

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 24TB.



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 24TB 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

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 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	190MB/s
Cache, Multisegmented (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
Nonrecoverable 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)	2400	2400	2400	2400	2400
Workload Rate Limit (TB/Year)	120	120	120	120	55
Warranty, Limited (years)	2	2	2	2	2
Power Management					
Startup Power (A)	2.0A	2.0A	2.0A	2.0A	2.0A
Operating Mode, Typical (W)	8.9W	8.9W	8.9W	8.9W	5.3W
Idle Average (W)	6.7W	6.7W	6.7W	6.7W	3.4W
Standby Mode/Sleep Mode, Typical (W)	1.2 W	1.2 W	1.2 W	1.2 W	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	10°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)	26.1mm/1.028in	26.1mm/1.028in	26.1mm/1.028in	26.1mm/1.028in	26.11mm/1.028in
Width (mm/in, max)	101.85mm/4.010in	101.85mm/4.010in	101.85mm/4.010in	101.85mm/4.010in	101.85mm/4.010in
Depth (mm/in, max)	147mm/5.787in	147mm/5.787in	147mm/5.787in	147mm/5.787in	146.99mm/5.787in
Weight (g/lb, typical)	695g/1.532lb	695g/1.532lb	695g/1.532lb	695g/1.532lb	630g/1.389lb
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 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)	185MB/s	190MB/s	185MB/s	190MB/s	220MB/s
Cache, Multisegmented (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
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)	2	2	2	2	2
Power Management					
Startup Power (A)	2.0A	2.0A	2.0A	2.0A	2.0A
Operating Mode, Typical (W)	5.3W	3.7W	3.7W	3.7W	5.1W
Idle Average (W)	3.4W	2.5W	2.5W	2.5W	3.9W
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 (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)	26.11mm/1.028in	20.20mm/0.795in	20.20mm/0.795in	20.20mm/0.795in	20.20mm/0.795in
Width (mm/in, max)	101.85mm/4.010in	101.85mm/4.010in	101.85mm/4.010in	101.85mm/4.010in	101.85mm/4.010in
Depth (mm/in, max)	146.99mm/5.787in	146.99mm/5.787in	146.99mm/5.787in	146.99mm/5.787in	146.99mm/5.787in
Weight (g/lb, typical)	610g/1.345lb	490g/1.08lb	490g/1.08lb	415g/0.915lb	415g/0.915lb
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 6Gb/s
SATA Transfer Rates Supported (Gb/s)	6.0/3.0/1.5
Max Sustained Data Rate, OD Read (MB/s)	220MB/s
Cache, Multisegmented (MB)	256MB
Rotational Speed (RPM)	7200RPM
Recording Technology	SMR
Reliability/Data Integrity	
Load/Unload Cycles	600,000
Nonrecoverable Read Errors per Bits Read, Max	1 per 10E14
Power-On Hours (per year)	2400
Workload Rate Limit (TB/Year)	55
Warranty, Limited (years)	2
Power Management	
Startup Power (A)	2.0A
Operating Mode, Typical (W)	5.1W
Idle Average (W)	3.9W
Standby Mode/Sleep Mode, Typical (W)	0.3/0.3
Voltage Tolerance, Inc. Noise (5V)	±5%
Voltage Tolerance, Inc. Noise (12V)	±10%
Environmental/Temperature	
Operating (drive reported, min)	0°C
Operating (drive reported, max)	60°C
Nonoperating (ambient)	-40°C – 70°C
Halogen Free	Yes
RoHS Compliance	Yes
Physical	
Height (mm/in, max)	20.20mm/0.795in
Width (mm/in, max)	101.85mm/4.010in
Depth (mm/in, max)	146.99mm/5.787in
Weight (g/lb, typical)	415g/0.915lb
Carton Unit Quantity	25
Cartons per Pallet/Cartons per Layer	40 / 8

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