# Slim PCB Relay PCN

- **1 pole 3 A, 1 NO contact**
- **Only 5 mm wide**
- **3 A switching current**
- **Load range 1 mA up to 3 A**
- **Sensitive coil 120 mW**
- **Allows high function-/packing density**
- **Cadmium-free contacts**
- **Z type with reinforced insulation**
- **RoHS compliant (Directive 2002/95/EC) as per product date code 0424**



F0258-A

**Applications**

**Centralized and decentralized heating control, extremely narrow interface elements, interface technology, timers, PLC's, I/O modules, I/O-ports**

## Approvals

VDE REG.-Nr. 6166; cULus E82292
Technical data of approved types on request

## Contact data

| | |
|---|---|
| Contact configuration | 1NO |
| Contact set | bifurcated contact |
| Type of interruption | micro disconnection |
| Rated current | 3 A |
| Rated voltage / max.switching voltage AC | 240/277 VAC |
| Limiting continuous current | 3 A |
| Maximum breaking capacity AC | 750 VA |
| Limiting making capacity, max 4 s, duty factor 10% | 5 A |
| Contact material | AgNi90/10 |
| Minimum contact load | 5V / 1mA |
| Mechanical endurance | $20x10^6$ cycles |
| Rated frequency of operation with / without load | 10 / 1200 $min^{-1}$ |

**Contact ratings**

| Type | Load | Cycles |
|---|---|---|
| PCN-1..D3M.(-,H).(-,Z) | 3 A, 250 VAC resistive, 70°C, 20 cycles/min, EN61810-1 | $1x10^5$ |
| PCN-1..D3M.(-,H).(-,Z) | 3 A, 30 VDC, resistive, 70°C, 20 cycles/min, EN61810-1 | $1x10^5$ |
| PCN-1..D3M.(-,H).(-,Z) | Pilot Duty B300 240 VAC, UL508 | $6x10^3$ |
| PCN-1..D3M.(-,H).(-,Z) | Pilot Duty B300 120 VAC, UL508 | $6x10^3$ |

## Coil data

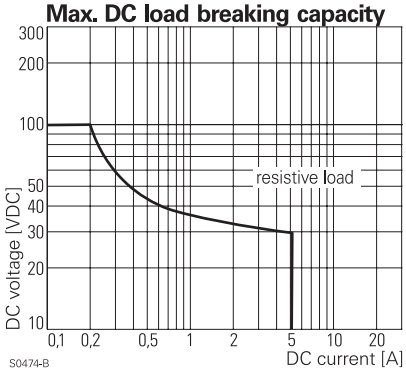
| | |
|---|---|
| Rated coil voltage range DC coil | DC5...24 VDC |
| Coil power DC coil | typ 120 mW |
| Operative range | 1 |

**Coil versions, DC-coil**

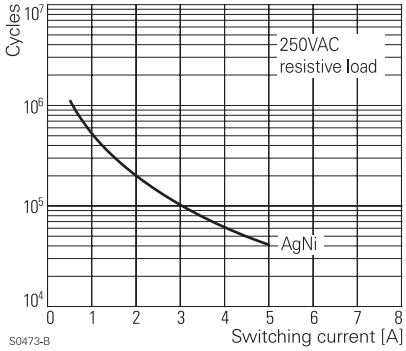
| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance Ohm | Rated coil power mW |
|---|---|---|---|---|---|
| 005 | 5 | 3.5 | 0.5 | 208±10% | 120 |
| 006 | 6 | 4.2 | 0.6 | 300±10% | 120 |
| 009 | 9 | 6.3 | 0.9 | 675±10% | 120 |
| 012 | 12 | 8.4 | 1.2 | 1200±10% | 120 |
| 024 | 24 | 16.8 | 2.4 | 4800±10% | 120 |

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

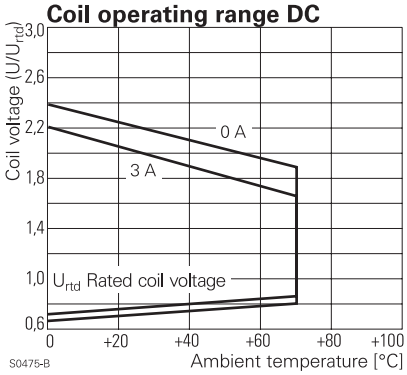
**Max. DC load breaking capacity**




**Electrical endurance**




**Coil operating range DC**






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www.tycoelectronics.com
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Dimensions are in mm unless otherwise specified and are shown for reference purposes only.

Product specification according to IEC 61810-1. Product data, technical parameters, test conditions and processing information only to be used together with the 'Definitions' at schrackrelays.com in the 'Schrack' section.

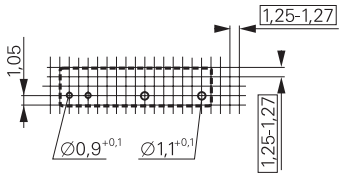
Specifications subject to change.

## Slim PCB Relay PCN (Continued)

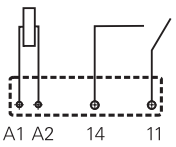
| Insulation | |
|---|---|
| Dielectric strength coil-contact circuit | 3000 $V_{rms}$ |
| open contact circuit | 750 $V_{rms}$ |
| Clearance / creepage coil-contact circuit | ≥ 3,5 / 3,5 mm |
| Material group of insulation parts | I |
| Tracking index of relay base | PTI 600 |
| Insulation to IEC 60664-1 | |
| Type of insulation coil-contact circuit | reinforced |
| open contact circuit | functional |
| Rated insulation voltage | 277 V |
| Pollution degree | 2 |
| Rated voltage system | 277 V |
| Overvoltage category as basic insulation | III |
| Overvoltage category as reinforced insulation | II |

| Other data | |
|---|---|
| RoHS - Directive 2002/95/EC | compliant as per product date code 0424 |
| Flammability class according to UL94 | V-0 |
| Ambient temperature range | -30...+70 °C |
| Operate- / release time | typ. 5/2 ms |
| Bounce time NO / NC contact | < 1ms |
| Vibration resistance (function) NO / NC contact | 10 g |
| Shock resistance (function) NO / NC contact | 10 g |
| Shock resistance (destruction) | 100 g |
| Category of protection | RTIII - wash tight |
| Mounting | pcb |
| Mounting position | any |
| Minimum mounting distance | 0 mm |
| Resistance to soldering heat wash tight version | 260°C / 5 s |
| Relay weight | 3 g |
| Packaging unit | 25 / 2000 pcs |

**PCB layout / terminal assignment**
Bottom view on solder pins

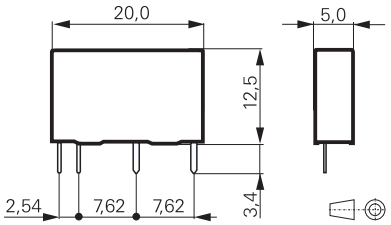


S0471-AA



S0471-AB

**Dimensions**



S0472-A

**Product key**

| P | C | N | 1 | | | D | 3 | M | H | Z |
|---|---|---|---|---|---|---|---|---|---|---|

Type
Number of contacts
**1** 1 pole
Coil
Coil code: please refer to coil versions table
Coil version
**D** standard 120 mW
Contact material
**3** AgNi
Contact configuration
**M** 1 NO contact
Version
**H** wash tight
Insulation
**Z** tracking resistance of relay base PTI 600
Other types on request

| Product key | Contacts | Coil | Coil | Contacts | Version | Part number |
|---|---|---|---|---|---|---|
| PCN-105D3MHZ | 1-pole | 5 VDC | standard | 1 NO contact | wash tight | 3-1461491-0 |
| PCN-106D3MHZ | | 6 VDC | 120 mW | AgNi | high insulation | 3-1461491-1 |
| PCN-112D3MHZ | | 12 VDC | | | | 3-1461491-3 |
| PCN-124D3MHZ | | 24 VDC | | | | 3-1461491-6 |



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