



RAID systems are indispensable when high storage capacity and/or high availability is required. EUROstor offers a variety of different products to match specific customer needs.

ES-8200 RAID systems support SAS disks as well as SATA disks, and can even run with both disk types at the same time. Thus applications such as databases that need fast storage with high I/O rates can run on RAID sets based on 15.000 rpm SAS drives, whereas applications that need high capacity for archiving or backup to disk will run on lower cost SATA disks.

SAS disks offer the same performance and quality as Fibre Channel or parallel SCSI disks – in fact there is no difference at all except for the interface module. The advantage over the latter is that they use a backplane that is compatible to SATA disks, which allows mixing SAS and SATA within the same enclosure. Dual controller systems come with MUX boards in all SATA canisters.

But also if only SATA disks will be used in the RAID system, the internal SAS technology is a big advantage: all ES-8200 RAID systems are expandable. JBODs can be attached through a SAS expansion port, thus offering more capacity on the same RAID controller. And high capacity is what is needed for most archiving or backup applications, typically using SATA drives.

ES-8200 systems can also be expanded at a later time. Then, either an additional new RAID set can be created on the JBOD or existing RAID sets can be expanded, offering the new capacity in additional volumes.

Like all EUROstor RAID systems, ES-8200 RAID systems can be managed over a password protected web interface. The systems can be attached to all standard Windows, Linux and Unix operating systems. They don't require any additional software or API.

Systems with SAS interface require a SAS host adapter.

ES-8200:

- 12/16 **SAS or SATA-II** hard discs and expansion box
- Disc size up to **2 TB (SATA) and 600 GB (SAS)**
- RISC PowerPC CPU on ASIC400 Infortrend Controller
- single or dual (redundant) controller
- OS independent
- 512 MB Cache (optional up to 2 GByte) per Controller
- Battery backup with dual controller, otherwise optional
- 2 x SAS Host Interface (4x3Gbit)
- **RAID 6 Support**
- RAID Level 0, 1, 0+1, 3, 5, 6, 10, 30, 50, 60, NRAID
- logical drives with different RAID levels
- local and global hot spare disks
- Redundant PSUs and fans
- monitoring of fan rotation, temperature and voltage
- RAIDwatch Management via web browser (Ethernet Port)

Service:

- 3 years warranty (1 year on BBUs)
- free support (telephone or email)
- optional: 3/5 years Advance Exchange Service
- optional: 3/5 years On Site Service
- optional: On Site Installation

Model	ES-8212xX-SAE	ES-8216xX-SAE
Single Controller	ES-8212SX-SAE	ES-8216SX-SAE
Redundant Controller	ES-8212RX-SAE	ES-8216RX-SAE
Discs	12	16
Expandable	yes (12-bay chassis, SAS)	yes (16-bay chassis, SAS)
Host Interface	each Controller 2x SAS 3 Gbit (x4)	
RAID Architecture	<ul style="list-style-type: none"> • PowerPC 750FX, 600 MHz, RISC CPU • Standard 512 MB Cache DDR SDRAM with ECC (optional up to 2 GB) • 32 KB NVRAM with RTC (Real Time Clock) 	
Internal Bus	ASIC400 (3x 133 Mhz)	
RAID Level	0, 1 (0+1), 3, 5, 6, 10, 30, 50, 60, NRAID	
RAID 6 Support	yes	
RAID Features	<ul style="list-style-type: none"> • multiple array configuration • hot-spare drives (local or global) • automatic replacement of hot-spare drives and background rebuild • online capacity expansion • intelligent drive handling • disk cloning • all RAID configuration saved on the disks 	
Rack mount	2 U	3U
Discs Interface	SAS and SATA-II over backplane	
Battery Backup for Cache	Included for redundant controller, otherwise optional	
RAID Management	<ul style="list-style-type: none"> • web browser based RAID Manager (embedded RAIDwatch), 10/100 Mbit Ethernet Port • RAID Manager also over serial RS-232 port and LCD display 	
Monitoring	<ul style="list-style-type: none"> • monitoring over web browser based RAID Manager • system status over LCD, LED and beeper • email notification / SNMP 	
OS	transparent	
PSU	2x 405 Watt PFC, redundant	2x 530 Watt PFC, redundant
Temperature	Operating: 0 – 40 °C	
relative humidity	5% - 95% non-condensing	