BOSCH

Invented for life

DVSA Premium Series Digital Video Storage Array

▸ **Preconfigured RAID 5 protection with up to 7.5 Terabytes of video storage (DVA-16K-16050RA) or 15 Terabytes (DVA-16K-16100RA)**

▸ **Eight or sixteen bays for hot-swappable 3 Gbps SATA-II hard disk drives**

▸ **Redundant hot-swappable power supplies and dual-host capability for two DVRs**

▸ **DVSA management using Bosch RAIDWatch GUI**

▸ **Dual SCSI U-320 interface**

▸ **Modular design for simple service**

▸ **2 and 3 HU 19" rack mount chassis**

The DVSA Premium series, Bosch Digital Video Storage Array, is built for the security industry's most demanding digital video storage applications, providing high capacity, unlimited flexibility and unmatched reliability.

Functions

Bosch DVSA satisfies the ever increasing demands of CCTV for video – high speed recording, high performance playback, uninterruptable reliability and massive capacities. With complete RAID 5 protection and SATA-II hard drives, it is ideally suited for when the highest level of data availability is demanded.

The "Premium" models are fully featured RAID 5 disk arrays. With the focus on nonstop reliabillity all critical components (including the drive trays, power supply units and cooling modules) are hot-swappable within the cableless modular chassis.

Bosch DVSA "Premium"models are also designed for expansion. Dual-stack connectors allow for daisy-chaining the disk arrays for when extremely large capacities are required per DVR or NVR. Alternatively 2 DVRs can share a single DVSA disk array using the dual-host capacity, which improves the cost-effectiveness of the RAID-based solution.

In the event of failure, the Bosch Digital Video Storage Array sounds an audible alarm to notify a user. The units also ensure that system managers are constantly updated on status via a choice of channels, including email, fax, LAN broadcast, SNMP traps, MSN Messenger and SMS messages. The choice of channel depends on the infrastructure in place and user preferences.

Up to 8 or 16 SATA-II drive channels are routed through the backplane board to the lockable drive trays installed on the front panel of the Bosch DVSA. The completely cableless, backplane-based design eliminates problems associated with cable connections and offers a higher level of serviceability.

Bosch DVSA supports multiple RAID configurations, each with distinct write policy, stripe size and optimization modes. Hot rebuild and numerous fault correction mechanisms ensure the highest standard of RAID protection. Each unit has a battery backup unit (BBU) installed to prevent data loss during a power failure. Combined with comprehensive firmware features, the Bosch Digital Video Storage Arrays ensure maximum reliability and exceptional data availability in today's data intensive video storage environments.

A highly reliable storage solution is assured by factory burn-in procedures and extensive selection process for hard disk drives, covered by the Bosch 3 year warranty program.

Note for ordering:

The appropriate SCSI connection cable and the Diskarray cabinet slider must be ordered separately.

Certifications and Approvals

Region	Certification	
Europe	CE	DVA-08K
		DVA-16K

Installation/Configuration Notes

DVSA rear view

The Bosch RAIDWatch Manager is a Java-based RAID management software that provides a user-friendly graphical interface for configuring and monitoring RAID systems. The program is specifically designed to manage Bosch DVSA.

Bosch RAIDWatch simplifies the otherwise complicated process of array configuration, giving system integrators a wide range of convenient RAID management options. The Bosch DVSA is equipped with an Ethernet port for local and remote management. The software gives system administrators fingertip control to instantly deploy, configure, manage and monitor multiple storage subsystems at local or remote locations. The "Install Once, Run Anywhere" convenience saves time and ensures continuous operation. With WAN/LAN support an operator can manage multiple Bosch DVSA from a single workstation.

Technical Specifications

Electrical

Model No.	No. of Hard Drives	Voltage Range	Operating Power*
DVA-08K-04050RA	4x 500 GB	120/240 VAC, 50/60 Hz	350 W (1197 BTU/hour)
DVA-08K-04100RA	4x 1 TB	120/240 VAC, 50/60 Hz	350 W (1197 BTU/hour)
DVA-08K-08050RA	8x 500 GB	120/240 VAC, 50/60 Hz	350 W (1197 BTU/hour)
DVA-08K-08100RA	8x 1 TB	120/240 VAC, 50/60 Hz	350 W (1197 BTU/hour)
DVA-16K-08050RA	8x 500 GB	120/240 VAC, 50/60 Hz	460 W (1573 BTU/hour)
DVA-16K-08100RA	8x 1 TB	120/240 VAC, 50/60 Hz	460 W (1573 BTU/hour)
DVA-16K-16050RA	16x 500 GB	120/240 VAC, 50/60 Hz	460 W (1573 BTU/hour)
DVA-16K-16100A	16x 1 TB	120/240 VAC, 50/60 Hz	460 W (1573 BTU/hour)

*Power is based on the unit's maximum operating conditions.

Peak Current	DVA-08K: 6 A / 115 VAC or 3 A / 230 VAC
	DVA-16K: 10 A / 115 VAC or 5 A / 230 VAC

Accessories

Required cables (not supplied with the array)	
DiBos	DVA-ACON-HD68A
Divar	DVA-ACON-HD50A
NVR	DVA-ACON-VD68A

Required every year (1 preinstalled in the array)	
Battery backup	DVA-SBBK-00A

The DVSA includes a controller board, power supply, and a specified number of hard disks. Additional accessories are optional, for redundancy, hot spare or installation. For installation into a rack, a slider rail must be used.

Item	Type #
Hard Disk assembly (500 GB)	DVA-ADTK-050A
Hard Disk assembly (1 TB)	DVA-ADTK-100A
Loop-through cable (0.5 m)	DVA-ACON-VD680A
Power supply 8 bay array	DVA-SPKK-08A
Power supply 16 bay array	DVA-SPKK-16A

Item	Type #
Fan module 8 bay array	DVA-SFAK-08A
Fan module 16 bay array	DVA-SFAK-16A
Dual channel SCSI controller 8 bay array	DVA-SCDK-08A
Dual channel SCSI controller 16 bay array	DVA-SCDK-16A
Slider rail for cabinet 533 mm to 724 mm, 8 Bay	DVA-ASRK-28A
Slider rail for cabinet 647 mm to 900 mm, 8 Bay	DVA-ASRK-36A

Item	Type #
Slider rail for cabinet 521 mm to 812 mm, 16 Bay	DVA-ASRK-32A
Slider rail for cabinet 600 mm to 900 mm, 16 Bay	DVA-ASRK-35A

Compatible Bosch Video Servers

DiBos

Divar

NVR

Mechanical

Connectors

Power	IEC Male
RS-232 (Serial) Port	3.5 mm jack with included adapter cable (from 3.5 mm plug to 9 Pin Female Sub-D and 9 Pin Male to Female Null Modem Adapter), for upgrade and service
Host Ports	2x manual-terminating, Ultra SCSI-320
Loop-through	2x Ultra SCSI-320 Divar: Connect max. 2 arrays DiBos / NVR: Connect max. 3 arrays
Network	RJ45, Ethernet 10/100 Base-T compatible

Dimensions (WxHxD)

8 bay Array	446 x 88 x 490 mm 17.6 x 3.5 x 19.3 in.
16 bay Array	445 x 130 x 488 mm 17.6 x 5.1 x 19.3 in.

Weight

8 bay Array	32.5 kg, (71.6 lb) approx.
16 bay Array	46 kg, (101.4 lb) approx.

Environmental

Operating Temperature	0°C to 40°C (32°F to 104°F)
Relative Humidity	5% to 95% non condensing
Electromagnetic Compatibility (EMC)	Complies with FCC and CE Regulations
Product Safety	CE, UL, CB, EN, and IEC
Warranty (excl battery)	3 years
Warranty battery back-up unit	1 year

Ordering Information

DVA-08K-04050RA SCSI Diskarray 8-bay 4 HDD, 2 TB	**DVA-08K-04050RA**
DVA-08K-04100RA SCSI Diskarray 8-bay 4 HDD, 4 TB	**DVA-08K-04100RA**
DVA-08K-08050RA SCSI Diskarray 8-bay 8 HDD, 4 TB	**DVA-08K-08050RA**
DVA-08K-08100RA SCSI Diskarray 8-bay 8 HDD, 8 TB	**DVA-08K-08100RA**
DVA-16K-08050RA SCSI Diskarray 16-bay 8 HDD, 4 TB	**DVA-16K-08050RA**
DVA-16K-08100RA SCSI Diskarray 16-bay 8 HDD, 8 TB	**DVA-16K-08100RA**
DVA-16K-16050RA SCSI Diskarray 16-bay 16 HDD, 8 TB	**DVA-16K-16050RA**
DVA-16K-16100RA SCSI Diskarray 16-bay 16 HDD, 16 TB	**DVA-16K-16100RA**

Accessories

DVA-ACON-HD50A Divar SCSI cable 0.5 m, HD50-VHDCI plug	**DVA-ACON-HD50A**
DVA-ACON-HD68A DiBos SCSI cable 1 m, HD68-VHDCI plug	**DVA-ACON-HD68A**
DVA-ACON-VD68A NVR SCSI cable 1 m, VHDCI-VHDCI plug	**DVA-ACON-VD68A**
DVA-ACON-VD680A Loop through SCSI cable 0.5 m, VHDCI-VHDCI plug	**DVA-ACON-VD680A**
DVA-SBBK-00A Battery Backup Unit	**DVA-SBBK-00A**
DVA-ADTK-050A Diskarray HDD expansion, 500 GB	**DVA-ADTK-050A**
DVA-ADTK-100A Diskarray HDD expansion, 1 TB	**DVA-ADTK-100A**
DVA-SPKK-08A PSU for 8-bay Premium Diskarray, 350 W	**DVA-SPKK-08A**
DVA-SPKK-16A PSU for 16-bay Premium Diskarray, 460 W	**DVA-SPKK-16A**
DVA-SFAK-08A Diskarray Fan Module for 8- and 12-bay	**DVA-SFAK-08A**

Ordering Information

DVA-SFAK-16A Diskarray Fan Module
for 16-bay
DVA-SFAK-16A

DVA-SCDK-08A Diskarray Controller
for DVA-08K
DVA-SCDK-08A

DVA-SCDK-16A Diskarray Controller
for DVA-16K
DVA-SCDK-16A

DVA-ASRK-28A Diskarray Cabinet Slider
for DVA-08 and DVA-12, 533 mm - 724 mm/
21 in. - 28.5 in.
DVA-ASRK-28A

DVA-ASRK-32A Diskarray Cabinet Slider
for DVA-16, 610 mm - 813 mm/24 - 32 in.
DVA-ASRK-32A

DVA-ASRK-36A Diskarray Cabinet Slider
for DVA-08 and DVA-12, 647 mm - 914 mm/
25.5 in. - 36 in.
DVA-ASRK-36A

DVA-ASRK-35A Diskarray Cabinet Slider
for DVA-16, 660 - 914 mm/26 - 36 in.
DVA-ASRK-35A