## EMC XTREMIO 4.0 SYSTEM SPECIFICATIONS













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|---|-------------------------------------|----------------------------------|------------------------|-------------------------------------|--|------------------------|
| System Specifications   | Starter<br>X-Brick                  | 1 X-Brick                        | 2 X-Brick<br>Cluster   | 4 X-Brick<br>Cluster                | 6 X-Brick<br>Cluster   | 8 X-Brick<br>Cluster   |
| N-way Active<br>Controllers   | 2                                   | 2                                | 4                      | 8                                   | 12   | 16                     |
| SSD enclosures (25<br>SSDs each)  | 1                                   | 1                                | 2                      | 4                                   | 6  | 8                      |
| Number of SSDs  | 13 (expandable to 25)               | 25                               | 50                     | 100                                 | 150  | 200                    |
| Battery Backup Units  | 2                                   | 2                                | 2                      | 4                                   | 6  | 8                      |
| Infiniband Switches   | 0                                   | 0                                | 2                      | 2                                   | 2  | 2                      |
| Power Socket<br>Number/Type<br>(internal to rack)                               | 4 x IEC C14<br>(220V)               | 4 x IEC C14<br>(220V)            | 14 x IEC C14<br>(220V) | 24 x IEC C14<br>(220V)              | 34 x IEC C14<br>(220V)   | 44 x IEC C14<br>(220V) |
| Power Consumption (typical)   | 750W                                | 816W                             | 1,749W                 | 3,367W                              | 4,985W   | 6,603W                 |
| Rack Space  | 6U                                  | 6U                               | 13U                    | 23U                                 | 33U  | 43U                    |
| Weight (including rack) (kg/lbs.)   | 252 / 557                           | 255 / 563                        | 349 / 769              | 502 / 1,106                         | 654 / 1,443  | 827 / 1,824            |
| Weight (excluding rack) (kg/lbs.)   | 94 / 208                            | 99 / 213                         | 190 / 419              | 344 / 756                           | 497 / 1,093  | 618 / 1,362            |
| Cooling Requirements (BTU/hr)   | 2,576                               | 2,576                            | 5,500                  | 10,612                              | 15,724   | 20,836                 |
| Performance (100% random IOs, no caching, on preconditioned & prefilled arrays) | Starter<br>X-Brick                  | 1 X-Brick                        | 2 X-Brick<br>Cluster   | 4 X-Brick<br>Cluster                | 6 X-Brick<br>Cluster   | 8 X-Brick<br>Cluster   |
| IOPS 70% read, 30% write (8K blocks)  | 150,000                             | 150,000                          | 300,000                | 600,000                             | 900,000  | 1,200,000              |
| Average Latency (ms)  | 0.5                                 | 0.5                              | 0.5                    | 0.5                                 | 0.5  | 0.5                    |
| Max. Bandwidth (GB/s)   | 3                                   | 3                                | 6                      | 12                                  | 18   | 24                     |
| Host Connectivity<br>(Based on number of<br>X-Bricks in the array)              | Starter<br>X-Brick                  | 1 X-Brick                        | 2 X-Brick<br>Cluster   | 4 X-Brick<br>Cluster                | 6 X-Brick<br>Cluster   | 8 X-Brick<br>Cluster   |
| Fibre Channel Ports<br>(8Gbps)  | 4                                   | 4                                | 8                      | 16                                  | 24   | 32                     |
| iSCSI Ethernet Ports<br>(10Gbps)  | 4                                   | 4                                | 8                      | 16                                  | 24   | 32                     |



| Management                          | Starter<br>X-Brick   | 1 X-Brick            | 2 X-Brick<br>Cluster | 4 X-Brick<br>Cluster | 6 X-Brick<br>Cluster  | 8 X-Brick<br>Cluster  |
|-------------------------------------|--|----------------------|----------------------|----------------------|-----------------------|-----------------------|
| Ethernet Ports<br>(1Gbps)           | 2  | 2                    | 4                    | 8                    | 12                    | 16                    |
| Management IP<br>Addresses Required | 1 (XMS)<br>2 (Array)   | 1 (XMS)<br>2 (Array) | 1 (XMS)<br>4 (Array) | 1 (XMS)<br>8 (Array) | 1 (XMS)<br>12 (Array) | 1 (XMS)<br>16 (Array) |
| XMS Management<br>Server            | A single XMS (physical server or VM) manages multiple XtremIO arrays |                      |                      |                      |                       |                       |

| System Capacity (40TB X-Brick)  |               |                      |                      |                      |                      |
|---------------------------------|---------------|----------------------|----------------------|----------------------|----------------------|
|                                 | 1 X-Brick     | 2 X-Brick<br>Cluster | 4 X-Brick<br>Cluster | 6 X-Brick<br>Cluster | 8 X-Brick<br>Cluster |
| Raw Capacity (TB/TiB)           | 40 / 36.4     | 80 / 72.8            | 160 / 145.5          | 240 / 218.3          | 320 / 291.0          |
| Usable Capacity <sup>1</sup>    | 33.6 / 30.6   | 67.3 / 61.1          | 134.4 / 122.2        | 201.5 / 183.3        | 268.7 / 244.4        |
| Effective Capacity <sup>2</sup> | 201.6 / 183.3 | 403.1 / 366.6        | 806.2 / 733.2        | 1,209 / 1,100        | 1,612 / 1,466        |

| System Capacity (20TB X-Brick)  |              |                      |                      |                      |                      |
|---------------------------------|--------------|----------------------|----------------------|----------------------|----------------------|
|                                 | 1 X-Brick    | 2 X-Brick<br>Cluster | 4 X-Brick<br>Cluster | 6 X-Brick<br>Cluster | 8 X-Brick<br>Cluster |
| Raw Capacity (TB/TiB)           | 20 / 18.2    | 40 / 36.4            | 80 / 72.8            | 120 / 109.1          | 160 / 145.5          |
| Usable Capacity <sup>1</sup>    | 16.7 / 15.2  | 33.3 / 30.3          | 66.7 / 60.6          | 100 / 91             | 133.3 / 121.3        |
| Effective Capacity <sup>2</sup> | 100.2 / 91.2 | 200.4 / 182.4        | 400.8 / 363.6        | 600 / 546            | 800 / 728            |

| System Capacity (10 TB X-Brick) |            |                      |                      |                      |                      |
|---------------------------------|------------|----------------------|----------------------|----------------------|----------------------|
|                                 | 1 X-Brick  | 2 X-Brick<br>Cluster | 4 X-Brick<br>Cluster | 6 X-Brick<br>Cluster | 8 X-Brick<br>Cluster |
| Raw Capacity (TB/TiB)           | 10 / 9.1   | 20 / 18.2            | 40 / 36.4            | N/A                  | N/A                  |
| Usable Capacity <sup>1</sup>    | 8.33 / 7.6 | 16.7 / 15.2          | 33.3 / 30.3          | N/A                  | N/A                  |
| Effective Capacity <sup>2</sup> | 50 / 45.5  | 100 / 91             | 200 / 182            | N/A                  | N/A                  |

| Starter X-Brick System Capacity (5.2 TB)   |  |  |  |  |
|--|--|--|--|--|
| <b>Raw Capacity</b> (TB/TiB) 5.2 / 4.7   |  |  |  |  |
| Usable Capacity <sup>1</sup> 3.6 / 3.3   |  |  |  |  |
| Effective Capacity <sup>2</sup> 21.5 / 19.5  |  |  |  |  |
| Starter X-Bricks may be expanded to 10TB X-Bricks by adding SSDs. They may then be scaled-out to two and four X-Brick clusters |  |  |  |  |

| In-Memory Space-<br>Efficient Copies | Thousands of space-efficient, writeable copies are supported per cluster, allowing the effective utilization of the array to reach multiple Petabytes. |
|--------------------------------------|--|
|--------------------------------------|--|

<sup>&</sup>lt;sup>1</sup> Usable capacity is the amount of unique, non-compressible data that can be written into the array.



<sup>&</sup>lt;sup>2</sup> Effective capacity includes the benefits of thin provisioning, inline global deduplication, inline compression, and space-efficient copies. Datasheet numbers are a representative example at 6:1 and will vary based on each customer's specific application environment and use of the XtremIO array.

| _  |  |  |  |  |
|--|--|--|--|--|
| X-Brick Array Controller                   |  |  |  |  |
| AC Input Voltage                           | 90-264V, 47-63Hz single phase                  |  |  |  |
| Rack Space                                 | 10   |  |  |  |
| <b>Dimensions</b> (height x width x depth) | 43.2mm x 438mm x 709mm (1.7" x 17.25" x 27.9") |  |  |  |
| Weight                                     | 18.1kg (40 lbs.)                               |  |  |  |
| Power Consumption (typical)                | 309W   |  |  |  |
| Power Socket Number/Type                   | 2 x IEC C14                                    |  |  |  |
| X-Brick Disk Array Enclosure (DAE)         |  |  |  |  |
| AC Input Voltage                           | 100-240V, 50-60Hz single phase                 |  |  |  |
| Rack Space                                 | 2U   |  |  |  |
| <b>Dimensions</b> (height x width x depth) | 88.9mm x 438mm x 330mm (3.5" x 17.25" x 13")   |  |  |  |
| Weight                                     | 20.4kg (45 lbs.)                               |  |  |  |
| Power Consumption (typical)                | 185W   |  |  |  |
| Power Socket Number/Type                   | 2 x IEC C14                                    |  |  |  |
| Bat  | ttery Backup Unit                              |  |  |  |
| AC Input Voltage                           | 160-294V, 50-60Hz                              |  |  |  |
| Rack Space                                 | 10   |  |  |  |
| Dimensions (height x width x depth)        | 43.2mm x 438mm x 556mm (1.7" x 17.2" x 21.9")  |  |  |  |
| Weight                                     | 20kg (44 lbs.)                                 |  |  |  |
| Power Socket Number/Type                   | 1 x IEC C14                                    |  |  |  |

An X-Brick consists of two X-Brick Controllers, one X-Brick DAE, and two Battery Backup Units for each single X-Brick system or one Battery Backup Unit per X-Brick for multi X-Brick systems.

| Infiniband Switch (Two Included with Multi X-Brick Systems) |   |  |  |  |
|---|---|--|--|--|
| Ports   | 18 per switch (36 total)                        |  |  |  |
| AC Input Voltage  | 100-240V, 50-60Hz                               |  |  |  |
| Rack Space  | 2U (two 1U switches) + 1U for cabling           |  |  |  |
| <b>Dimensions</b> (height x width x depth)                  | 43.7mm x 428mm x 627mm (1.72" x 16.84" x 24.7") |  |  |  |
| Weight  | 18.6kg (41.0 lbs.)                              |  |  |  |
| Power Consumption (typical)                                 | 65W   |  |  |  |
| Power Socket Number/Type                                    | 2 x IEC C14                                     |  |  |  |
| Environmental   |   |  |  |  |
| Operating Temperature                                       | 10° to 35°C                                     |  |  |  |
| Non-Operating Temperature                                   | -20° to 50°C                                    |  |  |  |
| <b>Dimensions</b> (height x width x depth)                  | 20% to 80% (non-condensing)                     |  |  |  |
| Operating Relative Humidity                                 | 5% to 90% (non-condensing)                      |  |  |  |
| Regulatory and Compliance                                   | RoHS, CE, UL, FCC/EMC                           |  |  |  |

## **For More Information**

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Published in the USA. 06/2015 Specification Sheet H12451.2

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