

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

PRODUCT BRAND

Siemens

PRODUCT MODEL

6GK7343-1EX30-0XE0

Siemens 6GK7343-1EX30-0XE0 is a SIMATIC S7-300 CP 343-1 communications processor for Industrial Ethernet. It includes one PROFINET interface with an integrated two-port 10/100 Mbps switch.

OFFICIAL SOURCE

CP 343-1 Equipment Manual

C79000-G8976-C201-09

[Open current Siemens source](#)



Legend:

- 1) Attachment to Industrial Ethernet (PROFINET interface): 2 x 8pin RJ45 jack
- 2) Connecting the power supply
- 3) Slider for setting the chassis ground connection

Figure 5-1 Connectors of the CP

Ground/chassis ground concept

Note

Note the instructions regarding the grounding and chassis ground concept in the SIMATIC S7 installation guides; see "SIMATIC S7 Programmable Controller S7300 - Installation and Hardware: Installation Manual": /12/ (Page 82)".

Behind the hinged panel on the left of the device, you will see a slider with which you can connect or disconnect the chassis ground of the 24V power supply with reference ground.

- Slider pushed in: Chassis ground and reference ground are connected (caution: you can feel the slider lock into position).
- Slider pulled out: There is no connection between chassis ground and reference ground.

When shipped: Slider pushed in

Use a screwdriver to set the slider.

Installing and connecting up

NOTICE

Ensuring ventilation

During installation, make sure that the upper and lower ventilation slits of the module are not obstructed and good ventilation is possible.

1. Install the CP on the S7 standard rail.

Slots 4 to 11 are permitted for the CP in racks 0 to 3 (connected by IM 360/361). Follow the steps described in detail in /12/ (Page 82) in the sections dealing with installation and wiring.

Note

No installation in an expansion rack

The CP cannot be operated in an expansion rack that is connected via the IM 365. Reason: The required communication bus is not connected to the expansion rack via the IM 365.

2. Establish the connection via the enclosed bus connector to the backplane bus.
3. Connect the CP to the power supply.

Follow the steps as described in detail in /12/ (Page 82) when wiring between the power supply and the CPU.

NOTICE

Same power supply

The CPU, CP and IM (if one exists) must be connected to the same power supply.
Only wire up the S7300 / C7300 with the power switched off!

4. Connect the CP to Industrial Ethernet.

An Ethernet cable can also be inserted and removed with the power supply on.

The remaining steps in commissioning involve downloading the configuration data.

Downloading and addressing

You can connect the PG as follows when downloading the configuration data:

- Via MPI
- Via Industrial Ethernet

For further details, refer to the general Part A of this manual.

- Addressing the first time (IP address assignment / node initialization)
- To download the defined configuration

The PG / PC requires a LAN attachment, for example via a CP 1613 or CP 1411 and must have the necessary software (for example the S7 1613 package or SOFTNET IE). The TCP/IP protocol must be installed. The protocol used must then be applied to the S7ONLINE access point.

Connecting interface X1 to Industrial Ethernet

1. Connect the CP to Industrial Ethernet via one of the RJ45 jacks.
2. Where necessary, connect another component to the remaining free RJ45 jack.

Note

Autocrossing mechanism - effects on the connectors

For small local area networks or for attaching several Ethernet devices, a 2port switch has been integrated on the PROFINET interface of the CP.

With the autocrossing mechanism integrated in the switch, it is possible to use a standard cable to connect the PG/PC. A crossover cable is not necessary.

Please note the following points:

- Manual configuration

If a port is set to manual configuration and autonegotiation is disabled, the autocrossing mechanism is also disabled for this port. Which cable you need to use depends on the partner device (network component or end device).

In the factory, the ports are set for automatic configuration.

For more information, refer to section Network settings (Page 51)

- Connecting switches

If you connect further switches, make sure that no ring is formed in the network.

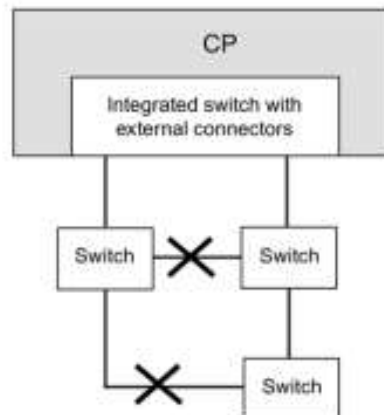


Figure 5-2 Connecting switches

Note

MRP configuration

With an MRP configuration, keep to the setup guidelines for MRP.

You will find examples of network attachments in the general Part A of this manual, see /1/ (Page 79).

Technical specifications

Table 8- 1 Technical specifications

Technical specifications		
Attachment to Industrial Ethernet		
Number	1 x PROFINET interface with 2port switch	
Execution	Connector	2 x RJ-45 jacks
	Transmission rate	10 / 100 Mbps
		When working with PROFINET IO and cyclic transfer, the transmission speed of 100 Mbps full duplex is mandatory.
	Aging time	5 minutes
	Special features of the X1P1R and X1P2R ports	Integration in ring topology / MRP possible
Electrical data		
Supply voltage	External power supply	24 VDC
	Permitted range	+20.4 V to +28.8 V
	From backplane bus	5 VDC
Current consumption	From external power supply	200 mA maximum
	From backplane bus	200 mA maximum
Effective power loss	5,8 W	
Permitted ambient conditions		
Ambient temperature	During operation with the rack installed horizontally	0 °C to +60 °C
	During operation with the rack installed vertically	0 °C to +40 °C
	During storage	-40 °C to +70 °C
	During transportation	-40 °C to +70 °C
Relative humidity	During operation	≤ 95 % at 25 °C, no condensation
Operating altitude	During operation	≤ 2,000 m above sea level
Contaminant concentration	Acc. to ISA-S71.04 severity level G1, G2, G3	
Design, dimensions and weight		
Module format	Compact module for S7-300, single width	
Degree of protection	IP20	
Weight	Approx. 220 g	
Dimensions (W x H x D)	40 x 125 x 120 mm	
Installation options	Mounting in an S7-300 rack	
Product functions *		

* You will find the product functions in the section Properties / services (Page 13).

For further data, refer to section Performance data (Page 19)