


## 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





# Barracuda® ATA V and Barracuda ATA V Plus

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](http://www.seagate.com)  
1-800-732-4283 (1-800-SEAGATE)

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

<sup>1</sup>Barracuda ATA V Plus

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