

Ordering information

Example: 65 series power relay, PCB with bifurcated terminals, 1 NO + 1 NC (SPST-NO + SPST-NC) contact, 12 V DC coil.

| | | | | | | | | | | | | | | | | | | | |
|---------------------|--|----------|---|----------|--|----------|---|----------|---|----------|----------|----------|---|----------|--|----------|----------|----------|--|
| | 6 | 5 | . | 6 | | 1 | . | 9 | . | 0 | 1 | 2 | . | 0 | 0 | | 0 | 0 | |
| | | | | | | | | | | | | | | | A | B | C | D | |
| Series | 65 | | | 6 | | 1 | | 9 | | 012 | | | | | | | | | |
| Type | 3 = Faston 250 (6.3 x 0.8 mm) with rear flange mount 6 = PCB with bifurcated terminals | | | | | | | | | | | | | | | | | | |
| No. of poles | 1 = 1 NO + 1 NC (SPST-NO + SPST-NC) | | | | | | | | | | | | | | | | | | |
| Coil version | 8 = AC (50/60 Hz) 9 = DC | | | | | | | | | | | | | | | | | | |
| Coil voltage | See coil specifications | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | A: Contact material 0 = Standard AgCdO 4 = AgSnO ₂ | | | | D: Special versions 0 = Standard 9 = Type 65.31 without rear flange mount |
| | | | | | | | | | | | | | | | B: Contact circuit 0 = 1 NO + 1 NC (SPST-NO + SPST-NC) 3 = NO (≥ 3 mm contact gap) | | | | C: Options 0 = None |

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 |
|-------|--------------|--------------|--------------|----------|--------------|
| 65.31 | AC-DC | 0 - 4 | 0 - 3 | 0 | 0 - 9 |
| 65.61 | AC-DC | 0 - 4 | 0 - 3 | 0 | 0 |

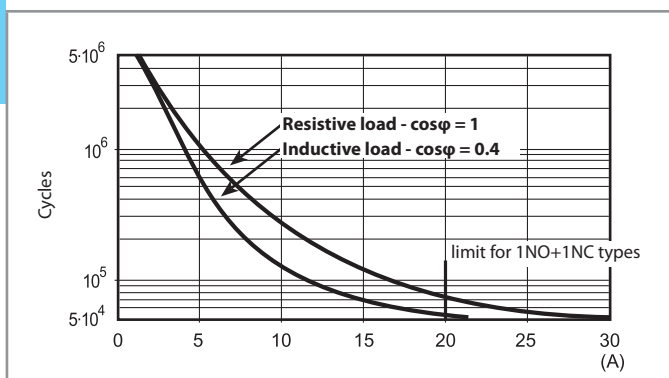
Technical data

Insulation according to EN 61810-1

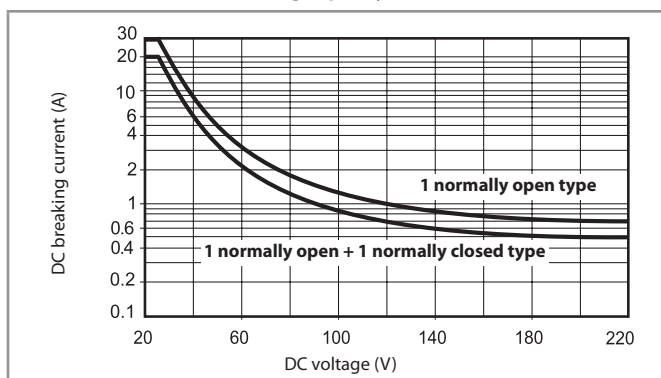
| | | 1 NO + 1 NC | | 1 NO | |
|---|-------------------------|---------------------|--------------------|--------------------|---------------------|
| Nominal voltage supply system | V AC | 230/400 | | 230/400 | |
| Rated insulation voltage | V AC | 250 | 400 | 250 | 400 |
| Pollution degree | | 3 | 2 | 3 | 2 |
| Insulation between coil and contact set | | | | | |
| Type of insulation | | Basic | | Basic | |
| Overtoltage category | | III | | III | |
| Rated impulse voltage | kV (1.2/50 μs) | 4 | | 4 | |
| Dielectric strength | V AC | 2500 | | 2500 | |
| Insulation between open contacts | | | | | |
| Type of disconnection | | Micro-disconnection | | Full-disconnection | |
| Overtoltage category | | — | | III | |
| Rated impulse voltage | kV (1.2/50 μs) | — | | 4 | |
| Dielectric strength | V AC/kV (1.2/50 μs) | 1500/2 | | 2500/4 | |
| Insulation between coil terminals | | | | | |
| Rated impulse voltage (surge) differential mode (according to EN 61000-4-5) | kV (1.2/50 μs) | 4 | | | |
| Other data | | | | | |
| Bounce time: NO/NC | ms | 5/6 (1 NO + 1 NC) | | 7/— (1 NO) | |
| Vibration resistance (10...150)Hz: NO/NC | g | 20/13 | | | |
| Shock resistance | g | 20 | | | |
| Power lost to the environment | without contact current | W | 1.3 | | |
| | with rated current | W | 2.1 (65.31, 65.61) | | 3.1 (65.31/61.0300) |
| Recommended distance between relays mounted on PCB | mm | ≥ 5 | | | |

Contact specification

F 65 - Electrical life (AC) v contact current



H 65 - Maximum DC1 breaking capacity



- When switching a resistive load (DC1) having voltage and current values under the curve, an electrical life of $\geq 80 \cdot 10^3$ 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

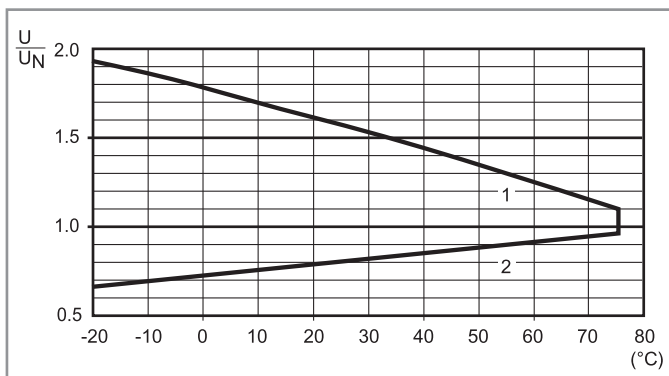
DC coil data

| 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 | 5.1 | 6.6 | 28 | 214 |
| 12 | 9.012 | 10.2 | 13.2 | 110 | 109 |
| 24 | 9.024 | 20.4 | 26.4 | 445 | 54 |
| 48 | 9.048 | 40.8 | 52.8 | 1770 | 27.1 |
| 60 | 9.060 | 51 | 66 | 2760 | 21.7 |
| 110 | 9.110 | 93.5 | 121 | 9420 | 11.7 |
| 125 | 9.125 | 106 | 138 | 12000 | 10.4 |
| 220 | 9.220 | 187 | 242 | 37300 | 5.8 |

AC coil data

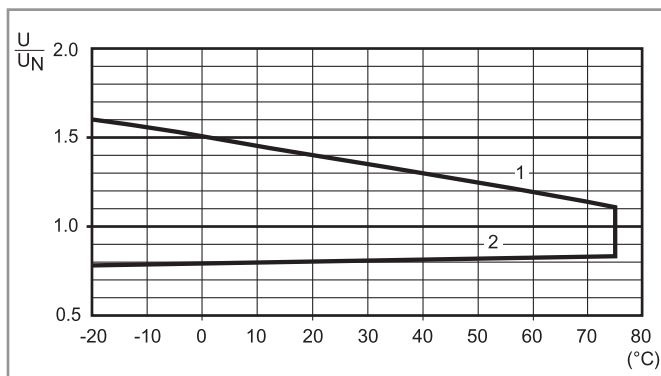
| Nominal voltage U_N V | Coil code | Operating range | | Resistance R Ω | Rated coil consumption I at U_N (50 Hz) mA |
|-------------------------------|-----------|-----------------|----------------|-----------------------------|--|
| | | U_{min} V | U_{max} V | | |
| 6 | 8.006 | 4.8 | 6.6 | 4.6 | 367 |
| 12 | 8.012 | 9.6 | 13.2 | 19 | 183 |
| 24 | 8.024 | 19.2 | 26.4 | 74 | 90 |
| 48 | 8.048 | 38.4 | 52.8 | 290 | 47 |
| 60 | 8.060 | 48 | 66 | 450 | 37 |
| 110 | 8.110 | 88 | 121 | 1600 | 20 |
| 120 | 8.120 | 96 | 132 | 1940 | 18.6 |
| 230 | 8.230 | 184 | 253 | 7250 | 10.5 |
| 240 | 8.240 | 192 | 264 | 8500 | 9.2 |
| 400 | 8.400 | 320 | 440 | 19800 | 6 |

R 65 - DC coil operating range v ambient temperature



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

R 65 - AC coil operating range v ambient temperature



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