

DIVAR IP all-in-one 6000



- ▶ RAID-5 protected (standard configuration), all-in-one, fully featured BVMS-based video recording and management solution for up to 64 channels
- ▶ Out-of-the-box IP video recording with up to 72 TB (4 x 18 TB) storage capacity pre-installed
- ▶ Robust, secure operation — instant real time access to video
- ▶ BVMS-based advanced user and alarm management
- ▶ DIVAR IP System Manager for operation mode selection, software setup and upgrades

DIVAR IP all-in-one 6000 is an affordable and easy to use all-in-one recording, viewing, and management solution for network surveillance systems of up to 64 channels (with 8 channels pre-licensed).

DIVAR IP all-in-one 6000 is a 1U rack mount unit that combines advanced Bosch Video Management System capabilities and state-of-the-art recording management into a single cost-effective, convenient to install and operate recording device for IT-minded customers.

System overview

DIVAR IP all-in-one 6000 devices utilize a highly energy efficient embedded design.

Easy to install and operate, DIVAR IP all-in-one 6000 systems feature wizard-based set-up and centralized configuration.

Operation modes

DIVAR IP all-in-one 6000 systems can operate in three different modes:

- Full video recording and management system, utilizing the BVMS and Video Recording Manager core components and services. This mode provides an advanced IP video security solution that delivers seamless management of digital video, audio and data across an IP network. It seamlessly combines IP cameras and encoders, provides system-wide event and alarm

management, system health monitoring, user and priority management. This mode provides the best video management system to go with Bosch video surveillance devices, leveraging the unique capabilities of Bosch cameras and recording solutions. It includes Video Streaming Gateway components to integrate third-party cameras.

- Advanced video recording solution for a BVMS system, utilizing the Video Recording Manager core components and services, leveraging the unique capabilities of Bosch cameras and recording solutions. Up to two Video Recording Manager servers can be added to a BVMS system running on a DIVAR IP all-in-one device.
- iSCSI storage expansion for a BVMS system, which runs on a different hardware. Up to four of these iSCSI storage expansions can be added to a BVMS system running on a DIVAR IP all-in-one 6000 device.

Functions

DIVAR IP all-in-one 6000 utilizes embedded design and core components, and is based on the operating system Microsoft Windows Server IoT 2022 for Storage Workgroup. DIVAR IP all-in-one 6000 features “enterprise-rated” hot-swappable SATA hard drives, providing up to 72 TB of gross storage capacity.

Ease of installation

Once started, the system will offer installation of the DIVAR IP System Manager application, which will guide you through the operation mode selection. Latest software packages can be installed in one step. The system features wizard-based BVMS set-up and configuration to begin recording after just a few simple steps.

Management and health monitoring

DIVAR IP System Manager provides a central user interface for operation mode selection and for software setup and upgrade, which reduces installation and training requirements and keeps ongoing system management costs low.

When DIVAR IP all-in-one is connected to the Bosch Remote Portal, Remote System Management service allows to leverage the power of the Internet of Things (IoT) to provide an easy-to-use set of tools and capabilities for secure, transparent and cost-effective asset management throughout the life cycle of a device or system. This service enables users to perform inventory and update management, as well as health monitoring tasks for an entire system from one centralized Remote Portal platform.

The DIVAR IP all-in-one 6000 devices provide SNMP monitoring support for the system's hardware and for the video management applications to ensure maximum uptime.

BMC (IPMI) controller operating via dedicated Ethernet LAN port allows the user to access, monitor, diagnose, and manage DIVAR IP all-in-one 6000 as a remote server.

Instant real time access to video

View high quality HD or UHD video despite low or limited bandwidth connections. Dynamic Transcoding technology ensures you can view your video immediately — anytime, anywhere.

Dynamic Transcoding decodes and re-encodes the data stream to a lower rate bit stream tailored to the bandwidth of the connection.

When the video is paused, the instant detail enhancement feature instantly displays the full resolution video.

DIVAR IP all-in-one 6000 supports transcoding of up to four 4K UHD 30fps streams.

Remote viewing

For remote viewing of a single DIVAR IP all-in-one system, BVMS Operator Client is included. For multiple systems, add them to BVMS Enterprise Management Server.

Alternatively, use Video Security App for remote viewing from mobile devices.

Regulatory information

Certifications/Directives	CB, UL, CE, UKCA, FCC, VCCI, RCM, KC, BSMI, SABS, NRCS LOA, RoHS, WEEE, China RoHS, BIS, NDAA, TAA
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Region	Regulatory compliance/quality marks	
Great Britain	UKCA	DIVAR IP all-in-one 6000
Morocco	CMIM	DIVAR IP all-in-one 6000
Global	IEC 62443	Industrial Cyber Security Capability
Europe	CE	DIVAR IP all-in-one 6000

Installation/configuration notes



Notice

Environmental conditions

Install the system in a clean, dust-free, dry and weather-protected area that is well ventilated. Avoid areas where heat, electrical noise and electromagnetic fields are generated.

The standard warranty coming with the system will be void if evidence is seen that the system was exposed to conditions contradicting the environmental conditions mentioned here.

Configuration of new hard drives

DIVAR IP all-in-one units that come pre-equipped with hard drives from factory are ready to record out-of-the-box. Hard drives that have been added to an empty unit need to be configured before using them for video recording.

The RAID configuration of new hard drives must be set up manually via the pre-installed RAID management utility. Only after this manual RAID configuration the DIVAR IP all-in-one 6000 system provides full functionality.

RAID configuration

The DIVAR IP all-in-one 6000 units come pre-configured in a RAID-5 standard configuration with iSCSI LUNs (fully populated system only) and provide the following specifications:

RAID-5 configuration

Total pre-installed gross storage capacity	Net capacity	Maximum recording bandwidth*	Maximum IP camera channels
w/o HDD	n/a	400 Mbps	64
4 x 4 TB	11172 GB	400 Mbps	64
4 x 8 TB	22344 GB	400 Mbps	64
4 x 18 TB	50274 GB	400 Mbps	64

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

These values refer to the BVMS / VRM recording engine, net capacity for a RAID-5 configuration without hot spare, 64 licensed IP camera channels providing up to 128 recording iSCSI sessions, and four replay clients. These specifications refer to any of the three operating modes.

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/RAID-6 configuration

Total pre-installed gross storage capacity	Net capacity	Maximum recording bandwidth*	Maximum IP camera channels
w/o HDD	n/a	400 Mbps	64
4 x 4 TB	7448 GB	400 Mbps	64
4 x 8 TB	14896 GB	400 Mbps	64
4 x 18 TB	33516 GB	400 Mbps	64

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

i Notice

The recorded video streams need to be configured in a way that the maximum bandwidth of the system (BVMS/VRM base system plus iSCSI storage expansions) is not exceeded.

Licensing

For the BVMS licenses applied on DIVAR IP all-in-one 6000, note pre-licensed quantities, quantities that come with the base license, and the upper limit of each:

License type	Pre-licensed	Base license MBV-BPLU-DIP	Upper limit
IP channel	8	32	64
Workstation client	2	5	20
DVR	1	1	10
CCTV Keyboard	2	5	10
Mobile Video Service	1*	1*	4*
Subsystems	0	0	20
Intrusion Panel	1	1	10

License type	Pre-licensed	Base license MBV-BPLU-DIP	Upper limit
Failover VRM channel	0	8	64
Dual recording channel	0	8	64
Unmanaged Site	0	1	20
LPR channel	0	0	10
Online map functionality	0	0	1
Map-based tracking assistant	0	0	1
Privacy overlay (BVMS 12.0.0 and later)	0	0	1

*Mobile Video Service needs to run on separate hardware.

i Notice

Bosch is not liable for any data loss, damages, or system failures of units equipped with hard drives that are not supplied by Bosch. Bosch cannot provide support if non-Bosch-supplied hard drives are considered to be the cause of the problem. To troubleshoot potential hardware issues, Bosch will require Bosch-supplied hard drives to be installed.

i Notice

The system requires mouse and keyboard for setup and operation. These components are not included.

i Notice Hardware warranty

DIVAR IP all-in-one devices come with a 5-year service level agreement that covers parts replacement within 3 business days. This service level can only be provided if the respective device has been registered immediately after receipt and installation. Otherwise, service will be provided based on best effort basis.

Information about registration details is available in every shipment or in the Bosch online product catalog. This service level cannot be provided in every country everywhere.

**Notice****Software maintenance**

Maintenance of software components is not included in this product.

A separate maintenance agreement needs to be purchased, in order to receive updates and technical support for the installed software.

You can find more details about the Bosch Software Assurance under:

<https://www.boschsecurity.com/xc/en/solutions/management-software/bosch-software-assurance/>

Technical specifications**Electrical**

Type of power supply	VAC
Operating voltage (VAC)	100 - 240 VAC
Maximum output power (W)	350 W
Power frequency	50 Hz; 60 Hz
Power supply efficiency rating	80 PLUS Platinum

120 VAC input (under highest capacity)

Rated input current (A)	2.3 A
Actual output wattage from power supply (W)	243 W
Efficiency of power supply (%)	90%
Power consumption* (W)	Maximum 270 W
Maximum heat loss (BTU/h)	921 BTU/h
Power factor	0.98
System AC input VA requirement	275 VA

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

240 VAC input (under highest capacity)

Rated input current (A)	1.1 A
Actual output wattage from power supply (W)	243 W
Efficiency of power supply (%)	92%
Power consumption* (W)	Maximum 264 W
Maximum heat loss (BTU/h)	901 BTU/h

Power factor	0.96
System AC input VA requirement	275 VA

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

Mechanical

Dimension (H x W x D mm)	43 x 437 x 503 mm
Dimension (H x W x D in)	1.7 x 17.2 x 19.85 in
Mounting type	Rack-mounted
Rack unit	1U

	DIP-6440IG-00N Management Appliance 1U w/o HDD
Dimensions (H x W x D) (mm)	43 mm x 437 mm x 503 mm
Dimensions (H x W x D) (in)	1.7 in x 17.2 in x 19.85 in
Weight (kg)	8.50 kg
Weight (lb)	18.70 lb

	DIP-6444IG-4HD Management Appliance 1U 4x4TB
Dimensions (H x W x D) (mm)	43 mm x 437 mm x 503 mm
Dimensions (H x W x D) (in)	1.7 in x 17.2 in x 19.85 in
Weight (kg)	11 kg
Weight (lb)	24.30 lb

	DIP-6448IG-4HD Management Appliance 1U 4x8TB
Dimensions (H x W x D) (mm)	43 mm x 437 mm x 503 mm
Dimensions (H x W x D) (in)	1.7 in x 17.2 in x 19.85 in
Weight (kg)	11 kg
Weight (lb)	24.30 lb

	DIP-644IIG-4HD Management Appliance 1U 4x18TB
Dimensions (H x W x D) (mm)	43 mm x 437 mm x 503 mm
Dimensions (H x W x D) (in)	1.7 in x 17.2 in x 19.85 in
Weight (kg)	11 kg
Weight (lb)	24.30 lb

Environmental

Operating temperature (°C)	0 - 40 °C
Operating temperature (°F)	32 - 104 °F
Storage temperature (°C)	-40 - 70 °C
Storage temperature (°F)	-40 - 158 °F
Operating relative humidity, non-condensing (%)	8 - 90 %
Storage relative humidity (%)	5 - 95 %

Operation

Processor	Intel® Core™ i3-10100E
Processor base frequency	3.20 GHz
Cache	6 MB Intel® Smart Cache
Installed memory	16GB DDR4-2933 2Rx8 ECC UDIMM
Memory protection	ECC unbuffered
Operating system	Microsoft Windows Server IoT 2022 for Storage Workgroup
System drive	256 GB M.2 SSD
Processor graphics	Intel® UHD Graphics 630 (three digital outputs : 1 DVI - D port, 2 DP+ (Dual-Mode DisplayPort) ports; VGA disabled
SAS RAID Card	12Gb/s Eight-Port
Software compatibility	Bosch Video Management System, Video Recording Manager, Video Security App, Video Security Client, Video Streaming Gateway

Storage

Internal storage	HDD
HDD connectivity	SATA3
HDD dimension	3.5 inch
Maximum internal hard drives	4
HDD rotation speed (rpm)	7200 rpm

Connectivity

Number of USB ports	6 Front: 2 USB 2.0 ports Rear: 4 USB 3.2 Gen2 ports
Number of Ethernet ports	2 RJ45 Gigabit Ethernet LAN ports (teamed)
Network port	1 IPMI BMC port
Number of video outputs	3 • 2 x DisplayPort 1.2 (DP++), 4K@60 Hz • 1 x DVI-D, 1920x1080@60Hz
Multi-display support	Maximum of 3 displays of up to 4K@30Hz resolution per display (DisplayPort) and 1920x1080@60Hz (DVI D)
Maximum IP camera channels	64

Data security

Crypto coprocessor (TPM)	Discrete TPM 2.0 (FIPS 140-2 certified)
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Ordering information

DIP-6440IG-00N Management Appliance 1U w/o HDD
All-in-one recording, viewing and management solution for network surveillance systems. Without HDD. NDAA and TAA compliant.
Order number **DIP-6440IG-00N | F.01U.404.045**

DIP-6444IG-4HD Management Appliance 1U 4x4TB
All-in-one recording, viewing and management solution for network surveillance systems. With 4 x 4 TB storage capacity. NDAA and TAA compliant.
Order number **DIP-6444IG-4HD | F.01U.404.046**

DIP-6448IG-4HD Management Appliance 1U 4x8TB
All-in-one recording, viewing and management solution for network surveillance systems. With 4 x 8 TB storage capacity. NDAA and TAA compliant.
Order number **DIP-6448IG-4HD | F.01U.404.047**

DIP-644IIG-4HD Management Appliance 1U 4x18TB
All-in-one recording, viewing and management solution for network surveillance systems. With 4 x 18 TB storage capacity. NDAA and TAA compliant.
Order number **DIP-644IIG-4HD | F.01U.404.048**

Accessories

DIP-AIO4-HDD 4TB HDD DIVAR IP all-in-one

Hard disk storage expansion for DIVAR IP all-in-one appliances with a capacity of 4 TB.

Order number **DIP-AIO4-HDD | F.01U.362.421**

DIP-AIO8-HDD 8TB HDD DIVAR IP all-in-one

Hard disk storage expansion for DIVAR IP all-in-one appliances with a capacity of 8 TB.

Order number **DIP-AIO8-HDD | F.01U.362.420**

DIP-AIO18-HDD 18TB HDD DIVAR IP all-in-one

Hard disk storage expansion for DIVAR IP all-in-one appliances with a capacity of 18 TB.

Order number **DIP-AIO18-HDD | F.01U.404.044**

KBD-UXF Keyboard, USB CCTV-oriented

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

Order number **KBD-UXF | F.01U.279.328**

Software Options

MBV-BPLU-DIP License Plus base for DIP AIO 6000-7000

BVMS license for DIVAR IP all-in-one 6000 and DIVAR IP all-in-one 7000.

Base license for 32 channels (cameras/decoders).

Order number **MBV-BPLU-DIP | F.01U.374.503**

MBV-XCHANPLU License Camera/decoder expansion

Expansion license for 1 encoder/decoder channel. Order the exact number required.

Order number **MBV-XCHANPLU | F.01U.393.681**

MBV-XWSTPLU License Workstation expansion

Expansion license for 1 workstation (each extra workstation requires 1 license).

Order number **MBV-XWSTPLU | F.01U.393.682**

MBV-XDVRPLU License DVR expansion

Expansion license for 1 DVR. Order the exact number required.

Order number **MBV-XDVRPLU | F.01U.393.683**

MBV-XKBDPLU License Keyboard expansion

Expansion license for 1 CCTV keyboard. Order the exact number required.

Order number **MBV-XKBDPLU | F.01U.393.684**

MBV-XMVSPLU License Mobile video service expansion

Expansion license for 1 Mobile Video Service.

Order number **MBV-XMVSPLU | F.01U.393.685**

MBV-XSUBPLU License Subsystem expansion

Expansion license for 1 subsystem. Order the exact number required.

Order number **MBV-XSUBPLU | F.01U.393.692**

MBV-XINTPLU License Intrusion panel expansion

Expansion license to integrate intrusion panels.

Order number **MBV-XINTPLU | F.01U.393.689**

MBV-XFOVPLU License VRM Failover channel expansion

Expansion license for 1 encoder channel used with a Failover VRM.

Order number **MBV-XFOVPLU | F.01U.393.686**

MBV-XDURPLU License Camera dual recording expansion

Expansion license for 1 encoder channel used for dual recording.

Order number **MBV-XDURPLU | F.01U.393.687**

MBV-XSITEPLU License Unmanaged site expansion

Expansion license for 1 site. Order the exact number required.

Order number **MBV-XSITEPLU | F.01U.393.688**

MBV-XLPRPLU License LPR camera expansion

Expansion license for 1 (Tattile) LPR camera. Order the exact number required.

Order number **MBV-XLPRPLU | F.01U.393.691**

MBV-FMAPPLU License online map functionality

Expansion license for online map functionality.

Order number **MBV-FMAPPLU | F.01U.395.079**

MBV-FOBJPLU License Map-based tracking assistant

Expansion license for Map-based tracking assistant.

Order number **MBV-FOBJPLU | F.01U.393.652**

MBV-FPRIPLU License Privacy overlay

Expansion license for Privacy overlay.

Order number **MBV-FPRIPLU | F.01U.414.239**

CBS-RM-DIP6 Remote System Management DIP 6000 1yr

License to enable Remote System Management services for one DIVAR IP all-in-one 6000 device for a 1 year period

Order number **CBS-RM-DIP6 | F.01U.410.888**

MBV-MPLU-DIP SMA license for MBV-BPLU-DIP, 1 year

One year of maintenance cover for the BVMS license for DIVAR IP all-in-one 6000 and DIVAR IP all-in-one 7000.

Order number **MBV-MPLU-DIP | F.01U.389.513**

MBV-MCHANPLU SMA license for MBV-XCHANPLU, 1 year

1 year of maintenance cover for the Plus Edition camera/decoder expansion license.

Order number **MBV-MCHANPLU | F.01U.330.514**

MBV-MWSTPLU SMA license for MBV-XWSTPLU, 1 year

1 year of maintenance cover for the Plus Edition workstation expansion license.

Order number **MBV-MWSTPLU | F.01U.330.515**

MBV-MDVRPLU SMA license for MBV-XDVRPLU, 1 year

1 year of maintenance cover for the Plus Edition DVR expansion license.

Order number **MBV-MDVRPLU | F.01U.330.517**

MBV-MKBDPLU SMA license for MBV-XKBDPLU, 1 year

1 year of maintenance cover for the Plus Edition keyboard expansion license.

Order number **MBV-MKBDPLU | F.01U.330.518**

MBV-MMVSPLU SMA license for MBV-XMVSPLU, 1 year

1 year of maintenance cover for the Plus Edition Mobile Video Service expansion license.

Order number **MBV-MMVSPLU | F.01U.330.519**

MBV-MSUBPLU SMA license for MBV-XSUBPLU, 1 year

One year of maintenance cover for an Enterprise Subsystem expansion license.

Order number **MBV-MSUBPLU | F.01U.389.490**

MBV-MINTPLU SMA license for MBV-XINTPLU, 1 year

One year of maintenance cover for the BVMS Plus Intrusion panel expansion license.

Order number **MBV-MINTPLU | F.01U.330.522**

MBV-MFOVPLU SMA license for MBV-XFOVPLU, 1 year

1 year of maintenance cover for the Plus Edition Failover VRM expansion license.

Order number **MBV-MFOVPLU | F.01U.330.520**

MBV-MDURPLU SMA license for MBV-XDURPLU, 1 year

1 year of maintenance cover for the Plus Edition Dual Recording VRM expansion license.

Order number **MBV-MDURPLU | F.01U.330.521**

MBV-MSITEPLU SMA license for MBV-XSITEPLU, 1 year

One year of maintenance cover for the site expansion license.

Order number **MBV-MSITEPLU | F.01U.381.964**

MBV-MLPRPLU SMA license for MBV-XLPRPLU, 1 year

1 year of maintenance cover for the (Tattile) LPR camera expansion license.

Order number **MBV-MLPRPLU | F.01U.389.491**

MBV-MMAPPLU SMA license for MBV-FMAPPLU, 1 year

One year of maintenance cover for an online map functionality license.

Order number **MBV-MMAPPLU | F.01U.395.082**

MBV-MOBJPLU SMA license for MBV-FOBJPLU, 1 year

One year of maintenance cover for the Map-based tracking assistant license.

Order number **MBV-MOBJPLU | F.01U.393.694**

MBV-MPRIPLU SMA license for MBV-FPRIPLU, 1 year

One year of maintenance cover for a Privacy overlay license.

Order number **MBV-MPRIPLU | F.01U.414.322**

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