

## 300S+

Compatible, reliable, available.



# The system 300S+

SPEED7 technology makes this system one of the fastest and most efficient microcontroller-based systems.



## **SPEED7 technology**

The CPUs impress not only by their outstanding speed. By using the SPEED7 bus, the response and signal processing were again considerably optimized.

## **The unique memory management**

Changing the MicroMemoryCard or SD card allows easy memory adjustment without having to replace the CPU. For the protection of your know-how our worldwide acknowledged Advanced KnowHow-Protect is available. The attractive selection of already integrated communication interfaces such as the built-in Ethernet/MPI and PtP interfaces as standard ensure comfort and flexibility in almost every situation.

## **Particularly useful**

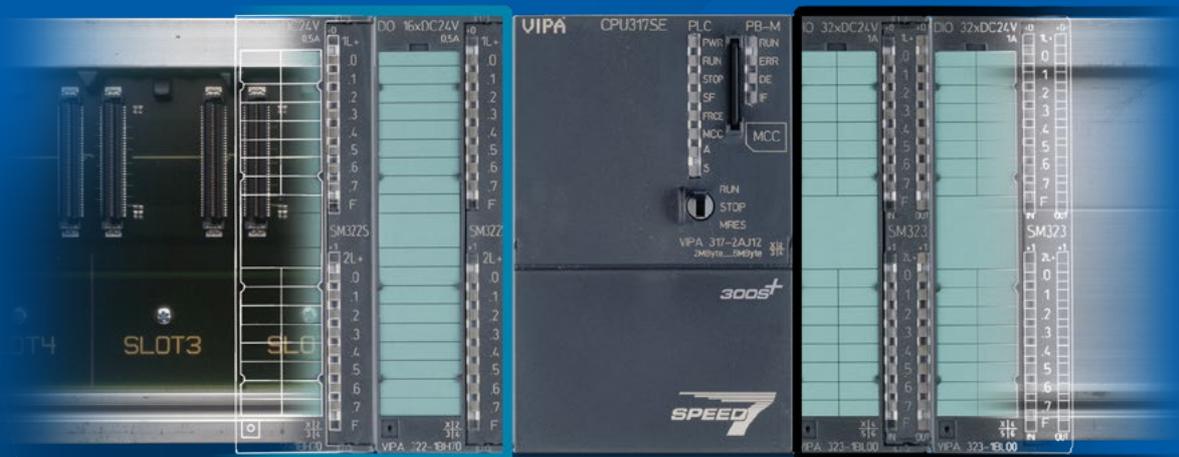
You can also operate our 300S+ CPUs without additional memory card. If required the integrated work memory - depending on the type of CPU - can be expanded individually up to 8 MB with our MCC (MemoryConfigurationCard). The 300S+ CPU simply grows with your programming. All 300S+ CPUs are equipped with Ethernet for the PG-/OP communication as standard.

## **Our 300S+ compact CPUs**

With integrated SPEED7 technology and the I/O periphery directly on board, our 300S+ compact CPUs are particularly suitable for cost-sensitive applications. With their high-speed performance, the scalable memory and the outstanding communication our 300S+ can be used in almost all demanding applications.

## **Ready-to-use front plugs**

Suitable for the system 300S+ we additionally offer you ready-to-use front plugs. With them you not only save time but also a lot of money. With their different lengths you can save plenty of time during the installation of your system. They are available in a length of 2.5 m up to 5 m. Each wire is individually marked, so that no confusion can occur. Why not try it and order a set of pre-assembled connectors next time.



SPEED bus

Standard-V bus

### SPEED bus



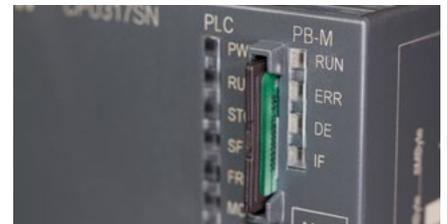
- For very fast applications there is the patented and unique SPEED bus available in some selected CPUs.
- A clear competitive advantage for you and your application.

### Interfaces



- Besides the MPI and PtP interface there is always an Ethernet-PG/OP interface available.
- This is standard with us and will always remain so.

### Memory management



- You can expand your work memory by plugging in an MCC without having to change your CPU.
- 300S+ grows with your plant. A flexibility which is very difficult to find anywhere else.

### Performance



- There are no limits in automation technology for you with the enormously high-performance SPEED7 chip.
- Performance, flexibility and communication friendliness.

### User friendly



- All 300S+ controllers are programmable with Siemens SIMATIC Manager, Siemens TIA Portal or WinPLC7.
- Multi-programmable: You decide which engineering tool to use!

### Compatible



- Of course a mixed use of our modules and those of other manufacturers is also possible.
- This reduces your storage costs.

# 300S+ at a glance



## 300S+ Standard CPU

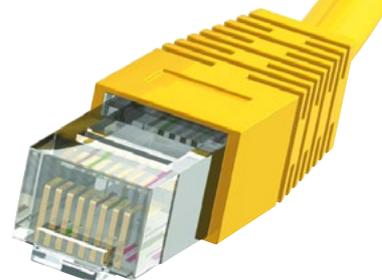
Standard CPUs									
Standard CPUs	314SE	314SB DPM	315SB	315SN	315PN ECO	315PN	317SE	317SN	317PN
Load memory [kB]	1024	1024	4096	4096	1024	4096	8192	8192	8192
Work memory [kB]	256-1024	512-1024	1024-4096	1024-4096	512-1024	1024-4096	4096-8192	4096-8192	8192
SPEED-BUS	-	-	-	-	-	-	•	•	•
RJ45 interface	1	1	1	2	2	2	1	2	2
RS485 interface	1	1	1	2	2	2	1	2	2
Serial & fieldbus	MPI, ASCII, STX/ETX, 3964(R), USS Master, ModbusRTU								
Profibus slave	•	•	•	•	•	•	•	•	•
Profibus master	•	•	•	•	•	•	•	•	•
PROFINET	-	-	-	-	•	•	-	-	•
Max. extension modules	32	32	32	32	32	32	32	32	32
Engineering tool	Siemens SIMATIC Manager, Siemens TIA Portal, WinPLC7								





## 300S+ Compact CPU

C Klasse					
	312SC	313SC	313SC DPM	314ST	314SC DPM
Load memory [kB]	1024	1024	1024	2048	2048
Work memory [kB]	128-1024	256-1024	256-1024	512-2048	512-2048
SPEED-BUS	-	-	-	•	-
RJ45 interface	1	1	1	1	1
RS485 interface	1	1	1	1	1
Serial & fieldbus	MPI, ASCII, STX/ETX, 3964(R), USS Master, ModbusRTU				
Profibus slave	-	-	•	•	•
Profibus master	-	-	•	•	•
PROFINET	-	-	-	-	-
Onboard DI/DO/DIO	16 / 8 / -	24 / 16 / -	16 / 16 / -	8 / 8 / -	24 / 16 / 8
Onboard AI/AO/Pt100	- / - / -	4 / 2 / 1	- / - / -	4 / 2 / 1	4 / 2 / 1
Counter/PWM/Stepper	2 / 2 / 2	3 / 3 / 3	3 / 3 / 3	4 / - / 1	4 / 4 / 4
Max. extension modules	8	8	8	32	8
Engineering tool	Siemens SIMATIC Manager, Siemens TIA Portal, WinPLC7				



# VIPA 300S+ modules



Standard bus modules

Digital Input	8x	16x	32x
DC 24 V	-	•	•
AC 120/230	-	•	-
Digital Output	8x	16x	32x
DC 24 V, 2 A	•	•	-
DC 24 V, 0.5 A	-	•	•
DC 24 V, 0.5 A (Manual operation)	-	•	-
Relay	-	•	-
DC 30 V, 0.5 A / AC 230 V, 0.5 A	-	•	-
AC 120/230 V	•	-	-
Digital In-/Output	8x	16x	32x
16x DIO (1 A), parameterizable	-	•	-
8x DI, 8x DO (1 A)	-	•	-
16x DI, 16x DO (1 A)	-	-	•
Analog Input	2x	8x	
Voltage, Current, Resistance, Resistance thermometer (13 bit)	-	•	
Voltage, Current, Resistance, Resistance thermometer (12 bit)	•	•	
Analog Output	2x	4x	
Voltage, Current	•	•	
Analog In-/Output			6x
4x AI, 2x AO, Resistance, Voltage			•
CPs			
RS232, PtP		•	
RS422/485, PtP		•	
Fieldbus module   Slave			
PROFIBUS (RS485)		•	
Actor/sensor interfaces			
AS-i master		•	



SPEED bus modules

Digital Input	8x	16x
DC 24 V	-	•
Digital Output	8x	16x
DC 24 V, 0.5 A	-	•
Digital In-/Output	8x	16x
16x DIO	-	•
Analog Input	8x	16x
Current, (Osc & FIFO function)	•	-
Voltage, (Osc & FIFO function)	•	-
CPs		
2x RS422/485, PtP		•
Ethernet CP		•
Fieldbus module   Master		
CANopen		•
PROFIBUS		•
INTERBUS		•
INTERBUS 2x RS422		•

# SPEED7 gives the edge



*Chips FROM the assembly line*



*Chips FOR the assembly line*

And what gives you the leading edge?  
Speed - SPEED7, to be clear!

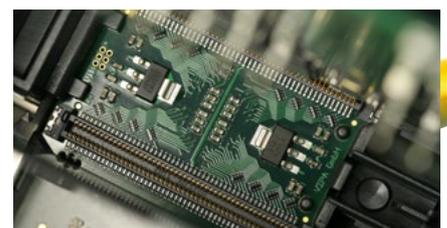
The SPEED7 technology offers developers a kit for a high-performance top automation system on an open STEP7 architecture that can be developed within a very short time.

#### **SPEED7 is our technology platform**

- SPEED7 is the basis of all existing and future systems.
- The SPEED7 technology is fully in our hand and ensures sustainability and guarantees that all our products are perfectly matched to each other also in the future.
- The SPEED7 chip gives you the highest performance, the most flexible communication and a smart memory management.

#### **SPEED7 therefore is**

- a flexible automation platform
- one of the fastest STEP7 PLC processors worldwide!
- a guarantee for maximum speed and highest clock rates
- an upgrade of existing systems to the latest level



Don't you already have this chip  
in one of your products?

**YASKAWA Europe GmbH**

Drives Motion Controls  
Hugo-Junkers-Str. 13  
90411 Nuremberg  
Germany

+49 6196 569-500  
support@yaskawa.eu  
www.yaskawa.eu.com

01/2023 | YEU\_DMC\_300S+\_EN