



# IRONWOLF PRO

NAS



3.5 HDD DATA SHEET

## The Power of Agility for Creative Pro and SME NAS Enclosures



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



### Best-Fit Applications

- 1- to 16-bay business network attached storage (NAS)
- Backup, archiving and disaster recovery
- On-premise private cloud
- Virtual storage



## 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 reduced 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.<sup>1</sup>

**Actively protect your NAS with IronWolf Health Management<sup>2</sup>** focusing on prevention, intervention and recovery.

**Seagate® Rescue Data Recovery.<sup>3</sup>** IronWolf Pro comes with extra peace of mind for any mechanical, accidental or natural disaster. With a 90% success rate of in-house recovery, Seagate has your back with a 2-year included Rescue Data Recovery plan.

**Rotational Vibration (RV) mitigation.** IronWolf Pro comes standard with RV sensors to maintain high performance in multi-bay NAS enclosures.

**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.

**Do more in multi-user environments.** IronWolf Pro provides a workload rate of 300TB/year. Multiple users can confidently upload and download data to the NAS server, knowing IronWolf Pro can handle the workload, whether you are a creative professional or a small business.

**1.2M hours MTBF, 5-year limited warranty** represents an improved total cost of ownership (TCO) over desktop drives with reduced maintenance costs.

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

<sup>1</sup> Performance may vary depending on user's hardware configuration and operating system.

<sup>2</sup> Contact your Seagate sales representative for further information.

<sup>3</sup> Registration required to activate. Rescue recovery services not available in all countries. Contact your Seagate sales representative for further details.



Specifications	10TB <sup>1,2</sup>	8TB <sup>1,2</sup>	6TB <sup>1,2</sup>	4TB <sup>1,2</sup>	2TB <sup>1</sup>
Standard Model Number	ST10000NE0004	ST8000NE0004	ST6000NE0023	ST4000NE0025	ST2000NE0025
Interface	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s
<b>Features</b>					
Drive Bays Supported	Up to 16 Bays	Up to 16 Bays	Up to 16 Bays	Up to 16 Bays	Up to 16 Bays
Multi-User Technology (TB/yr)	300	300	300	300	300
IronWolf Health Management <sup>3</sup>	Yes	Yes	Yes	Yes	No
Rotational Vibration (RV) Sensors	Yes	Yes	Yes	Yes	Yes
Hot-Plug Support <sup>4</sup>	Yes	Yes	Yes	Yes	Yes
Cache (MB)	256MB	256MB	256MB	128MB	128MB
<b>Reliability/Data Integrity</b>					
Mean Time Between Failures (MTBF) (hours)	1.2M	1.2M	1.2M	1.2M	1.2M
Reliability Rating @ Full 24x7 Operation (AFR)	0.73%	0.73%	0.73%	0.73%	0.73%
Nonrecoverable Read Errors per Bits Read, Max	1 per 10E15	1 per 10E15	1 per 10E15	1 per 10E15	1 per 10E15
Power-On Hours (per year)	8760	8760	8760	8760	8760
Sector Size (Bytes per Logical Sector)	512E	512E	512E	512E	512
Rescue Services <sup>5</sup>	Yes	Yes	Yes	Yes	Yes
Limited Warranty (years)	5	5	5	5	5
<b>Performance</b>					
Spindle Speed (RPM)	7200	7200	7200	7200	7200
Interface Access Speed (Gb/s)	6.0, 3.0, 1.5	6.0, 3.0, 1.5	6.0, 3.0, 1.5	6.0, 3.0, 1.5	6.0, 3.0, 1.5
Max Sustained Transfer Rate OD (MB/s)	214	214	214	214	195
Average Latency (ms)	4.16	4.16	4.16	4.16	4.16
Interface Ports	Single	Single	Single	Single	Single
Rotational Vibration @ 10-1500 Hz (rad/s <sup>2</sup> )	12.5	12.5	12.5	12.5	12.5
<b>Power Consumption</b>					
Startup Current, Typical (12V, A)	2.0	2.0	2.0	2.0	2.0
Idle Power, Average (W)	5.0	4.4	7.5	5.45	4.61
Average Operating Power (W)	7.4	7.4	8.1	8.5	6.5
Standby Mode, Typical (W)	0.8	0.8	0.6	0.6	0.8
Sleep Mode, Typical (W)	0.8	0.8	0.6	0.6	0.8
Power Supply Requirements	+12V and +5V	+12V and +5V	+12V and +5V	+12V and +5V	+12V and +5V
<b>Environmental</b>					
Temperature (°C)					
Operating (ambient, min)	5	5	5	5	5
Operating (drive case, max)	60	60	60	60	60
Nonoperating (ambient, min)	-40	-40	-40	-40	-40
Nonoperating (ambient, max)	70	70	70	70	70
Vibration, Nonoperating: 10Hz to 500Hz (Grms)	2.27	2.27	3	3	3
Shock, Operating, 2ms (Read/Write) (Gs)	70/40	70/40	70/40	70/40	70/40
Shock, Nonoperating, 1ms and 2ms (Gs)	250	250	250	300	300
<b>Physical</b>					
Height (mm/in)	26.11/1.028	26.11/1.028	26.11/1.028	26.11/1.028	26.11/1.028
Width (mm/in, max)	101.85/4.01	101.85/4.01	101.85/4.01	101.85/4.01	101.85/4.01
Depth (mm/in, max)	146.99/5.787	146.99/5.787	146.99/5.787	146.99/5.787	146.99/5.787
Weight (g/lb, typical)	705/1.55	650/1.433	705/1.55	680/1.50	550/1.21

1 One gigabyte, or GB, equals one billion bytes and one terabyte, or TB, equals one trillion bytes when referring to drive capacity.  
 2 Seagate recommends validating your configuration with your HBA/RAID controller manufacturer to ensure full capacity capabilities.  
 3 Only available on select NAS enclosures. Models may vary. Please contact your Seagate sales representative for further information.  
 4 Supports Hot-Plug operation per Serial ATA Revision 2.6 specification.  
 5 Rescue recovery services not available in all countries. Contact your Seagate sales representative for further details. Register an IronWolf Pro drive to activate your 2-year Rescue plan at [seagate.com/register](http://seagate.com/register).

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