



# 450 GByte, 3.5", 15,000 rpm, Disk Drive Specification

SAS Interface

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## **Disk Drive Installation**

For information on how to install your disk drive, refer to your system or drive enclosure documentation.

See Accessing Sun Documentation on the back page if you need to order any documentation.

The Disk Drive Bracket Assembly consists of the disk drive assembled within the bracket assembly.

The Disk Drive Bracket Assembly should not be disassembled for any reason by the user.

## Power Requirements

Activity	+5 VDC (±5%)	12 VDC (±5%)
Motor start (Surge Current, 20sec )	1.0 A	2.3 A
Max Operating Conditions	0.7 A	1.2 A

## Physical Characteristics ( *Drive only, excluding bracket*)

Height (max)	Width (max)	Depth (max)	Weight
1.028 in	4.010 in	5.787 in	1.7 lb
26.11 mm	101.85 mm	146.99 mm	0.77 kg

## Usage Information

Usage	Description
Shelf Life	Drive must be powered on at least once every six months
Useful Life	Minimum five years
Expected AFR (Annualized Failure Rate)	0.63% for normal, 24x7 operating conditions

## Performance

Attribute	Value
Capacity, formatted	450,098,159,616 bytes minimum (512 bytes per sector)
Rotational latency	
Average	2.0 msec (15,000 RPM)
Seek times (read/write)	( Typical )
Single track seek	0.5 msec
Average seek	4 msec
Maximum seek	8 msec
Random 2KB Reads Per Sec	( Typical )
Queue=1, 100% Volume	170 IOPs
Queue=32, 100% Volume	350 IOPs
HDA data transfer rate (Typical)	
Sequential Read	100 MB/sec (at ID) to 160 MB/sec (at OD)
Interface data transfer rate	
Maximum instantaneous	300 Mbytes per sec ( 3 Gb Mode )
Start/stop	
Power up to ready	30 sec typical
Spin down	30 sec typical

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