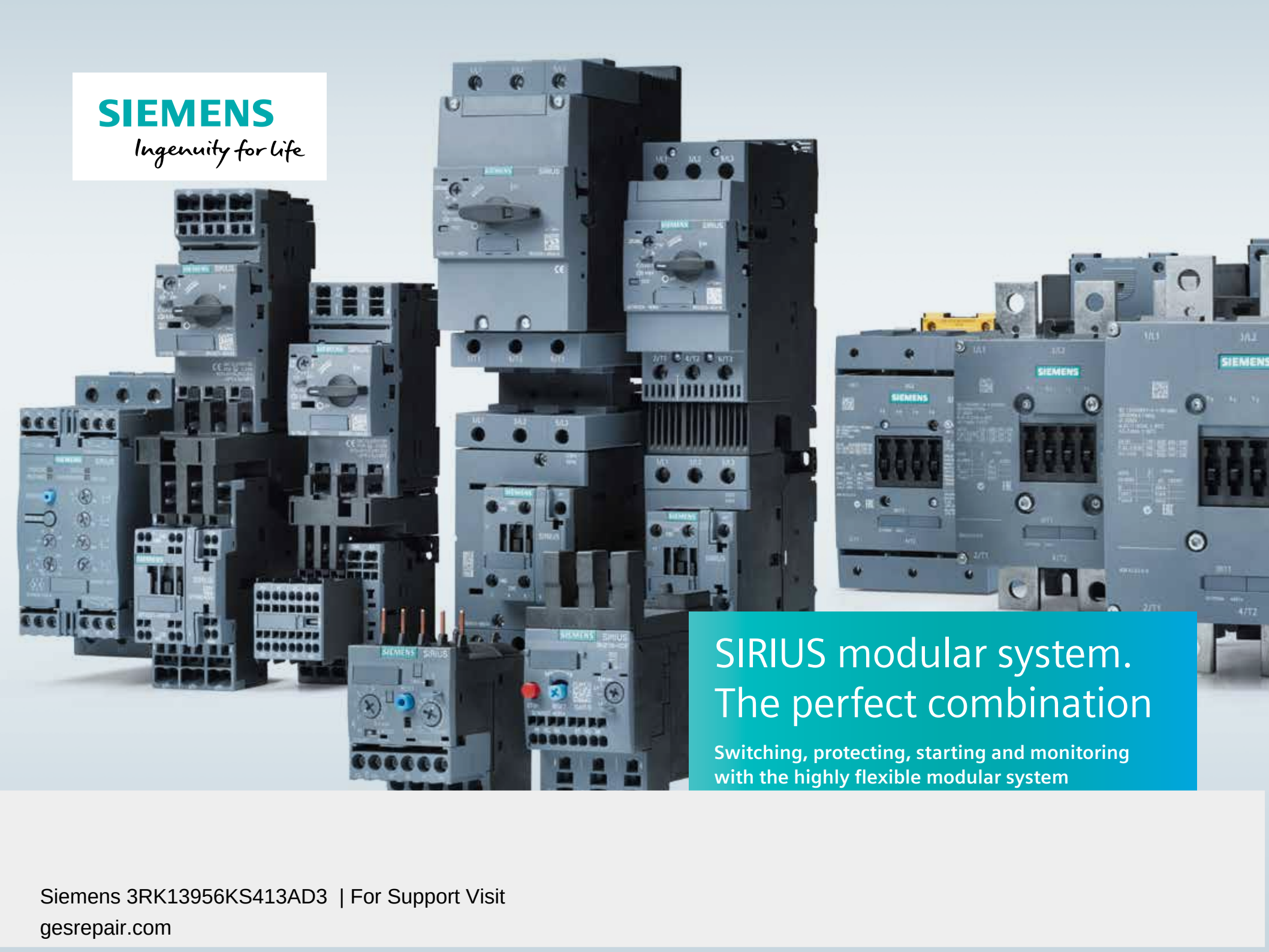


A collection of Siemens SIRIUS modular components, including circuit breakers, fuses, and terminal blocks, arranged in a cluster. The components are dark grey with blue and white accents. The Siemens logo is visible on several units.

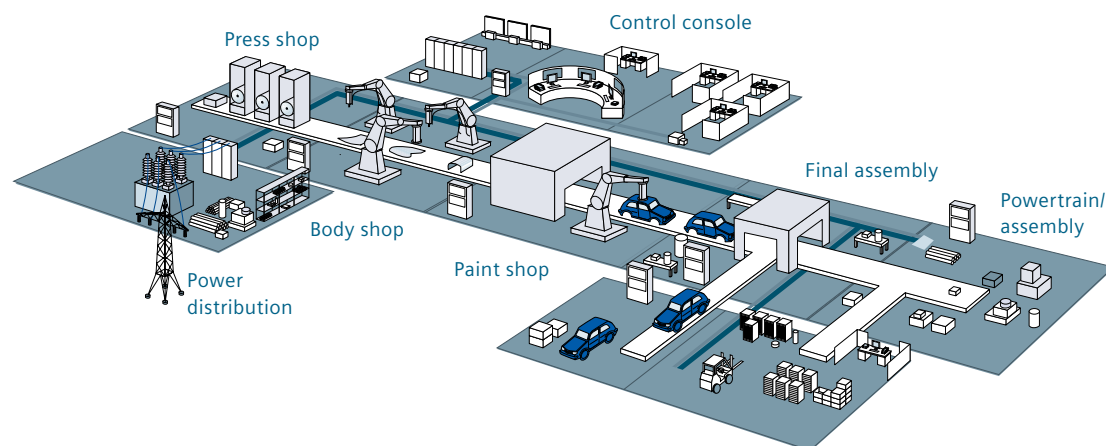
SIEMENS

Ingenuity for life

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.

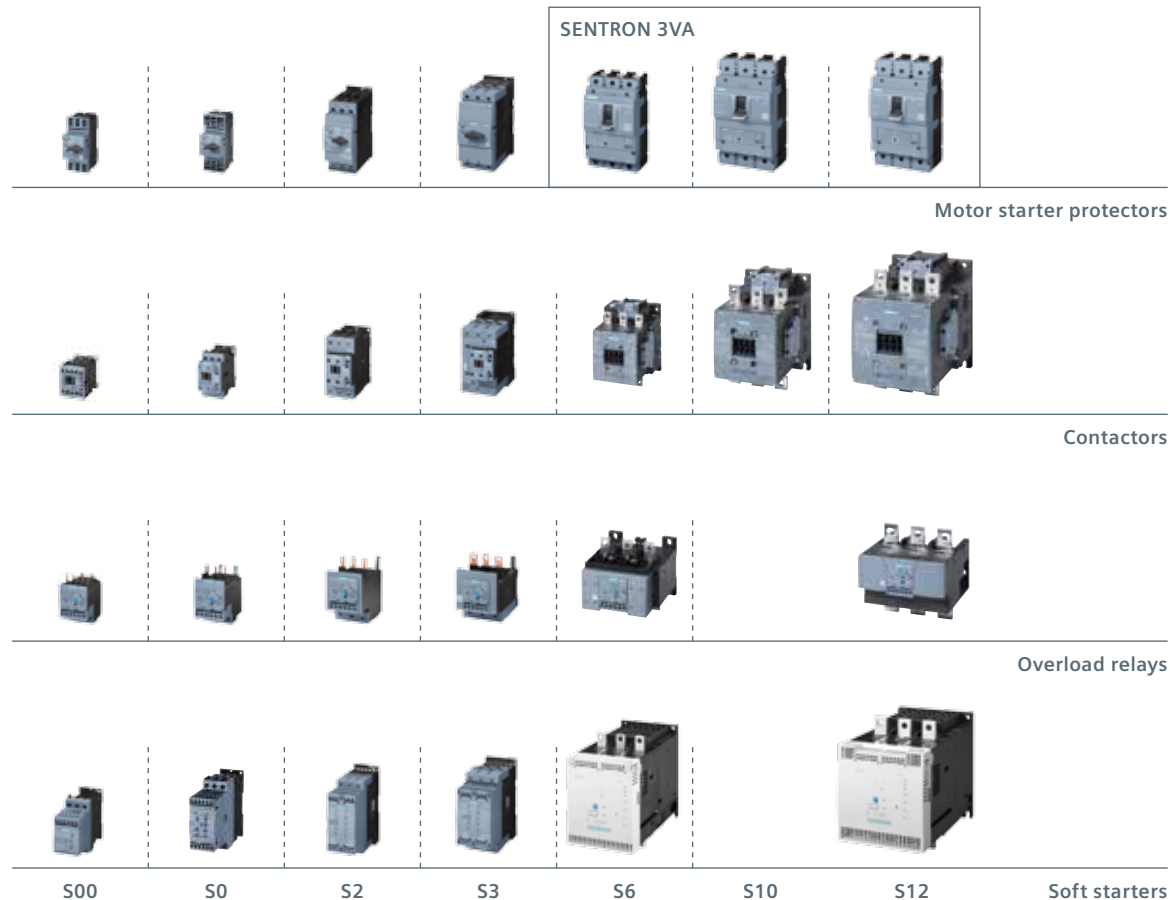
Everything. Really easy. With SIRIUS.

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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 iAx 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 inverse-time-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 S00, S0 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 spring-loaded terminals



Faster wiring thanks to integrated spring-loaded terminals

All products with 45-mm widths (S00- and 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 guarantees 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 screw 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 and reversing starters up to 15 kW – the right starter combination for all motors – both for standard rail mounting and with 60 mm standard mounting rail adapters.
- Reversing contactor assemblies up to 55 kW – the appropriate combination for reversing duty – for fast rotation direction changes of motors
- 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 modular system

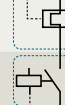
Configuration Manual "Configuring the SIRIUS Modular System – Selection Data for Fuseless and Fused Load Feeders"

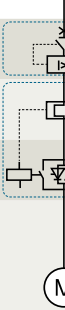
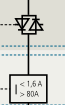
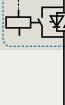
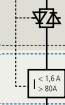
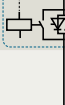
Configuration instructions for IE3 and IE4 motors

Application manual for SIRIUS switching devices with IE3 and IE4 motors

Combination of switching devices and protective devices

8

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 protector for starter protection, contactor and overload relay	Compact starter	Motor starter protector for motor protection, contactor and current monitoring relay	Motor starter protector for motor protection with relay function, contactor and current monitoring relay
Short circuit							
Overload							
Switching							
Monitoring							
	Fused	Fuseless					

Solid-state switching devices	Mot. starter protector for motor protection, solid-state switching device (soft starter or solid-state contactor) and curr. monit. relay	Fuse and soft starter	Fuse, solid-state switching device and current monitoring relay	Motor starter protector for motor protection and solid-state switching device (soft starter or solid-state contactor)	Motor starter protector for motor protection, 3RM1 motor starter
Short circuit					
Overload					
Switching					
Monitoring					
	Fuseless	Fused		Fuseless	

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.

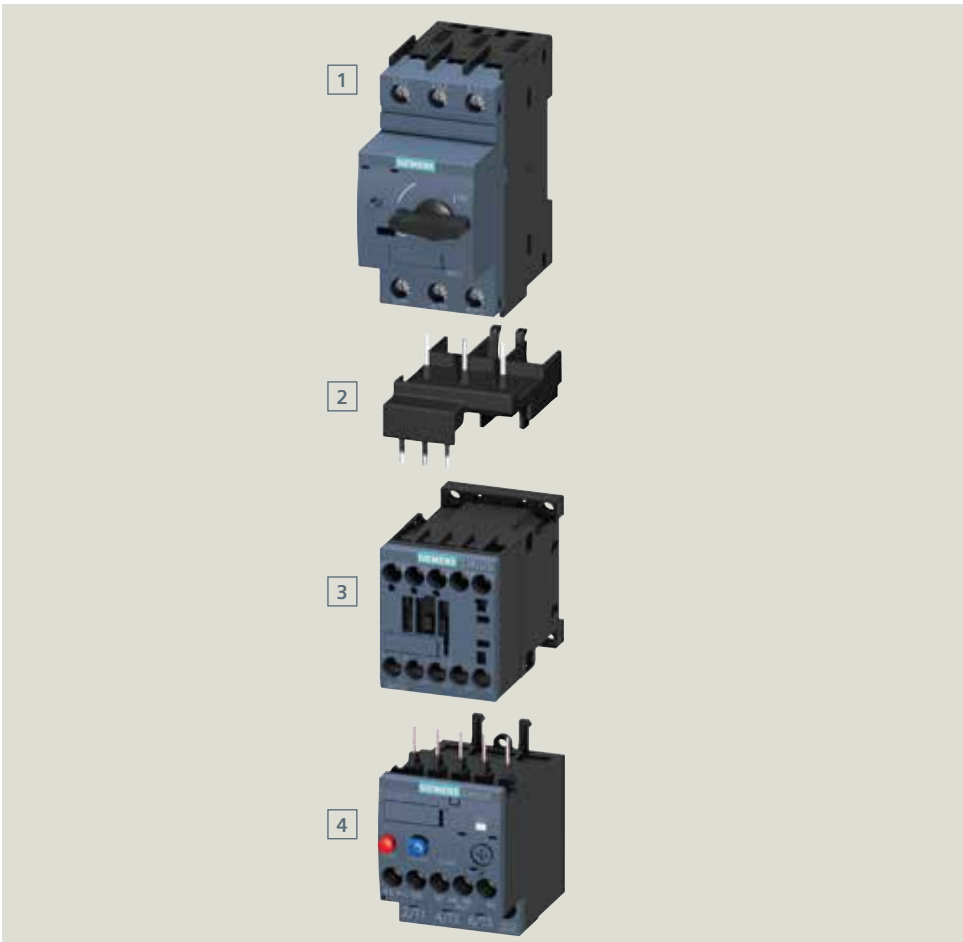
These diverse combination options provide you with the most effortless solution to implement your individual control cabinets – simply perfectly tailored to your application.

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 mm²
- 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

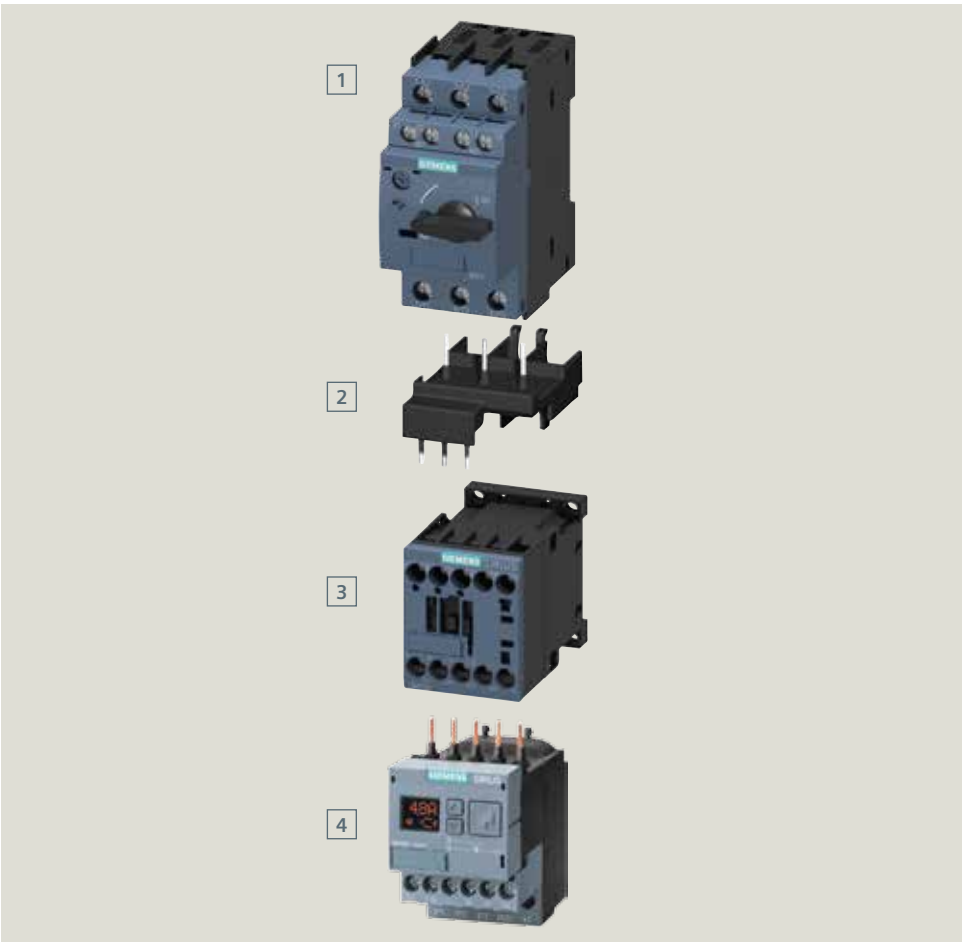
Fuseless assembly
Assembly up to 7.5 kW (S00)

Motor starter protector for starter protection, contactor with overload relay



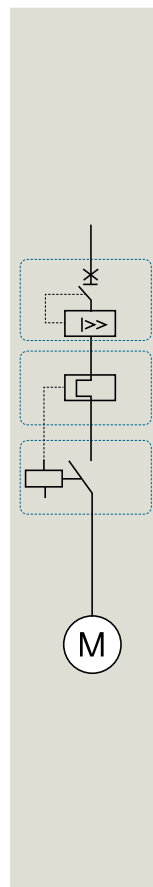
	Type	Screw terminals	Spring-loaded terminals
1	Motor starter protector	3RV2311-□□□1□	3RV2311-□□□2□
2	Link module	3RA1921-1DA00	3RA2911-2AA00
3	Contactor (AC/DC)	3RT201□-1□□□□	3RT201□-2□□□□
4	Overload relay	3RU2116-□□□B0 or 3RB3□1□-□□□B0	3RU2116-□□□C0 3RB3016-□□□E0

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



	Type	Screw terminals	Spring-loaded terminals
1	Motor starter protector	3RV2011-□□□1□	3RV2011-□□□2□
2	Link module	3RA1921-1DA00	3RA2911-2AA00
3	Contactor (AC/DC)	3RT201□-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



Standard
three-phase
motor 4-pole
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



MSPs for starter protection

MSP rated current [A]	Article No.
0.16	3RV2311-0AC□0
0.2	3RV2311-0BC□0
0.25	3RV2311-0CC□0
0.32	3RV2311-0DC□0
0.4	3RV2311-0EC□0
0.5	3RV2311-0FC□0
0.63	3RV2311-0GC□0
0.8	3RV2311-0HC□0
1	3RV2311-0JC□0
1.25	3RV2311-0KC□0
1.6	3RV2311-1AC□0
2	3RV2311-1BC□0
2.5	3RV2311-1CC□0
3.2	3RV2311-1DC□0
4	3RV2311-1EC□0
5	3RV2311-1FC□0
6.3	3RV2311-1GC□0
8	3RV2311-1HC□0
10	3RV2311-1JC□0
12.5	3RV2311-1KC□0
16	3RV2311-4AC□0

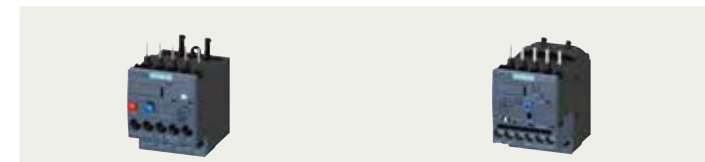
Screw terminals: ①
Spring-loaded terminals: ②



Contactors (aux. contacts 1NO or 1NC integrated)

Rated operational current [A]	Article No. 24 V DC	Article No. 230 V AC, 50/60 Hz
7	3RT2015-□BB4□	3RT2015-□AP0□
9	3RT2016-□BB4□	3RT2016-□AP0□
12	3RT2017-□BB4□	3RT2017-□AP0□
16	3RT2018-□BB4□	3RT2018-□AP0□

Screw terminals: ① 1NO: ①
Spring-loaded terminals: ② 1NC: ②

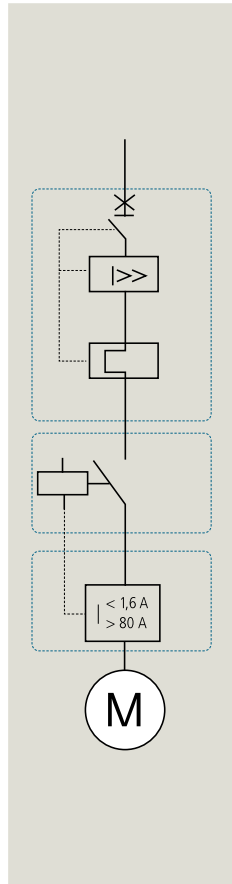


Overload relays

Setting range [A]	Article No. thermal overload relay CLASS 10	Setting range [A]	Article No. electronic overload relay CLASS 10E
0.11 – 0.16	3RU2116-0A □0	0.1 – 0.4	3RB3016-1R □0
0.14 – 0.2	3RU2116-0B □0	0.32 – 1.25	3RB3016-1N □0
0.18 – 0.25	3RU2116-0C □0	1 – 4	3RB3016-1P □0
0.22 – 0.32	3RU2116-0D □0	3 – 12	3RB3016-1S □0
0.28 – 0.4	3RU2116-0E □0	4 – 16	3RB3016-1T □0
0.35 – 0.5	3RU2116-0F □0		
0.45 – 0.63	3RU2116-0G □0		
0.55 – 0.8	3RU2116-0H □0		
0.7 – 1	3RU2116-0J □0		
0.9 – 1.25	3RU2116-0K □0		
1.1 – 1.6	3RU2116-1A □0		
1.4 – 2	3RU2116-1B □0		
1.8 – 2.5	3RU2116-1C □0		
2.2 – 3.2	3RU2116-1D □0		
2.8 – 4	3RU2116-1E □0		
3.5 – 5	3RU2116-1F □0		
4.5 – 6.3	3RU2116-1G □0		
5.5 – 8	3RU2116-1H □0		
7 – 10	3RU2116-1J □0		
9 – 12.5	3RU2116-1K □0		
11 – 16	3RU2116-4A □0		

Screw terminals: ③
Spring-loaded terminals: ④

Screw terminals: ③
Spring-loaded terminals: ④



Standard three-phase motor 4-pole 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
1.5	4.90
3	6.50
4	8.50
5.5	11.5
7.5	15.5

MSPs for motor protection	
Setting range for thermal overload release	
CLASS 10	Article No.
[A]	
0.11 – 0.16	3RV2011-0AA□0
0.14 – 0.2	3RV2011-0BA□0
0.18 – 0.25	3RV2011-0CA□0
0.22 – 0.32	3RV2011-0DA□0
0.28 – 0.4	3RV2011-0EA□0
0.35 – 0.5	3RV2011-0FA□0
0.45 – 0.63	3RV2011-0GA□0
0.55 – 0.8	3RV2011-0HA□0
0.7 – 1	3RV2011-0JA□0
0.9 – 1.25	3RV2011-0KA□0
1.1 – 1.6	3RV2011-1AA□0
1.4 – 2	3RV2011-1BA□0
1.8 – 2.5	3RV2011-1CA□0
2.2 – 3.2	3RV2011-1DA□0
2.8 – 4	3RV2011-1EA□0
3.5 – 5	3RV2011-1FA□0
4.5 – 6.3	3RV2011-1GA□0
5.5 – 8	3RV2011-1HA□0
7 – 10	3RV2011-1JA□0
9 – 12.5	3RV2011-1KA□0
10 – 16	3RV2011-4AA□0

Screw terminals: 1
Spring-loaded terminals: 2

Contactors (aux. contacts 1NO or 1NC integrated)		
Rated operational current [A]	Article No.	Article No.
	Control supply voltage	
	DC 24 V	230 V AC, 50/60 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

1NO: 1
1NC: 2

Current monitoring relays		
Meas. range [A]	Article No. Basic (analog adjustable)	Article No. Standard (digital adjustable)*
1.6 – 16	3RR2141-□A□30	3RR2241-□F□30

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

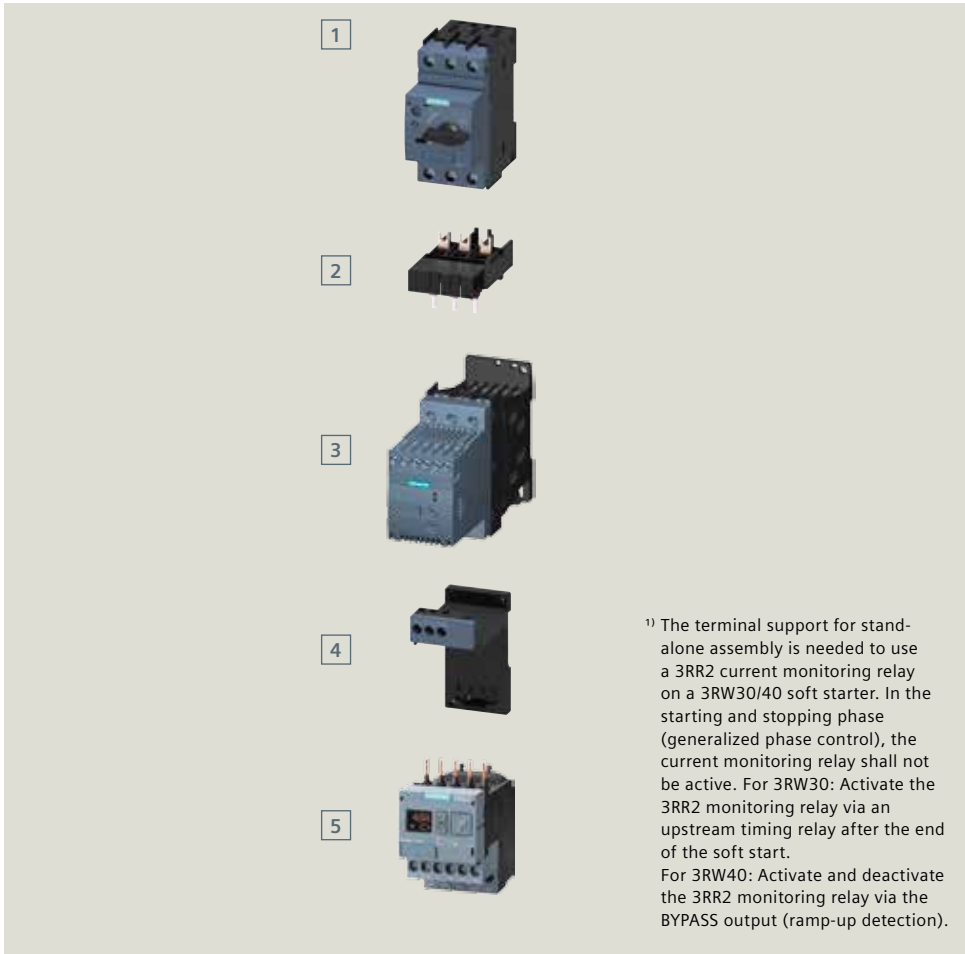
24 V AC/DC: A
24 – 240 V AC/DC: W

*likewise available as 3RR24 with IO-Link

Fuseless assembly with solid-state switching devices

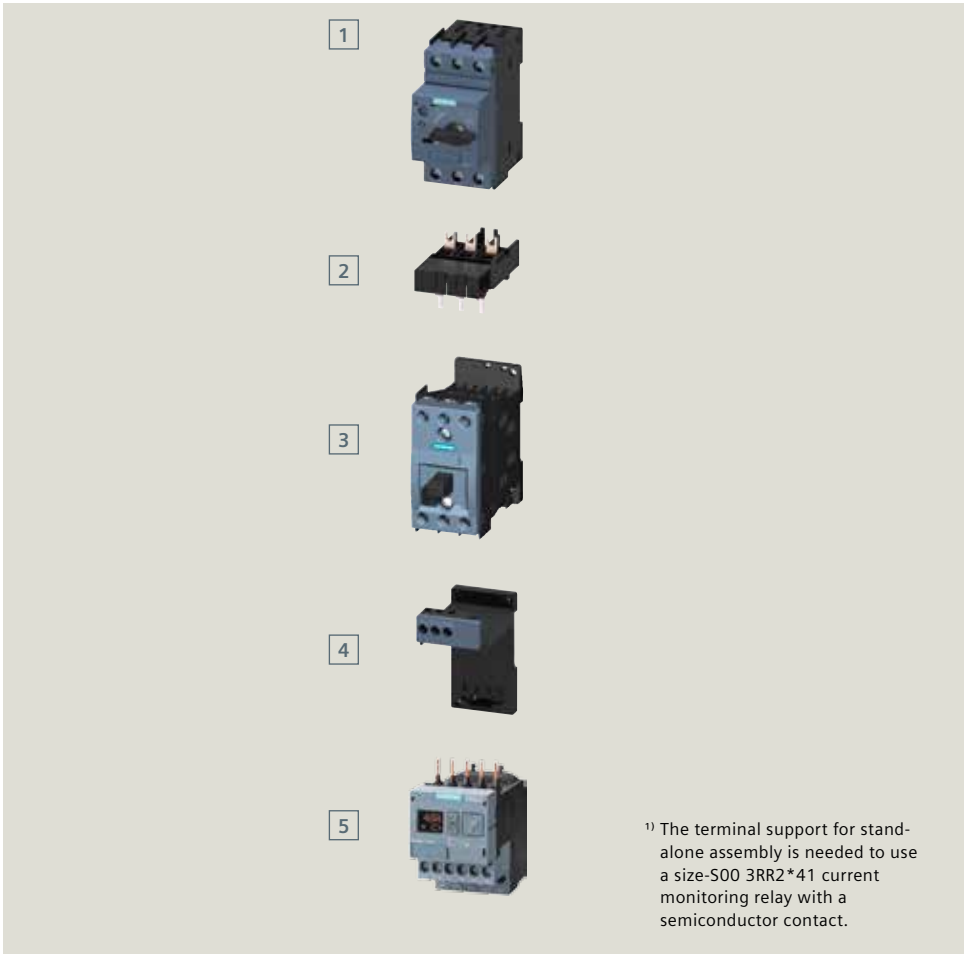
Assembly up to 7.5 kW (S00)

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



	Type	Screw terminals	Spring-loaded terminals
1	Motor starter protector	3RV2011-□□□1□	3RV2011-□□□2□
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 ¹⁾	3RR2□41-1□□□□	3RR2□41-2□□□□

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

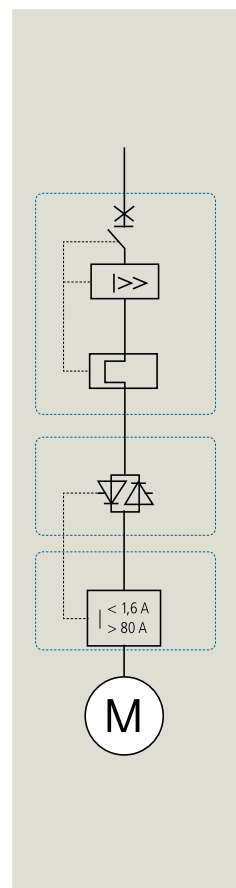


	Type	Screw terminals	Spring-loaded terminals
1	Motor starter protector	3RV2011-□□□1□	
2	Link module	3RA2921-1BA00	
3	Solid-state cont./solid-state rev. cont.	3RF34□□-1□□□□	
4	Terminal support stand-alone	3RU2916-3AA01	3RU2916-3AC01
5	Current monitoring relay ¹⁾	3RR2□□-1□□□□	3RR2□41-2□□□□

Starter combinations:

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

14



Standard
three-phase
motor 4-pole
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

Motor starter protectors

Setting range for
thermal overload
release
CLASS 10

[A]	Article No.
0.11 – 0.16	3RV2011-0AA□0
0.14 – 0.2	3RV2011-0BA□0
0.18 – 0.25	3RV2011-0CA□0
0.22 – 0.32	3RV2011-0DA□0
0.28 – 0.4	3RV2011-0EA□0
0.35 – 0.5	3RV2011-0FA□0
0.45 – 0.63	3RV2011-0GA□0
0.55 – 0.8	3RV2011-0HA□0
0.7 – 1	3RV2011-0JA□0
0.9 – 1.25	3RV2011-0KA□0
1.1 – 1.6	3RV2011-1AA□0
1.4 – 2	3RV2011-1BA□0
1.8 – 2.5	3RV2011-1CA□0
2.2 – 3.2	3RV2011-1DA□0
2.8 – 4	3RV2011-1EA□0
3.5 – 5	3RV2011-1FA□0
4.5 – 6.3	3RV2011-1GA□0
5.5 – 8	3RV2011-1HA□0
7 – 10	3RV2011-1JA□0
9 – 12.5	3RV2011-1KA□0
10 – 16	3RV2011-4AA□0

Screw terminals: ①
Spring-loaded terminals: ②

Soft starters¹⁾

Rated
opera-
tional
current

[A]	Article No. 24 V DC	Article No. 230 V AC, 50/60 Hz
3.6	3RW3013-□BB04	3RW3013-□BB14
6.5	3RW3014-□BB04	3RW3014-□BB14
9	3RW3016-□BB04	3RW3016-□BB14
12.5	3RW3017-□BB04	3RW3017-□BB14
17.6	3RW3018-□BB04	3RW3018-□BB14

Screw terminals: ①
Spring-loaded terminals: ②

Current monitoring relays

Meas.
range

Article No.
Basic (analog
adjustable)

Article No.
Standard (digital
adjustable)*

[A]		
1.6 – 16	3RR2141-□A□30	3RR2241-□F□30

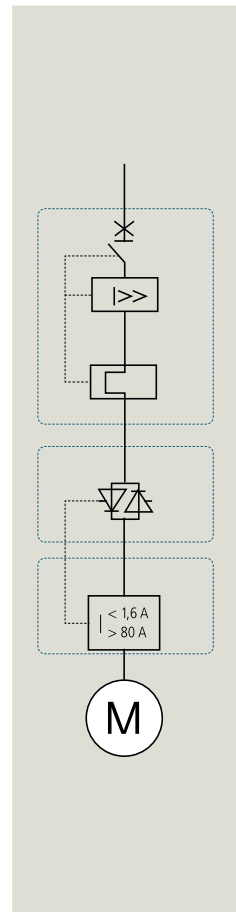
Screw terminals: ①
Spring-loaded terminals: ②
24 V AC/DC: ③
24 – 240 V AC/DC: ④

Screw terminals: ①
Spring-loaded
terminals: ②
24 V AC/DC: ③
24 – 240 V AC/DC: ④

¹⁾ Rated operational voltage 200 – 480 V

*likewise available as 3RR24 with IO-Link

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



Standard three-phase motor 4-pole 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

Motor starter protectors	
Setting range for thermal overload release CLASS 10	
[A]	Article No.
0.11 – 0.16	3RV2011-0AA□0
0.14 – 0.2	3RV2011-0BA□0
0.18 – 0.25	3RV2011-0CA□0
0.22 – 0.32	3RV2011-0DA□0
0.28 – 0.4	3RV2011-0EA□0
0.35 – 0.5	3RV2011-0FA□0
0.45 – 0.63	3RV2011-0GA□0
0.55 – 0.8	3RV2011-0HA□0
0.7 – 1	3RV2011-0JA□0
0.9 – 1.25	3RV2011-0KA□0
1.1 – 1.6	3RV2011-1AA□0
1.4 – 2	3RV2011-1BA□0
1.8 – 2.5	3RV2011-1CA□0
2.2 – 3.2	3RV2011-1DA□0
2.8 – 4	3RV2011-1EA□0
3.5 – 5	3RV2011-1FA□0
4.5 – 6.3	3RV2011-1GA□0
5.5 – 8	3RV2011-1HA□0
7 – 10	3RV2011-1JA□0
9 – 12.5	3RV2011-1KA□0
10 – 16	3RV2011-4AA□0

Screw terminals: 1
Spring-loaded terminals: 2

Solid-state contactors ²⁾		
Rated operational current [A]	Article No.	Article No.
	Control supply voltage	
	24 V DC	110 – 230 V AC, 50/60 Hz
5.2	3RF3405-□BB04	3RF3405-□BB24
9.2	3RF3410-□BB04 ¹⁾	3RF3410-□BB24 ¹⁾
12.5	3RF3412-□BB04 ¹⁾	3RF3412-□BB24 ¹⁾
16	3RF3416-□BB04 ¹⁾	3RF3416-□BB24 ¹⁾

Screw terminals: 1
Spring-loaded terminals: 2

Current monitoring relays		
Meas. range [A]	Article No. Basic (analog adjustable)	Article No. Standard (digital adjustable)*
1.6 – 16	3RR2141-□A□30 ³⁾	3RR2241-□F□30 ³⁾

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

*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 ¹⁾	3RF3410-1BD24 ¹⁾

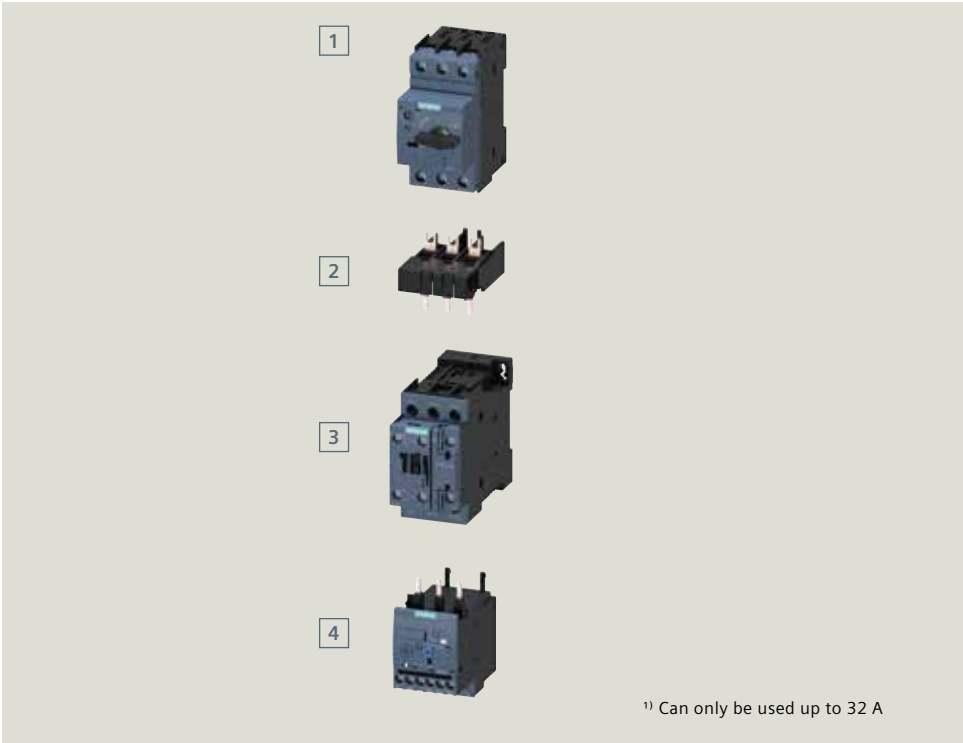
¹⁾ Width 90 mm

²⁾ Rated operational voltage U_e 48 – 480 V

³⁾ Can be mounted directly on solid-state contactor with screw terminals using connection adapter 3RF3900-0QA88

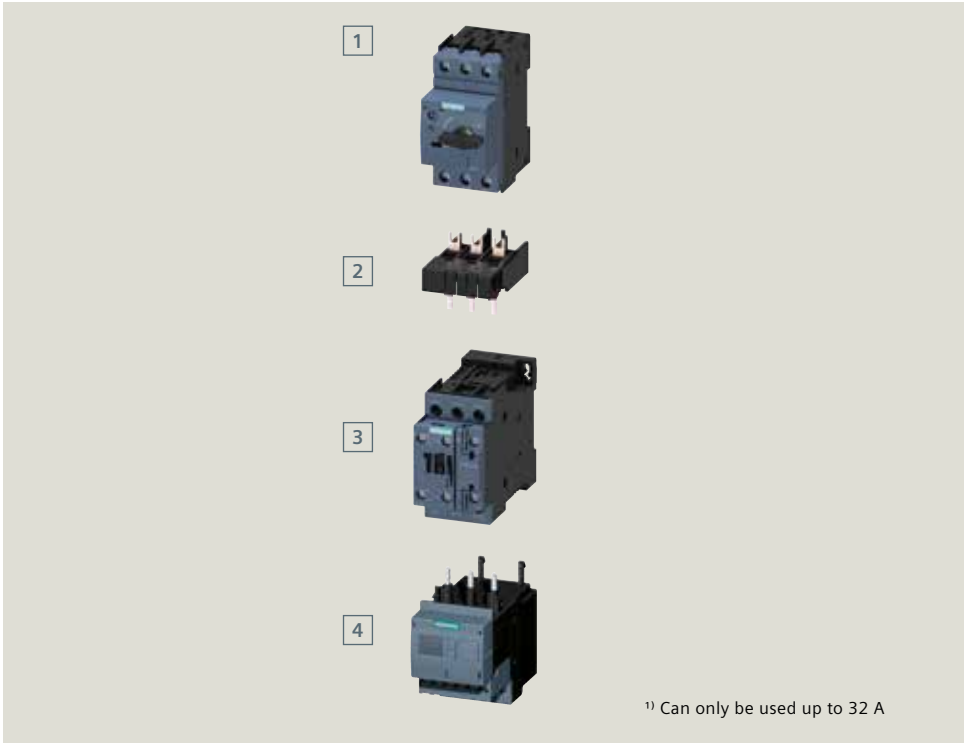
Fuseless assembly
Assembly 18.5 kW (S0)

Motor starter protector for starter protection, contactor and overload relay



	Type	Screw terminals	Spring-loaded terminals
1	Motor starter protector	3RV2321-□□□1□	3RV2321-□□□2□
2	Link module ¹⁾	AC 3RA2921-1AA00 DC 3RA2921-1BA00	3RA2921-2AA00 3RA2921-2AA00
3	Contactor	3RT202□-1□□□□	3RT202□-2□□□□
4	Overload relay	3RU2126-□□□B0 or 3RB3□2□-□□□B0	3RU2126-□□□C0 or 3RB3□2□-□□□E0

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



	Type	Screw terminals	Spring-loaded terminals
1	Motor starter protector	3RV2021-□□□1□	3RV2021-□□□2□
2	Link module ¹⁾	AC 3RA2921-1AA00 DC 3RA2921-1BA00	3RA2921-2AA00 3RA2921-2AA00
3	Contactor	3RT202□-1□□□□	3RT202□-2□□□□
4	Current monitoring relay	3RR2□42-1□□□□	3RR2□42-2□□□□

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

	Standard three-phase motor 4-pole at 400 V AC <table><tr><th>[kW]</th><th>[A]</th></tr><tr><td>7.5</td><td>15.5</td></tr><tr><td>7.5</td><td>15.5</td></tr><tr><td>11</td><td>22</td></tr><tr><td>11</td><td>22</td></tr><tr><td>15</td><td>29</td></tr><tr><td>15</td><td>29</td></tr><tr><td>18.5</td><td>35</td></tr><tr><td>18.5</td><td>35</td></tr></table>	[kW]	[A]	7.5	15.5	7.5	15.5	11	22	11	22	15	29	15	29	18.5	35	18.5	35	MSPs for starter protection <table><tr><th>MSP rated current [A]</th><th>Article No.</th></tr><tr><td>16</td><td>3RV2321-4AC□0</td></tr><tr><td>20</td><td>3RV2321-4BC□0</td></tr><tr><td>22</td><td>3RV2321-4CC□0</td></tr><tr><td>25</td><td>3RV2321-4DC□0</td></tr><tr><td>28</td><td>3RV2321-4NC□0</td></tr><tr><td>32</td><td>3RV2321-4EC□0</td></tr><tr><td>36</td><td>3RV2321-4PC10</td></tr><tr><td>40</td><td>3RV2321-4FC10</td></tr></table>			MSP rated current [A]	Article No.	16	3RV2321-4AC□0	20	3RV2321-4BC□0	22	3RV2321-4CC□0	25	3RV2321-4DC□0	28	3RV2321-4NC□0	32	3RV2321-4EC□0	36	3RV2321-4PC10	40	3RV2321-4FC10	Contactors (auxiliary contacts 1NO or 1NC integrated) <table><tr><th rowspan="2">Rated operational current [A]</th><th>Article No.</th><th>Article No.</th><th>Article No.</th></tr><tr><th>24 V DC</th><th>230 V AC, 50 Hz</th><th>50/60 Hz AC/DC</th></tr><tr><td>17</td><td>3RT2025-□BB40</td><td>3RT2025-□AP00</td><td>3RT2025-□N□30</td></tr><tr><td>25</td><td>3RT2026-□BB40</td><td>3RT2026-□AP00</td><td>3RT2026-□N□30</td></tr><tr><td>32</td><td>3RT2027-□BB40</td><td>3RT2027-□AP00</td><td>3RT2027-□N□30</td></tr><tr><td>38</td><td>3RT2028-□BB40</td><td>3RT2028-□AP00</td><td>3RT2028-□N□30</td></tr></table>			Rated operational current [A]	Article No.	Article No.	Article No.	24 V DC	230 V AC, 50 Hz	50/60 Hz AC/DC	17	3RT2025-□BB40	3RT2025-□AP00	3RT2025-□N□30	25	3RT2026-□BB40	3RT2026-□AP00	3RT2026-□N□30	32	3RT2027-□BB40	3RT2027-□AP00	3RT2027-□N□30	38	3RT2028-□BB40	3RT2028-□AP00	3RT2028-□N□30	Overload relays <table><tr><th>Setting range [A]</th><th>Article No. thermal overload relay CLASS 10</th><th>Setting range [A]</th><th>Article No. electronic overload relay CLASS 10E</th></tr><tr><td>11 – 16</td><td>3RU2126-4A□0</td><td rowspan="3">6 – 25</td><td rowspan="3">3RB3026-1Q□0</td></tr><tr><td>14 – 20</td><td>3RU2126-4B□0</td></tr><tr><td>17 – 22</td><td>3RU2126-4C□0</td></tr><tr><td>20 – 25</td><td>3RU2126-4D□0</td><td rowspan="4">10 – 40</td><td rowspan="4">3RB3026-1V□0</td></tr><tr><td>23 – 28</td><td>3RU2126-4N□0</td></tr><tr><td>27 – 32</td><td>3RU2126-4E□0</td></tr><tr><td>30 – 36</td><td>3RU2126-4P□0</td></tr><tr><td>34 – 40</td><td>3RU2126-4F□0</td><td></td><td></td></tr></table>			Setting range [A]	Article No. thermal overload relay CLASS 10	Setting range [A]	Article No. electronic overload relay CLASS 10E	11 – 16	3RU2126-4A□0	6 – 25	3RB3026-1Q□0	14 – 20	3RU2126-4B□0	17 – 22	3RU2126-4C□0	20 – 25	3RU2126-4D□0	10 – 40	3RB3026-1V□0	23 – 28	3RU2126-4N□0	27 – 32	3RU2126-4E□0	30 – 36	3RU2126-4P□0	34 – 40	3RU2126-4F□0		
[kW]	[A]																																																																																														
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17 – 22	3RU2126-4C□0																																																																																														
20 – 25	3RU2126-4D□0	10 – 40	3RB3026-1V□0																																																																																												
23 – 28	3RU2126-4N□0																																																																																														
27 – 32	3RU2126-4E□0																																																																																														
30 – 36	3RU2126-4P□0																																																																																														
34 – 40	3RU2126-4F□0																																																																																														
Screw terminals: ① Spring-loaded terminals²⁾: ②		Screw terminals: ① 21 – 28 V AC/DC: ② Spring-loaded terminals: ② 95 – 130 V AC/DC: ③ 200 – 280 V AC/DC: ④			Screw terminals: ② Spring-loaded terminals: ③		Screw terminals: ② Spring-loaded terminals: ③																																																																																								

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

	Standard three-phase motor 4-pole at 400 V AC <table><tr><th>[kW]</th><th>[A]</th></tr><tr><td>7.5</td><td>15.5</td></tr><tr><td>7.5</td><td>15.5</td></tr><tr><td>11</td><td>22</td></tr><tr><td>11</td><td>22</td></tr><tr><td>15</td><td>29</td></tr><tr><td>15</td><td>29</td></tr><tr><td>18.5</td><td>35</td></tr><tr><td>18.5</td><td>35</td></tr></table>	[kW]	[A]	7.5	15.5	7.5	15.5	11	22	11	22	15	29	15	29	18.5	35	18.5	35	MSPs for motor protection <table><tr><th>Setting range for thermal overload release CLASS 10</th><th>Article No.</th></tr><tr><td>[A]</td><td></td></tr><tr><td>10 – 16</td><td>3RV2021-4AA □0</td></tr><tr><td>13 – 20</td><td>3RV2021-4BA □0</td></tr><tr><td>16 – 22</td><td>3RV2021-4CA □0</td></tr><tr><td>18 – 25</td><td>3RV2021-4DA □0</td></tr><tr><td>23 – 28</td><td>3RV2021-4NA □0</td></tr><tr><td>27 – 32</td><td>3RV2021-4EA □0</td></tr><tr><td>30 – 36</td><td>3RV2021-4PA10</td></tr><tr><td>34 – 40</td><td>3RV2021-4FA10</td></tr></table>		Setting range for thermal overload release CLASS 10	Article No.	[A]		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	Contactors (auxiliary contacts 1NO or 1NC integrated) <table><tr><th>Rated operational current</th><th>Article No.</th><th>Article No.</th><th>Article No.</th></tr><tr><th></th><th colspan="3">Control supply voltage</th></tr><tr><td>[A]</td><td>24 V DC</td><td>230 V AC, 50 Hz</td><td>50/60 Hz AC/DC</td></tr><tr><td>17</td><td>3RT2025-□BB40</td><td>3RT2025-□AP00</td><td>3RT2025-□N□30</td></tr><tr><td>25</td><td>3RT2026-□BB40</td><td>3RT2026-□AP00</td><td>3RT2026-□N□30</td></tr><tr><td>32</td><td>3RT2027-□BB40</td><td>3RT2027-□AP00</td><td>3RT2027-□N□30</td></tr><tr><td>38</td><td>3RT2028-□BB40</td><td>3RT2028-□AP00</td><td>3RT2028-□N□30</td></tr></table>			Rated operational current	Article No.	Article No.	Article No.		Control supply voltage			[A]	24 V DC	230 V AC, 50 Hz	50/60 Hz AC/DC	17	3RT2025-□BB40	3RT2025-□AP00	3RT2025-□N□30	25	3RT2026-□BB40	3RT2026-□AP00	3RT2026-□N□30	32	3RT2027-□BB40	3RT2027-□AP00	3RT2027-□N□30	38	3RT2028-□BB40	3RT2028-□AP00	3RT2028-□N□30	Current monitoring relays <table><tr><th>Meas. range</th><th>Article No. Basic (analog adjustable)</th><th>Article No. Standard (digital adjustable)*</th></tr><tr><td>[A]</td><td></td><td></td></tr><tr><td>4 – 40</td><td>3RR2142-□A□30</td><td>3RR2242-□F□30</td></tr></table>			Meas. range	Article No. Basic (analog adjustable)	Article No. Standard (digital adjustable)*	[A]			4 – 40	3RR2142-□A□30	3RR2242-□F□30
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[A]																																																																																				
4 – 40	3RR2142-□A□30	3RR2242-□F□30																																																																																		
2) Up to 32 A		Screw terminals: ① Spring-loaded terminals2): ②		Screw terminals: ① 21 – 28 V AC/DC: ② Spring-loaded terminals: ② 95 – 130 V AC/DC: ③ 200 – 280 V AC/DC: ④			Screw terminals: ① Spring-loaded terminals: ② 24 V AC/DC: ③ 24 – 240 V AC/DC: ④																																																																													

²⁾ Up to 32 A

*likewise available as 3RR24 with IO-Link

Fuseless assembly

Assembly up to 18.5 kW (S0)

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



¹⁾ Only usable up to 32 A
²⁾ The terminal support for stand-alone 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).

	Type	Screw terminals	Spring-loaded terminals
1	Motor starter protector	3RV2021-□□□1□	3RV2021-□□□2□
2	Link module ¹⁾	3RA2921-1BA00	3RA2921-2GA00
3	Soft starter	3RW302□-1□□□□	3RW302□-2□□□□
4	Terminal support stand-alone	3RU2926-3AA01	3RU2926-3AC01
5	Current monitoring relay ²⁾	3RR2□42-1□□□□	3RR2□42-2□□□□

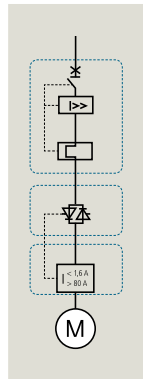
Motor starter protector for motor protection, 3RW40 soft starter (integrated electronic overload relay) with current monitoring relay (stand-alone installation)



¹⁾ Only usable up to 32 A
²⁾ The terminal support for stand-alone 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).

	Type	Screw terminals	Spring-loaded terminals
1	Motor starter protector	3RV2021-□□□1□	3RV2021-□□□2□
2	Link module ¹⁾	3RA2921-1BA00	3RA2921-2GA00
3	Soft starter	3RW402□-1□□□□	3RW402□-2□□□□
4	Terminal support stand-alone	3RU2926-3AA01	3RU2926-3AC01
5	Current monitoring relay ²⁾	3RR2□42-1□□□□	3RR2□42-2□□□□

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



Standard three-phase motor 4-pole at 400 V	
[kW]	[A]
11	22
11	22
15	29
15	29
18.5	35
18.5	35

¹⁾ Rated operational voltage
200 – 480 V

MSPs for motor protection	
Setting range for thermal overload release CLASS 10	
[A]	Article No.
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

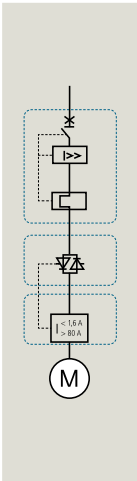
Soft starters ¹⁾ without overload protection		
Rated operational current	Article No.	Article No.
	Control supply voltage	
[A]	24 V AC/DC	110 – 230 V AC/DC
25	3RW3026-□BB04	3RW3026-□BB14
32	3RW3027-□BB04	3RW3027-□BB14
38	3RW3028-□BB04	3RW3028-□BB14

Screw terminals: ①
Spring-loaded terminals: ②

Current monitoring relays		
Meas. range	Article No. Basic (analog adjustable)	Article No. Standard (digital adjustable)*
[A]		
4 – 40	3RR2142-□A□30	3RR2242-□F□30

Screw terminals: ① 24 V AC/DC: ③
Spring-loaded terminals: ② 24 – 240 V AC/DC: ④

*likewise available as 3RR24 with IO-Link



Standard three-phase motor 4-pole at 400 V AC	
[kW]	[A]
5.5	11.5
7.5	15.5
7.5	15.5
11	22
11	22
15	29
15	29
18.5	35
18.5	35

¹⁾ Rated operational voltage 200 – 480 V

MSPs for motor protection	
Setting range for thermal overload release CLASS 10	
[A]	Article No.
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 ¹⁾ with overload protection		
Rated operational current	Article No.	Article No.
	Control supply 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

Screw terminals: ☐1

Spring-loaded terminals: ☐2

Current monitoring relays		
Meas. range	Article No. Basic (analog adjustable)	Article No. Standard (digital adjustable)
[A]		
4 – 40	3RR2142- ☐ A ☐ 30	3RR2242- ☐ F ☐ 30

Screw terminals: ☐1

Spring-loaded terminals: ☐2

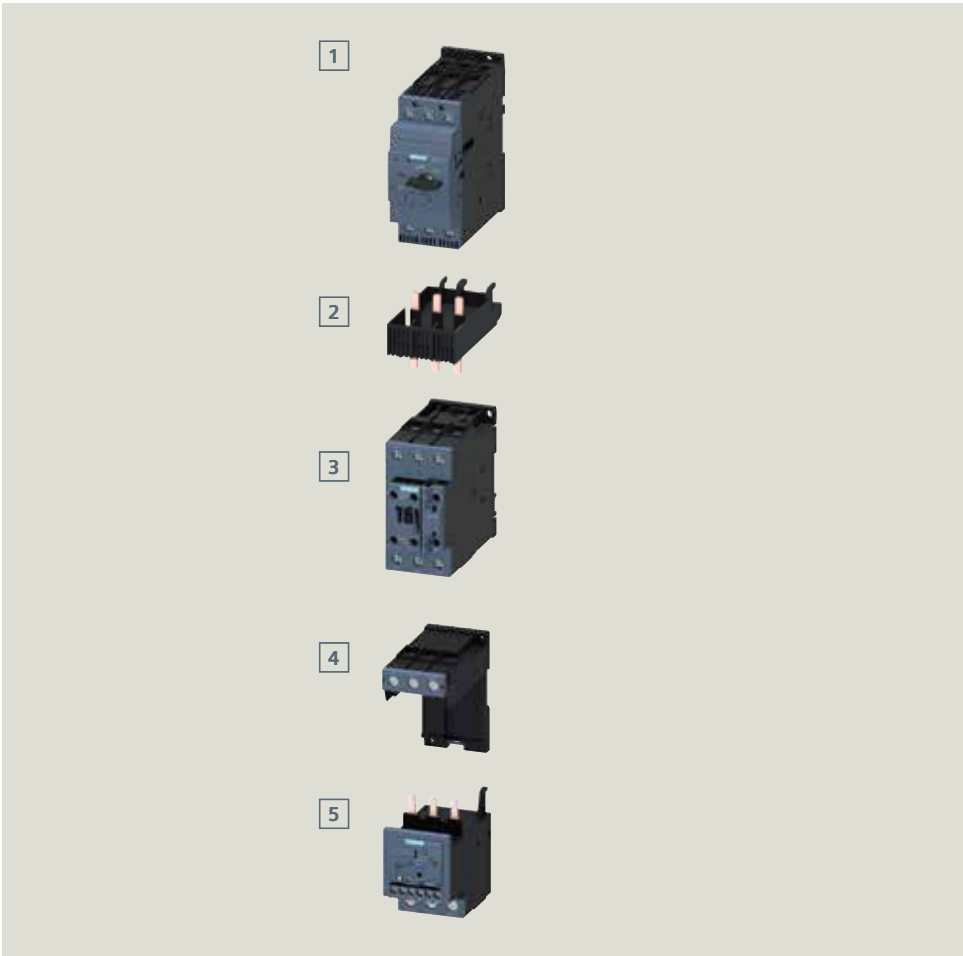
24 V AC/DC: ☐A

24 – 240 V AC/DC: ☐W

Fuseless assembly

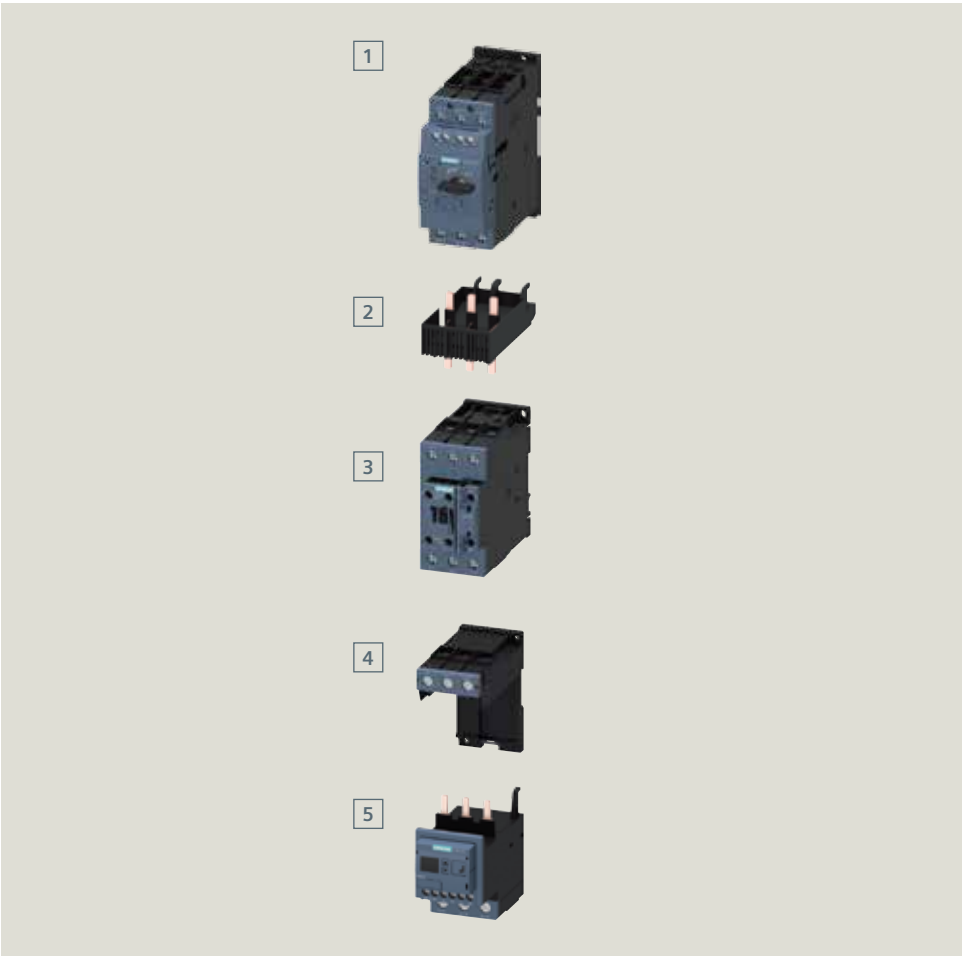
Size S2 up to 37 kW

Motor starter protector for starter protection, contactor and overload relay

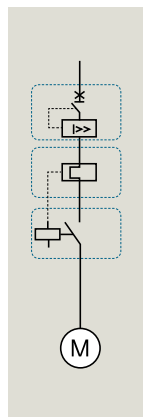


Type	Article number
1 Motor starter protector	3RV233-□-□□□1□
2 Link module (can only be used up to 65 A)	3RA2931-1AA00
3 Contactor	3RT203-□-□□□□□
4 Terminal support for stand-alone installation	3RU2936-3AA01
5 Overload relay	3RU2136-□□□B0 or 3RB3□3□-□□□B0

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



Type	Article number
1 Motor starter protector	3RV203-□-□□□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□□□□



Standard three-phase motor 4-pole at 400 V AC

[kW]	[A]
18.5	35
22	41
30	55
37	66

¹⁾ As 3RB3133 also available with another CLASS and other functions

MSPs for starter protection	
Rated breaker current [A]	Article No.
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: ☐
Increased switching capacity 100 kA at 400 V: ☐

Contactors (auxiliary contacts 1NO or 1NC integrated)		
Rated operational current [A]	Article No.	Article No.
	230 V AC, 50 Hz	50/60 Hz AC/DC
40	3RT2035-AP00	3RT2035-N30
50	3RT2036-AP00	3RT2036-N30
65	3RT2037-AP00	3RT2037-N30
80	3RT2038-AP00	3RT2038-N30

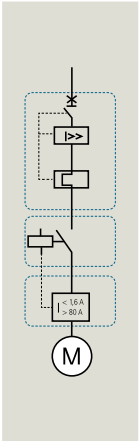
Screw terminals: ☐ 20 – 33 V AC/DC: ☐
Spring-loaded terminals in auxiliary circuit: ☐ 83 – 155 V AC/DC: ☐
175 – 280 V AC/DC: ☐

Overload relays	
Setting range [A]	Article No. thermal overload relay, CLASS 10
22 – 32	3RU2136-4EB0
28 – 40	3RU2136-4FB0
36 – 45	3RU2136-4GB0
40 – 50	3RU2136-4HB0
47 – 57	3RU2136-4QB0
54 – 65	3RU2136-4JB0
62 – 73	3RU2136-4KB0
70 – 80	3RU2136-4RB0

Setting range [A]	Article No. electronic overload relay CLASS 10E ¹⁾
20 – 80	3RB3036-1W

Contactor mounting: ☐ ☐
Straight-thr. transf.: ☐ ☐
☐ ☐

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



Standard three-phase motor 4-pole at 400 V AC	
[kW]	[A]
18.5	35
22	41
30	55
37	66

MSPs for motor protection	
Setting range for thermal overload release CLASS 10	
[A]	Article No.
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 – 80 ²⁾	3RV203-4RA10

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-N30
50	3RT2036-AP00	3RT2036-N30
65	3RT2037-AP00	3RT2037-N30
80	3RT2038-AP00	3RT2038-N30

Current monitoring relays		
Meas. range	Article No. Basic (analog adjustable)	Article No. Standard (digital adjustable)*
[A]		
8 – 80	3RR2143-A30	3RR2243-F30

²⁾ 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.

Standard switching capacity 65 kA at 400 V: 1

Increased switching capacity 100 kA at 400 V: 2

Screw terminals: 1 20 – 33 V AC/DC: B

Spring-loaded terminals in auxiliary circuit: 3 83 – 155 V AC/DC: F

175 – 280 V AC/DC: P

Screw terminals: 1 24 V AC/DC: A

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

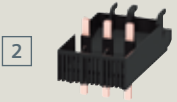
*likewise available as 3RR24 with IO-Link

Fuseless assembly

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)











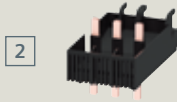
¹⁾ Can only be used in combination with 3RA2932-1CA00 standard mounting rail adapter (specially for soft starters)

²⁾ The terminal support for stand-alone 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

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

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











¹⁾ Can only be used in combination with 3RA2932-1CA00 standard mounting rail adapter (specially for soft starters)

²⁾ The terminal support for stand-alone 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).

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

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

Standard three-phase motor 4-pole at 400 V AC		MSPs for motor protection		Soft starter without overload prot.		Current monitoring relays		
[kW]	[A]	Setting range for thermal overload release CLASS 10 [A]	Article No.	Rated operational current [A]	Article No.	Meas. range [A]	Article No. Basic (analog adjustable)	Article No. Standard (digital adjustable)
18.5	35	28 – 36	3RV203-4PA10	45	3RW3036-1BB4	8 – 80	3RR2143-A30	3RR2243-F30
		32 – 40	3RV203-4UA10					
22	41	35 – 45	3RV203-4VA10					
		42 – 52	3RV203-4WA10					
30	55	49 – 59	3RV203-4XA10	63	3RW3037-1BB4			
		54 – 65	3RV203-4JA10	72	3RW3038-1BB4			
37	66	62 – 73	3RV203-4KA10					
		70 – 80	3RV203-4RA10					

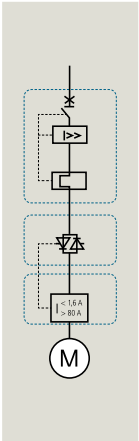
Standard switching capacity 65 kA at 400 V: 1
 Increased switching capacity 100 kA at 400 V: 2

24 V AC/DC: 0
 110 – 230 V AC/DC: 1

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

24 V AC/DC: A
 110 – 230 V AC/DC: W

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



Standard three-phase motor 4-pole at 400 V	
[kW]	[A]
18.5	35
22	41
30	55
37	66



MSPs for motor protection	
Setting range for thermal overload release CLASS 10	
[A]	Article No.
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 – 80	3RV203-4RA10



Soft starter with overload prot.	
Rated operational current	
[A]	Article No.
45	3RW4036-1BB-4
63	3RW4037-1BB-4
72	3RW4038-1BB-4




Current monitoring relays		
Meas. range	Article No. Basic (analog adjustable)	Article No. Standard (digital adjustable)*
[A]		
8 – 80	3RR2143-□A-30	3RR2243-□F-30

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

24 V AC/DC: 0
 110 – 230 V AC/DC: 1

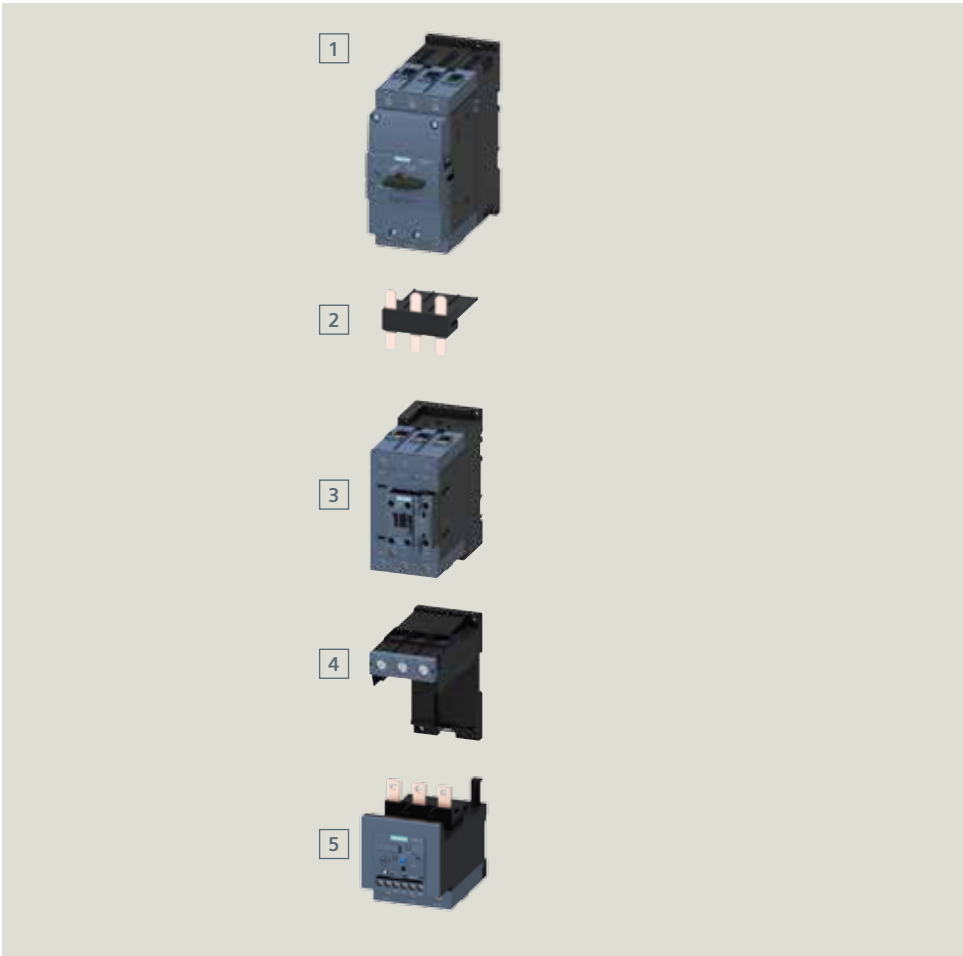
Screw terminals: 1
 Spring-loaded terminals in auxiliary circuit: 3
 24 V AC/DC: A
 110 – 230 V AC/DC: W

*likewise available as 3RR24 with IO-Link

Fuseless assembly

Size S3 up to 55 kW

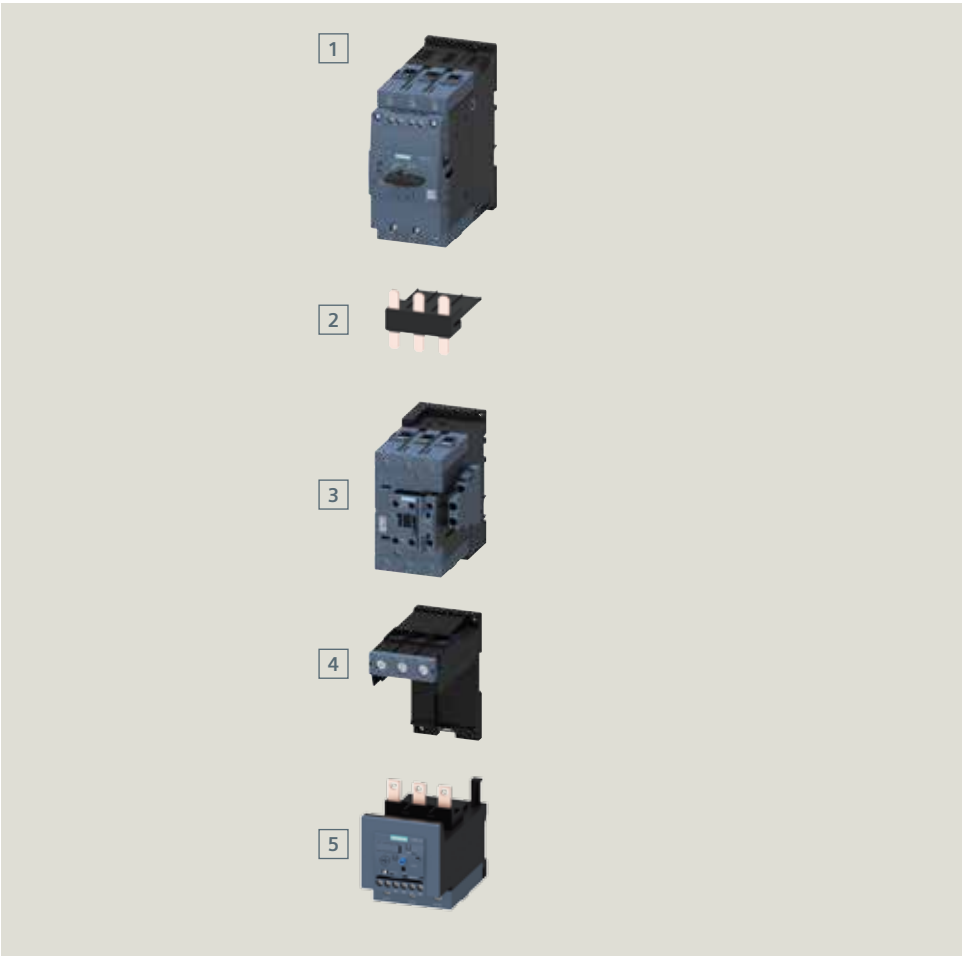
Motor starter protector for starter protection, contactor with overload relay



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

¹⁾ Installation with link module only allowable on standard mounting rail adapter.

Motor starter protectors for motor protection, contactor and overload relay

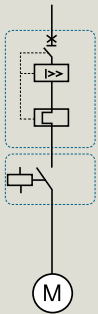


Type	Screw terminals
1 Motor starter protector	3RV204-□-□□□1□
2 Link module ¹⁾	3RA1941-1AA00
3 Contactor	3RT204-□-□□□□□
4 Terminal support for stand-alone installation	3RU2946-3AA01
5 Overload relay	3RU2146-□□B0 or 3RB3□4□-□□B0

¹⁾ Installation with link module only allowable on standard mounting rail adapter.

Starter combinations in size S3: Motor starter protector for motor protection and contactor

28



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



Motor starter protector	
Setting range for thermal overload release CLASS 10	
[A]	Article No.
36 – 50	3RV204-4HA10
45 – 63	3RV204-4JA10
57 – 75	3RV204-4KA10
65 – 84	3RV204-4RA10
75 – 93	3RV204-4YA10
80 – 100	3RV204-4MA10
3 VA	



Contactors		
Rated operational current	Article No.	Article No.
[A]	230 V AC, 50 Hz	50/60 Hz AC/DC
80	3RT2045-AP00	3RT2045-N30
95	3RT2046-AP00	3RT2046-N30
110	3RT2047-AP00	3RT2047-N30

Standard switching capacity 65 kA at 400 V: 1

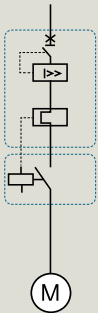
Increased switching capacity 100 kA at 400 V: 2

Screw terminals: 1 20 – 33 V AC/DC: B

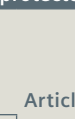
Spring-loaded terminals in auxiliary circuit: 3 83 – 155 V AC/DC: F

175 – 280 V AC/DC: P

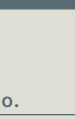
Starter combinations in size S3: Motor starter protector for starter protection, contactor with overload relay



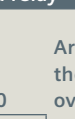
Standard three-phase motor 4-pole at 400 V AC	
[kW]	[A]
37	66
45	80
55	97



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	



Contactors		
Rated operational current	Article No.	Article No.
[A]	230 V AC, 50 Hz	50/60 Hz AC/DC
80	3RT2045-AP00	3RT2045-N30
95	3RT2046-AP00	3RT2046-N30
110	3RT2047-AP00	3RT2047-N30



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

Standard switching capacity 65 kA at 400 V: 1

Increased switching capacity 100 kA at 400 V: 2

Screw terminals: 1 20 – 33 V AC/DC: B

Spring-loaded terminals in auxiliary circuit: 3 83 – 155 V AC/DC: F

175 – 280 V AC/DC: P

Screw terminals in auxiliary circuit: 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

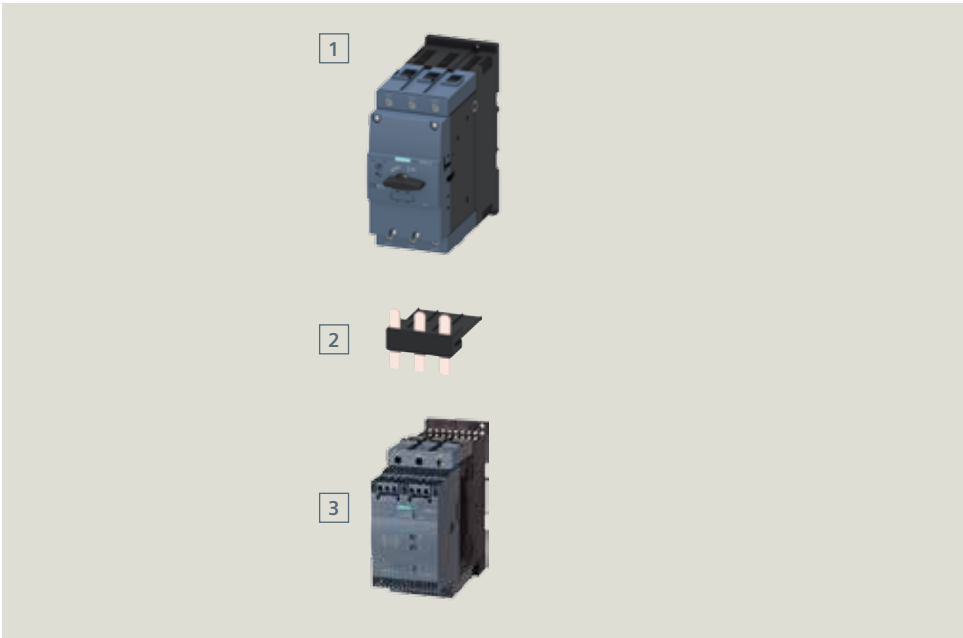
For mounting onto contactor main circuit: 0

Stand-alone installation: 1

Fuseless assembly

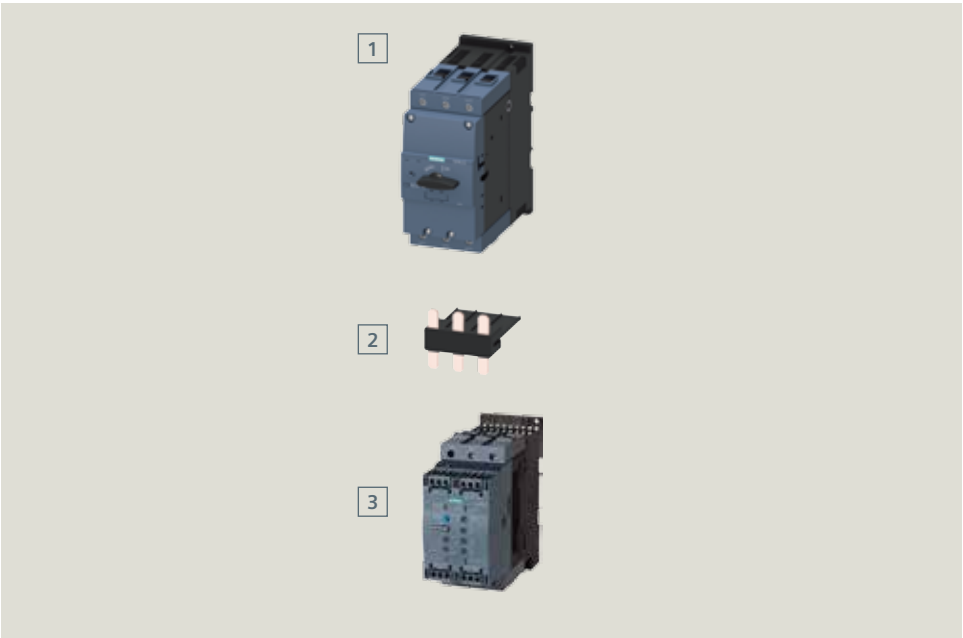
Size S3 up to 55 kW

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



Type	Screw terminals
1 Motor starter protector	3RV204-1AA00
2 Link module ¹⁾	3RA1941-1AA00
3 Soft starter	3RW304-1AA00

Motor starter protector for motor protection, 3RW40 soft starter with overload protection

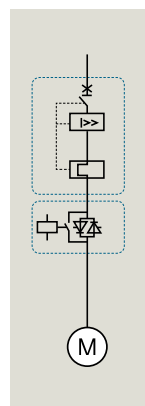


Type	Screw terminals
1 Motor starter protector	3RV204-1AA00
2 Link module ¹⁾	3RA1941-1AA00
3 Soft starter	3RW404-1AA00

¹⁾ Installation with link module only allowable on mounting plate.

Starter combinations in size S3: Motor starter protector for motor protection and 3RW30 soft starter without overload protection

30



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

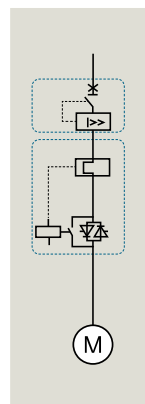
Motor starter protector	
Setting range for thermal overload release CLASS 10	
[A]	Article No.
36 – 50	3RV204-4HA10
45 – 63	3RV204-4JA10
57 – 75	3RV204-4KA10
65 – 84	3RV204-4RA10
75 – 93	3RV204-4YA10
80 – 100	3RV204-4MA10
3 VA	

Standard switching capacity 65 kA at 400 V: ☐
Increased switching capacity 100 kA at 400V: ☐

Soft starter	
Rated operational current	Article No.
[A]	
80	3RW3046-1BB-4
106	3RW3047-1BB-4

24 V AC/DC: ☐
110 – 230 V AC/DC: ☐

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



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

Motor starter protector	
Setting range for thermal overload release CLASS 10	
[A]	Article No.
36 – 50	3RV204-4HA10
45 – 63	3RV204-4JA10
57 – 75	3RV204-4KA10
65 – 84	3RV204-4RA10
75 – 93	3RV204-4YA10
80 – 100	3RV204-4MA10
3 VA	

Standard switching capacity 65 kA at 400 V: ☐
Increased switching capacity 100 kA at 400 V: ☐

Soft starter	
Rated operational current	Article No.
[A]	
80	3RW4046-1BB-4
106	3RW4047-1BB-4

24 V AC/DC: ☐
110 – 230 V AC/DC: ☐

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

Size S6



Standard three-phase motor 4-pole at 400 V AC		Contactors				
		Rated operational current	Solenoid-operated mechanism	Control supply voltage	Article No. contactors	Article No. vacuum contactors
[kW]	[A]	[A]		[V AC/DC]		
55	97	115	Conventional	220 – 240	3RT1054-1AP36	–
			Electronic			
			– for 24 V DC PLC output	200 – 277	3RT1054-1NP36	–
			– for 24 V DC PLC output, w. RLT ¹⁾	200 – 277	3RT1054-1PP35	–
75	132	150	Conventional	220 – 240	3RT1055-6AP36	–
			Electronic			
			– for 24 V DC PLC output	200 – 277	3RT1055-6NP36	–
			– for 24 V DC PLC output, w. RLT ¹⁾	200 – 277	3RT1055-6PP35	–
90	160	185	Conventional	220 – 240	3RT1056-6AP36	
			Electronic			–
			– for 24 V DC PLC output	200 – 277	3RT1056-6NP36	–
			– for 24 V DC PLC output, w. RLT ¹⁾	200 – 277	3RT1056-6PP35	–

¹⁾ RLT: remaining lifetime

²⁾ As 3RB2143 also available with another CLASS and other functions



Overload relays		
Setting range	Article No. electronic overload relay CLASS 10	Version
[A]		
50 – 200	3RB2056-1FW2 ²⁾	w. str.-through transf.
50 – 200	3RB2056-1FC2 ²⁾	w. busbar connection



Soft starters		
Rated operational current	Control supply voltage	Article No.
[A]		
134	230 V AC	3RW4055-6BB44
134	115 V AC	3RW4055-6BB34
162	230 V AC	3RW4056-6BB44
162	115 V AC	3RW4056-6BB34

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

Size S10



Standard three-phase motor 4-pole at 400 V AC		Contactors				
		Rated operational current	Solenoid-operated mechanism	Control supply voltage	Article No. contactors	Article No. vacuum contactors
110	195	225	Conventional	220 – 240	3RT1064-6AP36	3RT1264-6AP36
			Electronic	200 – 277	3RT1064-6NP36	3RT1264-6NP36
			– for 24 V DC PLC output	200 – 277	3RT1064-6PP35	–
132	230	265	Conventional	220 – 240	3RT1065-6AP36	3RT1265-6AP36
			Electronic	200 – 277	3RT1065-6NP36	3RT1265-6NP36
			– for 24 V DC PLC output	200 – 277	3RT1065-6PP35	–
160	280	300	Conventional	220 – 240	3RT1066-6AP36	3RT1266-6AP36
			Electronic	200 – 277	3RT1066-6NP36	3RT1266-6NP36
			– for 24 V DC PLC output	200 – 277	3RT1066-6PP35	–

¹⁾ RLT: remaining lifetime

²⁾ As 3RB2163 also available with another CLASS and other functions



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



Soft starters		
Rated operational current	Control supply voltage	Article No.
[A]		
230	230 V AC	3RW4073-6BB44
230	115 V AC	3RW4073-6BB34
280	230 V AC	3RW4074-6BB44
280	115 V AC	3RW4074-6BB34

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

Size S12

Standard three-phase motor 4-pole at 400 V AC												
		Contactors					Overload relays ¹⁾			Soft starters		
		Rated operational current	Solenoid-operated mechanism	Control supply voltage	Article No. contactors	Article No. vacuum contactors	Setting range	Article No. electronic overload relay CLASS 10	Version	Rated operational current	Control supply voltage	Article No.
		[kW]	[A]	[A]		[V AC/DC]					[A]	
200	350	400	Conventional	220 – 240	3RT1075-6AP36	3RT1275-6AP36	160 – 630	3RB2066-1MC2 ³⁾	with busbar connection	356	230 V AC	3RW4075-6BB44
			Electronic	200 – 277	3RT1075-6NP36	3RT1275-6NP36				356	115 V AC	3RW4075-6BB34
			– for 24 V DC PLC output	200 – 277	3RT1075-6PP35	–						
250	430	500	Conventional	220 – 240	3RT1076-6AP36	3RT1276-6AP36				432	230 V AC	3RW4076-6BB44
			Electronic	200 – 277	3RT1076-6NP36	3RT1276-6NP36				432	115 V AC	3RW4076-6BB34
			– for 24 V DC PLC output	200 – 277	3RT1076-6PP35	–						
			– for 24 V DC PLC output, w. RLT ²⁾	200 – 277	3RT1076-6PP35	–						

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."

¹⁾ When using trip CLASS 20, refer to the configuration aid "Configuring SIRIUS fuseless load feeders," and to the catalog
²⁾ RLT: remaining lifetime
³⁾ As 3RB2163 also available with another CLASS and other functions

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.

Standard
three-phase
motor 4-pole
at 400 V AC

[kW]	[A]
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	2.07
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
7.5	15.5
11	22
11	22
15	29
15	29

3RA21 direct-on-line starters

Setting range for thermal overload release	Type of coordination "2" at I _q = 150 kA at 400 V
[A]	
0.14 – 0.2	3RA2110-0B □ 15-1 □ □ □ S00
0.18 – 0.25	3RA2110-0C □ 15-1 □ □ □ S00
0.22 – 0.32	3RA2110-0D □ 15-1 □ □ □ S00
0.28 – 0.4	3RA2110-0E □ 15-1 □ □ □ S00
0.35 – 0.5	3RA2110-0F □ 15-1 □ □ □ S00
0.45 – 0.63	3RA2110-0G □ 15-1 □ □ □ S00
0.55 – 0.8	3RA2110-0H □ 15-1 □ □ □ S00
0.7 – 1	3RA2110-0J □ 15-1 □ □ □ S00
0.9 – 1.25	3RA2110-0K □ 15-1 □ □ □ S00
1.1 – 1.6	3RA2110-1A □ 15-1 □ □ □ S00
1.4 – 2	3RA2110-1B □ 15-1 □ □ □ S00
1.8 – 2.5	3RA2110-1C □ 15-1 □ □ □ S00
2.2 – 3.2	3RA2110-1D □ 15-1 □ □ □ S00
2.8 – 4	3RA2110-1E □ 15-1 □ □ □ S00
3.5 – 5	3RA2120-1F □ 24-0 □ □ □ S0
4.5 – 6.3	3RA2120-1G □ 24-0 □ □ □ S0
5.5 – 8	3RA2120-1H □ 24-0 □ □ □ S0
7 – 10	3RA2120-1J □ 24-0 □ □ □ S0
9 – 12.5	3RA2120-1K □ 24-0 □ □ □ S0
10 – 16	3RA2120-4A □ 26-0 □ □ □ S0
13 – 20	3RA2120-4B □ 27-0 □ □ □ S0
16 – 22	3RA2120-4C □ 27-0 □ □ □ S0
18 – 25	3RA2120-4D □ 27-0 □ □ □ S0
23 – 28	3RA2120-4N □ 27-0 □ □ □ S0
27 – 32	3RA2120-4E □ 27-0 □ □ □ S0

Screw terminals (standard rail mounting): **A**
Spring-loaded terminals (standard rail mounting): **E**
Screw terminals (busbar adapter): **D**
Spring-loaded terminals (busbar adapter): **H**
24 V DC: **B** **B** **4**
230 V AC: **A** **P** **0**

3RA61 compact starters

Setting range for thermal overload release	
[A]	
0.1 – 0.4	3RA6120-□ A □ 3 □
0.32 – 1.25	3RA6120-□ B □ 3 □
1 – 4	3RA6120-□ C □ 3 □
3 – 12	3RA6120-□ D □ 3 □
8 – 32	3RA6120-□ E □ 3 □

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

SIRIUS 3RM1 motor starters

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 **0**
Failsafe direct-on-line starter **1**

Screw terminals: **1**
Spring-loaded terminals: **2**
Mixed connection method: **3**

24 V DC Us **0**
110 – 230 V AC; 110 V DC Us **1**

*Operation of resistive loads with maximum 10 A

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.

Fuseless load feeders up to 15 kW

Standard
three-phase
motor 4-pole
at 400 V AC

[kW]	[A]
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
7.5	15.5
11	22
11	22
15	29
15	29



3RA22 reversing starters

Setting range
for thermal
overload release

Type of coordination "2"
at I_q = 150 kA at 400 V

[A]	
0.14 – 0.2	3RA2210-0B □ 15-2 □ □ □ S00
0.18 – 0.25	3RA2210-0C □ 15-2 □ □ □ S00
0.22 – 0.32	3RA2210-0D □ 15-2 □ □ □ S00
0.28 – 0.4	3RA2210-0E □ 15-2 □ □ □ S00
0.35 – 0.5	3RA2210-0F □ 15-2 □ □ □ S00
0.45 – 0.63	3RA2210-0G □ 15-2 □ □ □ S00
0.55 – 0.8	3RA2210-0H □ 15-2 □ □ □ S00
0.7 – 1	3RA2210-0J □ 15-2 □ □ □ S00
0.9 – 1.25	3RA2210-0K □ 15-2 □ □ □ S00
1.1 – 1.6	3RA2210-1A □ 15-2 □ □ □ S00
1.4 – 2	3RA2210-1B □ 15-2 □ □ □ S00
1.8 – 2.5	3RA2210-1C □ 15-2 □ □ □ S00
2.2 – 3.2	3RA2210-1D □ 15-2 □ □ □ S00
2.8 – 4	3RA2210-1E □ 15-2 □ □ □ S00
3.5 – 5	3RA2220-1F □ 24-0 □ □ □ S0
4.5 – 6.3	3RA2220-1G □ 24-0 □ □ □ S0
5.5 – 8	3RA2220-1H □ 24-0 □ □ □ S0
7 – 10	3RA2220-1J □ 24-0 □ □ □ S0
9 – 12.5	3RA2220-1K □ 24-0 □ □ □ S0
10 – 16	3RA2220-4A □ 26-0 □ □ □ S0
13 – 20	3RA2220-4B □ 27-0 □ □ □ S0
16 – 22	3RA2220-4C □ 27-0 □ □ □ S0
18 – 25	3RA2220-4D □ 27-0 □ □ □ S0
23 – 28	3RA2220-4N □ 27-0 □ □ □ S0
27 – 32	3RA2220-4E □ 27-0 □ □ □ S0

Screw terminals (standard rail mounting) S00: **A**
 Screw terminals (standard rail mounting) S0: **B**
 Spring-loaded terminals (standard rail mounting) S00: **E**
 Spring-loaded terminals (standard rail mounting) S0: **F**
 Screw terminals (busbar adapter): **D**
 Spring-loaded terminals (busbar adapter): **H**
 24 V DC: **B B 4**
 230 V AC: **A P 0**



3RA62 compact starters

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: **B**
 110 – 240 V AC/DC: **P**



SIRIUS 3RM1 motor starters

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**
 Spring-loaded terminals: **2**
 Mixed connection method: **3**

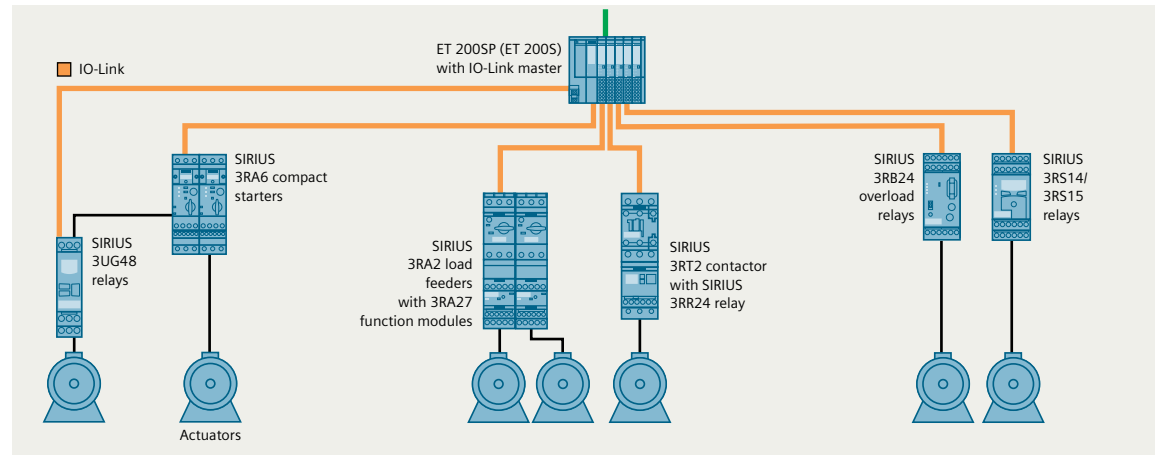
24 V DC Us **0**
 110 – 230 V AC; 110 V DC Us **1**

*Operation of resistive loads with maximum 10 A

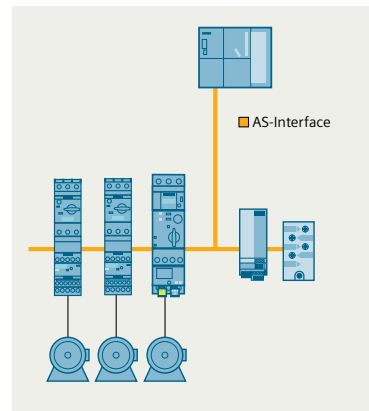
Note: The 3RM1 motor starters do not have integral short-circuit protection. They can be used very effectively in combination with SIRIUS motor starter protectors in group assemblies, for example.

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



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 62 load feeders	6GK7343-2AH11-0XA0
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

Three-phase motor 400 V [kW]	Rated operational current contactor [A]
3	7
4	9
5.5	12
7.5	16
5.5	12
7.5	16
11	25
15	32
18.5	38

Contactors S00 with communication interface	
Aux. contacts	Control supply voltage Article No. 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

18.5	40
22	50
30	65
37	80

Contactors S2 with communication interface	
	3RT2035-□ NB30-0CC0
	3RT2036-□ NB30-0CC0
	3RT2037-□ NB30-0CC0
	3RT2038-□ NB30-0CC0

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

37	80
45	95
55	110

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	S00/S0 S2/S3	3RA2811-□ CW10 3RA2831-□ DG10 3RA2831-□ DH10
OFF-delay (with aux. voltage)	S00/S0 S2/S3 S2/S3	3RA2812-□ CW10 3RA2832-□ DG10 3RA2832-□ DH10



Reversing starter kits

Article No.		
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 □



Star-delta (wye-delta) starter^{1) 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	S2	3RA2933-2BB □
Wiring kits for contactors	S3	3RA2943-2BB □

IO-Link



IO-Link connection for direct-on-line starter^{1) 2)}

Article No.	
Function module	3RA2711-□ AA00



IO-Link connection for reversing starter^{1) 2) 3)}

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 □



IO-Link connection for star-delta (wye-delta) combinations^{1) 2) 4)}

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^{1) 2)}

Article No.	
Function module	3RA2712-□ AA00



AS-Interface connection for reversing starter^{1) 2) 3)}

Article No.		
Function module		3RA2712-□ 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 □



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

Screw terminals: ①
Spring-loaded terminals: ②

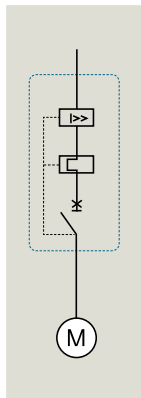
Screw terminals: ①
Spring-loaded terminals: ②

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

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

³⁾ Comprising 1 basic module and 1 coupling module ⁴⁾ Comprising 1 basic module and 2 coupling modules

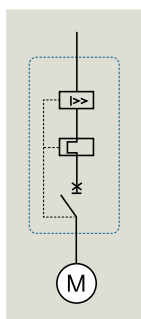
IO-Link



		
Setting range for electronic overload release	3RA64 direct-on-line starter	3RA65 reversing starter
	CPS ¹⁾	CPS ¹⁾
[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, for 1 space between two contactors	3RA2711-0EE02
Module connector, 14-pole, 21 cm, for diverse space combinations between two contactors	3RA2711-0EE03
Operator panel (incl. enabling module and interface cover)	3RA6935-0A
Connecting cable for operator panel	3RA6933-0A

AS-Interface



		+		=	
Setting range for electronic overload release	3RA61 direct-on-line starter		3RA62 reversing starter		
	CPS ¹⁾		CPS ¹⁾		
[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		

	
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

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

Screw terminals: ①
Spring-loaded terminals: ②

Screw terminals: ①
Spring-loaded terminals: ②