



Data Sheet

Trusted. Efficient. Versatile.

## Exos 7E8



The Seagate® Exos™ 7E8 enterprise hard drive confidently stores up to 8 TB of data without sacrificing performance. The secure, high-capacity, high-performance drives are optimised for demanding enterprise bulk data applications.



### Best-Fit Applications

- Hyperscale applications/cloud data centres
- Massive scale-out data centres
- OLTP and HPC 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
- Centralised surveillance

### Enterprise Drive for Bulk Data Applications

Exos 7E8 hard drives support up to 8 TB per drive,<sup>1</sup> offering bulk data storage for data centre infrastructures requiring a highly reliable enterprise hard drive. Exos 7E8 provides cost-effective, reliable access to unstructured data. Built on field-proven 9th-generation conventional magnetic recording (CMR) technology, the Exos 7E8 drive helps to catalyse the datasphere, enabling data centre architects and IT professionals to deliver trusted performance, rock-solid reliability, ironclad security and low TCO for demanding 24×7 operations.

### Robust Bulk Data Storage for a 24×7 World

Exos 7E8 drives are backed by a 2 million hour MTBF rating and support workloads of 550 TB per year — 10× that of desktop hard drives. With state-of-the-art cache, on-the-fly error-correction algorithms and rotational vibration design, the Exos 7E8 helps ensure consistent performance in replicated and RAID multi-drive systems.

### High Performance for Mainstream Data Centre Applications

Meet your storage workload requirements in the most efficient and cost-effective data centre footprint on the market today. The Exos 7E8 delivers easy integration into bulk storage systems with 12 Gb/s SAS and SATA 6 Gb/s interface options. With user-definable innovative technology advancements like PowerChoice™ and Seagate RAID Rebuild®, you can tailor your nearline storage requirements for even greater improvements in lowering your TCO.

### Enhanced Enterprise Reliability, Data Protection and Security

Advanced security features help protect data where it lives — on the drive. Exos 7E8 prevents unauthorised drive access and safeguards stored data with security features that include Secure Downloads & Diagnostics, TCG-compliant Self-Encrypting Drive and government-grade FIPS/Common Criteria tamper-resistant hard drive.<sup>2</sup> Seagate Secure™ drives simplify drive repurposing and disposal, help protect data-at-rest and comply with corporate and federal data security mandates.

<sup>1</sup> Seagate recommends validating your configuration with your HBA/RAID controller manufacturer to ensure full capacity capabilities.

<sup>2</sup> Self-Encrypting Drives (SED) are not available in all models or countries. May require TCG-compliant host or controller support.





Specifications	512n SATA				
Capacity	6TB	4TB	3TB	2TB	1TB
Base Model	ST6000NM0235	ST4000NM0035	ST3000NM0005	ST2000NM0055	ST1000NM0055
PowerBalance™ Model	—	—	—	—	—
Seagate Secure™ Model <sup>1</sup>	—	ST4000NM0045	ST3000NM0015	ST2000NM0065	ST1000NM0065
Seagate Secure SED-FIPS Model <sup>1,2</sup>	—	ST4000NM0105	ST3000NM0055	—	—
<b>Features</b>					
Protection Information (T10 DIF)	—	—	—	—	—
Humidity Sensor	Yes	Yes	Yes	Yes	Yes
SuperParity	Yes	Yes	Yes	Yes	Yes
Low Halogen	Yes	Yes	Yes	Yes	Yes
PowerChoice™ Technology	Yes	Yes	Yes	Yes	Yes
PowerBalance™ Technology	No	No	No	No	No
Cache, Multi-segmented (MB)	256	128	128	128	128
Advanced Write Caching (Internal NOR flash)	No	No	No	No	No
<b>Reliability/Data Integrity</b>					
Vibration, Non-operating: 10 Hz to 500 Hz (Grms)	—	—	—	—	—
MTBF	2,000,000 hr	2,000,000 hr	2,000,000 hr	2,000,000 hr	2,000,000 hr
Reliability Rating @ Full 24x7 Operation (AFR)	0.44%	0.44%	0.44%	0.44%	0.44%
Non-recoverable Read Errors per Bits Read, Max	1 sector per 10E15	1 sector per 10E15	1 sector per 10E15	1 sector per 10E15	1 sector per 10E15
Power-on Hours	8,760	8,760	8,760	8,760	8,760
Bytes per Sector	512	512	512	512	512
Warranty, Limited (years)	5	5	5	5	5
<b>Performance</b>					
Spindle Speed (RPM)	7,200	7,200	7,200	7,200	7,200
Interface Access Speed (Gb/s)	6.0, 3.0, 1.5	6.0, 3.0, 1.5	6.0, 3.0, 1.5	6.0, 3.0, 1.5	6.0, 3.0, 1.5
Max Sustainable Transfer Rate	215MB/s	215MB/s	215MB/s	215MB/s	215MB/s
Average Latency (ms)	4.16	4.16	4.16	4.16	4.16
Interface Ports	Single	Single	Single	Single	Single
Rotational Vibration @ 1,500 Hz (rad/s <sup>2</sup> )	12.5	12.5	12.5	12.5	12.5
<b>Power Consumption</b>					
Idling Average (W)	8.15 W	5.45 W	5.45 W	4.25 W	4.25 W
Average Operating Power	9.8 W	6.9 W	6.9 W	5.91 W	5.91 W
Power Supply Requirements	+12 V and +5 V	+12 V and +5 V	+12 V and +5 V	+12 V and +5 V	+12 V and +5 V
<b>Environmental/Temperature</b>					
Temperature, Operating (°C)	5°C – 60°C	5°C – 60°C	5°C – 60°C	5°C – 60°C	5°C – 60°C
Shock, Operating Read/Write (Gs)	70/40 Gs	70/40 Gs	70/40 Gs	70/40 Gs	70/40 Gs
Shock, Non-operating, 1 ms/2 ms (Gs)	150/250	150/300	150/300	150/300	150/300
<b>Physical</b>					
Height (in/mm, max) <sup>3</sup>	1.028 in/26.1 mm	1.028 in/26.1 mm	1.028 in/26.1 mm	1.028 in/26.1 mm	1.028 in/26.1 mm
Width (in/mm, max) <sup>3</sup>	4.01 in/101.85 mm	4.01 in/101.85 mm	4.01 in/101.85 mm	4.01 in/101.85 mm	4.01 in/101.85 mm
Depth (in/mm, max) <sup>3</sup>	5.787 in/147 mm	5.787 in/147 mm	5.787 in/147 mm	5.787 in/147 mm	5.787 in/147 mm
Weight (lb/g)	780 g/1.72 lb	680 g/1.5 lb	680 g/1.5 lb	610 g/1.34 lb	610 g/1.34 lb
Carton Unit Quantity	20	20	20	20	20
Cartons per Pallet / Cartons per Layer	40/8	40/8	40/8	40/8	40/8

<sup>1</sup> Self-Encrypting Drives (SED) and FIPS 140-2 Validated drives are not available in all models or countries. May require TCG-compliant host or controller support.

<sup>2</sup> FIPS 140-2 Level 2 Certification in process.

<sup>3</sup> These base deck dimensions conform to the Small Form Factor Standard (SFF-8201) found at [www.sffcommittee.org](http://www.sffcommittee.org). For connector-related dimensions, see SFF-8223.



Specifications	512n SAS				
Capacity	6TB	4TB	3TB	2TB	1TB
Base Model	ST6000NM0245	ST4000NM0025	ST3000NM0025	ST2000NM0045	ST1000NM0045
PowerBalance™ Model	—	—	—	—	—
Seagate Secure™ Model <sup>1</sup>	—	ST4000NM0065	ST3000NM0035	ST2000NM0085	ST1000NM0075
Seagate Secure SED-FIPS Model <sup>1,2</sup>	—	ST4000NM0135	ST3000NM0045	—	—
<b>Features</b>					
Protection Information (T10 DIF)	Yes	Yes	Yes	Yes	Yes
Humidity Sensor	Yes	Yes	Yes	Yes	Yes
SuperParity	Yes	Yes	Yes	Yes	Yes
Low Halogen	Yes	Yes	Yes	Yes	Yes
PowerChoice™ Technology	Yes	Yes	Yes	Yes	Yes
PowerBalance™ Technology	No	No	No	No	No
Cache, Multi-segmented (MB)	256	128	128	128	128
Advanced Write Caching (Internal NOR flash)	No	No	No	No	No
<b>Reliability/Data Integrity</b>					
Vibration, Non-operating: 10 Hz to 500 Hz (Grms)	—	—	—	—	—
MTBF	2,000,000 hr	2,000,000 hr	2,000,000 hr	2,000,000 hr	2,000,000 hr
Reliability Rating @ Full 24x7 Operation (AFR)	0.44%	0.44%	0.44%	0.44%	0.44%
Non-recoverable Read Errors per Bits Read, Max	1 sector per 10E15	1 sector per 10E15	1 sector per 10E15	1 sector per 10E15	1 sector per 10E15
Power-on Hours	8,760	8,760	8,760	8,760	8,760
Bytes per Sector	512	512	512	512	512
Warranty, Limited (years)	5	5	5	5	5
<b>Performance</b>					
Spindle Speed (RPM)	7,200	7,200	7,200	7,200	7,200
Interface Access Speed (Gb/s)	12.0, 6.0, 3.0	12.0, 6.0, 3.0	12.0, 6.0, 3.0	12.0, 6.0, 3.0	12.0, 6.0, 3.0
Max Sustainable Transfer Rate	215MB/s	215MB/s	215MB/s	215MB/s	215MB/s
Average Latency (ms)	4.16	4.16	4.16	4.16	4.16
Interface Ports	Dual	Dual	Dual	Dual	Dual
Rotational Vibration @ 1,500 Hz (rad/s <sup>2</sup> )	12.5	12.5	12.5	12.5	12.5
<b>Power Consumption</b>					
Idling Average (W)	8.57 W	6.52 W	6.52 W	4.75 W	4.75 W
Average Operating Power	10.86 W	7.74 W	7.74 W	6.3 W	6.3 W
Power Supply Requirements	+12 V and +5 V	+12 V and +5 V	+12 V and +5 V	+12 V and +5 V	+12 V and +5 V
<b>Environmental/Temperature</b>					
Temperature, Operating (°C)	5°C – 60°C	5°C – 60°C	5°C – 60°C	5°C – 60°C	5°C – 60°C
Shock, Operating Read/Write (Gs)	70/40 Gs	70/40 Gs	70/40 Gs	70/40 Gs	70/40 Gs
Shock, Non-operating, 1 ms/2 ms (Gs)	150/250	150/300	150/300	150/300	150/300
<b>Physical</b>					
Height (in/mm, max) <sup>3</sup>	1.028 in/26.1 mm	1.028 in/26.1 mm	1.028 in/26.1 mm	1.028 in/26.1 mm	1.028 in/26.1 mm
Width (in/mm, max) <sup>3</sup>	4.01 in/101.85 mm	4.01 in/101.85 mm	4.01 in/101.85 mm	4.01 in/101.85 mm	4.01 in/101.85 mm
Depth (in/mm, max) <sup>3</sup>	5.787 in/147 mm	5.787 in/147 mm	5.787 in/147 mm	5.787 in/147 mm	5.787 in/147 mm
Weight (lb/g)	780 g/1.72 lb	680 g/1.5 lb	680 g/1.5 lb	610 g/1.34 lb	610 g/1.34 lb
Carton Unit Quantity	20	20	20	20	20
Cartons per Pallet / Cartons per Layer	40/8	40/8	40/8	40/8	40/8

<sup>1</sup> Self-Encrypting Drives (SED) and FIPS 140-2 Validated drives are not available in all models or countries. May require TCG-compliant host or controller support.

<sup>2</sup> FIPS 140-2 Level 2 Certification in process.

<sup>3</sup> These base deck dimensions conform to the Small Form Factor Standard (SFF-8201) found at [www.sffcommittee.org](http://www.sffcommittee.org). For connector-related dimensions, see SFF-8223.



Specifications	512e SATA			
	8TB	6TB	4TB	2TB
Capacity	8TB	6TB	4TB	2TB
Base Model	ST8000NM0055	ST6000NM0115	ST4000NM0115	ST2000NM0125
PowerBalance™ Model	ST8000NM0165	—	—	—
Seagate Secure™ Model <sup>1</sup>	ST8000NM0105	ST6000NM0175	ST4000NM0245	—
Seagate Secure SED-FIPS Model <sup>1,2</sup>	ST8000NM0155	ST6000NM0275	ST4000NM0225	—
<b>Features</b>				
Protection Information (T10 DIF)	—	—	—	—
Humidity Sensor	Yes	Yes	Yes	Yes
SuperParity	—	—	—	—
Low Halogen	Yes	Yes	Yes	Yes
PowerChoice™ Technology	Yes	Yes	Yes	Yes
PowerBalance™ Technology	Yes	Yes	Yes	Yes
Cache, Multi-segmented (MB)	256	256	128	128
Advanced Write Caching (Internal NOR flash)	Yes	Yes	Yes	Yes
<b>Reliability/Data Integrity</b>				
Vibration, Non-operating: 10 Hz to 500 Hz (Grms)	—	—	—	—
MTBF	2,000,000 hr	2,000,000 hr	2,000,000 hr	2,000,000 hr
Reliability Rating @ Full 24x7 Operation (AFR)	0.44%	0.44%	0.44%	0.44%
Non-recoverable Read Errors per Bits Read, Max	1 sector per 10E15	1 sector per 10E15	1 sector per 10E15	1 sector per 10E15
Power-on Hours	8,760	8,760	8,760	8,760
Bytes per Sector	512	512	512	512
Warranty, Limited (years)	5	5	5	5
<b>Performance</b>				
Spindle Speed (RPM)	7,200	7,200	7,200	7,200
Interface Access Speed (Gb/s)	6.0, 3.0, 1.5	6.0, 3.0, 1.5	6.0, 3.0, 1.5	6.0, 3.0, 1.5
Max Sustainable Transfer Rate	249MB/s	226MB/s	226MB/s	226MB/s
Average Latency (ms)	4.16	4.16	4.16	4.16
Interface Ports	Single	Single	Single	Single
Rotational Vibration @ 1,500 Hz (rad/s <sup>2</sup> )	12.5	12.5	12.5	12.5
<b>Power Consumption</b>				
Idling Average (W)	7.6 W	6.26 W	5.45 W	4.25 W
Average Operating Power	11 W	8.59 W	6.94 W	5.9 W
Power Supply Requirements	+12 V and +5 V	+12 V and +5 V	+12 V and +5 V	+12 V and +5 V
<b>Environmental/Temperature</b>				
Temperature, Operating (°C)	5°C – 60°C	5°C – 60°C	5°C – 60°C	5°C – 60°C
Shock, Operating Read/Write (Gs)	70/40 Gs	70/40 Gs	70/40 Gs	70/40 Gs
Shock, Non-operating, 1 ms/2 ms (Gs)	150/250	150/250	150/300	150/300
<b>Physical</b>				
Height (in/mm, max) <sup>3</sup>	1.028 in/26.1 mm	1.028 in/26.1 mm	1.028 in/26.1 mm	1.028 in/26.1 mm
Width (in/mm, max) <sup>3</sup>	4.01 in/101.85 mm	4.01 in/101.85 mm	4.01 in/101.85 mm	4.01 in/101.85 mm
Depth (in/mm, max) <sup>3</sup>	5.787 in/147 mm	5.787 in/147 mm	5.787 in/147 mm	5.787 in/147 mm
Weight (lb/g)	780 g/1.72 lb	705 g/1.55 lb	680 g/1.5 lb	610 g/1.34 lb
Carton Unit Quantity	20	20	20	20
Cartons per Pallet / Cartons per Layer	40/8	40/8	40/8	40/8

<sup>1</sup> Self-Encrypting Drives (SED) and FIPS 140-2 Validated drives are not available in all models or countries. May require TCG-compliant host or controller support.

<sup>2</sup> FIPS 140-2 Level 2 Certification in process.

<sup>3</sup> These base deck dimensions conform to the Small Form Factor Standard (SFF-8201) found at [www.sffcommittee.org](http://www.sffcommittee.org). For connector-related dimensions, see SFF-8223.



Specifications	512e SAS			
	8TB	6TB	4TB	2TB
Capacity	8TB	6TB	4TB	2TB
Base Model	ST8000NM0075	ST6000NM0095	ST4000NM0125	ST2000NM0135
PowerBalance™ Model	—	—	—	—
Seagate Secure™ Model <sup>1</sup>	ST8000NM0085	ST6000NM0195	ST4000NM0255	—
Seagate Secure SED-FIPS Model <sup>1,2</sup>	ST8000NM0135	ST6000NM0285	ST4000NM0235	—
<b>Features</b>				
Protection Information (T10 DIF)	Yes	Yes	Yes	Yes
Humidity Sensor	Yes	Yes	Yes	Yes
SuperParity	Yes	Yes	Yes	Yes
Low Halogen	Yes	Yes	Yes	Yes
PowerChoice™ Technology	Yes	Yes	Yes	Yes
PowerBalance™ Technology	Yes	Yes	Yes	Yes
Cache, Multi-segmented (MB)	256	256	128	128
Advanced Write Caching (Internal NOR flash)	Yes	Yes	Yes	Yes
<b>Reliability/Data Integrity</b>				
Vibration, Non-operating: 10 Hz to 500 Hz (Grms)	—	—	—	—
MTBF	2,000,000 hr	2,000,000 hr	2,000,000 hr	2,000,000 hr
Reliability Rating @ Full 24x7 Operation (AFR)	0.44%	0.44%	0.44%	0.44%
Non-recoverable Read Errors per Bits Read, Max	1 sector per 10E15	1 sector per 10E15	1 sector per 10E15	1 sector per 10E15
Power-on Hours	8,760	8,760	8,760	8,760
Bytes per Sector	512, 520, 528	512, 520, 528	512, 520, 528	512, 520, 528
Warranty, Limited (years)	5	5	5	5
<b>Performance</b>				
Spindle Speed (RPM)	7,200	7,200	7,200	7,200
Interface Access Speed (Gb/s)	12.0, 6.0, 3.0	12.0, 6.0, 3.0	12.0, 6.0, 3.0	12.0, 6.0, 3.0
Max Sustainable Transfer Rate	249MB/s	226MB/s	226MB/s	226MB/s
Average Latency (ms)	4.16	4.16	4.16	4.16
Interface Ports	Dual	Dual	Dual	Dual
Rotational Vibration @ 1,500 Hz (rad/s <sup>2</sup> )	12.5	12.5	12.5	12.5
<b>Power Consumption</b>				
Idling Average (W)	8.5 W	8.37 W	6.52 W	4.57 W
Average Operating Power	12 W	9.2 W	7.74 W	6.34 W
Power Supply Requirements	+12 V and +5 V	+12 V and +5 V	+12 V and +5 V	+12 V and +5 V
<b>Environmental/Temperature</b>				
Temperature, Operating (°C)	5°C – 60°C	5°C – 60°C	5°C – 60°C	5°C – 60°C
Shock, Operating Read/Write (Gs)	70/40 Gs	70/40 Gs	70/40 Gs	70/40 Gs
Shock, Non-operating, 1 ms/2 ms (Gs)	150/250	150/250	150/300	150/300
<b>Physical</b>				
Height (in/mm, max) <sup>3</sup>	1.028 in/26.11 mm	1.028 in/26.11 mm	1.028 in/26.11 mm	1.028 in/26.11 mm
Width (in/mm, max) <sup>3</sup>	4.01 in/101.85 mm	4.01 in/101.85 mm	4.01 in/101.85 mm	4.01 in/101.85 mm
Depth (in/mm, max) <sup>3</sup>	5.787 in/147 mm	5.787 in/147 mm	5.787 in/147 mm	5.787 in/147 mm
Weight (lb/g)	780 g/1.72 lb	705 g/1.55 lb	680 g/1.5 lb	610 g/1.34 lb
Carton Unit Quantity	20	20	20	20
Cartons per Pallet / Cartons per Layer	40/8	40/8	40/8	40/8

<sup>1</sup> Self-Encrypting Drives (SED) and FIPS 140-2 Validated drives are not available in all models or countries. May require TCG-compliant host or controller support.

<sup>2</sup> FIPS 140-2 Level 2 Certification in process.

<sup>3</sup> These base deck dimensions conform to the Small Form Factor Standard (SFF-8201) found at [www.sffcommittee.org](http://www.sffcommittee.org). For connector-related dimensions, see SFF-8223.



Specifications	4Kn SATA			
Capacity	8TB	6TB	4TB	2TB
Base Model	ST8000NM0045	ST6000NM0125	ST4000NM0085	ST2000NM0105
PowerBalance™ Model	—	—	—	—
Seagate Secure™ Model <sup>1</sup>	ST8000NM0115	ST6000NM0185	ST4000NM0055	—
Seagate Secure SED-FIPS Model <sup>1,2</sup>	ST8000NM0145	ST6000NM0265	—	—
<b>Features</b>				
Protection Information (T10 DIF)	—	—	—	—
Humidity Sensor	Yes	Yes	Yes	Yes
SuperParity	—	—	—	—
Low Halogen	Yes	Yes	Yes	Yes
PowerChoice™ Technology	Yes	Yes	Yes	Yes
PowerBalance™ Technology	Yes	Yes	Yes	Yes
Cache, Multi-segmented (MB)	256	256	128	128
Advanced Write Caching (Internal NOR flash)	Yes	Yes	Yes	Yes
<b>Reliability/Data Integrity</b>				
Vibration, Non-operating: 10 Hz to 500 Hz (Grms)	—	—	—	—
MTBF	2,000,000 hr	2,000,000 hr	2,000,000 hr	2,000,000 hr
Reliability Rating @ Full 24x7 Operation (AFR)	0.44%	0.44%	0.44%	0.44%
Non-recoverable Read Errors per Bits Read, Max	1 sector per 10E15	1 sector per 10E15	1 sector per 10E15	1 sector per 10E15
Power-on Hours	8,760	8,760	8,760	8,760
Bytes per Sector	4,096	4,096	4,096	4,096
Warranty, Limited (years)	5	5	5	5
<b>Performance</b>				
Spindle Speed (RPM)	7,200	7,200	7,200	7,200
Interface Access Speed (Gb/s)	6.0, 3.0, 1.5	6.0, 3.0, 1.5	6.0, 3.0, 1.5	6.0, 3.0, 1.5
Max Sustainable Transfer Rate	249MB/s	226MB/s	226MB/s	226MB/s
Average Latency (ms)	4.16	4.16	4.16	4.16
Interface Ports	Single	Single	Single	Single
Rotational Vibration @ 1,500 Hz (rad/s <sup>2</sup> )	12.5	12.5	12.5	12.5
<b>Power Consumption</b>				
Idling Average (W)	7.6 W	6.26 W	5.45 W	4.25 W
Average Operating Power	11 W	8.59 W	6.94 W	5.9 W
Power Supply Requirements	+12 V and +5 V	+12 V and +5 V	+12 V and +5 V	+12 V and +5 V
<b>Environmental/Temperature</b>				
Temperature, Operating (°C)	5°C – 60°C	5°C – 60°C	5°C – 60°C	5°C – 60°C
Shock, Operating Read/Write (Gs)	70/40 Gs	70/40 Gs	70/40 Gs	70/40 Gs
Shock, Non-operating, 1 ms/2 ms (Gs)	150/250	150/250	150/300	150/300
<b>Physical</b>				
Height (in/mm, max) <sup>3</sup>	1.028 in/26.1 mm	1.028 in/26.1 mm	1.028 in/26.1 mm	1.028 in/26.1 mm
Width (in/mm, max) <sup>3</sup>	4.01 in/101.85 mm	4.01 in/101.85 mm	4.01 in/101.85 mm	4.01 in/101.85 mm
Depth (in/mm, max) <sup>3</sup>	5.787 in/147 mm	5.787 in/147 mm	5.787 in/147 mm	5.787 in/147 mm
Weight (lb/g)	780 g/1.72 lb	705 g/1.55 lb	680 g/1.5 lb	610 g/1.34 lb
Carton Unit Quantity	20	20	20	20
Cartons per Pallet / Cartons per Layer	40/8	40/8	40/8	40/8

<sup>1</sup> Self-Encrypting Drives (SED) and FIPS 140-2 Validated drives are not available in all models or countries. May require TCG-compliant host or controller support.

<sup>2</sup> FIPS 140-2 Level 2 Certification in process.

<sup>3</sup> These base deck dimensions conform to the Small Form Factor Standard (SFF-8201) found at [www.sffcommittee.org](http://www.sffcommittee.org). For connector-related dimensions, see SFF-8223.



Specifications	4Kn SAS			
Capacity	8TB	6TB	4TB	2TB
Base Model	ST8000NM0065	ST6000NM0105	ST4000NM0095	ST2000NM0115
PowerBalance™ Model	—	—	—	—
Seagate Secure™ Model <sup>1</sup>	ST8000NM0095	ST6000NM0205	ST4000NM0075	—
Seagate Secure SED-FIPS Model <sup>1,2</sup>	ST8000NM0125	ST6000NM0255	—	—
<b>Features</b>				
Protection Information (T10 DIF)	Yes	Yes	Yes	Yes
Humidity Sensor	Yes	Yes	Yes	Yes
SuperParity	Yes	Yes	Yes	Yes
Low Halogen	Yes	Yes	Yes	Yes
PowerChoice™ Technology	Yes	Yes	Yes	Yes
PowerBalance™ Technology	Yes	Yes	Yes	Yes
Cache, Multi-segmented (MB)	256	256	128	128
Advanced Write Caching (Internal NOR flash)	Yes	Yes	Yes	Yes
<b>Reliability/Data Integrity</b>				
Vibration, Non-operating: 10 Hz to 500 Hz (Grms)	—	—	—	—
MTBF	2,000,000 hr	2,000,000 hr	2,000,000 hr	2,000,000 hr
Reliability Rating @ Full 24x7 Operation (AFR)	0.44%	0.44%	0.44%	0.44%
Non-recoverable Read Errors per Bits Read, Max	1 sector per 10E15	1 sector per 10E15	1 sector per 10E15	1 sector per 10E15
Power-on Hours	8,760	8,760	8,760	8,760
Bytes per Sector	4,096, 4,160, 4,224	4,096, 4,160, 4,224	4,096, 4,160, 4,224	4,096, 4,160, 4,224
Warranty, Limited (years)	5	5	5	5
<b>Performance</b>				
Spindle Speed (RPM)	7,200	7,200	7,200	7,200
Interface Access Speed (Gb/s)	12.0, 6.0, 3.0	12.0, 6.0, 3.0	12.0, 6.0, 3.0	12.0, 6.0, 3.0
Max Sustainable Transfer Rate	249MB/s	226MB/s	226MB/s	226MB/s
Average Latency (ms)	4.16	4.16	4.16	4.16
Interface Ports	Dual	Dual	Dual	Dual
Rotational Vibration @ 1,500 Hz (rad/s <sup>2</sup> )	12.5	12.5	12.5	12.5
<b>Power Consumption</b>				
Idling Average (W)	8.5 W	8.37 W	6.52 W	4.57 W
Average Operating Power	12 W	9.2 W	7.74 W	6.34 W
Power Supply Requirements	+12 V and +5 V	+12 V and +5 V	+12 V and +5 V	+12 V and +5 V
<b>Environmental/Temperature</b>				
Temperature, Operating (°C)	5°C – 60°C	5°C – 60°C	5°C – 60°C	5°C – 60°C
Shock, Operating Read/Write (Gs)	70/40 Gs	70/40 Gs	70/40 Gs	70/40 Gs
Shock, Non-operating, 1 ms/2 ms (Gs)	150/250	150/250	150/300	150/300
<b>Physical</b>				
Height (in/mm, max) <sup>3</sup>	1.028 in/26.1 mm	1.028 in/26.1 mm	1.028 in/26.1 mm	1.028 in/26.1 mm
Width (in/mm, max) <sup>3</sup>	4.01 in/101.85 mm	4.01 in/101.85 mm	4.01 in/101.85 mm	4.01 in/101.85 mm
Depth (in/mm, max) <sup>3</sup>	5.787 in/147 mm	5.787 in/147 mm	5.787 in/147 mm	5.787 in/147 mm
Weight (lb/g)	780 g/1.72 lb	705 g/1.55 lb	680 g/1.5 lb	610 g/1.34 lb
Carton Unit Quantity	20	20	20	20
Cartons per Pallet / Cartons per Layer	40/8	40/8	40/8	40/8

<sup>1</sup> Self-Encrypting Drives (SED) and FIPS 140-2 Validated drives are not available in all models or countries. May require TCG-compliant host or controller support.

<sup>2</sup> FIPS 140-2 Level 2 Certification in process.

<sup>3</sup> These base deck dimensions conform to the Small Form Factor Standard (SFF-8201) found at [www.sffcommittee.org](http://www.sffcommittee.org). For connector-related dimensions, see SFF-8223.

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