NAS HDD

Data Sheet

Best-Performing, Highest-Capacity Storage for 1- to 5-Bay NAS Systems

- Seagate® NAS HDDs are built and tested to provide industry-leading performance for small NAS systems.

- NASWorks™ technology supports customised error recovery controls, power management and vibration tolerance for optimal performance and reliability in a 1- to 5-bay solution.

- NAS error recovery controls optimise drive health by helping to ensure drives are not dropped from the NAS and sent into a RAID rebuild.

- Improved vibration tolerance and emission in multi-drive systems with dual-plane balance

- Advanced power management supports multiple power profiles for low-power, 24×7 performance.

- Industry-leading performance with NASWorks balances sequential and random performance, ideal for both small business and personal profiles.

- Quiet drive operation enhances customer experience in living room or office environments.

- 4TB drives offer the highest capacity in purpose-built NAS storage.

Best-Fit Applications

- Home servers or desktop NAS solutions
- Small-business file sharing
- Backup servers

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Seagate ®

Specifications	4TB[1]	3TB[1]	2 TB[1]
Model Number	ST4000VN000	ST3000VN000	ST2000VN000
Interface Options	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s
Halogen-free	Yes	Yes	Yes
NASWorks			
Number of Drive Bays Supported	1 to 5	1 to 5	1 to 5
Dual-Plane Balance	Yes	Yes	Yes
Vibration Tolerance for Small NAS	Yes	Yes	Yes
Error Recovery Control	Yes	Yes	Yes
Performance			
Cache, Multi-segmented (MB)	64	64	64
SATA Transfer Rates Supported (Gb/s)	6.0	6.0	6.0
Standby to Ready (typical, sec)	<17	<17	<17
Max Sustained Data Rate OD (MB/s)	180	180	159
Voltage			
Voltage Tolerance, Including Noise (5V)	±5%	±5%	±5%
Voltage Tolerance, Including Noise (12V)	±10%	±10%	±10%
Power Management			
Start-up Current 12V (amps max)	2.0	2.0	2.0
Operating, Average (W)	4.8	4.8	4.3
Idling Average (W)	3.95	3.95	3.0
Standby/Sleep Mode (typical, W)	0.5	0.5	0.3
Environmental			
Temperature (°C) Operating (ambient min) Operating (drive case max) Non-operating (ambient)	0 70 −40 to 70	0 70 −40 to 70	0 70 −40 to 70
Temperature Gradient, Operating/Non-operating (°C per hour max)	20/30	20/30	20/30
Shock Operating: 2ms (max, Gs) Non-operating 2ms (max, Gs)	80 300	80 300	80 300
Acoustics Idle (typical, bels)[2] Operational (typical, bels)	2.3 2.5	2.3 2.5	1.9 2.1
Reliability			
Load/Unload[3]	600,000	600,000	600,000
Non-recoverable Read Errors per Bits Read, Max	1 per 10^{14}	1 per 10^{14}	1 per 10^{14}
Power-on Hours	8,760	8,760	8,760
Mean Time Between Failures (MTBF, hours)	1M	1M	1M
Warranty, Limited (years)	3	3	3
Physical			
Height (mm/in, max)	26.11/1.028	26.11/1.028	26.11/1.028
Width (mm/in, max)	101.6/4.0	101.6/4.0	101.6/4.0
Depth (mm/in, max)	146.99/5.787	146.99/5.787	146.99/5.787
Weight (g/lb, max)	610/1.345	610/1.345	535/1.18
Carton Unit Quantity	20	20	20
Cartons per Pallet	40	40	40
Cartons per Layer	8	8	8

[1] One terabyte, or TB, equals one trillion bytes when referring to drive capacity.
[2] Idle measured in Idle1 state
[3] Load/Unload tested to 600,000 cycles

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