

Data Sheet

# Momentum<sup>®</sup> 5400 FDE Family

Self-Encrypting Drives with Seagate Secure<sup>®</sup> technology for mainstream laptop computers

**500 GB and 250 GB • 5,400 RPM •  
SATA 3 Gb/s with NCQ**

#### Key Advantages

- Designed to help companies protect important data and comply with an increasing number of regulations
- Easy to implement and manage, as encryption is always on
- No impact on system performance, unlike software encryption
- Only drive accepted by the National Security Agency (NSA) to protect classified, mission-critical and national security information
- Works with multiple security software applications to provide greater functionality
- Adopted by global companies and government agencies with the highest standards of security protection

#### Best-fit Applications

- Corporate laptops that contain confidential employee, customer or corporate information
- Field sales, service and support laptops that contain critical customer data
- Personal laptops that contain sensitive information
- Industrial applications such as ATMs, POS systems and other teller-like systems



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## Encryption Integration without Headaches

The need for better, stronger security has never been greater. However, some companies have not yet implemented an encryption solution because of concerns over cost, complexity and a noticeable performance hit to employees' systems.

Hardware encryption is preferable to software solutions because it provides stronger security and has no negative impact on PCs.

The Momentum FDE drives were the first to be introduced, and they have been adopted by small and large businesses and government agencies around the world. This is the only drive family to have US National Security Agency acceptance for protecting classified, mission-critical and national security information, making it the drive of choice for companies who want this extra measure of confidence.

Seagate Secure technology enables IT departments to manage the security features of the drive via an enterprise security server. In fact, IT departments can manage multi-user and admin passwords that can invoke multi-factor logins as well as single sign-on and crypto-erase functionality, without ever touching the laptop. This can be done for a handful of laptop PCs or a worldwide enterprise. The management is all done via independent software vendors who have designed security management software to integrate with the Seagate Secure technology.

Seagate Self-Encrypting Drives are easy to deploy and manage, and a variety of security software companies have partnered with Seagate to provide additional levels of security management and protection. Keep in mind, this solution requires security management software from an independent software vendor. For a list of Seagate Secure independent software vendors please visit [www.seagate.com/security\\_gb/](http://www.seagate.com/security_gb/).

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

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Specifications	500 GB <sup>1</sup>	250 GB <sup>1</sup>
Model Number	ST9500327AS	ST9250317AS
Interface Options	SATA 3-Gb/s NCQ	SATA 3-Gb/s NCQ
<b>Performance</b>		
Transfer Rate		
Maximum Internal (Mb/s)	1,175	1,175
Maximum External (MB/s)	300	300
Cache (MB)	8	8
Average Latency (ms)	5.6	5.6
Spindle Speed (RPM)	5,400	5,400
Areal Density (Gb/in <sup>2</sup> )	394	394
<b>Configuration/Organisation</b>		
Discs/Heads	2/4	1/2
Bytes per Sector	512	512
<b>Reliability/Data Integrity</b>		
G-Force Protection™	—	—
Head-Rest Method	QuietStep™ Ramp Load	QuietStep Ramp Load
Load/Unload Cycles	>600,000	>600,000
Non-recoverable Read Errors per Bits Read	1 per 10 <sup>14</sup>	1 per 10 <sup>14</sup>
Annualised Failure Rate (AFR)	<0.48%	<0.48%
<b>Power Management</b>		
Startup Current 5V (amps max)	1.0	1.0
Power Management (W)		
Seek	1.54	1.54
Read/Write Avg	1.40/1.78	1.40/1.78
Idle/Standby Avg	0.67/0.22	0.67/0.22
<b>Environmental</b>		
Temperature (°C)		
Operating	0 to 60	0 to 60
Non-operating	-40 to 70	-40 to 70
Shock (Gs)		
Operating: 2 ms	350	350
Non-operating: 1 ms	1,000	1,000
Acoustics (bels — sound power)		
Idle	2.4	2.4
Seek	2.6	2.6
<b>Physical</b>		
Height (in/mm)	0.374/9.5	0.374/9.5
Width (in/mm)	2.75/69.85	2.75/69.85
Depth (in/mm)	3.957/100.5	3.957/100.5
Weight (lb/g)	0.218/98.8	0.206/93.5

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

<sup>2</sup> Drive with G-Force Protection feature

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