

Protection Equipment

Introduction



Type		3RU11	3RB20	3RB21	3RB22, 3RB23
SIRIUS overload relays up to 630 A					
Applications					
System protection		✓ ¹⁾	✓ ¹⁾	✓ ¹⁾	✓ ¹⁾
Motor protection		✓	✓	✓	✓
Alternating current, three-phase		✓	✓	✓	✓
Alternating current, single-phase		✓	--	--	✓
Direct current		✓	--	--	--
Size contactor		S00, S0, S2, S3	S00 ... S12	S00 ... S12	S00 ... S12
Rated operational current I_e					
• Size S00	A	Up to 12	Up to 12	Up to 12	Up to 25
• Size S0	A	Up to 25	Up to 25	Up to 25	Up to 25
• Size S2	A	Up to 50	Up to 50	Up to 50	Up to 100
• Size S3	A	Up to 100	Up to 100	Up to 100	Up to 100
• Size S6	A	--	Up to 200	Up to 200	Up to 200
• Size S10/S12, size 14 (3TF68/3TF69)	A	--	Up to 630	Up to 630	Up to 630
Rated operational voltage U_e	V	690/1 000 AC ²⁾	690/1 000 AC ³⁾	690/1 000 AC ³⁾	690/1 000 AC ⁴⁾
Rated frequency	Hz	50/60	50/60	50/60	50/60
Trip class		CLASS 10	CLASS 10, 20	CLASS 5, 10, 20, 30 Adjustable	CLASS 5, 10, 20, 30 Adjustable
Thermal overload releases	A	0.11 ... 0.16 up to 80 ... 100	--	--	--
Electronic overload releases	A	--	0.1 ... 0.4 up to 160 ... 630	0.1 ... 0.4 up to 160 ... 630	0.3 ... 3 up to 63 ... 630
Rating for three-phase motor at 400 V AC	kW	0.04 up to 45	0.04 ... 0.09 up to 90 ... 450	0.04 ... 0.09 up to 90 ... 450	0.09 ... 1.1 up to 37 ... 450
Pages		7/42 ... 7/44	7/49, 7/50	7/51	7/56 ... 7/59
Accessories					
For sizes		S00 S0 S2 S3	S00 S0 S2 S3 S6 S10/S12	S00 S0 S2 S3 S6 S10/S12	S00 S0 S2 S3 S6 S10/S12
Terminal supports for stand-alone installation		✓ ✓ ✓ ✓	✓ ✓ 5) 5) 5) 5)	✓ ✓ 5) 5) 5) 5)	5) 5) 5) 5) 5) 5)
Mechanical RESET		✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓	-- -- -- -- -- --
Cable releases for RESET		✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓	-- -- -- -- -- --
Electrical remote RESET		✓ ✓ ✓ ✓	-- -- -- -- -- --	Integrated in the unit	Integrated in the unit
Terminal covers		-- -- ✓ ✓	-- -- -- ✓ ✓ ✓	-- -- -- ✓ ✓ ✓	-- -- -- ✓ ✓ ✓
Sealable covers for setting knobs		Integrated in the unit	✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓
Pages		7/45, 7/46	7/52, 7/53	7/52, 7/53	7/60, 7/61

✓ Has this function or can use this accessory

-- Does not have this function or cannot use this accessory

1) The units are responsible in the main circuit for overload protection of the assigned electrical loads (e.g. motors), feeder cable, and other switching and protection devices in the respective load feeder.

2) Size S3 up to 1 000 V AC.

3) Size S2 (only with straight-through transformer), S3, S6, S10, S12 up to 1 000 V AC.

4) With reference to the 3RB29.6 current measuring modules.

5) Stand-alone installation without accessories is possible.

Overload Relays

General data

Overview



Features	3RU11	3RB20/3RB21	3RB22/3RB23	Benefits
General data				
Sizes	S00 ... S3	S00 ... S12	S00 ... S12	<ul style="list-style-type: none"> Are coordinated with the dimensions, connections and technical characteristics of the other devices in the SIRIUS modular system (contactors, etc., ...) Permit the mounting of slim and compact load feeders in widths of 45 mm (S00), 45 mm (S0), 55 mm (S2), 70 mm (S3), 120 mm (S6) and 145 mm (S10/S12); this does not include the current measuring modules for the 3RB22 to 3RB23 evaluation modules sizes S00 to S3 Simplify configuration
Seamless current range	0.11 ... 100 A	0.1 ... 630 A	0.3 ... 630 A (Up to 820 A) ¹⁾	<ul style="list-style-type: none"> Allows easy and consistent configuration with one series of overload relays (for small to large loads)
Protection functions				
Tripping due to overload	✓	✓	✓	<ul style="list-style-type: none"> Provides optimum inverse-time delayed protection of loads against excessive temperature rises due to overload
Tripping due to phase unbalance	✓	✓	✓	<ul style="list-style-type: none"> Provides optimum inverse-time delayed protection of loads against excessive temperature rises due to phase unbalance
Tripping due to phase failure	✓	✓	✓	<ul style="list-style-type: none"> Minimizes heating of three-phase motors during phase failure
Protection of single-phase loads	✓	--	✓	<ul style="list-style-type: none"> Enables the protection of single-phase loads
Tripping in the event of overheating	-- ²⁾	-- ²⁾	✓	<ul style="list-style-type: none"> Provides optimum temperature-dependent protection of loads against excessive temperature rises e.g. for stator-critical motors or in the event of insufficient coolant flow, contamination of the motor surface or for long starting or braking operations
by				
Integrated thermistor motor protection function				<ul style="list-style-type: none"> Eliminates the need for additional special equipment Saves space in the control cabinet Reduces wiring outlay and costs
Tripping in the event of a ground fault	--	✓ (Only 3RB21)	✓	<ul style="list-style-type: none"> Provides optimum protection of loads against high-resistance short circuits or ground faults due to moisture, condensed water, damage to the insulation material, etc.
by				
Internal ground-fault detection (activatable)				<ul style="list-style-type: none"> Eliminates the need for additional special equipment Saves space in the control cabinet Reduces wiring outlay and costs
Features				
RESET function	✓	✓	✓	<ul style="list-style-type: none"> Allows manual or automatic resetting of the device
Remote RESET function	✓ (By means of separate module)	✓ (Only with 3RB21 and external auxiliary voltage 24 V DC)	✓ (Electrically via external button)	<ul style="list-style-type: none"> Allows the remote resetting of the device
TEST function for auxiliary contacts	✓	✓	✓	<ul style="list-style-type: none"> Allows easy checking of the function and wiring
TEST function for electronics	--	✓	✓	<ul style="list-style-type: none"> Allows checking of the electronics
Status display	✓	✓	✓	<ul style="list-style-type: none"> Displays the current operating state
Large current adjustment button	✓	✓	✓	<ul style="list-style-type: none"> Makes it easier to set the relay exactly to the correct current value
Integrated auxiliary contacts (1 NO + 1 NC)	✓	✓	✓ (2 ×)	<ul style="list-style-type: none"> Allows the load to be switched off if necessary Can be used to output signals

✓ Available

-- Not available

¹⁾ Motor currents up to 820 A can be recorded and evaluated by a current measuring module, e.g. 3RB2906-2BG1 (0.3 to 3 A), in combination with 3UF1868-3GA00 (820 A/1 A) series transformer. 3UF18 transformers, see [Catalog IC 10, Chapter 10, "Monitoring and Control Devices"](#) → "SIMOCODE 3UF Motor Management and Control Devices".

²⁾ The SIRIUS 3RN thermistor motor protection devices can be used to provide additional temperature-dependent protection.



Features	3RU11	3RB20/3RB21	3RB22/3RB23	Benefits
Design of load feeders				
Short-circuit strength up to 100 kA at 690 V (In conjunction with the corresponding fuses or the corresponding motor starter protector)	✓	✓	✓	<ul style="list-style-type: none"> Provides optimum protection of the loads and operating personnel in the event of short circuits due to insulation faults or faulty switching operations
Electrical and mechanical matching to 3RT contactors	✓	✓	✓ ¹⁾	<ul style="list-style-type: none"> Simplifies configuration Reduces wiring outlay and costs Enables stand-alone installation as well as space-saving direct mounting
Straight-through transformers for main circuit²⁾ (In this case the cables are routed through the feed-through openings of the overload relay and connected directly to the box terminals of the contactor)	--	✓ (S2 ... S6)	✓ (S00 ... S6)	<ul style="list-style-type: none"> Reduces the contact resistance (only one point of contact) Saves wiring costs (easy, no need for tools, and fast) Saves material costs Reduces installation costs
Spring-type connection for auxiliary circuits²⁾	✓	✓	✓	<ul style="list-style-type: none"> Enables fast connections Permits vibration-resistant connections Enables maintenance-free connections
Other features				
Temperature compensation	✓	✓	✓	<ul style="list-style-type: none"> Allows the use of the relays at high temperatures without derating Prevents premature tripping Allows compact installation of the control cabinet without distance between the devices/load feeders Simplifies configuration Enables space to be saved in the control cabinet
Very high long-term stability	✓	✓	✓	<ul style="list-style-type: none"> Provides safe protection for the loads even after years of use in severe operating conditions
Wide setting ranges	--	✓ (1:4)	✓ (1:10)	<ul style="list-style-type: none"> Minimize the configuration outlay and costs Minimize storage overheads, storage costs, tied-up capital
Fixed trip class	CLASS 10	CLASS 10 or CLASS 20 (Only 3RB20)	--	<ul style="list-style-type: none"> Optimum motor protection for standard starts
Trip classes adjustable on the device CLASS 5, 10, 20, 30	--	✓ (Only 3RB21)	✓	<ul style="list-style-type: none"> Enables solutions for very fast starting motors requiring special protection (e.g. Ex motors) Enables heavy starting solutions Reduces the number of variants Minimizes the configuring outlay and costs Minimizes storage overhead, storage costs, and tied-up capital
Low power loss	--	✓	✓	<ul style="list-style-type: none"> Reduces power consumption and energy costs (up to 98 % less power is used than for thermal overload relays) Minimizes temperature rises of the contactor and control cabinet – in some cases this may eliminate the need for control cabinet cooling Direct mounting to contactor saves space, even for high motor currents (i.e. no heat decoupling is required)

✓ Available

-- Not available

¹⁾ Exception: Up to size S3, only stand-alone installation is possible.²⁾ Alternatively available for screw terminals.

Overload Relays

General data



Features	3RU11	3RB20/3RB21	3RB22/3RB23	Benefits
Further characteristics (continued)				
Internal power supply	-- ¹⁾	✓	--	<ul style="list-style-type: none"> Eliminates the need for configuring and connecting an additional control circuit
Variable adjustment of the trip classes (The required trip class can be adjusted by means of a rotary switch depending on the current start-up condition.)	--	✓ (Only 3RB21)	✓	<ul style="list-style-type: none"> Reduces the number of variants Minimizes the configuring outlay and costs Minimizes storage overhead, storage costs, and tied-up capital
Overload warning	--	--	✓	<ul style="list-style-type: none"> Indicates imminent tripping of the relay directly on the device due to overload, phase unbalance or phase failure through flickering of the LEDs Allows the imminent tripping of the relay to be signaled Allows measures to be taken in time in the event of inverse-time delayed overloading of the load for an extended period over the current limit Eliminates the need for an additional device Saves space in the control cabinet Reduces wiring outlay and costs
Analog output	--	--	✓	<ul style="list-style-type: none"> Allows the output of an analog output signal for actuating moving-coil instruments, feeding programmable logic controllers or transfer to bus systems Eliminates the need for an additional measuring transducer and signal converter Saves space in the control cabinet Reduces wiring outlay and costs

✓ Available

-- Not available

¹⁾ The SIRIUS 3RU11 thermal overload relays use a bimetal contactor and therefore do not require a control supply voltage.

Overload relays overview – matching contactors

Overload relays	Current measurement	Current range	Contactors (type, size, rating in kW)							
			3RT101.	3RT102.	3RT103.	3RT104.	3RT105.	3RT106.	3RT10 7.	3TF68/3TF69
Type	Type	A	S00 3/4/5.5	S0 5.5/7.5/11	S2 15/18.5/22	S3 30/37/45	S6 55/75/90	S10 110/132/160	S12 200/250	Size 14 375/450

SIRIUS 3RU11 thermal overload relays



3RU11

3RU111	Integrated	0.11 ... 12	✓	--	--	--	--	--	--	--
3RU112	Integrated	1.8 ... 25	--	✓	--	--	--	--	--	--
3RU113	Integrated	5.5 ... 50	--	--	✓	--	--	--	--	--
3RU114	Integrated	18 ... 100	--	--	--	✓	--	--	--	--

SIRIUS 3RB20 electronic overload relays¹⁾

3RB20

3RB201	Integrated	0.1 ... 12	✓	--	--	--	--	--	--	--
3RB202	Integrated	0.1 ... 25	--	✓	--	--	--	--	--	--
3RB203	Integrated	6 ... 50	--	--	✓	--	--	--	--	--
3RB204	Integrated	12.5 ... 100	--	--	--	✓	--	--	--	--
3RB205	Integrated	50 ... 200	--	--	--	--	✓	--	--	--
3RB206	Integrated	55 ... 630	--	--	--	--	--	✓	✓	✓
3RB201 + 3UF18	Integrated	630 ... 820	--	--	--	--	--	--	--	✓

SIRIUS 3RB21 electronic overload relays¹⁾

3RB21

3RB211	Integrated	0.1 ... 12	✓	--	--	--	--	--	--	--
3RB212	Integrated	0.1 ... 25	--	✓	--	--	--	--	--	--
3RB213	Integrated	6 ... 50	--	--	✓	--	--	--	--	--
3RB214	Integrated	12.5 ... 100	--	--	--	✓	--	--	--	--
3RB215	Integrated	50 ... 200	--	--	--	--	✓	--	--	--
3RB216	Integrated	55 ... 630	--	--	--	--	--	✓	✓	✓
3RB211 + 3UF18	Integrated	630 ... 820	--	--	--	--	--	--	--	✓

SIRIUS 3RB22/3RB23 electronic overload relays¹⁾

3RB22, 3RB23

	3RB2906	0.3 ... 25	✓	✓	--	--	--	--	--	--
	3RB2906	10 ... 100	✓	✓	✓	✓	--	--	--	--
3RB2283/ 3RB2383	3RB2956	20 ... 200	--	--	--	--	✓	--	--	--
	3RB2966	63 ... 630	--	--	--	--	--	✓	✓	✓
	3RB2906 + 3UF18	630 ... 820	--	--	--	--	--	--	--	✓

✓ Available
-- Not available


¹⁾ "Technical specifications" for the use of overload relays with trip class \geq CLASS 20 can be found in "Short-circuit protection with fuses for motor feeders", see


- Reference Manual "Protection Equipment – 3RU1, 3RB2 Overload Relays" <http://support.automation.siemens.com/WW/view/en/35681297>
- Configuration Manual "SIRIUS Configuration – Selection Data for Fuseless Load Feeders", <http://support.automation.siemens.com/WW/view/en/68115040>.

Connection methods

The 3RU11 thermal overload relays come with screw terminals.

The 3RB20 and 3RB21 electronic overload relays are available with screw terminals (box terminals) or spring-type terminals on the auxiliary current side; the same applies for the evaluation modules of the 3RB22 to 3RB23 electronic overload relays for High-Feature application.

 Screw terminals

 Spring-type terminals

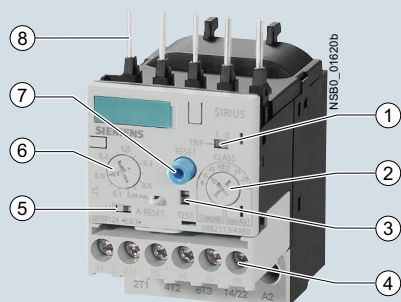
The terminals are indicated in the corresponding tables by the symbols shown on orange backgrounds.

Overload Relays

SIRIUS 3RB2 Electronic Overload Relays

3RB20, 3RB21 up to 630 A for standard applications

Overview



- ① Switch position indicator and TEST function of the wiring: Indicates a trip and enables the wiring test.
- ② Trip class setting/internal ground-fault detection (only 3RB21): Using the rotary switch you can set the required trip class and activate the internal ground-fault detection dependent on the start-up conditions.
- ③ Solid-state test (device test): Enables a test of all important device components and functions.
- ④ Connecting terminals (removable joint block for auxiliary circuits): The generously sized terminals permit connection of two conductors with different cross-sections for the main and auxiliary circuits. The auxiliary circuit can be connected with screw terminals and alternatively with spring-type terminals.
- ⑤ Selector switch for manual/automatic RESET: With the slide switch you can choose between manual and automatic RESET.
- ⑥ Motor current setting: Setting the device to the rated motor current is easy with the large rotary knob.
- ⑦ A device set to manual RESET can be reset locally by pressing the RESET button. On the 3RB21 overload relay a solid-state remote RESET is integrated.
- ⑧ Connection for mounting onto contactors: Optimally adapted in electrical, mechanical and design terms to the contactors and soft starters. Connecting pins can be used for direct mounting of the overload relays. Stand-alone installation is possible as an alternative (in some cases in conjunction with a stand-alone installation module).

SIRIUS 3RB2113-4RB0 electronic overload relays

The 3RB20 and 3RB21 electronic overload relays up to 630 A with internal power supply have been designed for inverse-time delayed protection of loads with normal and heavy starting (for "Function", see Reference Manual "Protection Equipment –

3RU1, 3RB2 Overload Relays") against excessive temperature rises due to overload, phase unbalance or phase failure.

An overload, phase unbalance or phase failure result in an increase of the motor current beyond the set rated motor current. This increase is detected by the current transformers integrated into the devices and evaluated by corresponding electronic circuits which then output a pulse to the auxiliary contacts. The auxiliary contacts then switch off the load by means of a contactor. The break time depends on the ratio between the tripping current and current setting I_e and is stored in the form of a long-term stable tripping characteristic (see www.siemens.com/sirius/support → "Characteristic Curves").

In addition to inverse-time delayed protection of loads against excessive temperature rises due to overload, phase unbalance and phase failure, the 3RB21 electronic overload relays also allow internal ground-fault detection (not possible in conjunction with contactor assemblies for wye-delta starting). This provides protection of loads against high-resistance short circuits due to damage to the insulation material, moisture, condensed water etc.

The "tripped" status is signaled by means of a switch position indicator. Resetting takes place either manually or automatically after the recovery time has elapsed (for "Function", see Reference Manual "Protection Equipment – 3RU1, 3RB2 Overload Relays").

The 3RB2 electronic overload relays are suitable for operation with frequency converters. Please to refer to the instructions in the reference manual "Protection Equipment – 3RU1 and 3RB2 Overload Relays".

The devices are manufactured in accordance with environmental guidelines and contain environmentally friendly and reusable materials. They comply with all important worldwide standards and approvals.

"Increased safety" type of protection EEx e according to ATEX directive 94/9/EC

The 3RB20/3RB21 electronic overload relays are suitable for the overload protection of explosion-proof motors with "increased safety" type of protection EExe.

The relays meet the requirements of IEC 60079-7 (Electrical apparatus for areas subject to explosion hazards – Increased safety "e").

EC type test certificate for Group II, Category (2) G/D exists. It has the number PTB 06 ATEX 3001.

Article No. scheme

Digit of the Article No.	1st - 3rd	4th	5th	6th	7th	8th	9th	10th	11th
Electronic overload relays	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SIRIUS 2nd generation	3 R B								
Device series		2							
Size, rated operational current and power			<input type="checkbox"/>						
Version of the automatic RESET, electrical remote RESET				<input type="checkbox"/>					
Trip class (CLASS)						<input type="checkbox"/>			
Setting range of the overload release							<input type="checkbox"/>		
Connection methods								<input type="checkbox"/>	
Installation type									<input type="checkbox"/>
Example	3 R B	2	0	3	6	-	1	Q	B 0

Note:

The Article No. scheme is presented here merely for information purposes and for better understanding of the logic behind the article numbers.

For your orders, please use the article numbers quoted in the catalog in the Selection and ordering data.

Overload Relays

SIRIUS 3RB2 Electronic Overload Relays

3RB20, 3RB21 up to 630 A for standard applications

Benefits

The most important features and benefits of the 3RB20/3RB21 electronic overload relays are listed in the overview table (see "General Data", from page 7/36 onwards).

Application

Industries

The 3RB20 and 3RB21 electronic overload relays are suitable for customers from all industries who want to guarantee optimum inverse-time delayed protection of their electrical loads (e.g. motors) under normal and heavy starting conditions (CLASS 5 to 30), minimize project completion times, inventories and energy consumption, and optimize plant availability and maintenance management.

Application area

The 3RB20 and 3RB21 electronic overload relays have been designed for the protection of three-phase motors in sinusoidal 50/60 Hz voltage networks. The relays are not suitable for the protection of single-phase AC or DC loads.

The 3RU11 thermal overload relays or the 3RB22 to 3RB24 electronic overload relays can be used for single-phase AC loads. For DC loads we recommend the 3RU11 thermal overload relay.

Ambient conditions

The devices are insensitive to external influences such as shocks, corrosive ambient conditions, ageing and temperature fluctuations.

For the temperature range from -25 °C to $+60\text{ °C}$, the 3RB20 and 3RB21 electronic overload relays compensate the temperature in accordance with IEC 60947-4-1.

For the 3RB20 and 3RB21 electronic overload relays with the sizes S6, S10 and S12, the upper set value of the setting range must be reduced for ambient temperatures $> 50\text{ °C}$ by a certain factor.

Type	Setting range	Stand-alone installation	
		Derating factor for the upper set value at ambient temperature	
		+50 °C	+60 °C
3RB2056, 3RB2156	50 ... 200 A	100 %	100 %
3RB2066, 3RB2166	55 ... 250 A	100 %	100 %
3RB2066, 3RB2166	160 ... 630 A	100 %	90 %

Type	Setting range	Mounting onto contactor	
		Derating factor for the upper set value at ambient temperature	
		+50 °C	+60 °C
3RB2056, 3RB2156	50 ... 200 A	100 %	70 %
3RB2066, 3RB2166	55 ... 250 A	100 %	70 %
3RB2066, 3RB2166	160 ... 630 A	100 %	70 %

Overload Relays

SIRIUS 3RB2 Electronic Overload Relays

3RB20, 3RB21 up to 630 A for standard applications

Selection and ordering data

3RB20 electronic overload relays for mounting onto contactor¹⁾²⁾ and stand-alone installation²⁾³⁾, CLASS 10

Features and technical specifications:

- Overload protection, phase failure protection and unbalance protection
- Internal power supply
- Auxiliary contacts 1 NO + 1 NC
- Manual and automatic RESET
- Switch position indicator
- TEST function and self-monitoring

 PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 41G


Size contactor ⁴⁾	Rating for three-phase motor, rated value ⁵⁾	Current setting value of the inverse-time delayed overload release	Short-circuit protection with fuse, type of coordination "2", operational class gG ⁶⁾	DT	Screw terminals (on auxiliary current side)	DT	Spring-type terminals (on auxiliary current side)	
	kW	A	A		Article No.	Price per PU	Article No.	Price per PU
Size S00¹⁾								
S00	0.04 ... 0.09	0.1 ... 0.4	1	▶	3RB2016-1RB0	B	3RB2016-1RD0	
	0.12 ... 0.37	0.32 ... 1.25	2	▶	3RB2016-1NB0	B	3RB2016-1ND0	
	0.55 ... 1.5	1 ... 4	10	▶	3RB2016-1PB0	A	3RB2016-1PD0	
	1.1 ... 5.5	3 ... 12	20	▶	3RB2016-1SB0	B	3RB2016-1SD0	
Size S0¹⁾								
S0	0.04 ... 0.09	0.1 ... 0.4	1	B	3RB2026-1RB0	B	3RB2026-1RD0	
	0.12 ... 0.37	0.32 ... 1.25	2	▶	3RB2026-1NB0	B	3RB2026-1ND0	
	0.55 ... 1.5	1 ... 4	10	▶	3RB2026-1PB0	B	3RB2026-1PD0	
	1.1 ... 5.5	3 ... 12	20	▶	3RB2026-1SB0	B	3RB2026-1SD0	
	3 ... 11	6 ... 25	35	▶	3RB2026-1QB0	A	3RB2026-1QD0	
Size S2¹⁾³⁾⁷⁾								
S2	3 ... 11	6 ... 25	63	▶	3RB2036-1QB0	▶	3RB2036-1QD0	
				▶	3RB2036-1QW1	▶	3RB2036-1QX1	
	7.5 ... 22	12.5 ... 50	80	▶	3RB2036-1UB0	A	3RB2036-1UD0	
				▶	3RB2036-1UW1	▶	3RB2036-1UX1	
Size S3¹⁾³⁾⁷⁾								
S3	7.5 ... 22	12.5 ... 50	160	▶	3RB2046-1UB0	A	3RB2046-1UD0	
				▶	3RB2046-1EB0	A	3RB2046-1ED0	
	11 ... 45	25 ... 100	315	▶	3RB2046-1EW1	▶	3RB2046-1EX1	
Size S6²⁾⁷⁾								
S6 with busbar connection	22 ... 90	50 ... 200	315	▶	3RB2056-1FC2	A	3RB2056-1FF2	
For mounting onto S6 contactors with box terminals				▶	3RB2056-1FW2	▶	3RB2056-1FX2	
Size S10/S12²⁾								
S10/S12 and size 14 (3TF68/3TF69)	22 ... 110	55 ... 250	400	▶	3RB2066-1GC2	▶	3RB2066-1GF2	
	90 ... 450	160 ... 630	800	▶	3RB2066-1MC2	▶	3RB2066-1MF2	

¹⁾ The relays with an Article No. ending with "0" are designed for mounting onto contactors. With the matching terminal supports (see "Accessories", page 7/52) the sizes S00 and S0 can also be installed as stand-alone units.

²⁾ The relays with an Article No. ending with "2" are designed for mounting onto contactors and stand-alone installation. For 3TF68/3TF69 contactors, direct mounting is not possible.

³⁾ The relays with an Article No. ending with "1" are designed for stand-alone installation.

⁴⁾ Observe maximum rated operational current of the devices.

⁵⁾ Guide value for 4-pole standard motors at 50 Hz 400 V AC. The actual starting and rated data of the motor to be protected must be considered when selecting the units.

⁶⁾ Maximum protection by fuse only for overload relays, type of coordination "2". For fuse values in connection with contactors, see Reference Manual "Protection Equipment – 3RU1, 3RB2 Overload Relays" → "Technical Specifications" → "Short-Circuit Protection with Fuses for Motor Feeders".

⁷⁾ The relays with an Article No. with "W" or "X" in penultimate position are equipped with a straight-through transformer.