

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

[www.seagate.com](http://www.seagate.com)

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

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