

Power PCB Relay RZF

- 1 pole, 16A, 1 form A (NO)
- Coil power 530mW
- Reinforced insulation (EN 61810, 60335, 60730)
- Ambient temperature up to 85°C
- Quick connect terminals for load
- Low mounted height of 17.9mm (27.6mm with quick connects)
- WG version with material in accordance with IEC 60335-1

Typical applications

Microwave ovens, water heaters, ovens, industrial equipment.



Approvals

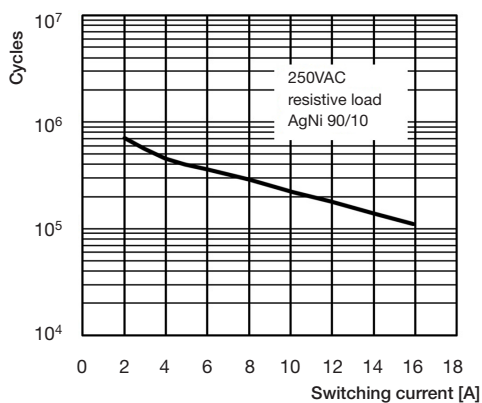
VDE 40046175, UL E214025, CQC 17002175064

Technical data of approved types on request.

Contact Data

| | | |
|--|--|--|
| Contact arrangement | 1 form A (NO) | |
| Rated voltage | 250VAC | |
| Max. switching voltage | 400VAC | |
| Rated current | 16A | |
| Limited making current, form A contact, max. 4 s, duty factor 10% | 16A | |
| Switching power | 4000VA | |
| Contact material | AgNi | |
| Min. recommended contact load | 100mA, 5VDC | |
| Frequency of operation, with/without load | 360/18000h ⁻¹ | |
| Operate/release time max. | 8ms/6ms | |
| Bounce time max. | 4ms | |
| Electrical endurance | | |
| 16A, 250VAC, resistive, 23°C | 100x10 ³ ops. | |
| 16A, 250VAC, resistive, 85°C | 50x10 ³ ops. | |
| Contact ratings | 16A, 250VAC, resistive, 23°C, 100x10 ³ ops. | |
| | 16A, 250VAC, resistive, 85°C, 100x10 ³ ops. | |
| Mechanical endurance | 10x10 ⁶ operations | |

Electrical endurance



Coil Data

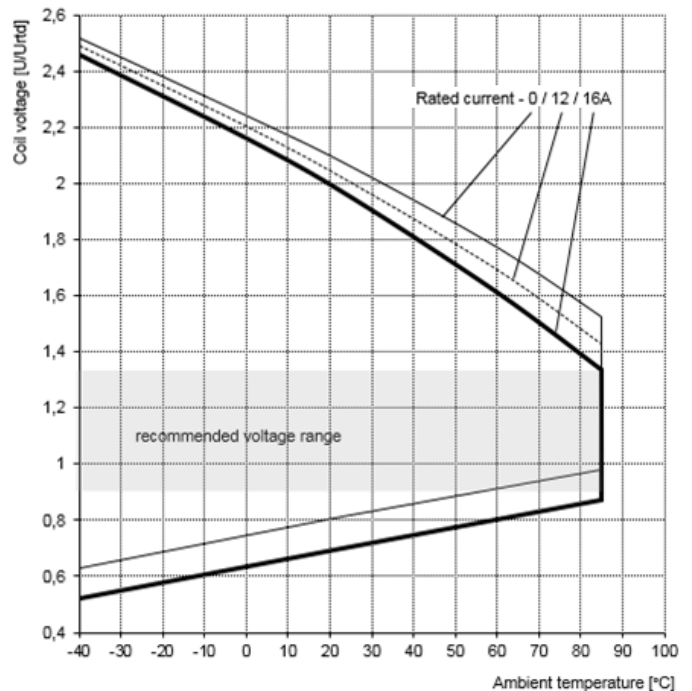
| | |
|-------------------------------------|------------|
| Coil voltage range | 5 to 48VDC |
| Coil operative range, IEC 61810 | 2 |
| Coil insulation system according UL | class F |

Coil versions, DC coil

| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance Ω±10% | Rated coil power mW |
|-----------|-------------------|---------------------|---------------------|-----------------------|---------------------|
| 005 | 5 | 3.5 | 0.5 | 47.2 | 530 |
| 006 | 6 | 4.2 | 0.6 | 66.6 | 530 |
| 009 | 9 | 6.3 | 0.9 | 152.8 | 530 |
| 012 | 12 | 8.4 | 1.2 | 271.7 | 530 |
| 018 | 18 | 12.6 | 1.8 | 611 | 530 |
| 024 | 24 | 16.8 | 2.4 | 1086 | 530 |
| 048 | 48 | 33.6 | 4.8 | 4347 | 530 |

All figures are given for coil without pre-energization, at ambient temperature +23°C.

Coil Operating Range



Power PCB Relay RZF (Continued)

Insulation Data

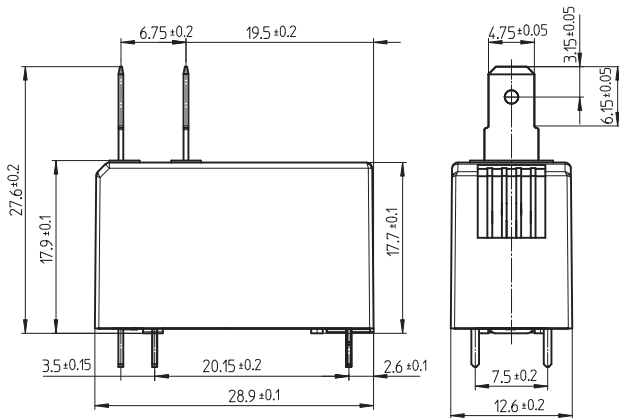
| | |
|------------------------------------|----------------------|
| Initial dielectric strength | |
| between open contacts | 1000V _{rms} |
| between contact and coil | 5000V _{rms} |
| Initial surge withstand voltage | |
| between contact and coil | 10000V |
| Clearance/creepage | |
| between contact and coil | ≥ 5.5/8mm |
| Material group of insulation parts | |
| | III |
| Tracking index of relay base | |
| | PTI 300 |

Other Data

| | |
|---|--------------------------------------|
| Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customer-support/rohssupportcenter | |
| Resistance to heat and fire | According EN 60335-1, par. 30 |
| Ambient temperature | -40 to 85°C |
| Category of environmental protection | |
| IEC 61810 | RTII - flux proof |
| Vibration resistance (functional), 3 to 100Hz | >20g |
| Shock resistance (functional) | >10g |
| Shock resistance (destructive) | >100g |
| Terminal type | PCB-THT, quick connect for load side |
| Weight | 11g |
| Resistance to soldering heat THT | |
| IEC 60068-2-20 | 270°C/10s |
| Packaging/unit | tube/20 pcs. box/500 pcs. |

Dimensions

RZF1-...-....

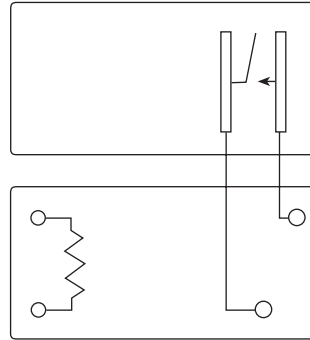


Terminal dimensions: Coil-Terminal: 0.5±0.025
Contact-Terminal: 0.5±0.01 x 0.8±0.05

- All terminal dimensions valid for the unfinned terminal
- For the tin-plating of the pins add +0,1mm for the width, thickness or diameter.

Terminal assignment

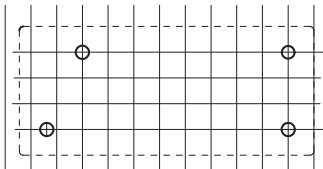
Bottom view on solder pins



PCB layout

Bottom view on solder pins

RZF1-...-....



grid pattern: 2.50 to 2,54
hole diameter: ø1.3 ±0,1
Bottom view on solder pins
dimensions in mm

Power PCB Relay RZF (Continued)

| | | | | | | | | |
|-------------------------------|--|---|----------|-----------------------------|--------------|-----------|------------|------------|
| Product code structure | Typical product code | RZF | 1 | -1A | 4 | -L | 012 | 000 |
| Type | RZF | Power PCB Relay RZF | | | | | | |
| Version | 1 | 16A, 3.5mm pinning, 4 PCB pins | | | | | | |
| Contact configuration | 1A | 1 form A (NO) contact | | | | | | |
| Contact material | 4 | AgNi 90/10 | 6 | AgNi 90/10, special version | | | | |
| Coil version | L | DC coil, 530mW | | | | | | |
| Coil voltage | Coil code: please refer to coil versions table | | | | | | | |
| Suffix | 000 | Standard, RT II, Reinforced flux proof, IEC 60335-1 Compliant | | | Other | Special | | |

Note: May be followed by up to five additional characters for manufacturer internal identification.

| Product code | Version | Contact | Cont.material | Coil power | Coil voltage | Sealing | Part number |
|---------------|------------|---------------|-------------------|------------|--------------|------------|-------------|
| RZF1-1A4-L005 | 4 PCB pins | 1 form A (NO) | AgNi 90/10 (std.) | 530mW | 5VDC | Flux proof | 1833011-1 |
| RZF1-1A4-L006 | | | | | 6VDC | | 1833011-2 |
| RZF1-1A4-L009 | | | | | 9VDC | | 1833011-3 |
| RZF1-1A4-L012 | | | | | 12VDC | | 1833011-4 |
| RZF1-1A4-L018 | | | | | 18VDC | | 1833011-5 |
| RZF1-1A4-L024 | | | | | 24VDC | | 1833011-6 |
| RZF1-1A4-L048 | | | | | 48VDC | | 1833011-7 |
| RZF1-1A6-L005 | | | AgNi 90/10 (spl.) | | 5VDC | | 2-1833011-8 |
| RZF1-1A6-L006 | | | | | 6VDC | | 1-1833011-5 |
| RZF1-1A6-L009 | | | | | 9VDC | | 1-1833011-6 |
| RZF1-1A6-L012 | | | | | 12VDC | | 1-1833011-7 |
| RZF1-1A6-L018 | | | | | 18VDC | | 1-1833011-8 |
| RZF1-1A6-L024 | | | | | 24VDC | | 1-1833011-9 |
| RZF1-1A6-L048 | | | | | 48VDC | | 2-1833011-0 |



General Purpose
Power PCB Relays

Power PCB Relay RZF (Continued)

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