6ES7412-2XJ05-0AB0

## **Data sheet**



\*\*\*\*\*\*\*\*\*\*\* Replacement part \*\*\*\*\*\*\*\*\* SIMATIC S7-400, CPU 412-2 Central processing unit with: work memory 512 KB, (256 KB code, 256 KB of data), 1st interface MPI/DP 12 Mbit/s, 2nd interface PROFIBUS DP

General information	
Product type designation	CPU 412-2
HW functional status	03
Firmware version	V5.3
Product function	
<ul> <li>Isochronous mode</li> </ul>	Yes; For PROFIBUS only
Engineering with	
<ul> <li>Programming package</li> </ul>	STEP 7 V5.3 SP2 or higher with HW update
CiR - Configuration in RUN	
CiR synchronization time, basic load	100 ms
CiR synchronization time, time per I/O byte	30 µs
Supply voltage	
Rated value (DC)	Power supply via system power supply
Input current	
from backplane bus 5 V DC, typ.	0.9 A
from backplane bus 5 V DC, max.	1.1 A
from backplane bus 24 V DC, max.	300 mA; 150 mA per DP interface
from interface 5 V DC, max.	90 mA; At each DP interface
Power loss	
Power loss, typ.	4.5 W
Memory	
Type of memory	RAM
Work memory	
<ul><li>integrated</li></ul>	512 kbyte
<ul><li>integrated (for program)</li></ul>	256 kbyte
<ul><li>integrated (for data)</li></ul>	256 kbyte
expandable	No
Load memory	
<ul> <li>expandable FEPROM</li> </ul>	Yes; with Memory Card (FLASH)
<ul> <li>expandable FEPROM, max.</li> </ul>	64 Mbyte
<ul><li>integrated RAM, max.</li></ul>	512 kbyte
<ul> <li>expandable RAM</li> </ul>	Yes; with Memory Card (RAM)
expandable RAM, max.	64 Mbyte
Backup	
<ul><li>present</li></ul>	Yes
<ul><li>with battery</li></ul>	Yes; all data
without battery	No
Battery	
Backup battery	

Backup current, max.	550 μΑ
<ul> <li>Backup time, max.</li> </ul>	See reference manual, module data, Chapter 3.3
Feeding of external backup voltage to CPU	5 V DC to 15 V DC
CPU processing times	
for bit operations, typ.	75 ns
for word operations, typ.	75 ns
for fixed point arithmetic, typ.	75 ns
for floating point arithmetic, typ.	225 ns
CPU-blocks	
DB	
<ul><li>Number, max.</li></ul>	3 000; Number range: 1 to 16000
• Size, max.	64 kbyte
FB	
<ul><li>Number, max.</li></ul>	1 500; Number range: 0 to 7999
• Size, max.	64 kbyte
FC	
<ul><li>Number, max.</li></ul>	1 500; Number range: 0 to 7999
• Size, max.	64 kbyte
OB	
Number, max.	see instruction list
• Size, max.	64 kbyte
<ul> <li>Number of free cycle OBs</li> </ul>	1; OB 1
<ul> <li>Number of time alarm OBs</li> </ul>	2; OB 10, 11
<ul> <li>Number of delay alarm OBs</li> </ul>	2; OB 20, 21
<ul> <li>Number of cyclic interrupt OBs</li> </ul>	2; OB 32, 35 (shortest cycle that can be set = 500 µs)
<ul> <li>Number of process alarm OBs</li> </ul>	2; OB 40, 41
<ul> <li>Number of DPV1 alarm OBs</li> </ul>	3; OB 55-57
<ul> <li>Number of isochronous mode OBs</li> </ul>	2; OB 61-62
<ul> <li>Number of multicomputing OBs</li> </ul>	1; OB 60
<ul> <li>Number of background OBs</li> </ul>	1; OB 90
<ul> <li>Number of startup OBs</li> </ul>	3; OB 100-102
<ul> <li>Number of asynchronous error OBs</li> </ul>	9; OB 80-88
<ul> <li>Number of synchronous error OBs</li> </ul>	2; OB 121, 122
Nesting depth	
<ul> <li>per priority class</li> </ul>	24
<ul><li>per priority class</li><li>additional within an error OB</li></ul>	24 1
additional within an error OB	
additional within an error OB Counters, timers and their retentivity	
additional within an error OB  Counters, timers and their retentivity  S7 counter	1
additional within an error OB Counters, timers and their retentivity S7 counter     Number	1
additional within an error OB Counters, timers and their retentivity S7 counter     Number Retentivity	2 048
additional within an error OB  Counters, timers and their retentivity  S7 counter      Number  Retentivity  — adjustable	1 2 048 Yes
additional within an error OB  Counters, timers and their retentivity  S7 counter      Number  Retentivity      — adjustable  — preset	1 2 048 Yes
additional within an error OB  Counters, timers and their retentivity  S7 counter      Number  Retentivity      — adjustable  — preset  Counting range	1 2 048  Yes Z 0 to Z 7
additional within an error OB  Counters, timers and their retentivity  S7 counter      Number  Retentivity      adjustable      preset  Counting range  lower limit	1 2 048  Yes Z 0 to Z 7
additional within an error OB  Counters, timers and their retentivity  S7 counter      Number  Retentivity      adjustable      preset  Counting range      lower limit      upper limit	1 2 048  Yes Z 0 to Z 7
additional within an error OB  Counters, timers and their retentivity  S7 counter      Number Retentivity      — adjustable — preset  Counting range — lower limit — upper limit  IEC counter	1 2 048  Yes Z 0 to Z 7  0 999
additional within an error OB  Counters, timers and their retentivity  S7 counter      Number Retentivity      — adjustable — preset  Counting range — lower limit — upper limit  IEC counter      present	1 2 048  Yes Z 0 to Z 7  0 999  Yes
additional within an error OB  Counters, timers and their retentivity  S7 counter      Number  Retentivity      — adjustable      — preset  Counting range  — lower limit — upper limit  IEC counter      present      Type	1  2 048  Yes Z 0 to Z 7  0 999  Yes SFB
additional within an error OB  Counters, timers and their retentivity  S7 counter      Number  Retentivity      adjustable      preset  Counting range      lower limit      upper limit  IEC counter      present      Type      Number	1  2 048  Yes Z 0 to Z 7  0 999  Yes SFB
additional within an error OB  Counters, timers and their retentivity  S7 counter  Number  Retentivity  adjustable  preset  Counting range  lower limit  upper limit  IEC counter  present  Type Number  S7 times	2 048  Yes Z 0 to Z 7  0 999  Yes SFB Unlimited (limited only by RAM capacity)
additional within an error OB  Counters, timers and their retentivity  S7 counter      Number Retentivity      — adjustable — preset Counting range — lower limit — upper limit  IEC counter      present     Type     Number  S7 times      Number Retentivity	2 048  Yes Z 0 to Z 7  0 999  Yes SFB Unlimited (limited only by RAM capacity)
additional within an error OB  Counters, timers and their retentivity  S7 counter      Number Retentivity      — adjustable — preset  Counting range — lower limit — upper limit  IEC counter      present     Type     Number  S7 times      Number	2 048  Yes Z 0 to Z 7  0 999  Yes SFB Unlimited (limited only by RAM capacity)
additional within an error OB  Counters, timers and their retentivity  S7 counter      Number  Retentivity      — adjustable      — preset  Counting range      — lower limit      — upper limit  IEC counter      present      Type      Number  S7 times      Number  Retentivity  — adjustable — preset	2 048  Yes Z 0 to Z 7  0 999  Yes SFB Unlimited (limited only by RAM capacity)  2 048  Yes
additional within an error OB  Counters, timers and their retentivity  S7 counter      Number  Retentivity      — adjustable      — preset  Counting range  — lower limit  — upper limit  IEC counter      present      Type      Number  S7 times      Number  Retentivity  — adjustable	2 048  Yes Z 0 to Z 7  0 999  Yes SFB Unlimited (limited only by RAM capacity)  2 048  Yes
additional within an error OB  Counters, timers and their retentivity      S7 counter      Number     Retentivity      — adjustable     — preset  Counting range  — lower limit — upper limit  IEC counter      present      Type      Number  S7 times      Number  Retentivity — adjustable — preset  Time range — lower limit	2 048  Yes Z 0 to Z 7  0 999  Yes SFB Unlimited (limited only by RAM capacity)  2 048  Yes No times retentive  10 ms
additional within an error OB  Counters, timers and their retentivity  S7 counter      Number Retentivity      — adjustable — preset Counting range — lower limit — upper limit  IEC counter      present     Type     Number  S7 times      Number Retentivity — adjustable — preset  Time range — lower limit — upper limit  — upper limit  — upper limit	2 048  Yes Z 0 to Z 7  0 999  Yes SFB Unlimited (limited only by RAM capacity)  2 048  Yes No times retentive
additional within an error OB  Counters, timers and their retentivity      S7 counter      Number  Retentivity      — adjustable      — preset  Counting range      — lower limit      — upper limit  IEC counter      present      Type      Number  S7 times      Number  Retentivity      — adjustable      — preset  Time range      — lower limit  — upper limit  IEC timer	2 048  Yes Z 0 to Z 7  0 999  Yes SFB Unlimited (limited only by RAM capacity)  2 048  Yes No times retentive  10 ms 9 990 s
additional within an error OB  Counters, timers and their retentivity  S7 counter      Number Retentivity      — adjustable — preset Counting range — lower limit — upper limit  IEC counter      present     Type     Number  S7 times      Number Retentivity — adjustable — preset  Time range — lower limit — upper limit  — upper limit  — upper limit	2 048  Yes Z 0 to Z 7  0 999  Yes SFB Unlimited (limited only by RAM capacity)  2 048  Yes No times retentive  10 ms

Number	Unlimited (limited only by RAM capacity)
Data areas and their retentivity	
Retentive data area (incl. timers, counters, flags), max.	Total working and load memory (with backup battery)
Flag	
• Size, max.	4 kbyte; Size of bit memory address area
Retentivity available	Yes
<ul> <li>Retentivity preset</li> </ul>	MB 0 to MB 15
Number of clock memories	8; in 1 memory byte
Local data	
adjustable, max.	8 kbyte
• preset	4 kbyte
Address area	
I/O address area	
• Inputs	4 kbyte
Outputs	4 kbyte
Process image	
<ul> <li>Inputs, adjustable</li> </ul>	4 kbyte
<ul> <li>Outputs, adjustable</li> </ul>	4 kbyte
<ul> <li>Inputs, default</li> </ul>	128 byte
<ul> <li>Outputs, default</li> </ul>	128 byte
• consistent data, max.	244 byte
Access to consistent data in process image	Yes
Subprocess images	
Number of subprocess images, max.	15
Digital channels	
• Inputs	32 768
— of which central	32 768
<ul><li>Outputs</li></ul>	32 768
— of which central	32 768
Analog channels	
• Inputs	2 048
— of which central	2 048
<ul><li>Outputs</li></ul>	2 048
— of which central	2 048
Hardware configuration	
Integrated power supply	No
Number of expansion units, max.	21
connectable OPs	31
Multicomputing	Yes; 4 CPUs max. (with UR1 or UR2)
Interface modules	
<ul> <li>Number of connectable IMs (total), max.</li> </ul>	6
<ul> <li>Number of connectable IM 460s, max.</li> </ul>	6
Number of connectable IM 463s, max.	4; IM 463-2
Number of DP masters	
• integrated	2
• via CP	10; CP 443-5 Extended
via IM 467	4
Mixed mode IM + CP permitted	No; IM 467 not suitable for use with CP 443-5 Ext. and CP 443-1 EX4x, EX20, GX20 (in PROFINET IO mode)
via interface module	0
Number of pluggable S5 modules (via adapter capsule in	6
central device), max.	
Number of IO Controllers	
• integrated	0
• via CP	4; No mixed operation of CP443-1 EX40 and CP443-1 EX 41/EX20/GX20,
Number of energials EMs and CDs (recommended)	max. 4 in central controller
Number of operable FMs and CPs (recommended)	Limited by number of elete and number of connections
• FM	Limited by number of slots and number of connections
● CP, PtP	CP 440: Limited by number of slots; CP 441: Limited by number of slots and number of connections
PROFIBUS and Ethernet CPs	14; Of which 10 CPs max. or IMs as DP master, 4 PROFINET controller maximum

Slots	
• required slots	1
Time of day	
Clock	
Hardware clock (real-time)	Yes
retentive and synchronizable	Yes
Resolution	1 ms
<ul> <li>Deviation per day (buffered), max.</li> </ul>	1.7 s; Power off
<ul> <li>Deviation per day (unbuffered), max.</li> </ul>	8.6 s; For power On
Operating hours counter	
Number	16
<ul> <li>Number/Number range</li> </ul>	0 to 15
<ul><li>Range of values</li></ul>	SFCs 2, 3 and 4: 0 to 32767 hours SFC 101: 0 to 2^31 - 1 hours
Granularity	1 h
• retentive	Yes
Clock synchronization	
• supported	Yes
• to MPI, master	Yes
• on MPI, device	Yes
• to DP, master	Yes
on DP, device	Yes
• in AS, master	Yes
• in AS, device	Yes
on Ethernet via NTP  Time difference in system when synchronizing via	No; Via CP
Time difference in system when synchronizing via  • MPI, max.	200 ms
• MIPI, max. Interfaces	200 III6
Interfaces/bus type	1 x MPI/PROFIBUS DP, 1 x PROFIBUS DP
Number of RS 485 interfaces	2; Combined MPI / PROFIBUS DP and PROFIBUS DP
Optical interface	No
1. Interface	
Interface type	MPI/PROFIBUS DP
Isolated	Yes
Interface types	
• RS 485	Yes
<ul> <li>Output current of the interface, max.</li> </ul>	150 mA
Protocols	
• MPI	Yes
	Yes Yes
• MPI	
MPI     PROFIBUS DP master	Yes
<ul><li>MPI</li><li>PROFIBUS DP master</li><li>PROFIBUS DP device</li></ul>	Yes Yes 32; If a diagnostics repeater is used on the line, the number of connection
MPI     PROFIBUS DP master     PROFIBUS DP device  MPI     Number of connections	Yes Yes 32; If a diagnostics repeater is used on the line, the number of connection resources on the line is reduced by 1
MPI     PROFIBUS DP master     PROFIBUS DP device  MPI     Number of connections     Transmission rate, max.	Yes Yes 32; If a diagnostics repeater is used on the line, the number of connection
MPI     PROFIBUS DP master     PROFIBUS DP device  MPI     Number of connections     Transmission rate, max.  Services	Yes Yes 32; If a diagnostics repeater is used on the line, the number of connection resources on the line is reduced by 1 12 Mbit/s
MPI     PROFIBUS DP master     PROFIBUS DP device  MPI     Number of connections     Transmission rate, max.  Services     PG/OP communication	Yes Yes  32; If a diagnostics repeater is used on the line, the number of connection resources on the line is reduced by 1  12 Mbit/s  Yes
MPI     PROFIBUS DP master     PROFIBUS DP device  MPI     Number of connections     Transmission rate, max.  Services     PG/OP communication     Routing	Yes Yes  32; If a diagnostics repeater is used on the line, the number of connection resources on the line is reduced by 1  12 Mbit/s  Yes Yes
MPI     PROFIBUS DP master     PROFIBUS DP device  MPI     Number of connections     Transmission rate, max.  Services     PG/OP communication     Routing     Global data communication	Yes Yes  32; If a diagnostics repeater is used on the line, the number of connection resources on the line is reduced by 1  12 Mbit/s  Yes Yes Yes Yes
MPI     PROFIBUS DP master     PROFIBUS DP device  MPI     Number of connections     Transmission rate, max.  Services     PG/OP communication     Routing     Global data communication     S7 basic communication	Yes Yes  32; If a diagnostics repeater is used on the line, the number of connection resources on the line is reduced by 1  12 Mbit/s  Yes Yes Yes Yes Yes
MPI     PROFIBUS DP master     PROFIBUS DP device  MPI     Number of connections     Transmission rate, max.  Services     PG/OP communication     Routing     Global data communication     S7 basic communication     S7 communication	Yes Yes  32; If a diagnostics repeater is used on the line, the number of connection resources on the line is reduced by 1  12 Mbit/s  Yes Yes Yes Yes Yes Yes
MPI     PROFIBUS DP master     PROFIBUS DP device  MPI     Number of connections     Transmission rate, max.  Services     PG/OP communication     Routing     Global data communication     S7 basic communication     S7 communication     S7 communication     S7 communication     S7 communication, as client	Yes Yes  32; If a diagnostics repeater is used on the line, the number of connection resources on the line is reduced by 1  12 Mbit/s  Yes Yes Yes Yes Yes
MPI     PROFIBUS DP master     PROFIBUS DP device  MPI     Number of connections     Transmission rate, max.  Services     PG/OP communication     Routing     Global data communication     S7 basic communication     S7 communication	Yes Yes  32; If a diagnostics repeater is used on the line, the number of connection resources on the line is reduced by 1 12 Mbit/s  Yes Yes Yes Yes Yes Yes Yes Yes
MPI PROFIBUS DP master PROFIBUS DP device  MPI  Number of connections Transmission rate, max. Services  — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication — S7 communication, as client — S7 communication, as server	Yes Yes  32; If a diagnostics repeater is used on the line, the number of connection resources on the line is reduced by 1 12 Mbit/s  Yes Yes Yes Yes Yes Yes Yes Yes
MPI     PROFIBUS DP master     PROFIBUS DP device  MPI     Number of connections     Transmission rate, max.  Services     PG/OP communication     Routing     Global data communication     S7 basic communication     S7 communication     S7 communication     S7 communication     S7 communication, as client     S7 communication, as server  PROFIBUS DP master	Yes Yes  32; If a diagnostics repeater is used on the line, the number of connection resources on the line is reduced by 1 12 Mbit/s  Yes Yes Yes Yes Yes Yes Yes Yes Yes Y
MPI PROFIBUS DP master PROFIBUS DP device  MPI  Number of connections  Transmission rate, max.  Services  — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication — S7 communication, as client — S7 communication, as server  PROFIBUS DP master  Number of connections, max.	Yes Yes  32; If a diagnostics repeater is used on the line, the number of connection resources on the line is reduced by 1  12 Mbit/s  Yes Yes Yes Yes Yes Yes Yes Yes Yes Y
MPI     PROFIBUS DP master     PROFIBUS DP device  MPI     Number of connections     Transmission rate, max.  Services     PG/OP communication     Routing     Global data communication     S7 basic communication     S7 communication     S7 communication     S7 communication, as client     S7 communication, as server  PROFIBUS DP master     Number of connections, max.      Transmission rate, max.	Yes Yes  32; If a diagnostics repeater is used on the line, the number of connection resources on the line is reduced by 1  12 Mbit/s  Yes Yes Yes Yes Yes Yes Yes Yes Yes Y
MPI PROFIBUS DP master PROFIBUS DP device  MPI  Number of connections  Transmission rate, max.  Services  PG/OP communication Routing Global data communication S7 basic communication S7 communication, as client S7 communication, as server  PROFIBUS DP master  Number of connections, max.  Transmission rate, max. max. number of DP devices	Yes Yes  32; If a diagnostics repeater is used on the line, the number of connection resources on the line is reduced by 1  12 Mbit/s  Yes Yes Yes Yes Yes Yes Yes Yes Yes Y
MPI PROFIBUS DP master PROFIBUS DP device  MPI  Number of connections  Transmission rate, max.  Services  PG/OP communication Routing Global data communication S7 basic communication S7 communication S7 communication S7 communication S7 communication, as client S7 communication, as server  PROFIBUS DP master  Number of connections, max.  Transmission rate, max. max. number of DP devices  Services	Yes Yes  32; If a diagnostics repeater is used on the line, the number of connection resources on the line is reduced by 1  12 Mbit/s  Yes Yes Yes Yes Yes Yes Yes Yes Yes Y
MPI PROFIBUS DP master PROFIBUS DP device  MPI  Number of connections  Transmission rate, max.  Services  PG/OP communication Routing Global data communication S7 basic communication S7 communication S7 communication S7 communication S7 communication, as client S7 communication, as server  PROFIBUS DP master  Number of connections, max.  Transmission rate, max.  max. number of DP devices  Services PG/OP communication	Yes Yes  32; If a diagnostics repeater is used on the line, the number of connection resources on the line is reduced by 1 12 Mbit/s  Yes Yes Yes Yes Yes Yes Yes Yes Yes Y

C7 hasis communication	Von
— S7 basic communication	Yes
— S7 communication	Yes
— S7 communication, as client	Yes
— S7 communication, as server	Yes
— Equidistance	Yes
— Isochronous mode	Yes
— SYNC/FREEZE	Yes
activation/deactivation of DP devices	Yes
Direct data exchange (slave-to-slave communication)	Yes
— DPV1	Yes
Address area	
— Inputs, max.	2 kbyte
— Outputs, max.	2 kbyte
User data per DP device	
— user data per DP device, max.	244 byte
— Inputs, max.	244 byte
— Outputs, max.	244 byte
— Slots, max.	244
— per slot, max.	128 byte
1st interface / PROFIBUS DP device / header	
<ul> <li>Number of connections</li> </ul>	16
• GSD file	http://support.automation.siemens.com/WW/view/en/113652
<ul> <li>Transmission rate, max.</li> </ul>	12 Mbit/s
automatic baud rate search	No
<ul> <li>Address area, max.</li> </ul>	32; Virtual slots
<ul> <li>User data per address area, max.</li> </ul>	32 byte
— of which consistent, max.	32 byte
Services	
— PG/OP communication	Yes; with interface active
— Routing	Yes; with interface active
<ul> <li>Global data communication</li> </ul>	No
<ul> <li>S7 basic communication</li> </ul>	No
— S7 communication	Yes
<ul> <li>S7 communication, as client</li> </ul>	Yes
<ul> <li>S7 communication, as server</li> </ul>	Yes
<ul> <li>Direct data exchange (slave-to-slave</li> </ul>	No
communication)	
— DPV1	No
Transfer memory	
— Inputs	244 byte
— Outputs	244 byte
2. Interface	
Interface type	PROFIBUS DP
Isolated	Yes
Interface types	
• RS 485	Yes
Output current of the interface, max.	150 mA
Protocols	
<ul> <li>PROFIBUS DP master</li> </ul>	Yes
PROFIBUS DP device	Yes
PROFIBUS DP master	
<ul> <li>Number of connections, max.</li> </ul>	16
Transmission rate, max.	12 Mbit/s
max. number of DP devices	64
Services	
— PG/OP communication	Yes
— Routing	Yes; S7 routing
<ul> <li>Global data communication</li> </ul>	No
— S7 basic communication	Yes
— S7 communication	Yes

C7 communication, as alient	Yes
— S7 communication, as client	Yes
<ul><li>— S7 communication, as server</li><li>— Equidistance</li></ul>	Yes
Equidistance      Isochronous mode	Yes
— SYNC/FREEZE	Yes
activation/deactivation of DP devices	Yes
Direct data exchange (slave-to-slave	Yes
communication)	165
— DPV1	Yes
Address area	
— Inputs, max.	4 kbyte
— Outputs, max.	4 kbyte
User data per DP device	
<ul> <li>user data per DP device, max.</li> </ul>	244 byte
— Inputs, max.	244 byte
— Outputs, max.	244 byte
— Slots, max.	244
— per slot, max.	128 byte
2nd interface / PROFIBUS DP device / header	
<ul> <li>Number of connections</li> </ul>	16
• GSD file	http://support.automation.siemens.com/WW/view/en/113652
<ul> <li>Transmission rate, max.</li> </ul>	12 Mbit/s
<ul> <li>Address area, max.</li> </ul>	32
<ul> <li>User data per address area, max.</li> </ul>	32 byte
— of which consistent, max.	32 byte
Services	
— Routing	Yes
Transfer memory	
— Inputs	244 byte
— Outputs	244 byte
Protocols	
SIMATIC communication	
S7 routing	Yes
Open IE communication	
• ISO-on-TCP (RFC1006)	Via CP 443-1 and loadable FB
— Data length, max.	1 452 bytes via CP 443-1 Adv.
Web server	
• supported	No
Isochronous mode	
Equidistance	Yes
Number of DP masters with isochronous mode	2
User data per isochronous slave, max.	244 byte
shortest clock pulse	1.5 ms; 0.5 ms without use of SFC 126, 127
max. cycle	32 ms
communication functions / header	V
PG/OP communication	Yes
Number of connectable OPs with message processing	31; When using Alarm_S/SQ and Alarm_D/DQ
Number of connectable OPs without message processing	31
Data record routing	Yes
Global data communication	Von
Supported      Number of CD loops, max.	Yes
Number of GD pookets transmitter may	8
Number of GD packets, transmitter, max.     Number of GD packets, receiver, max.	8
Number of GD packets, receiver, max.	16
Size of GD packets, max.  Size of CD packet (of which consistent), may	54 byte
Size of GD packet (of which consistent), max.	1 variable
Size of GD packet (of which consistent), max.  S7 basic communication	1 variable
<ul> <li>Size of GD packet (of which consistent), max.</li> <li>S7 basic communication</li> <li>supported</li> </ul>	1 variable Yes
<ul> <li>Size of GD packet (of which consistent), max.</li> <li>S7 basic communication</li> <li>supported</li> <li>User data per job, max.</li> </ul>	1 variable  Yes 76 byte
Size of GD packet (of which consistent), max.  S7 basic communication     supported	1 variable Yes

	V
• supported	Yes
• as server	Yes
• as client	Yes
User data per job, max.	64 kbyte
User data per job (of which consistent), max.	462 byte; 1 variable
S5 compatible communication	
• supported	Yes; Via FC AG_SEND and AG_RECV, max. via 10 CP 443-1 or 443-5
User data per job, max.	8 kbyte
User data per job (of which consistent), max.	240 byte
<ul> <li>Number of simultaneous AG-SEND/AG-RECV orders per CPU, max.</li> </ul>	24/24
Standard communication (FMS)	
• supported	Yes; Via CP and loadable FB
Number of connections	100, via of and loadable (B
• overall	32
usable for PG communication	31
reserved for PG communication	1
— adjustable for PG communication, max.	0
usable for OP communication	31
reserved for OP communication	1
adjustable for OP communication, max.	0
usable for S7 basic communication	30
reserved for S7 basic communication	0
adjustable for S7 basic communication, max.	0
usable for S7 communication	30
— reserved for S7 communication	0
— adjustable for S7 communication, max.	0
usable for routing	15
— reserved for routing	0
— adjustable for routing, max.	0
S7 message functions	
Number of login stations for message functions, max.	31; Max. 31 with Alarm_S/SQ and Alarm_D/DQ (OPs); max. 8 with Alarm_8
	and Alarm_P (e.g. WinCC)
Symbol-related messages	Yes
SCAN procedure	Yes
Program alarms	Yes
Process diagnostic messages	V
	Yes
simultaneously active Alarm_S blocks, max.	res 250; Simultaneously active alarm_S/SQ blocks or alarm_D/DQ blocks
simultaneously active Alarm_S blocks, max.  Alarm 8-blocks	
Alarm 8-blocks  • Number of instances for alarm 8 and S7 communication	250; Simultaneously active alarm_S/SQ blocks or alarm_D/DQ blocks
Alarm 8-blocks  • Number of instances for alarm 8 and S7 communication blocks, max.	250; Simultaneously active alarm_S/SQ blocks or alarm_D/DQ blocks Yes 300
Alarm 8-blocks  Number of instances for alarm 8 and S7 communication blocks, max.  preset, max.	250; Simultaneously active alarm_S/SQ blocks or alarm_D/DQ blocks Yes 300
Alarm 8-blocks  Number of instances for alarm 8 and S7 communication blocks, max.  preset, max.  Process control messages	250; Simultaneously active alarm_S/SQ blocks or alarm_D/DQ blocks Yes 300 150 Yes
Alarm 8-blocks  Number of instances for alarm 8 and S7 communication blocks, max.  preset, max.  Process control messages  Number of archives that can log on simultaneously (SFB 37	250; Simultaneously active alarm_S/SQ blocks or alarm_D/DQ blocks Yes 300
Alarm 8-blocks  Number of instances for alarm 8 and S7 communication blocks, max.  preset, max.  Process control messages  Number of archives that can log on simultaneously (SFB 37 AR_SEND)	250; Simultaneously active alarm_S/SQ blocks or alarm_D/DQ blocks Yes 300 150 Yes
Alarm 8-blocks  Number of instances for alarm 8 and S7 communication blocks, max.  preset, max.  Process control messages  Number of archives that can log on simultaneously (SFB 37 AR_SEND)  Number of messages	250; Simultaneously active alarm_S/SQ blocks or alarm_D/DQ blocks Yes 300 150 Yes
Alarm 8-blocks  Number of instances for alarm 8 and S7 communication blocks, max.  preset, max.  Process control messages  Number of archives that can log on simultaneously (SFB 37 AR_SEND)  Number of messages  overall, max.	250; Simultaneously active alarm_S/SQ blocks or alarm_D/DQ blocks Yes 300 150 Yes 4
Alarm 8-blocks  Number of instances for alarm 8 and S7 communication blocks, max.  preset, max.  Process control messages  Number of archives that can log on simultaneously (SFB 37 AR_SEND)  Number of messages  overall, max.  in 100 ms grid, max.	250; Simultaneously active alarm_S/SQ blocks or alarm_D/DQ blocks Yes 300 150 Yes 4
Alarm 8-blocks  Number of instances for alarm 8 and S7 communication blocks, max.  preset, max.  Process control messages  Number of archives that can log on simultaneously (SFB 37 AR_SEND)  Number of messages  overall, max.  in 100 ms grid, max.  in 500 ms grid, max.	250; Simultaneously active alarm_S/SQ blocks or alarm_D/DQ blocks Yes 300 150 Yes 4
Alarm 8-blocks  Number of instances for alarm 8 and S7 communication blocks, max.  preset, max.  Process control messages  Number of archives that can log on simultaneously (SFB 37 AR_SEND)  Number of messages  overall, max.  in 100 ms grid, max.  in 500 ms grid, max.  in 1000 ms grid, max.	250; Simultaneously active alarm_S/SQ blocks or alarm_D/DQ blocks Yes 300 150 Yes 4
Alarm 8-blocks  Number of instances for alarm 8 and S7 communication blocks, max.  preset, max.  Process control messages  Number of archives that can log on simultaneously (SFB 37 AR_SEND)  Number of messages  overall, max.  in 100 ms grid, max.  in 1000 ms grid, max.  Number of additional values	250; Simultaneously active alarm_S/SQ blocks or alarm_D/DQ blocks Yes 300 150 Yes 4 256 0 256 256
Alarm 8-blocks  Number of instances for alarm 8 and S7 communication blocks, max.  preset, max.  Process control messages  Number of archives that can log on simultaneously (SFB 37 AR_SEND)  Number of messages  overall, max.  in 100 ms grid, max.  in 500 ms grid, max.  in 1000 ms grid, max.  with 1000 ms grid, max.  Number of additional values  with 100 ms grid, max.	250; Simultaneously active alarm_S/SQ blocks or alarm_D/DQ blocks Yes 300 150 Yes 4 256 0 256 256
Alarm 8-blocks  Number of instances for alarm 8 and S7 communication blocks, max.  preset, max.  Process control messages  Number of archives that can log on simultaneously (SFB 37 AR_SEND)  Number of messages  overall, max.  in 100 ms grid, max.  in 500 ms grid, max.  in 1000 ms grid, max.  with 100 ms grid, max.  Number of additional values  with 500, 1000 ms grid, max.	250; Simultaneously active alarm_S/SQ blocks or alarm_D/DQ blocks Yes 300 150 Yes 4 256 0 256 256
Alarm 8-blocks  Number of instances for alarm 8 and S7 communication blocks, max.  preset, max.  Process control messages  Number of archives that can log on simultaneously (SFB 37 AR_SEND)  Number of messages  overall, max.  in 100 ms grid, max.  in 500 ms grid, max.  in 1000 ms grid, max.  with 100 ms grid, max.  Number of additional values  with 100 ms grid, max.  with 500, 1000 ms grid, max.  Test commissioning functions	250; Simultaneously active alarm_S/SQ blocks or alarm_D/DQ blocks Yes 300 150 Yes 4 256 0 256 256
Alarm 8-blocks  Number of instances for alarm 8 and S7 communication blocks, max.  preset, max.  Process control messages  Number of archives that can log on simultaneously (SFB 37 AR_SEND)  Number of messages  overall, max.  in 100 ms grid, max.  in 500 ms grid, max.  in 1000 ms grid, max.  with 100 ms grid, max.  Number of additional values  with 100 ms grid, max.  with 500, 1000 ms grid, max.  Status block	250; Simultaneously active alarm_S/SQ blocks or alarm_D/DQ blocks Yes 300 150 Yes 4 256 0 256 256 0 1 Yes; Up to 2 simultaneously
Alarm 8-blocks  Number of instances for alarm 8 and S7 communication blocks, max.  preset, max.  Process control messages  Number of archives that can log on simultaneously (SFB 37 AR_SEND)  Number of messages  overall, max.  in 100 ms grid, max.  in 100 ms grid, max.  in 1000 ms grid, max.  with 100 ms grid, max.  with 100 ms grid, max.  with 500, 1000 ms grid, max.  Test commissioning functions  Status block Single step	250; Simultaneously active alarm_S/SQ blocks or alarm_D/DQ blocks Yes 300 150 Yes 4 256 0 256 256 0 1 Yes; Up to 2 simultaneously Yes
Alarm 8-blocks  Number of instances for alarm 8 and S7 communication blocks, max.  preset, max.  Process control messages  Number of archives that can log on simultaneously (SFB 37 AR_SEND)  Number of messages  overall, max.  in 100 ms grid, max.  in 1000 ms grid, max.  in 1000 ms grid, max.  Number of additional values  with 100 ms grid, max.  with 500, 1000 ms grid, max.  Test commissioning functions  Status block  Single step  Number of breakpoints	250; Simultaneously active alarm_S/SQ blocks or alarm_D/DQ blocks Yes 300 150 Yes 4 256 0 256 256 0 1 Yes; Up to 2 simultaneously
Alarm 8-blocks  Number of instances for alarm 8 and S7 communication blocks, max.  preset, max.  Process control messages  Number of archives that can log on simultaneously (SFB 37 AR_SEND)  Number of messages  overall, max.  in 100 ms grid, max.  in 500 ms grid, max.  in 1000 ms grid, max.  with 100 ms grid, max.  with 100 ms grid, max.  Test commissioning functions  Status block  Single step  Number of breakpoints  Status/control	250; Simultaneously active alarm_S/SQ blocks or alarm_D/DQ blocks Yes 300 150 Yes 4 256 0 256 256 0 1 Yes; Up to 2 simultaneously Yes 4
Alarm 8-blocks  Number of instances for alarm 8 and S7 communication blocks, max.  preset, max.  Process control messages  Number of archives that can log on simultaneously (SFB 37 AR_SEND)  Number of messages  overall, max.  in 100 ms grid, max.  in 500 ms grid, max.  in 1000 ms grid, max.  with 100 ms grid, max.  Number of additional values  with 100 ms grid, max.  with 500, 1000 ms grid, max.  Test commissioning functions  Status block  Single step  Number of breakpoints  Status/control  Status/control variable	250; Simultaneously active alarm_S/SQ blocks or alarm_D/DQ blocks Yes 300 150 Yes 4 256 0 256 256 0 1 Yes; Up to 2 simultaneously Yes 4 Yes; Up to 16 variable tables
Alarm 8-blocks  Number of instances for alarm 8 and S7 communication blocks, max.  preset, max.  Process control messages  Number of archives that can log on simultaneously (SFB 37 AR_SEND)  Number of messages  overall, max.  in 100 ms grid, max.  in 500 ms grid, max.  in 1000 ms grid, max.  with 100 ms grid, max.  Number of additional values  with 100 ms grid, max.  with 500, 1000 ms grid, max.  Test commissioning functions  Status block Single step  Number of breakpoints  Status/control	250; Simultaneously active alarm_S/SQ blocks or alarm_D/DQ blocks Yes 300 150 Yes 4 256 0 256 256 0 1 Yes; Up to 2 simultaneously Yes 4

• Forcing • Forcing, variables • Number of variables, max.  Diagnostic buffer • present • present • Number of entries, max.  — adjustable — preset • 120  Service data • can be read out  Standards, approvals, certificates  CE mark CSA approval UL approval CULus FM approval PK ses  EAC (formerly C-TICK) FM capproval FAC (formerly Gost-R) Use in hazardous areas • ATEX  Ambient conditions  Ambient temperature during operation • min. • max. • Configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB)  Programming language — LAD — FBD	nemories, peripheral inputs, peripheral outputs
● Number of variables, max.  Diagnostic buffer  ● present  ● Number of entries, max.  — adjustable — preset  120  Service data  ● can be read out  Standards, approvals, certificates  CE mark  CSA approval  UL approval  Pes  FM approval  Pes  EAC (formerly C-TICK)  KC approval  Pes  EAC (formerly Gost-R)  Use in hazardous areas  ● ATEX  Ambient conditions  Ambient temperature during operation  ● min. ● of o °C  configuration / header  Configuration / programming / header  ● Command set  ● Nesting levels  ● System function blocks (SFB)  Programming language  — LAD — FBD — STL — SCL — CFC — GRAPH — Higraph®  configuration / programming / number of simultaneously active SFC / header — DPSYC_FR — D_ACT_DP — RD_REC — WR_PARM — PARM_MOD  1; SFC 57; per inte  # Wes  120  Service data  Yes  Yes  Yes  Yes  Yes  Yes  Yes  120  Yes  Yes  120  Yes  Yes  120  Yes  12	nemones, penpirerai inputs, penpirerai outputs
Pignostic buffer   Present   Preset	
Number of entries, max.     — adjustable     — preset     — preset     120  Service data     ● can be read out     Yes  Standards, approvals, certificates  CE mark  CSA approval     Yes  UL. approval     Yes  GULus  FM approval     Yes  RCM (formerly C-TICK)     Yes  EAC (formerly Gost-R)     Use in hazardous areas     ● ATEX  Antient conditions  Ambient temperature during operation     ● max.     60 °C  Configuration / header  Configuration / programming / header     ● System function blocks (SFB)     ● System function blocks (SFB)     Programming language     — LAD     — FBD     — STL     — SCL     — CPC     — GRAPH     — HiGraph®     Configuration / programming / number of simultaneously active SFC / header     — DPSYC_FR     — D_ACT_DP     — RD_REC     — WR_PARM     — PARM_MOD     1; SFC 57; per inte     — WR_PARM     — PARM_MOD     1; SFC 57; per inte     — PARM_MOD	
- preset 120  Service data	
Service data  • can be read out  Standards, approvals, certificates  CE mark  CSA approval  Ut. approval  Ut. approval  Ves  Ut. approval  Ves  CULus  FM approval  Yes  RCM (formerly C-TICK)  KC approval  • Yes  EAC (formerly Gost-R)  Use in hazardous areas  • ATEX  ATEX II 3G Ex nA  Ambient conditions  Ambient temperature during operation  • min.  • max.  • 0° C  configuration / header  Configuration / programming / header  • Command set  • Nesting levels  • Nesting levels  • System functions (SFC)  • System function blocks (SFB)  Programming language  — LAD  — FBD — STL — SCL — CFC — GRAPH — HiGraph®  configuration / programming / number of simultaneously active SFC / header  — DPSYC_FR — D_ACT_DP — RD_REC — WR_REC — WR_PARM — PARM_MOD  1; SFC 55; per inte  - WR_PARM — PARM_MOD  1; SFC 55; per inte  - WR_PARM — PARM_MOD	
● can be read out Yes  Standards, approvals, certificates  CE mark Yes  CSA approval Yes  UL approval Yes  CULus Yes  FM approval Yes  RCM (formerly C-TICK) Yes  RCA (formerly Gost-R) Yes  EAC (formerly Gost-R) Yes  EAC (formerly Gost-R) Yes  ATEX II 3G Ex nA  Ambient conditions  Ambient temperature during operation  ● min. 0 °C  • max. 60 °C  configuration / header  Configuration software  ● STEP 7 Yes  Configuration / programming / header  ● Nesting levels 7  ● Access to consistent data in process image Yes  ● System function blocks (SFB) see instruction list  Programming language  — LAD Yes  — STL Yes  — GRAPH Yes  — HiGraph® Yes  configuration / programming / number of simultaneously active SFC / header  — DPSYC_FR 2; SFC 11; per inte  — D_ACT_DP 8; SFC 59; per inte  — WR_PARM 8; SFC 59; per inte	
Standards, approvals, certificates  CE mark  CSA approval  Yes  UL approval  Ves  FM approval  Yes  FM approval  Yes  RCM (formerly C-TICK)  KC approval  EAC (formerly Gost-R)  Use in hazardous areas  ATEX  ATEX  ATEX  ATEX  AMbient conditions  Ambient temperature during operation  min.  max.  60 °C  configuration / header  Configuration / programming / header  Configuration / programming / header  System functions (SFC)  System function blocks (SFB)  Programming language  — LAD — FBD — STL — SCL — CFC — GRAPH — HiGraph®  configuration / programming / number of simultaneously active SFC / header — DPSYC_FR — D_ACT_DP — RD_REC — WR_PARM — PARM_MOD  1; SFC 57; per inte  WR_PARM — PARM_MOD  1; SFC 57; per inte  UVes  Ves  Ves  Ves  Ves  Ves  Ves  V	
CE mark         Yes           CSA approval         Yes           UL approval         Yes           cULus         Yes           FM approval         Yes           RCM (formerly C-TICK)         Yes           KC approval         Yes           EAC (formerly Gost-R)         Yes           Use in hazardous areas         Yes           ◆ ATEX         ATEX II 3G Ex nA           Ambient conditions         Ambient conditions           Ambient temperature during operation         0°C           • max.         60°C           Configuration / header         60°C           Configuration / programming / header         yes           • STEP 7         Yes           configuration / programming / header         Yes           • Command set         see instruction list           • Nesting levels         7           • Access to consistent data in process image         Yes           • System function blocks (SFB)         see instruction list           Programming language         LAD           — LAD         Yes           — STL         Yes           — STL         Yes           — STL         Yes           — CFC         <	
CSA approval	
UL approval	
cULus Yes FM approval Yes RCM (formerly C-TICK) Yes RCM (formerly Gost-R) Yes EAC (formerly Gost-R) Yes Use in hazardous areas  • ATEX ATEX ATEX II 3G Ex nA Ambient conditions  Ambient temperature during operation  • min.	
FM approval Yes  RCM (formerly C-TICK) Yes  KC approval Yes  EAC (formerly Gost-R) Yes  Use in hazardous areas  • ATEX ATEX ATEX II 3G Ex nA  Ambient conditions  Ambient temperature during operation  • min.	
RCM (formerly C-TICK)         Yes           KC approval         Yes           EAC (formerly Gost-R)         Yes           Use in hazardous areas         • ATEX         ATEX II 3G Ex nA           Ambient conditions         Ambient temperature during operation         • max.         60 °C           • max.         • 60 °C         60 °C           Configuration / header         Configuration / beader         Yes           • STEP 7         Yes         Configuration / programming / header           • Command set         see instruction list         7           • Access to consistent data in process image         Yes         System functions (SFC)         see instruction list           • System function blocks (SFB)         see instruction list         see instruction list           Programming language         — LAD         Yes         Yes           — FBD         Yes         Yes         Yes           — STL         Yes         Yes         Yes           — STL         Yes         Yes         Yes           — GRAPH         Yes         Yes           — HiGraph®         Yes         Yes           configuration / programming / number of simultaneously active SFC / header         — D_ACT_DP         8; SFC 12; per inte     <	
KC approval  EAC (formerly Gost-R)  Use in hazardous areas  • ATEX  Ambient conditions  Ambient temperature during operation  • min. • max. 60 °C  configuration / header  Configuration / programming / header  • Command set • Nesting levels • Access to consistent data in process image • System functions (SFC) • System function blocks (SFB)  Programming language  — LAD — FBD — STL — SCL — CFC — GRAPH — HiGraph®  configuration / programming / number of simultaneously active SFC / header — DPSYC_FR — D_ACT_DP — RD_REC — WR_REC — WR_PARM — PARM_MOD  1; SFC 57; per inte	
EAC (formerly Gost-R)  Use in hazardous areas  ATEX  ATEX  AMbient conditions  Ambient temperature during operation  min. min. max. max. max. max. max. max. max. max	
Use in hazardous areas  ATEX  ATEX  Ambient conditions  Ambient temperature during operation  min. max.  60 °C  configuration / header  Configuration / programming / header  Command set Nesting levels Access to consistent data in process image System functions (SFC) System function blocks (SFB)  Programming language  — LAD — FBD — STL — SCL — CFC — GRAPH — HiGraph®  configuration / programming / number of simultaneously active SFC / header  — DPSYC_FR — D_ACT_DP — RD_REC — WR_REC — WR_PARM — PARM_MOD  1; SFC 57; per inte	
● ATEX  Ambient conditions  Ambient temperature during operation  ● min.	
Ambient temperature during operation  • min. • max. 60 °C  configuration / header  Configuration software • STEP 7  configuration / programming / header  • Command set • Nesting levels • Access to consistent data in process image • System functions (SFC) • System function blocks (SFB)  Programming language  — LAD — FBD — STL — SCL — CFC — GRAPH — HiGraph®  configuration / programming / number of simultaneously active SFC / header  — DPSYC_FR — D_ACT_DP — RD_REC — WR_REC — WR_PARM — PARM_MOD  1; SFC 57; per inte	C T4 Gc
Ambient temperature during operation  Imax.	
Configuration / header  Configuration software  STEP 7 Yes  configuration / programming / header  Command set  Nesting levels  Access to consistent data in process image  System functions (SFC)  System function blocks (SFB)  Programming language  LAD  FBD  Yes  STL  SCL  SCL  CFC  GRAPH  HiGraph®  Configuration / programming / number of simultaneously active SFC / header  DPSYC_FR  D_ACT_DP  RD_REC  WR_REC  WR_PARM  PARM_MOD  Yes  Yes  Yes  Yes  See instruction list  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Y	
Configuration software  STEP 7  Configuration / programming / header  Command set  Nesting levels  Access to consistent data in process image  System functions (SFC)  System function blocks (SFB)  Programming language  — LAD  — FBD  — STL  — SCL  — CFC  — GRAPH  — HiGraph®  Configuration / programming / number of simultaneously active SFC / header  — DPSYC_FR  — D_ACT_DP  — RD_REC  — WR_REC  — WR_PARM  — PARM_MOD  See instruction list  see instruction list  see instruction list  yes  see instruction list  yes  yes  en instruction list  yes  - LAD  Yes  — STL  — Yes  — Yes  — STL  — Yes  — STL  — Yes  — STL  — Yes  — STC  — Yes  — SEC  — Yes  — SEC  — Yes  — STC  — Yes  — STL  — SCL  — Yes  — STC  — Yes  — STC  — STC  — Yes  — STC  — STC  — Yes  — STC  — SEC  — Yes  — STC  — SEC  — SEC  — Yes  — SEC  — Yes  — STC  — SEC  — S	
STEP 7  configuration / programming / header  Command set  Nesting levels  Access to consistent data in process image System functions (SFC) System function blocks (SFB)  Programming language  — LAD — FBD — FBD — STL — SCL — CFC — GRAPH — HiGraph®  configuration / programming / number of simultaneously active SFC / header — DPSYC_FR — D_ACT_DP — RD_REC — WR_REC — WR_PARM — PARM_MOD  see instruction list see instruction list yes see instruction list yes yes see instruction list yes yes see instruction list yes yes cen instruction list yes yes cen instruction list yes yes construction list yes see instruction list	
configuration / programming / header  Command set Nesting levels Access to consistent data in process image System functions (SFC) System function blocks (SFB) Programming language  LAD FBD Yes STL Yes SCL Yes SCL Yes CFC GRAPH HiGraph® Configuration / programming / number of simultaneously active SFC / header  DPSYC_FR D_ACT_DP RD_REC WR_REC WR_PARM SSFC 55; per inter WR_PARM MOD System function list see instruction list see instruction list yes see instruction list	
Command set  Nesting levels  Access to consistent data in process image System functions (SFC) System function blocks (SFB)  Programming language  — LAD — FBD — FBD — STL — SCL — CFC — GRAPH — HiGraph®  Configuration / programming / number of simultaneously active SFC / header  — DPSYC_FR — D_ACT_DP — RD_REC — WR_REC — WR_PARM — PARM_MOD  Yes  see instruction list see instruction list see instruction list yes see instruction list	
<ul> <li>Nesting levels</li> <li>Access to consistent data in process image</li> <li>System functions (SFC)</li> <li>System function blocks (SFB)</li> <li>Programming language</li> <li>— LAD</li> <li>— FBD</li> <li>— STL</li> <li>— SCL</li> <li>— SCL</li> <li>— CFC</li> <li>— GRAPH</li> <li>— HiGraph®</li> <li>Configuration / programming / number of simultaneously active</li> <li>SFC 11; per interesting per int</li></ul>	
Access to consistent data in process image System functions (SFC) System function blocks (SFB)  Programming language  — LAD — FBD — FBD — STL — SCL — SCL — CFC — GRAPH — HiGraph®  Configuration / programming / number of simultaneously active SFC / header — DPSYC_FR — D_ACT_DP — RD_REC — WR_PARM — WR_PARM — PARM_MOD  System function list see instruction list	
System functions (SFC) System function blocks (SFB)  Programming language  — LAD — FBD — FBD — STL — SCL — SCL — CFC — GRAPH — HiGraph®  Configuration / programming / number of simultaneously active SFC / header — DPSYC_FR — D_ACT_DP — RD_REC — WR_REC — WR_PARM — PARM_MOD  See instruction list	
● System function blocks (SFB)  Programming language  — LAD — FBD — Yes — STL — SCL — Yes — CFC — GRAPH — HiGraph®  configuration / programming / number of simultaneously active SFC / header — DPSYC_FR — D_ACT_DP — RD_REC — WR_PARM — PARM_MOD  Yes  see instruction list  Yes  Yes  Yes  Yes  2 SFC 1 Yes  2 SFC 11; per inte  8 SFC 59; per inte  8 SFC 55; per inte  8 SFC 55; per inte  8 SFC 55; per inte  1 SFC 57; per inte	
Programming language         Yes           — FBD         Yes           — STL         Yes           — SCL         Yes           — CFC         Yes           — GRAPH         Yes           — HiGraph®         Yes           configuration / programming / number of simultaneously active SFC / header           — DPSYC_FR         2; SFC 11; per interesting           — D_ACT_DP         8; SFC 12; per interesting           — RD_REC         8; SFC 59; per interesting           — WR_REC         8; SFC 58; per interesting           — WR_PARM         8; SFC 55; per interesting           — PARM_MOD         1; SFC 57; per interesting	
— LAD         Yes           — FBD         Yes           — STL         Yes           — SCL         Yes           — CFC         Yes           — GRAPH         Yes           — HiGraph®         Yes           configuration / programming / number of simultaneously active SFC / header           — DPSYC_FR         2; SFC 11; per interest           — D_ACT_DP         8; SFC 12; per interest           — RD_REC         8; SFC 59; per interest           — WR_REC         8; SFC 55; per interest           — WR_PARM         8; SFC 55; per interest           — PARM_MOD         1; SFC 57; per interest	
— FBD       Yes         — STL       Yes         — SCL       Yes         — CFC       Yes         — GRAPH       Yes         — HiGraph®       Yes         configuration / programming / number of simultaneously active SFC / header         — DPSYC_FR       2; SFC 11; per interestriction         — D_ACT_DP       8; SFC 12; per interestriction         — RD_REC       8; SFC 59; per interestriction         — WR_REC       8; SFC 58; per interestriction         — WR_PARM       8; SFC 55; per interestriction         — PARM_MOD       1; SFC 57; per interestriction	
— STL       Yes         — SCL       Yes         — CFC       Yes         — GRAPH       Yes         — HiGraph®       Yes         configuration / programming / number of simultaneously active SFC / header         — DPSYC_FR       2; SFC 11; per interest of the second	
— SCL         Yes           — CFC         Yes           — GRAPH         Yes           — HiGraph®         Yes           configuration / programming / number of simultaneously active         SFC / header           — DPSYC_FR         2; SFC 11; per interestriction           — D_ACT_DP         8; SFC 12; per interestriction           — RD_REC         8; SFC 59; per interestriction           — WR_REC         8; SFC 58; per interestriction           — WR_PARM         8; SFC 55; per interestriction           — PARM_MOD         1; SFC 57; per interestriction	
— CFC         Yes           — GRAPH         Yes           — HiGraph®         Yes           configuration / programming / number of simultaneously active SFC / header           — DPSYC_FR         2; SFC 11; per interest of the second of the secon	
GRAPH HiGraph® Yes  configuration / programming / number of simultaneously active SFC / header DPSYC_FR D_ACT_DP RD_REC WR_REC WR_PARM PARM_MOD Yes Yes Yes Yes Yes Yes Yes Yes A SFC / header 2; SFC 11; per inte 8; SFC 12; per inte 8; SFC 59; per inte 8; SFC 59; per inte 8; SFC 55; per inte	
— HiGraph®  configuration / programming / number of simultaneously active SFC / header  — DPSYC_FR — D_ACT_DP — RD_REC — WR_REC — WR_PARM — PARM_MOD  Yes  2; SFC 11; per inte 8; SFC 12; per inte 8; SFC 59; per inte 8; SFC 58; per inte 9; SFC 55; per inte 1; SFC 57; per inte	
configuration / programming / number of simultaneously active SFC / header  — DPSYC_FR — D_ACT_DP — RD_REC — WR_REC — WR_PARM — PARM_MOD  2; SFC 11; per inte 8; SFC 12; per inte 8; SFC 59; per inte 8; SFC 58; per inte 8; SFC 55; per inte	
— DPSYC_FR       2; SFC 11; per interest         — D_ACT_DP       8; SFC 12; per interest         — RD_REC       8; SFC 59; per interest         — WR_REC       8; SFC 58; per interest         — WR_PARM       8; SFC 55; per interest         — PARM_MOD       1; SFC 57; per interest	
— D_ACT_DP       8; SFC 12; per interest         — RD_REC       8; SFC 59; per interest         — WR_REC       8; SFC 58; per interest         — WR_PARM       8; SFC 55; per interest         — PARM_MOD       1; SFC 57; per interest	face
— RD_REC       8; SFC 59; per inte         — WR_REC       8; SFC 58; per inte         — WR_PARM       8; SFC 55; per inte         — PARM_MOD       1; SFC 57; per inte	
— WR_REC       8; SFC 58; per inte         — WR_PARM       8; SFC 55; per inte         — PARM_MOD       1; SFC 57; per inte	
<ul><li>— WR_PARM</li><li>— PARM_MOD</li><li>8; SFC 55; per inte</li><li>1; SFC 57; per inte</li></ul>	race
— PARM_MOD 1; SFC 57; per inte	
	face
	face face
— DPNRM_DG 8; SFC 13; per inte	face face face
— RDSYSST 8	face face face face
— DP_TOPOL 1; SFC 103; per in	face face face face
configuration / programming / number of simultaneously active SFB / header	face face face face face
	face face face face face
•	face face face face face face face
Know-how protection	face face face face face face face face
User program protection/password protection  Yes	face face face face face face face
Dimensions	face face face face face face face face
Width 25 mm	face face face face face face face face

Height	290 mm
Depth	219 mm
Weights	
Weight, approx.	700 g

last modified: 12/8/2024 🖸