



- General purpose relays
- High inrush current
- Plug-in version - 35 mm DIN rail mount, EN 50022 or on panel mounting
- for PCB mounting
- Fast-on connectors 4,8 x 0,5 mm.
- Version with contact gap  $\geq 3$  mm available

## Contacts

Contact number & arrangement		2C/O, 3C/O, 2NO, 3NO
Contact material		<b>AgCdO</b>
Max. switching voltage	AC/DC	without socket GUC11: 400 V / 400 V with socket GUC11: 250 V / 250 V <b>1</b>
Min. switching voltage		10 V
Rated load	AC1	without socket GUC11: 16 A / 250 V AC or 10 A / 380 V AC / 4 000 VA with socket GUC11: 16 A / 250 V AC
	DC1	16 A / 24 V DC
Min. switching current		10 mA
Max. inrush current		40 A
Rated current		16 A
Max. breaking capacity	AC1	4 000 VA
Min. breaking capacity		1 W
Resistance		$\leq 100$ m $\Omega$
Max. operating frequency	AC1	• at rated load 1 200 cycles/hour
		• no load 12 000 cycles/hour

## Coil

Rated voltage	50/60 Hz AC	without socket GUC11: 6...380 V	with socket GUC11: 6...240 V
	DC	6...220 V	
Must release voltage		AC: $\geq 0,15 U_n$	DC: $\geq 0,1 U_n$
Operating range of supply voltage		see Table 1, 2	
Rated power consumption	AC	2,8 VA 50 Hz	2,5 VA 60 Hz
	DC	1,5 W	1,7 W with contact gap $\geq 3$ mm

## Insulation

Insulation category	without socket GUC11: C400	with socket GUC11: C250
Insulation rated voltage	400 V AC	
Dielectric strength	• coil - contact	2 500 V AC
	• contact - contact	1 500 V AC
	• contact - contact $\geq 3$ mm	2 500 V AC
	• pole - pole	2 500 V AC
Contact - coil distance		
• clearance / • creepage	$\geq 6$ mm / $\geq 8$ mm	

## General data

Operating time (typical value)	AC: 12 ms	DC: 12 ms
Release time (typical value)	AC: 10 ms	DC: 7 ms
Electrical life	• resistive AC1	$\geq 10^5$ 16 A, 250 V AC
	• $\cos\phi$	see Fig. 2
Mechanical life (cycles)	$\geq 10^7$	
Dimensions (L x W x H)	38,6 x 36,1 x 45,5 mm	
Weight	85 g	
Ambient temperature	• storing	-40...+85 °C
	• operating	-40...+70 °C I = 10 A    -40...+55 °C I = 16 A
Cover protection category	IP 40	
Shock resistance	10 g	
Vibration resistance	5 g 10...150 Hz	
Solder bath temperature	max. 270 °C	
Soldering time	max. 5 s	

Standard contact material marked with bolt type.

**1** GUC11 limits max. switching voltage to 250 V AC/DC.



Coil data - DC voltage version

Table 1

Coil code	Rated voltage V DC	Coil resistance $\pm 10\%$ at 20 °C $\Omega$	Coil operating range V DC	
			min. (at 20°C)	max. (at 55°C)
1006	6	28	4,8	6,6
<b>1012</b>	<b>12</b>	<b>110</b>	<b>9,6</b>	<b>13,2</b>
W012 *	12	85	9,6	13,2
1024	24	430	19,2	26,4
W024 *	24	345	19,2	26,4
1042	42	1 340	33,6	46,2
1048	48	1 750	38,4	52,8
1060	60	2 700	48,0	66,0
1110	110	9 200	88,0	121,0
W110 *	110	7 300	88,0	121,0
1120	120	11 000	96,0	132,0
1220	220	37 000	176,0	242,0
W220 *	220	30 000	176,0	242,0

Standard coil rated voltages marked with bold type.

\* - for relay with contact gap 3 mm

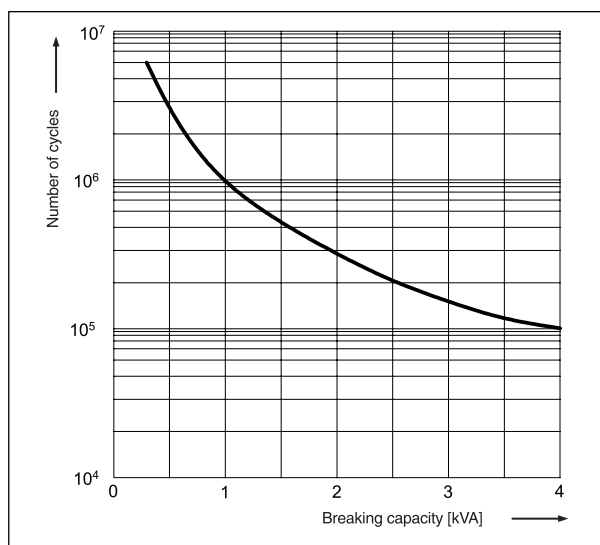
Coil data - AC 50/60 Hz voltage version

Table 2

Coil code	Rated voltage V AC	Coil resistance $\pm 15\%$ at 20 °C $\Omega$	Coil operating range V AC	
			min. (at 20°C)	max. (at 55°C)
5006	6	4,3	4,8	6,6
5012	12	18,5	9,6	13,2
5024	24	75,0	19,2	26,4
5110	110	1 700	88,0	121,0
5120	120	1 910	96,0	132,0
5220	220	6 980	176,0	242,0
5230	230	7 080	184,0	253,0
5240	240	7 760	192,0	264,0
5380	380	19 100	304,0	418,0

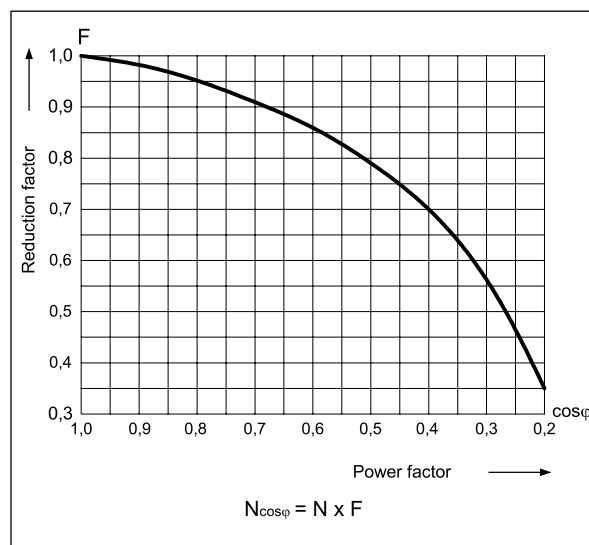
Electrical life at AC resistive load

Fig. 1

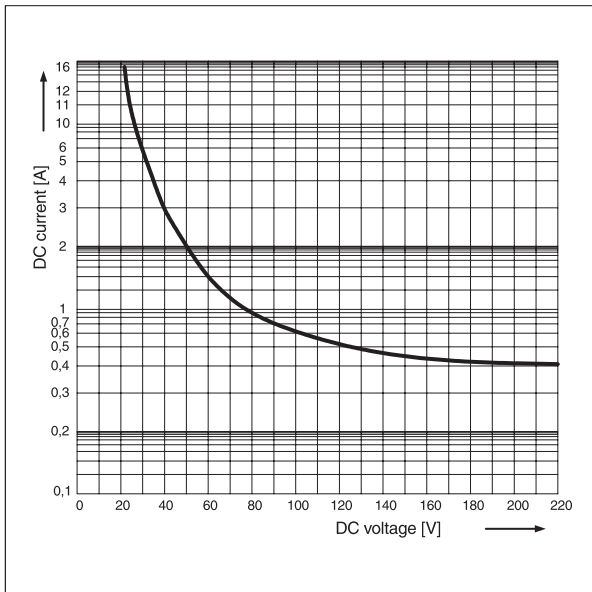


Electrical life reduction factor at AC inductive load

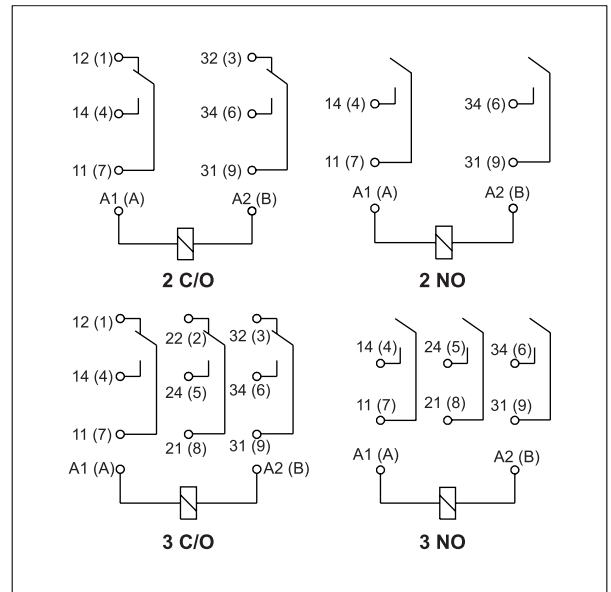
Fig. 2



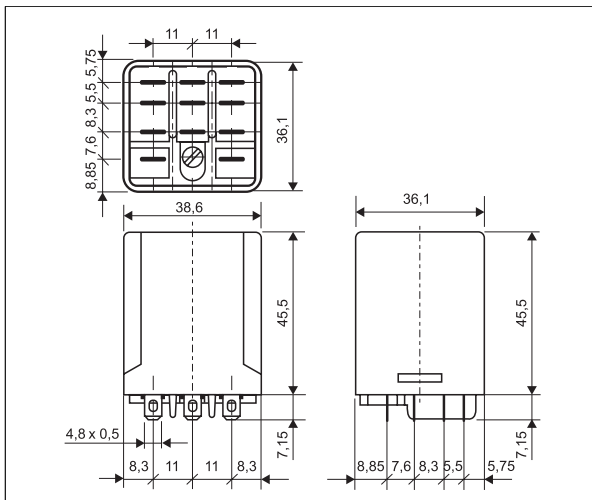
Max. DC resistive load breaking capacity Fig. 3



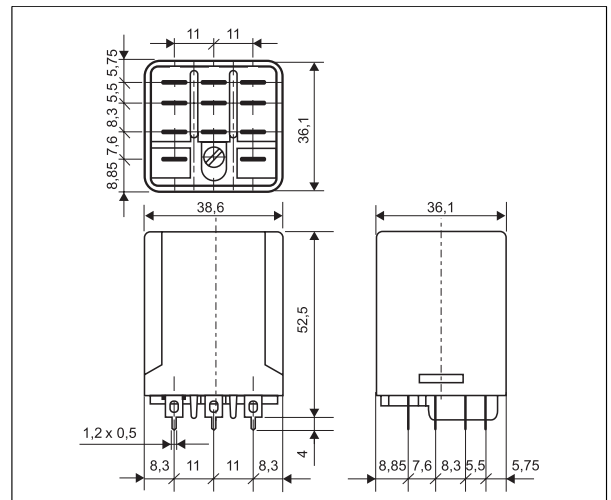
Connections diagram (pin side view)



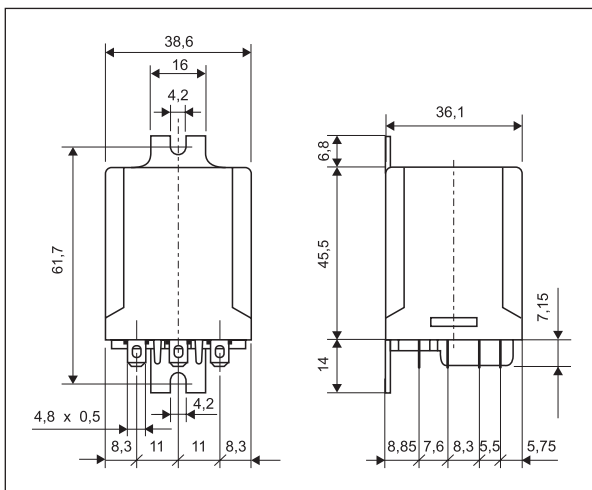
Dimensions - standard cover version



Dimensions - PCB version



Dimensions - cover with mounting flange



Mounting

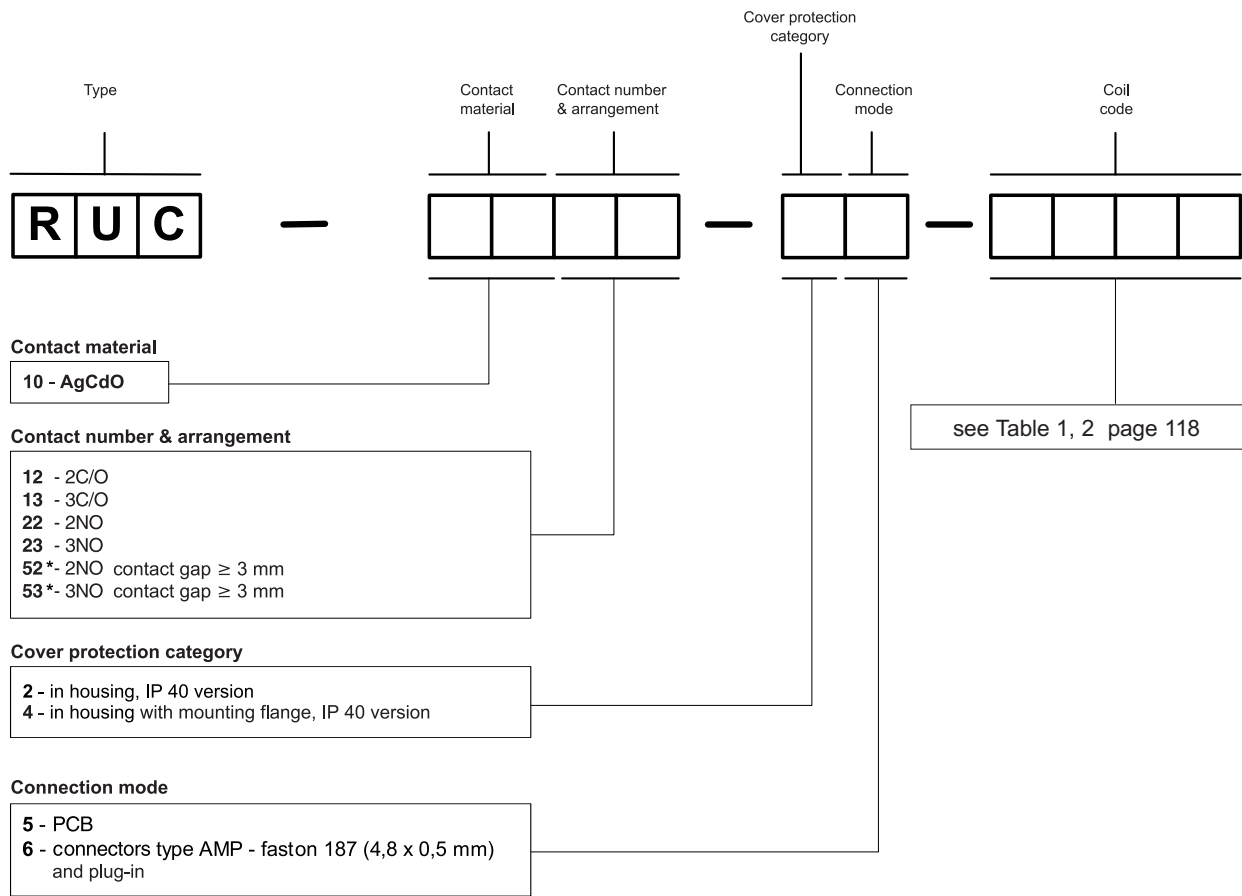
Relays RUC are designed for: • screw terminals sockets GUC11 with clip MBA, 35 mm DIN rail mount, EN 50022 or on panel mounting • faston connector type AMP - faston 187 (4,8 x 0,5 mm) • direct PCB mounting.

**Note:**

GUC11 limits max. switching voltage to 250 V AC/DC.



Ordering codes



\* For relays with coils AC and coils DC W012, W024, W110, W220

