SIEMENS

Data sheet

6ES7317-2FK14-0AB0

SIMATIC S7-300 CPU317F-2 PN/DP, CENTRAL PROCESSING UNIT WITH 1.5 MBYTE WORKING MEMORY, 1. INTERFACE MPI/DP 12MBIT/S, 2. INTERFACE ETHERNET PROFINET, WITH 2 PORT SWITCH, MICRO MEMORY CARD NECESSARY



01
V3.2
STEP 7 V5.5 or higher, Distributed Safety V5.4 SP4
Yes
20.4 V
28.8 V
2 A min.
5 ms
1 s
750 mA
150 mA

Inrush current, typ.	4 A
² t	1 A²·s
Power loss Power loss, typ.	4.65 W
r ower loss, typ.	4.05 W
Memory	
Work memory	
 integrated 	1 536 kbyte
• expandable	No
 Size of retentive memory for retentive data blocks 	256 kbyte
Load memory	
 Plug-in (MMC) 	Yes
 Plug-in (MMC), max. 	8 Mbyte
 Data management on MMC (after last programming), min. 	10 у
Backup	
● present	Yes; Guaranteed by MMC (maintenance-free)
• without battery	Yes; Program and data
CPU processing times	
for bit operations, typ.	0.025 μs
for word operations, typ.	0.03 µs
for fixed point arithmetic, typ.	0.04 µs
for floating point arithmetic, typ.	0.16 μs
CPU-blocks	
Number of blocks (total)	2 048; (DBs, FCs, FBs); the maximum number of loadable blocks can be reduced by the MMC used.
DB	
• Number, max.	2 048; Number range: 1 to 16000
• Size, max.	64 kbyte
FB	
• Number, max.	2 048; Number range: 0 to 7999
• Size, max.	64 kbyte
FC	
• Number, max.	2 048; 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
- '	

 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 - isochronous mode is possible either on DP or PROFINET IO (not simultaneously)
 Number of startup OBs 	1; OB 100
 Number of asynchronous error OBs 	6; OB 80, 82, 83, 85, 86, 87 (OB83 only for PROFINET IO)
 Number of synchronous error OBs 	2; OB 121, 122
Nesting depth	
 per priority class 	16
 additional within an error OB 	4
Counters, timers and their retentivity	
S7 counter	540
• Number	512
Retentivity	Mar
— adjustable	Yes
— lower limit	0
— upper limit	511
— preset	Z 0 to Z 7
Counting range	
— can be set	Yes
— lower limit	0
— upper limit	999
IEC counter	Ver
• present	Yes
• Type	SFB
• Number	Unlimited (limited only by RAM capacity)
S7 times	512
• Number	512
Retentivity	Mar
— adjustable	Yes
— lower limit	0
— upper limit	511
— preset	No retentivity
Time range	
— lower limit	10 ms
— upper limit	9 990 s
IEC timer	Yes
• present	SFB
• Type	
• Number	Unlimited (limited only by RAM capacity)
Data areas and their retentivity	

retentive data area in total	All, max. 256 KB
Flag	
• Number, max.	4 096 byte
Retentivity available	Yes; From MB 0 to MB 4095
Retentivity preset	MB 0 to MB 15
Number of clock memories	8; 1 memory byte
Data blocks	
Number, max.	2 048; Number range: 1 to 16000
• Size, max.	64 kbyte
Retentivity adjustable	Yes; via non-retain property on DB
	Yes
Retentivity preset Local data	
per priority class, max.	32 768 byte; Max. 2048 bytes per block
Address area	
I/O address area	
Inputs	8 192 byte
Outputs	8 192 byte
of which distributed	
— Inputs	8 192 byte
— Outputs	8 192 byte
Process image	
Inputs	8 192 byte
Outputs	8 192 byte
 Inputs, adjustable 	8 192 byte
 Outputs, adjustable 	8 192 byte
 Inputs, default 	256 byte
 Outputs, default 	256 byte
Subprocess images	
 Number of subprocess images, max. 	1; With PROFINET IO, the length of the user data is limited to 1600 bytes
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	1
• via CP	4
Number of operable FMs and CPs (recommended)	
• FM	8
• CP, PtP	8
• CP, LAN	10
Rack	
 Racks, max. 	4
 Modules per rack, max. 	8

Time of day		
Clock		
 Hardware clock (real-time) 	Yes	
 retentive and synchronizable 	Yes	
Backup time	6 wk; At 40 °C ambient temperature	
 Deviation per day, max. 	10 s; Typ.: 2 s	
 Behavior of the clock following POWER-ON 	Clock continues running after POWER OFF	
 Behavior of the clock following expiry of backup period 	Clock continues to run with the time at which the power failure occurred	
Operating hours counter		
• Number	4	
 Number/Number range 	0 to 3	
 Range of values 	0 to 2^31 hours (when using SFC 101)	
Granularity	1 hour	
retentive	Yes; Must be restarted at each restart	
Clock synchronization		
supported	Yes	
• to MPI, master	Yes	
• to MPI, slave	Yes	
• to DP, master	Yes; With DP slave only slave clock	
• to DP, slave	Yes	
• in AS, master	Yes	
• in AS, slave	Yes	
• on Ethernet via NTP	Yes; As client	
Digital inputs		
Number of digital inputs	0	
Digital outputs		
Number of digital outputs	0	
Analog inputs		

Number of analog inputs	0
	0
Analog outputs	
Number of analog outputs	0
Interfaces	
Number of industrial Ethernet interfaces	1
Number of RS 485 interfaces	1
Number of RS 422 interfaces	0
1. Interface	
Interface type	Integrated RS 485 interface
Physics	RS 485
Isolated	Yes
Power supply to interface (15 to 30 V DC), max.	200 mA
Functionality	
• MPI	Yes
PROFIBUS DP master	Yes
PROFIBUS DP slave	Yes
Point-to-point connection	No
MPI	
 Transmission rate, max. 	12 Mbit/s
Services	
— PG/OP communication	Yes
— Routing	Yes
— Global data communication	Yes
— S7 basic communication	Yes
— S7 communication	Yes
— S7 communication, as client	No; but via CP and loadable FB
— S7 communication, as server	Yes
DP master	
 Transmission rate, max. 	12 Mbit/s
 Number of DP slaves, max. 	124
Services	
— PG/OP communication	Yes
— Routing	Yes
— Global data communication	No
— S7 basic communication	Yes; I blocks only
— S7 communication	Yes
— S7 communication, as client	No
— S7 communication, as server	Yes
— Equidistance	Yes
— Isochronous mode	Yes; OB 61; isochronous mode can only be used alternatively on PROFIBUS DP or PROFINET IO

— SYNC/FREEZE	Yes
Activation/deactivation of DP slaves	Yes
— Number of DP slaves that can be	8
simultaneously activated/deactivated, max.	
— Direct data exchange (slave-to-slave	Yes; As subscriber
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
DP slave	
• Transmission rate, max.	12 Mbit/s
 automatic baud rate search 	Yes; only with passive interface
 Address area, max. 	32
 User data per address area, max. 	32 byte
Services	
— PG/OP communication	Yes
— Routing	Yes; Only with active interface
— Global data communication	No
— S7 basic communication	No
— S7 communication	Yes
— 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
2. Interface	
Interface type	PROFINET
Physics	Ethernet RJ45
Isolated	Yes
automatic detection of transmission rate	Yes; 10/100 Mbit/s
Autonegotiation	Yes
Autocrossing	Yes
Change of IP address at runtime, supported	Yes
Interface types	
 Number of ports 	2

 integrated switch 	Yes
Media redundancy	
supported	Yes
 Switchover time on line break, typ. 	200 ms; PROFINET MRP
 Number of stations in the ring, max. 	50
Functionality	
• MPI	No
PROFINET IO Controller	Yes; Also simultaneously with IO-Device functionality
PROFINET IO Device	Yes; Also simultaneously with IO Controller functionality
• 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
— Number of HTTP clients	5
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	Yes; OB 61; isochronous mode can only be used alternatively on PROFIBUS DP or PROFINET IO
— Open IE communication	Yes; Via TCP/IP, ISO on TCP, and UDP
— IRT	Yes
— Shared device	Yes
— Prioritized startup	Yes
 — Number of IO devices with prioritized startup, max. 	32
— Number of connectable IO Devices, max.	128
— Of which IO devices with IRT, max.	64
— of which in line, max.	64
 — Number of IO Devices with IRT and the option "high flexibility" 	128
— of which in line, max.	61
 — Number of connectable IO Devices for RT, max. 	128
— of which in line, max.	128
— Activation/deactivation of IO Devices	Yes
 Number of IO Devices that can be simultaneously activated/deactivated, max. 	8

— IO Devices changing during operation	Yes
(partner ports), supported	8
— Number of IO Devices per tool, max.	
— Device replacement without swap medium	Yes
— Send cycles	250 $\mu s,$ 500 $\mu s,$ 1 ms; 2 ms, 4 ms (not in the case of IRT with "high flexibility" option)
— Updating time	250 μs to 512 ms (depending on the operating mode, see Manual "S7-300 CPU 31xC and CPU 31x, Technical Data" for more details)
Address area	
— Inputs, max.	8 kbyte
— Outputs, max.	8 kbyte
— User data consistency, max.	1 024 byte
PROFINET IO Device	
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
— Open IE communication	Yes; Via TCP/IP, ISO on TCP, and UDP
— IRT	Yes
— PROFlenergy	Yes; With SFB 73 / 74 prepared for loadable PROFlenergy standard FB for I-Device
— Shared device	Yes
 — Number of IO Controllers with shared device, max. 	2
Transfer memory	
— Inputs, max.	1 440 byte; Per IO Controller with shared device
— Outputs, max.	1 440 byte; Per IO Controller with shared device
Submodules	
— Number, max.	64
— User data per submodule, max.	1 024 byte
PROFINET CBA	
acyclic transmission	Yes
• cyclic transmission	Yes
Open IE communication	
 Number of connections, max. 	16
 Local port numbers used at the system end 	0, 20, 21, 23, 25, 80, 102, 135, 161, 443, 8080, 34962, 34963, 34964, 65532, 65533, 65534, 65535
 Keep-alive function, supported 	Yes
Isochronous mode	

Isochronous operation (application synchronized up to terminal)

PG/OP communication Yes Data record routing Yes Global data communication * • supported Yes • Number of GD packets, max. 8 • Number of GD packets, max. 8 • Number of GD packets, max. 8 • Number of GD packets, receiver, max. 8 • Size of GD packets, receiver, max. 22 byte • Size of GD packets, receiver, max. 22 byte • Size of GD packet (of which consistent), max. 76 byte • User data per job, max. 76 byte • User data per job (of which consistent), max. 76 byte • Supported Yes • supported Yes: via integrated PROFINET interface and loadable FB or via CP and loadable FB • User data per job, max. See online help of STEP 7 (shared parameters of the SFBs/FBs and of the SFCs/FCs of S7 Communication • Stopported Yes; via integrated PROFINET interface and loadable FBs • Jupported Yes; via integrated PROFINET interface and loadable FBs	Communication functions	
Global data communication Yes • supported Yes • Number of GD pops, max. 8 • Number of GD packets, transmitter, max. 8 • Number of GD packets, transmitter, max. 8 • Size of GD packets, transmitter, max. 22 byte • Size of GD packets, max. 22 byte • Size of GD packets, max. 22 byte • Size of GD packets, max. 76 byte • User data per job, max. 76 bytes (with X SEND or X RCV); 64 bytes (with X server) S7 communication 76 byte; 76 bytes (with X SEND or X RCV); 64 bytes (with X server) S7 communication Yes; via integrated PROFINET interface and loadable FB or via CP and loadable FB • supported Yes; via integrated PROFINET interface and loadable FB or via of the SFCs/FCs of S7 Communication S5 compatible communication Yes; via integrated PROFINET interface and loadable FBs • User data per job, max. 16 • Data length for connection type 011H, max. 1460 byte • Data length for connections per port, supported Yes; via integrated PROFINET interface and loadable FBs • Isocon-TCP (RFC1006) Yes; via integ	PG/OP communication	Yes
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. 22 byte Size of GD packets, max. 22 byte Size of GD packets, max. 22 byte Size of GD packet (of which consistent), max. 26 byte User data per job (of which consistent), max. 76 byte; 76 bytes (with X SEND or X RCV); 64 bytes (with X UPUT or X GET as server) S7 communication 76 seccement • user data per job (of which consistent), max. 76 byte; 76 bytes (with X SEND or X RCV); 64 bytes (with X SEND or X RCV); 64 bytes (with X SEND or X RCV); 64 bytes (with X SEND or X GET as server) S7 communication Yes • user data per job, max. 76 byte; 76 bytes (with X SEND or X RCV); 64 bytes (with X SEND or X RCV); 64 bytes (with X SEND or X RCV); 64 bytes (with X SEND or X GET as server) S7 communication Yes • as server Yes • user data per job, max. See online help of SENP 7 (shared parameters of the SFBs/FBs and of the SFCs/FCS or S7 Communication) S5 compatible communication Yes; via integrated PROFINET interface and loadable FBs • Number of connections, max.	Data record routing	Yes
Number of GD loops, max.8Number of GD packets, max.8Number of GD packets, transmitter, max.8Number of GD packets, receiver, max.8Size of GD packets, receiver, max.22 byteSize of GD packets, max.22 byteSize of GD packet (of which consistent), max.22 byteSize of GD packet (of which consistent), max.76 byte, 76 bytes (with X_SEND or X_RCV); 64 byte	Global data communication	
Number of GD packets, max.8Number of GD packets, max.8Number of GD packets, receiver, max.8Size of GD packets, receiver, max.22 byteSize of GD packets, receiver, max.22 byteSize of GD packet (of which consistent), max.22 byteSypportedYesUser data per job, max.76 byte; 76 bytes (with X_SEND or X_RCV); 64 byte• Number of connecti	• supported	Yes
Number of GD packets, transmitter, max.8Number of GD packets, transmitter, max.8Size of GD packets, transmitter, max.22 byteSize of GD packets, max.22 byteSize of GD packet (of which consistent), max.22 byteStatic communication76 byteUser 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)Strommunication76 server)Strommunication76 server)Strommunication76 server)StrommunicationYessupportedYesas serverYessupportedYes via integrated PROFINET interface and loadable FB or via CP and loadable FBsupportedYes; via integrated PROFINET interface and loadable FB or via CP and loadable FBStompatible communicationYes; via integrated PROFINET interface and loadable FB• User data per job, max.16• Data length for connection type 01H, max.16• Data length for connection type 01H, max.32 768 byte• SupportedYes; via integrated PROFINET interface and loadable FBs• Number of connections, max.16• SiSO-on-TCP (RFC1006)Yes; via integrated PROFINET interface and loadable FBs• Number of connections, max.16• Data length for connections, max.16• Data length for connections, max.16• Number of connections, max.16• Data length, max.16• Data length, max.16• Dute of connections, max.16<	 Number of GD loops, max. 	8
Number of GD packet, receiver, max.8• Size of GD packet, seceiver, max.2 byte• Size of GD packet (of which consistent), max.22 byteST basic communication76 byte• supportedYes• User data per job, max.76 byte? (byte (with X, SEND or X, RCV); 64 bytes (with X, USEND or X, RCV); 64 bytes (with X, DUT or X, GET as server)ST communicationYes• supportedYes• supportedYes• supportedYes• supportedYes• supportedYes• as clientYes: via integrated PROFINET interface and loadable FB or via CP and loadable FB• User data per job, max.See online help of STEP 7 (shared parameters of the SFBs/FBs as ord of the SFCs/FCs of S7 Communication)St compatible communicationYes; via integrated PROFINET interface and loadable FB• User data per job, max.See online help of STEP 7 (shared parameters of the SFBs/FBs and of the SFCs/FCs of S7 Communication)St compatible communicationYes; via integrated PROFINET interface and loadable FBs • Number of connection type 01H, max.• Data length for connection type 01H, max.1460 byte• Data length for connection type 01H, max.32 f68 byte• ISO-on-TCP (RFC1006)Yes; via integrated PROFINET interface and loadable FBs • Number of connections, max.• Data length, max.16• Duber of connections, max.16• Data	 Number of GD packets, max. 	8
Size of GD packets, max.22 byte• Size of GD packet (of which consistent), max.22 byteS7 basic communication22 byte• supportedYes• 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, SEND or X, RCV; 64 bytes (with X, SEND or X, RCV; 64 bytes (with X, SEND or X, RCV; 64 byte); 70 por X, RCV; 70 por X, RCV; 70 por X, RCV; 70 por X	 Number of GD packets, transmitter, max. 	8
• Size of GD packet (of which consistent), max. 22 byte 57 basic communication 76 byte • User data per job, max. 76 byte, 76 bytes (with X_SEND or X_RCV); 64 bytes (via Senver) • User data per job, max. See online help of SEN or X_RCV; 64 bytes (with X_SEND or X_RCV); 64 bytes (with X_SEND or X_RCV); 64 byte (Web server) • User data per job, max. 16 See online help of SEN or X_RCV; 64 byte (Web server) See online help of CONCLEND or X_RCV; 64 byte (Web server) See online help of CONCLEND or X_RCV; 64 byte (Web server) See online help of CONCLEND or X_RCV; 64 byte (Web server)	 Number of GD packets, receiver, max. 	8
S7 basic communication Yes • user data per job, max. 76 byte • User data per job (of which consistent), max. 76 byte; 76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT or X_GET as server) S7 communication Yes • supported Yes • as server Yes • as client Yes; via integrated PROFINET interface and loadable FB or via CP and loadable FB • User data per job, max. See online help of STEP 7 (shared parameters of the SFBs/FBs and of the SFCs/FCs of S7 Communication) S5 compatible communication Yes; via integrated PROFINET interface and loadable FB • supported Yes; via integrated PROFINET interface and loadable FBs • Dent lE communication Yes; via integrated PROFINET interface and loadable FBs • Number of connections, max. 16 • Data length for connection type 01H, max. 1460 byte • Data length for connections per port, supported Yes; via integrated PROFINET interface and loadable FBs • ISO-on-TCP (RFC1006) Yes; via integrated PROFINET interface and loadable FBs • Number of connections, max. 16 • Data length, max. 32 768 byte • UDP Yes; via integrated PROFINET interface and loadable FBs • Number of connections, max.	 Size of GD packets, max. 	22 byte
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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 communicationYes• supportedYes• as serverYes• as clientYes; via integrated PROFINET interface and loadable FB or via CP and loadable FB• User data per job, max.See online help of STEP 7 (shared parameters of the SFBs/FBs and of the SFCs/FCs of S7 Communication)S5 compatible communicationSee online help of STEP 7 (shared parameters of the SFBs/FBs and of the SFCs/FCs of S7 Communication)S5 compatible communicationYes; via CP and loadable FCOpen IE communicationYes; via integrated PROFINET interface and loadable FBs and of the SFCs/FCs of S7 Communication)S5 compatible of connections, max.16- Number of connection type 01H, max.1460 byte- bata length for connection type 11H, max.32 768 byte- several passive connections per port, supportedYes; via integrated PROFINET interface and loadable FBs- Number of connections, max.16- Data length, max.127 68 byte- Number of connections, max.16- Data length, max.127 byte- Data length, max.1472 byte- Data length, max.1472 byte	S7 basic communication	
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S7 communication • supported Yes • as server Yes • as client Yes; via integrated PROFINET interface and loadable FB or via CP and loadable FB • User data per job, max. See online help of STEP 7 (shared parameters of the SFBs/FBs and of the SFCs/FCs of S7 Communication) S5 compatible communication See; via CP and loadable FC • supported Yes; via integrated PROFINET interface and loadable FBs • supported Yes; via integrated PROFINET interface and loadable FBs • Stommunication 16 • TCP/IP Yes; via integrated PROFINET interface and loadable FBs • Data length for connection type 01H, max. 1460 byte • Data length for connections per port, supported Yes; via integrated PROFINET interface and loadable FBs • Data length for connections per port, supported Yes; via integrated PROFINET interface and loadable FBs • Number of connections, max. 16 • Data length, max. 32 768 byte • UDP Yes; via integrated PROFINET interface and loadable FBs • Number of connections, max. 16 • Data length, max. 32 768 byte • UDP Yes; via integrated PROFINET interface and loadable FBs • Number of connections, max. <td>• User data per job, max.</td> <td>76 byte</td>	• User data per job, max.	76 byte
• supportedYes• as serverYes• as clientYes; via integrated PROFINET interface and loadable FB or via CP and loadable FB• User data per job, max.See online help of STEP 7 (shared parameters of the SFBs/FBs and of the SFCs/FCs of S7 Communication)S5 compatible communicationYes; via CP and loadable FC• supportedYes; via CP and loadable FCOpen IE communicationYes; via integrated PROFINET interface and loadable FBs• TCP/IPYes; via integrated PROFINET interface and loadable FBs- Number of connection type 01H, max.1460 byte- Data length for connection type 01H, max.32 768 byte- Several passive connections per port, supportedYes; via integrated PROFINET interface and loadable FBs- Number of connections, max.16- Data length, for connections, max.16- Number of connections, max.16- Number of connections, max.16- Data length, max.32 768 byte- UDPYes; via integrated PROFINET interface and loadable FBs- Number of connections, max.16- Data length, max.32 768 byte- UDPYes; via integrated PROFINET interface and loadable FBs- Number of connections, max.16- Data length, max.32 768 byte- Data length, max.16- Data length, max.16- Data length, max.14- Data length, max.16- Data length, max.14- Data length, max.16- Data length, max.1472 byte<	 User data per job (of which consistent), max. 	
ComponentYes• as serverYes; via integrated PROFINET interface and loadable FB or via CP and loadable FB• User data per job, max.See online help of STEP 7 (shared parameters of the SFBs/FBs and of the SFCs/FCs of S7 Communication)S5 compatible communicationYes; via CP and loadable FCOpen IE communicationYes; via CP and loadable FC• TCP/IPYes; via integrated PROFINET interface and loadable FBS- Number of connections, max.16- Data length for connection type 01H, max.1460 byte- Data length for connection type 11H, max.32 768 byte- several passive connections per port, supportedYes; via integrated PROFINET interface and loadable FBS- Number of connections, max.16- Data length, for connections, per port, supportedYes; via integrated PROFINET interface and loadable FBS- Number of connections, max.16- Data length, max.32 768 byte- UDPYes; via integrated PROFINET interface and loadable FBS- Number of connections, max.16- Data length, max.32 768 byte- UDPYes; via integrated PROFINET interface and loadable FBS- Number of connections, max.16- Data length, max.1472 byteWeb server1472 byte	S7 communication	
• as clientYes; via integrated PROFINET interface and loadable FB or via CP and loadable FB• User data per job, max.See online help of STEP 7 (shared parameters of the SFBs/FBs and of the SFCs/FCs of S7 Communication)S5 compatible communicationYes; via CP and loadable FC• supportedYes; via CP and loadable FC• TCP/IPYes; via integrated PROFINET interface and loadable FBs• Number of connections, max.16• Data length for connection type 01H, max.1460 byte• Data length for connection type 11H, max.32 768 byte• supportedYes; via integrated PROFINET interface and loadable FBs• ISO-on-TCP (RFC1006)Yes; via integrated PROFINET interface and loadable FBs• Number of connections, max.16• ISO-on-TCP (RFC1006)Yes; via integrated PROFINET interface and loadable FBs• Number of connections, max.16• Data length, max.32 768 byte• UDPYes; via integrated PROFINET interface and loadable FBs• Number of connections, max.16• Data length, max.32 768 byte• UDPYes; via integrated PROFINET interface and loadable FBs• Number of connections, max.16• Data length, max.16• Data length, max.16• Data length, max.16• Data length, max.142 byteWeb server1472 byte	• supported	Yes
CP and loadable FB • User data per job, max. S5 compatible communication • supported Yes; via CP and loadable FC Open IE communication • TCP/IP Yes; via integrated PROFINET interface and loadable FBS - Number of connections, max. 16 - Data length for connection type 01H, max. 1460 byte - Data length for connection type 11H, max. 32 768 byte - several passive connections per port, supported Yes; via integrated PROFINET interface and loadable FBS • ISO-on-TCP (RFC1006) Yes; via integrated PROFINET interface and loadable FBS - Number of connections, max. 16 • ISO-on-TCP (RFC1006) Yes; via integrated PROFINET interface and loadable FBS - Number of connections, max. 16 - Data length, max. 32 768 byte • UDP Yes; via integrated PROFINET interface and loadable FBS - Number of connections, max. 16 - Data length, max. 32 768 byte • UDP Yes; via integrated PROFINET interface and loadable FBS - Number of connections, max. 16 - Data length, max. 142 - Data length, max. 142 - Data length, max. <td>• as server</td> <td>Yes</td>	• as server	Yes
And of the SFCs/FCs of S7 Communication) S5 compatible communication • supported Yes; via CP and loadable FC Open IE communication • TCP/IP Yes; via integrated PROFINET interface and loadable FBs - Number of connections, max. 16 - Data length for connection type 01H, max. 1460 byte - Data length for connection type 11H, max. 32 768 byte - several passive connections per port, supported Yes • ISO-on-TCP (RFC1006) Yes; via integrated PROFINET interface and loadable FBs - Number of connections, max. 16 - Data length, max. 32 768 byte - Number of connections, max. 16 - Data length, max. 32 768 byte - Data length, max. 32 768 byte - Number of connections, max. 16 - Data length, max. 16 - Data length, max. 16 - D	• as client	-
• supported Yes; via CP and loadable FC Open IE communication Yes; via integrated PROFINET interface and loadable FBs • TCP/IP Yes; via integrated PROFINET interface and loadable FBs • Number of connections, max. 16 • Data length for connection type 01H, max. 1460 byte • Data length for connection type 11H, max. 32 768 byte • several passive connections per port, supported Yes; via integrated PROFINET interface and loadable FBs • ISO-on-TCP (RFC1006) Yes; via integrated PROFINET interface and loadable FBs • Number of connections, max. 16 • Data length, max. 32 768 byte • UDP Yes; via integrated PROFINET interface and loadable FBs • Number of connections, max. 16 • UDP Yes; via integrated PROFINET interface and loadable FBs • Number of connections, max. 16 • Data length, max. 1472 byte	 User data per job, max. 	
Open IE communication Yes; via integrated PROFINET interface and loadable FBs - Number of connections, max. 16 - Data length for connection type 01H, max. 1 460 byte - Data length for connection type 11H, max. 32 768 byte - several passive connections per port, supported Yes; via integrated PROFINET interface and loadable FBs • ISO-on-TCP (RFC1006) Yes; via integrated PROFINET interface and loadable FBs - Number of connections, max. 16 - Data length, max. 32 768 byte - Data length, max. 16 - Data length, max. 32 768 byte - Data length, max. 16 - Data length, max. 16 - Data length, max. 16 - Number of connections, max. 16 - Data length, max. 1472 byte	S5 compatible communication	
• TCP/IPYes; via integrated PROFINET interface and loadable FBs- Number of connections, max.16- Data length for connection type 01H, max.1 460 byte- Data length for connection type 11H, max.32 768 byte- several passive connections per port, supportedYes; via integrated PROFINET interface and loadable FBs• ISO-on-TCP (RFC1006)Yes; via integrated PROFINET interface and loadable FBs- Number of connections, max.16- Data length, max.32 768 byte• UDPYes; via integrated PROFINET interface and loadable FBs- Number of connections, max.16- Data length, max.16- Data length, max.16- Data length, max.16- Data length, max.1472 byteWeb server1472 byte	• supported	Yes; via CP and loadable FC
- Number of connections, max.16- Data length for connection type 01H, max.1 460 byte- Data length for connection type 11H, max.32 768 byte- several passive connections per port, supportedYes• ISO-on-TCP (RFC1006)Yes; via integrated PROFINET interface and loadable FBs- Number of connections, max.16- Data length, max.32 768 byte• UDPYes; via integrated PROFINET interface and loadable FBs- Number of connections, max.16- Data length, max.32 768 byte• UDPYes; via integrated PROFINET interface and loadable FBs- Number of connections, max.16- Data length, max.16• Data length, max.1472 byte	Open IE communication	
 Data length for connection type 01H, max. Data length for connection type 11H, max. Data length for connection type 11H, max. several passive connections per port, supported ISO-on-TCP (RFC1006) Number of connections, max. Data length, max. Data length, max. Data length, max. Mumber of connections, max. Data length, max. Mumber of connections, max. 16 Yes; via integrated PROFINET interface and loadable FBs Number of connections, max. 16 Number of connections, max. Automation of connections, max. Mumber of connections, max.	• TCP/IP	Yes; via integrated PROFINET interface and loadable FBs
- Data length for connection type 11H, max. 32 768 byte - several passive connections per port, supported Yes • ISO-on-TCP (RFC1006) Yes; via integrated PROFINET interface and loadable FBs - Number of connections, max. 16 - Data length, max. 32 768 byte • UDP Yes; via integrated PROFINET interface and loadable FBs - Number of connections, max. 16 - Data length, max. 32 768 byte Yes; via integrated PROFINET interface and loadable FBs - Data length, max. 16 - Number of connections, max. 16 - Data length, max. 16 - Data length, max. 16 - Data length, max. 1472 byte	— Number of connections, max.	16
- several passive connections per port, supportedYes• ISO-on-TCP (RFC1006)Yes; via integrated PROFINET interface and loadable FBs- Number of connections, max.16- Data length, max.32 768 byte• UDPYes; via integrated PROFINET interface and loadable FBs- Number of connections, max.16- Data length, max.16- Data length, max.16- Number of connections, max.16- Data length, max.16Web server1472 byte	 — Data length for connection type 01H, max. 	1 460 byte
supported Yes; via integrated PROFINET interface and loadable FBs - Number of connections, max. 16 - Data length, max. 32 768 byte • UDP Yes; via integrated PROFINET interface and loadable FBs - Number of connections, max. 16 - Data length, max. 32 768 byte • UDP Yes; via integrated PROFINET interface and loadable FBs - Number of connections, max. 16 - Data length, max. 16 Web server 1472 byte	 — Data length for connection type 11H, max. 	32 768 byte
- Number of connections, max. 16 - Data length, max. 32 768 byte • UDP Yes; via integrated PROFINET interface and loadable FBs - Number of connections, max. 16 - Data length, max. 16 Web server 1472 byte		Yes
- Data length, max. 32 768 byte • UDP Yes; via integrated PROFINET interface and loadable FBs - Number of connections, max. 16 - Data length, max. 1 472 byte	• ISO-on-TCP (RFC1006)	Yes; via integrated PROFINET interface and loadable FBs
• UDP Yes; via integrated PROFINET interface and loadable FBs - Number of connections, max. - Data length, max. Web server	— Number of connections, max.	16
- Number of connections, max. 16 - Data length, max. 1 472 byte Web server 1472 byte	— Data length, max.	32 768 byte
— Data length, max. 1 472 byte Web server	• UDP	Yes; via integrated PROFINET interface and loadable FBs
Web server	— Number of connections, max.	16
	— Data length, max.	1 472 byte
• supported Yes	Web server	
	supported	Yes

• User-defined websites Yes PROFINET CBA (at set septoint communication load • • Setpoint for the CPU communication load 32 • Number of remote interconnection partners 30 • Total of all master/slave connections 1000 • Data length of all incoming connections 4 000 byte master/slave, max. • • Data length of di lorogning connections 4 000 byte master/slave, max. • • Data length of di vote-internal and PROFIBUS 500 interconnections, max. 1 400 byte • Data length of di vote-internal und PROFIBUS 500 ms - Data length of all incoming 2 000 byte interconnections, max. 1 400 byte - Data length of all incoming 2 000 byte - Data length of all incoming 2 000 byte interconnections, max. 1 400 byte - Data length of all incoming 2 000 byte interconnections, max. 1 400 byte - Data length of all incoming 2 000 byte interconnections, max. 1 400 byte - Data length of all incoming 2 000 byte	Number of HTTP clients	5
• Setpoint for the CPU communication load 50 % • Number of renotions, master/slave 30 • Total of all master/slave connections 1000 • Data length of all incoming connections 4 000 byte master/slave, max. 4 000 byte • Data length of all incoming connections 4 000 byte master/slave, max. 4 000 byte • Data length of all incoming connections 4 000 byte master/slave, max. 4 000 byte • Number of device-internal and PROFIBUS interconnections, max. 4 000 byte • Data length of evice-internal und PROFIBUS interconnections, max. 1 400 byte • Data length of evice-internal und PROFIBUS interconnections, max. 1 400 byte • Data length of evice-internal und PROFIBUS interconnections, max. 1 400 byte • Data length of all incoming 2 000 byte • Data length of all incoming 2 000 byte • Interconnections, max. 1 400 byte • Data length of all incoming 2 000 byte interconnections, max. 1 400 byte • Data length of all incoming 2 000 byte interconnections, max. 1 400 byte • Data length of all incoming 2 000 byte interconnections, max. 1 400 byte • Data length of all incoming 2 000 byte interconne	 User-defined websites 	Yes
• Number of remote interconnection partners 32 • Number of functions, master/slave 30 • Total of all master/slave connections 1000 • Data length of all incoming connections 4000 byte • master/slave, max. 4000 byte • Data length of all outgoing connections 4000 byte master/slave, max. 4000 byte • Number of device-internal and PROFIBUS interconnections, max. 4000 byte • Data length of device-internal and PROFIBUS interconnections, max. 14000 byte • Data length per connection, max. 14000 byte • Data length frequency: Sampling time, min. 500 ms - Number of incoming interconnections 100 - Number of all incoming interconnections, max. 1400 byte • Data length of all outgoing interconnections 100 - Data length of all incoming 2000 byte interconnections, max. 1400 byte • Data length of all incoming 2000 byte interconnections, max. 1400 byte • Data length of all incoming 2000 byte interconnections, max. 1400 byte • Data length of all incoming 2000 byte interconnections, max. 1400 byte • Data length of all outgoing interconnections 200 • Data length of all outgoing interconnection	PROFINET CBA (at set setpoint communication load)	
Number of functions, master/slave 30 • Total of all master/slave connections 1 000 • Data length of all otogoing connections 4 000 byte master/slave, max. • Number of device-internal and PROFIBUS 500 • Number of device-internal and PROFIBUS 500 interconnections • Data length of all otogoing connections 4 000 byte master/slave, max. • Number of device-internal and PROFIBUS 500 • Data length of device-internal und PROFIBUS 4 000 byte • Number of incoming interconnections • Data length of device-internal und PROFIBUS 4 000 byte • Number of incoming interconnections • Data length of all otogoing interconnections 1 000 • Oata length of all incoming • Ood byte - Data length of all outgoing interconnections, max. 1 000 byte • Ood byte • Ood byte interconnections, max. 1 000 byte • Ood byte • Ood byte • Ood byte interconnections, max. 1 000 byte • Ood byte • Ood byte • Ood byte interconnections, max. 1 000 byte • Ood byte • Ood byte • Ood byte interconnections, max. <td> Setpoint for the CPU communication load </td> <td>50 %</td>	 Setpoint for the CPU communication load 	50 %
Total of all master/slave connections 1 000 Data length of all incoming connections 4 000 byte master/slave, max. 0 00 byte Data length of all outgoing connections 4 000 byte master/slave, max. 0 00 byte Number of device-internal and PROFIBUS 500 interconnections, max. 1 400 byte Data length of device-internal und PROFIBUS 1 400 byte Remote interconnections, max. 1 400 byte - Data length of device-internal und PROFIBUS 500 ms - Number of incoming interconnections 100 - Number of incoming interconnections 100 - Number of incoming interconnections 100 - Data length of all incoming 2 000 byte interconnections, max. 1 400 byte - Data length of all outgoing 2 000 byte interconnections, max. 1 400 byte - Data length of all outgoing interconnections 10 - Data length of all incoming 2 000 byte interconnections, max. 1 400 byte - Data length of all incoming 2 000 byte interconnections, max. 2 000 byte - Number of incoming interconne	 Number of remote interconnection partners 	32
• Data length of all incoming connections master/slave, max. 4 000 byte • Data length of all incoming connections master/slave, max. 4 000 byte • Number of device-internal and PROFIBUS interconnections master/slave, max. 500 • Data length of all oxigoing connections master/slave, max. 1 400 byte • Data length of device-internal and PROFIBUS interconnections max. 1 400 byte • Data length of all incoming interconnections with acyclic transmission 500 ms - Sampling frequency: Sampling time, min. 500 ms - Number of incoming interconnections 100 - Data length of all incoming 2 000 byte interconnections, max. 1 400 byte - Data length of all outgoing interconnections 100 - Data length of all outgoing 2 000 byte interconnections, max. 1 400 byte - Data length of all outgoing 2 000 byte interconnections, max. 1 400 byte - Data length of all outgoing interconnections 2 000 byte interconnections, max. 1 400 byte - Transmission frequency: Transmission 10 ms interconnections, max. 2 000 - Data length of all outgoi	 Number of functions, master/slave 	30
master/slave, max. 4 000 byte Data length of all outgoing connections master/slave, max. 500 Number of device-internal and PROFIBUS interconnections, max. 4 000 byte Data length of device-internal und PROFIBUS interconnections, max. 4 000 byte Data length per connection, max. 1 400 byte — Sampling frequency: Sampling time, min. 500 ms — Number of outgoing interconnections 100 — Number of outgoing interconnections 100 — Number of all incoming 2 000 byte interconnections, max. 1400 byte — Data length of all incoming 2 000 byte interconnections, max. 100 — Data length of all outgoing 2 000 byte interconnections, max. 1 400 byte — Data length per connection 10 ms interconnections, max. 1 400 byte — Data length of all outgoing 2 000 byte interconnections with cyclic transmission 10 ms interconnections with cyclic transmission 10 ms interconnections max. 2 000 — Data length of all incoming 2 000 byte interconnections, max. 2 000 byte — Transmission frequency: Transmission 10 ms interconnections, max. 2 000 byte — Data length of all inc	 Total of all master/slave connections 	1 000
master/slave, max. 500 • Number of device-internal and PROFIBUS interconnections 500 • Data length of device-internal und PROFIBUS interconnections, max. 4 000 byte • Data length per connection, max. 1 400 byte Remote interconnections with acyclic transmission 500 ms - Sampling frequency: Sampling time, min. 500 ms - Number of outgoing interconnections 100 - Number of outgoing interconnections 100 - Data length of all incoming 2 000 byte interconnections, max. 1 400 byte - Data length of all outgoing 2 000 byte interconnections, max. 1 400 byte - Data length of all outgoing 2 000 byte interconnections, max. 1 400 byte - Data length or all outgoing interconnections 100 - Data length of all outgoing 2 000 byte interconnections, max. 1 400 byte - Data length of all outgoing interconnections 200 - Number of outgoing interconnections 200 - Number of outgoing interconnections 200 - Data length of all incoming 2 000 byte interconnections, max. 400 byte - Data length of all outgoing 2 000 byte interconnections, max. 2 000 byte - Data len		4 000 byte
Interconnections A 000 byte • Data length of device-internal und PROFIBUS interconnections, max. • 4 000 byte • Data length per connection, max. 1 400 byte • Remote interconnections with acyclic transmission • 500 ms • Sampling frequency: Sampling time, min. • 500 ms • Number of incoming interconnections • 500 ms • Number of outgoing interconnections 100 • Data length of all incoming interconnections, max. 2 000 byte • Data length per connection, max. 1400 byte • Data length of all outgoing interconnections, max. 1400 byte • Data length per connection, max. 1400 byte • Transmission frequency: Transmission interconnections, max. 1400 byte • Number of outgoing interconnections interconnections, max. 200 2000 byte • Number of outgoing interconnections, max. 2000 byte • Data length of all outgoing interconnections, max. </td <td></td> <td>4 000 byte</td>		4 000 byte
interconnections, max. 1 400 byte Remote interconnections with acyclic transmission 500 ms - Sampling frequency: Sampling time, min. 500 ms - Number of incoming interconnections 100 - Number of outgoing interconnections 100 - Data length of all incoming interconnections 100 - Data length of all outgoing interconnections, max. 2 000 byte - Data length of all outgoing interconnections, max. 1 400 byte - Data length per connection, max. 1 400 byte - Data length per connection, max. 1 400 byte - Data length of all outgoing interconnections 2 000 byte interconnections, max. 1 400 byte - Data length per connection, max. 1 400 byte Remote interconnections with cyclic transmission interval, min. 10 ms - Transmission frequency: Transmission interval, min. 10 ms - Number of outgoing interconnections 200 - Number of all incoming 2 000 byte interconnections, max. 2 000 byte - Data length of all outgoing 2 000 byte interconnections, max. 450 byte HMI variables via PROFINET (acyclic) 3; 2x PN OPC/1x iMap - Number of stations that can log on for HMI variables (PN OPC/Map) 3; 2x PN OPC/1x iMap - Number of HMI variables		500
Remote interconnections with acyclic transmission 500 ms - Sampling frequency: Sampling time, min. 500 ms - Number of incoming interconnections 100 - Number of outgoing interconnections 100 - Data length of all incoming interconnections, max. 2 000 byte - Data length of all outgoing interconnections, max. 2 000 byte - Data length of all outgoing interconnections, max. 1 400 byte - Data length per connection, max. 1 400 byte Remote interconnections with cyclic transmission interval, min. 10 ms - Number of incoming interconnections 200 - Number of outgoing interconnections 200 - Number of outgoing interconnections 200 - Number of outgoing interconnections 200 - Data length of all incoming 2 000 byte interconnections, max. 2 000 byte - Data length of all outgoing 2 000 byte interconnections, max. - - Data length of all outgoing 2 000 byte interconnections, max. - - Data length or connection, max. 450 byte HMI variables via PROFINET (acyclic) - - Number of stations that can l	-	4 000 byte
- Sampling frequency: Sampling time, min.500 ms- Number of incoming interconnections100- Number of outgoing interconnections100- Data length of all incoming interconnections, max.2 000 byte- Data length of all outgoing interconnections, max.2 000 byte- Data length per connection, max.1 400 byte- Data length per connection, max.1 400 byte- Transmission frequency: Transmission interval, min.10 ms- Number of outgoing interconnections200- Number of outgoing interconnections200- Number of outgoing interconnections200- Data length of all loutgoing interval, min.200- Number of outgoing interconnections200- Data length of all outgoing interconnections, max.200- Data length of all incoming interconnections, max.200 byte- Data length of all outgoing interconnections, max.200 byte- Data length of all outgoing interconnections, max.200 byte- Data length of all outgoing interconnections, max.450 byte- Data length of all outgoing interconnections, max.3: 2x PN OPC/1x iMap- Number of stations that can log on for HMI variables (PN OPC/iMap)3: 2x PN OPC/1x iMap- HMI variable updating500 ms- Number of HMI variables, max.200- Data length of all HMI variables, max.200 byte- Data length of all HMI variables, max.200 byte	 Data length per connection, max. 	1 400 byte
- Number of incoming interconnections 100 - Number of outgoing interconnections 100 - Data length of all incoming interconnections, max. 2 000 byte - Data length of all outgoing interconnections, max. 2 000 byte - Data length of all outgoing interconnections, max. 1 400 byte - Data length per connection, max. 1 400 byte Remote interconnections with cyclic transmission interval, min. 10 ms - Number of incoming interconnections 2000 byte interconnections, max. 2000 byte - Data length of all incoming interval, min. 10 ms - Number of incoming interconnections 200 - Data length of all incoming interconnections, max. 2000 byte - Data length of all incoming interconnections, max. 2000 byte - Data length of all outgoing interconnections, max. 450 byte - Data length of all outgoing interconnections, max. 450 byte - Number of stations that can log on for HMI variables (PN OPC/IMap) 3; 2x PN OPC/1x iMap - HMI variable updating 500 ms - Number of HMI variables, max. 2 000 byte - Data length of all HMI variables, max. 2 000 byte	Remote interconnections with acyclic transmission	
- Number of outgoing interconnections 100 - Data length of all incoming 2 000 byte interconnections, max. - - Data length of all outgoing 2 000 byte interconnections, max. - - Data length per connection, max. 1 400 byte Remote interconnections with cyclic transmission 10 ms - Transmission frequency: Transmission 10 ms - Number of incoming interconnections 200 - Number of outgoing interconnections 200 - Number of outgoing interconnections 200 - Number of outgoing interconnections 200 - Data length of all incoming 2 000 byte interconnections, max. - - Data length of all outgoing 2 000 byte interconnections, max. - - Data length of all outgoing 2 000 byte interconnections, max. - - Data length per connection, max. 450 byte HMI variables via PROFINET (acyclic) - - Number of stations that can log on for HMI variables (PN OPC/IMap) 3: 2x PN OPC/1x iMap - HMI variable updating 500 ms - Number of HMI variables, max.	— Sampling frequency: Sampling time, min.	500 ms
— Data length of all incoming 2 000 byte interconnections, max. — — Data length of all outgoing 2 000 byte interconnections, max. 1 400 byte — Data length per connection, max. 1 400 byte Remote interconnections with cyclic transmission 10 ms — Transmission frequency: Transmission 10 ms interval, min. 200 — Number of incoming interconnections 200 — Number of outgoing interconnections 200 — Data length of all incoming 2 000 byte interconnections, max. 200 — Data length of all outgoing 2 000 byte interconnections, max. 2 000 byte — Data length of all outgoing 2 000 byte interconnections, max. 450 byte — Data length per connection, max. 450 byte HMI variables via PROFINET (acyclic) 3: 2x PN OPC/1x iMap — Number of stations that can log on for HMI variables (PN OPC/IMap) 500 ms — HMI variable updating 500 ms — Number of HMI variables, max. 2 000 byte — Data length of all HMI variables, max. 2 000 byte	 — Number of incoming interconnections 	100
interconnections, max.2 000 byte— Data length of all outgoing interconnections, max.1 400 byte— Data length per connection, max.1 400 byteRemote interconnections with cyclic transmission interval, min.10 ms— Transmission frequency: Transmission interval, min.10 ms— Number of incoming interconnections200— Number of outgoing interconnections200— Data length of all incoming interconnections, max.200— Data length of all outgoing interconnections, max.2000 byte— Data length of all outgoing interconnections, max.2000 byte— Data length of all outgoing interconnections, max.2000 byte— Data length per connection, max.450 byteHMI variables via PROFINET (acyclic)3; 2x PN OPC/1x iMap— Number of stations that can log on for HMI variables (PN OPC/Map)500 ms— HMI variable updating — Number of HMI variables, max.200— Data length of all HMI variables, max.200— Data length of all HMI variables, max.200— Data length of all HMI variables, max.200 byte	 — Number of outgoing interconnections 	100
interconnections, max. 1 400 byte Remote interconnections with cyclic transmission 10 ms - Transmission frequency: Transmission interval, min. 10 ms - Number of incoming interconnections 200 - Number of outgoing interconnections 200 - Data length of all incoming interconnections 200 - Data length of all outgoing interconnections 200 - Data length of all outgoing interconnections, max. 2000 byte - Data length of all outgoing interconnections, max. 2000 byte - Data length per connection, max. 450 byte HMI variables via PROFINET (acyclic) 3; 2x PN OPC/1x iMap - Number of stations that can log on for HMII variables (PN OPC/IMap) 500 ms - Number of HMI variables, max. 200 - Data length of all HMI variables, max. 2000 byte		2 000 byte
Remote interconnections with cyclic transmission 10 ms — Transmission frequency: Transmission interval, min. 200 — Number of incoming interconnections 200 — Number of outgoing interconnections 200 — Data length of all incoming interconnections, max. 2000 byte — Data length of all outgoing interconnections, max. 2000 byte — Data length per connection, max. 450 byte HMI variables via PROFINET (acyclic) 3; 2x PN OPC/1x iMap — Number of stations that can log on for HMI variables (PN OPC/iMap) 3; 2x PN OPC/1x iMap — HMI variable updating 500 ms — Number of HMI variables 200 — Data length of all HMI variables, max. 2 000 byte		2 000 byte
Transmission frequency: Transmission interval, min.10 ms- Number of incoming interconnections200- Number of outgoing interconnections200- Data length of all incoming interconnections, max.2 000 byte- Data length of all outgoing interconnections, max.2 000 byte- Data length of all outgoing interconnection, max.2 000 byte- Data length per connection, max.450 byteHMI variables via PROFINET (acyclic)3; 2x PN OPC/1x iMap- Number of stations that can log on for HMI variables (PN OPC/IMap)3; 2x ON OPC/1x iMap- HMI variable updating - Number of HMI variables, max.200- Data length of all HMI variables, max.2 000 byte	— Data length per connection, max.	1 400 byte
interval, min. - Number of incoming interconnections 200 - Number of outgoing interconnections 200 - Data length of all incoming 2 000 byte interconnections, max. - Data length of all outgoing 2 000 byte interconnections, max. - Data length per connection, max. 450 byte HMI variables via PROFINET (acyclic) - Number of stations that can log on for HMI variables (PN OPC/iMap) 3; 2x PN OPC/1x iMap - HMI variable updating 500 ms - Number of HMI variables - Number of HMI variables, max. 2 000 byte	Remote interconnections with cyclic transmission	
Number of outgoing interconnections200 Data length of all incoming interconnections, max.2 000 byte Data length of all outgoing interconnections, max.2 000 byte Data length of all outgoing interconnections, max.450 byte Data length per connection, max.450 byte Data length per connection, max.3; 2x PN OPC/1x iMap Number of stations that can log on for HMI variables (PN OPC/iMap)3; 2x PN OPC/1x iMap HMI variable updating Number of HMI variables500 ms Data length of all HMI variables, max.2 000 byte		10 ms
Data length of all incoming interconnections, max.2 000 byte— Data length of all outgoing interconnections, max.2 000 byte— Data length per connection, max.450 byte— Data length per connection, max.450 byteHMI variables via PROFINET (acyclic)3; 2x PN OPC/1x iMap— Number of stations that can log on for HMI variables (PN OPC/iMap)3; 2x PN OPC/1x iMap— HMI variable updating500 ms— Number of HMI variables, max.200— Data length of all HMI variables, max.2 000 byte	 — Number of incoming interconnections 	200
interconnections, max. 2 000 byte — Data length of all outgoing 2 000 byte interconnections, max. 450 byte — Data length per connection, max. 450 byte HMI variables via PROFINET (acyclic) 3; 2x PN OPC/1x iMap — Number of stations that can log on for HMI variables (PN OPC/iMap) 500 ms — HMI variable updating 500 ms — Number of HMI variables, max. 2 000 byte	 — Number of outgoing interconnections 	200
interconnections, max. 450 byte — Data length per connection, max. 450 byte HMI variables via PROFINET (acyclic)		2 000 byte
HMI variables via PROFINET (acyclic) - Number of stations that can log on for HMI variables (PN OPC/iMap) - HMI variable updating 3; 2x PN OPC/1x iMap - HMI variable updating 500 ms - Number of HMI variables 200 - Data length of all HMI variables, max. 2 000 byte		2 000 byte
- Number of stations that can log on for HMI variables (PN OPC/iMap) 3; 2x PN OPC/1x iMap - HMI variable updating 500 ms - Number of HMI variables 200 - Data length of all HMI variables, max. 2 000 byte	— Data length per connection, max.	450 byte
variables (PN OPC/iMap) 500 ms — HMI variable updating 200 — Number of HMI variables 200 — Data length of all HMI variables, max. 2 000 byte	HMI variables via PROFINET (acyclic)	
— Number of HMI variables 200 — Data length of all HMI variables, max. 2 000 byte	-	3; 2x PN OPC/1x iMap
 Data length of all HMI variables, max. 2 000 byte PROFIBUS proxy functionality 	— HMI variable updating	500 ms
PROFIBUS proxy functionality	— Number of HMI variables	200
	— Data length of all HMI variables, max.	2 000 byte
— supported Yes	PROFIBUS proxy functionality	
	— supported	Yes

 — Number of linked PROFIBUS devices 	16	
— Data length per connection, max.	240 byte; Slave-dependent	
Number of connections		
• overall	32	
 usable for PG communication 	31	
- reserved for PG communication	1	
— adjustable for PG communication, min.	1	
— adjustable for PG communication, max.	31	
 usable for OP communication 	31	
— reserved for OP communication	1	
— adjustable for OP communication, min.	1	
— adjustable for OP communication, max.	31	
 usable for S7 basic communication 	30	
- reserved for S7 basic communication	0	
 — adjustable for S7 basic communication, 	0	
min.		
— adjustable for S7 basic communication,	30	
max.	40	
usable for S7 communication	16	
— reserved for S7 communication	0	
 — adjustable for S7 communication, min. 	0	
— adjustable for S7 communication, max.	16	
 total number of instances, max. 	32	
 usable for routing 	X1 as MPI: max. 10; X1 as DP master: max. 24; X1 as DP slave (active): max. 14; X2 as PROFINET: 24 max.	

pending on the configured connections for PG/OP and S7 communication	
communication	
Test commissioning functions	
p to 2 simultaneously	
Status/control	
outputs, memory bits, DB, times, counters	

 Forcing, variables 	Inputs, outputs	
 Number of variables, max. 	10	
Diagnostic buffer		
present	Yes	
 Number of entries, max. 	500	
— adjustable	No	
— of which powerfail-proof	100; Only the last 100 entries are retained	
 Number of entries readable in RUN, max. 	499	
— can be set	Yes; From 10 to 499	
— preset	10	
Service data		
• can be read out	Yes	
Ambient conditions		
Ambient temperature during operation		
• min.	0°C	
• max.	60 °C	
Confirmention		
Configuration Configuration software		
• STEP 7	Yes; V5.5 or higher	
Programming		
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	
— CFC	Yes	
— GRAPH	Yes	
— HiGraph®	Yes	
Know-how protection		
 User program protection/password protection 	Yes	
 Block encryption 	Yes; With S7 block Privacy	
Dimensions		
Width	40 mm	
Height	125 mm	
Depth	130 mm	
Weights		

Weight, approx.

last modified:

340 g

03/23/2017