

Data Sheet

FUJITSU Storage ETERNUS DX600 S3 Disk System

Leading storage performance, automated quality of service



ETERNUS DX - Business-centric Storage

Combining leading performance architecture with automated quality of service management the Fujitsu Storage ETERNUS DX series aligns storage resources with business priorities, thus enabling higher system utilization and delivering increased system consolidation capabilities and a faster ROI. Unified scalable entry-level and midrange systems, a seamless family concept enabling system upgrades and ETERNUS SF, the unified management suite across the product line, reduce operational and migration costs. ETERNUS SF provides enterprise-class functionalities in the entry and midrange class and allows flexible disaster recovery and business continuity concepts for the different model sizes, thus decreasing investment costs

ETERNUS DX600 S3

The scalable, unified Fujitsu Storage ETERNUS DX600 S3 system delivers leading storage performance and automated quality of service management enabling a maximum of system utilization and contributing to a fast ROI. It is the perfect solution when consolidating data in large-scale databases, business-critical applications and business analytics / big data – all into one system. It provides ample headroom for demanding server / desktop virtualization environments and enterprise file services. Extensive high-availability and disaster recovery capabilities make ETERNUS DX600 S3 an ideal storage system for business-critical data.



Features & Benefits

Main Features	Benefits
Market-leading performance combined with automated performance management	<ul style="list-style-type: none">■ Leading performance enables large-scale storage consolidation delivering a fast ROI■ Automatically aligns storage performance with business priorities■ Delivers reliable and predictable quality of service for business-critical data■ Enables the operation of productive and analytical tasks in parallel on one storage system■ High scalability within the system and upgrade options to higher system-class and bigger systems support high data increases at low costs of growth and ensure investment protection
Rock-solid operation	<ul style="list-style-type: none">■ Comprehensive high-availability, quality of service and disaster resilience functions ensure predictable and reliable operation■ System availability of 99.999%■ Flexible disaster recovery, including transparent failover, with a multitude of snapshot concepts and remote replication between different models and generations■ Extensive non-disruptive maintenance and upgrade capabilities reduce planned downtimes
Truly unified architecture	<ul style="list-style-type: none">■ Unified SAN and NAS access drive system utilization improving ROI■ Unified management functions across the entire product line result in operational efficiency■ Unified connectivity supports a large range and many combinations of networking types■ Unified architecture allows flexible combinations of 2.5" and 3.5" disk types
Selective use of deduplication / compression	<ul style="list-style-type: none">■ Decide on volume label whether to use it or not■ Capacity savings in hybrid and disk configurations

Technical details

General system information

ETERNUS DX600 S3	
No. of controllers	2
No. of host interfaces	4-16 ports [iSCSI, FCoE, Ethernet(10Gbit/s)], 4-32 ports [FC], 8-32 ports [Ethernet(1Gbit/s)]
Maximum System Memory	256GB
Extreme Cache	5,600 GB
Extreme Cache Pool	3,200 GB
Maximum Disk Drives	1,056
Max. no. of drive enclosures	44
Note	44 with 2.5" or 3.5" DE, 16 with HD-DE or mixture of DEs up to Max no. Drives
Supported RAID levels	0, 1, 1+0, 5, 5+0, 6
Host Interfaces	Fibre Channel (16 Gbit/s, 8 Gbit/s, 4 Gbit/s) FCoE (10 Gbit/s) iSCSI (10 Gbit/s, 1 Gbit/s) Ethernet (10 Gbit/s, 1 Gbit/s)
Mixed host interfaces	Yes
Max. no. of hosts	4,096
Supported NAS protocols	CIFS (SMB 2.0), CIFS (SMB 3.0), NFSv2, NFSv3, NFSv4
Maximum Storage Capacity	16,220 TB
Drive Type	2.5-inch, SAS, 15,000 rpm (900 GB / 600 GB / 300 GB) 2.5-inch, SAS, 10,000 rpm (1.8 TB / 1.2 TB / 900 GB / 600 GB / 300 GB) 2.5-inch, SAS (self-encrypting), 10,000 rpm (1.2 TB / 900 GB) 2.5-inch, Nearline SAS, 7,200 rpm (2 TB / 1 TB) 2.5-inch, SSD (15.36TB / 7.68TB / 3.84 TB / 1.92 TB / 960 GB / 1.6 TB / 800 GB / 400 GB) 2.5-inch, SSD (self-encrypting) (1.92 TB / 1.6 TB / 800 GB) 3.5-inch, Nearline SAS, 7,200 rpm (10 TB / 8 TB / 6 TB / 4 TB / 2 TB) 3.5-inch, Nearline SAS (self-encrypting), 7,200 rpm (4 TB) 3.5-inch, SSD (3.84 TB / 1.92 TB / 960 GB / 1.6 TB / 800 GB / 400 GB) 3.5-inch, SSD (self-encrypting) (1.92 TB / 1.6 TB / 800 GB) HDDE, SAS, 10,000 rpm (1.2 TB) HDDE, Nearline SAS, 7,200 rpm (10 TB / 8 TB / 6 TB / 4 TB / 2 TB) HDDE, SSD (3.84 TB / 1.92 TB / 1.6 TB)
Note	2.5-inch drives are available only for 2.5-inch drive enclosures and 3.5-inch drives are available only for 3.5-inch drive enclosures. 6 TB/ 8 TB Nearline SAS and 1.8 TB SAS drives are Advanced Format drives.
Max. no. of SSDs	unlimited
Mixed 2.5 inch/ 3.5 inch drive enclosures	Yes
Drive interface	Serial Attached SCSI (12 Gbit/s)
Back-end disk connectivity	4 pairs of four-lane x 12 Gbit/s Serial Attached SCSI buses (SAS 3.0 wide)
Max. no. of LUNs	16,384
Max. LUN capacity	128 TB
No. of snapshots - max.	8,192
Max. no. of copy generations	512
Eco-mode	Yes
Deduplication	for block
Compression	for block
Performance management	
Automated Storage Tiering	Yes
Quality of Service	Yes
Automated QoS	Yes

Performance management

Wide striping	Yes
Note	Automation options can be activated via ETERNUS SF Software

Continuity management

Storage Cluster	Yes
Remote Copy functionality	Synchronous and asynchronous
Note	Options can be activated via ETERNUS SF Software

Information security management

Data confidentiality	Self-Encrypting Disk, Controller based Encryption, HTTPS (SSL), One Time Password, RADIUS, SSH
Data integrity	Cache Protection, Data Block Guard, Disk Drive Patrol

Availability management

Fast Recovery	Yes
Non-disruptive maintenance	Dedicated Hot Spare, Global Hot Spare
Non-disruptive firmware upgrade	Yes
Redundancy	RAID Controller, Fan, Power supply
Hot part replacement	Yes

Capacity management

Thin Provisioning	Yes
RAID migration	Yes
LUN online expansion w/o interruption	Yes
Reporting function	Yes
Hot part expansion	Yes

Management

Interfaces	Ethernet (1000 Base-T / 100 Base-TX / 10 Base-T)
Supported protocols	SNMP (version1, 2C, 3), SMI-S 1.6
Administration	Web-based graphical user interface, CLI (Command Line Interface), ETERNUS SF
Remote Support	Event notification (E-mail / SNMP / Syslog), Remote maintenance

Supported configurations

All major host operating systems, servers and business applications
Detailed support matrix:
www.fujitsu.com/global/support/products/computing/storage/disk/supported-configurations

Installation specification

19" rackmount	Yes			
Service Area	Front: 850 mm (33.5 inch) or more Rear: 850 mm (33.5 inch) or more			
Power voltage	AC 100 - 120 V / AC 200 - 240 V			
Power frequency	50 / 60 Hz			
Power supply efficiency	92 % (80 PLUS gold)			
Maximum Power Consumption	AC 100 - 120 V: 26,240 W (26,800 VA)			
Maximum Power Consumption	AC 200 - 240 V: 26,520 W (27,080 VA)			
Power phase	Single			
	High-Density Drive Enclosure	ETERNUS DX600 S3	2.5-inch Drive Enclosure	3.5-inch Drive Enclosure
Dimensions (W x D x H)	482 x 980 x 176 mm 19 x 38.6 x 6.9 inch 4 U	482 x 805 x 133 mm 19 x 31.7 x 5.2 inch 3 U	482 x 540 x 88 mm 19 x 21.3 x 3.5 inch 2 U	482 x 560 x 88 mm 19 x 22 x 3.5 inch 2 U
Weight	95 kg (209 lb)	54 kg (119 lb)	35 kg (77 lb)	35 kg (77 lb)
Maximum Power Consumption (AC 100 - 120 V)	1,300 W (1,320 VA)	720 W (730 VA)	430 W (440 VA)	340 W (350 VA)
Maximum Power Consumption (AC 200 - 240 V)	1,300 W (1,320 VA)	1,000 W (1,010 VA)	430 W (440 VA)	340 W (350 VA)

Environment

Maximum Heat Generation	AC 100 - 120 V: 97,200: kJ/h AC 200 - 240 V: 98,200: kJ/h
Temperature (operating)	10 - 40 °C
Temperature (not operating)	0 - 50 °C
Humidity (operating)	20 - 80 % (relative humidity, non-condensing)
Humidity (not operating)	8 - 80 % (relative humidity, non-condensing)
Altitude	3,000 m (10,000 ft.)
Sound pressure (LpAm)	54dB(A)
Sound power (LWAd; 1B = 10dB)	7.2B
Noise notes	Measured with single enclosure according to ISO 7779 and declared according to ISO 9296
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
Type	ETERNUS DX600 S3 2.5-inch Drive Enclosure 3.5-inch Drive Enclosure

Compliance

Product safety	UL 60950-1, CSA-C22.2 No. 60950-1, EN 60950-1, IEC 60950-1, GOST-R
Electromagnetic Compatibility	CNS 13438, FCC CFR 47 class A, ICES 003 Class A, EN 55022 Class A, VCCI Class A, AS/NZS CISPR 22 Class A
Electromagnetic Immunity	EN 55024
CE certification	2004/108/EC, 2006/95/EC, 2011/65/EC
Approvals	CB, CE, C-Tick, FCC, EAC, GS, VCCI
Environmental compliance	RoHS compliant, WEEE compliant
Compliance notes	There is general compliance with the safety 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/support

Product Related Services - the perfect extension

Support Pack Options	Available in major business areas: 9x5, Next Business Day Onsite Response Time 9x5, 4h Onsite Response Time 24x7, 4h Onsite Response Time
Recommended Service	24x7, Onsite Response Time: 4h
Service Lifecycle	5 years after end of product life
Service Weblink	www.fujitsu.com/services/product-services

Fujitsu OPTIMIZATION Services

In addition to Fujitsu ETERNUS DX600 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 DX600 S3, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website. www.fujitsu.com/eternus

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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