EXOS
ENTERPRISE

SEAGATE

DATA SHEET

Trusted. Efficient. Versatile.
Exos 5E8

The Seagate® Exos™ 5E8 hard drives are the most affordable enterprise-class drives designed specifically for active-archive applications in cloud storage, cold storage and online data archiving. Exos 5E8 provides power-efficient, high-density storage for 24×7 data center operations.

Key Features and Benefits

- High capacity, energy efficiency and lowest TCO
- Over 30 years of trusted reliability for online long-term storage
- Engineered for 24×7 workloads of 180TB per year
- Drive down costs with up to 2TB-per-disk hard drive technology
- SATA 6Gb/s interface optimizes burst performance
- AcuTrac® servo technology for dependable performance
- Free Seagate DiscWizard™ software

Best-Fit Applications[2]

- Cost-effective online archiving
- Object storage
- Big Data cold storage
- Cloud active archive
- Low random-write workloads

Reliable Active-Archive Enterprise Hard Drive

Exos 5E8 hard drives support up to 8TB per drive[1] and offer affordable cold storage for data center infrastructures requiring a highly reliable enterprise hard drive. The Exos 5E8 hard drive helps to catalyze the datasphere, enabling data center architects and IT professionals to deliver trusted performance, rock-solid reliability and ironclad security.

Exos 5E8 is designed to best perform when write workloads are primarily sequential in nature. For more random write workloads, we recommend Exos 7E8.

Store More Data at Lower Costs

The Exos 5E8 hard drives are backed by an 800,000 hour MTBF and support workloads of 180TB per year. The Exos 5E8 offers a low cost/TB online data archive solution with a SATA 6Gb/s interface that optimizes burst performance, and on-demand, time-to-ready PowerChoice™ technology to help ensure low power consumption.

Efficiently Lower Your TCO

Exos 5E8 ensures archival data confidence with a reliable, low-power data retrieval based on Shingled Magnetic Recording (SMR) technology for efficient cold storage operations even in harsh data center environments. The Exos 5E8 serves up impressive sequential throughput and is intended for use in large-scale data centers where density, power consumption, data integrity and data retrieval are paramount.

Enhanced Enterprise Reliability, Data Protection and Security

Exos 5E8 drives deliver exceptional security to help protect data where it lives—on the drive. Exos 5E8 safeguards firmware with Secure Downloads & Diagnostics.

1 Seagate recommends validating your configuaration with your HBA/RAID controller manufacturer to ensure full capacity capabilities.

2 Exos 5E8 hard drives are not intended for surveillance or NAS applications, and you may experience lower performance in these environments.

For these applications, Seagate IronWolf ™ and Seagate SkyHawk ™ hard drives are suggested for better performance and reliability.

Specifications	8TB
Model Number	ST8000AS0003
Interface	SATA 6Gb/s
Performance	
Cache, Multisegmented (MB)	256
SATA Transfer Rates Supported (Gb/s)	6.0/3.0/1.5
Max. Sustained Transfer Rate OD (MB/s)	190MB/s
Configuration/Organization	
Heads/Disks	8/4
Bytes per Sector	512e
SMR Technology, Drive-Managed	Yes
Rotational Vibration (RV) Sensor	Yes
Voltage	
Voltage Tolerance, Inc. Noise (5V)	±5%
Voltage Tolerance, Inc. Noise (12V)	±10%
Reliability/Data Integrity	
Load/Unload Cycles	300,000
Nonrecoverable Read Errors per Bits Read, Max	1 per 10E14
Workload Rate Limit (TB/Year)	180
Power-On Hours per Year (24×7)	8760
MTBF	800,000hr
Warranty, Limited (years)[1]	3
Power Consumption	
Startup Power (A)	2.0
Operating Mode, Typical (W)	5.3
Idle Average (W)[2]	3.7
Standby Mode (W)	<1.0
Sleep Mode (W)	<1.0
Environmental	
Operating (ambient, min °C)	0
Operating Temperature (drive case max °C)	60
Nonoperating Temperature (ambient °C)	-40 – 70
Low Halogen	Yes
RoHS Compliance	Yes
Physical	
Height (mm/in)	26.11mm/1.028in
Width (mm/in)	101.6mm/4.00in
Depth (mm/in, max)	146.99mm/5.787in
Weight (g/lb)	605g/1.334lb
Carton Unit Quantity	20
Cartons per Pallet/Cartons per Layer	40/8

1 Extended warranty products available. Consult your distributor for details.

2 During periods of drive idle, some offline activity may occur according to the S.M.A.R.T. specification, which may increase acoustic and power to opertional levels. Consult the product manual for more information.

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