

# 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<sup>1</sup>
- > 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



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



## Features and Benefits

	Feature / Function	Benefits
<b>Power</b>	Advanced Power Management	Reduces power during idle periods
	HIVERT™ technology	Best-of-breed power consumption
<b>Capacity</b>	160GB to 1TB	Full range of capacity points
<b>Reliability</b>	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
<b>Performance</b>	Up to 32MB cache buffer	Faster data processing

## 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 HDS721075CLA332 HDS721064CLA332 HDS721050CLA362 HDS721032CLA362 HDS721025CLA382 HDS721016CLA382	HDS721010CLA632 HDS721075CLA632 HDS721064CLA632 HDS721050CLA662 HDS721032CLA662 HDS721025CLA682 HDS721016CLA682
<b>Configuration</b>		
Interface	SATA 3Gb/s	SATA 6Gb/s
Capacity (GB) <sup>1</sup>	1TB / 750 / 640 / 500 / 320 / 250 / 160	←
Max. areal density (Gbits/sq. in.)	350	←
<b>Performance</b>		
Data buffer (MB) <sup>2</sup>	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
<b>Reliability</b>		
Error rate (non-recoverable, bits read)	1 in 10 <sup>14</sup>	←
Load/unload cycles (at 40° C)	300,000	←
Availability <sup>3</sup> (hrs/day x days/wk)	24x7	←
<b>Acoustics</b>		
Idle (Bels, typical)	1TB / 750GB / 640GB 500GB / 320GB / 250GB / 160GB	2.4 2.5
<b>Power</b>		
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
<b>Physical size</b>		
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
<b>Environmental (operating)</b>		
Ambient temperature	0° to 60° C	←
Relative humidity (non-condensing)	8% to 90%	←
Shock (half-sine wave)	70	←
Vibration, random (G RMS 5 to 500 Hz)	0.67 (XYZ)	←
<b>Environmental (non-operating)</b>		
Ambient temperature	-40° to 70° 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](http://www.hitachigst.com) (Main Web site)  
[www.hitachigst.com/partners](http://www.hitachigst.com/partners) (Partner Web site)

### North America

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### EMEA and UK

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### Program Support

Partners First™ Program  
[channelpartners@hitachigst.com](mailto:channelpartners@hitachigst.com)

<sup>1</sup> 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.

<sup>2</sup> Portion of buffer capacity used for drive firmware

<sup>3</sup> 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.

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The EcoTrac symbol identifies Hitachi hard drives that deliver on the principles of lower operating costs, safer product disposal and a more sustainable environment.

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