SIEMENS

Data sheet 6AG2243-1BX30-1XE0

product type designation	**CP 1243-1 RAIL**



Figure similar

SIPLUS S7-1200 CP 1243-1 rail based on 6GK7243-1BX30-0XE0 with conformal coating, -25…+70 °C, OT1 with ST1/2 (+70 °C für 10 minutes), communications processor CP 1243-1 for connection of SIMATIC S7-1200 as additional Ethernet interface and for connection to control centers via telecontrol protocols (DNP3, IEC 60870, TeleControl Basic), security (firewall, VPN)

product brand name	SIPLUS
Technical Product Detail Page	https://www.plcbin.com/?s=6AG2243-1BX30-1XE0
transfer rate	
transfer rate	
● at the 1st interface	10 ... 100 Mbit/s
interfaces	
number of interfaces / according to Industrial Ethernet	1
number of electrical connections	
● at the 1st interface / according to Industrial Ethernet	1
● for power supply	0
type of electrical connection	
● at the 1st interface / according to Industrial Ethernet	RJ45 port
supply voltage, current consumption, power loss	
type of voltage / of the supply voltage	DC
supply voltage / 1 / from backplane bus	5 V
consumed current	
● from backplane bus / at DC / at 5 V / typical	0.25 A
power loss [W]	1.25 W
ambient conditions	
ambient temperature	
● for vertical installation / during operation	-25 ... +60 °C
● for horizontally arranged busbars / during operation	-25 ... +70 °C
● during storage	-40 ... +70 °C
● during transport	-40 ... +70 °C
● note	+70 °C for 10 min (OT1, ST1/ST2 according to EN 50155)
installation altitude / at height above sea level / maximum	2000 m
ambient condition / relating to ambient temperature - air pressure - installation altitude	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m)
relative humidity	
● with condensation / according to IEC 60068-2-38 / maximum	100 %; RH including condensation/frost (no commissioning when condensation is present), horizontal installation
chemical resistance / to commercially available cooling lubricants	Yes; incl. airborne diesel and oil droplets
resistance to biologically active substances	
● conformity according to EN 60721-3-3	Yes; Class 3B2 mold and fungal spores (excluding fauna), Class 3B3 on request
● conformity according to EN 60721-3-5	Yes; Class 5B2 mold and fungal spores (excluding fauna), Class 5B3 on request

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resistance to chemically active substances	
● conformity according to EN 60721-3-3	Yes; Class 3C4 (RH < 75 %) incl. salt spray in accordance with EN 60068-2-52 (Severity 3). The supplied plug covers must remain in place on the unused interfaces during operation.
● conformity according to EN 60721-3-5	Yes; Class 5C3 (RH < 75%) including salt spray acc. to EN 60068-2-52 (Severity level 3). The supplied plug covers must remain in place over the unused interfaces during operation!
resistance to mechanically active substances	
● conformity according to EN 60721-3-3	Yes; Class 3S4 incl. sand, dust. The supplied plug covers must remain in place over the unused interfaces during operation.
● conformity according to EN 60721-3-5	Yes; Class 5S3 incl. sand, dust. The supplied plug covers must remain in place over the unused interfaces during operation!
coating / for equipped printed circuit board / according to EN 61086	Yes; Class 2 for high availability
type of coating / protection against pollution according to EN 60664-3	Yes; Protection of the type 1
type of coating / for electronic devices in railway applications according to EN 50155	Yes; Protective coating of the Class PC2 according to EN 50155:2017
type of test / of the coating / according to MIL-I-46058C	Yes; Coating discoloration during service life possible
product conformity / of the coating / Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A	Yes; Conformal coating, class A
protection class IP	IP20
design, dimensions and weights	
module format	Compact module S7-1200 single width
width	30 mm
height	110 mm
depth	75 mm
net weight	0.122 kg
fastening method	
● 35 mm DIN-rail mounting	Yes
● wall mounting	Yes
product features, product functions, product components / general	
number of units	
● per CPU / maximum	3
product functions / cloud connectivity	
protocol / is supported	
● Message Queuing Telemetry Transport (MQTT)	Yes
● Advanced Message Queuing Protocol (AMQP)	No
product function / for cloud connectivity	
● trigger management	Yes
● time stamping	Yes
product feature / for cloud connectivity / buffered message frame memory	No
number of active connections / for cloud connectivity	1
number of data points per device / maximum	500
performance data / open communication	
number of possible connections / for open communication	
● by means of T blocks / maximum	like CPU
performance data / S7 communication	
number of possible connections / for S7 communication	
● maximum	like CPU
performance data / IT functions	
number of possible connections	
● as email client / maximum	1
performance data / telecontrol	
suitability for use	
● node station	No
● substation	Yes
● TIM control center	No
control center connection	For use with TeleControl Server Basic, WinCC and PCS7
● by means of a permanent connection	supported

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● note	Connection to SCADA system via Telecontrol Server Basic and Standard Telecontrol protocols
protocol / is supported	
● DNP3	Yes
● IEC 60870-5	Yes
product function / data buffering if connection is aborted	Yes; 64,000 events
number of data points per device / maximum	200
number of stations / for direct communication / with Telecontrol Server Basic	
● in send direction / maximum	3
● in receive direction / maximum	15
performance data / teleservice	
diagnostics function / online diagnostics with SIMATIC STEP 7	Yes
product function	
● program download with SIMATIC STEP 7	Yes
● remote firmware update	Yes
product functions / management, configuration, engineering	
configuration software	
● required	STEP 7 Basic/Professional
product function / is supported / identification link	Yes; acc. to IEC 61406-1:2022
product functions / diagnostics	
product function / web-based diagnostics	Yes
product functions / security	
firewall version	stateful inspection
product function / with VPN connection	IPsec, SINEMA RC
type of encryption algorithms / with VPN connection	AES-256, AES-192, AES-128, 3DES-168
type of authentication procedure / with VPN connection	Preshared key (PSK), X.509v3 certificates
type of hashing algorithms / with VPN connection	MD5, SHA-1, SHA-2
number of possible connections / with VPN connection	8
product function	
● password protection for Web applications	No
● password protection for teleservice access	No
● encrypted data transmission	Yes
● ACL - IP-based	No
● ACL - IP-based for PLC/routing	No
● switch-off of non-required services	Yes
● blocking of communication via physical ports	No
● log file for unauthorized access	No
product functions / time	
protocol / is supported	
● NTP	Yes
● NTP (secure)	Yes
time synchronization	
● from NTP-server	Yes
● from control center	Yes
product functions / position detection	
certificate of suitability / railway application in accordance with EN 50121-3-2	Yes; EMC for railway vehicles
certificate of suitability / railway application in accordance with EN 50121-4	Yes; EMC for signaling and telecommunications equipment
certificate of suitability / railway application in accordance with EN 50124-1	Yes; Railway applications - Overvoltage category OV2 pollution degree PD2 rated impulse voltage UNi = 0.5 kVUNm = DC 24
certificate of suitability / railway application in accordance with EN 50125-1	Yes; Railway vehicles - See ambient conditions
certificate of suitability / railway application in accordance with EN 50125-2	Yes; Fixed-electrical installations - see ambient conditions
certificate of suitability / railway application in accordance with EN 50125-3	Yes; Signal and telecommunications equipment - see Ambient conditions vibrations and shocks: Application point outside the rails (distance 1 m to 3 m from rail)
certificate of suitability / railway application in accordance with EN 50155	Yes; Railway vehicles - temperature class OT1, ST1/ST2, horizontal mounting position

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certificate of suitability / railway application in accordance with EN 61373	Yes; Railway vehicles - Vibrations and shocks Category 1 Class A/B
certificate of suitability / fire protection in accordance with EN 45545-2	Yes; Railway vehicles - for proof, see Service & Support

further information / internet links

internet link	
● to website: Selection guide for cables and connectors	https://www.plcbin.com/?s=6AG2243-1BX30-1XE0
● to web page: selection aid TIA Selection Tool	https://www.plcbin.com/?s=6AG2243-1BX30-1XE0
● to website: Industrial communication	https://www.plcbin.com/?s=6AG2243-1BX30-1XE0
● to web page: SiePortal	https://www.plcbin.com/?s=6AG2243-1BX30-1XE0
● to website: Image database	https://www.plcbin.com/?s=6AG2243-1BX30-1XE0
● to website: CAx-Download-Manager	
● to website: Industry Online Support	https://www.plcbin.com/?s=6AG2243-1BX30-1XE0

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.plcbin.com/?s=6AG2243-1BX30-1XE0. (V4.7)

Approvals / Certificates

General Product Approval

Manufacturer Declaration

China RoHS

General Product Approval	EMV	Railway
	China RoHS	Confirmation

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