

## 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 |
|--|---|---|---|
| <b>Capacity Specifications</b>                       |   |   |   |
| <b>Max. Raw Internal Capacity</b>                    | 361TB (15TB NVMe SSD)                       | 361TB (15TB NVMe SSD)                       | 1.444 PB (15TB NVMe SSD)                    |
| <b>Total Efficiency Guarantee Ratio *</b>            | Up to 7:1                                   | Up to 7:1                                   | Up to 7:1                                   |
| <b>Data Reduction Guarantee Ratio</b>                | Up to 4:1 (sight unseen)                    | Up to 4:1 (sight unseen)                    | Up to 4:1 (sight unseen)                    |
| <b>Max. Raw External Capacity</b>                    | 144PB                                       | 216PB                                       | 287 PB                                      |
| <b>Max. Number of Flash Drives, Including Spares</b> | 24  | 24  | 96  |

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

**Controller Host I/O Expansion Tray specifications**

|                                   |     |     |   |
|-----------------------------------|-----|-----|---|
| <b>Max qty</b>                    | 0   | 0   | 1   |
| <b>Height<br/>Width<br/>Depth</b> | N/A | N/A | 2U, 3.5" (88 mm)<br>19" (483mm)<br>35.2" (892 mm) |
| <b>Max. Weight</b>                | 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   |
|--|---|---|---|
| <b>Software Specifications</b>                     |   |   |   |
| <b>Value Added Bundled Features</b>                | 100% Data Availability Guarantee<br>Total Efficiency Guarantee<br>Adaptive Data Reduction<br>Storage Virtualization<br>Embedded Management<br>In System Replication<br>Copy Data Management<br>Infrastructure Analytics<br>Non-disruptive Migration | 100% Data Availability Guarantee<br>Total Efficiency Guarantee<br>Adaptive Data Reduction<br>Storage Virtualization<br>Embedded Management<br>In System Replication<br>Copy Data Management<br>Infrastructure Analytics<br>Non-disruptive Migration | 100% Data Availability Guarantee<br>Total Efficiency Guarantee<br>Adaptive Data Reduction<br>Storage Virtualization<br>Embedded Management<br>In System Replication<br>Copy Data Management<br>Infrastructure Analytics<br>Non-disruptive Migration |
| <b>RAID Supported**</b>                            | RAID6 (6D+2P, 12D+2P, 14D+2P)<br>RAID5 (3D+1P, 4D+1P, 6D+1P, 7D+1P)<br>RAID1 (2D+2D, 4D+4D)   | RAID6 (6D+2P, 12D+2P, 14D+2P)<br>RAID5 (3D+1P, 4D+1P, 6D+1P, 7D+1P)<br>RAID1 (2D+2D, 4D+4D)   | RAID6 (6D+2P, 12D+2P, 14D+2P)<br>RAID5 (3D+1P, 4D+1P, 6D+1P, 7D+1P)<br>RAID1 (2D+2D, 4D+4D)   |
| <b>Data-at-Rest Encryption</b>                     | Yes   | Yes   | Yes   |
| <b>Max. LUN Size</b>                               | 256TB   | 256TB   | 256TB   |
| <b>Max. Number of LUNs</b>                         | 32,768  | 49,152  | 65,280  |
| <b>Max. Number of Snapshots</b>                    | 1024 per LUN; (524,288 per system )   | 1024 per LUN; (786,432 per system)  | 1024 per LUN; (1,048,575 per system)  |
| <b>Max. Number of Hosts per Fibre Channel Port</b> | 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



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