storage quotas

Use advanced data management to automatically improve use of resources, comply with data retention policies, and enhance protection of sensitive files.

Consolidate multiple workloads and IT services in a single platform with included support for a broad range of file access protocols, Microsoft® Hyper-V and SQL Server application storage, iSCSI block access, and IT infrastructure services such as print, Domain Name System (DNS), and DHCP.

DFS Namespaces: Enables you to group shared folders that are located on different servers into one or more logically structured namespaces. Each namespace appears to users as a single shared folder with a series of subfolders. However, the underlying structure of the namespace can consist of numerous file shares that are located on different servers and in multiple sites.

Hosted Branch Cache: Using client/server architecture, Windows 7/8 client computers can cache content on the local network via the Hosted Cache running on the StoreEasy 1X60 Storage. Other clients who need the same content retrieve it directly from the Hosted Cache.

Features and benefits

Secure: Protect your data always StoreEasy 1X60 Storage protects data while at rest with file system encryption and BitLocker Drive Encryption, and while it is being transferred with SMB encryption and signing.

Use File Classification Infrastructure to dynamically identify files based on sensitivity and implement sophisticated access controls using Active Directory Rights Management Services.

Volume Shadow Copy Service: Creates point-in-time copies (snapshots) of files and folders at predetermined time intervals that can then be accessed from client computers.

Distributed File System Replication (DFS-R): Enables you to efficiently replicate folders (including those referred to by a DFS namespace path) across multiple servers and sites. DFS Replication uses a compression algorithm known as remote differential compression (RDC). RDC detects changes to the data in a file, and it enables DFS Replication to replicate only the changed file blocks instead of the entire file.

Install and run endpoint protection, such as an antivirus, on the system itself—reducing the cost and complexity of connecting to an external endpoint protection server. Prevent against data loss with Volume Shadow Copy Service online snapshots and support for agent-based backup software.

Opt for simplified and cost-efficient compliant archiving with iTernity Compliant Archive Solution (iCAS), validated to meet the United States Securities and Exchange Commission (SEC) 17a-4(f) requirements and available through HPE Complete.

Highly Available: Prevent business and user disruption Increase uptime with such standard features as near continuous health monitoring with HPE Active Health System, mirrored OS drives, redundant fans (not available on all models) and power, and advanced memory protection.

Confidently deploy large file systems leveraging file system online self-healing, online verification, and precise and rapid repair that massively reduces downtime from file corruption.

Take advantage of Carbonite's Double-Take Availability software for critical data protection with real-time byte-level replication. In the event of a failure, recover the data—with a minimum of loss—from the replicated data repository. Software installation files now included with free 14-day evaluation license.

Get support from file storage experts with 3-Year Parts, 3-Year Labor, and 3-Year Onsite support with next business day response. All StoreEasy products also include one year of 9x5 software telephone support for the Windows Storage Server operating system.

Optional Software

Double-Take Availability Replication software by Carbonite Protect your critical HPE StoreEasy data with Carbonite Double-Take Availability's real-time byte-level replication. In the event of a failure, recover the data—with a minimum of loss—from the replicated data repository. For more information on how to obtain Double-Take Availability for replication visit the [HPE Complete Carbonite Double-Take Availability](#) product page.

iCAS Archiving software by iTernity Get open, flexible, and expandable long-term archiving with iTernity Compliant Archive Solution (iCAS). Together, HPE StoreEasy and iCAS are your key to legally compliant data archiving. For more information on how to obtain the iCAS for archiving visit the [HPE Complete iTernity iCAS](#) product page.

StoreEasy 1460 configuration information

Recommended

Offering the best combination of performance, value and availability, Recommended Options have been selected by HPE experts to provide the right technology for a range of workloads and market segments. Fully integrated into the ProLiant management and security experience, Recommended Options provide the best fit with timely availability.

Extended

Extended Options provide an extended catalog of products tailored for customers in specific markets or with specific workloads, requiring the utmost in performance or value. Fully integrated into the ProLiant management and security experience, Extended Options represent great value and performance but typically have a longer lead-time.

Specifications for HPE StoreEasy 1460 models

Processor	1 x Intel® Xeon-Bronze 3104 (1.7GHz/6-core/85W) Processor; 2 nd processor optional
Memory	8GB (1 x HPE 8GB Single Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory)
Storage Controller	HPE Smart Array P408i-a SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS Modular Controller
Internal Drive Support	4 LFF (3.5") hot-plug drive bays in front
Network Port(s)	4 x 1GbE; optional FlexLOM adapter or PCIe NICs
Expansion Slots	2x PCIe; optional secondary riser with one additional PCIe slot
Security	Trusted Platform Module 2.0 and 2U Lockable Security Bezel
Power	1 x 500W Platinum standard; optional 2 nd redundant power supply
Cooling	5 hot-plug redundant fans (single processor), 7 hot-plug redundant fans (dual processors)
Form Factor	2U rack
Operating Systems	Microsoft® Windows Storage Server 2016, Standard Edition
Licenses	HPE iLO Advanced Premium Security Edition License with 1yr Support on Licensed Features

NOTE: For more information, visit:

iLO Supported Servers and Features

Step 1: Choose a StoreEasy 1460 BTO model

StoreEasy 1460 Pre-configured Build-to-Order (BTO) models come with four factory-installed data drives and the Microsoft Windows Storage Server 2016 Standard Edition operating system pre-installed on a 150GB RAID10 partition across the four drives.

HPE StoreEasy 1460 8TB SATA Storage Q2R92A

NOTE: (4 x 2TB SATA 6G Midline 7.2K LFF Digitally Signed Firmware HDDs pre-installed in front slots).

HPE StoreEasy 1460 16TB SATA Storage Q2R93A

NOTE: (4 x 4TB SATA 6G Midline 7.2K LFF 512e Digitally Signed Firmware HDDs pre-installed in front slots).

HPE StoreEasy 1460 32TB SATA Storage Q2R94A

NOTE: (4 x 8TB SATA 6G Midline 7.2K rpm LFF 512e Helium Digitally Signed Firmware HDDs pre-installed in front slots).

NOTE: Model names are based on raw storage capacity, not available user storage.

NOTE: All options in steps 2 to 8 of Build-to-Order models are shipped separately and are not factory integrated.

StoreEasy 1460 configuration information

Step 2: Choose optional external storage controller to connect to external storage enclosures

HPE Smart Array SAS Controllers - Recommended

HPE Smart Array E208e-p SR Gen10 (8 External Lanes/No Cache) 12G SAS PCIe Plug-in Controller (Recommended)	804398-B21
HPE Smart Array P408e-p SR Gen10 (8 External Lanes/4GB Cache) 12G SAS PCIe Plug-in Controller (Recommended)	804405-B21

HPE Smart Array SAS Controllers

HPE Smart Array SR Secure Encryption (Data at Rest Encryption/per Server Entitlement) E-LTU	Q2F26AAE
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NOTE: If you wish to enable Data at Rest Encryption on the StoreEasy 1460 using the included Smart Array P408i-a or with an optional Smart Array P408e-P listed above, you must order the optional HPE Smart Array SR Secure Encryption E-LTU (sku Q2F26AAE).

HPE Special Reminder: Before enabling encryption on the Smart Array controller module on this system, you must ensure that your intended use of the encryption complies with relevant local laws, regulations and policies, and approvals or licenses must be obtained if applicable.

For any compliance issues arising from your operation/usage of encryption within the Smart Array controller module which violates the above mentioned requirement, you shall bear all the liabilities wholly and solely. HPE will not be responsible for any related liabilities.

For more information see the [HPE Smart Array SR Secure Encryption QuickSpecs](#).

D3000 or D6020 Disk Enclosures

The StoreEasy 1460 models support all the D3X10 or D6020 Disk Enclosure product families. A Smart Array controller with external ports must be added to the StoreEasy 1460 to add external Disk Enclosures. (See the D3X10 or D6020 Disk Enclosure [QuickSpecs](#) for more information).

Step 3: Choose optional second Network Adapter

PCIe Network Adapters - Recommended

HPE StoreEasy 1GbE 2-port 332T Adapter (Recommended)	Q2P90A
HPE Ethernet 1Gb 4-port 331T Adapter (Recommended)	647594-B21
HPE StoreEasy 10GbE 2-port 530T Adapter (Recommended)	Q2P91A
HPE StoreEasy 10GbE 2-port 530SFP+ Adapter (Recommended)	Q2P92A

FlexLOM Network Adapters - Recommended

HPE Ethernet 1Gb 4-port 366FLR Adapter (Recommended)	665240-B21
HPE Ethernet 10Gb 2-port 562FLR-SFP+ Adapter (Recommended)	727054-B21
HPE Ethernet 10Gb 2-port 535FLR-T Adapter (Recommended)	817721-B21

NOTE: FlexibleLOM Adapters provide flexibility in meeting networking needs now and adapt to any future requirements without using a standard PCIe slot. These options are field upgradeable, integrate seamlessly with the StoreEasy system architecture and form factor. Only one FlexibleLOM can be added to the StoreEasy 1460.

Step 4: Choose optional Riser Kit to add PCIe slot 3

Recommended

HPE DL360 Gen10 Low Profile Riser Kit (Recommended)	867982-B21
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NOTE: The Riser Kit also requires the Intel® Xeon®-Bronze 3104 Processor to be installed. The Riser Kit expands the number of available PCIe slots to 3.

StoreEasy 1460 configuration information

Step 5: Choose optional 2nd processor

Recommended

HPE DL360 Gen10 Intel Xeon-Bronze 3104 (1.7GHz/6-core/85W) Processor Kit (Recommended) 860649-B21

Step 6: Choose optional extra memory kit

Recommended

HPE 8GB (1x8GB) Single Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit (Recommended) 815097-B21

NOTE: There are 12 DIMM slots per processor for a total maximum of 24 DIMM slots. All StoreEasy 1460 models come with one processor and one 8GB DIMM standard.

NOTE: Dual processor StoreEasy 1460 systems must have the same number and type of memory DIMMs installed on each processor.

Step 7: Choose optional 2nd power supply

Recommended

HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit (Recommended) 865408-B21

Step 8: Choose optional System Recovery Media

HPE StoreEasy XX60 Recovery Software Media Kit Q2P95A

NOTE: The HPE StoreEasy XX60 Recovery Software Media Kit contains a System Recovery DVD that is used to re-install the factory operating system image. Booting the system from the System Recovery DVD will restore the operating system image and logical drive to the factory default state. This enables recovery of the system if all other means to boot the system fail. Refer to the StoreEasy 1X60 Administrator Guide for more information on performing a System Recovery.

NOTE: If desired the StoreEasy 1X60 Recovery Software can be downloaded from HPE's Software Depot at no charge, so that the user can create their own System Recovery DVD or System Recovery USB flash drive. The Recovery Software is available here:

<https://h20392.www2.hpe.com/portal/swdepot/displayProductsList.do?category=NAS>

NOTE: For more information on how to perform a system recovery on a StoreEasy 1460 refer to the StoreEasy 1X60 Administrator's Guide. The guide can be downloaded from <http://www.hpe.com/support>. Select HPE Support Center and search for the StoreEasy product model in the drivers and download section.

NOTE: All data on the original operating system logical drive is erased during the System Recovery process. Back up any data on the operating system drives before performing the System Recovery if possible. While the System Recovery process makes every attempt to preserve the existing data volumes, you should have a backup of your data before recovering the system.

StoreEasy 1560 configuration information

Recommended

Offering the best combination of performance, value and availability, Recommended Options have been selected by HPE experts to provide the right technology for a range of workloads and market segments. Fully integrated into the ProLiant management and security experience, Recommended Options provide the best fit with timely availability.

Extended

Extended Options provide an extended catalog of products tailored for customers in specific markets or with specific workloads, requiring the utmost in performance or value. Fully integrated into the ProLiant management and security experience, Extended Options represent great value and performance but typically have a longer lead-time.

Specifications for HPE StoreEasy 1560 models

Processor	1 x Intel® Xeon-Bronze 3104 (1.7GHz/6-core/85W) Processor
Memory	8GB (1 x HPE 8GB Single Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory)
Storage Controller	HPE Smart Array P408i-p SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS Modular Controller
Internal Drive Support	4 LFF (3.5") hot-plug drive bays standard; upgradable to 8 by adding second drive cage
Network Port(s)	2 x 1GbE; optional PCIe NICs
Expansion Slots	5x PCIe (one slot occupied by Smart Array P408i-p controller)
Security	Trusted Platform Module 2.0 and Lockable Security Bezel
Power	1 x 500W Platinum standard; optional 2 nd redundant power supply
Cooling	2 non hot-plug redundant fans
Form Factor	4.5U tower
Operating Systems	Microsoft® Windows Storage Server 2016, Standard Edition
Licenses	HPE iLO Advanced Premium Security Edition License with 1yr Support on Licensed Features

NOTE: For more information, visit:

iLO Supported Servers and Features

Step 1: Choose a StoreEasy 1560 BTO model

StoreEasy 1560 Pre-configured Build-to-Order (BTO) models come with four factory-installed data drives and the Microsoft Windows Storage Server 2016 Standard Edition operating system pre-installed on a 150GB RAID10 partition across the four drives.

HPE StoreEasy 1560 8TB SATA Storage Q2R96A

NOTE: (4 x 2TB SATA 6G Midline 7.2K LFF Digitally Signed Firmware HDDs pre-installed).

HPE StoreEasy 1560 16TB SATA Storage Q2R97A

NOTE: (4 x 4TB SATA 6G Midline 7.2K LFF 512e Digitally Signed Firmware HDDs pre-installed).

NOTE: Model names are based on raw storage capacity, not available user storage.

NOTE: All options in steps 2 to 10 of Build-to-Order models are shipped separately and are not factory integrated.

Step 2: Choose optional external storage controller to connect to external storage enclosures

HPE Smart Array SAS Controllers - Recommended

HPE Smart Array E208e-p SR Gen10 (8 External Lanes/No Cache) 12G SAS PCIe Plug-in Controller (Recommended) 804398-B21

StoreEasy 1560 configuration information

HPE Smart Array P408e-p SR Gen10 (8 External Lanes/4GB Cache) 12G SAS PCIe Plug-in Controller (Recommended) 804405-B21

HPE Smart Array SAS Controllers

HPE Smart Array SR Secure Encryption (Data at Rest Encryption/per Server Entitlement) E-LTU Q2F26AAE

NOTE: If you wish to enable Data at Rest Encryption on the StoreEasy 1560 using the included Smart Array P408i-p or with an optional Smart Array P408e-P listed above, you must order the optional HPE Smart Array SR Secure Encryption E-LTU (sku Q2F26AAE).

HPE Special Reminder: Before enabling encryption on the Smart Array controller module on this system, you must ensure that your intended use of the encryption complies with relevant local laws, regulations and policies, and approvals or licenses must be obtained if applicable.

For any compliance issues arising from your operation/usage of encryption within the Smart Array controller module which violates the above mentioned requirement, you shall bear all the liabilities wholly and solely. HPE will not be responsible for any related liabilities.

For more information see the [HPE Smart Array SR Secure Encryption QuickSpecs](#).

D3X10 or D6020 Disk Enclosures

The StoreEasy 1560 models support all the D3X10 or D6020 Disk Enclosure product families. A Smart Array controller with external ports must be added to the StoreEasy 1560 to add external Disk Enclosures. (See the D3X10 or D6020 Disk Enclosure [QuickSpecs](#) for more information).

Step 3: Choose optional second Network Adapter

PCIe Network Adapters - Recommended

HPE StoreEasy 1GbE 2-port 332T Adapter (Recommended)	Q2P90A
HPE Ethernet 1Gb 4-port 331T Adapter (Recommended)	647594-B21
HPE StoreEasy 10GbE 2-port 530T Adapter (Recommended)	Q2P91A
HPE StoreEasy 10GbE 2-port 530SFP+ Adapter (Recommended)	Q2P92A

Step 4: Choose optional extra memory kit

Recommended

HPE 8GB (1x8GB) Single Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit (Recommended) 815097-B21

NOTE: There are 6 DIMM slots available on the StoreEasy 1560. All StoreEasy 1560 models come with one processor and one 8GB DIMM standard.

Step 5: Choose optional 2nd LFF drive cage

HPE ML110 Gen10 4LFF Drive Backplane Cage Kit 869491-B21

NOTE: Adding the 2nd LFF drive cage requires adding the 2nd power supply (sku 865408-B21).

Step 6: Choose additional HDDs for 2nd LFF drive cage optional 2nd

Extended

HPE 2TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD (Extended) 861681-B21

HPE 4TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e HDD (Extended) 861744-B21

NOTE: As a best practice HPE recommends using the same drive capacity and type in both the first and second LFF drive cages. Also, HPE recommends ordering and installing 4 LFF drives simultaneously when ordering the 2nd drive cage.

StoreEasy 1560 configuration information

Step 7: Choose optional 2nd power supply

HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit (Recommended)

865408-B21

Step 8: Choose optional System Recovery option

HPE StoreEasy XX60 Recovery Software Media Kit

Q2P95A

NOTE: The HPE StoreEasy XX60 Recovery Software Media Kit contains a System Recovery DVD that is used to re-install the factory operating system image. Booting the system from the System Recovery DVD will restore the operating system image and logical drive to the factory default state. This enables recovery of the system if all other means to boot the system fail. Refer to the StoreEasy 1X60 Administrator Guide for more information on performing a System Recovery.

NOTE: If desired the StoreEasy XX60 Recovery Software can be downloaded from HPE's Software Depot at no charge, so that the user can create their own System Recovery DVD or System Recovery USB flash drive. The Recovery Software(s) are available here:

<https://h20392.www2.hpe.com/portal/swdepot/displayProductsList.do?category=NAS>

NOTE: For more information on how to perform a system recovery on a StoreEasy 1560 refer to the StoreEasy 1X60 Administrator's Guide. The guide can be downloaded from <http://www.hpe.com/support>. Select HPE Support Center and search for the StoreEasy product model in the drivers and download section.

NOTE: All data on the original operating system logical drive is erased during the System Recovery process. Back up any data on the operating system drives before performing the System Recovery if possible. While the System Recovery process makes every attempt to preserve the existing data volumes, you should have a backup of your data before recovering the system.

StoreEasy 1660 configuration information

Recommended

Offering the best combination of performance, value and availability, Recommended Options have been selected by HPE experts to provide the right technology for a range of workloads and market segments. Fully integrated into the ProLiant management and security experience, Recommended Options provide the best fit with timely availability.

Extended

Extended Options provide an extended catalog of products tailored for customers in specific markets or with specific workloads, requiring the utmost in performance or value. Fully integrated into the ProLiant management and security experience, Extended Options represent great value and performance but typically have a longer lead-time.

Specifications for HPE StoreEasy 1660 models

Processor	1 x Intel® Xeon-Silver 4112 (2.6GHz/4-core/85W) or Intel® Xeon-Bronze 3104 (1.7GHz/6-core/85W); 2 nd processor optional NOTE: The Xeon-Silver 4112 processor is only available on the StoreEasy 1660 Performance Storage model (SKU# Q2P71A).
Memory	16GB (1 x HPE 16GB Dual Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory)
Storage Controller	HPE Smart Array P816i-a SR Gen10 (16 Internal Lanes/4GB Cache/SmartCache) 12G SAS Modular Controller for data drives HPE Smart Array S100i SR Gen10 SW RAID for OS drives only
Internal Drive Support	12 LFF (3.5") hot-plug drive bays in front, optional 4LFF hot-plug mid-chassis drive cage
Network Port(s)	4 x 1GbE; optional FlexLOM adapter or PCIe NICs
Expansion Slots	3x PCIe; optional 3 slot secondary riser NOTE: One PCIe slot occupied by M.2 SSD card.
Security	Trusted Platform Module 2.0 and 2U Lockable Security Bezel
Power	2 x 800W Platinum
Cooling	6 hot-plug, high-performance redundant fans
Form Factor	2U rack
Operating Systems	Microsoft® Windows Storage Server 2016, Standard Edition
Licenses	HPE iLO Advanced Premium Security Edition License with 1yr Support on Licensed Features NOTE: For more information, visit: iLO Supported Servers and Features

Step 1: Choose a StoreEasy 1660 model

BTO models

StoreEasy 1660 Pre-configured Build-to-Order (BTO) models come with factory-installed data drives and the Microsoft Windows Storage Server 2016 Standard Edition operating system pre-installed on 2 x SFF Solid State Disk (SSD) drives on a M.2 card in rear PCIe slot.

HPE StoreEasy 1660 16TB SAS Storage	Q2P73A
NOTE: (8 x 2TB SAS 12G Midline 7.2K LFF Digitally Signed Firmware HDDs pre-installed in front slots, 4 open LFF slots).	
HPE StoreEasy 1660 32TB SAS Storage	Q2P74A
NOTE: (8 x 4TB SAS 12G Midline 7.2K LFF 512e Digitally Signed Firmware HDDs pre-installed in front slots, 4 open LFF slots).	
HPE StoreEasy 1660 64TB SAS Storage	Q2P75A

StoreEasy 1660 configuration information

NOTE: (8 x 8TB SAS 12G Midline 7.2K rpm LFF 512e Helium Digitally Signed Firmware HDDs pre-installed in front slots, 4 open LFF slots).

NOTE: Model names are based on raw storage capacity, not available user storage.

NOTE: When adding drives to the any of the 4 open LFF slots for the models above, Hewlett Packard Enterprise recommends as a best practice to use all internal data drives of the same type and capacity.

NOTE: All options in steps 2 to 9 of Configure-to-Order models are available for pre-configured BTO models. Ordered options ship separately and are not factory integrated.

CTO models

The StoreEasy 1660 models Configure-to-Order (CTO) models come with factory-installed data drives and the Microsoft Windows Storage Server 2016 Standard Edition operating system pre-installed on 2 x SFF Solid State Disk (SSD) drives on a M.2 card in rear PCIe slot. The StoreEasy 1660 CTO models can ship with just the OS drives and no factory installed data drives. If data drives are needed, select drives/drive bundles below for factory integration.

StoreEasy 1660 Performance Storage Q2P71A

StoreEasy 1660 Storage Q2P72A

NOTE: Hewlett Packard Enterprise recommends as a best practice that all internal data drives for the CTO models be the same type and capacity.

Step 2: Choose required internal storage drives

Drive Options	Minimum Number of internal drives required	0
	Maximum Number of internal drives allowed	16 (with optional mid-chassis drive cage)

StoreEasy 1660 LFF Drive Bundles

HPE 40TB SAS LFF Smart Carrier 4-pack HDD Bundle Q0F60A

NOTE: Bundle contains 4 x HPE 10TB 12G SAS 7.2K rpm LFF (3.5-inch) SC 512e Helium 1yr Wty Digitally Signed Firmware HDD (SKU# 857644-B21).

HPE 32TB SAS LFF Smart Carrier 4-pack HDD Bundle N9Y12A

NOTE: Bundle contains 4 x HPE 8TB 12G SAS 7.2K rpm LFF (3.5-inch) SC 512e Helium 1yr Wty Digitally Signed Firmware HDD (SKU# 861590-B21).

HPE 24TB SAS LFF Smart Carrier 4-pack HDD Bundle Q2P82A

NOTE: Bundle contains 4 x HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD (SKU# 861754-B21).

HPE 16TB SAS LFF Smart Carrier 4-pack HDD Bundle Q2P81A

NOTE: Bundle contains 4 x HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD (SKU# 861756-B21).

HPE 8TB SAS LFF Smart Carrier 4-pack HDD Bundle Q2P80A

NOTE: Bundle contains 4 x HPE 2TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD (SKU# 872485-B21).

HPE Drive options (The following options are applicable for internal storage drives)

SmartCache Kit

HPE 1.6TB LFF Smart Carrier Converter Smart Cache Kit Q2P86A

NOTE: The Smart Cache kit contains 2 x HPE 800GB SAS 12G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD (SKU# 872378-B21) for use with the SmartCache feature included with the HPE Smart Array P816i-a SR Gen10 Storage Controller which provides a Flash Acceleration data tier to the StoreEasy 1660. For more detailed information about HPE SmartCache go to: <https://www.hpe.com/us/en/product-catalog/detail/pip.5364342.html>

NOTE: HPE supports only one SmartCache Kit installed in the StoreEasy 1660.

StoreEasy 1660 configuration information

SSDs

HPE 1.92TB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	877760-B21
HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	877790-B21
HPE 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	877784-B21

NOTE: Maximum number of SSDs supported on StoreEasy 1660 is eight.

HDDs - Extended

HPE 12TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD (Extended)	881779-B21
HPE 12TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD (Extended)	881785-B21

NOTE: Other LFF SC HDDs are compatible with StoreEasy 1660. This is not intended to be an exhaustive list.

Step 3: Choose optional mid-chassis 4LFF drive cage

HPE StoreEasy 1660 4LFF Midplane Drive Cage	Q2P93A
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NOTE: Expands the number of Large Form Factor (3.5") drive slots from 12 to 16.

Step 4: Choose optional external storage controller to connect to external storage enclosures

HPE Smart Array SAS Controllers - Recommended

HPE Smart Array E208e-p SR Gen10 (8 External Lanes/No Cache) 12G SAS PCIe Plug-in Controller (Recommended)	804398-B21
HPE Smart Array P408e-p SR Gen10 (8 External Lanes/4GB Cache) 12G SAS PCIe Plug-in Controller (Recommended)	804405-B21

HPE Smart Array SAS Controllers

HPE Smart Array SR Secure Encryption (Data at Rest Encryption/per Server Entitlement) E-LTU	Q2F26AAE
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NOTE: If you wish to enable Data at Rest Encryption on the StoreEasy 1660 using the included Smart Array P816i-a or with an optional Smart Array P408e-P listed above, you must order the optional HPE Smart Array SR Secure Encryption E-LTU (sku Q2F26AAE).

HPE Special Reminder: Before enabling encryption on the Smart Array controller module on this system, you must ensure that your intended use of the encryption complies with relevant local laws, regulations and policies, and approvals or licenses must be obtained if applicable.

For any compliance issues arising from your operation/usage of encryption within the Smart Array controller module which violates the above mentioned requirement, you shall bear all the liabilities wholly and solely. HPE will not be responsible for any related liabilities.

For more information see the [HPE Smart Array SR Secure Encryption QuickSpecs](#).

D3X10 or D6020 Disk Enclosures

The StoreEasy 1660 models support D3X10 or D6020 Disk Enclosure product families. A Smart Array controller with external ports must be added to the StoreEasy 1660 to add external Disk Enclosures. (See the D3X10 or D6020 Disk Enclosure [QuickSpecs](#) for more information).

Step 5: Choose optional second Network Adapter

PCIe Network Adapters - Recommended

HPE StoreEasy 1GbE 2-port 332T Adapter (Recommended)	Q2P90A
HPE StoreEasy 10GbE 2-port 530T Adapter (Recommended)	Q2P91A

StoreEasy 1660 configuration information

HPE StoreEasy 10GbE 2-port 530SFP+ Adapter (Recommended) Q2P92A

FlexLOM Network Adapters - Recommended

HPE Ethernet 1Gb 4-port 366FLR Adapter (Recommended) 665240-B21

HPE Ethernet 10Gb 2-port 562FLR-SFP+ Adapter (Recommended) 727054-B21

HPE Ethernet 10Gb 2-port 535FLR-T Adapter (Recommended) 817721-B21

NOTE: FlexibleLOM Adapters provide flexibility in meeting networking needs now and adapt to any future requirements without using a standard PCIe slot. These options are field upgradeable, integrate seamlessly with the StoreEasy system architecture and form factor. Only one FlexibleLOM can be added to the StoreEasy 1660.

Step 6: Choose optional Riser Kit

Recommended

HPE DL Gen10 x8/x16/x8 Riser Kit (Recommended) 870548-B21

NOTE: The Riser Kit also requires the StoreEasy 1660 Xeon-Silver 4112 or Xeon-Bronze 3104 Performance Kit to be installed. The Riser Kit expands the number of available PCIe slots to 5.

Step 7: Choose optional Performance Kit

HPE StoreEasy 1X60 Intel Xeon 4112 Performance Kit Q2P88A

NOTE: The above Performance Kit can only be ordered with the StoreEasy 1660 Performance model (SKU# Q2P71A). The kit contains one Xeon-Silver 4122 processor and one 16GB Dual Rank x8 DDR4-2666 CAS-19-19-19 RDIMM.

HPE StoreEasy 1X60 Intel Xeon 3104 Performance Kit Q2P89A

NOTE: The above Performance Kit can be ordered with all StoreEasy 1660 models except the StoreEasy 1660 Performance model. The kit contains one Xeon-Bronze 3104 processor and one 16GB Dual Rank x8 DDR4-2666 CAS-19-19-19 RDIMM.

Step 8: Choose optional extra memory kit

Recommended

HPE 16GB (1x16GB) Dual Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit (Recommended) 835955-B21

NOTE: There are 12 DIMM slots per processor for a total maximum of 24 DIMM slots. All StoreEasy 1660 models come with one processor and one 16GB DIMM standard.

Step 9: Choose optional System Recovery option

HPE StoreEasy XX60 Recovery Software Media Kit Q2P95A

NOTE: The HPE StoreEasy XX60 Recovery Software Media Kit contains a System Recovery DVD that is used to re-install the factory operating system image. Booting the system from the System Recovery DVD will restore the operating system image and logical drive to the factory default state. This enables recovery of the system if all other means to boot the system fail. Refer to the StoreEasy 1X60 Administrator Guide for more information on performing a System Recovery.

NOTE: If desired the StoreEasy XX60 Recovery Software can be downloaded from HPE's Software Depot at no charge, so that the user can create their own System Recovery DVD or System Recovery USB flash drive. The Recovery Software(s) are available here:

<https://h20392.www2.hpe.com/portal/swdepot/displayProductsList.do?category=NAS>

NOTE: For more information on how to perform a system recovery on a StoreEasy 1660 refer to the StoreEasy 1X60 Administrator's Guide. The guide can be downloaded from <http://www.hpe.com/support>. Select HPE Support Center and search for the StoreEasy product model in the drivers and download section.

StoreEasy 1660 configuration information

NOTE: All data on the original operating system logical drive is erased during the System Recovery process. Back up any data on the operating system drives before performing the System Recovery if possible. While the System Recovery process makes every attempt to preserve the existing data volumes, you should have a backup of your data before recovering the system.

StoreEasy 1860 configuration information

Recommended

Offering the best combination of performance, value and availability, Recommended Options have been selected by HPE experts to provide the right technology for a range of workloads and market segments. Fully integrated into the ProLiant management and security experience, Recommended Options provide the best fit with timely availability.

Extended

Extended Options provide an extended catalog of products tailored for customers in specific markets or with specific workloads, requiring the utmost in performance or value. Fully integrated into the ProLiant management and security experience, Extended Options represent great value and performance but typically have a longer lead-time.

Specifications for HPE StoreEasy 1860 models

Processor	1 x Intel® Xeon-Silver 4112 (2.6GHz/4-core/85W) or Intel® Xeon-Bronze 3104 (1.7GHz/6-core/85W); 2 nd processor optional NOTE: The Xeon-Silver 4112 processor is only available on the StoreEasy 1860 Performance Storage model (SKU# Q2P76A).
Memory	16GB (1 x HPE 16GB Dual Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory)
Storage Controller	HPE Smart Array P816i-a SR Gen10 (16 Internal Lanes/4GB Cache/SmartCache) 12G SAS Modular Controller for data drives HPE Smart Array S100i SR Gen10 SW RAID for OS drives only
Internal Drive Support	24 SFF (2.5") hot-plug drive bays in front, optional 4SFF hot-plug rear-chassis drive cage
Network Port(s)	4 x 1GbE; optional FlexLOM adapter or PCIe NICs
Expansion Slots	3x PCIe; optional 3 slot secondary riser NOTE: One PCIe slot occupied by M.2 SSD card and one PCIe slot occupied by SAS Expander.
Security	Trusted Platform Module 2.0 and 2U Lockable Security Bezel
Power	2 x 800W Platinum
Cooling	6 hot-plug, high-performance redundant fans
Form Factor	2U rack
Operating Systems	Microsoft® Windows Storage Server 2016, Standard Edition
Licenses	HPE iLO Advanced Premium Security Edition License with 1yr Support on Licensed Features NOTE: For more information, visit: iLO Supported Servers and Features

Step 1: Choose a StoreEasy 1860 model

BTO models

StoreEasy 1860 Pre-configured Build-to-Order (BTO) models come with factory-installed data drives and the Microsoft Windows Storage Server 2016 Standard Edition operating system pre-installed on 2 x SFF Solid State Disk (SSD) drives on a M.2 card in rear PCIe slot.

HPE StoreEasy 1860 9.6TB SAS Storage Q2P78A

NOTE: (8 x 1.2TB SAS 12G Enterprise 10K SFF Digitally Signed Firmware HDD pre-installed in front slots, 16 open SFF slots).

HPE StoreEasy 1860 14.4TB SAS Storage Q2P79A

NOTE: (8 x 1.8TB SAS 12G Enterprise 10K SFF 512e Digitally Signed Firmware HDD pre-installed in front slots, 16 open SFF slots).

StoreEasy 1860 configuration information

NOTE: Model names are based on raw storage capacity, not available user storage.

NOTE: When adding drives to the any of the 16 open SFF slots for the models above, Hewlett Packard Enterprise recommends as a best practice to use all internal data drives of the same type and capacity.

NOTE: All options in steps 2 to 9 of Configure-to-Order models are available for pre-configured BTO models. Ordered options ship separately and are not factory integrated.

CTO models

The StoreEasy 1860 models Configure-to-Order (CTO) models come with factory-installed data drives and the Microsoft Windows Storage Server 2016 Standard Edition operating system pre-installed on 2 x SFF Solid State Disk (SSD) drives on a M.2 card in rear PCIe slot. The StoreEasy 1860 CTO models can ship with just the OS drives and no factory installed data drives. If data drives are needed, select drives/drive bundles below for factory integration.

StoreEasy 1860 Performance Storage

Q2P76A

StoreEasy 1860 Storage

Q2P77A

NOTE: Hewlett Packard Enterprise recommends as a best practice that the internal data drives for the CTO models be the same type and capacity.

Step 2: Choose required internal storage drives

Drive Options	Minimum Number of internal drives required	0
	Maximum Number of internal drives allowed	28 (with optional rear-chassis drive cage)

StoreEasy 1860 LFF Drive Bundles

HPE 4.8TB SAS SFF Smart Carrier 4-pack HDD Bundle

Q2P84A

NOTE: Bundle contains 4 x HPE 1.2TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD (SKU# 872479-B21).

HPE 7.2TB SAS SFF Smart Carrier 4-pack HDD Bundle

Q2P85A

NOTE: Bundle contains 4 x HPE 1.8TB 12G SAS 7.2K rpm LFF (3.5-inch) SC 512e Helium 1yr Wty Digitally Signed Firmware Hard Drive (SKU# 872481-B21).

HPE SSD Drive options (The following options are applicable for internal storage drives)

SmartCache Kit

HPE 1.6TB SFF Smart Carrier Smart Cache Kit

Q2P87A

NOTE: The Smart Cache kit contains 2 x HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD (SKU# 872376-B21) for use with the SmartCache feature included with the HPE Smart Array P816i-a SR Gen10 Storage Controller which provides a Flash Acceleration data tier to the StoreEasy 1860. For more detailed information about HPE SmartCache go to: <https://www.hpe.com/us/en/product-catalog/detail/pip.5364342.html>

NOTE: HPE supports only one SmartCache Kit installed in the StoreEasy 1860.

SSDs

HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	877764-B21
HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	877758-B21
HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	877788-B21
HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	872390-B21
HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	877782-B21
HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	872376-B21
HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	875470-B21
HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	868818-B21
HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	872374-B21
HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	868814-B21

StoreEasy 1860 configuration information

NOTE: Maximum number of SSDs supported on StoreEasy 1860 is eight, however only two SSDs can be used for SmartCache.

HDDs

HPE 2.4TB SAS 12G SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD 881457-B21

NOTE: Other SFF SC HDDs are compatible with StoreEasy 1860. This is not intended to be an exhaustive list.

Step 3: Choose optional mid-chassis 4LFF drive cage

HPE StoreEasy 1860 4SFF Rear HDD Cage Q2P94A

NOTE: Expands the number of Small Form Factor (2.5”) drive slots from 24 to 28

NOTE: If the StoreEasy 1860 Rear HDD Cage is selected, the optional Riser Kit (SKU# 870548-B21) cannot be selected and the maximum number of PCIe slots is 2.

Step 4: Choose optional external storage controller to connect to external storage enclosures

HPE Smart Array SAS Controllers

HPE Smart Array E208e-p SR Gen10 (8 External Lanes/No Cache) 12G SAS PCIe Plug-in Controller 804398-B21

HPE Smart Array P408e-p SR Gen10 (8 External Lanes/4GB Cache) 12G SAS PCIe Plug-in Controller 804405-B21

HPE Smart Array SR Secure Encryption (Data at Rest Encryption/per Server Entitlement) E-LTU Q2F26AAE

NOTE: If you wish to enable Data at Rest Encryption on the StoreEasy 1860 using the included Smart Array P816i-a or with an optional Smart Array P408e-P listed above, you must order the optional HPE Smart Array SR Secure Encryption E-LTU (sku Q2F26AAE).

HPE Special Reminder: Before enabling encryption on the Smart Array controller module on this system, you must ensure that your intended use of the encryption complies with relevant local laws, regulations and policies, and approvals or licenses must be obtained if applicable.

For any compliance issues arising from your operation/usage of encryption within the Smart Array controller module which violates the above mentioned requirement, you shall bear all the liabilities wholly and solely. HPE will not be responsible for any related liabilities.

For more information see the [HPE Smart Array SR Secure Encryption QuickSpecs](#).

D3X10 or D6020 Disk Enclosures

The StoreEasy 1860 models support all of D3X10 or D6020 Disk Enclosure product families. A Smart Array controller with external ports must be added to the StoreEasy 1860 to add external Disk Enclosures. (See the D3X10 or D6020 Disk Enclosure [QuickSpecs](#) for more information).

Step 5: Choose optional second Network Adapter

PCIe Network Adapters - Recommended

HPE StoreEasy 1GbE 2-port 332T Adapter (Recommended) Q2P90A

HPE StoreEasy 10GbE 2-port 530T Adapter (Recommended) Q2P91A

HPE StoreEasy 10GbE 2-port 530SFP+ Adapter (Recommended) Q2P92A

FlexLOM Network Adapters - Recommended

HPE Ethernet 1Gb 4-port 366FLR Adapter (Recommended) 665240-B21

HPE Ethernet 10Gb 2-port 562FLR-SFP+ Adapter (Recommended) 727054-B21

HPE Ethernet 10Gb 2-port 535FLR-T Adapter (Recommended) 817721-B21

StoreEasy 1860 configuration information

NOTE: FlexibleLOM Adapters provide flexibility in meeting networking needs now and adapt to any future requirements without using a standard PCIe slot. These options are field upgradeable, integrate seamlessly with the StoreEasy system architecture and form factor. Only one FlexibleLOM can be added to the StoreEasy 1860.

Step 6: Choose optional Riser Kit

HPE DL Gen10 x8/x16/x8 Riser Kit

870548-B21

NOTE: The Riser Kit also requires the StoreEasy 1860 Xeon-Silver 4112 or Xeon-Bronze 3104 Performance Kit to be installed. The Riser Kit expands the number of available PCIe slots to 4.

NOTE: If the Riser Kit is selected, the optional StoreEasy 1860 Rear HDD cage (SKU# Q2P94A) cannot be selected.

Step 7: Choose optional Performance Kit

HPE StoreEasy 1X60 Xeon 4112 Performance Kit

Q2P88A

NOTE: The above Performance Kit can only be ordered with the StoreEasy 1860 Performance model (SKU# Q2P76A). The kit contains one Xeon-Silver 4122 processor and one 16GB Dual Rank x8 DDR4-2666 CAS-19-19-19 RDIMM.

HPE StoreEasy 1X60 Xeon 3104 Performance Kit

Q2P89A

NOTE: The above Performance Kit can be ordered with all StoreEasy 1860 models except the StoreEasy 1860 Performance model. The kit contains one Xeon-Bronze 3104 processor and one 16GB Dual Rank x8 DDR4-2666 CAS-19-19-19 RDIMM.

Step 8: Choose optional extra memory kit

HPE 16GB (1x16GB) Dual Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit

835955-B21

NOTE: There are 12 DIMM slots per processor for a total maximum of 24 DIMM slots. All StoreEasy 1860 models come with one processor and one 16GB DIMM standard.

Step 9: Choose optional System Recovery option

HPE StoreEasy XX60 Recovery Software Media Kit

Q2P95A

NOTE: The HPE StoreEasy XX60 Recovery Software Media Kit contains a System Recovery DVD that is used to re-install the factory operating system image. Booting the system from the System Recovery DVD will restore the operating system image and logical drive to the factory default state. This enables recovery of the system if all other means to boot the system fail. Refer to the StoreEasy 1X60 Administrator Guide for more information on performing a System Recovery.

NOTE: If desired the StoreEasy 1660 Recovery Software can be downloaded from the HPE Software Depot at no charge, so that the user can create their own System Recovery DVD or System Recovery USB flash drive. The Recovery Software(s) are available here:

<https://h20392.www2.hpe.com/portal/swdepot/displayProductsList.do?category=NAS>

NOTE: For more information on how to perform a system recovery on a StoreEasy 1660 refer to the StoreEasy 1X60 Administrator's Guide. The guide can be downloaded from <http://www.hpe.com/support>. Select HPE Support Center and search for the StoreEasy product model in the drivers and download section.

NOTE: All data on the original operating system logical drive is erased during the System Recovery process. Back up any data on the operating system drives before performing the System Recovery if possible. While the System Recovery process makes every attempt to preserve the existing data volumes, you should have a backup of your data before recovering the system.

Service and Support

Warranty

HPE StoreEasy 1460, 1560, 1660 and 1860 Storage products come with a standard 3-3-3 warranty (3 years parts exchange, 3 years labor and 3 years onsite, next business day response). Software media is warranted to be free of physical defect for a period of 90 days from delivery.

Services Included with the Product One year of Hewlett Packard Enterprise Software Support for the Windows Storage Server 2016 Operating System, standard 9x5 business hours (software advisory and remedial software telephone support, and media and documentation distribution service).

Service and Support **Protect your business beyond warranty with HPE Support Services**

HPE Pointnext provides a comprehensive portfolio including Advisory and Transformational, Professional, and Operational Services to help accelerate your digital transformation. From the onset of your transformation journey, Advisory and Transformational Services focus on designing the transformation and creating a solution roadmap. Professional Services specializes in creative configurations with flawless and on-time implementation, and on-budget execution. Finally, operational services provides innovative new approaches like Flexible Capacity and Datacenter Care, to keep your business at peak performance. HPE is ready to bring together all the pieces of the puzzle for you, with an eye on the future, and make the complex simple.

Connect your devices:

Unlock all of the benefits of your technology investment by connecting your products to Hewlett Packard Enterprise. Reduce down time, increase diagnostic accuracy and have a single consolidated view of your environment. By connecting, you will receive 24x7 monitoring, pre-failure alerts, automatic call logging, and automatic parts dispatch. HPE Proactive Care Service and HPE Datacenter Care Service customers will also benefit from proactive activities to help prevent issues and increase optimization. All of these benefits are already available to you with your server storage and networking products, securely connected to HPE support.

Learn more about getting connected at <http://www.hpe.com/services/getconnected>

Discover, plan, and design Choose from a rich portfolio of services to make the most of HPE StoreEasy Storage, so you can efficiently and affordably consolidate, manage, and extract value from unstructured data.

Hewlett Packard Enterprise Services can help you discover needs and create a plan for simplifying the environment, reducing risk, and maximizing your storage investments

HPE Backup Recovery Impact Analysis - Focus placed on service requirements and design as the key to success for gaining a clear understanding of the role of increasingly diverse data protection strategies. <https://www.hpe.com/h20195/V2/GetPDF.aspx/4AA4-1175ENW.pdf>

HPE Storage Cloud Design Service - Build a scalable, low-cost enterprise storage environment with inherent cloud benefits to meet big data needs.

Deploy and integrate We can help you configure, set up, and efficiently use your HPE StoreEasy Storage, as well as help migrate data, improve capacity utilization, and establish information management standards used across backup, replication, and archiving needs.

HPE StoreEasy 1000/3000 Storage Installation and Startup Service -Expert system installation and setup by a Hewlett Packard Enterprise technical specialist designed to reduce implementation time and

Service and Support

cost, with your basic questions about the service answered during the included orientation session. <https://h20195.www2.hpe.com/v2/Getdocument.aspx?docname=4AA2-6112ENW>

HPE Storage Data Migration Services - End-to-end data migration service providing seamless discovery, assessment, planning, and design, completely customizable to your organization's storage area network or network attached storage environment and using innovative software to help you migrate to Hewlett Packard Enterprise storage quickly and efficiently.

<https://www.hpe.com/h20195/V2/GetPDF.aspx/4AA3-0774ENW.pdf>

HPE Technical Services Support Credits offer flexible services and technical skills to meet your changing IT demands. With a menu of service that is tailored to suit your needs, you get additional resources and specialist skills to help you maintain peak performance of your IT. Offered as annual credits, you can plan your budgets while proactively responding to your dynamic business.

Operate and support

Choose the right support to maximize uptime, free up your resources, and achieve improved value-as you get the most out of the existing IT assets while accelerating time-to-revenue.

HPE Proactive Care Support Service

HPE Proactive Care gives customers an enhanced call experience. When your products are connected to HPE, Proactive Care helps prevent problems and maintains IT stability by utilizing personalized proactive reports with recommendations and advice. This service includes available response times of next business day, 4 hour response or 6 hour to repair with answers to software questions within two hours. Hewlett Packard Enterprise is the only leading manufacturer who makes this level of coverage available as a standard service offering for your most valuable servers.

<http://www.hpe.com/services/proactivecare>

HPE Foundation Care Support Service

HPE Foundation Care connects you to Hewlett Packard Enterprise 24 hours a day, seven days a week for assistance on resolving issues – This service includes available response times of next business day, 4 hour response or 6 hour to repair with answers to software questions within two hours. Hewlett Packard Enterprise is the only leading manufacturer who makes this level of coverage available as a standard service offering for your most valuable servers. In addition, Collaborative software support is included and provides troubleshooting assistance on industry leading software running on your server. Simplify your support experience and make Hewlett Packard Enterprise your first call to help resolve hardware or software problems.

<http://www.hpe.com/services/foundationcare>

HPE Datacenter Care service

HPE Datacenter Care helps improve IT stability and security, increase the value of IT, and enable agility and innovation. It is a structured framework of repeatable, tested, and globally available services “building blocks.” You can deploy, operate, and evolve your datacenter wherever you are on your IT journey. With HPE Datacenter Care, you benefit from a personalized relationship with Hewlett Packard Enterprise via a single point of accountability for HPE and others’ products. For more information,

visit <http://www.hpe.com/services/datacentercare>

HPE Education Services

Keep your IT staff trained making sure they have the right skills to deliver on your business outcomes. Book on a class today and learn how to get the most from your technology investment. <http://www.hpe.com/ww/learn>

Service and Support

Optimized Care **HPE Proactive Care* with 6 hour call-to-repair commitment, three year Support Service**

HPE Proactive Care gives customers an enhanced call experience. When your products are connected to HPE, Proactive Care helps prevent problems and maintains IT stability by utilizing personalized proactive reports with recommendations and advice. This Service combines three years' proactive reporting and advice with our highest level of hardware support - HPE's 24x7, six hour hardware call-to-repair. Hewlett Packard Enterprise is the only leading manufacturer who makes this level of coverage available as a standard service offering for your most valuable servers.

<https://www.hpe.com/h20195/v2/GetPDF.aspx/4AA3-8855ENW.pdf>

*HPE Proactive Care and HPE Proactive Care Advanced require that the customer connect their devices to make the most of these services and receive all the deliverables. HPE Insight Remote Support is available at no additional cost with a HPE warranty, HPE Support Service or HPE contractual support agreement.

Standard Care **HPE Proactive Care* with 24x7 coverage, three year Support Service**

HPE Proactive Care gives customers an enhanced call experience. When your products are connected to HPE, Proactive Care helps prevent problems and maintains IT stability by utilizing personalized proactive reports with recommendations and advice. This Service combines three years proactive reporting and advice with our 24x7 coverage, four hour hardware response time when there is a problem.

<https://www.hpe.com/h20195/v2/GetPDF.aspx/4AA3-8855ENW.pdf>

*HPE Proactive Care and HPE Proactive Care Advanced require that the customer connect their devices to make the most of these services and receive all the deliverables. HPE Insight Remote Support is available at no additional cost with a HPE warranty, HPE Support Service or HPE contractual support agreement.

Basic Care **HPE Foundation Care 24x7, three-year Support Service**

HPE Foundation Care 24x7 gives you access to Hewlett Packard Enterprise 24 hours a day, seven days a week for assistance on resolving issues. This service includes need based Hardware onsite response within four hours. In addition, collaborative software support is included in this service that provides troubleshooting assistance on industry leading software running on your HPE server. Simplify your support experience and make Hewlett Packard Enterprise your first call to help resolve hardware or software problems.

<https://www.hpe.com/h20195/v2/getdocument.aspx?docname=4AA4-8876ENW>

Parts and Materials Hewlett Packard Enterprise 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 quick-specs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

The defective media retention service feature option applies only to Disk or eligible SSD/Flash Drives replaced by Hewlett Packard Enterprise due to malfunction.

HPE Support Center The HPE Support Center is a personalized online support portal with access to information, tools and experts to support HPE business products. Submit support cases online, chat with Hewlett Packard Enterprise experts, access support resources or collaborate with peers.

Service and Support

Learn more <http://www.hpe.com/support/hpesc>

The HPE Support Center Mobile App* allows you to resolve issues yourself or quickly connect to an agent for live support. Now, you can get access to personalized IT support anywhere, anytime.

HPE Support Center is available at no additional cost with a HPE warranty, HPE Support Service or HPE contractual support agreement.

*HPE Support Center Mobile App is subject to local availability

For more information

<http://www.hpe.com/services>

<https://www.hpe.com/us/en/services/operational.html>

To learn more on HPE Storage Services, please contact your Hewlett Packard Enterprise sales representative or Hewlett Packard Enterprise Authorized Channel Partner. HPE Pointnext operational services are sold by Hewlett Packard Enterprise and Hewlett Packard Enterprise Authorized Service Partners:

Contact information for a representative in your area can be found at "Contact HPE"

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

- Services for customers purchasing from Hewlett Packard Enterprise or an enterprise reseller are quoted using Hewlett Packard Enterprise order configuration tools.
- Customers purchasing from a commercial reseller can find HPE Pointnext operational services at <http://ssc.hpe.com/portal/site/ssc/>

Technical Specifications

StoreEasy 1460

System Unit

Dimensions	4.29 x 43.46 x 74.98 cm 1.69 x 17.11 x 29.5 in	LFF Drives
Weight (approximate)	16.78 kg 37 lb	LFF maximum: Four drives, two processors, two power supplies, two heatsinks, one Smart Array controller and seven fans.
Input Requirements (per power supply)	Rated Line Voltage	100 to 120 VAC 200 to 240 VAC
BTU Rating	Maximum	For 500W Power Supply: 1979 BTU/hr (at 100 VAC), 1911 BTU/hr (at 200 VAC), 1965 BTU/hr (at 240 VDC) for China Only
Power Supply Output (per power supply)	Rated Steady-State Power	For 500W Power Supply: 500W (at 100 VAC), 500W (at 240 VAC), 500W (at 240 VDC) input for China
System Inlet Temperature	Standard Operating Support	<p>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/hr (36°F/hr). The upper limit and rate of change may be limited by the type and number of options installed.</p> <p>System performance during standard operating support may be reduced if operating with a fan fault or above 30°C (86°F).</p> <p>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). The approved hardware configurations for this system are listed at the URL: http://www.hpe.com/servers/ashrae</p>
	Extended Ambient Operating Support	<p>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</p> <p>System performance may be reduced if operating in the extended ambient operating range or with a fan fault.</p>
Relative Humidity (non-condensing)	Operating	8% to 90% - Relative humidity (Rh), 28°C maximum wet bulb temperature, non-condensing.

Technical Specifications

	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).

Acoustic Noise

Listed are the declared A-Weighted sound power levels (LWAd) and declared average bystander position A-Weighted sound pressure levels (LpAm) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109). The listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels. Please have your HPE representative provide information from the HPE EMESC website for further technical details regarding the configurations listed below.

	Configuration SKU	Entry	Base	Performance
Idle				
	LWAd	5.1 B	5.1 B	5.2 B
	LpAm	35 dBA	35 dBA	36 dBA
Operating				
	LWAd	5.3 B	5.2 B	5.9 B
	LpAm	36 dBA	38 dBA	45 dBA

NOTE: Acoustics levels presented here are generated by the test configuration only. Acoustics levels will vary depending on system configuration. Values are subject to change without notification and are for reference only.

Emissions Classification (EMC) 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:

<http://www.hpe.com/support/Safety-Compliance-EnterpriseProducts>

StoreEasy 1560

System Unit

Tower Dimensions	17.32 (H)x 7.68 (W) x 18.92. (D) in (44 x 19.5 x 48.05 cm)
Tower Weight (approximate)	Minimum: 29.82 lbs (13.5 kg)
	Maximum: 55.0 lbs (25.0 kg)
Input Requirements (per power supply)	Rated Line Voltage 100 to 120 VAC
	Rated Input Frequency For 350W & 550W Power Supply:8A (at 100~240 VAC) 50 to 60 Hz
	Rated Input Power For 550 W Power Supply:< 639 W (at 100 VAC),< 605 W (at 200 VAC) For 350 W Power Supply:< 427 W (at 100 VAC),< 427 W (at 200 VAC)
	BTU Rating Maximum For 550 W Power Supply:2204 BTU/hr (at 100 VAC),2113 BTU/hr (at 200 VAC) For 350 W Power Supply:1452 BTU/hr (at 100 VAC),1544 BTU/hr (at 200 VAC)
Rated Steady-State Power	For 550 W Power Supply:550 W (at 100 VAC),550 W (at 200 VAC),

Technical Specifications

Power Supply Output (per power supply)	Maximum Peak Power	For 350 W Power Supply: 350 W (at 100 VAC), 350 W (at 200VAC),
System Inlet Temperature	Standard Operating Temperature	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/hr (36°F/hr). The upper limit and rate of change may be limited by the type and number of options installed.
	Extended Ambient Operating Support	System performance during standard operating support may be reduced if operating with a fan fault or 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 3048m (10,000 ft). The approved hardware configurations for this system are listed at the URL: http://www.hpe.com/servers/ashrae .
	Non-operating	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).
Acoustic Noise	Listed are the declared A-Weighted sound power levels (L_{WAd}) and declared average bystander position A-Weighted sound pressure levels (L_{pAm}) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109). The listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels. Please have your HPE representative provide information from the HPE EMESC website for further technical details regarding the configurations listed below.	
	Idle	
	LWAd	4.0 Bels Entry 4.0 Bels Perf
	LpAm	24.8 dBA Entry 24.1 dBA Perf
	Operating	
	LWAd	4.0 Bels Entry 4.0 Bels Perf
	LpAm	25.1 dBA Entry 24.1 dBA Perf

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NOTE: Acoustics levels presented here are generated by the test configuration only. Acoustics levels will vary depending on system configuration. Values are subject to change without notification and are for reference only.

Emissions Classification (EMC) - 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:

<http://www.hpe.com/support/Safety-Compliance-EnterpriseProducts>

StoreEasy 1660 (LFF) and 1860 (SFF)

System Unit

Dimensions	8.73 x 44.54 x 67.94 cm 3.44 x 17.54 x 26.75 in 8.73 x 44.54 x 73.02 cm 3.44 x 17.54 x 28.75 in	SFF Drives: LFF Drives:
Weight (approximate)	Maximum: 19.5 kg 43.00 lbs Minimum: 14.9 kg 32.75 lbs Maximum: 24.5 kg 54 lbs Minimum: 17.1 kg 37.75 lbs	Minimum: 8 SFF chassis with 1x SFF HDD and 7 HDD blanks, 2x Drive Bay blanks, 1x processor including standard heatsink, 1x power supply (plus blank), 1x Smart Array, 1x Riser installed, cables for the above) Maximum: 12 LFF hard drives (no rear drives), 2x processors, 2x power supplies, 1x Smart Array, 2x Risers installed)
Input Requirements (per power supply)	Rated Line Voltage	100 to 120 VAC 200 to 240 VAC
BTU Rating	Maximum	For 800W Power Supply: 3207 BTU/hr (at 100 VAC), 3071 BTU/hr (at 200 VAC), 3112 BTU/hr (at 240 VAC) for China Only For 500W Power Supply: 1979 BTU/hr (at 100 VAC), 1911 BTU/hr (at 200 VAC), 1965 BTU/hr (at 240 VAC) for China Only
Power Supply Output (per power supply)	Rated Steady-State Power	For 1400W Power Supply: 1400W (at 240 VAC), 1400W (at 240 VAC) For 800W Power Supply: 800W (at 100 VAC), 800W (at 240 VAC), 800W (at 240 VAC) input for China only For 500W Power Supply: 500W (at 100 VAC), 500W (at 240 VAC), 500W (at 240 VAC) input for China only
	Maximum Peak Power	For 1400W Power Supply: 1400W (at 200 to 240 1VAC), 1400W (at 240 VAC) input for China only For 800W Power Supply: 800W (at 100 to 127 VAC), 800W (at 200 to 240 1VAC), 800W (at 240 VAC) input for China only For 500W Power Supply: 500W (at 100 to 127 VAC), 500W (at 200 to 240 VAC), 500W (at 240 VAC) input for China only
System Inlet Temperature	Standard Operating Temperature	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/hr (36°F/hr). The upper limit and rate of change may be limited by the type and number of options installed.
	Extended Ambient Operating Temperature	System performance during standard operating support may be reduced if operating with a fan fault or 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°

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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). The approved hardware configurations for this system are listed at the URL:

<http://www.hpe.com/servers/ashrae>

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.

	Non-operating	-30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr (36°F/hr).
Relative Humidity	Operating	8% to 90% - Relative humidity (Rh), 28°C maximum wet bulb temperature, non-condensing.
(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).
Acoustic Noise	Listed are the declared A-Weighted sound power levels (L_{WAd}) and declared average bystander position A-Weighted sound pressure levels (L_{pAm}) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109). The listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels. Please have your Hewlett Packard Enterprise representative provide information from the HPE EMESC website for further technical details regarding the configurations listed below.	
	Idle	
	LWAd	4.8 B Entry 4.4 B Base 4.6 B Perf
	LpAm	37 dBA Entry 31 dBA Base 31 dBA Perf
	Operating	
	LWAd	4.8 B Entry 4.4 B Base 4.6 B Perf
	LpAm	37 dBA Entry 31 dBA Base 31 dBA Perf

NOTE: Acoustics levels presented here are generated by the test configuration only. Acoustics levels will vary depending on system configuration. Values are subject to change without notification and are for reference only.

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NOTE: Product conformance to cited product specifications is based on sample (type) testing, evaluation, or assessment. This product or family of products is eligible to bear the appropriate compliance logos and statements.

NOTE: The Listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels.

Emissions

Classification (EMC)

– 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: <http://www.hpe.com/support/Safety-Compliance-EnterpriseProducts>

For information on the HPE Smart Array E208e-p SR Gen10 Controller please refer to their [QuickSpecs](#).

For information on the HPE Smart Array P408e-p SR Gen10 Controller please refer to their [QuickSpecs](#).

For information on the HPE Smart Array P816i-a SR Gen10 Controller please refer to their [QuickSpecs](#).

Environment-

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 EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard Enterprise web site. 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.

Summary of Changes

Date	Version History	Action	Description of Change
04-Sep-2018	Version 5	Changed	Updated recommended and extended options.
04-Jun-2018	Version 4	Changed	Overview, Hardware Specifications of StoreEasy models, StoreEasy 1660 configuration information, StoreEasy 1860 configuration information, and Technical Specifications were updated.
16-Apr-2018	Version 3	Changed	Optimized: Tailored for file storage and Optional Software were revised.
02-Apr-2018	Version 2	Changed	Overview and multiple SKU description were updated.
05-Mar-2018	Version 1	New	New QuickSpecs.



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For hard drives, 1 GB = 1 billion bytes. Actual formatted capacity is less.

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