Ultrastar™ 10K300

3.5-INCH ENTERPRISE HARD DISK DRIVES

HITACHI
Inspire the Next

The world's first 300GB enterprise hard disk drive—massive capacity for mission-critical applications

Highlights

> Proven drive design for superior quality and reliability
> 10,000 RPM rotational speed for outstanding performance
> Full range of capacities from an industry-leading 300GB to 73GB offers enterprise customers configuration flexibility and ease of integration
> Ultra320 SCSI and 2Gb/s Fibre Channel supports high data throughput

Applications/Environments

> Online transaction processing
> RAID
> Storage Area Network (SAN)
> Network Attached Storage (NAS)
> Scientific engineering and data analysis
> Imaging systems
> Media streaming
> Data warehousing

300, 147 and 73GB | 10,000 RPM
Ultra320 SCSI and 2Gb/s FCAL

Features and Benefits

	Feature / Function	**Benefits**
Reliability	Mature drive design	Lower total cost of ownership
	SCSI protocol	User controllable error recovery
	S.M.A.R.T. technology	Early warning error detection
Performance	10,000 RPM	Reduced latency for faster access to data
	Rotational Positioning Optimization	Increased data throughput
	Rotational Vibration Safeguard (RVS)	Improved system robustness in multi-drive systems
	Highly optimized Voice Coil Motor	Faster access to data
Capacity	300GB, 147GB & 73GB	Configuration flexibility and ease of integration
Interfaces	Ultra320 SCSI (68 and 80 pin) 2Gb/s Fibre Channel	Configuration flexibility for a broad range of system environments

Lowest total cost of ownership

The Ultrastar™ 10K300 offers the lowest total cost of ownership enterprise solution in the industry. At double the capacity of previous generations, the new Ultrastar drive enables mission-critical configurations utilizing fewer systems for equivalent capacity and performance, requiring less power to run those systems, and fewer people to manage them. A mature drive design means higher quality and less downtime for repairs.

Specifications

Model(s)	HUS103030FL3600 HUS103030FL3800 HUS103030FLF210	HUS103014FL3600 HUS103014FL3800 HUS103014FLF210	HUS103073FL3600 HUS103073FL3800 HUS103073FLF210
Interface	Ultra320 SCSI 68-pin	Ultra320 SCSI 80-pin	2Gb/s FCAL
Capacity (GB) [1]	300 / 147 / 73	←	←
Sector size (variable, Bytes/sector)	512-524 (2 byte incr.)	←	←
Recording zones	18	←	←
Data heads (physical)	10 / 5 / 3	←	←
Data disks	5 / 3 / 2	←	←
Max. areal density (Gbits/sq. in.)	61	←	←
Performance			
Data buffer (MB) [2]	8	←	16
Rotational speed (RPM)	10,000	←	←
Latency average (ms)	2.99	←	←
Media transfer rate (Mbits/sec, max)	1075	←	←
Interface transfer rate (MB/sec, max)	320	←	200
Sustained transfer rate (MB/sec, typ.)	46.8 - 89.3	←	←
Seek time (read, ms, typical) [3]	4.7 / 4.5 / 4.3	←	←
Reliability			
Error rate (non-recoverable, bits read)	1 in 10^{16}	←	←
Availability (hrs/day x days/wk)	24x7	←	←
Acoustics			
Idle (Bels, typical)	3.4	←	←
Power			
Requirement	+5 VDC (+/-5%) +12 VDC (+/-5%)	←	←
Startup current (A, max.)	0.70 (5V), 2.45 (12V)	←	1.10 (5V), 2.45 (12V)
Idle (W)	11.2 / 8.5 / 8.0	←	13.4 / 10.8 / 10.3
Power consump. efficiency index (W/GB)	0.038 / 0.062 / 0.110	←	0.045 / 0.073 / 0.141
Physical size			
z-height (mm)	26.1	←	←
Dimensions (width x depth, mm)	101.6 (+/-0.25) x 147	←	←
Weight (typical, g, max.)	750	←	←
Environmental (operating)			
Ambient temperature	5° to 55° C	←	←
Shock (half-sine wave)	15G (11ms)	←	←
Vibration, random (G RMS 5 to 500 Hz)	1.0, all axes	←	←
Environmental (non-operating)			
Ambient temperature	-40° to 70° C	←	←
Shock (half-sine wave)	250G (2ms), 75G (11ms)	←	←
Vibration, random (G RMS 5 to 500 Hz)	5.0, all axes	←	←

1 One GB is equal to one billion bytes when referring to hard drive capacity. Accessible capacity may be less.
2 Buffer capacity includes 1.36MB used for drive firmware
3 Excludes command overhead

Hitachi quality and service

Hitachi's Ultrastar 10K300 extends the company's long-standing tradition of performance and reliability leadership. A balanced combination of new and proven technologies enables high reliability and availability to customer data. Ultrastar quality, performance, and world class technical support and service provides customers with a lower total cost of ownership over previous generations.

Hitachi drives are backed by an array of technical support and services, which may include customer and integration assistance. Hitachi is dedicated to providing a breadth of hard disk drive solutions to satisfy all of today's demanding computing needs.

How to read the Ultrastar model number
HUS103030FL3800 = 300GB, Ultra320 SCSI
H = Hitachi
U = Ultrastar
S = Standard (vs C for Compact)
10 = 10,000 RPM
30 = Full capacity — 300GB
30 = Capacity this model, 30 =300GB
    (14 = 147GB, 73 = 73GB)
F = Generation code
L = 26.1mm z-height
38 = Interface, Ultra320 SCSI 80-pin
    (36 =Ultra320 SCSI 68-pin, F2 = 2GFC)
0 = Reserved
0 = Reserved

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