

Data Sheet

SV35.3 Series™

3.5-inch hard drives for surveillance digital video recording

250, 500, 750 GB, 1 TB • SATA 3Gb/s

Key Advantages

- Increased capacity points—now up to 1 TB—to support massive amounts of digital video
- Enterprise-class reliability for 24x7 video surveillance applications, with >1 million hours MTBF and <1 percent AFR
- ATA-7 streaming commands allow for data reads and writes to be tailored to either video, data or a combination of both, guaranteeing smooth, reliable video streaming as well as high-integrity database updates.
- Enhanced caching capabilities enable superior video recording quality.
- Capable of operating under drive case temperatures of up to 75°C
- Reduced power consumption and heat generation enable surveillance systems to run cooler and last longer
- Backed by industry-leading Seagate 5-year limited warranty

Best-Fit Applications

- Video surveillance digital video recorder (SDVR)
- Video surveillance network digital video recorder (SNVR)
- Direct-attached and network-attached JBOD video surveillance storage



SV35.3 Series™

3.5-inch hard drives for surveillance digital video recorders



The Seagate® SV35 Series™ drive enables security industry manufacturers, integrators and installers to accomplish more with less, greatly improving their surveillance solution offerings in terms of capacity, reliability, performance and features—all while taking advantage of an industry-leading Seagate 5-year limited warranty.

Capacity

- Longer archival periods enable customers to retain video for long-term analysis and evidentiary purposes
- Can store up to 289 days of video data or 32 days in high-resolution*
- Enables high-resolution video streams for intelligent video applications or analytics

* 289 days at 10 fps and 640x480 resolution; 32 days at 30 fps and 720x480 resolution with MPEG4 compressed video (I and P frames only). Actual recording times may vary based on video quality and compression format.

Reliability

Given the potentially critical nature of the security data involved, the application-specific features employed in the SV35 Series drive to enhance reliability take on even greater importance.

- 24x7 operation with >1 million hours MTBF
- Lower startup current (2.0 amps), enabling the use of low-cost power supplies
- Power-saving features provide more efficient system cooling
- Intelligent workload monitoring and management

Performance

- Enhanced caching capabilities
- SATA interface increases video data rates (480 Mb/s)
- Up to 3Gb/s bandwidth
- ATA-7 streaming commands guarantee smooth, reliable video streaming and high-integrity database updates

Dedication

- Unparalleled Seagate technical and marketing support infrastructure dedicated to video surveillance customers
- Field engineering and business support teams available in person, worldwide
- Third-generation SV35 Series drives deliver proven industry reliability and performance
- Backed by the industry's best warranty—Seagate 5-year limited warranty

Seagate Design Service Centers

- Expertise in helping surveillance equipment companies and manufacturers overcome technical issues and improve system designs
- Speeds your time to market by solving performance and reliability design issues quickly and efficiently
- Advanced application design advice available through our design centers throughout the world

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1-800-SEAGATE (1-800-732-4283)

Specifications	1 TB ¹	750 GB ¹	500 GB ¹	250 GB ¹
Model Number	ST31000340SV	ST3750330SV	ST3500320SV	ST3250310SV
Interface Options	SATA 3Gb/s	SATA 3Gb/s	SATA 3Gb/s	SATA 3Gb/s
Performance				
Average Seek (ms, typical)				
Read	<14	<14	<14	<14
Write	<15	<15	<15	<15
Cache, Multisegmented (MB)	32	32	32	8
SATA Data Transfer Modes Supported (Gb/s)	3.0/1.5	3.0/1.5	3.0/1.5	3.0/1.5
Track-to-Track Seek (ms, typical)				
Read	<1.0	<1.0	<1.0	<1.0
Write	<2	<2	<2	<2
Power-On to Ready (sec, typical, @ 25°C and nominal voltage)	16	16	16	16
Voltage				
Voltage Tolerance (including noise)	5.0V +10%/–7.5% 12V +10%/–7.5%	5.0V +10%/–7.5% 12V +10%/–7.5%	5.0V +10%/–7.5% 12V +10%/–7.5%	5V ±5% 12V ±10%
Configuration/Organization				
Bytes per Sector	512	512	512	512
Guaranteed Sectors	1,953,525,168	1,465,149,168	976,773,168	488,397,168
Reliability/Data integrity				
Nonrecoverable Read Errors per Bits Read	1 sector per 10E14	1 sector per 10E14	1 sector per 10E14	1 sector per 10E14
MTBF (hours)/Annualized Failure Rate (AFR) 40°C HDD Case Temp	>1 million/<1%	>1 million/<1%	>1 million/<1%	>1 million/<1%
Contact Start-Stop Cycles (25°C, 50% relative humidity)	50,000	50,000	50,000	50,000
Power Management				
Maximum Startup Current (12 V typical, amps)	2	2	2	2
Operating Mode (typical, W)	9.8	9.8	9.8	8.0
Standby/Sleep Mode (typical, W)	1.0	1.0	1.0	1.0
Environmental				
Temperature				
Operating (ambient min °C)	0	0	0	0
Operating (drive case max °C)	70	70	70	75
Nonoperating (ambient min °C)	–40	–40	–40	–40
Nonoperating (ambient max °C)	70	70	70	70
Temperature Gradient (°C per hour max), Operating/Nonoperating	20/30	20/30	20/30	20/30
Relative Humidity				
Operating (non-condensing, %)	5 to 90	5 to 90	5 to 90	5 to 90
Nonoperating (non-condensing, %)	5 to 95	5 to 95	5 to 95	5 to 95
Wet Bulb Temperature (°C max), Operating/Nonoperating	37.7/40.0	37.7/40.0	37.7/40.0	37.7/40.0
Shock, Operating: 2 ms (Gs)	63	63	63	63
Shock, Nonoperating: 2 ms (Gs)	300	300	300	350
Acoustic, Idle (typical/max bels)	2.7/2.9	2.7/2.9	2.7/2.9	2.5/2.8
Vibration				
5 to 22 Hz, Displacement Limited, Operating/Nonoperating (Gs)	0.25/2.0	0.25/2.0	0.25/2.0	0.5/5.0
22 to 350 Hz, Operating/Nonoperating (Gs)	0.5/5.0	0.5/5.0	0.5/5.0	0.5/5.0
350 to 500 Hz, Operating/Nonoperating (Gs)	0.25/2.0	0.25/2.0	0.25/2.0	0.25/1.0
Physical				
Height (mm/in)	26.11/1.028	26.11/1.028	26.11/1.028	20.2/0.794
Width (mm/in)	101.6/4.000	101.6/4.000	101.6/4.000	101.6/4.000
Depth (mm/in)	146.99/5.787	146.99/5.787	146.99/5.787	146.99/5.787
Weight (g/lb)	665/1.466	630/1.389	530/1.168	382/0.842

¹One gigabyte, or GB, equals one billion bytes and one terabyte, or TB, equals one trillion bytes when referring to hard drive capacity.

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