WD Caviar® Green™

Power Saving Hard Drives

Cool, quiet, eco-friendly



Interface

SATA

Width/Height

3.5-inch/1-inch

Rotational Speed

IntelliPower

Capacities

500 GB to 1 TB

Model Numbers

WD10EADS WD10EACS WD7500AACS WD6400AACS WD5000AACS

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



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.

Product Features

Reduced power consumption — WD has reduced power consumption by up to 40 percent compared to competitors' 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 — 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. External drives with WD Caviar Green drives on board can save up to \$14.00 per year in electricity costs.

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.

Perpendicular Magnetic Recording (PMR) — Employs PMR technology to achieve even greater areal density.

WD Caviar Green is part of WD's complete lineup of desktop hard drives.





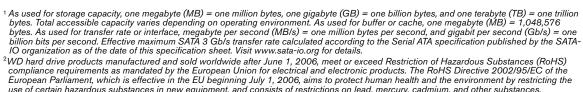




WD Caviar Green

Power Saving Hard Drives

Specifications ¹	1 TB	750 GB	640 GB	500 GB
Model number	WD10EADS WD10EACS	WD7500AACS	WD6400AACS	WD5000AACS
nterface	SATA 3 Gb/s	SATA 3 Gb/s	SATA 3 Gb/s	SATA 3 Gb/s
ormatted capacity	1,000,204 MB	750,156 MB	640,135 MB	500,107 MB
Jser sectors per drive	1,953,525,169	1,465,149,168	1,250,263,728	976,773,168
BA 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	100	103	100	103
Data transfer rate (max)				
Buffer to host	3 Gb/s	3 Gb/s	3 Gb/s	3 Gb/s
Host to/from drive (sustained)	111 MB/s	111 MB/s	108 MB/s	108 MB/s
Cache (MB)	32 (WD10EADS)	16	16	16
	16 (WD10EACS)		0	10
Rotational speed (RPM)	IntelliPower	ntelliPower	IntelliPower	IntelliPower
Average drive ready time (sec)	14.3	14.3	14.3	14.3
Configuration/Organization	1 1.0	1 1.0	1 1.0	1 1.0
Heads/disks	6/3	6/3	4/2	3/2
Bytes per sector (STD)	512	512	512	512
Reliability/Data Integrity	012	012	012	012
	000 000	200.000	000 000	000 000
oad/unload cycles ³ Non-recoverable read errors per bits read	300,000	300,000	300,000	300,000
	<1 in 10 ¹⁵	<1 in 10¹⁵	<1 in 10 ¹⁵	<1 in 10 ¹⁵
imited warranty (years) [‡]	3	3	3	3
Power Management				
2VDC ±10% (A, peak)	1.671	1.671	1.392	1.392
Average power requirements (W)			_ ,	- 4
Read/Write	5.4	5.4 2.8 0.4	5.4	5.4
Idle	2.8 0.4	2.8	2.5 0.46	2.5 0.46
Standby Sleep	0.4 0.4	0.4	0.46 0.46	0.46
· · · · · · · · · · · · · · · · · · ·	0.4	0.4	0.40	0.40
Environmental Specifications ⁵				
Temperature (°C)	L	L		L
Operating	5 to 55	5 to 55	5 to 55	5 to 55
Non-operating	-40 to 70	-40 to 70	-40 to 70	-40 to 70
Shock (Gs) Operating (2 ms, read)	30	20	30	20
	65	30 65		30 65
Operating (2 ms, read/write)	250	250	65 300	300
Non-operating (1 ms) Average acoustics (dBA) ⁶	250	250	500	300
Idle mode	24	24	24	24
Performance seek mode	29	29	29	29
Quiet seek mode	25	25	25	25
Physical Dimensions				
Height (in./mm, max)	1.028/25.4	1.028/25.4	1.028/25.4	1.028/25.4
ength (in./mm, max)	5.787/147	5.787/147	5.787/147	5.787/147
Nidth (in./mm, ± .01 in.)	4/101.6	4/101.6	4/101.6	4/101.6
/ V C	H, 101.0	T/ 101.0	H, 101.0	H, 101.0



use of certain hazardous substances in new equipment, and consists of restrictions on lead, mercury, cadmium, and other substances.

⁶Sound power level.



















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³ Effective maximum SATA 3 Gb/s transfer rate.

⁴Controlled unload at ambient condition.

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