

3.5 HARD DRIVE DATA SHEET

Smart. Safe. Secure. Video Optimised and Edge Ready

Seagate[®] SkyHawk[™] AI 18 TB is a video-optimised drive designed for NVRs with artificial intelligence (AI) for edge applications.





Best-Fit Applications

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





Key Advantages

ImagePerfect[™] Al firmware delivers zero dropped frames while supporting heavier workloads.

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

Rescue Data Recovery Services. SkyHawk AI comes with extra peace of mind for any mechanical, accidental, or natural disaster. With a 95% success rate of in-house recovery, Seagate has your back with a 3-year included Rescue Services plan.

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 Al drives are rated for 2M hours MTBF and a 550 TB/year workload rate for more than 3x that of standard surveillance hard drives. Backed by a 5-year limited warranty.

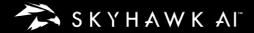
Powerful processing to welcome workload challenges — SkyHawk Al supports video analysis and recording simultaneously with GPU analytics workloads.

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 up to 16+bays.

1 Contact your Seagate sales representative for further information.







Specifications	18 TB	16 TB	12 TB	10 TB	10 TB
Capacity	18 TB	16 TB	12 TB	10 TB	10 TB
Standard Model Numbers	ST18000VE002	ST16000VE002	ST12000VE001	ST10000VE0008	ST10000VE001
Interface	SATA 6 Gb/s				
Recording Technology	CMR	CMR	CMR	CMR	CMR
Drive Design	Helium	Helium	Helium	Helium	Air
Features and Performance					
Drive Bays Supported	16+	16+	16+	16+	16+
Al Channels	32	32	32	32	32
Al Real Time Capture Events/Sec ^{1,2}	Up to 120				
Al Real Time Compare Events/Sec ^{1,2}	Up to 96				
HD Cameras Supported ³	Up to 64				
RV Sensors	Yes	Yes	Yes	Yes	Yes
Max. Sustained Transfer Rate OD (MB/s)	260MB/s	250MB/s	250MB/s	250MB/s	245MB/s
Cache (MB)	256	256	256	256	256
Reliability/Data Integrity					
Tarnish Resistant	Yes	Yes	Yes	Yes	Yes
Load/Unload Cycles	600,000	600,000	600,000	600,000	600,000
Non-recoverable Read Errors Rate, Max	1 per 10E15				
Power-On Hours per year	8,760	8,760	8,760	8,760	8,760
Workload Rate Limit (WRL) ⁴	550	550	550	550	550
Mean Time Between Failures (MTBF) (hours)	2,000,000 hr				
Warranty, Limited (years) ⁵	5	5	5	5	5
Rescue Data Recovery Services (years) ⁶	3	3	3	3	3
Power Management					
Startup Current, Typical (12V, A)	2	2	2	1.8	2
Average Operating Power (W)	8 W	8 W	8 W	6.9 W	10.1 W
Idling Average (W)	5.3 W	5.3 W	5.3 W	4.9 W	7.8 W
Standby Mode/Sleep Mode, Typical (W)	1.3/1.3	1.3/1.3	1.3/1.3	1.2/1.2	1/1
Voltage Tolerance (5 V)	±5%	±5%	±5%	±5%	±5%
Voltage Tolerance (12 V)	±10%	±10%	±10%	±10%	±10%
Environmental/Temperature					
Operating (Ambient, min °C) ⁷	0	0	0	0	0
Operating (drive reported, max °C) ⁷	65	65	65	65	65
Non-operating (ambient, min °C)	-40	-40	-40	-40	-40
Physical					
Height (mm/in, max)	26.11 mm/1.028 in				
Width (mm/in, max)	101.85 mm/4.01 in				
Depth (mm/in, max)	146.99 mm/5.787				
,	in	in	in	in	in
Weight (g/lb, typical)	670 g/1.477 lb	670 g/1.477 lb	670 g/1.477 lb	690 g/1.521 lb	720 g/1.587 lb
Carton Unit Quantity	20	20	20	20	20
Cartons per Pallet / Cartons per Layer	40/8	40/8	40/8	40/8	40/8

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



² Tested and verified using embedded Al NVR - 64-ch HD recording, 16-ch PB. Average picture size \sim 250 KB

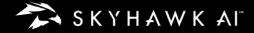
^{3 1080}P, H.265, 25 fps

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

 $^{5 \ {\}sf Extended} \ {\sf warranty} \ {\sf options} \ {\sf available}. \ {\sf Consult} \ {\sf your} \ {\sf distributor} \ {\sf for} \ {\sf details}.$

⁶ 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.

⁷ Seagate does not recommend operating at sustained extreme temperatures. Operating at higher temperatures will reduce useful life of the product.





Specifications	8 TB		
Capacity	8 TB		
Standard Model Numbers	ST8000VE001		
Interface	SATA 6 Gb/s		
Recording Technology	CMR		
Drive Design	Air		
Features and Performance			
Drive Bays Supported	16+		
Al Channels	32		
Al Real Time Capture Events/Sec ^{1,2}	Up to 120		
Al Real Time Compare Events/Sec ^{1,2}	Up to 96		
HD Cameras Supported ³	Up to 64		
RV Sensors	Yes		
Max. Sustained Transfer Rate OD (MB/s)	245MB/s		
Cache (MB)	256		
Reliability/Data Integrity			
Tarnish Resistant	Yes		
Load/Unload Cycles	600,000		
Non-recoverable Read Errors Rate, Max	1 per 10E15		
Power-On Hours per year	8,760		
Workload Rate Limit (WRL) ⁴	550		
Mean Time Between Failures (MTBF) (hours)	2,000,000 hr		
Warranty, Limited (years) ⁵	5		
Rescue Data Recovery Services (years) ⁶	3		
Power Management			
Startup Current, Typical (12V, A)	2		
Average Operating Power (W)	10.1 W		
Idling Average (W)	7.8 W		
Standby Mode/Sleep Mode, Typical (W)	1/1		
Voltage Tolerance (5 V)	±5%		
Voltage Tolerance (12 V)	±10%		
Environmental/Temperature			
Operating (Ambient, min °C) ⁷	0		
Operating (drive reported, max °C) ⁷	65		
Non-operating (ambient, min °C)	-40		
Physical			
Height (mm/in, max)	26.11 mm/1.028 in		
Width (mm/in, max)	101.85 mm/4.01 in		
Depth (mm/in, max)	146.99 mm/5.787 in		
Weight (g/lb, typical)	720 g/1.587 lb		
Carton Unit Quantity	20		
Cartons per Pallet / Cartons per Layer	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 1080}P, H.265, 25 fps

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