

3.5 HDD DATA SHEET

Tough. Ready. Scalable Purpose-built for Connected-Home, SOHO, & Small-to-Medium Business NAS Environments



IronWolf™ is designed for consumer and commercial NAS. Delivering Tough, Ready and Scalable 24x7 performance in multi-bay, networked environments.



Best-Fit Applications

- Consumer and Commercial NAS
- Desktops and Workstations
- Multimedia Servers



Key Advantages

Optimised for NAS with 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 drives are designed for 24x7 usage, allowing users to access their data any time, anywhere.

All-CMR Portfolio All IronWolf drives utilise Conventional Magnetic Recording (CMR) technology for consistent, best-in-class NAS performance.

Up to 12 TB Broad range of capacity options to deliver scalable and cost-efficient storage solutions.

Built Tough IronWolf drives are rated for 180 TB/year workload, allowing consumer and commercial NAS users to seamlessly store and work with large amounts of networked data.

Superior Reliability and Dependability IronWolf drives are rated for 1M hours MTBF and include a 3-year limited warranty for hassle-free data storage and best-in-class total cost of ownership (TCO)

Rotational Vibration (RV) sensors¹. Built-in RV sensors for vibration tolerance and consistent performance in multi-bay systems.

IronWolf Health Management (IHM)² Actively protect your NAS data with Prevention, Intervention, and Recovery recommendations to ensure peak system health.

Peace of mind with Data Recovery³ IronWolf drives include three 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.

¹ Refer to specifications table for models supported.

² IHM is enabled on all leading NAS systems. Please check with your NAS vendor or a Seagate sales representative for more details.

³ Rescue services not available in all countries. Contact your Seagate sales representative for further details.



| Specifications | 12 TB | 10 TB | 10 TB | 8 TB | 6 TB |
|---|--------------------|--------------------|--------------------|--------------------|--------------------|
| Capacity | 12TB | 10TB | 10TB | 8TB | 6TB |
| Standard Model Number | ST12000VN0008 | ST10000VN0008 | ST10000VN000 | ST8000VN004 | ST6000VN001 |
| Interface | SATA 6Gb/s | SATA 6Gb/s | SATA 6Gb/s | SATA 6Gb/s | SATA 6Gb/s |
| Features and Performance | | | | | |
| Drive Bays Supported | 1 – 8 Bays | 1 – 8 Bays | 1 – 8 Bays | 1 – 8 Bays | 1 – 8 Bays |
| Recording Technology | CMR | CMR | CMR | CMR | CMR |
| Drive Design (Air or Helium) | Helium | Helium | Air | Air | Air |
| Workload Rate Limit (WRL) | 180 | 180 | 180 | 180 | 180 |
| Rotational Vibration (RV) Sensor | Yes | Yes | Yes | Yes | Yes |
| Dual-Plane Balance | Yes | Yes | Yes | Yes | Yes |
| Error Recovery Control | Yes | Yes | Yes | Yes | Yes |
| Max. Sustained Transfer Rate OD (MB/s) | 210MB/s | 210MB/s | 210MB/s | 210MB/s | 190MB/s |
| Spindle Speed (RPM) | 7,200 | 7,200 | 7,200 | 7,200 | 5,400 |
| Cache (MB) | 256 | 256 | 256 | 256 | 256 |
| Reliability | | | | | |
| Load/Unload Cycles | 600,000 | 600,000 | 600,000 | 600,000 | 600,000 |
| Non-recoverable Read Errors Rate, Max | 1 per 10E15 | 1 per 10E15 | 1 per 10E15 | 1 per 10E15 | 1 per 10E14 |
| Power-on Hours | 8,760 | 8,760 | 8,760 | 8,760 | 8,760 |
| Mean Time Between Failures (MTBF, hours) | 1,000,000 | 1,000,000 | 1,000,000 | 1,000,000 | 1,000,000 |
| Rescue Data Recovery Services (years) ⁴ | 3 | 3 | 3 | 3 | 3 |
| Warranty, Limited (years) | 3 | 3 | 3 | 3 | 3 |
| Power Management | | | | | |
| Startup Current, Typical (12V, A) | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 |
| Average Operating Power | 7.3 | 7.8 | 10.1 | 10.1 | 5.3 |
| Idle Power Average (W) | 5.1 W | 5 W | 7.8 W | 7.8 W | 3.4 W |
| Standby Mode/Sleep Mode, Typical (W) | 1.17/1.17 | 1.17/1.17 | 1/1 | 1/1 | 0.25/0.25 |
| Voltage Tolerance, Inc. Noise (5V / 12V) | ±5% / ±10% | ±5% / ±10% | ±5% / ±10% | ±5% / ±10% | ±5% / ±10% |
| Environmental/Temperature | | | | | |
| Operating Temperature (ambient, min °C) | 0 | 0 | 0 | 0 | 0 |
| Operating Temperature (drive reported, max °C) ⁵ | 65 | 65 | 65 | 65 | 65 |
| Nonoperating Temperature (ambient, min / max °C) | -40 / 70 | -40 / 70 | -40 / 70 | -40 / 70 | -40 / 70 |
| Environmental/Shock | | | | | |
| Shock, Operating/Non-operating: 2 ms (max) | 50 Gs/200 Gs | 70 Gs/250 Gs | 70 Gs/300 Gs | 70 Gs/300 Gs | 70 Gs/250 Gs |
| Environmental/Acoustics | | | | | |
| Acoustics, Idle (typical, measured in Idle 1 state) (dBA) | 2.8 bels | 18 | 28 | 28 | 26 |
| Acoustics, Seek (typical) (dBA) | 3.0 bels | 28 | 32 | 32 | 27 |
| Physical | | | | | |
| Height (mm/in) | 26.11 mm/1.028 in | 26.11 mm/1.028 in | 26.11 mm/1.028 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 | 101.85 mm/4.01 in | 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 | 146.99 mm/5.787 in | 146.99 mm/5.787 in | 146.99 mm/5.787 in |
| Weight (g/lb, typical) | 650 g/1.433 lb | 690 g/1.521 lb | 720 g/1.59 lb | 720 g/1.59 lb | 610 g/1.345 lb |
| Carton Unit Quantity | 20 | 20 | 20 | 20 | 20 |
| Cartons per Pallet/Cartons per Layer | 40/8 | 40/8 | 40/8 | 40/8 | 40/8 |

⁴ Rescue services are not available in all countries. Contact your Seagate sales representative for more info.

⁵ It is not recommended to operate at sustained drive temperatures above 60°C. Higher temperatures may affect drive health.



| Specifications | 4 TB | 4 TB | 3 TB | 3 TB | 2 TB |
|---|--------------------|--------------------|--------------------|--------------------|--------------------|
| Capacity | 4TB | 4TB | 3TB | 3TB | 2TB |
| Standard Model Number | ST4000VN006 | ST4000VN008 | ST3000VN006 | ST3000VN007 | ST2000VN004 |
| Interface | SATA 6Gb/s | SATA 6Gb/s | SATA 6Gb/s | SATA 6Gb/s | SATA 6Gb/s |
| Features and Performance | | | | | |
| Drive Bays Supported | 1 – 8 Bays | 1 – 8 Bays | 1 – 8 Bays | 1 – 8 Bays | 1 – 8 Bays |
| Recording Technology | CMR | CMR | CMR | CMR | CMR |
| Drive Design (Air or Helium) | Air | Air | Air | Air | Air |
| Workload Rate Limit (WRL) | 180 | 180 | 180 | 180 | 180 |
| Rotational Vibration (RV) Sensor | Yes | Yes | Yes | No | No |
| Dual-Plane Balance | Yes | Yes | Yes | Yes | Yes |
| Error Recovery Control | Yes | Yes | Yes | Yes | Yes |
| Max. Sustained Transfer Rate OD (MB/s) | 202MB/s | 180MB/s | 202MB/s | 180MB/s | 180MB/s |
| Spindle Speed (RPM) | 5,400 | 5,900 | 5,400 | 5,900 | 5,900 |
| Cache (MB) | 256 | 64 | 256 | 64 | 64 |
| Reliability | | | | | |
| Load/Unload Cycles | 600,000 | 600,000 | 600,000 | 600,000 | 600,000 |
| Non-recoverable Read Errors Rate, Max | 1 per 10E14 | 1 per 10E14 | 1 per 10E14 | 1 per 10E14 | 1 per 10E14 |
| Power-on Hours | 8,760 | 8,760 | 8,760 | 8,760 | 8,760 |
| Mean Time Between Failures (MTBF, hours) | 1,000,000 | 1,000,000 | 1,000,000 | 1,000,000 | 1,000,000 |
| Rescue Data Recovery Services (years) ⁴ | 3 | 3 | 3 | 3 | 3 |
| Warranty, Limited (years) | 3 | 3 | 3 | 3 | 3 |
| Power Management | | | | | |
| Startup Current, Typical (12V, A) | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 |
| Average Operating Power | 4.8 | 4.8 | 4.8 | 4.8 | 4.3 |
| Idle Power Average (W) | 3.96 W | 3.95 W | 3.96 W | 4.8 W | 3.56 W |
| Standby Mode/Sleep Mode, Typical (W) | 0.5/0.5 | 0.5/0.5 | 0.5/0.5 | 0.5/0.5 | 0.5/0.5 |
| Voltage Tolerance, Inc. Noise (5V / 12V) | ±5% / ±10% | ±5% / ±10% | ±5% / ±10% | ±5% / ±10% | ±5% / ±10% |
| Environmental/Temperature | | | | | |
| Operating Temperature (ambient, min °C) | 0 | 0 | 0 | 0 | 0 |
| Operating Temperature (drive reported, max °C) ⁵ | 65 | 65 | 65 | 65 | 65 |
| Nonoperating Temperature (ambient, min / max °C) | -40 / 70 | -40 / 70 | -40 / 70 | -40 / 70 | -40 / 70 |
| Environmental/Shock | | | | | |
| Shock, Operating/Non-operating: 2 ms (max) | 80 Gs/300 Gs | 80 Gs/300 Gs | 80 Gs/300 Gs | 80 Gs/300 Gs | 80 Gs/300 Gs |
| Environmental/Acoustics | | | | | |
| Acoustics, Idle (typical, measured in Idle 1 state) (dBA) | 23 | 23 | 23 | 23 | 19 |
| Acoustics, Seek (typical) (dBA) | 27 | 25 | 27 | 25 | 21 |
| Physical | | | | | |
| Height (mm/in) | 20.2 mm/0.795 in | 26.11 mm/1.028 in | 20.2 mm/0.795 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 | 101.85 mm/4.01 in | 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 | 146.99 mm/5.787 in | 146.99 mm/5.787 in | 146.99 mm/5.787 in |
| Weight (g/lb, typical) | 490 g/1.08 lb | 610 g/1.345 lb | 490 g/1.08 lb | 610 g/1.345 lb | 535 g/1.18 lb |
| Carton Unit Quantity | 25 | 20 | 25 | 20 | 20 |
| Cartons per Pallet/Cartons per Layer | 40/8 | 40/8 | 40/8 | 40/8 | 40/8 |

⁴ Rescue services are not available in all countries. Contact your Seagate sales representative for more info.

⁵ It is not recommended to operate at sustained drive temperatures above 60°C. Higher temperatures may affect drive health.



| Specifications | 1 TB |
|---|--------------------|
| Capacity | 1TB |
| Standard Model Number | ST1000VN002 |
| Interface | SATA 6Gb/s |
| Features and Performance | |
| Drive Bays Supported | 1 – 8 Bays |
| Recording Technology | CMR |
| Drive Design (Air or Helium) | Air |
| Workload Rate Limit (WRL) | 180 |
| Rotational Vibration (RV) Sensor | No |
| Dual-Plane Balance | Yes |
| Error Recovery Control | Yes |
| Max. Sustained Transfer Rate OD (MB/s) | 180MB/s |
| Spindle Speed (RPM) | 5,900 |
| Cache (MB) | 64 |
| Reliability | |
| Load/Unload Cycles | — |
| Non-recoverable Read Errors Rate, Max | 1 per 10E14 |
| Power-on Hours | 8,760 |
| Mean Time Between Failures (MTBF, hours) | 1,000,000 |
| Rescue Data Recovery Services (years) ⁴ | 3 |
| Warranty, Limited (years) | 3 |
| Power Management | |
| Startup Current, Typical (12V, A) | 1.2 |
| Average Operating Power | 3.76 |
| Idle Power Average (W) | 2.5 W |
| Standby Mode/Sleep Mode, Typical (W) | 0.5/0.5 |
| Voltage Tolerance, Inc. Noise (5V / 12V) | ±5% / ±10% |
| Environmental/Temperature | |
| Operating Temperature (ambient, min °C) | 0 |
| Operating Temperature (drive reported, max °C) ⁵ | 65 |
| Nonoperating Temperature (ambient, min / max °C) | -40 / 70 |
| Environmental/Shock | |
| Shock, Operating/Non-operating: 2 ms (max) | 80 Gs/300 Gs |
| Environmental/Acoustics | |
| Acoustics, Idle (typical, measured in Idle 1 state) (dBA) | 21 |
| Acoustics, Seek (typical) (dBA) | 23 |
| Physical | |
| Height (mm/in) | 20.2 mm/0.795 in |
| Width (mm/in, max) | 101.85 mm/4.01 in |
| Depth (mm/in, max) | 146.99 mm/5.787 in |
| Weight (g/lb, typical) | 415 g/0.915 lb |
| Carton Unit Quantity | 25 |
| Cartons per Pallet/Cartons per Layer | 40/8 |

⁴ Rescue services are not available in all countries. Contact your Seagate sales representative for more info.

⁵ It is not recommended to operate at sustained drive temperatures above 60°C. Higher temperatures may affect drive health.

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