

# Symmetrix 8830

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## Open Systems and Mainframe Specifications

### Sample Configuration Data

#### 8830-36 Models

| Addressable Drives | Open Systems Raw Capacity (GB)* | Mirrored Capacity (GB)* |           | SRDF Capacity (GB)* |           | RAID-S Capacity (GB)* |           | Maximum Cache (MB)** |
|--------------------|---------------------------------|-------------------------|-----------|---------------------|-----------|-----------------------|-----------|----------------------|
|                    |                                 | Open                    | Mainframe | Open                | Mainframe | Open                  | Mainframe |                      |
| 32                 | 1,158                           | 579                     | 572       | 1,158               | 1,145     | 868                   | 859       | 65,536               |
| 128                | 4,634                           | 2,317                   | 2,291     | 4,634               | 4,582     | 3,475                 | 3,437     | 65,536               |
| 256                | 9,267                           | 4,634                   | 4,582     | 9,267               | 9,165     | 6,950                 | 6,874     | 65,536               |
| 384                | 13,901                          | 6,950                   | 6,874     | 13,901              | 13,747    | 10,426                | 10,310    | 65,536               |

#### 8830-73 Models

| Addressable Drives | Open Systems Raw Capacity (GB)* | Mirrored Capacity (GB)* |           | SRDF Capacity (GB)* |           | Maximum Cache (MB)** |
|--------------------|---------------------------------|-------------------------|-----------|---------------------|-----------|----------------------|
|                    |                                 | Open                    | Mainframe | Open                | Mainframe |                      |
| 32                 | 2,339                           | 1,170                   | 1,155     | 2,339               | 2,309     | 65,536               |
| 128                | 9,357                           | 4,678                   | 4,619     | 9,357               | 9,238     | 65,536               |
| 256                | 18,714                          | 9,357                   | 9,238     | 18,714              | 18,476    | 65,536               |
| 384                | 28,070                          | 14,035                  | 13,857    | 28,070              | 27,713    | 65,536               |

#### 8830-146 Models

| Addressable Drives | Open Systems Raw Capacity (GB)* | Mirrored Capacity (GB)* |           | SRDF Capacity (GB)* |           | Maximum Cache (MB)** |
|--------------------|---------------------------------|-------------------------|-----------|---------------------|-----------|----------------------|
|                    |                                 | Open                    | Mainframe | Open                | Mainframe |                      |
| 32                 | 4,672                           | 2,336                   | 2,314     | 4,672               | 4,627     | 65,536               |
| 128                | 18,688                          | 9,344                   | 9,254     | 18,688              | 18,509    | 65,536               |
| 256                | 37,376                          | 18,688                  | 18,509    | 37,376              | 37,018    | 65,536               |
| 320                | 46,720                          | 23,360                  | 23,136    | 46,720              | 46,272    | 65,536               |

#### 8830-181 Models

| Addressable Drives | Open Systems Raw Capacity (GB)* | Mirrored Capacity (GB)* |           | SRDF Capacity (GB)* |           | Maximum Cache (MB)** |
|--------------------|---------------------------------|-------------------------|-----------|---------------------|-----------|----------------------|
|                    |                                 | Open                    | Mainframe | Open                | Mainframe |                      |
| 32                 | 5,792                           | 2,896                   | 2,859     | 5,792               | 5,718     | 65,536               |
| 128                | 23,168                          | 11,584                  | 11,437    | 23,168              | 22,873    | 65,536               |
| 256                | 46,336                          | 23,168                  | 22,874    | 46,336              | 45,747    | 65,536               |
| 384                | 69,504                          | 34,752                  | 34,310    | 69,504              | 68,621    | 65,536               |

Configurations of mixed 36GB, 73GB, 146GB and 181GB disks are allowed

Configurations containing any number of 146GB disks are limited to 320 drives maximum.

12GB of the total raw capacity will be reserved for internal Symmetrix File System use.

\*All capacities are based on 1GB=1,000,000,000 bytes. For AS/400 capacities, contact your EMC sales representative.

\*\*Individual model cache capacities are based upon specific configurations and customer requirements.

### Host Connectivity

| 8830  | Open Systems |      | Mainframe |      |
|---|--------------|------|-----------|------|
|   | Min.         | Max. | Min.      | Max. |
| Fibre Channel (4 ports supporting FC protocol at 1Gb/s or 2Gb/s)                      | 8            | 32   | -         | -    |
| Fibre Channel (12 ports supporting FC protocol at 1Gb/s)                              | 24           | 96   | -         | -    |
| Ultra/Ultra2 SCSI (4 ports supporting Ultra SCSI (40MB/s) or Fast/Wide SCSI (20MB/s)) | 8            | 32   | -         | -    |
| FICON (2 ports supporting FICON at 1Gb/s)   | -            | -    | 4         | 16   |
| ESCON (4 ports)   | -            | -    | 8         | 32   |

Note: Mixed ESCON, FICON, Ultra/Ultra 2 SCSI, and Fibre Channel interfaces are supported.

ESP software is required to run ESCON or FICON mixed with SCSI and/or Fibre Channel interfaces.

### Disk Emulation

| 8830             | Open Systems | 3380K   | 3390-1  | 3390-2  | 3390-3  | 3390-9  | 3390-27 |
|------------------|--------------|---------|---------|---------|---------|---------|---------|
| MB/Volume        | 15,979*      | 1,891   | 946     | 1,892   | 2,838   | 8,514   | 27,845  |
| Bytes/Track      | 32,768       | 47,476  | 56,664  | 56,664  | 56,664  | 56,664  | 56,664  |
| Bytes/Cylinder   | 491,520      | 712,140 | 849,960 | 849,960 | 849,960 | 849,960 | 849,960 |
| Cylinders/Volume | 32,510*      | 2,655   | 1,113   | 2,226   | 3,339   | 10,017  | 32,760  |

\*Values represent maximum figures for each configuration.

## Hyper-Volume Extension (HVE)

|                                  | Open Systems |       |       | Mainframe |        |          |          |          |           |
|----------------------------------|--------------|-------|-------|-----------|--------|----------|----------|----------|-----------|
|                                  | 2GB**        | 4GB** | 9GB** | 3380K**   | 3390-1 | 3390-2** | 3390-3** | 3390-9** | 3390-27** |
| <b>Emulation Mode*</b>           |              |       |       |           |        |          |          |          |           |
| <b>36 GB drives</b>              |              |       |       |           |        |          |          |          |           |
| Maximum Complete Logical Volumes | 18           | 9     | 4     | 18        | 37     | 18       | 12       | 4        | 1         |
| <b>73 GB drives</b>              |              |       |       |           |        |          |          |          |           |
| Maximum Complete Logical Volumes | 36           | 18    | 8     | 36        | 64     | 38       | 25       | 8        | 2         |
| <b>146 GB drives</b>             |              |       |       |           |        |          |          |          |           |
| Maximum Complete Logical Volumes | 64           | 36    | 16    | 64        | 64     | 64       | 50       | 16       | 4         |
| <b>181 GB drives</b>             |              |       |       |           |        |          |          |          |           |
| Maximum Complete Logical Volumes | 64           | 45    | 20    | 64        | 64     | 64       | 62       | 21       | 6         |

Hyper-Volume Extension provides the ability to configure a single physical disk device as multiple logical volumes in logical-to-physical relationships ranging from 1:1 to 64.

\* A single physical disk device can support multiple model types within a single data format emulation mode.

\*\* This emulation mode provides additional space on the physical disk device for use as either a lower than full capacity logical volume for the specified emulation mode, or as a different, smaller model type within the same emulation mode.

## Available Software\*

|                                |  |  |
|--------------------------------|--|--|
| <b>Platform Software</b>       | Double Checksum<br>InfoMover<br>SRDF/Data Mobility<br>TimeFinder   | Enterprise Storage Platform (ESP)<br>Symmetrix Remote Data Facility (SRDF)<br>Symmetrix Data Migration Services (SDMS)             |
| <b>Intelligent Supervision</b> | ControlCenter Automated Resource Manager<br>ControlCenter StorageScope<br>ControlCenter Symmetrix Manager<br>ControlCenter Symmetrix Optimizer | ControlCenter SAN Manager<br>ControlCenter Common Array Manager<br>ControlCenter Workload Analyzer<br>ControlCenter Database Tuner |
| <b>Information Safety</b>      | EMC Data Manager (EDM)<br>ControlCenter Symmetrix Data Mobility Manager<br>CopyCross   | EMC Replication Manager<br>ControlCenter SRDF/TimeFinder Manager   |
| <b>Infrastructure Services</b> | GeoSpan Family<br>ResourcePak for Windows  | PowerPath  |

\* Contact your EMC sales representative for software license model numbers, prerequisites, and additional information.

## Interoperability Support

Symmetrix systems support all popular hardware and operating system platforms, storage area networks (SANs), and high-availability cluster environments. Refer to the EMC Support Matrix on EMC.com or contact your local EMC sales representative for specific configuration support.

## Physical Specifications\*

| Height** (in/cm) | Width (in/cm) | Depth (in/cm) | Front Service Area (in/cm) | Rear Service Area (in/cm) |
|------------------|---------------|---------------|----------------------------|---------------------------|
| 74.9/190.3       | 68.7/174.5    | 36.4/92.5     | 48.0/122.0                 | 36.0/91.5                 |

\*\*An additional 18 inches (45.7cm) is required for ceiling/top clearance.

## Weight\*

| Physical Drives | 32        | 64        | 96        | 128       | 160       | 192       | 224       | 256       | 320       | 384       |
|-----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Weight (lb/kg)  | 2459/1118 | 2580/1173 | 2702/1228 | 2823/1283 | 2945/1339 | 3067/1394 | 3188/1449 | 3310/1505 | 3553/1615 | 3796/1725 |

## Power and Cooling Data\*

| Physical Drives           | 32     | 64     | 96     | 128    | 160    | 192    | 224    | 256    | 384    |
|---------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Power Consumption (kVA)   | 4.44   | 5.30   | 6.16   | 7.03   | 7.89   | 8.76   | 9.62   | 10.48  | 14.00  |
| Heat Dissipation (Btu/hr) | 15,153 | 18,088 | 21,024 | 23,993 | 26,928 | 29,897 | 32,833 | 35,768 | 47,782 |

## Power Specifications

|                              | North America   | International    |
|------------------------------|---|------------------|
| Input Voltage (VAC)          | 208/240 (240 is optimal)  | Country Specific |
| Frequency (Hz)               | 60, three phase, four wire  | Country Specific |
| Circuit Breaker (Amps), max. | 50  | Country Specific |
| Power Connector              | (2) Russellstoll 9P54U2   | Country Specific |
| User Connector               | (2) Russellstoll 9C54U2 (flex)<br>(2) Russellstoll 9R54U2W (rigid)  | Country Specific |
| Auto-Call Modem Requirements | The Auto-Call modem requires connection to a 110VAC power source at 60Hz through a NEMA 5-15R receptacle. International installations are country specific. |                  |

## Environmental Specifications (operating)

|                              |                 |
|------------------------------|-----------------|
| Temperature (°F/°C)          | 50–90°F/10–32°C |
| Altitude (ft/m), max.        | 8,000/2,500     |
| Humidity (%), non-condensing | 20-80           |
| Raised Floor                 | Required        |

\*Values represent maximum figures for each configuration.



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Specification Sheet  
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