

**CALCOMP**

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## TRIDENT T-80 DISK DRIVE

*CalComp's T-80 member of the TRIDENT family of disk drive units is a high speed, random access mass storage unit with a capacity of 82.1 million 8-bit bytes of data, rotating at 3600 rpm. Data is stored on a five-high removable disk pack.*

*The T-80 incorporates 370 tracks-per-inch technology and has an average rotational latency of 8.3 milli-*

*seconds. It is up to speed in 20 seconds and is dynamically braked in 20 seconds.*

*Data is transferred at a rate of 1209 kilobytes per second.*

*Using existing technology in an optimal manner, the TRIDENT family offers the OEM designer many economical and advanced features.*

### T-80 FEATURES

**SINGLE COMPACT SELF-CONTAINED UNIT** allows flexibility for low-boy, table top or 19" RETMA-rack drawer mounting with front and rear access.

**FIVE-HIGH STANDARD 3336-TYPE DISKS AND A 3330-TYPE SPINDLE INTERFACE** which are available from multiple sources.

**VFO** in the TRIDENT T-80 eliminates need for including complex analog circuitry in the controller.

**HIGH VOLUME INTEGRAL AIR FLOW SYSTEM** provides clean room quality and thermally stable air, giving added assurance of data reliability.

**STATE-OF-THE-ART ACCESS TIME OF 6 msec.** max. track-to-track and an average head positioning time of 30 msec provide optimum system throughput.

**FAST START TIME AND DYNAMIC BRAKING** permit rapid pack change.

**PROGRAMMABLE HEAD OFFSET AND VARIABLE STROBE TIMING** features maximize recovery of marginal data and ensure high data integrity.

**ELECTROMAGNETIC ACTUATOR AND PRE-RECORDED SERVO SURFACE** provide proven, superior head positioning accuracy, track densities and reliability. The TRIDENT family offers the OEM designer a new dimension in improved data integrity for his system.

**SECTOR LENGTH SELECTION** through jumpers on sector board.

**FUNCTIONALLY ORGANIZED PRINTED CIRCUIT BOARDS** facilitate maintenance and reduce MTTR.



# T-80 SPECIFICATIONS AND CHARACTERISTICS

## CAPACITY

82.1 million 8-bit bytes

## TRANSFER RATE

1209 Kilobytes per second

## ACCESS TIME

Track to Track: 6 msec. max.  
Average Positioning: 30 msec.  
Full Stroke: 55 msec. max.  
Average Latency: 8.3 msec.

## ROTATIONAL SPEED

3600 rpm

## PACK START/STOP TIME

Start Time: 20 seconds (nominal)  
Dynamic Braking: 20 seconds (nominal)

## DENSITIES

Track Density: 370 tracks per inch  
Recording Density: 6060 bits per inch  
20,160 bytes per track  
100,800 bytes per cylinder

## DISK PACK CHARACTERISTICS

Disk Pack: IBM 3336-type components  
Recording Surfaces: 5 plus 1 servo surface  
Tracks per surface: 815

## OPERATING METHODS

Recording Method: Modified Frequency Modulation  
Positioning Method: Linear Motor; Track-Following  
Servo

## ERROR RATE

Recoverable: 1 error in  $10^{10}$  bits  
Non-recoverable: 1 error in  $10^{13}$  bits  
Positioning: 1 error in  $10^6$  seeks

## RELIABILITY

MTBF: Designed to exceed 2500 hours  
MTTR: Designed to be less than 1.5 hours  
Service Life: 5 years or 45,000 hours

## CONTROLS & INDICATORS

Ready Indicator  
Fault Indicator  
Start/Stop Switch  
Read Only Switch  
Degate Switch

## EXTERNAL DIMENSIONS

17.8" wide × 10.5" high × 32" deep  
(452 mm × 267 mm × 813 mm)

## POWER REQUIREMENTS

Input Voltage: 117, 190, 200, 208, 220, 230, 240 vac  
(+10%, -15%)  
Line Frequency: 60 Hz ± 1% (50 Hz ± 1%, optional)  
Starting Current: 117 vac Models = 24 amperes.  
Other Models = 13 amperes.  
Operating Current: 117 vac Models = 7.5 amperes.  
Other Models = 4.5 amperes.

## OPERATING ENVIRONMENT

Temperature: 60°F (16°C) to 100°F (38°C)  
Temperature Gradient: 20°F (11°C)  
Humidity: 10% to 80% (no condensation)

## HEAT DISSIPATION

2500 BTU/hour

## AIR FLOW

350 CFM minimum at 60 Hz  
290 CFM minimum at 50 Hz

## OPTIONS

Off-line Exerciser  
Dual Access



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