

# High power relays



## APPLICATIONS

- solar inverters
- EV charging stations
- UPS
- welding machines
- industrial heaters
- rectifiers
- industrial inverters
- saunas
- compressors
- energy storage



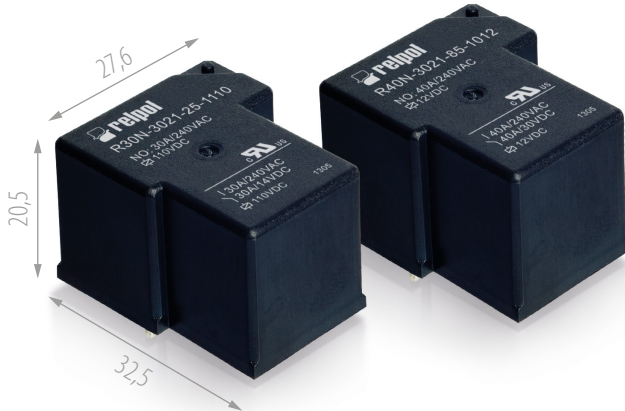
# High power relays

## RS35, RS50, RS80



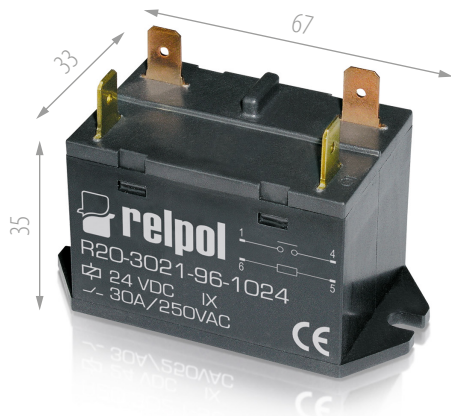
- Load:  
35 A / 250 V AC (RS35), 50 A / 250 V AC (RS50),  
80 A / 250 V AC (RS80), 90 A / 230 V AC (RS80)
- Large contact gap:  
≥ 2,2 mm (RS35), ≥ 1,8 mm (RS50),  
≥ 4,1 mm (double-break contact) (RS80)
- Overheating protection:  
thermal bridge between the contacts (RS80)
- Holding power: 0,1 W
- Power consumption at operating voltage: 0,27 W
- Very low rated power consumption: 0,48 W
- Insulation distance (coil-contacts): ≥ 10 mm
- Dielectric strength (coil-contacts): 5 000 V AC
- Type of insulation: reinforced
- Type of clearance: full-disconnection
- Very short release time: 5 ms
- Insulation class F: 155 °C
- Mounting: PCB

## R30N, R40N



- Load:  
30 A (R30N contact 1 NO), 40 A (R40N contact 1 NO)
- Large contact gap: ≥ 0,9 mm
- Insulation class F: 155 °C
- Protection: sealed version RTIII
- Max. operating temperature: +100 °C
- Mounting: PCB (small dimensions)

## R20



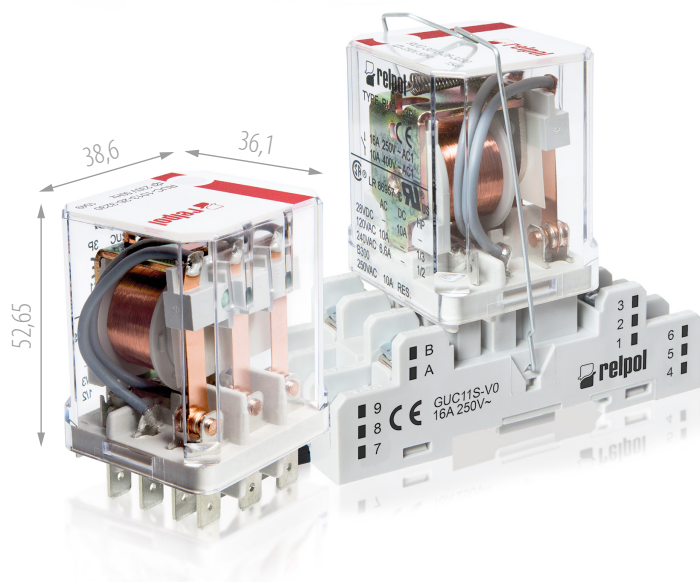
- Load: 30 A (contact 1 NO), 25 A (contacts 2 NO)
- Large contact gap:  
≥ 3 mm (double-break contact)
- Rated / max. switching voltage: 250 V / 440 V AC
- Terminals: faston 250 (connectors)
- Mounting: on panel





## RUC

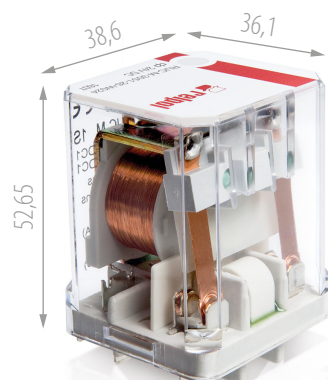
CE c  ENE 



- Load: 16 A (250 V AC, 24 V DC), 10 A (400 V AC)
- Versions: 2-poles, 3-poles
- Large contact gap:  $\geq 3$  mm (contacts 2 NO, 3 NO)
- Rated / max. switching voltage: 250 V / 440 V AC
- Max. inrush current: 40 A
- Coils: AC and DC
- Type of clearance: full-disconnection
- Motor load (UL 508): 3/4 HP (240 V), 1 HP (400 V)
- Operation capability: 400–440 V AC (3-phase loads)
- Terminals: PCB, sockets, faston 187 and 250 (connectors)
- Mounting: in sockets (GUC11S-V0), with flange on panel, with adaptor on 35 mm rail (PN-EN 60715), PCB
- Equipment (option): test button, LED indicator

## RUC-M

CE c  ENE 



- For high DC loads: with permanent magnet whose magnetic field blows the electric arc between the contacts
- Load: 16 A (24 V DC), 14 A (110 V DC), 12 A (220 V DC)
- Versions: 1-poles, 2-poles
- Large contact gap:  $\geq 6$  mm (contact 1 NO double-break),  $\geq 3$  mm (contacts 2 NO)
- Max. inrush current: 40 A
- Coils: AC and DC
- Terminals: PCB, sockets, faston 187 (connectors)
- Mounting: in sockets (GUC11S-V0), with flange on panel, with adaptor on 35 mm rail (PN-EN 60715), PCB
- Equipment (option): LED indicator

## RG25

CE ENE



- Load: 25 A
- Version: 2-poles (contacts 2 NO)
- Large contact gap:  $\geq 1,4$  mm
- Rated / max. switching voltage: 400 V / 440 V AC
- High breaking capacity: 10 kVA (AC1)
- Equipment (standard): test button
- Terminals: screw terminals
- Mounting: 35 mm rail (PN-EN 60715)



	RS35	RS50	RS80
Number and type of contacts	2 NO	1 NO, 2 NO	1 NO
Contact material	AgSnO <sub>2</sub>	AgSnO <sub>2</sub>	AgSnO <sub>2</sub>
Rated / max. switching voltage	250 V / 440 V AC	250 V / 440 V AC	250 V / 440 V AC
Rated load	35 A / 250 V AC, 24 V DC	50 A / 250 V AC, 24 V DC	80 A / 250 V AC, 24 V DC, 90 A / 230 V AC
Rated coil voltage	5, 9, 12, 18, 24, 110 V DC	5, 9, 12, 18, 24, 110 V DC	12, 24 V DC
Insulation rated voltage	250 V AC	250 V AC	250 V AC
Dielectric strength	• coil - contacts • clearance	• coil - contacts • clearance	• coil - contacts • clearance
	5 000 V AC ② 2 500 V AC ④	5 000 V AC ② 2 500 V AC ④	5 000 V AC ② 2 500 V AC ④
Operating temperature	-40...+85 °C	-40...+85 °C	-40...+85 °C

	R30N	R40N	R20
Number and type of contacts	1 CO, 1 NO	1 CO, 1 NO	1 NO, 2 NO
Contact material	AgSnO <sub>2</sub> , AgCdO	AgSnO <sub>2</sub> , AgCdO	AgSnO <sub>2</sub>
Rated / max. switching voltage	240 V / 300 V AC	240 V / 300 V AC	250 V / 440 V AC
Rated load	1 NO: 30 A / 240 V AC, 14 V DC	1 NO: 40 A / 240 V AC, 30 V DC	1 NO: 30 A / 250 V AC, 2 NO: 25 A / 250 V AC
Rated coil voltage	5, 12, 24, 48, 110 V DC	12, 24, 110, 120, 220 V AC 5, 12, 24, 48, 110 V DC	24, 48, 115, 230 V AC 12, 24, 110 V DC
Insulation rated voltage	500 V AC	500 V AC	250 V AC
Dielectric strength	• coil - contacts • clearance	• coil - contacts • clearance	• coil - contacts • clearance
	2 500 V AC ① 1 500 V AC ③	4 000 V AC ② 1 500 V AC ③	4 000 V AC ② 2 000 V AC ④
Operating temperature	-55...+100 °C	-55...+100 °C	-25...+75 °C

	RUC	RUC-M	RG25
Number and type of contacts	2 CO, 3 CO, 2 NO, 3 NO	1 NO, 2 NO	2 NO
Contact material	AgNi, AgSnO <sub>2</sub>	AgNi, AgSnO <sub>2</sub>	AgSnO <sub>2</sub>
Rated / max. switching voltage	250 V / 440 V AC	250 V / 440 V AC	400 V / 440 V AC
Rated load	16 A / 250 V AC, 24 V DC	16 A / 250 V AC, 1 NO: 12 A / 220 V DC	25 A / 400 V AC, 24 V DC
Rated coil voltage	6, 12, 24, 115, 120, 220, 230, 240, 400 V AC 6, 12, 24, 42, 48, 60, 110, 120, 220 V DC	12, 24, 48, 115, 120, 230, 240 V AC 12, 24, 48, 110, 220 V DC	12, 24, 110, 230, 400 V AC 12, 24, 48, 110, 220 V DC
Insulation rated voltage	400 V AC	400 V AC	400 V AC
Dielectric strength	• coil - contacts • clearance	• coil - contacts • clearance	• coil - contacts • clearance
	2 500 V AC ① 1 500 V AC ③, 2 500 V AC ④	2 500 V AC ① 1 NO: 4 000 V AC ④	5 000 V AC ② 1 500 V AC ③
Operating temperature	2 CO, 2 NO: -40...+70 °C	-40...+70 °C	-25...+85 °C

① Type of insulation: basic    ② Type of insulation: reinforced    ③ Type of clearance: micro-disconnection    ④ Type of clearance: full-disconnection  
High-current relays - detailed information: [www.relpol.com.pl](http://www.relpol.com.pl)