**CALCOMP**

**TRIDENT T-25 DISK DRIVE**

CalComp's T-25 member of the TRIDENT family of disk drive units is a high speed, random access mass storage unit with a capacity of 27.4 million 8-bit bytes of data. Stored on a five-high removable disk pack, data is transferred at a rate of 806 kilobytes per second.

The T-25 incorporates 185 tracks-per-inch technology and has an average rotational latency of 8.3 milliseconds. Access to any one of the 408 cylinders is accomplished in a maximum of 6 msec with an average positioning time of 30 msec.

The T-25 reaches operating speed in less than 20 seconds and is dynamically braked in 20 seconds. Using existing technology in an optimal manner, the TRIDENT family offers the OEM designer an economical, compact, reliable unit with many advanced features.

<table>
<thead>
<tr>
<th><strong>T-25 FEATURES</strong></th>
<th><strong>STATE-OF-THE-ART ACCESS TIME</strong> of 6 msec max. track-to-track and an average head positioning time of 30 msec provide optimum system throughput.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SINGLE COMPACT SELF-CONTAINED UNIT</strong> allows flexibility for low-boy, table top or 19&quot; RETMA-rack drawer mounting with front and rear access.</td>
<td><strong>PROGRAMMABLE HEAD OFFSET AND VARIABLE STROBE TIMING</strong> features maximize recovery of marginal data and insure high data integrity.</td>
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<td><strong>VFO</strong> in the TRIDENT T-25 eliminates the need for including complex analog circuitry in the controller.</td>
<td><strong>ELECTROMAGNETIC ACTUATOR AND PRE-RECORDED SERVO SURFACE</strong> 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.</td>
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<td><strong>HIGH VOLUME INTEGRAL AIR FLOW SYSTEM</strong> provides clean room quality and thermally stable air, giving added assurance of data reliability.</td>
<td><strong>SECTOR LENGTH SELECTION</strong> in one-byte increments through jumpers on sector board.</td>
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<td><strong>EXISTING TECHNOLOGY AND PACKAGING</strong> optimized in a manner that is more useful to the OEM designer.</td>
<td><strong>FEATURES INCLUDE:</strong> address mark generator and detector for variable record lengths; NRZ data interface and an optional off-line exerciser.</td>
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<td><strong>FUNCTIONALLY ORGANIZED PRINTED CIRCUIT BOARDS</strong> facilitate maintenance and reduce MTTR.</td>
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**LOW BOY**

**RACK MOUNT**

**TABLE TOP**
# T-25 Specifications and Characteristics

<table>
<thead>
<tr>
<th><strong>Capacity</strong></th>
<th>27.4 million 8-bit bytes</th>
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</thead>
<tbody>
<tr>
<td><strong>Transfer Rate</strong></td>
<td>806 Kilobytes per second</td>
</tr>
</tbody>
</table>
| **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: 185 tracks per inch  
Recording Density: 4040 bits per inch  
13,440 bytes per track  
67,200 bytes per cylinder |
| **Disk Pack Characteristics** | Disk Pack: IBM 3336-type components  
Recording Surfaces: 5 plus 1 servo surface  
Tracks per surface: 408 |
| **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 $10^{10}$ bits  
Positioning: 1 error in $10^4$ seeks |
| **Reliability** | MTBF: Designed to exceed 2500 hours  
MTTR: Designed to be less than 1.5 hours  
Service Life: 5 years of 45,000 hours |
| **Controls & Indicators** | Ready Indicator  
Fault Indicator  
Start/Stop Switch  
Read Only Switch  
Degate Switch |
| **External Dimensions** | 17.8" wide x 10.5" high x 32" deep  
(452 mm x 267 mm x 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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CALCOMPC
California Computer Products, Inc.
2411 W. La Palma, Anaheim, CA 92801
Tel (714) 821-2011 Twx 910-591-1154

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