

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

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|------------------------|--------------------|
| 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

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|--|--------|
| 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

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|--|----------------|
| 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 |

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| 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 Miabyte |
| • as RAM | 30 Miabyte |
| 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 | |

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| <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 cyclic 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 |

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| 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 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 / hazardous environments | |
| certificate of suitability / CCC / for hazardous zone according to GB standard | Yes; GB3836.1, GB3836.8 |
| • as marking | Ex nA IIC T4 Gc |
| further information / internet links | |
| internet link | |
| • to web page: selection aid TIA Selection Tool | http://www.siemens.com/tia-selection-tool |

- to website: Industrial communication
- to website: Industry Mall
- to website: Information and Download Center
- to website: Image database
- to website: CAX-Download-Manager
- to website: Industry Online Support

<http://www.siemens.com/simatic-net>
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security information

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