

# Relay Module - RIF-1-RSC-LV-120AC/2X21 - 2903348

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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

<b>package_quantity</b>	10
<b>GTIN</b>	4046356732802

## Technical data

### Note

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

<b>Width</b>	16 mm
<b>Height</b>	89 mm
<b>Depth</b>	75 mm

### Ambient conditions

<b>Ambient temperature (operation)</b>	-40 °C ... 50 °C
<b>Ambient temperature (storage/transport)</b>	-40 °C ... 85 °C

### Coil side

<b>Nominal input voltage <math>U_N</math></b>	120 V AC
<b>Input voltage range in reference to <math>U_N</math></b>	see diagram
<b>Typical input current at <math>U_N</math></b>	8 mA
<b>Typical response time</b>	3 ms ... 12 ms
<b>Typical release time range</b>	3 ms ... 20 ms
<b>Coil voltage</b>	120 V AC
<b>Protective circuit</b>	Varistor
<b>Operating voltage display</b>	Yellow LED

### Contact side

<b>Contact type</b>	2 PDT
<b>Type of switch contact</b>	Single contact
<b>Contact material</b>	AgNi
<b>Maximum switching voltage</b>	250 V AC/DC

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## Technical data

### Contact side

Minimum switching voltage	5 V (at 10 mA)
Min. switching current	10 mA (At 5 V)
Maximum inrush current	12 A (20 ms, N/O contact)
Limiting continuous current	8 A (see diagram)
Interrupting rating (ohmic load) max.	192 W (at 24 V DC)
Interrupting rating (ohmic load) max.	124 W (at 48 V DC)
Interrupting rating (ohmic load) max.	60 W (at 60 V DC)
Interrupting rating (ohmic load) max.	44 W (at 110 V DC)
Interrupting rating (ohmic load) max.	57 W (at 220 V DC)
Interrupting rating (ohmic load) max.	2000 VA (for 250 V AC)
Switching capacity in acc. with DIN VDE 0660/IEC 60947	2 A (at 24 V, DC13)
Switching capacity in acc. with DIN VDE 0660/IEC 60947	0.2 A (at 250 V, DC13)
Switching capacity in acc. with DIN VDE 0660/IEC 60947	3 A (at 24 V, AC15)
Switching capacity in acc. with DIN VDE 0660/IEC 60947	3 A (at 120 V, AC15)
Switching capacity in acc. with DIN VDE 0660/IEC 60947	3 A (at 250 V, AC15)

### Connection data input side

Connection name	Coil side
Connection method	Screw connection
Stripping length	8 mm
Conductor cross section solid	0.14 mm <sup>2</sup> ... 6 mm <sup>2</sup>
Conductor cross section flexible	0.14 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross section AWG	26 ... 10

### Connection data output side

Connection name	Contact side
Connection method	Screw connection
Stripping length	8 mm
Conductor cross section solid	0.14 mm <sup>2</sup> ... 6 mm <sup>2</sup>
Conductor cross section flexible	0.14 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross section AWG	26 ... 10

### General

Type of note	Notes on operation
Note	FBS 2-6... plug-in bridge for the input side (A2) and FBS-2-8... plug-in bridge for the output side (11/21)
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
Degree of protection	IP20 (Relay socket)
Degree of protection	RT III (Relay)
Mechanical service life	Approx. 10 <sup>7</sup> cycles
Mounting position	any

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## Technical data

### General

<b>Assembly instructions</b>	In rows with zero spacing
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### Standards and Regulations

<b>Standards/regulations</b>	DIN EN 50178
<b>Rated surge voltage</b>	6 kV
<b>Insulation</b>	Safe isolation, basic insulation, and 4 kV rated surge voltage between all changeover contacts.
<b>Degree of pollution</b>	2
<b>Overvoltage category</b>	III

### Environmental Product Compliance

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

## Classifications

### eCl@ss

<b>eCl@ss 5.0</b>	27371601
<b>eCl@ss 5.1</b>	27371601
<b>eCl@ss 6.0</b>	27371601
<b>eCl@ss 7.0</b>	27371601
<b>eCl@ss 8.0</b>	27371601
<b>eCl@ss 9.0</b>	27371601

### ETIM

<b>ETIM 2.0</b>	EC001437
<b>ETIM 3.0</b>	EC001437
<b>ETIM 4.0</b>	EC001437
<b>ETIM 5.0</b>	EC001437
<b>ETIM 6.0</b>	EC001437

### UNSPSC

<b>UNSPSC 6.01</b>	30211917
<b>UNSPSC 7.0901</b>	39121516
<b>UNSPSC 11</b>	39121516
<b>UNSPSC 12.01</b>	39121516
<b>UNSPSC 13.2</b>	39122334

## Accessories

### Jumper

## Relay Module - RIF-1-RSC-LV-120AC/2X21 - 2903348

### Accessories

FBS 2-6 - 3030336



FBS 2-6 BU - 3036932



FBS 2-6 GY - 3032237



FBS 2-8 - 3030284



FBS 2-8 BU - 3032567



FBS 2-8 GY 7042 - 3032541



# Relay Module - RIF-1-RSC-LV-120AC/2X21 - 2903348

## Accessories

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### End block

CLIPFIX 35 - 3022218



### Test plug terminal block

MPS-MT - 0201744



### Insulating sleeve

MPS-IH WH - 0201663



MPS-IH RD - 0201676



MPS-IH BU - 0201689



## Relay Module - RIF-1-RSC-LV-120AC/2X21 - 2903348

### Accessories

MPS-IH YE - 0201692



MPS-IH GN - 0201702



MPS-IH GY - 0201728



MPS-IH BK - 0201731



### Terminal marking

ZB 5 :UNBEDRUCKT - 1050004



# Relay Module - RIF-1-RSC-LV-120AC/2X21 - 2903348

## Accessories

ZB 15:UNBEDRUCKT - 0811972



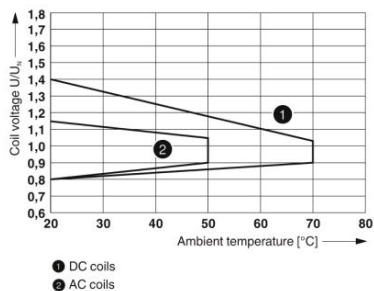
## Marker carriers

STP 5-2 - 0800967



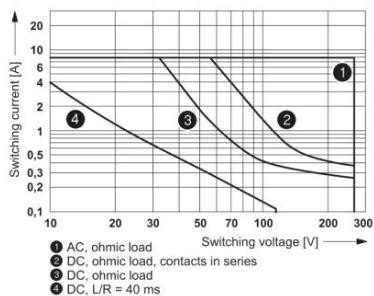
## Drawings

### Diagram



### Operating voltage range

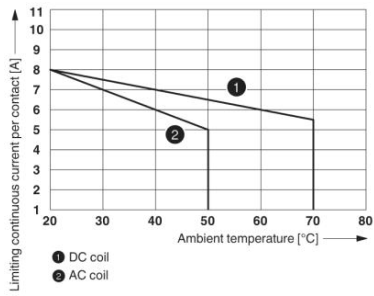
### Diagram



### Interrupting rating

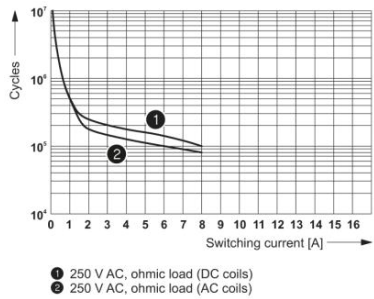
# Relay Module - RIF-1-RSC-LV-120AC/2X21 - 2903348

## Diagram



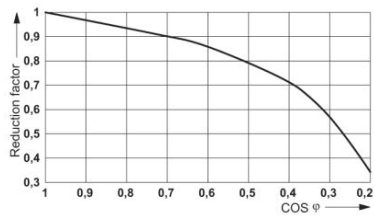
## Contact derating

## Diagram



## Electrical service life

## Diagram

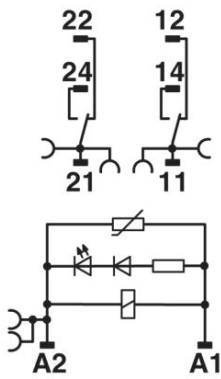


## Service life reduction factor



# Relay Module - RIF-1-RSC-LV-120AC/2X21 - 2903348

Circuit diagram



AC coils

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