



3.5 HARD DRIVE DATA SHEET

Smart. Safe. Secure. Surveillance-Specialized Storage

SkyHawk $^{\text{TM}}$  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. Included is RAID RapidRebuild, which provides  $3 \times$  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.

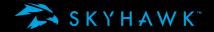
**1M hours MTBF, 3-year limited warranty**<sup>3</sup> represents an improved total cost of ownership (TCO) with reduced maintenance costs.

**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.

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

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

<sup>3</sup> Seagate does not recommend operating at sustained extreme temperatures. Operating at higher temperatures will reduce useful life of the products.





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)	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

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

 $<sup>{\</sup>tt 2\ Extended\ warranty\ options\ available.\ Consult\ your\ distributor\ for\ details.}$ 

<sup>3</sup> Seagate does not recommend operating at sustained extreme temperatures. Operating at higher temperatures will reduce useful life of the products.





Specifications	4TB	4TB	3ТВ	3ТВ
Capacity	4TB	4TB	3ТВ	3ТВ
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)	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

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

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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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