

Data Sheet

Momentum 5400 ED

2.5-inch extended-duty ATA/SATA drives

160, 120, 100, 80, 60 and 40 GB • 2.5 Inch •
Extended Duty

Key Advantages

- Designed for high performance in 24x7 power-on applications
- Wide range of capacity options, from 40 GB to 160 GB
- Low power consumption for multi-drive enclosures
 - 1-amp startup
 - SATA interface drives enable staggered spin up

Best-Fit Applications

- Small form-factor servers and workstations
- Blade servers
- Network routers
- Point-of-sale applications
- Web hosting
- Video surveillance



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2.5-inch extended-duty ATA/SATA drives



Seagate® Momentum 5400 ED drives maximize performance in a 24x7 environment, while providing excellent acoustics and shock tolerance and the widest choice in capacities.

- Better performance 24x7—designed to always be ready to provide consistently fast response times, enabling high performance day in and day out.
- Wide range of capacity options, from 40 GB to 160 GB
- Parallel and Serial ATA interfaces
- Low power consumption for multi-drive enclosures—1 amp startup; SATA interface drives enable staggered spin up
- Whisper-quiet acoustics

Seagate Service Centers—Worldwide Support

- Presales and technical support at 1-800-SEAGATE
- Free technical support for the life of the product
- Expert email support and complete historical web content available online
- Certified, experienced support staff
- Rated “Above Average to Excellent” by 95 percent of our customers
- Seagate Design Service Centers (DSC) help companies transform innovative ideas into viable products.

Specifications	160 GB ¹	120 GB ¹	100 GB ¹	80 GB ¹	60 GB ¹	40 GB ¹
Model Number	ST9160821AB ST9160821SB	ST9120822AB ST9120822SB	ST9100828AB ST9100828SB	ST980815AB ST980815SB	ST960815AB ST960815SB	ST9402116AB ST9402116SB
Interface (MB/s)	ATA/100 SATA 1.5Gb/s	ATA/100 SATA 1.5Gb/s	ATA/100 SATA 1.5Gb/s	ATA/100 SATA 1.5Gb/s	ATA/100 SATA 1.5Gb/s	ATA/100 SATA 1.5Gb/s
Performance						
Transfer Rate						
Sustained Internal (MB/s)	44	44	44	44	44	44
Maximum External (MB/s)	100/150	100/150	100/150	100/150	100/150	100/150
Cache, Multisegmented (MB)	8	8	8	8	8	8
Average Seek, Read/Write (msec)	11.0/13.0	11.0/13.0	11.0/13.0	11.0/13.0	11.0/13.0	11.0/13.0
Average Latency (msec)	5.6	5.6	5.6	5.6	5.6	5.6
Performance Level (RPM)	5400	5400	5400	5400	5400	5400
Configuration/Organization						
Discs/Heads	2/4	2/3	2/3	1/2	1/2	1/1
Bytes per Sector	512	512	512	512	512	512
Recording Method	Perpendicular	Perpendicular	Perpendicular	Perpendicular	Perpendicular	Perpendicular
Reliability/Data Integrity						
Head-Rest Method	QuietStep Ramp Load	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	600,000
Nonrecoverable 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	1 per 10 ¹⁴
Annualized Failure Rate (AFR) @ 40°C and 8760 P0H	1.79%	1.79%	1.79%	1.79%	1.79%	1.79%
Warranty (years)	5	5	5	5	5	5
Power Management						
Seek (watts)	2.0	2.0	2.0	2.0	2.0	2.0
Read/Write (watts)	1.9/1.8	1.9/1.8	1.9/1.8	1.9/1.8	1.9/1.8	1.9/1.8
Idle/Standby (watts)	1.4	1.4	1.4	1.4	1.4	1.4
Environmental						
Temperature						
Operating (°C)	0 to 40	0 to 40	0 to 40	0 to 40	0 to 40	0 to 40
Nonoperating (°C)	-40 to 70	-40 to 70	-40 to 70	-40 to 70	-40 to 70	-40 to 70
Shock						
Operating: 2 msec (Gs)	350	350	350	350	350	350
Nonoperating: 1 msec (Gs)	900	900	900	900	900	900
Acoustics (Sound Power)						
Idle (bels, typical/max)	2.4/2.6	2.4/2.6	2.4/2.6	2.4/2.6	2.4/2.6	2.4/2.6
Performance Seek (bels, typical/max)	3.0/3.2	3.0/3.2	3.0/3.2	3.0/3.2	3.0/3.2	3.0/3.2
Physical						
Height (in/mm)	.374/9.5	.374/9.5	.374/9.5	.374/9.5	.374/9.5	.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)	3.957/100.5	3.957/100.5	3.957/100.5	3.957/100.5	3.957/100.5	3.957/100.5
Weight (lb/g)	.22/100	.22/100	.22/100	.21/96	.21/96	.21/96

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

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