



3.5" SATA HDD

# Plus Series Hard Drives



## 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 1 million hours MTBF and 180 TB/year workload rating
- **Tested for Maximum Reliability**  
Stringent validation and up to 300,000 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 a 1 million hour mean time between failures (MTBF) rating and 180 TB per year workload rating, up to three times the limit of conventional desktop hard drives. Over 300,000 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.

# Hardware specifications

Capacity <sup>1</sup>	4 TB	6 TB	8 TB	12 TB
Model number	HAT3300-4T	HAT3300-6T	HAT3300-8T	HAT3300-12T
Form factor <sup>2</sup>	3.5"			
Interface	SATA 6 Gb/s			
Sector size	512e			
Drive design	Air	Air	Air	Helium-sealed
<b>Performance</b>				
Rotational speed	5,400 rpm			7,200 rpm
Interface speed	SATA 6 Gb/s			
Cache (MB)	256 MB			
Maximum sustained data transfer speed (typical)	202 MB/s	202 MB/s	202 MB/s	240 MB/s
<b>Reliability</b>				
Mean Time Between Failure (MTBF) <sup>3</sup>	1,000,000 hours			
Workload rating <sup>4</sup>	180 TB/year data write/read			
Warranty <sup>5</sup>	3 years			
<b>Power Consumption</b>				
Supply voltage	12 V (± 10%) / 5 V (± 5%)			
Idle power average	3.96 W	3.4 W	3.4 W	5.07 W
Average operating power	4.85 W	5.3 W	5.3 W	8.33 W
<b>Environmental</b>				
Temperature	Operating	0°C to 65°C (32°F to 149°F)		5°C to 65°C (41°F to 149°F)
	Non-operating	-40°C to 70°C (-40°F to 158°F)		

<b>Shock</b>	Operating	80 Gs (2 ms duration)	70 Gs (2 ms duration)	70 Gs (2 ms duration)	50 Gs (2 ms duration)
	Non-operating	300 Gs (2 ms duration)			200 Gs (2 ms duration)
<b>Vibration</b>	Operating	10Hz to 22Hz: 0.25 Gs, Limited displacement 22Hz to 350Hz: 0.50 Gs 350Hz to 500Hz: 0.25 Gs			Linear Random: 5-500 Hz: 0.70 Grms Random Rotary: 20-1500Hz: 12.5 rads/s <sup>2</sup>
	Non-operating	5Hz to 22Hz: 3.0 Gs 22Hz to 350Hz: 3.0 Gs 350Hz to 500Hz: 3.0 Gs			Linear Random: 2-500 Hz: 2.27 Grms
<b>Altitude</b>	Operating	-304 m to 3,048 m			-304.8 m to 3,048 m
	Non-operating	-304 m to 12,192 m			-304.8 m to 12,192 m
<b>Relative humidity</b>	Operating	5% to 90% R.H. (No condensation)			5% to 95% R.H. (No condensation)
	Non-operating	5% to 95% R.H. (No condensation)			
<b>Acoustics</b>					
<b>Acoustics, Idle (typical, measured in idle 1 state) (dBA)</b>		23	26	25	28
<b>Acoustics, seek (typical) (dBA)</b>		27	28	27	30
<b>Others</b>					
<b>Size (H x W x D)</b>		20.20 mm x 101.85 mm x 147 mm	26.11 mm x 101.85 mm x 146.99 mm		
<b>Weight</b>		490 g	610 g	630 g	690 g
<b>Certification</b>		CE, RCM, BSMI, KC, UKCA, UL, TUV, RoHS			

Note: Model specifications are subject to change without advance notice. Please refer to [www.synology.com](http://www.synology.com) for the latest information.

1. Definition of capacity: Hard drives defines a terabyte (TB) as 1,000,000,000,000 bytes. A computer operating system, however, reports storage capacity using powers of 2 for the definition of 1GB =  $2^{30}$  = 1,073,741,824 bytes and therefore shows less storage capacity. Available storage capacity will vary based on file size, formatting, settings, software and operating system. Actual formatted capacity may vary.
2. "3.5-inch" is the form factor of HDDs. They do not indicate the physical size of the drive.
3. 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.
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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PLUSERIESHDD-2023-ENU-REV000