SIEMENS

Data sheet

6ES7672-7AC01-0YA0



SIMATIC S7-1500, Software Controller CPU 1507S Single License f. 1 install., R-SW, SW and docum. on DVD, license key on USB flash drive, R-SW Class A, 6 languages (de,en,it,fr,es,zh), executable in Windows 7 and Windows 10; reference HW: SIMATIC IPC2x7E, IPC4x7E, IPC4x7D, IPC6x7E, IPC6x7D, IPC6x7E, IPC6x7D, IPC8x7D

General information	
Product type designation	CPU 1507S
Software version	V21.9
Product function	
• I&M data	Yes; I&M0 to I&M3
Engineering with	
 STEP 7 TIA Portal configurable/integrated from version 	V17
Configuration control	
via dataset	Yes
Memory	
SIMATIC memory card required	No; Use of the PC mass storage
Work memory	
 integrated (for program) 	5 Mbyte
 integrated (for data) 	20 Mbyte
 integrated (for CPU function library of CPU Runtime) 	50 Mbyte
Load memory	
 integrated (on PC mass storage) 	320 Mbyte
Backup	
with UPS	Yes; all memory areas declared retentive
 with non-volatile memory 	Yes; Depending on PC hardware
CPU processing times	
for bit operations, typ.	1 ns; On IPC427E, Intel Xeon processor
for word operations, typ.	2 ns; On IPC427E, Intel Xeon processor
for fixed point arithmetic, typ.	2 ns; On IPC427E, Intel Xeon processor
for floating point arithmetic, typ.	2 ns; On IPC427E, Intel Xeon processor
CPU-blocks	
Number of elements (total)	6 000; In addition to blocks such as DBs, FBs and FCs, UDTs, global constants, etc. are also regarded as elements
DB	
Number, max.	5 999; Number range: 1 to 65535
• Size, max.	16 Mbyte
FB	
• Number, max.	5 998; Number range: 1 to 65535
• Size, max.	1 024 kbyte
FC	
• Number, max.	5 999; Number range: 1 to 65535

• Size, max.	1 024 kbyte
OB	
• Size, max.	1 024 kbyte
 Number of free cycle OBs 	100
 Number of time alarm OBs 	20
 Number of delay alarm OBs 	20
 Number of cyclic interrupt OBs 	20
 Number of process alarm OBs 	50
Number of DPV1 alarm OBs	3
 Number of isochronous mode OBs 	1
 Number of technology synchronous alarm OBs 	2
Number of startup OBs	100
 Number of asynchronous error OBs 	4
Number of synchronous error OBs	2
 Number of diagnostic alarm OBs 	1
Nesting depth	
per priority class	24
Counters, timers and their retentivity	
S7 counter	
Number	2 048
Retentivity	
— adjustable	Yes
IEC counter	
Number	Any (only limited by the main memory)
Retentivity	
— adjustable	Yes
S7 times	
Number	2 048
Retentivity	
— adjustable	Yes
IEC timer	
Number	Any (only limited by the main memory)
Retentivity	
— adjustable	Yes
Data areas and their retentivity	
Retentive data area (incl. timers, counters, flags), max.	135 kbyte; on SIMATIC IPC227E, IPC277E, IPC427D, IPC477D, IPC427E, IPC477E, IPC627E, IPC677E; 35 KB on SIMATIC IPC627D, IPC677D and IPC827D
Extended retentive data area (incl. timers, counters, flags),	20 Mbyte; When using PC mass storage for retentive data
max.	
Flag	
• Size, max.	16 kbyte
Number of clock memories	8; in 1 memory byte
Data blocks	N .
Retentivity adjustable	Yes
Retentivity preset	No
Local data	
• per priority class, max.	64 kbyte; max. 16 KB per block
Address area	
Number of IO modules	8 192
I/O address area	
Inputs	32 kbyte
Outputs	32 kbyte
Subprocess images	
 Number of subprocess images, max. 	32
Hardware configuration	
Number of distributed IO systems	20
Number of DP masters	

• via PC interfaces	1
Number of IO Controllers	
via PC interfaces	1; any combination of RT or IRT interfaces
Time of day	r, any combination of the of iter interfaces
Clock	Outhouse shade surplus include as bothers besture
• Type	Software clock, synchronizable, no battery backup
Deviation per day, max.	Depending on PC hardware
Operating hours counter	
Number	16
Clock synchronization	
 supported 	Yes
• to DP, master	No
 on Ethernet via NTP 	Yes
 on Windows clock, slave 	Yes
Interfaces	
Number of interfaces	3
Number of PROFINET interfaces	2; Of which one interface can be used as an IO Controller or I-Device
Number of PROFIBUS interfaces	1
1. Interface	
Interface type	CP 1625
Number of connections	128
Interface types	
• RJ 45 (Ethernet)	Yes
— Transmission rate, max.	100 Mbit/s
— Industrial Ethernet status LED	Yes
Number of ports	2
integrated switch	Yes
Protocols	
PROFINET IO Controller	Yes
PROFINET IO Device	Yes
SIMATIC communication	Yes
Open IE communication	Yes; Optionally also encrypted
Web server	Yes
Media redundancy	Yes; MRP Automanager according to IEC 62439-2 Edition 2.0
PROFINET IO Controller	
Services	
— Isochronous mode	Yes
— Direct data exchange	Yes; Requirement: IRT and isochronous mode (MRPD optional)
- shortest clock pulse	500 µs
— IRT	Yes
	Yes
— PROFlenergy	
— Prioritized startup	Yes; max. 32 PROFINET devices; if you want to use the "Prioritized startup" functionality in STEP7 for the PROFINET interface of the CPU, the CPU and the device must be seperated by means of a switch (e.g SCALANCE X205) or CP1625
 Number of connectable IO Devices, max. 	256
 — Of which IO devices with IRT, max. 	64
 Number of connectable IO Devices for RT, 	256
max.	050
— of which in line, max.	256
 Number of IO Devices that can be simultaneously activated/deactivated, max. 	8
 — IO Devices changing during operation (partner ports), supported 	Yes; the CPU and changing IO devices must be separated by a switch
ports), supported	(e.g. SCALANCE X205)
— Number of IO Devices per tool, max.	8 The minimum value of the undetertime also depende on communication
— Updating times	The minimum value of the update time also depends on communication share set for PROFINET IO, on the number of IO devices, and on the quantity of configured user data
Update time for IRT	
— for send cycle of 250 μs	250 µs to 4 ms

— for send cycle of 500 µs	500 µs to 8 ms
— for send cycle of 1 ms	1 ms to 16 ms
— for send cycle of 2 ms	2 ms to 32 ms
— for send cycle of 4 ms	4 ms to 64 ms
— With IRT and parameterization of "odd" send	Update time = set "odd" send clock (any multiple of 125 µs: 375 µs, 625
cycles	μs 3 875 μs)
Update time for RT	
— for send cycle of 250 μs	250 μs to 128 ms
— for send cycle of 500 µs	500 µs to 256 ms
— for send cycle of 1 ms	1 ms to 512 ms
— for send cycle of 2 ms	2 ms to 512 ms
— for send cycle of 4 ms	4 ms to 512 ms
Address area	
— Inputs, max.	8 kbyte
— Outputs, max.	8 kbyte
PROFINET IO Device	
Services	
- PG/OP communication	Yes
— Isochronous mode	No
— IRT	Yes
— PROFlenergy	Yes
— Prioritized startup	Yes; if you want to use the "Prioritized startup" functionality in STEP 7
	for the PROFINET interface of the CPU, the CPU and the device must
	be separated by means of a switch (e.g. SCALANCE X205)
— Shared device	Yes
 — Number of IO Controllers with shared device, 	4
max.	
— Asset management record	Yes
2. Interface	
Interface type	Onboard PROFINET / IE interface X2/X3 of the SIMATIC IPC, Intel
	Springville i210T
Number of connections via this interface	128
Interface types	128
Interface types • RJ 45 (Ethernet)	128 Yes
Interface types • RJ 45 (Ethernet) — Transmission rate, max.	128 Yes 100 Mbit/s
Interface types • RJ 45 (Ethernet) — Transmission rate, max. — Industrial Ethernet status LED	128 Yes 100 Mbit/s Yes
Interface types • RJ 45 (Ethernet) — Transmission rate, max. — Industrial Ethernet status LED • Number of ports	128 Yes 100 Mbit/s Yes 1
Interface types • RJ 45 (Ethernet) — Transmission rate, max. — Industrial Ethernet status LED • Number of ports • integrated switch	128 Yes 100 Mbit/s Yes
Interface types • RJ 45 (Ethernet) — Transmission rate, max. — Industrial Ethernet status LED • Number of ports • integrated switch Protocols	128 Yes 100 Mbit/s Yes 1 No
Interface types RJ 45 (Ethernet) Transmission rate, max. Industrial Ethernet status LED Number of ports integrated switch PROFINET IO Controller 	128 Yes 100 Mbit/s Yes 1 No Yes
Interface types RJ 45 (Ethernet) Transmission rate, max. Industrial Ethernet status LED Number of ports integrated switch Protocols PROFINET IO Controller PROFINET IO Device 	128 Yes 100 Mbit/s Yes 1 No Yes Yes
Interface types • RJ 45 (Ethernet) — Transmission rate, max. — Industrial Ethernet status LED • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication	128 Yes 100 Mbit/s Yes 1 No Yes Yes Yes
Interface types • RJ 45 (Ethernet) — Transmission rate, max. — Industrial Ethernet status LED • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication	128 Yes 100 Mbit/s Yes 1 No Yes Yes Yes Yes
Interface types RJ 45 (Ethernet) Transmission rate, max. Industrial Ethernet status LED Number of ports integrated switch Protocols PROFINET IO Controller PROFINET IO Device SIMATIC communication Open IE communication Web server 	128 Yes 100 Mbit/s Yes 1 No Yes Yes Yes Yes Yes
Interface types • RJ 45 (Ethernet) — Transmission rate, max. — Industrial Ethernet status LED • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy	128 Yes 100 Mbit/s Yes 1 No Yes Yes Yes Yes
Interface types • RJ 45 (Ethernet) Transmission rate, max. Industrial Ethernet status LED • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller	128 Yes 100 Mbit/s Yes 1 No Yes Yes Yes Yes Yes
Interface types • RJ 45 (Ethernet) Transmission rate, max. Industrial Ethernet status LED • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller Services	128 Yes 100 Mbit/s Yes 1 No Yes Yes Yes Yes Yes Yes No
Interface types • RJ 45 (Ethernet) Transmission rate, max. Industrial Ethernet status LED • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller Services Isochronous mode	128 Yes 100 Mbit/s Yes 1 No Yes Yes Yes Yes Yes No
Interface types • RJ 45 (Ethernet) Transmission rate, max. Industrial Ethernet status LED • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller Services Isochronous mode IRT	128 Yes 100 Mbit/s Yes 1 No Yes Yes Yes Yes Yes No
Interface types • RJ 45 (Ethernet) Transmission rate, max. Industrial Ethernet status LED • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller Services Isochronous mode	128 Yes 100 Mbit/s Yes 1 No Yes Yes Yes Yes Yes No
Interface types • RJ 45 (Ethernet) Transmission rate, max. Industrial Ethernet status LED • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller Services Isochronous mode IRT	128 Yes 100 Mbit/s Yes 1 No Yes Yes Yes Yes Yes No
Interface types • RJ 45 (Ethernet) - Transmission rate, max. - Industrial Ethernet status LED • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller Services - Isochronous mode - IRT - PROFInergy - Prioritized startup - Number of connectable IO Devices for RT,	128 Yes 100 Mbit/s Yes 1 No Yes No No Yes; max. 32 PROFINET devices; if you want to use the "Prioritized startup" functionality in STEP 7 for the PROFINET interface of the CPU, the CPU and the device must be separated by means of a switch (e.g.
Interface types • RJ 45 (Ethernet) - Transmission rate, max. - Industrial Ethernet status LED • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller Services - Isochronous mode - IRT - PROFIenergy - Prioritized startup - Number of connectable IO Devices for RT, max.	128 Yes 100 Mbit/s Yes 1 No Yes Yes; max. 32 PROFINET devices; if you want to use the "Prioritized startup" functionality in STEP 7 for the PROFINET interface of the CPU, the CPU and the device must be separated by means of a switch (e.g. SCALANCE X205) 128
Interface types • RJ 45 (Ethernet) Transmission rate, max. Industrial Ethernet status LED • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller Services Isochronous mode IRT PROFlenergy Prioritized startup Number of connectable IO Devices for RT, max. of which in line, max.	128 Yes 100 Mbit/s Yes 1 No Yes Yes; max. 32 PROFINET devices; if you want to use the "Prioritized startup" functionality in STEP 7 for the PROFINET interface of the CPU, the CPU and the device must be separated by means of a switch (e.g. SCALANCE X205) 128 128
Interface types • RJ 45 (Ethernet) - Transmission rate, max. - Industrial Ethernet status LED • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller Services - Isochronous mode - IRT - PROFIenergy - Prioritized startup - Number of connectable IO Devices for RT, max.	128 Yes 100 Mbit/s Yes 1 No Yes Yes; max. 32 PROFINET devices; if you want to use the "Prioritized startup" functionality in STEP 7 for the PROFINET interface of the CPU, the CPU and the device must be separated by means of a switch (e.g. SCALANCE X205) 128
Interface types • RJ 45 (Ethernet) - Transmission rate, max. - Industrial Ethernet status LED • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller Services - Isochronous mode - IRT - PROFlenergy - Prioritized startup - Number of connectable IO Devices for RT, max. - of which in line, max. - Number of IO Devices that can be simultaneously activated/deactivated, max.	128 Yes 100 Mbit/s Yes 1 No Yes Yes; max. 32 PROFINET devices; if you want to use the "Prioritized startup" functionality in STEP 7 for the PROFINET interface of the CPU, the CPU and the device must be separated by means of a switch (e.g. SCALANCE X205) 128 128
Interface types • RJ 45 (Ethernet) - Transmission rate, max. - Industrial Ethernet status LED • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller Services - Isochronous mode - IRT - PROFIenergy - Prioritized startup - Number of connectable IO Devices for RT, max. - of which in line, max. - Number of IO Devices that can be	128 Yes 100 Mbit/s Yes 1 No Yes <

share set for PROFINET IO, on the number of IO devices, and on the quantity of configured user data

Address area Implays, max, A bayle Outputs, max, A bayle Outputs, max, A bayle POCINETIO Device Services Incohronous mode No In RT No PROFINETIO Controllers with shared device, max, A stander device A stander device		quality of computed user data
− Outputs, max. 8 kbyte PROFINET to Device Services - Isochronous mode No - Interface Yes - Sharet device Yes - Mumber of ID Controllers with shared device, max. 4 - Asset management record Yes - Asset management record Yes - Asset management record 44 Interface type PROFIBUS with CP 5622, CP 5622 onboard Number of connections via this interface 44 Interface type Yes - Rest management record Yes - Rest management record Yes - Rest management record 44 Interface type PROFIBUS DP master - Rest Management record Yes - Rest Rest Rest Yes - PROFIBUS DP master No - Rest Rest Rest Yes - Rest Rest Rest Yes - PROFIBUS DP master No - Insolutions 64 Services - - Equidistance No Number of Connections	Address area	
− Outputs, max. 8 kbyte PROFINET to Device Services - Isochronous mode No - Interface Yes - Sharet device Yes - Mumber of ID Controllers with shared device, max. 4 - Asset management record Yes - Asset management record Yes - Asset management record 44 Interface type PROFIBUS with CP 5622, CP 5622 onboard Number of connections via this interface 44 Interface type Yes - Rest management record Yes - Rest management record Yes - Rest management record 44 Interface type PROFIBUS DP master - Rest Management record Yes - Rest Rest Rest Yes - PROFIBUS DP master No - Rest Rest Rest Yes - Rest Rest Rest Yes - PROFIBUS DP master No - Insolutions 64 Services - - Equidistance No Number of Connections	— Inputs, max.	8 kbyte
PROFINET IC Device Interface Services No - IRT No - PROFlenergy Yes - Shared device Yes - Mumber of IC Controllers with shared device. 4 Interface Yes 2. Interface Yes Mumber of Connections via this interface 44 Interface types Yes • RS 485 Yes PROFIBUS DP master Yes • Equidistance No - Lopulds, max. 8 kbyte - Inputs, max. 8 kbyte • Interface Yes Interface Yes Interface Yes • PROFIBUS DP master Yes <tr< td=""><td></td><td></td></tr<>		
	PROFINET IO Device	
IRT No PROFIlenergy Yes Number of IO Controllers with shared device, max. 4 Asset management record Yes 2. Interface PROFIBUS with CP 5622, CP 5622 onboard Number of connections via this interface 44 Interface type PROFIBUS DP size • RS 485 Yes • PROFIBUS DP master Yes • DROFIBUS DP master Yes • Number of DP slaves, max. 64 Services - - Loguistance No - Loguistance No - Loguistance No - Loguistance No - Address area - - Loguistance No - SIMATIC communication Yes • PROFIBUS DP slave No • SIMATIC communication Yes • PROFIBUS DP slave No • SIMATIC communication Yes </td <td>Services</td> <td></td>	Services	
IRT No PROFIlenergy Yes Number of IO Controllers with shared device, max. 4 Asset management record Yes 2. Interface PROFIBUS with CP 5622, CP 5622 onboard Number of connections via this interface 44 Interface type PROFIBUS DP size • RS 485 Yes • PROFIBUS DP master Yes • DROFIBUS DP master Yes • Number of DP slaves, max. 64 Services - - Loguistance No - Loguistance No - Loguistance No - Loguistance No - Address area - - Loguistance No - SIMATIC communication Yes • PROFIBUS DP slave No • SIMATIC communication Yes • PROFIBUS DP slave No • SIMATIC communication Yes </td <td>— Isochronous mode</td> <td>No</td>	— Isochronous mode	No
PROFlenergy Yes Shared device Yes		No
- Shared device Yes - Number of IO Controllers with shared device, max. 4 - Asset management record Yes Interface type PROFIBUS with CP 5622, CP 5622 onboard Number of connections via this interface 44 Interface type 44 Protocols * • PROFIBUS DP master Yes • PROFIBUS DP master Yes • Number of DP slaves No • SIMATIC communication Yes, no PO/STEP 7 connection possible PROFIBUS DP master Yes, no PO/STEP 7 connection possible PROFIBUS DP master Yes, no PO/STEP 7 connection possible PROFIBUS DP master No - Equidistance No - Stardt communication No Address area - - Inputs, max. 8 kbyte - Outputs, max. 8 kbyte 1eferface type PROFIBUS DP master • RS 485 Yes PROFIBUS DP master Yes • PROFIBUS DP master Yes • PROFIBUS DP master Yes • RS 485 Yes Protocols - • PROFIBUS DP master Yes • PROFIBUS DP master Yes • PROFIBUS DP master Yes • PROFIBU		
Number of IO Controllers with shared device, max. Aset management record S. Interface Impact Section 2012 Interface type RecFlaus DP master RecFlaus DP master PROFIBUS DP master PROFIBUS DP master PROFIBUS DP master PROFIBUS DP master PROFIBUS DP master RecFlaus DP master Equidistance Lequid		
max. Aset management record Yes Interface Interface type Record on concections via this interface Record on		
Asset management record Yes S. Interface FROFIBUS with CP 5622, CP 5622 onboard Number of connections via this interface 44 Interface types		4
S. Interface PROFIBUS with CP 5622, CP 5622 onboard Number of connections via this interface 44 Interface types • RS 485 • PROFIBUS DP master Yes • PROFIBUS DP lave No • PROFIBUS DP master Yes • PROFIBUS DP stave No • Nomber of DP slaves, max. 64 Services — — Equidistance No — Inputs, max. 64 Services area — — Inputs, max. 8 kbyte — Outputs, max. 8 kbyte 4. Interface No Hinterface No Hinterface No — Cutputs, max. 8 kbyte 4. Interface No Hinterface No Hinterface No • RORFIBUS DP master Yes • PROFIBUS DP laves No • ROFIBUS DP master Yes • PROFIBUS DP master Yes • PROFIBUS DP master Yes • PROFIBUS DP master No • Services — — Equidistance<		Yes
Interface type PROFIBUS with CP 5622, CP 5622 onboard Number of connections via this interface 44 Interface types • • FS 485 Yes Protocols • • PROFIBUS DP master Yes • PROFIBUS DP master Yes • NO • • SIMATIC communication Yes; no PG/STEP 7 connection possible PROFIBUS DP master No - Equidistance No - Liputs, max. 64 - Services • - Inderface type PROFIBUS with CP 5623 Number of connections 44 Interface type PROFIBUS with CP 5623 Number of connections 44 Interface types • • ROFIBUS DP master Yes • PROFIBUS DP master Yes • PROFIBUS DP master Yes • SIMATIC communication Yes; No • SIMATIC communicati	-	
Number of connections via this interface 44 Interface types • RS 485 Yes PROFIBUS DP master Yes • PROFIBUS DP slave No • SIMATIC communication Yes; no PG/STEP 7 connection possible PROFIBUS DP master • Number of DP slaves, max. 64 Services - Equidistance • Louths, max. 64 Address area No - lochtronous mode No Address area 8 kbyte - loutputs, max. 8 kbyte - outputs, max. 8 kbyte Interface type PROFIBUS with CP 5623 Number of connections 44 Interface types Yes • ROFIBUS DP master Yes • ROFIBUS DP master Yes; no PG/STEP 7 connection possible PROFIBUS DP master Yes; no PG/STEP 7 connection possible PROFIBUS DP master Yes; no PG/STEP 7 connection possible PROFIBUS DP master Yes; no PG/STEP 7 connection possible PROFIBUS DP master Yes; no PG/STEP 7 connection possible PROFIBUS DP master No <td></td> <td>PROFIBUS with CP 5622 CP 5622 onboard</td>		PROFIBUS with CP 5622 CP 5622 onboard
Interface types • RS 485 Yes PROFIBUS DP master Yes • PROFIBUS DP slave No • SIMATIC communication Yes: no PC/STEP 7 connection possible PROFIBUS DP master • Number of DP slaves, max. 64 Services - Equiditance No - actornorus mode No Address area - Inputs, max. 8 kbyte Address area - Inputs, max. 8 kbyte Altrace types PROFIBUS with CP 5623 Number of connections 44 Interface types Yes • ROFIBUS DP master Yes • PROFIBUS DP master Yes • PROFIBUS DP master Yes • PROFIBUS DP master Yes • No Statance • Equiditance No • SIMATIC communication Yes; no PG/STEP 7 connection possible PROFIBUS DP master Yes • Loptonous mode No • Loptonous mode No • Loptonous mode No		
• RS 485 Yes Protocols Yes • PROFIBUS DP master Yes • ROFIBUS DP slave No • SIMATIC communication Yes; no PG/STEP 7 connection possible PROFIBUS DP master 64 Services 64 Services area No - Equidistance No - Inputs, max. 8 kbyte 4. Interface Ypes Mumber of connections 44 Interface type PROFIBUS with CP 5623 Number of connections 44 Interface type PROFIBUS With CP 5623 Number of connections 44 Interface type PROFIBUS With CP 5623 Number of connections 44 Interface type PROFIBUS P stave • RS 485 Yes Protocols Yes • PROFIBUS DP master Yes • PROFIBUS DP master Yes • No Stave • Number of DP slaves, max. 125 Services No - Equidistance No - Softmorus mode No - Liputs, max. 8 kbyte - Outputs, max. 8 kbyte - Unputs, max. 8 kbyte - Unputs, max. 8		
Protocols Yes • PROFIBUS DP stave No • SIMATIC communication Yes; no PG/STEP 7 connection possible PROFIBUS DP master • • Number of DP slaves, max. 64 Services • - Equidistance No - Inputs, max. 8 kbyte - Inputs, max. 8 kbyte - Outputs, max. 8 kbyte 4. Interface • Interface type PROFIBUS with CP 5623 Number of connections 44 Interface types • • ROFIBUS DP slave No • RS 485 Yes Protocols • • ROFIBUS DP slave No • SIMATIC communication Yes; no PG/STEP 7 connection possible PROFIBUS DP slaves No • SIMATIC communication Yes; no PG/STEP 7 connection possible PROFIBUS DP master Yes • ROFIBUS DP master Yes • Number of DP slaves, max. 125 Services • - Equidistance No - Isochronous mode No -		Yes
ROFIBUS DP master Yes ROFIBUS DP slave SIMATIC communication Yes; no PG/STEP 7 connection possible PROFIBUS DP master Leguidstance Leguidstance Leguidstance Louts, max. Skbyte Autorsa area Interface type PROFIBUS with CP 5623 Number of connections At Interface types ROFIBUS DP master RS 485 Yes Protocols Loguidstance No Lisochronous mode No Sartices Leguidstance Louts, max. Skbyte ROFIBUS DP master Literface type ROFIBUS DP master RS 485 Yes Protocols Loguidstance Loutstance		100
• PROFIBUS DP slave No • SIMATIC communication Yes; no PG/STEP 7 connection possible PROFIBUS DP master 64 • Number of DP slaves, max. 64 Services - - Equidistance No - Isochtronous mode No Address area - - Inputs, max. 8 kbyte 4.Interface type PROFIBUS with CP 5623 Number of connections 44 Interface type PROFIBUS with CP 5623 Number of connections 44 Interface type Yes • PROFIBUS DP master Yes • SIMATIC communication Yes; no PG/STEP 7 connection possible PROFIBUS DP master Yes • SIMATIC communication Yes; no PG/STEP 7 connection possible PROFIBUS DP master Yes • SIMATIC communication Yes; no PG/STEP 7 connection possible PROFIBUS DP master Yes • Capudistance No - Services - - Lepudistance No - Sochronous mode No Address area - - Inputs, max. 8 kbyte Protocols - Number of connections, max. 128 • Number of connections, max.		Yes
• SIMATIC communication Yes; no PG/STEP 7 connection possible PROFIBUS DP master 64 • Equidistance No - Equidistance No - Isochronous mode No Address area - - Inputs, max. 8 kbyte - Outputs, max. 8 kbyte - Outputs, max. 8 kbyte - Outputs, max. 8 kbyte Anterface PROFIBUS DP state Interface type PROFIBUS DP state • RSCHIBUS DP master Yes • PROFIBUS DP master Yes; no PG/STEP 7 connection possible • PROFIBUS DP master Yes; no PG/STEP 7 connection possible • PROFIBUS DP master Yes; no PG/STEP 7 connection possible • PROFIBUS DP master Yes; no PG/STEP 7 connection possible PROFIBUS DP master Ves; no PG/STEP 7 connection possible • Rop/State No - Equidistance No - Startices - - Outputs, max. 8 kbyte • Number of conn		
PROFIBUS DP master 64 • Number of DP slaves, max. 64 Services - - Equidistance No - Isotchronous mode No Address area - - Unputs, max. 8 kbyte - Outputs, max. 8 kbyte 4. Interface PROFIBUS with CP 5623 Number of connections 44 Interface type PROFIBUS with CP 5623 Number of connections 44 Interface types - • RS 485 Yes • PROFIBUS DP master Yes • SIMATIC communication Yes; no PG/STEP 7 connection possible PROFIBUS DP master Yes; no PG/STEP 7 connection possible • Number of DP slaves, max. 125 Services - - Equidistance No - Isotchronus mode No Address area - - Inputs, max. 8 kbyte - Outputs, max. 8 kbyte Protocols - Number of connections, max. 128 • Number of connections reserved for ES/HMI/web 10 <tr< td=""><td></td><td></td></tr<>		
• Number of DP slaves, max. 64 Services		
Services No Equidistance No Isputs, max. 8 kbyte Inputs, max. 8 kbyte Uuputs, max. 8 kbyte 4. Interface PROFIBUS with CP 5623 Number of connections 44 Interface types PROFIBUS with CP 5623 Number of connections 44 Interface types Yes • PROFIBUS DP master Yes • PROFIBUS DP slave No • SIMATIC communication Yes; no PG/STEP 7 connection possible PROFIBUS DP master Yes; no PG/STEP 7 connection possible PROFIBUS DP master Yes; no PG/STEP 7 connection possible PROFIBUS DP master Yes; no PG/STEP 7 connection possible PROFIBUS DP master Yes; no PG/STEP 7 connection possible PROFIBUS DP master Yes; no PG/STEP 7 connection possible PROFIBUS DP master No - Isochronous mode No - Isochronous mode No Address area - - Inputs, max. 8 kbyte - Outputs, max. 8 kbyte Protocols - Number of connections, max. 128 Number of sonnections reserved for ES/HMI/web 10 Number of Sonnections reserved for ES/HMI/web 1		64
Equidistance No Isochronous mode No Address area 8 kbyte Inputs, max. 8 kbyte Outputs, max. 8 kbyte 4 Interface PROFIBUS with CP 5623 Number of connections 44 Interface type PROFIBUS with CP 5623 Number of connections 44 Interface types Yes • RS 485 Yes Protocols - • PROFIBUS DP master Yes; no PG/STEP 7 connection possible PROFIBUS DP slave No • SIMATIC communication Yes; no PG/STEP 7 connection possible PROFIBUS DP master Yes; no PG/STEP 7 connection possible PROFIBUS DP master Yes; no PG/STEP 7 connection possible PROFIBUS DP master Yes; no PG/STEP 7 connection possible PROFIBUS DP master Yes; no PG/STEP 7 connection possible PROFIBUS DP master No - Isochronous mode No - Isochronous mode No Address area 8 kbyte - Inputs, max. 8 kbyte Protocols 128 Number of connections master 128 • Number of connections reserved for ES/HMI/web 16 Redundancy mode 16 Media		04
		No
Address area - Inputs, max. 8 kbyte - Outputs, max. 8 kbyte 4. Interface PROFIBUS with CP 5623 Number of connections 44 Interface types Yes • RS 485 Yes PROFIBUS DP master Yes • PROFIBUS DP slave No • SIMATIC communication Yes; no PG/STEP 7 connection possible PROFIBUS DP master Yes • Number of DP slaves, max. 125 Services - - Equidistance No - Isochronous mode No - Outputs, max. 8 kbyte Protocols - Vibor of connections, max. 8 kbyte - Outputs, max. 8 kbyte Protocols - Number of connections, max. 128 • Number of connections reserved for ES/HMI/web 10 • Number of S7 routing paths 16 Redundancy mode - Media redundancy - - MRP Yes - MRPD Yes; Requirement: IRT <td></td> <td></td>		
Inputs, max. 8 kbyte Outputs, max. 8 kbyte 4 Interface PROFIBUS with CP 5623 Number of connections 44 Interface types 44 Interface types Yes • RS 485 Yes PROFIBUS DP master Yes • PROFIBUS DP slave No • PROFIBUS DP slave No • SIMATIC communication Yes; no PG/STEP 7 connection possible PROFIBUS DP master Ves; no PG/STEP 7 connection possible PROFIBUS DP master Ves; no PG/STEP 7 connection possible PROFIBUS DP master Interface in the interface in		NO
Outputs, max. 8 kbyte Interface PROFIBUS with CP 5623 Number of connections 44 Interface types 4 • RS 485 Yes Protocols Yes • PROFIBUS DP master Yes • PROFIBUS DP slave No • SIMATIC communication Yes; no PG/STEP 7 connection possible PROFIBUS DP master Yes; no PG/STEP 7 connection possible PROFIBUS DP master Yes; no PG/STEP 7 connection possible PROFIBUS DP master Yes; no PG/STEP 7 connection possible PROFIBUS DP master 125 Services - - Equidistance No - Isochronous mode No - Isochronous mode No - Outputs, max. 8 kbyte - Outputs, max. 8 kbyte Protocols - Number of connections, max. 128 • Number of connections, max. 128 • Number of s7 routing paths 16 Redundancy - Media redundancy - - MRPD Yes - MRPD Yes; Requireme		0.14.4
4. Interface Interface type PROFIBUS with CP 5623 Number of connections 44 Interface types • RS 485 Yes Protocols • PROFIBUS DP master Yes • PROFIBUS DP slave No • SIMATIC communication Yes; no PG/STEP 7 connection possible PROFIBUS DP master • Number of DP slaves, max. 125 Services - Equidistance No - Isochronous mode No Address area 8 kbyte - Outputs, max. 8 kbyte Protocols Number of connections, max. 128 • Number of s7 routing paths 16 Redundancy - MRPD Yes; Requirement. IRT		
Interface type PROFIBUS with CP 5623 Number of connections 44 Interface types Yes • PROFIBUS DP master Yes • Number of DP slaves, max. 125 Services - - Equidistance No - Isochronous mode No Address area - - Inputs, max. 8 kbyte Protocols - Number of connections, max. 128 • Number of connections reserved fo		о круге
Number of connections 44 Interface types • RS 485 • RS 485 Yes Protocols • PROFIBUS DP master • PROFIBUS DP slave No • SIMATIC communication Yes; no PG/STEP 7 connection possible PROFIBUS DP master • SiMATIC communication • Number of DP slaves, max. 125 Services - - Equidistance No - Isochronous mode No Address area - - Outputs, max. 8 kbyte Protocols - Number of connections max. 128 • Number of connections reserved for ES/HMI/web 10 • Number of S7 routing paths 16 Redundancy - - MRPD Yes - MRPD Yes; Requirement: IRT		
Interface types • RS 485 Yes Protocols • PROFIBUS DP master Yes • PROFIBUS DP slave No • SIMATIC communication Yes; no PG/STEP 7 connection possible PROFIBUS DP master Yes • Number of DP slaves, max. 125 Services - - Equidistance No - Isochronous mode No Address area - - Inputs, max. 8 kbyte Protocols Number of connections, max. • Number of connections reserved for ES/HMI/web 10 • Number of S7 routing paths 16 Redundancy mode Media redundancy - MRPD Yes - MRPD Yes		
• RS 485 Yes Protocols · • PROFIBUS DP master Yes • PROFIBUS DP slave No • SIMATIC communication Yes; no PG/STEP 7 connection possible PROFIBUS DP master · • Number of DP slaves, max. 125 Services · - Equidistance No - Isochronous mode No Address area 8 kbyte - Outputs, max. 8 kbyte - Outputs, max. 8 kbyte Protocols · Protocols · Redundancy mode 10 • Number of S7 routing paths 16 Redundancy mode · Media redundancy · - MRP Yes - MRPD Yes; Requirement: IRT		44
Protocols • PROFIBUS DP master Yes • PROFIBUS DP slave No • SIMATIC communication Yes; no PG/STEP 7 connection possible PROFIBUS DP master 125 Services - - Equidistance No - Isochronous mode No Address area - - Outputs, max. 8 kbyte - Outputs, max. 8 kbyte Protocols 128 Number of connections, max. 128 • Number of connections, max. 128 • Number of connections max. 128 • Number of S7 routing paths 16 Redundancy mode Media redundancy Media redundancy Yes - MRP Yes - MRPD Yes; Requirement: IRT		
• PROFIBUS DP master Yes • PROFIBUS DP slave No • SIMATIC communication Yes; no PG/STEP 7 connection possible PROFIBUS DP master 125 • Number of DP slaves, max. 125 Services - - Equidistance No - Isochronous mode No Address area - - Outputs, max. 8 kbyte - Outputs, max. 8 kbyte Protocols - Number of connections, max. 128 • Number of connections reserved for ES/HMI/web 10 • Number of S7 routing paths 16 Redundancy mode - Media redundancy - - MRP Yes - MRPD Yes; Requirement: IRT		Yes
• PROFIBUS DP slaveNo• SIMATIC communicationYes; no PG/STEP 7 connection possiblePROFIBUS DP master125• Number of DP slaves, max.125Services EquidistanceNo- Isochronous modeNoAddress area Inputs, max.8 kbyte- Outputs, max.8 kbyteProtocols-Number of connections, max.128• Number of connections reserved for ES/HMI/web10• Number of S7 routing paths16Redundancy mode MRPYes- MRPDYes; Requirement: IRT		
• SIMATIC communication Yes; no PG/STEP 7 connection possible PROFIBUS DP master • Number of DP slaves, max. 125 Services - - Equidistance No - Isochronous mode No Address area 8 kbyte - Outputs, max. 8 kbyte - Outputs, max. 8 kbyte Protocols 128 Number of connections, max. 128 • Number of connections reserved for ES/HMI/web 10 • Number of S7 routing paths 16 Redundancy mode Media redundancy - MRP Yes - MRPD Yes; Requirement: IRT	 PROFIBUS DP master 	Yes
PROFIBUS DP master • Number of DP slaves, max. 125 Services - - Equidistance No - Isochronous mode No Address area - - Inputs, max. 8 kbyte - Outputs, max. 8 kbyte Protocols - Number of connections, max. 128 • Number of connections reserved for ES/HMI/web 10 • Number of S7 routing paths 16 Redundancy mode - Media redundancy - - MRP Yes - MRPD Yes; Requirement: IRT	PROFIBUS DP slave	
• Number of DP slaves, max.125Services		Yes; no PG/STEP 7 connection possible
Services Equidistance No Isochronous mode No Address area No Inputs, max. 8 kbyte Outputs, max. 8 kbyte Outputs, max. 8 kbyte Protocols 8 Number of connections, max. 128 • Number of connections reserved for ES/HMI/web 10 • Number of S7 routing paths 16 Redundancy mode 16 Media redundancy Yes MRP Yes MRPD Yes; Requirement: IRT	PROFIBUS DP master	
EquidistanceNo Isochronous modeNoAddress area Inputs, max.8 kbyte Outputs, max.8 kbyteProtocolsNumber of connections, max.128• Number of connections reserved for ES/HMI/web10• Number of S7 routing paths16Redundancy modeMedia redundancyYes MRPYes MRPDYes; Requirement: IRT	 Number of DP slaves, max. 	125
— Isochronous modeNoAddress area— Inputs, max.8 kbyte— Outputs, max.8 kbyteProtocolsNumber of connections, max.128• Number of connections reserved for ES/HMI/web10• Number of S7 routing paths16Redundancy modeMedia redundancyYes— MRPYes; Requirement: IRT	Services	
Address area - Inputs, max. 8 kbyte - Outputs, max. 8 kbyte Protocols Number of connections • Number of connections, max. 128 • Number of connections reserved for ES/HMI/web 10 • Number of S7 routing paths 16 Redundancy mode Media redundancy - MRP Yes - MRPD Yes; Requirement: IRT	— Equidistance	No
Inputs, max.8 kbyte Outputs, max.8 kbyteProtocolsNumber of connections128• Number of connections reserved for ES/HMI/web10• Number of S7 routing paths16Redundancy modeMedia redundancyYes MRPYes MRPDYes; Requirement: IRT	— Isochronous mode	No
Outputs, max.8 kbyteProtocolsNumber of connections128• Number of connections, max.128• Number of connections reserved for ES/HMI/web10• Number of S7 routing paths16Redundancy mode16Media redundancy- MRP MRPYes MRPDYes; Requirement: IRT	Address area	
Protocols Number of connections • Number of connections, max. 128 • Number of connections reserved for ES/HMI/web 10 • Number of S7 routing paths 16 Redundancy mode Media redundancy - MRP Yes - MRPD Yes; Requirement: IRT	— Inputs, max.	8 kbyte
Number of connections 128 • Number of connections, max. 128 • Number of connections reserved for ES/HMI/web 10 • Number of S7 routing paths 16 Redundancy mode Media redundancy - MRP Yes - MRPD Yes; Requirement: IRT	— Outputs, max.	8 kbyte
Number of connections 128 • Number of connections, max. 128 • Number of connections reserved for ES/HMI/web 10 • Number of S7 routing paths 16 Redundancy mode Media redundancy - MRP Yes - MRPD Yes; Requirement: IRT	Protocols	
 Number of connections, max. Number of connections reserved for ES/HMI/web Number of S7 routing paths Redundancy mode Media redundancy - MRP - MRPD Yes; Requirement: IRT 		
 Number of connections reserved for ES/HMI/web Number of S7 routing paths 16 Redundancy mode Media redundancy - MRP - MRPD Yes; Requirement: IRT 		128
• Number of S7 routing paths 16 Redundancy mode		
Redundancy mode Media redundancy MRP Yes MRPD Yes; Requirement: IRT		
Media redundancy MRP Yes MRPD Yes; Requirement: IRT		
MRP Yes MRPD Yes; Requirement: IRT		
MRPD Yes; Requirement: IRT		Yes
	owitchever time on time break, typ.	

— Number of stations in the ring, max.	50
SIMATIC communication	50
PG/OP communication	Yes
• S7 routing	Yes
S7 communication, as server	Yes
S7 communication, as client	Yes
User data per job, max.	64 kbyte; BSEND/BRCV: 64 KB; PUT/GET: 960 bytes
Open IE communication	
• TCP/IP	Yes
— Data length, max.	64 kbyte
• ISO-on-TCP (RFC1006)	Yes
— Data length, max.	64 kbyte
• UDP	Yes
— Data length, max.	2 kbyte
— UDP multicast	Yes; 128 multicast circuits (of which max. 5 via CP 1625)
• DHCP	Yes
• SNMP	Yes
• DCP	Yes
• LLDP	Yes
Web server	
• HTTP	Yes; Standard and user pages
• HTTPS	Yes; Standard and user pages
OPC UA	
 Runtime license required 	Yes; "Medium" license required
OPC UA Client	Yes; Data access (read, write), method call
 Application authentication 	Yes
— Security policies	Yes; Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256
— User authentication	Yes; "anonymous" or by user name & password
 Number of connections, max. 	40
 Number of nodes of the client interfaces, max. 	5 000
 — Number of elements for one call of OPC_UA_NodeGetHandleList/OPC_UA_ReadList/C max. 	300
 — Number of elements for one call of OPC_UA_NameSpaceGetIndexList, max. 	20
 — Number of elements for one call of OPC_UA_MethodGetHandleList, max. 	100
 — Number of simultaneous calls of the client instructions per connection (except OPC_UA_ReadList,OPC_UA_WriteList,OPC_UA_M max. 	1
— Number of simultaneous calls of the client	5
instructions OPC_UA_ReadList,OPC_UA_WriteList and OPC_UA_MethodCall, max.	
- Number of registerable nodes, max.	5 000
 — Number of registerable method calls of OPC_UA_MethodCall, max. 	100
 — Number of inputs/outputs when calling OPC_UA_MethodCall, max. 	20
OPC UA Server	Yes; Data access (read, write, subscribe), method call, custom address space
 Application authentication 	Yes
— Security policies	Yes; Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256
— User authentication	Yes; "anonymous" or by user name & password
— Number of sessions, max.	64
 — Number of accessible variables, max. 	200 000
 — Number of registerable nodes, max. 	50 000
 — Number of subscriptions per session, max. 	20
— Sampling interval, min.	10 ms

 Publishing interval, min. 	
5	10 ms
 — Number of server methods, max. 	100
 — Number of inputs/outputs per server method, max. 	20
— Number of monitored items, max.	10 000; for 1 s sampling interval and 1 s send interval
- Number of server interfaces, max.	10 000, for this sampling intervaliand this send interval
— Number of nodes for user-defined server	30 000
interfaces, max.	
Further protocols	
MODBUS	Yes; MODBUS TCP
S7 message functions	
Number of login stations for message functions, max.	32
Program alarms	Yes
Number of configurable program messages, max.	10 000
Number of loadable program messages in RUN, max.	5 000
Number of simultaneously active program alarms	1 000
 Number of program alarms 	1 000
Number of alarms for system diagnostics	200
 Number of alarms for motion technology objects 	160
Test commissioning functions	
Joint commission (Team Engineering)	Yes; Parallel online access possible for up to 10 engineering systems
Status block	Yes; up to 8 simultaneously
Single step	Yes
Number of breakpoints	8
Status/control	
Status/control variable	Yes
Variables	Inputs, outputs, memory bits, DB, times, counters
 Number of variables, max. 	
— of which status variables, max.	200
— of which control variables, max.	200
Forcing	200
Forcing	Yes
Forcing, variables	Inputs, outputs
<u>.</u>	200
 Number of variables max 	200
Number of variables, max. Diagnostic buffer	
Diagnostic buffer	Yes
Diagnostic buffer • present	Yes 1.000
Diagnostic buffer • present • Number of entries, max.	1 000
Diagnostic buffer • present • Number of entries, max. — of which powerfail-proof	
Diagnostic buffer • present • Number of entries, max. — of which powerfail-proof Traces	1 000 300
Diagnostic buffer • present • Number of entries, max. — of which powerfail-proof Traces • Number of configurable Traces	1 000 300 4
Diagnostic buffer • present • Number of entries, max. — of which powerfail-proof Traces • Number of configurable Traces • Memory size per trace, max.	1 000 300
Diagnostic buffer • present • Number of entries, max. — of which powerfail-proof Traces • Number of configurable Traces • Memory size per trace, max. Interrupts/diagnostics/status information	1 000 300 4
Diagnostic buffer	1 000 300 4 512 kbyte
Diagnostic buffer • present • Number of entries, max. — of which powerfail-proof Traces • Number of configurable Traces • Memory size per trace, max. Interrupts/diagnostics/status information Diagnostics indication LED • RUN/STOP LED	1 000 300 4 512 kbyte Yes; HW LED of SIMATIC IPC227E, IPC427D/E, IPC627D/E, IPC827D, IPC677D/E
Diagnostic buffer	1 000 300 4 512 kbyte Yes; HW LED of SIMATIC IPC227E, IPC427D/E, IPC627D/E, IPC827D,
Diagnostic buffer • present • Number of entries, max. — of which powerfail-proof Traces • Number of configurable Traces • Memory size per trace, max. Interrupts/diagnostics/status information Diagnostics indication LED • RUN/STOP LED	1 000 300 4 512 kbyte Yes; HW LED of SIMATIC IPC227E, IPC427D/E, IPC627D/E, IPC827D, IPC677D/E Yes; HW LED of SIMATIC IPC227E, IPC427D/E, IPC627D/E, IPC827D,
Diagnostic buffer • present • Number of entries, max. — of which powerfail-proof Traces • Number of configurable Traces • Memory size per trace, max. Interrupts/diagnostics/status information Diagnostics indication LED • RUN/STOP LED • ERROR LED	1 000 300 4 512 kbyte Yes; HW LED of SIMATIC IPC227E, IPC427D/E, IPC627D/E, IPC827D, IPC677D/E Yes; HW LED of SIMATIC IPC227E, IPC427D/E, IPC627D/E, IPC827D, IPC677D/E Yes; HW LED of SIMATIC IPC227E, IPC427D/E, IPC627D/E, IPC827D,
Diagnostic buffer • present • Number of entries, max. of which powerfail-proof Traces • Number of configurable Traces • Memory size per trace, max. Interrupts/diagnostics/status information Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED	1 000 300 4 512 kbyte Yes; HW LED of SIMATIC IPC227E, IPC427D/E, IPC627D/E, IPC827D, IPC677D/E Yes; HW LED of SIMATIC IPC227E, IPC427D/E, IPC627D/E, IPC827D, IPC677D/E Yes; HW LED of SIMATIC IPC227E, IPC427D/E, IPC627D/E, IPC827D, IPC677D/E Yes; Note: The number of technology objects affects the cycle time of
Diagnostic buffer • present • Number of entries, max. of which powerfail-proof Traces • Number of configurable Traces • Memory size per trace, max. Interrupts/diagnostics/status information Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED Supported technology objects	1 000 300 4 512 kbyte Yes; HW LED of SIMATIC IPC227E, IPC427D/E, IPC627D/E, IPC827D, IPC677D/E Yes; HW LED of SIMATIC IPC227E, IPC427D/E, IPC627D/E, IPC827D, IPC677D/E Yes; HW LED of SIMATIC IPC227E, IPC427D/E, IPC627D/E, IPC827D, IPC677D/E
Diagnostic buffer • present • Number of entries, max. of which powerfail-proof Traces • Number of configurable Traces • Memory size per trace, max. Interrupts/diagnostics/status information Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED Supported technology objects Motion Control • Number of available Motion Control resources for technology objects	1 000 300 4 512 kbyte 7 Yes; HW LED of SIMATIC IPC227E, IPC427D/E, IPC627D/E, IPC827D, IPC677D/E Yes; HW LED of SIMATIC IPC227E, IPC427D/E, IPC627D/E, IPC827D, IPC677D/E Yes; HW LED of SIMATIC IPC227E, IPC427D/E, IPC627D/E, IPC827D, IPC677D/E Yes; Note: The number of technology objects affects the cycle time of the PLC program; selection guide via the TIA Selection Tool or SIZER
Diagnostic buffer • present • Number of entries, max. - of which powerfail-proof Traces • Number of configurable Traces • Memory size per trace, max. Interrupts/diagnostics/status information Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED Supported technology objects Motion Control • Number of available Motion Control resources for technology objects • Required Motion Control resources	1 000 300 4 512 kbyte Yes; HW LED of SIMATIC IPC227E, IPC427D/E, IPC627D/E, IPC827D, IPC677D/E Yes; HW LED of SIMATIC IPC227E, IPC427D/E, IPC627D/E, IPC827D, IPC677D/E Yes; HW LED of SIMATIC IPC227E, IPC427D/E, IPC627D/E, IPC827D, IPC677D/E Yes; Note: The number of technology objects affects the cycle time of the PLC program; selection guide via the TIA Selection Tool or SIZER 4 800
Diagnostic buffer • present • Number of entries, max. - of which powerfail-proof Traces • Number of configurable Traces • Memory size per trace, max. Interrupts/diagnostics/status information Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED Supported technology objects Motion Control • Number of available Motion Control resources for technology objects • Required Motion Control resources - per speed-controlled axis	1 000 300 4 512 kbyte 7 Yes; HW LED of SIMATIC IPC227E, IPC427D/E, IPC627D/E, IPC827D, IPC677D/E Yes; HW LED of SIMATIC IPC227E, IPC427D/E, IPC627D/E, IPC827D, IPC677D/E Yes; HW LED of SIMATIC IPC227E, IPC427D/E, IPC627D/E, IPC827D, IPC677D/E Yes; Note: The number of technology objects affects the cycle time of the PLC program; selection guide via the TIA Selection Tool or SIZER 4 800
Diagnostic buffer • present • Number of entries, max. of which powerfail-proof Traces • Number of configurable Traces • Memory size per trace, max. Interrupts/diagnostics/status information Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED Supported technology objects Motion Control • Number of available Motion Control resources for technology objects — Number of available Motion Control resources for technology objects — Required Motion Control resources — per speed-controlled axis — per positioning axis	1 000 300 4 512 kbyte 7 Yes; HW LED of SIMATIC IPC227E, IPC427D/E, IPC627D/E, IPC827D, IPC677D/E Yes; HW LED of SIMATIC IPC227E, IPC427D/E, IPC627D/E, IPC827D, IPC677D/E Yes; HW LED of SIMATIC IPC227E, IPC427D/E, IPC627D/E, IPC827D, IPC677D/E Yes; Note: The number of technology objects affects the cycle time of the PLC program; selection guide via the TIA Selection Tool or SIZER 4 800 40 80
Diagnostic buffer • present • Number of entries, max. of which powerfail-proof Traces • Number of configurable Traces • Memory size per trace, max. Interrupts/diagnostics/status information Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED Supported technology objects Motion Control • Number of available Motion Control resources for technology objects • Required Motion Control resources - per speed-controlled axis - per positioning axis - per synchronous axis	1 000 300 4 512 kbyte 7 Yes; HW LED of SIMATIC IPC227E, IPC427D/E, IPC627D/E, IPC827D, IPC677D/E Yes; HW LED of SIMATIC IPC227E, IPC427D/E, IPC627D/E, IPC827D, IPC677D/E Yes; HW LED of SIMATIC IPC227E, IPC427D/E, IPC627D/E, IPC827D, IPC677D/E Yes; Note: The number of technology objects affects the cycle time of the PLC program; selection guide via the TIA Selection Tool or SIZER 4 800 40 80 160
Diagnostic buffer • present • Number of entries, max. of which powerfail-proof Traces • Number of configurable Traces • Memory size per trace, max. Interrupts/diagnostics/status information Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED Supported technology objects Motion Control • Number of available Motion Control resources for technology objects — Number of available Motion Control resources for technology objects — Per speed-controlled axis — per positioning axis	1 000 300 4 512 kbyte 7 Yes; HW LED of SIMATIC IPC227E, IPC427D/E, IPC627D/E, IPC827D, IPC677D/E Yes; HW LED of SIMATIC IPC227E, IPC427D/E, IPC627D/E, IPC827D, IPC677D/E Yes; HW LED of SIMATIC IPC227E, IPC427D/E, IPC627D/E, IPC827D, IPC677D/E Yes; Note: The number of technology objects affects the cycle time of the PLC program; selection guide via the TIA Selection Tool or SIZER 4 800 40 80

— per output cam	20
— per cam track	160
— per probe	40
 Positioning axis 	
 — Number of positioning axes at motion control cycle of 4 ms (typical value) 	30; On IPC427E, Intel Xeon processor
 — Number of positioning axes at motion control cycle of 8 ms (typical value) 	60; On IPC427E, Intel Xeon processor
Controller	
 PID_Compact 	Yes; Universal PID controller with integrated optimization
PID_3Step	Yes; PID controller with integrated optimization for valves
• PID-Temp	Yes; PID controller with integrated optimization for temperature
Counting and measuring	
High-speed counter	Yes
Hardware requirement	
Hardware required	SIMATIC IPC2x7E, IPC4x7D/E, IPC6x7D/E, IPC8x7D/E
Processor	
Single-core processor	No
	No
Single-core processor with hyper-threading	
Multi-core processor Multi-core processor	Yes
Multi-core processor with hyper-threading	Yes
 occupied cores 	1; For multicore processors with activated Hyper-Threading, one complete physical core is reserved for the CPU 1507S
Memory	
Work memory, min.	4 Gbyte
Hard disk memory required for installation	720 Mbyte
Temporary hard disk memory for installation	230 Mbyte
Hard disk memory required at runtime	400 Mbyte
Operating systems	
Runs under operating system	
• Windows 7	Yes; Professional, Enterprise, Ultimate (32 bit and 64 bit); Windows Embedded Standard 7 with delivery image of the SIMATIC IPC
• Windows 7	Embedded Standard 7 with delivery image of the SIMATIC IPC Yes; Windows 10 Enterprise 2016 LTSB, 64-bit, MUI on IPC2x7E, IPC4x7E, IPC6x7D, IPC8x7D; Windows 10 Enterprise 2019 LTSC 64-
Windows 7Windows 10	Embedded Standard 7 with delivery image of the SIMATIC IPC Yes; Windows 10 Enterprise 2016 LTSB, 64-bit, MUI on IPC2x7E, IPC4x7E, IPC6x7D, IPC8x7D; Windows 10 Enterprise 2019 LTSC 64-
Windows 7 Windows 10 Configuration	Embedded Standard 7 with delivery image of the SIMATIC IPC Yes; Windows 10 Enterprise 2016 LTSB, 64-bit, MUI on IPC2x7E, IPC4x7E, IPC6x7D, IPC8x7D; Windows 10 Enterprise 2019 LTSC 64-
Windows 7 Windows 10 Configuration Programming	Embedded Standard 7 with delivery image of the SIMATIC IPC Yes; Windows 10 Enterprise 2016 LTSB, 64-bit, MUI on IPC2x7E, IPC4x7E, IPC6x7D, IPC8x7D; Windows 10 Enterprise 2019 LTSC 64-
Windows 7 Windows 10 Configuration Programming Programming language	Embedded Standard 7 with delivery image of the SIMATIC IPC Yes; Windows 10 Enterprise 2016 LTSB, 64-bit, MUI on IPC2x7E, IPC4x7E, IPC6x7D, IPC8x7D; Windows 10 Enterprise 2019 LTSC 64- bit, MUI on IPC2x7E, IPC4x7E, IPC6x7E, IPC8x7E
Windows 7 Windows 10 Configuration Programming Programming language — LAD	Embedded Standard 7 with delivery image of the SIMATIC IPC Yes; Windows 10 Enterprise 2016 LTSB, 64-bit, MUI on IPC2x7E, IPC4x7E, IPC6x7D, IPC8x7D; Windows 10 Enterprise 2019 LTSC 64- bit, MUI on IPC2x7E, IPC4x7E, IPC6x7E, IPC8x7E
Windows 7 Windows 10 Configuration Programming Programming language — LAD — FBD	Embedded Standard 7 with delivery image of the SIMATIC IPC Yes; Windows 10 Enterprise 2016 LTSB, 64-bit, MUI on IPC2x7E, IPC4x7E, IPC6x7D, IPC8x7D; Windows 10 Enterprise 2019 LTSC 64- bit, MUI on IPC2x7E, IPC4x7E, IPC6x7E, IPC8x7E
Windows 7 Windows 10 Configuration Programming Programming language — LAD — FBD — STL — SCL	Embedded Standard 7 with delivery image of the SIMATIC IPC Yes; Windows 10 Enterprise 2016 LTSB, 64-bit, MUI on IPC2x7E, IPC4x7E, IPC6x7D, IPC8x7D; Windows 10 Enterprise 2019 LTSC 64- bit, MUI on IPC2x7E, IPC4x7E, IPC6x7E, IPC8x7E Yes Yes Yes Yes
Windows 7 Windows 10 Configuration Programming Programming language — LAD — FBD — STL — SCL — CFC	Embedded Standard 7 with delivery image of the SIMATIC IPC Yes; Windows 10 Enterprise 2016 LTSB, 64-bit, MUI on IPC2x7E, IPC4x7E, IPC6x7D, IPC8x7D; Windows 10 Enterprise 2019 LTSC 64- bit, MUI on IPC2x7E, IPC4x7E, IPC6x7E, IPC8x7E Yes Yes Yes Yes No
Windows 7 Windows 10 Configuration Programming Programming language — LAD — FBD — STL — SCL — CFC — GRAPH	Embedded Standard 7 with delivery image of the SIMATIC IPC Yes; Windows 10 Enterprise 2016 LTSB, 64-bit, MUI on IPC2x7E, IPC4x7E, IPC6x7D, IPC8x7D; Windows 10 Enterprise 2019 LTSC 64- bit, MUI on IPC2x7E, IPC4x7E, IPC6x7E, IPC8x7E Yes Yes Yes Yes
Windows 7 Windows 10 Configuration Programming Programming language — LAD — FBD — STL — SCL — CFC — GRAPH Know-how protection	Embedded Standard 7 with delivery image of the SIMATIC IPC Yes; Windows 10 Enterprise 2016 LTSB, 64-bit, MUI on IPC2x7E, IPC4x7E, IPC6x7D, IPC8x7D; Windows 10 Enterprise 2019 LTSC 64- bit, MUI on IPC2x7E, IPC4x7E, IPC6x7E, IPC8x7E Yes Yes Yes Yes No Yes
Windows 7 Windows 10 Configuration Programming Programming language — LAD — FBD — STL — SCL — CFC — GRAPH Know-how protection User program protection/password protection	Embedded Standard 7 with delivery image of the SIMATIC IPC Yes; Windows 10 Enterprise 2016 LTSB, 64-bit, MUI on IPC2x7E, IPC4x7E, IPC6x7D, IPC8x7D; Windows 10 Enterprise 2019 LTSC 64- bit, MUI on IPC2x7E, IPC4x7E, IPC6x7E, IPC8x7E Yes Yes Yes No Yes
Windows 7 Windows 10 Configuration Programming Programming language — LAD — FBD — STL — SCL — CFC — GRAPH Know-how protection User program protection/password protection Copy protection	Embedded Standard 7 with delivery image of the SIMATIC IPC Yes; Windows 10 Enterprise 2016 LTSB, 64-bit, MUI on IPC2x7E, IPC4x7E, IPC6x7D, IPC8x7D; Windows 10 Enterprise 2019 LTSC 64- bit, MUI on IPC2x7E, IPC4x7E, IPC6x7E, IPC8x7E Yes Yes Yes No Yes Yes
Windows 7 Windows 10 Configuration Programming Programming language — LAD — FBD — STL — SCL — CFC — GRAPH Know-how protection User program protection/password protection Elock protection	Embedded Standard 7 with delivery image of the SIMATIC IPC Yes; Windows 10 Enterprise 2016 LTSB, 64-bit, MUI on IPC2x7E, IPC4x7E, IPC6x7D, IPC8x7D; Windows 10 Enterprise 2019 LTSC 64- bit, MUI on IPC2x7E, IPC4x7E, IPC6x7E, IPC8x7E Yes Yes Yes No Yes
Windows 7 Windows 10 Configuration Programming Programming language — LAD — FBD — STL — SCL — CFC — GRAPH Know-how protection User program protection/password protection Elock protection Access protection	Embedded Standard 7 with delivery image of the SIMATIC IPC Yes; Windows 10 Enterprise 2016 LTSB, 64-bit, MUI on IPC2x7E, IPC4x7E, IPC6x7D, IPC8x7D; Windows 10 Enterprise 2019 LTSC 64- bit, MUI on IPC2x7E, IPC4x7E, IPC6x7E, IPC8x7E Yes Yes Yes Yes No Yes Yes Yes Yes
Windows 7 Windows 10 Configuration Programming Programming language — LAD — FBD — STL — SCL — CFC — GRAPH Know-how protection User program protection/password protection Block protection Block protection Protection level: Write protection	Embedded Standard 7 with delivery image of the SIMATIC IPC Yes; Windows 10 Enterprise 2016 LTSB, 64-bit, MUI on IPC2x7E, IPC4x7E, IPC6x7D, IPC8x7D; Windows 10 Enterprise 2019 LTSC 64- bit, MUI on IPC2x7E, IPC4x7E, IPC6x7E, IPC8x7E Yes Yes Yes Yes No Yes Yes Yes Yes Yes
Windows 7 Windows 10 Configuration Programming Programming language — LAD — FBD — STL — SCL — CFC — GRAPH Know-how protection User program protection/password protection Elock protection Block protection Protection level: Write protection Protection level: Read/write protection	Embedded Standard 7 with delivery image of the SIMATIC IPC Yes; Windows 10 Enterprise 2016 LTSB, 64-bit, MUI on IPC2x7E, IPC4x7E, IPC6x7D, IPC8x7D; Windows 10 Enterprise 2019 LTSC 64- bit, MUI on IPC2x7E, IPC4x7E, IPC6x7E, IPC8x7E Yes Yes Yes Yes No Yes Yes Yes Yes Yes Yes
Windows 7 Windows 10 Configuration Programming Programming language — LAD — FBD — STL — SCL — CFC — GRAPH Know-how protection User program protection/password protection Copy protection Block protection Protection level: Write protection Protection level: Read/write protection Protection level: Complete protection	Embedded Standard 7 with delivery image of the SIMATIC IPC Yes; Windows 10 Enterprise 2016 LTSB, 64-bit, MUI on IPC2x7E, IPC4x7E, IPC6x7D, IPC8x7D; Windows 10 Enterprise 2019 LTSC 64- bit, MUI on IPC2x7E, IPC4x7E, IPC6x7E, IPC8x7E Yes Yes Yes Yes No Yes Yes Yes Yes Yes
 Windows 7 Windows 10 Programming Programming language LAD FBD STL SCL CFC GRAPH Know-how protection User program protection/password protection Copy protection Block protection Block protection Protection level: Write protection Protection level: Read/write protection Protection level: Complete protection 	Embedded Standard 7 with delivery image of the SIMATIC IPC Yes; Windows 10 Enterprise 2016 LTSB, 64-bit, MUI on IPC2x7E, IPC4x7E, IPC6x7D, IPC8x7D; Windows 10 Enterprise 2019 LTSC 64- bit, MUI on IPC2x7E, IPC4x7E, IPC6x7E, IPC8x7E Yes Yes Yes No Yes Yes Yes Yes Yes Yes Yes
 Windows 7 Windows 10 Programming Programming language LAD FBD STL SCL CFC GRAPH Know-how protection User program protection/password protection Copy protection Block protection Block protection Protection level: Write protection Protection level: Write protection Protection level: Complete protection Cycle time monitoring lower limit 	Embedded Standard 7 with delivery image of the SIMATIC IPC Yes; Windows 10 Enterprise 2016 LTSB, 64-bit, MUI on IPC2x7E, IPC4x7E, IPC6x7D, IPC8x7D; Windows 10 Enterprise 2019 LTSC 64- bit, MUI on IPC2x7E, IPC4x7E, IPC6x7E, IPC8x7E Yes Yes Yes Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes
 Windows 7 Windows 10 Programming Programming language LAD FBD STL SCL CFC GRAPH Know-how protection User program protection/password protection Copy protection Block protection Block protection Protection level: Write protection Protection level: Read/write protection Protection level: Complete protection Cycle time monitoring lower limit upper limit 	Embedded Standard 7 with delivery image of the SIMATIC IPC Yes; Windows 10 Enterprise 2016 LTSB, 64-bit, MUI on IPC2x7E, IPC4x7E, IPC6x7D, IPC8x7D; Windows 10 Enterprise 2019 LTSC 64- bit, MUI on IPC2x7E, IPC4x7E, IPC6x7E, IPC8x7E Yes Yes Yes No Yes Yes Yes Yes Yes Yes Yes Yes
 Windows 7 Windows 10 Programming Programming language LAD FBD STL SCL CFC GRAPH Know-how protection User program protection/password protection Copy protection Block protection Block protection Protection level: Write protection Protection level: Read/write protection Protection level: Complete protection Cycle time monitoring lower limit upper limit 	Embedded Standard 7 with delivery image of the SIMATIC IPC Yes; Windows 10 Enterprise 2016 LTSB, 64-bit, MUI on IPC2x7E, IPC4x7E, IPC6x7D, IPC8x7D; Windows 10 Enterprise 2019 LTSC 64- bit, MUI on IPC2x7E, IPC4x7E, IPC6x7E, IPC8x7E Yes Yes Yes Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes
 Windows 7 Windows 10 Programming Programming language LAD FBD STL SCL CFC GRAPH Know-how protection User program protection/password protection Copy protection Block protection Block protection Protection level: Write protection Protection level: Read/write protection Protection level: Complete protection Cycle time monitoring lower limit upper limit 	Embedded Standard 7 with delivery image of the SIMATIC IPC Yes; Windows 10 Enterprise 2016 LTSB, 64-bit, MUI on IPC2x7E, IPC4x7E, IPC6x7D, IPC8x7D; Windows 10 Enterprise 2019 LTSC 64- bit, MUI on IPC2x7E, IPC4x7E, IPC6x7E, IPC8x7E Yes Yes Yes Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes