

Data Sheet

Momentum® 7200.4

Industry-leading 7,200-RPM performance meets extraordinary green low power consumption levels

**Up to 500 GB • 7,200 RPM • SATA 3 Gb/s with NCQ
• Optional G-Force Protection™ technology**

Key Advantages

- Highest available notebook performance increases productivity in all environments.
- SATA 3-Gb/s interface with Native Command Queuing (NCQ) and command ordering
- 16-MB cache on every capacity
- Green features:
 - Leverages Seagate® laptop power management technology, delivering the lowest-power 500-GB, 7,200-RPM-laptop hard drive to date
 - Uses ramp load features that remove the head from the disc during idle periods, improving idle power consumption and adding to the durability of the drive
- Optional G-Force Protection™ feature adds another layer of robustness for road warriors.
- QuietStep™ technology enables ultra-quiet load/unload acoustics.
- State-of-the-art cache and on-the-fly error-correction algorithms
- Fluid dynamic bearing motor for quiet operation
- Support for SMART drive monitoring and reporting

Best-fit Applications

- High-performance and mainstream laptop PCs
- Small form factor PCs
- Workstations
- Non-mission-critical blade servers and industrial applications



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Seagate Leadership

Seagate Technology, a leader in storage, is dedicated to building products that meet the needs of the consumer and integrator, allowing them to build solutions that are state-of-the-art, maximising useful system life.

Seagate also works hand-in-hand with major technology players to develop new platforms and interfaces for system builders. Unlike many of our competitors, at Seagate we take a leadership role, as well as learning from our customers, to develop the future of storage and its implications for computing.

As a result, Seagate continually delivers innovations that are mainstays of storage today:

- Products: 7,200-RPM desktop and laptop drives, security drives
- Technologies: Serial ATA, perpendicular recording, encryption, hybrid drives
- Features: Freefall protection, power management, enterprise security, green components

Seagate customers can build a storage foundation with the confidence that they are using products that will perform today and in the future, enhancing business and operational continuity.

G-Force Protection™

The G-Force Protection feature provides enhanced data protection against shock that may occur while the drive is operating. This feature is designed to decrease the likelihood of data loss by detecting a freefall event and unloading the actuator before a shock takes place in falls of greater than 8 inches (nominal).

Seagate Global Customer Support

- Get pre-sales and technical support at www.seagate.com/www/en-gb/support/
- Visit our knowledge base for answers to common support questions
- Find documentation for current and legacy drives
- Use our online troubleshooting and diagnostic tools
- Download DiscWizard™ to help migrate data from an older drive
- Seagate also offers multilingual phone, email and chat support
- Seagate Design Service Centres (DSC) help companies transform innovative ideas into viable products

Specifications	500 GB ¹	250 GB ¹
Model Number	ST9500420AS ST9500420ASG	ST9250410AS ST9250410ASG
Interface Options	SATA 3-Gb/s NCQ	SATA 3-Gb/s NCQ
Performance		
Cache (MB)	16	16
Spindle Speed (RPM)	7,200	7,200
Configuration/Organisation		
Bytes per Sector	512	512
Logical CHS	16,383/16/63	16,383/16/63
Reliability/Data Integrity		
Recording Method	16/17 EPRML	16/17 EPRML
Head-Rest Method	QuietStep™ Ramp Load	QuietStep Ramp Load
Load/Unload Cycles	600,000	600,000
Non-recoverable Read Errors per Bits Read	1 sector per 10 ¹⁴	1 sector per 10 ¹⁴
Power Management		
Power (W)		
Seek, Typical	1.554	1.554
Idle, Typical	0.67	0.67
Environmental		
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, Typical	2.3	2.3
Seek, Typical	2.5	2.5
Physical		
Height (in/mm)	0.370/9.5	0.370/9.5
Width (in/mm)	2.75/69.85	2.75/69.85
Depth (in/mm)	3.951/100.35	3.951/100.35
Weight (lb/g)	0.238/110	0.227/105

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

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