



Data Sheet

Momentus[®] Thin

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

Key Advantages

- 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.
- Self-Encrypting Drives mitigate data breaches, comply with data protection regulations and preserve brand recognition.
- Self-Encrypting Drives with FIPS 140-2 certification¹ are approved for the U.S. and Canadian governments.

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.

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



Momentum® Thin



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- Seagate clearly demonstrates how to help differentiate, increase profitability and meet market demand for slim computing.
- The 2.5-inch form factor enables compromise-free, cost-effective and reliable storage for slim, entry-level laptops, high-end netbooks, ultraportables and CE devices.
 - Seagate® 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 7200-RPM Momentum Thin drive.
 - Users now have 16MB of cache on both the mainstream 5400-RPM and the high-performance 7200-RPM options.
 - Seagate Self-Encrypting Drives (SED) deliver government-grade encryption without performance degradation – protecting your data where it lives.
 - The Momentum Thin SED is the first Trusted Computing Group Opal specification drive to achieve FIPS 140-2, Level-2 certification by the U.S. and Canadian governments.

| Specifications | Momentum 5400 Drives | | | Momentum 7200 Drives | | |
|--|-----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | 320GB ¹ | 250GB ¹ | 160GB ¹ | 320GB ¹ | 250GB ¹ | 160GB ¹ |
| Feature Options | | | | | | |
| Standard Models | ST320LT020 | ST250LT003 | ST160LT003 | ST320LT007 | ST250LT007 | ST160LT007 |
| Self-Encrypting Drive Models | | | | ST320LT014 | ST250LT014 | |
| Self-Encrypting Drive FIPS 140-2 Validated | | | | ST320LT009 | ST250LT009 | |
| 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 |
| Configuration | | | | | | |
| Bytes per Sector | 4096 ² | 4096 ² | 4096 ² | 4096 ² | 4096 ² | 4096 ² |
| Reliability/Data Integrity | | | | | | |
| Head-Rest Method | Quiet Step™ Ramp Load | Quiet Step 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% |
| Power Management | | | | | | |
| 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 |
| Environmental | | | | | | |
| 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 (bels—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 |
| Physical | | | | | | |
| 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 |
| Carton Unit Quantity | 50 | 50 | 50 | 50 | 50 | 50 |
| Cartons per Pallet | 60 | 60 | 60 | 60 | 60 | 60 |
| Cartons per Layer | 10 | 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.

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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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