

# 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<sup>™</sup> 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



### NAS HDD



| Specifications                                 | 4TB¹                   | 3TB1                   | 2 TB1                  |
|--|------------------------|------------------------|------------------------|
| 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                    |
| Power-On or 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 (12 V, A 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)                        | 0                      | 0                      | 0                      |
| Operating (drive case max)                     | 70                     | 70                     | 70                     |
| Non-operating (ambient)                        | -40 to 70              | -40 to 70              | -40 to 70              |
| Temperature Gradient,                          | 20/30                  | 20/30                  | 20/30                  |
| 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                    |
| Reliability                                    |                        |                        |                        |
| 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                     |
| 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                      |

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

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AMERICAS EUROPE, MIDDLE EAST AND AFRICA Seagate Technology LLC 10200 South De Anza Boulevard, Cupertino, California 95014, United States, +1 408 658 1000 Seagate Singapore International Headquarters Pte. Ltd. 7000 Ang Mo Kio Avenue 5, Singapore 569877, +65 6485 3888 Seagate Technology SAS 16-18 rue du Dôme, 92100 Boulogne-Billancourt, France, +33 1 41 86 10 00

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<sup>&</sup>lt;sup>2</sup> Idle measured in Idle1 state

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