SIEMENS

Data sheet

6ES7318-3EL00-0AB0



Spare part SIMATIC S7-300 CPU 319-3 PN/DP, Central processing unit with 1.4MB memory, 1st interface MPI/DP 12 Mbit/s, 2nd interface DP master/slave 3rd interface Ethernet PROFINET, Micro Memory Card required

General information	
HW functional status	09
Firmware version	V2.8
Product function	
 Isochronous mode 	Yes; Via 2nd DP interface
Engineering with	
Programming package	STEP 7 V5.4 + SP5 or higher or STEP 7 V5.4 + SP4 or higher with HSP 186
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	20.4 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)	1 050 mA
Current consumption (in no-load operation), typ.	400 mA
Inrush current, typ.	4 A
l²t	1.2 A ² ·s
Power loss	
Power loss, typ.	14 W
Memory	
Work memory	
integrated	1 400 kbyte
expandable	No
Load memory	
Plug-in (MMC)	Yes
Plug-in (MMC), max.	8 Mbyte
 Data management on MMC (after last 	10 y
programming), min.	
Backup	
• present	Yes; Guaranteed by MMC (maintenance-free)
without battery	Yes; Program and data
CPU processing times	
for bit operations, typ.	0.01 µs
for word operations, typ.	0.02 µs
for fixed point arithmetic, typ.	0.02 µs
for floating point arithmetic, typ.	0.04 µs
CPU-blocks	
Number of blocks (total)	4 096; (DBs, FCs, FBs); the maximum number of loadable blocks can be reduced by the MMC used.

DB	
Number, max.	4 096; Number range: 1 to 16000
• Size, max.	64 kbyte
FB	,
Number, max.	4 096; Number range: 0 to 7999
• Size, max.	64 kbyte
FC	
Number, max.	4 096; Number range: 0 to 7999
• Size, max.	64 kbyte
OB	
• Size, max.	64 kbyte
 Number of free cycle OBs 	1; OB 1
 Number of time alarm OBs 	1; OB 10
 Number of delay alarm OBs 	2; OB 20, 21
 Number of cyclic interrupt OBs 	4; OB 32, 33, 34, 35 (OB 35: smallest settable clock pulse = 500 μs)
 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 Number of source OBs	1; OB 100
Number of asynchronous error OBs Number of asynchronous error OBs	6; OB 80, 82, 83, 85, 86, 87 (OB83 only for PROFINET IO)
Number of synchronous error OBs Necting doubth	2; OB 121, 122
Nesting depth	16
per priority classadditional within an error OB	16 4
	7
Counters, timers and their retentivity	
S7 counter	0.040
Number Potentivity	2 048
Retentivity	Yes
— adjustable — lower limit	0
— upper limit	2 047
— preset	Z 0 to Z 7
Counting range	20021
— adjustable	Yes
— lower limit	0
— upper limit	999
IEC counter	
• present	Yes
• Type	SFB
Number	Unlimited (limited only by RAM capacity)
S7 times	
Number	2 048
Retentivity	
— adjustable	Yes
— lower limit	0
— upper limit	2 047
— preset	No retentivity
Time range	40
— lower limit	10 ms
— upper limit	9 990 s
IEC timer	Yes
presentType	SFB
Number	Unlimited (limited only by RAM capacity)
Data areas and their retentivity	Criminica (minica only by IV-IVI capacity)
	700 kbyto
Retentive data area (incl. timers, counters, flags), max.	700 kbyte
Flag	9 102 byte
Size, max. Potentivity available.	8 192 byte
Retentivity availableRetentivity preset	Yes; From MB 0 to MB 8 191 MB 0 to MB 15
Number of clock memories	8; 1 memory byte
- NUMBER OF GOOD HIGHIOHES	o, i memory byte
Data blocks • 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	0.400 4
• Inputs	8 192 byte
Outputs	8 192 byte
Inputs, adjustable Outputs, adjustable	8 192 byte 8 192 byte
Outputs, adjustableInputs, default	256 byte
Outputs, default	256 byte
Subprocess images	250 byte
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
 Behavior of the clock following expiry of backup 	the clock continues at the time of day it had when power was switched
period	off
Operating hours counter	,
Number	4
Number/Number range Denote of volves	0 to 3
Range of values Crapularity	0 to 2^31 hours (when using SFC 101)
Granularity retentive	1 h
retentive Clock synchronization	Yes; Must be restarted at each restart
-	Yes
supportedto MPI, master	Yes
• to MPI, master	Yes
• to DP, master	Yes; With DP slave only slave clock
• to DP, slave	Yes
• in AS, master	Yes
• in AS, slave	Yes
• III 7.0; olavo	

Digital inputs Integrated channels (DI) Digital outputs Integrated channels (DI) Digital outputs Integrated channels (DI) Analog outputs Integrated channels (AI) Analog outputs Integrated channels (AI) Difference of RS 482 interfaces Integrated RS 485 interface RS 48	on Ethernet via NTP	Yes; As client
integrated channels (DI) Digital outputs Integrated channels (AD) Analog outputs Integrated channels (AD) Analog outputs Integrated channels (AD) Interfaces Number of industrial Ethernet interfaces Number of RS 485 interfaces 1 Number of RS 425 interface 1 Number of Connections 2 Number of Connections 3 Number of Connections 3 Number of Connections 3 Number of Connections 3 PGOP Communication 4 PGS 4 PGOP Communication 5 PS 25 Desire of RS 425 interface 1 No Dut via CP and loadable FB 5 Transmission rate, max. 1 Number of DP slaves, max. 1 Number of DP slaves, max. 1 No Desire of RS 425 interface 1 No		
Integrated channels (AD)		0
Integrated channels (DO)		
Integrated channels (AI) Analog outputs Integrated channels (AO) Interfaces Number of Industrial Ethernet interfaces Number of RS 485 interfaces Number of RS 485 interfaces Number of RS 485 interfaces Number of RS 422 interfaces Interface type Interface type Integrated RS 485 interface Interface type Interface type Integrated RS 485 interface Interface type Integrated RS 485 interface Integr		0
Integrated channels (AI)	. ,	
Integrated channels (AO) Interfaces Number of Industrial Ethemet Interfaces 1 Number of PROFINET Interfaces 1 Number of RS-42 interfaces 1 Number of RS-42 interfaces 2 Number of RS-42 interfaces 0 Interface Interface type Isolated Ves Interface Ves Isolated Ves		0
Integrated channels (AO)		
Number of PROFINET interfaces 1	integrated channels (AO)	0
Number of PROFINET interfaces 1	Interfaces	
Number of RS 485 interfaces 2		1
Number of RS 422 interfaces Interface bye Isolated yes Isolated yes • RS 485 • Output current of the interface, max. • PROFIBUS DP master • PROFIBUS DP master • PROFIBUS DP slave • Point-to-point connection No MPI • Number of connections • Transmission rate, max. - PG/OP communication - S7 communication, as sient - S7 communication, as server • PROFIBUS DP master - S7 communication - S7 communication, as server - PG/OP communication - S7 communication - Routing - S7 communication - Routing - S7 communication - S8 communication - S9 NO PREZEZ - Activation/deactivation of D7 slaves - Number of D8 slaves that can be simultaneously activated/deactivated, max, - Direct data exchange (slave-to-slave communication) - DPV1 - Address area - Inputs, max - Upputs,	Number of PROFINET interfaces	1
Interface type Interface type Interface types	Number of RS 485 interfaces	2
Interface type Integrated RS 485 interface Yes Integrated RS 485 interface Yes Nes	Number of RS 422 interfaces	0
Interface types	1. Interface	
Interface types RS 485	• •	
		Yes
Output current of the interface, max. Protocois • MPI • PROFIBUS DP master • PROFIBUS DP slave • Point-to-point connection No MPI • Number of connections • Number of connections • Transmission rate, max. 22 Mbit/s Services - PG/OP communication - Routing - Global data communication - S7 communication - S7 communication, as client - S7 communication, as server • Transmission rate, max. 12 Mbit/s Services - PG/OP communication - S7 communication, as client - S7 communication, as client - S7 communication, as server • Transmission rate, max. • Number of DP slaves, max. Services - PG/OP communication - Routing - Routing - Routing - Global data communication - Routing - S7 basic communication - S7 basic communication - S7 communication - S8 communication - S9 basic communication - S9 communication, as server - S9 communication, as server - S9 communication - S9 basic communication - S9	• •	Voo
MPI		
		100 IIIA
PROFIBUS DP master PROFIBUS DP slave Profit-to-point connection No MPI Number of connections Transmission rate, max. 12 Mbit/s Services PG/OP communication Pes PG/OP communication Pes PG/OP communication Pes PS basic communication Pes PS communication Pes PS communication Pes PROFIBUS DP master Transmission rate, max. No number of DP slaves, max. PG/OP communication Pes PROFIBUS DP master PROFIBUS DP master Transmission rate, max. No number of DP slaves fination as server PS per		Yes
Point-to-point connection MPI ● Number of connections ● Transmission rate, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication, as client — S7 communication, as server PROFIBUS DP master ● Transmission rate, max. ● Number of DP slaves, max. Services — PG/OP communication — S7 communication, as client — S7 communication, as client — S7 communication, as verver PROFIBUS DP master ● Transmission rate, max. ● Number of DP slaves, max. 124 Mbit/s Services — PG/OP communication — Yes — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication, as client — S7 communication, as client — S7 communication, as server — Equidistance — Fayoremunication, as server — Leguidistance — Isochronous mode — SYNC/FREEZE — Activation/deactivation of DP slaves — Number of DP slaves that can be simultaneously activated/deactivated, max. — Direct data exchange (slave-to-slave communication) — DPV1 Address area — Inputs, max. — Bkbyte — Inputs, max. — Outputs, max.		
Number of connections 32 Transmission rate, max. 12 Mbit/s		
 Number of connections 1 Transmission rate, max. 2 Mbit/s Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication, as client — S7 communication, as client — S7 communication, as server — S7 communication, as server — S7 communication, as server PROFIBUS DP master 1 Transmission rate, max. 12 Mbit/s Number of DP slaves, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication, as client — S7 communication, as server — Equidistance — S7 communication, as server — Equidistance — SNO/C/FREEZE — Activation/deactivation of DP slaves — Number of DP slaves that can be simultaneously activated/deactivated, max. — Direct data exchange (slave-to-slave communication) — DPV1 Yes Address area — Inputs, max. — Unutus, max. B kbyte — User data per DP slave — Inputs, max. — Outputs, max. — Cutputs, max.	Point-to-point connection	No
 Transmission rate, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication, as client — S7 communication, as client — S7 communication, as client — S7 communication, as server — Yes — S7 communication, as server — Yes PROFIBUS DP master ● Transmission rate, max. ● Number of DP slaves, max. 124 Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication, as client — S7 communication, as client — S7 communication, as client — S7 communication, as server — Equidistance — Yes — Equidistance — Yes — Liscohronous mode — No — SYNC/FREEZE — Activation/deactivation of DP slaves — Number of DP slaves that can be simultaneously activated/deactivated, max. — Direct data exchange (slave-to-slave communication) — DPV1 Address area — Inputs, max. — Outputs, max. B kbyte — User data per DP slave — Inputs, max. — Outputs, max. — Outputs, max. — User data per DP slave — Inputs, max. — Outputs, max. — Attractive of Parameters of		
Services - PG/OP communication - Routing - Global data communication - S7 basic communication - S7 communication, as client - S7 communication, as client - S7 communication, as server - Transmission rate, max Number of DP slaves, max. 12 Mbit/s - Number of DP slaves, max. 124 Services - PG/OP communication - S7 basic communication - S7 basic communication - S7 communication - S7 communication - S7 communication - S7 communication, as client - S7 communication, as server - Equidistance - Isochronous mode - SYNC/FREZE - Activation/deactivation of DP slaves - Number of DP slaves that can be simultaneously activated/deactivated, max Direct data exchange (slave-to-slave communication) - DPV1 - Address area - Inputs, max Outputs, max User data per DP slave - Inputs, max User data per DP slave - Inputs, max Outputs,		
		12 Mbit/s
- Routing - Global data communication - S7 basic communication - S7 communication - S7 communication - S7 communication - S7 communication, as client - S7 communication, as server - S7 communication, as server - S7 communication, as server PROFIBUS DP master ● Transmission rate, max Number of DP slaves, max. 12 Mbit/s - Number of DP slaves, max. 124 Services - PG/OP communication - S7 basic communication - S7 basic communication - S7 basic communication - S7 communication, as server - Equidistance - Isochronous mode - SYNC/FREZE - Activation/deactivation of DP slaves - Number of DP slaves that can be simultaneously activated/deactivated, max Direct data exchange (slave-to-slave communication) - DPV1 - Address area - Inputs, max Outputs, max		Von
- Global data communication Yes - S7 basic communication Yes - S7 communication, as client No; but via CP and loadable FB - S7 communication, as server Yes PROFIBUS DP master • Transmission rate, max. 12 Mbit/s • Number of DP slaves, max. 124 Services - PG/OP communication No - Routing Yes - Global data communication No - S7 basic communication Yes; I blocks only - S7 communication Yes - S7 communication Yes - S7 communication Yes - Equidistance Yes - Lequidistance Yes - Isochronous mode No - S7NC/FREEZE Yes - Activation/deactivation of DP slaves that can be simultaneously activated/deactivated, max Direct data exchange (slave-to-slave communication) - DP/1 Address area - Inputs, max. 8 kbyte - Inputs, max. 8 kbyte - Inputs, max. 244 byte - Inputs, max. 244 byte - Outputs, max. 244 byte - Outputs, max. 244 byte - Outputs, max. 244 byte		
- S7 basic communication Yes - S7 communication, as client No; but via CP and loadable FB - S7 communication, as server Yes PROFIBUS DP master • Transmission rate, max. 12 Mbit/s • Number of DP slaves, max. 124 Services - PG/OP communication Yes - Routing Yes - Clobal data communication No - S7 basic communication Yes; I blocks only - S7 communication Yes - S7 communication, as client No - S7 communication, as server Yes - Equidistance Yes - Lequidistance Yes - Isochronous mode No - SYNC/FREEZE Yes - Activation/deactivation of DP slaves Yes - Number of DP slaves that can be simultaneously activated/deactivated, max Direct data exchange (slave-to-slave communication) - DPV1 Yes Address area - Inputs, max. 8 kbyte User data per DP slave - Inputs, max. 8 kbyte - Inputs, max. 244 byte - Outputs, max. 244 byte	9	
— S7 communication, as server PROFIBUS DP master • Transmission rate, max. • Number of DP slaves, max. 124 Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication — S7 communication, as client — S7 communication, as server — Equidistance — Isochronous mode — SYNC/FREEZE — Activation/deactivation of DP slaves — Number of DP slaves that can be simultaneously activated/deactivated, max. — Direct data exchange (slave-to-slave communication) — DPV1 Address area — Inputs, max. — Outputs, max. — User data per DP slave — Inputs, max. — User data per DP slave — Inputs, max. — User data per DP slave — Inputs, max. — User data per DP slave — Inputs, max. — Outputs, max. — Outputs, max. — User data per DP slave — Inputs, max. — Outputs, max.		
PROFIBUS DP master ● Transmission rate, max. ● Number of DP slaves, max. 12 Mbit/s Number of DP slaves, max. 12 Mbit/s 124 Services - PG/OP communication - Routing - Global data communication - S7 basic communication - S7 communication - S7 communication - S7 communication - S7 communication, as client - S7 communication, as server - S7 communication, as server - Equidistance - Isochronous mode - SYNC/FREEZE - Activation/deactivation of DP slaves - No - SYNC/FREEZE - Activation/deactivation of DP slaves - Number of DP slaves that can be simultaneously activated/deactivated, max. - Direct data exchange (slave-to-slave communication) - DPV1 Yes Address area - Inputs, max. - Outputs, max. - User data per DP slave - Inputs, max. - User data per DP slave - Inputs, max. - Unputs, max. - Untputs, max.	 S7 communication, as client 	No; but via CP and loadable FB
 Transmission rate, max. Number of DP slaves, max. 124 Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication — S7 communication, as client — S7 communication, as server — S7 communication, as server — Equidistance — Lactivation of DP slaves — Activation/deactivation of DP slaves — Number of DP slaves that can be simultaneously activated/deactivated, max. — Direct data exchange (slave-to-slave communication) — DPV1 Address area — Inputs, max. — Outputs, max. — Inputs, max. — User data per DP slave — Inputs, max. — Inputs, max. — User data per DP slave — Inputs, max. — User data per DP slave — Inputs, max. — Uniputs, max. — Unipu	·	Yes
Number of DP slaves, max. Services - PG/OP communication		
Services - PG/OP communication Yes - Routing Yes - Global data communication No - S7 basic communication Yes; I blocks only - S7 communication Yes - S7 communication Yes - S7 communication, as client No - S7 communication, as server Yes - Equidistance Yes - Isochronous mode No - SYNC/FREEZE Yes - Activation/deactivation of DP slaves Yes - Number of DP slaves that can be simultaneously activated/deactivated, max Direct data exchange (slave-to-slave communication) - DPV1 Yes Address area - Inputs, max. 8 kbyte - Outputs, max. 244 byte - Outputs, max. 244 byte	·	
PG/OP communication Yes Routing Yes Global data communication No S7 basic communication Yes; I blocks only S7 communication Yes I blocks only S7 communication Yes S7 communication, as client No S7 communication, as server Yes Equidistance Yes Isochronous mode No SYNC/FREEZE Yes Activation/deactivation of DP slaves Yes Number of DP slaves that can be simultaneously activated/deactivated, max Direct data exchange (slave-to-slave communication) DPV1 Yes Address area Inputs, max. 8 kbyte Outputs, max. 8 kbyte Inputs, max. 244 byte Inputs, max. 244 byte Outputs, max. 244 byte		124
- Routing Yes - Global data communication No - S7 basic communication Yes; I blocks only - S7 communication Yes - S7 communication Yes - S7 communication, as client No - S7 communication, as server Yes - Equidistance Yes - Isochronous mode No - SYNC/FREEZE Yes - Activation/deactivation of DP slaves Yes - Number of DP slaves that can be simultaneously activated/deactivated, max Direct data exchange (slave-to-slave communication) - DPV1 Yes Address area - Inputs, max. 8 kbyte - User data per DP slave - Inputs, max. 244 byte - Outputs, max. 244 byte		Von
- Global data communication		
- S7 basic communication Yes; I blocks only - S7 communication Yes - S7 communication, as client No - S7 communication, as server Yes - Equidistance Yes - Isochronous mode No - SYNC/FREEZE Yes - Activation/deactivation of DP slaves Yes - Number of DP slaves that can be simultaneously activated/deactivated, max Direct data exchange (slave-to-slave communication) - DPV1 Yes Address area - Inputs, max Outputs, max Outputs, max User data per DP slave - Inputs, max Outputs, max.	3	
— S7 communication Yes — S7 communication, as client No — S7 communication, as server Yes — Equidistance Yes — Isochronous mode No — SYNC/FREEZE Yes — Activation/deactivation of DP slaves Yes — Number of DP slaves that can be simultaneously activated/deactivated, max. — Direct data exchange (slave-to-slave communication) — 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		
- S7 communication, as server - Equidistance - Isochronous mode - SYNC/FREEZE - Activation/deactivation of DP slaves - Number of DP slaves that can be simultaneously activated/deactivated, max Direct data exchange (slave-to-slave communication) - DPV1 - Yes Address area - Inputs, max Outputs, max Outputs, max User data per DP slave - Inputs, max Outputs, max.		
 Equidistance Isochronous mode No SYNC/FREEZE Activation/deactivation of DP slaves Number of DP slaves that can be simultaneously activated/deactivated, max. Direct data exchange (slave-to-slave communication) DPV1 Address area Inputs, max. Outputs, max. Inputs, max. 8 kbyte User data per DP slave Inputs, max. 10 kbyte 244 byte Outputs, max. Outputs, max. 244 byte 		No
 — Isochronous mode — SYNC/FREEZE — Activation/deactivation of DP slaves — Number of DP slaves that can be simultaneously activated/deactivated, max. — Direct data exchange (slave-to-slave communication) — DPV1 Yes Address area — Inputs, max. — Outputs, max. User data per DP slave — Inputs, max. — Inputs, max. — Outputs, max. — Outputs, max. — Outputs, max. — 1 A byte — 1 A byte — 244 byte — Outputs, max. — Outputs, max. — 244 byte 		Yes
- SYNC/FREEZE - Activation/deactivation of DP slaves - Number of DP slaves that can be simultaneously activated/deactivated, max Direct data exchange (slave-to-slave communication) - DPV1 Yes Address area - Inputs, max Outputs, max User data per DP slave - Inputs, max Outputs, max.		
 — Activation/deactivation of DP slaves — Number of DP slaves that can be simultaneously activated/deactivated, max. — Direct data exchange (slave-to-slave communication) — DPV1 Address area — Inputs, max. — Outputs, max. User data per DP slave — Inputs, max. — Inputs, max. — Outputs, max. <l< td=""><td></td><td></td></l<>		
 Number of DP slaves that can be simultaneously activated/deactivated, max. Direct data exchange (slave-to-slave communication) DPV1 Address area Inputs, max. User data per DP slave Inputs, max. Inputs, max. User data per DP slave Outputs, max. Outputs, max. 244 byte Outputs, max. 244 byte 		
simultaneously activated/deactivated, max. — Direct data exchange (slave-to-slave communication) — 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		
 — Direct data exchange (slave-to-slave communication) — DPV1 Address area — Inputs, max. — Outputs, max. User data per DP slave — Inputs, max. — Outputs, max. — Outputs, max. — User data per DP slave — User data per DP slave — Outputs, max. — Outputs, ma		0
communication) Yes Address area		Yes; as subscriber
Address area — Inputs, max. — Outputs, max. User data per DP slave — Inputs, max. 244 byte — Outputs, max. 244 byte	communication)	
 — Inputs, max. — Outputs, max. User data per DP slave — Inputs, max. — Outputs, max. — Outputs, max. 244 byte 		Yes
 Outputs, max. User data per DP slave Inputs, max. Outputs, max. Outputs, max. 244 byte 		O librata
User data per DP slave — Inputs, max. 244 byte — Outputs, max. 244 byte		
— Inputs, max.— Outputs, max.244 byte244 byte	·	o kuyle
— Outputs, max. 244 byte		
	·	244 hyte
	— Inputs, max.	

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; with interface active
 Global data communication 	No
 S7 basic communication 	No
— S7 communication	Yes
 S7 communication, as client 	No
 S7 communication, as server 	Yes; Connection configured on one side only
Direct data exchange (slave-to-slave)	Yes
communication)	
— DPV1	No
Transfer memory	
— Inputs	244 byte
·	244 byte
— Outputs	244 byte
2. Interface	
Interface type	Integrated RS 485 interface
Isolated	Yes
Interface types	
• RS 485	Yes
 Output current of the interface, max. 	200 mA
Protocols	
• MPI	No
PROFINET IO Controller	No
PROFINET IO Device	No
PROFINET CBA	No
 PROFIBUS DP master 	Yes
 PROFIBUS DP slave 	Yes
 Open IE communication 	No
-	
Web server	No
Web server	No No
Web serverPoint-to-point connection	
Web server Point-to-point connection PROFIBUS DP master	No
Web server Point-to-point connection PROFIBUS DP master Transmission rate, max.	No 12 Mbit/s
 Web server Point-to-point connection PROFIBUS DP master Transmission rate, max. Number of DP slaves, max. 	No
Web server Point-to-point connection PROFIBUS DP master Transmission rate, max. Number of DP slaves, max. Services	No 12 Mbit/s 124
Web server Point-to-point connection PROFIBUS DP master Transmission rate, max. Number of DP slaves, max. Services — PG/OP communication	No 12 Mbit/s 124 Yes
Web server Point-to-point connection PROFIBUS DP master Transmission rate, max. Number of DP slaves, max. Services — PG/OP communication — Routing	No 12 Mbit/s 124 Yes Yes
Web server Point-to-point connection PROFIBUS DP master Transmission rate, max. Number of DP slaves, max. Services — PG/OP communication — Routing — Global data communication	No 12 Mbit/s 124 Yes Yes No
Web server Point-to-point connection PROFIBUS DP master Transmission rate, max. Number of DP slaves, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication	No 12 Mbit/s 124 Yes Yes Yes No Yes; I blocks only
Web server Point-to-point connection PROFIBUS DP master Transmission rate, max. Number of DP slaves, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication	No 12 Mbit/s 124 Yes Yes No
Web server Point-to-point connection PROFIBUS DP master Transmission rate, max. Number of DP slaves, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication	No 12 Mbit/s 124 Yes Yes Yes No Yes; I blocks only
Web server Point-to-point connection PROFIBUS DP master Transmission rate, max. Number of DP slaves, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication	No 12 Mbit/s 124 Yes Yes Yes No Yes; I blocks only Yes
Web server Point-to-point connection PROFIBUS DP master Transmission rate, max. Number of DP slaves, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication — S7 communication, as client	No 12 Mbit/s 124 Yes Yes Yes No Yes; I blocks only Yes No
Web server Point-to-point connection PROFIBUS DP master Transmission rate, max. Number of DP slaves, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication — S7 communication, as client — S7 communication, as server	No 12 Mbit/s 124 Yes Yes Yes No Yes; I blocks only Yes No Yes; Connection configured on one side only
Web server Point-to-point connection PROFIBUS DP master Transmission rate, max. Number of DP slaves, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication — S7 communication, as client — S7 communication, as server — Equidistance — Isochronous mode	No 12 Mbit/s 124 Yes Yes Yes No Yes; I blocks only Yes No Yes; Connection configured on one side only Yes Yes; OB 61
Web server Point-to-point connection PROFIBUS DP master Transmission rate, max. Number of DP slaves, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication — S7 communication, as client — S7 communication, as server — Equidistance — Isochronous mode — SYNC/FREEZE	Yes Yes Yes No Yes; I blocks only Yes No Yes; Connection configured on one side only Yes Yes; OB 61 Yes
Web server Point-to-point connection PROFIBUS DP master Transmission rate, max. Number of DP slaves, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication — S7 communication, as client — S7 communication, as server — Equidistance — Isochronous mode — SYNC/FREEZE — Activation/deactivation of DP slaves	No 12 Mbit/s 124 Yes Yes Yes No Yes; I blocks only Yes No Yes; Connection configured on one side only Yes Yes; OB 61 Yes Yes
Web server Point-to-point connection PROFIBUS DP master Transmission rate, max. Number of DP slaves, max. Services PG/OP communication Routing Global data communication S7 basic communication S7 communication S7 communication S7 communication, as client S7 communication, as server Equidistance Isochronous mode SYNC/FREEZE Activation/deactivation of DP slaves Number of DP slaves that can be	Yes Yes Yes No Yes; I blocks only Yes No Yes; Connection configured on one side only Yes Yes; OB 61 Yes
Web server Point-to-point connection PROFIBUS DP master Transmission rate, max. Number of DP slaves, max. Services PG/OP communication Routing Global data communication S7 basic communication S7 communication S7 communication S7 communication, as client S7 communication, as server Equidistance Isochronous mode SYNC/FREEZE Activation/deactivation of DP slaves Number of DP slaves that can be simultaneously activated/deactivated, max.	Yes Yes Yes No Yes; I blocks only Yes No Yes; Connection configured on one side only Yes
Web server Point-to-point connection PROFIBUS DP master Transmission rate, max. Number of DP slaves, max. Services PG/OP communication Routing Global data communication S7 basic communication S7 communication S7 communication S7 communication, as client S7 communication, as server Equidistance Isochronous mode SYNC/FREEZE Activation/deactivation of DP slaves Number of DP slaves that can be simultaneously activated/deactivated, max. Direct data exchange (slave-to-slave)	No 12 Mbit/s 124 Yes Yes Yes No Yes; I blocks only Yes No Yes; Connection configured on one side only Yes Yes; OB 61 Yes Yes
Web server Point-to-point connection PROFIBUS DP master Transmission rate, max. Number of DP slaves, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication — S7 communication, as client — S7 communication, as server — Equidistance — Isochronous mode — SYNC/FREEZE — Activation/deactivation of DP slaves — Number of DP slaves that can be simultaneously activated/deactivated, max. — Direct data exchange (slave-to-slave communication)	Yes Yes Yes No Yes; I blocks only Yes No Yes; Connection configured on one side only Yes
Web server Point-to-point connection PROFIBUS DP master Transmission rate, max. Number of DP slaves, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication — S7 communication, as client — S7 communication, as server — Equidistance — Isochronous mode — SYNC/FREEZE — Activation/deactivation of DP slaves — Number of DP slaves that can be simultaneously activated/deactivated, max. — Direct data exchange (slave-to-slave communication) — DPV1	Yes Yes Yes No Yes; I blocks only Yes No Yes; Connection configured on one side only Yes
Web server Point-to-point connection PROFIBUS DP master Transmission rate, max. Number of DP slaves, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication — S7 communication, as client — S7 communication, as server — Equidistance — Isochronous mode — SYNC/FREEZE — Activation/deactivation of DP slaves — Number of DP slaves that can be simultaneously activated/deactivated, max. — Direct data exchange (slave-to-slave communication) — DPV1 Address area	Yes Yes Yes No Yes; I blocks only Yes No Yes; Connection configured on one side only Yes Yes Yes Yes Yes Yes Yes Yes; OB 61 Yes Yes Yes Yes Yes
Web server Point-to-point connection PROFIBUS DP master Transmission rate, max. Number of DP slaves, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication — S7 communication, as client — S7 communication, as server — Equidistance — Isochronous mode — SYNC/FREEZE — Activation/deactivation of DP slaves — Number of DP slaves that can be simultaneously activated/deactivated, max. — Direct data exchange (slave-to-slave communication) — DPV1 Address area — Inputs, max.	No 12 Mbit/s 124 Yes Yes Yes No Yes; I blocks only Yes No Yes; Connection configured on one side only Yes Yes Yes; OB 61 Yes Yes Yes 8 Yes; as subscriber Yes 8 kbyte
Web server Point-to-point connection PROFIBUS DP master Transmission rate, max. Number of DP slaves, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication — S7 communication, as client — S7 communication, as server — Equidistance — Isochronous mode — SYNC/FREEZE — Activation/deactivation of DP slaves — Number of DP slaves that can be simultaneously activated/deactivated, max. — Direct data exchange (slave-to-slave communication) — DPV1 Address area — Inputs, max. — Outputs, max.	Yes Yes Yes No Yes; I blocks only Yes No Yes; Connection configured on one side only Yes Yes Yes Yes Yes Yes Yes Yes Yes; OB 61 Yes Yes Yes Yes Yes
Web server Point-to-point connection PROFIBUS DP master Transmission rate, max. Number of DP slaves, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication — S7 communication, as client — S7 communication, as server — Equidistance — Isochronous mode — SYNC/FREEZE — Activation/deactivation of DP slaves — Number of DP slaves that can be simultaneously activated/deactivated, max. — Direct data exchange (slave-to-slave communication) — DPV1 Address area — Inputs, max. — Outputs, max. — Outputs, max. User data per DP slave	No 12 Mbit/s 124 Yes Yes Yes No Yes; I blocks only Yes No Yes; Connection configured on one side only Yes Yes; OB 61 Yes Yes Yes 8 Yes; as subscriber Yes 8 kbyte 8 kbyte
Point-to-point connection PROFIBUS DP master Transmission rate, max. Number of DP slaves, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication — S7 communication, as client — S7 communication, as server — Equidistance — Isochronous mode — SYNC/FREEZE — Activation/deactivation of DP slaves — Number of DP slaves that can be simultaneously activated/deactivated, max. — Direct data exchange (slave-to-slave communication) — DPV1 Address area — Inputs, max. — Outputs, max. User data per DP slave — Inputs, max.	No 12 Mbit/s 124 Yes Yes Yes No Yes; I blocks only Yes No Yes; Connection configured on one side only Yes Yes; OB 61 Yes Yes 8 Yes; as subscriber Yes 8 kbyte 8 kbyte 244 byte
Web server Point-to-point connection PROFIBUS DP master Transmission rate, max. Number of DP slaves, max. PG/OP communication Routing Global data communication S7 basic communication S7 communication S7 communication S7 communication, as client S7 communication, as server Equidistance Isochronous mode SYNC/FREEZE Activation/deactivation of DP slaves Number of DP slaves that can be simultaneously activated/deactivated, max. Direct data exchange (slave-to-slave communication) DPV1 Address area Inputs, max. Outputs, max. User data per DP slave Inputs, max. Outputs, max. Outputs, max. Outputs, max.	No 12 Mbit/s 124 Yes Yes Yes No Yes; I blocks only Yes No Yes; Connection configured on one side only Yes Yes; OB 61 Yes Yes Yes 8 Yes; as subscriber Yes 8 kbyte 8 kbyte
Point-to-point connection PROFIBUS DP master Transmission rate, max. Number of DP slaves, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication — S7 communication, as client — S7 communication, as server — Equidistance — Isochronous mode — SYNC/FREEZE — Activation/deactivation of DP slaves — Number of DP slaves that can be simultaneously activated/deactivated, max. — Direct data exchange (slave-to-slave communication) — DPV1 Address area — Inputs, max. — Outputs, max. User data per DP slave — Inputs, max.	No 12 Mbit/s 124 Yes Yes Yes No Yes; I blocks only Yes No Yes; Connection configured on one side only Yes Yes; OB 61 Yes Yes 8 Yes; as subscriber Yes 8 kbyte 8 kbyte 244 byte
Web server Point-to-point connection PROFIBUS DP master Transmission rate, max. Number of DP slaves, max. PG/OP communication Routing Global data communication S7 basic communication S7 communication S7 communication S7 communication, as client S7 communication, as server Equidistance Isochronous mode SYNC/FREEZE Activation/deactivation of DP slaves Number of DP slaves that can be simultaneously activated/deactivated, max. Direct data exchange (slave-to-slave communication) DPV1 Address area Inputs, max. Outputs, max. User data per DP slave Inputs, max. Outputs, max. Outputs, max. Outputs, max.	No 12 Mbit/s 124 Yes Yes Yes No Yes; I blocks only Yes No Yes; Connection configured on one side only Yes Yes; OB 61 Yes Yes 8 Yes; as subscriber Yes 8 kbyte 8 kbyte 244 byte
Point-to-point connection PROFIBUS DP master Transmission rate, max. Number of DP slaves, max. PG/OP communication Routing Global data communication S7 basic communication S7 communication S7 communication S7 communication, as client S7 communication, as server Equidistance Isochronous mode SYNC/FREEZE Activation/deactivation of DP slaves Number of DP slaves that can be simultaneously activated/deactivated, max. Direct data exchange (slave-to-slave communication) DPV1 Address area Inputs, max. Outputs, max. User data per DP slave Inputs, max. Outputs, max. PROFIBUS DP slave	No 12 Mbit/s 124 Yes Yes Yes No Yes; I blocks only Yes No Yes; Connection configured on one side only Yes Yes; OB 61 Yes Yes Yes 8 Yes; as subscriber Yes 8 kbyte 244 byte 244 byte
Web server Point-to-point connection PROFIBUS DP master Transmission rate, max. Number of DP slaves, max. PG/OP communication Routing Global data communication S7 basic communication S7 communication S7 communication, as client S7 communication, as server Equidistance Isochronous mode SYNC/FREEZE Activation/deactivation of DP slaves Number of DP slaves that can be simultaneously activated/deactivated, max. Direct data exchange (slave-to-slave communication) DPV1 Address area Inputs, max. Outputs, max. User data per DP slave Inputs, max. Outputs, max. Outputs, max. PROFIBUS DP slave GSD file	No 12 Mbit/s 124 Yes Yes Yes No Yes; I blocks only Yes No Yes; Connection configured on one side only Yes Yes; OB 61 Yes Yes Yes 8 Yes; as subscriber Yes 8 kbyte 244 byte The latest GSD file is available at: http://www.siemens.com/profibus-gsd

a Address area may	22
Address area, max.	32 20 h. da
User data per address area, max.	32 byte
Services	V
— PG/OP communication	Yes
— Routing	Yes; with interface active
Global data communication	No
 S7 basic communication 	No
— S7 communication	Yes
 S7 communication, as client 	No
 S7 communication, as server 	Yes; Connection configured on one side only
 Direct data exchange (slave-to-slave 	Yes
communication)	
— DPV1	No
Transfer memory	
— Inputs	244 byte
— Outputs	244 byte
3. Interface	
Interface type	PROFINET
Isolated	Yes
automatic detection of transmission rate	Yes; 10/100 Mbit/s
Autonegotiation	Yes
Autocrossing	Yes
Interface types	100
RJ 45 (Ethernet)	Yes
	1
Number of ports integrated quiteb	
• integrated switch	No
Protocols	Al-
• MPI	No
PROFINET IO Controller	Yes
PROFINET IO Device	No
PROFINET CBA	Yes
 PROFIBUS DP master 	No
 PROFIBUS DP slave 	No
Open IE communication	Yes; Via TCP/IP, ISO on TCP, and UDP
Web server	Yes; only read function
PROFINET IO Controller	
Transmission rate, max.	100 Mbit/s
Services	
— PG/OP communication	Yes
— Routing	Yes
— S7 communication	Yes; with loadable FBs, max. configurable connections: 16, max. number of instances: 32
 Isochronous mode 	No
 Prioritized startup 	Yes
 Number of IO devices with prioritized startup, 	32
max.	
 Number of connectable IO Devices, max. 	256
 Number of IO Devices with IRT and the option "high flexibility" 	256
	25661
"high flexibility" — of which in line, max. — Number of connectable IO Devices for RT,	
"high flexibility" — of which in line, max. — Number of connectable IO Devices for RT, max.	61 256
"high flexibility" — of which in line, max. — Number of connectable IO Devices for RT, max. — of which in line, max.	61 256 256
"high flexibility" — of which in line, max. — Number of connectable IO Devices for RT, max. — of which in line, max. — Activation/deactivation of IO Devices	61 256 256 Yes
"high flexibility" — of which in line, max. — Number of connectable IO Devices for RT, max. — of which in line, max.	61 256 256
"high flexibility" — of which in line, max. — Number of connectable IO Devices for RT, max. — of which in line, max. — Activation/deactivation of IO Devices — Number of IO Devices that can be	61 256 256 Yes
"high flexibility" — of which in line, max. — Number of connectable IO Devices for RT, max. — of which in line, max. — Activation/deactivation of IO Devices — Number of IO Devices that can be simultaneously activated/deactivated, max. — IO Devices changing during operation (partner	61 256 256 Yes 8
"high flexibility" — of which in line, max. — Number of connectable IO Devices for RT, max. — of which in line, max. — Activation/deactivation of IO Devices — Number of IO Devices that can be simultaneously activated/deactivated, max. — IO Devices changing during operation (partner ports), supported — Number of IO Devices per tool, max.	61 256 256 Yes 8 Yes
"high flexibility" — of which in line, max. — Number of connectable IO Devices for RT, max. — of which in line, max. — Activation/deactivation of IO Devices — Number of IO Devices that can be simultaneously activated/deactivated, max. — IO Devices changing during operation (partner ports), supported — Number of IO Devices per tool, max. — Device replacement without swap medium	61 256 256 Yes 8 Yes
"high flexibility" — of which in line, max. — Number of connectable IO Devices for RT, max. — of which in line, max. — Activation/deactivation of IO Devices — Number of IO Devices that can be simultaneously activated/deactivated, max. — IO Devices changing during operation (partner ports), supported — Number of IO Devices per tool, max. — Device replacement without swap medium — Send cycles	61 256 256 Yes 8 Yes 8 Yes 250 μs, 500 μs, 1 ms
"high flexibility" — of which in line, max. — Number of connectable IO Devices for RT, max. — of which in line, max. — Activation/deactivation of IO Devices — Number of IO Devices that can be simultaneously activated/deactivated, max. — IO Devices changing during operation (partner ports), supported — Number of IO Devices per tool, max. — Device replacement without swap medium	61 256 256 Yes 8 Yes

Address area	
— Inputs, max.	8 kbyte
— Outputs, max.	8 kbyte
— User data consistency, max.	254 byte
PROFINET CBA	· ·
acyclic transmission	Yes
cyclic transmission	Yes
Open IE communication	00
Number of connections, max.	32
 Local port numbers used at the system end 	0, 20, 21, 23, 25, 80, 102, 135, 161, 8080, 34962, 34963, 34964, 65532, 65533, 65534, 65535
Protocols	00000, 00004, 00000
	Na
PROFIsafe Open IF communication	No
Open IE communication • TCP/IP	Voc. via integrated DDOEINET interface and leadable EDa
Number of connections, max.	Yes; via integrated PROFINET interface and loadable FBs 32
Data length for connection type 01H, max.	1 460 byte
Data length for connection type 01H, max. — Data length for connection type 11H, max.	8 192 byte
ISO-on-TCP (RFC1006)	Yes; via integrated PROFINET interface and loadable FBs
Number of connections, max.	32
Data length, max.	8 192 byte
UDP	Yes; via integrated PROFINET interface and loadable FBs
Number of connections, max.	32
Data length, max.	1 472 byte
Web server	,
• supported	Yes; only read function
Number of HTTP clients	5
communication functions / header	
PG/OP communication	Yes
Data record routing	Yes
Global data communication	
• supported	Yes
Number of GD loops, max.	8
Number of GD packets, max.	8
Number of GD packets, transmitter, max.	8
Number of GD packets, receiver, max.	8
Size of GD packets, max.	22 byte
Size of GD packet (of which consistent), max.	22 byte
S7 basic communication	
• 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 integrated PROFINET interface and loadable FB or via CP and
- Hear data war iah waay	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
communication functions / PROFINET CBA (with set target of	
Setpoint for the CPU communication load	20 %
 number of remote connection partners / with PROFINET CBA 	32
number of technological functions / with PROFINET CBA / for master or slave	50
number of connections / with PROFINET CBA / for master or slave / total	3 000
data volume / of the input variables / with PROFINET CBA / for master or slave	24 000 byte
data volume / of the output variables / with PROFINET CBA / for master or slave	24 000 byte
number of internal and PROFIBUS interconnections	1 000

/ with PROFINET CBA / maximum • data volume / of internal and PROFIBUS 8 000 byte interconnections / with PROFINET CBA / for master or • data volume / with PROFINET CBA / per connection 1 400 byte / maximum performance data / PROFINET CBA / remote interconnection / with acyclic transfer / header – update time / of the remote interconnections / 200 ms in the case of acyclic transmission / with PROFINET CBA number of remote connections to input 100 variables / in the case of acyclic transmission / with PROFINET CBA / maximum - number of remote connections to output 100 variables / in the case of acyclic transmission / with PROFINET CBA / maximum — data volume / as user data for remote 3 200 byte interconnections with input variables / in the case of acyclic transmission / with PROFINET CBA - data volume / as user data for remote 3 200 byte interconnections with output variables / in the case of acyclic transmission / with PROFINET CBA - data volume / as user data for remote 1 400 byte interconnections / in the case of acyclic transmission / with PROFINET CBA / per connection / maximum performance data / PROFINET CBA / remote interconnection / with cyclic transfer / header — update time / of the remote interconnections / 1 ms with cyclical transfer / with PROFINET CBA - number of remote connections to input 300 variables / with PROFINET CBA / with cyclic transfer / maximum - number of remote connections to output 300 variables / with cyclical transfer / with PROFINET CBA / maximum - data volume / as user data for remote 4 800 byte interconnections with input variables / with cyclical transfer / with PROFINET CBA / maximum — data volume / as user data for remote 4 800 byte interconnections with output variables / with cyclical transfer / with PROFINET CBA / maximum data volume / as user data for remote 250 byte interconnections / with cyclical transfer / with PROFINET CBA / per connection / maximum performance data / PROFINET CBA / HMI variables via PROFINET / acyclic / header - number of connectable HMI stations / for HMI 3; 2x PN OPC/1x iMap variables / in the case of acyclic transmission / with PROFINET CBA 500 ms — update time / of the HMI variables / in the case of acyclic transmission / with PROFINET CBA - number of HMI variables / in the case of acvclic 600 transmission / with PROFINET CBA / maximum – data volume / as user data for HMI variables / 9 600 byte in the case of acyclic transmission / with PROFINET CBA / maximum performance data / PROFINET CBA / PROFIBUS proxy functionality / header - product function / with PROFINET CBA / Yes PROFIBUS proxy functionality - number of coupled PROFIBUS devices / with 32 PROFIBUS functionality - data volume / with PROFIBUS proxy 240 byte; Slave-dependent functionality / with PROFINET CBA / per connection / maximum Number of connections 32 overall 31 usable for PG communication - reserved for PG communication 1 - adjustable for PG communication, min. 1 adjustable for PG communication, max. 31

usable for Or communication	e upable for OR communication	21
adjustable for OP communication, min adjustable for OP communication, min adjustable for SP basic communication adjustable for SP communicati	usable for OP communication reserved for OP communication	31
- usable for ST basic communication - adjustable for ST basic communication, min adjustable for ST basic communication, min adjustable for ST basic communication, min adjustable for ST communication software - ST EP 7 - Yes; V54 SP4 or higher with HW update - configuration f header - Communication for SPC		
- reserved for \$7 basic communication, nin adjustable for \$7 basic communication, min adjustable for \$7 basic communication, min adjustable for \$7 basic communication, on 16 - reserved for \$7 communication, min adjustable for \$7 communication, max. **Total number of instances, max of which status variables, max of which control variables, max of which		
adjustable for SY basic communication, min adjustable for SY communication, min adjustable for SY communication adjustable for SY communication adjustable for SY communication, min		
adjustable for S7 basic communication, max usable for S7 communication reserved for S7 communication, min: adjustable for S7 communication, min: adjustable for S7 communication, min: adjustable for S7 communication, max adjustable for S7 communication, max adjustable for S7 communication, max. S7 message functions Number of login stations for message functions, max. Process diagnostic messages yes simultaneously active Alarm-S blocks, max 300 Tast commissioning functions Status block Status bloc		
usable for \$7 communication — reserved for \$1 communication — adjustable for \$7 communication, min. — adjustable for \$7 communication, max. itola number of instances, max. \$2		
reserved for \$7 communication, min adjustable for \$7 communication, min total number of instances, max. S7 message functions		
adjustable for \$7 communication, min adjustable for \$7 communication, max. • total number of instances, max. \$7 message functions Number of login stations for message functions, max. Process diagnostic messages simultaneously active Alarm-5 blocks, max. \$300 **Test commissioning functions** Status block Single step Yes Number of orderskpoints \$4 **Status/control variable • Variables • Number of variables, max. of which satisus variables, max. of which control variables, max. 10 **Diagnostic butter* • present • Number of entries, max. adjustable • No which powerfall-proof • Number of entries readable in RUN, max. adjustable • van be read out **Ambient temperature during operation • min. • max. • O "C configuration / header • Commiguration / header • Commiguration / header • STEP 7 Yes; V5.4 SP4 or higher with HW update **Commiguration / header • Commiguration / header • STEP 7 Yes; V5.4 SP4 or higher with HW update **Programming language** LAD RD		
- adjustable for \$7 communication, max. 16	 adjustable for S7 communication, min. 	0
Stressage functions	•	16
Number of login stations for message functions, max. Process diagnostic messages simultaneously active Alarm-S blocks, max. Prost commissioning functions Status block Status block Status block Status block Status block Status block Status control variable • Status/control variable • Vas Number of breakpoints • Status/control variables, max. — of which status variables, max. — of which status variables, max. — of which control variables, max. — of which control variables, max. — of which control variables, max. • Forcing • Forcing, variables • Number of variables, max. • Of which powerfail-proof • Number of entries readable in RUN, max. — adjustable — present • Can be read out Ambient conditions Ambient temperature during operation • min. • min. • o "C configuration / header • Comfiguration / programming / header • Command set • Nesting levels • System function blocks (SFB) • System function blocks (SFB) • System function blocks (SFB) • Status • CRAPH — Hidraph® — Hidraph® — Yes Yes Yes — GRAPH — Hidraph® — Yes Yes Yes Yes Yes — GRAPH — Hidraph® — Yes Yes Yes Yes Yes Yes Yes — GRAPH — Hidraph® — Yes Yes Yes Yes Yes Yes Yes Yes	 total number of instances, max. 	32
Number of login stations for message functions, max. Process diagnostic messages simultaneously active Alarm-S blocks, max. Prost commissioning functions Status block Status block Status block Status block Status block Status block Status control variable • Status/control variable • Vas Number of breakpoints • Status/control variables, max. — of which status variables, max. — of which status variables, max. — of which control variables, max. — of which control variables, max. — of which control variables, max. • Forcing • Forcing, variables • Number of variables, max. • Of which powerfail-proof • Number of entries readable in RUN, max. — adjustable — present • Can be read out Ambient conditions Ambient temperature during operation • min. • min. • o "C configuration / header • Comfiguration / programming / header • Command set • Nesting levels • System function blocks (SFB) • System function blocks (SFB) • System function blocks (SFB) • Status • CRAPH — Hidraph® — Hidraph® — Yes Yes Yes — GRAPH — Hidraph® — Yes Yes Yes Yes Yes — GRAPH — Hidraph® — Yes Yes Yes Yes Yes Yes Yes — GRAPH — Hidraph® — Yes Yes Yes Yes Yes Yes Yes Yes	S7 message functions	
Process diagnostic messages simultaneously active Alarm-S blocks, max. Status block Status block Single step Yes Number of breakpoints - Status/control variable - Variables - Variables, max of which status variables, max of which status variables, max of which control variables, max of which control variables, max of which status variables, max of which control variables, max of which status variables, max of which control variables, max of which provided by the		32; 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 4 Status/control Status/control Status/control Status/control Status/control Status/control Status/control Status/control variable Number of variables, max. - of which status variables, max. - of which control variables, max. - of which powerfaller, max. Forcing Yes - Forcing Yes		communication
Status block Status block Single step Number of breakpoints 4 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 of which status variables, max of which control variables, max of which powerfales Number of variables Number of variables Number of entries, max adjustable - of which powerfale proof Number of entries readable in RUN, max adjustable - of which powerfale proof Number of entries readable in RUN, max adjustable - preset - preset - preset - preset - preset - of which powerfale proof - preset - of which powerfale proof - of entries readable in RUN, max adjustable - adjustable - preset - of entries readable in RUN, max adjustable - preset - of entries readable in RUN, max adjustable - preset - of entries readable in RUN, max adjustable - preset - of entries readable in RUN, max adjustable - preset - of entries readable in RUN, max adjustable - preset - of entries readable in RUN, max adjustable - of which powerfale proof - of of the run of the	•	
Status block	simultaneously active Alarm-S blocks, max.	300
Single step Number of breakpoints Sitatus/control variable Variables Inputs, outputs, memory bits, DB, times, counters Number of variables, max. of which status variables, max. Forcing Forcing Forcing, variables Number of variables, max. 10 Persent Number of variables, max. 10 Persent Number of variables, max. adjustable of which powerfail-proof Number of entries readable in RUN, max. -adjustable -preset Service data can be read out Ambient conditions Ambient conditions Ambient conditions Ambient conditions Ambient conditions Ambient conditions SteP 7 Configuration / hosder Configuration / programming / header Conguration / programming / header Conguration / programming / header Ness (SFB) Programming language - LAD - FBD - FBD - FBD - Yes - STL - SCL - CFC - GRAPH - Higaph® - Yes - STEP - Yes - STEP - Yes - GRAPH - Higaph® - Yes - STE - Yes - GRAPH - Higaph® - Yes - STE - Yes - GRAPH - Higaph® - Yes - STE - Yes - STE - Yes - GRAPH - Higaph® - Yes - Y	Test commissioning functions	
Status/control variable Yes Variables Ves Inputs, outputs, memory bits, DB, times, counters Number of variables, max. 30 30 30 30 30 30 30 3		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. Forcing Forcing Forcing, variables Number of variables, max. Inputs, outputs Inputs, outputs Inputs, outputs Inputs, outputs Inputs, outputs Ves Number of variables, max. Inputs, outputs Inputs, outputs, memory bits, DB, times, counters Inputs, outputs, memory bits, DB, Landau,		
Status/control variable Variables Variables Variables Number of variables, max. - of which status variables, max. 14 Forcing Forcing Forcing Yes Forcing Yes 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 10 Service data • can be read out • ves Ambient conditions Ambient temperature during operation • min. • configuration / hoader Configuration / programming / header • Command set • Set ystem function slocks (SFB) Seystem function blocks (SFB) Frogramming language - LAD - FBD - FBD - SCL - CFC - GRAPH - HIGraph® Yes Yes Yes Yes Yes - Kes - GRAPH - HIGraph® Yes Yes Yes Yes Yes - GRAPH - HIGraph® Yes Yes Yes Yes Yes - GRAPH - HIGraph® Yes Yes Yes Yes Yes Yes Yes Ye		4
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— STL Yes — SCL Yes — CFC Yes — GRAPH Yes — HiGraph® Yes	— LAD	Yes
— SCL Yes — CFC Yes — GRAPH Yes — HiGraph® Yes	— FBD	Yes
— CFC Yes — GRAPH Yes — HiGraph® Yes	— STL	Yes
— GRAPH— HiGraph®Yes		
— HiGraph® Yes		
Know-how protection		Yes
	Know-how protection	

 User program protection/password protection 	Yes
Dimensions	
Width	120 mm
Height	125 mm
Depth	130 mm
Weights	
Weight, approx.	1 250 g

last modified: 4/1/2022 🖸