

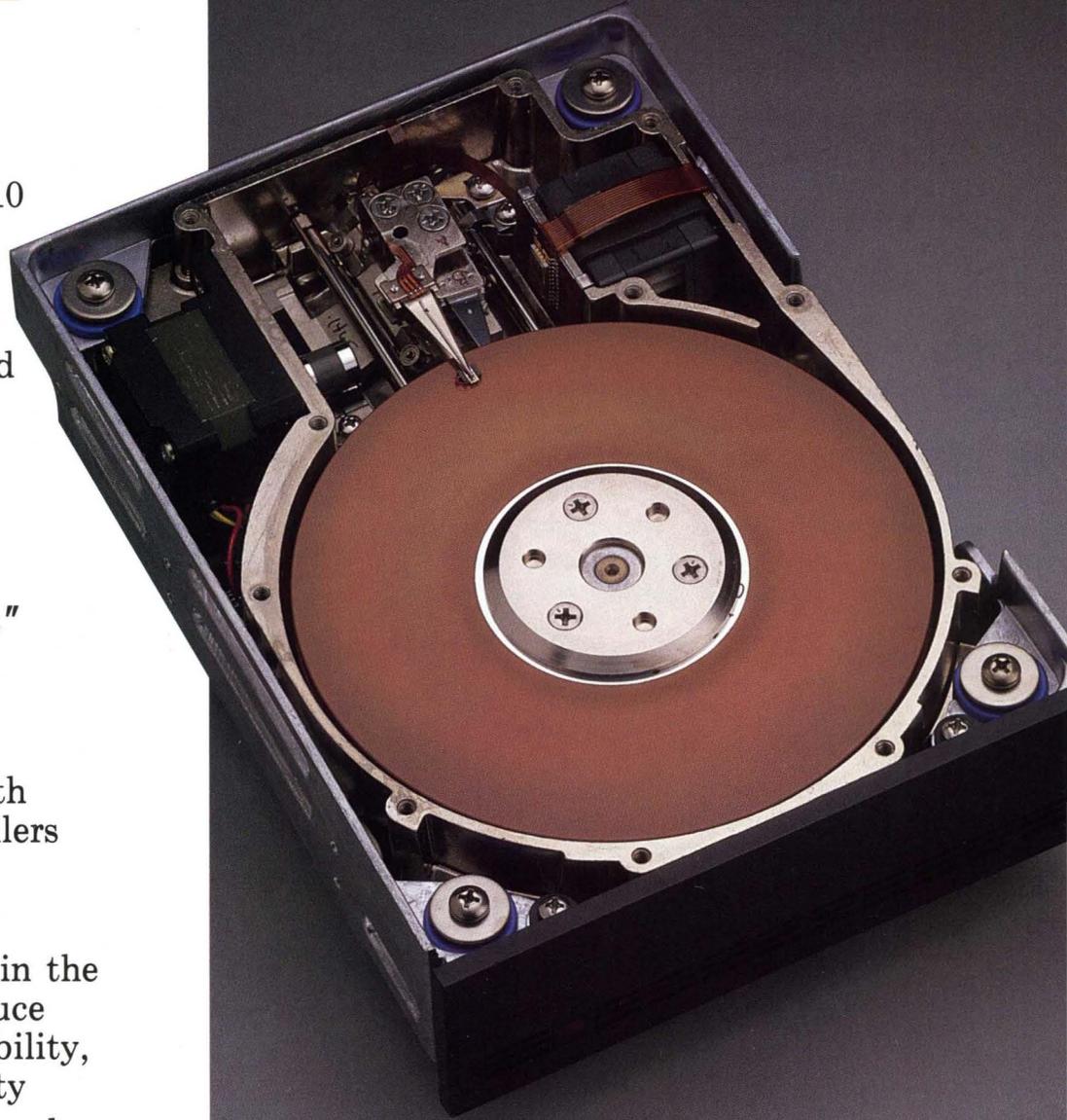
Computer Memories

Half-Height

25.52 Megabyte 5 1/4" Winchester Disk Drive

CM 3000 features:

- Formatted capacities of 10 and 20 megabytes
- 68 millisecond typical access time
- Rugged design optimized for desk top and portable applications
- Closed loop positioner
- Identical mounting to standard half-height 5 1/4" floppy drives
- Proven Winchester technology
- Interface compatible with readily available controllers
- Internal microprocessor
- Step-pulse buffering
- Read preamplifiers within the head disk assembly reduce EMI/RFI noise susceptibility, increasing data reliability
- Automatic spindle brake reduces shipping and handling damage
- High output, high resolution heads
- Crystal controlled spindle drive



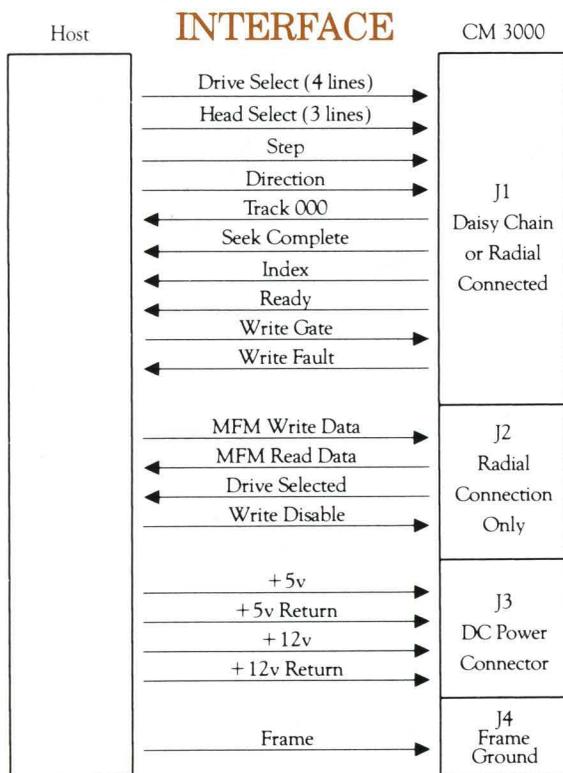
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CM 3000 Half-Height disk drive product information.

Computer Memories offers Winchester disk drives in a half-height, high storage yet low cost package. The CM 3000 is available in a 12.76 or 25.52 Mbyte version with a typical access time of 68 msec. Combining Winchester technology proven design techniques with the best in quality and reliability, the OEM is assured that Computer Memories is the right choice.

DC voltage requirements are identical to a mini-floppy drive so that the same power supplies may be used for both drive types.

The CM 3000 offers technological leadership through the ultimate combination of a high torque precision stepper motor, on-board microprocessor, crystal controlled spindle drive, and high output manganese zinc heads. Utilization of a stepper motor actuator and associated electronics with closed loop stepper control achieves a track density of 606 tpi with a bit density of 9706 bpi.



CM 3000

Performance Specifications:

Capacity	CM-3412	CM-3426
<i>Unformatted</i>		
Per Drive	12.76 Mbytes	25.52 Mbytes
Per Surface	3.19 Mbytes	6.38 Mbytes
Per Track	10.4 Kbytes	10.4 Kbytes
<i>Formatted</i>		
Per Drive	10 Mbytes	20 Mbytes
Per Surface	2.5 Mbytes	5.0 Mbytes
Per Track	8.192 bytes	8.192 bytes
Per Sector (32 sectors)	256 bytes	256 bytes

Density:

Recording Density	9706 bpi	9706 bpi
Flux Density	9706 fci	9706 fci
Track Density	303 tpi	606 tpi
Cylinders	306 per surface	612 per surface
Recording Surfaces	4	4
Tracks	306 per surface	612 per surface
R/W Heads per surface	1 per surface	1 per surface
Disks	2	2

Functional Specifications:

Rotational Speed	3600 rpm	3600 rpm
Transfer Rate	5 M/bits	5 M/bits
<i>Access Time (includes settle time)</i>		
Track to Track	18 ms	
Average	75 ms	68 ms typical
Maximum	150 ms	
Average Latency	8.3 msec	8.3 msec

Physical Specifications:

Environmental Limits	
Ambient Temperature	39°F to 122°F (4°C to 50°C)
Relative Humidity	8% to 80% non-condensing
Temperature Variation	18°F (10°C)/hour
Altitude	10,000 ft (3050 cm)

Mechanical Dimensions:

Height	1.61 in. (4.09 cm)
Width	5.75 in. (14.61 cm)
Depth	8.00 in. (20.32 cm)
Weight	3.35 lbs. (1.52 kg)

Reliability Specifications:

MTBF:	20,000 POH typical usage
PM:	Not required
MTTR:	less than 0.5 hour
<i>Error Rates:</i>	
Soft Read Errors:	1 per 10 ¹⁰ bits read
Hard Read Errors:	1 per 10 ¹² bits read
Seek Errors:	1 per 10 ⁶ seeks
Interface:	ST506/ST412

Simple Installation

3000 series drives can be installed either vertically on the side or horizontally on the base, drive motor down. Physical size is identical to that of a minifloppy, and the mounting holes are identical to the half-height minifloppy industry standard.



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