

Data Sheet

Cheetah® 15K.7

Highest capacity and reliability
in mission-critical storage

**600, 450 and 300 GB • 15K RPM • 6-Gb/s Serial
Attached SCSI (SAS) and 4-Gb/s FC**

Key Advantages

- Third-generation perpendicular recording delivers up to 600 GB
- Unprecedented performance with a sustained data rate of up to 204 MB/s — a 16 per cent increase over the previous generation
- Industry's highest 3.5-inch drive reliability at 1.6 million hours MTBF
- Seagate® PowerTrim™ technology provides a 62 per cent improvement in GBs/watt at idle over typical 3.5-inch hard drives
- Read/write advances deliver a non-recoverable error rate of 1×10^{16}
- Available in 4-Gb/s FC or 6-Gb/s SAS interfaces (supports SAS 2.0 feature set)
- Secure your data with the government-grade Self-Encrypting Drive option*
- The Self-Encrypting Drive (SED) option cuts IT drive retirement expenses while protecting data securely and is one of the easiest, most cost-effective security measures you can implement*



Best-fit Applications

- Email
- Business and transaction processing
- Decision support
- Storage area networks and networked attached storage
- Internet and e-commerce
- Government-grade, data-at-rest security when drives leave your control*
- Drive retirement cost reduction and drive life extension strategies*

*Requires TCG-compliant host or controller support

Cheetah® 15K.7

Highest capacity, performance and reliability
in 3.5-inch mission-critical storage



Lowest Cost of Ownership

- Seventh-generation Seagate Cheetah 15K.7 drive is the fastest, highest capacity and most reliable ever.
- Cheetah 15K.7 drive performance and reliability enable lower TCO for enterprise applications.
- Lower watts/GB ratio helps achieve reduced power and cooling costs while optimising capacity requirements.
- Higher performance with fewer drives — reducing support infrastructure, physical space requirements and storage management costs.
- The highest reliability of any 3.5-inch drive, with increased system reliability due to the need for fewer drives.

Highest Reliability

- Seagate continues to focus on reliability and data protection. MTBF is an industry-leading 1.6 million hours.
- Seagate-exclusive enhanced Error Correction Code better maintains performance throughout the life of the drive and reduces the probability of lost data.
- The third generation of Seagate-exclusive Background Media Scan proactively scans the media for potential defects during drive idle time. It enables incipient errors to be corrected before data is lost.
- Our Quick and Robust Download feature loads new firmware in a matter of seconds with built-in protection to ensure no corruption in the event of a power failure during a firmware switch.

Seagate Global Customer Support

- Get pre-sales and technical support at www.seagate.com/www/en-gb/support
- Visit our knowledge base for answers to common support questions
- Find documentation for current and legacy drives
- Use our online troubleshooting and diagnostic tools

Specifications	600 GB ¹	450 GB ¹	300 GB ¹
Model Number	ST3600057SS ST3600957SS ² ST3600057FC	ST3450857SS ST3450757SS ² ST3450857FC	ST3300657SS ST3300557SS ² ST3300657FC
Capacity			
Formatted 512 Kbytes/Sector (GB)	600	450	300
External Transfer Rate (MB/s)			
4-Gb/s Fibre Channel	400	400	400
6-Gb/s Serial Attached SCSI	600	600	600
Performance			
Spindle Speed (RPM)	15K	15K	15K
Average Latency (ms)	2.0	2.0	2.0
Seek Time			
Average Read/Write (ms)	3.4/3.9	3.4/3.9	3.4/3.9
Track-to-Track Read/Write (ms)	0.2/0.4	0.2/0.4	0.2/0.4
Transfer Rate			
Internal (Mb/s, 0D-ID)	1,450 to 2,370	1,450 to 2,370	1,450 to 2,370
Sustained (MB/s, 1,000 x 1,000)	122 to 204	122 to 204	122 to 204
Cache, Multi-segmented (MB)	16	16	16
Configuration/Organisation			
Discs	4	3	2
Heads	8	6	4
Non-recoverable Read Errors per Bits Read	1 sector per 10 ¹⁶	1 sector per 10 ¹⁶	1 sector per 10 ¹⁶
Reliability Rating at Full 24x7 Operation (AFR)	0.55%	0.55%	0.55%
MTBF (hours)	1,600,000	1,600,000	1,600,000
Power Management			
Typical (W)			
Fibre Channel	16.31	15.17	13.8
SAS	16.35	14.6	12.92
Power Idle (W)			
Fibre Channel	11.61	10.26	8.98
SAS	11.68	10.1	8.74
Environmental			
Temperature, Operating (°C)	5 to 55	5 to 55	5 to 55
Temperature, Non-operating (°C)	-40 to 70	-40 to 70	-40 to 70
Shock, Operating: 2 ms (Gs)	60	60	60
Shock, Non-operating, 2 ms (Gs)	300	300	300
Acoustics Idle (bels — sound power)	3.6	3.6	3.6
Vibration, Operating: <400 Hz (Gs)	1.0	1.0	1.0
Vibration, Non-operating: <400 Hz (Gs)	3.0	3.0	3.0
Physical			
Height (in/mm)	1.0/25.4	1.0/25.4	1.0/25.4
Width (in/mm)	4.0/101.6	4.0/101.6	4.0/101.6
Depth (in/mm)	5.76/146.52	5.76/146.52	5.76/146.52
Weight (lb/kg)	1.51/0.686	1.49/0.676	1.48/0.671
Warranty			
Limited Warranty (years)	5	5	5

¹ One gigabyte, or GB, equals one billion bytes; and one terabyte, or TB, equals one trillion bytes when referring to hard drive capacity.
² Self-Encrypting Drive model; requires TCG-compliant host or controller support

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