

Hitachi Global Storage Technologies

Addendum to hard disk drive specifications

Hitachi Deskstar 120 GXP

3.5 inch Ultra ATA/100 hard disk drive

Models: IC35L020AVVA07
IC35L040AVVA07



Revision 1.0

13 January 2003

S07N-8418-00

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1.0 General

This document is an addendum to sections 1.0, 2.0, 4.0, and 6.0 of the Hitachi Deskstar 120GXP hard disk drive specification and furnishes data for the following models when the data differs from data presented in the specification. Refer to the specification for complete information.

- IC35L020AVVA07 (20GB)
- IC35L040AVVA07 (40GB)

2.0 General features

- Data capacities of 20 GB and 40 GB
- Seek time of 8.5 ms in Read Operation (8.2 ms typical without Command Overhead)

4.4.2 Mechanical Positioning

4.4.2.1 Average seek time (without command overhead, including settling)

Command Type	Typical (ms)	Max (ms)
Read	8.2	9.2

4.4.2.2 Full stroke seek (without command overhead, including settling)

Function	Typical (ms)	Max (ms)
Read	14.7	17.7
Write	15.7	18.7

4.4.3 Drive ready time

Power on to ready	Typical (sec)	Maximum (sec)
20 GB & 40 GB models	7	31

6.5.2 Power supply current (typical)

Power supply current of 40 GB and 20 GB models (All values in Amps. RMS)	+5 Volts [mA]		+12 Volts [mA]		Total
	Pop Mean	Std Dev	Pop Mean	Std Dev	[W]
Idle average	310	4	290	33	4.9
Idle ripple (peak-to-peak)	330	18	80	35	
Low RPM Idle	160	5	220	26	3.4
Low RPM Idle ripple	50	6	230	23	
Unload Idle average	150	6	250	30	3.8
Unload Idle ripple	44	4	220	32	
Seek average ¹	370	6	360	31	6.2
Seek peak	600	10	700	50	
Random R/W average ²	460	6	500	24	8.3
Random R/W peak	780	13	1700	130	
Silent R/W average	470	6	360	26	6.7
Silent R/W peak	780	13	700	50	
Start up (max)	730	19	1800	87	
Standby average	160	5	15	1	1.0
Sleep average	150	6	15	1	0.9

Except for a peak of less than 100 μ s duration

¹ Random seeks at 40% duty cycle

² Seek duty = 30%, W/R duty = 45%, Idle Duty = 25%

6.8.4.2 Sinusoidal shock wave

Model	Acceleration level (G)	Duration (ms)
1 disk model	400	2

6.9 Acoustics

Mode	Typical
Idle	3.0
Operating (Quite Seek mode)	3.1

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