



# HPE SAS Hard Drives

Superior levels of performance, scalability,  
and reliability



Today's organizations consist of different kinds of environments. Enterprise data centers must be online 24x7, fulfill requests from numerous users simultaneously, and allow for constant growth and expansion while in operation. Other customer environments require high capacity storage and high data availability for low I/O environments. With some storage requirements escalating and others becoming more complex, factors such as flexibility, performance, increased reliability, greater density, security, scalability, and accessibility are becoming more critical than ever. Our portfolio of SAS Hard Drives is designed to meet all these demands.

HPE SAS Hard Drives utilize a 6 GB/s SAS interface to offer outstanding performance and high data integrity for enterprise servers and storage solutions. The drives for our enterprise portfolio are put through the HPE qualification process and are selected based on their

performance in mission-critical enterprise environments. The drives in our midline portfolio also undergo a similar qualification process; they are designed to provide businesses the economical reliability and performance needed for lower workload (less than 40% I/O), non-mission-critical environments. All HPE SAS Hard Drives are proven to be reliable and tuned for superior performance in HPE ProLiant, HPE Integrity, and HPE Storage systems.

The SAS Hard Drives are available in both small form factor (2.5-inch) and large form factor (3.5-inch) options, and feature the management and reliability benefits of an HPE SmartDrive Carrier Hot Plug option. Providing storage capacity of up to 4 TB, these hard drives offer drive carrier encryption authentication to enable compatibility and quality. These hard drives also come with proactive service and support options.

## Key features and benefits

### Latest generation interface for enhanced performance and reliability

- Robust 6 GB/s SAS interface in both dual port and full duplex enables quicker data transfer rate
- Options of 15k, 10k, and 7.2k rpm spindle speeds, with advanced tolerance against rotational vibrations deliver high performance
- Native Command Queuing (NCQ) enhances the order in which read/write commands are executed

### Simplified monitoring and management

- HPE Integrated Lights-Out (iLO) for active system monitoring and online firmware upgrades
- Status LEDs and a “Do Not Remove” indicator that mitigates failures due to accidental or premature removal of drives while they are processing

### Designed for HPE server platforms and storage solutions

- HPE SmartDrive Hot Plug, HPE Non Hot Plug, and HPE Quick Release carrier options for both large and small form factors, allowing more drive bays per square foot

- HPE Qualified Option that has passed rigorous qualification processes and is tailored for ProLiant, Integrity, and Storage systems

## Environments that stand to gain

Our enterprise hard drives are high performance I/O drives designed for large, complex, mission-critical applications. The 10k and 15k rpm enterprise drives are built for mission-critical server or storage applications, while the 7.2 midline drives work well for non-mission-critical, capacity- and cost-optimized solutions. Storage solutions for scalability, performance, reliability, and manageability, these hard drives are tuned for superior performance in the HPE equipment for which they are designed. These solutions are ideal for transaction processing, database applications, analytics, high-performance computing, and business applications.

## Series technical specifications—Enterprise drives

| Product series                   | HPE SAS Hot Plug SmartDrive SFF (2.5-inch)   | HPE SAS Hot Plug SmartDrive LFF (3.5-inch) | HPE SAS Hot Plug SFF (2.5-inch)  | HPE SAS Hot Plug LFF (3.5-inch) | HPE SAS Non-Hot Plug SFF (2.5-inch) | HPE SAS Non-Hot Plug LFF (3.5-inch) | HPE SAS Quick Release SFF (2.5-inch) | HPE SAS Quick Release LFF (3.5-inch) |
|----------------------------------|--|--|--|---------------------------------|-------------------------------------|-------------------------------------|--------------------------------------|--------------------------------------|
| <b>Capacity</b>                  | 15,000 rpm:<br>146 GB, 300 GB<br><br>10,000 rpm:<br>300 GB, 450 GB,<br>600 GB, 900 GB,<br>1.2 TB | 450 GB, 600 GB                             | 15,000 rpm:<br>146 GB, 300 GB<br><br>10,000 rpm:<br>300 GB, 450 GB,<br>600 GB, 900 GB,<br>1.2 TB | 300 GB,<br>450 GB, 600 GB       | 300 GB,<br>600 GB                   | 300 GB,<br>450 GB,<br>600 GB        | 300 GB,<br>1.2 TB                    | 300 GB,<br>600 GB                    |
| <b>Height</b>                    | 0.62 in<br>(15.6 mm)   | 1.06 in<br>(26.8 mm)                       | 0.63 in<br>(16 mm)   | 1.04 in<br>(26.4 mm)            | 0.591 in<br>(15 mm)                 | 1.028 in<br>(26.1 mm)               | 0.740 in<br>(18.8 mm)                | 1.165 in<br>(29.6 mm)                |
| <b>Width</b>                     | 2.98 in<br>(75.7 mm)   | 4.16 in<br>(105.8 mm)                      | 3.1 in<br>(78.7 mm)  | 4.36 in<br>(110.7 mm)           | 2.750 in<br>(69.85 mm)              | 4.0 in<br>(101.6 mm)                | 2.909 in<br>(73.9 mm)                | 4.157 in<br>(105.6 mm)               |
| <b>Depth</b>                     | 4.67 in<br>(118.7 mm)  | 6.69 in<br>(170 mm)                        | 5.45 in<br>(138.4 mm)  | 7.43 in<br>(188.7 mm)           | 3.937 in<br>(100 mm)                | 5.787 in<br>(147 mm)                | 3.945 in<br>(100.2 mm)               | 5.787 in<br>(147 mm)                 |
| <b>Interface</b>                 | SAS  | SAS  | SAS  | SAS                             | SAS                                 | SAS                                 | SAS                                  | SAS                                  |
| <b>Transfer rate synchronous</b> | 6 GB/s   | 6 GB/s                                     | 6 GB/s   | 6 GB/s                          | 6 GB/s                              | 6 GB/s                              | 6 GB/s                               | 6 GB/s                               |
| <b>Rotational speed</b>          | 10,000 rpm,<br>15,000 rpm  | 15,000 rpm                                 | 10,000 rpm,<br>15,000 rpm  | 15,000 rpm                      | 10,000 rpm,<br>15,000 rpm           | 10,000 rpm,<br>15,000 rpm           | 10,000 rpm                           | 15,000 rpm                           |
| <b>Bytes/sector</b>              | 512  | 512  | 512  | 512                             | 512                                 | 512                                 | 512                                  | 512                                  |
| <b>Operating temperature</b>     | 50° to 95°F<br>(10° to 35°C)   | 50° to 95°F<br>(10° to 35°C)               | 50° to 95°F<br>(10° to 35°C)   | 50° to 95°F<br>(10° to 35°C)    | 50° to 95°F<br>(10° to 35°C)        | 50° to 95°F<br>(10° to 35°C)        | 50° to 95°F<br>(10° to 35°C)         | 50° to 95°F<br>(10° to 35°C)         |

For detailed specifications on all models, [click](#) here.

## Series technical specifications—Midline drives

| Product series                   | HPE SAS Hot Plug SmartDrive SFF (2.5-inch) | HPE SAS Hot Plug SmartDrive LFF (3.5-inch) | HPE SAS Hot Plug SFF (2.5-inch) | HPE SAS Hot Plug LFF (3.5-inch) | HPE SAS Quick Release LFF (3.5-inch) |
|----------------------------------|--|--|---------------------------------|---------------------------------|--------------------------------------|
| <b>Capacity</b>                  | 500 GB, 1 TB                               | 1 TB, 2 TB,<br>3 TB, 4 TB                  | 500 GB, 1 TB                    | 1 TB, 2 TB,<br>3 TB, 4 TB       | 2 TB, 4 TB                           |
| <b>Height</b>                    | 0.62 in (15.6 mm)                          | 1.06 in (26.8 mm)                          | 0.63 in (16 mm)                 | 1.04 in (26.4 mm)               | 1.165 in (29.6 mm)                   |
| <b>Width</b>                     | 2.98 in (75.7 mm)                          | 4.16 in (105.8 mm)                         | 3.1 in (78.7 mm)                | 4.36 in (110.7 mm)              | 4.157 in (105.6 mm)                  |
| <b>Depth</b>                     | 4.67 in (118.7 mm)                         | 6.69 in (170 mm)                           | 5.45 in (138.4 mm)              | 7.43 in (188.7 mm)              | 5.787 in (147 mm)                    |
| <b>Interface</b>                 | SAS  | SAS  | SAS                             | SAS                             | SAS                                  |
| <b>Transfer rate synchronous</b> | 6 GB/s                                     | 6 GB/s                                     | 6 GB/s                          | 6 GB/s                          | 6 GB/s                               |
| <b>Rotational speed</b>          | 7200 rpm                                   | 7200 rpm                                   | 7200 rpm                        | 7200 rpm                        | 7200 rpm                             |
| <b>Bytes/sector</b>              | 512  | 512  | 512                             | 512                             | 512                                  |
| <b>Operating temperature</b>     | 50° to 95°F<br>(10° to 35°C)               | 50° to 95°F<br>(10° to 35°C)               | 50° to 95°F<br>(10° to 35°C)    | 50° to 95°F<br>(10° to 35°C)    | 50° to 95°F<br>(10° to 35°C)         |

For detailed specifications on all models, [click](#) here.

## Addressing your IT support needs proactively

We offer support recommendations that are customized and designed to meet different degrees of business demands. Depending on the level of availability your business environment requires, you can choose from the following:

- **Optimized Care:** provides enhanced performance
  - 3-year, 24x7 4-hour Response  
HPE Hardware Support Onsite Service
- **Standard Care:** maintains high-level of uptime
  - 3-year, HPE Hardware Support Onsite  
6- or 24-hour Call-to-Repair (CTR) Service,  
with 10 Proactive Select Credits

All service options include HPE Insight Remote Support for more secure remote monitoring, diagnosis, and problem resolution. The service options also include the HPE Support Center facility to provide access to the information, tools, and experts required to support your HPE business products. For more information, visit [hp.com/services/proliant](http://hp.com/services/proliant).

## HPE Factory Express

HPE Factory Express provides customization and deployment services along with your storage and server purchases. You can customize hardware to your exact specifications in the factory—helping speed deployment. [hp.com/go/factoryexpress](http://hp.com/go/factoryexpress)

## Customer Technical Training

Gain the skills you need with ExpertOne training and certification from Hewlett Packard Enterprise. With HPE Converged Storage training, you will accelerate your technology transition, improve operational performance, and get the best return on your HPE investment. Our training is available when and where you need it, through flexible delivery options and a global training capability. [hp.com/learn/storage](http://hp.com/learn/storage)

## Benefit from enhanced performance, scalability, and data integrity

Discover how HPE SAS Hard Drives, designed and engineered for high availability, can help you achieve enterprise-class data storage. Visit [hpe.com/go/sas](http://hpe.com/go/sas).



Sign up for updates