



3.5 HDD DATA SHEET

Amazing Versatility.
Unmatched Dependability.



Seagate delivers trusted performance and reliability with the Seagate® BarraCuda® 3.5-inch HDD — now available in capacities up to 24 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.

Built on proven reliability and innovation the BarraCuda family has delivered trustworthy storage solutions for the hard drive industry

Capacities up to 24 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 optimises burst performance.¹

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



Specifications	24TB	20TB	16TB	8TB	6TB
Standard Model Number	ST24000DM001	ST20000DM001	ST16000DM001	ST8000DM004	ST6000DM003
Bytes per Sector	512e	512e	512e	512e	512e
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	190MB/s	190MB/s	190MB/s	185MB/s
Cache, Multisegmented (MB)	512MB	512MB	512MB	256MB	256MB
Rotational Speed (RPM)	7200RPM	7200RPM	7200RPM	5400RPM	5400RPM
Recording Technology	CMR	CMR	CMR	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 sector per 10E14	1 sector per 10E14	1 sector per 10E14	1 per 10E14	1 per 10E14
Power-On Hours (per year)	2,400	2,400	2,400	2,400	2,400
Workload Rate Limit (TB/Year)	120	120	120	55	55
Warranty, Limited (years)	2	2	2	2	2
Power Management					
Startup Power (A)	2.0 A	2.0 A	2.0 A	2.0 A	2.0 A
Operating Mode, Typical (W)	8.9W	8.9W	8.9W	5.3	5.3
Idle Average (W)	6.7 W	6.7 W	6.7 W	3.4 W	3.4 W
Standby Mode/Sleep Mode, Typical (W)	1.2W	1.2W	1.2W	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 (drive reported, min)	10°C	10°C	10°C	0°C	0°C
Operating (drive reported, 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)	26.1 mm/1.028 in	26.1 mm/1.028 in	26.1 mm/1.028 in	26.11 mm/1.028 in	26.11 mm/1.028 in
Width (mm/in, max)	101.85 mm/4.010 in	101.85 mm/4.010 in	101.85 mm/4.010 in	101.85 mm/4.010 in	101.85 mm/4.010 in
Depth (mm/in, max)	147 mm/5.787 in	147 mm/5.787 in	147 mm/5.787 in	146.99 mm/5.787 in	146.99 mm/5.787 in
Weight (g/lb, typical)	695 g/1.532 lb	695 g/1.532 lb	695 g/1.532 lb	630 g/1.389 lb	610 g/1.345 lb
Carton Unit Quantity	20	20	20	20	20
Cartons per Pallet/Cartons per Layer	40/8	40/8	40/8	40/8	40/8



Specifications	4TB	3TB	2TB		1TB
Standard Model Number	ST4000DM004	ST3000DM007	ST2000DM005	ST2000DM008	ST1000DM014
Bytes per Sector	512e	512e	512e	512e	512e
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	220MB/s	220MB/s
Cache, Multisegmented (MB)	256MB	256MB	256MB	256MB	256MB
Rotational Speed (RPM)	5400RPM	5400RPM	5400RPM	7200RPM	7200RPM
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)	2,400	2,400	2,400	2,400	2,400
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 A	2.0 A	2.0 A	2.0 A	2.0 A
Operating Mode, Typical (W)	3.7	3.7	3.7	5.1	5.1
Idle Average (W)	2.5 W	2.5 W	2.5 W	3.9 W	3.9 W
Standby Mode/Sleep Mode, Typical (W)	0.25/0.25	0.25/0.25	0.25/0.25	0.3/0.3	0.3/0.3
Voltage Tolerance, Inc. Noise (5V)	±5%	±5%	±5%	±5%	±5%
Voltage Tolerance, Inc. Noise (12V)	±10%	±10%	±10%	±10%	±10%
Environmental/Temperature					
Operating (drive reported, min)	0°C	0°C	0°C	0°C	0°C
Operating (drive reported, 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)	20.20 mm/0.795 in	20.20 mm/0.795 in	20.20 mm/0.795 in	20.20 mm/0.795 in	20.20 mm/0.795 in
Width (mm/in, max)	101.85 mm/4.010 in	101.85 mm/4.010 in	101.85 mm/4.010 in	101.85 mm/4.010 in	101.85 mm/4.010 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 (g/lb, typical)	490 g/1.08 lb	490 g/1.08 lb	415 g/0.915 lb	415 g/0.915 lb	415 g/0.915 lb
Carton Unit Quantity	25	25	25	25	25
Cartons per Pallet/Cartons per Layer	40 / 8	40 / 8	40 / 8	40 / 8	40 / 8

seagate.com



© 2025 Seagate Technology LLC. All rights reserved. Seagate, Seagate Technology, and the Spiral logo are registered trademarks of Seagate Technology LLC in the United States and/or other countries. BarraCuda is either a trademark or registered trademark of Seagate Technology LLC or one of its affiliated companies in the United States and/or other countries. All other trademarks or registered trademarks are the property of their respective owners. When referring to drive capacity, one gigabyte, or GB, equals one billion bytes and one terabyte, or TB, equals one trillion bytes. Your computer's operating system may use a different standard of measurement and report a lower capacity. In addition, some of the listed capacity is used for formatting and other functions, and thus will not be available for data storage. Actual data rates may vary depending on operating environment and other factors. Seagate reserves the right to change, without notice, product offerings or specifications. DS17.1-2501US