

# 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 pc
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
Degree of protection	IP20 (Relay base)
	RT II (Relay)

### 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

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## Technical data

### Coil side

Typical response time	4 ms ... 10 ms
Typical release time range	3 ms ... 20 ms
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	1 A (at 24 V, DC13)
	1.5 A (at 230 V, AC15)

### General

Test voltage relay winding/relay contact	4 kV <sub>rms</sub> (50 Hz, 1 min.)
Test voltage PDT/PDT	2.5 kV <sub>rms</sub> (50 Hz, 1 min.)
Operating mode	100% operating factor
Mechanical service life	approx. 5x 10 <sup>6</sup> cycles
Service life, electrical	see diagram
Mounting position	any
Assembly instructions	In rows with zero spacing

### Connection data

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

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## Technical data

### Connection data

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

### Connection data 2

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

### Standards and Regulations

Standards/regulations	DIN EN 50178
Rated insulation voltage	250 V AC
Rated surge voltage	6 kV
Insulation	safe isolation
Pollution degree	2
Overvoltage category	III

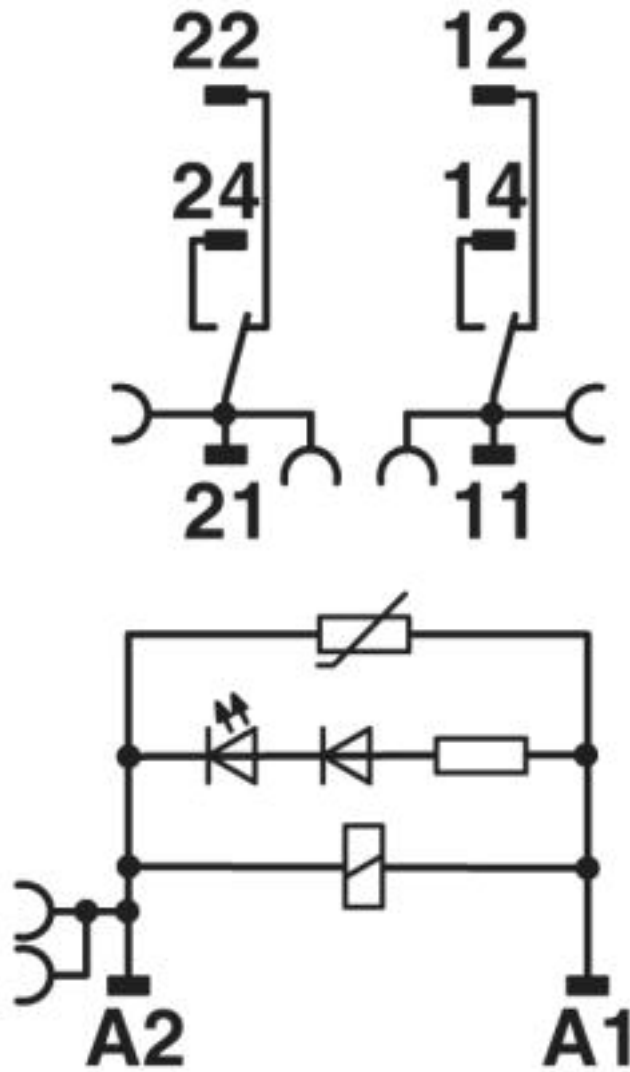
### Environmental Product Compliance

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

## Drawings

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

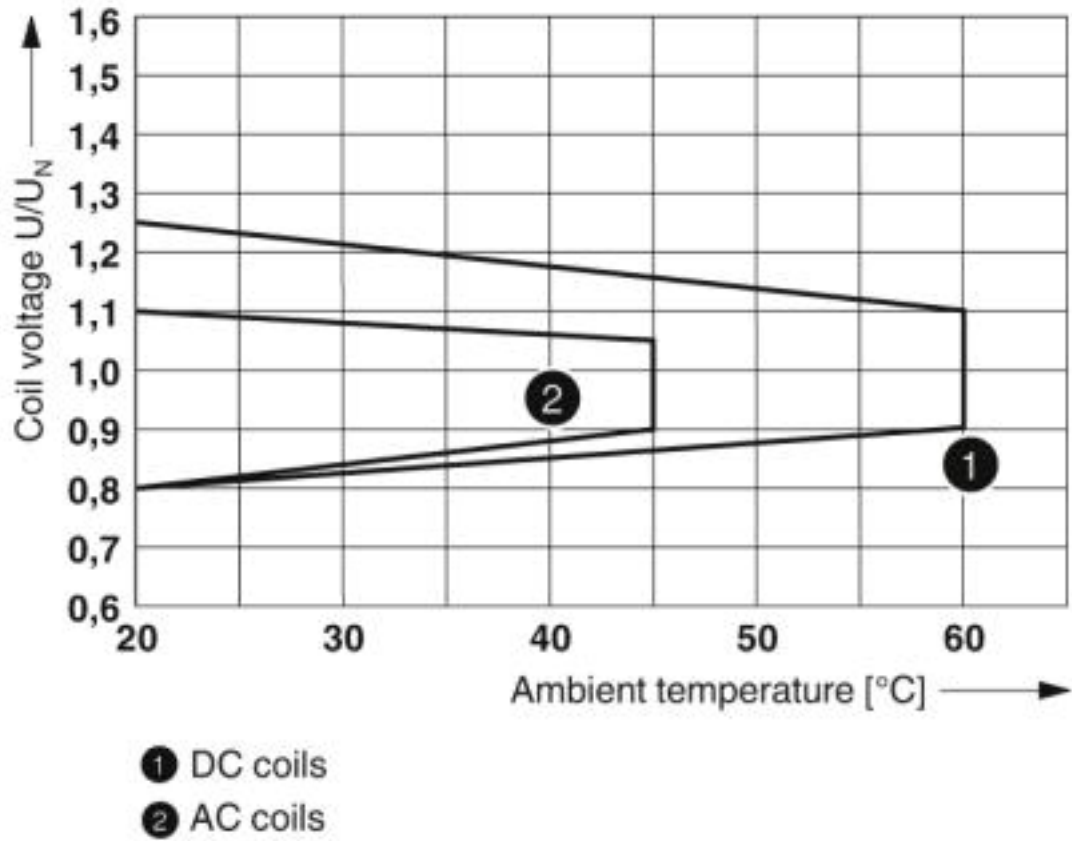
Circuit diagram



AC coils

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

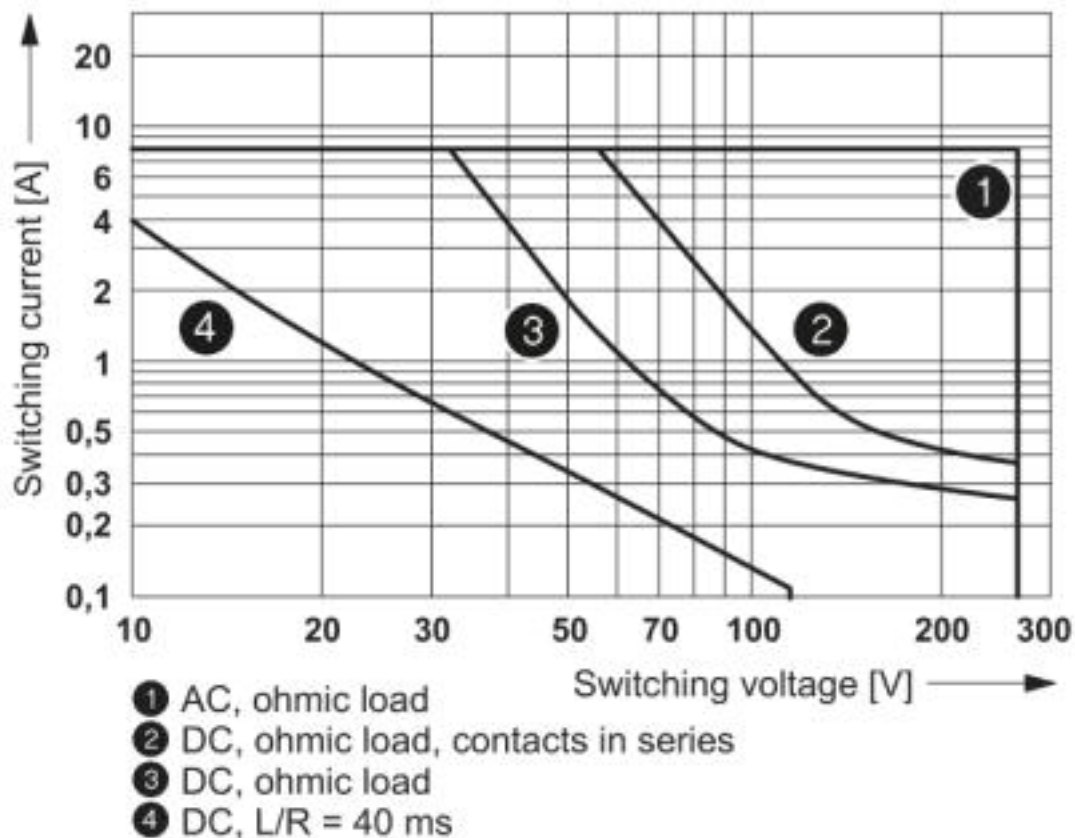
Diagram



Operating voltage range

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

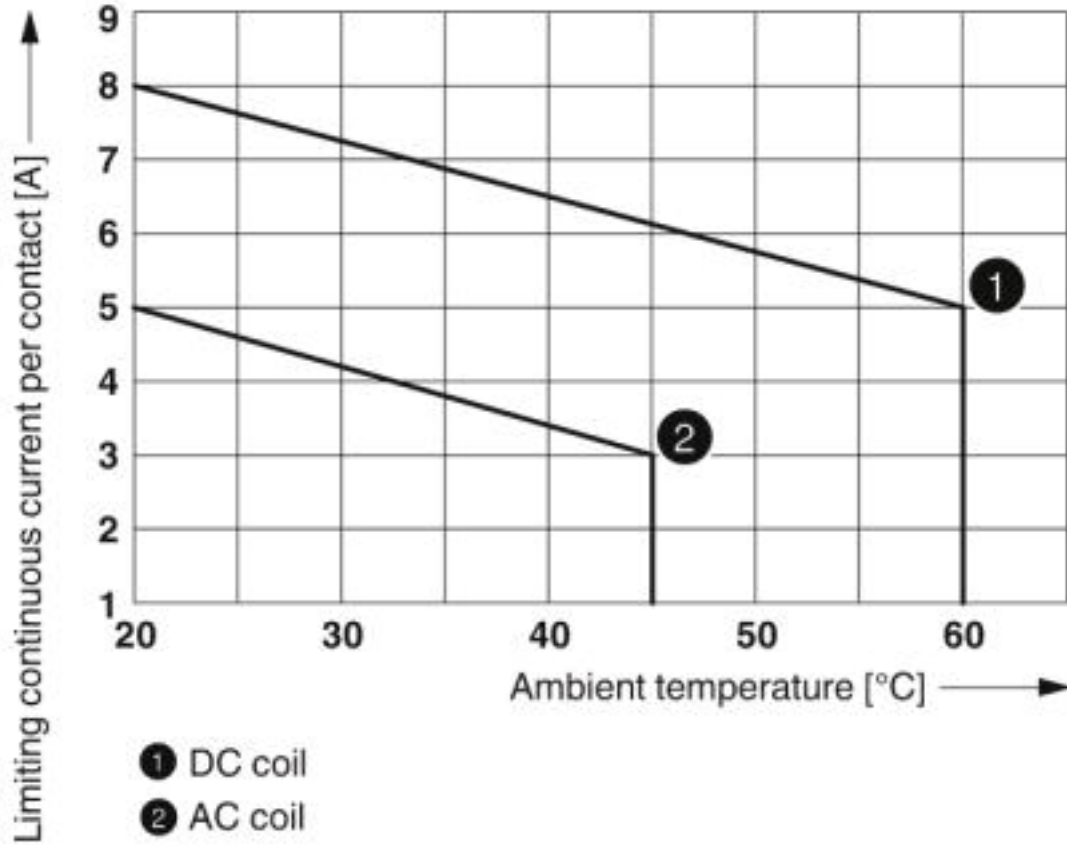
Diagram



Interrupting rating

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

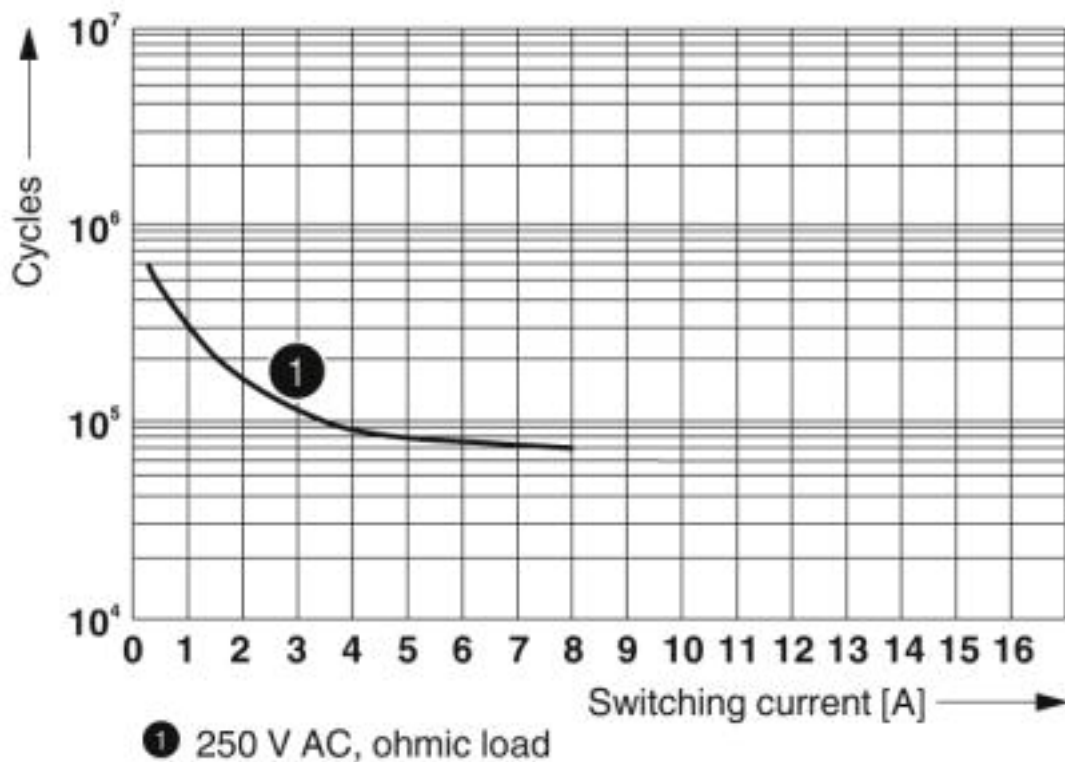
Diagram



Contact derating

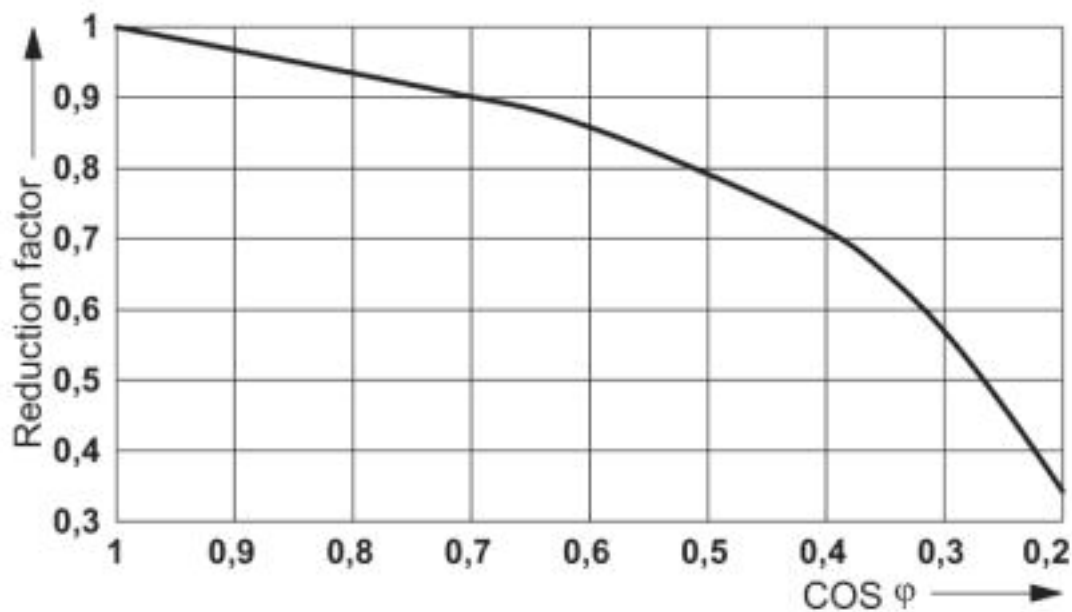
# Relay Module - RIF-1-RPT-LV-120AC/2X21MS - 2909775

Diagram



Electrical service life

Diagram



Service life reduction factor



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

### 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

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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

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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  $\pm 20$  %

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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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## Approvals

### Approvals

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Approvals

DNV GL / EAC / EAC

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Ex Approvals

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### Approval details

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

### Approvals

DNV GL		<a href="https://approvalfinder.dnvgl.com/">https://approvalfinder.dnvgl.com/</a>	TAA000018V
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EAC			TR_TS_D_00573_c
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EAC			TR_TS_S_00010_c
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