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	--	--	--
	A	80 ... 100			
Electronic overload releases	A	--	0.1 ... 0.4 up to	0.1 ... 0.4 up to	0.3 ... 3 up to
	A		160 ... 630	160 ... 630	63 ... 630
Rating for three-phase motor at 400 V AC	kW	0.04 up to	0.04 ... 0.09 up to	0.04 ... 0.09 up to	0.09 ... 1.1 up to
	kW	45	90 ... 450	90 ... 450	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.

General data

Overview

Features	3RU11	3RB20/3RB21	3RB22/3RB23	Benefits
General data				
Sizes	S00 ... S3	S00 ... S12	S00 ... S12	• 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]	• Allows easy and consistent configuration with one series of overload relays (for small to large loads)
Protection functions				
Tripping due to overload	✓	✓	✓	• Provides optimum inverse-time delayed protection of loads against excessive temperature rises due to overload
Tripping due to phase unbalance	✓	✓	✓	• Provides optimum inverse-time delayed protection of loads against excessive temperature rises due to phase unbalance
Tripping due to phase failure	✓	✓	✓	• Minimizes heating of three-phase motors during phase failure
Protection of single-phase loads	✓	--	✓	• Enables the protection of single-phase loads
Tripping in the event of overheating by **Integrated thermistor motor protection function**	--[2]	--[2]	✓	• 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 • 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 by **Internal ground-fault detection (activatable)**	--	✓ (Only 3RB21)	✓	• Provides optimum protection of loads against high-resistance short circuits or ground faults due to moisture, condensed water, damage to the insulation material, etc. • Eliminates the need for additional special equipment • Saves space in the control cabinet • Reduces wiring outlay and costs
Features				
RESET function	✓	✓	✓	• 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)	• Allows the remote resetting of the device
TEST function for auxiliary contacts	✓	✓	✓	• Allows easy checking of the function and wiring
TEST function for electronics	--	✓	✓	• Allows checking of the electronics
Status display	✓	✓	✓	• Displays the current operating state
Large current adjustment button	✓	✓	✓	• Makes it easier to set the relay exactly to the correct current value
Integrated auxiliary contacts (1 NO + 1 NC)	✓	✓	✓ (2 ×)	• 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 a 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)	✓	✓	✓	• 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]	• Simplifies configuration • Reduces wiring outlay and costs • Enables stand-alone installation as well as space-saving direct mounting
Straight-through transformers for main circuit[2] (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)	• 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 circuits[2]	✓	✓	✓	• Enables fast connections • Permits vibration-resistant connections • Enables maintenance-free connections
Other features				
Temperature compensation	✓	✓	✓	• 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	✓	✓	✓	• Provides safe protection for the loads even after years of use in severe operating conditions
Wide setting ranges	--	✓ (1:4)	✓ (1:10)	• 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)	--	• Optimum motor protection for standard starts
Trip classes adjustable on the device CLASS 5, 10, 20, 30	--	✓ (Only 3RB21)	✓	• 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	--	✓	✓	• 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.

General data

Features	3RU11	3RB20/3RB21	3RB22/3RB23	Benefits
Further characteristics (continued)				
Internal power supply	--[1)]	✓	--	• 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)	✓	• Reduces the number of variants • Minimizes the configuring outlay and costs • Minimizes storage overhead, storage costs, and tied-up capital
Overload warning	--	--	✓	• 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	--	--	✓	• 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 measure-ment	Current range	**Contactors** (type, size, rating in kW)							
				3RT101.	**3RT102.**	**3RT103.**	**3RT104.**	**3RT105.**	**3RT106.**	**3RT10 7.**	**3TF68/3TF69**
				S00	S0	S2	S3	S6	S10	S12	Size 14
	Type	Type	A	3/4/5.5	5.5/7.5/11	15/18.5/22	30/37/45	55/75/90	110/132/160	200/250	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 relays[1]											
 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 relays[1]											
 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 relays[1]											
 3RB22, 3RB23	3RB2283/ 3RB2383 +	3RB2906	0.3 … 25	✓	✓	--	--	--	--	--	--
		3RB2906	10 … 100	✓	✓	✓	✓	--	--	--	--
		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 ≥ 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.

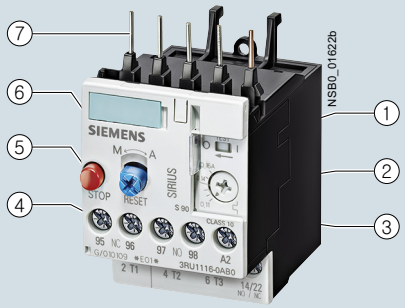
Screw terminals

Spring-type terminals

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

3RU11 up to 100 A for standard applications

Overview



1. Switch position indicator and TEST function of the wiring:
   Indicates a trip and enables the wiring test.
2. Motor current setting:
   Setting the device to the rated motor current is easy with the large rotary knob.
3. Transparent, sealable cover:
   Secures the motor current setting and the TEST function against adjustment.
4. Supply terminals:
   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. STOP button:
   If the STOP button is pressed, the NC contact is opened. This switches off the contactor downstream. The NC contact is closed again when the button is released.
6. Selector switch for manual/automatic RESET and RESET button:
   With this switch you can choose between manual and automatic RESET. A device set to manual RESET can be reset locally by pressing the RESET button. A remote RESET is possible using the RESET modules (accessories), which are independent of size.
7. Connection for mounting onto contactors:
   Optimally adapted in electrical, mechanical and design terms to the contactors. 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 3RU1116-0AB0 thermal overload relays

The 3RU11 thermal overload relays up to 100 A have been designed for inverse-time delayed protection of loads with normal starting (for "Function", see Reference Manual "Protection Equipment – 3RU1, 3RB2 Overload Relays") against excessive temperature rises due to overload or phase failure.

An overload or a phase failure result in an increase of the motor current beyond the set rated motor current. Via heating elements, this current rise heats up the bimetal strips inside the device which then bend and as a result trigger the auxiliary contacts by means of a tripping mechanism. 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").

The "tripped" status is signaled by means of a switch position indicator. Resetting takes place either manually or automatically after a recovery time has elapsed (for "Function", see 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 3RU11 thermal overload relays are suitable for the overload protection of explosion-proof motors with "increased safety" type of protection EEx e.

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 Category (2) G/D exists. It has the number DMT 98 ATEX G 001.

Article No. scheme

Digit of the Article No.	1st - 3rd	4th	5th	6th	7th		8th	9th	10th	11th
	□□□	□	□	□	□	–	□	□	□	□
Thermal overload relays	**3 R U**									
SIRIUS 1st generation		**1**								
Device series			□							
Size, rated operational current and power				□	□					
Setting range of the overload release							□	□		
Connection methods									□	
Installation type										□
Example	**3 R U**	**1**	**1**	**3**	**6**	**–**	**1**	**H**	**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.

Benefits

The most important features and benefits of the 3RU11 thermal overload relays are listed in the overview table (see "General Data", from page 7/36 onwards).

Application

Industries

The 3RU11 thermal 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 starting conditions (CLASS 10).

Application area

The 3RU11 thermal overload relays have been designed for the protection of three-phase and single-phase AC and DC motors.

If single-phase AC or DC loads are to be protected by the 3RU11 thermal overload relays, all three bimetal strips must be heated. For this purpose, all main current paths of the relay must be connected in series.

Ambient conditions

The 3RU11 thermal overload relays have temperature compensation in accordance with IEC 60947-4-1 for the temperature range of -20 to +60 °C. For temperatures from +60 to +70 °C, the upper set value of the setting range must be reduced by the factor listed in the table below.

Ambient temperature °C	Derating factor for the upper set value
+60	1.0
+65	0.94
+70	0.87

Selection and ordering data

3RU11 thermal overload relays with screw terminals on the auxiliary current side for mounting onto contactor[1], CLASS 10

Features and technical specifications:
- Overload and phase failure protection
- Auxiliary contacts 1 NO + 1 NC
- Manual and automatic RESET
- Switch position indicator
- TEST function
- STOP button
- Integrated sealable cover

Size contactor[2]	Rating for three-phase motor, rated value[3] kW	Current setting value of the inverse-time delayed overload release A	Short-circuit protection with fuse, type of coordination "2", operational class gG[4] A	DT	**Screw terminals** (on auxiliary current side) Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Size S00									
 3RU1116-..B0									
S00	0.04	0.11 ... 0.16	0.5	▶	**3RU1116-0AB0**		1	1 unit	41F
	0.06	0.14 ... 0.2	1	▶	**3RU1116-0BB0**		1	1 unit	41F
	0.06	0.18 ... 0.25	1	▶	**3RU1116-0CB0**		1	1 unit	41F
	0.09	0.22 ... 0.32	1.6	▶	**3RU1116-0DB0**		1	1 unit	41F
	0.09	0.28 ... 0.4	2	▶	**3RU1116-0EB0**		1	1 unit	41F
	0.12	0.35 ... 0.5	2	▶	**3RU1116-0FB0**		1	1 unit	41F
	0.18	0.45 ... 0.63	2	▶	**3RU1116-0GB0**		1	1 unit	41F
	0.18	0.55 ... 0.8	4	▶	**3RU1116-0HB0**		1	1 unit	41F
	0.25	0.7 ... 1	4	▶	**3RU1116-0JB0**		1	1 unit	41F
	0.37	0.9 ... 1.25	4	▶	**3RU1116-0KB0**		1	1 unit	41F
	0.55	1.1 ... 1.6	6	▶	**3RU1116-1AB0**		1	1 unit	41F
	0.75	1.4 ... 2	6	▶	**3RU1116-1BB0**		1	1 unit	41F
	0.75	1.8 ... 2.5	10	▶	**3RU1116-1CB0**		1	1 unit	41F
	1.1	2.2 ... 3.2	10	▶	**3RU1116-1DB0**		1	1 unit	41F
	1.5	2.8 ... 4	16	▶	**3RU1116-1EB0**		1	1 unit	41F
	1.5	3.5 ... 5	20	▶	**3RU1116-1FB0**		1	1 unit	41F
	2.2	4.5 ... 6.3	20	▶	**3RU1116-1GB0**		1	1 unit	41F
	3	5.5 ... 8	25	▶	**3RU1116-1HB0**		1	1 unit	41F
	4	7 ... 10	35	▶	**3RU1116-1JB0**		1	1 unit	41F
	5.5	9 ... 12	35	▶	**3RU1116-1KB0**		1	1 unit	41F
Size S0									
 3RU1126-..B0									
S0	0.75	1.8 ... 2.5	10	▶	**3RU1126-1CB0**		1	1 unit	41F
	1.1	2.2 ... 3.2	10	▶	**3RU1126-1DB0**		1	1 unit	41F
	1.5	2.8 ... 4	16	▶	**3RU1126-1EB0**		1	1 unit	41F
	1.5	3.5 ... 5	20	▶	**3RU1126-1FB0**		1	1 unit	41F
	2.2	4.5 ... 6.3	20	▶	**3RU1126-1GB0**		1	1 unit	41F
	3	5.5 ... 8	25	▶	**3RU1126-1HB0**		1	1 unit	41F
	4	7 ... 10	35	▶	**3RU1126-1JB0**		1	1 unit	41F
	5.5	9 ... 12.5	35	▶	**3RU1126-1KB0**		1	1 unit	41F
	7.5	11 ... 16	40	▶	**3RU1126-4AB0**		1	1 unit	41F
	7.5	14 ... 20	50	▶	**3RU1126-4BB0**		1	1 unit	41F
	11	17 ... 22	63	▶	**3RU1126-4CB0**		1	1 unit	41F
	11	20 ... 25	63	▶	**3RU1126-4DB0**		1	1 unit	41F
Size S2									
 3RU1136-..B0									
S2	3	5.5 ... 8	25	▶	**3RU1136-1HB0**		1	1 unit	41F
	4	7 ... 10	35	▶	**3RU1136-1JB0**		1	1 unit	41F
	5.5	9 ... 12.5	35	▶	**3RU1136-1KB0**		1	1 unit	41F
	7.5	11 ... 16	40	▶	**3RU1136-4AB0**		1	1 unit	41F
	7.5	14 ... 20	50	▶	**3RU1136-4BB0**		1	1 unit	41F
	11	18 ... 25	63	▶	**3RU1136-4DB0**		1	1 unit	41F
	15	22 ... 32	80	▶	**3RU1136-4EB0**		1	1 unit	41F
	18.5	28 ... 40	80	▶	**3RU1136-4FB0**		1	1 unit	41F
	22	36 ... 45	100	▶	**3RU1136-4GB0**		1	1 unit	41F
	22	40 ... 50	100	▶	**3RU1136-4HB0**		1	1 unit	41F
Size S3									
 3RU1146-..B0									
S3	11	18 ... 25	63	▶	**3RU1146-4DB0**		1	1 unit	41F
	15	22 ... 32	80	▶	**3RU1146-4EB0**		1	1 unit	41F
	18.5	28 ... 40	80	▶	**3RU1146-4FB0**		1	1 unit	41F
	22	36 ... 50	125	▶	**3RU1146-4HB0**		1	1 unit	41F
	30	45 ... 63	125	▶	**3RU1146-4JB0**		1	1 unit	41F
	37	57 ... 75	160	▶	**3RU1146-4KB0**		1	1 unit	41F
	45	70 ... 90	160	▶	**3RU1146-4LB0**		1	1 unit	41F
	45	80 ... 100[5]	200	▶	**3RU1146-4MB0**		1	1 unit	41F

1) With the suitable terminal supports (see "Accessories", page 7/45), the 3RU11 overload relays for mounting on contactors can also be installed as stand-alone units.

2) Observe maximum rated operational current of the devices.

3) 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.

4) 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/Motor Starter Protectors for Motor Feeders".

5) For overload relays > 100 A, see 3RB2 electronic overload relays from page 7/49 onwards.

* You can order this quantity or a multiple thereof.
Illustrations are approximate