

Enterprise Capacity 3.5 HDD

VERSION 5.1

Data Sheet

Entry-Level Enterprise Hard Drive for Bulk-Data Applications

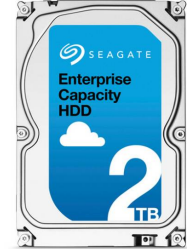
- 1TB and 2TB¹, entry-level 3.5-inch enterprise drive storage with industry-leading, ninth-generation conventional magnetic recording (CMR) technology
- Reliable access to unstructured data in bulk storage applications
- SATA 6Gb/s interface in industry-standard format (512 native) for easy integration into replicated and RAID multi-drive legacy storage servers and systems
- State-of-the-art cache, on-the-fly error-correction algorithms for accurate data storage
- Industry-leading rotational vibration design helps ensure consistent performance in dense multi-drive systems
- Engineered for 24x7 workloads of 550TB/yr—10× that of desktop drives
- On-demand PowerChoice™ feature for enabling lower power options when drive is not in use
- Seagate SeaTools™ diagnostic software to provide drive self-tests, ensuring no unnecessary downtime and maximizing TCO



Best-Fit Applications

- Hyperscale applications/cloud data centers with replicated storage
- Scale-out data centers and big data analytics
- Legacy mainstream applications requiring 512n block size
- High-capacity density RAID storage
- Mainstream enterprise external storage arrays (SAN, NAS, DAS)
- Distributed file systems, including Hadoop and Ceph
- Enterprise backup and restore—D2D, virtual tape
- Centralized surveillance

¹ Seagate recommends validating your configuration with your HBA/RAID controller manufacturer to ensure full capacity capabilities.



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Specifications	512n SATA	
Capacity	2TB	1TB
Base Model	ST2000NM0008	ST1000NM0008
Special Features		
SuperParity	Yes	Yes
Low Halogen	Yes	Yes
PowerChoice™ Technology	Yes	Yes
RAID Rebuild™ Technology	Yes	Yes
SD&D Firmware Security	Yes	Yes
Cache	128MB	128MB
Reliability/Data Integrity		
Vibration, Nonoperating: 10Hz to 500Hz (Gms)	5	5
MTBF	2,000,000hr	2,000,000hr
Reliability Rating @ Full 24x7 Operation (AFR)	0.44%	0.44%
Nonrecoverable Read Errors per Bits Read, Max	1 sector per 10E15	1 sector per 10E15
Power-On Hours	8760	8760
Bytes per Sector	512	512
Warranty, Limited (years)	5	5
Performance		
Spindle Speed (RPM)	7200	7200
Interface Access Speed (Gb/s)	6.0, 3.0, 1.5	6.0, 3.0, 1.5
Max Sustainable Transfer Rate	194MB/s	194MB/s
Average Latency (ms)	4.16	4.16
Interface Ports	Single	Single
Rotational Vibration @ 1500Hz (rad/s²)	12.5	12.5
Power Consumption		
Idle Average (W)	4.7W	4.7W
Typical Operating (W)	7.0W	7.0W
Power Supply Requirements	+12 V and +5 V	+12 V and +5 V
Environmental		
Temperature, Operating (°C)	5°C – 60°C	5°C – 60°C
Shock, Operating, 2ms Read/Write (Gs)	70/40Gs	70/40Gs
Shock, Nonoperating, 1ms/2ms (Gs)	200/300	200/300
Physical		
Height (mm/in) ¹	26.1mm/1.028in	26.1mm/1.028in
Width (mm/in, max) ¹	101.60mm/4.0in	101.60mm/4.0in
Depth (mm/in, max) ¹	147.00mm/5.787in	147.00mm/5.787in
Weight (g/lb)	550g/1.212lb	550g/1.212lb
Carton Unit Quantity	20	20
Cartons per Pallet / Cartons per Layer	40/8	40/8

¹ These base deck dimensions conform to the Small Form Factor Standard (SFF-8201) found at www.sffcommittee.org. For connector-related dimensions, see SFF-8223.

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AMERICAS Seagate Technology LLC 10200 South De Anza Boulevard, Cupertino, California 95014, United States, 408-658-1000
ASIA/PACIFIC Seagate Singapore International Headquarters Pte. Ltd. 7000 Ang Mo Kio Avenue 5, Singapore 569877, 65-6485-3888
EUROPE, MIDDLE EAST AND AFRICA Seagate Technology SAS 16-18, rue du Dôme, 92100 Boulogne-Billancourt, France, 33 1-4186 10 00

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