

# Enterprise Capacity 3.5 HDD

VERSION 5.1

Data Sheet

## Entry-Level Enterprise Hard Drive for Bulk-Data Applications

- 1 TB and 2 TB<sup>1</sup>, 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 6 Gb/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 550 TB/yr — 10x 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 maximising TCO



## Best-Fit Applications

- Hyperscale applications/cloud data centres with replicated storage
- Scale-out data centres 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
- Centralised surveillance

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

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Specifications	512n SATA	
	2TB	1TB
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	128 MB	128 MB
Reliability/Data Integrity		
Vibration, Non-operating: 10 Hz to 500 Hz (Grms)	5	5
MTBF	2,000,000 hr	2,000,000 hr
Reliability Rating @ Full 24x7 Operation (AFR)	0.44%	0.44%
Non-recoverable Read Errors per Bits Read, Max	1 sector per 10E15	1 sector per 10E15
Power-on Hours	8,760	8,760
Bytes per Sector	512	512
Warranty, Limited (years)	5	5
Performance		
Spindle Speed (RPM)	7,200	7,200
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 @ 1,500 Hz (rad/s <sup>2</sup> )	12.5	12.5
Power Consumption		
Idling Average (W)	4.7 W	4.7 W
Typical Operating (W)	7 W	7 W
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, 2 ms (Read/Write) (Gs)	70/40 Gs	70/40 Gs
Shock, Non-operating, 1 ms/2 ms (Gs)	200/300	200/300
Physical		
Height (mm/in) <sup>1</sup>	26.1 mm/1.028 in	26.1 mm/1.028 in
Width (mm/in, max) <sup>1</sup>	101.6 mm/4 in	101.6 mm/4 in
Depth (mm/in, max) <sup>1</sup>	147 mm/5.787 in	147 mm/5.787 in
Weight (lb/g)	550 g/1.212 lb	550 g/1.212 lb
Carton Unit Quantity	20	20
Cartons per Pallet / Cartons per Layer	40/8	40/8

<sup>1</sup> These base deck dimensions conform to the Small Form Factor Standard (SFF-8201) found at [www.sffcommittee.org](http://www.sffcommittee.org). For connector-related dimensions, see SFF-8223.

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