Synology®

3.5” SATA HDD

Plus Series

Reliable Drives for Home and Small Office Systems

Synology Plus Series SATA HDDs are designed to meet the reliability, endurance, and performance requirements of 24/7 storage in Synology small and medium-sized business storage systems. Stringent validation testing and NAS-class reliability ensure consistent performance in high-uptime and multi-user environments.

Highlights

- **Reliable Always-On Operation**
  Backed by up to a 1.2 million hours MTBF[1] and 180 TB/year workload rating
- **Tested for Maximum Reliability**
  Stringent validation and over 500,000 hours of testing ensure reliability in Synology systems
- **Seamless Firmware Updates**
  Firmware updates can be performed directly in Synology DSM
- **Reliable Recording Technology**
  Conventional magnetic recording (CMR) technology offers consistent performance

Engineered for endurance

Synology Plus Series HDDs are backed by up to a 1.2 million-hour mean time between failure (MTBF)[1] and a 180 TB per year workload rating, up to three times the limit of conventional desktop hard drives. Over 500,000 hours of compatibility and stress testing ensure smooth operation even under multi-user workloads.

Convenient firmware updates

Users are automatically notified when firmware updates become available for Synology Plus Series HDDs and can update drives seamlessly from DiskStation Manager (DSM) on their Synology storage system, eliminating the need for third-party tools and disk removal for firmware updates.

Technical Specifications

Hardware

Capacity[2]	2 TB	4 TB	6 TB	8 TB	12 TB	16 TB
Model number	HAT3300-2T	HAT3300-4T	HAT3300-6T	HAT3320-8T	HAT3310-12T	HAT3310-16T
Form factor[3]	3.5"					
Interface	SATA					
Sector size	512e					
Drive design	Air				Helium-sealed	
Performance						
Rotational speed	5,400 rpm			7,200 rpm		
Interface speed	6 Gb/s					
Cache	256 MB			512 MB		
Maximum sustained data transfer speed (typical)	180 MB/s	202 MB/s		281 MB/s		
Reliability						
MTBF[1]	1,000,000 hours			1,200,000 hours		
Workload rating[4]	180 TB/year data write/read			300 TB/year data write/read	180 TB/year data write/read	
Warranty[5]	3 years					
Power Consumption						
Supply voltage	12 V (± 10%) / 5 V (± 5%)			12 V (± 10%) / 5 V (+10/-7%)		
Idle power average	2.80 W	3.96 W	3.40 W	5.74 W	3.30 W	4.14 W
Average operating power	3.10 W	4.85 W	5.30 W	9.07 W	6.85 W	7.48 W
Environmental						
Temperature – Operating	0°C to 65°C (32°F to 149°F)			5°C to 60°C (41°F to 140°F)		
Temperature – Non-operating	-40°C to 70°C (-40°F to 158°F)					

Shock	Operating	785 m/s² (2 ms duration)			686 m/s² (2 ms duration)	
	Non-operating	2,943 m/s² (2 ms duration)			2,450 m/s² (2 ms duration)	
Vibration	Operating	10 Hz to 22 Hz: 2.45 m/s², Limited displacement 22 Hz to 350 Hz: 4.90 m/s² 350 Hz to 500 Hz: 2.45 m/s²			5 Hz to 300 Hz: 7.35 m/s² 300 Hz to 500 Hz: 2.45 m/s²	
	Non-operating	5 Hz to 22 Hz: 29.43 m/s², Limited displacement 22 Hz to 350 Hz: 29.43 m/s² 350 Hz to 500 Hz: 29.43 m/s²			5 Hz to 500 Hz: 29.4 m/s²	
Altitude	Operating	-304.8 m to 3,048 m				
	Non-operating	-304.8 m to 12,192 m				
Relative humidity	Operating	5% to 90% R.H. (No condensation)				
	Non-operating	5% to 95% R.H. (No condensation)				
Acoustics						
Acoustics, idle (typical)		20 dB	23 dB	27 dB	34 dB	20 dB
Acoustics, seek (typical)		21 dB	27 dB	28 dB	35 dB	32 dB
Others						
Size (H x W x D)		20.20 mm x 101.85 mm x 147 mm		26.1 mm x 101.85 mm x 147 mm		
Weight		415 g	490 g	610 g	755 g	720 g
Certification		CE, RCM, BSMI, KC, UKCA, UL, TUV, RoHS			CE, RCM, BSMI, KC, UKCA, UL, TUV, ICES, RoHS	

Note: Model specifications are subject to change without advance notice. Please refer to www.synology.com for the latest information.

1. Mean Time Between Failure (MTBF) is not a guarantee or estimate of product life; it is a statistical value related to mean failure rates for a large number of products which may not accurately reflect actual operation. Actual operating life of the product may be different from the MTBF.
2. Definition of capacity: When describing hard drive capacity, a terabyte (TB) is defined as 1,000,000,000,000 bytes. However, computer operating systems report storage capacity using powers of 2 for the definition of 1 GB = 2^{30} = 1,073,741,824 bytes. This means operating systems will report less available storage capacity. Available storage capacity will also vary based on file sizes, formatting, settings, software, and operating system used. Actual formatted capacity may vary.
3. "3.5-inch" is the form factor of HDDs. They do not indicate the physical size of the drive.
4. Workload is defined as the amount of data written, read, or verified by commands from a host system.
5. The warranty period starts from the purchase date as stated on your receipt of purchase. Learn more about our limited product warranty policy.

Safety Information

Waste Electrical and Electronic Equipment recycling (WEEE)

The following information is only for EU-member states:

The use of the symbol indicates that this product may not be treated as household waste. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. For more detailed information about recycling this product, please contact your local city office, household waste disposal service, or the shop where you purchased the product.

Electrostatic Discharge Warning

Storage drives are susceptible to damage from electrostatic discharge (ESD) during handling. To protect against ESD, take appropriate measures when handling or installing drives. Ensure you are grounded using, e.g., an anti-static wrist wrap and refrain from touching connectors or the circuit board.

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