



3.5 HARD DRIVE DATA SHEET

Smart. Safe. Secure. Surveillance-Specialised Storage

SkyHawk $^{\text{TM}}$  leverages Seagate's extensive experience in designing drives purpose-built for surveillance applications.





## **Best-Fit Applications**

- Network video recorders (NVR)
- Video DVRs





## Key Advantages

ImagePerfect<sup>™</sup> firmware is designed to ensure seamless video footage capture in 24×7 surveillance workloads¹ 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.

**Unparalleled data protection** with included 3-year Rescue Data Recovery Services plan, helping protect important video data with Seagate's in-house data recovery services.

**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.

**1 M 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 video drives are designed for always-on workloads of 180 TB/year. For higher transaction workloads, see Seagate's enterprise-class drive offerings.
- 2 Contact your Seagate sales representative for further information.
- 3 Seagate does not recommend operating at sustained extreme temperatures. Operating at higher temperatures will reduce the useful life of the products.





Specifications	8 TB	8 TB	6TB	6 TB					
Standard Model Numbers	ST8000VX010	ST8000VX004	ST6000VX009	ST6000VX001					
SkyHawk <sup>™</sup> Health Management Included	Yes	Yes	Yes	Yes					
Interface	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s					
Recording Technology	CMR	CMR	CMR	CMR					
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	210MB/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					
Non-recoverable Read Errors Rate, Max	1 per 10E14	1 per 10E15	1 per 10E14	1 per 10E14					
Power-On Hours per year	8,760	8,760	8,760	8,760					
Workload Rate Limit (WRL)	180	180	180	180					
Mean Time Between Failures (MTBF) (hours)	1,000,000 hr	1,000,000 hr	1,000,000 hr	1,000,000 hr					
Warranty, Limited (years) <sup>2</sup>	3	3	3	3					
Rescue Data Recovery Services (years) <sup>3</sup>	3	3	3	3					
Power Management									
Startup Current, Typical (12V, A)	1.8	1.8	1.8	1.8					
Average Operating Power (W)	5.3 W	8.73 W	5.3 W	5 W					
Idling Average (W)	3.4 W	7.06 W	3.4 W	3.4 W					
Standby Mode/Sleep Mode, Typical (W)	0.25/0.25	0.96/0.96	0.25/0.25	0.25/0.25					
Voltage Tolerance (5 V)	±5%	+10/-5%	±5%	±5%					
Voltage Tolerance (12 V)	±10%	±10%	±10%	±10%					
Environmental/Temperature									
Operating (ambient, min °C)	0	5	0	0					
Operating (drive reported, max °C) <sup>4</sup>	65	70	65	70					
Non-operating (ambient, min °C)	-40	-40	-40	-40					
Physical									
Height (mm/in, max)	26.1 mm/1.028 in	26.11 mm/1.028 in	26.1 mm/1.028 in	26.11 mm/1.028 in					
Width (mm/in, max)	101.6 mm/4 in	101.85 mm/4.01 in	101.6 mm/4 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					
Weight (g/lb, typical)	630 g/1.389 lb	716 g/1.579 lb	630 g/1.389 lb	610 g/1.345 lb					
Carton Unit Quantity	20	20	20	20					
Cartons per Pallet / Cartons per Layer	40/8	40/8	40/8	40/8					

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

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

<sup>3</sup> From May 1, 2020, 3-year Rescue Data Recovery Services plan may be offered in addition to standard warranty. This is offered for selected regions only. Check with reseller on availability.

<sup>4</sup> Seagate does not recommend operating at sustained extreme temperatures. Operating at higher temperatures will reduce useful life of the products.





Specifications	4 TB	4 TB	3ТВ	3 TB					
Standard Model Numbers	ST4000VX016	ST4000VX013	ST3000VX015	ST3000VX009					
SkyHawk <sup>™</sup> Health Management Included	Yes	Yes	Yes	Yes					
Interface	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s					
Recording Technology	CMR	SMR	CMR	CMR					
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					
Non-recoverable Read Errors Rate, Max	1 per 10E14	1 per 10E14	1 per 10E14	1 per 10E14					
Power-On Hours per year	8,760	8,760	8,760	8,760					
Workload Rate Limit (WRL)	180	180	180	180					
Mean Time Between Failures (MTBF) (hours)	1,000,000 hr	1,000,000 hr	1,000,000 hr	1,000,000 hr					
Warranty, Limited (years) <sup>2</sup>	3	3	3	3					
Rescue Data Recovery Services (years) <sup>3</sup>	3	3	3	3					
Power Management									
Startup Current, Typical (12V, A)	1.8	1.8	1.8	1.8					
Average Operating Power (W)	3.7 W	3.7 W	3.7 W	3.5 W					
Idling Average (W)	2.5 W	2.5 W	2.5 W	2.5 W					
Standby Mode/Sleep Mode, Typical (W)	0.25/0.25	0.25/0.25	0.25/0.25	0.25/0.25					
Voltage Tolerance (5 V)	±5%	±5%	±5%	±5%					
Voltage Tolerance (12 V)	±10%	±10%	±10%	±10%					
Environmental/Temperature									
Operating (ambient, min °C)	0	0	0	0					
Operating (drive reported, max °C) <sup>4</sup>	65	70	65	70					
Non-operating (ambient, min °C)	-40	-40	-40	-40					
Physical									
Height (mm/in, max)	20.2 mm/0.795 in	20.2 mm/0.795 in	20.2 mm/0.795 in	20.2 mm/0.795 in					
Width (mm/in, max)	101.6 mm/4 in	101.85 mm/4.01 in	101.6 mm/4 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					
Weight (g/lb, typical)	630 g/1.389 lb	490 g/1.08 lb	630 g/1.389 lb	490 g/1.08 lb					
Carton Unit Quantity	25	25	25	25					
Cartons per Pallet / Cartons per Layer	40/8	40/8	40/8	40/8					

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Specifications	2TB	2 TB	2 TB	1 TB	1TB				
Standard Model Numbers	ST2000VX017	ST2000VX015	ST2000VX008	ST1000VX013	ST1000VX005				
SkyHawk <sup>™</sup> Health Management Included	Yes	_	_	Yes	_				
Interface	SATA 6 Gb/s								
Recording Technology	CMR	SMR	CMR	CMR	CMR				
Drive Design	Air	Air	Air	Air	Air				
Features and Performance									
Drive Bays Supported	Up to 8								
Cameras Supported	Up to 64								
RV Sensors	_	_	_	_	_				
Max Sustained Transfer Rate OD (MB/s)	180MB/s	180MB/s	180MB/s	180MB/s	180MB/s				
Cache (MB)	256	256	64	256	64				
Reliability/Data Integrity									
Tarnish Resistant	Yes	Yes	Yes	Yes	Yes				
Load/Unload Cycles	600,000	600,000	300,000	600,000	_				
Non-recoverable Read Errors Rate, Max	1 per 10E14								
Power-On Hours per year	8,760	8,760	8,760	8,760	8,760				
Workload Rate Limit (WRL)	180	180	180	180	180				
Mean Time Between Failures (MTBF) (hours)	1,000,000 hr								
Warranty, Limited (years) <sup>2</sup>	3	3	3	3	3				
Rescue Data Recovery Services (years) <sup>3</sup>	3	3	3	_	_				
Power Management									
Startup Current, Typical (12V, A)	1.8	1.8	1.8	1.8	1.8				
Average Operating Power (W)	3.7 W	3.7 W	5.6 W	3.7 W	5.6 W				
Idling Average (W)	2.5 W	2.5 W	4 W	2.5 W	4 W				
Standby Mode/Sleep Mode, Typical (W)	0.25/0.25	0.25/0.25	0.5/0.5	0.25/0.25	0.5/0.5				
Voltage Tolerance (5 V)	±5%	±5%	±5%	±5%	±5%				
Voltage Tolerance (12 V)	±10%	±10%	±10%	±10%	±10%				
Environmental/Temperature									
Operating (ambient, min °C)	0	0	0	0	0				
Operating (drive reported, max °C) <sup>4</sup>	65	70	70	65	70				
Non-operating (ambient, min °C)	-40	-40	-40	-40	-40				
Physical									
Height (mm/in, max)	20.2 mm/0.795 in	20.2 mm/0.795 in	26.11 mm/1.028 in	20.2 mm/0.795 in	20.2 mm/0.795 in				
Width (mm/in, max)	101.6 mm/4 in	101.85 mm/4.01 in	101.85 mm/4.01 in	101.6 mm/4 in	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	415 g/0.915 lb	610 g/1.345 lb	415 g/0.915 lb	415 g/0.915 lb				
Carton Unit Quantity	25	25	20	25	25				
Cartons per Pallet / Cartons per Layer	40/8	40/8	40/8	40/8	40/8				

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