





WD Re

Specifications	4 TB	3 TB	2 TB	2 TB	1 TB	500 GB	250 GB
Model	WD4000FYYZ	WD3000FYYZ	WD200MFYYZ	WD2000FYYZ	WD1003FBYZ	WD5003ABYZ	WD2503ABYZ
Interface	SATA 6 Gb/	SATA 6 Gb/	SATA 6 Gb/	SATA 6 Gb/	SATA 6 Gb/	SATA 6 Gb/	SATA 6 Gb/
Formatted capacity <sup>1</sup>	4 TB	3 TB	2 TB	2 TB	1 TB	500 GB	251 GB
User accessible capacity	7,814,037,168	5,860,533,168	3,907,029,168	3,907,029,168	1,953,525,168	976,773,168	490,350,672
NAND architecture	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Format	3.5" c	3.5" c	3.5" c	3.5" c	3.5" c	3.5" c	3.5" c
Rotational speed <sup>2</sup>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Performance</b>							
Data transfer rate (MB/s)	6 Gb/	6 Gb/	6 Gb/	6 Gb/	6 Gb/	6 Gb/	6 Gb/
Buffer (MB)	171 MB/	168 MB/	164 MB/	164 MB/	128 MB/	128 MB/	128 MB/
Cache (MB)	64	64	64	64	64	64	64
Rotational speed (RPM)	7200	7200	7200	7200	7200	7200	7200
<b>Reliability/Data Integrity</b>							
Load/unload cycle <sup>3</sup>	600,000	600,000	600,000	600,000	600,000	600,000	600,000
Non-recoverable errors per billion bytes per year	<10 <sup>-16</sup>	<10 <sup>-16</sup>	<10 <sup>-16</sup>	<10 <sup>-16</sup>	<10 <sup>-15</sup>	<10 <sup>-15</sup>	<10 <sup>-15</sup>
MTBF (hours) <sup>4</sup>	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000
AFR (%) <sup>4</sup>	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Load/unload time (seconds) <sup>5</sup>	5	5	5	5	5	5	5
<b>Power Management</b>							
Active power (W)	10.2	10.2	10.2	8.1	8.2	6.5	6.5
Standby power (W)	9.7	9.7	9.7	7.7	8.3	6.4	6.4
Idle power (W)	10.9	10.9	10.9	9	8.6	6.3	6.3
Idle power (W)	8.6	8.6	8.6	6.4	5.9	4.4	4.4
<b>Environmental Specifications<sup>6</sup></b>							
Operating temperature (°C)	5 to 55	5 to 55	5 to 55	5 to 55	5 to 55	5 to 55	5 to 55
Non-operating temperature (°C)	-40 to 70	-40 to 70	-40 to 70	-40 to 70	-40 to 70	-40 to 70	-40 to 70
Shock (G)	30	30	30	30	30	30	30
Operating shock (2, read/write)	65	65	65	65	65	65	65
Non-operating shock (2, read/write)	300	300	300	300	300	350	350
Acoustic (dBA) <sup>7</sup>	31	31	31	31	28	27	27
Idle	34	34	34	34	33	30	30
See (a e a e)							
<b>Physical Dimensions</b>							
Height (inches, mm)	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1
Length (inches, mm)	5.787/147	5.787/147	5.787/147	5.787/147	5.787/147	5.787/147	5.787/147
Width (inches, mm)	4/101.6	4/101.6	4/101.6	4/101.6	4/101.6	4/101.6	4/101.6
Weight (lb./kg., 10%)	1.66/0.75	1.66/0.75	1.66/0.75	1.66/0.75	1.49/0.68	0.99/0.45	0.99/0.45

<sup>1</sup> 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 6 Gb/s transfer rate calculated according to the Serial ATA specification published by the Serial ATA-IO organization as of the date of this specification sheet. Visit [www.sata-io.org](http://www.sata-io.org) for details.

<sup>2</sup> WD hard drive products manufactured and sold worldwide after June 8, 2011, meet or exceed Restriction of Hazardous Substances (RoHS) compliance requirements as mandated by the RoHS Directive 2011/65/EU.

<sup>3</sup> Controlled unload at ambient condition.

<sup>4</sup> Product MTBF and AFR specifications are based upon a 40°C base casting and system workloads of up to 550 TB/year (workload is defined as the amount of user data transferred to or from the hard drive).

<sup>5</sup> The term of the limited warranty may vary by region. Visit <http://support.wd.com/warranty> for details.

<sup>6</sup> No non-recoverable errors during operating tests or after non-operating tests.

<sup>7</sup> Sound power level.

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