

10,025 RPM

3.5-Inch SAS Enterprise Hard Disk Drives

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*Leveraging legacy storage
hardware with easy access to
2.5-inch technology benefits*



MBF230LRC
MBF245LRC
MBF260LRC

Easing migration to small form factor enterprise-class hard disk drives, Toshiba offers 2.5-inch SAS drive technology mounted in a 3.5-inch bracket. Toshiba developed the 3.5-inch bracket to enable small form factor drives to be used in legacy based 3.5-inch servers and storage enclosures. By incorporating the MBF series 2.5-inch drive, the MBF2-LRC option features a 10,025 RPM spin speed, 6 Gb/sec SAS interface, and the power consumption benefits normally found with small form factor drive technology.

With a top storage capacity of 600GB¹, the MBF2-LRC series drive matches the highest capacity point currently available within the entire 2.5 and 3.5-inch enterprise-class segments, while consuming 70 percent less power at idle and approximately one-half the active power compared to traditional 3.5-inch enterprise-class drives. In addition to the low power consumption design, the MBF2-LRC series features an enhanced power condition state technology enabling lower RPM spin speeds when not in use.

The MBF2-LRC series drive is designed for storage solutions where reliability, high capacity, and performance are required, particularly mission-critical, power-conscious and data-intensive storage applications such as mid-range volume servers, mainstream storage arrays, blade, and rack-mount servers.

- 2.5-inch Drive Technology Mounted in a 3.5-inch Bracket
- Up to 600GB¹ of Storage Capacity
- 6 Gb/sec SAS Interface
- 16MB Cache Buffer

Hard Drive

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Series Overview

	MBF230LRC	MBF245LRC	MBF260LRC
Drive Capacity	300GB ¹	450GB ¹	600GB ¹
Drive Interface		SAS 2.0	
RoHS Compliant		Yes	
Transfer Rate to Host		6 Gb/sec	

Performance

Track-to-track Seek		0.2ms (Read), 0.4ms (Write)	
Average Seek Time (typ.)		4ms (Read), 4.4ms (Write)	
Rotational Speed		10,025 RPM	
Average Latency		2.99ms	
Buffer Size		16MB	

Power Requirements

Voltage		5V (+/- 5%), 12V (+/- 5%)	
Spin up (start) Power		12V (+/-5%) @ 1.2A (peak), 1.5A (peak < 100us), 5V (+/-5%) @ 1.0A (peak)	
Low Power Idle		4.0 watts	

Physical Size

Dimensions (W) x (D) x (H)		101.6 mm (4") x 146 mm (5.75") x 25.4 mm (1")	
Weight		494 g	

Environmental

Temp - Operating		5° to 55°C (41° to °F)	
Temp - Non-Operating		-40° to 70°C (-40° to °F)	
Humidity - Operating		5% to 95% RH	
Humidity - Non-Operating		5% to 95% RH	
Vibration - Operating		(0.6mm) 5 to 20 Hz / 9.8 m/s ² (1.0G) 20 to 300 Hz	
Vibration - Non-Operating		(3.1 mm) 5 to 20 Hz / 49 m/s ² (5.0G) 20 to 300 Hz	
Shock - Operating		(65G) 2ms	
Shock - Non-Operating		(250G) 2ms	
Altitude - Operating		-1,000 to 10,000 ft	
Altitude - Non-Operating		-1,000 to 40,000 ft	

Acoustics

Acoustics (idle)		2.9 bels or less	
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Reliability

Mean Time Between Failure (MTBF)		1,600,000 hours	
Component Life		5 years POH	
Limited Warranty		5 years (from date of purchase)	

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¹One Gigabyte (1 GB) means 10⁹ = 1,000,000,000 bytes using powers of 10. A computer operating system, however, reports storage capacity using powers of 2 for the definition of 1 GB = 2³⁰ = 1,073,741,824 bytes, and therefore shows less storage capacity. Available storage capacity will also be less if the computer includes one or more pre-installed operating systems, pre-installed software applications, or media content. Actual formatted capacity may vary.

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