

# Momentum Thin

## Data Sheet

### The World's First 7mm, 2.5 Inch Form Factor Drive

- 7mm z-height form factor enables thin chassis design for all segments of laptop computing.
- Seagate SmartAlign™ technology provides a transition to 4K sectors without the need for software utilities.<sup>1</sup>
- Self-Encrypting Drives mitigate data breaches, comply with data protection regulations and preserve brand recognition.<sup>1</sup>
- Self-Encrypting Drives with FIPS 140-2 certification are approved by the US and Canadian governments.<sup>1,2</sup>

### Best-fit Applications

- Entry-level to high-performance laptops — enjoy a stylish, thin and lightweight design without exceeding your budget.
- Netbooks — have 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.

<sup>1</sup> Refer to specifications table for further information and feature options.

<sup>2</sup> See FIPS 140-2 Level 2 Certificate at <http://csrc.nist.gov/groups/STM/cmvp/documents/140-1/1401vend.htm>



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Specifications	Momentum 5400 Drives			Momentum 7200 Drives	
	500GB <sup>1</sup>	320GB <sup>1</sup>	250GB <sup>1</sup>	320GB <sup>1</sup>	250GB <sup>1</sup>
<b>Feature Options</b>					
Standard Models	ST500LT012 <sup>2</sup>	ST320LT020 <sup>2</sup> ST320LT012 <sup>3</sup>	ST250LT003 <sup>2</sup> ST250LT012 <sup>3</sup>	ST320LT007 <sup>2</sup>	ST250LT007 <sup>2</sup>
Self-Encrypting Drive Models	ST500LT025 <sup>3</sup>			ST320LT014 <sup>2</sup>	
Self-Encrypting Drive FIPS 140-2 Validated	ST500LT015 <sup>3</sup>			ST320LT009 <sup>2</sup>	
Interface	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
<b>Configuration</b>					
Bytes per Sector	4,096	4,096	4,096	4,096	4,096
<b>Reliability/Data Integrity</b>					
Head-Rest Method	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
Non-recoverable Read Errors per Bits Read	1 per 10 <sup>14</sup>	1 per 10 <sup>14</sup>	1 per 10 <sup>14</sup>	1 per 10 <sup>14</sup>	1 per 10 <sup>14</sup>
Annualised Failure Rate (AFR)	0.48%	0.48%	0.48%	0.48%	0.48%
<b>Power Management</b>					
Power (W)					
Seek, Typical	1.2	1.4	1.4	1.6	1.6
Idling, Typical	0.45	0.48	0.48	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
Non-operating	-40 to 70	-40 to 70	-40 to 70	-40 to 70	-40 to 70
Shock (Gs)					
Operating: 2ms	400	350	350	350	350
Non-operating: 1ms	1,000	1,000	1,000	1,000	1,000
Acoustics (bels — sound power)					
Idling, Typical	2.0	2.0	2.0	2.3	2.3
Seek, Typical	2.2	2.2	2.2	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
Width (in/mm)	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
Weight (lb/g)	0.203/92.0	0.203/92.0	0.203/92.0	0.203/92.0	0.203/92.0
Carton Unit Quantity	50	50	50	50	50
Cartons per Pallet	60	60	60	60	60
Cartons per Layer	10	10	10	10	10

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

<sup>2</sup> Advanced Format 4K sector drive with SmartAlign™ technology resolves misalignment conditions.

<sup>3</sup> SmartAlign technology is not available on this model.



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

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