

**SIEMENS**



## SIMATIC S7-400 automation systems – always the right choice

Powerful – fault tolerant – failsafe

[siemens.com/s7-400](https://www.siemens.com/s7-400)

# SIMATIC S7-400 automation systems – the optimum controller for every task





- Powerful
- Fault tolerant
- Failsafe

The automation task, application area and performance required define the appropriate automation hardware. SIMATIC S7-400 automation systems address sophisticated and demanding applications in the industrial environment, for example, coordinating complete plants and systems. This is the reason that for many years plant operating companies and construction companies have been depending on these controllers and widely use them in their plants and systems.

SIMATIC S7-400H/FH automation systems are used wherever processes must have a high availability and be fail-safe – and where topmost priority is given to performance.

As a result of its high scalability, this series offers various safety and availability levels, therefore addressing all of the relevant industrial domains.

Another highlight of this series is the fact that it can be operated under extreme environmental conditions.

The performance of these automation systems can be scaled and the capacity of the I/O modules is almost unlimited. Further, these controllers allow plants and systems to be expanded and modules to be replaced while your production system is operational (hot swapping).





## Powerful

Depending on the particular industrial application, the optimum automation system can be selected based on performance, quantity structure and communication interfaces.

From a favorably priced entry for smaller systems in the lower performance range with limited I/O expansion – up to the high-end range for large networked plants with tasks requiring a high degree of computational performance and where an almost unlimited number of signals can be processed.

Companies operating plants profit from the SIMATIC S7-400 series over the long term. These automation systems are being continually innovated, and always represent state-of-the-art technology. These innovations include faster signal processing and expansion of the communication links, for instance.

As a consequence, the SIMATIC S7-400 series addresses the upper performance range for industries thus representing the ultimate automation system.

## Fault tolerant

Fault-tolerant S7-400H controllers are your insurance against expensive plant downtimes.

The cost effectiveness of your plant or system depends directly on the availability of your production, production lines or complete plant sections, and therefore on the automation system used.

With SIMATIC S7-400H, Siemens offers a fault-tolerant automation system, which minimizes the probability of a production failure to nearly 0% – therefore playing a decisive role when it comes to achieving maximum productivity. From the CPU412-5H up to the CPU417-5H, you can select the optimum controller to address your requirements. SIMATIC S7-400H ensures reliable operation of your plants and systems – and avoids production downtimes.





## Failsafe

Failsafe S7-400F automation systems to ensure functional safety in your plant or system. They satisfy the highest safety requirements – even for critical applications – where a fault can place human life at risk, have a negative impact on the environment or damage the plant or system. These F-systems identify critical states in your plant or system at an early stage, and when required, automatically bring it into a safe state. This reduces the risks for man, the environment and the plant.

Failsafe S7-400F systems comply with all of the relevant standards, for instance: EN 954-1 up to Category 4, IEC 62061 to SIL 3 and EN ISO 13849-1 to PL e. CPUs 414F to 416F address the requirements of industry. These automation systems are also available in fault-tolerant S7-400FH versions.



Find out more:

[siemens.com/s7-400](http://siemens.com/s7-400)

SIMATIC  
S7-400  
automation  
systems at a  
glance



Subject to change without prior notice  
Article-No.: PDPA-B10098-00-7600  
Dispo 06303  
WS 11152.0  
Printed in Germany  
© Siemens AG 2015

The information provided in this brochure contains merely general descriptions or characteristics of performance which in case of actual use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract.

All product designations may be trademarks and product names of Siemens AG or supplier companies whose use by third parties for their own purposes could violate the rights of the owners.

#### Industrial Security

Siemens offers automation and drive products with industrial security functions which support safe system and machine operation. They essentially contribute to the realization of a holistic industrial security concept.

Our products are continuously advanced under this aspect. We therefore recommend you to regularly inform yourself on updates of our products and to only use the respectively current versions. Relevant information is available at:  
<http://support.automation.siemens.com>. You can also subscribe to a product-specific newsletter via this link.

For the secure operation of a plant/machine, it is also necessary to take suitable protective measures (e.g. cell protection concept), and to integrate the automation and drives components into a comprehensive, state-of-the-art industrial security concept for the entire plant/machine.

Any third-party products that may be use must also be taken into account.

You will find further information at:  
[www.siemens.com/industrialsecurity](http://www.siemens.com/industrialsecurity).

Follow us on:

[twitter.com/siemensindustry](https://twitter.com/siemensindustry)

[youtube.com/siemens](https://youtube.com/siemens)

Siemens AG  
Process Industries and Drives  
Automation and Engineering  
76181 Karlsruhe  
GERMANY