

The PLC, that connects two worlds

IBHsoftec offers two new PLC types: The high performance **S7-CX416** and the low-priced **S7-CX317** and **S7-CX317S**.

For the **S7-CX317** a Starter kit is available.

Since the new **S7-CX** series behaves like a original SIMATIC® PLC, the programming tools **S7 for Windows®** and STEP®7 can be used. Online connections can be established via Ethernet. The **S7-CX** executes a program in the same manner as a hardware PLC. The program of a S7-PLC can be transferred to the **S7-CX** series.

As hardware platform for the **S7-CX**, the modular DIN rail PCs of the **CX** series of the Beckhoff Automation GmbH is used. The fieldbus used to control the central and the distributed IO primarily is EtherCAT (Real-Time Ethernet).



Technical data:

RAM:

IBH S7-CX317: 16MB

IBH S7-CX317S: 16MB

IBH S7-CX416: 64MB

Load memory:

IBH S7-CX317: 4MB

IBH S7-CX317S: 4MB

IBH S7-CX416: 8MB

Retain memory:

IBH S7-CX317: 64kB

IBH S7-CX317S: 64kB

IBH S7-CX416: all Data

Processing time:

IBH S7-CX317: 0,15µs/Instr.

IBH S7-CX317S: 0,075µs/Instr.

IBH S7-CX416: 0,015µs/Instr.

Dimensions:

IBH S7-CX317: 59 mm × 100 mm × 91 mm

IBH S7-CX317S: 59 mm × 100 mm × 91 mm

IBH S7-CX416: 216 mm × 112 mm × 99 mm

Internal Bus system of the CPU:

EtherCAT(E-Bus)

- PU functions with STEP®7 or **S7 for Windows®** over Ethernet with the ISO on TCP (RFC1006) or the **IBHLink** protocol.
- Online connections via PROFIBUS-DP are possible with the Beckhoff PROFIBUS Master EL6731. Operator panels (OPs) and PU devices can be connected in the usual way to PROFIBUS-DP.
- HMI applications can connect via ISO on TCP (RFC1006), the **IBHLink** protocol or via the optional **IBH OPC Server** for the visualization PC.

- Diagnostics and HMI via Intranet/Internet with the integrated web server.
- PLC to PLC communication via the integrated Ethernet CP.
- Based on the reliable and flexible Beckhoff hardware.
- In conjunction with the Beckhoff TwinSAFE modules, safety functions (f.i. emergency stop) can be realized very easy and cost-efficient with the **S7-CX317**, **S7-CX317S** and **S7-CX416 PLC**.
- Using the EtherCAT technology, it is possible to integrate other fieldbus segments, as for instance PROFIBUS DP, CANOpen, AS-i, DeviceNet, ControlNet, Modbus, Fipio, CC-Link, EtherNet/IP, and SERCOS interface at any place of the EtherCAT network.
- For the operation in building automation, the bus systems LON, EIB/KNX, MP, as well as DALI are available.
- Special functions for the peripheral devices (ADS functions) can be called via integrated function blocks.
- **S7-CX317S** and **S7-CX416 PLC** are available with **DVI/USB** interface.

S7-CX317/S7-CX317S/S7-CX416

Data exchange with the **S7-CX PLC** can be established with **S7 for Windows®** or the Siemens SIMATIC® manager.

Further it is possible to access the **IBHsoftec S7-CX PLC** via TCP/IP Ethernet using the **IBHNet** driver.

Online functions are also possible using the Siemens ISO on TCP (RFC1006) protocol (a standard protocol within STEP®7 and **S7 for Windows®**).

The S7-compatible PLC based on Beckhoff-hardware with EtherCAT

PLC - PLC communication:

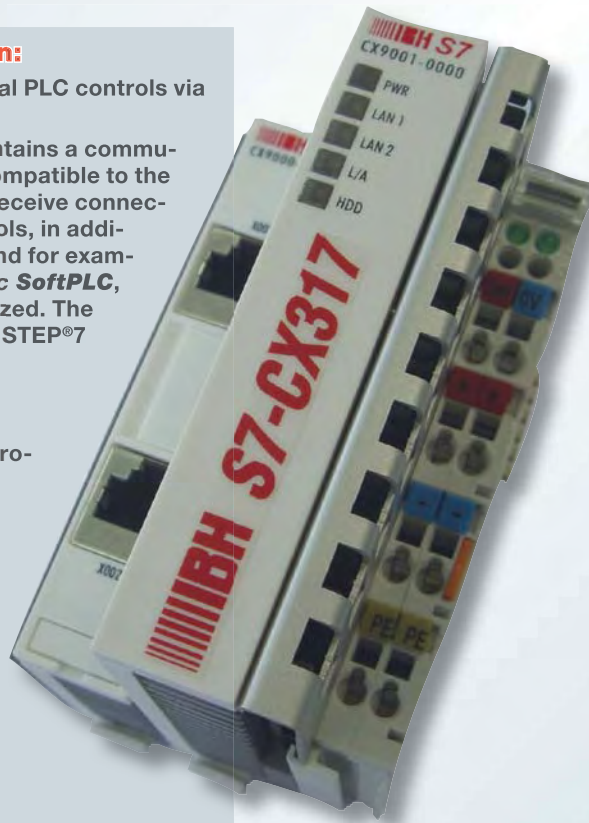
A data exchange between several PLC controls via Ethernet is possible.

The IBHsoftec **S7-CX** series contains a communications processor, which is compatible to the Siemens CP343/CP443. Send/Receive connections between two **S7-CX** controls, in addition, between **S7-CX** controls and for example Siemens PLCs or a IBHsoftec **SoftPLC**, which runs on a PC, can be realized. The configuration is made using the STEP®7 tool NetPro®.

The following protocols are supported:

- ISO on TCP PU channel (PU, Pro-Tool, WinCC, compatible OPC server etc.)
- ISO on TCP Send/Receive passive
- ISO on TCP Send/Receive active
- ISO on TCP Fetch/Write passive
- TCP Send/Receive passive
- TCP Send/Receive active
- TCP Fetch/Write passive
- UDP Send/Receive

The new series of **S7-CX** PLCs unites the worlds of industrial PC and hardware PLC and fulfils the criteria for Programmable Automation Controller. Depending on the task, the components of the



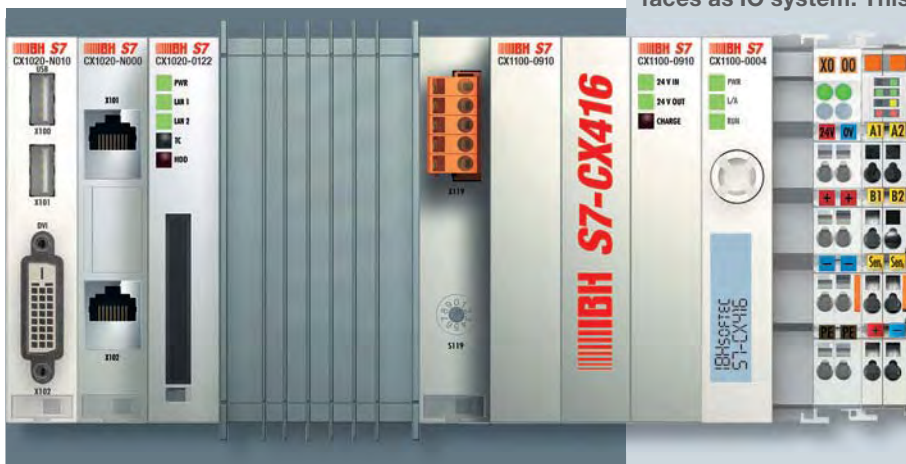
modular control system can be plugged together and be built like a PLC into the switch cabinet or terminal box. The new S7-compatible controls support the Beckhoff fieldbus terminals and also the EtherCAT terminals via the appropriate IO interfaces as IO system. This offers the opportunity to

use the entire range of the open and fieldbus-neutral Beckhoff IO system.

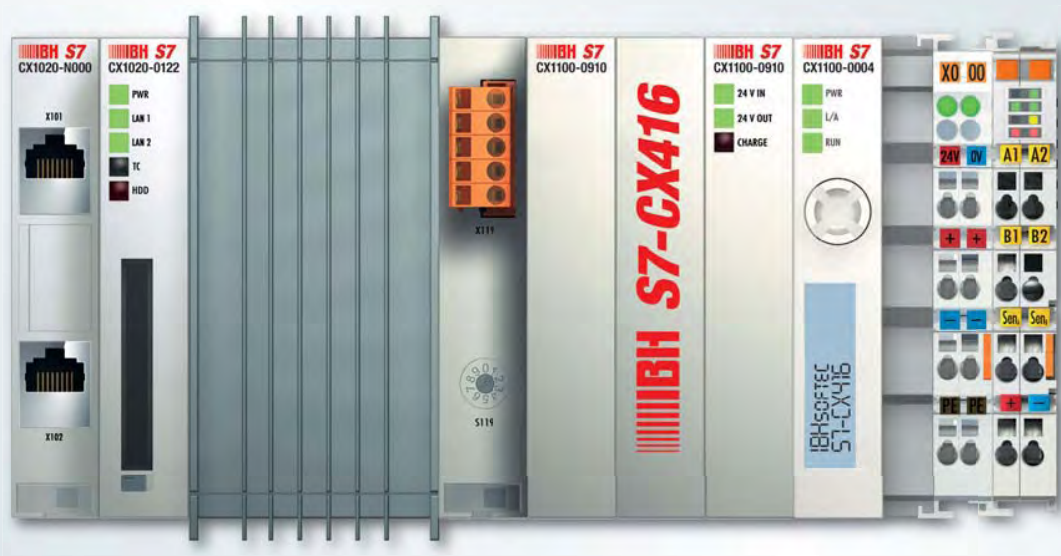
The **S7-CX PLC** will be supplied preconfigured, so it is immediately ready to use.

With the Beckhoff System Configurator, the variety of the Beckhoff I/O terminal modules can be configured.

The user takes benefit from a flexible automation system and can take advantage of the wide-spread S7-programming tool.



The PLC, that connects two worlds



IBH S7-CX416

The S7-compatible PLC based on Beckhoff-hardware with EtherCAT

RAM: 64 MB

Load memory: 8 MB

Retain memory: all data

Processing time: 0,015µs/Instr.

- PU functions with Step[®]7 or S7 for Windows[®] over Ethernet with the ISO on TCP (RFC1006) or the IBHLink protocol.
- HMI applications can connect via ISO on TCP (RFC1006), the IBHLink protocol or via the optional IBH OPC server for the visualization PC.
- PLC to PLC communication via the integrated Ethernet CP.
- Based on the reliable and flexible Beckhoff-hardware.
- Using the EtherCAT technology, it is possible to integrate other fieldbus segments, as for instance Profibus DP, CANOpen, ASi and DeviceNet at any place of the EtherCAT network.
- Special functions for the peripheral devices (ADS functions) can be called via integrated function blocks.

S7-CX416 PLC (Ref 3002)



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As hardware platform for the **S7-CX**, the modular DIN rail PCs of the **CX** series of the Beckhoff automation GmbH is used. The fieldbus used to control the central and the distributed IO primarily is EtherCAT (Real-Time Ethernet).

Technical data:

RAM

<i>IBH S7-CX317:</i>	16MB
<i>IBH S7-CX416:</i>	64MB

Load memory:

<i>IBH S7-CX317:</i>	4MB
<i>IBH S7-CX416:</i>	8MB

Retain memory:

<i>IBH S7-CX317:</i>	64KB
<i>IBH S7-CX416:</i>	all Data

Processing time:

<i>IBH S7-CX317:</i>	0,3µs/Instr.
<i>IBH S7-CX416:</i>	0,015µs/Instr.

Dimensions:

<i>IBH S7-CX317:</i>	59 mm x 100 mm x 91 mm
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Internal Bussystem of the CPU:

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