

# DA-920E Series

*IEC 61850-3 2U rackmount servers with Intel® Xeon® Ice Lake D processor, hot-swappable power modules, out-of-band management support, -25 to 55°C operating temperature*



## Features and Benefits

- IEC 61850-3, IEEE 1613, and IEC 60255 compliant power-automation server
- EN 50121-4 compliant for railway wayside applications
- Intel® Xeon® D-1834 processor
- Up to 256 GB RAM (4 built-in RDIMM DDR4 memory slots)
- 4 SSD slots with Intel® RAID 0/1/5/10 support
- 1 PCIe x16, 1 PCIe x8, and 1 PCIe x4 slots for expansion modules
- Security options such as TPM 2.0, UEFI Secure Boot and physical security
- -25 to 55°C operating temperature

## Certifications

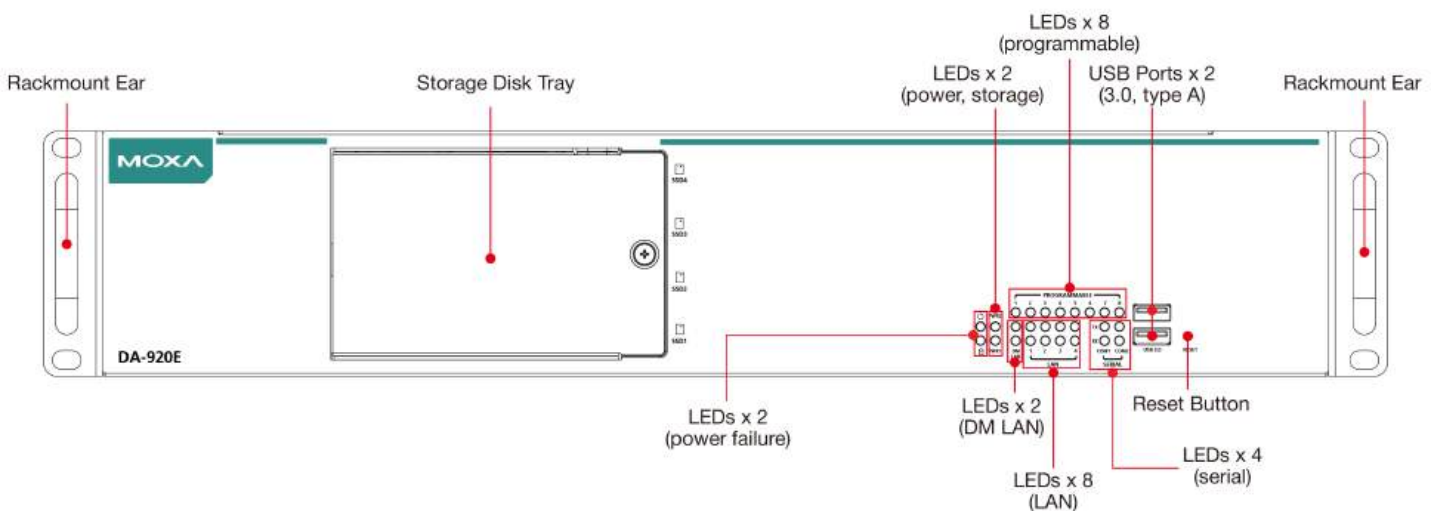


## Introduction

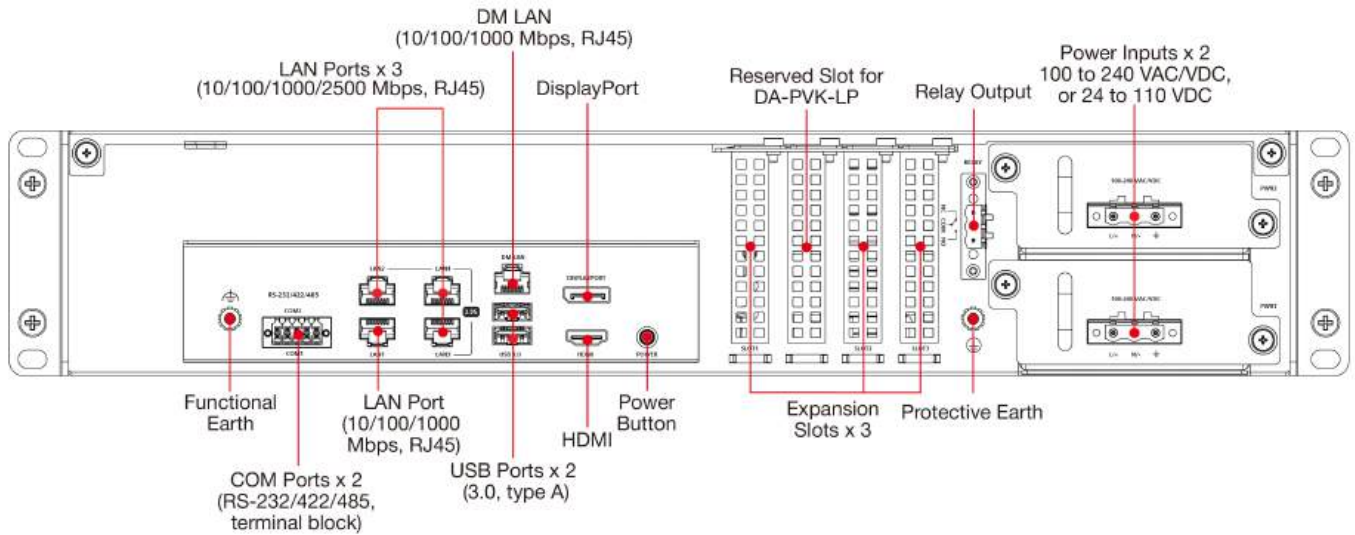
DA-920E is a 2U rackmount fanless industrial server built for harsh environments, virtualized protection, automation, and control (vPAC), and substation automation. The computer is compliant with IEC 61850-3, IEEE 1613, and IEC 60255 requirements. Powered by Intel® Xeon® D processor with up to 256 GB ECC memory, the DA-920E delivers high-performance, deterministic reliability, and is optimized for virtualization applications. With single or dual wide-range PSUs and RAID storage, the DA-920E ensures reliable computing in modern substations.

## Appearance

### Front View



## Rear View



## Specifications

### Computer

CPU	Intel® Xeon® D-1834 (8 Cores)
System Memory Slot	RDIMM/UDIMM DDR4 slots x 4 (256 GB max.)
DRAM	256 GB max. (RDIMM/UDIMM x 4, each supporting up to 2666 MHz and 64 GB max. per module)
Graphics Controller	AST2600 (DisplayPort) SM768 (HDMI)
Storage Slot	M.2 M-key 2280 sockets x 1 (NVMe PCIe Gen 3 x2) 2.5-inch SSD slots x 4 (SATA)
Supported OS	Windows drivers: Windows Server 2022 Windows Server 2025 Linux drivers (via x86 Linux SDK Wizard): - Canonical® Ubuntu® Server LTS 22.04 - Canonical® Ubuntu® Server LTS 24.04 - Red Hat® Enterprise Linux 9 - Debian 13

### Computer Interface

Ethernet Ports	Auto-sensing 10/100/1000 Mbps ports (RJ45 connector) x 2, 1 shared LAN and 1 dedicated management LAN, out-of-band management support Auto-sensing 10/100/1000/2500 Mbps ports (RJ45 connector) x 3
Serial Ports	RS-232/422/485 ports x 2 (software-selectable, Terminal-block connector)
Expansion Slots	PCIe x16 slot x 1 (Gen 4, low-profile) PCIe x8 slot x 1 (Gen 3, low-profile) PCIe x4 slots x 1 (Gen 3, low-profile)
USB 3.0	USB 3.2 hosts x 4 (Gen1, front 2, rear 2)
Video Output	DisplayPort x 1 (default display) (1.1a, up to 1920 x 1080 resolution at 60 Hz) HDMI x 1, HDMI connector (type A) (1.4a, up to 1920 x 1200 resolution @ 60Hz)
Secure Boot	UEFI
TPM	TPM v2.0

## Out-of-band Management

BMC	IPMI Redfish Web UI
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## Serial Interface

Bitrate	50 bps to 921.6 kbps
Connector	Terminal block
Isolation	2 kV
Serial Standards	RS-232/422/485-2W/485-4W

## Serial Signals

RS-232	TxD, RxD, RTS, CTS, GND
RS-422	Tx+, Tx-, Rx+, Rx-, GND
RS-485-2w	Data+, Data-, GND
RS-485-4w	Tx+, Tx-, Rx+, Rx-, GND

## Relays

Relay Output	1
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## LED Indicators

System	Power x 1 Storage x 1 Power failure detection x 2 Programmable x 8
Serial	2 per port (Tx, Rx)
LAN	2 per port (10/100/1000/2500 Mbps)

## Power Parameters

Input Voltage	DA-PWR-200-HV: 100 to 240 VAC/VDC DA-PWR-200-WV: 24 to 110 VDC
Operating Voltage	DA-PWR-200-HV: 90 to 264 VAC/VDC DA-PWR-200-WV: 21.6 to 121 VDC
Power Button	Reset button (front panel) ON/OFF (rear panel)

## Physical Characteristics

Housing	Metal
IP Rating	IP20
Dimensions (without ears)	440 x 330 x 88 mm (17.32 x 12.99 x 3.46 in)
Weight	9530 g (21.01 lb)
Installation	19-inch rack mounting

## Environmental Limits

Operating Temperature	-25 to 55°C (-13 to 131°F)
Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)

## Standards and Certifications

EMC	EN 61000-6-2/-6-4 EN 55032/35
EMI	CISPR 32, FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 8 kV; Air: 15 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 10 V/m IEC 61000-4-4 EFT: Power: 4 kV; Signal: 4 kV IEC 61000-4-5 Surge: Power: 4 kV; Signal: 4 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8: 20 A/m IEC 61000-4-11
Protection Relay	IEC 60255
International Approval	BSMI KC
Power Substation	IEC 61850-3 IEEE 1613
Railway	EN 50121-4
Safety	UL 62368-1

## Declaration

Green Product	RoHS, CRoHS, WEEE
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## MTBF

Time	764,241 hrs
Standards	Telcordia SR-332 Standard Issue 4

## Warranty

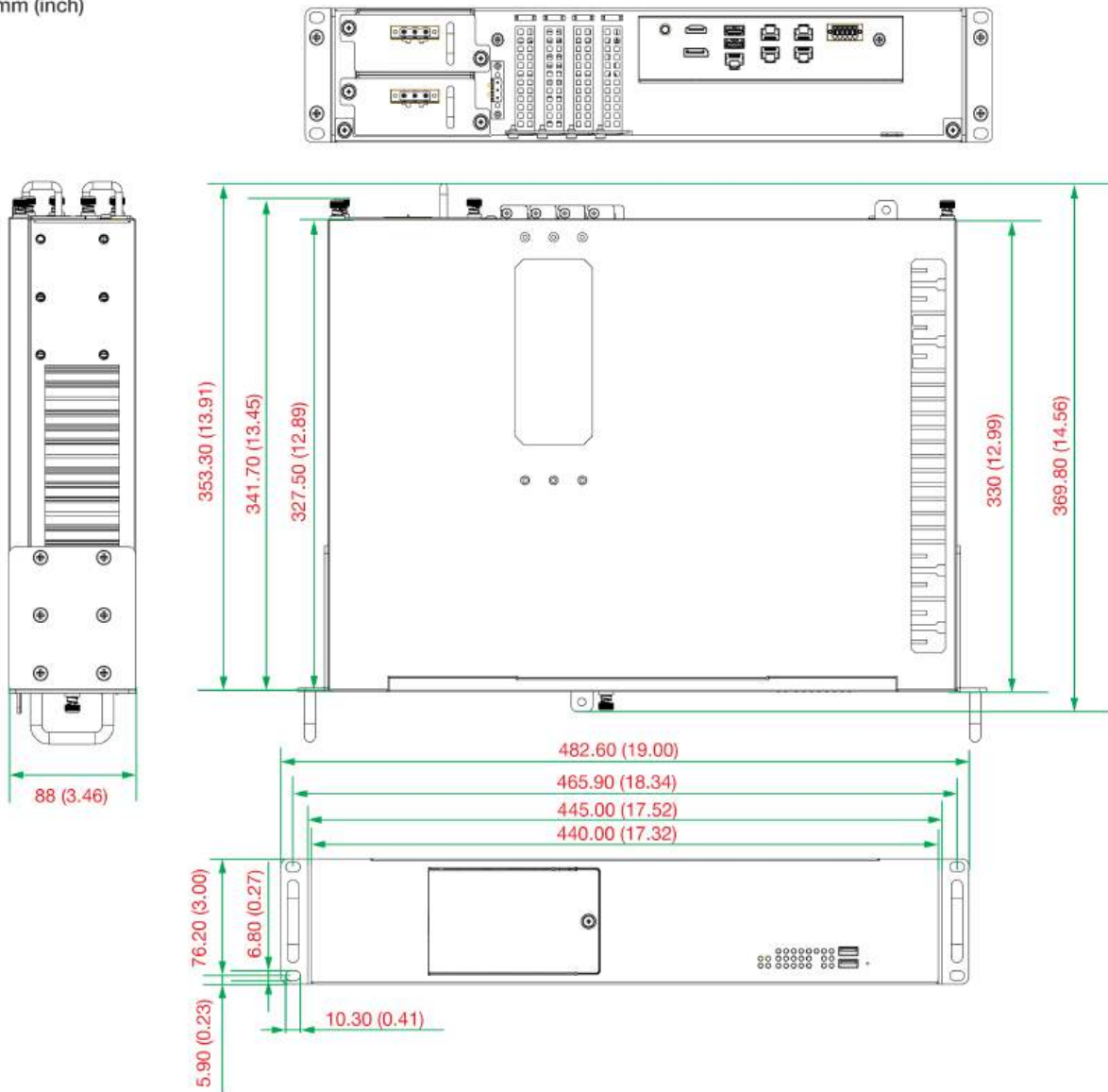
Warranty Period	3 years
Details	See <a href="http://www.moxa.com/warranty">www.moxa.com/warranty</a>

## Package Contents

Device	1 x DA-920E Series server
Installation Kit	1 x rack-mounting kit 1 or 2 terminal blocks for the power supply 1 terminal block for the COM port 1 terminal block for the relay output A pack of thermal pads for the M.2 storage and memory modules A pack of 4 backup screws for memory modules A pack of 16 screws for mounting the SSD 1 x USB dongle kit
Documentation	1 x quick installation guide 1 x warranty card
Note	This product requires additional modules (sold separately) to function.

## Dimensions

Unit: mm (inch)



## Ordering Information

Model Name	CPU	Power Modules Included	Operating Temperature
DA-920E-X08-H	Intel® Xeon® D-1834 (8 Cores)	1 x DA-PWR-200-HV	-25 to 55°C
DA-920E-X08-HH	Intel® Xeon® D-1834 (8 Cores)	2 x DA-PWR-200-HV	-25 to 55°C
DA-920E-X08-W	Intel® Xeon® D-1834 (8 Cores)	1 x DA-PWR-200-WV	-25 to 55°C
DA-920E-X08-WW	Intel® Xeon® D-1834 (8 Cores)	2 x DA-PWR-200-WV	-25 to 55°C
DA-920E-X08-HW	Intel® Xeon® D-1834 (8 Cores)	1 x DA-PWR-200-HV	-25 to 55°C

## Accessories (sold separately)

### Power Modules

DA-PWR-200-HV	200W power module, 100-240VAC/VDC
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DA-PWR-200-WV

200W power module, 24-110VDC

## Fan Modules

DA-PVK-LP

Passive ventilation kit for cooling the PCIe slot area

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