

NAS HDD

Data Sheet

Ultra-Reliable 8TB Drives for NAS, Cloud, Servers and RAID

- 8, 6, 5, 4, 3, 2 and 1TB capacity options
- Seagate® NAS HDDs are built and tested to provide industry-leading performance for small NAS systems.
- NASWorks™ technology supports customized error recovery controls, power management and vibration tolerance for optimal performance and reliability with workloads up to 180TB/year workload rate limit (WRL).
- NAS error recovery controls optimize drive health by helping to ensure drives are not dropped from the NAS and sent into a RAID rebuild.
- Improved vibration tolerance and emission in multi-drive systems with dual-plane balance
- Advanced power management supports multiple power profiles for low-power, 24x7 performance.
- Quiet drive operation enhances customer experience in living room or office environments.
- Optional 3-year Rescue recovery service plan protects against data loss from viruses, software issues, or mechanical and electrical breakdowns in a NAS or RAID environment.

Best-Fit Applications

- Home/SOHO NAS desktop towers
- Desktop RAID and servers
- Backup and disaster recovery
- Print and file servers
- Multimedia server/storage
- Archival
- Virtualization
- Small-business file sharing
- Backup servers
- Personal cloud





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Specifications	8TB	6TB	4TB
Model Number	ST8000VN0002	ST6000VN0021	ST4000VN000
Rescue Model Number	ST8000VN0012	ST6000VN0031	ST4000VN003
Low Halogen	Yes	Yes	Yes
NASWorks			
Drive bays supported	1 to 8	1 to 8	1 to 8
Dual-Plane Balance	Yes	Yes	Yes
NASWorks Error Recovery Control	Yes	Yes	Yes
Performance			
Cache	256MB	128MB	64MB
Max Sustainable Transfer Rate	216MB/s	216MB/s	180MB/s
Interface	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s
Power Management			
Startup Power (12V, A)	2.0	2.0	2.0
Average Operating Power	9.0W	9.0W	4.8W
Idle Average	7.2W	7.2W	3.95W
Standby/Sleep Mode	0.6W/0.6W	0.6W/0.6W	0.5W/0.5W
Environmental/Temperature			
Temperature, Operating (°C)	0°C ~ 60°C	0°C ~ 60°C	0°C ~ 70°C
Temperature, Nonoperating (°C)	-40°C ~ 60°C	-40°C ~ 60°C	-40°C ~ 70°C
Temperature Gradient, Operating/NonOperating (max)	20°C per hour/30°C per hour	20°C per hour/30°C per hour	20°C per hour/30°C per hour
Environmental/Shock			
Shock, Operating/NonOperating: 2ms (max)	70Gs/250Gs	70Gs/250Gs	80Gs/300Gs
Environmental/Acoustics			
Idle (typical) ¹	2.5bels	2.5bels	2.3bels
Operational (typical)	2.6bels	2.6bels	2.5bels
Reliability			
Load/Unload Cycles ²	600,000	600,000	600,000
Nonrecoverable Read Errors per Bits Read, Max	1 per 10E15	1 per 10E15	1 per 10E14
Power-On Hours	8760	8760	8760
Mean Time Between Failures	1,000,000hr	1,000,000hr	1,000,000hr
Warranty, Limited (years)	3	3	3
Physical			
Height (mm/in)	26.11mm/1.028in	26.11mm/1.028in	26.11mm/1.028in
Width (mm/in, max)	101.60mm/4.0in	101.6mm/4.0in	101.60mm/4.000in
Depth (mm/in, max)	146.99mm/5.787in	146.99mm/5.787in	146.99mm/5.787in
Weight (g/lb)	780g/1.72lb	780g/1.72lb	610g/1.345lb
Carton Unit Quantity	20	20	20
Cartons per Pallet / Cartons per Layer	40 / 8	40 / 8	40 / 8

¹ Idle measured in Idle1 state

² Load/Unload tested to 600,000 cycles

Specifications	3TB	2TB	1TB
Model Number	ST3000VN000	ST2000VN000	ST1000VN000
Rescue Model Number	—	ST2000VN001	ST1000VN001
Low Halogen	Yes	Yes	Yes
NASWorks			
Drive bays supported	1 to 8	1 to 8	1 to 8
Dual-Plane Balance	Yes	Yes	No
NASWorks Error Recovery Control	Yes	Yes	Yes
Performance			
Cache	64MB	64MB	64MB
Max Sustainable Transfer Rate	180MB/s	180MB/s	180MB/s
Interface	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s
Power Management			
Startup Power (12V, A)	2.0	2.0	1.2
Average Operating Power	5.6W	5.0W	3.6W
Idle Average	4.9W	3.7W	2.5W
Standby/Sleep Mode	0.5W/0.5W	0.8W/0.8W	0.8W/0.8W
Environmental/Temperature			
Temperature, Operating (°C)	0°C ~ 70°C	0°C ~ 70°C	0°C ~ 70°C
Temperature, Nonoperating (°C)	-40°C ~ 70°C	-40°C ~ 70°C	-40°C ~ 70°C
Temperature Gradient, Operating/NonOperating (max)	20°C per hour/30°C per hour	20°C per hour/30°C per hour	20°C per hour/30°C per hour
Environmental/Shock			
Shock, Operating/NonOperating: 2ms (max)	80Gs/300Gs	80Gs/300Gs	80Gs/300Gs
Environmental/Acoustics			
Idle (typical) ¹	2.3bels	2.3bels	2.1bels
Operational (typical)	2.4bels	2.4bels	2.3bels
Reliability			
Load/Unload Cycles ²	600,000	600,000	600,000
Nonrecoverable Read Errors per Bits Read, Max	1 per 10E14	1 per 10E14	1 per 10E14
Power-On Hours	8760	8760	8760
Mean Time Between Failures	1,000,000hr	1,000,000hr	1,000,000hr
Warranty, Limited (years)	3	3	3
Physical			
Height (mm/in)	26.11mm/1.028in	26.11mm/1.028in	19.98mm/0.787in
Width (mm/in, max)	101.60mm/4.0in	101.60mm/4.0in	101.60mm/4.0in
Depth (mm/in, max)	146.99mm/5.787in	146.99mm/5.787in	146.99mm/5.787in
Weight (g/lb)	610g/1.345lb	535g/1.181lb	400g/0.881lb
Carton Unit Quantity	20	20	25
Cartons per Pallet / Cartons per Layer	40 / 8	40 / 8	40 / 8

¹ Idle measured in Idle1 state

² Load/Unload tested to 600,000 cycles

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