Miniature Power PCB Relay PBH 105°C

- **1pole 6 A, 1 form C (CO) or 1 form A (NO) contact**
- **Environmentally-friendly cadmium-free contacts**
- **Class F coil system standard**
- **For ambient temperatures up to 105°C**
- **Product in accordance to IEC 60335-1**

Typical applications
White goods, domestic appliances.

Approvals

VDE Cert. No. 40008364, UL E214025
Technical data of approved types on request.

Contact Data

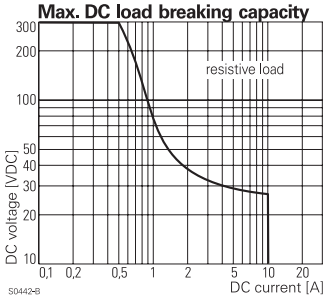
Contact arrangement	1 form C (CO) or 1 form A (NO)
Rated voltage	250VAC
Max. switching voltage	400VAC
Rated current	6A
Limiting continuous current	6.5 A
Limiting making current, max 4 s, duty factor 10%	10A
Breaking capacity max.	1500VA
Contact material	AgNi 90/10
Frequency of operation, with/without load	360/36000h^{-1}
Operate/release time max.	10/20ms
Bounce time max., form A/form B	10/15ms

Contact ratings

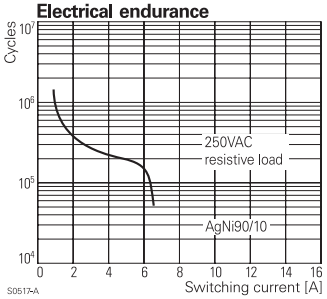
Type	Contact	Load	Cycles
IEC 61810			
PBH14	C (CO)	6.5A, 250VAC, cosφ=1, 105°C	10x10^3
PBH34	A (NO)	6.5A, 250VAC, cosφ=1, 105°C	100x10^3
PBH14	A of C	6.5A, 250VAC, cosφ=1, 105°C	100x10^3
PBH34	A (NO)	2A, 250VAC, cosφ=0.55, 105°C	250x10^3
PBH14	A of C	2A, 250VAC, cosφ=0.55, 105°C	250x10^3
PBH34	A (NO)	6.5A, 440VAC, cosφ=1, 105°C	50x10^3
UL 61810-1 (UL508)			
PBHx4	A (NO)	6A, 415VAC, cosφ=1, 105°C	50x10^3

Mechanical endurance, DC coil 2x10^6 operations

Max. DC load breaking capacity



Electrical endurance



Coil Data

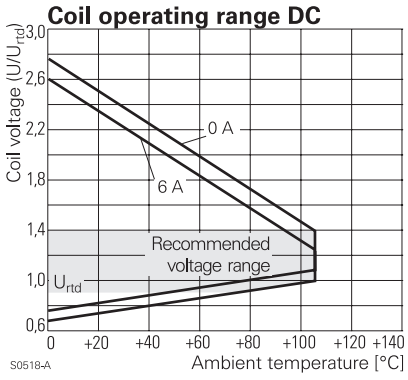
Coil voltage range	5 to 36 VDC
Operative voltage range, % of rated coil voltage	90 to 100 %

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	3.75	0.5	70	357
006	6	4.50	0.6	100	360
009	9	6.75	0.9	225	360
012	12	9.00	1.2	400	360
018	18	13.50	1.8	900	360
022	22	16.50	2.2	1344	360
024	24	18.00	2.4	1600	360
048	48	36.00	4.8	6400	360

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

Coil operating range DC



Insulation Data

Initial dielectric strength	
between open contacts	1000V$_{rms}$
between contact and coil	2500V$_{rms}$
Clearance/creepage	
between contact and coil	
form C (CO) version	≥3/4mm
form A (NO)	≥4/5mm
Material group of insulation parts	IIIa
Tracking index of relay base	PTI250

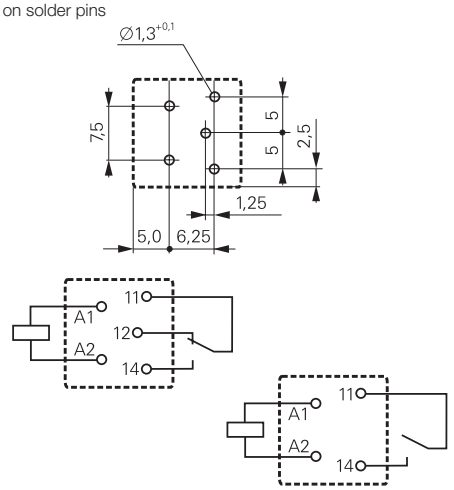
Miniature Power PCB Relay PBH 105°C (Continued)

Other Data

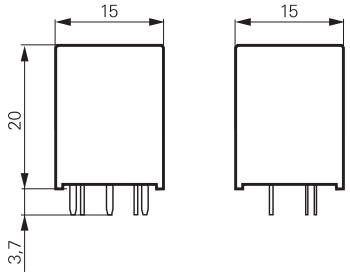
Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customersupport/rohssupportcenter	
Resistance to heat and fire	according EN60335, par.30
Ambient temperature, DC coil	-20 to +105°C
Category of environmental protection IEC 61810	RTII - flux proof
Vibration resistance (functional) form A/form B, 30 to 400Hz	>10/4g
Shock resistance (destructive)	>100g
Terminal type	PCB-THT
Weight	5.4g
Resistance to soldering heat THT IEC 60068-2-20	270°C/10s
Packaging/unit	tube/35 pcs., box/1050 pcs.

PCB layout[1] / terminal assignment

Bottom view on solder pins



Dimensions



[1] Layout note:
No openings (e.g. holes, slots, cutouts, unused pins, open through connexions, etc.) allowed under the relay base. The relay base must be fully covered by the PCB, recommended minimum distance between the relay and the edge of the printed circuit board is 5 mm.
For more information, please contact our application support.

Product code structure

Typical product code: **PB H 1 4 012**

Type
PB Miniature Power PCB Relay PB 105°C

Version
H High temperature version

Contact configuration
1 1 form C contact (1 CO) **3** 1 form A contact (1 NO)

Contact material
4 AgNi 90/10

Coil
Coil code: please refer to coil versions table

Other types on request.

Product code	Version	Contacts	Contact material	Coil	Part number
PBH14005	High temperature version	1 form C 1 CO contact	AgNi 90/10	5VDC	9-1415356-1
PBH14006				6VDC	8-1415356-1
PBH14009				9VDC	7-1415356-1
PBH14012				12VDC	6-1415356-1
PBH14018				18VDC	6-1415357-1
PBH14022				22VDC	7-1415357-1
PBH14024				24VDC	6-1415355-1
PBH14036				36VDC	9-1415355-1
PBH34005		1 form A 1 NO contact		5VDC	5-1415356-1
PBH34006				6VDC	4-1415356-1
PBH34009				9VDC	3-1415356-1
PBH34012				12VDC	2-1415356-1
PBH34018				18VDC	8-1415357-1
PBH34022				22VDC	9-1415357-1
PBH34024				24VDC	1-1415356-1
PBH34036				36VDC	1415356-1

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TE Connectivity:

9-1415356-1