

Overload Relays 3RU2

The 3RU thermal overload relays up to 100 A are designed for current-dependent protection of applications with normal start-up conditions against impermissibly high rises in temperature as a result of overload or phase failure. An overload or phase failure causes the motor current to rise above the set rated motor current. This current rise heats up the bimetal strips within the relay via heating elements which, in turn, operate the auxiliary contacts via a tripping mechanism due to their deflection. These switch the load off via a contactor. The switch-off time is dependent on the ratio of tripping current to operational current I_e and is stored in the form of a tripping characteristic with long-term stability. The "Tripped" state is signalled by means of a switching position indicator.

Ordering information

- Replace the (••) with the letter Number combination from the Terminal types I table
- Replace the (††) with the letter Number combination from the Terminal types II table
- For description, see page 3/8
- For technical data, see pages 3/12-3/15
- For circuit diagrams, see page 3/15
- For dimension drawings, see page 3/16-3/17.

Thermal Overload Relays up to 40A Frame Size S00 and S0 ••

Setting Range	Order No.	Setting Range	Order No.	Weight approx. (screw/spring) kg
A		A		
Frame Size S00: For mounting directly to 3RT201 contactors or for stand-alone installation				
0.11 - 0.16	3RU2116-0A••	1.4 - 2	3RU2116-1B••	0.13/0.15
0.14 - 0.2	3RU2116-0B••	1.8 - 2.5	3RU2116-1C••	
0.18 - 0.25	3RU2116-0C••	2.2 - 3.2	3RU2116-1D••	
0.22 - 0.32	3RU2116-0D••	2.8 - 4	3RU2116-1E••	
0.28 - 0.4	3RU2116-0E••	3.5 - 5	3RU2116-1F••	0.13/0.15
0.35 - 0.5	3RU2116-0F••	4.5 - 6.3	3RU2116-1G••	
0.45 - 0.63	3RU2116-0G••	5.5 - 8	3RU2116-1H••	
0.55 - 0.8	3RU2116-0H••	7 - 10	3RU2116-1J••	
0.7 - 1	3RU2116-0J••	9 - 12.5	3RU2116-1K••	0.13/0.15
0.9 - 1.25	3RU2116-0K••	11 - 16	3RU2116-4A••	
1.1 - 1.6	3RU2116-1A••			
Frame Size S0: For mounting directly to 3RT202 contactors or for stand-alone installation				
1.8 - 2.5	3RU2126-1C••	11 - 16	3RU2126-4A••	0.16/0.22
2.2 - 3.2	3RU2126-1D••	14 - 20	3RU2126-4B••	
2.8 - 4	3RU2126-1E••	17 - 22	3RU2126-4C••	
3.5 - 5	3RU2126-1F••	20 - 25	3RU2126-4D••	
4.5 - 6.3	3RU2126-1G••	23 - 28	3RU2126-4N••	0.16/0.22
5.5 - 8	3RU2126-1H••	27 - 32	3RU2126-4E••	
7 - 10	3RU2126-1J••	30 - 36	3RU2126-4P••	
9 - 12.5	3RU2126-1K••	34 - 40	3RU2126-4F••	

•• Terminal Types I			†† Terminal Types II		
Type	Mounting Type	Ltr	Type	Mounting Type	Ltr
Screw	Direct to Contactor	B0	Screw	Direct to Contactor	B0
Screw ¹⁾	Stand Alone	B1	Screw ⁴⁾	Stand Alone	B1
Spring ²⁾	Direct to Contactor	C0	Spring ³⁾	Direct to Contactor	D0
Spring ^{1) 2)}	Stand Alone	C1	Spring ^{3) 4)}	Stand Alone	D1
Ring Lug	Direct to Contactor	J0			

Thermal Overload Relays up to 100A Frame Size S2 and S3 ††

Setting Range	Order No.	Setting Range	Order No.	Weight approx. (screw/spring) kg
A		A		
Frame Size S2: For mounting directly to 3RT203 contactors⁴⁾				
22 - 32	3RU2136-4E††	47 - 57	3RU2136-4Q††	0.34
28 - 40	3RU2136-4F††	54 - 65	3RU2136-4J††	
36 - 45	3RU2136-4G††	62 - 73	3RU2136-4K††	
40 - 50	3RU2136-4H††	70 - 80	3RU2136-4R††	
Frame Size S3: For mounting directly to 3RT104 contactors⁴⁾				
28 - 40	3RU2146-4F††	57 - 75	3RU2146-4K††	
36 - 50	3RU2146-4H††	70 - 90	3RU2146-4L††	
45 - 63	3RU2146-4J††	80 - 100 ⁵⁾	3RU2146-4M††	

- 1) Not available for size S0 3RU212 with current setting range below 14 A.
- 2) Size S00 and S0: main and auxiliary conductor terminals are spring-type.
- 3) Size S2 and S3 auxiliary terminals are spring-type only. Main conductor terminals are screw.
- 4) 3RU Overloads in S2 and S3 frame are available preassembled with a terminal bracket for standalone mounting. S2 and S3 overloads can also be customer assembled to the terminal bracket (see Accessories).
- 5) For overload relays > 100A, see electronic overload relays.

Key features and technical characteristics:

- Auxiliary contacts: 1 NO + 1 NC
- Manual/automatic RESET
- Switching position indication
- CLASS 10
- TEST function
- STOP button
- Phase failure sensitivity
- Sealable cover: optional in S00, S0 & S2. Integrated in S3



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