

## PRIORITY CURRENT RELAYS



- They monitor the strength of current in the circuit and close/open the contact (terminals 1, 2) at a jump exceeding of a guaranteed switched current
- They make it possible to interrupt the power supply of one (non-priority) circuit, if the current of the other (priority) circuit jumps to a set value
- They are most frequently installed in distribution systems where concurrent operation of more appliances is not possible because of risk of exceeding a permitted power input
- For example, the relays can disconnect electric heating, a storage block heater from the network if an instantaneous water heater is switched - therefore it is possible to select a main circuit breaker and conductors for a lower power input
- They make it possible to increase the number of appliances for existing installations
- In the circuits with electronic (e.g. thyristor) control, they cannot be used directly, but with a time-delay relay - see connection examples
- Maximum current through the current coil: depending on design (15 A, 28 A, 63 A)
- Maximum current through the contact: 16 A

Operating current range $I_n$	Arrangement of contacts <sup>1)</sup>	Type	Product code	Number of modules	Weight [kg]	Package [pcs]
5 ÷ 15 A	01	<b>RPL-15-01</b>	35548	1	0.115	1
	10	<b>RPL-15-10</b>	35549	1	0.115	1
10 ÷ 28 A	01	<b>RPL-28-01</b>	35550	1	0.115	1
	10	<b>RPL-28-10</b>	35551	1	0.115	1
26 ÷ 63 A	01	<b>RPL-63-01</b>	35552	1	0.115	1
	10	<b>RPL-63-10</b>	35553	1	0.115	1

<sup>1)</sup> Each digit indicates successively the number of make and break contacts

### Specification

Type	RPL-..	
Approval marks		
<b>Contact (terminals 1,2)</b>		
Sequence <sup>1)</sup>		10, 01
Rated voltage/current	AC-1	$U_e/I_n$ 250 V a.c. / 16 A
Electrical endurance		75 000 operating cycles
Switching frequency		max. 1200 operating cycles/h
Connection		0.75 ÷ 2.5 mm <sup>2</sup>
Torque		0.8 Nm
<b>Current coil (terminals A1, A2)</b>		
Operating current range		$I_n$ 5 ÷ 15 A, 10 ÷ 28 A, 26 ÷ 63 A
Guaranteed switched current for $I_n$ <sup>2)</sup>	range 5 ÷ 15	≥ 5 A
	range 10 ÷ 28	≥ 10 A
	range 26 ÷ 63	≥ 26 A
Guaranteed unswitched current for $I_n$ <sup>2)</sup>	range 5 ÷ 15	≤ 2 A
	range 10 ÷ 28	≤ 6 A
	range 26 ÷ 63	≤ 16 A
Connection - terminals A1, A2		0.75 ÷ 16 mm <sup>2</sup>
Torque		2 Nm
Power loss		3 W
<b>Other data</b>		
Isolation voltage	$U_i$	400 V a.c.
Mounting on "U" rail according to EN 60715 - type		TH 35
Degree of protection		IP20
Ambient temperature		-20 ÷ 50 °C
Seismic immunity		3 g / 8 ÷ 50 Hz
Working position		arbitrary

<sup>1)</sup> Each digit indicates successively the number of make and break contacts

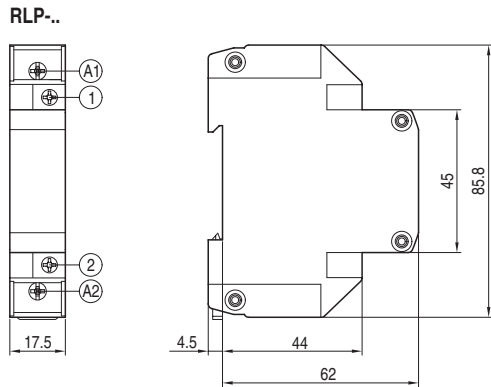
<sup>2)</sup> Only for jump increase in current

### RPL selection-.. according to power output of the switched appliance

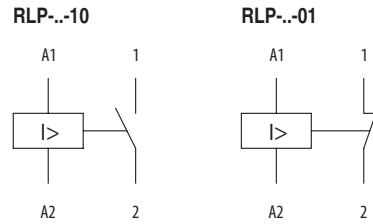
Appliance Voltage	Power output	type RPL-..
230 V a.c.	1.2 ÷ 3.4 W	<b>RPL-15-..</b>
	2.3 ÷ 6.4 W	<b>RPL-28-..</b>
	6 ÷ 14.5 W	<b>RPL-63-..</b>
	3.4 ÷ 10 W	<b>RPL-15-..</b>
400 V a.c.	6.9 ÷ 19.3 W	<b>RPL-28-..</b>
	18 ÷ 43.5 W	<b>RPL-63-..</b>

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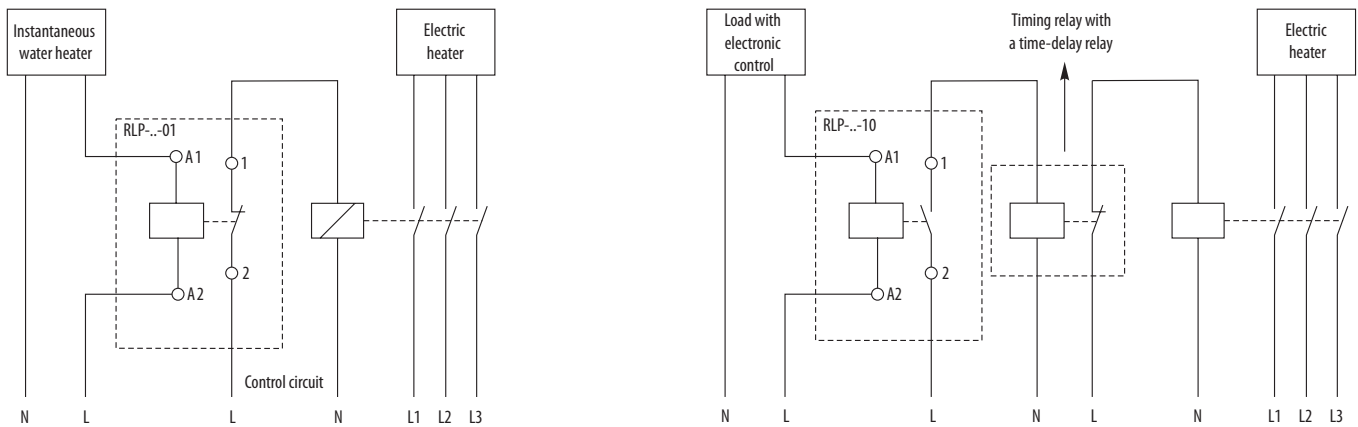
### Dimensions



### Diagram



### Connection examples



- For example, at blocking of consumption of an electric heater (a non-priority appliance) the current coil (terminals A1, A2) is connected in the circuit of an instantaneous water heater (a priority appliance) at switching the latter on, and control contact (terminals 1, 2) is connected in the circuit of the electric heater contactors. So if the instantaneous water heater is switched on and the current steeply reaches so called "guaranteed switched current", the control break contact will interrupt the power supply of contactor, and subsequently disconnects the electric boiler.

- At priority switching of an appliance with electronic control the relay function is troubled (the relay is synchronized with the electronic control). For this reason it is recommended to connect a time-delay relay in the control contact circuit.