

Power PCB Relay RT1 Inrush

1 pole 16 A, for inrush peak currents up to 80 A



Features

- 1 N/O contact
- Sensitive coil 400 mW
- 5 kV / 10 mm coil-contact
- Protection class II
- Ambient temperature 85°C
- Height 15.7 mm
- Sockets with PCB-type or screw-type terminals
- RoHS compliant (Directive 2002 / 95 / EC) as per product date code 0413

Applications

Domestic appliances, heating control, lighting control

F0177-B



Technical data of approved types on request

Contact data

Configuration	1 N/O contact
Type of contact	single contact
Rated current	16 A
Rated voltage / max. breaking voltage AC	250 Vac / 440 Vac
Maximum breaking capacity AC	4000 VA
Make current (max. 4 s at duty cycle 10%)	30 A
peak inrush current (20 ms)	80 A
Contact material	AgNi 90/10, AgSnO ₂

Contact ratings

Type	Load	Operations
RT33K	1000 W, 250 Vac, incandescent lamps	typ. 9x10 ⁴
RT33K	16 A, 240 Vac; UL 508	3x10 ⁴
RT33L	1000 W, 250 Vac, incandescent lamps	typ. 8x10 ⁴
RT33L	compressor, 230 Vac, I _{in} ≤ 21 A _{peak} , I _{off} = 3.5 A, cosφ = 0.5	typ. 2.3x10 ⁵
RT33L	16 A, 240 Vac; UL 508	5x10 ⁴
RT33	20 A, 250 Vac; UL 508	6x10 ³

Coil data

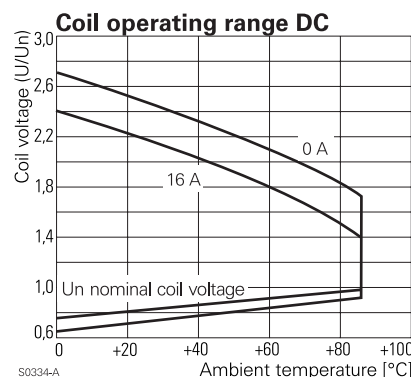
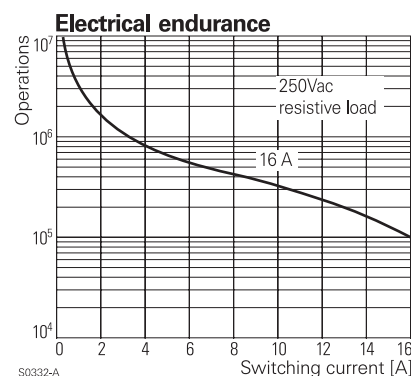
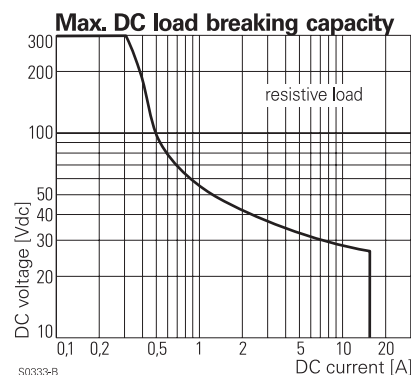
Nominal voltage	5...110 Vdc
Nominal coil power	400 mW
Operate category	2 / b

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
012	12	8.4	1.2	30.6	360 ± 10%	33.3
024	24	16.8	2.4	61.2	1440 ± 10%	16.7
048	48	33.6	4.8	122.4	5520 ± 10%	8.7
060	60	42.0	6.0	153.0	7340 ± 12%	8.1

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

Other coil voltages on request



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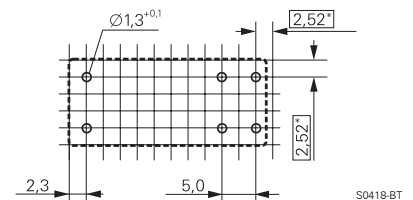
Insulation		
Dielectric strength	coil-contacts	5000 V _{rms}
	open contact circuit	1000 V _{rms}
Clearance / creepage		10 / 10 mm
Insulation to IEC 60664		
Voltage rating		250 V
Pollution degree		3
Overvoltage category		III
Insulation to VDE 0110b (2/79)		
Insulation category / reference voltage		C / 250

Other data		
RoHS - Directive 2002 / 95 / EC	compliant as per product date code 0413	
Flammability class according to UL 94	V-0	
Coil insulation system according to UL 1446	Class F	
Ambient temperature	-40...+85 °C	
Mechanical life	30x10 ⁶ operations	
Max. switching rate at rated- / minimum load	6 min ⁻¹ / 1200 min ⁻¹	
Operate- / release time	typ. 8 / 3 ms	
Bounce time	typ. 2 ms	
Vibration resistance	20 g, 30...500 Hz	
Shock resistance (destruction)	100 g	
Category of protection (IEC 61810)	RT II - flux proof	
Relay weight	14 g	
Packaging unit	20 / 500 pcs.	
Accessories	see accessories RT	

PCB layout / terminal assignment

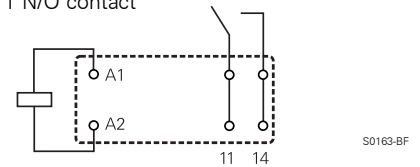
Bottom view on solder pins
Dimensions in mm

16 A, pinning 5 mm



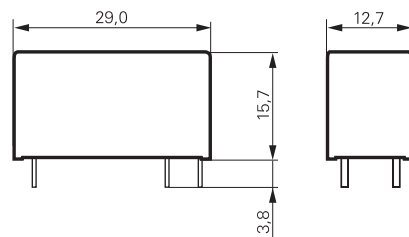
*) With the recommended PCB hole sizes a grid pattern from 2.5 mm to 2.54 mm can be used.

1 N/O contact



Dimensions

Dimensions in mm



Product key

Type

Version

3 16 A, pinning 5 mm, flux proof

Contacts

3 1 N/O contact

Contact material

K AgNi 90/10

L AgSnO₂

Coil

Coil code: please refer to coil versions table, preferred types in bold print



Product key	Version	Contacts	Contact material	Coil	Part number
RT33K012	16 A	1 N/O contact	AgNi 90/10	12 Vdc	2-1393240-3
RT33K024	pinning 5 mm			24 Vdc	2-1393240-4
RT33K048	flux proof			48 Vdc	2-1393240-5
RT33L012			AgSnO	12 Vdc	3-1393240-3
RT33L024				24 Vdc	3-1393240-5
RT33L048				48 Vdc	3-1393240-6