

Datasheet

Fujitsu ETERNUS DX400 S2 series Disk Storage Systems

The Flexible Data Safe for Dynamic Infrastructures.



ETERNUS DX S2 DISK STORAGE SYSTEMS

The Fujitsu second generation of ETERNUS DX disk storage systems, ETERNUS DX S2, are The Flexible Data Safe for Dynamic Infrastructures. Enterprise-proven capabilities protect data assets across all types of IT infrastructure. Redundant components, RAID protection and build-in data protection provide the highest system reliability to ensure business continuity is maintained.

ETERNUS DX S2 models are comprehensive disk storage platforms with superior scalability to address the demands of intensive data growth and highest performance. Free choice of modular disk storage and state-of-the-art connectivity across the entire model range delivers maximum configuration flexibility allowing choice in performance and TCO. Data-in-place upgrade options are also available throughout the system's lifecycle to ensure maximum investment protection.

The unified ETERNUS SF storage management software enables single point administration, easy data protection and efficient operation across the entire ETERNUS DX range. In virtualized IT environments in particular, ETERNUS SF perfectly integrates the powerful ETERNUS DX disk storage with minimal administration effort.

ETERNUS DX400 S2 series

The ETERNUS DX400 S2 series with Intel® Xeon® processors is purpose-built for data centers and virtualized environments. Its leading performance architecture featuring innovative powerful technologies delivers excellent performance for all levels of business.

The ETERNUS DX400 S2 series offers outstanding scalability from 2 to 960 disk drives in order to serve capacity-intensive environments with tremendous storage density. Non-disruptive capacity upgrades, by simply adding disks or complete enclosures with the latest 2.5 inch, 3.5 inch, SAS, Nearline SAS, SED (Self Encrypting Drives) and SSD drive types, is supported even in mixed configurations, thus enabling an efficient tiered storage environment. Data-in-Place upgrades from ETERNUS DX90 S2 to the ETERNUS DX410 S2 model and further to the ETERNUS DX440 S2 model as well as field-replaceable FC, FCoE or iSCSI host interface cards provide convincing flexibility throughout the lifecycle of enterprise data. Internal redundant components and local or remote data copy options ensure maximum resiliency and protects valuable data assets against site outages. Together with an easy-to-use ETERNUS SF storage management software suite with a wide range of features, the architecture of the ETERNUS DX400 S2 series is ideally designed for the requirements of mid-range and large enterprises.



SUPER Green Product

This product has the top-level environmental factor in the comparison with our previous product or product in market.

Features and benefits

Main features	Benefits
Versatile midrange storage system	<ul style="list-style-type: none">■ Flexible configuration of disk types and connectivity enables flexible balancing of performance, capacity and costs■ Ensures data safety through comprehensive features like encryption, redundancy, rich copy functionality and snapshots■ Efficient operations through technologies such as Tiering, Thin Provisioning and Eco-mode
High scalability regarding capacity, performance and availability	<ul style="list-style-type: none">■ Leading performance architecture delivers support, high data growth and virtualization■ Supports high capacity growth bridging midrange and large data center requirements. Comprehensive high availability and disaster recovery functionality ensure high quality of service
Unique and consistent family concept	<ul style="list-style-type: none">■ Seamless and fully compatible product family of disk storage systems with uniform system components and unified management software■ Family concept reduces operations, maintenance, migration and training efforts as well as costs■ Migration path to the next bigger model

Technical details

General Specification		DX410 S2	DX440 S2
Supported RAID Levels		0, 1, 1+0, 5, 5+0, 6	
Host Interfaces		Fibre Channel (16/8/4/2 Gbit/s) FCoE (10 Gbit/s) iSCSI (10 Gbit/s) or iSCSI (1 Gbit/s)	
Number of controllers		2	
Number of host interfaces		4 – 16 ports	4 – 32 ports
- Notes		Mixed configurations are possible.	
Number of hosts		Max. 1024	
Cache memory capacity		8 GB / 16 GB	24 GB / 48 GB / 72 GB / 96 GB
Number of drive enclosures		Max. 20 (3.5", 2.5")	Max. 40 (3.5", 2.5")
Number of drives		Max. 480 (2.5") / Max. 240 (3.5")	Max. 960 (2.5") / Max. 480 (3.5")
Storage capacity	Physical capacity	Max. 960.0 TB	Max. 1920.0 TB
	Logical capacity	Max. 683.6 TB	Max. 1,367.2 TB
Drives	3.5-inch	SAS disk drives	600 GB/450 GB/300 GB (15,000 rpm)
		Nearline SAS disk drives	4 TB/3 TB/2 TB/1 TB (7,200 rpm)
		SSD (Solid State Drives)	800 GB/400 GB/200 GB/100 GB
	2.5-inch	SAS Non-Encrypting drives	900 GB/600 GB/450 GB/300 GB (10,000 rpm), 300GB (15,000 rpm)
		SAS Self-Encrypting drives	900 GB/600 GB/450 GB/300 GB (10,000 rpm)
		Nearline SAS disk drives	1 TB (7,200 rpm)
	SSD (Solid State Drives)	800 GB/400 GB/200 GB/100 GB	
Drive interface		Serial Attached SCSI (6 Gbit/s)	
Back-End Disk Connectivity		2 pairs of four-lane x 6 Gbit/s SAS buses (SAS 2.0 Wide)	4 pairs of four-lane x 6 Gbit/s SAS buses (SAS 2.0 Wide)
Redundancies		RAID Controller, Fan, Power Supply	
Number of LUN		Max. 16,384	
LUN capacity		Max. 128 TB	
Number of Snapshots		8,192	
Number of copy generations		256	
Remote Copy feature		Yes	
- Notes		Remote Copy Licenses must be purchased for each system	

Installation Specification

Dimensions (W x D x H)	Controller enclosure (CE)	482 × 700 × 132 mm (19 × 27.6 × 5.2 inch) (3U)
	2.5" Drive enclosure (DE)	482 × 540 × 88 mm (19 × 21.3 × 3.5 inch) (2U)
	3.5" Drive enclosure (DE)	482 × 555 × 88 mm (19 × 21.9 × 3.5 inch) (2U)
Service Area	Front	800 mm (31.5 inch) or more
	Rear	800 mm (31.5 inch) or more
Maximum Weight	Controller enclosure	54 kg (118.8 lb)
	2.5" Drive enclosure	35 kg (77 lb)
	3.5" Drive enclosure	35 kg (77 lb)
Power	Voltage	AC 100 – 120 V / AC 200 – 240 V
	Phase	Single
	Frequency	50 Hz / 60 Hz

Installation Specification (Continued)		DX410 S2	DX440 S2	
Maximum Power Consumption	AC 100 - 120V	CE	470 W (480 VA)	610 W (620 VA)
		DE	570 W (580 VA)	
		Max	11,870 W (12,080 VA) (CE+DEx20)	23,410 W (23,820 VA) (CE+DEx40)
	AC 200 - 240V	CE	470 W (480 VA)	720 W (730 VA)
		DE	570 W (580 VA)	
		Max	11,870 W (12,080 VA) (CE+DEx20)	23,520 W (23,930 VA) (CE+DEx40)
Maximum Heat Generation	AC 100 - 120V	43,700 kJ/h (41,600 BTU/h)		86,200 kJ/h (82,100 BTU/h)
	AC 200 - 240V	43,700 kJ/h (41,600 BTU/h)		86,600 kJ/h (82,100 BTU/h)
Environmental Conditions	Temperature	10 - 40°C (Operating)		
		50 - 104°F (Operating)		
		20 - 80% RH (Operating)		
Altitude	Humidity	3,000 m (10,000 ft.)		
Operating environment		FTS 04230 Guideline for Data Center (installation locations)		

Management

Interfaces	Ethernet (1000 Base-T / 100 Base-TX / 10 Base-T)
Supported protocols	SNMP (version1, 2C, 3), SMI-S 1.4
Administration	Web-Environment, CLI (Command Line Interface)

Noise Emission

	DX410 S2	DX440 S2
Sound Power Level (LWAd)	7.0 B	
Sound Pressure Level (LpAm)	53 dB(A)	
- Notes	measured with single enclosure according to ISO7779 and declared according to ISO9296	

Warranty

Global Base Warranty	3 years
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Maintenance and Support Services

The perfect extension of the product specific base warranty for optimized operation.

Recommended Service: 24 x 7 Fujitsu support for enterprise class services.

Please check your specific service level with your FUJITSU sales organization or partner.

Supported configurations

A wide range of host operating systems, servers as well as applications is supported.

For a detailed support matrix check:

<http://www.fujitsu.com/global/services/computing/storage/eternus/products/diskstorage/dx-mid/supported-device/>

Compliance With Standards

Product safety	UL60950-1, CSA-C22.2 No. 60950-1, EN60950-1, IEC60950-1, GOST-R
Electromagnetic Compatibility	CNS13438(C6357) Class A, FCC CFR47 part 15 Class A, ICES-003 Class A, EN55022 Class A, VCCI Class A, AS/NZS CISPR22 Class A
Electromagnetic Immunity	EN55024
CE certification	Electromagnetic Compatibility Directive 2004/108/EC Low Voltage Directive 2006/95/EC
Environmental compliance	RoHS-compliant (Restriction of hazardous substances) WEEE-compliant (Waste electrical and electronic equipment)
- 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.

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For more information, please visit: <http://solutions.us.fujitsu.com/> and <http://twitter.com/fujitsuamerica>

Fujitsu platform solutions

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

Dynamic Infrastructures

With the Fujitsu Dynamic Infrastructures approach, Fujitsu offers a full portfolio of IT products, solutions and services, ranging from clients to datacenter solutions, Managed Infrastructure and Infrastructure-as-a-Service. How much you benefit from Fujitsu technologies and services depends on the level of cooperation you choose. This takes IT flexibility and efficiency to the next level.

Computing products

www.fujitsu.com/global/services/computing/
- PRIMERGY: Industry standard server
- SPARC Enterprise: UNIX server
- PRIMEQUEST: Mission-critical IA server
- ETERNUS: Storage system

Software

www.fujitsu.com/software/
- Interstage: Application infrastructure software
- Systemwalker: System management software

More information

Learn more about Fujitsu ETERNUS DX400 S2, please contact your Fujitsu sales representative, Fujitsu business partner, or visit our website.
<http://solutions.us.fujitsu.com/www/content/products/storage/ETERNUS/index.php>

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 resolve issues of environmental energy efficiency through IT. Please find further information at:
www.fujitsu.com/global/about/environment/



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