


**Selection and ordering data**
**3RU11 thermal overload relays with screw-type terminals  
for mounting onto contactor<sup>1)</sup>, CLASS 10**

Features and technical characteristics

- Auxiliary contacts: 1 NO + 1 NC
- Manual/automatic RESET
- Switching position indication
- TEST function

- STOP button
- Phase failure sensitivity
- Integrated, sealable cover
- CLASS 10

For 3RT1 contactor	Setting range	for mounting onto contactor <sup>1)</sup>		Weight approx	
		Order No.	List Price \$		
Size	A			kg	
<b>Size S00</b>					
3RU11 16-...B0 S00 (3RT101)	0.11 – 0.16	3RU11 16-0AB0		0.15	
	0.14 – 0.2	3RU11 16-0BB0			
	0.18 – 0.25	3RU11 16-0CB0			
	0.22 – 0.32	3RU11 16-0DB0			
	0.28 – 0.4	3RU11 16-0EB0		0.15	
	0.35 – 0.5	3RU11 16-0FB0			
	0.45 – 0.63	3RU11 16-0GB0			
	0.55 – 0.8	3RU11 16-0HB0			
	0.7 – 1	3RU11 16-0JB0		0.15	
	0.9 – 1.25	3RU11 16-0KB0			
3RU11 16-...B0 S0 (3RT102)	1.1 – 1.6	3RU11 16-1AB0			
	1.4 – 2	3RU11 16-1BB0			
	1.8 – 2.5	3RU11 16-1CB0		0.15	
	2.2 – 3.2	3RU11 16-1DB0			
	2.8 – 4	3RU11 16-1EB0			
	3.5 – 5	3RU11 16-1FB0			
	4.5 – 6.3	3RU11 16-1GB0		0.15	
	5.5 – 8	3RU11 16-1HB0			
	7 – 10	3RU11 16-1JB0			
	9 – 12	3RU11 16-1KB0			
3RU11 26-...B0 S0 (3RT102)	1.8 – 2.5	3RU11 26-1CB0		0.19	
	2.2 – 3.2	3RU11 26-1DB0			
	2.8 – 4	3RU11 26-1EB0			
	3.5 – 5	3RU11 26-1FB0			
	4.5 – 6.3	3RU11 26-1GB0		0.19	
	5.5 – 8	3RU11 26-1HB0			
	7 – 10	3RU11 26-1JB0			
	9 – 12.5	3RU11 26-1KB0			
	11 – 16	3RU11 26-4AB0		0.19	
	14 – 20	3RU11 26-4BB0			
3RU11 36-...B0 S2 (3RT103)	17 – 22	3RU11 26-4CB0			
	20 – 25	3RU11 26-4DB0			
	5.5 – 8	3RU11 36-1HB0		0.32	
	7 – 10	3RU11 36-1JB0			
	9 – 12.5	3RU11 36-1KB0			
	11 – 16	3RU11 36-4AB0		0.32	
	14 – 20	3RU11 36-4BB0			
	18 – 25	3RU11 36-4DB0			
	22 – 32	3RU11 36-4EB0			
	28 – 40	3RU11 36-4FB0		0.32	
3RU11 46-...B0 S3 (3RT104)	36 – 45	3RU11 36-4GB0			
	40 – 50	3RU11 36-4HB0			
	18 – 25	3RU11 46-4DB0		0.55	
	22 – 32	3RU11 46-4EB0			
	28 – 40	3RU11 46-4FB0		0.55	
	36 – 50	3RU11 46-4HB0			
	45 – 63	3RU11 46-4JB0			
	57 – 75	3RU11 46-4KB0			
	70 – 90	3RU11 46-4LB0		0.55	
	80 – 100 <sup>2)</sup>	3RU11 46-4MB0			

1) The 3RU11 overload relays can also be panel mounted using the appropriate adapters (see Accessories).

2) Overload relay > 100 A, see 3RB2.

For accessories, see page 3/11.

For description, see page 3/8.


For technical data, see pages 3/12-3/15.

For circuit diagrams, see page 3/16.

For dimension drawings, see page 3/17.

## SIRIUS 3RU11 Bimetallic Class 10 Overload Relays With Cage Clamp

Description	Features	Additional References
<p>Class 10, ambient compensated bimetallic overload relays with Cage Clamp terminals.</p> <p>These overload relays have Cage Clamps on the auxiliary contact terminals. Power terminals are screw type (except for 3RU111 which has Cage Clamps on all terminals).</p>	<ul style="list-style-type: none"> <li>▶ Cage Clamp terminals</li> <li>▶ 1 NO &amp; 1 NC auxiliary contacts</li> <li>▶ Manual/automatic RESET</li> <li>▶ Trip indicator</li> <li>▶ STOP button</li> <li>▶ Test function</li> <li>▶ Sealable cover</li> </ul>	<ul style="list-style-type: none"> <li>▶ Accessories see page 250.</li> <li>▶ General Information see page 241.</li> <li>▶ Technical Data see pages 306-307.</li> <li>▶ Dimensions see page 325.</li> </ul>

Illustration	For Contactor Type	Setting Range Amps	Cage Clamp Catalog No	Price \$
<b>3RU111—For separate mounting with 3RT101 contactors</b>				
 <p>3RU1116-1-C1</p>	3RT1015,	0.11-0.16	3RU1116-0AC1	68.
	3RT1016,	0.14-0.2	3RU1116-0BC1	68.
	3RT1017	0.18-0.25	3RU1116-0CC1	68.
		0.22-0.32	3RU1116-0DC1	68.
		0.28-0.4	3RU1116-0EC1	68.
		0.35-0.5	3RU1116-0FC1	68.
		0.45-0.63	3RU1116-0GC1	68.
		0.55-0.8	3RU1116-0HC1	68.
		0.7-1.0	3RU1116-0JC1	68.
		0.9-1.25	3RU1116-0KC1	68.
		1.1-1.6	3RU1116-1AC1	68.
		1.4-2	3RU1116-1BC1	68.
		1.8-2.5	3RU1116-1CC1	68.
		2.2-3.2	3RU1116-1DC1	68.
		2.8-4	3RU1116-1EC1	68.
		3.5-5	3RU1116-1FC1	68.
		4.5-6.3	3RU1116-1GC1	68.
 <p>3RU1126-1-D0</p>		5.5-8	3RU1116-1HC1	68.
		7-10	3RU1116-1JC1	68.
		9-12	3RU1116-1KC1	68.
	<b>3RU112—For direct mounting with 3RT102 contactors<sup>①</sup></b>			
		1.8-2.5	3RU1126-1CD0	63.
		2.2-3.2	3RU1126-1DD0	63.
		2.8-4	3RU1126-1ED0	63.
		3.5-5	3RU1126-1FD0	63.
		4.5-6.3	3RU1126-1GD0	63.
		5.5-8	3RU1126-1HD0	63.
		7-10	3RU1126-1JD0	63.
 <p>3RU1136-4-D0</p>		9-12.5	3RU1126-1KD0	63.
		11-16	3RU1126-4AD0	63.
		14-20	3RU1126-4BD0	63.
		17-22	3RU1126-4CD0	63.
		20-25	3RU1126-4DD0	63.
	<b>3RU113—For direct mounting with 3RT103 contactors<sup>①</sup></b>			
		5.5-8	3RU1136-1HD0	74.
		7-10	3RU1136-1JD0	74.
		9-12.5	3RU1136-1KD0	74.
		11-16	3RU1136-4AD0	74.
		14-20	3RU1136-4BD0	74.
 <p>3RU1146-4-D0</p>		18-25	3RU1136-4DD0	74.
		22-32	3RU1136-4ED0	92.
		28-40	3RU1136-4FD0	92.
		36-50	3RU1136-4GD0	102.
		45-63	3RU1136-4HD0	102.
	<b>3RU114—For direct mounting with 3RT104 contactors<sup>①</sup></b>			
		18-25	3RU1146-4DD0	106.
		22-32	3RU1146-4ED0	106.
		28-40	3RU1146-4FD0	106.
		36-50	3RU1146-4HD0	116.
		45-63	3RU1146-4JD0	116.

<sup>①</sup>For separate mounting, use 3RU19 separate mounting kits. See accessories, page 250.



## SIRIUS 3RU11 Bimetallic Class 10 Overload Relays

### General

3RU11 overload relays belong to the new generation of SIRIUS 3R control products. The 3RU11 overload relays replace the highly successful 3UA5 and 3UA7 devices. Outstanding features of the new overload relays include long term stability and long service life. The overload relays are optimally matched, both electrically and mechanically, to the 3RT10 contactors. They can also be mounted as a single unit with the use of a separate mounting bracket. 3RU11 overload relays cannot be mounted onto 3TF contactors.

The 3RU11 overload relays are available in four distinct frame sizes up to 100A. The selection charts in this catalog refer to the different frame sizes by their catalog numbers, e.g. 3RU111, 3RU112, 3RU113, and 3RU114. The sixth character in the part number designates the frame size. This "size number" is consistent with, and matches up to, the same four frame sizes of the other products in this catalog. However, it is important to note that other SIRIUS 3R catalog versions in circulation throughout the world refer to these four sizes as S00, S0, S2, and S3 respectively. It is a possibility that these four frame size references (S00, S0, S2, and S3) may appear on product labels as well.

### Application

3RU11 overload relays provide overload protection for three-phase inductive motors with rated currents of up to 100A (75HP, AC-3, 480V). They are used in conjunction with 3RT10 contactors to form motor starters.

### Ambient conditions

Thanks to the new bimetals used and continuous temperature compensation, the devices can be used without derating at an ambient temperature of up to 60°C (140°F). Use up to 70°C (158°F) is possible with derating. (See page 307).

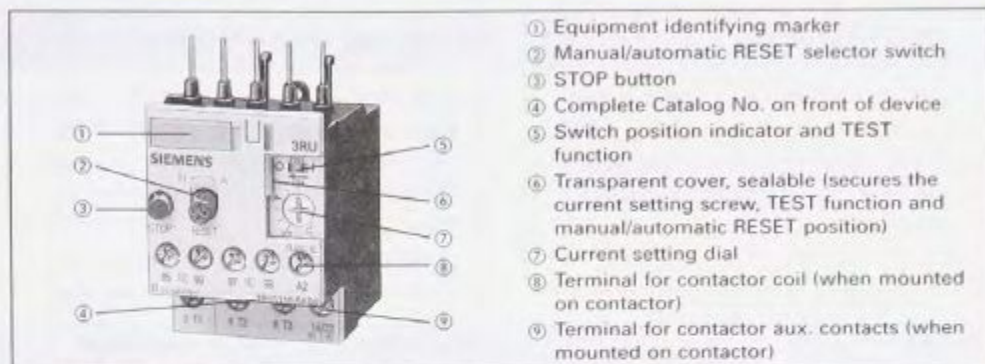
### Auxiliary contacts

The overload relays are equipped with a NC contact for de-energizing the contactor and a NO contact for signalling an overload trip.

The breaking capacity of the switching contacts is very high so that the contactor coils can be switched directly.

### Trip class

The overload relays are designed in accordance with trip class 10, i.e. trips in less than 10 seconds at 6 times the trip current setting (FLA).



3RU111 Overload Relay

### Phase failure sensitivity

A phase failure sensitivity function is integrated in order to provide increased protection in the event of a phase failure, i.e. faster tripping in the event of a single-phase condition.

### Setting the overload relay

The current setting dial can be accessed once the transparent, sealable cover has been opened. The overload relay must be set at the rated full-load amps (FLA) of the motor.

### STOP function

Pressing the red STOP button on the overload relay momentarily opens the NC trip contact. No other contacts and/or functions are affected by this STOP button.

### Manual/automatic reset

The RESET button/mechanism features trip-free operation. This means that the overload relay will trip on an overload condition regardless of whether the reset button is pushed in or not. Manual or automatic reset can be selected with the blue button. The appropriate setting is selected by pressing and turning the button. This setting can then be locked by the sliding transparent cover.

### TEST function and switch position indicator

The switch position indicator also incorporates a test function which, when activated, simulates a tripped overload relay. Both auxiliary contacts are actuated and the switch position is indicated.

### Terminal for contactor coil and auxiliary contact

When the 3RU111 overload relay is mounted directly on the contactor, the auxiliary contact terminal and the coil terminal A2 of the contactor are fed through to the bottom side of the overload relay. This considerably expedites wiring. This is not necessary with the 3RU112, 3RU113, and 3RU114

- ① Equipment identifying marker
- ② Manual/automatic RESET selector switch
- ③ STOP button
- ④ Complete Catalog No. on front of device
- ⑤ Switch position indicator and TEST function
- ⑥ Transparent cover, sealable (secures the current setting screw, TEST function and manual/automatic RESET position)
- ⑦ Current setting dial
- ⑧ Terminal for contactor coil (when mounted on contactor)
- ⑨ Terminal for contactor aux. contacts (when mounted on contactor)

overloads since the contactors are equipped with four coil terminals and the auxiliary contacts are either front or side mounted.

### Cage Clamp connection

3RU11 overload relays are available with Cage Clamp terminals. 3RU111 overloads have Cage Clamps on the auxiliary and power terminals. 3RU112, 3RU113, and 3RU114 overloads have Cage Clamps on the auxiliary terminals only. The power terminals on 3RU112, 3RU113, and 3RU114 overloads remain screw type.

### Accessories

The accessories available are suitable for use with all frame sizes.

- Electrically operated remote RESET available in different voltages
- Plunger type mechanical RESET mechanisms for new and existing enclosure installations
- Flexible cable type RESET mechanism for applications where the devices are not easily accessible

### Environment

The devices are manufactured using environmentally-friendly and recyclable materials only.

### Specifications

IEC 947-1, IEC 947-5-1, and DIN VDE 0660.

3RU11 overload relays are suitable for use in any climate.

The devices are shock-hazard protected to DIN VDE 0106, Part 100.

### Approvals

UL, CSA, CE