

Momentum[®]

Data Sheet

The World's Most Feature-Rich 2.5-Inch Drive

- The power to transform from ordinary to extraordinary with innovative options and features.
- 5400 RPM offers capacities to 500GB in affordable, low-power drives for external enclosures.
- 7200 RPM delivers a constant high-performance boost.
- G-Force Protection™ technology can help keep your data recoverable after a fall, even if your laptop doesn't survive.
- Seagate SmartAlign™ technology provides a transition to 4K sectors without the need for software utilities.

Best-Fit Applications

- Mainstream and high-performance laptops
- External storage solutions
- Industrial applications requiring a small form factor



Specifications	Momentum 5400 Drives			Momentum 7200 Drives		
	500GB ¹	320GB ¹	250GB ¹	750GB ¹	500GB ¹	250GB ¹
Feature Options						
Standard Models	ST9500325AS	ST9320325AS	ST9250315AS	ST9750420AS ³	ST9500423AS ³	ST9250410AS
Free-Fall Sensor Models	ST9500325ASG ²					
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)	8	8	8	16	16	16
Configuration						
Bytes per Sector	512	512	512	4096 ³	4096 ³	512 4096 ³
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	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	1.54	1.54	1.54	1.5	1.5	1.55
Idle, Typical	0.81	0.81	0.81	0.7	0.7	0.67
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	2.4	2.4	2.4	2.3	2.3	2.3
Seek, Typical	2.6	2.6	2.6	2.5	2.5	2.5
Physical						
Height (in/mm)	0.374/9.5	0.374/9.5	0.374/9.5	0.374/9.5	0.374/9.5	0.374/9.5
Width (in/mm)	2.75/69.85	2.75/69.85	2.75/69.85	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	3.951/100.35	3.951/100.35	3.951/100.35
Weight (lb/g)	0.218/98.8	0.218/98.8	0.206/93.5	0.254/115	0.238/110	0.227/105
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 Drive with G-Force Protection™ feature

³ Advanced Format (4K) drive with SmartAlign™ technology resolves misalignment conditions.



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