

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.<sup>1</sup>

**SATA 6Gb/s** interface optimizes burst performance.<sup>1</sup>

<sup>1</sup> Performance may vary depending on user's hardware configuration and operating system.



Specifications	8TB	6TB	4TB	3TB	2TB
Standard Model Number	ST8000DM004	ST6000DM003	ST4000DM004	ST3000DM007	ST2000DM005
Bytes per Sector	4096	4096	4096	4096	4096
<b>Performance</b>					
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, Multisegmented (MB)	256	256	256	256	256
Rotational Speed (RPM)	5400	5400	5400	5400	5400
Recording Technology	SMR	SMR	SMR	SMR	SMR
<b>Reliability/Data Integrity</b>					
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
<b>Power Management</b>					
Startup Power (A)	2.0	2.0	2.0	2.0	2.0
Operating Mode, Typical (W)	5.3	5.3	3.7	3.7	3.7
Idle Average (W)	3.4W	3.4W	2.5W	2.5W	2.5W
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 (5V)	±5%	±5%	±5%	±5%	±5%
Voltage Tolerance, Inc. Noise (12V)	±10%	±10%	±10%	±10%	±10%
<b>Environmental/Temperature</b>					
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
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
<b>Physical</b>					
Height (mm/in, max)	26.11mm/1.028in	26.11mm/1.028in	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)	630g/1.389lb	610g/1.345lb	490g/1.08lb	490g/1.08lb	490g/1.08lb
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	2TB	1TB	500GB
Standard Model Number	ST2000DM008	ST1000DM010	ST500DM009
Bytes per Sector	4096	4096	4096
<b>Performance</b>			
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, Multisegmented (MB)	256	64	32
Rotational Speed (RPM)	7200	7200	7200
Recording Technology	SMR	CMR	CMR
<b>Reliability/Data Integrity</b>			
Load/Unload Cycles	600,000	50,000	50,000
Nonrecoverable Read Errors per Bits Read, Max	1 per 10E14	1 per 10E14	1 per 10E14
Power-On Hours (per year)	2400	2400	2400
Workload Rate Limit (TB/Year)	55	55	55
Warranty, Limited (years)	2	2	2
<b>Power Management</b>			
Startup Power (A)	2.0	2.0	2.0
Operating Mode, Typical (W)	5.1	5.3	5.3
Idle Average (W)	3.9W	4.60W	4.60W
Standby Mode/Sleep Mode, Typical (W)	0.3/0.3	0.94/0.94	0.94/0.94
Voltage Tolerance, Inc. Noise (5V)	±5%	±5%	±5%
Voltage Tolerance, Inc. Noise (12V)	±10%	±10%	±10%
<b>Environmental/Temperature</b>			
Operating (ambient, min)	0°C	0°C	0°C
Operating (drive case, max)	60°C	60°C	60°C
Nonoperating (ambient)	-40°C – 70°C	-40°C – 70°C	-40°C – 70°C
Halogen Free	Yes	Yes	Yes
RoHS Compliance	Yes	Yes	Yes
<b>Physical</b>			
Height (mm/in, max)	20.20mm/0.795in	19.99mm/0.787in	19.99mm/0.787in
Width (mm/in, max)	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
Weight (g/lb, typical)	490g/1.08lb	400g/0.88lb	400g/0.88lb
Carton Unit Quantity	25	25	25
Cartons per Pallet/Cartons per Layer	40 / 8	40 / 8	40 / 8