IRONWOLF NAS

SEAGATE

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 24×7 performance that can handle multi-drive environments with 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

Optimized for NAS with AgileArray.™ AgileArray is built for dual-plane balancing and RAID optimization in multi-bay environments with the most advanced power management possible.

High performance means no lag times or downtime for users during high traffic time for the NAS. Seagate leads the competition with the highest performance in NAS-class drives.[1]

Range of capacities up to 10TB. More capacity options mean more choices that will fit within the budget. Seagate provides a scalable solution for any NAS use-case scenario.

Get ahead with more cache. IronWolf provides high-cache options allowing your NAS to serve data faster.

Do more with multi-user technology. Enables user workload rate of 180TB/year. Multiple users can confidently upload and download data to the NAS server, knowing it can handle the workload, whether you're a creative professional or small business.

Designed for always on, always accessible 24×7 performance. Access your data on your NAS any time, remotely or on site.

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

1 Performance may vary depending on user's hardware configuration and operating system.

IRONWOLF NAS

Specifications	10TB[1]	8TB[1]	6TB[1]	4TB[1]	3TB[1]	2TB[1]	1TB[1]
Standard Model Numbers	ST10000VN0004	ST8000VN0022[2]	ST6000VN0041[2]	ST4000VN008[2]	ST3000VN007[2]	ST2000VN004[2]	ST1000VN002[2]
Interface	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s
Features and Performance							
Number of Drive Bays Supported	1 to 8	1 to 8	1 to 8	1 to 8	1 to 8	1 to 8	1 to 8
Multi-User Technology (TB/yr)	180	180	180	180	180	180	180
Dual-Plane Balance	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Error Recovery Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Max Sustained Data Transfer Rate OD (MB/s)	210	210	195	180	180	180	180
Spindle Speed (RPM)	7200	7200	7200	5900	5900	5900	5900
Cache (MB)	256	256	128	64	64	64	64
Reliability/Data Integrity							
Load/Unload Cycles[3]	600,000	600,000	600,000	600,000	600,000	600,000	600,000
Nonrecoverable Read Errors per Bits Read, Max	1 per 10E15	1 per 10E15	1 per 10E15	1 per 10E14	1 per 10E14	1 per 10E14	1 per 10E14
Power-On Hours (per year)	8760	8760	8760	8760	8760	8760	8760
Workload Rate Limit (WRL) (TB/year)	180	180	180	180	180	180	180
Mean Time Between Failures (MTBF) (hours)	1M	1M	1M	1M	1M	1M	1M
Warranty, Limited (years)	3	3	3	3	3	3	3
Power Management							
Startup Current, Typical (12V,A)	1.8	2.0	2.0	2.0	2.0	2.0	1.2
Average Operating Power (W)	6.8	9.0	9.0	4.8	5.6	5.0	3.6
Idle Average (W)	4.42	7.2	7.2	3.95	4.9	3.7	2.5
Standby Mode/Sleep Mode, Typical (W)	0.8/0.8	0.6/0.6	0.6/0.6	0.5/0.5	0.6/0.6	0.8/0.8	0.8/0.8
Voltage Tolerance (5V)	±5%	±5%	±5%	±5%	±5%	±5%	±5%
Voltage Tolerance (12V)	±10%	±10%	±10%	±10%	±10%	±10%	±10%
Environmental							
Temperature (°C)							
Operating (ambient, min)	5	5	5	5	5	5	5
Operating (drive case, max)[4]	70	70	70	70	70	70	70
Nonoperating (ambient, min)	–40	–40	–40	–40	–40	–40	–40
Nonoperating (ambient, max)	70	70	70	70	70	70	70
Halogen Free	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Shock, Operating/Nonoperating: 2ms (max, Gs)	70/250	20/250	70/300	80/300	80/300	80/300	80/300
Acoustics							
Idle (typical, bels)[5]	2.8	2.7	2.7	2.3	2.3	1.9	2.1
Operating (typical, bels)	3.2	2.8	2.8	2.5	2.5	2.1	2.3
Physical							
Height (mm/in, max)	26.11/1.028	26.11/1.028	26.11/1.028	26.11/1.028	26.11/1.028	26.11/1.028	20.17/0.795
Width (mm/in, max)	101.85/4.01	101.6/4.010	101.6/4.010	101.6/4.010	101.6/4.010	101.6/4.010	101.6/4.010
Depth (mm/in, max)	146.99/5.787	146.99/5.787	146.99/5.787	146.99/5.787	146.99/5.787	146.99/5.787	146.99/5.787
Weight (g/lb, typical)	650/1.433	780/1.72	780/1.72	610/1.345	610/1.345	535/1.18	415/0.915
Carton Unit Quantity	20	20	20	20	20	20	20
Cartons per Pallet/Cartons per Layer	40/8	40/8	40/8	40/8	40/8	40/8	40/8

1 One terabyte, or TB, equals one trillion bytes when referring to drive capacity.
2 Coming in Fall 2016. For immediate needs, please see Seagate NAS HDD.
3 Load/Unload tested to 600,000 cycles.
4 Seagate does not recommend operating at sustained case temperatures above 60°C. Operating at higher temperatures will reduce useful life of the product.
5 Idle measured in Idle1 state.

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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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