

# Relay Module - RIF-2-RSC-LV-120AC/2X21 - 2903322


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Pre-assembled relay module with screw connection, consisting of: relay base, power contact relay, plug-in display/interference suppression module, and retaining bracket. Contact type: 2 changeover contacts. Input voltage: 120 V AC



## Key Commercial Data

Packing unit	10 STK
GTIN	 4 046356 732369
GTIN	4046356732369

## Technical data

### Note

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

Width	27 mm
Height	89 mm
Depth	75 mm

### Ambient conditions

Ambient temperature (operation)	-40 °C ... 50 °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 $U_N$	13 mA
Typical response time	5 ms ... 15 ms
Typical release time range	5 ms ... 20 ms

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## Technical data

### Coil side

Coil voltage	120 V AC
Protective circuit	Varistor
Operating voltage display	Yellow LED

### 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	5 V (At 24 mA)
Min. switching current	5 mA (at 24 V)
Maximum inrush current	30 A (20 ms, N/O contact)
Limiting continuous current	8.5 A (see diagram)
Interrupting rating (ohmic load) max.	204 W (at 24 V DC)
	124 W (at 48 V DC)
	108 W (at 60 V DC)
	52 W (at 110 V DC)
	48 W (at 220 V DC)
	2125 VA (for 250 V AC)
Switching capacity in acc. with DIN VDE 0660/IEC 60947	2 A (at 24 V, DC13)
	0.22 A (at 120 V, DC13)
	0.11 A (at 250 V, DC13)
	3 A (at 120 V, AC15)
	1.5 A (at 240 V, AC15)

### Connection data input side

Connection name	Input side
Connection method	Screw connection
Stripping length	8 mm
Conductor cross section solid	0.5 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross-section solid (2 conductors with same cross section)	0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section flexible	0.5 mm <sup>2</sup> ... 4 mm <sup>2</sup>
	0.5 mm <sup>2</sup> ... 4 mm <sup>2</sup> (Ferrule with plastic sleeve)
Conductor cross section flexible (2 conductors with same cross section)	0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
	0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (TWIN ferrule with plastic sleeve)
Conductor cross section AWG	20 ... 10 (solid)
	20 ... 12 (flexible)
Torque	0.5 Nm ... 0.6 Nm

### Connection data output side

Connection name	Contact side
Connection method	Screw connection

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## Technical data

### Connection data output side

Stripping length	8 mm
Conductor cross section solid	0.5 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross-section solid (2 conductors with same cross section)	0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section flexible	0.5 mm <sup>2</sup> ... 4 mm <sup>2</sup>
	0.5 mm <sup>2</sup> ... 4 mm <sup>2</sup> (Ferrule with plastic sleeve)
Conductor cross section flexible (2 conductors with same cross section)	0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
	0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (TWIN ferrule with plastic sleeve)
Conductor cross section AWG	20 ... 10 (solid)
	20 ... 12 (flexible)
Torque	0.5 Nm ... 0.6 Nm

### General

Test voltage relay winding/relay contact	2.5 kV <sub>rms</sub> (50 Hz, 1 min.)
Test voltage relay contact/relay contact	2.5 kV <sub>rms</sub> (50 Hz, 1 min.)
Operating mode	100% operating factor
Degree of protection	IP20 (Relay base)
	RT I (Relay)
Mechanical service life	approx. 2x 10 <sup>7</sup> 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	4 kV
Insulation	Basic insulation
Degree of pollution	2
Overvoltage category	III
Flammability rating according to UL 94	V2

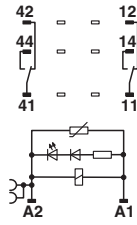
### Environmental Product Compliance

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

## Drawings

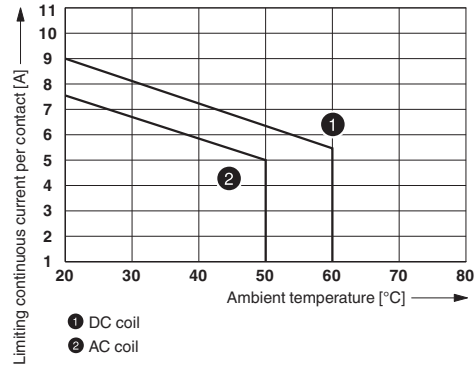
# Relay Module - RIF-2-RSC-LV-120AC/2X21 - 2903322

Circuit diagram



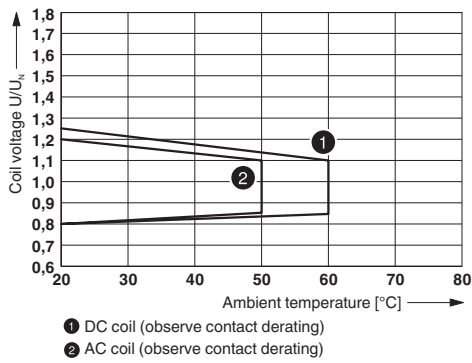
AC coils

Diagram

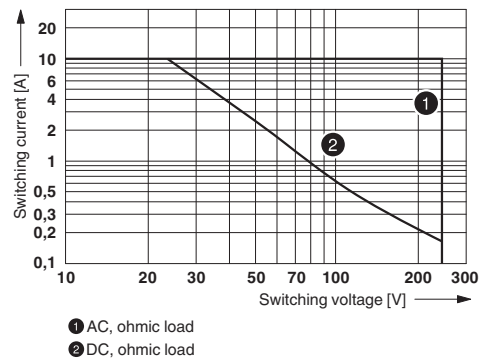


Contact derating

Diagram

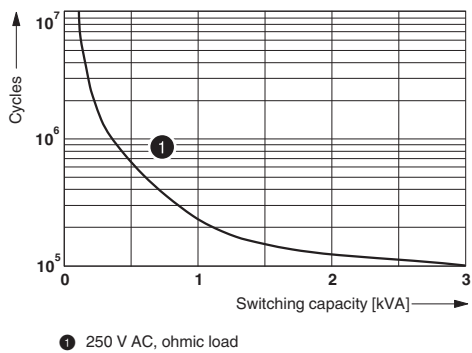


Diagram



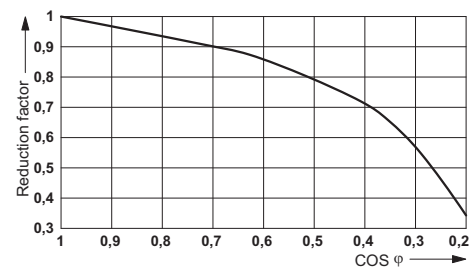
Operating voltage range

Diagram



Interrupting rating

Diagram



Electrical service life

Service life reduction factor

## Relay Module - RIF-2-RSC-LV-120AC/2X21 - 2903322

### Articles in set

Relay base - RIF-2-BSC/4X21 - 2900932



RIF-2... relay base, for industrial relay with 2 or 4 changeover contacts, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

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Single relay - REL-IR2/L-120AC/2X21 - 2903667



Plug-in industrial relay with power contacts, 2 PDTs, test key, status LED, mechanical switch position indicator, input 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-2 - 2900954



Relay retaining bracket, with ejector function and holder for marking material, suitable for RIF-2 relay base, for industrial relay

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## Approvals

### Approvals

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Approvals

DNV GL / CSA / EAC

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Ex Approvals

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### Approval details

## Relay Module - RIF-2-RSC-LV-120AC/2X21 - 2903322

### Approvals

DNV GL		<a href="http://exchange.dnv.com/tari/">http://exchange.dnv.com/tari/</a>	TAA000018V
CSA		<a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a>	2607057
EAC			RU C- DE.A*30.B.01082

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