

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.

Enterprise Capacity 3.5 HDD



VERSION 5.1

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.

SEAGATE.COM

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

© 2016 Seagate Technology LLC. All rights reserved. Seagate, Seagate Technology and the Spiral logo are registered trademarks of Seagate Technology LLC in the United States and/or other countries. PowerChoice, RAID Rebuild and SeaTools are either trademarks or registered trademarks of Seagate Technology LLC or one of its affiliated companies in the United States and/or other countries. All other trademarks or registered trademarks are the property of their respective owners. When referring to drive capacity, one gigabyte, or GB, equals one billion bytes and one terabyte, or TB, equals one trillion bytes. Your computer's operating system may use a different standard of measurement and report a lower capacity. In addition, some of the listed capacity is used for formatting and other functions, and thus will not be available for data storage. Actual data rates may vary depending on operating environment and other factors. Seagate reserves the right to change, without notice, product offerings or specifications. DS1917.1-1611US November 2016