

3.5 HDD DATA SHEET

Amazing Versatility.
Unmatched Dependability.



Seagate brings over 20 years of trusted performance and reliability to the Seagate® BarraCuda® 3.5-inch HDD — now available in capacities up to 8 TB.



Best-fit Applications

- Desktop or all-in-one PCs
- Home servers
- Entry-level direct-attached storage devices (DAS)

Key Advantages

Versatile HDDs for all your PC needs bring you industry-leading excellence in personal computing.

For over 20 years the BarraCuda family has delivered super-reliable storage for the hard drive industry.

Capacities up to 8 TB for desktops, BarraCuda leads the market with the widest range of storage options available.

Advanced Power modes help save energy without sacrificing performance.¹

SATA 6 Gb/s interface optimises burst performance.¹

Seagate Secure® models provide Self-Encrypting Drive (SED) hardware-based data security and deliver an Instant Secure Erase feature for safe, fast and easy drive retirement. They meet NIST 800-88 media sanitization specifications and also support the Trusted Computer Group (TCG) Opal standard.^{2,3}

¹ Performance may vary depending on user's hardware configuration and operating system.

² Seagate Secure models are not available in all countries. May require TCG-compliant host or controller support.

³ Refer to specifications table for further information and feature options.



| Specifications | 8 TB | 6 TB | 4 TB | 3 TB | 3 TB |
|--|--------------------|--------------------|--------------------|--------------------|--------------------|
| Standard Model Numbers | ST8000DM004 | ST6000DM003 | ST4000DM004 | ST3000DM007 | — |
| Seagate Secure [®] Model Numbers | — | — | — | — | ST3000DM002 |
| Bytes per Sector | 4,096 | 4,096 | 4,096 | 4,096 | 4,096 |
| Performance | | | | | |
| Interface | SATA 6Gb/s | SATA 6Gb/s | SATA 6Gb/s | SATA 6Gb/s | SATA 6Gb/s |
| SATA Transfer Rates Supported (Gb/s) | 6.0/3.0/1.5 | 6.0/3.0/1.5 | 6.0/3.0/1.5 | 6.0/3.0/1.5 | 6.0/3.0/1.5 |
| Max. Sustained Transfer Rate OD (MB/s) | 190MB/s | 185MB/s | 190MB/s | 185MB/s | 210MB/s |
| Cache, Multi-segmented (MB) | 256 | 256 | 256 | 256 | 64 |
| Rotational Speed (RPM) | 5,400 | 5,400 | 5,400 | 5,400 | 7,200 |
| Reliability/Data Integrity | | | | | |
| Load/Unload Cycles | 600,000 | 600,000 | 600,000 | 600,000 | 300,000 |
| Non-recoverable Read Errors per Bits Read, Max | 1 per 10E15 | 1 per 10E15 | 1 per 10E15 | 1 per 10E15 | 1 per 10E14 |
| Power-On Hours per Year (24x7) | 2,400 | 2,400 | 2,400 | 2,400 | 2,400 |
| Workload Rate Limit (TB/Year) | 55 | 55 | 55 | 55 | 55 |
| Limited Warranty (years) | 2 | 2 | 2 | 2 | 2 |
| Power Management | | | | | |
| Startup Power (A) | 2 | 2 | 2 | 2 | 2.5 |
| Operating Mode, Typical (W) | 5.3 | 5.3 | 3.7 | 3.7 | 8 |
| Idling Average (W) | 3.4 W | 3.4 W | 2.5 W | 2.5 W | 5.4 W |
| Standby Mode/Sleep Mode, Typical (W) | 0.25/0.25 | 0.25/0.25 | 0.25/0.25 | 0.25/0.25 | 0.75/0.75 |
| Voltage Tolerance, Inc. Noise (5 V) | ±5% | ±5% | ±5% | ±5% | ±5% |
| Voltage Tolerance, Inc. Noise (12 V) | ±10% | ±10% | ±10% | ±10% | ±10% |
| Environmental/Temperature | | | | | |
| Operating (ambient, min) | 0°C | 0°C | 0°C | 0°C | 0°C |
| Operating (drive case, max) | 60°C | 60°C | 60°C | 60°C | 60°C |
| Non-operating (ambient) | -40°C – 70°C | -40°C – 70°C | -40°C – 70°C | -40°C – 70°C | -40°C – 70°C |
| Halogen-free | Yes | Yes | Yes | Yes | Yes |
| RoHS compliance | Yes | Yes | Yes | Yes | Yes |
| Physical | | | | | |
| Height (mm/in, max) | 26.11 mm/1.028 in | 26.11 mm/1.028 in | 20.2 mm/0.795 in | 20.2 mm/0.795 in | 26.11 mm/1.028 in |
| Width (mm/in, max) | 101.85 mm/4.01 in | 101.85 mm/4.01 in | 101.85 mm/4.01 in | 101.85 mm/4.01 in | 101.85 mm/4.01 in |
| Depth (mm/in, max) | 146.99 mm/5.787 in | 146.99 mm/5.787 in | 146.99 mm/5.787 in | 146.99 mm/5.787 in | 146.99 mm/5.787 in |
| Weight (lb/g) | 630 g/1.389 lb | 610 g/1.345 lb | 490 g/1.08 lb | 490 g/1.08 lb | 626 g/1.38 lb |
| Carton Unit Quantity | 20 | 20 | 25 | 25 | 20 |
| Cartons per Pallet / Cartons per Layer | 40/8 | 40/8 | 40/8 | 40/8 | 40/8 |



| Specifications | 2TB | 2 TB | 2 TB | 1 TB | 500 GB |
|--|--------------------|--------------------|--------------------|--------------------|--------------------|
| Standard Model Numbers | ST2000DM005 | ST2000DM008 | ST2000DM006 | ST1000DM010 | ST500DM009 |
| Seagate Secure [®] Model Numbers | — | — | ST2000DM002 | — | — |
| Bytes per Sector | 4,096 | 4,096 | 4,096 | 4,096 | 4,096 |
| Performance | | | | | |
| Interface | SATA 6Gb/s | SATA 6Gb/s | SATA 6Gb/s | SATA 6Gb/s | SATA 6Gb/s |
| SATA Transfer Rates Supported (Gb/s) | 6.0/3.0/1.5 | 6.0/3.0/1.5 | 6.0/3.0/1.5 | 6.0/3.0/1.5 | 6.0/3.0/1.5 |
| Max. Sustained Transfer Rate OD (MB/s) | 190MB/s | 220MB/s | 210MB/s | 210MB/s | 210MB/s |
| Cache, Multi-segmented (MB) | 256 | 256 | 64 | 64 | 32 |
| Rotational Speed (RPM) | 5,400 | 7,200 | 7,200 | 7,200 | 7,200 |
| Reliability/Data Integrity | | | | | |
| Load/Unload Cycles | 600,000 | 600,000 | 300,000 | 300,000 | 300,000 |
| Non-recoverable Read Errors per Bits Read, Max | 1 per 10E15 | 1 per 10E15 | 1 per 10E14 | 1 per 10E14 | 1 per 10E14 |
| Power-On Hours per Year (24x7) | 2,400 | 2,400 | 2,400 | 2,400 | 2,400 |
| Workload Rate Limit (TB/Year) | 55 | 55 | 55 | 55 | 55 |
| Limited Warranty (years) | 2 | 2 | 2 | 2 | 2 |
| Power Management | | | | | |
| Startup Power (A) | 2 | 2 | 2.5 | 2 | 2 |
| Operating Mode, Typical (W) | 3.7 | 5.1 | 8 | 5.3 | 5.3 |
| Idling Average (W) | 2.5 W | 3.9 W | 5.4 W | 4.6 W | 4.6 W |
| Standby Mode/Sleep Mode, Typical (W) | 0.25/0.25 | 0.3/0.3 | 0.75/0.75 | 0.94/0.94 | 0.94/0.94 |
| Voltage Tolerance, Inc. Noise (5 V) | ±5% | ±5% | ±5% | ±5% | ±5% |
| Voltage Tolerance, Inc. Noise (12 V) | ±10% | ±10% | ±10% | ±10% | ±10% |
| Environmental/Temperature | | | | | |
| Operating (ambient, min) | 0°C | 0°C | 0°C | 0°C | 0°C |
| Operating (drive case, max) | 60°C | 60°C | 60°C | 60°C | 60°C |
| Non-operating (ambient) | -40°C – 70°C | -40°C – 70°C | -40°C – 70°C | -40°C – 70°C | -40°C – 70°C |
| Halogen-free | Yes | Yes | Yes | Yes | Yes |
| RoHS compliance | Yes | Yes | Yes | Yes | Yes |
| Physical | | | | | |
| Height (mm/in, max) | 20.2 mm/0.795 in | 20.2 mm/0.795 in | 26.11 mm/1.028 in | 19.99 mm/0.787 in | 19.99 mm/0.787 in |
| Width (mm/in, max) | 101.85 mm/4.01 in | 101.85 mm/4.01 in | 101.85 mm/4.01 in | 101.85 mm/4.01 in | 101.85 mm/4.01 in |
| Depth (mm/in, max) | 146.99 mm/5.787 in | 146.99 mm/5.787 in | 146.99 mm/5.787 in | 146.99 mm/5.787 in | 146.99 mm/5.787 in |
| Weight (lb/g) | 415 g/0.915 lb | 490 g/1.08 lb | 626 g/1.38 lb | 400 g/0.88 lb | 400 g/0.88 lb |
| Carton Unit Quantity | 25 | 25 | 20 | 25 | 25 |
| Cartons per Pallet / Cartons per Layer | 40/8 | 40/8 | 40/8 | 40/8 | 40/8 |