

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; PROFinergy.

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 |

design, dimensions and weights	
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
performance data / open communication	
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
performance data / S7 communication	
number of possible connections / for S7 communication	
• maximum	16
performance data / multi-protocol mode	
number of active connections / with multi-protocol mode	48
performance data / IT functions	
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 Mibyte
• 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 / 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
performance data / PROFINET communication / as PN IO device	
product function / PROFINET IO device	Yes
data volume	

<ul style="list-style-type: none"> • as user data for input variables / as PROFINET IO device / maximum 	1024 byte
<ul style="list-style-type: none"> • as user data for output variables / as PROFINET IO device / maximum 	1024 byte
<ul style="list-style-type: none"> • as user data for input variables / for each sub-module as PROFINET IO device 	240 byte
<ul style="list-style-type: none"> • as user data for output variables / for each sub-module as PROFINET IO device 	240 byte
<ul style="list-style-type: none"> • 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
data volume	
<ul style="list-style-type: none"> • as user data for digital inputs / with PROFINET CBA / maximum 	8 Kibyte
<ul style="list-style-type: none"> • as user data for digital outputs / with PROFINET CBA / maximum 	8 Kibyte
<ul style="list-style-type: none"> • as user data for arrays and data types / in the case of acyclic transmission / with PROFINET CBA / maximum 	8 Kibyte
<ul style="list-style-type: none"> • as user data for arrays and data types / with PROFINET CBA / with cyclical transfer / maximum 	250 byte
<ul style="list-style-type: none"> • 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 interconnection / with acyclic transfer	
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"> • as user data for remote interconnections with input variables / in the case of acyclic transmission / with PROFINET CBA 	8 Kibyte
<ul style="list-style-type: none"> • as user data for remote interconnections with output variables / in the case of acyclic transmission / with PROFINET CBA 	8 Kibyte
performance data / PROFINET CBA / remote interconnection / with cyclical transfer	
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"> • as user data for remote interconnections with input variables / with cyclical transfer / with PROFINET CBA / maximum 	2000 byte
<ul style="list-style-type: none"> • as user data for remote interconnections with output variables / with cyclical transfer / with PROFINET CBA / maximum 	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
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
performance data / PROFINET CBA / device-internal interconnections	
number of internal connections / with PROFINET CBA / maximum	256
data volume / of the internal connections / with PROFINET CBA / maximum	2400 byte
performance data / PROFINET CBA / interconnections to constants	
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
performance data / PROFINET CBA / PROFIBUS proxy functionality	
product function / with PROFINET CBA / PROFIBUS proxy functionality	No
performance data / telecontrol	
protocol / is supported	
• TCP/IP	Yes
product functions / management, configuration, engineering	
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
product functions / diagnostics	
product function / web-based diagnostics	Yes
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
standards, specifications, approvals	
reference code	
• according to IEC 81346-2:2019	KEC
standards, specifications, approvals / Environmental Product Declaration	
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

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General Product Approval

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