Data Sheet
Fujitsu Storage ETERNUS AF150 S3 All-Flash Array

Storage Unchained

ETERNUS AF Storage

FUJITSU Storage ETERNUS AF series are incredibly fast and flexible all-flash storage systems for the next-generation data center. At an affordable price point, it makes flash the new normal for all tier-1 applications in enterprise IT. Response times are ultra-low – in fact, they set performance records. The ETERNUS AF is also built to be smart, with easily configurable automated quality of service to ensure each app gets the performance it needs, plus flexible deduplication and compression (except ETERNUS AF150) that can be turned on when required – and off when not. It keeps data safe with full-fledged DR with mirroring and automated transparent failover.

ETERNUS AF150 S3

The Fujitsu Storage ETERNUS AF150 S3 is an affordable, entry-level all-flash storage for SMBs. This easy to deploy and manage storage system can efficiently work with large data volumes and deliver exceptional price/performance ratio and offers comprehensive data services. It meets various business requirements with leading storage performance, seamless scalability and comprehensive data services – all at an affordable price.



Features & Benefits

Main Features	Benefits
Flexible and flash optimized storage	■ Ultra-low response times for all applications and a massive increase of IOPS without complicated tuning measures as well as scalable capacity and connectivity.
Automated Quality-of-Service	■ Control applications priorities according to business needs, minimize admin efforts, automate monitoring and adjustment to guarantee service levels
Transparent failover and Storage Cluster	■ Avoid planned or unplanned downtimes, enjoy 100% data insurance and non-stop business operations
Based on ETERNUS DX high-performance family architecture	■ Performance-optimized design with proven and mature technology allows system availability of 99.9999%, along with seamless management across ETERNUS AF and ETERNUS DX storage systems.
Convincing access performance and latency ■ Random access performance: Up to 390.000 IOPS (8 KB Blocks) ■ Sequential access performance: Max. 5 GB/s (128 KB Blocks) ■ Latency: Less than 1 ms (4 KB Blocks)	■ Sufficient performance for all applications requiring high data rates and low response times

Technical details

General system information	
	ETERNUS AF150 S3
No. of controllers	2
No. of host interfaces	4/8 ports
Maximum System Memory	32 GB
Maximum Disk Drives	24
Supported RAID levels	0, 1, 1+0, 5, 5+0, 6
Host Interfaces	Fibre Channel (16 Gbit/s, 32Gbit/s) iSCSI (10Gbit/s [10GBASE-SR, 10GBASE-CR, 10GBASE-T])
Mixed host interfaces	Yes
Max. no. of hosts	1,024
Maximum Storage Capacity	92 TB
Drive Type	2.5-inch, SSD (3.84TB / 1.92TB / 960GB)
Drive interface	Serial Attached SCSI (12 Gbit/s)
Back-end disk connectivity	1 pair of four-lane x 12 Gbit/s Serial Attached SCSI buses (SAS 3.0 wide)
Max. no. of RAID groups per system	12
Max. no. of LUNs per RAID group	128
Max. no. of LUNs	4,096
Max. LUN capacity	128 TB
No. of snapshots - max.	2,048
Max. no. of copy generations	512
Deduplication	No
Compression	No
Compatibility note	If and to the extent a list of components or certain compatibilities are specified in the product data sheet, these component lists and compatibility specifications are exhaustive. Using deviating or other system components and applications together with the product may but does not necessarily have to lead to compatibility problems. A final statement and/or commitment on the compatibility of such deviating or other system components and applications can only be provided after a corresponding verification through a dedicated compatibility testing.

Performance	
Latency	140µsec (Read), 60µsec (Write)
Sequential access performance	10,000 MB/s (128KB Read) 5,000 MB/s (128KB Write)
Random access performance	390,000 IOPS (8KB Read) 270,000 IOPS (8KB Write)
Note	To the extent that specific performance specifications for the product are indicated in the product data sheet, these are usually also dependent on the specific use and workload of the product and may therefore not be reached equally in all application situations. Such performance specifications thus do not represent a specifically agreed characteristic or feature of the product, but only serves as an orientation. The responsibility for a sufficient sizing of the overall system functionality lies solely with the user.

Performance management	
Automated Storage Tiering	Yes
Quality of Service	Yes
Operation Management Client	Microsoft Edge® 99, Google Chrome 99, Chrome® 47, 50 (Android®), Safari 8, 9 (iOS)
Note	Automation options can be activated via ETERNUS SF Software. Use of browser software is subject to proactive acceptance of the respective License Agreements/ EULAs of the Software manufacturer as applicable for the relevant Software whether preinstalled or optional.

Continuity management	
Storage Cluster	Yes
Remote Copy functionality	Synchronous and asynchronous

Continuity management	
Note	The product may in connection with and depending on the specific configuration include elements to support time- and performance-critical applications, however high availability (e.g., 99.9999%) and failsafe performance is not a standalone product feature. If and to the extent the product is to be used in such business-critical environments, it is within the sole responsibility of the user to set up the specific additional technical features (e.g., Storage Cluster), redundancies, and operational conditions as required to ensure such high availability or failsafe performance.
Information security management	
Data confidentiality	HTTPS (SSL), SSH, CHAP, Bidirectional CHAP
Data integrity	Data Block Guard, Data Encryption, Cache Protection, Disk Drive Patrol, Global Hot Spare, Dedicated Hot Spare, Copy back less, Drive shield, Fast Recovery
Note	The properties of the product provide a baseline for product security and therefore end-customer IT security. However, these properties are not sufficient on their own to protect the product from all existing threats, such as intrusion attempts, data exfiltration and other forms of cyberattacks. To customize security settings, please use the configuration options as available for the respective product. During operation, the IT security of this product is within the responsibility of the respective administrator/end-user of the product. Please note, that Fujitsu as a manufacturer does not make any policy prescriptions or advocacy statements regarding IT security best practices and/or general product operation.
Availability management	
Non-disruptive firmware upgrade	Yes
Hot part replacement	Yes
Capacity management	
RAID migration	Yes
Hot part expansion	Yes
Non-disruptive firmware upgrade	Yes
Management	
Interfaces	Ethernet (1000 Base-T / 100 Base-TX / 10 Base-T)
Supported protocols	SNMP (version1, 2C, 3), SMI-S 1.4
Administration	Web-based graphical user interface, CLI (Command Line Interface), ETERNUS SF
Supported OS for ETERNUS SF	
Operation Management Server	Microsoft® Windows Server® 2022 Microsoft® Windows Server® 2019 Microsoft® Windows Server® 2016 Microsoft Windows Server 2012, 2012 R2 Solaris® 11 (11/11 or later) Solaris® 10 (except ETERNUS SF Express) Red Hat® Enterprise Linux® 9 Red Hat Enterprise Linux 8 Red Hat® Enterprise Linux® 7 Red Hat® Enterprise Linux® 6 Oracle Linux 6 VMware® vSphere® 6.0, 6.5, 6.7, 7.0, 8.0 Microsoft® Windows Server® 2022 Hyper-V Microsoft Windows Server 2019 Hyper-V Microsoft Windows Server 2016 Hyper-V Microsoft Windows Server 2012 Hyper-V, 2012 R2 Hyper-V
Operation Management Client	Microsoft Edge® 99 Google Chrome 99 Chrome® 47, 50 (Android®) Safari 8, 9 (iOS)
Note	See the ETERNUS SF datasheet for further options. Use of certified or supported operating systems and virtualization software is subject to proactive acceptance of the respective License Agreements/ EULAs/ Subscription and support terms of the Software manufacturer as applicable for the relevant Software whether preinstalled or optional. The software may only be available bundled with a software support subscription which – depending on the Software - may be subject to separate remuneration.
Installation specification	
19" rackmount	Yes
Power voltage	AC 100 - 120 V / AC 200 - 240 V

Installation specification	
Power frequency	50 / 60 Hz
Power supply efficiency	94 % (80 PLUS platinum)
Maximum Power Consumption	AC 100 - 120 V: 750 W (760 VA)
Maximum Power Consumption	AC 200 - 240 V: 750 W (760 VA)
Power phase	Single
	ETERNUS AF150 S3
Dimensions (W x D x H)	482 x 645 x 88 mm 19 x 25.4 x 3.5 inch 2 U
Weight	35 kg (77 lb)
Environment	
Maximum Heat Generation	AC 100 - 120 V: 2,710: kJ/h
	AC 200 - 240 V: 2,710: kJ/h
Operating environment	FTS 04230 – Guideline for Data Center (installation specification)
Operating environment link	http://docs.ts.fujitsu.com/dl.aspx?id=589915e9-1bf8-40f7-8ba4-7cac9371f2f0
Compliance	
Product	ETERNUS AF150 S3
Model	FA-25
Product safety	EN 62368-1, IEC 62368-1, ANSI/UL 62368-1, 2nd Ed, CAN/CSA C22.2 No. 62368-1-14, CNS 14336-1, TP TC 004
Electromagnetic Compatibility	EN 55032 Class A, EN 61000-3-2, EN 61000-3-3, FCC Part-15 Subpart B Class A, ICES-003 Class A, VCCI Class A, JIS C 61000-3-2, CNS 13438, AS/NZS CISPR 32 class A, TP TC 020, KN32 Class A, KN35
Electromagnetic Immunity	EN 55035
CE certification	2014/35/EU , Low Voltage Directive, 2014/30/EU , Electromagnetic Compatibility Directive, 2009/125/EC, ErP Directive;(EU) 2019/424, ErP regulation for data storage products, 2011/65/EU,(EU)2015/863 as amended, Restriction of Hazardous Substances (RoHS) Directive
Environmental compliance	REACH (substance regulations in articles), WEEE (Waste electrical and electronical equipment)
Compliance notes	There is general compliance with the safety/EMC requirements of all European countries and North America. National approvals required in order to satisfy statutory regulations or for other reasons can be applied for on request.
Compliance link	https://sp.ts.fujitsu.com/sites/certificates
Warranty	
Warranty period	3 years
Warranty type	Onsite warranty
Warranty Terms & Conditions	www.fujitsu.com/warranty
Product Support - the perfect extension	
Support Pack Options	Available in major metropolitan areas: 9x5, Next Business Day Onsite Response Time 9x5, 4h Onsite Response Time (depending on country) 24x7, 4h Onsite Response Time (depending on country)
Recommended Service	24x7, Onsite Response Time: 4h
Service Lifecycle	at least 5 years after shipment, for details see https://support.ts.fujitsu.com/
Service Weblink	www.fujitsu.com/services/product-services

Fujitsu products, solutions & services

In addition to Fujitsu ETERNUS AF150 S3, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

Fujitsu Portfolio
Built on industry standards, Fujitsu offers a full portfolio of IT hardware and software products, services, solutions and cloud offering, ranging from clients to datacenter solutions and includes the broad stack of Business Solutions, as well as the full stack of Cloud offerings. This allows customers to select from alternative sourcing and delivery models to increase their business agility and to improve their IT operation's reliability.

Computing Products
www.fujitsu.com/global/products/computing/

Software
www.fujitsu.com/software/

More information

Learn more about Fujitsu ETERNUS AF150 S3, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
www.fujitsu.com/global/products/computing/storage/all-flash-arrays/eternus-af150-s3/index.html

Fujitsu green policy innovation

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment.
Using our global know-how, we aim to contribute to the creation of a sustainable environment for future generations through IT.
Please find further information at http://www.fujitsu.com/global/about/environment



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Please note that the data sheet reflects the technical specification with the maximum selection of components for the named system and not the detailed scope of delivery. The scope of delivery is defined by the selection of components at the time of ordering. The product was developed for normal business use.
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2024-03-06 WW-EN