

Enterprise NAS HDD

Data Sheet

Simple and Strong Rackmount and Tower NAS Capacity

- Enterprise strong yet customised for NAS and RAID storage.
- NAS-optimised 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.
- 7,200 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.
- RV sensor for sustained performance.
- Optional 5-year +Rescue Data Recovery Service plan protects against data loss in NAS and RAID environments.
- 5-year limited warranty.

Best-Fit Applications

- 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
- Virtualisation
- Auxiliary storage





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Specifications	6TB ^{1,2}	5TB ^{1,2}	4TB ^{1,2}	3TB ^{1,2}	2TB ¹
Model Numbers (512E)	ST6000VN0001	ST5000VN0001	ST4000VN0001	ST3000VN0001	ST2000VN0001
+Rescue Model Number	ST6000VN0011	ST5000VN0011	ST4000VN0011	ST3000VN0011	ST2000VN0011
Interface Options	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s
Features					
RV Sensors	Yes	Yes	Yes	Yes	Yes
5-Year Option with +Rescue Model only	Yes	Yes	Yes	Yes	Yes
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, Multi-segmented (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 at Full 24x7 Operation (AFR)	0.63%	0.63%	0.63%	0.63%	0.63%
Non-recoverable Read Errors per Bits Read	1 sector per 10 ¹⁵	1 sector per 10 ¹⁵	1 sector per 10 ¹⁵	1 sector per 10 ¹⁵	1 sector per 10 ¹⁵
Power-On Hours per Year	8,760 (24x7)	8,760 (24x7)	8,760 (24x7)	8,760 (24x7)	8,760 (24x7)
Sector Size (Bytes per Logical Sector)	512/4,096	512/4,096	512/4,096	512/4,096	512/4,096
Limited Warranty (years)	5	5	5	5	5
Performance					
Spindle Speed (RPM)	7,200	7,200	7,200	7,200	7,200
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
Rotational Vibration @ 1,500Hz(rad/s ²)	12.5	12.5	12.5	12.5	12.5
Power Consumption					
Startup Current, Average (12V, A)	1.8	1.8	1.8	1.8	1.8
Idle Power, Average (W)	6.9	6.9	6.0	6.0	4.5
Operating Mode, Typical (W)	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
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, Non-operating: 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, Non-operating, 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 (lb/g)	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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