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

F0258-B

Approvals

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

Contact Data

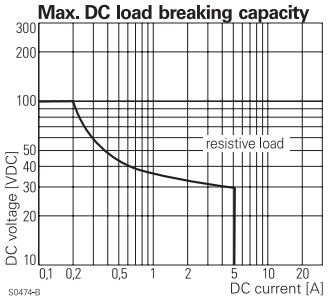
Contact arrangement	1 from A (NO)
Rated voltage	250VAC/30VDC
Max. switching voltage	277VAC/125VDC
Rated current	3A/5A
Limiting continuous current	3A/5A
Breaking capacity max.	750VA (3A), 1250VA(5A)
Contact material	AgNi, gold plated
Contact style	bifurcated contact
Min. recommended contact load (reference)	5VDC,1mA
Initial contact resistance	30mΩ at 100mA, 6VDC
Frequency of operation, with/without load	10/600min^{-1}
Electrical endurance	
3A, 250VAC, resistive, +70°C	100x10^3 ops.
5A, 250VAC, resistive, +85°C	30x10^3 ops.

Contact ratings

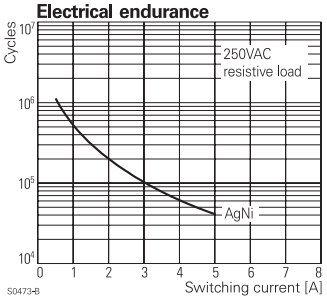
Load	Cycles
IEC 61810	
3A,250VAC, cosφ=1, +70°C	100x10^3
3A/30VDC, L/R=0ms, +70°C	100x10^3
5A, 250VAC, cosφ=1, +85°C	30x10^3
5A 30VDC, L/R=0ms, +85°C	70x10^3
UL 508	
3A, 250VAC, resistive, +25°C	100x10^3
Pilot duty, B300, +25°C	6x10^3
Pilot duty, R300, +25°C	6x10^3
9A LRA, 1.5A FLA, 240VAC, +45°C	30x10^3

Mechanical endurance, DC coil >10x10^6 operations

Max. DC load breaking capacity



Electrical endurance



Coil Data

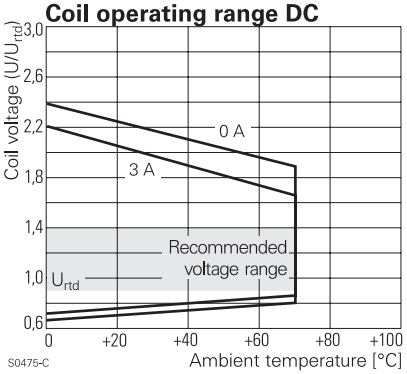
Coil voltage range	3 to 24VDC
Operative range, IEC 61810	1
Coil insulation system according UL	Class105(A), Class F type available upon request

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

Coil operating range DC



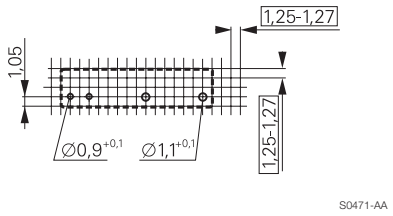
Insulation Data

Initial dielectric strength	
between open contacts	750V$_{rms}$
between contact and coil	3000V$_{rms}$
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

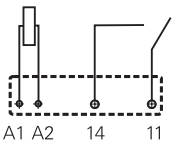
Slimline PCB Relay PCN (Continued)

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	
Ambient temperature	-30 to 70°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. 9.8m/s^2, 11ms
Shock resistance (destructive)	min. 98m/s^2, 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

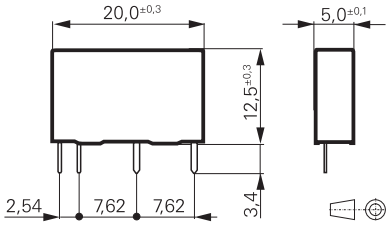


S0471-AA



S0471-AB

Dimensions



S0472-B

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
000 3A model
001 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