

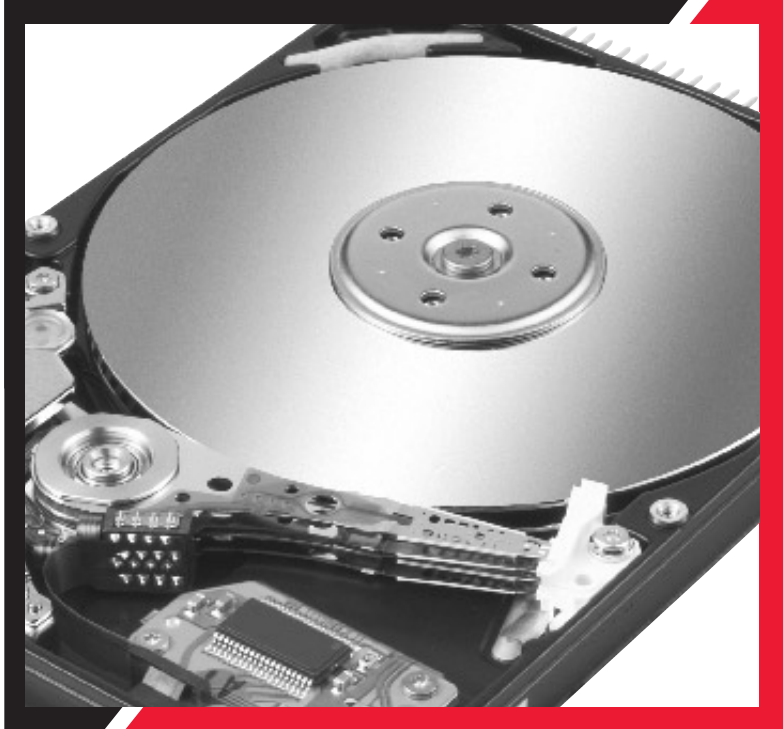
2.5 inch ATA-5 hard disk drives
Capacities: 7.5, 10, 15, 20 & 30 GB

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Hitachi DK23CA series hard disk drives

Highlights

- ▶ 7.5, 10, 15, 20 & 30 GB in 9.5mm high package for maximum capacity slimline notebooks
- ▶ ATA-5 interface with 512 kB or 2048kB read/write cache
- ▶ Ultra DMA mode 5 (100 MB/s max.) supported
- ▶ GMR head and MEEPRML read channel technology
- ▶ 32-bit RISC microprocessor, Shock sensor, SMART



Hitachi DK23CA series specifications

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Product	Hitachi DK23CA series	
Model	DK23CA-30	DK23CA-20
Performance		
Total Capacity		
Formatted	30,005 GB	20,003 GB
Per Sector (Bytes)	512	512
Number of Cylinders	28,134	28,134
Number of Disks	2	2
Number of Heads	4	3
Seek Time (Nominal)		
1 Track	3ms	3ms
Average	12ms	12ms
Full Track	24ms	24ms
Average Latency	71 ms	71 ms
Rotational Speed	4,200 RPM	4,200 RPM
Read Technology	MEEPRML, ID-Less Format	
Internal Transfer Rate	16.3-30.2 MB/s	16.3-30.2 MB/s
Recording Density	530 kbp max.	530 kbp max.
Track Density	46,800 tpi	46,800 tpi
Interface Transfer Rate	16.6 MB/s max. (PIO mode 4/Multiword DMA mode 2) / 100 MB/s max. (Ultra DMA mode 5)	
Data Buffer	2048 kB	2048 kB
Physical Specifications		
Dimensions		
Height	9.5 mm	9.5 mm
Width	70 mm	70 mm
Depth	100 mm	100 mm
Weight	95 g	95 g
Power Requirements +5V +-5%		
Seek	0.45 A (typ.)	0.45 A (typ.)
Spin-up	0.90 A (typ.)	0.90 A (typ.)
Idle	0.13 A (typ.)	0.13 A (typ.)
Read/Write	0.40 /0.42A (typ.)	0.40 A (typ.)
Sleep	0.020 A (typ.)	0.020 A (typ.)
Stand-by	0.050 A (typ.)	0.050 A (typ.)
Temperature		
Operating	5° to 55° C (41° to 131° F)	
Non-Operating	-40° to 70° C (-40° to 158° F)	
Environmental Conditions		
Relative Humidity		
Operating	5% to 90%	
Non-Operating	5% to 95%	
Max. Wet Bulb	29° C (84.2° F non-condensing)	
Shock		
Operating	1.764m/s ² (250G) or less, 2ms half sine wave	
Non-Operating	7.840m/s ² (800G) or less, 1 ms half sine wave	
Vibration		
Operating	9.8m/s ² (1.0G) or less (22-500Hz)	
Non-Operating	4.9m/s ² (5G) or less (22-500Hz)	
Acoustic Noise		
Idle	2.8 Bels (typ.)	2.8 Bels (typ.)
Reliability		
Preventive Maintenance	Not Required	
Error Rate (Unrecoverable Errors)	Less than 1 per 10 ¹³ bits read	
Identify Device Information for Setup (Addressing)		
Word 1 Number of CYL.	16383 (3FFFh)	16383 (3FFFh)
Word 3 Number of HD	16 (0010h)	16 (0010h)
Word 6 Number of SPT	63 (3Fh)	63 (3Fh)
Word 60 61 Total LBA	58605120(037E3E40h)	58605120(037E3E40h)

Hitachi DK23CA series specifications

Product	Hitachi DK23CA series		
Model	DK23CA-15	DK23CA-10	DK23CA-75
Performance			
Total Capacity Formatted	15,103 GB	10,056 GB	7,501 GB
Per Sector (Bytes)	512	512	512
Number of Cylinders	28,134	28,134	28,134
Number of Disks	1	1	1
Number of Heads	2	2	1
Seek Time (Nominal)			
1 Track	3ms	3ms	3ms
Average	12ms	12ms	12ms
Full Track	24ms	24ms	24ms
Average Latency			
Rotational Speed	71 ms	71 ms	71 ms
	4,200 RPM	4,200 RPM	4,200 RPM
Read Technology			
	MEEPRML, ID-Less Format		
Internal Transfer Rate			
Recording Density	16.3-30.2 MB/s	13.7-25.3 MB/s	16.3-30.2 MB/s
Track Density	530 kbp/ max.	440 kbp/ max.	530 kbp/ max.
	46,800 tpi	46,800 tpi	46,800 tpi
Interface Transfer Rate			
	16.6 MB/s max. (PIO mode 4/Multiword DMA mode 2) / 100 MB/s max. (Ultra DMA mode 5)		
Data Buffer	512 kB	512 kB	512 kB
Physical Specifications			
Dimensions			
Height	9.5 mm	9.5 mm	9.5 mm
Width	70 mm	70 mm	70 mm
Depth	100 mm	100 mm	100 mm
Weight	91 g	91 g	91 g
Power Requirements +5V +/-5%			
Seek	0.45 A (typ.)	0.45 A (typ.)	0.45 A (typ.)
Spin-up	0.90 A (typ.)	0.90 A (typ.)	0.90 A (typ.)
Idle	0.13 A (typ.)	0.13 A (typ.)	0.13 A (typ.)
Read/Write	0.40 /0.42A (typ.)	0.40 A (typ.)	0.40 A (typ.)
Sleep	0.020 A (typ.)	0.020 A (typ.)	0.020 A (typ.)
Stand-by	0.050 A (typ.)	0.050 A (typ.)	0.050 A (typ.)
Temperature			
Operating	5° to 55° C (41° to 131° F)		
Non-Operating	-40° to 70° C (-40° to 158° F)		
Environmental Conditions			
Relative Humidity			
Operating	5% to 90%		
Non-Operating	5% to 95%		
Max. Wet Bulb	29C(84.2F non-condensing)		
Shock			
Operating	1.764m/s ² (250G) or less, 2ms half sine wave		
Non-Operating	7.840m/s ² (800G) or less, 1 ms half sine wave		
Vibration			
Operating	9.8m/s ² (10G) or less (22-500Hz)		
Non-Operating	4.9m/s ² (5G) or less (22-500Hz)		
Acoustic Noise			
Idle	2.8 Bels (typ.)	2.8 Bels (typ.)	2.8 Bels (typ.)
Reliability			
Preventive Maintenance	Not Required		
Error Rate (Unrecoverable Errors)	Less than 1 per 10 ¹³ bits read		
Identify Device Information for Setup (Addressing)			
Word 1 Number of CYL.	16383 (3FFFh)	16383 (3FFFh)	15504 (3C90h)
Word 3 Number of HD	16 (0010h)	16 (0010h)	15 (001Fh)
Word 6 Number of SPT	63 (3Fh)	63 (3Fh)	63 (3Fh)
Word 60 61 Total LBA	29498112(01C21B00h)	19640880(012BB230h)	14651280(00DF8F90h)

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For more information

Internet:

- www.hgst.com

For other Hitachi products:

- 1 800 HITACHI (800 448 2244)

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