

Features

2 Pole relay range

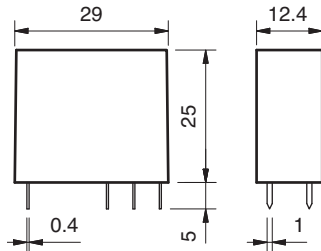
44.52 - 2 Pole 6 A (5 mm pin pitch)

44.62 - 2 Pole 10 A (5 mm pin pitch)

PCB mount - direct or via PCB socket

35 mm rail mount - via screw and screwless sockets

- High physical separation between adjacent contacts
- DC coils (Standard or sensitive)
- Cadmium Free contact materials
- 8 mm, 6 kV (1.2/50 μ s) isolation, coil-contacts
- UL Listing (certain relay/socket combinations)
- Flux proof: RT II
- 95 series sockets
- Coil EMC suppression
- Timer accessories 86 series

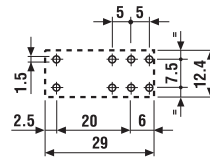
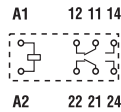


FOR UL HORSEPOWER AND PILOT DUTY RATINGS
SEE "General technical information" page V

44.52



- 2 Pole, 6 A
- 5 mm contact pin pitch
- PCB or 95 series sockets

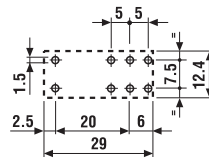
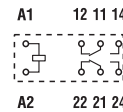


Copper side view

44.62



- 2 Pole, 10 A
- 5 mm contact pin pitch
- PCB or 95 series sockets

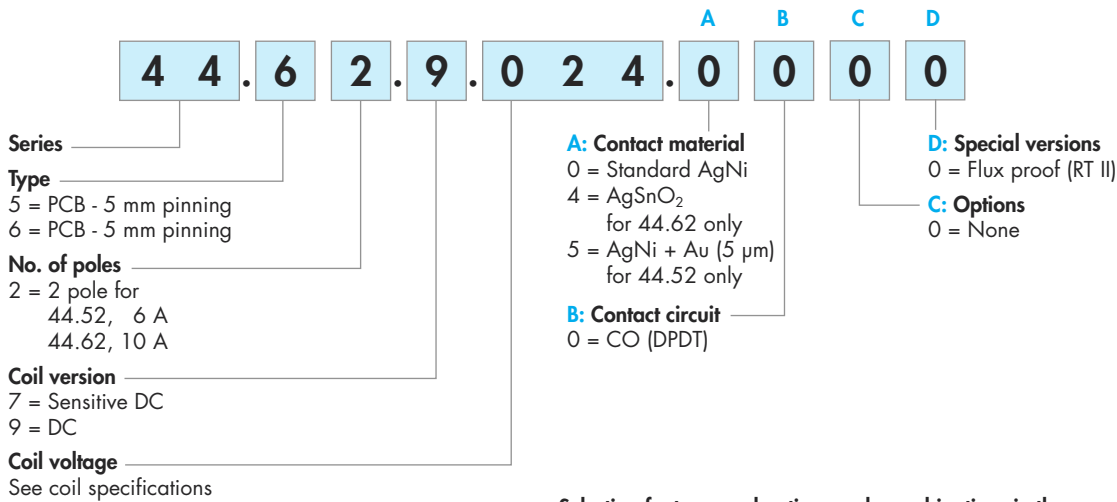


Copper side view

| Contact specification | | 44.52 | 44.62 |
|---|-----------------|--|---|
| Contact configuration | | 2 CO (DPDT) | 2 CO (DPDT) |
| Rated current/Maximum peak current | A | 6/10 | 10/20 |
| Rated voltage/Maximum switching voltage V AC | | 250/400 | 250/400 |
| Rated load AC1 | VA | 1,500 | 2,500 |
| Rated load AC15 (230 V AC) | VA | 250 | 500 |
| Single phase motor rating (230 V AC) | kW | 0.185 | 0.37 |
| Breaking capacity DC1: 30/110/220 V | A | 6/0.3/0.13 | 10/0.3/0.13 |
| Minimum switching load | mW (V/mA) | 300 (5/5) | 300 (5/5) |
| Standard contact material | | AgNi | AgNi |
| Coil specification | | 44.52 | 44.62 |
| Nominal voltage (U _N) | V AC (50/60 Hz) | — | — |
| | V DC | 6 - 9 - 12 - 14 - 24 - 28 - 48 - 60 - 110 - 125 | — |
| Rated power AC/DC/sens. DC | VA (50 Hz)/W/W | —/0.65/0.5 | —/0.65/0.5 |
| Operating range | AC | — | — |
| | DC/sens. DC | (0.73...1.5)U _N /(0.73...1.7)U _N | (0.73...1.5)U _N /(0.8...1.7)U _N |
| Holding voltage | AC/DC | —/0.4 U _N | —/0.4 U _N |
| Must drop-out voltage | AC/DC | —/0.1 U _N | —/0.1 U _N |
| Technical data | | 44.52 | 44.62 |
| Mechanical life AC/DC | cycles | —/20 · 10 ⁶ | —/20 · 10 ⁶ |
| Electrical life at rated load AC1 | cycles | 150 · 10 ³ | 100 · 10 ³ |
| Operate/release time | ms | 8/5 - (12/5 sensitive) | 8/5 - (12/5 sensitive) |
| Insulation between coil and contacts (1.2/50 μ s) | kV | 6 (8 mm) | 6 (8 mm) |
| Dielectric strength between open contacts | V AC | 1,000 | 1,000 |
| Ambient temperature range | °C | −40...+85 | −40...+85 |
| Environmental protection | | RT II | RT II |
| Approvals (according to type) | | | |

Ordering information

Example: 44 series PCB relay, 2 CO (DPDT) 10 A contacts, 24 V DC coil.



Selecting features and options: only combinations in the same row are possible.
Preferred selections for best availability are shown in **bold**.

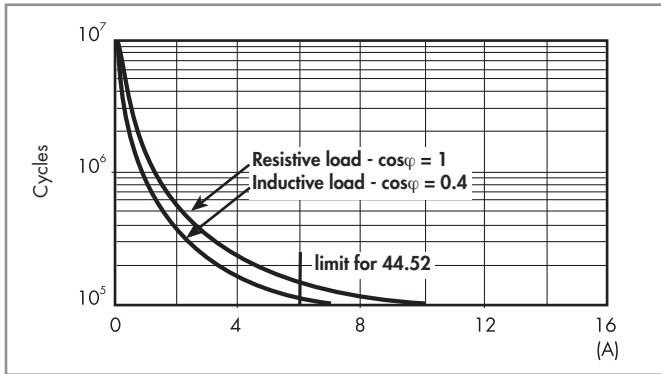
| Type | Coil version | A | B | C | D |
|-------|---------------|--------------|----------|----------|----------|
| 44.52 | DC - sens. DC | 0 - 5 | 0 | 0 | 0 |
| 44.62 | DC - sens. DC | 0 - 4 | 0 | 0 | 0 |

Technical data

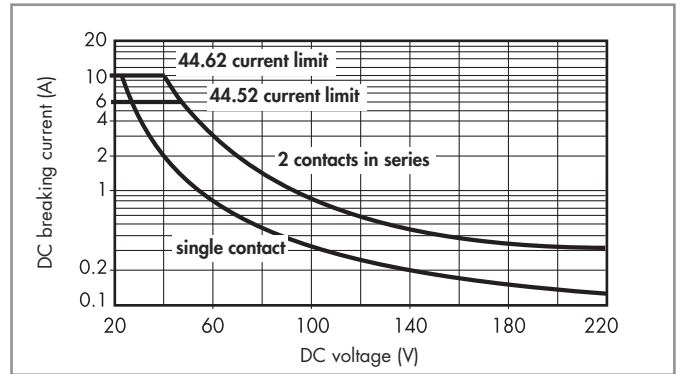
| Insulation according to EN 61810-1 | | | | | |
|--|-------------------------|-----------|----------------|-------------|--|
| Nominal voltage of supply system | V AC | 230/400 | | | |
| Rated insulation voltage | V AC | 250 | 400 | | |
| Pollution degree | | 3 | 2 | | |
| Insulation between coil and contact set | | | | | |
| Type of Insulation | Reinforced (8 mm) | | | | |
| Overvoltage category | III | | | | |
| Rated impulse voltage | kV (1.2/50 μs) | 6 | | | |
| Dielectric strength | V AC | 4,000 | | | |
| Insulation between adjacent contacts | | | | | |
| Type of insulation | Basic | | | | |
| Overvoltage category | III | | | | |
| Rated impulse voltage | kV (1.2/50 μs) | 4 | | | |
| Dielectric strength | V AC | 2,500 | | | |
| Insulation between open contacts | | | | | |
| Type of disconnection | Micro-disconnection | | | | |
| Dielectric strength | V AC/kV (1.2/50 μs) | 1,000/1.5 | | | |
| Conducted disturbance immunity | | | | | |
| Burst (5...50)ns, 5 kHz, on A1 - A2 | EN 61000-4-4 | | level 4 (4 kV) | | |
| Surge (1.2/50 μs) on A1 - A2 (differential mode) | EN 61000-4-5 | | level 3 (2 kV) | | |
| Other data | | | | | |
| Bounce time: NO/NC | ms | 4/4 | | | |
| Vibration resistance (5...55)Hz: NO/NC | g | 15/12 | | | |
| Shock resistance | g | 16 | | | |
| Power lost to the environment | without contact current | W | 0.6 | | |
| | with rated current | W | 1.2 (44.52) | 2.7 (44.62) | |
| Recommended distance between relays mounted on PCB | mm | ≥ 5 | | | |

Contact specification

F 44 - Electrical life (AC) v contact current



H 44 - Maximum DC1 breaking capacity



- When switching a resistive load (DC1) having voltage and current values under the curve, an electrical life of $\geq 100 \cdot 10^3$ can be expected.
- In the case of DC13 loads, the connection of a diode in parallel with the load will permit a similar electrical life as for a DC1 load.
Note: the release time for the load will be increased.

Coil specifications

DC coil data - 0.65 W standard

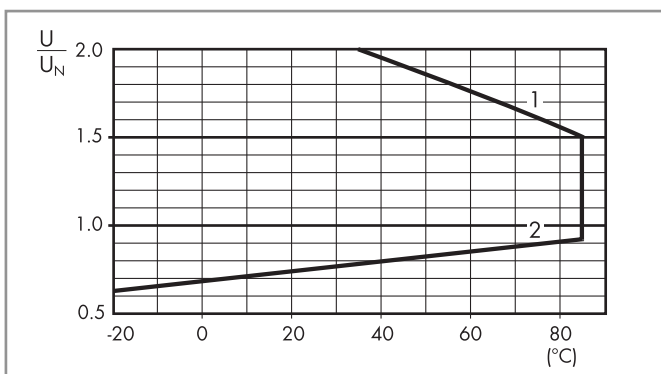
| Nominal voltage U_N V | Coil code | Operating range | | Resistance R Ω | Rated coil consumption I at U_N mA |
|-------------------------------|-----------|-----------------|----------------|-----------------------------|--|
| | | U_{min} V | U_{max} V | | |
| 6 | 9.006 | 4.4 | 9 | 55 | 109 |
| 9 | 9.009 | 6.6 | 13.5 | 125 | 72 |
| 12 | 9.012 | 8.8 | 18 | 220 | 55 |
| 14 | 9.014 | 10.2 | 21 | 300 | 47 |
| 24 | 9.024 | 17.5 | 36 | 900 | 27 |
| 28 | 9.028 | 20.5 | 42 | 1,200 | 23 |
| 48 | 9.048 | 35 | 72 | 3,500 | 14 |
| 60 | 9.060 | 43.8 | 90 | 5,500 | 11 |
| 110 | 9.110 | 80.3 | 165 | 18,000 | 6.2 |
| 125 | 9.125 | 91.2 | 188 | 23,500 | 5.3 |

DC coil data - 0.5 W sensitive

| Nominal voltage U_N V | Coil code | Operating range | | Resistance R Ω | Rated coil consumption I at U_N mA |
|-------------------------------|-----------|------------------|----------------|-----------------------------|--|
| | | U_{min}^* V | U_{max} V | | |
| 6 | 7.006 | 4.4 | 10.2 | 75 | 80 |
| 9 | 7.009 | 6.6 | 15.3 | 160 | 56 |
| 12 | 7.012 | 8.8 | 20.4 | 300 | 40 |
| 14 | 7.014 | 10.2 | 23.8 | 400 | 35 |
| 24 | 7.024 | 17.5 | 40.8 | 1,200 | 20 |
| 28 | 7.028 | 20.5 | 47.6 | 1,600 | 17.5 |
| 48 | 7.048 | 35 | 81.6 | 4,800 | 10 |
| 60 | 7.060 | 43.8 | 102 | 7,200 | 8.4 |
| 110 | 7.110 | 80.3 | 187 | 23,500 | 4.7 |
| 125 | 7.125 | 100 | 219 | 32,000 | 3.9 |

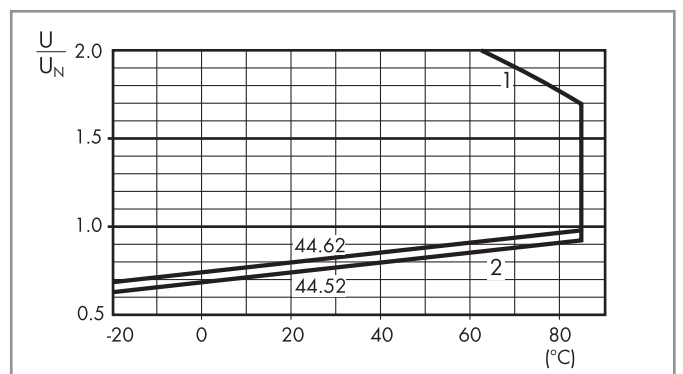
* $U_{min} = 0.8 U_N$ for 44.62

R 44 - DC coil operating range v ambient temperature
Standard coil



- 1 - Max. permitted coil voltage.
- 2 - Min. pick-up voltage with coil at ambient temperature.

R 44 - DC coil operating range v ambient temperature
Sensitive coil



- 1 - Max. permitted coil voltage.
- 2 - Min. pick-up voltage with coil at ambient temperature.