

Overview

HPE Hard Disk Drives

HPE Hard Disk Drives (HDDs) are engineered to deliver optimum performance, reliability, compatibility, and data security across HPE server and storage platforms making them the preferred choice for workloads ranging from small businesses to large enterprise.

Performance

- HPE HDDs are tuned and tested with on-going quality monitoring throughout their lifecycle
- HPE optimizes HDD firmware for predictable and consistent HDD performance
- Full portfolio of high-performance Mission Critical and high-capacity Business Critical drive solutions

Reliability

- Hewlett Packard Enterprise’s industry-leading rigorous testing and qualification program, backed by 2.4 million test hours
- Pre-failure Alerts with HPE Smart Array Controller, Systems Insight Manager, and HPE Smart firmware
- 3x faster firmware and software updates with HPE Service Pack for ProLiant (HPE SPP)
- Best-in-class supply assurance program reduces downtime due to product delays

Compatibility

- Simplify HDD planning and standardize HDDs across HPE server and storage solutions
- Common HDD carriers mean re-purposing drives in other servers is a snap

Security

- HPE Digitally Signed Firmware helps prevent against malicious attacks
- HPE Smart Array SR Secure Encryption is a FIPS 140-2 Level 1 validated enterprise class controller-based encryption solution for data-at-rest on all SAS/SATA drives
- HPE Smart Carriers report drive activity and health
- Self-Encrypting Drives (SEDs) provide hardware-based data encryption. All data that is committed to the media is encrypted with either a 128-bit or 256-bit key.

HPE HDDs are available for three types of workloads: Enterprise high-performance (Mission Critical), Midline high-capacity (Business Critical) and Entry-level storage solutions.

| HPE HDD portfolio: Proven performance for every workload | | | | |
|--|---|-------------|---|------------------------------------|
| Class | Mission Critical (Enterprise) | | Business Critical (Midline) | Entry* |
| Workload | High | | Medium | Low |
| Usage | Mission-critical, high I/O: Email, enterprise resource planning (ERP), customer relationship management (CRM) | | Business Critical, High capacity, high availability storage: Backup, archive, reference | Low I/O: Boot and backup |
| Interface | SAS 12Gb | | SAS 12Gb SATA 6Gb | SATA 6Gb |
| RPM | 15000 | 10000 | 7200 | 7200 |
| Form factor | SFF & LFF | SFF | SFF & LFF | LFF |
| Capacities | Up to 900GB | Up to 2.4TB | Up to 20TB | Up to 4TB |
| Warranty | 3 years | 3 years | 1 year | 1 year |
| Notes: * Supported on select HPE ProLiant servers only. | | | | |

Overview

What's New

- Comprehensive offering in HPE Mission Critical 10K/15K and Business Critical 7.2K SFF Basic Carrier Portfolio by adding more capacities.
- P53560-B21 HPE 600GB SAS 12G Mission Critical 15K SFF BC 3-year Warranty Multi Vendor HDD
- P53561-B21 HPE 600GB SAS 12G Mission Critical 10K SFF BC 3-year Warranty Multi Vendor HDD
- P53562-B21 HPE 1.8TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty 512e Multi Vendor HDD
- P53563-B21 HPE 1TB SAS 12G Business Critical 7.2K SFF BC 1-year Warranty HDD

Notes: A -B21 suffix may be replaced with -H21 and -K21 to support across different server family lines. Please refer to the appropriate Server QuickSpecs for full compatibility details

Firmware Updates

Digitally Signed Firmware – Prevent unauthorized access to your data with the expansion of integrated HPE Digitally Signed Firmware (DS) on new drives; providing the security and assurance that drive firmware comes from a trusted source and protects against malicious attacks.

For advanced data protection and encryption, customers should consider HPE Smart Array Controllers with HPE Smart Array Secure SR Encryption. It is a controller-based data encryption solution for HPE servers that protect data-at-rest on any bulk attached storage. This solution meets stringent compliance regulations such as HIPAA and Sarbanes-Oxley.



Standard Features

Models

| Category | Interface | Form Factor | Format | Capacity | HDD Carrier | | |
|---|-----------|-------------|--------|----------|-------------------|-----------------|-------------------|
| | | | | | Smart Carrier SKU | Low Profile SKU | Basic Carrier SKU |
| Mission Critical (15K rpm) | | SFF | | 300GB | 870753-B21 | | P28028-B21 |
| | | | | 600GB | 870757-B21 | | P53560-B21 |
| | | | | 900GB | 870759-B21 | | P40432-B21 |
| Mission Critical (10K rpm) | | 512n | | 300GB | 872475-B21 | | P40430-B21 |
| | | | | 600GB | 872477-B21 | | P53561-B21 |
| | | | | 1.2TB | 872479-B21 | | P28586-B21 |
| | | SFF | 512e | 1.8TB | 872481-B21 | | P53562-B21 |
| | | | | 2.4TB | 881457-B21 | | P28352-B21 |
| Mission Critical (10K rpm) Self-Encrypting Drives (SED) | | SFF | 512n | 1.2TB | | P28622-B21 | |
| | | SFF | 512e | 2.4TB | | P28618-B21 | |



Standard Features

| Category | Interface | Form Factor | Format | Capacity | HDD Carrier | | | | |
|------------------------------|-----------|-------------|--------------------------|--------------------------|--------------------------|--------------------------------|-------------------|------------|--|
| | | | | | Smart Carrier SKU | Low Profile SKU | Basic Carrier SKU | | |
| Business Critical (7.2K rpm) | SAS 12G | LFF | 512n | 2TB | 872485-B21 | 833926-B21 | | | |
| | | | | 4TB | 872487-B21 | 833928-B21 | | | |
| | | | LFF | 512e | 6TB | 861754-B21 | | 861746-B21 | |
| | | 8TB | | | 819201-B21 | 834031-B21 | | | |
| | | 10TB | | | P53558-B21 | P53556-B21 | | | |
| | | 10TB | | | 857644-B21 ^{He} | P09149-B21 ^{He} | | | |
| | | 12TB | | | 881779-B21 ^{He} | 881781-B21 ^{He} | | | |
| | | 14TB | | | P09153-B21 ^{He} | P09155-B21 ^{He} | | | |
| | | 16TB | | | P23863-B21 ^{He} | P23608-B21 ^{He} | | | |
| | | 18TB | | | P37664-B21 ^{He} | P37669-B21 ^{He} | | | |
| | | 20TB | P53552-B21 ^{He} | P53553-B21 ^{He} | | | | | |
| | | SFF | 512n | 1TB | 832514-B21 | | | P53563-B21 | |
| | | | 512e | 2TB | 765466-B21 | | | P28505-B21 | |
| | | SATA 6G | LFF | 512n | 1TB | 861691-B21 | | 861686-B21 | |
| | | | | | 2TB | 872489-B21 | | 861681-B21 | |
| | 4TB | | | | 872491-B21 | 861683-B21 | | | |
| | 512e | | | 6TB | 861750-B21 | 861742-B21 | | | |
| | | | | 8TB | 819203-B21 | 834028-B21 | | | |
| | | | | 10TB | P53559-B21 | P53557-B21 | | | |
| | | | | 10TB | 857648-B21 ^{He} | P09161-B21 ^{He} | | | |
| | | | | 12TB | 881785-B21 ^{He} | 881787-B21 ^{He} | | | |
| | | | | 14TB | P09163-B21 ^{He} | P09165-B21 ^{He} | | | |
| | | | | 16TB | P23857-B21 ^{He} | P23449-B21 ^{He} | | | |
| | | | | 18TB | P37673-B21 ^{He} | P37678-B21 ^{He} | | | |
| | | | | 20TB | P53555-B21 ^{He} | P53554-B21^{He} | | | |
| | SFF | 512n | 1TB | 655710-B21 | | P28500-B21 | | | |
| | | 512n | 1TB | 655710-B21 | | P28610-B21 | | | |
| Category | Interface | Form Factor | Format | Capacity | HDD Carrier | | | | |
| Entry (7.2K) | SATA 6G | LFF | 512e | 1TB | Non Hot Plug Carrier SKU | | | | |
| | | | | 512n | 1TB | 843266-B21* | | | |
| | | | | | 4TB | 801888-B21 | | | |

Notes:

- ^{He} Helium Drive.
- *Also known as "Desktop Drive", this drive has Generic Firmware (Non-HPE)
- A -B21 suffix may be replaced with -H21 and -K21 to support across different server family lines. Please refer to the appropriate Server QuickSpecs for full compatibility details.

Standard Features

What is HPE Hard disk drive?

Hewlett Packard Enterprise drives are tuned to deliver optimum performance for HPE Servers. They undergo an intense qualification process to eliminate firmware and O/S incompatibilities. HPE drive firmware is designed to maximize both functionality and compatibility with HPE ProLiant Rack and Tower Servers, Apollo family, Blade and Synergy Platforms.

Drive Quality and Performance

While selecting the drives in our HPE portfolio, only those drives with a performance level suitable for an enterprise environment are selected through the Hewlett Packard Enterprise qualification process and are labeled "best-in-class."

Pre-Failure Alert

When used in conjunction with a SMART Array Controller and Systems Insight Manager, the SMART capable firmware in HPE hard drives enables extensive fault prediction capabilities. If potential problems develop in one of the drives, the Smart Array Controller, Systems Insight Manager and/or SMART hard disk drive lets you know in advance so you can have the drive replaced, before it fails, under warranty

Notes: All drives are protected by a Pre-Failure Alert when used with a HPE Smart Array controller and Systems Insight Manager, allowing hard drives to be replaced before failure under warranty. In addition, all drives are covered by a one or three-year limited on-site warranty period for the system in which they are installed. The drive warranty is automatically uplifted when used in a server or MSA for which a HPE Pointnext service contract is purchased. Please see the Support Services section below for additional services.

Smart Carriers

HPE Hard Drives with smart carriers are designed to provide an interface to communicate critical status and management information. System status LED icons and a spinning activity ring reflecting the data-writing process notify users of the current system status. A blue LED located behind the handle can be activated remotely to guide users to a specific drive tray, while a do-not-remove icon positioned on the tray's eject button lights up to warn users when the removal of the drive would cause data loss.

Helium Drives

Although hard drives are sealed, they have air inside. Air can create turbulence-induced risk vibrations which can limit the storage density of HDDs. Newer helium-filled drives virtually eliminate turbulence because helium is 1/7th as dense as air. This lower density allows the read/write mechanism to spin more easily and precisely, with less drag. Less internal turbulence means the drive platters can be closer together, allowing more platters and increasing the capacity potential in the same space. Less turbulence also means helium drives tend to use less power, and run cooler and quieter.

Support Matrix

Please see the following URL for the latest list of supported servers and enclosures:

<https://www.hpe.com/us/en/servers/server-options.html>

Warranty

Enterprise hard drives have a 3 year limited warranty regardless of the warranty period for the system in which they are installed. Midline hard drives have a 1 year limited warranty regardless of the warranty period for the system in which they are installed.



Service and Support

HPE Pointnext - Service and Support

Get the most from your HPE Products. Get the expertise you need at every step of your IT journey with **HPE Pointnext Services**. We help you lower your risks and overall costs using automation and methodologies that have been tested and refined by HPE experts through thousands of deployments globally. HPE Pointnext **Advisory Services** focus on your business outcomes and goals, partnering with you to design your transformation and build a roadmap tuned to your unique challenges. Our **Operational Services** can be leveraged to speed up time-to-production, boost performance and accelerate your business. HPE Pointnext specializes in flawless and on-time implementation, on-budget execution, and creative configurations that get the most out of software and hardware alike.

Consume IT on your terms

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

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

Managed services to run your IT operations

HPE GreenLake Management Services provides services that monitor, operate, and optimize your infrastructure and applications, delivered consistently and globally to give you unified control and let you focus on innovation.

Recommended Services

HPE Pointnext Tech Care.

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

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

HPE Pointnext Complete Care

HPE Pointnext Complete Care is a modular, edge-to-cloud IT environment service that provides a holistic approach to optimizing your entire IT environment and achieving agreed upon IT outcomes and business goals through a personalized and customer-centric experience. All delivered by an assigned team of HPE Pointnext Services experts. HPE Pointnext Complete Care provides:

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

<https://www.hpe.com/services/complecare>



Service and Support

Connect your devices to HPE

Unlock all of the benefits of your technology investment by connecting your products to Hewlett Packard Enterprise. Achieve up to 77%¹ reduction in down time, near 100%² diagnostic accuracy and 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 Tech Care Service and HPE Complete 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.

Notes:

- ¹IDC Whitepaper
 - ²HPE CSC Reports 2014-2015
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HPE Support Center

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. Learn more

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

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 Insight Remote Support and HPE Support Center are available at no additional cost with a Hewlett Packard Enterprise warranty, HPE Support Services or HPE contractual support agreement.

Notes: HPE Support Center Mobile App above is subject to local availability.

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 QuickSpecs, 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.



Service and Support

Service Coverage

For ProLiant servers and storage systems, the service on the main product covers HPE-branded hardware options not designated by Hewlett Packard Enterprise as requiring separate coverage, that are qualified for the server, purchased at the same time or afterward and internal to the enclosure. These items will be covered at the same service level and for the same coverage period as the server unless the maximum supported lifetime and/or the maximum usage limitation has been reached.

The defective media retention service feature option applies only to Disk or eligible SSD/Flash Drives replaced by Hewlett Packard Enterprise due to malfunction. It does not apply Disk or SSD/Flash Drives that have not failed. SSD/Flash Drives that are specified by Hewlett Packard Enterprise as consumable parts and/or that have reached maximum supported lifetime and/or the maximum usage limits as set forth in the manufacturer's operating manual, the product QuickSpecs, or the technical data sheet are not eligible for the defective media retention service feature option.

Subject to: Maximum supported lifetime: This is a period in years set to equal the warranty for the specific drive. After this period no further service coverage will be available for the drive. Maximum usage limit: This is the maximum amount of data that can be written to the drive. Drives that have reached this limit will not be eligible for services coverage.

For more information

To learn more on services for HPE Server Options, please contact your Hewlett Packard Enterprise sales representative or Hewlett Packard Enterprise Authorized Channel Partner. Or visit:

<https://www.hpe.com/us/en/product-catalog/servers/proliant-servers.html> or

<https://www.hpe.com/us/en/integrated-systems/bladesystem.html>

Supporting Helpful Links

<http://www.hpe.com/info/rackandpower>

<http://www.hpe.com/info/poweradvisor>

<https://www.hpe.com/us/en/storage/entry-level.html>



Technical Specifications

HDD Specifications

| Mission Critical (15K rpm) | | | | | | | | | |
|--|--|--|-------------------------|-------------------------------------|-------------------------------------|-------------------------|--------------------------|-------------------------------|--------------------------------|
| Form Factor | | SFF (2.5") | | Carrier | | Smart Carrier (SC) | | | |
| Rotational Speed | | 15000 rpm | | Dimensions | | | | | |
| Interface | | SAS | | Height | | 0.62 in (15.6 mm) | | | |
| Transfer Rate Synchronous (Max) | | 12Gb/sec | | Width | | 2.98 in (75.7 mm) | | | |
| Bytes/Sector | | 512 | | Depth | | 4.67 in (118.7 mm) | | | |
| Operating Temperature | | 50° to 95° F (10° to 35°C) | | | | | | | |
| SKU | SKU Description | OD Media Rate, Max Sequential Throughput (MiB/s) | 128Kib Random Rd (IOPs) | 128Kib Random 70% RD/ 30% WT (IOPs) | 128Kib Random 50% RD/ 50% WT (IOPs) | Power Idle Time (Watts) | Power Random R/W (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) |
| 870753-B21 | HPE 300GB SAS 12G Mission Critical 15K SFF SC 3-year Warranty Multi Vendor HDD | 260 | 220 | 220 | 220 | 2.6 | 3.6 | 4.4 | 3.9 |
| 870757-B21 | HPE 600GB SAS 12G Mission Critical 15K SFF SC 3-year Warranty Multi Vendor HDD | 260 | 220 | 220 | 220 | 4.7 | 6.1 | 6.3 | 6.3 |
| 870759-B21 | HPE 900GB SAS 12G Mission Critical 15K SFF SC 3-year Warranty Multi Vendor HDD | 260 | 220 | 220 | 220 | 4.7 | 6.1 | 6.3 | 6.3 |

| Mission Critical (15K rpm) | | | | | | | | | |
|--|--|--|-------------------------|-------------------------------------|-------------------------------------|-------------------------|--------------------------|-------------------------------|--------------------------------|
| Form Factor | | SFF (2.5") | | Carrier | | Basic Carrier (BC) | | | |
| Rotational Speed | | 15000 rpm | | Dimensions | | | | | |
| Interface | | SAS | | Height | | 0.62 in (15.6 mm) | | | |
| Transfer Rate Synchronous (Max) | | 12Gb/sec | | Width | | 2.98 in (75.7 mm) | | | |
| Bytes/Sector | | 512 | | Depth | | 4.67 in (118.7 mm) | | | |
| Operating Temperature | | 50° to 95° F (10° to 35°C) | | | | | | | |
| SKU | SKU Description | OD Media Rate, Max Sequential Throughput (MiB/s) | 128Kib Random Rd (IOPs) | 128Kib Random 70% RD/ 30% WT (IOPs) | 128Kib Random 50% RD/ 50% WT (IOPs) | Power Idle Time (Watts) | Power Random R/W (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) |
| P28028-B21 | HPE 300GB SAS 12G Mission Critical 15K SFF BC 3-year Warranty Multi Vendor HDD | 260 | 220 | 220 | 220 | 2.6 | 3.6 | 4.4 | 3.9 |



Technical Specifications

| | | | | | | | | | |
|------------|--|-----|-----|-----|-----|-----|-----|-----|-----|
| P53560-B21 | HPE 600GB SAS 12G Mission Critical 15K SFF BC 3-year Warranty Multi Vendor HDD | 260 | 220 | 220 | 220 | 4.7 | 6.1 | 6.3 | 6.4 |
| P40432-B21 | HPE 900GB SAS 12G Mission Critical 15K SFF BC 3-year Warranty Multi Vendor HDD | 260 | 220 | 220 | 220 | 4.7 | 6.1 | 6.3 | 6.3 |

| Mission Critical (10K rpm) | | | | | | | | | | |
|---------------------------------|---|--|-------------------------|-------------------------------------|-------------------------------------|-------------------------|--------------------------|-------------------------------|--------------------------------|--|
| Form Factor | | SFF (2.5") | | | Carrier | | Smart Carrier (SC) | | | |
| Rotational Speed | | 10000 rpm | | | Dimensions | | | | | |
| Interface | | SAS | | | Height | | 0.62 in (15.6 mm) | | | |
| Transfer Rate Synchronous (Max) | | 12Gb/sec | | | Width | | 2.98 in (75.7 mm) | | | |
| Bytes/Sector | | 512 | | | Depth | | 4.67 in (118.7 mm) | | | |
| Operating Temperature | | 50° to 95° F (10° to 35°C) | | | | | | | | |
| SKU | SKU Description | OD Media Rate, Max Sequential Throughput (MiB/s) | 128Kib Random Rd (IOPs) | 128Kib Random 70% RD/ 30% WT (IOPs) | 128Kib Random 50% RD/ 50% WT (IOPs) | Power Idle Time (Watts) | Power Random R/W (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) | |
| 872475-B21 | HPE 300GB SAS 12G Mission Critical 10K SFF SC 3-year Warranty Multi Vendor HDD | 195 | 180 | 180 | 180 | 3.8 | 6.9 | 6.1 | 5.3 | |
| 872477-B21 | HPE 600GB SAS 12G Mission Critical 10K SFF SC 3-year Warranty Multi Vendor HDD | 195 | 165 | 165 | 165 | 4.7 | 6.9 | 6.3 | 6.3 | |
| 872479-B21 | HPE 1.2TB SAS 12G Mission Critical 10K SFF SC 3-year Warranty Multi Vendor HDD | 195 | 165 | 165 | 165 | 4.1 | 7.5 | 6.5 | 6.1 | |
| 872481-B21 | HPE 1.8TB SAS 12G Mission Critical 10K SFF SC 3-year Warranty 512e Multi Vendor HDD | 230 | 165 | 170 | 185 | 2.6 | 3.6 | 4.4 | 3.9 | |
| 881457-B21 | HPE 2.4TB SAS 12G Mission Critical 10K SFF SC 3-year Warranty 512e Multi Vendor HDD | 255 | 160 | 180 | 195 | 4.8 | 6.0 | 7.8 | 6.6 | |



Technical Specifications

| Mission Critical (10K rpm) | | | | | | | | | |
|--|---|--|-------------------------|-------------------------------------|-------------------------------------|-------------------------|--------------------------|-------------------------------|--------------------------------|
| Form Factor | | SFF (2.5") | | Carrier | | Basic Carrier (BC) | | | |
| Rotational Speed | | 10000 rpm | | Dimensions | | | | | |
| Interface | | SAS | | Height | | 0.62 in (15.6 mm) | | | |
| Transfer Rate Synchronous (Max) | | 12Gb/sec | | Width | | 2.98 in (75.7 mm) | | | |
| Bytes/Sector | | 512 | | Depth | | 4.67 in (118.7 mm) | | | |
| Operating Temperature | | 50° to 95° F (10° to 35°C) | | | | | | | |
| SKU | SKU Description | OD Media Rate, Max Sequential Throughput (MiB/s) | 128Kib Random Rd (IOPs) | 128Kib Random 70% RD/ 30% WT (IOPs) | 128Kib Random 50% RD/ 50% WT (IOPs) | Power Idle Time (Watts) | Power Random R/W (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) |
| P40430-B21 | HPE 300GB SAS 12G Mission Critical 10K SFF BC 3-year Warranty Multi Vendor HDD | 195 | 180 | 180 | 180 | 3.8 | 6.9 | 6.1 | 5.3 |
| P53561-B21 | HPE 600GB SAS 12G Mission Critical 10K SFF BC 3-year Warranty Multi Vendor HDD | 200 | 165 | 165 | 165 | 4.7 | 6.1 | 6.3 | 6.4 |
| P28586-B21 | HPE 1.2TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty Multi Vendor HDD | 195 | 165 | 165 | 165 | 4.1 | 7.5 | 6.5 | 6.1 |
| P53562-B21 | HPE 1.8TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty 512e Multi Vendor HDD | 260 | 165 | 180 | 190 | 2.6 | 3.6 | 4.4 | 3.9 |
| P28352-B21 | HPE 2.4TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty 512e Multi Vendor HDD | 255 | 160 | 180 | 190 | 4.8 | 6 | 7.8 | 6.6 |



Technical Specifications

| Mission Critical (10K rpm) Self-Encrypting Drives (SED) | | | | | | | | | | |
|---|--|--|-------------------------|-------------------------------------|-------------------------------------|-------------------------|--------------------------|-------------------------------|--------------------------------|--|
| Form Factor | | SFF (2.5") | | | Carrier | | Basic Carrier (BC) | | | |
| Rotational Speed | | 10000 rpm | | | Dimensions | | | | | |
| Interface | | SAS | | | Height | | 0.62 in (15.6 mm) | | | |
| Transfer Rate Synchronous (Max) | | 12Gb/sec | | | Width | | 2.98 in (75.7 mm) | | | |
| Bytes/Sector | | 512 | | | Depth | | 4.67 in (118.7 mm) | | | |
| Operating Temperature | | 50° to 95° F (10° to 35°C) | | | | | | | | |
| SKU | SKU Description | OD Media Rate, Max Sequential Throughput (MiB/s) | 128Kib Random Rd (IOPs) | 128Kib Random 70% RD/ 30% WT (IOPs) | 128Kib Random 50% RD/ 50% WT (IOPs) | Power Idle Time (Watts) | Power Random R/W (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) | |
| P28622-B21 | HPE 1.2TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty Self-encrypting HDD | 250 | 170 | 170 | 170 | 2.6 | 3.6 | 4.4 | 3.9 | |
| P28618-B21 | HPE 2.4TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty 512e Self-encrypting HDD | 255 | 160 | 180 | 195 | 4.8 | 6.0 | 7.8 | 6.6 | |



Technical Specifications

| Business Critical (7.2K rpm) | | | | | | | | | | |
|--|---|---|--------------------------------|-------------------------------------|-------------------------------------|--------------------------------|---------------------------------|--------------------------------------|---------------------------------------|--|
| Form Factor | | LFF (3.5") | | Carrier | | Smart Carrier (SC) | | | | |
| Rotational Speed | | 7200 rpm | | Dimensions | | | | | | |
| Interface | | SAS | | Height | | 1.06 in (26.8 mm) | | | | |
| Transfer Rate Synchronous (Max) | | 12Gb/sec | | Width | | 4.16 in (105.8 mm) | | | | |
| Bytes/Sector | | 512 | | Depth | | 6.69 in (170.0 mm) | | | | |
| Operating Temperature | | 50° to 95° F (10° to 35°C) | | | | | | | | |
| SKU | SKU Description | OD Media Rate, Max Sequential Throughput | 128Kib Random Rd (IOPs) | 128Kib Random 70% RD/ 30% WT | 128Kib Random 50% RD/ 50% WT | Power Idle Time (Watts) | Power Random R/W (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) | |
| 872485-B21 | HPE 2TB SAS 12G Business Critical 7.2K LFF SC 1-year Warranty Multi Vendor HDD | 190 | 100 | 100 | 100 | 8.8 | 12.2 | 10.8 | 10.5 | |
| 872487-B21 | HPE 4TB SAS 12G Business Critical 7.2K LFF SC 1-year Warranty Multi Vendor HDD | 190 | 100 | 100 | 100 | 8.8 | 12.2 | 10.8 | 10.5 | |
| 861754-B21 | HPE 6TB SAS 12G Business Critical 7.2K LFF SC 1-year Warranty 512e Multi Vendor HDD | 200 | 100 | 105 | 110 | 8.8 | 12.2 | 10.8 | 10.5 | |
| 819201-B21 | HPE 8TB SAS 12G Business Critical 7.2K LFF SC 1-year Warranty 512e Multi Vendor HDD | 230 | 100 | 110 | 110 | 8.3 | 11.3 | 10.6 | 10.2 | |
| P53558-B21 | HPE 10TB SAS 12G Business Critical 7.2K LFF SC 1-year Warranty 512e ISE Multi Vendor HDD | 225 | 105 | 110 | 115 | 5.2 | 9.2 | 8.3 | 7.6 | |
| 857644-B21 | HPE 10TB SAS 12G Business Critical 7.2K LFF SC 1-year Warranty Helium 512e Multi Vendor HDD | 255 | 108 | 115 | 129 | 9.0 | 12.4 | 11.4 | 11.1 | |
| 881779-B21 | HPE 12TB SAS 12G Business Critical 7.2K LFF SC 1-year Warranty Helium 512e Multi Vendor HDD | 235 | 105 | 115 | 125 | 6.3 | 8.7 | 7.6 | 7.3 | |
| P09153-B21 | HPE 14TB SAS 12G Business Critical 7.2K LFF SC 1-year Warranty Helium 512e Multi Vendor HDD | 250 | 105 | 115 | 120 | 5.7 | 9.2 | 8.2 | 7.8 | |
| P23863-B21 | HPE 16TB SAS 12G Business Critical 7.2K LFF SC 1-year Warranty Helium 512e ISE Multi Vendor HDD | 250 | 105 | 115 | 125 | 5.7 | 9.6 | 8.2 | 8.2 | |



Technical Specifications

| | | | | | | | | | |
|--|---|---|--|--|--|------------------------------------|-------------------------------------|--|---|
| P37664-B21 | HPE 18TB SAS 12G Business Critical 7.2K LFF SC 1-year Warranty Helium 512e ISE Multi Vendor HDD | 260 | 108 | 115 | 127 | 6.1 | 9.9 | 8.6 | 8.8 |
| P53552-B21 | HPE 20TB SAS 12G Business Critical 7.2K LFF SC 1-year Warranty Helium 512e ISE Multi Vendor HDD | 260 | 110 | 118 | 130 | 6.1 | 9.9 | 8.6 | 8.8 |
| Business Critical (7.2K rpm) | | | | | | | | | |
| Form Factor | | LFF (3.5") | | Carrier | | Low Profile (LP) | | | |
| Rotational Speed | | 7200 rpm | | Dimensions | | | | | |
| Interface | | SAS | | Height | | 1.028 in (26.1 mm) | | | |
| Transfer Rate Synchronous (Max) | | 12Gb/sec | | Width | | 4.15 in (105.5 mm) | | | |
| Bytes/Sector | | 512 | | Depth | | 6.16 in (156.58 mm) | | | |
| Operating Temperature | | 50° to 95° F (10° to 35°C) | | | | | | | |
| SKU | SKU Description | OD Media Rate, Max Sequential Throughput (MiB/s) | 128Kib Random Rd (IOPs) | 128Kib Random 70% RD/ 30% WT (IOPs) | 128Kib Random 50% RD/ 50% WT (IOPs) | Power Idle Time (Watts) | Power Random R/W (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) |
| 833926-B21 | HPE 2TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD | 195 | 100 | 100 | 100 | 5.5 | 9.8 | 8.0 | 7.9 |
| 833928-B21 | HPE 4TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD | 195 | 100 | 100 | 100 | 6.3 | 10.6 | 9.2 | 9.0 |
| 861746-B21 | HPE 6TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty 512e Multi Vendor HDD | 215 | 100 | 110 | 110 | 6.5 | 11.0 | 9.9 | 9.5 |
| 834031-B21 | HPE 8TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty 512e Multi Vendor HDD | 230 | 100 | 110 | 110 | 7.2 | 11.3 | 10.6 | 10.2 |
| P09149-B21 | HPE 10TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD | 225 | 110 | 115 | 125 | 5.1 | 9.2 | 7.5 | 7.6 |
| P53556-B21 | HPE 10TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty 512e ISE Multi Vendor HDD | 255 | 108 | 115 | 129 | 8.2 | 12.2 | 11.4 | 11.1 |
| 881781-B21 | HPE 12TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD | 235 | 105 | 115 | 125 | 6.3 | 7.4 | 7.4 | 6.9 |



Technical Specifications

| | | | | | | | | | |
|------------|---|-----|-----|-----|-----|-----|-----|-----|-----|
| P09155-B21 | HPE 14TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD | 250 | 105 | 115 | 120 | 5.1 | 9.2 | 7.8 | 7.8 |
| P23608-B21 | HPE 16TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD | 250 | 105 | 115 | 125 | 5.6 | 9.6 | 8.2 | 8.2 |
| P37669-B21 | HPE 18TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD | 260 | 108 | 115 | 127 | 5.7 | 9.7 | 8.3 | 8.3 |
| P53553-B21 | HPE 20TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD | 260 | 110 | 118 | 130 | 6.1 | 9.9 | 8.6 | 8.8 |

Business Critical (7.2K rpm)

| | | | |
|--|------------|-------------------|--------------------|
| Form Factor | LFF (3.5") | Carrier | Smart Carrier (SC) |
| Rotational Speed | 7200 rpm | Dimensions | |
| Interface | SATA | Height | 1.06 in (26.8 mm) |
| Transfer Rate Synchronous (Max) | 6Gb/sec | Width | 4.16 in (105.8 mm) |
| Bytes/Sector | 512 | Depth | 6.69 in (170.0 mm) |

Operating Temperature

50° to 95° F (10° to 35°C)

| SKU | SKU Description | OD Media Rate, Max Sequential Throughput (MiB/s) | 128Kib Random Rd (IOPs) | 128Kib Random 70% RD/ 30% WT (IOPs) | 128Kib Random 50% RD/ 50% WT (IOPs) | Power Idle Time (Watts) | Power Random R/W (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) |
|------------|---|--|-------------------------|-------------------------------------|-------------------------------------|-------------------------|--------------------------|-------------------------------|--------------------------------|
| 861691-B21 | HPE 1TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty Multi Vendor HDD | 185 | 90 | 90 | 90 | 8.8 | 12.2 | 10.8 | 10.5 |
| 872489-B21 | HPE 2TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty Multi Vendor HDD | 185 | 90 | 90 | 90 | 8.8 | 12.2 | 10.8 | 10.5 |
| 872491-B21 | HPE 4TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty Multi Vendor HDD | 190 | 100 | 100 | 100 | 8.8 | 12.2 | 10.8 | 10.5 |
| 861750-B21 | HPE 6TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty 512e Multi Vendor HDD | 215 | 100 | 100 | 105 | 8.8 | 12.2 | 10.8 | 10.5 |
| 819203-B21 | HPE 8TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty 512e Multi Vendor HDD | 230 | 100 | 110 | 110 | 7.2 | 10.8 | 10.1 | 9.8 |



Technical Specifications

| | | | | | | | | | |
|------------|---|-----|-----|-----|-----|-----|------|------|------|
| 857648-B21 | HPE 10TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty Helium 512e Multi Vendor HDD | 235 | 105 | 110 | 115 | 4.8 | 8.6 | 7.7 | 7.6 |
| P53559-B21 | HPE 10TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty 512e ISE Multi Vendor HDD | 250 | 110 | 118 | 130 | 8.0 | 11.8 | 11.1 | 11.0 |
| 881785-B21 | HPE 12TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty Helium 512e Multi Vendor HDD | 235 | 105 | 115 | 125 | 6.3 | 8.5 | 8.2 | 7.7 |
| P09163-B21 | HPE 14TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty Helium 512e Multi Vendor HDD | 250 | 105 | 115 | 120 | 5.6 | 9.3 | 7.9 | 8.4 |
| P23857-B21 | HPE 16TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty Helium 512e ISE Multi Vendor HDD | 260 | 105 | 115 | 125 | 5.5 | 9.1 | 7.8 | 8.2 |
| P37673-B21 | HPE 18TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty Helium 512e ISE Multi Vendor HDD | 265 | 108 | 115 | 127 | 5.6 | 9.3 | 8.1 | 8.4 |
| P53555-B21 | HPE 20TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty Helium 512e ISE Multi Vendor HDD | 260 | 110 | 118 | 130 | 5.8 | 9.3 | 8.1 | 8.2 |

Business Critical (7.2K rpm)

| Form Factor | | LFF (3.5") | | Carrier | | Low Profile (LP) | | | |
|--|--|--|-------------------------|-------------------------------------|-------------------------------------|-------------------------|--------------------------|-------------------------------|--------------------------------|
| Rotational Speed | | 7200 rpm | | Dimensions | | | | | |
| Interface | | SATA | | Height | | 1.028 in (26.1 mm) | | | |
| Transfer Rate Synchronous (Max) | | 6Gb/sec | | Width | | 4.15 in (105.5 mm) | | | |
| Bytes/Sector | | 512 | | Depth | | 6.16 in (156.58 mm) | | | |
| Operating Temperature | | 50° to 95° F (10° to 35°C) | | | | | | | |
| SKU | SKU Description | OD Media Rate, Max Sequential Throughput (MiB/s) | 128Kib Random Rd (IOPs) | 128Kib Random 70% RD/ 30% WT (IOPs) | 128Kib Random 50% RD/ 50% WT (IOPs) | Power Idle Time (Watts) | Power Random R/W (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) |
| 861686-B21 | HPE 1TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD | 185 | 90 | 90 | 90 | 4.4 | 7.7 | 6.4 | 6.6 |
| 861681-B21 | HPE 2TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD | 185 | 90 | 90 | 90 | 4.9 | 9.2 | 7.4 | 7.4 |
| 861683-B21 | HPE 4TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD | 195 | 100 | 100 | 100 | 5.9 | 10.1 | 8.6 | 8.5 |

Technical Specifications

| | | | | | | | | | |
|------------|---|-----|-----|-----|-----|-----|------|------|------|
| 861742-B21 | HPE 6TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty 512e Multi Vendor HDD | 215 | 100 | 100 | 105 | 5.9 | 10.5 | 8.9 | 8.8 |
| 834028-B21 | HPE 8TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty 512e Multi Vendor HDD | 230 | 100 | 110 | 110 | 6.8 | 10.8 | 10.1 | 9.8 |
| P09161-B21 | HPE 10TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD | 240 | 110 | 115 | 125 | 4.6 | 8.6 | 7.0 | 7.6 |
| P53557-B21 | HPE 10TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty 512e ISE Multi Vendor HDD | 250 | 110 | 118 | 130 | 7.9 | 11.8 | 11.1 | 11.0 |
| 881787-B21 | HPE 12TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD | 235 | 105 | 115 | 125 | 6.3 | 7.4 | 7.4 | 6.9 |
| P09165-B21 | HPE 14TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD | 250 | 105 | 115 | 120 | 5.3 | 9.3 | 7.9 | 8.4 |
| P23449-B21 | HPE 16TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD | 260 | 105 | 115 | 125 | 5.1 | 9.1 | 7.7 | 8.2 |
| P37678-B21 | HPE 18TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD | 265 | 108 | 115 | 127 | 5.4 | 9.3 | 7.9 | 8.4 |
| P53554-B21 | HPE 20TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD | 260 | 110 | 118 | 130 | 5.6 | 9.3 | 8.1 | 8.2 |



Technical Specifications

| Business Critical (7.2K rpm) | | | | | | | | | |
|--|--|--|-------------------------|-------------------------------------|-------------------------------------|-------------------------|--------------------------|-------------------------------|--------------------------------|
| Form Factor | | SFF (2.5") | | Carrier | | Smart Carrier (SC) | | | |
| Rotational Speed | | 7200 rpm | | Dimensions | | | | | |
| Interface | | SAS | | Height | | 0.62 in (15.6 mm) | | | |
| Transfer Rate Synchronous (Max) | | 12Gb/sec | | Width | | 2.98 in (75.7 mm) | | | |
| Bytes/Sector | | 512 | | Depth | | 4.67 in (118.7 mm) | | | |
| Operating Temperature | | 50° to 95° F (10° to 35°C) | | | | | | | |
| SKU | SKU Description | OD Media Rate, Max Sequential Throughput (MiB/s) | 128Kib Random Rd (IOPs) | 128Kib Random 70% RD/ 30% WT (IOPs) | 128Kib Random 50% RD/ 50% WT (IOPs) | Power Idle Time (Watts) | Power Random R/W (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) |
| 832514-B21 | HPE 1TB SAS 12G Business Critical 7.2K SFF SC 1-year Warranty HDD | 130 | 105 | 105 | 105 | 2.6 | 3.6 | 4.4 | 3.9 |
| 765466-B21 | HPE 2TB SAS 12G Business Critical 7.2K SFF SC 1-year Warranty 512e HDD | 130 | 105 | 105 | 105 | 2.6 | 3.6 | 4.4 | 3.9 |

| Business Critical (7.2K rpm) | | | | | | | | | |
|--|--|--|-------------------------|-------------------------------------|-------------------------------------|-------------------------|--------------------------|-------------------------------|--------------------------------|
| Form Factor | | SFF (2.5") | | Carrier | | Basic Carrier (BC) | | | |
| Rotational Speed | | 7200 rpm | | Dimensions | | | | | |
| Interface | | SAS | | Height | | 0.62 in (15.6 mm) | | | |
| Transfer Rate Synchronous (Max) | | 12Gb/sec | | Width | | 2.98 in (75.7 mm) | | | |
| Bytes/Sector | | 512 | | Depth | | 4.67 in (118.7 mm) | | | |
| Operating Temperature | | 50° to 95° F (10° to 35°C) | | | | | | | |
| SKU | SKU Description | OD Media Rate, Max Sequential Throughput (MiB/s) | 128Kib Random Rd (IOPs) | 128Kib Random 70% RD/ 30% WT (IOPs) | 128Kib Random 50% RD/ 50% WT (IOPs) | Power Idle Time (Watts) | Power Random R/W (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) |
| P53563-B21 | HPE 1TB SAS 12G Business Critical 7.2K SFF BC 1-year Warranty HDD | 130 | 105 | 105 | 105 | 2.6 | 3.6 | 4.4 | 3.9 |
| P28505-B21 | HPE 2TB SAS 12G Business Critical 7.2K SFF BC 1-year Warranty 512e HDD | 130 | 105 | 105 | 105 | 2.6 | 3.6 | 4.4 | 3.9 |



Technical Specifications

| Business Critical (7.2K rpm) | | | | | | | | | |
|--|--|--|-------------------------|-------------------------------------|-------------------------------------|-------------------------|--------------------------|-------------------------------|--------------------------------|
| Form Factor | | SFF (2.5") | | Carrier | | Smart Carrier (SC) | | | |
| Rotational Speed | | 7200 rpm | | Dimensions | | | | | |
| Interface | | SATA | | Height | | 0.62 in (15.6 mm) | | | |
| Transfer Rate Synchronous (Max) | | 6Gb/sec | | Width | | 2.98 in (75.7 mm) | | | |
| Bytes/Sector | | 512 | | Depth | | 4.67 in (118.7 mm) | | | |
| Operating Temperature | | 50° to 95° F (10° to 35°C) | | | | | | | |
| SKU | SKU Description | OD Media Rate, Max Sequential Throughput (MiB/s) | 128Kib Random Rd (IOPs) | 128Kib Random 70% RD/ 30% WT (IOPs) | 128Kib Random 50% RD/ 50% WT (IOPs) | Power Idle Time (Watts) | Power Random R/W (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) |
| 655710-B21 | HPE 1TB SATA 6G Business Critical 7.2K SFF SC 1-year Warranty HDD | 130 | 105 | 105 | 105 | 2.6 | 3.6 | 4.4 | 3.9 |
| 765455-B21 | HPE 2TB SATA 6G Business Critical 7.2K SFF SC 1-year Warranty 512e HDD | 130 | 105 | 105 | 105 | 2.6 | 3.6 | 4.4 | 3.9 |

| Business Critical (7.2K rpm) | | | | | | | | | |
|--|--|--|-------------------------|-------------------------------------|-------------------------------------|-------------------------|--------------------------|-------------------------------|--------------------------------|
| Form Factor | | SFF (2.5") | | Carrier | | Basic Carrier (SC) | | | |
| Rotational Speed | | 7200 rpm | | Dimensions | | | | | |
| Interface | | SATA | | Height | | 0.62 in (15.6 mm) | | | |
| Transfer Rate Synchronous (Max) | | 6Gb/sec | | Width | | 2.98 in (75.7 mm) | | | |
| Bytes/Sector | | 512 | | Depth | | 4.67 in (118.7 mm) | | | |
| Operating Temperature | | 50° to 95° F (10° to 35°C) | | | | | | | |
| SKU | SKU Description | OD Media Rate, Max Sequential Throughput (MiB/s) | 128Kib Random Rd (IOPs) | 128Kib Random 70% RD/ 30% WT (IOPs) | 128Kib Random 50% RD/ 50% WT (IOPs) | Power Idle Time (Watts) | Power Random R/W (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) |
| P28610-B21 | HPE 1TB SATA 6G Business Critical 7.2K SFF BC 1-year Warranty HDD | 130 | 105 | 105 | 105 | 2.6 | 3.6 | 4.4 | 3.9 |
| P28500- B21 | HPE 2TB SATA 6G Business Critical 7.2K SFF BC 1-year Warranty 512e HDD | 130 | 105 | 105 | 105 | 2.6 | 3.6 | 4.4 | 3.9 |



Technical Specifications

| Entry | | | | | | | | | |
|--|--|--|-------------------------|-------------------------------------|-------------------------------------|---------------------------|--------------------------|-------------------------------|--------------------------------|
| Form Factor | | LFF (3.5") | | Carrier | | Non Hot Plug Carrier (RW) | | | |
| Rotational Speed | | 7200 rpm | | Dimensions | | | | | |
| Interface | | SATA | | Height | | 1.028 in (26.1 mm) | | | |
| Transfer Rate Synchronous (Max) | | 6Gb/sec | | Width | | 4.00 in (101.6 mm) | | | |
| Bytes/Sector | | 512 | | Depth | | 5.75 in (146.0 mm) | | | |
| Operating Temperature | | 50° to 95° F (10° to 35°C) | | | | | | | |
| SKU | SKU Description | OD Media Rate, Max Sequential Throughput (MiB/s) | 128Kib Random Rd (IOPs) | 128Kib Random 70% RD/ 30% WT (IOPs) | 128Kib Random 50% RD/ 50% WT (IOPs) | Power Idle Time (Watts) | Power Random R/W (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) |
| 843266-B21 | HPE 1TB SATA 6G Entry 7.2K LFF RW 1-year Warranty HDD | N/A | N/A | N/A | N/A | 2.6 | 3.6 | 4.4 | 3.9 |
| 801882-B21 | HPE 1TB SATA 6G Business Critical 7.2K LFF RW 1-year Warranty Multi Vendor HDD | 160 | 95 | 95 | 95 | 8.8 | 12.2 | 10.8 | 10.5 |
| 801888-B21 | HPE 4TB SATA 6G Business Critical 7.2K LFF RW 1-year Warranty Multi Vendor HDD | 160 | 95 | 95 | 95 | 8.8 | 12.2 | 10.8 | 10.5 |

Carrier Decoder

HPE Hard Disk Drives (HDDs) utilize a wide variety of carriers, which houses the HDD and also enables a specific chassis fit to support a broad range of HPE server and storage products. The table below summarizes the various form factors, plug types, and carrier attributes.



Technical Specifications

| Server Family | Server Model | Generation | SFF Carriers | | LFF Carriers | | | |
|-------------------------------------|---|--------------------------------|---------------------------|--------------------|---------------------------|------------------------|---------------------------|-----|
| | | | Smart Carrier (SCD)/(SCC) | Basic Carrier (BC) | Smart Carrier (SCD)/(SCC) | Low Profile (LP)/(LPC) | Raw Carrier(RW)/(AKA NPH) | |
| HPE ProLiant | HPE ProLiant DL | | | | | | | |
| | HPE ProLiant DL20 Gen10 Plus Server | Gen10 Plus | | Yes | | Yes | Yes | |
| | HPE ProLiant DL160 Gen10 Server | Gen10 | Yes | | | Yes | | |
| | HPE ProLiant DL180 Gen10 Server | Gen10 | Yes | | | Yes | | |
| | HPE ProLiant DL325 Gen10 Server | Gen10 | Yes | | | Yes | | |
| | HPE ProLiant DL325 Gen10 Plus Server | Gen10 Plus | Yes | | | Yes | | |
| | HPE ProLiant DL325 Gen10 Plus V2 Server | Gen10 Plus V2 | | Yes | | Yes | | |
| | HPE ProLiant DL345 Gen10 Plus Server | Gen10 Plus | | Yes | | Yes | | |
| | HPE ProLiant DL360 Gen10 Server | Gen10 | Yes | | Yes | | | |
| | HPE ProLiant DL360 Gen10 Plus Server | Gen10 Plus | | Yes | | Yes | | |
| | HPE ProLiant DL365 Gen10 Plus Server | Gen10 Plus | | Yes | | Yes | | |
| | HPE ProLiant DL380 Gen10 Server | Gen10 | Yes | | Yes | | | |
| | HPE ProLiant DL380 Gen10 Plus Server | Gen10 Plus | | Yes | | Yes | | |
| | HPE ProLiant DL385 Gen10 Server | Gen10 | Yes | | Yes | | | |
| | HPE ProLiant DL385 Gen10 Plus Server | Gen10 Plus | Yes | | | Yes | | |
| | HPE ProLiant DL385 Gen10 Plus V2 Server | Gen10 Plus V2 | | Yes | | Yes | | |
| | HPE ProLiant DL 560 Gen10 Server | Gen10 | Yes | | | | | |
| | HPE ProLiant DL 580 Gen10 Server | Gen10 | Yes | | | | | |
| | HPE ProLiant | HPE ProLiant ML | | | | | | |
| | | HPE ProLiant MicroServer Gen10 | Gen10 Plus | | | | | Yes |
| | | HPE ProLiant ML30 Gen10 Server | Gen10 | Yes | | | Yes | Yes |
| HPE ProLiant ML30 Gen10 Plus Server | | Gen10 Plus | | Yes | | Yes | Yes | |
| HPE ProLiant ML110 Gen10 Server | | Gen10 | Yes | | | Yes | Yes | |
| HPE ProLiant ML350 Gen10 Server | | Gen10 | Yes | | | Yes | Yes | |
| HPE Synergy | HPE Synergy | | | | | | | |
| | HPE Synergy 480 Gen10 Compute Module | Gen10 | Yes | | | | | |
| | HPE Synergy 480 Gen10 Compute Module | Gen10 Plus | Yes | | | | | |
| | HPE Synergy 660 Gen10 Compute Module | Gen10 | Yes | | | | | |
| | HPE Synergy D3940 Storage Module | | Yes | | | | | |

Technical Specifications

HDD SKU Description Decoder

Long Name

HPE 18TB SAS 12G Business Critical 7.2K LFF SC 1-year Warranty Helium 512e ISE Multi Vendor HDD

| Brand | Storage Capacity | Interface Type/ Interface Speed | Workload | Form Factor Type /Size | Carriers | Warranty | Special Features | Drive Type | |
|-------|----------------------|---------------------------------|--|------------------------|---|--|--|--|-----|
| HPE | 300 -900GB 1-18TB | SATA/SAS 6G/12G | Mission Critical15/10K MC 15/10K) Business Critical 7.2K BC 7.2K) | SFF LFF | BC LP LPC QR RW SC SCC ST STC | Basic Carrier Low Profile Low Profile Converter Quick Release Raw Drive Smart Smart Carrier Converter Standard Standard Carrier Converter | 1yr Wty 1-year Warranty 3yr Wty 3-year Warranty | MV SPL SED FIPS ISE 512e (no descriptor) He Multi Vendor Special SKU Self-encrypting FIPS Instant Secure Erase 512e Emulation 512n Helium <i>In priority order</i> | HDD |

Environment friendly Products and Approach End-of life Management and Recycling

Hewlett Packard Enterprise offers end-of-life **U**, 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 (2012/19/EU) 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 |
|-------------|-----------------|---------|---|
| 07-Nov-2022 | Version 31 | Changed | SKUs Names were updated |
| 01-Aug-2022 | Version 30 | Changed | Tables were fixed, Overview and Technical Specifications Sections were updated |
| 06-Jun-2022 | Version 29 | Changed | Technical Specifications Section was updated |
| 17-Jan-2022 | Version 28 | Changed | Technical Specifications Section was updated |
| 06-Dec-2021 | Version 27 | Changed | Technical Specifications Section was updated |
| 15-Nov-2021 | Version 26 | Changed | Service and Support Section was updated |
| 04-Oct-2021 | Version 25 | Changed | SKUs Names were updated |
| 12-Jul-2021 | Version 23 | Changed | Technical Specifications Section was updated |
| 06-Jul-2021 | Version 22 | Changed | Overview and Technical Specifications Sections were updated |
| 06-Apr-2021 | Version 21 | Changed | Tables were fixed, Overview and Technical Specifications Sections were updated |
| 01-Feb-2021 | Version 20 | Changed | Overview and Technical Specifications Sections were updated |
| 20-Jul-2020 | Version 19 | Changed | Overview and Technical Specifications Sections were updated |
| 01-Jun-2020 | Version 18 | Changed | SKUs were Added in Overview Section |
| 03-Feb-2020 | Version 17 | Changed | Overview Section was updated |
| 09-Dec-2020 | Version 16 | Changed | Added new HPE 16TB Midline 7.2K LFF (3.5in) Helium 512e Digitally Signed Firmware HDD models. |
| 02-Dec-2019 | Version 15 | Changed | Technical Specifications and Overview Sections were updated |
| 03-Jun-2019 | Version 14 | Changed | Technical Specifications and Overview Sections were updated |
| 04-Feb-2019 | Version 13 | Changed | Technical Specifications and Overview Sections were updated |
| 15-Oct-2018 | Version 12 | Changed | Technical Specifications was revised. |
| 01-Oct-2018 | Version 11 | Changed | Overview, Standard Features, Service and Support, and Technical Specifications were revised. |
| 04-Sep-2018 | Version 10 | Changed | Technical Specifications Section was updated |
| 04-Jun-2018 | Version 9 | Changed | <p>P04695-B21 HPE 600GB Enterprise 15K SAS 12G LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware HDD</p> <p>P04693-B21 HPE 300GB Enterprise 15K SAS 12G LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware HDD</p> <p>Power specs for all drives</p> <p>Seek time specs to IOPs</p> <p>From Recommended to Extended: 861590-B21, 861594-B21, 861596-B21</p> <p>From Extended to Recommended: 801882-B21, 881787-X21</p> |
| 05-Mar-2018 | Version 8 | Changed | Overview, Service and Support, and Technical Specifications were revised. |
| 05-Feb-2018 | Version 7 | Changed | <p>Added new HPE 12TB Midline 7.2K SAS LFF (3.5in) Helium 512e Digitally Signed Firmware HDD models: 881779-B21, 881781-X21, 881783-B21</p> <p>Change format to breakout recommended and extended portfolios.</p> <p>Obsolete SKUs</p> |
| 04-Dec-2017 | Version 6 | Changed | <p>Added new HPE 12TB Midline 7.2K LFF (3.5in) Helium 512e Digitally Signed Firmware HDD models.</p> <p>Overview, Service and Support, and Technical Specifications were revised.</p> <p>Obsolete SKUs were removed from the QuickSpecs.</p> |
| 23-Oct-2017 | Version 5 | Changed | <p>Part number 881458-B21 was changed to 881457-X21.</p> <p>Care Pack references changed to HPE Pointnext operational services.</p> |
| 25-Sep-2017 | Version 4 | Changed | <p>Added 881458-B21 HPE 2.4TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD</p> <p>Overview, Standard Features, Service and Support, and Technical Specifications were revised.</p> |
| 12-Jun-2017 | Version 3 | Changed | Overview and Technical Specifications were revised. |
| 27-Mar-2017 | Version 2 | Changed | Added new HDD offering. |

Summary of Changes

| | | | |
|-------------|-----------|-----|----------------|
| 13-Feb-2017 | Version 1 | New | New QuickSpecs |
|-------------|-----------|-----|----------------|



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