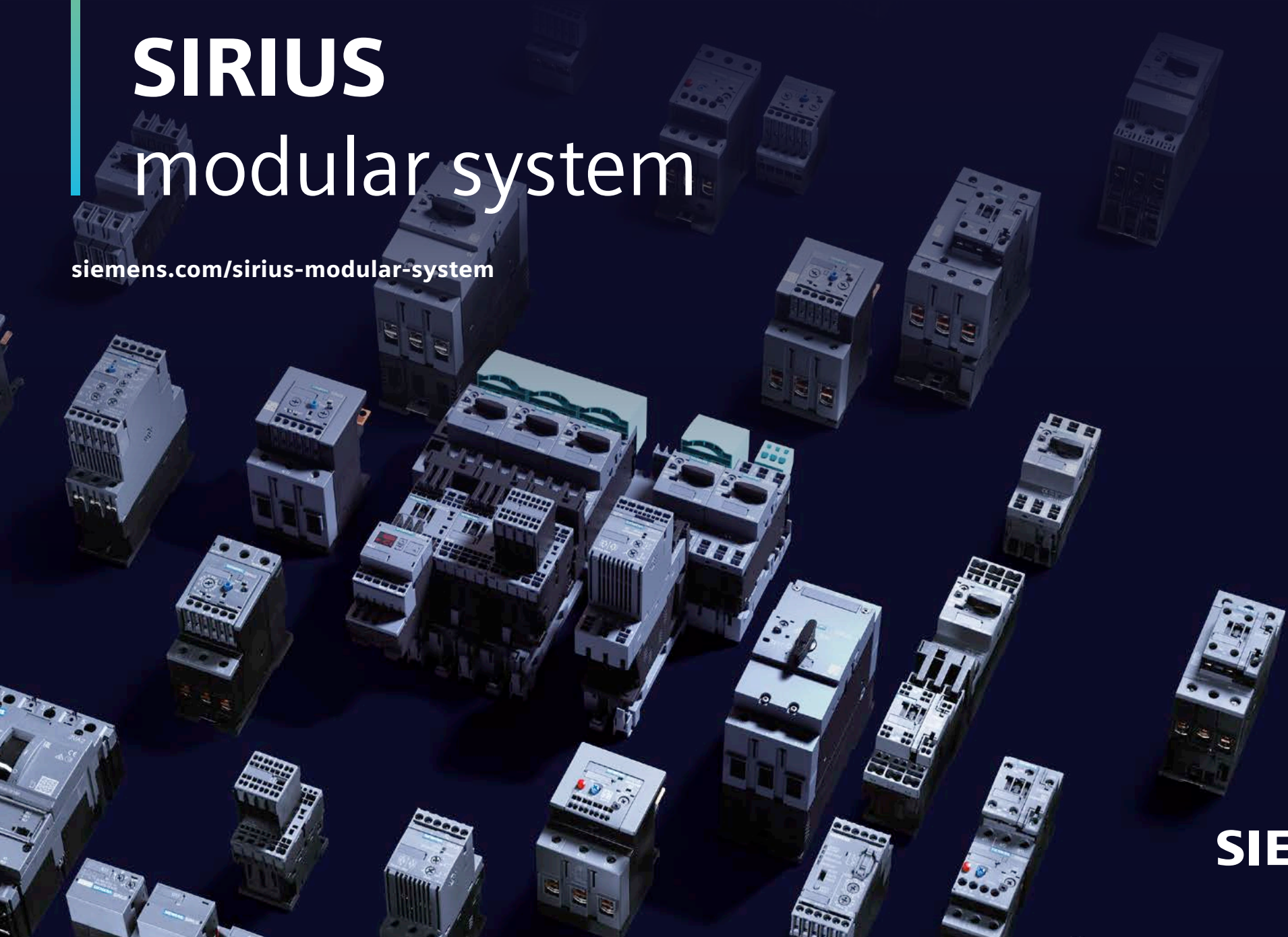


SELECTION GUIDE

# SIRIUS

## modular system

[siemens.com/sirius-modular-system](https://www.siemens.com/sirius-modular-system)



**SIEMENS**

EFFICIENTLY COMBINED

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

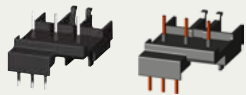
**Possible combinations depending on requirement:**

## Load feeders:

Direct start (p. 3 – 5)



Motor starter protector  
for motor protection (S00 to S3)



Link module (S00 to S3)



Contactor (S00 to S3)



Thermally  
delayed



Electronic



Analogically  
adjustable



Digitally  
adjustable

Monitoring relays (up to S2)  
or overload relays

## Load feeders:

Soft start, solid-state contactors (p. 6 – 7)



Motor starter protector  
for motor protection (S00 to S3)



Link module (S00 to S3)



3RW30 or 3RW40  
soft starters



Solid-state contactors  
(S00 and S0)

For frequently switching AC drives on and off,  
our motor starter protectors can also be combined  
with solid-state contactors or reversing contactors  
and an overload relay.



## Advantages at a glance:

### Load feeders:

easy to implement up to 250 kW/400 V from  
standard devices with motor starter protectors  
for motor protection, contactors, overload relays  
and monitoring relays

### Modular design:

a host of combination options  
in standardized design

### Variants and sizes:

seven compact sizes

### Installation:

quick and easy installation of feeders  
thanks to link modules

### Accessories:

low variance with uniform accessories

### Connection types:

screw and spring-type terminals available

### IE3/IE4 ready:

familiar reliability even when changing  
over to IE3/IE4 motors

### Application monitoring:

mountable monitoring relay for simple application  
monitoring beyond the motor

# Accessories

## 3RV motor starter protectors/circuit breakers

Size	Mountable accessories	Design	Screw terminals	Spring-type terminals	
S00, S0, S2, S3	Transverse auxiliary switch	1CO	3RV2901-1D	–	
	Lateral (left) auxiliary switch	1NO+1NC	3RV2901-1E	3RV2901-2E	
	Signaling switch	1NO+1NC	3RV2901-1A	3RV2901-2A	
	Shunt release	2NO	3RV2901-1B	3RV2901-2B	
	Undervoltage release	1NO+1NC	3RV2921-1M	3RV2921-2M	
		24 V DC	3RV2902-1DP0	3RV2902-2DP0	
		230 V AC	3RV2902-1DB0	3RV2902-2DB0	
	24 V DC	3RV2902-1AP0	3RV2902-2AP0		
	Door-coupling rotary op. mech.	Black		3RV2926-0B	
		130 mm shaft	Red/yellow		3RV2926-0C
S00, S0	Molded-plas. encl. f. surf. mounting	54 mm wide		3RV1923-1CA00	
		72 mm wide		3RV1923-1DA00	
S2	IP55, black	82 mm wide		3RV1933-1DA00	
S00, S0	Molded-plas. encl. f. surf. mounting	54 mm wide		3RV1923-1FA00	
		72 mm wide		3RV1923-1GA00	
S2	IP55, EMERG. STOP	82 mm wide		3RV1933-1GA00	

## 3RV29 infeed system

For sizes S00 and S0, the simplest method is to connect the components via the associated SIRIUS 3RV29 infeed system in each case.

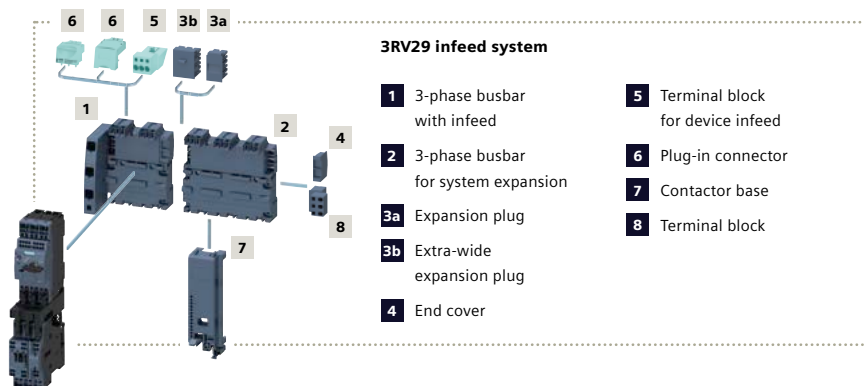
### 3-phase busbar for two motor starter protectors size S00/S0

With infeed on the left (incl. 3RV2917-6A end cover)	3RV2917-1A
With infeed on the right (incl. 3RV2917-6A end cover)	3RV2917-1E
For system expansion (incl. 3RV2917-5BA00 expansion plug)	3RV2917-4A

### Plug-in connectors for contact with motor starter protectors

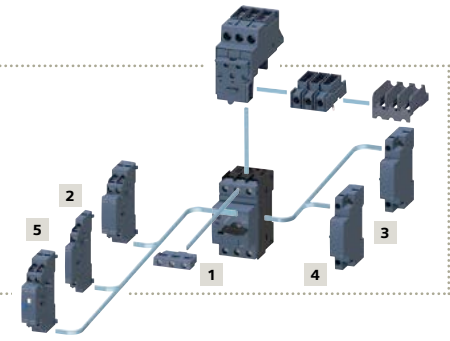
Size S00	Screw terminals	3RV2917-5CA00
	Spring-type terminals	3RV2917-5AA00
Size S0	Screw terminals	3RV1927-5AA00
	Spring-type terminals	3RV2927-5AA00

<b>Contactor base for contactors size S00, S0</b>	3RV2927-7AA00
---	---------------



## Mountable accessories for 3RV motor starter protectors

- 1** Transverse auxiliary switch
- 2** Lateral auxiliary switch with two contacts
- 3** Shunt release (cannot be used for 3RV21 motor starter protector)
- 4** Undervoltage release without/with leading contacts (cannot be used for 3RV21 motor starter protector)
- 5** Signaling switch (cannot be used for 3RV27 and 3RV28 circuit breakers)



## Contactors

Auxiliary switch blocks, on front S00, S2, S3	Screw terminals	Spring-type terminals
1NC	3RH2911-1HA01	3RH2911-2HA01
1NO+1NC	3RH2911-1HA11	3RH2911-2HA11
2NO+2NC	3RH2911-1HA22	3RH2911-2HA22
1NO	3RH2911-1HA10	3RH2911-2HA10
2NO	3RH2911-1HA20	3RH2911-2HA20

## Surge suppressors

Size S00		Plug-in
Without LED	Varistor	3RT2916-1BD00
With LED	127 ... 240 V AC	3RT2916-1JL00
Without LED	RC element	3RT2916-1CD00
Without LED	Suppr. diode 24 V DC	3RT2916-1DG00
<b>Size S0</b>		
Without LED	Varistor	3RT2926-1BD00
With LED	127 ... 240 V AC	3RT2926-1JL00
Without LED	RC element	3RT2926-1CD00
Without LED	Diode assy. 24 V DC	3RT2926-1ER00
<b>Size S2</b>		
Without LED	Varistor	3RT2936-1BD00
With LED	AC 127 ... 240 V	3RT2936-1JL00
Without LED	RC element	3RT2936-1CD00
<b>Size S3</b>		
Without LED	Varistor	3RT2936-1BD00
With LED	127 ... 240 V AC	3RT2936-1JL00
Without LED	RC element	3RT2946-1CD00

Without LED	Varistor	3RT2936-1BD00
With LED	127 ... 240 V AC	3RT2936-1JL00
Without LED	RC element	3RT2946-1CD00

## Coil terminal module

	Size S0 – S3	Size S0
Connection from below	3RT2926-4RB11	3RT2926-4RB12

## Overload relays and monitoring relays

Terminal supports f. stand-alone inst.	Screw terminals	Spring-type terminals
S00	3RU2916-3AA01	3RU2916-3AC01
S0	3RU2926-3AA01	3RU2926-3AC01
S2	3RU2936-3AA01	–
S3	3RU2946-3AA01	–

## Wiring kit for contactors

### Reversing contactor assembly

S00	3RA2913-2AA1	3RA2913-2AA2
S0	3RA2923-2AA1	3RA2923-2AA2 (main circuit only)
S2	3RA2933-2AA1	3RA2933-2AA2 (main circuit only)
S3	3RA2943-2AA1	3RA2943-2AA2 (main circuit only)

### Contactor assy. f. wye-delta start

S00	3RA2913-2BB1	3RA2913-2BB2
S0	3RA2923-2BB1	3RA2923-2BB2 (main circuit only)
S2	3RA2933-2BB1	3RA2933-2BB2*
S3	3RA2943-2BB1	3RA2943-2BB2*

### Wye-delta function module, plug-in



Comprising one basic module and two coupling modules, rated control supply voltage 24 ... 240 V AC/DC, time setting range 0.5 ... 60 s (10, 30, 60 s selectable)

S00, S0, S2, S3	3RA2816-0EW20
-----------------	---------------

\* main circuit only, set of cables for auxiliary circuit

# Load feeders for direct start

Load feeders start loads by a combination of protection and switching functions.

A load feeder assembly consisting of motor starter protector, contactor, overload relay or monitoring relay offers suitable combinations for every application.



## Mot. starter prot.

## Contactors

## Overload relays

## Monitoring relays

Three-phase motor		Setting range CLASS 10		Solenoid voltage		Aux. switch		Thermally delayed CLASS 10		Electronic CLASS 10E		Meas. range [A]		2-phase Basic, analogically adjustable		3-phase Standard, digitally adjustable		
Power [kW]	Current [A]	[A]								Setting range [A]		Supply voltage 24 – 240 V AC/DC						
Size, width		S00, 45 mm																
0.09	0.32	0.22 – 0.32	3RV2011-0DA	*1	230 V AC, 50/60 Hz	1NO	3RT2015- AP01	3RU2116-0D	0.1 – 0.4	3RB3016-1R	Screw terminals: 1 Spring-type term. to 32 A: 2	Screw terminals: 1 Spring-type term.: 2	Screw terminals: B Spring-type term.: C	Screw terminals: B Spring-type term.: E	Screw terminals: 1 Spring-type term.: 2	Screw terminals: 1 Spring-type term.: 2	Screw terminals: 1 Spring-type term.: 2	Screw terminals: 1 Spring-type term.: 2
0.12	0.5	0.35 – 0.5	3RV2011-0FA					3RU2116-0F	0.32 – 1.25	3RB3016-1N								
0.18	0.63	0.45 – 0.63	3RV2011-0GA					3RU2116-0G										
0.25	1	0.7 – 1	3RV2011-0JA					3RU2116-0J										
0.37	1.25	0.9 – 1.25	3RV2011-0KA					3RU2116-0K	1 – 4	3RB3016-1P								
0.55	1.6	1.1 – 1.6	3RV2011-1AA					3RU2116-1A										
0.75	2	1.4 – 2	3RV2011-1BA					3RU2116-1B										
1.1	3.2	2.2 – 3.2	3RV2011-1DA					3RU2116-1D										
1.5	4	2.8 – 4	3RV2011-1EA					3RU2116-1E	3 – 12	3RB3016-1S								
2.2	6.3	4.5 – 6.3	3RV2011-1GA					3RU2116-1G										
3	8	5.5 – 8	3RV2011-1HA	3RU2116-1H														
4	10	7 – 10	3RV2011-1JA	3RU2116-1J	1.6 – 16	3RR2141- AW30	3RR2241- FW30											
5.5	12.5	9 – 12.5	*1	230 V AC, 50/60 Hz				1NO	3RT2016 AP01	3RU2116-1K								
											24 V DC	1NC	3RT2016 AP02					
														1NO	3RT2016 BB41			
																1NC	3RT2016 BB42	
230 V AC, 50/60 Hz	1NO	3RT2017 AP01																
			24 V DC	1NC				3RT2017 AP02										
									1NO	3RT2017 BB41								
1NC	3RT2017 BB42																	
7.5	16	11 – 16	*1	230 V AC, 50/60 Hz				1NO	3RT2018 AP01	3RU2116-4A								
					24 V DC	1NC	3RT2018 AP02											
											1NO	3RT2018 BB41						
													1NC	3RT2018 BB42				

			Mot. starter prot.		Contactors			Overload relays			Monitoring relays			
Three-phase motor		Setting range CLASS 10			Solenoid voltage	Aux. switch		Thermally delayed CLASS 10	Electronic CLASS 10E			2-phase Basic, analogically adjustable	3-phase Standard, digitally adjustable	
Power [kW]	Current [A]	[A]							Setting range [A]			Meas. range [A]	Supply voltage 24 – 240 V AC/DC	
<b>Size, width</b>			<b>S0, 55 mm</b>											
7.5	16	10 – 16	3RV2021-4AA 0	*2	230 V AC, 50 Hz 24 V DC	1NO+1NC	3RT2025- AP00	3RU2126-4A 0	10 – 40	3RB3026-1V 0	4 – 40	3RR2142- AW30	3RR2242- FW30	
7.5	20	13 – 20	3RV2021-4BA 0			1NO+1NC	3RT2025- BB40	3RU2126-4B 0						
11	22	16 – 22	3RV2021-4CA 0		230 V AC, 50 Hz 24 V DC	1NO+1NC	3RT2026- AP00	3RU2126-4C 0						
11	25	18 – 25	3RV2021-4DA 0	*2		1NO+1NC	3RT2026- BB40	3RU2126-4D 0						
15	28	23 – 28	3RV2021-4NA 0		230 V AC, 50 Hz 24 V DC	1NO+1NC	3RT2027- AP00	3RU2126-4N 0						
15	32	27 – 32	3RV2021-4EA 0	*2		1NO+1NC	3RT2027- BB40	3RU2126-4E 0						
18.5	36	30 – 36	3RV2021-4PA 1 0		230 V AC, 50 Hz	1NO+1NC	3RT2028- AP00	3RU2126-4P 0	10 – 40	3RB3026-1V 0	4 – 40	3RR2142- AW30	3RR2242- FW30	
18.5	40	34 – 40	3RV2021-4FA 1 0	*2	24 V DC	1NO+1NC	3RT2028- BB40	3RU2126-4F 0						
			Screw terminals: 1 Spring-type term. to 32 A: 2				Screw terminals: 1 Spring-type term.: 2		Screw terminals: B Spring-type term.: C		Screw terminals: B Spring-type term.: E		Screw terminals: 1 Spring-type term.: 2	
<b>Size, width</b>			<b>S2, 55 mm</b>											
18.5	36	28 – 36	3RV203 -4PA10	*3	230 V AC, 50 Hz	1NO+1NC	3RT2035- AP00	3RU2136-4EB0	20 – 80	3RB3036-1W	8 – 80	3RR2143- AW30	3RR2243- FW30	
18.5	40	32 – 40	3RV203 -4JA10		20 – 33 V AC/DC	1NO+1NC	3RT2035- NB30	3RU2136-4FB0						
22	45	35 – 45	3RV203 -4VA10		230 V AC, 50 Hz	1NO+1NC	3RT2036- AP00	3RU2136-4GB0						
22	52	42 – 52	3RV203 -4WA10	*3	20 – 33 V AC/DC	1NO+1NC	3RT2036- NB30	3RU2136-4HB0						
30	59	49 – 59	3RV203 -4XA10		230 V AC, 50 Hz	1NO+1NC	3RT2037- AP00	3RU2136-4QB0						
30	65	54 – 65	3RV203 -4JA10	*3	20 – 33 V AC/DC	1NO+1NC	3RT2037- NB30	3RU2136-4JB0						
37	73	62 – 73	3RV203 -4KA10		230 V AC, 50 Hz	1NO+1NC	3RT2038- AP00	3RU2136-4KB0	20 – 80	3RB3036-1W	8 – 80	3RR2143- AW30	3RR2243- FW30	
37	80	70 – 80	3RV203 -4RA10	*3	20 – 33 V AC/DC	1NO+1NC	3RT2038- NB30	3RU2136-4RB0						
			Standard switching cap. 65 kA: 1 Increased switching cap. 100 kA: 2				Screw terminals: 1 Spring-type term. in aux. circuit: 3		Contactor mounting Screw terminals: B 0 Spring-type term.: D 0		Screw terminals: 1 Spring-type term.: 3			
									Straight-through transf. Screw terminals: W 1 Spring-type term.: X 1					
<b>Size, width</b>			<b>S3, 70 mm</b>											
20	50	36 – 50	3RV204 -4HA10	*4	230 V AC, 50 Hz	1NO+1NC	3RT2045- AP00	3RU2146-4HB0	32 – 115	3RB3046-1X				
30	63	45 – 63	3RV204 -4JA10			20 – 33 V AC/DC	1NO+1NC	3RT2045- NB30						3RU2146-4JB0
37	75	57 – 75	3RV204 -4KA10					3RU2146-4KB0						
45	84	65 – 84	3RV204 -4RA10	*4	230 V AC, 50 Hz	1NO+1NC	3RT2046- AP00	3RU2146-4LB0						
45	93	75 – 93	3RV204 -4YA10		20 – 33 V AC/DC	1NO+1NC	3RT2046- NB30	3RU2146-4MB0						
45/55	100	80 – 100	3RV204 -4MA10	*4				3RT2047- AP00						
			Screw terminals: 1 Spring-type term. in aux. circuit: 3				Screw terminals: 1 Spring-type term.: 3		Screw terminals: B 0 Spring-type term.: D 0		Screw terminals: 1 Spring-type term.: 3			
									Screw terminals: W 1 Spring-type term.: X 1					

### Necessary accessories: link module from motor starter protector to contactor

Size			Screw terminals	Spring-type terminals (only for S00 and S0)
S00 up to max. 32 A	AC/DC	*1	3RA1921-1DA00	3RA2911-2AA00
S0 up to max. 32 A	AC	*2	3RA2921-1AA00	3RA2921-2AA00
S0 up to max. 32 A	DC	*2	3RA2921-1BA00	3RA2921-2AA00
S2 up to max. 65 A	AC/DC	*3	3RA2931-1AA00	–
S3	AC/DC	*4	3RA1941-1AA00	–

# Load feeders: Soft starters, solid-state contactors

Soft starters for current-limiting and torque-lim. starts reduce wear on the mech. power-transm. elements of the machine, relieve load on the power supply system and protect the line efficiently against high switch-on peak currents by means of reduced current consumption. Solid-state contactors are intended for frequently switching AC drives up to 7.5 kW on and off and for reversing up to 3.0 kW. The devices are constructed with complete insulation and can be mounted directly on motor starter protectors.



**Mot. starter prot.**

**3RV30 soft starters**  
Oper. voltage 3 x 200 – 480 V AC

**3RV40 soft starters**  
Oper. voltage 3 x 200 – 480 V AC

**Solid-state contactors**  
Oper. voltage 48 – 480 V AC

**Solid-state reversing contactors**  
Oper. voltage 48 – 480 V AC

Three-phase motor			Setting range CLASS 10			Starts/h normal starting			Rated operat. current			Starts/h normal starting			Rated operat. current			Rated operat. current		
Power [kW]	Current [A]	[A]																		
<b>Size, width</b>			<b>500, 45 mm</b>			<b>500, 45 mm</b>			<b>50, 45 mm</b>			<b>50, 45 mm</b>			<b>50, 45 mm</b>			<b>50, 45 mm</b>		
0.25	1	0.7 – 1	3RV2011-0JA	0																
0.37	1.25	0.9 – 1.25	3RV2011-0KA	0																
0.55	1.6	1.1 – 1.6	3RV2011-1AA	0	*2	150	3.6	3RV3013												
0.75	2	1.4 – 2	3RV2011-1BA	0																
1.1	3.2	2.2 – 3.2	3RV2011-1DA	0																
1.5	4	2.8 – 4	3RV2011-1EA	0																
1.5	5	3.5 – 5	3RV2011-1FA	0		64	6.5	3RV3014			36	12.5	3RV4024							
2.2	6.3	4.5 – 6.3	3RV2011-1GA	0																
3	8	5.5 – 8	3RV2011-1HA	0																
4	10	7 – 10	3RV2011-1JA	0		35	9	3RV3016												
5.5	12.5	9 – 12.5	3RV2011-1KA	0		62	12.5	3RV3017												
7.5	16	11 – 16	3RV2011-4AA	0		45	17.6	3RV3018			15	25	3RV4026							
<b>Size, width</b>			<b>50, 45 mm</b>			<b>50, 45 mm</b>			<b>50, 45 mm</b>			<b>50, 45 mm</b>			<b>50, 45 mm</b>			<b>50, 45 mm</b>		
7.5	16	11 – 16	3RV2021-4AA	0																
7.5	20	14 – 20	3RV2021-4BA	0		15	25	3RV3026												
11	22	17 – 22	3RV2021-4CA	0	*2															
11	25	20 – 25	3RV2021-4DA	0																
15	28	23 – 28	3RV2021-4NA	0		16	32	3RV3027			16	32	3RV4027							
15	32	27 – 32	3RV2021-4EA	0																
18.5	36	30 – 36	3RV2021-4PA	1 0		12	38	3RV3028			12	38	3RV4028							
18.5	40	34 – 40	3RV2021-4FA	1 0																

Screw terminals: 1  
Spring-type term. to 32 A: 2

Screw terminals: 1  
Spring-type terminals: 2

Control supply voltage 24 V AC/DC: 0  
110 – 230 V AC/DC: 1

Screw terminals: 1  
Spring-type terminals: 2

Control supply voltage 24 V AC/DC: 0  
110 – 230 V AC/DC: 1

Screw terminals: 1  
Spring-type terminals: 2

Control supply voltage 24 V DC: 0  
110 – 230 V AC/DC, 50/60 Hz: 2

Screw terminals: 1  
Spring-type terminals: –

Control supply voltage 24 V DC: 0  
110 – 230 V AC/DC, 50/60 Hz: 2

Mot. starter prot.			3RW30 soft starters without overload protection		3RW40 soft starters with overload protection		
Three-phase motor	Setting range CLASS 10		Rated operational current				
Power [kW]	Current [A]	[A]	[A]				
<b>Size, width S2, 55 mm</b>							
18.5	36	28 – 36	3RV203 -4PA10	*3	45	3RW3036-1BB 4	3RW4036-1BB 4
18.5	40	32 – 40	3RV203 -4UA10			3RW3036-1BB 4	3RW4036-1BB 4
22	45	35 – 45	3RV203 -4VA10			3RW3036-1BB 4	3RW4036-1BB 4
22	52	42 – 52	3RV203 -4WA10	*3	63	3RW3037-1BB 4	3RW4037-1BB 0
30	59	49 – 59	3RV203 -4XA10			3RW3037-1BB 4	3RW4037-1BB 0
30	65	54 – 65	3RV203 -4JA10			3RW3037-1BB 4	3RW4037-1BB 0
37	73	62 – 73	3RV203 -4KA10	*3	72	3RW3038-1BB 4	3RW4038-1BB 4
37	80	70 – 80	3RV203 -4RA10			3RW3038-1BB 4	3RW4038-1BB 4
<b>Size, width S3, 70 mm</b>							
22	50	36 – 50	3RV204 -4HA10	*4	80	3RW3046-1BB 4	3RW4046-1BB 4
30	63	45 – 63	3RV204 -4JA10			3RW3046-1BB 4	3RW4046-1BB 4
37	75	57 – 75	3RV204 -4KA10			3RW3046-1BB 4	3RW4046-1BB 4
45	84	65 – 84	3RV204 -4RA10	*4	106	3RW3047-1BB 4	3RW4047-1BB 4
45	93	75 – 93	3RV204 -4YA10			3RW3047-1BB 4	3RW4047-1BB 4
45/55	100	80 – 100	3RV204 -4MA10			3RW3047-1BB 4	3RW4047-1BB 4
Standard switching cap. 65 kA at 400 V:			1	24 V AC/DC:	0	24 V AC/DC:	0
Increased switching cap. 100 kA at 400 V:			2	110–230 V AC/DC:	1	110–230 V AC/DC:	1

#### Necessary accessories: link modules from motor starter protector to soft starter/solid-state device

Size	Screw terminals	Spring-type terminals only for S00, S0 with soft starters
S00	*2 3RA2921-1BA00	3RA2911-2GA00
S0 up to max. 32 A	*2 3RA2921-1BA00	3RA2921-2GA00
S2 up to max. 65 A	*3 3RA2931-1AA00	–
S3	*4 3RA1941-1AA00	–

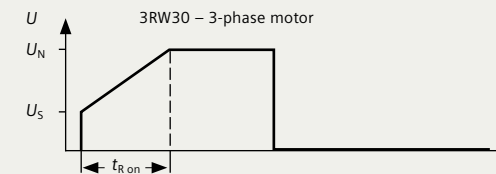
#### Advantages of the soft starters:

- Reduced mechanical and electrical load
- Space and cost savings thanks to compact design
- Fast and easy commissioning
- Matched with the SIRIUS modular system

#### 3RW30 soft starter

The compact 3RW30 soft starter can be used in almost every standard application up to 55 kW. Setting is made via two potentiometers and can thus be implemented conveniently and easily.

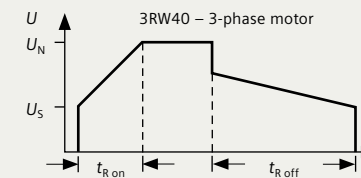
#### 3RW3 state diagram



#### 3RW40 soft starter

The 3RW4 additionally has potentiometers for soft ramp-down, current limiting and motor overload protection. Integrated intrinsic device protection and motor protection functions offer additional advantages over the 3RW3.

#### 3RW4 state diagram



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In order to protect plants, systems, machines and networks against cyber threats, it is necessary

to implement – and continuously maintain – a holistic, state-of-the-art industrial security concept. Siemens' products and solutions only form one elements of such a concept. For more information

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