



BARRACUDA

COMPUTE



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 HDDs—now available in capacities up to 4TB.



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 4TB 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 6Gb/s interface optimizes 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 specification 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.



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| Specifications | 4TB ¹ | 3TB ¹ | 2TB ¹ | 1TB ¹ | 500GB ¹ |
|---|------------------|------------------|------------------|------------------|-------------------------|
| Standard Model Numbers | ST4000DM005 | ST3000DM008 | ST2000DM006 | ST1000DM010 | ST500DM009 ² |
| Seagate Secure Model Numbers | — | ST3000DM009 | ST2000DM007 | — | — |
| Interface Options (with NCQ) | SATA 6Gb/s | SATA 6Gb/s | SATA 6Gb/s | SATA 6Gb/s | SATA 6Gb/s |
| Features and Performance | | | | | |
| Seagate AcuTrac™ Technology | Yes | Yes | Yes | No | No |
| 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 |
| Average Data Rate, Read/Write | 146 | 156 | 156 | 156 | 156 |
| Max Sustained Data Rate, OD Read (MB/s) | 180 | 210 | 210 | 210 | 210 |
| Cache, Multisegmented (MB) | 64 | 64 | 64 | 64 | 32 |
| Configuration/Organization | | | | | |
| Heads/Disks | 6/3 | 6/3 | 6/3 or 4/2 | 2/1 | 2/1 |
| Bytes per Sector | 4096 | 4096 | 4096 | 4096 | 4096 |
| Reliability/Data Integrity | | | | | |
| Contact Start/Stop Cycles | — | — | — | 50,000 | 50,000 |
| Load/Unload Cycles | 300,000 | 300,000 | 300,000 | — | — |
| Nonrecoverable Read Errors per Bits Read, Max | 1 per 10E14 | 1 per 10E14 | 1 per 10E14 | 1 per 10E14 | 1 per 10E14 |
| Power-On Hours (per year) | 2400 | 2400 | 2400 | 2400 | 2400 |
| Workload Rate Limit (TB/year) | 55 | 55 | 55 | 55 | 55 |
| Warranty, Limited (years) ³ | 2 | 2 | 2 | 2 | 2 |
| Power Management | | | | | |
| Startup Power (A) | 2.0 | 2.5 | 2.5 | 2.0 | 2.0 |
| Operating Mode, Typical (W) | 5.6 | 8.0 | 8.0 | 5.3 | 5.3 |
| Idle Average (W) ⁴ | 4.0 | 5.4 | 5.4 | 4.6 | 4.6 |
| Standby Mode/Sleep Mode, Typical (W) | 0.50/0.50 | 0.75/0.75 | 0.75/0.75 | 0.94/0.94 | 0.94/0.94 |
| Voltage Tolerance, Including Noise (5V) | ±5% | ±5% | ±5% | ±5% | ±5% |
| Voltage Tolerance, Including Noise (12V) | ±10% | ±10% | ±10% | ±10% | ±10% |
| Environmental | | | | | |
| Temperature (°C) | | | | | |
| Operating (ambient, min) | 0 | 0 | 0 | 0 | 0 |
| Operating (drive case, max) | 60 | 60 | 60 | 60 | 60 |
| Nonoperating (ambient) | -40 to 70 | -40 to 70 | -40 to 70 | -40 to 70 | -40 to 70 |
| Halogen Free | Yes | Yes | Yes | Yes | Yes |
| RoHS Compliance | Yes | Yes | Yes | Yes | Yes |
| Physical | | | | | |
| Height (mm/in, max) | 26.11/1.028 | 26.11/1.028 | 26.11/1.028 | 19.99/0.787 | 19.99/0.787 |
| Width (mm/in, max) | 101.6/4.0 | 101.6/4.0 | 101.6/4.0 | 101.6/4.0 | 101.6/4.0 |
| Depth (mm/in, max) | 146.99/5.787 | 146.99/5.787 | 146.99/5.787 | 146.99/5.787 | 146.99/5.787 |
| Weight (g/lb, typical) | 610/1.345 | 626/1.38 | 626/1.38 | 400/0.88 | 400/0.88 |
| Carton Unit Quantity | 20 | 20 | 20 | 25 | 25 |
| Cartons per Pallet/Cartons per Layer | 40/8 | 40/8 | 40/8 | 40/8 | 40/8 |

1 One gigabyte, or GB, equals one billion bytes and one terabyte, or TB, equals one trillion bytes when referring to drive capacity.

2 Seagate ships this drive in both 4K- and 512-byte sectors. SmartAlign technology is included on 4K sector drives. Both drives are functionally and physically equivalent.

3 Extended warranty products available. Consult your distributor for details.

4 Idle information may be based on Idle 1 or Idle 2 specifications. Consult the product manual for more information.

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