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 by the US 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 — 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.

[1] Refer to specifications table for further information and feature options.
[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	
	500GB[1]	**320GB[1]**	**250GB[1]**	**320GB[1]**	**250GB[1]**
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	4,096	4,096	4,096	4,096	4,096
Reliability/Data Integrity					
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^{14}	1 per 10^{14}	1 per 10^{14}	1 per 10^{14}	1 per 10^{14}
Annualised Failure Rate (AFR)	0.48%	0.48%	0.48%	0.48%	0.48%
Power Management					
Power (W) Seek, Typical / Idling, 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 / Non-operating	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 / Non-operating: 1ms	400 / 1,000	350 / 1,000	350 / 1,000	350 / 1,000	350 / 1,000
Acoustics (bels — sound power) Idling, 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.

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

[3] SmartAlign technology is not available on this model.

FIPS 140-2 Inside **Think Green™** **Seagate Secure®** **ADVANCED AF FORMAT**

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