Click 'n' Go: SIRIUS Modular System



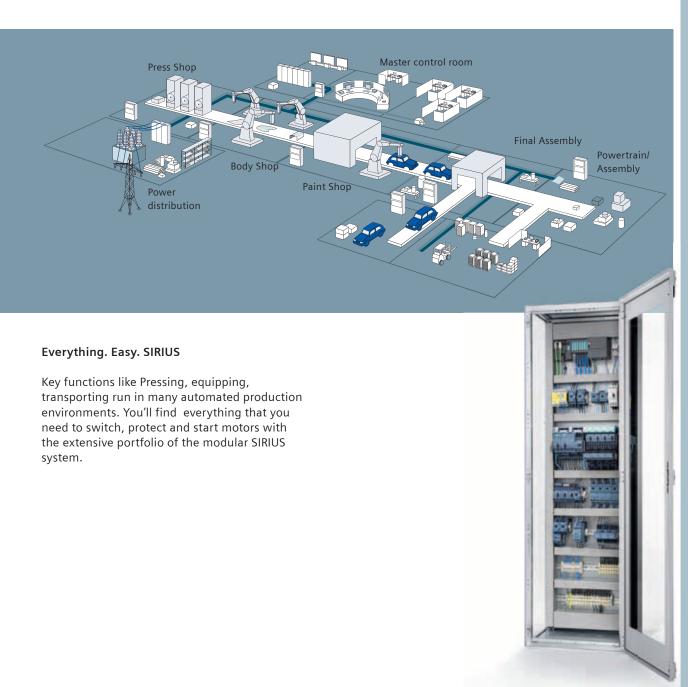
SIRIUS

Highly flexible system-based switching, protecting and starting.

Answers for industry.



Everything for the electrical cabinet: SIRIUS Modular System.



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Everything. System-based. SIRIUS Modular System.

How to realize fast, easy, flexible and space-saving control cabinet assembly? With the unique SIRIUS modular system, which offers everything required for the switching, protection and starting of motors and systems. It comprises a modular range of standard components up to 250 kW / 415 V in only seven optimally matched sizes which can be easily combined and utilize largely identical accessories. Switching technology made easy!



The permanent advancement and continuous innovation of SIRIUS optimally prepare our customers for current and future requirements and provide them with efficient solutions. All components of the SIRIUS modular system are characterized by their space-saving design and high degree of flexibility. Configuration, installation, wiring and maintenance can be realized easily and in minimum time. No matter whether you want to assemble load feeders with circuit breakers or overload relays, contactors / solid-state contactors, reversing contactors or soft starters – SIRIUS offers the suitable product for every application.

Thanks to the latest innovations of sizes S00 and S0 up to 40 A, the SIRIUS modular system now offers even more functional diversity:

In addition to the basic components (such as contactors, circuit breakers and overload relays), the innovated SIRIUS modular system offers unprecedented highlights:

- Spring loaded terminals: Spring loaded terminals provide the key benefits like less assembly / disassembly time, very high termination reliability, shock and vibration proof terminals
- **Direct mounting of monitoring relays:** First time in industry you have a choice to mount the current monitoring relay directly on the contactor
- Function Modules: Function module can be directly mounted onto the contactor for the easy assembly of direct on line, reversing and star delta starters. They replace the need of control wiring and auxiliary contacts
- Communication capability: SIRIUS innovation is the first to offer communication capable contactors with open communication protocols like AS-i and IO link

Overview of the Numerous Advantages Offered by the SIRIUS Modular System.

With its manifold components, the SIRIUS modular system covers various functions for control cabinet applications and offers numerous advantages in terms of assembly and handling, application monitoring, connection to the control as well as planning and configuration.

Assembly and handling:

Reduced wiring expenditures and fault avoidance – with maximum flexibility

- Load feeders: Easy realization with standard devices up to 250 kW / 415 V
- Modular system: All devices in same frame size have same width and terminal orientation that results into a seamless feeder
- Versions and sizes: Efficiency and flexibility with only 7 sizes covering upto 250kW
- Accessories: Only 2 groups of accessories for 7 frame sizes
- Assembly: Easy wiring, short setup time, fast commissioning
- Mounting: Choice of screw and DIN rail mounting
- Spring-loaded connection system: Fast and safe connection, vibration-proof and with zero maintenance
- Reduced wiring: 1) Power wiring -Thanks to 8US and connecting links
 2) Control wiring - Thanks to function module that can replace all control wiring

Application control:

Improved operational reliability and system availability

- **Maintenance:** Extremely long service life, low maintenance due to high reliability
- Application monitoring: Flexibly integrated in the feeder thanks to current monitoring relay

Connection to the control:

Optimum integration in the automation environment

• **Communication:** Standardized connection to AS-Interface, IO-Link and PROFIBUS DP possible

Planning and configuration:

Eased system planning and documentation

- System planning: Easy and fast thanks to comprehensive CAx data provision
- Environment: ROHS compliant
- **Design:** Clear and ergonomic, awarded with the iF Product Design Award
- Configurator: For easy product selection, including accessories
- Global acceptability: Thanks to comprehensive approvals







Switching. Protecting. Starting. The components of the SIRIUS Modular System.



Far more than ON/OFF: SIRIUS 3RV motor protection circuit breaker

SIRIUS 3RV motor protection circuit breaker (MPCB) are compact, current-limiting circuit breakers. They guarantee safe reliable shutdown when short circuits occur and protect loads and plants against overload. Furthermore, they are suitable for operationally switching load feeders and safely disconnecting the plant or system from the line supply when service is been carried out or changes are being made. SENTRON 3VL circuit breakers are suitable for applications above 100 A. As infeed and load feeder breaker, they protect plants and motors against short circuit and overload.



Rugged and reliable: SIRIUS 3RT contactors

You can easily find what you require in this complete family with only seven sizes for the power range up to 250kW/415V.

Secondly-you can completely depend on SIRIUS contactorsand we mean completely. These benefits distinguish themselves due to high operational reliability, long lifetime, always the best electrical contacts and the rugged character even at high ambient temperatures. It goes without saying that the contactors have everything that you expect from the SIRIUS system.



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

The overload relays of the SIRIUS family, available as either thermal or solid-state versions, protect loads connected to the main circuit, as a function of the current, and also protect other switching devices in the particular load feeder. The solid-state SIRIUS 3RB2 overload relays guarantee seamless motor and plant protection from 0.1 A to 630 A. Due to the wide setting ranges, the current range is covered with a minimum number of versions.



Easy application monitoring: SIRIUS 3RR2 current monitoring relays

The SIRIUS current monitoring relays not only monitor the motor, but the entire system or driven process for overcurrent and undercurrent, cable breakage and phase failure.

For example, load shedding or overload of an application is promptly detected and signaled at an early stage. Sizes S00 and S0 of the 3RR2 current monitoring relay are directly integrated in the load feeder. They simply have to be plugged onto the contactor.



Gentle starting: SIRIUS 3RW soft starters

SIRIUS 3RW soft starters offer a seamless range that covers all standard and high-feature motor starting applications. They can be used in the widest range of applications to exploit the advantages of soft starting for the easy and efficient realization of optimum machine concepts. The compact twophase-controlled 3RW30 facilitates efficient and space-saving soft starting up to 55 kW (@ 415 V). The 3RW40 additionally offers soft stopping as well as integrated intrinsic device and motor protection functions, thanks to which an additional overload relay is unnecessary. Also the complete range of SIRIUS 3RW soft starter has built-in bypass contacts due to which an separate external bypass contactor is not required. Device versions up to a rating of 250 kW (@ 415 V) are available: Thermistor motor protection evaluation, 400-600 V.

Switching. Protecting. Starting. The components of the SIRIUS Modular System.



Straight ahead: The 3RA21 direct starter

Ready for immediate use: Pre-wired SIRIUS load feeders

Load feeders start loads using a combination of protective and switching functions. Generally, a multiple number of components is required to implement every type of starter. In order to reduce time and costs – and especially to minimize downtimes – we offer you a wide range of pre-wired starter solutions:



Phases interchanged: The 3RA22 reversing starter

- Direct starters up to 22 kW the optimum starter combination for all motors.
- Reversing starters up to 45 kW the matching combination for reversing motors.
- Star-delta combinations up to 75 kW the solution for running-up motors in stages.
- Soft starters when soft starting and stopping is required.



Two stages – one start: The 3RA24 star-delta combination

Everything Easy: SIRIUS suitable for every application

Auxiliary contactors



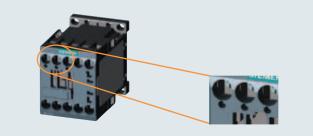
SIRIUS auxiliary contactors reliably control output signals and interlock switching devices in control and auxiliary circuits. Cross-ribbing technique ensures high contact reliability.

3-pole contactor



The 3RT 3-Pole AC3 duty contactors are the optimum choice to control three-phase motors. With just two sizes, they cover a power range from 3 to 250kW / 415V for AC and DC control

3 Pole contactor with communication interface



The S00 and S0 3P contactors with communication interface are capable to communicate through IO link or AS-Interface. The desired function module can be directly mounted on the communication capable contactor.



3RT contactor is available in 4NO & 2NO+2NC configuration for power contactors. 4NO configuration is ideally suitable for switching the source requiring neutral isolation. Changing the polarity of hoisting gear motors can be easily met with use of 2NO+2NC configuration with just one contactor. Two separate loads can be switched by 2NO+2NC contactors thus saving cost of additional contactor. SIRIUS range of low-consumption coil contactors consume power as low as 1.6kW @ 24V DC. Hence, these can be directly driven by PLC output, thus eliminating use of interposing relays. These contactors come with built-in surge suppressor and a wide operating range of $0.7-1.25 \times Us$. Critical applications might require the process to continue even after failure of control voltage. The contactor is designed to remain in ON state even on failure of control voltage ensuring less downtime. This is achieved by mechanical latch.

Everything Easy: SIRIUS suitable for every application

3-pole vacuum contactors



Due to its significant high electrical life 3RT12 vacuum contactors become an ideal choice for applications where low downtime is crucial. Suitability of switching upto 1000V offer another application area for these contactors.

Capacitor duty contactors



When it comes to switching power capacitors, the 3RT16 capacitor contactors are the best choice.

3-pole AC-1 duty contactors



The high performance 3RT14 AC-1 contactors are in their element everywhere resistive rated currents have to be switched. 3RT14 offers an economical choice for applications involving AC-1 duty switching such as heater loads, soft starter bypass or VFD switching. Solid state coil is available for contactors from 9A to 38A and 115A to 500A

Withdrawable coil



Replacement of the magnetic coil of a contactor can be cumbersome, especially for big contactors. This might lead to larger down times which is not affordable in processing industries. SIRIUS contactors for large sizes viz., S6 to S12 (115A onwards to 500A) have withdrawable coils which can be replaced within no time and without the use of any special tools. Moreover these coils are suitable for AC 50/60Hz or DC. Thus reducing the cost of inventory.

Solid state coil (Universal coil)



Large size contactors cannot be driven directly by a PLC output as the 'VA' burden of the coil is too large. Generally, a relay board is used as an interface between the PLC and the contactor coil. SIRIUS range of contactors with solid state coil have the required electronics imbibed within the contactor to be controlled directly by the PLC. This eliminates the need of the interface module, thereby saving cost.



Remaining lifetime indicator (RLT)

The degree of contact erosion is not merely the number of ON/OFF operations, it depends on the loading, operating mode, etc. To avoid unforeseen down times in a plant, the erosion of the contacts have to be monitored regularly. SIRIUS contactor with remaining lifetime indication takes over this task. It electronically identifies, evaluates and stores the actual progress of erosion of the main contacts and outputs a warning when specified limits are reached.

Everything Easy: SIRIUS suitable for every application

Function module



The function modules for mounting onto the contactors enable the assembly of starters and contactor assemblies for direct-on-line, reversing and star-delta starting without any additional, complicated wiring of the individual components. They include the key control functions required for the particular feeder, e.g. timing and interlocking, and can be connected to the control system by either parallel wiring or through IO-Link or AS-Interface (available only for S00, S0 contactors 3RT2).

3RB micro-processor relay



SIRIUS 3RB range of Microprocessor based motor protection relays offer protection for motors against various faults viz., overload, phase failure, earth fault, etc. The higher end 3RB relays with large setting (1:10) also offer thermistor protection. They are modular in design and can accommodate add on modules such as internal earth fault protection module, analog output module, overload warning module, ground fault signalling module, etc.

3RR Current monitoring relays



The 3RR2 current monitoring relays monitor current for overshoot, undershoot and range monitoring without the need of having a separate current transformer. In addition to this, it can be used for phase sequence monitoring, monitoring of phase failure, monitoring of residual current and motor blocking. The load factor over a motor's entire torque range can be evaluated as well. Direct mounting possibility on 3RT2 contactors and variety of the wide supply voltage options make it further attractive solution to the customer.

Motor protection circuit breaker 3RV



3RV motor protection circuit breakers are available in size S00, S0, S2 and S3 upto 100A. They can protect motors upto 45kW. **The entire range is having rotary knob**. The motor protection circuit breaker is available in 3 types, viz "standard type", "Mag Only" type and "relay function type".

Coupling link for control by PLC



The output signal of a PLC is not strong enough to switch on a contactor coil. SIRIUS coupling link can be used to overcome this shortfall. The coupling link is mounted onto the coil terminals of the contactor. The PLC signal switches ON coupling link which in turn energizes the coil of the contactor. Thus saving cost of an additional interposing relay.

Spring type terminals

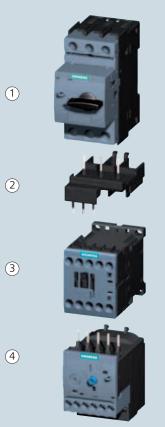


Sirius devices are available with spring type terminals as an option. The key advantage with spring loaded type terminals are :

- Short assembly / disassembly time
- Very high contact reliability
- Shock and vibration proof
- Easy removal of the conductor during maintenance

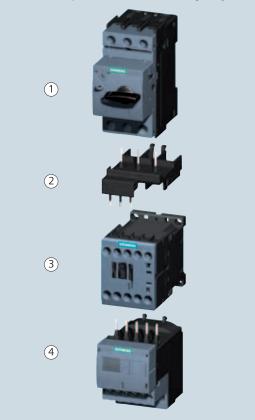
Design up to 7.5 kW (S00) for non-fused, switching

Starter combinations of motor protection circuit breaker and contactor with overload relay



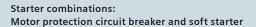
Туре	Screw connection	Spring-loaded connection
$\textcircled{1}_{\text{circuit breaker}}^{\text{Motor protection}}$		
2 Link module	3RA1921-1DA00	3RA2911-2AA00
(3) Contactor (AC / DC)		
(4) Overload relay		

Starter combinations of motor protection circuit breaker and contactor with optional current monitoring relay



	Туре	Screw connection	Spring-loaded connection
1	Motor protection circuit breaker		
2	Link module	3RA1921-1DA00	3RA2911-2AA00
-			

- ③ Contactor (AC / DC)
- (4) Overload relay









Туре	Screw connection	Spring-loaded connection
$\widehat{\mathbb{1}}$ Motor protection circuit breaker		
2 Link module	3RA2921-1BA00	3RA2911-2GA00
3 Soft starter		

S00 selection and ordering data

Starter combinations: Motor protection circuit breaker, contactor with overload relay MPCB for starter protection Overload relay¹⁾ (CLASS 10) Soft starter 1 Current monitoring relay¹⁾ 3-ph motor Setting range Order no. Order no. Setting Order no. Order no. Rated Order no. Order no. 415 V/AC-3 (with 1NO) Thermal Electronic current range [A] [kW] [A] [A] А 0.11 - 0.16 3RV2011-0AA10 0.04 0.16 0.11 - 0.16 3RU2116-0AB0 0.06 0.2 0.14 – 0.2 3RV2011-0BA10 0.14 - 0.2 3RU2116-0BB0 0.06 0.25 0.18 - 0.25 3RV2011-0CA 10 0.18 - 0.25 3RU2116-0CB0 3RB3016-1RB0 AC/DC 110 - 230 V 1.6-16A 0.09 0.32 0.22 - 0.323RV2011-0DA10 0.22 - 0.323RU2116-0DB0 (0.1 - 0.4 A)3RW3013-1BB14 3.6 analog setting 0.09 0.4 0.28 - 0.4 3RV2011-0EA10 0.28 - 0.43RU2116-0EB0 AC/DC 24 V 3RR2141-1AA30 0.12 0.5 0.35 - 0.5 3RV2011-0FA10 AC 230 V, 50/60 Hz 0.35 - 0.53RU2116-0FB0 3RW3013-1BB04 3.6 digital setting 0.18 0.63 0.45 - 0.63 3RV2011-0GA 10 0.45 - 0.633RU2116-0GB0 3RR2241-1FA30 0.18 0.8 0.55 - 0.83RV2011-0HA10 3RT2015-1 AP01 0.55 - 0.8 3RU2116-0HB0 3RB3016-1NB0 AC/DC 110 - 230 V 0.25 1 0.7 – 1 3RV2011-0JA10 0.7 – 1 3RU2116-0JB0 (0.32 - 1.25 A) 3RW3014-1BB14 6.5 0.37 1.25 0.9 - 1.25 3RV2011-0KA10 0.9 - 1.25 3RU2116-0KB0 AC/DC 24 V 0.55 1.6 1.1 – 1.6 3RV2011-1AA10 DC 24 V 1.1 – 1.6 6.5 3RU2116-1AB0 3RW3014-1BB04 0.75 2 1.4 – 2 3RV2011-1BA10 1.4 – 2 3RU2116-18B0 4-16A 0.75 2.5 1.8 – 2.5 3RV2011-1CA10 3RT2015-1BB41 1.8 – 2.5 3RU2116-1CB0 3RB3016-1PB0 analog setting 2.2 - 3.2 1.1 3.2 3RV2011-1DA10 2.2 - 3.23RU2116-1DB0 (1 – 4 A) AC/DC 110 - 230 V 3RR2142-1 AA30 1.5 4 2.8 – 4 2.8 – 4 digital setting 3RV2011-1EA 10 3RU2116-1EB0 3RW3016-1BB14 9 1.5 5 3.5 – 5 3RV2011-1FA10 3.5 – 5 3RR2242-1 FA30 3RU2116-1FB0 AC/DC 24 V 2.2 6.3 4.5 - 6.3 3RV2011-1GA10 4.5 - 6.3 3RU2116-1GB0 3RB3016-15B0 3RW3016-1BB04 9 5.5 – 8 5.5 – 8 3 8 3RV2011-1HA10 3RU2116-1HB0 (3 - 12 A) 7 – 10 4 10 3RV2011-1JA10 AC 230 V, 50/60 Hz 7 – 10 AC/DC 110 - 230 V 3RU2116-1JB0 3RT2016-1AP01 3RW3017-1BB14 12.5 9 - 12.5 3RV2011-1KA10 DC 24 V 9 - 12.5 AC/DC 24 V 5.5 12.5 3RU2116-1KB0 3RT2016-1BB41 12.5 3RB3016-1TB0 3RW3017-1BB04 7.5 11 – 16 AC 230 V, 50/60 Hz 11 – 16 (4 – 16 A) 16 3RV2011-4AA10 3RU2116-4AB0 3RT2017-1 AP01 AC/DC 110 - 230 V DC 24 V 3RW3018-1BB14 17.6 3RT2017-1BB41 AC/DC 24 V AC 230 V, 50/60 Hz 3RW3018-1BB04 17.6 3RT2018-1AP01 DC 24 V 3RT2018-1BB41 ¹⁾ Direct mounting on contactor, Spring-loaded Spring-loaded 2 Spring-loaded Spring-loaded Spring-loaded connection: 2 screw and spring-loaded W: AC/DC connection: 2 connection: connection: C connection: E connection possible 1NC: 2 24-240 V

Design up to 18.5 kW (S0) for non-fused, electromechanical switching

Starter combinations: Motor protection circuit breaker, contactor and overload relay

Image: Second sec

Туре		Screw connection	Spring-loaded connection
$\textcircled{1} \ \underset{\text{circuit breaker}}{\text{Motor protection}}$			
2 Link module ¹⁾	AC DC		3RA2921-2AA00 3RA2921-2AA00
3 Contactor			
(4) Overload relay			

¹⁾ Only suitable up to 32 A

Starter combinations: Motor protection circuit breaker, contactor with optional current monitoring relay



Туре		Screw connection	Spring-loaded connection
① Motor protection circuit breaker			
2 Link module ¹⁾	AC DC	3RA2921-1AA00 3RA2921-1BA00	3RA2921-2AA00 3RA2921-2AA00
3 Contactor			
(4) Current monitoring r	elay		

¹⁾ Only suitable up to 32 A

S0 selection and ordering data

Starter combinations: Motor protection circuit breaker, contactor and overload relay











		Motor protection	circuit breaker for starter protection	Contactor				Overload	relay		
	Three-phase motor 415V/AC-3 [kW] [A]	Thermal overload release	Order no.	Aux. contacts	Order no. DC 24 V	Order no. Control supply volta AC 230 V, 50/60Hz	Order no. age UC (AC 50/60 Hz/DC)	Setting range CLASS 10 [A]	Order no. Thermal	Setting range CLASS 10 [A]	Order no. Electronic
	7.5 16	-	3RV2321-4AC10	1NO+1NC	3RT2025-1BB40	3RT2025-11AL20	3RT2025- 1N 30	11 – 16	3RU2126-4AB0		
	7.5 20	-	3RV2321-4BC10					14 – 20	3RU2126-4BB0	6 – 25	3RB3026-1QB0
	11 22	-	3RV2321-4CC10	1NO+1NC	3RT2026-1BB40	3RT2026-11AL20	3RT2026-11N_30	17 – 22	3RU2126-4CB0		
	11 25	-	3RV2321-4DC10					20 – 25	3RU2126-4DB0		
	15 28	-	3RV2321-4NC10	1NO+1NC	3RT2027-1BB40	3RT2027-11AL20	3RT2027-1N_30	23 – 28	3RU2126-4NB0	10 – 40	3RB3026-1VB0
	15 32	-	3RV2321-4EC10					27 – 32	3RU2126-4EB0		
	18.5 36	-	3RV2321-4PC10	1NO+1NC	3RT2028-1BB40	3RT2028-11AL20	3RT2028-11N_30	30 – 36	3RU2126-4PB0		
	18.5 40	-	3RV2321-4FC10					34 – 40	3RU2126-4FB0		
Starter combinations: Motor protection circuit		Spring-loade	↑ d connection ²⁾ : 2		Spring-loaded connection		UC 21 – 28 V: B UC 95 – 130 V: E C 200 – 280 V: P	9	∱ Spring-loaded connection: ☑	S	↑ pring-loaded connection: 匡

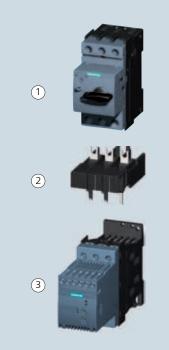
Motor protection cire breaker, contactor with optional current monitoring relay

		Motor protection	n circuit breaker for motor protection	on Contactor Contactor Current monitoring relay						
Three- motor 415V// [kW]		Thermal overload release [A]	Order no.	Aux. contacts	Order no. DC 24 V	Order no. Control supply volt AC 230 V	Order no. age UC (AC 50/60 Hz/DC)	Measurement range [A]	Order no. Basic (analog setting)	Order no. Standard (digital setting)
7.5	16	11 – 16	3RV2021-4AA110	1NO+1NC	3RT2025-1BB40	3RT2025-11AL20	3RT2025-11N 30			
7.5	20	14 – 20	3RV2021-4BA110							
11	22	17 – 22	3RV2021-4CA10	1NO+1NC	3RT2026-1BB40	3RT2026-1AL20	3RT2026-1N30			
11	25	20 – 25	3RV2021-4DA10					4 - 40	3RR2142-1A30	3RR2242-11F_30
15	28	23 – 28	3RV2021-4NA10	1NO+1NC	3RT2027-1BB40	3RT2027-11AL20	3RT2027-11N 30			
15	32	27– 32	3RV2021-4EA10							
18.5	36	30 – 36	3RV2021-4PA10	1NO+1NC	3RT2028-1BB40	3RT2028-11AL20	3RT2028-11N 30			
18.5	40	34 – 40	3RV2021-4FA10							
			Spring-loaded connection ²⁾ : 2		Spring-loaded connection:		UC 21 – 28 V: B JC 95 – 130 V: E C 200 – 280 V: P		d connection: 2 AC/DC 24 V: A /DC 24 – 240 V: W	

²⁾ Max. 32 A

Design up to 18.5 kW (S0) for non-fused, electronic switching

Starter combinations: Motor protection circuit breaker and 3RW30 soft starter



Туре	Screw connection	Spring-loaded connection
① Motor protection circuit breaker		
2 Link module ¹⁾	3RA2921-1BA00	3RA2921-2GA00
(3) Soft starter		

Starter combinations: Motor protection circuit breaker and 3RW40 soft starter (integrated electronic overload relay)



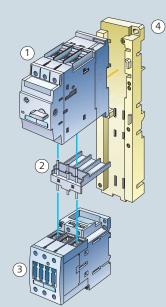
Туре	Screw connection	Spring-loaded connection
1 Motor protection circuit breaker		
2 Link module ¹⁾	3RA2921-1BA00	3RA2921-2GA00
③ Soft starter		

S0 selection and ordering data



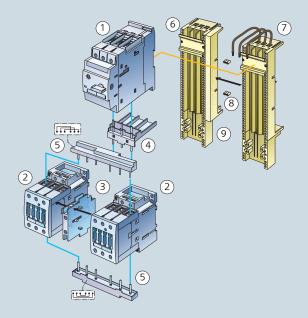
S2 design

Direct start



		Version	Order No.
1	Size S2 circuit breaker		
2	Link module	AC DC	3RA19 31-1AA00 3RA19 31-1BA00
3	Size S2 contactor		
	For busbar mounting (alternative)		
	Busbar adapter	40 mm 60 mm	8US10 61-5FP08 8US12 61-5FP08
	For rail mounting (diagram)		
4	Rail adapter		3RA19 32-1AA00

Reversing start



		Version	Order No.
1	Size S2 circuit breaker		
2	2 Size S2 connectors		
3	Mechanical interlock		3RA19 24-2B
4	Link module	AC DC	3RA19 31-1AA00 3RA19 31-1BA00
5	Wiring kit: upper link module, lower link module		3RA19 33-2A
	For busbar mounting (diagram)		
6	Controlgear support	60 mm	8US12 60-5AP00
7	Busbar adapter	60 mm	8US12 61-5FP08
8	Link wedges (1 Order No. = 100 wedges)		8US19 98-1AA00
9	Side module		8US19 98-2BM00
	For rail mounting (alternative)		
	Rail adapter		3RA19 32-1AA00
	Link wedges (1 Order No. = 100 wedges)		8US19 98-1AA00









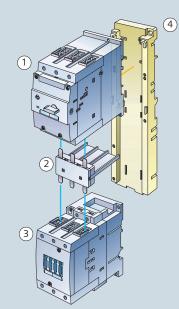
											- Maria			
		Circuit br	eakers (MPCB)	Contacto	ors			Soft start	ers		Overload	relays		
3-phas motor AC-3/4		Setting range Class 10	Order No.	Control supply voltage	AC3 [A]	Auxiliary contacts	Order No.	Control supply voltage	Rated operating current	Order No.	Setting range Class 10	Thermal Order No.	Setting range	Electronic Order No.
[kW]	[A]	[A]							le [A]		[A]		[A]	
15	29	22 – 32	3RV10 31-4EA10	AC	32	-	3RT10 34-1A0				22 – 32	3RU11 36-4EB0		
				DC	32	-	3RT10 34-1B0	110-230	V AC/DC					
		_							32	3RW30 34-1AB14				
18.5	35	28 – 40	3RV10 31-4FA10					24 V AC/D	С		28 – 40	3RU11 36-4FB0		
				AC	40	-	3RT10 35-1A0		32	3RW30 34-1AB04				
		_		DC	40	-	3RT10 35-1B0	110-230					12,5 – 50	3RB2_3UB0
22	41	36 – 45	3RV10 31-4GA10						45	3RW30 36-1AB14	36 – 45	3RU11 36-4GB0		
								24 V AC/D						
		_		AC	50	-	3RT10 36-1A0		45	3RW30 36-1AB04				
22	41	40 – 50	3RV10 31-4HA10	DC	50	-	3RT10 36-1B0				40 – 50	3RU11 36-4HB0		
		_												CLASS 10 0 6 1
														CLASS 530* 1 3 4 * With ground-fault detection (activatable) and electrical remote reset

Coil Codes: AC : C2-24V 50/60 Hz, G2-110V 50/60 Hz, L2-230V 50/60 Hz, V0-400V 50 Hz DC : B4-24VDC, F4-110VDC, M4-220VDC

17

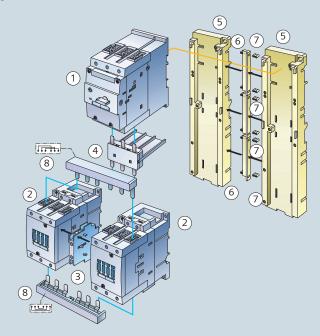
S3 design

Direct start



	Version	Order No.
1 Size S3 circuit breaker		
2 Link module	AC DC	3RA19 41-1AA00 3RA19 41-1BA00
③ Size S3 contactor		
For rail mounting (diagram)		
(4) Rail adapter		3RA19 42-1A

Reversing start



	Version	Order No.
(1) Size S3 circuit breaker		
2 Size S3 connectors		
③ Mechanical interlock		3RA19 24-2B
(4) Link module	AC DC	3RA19 41-1AA00 3RA19 41-1BA00
5 Rail adapter		3RA19 42-1AA00
6 Side modules for rail adapters (1 Order No. = 10 adapters)		3RA19 02-1B
(7) Link wedges (1 Order No. = 100 wedges)		8US19 98-1AA00
Wiring kit: (8) upper link module, lower link module		3RA19 43-2A

S3 selection and ordering data









Circuit breakers (MPCB) Setting Order No. range	Contacto Control	ors			Soft start	0 10		0			
range	Control				SULLSLAL	lers		Overload	relays		
Class 10	supply voltage	AC3 [A]	Auxiliary contacts	Order No.	Control supply voltage		Order No.	Setting range Class 10	Thermal Order No.	Setting range	Electronic Order No.
[A]						le [A]		[A]		[A]	
42 – 63 3RV10 41-4JA10			-					45 – 63	3RU11 46-4JB0		
	DC	65	-	3RT10 44-1B0	110–230						
							3RW30 44-1AB14				
57 – 75 3RV10 41-4KA10					24 V AC/D			57 – 75	3RU11 46-4KB0		
			-				3RW30 44-1AB04				
	DC	80	-	3RT10 45-1B0	110–230					25 – 100	3RB2_4EB0
70 – 90 3RV10 41-4LA10							3RW30 46-1AB14 ¹⁾	70 – 90	3RU11 46-4LB0		
					24 V AC/D						
			-			100	3RW30 46-1AB04 ¹⁾				
80 – 100 3RV10 41-4MA10	DC	95	-	3RT10 46-1B0				80 – 100	3RU11 46-4MB0		
											CLASS 10 0 6 1
											CLASS 530* 1 3 4 * With ground-fault detection (activatable) and electrical remote reset
	42 - 63 3RV10 41-4JA10 57 - 75 3RV10 41-4KA10 70 - 90 3RV10 41-4LA10 80 - 100 3RV10 41-4MA10	DC 57 - 75 3RV10 41-4KA10 70 - 90 3RV10 41-4LA10 AC AC	DC 65 57 - 75 3RV10 41-4KA10 AC 80 DC 80 DC 80 C 10 AC 95	DC 65 - 57 - 75 3RV10 41-4KA10 4 - AC 80 - DC 80 - AC 80 - AC 95 -	DC 65 - 3RT10 44-1B0 57 - 75 3RV10 41-4KA10 AC 80 - 3RT10 45-1A0 AC 80 - 3RT10 45-1B0 DC 80 - 3RT10 45-1B0 70 - 90 3RV10 41-4LA10 AC 95 - 3RT10 46-1A0	DC 65 - 3RT10 44-1B0 110-230 57 - 75 3RV10 41-4KA10 - 24 V AC/D AC 80 - 3RT10 45-1A0 DC 80 - 3RT10 45-1B0 70 - 90 3RV10 41-4LA10 - - AC 95 - 3RT10 46-1A0	DC 65 - 3RT10 44-180 110-230 V AC/DC 63 57 - 75 3RV10 41-4KA10 - 57 24 V AC/DC AC 80 - 3RT10 45-180 10-230 V AC/DC 70 - 90 3RV10 41-4LA10 - 3RT10 45-180 100 70 - 90 3RV10 41-4LA10 - - 100	DC 65 - 3RT10 44-1B0 110-230 V AC/DC 63 3RW30 44-1AB14 57 - 75 3RV10 41-4KA10 - 57 3RV10 41-4KA10 24 V AC/DC 24 V AC/DC 70 - 90 3RV10 41-4LA10 - 3RT10 45-1B0 110-230 V AC/DC 110-230 V AC/DC 70 - 90 3RV10 41-4LA10 - 3RT10 45-1B0 110-230 V AC/DC 100 70 - 90 3RV10 41-4LA10 - - 3RT10 45-1B0 100 3RW30 46-1AB14 ¹⁰ 70 - 90 3RV10 41-4LA10 - - 3RT10 45-1B0 100 3RW30 46-1AB14 ¹⁰ 70 - 90 3RV10 41-4LA10 - - - 3RT10 46-1A0 3RW30 46-1AB14 ¹⁰ 70 - 90 3RV10 41-4LA10 - - - 3RT10 46-1A0 3RW30 46-1AB14 ¹⁰	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	DC 65 - 3RT10 44-180 110-230 VAC/DC 63 3RW30 44-1AB14 63 3RW30 44-1AB14 70-90 57 - 75 3RU11 46-4KB0 70 - 90 3RV10 41-4LA10 63 3RW30 44-1AB04 70 - 90 3RU10 41-4LA10 100 3RW30 44-1AB04 70 - 90 3RU11 46-4LB0 25 - 100 20 - 100 3RU11 46-4LB0 25 - 100 25 - 100 20 - 100 3RU11 46-4LB0 25 - 100 25 - 100 20 - 100 3RU11 46-4LB0 25 - 100 20 - 100 3RU11 46-4LB0 25 - 100 20 - 100 3RU11 46-4LB0 20 - 100 <t< td=""></t<>

Coil Codes: AC : C2-24V 50/60 Hz, G2-110V 50/60 Hz, L2-230V 50/60 Hz, V0-400V 50/60 Hz DC : B4-24VDC, F4-110VDC, M4-220VDC







S6		Contactors			Coil operating mechanis	m	Overload r	elays ¹⁾		Soft star	ters	
3-pha motor AC-3/4		Contactor without coil operating mechanism	Auxiliary contacts		Electromagnetic coil operating mechanism	Order No.	Setting range	Electronic Order No.	Version	Control supply voltage	Rated operating current	Order No.
[kW]	[A]						[A]				le [A]	
55 115		3RT10 54-6LA06	2NO + 2NC		Conventional	3RT19 55-5A.31			with straight-through	230 V AC	134	3RW40 55-6BB44
									transformer			
75	150	3RT10 55-6LA06	2NO + 2NC	+	OR		50 – 200 3RB2_5FC2		with busbar	115 V AC	134	3RW40 55-6BB34
									connection			
90	185	3RT10 56-6LA06	2NO + 2NC		for 24V DC PLC Output	3RT19 55-5N.31	CLASS ⁻	10 0 6 1		230 V AC	162	3RW40 56-6BB44
								530* 1 3 4				
								ground-fault detection		115 V AC	162	3RW40 56-6BB34
							(activat	table) and electrical remote	e reset			







S10	Contactors		Coil operating mecha	Coil operating mechanism		ays ¹⁾	Soft starte	Soft starters		
3-phase motor AC-3/415 V	Contactor without coil operating mechanism	Auxiliary contacts	Electromagnetic coil operating mechanism	Order No.	Setting range	Electronic Order No.	Version	Control supply voltage	Rated operating current	Order No.
[kW] [A]					[A]				le [A]	
110 225	3RT10 64-6LA06	2NO + 2NC	Conventional	3RT19 65-5A.31	55 – 250	3RB2_6GC2	with busbar	230 V AC	230	3RW40 73-6BB44
							connection			
132 265	3RT10 65-6LA06	2NO + 2NC	+ OR		160 – 630	3RB2_6MC2	with busbar	115 V AC	230	3RW40 73-6BB34
							connection			
160 300	3RT10 66-6LA06	2NO + 2NC	for 24V DC PLC Output	3RT19 65-5N.31				230 V AC	280	3RW40 74-6BB44
								115 V AC	280	3RW40 74-6BB34







S12		Contactors				Overload rel	ays ¹⁾		Soft starte	rs	
3-phas motor AC-3/4		Contactor without coil operating mechanism	Auxiliary contacts	Electromagnetic coil operating mechanism	Order No.	Setting range	Electronic Order No.	Version	Control supply voltage	Rated operating current	Order No.
[kW]	[A]					[A]				le [A]	
200	400	3RT10 75-6LA06	2NO + 2NC	Conventional	3RT19 75-5A.31	160 – 630	3RB2_6MC2	with busbar	230 V AC	356	3RW40 75-6BB44
				+ OR				connection			
250	500	3RT10 76-6LA06	2NO + 2NC	for 24V DC PLC Output	3RT19 75-5N.31	CLASS 10	0 6 1		115 V AC	356	3RW40 75-6BB34
							.30* 1 3 4				
						* With gro	ound-fault detection		230 V AC	432	3RW40 76-6BB44
						(activatab	le) and electrical remote res	et			
									115 V AC	432	3RW40 76-6BB34
		Coil Codes: For conv	entional : B-2326V 4	10 to 60 Hz E-110127V 40 to	o 60 Hz P-220240V 40 to 60	Hz					rs are suitable for the

Coil Codes: For conventional : B-23...26V 40 to 60 Hz, F-110...127V 40 to 60 Hz, P-220...240V 40 to 60 Hz For 24V DC PLC output : B-21...27V 40 to 6 Hz, F-96...127V 40 to 60 Hz, P-200...277V 40 to 60 Hz

1) For thermal overload relay use 3UR6 range

SENTRON 3VL circuit breakers are suitable for the fuseless short-circuit and overload protection of soft starters of size S6 or larger. For further information, please refer to the catalogue.

S6, S10, S12

Auxiliary Contactors - 3RH (S00)

Screw terminals				
Operational Current le AC-15 / AC-14 at 230V	Contacts	Contacts	Туре	Туре
А	NO	NC		
Size S00				
10	4	-	3RH21 40-1A0	3RH21 40-1B0
	3	1	3RH21 31-1A0	3RH21 31-1B0
	2	2	3RH21 22-1A0	3RH21 22-1B0

\$@ Please enter coil codes from table below

\$ AC coil vol	tage			@ DC Coil Voltage					
Code	BO	FO	PO	Code	B4	F4	M4		
Coil voltage 50/60 Hz	24	110	230	Coil voltage	24	110	220		

For ordering 3RH (S00) with spring type terminals please replace 8th digit from "1" to "2"

Latched Contactor Relays - 3RH24

Screw terminals

Screw terminals				
Rated operational current le AC-15/	Contacts	Contacts	AC Coils	DC Coil [®]
AC-14 at 230V			Туре	Туре
A	NO	NC		
10	4	-	3RH24 40-1A0	3RH24 40-1B0
	3	1	3RH24 31-1A0	3RH24 31-1B0
	2	2	3RH24 22-1A0	3RH24 22-1B0

\$@ Please enter coil codes from table below

\$ AC coil volt	age			@ DC Coil Voltage						
Code	BO	FO	PO		Code	B4	F4	M4		
Coil voltage 50/60 Hz	24	110	230		Coil voltage	24	110	220		

For Latched Power Contactors refer 3RT accessory "Mechanical Latching Blocks"

Spring type terminals are not available for latched contactor relays

Low power consumption coil contactors

Auxiliary Contactor - 3RH21 Coupling Relays

Rated control supply voltage Us =24 V DC, Coil operating range 0.7 to 1.25xUs Power Consumption of the coils 2.8W at 24V DC (No auxiliary contacts can be mounted)



Screw termi	nals	Screw terminals										
Surge Supressors	Rated operational current le AC-15/AC-14 at 230 V		Auxillary contacts		Туре							
	A	N	0	NC								
Size S00												
Bulit in	10	4	1	-	3RH21 40-1KB40							
supressor		3	3	1	3RH21 31-1KB40							
Diode		2	2	2	3RH21 22-1KB40							
Bulit in Diode		4	1	-	3RH21 40-1JB40							
		3	3	1	3RH21 31-1JB40							
		2)	2	3RH21 22-1JB40							

Power Contactors - 3RT20 coupling relays (interface), for switching motors, 3Pole 3.... 15kW Rated control supply voltage Us =24 V DC, Coil operating range 0.7 to 1.25xUs Power Consumption of the coils 2.8W at 24V DC (No auxiliary contacts can be mounted)



Screw termi	nals				22222
Surge Supressors	AC-2 & AC-3 Operational Current le upto 415V	Rating of induction motor at 50 Hz and	Auxillary contacts		Туре
	А	415V	NO	NC	
Size S00					
Bulit in	7	3	1	-	3RT20 15-1KB41
supressor			-	1	3RT20 15-1KB42
Diode	9	4	1	-	3RT20 16-1KB41
			-	1	3RT20 16-1KB42
	12	5.5	1	-	3RT20 17-1KB41
			-	1	3RT20 17-1KB42
Bulit in Diode	7	3	1	-	3RT20 15-1JB41
			-	1	3RT20 15-1JB42
	9	4	1	-	3RT20 16-1JB41
			-	1	3RT20 16-1JB42
	12	5.5	1	-	3RT20 17-1JB41
			-	1	3RT20 17-1JB42

Rated control supply voltage Us =24 V DC, Coil operating range 0.7 to 1.25xUs Power Consumption of the coils 4.5W at 24V DC (no auxiliary contacts can be mounted)

Screw term	ninals				10.1
Size S00					
Varistor	12	5.5	1	1	3RT20 24-1KB40
integrated	17	7.5	1	1	3RT20 25-1KB40
	25	11	1	1	3RT20 26-1KB40
	32	15	1	1	3RT20 27-1KB40

For ordering low power consumption coil contactors with spring type terminals please replace 8th digit from "1" to "2"

AC1 duty contactor - 3RT14

Size	AC-1 Operational current le upto 690V	Electromagnetic coil operating mechanism	Type#
	Α		
S3	140	AC DC	3RT14 46-1A0 3RT14 46-1B0
S6	275	AC/DC	3RT14 56-6A.36
S10	400	AC/DC	3RT14 66-6A.36
S12	690	AC/DC	3RT14 76-6A.36

— Coil codes

For S3 — To be substituted for 10th and 11th position AC : C2 - 24V 50/60Hz, G2 - 110V 50/60Hz, L2 - 230V 50/60Hz, V0 - 400V 50Hz DC : B4 - 24V, F4 - 110V, M4 - 220V For S6 to S12 — To be substituted for 10th position

AC(40-60Hz) / DC : B — 23—26V, F — 110—127V, P — 220—240V

4 Pole Power Contactors - 3RT23

Screw t	erminals			
Size	AC-1 operational current le upto 415V @ 40 Deg	AC Coil ^s Type	DC Coil [®] Type	
	A			
S00	18	3RT23 16-1A0	3RT23 16-1B0	
	22	3RT23 17-1A0	3RT23 17-1B0	
SO ¹⁾	35	3RT23 25-1A0	3RT23 25-1B0	
	40	3RT23 26-1A0	3RT23 26-1B0	1
	50	3RT23 27-1A0	3RT23 27-1B0	
S2	60	3RT13 36-1A0	3RT13 36-1B0	
\$3	110	3RT13 44-1A0	3RT13 44-1B0	
S3	140	3RT13 46-1A0	3RT13 46-1B0	

\$@ Please enter coil codes from below

AC: B0 - 24V 50/60Hz, F0 - 110V 50/60Hz, P0 - 230V 50/60Hz, V0 - 400V 50Hz

DC: B4 - 24V, F4 - 110V, M4 - 220V

2NO+2NC Power Contactors - 3RT25

Screw terminals

Screw to	Screw terminals							
Size	AC-1 operational current le upto 415V @ 40 Deg	AC Coils Type	DC Coil® Type					
	Α							
S00	18	3RT25 16-1A0	3RT25 16-1B0					
	22	3RT25 17-1A0	3RT25 17-1B0					
S0 ¹⁾	40	3RT25 26-1A0	3RT25 26-1B0					
S2	55	3RT15 35-1A0	3RT15 35-1B0					

\$@ Please enter coil codes from below

AC: B0 - 24V 50/60Hz, F0 - 110V 50/60Hz, P0 - 230V 50/60Hz, V0 - 400V 50Hz

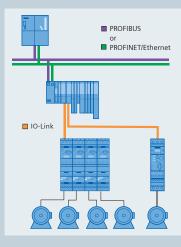
DC: B4 - 24V, F4 - 110V, M4 - 220V



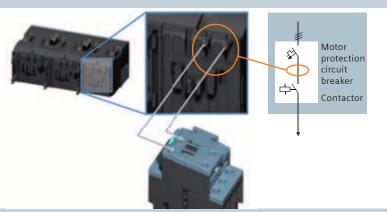
Communications – general information and contactors

Interfacing load feeders to the control system requires function modules for IO-Link or AS-i which are mounted on contactors (24 V DC) with a communication interface. Depending on the version, they communicate with an IO-Link interface group or any AS-i Master.

Typical layout in the environment of IO-Link



IO-Link	
Version	Order no.
ET 200S electronic module, 4SI IO-Link (with 4 ports for 4 load feeders each)	6ES7 138-4GA50-0AB0
or	
ET 200S electronic module, 4SI SIRIUS (with 4 ports for 4 load feeders each)	3RK1005-0LB00-0AA0
ET 200S terminal module (15 mm wide)	
– With screw terminal	TM-E15S26-A1 6ES7
– With spring-loaded terminal	TM-E15C26-A1 6ES7
– With Fast Connect	TM-E15N26-A1 6ES7



Mounting principle of function modules on contactors



S00 contactor with

communication interfac
Control supply voltage

AS-Interface		Three-phase motor 415 V/AC-3			Auxiliary contacts	Control supply voltage Order no.
Version	Order no.	[kW]	[A]			DC 24 V
CP 343-2P communication processor for interfacing	6GK7343-2AH11-0XA0		[A]	-	4110	
SIMATIC S7-300 to AS-Interface (AS-i Spec.3.0) for max. 62 load feeders		3	/		1NC	3RT2015BB42-0CC0
Front connector, 20-pin with screw contacts	6ES7392-1AJ00-0AA0				1NO	3RT2015BB41-0CC0
		4	9		1NC	3RT2016BB42-0CC0
Front connector, 20-pin with spring-loaded contacts	6ES7392-1BJ00-0AA0				1NO	3RT2016BB41-0CC0
DP/AS-i LINK Advanced, gateway between		5.5	12		1NC	3RT2017BB42-0CC0
PROFIBUS DP and AS-Interface					1NO	3RT2017- BB41-0CC0
– Single master for max. 62 load feeders	6GK1415-2BA10	7.5	16		1NC	3RT2018- BB42-0CC0
 Double master for max. 124 load feeders 	6GK1415-2BA20				1NO	3RT2018BB41-0CC0
IE/AS-i LINK PN IO, gateway between PROFINET and						with communication interface
AS-Interface		5.5	12		1NO+1NC	3RT2024-BB40-0CC0
Single master for max. 62 load feeders	6GK1411-2AB10					
Double master for max. 124 load feeders	6GK1411-2AB20	7.5	16		1NO+1NC	3RT2025BB40-0CC0
AS-Interface power supply unit IP20		11	25		1NO+1NC	3RT2026BB40-0CC0
– 120/230 V AC 3A	3RX9501-0BA00	15	32		1NO+1NC	3RT2027BB40-0CC0
– 24 V DC 3A	3RX9501-1BA00	18.5	38		1NO+1NC	3RT2028BB40-0CC0
– 120/230 V AC 5A	3RX9502-0BA00				c	crew connection: 1
– 120/230 V AC 8A	3RX9503-0BA00				3	Spring-loaded



		0		
			AS-	Interface
				 ÷÷ ÷÷
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Typical layout in the

environment of AS-Interface

AS-Interface	Front connector, 20-pin with screw contacts
AS-Internace	Front connector, 20-pin with spring-loaded conta
	DP/AS-i LINK Advanced, gateway between PROFIBUS DP and AS-Interface
	– Single master for max. 62 load feeders
	- Double master for max. 124 load feeders
	IE/AS-i LINK PN IO, gateway between PROFINET a
	AS-Interface
	Single master for max. 62 load feeders
	Double master for max. 124 load feeders

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Function modules for mounting on 3RT2 contactors and for interfacing the control system

arallel viring	in the second se	ļ						
	Direct-on-line start		Reversing start			Star-delta start		
		Order no.			Order no.			Order no.
	ON delay	3RA2811-1CW10	Wiring kit for contactors	S00	3RA2913-2AA 1	Function module ⁴⁾		3RA2816-0EW20
	OFF delay (with auxiliary voltage)	3RA2812-11DW10	Wiring kit for contactors with screw connection	S0	3RA2923-2AA 1	Wiring kit for contactors ¹⁾	S00	3RA2913-2BB1
						Wiring kit for contactors ¹⁾	S0	3RA2923-2BB 1
	-	-	Alterdan			and the second s		additional range
O-Link					1111	and the state	100	
						The State of State of State		The second second
	111111		and a state of the			*****		
	Direct-on-line start ^{1) 2)}		Reversing start ^{1) 2) 3)}			Star-delta start ^{1) 2) 4)}		
		Order no.			Order no.			Order no.
	Function module	3RA2711-1AA00	Function module		3RA2711-1BA00	Function module		3RA2711-11CA00
			Wiring kit for contactors	S00	3RA2913-2AA1	Wiring kit for contactors	S00	3RA2913-2BB1
			Wiring kit for contactors	S0	3RA2923-2AA1	Wiring kit for contactors	S0	3RA2923-2BB 1
					-			-
			atter and		Turn	the ends		
S-Interface	**		the second se		+11 + 1		21	TIT
	222222		anna anna		A A AND A A	10000000		ALCON.
	Direct-on-line start ^{1) 2)}	Order no.	Reversing start ^{1) 2) 3)}		Order no.	Star-delta start ^{1) 2) 4)}		Order no.
	Function module	3RA2712-1AA00	Function module		3RA2712-1BA00	Function module		3RA2712-11CA00
			Wiring kit for contactors	S00	3RA2913-2AA 1	Wiring kit for contactors	S00	3RA2913-2BB 1
			Wiring kit for contactors	S0	3RA2923-2AA 1	Wiring kit for contactors	SO	3RA2923-2BB 1
					Λ Λ			Λ Λ
	Spring-loade	d connection: 2	Sn	ring-loade	d connection: 2		Spring-loaded	I connection: 2

The above shown contactor assemblies can be combined with motor protection circuit breaker, overload and current monitoring relay

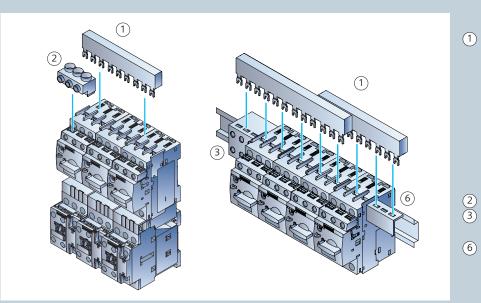
¹⁾ The wiring modules for control circuit are not required when using function modules with communications interface

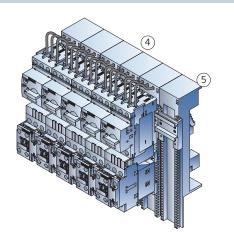
²⁾ The contactor upon which the basic module is fitted must be selected as a communication contactor

³⁾ Consisting of 1 basic module and 1 interface module

⁴⁾ Consisting of 1 basic module and 2 interface modules

3-phase comb busbars / 8US busbar adapters for supply

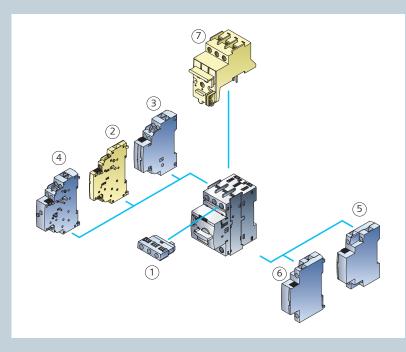




Туре	Size	Order no.		
3-phase comb busbars				
For supplying several 3RV2 Motor protection circuit breaker (screw-connected) mounted side by side on DIN rails, safe to touch		Modular spacing 45 mm	Modular spacing 55 mm	Modular spacing 63 mm
For 2 motor protection circuit breakers	S00, S0	3RV1915-1AB	3RV1915-2AB	3RV1915-3AB
For 3 motor protection circuit breakers	S00, S0	3RV1915-1BB	3RV1915-2BB	-
For 4 motor protection circuit breakers	S00, S0	3RV1915-1CB	3RV1915-2CB	3RV1915-3CB
For 5 motor protection circuit breakers	S00, S0	3RV1915-1DB	3RV1915-2DB	-
3-phase supply terminals				
Connection from the top	S00, S0	3RV2925-5AB		
Connection from the bottom	S00, S0	3RV2915-5B		
Accessories				
Cover caps for connecting lugs Touch protection for unassigned slots	S00, S0	3RV1915-6AB		

	Туре	Size	Version (Length)	Order no.
4	Busbar adapter for 60 mm system			
	For load feeders Rated current 16 A for screw connection	S00	200 mm	8US1251-5DS10
	For load feeders Rated current 32 A for screw connection	S0	260 mm	8US1251-5NT10
	For load feeders Rated current 16 A for spring-loaded connection	S00, S0	260 mm	8US1251-5DT11
	For load feeders Rated current 32 A for spring-loaded connection	S0	260 mm	8US1251-5NT11
5	Accessories			
	Support for side mounting on busbar adapter, 45 mm wide		200 mm	8US1250-5AS10
	Support for side mounting on busbar adapter, 45 mm wide		260 mm	8US1250- 5AT10
	Side module to widen the busbar adapter, 9 mm wide		200 mm	8US1998-2BJ10
	Spacer Fixes the load feeder on the adapter			8US1998-1BA10
	Vibration/shock kit To compensate strain from higher vibration and shock			8US1998-1CA10

Accessories for 3RV2 Motor protection circuit breaker (S00, S0)









	Туре	Version	Order no. Screw connection	Order no. Spring-loaded connection
	Accessories for 3RV2 motor protection circuit b	reaker, size S00, S0		
	Auxiliary and signaling contacts			
(1)	Front-mounted auxiliary block	1CO	3RV2901-1D	-
		1NO + 1NC	3RV2901-1E	3RV2901-2E
		2NO	3RV2901-1F	3RV2901-2F
	Auxiliary switch suited for electronic components	1CO	3RV2901-1G	-
2	Side-mounted auxiliary block	1NO + 1NC	3RV2901-1A	3RV2901-2A
	with 2 contacts	2NO	3RV2901-1B	3RV2901-2B
~		2NC	3RV2901-1C	3RV2901-2C
3	Side-mounted auxiliary block with 4 contacts	2NO +2NC	3RV2901-1J	-
4	Signaling switch		3RV2921-1M	3RV2921-2M
	Auxiliary release			
5	Shunt trip ¹⁾	AC/DC 20 – 70 V	3RV2902-1DB0	3RV2902-2DB0
~		AC 210 – 240 V	3RV2902-1DP0	3RV2902-2DP0
6	Undervoltage release ¹⁾	AC 230 V	3RV2902-1AP0	3RV2902-2AP0
		AC 400 V	3RV2902-1AV0	3RV2902-2AV0
	Undervoltage release	AC 230 V	3RV2922-1CP0	3RV2922-2CP0
	with leading auxiliary contacts	AC 400 V	3RV2922-1CV0	3RV2922-2CV0
		AC 415 V	3RV2922-1CV1	3RV2922-2CV1
	Isolator module and terminal blocks			
(7)	Isolator module		3RV2928-1A	-
	Туре		Version ²⁾	Order no.
	Insulated 3-phase busbar systems			
	3-phase busbars, modular spacing 45 mm			
	for 2 switches		S00, S0	3RV19 15-1AB
	for 3 switches			3RV19 15-1BB
	Tor 5 Switches			51(11) 15 1

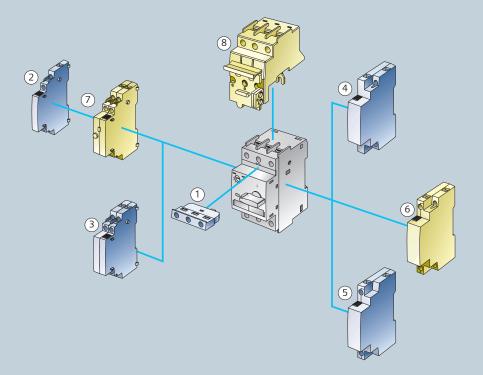
for 4 switches 3RV19 15-1CB for 5 switches 3RV19 15-1DB Door coupling rotary operating mechanism Door coupling rotary operating mechanism (black) with extension shaft 300 mm 3RV1926-1B Front drive 8UC62 Molded-plastic housing For motor protection circuit breaker (+ Side-mounted auxiliary block) 3RV1923-1CA00 54 mm For motor protection circuit breaker (+ Side-mounted auxiliary block + auxiliary release) 72 mm 3RV1923-1DA00 Molded-plastic housing with EMERGENCY STOP door coupling rotary operating mechanism For motor protection circuit breaker (+ Side-mounted auxiliary block) 54 mm 3RV1923-1FA00

72 mm

3RV1923-1GA00

For motor protection circuit breaker (+ Side-mounted auxiliary block + auxiliary release)

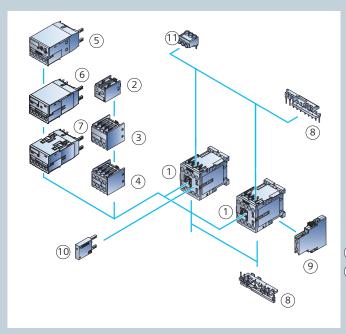
Circuit breakers



		Version	For Size	Order No.
1	Transverse auxiliary switch	1W 1NO + 1NC 2NO	52, 53	3RV19 01-1D 3RV19 01-1E 3RV19 01-1F
2	Transverse auxiliary switch with 2 contacts	1NO + 1NC 2NO 2NC	S2, S3	3RV19 01-1A 3RV19 01-1B 3RV19 01-1C
3	Transverse auxiliary switch with 4 contacts	2NO + 2NC	S2, S3	3RV19 01-1J
4	Shunt release	230 V AC	S2, S3	3RV19 02-1DP0
5	Undervoltage release	230 V AC	S2, S3	3RV19 02-1AP0
6	Undervoltage release with leading auxiliary switches	230 V AC	S2, S3	3RV19 22-1CP0
7	Signaling switch		S2, S3	3RV19 21-1M
8	Isolator module		S2	3RV19 38-1A

	Version		For Size	Order No.	
Insulated 3-phase busbar systems					
	3-phase busbars, modular spacing 55 mm for 2 switches for 3 switches for 4 switches		S2	3RV19 35-1A 3RV19 35-1B 3RV19 35-1C	
	3-phase line-side terminal connection from the top		S2	3RV19 35-5A	
Door-coupling rotary operating mechanisms					
	Black Extension shaft Extension shaft with support bracket	130 mm 330 mm	S2 S3	3RV19 36-1B 3RV19 46-1B	

Accessories for 3RT201 contactors (S00)

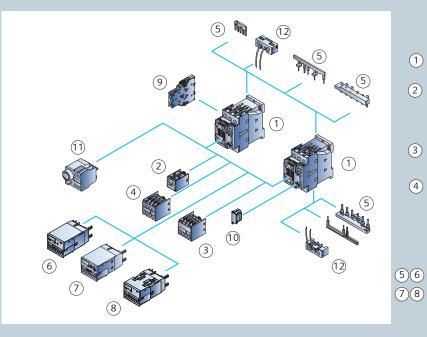


~	Front mounting auxiliary contacts for	Version	Order no. Screw connection	Order no. Spring- loaded connection		
(1)	3RT2 contactors					
	cable entry from the ton	1NO	3RH2911-1AA10	-		
		1NC	3RH2911-1AA01	-		
	2-pole auxiliary contact block,	1NO + 1NC	3RH2911-1LA11	-		
	cable entry from the top	2NO	3RH2911-1LA20	-		
3	2-pole auxiliary contact block,	1NO + 1NC	3RH2911-1MA11	-		
	able entry from the bottom	2NO	3RH2911-1MA20	-		
4	4-pole auxiliary contact blocks ¹⁾ ,	2NC	3RH2911-1HA02	3RH2911-2HA02		
		2NO + 2NC	3RH2911-1HA22	3RH2911-2HA22		
	*Auxiliary contact blocks suitable for	1NO + 1NC	3RH2911-1NF11	3RH2911-2NF11		
electroni (2-pole)	electronic components	2NO	3RH2911-1NF20	3RH2911-2NF20		
	(2-pole)	2NC	3RH2911-1NF02	3RH2911-2NF02		
)(6)) see page 25 (Eurotian modules for mounting on contactors and for interfacing the control system)					

(5) 6 see page 25 (Function modules for mounting on contactors and for interfacing the control system)
 (7) 8

(9)	Auxiliary contact blocks for side	2NO	3RH2911-1DA20	3RH2911-2DA20
Ŭ	mounting	1NO + 1NC	3RH2911-1DA11	3RH2911-2DA11
		2NC	3RH2911-1DA02	3RH2911-2DA02
	Auxiliary contact block suited for electronic components for side mounting (on the right)	1NO + 1NC	-	3RH2911-2DE11
(10)	Surge suppressor, e.g. varistor (AC 230 V)			
-	without LED	AC 127–240 V	3RT2916-1BD00	3RT2916-1BD00
	with LED	AC 127–240 V	3RT2916-1JL00	3RT2916-1JL00
(11)	3-phase supply terminal	Conductor cross section: 6 mm	3RA2913-3K	-

Accessories for 3RT202 contactors (S0)

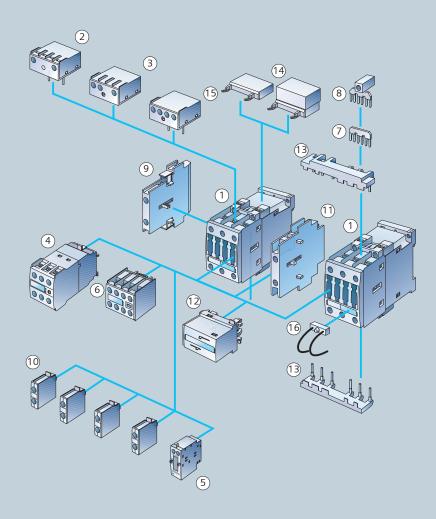


\sim	Front mounting auxiliary contacts for	Comment	Version	Order no. Screw connection	Order no. Spring-loaded connection
(1)	3RT2 contactors				
2	1-pole auxiliary contact block,		1NO	3RH2911-1AA10	-
G	cable entry from the top		1NC	3RH2911-1AA01	-
	2-pole auxiliary contact block, cable entry from the top		1NO + 1NC	3RH2911-1LA11	-
\sim			2NO	3RH2911-1LA20	-
(3)	2-pole auxiliary contact block, cable entry from the bottom		1NO + 1NC	3RH2911-1MA11	-
_			2NO	3RH2911-1MA20	-
4	4-pole auxiliary contact blocks ¹⁾ ,		2NC	3RH2911-1HA02	3RH2911-2HA02
			2NO + 2NC	3RH2911-1HA22	3RH2911-2HA22
	*Auxiliary contact blocks suitable f	or	1NO + 1NC	3RH2911-1NF11	3RH2911-2NF11
	electronic components		2NO	3RH2911-1NF20	3RH2911-2NF20
	(2-pole)		2NC	3RH2911-1NF02	3RH2911-2NF02
6	see page 25 (Function modules for mounting on contactors and for interfacing the control system)				

9	Auxiliary contact blocks for side		2NO	3RH2911-1DA20	3RH2911-2DA20
	mounting		1NO + 1NC	3RH2911-1DA11	3RH2911-2DA11
			2NC	3RH2911-1DA02	3RH2911-2DA02
	Auxiliary contact block for side mounting (on the right), suitable for electronic components		1NO + 1NC	-	3RH2921-2DE11
10	Overvoltage limiter, e.g. varistor (AC 230 V)				
	without LED	AC 127–240 V		3RT2926-1BD00	3RT2926-1BD00
	with LED	AC 127–240 V		3RT2926-1JL00	3RT2926-1JL00
(11)	Pneumatic delay block	0.1 – 30 s	ON delay	3RT2926-2PA01	-
		1 – 60 s	-	3RT2926-2PA11	-
		0.1 – 30 s	OFF delay	3RT2926-2PR01	-
		1 – 60 s		3RT2926-2PR11	-
(12)	Coil terminal module				
	Connection from the top Connection from the bottom			3RT2926-4RA11	3RT2926-4RA12
	Diagonal connection			3RT2926-4RB11	3RT2926-4RB12
				3RT2926-4RC11	3RT2926-4RC12

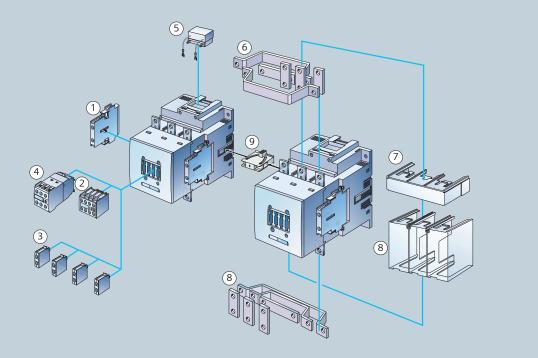
* Gold plated for corrosive / dusty application ¹⁾ More auxiliary contact blocks on request

Accessories for 3RT1 contactors (size S2, S3)



		Version	For Size	Order No.
1	Contactor, size S2 (example) control supply voltage	7.5 kW/415 V 230 V, 50 Hz		3RT10 25-1AC00
	For sizes S2 to S3:			
2	Solid-state timer with semi conductor output (90240V 50/60 Hz), ON delay	0.5 – 10 s		3RT19 26-2CH21
3	Solid-state timer with semi conductor output (90240V 50/60 Hz), OFF delay	0.5 – 10 s		3RT19 26-2DH21
4	Solid-state timer ON delay (200240V 50/60 Hz) OFF delay (200240V 50/60 Hz)	0.5 – 10 s 0.5 – 10 s		3RT19 26-2ED21 3RT19 26-2FL21
5	Mechanical latching	24 AC/DC 110 AC/DC 230 AC/DC	S2 S2 S2	3RT19 26-3AB31 3RT19 26-3AF31 3RT19 26-3AP31
6	4-pole auxiliary switch block (terminal designations acc. to DIN EN 50 012 or DIN EN 50 005)	2NO + 2NC		3RH19 21-1FA22
7	Link for paralleling (star jumper), 3-pole, without terminal	-	S2 S3	3RT19 36-4BA31 3RT19 46-4BA31
8	Link for paralleling, 3-pole, with terminal	-	S2 S3	3RT19 36-4BB31 3RT19 46-4BB31
9	2-pole auxiliary switch block, can be laterally mounted (left or right)	1NO + 1NC	S2 – S12	3RH19 21-1EA11
10	1-pole auxiliary switch block (up to 4 can be snapped on)	1NO 1NC	S2 – S12 S2 – S12	3RH19 21-1CA10 3RH19 21-1CA01
(11)	Mechanical interlock, can be laterally mounted	-	S2 – S3	3RA19 24-2B
12	Mechanical interlock, can be mounted at the front	-	S2 – S3	3RA19 24-1A
13	Wiring connectors at the top and bottom (reversing operation)	-	S2 S3	3RA19 33-2A 3RA19 43-2A
14	Surge suppressor (varistor, RC coupling, diode combination), can be mounted at the top or bottom	-	S2 – S3	3RT19 26-1BD00
15	Interface for mounting directly onto the contactor coil	-	S2 – S3	3RH19 24-1GP11
16	LED module to indicate contactor operation	-	S2 – S3	3RT19 26-1QT00

Accessories for 3RT1 contactors (size S6, S10 and S12)



		Version	Order No.
1	2-pole auxiliary switch block, can be laterally mounted – 2nd block (left/right), DIN EN 50 005	1NO + 1NC 2NO	3RH19 21-1KA11 3RH19 21-1KA20
2	 4-pole auxiliary switch block, can be mounted at the front with classification No. 58, DIN EN 50 012 with classification No. 14, DIN EN 50 012 	2NO + 2NC 2NO + 2NC	3RH19 21-1FA22
3	1-pole auxiliary switch block, can be mounted at the front	1NO 1NC	3RH19 21-1CA10 3RH19 21-1CA01
4	Auxiliary switch block, solid-state time-delay - ON delay, 200–240 V AC - OFF delay, 200–240 V AC		3RT19 26-2ED21 3RT19 26-2FL21

		Version	Order No.
5	RC element, 127 240 V AC		3RT19 56-1CD00
6	Wiring connectors, top and bottom	for S6 for S10 for S12	3RA19 53-2M 3RA19 63-2A 3RA19 73-2A
7	Connection cover for box terminals	for S6 for S10/S12	3RT19 56-4EA2 3RT19 66-4EA2
8	Terminal cover for cable lug and busbar connection	for S6 for S10/S12	3RT19 56-4EA1 3RT19 66-4EA1
(9)	Mechanical interlock		3RA19 54-2A

Operating mechanism types

- (1) 3RT10 and 3RT14 air contactors, Sizes S6, S10 and S12
- (2) 3RT12 vacuum contactor, Sizes S10 and S12
- (3) Withdrawable coils for contactors with conventional operating mechanism 3RT1...-.A..
- (4) Withdrawable coils for contactors with electronic operating mechanism 3RT1...-.N..
- 5 Withdrawable coils and laterally mounted module (can be plugged in) for contactors with electronic operating mechanism and remaining lifetime signal 3RT1...-.P.. and 2RT1...-.Q

		Contactor without coil	Withdrawable coil for operating mechanism		
	motor AC-3/		conventional		
	415 V		control supply voltage	Je	
			220 240 V AC/DC	200 277 V AC/DC	
	kW	Order No.	Order No.	Order No.	
S6	55 75 90	3RT10 54-6LA06 3RT10 55-6LA06 3RT10 56-6LA06	3RT19 55-5AP31	3RT19 55-5NP31	
S10	110 132 160	3RT10 64-6LA06 3RT10 65-6LA06 3RT10 66-6LA06	3RT19 65-5AP31	3RT19 65-5NP31	
S12	200 250	3RT10 75-6LA06 3RT10 76-6LA06	3RT19 75-5AP31	3RT19 75-5NP31	

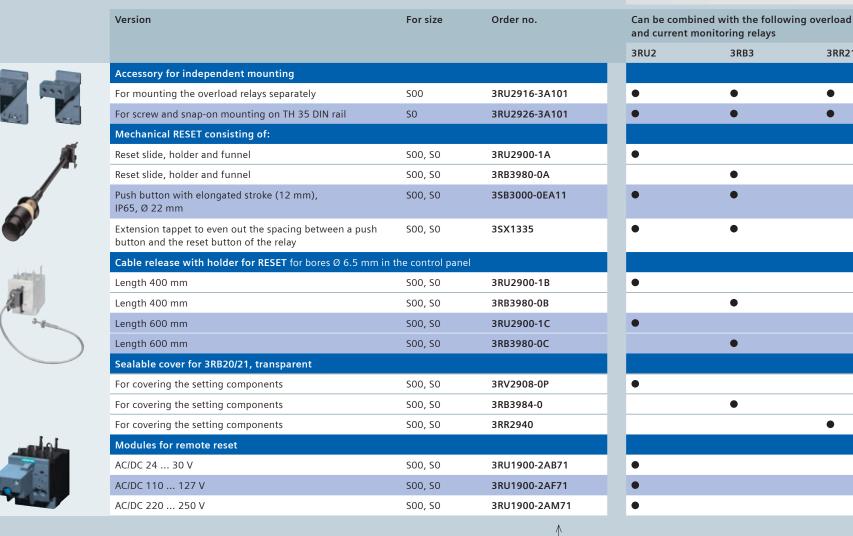
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Accessories for 3RU21 thermal overload relay, 3RB30/31 solid-state overload relay, 3RR21 analog current monitoring relay and 3RR22 digital current monitoring relay (S00, S0)



3RR21

3RR22



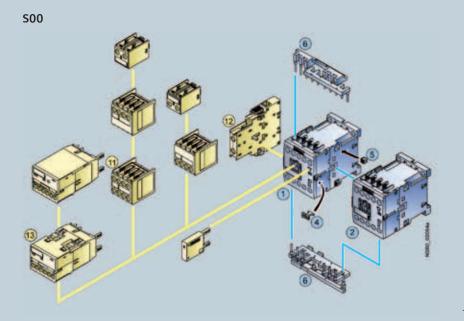
Spring-loaded С connection:

Accessories for 3RU11 thermal overload relays and 3RB20/21 electronic overload relays

		Version	For Size	Order No.	
		Terminal support for stand-alone assembly for 3RU11 for separately mounting the overload relays, screw-type and snap-on fastening on TH 35 DIN rails, size S3 also for TH 75 DIN rails	52 53	3RU19 36-3AA01 3RU19 46-3AA01	
Æ		Mechanical RESET for 3RU11 and 3RB20/21 comprising:			-
	1	Resetting plunger, holder and former	S2 to S10/S12	3RU19 00-1A	
(2)	2	Pushbutton with extended stroke (12 mm), IP65, Ø 22 mm	S2 to S10/S12	3SB30 00-0EA11	
		Extension plunger for compensation of the distance between a pushbutton and the relay's release button	S2 to S10/S12	3SX1335	
mí i		Cable release with holder for RESET 3RU11 and 3RE	320/21		
)	for holes 6.5 mm diameter in the panel; max. panel thickness, 8 mm length 600 mm			
		Sealable cover, transparent for 3RB20/21 to cover the setting elements	S2 to S10/S12	3RB29 84-0	

	Version		For Size	Order No.
	Terminal covers for 3RU11 and 3RU Cover for cable lug and busbar connection	820/21	S3 S6 S10/S12	3RT19 46-4EA1 3RT19 56-4EA1 3RT19 66-4EA1
	Cover for box terminals		S2 S3 S6 S10/S12	3RT19 36-4EA2 3RT19 46-4EA2 3RT19 56-4EA2 3RT19 66-4EA2
	Cover for the screw connection between the contactor and overload relay without box terminals (1x is required for each combination)		S6 S10/S12	3RT19 56-4EA3 3RT19 66-4EA3
1 and	Box terminal block for round and ribbon cables	to 70 mm ² to 120 mm ² to 240 mm ²	S6 S6 S10/S12	3RT19 55-4G 3RT19 56-4G 3RT19 66-4G

3RA23 Reversing Contactor Assemblies



13

	Туре		Orde	r No.
2	Contacto	rs, 3 kW	3RT20 15	3RT20 15
2	Contacto	rs, 4 kW	3RT20 16	3RT20 16
2	Contacto	rs, 5.5 kW	3RT20 17	3RT20 17
2	Contacto	rs, 7.5 kW	3RT20 18	3RT20 18
) (6)	Assembl	y kit comprising:	3RA29 13-2AA1	
	4	Mechanical interlocks		
	5	2 connecting clips for 2 contactors		
	6	Wiring modules on the top and bottom for connecting the main current paths, electrical interlock included), interruptible (NC contact interlock)		
)	Auxiliary	switch block, front	3RH29 11-1	
	Auxiliary switch block, lateral		3RH29 21-1DA	
)	Surge suppressor		3RT29 16-1	
3)	Function module for connection to the control system		3RT27 11BA00	

1) 3RT20 1. contactors with one NC contact in the basic unit are required for the electrical interlock.

> 11 12 13

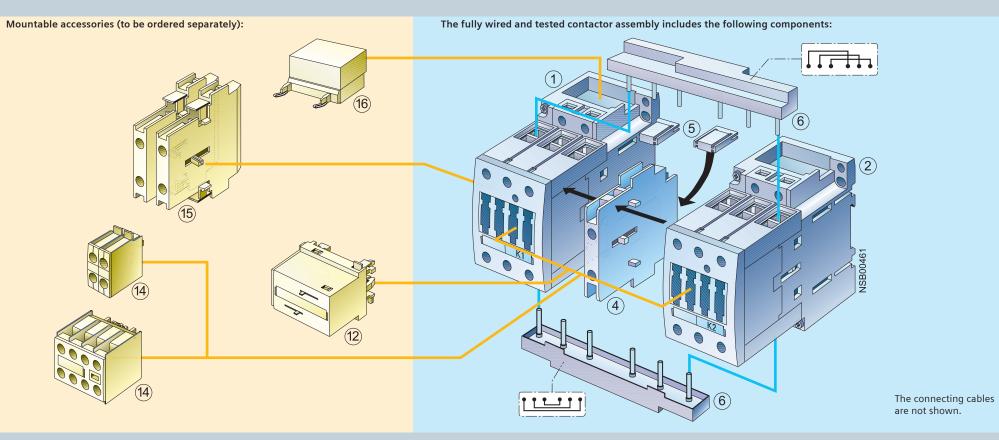
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(4)

	Туре		Orde	r No.
1) (2)	Contacto	rs, 5 kW	3RT20 24	3RT20 24
1) (2)	Contacto	rs, 7.5 kW	3RT20 25	3RT20 25
1) (2)	Contacto	rs, 11 kW	3RT20 26	3RT20 26
1) (2)	Contacto	rs, 15 kW	3RT20 27	3RT20 27
1) (2)	Contacto	rs, 18.5 kW	3RT20 28	3RT20 28
56	Assembl	y kit comprising:	3RA29 23-2AA1	
	4	Mechanical interlocks		
	5	2 connecting clips for 2 contactors		
	6	Wiring modules on the top and bottom for connecting the main current paths, electrical interlock included), interruptible (NC contact interlock)		
(1)	Auxiliary	switch block, front	3RH29 21-1	
12	Auxiliary	switch block, lateral	3RH29 21-1DA	
13	Surge su	ppressor	3RT29 26-1	
14	Function	module for connection to the control system	3RT27 11BA00	

3RA13 complete units, 3 ... 45 kW

Fully wired and tested contactor assemblies · Size S2 · up to 22 kW



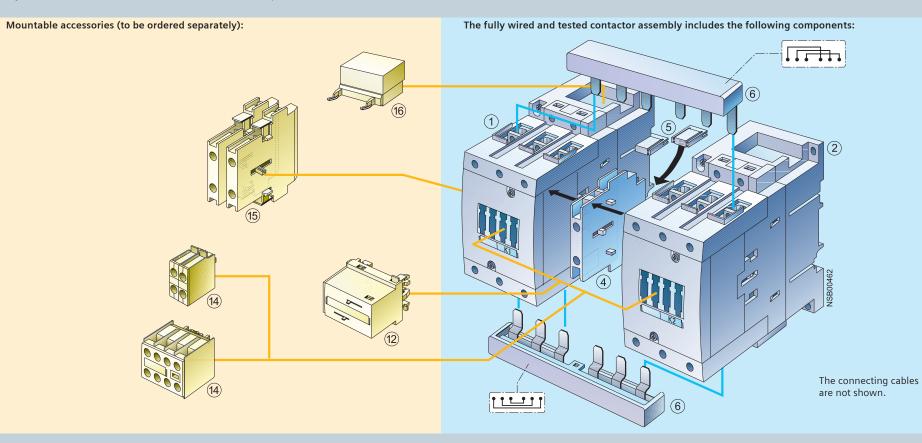
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Accessories	Order No.
Mechanical interlock, front	3RA19 24-1A
Auxiliary switch block, front	3RH19 21-1CA
Auxiliary switch block, lateral	3RH19 21-1EA
Surge suppressors	3RT19 26-1 3RT19 36-1

Individual parts		Order No.		
		K1	K2	
Contactors, 15 kW		3RT10 34	3RT10 34	
Contactors, 18.5 kW		3RT10 35	3RT10 35	
Contactors, 22 kW		3RT10 36	3RT10 36	
Mechanical interlock, lateral		3RA19 24-2B		
Installation kit		3RA19 33-2A		
The installation kit contains:				
5	5 2 connecting clips for 2 contactors with a clearance of 10 mm			
6	Wiring modules on the top and bottom for connecting the main current paths			

3RA13 complete units, 3 ... 45 kW

Fully wired and tested contactor assemblies · Size S3 · up to 45 kW

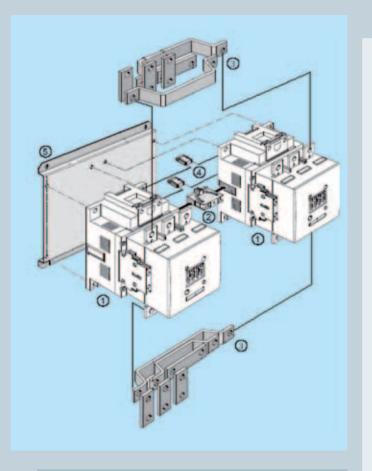


1	2
1	4
1	5
(1	6

Mechanical interlock, front	3RA19 24-1A
Auxiliary switch block, front	3RH19 21-1CA
Auxiliary switch block, lateral	3RH19 21-1EA
	3RT19 26-1 3RT19 36-1

Individual parts		Order No.				
		K1	К2			
Contac	tors, 30 kW	3RT10 44	3RT10 44			
Contac	tors, 37 kW	3RT10 45	3RT10 45			
Contac	tors, 45 kW	3RT10 46	3RT10 46			
Mecha	nical interlock, lateral	3RA19 24-2B				
Installa	tion kit	3RA19 43-2A				
The ins	tallation kit contains:					
5	2 connecting clips for 2 contactors with a clearance of 10 mm					
6	6 Wiring modules on the top and bottom for connecting the main current paths					

S6 - Mechanical Interlock & Installation kit for reversing contactors



Individual	Components
------------	------------

- Size S6 Power Contactor (1)
- Lateral mounted mechanical interlock (2)
- Wiring modules on the top & bottom 3
- 2 Nos Connecting clips for two contactors (4)
- (5) Base plate

	S.No.	For Contactor	Description	Туре
N. 1.	A	3RT1.5 3RT1.6 3RT1.7	Lateral Mounted Mechanical Interlock	3RA19 54-2A
	В	3RT10 5	Base Plate	3RA19 52-2A
	С	3RT10 5	Installation Kit Each kit contains wiring modules on the top & bottom (For connection with box terminals)	3RA19 53-2A
	D	3RT10 5	Installation Kit Each kit contains wiring modules on the top & bottom (For connection without box terminals)	3RA19 53-2M
coll coll	E	3RT1. 3 3RT1. 4 3RT1. 5	Connecting Clips (for lateral mounted mechanical interlock) Each set consists of 2 Connecting clips	3RA19 32-2D

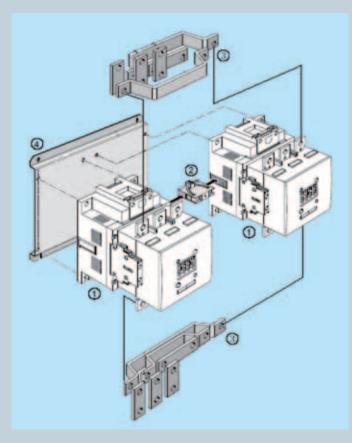
Mech. Interlock - Size S6

	3-Pole
Lateral Mounting	А

Installation Assembly for reversing cont. - Size S6

	3-Pole
Lateral Mounting (For contactor <u>with box terminal</u>)	A+B+C+E
Lateral Mounting (For contactor <u>without box terminal</u>)	A+B+D+E

S10 - Mechanical Interlock & Installation kit for reversing contactors

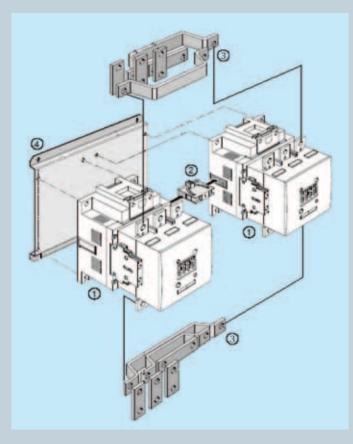


	S.No.	For Contactor	Des	cription			Туре
N. I.	A	3RT1. 5 3RT1. 6 3RT1. 7		ral Mou hanical	nted Interlock	1	3RA19 54-2A
	В	3RT1. 6	Base	e Plate			3RA19 62-2A
	С	3RT1. 6	Each	allation n kit con connec	<u>Kit</u> tains wiring modules on the top & bottom tion without box terminals)		3RA19 63-2A
Mechanical Interlock - Size	S10				Installation Assembly for reversin	g cor	ıt Size S10
			3-Pole				3-Pole
Lateral Mounting			A		Lateral Mounting (For contactor <u>with box</u>	termi	nal) A+B+C

Individual Components

- Size S10 Power Contactor (1)
- Lateral mounted mechanical interlock 2
- Wiring modules on the top & bottom 3
- Base plate (4)

S12 - Mechanical Interlock & Installation kit for reversing contactors

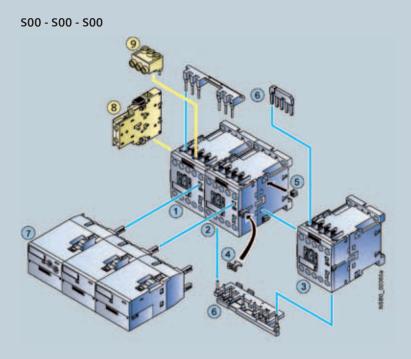


	S.No.	For Contactor	Descriptio	n	T	уре
N. 1.	A	3RT1. 7	Lateral Mo Mechanica		■ 3	3RA19 54-2A
	В	3RT1. 7	Base Plate		3	3RA19 72-2A
	С	3RT1. 7	Installation Each kit co (For conne	<u>i Kit</u> ntains wiring modules on the top & bottom ction without box terminals)	З	3RA19 73-2A
Mechanical Interlock - Size	S12			Installation Assembly for reversing	cont.	- Size S12
			3-Pole			3-Pole
Lateral Mounting			A	Lateral Mounting (For contactor <u>with box to</u>	erminal) A+B+C

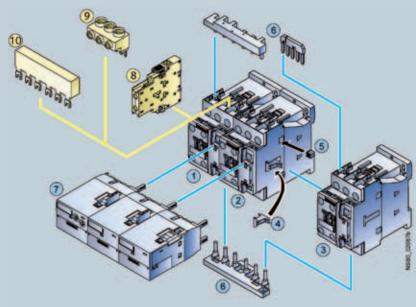
Individual	Components
munuuuu	components

- Size S12 Power Contactor (1)
- Lateral mounted mechanical interlock 2
- Wiring modules on the top & bottom 3
- Base plate (4)

3RA24 Contactor Assemblies for Wye-Delta Starting



S0 - S0 - S0



	Туре			Order No.	
123	Contacto	rs, 5.5 kW	3RT20 151)	3RT20 15 ²⁾	3RT20 15 ²⁾
123	Contacto	rs, 7.5 kW	3RT20 17 ¹⁾	3RT20 17 ²⁾	3RT20 15 ²⁾
123	Contacto	rs, 11 kW	3RT20 181)	3RT20 18 ²⁾	3RT20 16 ²⁾
4 5 6	Assembl	y kit comprising:	3RA29 13-2BB1		
	4	Mechanical interlock			
	5	4 connecting clips			
	6	Wiring modules on the top and bottom for connecting the main current paths			
7	Function	modules for wye-delta starting	3RA28 16-0EW	20	
8	Auxiliary	switch block, lateral	3RH29 21-1DA.	•	
9	3-phase f	ieeder terminal ³⁾	3RA29 13-3K		

1) Use version with 1 NO.

2) Use version with 1 NC.

1 1

(1)

4

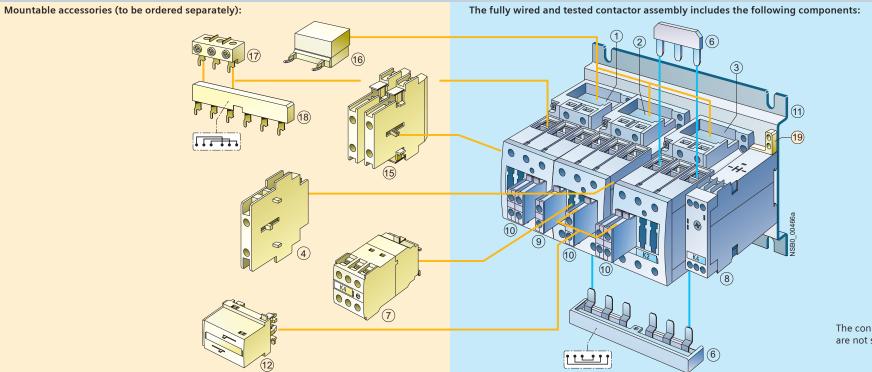
3) It can be only be mounted with contactors with screw terminals.

T20 24 ²⁾ T20 24 ²⁾
20 26 ²⁾

1) It can be only be mounted with contactors with screw terminals.

3RA14 complete units, 3 ... 75 kW

Fully wired and tested contactor assemblies \cdot Size S2-S2-S2 \cdot up to 45 kW



1

The connecting cables are not shown.

	Accessories	Order No.
4	Mechanical interlock, lateral	3RA19 24-2B
7	Solid-state time-delay auxiliary switch block, $front^{1)}$	3RT19 26-2G
12	Mechanical interlock, front	3RA19 24-1A
15	Auxiliary switch block, lateral	3RH19 21-1EA
16	Surge suppressors	3RT19 26-1 3RT19 36-1
17	3-phase feeder terminals	3RV19 35-5A
18	3-phase busbars	3RV19 35-1A
19	Push-in lug ²⁾ for timing relay screw mounting	3RP19 03

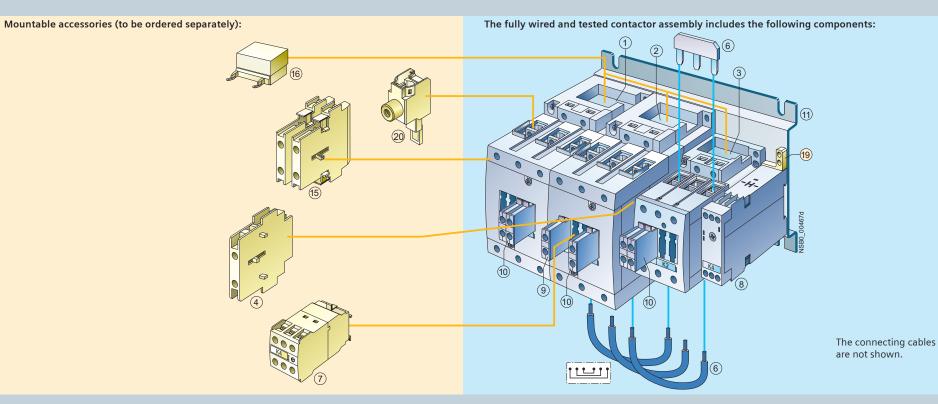
	Individual parts	Order No.					
		K1	К3	K2			
23	Contactors, 37 kW	3RT10 35	3RT10 35	3RT10 34			
$\overline{23}$	Contactors, 45 kW	3RT10 36	3RT10 36	3RT10 34			
8	Timing relay, lateral	3RP15 74-1N	1.30				
9	Auxiliary switch block with 1 unassigned NO contact	3RH19 21-10	CA10				
10	Auxiliary switch block for local control 2 units 3 units	3RH19 21-10 3RH19 21-10					
(11)	Base plate	3RA19 32-2F	:				
6	Installation kit	3RA19 33-2E	}				
\smile	The installation kit contains the star jump	or on the ten	and the wirin	a modulo on			

The installation kit contains the star jumper on the top and the wiring module on the bottom for connecting the main current paths.

- Generally possible. If a solid-state time-delay auxiliary switch block is mounted onto the front of K3, a standard auxiliary switch block can only be mounted onto the side.
- Not part of the scope of supply of the preassembled contactor assemblies; can be ordered as an accessory.
- See Monitoring and Control Devices: 3RP, 7PV timing relays -> 3RP15 timing relays in 22.5 mm industrial enclosure.

3RA14 complete units, 3 ... 75 kW

Fully wired and tested contactor assemblies \cdot Size S2-S3-S2 \cdot up to 75 kW



(1)

1

	Accessories	Order No.
4	Mechanical interlock, lateral Depth compensation required K3: 0 mm; K2: 27.5 mm ¹⁾	3RA19 24-2B
7	Solid-state time-delay auxiliary switch block, front ²⁾	3RT19 26-2G
15	Auxiliary switch block, lateral	3RH19 21-1EA
16	Surge suppressors	3RT19 .6-1
19	Push-in lug ³⁾ for timing relay screw mounting	3RP19 03
20	1-phase feeder terminal	3RA19 43-3L
-		

	Individual parts	Order No.				
		K1	К3	К2		
23	Contactors, 55 kW	3RT10 44	3RT10 44	3RT10 35		
$\overline{23}$	Contactors, 75 kW	3RT10 45	3RT10 45	3RT10 36		
(8)	Timing relay, lateral	3RP15 74-1N	1.30			
9	Auxiliary switch block with 1 unassigned NO contact	3RH19 21-10	CA10			
10	Auxiliary switch block for local control 2 units 3 units	3RH19 21-10 3RH19 21-10				
(11)	Base plate	3RA19 42-28	Ξ			
6	Installation kit	3RA19 43-20	2			
\smile	The first Heaters I far a set for all the set of the		and all the second			

The installation kit contains the star jumper on the top and the wiring module on the bottom for connecting the main current paths.

- 1) Use the 3RA19 42-2B base plate for this configuration.
- Generally possible. If a solid-state time-delay auxiliary switch block is mounted onto the front of K3, a standard auxiliary switch block can only be mounted onto the side.
- Not part of the scope of supply of the preassembled contactor assemblies; can be ordered as an accessory.
- See Monitoring and Control Devices: 3RP, 7PV timing relays -> 3RP15 timing relays in 22.5 mm industrial enclosure.

Enclosures for direct-on-line starter

Version	For contactor & overload relay Size	Order No.	Qty	
With PE/ground terminal	500	3RE19 13-1CB1	1	
With N & PE/ground terminal	SO	3RE19 23-1CB2	1	D_
With N & PE/ground terminal	S2	3RE19 33-1CB3	1	
				•

Enclosures for reversing starter

With N & PE/ground terminal	S00/S0	3RE19 13-2CB3	1	
				•

- The selection is valid only for complete Siemens combinations i.e. MPCB / MCCB + contactor + bi-relay (+timer)
- In case this combination is changed to accommodate another brand/rating of MPCB/MCCB/ contactor/BMR, it shall be the responsibility of the person making such a change to assure Type 2 performance.
- Selection is for normal starting conditions with starting time ≤ 6 seconds. For heavy starting applications (e.g. ID/FD fans, reciprocating compressor, ball mills etc.), please consult Siemens.
- Truly tested Type 2 combinations
- Low LCC = Low life cycle cost

SL motor		Circuit breaker ^s		Contacto	r	Bi-relay		
kW 415V, 3ph, 50/60 Hz	I _L Amp	Туре	Amp	Туре	Amp	Type (60°C)	Set-Range Amp	
0,37	1.1	3RV2011-0KA10	1.25	3RT2015-1AP01	7	#	0.9 - 1.25	
5.5	1.5	3RV2011-1AA10	1.6	3RT2015-1AP01	7	#	1.1 - 1.6	
7.5	1.9	3RV2011-1BA10	2	3RT2015-1AP01	7	#	1.4 - 2	
1.1	2.7	3RV2011-1BA10	3.2	3RT2015-1AP01	7	#	2.2 - 3.2	
1.5	3.6	3RV2011-1EA10	4	3RT2015-1AP01	7	#	2.8 - 4	
2.2	5	3RV2011-1GA10	6.3	3RT2024-1AP00	12	#	4.5 - 6.3	
3	6.5	3RV2011-1HA10	8	3RT2024-1AP00	12	#	5.5 - 8	
4	8.5	3RV2011-1JA10	10	3RT2024-1AP00	12	#	7 -10	
5.5	11.5	3RV2011-1KA10	12.5	3RT2024-1AP00	12	#	9 - 12.5	
7.5	15.5	3RV2011-4AA10	16	3RT2026-1AP00	25	#	11 - 16	
11	22	3RV2021-4DA10	25	3RT2027-1AP00	32	#	20 - 25	
15	29	3RV2021-4EA10	32	3RT2027-1AP00	32	#	27 - 32	
18.5	34	3RV10 31-4FA10	40	3RT10 35-1AL20	40	#	28 - 40	
22	40	3RV10 31-4HA10	50	3RT10 36-1AL20	50	#	36 - 45	
30	53	3RV10 41-4JA10	63	3RT10 44-1AL20	65	#	45 - 63	
37	65	3RV10 41-4KA10	75	3RT10 45-1AL20	80	#	57 - 75	
45	78	3RV10 41-4LA10	90	3RT10 46-1AL20	95	#	70 - 90	
55	96	3RV10 41-4MA10	100	3RT10 54-6LA06	115	#	80 - 100	
55	96	3VL27 10-1DK36-0AA0	100	3RT10 54-6LA06	115	3RU11 46-4MB0	80 - 100	
75	131	3VL27 16-1DK36-0AA0	160	3RT10 55-6LA06	150	3UR62 30-5AA00-0AA7	85 - 135	
90	156	3VL37 25-1DK36-0AA0	250	3RT10 56-6LA06	185	3UR62 30-5BA00-0AA7	115 - 180	
110	189	3VL37 25-1DK36-0AA0	250	3RT10 64-6LA06	225	3UR62 30-5CA00-0AA7	160 - 250	
132	227	3VL37 25-1DK36-0AA0	250	3RT10 65-6LA06	265	3UR62 30-5CA00-0AA7	160 - 250	
160	271	3VL47 31-1DK36-0AA0	315	3RT10 66-6LA06	300	3UR62 30-5DA00-0AA7	200 - 320	
200	339	3VL57 50-1DK36-0AA0	500	3RT10 76-6LA06	500	3UR62 30-5EA00-0AA7	250 - 400	
250	398	3VL57 50-1DK36-0AA0	500	3RT10 76-6LA06	500	3UR68 30-5FA00-0AA7	320 - 500	

Direct-on-line feeder, for low LCC

\$ 3RV11 / 3RV20 motor protection circuit-breaker can also be used in place of 3RV10 / 3RV20 motor protection circuit-breaker respectively

3RV10 comes with in-built overload protection, hence external bi-relay is eliminated

- The selection is valid only for complete Siemens combinations i.e. MPCB / MCCB + contactor + bi-relay (+timer)
- In case this combination is changed to accommodate another brand/rating of MPCB/MCCB/ contactor/BMR, it shall be the responsibility of the person making such a change to assure Type 2 performance.
- Selection is for normal starting conditions with starting time ≤ 6 seconds. For heavy starting applications (e.g. ID/FD fans, reciprocating compressor, ball mills etc.), please consult Siemens.
- The electronic star-delta timer type 3RP should be used in star-delta feeders.
- Truly tested Type 2 combinations
- Low LCC = Low life cycle cost

Star-Delta	feeder,	for Low	LCC
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SL motor		Circuit breaker		Contactor line/delta		Contactor star		Bi-relay		Timer	
kW 415V, 3ph, 50/60 Hz	I _L Amp	lph A	Туре	Amp	Туре	Amp	Туре	Amp	Type (60°C)	Set-Range Amp	Туре
5.5	11.5	6.5	3RV2321-4AC10	16	3RT2026-1AP00	25	3RT2015-1AP01	7	3RU2126-1HB0	5.5 - 8	3RP15
7.5	15.5	9.2	3RV2321-4AC10	16	3RT2026-1AP00	25	3RT2015-1AP01	7	3RU2126-1JB0	7 -10	3RP15
11	22	12	3RV2321-4DC10	25	3RT2027-1AP00	32	3RT2024-1AP01	12	3RU2126-4AB0	11 - 16	3RP15
15	29	16.2	3RV2321-4EC10	32	3RT2027-1AP00	32	3RT2024-1AP01	12	3RU2126-4BB0	14 - 20	3RP15
18.5	34	19.7	3RV13 31-4FC10	40	3RT10 35-1AL20	40	3RT10 24-1AL20	12	3RU11 36-4DB0	18 - 25	3RP15
22	40	23.2	3RV13 31-4GC10	45	3RT10 36-1AL20	50	3RT10 26-1AL20	25	3RU11 36-4EB0	22 - 32	3RP15
30	53	30.6	3RV13 41-4JC10	63	3RT10 44-1AL20	65	3RT10 26-1AL20	25	3RU11 46-4FB0	28 - 40	3RP15
37	65	37.5	3RV13 41-4KC10	75	3RT10 44-1AL20	65	3RT10 34-1AL20	32	3RU11 46-4HB0	36 - 50	3RP15
45	78	45	3RV13 41-4LC10	90	3RT10 45-1AL20	80	3RT10 34-1AL20	32	3RU11 46-4JB0	45 - 63	3RP15
55	96	55.4	3RV13 41-4MC10	100	3RT10 56-6LA06	185	3RT10 34-1AL20	32	3RU11 46-4JB0	45 - 63	3RP15
55	96	55.4	3VL27 10-1DK36-0AA0	100	3RT10 56-6LA06	185	3RT10 34-1AL20	32	3RU11 46-4JB0	45 - 63	3RP15
75	131	75.6	3VL27 16-1DK36-0AA0	160	3RT10 56-6LA06	185	3RT10 44-1AL20	65	3RU11 46-4LB0	70 - 90	3RP15
90	156	90.1	3VL37 25-1DK36-0AA0	250	3RT10 64-6LA06	225	3RT10 44-1AL20	65	3RU11 46-4MB0	80 - 100	3RP15
110	189	109	3VL37 25-1DK36-0AA0	250	3RT10 64-6LA06	225	3RT10 54-6LA06	115	3UR62 30-5AA00-0AA7	85 - 135	3RP15
132	227	131.1	3VL37 25-1DK36-0AA0	250	3RT10 65-6LA06	265	3RT10 54-6LA06	115	3UR62 30-5AA00-0AA7	85 - 135	3RP15
160	271	156.5	3VL47 31-1DK36-0AA0	315	3RT10 66-6LA06	300	3RT10 54-6LA06	115	3UR62 30-5BA00-0AA7	85 - 135	3RP15
200	339	195.7	3VL57 50-1DK36-0AA0	500	3RT10 76-6LA06	500	3RT10 56-6LA06	185	3UR62 30-5CA00-0AA7	160 - 250	3RP15
250	398	229.8	3VL57 50-1DK36-0AA0	500	3RT10 76-6LA06	500	3RT10 65-6LA06	265	3UR62 30-5CA00-0AA7	160 - 250	3RP15

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