



3.5 HDD DATA SHEET

**Tough. Ready. Scalable.**  
Purpose-built for Creative Pro, Medium-to-Large Business NAS Storage Solutions



IronWolf Pro is designed to deliver reliable and dependable performance in 24x7 intensive workload environments. It is engineered to perform in commercial and enterprise multi-bay, multi-user, multi-application NAS storage solutions.



### Best-Fit Applications

- Commercial and Enterprise NAS
- Video Production RAID Storage
- Shared Storage for Media Editing
- Workstations and Servers
- Archive and Backup



## Key Advantages

**Optimized for NAS with AgileArray™** AgileArray uses dual-plane balancing and time-limited error recovery (TLER) to deliver best-in-class RAID performance in multi-bay systems.

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

**All-CMR Portfolio** All IronWolf Pro drives utilize conventional magnetic recording (CMR) technology for consistent, best-in-class NAS performance.

**Up to 20TB** Broad range of high-performance capacity options to deliver scalable and cost-efficient storage solutions.

**Built Tough** IronWolf Pro drives are rated for up to 550TB/year workload rate, allowing commercial and enterprise NAS users to seamlessly store, share, and collaborate on large amounts of data over a network.

**Class-Leading Reliability and Dependability** IronWolf Pro drives are rated for up to 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 coupled with dynamic fly-height technology correct for external vibration to deliver consistently high performance and reliability in multi-bay systems.

**IronWolf Health Management (IHM)<sup>1</sup>** Actively protect your 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 three years of complimentary Rescue Data Recovery Services so users don't incur high recovery costs. In-house secure facilities with an industry-leading 95% success rate enable data recovery 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 are not available in some countries. Contact your Seagate sales representative for further details.



| Specifications                                              | 20TB             | 20TB             | 18TB             | 18TB             |
|-------------------------------------------------------------|------------------|------------------|------------------|------------------|
| Capacity                                                    | 20TB             | 20TB             | 18TB             | 18TB             |
| Standard Model Number                                       | ST20000NT001     | ST20000NE000     | ST18000NT001     | ST18000NE000     |
| Interface                                                   | SATA 6Gb/s       | SATA 6Gb/s       | SATA 6Gb/s       | SATA 6Gb/s       |
| Features                                                    |                  |                  |                  |                  |
| Drive Bays Supported                                        | Unlimited        | Up to 24-bay     | Unlimited        | Up to 24-bay     |
| Recording Technology                                        | CMR              | CMR              | CMR              | CMR              |
| Drive Design (Air or Helium)                                | Helium           | Helium           | Helium           | Helium           |
| Workload Rate Limit (WRL)                                   | 550              | 300              | 550              | 300              |
| Rotational Vibration (RV) Sensors                           | Yes              | Yes              | Yes              | Yes              |
| Cache (MB)                                                  | 256              | 256              | 256              | 256              |
| Reliability/Data Integrity                                  |                  |                  |                  |                  |
| Mean Time Between Failures (MTBF, hours)                    | 2,500,000        | 1,200,000        | 2,500,000        | 1,200,000        |
| Nonrecoverable Read Errors per Bits Read, Max               | 1 per 10E15      | 1 per 10E15      | 1 per 10E15      | 1 per 10E15      |
| Power-On Hours (per year)                                   | 8760             | 8760             | 8760             | 8760             |
| Sector Size (Bytes per Logical Sector)                      | 512E             | 512E             | 512E             | 512E             |
| Rescue Data Recovery Services(years) <sup>3</sup>           | 3                | 3                | 3                | 3                |
| Limited Warranty (years)                                    | 5                | 5                | 5                | 5                |
| Performance                                                 |                  |                  |                  |                  |
| Spindle Speed (RPM)                                         | 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    |
| Max. Sustained Transfer Rate OD (MB/s)                      | 285MB/s          | 285MB/s          | 285MB/s          | 260MB/s          |
| Rotational Vibration @ 10-1500 Hz (rad/s)                   | 12.5             | 12.5             | 12.5             | 12.5             |
| Power Consumption                                           |                  |                  |                  |                  |
| Startup Current, Typical (12V, A)                           | 2.0              | 2.0              | 2.0              | 2.0              |
| Idle Power, Average (W)                                     | 5.5              | 5.5              | 5.2              | 5.2              |
| Average Operating Power (W)                                 | 7.7W             | 7.7W             | 8.0W             | 8.0W             |
| Standby Mode, Typical (W)                                   | 1.0              | 1.0              | 1.0              | 1.0              |
| Sleep Mode, Typical (W)                                     | 1.0              | 1.0              | 1.0              | 1.0              |
| Power Supply Requirements                                   | +12 V and +5 V   | +12 V and +5 V   | +12 V and +5 V   | +12 V and +5 V   |
| Environmental/Temperature                                   |                  |                  |                  |                  |
| Operating Temperature (ambient, min °C)                     | 0                | 0                | 0                | 0                |
| Operating Temperature (drive reported, max °C) <sup>4</sup> | 65               | 65               | 65               | 65               |
| Nonoperating Temperature (ambient, min °C)                  | -40              | -40              | -40              | -40              |
| Nonoperating Temperature (ambient, max °C)                  | 70               | 70               | 70               | 70               |
| Environmental/Acoustics                                     |                  |                  |                  |                  |
| Vibration, Nonoperating: 10Hz to 500Hz (Grms)               | 2.27             | 2.27             | 2.27             | 2.27             |
| Acoustics, Idle (typical, measured in Idle 1 state) (dBA)   | 20               | 20               | 20               | 20               |
| Acoustics, Seek (typical) (dBA)                             | 26               | 26               | 26               | 26               |
| Environmental/Shock                                         |                  |                  |                  |                  |
| Shock, Operating 2ms (Read/Write) (Gs)                      | 40/40Gs          | 40/40Gs          | 40/40Gs          | 50/50Gs          |
| Shock, Nonoperating, 1ms and 2ms (Gs)                       | 200              | 200              | 200              | 200              |
| Physical                                                    |                  |                  |                  |                  |
| Height (mm/in)                                              | 26.11mm/1.028in  | 26.11mm/1.028in  | 26.11mm/1.028in  | 26.11mm/1.028in  |
| Width (mm/in, max)                                          | 101.85mm/4.01in  | 101.85mm/4.01in  | 101.85mm/4.01in  | 101.85mm/4.01in  |
| Depth (mm/in, max)                                          | 146.99mm/5.787in | 146.99mm/5.787in | 146.99mm/5.787in | 146.99mm/5.787in |
| Weight (g/lb, typical)                                      | 670g/1.477lb     | 670g/1.477lb     | 670g/1.477lb     | 670g/1.477lb     |
| Carton Unit Quantity                                        | 20               | 20               | 20               | 20               |
| Cartons per Pallet/Cartons per Layer                        | 40/8             | 40/8             | 40/8             | 40/8             |

<sup>3</sup> Rescue Data Recovery Services not available in some countries.

<sup>4</sup> Seagate does not recommend operating at sustained drive temperatures above 60C. Operating at higher temperatures may affect drive health.



| Specifications                                              | 16TB             | 16TB             | 14TB             | 14TB             |
|-------------------------------------------------------------|------------------|------------------|------------------|------------------|
| Capacity                                                    | 16TB             | 16TB             | 14TB             | 14TB             |
| Standard Model Number                                       | ST16000NT001     | ST16000NE000     | ST14000NT001     | ST14000NE0008    |
| Interface                                                   | SATA 6Gb/s       | SATA 6Gb/s       | SATA 6Gb/s       | SATA 6Gb/s       |
| Features                                                    |                  |                  |                  |                  |
| Drive Bays Supported                                        | Unlimited        | Up to 24-bay     | Unlimited        | Up to 24-bay     |
| Recording Technology                                        | CMR              | CMR              | CMR              | CMR              |
| Drive Design (Air or Helium)                                | Helium           | Helium           | Helium           | Helium           |
| Workload Rate Limit (WRL)                                   | 550              | 300              | 550              | 300              |
| Rotational Vibration (RV) Sensors                           | Yes              | Yes              | Yes              | Yes              |
| Cache (MB)                                                  | 256              | 256              | 256              | 256              |
| Reliability/Data Integrity                                  |                  |                  |                  |                  |
| Mean Time Between Failures (MTBF, hours)                    | 2,500,000        | 1,200,000        | 2,500,000        | 1,200,000        |
| Nonrecoverable Read Errors per Bits Read, Max               | 1 per 10E15      | 1 per 10E15      | 1 per 10E15      | 1 per 10E15      |
| Power-On Hours (per year)                                   | 8760             | 8760             | 8760             | 8760             |
| Sector Size (Bytes per Logical Sector)                      | 512E             | 512E             | 512E             | 512E             |
| Rescue Data Recovery Services(years) <sup>3</sup>           | 3                | 3                | 3                | 3                |
| Limited Warranty (years)                                    | 5                | 5                | 5                | 5                |
| Performance                                                 |                  |                  |                  |                  |
| Spindle Speed (RPM)                                         | 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    |
| Max. Sustained Transfer Rate OD (MB/s)                      | 270MB/s          | 255MB/s          | 270MB/s          | 255MB/s          |
| Rotational Vibration @ 10-1500 Hz (rad/s)                   | 12.5             | 12.5             | 12.5             | 12.5             |
| Power Consumption                                           |                  |                  |                  |                  |
| Startup Current, Typical (12V, A)                           | 2.0              | 2.0              | 2.0              | 2.0              |
| Idle Power, Average (W)                                     | 5.0              | 5.0              | 5.0              | 5.0              |
| Average Operating Power (W)                                 | 7.6W             | 7.6W             | 7.6W             | 7.6W             |
| Standby Mode, Typical (W)                                   | 1.0              | 1.0              | 1.0              | 1.0              |
| Sleep Mode, Typical (W)                                     | 1.0              | 1.0              | 1.0              | 1.0              |
| Power Supply Requirements                                   | +12 V and +5 V   | +12 V and +5 V   | +12 V and +5 V   | +12 V and +5 V   |
| Environmental/Temperature                                   |                  |                  |                  |                  |
| Operating Temperature (ambient, min °C)                     | 0                | 0                | 0                | 0                |
| Operating Temperature (drive reported, max °C) <sup>4</sup> | 65               | 65               | 65               | 65               |
| Nonoperating Temperature (ambient, min °C)                  | -40              | -40              | -40              | -40              |
| Nonoperating Temperature (ambient, max °C)                  | 70               | 70               | 70               | 70               |
| Environmental/Acoustics                                     |                  |                  |                  |                  |
| Vibration, Nonoperating: 10Hz to 500Hz (Grms)               | 2.27             | 2.27             | 2.27             | 2.27             |
| Acoustics, Idle (typical, measured in Idle 1 state) (dBA)   | 20               | 20               | 20               | 20               |
| Acoustics, Seek (typical) (dBA)                             | 26               | 26               | 26               | 26               |
| Environmental/Shock                                         |                  |                  |                  |                  |
| Shock, Operating 2ms (Read/Write) (Gs)                      | 50/50Gs          | 50/50Gs          | 50/50Gs          | 50/50Gs          |
| Shock, Nonoperating, 1ms and 2ms (Gs)                       | 200              | 200              | 200              | 200              |
| Physical                                                    |                  |                  |                  |                  |
| Height (mm/in)                                              | 26.11mm/1.028in  | 26.11mm/1.028in  | 26.11mm/1.028in  | 26.11mm/1.028in  |
| Width (mm/in, max)                                          | 101.85mm/4.01in  | 101.85mm/4.01in  | 101.85mm/4.01in  | 101.85mm/4.01in  |
| Depth (mm/in, max)                                          | 146.99mm/5.787in | 146.99mm/5.787in | 146.99mm/5.787in | 146.99mm/5.787in |
| Weight (g/lb, typical)                                      | 670g/1.477lb     | 670g/1.477lb     | 670g/1.477lb     | 670g/1.477lb     |
| Carton Unit Quantity                                        | 20               | 20               | 20               | 20               |
| Cartons per Pallet/Cartons per Layer                        | 40/8             | 40/8             | 40/8             | 40/8             |

<sup>3</sup> Rescue Data Recovery Services not available in some countries.

<sup>4</sup> Seagate does not recommend operating at sustained drive temperatures above 60C. Operating at higher temperatures may affect drive health.



| Specifications                                              | 12TB             | 12TB             | 10TB             | 10TB             | 10TB             |
|-------------------------------------------------------------|------------------|------------------|------------------|------------------|------------------|
| Capacity                                                    | 12TB             | 12TB             | 10TB             | 10TB             | 10TB             |
| Standard Model Number                                       | ST12000NT001     | ST12000NE0008    | ST10000NT001     | ST10000NE0008    | ST10000NE000     |
| Interface                                                   | SATA 6Gb/s       | SATA 6Gb/s       | SATA 6Gb/s       | SATA 6Gb/s       | SATA 6Gb/s       |
| Features                                                    |                  |                  |                  |                  |                  |
| Drive Bays Supported                                        | Unlimited        | Up to 24-bay     | Unlimited        | Up to 24-bay     | Up to 24-bay     |
| Recording Technology                                        | CMR              | CMR              | CMR              | CMR              | CMR              |
| Drive Design (Air or Helium)                                | Helium           | Helium           | Air              | Helium           | Air              |
| Workload Rate Limit (WRL)                                   | 550              | 300              | 550              | 300              | 300              |
| Rotational Vibration (RV) Sensors                           | Yes              | Yes              | Yes              | Yes              | Yes              |
| Cache (MB)                                                  | 256              | 256              | 256              | 256              | 256              |
| Reliability/Data Integrity                                  |                  |                  |                  |                  |                  |
| Mean Time Between Failures (MTBF, hours)                    | 2,500,000        | 1,200,000        | 2,000,000        | 1,200,000        | 1,200,000        |
| 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             | 512E             |
| Rescue Data Recovery Services(years) <sup>3</sup>           | 3                | 3                | 3                | 3                | 3                |
| Limited Warranty (years)                                    | 5                | 5                | 5                | 5                | 5                |
| Performance                                                 |                  |                  |                  |                  |                  |
| 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)                      | 270MB/s          | 240MB/s          | 263MB/s          | 240MB/s          | 240MB/s          |
| Rotational Vibration @ 10-1500 Hz (rad/s)                   | 12.5             | 12.5             | 12.5             | 12.5             | 12.5             |
| Power Consumption                                           |                  |                  |                  |                  |                  |
| Startup Current, Typical (12V, A)                           | 2.0              | 2.0              | 1.8              | 2.0              | 1.8              |
| Idle Power, Average (W)                                     | 5.0              | 5.0              | 7.8              | 5.0              | 7.8              |
| Average Operating Power (W)                                 | 7.8W             | 7.8W             | 10.1W            | 7.8W             | 10.1W            |
| Standby Mode, Typical (W)                                   | 1.0              | 1.0              | 1.0              | 1.17             | 1.0              |
| Sleep Mode, Typical (W)                                     | 1.0              | 1.0              | 1.0              | 1.17             | 1.0              |
| Power Supply Requirements                                   | +12 V and +5 V   | +12 V and +5 V   | +12 V and +5 V   | +12 V and +5 V   | +12 V and +5 V   |
| Environmental/Temperature                                   |                  |                  |                  |                  |                  |
| Operating Temperature (ambient, min °C)                     | 0                | 0                | 0                | 0                | 0                |
| Operating Temperature (drive reported, max °C) <sup>4</sup> | 65               | 65               | 65               | 65               | 65               |
| Nonoperating Temperature (ambient, min °C)                  | -40              | -40              | -40              | -40              | -40              |
| Nonoperating Temperature (ambient, max °C)                  | 70               | 70               | 70               | 70               | 70               |
| Environmental/Acoustics                                     |                  |                  |                  |                  |                  |
| Vibration, Nonoperating: 10Hz to 500Hz (Grms)               | 2.27             | 2.27             | 2.27             | 2.27             | 2.27             |
| Acoustics, Idle (typical, measured in Idle 1 state) (dBA)   | 20               | 20               | 28               | 20               | 28               |
| Acoustics, Seek (typical) (dBA)                             | 26               | 26               | 30               | 26               | 30               |
| Environmental/Shock                                         |                  |                  |                  |                  |                  |
| Shock, Operating 2ms (Read/Write) (Gs)                      | 50/50Gs          | 50/50Gs          | 70/40Gs          | 70/40Gs          | 70/40Gs          |
| Shock, Nonoperating, 1ms and 2ms (Gs)                       | 200              | 200              | 250              | 250              | 300              |
| Physical                                                    |                  |                  |                  |                  |                  |
| Height (mm/in)                                              | 26.11mm/1.028in  | 26.11mm/1.028in  | 26.11mm/1.028in  | 26.11mm/1.028in  | 26.11mm/1.028in  |
| Width (mm/in, max)                                          | 101.85mm/4.01in  | 101.85mm/4.01in  | 101.85mm/4.01in  | 101.85mm/4.01in  | 101.85mm/4.01in  |
| Depth (mm/in, max)                                          | 146.99mm/5.787in | 146.99mm/5.787in | 146.99mm/5.787in | 146.99mm/5.787in | 146.99mm/5.787in |
| Weight (g/lb, typical)                                      | 670g/1.477lb     | 670g/1.477lb     | 720g/1.59lb      | 690g/1.521lb     | 720g/1.59lb      |
| Carton Unit Quantity                                        | 20               | 20               | 20               | 20               | 20               |
| Cartons per Pallet/Cartons per Layer                        | 40/8             | 40/8             | 40/8             | 40/8             | 40/8             |

<sup>3</sup> Rescue Data Recovery Services not available in some countries.

<sup>4</sup> Seagate does not recommend operating at sustained drive temperatures above 60C. Operating at higher temperatures may affect drive health.



| Specifications                                              | 8TB              | 8TB              | 6TB              | 6TB              |
|-------------------------------------------------------------|------------------|------------------|------------------|------------------|
| Capacity                                                    | 8TB              | 8TB              | 6TB              | 6TB              |
| Standard Model Number                                       | ST8000NT001      | ST8000NE001      | ST6000NT001      | ST6000NE000      |
| Interface                                                   | SATA 6Gb/s       | SATA 6Gb/s       | SATA 6Gb/s       | SATA 6Gb/s       |
| Features                                                    |                  |                  |                  |                  |
| Drive Bays Supported                                        | Unlimited        | Up to 24-bay     | Unlimited        | Up to 24-bay     |
| Recording Technology                                        | CMR              | CMR              | CMR              | CMR              |
| Drive Design (Air or Helium)                                | Air              | Air              | Air              | Air              |
| Workload Rate Limit (WRL)                                   | 550              | 300              | 550              | 300              |
| Rotational Vibration (RV) Sensors                           | Yes              | Yes              | Yes              | Yes              |
| Cache (MB)                                                  | 256              | 256              | 256              | 256              |
| Reliability/Data Integrity                                  |                  |                  |                  |                  |
| Mean Time Between Failures (MTBF, hours)                    | 2,000,000        | 1,200,000        | 2,000,000        | 1,200,000        |
| Nonrecoverable Read Errors per Bits Read, Max               | 1 per 10E15      | 1 per 10E15      | 1 per 10E15      | 1 per 10E15      |
| Power-On Hours (per year)                                   | 8760             | 8760             | 8760             | 8760             |
| Sector Size (Bytes per Logical Sector)                      | 512E             | 512E             | 512E             | 512E             |
| Rescue Data Recovery Services(years) <sup>3</sup>           | 3                | 3                | 3                | 3                |
| Limited Warranty (years)                                    | 5                | 5                | 5                | 5                |
| Performance                                                 |                  |                  |                  |                  |
| Spindle Speed (RPM)                                         | 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    |
| Max. Sustained Transfer Rate OD (MB/s)                      | 255MB/s          | 240MB/s          | 250MB/s          | 220MB/s          |
| Rotational Vibration @ 10-1500 Hz (rad/s)                   | 12.5             | 12.5             | 12.5             | 12.5             |
| Power Consumption                                           |                  |                  |                  |                  |
| Startup Current, Typical (12V, A)                           | 2.0              | 2.0              | 2.0              | 2.0              |
| Idle Power, Average (W)                                     | 7.8              | 7.8              | 7.1              | 7.1              |
| Average Operating Power (W)                                 | 10.1W            | 10.1W            | 9.3W             | 9.3W             |
| Standby Mode, Typical (W)                                   | 1.0              | 1.0              | 1.0              | 1.0              |
| Sleep Mode, Typical (W)                                     | 1.0              | 1.0              | 1.0              | 1.0              |
| Power Supply Requirements                                   | +12 V and +5 V   | +12 V and +5 V   | +12 V and +5 V   | +12 V and +5 V   |
| Environmental/Temperature                                   |                  |                  |                  |                  |
| Operating Temperature (ambient, min °C)                     | 0                | 0                | 0                | 0                |
| Operating Temperature (drive reported, max °C) <sup>4</sup> | 65               | 65               | 65               | 65               |
| Nonoperating Temperature (ambient, min °C)                  | -40              | -40              | -40              | -40              |
| Nonoperating Temperature (ambient, max °C)                  | 70               | 70               | 70               | 70               |
| Environmental/Acoustics                                     |                  |                  |                  |                  |
| Vibration, Nonoperating: 10Hz to 500Hz (Grms)               | 2.27             | 2.27             | 2.27             | 2.27             |
| Acoustics, Idle (typical, measured in Idle 1 state) (dBA)   | 28               | 28               | 28               | 28               |
| Acoustics, Seek (typical) (dBA)                             | 30               | 30               | 30               | 30               |
| Environmental/Shock                                         |                  |                  |                  |                  |
| Shock, Operating 2ms (Read/Write) (Gs)                      | 70/40Gs          | 70/40Gs          | 70/40Gs          | 70/40Gs          |
| Shock, Nonoperating, 1ms and 2ms (Gs)                       | 300              | 300              | 300              | 300              |
| Physical                                                    |                  |                  |                  |                  |
| Height (mm/in)                                              | 26.11mm/1.028in  | 26.11mm/1.028in  | 26.11mm/1.028in  | 26.11mm/1.028in  |
| Width (mm/in, max)                                          | 101.85mm/4.01in  | 101.85mm/4.01in  | 101.85mm/4.01in  | 101.85mm/4.01in  |
| Depth (mm/in, max)                                          | 146.99mm/5.787in | 146.99mm/5.787in | 146.99mm/5.787in | 146.99mm/5.787in |
| Weight (g/lb, typical)                                      | 720g/1.59lb      | 720g/1.59lb      | 716g/1.58lb      | 716g/1.58lb      |
| Carton Unit Quantity                                        | 20               | 20               | 20               | 20               |
| Cartons per Pallet/Cartons per Layer                        | 40/8             | 40/8             | 40/8             | 40/8             |

<sup>3</sup> Rescue Data Recovery Services not available in some countries.

<sup>4</sup> Seagate does not recommend operating at sustained drive temperatures above 60C. Operating at higher temperatures may affect drive health.



| Specifications                                              | 4TB              | 4TB              | 2TB              | 2TB              |
|-------------------------------------------------------------|------------------|------------------|------------------|------------------|
| Capacity                                                    | 4TB              | 4TB              | 2TB              | 2TB              |
| Standard Model Number                                       | ST4000NT001      | ST4000NE001      | ST2000NT001      | ST2000NE001      |
| Interface                                                   | SATA 6Gb/s       | SATA 6Gb/s       | SATA 6Gb/s       | SATA 6Gb/s       |
| Features                                                    |                  |                  |                  |                  |
| Drive Bays Supported                                        | Unlimited        | Up to 24-bay     | Unlimited        | Up to 24-bay     |
| Recording Technology                                        | CMR              | CMR              | CMR              | CMR              |
| Drive Design (Air or Helium)                                | Air              | Air              | Air              | Air              |
| Workload Rate Limit (WRL)                                   | 550              | 300              | 550              | 300              |
| Rotational Vibration (RV) Sensors                           | Yes              | Yes              | Yes              | Yes              |
| Cache (MB)                                                  | 256              | 256              | 256              | 256              |
| Reliability/Data Integrity                                  |                  |                  |                  |                  |
| Mean Time Between Failures (MTBF, hours)                    | 2,000,000        | 1,200,000        | 2,000,000        | 1,200,000        |
| Nonrecoverable Read Errors per Bits Read, Max               | 1 per 10E15      | 1 per 10E15      | 1 per 10E15      | 1 per 10E15      |
| Power-On Hours (per year)                                   | 8760             | 8760             | 8760             | 8760             |
| Sector Size (Bytes per Logical Sector)                      | 512E             | 512E             | 512E             | 512E             |
| Rescue Data Recovery Services(years) <sup>3</sup>           | 3                | 3                | 3                | 3                |
| Limited Warranty (years)                                    | 5                | 5                | 5                | 5                |
| Performance                                                 |                  |                  |                  |                  |
| Spindle Speed (RPM)                                         | 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    |
| Max. Sustained Transfer Rate OD (MB/s)                      | 250MB/s          | 220MB/s          | 226MB/s          | 220MB/s          |
| Rotational Vibration @ 10-1500 Hz (rad/s)                   | 12.5             | 12.5             | 12.5             | 12.5             |
| Power Consumption                                           |                  |                  |                  |                  |
| Startup Current, Typical (12V, A)                           | 2.0              | 2.0              | 2.0              | 2.0              |
| Idle Power, Average (W)                                     | 5.5              | 5.5              | 3.8              | 3.8              |
| Average Operating Power (W)                                 | 8.7W             | 8.7W             | 6.7W             | 6.7W             |
| Standby Mode, Typical (W)                                   | 1.0              | 1.0              | 1.0              | 1.0              |
| Sleep Mode, Typical (W)                                     | 1.0              | 1.0              | 1.0              | 1.0              |
| Power Supply Requirements                                   | +12 V and +5 V   | +12 V and +5 V   | +12 V and +5 V   | +12 V and +5 V   |
| Environmental/Temperature                                   |                  |                  |                  |                  |
| Operating Temperature (ambient, min °C)                     | 0                | 0                | 0                | 0                |
| Operating Temperature (drive reported, max °C) <sup>4</sup> | 65               | 65               | 65               | 65               |
| Nonoperating Temperature (ambient, min °C)                  | -40              | -40              | -40              | -40              |
| Nonoperating Temperature (ambient, max °C)                  | 70               | 70               | 70               | 70               |
| Environmental/Acoustics                                     |                  |                  |                  |                  |
| Vibration, Nonoperating: 10Hz to 500Hz (Grms)               | 2.27             | 2.27             | 2.27             | 2.27             |
| Acoustics, Idle (typical, measured in Idle 1 state) (dBA)   | 28               | 28               | 28               | 28               |
| Acoustics, Seek (typical) (dBA)                             | 30               | 30               | 30               | 30               |
| Environmental/Shock                                         |                  |                  |                  |                  |
| Shock, Operating 2ms (Read/Write) (Gs)                      | 70/40Gs          | 70/40Gs          | 70/40Gs          | 70/40Gs          |
| Shock, Nonoperating, 1ms and 2ms (Gs)                       | 300              | 300              | 300              | 300              |
| Physical                                                    |                  |                  |                  |                  |
| Height (mm/in)                                              | 26.11mm/1.028in  | 26.11mm/1.028in  | 26.11mm/1.028in  | 26.11mm/1.028in  |
| Width (mm/in, max)                                          | 101.85mm/4.01in  | 101.85mm/4.01in  | 101.85mm/4.01in  | 101.85mm/4.01in  |
| Depth (mm/in, max)                                          | 146.99mm/5.787in | 146.99mm/5.787in | 146.99mm/5.787in | 146.99mm/5.787in |
| Weight (g/lb, typical)                                      | 650g/1.431lb     | 650g/1.431lb     | 620g/1.37lb      | 620g/1.37lb      |
| Carton Unit Quantity                                        | 20               | 20               | 20               | 20               |
| Cartons per Pallet/Cartons per Layer                        | 40/8             | 40/8             | 40/8             | 40/8             |

<sup>3</sup> Rescue Data Recovery Services not available in some countries.

<sup>4</sup> Seagate does not recommend operating at sustained drive temperatures above 60C. Operating at higher temperatures may affect drive health.

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