



3.5 HDD DATA SHEET

**Tough. Ready. Scalable.**  
**With HAMR Technology.**  
**Purpose-Built for Creative Pro & Medium-to-Large Business NAS Environments**



IronWolf™ Pro 24TB with HAMR technology is designed for commercial and enterprise NAS. Delivering Tough, Ready and Scalable 24x7 performance in multi-bay, multi-user environments



**HAMR**

#### Best-Fit Applications

- Commercial and Enterprise NAS
- Video Production RAID and Shared Network Storage
- Workstations and Servers

**HAMR**

**R** **Rescue**  
DATA RECOVERY  
SERVICES

## Key Advantages

**Optimized for NAS with AgileArray™** AgileArray enables Dual-Plane Balancing and Time-Limited Error Recovery to deliver best-in-class RAID performance in multi-bay systems.

**Always On, Always Accessible** IronWolf Pro drives are designed for 24x7 usage, allowing users to access their data any time, anywhere.

**CMR Drive** IronWolf Pro 24TB drives with HAMR technology utilize conventional magnetic recording (CMR) technology for consistent, best-in-class NAS performance.

**Featuring HAMR Technology** HAMR is the next significant storage technology innovation to increase the amount of data storage in the area available to store data—known as the disk's "areal density."

**24TB** Highest capacity on the market to deliver scalable and cost-efficient storage solutions.

**Built Tough** IronWolf Pro drives are rated for 550TB/yr workload, allowing commercial and enterprise NAS users to seamlessly store, share and collaborate on large amounts of networked data.

**Class-Leading Reliability and Dependability** IronWolf Pro drives are rated for 2.5M hours MTBF and include a 5-year limited warranty for hassle-free data storage and best-in-class total cost of ownership (TCO).

**Rotational Vibration (RV) sensors.** Built-in RV sensors for vibration tolerance and consistent performance in multi-bay systems.

**IronWolf Health Management (IHM)**<sup>1</sup> Actively protect your NAS data with Prevention, Intervention, and Recovery recommendations to ensure peak system health.

**Peace of mind with Data Recovery**<sup>2</sup> IronWolf Pro drives include 3 years of complimentary Rescue Data Recovery Services - in-house secure facilities, with an industry-leading recovery rate of 95% - so you do not have to incur high recovery costs in the event of accidental data corruption or drive damage.

<sup>1</sup> IHM is enabled on all leading NAS systems. Please check with your NAS vendor or a Seagate sales representative for more details.

<sup>2</sup> Rescue Data Recovery Services not available in all countries. Contact your Seagate sales representative for further details.



HAMR

Specifications	24TB
Standard Model Number	ST24000NT031
Interface	SATA 6Gb/s
Features	
Drive Bays Supported	Unlimited
Recording Technology	CMR
Drive Design (Air, Helium, or HAMR)	HAMR
Workload Rate Limit (WRL)	550
Rotational Vibration (RV) Sensors	Yes
Cache (MB)	512MB
Reliability/Data Integrity	
Mean Time Between Failures (MTBF, hours)	2500000hr
Nonrecoverable Read Errors per Bits Read, Max	1 per 10E15
Power-On Hours (per year)	8760
Sector Size (Bytes per Logical Sector)	512E
Rescue Data Recovery Services(years) <sup>3</sup>	3
Limited Warranty (years)	5
Performance	
Spindle Speed (RPM)	7200RPM
Interface Access Speed (Gb/s)	6.0, 3.0, 1.5
Max. Sustained Transfer Rate OD (MB/s)	240
Rotational Vibration @ 10-1500 Hz (rad/s)	12.5
Power Consumption	
Startup Current, Typical (12V, A)	2.0A
Idle Power, Average (W)	6.7W
Average Operating Power (W)	7.8W
Standby Mode, Typical (W)	1.2W
Sleep Mode, Typical (W)	1.2W
Power Supply Requirements	+12 V and +5 V
Environmental/Temperature	
Operating Temperature (ambient, min °C)	10°C
Operating Temperature (drive reported, max °C) <sup>4</sup>	60°C
Nonoperating Temperature (ambient, min °C)	-40°C
Nonoperating Temperature (ambient, max °C)	70°C
Environmental/Acoustics	
Vibration, Nonoperating: 10Hz to 500Hz (Grms)	2.27
Acoustics, Idle (typical, measured in Idle 1 state) (dBA)	28
Acoustics, Seek (typical) (dBA)	32
Environmental/Shock	
Shock, Operating 2ms (Read/Write) (Gs)	30/30Gs
Shock, Nonoperating, 1ms and 2ms (Gs)	200
Physical	
Height (mm/in)	26.11mm/1.028in
Width (mm/in, max)	101.85mm/4.01in
Depth (mm/in, max)	146.99mm/5.787in
Weight (g/lb, typical)	695g/1.53lb
Carton Unit Quantity	20
Cartons per Pallet/Cartons per Layer	40/8

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