



# WD Green™

## Desktop Hard Drives

WD Green hard drives are designed for use in systems that require cool and quiet operation, as secondary drives in PCs, for external enclosures and other applications for which low noise and low heat are beneficial. These earth-friendly hard drives are ideal for use whenever energy efficiency is needed.



**INTERFACE**  
SATA 6 Gb/s

**WIDTH/HEIGHT**  
3.5-inch/1-inch

**ROTATIONAL SPEED**  
IntelliPower™

**CAPACITIES**  
500 GB to 3 TB

**MODEL NUMBERS**

WD30EZR	WD15EZR
WD20EAR	WD10EAR
WD20EZR	WD10EAR
WD15EAR	WD5000AZR

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

## Product Features

**WD's commitment to sustainability** – WD's green initiative goes beyond the product level, focusing on recycling and improving the cleanliness of the air, water and land.

- **Leading the way to green hard drives** – WD led the industry in creating a new category of hard drives that use less power and helps to reduce the world's energy demands one computer user at a time. With over 100 million WD Green drives sold\* customers using WD Green drives have saved the planet over 466 million kwh of power – nearly equaling the annual power production of a single coal power plant!

\*Data reflects approximate drives sold as of June 2012.

- **Conflict-free materials** – As a leader in hard drive manufacturing, WD proudly guarantees our hard drives are built with 100% conflict-free raw materials.
- **Halogen free** – In addition to being RoHS compliant, all WD Green drives are lead and halogen free, resulting in less pollutants getting into our environment.
- **Reduced rare earths dependency** – WD's next-generation WD Green hard drives are built using less rare earth minerals.

**Reduced power consumption**

Best-in-class power management technology delivers significant power savings and solid performance.

**Cool and quiet**

WD GreenPower Technology™ yields lower operating temperatures for increased reliability and low acoustics perfect for ultra-quiet PCs and external drives.

**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.

**IntelliSeek™**

Calculates optimum seek speeds to lower power consumption, noise and vibration.

**Tested for compatibility**

We perform tests on hundreds of systems and a multitude of platforms in our FIT Lab™ to give our customers confidence that our drives will work in their systems.

## Applications

WD Green hard drives are tested and recommended for use as secondary storage in PCs, external enclosures and applications that require cool and quiet operation. Desktop drives are not recommended for use in RAID environments. Please consider using WD Red™ hard drives for home and small office 1-5 bay NAS systems and WD enterprise hard drives for rackmount and NAS systems with more than 5 bays.\*

\* WD hard drives are designed and tested for use in specific applications and environments. This ensures that your hard drive is compatible with and functions properly in your application. Our hard drives are warranted against defects in materials and workmanship in the system for which they were designed. Use in systems other than for what the hard drive was designed could result in compatibility problems that affect proper function, unrelated to material and/or workmanship defects. For best results, be sure to select the appropriate product for your application by consulting our product spec sheets on our website at [www.wd.com](http://www.wd.com) or by calling our customer support line where we would be happy to help you through the selection process.

## The WD Advantage

WD puts our products through extensive Functional Integrity Testing (F.I.T) prior to any product launch. This testing ensures our products consistently meet the highest quality and reliability standards of the WD brand. WD also has a detailed Knowledge Base with more than 1,000 helpful articles as well as helpful software and utilities. Our customer support lines have longer operational hours to ensure you get the help you need when you need it. Our toll-free customer support lines are here to help or you can access our WD Support site for additional details.



**PUT YOUR LIFE ON IT®**



Specifications <sup>1</sup>	3 TB	2 TB	2 TB
Model number	WD30EZR	WD20EARX	WD20EZR
Interface	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s
Formatted capacity	3,000,592 MB	2,000,398 MB	2,000,398 MB
User sectors per drive	5,860,533,168	3,907,029,168	3,907,029,168
Advanced Format (AF)	Yes	Yes	Yes
SATA latching connector	Yes	Yes	Yes
Form factor	3.5-inch	3.5-inch	3.5-inch
RoHS compliant <sup>2</sup>	Yes	Yes	Yes
<b>Performance</b>			
Data transfer rate (max)			
Buffer to host	6 Gb/s	6 Gb/s	6 Gb/s
Host to/from drive (sustained)	123 MB/s	110 MB/s	123 MB/s
Cache (MB)	64	64	64
Rotational speed (RPM)	IntelliPower	IntelliPower	IntelliPower
<b>Reliability/Data Integrity</b>			
Load/unload cycles <sup>3</sup>	300,000	300,000	300,000
Non-recoverable read errors per bits read	<1 in 10 <sup>14</sup>	<1 in 10 <sup>14</sup>	<1 in 10 <sup>14</sup>
Limited warranty (years) <sup>4</sup>	2	2	2
<b>Power Management</b>			
12VDC (A, peak)	1.78	1.75	1.78
Average power requirements (W)			
Read/write	6	5.3	6
Idle	5.5	3.3	5.5
Standby	0.8	0.7	0.8
Sleep	0.8	0.7	0.8
<b>Environmental Specifications<sup>5</sup></b>			
Temperature (°C)			
Operating	0 to 60	0 to 60	0 to 60
Non-operating	-40 to 70	-40 to 70	-40 to 70
Shock (Gs)			
Operating (2 ms, read)	30	30	30
Operating (2 ms, read/write)	65	65	65
Non-operating (1 ms)	250	250	250
Average acoustics (dBA) <sup>6</sup>			
Idle mode	24	24	24
Performance seek mode	29	29	29
Quiet seek mode	25	25	25
<b>Physical Dimensions</b>			
Height (in./mm, max)	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
Width (in./mm, ± .01 in.)	4/101.6	4/101.6	4/101.6
Weight (lb./kg, ± 10%)	1.61/0.73	1.40/0.64	1.40/0.64

<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 or 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](http://www.sata-io.org) for details.

<sup>2</sup> 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 RoHS Directive 2011/65/EU.

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

<sup>4</sup> The term of the limited warranty may vary by region. Visit <http://support.wdc.com/warranty> for details.

<sup>5</sup> No non-recoverable errors during operating tests or after non-operating tests.

<sup>6</sup> Sound power level.



Specifications <sup>1</sup>	1.5 TB	1.5 TB	1 TB	1 TB	500 GB
Model number	WD15EZR	WD15EAR	WD10EZR	WD10EAR	WD5000AZR
Interface	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s
Formatted capacity	1,500,301 MB	1,500,301 MB	1,000,204 MB	1,000,204 MB	500,107 MB
User sectors per drive	2,930,277,168	2,930,277,168	1,953,525,168	1,953,525,168	976,773,168
Advanced Format (AF)	Yes	Yes	Yes	Yes	Yes
SATA latching connector	Yes	Yes	Yes	Yes	Yes
Form factor	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch
RoHS compliant <sup>2</sup>	Yes	Yes	Yes	Yes	Yes
<b>Performance</b>					
Data transfer rate (max)					
Buffer to host	6 Gb/s	6 Gb/s	6 Gb/s	6 Gb/s	6 Gb/s
Host to/from drive (sustained)	123 MB/s	110 MB/s	150 MB/s	110 MB/s	150 MB/s
Cache (MB)	64	64	64	64	64
Rotational speed (RPM)	IntelliPower	IntelliPower	IntelliPower	IntelliPower	IntelliPower
<b>Reliability/Data Integrity</b>					
Load/unload cycles <sup>3</sup>	300,000	300,000	300,000	300,000	300,000
Non-recoverable read errors per bits read	<1 in 10 <sup>14</sup>	<1 in 10 <sup>14</sup>	<1 in 10 <sup>14</sup>	<1 in 10 <sup>14</sup>	<1 in 10 <sup>14</sup>
Limited warranty (years) <sup>4</sup>	2	2	2	2	2
<b>Power Management</b>					
12VDC (A, peak)	1.78	1.75	1.10	1.65	1.10
Average power requirements (W)					
Read/write	6	5.3	3.7	5.3	3.7
Idle	5.5	3.3	2.3	3.3	2.3
Standby	0.8	0.7	0.5	0.7	0.5
Sleep	0.8	0.7	0.5	0.7	0.5
<b>Environmental Specifications<sup>5</sup></b>					
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 70	-40 to 70
Shock (Gs)					
Operating (2 ms, read)	30	30	30	30	30
Operating (2 ms, read/write)	65	65	65	65	65
Non-operating (1 ms)	250	250	350	300	350
Average acoustics (dBA) <sup>6</sup>					
Idle mode	24	24	21	23	21
Performance seek mode	29	29	22	27	22
Quiet seek mode	25	25	22	24	22
<b>Physical Dimensions</b>					
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%)	1.40/0.64	1.40/0.64	0.99/0.45	1.32/0.60	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 SATA-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 1, 2006, 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>The term of the limited warranty may vary by region. Visit <http://support.wdc.com/warranty> for details.

<sup>5</sup>No non-recoverable errors during operating tests or after non-operating tests.

<sup>6</sup>Sound power level.

**WD Green is part of WD's complete lineup of internal hard drives.**



**WD Blue™**  
Desktop Hard Drives  
for everyday computing.



**WD Green™**  
Desktop Hard Drives  
for energy efficient applications.



**WD Black™**  
Desktop Hard Drives  
for performance users.



**WD Red™**  
NAS Hard Drives  
for home and small office NAS systems.

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U.S.A.

**For service and literature:**

<http://support.wdc.com>  
[www.wdc.com](http://www.wdc.com)

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(800.275.4932)  
800.832.4778  
+800.6008.6008 Spanish  
00800.27549338 Asia Pacific  
Europe  
(toll free where available)  
+31.880062100 Europe/Middle East/Africa



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