

HITACHI VIRTUAL STORAGE PLATFORM E SERIES FAMILY MATRIX

	Hitachi Virtual Storage Platform (VSP) E590	Hitachi Virtual Storage Platform (VSP) E790	Hitachi Virtual Storage Platform (VSP) E990
Capacity Specifications			
Max. Raw Internal Capacity	722TB (30TB NVMe SSD)	722TB (30TB NVMe SSD)	2.888 PB (30TB NVMe SSD)
Total Efficiency Guarantee Ratio *	Up to 7:1	Up to 7:1	Up to 7:1
Data Reduction Guarantee Ratio	Up to 4:1 (sight unseen)	Up to 4:1 (sight unseen)	Up to 4:1 (sight unseen)
Max. Raw External Capacity	144PB	216PB	287 PB
Max. Number of Flash Drives, Including Spares	24	24	96

Flash Drive Options	1.9TB 3.8TB 7.6TB 15TB 30TB	1.9TB 3.8TB 7.6TB 15TB 30TB	1.9TB 3.8TB 7.6TB 15TB 30TB
Max. Expansion Trays	N/A	N/A	4 (2U: 24 NVMe SSD)
Controller Tray Specifications			
Performance (IOPS)	4.0 million	6.8 million	5.8 million
Performance (Bandwidth)	22 GB/s	32 GB/s	30GB/s
Fibre Bandwidth to Host	76,800 MB/s	76,800 MB/s	204,800 MB/s
Max. Cache	768 GiB	768 GiB	1024 GiB
Max. Host Port Counts	24 x Fibre Channel 12 x iSCSI	24 x Fibre Channel 12 x iSCSI	80 x Fibre Channel 40 x iSCSI
Host Interface Types	Fibre Channel: 32Gbps Fibre Channel: 16Gbps iSCSI: 10Gbps	Fibre Channel: 32Gbps Fibre Channel: 16Gbps iSCSI: 10Gbps	Fibre Channel: 32Gbps Fibre Channel: 16Gbps iSCSI: 10Gbps
Height Width Depth	2U, 3.5" (87 mm) 19.0" (482 mm) 33.6" (852mm)	2U, 3.5" (87 mm) 19.0" (482 mm) 33.6" (852mm)	4U, 6.9" (175 mm) 19.0" (483 mm) 31.8" (809 mm)
Max. Weight	111lbs (50kg)	111 lbs (50kg)	165 lbs (75 kg)
Internal Drive Slots	24	24	N/A
Back-End Disk Interface and Links	N/A	N/A	64 x NVMe

Controller Host I/O Expansion Tray specifications

Max qty	0	0	1
Height Width Depth	N/A	N/A	2U, 3.5" (88 mm) 19" (483mm) 35.2" (892 mm)
Max. Weight	N/A	N/A	89 lbs (40 kg)

	Hitachi Virtual Storage Platform (VSP) E590	Hitachi Virtual Storage Platform (VSP) E790	Hitachi Virtual Storage Platform (VSP) E990
Software Specifications			
Value Added Bundled Features	100% Data Availability Guarantee Total Efficiency Guarantee Adaptive Data Reduction Storage Virtualization Embedded Management In System Replication Copy Data Management Infrastructure Analytics Non-disruptive Migration	100% Data Availability Guarantee Total Efficiency Guarantee Adaptive Data Reduction Storage Virtualization Embedded Management In System Replication Copy Data Management Infrastructure Analytics Non-disruptive Migration	100% Data Availability Guarantee Total Efficiency Guarantee Adaptive Data Reduction Storage Virtualization Embedded Management In System Replication Copy Data Management Infrastructure Analytics Non-disruptive Migration
RAID Supported**	RAID6 (6D+2P, 12D+2P, 14D+2P) RAID5 (3D+1P, 4D+1P, 6D+1P, 7D+1P) RAID1 (2D+2D, 4D+4D)	RAID6 (6D+2P, 12D+2P, 14D+2P) RAID5 (3D+1P, 4D+1P, 6D+1P, 7D+1P) RAID1 (2D+2D, 4D+4D)	RAID6 (6D+2P, 12D+2P, 14D+2P) RAID5 (3D+1P, 4D+1P, 6D+1P, 7D+1P) RAID1 (2D+2D, 4D+4D)
Data-at-Rest Encryption	Yes	Yes	Yes
Max. LUN Size	256TB	256TB	256TB
Max. Number of LUNs	32,768	49,152	65,280
Max. Number of Snapshots	1024 per LUN; (524,288 per system)	1024 per LUN; (786,432 per system)	1024 per LUN; (1,048,575 per system)
Max. Number of Hosts per Fibre Channel Port	255	255	255

Notes:

* The Total Efficiency Guarantee of up to 7:1 for the VSP E990/E790/E590 covers savings from data de-duplication, compression, thin provisioning and snapshots.

** RAID 1 selection mirrors blocks across two drives and then creates a striped set across multiple drive pairs. This is commonly referred to as RAID 1+0.

1MB = 1,000,000 bytes

1MiB = 1,048,576 bytes

NVMe = non-volatile memory express, SSD = solid state drive

FC = Fibre Channel

iSCSI = Internet Small Computer Systems Interface

Hitachi Vantara



Corporate Headquarters
2535 Augustine Drive
Santa Clara, CA 95054 USA
hitachivantara.com | community.hitachivantara.com

Contact Information
USA: 1-800-446-0744
Global: 1-858-547-4526
hitachivantara.com/contact

HITACHI is a trademark or registered trademark of Hitachi, Ltd.