

Data Sheet

# Momentum® 5400.5

Durable mobility—anywhere, anytime

**320, 160, 80 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 notebook operating environments.
- 1000 Gs of nonoperating shock make the drive ideal for notebook PCs and industrial applications.
- G-Force Protection™ 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 Native Command Queuing interface
- Perpendicular recording technology

#### Best-Fit Applications

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



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## 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. G-Force Protection, an optional drop sensor, protects the Momentum 5400.5 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™ to help migrate data from an older drive.
- Seagate also offers multi-lingual phone, email and chat support.
- Seagate Design Service Centers (DSC) help companies transform innovative ideas into viable products.

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

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

Specifications	320 GB <sup>1</sup>	160 GB <sup>1</sup>	80 GB <sup>1</sup>
Model Number	ST9320320AS ST9320320ASG	ST9160310AS ST9160310ASG	ST980310AS ST980310ASG
Interface	SATA 3Gb/s NCQ	SATA 3Gb/s NCQ	SATA 3Gb/s NCQ
<b>Performance</b>			
Transfer Rate (MB/s)			
Sustained Internal	61.3	60.3	60.3
Maximum External	300	300	300
Cache (MB)	8	8	8
Average Latency (ms)	5.56	5.56	5.56
Spindle Speed (RPM)	5400	5400	5400
<b>Configuration/Organization</b>			
Disks/Heads	2/4	1/2	1/1
Bytes per Sector	512	512	512
<b>Reliability/Data Integrity</b>			
Head-Rest Method	QuietStep™ Ramp Load	QuietStep Ramp Load	QuietStep Ramp Load
G-Force Protection	Available	Available	Available
Load/Unload Cycles	>600,000	>600,000	>600,000
Nonrecoverable Read Errors per Bits Read	1 per 10E14	1 per 10E14	1 per 10E14
Annualized Failure Rate (AFR)	0.48%	0.48%	0.48%
Mean Time Before Failure (hrs)	500,000	500,000	500,000
<b>Power Management</b>			
Startup Current 5v (amps max)	1.0	1.0	1.0
<b>Power Management (W)</b>			
Seek Avg	1.3	1.3	1.3
Read/Write Avg	1.6	1.6	1.6
Idle/Standby Avg	0.685/0.205	0.685/0.205	0.685/0.205
<b>Environmental</b>			
Temperature			
Operating (°C)	0 to 60	0 to 60	0 to 60
Nonoperating (°C)	-40 to 70	-40 to 70	-40 to 70
Shock (Gs)			
Operating: 2 ms	350	350	350
Nonoperating: 1 ms	1000	1000	1000
<b>Acoustics (bels—sound power, typical)</b>			
Idle	2.3	2.3	2.3
Seek	2.6	2.6	2.6
<b>Physical</b>			
Height (in/mm)	0.374/9.5	0.374/9.5	0.374/9.5
Width (in/mm)	2.75/69.85	2.75/69.85	2.75/69.85
Depth (in/mm)	3.957/100.5	3.957/100.5	3.957/100.5
Weight (lb/g)	0.243/110	0.217/98.5	0.205/93

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

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