

Relay Module - RIF-1-RPT-LV-120AC/2X21MS - 2909775

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Pre-assembled relay module with push-in connection, consisting of: relay base, relay retaining bracket, plug-in suppressor module, and power contact relay with test button and integrated status LED. Contact type: 2 PDTs. Input voltage: 120 V AC



Key Commercial Data

Packing unit	10 STK
GTIN	
GTIN	4055626380278

Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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Dimensions

Width	16 mm
Height	93 mm
Depth	75 mm

Ambient conditions

Ambient temperature (operation)	-40 °C ... 45 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

Coil side

Nominal input voltage U_N	120 V AC
Input voltage range in reference to U_N	see diagram
Mains frequency	50/60 Hz
Typical input current at U_N	7 mA
Typical response time	4 ms ... 10 ms
Typical release time range	3 ms ... 20 ms

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Coil side

Coil voltage	120 V AC
Protective circuit	Varistor
Operating voltage display	Yellow LED
Power dissipation for nominal condition	0.84 W

Contact side

Contact type	2 PDT
Type of switch contact	Single contact
Contact material	AgNi
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	12 V (at 10 mA)
Min. switching current	10 mA (at 12 V)
Maximum inrush current	16 A (20 ms, N/O contact)
Limiting continuous current	see diagram
Interrupting rating (ohmic load) max.	192 W (at 24 V DC)
	62 W (at 48 V DC)
	42 W (at 60 V DC)
	55 W (at 110 V DC)
	66 W (at 220 V DC)
	2000 VA (for 250 V AC)
Switching capacity min.	120 mW
Switching capacity in acc. with DIN VDE 0660/IEC 60947	1 A (at 24 V, DC13)
	1.5 A (at 230 V, AC15)

Connection data input side

Connection name	Coil side
Connection method	Push-in connection
Stripping length	8 mm
Conductor cross section solid	0.14 mm ² ... 1.5 mm ²
Conductor cross section flexible	0.14 mm ² ... 1.5 mm ²
	0.14 mm ² ... 1.5 mm ² (Ferrule with plastic sleeve)
	0.14 mm ² ... 1 mm ² (Ferrule with plastic sleeve, two conductors on double terminal block)
Conductor cross section AWG	26 ... 16 (solid)
	26 ... 16 (flexible)

Connection data output side

Connection name	Contact side
Connection method	Push-in connection
Stripping length	8 mm
Conductor cross section solid	0.14 mm ² ... 1.5 mm ²
Conductor cross section flexible	0.14 mm ² ... 1.5 mm ²
	0.14 mm ² ... 1.5 mm ² (Ferrule with plastic sleeve)

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Connection data output side

	0.14 mm ² ... 1 mm ² (Ferrule with plastic sleeve, two conductors on double terminal block)
Conductor cross section AWG	26 ... 16 (solid)
	26 ... 16 (flexible)

General

Test voltage relay winding/relay contact	4 kV _{rms} (50 Hz, 1 min.)
Test voltage PDT/PDT	2.5 kV _{rms} (50 Hz, 1 min.)
Operating mode	100% operating factor
Degree of protection	IP20 (Relay base)
	RT II (Relay)
Mechanical service life	approx. 5x 10 ⁶ cycles
Mounting position	any
Assembly instructions	In rows with zero spacing

Standards and Regulations

Standards/regulations	DIN EN 50178
Rated insulation voltage	250 V AC
Rated surge voltage	6 kV
Insulation	safe isolation
Degree of pollution	2
Overvoltage category	III
Flammability rating according to UL 94	V2

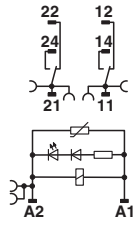
Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

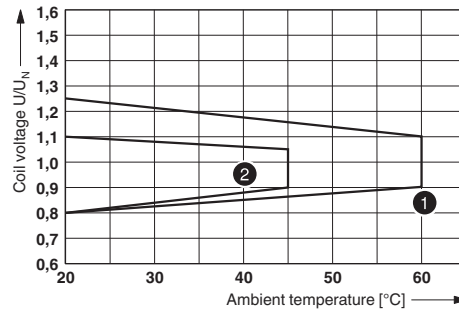
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Circuit diagram



AC coils

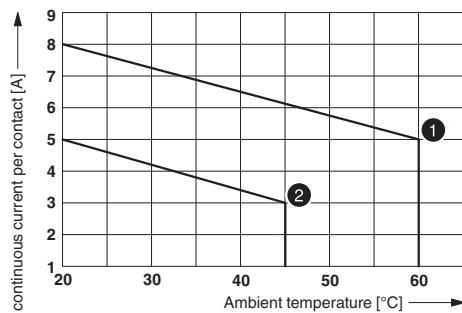
Diagram



- ① DC coils
- ② AC coils

Operating voltage range

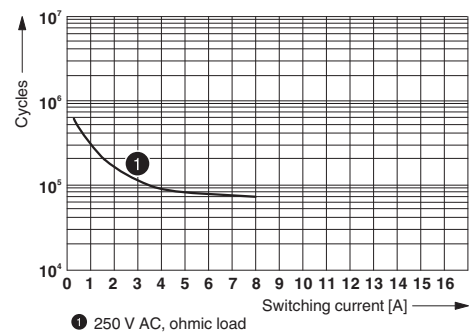
Diagram



- ① DC coil
- ② AC coil

Contact derating

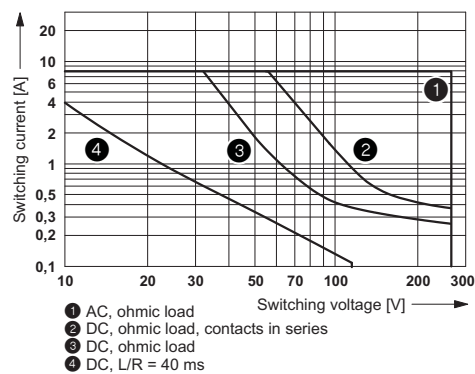
Diagram



- ① 250 V AC, ohmic load

Electrical service life

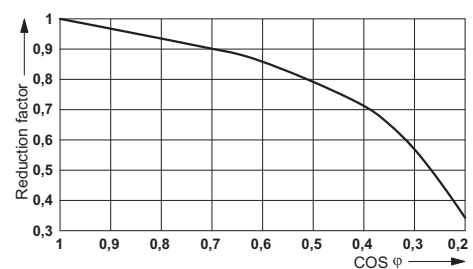
Diagram



- ① AC, ohmic load
- ② DC, ohmic load, contacts in series
- ③ DC, ohmic load
- ④ DC, L/R = 40 ms

Interrupting rating

Diagram



Service life reduction factor

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Articles in set

Relay base - RIF-1-BPT/2X21 - 2900931



RIF-1... relay base, for miniature power relay with 1 or 2 PDTs or solid-state relays of the same design, push-in connection, plug-in option for input/suppressor modules, for mounting on NS 35/7,5

Single relay - REL-MR-120AC/21-21/MS - 2987969



Plug-in miniature relay, with power contact, 2 PDTs, test button, mechanical switch position indicator, status LED, coil voltage 120 V AC

Plug-in module - RIF-V-120-230 UC - 2900948



Plug-in module, for mounting on RIF-1, RIF-2, RIF-3, and RIF-4, with varistor, input voltage: 120 ... 230 V AC/DC $\pm 20\%$

Retaining bracket - RIF-RH-1-H - 2904468



Relay retaining bracket, with ejector function and holder for marking material, suitable for RIF-1 relay base, for 25 mm tall miniature power relay and solid-state relay

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