

# Data Sheet FUJITSU Storage ETERNUS DX600 S3 Disk System

Leading storage performance, automated quality of service



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#### 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 enterpriseclass 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> <li>Leading performance enables large-scale storage consolidation delivering a fast ROI</li> <li>Automatically aligns storage performance with business priorities</li> <li>Delivers reliable and predictable quality of service for business-critical data</li> <li>Enables the operation of productive and analytical tasks in parallel on one storage system</li> <li>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</li> </ul>
Rock-solid operation	<ul> <li>Comprehensive high-availability, quality of service and disaster resilience functions ensure predictable and reliable operation</li> <li>Flexible disaster recovery, including transparent failover, with a multitude of snapshot concepts and remote replication between different models and generationses</li> <li>Extensive non-disruptive maintenance and upgrade capabilities reduce planned downtimes</li> </ul>
Truly unified architecture	<ul> <li>Unified SAN and NAS access drive system utilization improving ROI</li> <li>Unified management functions across the entire product line result in operational efficiency</li> <li>Unified connectivity supports a large range and many combinations of networking types</li> <li>Unified architecture allows flexible combinations of 2.5" and 3.5" disk types</li> </ul>

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# Technical details

Constal system information	
General system information	ETERALIC DVC00 CO
No. of combanilla as	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)]
Max. cache capacity	128 GB (block) / 128 GB + 64 GB (block + file)
Extreme Cache	5,600 GB
Max. no. of 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
Redundancies	RAID Controller
	Fan
	Power supply
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	1,024
Supported NAS protocols	CIFS (SMB 2.0), NFSv2, NFSv3, NFSv4
Max. storage capacity - physical	4224 TB
Drive Type	2.5-inch, SAS, 15,000 rpm (300 GB)
	2.5-inch, SAS, 10,000 rpm (1,200 GB / 900 GB / 600 GB / 300 GB)
	2.5-inch, SAS (self-encrypting), 10,000 rpm (1,200 GB / 900 GB)
	2.5-inch, Nearline SAS, 7,200 rpm (1 TB)
	2.5-inch, SSD (800 GB / 400 GB)
	3.5-inch, Nearline SAS, 7,200 rpm (4 TB / 3 TB / 2 TB)
	3.5-inch, SSD (800 GB / 400 GB)
	HDDE, Nearline SAS, 10,000 rpm (1.2 TB)  HDDE, Nearline SAS, 7,200 rpm (4 TB / 3 TB / 2 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
Note	enclosures.
Max. no. of SSDs	unlimited
Mixed 2.5 inch/ 3.5 inch drive enclosure	
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 Eco-mode	128 TB
	Yes
Thin Provisioning	Yes
Quality of Service	Yes
Business Continuity Features	
No. of snapshots - max.	8,192
Max. no. of copy generations	512
Remote Copy functionality	Synchronous and asynchronous
Data protection features	Cache Protection, Data Block Guard, Data Encryption, Dedicated Hot Spare, Disk Drive Patrol, Global Hot Spare, Fast
	Recovery
Security features	HTTPS (SSL), One Time Password, RADIUS, SSH
Options	
Storage cluster	Yes
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Options					
Options Automated Characa Tioring			Vac		
Automated Storage Tiering			Yes		
Reporting function		0.11	Yes		
Note		Options can be activat	ed via ETERNUS SF Software		
Dynamic configuration					
Non-disruptive firmware upgrade	Yes				
RAID migration	Yes				
LUN online expansion w/o interruption	Yes				
Wide striping	Yes				
Hot part replacement/ expansion	Yes				
Management					
Interfaces	Ethernet (1000 Base-T / 1	· · · · · · · · · · · · · · · · · · ·			
Supported protocols	SNMP (version1, 2C, 3), S	MI-S 1.6			
Administration	Web-based graphical use	r interface, CLI (Command Line	Interface), ETERNUS SF		
Remote Support	Event notification (E-mai	l / SNMP / Syslog), Remote mair	ntenance		
Supported configurations	All major host operating systems, servers and business applications Detailed support matrix: http://www.fujitsu.com/global/services/computing/storage/eternus/products/diskstorage/dx600/#Tab0-4				
Hardware certification			'		
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				
Power phase	Single				
<u> </u>	ETERNUS DX600 S3	2.5-inch Drive Enclosure	3.5-inch Drive Enclosure	High-Density Drive Enclosure	
Dimensions (W x D x H)	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	482 x 980 x 176 mm 19 x 38.6 x 6.9 inch 4 U	
Weight	54 kg (119 lb)	35 kg (77 lb)		95 kg (209 lb)	
Max. power consumption (Voltage Range 1)	720 W (730 VA)	430 W (440 VA)	340 W (350 VA)	1,300 W (1,320 VA)	
Max. power consumption (Voltage Range 2)	1,000 W (1,010 VA)	430 W (440 VA)	340 W (350 VA)	1,300 W (1,320 VA)	
Environmental					
Maximum Heat Generation	AC 100 - 120 V: 97,200: k	J/h			
	AC 200 - 240 V: 98,200: k				
Temperature (operating)	10 - 40 °C				
Temperature (not operating)	0 - 50 °C				
Humidity (operating)	20 - 80 % (relative humid	lity, non-condensing)			
Humidity (not operating)	8 - 80 % (relative humidity, non-condensing)				
Altitude	3,000 m (10,000 ft.)				
Sound power (LWAd; 1B = 10dB)	7.2B				
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)				
	http://docs.ts.fujitsu.com/dl.aspx?id=e4813edf-4a27-461a-8184-983092c12dbe				
Operating environment Link	nitp.//docs.ts.fujitsu.com/	rui.aspx:10=e4013e01-4a2/-4b	10-0104-303037(17006		

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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, GOST, 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	http://globalsp.ts.fujitsu.com/sites/certificates			
Warranty				
Standard Warranty	3 years			
Service level	Onsite Service			
Warranty Terms & Conditions	www.fujitsu.com/support			
Maintenance and Support 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			

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#### 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

Build 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 offering. This allows customers to leverage 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/services/computing/

#### Software

www.fujitsu.com/software/

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### 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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