

Terascale™ HDD

Data Sheet

High-Capacity, Eco-Friendly, Cost-Effective Storage for Web-Scale Data Centers

- Affordable storage for 24x7 multi-drive replicated environments
- High vibration tolerance for reliable enterprise-class performance
- Low power and cooling costs with the lowest 3.5-inch enterprise drive operating power
- Advanced format logical block management for industry-leading data integrity
- 4TB per drive enables scalable high-capacity storage in 24x7 environments.
- Lower TCO with Seagate® Instant Secure Erase for simple drive repurposing or disposal
- SATA 6Gb/s interface optimizes burst performance.

Best-Fit Applications

- Web-scale computing
- Cloud storage servers
- Cloud storage arrays
- Cloud backup storage
- Direct-attached external storage devices (DAS)
- Network-attached storage devices (NAS)



Specifications	4TB ^{1,2}
Seagate Instant Secure Erase (ISE) Model	ST4000NC000
Non-ISE Model ³	ST4000NC001
Interface	SATA 6Gb/s
Performance	
DDR2 Cache, Multisegmented (MB)	64
SATA Transfer Rates Supported (Gb/s)	6.0/3.0/1.5
Burst Data Transfer Rate (MB/s)	600
Seek Average, Read/Write (ms)	12.0/12.0
Max Sustained Data Rate, OD Read (MB/s)	140 to 170
Rotational Vibration Tolerance @ 20Hz to 1500Hz, w/RVFF (rad/s ²)	12.5
Linear Random Vibration @ 10Hz to 500Hz (G _{rms} ref)	4.9
Configuration	
Heads/Disks	8/4
Bytes per Sector (512-byte emulation)	4096
Reliability/Data Integrity	
Load/Unload Cycles (25°C, 50% relative humidity)	300,000
Nonrecoverable Read Errors per Bits Read, Max	1 per 10E14
Mean Time Between Failures (MTBF)	800,000
Power-On Hours	8760 (24×7)
Power Management	
Operating Mode (typical, W)	6.49
Idle Power (W)	4.59
Standby/Sleep Mode (W)	0.77
Voltage Tolerance (including noise)	5V ± 5% 12V ± 10%
Environmental	
Operating Temperature (°C)	5 to 60
Nonoperating Temperature (°C)	-40 to 70
Relative Humidity, Operating/Nonoperating (%)	5 to 90/5 to 95
Acoustics (typical/max, bels)	2.8/3.0
Physical	
Height (mm/in) ⁴	26.1/1.028
Width (mm/in) ⁴	101.85/4.010
Depth (mm/in) ⁴	147.00/5.787
Weight (g/lb)	606/1.33
Carton Unit Quantity	20
Cartons per Pallet	40
Cartons per Layer	8
Special Features	
Seagate Instant Secure Erase	Optional
Flagged Write Uncorrectable (Logical Block Management)	Yes
PowerChoice™ On-Demand Power Savings	Yes
SeaTools™ Diagnostic Software	Yes
S.M.A.R.T. Drive Monitoring and Reporting	Yes
Hotplug Operation (per SATA Rev. 3.0 Specifications)	Yes
Enterprise CS Phone Support	Limited
Limited Warranty (years)	3

¹ One gigabyte, or GB, equals one billion bytes and one terabyte, or TB, equals one trillion bytes when referring to drive capacity.

² Seagate recommends validating your configuration with your HBA manufacturer to ensure full 4TB capacity capabilities.

³ Non-ISE models for exception only and may not be readily available through your distribution network.

⁴ These base deck dimensions conform to the Small Form Factor Standard (SFF-8301) found at www.sffcommittee.org. For connector-related dimensions, see SFF-8323.

www.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