Western Digital
EIDE Hard Drives

The award-winning WD Caviar™ family provides the best combination of performance, reliability, and value for today's mainstream desktop systems. WD Caviar Enhanced IDE (EIDE) hard drives offers giant magnetoresistive (GMR) technology, Ultra ATA/66, and Data Lifeguard™ to maximize drive performance and ensure data integrity.

DATA LIFEGUARD™

Western Digital's exclusive Data Lifeguard automatically detects, isolates, and repairs problem areas that may develop over the extended use of your hard drive.

ULTRA ATA/66

Western Digital is the first to offer Ultra ATA/66. This new interface transfers data at 66.6 MB/s—double the current burst transfer rate of 33.3 MB/s. Ultra ATA/66 allows host computers to send and receive data at higher rates resulting in increased performance and data integrity. All of these WD Caviar drives support Ultra ATA/66 transfers.

MR HEAD TECHNOLOGY

These Western Digital drives incorporate leading-edge magnetoresistive (MR) head technology to optimize read and write capabilities and meet capacity requirements. MR heads provide increased areal density, improved performance, and reliability.

IMPORTANT: Use Data Lifeguard Tools software version 2.0 or later to access the full capacity of your 8.4 GB and larger hard drives.

INTERFACE

EIDE

WIDTH/HEIGHT

3.5-inch/1-inch

CAPACITY

4.3, 6.4, 8.4, 10.2 and 13.0 GB

PART NUMBERS

AC14300
WD64AA/AC26400
WD84AA/WD28400
WD102AA/WD310200
AC313000

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EIDE Hard Drives

WD Caviar™

Physical Specifications

	4.3 GB	6.4 GB	8.4 GB [2]	10.2 GB [2]	13.0 GB [2]
Interface	40-pin EIDE	40-pin EIDE	40-pin EIDE	40-pin EIDE	40-pin EIDE
Formatted Capacity [1]	4311 MB	6448 MB	8455 MB	10,262 MB	13,020 MB
Actuator Type	Voice Coil	Voice Coil	Voice Coil	Voice Coil	Voice Coil
Bytes per Sector (STD)	512	512	512	512	512
User Sectors per Drive	8,421,840	12,594,960	16,514,064	20,044,080	25,429,824
Servo Type	Embedded	Embedded	Embedded	Embedded	Embedded
ECC	Reed Solomon	Reed Solomon	Reed Solomon	Reed Solomon	Reed Solomon
Dedicated Landing Zone	Yes	Yes	Yes	Yes	Yes
Actuator Latch/Auto Park	Yes	Yes	Yes	Yes	Yes
Model Number	WDAC14300	WD64AA/WDAC26400	WD84AA/WDAC28400	WD102AA/WDAC310200	WDAC313000

Performance Specifications

Data Transfer Rate

Buffer to Host	16.6 MB/s (Mode 4 PIO) [3]
	16.6 MB/s (Mode 2 DMA) [3]
	33.3 MB/s (Mode 2 Ultra ATA) [3]
	66.6 MB/s (Mode 4 Ultra ATA) [3]
Buffer to Disk	171.4 Mbits/s

Average Read Seek	9.5 ms
Track to Track Seek	2.0 ms
Full Stroke Seek	19ms
Average Latency	5.5 ms
Rotational Speed	5400 RPM
Read Cache	Adaptive
Write Cache	Yes
Buffer	512 KB
Drive Ready Time	7 sec average
Start/Stop Cycles	40,000 min
Master/Slave Support	Yes
LBA Support	Yes
IORDY Support	Yes
Error Rate (Non-recoverable)	<1 in 10^{13} bits read

Recommended Setup

AC14300	8912x15x63
WD64AA	13328x15x63
WD84AA	16383x16x63
WD102AA	16383x16x63
AC313000	16383x16x63

Physical Dimensions

Height	1.0 in. (25.4 mm) ± .02
Length	5.75 in. (146.0 mm) ± .02
Width	4.0 in. (101.6 mm) ± .02
Weight	1.1 lb. (0.5 kg) ± 10%

Environmental Specifications [4]

Shock

Operating	10G (2 per sec max; half sine wave 2 ms)
Non-Operating	150G (3 drops/axis max; half sine wave 3 ms)

Vibration

Operating	5.20 Hz, .037 inches (dbl amp)
	20-300 Hz, .75G (0 to peak)
Non-operating	5-20 Hz, .195 inches (dbl amp)
	20-500 Hz, 4G (0 to peak)

Operating Temperature & Humidity

Temperature	5° C to 55° C
Humidity	5-85% RH non-condensing
Thermal Gradient	20° C/hour max

Non-Operating Temperature & Humidity

Temperature	-40° C to 60° C
Humidity	5-95% RH non-condensing
Thermal Gradient	30° C/hour max

Acoustics

Idle Mode [5]	34 dBA average
Seek Mode [5]	39 dBA average

Reliability/Warranty

MTBF	500,000 POH
Warranty	3 years
AFR	<1%

Power Requirements (average)

Voltage: 5V ±5%, 12V ±8%

Read/Write/Idle	6.18W
Standby	1.32W
Sleep	.84W

[1] *Western Digital defines a megabyte (MB) as 1,000,000 bytes, and a gigabyte (GB) as 1,000,000,000 bytes.*
[2] *Extended BIOS support is required to support 8.4 GB capacities and larger.*
[3] *Maximum burst rate running the specified PIO, DMA, or Ultra ATA transfer mode.*
[4] *No non-recoverable errors during operating tests or after non-operating tests.*
[5] *Sound power level.*

Yes NetWare®

Designed for
Microsoft® Windows NT® Windows® 98

Designed for
Microsoft® Windows® 95

Certified F.I.T · WESTERN DIGITAL · FUNCTIONAL INTEGRITY TESTING LAB

S·M·A·R·T SYSTEM COMPLIANT

Western Digital