Deskstar™ 7K1000.C

3.5-INCH HARD DISK DRIVES

HITACHI
Inspire the Next

Energy-efficient storage for power-friendly PCs

Highlights

> Capacities up to 1TB[1]
> 7200 RPM performance
> Up to 18% idle power savings over previous generation product
> Halogen-free design for eco-friendly footprint
> Built on award-winning proven design

Applications

> Consumer and commercial computers
> Personal storage
> PC gaming

Features and Benefits

	Feature / Function	Benefits
Power	Advanced Power Management	Reduces power during idle periods
	HiVERT™ technology	Best-of-breed power consumption
Capacity	160GB to 1TB	Full range of capacity points
Reliability	Thermal Fly-height Control (TFC)	Better soft error rate for improved reliability and performance
	Head load/unload	Protects disk during non-operation
	ECC and CRC protection	Data integrity enhanced throughout circuits
	SMART command transport	Adaptive error correction
	Internal thermal sensor	Improves data integrity
Performance	Up to 32MB cache buffer	Faster data processing

1TB, 750GB, 640GB, 500GB, 320GB, 250GB & 160GB
7200 RPM | SATA 3Gb/s & 6Gb/s

Less power, more performance

The Deskstar™ 7K1000.C hard drive is a 7200 RPM 3.5-inch hard drive that provides an exceptional blend of power efficiency and performance, making it an ideal solution for power-friendly consumer and commercial desktop computers. This third-generation 1TB hard drive from Hitachi boosts media transfer rate performance by as much as 13% over its predecessor. Leveraging eighth-generation power management technology, as well as power-saving HiVERT™ innovations pioneered on the popular 2.5-inch line of notebook hard drives from Hitachi, this new desktop drive provides up to 18% idle power savings over the previous model, delivering best-in-class power management and thermal emissions.

Innovation for a more sustainable environment

The Deskstar 7K1000.C demonstrates Hitachi's ecological leadership with its halogen-free design and power-efficient operation. Both these features helped qualify the drive for the Hitachi EcoTrac classification, which identifies products that minimize environmental impact in the areas of product design, manufacturing, operation and disposal.

Power efficiency supports ENERGY STAR™ 5.0

The ENERGY STAR 5.0 specifications released by the U.S. Environmental Protection Agency (EPA) are recognized around the world as a way of identifying energy-efficient PCs and other computer equipment. PCs that meet the ENERGY STAR 5.0 criteria are expected to become increasingly popular with both corporations and consumers. Some corporations are choosing to purchase ENERGY STAR PCs as part of their "green" initiatives. The low power profile of the Deskstar 7K1000.C hard drive enables a reduction in overall system power requirements, which helps PC manufacturers achieve ENERGY STAR ratings.

Specifications

Model(s)	HDS721010CLA332	HDS721010CLA632
	HDS721075CLA332	HDS721075CLA632
	HDS721064CLA332	HDS721064CLA632
	HDS721050CLA362	HDS721050CLA662
	HDS721032CLA362	HDS721032CLA662
	HDS721025CLA382	HDS721025CLA682
	HDS721016CLA382	HDS721016CLA682

Configuration		
Interface	SATA 3Gb/s	SATA 6Gb/s
Capacity (GB)[1]	1TB / 750 / 640 / 500 / 320 / 250 / 160	←
Max. areal density (Gbits/sq. in.)	350	←
Performance		
Data buffer (MB)[2]	32 / 32 / 32 / 16 / 16 / 8 / 8	←
Rotational speed (RPM)	7200	←
Media transfer rate (Mbits/s, max)	1546	←
Interface transfer rate (MB/s, max)	300	600
Reliability		
Error rate (non-recoverable, bits read)	1 in 10^{14}	←
Load/unload cycles (at 40˚C)	300,000	←
Availability[3] (hrs/day x days/wk)	24x7	←
Acoustics		
Idle (Bels, typical) *1TB / 750GB / 640GB* *500GB / 320GB / 250GB / 160GB*	2.4 2.5	←
Power		
Requirement	+5 VDC (+/-5%) +12 VDC (+/-10%)	←
Startup current (A, max.)	1.5 (+5V), 2.0 (+12V)	←
Idle (W) *1TB / 750GB / 640GB* *500GB / 320GB / 250GB / 160GB*	4.4 3.6	←
Physical size		
z-height (mm)	26.1	←
Dimensions (width x depth, mm)	101.6 (+/-0.25) x 147	←
Weight (typical, g, max.) *1TB / 750GB / 640GB* *500GB / 320GB / 250GB / 160GB*	680 400	←
Environmental (operating)		
Ambient temperature	0º to 60º C	←
Relative humidity (non-condensing)	8% to 90%	←
Shock (half-sine wave)	70	←
Vibration, random (G RMS 5 to 500 Hz)	0.67 (XYZ)	←
Environmental (non-operating)		
Ambient temperature	-40º to 70º C	←
Relative humidity (non-condensing)	5% to 95%	←
Shock (half-sine wave, G (2ms))	350	←
Vibration, random (G RMS 2 to 200 Hz)	1.04 (XYZ)	←

Hitachi quality and service

All Hitachi hard drives are designed to the highest quality standards with field-proven components. They are backed by Hitachi's worldwide technical support and integration services, enabling customers around the globe to bring their products to market quickly.

How to read the Deskstar model number

HDS721010CLA332 = 1TB, 32MB buffer
H = Hitachi
D = Deskstar
S = Standard model
72 = 7200 RPM
10 = Full capacity—1TB
10 = Capacity this model, 10 =1TB
        (75 = 750GB, 64 = 640GB, 50 = 500GB,
        32 = 320GB, 25 = 250GB, 16 = 160GB)
C = Generation code
L = 26.1mm z-height
A3 = Interface, SATA 3Gb/s (A6 = SATA 6Gb/s)
3   = 32MB buffer (6 = 16MB, 8 = 8MB)
2   = Reserved

Information and Technical Support

www.hitachigst.com (Main Web site)
www.hitachigst.com/partners (Partner Web site)

North America
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Program Support
Partners First™ Program
channelpartners@hitachigst.com

[1] One GB is equal to one billion bytes and one TB equals 1,000GB (one trillion bytes) when referring to hard drive capacity. Accessible capacity may be less.
[2] Portion of buffer capacity used for drive firmware
[3] Intended for low duty cycle, non mission-critical applications in PC, nearline, and consumer electronics environments, which may vary from application to application. Note that customer environments may vary from application to application.

Hitachi Global Storage Technologies