WD Caviar® SE

Western Digital
Serial ATA Hard Drives

Cool-running, quiet operation, superior performance, and industry-leading reliability make these next-generation WD Caviar SE drives the perfect hard drives for desktop and enterprise storage.

Product Benefits

- **Fast** – WD, the first to introduce an 8 MB buffer, has advanced the caching algorithms of this new and improved WD Caviar family of hard drives, resulting in next-generation high performance – performance that matches the speed of most 16 MB cache drives.

- **Cool-running** – Heat is a major contributor to hard drive wear, and cool drive operating temperatures help increase long-term drive reliability. WD achieves the lowest operating temperature of any hard drive in its class, including slower drives spinning at 5400 RPM, by lowering the drives' power consumption through advanced design of electronics and firmware.

- **Quiet** – Today's PCs, digital video recorders, and gaming machines are increasingly operated in environments where noise is less tolerated. WD minimizes WD Caviar noise to levels virtually below the threshold of human hearing with its WhisperDrive™ technology which features a highly efficient power driver design. And to cut seek noise, Soft Seek™ technology streamlines read/write seeking algorithms, resulting in the drive operating more efficiently when accessing and writing data.

- **Data Lifeguard Tools**™– software utility that works in conjunction with the embedded Data Lifeguard features (including shock protection, an environmental protection system, and embedded error detection and repair features) to make hard drive management diagnostics and repair simple and worry-free.

- **SecureConnect**™– provides a 500 percent stronger cable-to-drive connection than first-generation SATA hard drives and cables. Also ensures backward compatibility with legacy SATA cables and backplanes.

  Note: WD's Serial ATA cable with SecureConnect is recommended for use with all Western Digital Serial ATA hard drives.

- **FlexPower**™– connector technology that accepts power from both industry-standard and new SATA power supplies.

The WD Promise

WD understands the importance of the information you save to your hard drive and we are committed to protecting that data with exceptionally reliable products, advanced data protection technology, and superior customer support. No one does more to safeguard your data than WD.

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Physical Specifications

	40 GB	80 GB	120 GB	160 GB	200 GB	250 GB	320 GB
	WD400BD	WD800BD	WD1200BD	WD1600BD	WD2000BD	WD2500BD	WD3200JD
	WD400JD	WD800JD	WD1200JD	WD1600JD	WD2000JD	WD2500JD	
Model number	WD400PD	WD800PD	WD1200PD	WD1600PD	WD2000PD	WD2500PD	
Interface	1.5 Gb/s	1.5 Gb/s	1.5 Gb/s	1.5 Gb/s	1.5 Gb/s	1.5 Gb/s	1.5 Gb/s
	(Serial ATA 1.0)	(Serial ATA 1.0)	(Serial ATA 1.0)	(Serial ATA 1.0)	(Serial ATA 1.0)	(Serial ATA 1.0)	(Serial ATA 1.0)
Form factor	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch
Formatted capacity[1]	40,020 MB	80,026 MB	120,034 MB	160,041 MB	200,049 MB	250,059 MB	320,072 MB
User sectors per drive	78,165,360	156,301,488	234,441,648	312,581,808	390,721,968	488,397,168	625,142,448
Bytes per sector (STD)	512	512	512	512	512	512	512
Dedicated landing zone	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Actuator latch/auto park	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Warranty[2]	3-year	3-year	3-year	3-year	3-year	3-year	3-year

Performance Specifications

Data transfer rate	
-Buffer to host[3]	150 MB/s
-Buffer to disk	748 Mbits/s max
Read seek	8.9 ms (average)
Track-to-track seek[4]	2.0 ms (average)
Full stroke read seek[4]	21 ms (average)
Average latency	4.2 ms
Rotational speed	7200 RPM
Read cache	Adaptive
Write cache	Yes
Buffer	8 MB
Drive ready time	9.0 sec average
Start/stop cycles	50,000 min
LBA support	Yes
Error rate (non-recoverable)	<1 in 10^{14} bits read

[1] WD defines a megabyte (MB) as 1,000,000 bytes and a gigabyte (GB) as 1,000,000,000 bytes. Some operating systems use the binary numbering system which results in a lower reported capacity.
[2] Three-year standard warranty on bulk WD Caviar SE Serial ATA hard drives. This standard warranty may be subject to variations imposed by local law or regulations.
[3] Effective maximum transfer rate running Serial ATA 1.0.
[4] On reads and writes.