



34TB | 7200 RPM | 6 Gb/s SATA

## Highlights

- Delivers ultra-dense capacity of 34TB
- Increases storage density without increasing footprint
- Maintains superior reliability of field-proven hardware designs
- Rated for 550TB/year workloads and annual AFR as low as 0.35%<sup>5</sup>
- Backed by a 5-year limited warranty<sup>9</sup>

## Target Audience

- Hyperscale Cloud Providers
- Enterprise Data Centers
- AI & HPC Environments
- CSP & OEM Integrators

## Ideal For

- AI Training Data Sets
- AI Pipeline Checkpointing
- Data Lakes
- Content Libraries
- Compliance & Regulatory Data
- Backup and Archival Data Sets
- Warm & Cool Data Storage Tiers

## Ultrastar® DC HC6100

Ultrastar Data Center HC6100 hard drives with WD UltraSMR technology, deliver high storage density to meet the demands of AI-driven workloads. Designed for hyperscale and data-intensive environments, Ultrastar DC6100 SMR enables organizations to maximize capacity, optimize efficiency, and scale seamlessly for next-generation storage applications.

### Ultra Scale. Ultra Optimized. UltraSMR.

WD UltraSMR recording technology leverages advanced shingled magnetic recording format with novel data encoding and error correcting techniques to allow for greater data durability, enabling tighter track spacing and improved areal density. By storing more data in the existing 3.5" form factor, UltraSMR helps data centers maximize storage density, improve power efficiency and optimize total cost of ownership (TCO).

### Ultra-Dense Storage for the AI Era and Beyond

AI workloads generate massive amounts of unstructured data. Ultrastar DC HC6100 with UltraSMR technology, helps ensure that you can scale, manage, and extract data insights efficiently, from cloud to edge.

### Purpose-Built for High-Density AI Workloads

Ultrastar DC HC6100 with UltraSMR delivers high density storage up to 34TB at optimized TCO for warm and cool data center workloads. Ultrastar SMR is the right storage choice for AI data intensive applications including training, checkpointing and persistent pipeline storage, where capacity matters most.

### Scalable HDD Storage That Delivers More Than Just Capacity

Maximize performance, minimize TCO, scale smarter with Ultrastar. Built to maximize density, efficiency, and value—more bytes per platter, better performance per watt, and stronger economics per dollar.

### Reliability You Can Trust

Our customers choose Ultrastar for peace of mind—because WD delivers resilience engineered for real-world complexity. Trusted to perform at scale. Proven to deliver. Ultrastar is engineered for seamless reliability from qualification to production. Ultrastar delivers reliability you can count on, with annual AFR as low as 0.35%<sup>5</sup> backed by a 5-year limited warranty<sup>9</sup>.

### Ultrastar Puts Customer Needs First

Customer success drives the Ultrastar roadmap. WD collaborates with customers to solve real-world data storage challenges—ensuring our innovation and long-term roadmap are anchored in their business outcomes, not just technical features. We simplify adoption and reduce risk through early engagement and strategic alignment—becoming a trusted partner in our customers' journey.

# Ultrastar® DC HC6100 Data Sheet

## Specifications

| 34TB<br>SATA Models                                             |                         |
|-----------------------------------------------------------------|-------------------------|
| Model Number                                                    | WSH7236xxALyy0z         |
| Recording Technology                                            | SMR                     |
| Recording Format                                                | UltraSMR                |
| Interface                                                       | SATA 6 Gb/s             |
| Formatted capacity <sup>1</sup>                                 | 34TB                    |
| Drive Technology                                                | Helium                  |
| Format: Sector size (bytes) <sup>2</sup>                        | 4Kn: 4096               |
| Areal density (Gbits/sq. in.)                                   | 1560                    |
| <b>Performance</b>                                              |                         |
| Data buffer <sup>3</sup> (MB)                                   | 512                     |
| Rotational speed (RPM)                                          | 7200                    |
| Latency average (ms)                                            | 4.16                    |
| Interface transfer rate (MB/s, max)                             | 600                     |
| Sustained transfer rate <sup>4</sup> (MB/s, max) / (MiB/s, max) | 273 / 260               |
| <b>Reliability/Data Integrity</b>                               |                         |
| Error rate (non-recoverable, bits read)                         | 1 in 10 <sup>15</sup>   |
| Load/Unload cycles (at 40°C)                                    | 600,000                 |
| Availability (hrs/day x days/wk)                                | 24x7                    |
| Annualized Failure Rate <sup>5</sup>                            | 0.35%                   |
| Limited warranty <sup>6</sup>                                   | 5 years                 |
| <b>Security</b>                                                 |                         |
| CNSA 2.0 (PQC ready security architecture)                      | Yes                     |
| <b>Power</b>                                                    |                         |
| Random Read 4KB QD=8 @MAX IOPS (W)                              | 8.1                     |
| Idle <sup>6</sup> (W)                                           | 5.4                     |
| Power efficiency at idle (W/TB)                                 | As low as 0.16          |
| <b>Physical Dimensions</b>                                      |                         |
| z-height (max) in / mm                                          | 1.03 / 26.1             |
| Length (max) in / mm                                            | 5.78 / 146.7            |
| Width ± .01 in. / mm                                            | 4.0 / 101.6             |
| Weight (max) lb / kg                                            | 1.47 / .67              |
| <b>Environmental</b>                                            |                         |
| Temperature (°C)* Operating / Non-Operating                     | 5° to 60° / -40° to 70° |
| Shock (half-sine wave 2 ms, G) Operating / Non-Op               | 40 / 200                |
| Vibration (G RMS 5 to 500 HZ) Operating / (2 to 200 Hz) Non-Op  | 0.7 / 1.04 (X Y Z)      |

<sup>1</sup> One MB is equal to one million bytes, one GB is equal to one billion bytes and one TB equals 1,000GB (one trillion bytes). Actual user capacity may be less due to operating environment.

<sup>2</sup> Advanced Format drive: 4K (4096-byte) physical sectors.

<sup>3</sup> Portion of buffer capacity used for drive firmware.

<sup>4</sup> Based on internal testing; performance may vary depending on host environment, drive capacity, logical block address (LBA), and other factors. The location of the max rate is at approximately 10% into the capacity of the HDD. 1MiB = 1,048,576 bytes (2<sup>20</sup>), 1MB = 1,000,000 bytes (10<sup>6</sup>).

<sup>5</sup> Projected values. Final AFR specifications will be based on a sample population and are estimated

by statistical measurements and acceleration algorithms under typical operating conditions, typical workload and 40°C device-reported temperature. Derating AFR will occur above these parameters, up to 550TB/year and 60°C (device reported temperature). AFR ratings do not predict an individual drive's reliability and do not constitute a warranty.

<sup>6</sup> Idle specification is based on use of Idle\_A.

<sup>7</sup> 5°C ambient temperature, 60°C device reported temperature.

<sup>8</sup> Models are variable capacity - actual capacity and functional performance will be varied.

<sup>9</sup> See support.wdc.com/warranty for regionally specific warranty details.

### How to Read the Ultrastar Model Number

WSH723634ALyy0z

W = Western Digital  
S = Ultrastar SMR Technology  
H = Helium (vs. S for Standard)  
72 = 7200 RPM  
36 = Max Capacity  
34 = Capacity of this model  
34 = 34TB  
A = Generation code  
L = 26.1 z-height (mm)

yy = Interface  
E6 = 512e SATA 6 Gb/s  
N6 = 4Kn SATA 6 Gb/s  
0 = Power Disable Pin 3 support  
z = Data Security Mode  
4 = Base SE  
\*ATA Security Feature Set comes standard on ATA



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August 2026