

Power PCB Relay RPII/1

- 1 pole 8/12/16A, 1 form C (CO) or 1 form A (NO) contact
- 4kV/8mm coil-contact
- Pinning 3.5 or 5mm (8/12A) and 5mm (16A)
- RoHS compliant (Directive 2011/65/EC)

Typical applications

Power supplies, domestic appliances, heating control, installation



F0146-B

Approvals

VDE Cert. No. 40025448, UL E214025

Technical data of approved types on request

Contact Data	8A	12A	16A
Contact arrangement	1 form C (CO) or 1 form A (NO)		
Rated voltage	250VAC		
Max. switching voltage	400VAC		
Rated current	8A	12A	16A
Limiting making current	16A	20A	25A
Breaking capacity max.	2000VA	3000VA	4000VA
Contact material	AgNi0.15	AgNi 90/10	AgNi 90/10
Frequency of operation, with/without load	600/36000h ⁻¹		
Operate/release time typ.	8/2ms		
Bounce time typ., form A/form B	2/4ms		

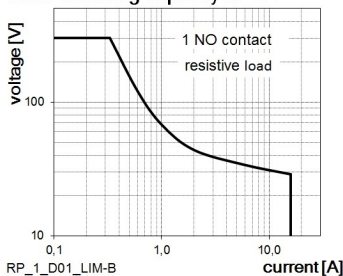
Contact ratings

Type	Contact	Load	Cycles
IEC61810			
RP314/RP714	A (NO)	16A, 250 VAC, resistive, 35°C	100x10 ³
RP314 DC-coil	A (NO)	6A, 250 VAC, cosφ = 0,4, 35°C	250x10 ³
RP414 DC-coil	A (NO)	12A, 250 VAC, resistive, 70°C	100x10 ³
RP414 REM	A (NO)	12A, 250 VAC, resistive, 35°C	100x10 ³
RP41N/RP814	C (CO)	12A, 250 VAC, resistive, 35°C	10x10 ³
RP411/RP412	A (NO)	8A, 250 VAC, resistive, 35°C	100x10 ³
RP411/RP412	C (CO)	8A, 250 VAC, resistive, 35°C	10x10 ³
UL508			
RP411/RP412	C(CO)	8A, 250VAC, general purpose, 40°C	6x10 ³
RP314/RP714	C(CO)	16A, 250VAC, general purpose, 40°C	6x10 ³
RP314/RP714	C(CO)	250VAC, 1.5HP, 40°C	6x10 ³
RP*14/RP*1N	C(CO)	12A, 250VAC, general purpose, 70°C	6x10 ³
RP**4/RP**N	A(NO)	10A, 250VAC, resistive, 70°C	100x10 ³

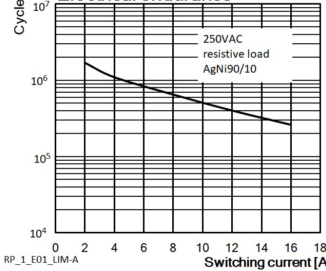
Mechanical endurance

DC-coil version:	>20x10 ⁶ operations
REM/bistable version:	>1x10 ⁶ operations

Max. breaking capacity RPII/1



Electrical endurance



Coil Data

Coil voltage range	5 to 110VDC
Operative range, IEC 61810	2

Coil versions, DC coil

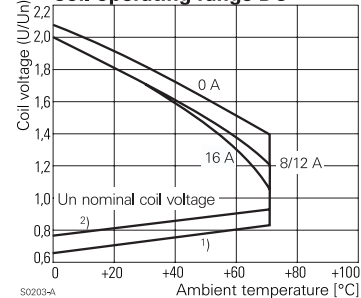
Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω±10%	Rated power mW
005	5	3.5	0.5	54	500
006	6	4.2	0.6	68	500
012	12	8.4	1.2	270	500
024	24	16.8	2.4	1100 ¹⁾	500
048	48	33.6	4.8	4400 ¹⁾	500
060	60	42.0	6.0	6540 ¹⁾	500
110	110	77.0	11.0	23100 ¹⁾	500

1) Coil resistance ±15%.

All figures are given for coil without pre-energization, at ambient temperature +20°C.

Other coil voltages on request.

Coil operating range DC



Coil versions, REM I (1 coil bistable/remanence)

Coil code	Rated voltage VDC	Resistance Ω±15%	Magnetisation range MIN./ Vdc MAX./Vdc	Demagnetisation range MIN./ Vdc MAX./Vdc
A12	12	115	9 18	3 4.8
A24	24	460	18 36	6 9.6
A48	48	1748	36 72	12 19.2

Coil versions, REM II (2 coil bistable/remanence)

Coil code	Rated voltage VDC	Resistance Ω±15%	Magnetisation range MIN./ Vdc MAX./Vdc	Demagnetisation range MIN./ Vdc MAX./Vdc
F05	5	20	3.7 7.5	3.7 6
F12	12	105	9 18	9 14.4
F24	24	460	18 36	18 28.8

All figures are given for coil without pre-energization, at ambient temperature +20°C. Other coil voltages on request.

Power PCB Relay RP11/1 (Continued)

Insulation Data

Initial dielectric strength	
between open contacts	1000V _{rms}
between contact and coil	4000V _{rms}
Clearance/creepage	
between contact and coil	≥8/8mm
Material group of insulation parts	IIIa

Other Data

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customer-support/rohssupportcenter

Ambient temperature -40 to +70°C
Category of environmental protection IEC 61810 RTII - flux proof, RTIII - wash tight

Vibration resistance (functional), form A/form B, 30 to 300Hz 10/2g
Shock resistance (destructive) 100g

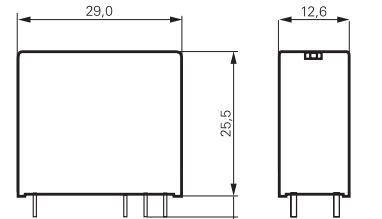
Terminal type PCB-THT
Weight 18g

Resistance to soldering heat THT, IEC 60068-2-20
 flux proof version 270°C/10s
 wash tight version 260°C/5s

Packaging/unit tube/20 pcs., box/500 pcs.

Dimensions

Dimensions in mm

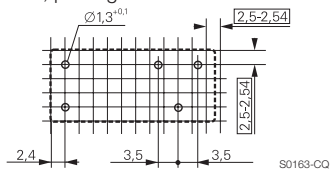


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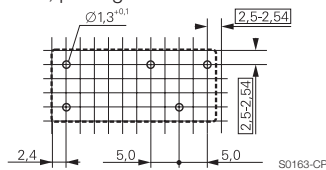
Bottom view on solder pins
Dimensions in mm

PCB layout / terminal assignment

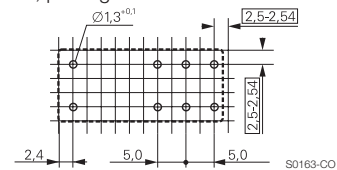
8/12A, pinning 3.5 mm



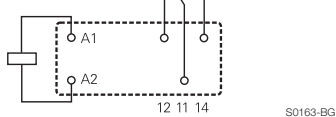
8/12A, pinning 5 mm



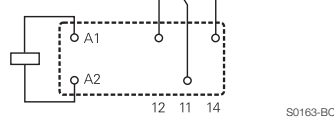
16A, pinning 5 mm



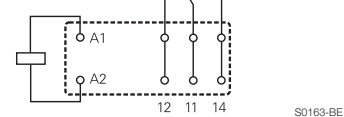
1 form C (1 CO)



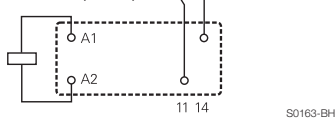
1 form C (1 CO)



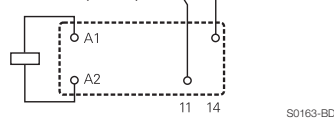
1 form C (1 CO)



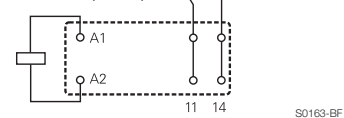
1 form A (1 NO)



1 form A (1 NO)



1 form A (1 NO)



Product code structure

Typical product code **RP 3 1 4 024**

Type

RP Power PCB Relay RP11/1

Version

3 16A, flux proof **7** 16A, wash tight
4 8/12A, flux proof **8** 8/12A, wash tight

Contact arrangement

1 1 form C contact (1 CO) **3** 1 form A contact (1 NO) **5** 1 form B contact (1 NC)

Contact material and pinning

1 AgNi0.15, 8A, pinning 5mm **0** AgCdO, 12A, pinning 3.5mm²⁾ **4** AgNi 90/10, pinning 5mm
2 AgNi0.15, 8A, pinning 3.5mm **8** AgCdO, 12A, pinning 3.5mm²⁾ **N** AgNi 90/10, pinning 3.5mm

Coil

Coil code: please refer to coil versions table

2) AgCdO contacts are discontinued and replaced with AgNi contacts (see PCN E-18-003947)

Power PCB Relay RP11/1 (Continued)

Product Code	Version	Contacts	Cont. Material	Pinning	Coil Version	Coil	Part Number
RP314005	16A, flux proof	1 form C (CO) contact	AgNi 90/10	5 mm	monostable	5VDC	8-1415546-4
RP314006						6VDC	8-1415546-5
RP314010						10VDC	8-1415546-6
RP314012						12VDC	8-1415546-7
RP314024						24VDC	8-1415546-8
RP314048						48VDC	8-1415546-9
RP314110						110VDC	9-1415546-0
RP314F12					REM II	12VDC	8-1415546-1
RP314F24						24VDC	8-1415546-2
RP334012		1 form A (NO) contact			monostable	12VDC	9-1415546-1
RP334024						24VDC	9-1415546-2
RP334048						48VDC	9-1415546-4
RP354012		1 form B (NC) contact				12VDC	9-1415546-5
RP411012	8A, flux proof	1 form C (CO) contact	AgNi0.15			12VDC	9-1393230-4
RP411024						24VDC	9-1393230-5
RP411048						48VDC	9-1393230-6
RP411060						60VDC	9-1393230-7
RP411110						110VDC	9-1393230-8
RP431012		1 form A (NO) contact				12VDC	4-1393231-5
RP412012		1 form C (CO) contact		3,5 mm		12VDC	1-1393231-1
RP412024						24VDC	1-1393231-2
RP412F12					REM II	24VDC	1393231-6
RP414012	12A, flux proof	1 form C (CO) contact	AgNi 90/10	5 mm	monostable	12VDC	1415546-4
RP414024						24VDC	1415546-5
RP414A24					REM I	24VDC	9-1415546-6
RP414F24					REM II	24VDC	9-1415546-7
RP41N024				3,5 mm	monostable	24VDC	1-1415547-7
RP434024		1 form A (NO) contact		5 mm		24VDC	9-1415546-3
RP714006	16A, wash tight	1 form C (CO) contact				6VDC	9-1415546-8
RP714012						12VDC	9-1415546-9
RP714024						24VDC	1415547-1
RP714048						48VDC	1415547-2
RP734012		1 form A (NO) contact				12VDC	1415547-6
RP734020						20VDC	1415547-7
RP734024						24VDC	1415547-8
RP734036						36VDC	1415547-9
RP734A12					REM I	12VDC	1415547-3
RP814012	12A, wash tight	1 form C (CO) contact			monostable	12VDC	1-1415547-0
RP814024						24VDC	1-1415547-1
RP814048						48VDC	1-1415547-2

Note. This list represents the most common types and does not show all variants covered by this datasheet. Other types on request.