

SIMATIC S7-1200

Central processing units

CPU 1211C

Overview



- The clever compact solution
- With 10 integral input/outputs
- Expandable by:
 - 1 signal board (SB) or communication board (CB)
 - Max. 3 communication modules (CM)

Technical specifications

	6ES7211-1BE40-0XB0 CPU 1211C AC/DC/relay	6ES7211-1AE40-0XB0 CPU 1211C DC/DC/DC	6ES7211-1HE40-0XB0 CPU 1211C DC/DC/relay
Supply voltage			
24 V DC		Yes	Yes
120 V AC	Yes		
230 V AC	Yes		
Encoder supply			
24 V encoder supply			
• 24 V	Permissible range: 20.4 to 28.8 V	Permissible range: 20.4 to 28.8 V	Permissible range: 20.4 to 28.8 V
Power losses			
Power loss, typ.	10 W	8 W	8 W
Memory			
Work memory			
• integrated	30 kbyte	30 kbyte	30 kbyte
Load memory			
• integrated	1 Mbyte	1 Mbyte	1 Mbyte
• Plug-in (SIMATIC Memory Card), max.	2 Gbyte; with SIMATIC memory card	2 Gbyte; with SIMATIC memory card	2 Gbyte; with SIMATIC memory card
Backup			
• without battery	Yes	Yes	Yes
CPU processing times			
for bit operations, typ.	0.085 µs; / Operation	0.085 µs; / Operation	0.085 µs; / Operation
for word operations, typ.	1.7 µs; / Operation	1.7 µs; / Operation	1.7 µs; / Operation
for floating point arithmetic, typ.	2.3 µs; / Operation	2.3 µs; / Operation	2.3 µs; / Operation
Data areas and their retentivity			
Flag			
• Number, max.	4 kbyte; Size of bit memory address area	4 kbyte; Size of bit memory address area	4 kbyte; Size of bit memory address area
Address area			
Process image			
• Inputs, adjustable	1 kbyte	1 kbyte	1 kbyte
• Outputs, adjustable	1 kbyte	1 kbyte	1 kbyte
Time of day			
Clock			
• Hardware clock (real-time clock)	Yes	Yes	Yes

Ordering data	Article No.	Article No.
S7-1200 automation system, System Manual For SIMATIC S7-1200 and STEP 7 Basic German English French Spanish Italian Chinese	6ES7298-8FA30-8AH0 6ES7298-8FA30-8BH0 6ES7298-8FA30-8CH0 6ES7298-8FA30-8DH0 6ES7298-8FA30-8EH0 6ES7298-8FA30-8KH0	STEP 7 Professional / Basic V13 Target system: SIMATIC S7-1200, S7-1500, S7-300, S7-400, WinAC Requirement: Windows 7 Professional SP1 (64 bit), Windows 7 Enterprise SP1 (64 bit), Windows 7 Ultimate SP1 (64 bit), Windows 8.1 (64 bit), Windows 8.1 Professional (64 bit), Windows 8.1 Enterprise (64 bit), Windows Server 2008 R2 StdE (full installation), Windows Server 2012 StdE (full installation) Form of delivery: German, English, Chinese, Italian, French, Spanish STEP 7 Professional V13, Floating License STEP 7 Professional V13, Floating License, software download incl. license key ¹⁾ E-mail address required for delivery STEP 7 Basic V13, Floating License STEP 7 Basic V13, Floating License, software download incl. license key ¹⁾ E-mail address required for delivery
S7-1200 automation system, Easy Book Brief instructions German English French Spanish Italian Chinese	6ES7298-8FA30-8AQ0 6ES7298-8FA30-8BQ0 6ES7298-8FA30-8CQ0 6ES7298-8FA30-8DQ0 6ES7298-8FA30-8EQ0 6ES7298-8FA30-8KQ0	6ES7822-1AA03-0YA5 6ES7822-1AE03-0YA5 6ES7822-0AA03-0YA5 6ES7822-0AE03-0YA5

¹⁾ For up-to-date information and download availability, see: <http://www.siemens.com/tia-online-software-delivery>

Overview



- Digital outputs as a supplement to the integral I/O of the CPUs
- For flexible adaptation of the controller to the corresponding task
- For subsequent expansion of the system with additional outputs
- From +60 °C to +70 °C, max. 50% of the inputs can be controlled simultaneously

Note:

SIPLUS extreme products are based on Siemens Industry standard products. The contents listed here were taken from the respective standard products. SIPLUS extreme-specific information was added.

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Technical specifications

The technical data correspond to those of the based-on modules apart from the values listed in the table:

	6AG1222-1BF32-2XB0 SM 1222 DQ 8x24 VDC	6AG1222-1BF32-4XB0 SM 1222 DQ 8x24 VDC	6AG1222-1BH32-2XB0 SM 1222 DQ 16x24 VDC	6AG1222-1BH32-4XB0 SM 1222 DQ 16x24 VDC
Based on	6ES7222-1BF32-0XB0	6ES7222-1BF32-0XB0	6ES7222-1BH32-0XB0	6ES7222-1BH32-0XB0
Ambient conditions				
Extended ambient conditions				
<ul style="list-style-type: none"> • Relative to ambient temperature-atmospheric pressure-installation altitude • Relative humidity <ul style="list-style-type: none"> - With condensation, tested in accordance with IEC 60068-2-38, maximum • Resistance <ul style="list-style-type: none"> - to biologically active substances/conformity with EN 60721-3-3 - to chemically active substances/conformity with EN 60721-3-3 - to mechanically active substances/conformity with EN 60721-3-3 	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)			
	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)			
	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!			
	Yes; Class 3C4 (RH < 75%) incl. salt spray according to EN 60068-2-52 (degree of severity 3). The supplied connector covers must remain on the unused interfaces during operation!			
	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!			
Climatic and mechanical conditions for storage and transport				
Climatic conditions for storage and transport				
<ul style="list-style-type: none"> • Free fall <ul style="list-style-type: none"> - Drop height, max. (in packaging) • Temperature <ul style="list-style-type: none"> - Permissible temperature range 	0.3 m; five times, in dispatch package			
	-40 °C to +70 °C			
Mechanical and climatic conditions during operation				
Climatic conditions in operation				
<ul style="list-style-type: none"> • Temperature <ul style="list-style-type: none"> - Min. - max. 	-40 °C; = Tmin; startup @ -25 °C 70 °C; = Tmax; Tmax > +60 °C number of simultaneously activated outputs 4 (no adjacent points) for horizontal mounting position	-20 °C; = Tmin; startup @ 0 °C 60 °C; = Tmax	-40 °C; = Tmin; startup @ -25 °C 70 °C; = Tmax; Tmax > +60 °C number of simultaneously activated outputs 8 (no adjacent points) for horizontal mounting position	-20 °C; = Tmin; startup @ 0 °C 60 °C; = Tmax