

# 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, 24x7 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



# NAS HDD



Specifications	4TB <sup>1</sup>	3TB <sup>1</sup>	2 TB <sup>1</sup>
Model Number	ST4000VN000	ST3000VN000	ST2000VN000
Interface Options	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s
Halogen-free	Yes	Yes	Yes
<b>NASWorks</b>			
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
<b>Performance</b>			
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
<b>Voltage</b>			
Voltage Tolerance, Including Noise (5V)	±5%	±5%	±5%
Voltage Tolerance, Including Noise (12V)	±10%	±10%	±10%
<b>Power Management</b>			
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
<b>Environmental</b>			
Temperature (°C)			
Operating (ambient min)	0	0	0
Operating (drive case max)	70	70	70
Non-operating (ambient)	-40 to 70	-40 to 70	-40 to 70
Temperature Gradient, Operating/Non-operating (°C per hour max)	20/30	20/30	20/30
Shock			
Operating: 2ms (max, Gs)	80	80	80
Non-operating 2ms (max, Gs)	300	300	300
Acoustics			
Idle (typical, bels) <sup>2</sup>	2.3	2.3	1.9
Operational (typical, bels)	2.5	2.5	2.1
<b>Reliability</b>			
Load/Unload <sup>3</sup>	600,000	600,000	600,000
Non-recoverable Read Errors per Bits Read, Max	1 per 10 <sup>14</sup>	1 per 10 <sup>14</sup>	1 per 10 <sup>14</sup>
Power-on Hours	8,760	8,760	8,760
Mean Time Between Failures (MTBF, hours)	1M	1M	1M
Warranty, Limited (years)	3	3	3
<b>Physical</b>			
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

<sup>1</sup> One terabyte, or TB, equals one trillion bytes when referring to drive capacity.

<sup>2</sup> Idle measured in Idle1 state

<sup>3</sup> Load/Unload tested to 600,000 cycles

[www.seagate.com](http://www.seagate.com)

AMERICAS Seagate Technology LLC 10200 South De Anza Boulevard, Cupertino, California 95014, United States, +1 408 658 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 41 86 10 00

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