WD RE3
Enterprise Hard Drives

High Performance
24x7 Reliability
1.2 Million Hours MTBF

Interface

SATA

Width/Height

3.5-inch/1-inch

Rotational Speed

7200 RPM

Capacities

250 GB to 1 TB

Model Numbers

WD1002FBYS
WD7502ABYS
WD5002ABYS
WD3202ABYS
WD2502ABYS

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

WD RE3 7200 RPM Enterprise SATA hard drives are packed with performance and reliability features making them the perfect solution for servers, video surveillance, and other demanding write-intensive applications. With a designed, manufactured and demonstrated MTBF of 1.2 million hours at 100% duty cycle in nominal enterprise conditions, up to 32 MB cache, and best-in-class vibration tolerance, these drives are the ultimate in Enterprise SATA storage.

Product Benefits

Massive capacity - WD RE3 Enterprise SATA drives are available in capacities up to 1 TB.

Dual processor - Twice the processing power delivers best-in-class performance for demanding Enterprise applications.

RAFF™ - Our fourth generation RAFF technology includes sophisticated electronics to monitor the drive and correct both linear and rotational vibration for up to a 60% performance improvement in high vibration environments over the previous generation of drives.

IntelliSeek™ - Calculates optimum seek speeds to lower power consumption, noise, and vibration in active seek modes without degrading performance.

StableTrac™ - The motor shaft is secured at both ends to reduce system-induced vibration and stabilize platters for accurate tracking during read and write operations. (750 GB and above)

Multi-axis shock sensor - Automatically detects the subtlest shock events and compensates to protect the data.

RAID-specific, time-limited error recovery (TLER) - Prevents drive fallout caused by the extended hard drive error-recovery processes common to desktop drives.

Third generation dynamic fly height - Each read-write head's fly height is adjusted in real time for optimum reliability.

Thermal extended burn-in test - Each drive is put through extended burn-in testing with thermal cycling to ensure reliable operation.

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.

Perpendicular Magnetic Recording (PMR) - WD RE3 Enterprise SATA drives utilize PMR technology to achieve even greater areal density, reliability, and design margin.

5-year limited warranty

Applications

Ideal for servers, storage arrays, video surveillance, and other demanding applications.
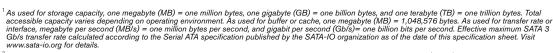
The WD Promise

WD understands the importance of the information you save to your hard drive and we are committed to protecting that data with exceptionally reliable products, advanced data protection technology, and superior customer support. No one does more to safeguard your data than WD.

Western Digital®

P U T   Y O U R   L I F E   O N   I T ®

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Specifications[1]	1 TB	750 GB	500 GB	320 GB	250 GB
Model number	WD1002FBYS	WD7502ABYS	WD5002ABYS	WD3202ABYS	WD2502ABYS
Interface	SATA 3 Gb/s	SATA 3 Gb/s	SATA 3 Gb/s	SATA 3 Gb/s	SATA 3 Gb/s
Formatted capacity	1,000,204 MB	750,156 MB	500,107 MB	320,072 MB	251,059 MB
User sectors per drive	1,953,525,168	1,465,149,168	976,773,168	625,142,448	490,350,672
Native command queuing	Yes	Yes	Yes	Yes	Yes
SATA latching connector	Yes	Yes	Yes	Yes	Yes
Actuator latch/auto park	Yes	Yes	Yes	Yes	Yes
Form factor	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch
RoHS compliant[2]	Yes	Yes	Yes	Yes	Yes
Performance					
Data transfer rate (max)					
Buffer to host	3 Gb/s	3 Gb/s	3 Gb/s	3 Gb/s	3 Gb/s
Host to/from drive (sustained)	113 MB/s	113 MB/s	113 MB/s	118 MB/s	118 MB/s
Cache (MB)	32	32	16	16	16
Average latency (ms)	4.2	4.2	4.2	4.2	4.2
Rotational speed (RPM)	7200	7200	7200	7200	7200
Average drive ready time (sec)	17	17	11	6.5	6.5
Configuration/Organization					
Heads/disks	6/3	5/3	4/2	2/1	2/1
Bytes per sector (STD)	512	512	512	512	512
Reliability/Data Integrity					
Load/unload cycles[3]	300,000	300,000	300,000	300,000	300,000
Non-recoverable read errors per bits read	<1 in 10^{15}	<1 in 10^{15}	<1 in 10^{15}	<1 in 10^{15}	<1 in 10^{15}
Limited warranty (years)[4]	5	5	5	5	5
Power Management					
12VDC (A, max)	2.1	2.1	2.1	2.1	2.1
Average power requirements (W)					
Read/Write	8.0	8.0	7.1	5.5	5.5
Idle	7.2	7.2	6.6	5.1	5.1
Standby	0.85	0.85	0.85	0.85	0.85
Sleep	0.85	0.85	0.85	0.85	0.85
Environmental Specifications[5]					
Temperature (°C)					
Operating	0 to 60	0 to 60	0 to 60	0 to 60	0 to 60
Non-operating	-40 to 70	-40 to 70	-40 to 70	-40 to 65	-40 to 65
Shock (Gs)					
Operating (2 ms, read)	30	30	30	30	30
Operating (2 ms, read/write)	65	65	65	65	65
Non-operating (2 ms)	250	250	300	350	350
Average acoustics (dBA)[6]					
Idle mode	28	28	25	29	29
Performance seek mode	33	33	29	30	30
Quiet seek mode	29	29	26	30	30
Physical Dimensions					
Height (in./mm, max)	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1
Length (in./mm, max)	5.787/147	5.787/147	5.787/147	5.787/147	5.787/147
Width (in./mm, ± .01 in.)	4/101.6	4/101.6	4/101.6	4/101.6	4/101.6
Weight (lb./kg, ± 10%)	1.52/0.69	1.52/0.69	1.39/0.63	0.97/0.44	0.97/0.44

[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 SATA 3 Gb/s transfer rate calculated according to the Serial ATA specification published by the SATA-IO organization as of the date of this specification sheet. Visit www.sata-io.org for details.*

[2] *WD products manufactured and sold worldwide after August 1, 2005, 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] *The term of the limited warranty may vary by region. Visit support.wdc.com/warranty for details.*

[5] *No non-recoverable errors during operating test or after non-operating tests.*

[6] *Sound power level.*