## **SIEMENS**

## **Data sheet**

6ES7212-1BE40-0XB0





SIMATIC S7-1200, CPU 1212C, compact CPU, AC/DC/relay, onboard I/O: 8 DI 24 V DC; 6 DO relay 2 A; 2 AI 0-10 V DC, power supply: AC 85-264 V AC at 47-63 Hz, program/data memory 100 KB



Figure similar

General information	
Product type designation	CPU 1212C AC/DC/relay
Firmware version	V4.7
Engineering with	
<ul> <li>Programming package</li> </ul>	STEP 7 V20 or higher
Supply voltage	
Rated value (AC)	
• 120 V AC	Yes
• 230 V AC	Yes
permissible range, lower limit (AC)	85 V
permissible range, upper limit (AC)	264 V
Line frequency	
<ul> <li>permissible range, lower limit</li> </ul>	47 Hz
<ul> <li>permissible range, upper limit</li> </ul>	63 Hz
Input current	
Current consumption (rated value)	80 mA at 120 V AC; 40 mA at 240 V AC
Current consumption, max.	240 mA at 120 V AC; 120 mA at 240 V AC
Inrush current, max.	20 A; at 264 V
l²t	0.8 A <sup>2</sup> ·s
Output current	
for backplane bus (5 V DC), max.	1 000 mA; Max. 5 V DC for SM and CM
Encoder supply	
24 V encoder supply	
• 24 V	20.4 to 28.8V
Power loss	
Power loss, typ.	11 W
Memory	
Work memory	
• integrated	100 kbyte
Load memory	
• integrated	2 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
for word operations, typ.	1.7 μs; / instruction
for floating point arithmetic, typ.	2.3 µs; / instruction
CPU-blocks	
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	
<ul><li>Number, max.</li></ul>	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	
Inputs, adjustable	1 kbyte
Outputs, adjustable	1 kbyte
Hardware configuration	
Number of modules per system, max.	3 comm. modules, 1 signal board, 2 signal modules
Time of day	
Clock	
Hardware clock (real-time)	Yes
Backup time	480 h; Typical
Deviation per day, max.	±60 s/month at 25 °C
Digital inputs	
Number of digital inputs	8; Integrated
of which inputs usable for technological functions	6; HSC (High Speed Counting)
Source/sink input	Yes
Number of simultaneously controllable inputs	160
all mounting positions	
— up to 40 °C, max.	8
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 delay (for rated value of input voltage)	13 V DO at 2.3 IIIA
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 /
parametenzable	0.17 0.27 0.47 0.67 1.07 3.27 0.47 10.07 12.87 20.0 μs, 0.037 0.17 0.27 0.47 0.87 1.67 3.27 6.47 10.07 12.87 20.0 μs,
— at "0" to "1", min.	0.2 ms
— at "0" to "1", max.	12.8 ms
for interrupt inputs	
— parameterizable	Yes
for technological functions	
— parameterizable	Single phase: 3 @ 100 kHz & 3 @ 30 kHz, differential: 3 @ 80 kHz & 3 @ 30
	kHz
Cable length	
• shielded, max.	500 m; 50 m for technological functions
• unshielded, max.	300 m; for technological functions: No
Digital outputs	
Number of digital outputs	6; Relays
Switching capacity of the outputs	
<ul> <li>with resistive load, max.</li> </ul>	2 A
• on lamp load, max.	30 W with DC, 200 W with AC
Output delay with resistive load	
• "0" to "1", max.	10 ms; max.
, .	
• "1" to "0", max.	10 ms; max.

- Niveshou of valou outs the	6
Number of constitution and a number of c	6 machanically 40 million, at rated load valtage 400,000
Number of operating cycles, max.  Cable length	mechanically 10 million, at rated load voltage 100 000
• shielded, max.	500 m
• unshielded, max.	150 m
Analog inputs	150 111
Number of analog inputs	2
Input ranges	2
Voltage	Yes
Input ranges (rated values), voltages	103
• 0 to +10 V	Yes
— Input resistance (0 to 10 V)	≥100k ohms
Cable length	L TOOK OHITIS
shielded, max.	100 m; twisted and shielded
Analog outputs	100 m, twisted and simulated
Number of analog outputs	0
Analog value generation for the inputs	
Integration and conversion time/resolution per channel  Resolution with overrange (bit including sign), max.	10 bit
<ul> <li>Resolution with overrange (bit including sign), max.</li> <li>Integration time, parameterizable</li> </ul>	
	Yes 625 µs
Conversion time (per channel)  Encoder	υ2υ μο
Encoder  Connectable encoders	
Connectable encoders	Voc
• 2-wire sensor	Yes
1. Interface	PROFINET
Interface type	PROFINET
Isolated	Yes
automatic detection of transmission rate	Yes
Autonegotiation	Yes
Autocrossing	Yes
Interface types	v
• RJ 45 (Ethernet)	Yes
Number of ports	1
integrated switch	No
Protocols	v
PROFINET IO Controller	Yes
PROFINET IO Device	Yes
SIMATIC communication	Yes
Open IE communication	Yes; Optionally also encrypted
Web server	Yes
Media redundancy	No
PROFINET IO Controller	
Transmission rate, max.	100 Mbit/s
Services	
— PG/OP communication	Yes; encryption with TLS V1.3 pre-selected
— Isochronous mode	No
— IRT	No 
— PROFlenergy	No
— Prioritized startup	Yes
<ul> <li>Number of IO devices with prioritized startup, max.</li> </ul>	16
Number of connectable IO Devices, max.	16
Number of connectable IO Devices for RT, max.	16
— of which in line, max.	16
Activation/deactivation of IO Devices	Yes
<ul> <li>Number of IO Devices that can be simultaneously activated/deactivated, max.</li> </ul>	8
Updating time	The minimum value of the update time also depends on the communication component set for PROFINET IO, on the number of IO devices and the quantity of configured user data.
— Updating time	component set for PROFINET IO, on the number of IO devices and the quantity

DO/OD acrossoria dia s	Very arrangelier with TLOVA Orangelier
— PG/OP communication	Yes; encryption with TLS V1.3 pre-selected
— Isochronous mode	No
— IRT	No
— PROFlenergy	Yes
— Shared device	Yes
Number of IO Controllers with shared device, max.	2
Protocols	
Supports protocol for PROFINET IO	Yes
PROFIsafe	No
PROFIBUS	Yes; CM 1243-5 (master) or CM 1242-5 (slave) required
OPC UA	Yes; OPC UA Server
AS-Interface	Yes; CM 1243-2 required
Protocols (Ethernet)	
• TCP/IP	Yes
• DHCP	No
• SNMP	Yes
• DCP	Yes
• LLDP	Yes
Redundancy mode	
Media redundancy	
— MRP	No
— MRPD	No
SIMATIC communication	
S7 routing	Yes
Open IE communication	
• TCP/IP	Yes
— Data length, max.	8 kbyte
• ISO-on-TCP (RFC1006)	Yes
— Data length, max.	8 kbyte
• UDP	Yes
— Data length, max.	1 472 byte
Web server	
• supported	Yes
<ul> <li>User-defined websites</li> </ul>	Yes
OPC UA	
<ul> <li>Runtime license required</li> </ul>	Yes; "Basic" license required
OPC UA Server	Yes; data access (read, write, subscribe), method call, runtime license required
<ul> <li>Application authentication</li> </ul>	Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256
<ul> <li>User authentication</li> </ul>	"anonymous" or by user name & password
<ul> <li>Number of sessions, max.</li> </ul>	10
<ul> <li>Number of subscriptions per session, max.</li> </ul>	5
— Sampling interval, min.	100 ms
— Publishing interval, min.	200 ms
Number of server methods, max.	20
<ul> <li>Number of monitored items, recommended max.</li> </ul>	1 000
Number of server interfaces, max.	2
<ul> <li>Number of nodes for user-defined server interfaces,</li> </ul>	2 000
max.	
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

Status control variable   Yes   Variables   Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters   Forcing   Forcing   Yes   Signostic buffer   Yes   Yes   Yes   Signostic buffer   Yes   Yes   Yes   Ye	Test commissioning functions	
Porting		
Porting		Yes
Percent	• Variables	Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters
Persent	Forcing	
Page 10		Yes
Poperate	· · · · · · · · · · · · · · · · · · ·	
Number of configurate Traces   2		Yes
**Memory size per frace, max.**  Bignossice indication LED**  **RUNSTOP LED**  **RUNSTOP LED**  **RUNSTOP LED**  **RANT LED**  **RANT LED**  **Number of counters*  **Counting frequency, max.**  **Counting frequency, max.**  **Number of position-controlled positioning axes, max.**  **Number of positioning per very manuscrement positioning axes, max.**  **Number of position-controlled positioning axes, max.**  **Number of position-controlled positioning axes, max.**  **Number of positioning axes via pulse-direction interface.**  **Prequency measurement properties are properties are properties are properties.**  **Prequency measurement properties are properties.**  **Prequency measurement properties.**  **Prequency of position-controlled positioning axes, max.**  **An united of positioning axes, max.**  **Prequency of alarm inputs*  **Prequency of alarm inputs*  **Prequential separation digital inputs*  **Detential separation digital inputs*  **Detential separation digital inputs*  **Detential separation digital inputs*  **Prequential separation digital inputs*  **Prequential separation digital inputs*  **Prequential separation digital outputs*  **Prequency flexible and an united an uni	Traces	
Diagnostic indication LED  RUNISTOP LED  RONISTOP LED  RON	Number of configurable Traces	2
RUNSTOP LED RINGS FOR LED ANIAT LED ANIA LED ANIAT LED A	Memory size per trace, max.	512 kbyte
RUNSTOP LED ERROR LED ERROR LED ENABLED ENABL	Interrupts/diagnostics/status information	
■ ERROR LED	Diagnostics indication LED	
MAINT LED  **Mumber of counters	RUN/STOP LED	Yes
Counter  • Number of counters • Counting frequency, max.  Frequency measurement controlled positioning Yes  Number of position-controlled positioning axes, max. 8  Number of alarm inputs 4  Potential separation  Potential separation digital inputs • Potential separation digital inputs • Potential separation digital inputs • Potential separation digital outputs • Potential sepa	• ERROR LED	Yes
Counter  • Number of counters  • Counting frequency, max.  100 kHz  Frequency measurement  controlled positioning  Yes  Number of position-controlled positioning axes, max.  8 Number of position-controlled positioning axes, max.  Number of position-controlled posi	MAINT LED	Yes
Number of counters     Counting frequency, max.     100 kHz Frequency measurement     Yes Controlled positioning Number of position controlled positioning axes, max. Number of positioning axes via pulse-direction interface PID controller Number of alarm inputs Potential separation digital outputs Potential	Integrated Functions	
Frequency measurement Oran State of Procession of State of State S	Counter	
Frequency measurement yes Section of Section S	Number of counters	6
Number of positioning axes, max.   8	Counting frequency, max.	100 kHz
Number of position-controlled positioning axes, max.  Number of positioning axes via pulse-direction interface  PID controller  Number of alarm inputs  Potential separation  Potential separation digital inputs  • Detential separation digital inputs  • Detential separation digital inputs  • Detential separation digital outputs  • Potential separation digital outputs  • Detween the channels, in groups of  • Potential separation digital outputs  • Detween the channels, in groups of  • Detween the channels  • Relays  • Relay	Frequency measurement	Yes
Number of positioning axes via pulse-direction interface Yes PID controller Yes  Number of alarm inputs 4  Potential separation digital inputs  Potential separation digital inputs  Potential separation digital inputs  Potential separation digital inputs  Potential separation digital outputs  Potential separation digital inputs  Potential separation digital inpu	controlled positioning	Yes
PID controller Number of alarm inputs 4  Potential separation Potential separation digital inputs • Potential separation digital inputs • Potential separation digital outputs • Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity • Interference immunity on supply lines acc. to IEC 61000- • Posential separation digital outputs • Interference immunity on supply lines acc. to IEC 61000- • Posential separation digital outputs • Interference immunity against discharge • Interference immunity against outputs • Interference immunity against outputs • Interference immunity against high-frequency radiation acc. to IEC 61000-4-6 • Interference immunity against high-frequency radiation acc. to IEC 61000-4-6 • Interference immunity against high-frequency radiation acc. to IEC 61000-4-6 • Interference immunity against high-frequency radiation acc. to IEC 61000-4-6 • Interference immunity against high-frequency radiation acc. to IEC 61000-4-6 • Interference immunity against high-frequency radiation acc. to IEC 61000-4-6 • Interference immunity against high-frequency radiati	Number of position-controlled positioning axes, max.	8
Number of alarm inputs  Potential separation  Potential separation digital inputs  Potential separation digital inputs  Potential separation digital outputs  Potential separation digit	Number of positioning axes via pulse-direction interface	Up to 4 with SB 1222
Potential separation digital inputs  Potential separation digital inputs  Potential separation digital inputs  Potential separation digital outputs  Potential separation digital inputs  Potential separation digital inputs  Potential separation digital inputs  Potential separation digital inputs  Relays  Relays  No  Potential separation digital inputs  Potential separation digital outputs  Potential separation	PID controller	Yes
Potential separation digital inputs Potential separation digital inputs Potential separation digital inputs Potential separation digital outputs Potential separation digital inputs Potential separation digital outputs Potential separation digital outputs Potential separation digital outputs Potential separation digital outputs Potential separation digital repairs Potential separation digital outputs Potential separation digital repairs Potential separation digital	Number of alarm inputs	4
Potential separation digital inputs between the channels, in groups of Potential separation digital outputs Potential separation digital outputs between the channels between th	Potential separation	
between the channels, in groups of Potential separation digital outputs     Potential separation digital outputs     between the channels	Potential separation digital inputs	
Potential separation digital outputs  Potential separation digital outputs between the channels between the channels, in groups of  Interference immunity against discharge of static electricity Interference immunity against discharge of static electricity oc. to IEC 61000-42 — Test voltage at air discharge — Test voltage at air discharge — Test voltage at contact discharge — Test voltage at contact discharge  Interference immunity to cable-borne interference  Interference immunity on supply lines acc. to IEC 61000- 4-4 Interference immunity on signal cables acc. to IEC 61000- 4-4 Interference immunity against voltage surge  Interference immunity against tonducted variable disturbance induced by high-frequency fields  Interference immunity against high-frequency radiation acc. to IEC 61000-4-5  Interference immunity against high-frequency radiation acc. to IEC 61000-4-6  Emission of radio interference acc. to EN 55 011  Limit class A, for use in residential 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  Pegere and class of protection  IP degree of protection	<ul> <li>Potential separation digital inputs</li> </ul>	500 V AC for 1 minute
Potential separation digital outputs between the channels between the channels, in groups of between the channels, in groups of  between the channels, in groups of  Interference immunity against discharge of static electricity Interference immunity against discharge of static electricity acc. to IEC 61000-4-2  — Test voltage at id discharge — Test voltage at id discharge — Test voltage at id contact discharge — Test voltage at contact discharge — Test voltage at contact discharge — Test voltage at contact discharge  Interference immunity to cable-bome interference  Interference immunity on supply lines acc. to IEC 61000- 4-4  Interference immunity on signal cables acc. to IEC 61000- 4-5  Interference immunity against voltage surge  Interference immunity against voltage surge  Interference immunity against conducted variable disturbance induced by high-frequency fields  Interference immunity against high-frequency radiation acc. to IEC 61000-4-5  Interference immunity against high-frequency radiation acc. to IEC 61000-4-6  Emission of radio interference acc. to EN 55 011  Limit class A, for use in industrial areas  Pes; Group 1  Yes; When appropriate measures are used to ensure compliance with the limits for Class B according to EN 55011  Pegree and class of protection  IP degree of protection  Stendards, approvals, certificates  Siemens Eco Profile (SEP)  Siemens Eco Ferofile  Siemens Eco Ferofile  Siemens Eco Ferofile  Yes  Siemens Eco Ferofile	between the channels, in groups of	1
between the channels between the channels, in groups of between the channels, in groups of  EMC  Interference immunity against discharge of static electricity Interference immunity against discharge of static electricity acc. to IEC 61000-42 — Test voltage at air discharge — Test voltage at contact discharge — Test voltage at contact discharge — Test voltage at contact discharge  Interference immunity to cable-borne interference  Interference immunity on supply lines acc. to IEC 61000-4-4 Interference immunity against voltage surge Interference immunity against conducted variable disturbance induced by high-frequency fields Interference immunity against conducted variable disturbance induced by high-frequency fields  Interference immunity against high-frequency radiation acc. to IEC 61000-4-6  Emission of radio interference acc. to EN 55 011  Limit class A, for use in industrial areas Pers, 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  IP degree of protection  IP degree of protection  Siemens Eco Profile (SEP) Siemens Eco Profile (SEP) Siemens Eco Profile (SEP) Siemens Eco Profile (SEP) Yes	Potential separation digital outputs	
between the channels, in groups of  Interference immunity against discharge of static electricity  Interference immunity against discharge of static electricity ac. to IEC 61000-4-2  — Test voltage at air discharge	<ul> <li>Potential separation digital outputs</li> </ul>	Relays
Interference immunity against discharge of static electricity  Interference immunity against discharge of static electricity acc. to IEC 61000-4-2  — Test voltage at air discharge 8 kV  — Test voltage at contact discharge 6 kV  Interference immunity to cable-borne interference  Interference immunity on supply lines acc. to IEC 61000-4-4  Interference immunity against voltage surge  Interference immunity against voltage surge  Interference immunity against voltage surge  Interference immunity against conducted variable disturbance induced by high-frequency fields  Interference immunity against tonducted variable disturbance induced by high-frequency fields  Interference immunity against tonducted variable disturbance induced by high-frequency fields  Interference immunity against high-frequency radiation acc. to IEC 61000-4-5  Emission of radio interference acc. to EN 55 011  • Limit class A, for use in residential areas Yes; Group 1  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  IP degree of protection  IP degree of protection  Siemens Eco Profile (SEP)  Ves	<ul><li>between the channels</li></ul>	
Interference immunity against discharge of static electricity  Interference immunity against discharge of static electricity acc. to IEC 61000-4-2  — Test voltage at air discharge 6 kV  Interference immunity to cable-borne interference  Interference immunity on supply lines acc. to IEC 61000-4-4  Interference immunity on signal cables acc. to IEC 61000-4-4  Interference immunity on supply lines acc. to IEC 61000-4-4  Interference immunity against voltage surge  Interference immunity against voltage surge  Interference immunity against conducted variable disturbance induced by high-frequency fields  Interference immunity against high-frequency radiation acc. to IEC 61000-4-6  Interference immunity against not not used by high-frequency fields  Interference immunity against high-frequency radiation acc. to IEC 61000-4-6  Interference immunity against not not used by high-frequency fields  Interference immunity against high-frequency radiation acc. to IEC 61000-4-6  Interference immunity against not not used to ensure compliance with the limits for Class B, for use in industrial areas  Yes; Group 1  Yes; When appropriate measures are used to ensure compliance with the limits for Class B according to EN 55011  Degree and class of protection  IP20  Standards, approvals, certificates  Siemens Eco Profile (SEP)  Yes	between the channels, in groups of	2
Interference immunity against discharge of static electricity acc. to IEC 61000-4-2  — Test voltage at air discharge 6 kV  Interference immunity to cable-borne interference  Interference immunity to subple-borne interference  Interference immunity on supply lines acc. to IEC 61000-4-4  Interference immunity on signal cables acc. to IEC 61000-4-4  Interference immunity on signal cables acc. to IEC 61000-4-5  Interference immunity against voltage surge  Interference immunity on supply lines acc. to IEC 61000-4-5  Interference immunity against conducted variable disturbance induced by high-frequency fields  Interference immunity against high-frequency radiation acc. to IEC 61000-4-6  Emission of radio interference acc. to EN 55 011  Limit class A, for use in industrial areas  Limit class B, for use in residential areas  Limit class of protection  IP20  Standards, approvals, certificates  Siemens Eco Profile (SEP)  Siemens Eco Profile (SEP)  Siemens EcoTech  CE mark  Yes	EMC	
electricity acc. to IEC 61000-4-2  — Test voltage at air discharge — Test voltage at contact discharge  Interference immunity to cable-borne interference  Interference immunity on supply lines acc. to IEC 61000- 4-4  Interference immunity on signal cables acc. to IEC 61000- 4-4  Interference immunity against voltage surge  Interference immunity against voltage surge  Interference immunity against voltage surge  Interference immunity against conducted variable disturbance induced by high-frequency fields  Interference immunity against high-frequency radiation acc. to IEC 61000-4-6  Emission of radio interference acc. to EN 55 011  Limit class A, for use in industrial areas  Limit class B, for use in residential areas  Limit class B, for use in residential areas  Pes; 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  Siemens Eco Profile (SEP)  Siemens EcoTech  CE mark  Yes		
- Test voltage at contact discharge 6 kV  Interference immunity to cable-borne interference  Interference immunity on supply lines acc. to IEC 61000-4-4  Interference immunity on signal cables acc. to IEC 61000-4-4  Interference immunity against voltage surge  Interference immunity against voltage surge  Interference immunity against conducted variable disturbance induced by high-frequency fields  Interference immunity against high-frequency radiation acc. to IEC 61000-4-6  Emission of radio interference acc. to EN 55 011  Limit class A, for use in industrial areas  Limit class B, for use in residential areas  Limit class B, for use in residential areas  Pegree and class of protection  IP degree of protection  IP degree of protection  IP20  Siemens Eco Profile (SEP)  Siemens EcoTech  CE mark  UL approval	electricity acc. to IEC 61000-4-2	
Interference immunity to cable-borne interference  Interference immunity on supply lines acc. to IEC 61000- 4-4  Interference immunity on signal cables acc. to IEC 61000- 4-4  Interference immunity against voltage surge  Interference immunity on supply lines acc. to IEC 61000- 4-5  Interference immunity against conducted variable disturbance induced by high-frequency fields  Interference immunity against high-frequency radiation acc. to IEC 61000-4-6  Emission of radio interference acc. to EN 55 011  Limit class A, for use in industrial areas  Limit class B, for use in residential areas  Limit class B, for use in residential areas  Limit class G protection  IP degree of protection  IP degree of protection  IP20  Standards, approvals, certificates  Siemens Eco Profile (SEP)  Siemens EcoTech  CE mark  UL approval		
Interference immunity on supply lines acc. to IEC 61000- 4-4 Interference immunity against voltage surge  Interference immunity against voltage surge  Interference immunity against conducted variable disturbance induced by high-frequency fields  Interference immunity against high-frequency radiation acc. to IEC 61000-4-5  Interference immunity against high-frequency radiation acc. to IEC 61000-4-6  Emission of radio interference acc. to EN 55 011  Limit class A, for use in industrial areas  Limit class B, for use in residential areas  Limit class B, for use in residential areas  Pes; 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  Siemens Eco Profile (SEP)  Siemens Eco Profile (SEP)  Siemens EcoTech  Yes  Ves		6 KV
<ul> <li>Interference immunity on signal cables acc. to IEC 61000-4-4</li> <li>Interference immunity against voltage surge         <ul> <li>Interference immunity on supply lines acc. to IEC 61000-4-5</li> </ul> </li> <li>Interference immunity against conducted variable disturbance induced by high-frequency fields         <ul> <li>Interference immunity against conducted variable disturbance induced by high-frequency fields</li> <li>Interference immunity against high-frequency radiation acc. to IEC 61000-4-6</li> </ul> </li> <li>Emission of radio interference acc. to EN 55 011         <ul> <li>Limit class A, for use in industrial areas</li> <li>Limit class B, for use in residential areas</li> <li>Yes; When appropriate measures are used to ensure compliance with the limits for Class B according to EN 55011</li> </ul> </li> <li>Degree and class of protection         <ul> <li>IP20</li> </ul> </li> <li>Standards, approvals, certificates</li> <li>Siemens Eco Profile (SEP)</li> <li>Siemens EcoTech</li> <li>Yes</li> </ul> <li>UL approval</li>	Interference immunity on supply lines acc. to IEC 61000-	Yes
Interference immunity against voltage surge  Interference immunity on supply lines acc. to IEC 61000- 4-5  Interference immunity against conducted variable disturbance induced by high-frequency fields  Interference immunity against high-frequency radiation acc. to IEC 61000-4-6  Emission of radio interference acc. to EN 55 011  Limit class A, for use in industrial areas  Limit class B, for use in residential areas  Limit class of protection  IP degree and class of protection  IP degree of protection  IP20  Standards, approvals, certificates  Siemens Eco Profile (SEP)  Siemens EcoTech  Yes  Yes  Yes  Siemens EcoTech  Yes  Yes		Yes
<ul> <li>Interference immunity on supply lines acc. to IEC 61000-4-5</li> <li>Interference immunity against conducted variable disturbance induced by high-frequency fields</li> <li>Interference immunity against high-frequency radiation acc. to IEC 61000-4-6</li> <li>Emission of radio interference acc. to EN 55 011</li> <li>Limit class A, for use in industrial areas</li> <li>Limit class B, for use in residential areas</li> <li>Yes; Group 1</li> <li>Limit class B, for use in residential areas</li> <li>Yes; When appropriate measures are used to ensure compliance with the limits for Class B according to EN 55011</li> <li>Degree and class of protection</li> <li>IP degree of protection</li> <li>IP20</li> <li>Standards, approvals, certificates</li> <li>Siemens Eco Profile (SEP)</li> <li>CE mark</li> <li>Yes</li> <li>Yes</li> </ul>	4-4	
Interference immunity against conducted variable disturbance induced by high-frequency fields  Interference immunity against high-frequency radiation acc. to IEC 61000-4-6  Emission of radio interference acc. to EN 55 011  Limit class A, for use in industrial areas  Limit class B, for use in residential areas  Limit class B, for use in residential areas  Yes; Group 1  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  Siemens Eco Profile (SEP)  Siemens EcoTech  Yes  UL approval  Yes	, , ,	
<ul> <li>Interference immunity against high-frequency radiation acc. to IEC 61000-4-6</li> <li>Emission of radio interference acc. to EN 55 011</li> <li>Limit class A, for use in industrial areas</li> <li>Limit class B, for use in residential areas</li> <li>Ves; Group 1</li> <li>Yes; When appropriate measures are used to ensure compliance with the limits for Class B according to EN 55011</li> <li>Degree and class of protection</li> <li>IP degree of protection</li> <li>IP20</li> <li>Standards, approvals, certificates</li> <li>Siemens Eco Profile (SEP)</li> <li>Siemens EcoTech</li> <li>CE mark</li> <li>Yes</li> </ul>		Yes
acc. to IEC 61000-4-6  Emission of radio interference acc. to EN 55 011  • Limit class A, for use in industrial areas  • Limit class B, for use in residential areas  • Limit class B, for use in residential areas  Pegree and class of protection  IP degree of protection  IP20  Standards, approvals, certificates  Siemens Eco Profile (SEP)  CE mark  Ves; Group 1  Yes; When appropriate measures are used to ensure compliance with the limits for Class B according to EN 55011  IP20  Standards, approvals, certificates  Siemens Eco Profile (SEP)  Siemens EcoTech  Yes  UL approval  Yes	, <u>, , , , , , , , , , , , , , , , , , </u>	
Limit class A, for use in industrial areas     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  Siemens Eco Profile (SEP)  CE mark  Ves  Yes  UL approval  Yes		Yes
Ves; 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  Siemens Eco Profile (SEP)  CE mark  UL approval  Yes	Emission of radio interference acc. to EN 55 011	
for Class B according to EN 55011  Degree and class of protection  IP degree of protection  Standards, approvals, certificates  Siemens Eco Profile (SEP)  CE mark  UL approval  Yes	<ul> <li>Limit class A, for use in industrial areas</li> </ul>	Yes; Group 1
IP degree of protection IP20  Standards, approvals, certificates  Siemens Eco Profile (SEP) Siemens EcoTech  CE mark Yes  UL approval Yes	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
Standards, approvals, certificates  Siemens Eco Profile (SEP)  CE mark  UL approval  Yes  Ves	Degree and class of protection	
Siemens Eco Profile (SEP)  CE mark  UL approval  Siemens EcoTech  Yes  Yes	IP degree of protection	IP20
CE mark Yes UL approval Yes	Standards, approvals, certificates	
UL approval Yes	Siemens Eco Profile (SEP)	Siemens EcoTech
	CE mark	Yes
CULus	UL approval	Yes
	cULus	Yes

FM approval	Yes
RCM (formerly C-TICK)	Yes
	Yes
KC approval	Yes
Marine approval	res
Ecological footprint	Vasi hima II asa ta ISO 44004
environmental product declaration	Yes; type II acc. to ISO 14021
Global warming potential	70.41
— global warming potential, (total) [CO2 eq]	76.4 kg
<ul> <li>global warming potential, (during production) [CO2 eq]</li> </ul>	13.8 kg
— global warming potential, (during operation) [CO2	63.4 kg
eq]	
— global warming potential, (after end of life cycle)	-0.89 kg
[CO2 eq]	
Ambient conditions	
Free fall	O O or first lines in mandred and to a
• Fall height, max.	0.3 m; five times, in product package
Ambient temperature during operation	20.90
• min.	-20 °C
● max.	60 °C; Number of simultaneously activated inputs or outputs 4 or 3 (no adjacent points) at 60 °C horizontal or 50 °C vertical, 8 or 6 at 55 °C horizontal or 45 °C
	vertical
<ul> <li>horizontal installation, min.</li> </ul>	-20 °C
<ul> <li>horizontal installation, max.</li> </ul>	60 °C
• 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
<ul> <li>Operation, max.</li> </ul>	1 080 hPa
<ul> <li>Storage/transport, min.</li> </ul>	660 hPa
Storage/transport, max.	1 080 hPa
Altitude during operation relating to sea level	
<ul> <li>Installation altitude, min.</li> </ul>	-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/s²) wall mounting, 1 g (m/s²) DIN rail
2-6 • Operation, tested according to IEC 60068 2.6	Vac
Operation, tested according to IEC 60068-2-6  Shock testing	Yes
Shock testing	Voc. IEC 69 Part 2 27 half sings atropath of the about 45 a (apply sales)
<ul> <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	
User program protection/password protection	Yes
Copy protection	Yes
Block protection	Yes
Access protection	
protection of confidential configuration data	Yes
Protection level: Write protection	Yes
Protection level: Write protection     Protection level: Read/write protection	Yes
Protection level: Read/write protection     Protection level: Complete protection	Yes
- i Totodion iovoi. Complete protection	100

User administration	Yes; device-wide	
<ul> <li>Number of users</li> </ul>	42	
<ul> <li>Number of groups</li> </ul>	14	
Number of roles	20	
programming / cycle time monitoring / header		
<ul> <li>adjustable</li> </ul>	Yes	
Dimensions		
Width	90 mm	
Height	100 mm	
Depth	75 mm	
Weights		
Weight, approx.	425 g	
Classifications		

	Version	Classification
eClass	14	27-24-22-07
eClass	12	27-24-22-07
eClass	9.1	27-24-22-07
eClass	9	27-24-22-07
eClass	8	27-24-22-07
eClass	7.1	27-24-22-07
eClass	6	27-24-22-07
ETIM	9	EC000236
ETIM	8	EC000236
ETIM	7	EC000236
IDEA	4	3565
UNSPSC	15	32-15-17-05

Approvals / Certificates

General Product Approval Maritime application Environment

Manufacturer Declaration

Miscellaneous

Miscellaneous







last modified:

5/16/2025