



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 optimizes burst performance.¹

Seagate Secure® models provide Self-Encrypting Drive (SED) hardware-based data security and deliver an Instant Secure Erase feature for safe, fast and easy drive retirement. They meet NIST 800-88 media sanitization specifications and also support the Trusted Computer Group (TCG) Opal standard.^{2,3}

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

² Seagate Secure models are not available in all countries. May require TCG-compliant host or controller support.

³ Refer to specifications table for further information and feature options.



Specifications	8TB	6TB	4TB	3TB	2TB
Standard Model Numbers			ST4000DMA05		
UPC			763649117453		
Bytes per Sector	4096	4096	4096	4096	4096
Heads/Disks	8/4	6/3	4/2	6/3	2/1
Performance					
Interface	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 Transfer Rate OD (MB/s)	190MB/s	190MB/s	190MB/s	210MB/s	220MB/s
Cache, Multisegmented (MB)	256	256	256	64	256
Reliability/Data Integrity					
Load/Unload Cycles	300,000	300,000	300,000	300,000	300,000
Nonrecoverable Read Errors per Bits Read, Max	1 per 10E14				
Power-On Hours per Year (24x7)	2400	2400	2400	2400	2400
Workload Rate Limit (TB/Year)	55	55	55	55	55
Limited Warranty (years)	2	2	2	2	2
Power Management					
Startup Power (A)	2.0	2.0	2.0	2.5	2.0
Operating Mode, Typical (W)	5.3	5.3	3.7	8	4.3
Idle Average (W)	3.4W	3.4W	2.5W	5.40W	3.0W
Standby Mode/Sleep Mode, Typical (W)	0.25/0.25	0.25/0.25	0.25/0.25	0.75/0.75	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 (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				
Halogen Free	Yes	Yes	Yes	Yes	Yes
RoHS Compliance	Yes	Yes	Yes	Yes	Yes
Physical					
Height (mm/in, max)	26.11mm/1.028in	26.11mm/1.028in	20.20mm/0.795in	26.11mm/1.028in	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)	630g/1.389lb	610g/1.345lb	490g/1.08lb	626g/1.38lb	415g/0.915lb
Box Length (in)			7.75in		
Box Width			5.94in		
Box Depth			2.38in		
Box Weight			1.71in		



Specifications	2TB	1TB	500GB
Standard Model Numbers			
Seagate Secure [®] Model Numbers	ST2000DM002	—	—
Bytes per Sector	4096	4096	4096
Heads/Disks	6/3 or 4/2	2/1	2/1
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 Transfer Rate OD (MB/s)	210MB/s	210MB/s	210MB/s
Cache, Multisegmented (MB)	64	64	32
Reliability/Data Integrity			
Load/Unload Cycles	300,000	—	—
Nonrecoverable Read Errors per Bits Read, Max	1 per 10E14	1 per 10E14	1 per 10E14
Power-On Hours per Year (24x7)	2400	2400	2400
Workload Rate Limit (TB/Year)	55	55	55
Limited Warranty (years)	2	2	2
Power Management			
Startup Power (A)	2.5	2.0	2.0
Operating Mode, Typical (W)	8	5.3	5.3
Idle Average (W)	5.40W	4.60W	4.60W
Standby Mode/Sleep Mode, Typical (W)	0.75/0.75	0.94/0.94	0.94/0.94
Voltage Tolerance, Inc. Noise (5V)	±5%	±5%	±5%
Voltage Tolerance, Inc. Noise (12V)	±10%	±10%	±10%
Environmental/Temperature			
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
Physical			
Height (mm/in, max)	26.11mm/1.028in	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)	626g/1.38lb	400g/0.88lb	400g/0.88lb
Carton Unit Quantity	20	25	25
Cartons per Pallet/Cartons per Layer	40 / 8	40 / 8	40 / 8

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