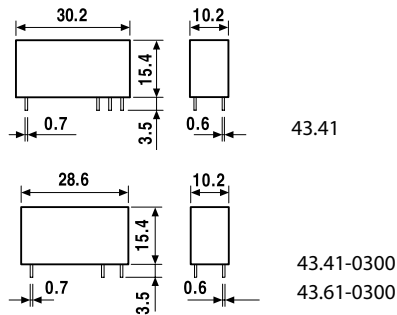


43 Series - Low profile PCB relays 10 - 16 A

1 Pole - Low profile (15.4 mm height)
43.41 - 1 Pole, 10 A (3.2 mm pin pitch)
43.41-0300- 1 Pole NO, 10 A (5 mm pin pitch)
43.61-0300- 1 Pole NO, 16 A (5 mm pin pitch)

PCB mount - direct or via PCB socket (43.41 version)

- Sensitive DC coil:
 - 250 mW (10 A version)
 - 400 mW (16 A version)
- Very high coil-contact isolation 10 mm, 6 kV (1.2/50 μs)
- Cadmium Free contacts (preferred version)
- Flux proof: RT II standard, (RT III option)



FOR UL RATINGS SEE:
 "General technical information" page V

Contact specification

| | | | | |
|---|-----------|-------------|----------------|----------------|
| Contact configuration | | 1 CO (SPDT) | 1 NO (SPST-NO) | 1 NO (SPST-NO) |
| Rated current/Maximum peak current | A | 10/15 | 10/15 | 16/25 |
| Rated voltage/Maximum switching voltage | V AC | 250/400 | 250/400 | 250/400 |
| Rated load AC1 | VA | 2500 | 2500 | 4000 |
| Rated load AC15 (230 V AC) | VA | 500 | 500 | 750 |
| Single phase motor rating (230 V AC) | kW | — | — | — |
| Breaking capacity DC1: 30/110/220 V | A | 10/0.3/0.12 | 10/0.3/0.12 | 16/0.3/0.12 |
| Minimum switching load | mW (V/mA) | 300 (5/5) | 300 (5/5) | 300 (5/5) |
| Standard contact material | | AgNi | AgNi | AgNi |

Coil specification

| | | | | |
|-----------------------------------|-----------------|------------------------------------|------------------------------------|---------------------------|
| Nominal voltage (U _N) | V AC (50/60 Hz) | — | — | — |
| | V DC | 3 - 6 - 9 - 12 - 18 - 24 - 36 - 48 | 3 - 6 - 9 - 12 - 18 - 24 - 36 - 48 | 12 - 24 - 48 |
| Rated power AC/DC | VA (50 Hz)/W | —/0.25 | —/0.25 | —/0.4 |
| Operating range | AC | — | — | — |
| | DC | (0.7...1.5)U _N | (0.7...1.5)U _N | (0.7...1.2)U _N |
| Holding voltage | AC/DC | —/0.4 U _N | —/0.4 U _N | —/0.4 U _N |
| Must drop-out voltage | AC/DC | —/0.05 U _N | —/0.05 U _N | —/0.05 U _N |

Technical data

| | | | | |
|--|--------|------------------------|------------------------|------------------------|
| Mechanical life AC/DC | cycles | —/10 · 10 ⁶ | —/10 · 10 ⁶ | —/10 · 10 ⁶ |
| Electrical life at rated load AC1 | cycles | 100 · 10 ³ | 100 · 10 ³ | 50 · 10 ³ |
| Operate/release time | ms | 6/4 | 6/2 | 6/2 |
| Insulation between coil and contacts (1.2/50 μs) | kV | 6 (10 mm) | 6 (10 mm) | 6 (10 mm) |
| Dielectric strength between open contacts | V AC | 1000 | 1000 | 1000 |
| Ambient temperature range | °C | -40...+85 | -40...+85 | -40...+85 |
| Environmental protection | | RT II | RT II | RT II |

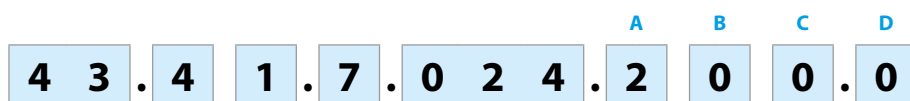
Approvals (according to type)



Ordering information

Example: 43 series low-profile PCB relay, 1 CO (SPDT), 24 V DC coil.

A



- Series** —————
- Type** —————
 4 = PCB - 3.2 mm pinning (CO/SPDT, 10 A)
 PCB - 5 mm pinning (NO/SPST-NO, 10 A)
 6 = PCB - 5 mm pinning (NO/SPST-NO, 16 A)
- No. of poles** —————
 1 = 1 pole
- Coil version** —————
 7 = Sensitive DC (only for 43.41)
 9 = DC (only for 43.61)
- Coil voltage** —————
 See coil specifications

- A: Contact material**
 0 = AgNi
 2 = AgCdO
 4 = AgSnO₂
 5 = AgNi + Au
- B: Contact circuit**
 0 = CO (SPDT) - (for 43.41 only)
 3 = NO (SPST)
- C: Options**
 0 = None
- D: Special versions**
 0 = Flux proof (RT II)
 1 = Wash tight (RT III)

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

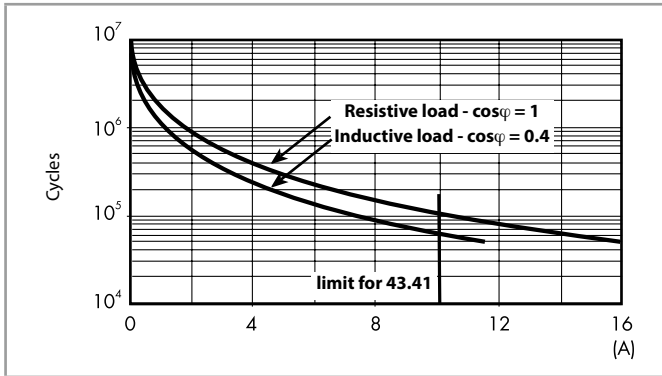
| Type | Coil version | A | B | C | D |
|-------|--------------|----------------------|--------------|----------|--------------|
| 43.41 | sensitive DC | 0 - 2 - 4 - 5 | 0 - 3 | 0 | 0 - 1 |
| 43.61 | DC | 0 - 2 - 4 | 0 - 3 | 0 | 0 |

Technical data

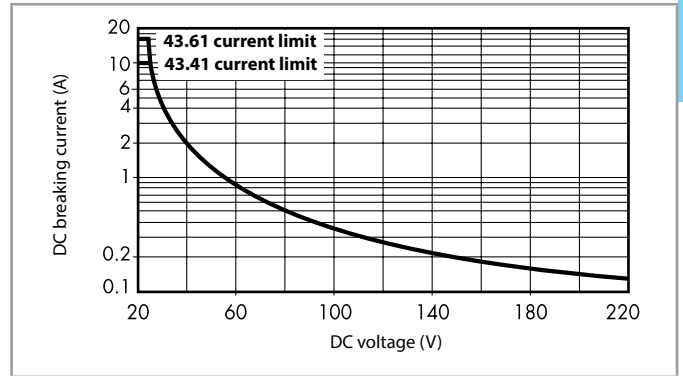
| Insulation according to EN 61810-1 | | | | | |
|--|-------------------------|----------|----------------|--|-------------|
| Nominal voltage of supply system | V AC | 230/400 | | | |
| Rated insulation voltage | V AC | 250 | 400 | | |
| Pollution degree | | 3 | 2 | | |
| Insulation between coil and contact set | | | | | |
| Type of insulation | Reinforced (10 mm) | | | | |
| Overvoltage category | III | | | | |
| Rated impulse voltage | kV (1.2/50 μs) | 6 | | | |
| Dielectric strength | V AC | 4000 | | | |
| Insulation between open contacts | | | | | |
| Type of disconnection | Micro-disconnection | | | | |
| Dielectric strength | V AC/kV (1.2/50 μs) | 1000/1.5 | | | |
| 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 | 3/6 | | | |
| Vibration resistance (5...55)Hz: NO/NC | g | 15/3 | | | |
| Shock resistance | g | 15 | | | |
| Power lost to the environment | without contact current | W | 0.25 (43.41) | | 0.4 (43.61) |
| | with rated current | W | 1.3 (43.41) | | 2 (43.61) |
| Recommended distance between relays mounted on PCB | mm | ≥ 5 | | | |

Contact specification

F 43 - Electrical life (AC) v contact current



H 43 - Maximum DC1 breaking capacity



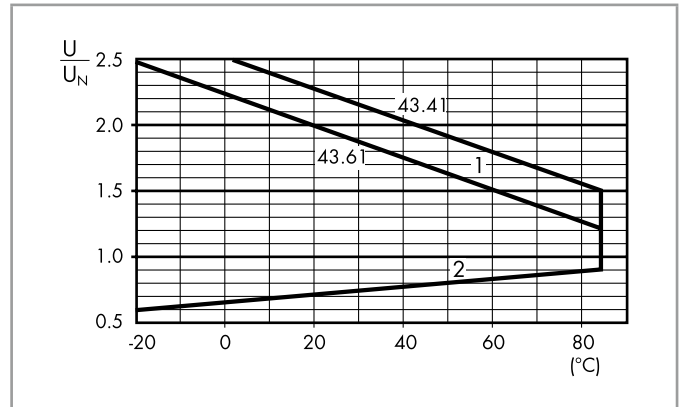
- When switching a resistive load (DC1) having voltage and current values under the curve, an electrical life of $\geq 100 \cdot 10^3$ for 43.41 and $\geq 50 \cdot 10^3$ for 43.61 can be expected.
- In the case of DC13 loads, the connection of a diode in parallel with the load will permit a similar electrical life as for a DC1 load.
Note: the release time for the load will be increased.

Coil specifications

DC coil data - 0.25 W sensitive (type 43.41)

| 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 | | |
| 3 | 7.003 | 2.2 | 4.5 | 36 | 83.5 |
| 6 | 7.006 | 4.2 | 9 | 150 | 40 |
| 9 | 7.009 | 6.5 | 13.5 | 324 | 27.7 |
| 12 | 7.012 | 8.4 | 18 | 580 | 20.7 |
| 18 | 7.018 | 13 | 27 | 1,300 | 13.8 |
| 24 | 7.024 | 16.8 | 36 | 2,200 | 10.9 |
| 36 | 7.036 | 25.2 | 54 | 5,200 | 6.9 |
| 48 | 7.048 | 33.6 | 72 | 9,200 | 5.2 |

R 43 - DC coil operating range v ambient temperature



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

DC coil data - 0.4 W standard (type 43.61)

| 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 | | |
| 12 | 9.012 | 8.4 | 14.4 | 360 | 33.3 |
| 24 | 9.024 | 16.8 | 28.8 | 1,400 | 17.1 |
| 48 | 9.048 | 33.6 | 57.6 | 5,760 | 8.3 |

43 Series - Low profile PCB relays 10 - 16 A



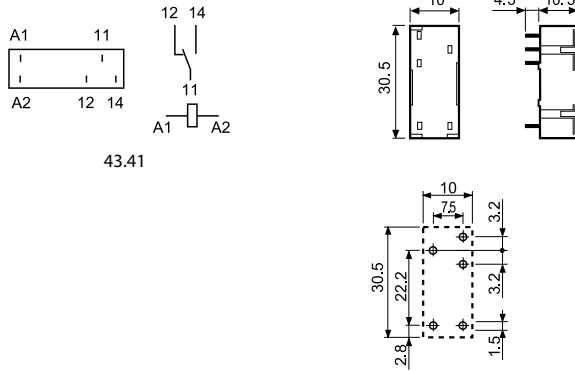
A

95.23

Approvals
(according to type):



| | | |
|---|--|------------------------|
| PCB socket (for changeover contacts only) | 95.23 (blue) | 95.23.0 (black) |
| For relay type | 43.41 | 43.41 |
| Accessories | | |
| Metal retaining clip (supplied with socket - packaging code SMA) | | 095.43 |
| Technical data | | |
| Rated values | 10 A - 250 V | |
| Insulation | 6 kV (1.2/50 μs) between coil and contacts | |
| Protection category | IP 20 | |
| Ambient temperature | °C -40...+70 | |

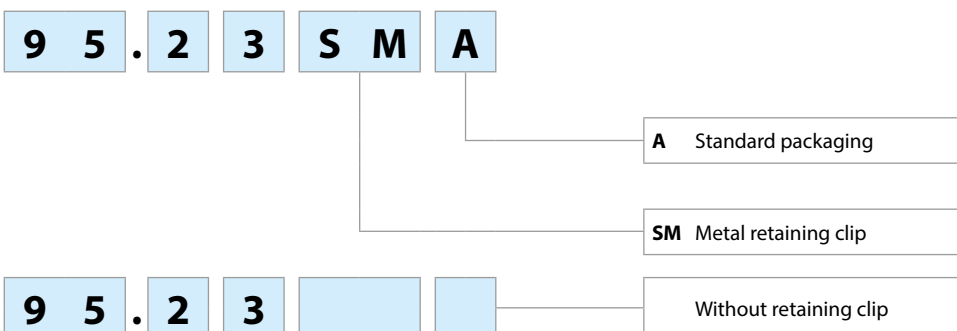


Copper side view

Packaging codes

How to code and identify retaining clip and packaging options for sockets.

Example:



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[7-1393144-5](#) [7-1393767-8](#)