

# SKS-HP

## D I S K • S U B S Y S T E M S

### High Performance, High Value

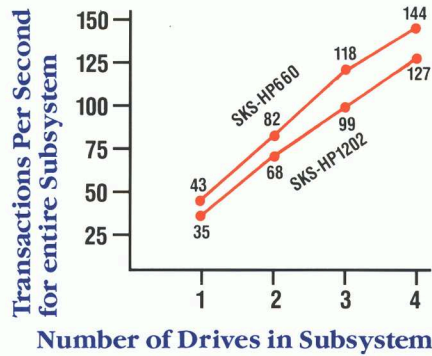
Zetaco's SKS-HP high performance magnetic disk subsystems offer Data General users unprecedented value:

**Performance:** Model SKS-HP660 performs more transactions-per-second than Data General's R.A.M.S.! Both SKS-HP models transfer data at **4 megabytes per second**, with burst performance up to 4.75 MB/sec.

**Reliability:** Drives use thin film media, thin film heads, and surface mount technology to produce an MTBF of 40,000 hours!

**Compatibility:** True Argus emulation, transparent to your Data General system.

**Large Capacity:** Dual-drive SKS-HP's start at 660 or 1202 formatted megabytes, grow up to 4.2 gigabytes!



**Small Footprint:** Two 5.25" form factor drives need only 3.5" of vertical space in standard cabinet.

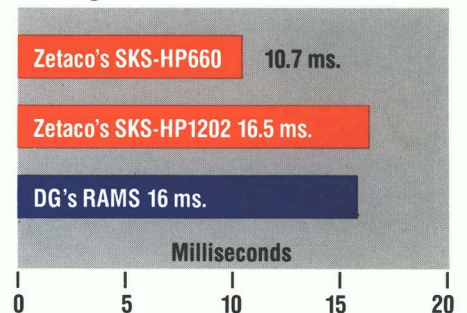
Using advanced SCSI drives, SKS-HP Subsystems are plug-compatible with Data General's **Eclipse** and **MV** minicomputers, emulating **Argus/DPJ** under AOS/VS, AOS/VS-II, and DG/UX.

The synchronous transfer capabilities of both the controller and the

drives result in low command overhead and a data transfer rate of 4 MB/sec.\* Combine this with the low 10.7 millisecond average seek time of the SKS-HP660 drives, and the results are astounding: 42 transactions per second on a single drive, or 82 TA/sec when two drives are used, which is significantly more TA/sec than Data General's high performance R.A.M.S.!

And, unlike traditional SMD subsystems, performance of these SCSI-based SKS-HP subsystems *continues to improve almost linearly* as more drives are added. For instance, Model SKS-HP1202, with two drives, performs 68 TA/sec, and 127 TA/sec with four drives.

### Average Access Times

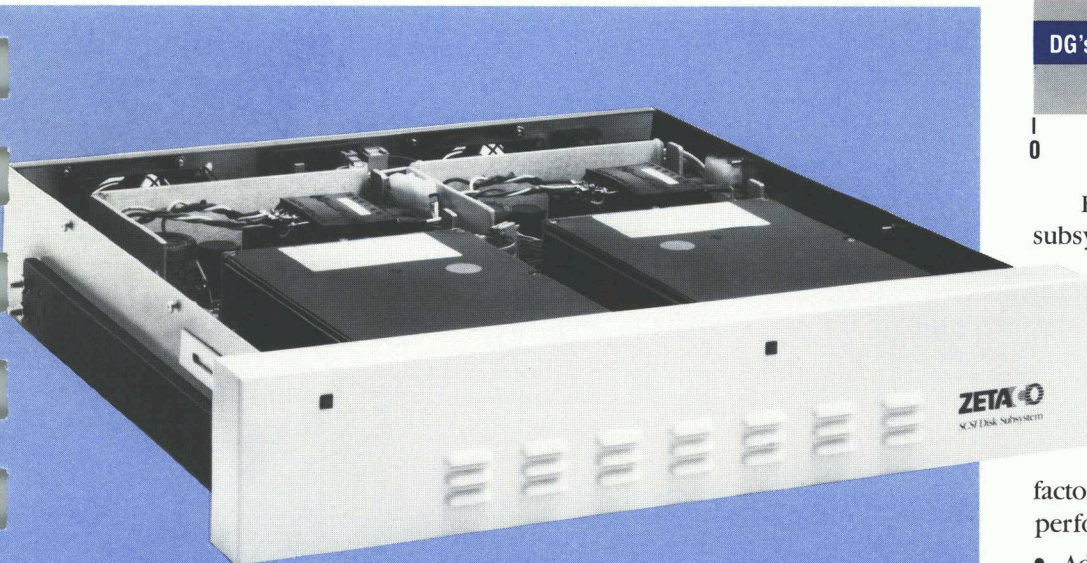


Higher performance of the disk subsystem can directly affect your system via faster response time at the terminals....consequently yielding more efficiency for your users and overall improved productivity.

The synergy of several factors accounts for the increased performance:

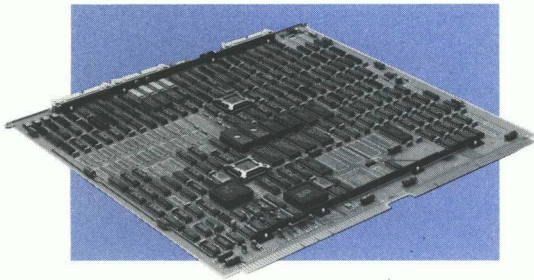
- Advanced, second generation, **synchronous SCSI chips**, on both controller and drive, provide significantly reduced SCSI overhead and high data transfer rate.

\*Asynchronous subsystems typically transfer data at 1 MB/sec to 1.5 MB/sec with significantly more overhead.





- Drives use **zoned bit recording** technology to pack more data on a track under the heads;
- **Low average seek times** (10.7 ms and 16.5 ms) minimize users' access time to data.
- **High data transfer rates** (4.75 MB/sec burst) minimize contentions in multiple-drive subsystems.
- **Buffered drives**, supporting a high level of parallelism between them to significantly improve performance in multiple-drive configurations.
- **Read/Look-Ahead** maximizes performance on sequential reads from disk.



### Small Form Factor

The use of compact and efficient 5.25" disk drives in the SKS-HP Series lets you pack 660 or 1202 formatted megabytes of storage into only 3.5" of vertical space in your cabinet! Small drives also mean less energy consumption for power and cooling requirements, to help hold your operating costs down.

SKS-HP drives are housed by two's, with their power supplies, in rack-mountable enclosures.

### True Argus Emulation

In addition to supporting and emulating all of the outstanding features of Argus/DPJ, such as disk mirroring and dual port, the SKS-HP Series offers Zetaco's own high performance features, including bad sector relocation and automatic soft error logging.

### Configuration Flexibility

The modular SKS-HP Series uses a 'building block' approach, for best flexibility, offering formatted storage capacities from 660 MB to 4.2 GB. The disk controller, Zetaco's advanced SCZ-3, supports up to seven disk devices under Argus emulation.

Drives and their power supplies are housed in 3.5"-high, rack-mountable modules, and the controller installs into any I/O slot in the CPU. Integrated and fully tested at the factory, SKS-HP Subsystems are supplied with cables, documentation, and everything required for complete connection.

### Specifications

#### SKS-HP Disk Subsystems

**Model SKS-HP660** has 2 drives, each with 330 formatted MB. **Model SKS-HP1202** has 2 drives, each with 601 formatted megabytes.

**Emulation:** Data General's Argus/DPJ

**Formatted Capacity:** Up to 4.2 gigabytes, starting with 660 or 1202 MB, adding in 330 or 601-MB increments.

**Drives Supported:** Up to seven.

**Bus Interface:** Data General's BMC (Burst Multiplexor Channel)

**Operating Systems:** Data General's AOS/VS, AOS/VS-II, and DG/UX.

**Drive Interface:** Synchronous SCSI (Small Computer Systems Interface)

**Average Latency at 3600 rpm:** 8.3 milliseconds

**Average Seek Time:**  
SKS-HP660: 10.7 milliseconds  
SKS-HP1202: 16.5 milliseconds

**Data Transfer Rate on SCSI bus:** 4 MB/sec sustained, 4.75 burst.

**Disk Drive MTBF:** 40,000 hours

**Slot for Controller:** Requires an "I/O Only" slot in CPU.

**Power for Enclosure:** 120 VAC/60 Hz @ 4 amps, standard. 220/230/240 Vac/50 Hz @ 2 amps, optional.

**Power for Controller:**  
+ 5Vdc @ 8.5 amps  
- 5Vdc @ .45 amps

**Power Supplies:** one per drive, provided with subsystem.

**Enclosure Dimensions:** 19" wide x 3.5" high x 18" deep  
48.2 cm W x 8.9 cm H x 45.7 cm D

**Drive Dimensions:** 5.75" wide x 3.25" high x 8" deep  
14.7 cm W x 8.26 cm H x 20.3 cm D

**Controller Dimensions:** 15" x 15" x 38 cm x 38 cm

**Cable:** nine-foot SCSI differential, supplied for connecting controller to drives (5', 15', 30' optional). Maximum cable length for subsystem is 82 feet or 25 meters.

**Warranty:** 2 years on Controller & Cables; 6 months on Drives.

**Shipping Weight:** 60 lbs (25.7 kg)

Copyright 1989, Zetaco, Inc.

R.A.M.S., Argus, Zebra, Kismet, and Vulcan are tradenames of Data General Corporation.



A Subsidiary of the Carlisle Corporation

6850 Shady Oak Road  
Eden Prairie, Minnesota 55344 U.S.A.  
Telex 290975/FAX 612-941-1395  
Phone (612) 941-9480

U.S. Regional Office:  
Suite C, 26141 Marguerite Pkwy.  
Mission Viejo, CA 92691  
Phone (714) 582-1026

European Office:  
No. 2, Marash House, 2/5 Brook St.  
Tring, Hertfordshire HP 23 5ED, U.K.  
Telex 826715/FAX 44-442-890-439  
Phone (44)442-891500