

14 Tbyte, 3.5 inch, 7,200 rpm SAS-3 Disk Drive, 12Gb/sec Interface Specification

February 2019

This document provides the specification for the 14 Tbyte, 3.5 inch, 7,200 rpm SAS-3 Disk Drive, 12Gb/sec Interface.

Drive Installation

For information on how to install a storage drive, refer to your system or drive enclosure documentation. Refer to product documentation at <https://docs.oracle.com>.

The Drive Bracket Assembly consists of the storage drive assembled within the bracket assembly. The Drive Bracket Assembly should not be disassembled for any reason by the user.

Drive Specification

TABLE 1 Power Requirements

Condition	+5 VDC (+/-5%)	+12 VDC (+/-5%)
Motor start (Surge current 20 sec) Amp. peak	0.55 A	1.30 A
Idle power (Average)	0.41 A	0.35 A
Maximum power	0.87 W	1.79 W

TABLE 2 Physical Characteristics

Height	Width	Depth	Weight
1.03 in.	4.00 +/-0.006 in.	5.787 +/-0.006 in.	23.280 +/-0.035 oz
26.1 mm	101.6 +/-0.25 mm	147 mm	0.660 +/-0.001 kg

TABLE 3 Usage Information

Usage	Description
Useful life	5 years minimum
Expected AFR (Annualized Failure Rate)	0.35%
Operating temperature (Case)	0 to 50 degrees Celsius Note - Derating of AFR applies above 40 degree Celsius
Maximum temperature	60 degrees Celsius (maximum sustained temperature) Note - Drive may be rendered unusable above 65 degree Celsius
Other environmental factors	Conforms to IEC standards

TABLE 4 Drive Capacity and Performance

Attribute	Value
Capacity, formatted	13,715,978,059,776 bytes (520 bytes per sector)
Rotational latency average	4.16 msec (7,200 rpm)
Seek times (read/write)	Typical
Single track seek (typical)	0.25/0.35 msec
Average seek	8.0/8.6 msec
Maximum seek	10/11 msec
Random 2 KB reads per sec	Typical
Queue=1, 100% Volume (RR)	80 IOPS
Queue=32, 100% Volume (RR)	200 IOPS

Attribute	Value
HDA data transfer rate	Typical
Sustained sequential read	250 MiB/s (OD) / 160 MiB/s (ID)
Interface data transfer rate	12 Gbps/6 Gbps/3 Gbps/1.5 Gbps (auto negotiation, dual port, full duplex) SAS-3
Maximum instantaneous data transfer rate	1200 Mbytes per sec (12 Gbps mode)
Power On to Ready	20 sec (typical)
Spin down	30 sec (typical)

Product Documentation Library

Documentation for this product is available in the storage section of the Oracle Help Center, located at <http://docs.oracle.com/en/storage/>.

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Part No: F15117-01

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