

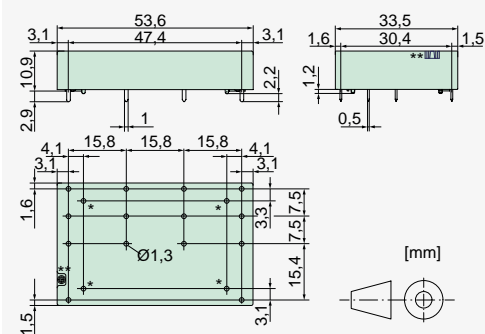
SIF 6 Series



Relay Key Data

- PCB relay with forcibly guided contacts
- Protective separation between coil and contacts (>5,5 mm) and contacts side by side (>5,5mm)
- IEC 61810-3 Type A
- Double and reinforced insulation
- SMD placement under relay possible
- Contact mounting: SIF422 4 NO / 2 NC
- Small height: only 10,9 mm
- Nominal coil power 0,66 W
- Holding coil power 0,20 W
- Coil for railway application according EN 50 155 on request

Dimensions



* do not drill with SMD assembly under the relay
** Open breathing hole

Contact Data

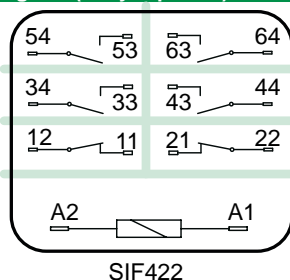
| | |
|-----------------------------------|-----------------------------------|
| Contact material | AgCuNi + 0,2 µm Au |
| Type of contact | Single contact with notched crown |
| Rated switching capacity | 250 VAC 8 A AC1 2000 VA |
| Electr. Life AC1(360 S / h) | approx. 100000 |
| Inrush current max. | 30 A for 20 ms |
| Switching voltage range | 5 to 250 VDC / VAC |
| Switching current range* | 3 mA to 8 A |
| Switching capacity range* | 40 mW to 2000 W(VA) |
| Contact resistance (as delivered) | ≤100 mΩ / 6 V / 100 mA |

*Guided values

Standard Coils for Direct Current (other voltages on request)

| Nominal voltage VDC | Min. pick-up voltage VDC at 20 °C | Drop-out voltage VDC at 20 °C | Nominal current in mA at 20 °C | Resistance in Ohm at 20 °C |
|---------------------|-----------------------------------|-------------------------------|--------------------------------|----------------------------|
| 5 | ≤3,5 | ≥0,5 | 133,3 | 37,5 ± 10% |
| 12 | ≤8,4 | ≥1,2 | 55,8 | 215,0 ± 10% |
| 18 | ≤12,6 | ≥1,8 | 38,9 | 490,0 ± 10% |
| 20 | ≤14,0 | ≥2,0 | 33,3 | 600,0 ± 10% |
| 24 | ≤16,8 | ≥2,4 | 27,5 | 870,0 ± 10% |
| 48 | ≤33,6 | ≥4,8 | 13,8 | 3460,0 ± 10% |
| 60 | ≤42,0 | ≥6,0 | 11,1 | 5400,0 ± 13% |
| 110 | ≤77,0 | ≥11,0 | 6,0 | 18300,0 ± 15% |

Circuit Diagram (relay top view)



Insulation Data

| | |
|-------------------------------------|------------------------|
| - Double or reinforced insulation | at 250 VAC |
| - Air and creepage distance | >5,5 mm |
| - Test voltage | 4000 V / 50 Hz / 1 min |
| Test voltage contact open | 1500 V / 50 Hz / 1 min |
| Creepage resistance | CTI 175 |
| Pollution degree | 2 |
| Overvoltage category | III |
| Insulation resistance at Up 500 VDC | >100 MΩ |

Additional Data

| | |
|--|-------------------------------------|
| Mechanical endurance | >10 x 10 ⁶ operations |
| Switching frequency, mechanical | 15 Hz |
| Response time (all NO closed) | typically 20 ms |
| Drop-out time** (NC closed) | typically 8 ms |
| Bounce time of NO contact | typically 1,5 ms |
| Bounce time of NC contact | typically 15 ms |
| Shock resistance 16 ms | NO > 10g NC > 6g |
| Vibration resistance (10-200 Hz) | NO > 10g NC > 2g |
| Resistance to short circuiting contacts NO | 1000 A SCPD 10 A gG / gL (pre-fuse) |
| Resistance to short circuiting contacts NC | 1000 A SCPD 6 A gG / gL (pre-fuse) |
| Ambient temperature | -40°C to +70°C |
| Thermal Resistance | 47 K / W |
| Temperature limit for coil | 120°C |
| Weight | approx. 35 g |
| Mounting position | any |
| Mounting distance | rec. >5 mm |
| Test method | A / group assembly |
| Type of protection | RT II |
| Solder bath temperature | 270°C / 5 s |
| **without spark suppression | |

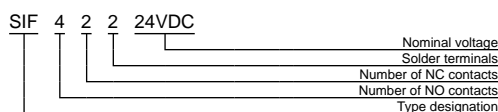
Tests, Regulations, Standards

| | |
|------------------------------------|------------|
| Approvals | |
| UL File E188953 | Sec. 6 |
| Insulation class IEC 60664-1 | 250 VAC |
| Fire protection requirements | UL 94 / V0 |
| Standards IEC 61810-1, IEC 61810-3 | |

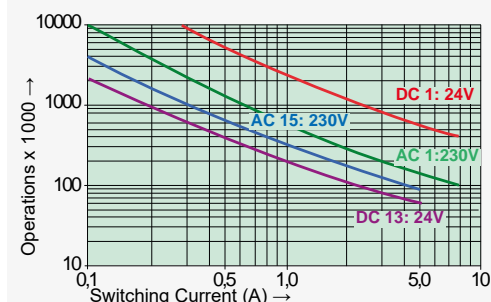
Options, Accessories

none available

Product Key



Contact Lifetime for NO Contacts



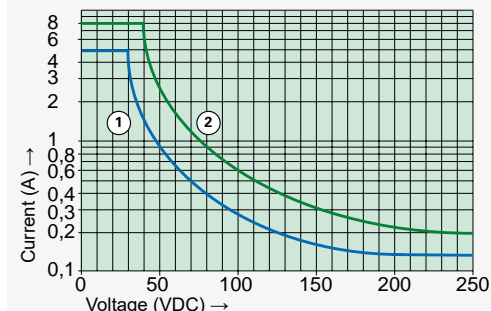
Maximal switching characteristics (EN60947-5-1)

| | |
|---------|---------------------|
| AC 1: | 250 V / 8 A |
| AC 15: | 230 V / 5 A |
| DC 1: | 24 V / 8 A |
| DC 13: | 24 V / 5 A / 0,1 Hz |
| UL 508: | B300 / R300 |

Maximal contact load at AC 1 with 230 V:

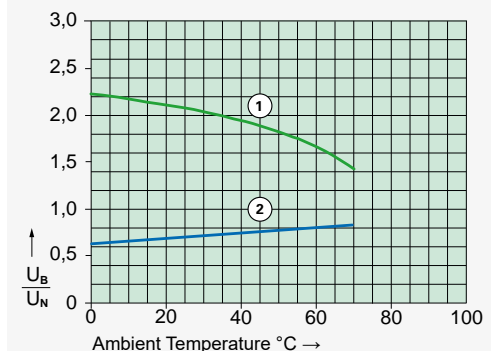
- 2 contacts with 8 A each
- 3 contacts with 6 A each
- 4 contacts with 4,5 A each

Load Limit Curve with Direct Current



- 1) Inductive load L/R 40 ms
- 2) Resistive load

Excitation Voltage Range



- 1) Max. excitation voltage with contact load: ≤5 A
- 2) Min. excitation voltage (guaranteed values) without previous operation

Single relay on print, no heat accumulation due to surrounding components with self-heating, duty cycle 100%.