



High Scalability

# SA3400D



## Resilient and Dependable Servers for Businesses

Designed for reliable data storage, the dual-controller Synology SA3400D provides a cost-effective and compact high-availability solution for businesses of all sizes. With up to 192 TB of raw storage capacity (576 TB when fully expanded), this 12-bay enterprise server is equally suitable for file and block storage. Advanced data management and backup solutions for physical endpoints, VMs, and SaaS applications are all available in the Synology DiskStation Manager (DSM) operating system.

## Highlights

- **Enterprise-class Performance**  
Handles data-intensive applications with over 3,500/2,900 MB/s sequential read/write throughput<sup>1</sup>
- **High Service Availability**  
Two controller nodes in an active-passive configuration support minute-level failover, minimizing downtime
- **Built-in Data Protection Solutions**  
Safeguard data with Snapshot Replication, Hyper Backup, and Active Backup Suite
- **Flexible Expansion Options**  
Triple total storage capacity by adding up to two Synology RXD1219sas Expansion Units for 36 total drive bays<sup>2</sup>
- **Long-Term Support**  
Backed by Synology's 5-year limited hardware warranty<sup>3</sup>

## Efficient High Availability Server Solution

The SA3400D is engineered with high service uptime in mind, with a redundant controller module ready to take over all data and service tasks in case of planned or unplanned downtime on the primary module. The dual controller modules are connected in an active-passive configuration via reliable and high-speed Non-Transparent Bridge (NTB). This allows for memory and cache protection whereby all data is synced from the active to the passive node, enabling efficient minute-level failover.

- **Hot-swappable dual power supplies further** reduce single points of hardware failure
- Built-in **dual 1GbE RJ-45 ports and a 10GbE RJ-45 port** (per controller) make it easy to fit the SA3400D into existing fast networks, while a **PCIe 3.0 expansion slot** (per controller) supports 10/25GbE and Fibre Channel cards<sup>4</sup> for bandwidth-consuming applications
- Twelve bays for 3.5"/2.5" SAS drives can be scaled up to 36 bays with 2 additional Synology RXD1219sas Expansion Units<sup>2</sup>
- Support for **hybrid storage arrays** allows combining the speed of SSD and efficiency of HDD by designating **SAS SSD volumes as read/write cache for HDD volumes** to cut down I/O speeds and latency<sup>5</sup>

## Data Storage and Recovery Made Easy

Solutions included with Synology DSM help protect data and configurations on your Synology system and back up and restore all your devices, VMs, and cloud applications.

- [Snapshot Replication](#) provides schedulable, near-instantaneous data protection with version control, ensuring that data stored in shared folders and LUNs remain safe and available
- [Hyper Backup](#) protects your Synology system by backing up data and configurations to multiple destinations, including the secure [C2 Storage](#) public cloud,<sup>6</sup> with efficiency delivered by built-in deduplication, integrity

checks, compression, and versioning

- [Synology Active Backup Suite](#) lets you consolidate protection of Windows clients and servers, Linux endpoints, Synology systems, VMware® and Hyper-V® VMs, and SaaS applications, maximizing storage efficiency with data deduplication technology

## Powerful Sharing and Collaboration Tools

Synology's [productivity solutions](#) and file protocols enable on-site and remote workers to access company data, edit documents, share files, manage emails, send instant messages, and more, on a private cloud solution.

- [Synology Drive](#) supports file sharing, remote data access, cross-device and cross-site synchronization, on-demand file restoration, and backup
- The [Synology Office](#) extension lets users collaborate on documents, spreadsheets, and presentation slides in real time, supported by convenient options, such as file versioning for easy restoration and password protection of shared files
- [Synology Chat](#) brings teams together with one-on-one chats, group chats, and encrypted private channels over multiple platforms
- [Synology MailPlus](#)<sup>7</sup> provides a secure, reliable, and private email server
- [Synology Calendar](#) helps teams keep track of priorities with convenient calendar sharing and scheduling
- [Synology Hybrid Share](#) combines reliable on-premises storage with efficient syncing of shared folders in the cloud to enable seamless cross-site synchronization and local file access at LAN speed<sup>6</sup>
- **SMB and NFS protocol support** allow teams to access data over local networks or VPN and manage data access privileges via Active Directory/

## Certified SAN Storage for Virtualization and Containerization

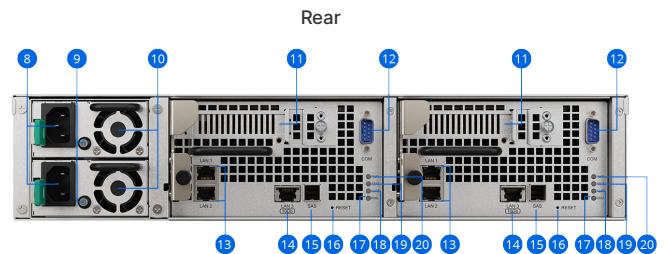
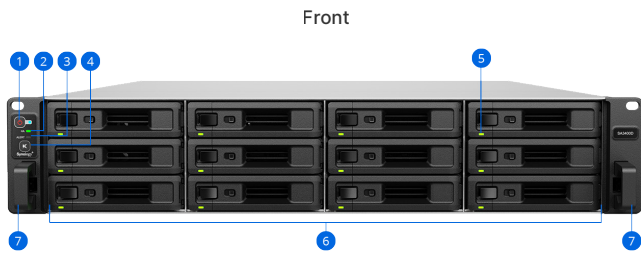
Leverage your Synology system as [virtual machine storage](#), VM backup server, and alternative container or VM host. The SA3400D is certified as storage for VMware® vSphere™, Microsoft® Hyper-V®, Citrix® XenServer™, and OpenStack environments.

- **Synology Storage Console** for VMware or Windows platforms lets you manage VM storage components directly from your hypervisor. VMware VAAI integration and Windows ODX help offload storage operations and speed up data transfers
- **Host lightweight containers and VMs** for testing, sandboxing, and emergency recovery purposes with Container Manager and Synology Virtual Machine Manager, a native hypervisor that supports Windows, Linux, and virtual versions of DSM<sup>8</sup>

## Backed by Synology's 5-Year Limited Warranty

Maximize your return on investment with the comprehensive hardware replacement and premium technical support services offered under Synology's 5-year limited hardware warranty.<sup>3</sup>

# Hardware Overview



1	Power Button and Indicator	2	High Availability Status Indicator	3	Alert Indicator	4	Mute Button
5	Drive Status Indicators	6	Drive Trays	7	Rail Kit Release Tabs	8	Power Ports
9	PSU Indicators	10	PSU Fans	11	PCI Express Expansion Slots	12	Console Ports
13	1GbE RJ-45 Ports	14	10GbE RJ-45 Ports	15	Expansion Ports	16	Reset Buttons
17	Remove Indicators	18	Alert Indicators	19	Status Indicators	20	Power Indicators

# Technical Specifications

## Hardware

Controller modules	2
CPU	Intel® Xeon® D-1541
Hardware encryption engine	Yes
Memory	8 GB DDR4 ECC UDIMM (expandable up to 64 GB)
Compatible drive types	<ul style="list-style-type: none"><li>• 12 × 3.5" Synology SAS HDD or 2.5" SAS SSD (drives not included)</li><li>• Synology only guarantees full functionality, reliability, and performance for Synology drives listed on the compatibility list. The use of non-validated components may limit certain functionality and result in data loss and system instability<sup>9</sup></li></ul>
Hot swappable drives	Yes
External ports	<ul style="list-style-type: none"><li>• 1 x Expansion port (Mini-SAS HD) (per controller)</li></ul>
Form factor	Rackmount 2U
Size (HxWxD)	<ul style="list-style-type: none"><li>• 88 × 430.5 × 692 mm</li><li>• 88 × 482 × 724 mm (with server handles)</li></ul>
Weight	19.7 kg
LAN ports	<ul style="list-style-type: none"><li>• 2 × 1GbE RJ-45 (per controller)</li><li>• 1 × 10GbE RJ-45 (per controller)</li></ul>
Wake on LAN/WAN	Yes
PCIe expansion	<ul style="list-style-type: none"><li>• 1 x PCIe 3.0 ×8 slot, x8 lanes (per controller)</li><li>• Supports network interface cards<sup>4</sup></li></ul>
System fans	2 x (60 × 60 × 51 mm)
AC input power voltage	100 V to 240 V AC
Power frequency	50/60 Hz, single phase
Operating environment	<ul style="list-style-type: none"><li>• Temperature: 0°C to 35°C (32°F to 95°F)</li><li>• Relative humidity: 8% to 80% RH</li></ul>
Storage environment	<ul style="list-style-type: none"><li>• Temperature: -20°C to 60°C (-5°F to 140°F)</li><li>• Relative humidity: 5% to 95% RH</li></ul>
Maximum operating altitude	5,000 m (16,400 ft)

# General DSM Specifications

<b>Networking protocols</b>	SMB, AFP, NFS, FTP, WebDAV, CalDAV, iSCSI, Telnet, SSH, SNMP, and VPN (PPTP, OpenVPN™, L2TP)
<b>File systems</b>	<ul style="list-style-type: none"><li>• Internal: Btrfs, ext4</li></ul>
<b>Supported RAID types</b>	Synology RAID F1, Basic, JBOD, RAID 0, RAID 1, RAID 5, RAID 6, and RAID 10
<b>Storage management</b>	<ul style="list-style-type: none"><li>• Max. single volume size: 108 TB/200 TB<sup>10</sup></li><li>• Max. number of system snapshots: 65,536<sup>11</sup></li><li>• Max. number of internal volumes: 64</li></ul>
<b>SSD cache<sup>5</sup></b>	<ul style="list-style-type: none"><li>• Read/write cache support</li><li>• 2.5" SAS SSD support</li></ul>
<b>File sharing capabilities</b>	<ul style="list-style-type: none"><li>• Max. number of local user accounts: 16,000</li><li>• Max. number of local groups: 512</li><li>• Max. number of shared folders: 512</li><li>• Max. number of concurrent SMB/NFS/AFP/FTP connections: 1,200<sup>12</sup></li></ul>
<b>Privileges</b>	Windows® Access Control List (ACL) and application privileges
<b>Directory services</b>	Connects with Windows® AD/LDAP servers enabling domain users to login via SMB/NFS/AFP/FTP/File Station using their existing credentials
<b>Virtualization</b>	VMware® vSphere™, Microsoft® Hyper-V®, Citrix® XenServer™, OpenStack®
<b>Security</b>	Firewall, shared folder encryption, SMB encryption, FTP over SSL/TLS, SFTP, rsync over SSH, login auto block, Let's Encrypt support, and HTTPS (customizable cipher suite)
<b>Supported browsers</b>	Google Chrome®, Firefox®, Microsoft Edge®, Safari® 13 and later, and Safari (iOS 13.0 and later) on iPad, Chrome (Android™ 11.0 and later) on tablets
<b>Interface languages</b>	English, Deutsch, Français, Italiano, Español, Dansk, Norsk, Svensk, Nederlands, Русский, Polski, Magyar, Português do Brasil, Português Europeu, Türkçe, Český, ภาษาไทย, 日本語, 한국어, 繁體中文, 简体中文

# Packages and Applications

## File Server & Synchronization

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[Drive](#)  
[File Station](#)  
[Hybrid Share<sup>6</sup>](#)  
[Presto File Server<sup>13</sup>](#)  
[Cloud Sync](#)  
[Universal Search](#)  
[Migration Assistant](#)

## Multimedia

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[Video Station](#)  
[Audio Station](#)  
[iTunes® Server](#)

## SAN Storage

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[SAN Manager](#)

## Surveillance

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[Surveillance Station<sup>14</sup>](#)

## Data Protection & Backup Solutions

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[Hyper Backup](#)  
[Snapshot Replication](#)  
[Synology High Availability](#)  
[Active Backup for Business](#)  
[Active Backup for Google Workspace](#)  
[Active Backup for Microsoft 365](#)

## Office Productivity

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[Synology Office](#)  
[Synology Calendar](#)  
[Note Station](#)

## Management & Administration

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[Synology Directory Server](#)  
[Central Management System](#)  
[VPN Server](#)  
[Active Insight<sup>15</sup>](#)  
[Storage Analyzer](#)

[Antivirus Essential](#)  
[Web Station](#)  
[DNS Server](#)  
[RADIUS Server](#)  
[Log Center](#)

## Others

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iOS/Android™ applications



Scan the QR code to download the detailed  
Product Specification sheet

<https://sy.to/sa3400ddpsqr>



# Environment and Packaging

<b>Environmental safety</b>	RoHS compliant
<b>Package contents</b>	<ul style="list-style-type: none"><li>• 1 x SA3400D main unit</li><li>• 1 x Quick Installation Guide</li><li>• 1 x Accessory pack</li><li>• 2 x AC power cord</li></ul>
<b>Optional accessories<sup>16</sup></b>	<ul style="list-style-type: none"><li>• DDR4 RDIMM: D4EC-2666-8G / D4EC-2666-16G</li><li>• Expansion Unit: RXD1219sas</li><li>• 10GbE Network Interface Card: E10G18-T1 / E10G18-T2 / E10G21-F2</li><li>• 25GbE Network Interface Card: E25G21-F2</li><li>• 3.5" SAS HDD: HAS5300 Series</li><li>• Sliding Rail Kit: RKS-02</li><li>• MailPlus License Pack<sup>7</sup></li><li>• Surveillance Device License Pack<sup>14</sup></li><li>• Virtual DSM License Pack<sup>8</sup></li></ul>
<b>Warranty</b>	5 years <sup>3</sup>

Note: Specifications are subject to change without notice. Please refer to the [SA3400D](#) specifications pages for the most up to date information.

1. Performance figures obtained through internal testing by Synology using a RAID 6 configuration. Actual performance may vary depending on the testing environment, usage, and configuration. See [performance charts](#) for more information.
2. The SA3400D supports up to 36 drives with two RXD1219sas expansion units, sold separately.
3. The warranty period starts from the date of purchase as stated on your purchase receipt. [Learn more](#) about our limited product warranty policy.
4. For the most up-to-date list of compatible NICs and HBAs, please check our [compatibility list](#).
5. SSD cache volumes store frequently accessed data from conventional HDD volumes to reduce I/O latency and improve system performance. To find out which SAS SSDs are supported, please check our [compatibility list](#).
6. C2 Storage for Hyper Backup and Hybrid Share requires purchase of an annual or monthly [subscription](#). A free trial is available for each newly registered device.
7. Five MailPlus email accounts are included. Additional email accounts can be added with the purchase of Synology MailPlus License Packs. [Learn more](#)
8. Certain advanced features require [Virtual Machine Manager Pro](#). One Virtual DSM license is included. Additional Virtual DSM instances require the purchase of [Virtual DSM Licenses](#).
9. Check the [SA3400D](#) compatibility list for supported drives.
10. Volumes up to 108 TB are supported with the default installed memory. Volumes up to 200 TB can be created if the memory is upgraded to 32 GB. [Learn more](#) about maximum volume sizes.
11. System snapshots include snapshots taken by SAN Manager, Snapshot Replication, and Virtual Machine Manager.
12. Maximum concurrent connections can be increased to 6,000 with maximum installed memory of 64 GB.
13. Presto File Server license can be purchased separately through the application.
14. Surveillance Station includes two free licenses. Connecting more cameras and devices requires additional licenses. [Learn more](#).
15. Synology Active Insight requires purchase of an annual or monthly subscription. A free trial is available for each newly registered device.
16. Please refer to the [SA3400D](#) compatibility list for the latest optional accessories lists.

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