Data sheet

6ES7313-6CG04-0AB0



SIMATIC S7-300, CPU 313C-2 DP Compact CPU with MPI, 16 DI/16 DO, 3 high-speed counters (30 kHz), integrated DP interface, Integr. power supply 24 V DC, work memory 128 KB, Front connector (1x 40-pole) and Micro Memory Card required

General information	
HW functional status	01
Firmware version	V3.3
Engineering with	
Programming package	STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
external protection for power supply lines (recommendation)	Miniature circuit breaker, type C; min. 2 A; miniature circuit breaker type B, min. 4 A
Mains buffering	
 Mains/voltage failure stored energy time 	5 ms
Repeat rate, min.	1 s
Load voltage L+	
Digital inputs	
— load voltage / at digital input / at DC / rated value	24 V
 Reverse polarity protection 	Yes
Digital outputs	
— Rated value (DC)	24 V
 Reverse polarity protection 	No
Input current	
Current consumption (rated value)	800 mA
Current consumption (in no-load operation), typ.	110 mA
Inrush current, typ.	5 A
l²t	0.7 A²-s
Digital inputs	
 from load voltage L+ (without load), max. 	80 mA
Digital outputs	
• from load voltage L+, max.	50 mA
Power loss	
Power loss, typ.	9 W
Memory	
Work memory	
• integrated	128 kbyte
expandable	No
Load memory	
• Plug-in (MMC)	Yes
Plug-in (MMC), max.	8 Mbyte
 Data management on MMC (after last programming), min. 	10 a

Backup	
• present	Yes; Guaranteed by MMC (maintenance-free)
without battery	Yes; Program and data
CPU processing times	
for bit operations, typ.	0.07 μs
for word operations, typ.	0.15 µs
for fixed point arithmetic, typ.	0.2 µs
for floating point arithmetic, typ.	0.72 µs
CPU-blocks	
Number of blocks (total)	1 024; (DBs, FCs, FBs); the maximum number of loadable blocks can be reduced by the MMC used.
DB	
Number, max.	1 024; Number range: 1 to 16000
• Size, max.	64 kbyte
FB	
Number, max.	1 024; Number range: 0 to 7999
• Size, max.	64 kbyte
FC	
Number, max.	1 024; Number range: 0 to 7999
• Size, max.	64 kbyte
OB	
• Number, max.	see instruction list
• Size, max.	64 kbyte
Number of free cycle OBs	1; OB 1
 Number of time alarm OBs 	1; OB 10
 Number of delay alarm OBs 	2; OB 20, 21
 Number of cyclic interrupt OBs 	4; OB 32, 33, 34, 35
 Number of process alarm OBs 	1; OB 40
 Number of DPV1 alarm OBs 	3; OB 55, 56, 57
 Number of startup OBs 	1; OB 100
 Number of asynchronous error OBs 	5; OB 80, 82, 85, 86, 87
Number of synchronous error OBs	2; OB 121, 122
Nesting depth	
 per priority class 	16
additional within an error OB	4
Counters, timers and their retentivity	
S7 counter	
Number	256
Retentivity	
— adjustable	Yes
— lower limit	0
— upper limit	255
— preset	Z 0 to Z 7
Counting range	
— lower limit	0
— upper limit	999
IEC counter	V
• present	Yes
• Type	SFB
Number 27 times.	Unlimited (limited only by RAM capacity)
S7 times	250
Number Potentivity	256
Retentivity	Vee
— adjustable	Yes
— lower limit	0
— upper limit	255
— preset	No retentivity
Time range	
— lower limit	10 ms
— upper limit	9 990 s
IEC timer	

• present	Yes
• Type	SFB
Number	Unlimited (limited only by RAM capacity)
Data areas and their retentivity	
Retentive data area (incl. timers, counters, flags), max.	64 kbyte
Flag	
• Size, max.	256 byte
 Retentivity available 	Yes; MB 0 to MB 255
 Retentivity preset 	MB 0 to MB 15
 Number of clock memories 	8; 1 memory byte
Data blocks	
Retentivity adjustable	Yes; via non-retain property on DB
Retentivity preset	Yes
Local data	
 per priority class, max. 	32 kbyte; Max. 2048 bytes per block
Address area	
I/O address area	
• Inputs	2 048 byte
Outputs	2 048 byte
of which distributed	
— Inputs	2 030 byte
— Outputs	2 030 byte
Process image	
• Inputs	2 048 byte
Outputs	2 048 byte
Inputs, adjustable	2 048 byte
Outputs, adjustable	2 048 byte
Inputs, default	128 byte
Outputs, default	128 byte
Default addresses of the integrated channels	120 byte
— Digital inputs	124.0 to 125.7
— Digital imputs — Digital outputs	124.0 to 125.7
— Digital outputs Digital channels	124.0 to 123.7
	16 256
Inputs— of which central	
	1 008 16 256
Outputs — of which central	
	1 008
Analog channels	4.045
• Inputs	1 015
— of which central	248
Outputs	1 015
— of which central	248
Hardware configuration	
Number of expansion units, max.	3
Number of DP masters	
• integrated	1
• via CP	4
Number of operable FMs and CPs (recommended)	
• FM	8
• CP, PtP	8
• CP, LAN	6
Rack	
• Racks, max.	4
Modules per rack, max.	8; In rack 3 max. 7
Time of day	
Clock	
 Hardware clock (real-time) 	Yes
 retentive and synchronizable 	Yes
Backup time	6 wk; At 40 °C ambient temperature
 Deviation per day, max. 	10 s; Typ.: 2 s

Behavior of the clock following POWER-ON	Clock continues running after POWER OFF
Behavior of the clock following expiry of backup period	the clock continues at the time of day it had when power was switched off
Operating hours counter	
Number	1
 Number/Number range 	0
Range of values	0 to 2^31 hours (when using SFC 101)
 Granularity 	1 h
retentive	Yes; Must be restarted at each restart
Clock synchronization	
• supported	Yes
• to MPI, master	Yes
• to MPI, slave	Yes
• to DP, master	Yes; With DP slave only slave clock
• to DP, slave	Yes
• in AS, master	Yes
• in AS, slave	No
Digital inputs	
Number of digital inputs	16
of which inputs usable for technological functions	12
integrated channels (DI)	16
Input characteristic curve in accordance with IEC 61131, type 1	Yes
Number of simultaneously controllable inputs	
horizontal installation	40
— up to 40 °C, max.	16
— up to 60 °C, max.	8
vertical installation	
— up to 40 °C, max.	8
Input voltage	
Rated value (DC)	24 V
• for signal "0"	-3 to +5V
• for signal "1"	+15 to +30 V
Input current	
• for signal "1", typ.	8 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— parameterizable	Yes; 0.1 / 0.3 / 3 / 15 ms (You can reconfigure the input delay of the standard inputs during program runtime. Please note that under certain circumstances
	your newly set filter time may not be effective until the next filter cycle.)
— Rated value	3 ms
for technological functions	
— at "0" to "1", max.	16 µs; Minimum pulse width/minimum pause between pulses at maximum
	counting frequency
Cable length	
• shielded, max.	1 000 m; 100 m for technological functions
• unshielded, max.	600 m; for technological functions: No
for technological functions	
— shielded, max.	100 m; at maximum count frequency
— unshielded, max.	not allowed
Digital outputs	
Number of digital outputs	16
of which high-speed outputs	4; Notice: You cannot connect the fast outputs of your CPU in parallel
integrated channels (DO)	16
Short-circuit protection	Yes; Clocked electronically
Response threshold, typ.	1 A
Limitation of inductive shutdown voltage to	L+ (-48 V)
Controlling a digital input	Yes
Switching capacity of the outputs	
on lamp load, max.	5 W
Load resistance range	
Load resistance range ● lower limit ● upper limit	48 Ω 4 kΩ

Output voltage • for signal "1", min.	L+ (-0.8 V)
Output current	L. (-0.0 V)
for signal "1" rated value	500 mA
• for signal "1" permissible range, min.	5 mA
• for signal "1" permissible range, max.	0.6 A
for signal "1" minimum load current	5 mA
for signal "0" residual current, max.	0.5 mA
	U.5 IIIA
Parallel switching of two outputs	Al-
• for uprating	No
for redundant control of a load	Yes
Switching frequency	
with resistive load, max.	100 Hz
 with inductive load, max. 	0.5 Hz
on lamp load, max.	100 Hz
 of the pulse outputs, with resistive load, max. 	2.5 kHz
Total current of the outputs (per group)	
horizontal installation	
— up to 40 °C, max.	3 A
— up to 60 °C, max.	2 A
vertical installation	
— up to 40 °C, max.	2 A
Cable length	
• shielded, max.	1 000 m
• unshielded, max.	600 m
Analog inputs	
Number of analog inputs	0
integrated channels (AI)	0
Analog outputs	
Number of analog outputs	0
integrated channels (AO)	0
Encoder	
Connectable encoders	
2-wire sensor	Yes
— permissible quiescent current (2-wire sensor), max.	1.5 mA
	1.5 IIIA
Interfaces	
Number of industrial Ethernet interfaces	0
Number of PROFINET interfaces	0
Number of RS 485 interfaces	2; MPI and PROFIBUS DP
Number of RS 422 interfaces	
	0
1. Interface	0
1. Interface Interface type	Integrated RS 485 interface
Interface type	Integrated RS 485 interface
Interface type Isolated	Integrated RS 485 interface
Interface type Isolated Interface types	Integrated RS 485 interface No
Interface type Isolated Interface types • RS 485	Integrated RS 485 interface No Yes
Interface type Isolated Interface types RS 485 Output current of the interface, max.	Integrated RS 485 interface No Yes
Interface type Isolated Interface types RS 485 Output current of the interface, max. Protocols	Integrated RS 485 interface No Yes 200 mA
Interface type Isolated Interface types RS 485 Output current of the interface, max. Protocols MPI	Integrated RS 485 interface No Yes 200 mA Yes
Interface type Isolated Interface types RS 485 Output current of the interface, max. Protocols MPI PROFIBUS DP master	Integrated RS 485 interface No Yes 200 mA Yes No
Interface type Isolated Interface types RS 485 Output current of the interface, max. Protocols MPI PROFIBUS DP master PROFIBUS DP slave	Integrated RS 485 interface No Yes 200 mA Yes No No
Interface type Isolated Interface types RS 485 Output current of the interface, max. Protocols MPI PROFIBUS DP master PROFIBUS DP slave Point-to-point connection MPI	Integrated RS 485 interface No Yes 200 mA Yes No No
Interface type Isolated Interface types RS 485 Output current of the interface, max. Protocols MPI PROFIBUS DP master PROFIBUS DP slave Point-to-point connection MPI Transmission rate, max.	Integrated RS 485 interface No Yes 200 mA Yes No No No
Interface type Isolated Interface types RS 485 Output current of the interface, max. Protocols MPI PROFIBUS DP master PROFIBUS DP slave Point-to-point connection MPI Transmission rate, max. Services	Integrated RS 485 interface No Yes 200 mA Yes No No No No No No
Interface type Isolated Interface types RS 485 Output current of the interface, max. Protocols MPI PROFIBUS DP master PROFIBUS DP slave Point-to-point connection MPI Transmission rate, max. Services — PG/OP communication	Integrated RS 485 interface No Yes 200 mA Yes No No No No Yes Yes
Interface type Isolated Interface types RS 485 Output current of the interface, max. Protocols MPI PROFIBUS DP master PROFIBUS DP slave Point-to-point connection MPI Transmission rate, max. Services — PG/OP communication — Routing	Integrated RS 485 interface No Yes 200 mA Yes No No No No Yes Yes Yes
Interface type Isolated Interface types RS 485 Output current of the interface, max. Protocols MPI PROFIBUS DP master PROFIBUS DP slave Point-to-point connection MPI Transmission rate, max. Services PG/OP communication Routing Global data communication	Integrated RS 485 interface No Yes 200 mA Yes No No No No Yes Yes Yes Yes Yes
Interface type Isolated Interface types RS 485 Output current of the interface, max. Protocols MPI PROFIBUS DP master PROFIBUS DP slave Point-to-point connection MPI Transmission rate, max. Services PG/OP communication Routing Global data communication S7 basic communication	Integrated RS 485 interface No Yes 200 mA Yes No No No No Yes Yes Yes Yes Yes Yes Yes
Interface type Isolated Interface types RS 485 Output current of the interface, max. Protocols MPI PROFIBUS DP master PROFIBUS DP slave Point-to-point connection MPI Transmission rate, max. Services — PG/OP communication — Routing — Global data communication	Integrated RS 485 interface No Yes 200 mA Yes No No No No Yes Yes Yes Yes Yes

 S7 communication, as server 	Yes
2. Interface	
Interface type	Integrated RS 485 interface
Isolated	Yes
Interface types	160
• RS 485	Yes
Output current of the interface, max.	200 mA
Protocols	200 11111
• MPI	No
PROFINET IO Controller	No
PROFINET IO Device	No
• PROFINET CBA	No
PROFIBUS DP master	Yes
PROFIBUS DP slave	Yes
PROFIBUS DP master	100
Transmission rate, max.	12 Mbit/s
Number of DP slaves, max.	124
Services	
— PG/OP communication	Yes
— Routing	Yes
Global data communication	No
S7 basic communication	Yes; I blocks only
— S7 communication	Yes; Yes (only server; connection configured at one end)
— S7 communication, as client	No
— S7 communication, as server	Yes
— Equidistance	Yes
— Isochronous mode	No
— SYNC/FREEZE	Yes
Activation/deactivation of DP slaves	Yes
Number of DP slaves that can be simultaneously activated/deactivated, max.	8
Direct data exchange (slave-to-slave communication)	Yes; as subscriber
— DPV1 Address area	Yes
	2 kbyte
— Inputs, max.— Outputs, max.	
User data per DP slave	2 kbyte
— Inputs, max.	244 byte
— Outputs, max.	244 byte
PROFIBUS DP slave	244 byte
• GSD file	The latest GSD file is available on the Internet
- 305 mg	(http://www.siemens.com/profibus-gsd)
 Transmission rate, max. 	12 Mbit/s
automatic baud rate search	Yes; only with passive interface
 Address area, max. 	32
 User data per address area, max. 	32 byte
Services	
— PG/OP communication	Yes
— Routing	Yes; Only with active interface
 Global data communication 	No
 S7 basic communication 	No
— S7 communication	Yes; Yes (only server; connection configured at one end)
 S7 communication, as client 	No
 S7 communication, as server 	Yes
 Direct data exchange (slave-to-slave communication) 	Yes
— DPV1	No
Transfer memory	
— Inputs	244 byte
— Outputs	244 byte
Protocols	

PROFIsafe	No
communication functions / header	
PG/OP communication	Yes
Data record routing	Yes
Global data communication	
• supported	Yes
Number of GD loops, max.	8
Number of GD packets, max.	8
Number of GD packets, transmitter, max.	8
Number of GD packets, receiver, max.	8
Size of GD packets, max.	22 byte
Size of GD packet (of which consistent), max.	22 byte
S7 basic communication	
communication function / S7 basic communication	Yes
User data per job, max.	76 byte
User data per job (of which consistent), max.	76 byte; 76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT or X_GET
	as server)
S7 communication	V
supported	Yes
as server	Yes
• as client	Yes; Via CP and loadable FB
User data per job, max.	180 kbyte; With PUT/GET
User data per job (of which consistent), max.	240 byte; as server
S5 compatible communication	V : 0P 11 111 50
• supported	Yes; via CP and loadable FC
Number of connections	
• overall	8 _
usable for PG communication	7
— reserved for PG communication	1
— adjustable for PG communication, min.	1
— adjustable for PG communication, max.	7
usable for OP communication	7
— reserved for OP communication	1
— adjustable for OP communication, min.	1
— adjustable for OP communication, max.	7
usable for S7 basic communication	4
— reserved for S7 basic communication	0
— adjustable for S7 basic communication, min.	0
adjustable for S7 basic communication, max.	4
usable for routing	4; max.
S7 message functions	0.0
Number of login stations for message functions, max.	8; Depending on the configured connections for PG/OP and S7 basic communication
Process diagnostic messages	Yes
simultaneously active Alarm-S blocks, max.	300
Test commissioning functions	
Status block	Yes; Up to 2 simultaneously
Single step	Yes
Number of breakpoints	4
Status/control	
Status/control variable	Yes
Variables	Inputs, outputs, memory bits, DB, times, counters
 Number of variables, max. 	30
— of which status variables, max.	30
— of which control variables, max.	14
Forcing	
• Forcing	Yes
Forcing, variables	Inputs, outputs
Number of variables, max.	10
Diagnostic buffer	
• present	Yes

No. 1 Co. C.	500
 Number of entries, max. 	500
— adjustable	No
— of which powerfail-proof	100; Only the last 100 entries are retained
 Number of entries readable in RUN, max. 	499
— adjustable	Yes; From 10 to 499
— preset	10
Service data	
can be read out	Yes
Interrupts/diagnostics/status information	
Diagnostics indication LED	
 Status indicator digital input (green) 	Yes
Status indicator digital output (green)	Yes
Integrated Functions	
Frequency measurement	Yes
Number of frequency meters	3; up to 30 kHz (see "Technological Functions" manual)
controlled positioning	No
integrated function blocks (closed-loop control)	Yes; PID controller (see "Technological Functions" manual)
PID controller	Yes
Number of pulse outputs	3; Pulse width modulation up to 2.5 kHz (see "Technological Functions" Manual)
Limit frequency (pulse)	2.5 kHz
Potential separation	
Potential separation digital inputs	
 Potential separation digital inputs 	Yes
 between the channels 	No
 between the channels and backplane bus 	Yes
Potential separation digital outputs	
Potential separation digital outputs	Yes
 between the channels 	Yes
 between the channels, in groups of 	8
 between the channels and backplane bus 	Yes
Isolation	
Isolation Isolation tested with	600 V DC
	600 V DC
Isolation tested with	600 V DC
Isolation tested with Ambient conditions	600 V DC
Isolation tested with Ambient conditions Ambient temperature during operation	
Isolation tested with Ambient conditions Ambient temperature during operation • min.	0 °C
Isolation tested with Ambient conditions Ambient temperature during operation • min. • max.	0 °C
Isolation tested with Ambient conditions Ambient temperature during operation • min. • max. configuration / header	0 °C
Isolation tested with Ambient conditions Ambient temperature during operation • min. • max. configuration / header Configuration software	0 °C
Isolation tested with Ambient conditions Ambient temperature during operation • min. • max. configuration / header Configuration software	0 °C 60 °C Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP
Isolation tested with Ambient conditions Ambient temperature during operation • min. • max. configuration / header Configuration software • STEP 7	0 °C 60 °C Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203
Isolation tested with Ambient conditions Ambient temperature during operation • min. • max. configuration / header Configuration software • STEP 7 • STEP 7 Lite	0 °C 60 °C Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203
Isolation tested with Ambient conditions Ambient temperature during operation • min. • max. configuration / header Configuration software • STEP 7 • STEP 7 Lite configuration / programming / header	0 °C 60 °C Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 No
Isolation tested with Ambient conditions Ambient temperature during operation • min. • max. configuration / header Configuration software • STEP 7 • STEP 7 Lite configuration / programming / header • Command set	0 °C 60 °C Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 No see instruction list
Isolation tested with Ambient conditions Ambient temperature during operation • min. • max. configuration / header Configuration software • STEP 7 • STEP 7 Lite configuration / programming / header • Command set • Nesting levels	0 °C 60 °C Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 No see instruction list 8
Isolation tested with Ambient conditions Ambient temperature during operation • min. • max. configuration / header Configuration software • STEP 7 • STEP 7 Lite configuration / programming / header • Command set • Nesting levels • System functions (SFC)	0 °C 60 °C Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 No see instruction list 8 see instruction list
Isolation tested with Ambient conditions Ambient temperature during operation • min. • max. configuration / header Configuration software • STEP 7 • STEP 7 Lite configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language — LAD	0 °C 60 °C Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 No see instruction list 8 see instruction list
Isolation tested with Ambient conditions Ambient temperature during operation • min. • max. configuration / header Configuration software • STEP 7 • STEP 7 Lite configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language	0 °C 60 °C Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 No see instruction list 8 see instruction list see instruction list
Isolation tested with Ambient conditions Ambient temperature during operation • min. • max. configuration / header Configuration software • STEP 7 • STEP 7 Lite configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language — LAD — FBD — STL	0 °C 60 °C Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 No see instruction list 8 see instruction list see instruction list
Isolation tested with Ambient conditions Ambient temperature during operation • min. • max. configuration / header Configuration software • STEP 7 • STEP 7 Lite configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language — LAD — FBD — STL — SCL	0 °C 60 °C Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 No see instruction list 8 see instruction list see instruction list Yes Yes
Isolation tested with Ambient conditions Ambient temperature during operation • min. • max. configuration / header Configuration software • STEP 7 • STEP 7 Lite configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language — LAD — FBD — STL	0 °C 60 °C Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 No see instruction list 8 see instruction list see instruction list Yes Yes Yes
Isolation tested with Ambient conditions Ambient temperature during operation • min. • max. configuration / header Configuration software • STEP 7 • STEP 7 Lite configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language — LAD — FBD — STL — SCL	O °C 60 °C Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 No see instruction list 8 see instruction list see instruction list Yes Yes Yes Yes
Isolation tested with Ambient conditions Ambient temperature during operation • min. • max. configuration / header Configuration software • STEP 7 • STEP 7 Lite configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language — LAD — FBD — STL — SCL — CFC	O °C 60 °C Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 No see instruction list 8 see instruction list see instruction list Yes Yes Yes Yes Yes Yes
Isolation tested with Ambient conditions Ambient temperature during operation • min. • max. configuration / header Configuration software • STEP 7 • STEP 7 Lite configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language — LAD — FBD — STL — SCL — CFC — GRAPH	O °C 60 °C Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 No see instruction list 8 see instruction list see instruction list Yes Yes Yes Yes Yes Yes Yes Yes
Isolation tested with Ambient conditions Ambient temperature during operation • min. • max. configuration / header Configuration software • STEP 7 • STEP 7 Lite configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language — LAD — FBD — STL — SCL — CFC — GRAPH — HiGraph®	O °C 60 °C Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 No see instruction list 8 see instruction list see instruction list Yes Yes Yes Yes Yes Yes Yes Yes
Isolation tested with Ambient conditions Ambient temperature during operation • min. • max. configuration / header Configuration software • STEP 7 • STEP 7 Lite configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language — LAD — FBD — STL — SCL — CFC — GRAPH — HiGraph® Know-how protection	O °C 60 °C Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 No see instruction list 8 see instruction list see instruction list Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye
Isolation tested with Ambient conditions Ambient temperature during operation • min. • max. configuration / header Configuration software • STEP 7 • STEP 7 Lite configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language — LAD — FBD — STL — SCL — CFC — GRAPH — HiGraph® Know-how protection • User program protection/password protection	O °C 60 °C Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 No see instruction list 8 see instruction list see instruction list Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye
Isolation tested with Ambient conditions Ambient temperature during operation • min. • max. configuration / header Configuration software • STEP 7 • STEP 7 Lite configuration / programming / header • Command set • Nesting levels • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language — LAD — FBD — STL — SCL — CFC — GRAPH — HiGraph® Know-how protection • User program protection/password protection • Block encryption	O °C 60 °C Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 No see instruction list 8 see instruction list see instruction list Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye
Isolation tested with Ambient conditions Ambient temperature during operation • min. • max. configuration / header Configuration software • STEP 7 • STEP 7 Lite configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language — LAD — FBD — STL — SCL — CFC — GRAPH — HiGraph® Know-how protection • User program protection/password protection • Block encryption Dimensions	O °C 60 °C Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 No see instruction list 8 see instruction list Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye

Depth	130 mm
Weights	
Weight, approx.	500 g

last modified:

9/7/2023