

Data Sheet

Momentum[®] XT

Powerful, Intelligent, Affordable—Solid State Hybrid Drive

**500, 320 and 250GB hard drive •
4GB solid state memory • 7200 RPM •
32MB cache • SATA 3Gb/s with NCQ**

Key Advantages

- Solid state hybrid drive delivers SSD-like performance with hard drive capacity options.
- Adaptive Memory™ technology customizes performance by aligning to user needs for overall improved system response.
- 80 percent faster performance than traditional 7200-RPM drives in PCMark Vantage benchmark scores
- Low heat and vibration—quiet operation without giving up storage capacity and affordability
- OS- and application-independent—designed for any SATA standard laptop PC
- Seagate® 5-Year Limited Warranty

Best-Fit Applications

- High-end laptops and workstations
- High-performance gamer laptops
- Fast external enclosures: USB 3.0, eSATA
- Small form factor PCs



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The Seagate Momentum® XT drive offers hybrid storage with Adaptive Memory technology, enabling the drive to deliver higher capacities up to 500GB and SSD-like performance. The Momentum XT drive is designed for all standard laptop PCs and is OS-, driver- and software-independent, making this drive easy to integrate and easy to use. Adaptive Memory technology enables the drive to tailor its performance to the user. Whether you are gaming, editing digital media or crunching numbers, the performance is optimized and ready for your next move.

Adaptive Memory technology is a Seagate data management technique that constantly monitors and quickly recalls data usage and preferences. It places files and data that the user will likely access again and again into the solid state portion of the drive. When the user requires the data or application file, it already sits in an instantly accessible location, thereby customizing system performance for the user. Constant monitoring dynamically improves overall response time based on personal usage. You can perform at your best no matter how you use your laptop PC.

Specifications	500GB ¹	320GB ¹	250GB ¹
Model Number	ST95005620AS	ST93205620AS	ST92505610AS
Solid State Memory, SLC NAND (GB)	4	4	4
Interface	SATA 3Gb/s NCQ	SATA 3Gb/s NCQ	SATA 3Gb/s NCQ
Cache (MB)	32	32	32
Configuration			
Bytes per Sector	512	512	512
Reliability/Data Integrity			
Head-Rest Method	QuietStep™ Ramp Load	QuietStep Ramp Load	QuietStep Ramp Load
Load/Unload Cycles	>600,000	>600,000	>600,000
Nonrecoverable Read Errors per Bits Read	1 per 10E14	1 per 10E14	1 per 10E14
Power Management			
Power (W)			
Seek, Typical	1.554	1.554	1.554
Idle, Typical	0.8	0.8	0.8
Environmental			
Temperature (°C)			
Operating	0 to 60	0 to 60	0 to 60
Nonoperating	-40 to 70	-40 to 70	-40 to 70
Shock (Gs)			
Operating: 2ms	350	350	350
Nonoperating: 1ms	1000	1000	1000
Acoustics (bels—sound power)			
Idle, Typical	2.3	2.3	2.3
Seek, Typical	2.5	2.5	2.5
Physical			
Height (in/mm)	0.370/9.5	0.370/9.5	0.370/9.5
Width (in/mm)	2.75/69.85	2.75/69.85	2.75/69.85
Depth (in/mm)	3.951/100.35	3.951/100.35	3.951/100.35
Weight (lb/g)	0.238/110	0.238/110	0.238/110

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

www.seagate.com
1-800-SEAGATE (1-800-732-4283)

AMERICAS Seagate Technology LLC 920 Disc Drive, Scotts Valley, California 95066, United States, 831-438-6550
ASIA/PACIFIC Seagate Singapore International Headquarters Pte. Ltd. 7000 Ang Mo Kio Avenue 5, Singapore 569877, 65-6485-3888
EUROPE, MIDDLE EAST AND AFRICA Seagate Technology SAS 16-18 rue du Dôme, 92100 Boulogne-Billancourt, France, 33 1-4186 10 00

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