

Ultra-fast hard disk drives for today's performance-driven systems and applications

# 3.5-Inch, 15K RPM Enterprise Hard Disk Drives

MBA3073 • MBA3147 • MBA3300

State-of-the-art hard disk drives for demanding enterprise applications.

- ▶ 15K RPM spindle speed and storage capacities up to 300GB<sup>1</sup>
- ▶ Maximum internal data-transfer rate of 179MB/sec
- ▶ 3Gb/sec SAS interface. Also offered with 4Gb/sec Fibre Channel and Ultra320 SCSI interfaces
- ▶ 1.4M hours MTBF for high reliability
- ▶ Ideal for high-performance and high-bandwidth applications



<sup>1</sup> One gigabyte (GB) = one billion bytes; accessible capacity will be less and actual capacity depends on the operating environment and formatting.

One megabyte (MB) = 1,000 bytes  
One gigabyte (GB) = 1,000 megabytes  
Gigabit (Gb) = 1,000 megabits  
RPM = Revolutions Per Minute

**FUJITSU**

THE POSSIBILITIES ARE INFINITE

# 3.5-Inch, 15K RPM

## Enterprise Hard Disk Drives

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Over 40 years ago, Fujitsu was manufacturing 14-inch hard disk drives for mainframes. Today we're shipping some of the fastest enterprise 3.5-inch hard disk drives in the industry. Leveraging our technology expertise and heritage, we deliver reliable, high-capacity HDDs for your customer's most demanding storage applications.

Fujitsu 3.5-inch 15K RPM enterprise hard disk drives feature a host of innovations. The 300GB, 4-platter configuration provides low power consumption, high reliability, and faster internal data rates. Interface options include 3Gb/sec SAS, 68/80-pin U320 SCSI and 4Gb/sec Fibre Channel.

These qualities make Fujitsu hard disk drives ideal for today's most demanding storage environments. A variety of product offerings with industry leading performance provide systems engineers with greater flexibility when designing rack and tower servers, storage arrays, RAID systems and digital video systems.

**About Fujitsu Computer Products of America, Inc.** Fujitsu Computer Products of America, Inc. is a subsidiary of Fujitsu Limited, a leading provider of customer-focused IT and communications solutions for the global marketplace. FCPA provides innovative solutions for the U.S. marketplace. Current product and service offerings include high-performance hard disk drives, scanners and scanner maintenance, palm vein recognition technology, 10Gb Ethernet switches and degaussers.

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3.5-Inch, 15K RPM Enterprise Hard Disk Drive Specifications				
Description	MBA3073RC/NC/NP/FD	MBA3147RC/NC/NP/FD	MBA3300RC/NC/NP/FD	
<b>Functional Specifications</b>				
Storage capacity (formatted) <sup>1</sup>	73.5 GB	147.0 GB	300.0 GB	
Disks	1	2	4	
Heads (read/write)	2	4	8	
Bytes/sector	512			
Seek time	Track to track	Read: 0.2 ms (typ.) / Write: 0.4 ms (typ.)		
	Average	Read: 3.4 ms (typ.) / Write: 3.9 ms (typ.)		
	Full track	Read: 8.0 ms (typ.) / Write: 9.0 ms (typ.)		
Average latency time	2.00 ms			
Rotational speed (RPM)	15,000			
Areal density	112.8 Gbits/sq. in.			
Data transfer rate	To/from media	179MB/sec		
	To/from host	SAS: 3Gb/sec, SCSI: 320MB/sec, FCAL: 4Gb/sec		
Recording code	60/62 MEEPRL			
Interface	Dual Port SAS (RC Series), SCA-2 80Pin (NC Series), 68Pin Wide (NP Series), Dual Port FCAL (FC series)			
Head positioning method	Rotary VCM			
Start time	30 s (typ)			
Stop time	30 s (typ)			
Buffer size	SCSI	8 MB		
	SAS, FC	16 MB		
<b>Physical Specifications</b>				
Power requirements	Voltage	5 V ± 5%, 12 V ± 5%		
	Spin-up	12 V ± 5% @ 2.5 A (peak) 3.0 A (peak < 100 us) 5 V ± 5% @ 0.8 A		
	Idle (typ.)	SAS	12.8 W	
		SCSI	12.4 W	
FC	13.4 W			
Dimensions (HxWxD)	25.4 mm x 101.6 mm x 146.0 mm			
Weight	800 g			
Ambient temperature	Operating	5°C to 55°C (HDD surface 60°C max)		
	Non-operating	-40°C to 70°C		
	Gradient	20°C/Hour (max)		
Relative humidity	Operating	5% to 95% (non-condensing)		
	Non-operating	5% to 95% (non-condensing)		
	Max. wet bulb	29°C (operating)		
		29°C (operating)		
Vibration	Operating	0.6 mm (5 to 20 Hz) / 1.0 G (20 to 300 Hz)		
	Non-operating	3.1 mm (5 to 20 Hz) / 5.0 G (20 to 300 Hz)		
Shock	Operating	65 G max. (2 ms)		
	Non-operating	250 G max. (2 ms)		
Altitude (operation)	Operating	3,048 m (max.)		
	Non-operating	12,192 m (max.)		
Acoustic Noise (idle sound power) (typ.)	<= 3.6 bels (idle)			
<b>Reliability Specifications</b>				
Mean time between failures (MTBF)	1,400,000 hours			
Error rates	Unrecoverable errors	1 per 10 <sup>15</sup> bits read		
	Seek errors	10 per 10 <sup>6</sup> seeks		
Limited Warranty	5 years (from date of purchase)			

