

Data Sheet

# Momentum® 5400.6

Durable mobility anywhere, anytime

**500, 250 and 120 GB • 5400 RPM •  
SATA 3Gb/s with NCQ • G-Force Protection™**

### Key Advantages

- 8-MB cache delivers fast performance.
- Robust design and high shock tolerance enable mobility in rugged operating environments.
- 1000 Gs of nonoperating shock make the drive ideal for notebook PCs and industrial applications.
- G-Force Protection™ feature available for added robustness in mobile environments
- Green features:
  - Leverages Seagate laptop power management technology, delivering the lowest-power 5400-RPM laptop hard drive yet
  - Utilizes ramp load features that remove the head from the disk during idle periods, improving idle power consumption and adding to the durability of the drive
- QuietStep™ technology enables ultra-quiet load/unload acoustics
- SATA 3Gb/s interface with Native Command Queuing
- Perpendicular recording technology
- High instantaneous (burst) data transfer rates up to 3 Gb/s



### Best-Fit Applications

- Mainstream laptops
- External storage solutions/boxes
- Whitebooks
- Industrial applications requiring a small form factor

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Durable mobility anywhere, anytime



With fourth-generation perpendicular magnetic recording technology and capacities up to 500 GB, the Seagate® Momentum® 5400.6 drive offers the best combination of capacity, mobility and durability in a laptop hard drive. The Momentum 5400.6 drive offers a fast SATA 3Gb/s interface plus an 8-MB cache, making the drive ideal for mainstream laptops, workstations, gaming laptops and personal external storage.

## G-Force Protection

When a laptop is dropped, the most catastrophic damage to the hard drive occurs when the head scrapes across the surface of the disk, causing potential data loss. The G-Force Protection feature, an optional drop sensor, protects the Momentum 5400.6 drive against shock by sensing when the system is in a free-fall state, moving the heads off the platter and locking them in place—all within three-tenths of a second.

## Seagate Global Customer Support

- Get presales and technical support at [support.seagate.com](http://support.seagate.com).
- Visit our knowledge base for answers to common support questions.
- Find documentation for current and legacy drives
- Utilize our online troubleshooting and diagnostic tools.
- Download DiscWizard™ help transfer data from an older drive.
- Seagate also offers multi-lingual phone, email and chat support.
- Seagate Design Service Centers help companies transform innovative ideas into viable products.

Specifications	500 GB <sup>1</sup>	250 GB <sup>1</sup>	120 GB <sup>1</sup>
<b>Model Number</b>	ST9500325AS ST9500325ASG <sup>2</sup>	ST9250315AS ST9250315ASG <sup>2</sup>	ST9120315AS
<b>Interface Options</b>	SATA 3Gb/s NCQ	SATA 3Gb/s NCQ	SATA 3Gb/s NCQ
<b>Performance</b>			
<b>Transfer Rate</b>			
Maximum Internal (Mb/s)	1175	1175	1175
Maximum External (MB/s)	300	300	300
<b>Cache (MB)</b>	8	8	8
<b>Average Latency (ms)</b>	5.6	5.6	5.6
<b>Spindle Speed (RPM)</b>	5400	5400	5400
<b>Areal Density (Gb/in<sup>2</sup>)</b>	394	394	394
<b>Configuration/Organization</b>			
<b>Disks/Heads</b>	2/4	1/2	1/1
<b>Bytes per Sector</b>	512	512	512
<b>Reliability/Data Integrity</b>			
<b>G-Force Protection™</b>	Available	Available	—
<b>Head-Rest Method</b>	QuietStep™ Ramp Load	QuietStep Ramp Load	QuietStep Ramp Load
<b>Load/Unload Cycles</b>	>600,000	>600,000	>600,000
<b>Nonrecoverable Read Errors per Bits Read</b>	1 per 10E14	1 per 10E14	1 per 10E14
<b>Annualized Failure Rate (AFR)</b>	0.48%	0.48%	0.48%
<b>Power Management</b>			
<b>Startup Current 5V (amps max)</b>	1.0	1.0	1.0
<b>Power Management (W)</b>			
Seek	1.54	1.54	1.54
Read/Write Avg	2.6/2.85	2.6/2.85	2.6/2.85
Idle/Standby Avg	0.81/0.22	0.81/0.22	0.81/0.22
<b>Environmental</b>			
<b>Temperature (°C)</b>			
Operating	0 to 60	0 to 60	0 to 60
Nonoperating	-40 to 70	-40 to 70	-40 to 70
<b>Shock (Gs)</b>			
Operating: 2 ms	350	350	350
Nonoperating: 1 ms	1000	1000	1000
<b>Acoustics (bels—sound power)</b>			
Idle	2.4	2.4	2.4
Seek	2.6	2.6	2.6
<b>Physical</b>			
<b>Height (in/mm)</b>	0.374/9.5	0.374/9.5	0.374/9.5
<b>Width (in/mm)</b>	2.75/69.85	2.75/69.85	2.75/69.85
<b>Depth (in/mm)</b>	3.957/100.5	3.957/100.5	3.957/100.5
<b>Weight (lb/kg)</b>	0.218/98.8	0.206/93.5	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

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

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