

## Slimline PCB Relay PCN

- 1 pole 3 A, 1 form A (NO) contact
- Only 5mm wide
- 3A switching current, load range 1mA up to 5A
- Sensitive coil 120mW
- Allows high function-/packing density
- Cadmium-free contacts
- Z type with reinforced insulation
- RoHS compliant (Directive 2002/95/EC)

Typical applications  
PLC, temperature control, I/O modules.



### Approvals

VDE REG.-Nr.6166, UL E82292, CQC 08001026045  
Technical data of approved types on request.

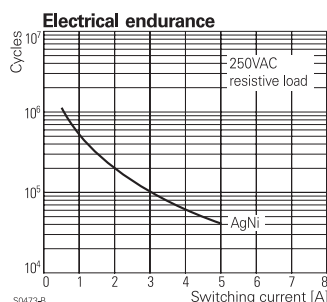
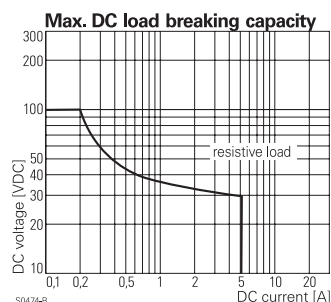
### Contact Data

|                                           |                          |
|-------------------------------------------|--------------------------|
| Contact arrangement                       | 1 form A (NO)            |
| Rated voltage                             | 250VAC/30VDC             |
| Max. switching voltage                    | 277VAC/125VDC            |
| Rated current                             | 3A/5A                    |
| Limiting continuous current               | 3A/5A                    |
| Breaking capacity max.                    | 750VA (3A), 1250VA(5A)   |
| Contact material                          | AgNi, gold plated        |
| Contact style                             | bifurcated contact       |
| Min. recommended contact load (reference) | 5VDC, 1mA                |
| Initial contact resistance                | 30mΩ at 100mA, 6VDC      |
| Frequency of operation, with/without load | 10/300min <sup>-1</sup>  |
| Electrical endurance                      |                          |
| 3A, 250VAC, resistive, +70°C              | 100x10 <sup>3</sup> ops. |
| 5A, 250VAC, resistive, +85°C              | 30x10 <sup>3</sup> ops.  |

### Contact ratings

| Load                            | Cycles              |
|---------------------------------|---------------------|
| <b>IEC 61810</b>                |                     |
| 3A, 250VAC, cosφ=1, +70°C       | 100x10 <sup>3</sup> |
| 3A/30VDC, L/R=0ms, +70°C        | 100x10 <sup>3</sup> |
| 5A, 250VAC, cosφ=1, +85°C       | 30x10 <sup>3</sup>  |
| 5A 30VDC, L/R=0ms, +85°C        | 70x10 <sup>3</sup>  |
| <b>UL 508</b>                   |                     |
| 3A, 250VAC, resistive, +25°C    | 100x10 <sup>3</sup> |
| Pilot duty, B300, +25°C         | 6x10 <sup>3</sup>   |
| Pilot duty, R300, +25°C         | 6x10 <sup>3</sup>   |
| 9A LRA, 1.5A FLA, 240VAC, +45°C | 30x10 <sup>3</sup>  |

Mechanical endurance, DC coil >10x10<sup>6</sup> operations



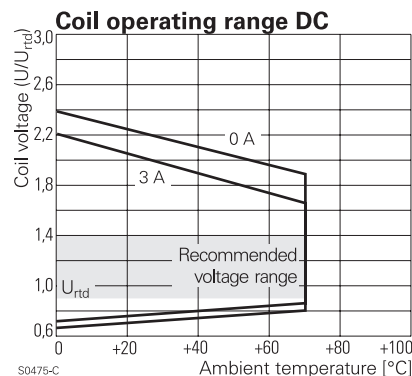
### Coil Data

|                                     |                                                      |
|-------------------------------------|------------------------------------------------------|
| Coil voltage range                  | 3 to 24VDC                                           |
| Operative range, IEC 61810          | 1                                                    |
| Coil insulation system according UL | Class 155(F),<br>Class F type available upon request |

### Coil versions, DC coil

| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance Ω±10% | Rated coil power mW |
|-----------|-------------------|---------------------|---------------------|-----------------------|---------------------|
| 03        | 3                 | 2.1                 | 0.3                 | 75                    | 120                 |
| 05        | 5                 | 3.5                 | 0.5                 | 208                   | 120                 |
| 06        | 6                 | 4.2                 | 0.6                 | 300                   | 120                 |
| 09        | 9                 | 6.3                 | 0.9                 | 375                   | 120                 |
| 12        | 12                | 8.4                 | 1.2                 | 1200                  | 120                 |
| 24        | 24                | 16.8                | 2.4                 | 4800                  | 120                 |

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



### Insulation Data

|                                 |                      |
|---------------------------------|----------------------|
| Initial dielectric strength     |                      |
| between open contacts           | 750V <sub>rms</sub>  |
| between contact and coil        | 3000V <sub>rms</sub> |
| Initial surge withstand voltage |                      |
| between contact and coil        | 4000V                |
| Clearance/creepage              |                      |
| between open contacts           | >3.5mm               |
| between contact and coil        | >3.5mm               |
| Tracking index of relay base    | PTI600               |

**Slimline PCB Relay PCN** (Continued)

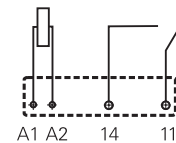
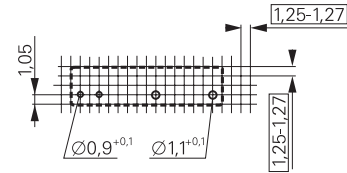
**Other Data**

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at [www.te.com/customersupport/rohssupportcenter](http://www.te.com/customersupport/rohssupportcenter)

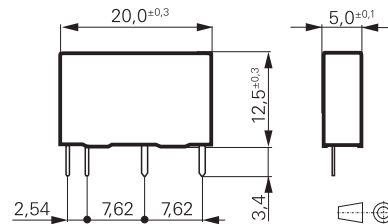
|                                      |                                |
|--------------------------------------|--------------------------------|
| Ambient temperature                  | -30 to 85°C                    |
| Category of environmental protection | IEC 61810                      |
|                                      | RTIII - wash tight             |
| Vibration resistance (functional)    | 10 to 55Hz, 1.5mm              |
| Vibration resistance (destructive)   | 10 to 55Hz, 1.5mm              |
| Shock resistance (functional)        | IEC 60068-2-27 (half sine)     |
|                                      | min. 98m/s <sup>2</sup> , 11ms |
| Shock resistance (destructive)       | min. 980m/s <sup>2</sup> , 6ms |
| Terminal type                        | PCB-THT                        |
| Resistance to soldering heat THT     | IEC 60068-2-20                 |
|                                      | 260°C/5s                       |
| Packaging/unit                       | box/2000 pcs.                  |

**PCB layout / terminal assignment**

Bottom view on solder pins



**Dimensions**



**Product code structure**

Typical product code

**PCN** 1 05 D 3 M H Z ,001

**Type**

**PCN** Small Slim Power PCB Relay PCN

**Number of poles**

1 1pole

**Coil**

Coil code: please refer to coil versions table (e.g. 05=5VDC)

**Coil version**

D standard 120mW

**Contact material**

3 AgNi

**Contact arrangement**

M 1 form A, 1 NO contact

**Enclosure**

H RTIII - wash tight

**Insulation**

Z Reinforced insulation (tracking resistance of relay base, case PTI 600)

**Version**

00000 3A model

00100 5A model

| Product code     | Contact | Coil voltage | Coil  | Cont. material | Enclosure          | Rating | Part number |
|------------------|---------|--------------|-------|----------------|--------------------|--------|-------------|
| PCN-105D3MHZ,000 | 1-pole  | 5VDC         | 120mW | AgNi           | RTIII - wash tight | 3A     | 3-1461491-0 |
| PCN-106D3MHZ,000 |         | 6VDC         |       |                |                    |        | 3-1461491-1 |
| PCN-112D3MHZ,000 |         | 12VDC        |       |                |                    |        | 3-1461491-3 |
| PCN-124D3MHZ,000 |         | 24VDC        |       |                |                    |        | 3-1461491-6 |
| PCN-124D3MHZ,001 |         |              |       |                |                    | 5A     | 3-1461491-8 |