

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

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



Specifications	8 TB	6 TB	4 TB	3 TB	2TB
Standard Model Number	ST8000DM004	ST6000DM003	ST4000DM004	ST3000DM007	ST2000DM005
Bytes per Sector	4,096	4,096	4,096	4,096	4096
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	185MB/s	190MB/s
Cache, Multi-segmented (MB)	256	256	256	256	256
Rotational Speed (RPM)	5,400	5,400	5,400	5,400	5,400
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	2	2	2	2
Operating Mode, Typical (W)	5.3	5.3	3.7	3.7	3.7
Idling Average (W)	3.4 W	3.4 W	2.5 W	2.5 W	2.5 W
Standby Mode/Sleep Mode, Typical (W)	0.25/0.25	0.25/0.25	0.25/0.25	0.25/0.25	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 (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	20.2 mm/0.795 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 (g/lb, typical)	630 g/1.389 lb	610 g/1.345 lb	490 g/1.08 lb	490 g/1.08 lb	490 g/1.08 lb
Carton Unit Quantity	20	20	25	25	25
Cartons per Pallet / Cartons per Layer	40 / 8	40 / 8	40 / 8	40 / 8	40 / 8



Specifications	2 TB	1 TB	500 GB
Standard Model Number	ST2000DM008	ST1000DM010	ST500DM009
Bytes per Sector	4,096	4,096	4,096
Performance			
Interface	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
Max Sustained Data Rate, OD Read (MB/s)	220MB/s	210MB/s	210MB/s
Cache, Multi-segmented (MB)	256	64	32
Rotational Speed (RPM)	7,200	7,200	7,200
Recording Technology	SMR	CMR	CMR
Reliability/Data Integrity			
Load/Unload Cycles	600,000	50,000	50,000
Non-recoverable Read Errors per Bits Read, Max	1 per 10E14	1 per 10E14	1 per 10E14
Power-On Hours (per year)	2,400	2,400	2,400
Workload Rate Limit (TB/Year)	55	55	55
Warranty, Limited (years)	2	2	2
Power Management			
Startup Power (A)	2	2	2
Operating Mode, Typical (W)	5.1	5.3	5.3
Idling Average (W)	3.9 W	4.6 W	4.6 W
Standby Mode/Sleep Mode, Typical (W)	0.3/0.3	0.94/0.94	0.94/0.94
Voltage Tolerance, Inc. Noise (5 V)	±5%	±5%	±5%
Voltage Tolerance, Inc. Noise (12 V)	±10%	±10%	±10%
Environmental/Temperature			
Operating (ambient, min)	0°C	0°C	0°C
Operating (drive case, max)	60°C	60°C	60°C
Non-operating (ambient)	-40°C – 70°C	-40°C – 70°C	-40°C – 70°C
Halogen-free	Yes	Yes	Yes
RoHS compliance	Yes	Yes	Yes
Physical			
Height (mm/in, max)	20.2 mm/0.795 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
Depth (mm/in, max)	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	400 g/0.88 lb	400 g/0.88 lb
Carton Unit Quantity	25	25	25
Cartons per Pallet / Cartons per Layer	40/8	40 / 8	40/8

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