

### 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, email, Gigabit-SS1X RJ45 (10/100/1000); PROFINET interface 2x RJ45 (10/100 Mbit/s); PROFINET CBA; firewall/VPN; PROfinenergy.

transfer rate	
transfer rate	
• at the 1st interface	10 ... 1000 Mbit/s
• at the 2nd interface	10 ... 100 Mbit/s
interfaces	
number of interfaces / according to Industrial Ethernet	3
number of electrical connections	
• at the 1st interface / according to Industrial Ethernet	1
• at the 2nd interface / according to Industrial Ethernet	2
• for power supply	1
type of electrical connection	
• at the 1st interface / according to Industrial Ethernet	RJ45 port
• at the 2nd interface / according to Industrial Ethernet	RJ45 port
type of electrical connection	
• 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
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	
• from backplane bus / at DC / at 5 V / typical	0.14 A
• from external supply voltage / at DC / at 24 V / typical	0.48 A
• from external supply voltage / at DC / at 24 V / maximum	0.62 A
power loss [W]	14.7 W
ambient conditions	
ambient temperature	
• for vertical installation / during operation	0 ... 40 °C
• for horizontally arranged busbars / during operation	0 ... 60 °C
• during storage	-40 ... +70 °C
• during transport	-40 ... +70 °C
relative humidity	
• at 25 °C / without condensation / during operation / maximum	95 %
protection class IP	IP20

<b>design, dimensions and weights</b>	
module format	Compact module
width	80 mm
height	125 mm
depth	120 mm
net weight	0.45 kg
fastening method	
• S7-300 rail mounting	Yes
<b>performance data / open communication</b>	
number of possible connections / for open communication / by means of SEND/RECEIVE blocks / maximum	16
data volume	
• as user data per ISO connection / for open communication / by means of SEND/RECEIVE blocks / maximum	8 Kibyte
• as user data per ISO on TCP connection / for open communication / by means of SEND/RECEIVE blocks / maximum	8 Kibyte
• as user data per TCP connection / for open communication / by means of SEND/RECEIVE blocks / maximum	8 Kibyte
• as user data per UDP connection / for open IE communication / by means of SEND/RECEIVE blocks / maximum	2 Kibyte
number of Multicast stations	16
<b>performance data / S7 communication</b>	
number of possible connections / for S7 communication	
• maximum	16
<b>performance data / multi-protocol mode</b>	
number of active connections / with multi-protocol mode	48
<b>performance data / IT functions</b>	
number of possible connections	
• as client / by means of FTP / maximum	10
• as server / by means of FTP / maximum	2
number of possible connections	
• as server / by means of HTTP / maximum	4
• as email client / maximum	1
data volume / as user data for email / maximum	8 Kibyte
storage capacity / of the user memory	
• as flash memory file system	28 Miabyte
• as RAM	30 Miabyte
number of possible write cycles / of the flash memory cells	100000
<b>performance data / PROFINET communication / as PN IO controller</b>	
product function / PROFINET IO controller	Yes
number of PN IO devices / on PROFINET IO controller / operable / total	128
number of PN IO IRT devices / on PROFINET IO controller / operable	128
number of external PN IO lines / with PROFINET / per rack	1
data volume	
• as user data for input variables / as PROFINET IO controller / maximum	4 Kibyte
• as user data for output variables / as PROFINET IO controller / maximum	4 Kibyte
• 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
<b>performance data / PROFINET communication / as PN IO device</b>	
product function / PROFINET IO device	Yes
data volume	

<ul style="list-style-type: none"> <li>• as user data for input variables / as PROFINET IO device / maximum</li> </ul>	1024 byte
<ul style="list-style-type: none"> <li>• as user data for output variables / as PROFINET IO device / maximum</li> </ul>	1024 byte
<ul style="list-style-type: none"> <li>• as user data for input variables / for each sub-module as PROFINET IO device</li> </ul>	240 byte
<ul style="list-style-type: none"> <li>• as user data for output variables / for each sub-module as PROFINET IO device</li> </ul>	240 byte
<ul style="list-style-type: none"> <li>• as user data for the consistency area for each sub-module</li> </ul>	240 byte
number of submodules / per PROFINET IO-Device	32
<b>performance data / PROFINET CBA</b>	
number of remote connection partners / with PROFINET CBA	64
number of connections / with PROFINET CBA / total	1000
data volume	
<ul style="list-style-type: none"> <li>• as user data for digital inputs / with PROFINET CBA / maximum</li> </ul>	8 Kibyte
<ul style="list-style-type: none"> <li>• as user data for digital outputs / with PROFINET CBA / maximum</li> </ul>	8 Kibyte
<ul style="list-style-type: none"> <li>• as user data for arrays and data types / in the case of acyclic transmission / with PROFINET CBA / maximum</li> </ul>	8 Kibyte
<ul style="list-style-type: none"> <li>• as user data for arrays and data types / with PROFINET CBA / with cyclical transfer / maximum</li> </ul>	250 byte
<ul style="list-style-type: none"> <li>• as user data for arrays and data types / with PROFINET CBA / in the case of local interconnection / maximum</li> </ul>	2400 byte
<b>performance data / PROFINET CBA / remote interconnection / with acyclic transfer</b>	
update time / of the remote interconnections / in the case of acyclic transmission / with PROFINET CBA	100 ms
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
data volume	
<ul style="list-style-type: none"> <li>• as user data for remote interconnections with input variables / in the case of acyclic transmission / with PROFINET CBA</li> </ul>	8 Kibyte
<ul style="list-style-type: none"> <li>• as user data for remote interconnections with output variables / in the case of acyclic transmission / with PROFINET CBA</li> </ul>	8 Kibyte
<b>performance data / PROFINET CBA / remote interconnection / with cyclic transfer</b>	
update time / of the remote interconnections / with cyclical transfer / with PROFINET CBA	8 ms
number of remote connections to input variables / with PROFINET CBA / with cyclic transfer / maximum	200
number of remote connections to output variables / with cyclical transfer / with PROFINET CBA / maximum	200
data volume	
<ul style="list-style-type: none"> <li>• as user data for remote interconnections with input variables / with cyclical transfer / with PROFINET CBA / maximum</li> </ul>	2000 byte
<ul style="list-style-type: none"> <li>• as user data for remote interconnections with output variables / with cyclical transfer / with PROFINET CBA / maximum</li> </ul>	2000 byte
<b>performance data / PROFINET CBA / HMI variables via PROFINET / acyclic</b>	
number of connectable HMI stations / for HMI variables / in the case of acyclic transmission / with PROFINET CBA	3
update 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
data volume / as user data for HMI variables / in the case of acyclic transmission / with PROFINET CBA / maximum	8 Kibyte
<b>performance data / PROFINET CBA / device-internal interconnections</b>	
number of internal connections / with PROFINET CBA / maximum	256
data volume / of the internal connections / with PROFINET CBA / maximum	2400 byte
<b>performance data / PROFINET CBA / interconnections to constants</b>	
number of connections with constants / with PROFINET CBA / maximum	200

data volume / as user data for interconnections with constants / with PROFINET CBA / maximum	4096 byte
<b>performance data / PROFINET CBA / PROFIBUS proxy functionality</b>	
product function / with PROFINET CBA / PROFIBUS proxy functionality	No
<b>performance data / telecontrol</b>	
protocol / is supported	
• TCP/IP	Yes
<b>product functions / management, configuration, engineering</b>	
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 function / is supported / identification link	Yes; acc. to IEC 61406-1:2022
<b>product functions / diagnostics</b>	
product function / web-based diagnostics	Yes
<b>product functions / switch</b>	
product feature / switch	Yes
product function	
• switch-managed	No
• with IRT / PROFINET IO switch	Yes
• configuration with STEP 7	Yes
<b>product functions / redundancy</b>	
product function	
• ring redundancy	Yes
• redundancy manager	Yes
protocol / is supported / Media Redundancy Protocol (MRP)	Yes
<b>product functions / security</b>	
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
<b>product functions / time</b>	
product function / SICLOCK support	Yes
product function / pass on time synchronization	Yes
protocol / is supported	
• NTP	Yes
<b>standards, specifications, approvals</b>	
reference code	
• according to IEC 81346-2:2019	KEC
<b>standards, specifications, approvals / Environmental Product Declaration</b>	
global warming potential [CO2 eq]	
• total	153.1 kg

- during manufacturing
- during operation
- after end of life

26.4 kg  
126.16 kg  
0.54 kg

#### further information / internet links

##### internet link

- to website: Selection guide for cables and connectors
- to web page: selection aid TIA Selection Tool
- to website: Industrial communication
- to web page: SiePortal
- to website: Image database
- to website: CAX-Download-Manager
- to website: Industry Online Support

<https://support.industry.siemens.com/cs/ww/en/view/109766358>  
<https://www.siemens.com/tstcloud>  
<https://www.siemens.com/simatic-net>  
<https://sieportal.siemens.com/>  
<https://www.automation.siemens.com/bilddb>  
<https://siemens.com/cax>  
<https://support.industry.siemens.com>

#### security information

##### security information

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#### Approvals / Certificates

##### General Product Approval



[Declaration of Conformity](#)



##### General Product Approval

##### EMV

##### For use in hazardous locations

[Miscellaneous](#)



[KC](#)



[FM](#)

##### For use in hazardous locations

##### Marine / Shipping

##### Environment

[CCC-Ex](#)



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