

product type designation



CP 443-1 Advanced

communications processor CP 443-1 Advanced 1x 10/100/1000 Mbit/s, 4x 10/100 Mbit/s (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; PROFlenergy support; IP routing; FTP; web server; email; PROFINET CBA, please note SIOS ID: 109799025 .

transfer rate	
transfer rate	
<ul style="list-style-type: none"> at the 1st interface 	10 ... 1000 Mbit/s
<ul style="list-style-type: none"> at the 2nd interface 	10 ... 100 Mbit/s
interfaces	
number of interfaces / according to Industrial Ethernet	5
number of electrical connections	
<ul style="list-style-type: none"> at the 1st interface / according to Industrial Ethernet 	1
<ul style="list-style-type: none"> at the 2nd interface / according to Industrial Ethernet 	4
type of electrical connection	
<ul style="list-style-type: none"> at the 1st interface / according to Industrial Ethernet 	RJ45 port
<ul style="list-style-type: none"> at the 2nd interface / according to Industrial Ethernet 	RJ45 port
design of the removable storage	
<ul style="list-style-type: none"> 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	
<ul style="list-style-type: none"> at 5 V 	5 %
consumed current	
<ul style="list-style-type: none"> from backplane bus / at DC / at 5 V / typical 	1.8 A
power loss [W]	9 W
ambient conditions	
ambient temperature	
<ul style="list-style-type: none"> during operation 	0 ... 60 °C
<ul style="list-style-type: none"> during storage 	-40 ... +70 °C
<ul style="list-style-type: none"> during transport 	-40 ... +70 °C
relative humidity	
<ul style="list-style-type: none"> 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 Miabyte
• as RAM	16 Miabyte
• 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 /	240 byte

maximum

- as user data for output variables per PN IO device / for each sub-module as PROFINET IO controller / maximum

240 byte

performance data / PROFINET CBA

number of remote connection partners / with PROFINET CBA

64

number of connections / with PROFINET CBA / total

600

data volume

- as user data for digital inputs / with PROFINET CBA / maximum
- as user data for digital outputs / with PROFINET CBA / maximum
- as user data for arrays and data types / in the case of acyclic transmission / with PROFINET CBA / maximum
- as user data for arrays and data types / with PROFINET CBA / with cyclical transfer / maximum
- as user data for arrays and data types / with PROFINET CBA / in the case of local interconnection / maximum

8 Kibyte

8 Kibyte

8 Kibyte

250 byte

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

150

number of remote connections to output variables / in the case of acyclic transmission / with PROFINET CBA / maximum

150

data volume

- as user data for remote interconnections with input variables / in the case of acyclic transmission / with PROFINET CBA
- as user data for remote interconnections with output variables / in the case of acyclic transmission / with PROFINET CBA

8 Kibyte

8 Kibyte

performance data / PROFINET CBA / remote interconnection / with cyclical transfer

update time / of the remote interconnections / with cyclical transfer / with PROFINET CBA

10 ms

number of remote connections to input variables / with PROFINET CBA / with cyclical transfer / maximum

250

number of remote connections to output variables / with cyclical transfer / with PROFINET CBA / maximum

250

data volume

- as user data for remote interconnections with input variables / with cyclical transfer / with PROFINET CBA / maximum
- as user data for remote interconnections with output variables / with cyclical transfer / with PROFINET CBA / maximum

2000 byte

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

300

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

500

CBA / maximum	
data volume / as user data for interconnections with constants / with PROFINET CBA / maximum	4000 byte
performance data / PROFINET CBA / PROFIBUS proxy functionality	
product function / with PROFINET CBA / PROFIBUS proxy functionality	No
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
• for PROFINET CBA / required	SIMATIC iMap V3.0 SP1 and higher
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
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	http://www.siemens.com/simatic-net
• to website: Industry Mall	https://mall.industry.siemens.com
• to website: Information and Download Center	http://www.siemens.com/industry/infocenter
• to website: Image database	http://automation.siemens.com/bilddb

- to website: CAx-Download-Manager
- to website: Industry Online Support

<http://www.siemens.com/cax>

<https://support.industry.siemens.com>

security information

security information

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