

Power PCB Relay RP II/1

1 pole 8 / 12 / 16 A



F0146-B

Features

- 1 C/O or 1 N/O contact
- 4 kV / 8 mm coil-contact
- Pinning 3.5 or 5 mm (8 / 12 A) and 5 mm (16 A)
- PCB-sockets
- Versions with Ag, or AgNi 0.15 contact material: RoHS compliant (Directive 2002 / 95 / EC) as per product date code 0404

Applications

Power supplies, domestic appliances, heating control, installation



Technical data of approved types on request

Contact data

Configuration	1 C/O contact or 1 N/O contact		
Type of contact	single contact		
Rated current	8 A	12 A	16 A
Rated voltage / max. breaking voltage AC	250 Vac / 440 Vac		
Maximum breaking capacity AC	2000 VA	3000 VA	4000 VA
Make current	16 A	20 A	25 A
Contact material	AgNi 0.15	AgCdO	AgCdO

Contact ratings

Type	Load	Operations	Standard
RP410	12 A, 250 Vac, $\cos\phi=1$, 1200/h, 40% duty cycle	1.1×10^5	AC 1
RP410	9.1 A, 220 Vac, $\cos\phi=1$, 360/h, 15% duty cycle	2×10^5	AC 1
RP418	3.4 A ON, 0.42 A OFF, 220 Vac, $\cos\phi=0.6$	$> 1.1 \times 10^6$	
RP411	8 A, 250 Vac, $\cos\phi=1$, 50% duty cycle	10^5	AC 1
RP412	8 A, 250 Vac, $\cos\phi=1$, 50% duty cycle	10^5	AC 1
RP330	18.2 A, 250 Vac, $\cos\phi=1$, 600/h, 15% duty cycle	1.1×10^5	AC 1
RP330	96 A ON, 16 A OFF, 250 Vac, $\cos\phi=0.6$, 450/h	$> 3 \times 10^4$	VDE 0630

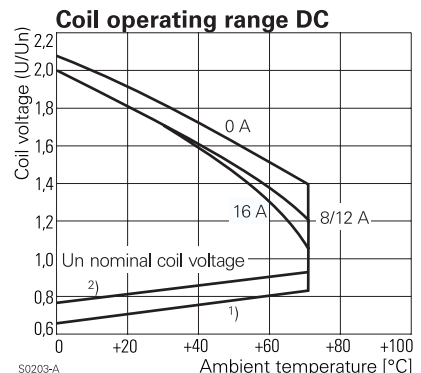
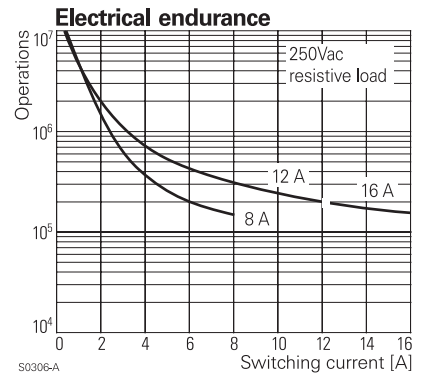
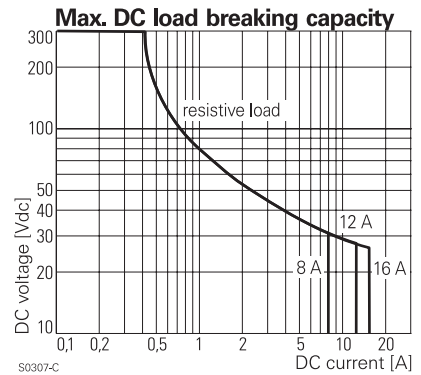
Coil data

Nominal voltage	5...110 Vdc
Nominal coil power	500 mW
Operate category	2 / b

Coil versions, DC-coil

Coil code	Nominal voltage Vdc	Pull-in voltage Vdc	Release voltage Vdc	Maximum voltage Vdc	Coil resistance Ω	Coil current mA
005	5	3.5	0.5	9.0	$54 \pm 10\%$	92.6
006	6	4.2	0.6	10.8	$68 \pm 10\%$	88.2
012	12	8.4	1.2	21.6	$270 \pm 10\%$	44.4
024	24	16.8	2.4	43.2	$1100 \pm 15\%$	21.8
048	48	33.6	4.8	86.4	$4400 \pm 15\%$	10.9
060	60	42.0	6.0	108.0	$6540 \pm 15\%$	9.2
110	110	77.0	11.0	198.0	$23100 \pm 15\%$	4.8

All figures are given for coil without preenergization, at ambient temperature +20°C
Other coil voltages on request



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Insulation

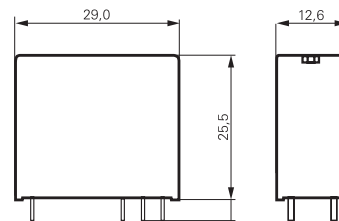
Dielectric strength	coil-contacts	4000 V _{rms}
	open contact circuit	1000 V _{rms}
Clearance / creepage		8 / 8 mm
Insulation to IEC 60664		
Voltage rating		250 V
Pollution degree		3
Overvoltage category		III
Insulation to VDE 0110b (2/79)		
Insulation category / reference voltage		C / 250

Other data

RoHS - Directive 2002 / 95 / EC	
versions with Ag, or AgNi 0.15 contacts:	compliant as per product date code 0404
Ambient temperature	-40...+70 °C
Mechanical life	30x10 ⁶ operations
Max. switching rate at rated- / minimum load	10 min ⁻¹ / 1200 min ⁻¹
Operate- / release time	typ. 8 / 2 ms
Bounce time N/O contact/N/C contact	typ. 2 / 4 ms
Vibration resistance N/O contact/N/C contact	>10 / 2 g, 30...300 Hz
Shock resistance (destruction)	100 g
Category of protection (IEC 61810)	RT II - flux proof, RT III - wash tight
Relay weight	18 g
Packaging unit	20 / 500 pcs.
Accessories	see accessories RT and RT

Dimensions

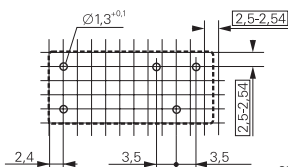
Dimensions in mm



S0273-AA

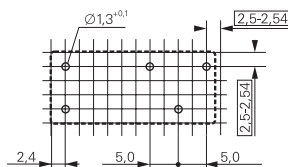
PCB layout / terminal assignment

8 / 12 A, pinning 3.5 mm



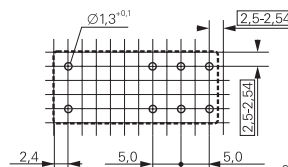
S0163-CQ

8 / 12 A, pinning 5 mm



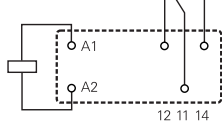
S0163-CP

16 A, pinning 5 mm



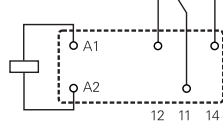
S0163-CO

1 C/O



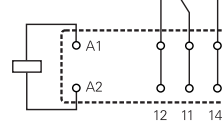
S0163-BG

1 C/O



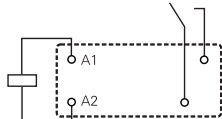
S0163-BC

1 C/O



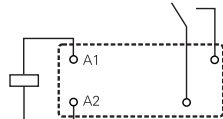
S0163-BE

1 N/O



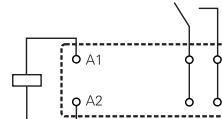
S0163-BH

1 N/O



S0163-BD

1 N/O



S0163-BF

Bottom view on solder pins

Dimensions in mm

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Product key



Type

Version

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

Contacts

1 1 C/O contact **3** 1 N/O contact

Contact material

0 AgCdO, 16 A or 12 A, pinning 5 mm **2 AgNi 0.15, 8 A, pinning 3.5 mm**
1 AgNi 0.15, 8 A, pinning 5 mm **8 AgCdO, 12 A, pinning 3.5 mm**

Coil

Coil code: please refer to coil versions table

Preferred types in bold print

Product key	Version	Contacts	Contact material	Coil	Part number
RP310005	16 A	1 C/O contact	AgCdO	5 Vdc	2-1393230-5
RP310012	flux proof		pinning 5mm	12 Vdc	2-1393230-9
RP310024				24 Vdc	3-1393230-2
RP310048				48 Vdc	3-1393230-3
RP330005		1 N/O contact		5 Vdc	4-1393230-5
RP330012				12 Vdc	4-1393230-7
RP330024				24 Vdc	4-1393230-9
RP330048				48 Vdc	5-1393230-1
RP410012	12 A	1 C/O contact	AgCdO	12 Vdc	8-1393230-1
RP410024	flux proof		pinning 5mm	24 Vdc	8-1393230-2
RP411012	8 A		AgNi 0.15	12 Vdc	9-1393230-4
RP411024	flux proof		pinning 5mm	24 Vdc	9-1393230-5
RP412012			AgNi 0.15	12 Vdc	1-1393231-1
RP412024			pinning 3.5mm	24 Vdc	1-1393231-2
RP418012	12 A		AgCdO	12 Vdc	2-1393231-5
RP418024	flux proof		pinning 3.5mm	24 Vdc	2-1393231-8
RP438012		1 N/O contact		12 Vdc	5-1393231-0
RP438024				24 Vdc	5-1393231-2
RP710005	16 A	1 C/O contact	AgCdO	5 Vdc	7-1393231-0
RP710012	wash tight		pinning 5mm	12 Vdc	7-1393231-2
RP710024				24 Vdc	7-1393231-5
RP710048				48 Vdc	7-1393231-6
RP730012		1 N/O contact		12 Vdc	8-1393231-2
RP730024				24 Vdc	8-1393231-4
RP812012	8 A	1 C/O contact	AgNi 0.15	12 Vdc	0-1393232-8
RP812024	wash tight		pinning 3.5mm	24 Vdc	0-1393232-9
RP818012	12 A		AgCdO	12 Vdc	1-1393232-7
RP818024	wash tight		pinning 3.5mm	24 Vdc	1-1393232-9
RP838012		1 N/O contact		12 Vdc	2-1393232-6
RP838024				24 Vdc	2-1393232-8