



ALL IN ONE: THE ULTRA-COMPACT CONTROL SYSTEM

Nowadays, automation means software development. The high-performance and communication-ready ctrlX CORE control platform provides the basis for this. With the scalable compact control system, Bosch Rexroth has set new standards in the field of automation technology. With its open and flexible architecture, the Linux-based multicore technology breaks down the boundaries between embedded system platforms and drive-based technology. “One control system for everything” means less engineering, fewer components and higher productivity. ctrlX CORE is the heart of the ctrlX AUTOMATION platform and the nucleus for industrial control systems of the future.

You can find more information at: www.ctrlx-automation.com/ctrlx-core

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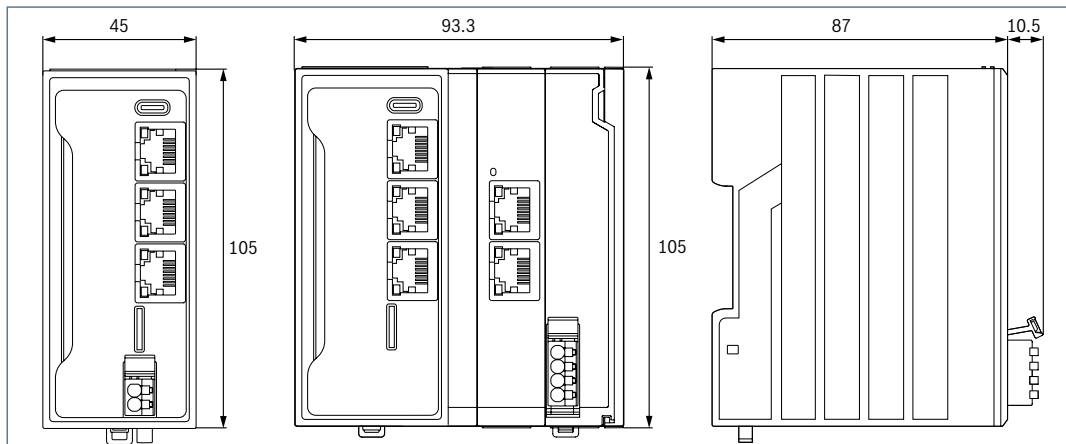
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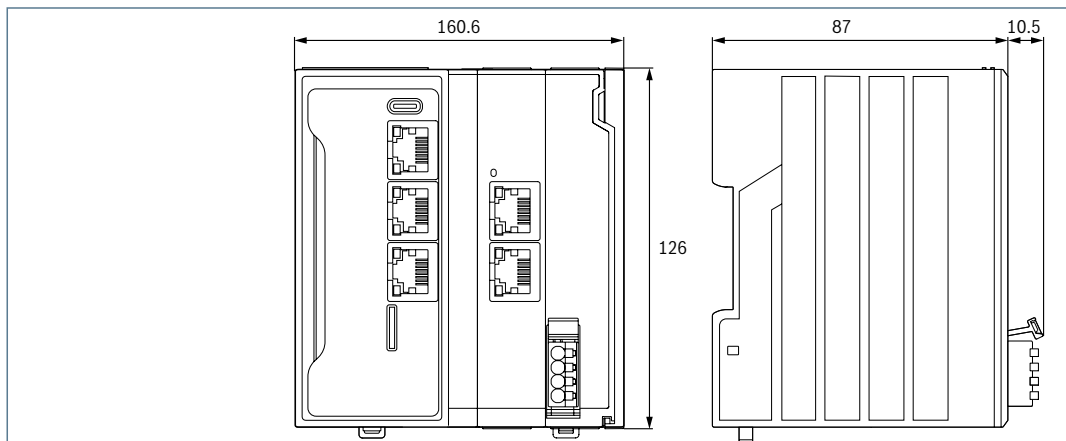
ctrlX CORE

ctrlX CORE^{plus} X3

ctrlX CORE & ctrlX CORE^{plus} X3



ctrlX CORE^{plus} X7





Processor	ctrlX CORE X2	ctrlX CORE X3
CPU	64 Bit Quad-Core ARM CPU	64 Bit Quad-Core ARM CPU
Memory storage	ctrlX CORE X2	ctrlX CORE X3
Fixed storage	4 GB eMMC	4 GB eMMC
RAM	2 GB	2 GB
Remanent memory	1 MBit	1 MBit
Hardware interfaces	ctrlX CORE X2	ctrlX CORE X3
Ethernet (EtherCAT master)	1 x GBit Ethernet (RJ45)	1 x GBit Ethernet (RJ45)
Ethernet (Engineering port)	1 x GBit Ethernet (RJ45)	1 x GBit Ethernet (RJ45)
Ethernet (Engineering port, TSN endpoint)	not activated	1 x GBit Ethernet (RJ45)
USB	not activated	1 x USB-C (2.0)
SD card	1 x Micro-SD	1 x Micro-SD
IO and functional onboard extensions	ctrlX CORE X2	ctrlX CORE X3
IO integration	not activated	not activated
Multi Ethernet	not activated	not activated
Operation	ctrlX CORE X2	ctrlX CORE X3
Operating system	Linux Unbuntu Core	Linux Unbuntu Core
Communication	ctrlX CORE X2	ctrlX CORE X3
Fieldbus communication	EtherCAT master (RJ45)	EtherCAT master (RJ45)
Engineering/HMI	via GBit Ethernet (RJ45)	via GBit Ethernet (RJ45)
Engineering, TSN endpoint	GBit Ethernet (RJ45)	GBit Ethernet (RJ45)
Remote access and diagonstics (WiFi)	not activated	via USB-C
Electrical data	ctrlX CORE X2	ctrlX CORE X3
Supply voltage	24 VDC (19.2 - 30.0 VDC)	24 VDC (19.2 - 30.0 VDC)
Norms and Standards	ctrlX CORE X2	ctrlX CORE X3
Standards	CE, UL, CSA	CE, UL, CSA
Certification	Industrial area class A	Industrial area class A
Environmental conditions	ctrlX CORE X2	ctrlX CORE X3
Permissible temperature (operation)	-25 °C to +55 °C (fanless up to 2000 m)	-25 °C to +55 °C (fanless up to 2000 m)
Permissible temperature (storage)	-40 °C to +70 °C	-40 °C to +70 °C
Permissible humidity (operation)	5 % to 85 % (EN 61131-2)	5 % to 85 % (EN 61131-2)
Degree of protection	IP20	IP20
Protection category	III	III
Mechanical tests	ctrlX CORE X2	ctrlX CORE X3
Vibration resistance	1 g	1 g
Shock resistance	15 g	15 g

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The data specified above only serve to describe the product. No statements concerning a certain condition or suitability for a certain application can be derived from our information. The information given does not release the user from the obligation of own judgment and verification. It must be remembered that our products are subject to a natural process of wear and aging.



Processor	ctrlX CORE ^{plus} X3	ctrlX CORE ^{plus} X7
CPU	64 Bit Quad-Core ARM CPU	Intel Core i7
Memory storage	ctrlX CORE ^{plus} X3	ctrlX CORE ^{plus} X7
Fixed storage	4 GB eMMC	32 GB eMMC
RAM	2 GB	16 GB
Remanent memory	1 MBit	2 MBit
Hardware interfaces	ctrlX CORE ^{plus} X3	ctrlX CORE ^{plus} X7
Ethernet (EtherCAT master)	1 x GBit Ethernet (RJ45)	2 x GBit Ethernet (RJ45)
Ethernet (Engineering port)	1 x GBit Ethernet (RJ45)	1 x GBit Ethernet (RJ45)
Ethernet (Engineering port, TSN endpoint)	1 x GBit Ethernet (RJ45)	2 x GBit Ethernet (RJ45)
USB	1 x USB-C (2.0)	3 x USB-C (2.0)
SD card	1 x Micro-SD	1 x Micro-SD
IO and functional onboard extensions	ctrlX CORE ^{plus} X3	ctrlX CORE ^{plus} X7
IO integration	onboard	onboard
Multi Ethernet	PROFINET device (2x RJ45)	optional
Operation	ctrlX CORE ^{plus} X3	ctrlX CORE ^{plus} X7
Operating system	Linux Unbuntu Core	Linux Ubuntu Core
Communication	ctrlX CORE ^{plus} X3	ctrlX CORE ^{plus} X7
Fieldbus communication	EtherCAT master (RJ45) PROFINET device (2 x RJ45)	EtherCAT-Master (RJ45) Multi Ethernet
Engineering/HMI	via GBit Ethernet (RJ45)	via GBit Ethernet (RJ45)
Engineering, TSN endpoint	GBit Ethernet (RJ45)	GBit Ethernet (RJ45)
Remote access and diagonstics (WiFi)	via USB-C	via USB-C
Electrical data	ctrlX CORE ^{plus} X3	ctrlX CORE ^{plus} X7
Supply voltage	24 VDC (19.2 - 30.0 VDC)	24 VDC (19,2 - 30,0 VDC)
Norms and Standards	ctrlX CORE ^{plus} X3	ctrlX CORE ^{plus} X7
Standards	CE, UL, CSA	CE, UL, CSA
Certification	Industrial area class A	Industrial area class A
Environmental conditions	ctrlX CORE ^{plus} X3	ctrlX CORE ^{plus} X7
Permissible temperature (operation)	-25 °C to +55 °C (fanless up to 2000 m)	-25 °C to +55 °C (fanless up to 2000 m)
Permissible temperature (storage)	-40 °C to +70 °C	-40 °C to +70 °C
Permissible humidity (operation)	5 % to 85 % (EN 61131-2)	5 % to 85 % (EN 61131-2)
Degree of protection	IP20	IP20
Protection category	III	III
Mechanical tests	ctrlX CORE ^{plus} X3	ctrlX CORE ^{plus} X7
Vibration resistance	1 g	1 g
Shock resistance	15 g	15 g

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