## SIEMENS

## Data sheet

## 6ES7211-1AE40-0XB0



SIMATIC S7-1200, CPU 1211C, compact CPU, DC/DC/DC, onboard I/O: 6 DI 24 V DC; 4 DO 24 V DC; 2 AI 0-10 V DC, power supply: DC 20.4-28.8 V DC, program/data memory 75 KB

Figure similar

General information	
Product type designation	CPU 1211C DC/DC/DC
Firmware version	V4.6
Engineering with	
<ul> <li>Programming package</li> </ul>	STEP 7 V18 or higher
Supply voltage	
Rated value (DC)	
• 24 V DC	Yes
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes
Load voltage L+	
Rated value (DC)	24 V
<ul> <li>permissible range, lower limit (DC)</li> </ul>	20.4 V
• permissible range, upper limit (DC)	28.8 V
Input current	
Current consumption (rated value)	300 mA; CPU only
Current consumption, max.	900 mA; CPU with all expansion modules
Inrush current, max.	12 A; at 28.8 V DC
l²t	0.5 A <sup>2</sup> ·s
Output current	
for backplane bus (5 V DC), max.	750 mA; Max. 5 V DC for CM
Encoder supply	
24 V encoder supply	
• 24 V	L+ minus 4 V DC min.
Power loss	
Power loss, typ.	8 W
Memory	
Work memory	
integrated	75 kbyte
Load memory	
• integrated	1 Mbyte
<ul> <li>Plug-in (SIMATIC Memory Card), max.</li> </ul>	with SIMATIC memory card
Backup	
present	Yes
maintenance-free	Yes

without battery	Yes
CPU processing times	
for bit operations, typ.	0.08 µs; / instruction
	1.7 µs; / instruction
for word operations, typ.	
for floating point arithmetic, typ. CPU-blocks	2.3 µs; / instruction
Number of blocks (total)	DBs, FCs, FBs, counters and timers. The maximum number of addressable blocks ranges from 1 to 65535. There is no restriction, the entire working memory can be used
OB	
Number, max.	Limited only by RAM for code
Data areas and their retentivity	
Retentive data area (incl. timers, counters, flags), max.	14 kbyte
Flag	
• Size, max.	4 kbyte; Size of bit memory address area
Local data	
<ul> <li>per priority class, max.</li> </ul>	16 kbyte; Priority class 1 (program cycle): 16 KB, priority class 2 to 26: 6 KB
Address area	
Process image	
<ul> <li>Inputs, adjustable</li> </ul>	1 kbyte
Outputs, adjustable	1 kbyte
Hardware configuration	
Number of modules per system, max.	3 communication modules, 1 signal board
Time of day	
Clock	
Hardware clock (real-time)	Yes
Backup time	480 h; Typical
<ul> <li>Deviation per day, max.</li> </ul>	±60 s/month at 25 °C
Digital inputs	
Number of digital inputs	6; Integrated
<ul> <li>of which inputs usable for technological functions</li> </ul>	6; HSC (High Speed Counting)
Source/sink input	Yes
Number of simultaneously controllable inputs	
all mounting positions	
— up to 40 °C, max.	6
Input voltage	
Rated value (DC)	24 V
• for signal "0"	5 V DC at 1 mA
• for signal "1"	15 V DC at 2.5 mA
Input current	
● for signal "1", typ.	4 mA; nominal
Input delay (for rated value of input voltage)	
for standard inputs	
— parameterizable	0.1 / 0.2 / 0.4 / 0.8 / 1.6 / 3.2 / 6.4 / 10.0 / 12.8 / 20.0 µs; 0.05 / 0.1 / 0.2 / 0.4 / 0.8 / 1.6 / 3.2 / 6.4 / 10.0 / 12.8 / 20.0 ms
— at "0" to "1", min.	0.2 ms
— at "0" to "1", max.	12.8 ms
for interrupt inputs	Nee.
— parameterizable	Yes
for technological functions	Single phase : 2 @ 100 kHz differential: 2 @ 00 kHz
parameterizable	Single phase : 3 @ 100 kHz, differential: 3 @ 80 kHz
Cable length	500 m for technological functions
<ul> <li>shielded, max.</li> <li>unshielded, max.</li> </ul>	500 m; 50 m for technological functions
unshielded, max.	300 m; for technological functions: No
Digital outputs	4
Number of digital outputs	4
of which high-speed outputs	4; 100 kHz Pulse Train Output
Limitation of inductive shutdown voltage to	L+ (-48 V)
Switching capacity of the outputs	0.5.4
with resistive load, max.	0.5 A
<ul> <li>on lamp load, max.</li> </ul>	5 W

Output voltage	
• for signal "0", max.	0.1 V; with 10 kOhm load
• for signal "1", min.	20 V
Output current	
<ul> <li>for signal "1" rated value</li> </ul>	0.5 A
<ul> <li>for signal "0" residual current, max.</li> </ul>	0.1 mA
Output delay with resistive load	
• "0" to "1", max.	1 µs
• "1" to "0", max.	5 µs
Switching frequency	
<ul> <li>of the pulse outputs, with resistive load, max.</li> </ul>	100 kHz
Relay outputs	
Number of relay outputs	0
Cable length	
• shielded, max.	500 m
• unshielded, max.	150 m
Analog inputs	
Number of analog inputs	2
Input ranges	
Voltage	Yes
Input ranges (rated values), voltages	
• 0 to +10 V	Yes
— Input resistance (0 to 10 V)	≥100k ohms
Cable length	
shielded, max.	100 m; twisted and shielded
Analog outputs	
Number of analog outputs	0
Analog value generation for the inputs	
Integration and conversion time/resolution per channel	
<ul> <li>Resolution with overrange (bit including sign), max.</li> </ul>	10 bit
<ul> <li>Integration time, parameterizable</li> </ul>	Yes
<ul> <li>Conversion time (per channel)</li> </ul>	625 µs
Encoder	
Connectable encoders	
• 2-wire sensor	Yes
1. Interface	
Interface type	PROFINET
Isolated	TROTINET
Isolated	Ves
	Yes
automatic detection of transmission rate	Yes
automatic detection of transmission rate Autonegotiation	Yes Yes
automatic detection of transmission rate Autonegotiation Autocrossing	Yes
automatic detection of transmission rate Autonegotiation Autocrossing Interface types	Yes Yes Yes
automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet)	Yes Yes Yes
automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports	Yes Yes Yes 1
automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch	Yes Yes Yes
automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols	Yes Yes Yes 1 No
automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller	Yes Yes Yes 1 No Yes
automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device	Yes Yes Yes 1 No Yes Yes
automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller	Yes Yes Yes 1 No Yes
automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device	Yes Yes Yes 1 No Yes Yes
automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication	Yes Yes Yes 1 No Yes Yes Yes Yes
automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication	Yes Yes Yes 1 No Yes Yes Yes Yes Yes Yes; Optionally also encrypted
automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server	Yes Yes Yes Yes 1 No Yes Yes Yes Yes Yes Yes Yes
automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy	Yes Yes Yes 1 No Yes Yes Yes Yes Yes Yes Yes
automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller	Yes Yes Yes 1 No Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller • Transmission rate, max.	Yes Yes Yes 1 No Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
automatic detection of transmission rate         Autonegotiation         Autocrossing         Interface types         • RJ 45 (Ethernet)         • Number of ports         • integrated switch         Protocols         • PROFINET IO Controller         • SIMATIC communication         • Open IE communication         • Web server         • Media redundancy         PROFINET IO Controller         • Transmission rate, max.         Services	Yes Yes Yes Yes 1 No Yes Yes Yes Yes Yes; Optionally also encrypted Yes No
automatic detection of transmission rate         Autonegotiation         Autocrossing         Interface types         • RJ 45 (Ethernet)         • Number of ports         • integrated switch         Protocols         • PROFINET IO Controller         • PROFINET IO Device         • SIMATIC communication         • Open IE communication         • Web server         • Media redundancy         PROFINET IO Controller         • Transmission rate, max.         Services         - PG/OP communication         - Nether in the image.	Yes Yes Yes Yes 1 No Yes Yes Yes Yes Yes; Optionally also encrypted Yes No Yes; Optionally also encrypted Yes No
automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller • Transmission rate, max. Services — PG/OP communication — Isochronous mode — IRT	Yes Yes Yes Yes Yes 1 No Yes Yes Yes Yes Yes; Optionally also encrypted Yes No Yes; oncryption with TLS V1.3 pre-selected No No
automatic detection of transmission rate         Autonegotiation         Autocrossing         Interface types         • RJ 45 (Ethernet)         • Number of ports         • integrated switch         Protocols         • PROFINET IO Controller         • PROFINET IO Device         • SIMATIC communication         • Open IE communication         • Web server         • Media redundancy         PROFINET IO Controller         • Transmission rate, max.         Services         - PG/OP communication         - Nether in the image.	Yes Yes Yes Yes 1 No Yes Yes Yes Yes Yes; Optionally also encrypted Yes No Yes; Optionally also encrypted Yes No

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	- Number of connectable IO Devices, max.	16
<ul> <li>Achivatorideativation of IO Devices</li> <li>Yes</li> <li>Component set for PGCPineS that can be simultaneously achivatorideativation.</li> <li>PROFINET IO Device</li> <li>PROFINET IO Device<td><ul> <li>— Number of connectable IO Devices for RT, max.</li> </ul></td><td>16</td></li></ul>	<ul> <li>— Number of connectable IO Devices for RT, max.</li> </ul>	16
- Auster of AD Devices Inst Can be simultaneously and a simultaneously and a simultaneously and a simultaneously and a configured user data. Compension and the committaneouslate of the CPC Net TI O bevices and the quantity at configured user data. PROFINET ID Device	— of which in line, max.	16
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PROFINET IO. on the number of IO. devices and the quantity of compared user data.           PROFINET IO. TO evice           Services           - PCOP communication           - Iso the number of IO. devices and the quantity of compared with TLS V1.3 pre-selected           - No           - PROF company           - Shared device           - Number of ID. Controllers with shared device, max           2           Protocols           Supports protocol for PROFINET IO           Yes           - Number of ID. Controllers with shared device, max           2           Protocols           Supports protocol for PROFINET IO           Yes           OPC UA           Yes (CM 1243.5 (matter) or CM 1242.5 (stave) required           OPC UA           Yes           OPC ID           Yes           OPC P           Yes           OPC P <t< td=""><td></td><td>8</td></t<>		8
Services           - PGOP communication         Yes, encryption with TLS V1.3 pre-selected           - IsoTronous mode         No           - IRT         No           - ReCFlerangy         Yes           - Shared device         Yes           - Number of IO Controllers with shared device, max         2           Protocols         Supports protocol for PROFINET IO         Yes           PROFIBUS         Yes, CM 1243.5 (master) or CM 1242.5 (slave) required           OPC UA         Yes, CM 1243.5 (master) or CM 1242.5 (slave) required           OPC UA         Yes, CM 1243.5 (master) or CM 1242.5 (slave) required           OPC UA         Yes, CM 1243.5 (master) or CM 1242.5 (slave) required           OPC UA         Yes, CM 1243.5 (master) or CM 1242.5 (slave) required           PROFisition         Yes           A-Interface         Yes, CM 1243.5 (master) or CM 1242.5 (slave) required           Protocols         Yes           OPC UA         Yes           • TCP/P         Yes           • DCP         Yes           • DCP         Yes           • Stronomoustation         Yes           • CP/P         Yes           • Data length, max.         3 ktype           • Data length, max.         4 ktype	— Updating time	component set for PROFINET IO, on the number of IO devices and the quantity
PGOP communication         Yes: encryption with TLS V1.3 pre-selected          Isochtronous mode         No          IRT         No          PROFILE         Yes          Shared device         Yes          Number of ID Controllers with shared device, max.         2           Protocols         Yes: CM 1243-5 (instear) or CM 1242-5 (islave) required          PROFILE         No           PROFILES         Yes: CM 1243-5 (instear) or CM 1242-5 (islave) required          PROFILES         Yes: CM 1243-2 required	PROFINET IO Device	
<ul> <li>- Isochronous mode</li> <li>- RT</li> <li>No</li> <li>- PROFlementy</li> <li>Yes</li> <li>- Shared device</li> <li>- Shared device</li> <li>- Number of Io Combilers with shared device, max.</li> <li>2</li> <li>Protocols</li> <li>- Number of Decombilers with shared device, max.</li> <li>2</li> <li>Protocols</li> <li>PROFlate</li> <li>No</li> <li>PROFlate</li> <li>No</li> <li>PROFlate</li> <li>No</li> <li>PROFlate</li> <li>Yes, CM 1243-5 (master) or CM 1242-5 (slave) required</li> <li>OPC UA</li> <li>Yes, CM 1243-2 required</li> <li>Protocols (Ensmot)</li> <li>• TCP/IP</li> <li>Yes, CM 1243-2 required</li> <li>PROFlate</li> <li>No</li> <li>SNMP</li> <li>Yes</li> <li>DHCP</li> <li>No</li> <li>SNMP</li> <li>Yes</li> <li>ULDP</li> <li>Yes</li> <li>No</li> <li>SNMP</li> <li>Yes</li> <li>Open Ecommunication</li> <li>- MRP</li> <li>- Data length, max.</li> <li>SNMp</li> <li>Yes</li> <li>Open Ecommunication</li> <li>- Data length, max.</li> <li>SNMp</li> <li>Yes</li> <li>Open Ecommunication</li> <li>- Data length, max.</li> <li>Altype</li> <li>Yes</li> <li>Open Ecommunication</li> <li>- Application authentication</li> <li>Yes</li> <li>Open Ecommunication</li> <li>- Application authentication</li> <li>- Application authentication</li> <li>- Application authentication</li> <li>- Number of sections, max.</li> <li>Number of sections, max.</li> <li>Number of sections,</li></ul>	Services	
- IRT     No       - PROFIenergy     Yes       - Shard device     Yes       - Number of ID Controllers with shared device, max.     2       Supports protocol for PROFINET IO     Yes       PROFINAL     No       PROFINAL     Yes       OPC UA     Yes       AS-Interface     Yes       PROFINAL     Yes       OPC UA     Yes       AS-Interface     Yes       OPC UA     Yes       No     No       SIMIP     Yes       OPC UA     Yes <td>— PG/OP communication</td> <td>Yes; encryption with TLS V1.3 pre-selected</td>	— PG/OP communication	Yes; encryption with TLS V1.3 pre-selected
- PROFlenergy     Yes       - Shared device     Yes       - Number of D Cortrollers with shared device, max.     2       Supports protocol for PROFINET IO     Yes       PROFisals     No       PROFisals     Yes; CM 1243-5 (master) or CM 1242-5 (slave) required       OPC UA     Yes; OM 1243-5 (required       OPC UA     Yes; OM 1243-5 (required       PROFisals     Yes; CM 1243-5 (required       OPC UA     Yes; OM 1243-5 (required       No     No       OPC UA     Yes; OM 1243-5 (required       PROFisals     Yes; OM 1243-5 (required       PROFisals     Yes; OM 1243-5 (required       OPC UA     Yes; OM 1243-5 (required       No     No       • DHOP     No       • DHOP     No       • OPC IA     Yes       • OPC IA     Yes       • OPC IA     Yes       • OPC IA     Yes       • Stand device, max.     Stande       • OPC IA     Yes       • Stander device, max.     Stander       • Stander device, max.     Stander       • OPC IA     Yes       • Data length, max.     Stander       • Data length, max.     Stander       • Data length, max.     Yes       • Data length, max.     Yes <td><ul> <li>— Isochronous mode</li> </ul></td> <td>No</td>	<ul> <li>— Isochronous mode</li> </ul>	No
- Shared device     Yes       - Number of IO Controllers with shared device, max     2       Supports protocol for PPOFINET IO     Yes       Supports protocol for PPOFINET IO     Yes       PROFIsels     Yes: ORI 1243-5 (master) or CM 1242-5 (slave) required       OPC UA     Yes: ORI 1243-5 (master) or CM 1242-5 (slave) required       PROFISE     Yes: ORI 243-5 (master) or CM 1242-5 (slave) required       OPC UA     Yes: OPC UA Server       AS-Interface     Yes: CM 1243-5 (master) or CM 1242-5 (slave) required       PROFISE     Yes: CM 1243-5 (master) or CM 1242-5 (slave) required       PROFISE     Yes: CM 1243-5 (master) or CM 1242-5 (slave) required       PROFISE     Yes: CM 1243-5 (master) or CM 1242-5 (slave) required       PROFISE     Yes: CM 1243-5 (master) or CM 1242-5 (slave) required       PROFISE     Yes: CM 1243-5 (master) or CM 1242-5 (slave) required       PROFISE     Yes: CM 1243-5 (master) or CM 1242-5 (slave) required       NO     Slave     Yes       • DPCP     Yes       • DPCP     Yes       • MRP     No       Slave     Yes       • Open IIC communication     Yes       • Open IIC communication     Yes       • Data length, max.     8 ktyte       • UOP     Yes       • Data length, max.     9 ktyte       • UOP	— IRT	No
Number of IO Controllers with shared device, max.         2           Protocol         Supports protocol for PROFINET IO         Yes           PROFIBUS         No         PROFIBUS           OPC UA         Yes; OPT 243-5 (master) or CM 1242-5 (slave) required         OPC UA           PROFIBUS         Yes; OPC UA Server         AsInterface           ASInterface         Yes; OPC UA Server           ASINPP         Yes           • CP/IP         Yes           • OHOP         No           • SINPP         Yes           • SINPP         Yes           • CP/IP         Yes           • CP/IP         Yes           • LDP         Yes           Patientiation         Yes           • MRP         No           - MRP         No           • OTORING         Yes           Open IE communication         Yes           • Data length, max.         8 ktyle           - several passive connections per port, supported         Yes           • Data length, max.         1472 byle           • UDP         Yes           • Data length, max.         1472 byle           • UDP         Yes           • Data length, max.         147	- PROFlenergy	Yes
Protocols           Supports protocol for PROFINET IO         Yes           PROFlase         No           PROFlase         Yes, OPC UA Server           AS-Interface         Yes; CM 1243-5 (master) or CM 1242-5 (slave) required           OPC UA         Yes; CM 1243-2 required           PROFlase         Yes; CM 1243-2 required           Protocols (Elternet)         Yes           • CP/PP         Yes           • DHCP         No           • DHCP         Yes           • DHCP         Yes           • DCP         Yes           • COPIE         Yes           • MRP         No           • MRPD         No           • Strouting         Yes           • Data length, max.         B ktyle           • Strouting         Yes           • Data length, max.         1472 byle           • UDP         Yes           • Data length, max.         1472 byle           • UDP         Yes           • Data length, max.		
Supports protocol for PROFINET IO         Yes           PROFIBUS         Yes; CM 1243-5 (master) or CM 1242-5 (slave) required           OPC UA         Yes; CM 1243-2 (required           AS-Interface         Yes; CM 1243-2 (required           Protocols (Ethernet)         Yes           • CP/IP         Yes           • LDP         Yes           Redundancy mode         Yes           • LDP         Yes           Redundancy mode         No           - MRP         No           - MRPD         No           SIMMTIC communication         Yes           • Strouting         Yes           Open IE communication         Yes           • Storouting         Yes           - Data length, max.         8 kbyte           • Storouting         Yes           - Data length, max.         1472 byte           Web server         Yes           - Data length, max.         1472 byte           Web server         Yes           OPC UA         Yes           OPC UA         Yes		2
PROFisie         No           PROFise         Yes; CM 1243-5 (master) of CM 1242-5 (slave) required           OPC UA         Yes; OPC UA Server           As-Interface         Yes; CM 1243-2 required           Protocols (Ethernet)         •           • CP(I)P         Yes           • CP(I)P         Yes           • CP(I)P         Yes           • CP         Yes           Redundancy mode         Yes           Media redundancy         -           - MRPD         No           SiMMTC communication         Yes           • CP/IP         Yes           • Data length, max.         4 Kkyle           - several passive connections per port, supported         Yes           • Skoyle         Skkyle           - bata length, max.         142 byle           • UDP         Yes           - Data length, max.         142 byle           • UDP         Yes           • User-defined webales         Yes           • Uported         Yes		
PROFIBUS     Yes; CM 1243-5 (master) or CM 1242-5 (slave) required       OPC UA     Yes; CM 1243-5 (master) or CM 1242-5 (slave) required       Protocols, Ethernet)     Yes; CM 1243-2 required       Protocols, Ethernet)     Yes       • TCP/IP     Yes       • DCP     No       • SNMP     Yes       • LDP     Yes       • LDP     Yes       • MRP     Yes       • LDP     Yes       Reduradnary mode     Yes       - MRP     No       - MRPD     No       - MRPD     No       - MRPD     No       SIMMITC communication     *       • S7 routing     Yes       Open IE communication     Yes       • Data length, max.     8 kbyte       - sort PCP (RFC1005)     Yes       - Data length, max.     1472 byte       Web server     Yes       • UDP     Yes       - Data length, max.     1472 byte       Web server     Yes       • UDP CU AS Server     Yes       • UDP CU AS Server     Yes: Basic? Tilense required       • OPC UA Server     Yes: Basic? Tilense required       • OPC UA Server     Yes: Basic? Tilense required       • OPC UA Server     Yes: Basic? Tilense required       • USe		
OPC UA     Yes; OPC UA Server       AS-Interface     Yes; CM 1245-2 required       Protocols (Ethernet)     Yes       • TCP/IP     Yes       • OHCP     No       • SIMAP     Yes       • OCP     Yes       • LLDP     Yes       • CDP     Yes       • LLDP     Yes       • MRP     No       - MRP     No       - MRPD     No       • STroting     Yes       Open IE communication     Yes       • TCP/IP     Yes       • OPE (RFC1006)     Yes       • Stroting     Yes       Open IE communication     Yes       • Stroting     Yes       • OPE (RFC1006)     Yes       • Data length, max.     8 kbyte       - several passive connections per port, supported     Yes       • Stortor (RFC1006)     Yes       • UDP     Yes       • Juported     Yes       • UDP     Yes       • Strotefind websites     Yes       OPC UA     Yes       • USe defined		
AS-Interface       Yes; CM 1243-2 required         Protocols (Ethernet)       Yes         • DHCP       No         • SNMP       Yes         • DCP       Yes         • COP       Yes         • Media redundancy		
Protocols (Ethemet)         Yes           • TCP/IP         Yes           • DCP         No           • SNMP         Yes           • DCP         Yes           • LDP         Yes           • LDP         Yes           Redundarcy mode		
• TCP/IPYes• DHCPNo• SIMMPYes• DCPYes• LLDPYes• Media redundancyYes- MRPNo- MRPDNoSIMATIC communicationYes• TCP/IPYes• Data length, max.8 ktyle• Data length, max.1472 byle• SuportedYes, 'Basic' license required• Available security publicis: None, Basic128Rsa15, Basic256Rsa15, Ba		Yes; CM 1243-2 Tequired
• DHCPNo• SNMPYes• CDPYes• LLDPYes• Redundancy modeNo• MRPNo- MRPNo- MRPDNo• STATIC communicationYes• ST routingYes• Deta length, max.8 kbyte- several passive connections per port, supportedYes• Data length, max.8 kbyte- bata length, max.8 kbyte- bata length, max.8 kbyte- bata length, max.8 kbyte- bata length, max.8 kbyte- Data length, max.8 kbyte- Data length, max.8 kbyte- bata length, max.8 kbyte- bata length, max.8 kbyte- Data length, max.9 ks- Number of subscriptions per session, max.10 ks- Number of subscriptions per session, max.10 ks- Number of subscriptions per session, max.2 kasic>- Number		Vac
• SNMPYes• DCPYes• LLDPYes• Redurdancy mode-Media redundancyNo- MRPNo- MRPDNoSIMATIC communication-• TCP/IPYes• Data length, max.8 kbyte- Data length, max.8 kbyte- Data length, max.8 kbyte- Data length, max.8 kbyte- Data length, max.9 Yes- Data length, max.1472 byteWeb serverYes- User-defined websitesYesOPC UAYes- Runtime license requiredYes; "Basic" license required• OPC UA ServerYes; "Basic" license required- Application authenticationPaaiac2665ha256- User authentication3 anonymous" or by user name & password- Number of subscriptions per session, max.5- Sampling interval, min.20- Number of nonstord litems, recommended max.20- Number of nonstord litems, recommended max.20- Number of nonstord litems, recommended max.2- Number of nonstord litems, recommended max.2- Number of nonstord litems, recommended m		
<ul> <li>DCP</li> <li>Yes</li> <li>LLDP</li> <li>Yes</li> <li>Redundancy mode</li> <li>Media redundancy</li> <li>MRP</li> <li>No</li> <li>MRPD</li> <li>No</li> <li>Strotting</li> <li>Yes</li> <li>Open LE communication</li> <li>FTCP/IP</li> <li>Data length, max.</li> <li>8 kbyte</li> <li>- bata length, max.</li> <li>8 kbyte</li> <li>- bata length, max.</li> <li>8 kbyte</li> <li>- Data length, max.</li> <li>9 kbyte</li> <li>- Data length, max.</li> <li>9 kbyte</li> <li>- Data length, max.</li> <li>10 P</li> <li>Yes</li> <li>- Data length, max.</li> <li>9 kbyte</li> <li>- Data length, max.</li> <li>10 P</li> <li>- Application authentication</li> <li>- Number of severing</li> <li>- Number of sever interfaces, max.</li> <li>- Number of server in</li></ul>		
• LLDP       Yes         Redundancy mode		
Redundancy mode         Media redundancy        MRP       No         MRPD       No         SIMATIC communication       Yes         Open IE communication       Yes         • TCP/IP       Yes         - Data length, max.       8 kbyte         - several passive connections per port, supported       Yes         • ISO-on-TCP (RFC1006)       Yes         - Data length, max.       8 kbyte         • UDP       Yes         - Data length, max.       8 kbyte         • UDP       Yes         - Data length, max.       1472 byte         Web server       Yes         • UDP       Yes         - Data length, max.       1472 byte         Web server       Yes         • UDP       Yes         - Data length, max.       1472 byte         Web server       Yes         • User-defined websites       Yes         OPC UA       Yes         • User defined websites       Yes: Data access (read, write, subscribe), runtime license required         • OPC UA       Severer         • Suptication authentication       "anonymous" or by user name & password         - Number of sessions, max.       10		
Media redundancy         MRP       No         MRPD       No         SIMATIC communication       Ves         Open IE communication       Yes         Open IE communication       Ves         Data length, max.       8 kbyte         several passive connections per port, supported       Yes         Data length, max.       8 kbyte         Several passive connections per port, supported       Yes         Data length, max.       8 kbyte         Data length, max.       8 kbyte         Data length, max.       1472 byte         • UDP       Yes         Data length, max.       1472 byte         • User-defined websites       Yes         OPC UA       Yes         • Supported       Yes; "Basic" license required         • OPC UA       Yes; Data access (read, write, subscribe), runtime license required         • OPC UA       Yes; Data access (read, write, subscribe), runtime license required         • OPC UA Server       Yes; Data access (read, write, subscribe), runtime license required         • Application authentication       "anonymous" or by user name & password         - Number of sessions, max.       10         - Number of sessions, max.       5		
MRP       No         SIMATIC communication       No         SIMATIC communication       Yes         Open IE communication       Yes         - Data length, max.       8 kbyte         - several passive connections per port, supported       Yes         - Data length, max.       8 kbyte         - Data length, max.       1472 byte         Veb server       Yes         - Data length, max.       Yes         - Data length, max.       1472 byte         Veb server       Yes         - Supported       Yes         - Supported       Yes         - OPC UA       Yes: "Basic" license required         - OPC UA Server       Yes: Data access (read, write, subscribe), runtime license required         - Application authentication       "anonymous" or by user name & password         - Number of sessions, max.       10         - Number of sessions, max.       10 or ms         - Sampling interval, min.       100 rms         - Number of server methods, max.       20         - Number of server interfaces, max.       2 <t< td=""><td></td><td></td></t<>		
MRPD       No         SIMATIC communication          • S7 routing       Yes         Open IE communication          • TCP/IP       Yes         - Data length, max.       8 kbyte         - several passive connections per port, supported       Yes         • ISO-on-TCP (RFC1006)       Yes         - Data length, max.       8 kbyte         • UDP       Yes         - Data length, max.       1472 byte         • Data length, max.       1472 byte         • UDP       Yes         - Data length, max.       1472 byte         • User-defined websites       Yes         • User-defined websites       Yes         • OPC UA       Yes         • Runtime license required       Yes; "Basic" license required         • OPC UA Server       Yes; "Basic" license required         • Application authentication       "anonymous" or by user name & password         - Number of sessions, max.       10         - Number of sever methods, max.       5         - Sampling interval, min.       200 ms         - Number of server methods, max.       20         - Number of server interfaces, max.       20         - Number of server interfaces, max.	-	No
SIMATIC communication         • S7 routing       Yes         Open IE communication         • TCP/IP       Yes         - Data length, max.       8 kbyte         - several passive connections per port, supported       Yes         • ISO-on-TCP (RFC1006)       Yes         - Data length, max.       8 kbyte         • UDP       Yes         - Data length, max.       1 472 byte         Web server       Yes         • UDP       Yes         - Data length, max.       1 472 byte         Web server       Yes         • User-defined websites       Yes         OPC UA       Yes: "Basic" license required         • OPC UA Server       Yes: "Data access (read, write, subscribe), runtime license required         - Application authentication       "anonymous" or by user name & password         - Number of sessions, max.       10         - Number of sessions, max.       5         - Sampling interval, min.       200 ms         - Publishing interval, min.       200 ms         - Number of server methods, max.       20         - Number of server interfaces, max.       2         - Number of server interfaces, max.       2         - Number of server interfaces, max.		
• S7 routing       Yes         Open IE communication       *         • TCP/IP       Yes         - Data length, max.       8 kbyte         - several passive connections per port, supported       Yes         • ISO-on-TCP (RFC1006)       Yes         - Data length, max.       8 kbyte         • UDP       Yes         - Data length, max.       8 kbyte         • UDP       Yes         - Data length, max.       1472 byte         Web server       Yes         • User-defined websites       Yes         • User-defined websites       Yes         OPC UA       Yes; "Basic" license required         • OPC UA       Yes; "Basic" license required         • OPC UA       Yes; "Data access (read, write, subscribe), runtime license required         • OPC UA       Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256         - User authentication       "anonymous" or by user name & password         - Number of subscriptions per session, max.       10         - Number of subscriptions per session, max.       5         - Sampling interval, min.       200 ms         - Number of server interfaces, max.       20         - Number of server interfaces, max.       2		
Open IE communication           • TCP/IP         Yes           - Data length, max.         8 kbyte           - several passive connections per port, supported         Yes           • ISO-on-TCP (RFC1006)         Yes           - Data length, max.         8 kbyte           • UDP         Yes           - Data length, max.         8 kbyte           • UDP         Yes           - Data length, max.         1472 byte           Web server         Yes           • supported         Yes           • UDP         Yes           • UBer-defined websites         Yes           OPC UA         Yes           • Runtime license required         Yes; "Basic" license required           • OPC UA         Yes; Data access (read, write, subscribe), runtime license required           • Application authentication         "anonymous" or by user name & password           - User authentlication         "anonymous" or by user name & password           - Number of subscriptions per session, max.         10           - Sampling interval, min.         100 ms           - Sumber of server methods, max.         20           - Number of server interfaces, max.         20           - Number of server interfaces, max.         2		Yes
- Data length, max.8 kbyte- several passive connections per port, supportedYes- ISO-on-TCP (RFC1006)Yes- Data length, max.8 kbyte• UDPYes- Data length, max.1472 byte• Data length, max.Yes- Data length, max.Yes- Data length, max.Yes- Data length, max.Yes• UDPYes- Data length, max.Yes• Data length, max.Yes• SupportedYes• User-defined websitesYes• CPC UAServer• Runtime license requiredYes; "Basic" license required• OPC UA ServerYes; Data access (read, write, subscribe), runtime license required• OPC UA ServerYes; Ota access (read, write, subscribe), runtime license required- Application authentication"anonymous" or by user name & password- Number of sessions, max.10- Number of subscriptions per session, max.5- Sampling interval, min.200 ms- Number of server methods, max.20- Number of server methods, max.1000- Number of server interfacces, max.2- Number of server interfaces, max.2- Number of nonitored items, recommended max.1000- Number of nonitored items, rec	Open IE communication	
several passive connections per port, supportedYes• ISO-on-TCP (RFC1006)Yes Data length, max.8 kbyte• UDPYes Data length, max.1472 byteWeb serverYes Data length, max.Yes OPC UA Application authentication Application authentication"anonymous" or by user name & password Number of sessions, max.10 Number of subscriptions per session, max.5 Sampling interval, min.200 ms Number of server interfaces, max.2 Number of nonitored items, recommended max.1000 Number of nondes for user-defined server interfaces,2 000	• TCP/IP	Yes
• ISO-on-TCP (RFC1006)Yes- Data length, max.8 kbyte• UDPYes- Data length, max.1 472 byteWeb serverYes• supportedYes• User-defined websitesYesOPC UAYes; "Basic" license required• CPC UAYes; "Basic" license required• OPC UA ServerYes; "Basic" license required• OPC UA ServerYes; "Basic" license required• OPC UA ServerYes; "Basic" license required• Application authenticationYes; "Basic" license required• Number of sessions, max.10• Number of sessions, max.10• Sampling interval, min.200 ms• Sampling interval, min.200 ms• Number of server methods, max.20• Number of server interfaces, max.2• Number of server interfaces, max.2• Number of server interfaces, max.2• Number of nodes for user-defined server interfaces,2000	— Data length, max.	8 kbyte
- Data length, max.8 kbyte• UDPYes- Data length, max.1 472 byteWeb serverYes• supportedYes• User-defined websitesYesOPC UAYes: "Basic" license required• OPC UAYes: Data access (read, write, subscribe), runtime license required• OPC UAYes: Data access (read, write, subscribe), runtime license required• OPC UAYes: Data access (read, write, subscribe), runtime license required• OPC UAYes: Data access (read, write, subscribe), runtime license required• OPC UAYes: Data access (read, write, subscribe), runtime license required• OPC UAYes: Data access (read, write, subscribe), runtime license required• OPC UAYes: Data access (read, write, subscribe), runtime license required• OPC UAYes: Data access (read, write, subscribe), runtime license required• OPC UAYes: Data access (read, write, subscribe), runtime license required• OPC UAYes: Data access (read, write, subscribe), runtime license required• OPC UAYes: Data access (read, write, subscribe), runtime license required• Number of sessions, max.100• Number of subscriptions per session, max.20• Number of server methods, max.20• Number of server interfaces, max.2	<ul> <li>several passive connections per port, supported</li> </ul>	Yes
• UDPYes- Data length, max.1 472 byteWeb server1 472 byte• supportedYes• User-defined websitesYesOPC UAYes• Runtime license requiredYes; "Basic" license required• OPC UA ServerYes; Data access (read, write, subscribe), runtime license required• OPC UA ServerYes; Data access (read, write, subscribe), runtime license required- Application authenticationAvailable security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256- User authentication"anonymous" or by user name & password- Number of sessions, max.10- Number of subscriptions per session, max.5- Sampling interval, min.100 ms- Publishing interval, min.200 ms- Number of server methods, max.20- Number of server interfaces, max.2- Number of server interfaces, max.2- Number of noitored items, recommended max.1000- Number of noitored items, recommended max.1000- Number of noitored items, recommended max.200- Number of nonitored items, recommended max.200- Number of nonitored items, recommended max.200- Number of nodes for user-defined server interfaces, 2000	<ul> <li>ISO-on-TCP (RFC1006)</li> </ul>	Yes
Data length, max.1 472 byteWeb server• supportedYes• User-defined websitesYesOPC UA• Runtime license requiredYes; "Basic" license required• OPC UA ServerYes; "Data access (read, write, subscribe), runtime license required- Application authenticationAvailable security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256- User authentication"anonymous" or by user name & password- Number of sessions, max.10- Number of subscriptions per session, max.5- Sampling interval, min.200 ms- Number of server methods, max.20- Number of noitored items, recommended max.1000- Number of noitored items, recommended max.1000- Number of noitored items, recommended max.200- Number of noitored items, recommended max.2000	— Data length, max.	8 kbyte
Web server         • supported       Yes         • User-defined websites       Yes         OPC UA       Yes; "Basic" license required         • Runtime license required       Yes; "Basic" license required         • OPC UA Server       Yes; Data access (read, write, subscribe), runtime license required         • Application authentication       Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256         - User authentication       "anonymous" or by user name & password         - Number of sessions, max.       10         - Number of subscriptions per session, max.       5         - Sampling interval, min.       100 ms         - Publishing interval, min.       200 ms         - Number of server methods, max.       1         - Number of nonitored items, recommended max.       1         - Number of server interfaces, max.       2         - Number of nonitored items, recommended max.       1000         - Number of nonitored items, recommended max.       2         - Number of nodes for user-defined server interfaces,       2         - Number of nodes for user-defined server interfaces,       2	• UDP	Yes
• supported • User-defined websitesYesOPC UA• Runtime license required • OPC UA ServerYes; "Basic" license required Yes; Data access (read, write, subscribe), runtime license required Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256- User authentication - Number of sessions, max.10- Number of subscriptions per session, max.5- Sampling interval, min. - Publishing interval, min.200 ms- Number of server methods, max.20- Number of server interfaces, max.2- Number of server interfaces, max.200	— Data length, max.	1 472 byte
Yes         OPC UA       Yes; "Basic" license required         • Runtime license required       Yes; "Basic" license required         • OPC UA Server       Yes; Data access (read, write, subscribe), runtime license required         - Application authentication       Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256         - User authentication       "anonymous" or by user name & password         - Number of sessions, max.       10         - Number of subscriptions per session, max.       5         - Sampling interval, min.       100 ms         - Publishing interval, min.       200 ms         - Number of server methods, max.       20         - Number of server interfaces, max.       2         - Number of server interfaces, max.       2         - Number of server interfaces, max.       2 000	Web server	
OPC UA         • Runtime license required       Yes; "Basic" license required         • OPC UA Server       Yes; Data access (read, write, subscribe), runtime license required         - Application authentication       Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256         - User authentication       "anonymous" or by user name & password         - Number of sessions, max.       10         - Number of subscriptions per session, max.       5         - Sampling interval, min.       100 ms         - Number of server methods, max.       20         - Number of server methods, max.       1000         - Number of server interfaces, max.       2         - Number of noitored items, recommended max.       1000         - Number of noitored items, recommended max.       2000	<ul> <li>supported</li> </ul>	Yes
<ul> <li>Runtime license required</li> <li>OPC UA Server</li> <li>Application authentication</li> <li>User authentication</li> <li>Ves; Data access (read, write, subscribe), runtime license required</li> <li>Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256</li> <li>User authentication</li> <li>"anonymous" or by user name &amp; password</li> <li>Number of sessions, max.</li> <li>Number of subscriptions per session, max.</li> <li>Sampling interval, min.</li> <li>Publishing interval, min.</li> <li>Number of server methods, max.</li> <li>Number of monitored items, recommended max.</li> <li>Number of server interfaces, max.</li> <li>Number of nodes for user-defined server interfaces,</li> <li>2000</li> </ul>	<ul> <li>User-defined websites</li> </ul>	Yes
• OPC UA ServerYes; Data access (read, write, subscribe), runtime license required- Application authenticationAvailable security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256- User authentication"anonymous" or by user name & password- Number of sessions, max.10- Number of subscriptions per session, max.5- Sampling interval, min.100 ms- Publishing interval, min.200 ms- Number of server methods, max.20- Number of server interfaces, max.1000- Number of server interfaces, max.2000- Number of server interfaces, max.2000	OPC UA	
- Application authenticationAvailable security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256- User authentication"anonymous" or by user name & password- Number of sessions, max.10- Number of subscriptions per session, max.5- Sampling interval, min.100 ms- Publishing interval, min.200 ms- Number of server methods, max.20- Number of server methods, max.100- Number of server methods, max.200 ms- Number of server interfaces, max.200- Number of nonitored items, recommended max.1000- Number of server interfaces, max.2- Number of nonitored items, recommended max.2000- Number of nonitored items, recommended max.2000	<ul> <li>Runtime license required</li> </ul>	Yes; "Basic" license required
Basic256Sha256 User authentication"anonymous" or by user name & password Number of sessions, max.10 Number of subscriptions per session, max.5 Sampling interval, min.100 ms Publishing interval, min.200 ms Number of server methods, max.20 Number of server interfaces, max.1000 Number of nonitored items, recommended max.1000 Number of server interfaces, max.2 Number of nonitored items, recommended max.2000	OPC UA Server	Yes; Data access (read, write, subscribe), runtime license required
- Number of sessions, max.10- Number of subscriptions per session, max.5- Sampling interval, min.100 ms- Publishing interval, min.200 ms- Number of server methods, max.20- Number of server methods, max.20- Number of server interfaces, max.20- Number of server interfaces, max.2- Number of server interfaces, max.2- Number of nodes for user-defined server interfaces,2 000		Basic256Sha256
Number of subscriptions per session, max.5 Sampling interval, min.100 ms Publishing interval, min.200 ms Number of server methods, max.20 Number of monitored items, recommended max.1 000 Number of server interfaces, max.2 Number of nodes for user-defined server interfaces,2 000		
— Sampling interval, min.100 ms— Publishing interval, min.200 ms— Number of server methods, max.20— Number of monitored items, recommended max.1 000— Number of server interfaces, max.2— Number of nodes for user-defined server interfaces,2 000		
— Publishing interval, min.200 ms— Number of server methods, max.20— Number of monitored items, recommended max.1 000— Number of server interfaces, max.2— Number of nodes for user-defined server interfaces,2 000		
Number of server methods, max.20 Number of monitored items, recommended max.1 000 Number of server interfaces, max.2 Number of nodes for user-defined server interfaces,2 000		100 ms
Number of monitored items, recommended max.       1 000         Number of server interfaces, max.       2         Number of nodes for user-defined server interfaces,       2 000	— Publishing interval, min.	
Number of server interfaces, max.     2       Number of nodes for user-defined server interfaces,     2 000		
— Number of nodes for user-defined server interfaces, 2 000		
		2 000

Further protocols	
MODBUS	Yes
communication functions / header	
S7 communication	
supported	Yes
• as server	Yes
• as client	Yes
User data per job, max.	See online help (S7 communication, user data size)
Number of connections	
• overall	PG Connections: 4 reserved / 4 max; HMI Connections: 12 reserved / 18 max; S7 Connections: 8 reserved / 14 max; Open User Connections: 8 reserved / 14 max; Web Connections: 2 reserved / 30 max; OPC UA Connections: 0 reserved / 10 max; Total Connections: 34 reserved / 64 max
Test commissioning functions	
Status/control	
Status/control variable	Yes
Variables	Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters
Forcing	
• Forcing	Yes
Diagnostic buffer	
• present	Yes
Traces	
<ul> <li>Number of configurable Traces</li> </ul>	2
Memory size per trace, max.	512 kbyte
Interrupts/diagnostics/status information	
Diagnostics indication LED	
RUN/STOP LED	Yes
• ERROR LED	Yes
MAINT LED	Yes
Integrated Functions	
Counter	
Number of counters	6
Counting frequency, max.	100 kHz
Frequency measurement	Yes
controlled positioning	Yes
Number of position-controlled positioning axes, max.	8
Number of positioning axes via pulse-direction interface	4; With integrated outputs
PID controller	Yes
Number of alarm inputs	4
Number of pulse outputs	4
Limit frequency (pulse)	100 kHz
Potential separation	
Potential separation digital inputs	
Potential separation digital inputs     Potential separation digital inputs	No
<ul> <li>Potential separation digital inputs</li> <li>between the channels, in groups of</li> </ul>	1
, , , , , , , , , , , , , , , , , , , ,	I
Potential separation digital outputs	Vac
Potential separation digital outputs     between the channels	Yes
between the channels	No
between the channels, in groups of	1
EMC	
Interference immunity against discharge of static electricity	
Interference immunity against discharge of static electricity acc. to IEC 61000-4-2	Yes
— Test voltage at air discharge	8 kV
— Test voltage at contact discharge	6 kV
Interference immunity to cable-borne interference	
<ul> <li>Interference immunity on supply lines acc. to IEC 61000- 4-4</li> </ul>	Yes
<ul> <li>Interference immunity on signal cables acc. to IEC 61000- 4-4</li> </ul>	Yes
Interference immunity against voltage surge	
Interference immunity on supply lines acc. to IEC 61000-	Yes

4-5	
Interference immunity against conducted variable disturbance indu	iced by high-frequency fields
Interference immunity against high-frequency radiation	Yes
acc. to IEC 61000-4-6	
Emission of radio interference acc. to EN 55 011	
Limit class A, for use in industrial areas	Yes; Group 1
Limit class B, for use in residential areas	Yes; When appropriate measures are used to ensure compliance with the limits for Class B according to EN 55011
Degree and class of protection	
IP degree of protection	IP20
Standards, approvals, certificates	
CE mark	Yes
UL approval	Yes
cULus	Yes
FM approval	Yes
RCM (formerly C-TICK)	Yes
KC approval	Yes
Marine approval	Yes
Ecological footprint	
<ul> <li>environmental product declaration</li> </ul>	Yes
Global warming potential	
— global warming potential, (total) [CO2 eq]	69.5 kg
<ul> <li>global warming potential, (during production) [CO2 eq]</li> </ul>	12.6 kg
— global warming potential, (during operation) [CO2 eq]	57.9 kg
<ul> <li>global warming potential, (after end of life cycle)</li> <li>[CO2 eq]</li> </ul>	-1.03 kg
Ambient conditions	
Free fall	
● Fall height, max.	0.3 m; five times, in product package
Ambient temperature during operation	
● min.	-20 °C
• max.	60 °C
<ul> <li>horizontal installation, min.</li> </ul>	-20 °C
<ul> <li>horizontal installation, max.</li> </ul>	0° 00
• vertical installation, min.	-20 °C
vertical installation, max.	50 °C
Ambient temperature during storage/transportation	
• min.	-40 °C
• max.	70 °C
Air pressure acc. to IEC 60068-2-13	
• Operation, min.	795 hPa
• Operation, max.	1 080 hPa
Storage/transport, min.	660 hPa
Storage/transport, max.	1 080 hPa
Altitude during operation relating to sea level	4 000
Installation altitude, min.	-1 000 m
Installation altitude, max.	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual
Relative humidity	
• Operation, max.	95 %; no condensation
Vibrations • Vibration resistance during operation acc. to IEC 60068-	2 g (m/s <sup>2</sup> ) wall mounting, 1 g (m/s <sup>2</sup> ) DIN rail
	No.
Operation, tested according to IEC 60068-2-6	Yes
<ul><li>Shock testing</li><li>tested according to IEC 60068-2-27</li></ul>	Yes; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value),
	duration 11 ms
Pollutant concentrations	
• SO2 at RH < 60% without condensation	S02: < 0.5 ppm; H2S: < 0.1 ppm; RH < 60% condensation-free
configuration / header	
configuration / programming / header	
Programming language	

— LAD	Yes
— FBD	Yes
— SCL	Yes
Know-how protection	
<ul> <li>User program protection/password protection</li> </ul>	Yes
Copy protection	Yes
Block protection	Yes
Access protection	
<ul> <li>protection of confidential configuration data</li> </ul>	Yes
Protection level: Write protection	Yes
<ul> <li>Protection level: Read/write protection</li> </ul>	Yes
Protection level: Complete protection	Yes
programming / cycle time monitoring / header	
adjustable	Yes
Dimensions	
Width	90 mm
Height	100 mm
Depth	75 mm
Weights	
Weight, approx.	370 g

last modified:

10/9/2024 🖸