

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	12TB	8TB
Standard Model Number	ST24000DM001	ST20000DM001	ST16000DM001	ST12000DM003	ST8000DM004
Bytes per Sector	512e	512e	512e	512e	512e
Performance					
Interface	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/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)	190	190	190	190	190
Cache, Multi-segmented (MB)	512MB	512MB	512MB	512MB	256MB
Rotational Speed (RPM)	7200RPM	7200RPM	7200RPM	7200RPM	5400RPM
Recording Technology	CMR	CMR	CMR	CMR	SMR
Reliability/Data Integrity					
Load/Unload Cycles	600,000	600,000	600,000	600,000	600,000
Non-recoverable Read Errors per Bits Read, Max	1 sector per 10E14	1 sector per 10E14	1 sector per 10E14	1 sector 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	120	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	8.9W	5.3
Idling Average (W)	6.7 W	6.7 W	6.7 W	6.7 W	3.4 W
Standby Mode/Sleep Mode, Typical (W)	1.2W	1.2W	1.2W	1.2W	0.25/0.25
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 (drive reported, min)	10°C	10°C	10°C	10°C	0°C
Operating (drive reported, 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)	26.1 mm/1.028 in	26.1 mm/1.028 in	26.1 mm/1.028 in	26.1 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	147 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	695 g/1.532 lb	630 g/1.389 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	6TB	4TB	3TB	2TB	
Standard Model Number	ST6000DM003	ST4000DM004	ST3000DM007	ST2000DM005	ST2000DM008
Bytes per Sector	512e	512e	512e	512e	512e
Performance					
Interface	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/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)	185	190	185	190	220
Cache, Multi-segmented (MB)	256MB	256MB	256MB	256MB	256MB
Rotational Speed (RPM)	5400RPM	5400RPM	5400RPM	5400RPM	7200RPM
Recording Technology	SMR	SMR	SMR	SMR	SMR
Reliability/Data Integrity					
Load/Unload Cycles	600,000	600,000	600,000	600,000	600,000
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)	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)	5.3	3.7	3.7	3.7	5.1
Idling Average (W)	3.4 W	2.5 W	2.5 W	2.5 W	3.9 W
Standby Mode/Sleep Mode, Typical (W)	0.25/0.25	0.25/0.25	0.25/0.25	0.25/0.25	0.3/0.3
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 (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
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	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)	610 g/1.345 lb	490 g/1.08 lb	490 g/1.08 lb	415 g/0.915 lb	415 g/0.915 lb
Carton Unit Quantity	20	25	25	25	25
Cartons per Pallet / Cartons per Layer	40/8	40 / 8	40 / 8	40 / 8	40 / 8



Specifications	1TB
Standard Model Number	ST1000DM014
Bytes per Sector	512e
Performance	
Interface	SATA 6 Gb/s
SATA Transfer Rates Supported (Gb/s)	6.0/3.0/1.5
Max Sustained Data Rate, OD Read (MB/s)	220
Cache, Multi-segmented (MB)	256MB
Rotational Speed (RPM)	7200RPM
Recording Technology	SMR
Reliability/Data Integrity	
Load/Unload Cycles	600,000
Non-recoverable Read Errors per Bits Read, Max	1 per 10E14
Power-On Hours (per year)	2,400
Workload Rate Limit (TB/Year)	55
Warranty, Limited (years)	2
Power Management	
Startup Power (A)	2.0 A
Operating Mode, Typical (W)	5.1
Idling Average (W)	3.9 W
Standby Mode/Sleep Mode, Typical (W)	0.3/0.3
Voltage Tolerance, Inc. Noise (5 V)	±5%
Voltage Tolerance, Inc. Noise (12 V)	±10%
Environmental/Temperature	
Operating (drive reported, min)	0°C
Operating (drive reported, max)	60°C
Non-operating (ambient)	-40°C – 70°C
Halogen-free	Yes
RoHS compliance	Yes
Physical	
Height (mm/in, max)	20.20 mm/0.795 in
Width (mm/in, max)	101.85 mm/4.010 in
Depth (mm/in, max)	146.99 mm/5.787 in
Weight (g/lb, typical)	415 g/0.915 lb
Carton Unit Quantity	25
Cartons per Pallet / Cartons per Layer	40 / 8

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