

Data Sheet

Barracuda® 7200.12

The industry's leading combination of capacity, performance and reliability

1 TB, 750 GB, 500 GB, 250 GB • 7200 RPM
SATA 3Gb/s with NCQ

Key Advantages

- Sustainable technology for a green world:
 - Typically 70 percent or more of the materials used to build the drive is recycled.
 - Complies with the RoHS directive and several non-regulatory restrictions.
- 12th generation of the world's most popular desktop hard drive
- Ships with the most reliable and proven perpendicular magnetic recording technology
- Delivers high performance:
 - 125-MB/s maximum sustained data rate
 - Up to 3-Gb/s instantaneous burst
 - 32-MB cache on 1-TB and 750-GB drives, 16-MB cache on 500-GB drive and 8-MB cache on 250-GB drives

Best-Fit Applications

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



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The Eco-Friendly Choice

The Seagate® Barracuda® 7200.12 drive delivers excellent power savings without sacrificing performance, giving customers the ability to manufacture eco-friendly PC systems and external storage systems that meet energy-savings requirements.

The drive combines proven technology with expert manufacturing to deliver up to 1 TB of desktop storage. With the Barracuda 7200.12 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.

The Barracuda product family complies with the Restriction of Hazardous Substance (RoHS) directive that limits the use of hazardous materials in electronic goods.

www.seagate.com

1-800-SEAGATE (1-800-732-4283)

| Specifications | 1 TB ¹ | 750 GB ¹ | 500 GB ¹ | 250 GB ¹ |
|--|-------------------|---------------------|---------------------|---------------------|
| Model Number | ST31000528AS | ST3750528AS | ST3500418AS | ST3250318AS |
| Interface Options | SATA 3Gb/s NCQ | SATA 3Gb/s NCQ | SATA 3Gb/s NCQ | SATA 3Gb/s NCQ |
| Performance | | | | |
| Transfer Rate, Max Ext (MB/s) | 300 | 300 | 300 | 300 |
| Sustained Data Rate 0D (MB/s) | 125 | 125 | 125 | 125 |
| Cache (MB) | 32 | 32 | 16 | 8 |
| Average Latency (ms) | 4.17 | 4.17 | 4.17 | 4.17 |
| Spindle Speed (RPM) | 7200 | 7200 | 7200 | 7200 |
| Configuration/Organization | | | | |
| Bytes per Sector | 512 | 512 | 512 | 512 |
| Reliability/Data Integrity | | | | |
| Contact Start-Stops | 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 |
| Annualized Failure Rate | 0.34% | 0.34% | 0.34% | 0.34% |
| Power Management | | | | |
| Startup Current +12V Peak (A, ±10%) | 2.0 | 2.0 | 2.0 | 2.0 |
| Operating, Average (W) | <9.4 | <9.4 | <8.0 | <8.0 |
| Idle, Average (W) | <5.0 | <5.0 | <5.0 | <5.0 |
| Environmental | | | | |
| Temperature (°C) | | | | |
| Operating | 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 |
| Shock (Gs) | | | | |
| Operating: 2 ms | 70 | 70 | 70 | 70 |
| Nonoperating: 1 ms | 300 | 300 | 350 | 350 |
| Acoustics (bels – sound power) | | | | |
| Idle | 2.5 | 2.5 | 2.6 | 2.6 |
| Seek | 2.7 | 2.7 | 2.75 | 2.75 |
| Physical | | | | |
| Height (in/mm) | 1.02/26.1 | 1.02/26.1 | 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 |
| Depth (in/mm) | 5.78/146.99 | 5.87/146.99 | 5.87/146.99 | 5.87/146.99 |
| Weight (lb/kg) | 1.4/0.64 | 1.4/0.64 | 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.

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