### Related catalogs

**Low-Voltage Controls and Distribution**
- **SIRIUS - SENTRON - SIVACON**
  - Order No.: EB6060-K1002-A101-A7-7600
  - Technical Information incl.: LV 1

**Low-Voltage Controls and Components for Applications according to UL**
- Order no.: EB6060-K1816-A101-A1-7600
  - LV 16

**Industrial Communication**
- **Industrial Communication for Automation and Drives**
  - Order No.: EB6060-K6710-A101-B6-7600
  - EB6060-K6710-A121-A2-7600
  - IK PI
  - IK PI N

**SICUBE**
- **System Cubicles and Cubicle Air-Conditioning**
  - Order No.: EB6060-K1920-A101-A3-7600
  - LV 50

**SIDAC**
- **Reactors and Filters**
  - Order No.: EB6060-K2803-A101-A4-7600
  - LV 60

**SIVACON 8PS**
- **CD-K, BD01, BD2**
  - **Busbar Trunking Systems up to 1250 A**
  - Order No.: EB6060-K1870-A101-A3-7600
  - LV 70

**Automation & Drives**
- **The A&D Offline Mall**
  - CD-ROM: EB6060-D001-A110-C6-7600
  - DVD: EB6060-D001-A510-C6-7600
  - CA 01

**A&D Mall**

### Contents

- Systems • Controlgear: Contactors and contactor assemblies • solid-state switching devices • Protection equipment • Load feeders, motor starters and soft starters • Monitoring and control devices • Detecting devices • Commanding and signaling devices • Transformers • Power supplies • Planning and configuration with SIRIUS • Power Management System • SIVACON Power, distribution boards, busway and cubicle systems • SENTRON switching and protection devices for power distribution • Air circuit breakers, molded case circuit-breakers, switch disconnectors • Software for power distribution • BETA low-voltage circuit protection

- SIRIUS 3RV17 and 3RV18 motor starter protectors according to UL 489 • SENTRON Components for 8US Distribution Systems according to UL 508A • SENTRON 3WL5 air circuit breakers • non-automatic air circuit breakers according to UL 489/IEC • SENTRON 3VL Molded Case Circuit Breakers according to UL 489/IEC • ALPHA Devices according to UL Standard • BETA Devices according to UL standard

- PROFINET/Industrial Ethernet • Industrial Mobile Communication • PROFIBUS to IEC 61158/EN 50170 • SIMATIC ET 200 distributed I/Os • AS-Interface to EN 50295/IEC 61158 • Remote operation with SINUTRANET Telecontrol • Routers • ECO-FAST system

- System cubicles • Cubicle modifications • Cubicle expansion components • Accessories • Special cubicles • Cubicle solutions in applications • Cubicle air-conditioning • Special colors

- Commuting reactors for converters • Mains reactors for frequency converters • Iron-core output reactors • Ferrite output reactors • Iron-core smoothing reactors • Smoothing air-core reactors • Filter reactors • Application-specific reactors • Radio interference suppression filters • dv/dt filters • Sinewave filters

- Busbar trunking systems, overview • CD-K system (25 A to 40 A) • BD01 system (40 A to 160 A) • BD2 system (160 A to 1250 A)

- All Automation and Drives products, including those in the catalogs listed above.

- All Automation and Drives products, including those in the catalogs listed above.

- All catalogs for low-voltage controls and distribution can be downloaded as PDF files.

### Registered Trademarks

All product designations may be registered trademarks or product names of Siemens AG or other supplying companies. Third parties using these trademarks or product names for their own purposes may infringe upon the rights of the trademark owners. Further information about low-voltage controls is available on the Internet at: [http://www.siemens.com/lowvoltage](http://www.siemens.com/lowvoltage)

### Technical Assistance

Expert technical assistance for Low-voltage controls and electrical installation.
- Tel.: +49 (9 11) 8 95-59 00
- Fax: +49 (9 11) 8 95-59 07
- E-Mail: technical-assistance@siemens.com
Low-Voltage Controls and Distribution
SIRIUS · SENTRON · SIVACON

Catalog News
LV 1 N · 01/2008

3RA6 Fuseless Compact Starters

Contact your local Siemens representative

© Siemens AG 2008
**Introduction**


SIRIUS Industrial Controls

Low-Voltage Power Distribution

---

## Systems

1. **AS-Interface**
   - System ECOFAST
   - SIRIUS Safety Integrated
   - PROFIBUS
   - SIRIUS Modular System

2. **Engineering Software**
   - Planning and Configuration with SIRIUS
   - Motor Starter ES
   - ECOFAST ES
   - SIMOCODE ES
   - Soft Starter ES

3. **Power Management System**
   - System Overview
   - SIMATIC powercontrol
   - SIMATIC powercost

---

## Controls – Contactors and Contactor Assemblies

4. **Controls – Contactors and Contactor Assemblies**
   - 3RT, 3TB, 3TF Contactors for Switching Motors
   - 3RA13, 3RA14, 3TD, 3TE Contactator Assemblies
   - 3RT, 3RH, 3TB, 3TC, 3TH, 3TK Contactors for Special Applications
   - 3RH, 3TH Contactor Relays - 3RT Coupling Relays
   - 3TX7, 3RS18 Coupling Relays
   - L25, LZX Plug-In Relays - 3TG10 Power Relays/Miniature Contactors

---

## Power Supplies

5. **Power Supplies**
   - 4AV Non-Stabilized Power Supplies
   - 6EP Stabilized Power Supplies
   - SITOP
   - LOGO!Power

---

## Engineering Software Planning and Configuration with SIRIUS

6. **Engineering Software Planning and Configuration with SIRIUS**
   - Motor Starter ES
   - ECOFAST ES
   - SIMOCODE ES
   - Soft Starter ES

---

## Power Management System

7. **Power Management System**
   - System Overview
   - SIMATIC powercontrol
   - SIMATIC powercost

---

## Low-Voltage Power Distribution

8. **Low-Voltage Power Distribution**
   - SIMOCODE 3UF Motor Management and Control Devices
   - LOGO! Logic Modules - 3RF, 3RF19 Timing Relays
   - 3UG Monitoring Relays for Electrical and Additional Measurements
   - 3RS10, 3RS11 Temperature Monitoring Relays
   - 3RN1 Thermostat Motor Protection
   - 3TK28 Safety Relays
   - 3RS17 Interface Converters

---

## Monitoring and Control Devices

9. **Monitoring and Control Devices**
   - 3SE2, 3SE3, 3SE5, 3SF1 Position Switches
   - 3SF1 Hinge Switches
   - 3SE6 Magnetically Operated Switches

---

## Detecting Devices

10. **Detecting Devices**
    - 3SE2, 3SE3, 3SE5, 3SF1 Position Switches
    - 3SF1 Hinge Switches
    - 3SE6 Magnetically Operated Switches

---

## Commanding and Signaling devices

11. **Commanding and Signaling devices**
    - 3SB2, 3SB3, 3SF5 Pushbutton Units and Indicator Lights
    - 3SE7, 3SF2 Cable-Operated Switches
    - 3SE2, 3SE3 Foot Switches
    - 8WD4 Signaling Columns
    - 8WD5 Integrated Signal Lamps

---

## Transformers

12. **Transformers**
    - Single-Phase Transformers
    - Three-Phase Transformers

---

## BETA Low-Voltage Circuit Protection

13. **BETA Low-Voltage Circuit Protection**
    - Miniature Circuit Breakers (MCBs)
    - Residual Current Protective Devices
    - Low-Voltage Fuse Systems
    - SITOR Semiconductor Fuses
    - SR 60 Busbar Systems
    - Overvoltage Protection Devices
    - Socket Outlets
    - Measuring Devices

---

## Software for Power Distribution

14. **Software for Power Distribution**
    - Dimensioning with SIMARIS design
    - Configuring, Visualizing and Controlling with SIMATIC

---

## Appendix

15. **Appendix**
    - Glossary
    - Training
    - Ordering notes
    - Further documentation
    - Standards and approvals
    - Quality management
    - Siemens Representative
    - External Partner
    - Online services
    - Customer support
    - Software licenses
    - Subject index
    - Ordering number index incl. export markings
    - Terms and conditions of sale and delivery

---
Explanations

General information

Things you should know about Catalog News LV 1 N Load Feeders · 01/2008

Catalog News LV 1 N Load Feeders · 01/2008 is a supplement to the catalog LV 1 · 2008. The section „Catalog“ contains selection and order-relevant data for the 3RA6 Fuseless Compact Starters under the topic headings „Overview“, „Benefits“ as well as „Selection and ordering data“.

For the Accessories and Infeed Systems of the 3RA6 the topics „Overview“ and „Selection and ordering data“ can be found as well.

The section „Technical specifications“ is omitted, as the applicable data can be found in the system manual at www.siemens.com/compactstarter.

Delivery time (DT)

Preferred types are available immediately from stock, i.e. are dispatched within 24 hours.

Normal quantities of the products are usually delivered within the specified time following receipt of your order at our branch.

In exceptional cases, the actual delivery time may differ from that specified.

Preferred types are available immediately from stock, i.e. are dispatched within 24 hours.

Normal quantities of the products are usually delivered within the specified time following receipt of your order at our branch.

In exceptional cases, the actual delivery time may differ from that specified.

The delivery times apply up to the ramp at Siemens AG (products ready for dispatch). The transport times depend on the destination and type of shipping.

The standard transport time for Germany is 1 day.

The delivery times specified here represent the state of 10/2007. They are permanently optimized. Up-to-date information can be found at http://www.siemens.com/automation/mall.

Price units (PU)

The price unit defines the number of units, sets or meters to which the specified price and weight apply.

Packaging sizes (PS)

The packaging size defines the number, e.g. of units, sets or meters, for outer packaging.

Only the quantity defined by the packaging size or a multiple thereof can be ordered!

For multi-unit packing and reusable packaging see Appendix.

Price groups (PG)

Each product is assigned to a price group.

Weight

The defined weight in kg refers to the price unit (PU).

Dimensions

All dimensions in mm.
## Order number index

**Order number index including export markings**

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Export markings</th>
<th>ECCN</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3RA61 20-0</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA61 20-1A</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA61 20-1B</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA61 20-1CB32</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA61 20-1CB33</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA61 20-1CB34</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA61 20-1CE</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA61 20-1CP32</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA61 20-1CP33</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA61 20-1CP34</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA61 20-1CP35</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA61 20-1CP36</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA61 20-1CP37</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA61 20-1CP38</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA61 20-1C5</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA61 20-1C6</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA61 20-1C7</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA61 20-1C8</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA61 20-2</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA61 20-2A</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA61 20-2B</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA61 20-2CB32</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA61 20-2CP32</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA61 20-2CP33</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA61 20-2CP34</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA61 20-2CP35</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA61 20-2CP36</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA61 20-2CP37</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA61 20-2CP38</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA61 20-2C5</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA61 20-2C6</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA61 20-2C7</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA61 20-2C8</td>
<td>N</td>
<td>N</td>
<td>6/4</td>
</tr>
<tr>
<td>3RA69 11</td>
<td>N</td>
<td>N</td>
<td>6/8</td>
</tr>
<tr>
<td>3RA69 12</td>
<td>N</td>
<td>N</td>
<td>6/8</td>
</tr>
<tr>
<td>3RA69 13</td>
<td>N</td>
<td>N</td>
<td>6/8</td>
</tr>
<tr>
<td>3RA69 2</td>
<td>N</td>
<td>N</td>
<td>6/8</td>
</tr>
<tr>
<td>3RA69 4</td>
<td>N</td>
<td>N</td>
<td>6/7</td>
</tr>
<tr>
<td>3RA69 5</td>
<td>N</td>
<td>N</td>
<td>6/7</td>
</tr>
<tr>
<td>3RA69 7</td>
<td>N</td>
<td>N</td>
<td>6/7</td>
</tr>
<tr>
<td>3RA69 9</td>
<td>on requ.</td>
<td>N</td>
<td>6/10</td>
</tr>
<tr>
<td>3RK</td>
<td>N</td>
<td>N</td>
<td>6/7</td>
</tr>
<tr>
<td>3RV19 15-1</td>
<td>N</td>
<td>N</td>
<td>6/9</td>
</tr>
<tr>
<td>3RV19 15-5</td>
<td>N</td>
<td>N</td>
<td>6/9</td>
</tr>
<tr>
<td>3RV19 15-6</td>
<td>N</td>
<td>N</td>
<td>6/9</td>
</tr>
<tr>
<td>3RV19 17</td>
<td>N</td>
<td>N</td>
<td>6/16</td>
</tr>
<tr>
<td>3RV19 25</td>
<td>N</td>
<td>N</td>
<td>6/9</td>
</tr>
<tr>
<td>3RV19 26</td>
<td>N</td>
<td>N</td>
<td>6/10</td>
</tr>
<tr>
<td>3RV19 28</td>
<td>N</td>
<td>N</td>
<td>6/8</td>
</tr>
<tr>
<td>8U</td>
<td>on requ.</td>
<td>N</td>
<td>6/10</td>
</tr>
<tr>
<td>8US</td>
<td>on requ.</td>
<td>N</td>
<td>6/10</td>
</tr>
<tr>
<td>8W</td>
<td>on requ.</td>
<td>N</td>
<td>6/10</td>
</tr>
<tr>
<td>8WA</td>
<td>on requ.</td>
<td>N</td>
<td>6/10</td>
</tr>
</tbody>
</table>

© Siemens AG 2008
### Catalog

**3RA6 Fuseless Compact Starters**
- General data
- Overview
- Benefits
  - 3RA61, 3RA62 Compact Starters
- 3RA61 direct-on-line starters
- Selection and ordering data
- 3RA62 reversing starters
- Selection and ordering data

**Accessories**
- For 3RA6 direct-on-line and reversing starters
- Overview
- Selection and ordering data

**Infeed Systems**
- Infeed system for 3RA6
- Overview
- Selection and ordering data

### Technical Information

- Technical information about
  - Technical data
  - Manuals/Operating instructions
  - Characteristics
  - Certificates
- can be found at: [www.siemens.de/lowvoltage/support](http://www.siemens.de/lowvoltage/support)

- and about Configurators at: [www.siemens.de/lowvoltage/konfiguratoren](http://www.siemens.de/lowvoltage/konfiguratoren)
**General data**

### Overview

#### 3RA6 fuseless compact starters and infeed system for 3RA6

**Integrated functionality**

The SIRIUS 3RA6 compact starters are a generation of innovative load feeders with the integrated functionality of a circuit breaker, contactor and solid-state overload relay. In addition, various functions of optional mountable accessories (auxiliary switches, surge suppressors) are already integrated in the SIRIUS compact starter.

**Application**

The SIRIUS compact starters can be used wherever standard induction motors up to 32 A (approx. 15 kW/400 V) are directly started.

**Low equipment variance**

Thanks to wide setting ranges for the rated current and wide voltage ranges, the equipment variance is greatly reduced compared to conventional load feeders.

**Very high operational safety**

No welding after a short-circuit release and defined shut-down when the end of service life is reached means that the SIRIUS compact starter achieves a very high level of operational safety otherwise possible only with considerable additional outlay. This sets it apart from devices with similar functionality.

**Safe disconnection**

The auxiliary switches of the 3RA6 compact starters are designed as mirror contacts. It is thus possible to use the devices for safe disconnection, e.g. emergency-stops, up to Category 2 (EN954-1) and together with other redundancy switching devices up to Category 3 or 4.

**Communications integration through AS-Interface**

To enable communications integration through AS-Interface there is an AS-i add-on module (also available as a version with two local inputs for safe disconnection) which can be mounted instead of the control circuit terminals on the SIRIUS compact starter.

The design of the AS-i add-on module permits a group of up to 62 feeders with a total of four cables to be connected to the control system. This reduces wiring work considerably compared to the parallel wiring method.

**Permanent wiring / easy replacement**

Using the SIRIUS infeed system for 3RA6 it is possible to carry out the wiring in advance without a compact starter needing to be connected.

A compact starter is very easily replaced simply by pulling it out of the device without disconnecting the wiring.

Even with screw connections or mounting on a standard mounting rail there is no need to disconnect any wiring (on account of the removable main and control circuit terminals) in order to replace a compact starter.

**Consistent solution from the infeed to the motor feeder**

The SIRIUS infeed system for 3RA6 with integrated PE bar is offered as a user-friendly possibility of feeding in summation currents up to 100 A with a maximum conductor cross-section of 70 mm² and connecting the motor cable directly without additional intermediate terminals.

**Screw and spring-loaded connections**

The SIRIUS compact starters and the SIRIUS infeed system for 3RA6 are available with screw and spring-type connections.

---

**Note:**

For last orientation with regard to the type of connection, different colored backgrounds are assigned to the Order No. and the price in the selection and ordering data:

- Products with screw connections appear on a green background.
- Products with spring-loaded connections appear on an orange background.
- Products with different connections on the incoming and outgoing side appear on a gray background.

---

**System configurator for engineering**

A free system configurator is available to reduce further the amount of engineering work for selecting the required compact starters and matching infeed.

**Types of infeed for the 3RA6 fuseless compact starters**

On the whole four different infeed possibilities are available:

- **Parallel wiring**
- **Use of 3-phase busbars (combination with SIRIUS circuit breakers and SIRIUS contactors possible)**
- **8US busbar adapters**
- **SIRIUS infeed system for 3RA6**

To comply with the clearance and creepage distances demanded according to UL508 there are the following infeed possibilities:

<table>
<thead>
<tr>
<th>Type of infeed</th>
<th>Feeder terminal (according to UL 508, type E)</th>
<th>Order No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parallel wiring</td>
<td>Terminal for “Self-Protected Combination Motor Controller (Type E)”</td>
<td>3RV19 28-1H</td>
</tr>
<tr>
<td>3-phase busbars</td>
<td>3-phase infeed terminal for constructing “Type E Starters”, UL 508</td>
<td>3RV19 25-5EB</td>
</tr>
<tr>
<td>Infeed system for 3RA6</td>
<td>Infeed on left, 50/70 mm², screw terminal with 3 sockets, outgoing terminal with screw/spring-loaded connections, including PE bar</td>
<td>3RA68 13-8AB (screw connection), 3RA68 13-8AC (spring-type connection)</td>
</tr>
</tbody>
</table>

---

**SIRIUS 3RA6 compact starters**

The SIRIUS 3RA6 compact starters are universal motor feeders according to IEC/EN 60947-6-2. As control and protective switching devices (CPS) they can connect, convey and disconnect the thermal, dynamic and electrical loads from short-circuit currents up to \( I_{\text{short}} = 53 \, \text{kA} \), i.e. they are practically weld-free. They combine the functions of a circuit breaker, a contactor and a solid-state overload relay in a single enclosure and can be used wherever standard induction motors up to 32 A (up to approx. 15 kW at 400 V AC) are started directly. Direct-on-line and reversing starters are available as variants.

The reversing starter version comes with not only an internal electrical interlock but also with a mechanical interlock to prevent simultaneous actuation of both directions of rotation.

3RA6 fuseless compact starters are available with 5 current setting ranges and 3 control voltage ranges:
The 3 control voltage ranges are:
- 24 V AC/DC
- 42 ... 70 V AC/DC
- 110 ... 240 V AC/DC

Note:
Up to 100 A the 3RA1 load feeders can be used for fuseless load feeders > 32 A.
The SENTRON 3VL circuit breakers and the SIRIUS 3RT contactors can be used for fuseless load feeders > 100 A.
For information see the Catalogs LV 1 and LV 1 T.

Operating conditions
The SIRIUS 3RA6 compact starters are suitable for use in any climate. They are intended for use in enclosed rooms in which no severe operating conditions (such as dust, caustic vapors, hazardous gases) prevail. Suitable covers must be provided for installation in dusty and damp locations.
The SIRIUS compact starters are generally designed to degree of protection IP20. The permissible ambient temperature during operation is -20 ... +60 °C.
The maximum rated operational voltage is 690 V and the limit short-circuit current is 53 kA.

Note:
More technical specifications can be found in the system manual at
www.siemens.com/compactstarter.

Overload tripping times
The overload tripping time can be set on the device to less than 10 s (CLASS 10) and less than 20 s (CLASS 20 for heavy starting).
As the breaker mechanism still remains closed after an overload, resetting is possible by either local manual reset or autoreset after 3 minutes cooling time.

With autoreset there is no need to open the control cabinet.

Diagnostics options
The compact starter provides the following diagnostics options:
- With LEDs:
  - connection to the control voltage
  - position of the main contacts
- With mechanical indication:
  - tripping due to overload
  - tripping due to short-circuit
  - tripping due to malfunction (end of service life reached because of worn switching contacts or a worn switching mechanism or faults in the control electronics)

These states can be evaluated in addition in the higher-level control system by means of the integrated auxiliary switches and signaling switches of the compact starter.

### Benefits
The SIRIUS 3RA6 compact starters offer a number of advantages, the most important being:
- Compact design saves space in the control cabinet
- Little planning and assembly work and far less wiring thanks to a single complete unit with one order number
- Little variance through 3 wide voltage ranges and 5 wide setting ranges for the rated current mean low stock levels
- High plant availability through integrated functionalities such as prevention of main contact welding and shut-down at end of service life
- Greater productivity through automatic device reset in case of overload and differentiated detection of overload and short-circuit
- Easy checking of the wiring and testing of the motor direction prior to start-up thanks to optional control kits
- Speedy replacement of devices thanks to removable terminals with spring-loaded and screw connections in the main and control circuit
- Efficient power distribution through the related SIRIUS infeed system for 3RA6
- Direct connection of the motor feeder cable to the SIRIUS infeed system for 3RA6 thanks to integrated PE bar
- Connecting and looping through incoming feeders up to a cross-section of 70 mm²
- When using the infeed system for 3RA6, possibility of directly connecting the motor cable without intermediate terminals
- Integration in Totally Integrated Automation thanks to the optional connection to AS-Interface
**3RA6 Fuseless Compact Starters**

**3RA61, 3RA62 Compact Starters**

**3RA61 direct-on-line starters**

### Selection and ordering data

A set of 3RA69 40-0A adapters is required for screw mounting.

#### Standard induction motor

- 4-pole at 400 V AC

#### Standard output $P$

<table>
<thead>
<tr>
<th>$kW$</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.09</td>
<td>0.1 ... 0.4</td>
</tr>
<tr>
<td>0.37</td>
<td>0.32 ... 1.25</td>
</tr>
<tr>
<td>1.5</td>
<td>1 ... 4</td>
</tr>
<tr>
<td>5.5</td>
<td>3 ... 12</td>
</tr>
<tr>
<td>15</td>
<td>8 ... 32</td>
</tr>
</tbody>
</table>

**According to IEC/EN 60947-6-2 no welding of contactor contacts at \( I_q = 53 \, kA \) at 400 V**

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Price per PU</th>
<th>Weight per PU approx.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3RA61 20-@A@</td>
<td>1 unit</td>
<td>101 kg</td>
</tr>
<tr>
<td>3RA61 20-@B@</td>
<td>1 unit</td>
<td>101 kg</td>
</tr>
<tr>
<td>3RA61 20-@C@</td>
<td>1 unit</td>
<td>101 kg</td>
</tr>
<tr>
<td>3RA61 20-@D@</td>
<td>1 unit</td>
<td>101 kg</td>
</tr>
</tbody>
</table>

**Order No. supplement for connection type**

- Without terminals for use with the infeed system for 3RA6 and the AS-i add-on module
- With screw terminals
- With spring-loaded terminals

**Order No. supplement for rated control supply voltage**

- 24 V AC/DC
- 42 ... 70 V AC/DC
- 110 ... 240 V AC/DC

**Order No. supplement for complement variant**

- For standard mounting rail or screw mounting: Basic version including 1 pair of main circuit terminals and 1 pair of control circuit terminals
- For use with the infeed system for 3RA6 without main circuit terminals (with control circuit terminals)
- For standard mounting rail or screw mounting when using the AS-i add-on module without control circuit terminals (with main circuit terminals)

#### Additional price

- x = additional price

---

*You can order this quantity or a multiple thereof.*
### Selection and ordering data

**3RA6 Fuseless Compact Starters**

**3RA61, 3RA62 Compact Starters**

**3RA62 reversing starters**

---

**Selection and ordering data**

Two sets of 3RA69 40-0A adapters are required for screw mounting.

---

<table>
<thead>
<tr>
<th>Standard induction motor</th>
<th>Setting range for solid-state overload release</th>
<th>Compact starter</th>
<th>Order No.</th>
<th>Price per PU</th>
<th>Weight per PU approx.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-pole at 400 V AC</td>
<td>DT(2)</td>
<td>A</td>
<td>3RA62 50-1CP32</td>
<td>192.---</td>
<td>1 unit 101 2.3</td>
</tr>
<tr>
<td>4-pole at 400 V AC</td>
<td>DT(2)</td>
<td>B</td>
<td>3RA62 50-2DP32</td>
<td>194.---</td>
<td>1 unit 101 2.3</td>
</tr>
<tr>
<td>4-pole at 400 V AC</td>
<td>DT(2)</td>
<td>C</td>
<td>3RA62 50-3CP32</td>
<td>205.---</td>
<td>1 unit 101 2.3</td>
</tr>
<tr>
<td>4-pole at 400 V AC</td>
<td>DT(2)</td>
<td>D</td>
<td>3RA62 50-4DP32</td>
<td>228.---</td>
<td>1 unit 101 2.3</td>
</tr>
<tr>
<td>4-pole at 400 V AC</td>
<td>DT(2)</td>
<td>E</td>
<td>3RA62 50-5DP32</td>
<td>296.---</td>
<td>1 unit 101 2.3</td>
</tr>
</tbody>
</table>

**Order No. supplement for connection type**

- Without terminals
- With screw terminals
- With spring-loaded terminals

**Order No. supplement for rated control supply voltage**

- 24 V AC/DC
- 42 ... 70 V AC/DC
- 110 ... 240 V AC/DC

**Order No. supplement for complement variant**

- For standard mounting rail or screw mounting:
  - Basic version including 1 pair of main circuit terminals and 1 pair of control circuit terminals
  - For use with the infeed system for 3RA6 without main circuit terminals (with control circuit terminals)
  - For standard mounting rail or screw mounting when using the AS-i add-on module without control circuit terminals (with main circuit terminals)

---

1) Selection depends on the concrete start-up and rated data of the protected motor.

2) Delivery time class is dependent on connection type, rated control supply voltage and complement: preliminary C or X, later as a rule A or B.

---

**Price reduction**

* You can order this quantity or a multiple thereof.
Accessories for SIRIUS 3RA6 compact starters

The following accessories are available specially for the 3RA6 compact starters:

- AS-i add-on module: For communication of the compact starter with the control system using AS-Interface; also available as a version with two local inputs for safe disconnection
- Addressing unit for addressing the AS-i add-on module
- External auxiliary switch blocks: Snap-on auxiliary switch as versions 2 NO, 2 NC and 1 NO + 1 NC with screw or spring-type connections; the contacts of the auxiliary switch block open and close jointly with the main contacts of the compact starter. The NC contacts are designed as mirror contacts.
- Control kit: Aid for manually closing the main contacts in order to check the wiring and motor direction under conditions of short-circuit protection
- Adapter for screw mounting the compact starter, including push-in lugs
- Main conductor terminal: available with screw and spring-loaded connection

Accessories for parallel wiring

The terminal block for "Self-Protected Combination Motor Controller", type E is available for complying with the clearance and creepage distances demanded according to UL 508.

Accessories for infeed using 3-phase busbar systems

The 3-phase busbars can be used as an easy, time-saving and clearly arranged means of feeding SIRIUS 3RA6 compact starters with screw connection. Circuit breaker sizes S00 and S0 can also be integrated.

The busbars are suitable for between 2 and 5 devices. However, any kind of extension up to a maximum summation current of 63 A is possible by clamping the tags of an additional busbar (rotated by 180°) underneath the terminals of the respective last circuit breaker.

A connecting piece is required for the combination with circuit breaker size S00. The circuit breakers are supplied by appropriate feeder terminals. Special feeder terminals are required for constructing "Type E Starters" according to UL/CSA.

The 3-phase busbar systems are finger-safe but empty connection tags must be fitted with covers. They are designed for any short-circuit stress which can occur at the output side of connected SIRIUS 3RA6 compact starters or circuit breakers.

Busbar adapters for 60 mm systems

The compact starters are mounted directly with the aid of busbar adapters on busbar systems with 60 mm center-to-center clearance in order to save space and to reduce infeed times and costs. These feeders are suitable for copper busbars with a width from 12 to 30 mm. The busbars can be 4 to 5 mm or 10 mm thick.

The 8US busbar system can be loaded with a maximum summation current of 630 A.

The "reversing starter" version requires a device holder along side the busbar adapter for lateral mounting.

The compact starters are snapped onto the adapter and connected on the line side. This prepared unit is then plugged directly onto the busbar system, and is thus connected both mechanically and electrically at the same time.

For more accessories such as incoming and outgoing terminals, flat copper profiles etc., see LV1, Chapter 14, "8US Busbar Systems, 60 mm Busbar System".

Accessories for operation with closed control cabinet doors

Door-coupling rotary operating mechanisms for standard and emergency-stop applications are available for operating the compact starter with closed control cabinet doors.
### Selection and ordering data

<table>
<thead>
<tr>
<th>Accessories specially for 3RA6 compact starters</th>
<th>DT</th>
<th>Order No.</th>
<th>Price per PU</th>
<th>Weight per PU approx.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AS-i add-on modules for compact starters</td>
<td>3RA69 70-3A</td>
<td>1</td>
<td>101</td>
<td>0.045 kg</td>
</tr>
<tr>
<td>For communication of the compact starter with the control system using AS-Interface</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AS-i add-on modules with two local inputs for safe disconnection</td>
<td>3RA69 70-3B</td>
<td>1</td>
<td>101</td>
<td>0.045 kg</td>
</tr>
<tr>
<td>Addressing units for AS-i add-on modules</td>
<td>3RK19 04-2AB01</td>
<td>1</td>
<td>121</td>
<td>0.540 kg</td>
</tr>
<tr>
<td>• For active AS-Interface modules, intelligent sensors and actuators</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• According to AS-Interface Version 2.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Including expanded addressing mode</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Scope of supply</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- 1 addressing unit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- 1 operating manual (German, English, French, Spanish, Italian)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- 1 addressing cable (1.5 m, with jack plug)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control kits</td>
<td>3RA69 50-0A</td>
<td>1</td>
<td>101</td>
<td>0.004 kg</td>
</tr>
<tr>
<td>For mechanical actuation of the compact starter</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adapters for screw mounting the compact starter</td>
<td>3RA69 40-0A</td>
<td>1</td>
<td>101</td>
<td>0.152 kg</td>
</tr>
<tr>
<td>(set including push-in lugs)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct-on-line starters require 1 set, reversing starters 2 sets.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* You can order this quantity or a multiple thereof.
### Accessories

**For 3RA6 direct-on-line and reversing starters**

<table>
<thead>
<tr>
<th>Type</th>
<th>Version</th>
<th>DT</th>
<th>Order No.</th>
<th>Price per PU</th>
<th>PU (UNIT, SET, M)</th>
<th>PS*</th>
<th>PG</th>
<th>Weight per PU approx. kg</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Accessories specially for 3RA6 compact starters with screw connection</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Auxiliary switch blocks for compact starters</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 NO</td>
<td>A</td>
<td>3RA69 11-1A</td>
<td>1</td>
<td>1 unit</td>
<td>101</td>
<td>0.018</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 NC</td>
<td>A</td>
<td>3RA69 12-1A</td>
<td>1</td>
<td>1 unit</td>
<td>101</td>
<td>0.018</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 NO + 1 NC</td>
<td>A</td>
<td>3RA69 13-1A</td>
<td>1</td>
<td>1 unit</td>
<td>101</td>
<td>0.018</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Main circuit terminals</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(incoming and outgoing side)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3RA69 20-1A</td>
<td>1</td>
<td>2 units</td>
<td>101</td>
<td>0.038</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Accessories specially for 3RA6 compact starters with spring-loaded connection</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Auxiliary switch blocks for compact starters</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 NO</td>
<td>A</td>
<td>3RA69 11-2A</td>
<td>1</td>
<td>1 unit</td>
<td>101</td>
<td>0.018</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 NC</td>
<td>A</td>
<td>3RA69 12-2A</td>
<td>1</td>
<td>1 unit</td>
<td>101</td>
<td>0.018</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 NO + 1 NC</td>
<td>A</td>
<td>3RA69 13-2A</td>
<td>1</td>
<td>1 unit</td>
<td>101</td>
<td>0.018</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Main circuit terminals</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(incoming and outgoing side)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3RA69 20-2A</td>
<td>1</td>
<td>2 units</td>
<td>101</td>
<td>0.049</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Terminals for “Self-Protected Combination Motor Controllers (Type E)” according to UL 508 for infeed through parallel wiring with compact starters</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Terminal blocks type E</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S0</td>
<td></td>
<td>3RV19 28-1H</td>
<td>1</td>
<td>1 unit</td>
<td>101</td>
<td>0.083</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*You can order this quantity or a multiple thereof.*
## 3RA6 Fuseless Compact Starters

### Accessories

For 3RA6 direct-on-line and reversing starters

<table>
<thead>
<tr>
<th>Number of compact starters and circuit breakers that can be connected without lateral accessories</th>
<th>Modular spacing</th>
<th>Rated current <em>I</em>&lt;sub&gt;n&lt;/sub&gt; at 690 V</th>
<th>For circuit breakers size</th>
<th>Order No.</th>
<th>Price per PU</th>
<th>PU (UNIT, SET, M)</th>
<th>PS</th>
<th>PG</th>
<th>Weight per PU approx.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mm</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>kg</td>
</tr>
</tbody>
</table>

#### 3-phase busbars for infeed with 3RA6

For feeding several compact starters and circuit breakers with screw terminals, mounted side by side on standard mounting rails, insulated, with touch protection.

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>45</td>
<td>63</td>
<td>S00, S0&lt;sup&gt;1)&lt;/sup&gt;</td>
<td>3RV19 15-1AB</td>
<td>1</td>
<td>1 unit</td>
<td>101</td>
<td>0.044</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td>S00, S0&lt;sup&gt;1)&lt;/sup&gt;</td>
<td>3RV19 15-1BB</td>
<td>1</td>
<td>1 unit</td>
<td>101</td>
<td>0.071</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td>S00, S0&lt;sup&gt;1)&lt;/sup&gt;</td>
<td>3RV19 15-1CB</td>
<td>1</td>
<td>1 unit</td>
<td>101</td>
<td>0.099</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td>S00, S0&lt;sup&gt;1)&lt;/sup&gt;</td>
<td>3RV19 15-1DB</td>
<td>1</td>
<td>1 unit</td>
<td>101</td>
<td>0.124</td>
</tr>
</tbody>
</table>

1) Not suitable for 3RV11 motor starter protectors with overload relay function. Common clamping of S00 and S0 motor starter protectors is not possible, due to the different modular spacings and terminal heights. The 3RV19 15-5DB connecting piece is available for connecting busbars from size S0 to size S00.

#### Connecting pieces for 3-phase busbars

For connecting 3-phase busbars for compact starters and circuit breakers of size S0 (left) to size S00 (right).

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3RV19 15-5DB</td>
<td>1</td>
<td>1 unit</td>
<td>101</td>
<td>0.042</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Covers for connection tags of the 3-phase busbars

Touch protection for empty positions.

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3RV19 15-6AB</td>
<td>1</td>
<td>10 units</td>
<td>101</td>
<td>0.003</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Conductor cross-section

<table>
<thead>
<tr>
<th>Solid or stranded</th>
<th>Finely stranded with end sleeve</th>
<th>AWG cables, solid or stranded</th>
<th>For compact starters and circuit breakers size</th>
<th>Order No.</th>
<th>Price per PU</th>
<th>PU (UNIT, SET, M)</th>
<th>PS</th>
<th>PG</th>
<th>Weight per PU approx.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mm²</td>
<td>mm²</td>
<td>AWG</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 3-phase line-side terminals for 3-phase busbars

**Connection from top**

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5 ... 25</td>
<td>4 ... 16</td>
<td>12-4</td>
<td>S0</td>
<td>3RV19 25-5AB</td>
<td>1</td>
<td>1 unit</td>
<td>101</td>
<td>0.041</td>
</tr>
</tbody>
</table>

**Connection from below**<sup>1)</sup>

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5 ... 25</td>
<td>4 ... 16</td>
<td>12-4</td>
<td>S00, S0</td>
<td>3RV19 15-5B</td>
<td>1</td>
<td>1 unit</td>
<td>101</td>
<td>0.110</td>
</tr>
</tbody>
</table>

#### 3-phase line-side terminals for constructing "Type E Starters" according to UL 508 for 3-phase busbars

**Connection from top**

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5 ... 25</td>
<td>4 ... 16</td>
<td>10-4</td>
<td>S0</td>
<td>C</td>
<td>3RV19 25-SEB</td>
<td>1</td>
<td>1 unit</td>
<td>101</td>
</tr>
</tbody>
</table>

<sup>1)</sup> This terminal is connected in place of a switch, please take the space requirement into account.

---

*You can order this quantity or a multiple thereof.*
## 3RA6 Fuseless Compact Starters

### Accessories

#### For 3RA6 direct-on-line and reversing starters

<table>
<thead>
<tr>
<th>Type</th>
<th>DT</th>
<th>Order No.</th>
<th>Price per PU PU (UNIT, SET, M)</th>
<th>PS*</th>
<th>PG</th>
<th>Weight per PU approx. kg</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Busbar adapters for 60 mm systems</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For flat copper profiles according to DIN 46433 Width: 12 ... 30 mm Thickness: 4 ... 5 mm or 10 mm</td>
<td>BUS12 11-NS10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type</th>
<th>Color of handle</th>
<th>Version of extension shaft mm</th>
<th>DT</th>
<th>Order No.</th>
<th>Price per PU PU (UNIT, SET, M)</th>
<th>PS*</th>
<th>PG</th>
<th>Weight per PU approx. kg</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Device holders for lateral mounting along side the busbar adapter for 60 mm systems</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Required in addition to the busbar adapter for mounting a reversing starter</td>
<td>BUS12 50-1AA10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type</th>
<th>Color of handle</th>
<th>Version Size/Color DT</th>
<th>Order No.</th>
<th>Price per PU PU (UNIT, SET, M)</th>
<th>PS*</th>
<th>PG</th>
<th>Weight per PU approx. kg</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Door-coupling rotary operating mechanisms for operating the compact starter with closed control cabinet doors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The door-coupling rotary operating mechanisms consist of a knob, a coupling driver and an extension shaft of 130/330 mm in length (5 mm x 5 mm). The door-coupling rotary operating mechanisms are designed to degree of protection IP65. The door interlocking prevents accidental opening of the control cabinet door in the ON position of the motor starter protector. The OFF position can be locked with up to 3 padlocks.</td>
<td>3RV19 26-0B</td>
<td>Black 130</td>
<td></td>
<td>1</td>
<td>1 unit</td>
<td>101</td>
<td>0.111</td>
</tr>
<tr>
<td><strong>EMERGENCY-STOP door-coupling rotary operating mechanisms</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3RV19 26-0C</td>
<td>Red/Yellow 130</td>
<td></td>
<td>1</td>
<td>1 unit</td>
<td>101</td>
<td>0.110</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type</th>
<th>Size/Color</th>
<th>DT</th>
<th>Order No.</th>
<th>Price per PU PU (UNIT, SET, M)</th>
<th>PS*</th>
<th>PG</th>
<th>Weight per PU approx. kg</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tools for spring-loaded terminals</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Screwdrivers</td>
<td>8WA2 803</td>
<td>3.5 mm x 0.5 mm, suitable for a max. conductor cross-section of 2.5 mm² Length approx. A 175 mm; green</td>
<td></td>
<td>1</td>
<td>1 unit</td>
<td>041</td>
<td>0.024</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type</th>
<th>DT</th>
<th>Order No.</th>
<th>Price per PU PU (UNIT, SET, M)</th>
<th>PS*</th>
<th>PG</th>
<th>Weight per PU approx. kg</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Documentation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System manuals</td>
<td>3RA69 91-0A</td>
<td></td>
<td></td>
<td>1</td>
<td>1 unit</td>
<td>101</td>
</tr>
<tr>
<td></td>
<td>3RA69 92-0A</td>
<td></td>
<td></td>
<td>1</td>
<td>1 unit</td>
<td>101</td>
</tr>
</tbody>
</table>

* You can order this quantity or a multiple thereof.
**Overview**

The infeed system for 3RA6 compact starters enables far less wiring in the main circuit and, thanks to the easy exchangeability of the compact starters, reduces the usual downtimes for maintenance work during the plant's operating phase.

The infeed system provides the possibility of completely prewiring the main circuit without a compact starter needing to be connected at the same time. As the result of the removable terminals in the main circuit, compact starters can be integrated in an infeed system in easy manner (without the use of tools).

In addition, the integrated PE bar means it is optionally possible to connect the motor cable directly to the infeed system without additional intermediate terminals. The infeed system for 3RA6 compact starters is designed for summation currents up to 100 A with a maximum 70 mm² conductor cross-section on the feeder terminal block.

The infeed system can be mounted on a standard mounting rail, a 60 mm busbar system or flat surfaces.

---

1. Feeder terminal
2. Three-socket expansion module
3. Two-socket expansion module
4. Expansion plug
5. PE infeed
6. PE expansion plug
7. PE pick-off
8. Connecting plates
9. End cover
10. 45 mm adapter for SIRIUS motor starter protector size S00/S0
11. 3RA61 direct-on-line starter
12. 3RA62 reversing starter
### Infeed Systems for 3RA6

1. **Infeed**
   - The 3-phase infeed is available with screw connection (25/35 mm² up to 63 A or 50/70 mm² up to 100 A) and spring-loaded connection (25/35 mm² up to 63 A).
   - The infeed with spring-loaded terminal can be fitted on the left as well as on the right to an expansion module.
   - The infeed with screw terminal is supplied only with a 3-socket expansion module and permanently fitted on the left side.
   - The infeeds with screw connection enable connection of the main conductors (L1, L2, L3) either from above or from below.
   - The infeed with screw connection is supplied complete with 1 end cover, the infeed with spring-load connection complete with 2 end covers.

2. **Three-socket expansion modules**
   - The expansion module with 3 sockets for compact starters is available with screw connection and with spring-loaded connection.
   - Expansion modules enable the infeed system to be expanded and can be fitted to each other in any number.
   - Two expansion modules are held together with the help of 2 connecting plates and 1 expansion plug. These assembly parts are included in the scope of supply of the respective expansion module.
   - When the infeed system for 3RA6 is used, the compact starters (plug-in modules) are easily mounted and removed even when live.
   - Optional possibilities:
     - PE connection on motor outgoing side
     - Outfeed for external auxiliary devices
     - Connection to 3RV19 infeed system
     - Integration of SIRIUS motor starter protectors size S00 and S0 in mixed constructions (using 3RA68 90-0BA adapter)

3. **Two-socket expansion modules**
   - If only 2 instead of 3 additional sockets are required, then the 2-socket expansion module is the right choice. It has the same functionality as the 3-socket expansion module.

4. **Expansion plug**
   - Two expansion modules can be connected together using the expansion plug. Flexible expansion of the infeed system is thus possible.

5. **PE infeeds**
   - This module enables a PE cable to be connected.
   - The PE infeed can be ordered with screw connection and spring-loaded connection (35 mm²) and can be fitted on the right or left to the expansion block.

6. **PE expansion plug**
   - The PE expansion plug is inserted from below and enables two PE bars to be connected.

7. **PE pick-off**
   - The PE pick-off is available with screw connection and spring-loaded connection (6/10 mm²). It is snapped into the infeed system from below.

8. **Connecting plates**
   - Two connecting plates are used to hold together 2 expansion blocks.

9. **End covers**
   - On the last expansion module of a row, the socket provided for the expansion plug can be covered by inserting the end cover.

### 45 mm adapters for SIRIUS motor starter protectors

SIRIUS motor starter protectors size S0/S00 with screw connection can be fitted to the adapter, enabling them to be plugged into the infeed system.

**Terminal blocks**

Using the terminal block the 3 phases can be fed out of the system; this means that single-phase, 2-phase and 3-phase components can also be integrated in the system.

**Expansion plug for SIRIUS 3RV19 infeed systems**

After the end cover is pulled out, the expansion plug can be plugged onto an expansion module.

**Maximum rated operational current**

The following maximum rated operational currents apply for the components of the infeed system for 3RA6:

<table>
<thead>
<tr>
<th>Component</th>
<th>Maximum rated operational current A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infeed with screw connection 50/70 mm²</td>
<td>100</td>
</tr>
<tr>
<td>Infeed with screw connection 25/35 mm²</td>
<td>63</td>
</tr>
<tr>
<td>Infeed with spring-type connection 25/35 mm²</td>
<td>63</td>
</tr>
<tr>
<td>Expansion plugs</td>
<td>63</td>
</tr>
</tbody>
</table>

In a row of several expansion blocks, the maximum rated operational current from the 2nd expansion block to the end of the row is 63 A.

### Proposal for upstream short-circuit protection devices

The following short-circuit data apply for the components of the infeed system for 3RA6:

<table>
<thead>
<tr>
<th>Conductor cross-section mm²</th>
<th>Inscriptions</th>
<th>Proposal for upstream short-circuit protection device</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-circuit protection for infeed block (25 mm² / 35 mm²) with screw connection</td>
<td>$I_{s,max} = 19 , \text{kA}, \frac{t}{I} = 440 , \text{kA²s}$</td>
<td>3RV10 41-4JA10</td>
</tr>
<tr>
<td>Short-circuit protection for infeed block (50 mm² / 70 mm²) with screw connection</td>
<td>$I_{s,max} = \text{approx. } 22 , \text{kA}$</td>
<td>3RV10 42-4MA10</td>
</tr>
<tr>
<td>Short-circuit protection for infeed block with spring-loaded connection</td>
<td>$I_{s,max} = 9.5 , \text{kA}, \frac{t}{I} = 85 , \text{kA²s}$</td>
<td>3RV10 21-4DA10</td>
</tr>
<tr>
<td>Short-circuit protection for terminal block</td>
<td>$I_{s,max} = 7.5 , \text{kA}$</td>
<td>3RV10 21-4DA10</td>
</tr>
<tr>
<td>Short-circuit protection for terminal block</td>
<td>$I_{s,max} = 9.5 , \text{kA}$</td>
<td>3RV10 21-4DA10</td>
</tr>
<tr>
<td>Short-circuit protection for terminal block</td>
<td>$I_{s,max} = 12.5 , \text{kA}$</td>
<td>3RV10 21-4DA10</td>
</tr>
</tbody>
</table>

1) To prevent the possibility of short-circuits, the cables on the terminal block must be installed so that they are short-circuit resistant according to EN 60439-1 Section 7.5.5.1.2.
### Selection and ordering data

<table>
<thead>
<tr>
<th>Type</th>
<th>Order No.</th>
<th>Price per PU (UNIT, SET, M)</th>
<th>Weight per PU approx. kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infeed systems for 3RA6 6/13, Siemens LV 1 N Compact Starters · 01/2008</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 3-phase infeeds and expansion modules

- **3RA68 12-8AB**
  - Infeed with screw connection 25/35 mm² on left with permanently fitted 3-socket expansion module with screw connection on outgoing side and integrated PE bar
  - Expansion module with 3 sockets for 3 direct-on-line starters or 1 direct-on-line starter and 1 reversing starter
  - Order No. 3RA68 12-8AB
  - Price per PU 101
  - Weight per PU 0.957 kg

- **3RA68 12-8AC**
  - Infeed with screw connection 25/35 mm² on left with permanently fitted 3-socket expansion module with spring-loaded connection on outgoing side and integrated PE bar
  - Expansion module with 3 sockets for 3 direct-on-line starters or 1 direct-on-line starter and 1 reversing starter
  - Order No. 3RA68 12-8AC
  - Price per PU 101
  - Weight per PU 0.957 kg

- **3RA68 13-8AB**
  - Infeed with screw connection 50/70 mm² on left with permanently fitted 3-socket expansion module with screw connection on outgoing side and integrated PE bar
  - Expansion module with 3 sockets for 3 direct-on-line starters or 1 direct-on-line starter and 1 reversing starter suitable for UL duty according to UL 508 Type E
  - Order No. 3RA68 13-8AB
  - Price per PU 101
  - Weight per PU 1.146 kg

- **3RA68 13-8AC**
  - Infeed with screw connection 50/70 mm² on left with permanently fitted 3-socket expansion module with spring-loaded connection on outgoing side and integrated PE bar
  - Expansion module with 3 sockets for 3 direct-on-line starters or 1 direct-on-line starter and 1 reversing starter suitable for UL duty according to UL 508 Type E
  - Order No. 3RA68 13-8AC
  - Price per PU 101
  - Weight per PU 1.146 kg

- **3RA68 30-5AC**
  - Infeed with spring-type connection 25/32 mm² on left or on right up to 63 A
  - Order No. 3RA68 30-5AC
  - Price per PU 101
  - Weight per PU 0.283 kg

* You can order this quantity or a multiple thereof.
## Infeed systems for 3RA6

<table>
<thead>
<tr>
<th>Type</th>
<th>Order No.</th>
<th>Price per PU (UNIT, SET, M)</th>
<th>Weight per PU approx. kg</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Expansion modules</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-socket expansion modules with screw connection and integrated PE bar with 2 sockets for 2 direct-on-line starters or 1 reversing starter</td>
<td>3RA68 22-0AB</td>
<td>1 unit</td>
<td>101</td>
</tr>
<tr>
<td>3-socket expansion modules with screw connection and integrated PE bar with 3 sockets for 3 direct-on-line starters or 1 direct-on-line starter and 1 reversing starter</td>
<td>3RA68 23-0AB</td>
<td>1 unit</td>
<td>101</td>
</tr>
<tr>
<td>2-socket expansion modules with spring-loaded connection and integrated PE bar with 2 sockets for 2 direct-on-line starters or 1 reversing starter</td>
<td>3RA68 22-0AC</td>
<td>1 unit</td>
<td>101</td>
</tr>
<tr>
<td>3-socket expansion modules with spring-loaded connection and integrated PE bar with 3 sockets for 3 direct-on-line starters or 1 direct-on-line starter and 1 reversing starter</td>
<td>3RA68 23-0AC</td>
<td>1 unit</td>
<td>101</td>
</tr>
</tbody>
</table>

* You can order this quantity or a multiple thereof.
## 3RA6 Fuseless Compact Starters
### Infeed Systems

### Infeed systems for 3RA6

<table>
<thead>
<tr>
<th>Accessories for infeed systems for 3RA6</th>
<th>Order No.</th>
<th>Price per PU</th>
<th>Weight per PU approx. kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE infeed 25/35 mm² with screw connection</td>
<td>3RA68 60-6AB</td>
<td>1 1 unit 101</td>
<td>0.060</td>
</tr>
<tr>
<td>PE infeed 25/35 mm² with spring-loaded connection</td>
<td>3RA68 60-5AC</td>
<td>1 1 unit 101</td>
<td>0.070</td>
</tr>
<tr>
<td>PE pick-off 6/10 mm² with screw connection</td>
<td>3RA68 70-4AB</td>
<td>1 1 unit 101</td>
<td>0.019</td>
</tr>
<tr>
<td>PE pick-off 6/10 mm² with spring-loaded connection</td>
<td>3RA68 70-3AC</td>
<td>1 1 unit 101</td>
<td>0.017</td>
</tr>
<tr>
<td>PE expansion plug</td>
<td>3RA68 90-0EA</td>
<td>1 5 units 101</td>
<td>0.008</td>
</tr>
<tr>
<td>Expansion plug between 2 expansion modules</td>
<td>3RA68 90-1AB</td>
<td>1 1 unit 101</td>
<td>0.029</td>
</tr>
<tr>
<td>Expansion plug for SIRIUS 3RV19 infeed system</td>
<td>3RA68 90-1AA</td>
<td>1 1 unit 101</td>
<td>0.079</td>
</tr>
</tbody>
</table>

* You can order this quantity or a multiple thereof.
## Infeed Systems for 3RA6

### 45 mm adapters for SIRIUS circuit breakers
- **Size**: S0/S00 with screw connection
- **Order No.**: 3RA68 90-0BA
- **Price per PU**: 1 unit 101 0.152
- **Weight per PU**: approx. kg

### Terminal blocks
- **Description**: With spring-type connection for integration of single-phase, 2-phase and 3-phase components
- **Order No.**: 3RV19 17-5D
- **Price per PU**: 1 unit 101 0.050
- **Weight per PU**: approx. kg

### Tools for spring-loaded terminals
- **Screwdrivers**
  - **Description**: 3.5 mm x 0.5 mm, suitable for max. conductor cross-section of 2.5 mm²; Length approx. 175 mm; green
  - **Order No.**: 8WA2 803
  - **Price per PU**: 1 unit 041 0.024
  - **Weight per PU**: approx. kg

---

*You can order this quantity or a multiple thereof.*
Terms and Conditions of Sale and Delivery

By using this catalog you can acquire hardware and software products described therein from Siemens AG subject to the following terms. Please note! The scope, the quality and the conditions for supplies and services, including software products, by any Siemens entity having a registered office outside of Germany, shall be subject exclusively to the General Terms and Conditions of the respective Siemens entity. The following terms apply exclusively for orders placed with Siemens AG.

For customers with a seat or registered office in Germany

The “General Terms of Payment” as well as the “General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry” shall apply.

For software products, the “General License Conditions for Software Products for Automation and Drives for Customers with a Seat or registered Office in Germany” shall apply.

For customers with a seat or registered office outside of Germany

The “General Terms of Payment” as well as the “General Conditions for Supplies of Siemens, Automation and Drives for Customers with a Seat or registered Office outside of Germany” shall apply.

For software products, the “General License Conditions for Software Products for Automation and Drives for Customers with a Seat or registered Office outside of Germany” shall apply.

General

The dimensions are in mm. In Germany, according to the German law on units in measuring technology, data in inches only apply to devices for export.

Illustrations are not binding.

Insofar as there are no remarks on the corresponding pages, - especially with regard to data, dimensions and weights given - these are subject to change without prior notice.

The prices are in € (Euro) ex works, exclusive packaging.

The sales tax (value added tax) is not included in the prices. It shall be debited separately at the respective rate according to the applicable legal regulations.

Prices are subject to change without prior notice. We will debit the prices valid at the time of delivery.

Surcharges will be added to the prices of products that contain silver, copper, aluminum, lead and/or gold if the respective basic official prices for these metals are exceeded. These surcharges will be determined based on the official price and the metal factor of the respective product.

The surcharge will be calculated on the basis of the official price on the day prior to receipt of the order or prior to the release order.

The metal factor determines the official price as of which the metal surcharges are charged and the calculation method used. The metal factor, provided if is relevant, is included with the price information of the respective products.

Export regulations

The products listed in this catalog / price list may be subject to European / German and/or US export regulations.

Therefore, any export requiring a license is subject to approval by the competent authorities.

According to current provisions, the following export regulations must be observed with respect to the products featured in this catalog / price list:

- Even without a label or with an “AL: N” or “ECCN: N”, authorization may be required due to the final destination and purpose for which the goods are to be used.
- Goods labeled with an “AL” not equal to “N” are subject to a European or German export authorization when being exported out of the EU.
- Goods labeled with an “ECCN” not equal to “N” are subject to a US re-export authorization.

Even without a label or with an “AL: N” or “ECCN: N”, authorization may be required due to the final destination and purpose for which the goods are to be used.

The deciding factors are the AL or ECCN export authorization indicated on order confirmations, delivery notes and invoices. Errors excepted and subject to change without prior notice.

A&D/VuL_ohne MZ/En 05.09.06
The information provided in this catalog contains 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. Availability and technical specifications are subject to change without notice.

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

Token fee: 0.00 €