# SIEMENS

| **Data sheet** | **6GK7343-1GX31-0XE0** |
|---|---|

| 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; PROFIenergy.

| **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 | |

| | |
|---|---|
| ● as user data for input variables / as PROFINET IO device / maximum | 1024 byte |
| ● as user data for output 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 output 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 |
| data volume | |
| ● 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 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 | |
| ● as user data for remote interconnections with input variables / in the case of acyclic transmission / with PROFINET CBA | 8 Kibyte |
| ● 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 | |
| ● as user data for remote interconnections with input variables / with cyclical transfer / with PROFINET CBA / maximum | 2000 byte |
| ● 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 |

| **further information / internet links** | |
|---|---|
| internet link | |
| ● to web page: selection aid TIA Selection Tool | https://www.siemens.com/tstcloud |

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| ● to website: Industrial communication | https://www.siemens.com/simatic-net |
| ● to web page: SiePortal | https://sieportal.siemens.com/ |
| ● to website: Image database | https://www.automation.siemens.com/bilddb |
| ● to website: CAx-Download-Manager | https://siemens.com/cax |
| ● to website: Industry Online Support | https://support.industry.siemens.com |

## security information

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|---|---|
| security information | Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks. In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept. Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place. For additional information on industrial cybersecurity measures that may be implemented, please visit www.siemens.com/cybersecurity-industry. Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats. To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under https://www.siemens.com/cert. (V4.7) |

## Approvals / Certificates

### General Product Approval

| CE | Declaration of Conformity | UKCA | CCC | EAC | UL |
|---|---|---|---|---|---|
| EG-Konf. | | | CCC | | UL |

| General Product Approval | EMV | For use in hazardous locations | | |
|---|---|---|---|---|
| Miscellaneous | KC | IECEx | Ex ATEX | FM |
| RCM | | IECEx | | |

| For use in hazardous locations | Marine / Shipping | Environment | |
|---|---|---|---|
| CCC-Ex | PRS | Confirmation | EPD |
| UL | | | |

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