

Data Sheet

Barracuda ES

Highest-capacity drives for the enterprise

**750, 500, 400, 320 and 250 GB • 7200 RPM •
SATA 3Gb/s**

Key Advantages

- 750-GB capacity transforms storage systems, enabling 50 percent more storage in the same space.
- The Seagate® Barracuda® ES drive is the industry's highest-reliability 7200-RPM drive, designed for 24x7 operation.
- Best-in-class rotational vibration tolerance ensures unrivalled performance in high-density RAID and JBOD applications.
- Multi-drive firmware maximizes RAID and JBOD system availability.
- Advanced Power Management reduces power consumption and system heat levels.

Best-Fit Applications

- Storage-hungry business applications
- Network attached storage (NAS)
- Storage area networks (SAN)
- Maximum-capacity servers
- Rich media content storage—audio, video, image
- Reference and compliance data storage
- Enterprise backup and restore—D2D, virtual tape
- Collaboration—email, messaging
- Infrastructure—web, print, file
- Video surveillance



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Highest-capacity drives for the enterprise



Seagate Is the Trusted Leader in Enterprise Storage

- 750 GB provides 50 percent more capacity than competing drives. The SATA line utilizes perpendicular recording technology to deliver the highest capacity.
- Industry's highest 7200-RPM reliability for 24x7 business-critical applications from a trusted source, backed by the Seagate 5-Year Warranty
- Multi-drive firmware features and best-in-class rotational vibration (RV) tolerance maximize system availability and performance in multi-drive systems. Seagate proprietary Workload Management technology helps systems keep drives cool.

Seagate Global Customer Support

- Get presales and technical support at support.seagate.com.
- Visit our knowledge base for answers to common support questions.
- Find documentation for current and legacy drives.
- Utilize our online troubleshooting and diagnostic tools.
- Download DiscWizard™ to help migrate data from an older drive.
- Seagate also offers multi-lingual phone, email and chat support.
- Seagate Design Service Centers (DSC) help companies transform innovative ideas into viable products.

Specifications	750 GB ¹	500 GB ¹	400 GB ¹	320 GB ¹	250 GB ¹
Model Number	ST3750640NS	ST3500630NS	ST3400620NS	ST3320620NS	ST3250620NS ST3250620NS
Interface	SATA 3Gb/s	SATA 3Gb/s	SATA 3Gb/s	SATA 3Gb/s	SATA 3Gb/s
External Transfer Rate (Gb/s)	3.0	3.0	3.0	3.0	3.0
Performance					
Transfer Rate					
Maximum Internal (Mb/s)	1030	1030	1030	1030	1030
Maximum Sustained (MB/s)	78	72	72	72	72
Cache, Multisegmented (MB)	16	16	16	16	8, 16
Average Latency (msec)	4.16	4.16	4.16	4.16	4.16
Spindle Speed (RPM)	7200	7200	7200	7200	7200
Seek Time					
Average Read/Write (msec)	8.5/9.5	8.5/9.5	8.5/9.5	8.5/9.5	8.5/9.5
Track-to-Track Read/Write (msec)	0.8/1.0	0.8/1.0	0.8/1.0	0.8/1.0	0.8/1.0
Configuration/Organization					
Bytes per Sector	512	512	512	512	512
Reliability/Data Integrity					
Mean Time Between Failures (MTBF) (hours)	1.2 million	1.2 million	1.2 million	1.2 million	1.2 million
Reliability Rating at Full 24x7 Operation (AFR)	0.73%	0.73%	0.73%	0.73%	0.73%
Nonrecoverable Read Errors per Bits Read	1 sector per 10E15	1 sector per 10E15	1 sector per 10E15	1 sector per 10E15	1 sector per 10E15
Error Control/Correction (ECC)	10 bit	10 bit	10 bit	10 bit	10 bit
Interface Ports	Single	Single	Single	Single	Single
Limited Warranty (years)	5	5	5	5	5
Power Management					
Typical (watts)	13.0	13.0	13.0	13.0	13.0
Idle Average (watts)	9.3	9.3	9.3	9.3	9.3
Environmental					
Temperature, Operating (°C)	5 to 55	5 to 55	5 to 55	5 to 55	5 to 55
Temperature, Nonoperating (°C)	-40 to 70	-40 to 70	-40 to 70	-40 to 70	-40 to 70
Shock, Operating: 2 msec (Gs)	63	63	63	63	63
Shock, Nonoperating: 1 msec (Gs)	225	225	225	225	225
Acoustics Idle (bels—sound power)	2.7	2.5	2.5	2.5	2.5
Rotational Vibration (Rad/sec²)	12.5	12.5	12.5	12.5	12.5
Physical					
Height (in/mm)	1.02/26.11	1.02/26.11	1.02/26.11	1.02/26.11	1.02/26.11
Width (in/mm)	4/101.6	4/101.6	4/101.6	4/101.6	4/101.6
Depth (in/mm)	5.78/146.99	5.78/146.99	5.78/146.99	5.78/146.99	5.78/146.99
Weight (lb/kg)	1.58/0.720	1.58/0.720	1.58/0.720	1.58/0.720	1.58/0.720

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

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