



# WD AV-GP

## Power-saving Hard Drives

Power-conserving WD AV-GP SATA hard drives take advantage of WD GreenPower Technology™ to meet the 24x7 requirements of demanding audio and video environments. With power reduction of up to 40 percent, they deliver cool and quiet operation and reliability perfect for audio video applications such as PVRs, DVRs, set-top boxes (STBs) as well as surveillance video recording.



### INTERFACE

SATA 3 Gb/s

### WIDTH/HEIGHT

3.5-inch/1-inch

### ROTATIONAL SPEED

IntelliPower

### CAPACITIES

160 GB to 2 TB

### MODEL NUMBERS

WD20EURS	WD10EURS	WD5000AVDS	WD1600AVVS
WD20EVDS	WD10EVDS	WD5000AVVS	
WD15EURS	WD10EVVS	WD3200AVVS	
WD15EVDS	WD7500AVDS	WD2500AVVS	

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

## Product Features

### 24x7 reliability

These drives are designed to last in always-on, streaming digital audio/video environments such as PVR/DVR, DVR recorders, and surveillance video recorders.

### Reduced power consumption

With the combination of WD's IntelliSeek, IntelliPark, and IntelliPower technologies, WD has reduced power consumption by up to 40 percent compared to competitors' drives. Lower power means less heat and better reliability.

### Quiet

Noise levels have been minimized to less than one sone\* – virtually below the threshold of human hearing.

### SilkStream™

Optimized for smooth, continuous digital video playback of up to twelve simultaneous HD streams. SilkStream is compatible with the ATA streaming command set so CE customers can use standard streaming management and error recovery options.

### IntelliSeek™

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

### IntelliPower™

A fine-tuned balance of spin speed, transfer rate, and caching algorithms designed to deliver both significant power savings and solid performance.

### IntelliPark™

Parks the recording heads off the disk surface during spin up, spin down, and when the drive is off. This ensures the recording head never touches the disk surface resulting in improved long term reliability due to less head wear, and improved non-operational shock tolerance.

### Preemptive Wear Leveling (PWL)

The drive arm frequently sweeps across the disk to reduce uneven wear on the drive surface common to audio video streaming applications.

### Advanced Format (AF)

Technology being adopted by WD and other drive manufacturers as one of multiple ways to continue growing hard drive capacities. AF is a more efficient media format that enables increased areal densities. (EURS models only)

\* A sone is a subjective unit of loudness as perceived by a person with normal hearing.



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Specifications <sup>1</sup>	2 TB	2 TB	1.5 TB	1.5 TB	1 TB	1 TB
Model numbers	WD20EURS	WD20EVDS	WD15EURS	WD15EVDS	WD10EURS	WD10EVDS WD10EVVS
Formatted capacity	2,000,398 MB	2,000,398 MB	1,500,301 MB	1,500,301 MB	1,000,204 MB	1,000,204 MB
User sectors per drive	3,907,029,168	3,907,029,168	2,930,277,168	2,930,277,168	1,953,525,168	1,953,525,168
Advanced Format (AF)	Yes	No	Yes	No	Yes	No
Native command queuing	Yes	Yes	Yes	Yes	Yes	Yes
SATA latching connector	Yes	Yes	Yes	Yes	Yes	Yes
Form factor	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch
<b>Performance</b>						
Data transfer rate (max)						
Buffer to host (SATA)	3 Gb/s	3 Gb/s	3 Gb/s	3 Gb/s	3 Gb/s	3 Gb/s
Host to/from drive (sustained)	130 MB/s	110 MB/s	130 MB/s	110 MB/s	110 MB/s	111 MB/s
Cache (MB)	64	32	64	32	64	32 (WD10EVDS) 8 (WD10EVVS)
Average latency (ms)	4.2	4.2	4.2	4.2	4.2	4.2
Rotational speed (RPM)	IntelliPower	IntelliPower	IntelliPower	IntelliPower	IntelliPower	IntelliPower
Average drive ready time (sec)	14.5	14.5	14.5	14.5	14.3	14.3
<b>Reliability/Data Integrity</b>						
Load/unload cycles <sup>2</sup>	300,000	300,000	300,000	300,000	300,000	300,000
Non-recoverable read errors per bits read	<1 in 10 <sup>15</sup>	<1 in 10 <sup>15</sup>	<1 in 10 <sup>15</sup>	<1 in 10 <sup>15</sup>	<1 in 10 <sup>15</sup>	<1 in 10 <sup>15</sup>
Limited warranty (years) <sup>3</sup>	3	3	3	3	3	3
<b>Power Management</b>						
12VDC (A, max)	1.554	1.603	1.554	1.603	1.464	1.671
Average power requirements (W)						
Read/Write	4.5	5.9	4.5	5.9	4.9	4.9
Idle	4.0	4.9	4.0	4.9	4.2	4.2
Standby	0.7	0.7	0.7	0.7	0.4	0.4
Sleep	0.7	0.7	0.7	0.7	0.4	0.4
<b>Environmental Specifications<sup>4</sup></b>						
Temperature (°C)						
Base casting (max)	70	70	70	70	70	70
Operating	0 to 60	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	-40 to 70
Shock (Gs)						
Operating (2 ms, read/write)	30	30	30	30	30	30
Operating (2 ms, read)	65	65	65	65	65	65
Non-operating (2 ms)	250	250	250	250	300	300
Average acoustics (dBA) <sup>5</sup>						
Idle mode	24	25	24	25	23	24
Quiet seek mode	25	26	25	26	24	25
<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	1.028/26.1
Length (in./mm, max)	5.787/147	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	4/101.6
Weight (lb./kg, ± 10%)	1.40/0.64	1.61/0.73	1.40/0.64	1.61/0.73	1.32/0.60	1.32/0.60

<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 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> Controlled unload at ambient condition.

<sup>3</sup> The term of the limited warranty may vary by region. Visit <http://support.wdc.com/warranty> for details.

<sup>4</sup> No non-recoverable errors during operating tests or after non-operating tests.

<sup>5</sup> Sound power level.



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Specifications <sup>1</sup>	750 GB	500 GB	320 GB	250 GB	160 GB
Model numbers	WD7500AVDS	WD5000AVDS WD5000AVVS	WD3200AVS	WD2500AVS	WD1600AVS
Formatted capacity	750,156 MB	500,107 MB	320,072 MB	251,059 MB	160,041 MB
User sectors per drive	1,465,149,168	976,773,168	625,142,448	490,350,672	312,581,808
Advanced Format (AF)	No	No	No	No	No
Native command queuing	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
<b>Performance</b>					
Data transfer rate (max)					
Buffer to host (SATA)	3 Gb/s	3 Gb/s	3 Gb/s	3 Gb/s	3 Gb/s
Host to/from drive (sustained)	110 MB/s	110 MB/s	80 MB/s	80 MB/s	80 MB/s
Cache (MB)	32	32 (WD5000AVDS) 8 (WD5000AVVS)	8	8	8
Average latency (ms)	4.2	4.2	4.2	4.2	4.2
Rotational speed (RPM)	IntelliPower	IntelliPower	IntelliPower	IntelliPower	IntelliPower
Average drive ready time (sec)	14.3	14.3	8	8	8
<b>Reliability/Data Integrity</b>					
Load/unload cycles <sup>2</sup>	300,000	300,000	300,000	300,000	300,000
Non-recoverable read errors per bits read	<1 in 10 <sup>15</sup>	<1 in 10 <sup>15</sup>	<1 in 10 <sup>15</sup>	<1 in 10 <sup>15</sup>	<1 in 10 <sup>15</sup>
Limited warranty (years) <sup>3</sup>	3	3	3	3	3
<b>Power Management</b>					
12VDC (A, max)	1.671	1.392	1.350	1.350	1.350
Average power requirements (W)					
Read/Write	4.9	4.1	4.7	4.7	4.7
Idle	4.2	3.7	2.3	2.3	2.3
Standby	0.4	0.8	0.8	0.8	0.8
Sleep	0.4	0.8	0.8	0.8	0.8
<b>Environmental Specifications<sup>4</sup></b>					
Temperature (°C)					
Base casting (max)	70	70	70	70	70
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/write)	30	30	30	30	30
Operating (2 ms, read)	65	65	65	65	65
Non-operating (2 ms)	300	350	350	350	350
Average acoustics (dBA) <sup>5</sup>					
Idle mode	24	21	22	22	22
Quiet seek mode	25	22	22	22	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%)	1.32/0.60	0.97/0.44	0.99/0.45	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 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> Controlled unload at ambient condition.

<sup>3</sup> The term of the limited warranty may vary by region. Visit <http://support.wdc.com/warranty> for details.

<sup>4</sup> No non-recoverable errors during operating tests or after non-operating tests.

<sup>5</sup> Sound power level.

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