

## Data sheet

6GK7443-1EX31-0XE0

### product type designation



### CP 443-1

Communications processor CP 443-1; 2x 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 synchronization; extended web diagnostics; fast startup; support for PROFlenergy;

Technical Product Detail Page

<https://i.siemens.com/1P6GK7443-1EX31-0XE0>

### transfer rate

transfer rate	
• at the 1st interface	100 Mbit/s

### interfaces

number of interfaces / according to Industrial Ethernet	2
number of electrical connections	
• at the 1st interface / according to Industrial Ethernet	2
type of electrical connection	
• at the 1st interface / according to Industrial Ethernet	RJ45 port
design of the removable storage	
• C-PLUG	No

### 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	0.39 A
power loss [W]	2 W; typical 2 W, maximum 2.9 W

### ambient conditions

ambient temperature	
• during operation	0 ... 70 °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 feature / conformal coating	Yes

### 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.
<b>performance data / open communication</b>	
number of possible connections / for open communication / by means of SEND/RECEIVE blocks / maximum	64
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
<b>performance data / S7 communication</b>	
number of possible connections / for S7 communication	
• maximum	128; when using several CPUs
• with PG connections / maximum	2
<b>performance data / multi-protocol mode</b>	
number of active connections / with multi-protocol mode	128
<b>performance data / PROFINET communication / as PN IO controller</b>	
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	
• 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
<b>product functions / management, configuration, engineering</b>	
product function / MIB support	Yes
protocol / is supported	
• SNMP v1	Yes
• DCP	Yes
• LLDP	Yes
configuration software	
• required	STEP 7 V5.7 SP2 or higher / STEP 7 Professional V20 (TIA Portal) or higher
product function / is supported / identification link	Yes; acc. to IEC 61406-1:2022
<b>product functions / diagnostics</b>	
product function / web-based diagnostics	Yes
<b>product functions / switch</b>	
product feature / switch	Yes
product function	
• switch-managed	No

• with IRT / PROFINET IO switch	Yes
• configuration with STEP 7	Yes
<b>product functions / redundancy</b>	
product function	
• ring redundancy	Yes
• redundancy manager	Yes
protocol / is supported / Media Redundancy Protocol (MRP)	Yes
<b>product functions / security</b>	
product function	
• password protection for Web applications	No
• ACL - IP-based	Yes
• ACL - IP-based for PLC/routing	No
• switch-off of non-required services	Yes
• blocking of communication via physical ports	Yes
• log file for unauthorized access	No
<b>product functions / time</b>	
product function / SICLOCK support	Yes
product function / pass on time synchronization	Yes
protocol / is supported	
• NTP	Yes
• SIMATIC time synchronization (SIMATIC Time)	Yes
<b>standards, specifications, approvals</b>	
certificate of suitability / CE marking	Yes
certificate of suitability / UKCA marking	Yes
certificate of suitability / cULus approval	Yes
certificate of suitability / Regulatory Compliance Mark (RCM)	Yes
certificate of suitability / RoHS conformity	Yes
<b>standards, specifications, approvals / hazardous environments / header</b>	
certificate of suitability / ATEX	Yes
certificate of suitability / IECEx	Yes
<b>standards, specifications, approvals / Environmental Product Declaration</b>	
Environmental Product Declaration	Yes
global warming potential [CO2 eq]	
• total	127.08 kg
• during manufacturing	52.6 kg
• during operation	73.5 kg
• after end of life	0.98 kg
<b>further information / internet links</b>	
internet link	
• to website: Selection guide for cables and connectors	<a href="https://support.industry.siemens.com/cs/ww/en/view/109766358">https://support.industry.siemens.com/cs/ww/en/view/109766358</a>
• to web page: selection aid TIA Selection Tool	<a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a>
• to website: Industrial communication	<a href="https://www.siemens.com/simatic-net">https://www.siemens.com/simatic-net</a>
• to web page: SiePortal	<a href="https://sieportal.siemens.com/">https://sieportal.siemens.com/</a>
• to website: Image database	<a href="https://www.automation.siemens.com/bilddb">https://www.automation.siemens.com/bilddb</a>
• to website: CAx-Download-Manager	<a href="https://siemens.com/cax">https://siemens.com/cax</a>
• to website: Industry Online Support	<a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>
<b>security information</b>	
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#### Approvals / Certificates

General Product Approval	For use in hazardous locations	Environment
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