WD S25

SAS Hard Drives

WD S25 SAS hard drives provide up to 600 GB of high performance storage suitable for both enterprise server and enterprise storage applications. The ultra-fast 6 Gb/s SAS interface enables optimum data reliability, availability, and scalability. In an environment where space and power are limited, the WD S25 drives are an effective solution for high performance computing solutions such as power-constrained data centers, database transaction processing, and rack, tower, and blade servers.

INTERFACE
SAS 6 Gb/s

WIDTH/HEIGHT
2.5-inch/0.6-inch

ROTATIONAL SPEED
10,000 RPM

CAPACITIES
147, 300, 450, and 600 GB

MODEL NUMBERS
WD6000BKHG WD3000BKFG
WD4500BKHG WD1460BKFG

Note: Not all products may be available in all regions of the world.

Product Benefits

Ultra-fast SAS storage

WD S25 delivers 6 Gb/s transfer rates, sustained sequential data rates up to 155 MB/s, and fast average read seek times of 3.8 ms or less.

Industry's highest reliability rating

With a field-tested MTBF of up to 1.75 million hours, these high performance drives are perfect for enterprise server and enterprise storage applications. (BKHG models)

Low power consumption

This 2.5-inch SAS drive requires less than 8 watts to operate.

Ultra-cool operation

The small form-factor, 70 percent smaller than 3.5-inch drives, allows more system airflow resulting in lower cooling costs.

Rotary Acceleration Feed Forward (RAFF™)

Optimizes operation and performance when the drives are used in vibration-prone, multi-drive chassis.

NoTouch™ ramp load technology

The recording head never touches the disk media ensuring significantly less wear to the recording head and media as well as better drive protection in transit.

Environmentally conscious

In addition to being ROHS compliant, these drives also incorporate a halogen free design.

5-year limited warranty

Applications

- **Performance servers** – All I/O-driven applications and configurations
- **Performance storage** – Data centers and large data arrays

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Specifications[1]	600 GB	450 GB	300 GB	147 GB
Model number	WD6000BKHG	WD4500BKHG	WD3000BKFG	WD1460BKFG
Interface	SAS 6 Gb/s	SAS 6 Gb/s	SAS 6 Gb/s	SAS 6 Gb/s
Formatted capacity	600 GB	450 GB	300 GB	147 GB
User sectors per drive	1,172,123,568	879,097,968	586,072,368	287,186,256
SCSI command queuing	Yes	Yes	Yes	Yes
Form factor	2.5-inch	2.5-inch	2.5-inch	2.5-inch
RoHS compliant[2]	Yes	Yes	Yes	Yes
Performance				
Data transfer rate (max) Buffer to host Host to/from drive (sustained)	 6 Gb/s 155 MB/s	 6 Gb/s 155 MB/s	 6 Gb/s 126 MB/s	 6 Gb/s 126 MB/s
Cache (MB)	32	32	16	16
Rotational speed (RPM)	10,000	10,000	10,000	10,000
Average drive ready time (sec)	16	16	16	16
Reliability/Data Integrity				
Load/unload cycles[3]	600,000	600,000	50,000	50,000
Non-recoverable read errors per bits read	<10 in 10^{17}	<10 in 10^{17}	<10 in 10^{17}	<10 in 10^{17}
MTBF (hours)[4]	1,750,000	1,750,000	1,600,000	1,600,000
Limited warranty (years)[5]	5	5	5	5
Power Management				
12VDC (A, max)	1.6	1.6	1.45	1.45
Average power requirements (W) Sequential read/write Random read/write Idle	 8.3 7.1 5.4	 8.3 7.1 5.4	 6.6 7.4 5.2	 6.6 7.4 5.2
Environmental Specifications[6]				
Temperature (°C) Operating Non-operating	 5 to 55 -40 to 70	 5 to 55 -40 to 70	 5 to 55 -40 to 70	 5 to 55 -40 to 70
Shock (Gs) Operating (2 ms, read/write) Operating (2 ms, read) Non-operating (2 ms)	 30 65 300	 30 65 300	 30 65 300	 30 65 300
Average acoustics (dBA)[7] Idle mode Performance seek mode	 28 34	 28 34	 27 34	 27 34
Physical Dimensions				
Height (in./mm, max)	0.59/15	0.59/15	0.59/15	0.59/15
Length (in./mm, max)	3.94/100	3.94/100	3.94/100	3.94/100
Width (in./mm, ± .01 in.)	2.75/69.85	2.75/69.85	2.75/69.85	2.75/69.85
Weight (lb./kg, ± 10%)	0.48/0.22	0.48/0.22	0.48/0.22	0.48/0.22

[1] As used for storage capacity, one megabyte (MB) = one million bytes, one gigabyte (GB) = one billion bytes, and one terabyte (TB) = one trillion bytes. Total accessible capacity varies depending on operating environment. As used for buffer or cache, one megabyte (MB) = 1,048,576 bytes. As used for transfer rate or interface, megabyte per second (MB/s) = one million bytes per second, and gigabit per second (Gb/s) = one billion bits per second. Effective maximum SAS 6 Gb/s transfer rate calculated according to the SAS specification published by the INCITS T10 organization as of the date of this specification sheet. Visit www.t10.org for details.

[2] WD hard drive products manufactured and sold worldwide after June 1, 2006, meet or exceed Restriction of Hazardous Substances (RoHS) compliance requirements as mandated by the European Union for electrical and electronic products. The RoHS Directive 2002/95/EC of the European Parliament, which is effective in the EU beginning July 1, 2006, aims to protect human health and the environment by restricting the use of certain hazardous substances in new equipment, and consists of restrictions on lead, mercury, cadmium, and other substances.

[3] Controlled unload at ambient condition

[4] 100% workload at 50°C on base casting.

[5] The term of the limited warranty may vary by region. Visit http://support.wdc.com/warranty for details.

[6] No non-recoverable errors during operating tests or after non-operating tests.

[7] Sound power level.

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