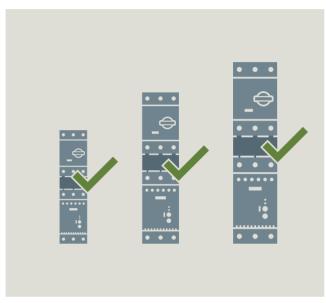


# Easy, efficient and always up to date, that's how industrial controls can be!



# Assembly and handling



Integrated connections and identical accessories for all components make assembly even simpler.

### SIRIUS stands for even less wiring effort

The SIRIUS modular system significantly reduces complexity in configuring and assembling control cabinets. Assembly is fast, simple and error-free thanks to the innovative design, system integration, the different compatible connection methods, and a host of functionalities integrated into the basic unit.

## The benefits at a glance:

- Tool-free assembly, considerably faster wiring, and zero maintenance thanks to integrated spring-loaded connections
- Maximum operational reliability thanks to clear and simple design of all components
- Error-free wiring of direct starters, reversing starters, and star-delta (wye-delta) starters through the use of snap-on function modules and wiring kits
- Additional space savings thanks to increased performance of the basic units with no change in size
- Low on installation and easy to service thanks to the infeed systems for motor starter protectors, load feeders, and compact starters
- Maximum reliability in planning and operation by using type-tested feeder assemblies
- Maximum flexibility for each specific requirement thanks to a wide range of device combination options

# Plant monitoring

## Increased availability and investment protection through integrated application monitoring

The SIRIUS monitoring relays keep a close eye on the entire plant or the ongoing process: Overcurrent and undercurrent, cable break or phase failure are detected rapidly and reported early, for example, load shedding or motor overload. The 3RR2 monitoring relay for current monitoring is integrated direct in the load feeder. Just attach it to the contactor, and you're done.

The monitoring relay is available in two functionally graded versions: for setting using a rotary switch, or with keys and display for menu-assisted setting as well as for displaying actual values and diagnostics. The digital version also enables monitoring of residual currents and phase sequences.



SIRIUS monitoring relays help to detect and report faults and failures at an early stage.

## Maximum operational reliability through fully developed technology

SIRIUS innovations can also handle high loads and frequent switching of the main contacts, in the case of the SIRIUS compact starter, for example. This detects any kind of fault in any operating mode, even at the end of the service life, and reliably switches off the load before contact welding occurs. With this innovative technology, SIRIUS is breaking completely new ground to ensure even more operational reliability.

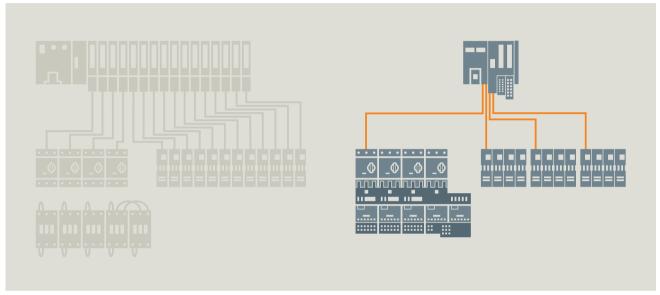
## **Everything under control at all times**

As well as local monitoring of plants and motors using the SIRIUS monitoring relay for current monitoring, or the field-proven SIRIUS overload relay, the new SIRIUS devices also provide a centralized overview from the controller. Thanks to the fast and simple connection of load feeders or the compact starter to AS-Interface or IO-Link, status and diagnostics data are available at any time without any great wiring effort. The SIRIUS modular system, well conceived down to the last detail, sets new standards in application monitoring.

### The benefits at a glance:

- Monitoring of entire plants and processes, early detection and reporting of faults
- Extremely simple integration of monitoring functions into the load feeder
- Reliable operation for years, even under heavy loads
- Local and centralized monitoring of plants and motors thanks to the availability of status and diagnostics data via AS-Interface or IO-Link

## Connection to the automation level



The use of AS-i or IO-Link significantly reduces wiring requirements.

## Considerably reduced wiring requirements in the control circuit going up to the controller

The new SIRIUS devices offer the option of transferring messages and switching commands via standardized AS-Interface connections or IO-Link connections. This means there is no need for the numerous wires required in parallel wiring for individual signals.

Direct-on-line starters, reversing starters, star-delta (wyedelta) starters, or compact starters can all be connected quickly and simply to AS-Interface or IO-Link. Thanks to library blocks that are available free, integration into Siemens controllers can be achieved more or less via dragging and dropping.

## The benefits at a glance:

- Connection of complete load feeders to the control level
- Maximum flexibility in assembly with minimum wiring effort in the control circuit
- Option of transferring comprehensive diagnostics or status messages to the controller
- Control of the feeders direct from the controller thanks to TIA

## Two standards with a systematic approach: AS-Interface and IO-Link

AS-Interface (AS-i) is a multi-vendor, rugged and low-cost bus system that connects physically distributed sensors and actuators in the field with the control level via a single unshielded and highly flexible 2-wire cable.

IO-Link is an intelligent, multi-vendor system for standardized connection of sensors, switching devices, and other actuators to the control level. It works on the basis of point-to-point connections below the fieldbus level. The electrical connection is made via three standard cables. Thanks to bidirectional digital transfer, a large amount of diagnostics and status information can still be transferred to the controller. User-friendly parameterization on the PC is possible as well as automatic reparameterization following device replacement.

# Planning and configuration

### Maximum planning reliability - worldwide

The numerous tested combinations of the SIRIUS load feeders ensure quick and reliable implementation of complex configurations. Thanks to a host of international certificates, such as IEC, UL, CSA and CCC, the SIRIUS products can be used anywhere in the world.

### All important documents available round the clock

Whether manuals, operating instructions, certificates, or characteristics, all the information relevant to selective plant engineering and configuration, implementation and operation is available via the Industry Online Support, 24/7 and in many different languages, even for mobile Android and iOS applications. The "My Documentation Manager" also enables individualized compilation and storage of technical documentation.

### Electrical engineering at the touch of a button

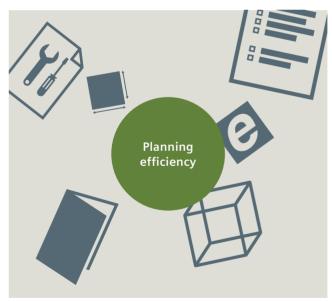
The time-consuming process of compiling product information and data from printed documentation becomes a thing of the past with SIRIUS innovations. Extensive CAx data – technical information such as manuals, data sheets, and operating instructions, as well as graphical data like model drawings and circuit diagrams – can be transferred direct to engineering programs and goods management systems.

#### Ordering made easy

The Siemens Industry Mall makes ordering of low-voltage control components child's play, and enables fast, selective plant engineering and documentation. It offers a wide platform for selecting the individual components, including the associated product and system configurators or code conversions. The availability check prior to ordering, and subsequent consignment tracking, can be taken for granted.

## The benefits at a glance:

- Tested, globally deployable combinations for fast and reliable configuration
- Online availability and individual management of all important information and documents
- CAx data enable fast and comprehensive electrical engineering thanks to integration into CAD systems
- Customer-focused ordering system ensuring smooth planning and documentation processes



Planning Efficiency $^{\text{TM}}$  from Siemens offers valuable planning and configuration aids online – free of cost.

# System highlights

Fast, simple, flexible, space-saving, and above all, error-free: that's how control cabinet installation should be! This is why the unique SIRIUS modular system offers everything you need for switching, protecting, starting and monitoring motors and plants: a modular range of standard components up to 250 kW/400 V in only seven sizes, perfectly matched to each other, can be combined very easily, and use virtually the same accessories. That's how easy industrial controls can be.

The SIRIUS modular system consists of the following main components:

- 3RV motor starter protectors
- 3RT contactors
- 3RW soft starters
- 3RF solid-state switching devices
- 3RU thermal overload relays
- 3RB solid-state overload relays
- 3RR monitoring relays

Load feeders can be assembled quickly and simply by combining these devices which are perfectly matched both electrically and mechanically.

Alternatively, ready-assembled 3RA2 load feeders or 3RA6 compact starters are available.

The SIRIUS modular system is supplemented by function modules for time controls and communication. This minimizes wiring requirements and provides simple connection to the control level via IO-Link and AS-Interface.

In addition, Planning Efficiency™ from Siemens provides a free range of online functions around the clock that make control cabinet installation processes even more efficient. In addition to comprehensive support, universal product data for CAE and CAD systems are available that enable time savings of up to 80% in planning and documentation.

The result is maximum flexibility, highly efficient planning, and the option of transferring comprehensive diagnostics or status messages to the controller. And since SIRIUS is an integral part of Totally Integrated Automation (TIA), the feeders can be controlled direct from the controller.

It is also worth mentioning that SIRIUS switching devices are already matched to the new IE3 motors. This means that the familiar reliability of the motor feeders is also ensured in the future.



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