

Overview

HPE Hard Disk Drives

HPE Hard Disk Drives (HDDs) deliver proven performance at industry leading capacities backed by high quality and reliability, preferred choice for many workloads ranging from small businesses to large enterprise.

HPE hard disk drives are optimized to deliver maximum performance on HPE server platforms, and are proven for applications that demand reliable performance in 24x7 operational environments. HPE HDDs offer customers great value per gigabyte without sacrificing performance. In addition, an industry-leading testing and qualification program ensures that our drives are rugged enough for any need.

HPE HDDs are available for three types of workloads —Entry, Midline and Enterprise, two interfaces—SAS and SATA, and in a variety of capacities—up to 10TB and growing.

HPE HDD portfolio: Proven performance for every workload

| Class       | Enterprise                                                                                                              |             | Midline                                                                        | Entry*                             |
|-------------|-------------------------------------------------------------------------------------------------------------------------|-------------|--------------------------------------------------------------------------------|------------------------------------|
| Workload    | High                                                                                                                    |             | Medium                                                                         | Low                                |
| Usage       | <b>Mission-critical, high I/O:</b><br>Email, enterprise resource planning (ERP), customer relationship management (CRM) |             | <b>High capacity, high availability storage:</b><br>Backup, archive, reference | <b>Low I/O:</b><br>Boot and backup |
| Interface   | SAS 12Gb                                                                                                                |             | SAS 12Gb<br>SATA 6Gb                                                           | SATA 6Gb                           |
| RPM         | 15000                                                                                                                   | 10000       | 7200                                                                           | 7200/5900                          |
| Form factor | SFF & LFFc                                                                                                              | SFF         | SFF & LFF                                                                      | LFF                                |
| Capacities  | Up to 900GB                                                                                                             | Up to 1.8TB | Up to 10TB                                                                     | Up to 4TB                          |
| Warranty    | 3 years                                                                                                                 | 3 years     | 1 year                                                                         | 1 year                             |

\* Supported on select HPE ProLiant 10 series servers only.

What's New

- New 900GB 512n/512e 15K SAS drives
- Next Gen 600/300GB 512n/512e 15K SAS Enterprise drives
- Next Gen 6/4TB 512e 7.2K SAS & SATA Midline drives

## Overview

## Models

| Category             | Interface | Form factor | Format | Capacity   | HDD Carrier                                                         |                                        |                           |
|----------------------|-----------|-------------|--------|------------|---------------------------------------------------------------------|----------------------------------------|---------------------------|
|                      |           |             |        |            | Smart Carrier SKU                                                   | Low Profile SKU                        | Standard carrier SKU      |
| Enterprise (15K rpm) | 6G SAS    | SFF         | 512n   | 146GB      | 652605-B21                                                          | -                                      | 512547-B21                |
|                      | 12G SAS   |             | 512n   | 300GB      | 759208-B21<br>870753-B21*                                           | -                                      | 785099-B21<br>872842-B21* |
|                      |           |             | 512n   | 450GB      | 759210-B21                                                          | -                                      | 785101-B21                |
|                      |           |             | 512n   | 600GB      | 759212-B21<br>870757-B21*                                           | -                                      | 785103-B21<br>872844-B21* |
|                      |           |             | 512e   | 600GB      | 748387-B21<br>870763-B21*                                           | -                                      | -                         |
|                      |           |             | 512n   | 900GB      | 870759-B21                                                          | -                                      | 872846-B21                |
|                      |           |             | 512e   | 900GB      | 870765-B21                                                          | -                                      | -                         |
|                      | LFF       | 512n        | 300GB  | 737261-B21 | 797285-B21<br>870755-B21*                                           | 737390-B21                             |                           |
|                      |           | 512n        | 450GB  | 737394-B21 | 797287-B21                                                          | 737392-B21                             |                           |
|                      |           | 512n        | 600GB  | 765424-B21 | 797283-B21                                                          | 737396-B21                             |                           |
|                      |           | 512n        | 900GB  | -          | 870761-B21                                                          | -                                      |                           |
| Enterprise (10K rpm) | 12G SAS   | SFF         | 512n   | 300GB      | 785067-B21<br>872475-B21*                                           | -                                      | 785071-B21<br>873008-B21* |
|                      |           |             | 512n   | 600GB      | 781516-B21<br>872477-B21*                                           | -                                      | 785073-B21<br>873010-B21* |
|                      |           |             | 512n   | 900GB      | 785069-B21                                                          | -                                      | 785075-B21                |
|                      |           |             | 512n   | 1.2TB      | 781518-B21<br>872479-B21*                                           | -                                      | 785079-B21<br>873012-B21* |
|                      |           |             | 512e   | 1.8TB      | 791034-B21<br>872481-B21*                                           | -                                      | -                         |
| Midline 7.2K rpm     | 12G SAS   | LFF         | 512n   | 1TB        | 846524-B21                                                          | 846526-B21                             | -                         |
|                      |           |             | 512n   | 2TB        | 818365-B21                                                          | 833926-B21                             | -                         |
|                      |           |             | 512n   | 3TB        | 846528-B21                                                          | 846530-B21                             | -                         |
|                      |           |             | 512n   | 4TB        | 818367-B21                                                          | 833928-B21                             | -                         |
|                      |           |             | 512e   | 4TB        | 765257-B21<br>793669-B21<br>861756-B21*                             | 846996-B21<br>861748-B21*              | -                         |
|                      |           |             | 512n   | 6TB        | 846514-B21                                                          | 846516-B21                             | -                         |
|                      |           |             | 512e   | 6TB        | 765259-B21<br>793671-B21<br>793699-B21 <sup>He</sup><br>861754-B21* | 846998-B21<br>861746-B21*              | 793697-B21 <sup>He</sup>  |
|                      |           |             | 512e   | 8TB        | 819201-B21<br>861590-B21 <sup>He</sup>                              | 834031-B21<br>861592-B21 <sup>He</sup> | 858384-B21                |
|                      |           |             | 512e   | 10TB       | 857644-B21 <sup>He</sup>                                            | 857646-B21 <sup>He</sup>               | 869347-B21                |
|                      |           |             |        |            |                                                                     |                                        |                           |

## Overview

| Category         | Interface | Form factor | Format | Capacity | HDD Carrier                                                         |                                        |                      |
|------------------|-----------|-------------|--------|----------|---------------------------------------------------------------------|----------------------------------------|----------------------|
|                  |           |             |        |          | Smart Carrier SKU                                                   | Low Profile SKU                        | Standard carrier SKU |
| Midline 7.2K rpm | 6G SATA   | LFF         | 512n   | 1TB      | 861691-B21                                                          | 861686-B21                             | -                    |
|                  |           |             | 512n   | 2TB      | 861676-B21                                                          | 861681-B21                             | -                    |
|                  |           |             | 512n   | 3TB      | 861693-B21                                                          | 861688-B21                             | -                    |
|                  |           |             | 512n   | 4TB      | 861678-B21                                                          | 861683-B21                             | -                    |
|                  |           |             | 512e   | 4TB      | 765253-B21<br>793665-B21<br>861752-B21*                             | 846783-B21<br>861744-B21*              | -                    |
|                  |           |             | 512n   | 6TB      | 846510-B21                                                          | 846512-B21                             | -                    |
|                  |           |             | 512e   | 6TB      | 765255-B21<br>793667-B21<br>793683-B21 <sup>He</sup><br>861750-B21* | 846785-B21<br>861742-B21*              | -                    |
|                  |           |             | 512e   | 8TB      | 819203-B21<br>861594-B21 <sup>He</sup>                              | 834028-B21<br>861596-B21 <sup>He</sup> | -                    |
|                  |           |             | 512e   | 10TB     | 857648-B21 <sup>He</sup>                                            | 857650-B21 <sup>He</sup>               | -                    |
|                  | 6G SAS    | SFF         | 512n   | 1TB      | 832514-B21                                                          | -                                      | -                    |
|                  | 12G SAS   |             | 512e   | 1TB      | 765464-B21                                                          | -                                      | -                    |
|                  |           |             | 512e   | 2TB      | 765466-B21                                                          | -                                      | -                    |
|                  | 6G SATA   |             | 512n   | 1TB      | 655710-B21                                                          | -                                      | -                    |
|                  |           |             | 512e   | 1TB      | 765453-B21                                                          | -                                      | -                    |
|                  |           |             | 512e   | 2TB      | 765455-B21                                                          | -                                      | -                    |

| Category         | Interface | Form factor | Format | Capacity | HDD Carrier       |                 |                  |
|------------------|-----------|-------------|--------|----------|-------------------|-----------------|------------------|
|                  |           |             |        |          | Smart Carrier SKU | Low Profile SKU | Non Hot Plug SKU |
| Entry            | 6G SATA   | LFF         | 512n   | 500GB    | -                 | -               | 659341-B21       |
|                  |           |             | 512n   | 1TB      | -                 | -               | 801882-B21       |
|                  |           |             | 512n   | 2TB      | -                 | -               | 801884-B21       |
|                  |           |             | 512n   | 4TB      | -                 | -               | 801888-B21       |
| Entry (Standard) | 6G SATA   | LFF         | 512n   | 1TB      | 858594-B21        | -               | -                |
|                  |           |             | 512n   | 2TB      | 858596-B21        | -               | -                |
| Entry (Desktop)  | 6G SATA   | LFF         | 512e   | 500GB    | -                 | -               | 843264-B21       |
|                  |           |             | 512e   | 1TB      | -                 | -               | 843266-B21       |
|                  |           |             | 512e   | 2TB      | -                 | -               | 843268-B21       |
|                  |           |             | 512e   | 3TB      | -                 | -               | 843270-B21       |
|                  |           |             | 512e   | 4TB      | -                 | -               | 815635-B21       |

**NOTE:** \* Newer SKU that will replace equivalent older SKUs.

**NOTE:** <sup>He</sup> Helium Drive.

**NOTE:** Standard Carrier drives are not supported by Gen8/Gen9 servers.

**NOTE:** 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 Enterprise portfolio, only those drives whose performance is suitable for an enterprise environment are selected through the Hewlett Packard Enterprise qualification process and are labeled "best-in-class." HPE Midline drives undergo a similar qualification process to ensure that you get the economical reliability and performance you need for your low workload (less than 40% I/O) environments.

### 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.

**NOTE:** 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 Care Pack is purchased. Please see the Support Services section below for additional services.

### 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

|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Service and Support         | <p><b>NOTE:</b> HPE Hard drives are covered under the HPE Care Pack/Service Contract applied to the HPE ProLiant Server. No separate HPE Care Packs need to be purchased.</p> <p><b>HPE Technology Services for Industry Standard Servers and Blade System</b></p> <p>HPE Technology Services delivers confidence, reduces risk and helps customers realize agility and stability. Connect to Hewlett Packard Enterprise to help prevent problems and solve issues faster. Our support technology lets you to tap into the knowledge of millions of devices and thousands of experts to stay informed and in control, anywhere, any time.</p> <p><b>Protect your business beyond warranty with HPE Care Pack Services</b></p> <p>HPE Care Pack Services enable you to order the right service level, length of coverage and response time as you purchase your new server, giving you full entitlement for the term you select.</p> |
| Connect your devices to HPE | <p>Unlock all of the benefits of your technology investment by connecting your products to Hewlett Packard Enterprise. Achieve up to 77% reduction in down time, near 100% 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 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.</p>                                                                                                                                                                                                                                        |
| Warranty                    | <p>Midline and Entry hard drives have a maximum warranty period of one (1) year regardless of the warranty period for the system in which they are installed.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Service Coverage            | <p>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, are purchased at the same time or afterward, and are internal to the enclosure. The service also covers external monitors up to 22 inches in size and tower UPS products during their supported life of up to 5 years beyond sales discontinuance. These items will be covered at the same service level as the main product.</p>                                                                                                                                                                                                                                                                                                                                                                   |
| For more information        | <p>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: <a href="https://www.hpe.com/us/en/servers/server-options.html">https://www.hpe.com/us/en/servers/server-options.html</a> or <a href="http://www.hpe.com/services">http://www.hpe.com/services</a>.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

## Technical Specifications

| Enterprise (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 Description                                                     | SKU                        | Physical Configuration |                | Seek time          |         |             |
|                                                                     |                            | Capacity               | Logical Blocks | Single track       | Avg     | Full Stroke |
| HPE 146GB SAS 6G Enterprise 15K SFF (2.5in) SC 3yr Wty HDD**        | 652605-B21                 | 146,815MB              | 286,749,488    | 0.4 ms             | 3.0 ms  | 7.0 ms      |
| HPE 300GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty HDD         | 759208-B21                 | 300,000MB              | 585,937,500    | 0.15 ms            | 2.9 ms  | 5.9 ms      |
| HPE 300GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty DS HDD      | 870753-B21                 | 300,000MB              | 585,937,500    | 0.22 ms            | 2.72 ms | 5.36 ms     |
| HPE 450GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty HDD         | 759210-B21                 | 450,098MB              | 879,097,968    | 0.15 ms            | 2.9 ms  | 5.9 ms      |
| HPE 600GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty HDD         | 759212-B21                 | 600,127MB              | 1,172,123,568  | 0.15 ms            | 2.9 ms  | 5.9 ms      |
| HPE 600GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty DS HDD      | 870757-B21                 | 600,127MB              | 1,172,123,568  | 0.22 ms            | 2.72 ms | 5.36 ms     |
| HPE 600GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty 512e HDD    | 748387-B21                 | 600,127MB              | 1,172,123,568  | 0.15 ms            | 2.9 ms  | 5.9 ms      |
| HPE 600GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty 512e DS HDD | 870763-B21                 | 600,127MB              | 1,172,123,568  | 0.22 ms            | 2.72 ms | 5.36 ms     |
| HPE 900GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty DS HDD      | 870759-B21                 | 900,185MB              | 1,758,174,768  | 0.22 ms            | 2.72 ms | 5.36 ms     |
| HPE 900GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty 512e DS HDD | 870765-B21                 | 900,185MB              | 1,758,174,768  | 0.22 ms            | 2.72 ms | 5.36 ms     |

| Enterprise (15K rpm)                                           |                            |                        |                |                       |         |             |
|----------------------------------------------------------------|----------------------------|------------------------|----------------|-----------------------|---------|-------------|
| Form Factor                                                    | SFF (2.5")                 |                        | Carrier        | Standard Carrier (ST) |         |             |
| Rotational Speed                                               | 15000 rpm                  |                        | Dimensions     |                       |         |             |
| Interface                                                      | SAS                        |                        | Height         | 0.63 in (16.0 mm)     |         |             |
| Transfer Rate Synchronous (Max)                                | 12Gb/sec                   |                        | Width          | 3.10 in (78.7 mm)     |         |             |
| Bytes/Sector                                                   | 512                        |                        | Depth          | 5.45 in (138.4 mm)    |         |             |
| Operating Temperature                                          | 50° to 95° F (10° to 35°C) |                        |                |                       |         |             |
| SKU Description                                                | SKU                        | Physical Configuration |                | Seek time             |         |             |
|                                                                |                            | Capacity               | Logical Blocks | Single track          | Avg     | Full Stroke |
| HPE 146GB SAS 6G Enterprise15K SFF (2.5in) ST 3yr Wty HDD      | 512547-B21                 | 146,815MB              | 286,749,488    | 0.4 ms                | 3.0 ms  | 7.0 ms      |
| HPE 300GB SAS 12G Enterprise 15K SFF (2.5in) ST 3yr Wty HDD    | 785099-B21                 | 300,000MB              | 585,937,500    | 0.15 ms               | 2.9 ms  | 5.9 ms      |
| HPE 300GB SAS 12G Enterprise 15K SFF (2.5in) ST 3yr Wty DS HDD | 872842-B21                 | 300,000MB              | 585,937,500    | 0.22 ms               | 2.72 ms | 5.36 ms     |
| HPE 450GB SAS 12G Enterprise 15K SFF (2.5in) ST 3yr Wty HDD    | 785101-B21                 | 450,098MB              | 879,097,968    | 0.15 ms               | 2.9 ms  | 5.9 ms      |
| HPE 600GB SAS 12G Enterprise15K SFF                            | 785103-B21                 | 600,127MB              | 1,172,123,568  | 0.15 ms               | 2.9 ms  | 5.9 ms      |

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|                                                                |            |           |               |         |         |         |
|----------------------------------------------------------------|------------|-----------|---------------|---------|---------|---------|
| (2.5in) ST 3yr Wty HDD                                         |            |           |               |         |         |         |
| HPE 600GB SAS 12G Enterprise 15K SFF (2.5in) ST 3yr Wty DT HDD | 872844-B21 | 600,127MB | 1,172,123,568 | 0.22 ms | 2.72 ms | 5.36 ms |
| HPE 900GB SAS 12G Enterprise 15K SFF (2.5in) ST 3yr Wty DT HDD | 872846-B21 | 900,185MB | 1,758,174,768 | 0.22 ms | 2.72 ms | 5.36 ms |

| Enterprise (15K rpm)                                         |                            |                        |                |                         |        |             |
|--------------------------------------------------------------|----------------------------|------------------------|----------------|-------------------------|--------|-------------|
| Form Factor                                                  | LFF (3.5")                 |                        | Carrier        | Smart Carrier Converter |        |             |
| Rotational Speed                                             | 15000 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 Description                                              | SKU                        | Physical Configuration |                | Seek time               |        |             |
|                                                              |                            | Capacity               | Logical Blocks | Single track            | Avg    | Full Stroke |
| HPE 300GB SAS 12G Enterprise 15K LFF (3.5in) SCC 3Yr Wty HDD | 737261-B21                 | 300,000MB              | 585,937,500    | 0.15 ms                 | 2.9 ms | 5.9 ms      |
| HPE 450GB SAS 12G Enterprise 15K LFF (3.5in) SCC 3Yr Wty HDD | 737394-B21                 | 450,098MB              | 879,097,968    | 0.15 ms                 | 2.9 ms | 5.9 ms      |
| HPE 600GB SAS 12G Enterprise 15K LFF (3.5in) SCC 3yr Wty HDD | 765424-B21                 | 600,127MB              | 1,172,123,568  | 0.15 ms                 | 2.9 ms | 5.9 ms      |

| Enterprise (15K rpm)                                            |                            |                        |                |                       |         |             |
|-----------------------------------------------------------------|----------------------------|------------------------|----------------|-----------------------|---------|-------------|
| Form Factor                                                     | LFF (3.5")                 |                        | Carrier        | Low Profile Converter |         |             |
| Rotational Speed                                                | 15000 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 Description                                                 | SKU                        | Physical Configuration |                | Seek time             |         |             |
|                                                                 |                            | Capacity               | Logical Blocks | Single track          | Avg     | Full Stroke |
| HPE 300GB SAS 12G Enterprise 15K LFF (3.5in) LPC 3yr Wty HDD    | 797285-B21                 | 300,000MB              | 585,937,500    | 0.15 ms               | 2.9 ms  | 5.9 ms      |
| HPE 300GB SAS 12G Enterprise 15K LFF (3.5in) LPC 3yr Wty DS HDD | 870755-B21                 | 300,000MB              | 585,937,500    | 0.22 ms               | 2.72 ms | 5.36 ms     |
| HPE 450GB SAS 12G Enterprise 15K LFF (3.5in) LPC 3yr Wty HDD    | 797287-B21                 | 450,098MB              | 879,097,968    | 0.15 ms               | 2.9 ms  | 5.9 ms      |
| HPE 600GB SAS 12G Enterprise 15K LFF (3.5in) LPC 3yr Wty HDD    | 797283-B21                 | 600,127MB              | 1,172,123,568  | 0.15 ms               | 2.9 ms  | 5.9 ms      |
| HPE 900GB SAS 12G Enterprise 15K LFF (3.5in) LPC 3yr Wty DS HDD | 870761-B21                 | 900,185MB              | 1,758,174,768  | 0.22 ms               | 2.72 ms | 5.36 ms     |

| Enterprise (15K rpm) |            |            |                            |
|----------------------|------------|------------|----------------------------|
| Form Factor          | LFF (3.5") | Carrier    | Standard Carrier Converter |
| Rotational Speed     | 15000 rpm  | Dimensions |                            |
| Interface            | SAS        | Height     | 1.04 in (26.4 mm)          |

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| Transfer Rate Synchronous (Max)                              | 12Gb/sec                   | Width                  | 4.36 in (110.7 mm) |              |        |             |
|--------------------------------------------------------------|----------------------------|------------------------|--------------------|--------------|--------|-------------|
| Bytes/Sector                                                 | 512                        | Depth                  | 7.43 in (188.7 mm) |              |        |             |
| Operating Temperature                                        | 50° to 95° F (10° to 35°C) |                        |                    |              |        |             |
| SKU Description                                              | SKU                        | Physical Configuration |                    | Seek time    |        |             |
|                                                              |                            | Capacity               | Logical Blocks     | Single track | Avg    | Full Stroke |
| HPE 300GB SAS 12G Enterprise 15K LFF (3.5in) STC 3Yr Wty HDD | 737390-B21                 | 300,000MB              | 585,937,500        | 0.15 ms      | 2.9 ms | 5.9 ms      |
| HPE 450GB SAS 12G Enterprise 15K LFF (3.5in) STC 3Yr Wty HDD | 737392-B21                 | 450,098MB              | 879,097,968        | 0.15 ms      | 2.9 ms | 5.9 ms      |
| HPE 600GB SAS 12G Enterprise 15K LFF (3.5in) STC 3yr Wty HDD | 737396-B21                 | 600,127MB              | 1,172,123,568      | 0.15 ms      | 2.9 ms | 5.9 ms      |

| Enterprise (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 Description                                                     | SKU                        | Physical Configuration |                    | Seek time    |         |             |
|                                                                     |                            | Capacity               | Logical Blocks     | Single track | Avg     | Full Stroke |
| HPE 300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3Yr Wty HDD         | 785067-B21                 | 300,000MB              | 585,937,500        | 0.10 ms      | 3.3 ms  | 6.7 ms      |
| HPE 300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3Yr Wty DS HDD      | 872475-B21                 | 300,000MB              | 585,937,500        | 0.32 ms      | 4.15 ms | 7.61 ms     |
| HPE 600GB SAS 12G Enterprise 10K SFF (2.5in ) SC 1yr Wty HDD        | 781516-B21                 | 600,127MB              | 1,172,123,568      | 0.11 ms      | 3.3 ms  | 6.6 ms      |
| HPE 600GB SAS 12G Enterprise 10K SFF (2.5in ) SC 1yr Wty DS HDD     | 872477-B21                 | 600,127MB              | 1,172,123,568      | 0.32 ms      | 3.92 ms | 8.33 ms     |
| HPE 900GB SAS 12G Enterprise 10K SFF (2.5in) SC 3Yr Wty HDD         | 785069-B21                 | 900,185MB              | 1,758,174,768      | 0.10 ms      | 3.5 ms  | 7.0 ms      |
| HPE 1.2TB SAS 12G Enterprise 10K SFF (2.5in) SC 3Yr Wty HDD         | 781518-B21                 | 1,200,243MB            | 2,344,225,968      | 0.10 ms      | 3.7 ms  | 7.3 ms      |
| HPE 1.2TB SAS 12G Enterprise 10K SFF (2.5in) SC 3Yr Wty DS HDD      | 872479-B21                 | 1,200,243MB            | 2,344,225,968      | 0.20 ms      | 4.12 ms | 8.26 ms     |
| HPE 1.8TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e HDD    | 791034-B21                 | 1,800,360MB            | 3,516,328,368      | 0.10 ms      | 3.7 ms  | 7.3 ms      |
| HPE 1.8TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e DS HDD | 872481-B21                 | 1,800,360MB            | 3,516,328,368      | 0.20 ms      | 3.97 ms | 8.48 ms     |

| Enterprise (10K rpm)            |                            |            |                       |
|---------------------------------|----------------------------|------------|-----------------------|
| Form Factor                     | SFF (2.5")                 | Carrier    | Standard Carrier (ST) |
| Rotational Speed                | 10000 rpm                  | Dimensions |                       |
| Interface                       | SAS                        | Height     | 0.63 in (16.0 mm)     |
| Transfer Rate Synchronous (Max) | 12Gb/sec                   | Width      | 3.10 in (78.7 mm)     |
| Bytes/Sector                    | 512                        | Depth      | 5.45 in (138.4 mm)    |
| Operating Temperature           | 50° to 95° F (10° to 35°C) |            |                       |

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| SKU Description                                                | SKU        | Physical Configuration |                | Seek time    |         |             |
|----------------------------------------------------------------|------------|------------------------|----------------|--------------|---------|-------------|
|                                                                |            | Capacity               | Logical Blocks | Single track | Avg     | Full Stroke |
| HPE 300GB SAS 12G Enterprise 10K SFF (2.5in) ST 3Yr Wty HDD    | 785071-B21 | 300,000MB              | 585,937,500    | 0.10 ms      | 3.3 ms  | 6.7 ms      |
| HPE 300GB SAS 12G Enterprise 10K SFF (2.5in) ST 3yr Wty DS HDD | 873008-B21 | 300,000MB              | 585,937,500    | 0.32 ms      | 4.15 ms | 7.61 ms     |
| HPE 600GB SAS 12G Enterprise 10K SFF (2.5in) ST 3Yr Wty HDD    | 785073-B21 | 600,127MB              | 1,172,123,568  | 0.11 ms      | 3.3 ms  | 6.6 ms      |
| HPE 600GB SAS 12G Enterprise 10K SFF (2.5in) ST 3yr Wty DS HDD | 873010-B21 | 600,127MB              | 1,172,123,568  | 0.32 ms      | 3.92 ms | 8.33 ms     |
| HPE 900GB SAS 12G Enterprise 10K SFF (2.5in) ST 3yr Wty HDD    | 785075-B21 | 900,185MB              | 1,758,174,768  | 0.10 ms      | 3.5 ms  | 7.0 ms      |
| HPE 1.2TB SAS 12G Enterprise 10K SFF (2.5in) ST 3yr Wty HDD    | 785079-B21 | 1,200,243MB            | 2,344,225,968  | 0.10 ms      | 3.7 ms  | 7.3 ms      |
| HPE 1.2TB SAS 12G Enterprise 10K SFF (2.5in) ST 3yr Wty DS HDD | 873012-B21 | 1,200,243MB            | 2,344,225,968  | 0.20 ms      | 4.12 ms | 8.26 ms     |

| Midline (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 Description                                                 | SKU                        | Physical Configuration |                | Seek time          |         |             |
|                                                                 |                            | Capacity               | Logical Blocks | Single track       | Avg     | Full Stroke |
| HPE 1TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty HDD         | 846524-B21                 | 1,000,204MB            | 1,953,525,168  | 0.32 ms            | 7.45 ms | 14.2 ms     |
| HPE 2TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty HDD         | 818365-B21                 | 2,000,398MB            | 3,907,029,168  | 0.8 ms             | 8.5 ms  | 15.7 ms     |
| HPE 3TB SAS 12G Mildine 7.2K LFF (3.5in) SC 1yr Wty HDD         | 846528-B21                 | 3,000,592MB            | 5,860,533,168  | 0.32 ms            | 7.45 ms | 14.2 ms     |
| HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty HDD         | 818367-B21                 | 4,000,787MB            | 7,814,037,168  | 0.8 ms             | 8.5 ms  | 15.7 ms     |
| HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e HDD    | 765257-B21                 | 4,000,787MB            | 7,814,037,168  | 0.7 ms             | 8.5 ms  | 15.7 ms     |
| HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e HDD    | 793669-B21                 | 4,000,787MB            | 7,814,037,168  | 0.25 ms            | 7.6 ms  | 15.0 ms     |
| HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e HDD    | 861756-B21                 | 4,000,787MB            | 7,814,037,168  | 0.32 ms            | 7.45 ms | 14.2 ms     |
| HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty HDD         | 846514-B21                 | 6,001,175MB            | 11,721,045,168 | 0.7 ms             | 8.5 ms  | 15.7 ms     |
| HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e HDD    | 765259-B21                 | 6,001,175MB            | 11,721,045,168 | 0.7 ms             | 8.5 ms  | 15.7 ms     |
| HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e HDD    | 793671-B21                 | 6,001,175MB            | 11,721,045,168 | 0.25 ms            | 7.6 ms  | 15.0 ms     |
| HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty He 512e HDD | 793699-B21                 | 6,001,175MB            | 11,721,045,168 | 0.25 ms            | 8.5 ms  | 16.0 ms     |
| HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e HDD    | 861754-B21                 | 6,001,175MB            | 11,721,045,168 | 0.32 ms            | 7.45 ms | 14.2 ms     |

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|                                                                     |            |              |                |         |        |         |
|---------------------------------------------------------------------|------------|--------------|----------------|---------|--------|---------|
| HPE 8TB SAS 12G Midline 7.2K LFF (3.5in)<br>SC 1yr Wty 512e HDD     | 819201-B21 | 8,001,563MB  | 15,628,053,168 | 0.7 ms  | 8.5 ms | 15.7 ms |
| HPE 8TB SAS 12G Mildline 7.2K LFF (3.5in)<br>SC 1yr Wty He 512e HDD | 861590-B21 | 8,001,563MB  | 15,628,053,168 | 0.22 ms | 8.0 ms | 16.0 ms |
| HPE 10TB SAS 12G Midline 7.2K LFF<br>(3.5in) SC 1yr Wty He 512e HDD | 857644-B21 | 10,000,831MB | 19,532,873,728 | 0.22 ms | 8.0 ms | 16.0 ms |

| Midline (7.2K rpm)                                               |                            |                        |                |                     |         |             |
|------------------------------------------------------------------|----------------------------|------------------------|----------------|---------------------|---------|-------------|
| Form Factor                                                      | LFF (3.5")                 |                        | Carrier        | Low Profile         |         |             |
| 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 Description                                                  | SKU                        | Physical Configuration |                | Seek time           |         |             |
|                                                                  |                            | Capacity               | Logical Blocks | Single track        | Avg     | Full Stroke |
| HPE 1TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty HDD          | 846526-B21                 | 1,000,204MB            | 1,953,525,168  | 0.32 ms             | 7.45 ms | 14.2 ms     |
| HPE 2TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty HDD          | 833926-B21                 | 2,000,398MB            | 3,907,029,168  | 0.8 ms              | 8.5 ms  | 15.7 ms     |
| HPE 3TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty HDD          | 846530-B21                 | 3,000,592MB            | 5,860,533,168  | 0.32 ms             | 7.45 ms | 14.2 ms     |
| HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty HDD          | 833928-B21                 | 4,000,787MB            | 7,814,037,168  | 0.8 ms              | 8.5 ms  | 15.7 ms     |
| HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e HDD     | 846996-B21                 | 4,000,787MB            | 7,814,037,168  | 0.7 ms              | 8.5 ms  | 15.7 ms     |
| HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e HDD     | 861748-B21                 | 4,000,787MB            | 7,814,037,168  | 0.32 ms             | 7.45 ms | 14.2 ms     |
| HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty HDD          | 846516-B21                 | 6,001,175MB            | 11,721,045,168 | 0.7 ms              | 8.5 ms  | 15.7 ms     |
| HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e HDD     | 846998-B21                 | 6,001,175MB            | 11,721,045,168 | 0.7 ms              | 8.5 ms  | 15.7 ms     |
| HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e HDD     | 861746-B21                 | 6,001,175MB            | 11,721,045,168 | 0.32 ms             | 7.45 ms | 14.2 ms     |
| HPE 8TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e HDD     | 834031-B21                 | 8,001,563MB            | 15,628,053,168 | 0.7 ms              | 8.5 ms  | 15.7 ms     |
| HPE 8TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty He 512e HDD  | 861592-B21                 | 8,001,563MB            | 15,628,053,168 | 0.22 ms             | 8.0 ms  | 16.0 ms     |
| HPE 10TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty He 512e HDD | 857646-B21                 | 10,000,831MB           | 19,532,873,728 | 0.22 ms             | 8.0 ms  | 16.0 ms     |

| Midline (7.2K rpm)              |                            |                        |                    |
|---------------------------------|----------------------------|------------------------|--------------------|
| Form Factor                     | LFF (3.5")                 | Carrier                | Standard Carrier   |
| Rotational Speed                | 7200 rpm                   | Dimensions             |                    |
| Interface                       | SAS                        | Height                 | 1.04 in (26.4 mm)  |
| Transfer Rate Synchronous (Max) | 12Gb/sec                   | Width                  | 4.36 in (110.7 mm) |
| Bytes/Sector                    | 512                        | Depth                  | 7.43 in (188.7 mm) |
| Operating Temperature           | 50° to 95° F (10° to 35°C) |                        |                    |
| SKU Description                 | SKU                        | Physical Configuration | Seek time          |

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|                                                                  |            | Capacity     | Logical Blocks | Single track | Avg    | Full Stroke |
|------------------------------------------------------------------|------------|--------------|----------------|--------------|--------|-------------|
| HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty He 512e HDD  | 793697-B21 | 6,001,175MB  | 11,721,045,168 | 0.25 ms      | 8.5 ms | 16.0 ms     |
| HPE 8TB SAS 12G Midline 7.2K LFF (3.5in) ST 1yr Wty 512e HDD     | 858384-B21 | 8,001,563MB  | 15,628,053,168 | .7 ms        | 8.5 ms | 15.7 ms     |
| HPE 10TB SAS 12G Midline 7.2K LFF (3.5in) ST 1Yr Wty He 512e HDD | 869347-B21 | 10,000,831MB | 19,532,873,728 | 0.22 ms      | 8.0 ms | 16.0 ms     |

| Midline (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 Description                                                  | SKU                        | Physical Configuration |                | Seek time          |         |             |
|                                                                  |                            | Capacity               | Logical Blocks | Single track       | Avg     | Full Stroke |
| HPE 1TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty HDD          | 861691-B21                 | 1,000,204MB            | 1,953,525,168  | 0.32 ms            | 7.45 ms | 14.2 ms     |
| HPE 2TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty HDD          | 861676-B21                 | 2,000,398MB            | 3,907,029,168  | 0.25 ms            | 7.6 ms  | 15 ms       |
| HPE 3TB SATA 6G Mildine 7.2K LFF (3.5in) SC 1yr Wty HDD          | 861693-B21                 | 3,000,592MB            | 5,860,533,168  | 0.32 ms            | 7.45 ms | 14.2 ms     |
| HPE 4TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty HDD          | 861678-B21                 | 4,000,787MB            | 7,814,037,168  | 0.25 ms            | 7.6 ms  | 15 ms       |
| HPE 4TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty HDD          | 765253-B21                 | 4,000,787MB            | 7,814,037,168  | 0.7 ms             | 8.5 ms  | 15.7 ms     |
| HPE 4TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e HDD     | 793665-B21                 | 4,000,787MB            | 7,814,037,168  | 0.25 ms            | 7.6 ms  | 15 ms       |
| HPE 4TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e HDD     | 861752-B21                 | 4,000,787MB            | 7,814,037,168  | 0.32 ms            | 7.45 ms | 14.2 ms     |
| HPE 6TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty HDD          | 846510-B21                 | 6,001,175MB            | 11,721,045,168 | 0.8 ms             | 8.5 ms  | 15.7 ms     |
| HPE 6TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty HDD          | 765255-B21                 | 6,001,175MB            | 11,721,045,168 | 0.7 ms             | 8.5 ms  | 15.7 ms     |
| HPE 6TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e HDD     | 793667-B21                 | 6,001,175MB            | 11,721,045,168 | 0.25 ms            | 7.6 ms  | 15 ms       |
| HPE 6TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty He 512e HDD  | 793683-B21                 | 6,001,175MB            | 11,721,045,168 | 0.25 ms            | 8.5 ms  | 16.0 ms     |
| HPE 6TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e HDD     | 861750-B21                 | 6,001,175MB            | 11,721,045,168 | 0.32 ms            | 7.45 ms | 14.2 ms     |
| HPE 8TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e HDD     | 819203-B21                 | 8,001,563MB            | 15,628,053,168 | 0.7 ms             | 8.5 ms  | 15.7 ms     |
| HPE 8TB SATA 6G Mildine 7.2K LFF (3.5in) SC 1yr Wty He 512e HDD  | 861594-B21                 | 8,001,563MB            | 15,628,053,168 | 0.22 ms            | 8.0 ms  | 16.0 ms     |
| HPE 10TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty He 512e HDD | 857648-B21                 | 10,000,831MB           | 19,532,873,728 | 0.22 ms            | 8.0 ms  | 16.0 ms     |

## Technical Specifications

| Midline (7.2K rpm)                                               |                            |                        |                |                     |         |             |
|------------------------------------------------------------------|----------------------------|------------------------|----------------|---------------------|---------|-------------|
| Form Factor                                                      | LFF (3.5")                 |                        | Carrier        | Low Profile         |         |             |
| 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 Description                                                  | SKU                        | Physical Configuration |                | Seek time           |         |             |
|                                                                  |                            | Capacity               | Logical Blocks | Single track        | Avg     | Full Stroke |
| HPE 1TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty HDD          | 861686-B21                 | 1,000,204MB            | 1,953,525,168  | 0.32 ms             | 7.45 ms | 14.2 ms     |
| HPE 2TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty HDD          | 861681-B21                 | 2,000,398MB            | 3,907,029,168  | 0.32 ms             | 7.45 ms | 14.2 ms     |
| HPE 3TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty HDD          | 861688-B21                 | 3,000,592MB            | 5,860,533,168  | 0.32 ms             | 7.45 ms | 14.2 ms     |
| HPE 4TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty HDD          | 861683-B21                 | 4,000,787MB            | 7,814,037,168  | 0.32 ms             | 7.45 ms | 14.2 ms     |
| HPE 4TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e HDD     | 846783-B21                 | 4,000,787MB            | 7,814,037,168  | 0.7 ms              | 8.5 ms  | 15.7 ms     |
| HPE 4TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e HDD     | 861744-B21                 | 4,000,787MB            | 7,814,037,168  | 0.32 ms             | 7.45 ms | 14.2 ms     |
| HPE 6TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty HDD          | 846512-B21                 | 6,001,175MB            | 11,721,045,168 | 0.7 ms              | 8.5 ms  | 15.7 ms     |
| HPE 6TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e HDD     | 846785-B21                 | 6,001,175MB            | 11,721,045,168 | 0.7 ms              | 8.5 ms  | 15.7 ms     |
| HPE 6TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e HDD     | 861742-B21                 | 6,001,175MB            | 11,721,045,168 | 0.32 ms             | 7.45 ms | 14.2 ms     |
| HPE 8TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e HDD     | 834028-B21                 | 8,001,563MB            | 15,628,053,168 | 0.7 ms              | 8.5 ms  | 15.7 ms     |
| HPE 8TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty He 512e HDD  | 861596-B21                 | 8,001,563MB            | 15,628,053,168 | 0.22 ms             | 8.0 ms  | 16.0 ms     |
| HPE 10TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty He 512e HDD | 857650-B21                 | 10,000,831MB           | 19,532,873,728 | 0.22 ms             | 8.0 ms  | 16.0 ms     |

| Midline (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 Description                                              | SKU                        | Physical Configuration |                    | Seek time    |        |             |
|                                                              |                            | Capacity               | Logical Blocks     | Single track | Avg    | Full Stroke |
| HPE 1TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty HDD      | 832514-B21                 | 1,000,204MB            | 1,953,525,168      | 0.5 ms       | 6.8 ms | 17.0 ms     |
| HPE 1TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e HDD | 765464-B21                 | 1,000,204MB            | 1,953,525,168      | 0.7 ms       | 8.7 ms | 17.16 ms    |
| HPE 2TB SAS 12G Midline 7.2K SFF                             | 765466-B21                 | 2,000,398MB            | 3,907,029,168      | 0.7 ms       | 8.7 ms | 17.16 ms    |

## Technical Specifications

|                             |  |  |  |  |  |  |
|-----------------------------|--|--|--|--|--|--|
| (2.5in) SC 1yr Wty 512e HDD |  |  |  |  |  |  |
|-----------------------------|--|--|--|--|--|--|

| Midline (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 Description                                              | SKU                        | Physical Configuration |                | Seek time          |         |             |
|                                                              |                            | Capacity               | Logical Blocks | Single track       | Avg     | Full Stroke |
| HPE 1TB SATA 6G Midline 7.2K SFF (2.5in) SC 1Yr Wty HDD      | 655710-B21                 | 1,000,204MB            | 1,953,525,168  | 0.7 ms             | <8.5 ms | 16.96 ms    |
| HPE 1TB SATA 6G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e HDD | 765453-B21                 | 1,000,204MB            | 1,953,525,168  | 0.5 ms             | <7.2 ms | 17 ms       |
| HPE 2TB SATA 6G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e HDD | 765455-B21                 | 2,000,398MB            | 3,907,029,168  | 0.5 ms             | <7.2 ms | 17 ms       |

| Entry (standard)                                      |                            |                        |                    |              |        |             |
|-------------------------------------------------------|----------------------------|------------------------|--------------------|--------------|--------|-------------|
| 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 Description                                       | SKU                        | Physical Configuration |                    | Seek time    |        |             |
|                                                       |                            | Capacity               | Logical Blocks     | Single track | Avg    | Full Stroke |
| HPE 1TB SATA 6G Entry 7.2K LFF (3.5in) SC 1yr Wty HDD | 858594-B21                 | 1,000,204MB            | 1,953,525,168      | 0.8 ms       | 8.5 ms | 15.7 ms     |
| HPE 2TB SATA 6G Entry 7.2K LFF (3.5in) SC 1yr Wty HDD | 858596-B21                 | 2,000,398MB            | 3,907,029,168      | 0.8 ms       | 8.5 ms | 15.7 ms     |

| Entry                                                   |                            |                        |                      |              |         |             |
|---------------------------------------------------------|----------------------------|------------------------|----------------------|--------------|---------|-------------|
| Form Factor                                             | LFF (3.5")                 | Carrier                | Non Hot Plug Carrier |              |         |             |
| 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 Description                                         | SKU                        | Physical Configuration |                      | Seek time    |         |             |
|                                                         |                            | Capacity               | Logical Blocks       | Single track | Avg     | Full Stroke |
| HPE 500GB SATA 6G Entry 7.2k LFF (3.5in) RW 1yr Wty HDD | 659341-B21                 | 500,107MB              | 976,773,168          | 0.5 ms       | <8.5 ms | 17.55 ms    |
| HPE 1TB SATA 6G Entry 7.2K LFF (3.5in)                  | 801882-B21                 | 1,000,204MB            | 1,953,525,168        | 0.8 ms       | <8.5 ms | 16.5 ms     |

## Technical Specifications

|                                                               |            |             |               |        |         |         |
|---------------------------------------------------------------|------------|-------------|---------------|--------|---------|---------|
| RW 1yr Wty HDD                                                |            |             |               |        |         |         |
| HPE 2TB SATA 6G Entry 7.2K LFF (3.5in)<br>RW 1yr Wty HDD      | 801884-B21 | 2,000,398MB | 3,907,029,168 | 0.8 ms | <8.5 ms | 16.2 ms |
| HPE 4TB SATA 6G Entry 7.2K LFF (3.5in)<br>RW 1yr Wty HDD      | 801888-B21 | 4,000,787MB | 7,814,037,168 | 0.8 ms | <8.5 ms | 16.2 ms |
| HPE 500GB SATA 6G Entry 7.2K LFF<br>3.5in RW 1yr Wty 512e HDD | 843264-B21 | 500,107MB   | 976,773,168   | 1.0 ms | <8.5 ms | 18 ms   |
| HPE 1TB SATA 6G Entry 7.2K LFF (3.5in)<br>RW 1yr Wty 512e HDD | 843266-B21 | 1,000,204MB | 1,953,525,168 | 1.0 ms | <8.5 ms | 18 ms   |
| HPE 2TB SATA 6G Entry 7.2K LFF (3.5in)<br>RW 1yr Wty 512e HDD | 843268-B21 | 2,000,398MB | 3,907,029,167 | 1.0 ms | <8.5 ms | 18 ms   |
| HPE 3TB SATA 6G Entry 7.2K LFF (3.5in)<br>RW 1yr Wty 512e HDD | 843270-B21 | 3,000,593MB | 5,860,533,167 | 1.0 ms | <8.5 ms | 18 ms   |
| HPE 4TB SATA 6G Entry 5.9K LFF (3.5in)<br>RW 1Yr Wty 512e HDD | 815635-B21 | 4,000,787MB | 7,814,037,168 | 1.2 ms | <12 ms  | 25 ms   |

### 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.

[http://www8.hp.com/us/en/hpe/hp-information/livingprogress/environmentalprogress/product-recycling.html#.V-IPA\\_krKiM](http://www8.hp.com/us/en/hpe/hp-information/livingprogress/environmentalprogress/product-recycling.html#.V-IPA_krKiM)

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.

[http://www8.hp.com/us/en/hpe/hp-information/livingprogress/environmentalprogress/product-recycling.html#.V-IPA\\_krKiM](http://www8.hp.com/us/en/hpe/hp-information/livingprogress/environmentalprogress/product-recycling.html#.V-IPA_krKiM)

**NOTE:** To support HPE hard drives exceeding 2.2TB, HPE Smart Array Firmware version 5.0 or later is required for the following controllers:

- HPE Smart Array P212 Controller
- HPE Smart Array P410 Controller
- HPE Smart Array P411 Controller
- HPE Smart Array P711m Controller
- HPE Smart Array P812 Controller

To use hard drives exceeding 2.2TB, you must create a boot volume using offline ACU version 8.75 or later. HPE Smart Array controllers do not support boot volumes exceeding 2.2TB.

## Technical Specifications

### HDD SKU Description Decoder

#### Long Name

HPE 10TB 12G SAS Midline 7.2K LFF (3.5in) SC 3yr Wty He 512e Digitally Signed Firmware HDD

| Brand | Storage Capacity        | Interface Type/<br>Interface Speed | Workload                                        | Form Factor Type /<br>Form Factor Size | Carriers                                                                                                                                                                       | Wty                | Special Features                                                                                                                                                                                                                                         | Drive Type |
|-------|-------------------------|------------------------------------|-------------------------------------------------|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| HPE   | 300-<br>900GB<br>1-12TB | SATA/SAS<br>6G/12G                 | Enterprise 15/10K<br>Midline 7.2K<br>Entry 7.2K | SFF (2.5IN)<br>LFF (3.5IN)             | SC Smart Carrier<br>SCC Smart Carrier<br>Converter<br>ST Standard<br>STC Standard Converter<br>LP Low Profile<br>LPC Low Profile Converter<br>QR Quick Release<br>RW Raw Drive | 3Yr Wty<br>1Yr Wty | DS Digitally Signed<br>Firmware<br>512e 512 emulation;<br>No descriptor (512n)<br>He Helium;<br>No descriptor (Air)<br>SMR Shingle Magnetic<br>Recording;<br>No descriptor (PMR)<br><br><i>In priority order, where 1st is<br/>closest to drive type</i> | HDD        |

#### Short Name

HPE 10TB SAS 7.2K LFF SC He 512e Digitally Signed Firmware HDD

| Brand | Storage Capacity        | Interface Type | Workload           | Form Factor Type | Carriers                                                                                                                                                                    | Special Features                                                                                                                                                                                                                                         | Drive Type |
|-------|-------------------------|----------------|--------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| HPE   | 300-<br>900GB<br>1-12TB | SATA/SAS       | 15K<br>10K<br>7.2K | SFF<br>LFF       | SC Smart Carrier<br>SCC Smart Carrier Converter<br>ST Standard<br>STC Standard Converter<br>LP Low Profile<br>LPC Low Profile Converter<br>QR Quick Release<br>RW Raw Drive | DS Digitally Signed<br>Firmware<br>512e 512 emulation;<br>No descriptor (512n)<br>He Helium;<br>No descriptor (Air)<br>SMR Shingle Magnetic<br>Recording;<br>No descriptor (PMR)<br><br><i>In priority order, where 1st is<br/>closest to drive type</i> | HDD        |

## Summary of Changes

| Date        | Version History | Action | Description of Change                                                                                                                                                                                                        |
|-------------|-----------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 13-Feb-2017 | Version 1       | Added  | Combined SAS and SATA into one single QuickSpecs. Overview, Models, Compatibility, Standard Features, Service and Support, and Technical Specifications sections were updated. New part number descriptions have been added. |



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

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