WD Caviar® Green™

Desktop Hard Drives

As hard drive capacities increase, the power required to run those drives increases as well. WD Caviar Green drives make it possible for energy-conscious customers to build systems with higher capacities and the right balance of system performance, ensured reliability, and energy conservation.

INTERFACE
SATA

WIDTH/HEIGHT
3.5-inch/1-inch

ROTATIONAL SPEED
IntelliPower™

CAPACITIES
500 GB to 2 TB

MODEL NUMBERS

WD20EARS	WD10EADS	WD6400AACS
WD20EADS	WD8000AARS	WD5000AADS
WD15EARS	WD7500AADS	
WD15EADS	WD6400AARS	
WD10EARS	WD6400AADS	

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

Product Features

Reduced power consumption

WD has reduced power consumption by up to 40 percent compared to standard desktop drives with the combination of WD's IntelliSeek™, NoTouch™, and IntelliPower technologies.

Helps enable eco-friendly PCs

By using environmentally-conscious PCs with our WD Caviar Green drives on board, large organizations with many desktop computers can minimize their carbon footprint and save real money on electricity costs.

Cool and quiet

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

Perfect for external drives

External drive manufacturers can eliminate the need for a fan in a high-capacity product with a WD Caviar Green drive, the coolest and quietest in its class.

IntelliPower

A fine-tuned balance of spin speed, transfer rate, and caching algorithms designed to deliver both significant power savings and solid performance. Additionally, WD Caviar Green drives consume less current during startup allowing lower peak loads on systems as they are booted.

IntelliSeek

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

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.

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. (2 TB model only)

Advanced power technology

WD Caviar Green drives consume less current during startup allowing lower peak loads. Electronic components deliver best-in-class low power consumption for reduced power requirements and increased reliability.

Advanced Formatting

Technology being adopted by WD and other drive manufacturers to increase media format efficiencies, thus enabling larger drive capacities. (WDxxEARS and WDxxxxAARS models only)

WD GreenPower™ TECHNOLOGY

PUT YOUR LIFE ON IT®

Specifications[1]	2 TB	1.5 TB	1 TB	1 TB
Model number	WD20EARS WD20EADS	WD15EARS WD15EADS	WD10EADS	WD10EARS
Interface	SATA 3 Gb/s	SATA 3 Gb/s	SATA 3 Gb/s	SATA 3 Gb/s
Formatted capacity	2,000,398 MB	1,500,301 MB	1,000,204 MB	1,000,204 MB
User sectors per drive	3,907,029,168	2,930,277,168	1,953,525,168	1,953,525,168
LBA support	Yes	Yes	Yes	Yes
SATA latching connector	Yes	Yes	Yes	Yes
Actuator latch/auto park	Yes	Yes	Yes	Yes
Form factor	3.5-inch	3.5-inch	3.5-inch	3.5-inch
RoHS compliant[2]	Yes	Yes	Yes	Yes
Performance				
Data transfer rate (max) Buffer to host Host to/from drive (sustained)	 3 Gb/s 110 MB/s	 3 Gb/s 110 MB/s	 3 Gb/s 110 MB/s	 3 Gb/s 111 MB/s
Cache (MB)	64 (WD20EARS) 32 (WD20EADS)	64 (WD15EARS) 32 (WD15EADS)	32	64
Rotational speed (RPM)	IntelliPower	IntelliPower	IntelliPower	IntelliPower
Reliability/Data Integrity				
Load/unload cycles[3]	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}
Limited warranty (years)[4]	3	3	3	3
Power Management				
12VDC (A, peak)	1.75	1.75	1.464	1.75
Average power requirements (W) Read/Write Idle Standby Sleep	 6 3.7 0.8 0.8	 4.73 2.75 0.72 0.72	 4.9 2.8 0.4 0.4	 4.86 2.8 0.38 0.38
Environmental Specifications[5]				
Temperature (°C) Operating Non-operating	 0 to 60 -40 to 70	 0 to 60 -40 to 70	 0 to 60 -40 to 70	 0 to 60 -40 to 70
Shock (Gs) Operating (2 ms, read) Operating (2 ms, read/write) Non-operating (1 ms)	 30 65 250	 30 65 250	 30 65 300	 30 65 300
Average acoustics (dBA)[6] Idle mode Performance seek mode Quiet seek mode	 24 29 25	 24 29 25	 23 27 24	 23 27
Physical Dimensions				
Height (in./mm, max)	1.028/25.4	1.028/25.4	1.028/25.4	1.028/25.4
Length (in./mm, max)	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
Weight (lb./kg, ± 10%)	1.61/0.73	1.61/0.73	1.32/0.60	1.32/0.60

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

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

[6] Sound power level.

WD Caviar Green

Specifications[1]	800 GB	750 GB	640 GB	640 GB	500 GB
Model number	WD8000AARS	WD7500AADS	WD6400AARS	WD6400AADS WD6400AACS	WD5000AADS
Interface	SATA 3 Gb/s	SATA 3 Gb/s	SATA 3 Gb/s	SATA 3 Gb/s	SATA 3 Gb/s
Formatted capacity	800,204 MB	750,156 MB	640,135 MB	640,135 MB	500,107 MB
User sectors per drive	1,562,824,368	1,465,149,168	1,250,263,728	1,250,263,728	976,773,168
LBA support	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 Host to/from drive (sustained)	 3 Gb/s 111 MB/s	 3 Gb/s 110 MB/s	 3 Gb/s 111 MB/s	 3 Gb/s 110 MB/s	 3 Gb/s 110 MB/s
Cache (MB)	64	32	64	32 (WD6400AADS) 16 (WD6400AACS)	32
Rotational speed (RPM)	IntelliPower	IntelliPower	IntelliPower	IntelliPower	IntelliPower
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]	3	3	3	3	3
Power Management					
12VDC (A, peak)	1.75	1.464	1.75	1.464	1.206
Average power requirements (W) Read/Write Idle Standby Sleep	 4.86 2.8 0.38 0.38	 4.9 2.8 0.4 0.4	 4.86 2.8 0.38 0.38	 4.9 2.8 0.4 0.4	 4.1 2.2 0.8 0.8
Environmental Specifications[5]					
Temperature (°C) Operating Non-operating	 0 to 60 -40 to 70	 0 to 60 -40 to 70	 0 to 60 -40 to 70	 0 to 60 -40 to 70	 0 to 60 -40 to 70
Shock (Gs) Operating (2 ms, read) Operating (2 ms, read/write) Non-operating (1 ms)	 30 65 300	 30 65 300	 30 65 300	 30 65 300	 30 65 350
Average acoustics (dBA)[6] Idle mode Performance seek mode Quiet seek mode	 23 27	 23 27 24	 23 27	 23 27 24	 21 22 22
Physical Dimensions					
Height (in./mm, max)	1.028/25.4	1.028/25.4	1.028/25.4	1.028/25.4	1.028/25.4
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	1.32/0.60	1.32/0.60	1.32/0.60	0.99/0.45

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

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

[6] Sound power level.

WD Caviar® Blue™
Performance and reliability for everyday computing.

WD Caviar® Green™
Cool, quiet, eco-friendly.

WD Caviar® Black™
Maximum performance for power computing.

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