MARLIN 105i

SyDOS 105MB Internal 3.5" Removable Cartridge Drives

For PCs And Compatibles

- Compact 3.5" Size Provides 105MB
- Fixed Hard Drive Performance
- Superior To Optical Drives
- Unlimited Capacity
- Data Security and Organization

The SyDOS MARLIN Series is for PC and AT-compatible computers that require a compact, high-performance, expandable storage subsystem for multimedia, desktop publishing and other data intensive applications. The MARLIN 105i internal removable cartridge disk drive offers unlimited storage through 105MB increments of data per cartridge. The compact form factor and large 105MB capacity make this storage solution ideal for data transportability, organization, high speed back up and unlimited storage.

Compact 3.5" Size Provides 105MB. The SyDOS MARLIN 105i incorporates SyQuest removable technology into a 3.5" form factor with 105MB of storage. You get all the performance of a 3.5" disk drive plus the advantages of removability.

Fixed Hard Drive Performance. The SyDOS MARLIN 105i performs like a fixed drive, utilizing the same proven Winchester technology, with an average seek time of 14.5 msec and 100,000 hours MTBF.

Performance Superior To Optical. The use of Winchester technology allows the MARLIN 105i to achieve hard drive performance - three times faster than optical drives — **and** you get a significant cost savings.

Unlimited Capacity. There is no limit to capacity using a SyDOS MARLIN drive because there is no limit to the number of 105MB cartridges you can use. Cartridge technology eliminates all storage constraints encountered with fixed hard drives.

Organization And Security Of Data. SyDOS users can easily store large programs or files on separate cartridges, organizing work by project, application or user. And securing confidential information is as easy as removing a cartridge and locking it away.

Convenient Data Transportability. SyDOS 3.5" cartridges can easily travel with you or through the mail. Move up to 105MB of data on each cartridge quickly and easily across the office or across the country.

Fast Backup And Retrieval Of Data. You can back up as much as 105MB in as little as 10 minutes using standard DOS commands – there's no special software to learn. And MARLIN drives are random access so no time is wasted restoring archived tape files.

Compatible With Virtually All AT-Type Systems. The MARLIN 105i includes a 16-bit IDE host adapter that will allow connection of up to two MARLIN drives to each adapter. And the MARLIN 105i can co-reside with other fixed drives and peripherals operating from MFM, ESDI, SCSI, RLL and IDE host adapters.

Easy And Versatile Installation. You can mount the MARLIN 105i into your computer's 3.5" or 5.25" drive bay. All mounting hardware is included for ease of installation. In addition, all drives come complete with drive, cartridge, IDE adapter, software, cabling and step-by-step instructions for quick, easy installation.

2-Year Drive And 5-Year Cartridge Warranty. The MARLIN 105i is engineered to provide state-of-the-art performance and reliability-guaranteed by warranties unsurpassed in the industry – with 2 years on the drive and 5 years on the cartridge.

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- Fast Data Backup and Retrieval
- Compatible With AT-Type Systems
- Easy, Versatile Installation
- 2-Year Drive And 5-Year Cartridge Warranties

SyDOS

(A Division of SyQuest Technology)

THE ONLY STORAGE SYSTEM YOU NEED.

SyDOS MARLIN 105i Product Specification Summary

Capacity – One 3.5" 105MB SyQuest cartridge provides the storage capacity equal to that of 75 floppy disks.

Data Organization – SyQuest cartridges allow you to easily organize data by application, file or user.

Data Security – SyQuest cartridges can be locked away to ensure the confidentiality of sensitive data.

Transportability – SyQuest cartridge technology allows your data to travel with you or through the mail.

Disk Drive Specifications

Interface	
Type	ATA/IDE
Capacity	
Cartridge (512 Byte sectors)	105MB formatted
Performance	
Seek Times (typical, including settling time)	
Track to track:	3 ms
Average:	14.5 ms
Average latency	8.33 ms
Rotation speed (± .1%)	3600
Data transfer rate (to/from media)	1.75 to 1.95 MB/sec
Data transfer rate (to/from buffer)	4.0MB/sec (max)
Spin-up time	8 sec. typical
Stop time (power down)	8 sec. typical
Interleave	1:1
Buffer size	64K
Reliability and Maintenance	
MTBF	100,000 hours (POH)*
Cartridge Insertions	20,000 (min)
Spindle start/stop cycles	100,000 (min)
Preventive maintenance	None
Component design life	5 years
Data reliability	<1 non-recoverable error in 10^{12} bits read
Physical Characteristics (Drive)	
Height	1.00 inch (2.54cm)
Width	4.00 inch (10.16cm)
Length	5.75 inch (14.60cm)
Weight	15 oz (425gm)
Read/Write	
Recording method	3 frequency zones
Modulation code	2/3 (1,7) RLL code
Power Requirements (typical)	
+5 VDC ± 5% (spindle motor ± 10%)	

	Current (mA)	Total Watts
Read/write/active	700	3.50
Seek	900	4.50
Idle (spindle motor on)	350	1.75
Standby (spindle on)	130	0.65
Sleep (spindle off)	70	0.35
Spin-up	1200	6.00

Environmental Characteristics	
Temperature	
Operating	4° to 55°C
Non operating	-40°C to 70°C
Thermal transient	20°C per hour (max)
Altitude**	
Operating	-1,000 to 10,000 feet (-305 to 3,048m)
Non-operating	-1,000 to 40,000 feet (-305 to 12,192m)
Shock† (1/2 sine at 10 msec)	
Operating (G's)	3
Non-operating (G's)	50 (with cartridge)
Non-operating (G's)	80+ (without cartridge)

* Field MTBF — 100% duty cycle; ** Relative to sea level; † Without non-recoverable errors

SyQuest Cartridge Specifications — Model SQ310

Configuration	Physical		Physical Characteristics	
Number of Disks	1		Height	0.385 inch (.978cm)
Data Surfaces	2		Width	3.831 inch (9.73cm)
Servo	Embedded		Length	3.866 inch (9.82mm)
Tracks/User	4086		Weight	2.9 oz (83gm)
Track Density (tpi)	2100			
Bytes Per Block	512			

Specifications subject to change without notice

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