

SCSI LVD/FCAL 3.5-inch Hard Disk Drives



MAE3091/MAE3182 - MAG3091/MAG3182

Available in 9.1 GB/18.2 GB
and 7,200 rpm/10,000 rpm

- 9.1/18.2 GB
- 1.0" high
- 7200 rpm – MAE3091/3182
- 10K rpm – MAG3091/3182
- Advanced GMR head
- Low power
- High reliability
- LVD ULTRA-2 SCSI
- FCAL (MAG3091/3182)

Fujitsu's 9.1 GB MAE3091/MAG3091 and 18.2 GB MAE3182/MAG3182 are large-capacity, high-speed, low-profile 3.5-inch disk drives.

They incorporate Fujitsu-designed GMR (giant magneto-resistive) heads allowing **extremely high areal density** of approximately 3.7 Gbits/square inch. Rotational speed of the MAG3091/MAG3182 is 10,025 rpm (7,200 rpm for the MAE3091/MAE3182), permitting fast average positioning time of 5.2 ms for read (7.0 ms for

the MAE3091/3182), and **fast average latency time** of 2.99 ms (4.17 ms for the MAE3091/3182).

The drives provide a data transfer rate of 80 MB per second, and the 2 MB buffer enables efficient data storage and **quick access to information**. Fujitsu also offers the industry's

leading interface options, including Ultra2 SCSI (LVD) and FCAL (MAG3091/MAG3182). The enhanced S.M.A.R.T detection system and ECC technology reflect Fujitsu's high reliability standards. With **exceptional capacity, high rotational speed and excellent reliability**, the MAE3091/3182 and the MAG3091/3182 are well suited for networks, minicomputers, workstations, file servers and multi-user applications that require superior performance and reliability.

Functional Specifications

Model		MAE3091	MAE3182	MAG3091	MAG3182
Storage capacity (formatted)		9.1 GB	18.2 GB	9.1 GB	18.2 GB
Interface		LVD		LVD/FCAL	
Disks		2	4	3	5
Heads (read/write)		4	8	5	10
Tracks per cylinder		4	8	5	10
Cylinders		12,010		9,866	
Sectors/track		280 to 425 (14 zones)		273 to 420 (14 zones)	
Seek time	Track to track	Read 0.7 ms (typ.)/Write 1.1 ms (typ.)			
	Average	Read 7.0 ms (typ.)/Write 7.6 ms (typ.)		Read 5.2 ms (typ.)/Write 5.8 ms (typ.)	
	Maximum	Read 14.0 ms (typ.)/Write 15.0 ms (typ.)		Read 11.0 ms (typ.)/Write 12.0 ms (typ.)	
Average latency time		4.17 ms		2.99 ms	
Rotational speed		7,200 rpm		10,025 rpm	
Recording density		270,000 bits/in.		275,000 bits/in.	
Track density		13,250 tracks/in.		13,500 tracks/in.	
Data transfer rate		80 MB/s (LVD)/100 MB/s(FCAL)			
Recording code		16/17 EPR4ML			
Buffer size		LVDS: 2 MB, FCAL: 4 MB			

Physical Specifications

Power requirements		Idle 0.4 A	Idle 0.5 A
	+12V±5%	Peak startup 1.8 A	Peak startup 2.5 A
		Peak < 100µs 3.00 A	
	+5V±5%	0.55 A	0.7 A
Dimensions (H x W x D)		25.4 mm x 101.6 mm x 146.0 mm	
Weight		0.6 kg	0.7 kg
Ambient temperature	Operating	5°C to 50°C (DE base 55°C max.)	
	Non-operating	-10°C to 60°C	
	Gradient	15°C/H (max.)	
Relative humidity	Operating	20% to 80% (non-condensing)	
	Non-operating	20% to 80% (non-condensing)	
	Max. wet bulb	29°C	
Vibration	Operating	0.3 mm (5 to 20 Hz)/0.5 G (20 to 250 Hz)	
	Non-operating	3.1 mm (5 to 20 Hz)/5.0 G (20 to 250 Hz)	
Shock	Operating	15 G max. (2 ms)	
	Non-operating	175 G max. (2 ms)	
Altitude (operation)	Operating	3,000 m (max.)	
	Non-operating	12,000 m (max.)	
Sound power (Acoustic Noise)		≤ 4.0 bels (ready)	

Reliability Specifications

MTBF		1,000,000 power-on hours
MTTR		0.5 H (max.)
Component life		5 years
Error rates	Unrecoverable	10 per 10 ¹¹ bits read
	Seek	10 per 10 ⁸ bits seek

Specifications are subject to change without notice. For the latest information, contact your local Fujitsu representative.

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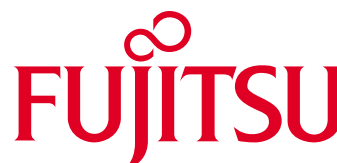
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