

Power Relay RF

- 1 pole 16 A, 1 NO or 1 NC contact
- Switching capacity 4000 VA
- Coil power 400 mW
- Reinforced insulation (EN 61810, 60335, 60730)
- Ambient temperature up to 105°C
- Quick connect terminals for load side
- WG version: Materials in accordance to IEC 60335-1

Applications

Oven control, electric heating, power supplies, air conditioning, microwares, hobs



F0273-BI

Approvals

VDE REG.-Nr. A652, cULus E214025
Technical data of approved types on request

Contact data

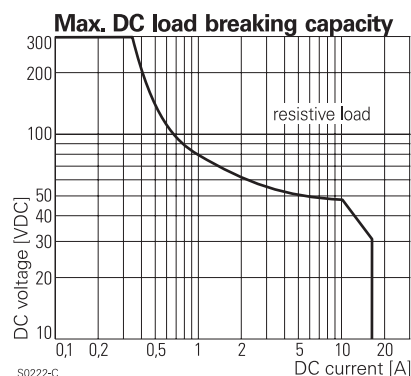
Contact configuration	1NO or 1NC
Contact set	single contact
Type of interruption	micro disconnection
Rated voltage / max. switching voltage AC	250 / 400 VAC
Rated current	16 A
Maximum breaking capacity AC	4000 VA
Limiting making capacity, max 4 s, duty factor 10%	25 A
Contact material	AgNi90/10
Minimum contact load	12VAC / 500mA
Rated frequency of operation with / without load	6 / 1200 min ⁻¹
Operate- / release time	max. 11 / 7 ms
Bounce time NO / NC contact	max. 4 / 4 ms

Contact ratings

Type	Contact	Load	Ambient temp. [°C]	Cycles
IEC 61810				
RF334; RFH34	NO	16 A, 250 VAC, cosφ=1	85°C	100x10 ³
RF334; RFH34	NO	11 A, 250 VAC, cosφ=1	85°C	250x10 ³
RF334; RFH34	NO	20 A, 250 VAC, cosφ=1	85°C	25x10 ³
RF334; RFH34	NO	25 A, 250 VAC, cosφ=1	70°C	15x10 ³
RF354; RFH54	NC	16 A, 250 VAC, cosφ=1	85°C	100x10 ³
RF354; RFH54	NC	20 A, 250 VAC, cosφ=1	85°C	50x10 ³
RF354; RFH54	NC	25 A, 250 VAC, cosφ=1	70°C	20x10 ³
RFH34	NO	16 A, 250 VAC, cosφ=1	105°C	100x10 ³
RFH34	NO	11 A, 250 VAC, cosφ=1	105°C	250x10 ³
RFH34	NO	18.5 A, 250 VAC, cosφ=1	105°C	20x10 ³
RFH34	NO	10 A, 400 VAC, cosφ=1	105°C	150x10 ³

Coil data

Rated coil voltage DC coil	5...60 VDC
Operative range to IEC 61810	2
Coil insulation system according UL1446	Class F



Power Relay RF (Continued)

Coil versions, DC-coil

Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ohm	Rated coil power mW
005	5	3.5	0.5	62 ± 10%	403
006	6	4.2	0.6	90 ± 10%	400
009	9	6.3	0.9	203 ± 10%	399
012	12	8.4	1.2	360 ± 10%	400
024	24	16.8	2.4	1440 ± 10%	400
048	48	33.6	4.8	5520 ± 10%	417
060	60	42.0	6.0	8570 ± 10%	420

All figures are given for coil without preenergization, at ambient temperature +23°C
Other coil voltages on request

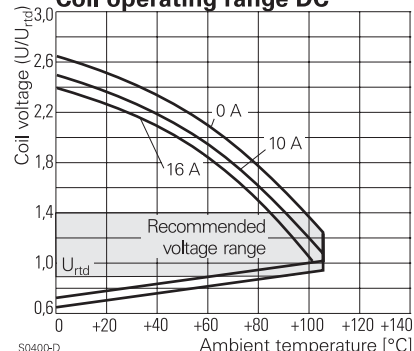
Insulation

Dielectric strength coil-contact circuit	4000 V _{rms}
open contact circuit	1000 V _{rms}
Clearance / creepage coil-contact circuit	≥ 8 / 8 mm
Material group of insulation parts	≥ IIIa
Tracking index of relay base	PTI 250
Insulation to IEC 60664-1	
Type of insulation coil-contact circuit	reinforced
open contact circuit	micro disconnection
Rated insulation voltage	250 V
Pollution degree	3
Rated voltage system	230 / 400 V
Overvoltage category	III

Other data

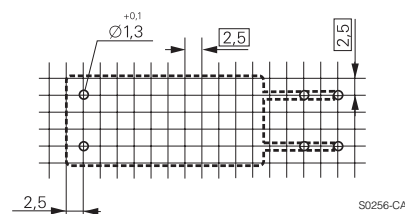
Mechanical endurance	10x10 ⁶ cycles
Material	
RoHS - Directive 2002/95/EC	compliant
Resistance to heat and fire, WG version	according EN60335-1, par.30
Environment	
Ambient temperature range	-40...+105°C
Vibration resistance (function) NO / NC cont. (55...500Hz)	20 / 5 ms
Shock resistance (destruction)	100 g
Category of protection	RTII - flux proof; RTIII - wash tight
Processing	
Mounting	pcb
Resistance to soldering heat flux-proof version	270°C / 10 s
wash-tight version	260°C / 5 s
Relay weight	20 g
Packaging unit	150 / 300 pcs

Coil operating range DC

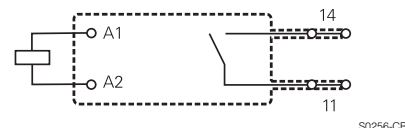


PCB layout / terminal assignment

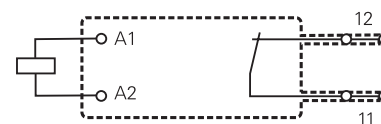
Bottom view on solder pins



1 NO contact

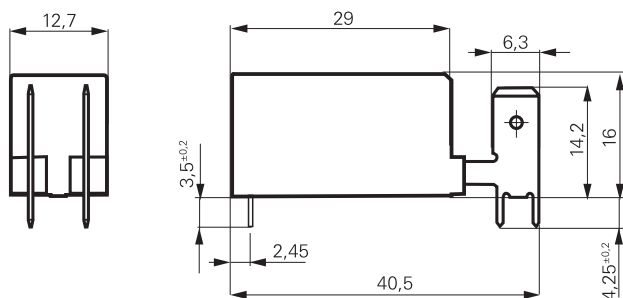


1 NC contact

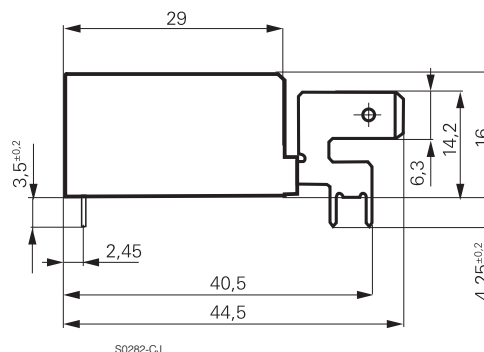


Dimensions

Quick connect terminals vertical



Quick connect terminals horizontal



Power Relay RF (Continued)

Product key	Typical product key					RF	3	3	4	012	WG
Type	RF Power Relay RF										
Version	3 16 A, 85°C H 16 A, 105°C										
Contact configuration	3 1 NO contact (1 form A), quick connect term. vertical 5 1 NC contact (1 form B), quick connect term. vertical D 1 NO contact (1 form A), quick connect term. horizontal F 1 NC contact (1 form B), quick connect term. horizontal										
Contact material	4 AgNi 90/10										
Coil	Coil code: please refer to coil versions table										
Version	Blank Standard version WG Product in accordance with IEC 60335-1 (domestic appliances)										

Wash tight version on request

Product key	Version	Configuration	Cont. material	Coil	Part number
RF334006	16 A	1 NO contact	AgNi 90/10	6 VDC	5-1415513-1
RF334009	85°C	quick connect term.		9 VDC	7-1415513-1
RF334012		vertical		12 VDC	8-1415513-1
RF334024				24 VDC	9-1415513-1
RF354006		1 NC contact		6 VDC	2-1415514-1
RF354009		quick connect term.		9 VDC	3-1415514-1
RF354012		vertical		12 VDC	4-1415514-1
RF354024				24 VDC	5-1415514-1
RFH34006	16 A	1 NO contact		6 VDC	8-1415510-1
RFH34009	105°C	quick connect term.		9 VDC	9-1415510-1
RFH34012		vertical		12 VDC	6-1415510-1
RFH34024				24 VDC	1415511-1
RFH54006		1 NC contact		6 VDC	4-1415511-1
RFH54009		quick connect term.		9 VDC	5-1415511-1
RFH54012		vertical		12 VDC	6-1415511-1
RFH54024				24 VDC	7-1415511-1
RF334006WG	16 A	1 NO contact		6 VDC	5-1415517-1
RF334009WG	85°C	quick connect term.		9 VDC	6-1415517-1
RF334012WG	materials according IEC 60335-1	vertical		12 VDC	7-1415517-1
RF334024WG				24 VDC	8-1415517-1
RF354006WG		1 NC contact		6 VDC	2-1415518-1
RF354012WG		quick connect term.		9 VDC	4-1415518-1
RF354024WG		vertical		12 VDC	5-1415518-1
RF354048WG				24 VDC	6-1415518-1
RFH34006WG	16 A	1 NO contact		6 VDC	3-1415520-1
RFH34009WG	105°C	quick connect term.		9 VDC	4-1415520-1
RFH34012WG	materials according IEC 60335-1	vertical		12 VDC	5-1415520-1
RFH34024WG				24 VDC	6-1415520-1
RFH54006WG		1 NC contact		6 VDC	1415521-1
RFH54009WG		quick connect term.		9 VDC	1-1415521-1
RFH54012WG		vertical		12 VDC	2-1415521-1
RFH54024WG				24 VDC	3-1415521-1