



3.5 HARD DRIVE DATA SHEET

Smart. Safe. Secure.

Video Optimized and Edge Ready



Seagate® SkyHawk™ AI is a video-optimized drive designed for NVRs with artificial intelligence (AI) for edge applications.



Best-Fit Applications

- Network video recorders (NVR)
- AI-enabled NVR systems



SKYHAWK
HEALTH

Key Advantages

ImagePerfect™ AI firmware AI firmware delivers zero dropped frames while supporting heavier workloads.

Versatile capabilities intelligently adapt to the scale of your AI environment, supporting up to 64 HD video streams and 32 AI streams.

SkyHawk Health Management actively helps protect your video storage by focusing on prevention, intervention, and recovery options.¹ Included RAID RapidRebuild™ provides 3× faster volume rebuilds.

Class-Leading Reliability and Dependability SkyHawk AI drives are rated for up to 2.5M hours MTBF and a 550TB/year workload rate for more than 3x that of standard surveillance hard drives. Backed by a 5-year limited warranty.

Powerful processing to welcome workload challenges—SkyHawk AI supports video analysis and recording simultaneously with GPU analytics workloads.

Enjoy consistent performance with built-in rotational vibration sensors providing reliable storage for NVR with little lag or downtime.

Multi-bay support helps you meet your growing storage demands with unlimited bays.

¹ Contact your Seagate sales representative for further information.



Specifications	20TB	18TB	16TB	12TB
Capacity	20TB	18TB	16TB	12TB
Standard Model Numbers	ST20000VE002	ST18000VE002	ST16000VE002	ST12000VE001
Interface	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s
Recording Technology	CMR	CMR	CMR	CMR
Drive Design	Helium	Helium	Helium	Helium
Features and Performance				
Drive Bays Supported	Unlimited	Unlimited	Unlimited	Unlimited
AI Channels	32	32	32	32
AI Real Time Capture Events/Sec ^{1,2}	Up to 120	Up to 120	Up to 120	Up to 120
AI Real Time Compare Events/Sec ^{1,2}	Up to 96	Up to 96	Up to 96	Up to 96
HD Cameras Supported ³	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)	260MB/s	260MB/s	250MB/s	250MB/s
Cache (MB)	256MB	256MB	256MB	256MB
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 10E15	1 per 10E15	1 per 10E15	1 per 10E15
Power-On Hours per year	8760	8760	8760	8760
Workload Rate Limit (WRL) ⁴	550	550	550	550
Mean Time Between Failures (MTBF) (hours)	2500000hr	2500000hr	2500000hr	2500000hr
Warranty, Limited (years) ⁵	5	5	5	5
Power Management				
Startup Current, Typical (12V, A)	2.0A	2.0A	2.0A	2.0A
Average Operating Power (W)	7.7W	7.7W	8.0W	8.0W
Idle Average (W)	3.5W	3.5W	5.3W	5.3W
Standby Mode/Sleep Mode, Typical (W)	1.0W	1.0W	1.3W	1.3W
Voltage Tolerance (5V)	±5%	±5%	±5%	±5%
Voltage Tolerance (12V)	±10%	±10%	±10%	±10%
Environmental/Temperature				
Operating (Ambient, min °C)	0°C	0°C	0°C	0°C
Operating (drive reported, max °C) ⁶	65°C	65°C	65°C	65°C
Nonoperating (ambient, min °C)	-40°C	-40°C	-40°C	-40°C
Physical				
Height (mm/in, max)	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)	680g/1.499lb	680g/1.499lb	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

¹ Events can be human, vehicle, or object capture.

² Tested and verified using embedded AI NVR – 64-ch HD recording, 16-ch PB. Average picture size ~250 KB

³ 1080P, H.265, 25 fps

⁴ SkyHawk AI surveillance drives are designed for always-on workloads of 550TB/year. For higher transaction workloads, see Seagate's enterprise-class drive offerings.

⁵ 5-year limited warranty applies to product shipped after July 3, 2021. Check with your reseller on more information.

⁶ Seagate does not recommend operating at sustained extreme temperatures. Operating at higher temperatures will reduce useful life of the product.



Specifications	10TB		8TB
Capacity	10TB	10TB	8TB
Standard Model Numbers	ST10000VE0008	ST10000VE001	ST8000VE001
Interface	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s
Recording Technology	CMR	CMR	CMR
Drive Design	Helium	Air	Air
Features and Performance			
Drive Bays Supported	Unlimited	Unlimited	Unlimited
AI Channels	32	32	32
AI Real Time Capture Events/Sec ^{1,2}	Up to 120	Up to 120	Up to 120
AI Real Time Compare Events/Sec ^{1,2}	Up to 96	Up to 96	Up to 96
HD Cameras Supported ³	Up to 64	Up to 64	Up to 64
RV Sensors	Yes	Yes	Yes
Max. Sustained Transfer Rate OD (MB/s)	250MB/s	245MB/s	245MB/s
Cache (MB)	256MB	256MB	256MB
Reliability/Data Integrity			
Tarnish Resistant	Yes	Yes	Yes
Load/Unload Cycles	600,000	600,000	600,000
Nonrecoverable Read Errors Rate, Max	1 per 10E15	1 per 10E15	1 per 10E15
Power-On Hours per year	8760	8760	8760
Workload Rate Limit (WRL) ⁴	550	550	550
Mean Time Between Failures (MTBF) (hours)	2500000hr	2000000hr	2000000hr
Warranty, Limited (years) ⁵	5	5	5
Power Management			
Startup Current, Typical (12V, A)	1.8A	2.0A	2.0A
Average Operating Power (W)	6.7W	10.1W	10.1W
Idle Average (W)	5.1W	7.8W	7.8W
Standby Mode/Sleep Mode, Typical (W)	1.1W	1.0W	1.0W
Voltage Tolerance (5V)	±5%	±5%	±5%
Voltage Tolerance (12V)	±10%	±10%	±10%
Environmental/Temperature			
Operating (Ambient, min °C)	0°C	0°C	0°C
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Weight (g/lb, typical)	670g/1.477lb	720g/1.588lb	720g/1.588lb
Carton Unit Quantity	20	20	20
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