SIEMENS

SIMATIC
S7-1200G2

The Smart Choice for Basic Automation Solutions

As innovation evolves, the need for smart, efficient, and reliable automation solutions has never been greater. SIMATIC S7-1200 G2 rises to these challenges with its enhanced performance and scalability, efficient motion control, flexible machine safety, and increased data transparency.

Enhanced Performance and Scalability

- SIMATIC S7-1200 G2 offers powerful processing capabilities and expanded memory with 2X the performance and memory of the S7-1200.
- SIMATIC S7-1200 G2 provides higher productivity and the ability to handle complex motion requirements with ease.

Flexible Machine Safety

- SIMATIC S7-1200 G2 provides cost-effective and scalable safety solutions, ensuring safe machine operations.
- The optimized fail-safe portfolio allows you to meet safety requirements without compromising on productivity.

Efficient Motion Control

- The SIMATIC S7-1200 G2 is ideal for controlling single axes, coordinated axes, and simple kinematics.
- The versatility of the SIMATIC S7-1200 G2 enhances the overall functionality and efficiency of your automation systems.

Increased Data Transparency

- With features like wireless access to diagnostic and device data via Near Field Communication (NFC), SIMATIC S7-1200 G2 facilitates better monitoring, analysis, and decision-making.
- This transparency helps in optimizing operations and reducing downtime.

For more Information:
- **SIMATIC S7-1200G2 Delivery Release**
- **TIA Selection Tool**

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SIMATIC S7-1200 G2 Controller Highlights

- Saving space on the DIN Rail
- Increased communication and PLC processing performance
  - Faster execution time
  - Support for Real-Time PROFINET and Isochronous Real-Time PROFINET communication
  - Support for Media Redundancy for Planned Duplication (MRPD) and Media Redundancy Protocol (MRP)
  - Support for 31 PROFINET-Devices
  - Dual PROFINET ports for all CPU models
  - 8 HSCs (High Speed Counters)
  - 8 pulse generators for use as PTOs (Pulse Train Outputs) or for PWM (Pulse Width Modulation)
- More memory
  - Up to 300 kB of program memory and 750 kB of data memory
  - 8 MB of internal load memory
  - 20 kB of retentive memory
- Improved scalability for functional machine safety (Failsafe CPU)
  - PROFIsafe F-Host functionality allowing to use decentralized F-Devices

- Efficient motion control functionality – supports the Technology objects based on SIMATIC Motion Library Version 8.0.
- SIMATIC Controller Profiling
  - Analyzing and evaluating the runtime behavior of the user program in depth
  - Analyzing and evaluating all relevant information graphically Google Chrome
  - Data reading from the controller and generating a compressed trace file in JSON format for analysis with the Chrome browser
- Enhanced security functionality
  - System logging (Eventlog)
  - Support for users and roles
- Wide range of different digital and analog expansion modules
- Up to two Signal Boards plugging right into the CPU, without increasing the PLC footprint
- Signal modules extending the I/O count to support more demanding applications
- User-configurable alarms
- Support for DHCP and DNS
- Power budget calculation tool in TIA Portal
- Near Field Communication (NFC) functionality

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Ordering Information

CPU type		Article numer	Descrption
CPU 1212C	DC/DC/DC	6ES7212-1AG50-0XB0	Compact CPU 1212C onboard I/O: 8x DI 24 V DC; 6x DQ; Memory: program 150 kB, data: 500 kB
	AC/DC/RLY	6ES7212-1BG50-0XB0	
	DC/DC/RLY	6ES7212-1HG50-0XB0	
CPU 1212FC	DC/DC/DC	6ES7212-1AF50-0XB0	Failsafe Compact CPU 1212FC onboard I/O: 8x DI 24 V DC; 6x DQ; Memory: program 200 kB, data: 500 kB
	DC/DC/RLY	6ES7212-1HF50-0XB0	
CPU 1214C	DC/DC/DC	6ES7214-1AH50-0XB0	Compact CPU 1214C onboard I/O: 14x DI 24 V DC; 10x DQ; Memory: program 250 kB, data: 750 kB
	AC/DC/RLY	6ES7214-1BH50-0XB0	
	DC/DC/RLY	6ES7214-1HH50-0XB0	
CPU 1214FC	DC/DC/DC	6ES7214-1AF50-0XB0	Failsafe Compact CPU 1214FC onboard I/O: 14x DI 24 V DC; 10x DQ; Memory: Program 300 kB, data: 750 kB
	DC/DC/RLY	6ES7214-1HF50-0XB0	

Signal Modules		Article number
SM 1221	DI 16x 24 V DC	6ES7221-1BH50-0XB0
SM 1222	DQ 16x RLY 2.0 A	6ES7222-5HH50-0XB0
	DQ 16x 24 V DC 0.5 A	6ES7222-5BH50-0XB0
SM 1223	DI 8x 24 V DC/ DQ 8x RLY 2.0 A	6ES7223-5PH50-0XB0
	DI 8x 24 V DC/ DQ 8x 24 V DC 0.5A	6ES7223-5BH50-0XB0
SM 1231	AI 8 x 14 bit ADC	6ES7231-4HF50-0XB0
SM 1232	AQ 8 x 14 bit DAC	6ES7232-4HF50-0XB0
SM 1233	4 AI / 4 AQ x 14 bit ADC	6ES7233-4HF50-0XB0

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