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 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
• 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://www.siemens.com/cax
● to website: Industry Online Support	https://support.industry.siemens.com

security information

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

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 | Confirmation

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