FUJITSU

Data Sheet
ETERNUS DX200 S5
Disk System

The all-in-one storage system for SMBs or subsidiaries

ETERNUS DX - Business-centric Storage

ETERNUS DX series are the ideal hybrid storage for on-premise storage of business-critical data in data centers, branch offices and self-operated IT of SMBs, something every business can afford, with integrated and powerful features for business growth, efficiency and continuity. Latest capacity and performance optimization capabilities contribute to overall business efficiency, outstanding data-safe technologies and all-inclusive encryption guarantee uncompromised business continuity.

ETERNUS DX200 S5

The scalable and unified ETERNUS DX200 S5 delivers enterprise-class functionality to small and medium-sized companies and subsidiaries with an excellent price/performance ratio. It is the perfect solution when consolidating data for server virtualization, e-mail, databases and business applications as well as centralized file services. Simple, intuitive system management, highly flexible connectivity and the option of field upgrades to higher system classes significantly reduce operational and migration costs. The ETERNUS DX architecture lets customers benefit from software options such as - thin provisioning, automatic storage tiering, transparent failover and quality of service management even in the entry-level class. All of which contribute to better business support and guarantees continuity and efficiency in daily operations.

Features & Benefits

Main Features	Benefits
Maximum utilization and consolidation	■ Massive scalability makes it perfect for any future requirements. Flexible combination of flash and disk media allow a broader scope of deployments, while unified SAN and NAS access drives system utilization and enhances ROI. Outstanding benchmark results with ultra-low latency and all-inclusive free-of-charge management suite ETERNUS SF Express make it the ideal RAID system.
Round-the-clock Business Continuity	■ Avoid planned or unplanned downtimes with replication and Storage Cluster. High redundancies enable business critical computing, data processing and real time data mirroring at the highest level and a system availability of up to 99.9999%. Intelligent snapshot functionality supports secure backups.
Automated Quality-of-Service	■ Control application priorities according to business needs, minimize admin efforts, automate monitoring and adjustment to guarantee service levels
Selective use of deduplication / compression	■ Use data reduction technologies at the volume level to improve storage efficiency and meet performance SLA's, and also save storage capacity in hybrid configurations

Technical details

	2.5-inch Controller Enclosure	3.5-inch Controller Enclosure
No. of controllers	1/2	
No. of host interfaces	4-16 ports [FC(16Gbit/s)], 8/16 ports [Ethernet(1Gbit/s)], 4/8 ports [FC(32Gbit/s), iSCSI(10Gbit/s, 1Gbit/s), SAS (12Gbit/s), Ethernet(10Gbit/s)]	
Maximum System Memory	128 GB	128 GB
Extreme Cache Pool	1.6 TB	
Maximum Disk Drives	264	264
Max. no. of drive enclosures	10	
Note	10 with 2.5" or 3.5" DE, 4 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, 32Gbit/s)	
	iSCSI (10 Gbit/s [10GBase-SR, 10GBase-CR, 10GBase-T], 1 Gbit/s)	
	SAS (12 Gbit/s)	
	Ethernet (10 Gbit/s, 1 Gbit/s)	
Mixed host interfaces	Yes	
Max. no. of hosts	1,024	
Supported protocols	CIFS (SMB 3.1.1), CIFS (SMB3.0.2), CIFS (SMB 3.0), CIFS (SMB2.1), NFS (NFSv4), NFS (NFSv3), FTP, FXP	
Maximum Storage Capacity HDD	4,752 TB	
Maximum Storage Capacity SSD	8,110 TB	
Drive Type	2.5-inch, SAS, 15,000 rpm (900 GB* / 600 GB* / 300 GB*)	
	2.5-inch, SAS, 10,000 rpm (2.4 TB/ 1.8 TB / 1.2 TB / 600 GB / 300 GB*)	
	2.5-inch, SAS (FIPS), 10,000rpm (1.2TB)	
	2.5-inch, SSD (30.72TB / 15.36TB / 7.68TB / 3.84TB / 1.92TB / 960GB / 800GB)	
	2.5-inch, SSD (FIPS) (7.68TB / 3.84TB / 1.92TB)	
	3.5-inch, Nearline SAS, 7,200rpm (18TB / 16TB / 14TB / 12TB / 10TB / 8TB / 6TB / 4TB)	
	3.5-inch, Nearline SAS (FIPS), 7,200rpm (16TB / 12TB / 8TB / 4TB)	
	3.5-inch, SSD (7.68TB / 3.84TB / 1.92TB / 960GB / 800GB)	
	3.5-inch, SSD (self-encrypting) (3.84 TB/1.92 TB)	
	HDDE, Nearline SAS, 7,200rpm (18TB / 16TB / 14TB / 12 TB / 8TB / 4TB)	
	HDDE, Nearline SAS (FIPS), 7,200rpm (16TB / 12 TB / 8TB / 4TB)	
Note	*For EMEIA only available on special request	
	HDDE not available in EMEIA region	
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	1 pair of four-lane x 12 Gbit/s Serial Attached SCSI buses (SAS 3.0 wide)	
Max. no. of RAID groups per system	132	
Max. no. of LUNs per RAID group	128	
Max. no. of LUNs	8,192	
Max. LUN capacity	128 TB	
No. of snapshots - max.	4096	
Max. no. of copy generations	512	
Deduplication	for block	
Compression	for block	
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	11,000 MB/s (128KB Read) 4,400 MB/s (128KB Write)
Random access performance	530,000 IOPS (8KB Read) 230,000 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
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
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 Fsas Technologies Inc. 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

Thin Provisioning	Yes
RAID migration	Yes
Reporting function	Yes
Hot part expansion	Yes
Non-disruptive firmware upgrade	Yes

Management

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	Google Chrome 99
	Microsoft Edge® 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.
Supported configurations	All major host operating systems, servers and business applications
	Detailed support matrix:
	www.fujitsu.com/global/support/products/computing/storage/disk/supported-configrations

Installation specification	
19" rackmount	Yes
Power voltage	AC 100 - 120 V / AC 200 - 240 V
Power frequency	50 / 60 Hz
Power supply efficiency	94 % (80 PLUS platinum)
Maximum Power Consumption	AC 100 - 120 V: 6,630W {6,760VA}
Maximum Power Consumption	AC 200 - 240 V: 6,630W (6,760VA)
Power phase	Single

	2.5-inch Controller Enclosure	3.5-inch Controller Enclosure	2.5-inch Drive Enclosure	3.5-inch Drive Enclosure
Dimensions (W x D x H)	482 x 645 x 88 mm	482 x 670 x 88 mm	482 x 540 x 88 mm	482 x 560 x 88 mm
	19 x 25.4 x 3.5 inch	19 x 26.4 x 3.5 inch	19 x 21.3 x 3.5 inch	19 x 22 x 3.5 inch
	2 U	2 U	2 U	2 U
Weight	35 kg (77 lb)	35 kg (77 lb)	35 kg (77 lb)	35 kg (77 lb)

Environment	
Maximum Heat Generation	AC 100 - 120 V: 24,390: kJ/h
	AC 200 - 240 V: 24,390: kJ/h
Temperature (operating)	10 - 40 °C
Humidity (operating)	20 - 80 %
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 DX200 S5, ETERNUS DX1/200 S5 2.5DE, ETERNUS DX1/200 S5 3.5DE
Model	FA-25,FA-35, DE-25,DE-35
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

Compliance

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

Manufacturer 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 ETERNUS DX200 S5, 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/

Software
www.fujitsu.com/software/

More information

Learn more about ETERNUS DX200 S5, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website. www.fujitsu.com/global/products/ computing/storage/disk/eternus-dx/ dx200-s5/

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

Disclaimer

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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