

Momentus 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.¹
- Self-Encrypting Drives mitigate data breaches, comply with data protection regulations and preserve brand recognition.¹
- Self-Encrypting Drives with FIPS 140-2 certification are approved for the U.S. and Canadian governments.^{1,2}

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.



2 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	Momentus 5400 Drives			Momentus 7200 Drives	
	500GB1	320GB1	250GB1	320GB ¹	250GB1
Feature Options					
Standard Models	ST500LT012 ²	ST320LT020 ² ST320LT012 ³	ST250LT003 ² ST250LT012 ³	ST320LT007 ²	ST250LT007 ²
Self-Encrypting Drive Models	ST500LT025 ³			ST320LT014 ²	
Self-Encrypting Drive FIPS 140-2 Validated	ST500LT015 ³			ST320LT009 ²	
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
Configuration					
Bytes per Sector	4096	4096	4096	4096	4096
Reliability/Data Integrity					
Head-Rest Method	Quiet Step™ Ramp Load	Quiet Step Ramp Load	Quiet Step Ramp Load	Quiet Step Ramp Load	Quiet Step Ramp Load
Load/Unload Cycles	>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
Annualized Failure Rate (AFR)	0.48%	0.48%	0.48%	0.48%	0.48%
Power Management					
Power (W) Seek, Typical Idle, Typical	1.2 0.45	1.4 0.48	1.4 0.48	1.6 0.66	1.6 0.66
Environmental					
Temperature (°C) Operating Nonoperating	0 to 60 -40 to 70	0 to 60 -40 to 70	0 to 60 -40 to 70	0 to 60 -40 to 70	0 to 60 -40 to 70
Shock (Gs) Operating: 2ms Nonoperating: 1ms	400 1000	350 1000	350 1000	350 1000	350 1000
Acoustics (bels—sound power) Idle, Typical Seek, Typical	2.0 2.2	2.0 2.2	2.0 2.2	2.3 2.5	2.3 2.5
Physical					
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

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









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AMERICAS ASIA/PACIFIC EUROPE, MIDDLE EAST AND AFRICA Seagate Technology LLC 10200 South De Anza Boulevard, Cupertino, California 95014, United States, 408-658-1000 Seagate Singapore International Headquarters Pte. Ltd. 7000 Ang Mo Kio Avenue 5, Singapore 569877, 65-6485-3888 Seagate Technology SAS 16–18, rue du Dôme, 92100 Boulogne-Billancourt, France, 33 1-4186 10 00

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

³ SmartAlign technology is not available on this model.