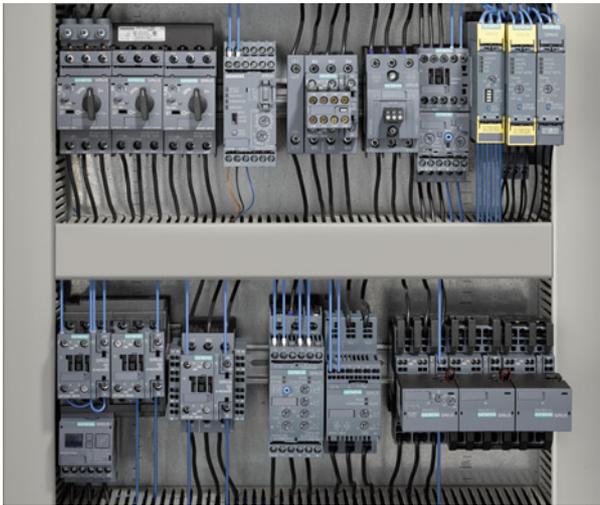


# Industrial Controls

SIRIUS



## Catalog IC 10 · 2016

Supersedes:

Catalog IC 10 · 2015

Catalog News IC 10 N up to 09/2015

Refer to the Industry Mall for regular updates of this Catalog:

[www.siemens.com/industrymall](http://www.siemens.com/industrymall)

The products contained in this catalog can also be found in the interactive catalog CA 01.

Article No.: E86060-D4001-A510-D6-7600.

Please contact your local Siemens branch.

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The products and systems described in this catalog are manufactured/distributed under application of a certified quality management system in accordance with EN ISO 9001 (for the Certified Registration Nos. see [www.siemens.com/system-certificates/cp](http://www.siemens.com/system-certificates/cp)). The certificate is recognized by all IQNet countries.

## 1 Introduction

## 2 Industrial Communication



## 3 Switching Devices – Contactors and Contactor Assemblies – for Switching Motors



## 4 Switching Devices – Contactors and Contactor Assemblies – Special Applications



## 5 Switching Devices – Contactors and Contactor Assemblies – Contactor Relays and Relays



## 6 Switching Devices – Soft Starters and Solid-State Switching Devices



## 7 Protection Equipment



## 8 Load Feeders and Motor Starters for Use in the Control Cabinet



## 9 Motor Starters for Use in the Field, High Degree of Protection



## 10 Monitoring and Control Devices



## 11 Safety Technology



## 12 Position and Safety Switches



## 13 Commanding and Signaling Devices



## 14 Parametrization, Configuration and Visualization with SIRIUS



## 15 Power Supply



## 16 Appendix

**Fast holder removal**  
Simply press the release lever to remove the holder

**Innovative snap-on concept**  
All components snap on without the need for tools – even in a slanting position; integrated lever for release

**Groove-free milled hole**  
Easy insertion of components without aligning anti-twist lugs

**Visual mounting indicator**  
Align the arrows to correctly mount the components

**Fast holder removal**  
Simply press the release lever to remove the holder

**Simple installation**  
Fast fixation on the plate with a screwdriver (no special tools needed)

**Stacking modules**  
Up to 3 modules can be plugged together side-by-side, each with 2 contact blocks plugged onto one another

**Easy-to-see module slots**  
Fault-free connection of modules even when contact blocks are stacked.

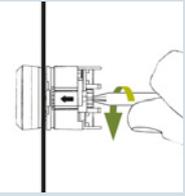
**100 % twist prevention**  
Twist-proof holding by screw fixation even if the hole is not perfectly milled

IC01\_00481

## SIRIUS ACT – Performance in Action

Powerful machines need powerful controls.

SIRIUS ACT offers you a unique portfolio of elegantly designed pushbuttons, indicator lights and switches that are the perfect embodiment of style, intelligence, and physical toughness. Constructed with genuine metal and high-grade plastics, and engineered with smart functions and communication capabilities, these new pushbuttons, indicator lights and switches have been extreme element tested to ensure reliability for your most mission critical operations.



## HIGHLIGHTS

- Modern design
- Easy to use
- Extremely rugged
- Flexible communication

### Product features in detail

- 4 design lines
- Solid stainless steel and high-grade plastic
- Modular concept
- NEW:
  - ID key-operated switches, illuminated EMERGENCY STOP etc.
- Customized inscriptions possible
- Screw terminals, spring-type terminals and soldered connections
- Connection to the controller via AS-Interface, IO-Link and PROFINET
- Colors: 

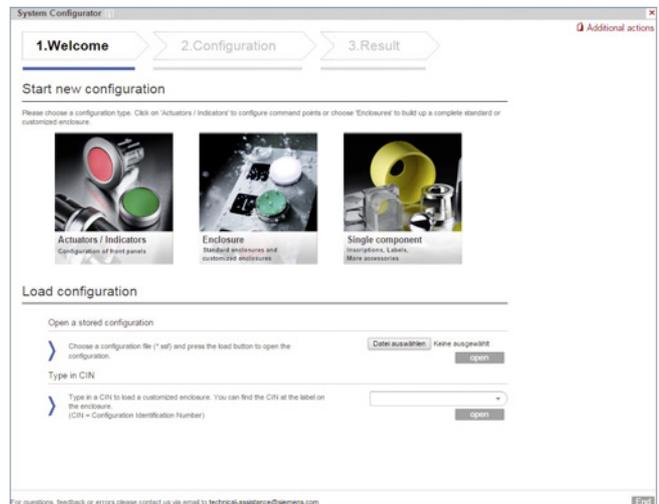
For further information, see [siemens.com/sirius-act](http://siemens.com/sirius-act)  
 Selection and ordering data, see  
 "Commanding and Signaling Devices", page 13/1

## Intuitive, simple selection of products with the new configurator

Performance also means being able to configure your individual pushbuttons and signaling devices quickly and having everything under control at all times. The intuitive SIRIUS ACT configurator makes it as easy as possible for you to choose your products.

- Configurator with drag/drop function
- Storage of customized configuration
- For global reorders
- Individual units, complete units and compact units
- Worldwide approvals

<http://www.siemens.com/sirius/configurators>





## SIRIUS modular system

Simple, efficient and always up-to-date

Building control cabinets should be fast, simple, flexible and space-saving.

The unique SIRIUS modular system offers everything you need for switching, protecting and starting motors and industrial systems. It is a modular selection of standard components which are optimally coordinated, can be combined with ease and use the same accessories to a large extent.

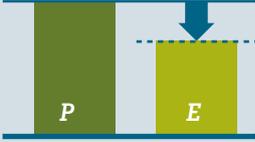
With its wide range of components, the SIRIUS modular system features the most diverse functions for use in the control cabinet, and offers a host of benefits in assembly and handling, in application monitoring, and also in controller interfacing, or when planning and configuring.

Thanks to the latest innovations to the modular system in sizes S00, S0 and S2 up to 80 A, today's SIRIUS modular system shows even more functional diversity and first-time highlights.

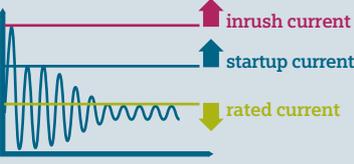
### HIGHLIGHTS

- Feeder assemblies that can be plugged in completely without tools thanks to the consistent use of spring-type connections in sizes S00 and S0
- 2- and 3-phase 3RR2 monitoring relays for current monitoring for direct mounting onto contactors
- 3RA27 and 3RA28 function modules feature snap-on connection to contactors enabling the easiest possible assembly of direct-on-line starters, reversing starters, and wye-delta starters and connection to the controller using less wiring via AS-Interface or IO-Link
- 3RB24 overload relay with communication capability, current value transmission, and control of the contactors via IO-Link
- A highlight of the SIRIUS devices is their IE3 suitability, so that they are optimally equipped for conversion to the new IE3 generation of motors

### IE3-compliant motors

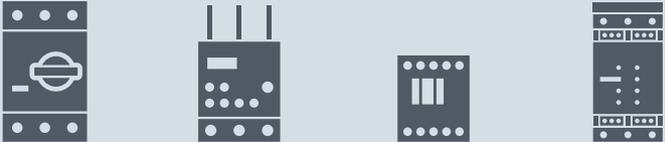


consume less energy

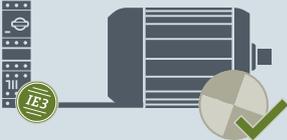


but are characterized by higher currents during starting

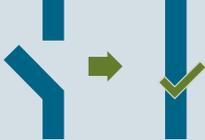
### This is why we have optimized our SIRIUS controls for IE3 motors



For example



No false tripping during startup process



Reliable switching capacity when using IE3 motors

**IE3 ready**

SIRIUS controls

Reliable switching and protection of motors at all times

Are you IE3 ready?  
[siemens.com/ie3ready](http://siemens.com/ie3ready)

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## We are IE3 ready

### SIRIUS controls

for reliable switching and protection of IE3 motors

IE3 motors have been mandatory for mains-fed operation in Europe since January 1, 2015. The initial stage applies to the 7.5 to 375 kW output range, while in the second stage starting in 2017, the scope will be extended to include outputs down to 0.75 kW.

From an electrical viewpoint, IE3 motors behave differently than less energy-efficient models – they are characterized by higher startup currents and modified dynamic behavior. This entails certain challenges for our controls.

The latest generation of SIRIUS controls has been fully optimized for IE3. They avoid false tripping due to higher inrush currents of IE3 motors, offer optimized setting ranges for rated currents, and ensure reliable switching and protection in any situation – the best requirements for use of modern IE3 motors.

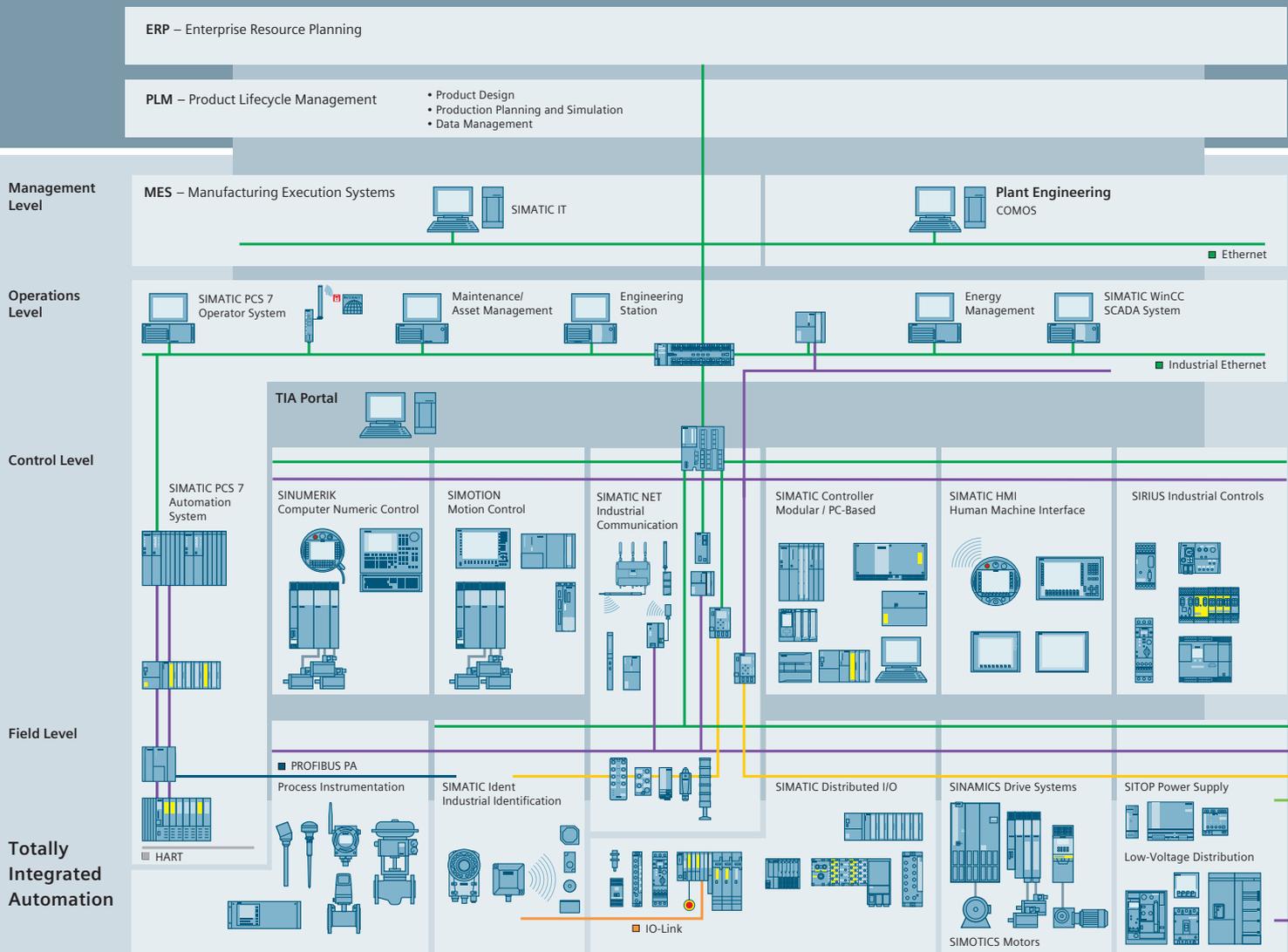
#### HIGHLIGHTS

- Comprehensive range of IE3 motors for every application
- Siemens offers expertise through extensive analysis of IE3 motors
- Optimized SIRIUS controls for use with IE3 motors

Further information:

IE3 ready portal, see: [siemens.com/ie3ready](http://siemens.com/ie3ready)  
 Configuration Manual for Controls with IE3 Motors, see: <https://support.industry.siemens.com/cs/ww/en/view/94770820>

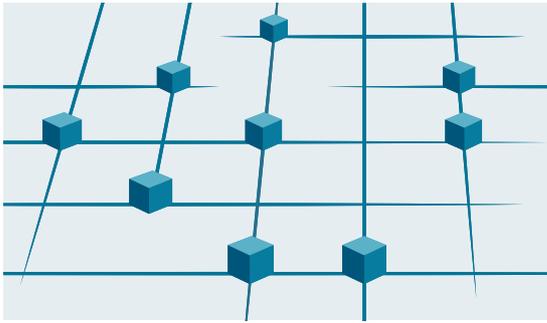
All IE3 ready products are marked in the catalog with the symbol **IE3 ready**



## Efficient automation starts with efficient engineering.

**Totally Integrated Automation: Efficiency driving productivity.**

Efficient engineering is the first step toward better production that is faster, more flexible, and more intelligent. With all components interacting efficiently, Totally Integrated Automation (TIA) delivers enormous time savings right from the engineering phase. The result is lower costs, faster time-to-market, and greater flexibility.



Totally Integrated Automation  
Efficient interoperability of all automation components



■ PROFINET  
■ Industrial Ethernet  
■ PROFIBUS  
■ AS-Interface  
■ KNX GAMMA instabus

Totally  
Integrated  
Power

## A unique complete approach for all industries

As one of the world's leading automation suppliers, Siemens provides an integrated, comprehensive portfolio for all requirements in process and manufacturing industries. All components are mutually compatible and system-tested. This ensures that they reliably perform their tasks in industrial use and interact efficiently, and that each automation solution can be implemented with little time and effort based on standard products. The integration of many separate individual engineering tasks into a single engineering environment, for example, provides enormous time and cost savings.

With its comprehensive technology and industry-specific expertise, Siemens is continuously driving progress in manufacturing industries – and Totally Integrated Automation plays a key role.

Totally Integrated Automation creates real value added in all automation tasks, especially for:

- **Integrated engineering**  
Consistent, comprehensive engineering throughout the entire product development and production process
- **Industrial data management**  
Access to all important data occurring in productive operation – along the entire value chain and across all levels
- **Industrial communication**  
Integrated communication based on international cross-vendor standards that are mutually compatible
- **Industrial security**  
Systematic minimization of the risk of an internal or external attack on plants and networks
- **Safety Integrated**  
Reliable protection of personnel, machinery, and the environment thanks to seamless integration of safety technologies into the standard automation

## Making things right with Totally Integrated Automation

Totally Integrated Automation, industrial automation from Siemens, stands for the efficient interoperability of all automation components. The open system architecture covers the entire production process and is based on end-to-end shared characteristics: consistent data management, global standards, and uniform hardware and software interfaces.

Totally Integrated Automation lays the foundation for comprehensive optimization of the production process:

- Time and cost savings due to efficient engineering
- Minimized downtime due to integrated diagnostic functions
- Simplified implementation of automation solutions due to global standards
- Better performance due to interoperability of system-tested components



## Answers for industry.

Integrated technologies, vertical market expertise and services for greater productivity, energy efficiency, and flexibility.

Siemens is the world's leading supplier of innovative and environmentally friendly products and solutions for industrial companies. End-to-end automation technology and industrial software, solid market expertise, and technology-based services are the levers we use to increase our customers' productivity, efficiency and flexibility.

We consistently rely on integrated technologies and, thanks to our bundled portfolio, we can respond more quickly and flexibly to our customers' wishes. With our globally unmatched range of automation technology, industrial control and drive technology as well as industrial software, we equip companies with exactly what they need over their entire value chain – from product design and development to production, sales and service. Our industrial customers benefit from our comprehensive portfolio, which is tailored to their market and their needs.

Market launch times can be reduced by up to 50% due to the combination of powerful automation technology and industrial software. At the same time, the costs for energy or waste water for a manufacturing company can be reduced significantly. In this way, we increase our customers' competitive strength and make an important contribution to environmental protection with our energy-efficient products and solutions.



## Success story: Distribution Center Amberg

**Material:** 15 minutes from the warehouse to the machine

**Finished products:** with the customer in 24 hours

The satisfaction of our customers is top priority for us. We guarantee the highest quality for all products leaving our factory. That applies to product quality just as much as to logistics.

The Distribution Center Amberg has been operating since 1993 and dispatches approx. 21 000 orders every day all over the world.

At customer request the goods can be dispatched within 24 hours, in urgent cases the order can already be sent off after one hour. The delivery times are agreed with the regional units and are monitored permanently. Thanks to the order management system customers can place their orders online and obtain all the information they need on prices, availability, delivery date and order status. Also where logistics is concerned, the focus is on the quality of the products from the very beginning. It already starts with the delivery of the goods for production where regular quality audits ensure a constantly high standard. During the entire production all the production processes are checked both manually and automatically. The final function test is carried out using innovative and well-proven high-tech testing equipment.

### HIGHLIGHTS

- The Distribution Center in Amberg offers a 24/7 service. In urgent cases an order can already be dispatched after one hour.
- Highest quality and reliable logistics performance are guaranteed for all products leaving the factory.
- Approx. 21 000 order items of low-voltage controls are dispatched globally every day – 5.2 million every year.
- Thanks to the order management system customers order online and get all the information they need on prices, availability, delivery date and order status.
- Fully automated processing of orders through to shipment ensures quick and reliable handling.

# NEW



■ SIRIUS 3RT20 coupling contactors for DC actuation for direct control by PLC  
 ■ Article No.: 3RT203-.-KB40

■ Page 3/49



■ SIRIUS 3RT23 contactors, 4-pole, size S0 for special applications  
 ■ Article No.: 3RT2326-1AP00-4AA0

■ Page 4/16



■ SIRIUS 3RA2 load feeders size S2  
 ■ Article No.: 3RA2130, 3RA2150

■ Page 8/5



■ SIRIUS 3RP25 timing relays, suitable for railway applications  
 ■ Article No.: 3RP2505-.-RW30

■ Page 10/55



■ SIRIUS 3RQ3 coupling relays, narrow design  
 ■ Article No.: 3RQ30, 3RQ31

■ Page 5/32



■ SIRIUS 3RS70 signal converters single-range, multi-range, universal converters  
 ■ Article No.: 3RS70

■ Page 10/188



■ SIRIUS ACT pushbuttons and indicator lights Modular system of commanding and signaling devices  
 ■ Article No.: 3SU1

■ Page 13/5



■ SC17.5F fail-safe SlimLine Compact Module AS-Interface series of modules for the control cabinet  
 ■ Article No.: 3RK1.05-.-B.00-2AA2

■ Page 2/28



■ SC17.5 and SC22.5 SlimLine Compact Modules AS-Interface series of modules for the control cabinet  
 ■ Article No.: 3RK..0-.-...00-2AA2

■ Page 2/68



■ **3UF7 motor management system**  
SIMOCODE pro V Modbus RTU

■ Article No.: 3UF7012-1A.00-0

■ Page 10/14



■ **SIRIUS 3SK safety relays**  
SIRIUS 3SK2 basic units

■ Article No.: 3SK2112, 3SK2122

■ Page 11/22



■ **SIRIUS 3SE5 mechanical position switches**  
for ambient temperatures down to -40 °C

■ Article No.: 3SE5232-0.....-1AY0  
3SE5322-0.....-1AY0

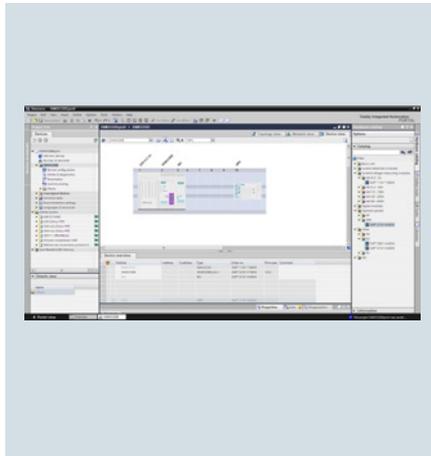
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■ **SIRIUS 3SE66, 3SE67 non-contact safety switches**, magnetically operated  
Supplementary range in new design

■ Article No.: 3SE66, 3SE67

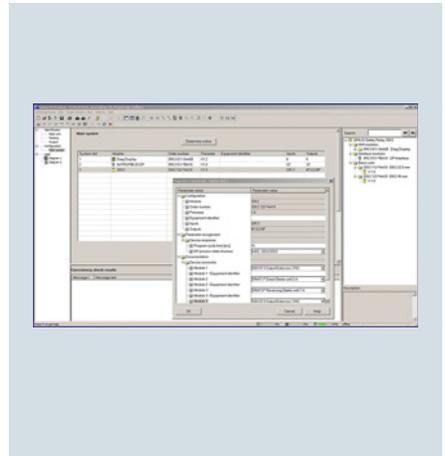
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■ **SIMOCODE ES (TIA Portal) V13**  
software for SIMOCODE pro 3UF7

■ Article No.: 3ZS1322

■ Page 14/18



■ **SIRIUS Safety ES**  
software for 3SK2 and 3RK3

■ Article No.: 3ZS1316

■ Page 14/33



■ **CM 4xIO-Link communication module**  
IO-Link master module for ET 200AL

■ Article No.: 6ES7147-5JD00-0BA0

■ Page 2/111



■ **LOGO! logic modules 8**  
basic units, expansion modules

■ Article No.: 6ED1052-.....-0BA8  
6ED1055-.....-0BA2

■ Pages 10/23, 10/28



■ **LOGO! CMR**  
for mobile wireless communication

■ Article No.: 6GK7142-7.X00-0AX0

■ Page 10/32



## Any more questions?

Our experts are there to help you by telephone or e-mail with competent technical advice



Competent and fast technical advice regarding:

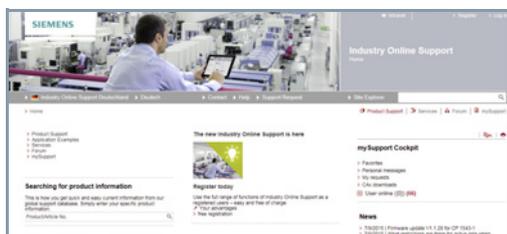
- Product selection
- Conversion from old to new
- Competitor conversion
- Special versions
- Particular requirements
- Commissioning
- Operation

Phone: +49 (911) 895-59 00  
E-mail: technical-assistance@siemens.com

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# Technical Assistance

One click – and you have all the information you need, both before and after delivery.



- Industry Online Support – get fast and up-to-date information online <https://support.industry.siemens.com>  
In Industry Online Support you will find FAQs, manuals, certificates, applications & tools, and much more



- Support Request – the fast track to the experts <https://support.industry.siemens.com/My/www/en/requests>  
Using the Support Request form in Industry Online Support you can send your query directly to Technical Assistance.



- Conversion tool – the easy and efficient way to find successor products [www.siemens.com/sirius/conversion-tool](http://www.siemens.com/sirius/conversion-tool)