

# DIVAR IP 7000 3U

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Invented for life



- ▶ RAID-5 protected (standard configuration), all-in-one video management solution for up to 128 channels
- ▶ Out-of-the-box IP video management solution with up to 64 TB storage capacity
- ▶ Robust, secure operation - instant real time access to video
- ▶ Instantly find what you are looking for
- ▶ Advanced user and alarm management

The DIVAR IP 7000 family is an affordable, simple and reliable all-in-one recording, viewing and management solution for network surveillance systems of up to 128 channels (with 32 channels pre-licensed). Running the full Bosch VMS (Video Management System) solution and powered by VRM Video Recording Manager software from Bosch, DIVAR IP 7000 is an intelligent IP storage device that eliminates the need for separate NVR (Network Video Recorder) server and storage hardware, reducing the total cost of ownership by as much as 45%. DIVAR IP 7000 3U is a 3HU rack mount unit that combines advanced management and state-of-the-art recording management into a single cost-effective, plug-and-play IP recording appliance for IT-minded customers.

## System overview

The DIVAR IP 7000 family utilizes an energy efficient, embedded design which reduces possible points of failure and boasts Bosch quality through-and-through. Utilizing “enterprise-rated” hard drives in a fault tolerant RAID-5 configuration, dual port Gigabit Ethernet network interface, 8 GB system memory and an Intel Xeon Quad Core Processor, the device delivers high-end performance at a very affordable price.

Easy to install and operate, the system features wizard-based set-up and centralized configuration. All components are pre-installed and pre-licensed. Simply connect to the network and power the unit up - DIVAR IP is ready to begin recording straight out of the box. Bosch Video Management System manages all IP and digital video and audio, plus all the security data being transmitted across your IP network. It seamlessly combines IP cameras and encoders, provides system-wide event and alarm management, system health monitoring, user and priority management.

## Functions

DIVAR IP 7000 3U features highly energy-efficient hot-swap redundant power supplies, as well as front-swappable SATA-3 hard drives providing up to 64 TB of gross storage capacity. All system software is pre-installed and pre-activated – creating an out-of-the-box ready-to-use video management appliance. It utilizes Microsoft Windows Storage Server 2012 R2.

### Instant real time access to video

View high quality HD and even UHD video despite low or limited bandwidth connections.

Dynamic Transcoding technology ensures you can view your video immediately - anytime, anywhere.

The built-in transcoder supports up to 4 x UHD resolution video streams in parallel.

### Management

Once booted up the system will offer immediate access to the Bosch VMS management application via a customized GUI. The ability to use one central GUI for configuration and operation management reduces installation and training requirements, and helps keep ongoing system management costs low.

### Remote viewing

For remote viewing of a single DIVAR IP system, Bosch VMS Operator Client is included. For multiple systems, add them to Bosch VMS Enterprise Management Server.

Alternatively, use Video Security Client for viewing video from a separate workstation or mobile device.

### IT Management

Microsoft Windows Storage Server 2012 R2 provides a simple, intuitive user interface for system configuration and unified appliance management. Administrators and IT professionals will appreciate the ability to manage DIVAR IP 7000 using the built-in Microsoft System Center Suite. The ability to use one central tool for configuration and operations management reduces installation and training requirements, and helps keep ongoing system management costs low.

In addition, DIVAR IP 7000 offers advanced monitoring and management options using the Intelligent Platform Management Interface (IPMI).

### Monitoring

The DIVAR IP 7000 family provides SNMP, Remote Desktop and HTTP monitoring support for the system's hardware and for the video management applications.

Increased reliability of high-availability hardware, embedded design as well as system-wide monitoring and management ensure maximum uptime.

### Bosch quality

Bosch subjects all its products to the most comprehensive and rigorous battery of quality endurance tests in the industry. Our recording products are subjected to extreme temperatures, voltages and vibrations to determine reliable operating limits, so you can be assured of long-term reliable operation. And Bosch firmly stands behind every product it sells with an end-to-end 3 year warranty backed by technical support.

### Certifications and approvals

Region	Certification	
Europe	CE	DIVAR IP 7000 (R2)
USA	UL	DIVAR IP 7000 (R2)

### Installation/configuration notes

DIVAR IP 7000 3U comes pre-configured in a RAID-5 standard configuration with iSCSI LUNs (fully populated system only) and provides the following specifications:

#### RAID-5 configuration

Gross Capacity	Net Capacity	Bandwidth*	IP Cameras
w/o HDD	n/a	475 Mbit/s	32+ pre-licensed / 128+ max.
16 x 3 TB	41885 GB	475 Mbit/s	32+ pre-licensed / 128+ max.
16 x 4 TB	55860 GB	475 Mbit/s	32+ pre-licensed / 128+ max.

\*Performance only warranted with hard drive models tested and qualified by Bosch

These values refer to the Bosch VMS recording engine; Net capacity for a RAID-5 configuration without hot spare; 32+/128+ connected IP cameras indicate the number of concurrent recordable cameras plus 8 sessions for replay.

Optional supported RAID configurations are RAID-5 with 1 x hot spare or RAID-6 without hot spare. The optional RAID configurations will not come pre-configured but must be set up manually via the pre-installed RAID configuration utility.

#### RAID-5 plus hot spare configuration

Gross Capacity	Net Capacity	Bandwidth*	IP Cameras
w/o HDD	n/a	475 Mbit/s	32+ pre-licensed / 128+ max.
16 x 3 TB	39102 GB	475 Mbit/s	32+ pre-licensed / 128+ max.
16 x 4 TB	52136 GB	475 Mbit/s	32+ pre-licensed / 128+ max.

\*Performance only warranted with hard drive models tested and qualified by Bosch

#### RAID-6 configuration

Gross Capacity	Net Capacity	Bandwidth*	IP Cameras
w/o HDD	n/a	475 Mbit/s	32+ pre-licensed / 128+ max.
16 x 3 TB	39102 GB	475 Mbit/s	32+ pre-licensed / 128+ max.
16 x 4 TB	52136 GB	475 Mbit/s	32+ pre-licensed / 128+ max.

\*Performance only warranted with hard drive models tested and qualified by Bosch

Storage may be increased by adding up to 4 DIVAR IP 6000 units as expansion.

DIVAR IP 7000 may be upgraded with 8-channel licenses (MBV-XCHAN-DIP) to up to 64 channels using the standard base license (pre-installed).

It can be upgraded to 128 channels by additionally purchasing the extension base license (MBV-BXPAN-DIP) plus the respective 8-channel licenses (MBV-XCHAN-DIP).

For the standard systems please note the number of pre-installed licenses and the upper limit of each:

	Pre-installed licenses	Upper limit
Workstation clients	5	10
DVR/BRS systems	1	10
CCTV keyboards	1	10
Forensic Search clients	5	10
Mobile video service	1	2
Intrusion Panels	0	10
ATM/POS data	enabled	-

For further information, under **Ordering information** see **Software Options**.



#### Notice

Uninterruptable Power Supply (UPS). We strongly recommend using an "Online UPS" with an always active battery. The UPS must support Windows Storage Server 2012 R2 and must be sufficient to allow time to bring an auxiliary power source on line, or to properly shut down the DIVAR IP disk array(s).



#### Notice

Bosch is not liable for system failures of units equipped with third-party hard drives if the third-party hard drives are source of the issues. Such drives are not covered by the 3 years warranty.

### Parts included

Qty.	Component
1	DIVAR IP 7000 3U
1	Quick Installation Guide
2	Power cords
2	Recovery DVDs
1	Keyboard EN-US
1	Standard mouse
1	Mini-DP to DVI adapter
1	Mini-DP to VGA adapter

Processor	
Processor	Intel Xeon Processor E3-1275 V3 (8 MB Cache, 3.5 GHz)
Socket	1
Cache memory	8 MB Intel Smart Cache
Memory protection	ECC unbuffered
Max front side bus	1600 MHz

Memory	
Memory installed	8 GB, DDR3-1666 ECC UNB (1 x 8 GB)

Storage	
Storage Type	16 Trays: 3.5-inch SATA

Hard Drives Installed	
• Data	SATA-3, 7200 RPM, 64 MB, 3.5", RAID-5 configuration (default) DIP-71F3-16HD: 16 x 3 TB DIP-71F4-16HD: 16 x 4 TB DIP-71F0-00N: w/o HDD
• OS	2 x 120 GB SSD RAID-1 configuration
SAS RAID Card	8 ports LSI 3108 SAS3 controller
Graphics card	AMD FirePro W4100; 4 x Mini Display Port
Sound card	5.1 Channel 24-bit
DVD writer	Internal

System status	
DIVAR IP 7000 comes fully loaded and fully functional with Microsoft Operating System and Bosch applications: Windows Storage Server 2012 R2, 64-bit; Bosch Video Management System; Bosch Video Recording Manager including Video Streaming Gateway; Dynamic Transcoding.	

DIVAR IP 7000 without pre-installed hard drives:  
The RAID configuration of third-party data hard drives must be set up manually via the pre-installed RAID management utility. Only after this manual RAID configuration the system provides full functionality.

### Technical specifications

Electrical	
AC input rating	100 to 240 V / 50 to 60 Hz
Electrical 140 VAC input	
Input current	3.3 A
Actual output wattage from power supply	413.9 W
Efficiency of power supply	92%

Electrical 140 VAC input	
Power consumption*	449.9 W
Total BTU/h	1535.4
Power factor	0.98
System AC input VA requirement	459.0 VA

\*System power consumption may vary based on workload and environment

Electrical 240 VAC input	
Input current	1.9 A
Actual output wattage from power supply	413.9 W
Efficiency of power supply	94%
Power consumption*	440.3 W
Total BTU/h	1502.7
Power factor	0.96
System AC input VA requirement	458.6 VA

\*System power consumption may vary based on workload and environment

Mechanical	
Form factor	3HU rack mount
Power supply	1200 W Platinum Level Redundant
USB ports	Front: 2 USB 2.0 ports Rear: 2 USB 2.0 ports, 2 USB 3.0 ports
Network	Dual Intel i210AT Gigabit LAN (teamed) 1 IPMI BMC port
Dimensions (H x W x D)	132 x 437 x 648 mm (5.2 x 17.2 x 25.5 in)
Weight	32.7 kg (72 lb)

Environmental	
Operating temperature	+10 °C to +35 °C (+50 °F to +95 °F)
Non-operating temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Operating relative humidity	8 to 90% (non-condensing)
Non-operating relative humidity	5 to 95% (non-condensing)

## Ordering information

### DIVAR IP 7000 3U, 16 x 3 TB HDD

All-in-one recording, viewing and management solution for network surveillance systems.

Up to 128 channels; 16 x 3 TB storage capacity

Order number **DIP-71F3-16HD**

### DIVAR IP 7000 3U, 16 x 4 TB HDD

All-in-one recording, viewing and management solution for network surveillance systems.

Up to 128 channels; 16 x 4 TB storage capacity

Order number **DIP-71F4-16HD**

### DIVAR IP 7000 3U, w/o HDD

All-in-one recording, viewing and management solution for network surveillance systems.

Up to 128 channels; w/o HDD

Order number **DIP-71F0-00N**

## Accessories

### DIVAR IP 6000/7000 Storage Expansion 3 TB

3 TB HDD

Order number **DIP-6703-HDD**

### DIVAR IP 6000/7000 Storage Expansion 4 TB

4 TB HDD

Order number **DIP-6704-HDD**

## KBD-Universal XF

USB CCTV-oriented keyboard for use with Bosch Video Management System, BIS - Video Engine, or DIVAR IP systems.

Order number **KBD-UXF**

## Software Options

### DIVAR IP Professional Edition

Base expansion, 128 channels max

Order number **MBV-BXPAN-DIP**

### DIVAR IP 8-Channel Expansion

8-channel expansion (cameras/decoders)

Order number **MBV-XCHAN-DIP**

### DIVAR IP Workstation Expansion

1 workstation expansion

Order number **MBV-XWST-DIP**

### DIVAR IP DVR Expansion

1 DVR expansion

Order number **MBV-XDVR-DIP**

### DIVAR IP CCTV Keyboard Expansion

1 keyboard expansion

Order number **MBV-XKBD-DIP**

### DIVAR IP Forensic Search Expansion

1 Forensic Search expansion; you need one license per storage device, not per camera or encoder

Order number **MBV-XFOR-DIP**

### DIVAR IP Mobile Video Service Expansion

Mobile video service expansion

Order number **MBV-XMVS-DIP**

**DIVAR IP Intrusion Panel Expansion**

1 intrusion panel expansion

Order number **MBV-XINT-DIP**

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**DIVAR IP Allegiant Matrix Connection**

Allegiant license

Order number **MBV-FALG-DIP**

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**DIVAR IP OPC Server Connection for BIS**

OPC server license

Order number **MBV-FOPC-DIP**

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