

Product type designation

CP 343-1 Advanced

Communications processor CP 343-1 Advanced for connection of SIMATIC S7-300 CPU to Industrial Ethernet: PROFINET IO controller a./o. IO device; RT and IRT, MRP, PROFINET CBA; TCP/IP, ISO, UDP, S7 comm., S5-compat. communication (SEND/RECEIVE) with Fetch/Write RFC1006, Multicast Diagnostic extension, SNMP, DHCP, FTP client/server, e-mail, Gigabit-SS1X RJ45 (10/100/1000) PROFINET interface 2x RJ45 (10/100 Mbit); PROFINET CBA; security (firewall/VPN); PROFINergy



Transmission rate

Transfer rate

- | | |
|------------------------|--------------------|
| • at the 1st interface | 10 ... 1000 Mbit/s |
| • at the 2nd interface | 10 ... 100 Mbit/s |

Interfaces

Number of interfaces / acc. to Industrial Ethernet	3
Number of electrical connections	
• at the 1st interface / acc. to Industrial Ethernet	1
• at the 2nd interface / acc. to Industrial Ethernet	2
• for power supply	1
Type of electrical connection	
• at the 1st interface / acc. to Industrial Ethernet	RJ45 port
• at the 2nd interface / acc. to Industrial Ethernet	RJ45 port
• for power supply	2-pole plugable terminal block
design of the removable storage / C-PLUG	Yes

Supply voltage, current consumption, power loss

Type of voltage / of the supply voltage	DC
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Supply voltage / 1 / from backplane bus	5 V
Supply voltage / external	24 V
Supply voltage / external / at DC / Rated value	24 V
Relative positive tolerance / at DC / at 24 V	20 %
Relative negative tolerance / at DC / at 24 V	15 %
Consumed current	
<ul style="list-style-type: none"> • from backplane bus / at DC / at 5 V / typical 	0.14 A
<ul style="list-style-type: none"> • from external supply voltage / at DC / at 24 V / typical 	0.48 A
<ul style="list-style-type: none"> • from external supply voltage / at DC / at 24 V / maximum 	0.62 A
Power loss [W]	14.7 W

Ambient conditions

Ambient temperature	
<ul style="list-style-type: none"> • for vertical installation / during operation 	0 ... 40 °C
<ul style="list-style-type: none"> • for horizontally arranged busbars / during operation 	0 ... 60 °C
<ul style="list-style-type: none"> • during storage 	-40 ... +70 °C
<ul style="list-style-type: none"> • during transport 	-40 ... +70 °C
Relative humidity	
<ul style="list-style-type: none"> • at 25 °C / without condensation / during operation / maximum 	95 %
Protection class IP	IP20

Design, dimensions and weight

Module format	Compact module
Width	80 mm
Height	125 mm
Depth	120 mm
Net weight	0.8 kg
Mounting type	
<ul style="list-style-type: none"> • S7-300 rail mounting 	Yes

Performance data / open communication

Number of possible connections / for open communication / by means of SEND/RECEIVE blocks / maximum	16
Amount of data	
<ul style="list-style-type: none"> • as user data per ISO connection / for open communication / by means of SEND/RECEIVE blocks / maximum 	8 Kibyte
<ul style="list-style-type: none"> • as user data per ISO on TCP connection / for open communication / by means of SEND/RECEIVE blocks / maximum 	8 Kibyte

<ul style="list-style-type: none"> • as user data per TCP connection / for open communication / by means of SEND/RECEIVE blocks / maximum 	8 Kibyte
<ul style="list-style-type: none"> • as user data per UDP connection / for open IE communication / by means of SEND/RECEIVE blocks / maximum 	2 Kibyte
Number of Multicast stations	16

Performance data / S7 communication

Number of possible connections / for S7 communication	
<ul style="list-style-type: none"> • maximum 	16

Performance data / multi-protocol mode

Number of active connections / with multi-protocol mode	48
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Performance data / IT functions

Number of possible connections	
<ul style="list-style-type: none"> • as client / by means of FTP / maximum 	10
<ul style="list-style-type: none"> • as server / by means of FTP / maximum 	2
Number of possible connections	
<ul style="list-style-type: none"> • as server / by means of HTTP / maximum 	4
<ul style="list-style-type: none"> • as e-mail client / maximum 	1
Amount of data / as user data for email / maximum	8 Kibyte
Storage capacity / of the user memory	
<ul style="list-style-type: none"> • as flash memory file system 	28 Mibyte
<ul style="list-style-type: none"> • as RAM 	30 Mibyte
Number of possible write cycles / of the flash memory cells	100000

Performance data / PROFINET communication / as PN IO-Controller

Product function / PROFINET IO controller	Yes
Number of PN IO devices / on PROFINET IO controller / usable / total	128
Number of PN IO IRT devices / on PROFINET IO controller / usable	128
Number of external PN IO lines / with PROFINET / per rack	1
Amount of data	
<ul style="list-style-type: none"> • as user data for input variables / as PROFINET IO controller / maximum 	4 Kibyte
<ul style="list-style-type: none"> • as user data for input variables / as PROFINET IO controller / maximum 	4 Kibyte
<ul style="list-style-type: none"> • as user data for input variables per PN IO device / as PROFINET IO controller / maximum 	1433 byte

• as user data for output variables per PN IO device / as PROFINET IO controller / maximum	1433 byte
• as user data for input variables per PN IO device / for each sub-module as PROFINET IO controller / maximum	240 byte
• as user data for output variables per PN IO device / for each sub-module as PROFINET IO controller / maximum	240 byte

Performance data / PROFINET communication / as PN IO-Device

Product function / PROFINET IO device	Yes
Amount of data	
• as user data for input variables / as PROFINET IO device / maximum	1024 byte
• as user data for input variables / as PROFINET IO device / maximum	1024 byte
• as user data for input variables / for each sub-module as PROFINET IO device	240 byte
• as user data for input variables / for each sub-module as PROFINET IO device	240 byte
• as user data for the consistency area for each sub-module	240 byte
Number of submodules / per PROFINET IO-Device	32

Performance data / PROFINET CBA

Number of remote connection partners / with PROFINET CBA	64
Number of connections / with PROFINET CBA / total	1000
Amount of data	
• as user data for digital inputs / with PROFINET CBA / maximum	8 Kibyte
• as user data for digital outputs / with PROFINET CBA / maximum	8 Kibyte
• as user data for arrays and data types / in the case of acyclic transmission / with PROFINET CBA / maximum	8 Kibyte
• as user data for arrays and data types / with PROFINET CBA / with cyclical transfer / maximum	250 byte
• as user data for arrays and data types / with PROFINET CBA / in the case of local interconnection / maximum	2400 byte

Performance data / PROFINET CBA / remote connection / with acyclic transmission

Refresh time / of the remote interconnections / in the case of acyclic transmission / with PROFINET CBA	100 ms
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Number of remote connections to input variables / in the case of acyclic transmission / with PROFINET CBA / maximum	128
Number of remote connections to output variables / in the case of acyclic transmission / with PROFINET CBA / maximum	128
Amount of data <ul style="list-style-type: none"> as user data for remote interconnections with input variables / in the case of acyclic transmission / with PROFINET CBA as user data for remote interconnections with output variables / in the case of acyclic transmission / with PROFINET CBA 	8 Kibyte 8 Kibyte

Performance data / PROFINET CBA / remote connection / with cyclic transmission

Refresh time / of the remote interconnections / with PROFINET CBA / with cyclical transfer	8 ms
Number of remote connections to input variables / with PROFINET CBA / with cyclical transfer / maximum	200
Number of remote connections to output variables / with PROFINET CBA / with cyclical transfer / maximum	200
Amount of data <ul style="list-style-type: none"> as user data for remote interconnections with input variables / with PROFINET CBA / with cyclical transfer / maximum as user data for remote interconnections with output variables / with PROFINET CBA / with cyclical transfer / maximum 	2000 byte 2000 byte

Performance data / PROFINET CBA / HMI variables via PROFINET / acyclic

Number of connectable HMI stations / for HMI variables / in the case of acyclic transmission / with PROFINET CBA	3
Refresh time / of the HMI variables / in the case of acyclic transmission / with PROFINET CBA	500 ms
Number of HMI variables / in the case of acyclic transmission / with PROFINET CBA / maximum	200
Amount of data / as user data for HMI variables / in the case of acyclic transmission / with PROFINET CBA / maximum	8 Kibyte

Performance data / PROFINET CBA / device-internal connections

Number of internal connections / with PROFINET CBA / maximum	256
Amount of data / of the internal connections / with PROFINET CBA / maximum	2400 byte

Performance data / PROFINET CBA / connections to constants

Number of connections with constants / with PROFINET CBA / maximum	200
Amount of data / as user data for interconnections with constants / with PROFINET CBA / maximum	4096 byte

Performance data / PROFINET CBA / PROFIBUS proxy functionality

Product function / with PROFINET CBA / PROFIBUS proxy functionality	No
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Performance data / telecontrol

Protocol / is supported	
• TCP/IP	Yes

Product functions / management, configuration

Product function / MIB support	Yes
Protocol / is supported	
• SNMP v1	Yes
• SNMP v3	Yes
• DCP	Yes
• LLDP	Yes
Configuration software	
• required	STEP7 V5.5 SP2 HF1 or higher / STEP 7 Professional V12 (TIA Portal) or higher
• for PROFINET CBA / required	SIMATIC iMap V3.0 SP4 and higher
Identification & maintenance function	
• I&M0 - device-specific information	Yes
• I&M1 – higher-level designation/location designation	Yes

Product functions / Diagnosis

Product function / Web-based diagnostics	Yes
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Product functions / switch

Product feature / Switch	Yes
Product function	
• switch-managed	No
• with IRT / PROFINET IO switch	Yes
• Configuration with STEP 7	Yes

Product functions / Redundancy

Product function	
• Ring redundancy	Yes
• Redundancy manager	Yes
Protocol / is supported / Media Redundancy Protocol (MRP)	Yes

Product functions / Security

Firewall version	stateful inspection
Product function / with VPN connection	IPSec
Type of encryption algorithms / with VPN connection	AES-256, AES-192, AES-128, 3DES-168, DES-56
Type of authentication procedure / with VPN connection	Preshared key (PSK), X.509v3 certificates
Type of hashing algorithms / with VPN connection	MD5, SHA-1
Number of possible connections / with VPN connection	32
Product function	
• password protection for Web applications	Yes
• ACL - IP-based	Yes
• ACL - IP-based for PLC/routing	Yes
• switch-off of non-required services	Yes
• Blocking of communication via physical ports	Yes
• log file for unauthorized access	No

Product functions / Time

Product function / SICLOCK support	Yes
Product function / pass on time synchronization	Yes
Protocol / is supported	
• NTP	Yes

Further Information / Internet Links

Internet-Link	
• to website: Selector SIMATIC NET SELECTION TOOL	http://www.siemens.com/snst
• to website: Industrial communication	http://www.siemens.com/simatic-net
• to website: Industry Mall	https://mall.industry.siemens.com
• to website: Information and Download Center	http://www.siemens.com/industry/infocenter
• to website: Image database	http://automation.siemens.com/bilddb
• to website: CAx Download Manager	http://www.siemens.com/cax
• to website: Industry Online Support	https://support.industry.siemens.com

Security information

Security information

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