

Special Load PCB Relay RP 3 SL

- 1 pole 16 A, 1 NO contact
- For high inrush currents,
- 120 A / 20 ms inrush peak current
- Mono- or bistable
- 4 kV / 8 mm coil-contact
- RoHS compliant (Directive 2002/95/EC) as per product date code 0404


Applications

Lighting control, timers, motor control, building automation



F0147-A

Approvals

VDE REG.-Nr. 3736 (DC versions only), C  US E214024
Technical data of approved types on request

Contact data

| | |
|--|-----------------------------|
| Contact configuration | 1 NO |
| Contact set | single contact |
| Type of interruption | micro-disconnection |
| Rated current relay version RP3 / RP7 | 16 A / 12 A |
| Rated voltage / max. switching voltage AC | 250/400 VAC |
| Limiting continuous current | 16 A |
| Maximum breaking capacity AC RP3 / RP7 | 4000 VA / 3000 VA |
| Limiting making capacity, max 4 s, duty factor 10% peak value, max 20 ms | 25 A 120 A |
| Contact material | AgSnO ₂ |
| Mechanical endurance DC-coil | > 20x10 ⁶ cycles |
| bistable coil | > 1x 10 ⁶ cycles |
| Rated frequency of operation with / without load | 16 / 1200 min ⁻¹ |

Contact ratings

| Type | Load | Cycles |
|-------|--|-------------------|
| RP3SL | 16 A, 250 VAC, 70°C, 16 min ⁻¹ , IEC61810-1 | 5x10 ⁴ |
| RP3SL | 12 A, 250 VAC, 70°C, 16 min ⁻¹ , IEC61810-1 | 1x10 ⁵ |

Coil data

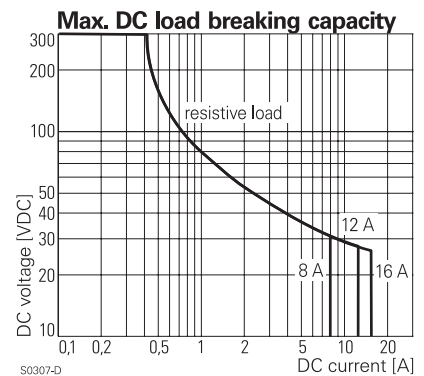
Coil data, monostable coil

| | |
|------------------------------|-------------|
| Rated coil voltage range | 5...110 VDC |
| Coil power | typ 520 mW |
| Operative range RTII / RTIII | 2 / 1 |

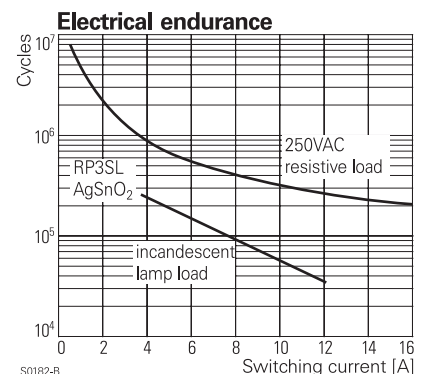
Coil versions, DC-coil

| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance Ω | Rated coil power mW |
|-----------|-------------------|---------------------|---------------------|-------------------|---------------------|
| 012 | 12 | 9.0 | 1.2 | 270±10% | 533 |
| 024 | 24 | 18.0 | 2.4 | 1100±15% | 524 |
| 048 | 48 | 36.0 | 4.8 | 4400±15% | 524 |
| 060 | 60 | 45.0 | 6.0 | 6540±15% | 550 |

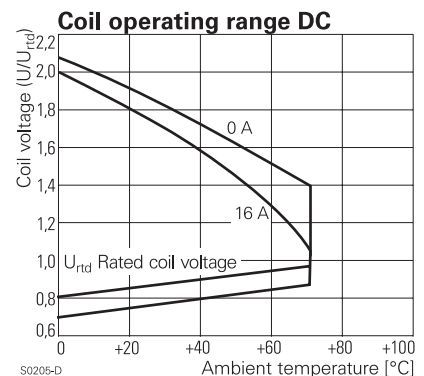
All figures are given for coil without preenergization, at ambient temperature +23°C
Other coil voltages on request



S0307-D



S0182-B



S0205-D

| Coil data, bistable coils | 1 coil | 2 coils |
|--|-------------------|------------|
| Rated coil voltage range | 5...24 VDC | |
| Coil power | typ 1,25 W | |
| Operative range | 1 | |
| Reset voltage minimum / maximum, % of U_{rd} | 70% / 110% | 75% / 120% |
| Minimum energization duration | 20 ms | |
| Maximum energization duration | 1 min at < 50% DF | |

| Coil versions, bistable DC-coil | | | | | | |
|---------------------------------|-------------------|---------------------|-------------------|-----------------------|--------------------------|---------------------|
| Coil code | Rated voltage VDC | Operate voltage VDC | Reset voltage VDC | Reset R1 Ω / W | Coil resistance Ω | Rated coil power mW |
| bistable, 1 coil | | | | | | |
| A05 | 5 | 3.7 | 3.6 | 39/0.5 | 21±10% | 1190 |
| A12 | 12 | 9.0 | 8.7 | 220/0.5 | 115±10% | 1252 |
| A24 | 24 | 18.0 | 16.7 | 820/0.5 | 460±10% | 1252 |
| bistable, 2 coils | | | | | | |
| F12 | 12 | 9.0 | 9.0 | | 105±15% | 1371 |
| F24 | 24 | 18.0 | 18.0 | | 460±15% | 1252 |

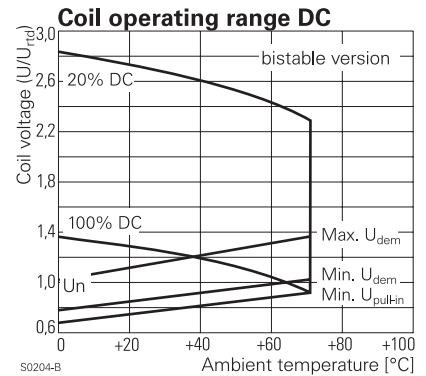
All figures are given for coil without preenergization, at ambient temperature +23°C, duty factor 20%. Other coil voltages on request

| Insulation | | |
|---|-----------------------|-------|
| Dielectric strength coil-contact circuit | 4000 V _{rms} | |
| open contact circuit | 2000 V _{rms} | |
| Clearance / creepage coil-contact circuit | ≥ 8 / 8 mm | |
| Material group of insulation parts | ≥ IIIa | |
| Tracking index of relay base | PTI 250 V | |
| Insulation to IEC 60664-1 | | |
| Type of insulation coil-contact circuit | reinforced | |
| open contact circuit | functional | |
| Rated insulation voltage | 250 V | |
| Pollution degree | 3 | 2 |
| Rated voltage system | 240 V | 400 V |
| Overvoltage category | III | |

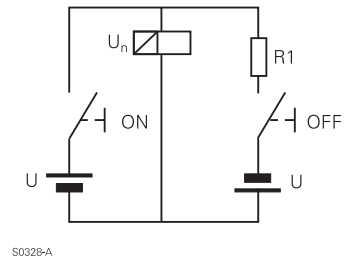
| Other data | |
|--|---|
| RoHS - Directive 2002/95/EC | compliant as per product date code 0404 |
| Flammability class according to UL94 | V-2 |
| Ambient temperature range RTII - flux proof | -40...+70°C |
| RTIII - wash tight | -40...+35°C |
| Operate- / release time DC coil | typ 8 / 2 ms |
| Operate- / reset time bistable coils | typ 6 / 2 ms |
| Bounce time | typ 2 ms |
| Vibration resistance (function), opening of closed contact | 20 g |
| Shock resistance (destruction) | 100 g |
| Category of protection | RTII - flux proof, RTIII - wash tight |
| Mounting | pcb or on socket *) |
| Mounting distance 12A / 16A | 0 / 3 mm |
| Resistance to soldering heat flux proof version | 270 °C / 10 s |
| wash tight version | 260°C / 5 s |
| Relay weight | 18 g |
| Packaging unit monostable, bistable 1 coil | 20 / 500 pcs |
| bistable 2 coils | 100 pcs |

*) no socket available for bistable 2 coil version, see Accessories

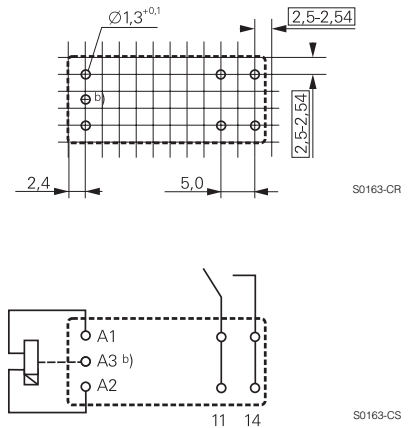
| Accessories | |
|---|----------------|
| For monostable and bistable 1 coil version, details see | accessories RT |



Circuit scheme for bistable 1 coil



PCB layout / terminal assignment
Bottom view on solder pins



Bistable versions:
Indicated contact position during or after coil energization with reset voltage.

2-coil versions:
Operate A2, A3
Reset A1, A3

b) for 2 coil version only



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- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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