

NEW product

with adaptor (V)

with adaptor (H)

• **Magnetic blow-out relays for high DC load with the contact plate with permanent magnet whose magnetic field blows out the electric arc between the contacts** • AC and DC coils • Mounting: in sockets; 35 mm rail mount acc. to PN-EN 60715; on panel • Version: Faston 187 (4,8 x 0,5 mm) • Contact gap: 3 mm (version 2 NO); 6 mm (version 1 NO) • Additional features: L - light indicator (LED) • Applications: systems of heating, cooling, ventilation, air conditioning; control with single-phase and three-phase motors; catering industry machines and equipment; automation systems; control of electromagnets; etc. • Recognitions, certifications, directives: RoHS,

Contact data

Number and type of contacts		1 NO double-break	2 NO
Contact material		AgCdO	AgCdO
Rated / max. switching voltage	AC	250 V / 440 V	250 V / 440 V
Min. switching voltage	AC1	10 V	10 V
Rated load (capacity)	AC1	16 A / 250 V AC	16 A / 250 V AC
	DC1	16 A / 24 V DC; 14 A / 110 V DC	16 A / 24 V DC; 10,5 A / 110 V DC
	DC L/R=40 ms	12 A / 220 V DC 16 A / 24 V DC; 5,4 A / 110 V DC 3 A / 220 V DC	4,5 A / 220 V DC 16 A / 24 V DC; 1,35 A / 110 V DC 0,45 A / 220 V DC
Min. switching current		10 mA	
Max. inrush current		40 A 20 ms	
Rated current		16 A	
Max. breaking capacity	AC1	4 000 VA	
Min. breaking capacity		1 W	
Contact resistance		≤ 100 mΩ	
Max. operating frequency			
• at rated load	AC1	1 200 cycles/hour	
• no load		12 000 cycles/hour	

Coil data

Rated voltage	AC	12...240 V 50/60 Hz	
	DC	12...220 V	
Must release voltage		AC: ≥ 0,15 U _n	DC: ≥ 0,1 U _n
Operating range of supply voltage		AC: 0,85...1,1 U _n	DC: 0,8...1,1 U _n see Tables 1, 2
Rated power consumption	AC	2,8 VA	
	DC	1,7 W	

Insulation according to PN-EN 60664-1

Insulation rated voltage		400 V AC
Rated surge voltage		4 000 V 1,2 / 50 μs
Overtoltage category		III
Insulation pollution degree		3
Dielectric strength	• between coil and contacts	2 500 V AC type of insulation: reinforced
	• contact clearance	4 000 V AC type of clearance: full-disconnection
	• pole - pole	2 500 V AC contacts 2 NO, type of insulation: basic
Contact - coil distance	• clearance	≥ 6,3 mm
	• creepage	≥ 8 mm

General data

Operating / release time (typical values)		20 ms / 15 ms
Electrical life		
• resistive AC1		≥ 10 ⁵ 16 A, 250 V AC
• cos φ		see Fig. 2
Mechanical life (cycles)		≥ 2 x 10 ⁷
Dimensions (L x W x H)		36,1 x 38,6 x 45,5 mm
Weight		80 g
Ambient temperature	• storage	-40...+85 °C
	• operating	-40...+70 °C
Cover protection category		IP00 PN-EN 60529
Shock resistance		10 g
Vibration resistance		5 g 10...150 Hz
Solder bath temperature		maks. 270 °C
Soldering time		maks. 5 s

The data in bold type pertain to the standard versions of the relays.

For version for plug-in sockets. For version: with adaptor (V): 58,75 x 38,6 x 45,9 mm; with adaptor (H): 46,8 x 38,6 x 62,45 mm.

For version with mounting flange: 66,3 x 38,6 x 36,1 mm. Weight of version for plug-in sockets; weight of version with adaptor (V) or (H) - 85 g.

Coil data - DC voltage version, reinforced

Table 1

Coil code	Rated voltage VDC	Coil resistance ±10% at 20°C Ω	Coil operating range VDC	
			min. (at 20°C)	max. (at 55°C)
W012	12	85	9,6	13,2
W024	24	345	19,2	26,4
W048	48	1 370	38,4	52,8
W110	110	7 300	88,0	121,0
W220	220	30 000	176,0	242,0

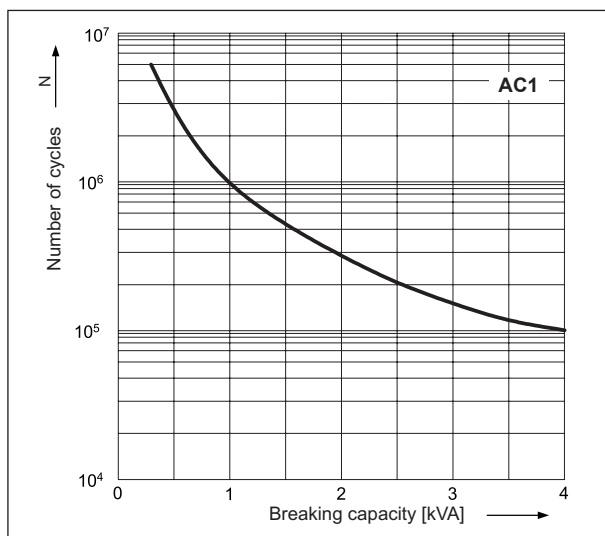
Coil data - AC 50/60 Hz voltage version

Table 2

Coil code	Rated voltage VAC	Coil resistance ±10% at 20°C Ω	Coil operating range VAC	
			min. (at 20°C)	max. (at 55°C)
5012	12	18,5	9,6	13,2
5024	24	75,0	19,2	26,4
5115	115	1 840,0	92,0	126,5
5120	120	1 910,0	96,0	132,0
5230	230	7 080,0	184,0	253,0
5240	240	7 760,0	192,0	264,0

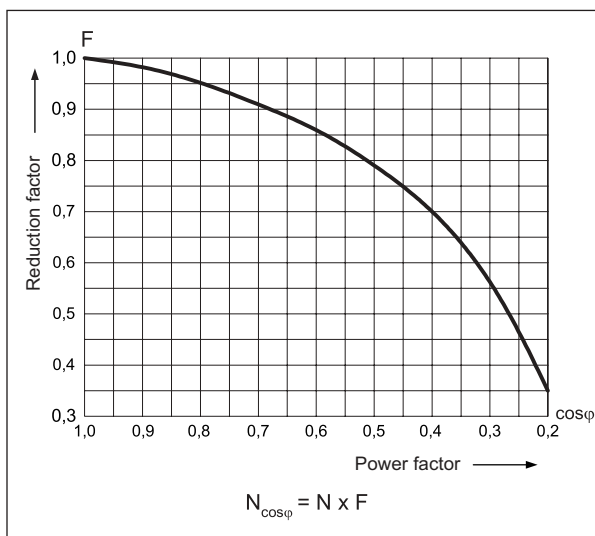
Electrical life at AC resistive load. Switching frequency: 1 200 cycles/hour

Fig. 1

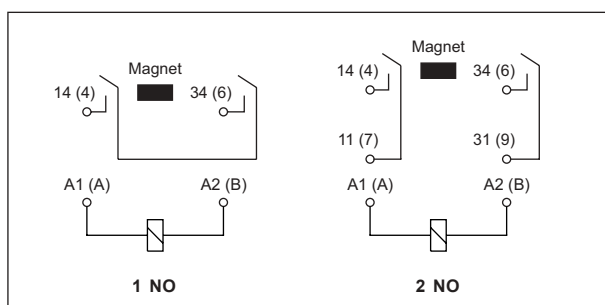


Electrical life reduction factor at AC inductive load

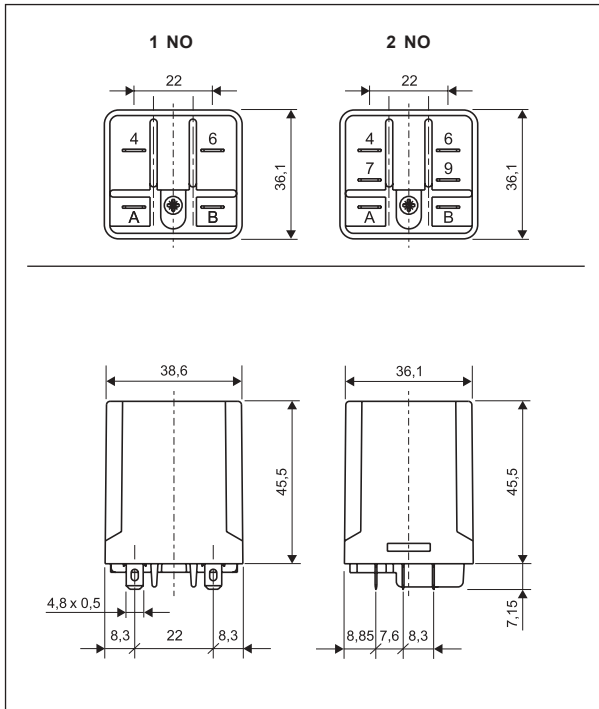
Fig. 2



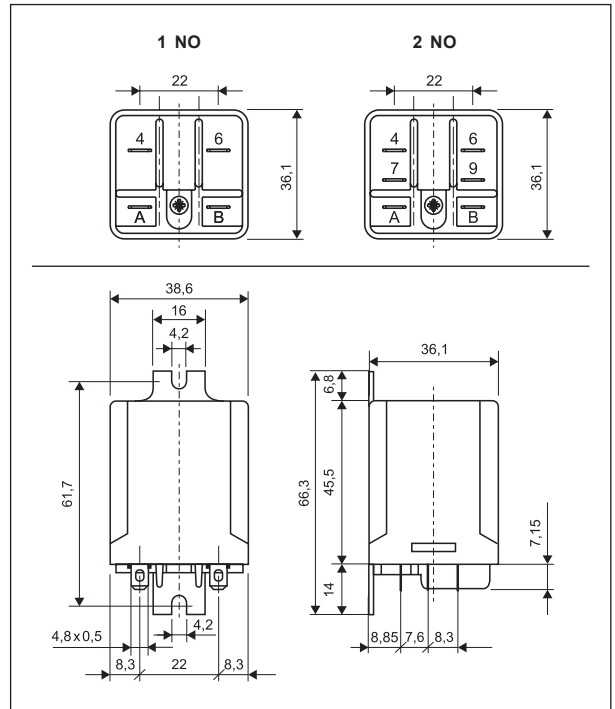
Connection diagrams (pin side view)



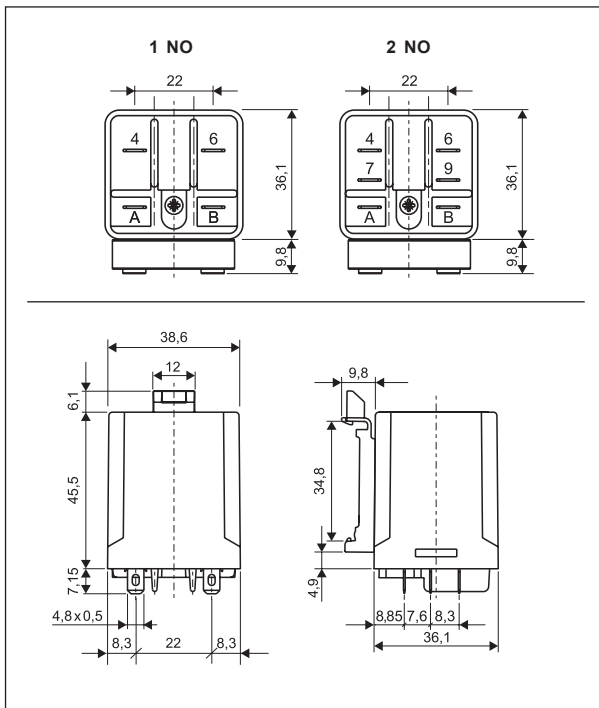
Dimensions - plug-in version (standard)



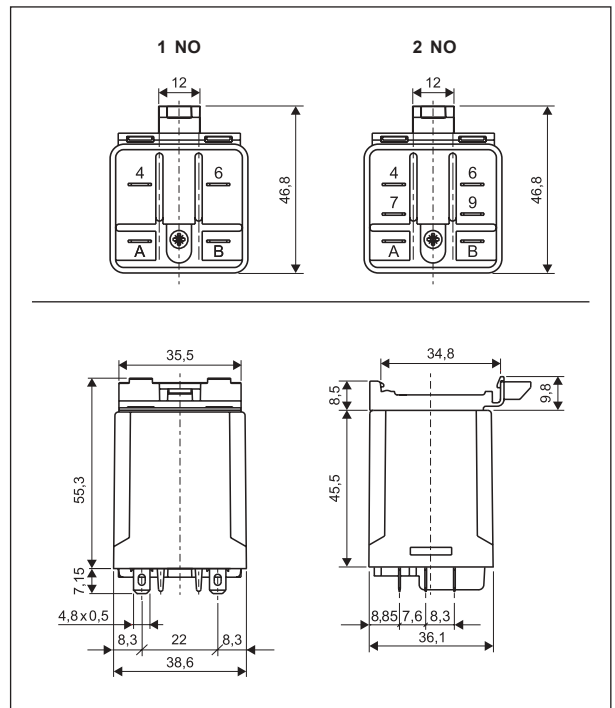
Dimensions - version with mounting flange in the wall of the cover



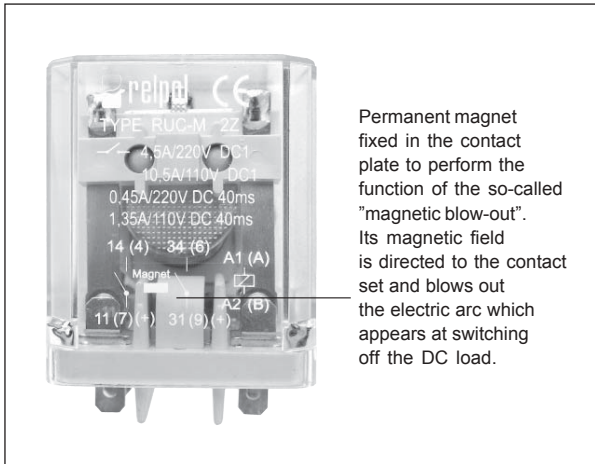
Dimensions - version with vertical adaptor (V)



Dimensions - version with horizontal adaptor (H)



Design



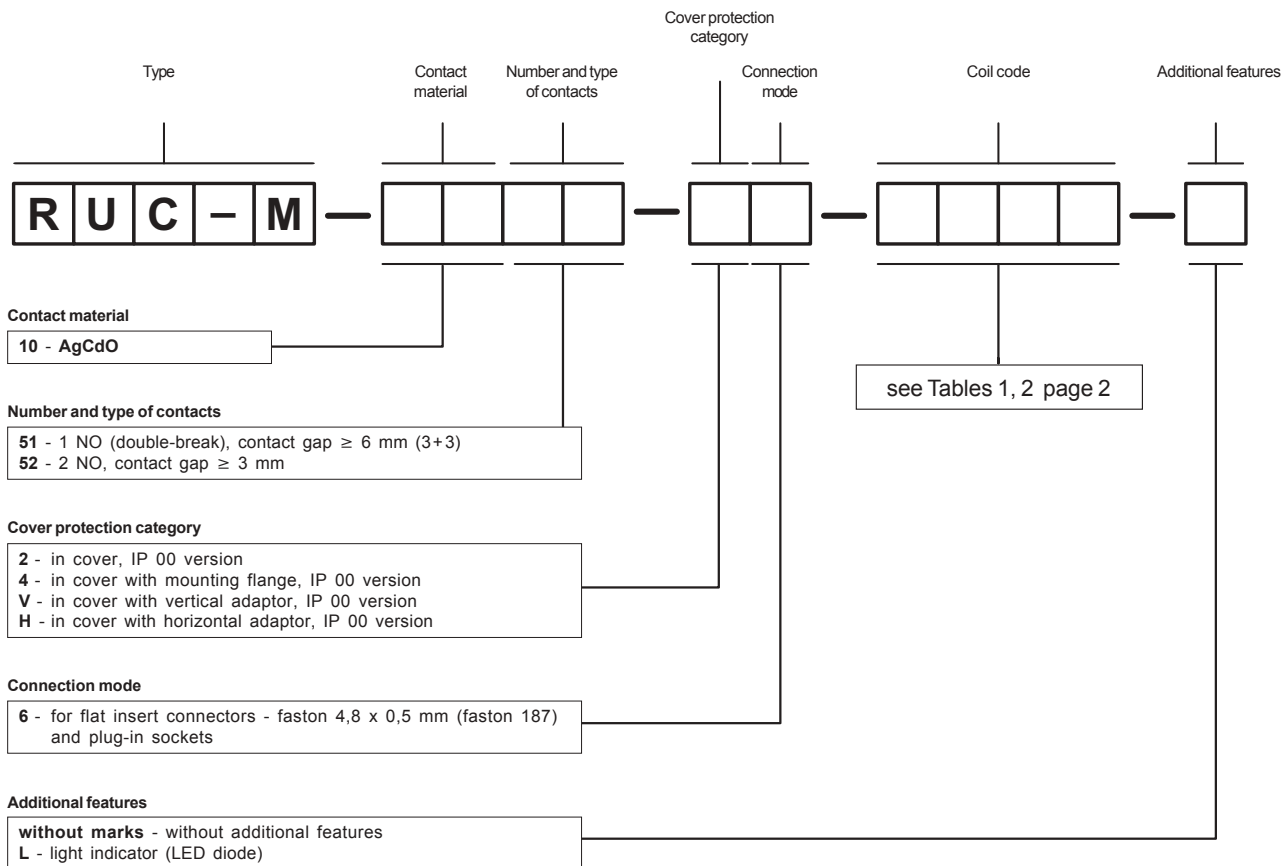
Permanent magnet fixed in the contact plate to perform the function of the so-called "magnetic blow-out". Its magnetic field is directed to the contact set and blows out the electric arc which appears at switching off the DC load.

Mounting

Relays RUC-M are offered in versions:

- standard, for screw terminals plug-in sockets **GUC11** with clip **MBA**, 35 mm rail mount acc. to PN-EN 60715 or on panel mounting with two M3 screws
- with mounting flange in the wall of the cover, on panel mounting, flat insert connections of wires - 4,8 x 0,5 mm (faston 187)
- with vertical (V) or horizontal (H) adaptors for direct mounting on 35 mm rail mount acc. to PN-EN 60715, flat insert connectors - faston 4,8 x 0,5 mm (faston 187).

Ordering codes



Examples of ordering codes:

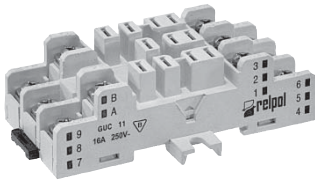
RUC-M-1051-26-W024 relay **RUC-M**, 4,8 x 0,5 mm (faston 187), contact material AgCdO, with one normally open contact (double-break), with contact gap ≥ 6 mm (3+3), in cover IP 00, for plug-in sockets GUC11, voltage version 24 V DC - reinforced coil

RUC-M-1052-V6-5230-L relay **RUC-M**, 4,8 x 0,5 mm (faston 187), contact material AgCdO, with two normally open contacts, with contact gap ≥ 3 mm, in cover IP 00 with vertical adaptor (V), for flat insert connectors, voltage version 230 V AC 50/60 Hz, with light indicator (LED diode)

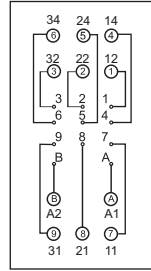
GUC11

For RUC faston 4,8x0,5, RUC-M

Screw terminals
 Maximum screw torque: 0,7 Nm
 35 mm rail mount acc. to PN-EN 60715
 or on panel mounting
 82 x 42,2 x 26,5 mm
 Three poles
 16 A, 250 V AC



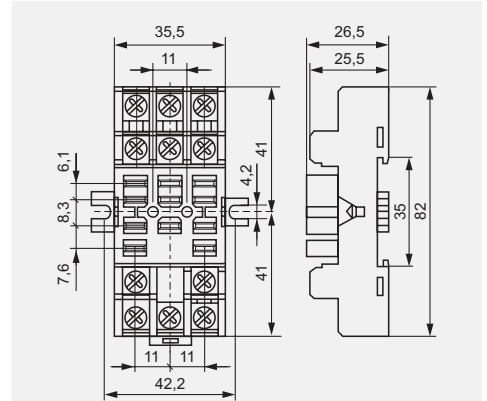
Connection diagram



Accessories

MBA

Dimensions



ⓘ For RUC faston 4,8 x 0,5 and RUC-M, with GUC11 socket, max. switching voltages and coil voltages of relays are limited to 250 V AC/DC.