

TOSHIBA

Leading Innovation >>>

STORAGE DEVICE DIVISION



MBA3xxx RC/NC/NP/FD

3.5-inch Enterprise HDD

Key Advantages:

- 15,000 rpm spindle speed
- Maximum internal data-transfer rate of 179MB/s
- 3 Gb/s SAS interface. Also offered with 4Gb/s Fibre Channel and Ultra320 SCSI interfaces
- 1.4M hours MTBF for high reliability

Specifications:

3.5-Inch, 15K RPM Enterprise Hard Disk Drive Specifications			
Description	MBA3073RC/NC/NP/FD	MBA3147RC/NC/NP/FD	MBA3300RC/NC/NP/FD
Functional Specifications			
Storage capacity (formatted) ¹	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 MEEPRML		
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	
Physical Specifications			
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)	
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)		
Reliability Specifications			
Mean time between failures (MTBF)	1,400,000 hours		
Error rates	Unrecoverable errors	1 per 10 ¹⁶ bits read	
	Seek errors	10 per 10 ⁸ seeks	

Applications:

- Blade servers
- Telecom equipment
- ATMs
- POS systems
- Industrial PC / robot
- Other business critical applications



storage.toshiba.eu