

**9** S E A G A T E

3.5 HARD DRIVE DATA SHEET

Smart. Safe. Secure. Surveillance-Specialized Storage



SkyHawk<sup>™</sup> leverages Seagate's extensive experience in designing drives purpose-built for surveillance applications.



## **Best-Fit Applications**

- Network video recorders (NVR)
- Surveillance DVRs



## Key Advantages

**ImagePerfect**<sup>™</sup> **firmware** is designed to ensure seamless video footage capture in 24×7 surveillance workloads<sup>1</sup> that record video from 64 HD cameras.

SkyHawk Health Management actively helps protect your surveillance storage by focusing on prevention, intervention, and recovery options.<sup>2</sup> Included is RAID RapidRebuild<sup>™</sup>, which provides 3× faster volume rebuilds over traditional RAID rebuilds.

**RV sensors built in** allow drives to maintain performance in multi-bay systems, giving customers the flexibility to scale their systems when more storage is needed.

**ATA streaming support** enables recordings from up to 64 HD cameras for smooth, uninterrupted footage.

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

**Lower power consumption** means a reduction in heat emissions, which improves reliability in surveillance solutions. Tarnish-resistant components help protect drive from environmental elements, increasing field reliability.

1 SkyHawk surveillance drives are designed for always-on workloads of 180TB/year. For higher transaction workloads, see Seagate's enterprise-class drive offerings.

2 Contact your Seagate sales representative for further information.





| Specifications                                  | 8TB              | 8TB              | 6TB              | 6TB              |
|---|------------------|------------------|------------------|------------------|
| Capacity  | 8TB              | 8TB              | 6TB              | 6TB              |
| Standard Model Numbers                          | ST8000VM006      | ST8000VM004      | ST6000VM002      | ST6000VM000      |
| SkyHawk <sup>™</sup> Health Management Included | Yes              | Yes              | Yes              | Yes              |
| Interface                                       | SATA 6Gb/s       | SATA 6Gb/s       | SATA 6Gb/s       | SATA 6Gb/s       |
| Recording Technology                            | CMR              | SMR              | CMR              | SMR              |
| Drive Design                                    | Air              | Air              | Air              | Air              |
| Features and Performance                        |                  |                  |                  |                  |
| Drive Bays Supported                            | Up to 16         | Up to 16         | Up to 16         | Up to 16         |
| Cameras Supported                               | Up to 64         | Up to 64         | Up to 64         | Up to 64         |
| RV Sensors                                      | Yes              | Yes              | Yes              | Yes              |
| Max. Sustained Transfer Rate OD (MB/s)          | 180MB/s          | 180MB/s          | 180MB/s          | 180MB/s          |
| Cache (MB)                                      | 256              | 256              | 256              | 256              |
| Reliability/Data Integrity                      |                  |                  |                  |                  |
| Tarnish Resistant                               | Yes              | Yes              | Yes              | Yes              |
| Load/Unload Cycles                              | 600,000          | 600,000          | 600,000          | 600,000          |
| Nonrecoverable Read Errors Rate, Max            | 1 per 10E14      | 1 per 10E14      | 1 per 10E14      | 1 per 10E14      |
| Power-On Hours per year                         | 8760             | 8760             | 8760             | 8760             |
| Workload Rate Limit (WRL) <sup>1</sup>          | 180              | 180              | 180              | 180              |
| Mean Time Between Failures (MTBF) (hours)       | 1,000,000hr      | 1,000,000hr      | 1,000,000hr      | 1,000,000hr      |
| Warranty, Limited (years) <sup>2</sup>          | 3                | 3                | 3                | 3                |
| Power Management                                |                  |                  |                  |                  |
| Startup Current, Typical (12V, A)               | 1.8              | 1.8              | 1.8              | 1.8              |
| Average Operating Power (W)                     | 5.3W             | 5.3W             | 5.3W             | 5.3W             |
| Idle Average (W)                                | 3.4W             | 3.4W             | 3.4W             | 3.4W             |
| Standby Mode/Sleep Mode, Typical (W)            | 0.25/0.25        | 0.25/0.25        | 0.25/0.25        | 0.25/0.25        |
| Voltage Tolerance (5V)                          | ±5%              | ±5%              | ±5%              | ±5%              |
| Voltage Tolerance (12V)                         | ±10%             | ±10%             | ±10%             | ±10%             |
| Environmental/Temperature                       |                  |                  |                  |                  |
| Operating (ambient, min °C)                     | 0                | 0                | 0                | 0                |
| Operating (drive reported, max °C) <sup>3</sup> | 65               | 70               | 65               | 70               |
| Nonoperating (ambient, min °C)                  | -40              | -40              | -40              | -40              |
| Physical  |                  |                  |                  |                  |
| Height (mm/in, max)                             | 26.10mm/1.028in  | 26.10mm/1.028in  | 26.10mm/1.028in  | 26.10mm/1.028in  |
| Width (mm/in, max)                              | 101.6mm/4.00in   | 101.85mm/4.010in | 101.6mm/4.00in   | 101.85mm/4.010in |
| Depth (mm/in, max)                              | 146.99mm/5.787in | 146.99mm/5.787in | 146.99mm/5.787in | 146.99mm/5.787in |
| Weight (g/lb, typical)                          | 630g/1.389lb     | 630g/1.389lb     | 630g/1.389lb     | 610g/1.345lb     |
| Carton Unit Quantity                            | 20               | 20               | 20               | 20               |
| Cartons per Pallet/Cartons per Layer            | 40/8             | 40/8             | 40/8             | 40/8             |

1 SkyHawk surveillance drives are designed for always-on workloads of 180TB/year. For higher transaction workloads, see Seagate's enterprise-class drive offerings.

2 Extended warranty options available. Consult your distributor for details.





| Specifications                                  | 4TB              | 4TB              | ЗТВ              | ЗТВ              |
|---|------------------|------------------|------------------|------------------|
| Capacity  | 4TB              | 4TB              | 3TB              | 3TB              |
| Standard Model Numbers                          | ST4000VM005      | ST4000VM004      | ST3000VM008      | ST3000VM006      |
| SkyHawk <sup>™</sup> Health Management Included | Yes              | Yes              | Yes              | Yes              |
| Interface                                       | SATA 6Gb/s       | SATA 6Gb/s       | SATA 6Gb/s       | SATA 6Gb/s       |
| Recording Technology                            | CMR              | SMR              | CMR              | SMR              |
| Drive Design                                    | Air              | Air              | Air              | Air              |
| Features and Performance                        |                  |                  |                  |                  |
| Drive Bays Supported                            | Up to 16         | Up to 16         | Up to 8          | Up to 8          |
| Cameras Supported                               | Up to 64         | Up to 64         | Up to 64         | Up to 64         |
| RV Sensors                                      | Yes              | Yes              | Yes              | -                |
| Max. Sustained Transfer Rate OD (MB/s)          | 180MB/s          | 180MB/s          | 180MB/s          | 180MB/s          |
| Cache (MB)                                      | 256              | 256              | 256              | 256              |
| Reliability/Data Integrity                      |                  |                  |                  |                  |
| Tarnish Resistant                               | Yes              | Yes              | Yes              | Yes              |
| Load/Unload Cycles                              | 600,000          | 600,000          | 600,000          | 600,000          |
| Nonrecoverable Read Errors Rate, Max            | 1 per 10E14      | 1 per 10E14      | 1 per 10E14      | 1 per 10E14      |
| Power-On Hours per year                         | 8760             | 8760             | 8760             | 8760             |
| Workload Rate Limit (WRL) <sup>1</sup>          | 180              | 180              | 180              | 180              |
| Mean Time Between Failures (MTBF) (hours)       | 1,000,000hr      | 1,000,000hr      | 1,000,000hr      | 1,000,000hr      |
| Warranty, Limited (years) <sup>2</sup>          | 3                | 3                | 3                | 3                |
| Power Management                                | · · · · ·        | •                |                  | •                |
| Startup Current, Typical (12V, A)               | 1.8              | 1.8              | 1.8              | 1.8              |
| Average Operating Power (W)                     | 3.7W             | 3.7W             | 3.7W             | 3.5W             |
| Idle Average (W)                                | 2.5W             | 2.5W             | 2.5W             | 2.5W             |
| Standby Mode/Sleep Mode, Typical (W)            | 0.25/0.25        | 0.25/0.25        | 0.25/0.25        | 0.25/0.25        |
| Voltage Tolerance (5V)                          | ±5%              | ±5%              | ±5%              | ±5%              |
| Voltage Tolerance (12V)                         | ±10%             | ±10%             | ±10%             | ±10%             |
| Environmental/Temperature                       |                  |                  |                  |                  |
| Operating (ambient, min °C)                     | 0                | 0                | 0                | 0                |
| Operating (drive reported, max °C) <sup>3</sup> | 65               | 70               | 65               | 70               |
| Nonoperating (ambient, min °C)                  | -40              | -40              | -40              | -40              |
| Physical  |                  |                  |                  |                  |
| Height (mm/in, max)                             | 20.20mm/0.795in  | 20.20mm/0.795in  | 20.20mm/0.795in  | 20.20mm/0.795in  |
| Width (mm/in, max)                              | 101.6mm/4.00in   | 101.85mm/4.010in | 101.6mm/4.00in   | 101.85mm/4.010in |
| Depth (mm/in, max)                              | 146.99mm/5.787in | 146.99mm/5.787in | 146.99mm/5.787in | 146.99mm/5.787in |
| Weight (g/lb, typical)                          | 630g/1.389lb     | 490g/1.08lb      | 630g/1.389lb     | 490g/1.08lb      |
| Carton Unit Quantity                            | 25               | 25               | 25               | 25               |
| Cartons per Pallet/Cartons per Layer            | 40/8             | 40/8             | 40/8             | 40/8             |

1 SkyHawk surveillance drives are designed for always-on workloads of 180TB/year. For higher transaction workloads, see Seagate's enterprise-class drive offerings.

2 Extended warranty options available. Consult your distributor for details.





| Specifications                                  | 2TB              | 2TB              | 1TB              |
|---|------------------|------------------|------------------|
| Capacity  | 2TB              | 2TB              | 1TB              |
| Standard Model Numbers                          | ST2000VM006      | ST2000VM005      | ST1000VM007      |
| SkyHawk <sup>™</sup> Health Management Included | Yes              | No               | Yes              |
| Interface                                       | SATA 6Gb/s       | SATA 6Gb/s       | SATA 6Gb/s       |
| Recording Technology                            | CMR              | SMR              | CMR              |
| Drive Design                                    | Air              | Air              | Air              |
| Features and Performance                        |                  |                  |                  |
| Drive Bays Supported                            | Up to 8          | Up to 8          | Up to 8          |
| Cameras Supported                               | Up to 64         | Up to 64         | Up to 64         |
| RV Sensors                                      | _                | —                | —                |
| Max. Sustained Transfer Rate OD (MB/s)          | 180MB/s          | 180MB/s          | 180MB/s          |
| Cache (MB)                                      | 256              | 256              | 256              |
| Reliability/Data Integrity                      |                  |                  |                  |
| Tarnish Resistant                               | Yes              | Yes              | Yes              |
| Load/Unload Cycles                              | 600,000          | 600,000          | 600,000          |
| Nonrecoverable Read Errors Rate, Max            | 1 per 10E14      | 1 per 10E14      | 1 per 10E14      |
| Power-On Hours per year                         | 8760             | 8760             | 8760             |
| Workload Rate Limit (WRL) <sup>1</sup>          | 180              | 180              | 180              |
| Mean Time Between Failures (MTBF) (hours)       | 1,000,000hr      | 1,000,000hr      | 1,000,000hr      |
| Warranty, Limited (years) <sup>2</sup>          | 3                | 3                | 3                |
| Power Management                                |                  |                  |                  |
| Startup Current, Typical (12V, A)               | 1.8              | 1.8              | 1.8              |
| Average Operating Power (W)                     | 3.7W             | 3.7W             | 3.7W             |
| Idle Average (W)                                | 2.5W             | 2.5W             | 2.5W             |
| Standby Mode/Sleep Mode, Typical (W)            | 0.25/0.25        | 0.25/0.25        | 0.25/0.25        |
| Voltage Tolerance (5V)                          | ±5%              | ±5%              | ±5%              |
| Voltage Tolerance (12V)                         | ±10%             | ±10%             | ±10%             |
| Environmental/Temperature                       |                  |                  |                  |
| Operating (ambient, min °C)                     | 0                | 0                | 0                |
| Operating (drive reported, max °C) <sup>3</sup> | 65               | 70               | 65               |
| Nonoperating (ambient, min °C)                  | -40              | -40              | -40              |
| Physical  |                  | ·                | ·                |
| Height (mm/in, max)                             | 20.20mm/0.795in  | 20.20mm/0.795in  | 20.20mm/0.795in  |
| Width (mm/in, max)                              | 101.6mm/4.00in   | 101.85mm/4.010in | 101.6mm/4.00in   |
| Depth (mm/in, max)                              | 146.99mm/5.787in | 146.99mm/5.787in | 146.99mm/5.787in |
| Weight (g/lb, typical)                          | 415g/0.915lb     | 415g/0.915lb     | 415g/0.915lb     |
| Carton Unit Quantity                            | 25               | 25               | 25               |
| Cartons per Pallet/Cartons per Layer            | 40/8             | 40/8             | 40/8             |

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