

Data Sheet

Momentum 5400 PSD

2.5-inch hybrid drive for Windows Vista laptops

**160, 120 and 80 GB • 256-MB Flash Memory •
5400 RPM • 2.5-Inch Laptop Drive**

Key Advantages

- Power efficiency—Laptop battery life is extended by the ability of the Seagate® Momentum® 5400 PSD drive to power off the spin motor and operate out of flash memory.
- Faster system response time—Boot quicker and resume from hibernation almost instantly when critical files are kept within the flash.
- High durability—Spinning the drive down creates less mechanical movement and increases drive reliability. In addition, the hybrid drive is incredibly robust in mobile environments.
- Unleashes Microsoft Windows Vista—Windows Vista ReadyDrive requires a hybrid drive such as the Seagate Momentum 5400 PSD drive to unlock all its powerful features.

Best-Fit Applications

- Power-efficient laptop PCs
- High-performance laptop PCs
- Mainstream laptop PCs



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2.5-inch hybrid drive for Windows Vista laptops



The Momentum 5400 PSD drive is a 2.5-inch drive designed with the Microsoft Vista OS in mind. By designing in a 256-MB flash memory to act as a large holding tank for frequently accessed data, the Momentum 5400 PSD drive will boot laptop PCs quickly and resume from hibernation almost instantly. The Momentum 5400 PSD drive and Windows Vista can analyze the laptop usage pattern, pin frequently used files in the flash and predict your next move. This technology allows the drive to operate out of flash with the disks spun down to conserve power. When the Momentum 5400 PSD drive operates out of the flash with the spindle motor powered off (hybrid mode), the drive becomes incredibly robust in highly mobile environments.

Seagate Makes the Best Even Better With a 5-Year Limited Warranty

Seagate offers the industry's leading warranty to demonstrate our commitment to product reliability and our customers' success. Every Seagate internal hard drive for PCs, notebook computers and entry-level servers is covered by a 5-year limited warranty.

Seagate Global Customer Support

- Get presales and technical support at support.seagate.com.
- Visit our knowledge base for answers to common support questions.
- Find documentation for current and legacy drives.
- Utilize our online troubleshooting and diagnostic tools.
- Download DiscWizard™ to help migrate data from an older drive.
- Seagate also offers multi-lingual phone, email and chat support.

Specifications	160GB ¹	120GB ¹	80GB ¹
Model Number	ST91608220AS	ST91208220AS	ST9808212AS
Interface Options	SATA 1.5Gb/s	SATA 1.5Gb/s	SATA 1.5Gb/s
Performance			
Transfer Rate			
Sustained Internal (MB/s)	44	44	44
Maximum External (MB/s)	150	150	150
Flash Memory (MB)	256	256	256
Cache, Multisegmented (MB)	8	8	8
Average Seek (ms)	12.5	12.5	12.5
Average Latency (ms)	5.6	5.6	5.6
Performance Level	5400	5400	5400
Configuration/Organization			
Disks/Heads	2/4	2/3	1/2
Bytes per Sector	512	512	512
Logical CHS	92,049/16/63	92,049/16/63	92,049/16/63
Recording Method	Perpendicular	Perpendicular	Perpendicular
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
Limited Warranty (years)	5	5	5
Power Management			
Startup Current 5v (amps max)	1.0	1.0	1.0
Power Mgmt (W)			
Seek	2.0	2.0	2.0
Read/Write	1.9/1.8	1.9/1.8	1.9/1.8
Idle/Standby	0.8/0.2	0.8/0.2	0.8/0.2
Hybrid Mode	0.2	0.2	0.2
Environmental			
Temperature (°C)			
Operating	0 to 60	0 to 60	0 to 60
Nonoperating	-40 to 70	-40 to 70	-40 to 70
Shock			
Operating: 2 ms (Gs)	350	350	350
Nonoperating: 1 ms (Gs)	900	900	900
Acoustics (bels—sound power)			
Idle	2.3	2.3	2.3
Hybrid Mode	0	0	0
Performance Seek	2.9	2.9	2.9
Physical			
Height (mm)	0.374/9.5	0.374/9.5	0.374/9.5
Width (mm)	2.75/69.85	2.75/69.85	2.75/69.85
Depth (mm)	3.957/100.5	3.957/100.5	3.957/100.5
Weight (gm)	0.22/100	0.22/100	0.21/96

¹ One gigabyte, or GB, equals one billion bytes when referring to hard drive capacity.

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