## **SIEMENS**

## **Data sheet**

## 6ES7314-1AG14-0AB0



SIMATIC S7-300, CPU 314 Central processing unit with MPI, Integr. power supply 24 V DC, work memory 128 KB, Micro Memory Card required

Figure similar

Current consumption (rated value)  Current consumption (in no-load operation), typ.  Inrush current, typ.  It 140 mA  Inrush current, typ.  It 1 A²-s  Power loss  Power loss, typ.  Work memory  Integrated  Inte	Compared information	
HW functional status   Firmware version   0.3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .		
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 218 Supply voltage  Rated value (DC) 24 V  permissible range, lower limit (DC) 19.2 V  external protection for power supply lines (recommendation) 2 A min.  Mains buffering  ● Mains/voltage failure stored energy time 5 5 ms  • Repeat rate, min. 1 s  noput current  Current consumption (rated value) 650 mA  Current consumption (rated value) 850 mA  Current consumption (in no-load operation), typ. 140 mA  Inrush current, typ. 3.5 A  Pt  Power loss, typ. 4 W  Momory  Work memory  ● Plug-in (MMC) 35 ms 36 ms 37 ms 37 ms 37 ms 37 ms 38 ms 3		
Programming package STEP 7 V5.5 + SP1 or higher or STEP 7 V5.2 + SP1 or higher with HSP 218 Stuply 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  nput current  Current consumption (rated value) 650 mA  Current consumption (in no-load operation), typ. 140 mA  Inrush current, typ. 3.5 A  Pr  Power loss  Power loss  Power loss, typ. 4 W  Memory  Integrated 128 kbyte expandable No  Load memory  Plug-in (MMC) Yes Plug-in (MMC) Yes Plug-in (MMC) Yes Plug-in (MMC) Nax. 8 Mbyte Plug-in (MMC) Yes Plug-in (MM		
• 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)  permissible range, lower limit (DC)  permissible range, upper limit (DC)  external protection for power supply lines (recommendation)  Alains buffering  • Mains/voltage failure stored energy time • Repeat rate, min.  • Repeat rate, min.  **Durrent consumption (rated value)  Current consumption (in no-load operation), typ.  140 mA  Inrush current, typ.  Pt  1 A²s  Power loss, typ.  Work memory  • integrated • expandable  Load memory  • Plug-in (MMC) • Plug		V3.3
Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) permissible r		
Rated value (DC)		STEP 7 V5.5 + SP1 or higher or STEP 7 V5.2 + SP1 or higher with HSP 218
permissible range, lower 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  **Protection for power supply lines (recommendation) 1 s  **Protection for power supply lines (recommendation) 1 s  **Protection for power supply lines (recommendation) 2 ms Repeat rate, min. 1 s  **Protection for power supply lines (recommendation) 1 s  **Protection for fixed value	Supply voltage	
permissible range, upper limit (DC) external protection for power supply lines (recommendation)  Mains buffering  Mains/voltage failure stored energy time 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  Pt 1 A²-s  Power loss, typ.  Work memory  integrated expandable varpandable Load memory  Plug-in (MMC), max. Data management on MMC (after last programming), min.  Backup  p resent e without battery  Processing times  for bit operations, typ.  0.06 µs  for word operations, typ.  0.16 µs  for fixed point arithmetic, typ. 0.16 µs  for fixed point arithmetic, typ. 0.59 µs  4 min.  28.8 V  29. A min. 20. A	Rated value (DC)	24 V
external protection for power supply lines (recommendation)  Mains buffering  Mains/voltage failure stored energy time Repeat rate, min.  1 s  nput current  Current consumption (rated value) 650 mA  Current consumption (in no-load operation), typ. 140 mA  Inrush current, typ. 3.5 A  Pt 1 A²-s  Power loss, typ.  Work memory  Work memory  View plug-in (MMC) Plug-in (MMC), max. Data management on MMC (after last programming), min.  Backup  present without battery  Power loss, typ.  Yes, Guaranteed by MMC (maintenance-free) without battery  Yes, Program and data  CPU processing times  for bit operations, typ. 0.06 µs  for riced point arithmetic, typ. 0.15 µs  for fixed point arithmetic, typ. 0.59 µs  for fixed point arithmetic, typ. 0.59 µs	permissible range, lower limit (DC)	19.2 V
Mains buffering  • Mains/voltage failure stored energy time • Repeat rate, min.  Input current  Current consumption (rated value)  650 mA  Current consumption (in no-load operation), typ.  140 mA  Inrush current, typ.  3.5 A  Ift  1 A²-s  Power loss  Power loss  Power loss, typ.  4 W  Memory  Work memory  • integrated • expandable • expandable  Load memory  • Plug-in (MMC), max. • Data management on MMC (after last programming), min.  Backup  • present • without battery  Processing times  for bit operations, typ.  0.06 µs  for word operations, typ.  for fixed point arithmetic, typ.  0.16 µs  for floating point arithmetic, typ.  0.16 µs  for floating point arithmetic, typ.  0.59 µs	permissible range, upper limit (DC)	28.8 V
• Mains/voltage failure stored energy time • Repeat rate, min.  Input current  Current consumption (rated value)  Current consumption (in no-load operation), typ.  140 mA  Inrush current, typ.  3.5 A  Pt 1 A²-s  Power loss, typ.  Work memory  • integrated • expandable • expandable  Load memory  • Plug-in (MMC), max. • Plug-in (MMC), max. • Data management on MMC (after last programming), min.  Backup  • present • without battery  • without battery  CPU processing times  for bit operations, typ.  for fixed point arithmetic, typ.  for fixed point arithmetic, typ.  0.16 µs  for floating point arithmetic, typ.  0.59 µs	external protection for power supply lines (recommendation)	2 A min.
Repeat rate, min.  Input current  Current consumption (rated value) Current consumption (in no-load operation), typ.  140 mA  140 mA  Inrush current, typ.  1 A²-s  Power loss, typ.  Power loss, typ.  4 W  Memory  Work memory  integrated e expandable e expandable Polug-in (MMC), max. Data management on MMC (after last programming), min.  Backup  p present e present e without battery  Pore sersing times  for bit operations, typ.  0.06 μs for word operations, typ.  for fixed point arithmetic, typ.  0.59 μs  650 mA  650 mA  640 mA  650 mA  650 mA  640 mA  650 m	Mains buffering	
Tourent consumption (rated value)  Current consumption (in no-load operation), typ.  Inrush current, typ.  Power loss  Power loss  Power loss, typ.  Memory  integrated expandable expandable Load memory  Plug-in (MMC), max. Plug-in (MMC), max. Data management on MMC (after last programming), min.  Backup  p present without battery  Pup processing times  For bit operations, typ.  for bit operations, typ.  for fixed point arithmetic, typ.  current consumption (a 550 mA  140 m	<ul> <li>Mains/voltage failure stored energy time</li> </ul>	5 ms
Current consumption (rated value)  Current consumption (in no-load operation), typ.  Inrush current, typ.  Pt  1 A²-s  Power loss  Power loss, typ.  Work memory  integrated expandable expandable  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 bit operations, typ.  for fixed point arithmetic, typ.  O.59 µs  for floating point arithmetic, typ.  140 mA  3.5 A  140 mA  3.5 A  4 W  Work memory  4 W  Wowner  4 W  Wown	Repeat rate, min.	1 s
Current consumption (in no-load operation), typ. 140 mA Inrush current, typ. 3.5 A IPt 1 A²-s  Power loss,  Power loss, typ. 4 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.  Backup  • present Yes; Guaranteed by MMC (maintenance-free) • without battery Yes; Program and data  CPU processing times  for bit operations, typ. 0.06 µs for word operations, typ. 0.12 µs for fixed point arithmetic, typ. 0.59 µs	Input current	
Inrush current, typ. 3.5 A  I²t 1 A²-s  Power loss, Power loss, typ. 4 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.  Backup  • present Yes; Guaranteed by MMC (maintenance-free) • without battery Yes; Program and data  CPU processing times  for bit operations, typ. 0.06 µs for word operations, typ. 0.12 µs for fixed point arithmetic, typ. 0.59 µs	Current consumption (rated value)	650 mA
Power loss  Power loss, typ.  Work memory  integrated expandable  No  Load memory  Plug-in (MMC) Plug-in (MMC), max. Data management on MMC (after last programming), min.  Backup  integrated present without battery  Present without battery  Presert without battery  Presert without partiens, typ.  for bit operations, typ.  for fixed point arithmetic, typ.  1 A²-s  4 W  W  W  W  W  W  W  W  W  W  W  W  W	Current consumption (in no-load operation), typ.	140 mA
Power loss Power loss, typ. 4 W  Memory  Work memory  integrated expandable Load memory  Plug-in (MMC) Plug-in (MMC), max. Data management on MMC (after last programming), min.  Backup  present expresent exit of bit operations, typ.  for word operations, typ.  for floating point arithmetic, typ.  4 W  W  W  W  W  W  W  W  W  W  W  W  W	Inrush current, typ.	3.5 A
Power loss, typ.  Memory  Work memory  integrated expandable  Load memory  Plug-in (MMC) Plug-in (MMC), max. Data management on MMC (after last programming), min.  Backup  present present without battery  Presest without battery  For bit operations, typ.  for word operations, typ.  for fixed point arithmetic, typ.  4 W  We  A W  A W	l²t	1 A <sup>2</sup> ·s
Work memory  integrated expandable No  Load memory  Plug-in (MMC) Plug-in (MMC), max. Data management on MMC (after last programming), min.  Backup  present present very; Guaranteed by MMC (maintenance-free) without battery  Yes; Program and data  CPU processing times  for bit operations, typ. for word operations, typ. for word operations, typ. for fixed point arithmetic, typ.  0.16   0.59   0.59   0.59	Power loss	
Work memory            • integrated         • expandable         • No           Load memory          • Plug-in (MMC)         • Plug-in (MMC), max.         • Data management on MMC (after last programming), min.          • Present         • present         • without battery          • without battery	Power loss, typ.	4 W
<ul> <li>integrated</li> <li>expandable</li> <li>No</li> </ul> Load memory <ul> <li>Plug-in (MMC)</li> <li>Plug-in (MMC), max.</li> <li>Data management on MMC (after last programming), min.</li> </ul> Backup <ul> <li>present</li> <li>without battery</li> <li>without battery</li> <li>Yes; Guaranteed by MMC (maintenance-free)</li> <li>yes; Program and data</li> </ul> CPU processing times <ul> <li>for bit operations, typ.</li> <li>0.06 µs</li> <li>for word operations, typ.</li> <li>0.12 µs</li> </ul> for fixed point arithmetic, typ. <ul> <li>0.59 µs</li> </ul>	Memory	
expandable     No  Load memory      Plug-in (MMC)     Plug-in (MMC), max.     Data management on MMC (after last programming), min.  Backup      present     ves; Guaranteed by MMC (maintenance-free)     vithout battery  Yes; Program and data  CPU processing times  for bit operations, typ.     0.06      for word operations, typ.     0.12      ps  for fixed point arithmetic, typ.     0.59      ps	Work memory	
Load memory  Plug-in (MMC) Plug-in (MMC), max. Plug-in (MMC), max. Data management on MMC (after last programming), min.  Backup  present very (Yes; Guaranteed by MMC (maintenance-free) vithout battery  Processing times  for bit operations, typ. for word operations, typ. for fixed point arithmetic, typ.  0.16 µs for floating point arithmetic, typ. 0.59 µs	integrated	128 kbyte
<ul> <li>Plug-in (MMC)</li> <li>Plug-in (MMC), max.</li> <li>Data management on MMC (after last programming), min.</li> <li>Backup</li> <li>present</li> <li>without battery</li> <li>Yes; Guaranteed by MMC (maintenance-free)</li> <li>yes; Program and data</li> </ul> CPU processing times <ul> <li>for bit operations, typ.</li> <li>0.06 μs</li> <li>for word operations, typ.</li> <li>0.12 μs</li> <li>for fixed point arithmetic, typ.</li> <li>0.16 μs</li> <li>for floating point arithmetic, typ.</li> <li>0.59 μs</li> </ul>	• expandable	No
<ul> <li>Plug-in (MMC), max.</li> <li>Data management on MMC (after last programming), min.</li> <li>Backup</li> <li>present</li> <li>without battery</li> <li>Yes; Guaranteed by MMC (maintenance-free)</li> <li>without battery</li> <li>Yes; Program and data</li> </ul> CPU processing times for bit operations, typ. <ul> <li>0.06 µs</li> <li>for word operations, typ.</li> <li>0.12 µs</li> <li>for fixed point arithmetic, typ.</li> <li>0.16 µs</li> <li>for floating point arithmetic, typ.</li> <li>0.59 µs</li> </ul>	Load memory	
<ul> <li>Data management on MMC (after last programming), min.</li> <li>Backup <ul> <li>present</li> <li>without battery</li> <li>Yes; Guaranteed by MMC (maintenance-free)</li> <li>without battery</li> </ul> </li> <li>CPU processing times <ul> <li>for bit operations, typ.</li> <li>0.06 μs</li> </ul> </li> <li>for word operations, typ.</li> <li>0.12 μs</li> <li>for fixed point arithmetic, typ.</li> <li>0.16 μs</li> </ul> <li>for floating point arithmetic, typ.</li> <li>0.59 μs</li>	• Plug-in (MMC)	Yes
min.  Backup	• Plug-in (MMC), max.	8 Mbyte
Backup		10 a
<ul> <li>present         <ul> <li>present</li> <li>without battery</li> </ul> </li> <li>CPU processing times         <ul> <li>for bit operations, typ.</li> <li>for word operations, typ.</li> <li>for fixed point arithmetic, typ.</li> <li>0.12 μs</li> </ul> </li> <li>for floating point arithmetic, typ.</li> <li>0.59 μs</li> </ul>		
● without battery  Yes; Program and data  CPU processing times  for bit operations, typ.  for word operations, typ.  0.06 μs  for fixed point arithmetic, typ.  0.12 μs  for floating point arithmetic, typ.  0.59 μs	·	
CPU processing times       for bit operations, typ.     0.06 μs       for word operations, typ.     0.12 μs       for fixed point arithmetic, typ.     0.16 μs       for floating point arithmetic, typ.     0.59 μs	•	
for bit operations, typ.  for word operations, typ.  for fixed point arithmetic, typ.  for floating point arithmetic, typ.  0.06 μs  0.12 μs  0.16 μs  0.16 μs		Yes; Program and data
for word operations, typ.  for fixed point arithmetic, typ.  for floating point arithmetic, typ.  0.12 μs  0.16 μs  0.59 μs	CPU processing times	
for fixed point arithmetic, typ.  0.16 μs  for floating point arithmetic, typ.  0.59 μs	for bit operations, typ.	0.06 μs
for floating point arithmetic, typ. 0.59 µs	for word operations, typ.	0.12 μs
· · · · · · · · · · · · · · · · · · ·	for fixed point arithmetic, typ.	0.16 μs
	**	0.59 μs

Number of blocks (total)	1 024; (DBs, FCs, FBs); the maximum number of loadable blocks can be
20	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	
<ul><li>Number, max.</li></ul>	1 024; Number range: 0 to 7999
Size, max.	64 kbyte
OB	
Number, max.	see instruction list
Size, max.	64 kbyte
<ul> <li>Number of free cycle OBs</li> </ul>	1; OB 1
<ul> <li>Number of time alarm OBs</li> </ul>	1; OB 10
<ul> <li>Number of delay alarm OBs</li> </ul>	2; OB 20, 21
<ul> <li>Number of cyclic interrupt OBs</li> </ul>	4; OB 32, 33, 34, 35
<ul> <li>Number of process alarm OBs</li> </ul>	1; OB 40
<ul> <li>Number of startup OBs</li> </ul>	1; OB 100
<ul> <li>Number of asynchronous error OBs</li> </ul>	4; OB 80, 82, 85, 87
Number of synchronous error OBs	2; OB 121, 122
Nesting depth	
<ul> <li>per priority class</li> </ul>	16
<ul> <li>additional within an error OB</li> </ul>	4
Counters, timers and their retentivity	
S7 counter	
Number	256
Retentivity	
— adjustable	Yes
— 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	256
Retentivity	
— adjustable	Yes
— 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	Chiminod (minicod only by to the outputity)
Retentive data area (incl. timers, counters, flags), max.	64 kbyte
Flag	OT NUTICE
	256 byte
Size, max.      Petentivity available.	256 byte
Retentivity available	Yes; MB 0 to MB 255
<ul><li>Retentivity preset</li><li>Number of clock memories</li></ul>	MB 0 to MB 15
■ NUMBER OF CIOCK MAMORIAS	
	8; 1 memory byte
Data blocks	
Data blocks  • Retentivity adjustable	Yes; via non-retain property on DB
Data blocks	

• 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	1 024
— of which central	1 024
Outputs	1 024
— of which central	1 024
Analog channels	
• Inputs	256
— of which central	256
<ul><li>Outputs</li></ul>	256
— of which central	256
Hardware configuration	
Number of expansion units, max.	3
Number of DP masters	
• integrated	0
• 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     Political past day, may	6 wk; At 40 °C ambient temperature
Deviation per day, max.      Palacitize of the clash following POWER ON.	10 s; Typ.: 2 s
Behavior of the clock following POWER-ON     Paper in a fitte clock following expire of backup period	Clock continues running after POWER OFF
Behavior of the clock following expiry of backup period     Operating hours counter.	the clock continues at the time of day it had when power was switched off
Operating hours counter	1
Number     Number/Number range	1
Number/Number range     Pange of values	
<ul><li>Range of values</li><li>Granularity</li></ul>	0 to 2 <sup>31</sup> hours (when using SFC 101) 1 h
retentive	Yes; Must be restarted at each restart
	100, Must be restarted at each restart
Clock synchronization	
Clock synchronization  • supported	Yes
• supported	Yes Yes
supported     to MPI, master	Yes
<ul><li>supported</li><li>to MPI, master</li><li>on MPI, device</li></ul>	Yes Yes
<ul> <li>supported</li> <li>to MPI, master</li> <li>on MPI, device</li> <li>in AS, master</li> </ul>	Yes Yes Yes
<ul> <li>supported</li> <li>to MPI, master</li> <li>on MPI, device</li> <li>in AS, master</li> <li>in AS, device</li> </ul>	Yes Yes
<ul> <li>supported</li> <li>to MPI, master</li> <li>on MPI, device</li> <li>in AS, master</li> <li>in AS, device</li> </ul> Digital inputs	Yes Yes Yes No
supported     to MPI, master     on MPI, device     in AS, master     in AS, device  Digital inputs  Number of digital inputs	Yes Yes Yes
supported     to MPI, master     on MPI, device     in AS, master     in AS, device  Digital inputs  Number of digital inputs  Digital outputs	Yes Yes Yes No
supported     to MPI, master     on MPI, device     in AS, master     in AS, device  Digital inputs  Number of digital inputs  Number of digital outputs  Number of digital outputs	Yes Yes Yes No
supported     to MPI, master     on MPI, device     in AS, master     in AS, device  Digital inputs  Number of digital inputs  Digital outputs	Yes Yes Yes No

Interfaces	
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	200 HIA
• MPI	Yes
PROFIBUS DP master	No
PROFIBUS DP device	No
Point-to-point connection	No
MPI	110
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
<ul><li>Number of GD loops, max.</li></ul>	8
Number of GD packets, max.	8
<ul> <li>Number of GD packets, transmitter, max.</li> </ul>	8
<ul> <li>Number of GD packets, receiver, max.</li> </ul>	8
Size of GD packets, max.	22 byte
<ul> <li>Size of GD packet (of which consistent), max.</li> </ul>	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
<ul> <li>User data per job, max.</li> </ul>	180 byte; With PUT/GET
User data per job (of which consistent), max.	240 byte; as server
S5 compatible communication	
• supported	Yes; via CP and loadable FC
Number of connections	
• overall	12
usable for PG communication	11
— reserved for PG communication	1
— adjustable for PG communication, min.	1
— adjustable for PG communication, max.	11
usable for OP communication	11
— reserved for OP communication	1
— adjustable for OP communication, min.	1
<ul> <li>adjustable for OP communication, max.</li> </ul>	11

- unsate for 37 batic communication 5   - research for 57 batic communication 0   - adjustable for 57 batic communication, min. 5   - adjustable for 57 batic communication, min. 5   - adjustable for 57 batic communication, max. 8    57 message functions 12, Depending on the configured connections for PG/OP and 57 basic communication.   Process diagnostic message functions, max. 500   - Frocess diagnostic message functions, max. 500   - Status block		
adjustable for ST basic communication, max Adjustable for ST basic communication for BGIOP and ST basic communication for BGIOP and ST basic communication The Commission in Basic for State St	usable for S7 basic communication	8
adjustable for 27 basic communication, max.  72 messages (Limitations)  Number of login stations for message functions, max.  Process diagnostic messages  yes  simultaneously active Atom's blocks, max.  Text commiss Solings functions  Status block  Yes; Up to 2 simultaneously  Status block  Yes; Up to 2 simultaneously  Status block  Yes  Number of breakpoints  Number of variables, max.  of which status variables, max.  of which powerfailables, max.		
S7 message functions   12: Departing on the configured connections for PGIOP and S7 basic communication of communication from the configured connections for PGIOP and S7 basic communication from the configured connections for PGIOP and S7 basic communication from the configured connections for PGIOP and S7 basic communication from the configured connections for PGIOP and S7 basic communication from the configured connections for PGIOP and S7 basic communication from the configured connections for PGIOP and S7 basic communication from the configured connections for PGIOP and S7 basic communication from the configured connections for PGIOP and S7 basic communication from the configured connections for PGIOP and S7 basic communication from the configured connections for PGIOP and S7 basic communication from the configured connections for PGIOP and S7 basic communication from the configured connections for PGIOP and S7 basic communication from the configured connections for PGIOP and S7 basic communication from the configured connections for PGIOP and S7 basic communication for PGIOP and S7 basic connections for PGIOP and S7 basic connection for PGIOP and S7 basic connections for	•	
Number of login stations for message functions, max.  Process diagnostic messages Proc	·	8
process diagnostic messages  Yes simultaneously achiev Alami-S blocks, mix.  300  Test commissioning functions  Status block  Yes: Up to 2 simultaneously  Yes  Number of breakpoints  4  Situatscontrol variables  Variables  Variables  Number of variables, max.  - of which satus variables, max.  - of which control variables, max.  14  Forcing  F	S7 message functions	
	Number of login stations for message functions, max.	
Sistus block Single step Yes Number of breakpoints Sistus/control variable Sistus/control variable Ves Number of variables, max. Or which control variables, max. Or which control variables, max. Or which status variables, max. Or which control variables, max. Or which powerfaile, max. Or which powerfaile, max. Or which powerfaile or which whi	Process diagnostic messages	Yes
Status block	simultaneously active Alarm-S blocks, max.	300
Single step	Test commissioning functions	
Number of breakpoints	Status block	Yes; Up to 2 simultaneously
Status/control variable  Status/control variable  Ves Variables Inputs, outputs, memory bits, DB, times, counters  Number of variables, max.  of which satists variables, max.  14  Forcing Fo	Single step	Yes
Status/control variable     Variables     Variables, max.     Number of variables, max.     Of which status variables, max.     Ves     Forcing     Forcing     Forcing, variables     Number of variables, max.     10  Diagnostic buffe     Opresent     Ves     Number of entries, max.     Of which powerful proof     Number of entries, max.     Of which powerful proof     Number of entries readable in RUN, max.     — adjustable     — of which powerful proof     Number of entries readable in RUN, max.     — adjustable     — preset     No     Number of entries readable in RUN, max.     Of vest of entries are retained     Of vest of entries are	Number of breakpoints	4
Variables Number of variables, max. — of which status variables, max. — of which status variables, max. — of which status variables, max.  14  Forcing Forcin	Status/control	
Number of variables, max. 30     — of which status variables, max. 14  Forcing     Forcing	<ul> <li>Status/control variable</li> </ul>	Yes
of which status variables, max of which control variables of which control variables of variables of variables of which powerfail-proof of which powerf	<ul> <li>Variables</li> </ul>	Inputs, outputs, memory bits, DB, times, counters
Forcing	<ul> <li>Number of variables, max.</li> </ul>	30
Forcing	— of which status variables, max.	30
Forcing, variables	— of which control variables, max.	14
Forcing, variables	Forcing	
Number of variables, max.   10	• Forcing	Yes
Diagnostic buffer	<ul> <li>Forcing, variables</li> </ul>	Inputs, outputs
	<ul> <li>Number of variables, max.</li> </ul>	
	Diagnostic buffer	
adjustable of which powerfall-proof 100; Only the last 100 entries are retained  • Number of entries readable in RUN, max. 499  adjustable preset 10  Service data • can be read out Yes  Ambient conditions  Ambient emperature during operation • min. 0 °C • max. 60 °C  configuration / header  Configuration / header  • 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  Programming language  LAD Yes STL Yes Yes STL Yes -		Yes
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 conditions  Ambient with peader  • max. • 00 °C  configuration / header  • STEP 7 Yes; V5.2 SP1 or higher with HW update  configuration / programming / header  • Command set • Nesting levels • Nesting levels • System function lobcks (SFB) - System function blocks (SFB) - FBD - FBD - FBD - FBD - FBD - FBL - SCL - CFC - CRAPH - HiGraph®  Know-how protection • User program protection/password protection • User program protection/password protection • User program program protection/password protection • User program program protection/password protection • User program protection produce produce protection produce produce	Number of entries, max.	500
Number of entries readable in RUN, max.     — adjustable     — preset     10  Service data      • can be read out     Ambient conditions  Ambient temperature during operation     • min.     • max.     • 60 °C  Configuration / hoader  Configuration / programming / header     • STEP 7     Configuration software     • STEP 7     Command set     • Nesting levels     • System functions (SFC)     • System function blocks (SFB)     Brogramming language  — LAD     — FBD     — FBD     — FBD     — FBD     — STL     — SCL     — CPC     — GRAPH     — HiGraph®     Know-how protection     • Block encryption     • User program protection/password protection     • User program protection/password protection     • Block encryption     — User program protection/password protection     • User program protection/password protection     • Block encryption     — Pesp     — Height     — Stir Maximum Standard Protection     • Pes; With S7 block Privacy  Dimonsions  Width     — 40 mm  Height     — 130 mm	— adjustable	No
Number of entries readable in RUN, max.     — adjustable     — preset     10  Service data      • can be read out     Ambient conditions  Ambient temperature during operation     • min.     • max.     • 60 °C  Configuration / hoader  Configuration / programming / header     • STEP 7     Configuration software     • STEP 7     Command set     • Nesting levels     • System functions (SFC)     • System function blocks (SFB)     Brogramming language  — LAD     — FBD     — FBD     — FBD     — FBD     — STL     — SCL     — CPC     — GRAPH     — HiGraph®     Know-how protection     • Block encryption     • User program protection/password protection     • User program protection/password protection     • Block encryption     — User program protection/password protection     • User program protection/password protection     • Block encryption     — Pesp     — Height     — Stir Maximum Standard Protection     • Pes; With S7 block Privacy  Dimonsions  Width     — 40 mm  Height     — 130 mm	— of which powerfail-proof	100; Only the last 100 entries are retained
adjustable	·	
		Yes; From 10 to 499
Service data         Yes           Amblent conditions         Amblent conditions           Amblent temperature during operation         o °C           • min.         0 °C           • max.         60 °C           Configuration / header           Configuration software         STEP 7         Yes; V5.2 SP1 or higher with HW update           • STEP 7         Yes; V5.2 SP1 or higher with HW update           configuration / programming / header         See instruction list           • Command set         see instruction list           • Nesting levels         8           • System functions (SFC)         see instruction list           • System function blocks (SFB)         see instruction list           Programming language         Yes           — LAD         Yes           — FBD         Yes           — STL         Yes           — STL         Yes           — CFC         Yes           — GRAPH         Yes           — HIGraph®         Yes           Know-how protection         Yes           • Block encryption         Yes; With S7 block Privacy           Dimensions           Width         40 mm           Height         125 mm	•	
Ambient conditions  Ambient temperature during operation  • min. • max. • 60 °C  configuration / header  Configuration / programming / header  • STEP 7 • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB)  Programming language  — LAD — FBD — STL — SCL — SCL — CFC — GRAPH — HiGraph®  Know-how protection • User program protection/password protection • Block encryption  Dimensions  Width  Height 125 mm  Depth  100 °C  C  C  C  C  C  C  C  C  C  C  C  C		
Ambient temperature during operation  • min. • max. • max. • 60 °C  Configuration / header  Configuration software  • STEP 7 Yes; V5.2 SP1 or higher with HW update  • Command set • Nesting levels • Nesting levels • System function (SFC) • System function blocks (SFB)  Programming language  — LAD — FBD — STL — SCL — SCL — CFC — GRAPH — HiGraph® Tes  Know-how protection • User program protection/password protection • Block encryption  Dimensions  Width  Height Depth  130 mm	• can be read out	Yes
Ambient temperature during operation  • min. • max. • max. • 60 °C  Configuration / header  Configuration software  • STEP 7 Yes; V5.2 SP1 or higher with HW update  • Command set • Nesting levels • Nesting levels • System function (SFC) • System function blocks (SFB)  Programming language  — LAD — FBD — STL — SCL — SCL — CFC — GRAPH — HiGraph® Tes  Know-how protection • User program protection/password protection • Block encryption  Dimensions  Width  Height Depth  130 mm		
		0 °C
Configuration / header  Configuration software  STEP 7  Yes; V5.2 SP1 or higher with HW update  Configuration / programming / header  Comfiguration / programming / header  See instruction list System functions (SFC) See instruction list System function blocks (SFB) See instruction list Programming language  LAD Yes FBD Yes STL Yes SCL Yes CFC GRAPH Yes HiGraph® Yes  Know-how protection Signal and protection yes; With S7 block Privacy  Dimensions  Width Height 125 mm Depth 130 mm		
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 Yes FBD Yes STL Yes SCL Yes GRAPH Yes HiGraph® Yes  Know-how protection  User program protection/password protection Signal Si		
configuration / programming / header  Command set See instruction list Nesting levels System functions (SFC) See instruction list System function blocks (SFB) See instruction list  Programming language  LAD Yes FBD Yes STL Yes SCL Yes CFC GRAPH HiGraph® Yes  Know-how protection Slock encryption  Ves Block encryption  Petal  Ad mm Height Depth  130 mm	-	Vec: V5.2 SP1 or higher with HW undate
		res, vo.2 or r or nighter with rive appeale
Nesting levels     System functions (SFC)     see instruction list     System function blocks (SFB)     see instruction list  Programming language		see instruction list
System functions (SFC) System function blocks (SFB) See instruction list  Programming language  — LAD — FBD — FBD — Yes — STL — SCL — Yes — CFC — GRAPH — HiGraph® Yes  Know-how protection  • User program protection/password protection • Block encryption  Pimensions  Width Height Depth  See instruction list see instruction		
System function blocks (SFB)  Programming language  — LAD  — FBD  — FBD  — STL  — SCL  — SCL  — CFC  — GRAPH  — HiGraph®  Know-how protection  — User program protection/password protection  — Block encryption  Width  Height  Depth  See instruction list  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Y		
Programming language         Yes           — FBD         Yes           — STL         Yes           — SCL         Yes           — CFC         Yes           — GRAPH         Yes           — HiGraph®         Yes           Know-how protection         Yes           • User program protection/password protection         Yes; With S7 block Privacy           Dimensions         40 mm           Height         125 mm           Depth         130 mm		
— LAD       Yes         — FBD       Yes         — STL       Yes         — SCL       Yes         — CFC       Yes         — GRAPH       Yes         — HiGraph®       Yes         Know-how protection       Yes         • User program protection/password protection       Yes; With S7 block Privacy         Dimensions       Yes; With S7 block Privacy         Width       40 mm         Height       125 mm         Depth       130 mm		SEC IIISUUCUOII IISU
— FBD       Yes         — STL       Yes         — SCL       Yes         — CFC       Yes         — GRAPH       Yes         — HiGraph®       Yes         Know-how protection       Yes         • User program protection/password protection       Yes; With S7 block Privacy         • Block encryption       Yes; With S7 block Privacy         Dimensions       40 mm         Height       125 mm         Depth       130 mm		Von
— STL       Yes         — SCL       Yes         — CFC       Yes         — GRAPH       Yes         — HiGraph®       Yes         Know-how protection       Yes         • User program protection/password protection       Yes; With S7 block Privacy         Dimensions       Width       40 mm         Height       125 mm         Depth       130 mm		
- SCL Yes - CFC Yes - GRAPH Yes - HiGraph® Yes  Know-how protection  • User program protection/password protection Yes; With S7 block Privacy  Dimensions  Width 40 mm  Height 125 mm  Depth 130 mm		
CFC Yes GRAPH Yes HiGraph® Yes  Know-how protection  ■ User program protection/password protection Yes; With S7 block Privacy  Dimensions  Width 40 mm  Height 125 mm  Depth 130 mm		
— GRAPH — HiGraph® Yes  Know-how protection		
— 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		
Know-how protection  • User program protection/password protection  • Block encryption  Yes; With S7 block Privacy  Dimensions  Width  40 mm  Height  125 mm  Depth  130 mm		
● User program protection/password protection  Plock encryption  Yes; With S7 block Privacy  Dimensions  Width  40 mm  Height  125 mm  Depth  130 mm	·	Yes
● Block encryption  Yes; With S7 block Privacy  Dimensions  Width 40 mm  Height 125 mm  Depth 130 mm	·	
Dimensions           Width         40 mm           Height         125 mm           Depth         130 mm		
Width         40 mm           Height         125 mm           Depth         130 mm		Yes; With S7 block Privacy
Height 125 mm Depth 130 mm	Dimensions	
Depth 130 mm	Width	40 mm
	Height	125 mm
Weights		130 mm
	Weights	

Weight, approx.	280 g

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