

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; PROFlenergy support; IP routing; FTP; Web server; email; 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	
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- 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
data volume	
<ul style="list-style-type: none"> • as user data per ISO connection / for open communication / by means of SEND/RECEIVE blocks / maximum 	8 Kibyte
<ul style="list-style-type: none"> • as user data per ISO on TCP connection / for open communication / by means of SEND/RECEIVE blocks / maximum 	8 Kibyte
<ul style="list-style-type: none"> • as user data per TCP connection / for open communication / by means of SEND/RECEIVE blocks / maximum 	8 Kibyte
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • by means of T blocks / maximum 	64
data volume	
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • maximum 	128; when using several CPUs
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • as client / by means of FTP / maximum 	20
<ul style="list-style-type: none"> • as server / by means of FTP / maximum 	10
number of possible connections	
<ul style="list-style-type: none"> • as server / by means of HTTP / maximum 	4
<ul style="list-style-type: none"> • as email client / maximum 	1
data volume / as user data for email / maximum	8 Kibyte
storage capacity / of the user memory	
<ul style="list-style-type: none"> • as flash memory file system 	30 Mibyte
<ul style="list-style-type: none"> • as RAM 	16 Mibyte
<ul style="list-style-type: none"> • additionally buffered as RAM via central backup battery 	512 Kibyte
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	64
number of external PN IO lines / with PROFINET / per rack	4
data volume	
<ul style="list-style-type: none"> • as user data for input variables / as PROFINET IO controller / maximum 	4 Kibyte
<ul style="list-style-type: none"> • as user data for output variables / as PROFINET IO controller / maximum 	4 Kibyte
<ul style="list-style-type: none"> • as user data for input variables per PN IO device / as PROFINET IO controller / maximum 	1433 byte
<ul style="list-style-type: none"> • as user data for output variables per PN IO device / as PROFINET IO controller / maximum 	1433 byte
<ul style="list-style-type: none"> • as user data for input variables per PN IO device / for each sub-module as PROFINET IO controller / maximum 	240 byte
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • SNMP v1 	Yes

<ul style="list-style-type: none"> • SNMP v3 	Yes
<ul style="list-style-type: none"> • DCP 	Yes
<ul style="list-style-type: none"> • LLDP 	Yes
configuration software	
<ul style="list-style-type: none"> • required 	STEP 7 V5.5 SP3 or higher / STEP 7 Professional V12 (TIA Portal) or higher
product function / is supported / identification link	Yes
product functions / diagnostics	
product function / web-based diagnostics	Yes
product functions / switch	
product feature / switch	Yes
product function	
<ul style="list-style-type: none"> • switch-managed 	No
<ul style="list-style-type: none"> • with IRT / PROFINET IO switch 	Yes
<ul style="list-style-type: none"> • configuration with STEP 7 	Yes
product functions / redundancy	
product function	
<ul style="list-style-type: none"> • ring redundancy 	Yes
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • password protection for Web applications 	Yes
<ul style="list-style-type: none"> • ACL - IP-based 	Yes
<ul style="list-style-type: none"> • ACL - IP-based for PLC/routing 	Yes
<ul style="list-style-type: none"> • switch-off of non-required services 	Yes
<ul style="list-style-type: none"> • blocking of communication via physical ports 	Yes
<ul style="list-style-type: none"> • log file for unauthorized access 	No
product functions / time	
product function / SICLOCK support	Yes
product function / pass on time synchronization	Yes
protocol / is supported	
<ul style="list-style-type: none"> • NTP 	Yes
standards, specifications, approvals / hazardous environments	
certificate of suitability / CCC / for hazardous zone according to GB standard	Yes; GB3836.1, GB3836.8
<ul style="list-style-type: none"> • as marking 	Ex nA IIC T4 Gc
further information / internet links	
internet link	
<ul style="list-style-type: none"> • to web page: selection aid TIA Selection Tool 	http://www.siemens.com/tia-selection-tool
<ul style="list-style-type: none"> • to website: Industrial communication 	http://www.siemens.com/simatic-net
<ul style="list-style-type: none"> • to website: Industry Mall 	https://mall.industry.siemens.com
<ul style="list-style-type: none"> • to website: Information and Download Center 	http://www.siemens.com/industry/infocenter
<ul style="list-style-type: none"> • to website: Image database 	http://automation.siemens.com/bilddb
<ul style="list-style-type: none"> • to website: CAx-Download-Manager 	http://www.siemens.com/cax
<ul style="list-style-type: none"> • to website: Industry Online Support 	https://support.industry.siemens.com
security information	
security information	Siemens provides products and solutions with industrial security functions that support the secure operation of plants, solutions, machines, equipment and/or networks. They are important components in a holistic industrial security concept. With this in mind, Siemens' products and solutions undergo continuous development. Siemens recommends strongly that you regularly check for product updates. For the secure operation of Siemens products and solutions, it is necessary to take suitable preventive action(e.g. cell protection concept) and integrate each component into a holistic, state-of-the-art industrial security concept. Third-party products that may be in use should also be considered. For more information about industrial security, visit http://www.siemens.com/industrialsecurity . To stay informed about product updates as they occur, sign up for a product-specific newsletter. For more

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