

Data Sheet

Barracuda® 7200.12

Performance and reliability for everyone

**1TB, 750GB, 500GB, 320GB, 250GB, 160GB •
7200 RPM • SATA 6Gb/s with NCQ**

Key Advantages

- Seagate® technology leadership now yields the industry's first one-disk 500GB and two-disk 1TB hard drives—simultaneously lowering storage costs and improving performance.
- Now delivering predicted failure rates of 0.34%, the Barracuda 7200.12 hard drive continues to provide industry-leading reliability.
- Produced in the most sophisticated and automated manufacturing process in the hard drive industry, customers can feel confident that Barracuda 7200.12 hard drives will deliver the same rock-solid performance and reliability every time.
- With capacity points of 1TB, 750GB, 500GB, 320GB, 250GB and 160GB, there is a Barracuda 7200.12 hard drive to meet every desktop storage need.

Best-Fit Applications

- Desktop PCs
- Workstations
- Direct attached external storage devices (DAS)
- Network attached storage devices (NAS)
- PC-based game systems
- Home servers



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Specifications	1TB ¹	750GB ¹	500GB ¹	320GB ¹	250GB ¹	160GB ¹
Model Number	ST31000524AS	ST3750525AS	ST3500413AS	ST3320413AS	ST3250312AS	ST3160316AS
Interface Options	SATA 6Gb/s NCQ	SATA 6Gb/s NCQ	SATA 6Gb/s NCQ	SATA 6Gb/s NCQ	SATA 6Gb/s NCQ	SATA 6Gb/s NCQ
Performance						
Transfer Rate, Max Ext (MB/s)	600	600	600	600	600	600
Sustained Data Rate OD (MB/s)	125	125	125	125	125	125
Cache (MB)	32	32	16	16	8	8
Average Latency (ms)	4.17	4.17	4.17	4.17	4.17	4.17
Spindle Speed (RPM)	7200	7200	7200	7200	7200	7200
Configuration/Organization						
Bytes per Sector	512	512	512	512	512	512
Reliability/Data Integrity						
Contact Start-Stops	50,000	50,000	50,000	50,000	50,000	50,000
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	0.34%	0.34%	0.34%	0.34%	0.34%	0.34%
Power Management						
Startup Current +12V Peak (A, ±10%)	2.0	2.0	2.0	2.0	2.0	2.0
Operating, Average (W)	<9.4	<9.4	<8.0	<8.0	<8.0	<8.0
Idle, Average (W)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
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: 2 ms	70	70	70	70	70	70
Nonoperating: 1 ms	300	300	350	350	350	350
Acoustics (bels – sound power)						
Idle	2.5	2.5	2.6	2.6	2.6	2.6
Seek	2.7	2.7	2.75	2.75	2.75	2.75
Physical						
Height (in/mm)	1.02/26.1	1.02/26.1	0.78/20	0.78/20	0.78/20	0.78/20
Width (in/mm)	4.00/101.6	4.00/101.6	4.00/101.6	4.00/101.6	4.00/101.6	4.00/101.6
Depth (in/mm)	5.787/146.99	5.787/146.99	5.787/146.99	5.787/146.99	5.787/146.99	5.787/146.99
Weight (lb/kg)	1.4/0.64	1.4/0.64	1.2/0.54	1.2/0.54	1.2/0.54	1.2/0.54

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

Technology Leadership for Desktop Storage

The Seagate® Barracuda® hard drive continues a long tradition of Seagate technology leadership resulting in new capacity milestones, faster performance and rock-solid reliability. The drive delivers 500GB-per-disk densities with the fast performance and huge capacities to power today's storage-hungry applications at prices more affordable than ever!

Available in capacities up to 1TB or as low as 160GB, there is a Barracuda hard drive for every desktop need. With over 600,000,000 Barracuda drives installed, it's no wonder Barracuda hard drives are recognized as the de facto standard for desktop storage.

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