Miniature PCB Relay PCJ

- **1pole 3A/5A, 1 form A (NO) contact**
- **Sensitive coil 200mW**
- **Ambient temperature 85°C or 105°C**
- **RoHS compliant (Directive 2002/95/EC)**
- **WG version : Product in accordance to IEC60335-1**



F0276-C

Typical applications
Home appliances

Approvals

VDE 40009151, UL E58304, CSA LR48471-211, CQC 03001008593
Technical data of approved types on request

Contact Data

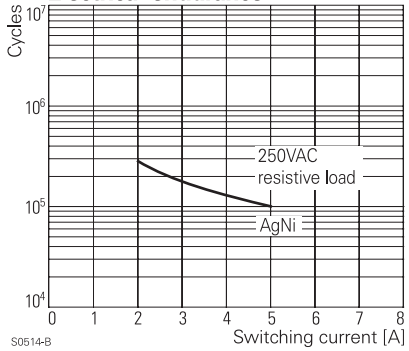
Contact arrangement	1 form A (NO)
Rated voltage	250VAC
Max. switching voltage	30VDC, 250VAC
Rated current	3A/5A
Switching power	1,250VA, 150W
Contact material	AgNi
Min. recommended contact load	100mA, 5VDC
Initial contact resistance	100mΩ at 1A, 6VDC
Frequency of operation, with/without load	360/18000h^{-1}
Operate/release time max.	10/4ms
Electrical endurance	
3A version: 250VAC, resistive,	100x10^3 ops.
5A version: 250VAC, resistive,	100x10^3 ops.

Contact ratings

Type	Contact	Load		Cycles
IEC 61810				
PCJ	form A (NO)	5A,250VAC, cosφ=1,	85°C	100x10^3
PCJ	form A (NO)	2A,250VAC, cosφ=0.6	85°C	100x10^3
PCJ	form A (NO)	3A,250VAC, cosφ=1,	105°C	100x10^3
UL 508				
PCJ	form A (NO)	5A,250VAC, general use,	85°C	6x10^3
PCJ	form A (NO)	3A,250VAC, cosφ=1,	85°C	100x10^3
PCJ	form A (NO)	5A,250VAC, cosφ=1,	85°C	100x10^3
PCJ	form A (NO)	3A,250VAC, cosφ=1,	105°C	100x10^3

Mechanical endurance >10x10^6 operations

Electrical endurance



Coil Data

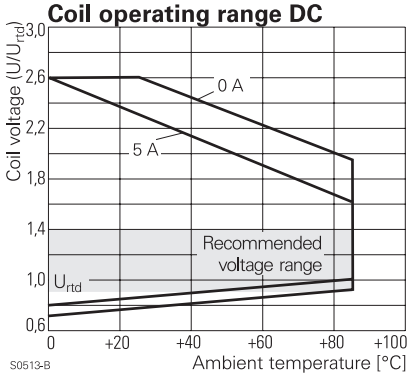
Coil voltage range	3 to 24VDC
Coil insulation system according UL	
Standard version:	class 105 (A)
WG version:	class 155 (F)

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	2.25	0.15	45	200
05	4	3.75	0.25	125	200
06	6	4.50	0.3	180	200
09	9	6.75	0.45	405	200
12	12	9.00	0.6	720	200
18	18	13.50	0.9	1620	200
24	24	18.00	1.2	2880	200

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	4000V$_{rms}$
Initial surge withstand voltage	
between contact and coil	10000V$_{rms}$
Initial insulation resistance	1000MΩ
Clearance/creepage	
between contact and coil	≥ 7.5/8mm

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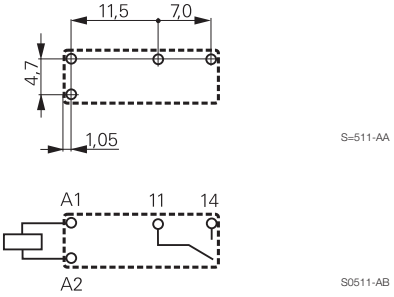
Miniature PCB Relay PCJ (Continued)

Other Data

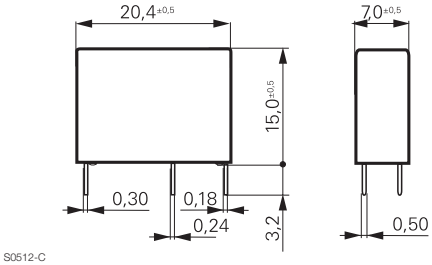
Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customersupport/rohssupportcenter	
Ambient temperature	-40 to 85°C (105°C), no icing or condensation
Category of environmental protection	
IEC 61810	RTII - flux proof, RTIII - wash tight
Vibration resistance (functional)	10 to 50Hz, 1.5mm double amplitude
Shock resistance (functional)	
IEC 60068-2-27 (half sine)	98m/s^2, 11ms
Terminal type	PCB-THT
Weight	4g
Resistance to soldering heat THT	
IEC 60068-2-20	260°C/5s
Packaging/unit	box/1000 pcs.

PCB layout / terminal assignment

Bottom view on solder pins



Dimensions



Product code structure

Typical product code: **PCJ 1 12 D 3 M H WG 301**

Type
- **PCJ** Miniature PCB Relay PCJ

Version
- **1** Single contact

Coil
- Coil code: please refer to coil versions table

Coil power
- **D** Standard 200mW

Contact material
- **3** AgNi

Contact arrangement
- **M** 1 form A (NO) contact

Sealing
- **Blank** Flux proof
- **H** Wash tight

Special type
- **Blank** Standard version
- **WG** For domestic appliances (IEC 60335-1)

Suffix
- **301** 3A version
- **303** 5A version
- **00000** Standard type

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Miniature PCB Relay PCJ (Continued)

Product code	Version	Contact	Cont. material	Coil version	Coil	Sealing	Part number
PCJ-103D3M,301	3A	1 form A (NO)	AgNi	200mW	3VDC	Flux proof	1721081-1
PCJ-105D3M,301					5VDC		1721081-2
PCJ-106D3M,301					6VDC		1721081-3
PCJ-109D3M,301					9VDC		1721081-4
PCJ-112D3M,301					12VDC		1721081-5
PCJ-124D3M,301					24VDC		1721081-7
PCJ-103D3MH,301					3VDC	Wash tight	1721081-8
PCJ-105D3MH,301					5VDC		1721081-9
PCJ-106D3MH,301					6VDC		1-1721081-0
PCJ-109D3MH,301					9VDC		1-1721081-1
PCJ-112D3MH,301					12VDC		1-1721081-2
PCJ-124D3MH,301					24VDC		1-1721081-4
PCJ-103D3M-WG	5A				3VDC	Flux proof	1721547-1
PCJ-105D3M-WG					5VDC		1721547-2
PCJ-106D3M-WG					6VDC		1721547-3
PCJ-109D3M-WG					9VDC		1721547-4
PCJ-112D3M-WG					12VDC		1721547-5
PCJ-124D3M-WG					24VDC		1721547-7
PCJ-103D3MH-WG					3VDC	Wash tight	1721547-8
PCJ-105D3MH-WG					5VDC		1721547-9
PCJ-106D3MH-WG					6VDC		1-1721547-0
PCJ-109D3MH-WG					9VDC		1-1721547-1
PCJ-112D3MH-WG					12VDC		1-1721547-2
PCJ-118D3MH-WG					18VDC		1-1721547-3
PCJ-124D3MH-WG					24VDC		1-1721547-4

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