

Enterprise NAS HDD

Data Sheet

Simple and Strong Rackmount and Tower NAS Capacity

- Enterprise strong yet customized for NAS and RAID storage
- NAS-optimized performance for higher write workloads often reflected in NAS applications
- RAID Rebuild™ technology mitigates time-consuming complete RAID rebuilds.
- Error recovery prevents unnecessary RAID fallout.
- 7200-RPM spindle delivers raw, sustained throughput performance.
- 128MB cache enables higher random performance.
- Dual-stage actuators deliver precision seeks every time.
- SATA 6Gb/s interface for easy integration into NAS and RAID rackmount systems
- Advanced power management supports multiple power profiles for low-power, 24x7 performance.
- 5-year limited warranty

Best-Fit Applications

- Backup and disaster recovery
- Multi-media server and storage
- File and print server sharing
- Archiving
- Remote access
- Virtualization
- Auxiliary storage



Specifications	6TB ^{1,2}	5TB ^{1,2}	4TB ^{1,2}	3TB ^{1,2}	2TB ¹
Model Numbers (512E)	ST6000VN0001	ST5000VN0001	ST4000VN0001	ST3000VN0001	ST2000VN0001
Interface Options	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s
Features					
Humidity Sensor	Yes	Yes	Yes	Yes	Yes
Super Parity	Yes	Yes	Yes	Yes	Yes
Low Halogen	Yes	Yes	Yes	Yes	Yes
AcuTrac™ Technology	Yes	Yes	Yes	Yes	Yes
Power Balance Technology	Yes	Yes	Yes	Yes	Yes
Hot-Plug Support ³	Yes	Yes	Yes	Yes	Yes
Cache, Multisegmented (MB)	128	128	128	128	128
Reliability/Data Integrity					
Mean Time Between Failures (MTBF, hours)	1.2M	1.2M	1.2M	1.2M	1.2M
Reliability Rating @ Full 24x7 Operation (AFR)	0.63%	0.63%	0.63%	0.63%	0.63%
Nonrecoverable Read Errors per Bits Read	1 sector per 10E15	1 sector per 10E15	1 sector per 10E15	1 sector per 10E15	1 sector per 10E15
Power-On Hours per Year	8760 (24x7)	8760 (24x7)	8760 (24x7)	8760 (24x7)	8760 (24x7)
Sector Size (Bytes per Logical Sector)	512/4096	512/4096	512/4096	512/4096	512/4096
Limited Warranty (years)	5	5	5	5	5
Performance					
Spindle Speed (RPM)	7200	7200	7200	7200	7200
Interface Access Speed (Gb/s)	6.0, 3.0, 1.5	6.0, 3.0, 1.5	6.0, 3.0, 1.5	6.0, 3.0, 1.5	6.0, 3.0, 1.5
Max. Sustained Transfer Rate OD (MB/s)	216	216	216	216	216
Average Latency (ms)	4.16	4.16	4.16	4.16	4.16
Interface Ports	Single	Single	Single	Single	Single
Rotation Vibration @ 1500 Hz (rad/s ²)	12.5	12.5	12.5	12.5	12.5
Power Consumption					
Idle Power, Average (W)	6.9	6.9	6.0	6.0	4.5
Typical Operating, Random Read (W)	11.27	11.27	9.42	9.42	8.08
Power Supply Requirements	+12V and +5V	+12V and +5V	+12V and +5V	+12V and +5V	+12V and +5V
Environmental					
Temperature, Operating (°C)	5 to 60	5 to 60	5 to 60	5 to 60	5 to 60
Vibration, Nonoperating: 10Hz to 500Hz (Grms)	5.0	5.0	5.0	5.0	5.0
Shock, Operating, 2ms (Read/Write) (Gs)	70/40	70/40	70/40	70/40	70/40
Shock, Nonoperating, 1ms and 2ms (Gs)	250	300	300	300	300
Physical					
Height (in/mm, max) ⁴	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1
Width (in/mm, max) ⁴	4.010/101.85	4.010/101.85	4.010/101.85	4.010/101.85	4.010/101.85
Depth (in/mm, max) ⁴	5.878/147.0	5.878/147.0	5.878/147.0	5.878/147.0	5.878/147.0
Weight (g/lb)	1.720/780	1.720/780	1.400/635	1.400/635	1.344/605
Carton Unit Quantity	20	20	20	20	20
Cartons per Pallet	40	40	40	40	40
Cartons per Layer	8	8	8	8	8

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/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.



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