



3.5 HDD DATA SHEET

## The Power of Agility for Home, SOHO, and SMB NAS Enclosures



IronWolf™ is designed for everything NAS. Get used to tough, ready, and scalable 24x7 performance that can handle multi-drive environments across a wide range of capacities.



### Best-Fit Applications

- 1- to 8-bay network attached storage (NAS)
- Desktop RAID and servers
- Multimedia server storage
- Private cloud



## Key Advantages

**Optimised for NAS with AgileArray.™** AgileArray enables dual-plane balancing and RAID optimisation in multi-bay environments, with the most advanced power management possible.

**Actively protect your NAS with IronWolf Health Management** focusing on prevention, intervention, and recovery.<sup>1</sup>

**High performance means no lag time** or downtime for users during workload traffic for the NAS. Seagate leads the competition with the highest-performing NAS drive portfolio.<sup>2</sup>

**Rotational Vibration (RV) sensors.** First in its class of drives to include RV sensors to maintain high performance in multi-drive NAS enclosures.<sup>3</sup>

**Range of capacities up to 16 TB.** More capacity options means more choices that will fit within the budget. Seagate provides a scalable solution for any NAS use-case scenario.

**Do more in multi-user environments.** IronWolf provides a workload rate of 180 TB/year. Multiple users can confidently upload and download data to the NAS server, knowing IronWolf can handle the workload, whether you are a creative professional or a small business.

**Designed for always-on, always-accessible 24x7 performance.** Access data on your NAS any time, remotely or on site.

**1 M hours MTBF, 3-year limited warranty** represents an improved total cost of ownership (TCO) over desktop drives with reduced maintenance costs.

<sup>1</sup> Contact your Seagate sales representative for further information.

<sup>2</sup> Performance may vary depending on user's hardware configuration and operating system.

<sup>3</sup> Included on 4, 6, 8, 10, 12, 14, and 16 TB models.



Specifications	16 TB	8 TB
Capacity	16TB	8TB
Standard Model Number	ST16000VN001	ST8000VN004
Interface	SATA 6Gb/s	SATA 6Gb/s
<b>Features and Performance</b>		
Drive Bays Supported	1 – 8 Bays	1 – 8 Bays
Multi-User Technology	180 TB/year	180 TB/year
Rotational Vibration (RV) Sensor	Yes	Yes
Dual-Plane Balance	Yes	Yes
Error Recovery Control	Yes	Yes
Max. Sustained Transfer Rate OD (MB/s)	210MB/s	210MB/s
Spindle Speed (RPM)	7,200	7,200
Cache (MB)	256	256
<b>Reliability</b>		
Load/Unload Cycles <sup>1</sup>	600,000	600,000
Non-recoverable Read Errors Rate, Max	1 per 10E15	1 per 10E15
Power-on Hours	8,760	8,760
Workload Rate Limit (WRL)	180	180
Mean Time Between Failures (MTBF, hours)	1,000,000	1,000,000
Limited Warranty (years)	3	3
<b>Power Management</b>		
Startup Current, Typical (12V, A)	1.8	1.8
Average Operating Power (W)	7.3 W	8.8 W
Idling Average (W)	5.3 W	7.6 W
Standby Mode/Sleep Mode, Typical (W)	0.8/0.8	0.6/0.6
Voltage Tolerance, Inc. Noise (5 V)	±5%	±5%
Voltage Tolerance, Inc. Noise (12 V)	±10%	±10%
<b>Environmental/Temperature</b>		
Operating (ambient, min °C)	5	5
Operating (drive case, max °C) <sup>2</sup>	70	70
Non-operating (ambient, min °C)	-40	-40
Non-operating (ambient max °C)	70	70
Halogen-free	Yes	Yes
<b>Environmental/Shock</b>		
Shock, Operating/Non-operating: 2 ms (max)	50Gs/200Gs	70Gs/250Gs
<b>Environmental/Acoustics</b>		
Idle (typical) <sup>3</sup>	2.8 bels	2.8 bels
Seek (typical)	3.0bels	3.2 bels
<b>Physical</b>		
Height (mm/in)	26.11 mm/1.028 in	26.11 mm/1.028 in
Width (mm/in, max)	101.85 mm/4.01 in	101.85 mm/4.01 in
Depth (mm/in, max)	146.99 mm/5.787 in	146.99 mm/5.787 in
Weight (g/lb, typical)	670 g/1.477 lb	722 g/1.59 lb
Carton Unit Quantity	20	20
Cartons per Pallet / Cartons per Layer	40/8	40/8

<sup>1</sup> Load/unload tested to 600,000 cycles.

<sup>2</sup> Seagate does not recommend operating at sustained case temperatures above 60°C. Operating at higher temperatures will reduce useful life of the product.

<sup>3</sup> Idle measured in Idle1 state.

AMERICAS Seagate Technology LLC 10200 South De Anza Boulevard, Cupertino, California 95014, United States, 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 1-4186 10 00

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