Data sheet



SIMATIC S7-300, CPU 317F-2DP, CENTRAL PROCESSING UNIT WITH 1.5 MBYTE WORKING MEMORY, 1. INTERFACE MPI/DP 12MBIT/S, 2. INTERFACE DP-MASTER/SLAVE, MICRO MEMORY CARD NECESSARY FOR USE WITH SOFTWARE OPTION S7 DISTRIBUTED SAFETY V5.2 SP1 AND HIGHER

General information	
Hardware product version	01
Firmware version	V3.3
Engineering with	
Programming package	STEP 7 V5.5 + SP1 or higher or STEP 7 V5.2 + SP1 or higher with HSP 202 + Distributed Safety
Supply voltage	
Rated value (DC)	
• 24 V DC	Yes
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
external protection for power supply lines	2 A min.
(recommendation)	
Input current	
Current consumption (rated value)	870 mA
Current consumption (in no-load operation), typ.	120 mA
Inrush current, typ.	4 A
l²t	1 A ² ·s

Power loss, typ. Memory Work memory integrated expandable size of retentive memory for retentive data blocks Load memory Plug-in (MMC) Plug-in (MMC) Plug-in (MMC) Plug-in (MMC) Plug-in (MMC) Present Poresent Ves; Guaranteed by MMC (maintenance-free) Ves; Program and data CPU processing times for bit operations, typ. for fixed point arithmetic, typ. for fixed point arithmetic, typ. for floating point arithmetic, typ. DB Number of blocks (total) DB Number, max. Size, max. Pise, max. Size, max. Poserription Poserription Size, max. 64 kbyte Posersition Size, max. 64 kbyte Posersition Number of free cycle OBs Number of free cycle OBs Number of free cycle OBs Number of gozess alarn OBs Number of posesses alarn OBs Number of process alarn OBs	Power loss		
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Very memory Integrated 1 536 kbyte expandable Size of retentive memory for retentive data blocks Elag-in (MMC) Yes Flug-in (MMC), max. 8 Mbyte Plug-in (MMC), max. 8 Mbyte Plug-in (MMC), max. 10 y Prosent Yes: Guaranteed by MMC (maintenance-free) evithout battery Yes: Program and data Por word operations, typ. 0.025 µs for word operations, typ. 0.04 µs for fixed point arithmetic, typ. 0.16 µs Flug-in (interrupt OBs Vest in the maximum number of loadable blocks can be reduced by the MMC used. FB	Memory		
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• Size of retentive memory for retentive data blocks Load memory • Plug-in (MMC) • Plug-in (MMC), max. • Data management on MMC (after last programming), min. Backup • present • without battery • processing times for bit operations, typ. for word operations, typ. for fixed point arithmetic, typ. of reflacing point arithmetic, typ. 0.04 µs for floating point arithmetic, typ. 0.16 µs CPU-blocks Number of blocks (total) • Number, max. • Size, max. • Size, max. • Number, max. • Size, max. • Size, max. 64 kbyte • Number, max. • Size, max. •	• integrated	1 536 kbyte	
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 Number of delay alarm OBs Number of cyclic interrupt OBs 2; OB 20, 21 4; OB 32, 33, 34, 35 	 Number of free cycle OBs 	1; OB 1	
 Number of cyclic interrupt OBs 4; OB 32, 33, 34, 35 	 Number of time alarm OBs 	1; OB 10	
	 Number of delay alarm OBs 	2; OB 20, 21	
• Number of process alarm OBs 1; OB 40	 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 isochronous mode OBs 	1; OB 61
 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	512
Retentivity	
— adjustable	Yes
— lower limit	0
— upper limit	511
— preset	Z 0 to Z 7
Counting range	
— lower limit	0
— upper limit	999
IEC counter	
• present	Yes
• Type	SFB
• Number	Unlimited (limited only by RAM capacity)
S7 times	
Number	512
Retentivity	
— adjustable	Yes
— lower limit	0
— upper limit	511
— 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	

Bata areas and their retentivity	
retentive data area in total	All, max. 256 KB
Flag	
• Number, max.	4 096 byte

Retentivity available	Yes; From MB 0 to MB 4095
 Retentivity preset 	MB 0 to MB 15
Number of clock memories	8; 1 memory byte
Data blocks	
Number, max.	2 048; Number range: 1 to 16000
● Size, max.	64 kbyte
 Retentivity adjustable 	Yes; via non-retain property on DB
Retentivity preset	Yes
Local data	
• per priority class, max.	32 768 byte; Max. 2048 bytes per block
Address area	
I/O address area	
• Inputs	8 192 byte
• Outputs	8 192 byte
of which distributed	
— Inputs	8 192 byte
— Outputs	8 192 byte
Process image	
• Inputs	8 192 byte
Outputs	8 192 byte
Inputs, adjustable	8 192 byte
 Outputs, adjustable 	8 192 byte
Inputs, default	1 024 byte
 Outputs, default 	1 024 byte
Subprocess images	
Number of subprocess images, max.	1
Digital channels	
• Inputs	65 536
— of which central	1 024
Outputs	65 536
— of which central	1 024
Analog channels	
• Inputs	4 096
— of which central	256
Outputs	4 096
— of which central	256
Hardware configuration	
Number of expansion units, max.	3
Number of DP masters	
• integrated	2
• via CP	4

Number of operable FMs and CPs (recommended)		
• FM	8	
• CP, PtP	8	
• CP, LAN	10	
Rack		
• Racks, max.	4	
• Modules per rack, max.	8	
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 	Clock continues to run with the time at which the power failure occurred	
Operating hours counter		
Number	4	
Number/Number range	0 to 3	
Range of values	0 to 2^31 hours (when using SFC 101)	
Granularity	1 hour	
• 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	Yes	
• on Ethernet via NTP	No	
Digital inputs		
Number of digital inputs	0	
Digital outputs		
Number of digital outputs	0	
Analog inputs		
Number of analog inputs	0	
Analog outputs		
Number of analog outputs	0	
Interfaces		

Number of industrial Ethernet interfaces	0
Number of RS 485 interfaces	2
Number of RS 422 interfaces	0
1. Interface	
Interface type	Integrated RS 485 interface
Physics	RS 485
Isolated	Yes
Power supply to interface (15 to 30 V DC), max.	200 mA
Functionality	
• MPI	Yes
 PROFIBUS DP master 	Yes
 PROFIBUS DP slave 	Yes; A DP slave at both interfaces simultaneously is not possible
 Point-to-point connection 	No
MPI	
Transmission rate, max.	12 Mbit/s
Services	
— PG/OP communication	Yes
— Routing	Yes
 Global data communication 	Yes
 S7 basic communication 	Yes
— S7 communication	Yes; Only server, configured on one side
 S7 communication, as client 	No; but via CP and loadable FB
— S7 communication, as server	Yes
DP master	
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; Only server, configured on one side
— S7 communication, as client	No
— S7 communication, as server	Yes
— Equidistance	Yes
Lydidistance Isochronous mode	No
— SYNC/FREEZE	Yes
— SYNC/FREEZE — 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	Yes
Address area	
— Inputs, max.	8 kbyte
— Outputs, max.	8 kbyte
User data per DP slave	
— Inputs, max.	244 byte
— Outputs, max.	244 byte
DP slave	
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; Only server, configured on one side
 S7 communication, as client 	No
— S7 communication, as server	Yes; Connection configured on one side only
Direct data exchange (slave-to-slave communication)	Yes
— DPV1	No
Transfer memory	
— Inputs	244 byte
— Outputs	244 byte
2. Interface	
Interface type	Integrated RS 485 interface
Physics	RS 485
Isolated	Yes
Power supply to interface (15 to 30 V DC), max.	200 mA
Functionality	
• MPI	No
PROFIBUS DP master	Yes
PROFIBUS DP slave	Yes; A DP slave at both interfaces simultaneously is not possible
Point-to-point connection	No
DP master	
• Transmission rate, max.	12 Mbit/s
Number of DP slaves, max.	124
Services	

— Routing	Yes
 Global data communication 	No
— S7 basic communication	Yes; I blocks only
— S7 communication	Yes; Only server, configured on one side
— S7 communication, as client	No; but via CP and loadable FB
— S7 communication, as server	Yes
— Equidistance	Yes
— Isochronous mode	Yes; OB 61
— 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	Yes
Address area	
— Inputs, max.	8 192 byte
— Outputs, max.	8 192 byte
User data per DP slave	
— Inputs, max.	244 byte
— Outputs, max.	244 byte
DP slave	
DP slave ● GSD file	The latest GSD file is available on the Internet (http://www.siemens.com/profibus-gsd)
• GSD file	(http://www.siemens.com/profibus-gsd)
 GSD file Transmission rate, max.	(http://www.siemens.com/profibus-gsd) 12 Mbit/s
 GSD file Transmission rate, max. automatic baud rate search	(http://www.siemens.com/profibus-gsd) 12 Mbit/s Yes; only with passive interface
 GSD file Transmission rate, max. automatic baud rate search Address area, max. 	(http://www.siemens.com/profibus-gsd)12 Mbit/sYes; only with passive interface32
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 GSD file Transmission rate, max. automatic baud rate search Address area, max. User data per address area, max. Services — PG/OP communication — Routing — Global data communication 	(http://www.siemens.com/profibus-gsd) 12 Mbit/s Yes; only with passive interface 32 32 byte Yes Yes; Only with active interface No
 GSD file Transmission rate, max. automatic baud rate search Address area, max. User data per address area, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication 	(http://www.siemens.com/profibus-gsd) 12 Mbit/s Yes; only with passive interface 32 32 byte Yes Yes; Only with active interface No No
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 GSD file Transmission rate, max. automatic baud rate search Address area, max. User data per address area, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication, as client — S7 communication, as server — Direct data exchange (slave-to-slave) 	(http://www.siemens.com/profibus-gsd) 12 Mbit/s Yes; only with passive interface 32 32 byte Yes Yes; Only with active interface No No Yes; Only server, configured on one side No; but via CP and loadable FB Yes
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 GSD file Transmission rate, max. automatic baud rate search Address area, max. User data per address area, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication, as client — S7 communication, as server — Direct data exchange (slave-to-slave communication) — DPV1 Transfer memory 	(http://www.siemens.com/profibus-gsd) 12 Mbit/s Yes; only with passive interface 32 32 byte Yes Yes; Only with active interface No No No Yes; Only server, configured on one side No; but via CP and loadable FB Yes Yes Yes

Communication functions	
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	
• supported	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	
• supported	Yes
• as server	Yes
• as client	Yes; Via CP and loadable FB
User data per job, max.	See online help of STEP 7 (shared parameters of the SFBs/FBs and of the SFCs/FCs of S7 Communication)
S5 compatible communication	
• supported	Yes; via CP and loadable FC
Number of connections	
• overall	32
 usable for PG communication 	31
 reserved for PG communication 	1
 adjustable for PG communication, min. 	1
 adjustable for PG communication, max. 	31
 usable for OP communication 	31
 reserved for OP communication 	1
 adjustable for OP communication, min. 	1
— adjustable for OP communication, max.	31
• usable for S7 basic communication	30
— reserved for S7 basic communication	0
 adjustable for S7 basic communication, min. 	0
 adjustable for S7 basic communication, max. 	30
• usable for routing	X1 as a MPI, max. 10; X1 as DP Master max. 24; X1 as DP Slave (active) max. 14; X2 as DP Master max. 24; X2 as DP Slave (active) max. 14

Number of login stations for message functions, max. Process diagnostic messages simultaneously active Alarm-S blocks, max. 7est commissioning functions Status block Yes; Up to 2 simultaneously Single step Number of breakpoints 4 Status/control variable • Variables • Number of variables, max. — of which status variables, max. — of which control variables, max. — of which control variables, max. 10 Forcing • Forcing • Forcing • Forcing, variables, max. — adjustable • Number of entries, max. — adjustable — of which powerfail-proof • Number of entries readable in RUN, max. — can be set — preset • can be read out Ambient conditions Am	S7 message functions	
Process diagnostic messages simultaneously active Alarm-S blocks, max. 7est commissioning functions Status block Status block Number of breakpoints Status/control variable Status/control variable Ves Number of variables, max. Of which status variables, max. Of which control variables, max. Forcing Forcing Forcing Forcing, variables Number of variables, max. Number of variables, max. Of which status variables, max. Of which status variables, max. Forcing Forc	Number of login stations for message functions, max.	
Simultaneously active Alarm-S blocks, max. Test commissioning functions Slatus block Single step Yes Number of breakpoints 4 Slatus/control • Status/control variable • Variables • Number of variables, max. — of which status variables, max. — of which status variables, max. — of which control variables, max. 14 Forcing • Forcing • Forcing, variables • Number of variables, max. 10 Diagnostic buffer • present • Number of entries, max. — adjustable — of which powerfail-proof • Number of entries readable in RUN, max. — and be set — preset Service data • can be read out Ambient conditions Ambient conditions Ambient conditions Ambient conditions Configuration Configuration Configuration Configuration Configuration Configuration Configuration Configuration Forgramming • Command set See instruction list		
Test commissioning functions Status block Yes; Up to 2 simultaneously Single step Yes Number of breakpoints • Status/control variable • Variables • Number of variables, max. — of which status variables, max. — of which control variables, max. — of which control variables, max. — of which control variables, max. — of which control variables, max. — of which control variables, max. — of which control variables, max. — of which control variables, max. — of which control variables, max. — of which powerfailes, max. — of which control variables, max. — of which c		Yes
Status block Single step Number of breakpoints Status/control Status/control Status/control variable Variables Number of variables, max. — of which control variables, max. — of which pariables, max. — of variables — of variables, max. — of variables, max. — of variables — of which powerfail-proof — of which powerfail-proof — of which powerfail-proof — of which powerfail-proof — of of entries readable in RUN, max. — can be set — preset — preset — of an be read out — of an be read out — of an be read out — of winch powerfail-proof — of of control variables, max. — of which powerfail-proof — of of control variables, max. — of which powerfail-proof — of of of of other is readable in RUN, max. — can be set — preset — preset — of of control variables, max. — of which control varia	simultaneously active Alarm-S blocks, max.	300
Single step Yes Number of breakpoints 4 Status/control variable Yes Inputs, outputs, memory bits, DB, times, counters Number of variables, max. of which status variables, max. of which control variables, max. It Forcing Forcing Forcing Forcing, variables Number of variables, max. of which control variables, max. It Forcing F	Test commissioning functions	
Number of breakpoints Status/control variable • Variables • Number of variables, max. — of which status variables, max. — of which control variables, max. — Forcing • Forcing, variables • Number of variables, max. — Inputs, outputs • Inputs, outputs • Inputs, outputs • Inputs, outputs • Number of variables, max. — of which powerfail-proof • Number of entries, max. — adjustable — of which powerfail-proof • Number of entries readable in RUN, max. — can be set — preset • Can be read out Ambient conditions Ambient temperature during operation • min. • max. • Configuration Configuration Configuration software • STEP 7 • STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 No Programming • Command set	Status block	Yes; Up to 2 simultaneously
Status/control Status/control variable Variables Number of variables, max. of which status variables, max. of which control variables, max. It Forcing Forcing Forcing, variables Number of variables, max. Inputs, outputs, memory bits, DB, times, counters Number of variables, max. It Forcing Forcing Forcing, variables Number of variables, max. Number of variables, max. In Diagnostic buffer Present Number of entries, max. adjustable of which powerfail-proof Number of entries readable in RUN, max. - can be set - preset Service data Can be read out Yes Ambient conditions Ambient emperature during operation min. max. O °C Configuration Configuration Configuration software STEP 7 Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 No Programming Command set See instruction list	Single step	Yes
Status/control variable Variables Number of variables, max. of which status variables, max. of which control variables, max. Id Forcing Forcing Forcing Forcing Forcing, variables Number of variables, max. 10 Piagnostic buffer present Number of entries, max. adjustable of which powerfail-proof Number of entries readable in RUN, max. - can be set - preset can be read out Ambient conditions Ambient conditions Ambient conditions Ambient memperature during operation min. max. O °C Configuration Configuration Configuration Configuration Forcing Yes Inputs, outputs, memory bits, DB, times, counters 30 Inputs, outputs, memory bits, DB, times, counters 30 14 Forcing Yes Inputs, outputs 14 Yes Inputs, outputs 14 Yes Inputs, outputs 14 Yes Inputs, outputs Inputs, outputs Inputs, outputs, memory bits, DB, times, counters 14 Yes Inputs, outputs Inputs, outputs, memory bits, DB, times, counters 14 Yes Inputs, outputs, memory bits, DB, times, counters 14 Yes Inputs, outputs, memory bits, DB, times, counters Inputs, outputs Inpu		4
Variables Number of variables, max. of which status variables, max. of which control variables, max. In the terror of which control variables, max. of which control variables, max. of which control variables, max. Forcing Forcing Forcing Forcing, variables Number of variables, max. Inputs, outputs Inputs, outputs Inputs, outputs Percing Forcing	Status/control	
Number of variables, max. of which status variables, max. of which control variables, max. 14 Forcing Forcing Forcing Forcing, variables Number of variables, max. 10 Diagnostic buffer present Number of entries, max. adjustable of which powerfail-proof Number of entries readable in RUN, max. - can be set preset can be read out Press Ambient conditions Ambient temperature during operation min. max. 0 ° C Configuration Configuration Configuration Configuration Configuration Command set Programming Command set see instruction list	 Status/control variable 	Yes
- of which status variables, max of which control variables, max. 14 Forcing Forcing Forcing, variables Number of variables, max. 10 Diagnostic buffer present Number of entries, max adjustable - of which powerfail-proof Number of entries readable in RUN, max can be set - preset 10 Service data can be read out Ambient temperature during operation min. max. 60 °C Configuration Configuration Configuration Command set Programming Command set 14 Yes Inputs, outputs Inpu	Variables	Inputs, outputs, memory bits, DB, times, counters
Forcing Forcing Forcing Forcing Forcing, variables Number of variables, max. Diagnostic buffer present Number of entries, max. - adjustable of which powerfail-proof Number of entries readable in RUN, max. - can be set - preset Preset Service data can be read out Ambient conditions Ambient emperature during operation min. max. 0 °C Configuration Configuration Configuration Configuration Forcing Yes Inputs, outputs Yes Yes Yes Yes Yes Yes From 10 to 499 Yes; From 10 to 499 Yes Ambient conditions Ambient conditions Ambient temperature during operation min. o °C 60 °C Configuration Configuration Configuration STEP 7 Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 No Programming • Command set see instruction list	Number of variables, max.	30
Forcing Forcing Forcing Forcing Forcing Forcing, variables Inputs, outputs Inputs	— of which status variables, max.	30
Forcing Forcing, variables Inputs, outputs Inputs Inputs, outputs Inputs Inpu	— of which control variables, max.	14
Forcing, variables Number of variables, max. Diagnostic buffer present Number of entries, max. adjustable of which powerfail-proof Number of entries readable in RUN, max. can be set preset can be read out Pessorice data can be read out Ambient conditions Ambient temperature during operation min. max. O °C 60 °C Configuration Configuration Configuration STEP 7 STEP 7 Lite Programming Command set Inputs, outputs 10 Ves 10 Ves Ambient strong are retained 100; Only the last 100 entries are retained 499 Yes; From 10 to 499 10 Conly the last 100 entries are retained 499 Yes; From 10 to 499 O °C From 10 to 499 Yes; From 10 to 499 Yes Ambient conditions Ambient emperature during operation o nin. O °C figuration Configuration Configuration software STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 No Programming Command set	Forcing	
Number of variables, max. Diagnostic buffer present Number of entries, max. - adjustable of which powerfail-proof Number of entries readable in RUN, max. - can be set preset Test of the set of a can be read out Service data can be read out Ambient conditions Ambient temperature during operation max. O °C configuration Configuration Configuration STEP 7 STEP 7 STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 No Programming Command set See instruction list	• Forcing	Yes
Diagnostic buffer • present • present • Number of entries, max. — adjustable — of which powerfail-proof • Number of entries readable in RUN, max. — can be set — preset • Can be read out Ambient conditions Ambient temperature during operation • min. • max. • STEP 7 • STEP 7 • STEP 7 Lite Programming • Command set Yes Yes Yes 100 100; Only the last 100 entries are retained 499 Yes; From 10 to 499 Yes; From 10 to 499 Yes Arbient last 100 100 100 100 100 100 100 10	Forcing, variables	Inputs, outputs
Present Number of entries, max. S00 — adjustable — of which powerfail-proof Number of entries readable in RUN, max. — can be set — preset — preset Service data • can be read out Ambient conditions Ambient temperature during operation • min. • max. Configuration Configuration Configuration software STEP 7 STEP 7 STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 • STEP 7 Lite Programming • Command set Source dentation Set instruction list	Number of variables, max.	10
Number of entries, max. - adjustable - of which powerfail-proof No No 100; Only the last 100 entries are retained No Number of entries readable in RUN, max. - can be set - preset 10 Service data • can be read out Ambient conditions Ambient conditions Ambient temperature during operation • min. • max. 60 °C Configuration Configuration Configuration software • STEP 7 • STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 • STEP 7 Lite Programming • Command set see instruction list	Diagnostic buffer	
- adjustable - of which powerfail-proof - of which powerfail-proof - Number of entries readable in RUN, max can be set - preset - preset - can be read out Yes Ambient conditions Ambient temperature during operation - min max configuration Configuration Configuration Configuration - STEP 7 - STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 - STEP 7 Lite - No Programming - Command set - See instruction list	• present	Yes
— of which powerfail-proof • Number of entries readable in RUN, max. — can be set — preset • can be read out Ambient conditions Ambient temperature during operation • min. • max. • configuration Configuration Configuration STEP 7 • STEP 7 • STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 • STEP 7 Lite Programming • Command set see instruction list	 Number of entries, max. 	500
Number of entries readable in RUN, max. — can be set — preset 10 Service data • can be read out Ambient conditions Ambient temperature during operation • min. • max. 60 °C Configuration Configuration software • STEP 7 Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 • STEP 7 Lite Programming • Command set see instruction list	— adjustable	No
— can be set — preset 10 Service data • can be read out Yes Ambient conditions Ambient temperature during operation • min. • min. • max. 60 °C Configuration Configuration software • STEP 7 Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 • STEP 7 Lite Programming • Command set See instruction list	— of which powerfail-proof	100; Only the last 100 entries are retained
— preset Service data • can be read out Yes Ambient conditions Ambient temperature during operation • min. • max. 60 °C Configuration Configuration software • STEP 7 Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 • STEP 7 Lite No Programming • Command set see instruction list	 Number of entries readable in RUN, max. 	499
Service data • can be read out Yes Ambient conditions Ambient temperature during operation • min. • max. 60 °C Configuration Configuration software • STEP 7 Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 • STEP 7 Lite No Programming • Command set see instruction list	— can be set	Yes; From 10 to 499
Can be read out Ambient conditions Ambient temperature during operation min.	— preset	10
Ambient conditions Ambient temperature during operation • min. • max. 60 °C Configuration Configuration software • STEP 7 Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 • STEP 7 Lite No Programming • Command set see instruction list	Service data	
Ambient temperature during operation • min. • max. 60 °C Configuration Configuration software • STEP 7 STEP 7 Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 • STEP 7 Lite Programming • Command set see instruction list	• can be read out	Yes
Ambient temperature during operation • min. • max. 60 °C Configuration Configuration software • STEP 7 STEP 7 Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 • STEP 7 Lite Programming • Command set see instruction list	Ambient conditions	
max. Configuration Configuration software STEP 7 Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 STEP 7 Lite Programming Command set See instruction list		
Configuration Configuration software • STEP 7 Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 • STEP 7 Lite No Programming • Command set see instruction list		0 °C
Configuration software • STEP 7 Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 • STEP 7 Lite No Programming • Command set see instruction list	• max.	60 °C
Configuration software • STEP 7 Yes; STEP 7 V5.5 + SP1 or higher or STEP 7 V5.3 + SP2 or higher with HSP 203 • STEP 7 Lite No Programming • Command set see instruction list	Configuration	
higher with HSP 203 • STEP 7 Lite No Programming • Command set see instruction list		
STEP 7 Lite No Programming Command set see instruction list	• STEP 7	
• Command set see instruction list	STEP 7 Lite	
• Command set see instruction list	Programming	
Nesting levels		see instruction list
	Nesting levels	8

• System functions (SFC)	see instruction list
 System function blocks (SFB) 	see instruction list
Programming language	
— LAD	Yes
— FBD	Yes
— STL	Yes
— SCL	Yes
— CFC	Yes
— GRAPH	Yes
— HiGraph®	Yes
Know-how protection	
User program protection/password protection	Yes
 Block encryption 	Yes; With S7 block Privacy
Dimensions	
Width	40 mm
Height	125 mm
Depth	130 mm
Weights	
Weight, approx.	360 g
last modified:	03/23/2017