

# Disk Capacities and Transfer Rates [D]

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This appendix contains information about disk device capacities and transfer rates. The UNICOS `diskel(7)` man page also contains these specifications.

## D.1 DD-5I disk drives

The DD-5I disk drive, supported on CRAY J90 systems, is a high-performance, two-head, parallel enhanced IPI-2 drive.

The DC-5I disk controller is an intelligent and high-performance controller that can sustain the peak rates of four drives simultaneously to mainframe memory. You can attach up to four DD-5I drives to a DC-5I controller.

Reliability of the DD-5I disk drive is exceptionally high with a mean time between failures (MTBF) of 300,000 hours of power-on operation. No preventive maintenance is required. The following table shows DD-5I specifications.

Table 4. DD-5I specifications

Unformatted capacity	3.4 Gbytes
Formatted capacity	2.96 Gbytes
Formatted capacity (in blocks)	723,000 512-word blocks (4096-byte blocks)
Number of disk platters	11
Data surfaces	20
Interface	IPI-2 (enhanced)
Transfer rate (peak)	12.4 Mbyte/s
Transfer rate (sustained)	6 Mbyte/s - 9 Mbyte/s
Average access time	11.5 ms
Maximum access time	23.5 ms
Minimum access time	1.7 ms
Average latency time	5.55 ms
Disk speed	5,400 r/min

Bytes per track	Varies by zone
Bytes per cylinder	Varies by zone
Cylinders	2,738

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## D.2 DD-5S disk drives

The following table shows the specifications for DD-5S (SCSI) disk drives.

Table 5. DD-5S

Unformatted capacity	3.5 Gbytes
Formatted capacity	3.19 Gbytes
Formatted capacity (in blocks)	781,000 (4-Kbyte blocks)
Number of disk platters	11
Data surfaces	21
Interface	SCSI-2 Fast Wide
Transfer rate (peak)	6 Mbyte/s
Transfer rate (sustained)	3.2 Mbyte/s - 5 Mbyte/s
Average access time	11.5 ms
Maximum access time	23.5 ms
Minimum access time	1.7 ms
Average latency time	5.55 ms
Disk speed	5,400 r/min
Bytes per track	Varies by zone
Bytes per cylinder	Varies by zone
Cylinders	2,738

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### D.3 DD-6S disk drives

The following table shows the specifications for DD-6S (SCSI) disk drives.

Table 6. DD-6S specifications

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Unformatted capacity	10.8 Gbytes
Formatted capacity	9.78 Gbytes
Formatted capacity (in blocks)	2,389,000 (4-Kbyte blocks)
Number of disk platters	14
Data surfaces	27
Interface	SCSI-2 Fast Wide
Transfer rate (peak)	7.2 Mbyte/s
Transfer rate (sustained)	4.2 Mbyte/s - 6.2 Mbyte/s
Average access time	11.5 ms
Maximum access time	24 ms
Minimum access time	1.7 ms
Average latency time	5.55 ms
Disk speed	5,400 r/min
Bytes per track	Varies by zone
Bytes per cylinder	Varies by zone
Cylinders	4,925

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### D.4 DD-314 disk drives

The following table shows the specifications for DD-314 (SCSI) disk drives.

Table 7. DD-314 specifications

Unformatted capacity	5.06 Gbytes
Formatted capacity	4.2 Gbytes
Formatted capacity (in blocks)	1,102,000 (4-Kbyte blocks)
Number of disk platters	10
Data surfaces	21
Interface	SCSI-2 Fast Wide
Transfer rate (peak)	7.4 Mbyte/s
Transfer rate (sustained)	7.4 Mbyte/s
Average access time	8.5 ms
Maximum access time	19 ms
Minimum access time	0.9 ms
Average latency time	4.17 ms
Disk speed	7,200 r/min
Bytes per track	Varies by zone
Bytes per cylinder	Varies by zone
Cylinders	3,711

## D.5 DD-318 disk drives

The following table shows the specifications for DD-318 (SCSI) disk drives.

Table 8. DD-318 specifications

Unformatted capacity	5.06 Gbytes
Formatted capacity	4.2 Gbytes
Formatted capacity (in blocks)	1,102,000 (4-Kbyte blocks)
Number of disk platters	11
Data surfaces	21

Interface	SCSI-2 Fast Wide
Transfer rate (peak)	7.4 Mbyte/s
Transfer rate (sustained)	7.4 Mbyte/s
Average access time	8.5 ms
Maximum access time	19 ms
Minimum access time	0.9 ms
Average latency time	4.17 ms
Disk speed	7,200 r/min
Bytes per track	Varies by zone
Bytes per cylinder	Varies by zone
Cylinders	3,711

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