

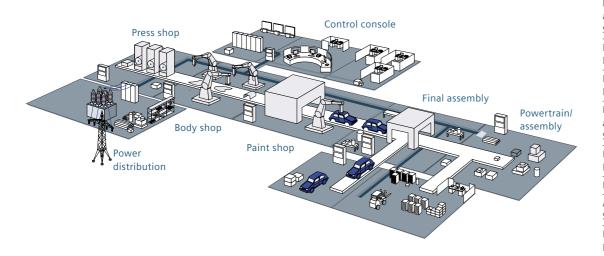




## SIRIUS modular system. The perfect combination

Switching, protecting, starting and monitoring with the highly flexible modular system

# Everything for the control cabinet: the SIRIUS modular system.



Processing, fitting, transporting. These and similar functions run on many automated production lines. With the extensive range of the SIRIUS modular system, you will find everything you need for switching, protecting, starting and monitoring motors.

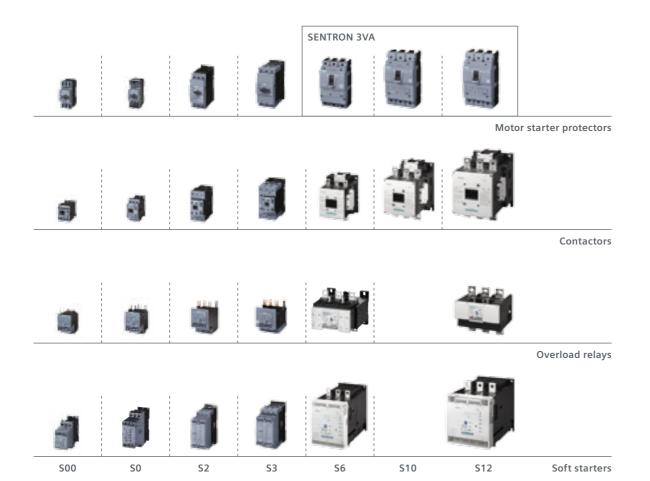
Everything. Really easy. With SIRIUS.

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# Everything. Systematically. SIRIUS modular system.

Building control cabinets must be fast, simple, flexible and space-saving. How can all this be achieved? With the unique SIRIUS modular system that offers everything you will need for switching, protecting, and starting motors and systems. In other words, it provides a modular range of standard components up to 250 kW/ 400 V in only seven sizes, which are perfectly matched to one another, can be combined really easily, and largely use the same accessories. That's how easy industrial controls can be!



Continuous further development and regular innovations ensure that our customers are optimally equipped with SIRIUS and benefit from efficient solutions – now and in the future. All the components that make up the SIRIUS modular system are characterized by a space-saving design and a high degree of flexibility. Configuring, installing, wiring and maintenance are extremely easy and time-saving to perform. So no matter whether you want to configure load feeders with motor starter protectors, overload relays, contactors/solid-state contactors or soft starters, SIRIUS has just the product you will need for any application.

Thanks to the latest innovations to the modular system in sizes S00, S0, S2 and S3 up to 115 A, today's SIRIUS modular system offers even more functional diversity.

In addition to the basic components, the innovated SIRIUS modular system offers new, never-before-seen highlights:

- Feeder assemblies that can be plugged in completely without tools thanks to the consistent use of spring-loaded connections in sizes S00 and S0
- 2- and 3-phase 3RR2 monitoring relays for current monitoring for direct mounting on contactors (up to size S2)
- 3RA27 and 3RA28 function modules feature snap-on connection to contactors enabling the easiest possible assembly of direct-on-line starters, reversing starters, and star-delta (wye-delta) starting, 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
- One highlight of the SIRIUS devices is their IE3 and IE4 suitability, so that they are optimally equipped for conversion to the new IE3 and IE4 generation of motors

## At a glance. The components of the SIRIUS modular system offer a host of benefits.

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.



#### Assembly and handling:

Error prevention and reduced wiring effort – with maximum flexibility

- Load feeders: easy to implement up to 250 kW/400 V from standard devices
- Modular design: everything fits together and can be combined
- Variants and sizes: economical and flexible thanks to 7 compact sizes
- Accessories: low variance with uniform accessories
- Configuration: fast commissioning, short setting-up times, and simple wiring
- Mounting: permanently secure mounting, with screw terminals or simply by plugging in
- **Spring-loaded connection system:** quick and secure connection, vibration-proof, and maintenance-free
- Reduced wiring: significant reductions in cable connections thanks to plug-in design and IO-Link or AS-Interface

#### **Applications at a glance:**

Increased operational reliability and system availability

- Maintenance: extremely durable, low maintenance, and reliable
- Application monitoring: integrated extremely flexibly into the feeder – thanks to monitoring relays for current monitoring
- IE3/IE4-ready: With the SIRIUS modular system, we also offer you our familiar reliability when converting to IE3 and IE4 motors

#### Connection to the automation level:

Optimal integration into the automation environment

 Communication: standardized connection to AS-Interface, IO-Link and PROFIBUS DP possible

#### Planning and configuration:

Simplified system planning and documentation

- Configuration: easy and fast thanks to extensive CAx data provision
- Service: short delivery times even for spare parts thanks to global logistics network
- Environment: environmentally friendly production and materials, recyclable
- **Design:** clear, ergonomic design (winner of the iF Product Design Award)
- Configurator: for the simplest possible selection of products including accessories
- Global use: thanks to comprehensive approvals

# Switching. Protecting. Starting. Monitoring. The components of the SIRIUS modular system.



## Much more than ON/OFF: SIRIUS 3RV motor starter protectors

The SIRIUS 3RV motor starter protectors are compact, current-limiting motor starter protectors. They ensure secure disconnection in case of a short circuit, and they protect consumers and the system against overload. They are also suited to normal switching duties for loads with a low switching frequency, and for safely isolating the system from the power supply during maintenance work or modifications. For applications over 100 A. SENTRON 3VA and 3VL circuit breakers are suitable.



### Rugged and reliable: SIRIUS 3RT contactors

Thanks to their extreme ruggedness and outstanding contact reliability, our contactors switch supremely and reliably. In addition, they enable compact control cabinets with high packing density. With integrated ranges of accessories for sizes S00 to S3 as well as S6 to S12, individual function expansions can be implemented with no great effort. In sizes S00 to S3, the contactors even have the auxiliary switches

integrated into the enclosure.



## Tripping when things get serious: SIRIUS 3RU and 3RB overload relays

The overload relays of the SIRIUS family are available in thermal and electronic versions, and they are responsible for the inversetime-delayed overload protection in the main circuit. The SIRIUS 3RB electronic overload relays ensure seamless protection for motors and systems from 0.1 A to 630 A. This current range can be covered with a minimum number of variants thanks to the large setting range.



# Simplest possible application monitoring: SIRIUS 3RR2 current monitoring relays

The SIRIUS current monitoring relays monitor not so much the motor as the entire plant or driven process for overcurrent and undercurrent, wire break, or phase failure. Thus, load shedding or overload of an application, for example, is detected quickly and reported early. The 3RR2 monitoring relay for current monitoring is integrated directly into the load feeder in sizes SOO, SO and S2. Just attach it to the contactor, and click 'n' go.



#### Soft starting: SIRIUS 3RW soft starters

SIRIUS 3RW soft starters offer a complete range that covers all standard and high-feature applications of motor starting. Thus the benefits of soft starting can be reaped in the most diverse applications up to 250 kW (at 400 V) for simple and economical implementation of optimum machine concepts. Economical and space-saving soft starting can be implemented up to 55 kW (at 400 V) with the compact 3RW30 with two-phase control. The 3RW40 also offers soft run-down as well as integrated intrinsic device protection functions and motor protection functions. An additional overload relay can therefore be dispensed with. SIRIUS soft starters are available for line voltages up to 600 V – optionally also with thermistor motor protection evaluation.

# Switching. Protecting. Starting. Monitoring. The components of the SIRIUS modular system.



## Master the highest switching frequencies with confidence: SIRIUS 3RF solid-state contactors

SIRIUS solid-state contactors (size S0) for switching motors impress with their almost limitless service life – even under harsh conditions and at high switching frequencies. The three-phase solid-state contactors switch motors completely silently up to 7.5 kW.

A special reversing contactor version enables changing of the direction of rotation of motors up to 3 kW. The compact devices in widths of 45 or 90 mm can be combined with our motor starter protectors, current monitoring relays, or electronic overload relays. For fast and simple assembly of fuseless and fused motor feeders.



# Compact switching and protecting: SIRIUS 3RA6 compact starters and 3RM1 motor starters

Equipped with the functions of a motor starter protector, a contactor, and an electronic overload relay, the 3RA6 compact starter as a direct-on-line or reversing starter up to 32 A offers maximum reliability with minimum variance. There is reduced wiring in the main circuit thanks to the ingeniously simple infeed system, including PE connection. Thanks to the optional AS-Interface or integrated IO-Link interface, 3RA6 compact starters are integrated into the Totally Integrated Automation design concept.

The 3RM1 direct-on-line or reversing starters up to 7 A reduce width even further to one half the previous size, and are thus master space-savers. Fail-safe design versions offer the greatest possible economizing on switching device deployment in safety-related applications.

SIRIUS contactor with screw terminals



## Faster wiring thanks to integrated spring-loaded terminals

All products with 45-mm widths (S00and S0-size series) in the main as well as auxiliary and control circuits are available with spring-loaded terminals in addition to the conventional screw terminals. This accelerates device connection, and offers maximum operational safety and reliability. The extremely simple wiring quarantees fast installation. Another advantage is that the gas-tight terminal connection is resistant to shaking and vibration. In addition, you benefit from maximum contact reliability - even under the harshest of conditions. There's no need to subsequently re-tighten the connection terminals (often the usual practice). One particular advantage is that the link modules for direct-on-line, reversing and star-delta (wye-delta) starting are also available with spring-loaded terminals. This enables you to install entire feeders entirely without tools. Spring-loaded terminals in the auxiliary circuit are optionally available in sizes S2 and S3.

### SIRIUS contactor with spring-loaded terminals



## Maximum flexibility when it comes to connections

All the components of the SIRIUS modular system are, of course, also available with screw terminals for special requirements such as mechanical engineering in the semiconductor industry. In sizes with design widths of 70 mm and larger (i.e. as of size S3), additional possible connection options are available such as for connecting cable terminal lugs to device connection bars, or connecting cables with large cross sections to box terminals.

# Switching. Protecting. Starting. Monitoring. The components of the SIRIUS modular system.



Straight to the point: the 3RA21 direct-on-line starter



Phases swapped: the 3RA22 reversing starter



Two stages – one start: the 3RA24 contactor assembly for star-delta start

### Ready for immediate use: pre-wired SIRIUS load feeders

Load feeders start loads with a combination of protection and switching functions. To reduce time and costs, and above all to minimize standstill times, we offer you a wide range of pre-wired starter solutions:

- Direct-on-line starters up to 30 kW the right starter combination for all motors – both for standard rail mounting as well as with 60 mm busbar adapter.
- Reversing contactor assemblies up to 55 kW – the appropriate combination for reversing duty – both for standard rail mounting as well as with 60 mm busbar adapter.
- Contactor assemblies for star-delta starting up to 90 kW – the solution for starting in stages for reducing start-up current peaks of motors.
- Soft starters when soft starting and stopping are required (in the case of the 3RW40 even with integral overload protection).

An almost unlimited number of further tested combinations can be assembled easily from the individual components. The following manuals help you to make your selection, and they can be found in the Industry Online Support Portal at http://support.automation.siemens.com.

#### **SIRIUS Innovations:**

Configuration Manual "Configuring SIRIUS Innovations – Selection Data for Fuseless and Fused Load Feeders"

#### **SIRIUS**

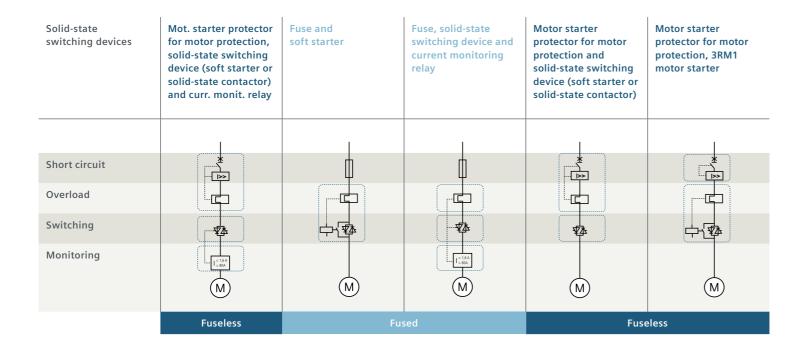
Configuration Manual "Configuring SIRIUS – Selection Data for Load Feeders in Fuseless Design"

### Configuration instructions for IE3 and IE4 motors

Application manual for SIRIUS switching devices with IF3 and IF4 motors

#### Combination of switching devices and protective devices

| Electromechanical switching devices | Contactor and overload relay with fuse | Motor starter protector for motor protection and contactor | Motor starter protector for motor protection with relay function and contactor | Motor starter<br>protector for starter<br>protection, contactor<br>and overload relay | Compact starter | Motor starter<br>protector for motor<br>protection, contactor<br>and current monitor-<br>ing relay | Motor starter protector for motor protection with relay function, contactor and current monitoring relay |
|-------------------------------------|--|--|--|---|-----------------|--|--|
| Short circuit Overload              |  | * a  | *  |   | *               | *  |  |
| Switching                           |  |  |  |   |                 |  |  |
| Monitoring                          | M                                      | M  | M  | M   | M               | T 5 66A  | [1-15A]<br>M   |
|                                     | Fused                                  |  |  | Fus   | eless           |  |  |



# Convenient power infeed and distribution: SIRIUS 3RV29 and 3RA68 infeed systems.







### Efficient and flexible power distribution

The components of the SIRIUS modular system can be wired extremely flexibly. For sizes S00 and S0, the simplest method is to connect the components via the associated SIRIUS 3RV29 infeed system in each case. Alongside this, the 3RA68 infeed system is available in conjunction with the 3RA6 compact starter – and both connection methods are available optionally for devices with screw and spring-loaded terminals. Individual motor starter protectors, complete load feeders, and compact starters are just clicked into the infeed systems. An entire feeder group is thus supplied with energy without any time-consuming wiring and with no risk of error – just click and go! Alternatively, you can also use conventional wiring: by means of parallel wiring, 3-phase busbars or 8US busbar adapters

with which SIRIUS load feeders can be mounted directly on a 60 mm busbar system.

These diverse combination options provide you with the most effortless solution to implement your individual control cabinets – simply perfectly tailored to your application.

#### **Assembly – Highlights**

- Consistent use throughout by combining 3RV29 and 3RA68 modules
- New flexibility for installation and expansion
- More free space in the control cabinet thanks to extremely compact design
- Infeed (3RA68) either on the left or right with conductor cross section up to 70 mm<sup>2</sup>
- Optional wiring channel between the feeders
- Additional integration of further 1-, 2- or 3-pole components via terminal block
- Maximum current carrying capacity of 100 A (3RA68)
- Integration of load feeders with screw and spring-loaded terminals
- High vibration resistance, especially for switching devices with spring-loaded terminals
- Time savings during installation thanks to simple plug-in design
- For 3RA68 infeed system also with PE connection option

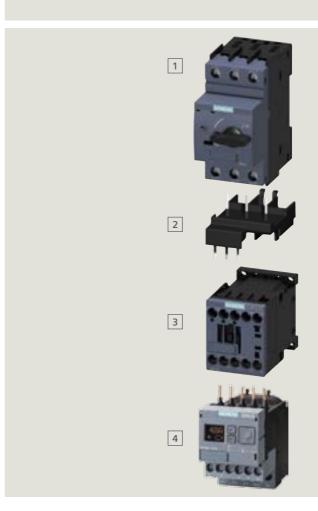
#### Assembly up to 7.5 kW (S00)

Motor starter protector for starter protection, contactor with overload relay

Motor starter protector for motor protection, contactor with current monitoring relay

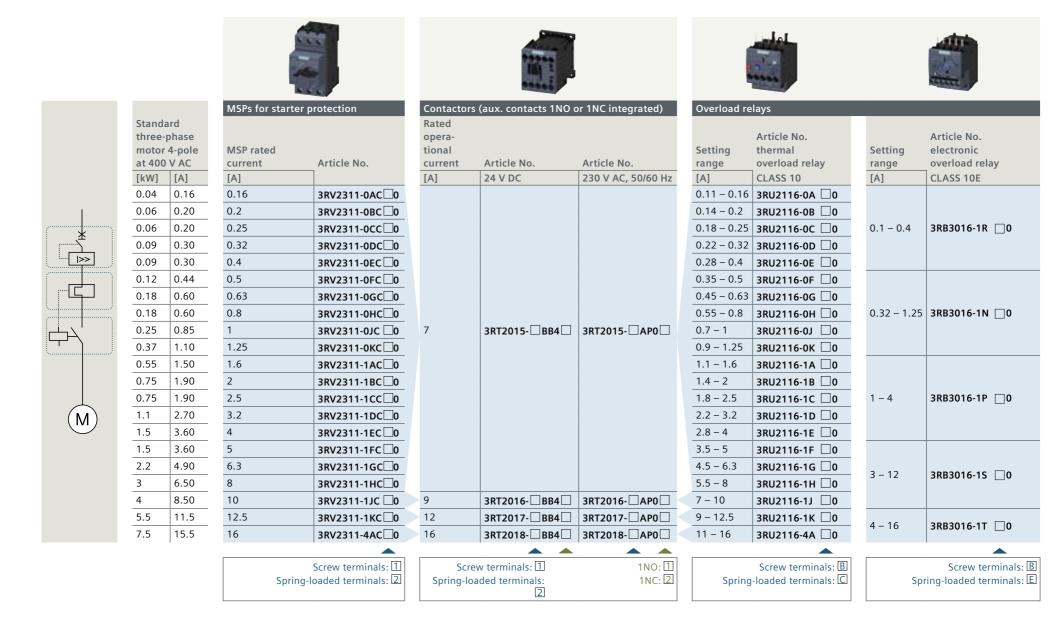


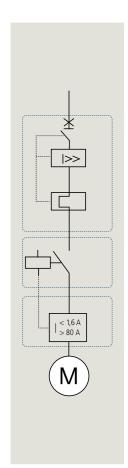
|   | Туре                    | Screw terminals         | Spring-loaded terminals |
|---|-------------------------|-------------------------|-------------------------|
| 1 | Motor starter protector | 3RV23111                | 3RV2311                 |
| 2 | Link module             | 3RA1921-1DA00           | 3RA2911-2AA00           |
| 3 | Contactor (AC/DC)       | 3RT201□-1□□□□           | 3RT201 -2               |
| 4 | Overload relay          | 3RU2116- <b>□</b> B0 or | 3RU2116C0               |
|   |                         | 3RB3□1□-□□B0            | 3RB3016-□□E0            |

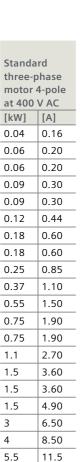


|   | Туре                     | Screw terminals | Spring-loaded terminals |
|---|--------------------------|-----------------|-------------------------|
| 1 | Motor starter protector  | 3RV20111        | 3RV20112                |
| 2 | Link module              | 3RA1921-1DA00   | 3RA2911-2AA00           |
| 3 | Contactor (AC/DC)        | 3RT201 -1 -1    | 3RT201 -2               |
| 4 | Current monitoring relay | 3RR2_41-1       | 3RR2_41-2               |

#### Starter combinations in size S00: motor starter protector for starter protection, contactor and overload relay



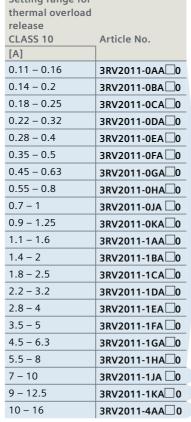




7.5

15.5





Screw terminals: 1 Spring-loaded terminals: 2



| Contactors (a     | ux. contacts 1NO or | 1NC integrated)    |  |
|-------------------|---------------------|--------------------|--|
| Rated             |                     |                    |  |
| opera-            | Article No.         | Article No.        |  |
| tional<br>current | Control             | nly voltage        |  |
| [A]               | Control sup         | 230 V AC, 50/60 Hz |  |
| [A]               | DC 24 V             | 230 V AC, 50/00 HZ |  |
| 7                 | 3RT2015-□BB4□       | 3RT2015-□AP0□      |  |
|                   |                     |                    |  |
| 9                 | 3RT2016-□BB4□       | 3RT2016-□AP0□      |  |
| 12                | 3RT2017-□BB4□       | 3RT2017-□AP0□      |  |
| 16                | 3RT2018-□BB4□       | 3RT2018-□AP0□      |  |

Screw terminals: 1

Spring-loaded terminals: 2





| - 4         |                                       |  |  |
|-------------|---------------------------------------|--|--|
| Meas. range | Article No. Basic (analog adjustable) | Article No.<br>Standard (digital<br>adjustable)* |  |
|             |                                       |  |  |
|             |                                       |  |  |
|             |                                       |  |  |
| 1.6 – 16    | 3RR2141-□A□30                         | 3RR2241-□F□30                                    |  |

Screw terminals:  $\square$ Spring-loaded terminals: 2 24 V AC/DC: A 24 – 240 V AC/DC: W

1NO: 1

1NC: 2

Screw terminals: 1 Spring-loaded terminals: 2 24 V AC/DC: A 24 – 240 V AC/DC: W

\*likewise available as 3RR24 with IO-Link

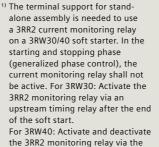
#### Fuseless assembly with solid-state switching devices

#### Assembly up to 7.5 kW (S00)

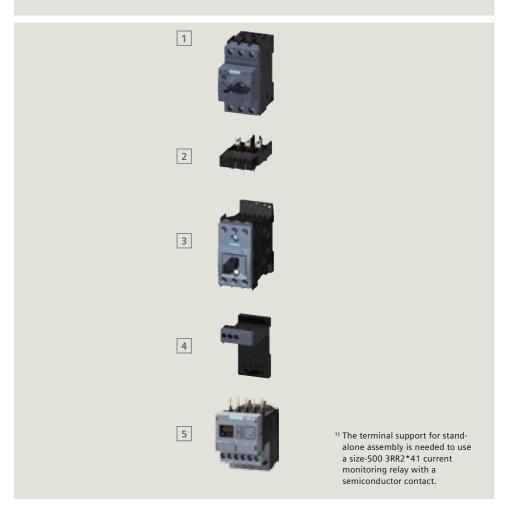
Motor starter protector for motor protection, soft starter with current monitoring relay (stand-alone installation)

Motor starter protector for motor protection, solid-state contactor with current monitoring relay (stand-alone installation)





BYPASS output (ramp-up detection).

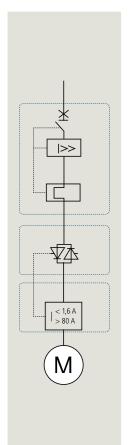


|   | Туре                                   | Screw terminals | Spring-loaded terminals |
|---|--|-----------------|-------------------------|
| 1 | Motor starter protector                | 3RV201111       | 3RV2011                 |
| 2 | Link module                            | 3RA2921-1BA00   | 3RA2911-2GA00           |
| 3 | Soft starter                           | 3RW301□-1□□□□   | 3RW301\[ -2\]           |
| 4 | Terminal support stand-alone           | 3RU2916-3AA01   | 3RU2916-3AC01           |
| 5 | Current monitoring relay <sup>1)</sup> | 3RR2□41-1□□□□   | 3RR2□41-2□□□□           |

5

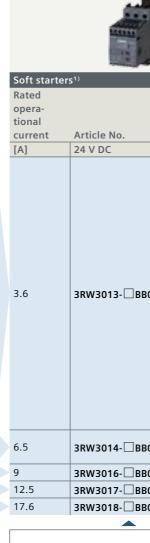
|   | Туре                                     | Screw terminals | Spring-loaded terminals |
|---|--|-----------------|-------------------------|
| 1 | Motor starter protector                  | 3RV20111_       |                         |
| 2 | Link module                              | 3RA2921-1BA00   |                         |
| 3 | Solid-state cont./solid-state rev. cont. | 3RF341          |                         |
| 4 | Terminal support stand-alone             | 3RU2916-3AA01   | 3RU2916-3AC01           |
| 5 | Current monitoring relay <sup>1)</sup>   | 3RR2-1-1        | 3RR2 41-2               |

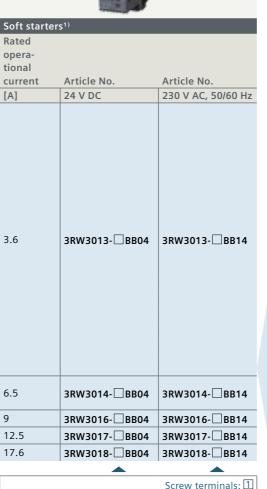
#### **Starter combinations:** Motor starter protector for motor protection, soft starter with current monitoring relay



| Standa       | rd   |
|--------------|------|
| three-p      |      |
| motor at 400 |      |
| [kW]         | [A]  |
| 0.04         | 0.16 |
| 0.06         | 0.20 |
| 0.06         | 0.20 |
| 0.09         | 0.30 |
| 0.09         | 0.30 |
| 0.12         | 0.44 |
| 0.18         | 0.60 |
| 0.18         | 0.60 |
| 0.25         | 0.85 |
| 0.37         | 1.10 |
| 0.55         | 1.50 |
| 0.75         | 1.90 |
| 0.75         | 1.90 |
| 1.1          | 2.70 |
| 1.5          | 3.60 |
| 1.5          | 3.60 |
| 2.2          | 4.90 |
| 3            | 6.50 |
| 4            | 8.50 |
| 5.5          | 11.5 |
| 7.5          | 15.5 |











14

| _              |   |  |
|----------------|---|--|
| Current mo     | nitoring relays                             |  |
| Meas.<br>range | Article No.<br>Basic (analog<br>adjustable) | Article No.<br>Standard (digital<br>adjustable)* |
|                |   |  |
|                |   |  |
|                |   |  |
|                |   |  |
|                |   |  |
|                |   |  |
|                |   |  |
|                |   |  |
|                |   |  |
|                |   |  |
|                |   |  |
|                |   |  |
|                |   |  |
| 1.6 – 16       | 3RR2141-□A□30                               | 3RR2241-□F□30                                    |
|                |   |  |
|                |   |  |
|                |   |  |
|                |   |  |

1) Rated operational voltage 200 - 480 V

Screw terminals: 1 Spring-loaded terminals: 2

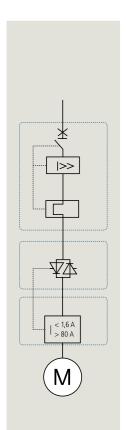
Spring-loaded terminals: 2

Screw terminals: 1 Spring-loaded terminals: 2 24 V AC/DC: A 24 – 240 V AC/DC: W

Screw terminals: 1 Spring-loaded terminals: 2 24 V AC/DC: A 24 – 240 V AC/DC: W

\*likewise available as 3RR24 with IO-Link

#### Starter combinations: motor starter protector for motor protection, solid-state switching device and current monitoring relay



1) Width 90 mm

3RF3900-0QA88

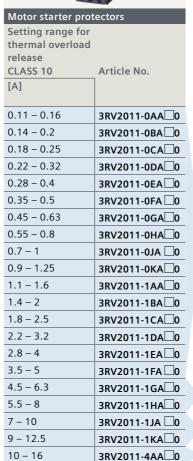
2) Rated operational voltage Ue 48 - 480 V

3) Can be mounted directly on solid-state contactor with screw terminals using connection adapter

| Standard<br>three-phase<br>motor 4-pole<br>at 400 V AC |      |  |  |
|--|------|--|--|
| [kW]   | [A]  |  |  |
| 0.04   | 0.16 |  |  |
| 0.06   | 0.20 |  |  |
| 0.06   | 0.20 |  |  |
| 0.09   | 0.30 |  |  |
| 0.09   | 0.30 |  |  |
| 0.12   | 0.44 |  |  |
| 0.18   | 0.60 |  |  |
| 0.18   | 0.60 |  |  |
| 0.25   | 0.85 |  |  |
| 0.37   | 1.10 |  |  |
| 0.55   | 1.50 |  |  |
| 0.75   | 1.90 |  |  |
| 0.75   | 1.90 |  |  |
| 1.1  | 2.70 |  |  |
| 1.5  | 3.60 |  |  |
| 1.5  | 3.60 |  |  |
| 2.2  | 4.90 |  |  |
| 3  | 6.50 |  |  |
| 4  | 8.50 |  |  |
| 5.5  | 11.5 |  |  |
|  |      |  |  |

7.5

15.5









| Solid-state contactors <sup>2)</sup> |                 |                             |  |
|--------------------------------------|-----------------|-----------------------------|--|
| Rated opera-                         | Article No.     | Article No.                 |  |
| tional<br>current                    | Control sun     | ply voltage                 |  |
| [A]                                  | 24 V DC         | 110 – 230 V AC,<br>50/60 Hz |  |
| 5.2                                  | 3RF3405-□BB04   | 3RF3405-□BB24               |  |
| 9.2                                  | 3RF3410-□BB04¹) | 3RF3410-□BB24¹)             |  |
| 12.5                                 | 3RF3412-□BB04¹) | 3RF3412-□BB24¹)             |  |
| 16                                   | 3RF3416-□BB04¹) | 3RF3416-□BB24¹)             |  |



Current monitoring relays



| leas.<br>ange<br>A] | Article No.<br>Basic (analog<br>adjustable) | Article No.<br>Standard (digital<br>adjustable)* |  |
|---------------------|---|--|--|
|                     |   |  |  |

| 1.6 – 16 | 3RR2141-□A□30³) | 3RR2241-□F□30 <sup>3</sup> ) |
|----------|-----------------|------------------------------|
|          |                 |                              |

| Screw terminals: 1         |
|----------------------------|
| Spring-loaded terminals: 2 |
| 24 V AC/DC: A              |
| 24 – 240 V AC/DC: W        |

\*likewise available as 3RR24 with IO-Link

| Solid-state reversing contactors 2) |                             |                             |
|-------------------------------------|-----------------------------|-----------------------------|
| 3.8                                 | 3RF3403-1BD04               | 3RF3403-1BD24               |
| 5.4                                 | 3RF3405-1BD04               | 3RF3405-1BD24               |
| 7.4                                 | 3RF3410-1BD04 <sup>1)</sup> | 3RF3410-1BD24 <sup>1)</sup> |

Screw terminals: 1

Spring-loaded terminals: 2

#### Assembly 18.5 kW (S0)

Motor starter protector for starter protection, contactor and overload relay

1

2

3

4

1) Can only be used up to 32 A

|   | Туре                      | Screw terminals                      | Spring-loaded terminals         |
|---|---------------------------|--------------------------------------|---------------------------------|
| 1 | Motor starter protector   | 3RV232111                            | 3RV2321                         |
| 2 | Link module <sup>1)</sup> | AC 3RA2921-1AA00<br>DC 3RA2921-1BA00 | 3RA2921-2AA00<br>3RA2921-2AA00  |
| 3 | Contactor                 | 3RT202□-1□□□□                        | 3RT202 - 2 - 2 2                |
| 4 | Overload relay            | 3RU2126-□□B0 or<br>3RB3□2□-□□B0      | 3RU2126-□□C0 or<br>3RB3□2□-□□E0 |

Motor starter protector for motor protection, contactor with current monitoring relay







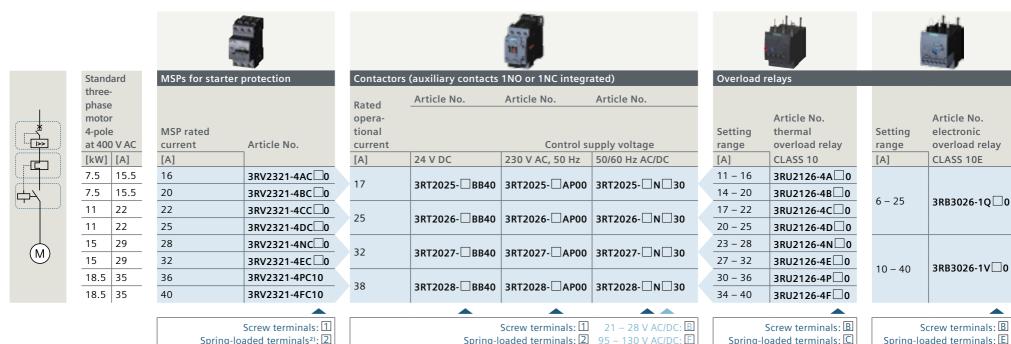
3



1) Can only be used up to 32 A

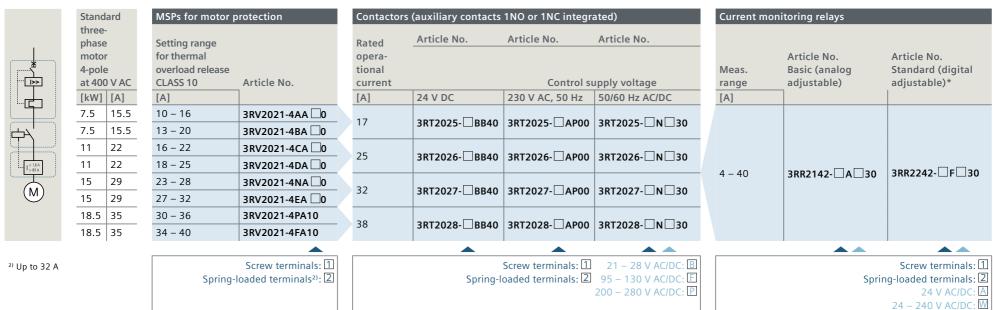
|   | Туре                      | Screw terminals                      | Spring-loaded terminals        |
|---|---------------------------|--------------------------------------|--------------------------------|
| 1 | Motor starter protector   | 3RV2021-1111                         | 3RV2021-1112                   |
| 2 | Link module <sup>1)</sup> | AC 3RA2921-1AA00<br>DC 3RA2921-1BA00 | 3RA2921-2AA00<br>3RA2921-2AA00 |
| 3 | Contactor                 | 3RT202□-1□□□□                        | 3RT202\[ -2\[ \] \]            |
| 4 | Current monitoring relay  | 3RR2 42-1                            | 3RR2 42-2 1                    |

#### Starter combinations size S0: Motor starter protector for starter protection, contactor and overload relay



200 – 280 V AC/DC: P

#### Starter combinations size S0: Motor starter protector for motor protection, contactor and current monitoring relay



#### Assembly up to 18.5 kW (S0)

Motor starter protector for motor protection, 3RW30 soft starter with current monitoring relay (stand-alone installation)

Motor starter protector for motor protection, 3RW40 soft starter (integrated electronic overload relay) with current monitoring relay (stand-alone installation)









4

5



- 1) Only usable up to 32 A
- 2) The terminal support for standalone assembly is needed to use a 3RR2 current monitoring relay on a 3RW30/40 soft starter. In the starting and stopping phase (generalized phase control), the current monitoring relay shall not be active.

For 3RW30: Activate the 3RR2 monitoring relay via an upstream timing relay after the end of the soft start.

For 3RW40: Activate and deactivate the 3RR2 monitoring relay via the BYPASS output (ramp-up detection).





3

5







- 1) Only usable up to 32 A
- 2) The terminal support for standalone assembly is needed to use a 3RR2 current monitoring relay on a 3RW30/40 soft starter. In the starting and stopping phase (generalized phase control), the current monitoring relay shall not be active.

For 3RW30: Activate the 3RR2 monitoring relay via an upstream timing relay after the end of the soft start.

For 3RW40: Activate and deactivate the 3RR2 monitoring relay via the BYPASS output (ramp-up detection).

|   | Туре                                   | Screw terminals | Spring-loaded terminals |
|---|--|-----------------|-------------------------|
| 1 | Motor starter protector                | 3RV202111       | 3RV2021                 |
| 2 | Link module <sup>1)</sup>              | 3RA2921-1BA00   | 3RA2921-2GA00           |
| 3 | Soft starter                           | 3RW302 -1 -1    | 3RW302 - 2 - 2 - 2 2    |
| 4 | Terminal support stand-alone           | 3RU2926-3AA01   | 3RU2926-3AC01           |
| 5 | Current monitoring relay <sup>2)</sup> | 3RR2 42-1       | 3RR2 42-2               |

|   | Туре                                   | Screw terminals | Spring-loaded terminals |
|---|--|-----------------|-------------------------|
| 1 | Motor starter protector                | 3RV2021-1111    | 3RV2021-1122            |
| 2 | Link module <sup>1)</sup>              | 3RA2921-1BA00   | 3RA2921-2GA00           |
| 3 | Soft starter                           | 3RW402 -1 -1    | 3RW402 - 2 - 2 2        |
| 4 | Terminal support stand-alone           | 3RU2926-3AA01   | 3RU2926-3AC01           |
| 5 | Current monitoring relay <sup>2)</sup> | 3RR2_42-1       | 3RR2_42-2               |

#### Starter combinations in size S0: Motor starter protector for motor protection, 3RW30 soft starter and current monitoring relay

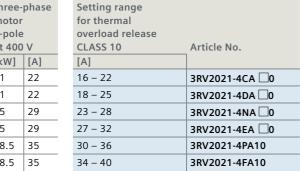


Screw terminals: 1

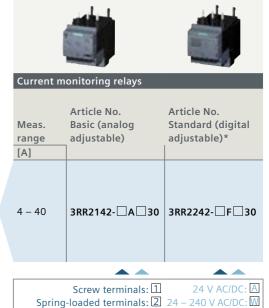
Spring-loaded terminals up to 32 A: 2

| *                                     | Standa<br>three-<br>motor<br>4-pole | phase |
|---------------------------------------|-------------------------------------|-------|
| :::                                   | at 400                              | V     |
|                                       | [kW]                                | [A]   |
| V72                                   | 11                                  | 22    |
| 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 11                                  | 22    |
| 1 < 1.6 A                             | 15                                  | 29    |
| [ 1 × 80 A                            | 15                                  | 29    |
| (M)                                   | 18.5                                | 35    |
|                                       | 18.5                                | 35    |

<sup>1)</sup> Rated operational voltage

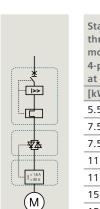


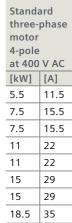
| Soft starte               | Soft starters <sup>1)</sup> without overload protection |                   |  |
|---------------------------|---|-------------------|--|
| Rated<br>opera-<br>tional | Article No.   | Article No.       |  |
| current                   | ·   | oply voltage      |  |
| [A]                       | 24 V AC/DC  | 110 – 230 V AC/DC |  |
| 25                        | 3RW3026-□BB04   | 3RW3026-□BB14     |  |
| 32                        | 3RW3027-□BB04   | 3RW3027-□BB14     |  |
| 38                        | 3RW3028-□BB04   | 3RW3028-□BB14     |  |
|                           |   | _                 |  |
|                           | Screw terminals: 1<br>Spring-loaded terminals: 2        |                   |  |



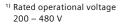
<sup>\*</sup>likewise available as 3RR24 with IO-Link

<sup>200 - 480</sup> V





18.5 35





| MSPs for motor protection                                    |                |  |
|--|----------------|--|
| Setting range for<br>thermal overload<br>release<br>CLASS 10 | Article No.    |  |
| [A]  |                |  |
| 9 – 12.5   | 3RV2021-1KA □0 |  |
| 10 –16   | 3RV2021-4AA □0 |  |
| 13 – 20  | 3RV2021-4BA □0 |  |
| 16 – 22  | 3RV2021-4CA □0 |  |
| 18 – 25  | 3RV2021-4DA □0 |  |
| 23 – 28  | 3RV2021-4NA □0 |  |
| 27 – 32  | 3RV2021-4EA □0 |  |
| 30 – 36  | 3RV2021-4PA10  |  |
| 34 – 40  | 3RV2021-4FA10  |  |

| Screw terminals: 1                   |  |
|--------------------------------------|--|
| Spring-loaded terminals up to 32 A 2 |  |



| Soft starters <sup>1)</sup> with overload protection |                                    |   |  |  |  |
|--|------------------------------------|---|--|--|--|
| Rated opera-   | Article No.                        | Article No.   |  |  |  |
| tional<br>current                                    | Control sup                        | pply voltage  |  |  |  |
| [A]  | 24 V AC/DC                         | 110 – 230 V AC/DC   |  |  |  |
| 12.5   | 3RW4024-□BB04                      | 3RW4024-□BB14   |  |  |  |
| 25   | 3RW4026-□BB04                      | 3RW4026-□BB14   |  |  |  |
| 32   | 3RW4027-□BB04                      | 3RW4027-□BB14   |  |  |  |
| 38   | 3RW4028-□BB04                      | 3RW4028-□BB14   |  |  |  |
|  | Rated operational current [A] 12.5 | Rated operational Current Control sup [A] 24 V AC/DC 12.5 3RW4024-□BB04  32 3RW4027-□BB04 |  |  |  |

Screw terminals: 1

Spring-loaded terminals: 2



Screw terminals: 1

Spring-loaded terminals: 2



24 V AC/DC: A

24 – 240 V AC/DC: W

| Current monitoring relays |   |   |  |  |  |
|---------------------------|---|---|--|--|--|
| Meas.<br>range            | Article No.<br>Basic (analog<br>adjustable) | Article No.<br>Standard (digital<br>adjustable) |  |  |  |
| 4 – 40                    | 3RR2142-□A□30                               | 3RR2242-□F□30                                   |  |  |  |

#### **Fuseless assembly**

#### Size S2 up to 37 kW

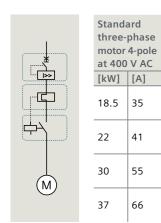
Motor starter protector for starter protection, contactor and overload relay 

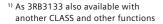
| Motor | starter | protector | for moto | r protection, | , contactor wit | h current | monitoring re | lay |
|-------|---------|-----------|----------|---------------|-----------------|-----------|---------------|-----|
|       |         |           |          |               |                 |           |               |     |



|   | Туре  | Article number               |
|---|---|------------------------------|
| 1 | Motor starter protector                       | 3RV233 - 11 1                |
| 2 | Link module (can only be used up to 65 A)     | 3RA2931-1AA00                |
| 3 | Contactor                                     | 3RT203                       |
| 4 | Terminal support for stand-alone installation | 3RU2936-3AA01                |
| 5 | Overload relay                                | 3RU2136-□□B0 or 3RB3□3□-□□B0 |

|   | Туре  | Article number |
|---|---|----------------|
| 1 | Motor starter protector                       | 3RV203 - 1 1   |
| 2 | Link module (can only be used up to 65 A)     | 3RA2931-1AA00  |
| 3 | Contactor                                     | 3RT203         |
| 4 | Terminal support for stand-alone installation | 3RU2936-3AA01  |
| 5 | Current monitoring relay                      | 3RR2 43-1      |







| MSPs for starter protection |                |  |
|-----------------------------|----------------|--|
|                             |                |  |
| Rated breaker               |                |  |
| current                     | Article No.    |  |
| [A]                         |                |  |
| 36                          | 3RV233 □-4PC10 |  |
| 40                          | 3RV233 □-4UC10 |  |
| 45                          | 3RV233 □-4VC10 |  |
| 52                          | 3RV233 □-4WC10 |  |
| 59                          | 3RV233 □-4XC10 |  |
| 65                          | 3RV233 □-4JC10 |  |
| 73                          | 3RV233 □-4KC10 |  |
| 80 2)                       | 3RV233 □-4RC10 |  |

Standard switching capacity 65 kA at 400 V: 1 Increased switching capacity 100 kA at 400 V: 2



| Contactors (auxiliary contacts 1NO or 1NC integrated) |                 |                |  |  |  |
|---|-----------------|----------------|--|--|--|
| Rated   |                 |                |  |  |  |
| operational   |                 |                |  |  |  |
| current   | Article No.     | Article No.    |  |  |  |
| [A]   | 230 V AC, 50 Hz | 50/60 Hz AC/DC |  |  |  |
| 40  | 3RT2035-□AP00   | 3RT2035-□N□30  |  |  |  |
| 50  | 3RT2036-□AP00   | 3RT2036-□N□30  |  |  |  |
| 65  | 3RT2037-□AP00   | 3RT2037-□N□30  |  |  |  |
| 80  | 3RT2038-□AP00   | 3RT2038-□N□30  |  |  |  |

Screw terminals: 1 20 – 33 V AC/DC: B Spring-loaded terminals 83 – 155 V AC/DC: 🗉 in auxiliary circuit: 3 175 – 280 V AC/DC: P

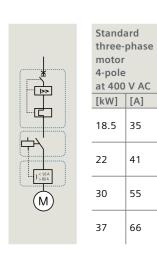


| Overload relays |                 |  |         |                         |
|-----------------|-----------------|--|---------|-------------------------|
|                 | Article No.     |  |         | Article No.             |
| Setting         | thermal         |  | Setting | electronic              |
| range           | overload relay, |  | range   | overload relay          |
| [A]             | CLASS 10        |  | [A]     | CLASS 10E <sup>1)</sup> |
| 22 – 32         | 3RU2136-4EB0    |  |         |                         |
| 28 – 40         | 3RU2136-4FB0    |  |         |                         |
| 36 – 45         | 3RU2136-4GB0    |  |         |                         |
| 40 – 50         | 3RU2136-4HB0    |  | 20 – 80 | 3RB3036-1W              |
| 47 – 57         | 3RU2136-4QB0    |  | 20 – 80 | 3KB3U30-1W              |
| 54 – 65         | 3RU2136-4JB0    |  |         |                         |
| 62 – 73         | 3RU2136-4KB0    |  |         |                         |
| 70 – 80         | 3RU2136-4RB0    |  |         |                         |



Contactor mounting: B 0 Straight-thr. transf.: 🛛 🗓 W 1

#### Starter combinations in size S2: Motor starter protector for motor protection, contactor with current monitoring relay



<sup>&</sup>lt;sup>2)</sup> Suitable for use with IE3 motors up to a starting current of 720 A. For higher starting currents we recommend using 3RV1 motor starter protectors size S3.



| MSPs for motor protection |               |  |  |
|---------------------------|---------------|--|--|
| Setting range for         |               |  |  |
| thermal                   |               |  |  |
| overload release          |               |  |  |
| CLASS 10                  | Article No.   |  |  |
| [A]                       |               |  |  |
| 28 – 36                   | 3RV203□-4PA10 |  |  |
| 32 – 40                   | 3RV203□-4UA10 |  |  |
| 35 – 45                   | 3RV203□-4VA10 |  |  |
| 42 – 52                   | 3RV203□-4WA10 |  |  |
| 49 – 59                   | 3RV203□-4XA10 |  |  |
| 54 – 65                   | 3RV203□-4JA10 |  |  |
| 62 – 73                   | 3RV203□-4KA10 |  |  |
| 70 – 802)                 | 3RV203 -4RA10 |  |  |

| Standard switching capacity 65 kA   |
|-------------------------------------|
| at 400 V: 1                         |
| Increased switching capacity 100 kA |
| at 400 V: 2                         |
|                                     |



| Contactors (auxiliary contacts 1NO or 1NC integrated) |                 |                |  |  |  |
|---|-----------------|----------------|--|--|--|
|   |                 |                |  |  |  |
| Rated   |                 |                |  |  |  |
| operational   |                 |                |  |  |  |
| current   | Article No.     | Article No.    |  |  |  |
| [A]   | 230 V AC, 50 Hz | 50/60 Hz AC/DC |  |  |  |
| 40  | 3RT2035-□AP00   | 3RT2035-□N□30  |  |  |  |
| 50  | 3RT2036-□AP00   | 3RT2036-□N□30  |  |  |  |
| 65  | 3RT2037-□AP00   | 3RT2037-□N□30  |  |  |  |
| 80  | 3RT2038-□AP00   | 3RT2038-□N□30  |  |  |  |

| Screw terminals: 1      | 20 – 33 V AC/DC: B   |
|-------------------------|----------------------|
| Spring-loaded terminals |                      |
| in auxiliary circuit: 3 | 175 – 280 V AC/DC: P |
|                         |                      |





|                |   | THE .  |
|----------------|---|--|
| Current moni   | toring relays                               |  |
| Meas.<br>range | Article No.<br>Basic (analog<br>adjustable) | Article No.<br>Standard (digital<br>adjustable)* |
| 8 – 80         | 3RR2143-□A□30                               | 3RR2243-□F□30                                    |

Screw terminals: 1 24 V AC/DC: A Spring-loaded terminals in auxiliary circuit: 3 24 – 240 V AC/DC: W

<sup>\*</sup>likewise available as 3RR24 with IO-Link

#### Size S2 up to 37 kW

Motor starter protector for motor protection, 3RW30 soft starter without overload protection and current monitoring relay (stand-alone installation)

Motor starter protector for motor protection, 3RW40 soft starter with overload protection and current monitoring relay (stand-alone installation)











- <sup>1)</sup> Can only be used in combination with 3RA2932-1AC00 standard mounting rail adapter (specially for soft starters)
- <sup>2</sup> The terminal support for standalone assembly is needed to use a 3RR2 current monitoring relay on a 3RW30/40 soft starter. In the starting and stopping phase (generalized phase control), the current monitoring relay shall not be active.

For 3RW30: Activate the 3RR2 monitoring relay via an upstream timing relay after the end of the soft start











- 1) Can only be used in combination with 3RA2932-1AC00 standard mounting rail adapter (specially for soft starters)
- 2) The terminal support for standalone assembly is needed to use a 3RR2 current monitoring relay on a 3RW30/40 soft starter. In the starting and stopping phase (generalized phase control), the current monitoring relay shall not be active.

For 3RW40: Activate and deactivate the 3RR2 monitoring relay via the BYPASS output (ramp-up detection).

|   | Туре  | Screw terminals |
|---|---|-----------------|
| 1 | Motor starter protector                                 | 3RV203 - 11111  |
| 2 | Link module (can only be used up to 65 A) <sup>1)</sup> | 3RA2931-1AA00   |
| 3 | Soft starter  | 3RW303 -1 -1    |
| 4 | Terminal support for stand-alone installation           | 3RU2936-3AA01   |
| 5 | Current monitoring relay <sup>2)</sup>                  | 3RR2□43-3□□□□   |

|   | Туре  | Screw terminals |
|---|---|-----------------|
| 1 | Motor starter protector                                 | 3RV203 - 1      |
| 2 | Link module (can only be used up to 65 A) <sup>1)</sup> | 3RA2931-1AA00   |
| 3 | Soft starter  | 3RW403 -1 -1    |
| 4 | Terminal support for stand-alone installation           | 3RU2936-3AA01   |
| 5 | Current monitoring relay <sup>2)</sup>                  | 3RR2 43-3 1     |

## Starter combinations in size S2: Motor starter protector for motor protection, 3RW30 soft starter without overload protection but with current monitoring relay



### Starter combinations in size S2: Motor starter protector for motor protection, 3RW40 soft starter with overload protection and current monitoring relay

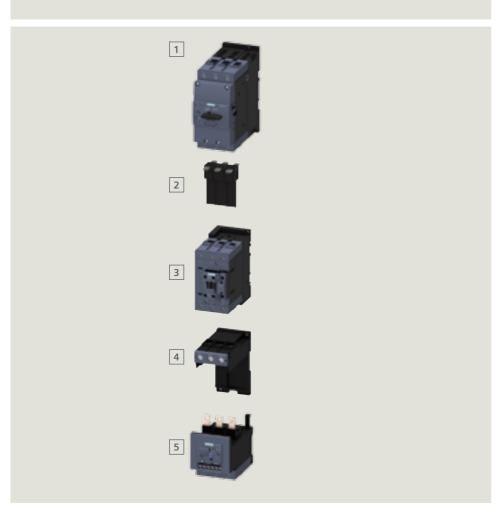


<sup>\*</sup>likewise available as 3RR24 with IO-Link

#### **Fuseless assembly**

#### Size S3 up to 55 kW

Motor starter protector for starter protection, contactor with overload relay



|   | Type  | Screw terminals          |  |
|---|---|--------------------------|--|
| 1 | Motor starter protector                       | 3RV234□-□□1□             |  |
| 2 | Link module <sup>1)</sup>                     | 3RA1941-1AA00            |  |
| 3 | Contactor                                     | 3RT204□-□□□□             |  |
| 4 | Terminal support for stand-alone installation | 3RU2946-3AA01            |  |
| 5 | Overload relay                                | 3RU2146- B0 or 3RB3 4-B0 |  |

<sup>1)</sup> Installation with link module only allowable on standard mounting rail adapter.

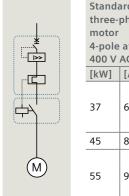


#### Starter combinations in size S3: Motor starter protector for starter protection, contactor with overload relay

Rated operational current

[A]

Contactors



| Standard |       |  |
|----------|-------|--|
| three-   | phase |  |
| motor    |       |  |
| 4-pole   | at    |  |
| 400 V    | AC    |  |
| [kW]     | [A]   |  |
| 37       | 66    |  |
| 45       | 80    |  |
| 55       | 97    |  |

| Motor starter protector |               |  |
|-------------------------|---------------|--|
|                         |               |  |
| MSP rated               |               |  |
| current                 | Article No.   |  |
| [A]                     |               |  |
| 50                      | 3RV234□-4HC10 |  |
| 63                      | 3RV234□-4JC10 |  |
| 75                      | 3RV234□-4KC10 |  |
| 84                      | 3RV234□-4RC10 |  |
| 93                      | 3RV234□-4YC10 |  |
| 100                     | 3RV234□-4MC10 |  |
| 3 VA                    |               |  |

|   | 80  | 3RT2045-□AP00       | 3RT2045-□N□00  |
|---|-----|---------------------|----------------|
| > | 95  | 3RT2046-□AP00       | 3RT2046-□N□00  |
|   | 110 | 3RT2047-□AP00       | 3RT2047-□N□00  |
|   |     | _                   |                |
|   |     | Carous torminals. 1 | 20 22 1/ ACIDG |

Article No.

230 V AC, 50 Hz

| Overload rela                | ıy                                       |                               |   |
|------------------------------|--|-------------------------------|---|
| Setting<br>range<br>CLASS 10 | Article No.<br>thermal<br>overload relay | Setting<br>range<br>CLASS 10E | Article No.<br>electrical<br>overload relay |
| 36 – 50                      | 3RU2146-4HB0                             |                               |   |
| 45 – 63<br>57 – 75           | 3RU2146-4JB0<br>3RU2146-4KB0             |                               |   |
| 70 – 90                      | 3RU2146-4LB0                             | 32 – 115                      | 3RB3046-1X□□                                |
| 80 – 100                     | 3RU2146-4MB0                             |                               |   |
|                              |  |                               |   |

| Stand    | ard switching capacity | 65 kA  |
|----------|------------------------|--------|
|          | at 40                  | 0 V: 🗓 |
| Increase | ed switching capacity  | 100 kA |
|          | at 40                  | 0 V: 2 |
|          |                        |        |

| Screw terminals: 1         | 20 – 33 V AC/DC: B   |
|----------------------------|----------------------|
| Spring-loaded terminals in |                      |
| auxiliary circuit: 3       | 175 – 280 V AC/DC: P |
|                            |                      |

Article No.

50/60 Hz AC/DC

Screw terminals in auxiliary circuit  ${\Bbb B}$ Spring-loaded terminals in auxiliary circuit D Straight-through transformer, screw terminals in auxiliary circuit W Straight-through transformer, spring-loaded terminals in auxiliary circuit X

For mounting onto contactor main circuit Stand-alone installation 1

#### **Fuseless assembly**

#### Size S3 up to 55 kW

2

Motor starter protector for motor protection, 3RW30 soft starter without overload protection





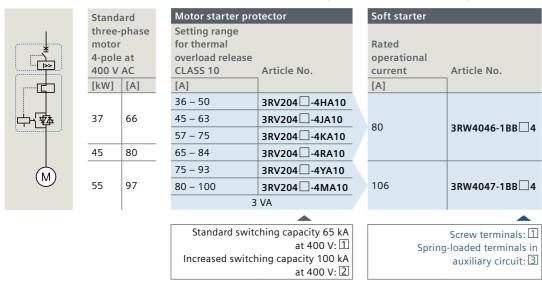
|   | Туре                      | Screw terminals         |
|---|---------------------------|-------------------------|
| 1 | Motor starter protector   | 3RV204\[ - \[ \] 1\[ \] |
| 2 | Link module <sup>1)</sup> | 3RA1941-1AA00           |
| 3 | Soft starter              | 3RW304□-1□□□            |

|   | Туре                      | Screw terminals                           |
|---|---------------------------|---|
| 1 | Motor starter protector   | 3RV204\(\square\)-\(\square\)1\(\square\) |
| 2 | Link module <sup>1)</sup> | 3RA1941-1AA00                             |
| 3 | Soft starter              | 3RW404\[ -1\]                             |

<sup>1)</sup> Installation with link module only allowable on mounting plate.



#### Starter combinations in size S3: Motor starter protector for motor protection and 3RW40 soft starter with overload protection



## Selection and ordering data for fused feeders of sizes S6, S10, S12 Size S6







| Overload             | relays   |   |
|----------------------|--|---|
| Setting<br>range     | Article No.<br>electronic<br>overload relay<br>CLASS 10  | Version                                       |
| [A]                  |  |   |
| 50 – 200<br>50 – 200 | 3RB2056-1FW2 <sup>2)</sup><br>3RB2056-1FC2 <sup>2)</sup> | w. strthrough transf.<br>w. busbar connection |



| Soft starter | s          |                |
|--------------|------------|----------------|
| Rated        |            |                |
| 000.0        | Control    |                |
| tional       | supply     |                |
| current      | voltage    | Article No.    |
| [A]          |            |                |
|              |            |                |
|              |            |                |
|              |            |                |
|              |            |                |
|              |            |                |
| 134          | 230 V AC   | 3RW4055-6BB44  |
| 131          | 250 1710   | 3KW 4033 0BB44 |
|              |            |                |
| 134          | 115 V AC   | 3RW4055-6BB34  |
|              |            |                |
| 162          | 230 V AC   | 3RW4056-6BB44  |
|              |            |                |
| 162          | 115 V AC   | SDWADER EDDSA  |
| 102          | I I S V AC | 3RW4056-6BB34  |

<sup>1)</sup> RLT: remaining lifetime

<sup>&</sup>lt;sup>2)</sup> As 3RB2143 also available with another CLASS and other functions







| Overload relays         |   |                           |  |
|-------------------------|---|---------------------------|--|
| Setting<br>range<br>[A] | Article No.<br>electronic<br>overload relay<br>CLASS 10 | Version                   |  |
| 55 – 250                | 3RB2066-1GC2 <sup>2)</sup>                              | with busbar<br>connection |  |
| 160 – 630               | 3RB2066-1MC2 <sup>2)</sup>                              | with busbar<br>connection |  |



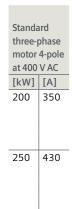
| Soft starters    |                      |                                |  |
|------------------|----------------------|--------------------------------|--|
| Rated            |                      |                                |  |
| opera-<br>tional | Control              |                                |  |
| current          | supply               | Article No.                    |  |
| [A]              |                      | Al ticle No.                   |  |
|                  |                      |                                |  |
| 230<br>230       | 230 V AC<br>115 V AC | 3RW4073-6BB44<br>3RW4073-6BB34 |  |
| 280<br>280       | 230 V AC<br>115 V AC | 3RW4074-6BB44<br>3RW4074-6BB34 |  |

<sup>1)</sup> RLT: remaining lifetime

<sup>&</sup>lt;sup>2)</sup> As 3RB2163 also available with another CLASS and other functions

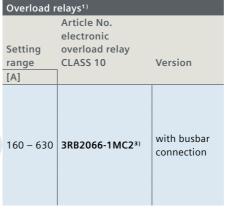
#### Selection and ordering data for fused feeders of sizes S6, S10, S12 Size S12





|         | Contactors                                     |           |               |               |
|---------|--|-----------|---------------|---------------|
| Rated   |  |           |               |               |
| opera-  |  | Control   |               | Article No.   |
| tional  |  | supply    | Article No.   | vacuum        |
| current | Solenoid-operated mechanism                    | voltage   | contactors    | contactors    |
| [A]     |  | [V AC/DC] |               |               |
|         | Conventional                                   | 220 – 240 | 3RT1075-6AP36 | 3RT1275-6AP36 |
| 400     | Electronic                                     |           |               |               |
| 400     | – for 24 V DC PLC output                       | 200 – 277 | 3RT1075-6NP36 | 3RT1275-6NP36 |
|         | – for 24 V DC PLC output, w. RLT <sup>2)</sup> | 200 – 277 | 3RT1075-6PP35 | -             |
|         | Conventional                                   | 220 – 240 | 3RT1076-6AP36 | 3RT1276-6AP36 |
| F00     | Electronic                                     |           |               |               |
| 500     | – for 24 V DC PLC output                       | 200 – 277 | 3RT1076-6NP36 | 3RT1276-6NP36 |
|         | – for 24 V DC PLC output, w. RLT <sup>2)</sup> | 200 – 277 | 3RT1076-6PP35 | -             |







| Soft starter | S        |               |
|--------------|----------|---------------|
| Rated        |          |               |
| opera-       | Control  |               |
| tional       | supply   |               |
| current      | voltage  | Article No.   |
| [A]          |          |               |
|              |          |               |
| 356          | 230 V AC | 3RW4075-6BB44 |
| 356          | 115 V AC | 3RW4075-6BB34 |
|              |          |               |
|              |          |               |
| 432          | 230 V AC | 3RW4076-6BB44 |
| 432          | 115 V AC | 3RW4076-6BB34 |
|              |          |               |

SENTRON 3V circuit breakers are suitable for fuseless short-circuit and overload protection of soft starters from size S6 upward. For more detailed information, please refer to the catalog.

For applications over 100 A, SIRIUS contactors can be combined with SENTRON 3VL circuit breakers. For more detailed information, please refer to the configuring aid "Configuring SIRIUS load feeders in fuseless design."

<sup>1)</sup> When using trip CLASS 20, refer to the configuration aid "Configuring SIRIUS fuseless load feeders," and to the catalog

<sup>2)</sup> RLT: remaining lifetime

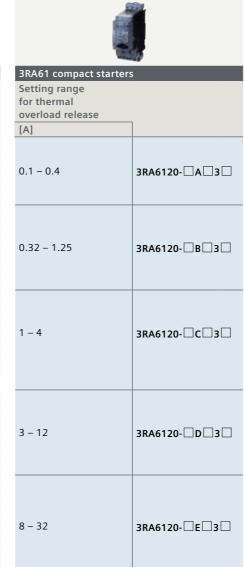
<sup>3)</sup> As 3RB2163 also available with another CLASS and other functions

Fuseless load feeders up to 15 kW



| Standard                    |             | 3RA21 direct-on-line starters |   |  |
|-----------------------------|-------------|-------------------------------|---|--|
| three-phase                 |             | Setting range                 |   |  |
| motor 4-pole<br>at 400 V AC |             | for thermal overload release  |   |  |
|                             |             | [A]                           | Type of coordination "2"<br>at Iq = 150 kA at 400 V |  |
| [kW]<br>0.06                | [A]<br>0.20 | 0.14 – 0.2                    | 3RA2110-0B \[ 15-1 \] \[ \] S00                     |  |
|                             |             |                               |   |  |
| 0.06                        | 0.20        | 0.18 - 0.25                   | 3RA2110-0C  |  |
| 0.09                        | 0.30        | 0.22 - 0.32                   | 3RA2110-0D  |  |
| 0.09                        | 0.30        | 0.28 – 0.4                    | 3RA2110-0E15-1 S00                                  |  |
| 0.12                        | 0.44        | 0.35 – 0.5                    | 3RA2110-0F   15-1       500                         |  |
| 0.18                        | 0.60        | 0.45 – 0.63                   | 3RA2110-0G  |  |
| 0.18                        | 0.60        | 0.55 – 0.8                    | 3RA2110-0H 🗌 15-1 🔲 🔲 S00                           |  |
| 0.25                        | 0.85        | 0.7 – 1                       | 3RA2110-0J 🗌 15-1 🔲 🔲 🗎 S00                         |  |
| 0.37                        | 1.10        | 0.9 – 1.25                    | 3RA2110-0K 🗌 15-1 🔲 🔲 🗎 S00                         |  |
| 0.55                        | 1.50        | 1.1 – 1.6                     | 3RA2110-1A 🗌 15-1 🔲 🔲 🗎 S00                         |  |
| 0.75                        | 1.90        | 1.4 – 2                       | 3RA2110-1B 🗌 15-1 🔲 🔲 🗎 S00                         |  |
| 0.75                        | 1.90        | 1.8 – 2.5                     | 3RA2110-1C 🗌 15-1 🔲 🔲 🔲 S00                         |  |
| 1.1                         | 2.07        | 2.2 – 3.2                     | 3RA2110-1D 🗌 15-1 🔲 🔲 🗎 S00                         |  |
| 1.5                         | 3.60        | 2.8 – 4                       | 3RA2110-1E 🗌 15-1 🔲 🔲 🔲 S00                         |  |
|                             |             |                               |   |  |
| 1.5                         | 3.60        | 3.5 – 5                       | 3RA2120-1F □ 24-0 □ □ □ S0                          |  |
| 2.2                         | 4.90        | 4.5 – 6.3                     | 3RA2120-1G 24-0                                     |  |
| 3                           | 6.50        | 5.5 – 8                       | 3RA2120-1H 24-0                                     |  |
| 4                           | 8.50        | 7 – 10                        | 3RA2120-1J 24-0                                     |  |
| 5.5                         | 11.5        | 9 – 12.5                      | 3RA2120-1K  |  |
| 7.5                         | 15.5        | 10 – 16                       | 3RA2120-4A 26-0 50                                  |  |
| 7.5                         | 15.5        | 13 – 20                       | 3RA2120-4B 27-0 50                                  |  |
| 11                          | 22          | 16 – 22                       | 3RA2120-4C 27-0 50                                  |  |
| 11                          | 22          | 18 – 25                       | 3RA2120-4D 27-0 . 50                                |  |
| 15                          | 29          | 23 – 28                       | 3RA2120-4N 🗌 27-0 🔲 🔲 🗎 S0                          |  |
| 15                          | 29          | 27 – 32                       | 3RA2120-4E 27-0 S0                                  |  |





| Without terminals: ① With screw terminals: ① With spring-loaded terminals: ② | 0<br>2<br>2 |
|--|-------------|
| 24 V AC/DC<br>110 – 240 V AC/DC  |             |



| SIRIUS 3RM1 motor star  | ters              |
|-------------------------|-------------------|
| Setting range           |                   |
| for thermal             |                   |
| overload release        | 1                 |
| [A]                     |                   |
| 0.1 – 0.5               | 3RM1□01□AA□4      |
| 0.4 – 2.0               | 3RM1 □02 □ AA □ 4 |
| 1.6 – 7.0 (10 A)*       | 3RM1□07□AA□4      |
|                         |                   |
| Direct-on-line s        | =                 |
| Failsafe direct-on-line | starter 1         |

| Direct-on-line starter ① Failsafe direct-on-line starter ①               |
|--|
| Screw terminals: ① Spring-loaded terminals: ② Mixed connection method: ③ |
| 24 V DC Us 🛈<br>110 – 230 V AC; 110 V DC Us 🗓                            |

Note: The 3RM1 motor starters do not have integral short-circuit protection. They can be used very effectively in combination with SIRIUS motor starter protectors in group assemblies, for example.

<sup>\*</sup>Operation of resistive loads with maximum 10 A

#### Fuseless load feeders up to 15 kW



| Standard                                   |      | 3RA22 reversing star                             | ters  |
|--|------|--|---|
| three-phase<br>motor 4-pole<br>at 400 V AC |      | Setting range<br>for thermal<br>overload release | Type of coordination "2"<br>at Iq = 150 kA at 400 V |
| [kW]                                       | [A]  | [A]  |   |
| 0.06                                       | 0.20 | 0.14 - 0.2                                       | 3RA2210-0B 🗌 15-2 🔲 🔲 🗎 S00                         |
| 0.06                                       | 0.20 | 0.18 – 0.25                                      | 3RA2210-0C 🗌 15-2 🔲 🔲 🔲 S00                         |
| 0.09                                       | 0.30 | 0.22 - 0.32                                      | 3RA2210-0D 🗌 15-2 🔲 🔲 🔲 S00                         |
| 0.09                                       | 0.30 | 0.28 - 0.4                                       | 3RA2210-0E 🗌 15-2 🔲 🔲 🔲 S00                         |
| 0.12                                       | 0.44 | 0.35 - 0.5                                       | 3RA2210-0F 🗌 15-2 🔲 🔲 🔲 500                         |
| 0.18                                       | 0.60 | 0.45 - 0.63                                      | 3RA2210-0G 🗌 15-2 🔲 🔲 🔲 500                         |
| 0.18                                       | 0.60 | 0.55 - 0.8                                       | 3RA2210-0H 🗌 15-2 🔲 🔲 🔲 500                         |
| 0.25                                       | 0.85 | 0.7 – 1  | 3RA2210-0J 🗌 15-2 🔲 🔲 🔲 500                         |
| 0.37                                       | 1.10 | 0.9 – 1.25                                       | 3RA2210-0K 🗌 15-2 🔲 🔲 🔲 500                         |
| 0.55                                       | 1.50 | 1.1 – 1.6  | 3RA2210-1A 🗌 15-2 🔲 🔲 🔲 S00                         |
| 0.75                                       | 1.90 | 1.4 – 2  | 3RA2210-1B 🗌 15-2 🔲 🔲 🔲 S00                         |
| 0.75                                       | 1.90 | 1.8 – 2.5  | 3RA2210-1C 🗌 15-2 🔲 🔲 🔲 S00                         |
| 1.1  | 2.70 | 2.2 – 3.2  | 3RA2210-1D 🗌 15-2 🔲 🔲 🔲 S00                         |
| 1.5  | 3.60 | 2,8 – 4  | 3RA2210-1E 🗌 15-2 🔲 🔲 🔲 S00                         |
|  |      |  |   |
| 1,5  | 3.60 | 3.5 – 5  | 3RA2220-1F □24-0 □□□ S0                             |
| 2,2  | 4.90 | 4.5 – 6.3  | 3RA2220-1G  |
| 3  | 6.50 | 5.5 – 8  | 3RA2220-1H  |
| 4  | 8.50 | 7 – 10   | 3RA2220-1J 24-0 50                                  |
| 5.5  | 11.5 | 9 – 12.5   | 3RA2220-1K 26-0 50                                  |
| 7.5  | 15.5 | 10 – 16  | 3RA2220-4A 27-0 50                                  |
| 7.5  | 15.5 | 13 – 20  | 3RA2220-4B 27-0 50                                  |
| 11   | 22   | 16 – 22  | 3RA2220-4C 27-0 50                                  |
| 11   | 22   | 18 – 25  | 3RA2220-4D 27-0 50                                  |
| 15   | 29   | 23 – 28  | 3RA2220-4N 🗌 27-0 🔲 🔲 🗎 S0                          |
| 15   | 29   | 27 – 32  | 3RA2220-4E 27-0 50                                  |





| 100                  | 100           |
|----------------------|---------------|
| 3RA62 compact starte | ers           |
| Setting range        |               |
| for thermal          |               |
| overload release     |               |
| [A]                  |               |
| 0.1 – 0.4            | 3RA6250-□A□3□ |
| 0.32 – 1.25          | 3RA6250-□B□3□ |
| 1 – 4                | 3RA6250-□C□3□ |
| 3 – 12               | 3RA6250-□D□3□ |
| 8 – 32               | 3RA6250-□E□3□ |
|                      |               |

| Without terminals: 0            | 0 |
|---------------------------------|---|
| With screw terminals: 1         | 2 |
| With spring-loaded terminals: 2 | 2 |
| 24 V AC/DC:                     | В |
| 110 – 240 V AC/DC:              | P |



|                      | _                |
|----------------------|------------------|
| SIRIUS 3RM1 motor st | arters           |
| Setting range        |                  |
| for thermal          |                  |
| overload release     |                  |
| [A]                  |                  |
| 0.1 – 0.5            | 3RM1 □01 □ AA □4 |
| 0.4 – 2.0            | 3RM1□02□AA□4     |
| 1.6 – 7.0 (10 A)*    | 3RM1□07□AA□4     |
|                      |                  |

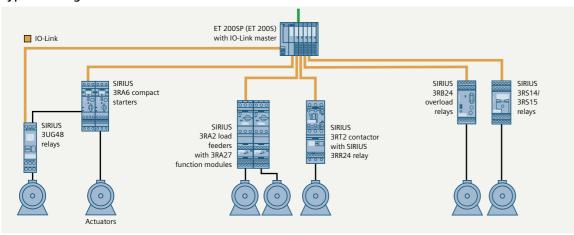
| Direct-on-line starter 2 Failsafe direct-on-line starter 3                     |  |
|--|--|
| Screw terminals: 1<br>Spring-loaded terminals: 2<br>Mixed connection method: 3 |  |
| 24 V DC Us 110 – 230 V AC: 110 V DC Us 1                                       |  |

Note: The 3RM1 motor starters do not have integral short-circuit protection. They can be used very effectively in combination with SIRIUS motor starter protectors in group assemblies, for example.

<sup>\*</sup>Operation of resistive loads with maximum 10 A

Function modules for IO-Link or AS-i that are mounted on contactors (24 V DC) with communication interface are required for connecting the load feeders to the controller. Depending on the version, these communicate with an IO-Link interface group or any AS-i master. Alternatively, the contactors can be connected to the controller via IO-Link and by means of the 3RB24 overload relay. The 3RR24 current monitoring relays serve to provide optimum current monitoring of the overall system or the driven process.

#### Typical configuration in the environment of IO-Link

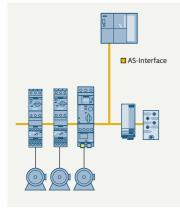


|        | Rated            |
|--------|------------------|
| Three- |                  |
| phase  | opera-<br>tional |
| motor  | current          |
| 400 V  | contactor        |
| [kW]   | [A]              |
| [KVV]  | [A]              |
| 3      | 7                |
|        |                  |
| 4      |                  |
| 4      | 9                |
|        |                  |
| 5.5    | 12               |
|        |                  |
| 7.5    | 16               |
|        |                  |
|        |                  |
| 5.5    | 12               |
| 7.5    | 16               |
| 11     | 25               |
|        |                  |
| <br>   | 32               |
| 18.5   | 38               |
|        |                  |

| Contactors S00 with communication interface |  |  |
|---|--|--|
| Aux. contacts                               | Control supply voltage<br>Article No.<br>DC 24 V |  |
| 1NC   | 3RT2015-□BB42-0CC0                               |  |
| 1NO   | 3RT2015-□BB41-0CC0                               |  |
| 1NC   | 3RT2016-□BB42-0CC0                               |  |
| 1NO   | 3RT2016-□BB41-0CC0                               |  |
| 1NC   | 3RT2017-□BB42-0CC0                               |  |
| 1NO   | 3RT2017-□BB41-0CC0                               |  |
| 1NC   | 3RT2018-□BB42-0CC0                               |  |
| 1NO   | 3RT2018-□BB41-0CC0                               |  |
| Contactors S0 with communication interface  |  |  |
| 1NO + 1NC                                   | 3RT2024-□BB40-0CC0                               |  |
| 1NO + 1NC                                   | 3RT2025-□BB40-0CC0                               |  |
| 1NO + 1NC                                   | 3RT2026-□BB40-0CC0                               |  |
| 1NO + 1NC                                   | 3RT2027-□BB40-0CC0                               |  |
| 1NO + 1NC                                   | 3RT2028-□BB40-0CC0                               |  |

Screw terminals: 1 Spring-loaded terminals S00/S0: 2

#### Typical configuration in the environment of AS-Interface



| AS-Interface   |                    |
|--|--------------------|
| Version  | Article No.        |
| CP343-2P communications processor for connecting         |                    |
| SIMATIC S7-300 to AS-Interface (AS-i Spec.3.0) for up to | 6GK7343-2AH11-0XA0 |
| 62 load feeders  |                    |
| Front connector 20-pin, with screw-type contacts         | 6ES7392-1AJ00-0AA0 |
| Front connector 20-pin, with spring-loaded contacts      | 6ES7392-1BJ00-0AA0 |
| DP/AS-i LINK Advanced, gateway between                   |                    |
| PROFIBUS DP and AS-Interface                             |                    |
| – Single master for up to 62 load feeders                | 6GK1415-2BA10      |
| - Double master for up to 124 load feeders               | 6GK1415-2BA20      |
| AS-Interface power supply unit IP20                      |                    |
| – 120/230 V AC 3 A                                       | 3RX9501-0BA00      |
| – 24 V DC 3 A  | 3RX9501-1BA00      |
| – 120/230 V AC 5 A                                       | 3RX9502-0BA00      |
| – 120/230 V AC 8 A                                       | 3RX9503-0BA00      |
| Further system components for AS-Interface               | See Industry Mall  |
|  | or Catalog IKPI    |

| 18.5 | 40 |
|------|----|
| 22   | 50 |
| 30   | 65 |
| 37   | 80 |

| 37 | 80  |
|----|-----|
| 45 | 95  |
| 55 | 110 |

|                    | Contactors S2 with communication interface |  |
|--------------------|--|--|
| 3RT2035-□NB30-0CC0 |  |  |
|                    | 3RT2036-□NB30-0CC0                         |  |
|                    | 3RT2037-□NB30-0CC0                         |  |
|                    | 3RT2038-□NB30-0CC0                         |  |
|                    | <b>A</b>                                   |  |

Screw terminals: 1 Spring-loaded terminals in auxiliary circuit: 3

| Contactors S3 with communication interface |                    |  |
|--|--------------------|--|
| 3RT2045-□NB30-0CC0                         |                    |  |
| 3RT2046-□NB30-0CC0                         |                    |  |
|  | 3RT2047-□NB30-0CC0 |  |
|  |                    |  |

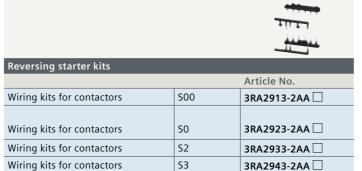
Screw terminals: 1 Spring-loaded terminals in auxiliary circuit: 3

#### Function modules for mounting on 3RT2 contactors and for connecting to the automation level

#### Parallel wiring



| Direct-on-line starter with time-delay relay |                 |  |
|--|-----------------|--|
| Article No.                                  |                 |  |
| ON-delay                                     | 3RA2811- CW10   |  |
| OFF-delay<br>(with aux. voltage)             | 3RA2812- □ DW10 |  |



| 五二二                                  |     |               |
|--------------------------------------|-----|---------------|
| Star-delta (wye-delta) starter1)2)4) |     |               |
|                                      |     | Article No.   |
| Function module                      |     | 3RA2816-0EW20 |
| Wiring kits for contactors           | S00 | 3RA2913-2BB   |
| Wiring kits for contactors           | S0  | 3RA2923-2BB   |
| Wiring kits for contactors           | 52  | 3RA2933-2BB □ |
| Wiring kits for contactors           | S3  | 3RA2943-2BB 🗌 |

#### IO-Link



| IO-Link connection for direct-on-line starter1) 2) |                 |  |
|--|-----------------|--|
| Article No.  |                 |  |
| Function module                                    | 3RA2711- ☐ AA00 |  |
|  |                 |  |
|  |                 |  |
|  |                 |  |
|  |                 |  |



| IO-Link connection for reversing starter <sup>1) 2) 3)</sup> |     |                 |
|--|-----|-----------------|
| Article No.  |     |                 |
| Function module  |     | 3RA2711- □ BA00 |
| Wiring kits for contactors                                   | S00 | 3RA2913-2AA 🗌   |
| Wiring kits for contactors                                   | S0  | 3RA2923-2AA 🗌   |
| Wiring kits for contactors                                   | S2  | 3RA2933-2AA 🗌   |
| Wiring kits for contactors                                   | S3  | 3RA2943-2AA □   |



|  |     | -4              |
|--|-----|-----------------|
| IO-Link connection for star-delta (wye-delta) combinations <sup>1) 2) 4)</sup> |     |                 |
| Article No.  |     |                 |
| Function module  |     | 3RA2711- □ CA00 |
| Wiring kits for contactors   | S00 | 3RA2913-2BB □   |
| Wiring kits for contactors   | S0  | 3RA2923-2BB □   |
| Wiring kits for contactors   | S2  | 3RA2933-2BB □   |
| Wiring kits for contactors   | S3  | 3RA2943-2BB     |

#### **AS-Interface**



| AS-Interface             | connection | for direct-on-line |
|--------------------------|------------|--------------------|
| starter <sup>1) 2)</sup> |            |                    |

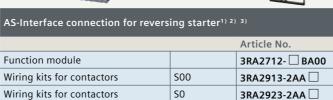
| starter <sup>1) 2)</sup> |                 |
|--------------------------|-----------------|
|                          | Article No.     |
| Function module          | 3RA2712- □ AA00 |
|                          |                 |
|                          |                 |
|                          |                 |
|                          |                 |
|                          |                 |

Screw terminals: 1 Spring-loaded terminals: 2









S2

S3

Screw terminals: 1 Spring-loaded terminals: 2

3RA2933-2AA

3RA2943-2AA





#### AS-Interface connection for star-delta (wye-delta) combinations 1) 2) 4)

|                            |     | Article No.     |
|----------------------------|-----|-----------------|
| Function module            |     | 3RA2712- □ CA00 |
| Wiring kits for contactors | S00 | 3RA2913-2BB □   |
| Wiring kits for contactors | S0  | 3RA2923-2BB □   |
| Wiring kits for contactors | S2  | 3RA2933-2BB □   |
| Wiring kits for contactors | S3  | 3RA2943-2BB □   |
|                            |     |                 |

Screw terminals: 1 Spring-loaded terminals: 2

Wiring kits for contactors

Wiring kits for contactors

The contactor assemblies represented above can be combined with motor starter protectors, overload relays, and monitoring relays

<sup>1)</sup> The wiring modules for the control circuit are not required 2) The contactor with basic module must be implemented as a communication contactor

<sup>3)</sup> Comprising 1 basic module and 1 coupling module
4) Comprising 1 basic module and 2 coupling modules

#### IO-Link



| M |
|---|
| Ü |

| Setting range    | 3RA64 direct-on-line | 3RA65 reversing   |
|------------------|----------------------|-------------------|
| for electronic   | starter              | starter           |
| overload release | CPS <sup>1)</sup>    | CPS <sup>1)</sup> |
| [A]              | 24 V DC              | 24 V DC           |
| 0.1 – 0.4        | 3RA6400- ☐ AB42      | 3RA6500- ☐ AB42   |
| 0.32 – 1.25      | 3RA6400- □ BB42      | 3RA6500- □ BB42   |
| 1 – 4            | 3RA6400- □ CB42      | 3RA6500- □ CB42   |
| 3 – 12           | 3RA6400- □ DB42      | 3RA6500- □ DB42   |
| 8 – 32           | 3RA6400- □ EB42      | 3RA6500- □ EB42   |
|                  |                      |                   |

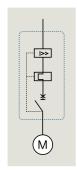


Accessories for compact starter with IO-Link, 3RA27 function modules and 3RB24 overload relays with IO-Link

| Module connector, 14-pole, 8 cm,                    | 3RA2711-0EE02  |
|---|----------------|
| for 1 space between two contactors                  | SIGE TIT-OLLOZ |
| Module connector, 14-pole, 21 cm, for diverse space | 3RA2711-0EE03  |
| combinations between two contactors                 | 3KA2711-0EE03  |
| Operator panel                                      | 3046035.04     |
| (incl. enabling module and interface cover)         | 3RA6935-0A     |
| Connecting cable                                    | 3046033.04     |
| for operator panel                                  | 3RA6933-0A     |
|   |                |

#### AS-Interface





| Setting range    | 3RA61 direct-on-line starter | 3RA62 reversing starter |
|------------------|------------------------------|-------------------------|
| for electronic   |                              |                         |
| overload release | CPS <sup>1)</sup>            | CPS <sup>1)</sup>       |
| [A]              | 24 V AC/DC                   | 24 V AC/DC              |
| 0.1 – 0.4        | 3RA6120- □ AB34              | 3RA6250- ☐ AB34         |
| 0.32 – 1.25      | 3RA6120- □ BB34              | 3RA6250- □ BB34         |
| 1 – 4            | 3RA6120- □ CB34              | 3RA6250- ☐ CB34         |
| 3 – 12           | 3RA6120- □ DB34              | 3RA6250- □ DB34         |
| 8 – 32           | 3RA6120- □ EB34              | 3RA6250- □ EB34         |

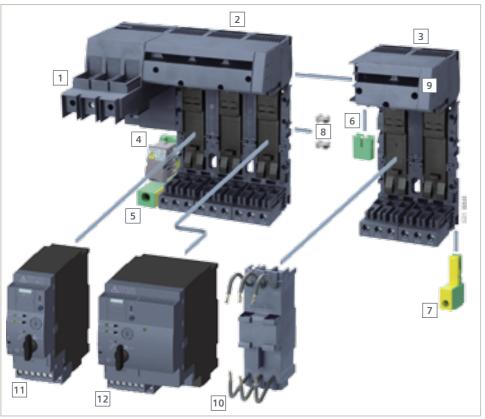
<sup>1)</sup> CPS: Control and protective switching device, IEC/EN 60947-6-2

| Screw terminals: 1 | Scrow torminals 1                   |
|--------------------|-------------------------------------|
| Spring-loaded      | Screw terminals: 1<br>Spring-loaded |
| terminals: 2       | terminals: 2                        |



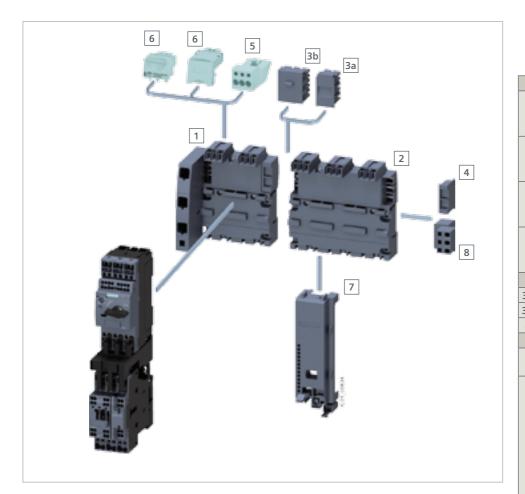
| AS-Interface accessories                                  |              |
|---|--------------|
| AS-i addressing unit                                      | 3RK1904-2AB0 |
| AS-Interface mounting module for 3RA6 compact starter (   | 24 V DC)     |
| Without additional inputs/outputs                         | 3RA6970-3A   |
| With two local inputs                                     | 3RA6970-3B   |
| With two free external inputs                             | 3RA6970-3C   |
| With one free external input and one free external output | 3RA6970-3D   |
| With two free external outputs                            | 3RA6970-3E   |
| For local control   | 3RA6970-3F   |

# 3RA68 infeed system (compact starter)



Item 4, 8 and 9 already included in the scope of delivery

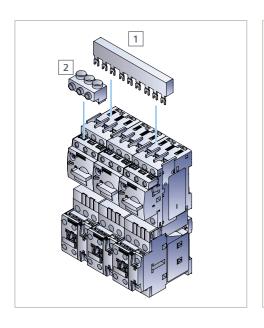
|    | Туре   | Version of terminals                | Article No. |
|----|--|-------------------------------------|-------------|
| 1  | For busbar mounting (diagram)  |                                     |             |
|    | Infeed with screw terminals 25/35 mm² left with permanently fitted 3-socket expansion module   | Screw terminals up to 63 A          | 3RA6812-8AB |
|    | Infeed with screw terminals 25/35 mm² left with permanently fitted 3-socket expansion module   | Spring-loaded terminals up to 63 A  | 3RA6812-8AC |
|    | Infeed with screw terminals 50 – 70 mm² left with permanently fitted 3-socket expansion module | Screw terminals up to 100 A         | 3RA6813-8AB |
|    | Infeed with screw terminals 50 – 70 mm² left with permanently fitted 3-socket expansion module | Spring-loaded terminals up to 100 A | 3RA6813-8AC |
|    | Terminal covers for infeed w. screw terminals  | 25/35 mm²                           | 3RA6880-2AB |
|    | Terminal covers for infeed w. screw terminals  | 50/70 mm²                           | 3RA6880-3AB |
|    | Infeed with spring-loaded terminals 25/35 mm² left or right up to 63 A                         |                                     | 3RA6830-5AC |
|    | Expansion modules  |                                     |             |
| 2  | 3-socket expansion module with 3 slots   | Screw terminals                     | 3RA6823-0AB |
| 3  | 2-socket expansion module with 2 slots   | Screw terminals                     | 3RA6822-0AB |
|    | 2-socket expansion module with 2 slots   | Spring-loaded terminals             | 3RA6822-0AC |
|    | 3-socket expansion module with 3 slots   | Spring-loaded terminals             | 3RA6823-0AC |
| 4  | Expansion plug between 2 expansion modules (already included in the scope of delivery of the   |                                     |             |
| 5  | PE infeed  |                                     |             |
|    | PE infeed 25/35 mm <sup>2</sup>  | Screw terminals                     | 3RA6860-6AB |
|    | PE infeed 25/35 mm <sup>2</sup>  | Spring-loaded terminals             | 3RA6860-5AC |
| 6  | PE expansion plug  |                                     |             |
| 7  | PE tap   |                                     |             |
|    | PE tap 6/10 mm <sup>2</sup>  | Screw terminals                     | 3RA6870-4AB |
|    | PE tap 6/10 mm <sup>2</sup>  | Spring-loaded terminals             | 3RA6870-3AC |
| 8  | Connecting wedge (already included in scope  | of 2 and 3)                         |             |
| 9  | Cover cap of the power bus (already included   | in scope of 1)                      |             |
|    | Further accessories  |                                     |             |
| 10 | Adapter 45 mm for 3RV motor starter protector with screw terminals                             |                                     | 3RA6890-0BA |
|    | Expansion plug for SIRIUS 3RV29 infeed system  |                                     | 3RA6890-1AA |
|    | Terminal block for integration of 1-, 2- or 3-pole components                                  | Spring-loaded terminals             | 3RV2917-5D  |
| 11 | 3RA61 compact direct-on-line starter   |                                     |             |
| 12 | 3RA62 compact reversing starter  |                                     |             |

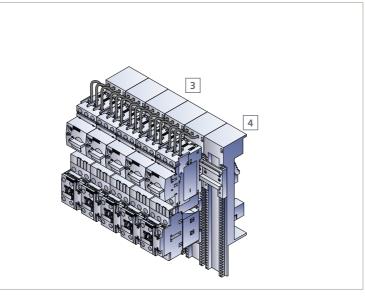


|    | Type   | Version                                  |        | Size for<br>3RV20, 3RV23<br>motor starter<br>protectors | Article No.   |
|----|--|--|--------|---|---------------|
|    | 3-phase busbars  |  |        |   |               |
| 1  | With infeed on the left incl. 3RV2917-6A end cover   | For 2 motor starter protectors           |        | S00, S0   | 3RV2917-1A    |
|    | <b>With infeed on the right</b> incl. 3RV2917-6A end cover   | For 2 motor starter protectors           |        | S00, S0   | 3RV2917-1E    |
|    | For system expansion incl. 3RV2917-5BA00 expansion plug  | For 2 motor starter protectors           |        | S00, S0   | 3RV2917-4A    |
| 2  | For system expansion incl. 3RV2917-5BA00 expansion plug  | For 3 motor starter protectors           |        | S00, S0   | 3RV2917-4B    |
|    | Spare parts  |  |        |   |               |
| За | Expansion plug   |  |        |   | 3RV2917-5BA00 |
| 3b | Broadened expansion plug   |  |        |   | 3RV2917-5E    |
| 4  | End cover  |  |        |   | 3RV2917-6A    |
|    | Plug-in connectors   |  |        |   |               |
| 5  | Terminal block for device infeed   | Spring-loaded terminals                  | 1 unit | S00/S0  | 3RV2917-5FA00 |
|    | For contacting the   | Screw terminals  Spring-loaded terminals | 1 unit | S00   | 3RV2917-5CA00 |
|    | motor starter protectors   |  | 10 un. | S00   | 3RV2917-5C    |
|    |  |  | 1 unit | 500   | 3RV2917-5AA00 |
| 6  |  |  | 10 un. | S00   | 3RV2917-5A    |
| Ü  |  | Screw terminals                          | 1 unit | 50  | 3RV1927-5AA00 |
|    |  | Sciew terrimals                          | 10 un. | 50  | 3RV1927-5A    |
|    |  | Spring-loaded                            | 1 unit | S0  | 3RV2927-5AA00 |
|    |  | terminals                                | 10 un. | S0  | 3RV2927-5A    |
|    | Accessories  |  |        |   |               |
| 7  | Contactor base for assembling d reversing starters or preassemble                                    |  | 1 unit | 500   | 3RV2917-7AA00 |
| ,  | Contactor base for assembling direct-on-line or reversing starters or preassembled 3RA2 load feeders |  | 1 unit | S00/S0  | 3RV2927-7AA00 |
| 8  | Terminal block for integration of 1-, 2- or 3-pole components  |  |        |   | 3RV2917-5D    |
|    | Mounting rail, 45 mm, for inte devices into the system, such a circuit breakers                      |  |        |   | 3RV1917-7B    |

## 3-phase busbars / 8US busbar adapters for infeed

|   | Туре  | Size              | Article No.                 |                             |                             |                             |
|---|---|-------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
|   | 3-phase busbars   |                   |                             |                             |                             |                             |
|   | For infeed to several 3RV2 motor starter protectors (screw terminals) mounted side-by-side on standard rails, with touch protection |                   | Modular<br>spacing<br>45 mm | Modular<br>spacing<br>55 mm | Modular<br>spacing<br>63 mm | Modular<br>spacing<br>75 mm |
|   | For 2 motor starter protectors  | S00, S0           | 3RV1915-1AB                 | 3RV1915-2AB                 | 3RV1915-3AB                 | _                           |
|   | Por 2 motor starter protectors  | S2                | _                           | 3RV1935-1A                  | _                           | 3RV1935-3A                  |
| 1 | For 3 motor starter protectors  | S00, S0           | 3RV1915-1BB                 | 3RV1915-2BB                 | _                           | _                           |
| ' | For 3 motor starter protectors  | S2                | _                           | 3RV1935-1B                  | _                           | 3RV1935-3B                  |
|   | For 4 motor starter protestors  | S00, S0           | 3RV1915-1CB                 | 3RV1915-2CB                 | 3RV1915-3CB                 | _                           |
|   | For 4 motor starter protectors  | S2                | _                           | 3RV1935-1C                  | _                           | 3RV1935-3C                  |
|   | For 5 motor starter protectors  | S00, S0           | 3RV1915-1DB                 | 3RV1915-2DB                 | _                           | _                           |
|   | 3-phase infeed terminals  |                   |                             |                             |                             |                             |
| 2 | Connection from above   | S00, S0           | 3RV2925-5AB                 |                             |                             |                             |
|   | Conflection from above  | S2                | 3RV2935-5A                  |                             |                             |                             |
|   | Connection from below   | S00, S0           | 3RV2915-5B                  |                             |                             |                             |
|   | 3-phase infeed terminals for construction   | ng type E starter | S                           |                             |                             |                             |
|   | Connection from above   | S00, S0           | 3RV2925-5EB                 |                             |                             |                             |
|   | Connection from above   | S2                | 3RV2935-5E                  |                             |                             |                             |
|   | Accessories   |                   |                             |                             |                             |                             |
|   | Cover caps for connection tags  | S00, S0           | 3RV1915-6AB                 |                             |                             |                             |
|   | Touch protection for empty positions  | S2                | 3RV1935-6A                  |                             |                             |                             |





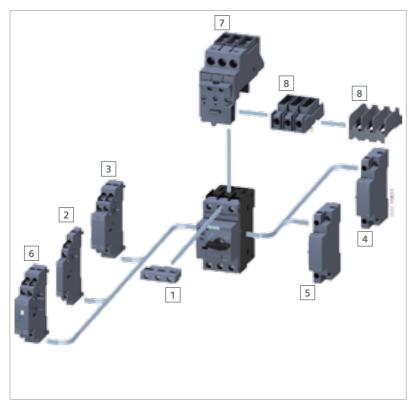
|   | For MSPs,<br>size  | Rated<br>operational<br>current<br>[A] | Adapter<br>length<br>[mm] | Adapter<br>width<br>[mm] | Article No.                 |
|---|--|--|---------------------------|--------------------------|-----------------------------|
| 3 | Busbar adap  | oters for 60-mm                        | systems                   |                          |                             |
|   | For 3RM1 m   | otor starters w                        | ith fuse mo               | dule 3RM1                | 93 🗆 - 🔲 📗                  |
|   | 22.5 mm  | 7                                      | 200                       | 22.5                     | 8US1216-0AS00 <sup>2)</sup> |
|   | For motor starter protectors and load feeders with spring-loaded terminals |  |                           | th spring-loaded         |                             |
|   | S00, S0  | 25                                     | 200                       | 45                       | 8US1251-5DS10               |
|   | S0   | 32                                     | 200                       | 45                       | 8US1251-5NS10               |
|   | S2   | 80                                     | 200                       | 55                       | 8US1261-5MS13               |
|   | S2   | 80                                     | 260                       | 55                       | 8US1261-6MT10               |
|   | S2 <sup>1)</sup>   | 80                                     | 260                       | 118                      | 8US1211-6MT10               |
|   | S3   | 100                                    | 215                       | 72                       | 8US1211-4TR00               |
|   | For motor st   | tarter protecto                        | rs and load               | feeders wi               | th spring-loaded            |
|   | S00, S0  | 25                                     | 200                       | 45                       | 8US1251-5DS11               |
|   | S00, S0  | 25                                     | 260                       | 45                       | 8US1251-5DT11               |
|   | S0   | 32                                     | 260                       | 45                       | 8US1251-5NT11               |

<sup>1)</sup> For the assembly of feeders for reversing starters comprising a motor starter protector and two contactors

2) Adapter for 8US1616-0AK02 compact busbar system

|   |   | Accessories   |     |    |                                |
|---|---|---|-----|----|--------------------------------|
|   | , | Device holder   | 200 | 45 | 8US1250-5AS10                  |
| 4 | 4 | for lateral mounting on busbar adapters   | 260 | 45 | 8US1250-5AT10                  |
|   |   | <b>Side module</b> for widening busbar adapters                                       | 200 | 9  | 8US1998-2BJ10                  |
|   |   | <b>Spacer</b> for fixing the feeder onto the busbar adapter                           |     |    | 8US1998-1BA10                  |
|   |   | Vibration and shock kit<br>for increased vibration and<br>shock loads<br>S00/S0<br>S2 |     |    | 8US1998-1CA10<br>8US1998-1DA10 |

## Accessories for 3RV2 motor starter protectors (S00–S3)



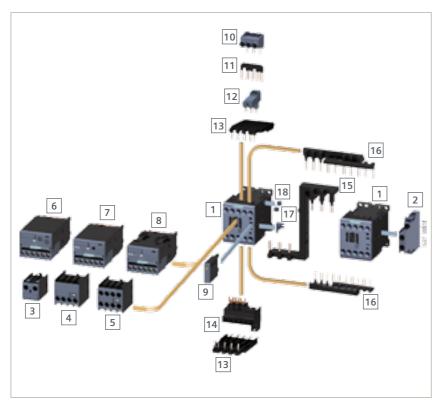
|   | Туре  | Version           | Article No.<br>screw<br>terminals | Article No.<br>spring-loaded<br>terminals |
|---|---|-------------------|-----------------------------------|---|
|   | Accessories for 3RV motor starter prot                          | ectors sizes S00, | S0, S2                            |   |
|   | Auxiliary and signaling switches                                |                   |                                   |   |
|   |   | 1CO               | 3RV2901-1D                        | -   |
| 1 | Transverse auxiliary switch                                     | 1NO + 1NC         | 3RV2901-1E                        | 3RV2901-2E                                |
|   |   | 2NO               | 3RV2901-1F                        | 3RV2901-2F                                |
| 1 | Solid-state-compatible auxiliary switch                         | 1CO               | 3RV2901-1G                        | -   |
|   |   | 1NO + 1NC         | 3RV2901-1A                        | 3RV2901-2A                                |
| 2 | Lateral auxiliary switch with 2 contacts                        | 2NO               | 3RV2901-1B                        | 3RV2901-2B                                |
|   |   | 2NC               | 3RV2901-1C                        | 3RV2901-2C                                |
| 3 | Lateral auxiliary switch with 4 contacts                        | 2NO + 2NC         | 3RV2901-1J                        | -   |
| 6 | Signaling switch  |                   | 3RV2921-1M                        | 3RV2921-2M                                |
|   | Auxiliary releases  |                   |                                   |   |
| 4 | Shunt release <sup>1)</sup>                                     | 20 – 70 V AC/DC   | 3RV2902-1DB0                      | 3RV2902-2DB0                              |
| 4 |   | 210 – 240 V AC    | 3RV2902-1DP0                      | 3RV2902-2DP0                              |
| _ | Undervoltage release1)  | 230 V AC          | 3RV2902-1AP0                      | 3RV2902-2AP0                              |
| 5 |   | 400 V AC          | 3RV2902-1AV0                      | 3RV2902-2AV0                              |
|   |   | 230 V AC          | 3RV2922-1CP0                      | 3RV2922-2CP0                              |
| 5 | Undervoltage release with leading auxiliary contacts            | 400 V AC          | 3RV2922-1CV0                      | 3RV2922-2CV0                              |
|   | leading auxiliary contacts                                      | 415 V AC          | 3RV2922-1CV1                      | 3RV2922-2CV1                              |
|   | Isolator module and terminal blocks                             |                   |                                   |   |
| _ | Lee Letter and a lee  | S00, S0           | 3RV2928-1A                        | -   |
| 7 | Isolator module   | S2                | 3RV2938-1A                        | -   |
| 8 | Terminal block type E<br>f. incr. clearances/creepage distances | S00, S0           | 3RV2928-1H                        | -   |
| 8 | Phase barriers  | S00, S0           | 3RV2928-1K                        | -   |
| 8 | f. incr. clearances/creepage distances                          | S2                | 3RV2938-1K                        | _   |



| Туре   | Version | Article No.   |
|--|---------|---------------|
| Door-coupling rotary operating mechanisms  |         |               |
| Door-coupling rotary operating mech. (black) with extension shaft <sup>2)</sup>  | 130 mm  | 3RV2926-0B    |
| Door-coupling rotary operating mech. (black) with extension shaft  | 330 mm  | 3RV2926-0K    |
| EMERGENCY-STOP door-cpl. rot. oper. mech. (red/yellow) w. ext. shaft <sup>2)</sup>   | 130 mm  | 3RV2926-0C    |
| EMERGENCY-STOP door-cpl. rot. oper. mech. (red/yellow) w. ext. shaft   | 330 mm  | 3RV2926-0L    |
| Molded-plastic enclosures for surface mounting   |         |               |
| For motor starter protector (+ lateral auxiliary switch) S00, S0   | 54 mm   | 3RV1923-1CA00 |
| For motor starter protector (+ lateral aux. switch + auxiliary release) S00, S0  | 72 mm   | 3RV1923-1DA00 |
| For motor starter protector (+ lateral auxiliary switch + auxiliary release) S2  | 82 mm   | 3RV1933-1DA00 |
| Molded-plastic enclosure for surface mounting with EMERGENCY-STOP door-cpl. rot. op. mech. f. MSP (+ lateral aux. switch) S00, S0              | 54 mm   | 3RV1923-1FA00 |
| Molded-plastic enclosure for surface mounting w. EMERGENCY-STOP door-cpl. rot. op. mech. f. MSP (+ lateral aux. switch + aux. release) S00, S0 | 72 mm   | 3RV1923-1GA00 |
| Molded-plastic enclosure for surface mounting w. EMERGENCY-STOP door-cpl. rot. oper. mech. f. MSP (+ lateral aux. switch + aux. release) S2    | 82 mm   | 3RV1933-1GA00 |

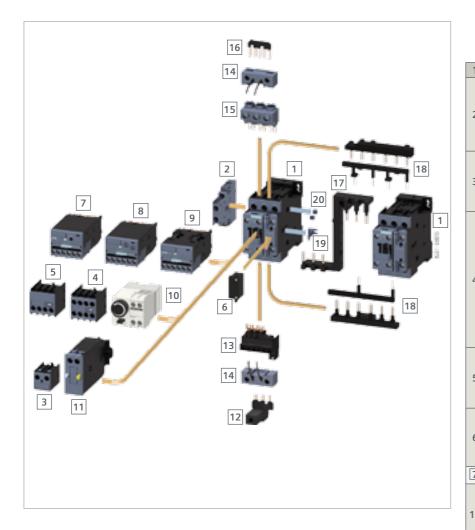
<sup>1)</sup> Other versions on request 2) The operating mechanism is also suitable for 3RA6 compact starters

### Accessories for 3RT201 contactors (S00)



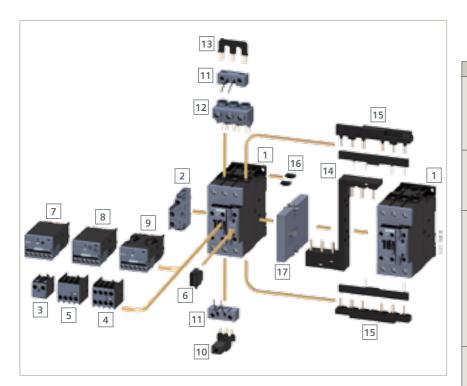
|     |  |                               | Article No.<br>screw | Article No.<br>spring-loaded |
|-----|--|-------------------------------|----------------------|------------------------------|
|     | Fitting of auxiliary switches on the front for                           | Version                       | terminals            | terminals                    |
| 1   | 3RT2 contactors  | Standard                      |                      |                              |
|     |  | 2NO                           | 3RH2911-1DA20        | 3RH2911-2DA20                |
|     | Laterally mountable auxiliary switch blocks                              | 1NO + 1NC                     | 3RH2911-1DA11        | 3RH2911-2DA11                |
|     |  | 2NC                           | 3RH2911-1DA02        | 3RH2911-2DA02                |
| 2   | Solid-state-compatible auxiliary switch block laterally mountable, right | 1NO + 1NC                     | _                    | 3RH2911-2DE11                |
|     | Solder pin adapter for contactors with 4-pole auxiliary switch block     | For 4 contactors (package)    | 3RT1916-4KA2         | _                            |
|     | 1-pole auxiliary switch block,   | 1NO                           | 3RH2911-1AA10        | -                            |
| 3   | cable entry from above   | 1NC                           | 3RH2911-1AA01        | -                            |
| 3   | 1-pole auxiliary switch block,   | 1NO                           | 3RH2911-1BA10        | -                            |
|     | cable entry from below   | 1NC                           | 3RH2911-1BA01        | -                            |
|     | 2-pole auxiliary switch block,   | 1NO + 1NC                     | 3RH2911-1LA11        | -                            |
| 4   | cable entry from above   | 2NO                           | 3RH2911-1LA20        | -                            |
| 4   | 2-pole auxiliary switch block,   | 1NO + 1NC                     | 3RH2911-1MA11        | -                            |
|     | cable entry from below   | 2NO                           | 3RH2911-1MA20        | -                            |
|     |  | 1NC                           | 3RH2911-1HA01        | 3RH2911-2HA01                |
|     | 1 to 4 note a william a witch block                                      | 2NC                           | 3RH2911-1HA02        | 3RH2911-2HA02                |
|     |  | 1NO + 1NC                     | 3RH2911-1HA11        | 3RH2911-2HA11                |
|     | 1- to 4-pole auxiliary switch block                                      | 2NO + 2NC                     | 3RH2911-1HA22        | 3RH2911-2HA22                |
| 5   |  | 1NO                           | 3RH2911-1HA10        | 3RH2911-2HA10                |
|     |  | 2NO                           | 3RH2911-1HA20        | 3RH2911-2HA20                |
|     |  | 1NO + 1NC                     | 3RH2911-1NF11        | 3RH2911-2NF11                |
|     | Solid-state-compatible auxiliary switch blocks 2-pole                    | 2NO                           | 3RH2911-1NF20        | 3RH2911-2NF20                |
|     | Z-pole   | 2NC                           | 3RH2911-1NF02        | 3RH2911-2NF02                |
| 6   | 7 8 Function modules for mounting on contact                             | ors and for connecting        | to the automation    | level                        |
|     | Surge suppressor, e.g. varistor  |                               |                      |                              |
| 9   | Without LED  | 127 – 240 V AC                | 3RT2916-1BD00        | 3RT2916-1BD00                |
|     | With LED   | 127 – 240 V AC                | 3RT2916-1JL00        | 3RT2916-1JL00                |
| 10  | 3-phase infeed terminal  | Conductor cross section: 6 mm | 3RA2913-3K           | -                            |
| 11  | Neutral bridge, 3-pole   | -                             | 3RT1916-4BA31        | 3RT2916-4BA32                |
| 12  | Parallel connector, 3-pole   | For main circuits             | 3RT1916-4BB31        | -                            |
| 13  | Solder pin adapter for contactors  | For 4 contactors (package)    | 3RT1916-4KA1         | -                            |
| 14  | Terminal module  | Adapter                       | 3RT1916-4RD01        | -                            |
| 14  | for contactor with screw terminals                                       | Plug                          | 3RT1900-4RE01        | -                            |
|     | Safety main circuit connector  | -                             | 3RA2916-1A           | -                            |
| 16- | -18 Wiring kit   | -                             | 3RA2913-2AA1         | 3RA2913-2AA2                 |

Accessories for 3RT202 contactors (S0)



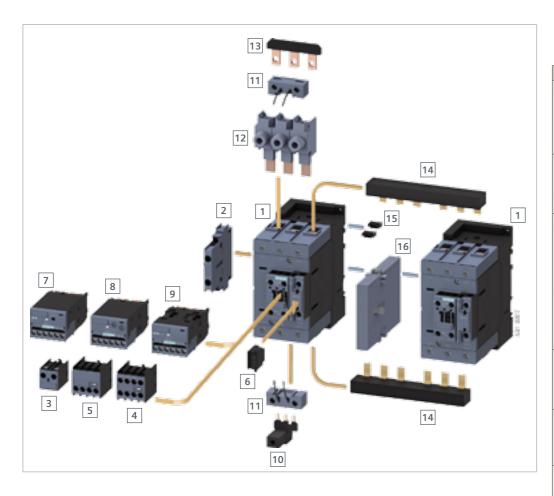
|     | Fitting of auxiliary switches on the front for   | Version                               | Article No.<br>screw<br>terminals | Article No.<br>spring-loaded<br>terminals |
|-----|--|---------------------------------------|-----------------------------------|---|
| 1   | 3RT2 contactors  | Standard                              |                                   |   |
|     |  | 2NO                                   | 3RH2921-1DA20                     | 3RH2921-2DA20                             |
|     | Laterally mountable auxiliary switch blocks  | 1NO + 1NC                             | 3RH2921-1DA11                     | 3RH2921-2DA11                             |
| 2   | auxiliary switch blocks  | 2NC                                   | 3RH2921-1DA02                     | 3RH2921-2DA02                             |
|     | Solid-state-compatible auxiliary switch block, laterally mountable   | 1NO + 1NC                             | _                                 | 3RH2921-2DE11                             |
|     | 1-pole auxiliary switch block,   | 1NO                                   | 3RH2911-1AA10                     | _   |
| 3   | cable entry from above   | 1NC                                   | 3RH2911-1AA01                     | _   |
| 3   | 1-pole auxiliary switch block,   | 1NO                                   | 3RH2911-1BA10                     | _   |
|     | cable entry from below   | 1NC                                   | 3RH2911-1BA01                     | _   |
|     |  | 1NC                                   | 3RH2911-1HA01                     | 3RH2911-2HA01                             |
|     |  | 2NC                                   | 3RH2911-1HA02                     | 3RH2911-2HA02                             |
|     | 1- to 4-pole auxiliary   | 1NO + 1NC                             | 3RH2911-1HA11                     | 3RH2911-2HA11                             |
|     | switch block   | 2NO + 2NC                             | 3RH2911-1HA22                     | 3RH2911-2HA22                             |
| 4   |  | 1NO                                   | 3RH2911-1HA10                     | 3RH2911-2HA10                             |
|     |  | 2NO                                   | 3RH2911-1HA20                     | 3RH2911-2HA20                             |
|     |  | 1NO + 1NC                             | 3RH2911-1NF11                     | 3RH2911-2NF11                             |
|     | Solid-state-compatible auxiliary   | 2NO                                   | 3RH2911-1NF20                     | 3RH2911-2NF20                             |
|     | switch blocks 2-pole   | 2NC                                   | 3RH2911-1NF02                     | 3RH2911-2NF02                             |
|     | 2-pole auxiliary switch block,   | 1NO + 1NC                             | 3RH2911-1LA11                     | _   |
| 5   | cable entry from above   | 2NO                                   | 3RH2911-1LA20                     | _   |
|     | 2-pole auxiliary switch block,   | 1NO + 1NC                             | 3RH2911-1MA11                     |   |
|     | cable entry from below   | 2NO                                   | 3RH2911-1MA20                     |   |
| 6   | Surge suppressor,<br>e.g. varistor   |                                       |                                   |   |
| ٥   | Without LED  | 127 – 240 V AC                        | 3RT2926-1BD00                     | 3RT2926-1BD00                             |
|     | With LED   | 127 – 240 V AC                        | 3RT2926-1JL00                     | 3RT2926-1JL00                             |
| 7   | 8 9 Function modules for moun  | ting on contactors and for connecting | to the automation                 | level                                     |
|     | Danis de la constante de la co | ON-delay, 0.1 – 30 s                  | 3RT2926-2PA01                     | _   |
| 10  | Pneumatic<br>delay block   | ON-delay, 1 – 60 s                    | 3RT2926-2PA11                     | _   |
| 10  | 1NO + 1NC  | OFF-delay, 0.1 – 30 s                 | 3RT2926-2PR01                     | _   |
|     |  | OFF-delay, 1 – 60 s                   | 3RT2926-2PR11                     | _   |
| 11  | Mechanical latch   | 230 V AC/DC                           | 3RT2926-3AP31                     | 3RT2926-3AP31                             |
| 12  | Parallel connector, 3-pole   | For main circuits                     | 3RT2926-4BB31                     | _   |
|     | Terminal module  | Adapter                               | 3RT1926-4RD01                     | _   |
| 13  | for contactor with screw terminals   | Plug                                  | 3RT1900-4RE01                     |   |
|     |  | Connection from above                 | 3RT2926-4RA11                     | 3RT2926-4RA12                             |
| 14  | Coil terminal module   | Connection from below                 | 3RT2926-4RB11                     | 3RT2926-4RB12                             |
|     |  | Connection diagonally                 | 3RT2926-4RC11                     | 3RT2926-4RC12                             |
| 15  | 3-phase infeed terminal  | -                                     | 3RV2925-5AB                       | -   |
| 16  | Neutral bridge, 3-pole   | -                                     | 3RT1926-4BA31                     | 3RT2926-4BA32                             |
| 17  | Safety main circuit connector  | For series switching of 2 contactors  | 3RA2926-1A                        | -   |
| 18- | -20 Wiring kit   | For reversing combinations            | 3RA2923-2AA1                      | 3RA2923-2AA2                              |

### Accessories for 3RT203 contactors (S2)



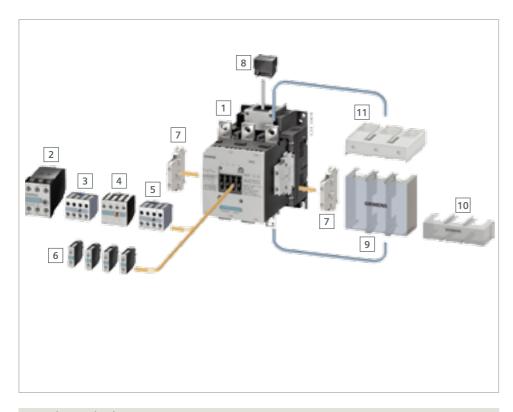
|          | Fitting of auxiliary switches on the front for                     | Version                                | Article No.<br>screw<br>terminals | Article No.<br>spring-loaded<br>terminals |
|----------|--|--|-----------------------------------|---|
| 1        | 3RT2 contactors  | Standard                               |                                   |   |
|          | Laterally mountable  | 2NO                                    | 3RH2921-1DA20                     | 3RH2921-2DA20                             |
|          | auxiliary switch blocks  | 1NO + 1NC                              | 3RH2921-1DA11                     | 3RH2921-2DA11                             |
| 2        |  | 2NC                                    | 3RH2921-1DA02                     | 3RH2921-2DA02                             |
|          | Solid-state-compatible auxiliary switch block, laterally mountable | 1NO + 1NC                              | _                                 | 3RH2921-2DE11                             |
| 3        | 1-pole auxiliary switch block,                                     | 1NO                                    | 3RH2911-1AA10                     | _   |
|          | cable entry from above   | 1NC                                    | 3RH2911-1AA01                     | _   |
|          | 1-pole auxiliary switch block,                                     | 1NO                                    | 3RH2911-1BA10                     | _   |
|          | cable entry from below   | 1NC                                    | 3RH2911-1BA01                     | _   |
|          |  | 1NC                                    | 3RH2911-1HA01                     | 3RH2911-2HA01                             |
|          |  | 2NC                                    | 3RH2911-1HA02                     | 3RH2911-2HA02                             |
|          | 1- to 4-pole auxiliary switch block                                | 1NO + 1NC                              | 3RH2911-1HA11                     | 3RH2911-2HA11                             |
|          | 1- to 4-pole auxiliary switch block                                | 2NO + 2NC                              | 3RH2911-1HA22                     | 3RH2911-2HA22                             |
| 4        |  | 1NO                                    | 3RH2911-1HA10                     | 3RH2911-2HA10                             |
|          |  | 2NO                                    | 3RH2911-1HA20                     | 3RH2911-2HA20                             |
|          | Solid-state-compatible auxiliary                                   | 1NO + 1NC                              | 3RH2911-1NF11                     | 3RH2911-2NF11                             |
|          | switch 2-pole  | 2NO                                    | 3RH2911-1NF20                     | 3RH2911-2NF20                             |
|          | Switch 2 pole  | 2NC                                    | 3RH2911-1NF02                     | 3RH2911-2NF02                             |
|          | 2-pole auxiliary switch block,                                     | 1NO + 1NC                              | 3RH2911-1LA11                     | _   |
| 5        | cable entry from above   | 2NO                                    | 3RH2911-1LA20                     | _   |
| ,        | 2-pole auxiliary switch block,                                     | 1NO + 1NC                              | 3RH2911-1MA11                     |   |
|          | cable entry from below   | 2NO                                    | 3RH2911-1MA20                     |   |
|          | Surge suppressor,<br>e.g. varistor (230 V AC)                      | 127 – 240 V AC                         |                                   |   |
| 6        | Without LED  |  | 3RT2936-1BD00                     | 3RT2936-1BD00                             |
|          | With LED   | 127 – 240 V AC                         | 3RT2936-1JL00                     | 3RT2936-1JL00                             |
| 7        | 8 9 Function modules for mour                                      | nting on contactors and for connecting | g to the automation               | level                                     |
| 10       | Parallel connector, 3-pole   | For main circuits                      | 3RT1936-4BB31                     | -   |
|          |  | Connection from above                  | 3RT2926-4RA11                     | _   |
| 11       | Coil terminal module   | Connection from below                  | 3RT2926-4RB11                     | _   |
|          |  | Connection diagonally                  | 3RT2926-4RC11                     | _   |
| 12       | 3-phase infeed terminal  | _                                      | 3RV2935-5A                        | _   |
| 13       | Neutral bridge, 3-pole   | _                                      | 3RT1936-4BA31                     | _   |
| 14       | Safety main circuit connector                                      | For series switching of 2 contactors   | 3RA2936-1A                        | _   |
| 15<br>16 | Wiring kit   | For reversing combinations             | 3RA2933-2AA1                      | _   |
| 17       | Mechanical interlock   | _                                      | 3RA2934-2B                        | 3RA2934-2B                                |

Accessories for 3RT2 contactors (S3)

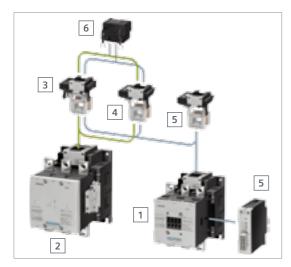


|  | Autista Na   |                            |                 |                              |  |
|--|--|----------------------------|-----------------|------------------------------|--|
|  | Fitting of auxiliary switches                                      | Version                    | Article No.     | Article No.<br>spring-loaded |  |
|  | on the front for   | 7 3 3 3 3 3 3              | screw terminals | terminals                    |  |
| 1  | 3RT2 contactors  | Standard                   |                 |                              |  |
| 2  | Laterally mountable auxiliary switch blocks                        | 2NO                        | 3RH2921-1DA20   | 3RH2921-2DA20                |  |
|  |  | 1NO + 1NC                  | 3RH2921-1DA11   | 3RH2921-2DA11                |  |
|  | SWITCH DIOCKS  | 2NC                        | 3RH2921-1DA02   | 3RH2921-2DA02                |  |
|  | Solid-state-compatible auxiliary switch block, laterally mountable | 1NO + 1NC                  | _               | 3RH2921-2DE11                |  |
|  | 1-pole auxiliary switch block,                                     | 1NO                        | 3RH2911-1AA10   | _                            |  |
| 3  | cable entry from above   | 1NC                        | 3RH2911-1AA01   | _                            |  |
| 3  | 1-pole auxiliary switch block,                                     | 1NO                        | 3RH2911-1BA10   | _                            |  |
|  | cable entry from below   | 1NC                        | 3RH2911-1BA01   | _                            |  |
|  |  | 1NC                        | 3RH2911-1HA01   | 3RH2911-2HA01                |  |
|  |  | 2NC                        | 3RH2911-1HA02   | 3RH2911-2HA02                |  |
|  | 1- to 4-pole auxiliary switch                                      | 1NO + 1NC                  | 3RH2911-1HA11   | 3RH2911-2HA11                |  |
|  | block  | 2NO + 2NC                  | 3RH2911-1HA22   | 3RH2911-2HA22                |  |
| 4  |  | 1NO                        | 3RH2911-1HA10   | 3RH2911-2HA10                |  |
|  |  | 2NO                        | 3RH2911-1HA20   | 3RH2911-2HA20                |  |
|  |  | 1NO + 1NC                  | 3RH2911-1NF11   | 3RH2911-2NF11                |  |
|  | Solid-state-compatible auxiliary                                   | 2NO                        | 3RH2911-1NF20   | 3RH2911-2NF20                |  |
|  | switch blocks, 2-pole  | 2NC                        | 3RH2911-1NF02   | 3RH2911-2NF02                |  |
|  | 2-pole auxiliary switch block,                                     | 1NO + 1NC                  | 3RH2911-1LA11   | _                            |  |
| _  | cable entry from above   | 2NO                        | 3RH2911-1LA20   | _                            |  |
| 5  | 2-pole auxiliary switch block,                                     | 1NO + 1NC                  | 3RH2911-1MA11   | _                            |  |
|  | cable entry from above   | 2NO                        | 3RH2911-1MA20   | _                            |  |
|  | Surge suppressor,  |                            |                 |                              |  |
| 6  | e.g. varistor (230 V AC)   |                            |                 |                              |  |
| 0  | Without LED  | 127 – 240 V AC             | 3RT2936-1BD00   | 3RT2936-1BD00                |  |
|  | With LED   | 127 – 240 V AC             | 3RT2936-1JL00   | 3RT2936-1JL00                |  |
| 7 8 9 Function modules for mounting on contactors and for connecting to the automation level |  |                            |                 |                              |  |
| 10   | Parallel connector, 3-pole   | For main circuits          | 3RT1946-4BB31   | _                            |  |
|  | Coil terminal module   | Connection from above      | 3RT2926-4RA11   | _                            |  |
| 11   |  | Connection from below      | 3RT2926-4RB11   | _                            |  |
|  |  | Connection diagonally      | 3RT2926-4RC11   | -                            |  |
| 12   | 1-phase infeed terminal (3 units)                                  |                            | 3RA2943-3L      | _                            |  |
| 13   | Neutral bridge, 3-pole   |                            | 3RT1946-4BA31   | -                            |  |
| 14<br>15   | Wiring modules   | For reversing combinations | 3RA2943-2AA1    | -                            |  |
| 16   | Mechanical interlock   |                            | 3RA2934-2B      | 3RA2934-2B                   |  |

## Accessories for 3RT1 contactors (S6 – S12)



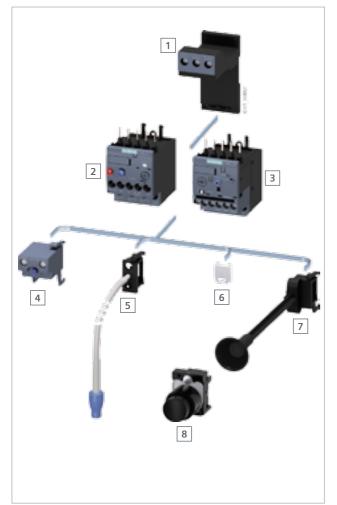
#### Operating mechanism types



| _ |   |  |
|---|---|--|
|   | 1 | 3RT10 and 3RT14 air-break              |
|   |   | contactor,                             |
|   |   | sizes S6, S10 and S12                  |
|   | 2 | 3RT12 vacuum contactor,                |
|   |   | sizes S10 and S12                      |
|   | 3 | Withdrawable coils for contactors with |
|   | 5 | 3RT1A conventional op. mech.           |
|   |   | Withdrawable coils for contactors with |
|   | 4 | 3RT1N electronic op. mech.             |
|   | 5 | Withdrawable coils and lateral         |
|   |   | mounting module (snap-on) for          |
|   |   | 3RT1P contactors w. el. oper.          |
|   |   | mech. and remaining lifetime signal    |
|   | 6 | RC element, 127 – 240 V AC             |
|   | 6 | RC element, 127 – 240 V AC             |

|    | Туре  | Version       | Article No.        |  |
|----|---|---------------|--------------------|--|
| 1  | 3RT1 contactors   | Standard      |                    |  |
| 2  | 2-pole auxiliary switch block, lateral                          | 1NO + 1NC     |                    |  |
|    | – ON-delay, 200 – 240 V AC                                      | 0 10 s        | 3RH1926-2ED21      |  |
|    | – OFF-delay, 200 – 240 V AC                                     | 0.5 10 s      | 3RH1926-2FL21      |  |
|    | 4-pole auxiliary switch block, on front                         |               |                    |  |
| 3  | – With sequence digit 5 8                                       | 2NO + 2NC     | 3RH1921-1XA22-0MA0 |  |
|    | – With sequence digit 1 4                                       | 2NO + 2NC     | 3RH1921-1HA22      |  |
| 4  | 2-pole auxiliary switch block, on front cable entry from above  | 1NO + 1NC     | 3RH1921-1LA11      |  |
| 5  | 2-pole auxiliary switch block, on front cable entry from below  | 1NO + 1NC     | 3RH1921-1MA11      |  |
| 6  | 1-pole auxiliary switch block, on front                         | 1NO           | 3RH1921-1CA10      |  |
| 0  | (max. 4 can be snapped on)                                      | 1NC           | 3RH1921-1CA01      |  |
|    | 2-pole auxiliary switch block, lateral                          |               |                    |  |
| 7  | – 2nd block (left/right)  | 1NO + 1NC     | 3RH1921-1JA11      |  |
| /  | – 2nd block (left/right)  | 1NO + 1NC     | 3RH1921-1KA11      |  |
|    |   | 2NO           | 3RH1921-1KA20      |  |
| 8  | RC element, 127 – 240 V AC                                      |               | 3RT1956-1CD00      |  |
| 9  | Terminal cover for cable lug and busbar                         | For S6        | 3RT1956-4EA2       |  |
| 9  | connections   | For \$10/\$12 | 3RT1966-4EA2       |  |
| 10 | Terminal cover for box terminals                                | For S6        | 3RT1956-4EA2       |  |
| 10 | Terminal cover for box terminals                                | For S10/S12   | 3RT1966-4EA2       |  |
|    | Terminal cover for box terminals                                |               |                    |  |
| 11 | For round and ribbon cable conductors up to 70 mm <sup>2</sup>  | S6            | 3RT1955-4G         |  |
|    | For round and ribbon cable conductors up to 120 mm <sup>2</sup> | S6            | 3RT1956-4G         |  |
|    | For round and ribbon cable conductors up to 240 mm <sup>2</sup> | S10/S12       | 3RT1966-4G         |  |

|   | Size | Three-phase<br>motor<br>400 V | Contactor<br>without coil | Withdrawable coil for op. mech. |                   |  |
|---|------|-------------------------------|---------------------------|---------------------------------|-------------------|--|
|   |      |                               |                           | Conventional                    | Electronic        |  |
|   |      |                               |                           | Control supply voltage          |                   |  |
|   |      |                               |                           | 220 – 240 V AC/DC               | 200 – 277 V AC/DC |  |
|   |      | kW                            | Article No.               | Article No.                     | Article No.       |  |
| - | \$6  | 55                            | 3RT1054-1LA06             | 3RT1955-5AP31                   | 3RT1955-5NP31     |  |
|   |      | 75                            | 3RT1055-6LA06             |                                 |                   |  |
|   |      | 90                            | 3RT1056-6LA06             |                                 |                   |  |
|   | S10  | 110                           | 3RT1064-6LA06             | 3RT1965-5AP31                   | 3RT1965-5NP31     |  |
|   |      | 132                           | 3RT1065-6LA06             |                                 |                   |  |
|   |      | 160                           | 3RT1066-6LA06             |                                 |                   |  |
|   | S12  | 200                           | 3RT1075-6LA06             | 3RT1975-5AP31                   | 3RT1975-5NP31     |  |
|   |      | 250                           | 3RT1076-6LA06             |                                 |                   |  |



|   | Version  | For size | Article No.        |  |
|---|--|----------|--------------------|--|
|   | Terminal supports for stand-alone installation   |          |                    |  |
|   | Screw fastening and snap-on mounting onto TH 35 standard mounting rail   | S00      | 3RU2916-3A 🗌 01    |  |
| 1 | Screw fastening and snap-on mounting onto TH 35 standard mounting rail   | 50       | 3RU2926-3A □ 01    |  |
|   | Screw fastening and snap-on mounting onto TH 35 standard mounting rail   | S2       | 3RU2936-3AA01      |  |
|   | Screw fastening and snap-on mounting onto TH 35 standard mounting rail   | S3       | 3RU2946-3AA01      |  |
|   | Mechanical RESET comprising:   |          |                    |  |
| 4 | 24 – 30 V AC/DC  | S00 – S3 | 3RU1900-2AB71      |  |
| 4 | 110 – 127 V AC/DC  | S00 – S3 | 3RU1900-2AF71      |  |
|   | 220 – 250 V AC/DC  | S00 – S3 | 3RU1900-2AM71      |  |
|   | Cable releases with holders for RESET for drill holes Ø 6.5 mm in the control panel                              |          |                    |  |
|   | Length 400 mm  | S00 – S3 | 3RU2900-1B         |  |
| 5 | Length 400 mm  | S00 – S3 | 3RB3980-0B         |  |
|   | Length 600 mm  | S00 – S3 | 3RU2900-1C         |  |
|   | Length 600 mm  | S00 – S3 | 3RB3980-0C         |  |
|   | Sealable cover for 3RB3, 3RU2, 3RR2, transparent   |          |                    |  |
|   | For covering the setting knobs   | S00 – S3 | 3RV2908-0P         |  |
| 6 | For covering the setting knobs   | S00 – S3 | 3RB3984-0          |  |
|   | For covering the setting knobs   | S00 – S3 | 3RR2940            |  |
|   | Modules for electrical remote reset  |          |                    |  |
| 7 | Resetting plungers, holders and formers  | S00 – S3 | 3RU2900-1A         |  |
|   | Resetting plungers, holders and formers  | S00 – S3 | 3RB3980-0A         |  |
|   | Push buttons with extended stroke<br>(12 mm), IP65, Ø 22 mm  | S00 – S3 | 3SU1200-0F810-0AA0 |  |
| 8 | Extension plungers for compensation of the distance between a push button and the unlatching button of the relay | S00 – S3 | 3SU1900-0KG10-0AA0 |  |







| Can be combined with the following overload and current monitoring relays |        |      |  |  |  |
|---|--------|------|--|--|--|
| 2 3RU2  | 3 3RB3 | 3RR2 |  |  |  |
|   |        |      |  |  |  |
|   |        | -    |  |  |  |
|   |        | -    |  |  |  |
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|   |        |      |  |  |  |
|   |        |      |  |  |  |

Screw terminals: A
Spring-loaded terminals: C

# Accessories for 3RB20/21 electronic overload relays (S6 – S12)



|   | Version  | For size             | Article No.  |  |  |  |
|---|--|----------------------|--------------|--|--|--|
| 1 | 3RB20/21 electronic overload relays  |                      |              |  |  |  |
|   | Terminal covers for 3RB20/21   |                      |              |  |  |  |
|   | Cover for cable terminal lugs and bucker connections                       | S6                   | 3RT1956-4EA1 |  |  |  |
|   | Cover for cable terminal lugs and busbar connections                       | S10/S12              | 3RT1966-4EA1 |  |  |  |
| 2 | Cover for hox terminals  | S6                   | 3RT1956-4EA2 |  |  |  |
| _ | Cover for box terminals  | S10/S12              | 3RT1966-4EA2 |  |  |  |
|   | Cover for screw terminals between contactor and                            | S6                   | 3RT1956-4EA3 |  |  |  |
|   | overload relay without box terminal  | S10/S12              | 3RT1966-4EA3 |  |  |  |
|   | (1 unit required per combination)  | 310/312              | 3K11900-4EA3 |  |  |  |
|   | Box terminal block   |                      |              |  |  |  |
| 3 | For round and ribbon cable conductors up to 70 mm <sup>2</sup>             | S6                   | 3RT1955-4G   |  |  |  |
| 3 | For round and ribbon cable conductors up to 120 mm <sup>2</sup>            | S6                   | 3RT1956-4G   |  |  |  |
|   | For round and ribbon cable conductors up to 240 mm <sup>2</sup>            | S10/S12              | 3RT1966-4G   |  |  |  |
|   | Cable releases with holders for RESET and 3RB20/21                         |                      |              |  |  |  |
| 4 | for holes Ø 6.5 mm in the control panel, max. control panel thickness 8 mm |                      |              |  |  |  |
| 4 | Length 400 mm  | S6 – S12             | 3RU1900-1B   |  |  |  |
|   | Length 600 mm  | 30 - 312             | 3RU1900-1C   |  |  |  |
| 5 | Sealable cover for 3RB20/21, transparent                                   |                      |              |  |  |  |
| ) | For covering the setting knobs   | S6 – S12             | 3RB2984-0    |  |  |  |
|   | Mechanical RESET and 3RB20/21 comprising:                                  |                      |              |  |  |  |
| 6 | Resetting plungers, holders and formers                                    |                      |              |  |  |  |
| 7 | Push buttons with extended stroke (12 mm),                                 | _                    |              |  |  |  |
|   | IP65, Ø 22 mm  | S6 – S12             | 3RU1900-1A   |  |  |  |
|   | Extension plungers for compensation of the distance                        | 30 - 312 3NO 1900-1A |              |  |  |  |
|   | between a push button and the unlatching button                            |                      |              |  |  |  |
|   | of the relay   |                      |              |  |  |  |

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Product data relevant to the configured solution are available for mechanical and electrical planning, e.g. 3D models, circuit diagrams, certificates, and operating instructions. In addition, the resulting product list can also be exported to Excel, or transferred to the Siemens Industry Mall shopping cart for ordering.

The configurators are available online in the Siemens Industry Mall and offline in the CA01 Catalog. Product selection doesn't come any faster, clearer or simpler. With the CAx Download Manager, all the CAx data types required for use in all commonly used CAE and CAD systems are provided for your desired products in just four selection steps, free of charge and with daily updates. Your individual download package is then available to you for further use as a zip file.

This means time savings of up to 80% when integrating your product data into your CAE and CAD system.

In accordance with directives, the documentation is part of the system and requires certification, giving the purchaser the right to full plant documentation.

To support you in this, a manual configurator has been developed with which you can implement individualized and standard-compliant documentation – fully in accordance with the relevant project-specific requirements.

You can thus select the chapters relevant to the respective product from the available manuals of the installed Siemens components. FAQs, certificates, data sheets, and your own content, can also be integrated. This means the documentation is perfectly tailored to individual needs, and consequently, the information is easier to locate.

Whether you need help with implementing your project, or you want to expand your plant, or plan a new one:
With Siemens Industry Online Support, you receive 24/7 technical support as well as access to all the necessary product information and data.

The one-time registration process is free. Then you can use the full range of functions, and profit from the helpful online functions in mySupport.

Questions and requests regarding all aspects of planning and design can also be discussed with our experts in the Online Forum.

Subject to changes and errors. The information given in this document only contains general descriptions and/or performance features which may not always specifically reflect those described, or which may undergo modification in the course of further development of the products. The requested performance features are binding only when they are expressly agreed upon in the concluded contract.

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