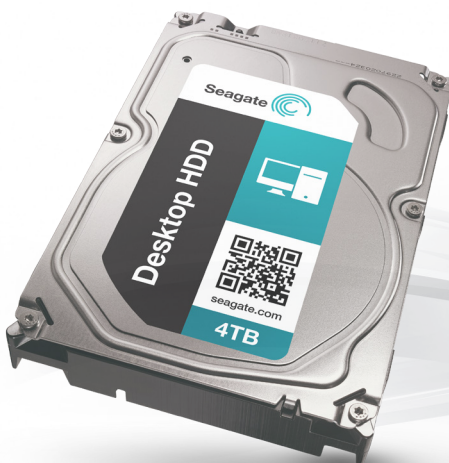# Desktop HDD

Data Sheet

The Power of One

- Seagate brings over 30 years of trusted performance and reliability to the new Seagate® Desktop HDDs—now available in capacities up to 4TB.

- Double your capacity and drive down costs with up to 1.25TB-per-disk hard drive technology.

- SATA 6Gb/s interface optimizes burst performance

- Seagate AcuTrac™ servo technology delivers dependable performance.

- Free Seagate DiskWizard™ software allows you to install 3TB and 4TB hard drives in Windows without UEFI BIOS.

- Seagate Secure™ models provide hardware-based data security and deliver an Instant Secure Erase feature for safe, fast and easy drive retirement.[1]

- Seagate Secure models meet the NIST 800-88 media sanitization specification and also support the Trusted Computer Group (TCG) Opal standard.[1]

Best-Fit Applications

- Desktop or all-in-one PCs

- Home servers

- Entry-level direct-attached storage devices (DAS)

1 Seagate Secure models are not available in all countries. May require TCG-compliant host or controller support.

Desktop HDD

Seagate ®

Specifications	4TB[1]	3TB[1]	2TB[1]	1TB[1]	500GB[1]	320GB[1]	250GB[1]
Standard Model Numbers	ST4000DM000	ST3000DM001	ST2000DM001	ST1000DM003	ST500DM002[2]	ST320DM000[2]	ST250DM000[2]
Seagate Secure™ Model Numbers	—	ST3000DM002	ST2000DM002	ST1000DM004	—	—	—
Model Name	Desktop HDD	formerly Barracuda®	formerly Barracuda	formerly Barracuda	formerly Barracuda	formerly Barracuda	formerly Barracuda
Interface Options	SATA 6Gb/s NCQ	SATA 6Gb/s NCQ	SATA 6Gb/s NCQ	SATA 6Gb/s NCQ	SATA 6Gb/s NCQ	SATA 6Gb/s NCQ	SATA 6Gb/s NCQ
Performance							
Cache, Multisegmented (MB)	64	64	64	64	16	16	16
SATA Transfer Rates Supported (Gb/s)	6.0/3.0/1.5	6.0/3.0/1.5	6.0/3.0/1.5	6.0/3.0/1.5	6.0/3.0/1.5	6.0/3.0/1.5	6.0/3.0/1.5
Seek Average, Read (ms)	12	<8.5	<8.5	<8.5	<8.5	<8.5	<8.5
Seek Average, Write (ms)	12	<9.5	<9.5	<9.5	<9.5	<9.5	<9.5
Average Data Rate, Read/Write (MB/s)	146	156	156	156	125	125	125
Max Sustained Data Rate, OD Read (MB/s)	180	210	210	210	144	144	144
Configuration/Organization							
Heads/Disks	8/4	6/3	4/2	2/1	2/1	2/1	1/1
Bytes per Sector	4096	4096	4096	4096	4096 or 512[2]	4096 or 512[2]	4096 or 512[2]
Voltage							
Voltage Tolerance, Inc. Noise (5V)	±5%	±5%	±5%	±5%	±5%	±5%	±5%
Voltage Tolerance, Inc. Noise (12V)	±10%	+10%/−7.5%	+10%/−7.5%	+10%/−7.5%	+10%/−7.5%	+10%/−7.5%	+10%/−7.5%
Reliability/Data Integrity							
Contact Start/Stop Cycles	—	—	—	—	50,000	50,000	50,000
Load/Unload Cycles	300,000	300,000	300,000	300,000	—	—	—
Nonrecoverable Read Errors per Bits Read, Max	1 per 10E14	1 per 10E14	1 per 10E14	1 per 10E14	1 per 10E14	1 per 10E14	1 per 10E14
Workload Rate Limit (TB/year)	55	55	55	55	55	55	55
Power-On Hours	2400	2400	2400	2400	2400	2400	2400
Limited Warranty (years)[3]	2	2	2	2	2	2	2
Power Management							
Startup Power (A)	2.0	2.5	2.5	2.0	2.0	2.0	2.0
Operating Mode, Typical (W)	5.6	8.0	8.0	5.90	6.19	6.19	6.19
Idle Average (W)[4]	4.0	5.4	5.4	3.6	4.60	4.60	4.60
Standby Mode (W)	0.50	0.75	0.75	0.63	0.79	0.79	0.79
Sleep Mode (W)	0.50	0.75	0.75	0.63	0.79	0.79	0.79
Environmental							
Temperature							
Operating (ambient min °C)	0	0	0	0	0	0	0
Operating (drive case max °C)	60	60	60	60	60	60	60
Nonoperating (ambient °C)	−40 to 70	−40 to 70	−40 to 70	−40 to 70	−40 to 70	−40 to 70	−40 to 70
Halogen Free	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RoHS Compliance	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Physical							
Height (mm/in)	26.11/1.028	26.11/1.028	26.11/1.028	20.17/0.7825	19.98/0.787	19.98/0.787	19.98/0.787
Width (mm/in)	101.6/4.0	101.6/4.0	101.6/4.0	101.6/4.0	101.6/4.0	101.6/4.0	101.6/4.0
Depth (mm/in)	146.99/5.787	146.99/5.787	146.99/5.787	146.99/5.787	146.99/5.787	146.99/5.787	146.99/5.787
Weight (g/lb)	610/1.345	626/1.38	626/1.38	400/0.88	415/0.92	415/0.92	415/0.92
Carton Unit Quantity	20	20	20	25	25	25	25
Cartons per Pallet	40	40	40	40	40	40	40
Cartons per Layer	8	8	8	8	8	8	8
Special Features							
Seagate AcuTrac™ Technology	Yes	Yes	Yes	Yes	No	No	No

1 One gigabyte, or GB, equals one billion bytes and one terabyte, or TB, equals one trillion bytes when referring to drive capacity.
2 Seagate ships this drive in both 4K- and 512-byte sectors. SmartAlign technology is included on 4K sector drives. Both drives are functionally and physically equivalent.
3 Extended warranty products available. Consult your distributor for details.
4 Idle information may be based on Idle 1 or Idle 2 specifications. Consult the product manual for more information.

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