



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 8TB.



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 8TB 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

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



| Specifications | 8TB | 6TB | 4TB | 3TB | 2TB |
|---|------------------|------------------|------------------|------------------|------------------|
| Standard Model Number | ST8000DM004 | ST6000DM003 | ST4000DM004 | ST3000DM007 | ST2000DM005 |
| Bytes per Sector | 4096 | 4096 | 4096 | 4096 | 4096 |
| 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 Data Rate, OD Read (MB/s) | 190MB/s | 185MB/s | 190MB/s | 185MB/s | 190MB/s |
| Cache, Multisegmented (MB) | 256 | 256 | 256 | 256 | 256 |
| Rotational Speed (RPM) | 5400 | 5400 | 5400 | 5400 | 5400 |
| Recording Technology | SMR | SMR | SMR | SMR | SMR |
| Reliability/Data Integrity | | | | | |
| Load/Unload Cycles | 600,000 | 600,000 | 600,000 | 600,000 | 600,000 |
| 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) | 2 | 2 | 2 | 2 | 2 |
| Power Management | | | | | |
| Startup Power (A) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Operating Mode, Typical (W) | 5.3 | 5.3 | 3.7 | 3.7 | 3.7 |
| Idle Average (W) | 3.4W | 3.4W | 2.5W | 2.5W | 2.5W |
| Standby Mode/Sleep Mode, Typical (W) | 0.25/0.25 | 0.25/0.25 | 0.25/0.25 | 0.25/0.25 | 0.25/0.25 |
| Voltage Tolerance, Inc. Noise (5V) | ±5% | ±5% | ±5% | ±5% | ±5% |
| Voltage Tolerance, Inc. Noise (12V) | ±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 |
| Nonoperating (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) | 26.11mm/1.028in | 26.11mm/1.028in | 20.20mm/0.795in | 20.20mm/0.795in | 20.20mm/0.795in |
| Width (mm/in, max) | 101.85mm/4.010in | 101.85mm/4.010in | 101.85mm/4.010in | 101.85mm/4.010in | 101.85mm/4.010in |
| Depth (mm/in, max) | 146.99mm/5.787in | 146.99mm/5.787in | 146.99mm/5.787in | 146.99mm/5.787in | 146.99mm/5.787in |
| Weight (g/lb, typical) | 630g/1.389lb | 610g/1.345lb | 490g/1.08lb | 490g/1.08lb | 490g/1.08lb |
| Carton Unit Quantity | 20 | 20 | 25 | 25 | 25 |
| Cartons per Pallet/Cartons per Layer | 40 / 8 | 40 / 8 | 40 / 8 | 40 / 8 | 40 / 8 |



| Specifications | 2TB | 1TB | 500GB |
|---|------------------|------------------|------------------|
| Standard Model Number | ST2000DM008 | ST1000DM010 | ST500DM009 |
| Bytes per Sector | 4096 | 4096 | 4096 |
| Performance | | | |
| Interface | 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 |
| Max Sustained Data Rate, OD Read (MB/s) | 220MB/s | 210MB/s | 210MB/s |
| Cache, Multisegmented (MB) | 256 | 64 | 32 |
| Rotational Speed (RPM) | 7200 | 7200 | 7200 |
| Recording Technology | SMR | CMR | CMR |
| Reliability/Data Integrity | | | |
| Load/Unload Cycles | 600,000 | 50,000 | 50,000 |
| Nonrecoverable Read Errors per Bits Read, Max | 1 per 10E14 | 1 per 10E14 | 1 per 10E14 |
| Power-On Hours (per year) | 2400 | 2400 | 2400 |
| Workload Rate Limit (TB/Year) | 55 | 55 | 55 |
| Warranty, Limited (years) | 2 | 2 | 2 |
| Power Management | | | |
| Startup Power (A) | 2.0 | 2.0 | 2.0 |
| Operating Mode, Typical (W) | 5.1 | 5.3 | 5.3 |
| Idle Average (W) | 3.9W | 4.60W | 4.60W |
| Standby Mode/Sleep Mode, Typical (W) | 0.3/0.3 | 0.94/0.94 | 0.94/0.94 |
| Voltage Tolerance, Inc. Noise (5V) | ±5% | ±5% | ±5% |
| Voltage Tolerance, Inc. Noise (12V) | ±10% | ±10% | ±10% |
| Environmental/Temperature | | | |
| Operating (ambient, min) | 0°C | 0°C | 0°C |
| Operating (drive case, max) | 60°C | 60°C | 60°C |
| Nonoperating (ambient) | -40°C – 70°C | -40°C – 70°C | -40°C – 70°C |
| Halogen Free | Yes | Yes | Yes |
| RoHS Compliance | Yes | Yes | Yes |
| Physical | | | |
| Height (mm/in, max) | 20.20mm/0.795in | 19.99mm/0.787in | 19.99mm/0.787in |
| Width (mm/in, max) | 101.85mm/4.010in | 101.85mm/4.010in | 101.85mm/4.010in |
| Depth (mm/in, max) | 146.99mm/5.787in | 146.99mm/5.787in | 146.99mm/5.787in |
| Weight (g/lb, typical) | 490g/1.08lb | 400g/0.88lb | 400g/0.88lb |
| Carton Unit Quantity | 25 | 25 | 25 |
| Cartons per Pallet/Cartons per Layer | 40 / 8 | 40 / 8 | 40 / 8 |