

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 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 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