

Data Sheet

# Barracuda® 7200.11

Proven technology and expert manufacturing deliver up to 1 TB of high-performing, eco-friendly desktop storage.

**1 TB, 750 GB, 640 GB, 500 GB, 320 GB •  
7200 RPM • SATA 3Gb/s with NCQ**

## Key Advantages

- Delivers the industry's highest capacity—up to 1 TB of storage (also 750, 640, 500 and 320 GB)
- Ships with the industry's most reliable and proven perpendicular magnetic recording (PMR) technology
- Delivers high performance
  - up to 115-MB/s sustained data rate
  - 32-MB and 16-MB cache buffer
- Environmentally friendly
  - Consumes up to 43 percent less power during idle than previous products, enabling customers to build low-power systems
  - Meets strict RoHS requirements
- Leverages best combination of technology (areal density, PMR) and proven components for volume availability
- Ships with an industry-best 5-year limited warranty

## Best-Fit Applications

- Workstations
- Desktop RAID
- Gamer PCs
- High-end PCs
- Mainstream PCs
- USB/FireWire/eSATA personal external storage



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## Another Barracuda Generation, Another Successful Product Line

Combining proven components, state-of-the-art technology and expertise in volume manufacturing, the Seagate® Barracuda 7200.11 drive delivers up to 1 TB of reliable digital storage. Users no longer need to forego storing any digital content, including high-definition video, large multimedia projects and data-heavy CAD files.

## The Eco-Friendly Choice

The Barracuda 7200.11 drive delivers up to 43 percent power savings over the previous Seagate desktop generation without sacrificing performance, giving customers the ability to manufacture eco-friendly PC systems and external storage systems that meet energy-savings requirements.

Like all other Seagate drives, the Barracuda 7200.11 product family complies with the Restriction of Hazardous Substance (RoHS) directive that limits the use of hazardous materials in electronic goods.

With the Barracuda 7200.11 drive, our customers can have the best of both worlds—top hard-drive performance and a high-capacity drive with a very small eco-footprint.

Seagate is committed to minimizing the impact of our products and operations on the environment. We have implemented production efficiency measures, such as replacing or renovating less-efficient equipment, resulting in a 20 percent increase in production efficiency on a per-hard-drive basis. In just six months this delivered a savings of 158.93 million kWh, or enough energy to power nearly 15,000 U.S. homes for one year. Seagate also has deployed aggressive waste minimization and recycling programs in facilities worldwide.

Specifications	1 TB <sup>1</sup>	750 GB <sup>1</sup>	640 GB <sup>1</sup>	500 GB <sup>1</sup>	320 GB <sup>1</sup>
Model Number	ST31000340AS	ST3750330AS	ST3640323AS	ST3500320AS	ST3320613AS
Interface Options	SATA 3Gb/s or 1.5Gb/s NCQ	SATA 3Gb/s or 1.5Gb/s NCQ	SATA 3Gb/s or 1.5Gb/s NCQ	SATA 3Gb/s or 1.5Gb/s NCQ	SATA 3Gb/s or 1.5Gb/s NCQ
<b>Performance</b>					
Transfer Rate, Max Ext (MB/s)	300/150	300/150	300/150	300/150	300/150
Sustained Data Rate OD (MB/s)	105	105	115	105	115
Cache (MB)	32	32, 16 <sup>2</sup>	32	32, 16 <sup>2</sup>	16
Average Latency (ms)	4.16	4.16	4.16	4.16	4.17
Spindle Speed (RPM)	7200	7200	7200	7200	7200
<b>Configuration/Organization</b>					
Heads/disks	8/4	6/3	4/2	4/2	2/1
Bytes per Sector	512	512	512	512	512
<b>Reliability/Data Integrity</b>					
Contact Start-Stops	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
Annualized Failure Rate (AFR)	0.34%	0.34%	0.34%	0.34%	0.34%
Mean Time Before Failure (MTBF, hours)	750,000	750,000	750,000	750,000	750,000
Limited Warranty (years)	5	5	5	5	5
<b>Power Management</b>					
+12 VDC ±10% (A, peak)	2.8	2.8	2.0 or 2.8	2.8	2.0
<b>Power Management (W)</b>					
Seek Avg	11.6	11.6	10.4	10.6	9.0
Operating Avg	12.0	12.0	9.0	11.0	8.3
Idle Avg	8.0	8.0	8.0	8.0	5.3
<b>Environmental</b>					
<b>Temperature (°C)</b>					
Operating	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
<b>Shock (Gs)</b>					
Operating: 2 msec	63	63	65	63	65
Nonoperating: 1 msec	300	300	300	300	350
<b>Acoustics (bels—sound power)<sup>3</sup></b>					
Idle	2.7	2.7	2.7	2.5	2.5
Seek	2.9	2.9	2.8	2.8	2.6
<b>Physical</b>					
Height (in/mm)	1.02/26.11	1.02/26.11	1.02/26.11	1.02/26.11	0.787/20.00
Width (in/mm)	4.00/101.6	4.00/101.6	4.00/101.6	4.00/101.6	4.00/101.6
Depth (in/mm)	5.78/146.99	5.78/146.99	5.78/146.99	5.78/146.99	5.787/146.99
Weight (lb/kg)	1.4/0.64	1.4/0.64	0.838/0.380	1.2/0.54	0.838/0.380

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

<sup>2</sup> Not available through distribution

<sup>3</sup> Quiet seek specification

[www.seagate.com](http://www.seagate.com)  
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