

Z420 HE Management Workstation

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BOSCH

Invented for life



- ▶ High-performance workstation with Intel's latest-generation microarchitecture
- ▶ Dual-monitor support (NVIDIA Quadro K4000, 3 GB graphics card)
- ▶ Silent running with HP liquid cooling solution
- ▶ Protected by HP Services, including a 3 years Next Business Day on-site support

This HP Z420 management workstation with its latest processing and I/O power from Intel, and the latest graphics technology from leading graphics providers is designed for video-oriented applications that require high performance and most advanced visualization. HP Z420 features a smart chassis that offers tool-less access to the inside and easy configurability for seamless deployment. And with liquid cooling designed to deliver whisper-quiet performance, HP Z420 is built to minimizing power and cooling costs with ENERGY STAR qualified configurations featuring 90% efficient power supplies while taking on bigger computing challenges with the new Intel vPro technology and the latest Intel Xeon quad-core processor:

- Intel Xeon E5-1620 (3.6 GHz, 10 MB cache, 1600 MHz memory speed, Quad-Core, HT, Turbo)
- 8 GB (4 x 2 GB) DDR3-1600 ECC unbuffered RAM

HP Z420 is a workstation solution based on the Intel C602 Chipset using Intel's vPro technology and on 8 DIMM slots in 4-channel memory architecture. With 2 x PCI Express Gen3 x16 mechanical/electrical, 1 x PCI Express Gen3 x8 mechanical/electrical, 1 x PCI Express Gen2 x8 mechanical/x4 electrical,

1 x PCI Express Gen2 x4 mechanical/x1 electrical and 1 x Legacy PCI, HP Z420 delivers high performance bandwidth interfaces and future expandability:

- The architecture of this management workstation delivers next generation I/O throughput to handle future high throughput and visualization requirements.
- The high-end NVIDIA Quadro K4000 (3 GB) graphics card ensures highest performance and resolution for fast presentation of displayed video data.

The convertible minitower chassis allows for Minitower or Desktop orientation.

System overview

Z420 HE Management Workstation is the high-performance workstation suitable for running the security systems software applications offered by Bosch.

Please refer to the respective application data sheets to get detailed information.

Intel Microarchitecture offers the latest in processor innovation, including:

- Design and performance scalability with Intel Hyper-Threading Technology (Intel HT Technology), scalable cache sizes, system interconnects, and integrated memory controllers.

- Intel Turbo Boost Technology delivers additional performance automatically when needed by taking advantage of the processor's power and thermal headroom.
- Intel Hyper-Threading Technology brings high-performance applications into mainstream computing with 1-16+ threads optimized for a new generation multi-core processor architecture.
- Intel vPro Technology for maximized, hardware-assisted security and manageability

Certifications and approvals

| | |
|-----------------------|---------------------------------------------------------------------------------------------------|
| RoHS | Compliant with the Restrictions of Hazardous Substances (RoHS) directive–2002/95/EC |
| WEEE | Designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive–2002/96/EC |
| ISO 11469 ISO 1043 | Plastic parts used in the product weighing over 25 g are marked per ISO 11469 and ISO 1043 |
| | Contains 0% recycled materials (by weight) |
| | Product is >90% recyclable when properly disposed of at end-of-life |

Approvals

| Region | Certification |
|--------|----------------------------------------------|
| Global | DOC Z420 Declaration of Conformity (CE + UL) |

Installation/configuration notes

Language selection

This management workstation comes in a standard localization:

MHW-WZ4R2-HEUS American English localization/ keyboard

Additional optional keyboards listed under **Ordering Information** are available.



Notice

The Bosch management workstation provides a MUI (Multilingual User Interface). With MUI installed the language of the workstation may be changed after initial installation (for details see document “Installation Note MUI on Bosch Platforms”).

Parts included

| Quantity | Components |
|----------|------------------------------------------------------|
| 1 | HP Z420 8-DIMM Workstation |
| 1 | • HP Z420 localization kit (select desired language) |
| 1 | • HP Z420 600 W, 90% efficient chassis |
| 1 | • 500 GB, 7200 RPM SATA, 1st HDD |
| 1 | • HP USB standard keyboard |

| Quantity | Components |
|----------|------------------------------------------------------|
| 1 | • HP USB optical scroll mouse |
| 1 | • HP 16X DVD± RW SuperMulti SATA |
| 1 | • Intel Xeon E5-1620 (3.6/10 MB/1600 QC CPU) |
| 1 | • 8 GB (4 x 2 GB) DDR3-1600 ECC RAM |
| 1 | • NVIDIA Quadro K4000, 3 GB graphics card |
| 1 | • HP serial port adapter kit |
| 1 | Microsoft Windows 7 Ultimate Edition, 64-bit OS |
| 1 | HP 3-year Next Business Day on-site hardware support |

Technical specifications

| Electrical | |
|-------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| Power supply | 600 W, 90% efficient, custom PSU (wide ranging, active Power Factor Correction) |
| Operating voltage range | 90 to 269 VAC |
| Rated voltage range | 100 to 240 VAC |
| | 118 VAC |
| Rated line frequency | 50/60 Hz (at 100 to 240 VAC) |
| | 400 HZ (at 118 VAC) |
| Operating line frequency range | 47 to 66 Hz (at 100 to 240 VAC) |
| | 393 to 407 HZ (at 118 VAC) |
| Rated input current | 100 to 240 VAC at 8.0 A |
| | 118 VAC at 8.0 A |
| Power consumption in sleep mode (defined by ENERGY STAR)—suspend to RAM (S3) (instantly available PC) | <10 W |
| Heat dissipation (configuration and software dependent) | 1365 BTU/h typical (344 kcal/h) |
| | 2354 BTU/h max (593 kcal/h) |
| Power supply fan | 92 x 25 mm variable speed |
| ENERGY STAR qualified | Yes |
| 80 PLUS compliant | Yes, 90% efficient |
| Mechanical | |
| Form factor | Convertible minitower |
| Chassis dimensions (H x W x D) | |

| Mechanical | |
|------------------------------------|----------------------------------------------------|
| • Standard minitower orientation | 44.76 x 17.78 x 44.52 cm (17.6 x 7.0 x 17.5 in) |
| • Converted desktop orientation | 17.78 x 44.76 x 44.52 cm (7.0 x 17.6 x 17.5 in) |
| Environmental | |
| Temperature | |
| • operating | 5 °C to 35 °C (40 °F to 95 °F) |
| • non-operating | -40 °C to 60 °C (-40 °F to 140 °F) |
| Humidity | |
| • operating | 8 to 85% relative humidity, non-condensing |
| • non-operating | 8 to 90% relative humidity, non-condensing |
| Maximum altitude (non-pressurized) | |
| • operating | 3,048 m (10,000 feet) |
| • non-operating | 9,144 m (30,000 feet) |

Notes:

- General technical specifications for the workstation are provided in the HP Z420 QuickSpecs (DA-14261 Worldwide—Version 21 - June 1, 2013).
- Configuration specifications are supplied in the Parts Included section.

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Ordering information

Z420 HE US Management Workstation

High-performance workstation, American English localization included

Order number **MHW-WZ4R2-HEUS**

Accessories

MHW-AWLCK-ESP

Localization (Keyboard): Spain—Spanish

Order number **MHW-AWLCK-ESP**

MHW-AWLCK-FR

Localization (Keyboard): France—French

Order number **MHW-AWLCK-FR**

MHW-AWLCK-UK

Localization (Keyboard): United Kingdom—British English

Order number **MHW-AWLCK-UK**

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