

Data Sheet

# Momentum<sup>®</sup> Thin

The world's first 7mm, 2.5-inch form factor drive created for slim computing designs

**320, 250 and 160GB • 16MB cache •  
7200 RPM and 5400 RPM • Self-Encrypting Drives •  
SATA 3Gb/s with NCQ**

## Key Features and Benefits

- 7mm z-height form factor enables:
  - thin chassis design for all segments of notebook computing
  - integrators to differentiate their solutions in the entry-level space
  - integrators to design-in value on high-end netbooks for easier up-selling
- 2.5-inch form factor leverages design expertise and knowledge for reliable solutions
- 5400 RPM delivers standard notebook performance and power consumption without sacrifice
- 7200 RPM provides performance for the speed enthusiasts
- 320GB, 250GB and 160GB capacity options allow integrators to build fully functional computing devices that meet entry-level computing requirements.
- Seagate SmartAlign™ technology provides a transition to 4K sectors without the need for software utilities.
- Self-Encrypting Drives mitigate data breaches, comply with data protection regulations and preserve brand recognition.

## Best-Fit Applications

- Entry-level to high-performance laptops—Enjoy a stylish, thin and lightweight design without exceeding your budget.
- Netbooks—Get a thinner netbook without compromising on storage or affordability.
- Ultraportables—Take advantage of a stylish, thin and lightweight design without compromising on features.
- Slim consumer electronics devices—Add some style to your digital life.



# Momentum® Thin

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Seagate clearly demonstrates how to help differentiate, increase profitability and meet market demand for slim computing with the Seagate® Momentum® Thin drive.

- With the 2.5-inch form factor, Seagate enables compromise-free, cost-effective and reliable storage for slim, entry-level laptops, high-end netbooks, ultraportables and consumer electronics devices.
- Momentum Thin drives come in 320, 250 and 160GB capacities, to provide the right capacity points for full-functioning computing devices. For performance enthusiasts, check out the all-new 7200-RPM Momentum Thin drive.

- With 16MB of cache and a 5400-RPM spindle speed, users can experience mainstream performance with low power consumption. Need even more performance? Try out the 16MB cache with 7200 RPM for high-performance thin laptops.
- Seagate Self-Encrypting Drives deliver government-grade encryption without performance degradation – protecting your data where it lives.
- The drive is compatible with any SATA platform.

Specifications	5400 RPM			7200 RPM		
	320GB <sup>1</sup>	250GB <sup>1</sup>	160GB <sup>1</sup>	320GB <sup>1</sup>	250GB <sup>1</sup>	160GB <sup>1</sup>
Standard Models	ST320LT020	ST250LT003	ST160LT003	ST320LT007	ST250LT007	ST160LT007
Self-Encrypting Drive Models				ST320LT014	ST250LT014	
Interface	SATA 3Gb/s NCQ	SATA 3Gb/s NCQ	SATA 3Gb/s NCQ	SATA 3Gb/s NCQ	SATA 3Gb/s NCQ	SATA 3Gb/s NCQ
Cache (MB)	16	16	16	16	16	16
<b>Configuration</b>						
Bytes per Sector	4096 <sup>2</sup>	4096 <sup>2</sup>	4096 <sup>2</sup>	4096 <sup>2</sup>	4096 <sup>2</sup>	4096 <sup>2</sup>
<b>Reliability/Data Integrity</b>						
Head-Rest Method	QuietStep™ Ramp Load	QuietStep Ramp Load	QuietStep Ramp Load	QuietStep Ramp Load	QuietStep Ramp Load	QuietStep Ramp Load
Load/Unload Cycles	>600,000	>600,000	>600,000	>600,000	>600,000	>600,000
Nonrecoverable Read Errors per Bits Read	1 per 10E14	1 per 10E14	1 per 10E14	1 per 10E14	1 per 10E14	1 per 10E14
Annualized Failure Rate (AFR)	0.48%	0.48%	0.48%	0.48%	0.48%	0.48%
<b>Power Management</b>						
Power (W)						
Seek, Typical	1.4	1.4	1.4	1.6	1.6	1.6
Idle, Typical	0.48	0.48	0.48	0.66	0.66	0.66
<b>Environmental</b>						
Temperature (°C)						
Operating	0 to 60	0 to 60	0 to 60	0 to 60	0 to 60	0 to 60
Nonoperating	-40 to 70	-40 to 70	-40 to 70	-40 to 70	-40 to 70	-40 to 70
Shock (Gs)						
Operating: 2ms	350	350	350	350	350	350
Nonoperating: 1ms	1000	1000	1000	1000	1000	1000
Acoustics (dels — sound power)						
Idle, Typical	2.0	2.0	2.0	2.3	2.3	2.3
Seek, Typical	2.2	2.2	2.2	2.5	2.5	2.5
<b>Physical</b>						
Height (in/mm)	0.276/7.0	0.276/7.0	0.276/7.0	0.276/7.0	0.276/7.0	0.276/7.0
Width (in/mm)	2.76/70.1	2.76/70.1	2.76/70.1	2.76/70.1	2.76/70.1	2.76/70.1
Depth (in/mm)	3.959/100.55	3.959/100.55	3.959/100.55	3.959/100.55	3.959/100.55	3.959/100.55
Weight (lb/g)	0.203/92.0	0.203/92.0	0.203/92.0	0.203/92.0	0.203/92.0	0.203/92.0

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

2 Advanced Format 4K sector drive with SmartAlign™ technology resolves misalignment conditions.

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

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