

Enterprise NAS HDD

Data Sheet

The first 8TB drive optimized for mid-range NAS, server and scale-out cloud storage

- Enterprise-class reliability and performance for cloud-based storage and NAS applications in 1- to 16-bay enclosures
- Backed by the Seagate[®] 5-Year Limited Warranty
- 1.2 million hours MTBF for enterprise-class reliability
- 300TB-per-year workload rating for mid-range NAS and cloud-based storage
- 7200-RPM spindle speed performance
- Double the cache size—256MB multisegmented on 8TB capacity
- · Dual-stage actuators to deliver precision seeks every time
- SATA 6Gb/s interface for easy integration into NAS and RAID rackmount systems
- RV sensor for sustained performance and reliability
- Optional 5-year Rescue Data Recovery Service plan protects against data loss in NAS and RAID environments.

Best-Fit Applications

- Cloud-based and NAS storage
- Backup and disaster recovery
- Multi-media server and storage
- File and print server sharing
- Archiving and cloud replication
- On-premise private cloud
- Tiered storage
- Remote access
- Virtualization
- Auxiliary storage





Enterprise NAS HDD



Model Numbers (SIZE)	Specifications	8TB ^{1,2}	6TB ^{1,2}	5TB ^{1,2}	4TB ^{1,2}	3TB ^{1,2}	2TB¹
Interface Options	Model Numbers (512E)	ST8000NE0001	ST6000VN0001	ST5000VN0001	ST4000VN0001	ST3000VN0001	ST2000VN0001
Features	Rescue Model Number	ST8000NE0011	ST6000VN0011	ST5000VN0011	ST4000VN0011	ST3000VN0011	ST2000VN0011
File Sensors Yes Y	Interface Options	SATA 6Gb/s	SATA 6Gb/s				
Yes Yes	Features						
Huntility Sensor Yes Yes	RV Sensors	Yes	Yes	Yes	Yes	Yes	Yes
Super Parity Yes Y	5-Year Option with Rescue Model only	Yes	Yes	Yes	Yes	Yes	Yes
Low Halogen	Humidity Sensor	Yes	Yes	Yes	Yes	Yes	Yes
Acutrace" Technology Yes	Super Parity	Yes	Yes	Yes	Yes	Yes	Yes
Power Balance Technology	Low Halogen	Yes	Yes	Yes	Yes	Yes	Yes
Not-Plug Supports Yes Ye	AcuTrac [™] Technology	Yes	Yes	Yes	Yes	Yes	Yes
Cache, Multisegmented (MB) 256 128 128 128 128 128 Reliability/Data Integrity Reliability/Data Integrity 8 1.2M	Power Balance Technology	Yes	Yes	Yes	Yes	Yes	Yes
Reliability/Data Integrity	Hot-Plug Support ³	Yes	Yes	Yes	Yes	Yes	Yes
Mean Time Between Failures (MTBF, hours) 1.2M 0.63% 0.63	Cache, Multisegmented (MB)	256	128	128	128	128	128
Reliability Rating @ Full 24x7 Operation (AFR) 0.63% 0.6	Reliability/Data Integrity						
Nonrecoverable Read Errors per Bits Read 1 sector per 10E15 1 sect	, , ,						
Power-On-Hours per Year 8760 (24x7) 87	Reliability Rating @ Full 24x7 Operation (AFR)	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%
Sector Size (Bytes per Logical Sector) 512/4096 5	·	·				·	·
Limited Warranty (years) 5 5 5 5 5 5 5	·	. ,	, ,		. ,		
Performance Spindle Speed (RPM) 7200							
Spindle Speed (RPM) 7200 7200 7200 7200 7200 7200 7200 7200 10terface Access Speed (Gb/s) 6.0, 3.0, 1.5 6.0 7.0 12.6 12.6 12.6 12.6 12.6 12.6 12.6 12.5 12.5 12.5 12.5 12.5 12.5 12.5 12.5 12.5 12.5 12.5 12.5 12.5 12.5 12.5 12.5 12.5 </td <td>3.3</td> <td>5</td> <td>5</td> <td>5</td> <td>5</td> <td>5</td> <td>5</td>	3.3	5	5	5	5	5	5
Interface Access Speed (Gb/s) 6.0, 3.0, 1.5 6.0, 3.0, 3.0 6.0, 3.0, 3.							
Max. Sustained Transfer Rate 0D (MB/s) 230 216 216 216 216 216 216 Average Latency (ms) 4.16 4.12 4.12 4.12 4.12 4.12							
Average Latency (ms) 4.16 4.16 4.16 4.16 4.16 4.16 4.16 4.16 4.16 Interface Ports Single Singl	/						
Interface Ports Single S					-	-	
Rotation Vibration @ 1500 Hz (rad/s²) 12.5 12	3 , ,			-	-		-
Startup Current, Average (12V, A) 1.8					-		
Startup Current, Average (12V, A) 1.8 1.2 2 4 2 2 6.0 6.0 6.0 6.0 6.0 6.0 6.7 6.4 6.4 6.4 6.0 <td>· , ,</td> <td>12.5</td> <td>12.5</td> <td>12.5</td> <td>12.5</td> <td>12.5</td> <td>12.5</td>	· , ,	12.5	12.5	12.5	12.5	12.5	12.5
Idle Power, Average (W) TBD 6.9 6.9 6.0 6.0 4.5 Operating Mode, Typical (W) 9.0 9.0 9.0 6.7 6.7 6.4 Standby/Sleep Mode, Typical (W) 0.6 0.6 0.6 0.6 0.6 0.6 0.6 Power Supply Requirements +12V and +5V +12V and		1.0	1.0	1.0	1.0	1.0	1.0
Operating Mode, Typical (W) 9.0 9.0 9.0 6.7 6.7 6.4 Standby/Sleep Mode, Typical (W) 0.6 0.6 0.6 0.6 0.6 0.6 Power Supply Requirements +12V and +5V +12V a							
Standby/Sleep Mode, Typical (W) 0.6 9.0 2.0 2.0 2.0 2.0 2.0 2.0 5.0	, 0 ()						
Power Supply Requirements	1 0 / 31 (/						
Environmental Temperature, Operating (°C) 5 to 60 5 to 60							
Temperature, Operating (°C) 5 to 60 5 t		+12V allu +3V	+12V allu +3V				
Vibration, Nonoperating: 10Hz to 500Hz (Grms) 5.0 70/40 300		5 to 60	5 to 60				
Shock, Operating, 2ms (Read/Write) (Gs) 70/40 300 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
Shock, Nonoperating, 1ms and 2ms (Gs) 250 250 300 300 300 300 Physical Height (in/mm, max) ⁴ 1.028/26.1 1.028/26.1		1 1					
Physical Height (in/mm, max) ⁴ 1.028/26.1 4.010/101.85 4.010/101.85							
Height (in/mm, max) ⁴ 1.028/26.1 4.010/101.85 4		200	200	300	300	000	300
Width (in/mm, max) ⁴ 4.010/101.85 4.01		1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1
Depth (in/mm, max) ⁴ 5.878/147.0 5.878/147.0<	_ , , ,						
Weight (g/lb) 1.720/780 1.720/780 1.720/780 1.400/635 1.400/635 1.344/605 Carton Unit Quantity 20 20 20 20 20 20 Cartons per Pallet 40 40 40 40 40 40							
Carton Unit Quantity 20 20 20 20 20 20 Cartons per Pallet 40 40 40 40 40 40							
Cartons per Pallet 40 40 40 40 40 40	- 10						
·							
	Cartons per Layer						

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





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² Seagate recommends validating your configuration with your HBA/RAID controller manufacturer to ensure full capacity capabilities

³ Supports Hotplug operation per Serial ATA Revision 2.6 specification.

⁴ 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.