SIEMENS

Data sheet

6ES7312-1AE14-0AB0



SIMATIC S7-300, CPU 312 Central processing unit with MPI, Integr. power supply 24 V DC, Work memory 32 KB, Micro Memory Card required

Figure similar

General information	
HW functional status	01
Firmware version	V3.3
Engineering with	<u> </u>
Programming package	STEP 7 V5.5 + SP1 or higher or STEP 7 V5.2 + SP1 or higher with HSP 218
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)	2 A min.
Mains buffering	
 Mains/voltage failure stored energy time 	5 ms
 Repeat rate, min. 	1 s
Input current	
Current consumption (rated value)	650 mA
Current consumption (in no-load operation), typ.	140 mA
Inrush current, typ.	3.5 A
l²t	1 A ² ·s
Power loss	
Power loss, typ.	4 W
Memory	
Work memory	
• integrated	32 kbyte
expandable	No
Load memory	
Plug-in (MMC)	Yes
Plug-in (MMC), max.	8 Mbyte
 Data management on MMC (after last programming), min. 	10 y
Backup	
• present	Yes; Guaranteed by MMC (maintenance-free)
without battery	Yes; Program and data
CPU processing times	
for bit operations, typ.	0.1 μs
for word operations, typ.	0.24 μs
for fixed point arithmetic, typ.	0.32 μs

for floating point arithmetic, typ.	1.1 µs
CPU-blocks	1.1 μ3
Number of blocks (total)	1 024; (DBs, FCs, FBs); the maximum number of loadable blocks can
Number of blocks (total)	be reduced by the MMC used.
DB	
Number, max.	1 024; Number range: 1 to 16000
• Size, max.	32 kbyte
FB	
Number, max.	1 024; Number range: 0 to 7999
• Size, max.	32 kbyte
FC	4.004.11
Number, max. Cina max.	1 024; Number range: 0 to 7999
• Size, max.	32 kbyte
OB • Number, max.	see instruction list
• Size, max.	32 kbyte
Number of free cycle OBs	1; OB 1
Number of time alarm OBs	1; OB 10
Number of time diam OBs Number of delay alarm OBs	2; OB 20, 21
Number of delay damin OBs Number of cyclic interrupt OBs	4; OB 32, 33, 34, 35
Number of process alarm OBs	1; OB 40
Number of startup OBs	1; OB 100
Number of asynchronous error OBs	4; OB 80, 82, 85, 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	Van
• present	Yes SFB
TypeNumber	Unlimited (limited only by RAM capacity)
S7 times	Chiminited (infinited only by IVAIN capacity)
Number	256
Retentivity	
— 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.	32 kbyte
Flag	
• Size, max.	256 byte
	

Retentivity available	Yes; MB 0 to MB 255
Retentivity available Retentivity preset	MB 0 to MB 15
Number of clock memories	8; 1 memory byte
Data blocks	o, i memory byte
Retentivity adjustable	Yes; via non-retain property on DB
Retentivity preset	Yes
Local data	
per priority class, max.	32 kbyte; Max. 2 KB per block
Address area	
I/O address area	
• Inputs	1 024 byte
• Outputs	1 024 byte
Process image	
• Inputs	1 024 byte
Outputs	1 024 byte
Inputs, adjustable	1 024 byte
Outputs, adjustable	1 024 byte
Inputs, default	128 byte
Outputs, default	128 byte
Digital channels	
• Inputs	256
— of which central	256
Outputs	256
— of which central	256
Analog channels	
• Inputs	64
— of which central	64
Outputs	64
— of which central	64
11	
Hardware configuration	
Number of expansion units, max.	0
	0
Number of expansion units, max.	0
Number of expansion units, max. Number of DP masters	
Number of expansion units, max. Number of DP masters • integrated	0
Number of expansion units, max. Number of DP masters • integrated • via CP	0
Number of expansion units, max. Number of DP masters • integrated • via CP Number of operable FMs and CPs (recommended)	0 4
Number of expansion units, max. Number of DP masters • integrated • via CP Number of operable FMs and CPs (recommended) • FM	0 4 8
Number of expansion units, max. Number of DP masters integrated via CP Number of operable FMs and CPs (recommended) FM CP, PtP	0 4 8 8
Number of expansion units, max. Number of DP masters integrated via CP Number of operable FMs and CPs (recommended) FM CP, PtP CP, LAN	0 4 8 8
Number of expansion units, max. Number of DP masters integrated via CP Number of operable FMs and CPs (recommended) FM CP, PtP CP, LAN Rack	0 4 8 8 8 4
Number of expansion units, max. Number of DP masters • integrated • via CP Number of operable FMs and CPs (recommended) • FM • CP, PtP • CP, LAN Rack • Racks, max.	0 4 8 8 8 4
Number of expansion units, max. Number of DP masters integrated via CP Number of operable FMs and CPs (recommended) FM CP, PtP CP, LAN Rack Racks, max. Modules per rack, max.	0 4 8 8 8 4
Number of expansion units, max. Number of DP masters integrated via CP Number of operable FMs and CPs (recommended) FM CP, PtP CP, LAN Rack Racks, max. Modules per rack, max.	0 4 8 8 8 4
Number of expansion units, max. Number of DP masters integrated via CP Number of operable FMs and CPs (recommended) FM CP, PtP CP, LAN Rack Racks, max. Modules per rack, max. Time of day Clock	0 4 8 8 8 4
Number of expansion units, max. Number of DP masters integrated via CP Number of operable FMs and CPs (recommended) FM CP, PtP CP, LAN Rack Rack Nack Nodules per rack, max. Modules per rack, max. Time of day Clock Software clock	0 4 8 8 8 4 1 1 8
Number of expansion units, max. Number of DP masters integrated via CP Number of operable FMs and CPs (recommended) FM CP, PtP CP, LAN Rack Rack Racks, max. Modules per rack, max. Time of day Clock Software clock retentive and synchronizable	0 4 8 8 4 1 8 Yes No; Buffered: No, Can be synchronized: Yes 10 s; Typ.: 2 s the clock continues at the time of day it had when power was switched
Number of expansion units, max. Number of DP masters integrated via CP Number of operable FMs and CPs (recommended) FM CP, PtP CP, LAN Rack Racks, max. Modules per rack, max. Modules per rack, max. Time of day Clock Software clock retentive and synchronizable Deviation per day, max. Behavior of the clock following POWER-ON	0 4 8 8 4 1 8 Yes No; Buffered: No, Can be synchronized: Yes 10 s; Typ.: 2 s
Number of expansion units, max. Number of DP masters integrated via CP Number of operable FMs and CPs (recommended) FM CP, PtP CP, LAN Rack Racks, max. Modules per rack, max. Modules per rack, max. Time of day Clock Software clock retentive and synchronizable Deviation per day, max. Behavior of the clock following POWER-ON Operating hours counter	0 4 8 8 4 1 8 Yes No; Buffered: No, Can be synchronized: Yes 10 s; Typ.: 2 s the clock continues at the time of day it had when power was switched off
Number of expansion units, max. Number of DP masters integrated via CP Number of operable FMs and CPs (recommended) FM CP, PtP CP, LAN Rack Rack Racks, max. Modules per rack, max. Time of day Clock Software clock retentive and synchronizable Deviation per day, max. Behavior of the clock following POWER-ON Operating hours counter Number	0 4 8 8 4 1 8 Yes No; Buffered: No, Can be synchronized: Yes 10 s; Typ.: 2 s the clock continues at the time of day it had when power was switched off 1
Number of expansion units, max. Number of DP masters integrated via CP Number of operable FMs and CPs (recommended) FM CP, PtP CP, LAN Rack Racks, max. Modules per rack, max. Modules per rack, max. Time of day Clock Software clock retentive and synchronizable Deviation per day, max. Behavior of the clock following POWER-ON Operating hours counter Number Number/Number range	0 4 8 8 8 4 1 8 Yes No; Buffered: No, Can be synchronized: Yes 10 s; Typ.: 2 s the clock continues at the time of day it had when power was switched off 1 0
Number of expansion units, max. Number of DP masters integrated via CP Number of operable FMs and CPs (recommended) FM CP, PtP CP, LAN Rack Racks, max. Modules per rack, max. Modules per rack, max. Time of day Clock Software clock retentive and synchronizable Deviation per day, max. Behavior of the clock following POWER-ON Operating hours counter Number Number/Number range Range of values	0 4 8 8 4 1 8 Yes No; Buffered: No, Can be synchronized: Yes 10 s; Typ.: 2 s the clock continues at the time of day it had when power was switched off 1 0 0 to 2^31 hours (when using SFC 101)
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Number of expansion units, max. Number of DP masters integrated via CP Number of operable FMs and CPs (recommended) FM CP, PtP CP, LAN Rack Racks, max. Modules per rack, max. Modules per rack, max. Software clock retentive and synchronizable Deviation per day, max. Behavior of the clock following POWER-ON Operating hours counter Number Number Range of values Granularity retentive	0 4 8 8 4 1 8 Yes No; Buffered: No, Can be synchronized: Yes 10 s; Typ.: 2 s the clock continues at the time of day it had when power was switched off 1 0 0 to 2^31 hours (when using SFC 101)
Number of expansion units, max. Number of DP masters integrated via CP Number of operable FMs and CPs (recommended) FM CP, PtP CP, LAN Rack Racks, max. Modules per rack, max. Modules per rack, max. Software clock retentive and synchronizable Deviation per day, max. Behavior of the clock following POWER-ON Operating hours counter Number Number Range of values Granularity retentive Clock synchronization	9 4 8 8 8 4 4 9 1 1 8 8 9 1 1 8 9 1 1 1 8 9 1 1 1 1 1
Number of expansion units, max. Number of DP masters integrated via CP Number of operable FMs and CPs (recommended) FM CP, PtP CP, LAN Rack Racks, max. Modules per rack, max. Modules per rack, max. Time of day Clock Software clock retentive and synchronizable Deviation per day, max. Behavior of the clock following POWER-ON Operating hours counter Number Number Range of values Granularity retentive Clock synchronization supported	0 4 8 8 4 1 8 Yes No; Buffered: No, Can be synchronized: Yes 10 s; Typ.: 2 s the clock continues at the time of day it had when power was switched off 1 0 0 to 2^31 hours (when using SFC 101) 1 h Yes; Must be restarted at each restart Yes
Number of expansion units, max. Number of DP masters integrated via CP Number of operable FMs and CPs (recommended) FM CP, PtP CP, LAN Rack Racks, max. Modules per rack, max. Modules per rack, max. Time of day Clock Software clock retentive and synchronizable Deviation per day, max. Behavior of the clock following POWER-ON Operating hours counter Number Number Range of values Granularity retentive Clock synchronization supported to MPI, master	0 4 8 8 8 4 1 1 8 Yes No; Buffered: No, Can be synchronized: Yes 10 s; Typ.: 2 s the clock continues at the time of day it had when power was switched off 1 0 0 to 2^31 hours (when using SFC 101) 1 h Yes; Must be restarted at each restart Yes Yes
Number of DP masters integrated via CP Number of operable FMs and CPs (recommended) FM CP, PtP CP, LAN Rack Rack Racks, max. Modules per rack, max. Time of day Clock Software clock retentive and synchronizable Deviation per day, max. Behavior of the clock following POWER-ON Operating hours counter Number Number Range of values Granularity retentive Clock synchronization supported to MPI, master to MPI, slave	0 4 8 8 8 4 1 1 8 Yes No; Buffered: No, Can be synchronized: Yes 10 s; Typ.: 2 s the clock continues at the time of day it had when power was switched off 1 0 0 to 2^31 hours (when using SFC 101) 1 h Yes; Must be restarted at each restart Yes Yes Yes
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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	0
Number of industrial Ethernet interfaces	0
Number of PROFINET interfaces	0
Number of RS 485 interfaces	1; MPI
Number of RS 422 interfaces	0
1. Interface	
Interface type	Integrated RS 485 interface
Isolated	No
Interface types	INO
• RS 485	Yes
Output current of the interface, max.	200 mA
Protocols	
• MPI	Yes
PROFIBUS DP master	No
PROFIBUS DP slave	No
Point-to-point connection	No
MPI	
Transmission rate, max.	187.5 kbit/s
Services	
— PG/OP communication	Yes
— Routing	No
 Global data communication 	Yes
 S7 basic communication 	Yes
— S7 communication	Yes; Only server, configured on one side
 S7 communication, as client 	No
— S7 communication, as server	Yes
Protocols	
PROFIsafe	No
communication functions / header	
PG/OP communication	Yes
Data record routing	No
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. User data per job (of which consistent), may	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.	180 byte; With PUT/GET
User data per job (of which consistent), max.	240 byte; as server
S5 compatible communication	

Number of connections • overable for PG communication — reserved for PG communication, min. — adjustable for ST basic communication, min. Process diagnostic messages **Number of login stations for message functions, max. **Stress diagnostic messages **Yes **Strusts block **Test commissioning functions **Strust block **Yes, Up to 2 simultaneously **Strust block **Yes, Up to 2 simultaneously **Strustable for Strust statics, max. — of which statics variables, max. **Of which statics variables, max. — of which statics variables, max. — of which control variables, max. **Of which control variables, max. **Ore of which statics variables, max. **Ore of which powerfail-proof • present • Number of entries, max. **Ore of entries, max. **Ore of entries, max. **Ore of entries, max. **Ore of entries are retained **Ore of entries are instruction list **Section of the entries are instruct	• supported	Yes; via CP and loadable FC
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process diagnostic messages simultaneously active Alarm-S blocks, max. Test commissioning functions Status block Single step Yes Number of breakpoints 4 Status/control variable • Status/control variable • Variables • Number of variables, max. — of which status variables, max. — of which status variables, max. — of which control variables • Number of variables, max. — of which control variables, max. — of which control variables, max. — 10 Forcing • Forcing, variables • Number of variables, max. — 10 Diagnostic buffer • present • present • Number of entries, max. — adjustable — of which powerfali-proof • Number of entries readable in RUN, max. — adjustable — preset • can be read out Service data • can be read out Ambient conditions Ambient conditions Ambient conditions Ambient conditions of programming / header • STEP 7 Ves: V5.2 SP1 or higher with HW update configuration / programming / header • Command set • Nesting levels • System function bocks (SFB) Programming language — LAD — FBD Ves Ves Ves Ves Ves Ves Ves Ve		6; Depending on the configured connections for PG/OP and S7 basic
simultaneously active Alarm-S blocks, max. Test commissioning functions Status block Single step Number of breakpoints • Status/scontrol • Status/scontrol variable • Variables • Number of variables, max. — of which status variables, max. — of which control variables, max. — of which control variables, max. • Forcing • Forcing, variables • Number of variables, max. • Number of variables, max. — of which powerfail-proof • Number of entries readable in RUN, max. — adjustable — of which powerfail-proof • Number of entries readable in RUN, max. — adjustable — of which powerfail-proof • Number of entries readable in RUN, max. — adjustable — or which powerfail-proof • Number of entries readable in RUN, max. — adjustable — or which powerfail-proof • Number of entries readable in RUN, max. — adjustable — or which powerfail-proof • Number of entries readable in RUN, max. — adjustable — or which powerfail-proof • Number of entries readable in RUN, max. — adjustable — or which powerfail-proof • Number of entries readable in RUN, max. — adjustable — or which powerfail-proof • No O or or hich powerfail-proof • Comfiguration of ware • SEEP 7 Ves: V5.2 SP1 or higher with HW update configuration / programming / header • Command set • Nesting levels • System function blocks (SFE) System function blocks (SFB) Programming language — LAD — FBD Ves		communication
Status block Yes, Up to 2 simultaneously Single step Yes Number of breakpoints 4 Status/control variable Yes • Variables Inputs, outputs, memory bits, DB, times, counters • Number of variables, max. 30 • Of which status variables, max. 14 Forcing • Forcing Yes • Number of variables, max. 10 Diagnostic buffer • Present Yes • Number of entries, max. 500 • Aumber of entries readable in RUN, max. 499 • Parest 10 • Number of entries readable in RUN, max. 499 • preset 10 • Number of entries readable in RUN, max. 499 - adjustable Yes; From 10 to 499 - preset 10 * Ambient conditions Ambient temperature during operation • min. 0 °C configuration / hoader Configuration / programming / header • Orommand set see instruction list • Nesting levels 8 • System function blocks (SFB) see instruction list Programming language - LAD - FBD Yes		
Status block Single step Yes Number of breakpoints 4 Status/control variable • Variables • Number of variables, max. — of which status variables, max. — of which status variables, max. — of which status variables, max. - of which status variables, max. - of which control variables, max. - of which powerfail-proof • Forcing, • Number of variables, max. - adjustable — of which powerfail-proof • Number of entries, max. — adjustable — of which powerfail-proof • Number of entries readable in RUN, max. — adjustable — preset Service data • can be read out Ambient conditions Ambient temperature during operation • min. • on "C configuration / header Configuration / header Configuration software • STEP 7 Yes; V5.2 SP1 or higher with HW update configuration fyrogramming / header • Command set • Nesting levels • System function blocks (SFB) Programming language — LAD — FBD Yes		300
Single step Number of breakpoints 4 Status/control • Status/control variables • Variables • Number of variables, max. — of which status variables, max. — of which control variables, max. — of which postrol variables, max. — 10 Diagnostic buffer • present • Number of entries, max. — adjustable — of which powerfail-proof • Number of entries readable in RUN, max. — adjustable — of which powerfail-proof • Number of entries readable in RUN, max. — adjustable — preset — of which powerfail-proof • Number of entries readable in RUN, wax. — adjustable — preset — of which powerfail-proof • Number of entries readable in RUN, wax. — adjustable — preset — of which powerfail-proof • Number of entries readable in RUN, wax. — adjustable — preset — of which powerfail-proof • Non • Non • Non • On't of the power	Test commissioning functions	
Number of breakpoints	Status block	Yes; Up to 2 simultaneously
Status/control variable Status/control variables Variables Number of variables, max. of which status variables, max. Forcing Forcing Forcing, variables Number of variables, max. 10 Diagnostic buffer vesent Number of entries, max. - adjustable of which powerfall-proof Number of entries readable in RUN, max. - adjustable preset 10 Service data a an be read out Ambient temperature during operation max. STEP 7 configuration / header Configuration software Stystem functions (SFC) System function blocks (SFB) Programming language — LAD PSD Which is data in 30 Inputs, outputs, memory bits, DB, times, counters 30 Inputs, outputs, memory bits, DB, times, counters 30 14 Yes 10 Yes Yes 10 Ves Yes From 10 to 499 Yes From 10 to 499 Yes From 10 to 499 O °C Configuration / header Configuration software STEP 7 Yes: V5.2 SP1 or higher with HW update o can be read out See instruction list System function blocks (SFB) Programming language — LAD — FBD Yes	Single step	Yes
• Status/control variable • Variables • Variables • Number of variables, max. — of which status variables, max. — of which status variables, max. — of which control variables, max. — of which control variables, max. 14 Forcing • Forcing • Forcing, variables • Number of variables, max. 10 Diagnostic buffer • present • present • Number of entries, max. — adjustable — of which powerfail-proof • Number of entries readable in RUN, max. — adjustable — preset • preset • ves; From 10 to 499 — preset • can be read out Ambient conditions Ambient conditions Ambient temperature during operation • min. • max. • 60 °C configuration / header Configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System functions (SFC) • System function blocks (SFB) Programming language — LAD — FBD Yes		4
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of which status variables, max of which control variables, max. 14 Forcing • Forcing • Forcing Yes • 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 adjustable preset preset yes; From 10 to 499 preset yes Ambient conditions Ambient conditions Ambient temperature during operation • min. • max of 0° C configuration / header Configuration of header Configuration of programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language LAD FBD Yes Yes Number of entries are retained Yes PSD FBD Yes Yes STEP 7 Yes; V5.2 SP1 or higher with HW update System function list System function list System function list see instruction list Programming language LAD FBD Yes Yes Yes Yes Yes Yes Yes FBD Yes Yes FBD Yes Yes Yes Yes Yes Yes Yes FBD Yes FBD Yes	Variables	Inputs, outputs, memory bits, DB, times, counters
Forcing Forcing Forcing Forcing, variables Forcing,	 Number of variables, max. 	30
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. - adjustable - of which powerfail-proof Number of entries readable in RUN, max. - adjustable - preset 10 Service data - can be read out Ambient conditions Ambient conditions Ambient temperature during operation - max 60 °C configuration / header Configuration of programming / header - Configuration of programming / header - Nesting levels - Nesting levels - System function blocks (SFB) - Programming language - LAD - FBD Yes	of which status variables, max.	30
Forcing Forcing, variables Forcing, variables Inputs, outputs Inputs, outputs, outputs Inputs, outputs, outputs Inputs, outputs, outputs, outputs Inputs, outputs, outputs, outputs Inputs, outputs, ou	— of which control variables, max.	14
Forcing, variables Number of variables, max. Diagnostic buffer present Number of entries, max. Sou Adjustable Of which powerfail-proof Number of entries readable in RUN, max. Adjustable Preset Of an be read out Service data Can be read out Ambient conditions Ambient temperature during operation min. Of and	Forcing	
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Present Number of entries, max. - adjustable - of which powerfail-proof Number of entries readable in RUN, max. - adjustable - preset - prese		10
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adjustable	• present	Yes
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- adjustable Yes; From 10 to 499 preset 10 Service data • can be read out Yes Ambient conditions Ambient temperature during operation • min. 0 °C • max. 60 °C configuration / header Configuration software • STEP 7 Yes; V5.2 SP1 or higher with HW update configuration / programming / header • Command set see instruction list • Nesting levels 8 • System functions (SFC) see instruction list • System function blocks (SFB) see instruction list Programming language LAD FBD FBD Yes	— of which powerfail-proof	100; Only the last 100 entries are retained
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Ambient conditions Ambient temperature during operation • min. • max. 60 °C configuration / header Configuration software • STEP 7 Yes; V5.2 SP1 or higher with HW update configuration / programming / header • Command set • Nesting levels • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language — LAD — FBD Yes		
Ambient temperature during operation • min. • max. 60 °C configuration / header Configuration software • STEP 7 Yes; V5.2 SP1 or higher with HW update configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language — LAD — FBD Yes		Yes
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configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language — LAD — FBD Yes Yes	_	
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 System functions (SFC) System function blocks (SFB) Programming language LAD FBD Yes Yes 		
 System function blocks (SFB) Programming language — LAD — FBD Yes Yes 	_	
Programming language — LAD Yes — FBD Yes		
LADFBDYesYes		see instruction list
— FBD Yes		
— STL Yes		Yes
	— STL	Yes

— SCL	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.	270 g

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