

### product type designation



### CP 443-1 Advanced

Communications processor CP 443-1 Advanced 1x 10/100/1000 Mbps, 4x 10/100 Mbps (IE switch) RJ45 ports; ISO; TCP; UDP; PROFINET IO controller; S7 communication; Open communication (send/receive) S7 routing; IP configuration via DHCP/block; IP access control list; time-of-day synchronization; extended web diagnostics; Fast Startup; PROFINET support; IP routing; FTP; Web server; email; please note SIOS ID: 109799025

Technical Product Detail Page

<https://l.siemens.com/1P6GK7443-1GX30-0XE0>

### 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

5

number of electrical connections

- at the 1st interface / according to Industrial Ethernet 1
- at the 2nd interface / according to Industrial Ethernet 4

type of electrical connection

- at the 1st interface / according to Industrial Ethernet RJ45 port
- at the 2nd interface / according to Industrial Ethernet RJ45 port

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

relative symmetrical tolerance / at DC

- at 5 V 5 %

consumed current

- from backplane bus / at DC / at 5 V / typical 1.8 A

power loss [W]

9 W

### ambient conditions

ambient temperature

- 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 S7-400 single width

width

25 mm

height

290 mm

depth

210 mm

net weight

0.7 kg

**product features, product functions, product components / general**

number of units	
• per CPU / maximum	14
• note	max. 4 as PN IO ctrl.

**performance data / open communication**

number of possible connections / for open communication / by means of SEND/RECEIVE blocks / maximum	64
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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 possible connections / for open communication	
• by means of T blocks / maximum	64

data volume	
• as user data per ISO on TCP connection / for open communication / by means of T blocks / maximum	1452 byte

**performance data / S7 communication**

number of possible connections / for S7 communication	
• maximum	128; when using several CPUs
• with PG connections / maximum	2

**performance data / multi-protocol mode**

number of active connections / with multi-protocol mode	128
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**performance data / IT functions**

number of possible connections	
• as client / by means of FTP / maximum	20
• as server / by means of FTP / maximum	10

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
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storage capacity / of the user memory	
• as flash memory file system	30 Mibyte
• as RAM	16 Mibyte
• additionally buffered as RAM via central backup battery	512 Kibyte

number of possible write cycles / of the flash memory cells	100000
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**performance data / PROFINET communication / as PN IO controller**

product function / PROFINET IO controller	Yes
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number of PN IO devices / on PROFINET IO controller / operable / total	128
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number of PN IO IRT devices / on PROFINET IO controller / operable	64
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number of external PN IO lines / with PROFINET / per rack	4
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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

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	STEP 7 V5.5 SP3 or higher / STEP 7 Professional V12 (TIA Portal) or higher
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	
certificate of suitability / CE marking	Yes
certificate of suitability / UKCA marking	Yes
certificate of suitability / cULus approval	Yes
certificate of suitability / KC approval	Yes
certificate of suitability / Regulatory Compliance Mark (RCM)	Yes
certificate of suitability / RoHS conformity	Yes
certificate of suitability / EAC approval	Yes
standards, specifications, approvals / hazardous environments / header	
certificate of suitability / ATEX	Yes
certificate of suitability / IECEx	Yes
certificate of suitability / ULhazloc approval	Yes
certificate of suitability / CCC / for hazardous zone according to GB standard	Yes
certificate of suitability / FM registration	Yes
standards, specifications, approvals / marine classification / header	
Marine classification association / American Bureau of Shipping	Yes

Europe Ltd. (ABS)	
Marine classification association / French marine classification society (BV)	Yes
Marine classification association / Chinese Classification Society (CCS)	Yes
Marine classification association / Det Norske Veritas (DNV)	Yes
Marine classification association / Lloyds Register of Shipping (LRS)	Yes
Marine classification association / Nippon Kaiji Kyokai (NK)	Yes

#### standards, specifications, approvals / Environmental Product Declaration

Environmental Product Declaration	Yes
global warming potential [CO2 eq]	
<ul style="list-style-type: none"> <li>total</li> </ul>	350.22 kg
<ul style="list-style-type: none"> <li>during manufacturing</li> </ul>	65.61 kg
<ul style="list-style-type: none"> <li>during operation</li> </ul>	281.89 kg
<ul style="list-style-type: none"> <li>after end of life</li> </ul>	2.72 kg

#### further information / internet links

internet link	
<ul style="list-style-type: none"> <li>to website: Selection guide for cables and connectors</li> <li>to web page: selection aid TIA Selection Tool</li> <li>to website: Industrial communication</li> <li>to web page: SiePortal</li> <li>to website: Image database</li> <li>to website: CAx-Download-Manager</li> <li>to website: Industry Online Support</li> </ul>	<a href="https://support.industry.siemens.com/cs/ww/en/view/109766358">https://support.industry.siemens.com/cs/ww/en/view/109766358</a> <a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a> <a href="https://www.siemens.com/simatic-net">https://www.siemens.com/simatic-net</a> <a href="https://sieportal.siemens.com/">https://sieportal.siemens.com/</a> <a href="https://www.automation.siemens.com/bilddb">https://www.automation.siemens.com/bilddb</a> <a href="https://siemens.com/cax">https://siemens.com/cax</a> <a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>

#### security information

security information	<p>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 <a href="http://www.siemens.com/cybersecurity-industry">www.siemens.com/cybersecurity-industry</a>. 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 <a href="https://www.siemens.com/cert">https://www.siemens.com/cert</a>. (V4.7)</p>
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#### Approvals / Certificates

##### General Product Approval



[Declaration of Conformity](#)



[China RoHS](#)



##### General Product Approval      EMV      For use in hazardous locations



[Miscellaneous](#)



##### For use in hazardous locations      Maritime application

[FM](#)

[CCC-Ex](#)



Maritime application

Environment

[NK / Nippon Kaiji Kyokai](#)

[CCS \(China Classification Society\)](#)



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