

**YASKAWA**

# VIPA 300S+

High-speed powered by SPEED7



# VIPA 300S+ - The system

300S+, powered by SPEED7, makes this system to one of the fastest and most efficient  $\mu$ Controller-based systems.



## **CPUs with SPEED7 technology**

impress our customers and not only by their outstanding speed. By using the SPEED7 bus the reaction and signal processing were again considerably optimized.

## **The unique memory management**

from VIPA Controls allows memory adjustment by simply exchanging the MicroMemoryCard without needing to change 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 integrated 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 an additional memory card. If required the integrated work memory - depending on the type of CPU - can be expanded individually up to 8MB with the VIPA 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, are particularly suitable for cost-conscious use. 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 VIPA 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 a lot of time during the installation of your system. They are available in a length of 2.5m up to 5m. Each wire is individually marked, so that no confusion can occur. Just test it right now and offer a set of ready-to-use front plugs with your next order.

# Tailor made



VIPA SPEED bus

Standard-V bus

## SPEED bus



- For very fast applications there is the patented and unique VIPA 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 of course 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 simply plugging in a VIPA MCC/SD 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 via SPEED7 Studio or via tools of other manufacturers.
- With VIPA Controls you decide which engineering tool you want to deploy!

## Compatible



- Of course a mixed use of VIPA Controls modules and those of other manufacturers is also possible.
- This reduces your storage costs. Just think about it!

# VIPA 300S+ at a glance



## VIPA 300S+ Standard CPU

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	4096-8192
<b>SPEED-BUS</b>	-	-	-	-	-	-	•	•	•
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	SPEED7 Studio, SIMATIC Manager, TIA Portal								





## VIPA 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
<b>SPEED-BUS</b>	-	-	-	•	-
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	SPEED7 Studio, SIMATIC Manager, TIA Portal				



# 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 rather!

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 the technology platform from VIPA**

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

### **SPEED7 is therefore...**

- ... 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 have this chip already  
in one of your products?



VIPA – This is who we are



**250** EMPLOYEES

IN OVER **60** COUNTRIES

over **30** YEARS OF EXPERIENCE

**3200** DIFFERENT ARTICLES

**250,000** INSTALLED CPUs

#### VIPA CONTROLS

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#### VIPA Gesellschaft für Visualisierung und Prozessautomatisierung mbH

Ohmstraße 4  
91074 Herzogenaurach  
Germany

Ph.: +49 (0) 9132 744-0  
Fax: +49 (0) 9132 744-1864  
E-Mail: [info@vipa.com](mailto:info@vipa.com)

[www.vipa.com](http://www.vipa.com)

**YASKAWA**