


Barracuda ATA V and Barracuda ATA V Plus

Best combination of reliability, acoustics and performance



The World's Toughest
and Quietest High-
Performance Desktop
Drive—Now With a
Serial ATA Interface

120, 80, 60 and 40 Gbytes • 7,200 RPM • Ultra ATA/100 • SATA/150

Key Advantages

- Serial ATA interface for ultra-fast desktop performance, up to 120-Gbyte capacity
- A proven rugged design for increased reliability
- The industry's only sixth-generation FDB motor
- 3D Defense System™ provides comprehensive protection against handling damage and data loss.
- Inaudible acoustics with SBT (sound barrier technology), including the Seagate® exclusive SoftSonic™ motor

Best-Fit Applications

- High-performance PCs
- Entry-level ATA servers, including RAID
- Cost-effective Network Attached Storage
- PC gaming systems





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The first high-speed, high-capacity desktop drives with a Serial ATA interface

The Seagate 3D Defense System— No One Does More to Protect Your Drives

DRIVE DEFENSE

- SeaShell™ packaging protects drive against 1,000 Gs of nonoperating shock.
- SeaShield® protects the PCB from accidental direct handling damage such as ESD.
- G-Force Protection provides electromechanical enhancements that protect the drive from operating and nonoperating shock.

DATA DEFENSE

- ECC (error-correction code) performs on-the-fly hardware correction for excellent performance.
- Safe Sparring ensures the drive will return to the same sector after a power outage.
- CBDS (continuous background defect scanning) proactively identifies and eliminates defects.

DIAGNOSTIC DEFENSE

- SeaTools Suite diagnostic software is designed to reduce drive returns, decrease drive repair costs and protect data.
- Web-based tools enable users to identify and solve common system-related issues.
- Enhanced S.M.A.R.T. (Self-Monitoring, Analysis and Reporting Technology) predicts and prevents problems transparently before they affect the end user.
- Enhanced Drive Self-Test (DST) reduces diagnostic time.

World-Class Technical Support

- Certified, experienced support staff
- Rated “Above Average to Excellent” by 95 percent of our customers
- Support lines with the shortest wait times in the industry
- Individually archived case histories for quick reference
- Web-based Q&A forum and autoreply e-mail
- Seagate Design Service Centers (DSC) help companies transform innovative ideas into viable products.

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

Specifications	120 GB ¹	80 GB ¹	60 GB ¹	40 GB ¹
Model Number	ST3120023A ST3120024A ¹ ST3120029A ST3120023AS	ST380023A ST380015A ST380023AS	ST360015A ST360210A	ST340017A
Interface/External Transfer Rate (Mbytes/sec)	Ultra ATA/100 Ultra ATA/100 Ultra ATA/100 SATA/150	Ultra ATA/100 Ultra ATA/100 SATA/150	Ultra ATA/100 Ultra ATA/100	Ultra ATA/100
Performance				
Transfer Rate				
Maximum Internal (Mbits/sec)	570	570	570	570
Maximum External (Mbytes/sec)	100, 100, 100, 150	100, 100, 150	100, 100	100
Sustained Transfer Rate (Mbytes/sec)	27 to 44	27 to 44	27 to 44	27 to 44
Cache, Multisegmented (Mbytes)	2, 8 ¹ , 2, 8	2, 2, 8	2, 2	2
Average Seek (msec)	9.4	9.4	9.0	9.0
Average Latency (msec)	4.16	4.16	4.16	4.16
Spindle Speed (RPM)	7,200	7,200	7,200	7,200
Configuration/Organization				
Discs/Heads	2/4	2/3	1/2	1/2
Bytes per Sector	512	512	512	512
Logical CHS	16,383/16/63	16,383/16/63	16,383/16/63	16,383/16/63
Recording Method	EPRML (16/17)	EPRML (16/17)	EPRML (16/17)	EPRML (16/17)
Reliability/Data integrity				
Contact Start-Stops	50,000	50,000	50,000	50,000
3D Defense System	Yes	Yes	Yes	Yes
SeaShield and S.M.A.R.T.	Yes	Yes	Yes	Yes
Nonrecoverable Read Errors per Bits Read	1 per 10 ¹⁴	1 per 10 ¹⁴	1 per 10 ¹⁴	1 per 10 ¹⁴
Limited Warranty (years)	1, 3, 1, 1	1	1	1
Power Management				
+12 VDC ±10% (amps max)	2.2	2.2	2.2	2.2
+5 VDC ±5% (amps max)	NA	NA	NA	NA
Power Management (watts) Seek	13	13	13	13
Read/Write	12	12	12	12
Idle/Standby	9.5/0.7	9.5/0.7	9.5/0.7	9.5/0.7
Environmental				
Temperature, Operating (°C)	0 to 60	0 to 60	0 to 60	0 to 60
Temperature, Nonoperating (°C)	-40 to 70	-40 to 70	-40 to 70	-40 to 70
Shock, Operating: 2 msec (Gs)	63	63	63	63
Shock, Nonoperating: 2 msec (Gs)	350	350	350	350
Acoustics				
Idle (bels—sound power)	2.5	2.5	<2.5	<2.5
Quiet Seek (bels—sound power)	2.8	2.8	2.5	2.5
Performance Seek (bels—sound power)	3.3	3.3	3.0	3.0
Physical				
Height (in/mm)	1/26.1	1/26.1	1/26.1	1/26.1
Width (in/mm)	4/101.85	4/101.85	4/101.85	4/101.85
Depth (in/mm)	5.75/146.56	5.75/146.56	5.75/146.56	5.75/146.56
Weight (lb/g)	1.4/635	1.4/635	1.2/544	1.2/544

¹Barracuda ATA V Plus

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