



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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