

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 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 sanitisation 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 Number	ST8000DM004	ST6000DM003	ST4000DM004	ST3000DM007	—
Seagate Secure [®] Model Numbers	—	—	—	—	ST3000DM002
Bytes per Sector	4096	4,096	4096	4096	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 10E14	1 per 10E14	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	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 Number	ST2000DM005	ST2000DM008	ST2000DM006	ST1000DM010	ST500DM009
Seagate Secure [®] Model Numbers	—	—	ST2000DM002	—	—
Bytes per Sector	4096	4096	4,096, 4096	4096	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 10E14	1 per 10E14	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

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