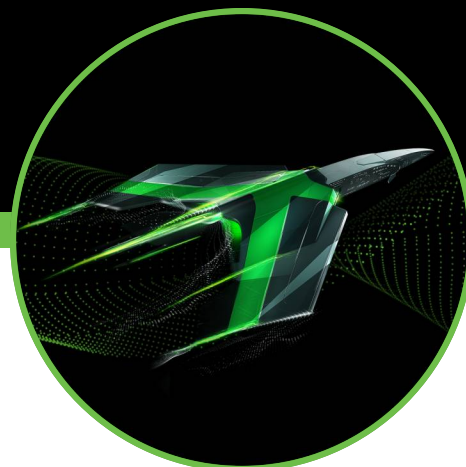




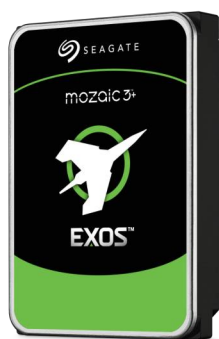
DATA SHEET

Scalable. Responsive. Innovative.

Exos Xz



Seagate manufactures hard drives that specifically address the demand for hyperscale cloud scalability. As the flagship of the Seagate® X class, the Exos® Xz enterprise hard drives are the highest-capacity hard drives in the fleet.



Best-Fit Applications

- Scalable hyperscale applications/cloud data centers
- Massive scale-out data centers
- Big data applications
- High-capacity density RAID storage
- Mainstream enterprise external storage arrays
- Distributed file systems, including Hadoop and Ceph
- Enterprise backup and restore—D2D, virtual tape

Maximum Storage Capacity for Highest Rack Space Efficiency

Market-leading HDD offering the highest capacity available for more petabytes per rack

Highly reliable performance making it the logical choice for cloud data center and massive scale-out data center applications

Hyperscale SATA model tuned for large data transfers and low latency

PowerBalance™ feature optimizes Watts/TB

Maximize total cost of ownership savings through lower power and weight with helium sealed-drive design

Proven helium side-sealing weld technology for added handling robustness and leak protection

Digital environmental sensors to monitor internal drive conditions for optimal operation and performance

Data protection and security—Seagate Secure™ features for safe, affordable, fast, and easy drive retirement

Proven enterprise-class reliability backed by 5-year limited warranty and 2.5M-hr MTBF rating



Specifications	SATA 6Gb/s	
Product Name	Exos Xz	Exos Xz
SMR Capacity	32TB	30TB
Standard Model Fast Format (512e/4kn)	ST32000NM001F	ST30000NM011F
Features		
SMR	Yes	Yes
Helium Sealed-Drive Design	Yes	Yes
Super Parity	Yes	Yes
Low Halogen	Yes	Yes
PowerChoice™ Idle Power Technology	Yes	Yes
PowerBalance™ Power/Performance Technology	Yes	Yes
Hot-Plug Support ²	Yes	Yes
Cache, Multisegmented (MB)	512	512
Organic Solderability Preservative	Yes	Yes
RSA 3072 Firmware Verification (SD&D)	Yes	Yes
Reliability and Data Integrity		
Mean Time Between Failures (MTBF, hours)	2500000 hrs	2500000 hrs
Reliability Rating @ Full 24x7 Operation (AFR)	0.35%	0.35%
Nonrecoverable Read Errors per Bits Read	1 sector per 10E15	1 sector per 10E15
Power-On Hours per Year (24x7)	8760	8760
512e Sector Size (Bytes per Sector)	512e	512e
Limited Warranty (years)	5	5
Performance		
Spindle Speed (RPM)	7200RPM	7200RPM
Interface Access Speed (Gb/s)	6.0, 3.0	6.0, 3.0
Max. Sustained Transfer Rate OD (MB/s, MiB/s)	270MB/s / 258MiB/s	270MB/s / 258MiB/s
Random Read/Write 4K QD16 WCD (IOPS)	167/320	167/320
Average Latency (ms)	4.16ms	4.16ms
Interface Ports	Single	Single
Rotation Vibration @ 20-1500 Hz (rad/sec ²)	12.5	12.5
Power Consumption		
Idle A (W) Average	6.7W	6.7W
Max Operating, Random Read 4K/16Q (W)	9.5W	9.5W
Power Supply Requirements	+12V and +5V	+12V and +5V
Environmental		
Temperature, Operating (°C)	10°C – 60°C	10°C – 60°C
Vibration, Nonoperating: 2 to 500Hz (Grms)	2.27	2.27
Shock, Operating 2ms (Read/Write) (Gs)	30Gs	30Gs
Shock, Nonoperating 2ms (Gs)	200	200
Physical		
Height (mm/in, max) ³	26.1mm/1.028in	26.1mm/1.028in
Width (mm/in, max) ³	101.85mm/4.010in	101.85mm/4.010in
Depth (mm/in, max) ³	147.0mm/5.787in	147.0mm/5.787in
Weight (gm/lb)	690g/1.521lb	690g/1.521lb
Carton Unit Quantity	20	20
Cartons per Pallet/Cartons per Layer	40 / 8	40 / 8

¹ Self-Encrypting Drives (SED) may require TCG-compliant host or controller support.

² Supports Hotplug operation per Serial ATA Revision 3.3 specification

³ These base deck dimensions conform to the Small Form Factor Standard (SFF-8301) found at <https://www.snia.org>. For connector-related dimensions, see SFF-8323.

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